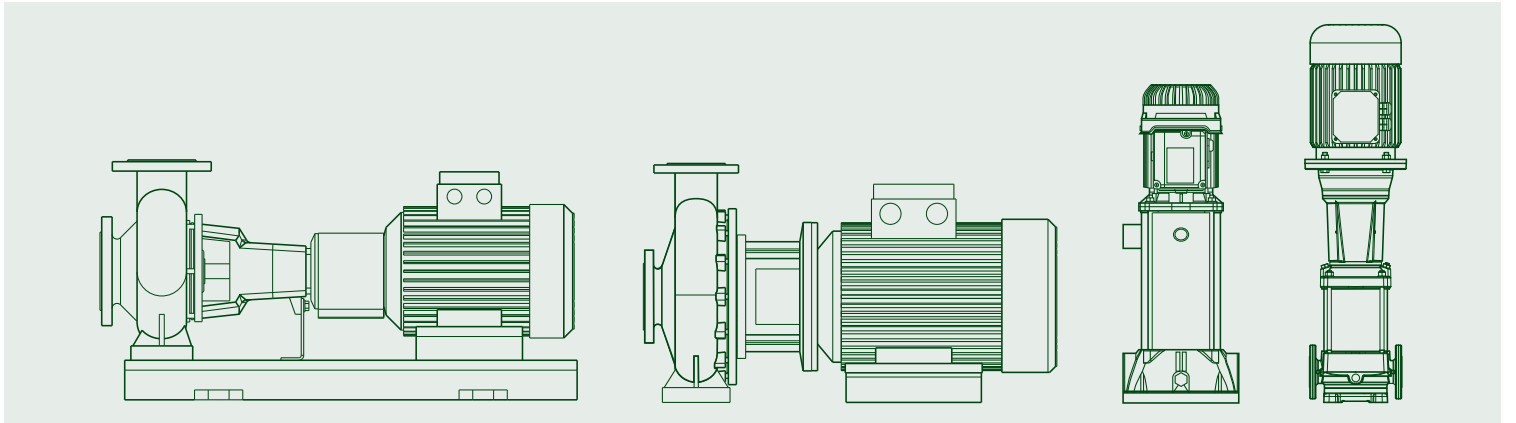













CENTRIFUGAL PUMPS



**TECHNICAL
CATALOGUE**

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CENTRIFUGAL PUMPS

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TECHNICAL DATA

Operating range:

from 8 to 45 l/m with head up to 53 metres.

Pumped liquid:

clean, free of solids and abrasives, non-viscous, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

from 0 °C to +35 °C for domestic use (EN 60335-2-41).

from -10°C to +80°C for other uses.

Maximum ambient temperature: +40°C

Maximum operating pressure: 10 bar (1000 kPa).

Protection class: IP 44

Protection class at the terminal board: IP 55

Insulation class: F

Standard voltage: single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz.

Installation: fixed, horizontal position.

APPLICATIONS

Self-priming pump with side liquid channel and star-shaped impeller; excellent suction capabilities even in unfavourable operating conditions, such as the presence of air bubbles, or lack of continuity of the liquid at the suction.

Used in domestic, agricultural civil and industrial installations.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron pump body with brass wear disk.

Motor support and impeller fully made of brass to avoid the risk of blockage.

Carbon/ceramic mechanical seal.

Stainless steel motor shaft.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Built-in thermal and current overload protection in the single-phase version.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

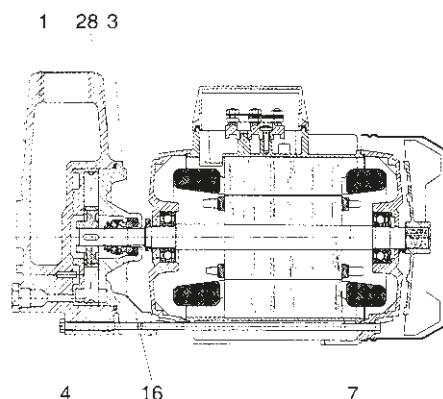
Permanently connected capacitor in the single-phase version.

Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

MATERIALS

No.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 ISO UNI 185 WITH BRASS PRESSURE RING PCU ZN 40 PB2 UNI 5705/65
3	SUPPORT	BRASS PCu Zn 40 Pb2 UNI 5705/65
4	IMPELLER	BRASS PCu Zn 40 Pb2 UNI 5705/65
7	SHAFT WITH ROTOR	AISI 303 STAINLESS STEEL X12 CrNiS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	VITON

* In contact with the liquid



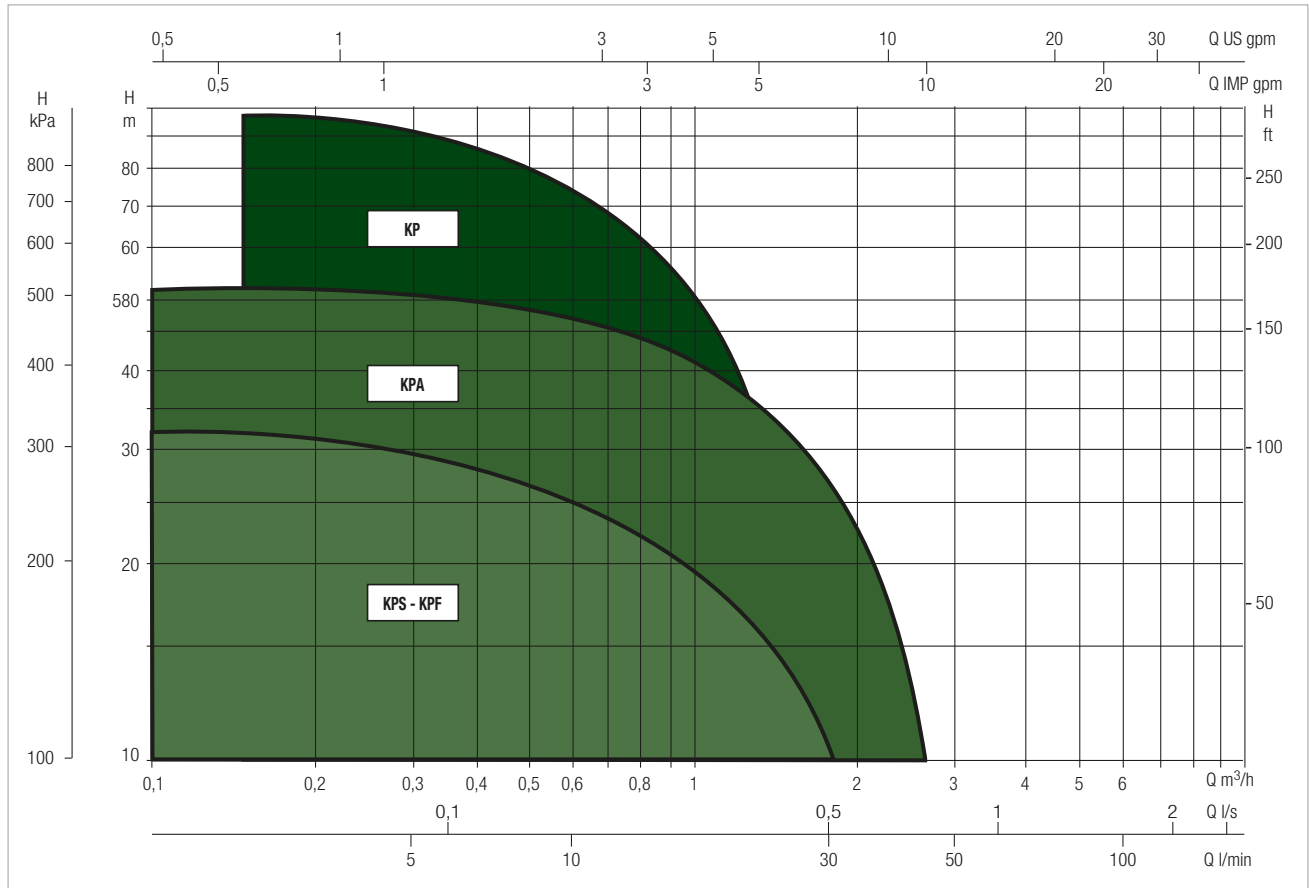
KPA - KPS / KPF - KP RANGE

PERIPHERAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = $1 \text{ mm}^2/\text{s}$ and density equal to 1000 kg/m^3 . Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



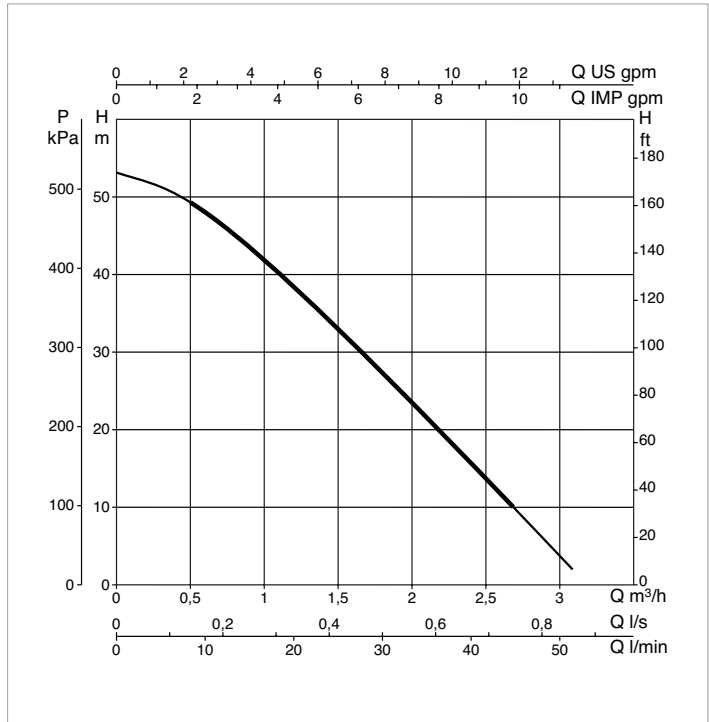
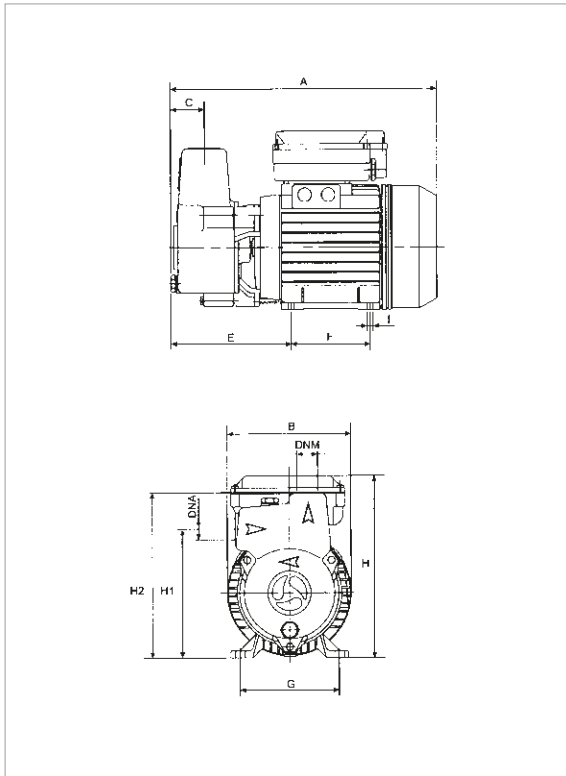
SELECTION TABLE

MODEL	Q=	0	0.3	0.6	0.9	1.2	1.8	2.4
	m³/h							
	Q=	0	5	10	15	20	30	40
	l/min							
KPA 40/20 M	H (m)	53	51	48	43	38	27	16
KPA 40/20 T		53	51	48	43	38	27	16

KPA - SELF-PRIMING PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -10 °C to +80 °C for other uses.

Maximum ambient temperature: +40°C



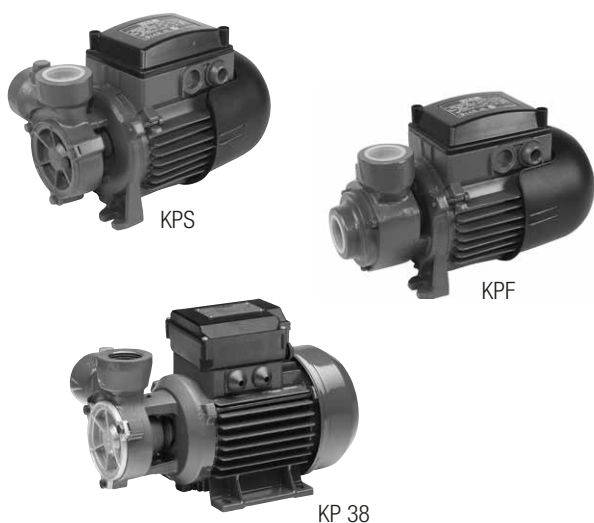
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA								
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		I _n A	I _{st.} A	1/min	CAPACITOR	
			kW	HP				µF	Vc
KPA 40/20 M	1x 230V ~	1.1	0.75	1	5.1	17.3	2800	20	450
KPA 40/20 T	1x 220 - 240V ~	1	0.75	1	3.5 - 2.1	24,3 - 14.07	2860	-	-

MODEL	A	B	C	E	F	G	I Ø	H	H1	H2	DNA GAS	DNM GAS	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg
													L/A	L/B	H		
KPA 40/20	301	142	38	136	90	112	7	206	146	187	1"	1"	406	267	402	0.044	12.40

KPS / KPF

PERIPHERAL ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 5 to 50 l/m with head up to 84 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral.

Liquid temperature range:

from 0 °C to +35 °C for domestic use.

from -10°C to +50°C for other uses.

Maximum ambient temperature: +40°C

Maximum operating pressure: 10 bar (6 bar for KPS-KPF 30/16).

Installation: fixed, horizontal position.

Motor protection class: IP 44

Protection class at the terminal board:

IP 55 for KP38/18 and for KPF 45/20;

IP44 for KPF/S 30/16

Insulation class: F

Standard voltage: single-phase 1 x 230 V / 50 Hz

three-phase: 3 x 230-400 V / 50 Hz.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Peripheral centrifugal pump with compact dimensions. Capable of generating high heads and suitable for domestic installations, water supply systems, small gardening applications, draining and filling cisterns, and for light industrial uses, such as feeding pressurized boilers (anti-condensation).

CONSTRUCTION FEATURES OF THE PUMP

Brass pump body and motor support for KP 60/6 and KP 60/12. Pump body with radial suction for KP and KPS; front suction for KPF. Cast iron support with brass wear disc for KPS 30/16 and KP 38/18. KPS 30/16 is available on request with bronze pump body and support. Brass impeller. Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions. For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations. Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

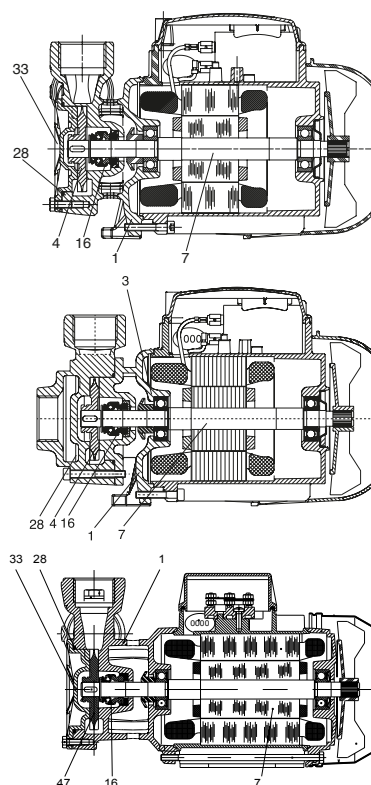
MATERIALS

No.	PARTS* KPS	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	BRASS PCU ZN 40 PB2 UNI 5705/65
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	NBR
33	COVER	BRASS PCU ZN 40 PB2 UNI 5705/65

No.	PARTS* KPF	MATERIALS
1	PUMP BODY	G20 EN-GJL-250 UNI EN 1561
3	MOT. SUPP. PUMP	G20 EN-GJL-250 UNI EN 1561
4	IMPELLER	BRASS PCU ZN 40 PB2 UNI 5705/65
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	NBR

No.	PARTS* KP 38	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	BRASS PCU ZN 40 PB2 UNI 5705/65
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	NBR
33	COVER	BRASS PCu Zn 40 Pb2 UNI 5705/65

* In contact with the liquid



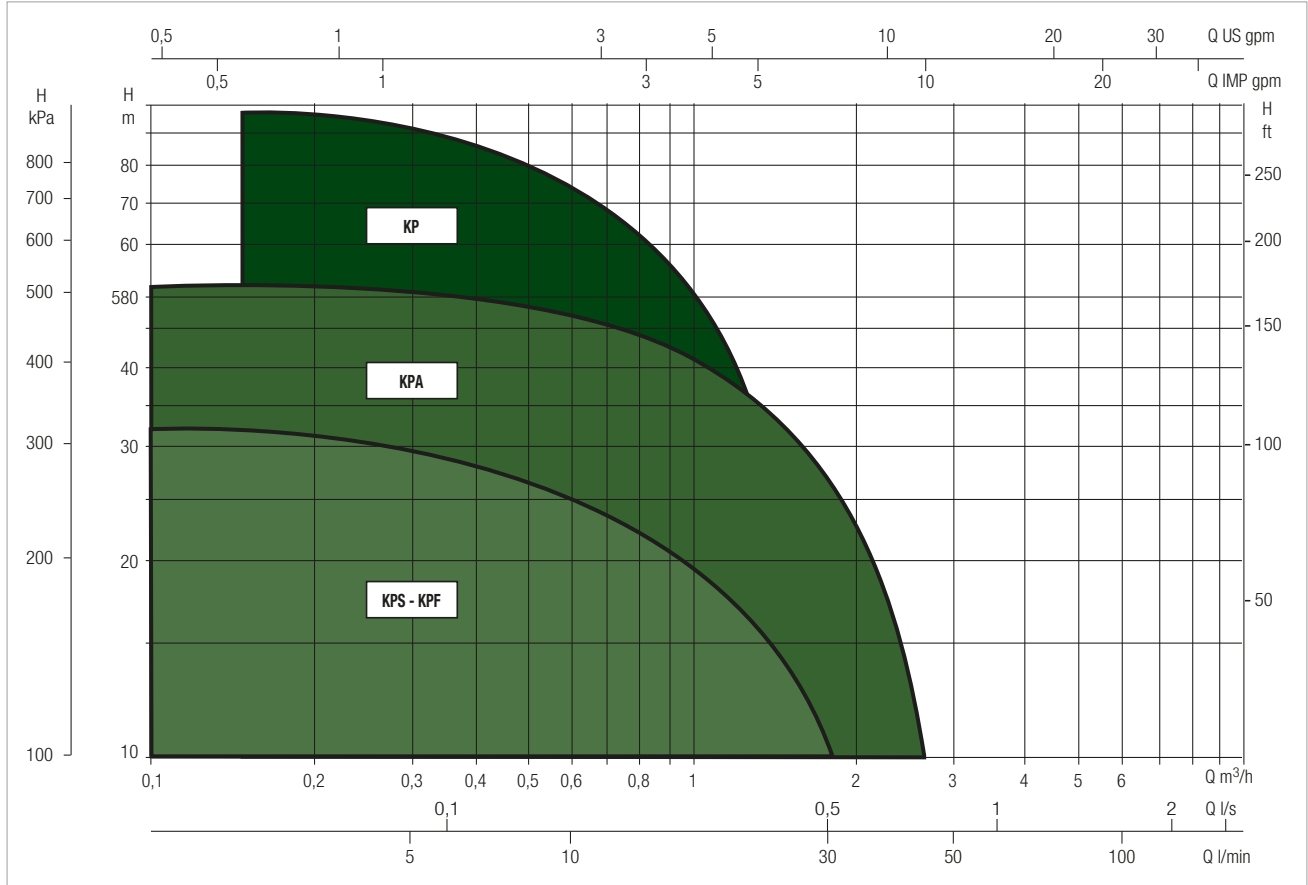
KPA - KPS / KPF - KP RANGE

PERIPHERAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



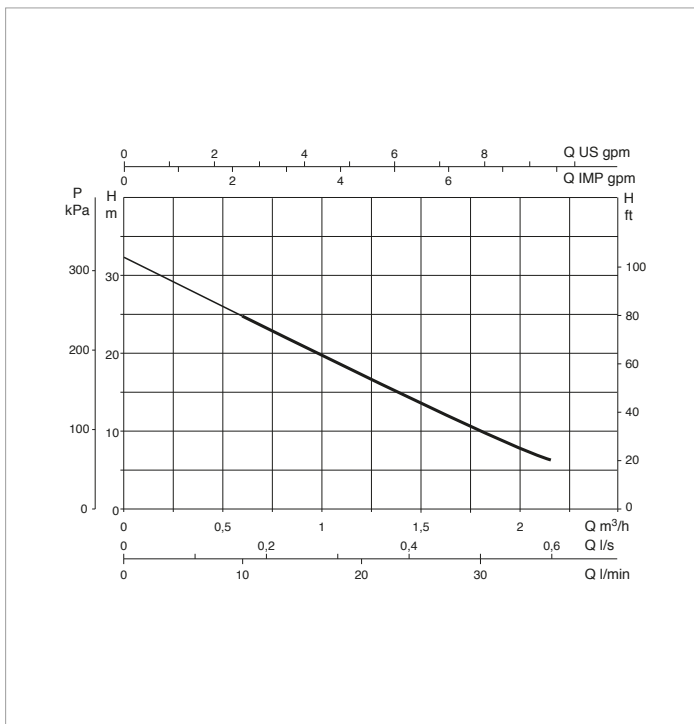
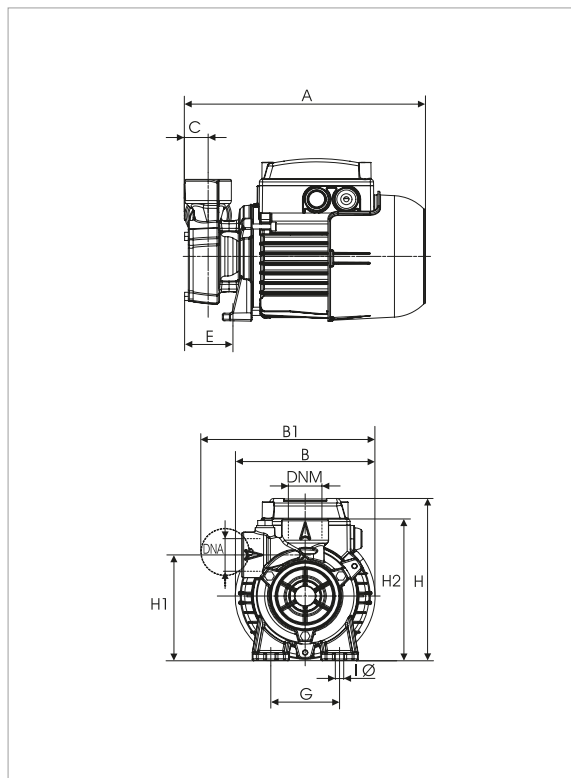
SELECTION TABLE

MODEL	Q=	0	0.3	0.6	0.9	1.2	1.8	2.4	
	Q=	0	5	10	15	20	30	40	
	m ³ /h	l/min	H (m)						
KPF 30/16 M			32.5	31	25	22	17.5	10	
KPF 30/16 T			32.5	31	25	22	17.5	10	
KPS 30/16 M			32.5	31	25	22	17.5	10	
KPS 30/16 T			32.5	31	25	22	17.5	10	
KP 38/18 M			54	50	46	41	36	27.5	17.5
KP 38/18 T			54	50	46	41	36	27.5	17.5
KPF 45/20 M			84	76	68	62	56	38	24
KPF 45/20 T			84	76	68	62	56	38	24

KPS - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use. From -10 °C to +50°C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

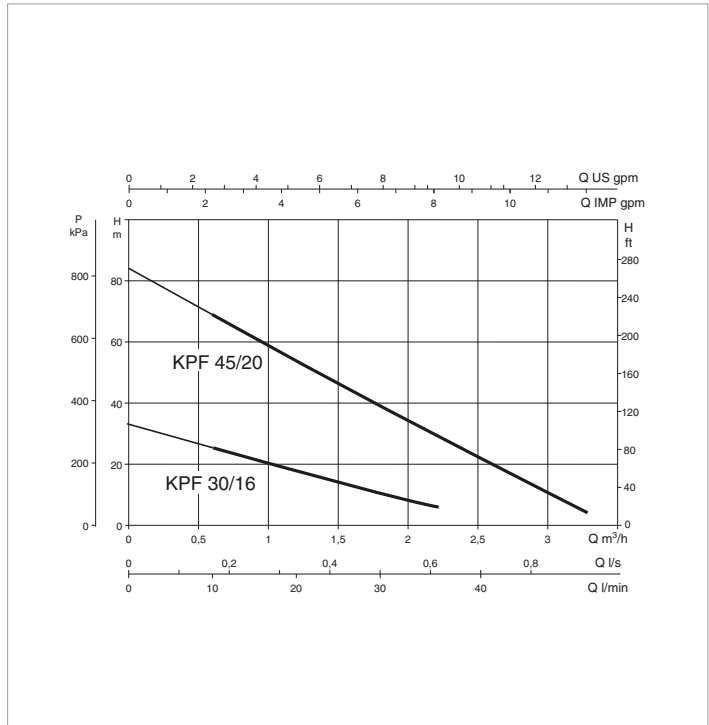
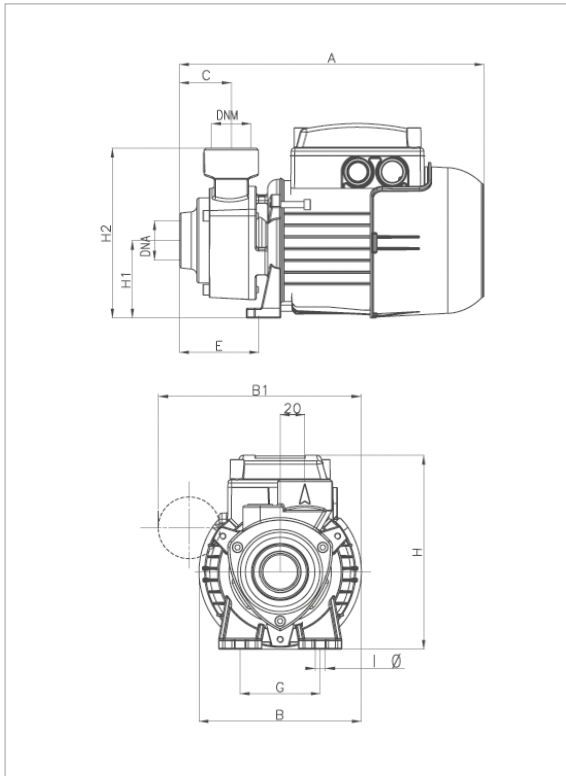
MODEL	ELECTRICAL DATA						
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR	
			kW	HP		μF	Vc
KPS 30/16 M	1 x 230V ~	0.47	0.37	0.5	2	8	450
KPS 30/16 T	3 x 230 - 400V ~	0.47	0.37	0.5	1,4 - 0.8	-	-
KPS 30/16 M-P ¹	1 x 230V ~	0.47	0.37	0.5	2	8	450

MODEL	A	B	B1	C	E	F	G	I Ø	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
KPS 30/16	228	132	165	22	46	-	65	8	158	103	138	1" G	1" G	259	164	197	0.008	5.4

KPF - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use. From -10 °C to +50°C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

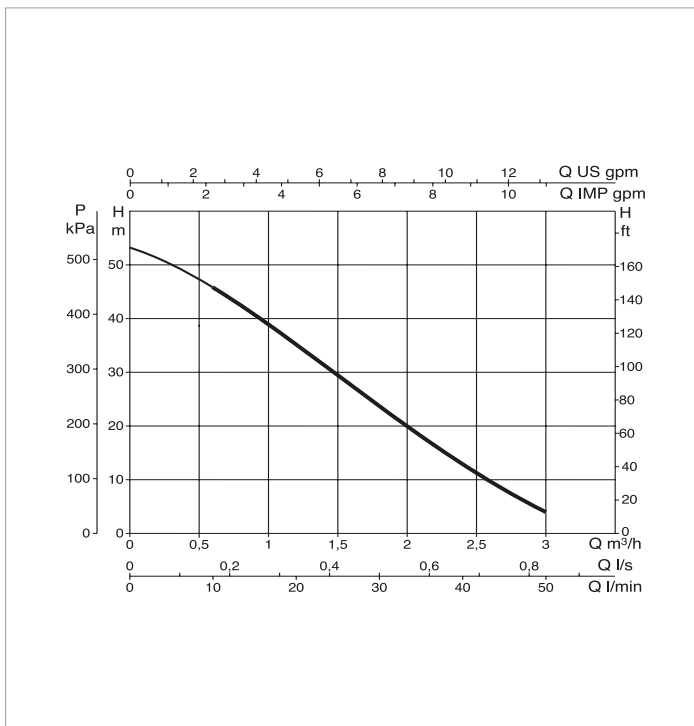
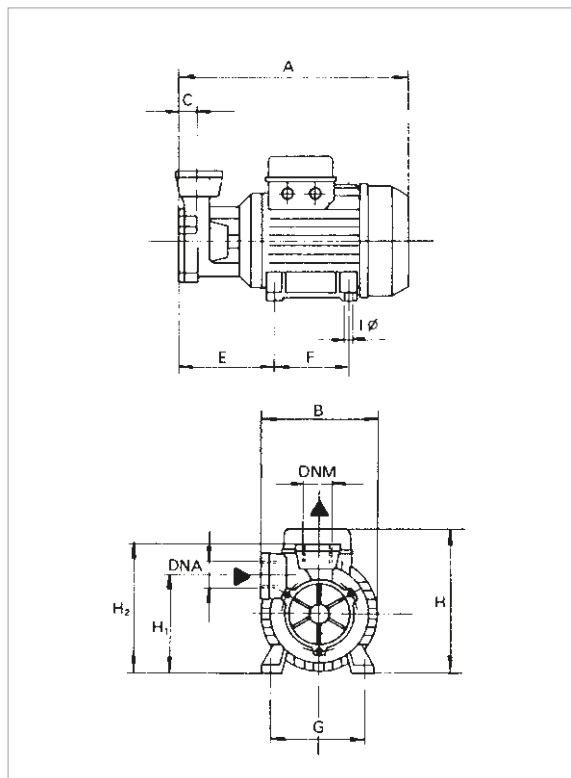
MODEL	ELECTRICAL DATA						
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR	
			kW	HP		µF	Vc
KPF 30/16 M	1 x 230V ~	0.53	0.37	0.5	2.37	8	450
KPF 30/16 T	3 x 230 - 400V ~	0.47	0.37	0.5	1,45 - 0.82	-	-
KPF 45/20 M	1 x 230V ~	1.5	1	1.34	5.9	25	450
KPF 45/20 T	3 x 230 - 400V ~	1.4	1	1.34	-	-	-

MODEL	A	B	B1	C	E	F	G	I Ø	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
KPF 30/16	247	132	165	42	64	-	65	8	158	63	138	1" G	1" G	262	140	180	0.0083	5.3
KPF 45/20	315	155	-	55	95	-	112	7	188	78	163	1" G	1" G	325	165	198	0.014	12

KP 38/18 - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use. From -10 °C to +50°C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA						
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR	
			kW	HP		μF	Vc
KP 38/18 M	1 x 230V ~	0.89	0.6	0.8	4	12.5	450
KP 38/18 T	3 x 230 - 400V ~	0.86	0.6	0.8	2.9 - 1.7	-	-

MODEL	A	B	B1	C	E	F	G	I Ø	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
KP 38/18	255	130	-	26	106	80	100	7	186	108	153	1" G	1" G	271	176	209	0.01	7.5



TECHNICAL DATA

Operating range:

from 1 to 35 l/m with head up to 107 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

from 0 °C to +35 °C for domestic use (EN 60335-2-41).

from -10 °C to +80 °C for other uses.

Maximum ambient temperature: +40°C

Maximum operating pressure: 12 bar (1200 kPa)

Installation: fixed, horizontal position.

Motor protection class: IP 44

Protection class at the terminal board: IP 55

Insulation class: F

Standard voltage: single-phase 1 x 230 V / 50 Hz

three-phase: 3 x 230-400 V / 50 Hz.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Peripheral centrifugal pump with compact dimensions. Capable of generating high heads and suitable for domestic installations, water supply systems, small gardening applications, draining and filling cisterns, and for light industrial uses, such as feeding pressurized boilers (anti-condensation).

CONSTRUCTION FEATURES OF THE PUMP

Brass pump body and motor support for KP 60/6 and KP 60/12.

Side suction pump body.

Brass impeller.

Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

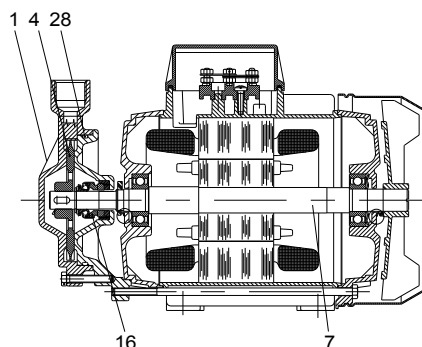
For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

MATERIALS

No.	PARTS*	MATERIALS
1	PUMP BODY	BRASS PCU ZN 40 PB2 UNI 5705/65
3	SUPPORT	BRASS PCU ZN 40 PB2 UNI 5705/65
4	IMPELLER	BRASS PCU ZN 40 PB2 UNI 5705/65
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	VITON

* In contact with the liquid



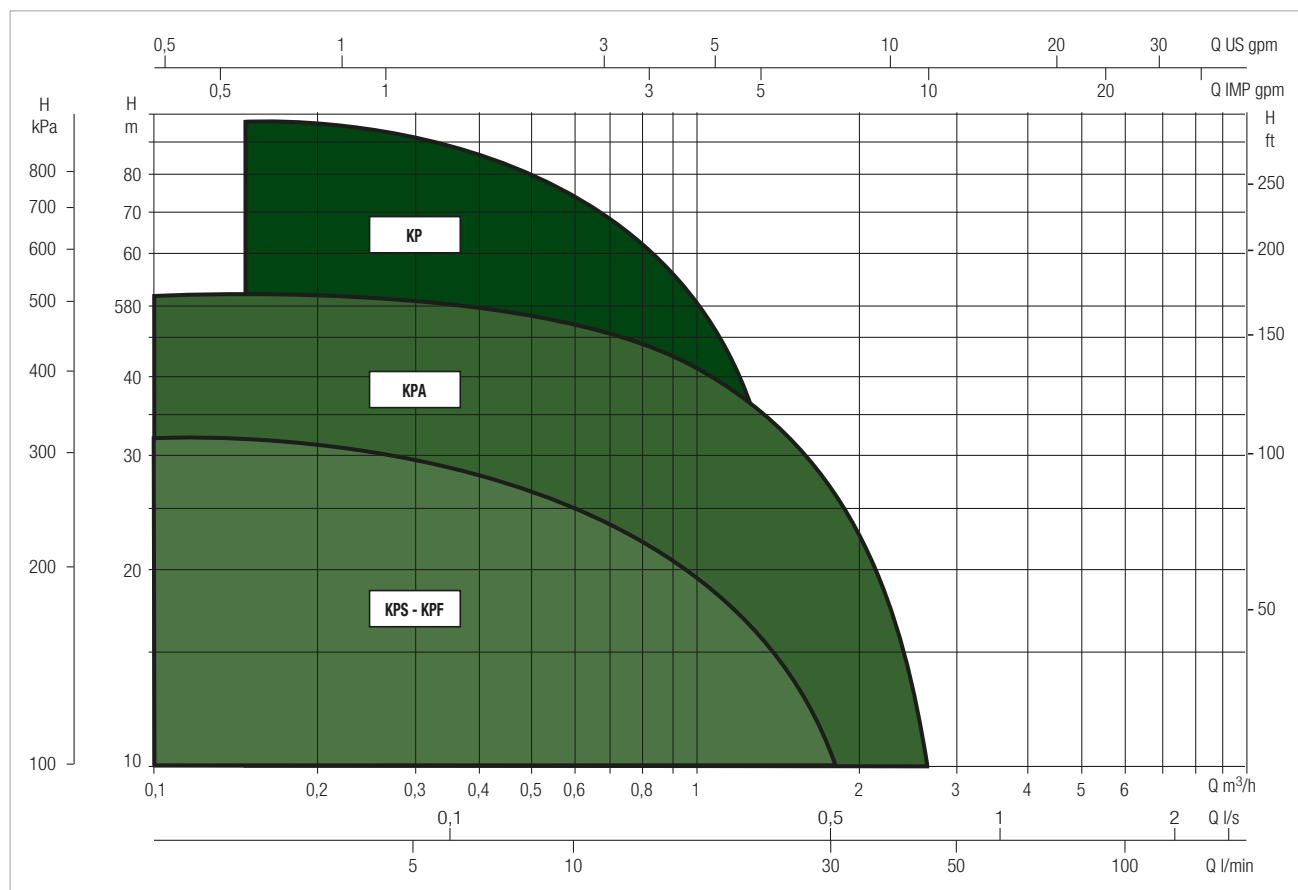
KPA - KPS / KPF - KP RANGE

PERIPHERAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



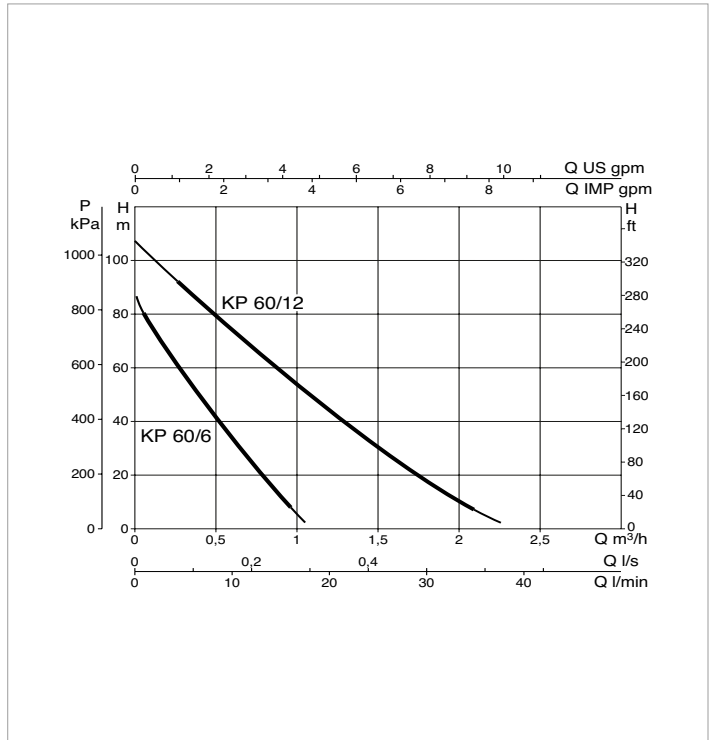
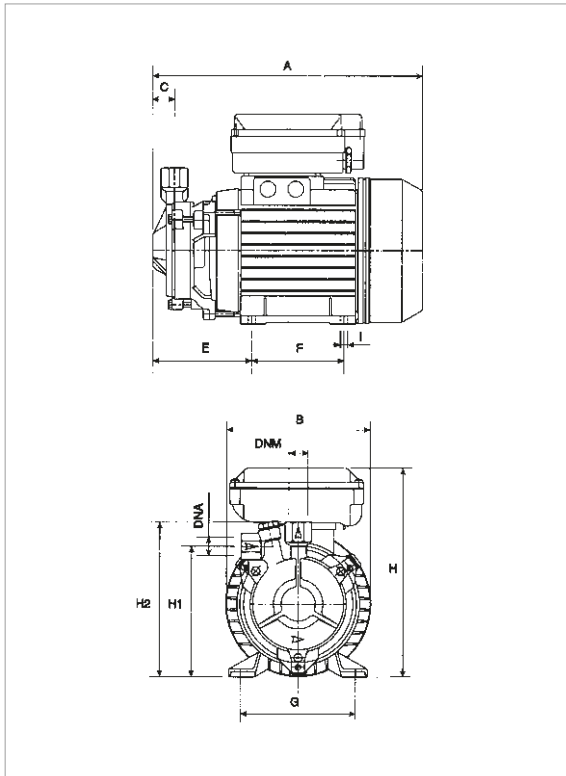
SELECTION TABLE

MODEL	Q=	0	0.3	0.6	0.9	1.2	1.8	2.4
	m ³ /h							
	Q=	0	5	10	15	20	30	40
	l/min							
KP 60/6 M	H (m)	87	57	33	13			
KP 60/6 T		87	57	33	13			
KP 60/12 M		107	91	74	58	43	17	
KP 60/12 T		107	91	74	58	43	17	

KP 60 - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -10 °C to +80 °C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA						
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR	
			kW	HP		µF	Vc
KP 60/6 M	1 x 230V ~	0.54	0.37	0.5	2.4	10	450
KP 60/6 T	3 x 230 - 400V ~	0.52	0.37	0.5	1,8 - 1	-	-
KP 60/12 M	1 x 230V ~	1.15	0.75	1	5.2	20	450
KP 60/12 T	3 x 230 - 400V ~	1.12	0.75	1	3,8 - 2.2	-	-

MODEL	A	B	C	E	F	G	I Ø	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
													L/A	L/B	H		
KP 60/6 M	262	142	21	96	90	112	7	204	127	151	1/2" G	1/2" G	406	267	402	0.043	8.2
KP 60/6 T	262	142	21	96	90	112	7	173	127	151	1/2" G	1/2" G	406	267	402	0.043	7.9
KP 60/12 M	262	142	20	96	90	112	7	204	126	161	3/4" G	3/4" G	406	267	402	0.043	10.1
KP 60/12 T	262	142	20	96	90	112	7	173	126	161	3/4" G	3/4" G	406	267	402	0.043	9.9

K SINGLE-IMPELLER

SINGLE-IMPELLER ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 1,8 to 96 m³/h, with head up to 62 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

K 20/41, K 30/70, K 30/100, K 36/100

K 12/200, K 36/200, K 40/200 :

from -10 °C to +50 °C

Rest of the range:

from -15 °C to +110 °C

Maximum ambient temperature: +40°C

Maximum operating pressure:

K 20/41, K 30/70, K 30/100, K 36/100, K 12/200, K 14/400 : 6 bar (600 kPa)

K 36/200, K 40/200, K 55/200, K 11/500, K 18/500, K 28/500 : 8 bar (800 kPa)

K 40/400, K 50/400, K 30/800, K 40/800, K 50/800,

: 10 bar (1000 kPa)

Protection class:

IP 44 (IP 55 for 2,2 - 3 - 4 - 5,5 - 7,5 - 9,2 - 11 kW motors)

Protection class at the terminal board: IP 55

Insulation class: F

Standard voltage:

single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz up to 4 kW included - 400 V Δ 50 Hz from 5,5 kW

Installation: horizontal or vertical position, provided that the motor is always above the pump.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Single-impeller centrifugal pump suitable for domestic, civil, industrial and agricultural systems, and for decanting, mixing and irrigation uses.

CONSTRUCTION FEATURES OF THE PUMP

Pump body and motor support in cast iron.

Technopolymer or cast iron impeller, as per the TECHNICAL DATA table.

Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3.

IE2 motors as standard, from 0,75 kW to 5,5 kW - IE3 ≥ 7,5 kW.

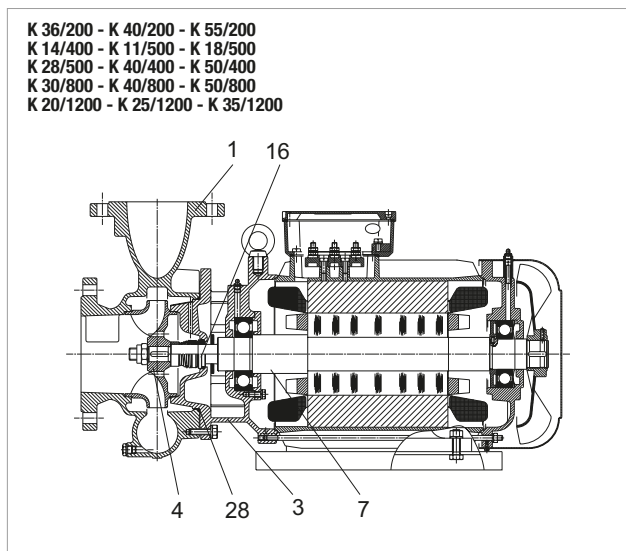
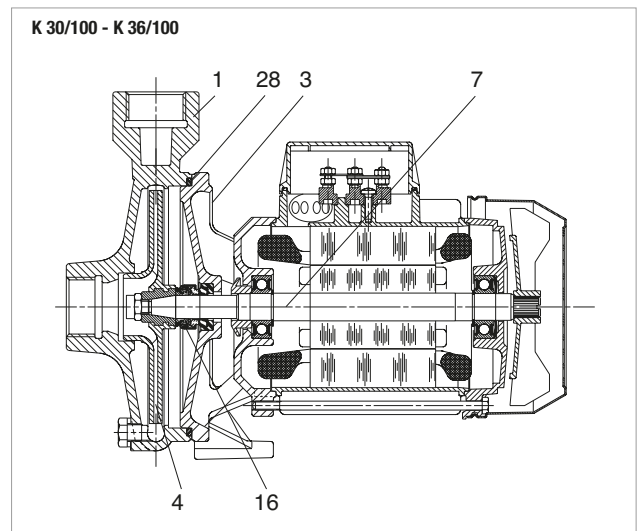
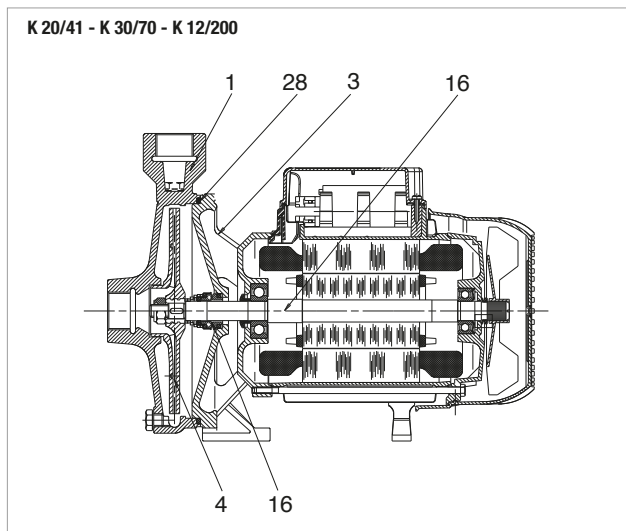
K SINGLE-IMPELLER

SINGLE-IMPELLER ELECTRIC PUMPS

MATERIALS

No.	PARTS*	MATERIALS	MODELS
1	PUMP BODY	CAST IRON 200 UNI ISO 185	
3	SUPPORT	CAST IRON 200 UNI ISO 185	
4	IMPELLER	TECHNOPOLYMER A	20/41; K 30/70; K 30/100; K 36/100; K 12/200; K 36/200; K 40/200;
		TECHNOPOLYMER B	K 55/200
		CAST IRON 200 UNI ISO 185	K 14/400; K 11/500; K 18/500; K 28/500; K 40/400; K 50/400; K 30/800; K 40/800; K 50/800; K 20/1200; K 25/1200; K 35/1200;
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12CRS13 UNI 6900/71	K 20/41; K 30/70; K 12/200
		AISI 303 STAINLESS STEEL X10CRNIS 1089 UNI 6900/71	K 30/100; K 36/100; K 36/200; K 40/200; K 55/200; K14/400; K 11/500; K 18/500; K 28/500
		AISI 304 STAINLESS STEEL X5CRNI 1810 UNI 6900/71	K 40/400; K 50/400; K 30/800; K 40/800; K 50/800; K 20/1200; K 25/1200; K 35/1200;
16	MECHANICAL SEAL	CARBON / CERAMIC	
28	OR RING	NBR RUBBER	
		EPDM RUBBER	K 36/200; K 40/200; K 55/200; K 14/400; K 11/500; K 18/500; K 28/500; K 30/800; K 40/800; K 50/800; K 20/1200; K 25/1200; K 35/1200;

* In contact with the liquid



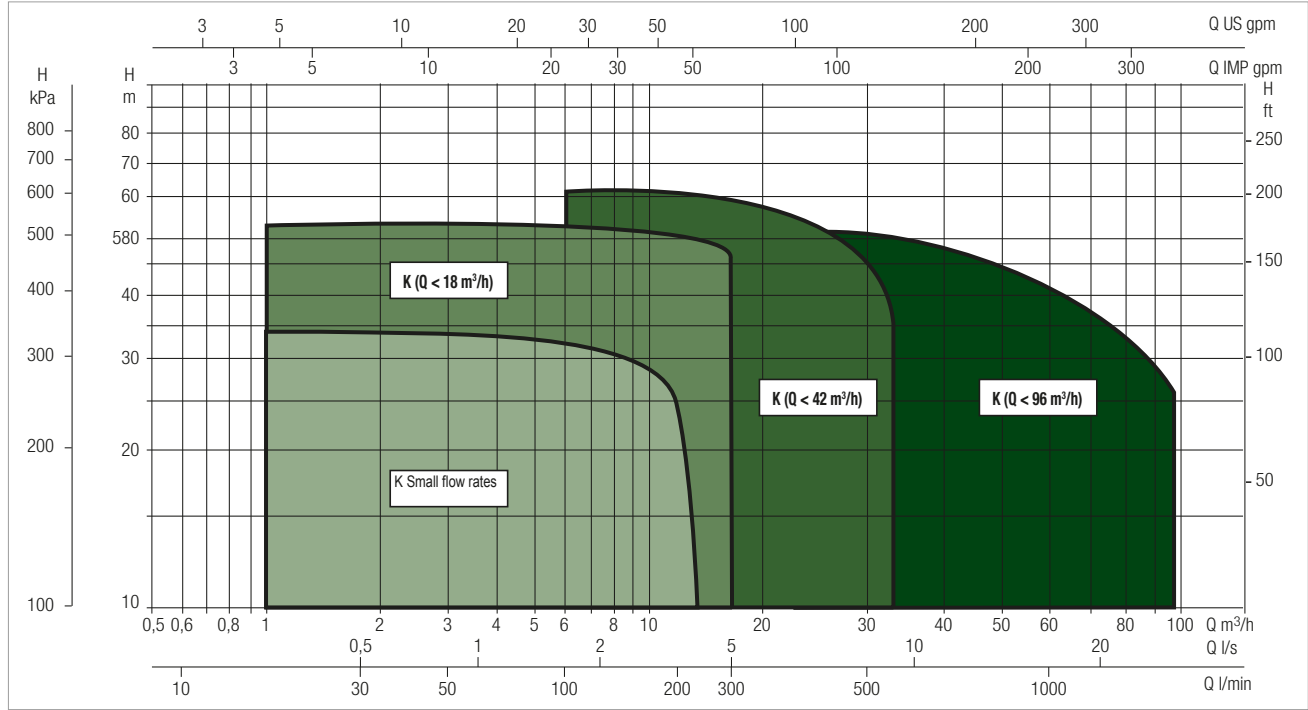
K SINGLE-IMPELLER RANGE

ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

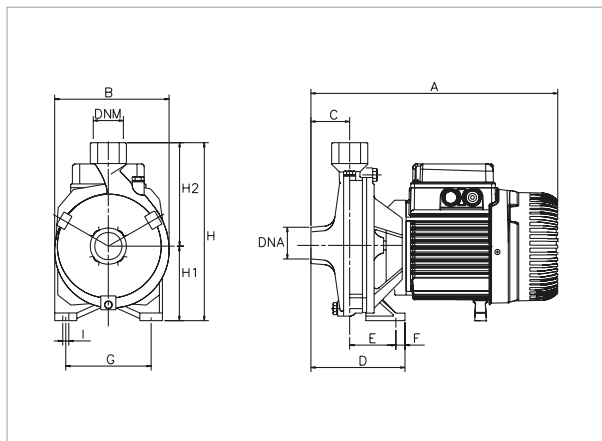


SELECTION TABLE

MODEL	Q=	0	1.8	2.4	3.6	4.8	6	7.2	9	9.6	10.8	12	15	18	24	30	36	42	60	72	84	96	
	m ³ /h																						
	Q=	0	30	40	60	80	100	120	150	160	180	200	250	300	400	500	600	700	1000	1200	1400	1600	
	l/min																						
K 20/41 M-T	H (m)	22	20.3	19.4	16.9	13.6	8.3																
K 30/70 M-T		31.8	29.5	28.9	27	24.2	19.8	13.5															
K 30/100 M-T		29.2		29	28.8	28	26.8	25.3	22.5	21.5	18.5												
K 36/100 M-T		34.9		34.8	34.6	34	33	32	29.8	29	26.5												
K 12/200 M-T		18.7	18.2	18	17.9	17.7	17.4	17	16.1	15.8	14.9	14	11.2	7.7									
K 36/200 T		36.6				36	35.5	35	34	33.3	32.5	31.5	28	23.5									
K 40/200 T		41.3				41	40.5	40	39	38.8	38	37	33.5	29									
K 55/200 T		54				54	53.9	53.2	53	52	51.5	48.5	45										
K 14/400 M-T		19									18.8	18.5	18	16.3	13.8	10							
K 11/500 T		25.1									26	25.6	25.2	22.9	18.7	13.7	7.7						
K 18/500 T		30.9									32	31.8	30	28.5	25	19.3	13.1						
K 28/500 T		35.4									36.6	36.1	35.6	33.2	30.1	24.7	18.1						
K 40/400 T		50.5									49	48	45	37	24								
K 50/400 T		62									61	60	59	54.5	46								
K 30/800 T		44													42	40	38	35	21.5				
K 40/800 T		51.5													50	48	47	43.5	32.5	21			
K 50/800 T		58													56.5	55	53.5	51	41	31			
K 20/1200 T		37.5													36.5	36	35	34	30	26	21	15	
K 25/1200 T		40.7													39	38.5	38	37	33.5	30	25	18	
K 35/1200 T		45														43	42.5	38.5	35	31.5	27		

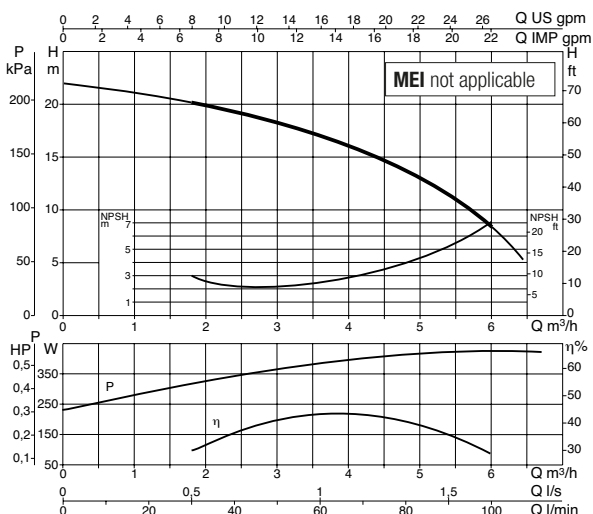
K 20/41 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

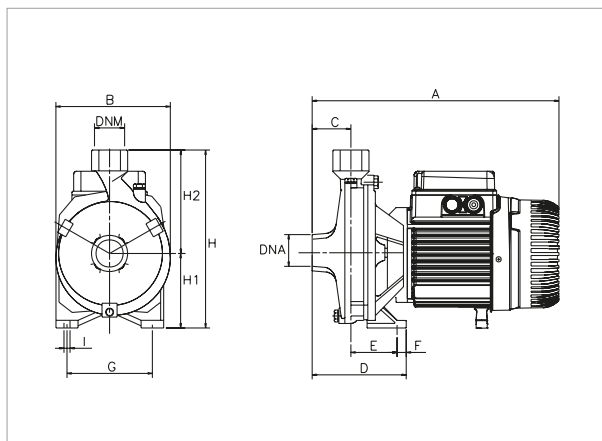


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 20/41 M	1x220-240 V ~	0.65	0.37	0.5	3	-	8.5	2800	10	450
K 20/41 T	3x230-400 V ~	0.64	0.37	0.5	2.3-1.3	-	8.6-5	2800	-	-

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 20/41	275	160	50	100	50	15	110	9	205	85	120	1" G	1" G	332	202	257	0.024	10

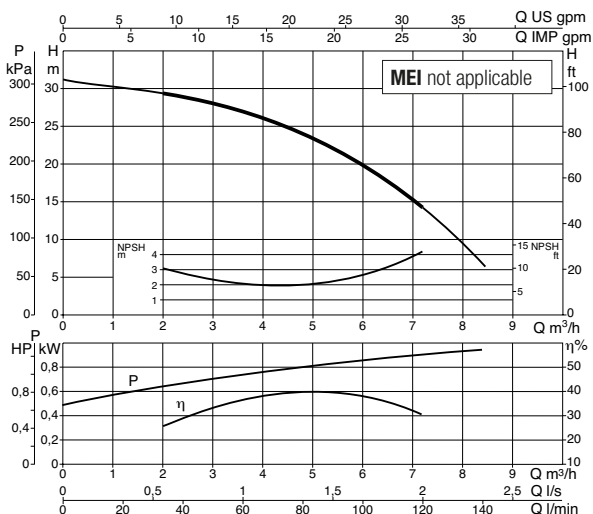
K 30/70 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

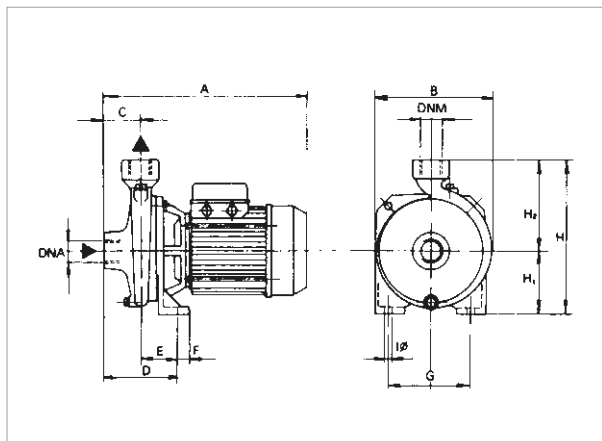


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 30/70 M	1x220-240 V ~	1.3	0.75	1	6	-	15.8	2800	20	450
K 30/70 T	3x230-400 V ~	1.2	0.75	1	4.3-2.5	IE2	22.1-12.8	2820	-	-

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 30/70	330	185	50	108	58	15	140	9	235	100	135	1" G	1" G	386	226	272	0.024	13.9

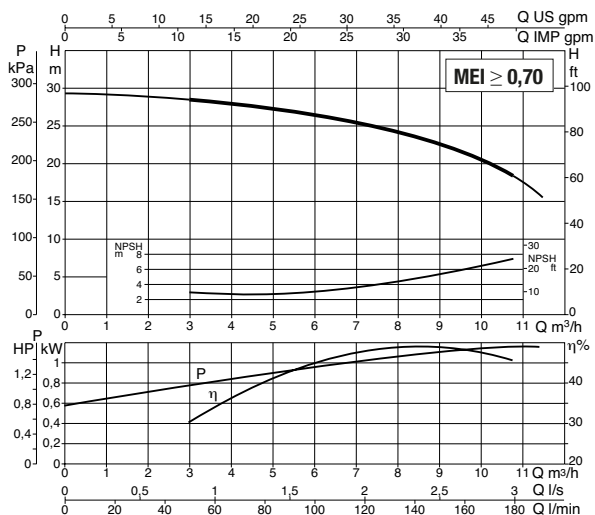
K 30/100 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

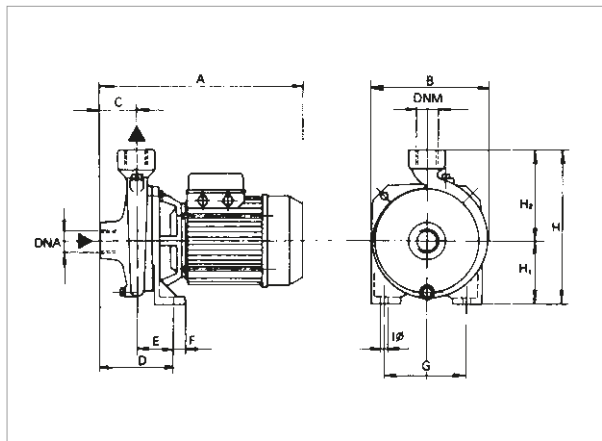


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 30/100 M	1x220-240 V ~	1.6	1.1	1.5	7.1	-	33	2800	31.5	450
K 30/100 T	3x230-400 V ~	1.63	1.1	1.5	6.9-3.9	IE2	21	2860	-	-

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 30/100	333	200	50	114	64	15	140	9	255	105	150	1½" G	1" G	427	246	307	0.032	18.5

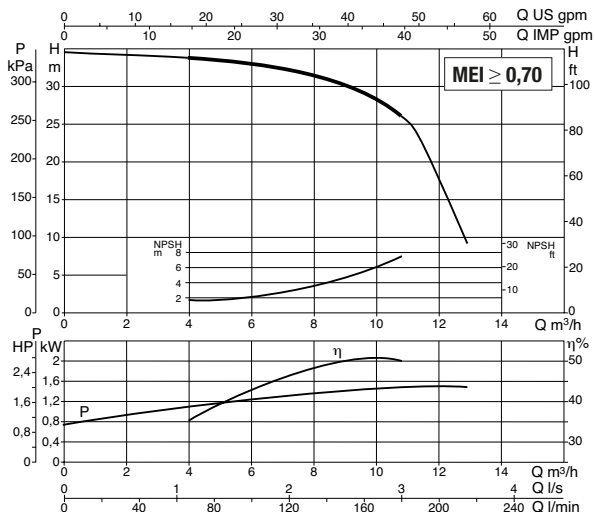
K 36/100 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

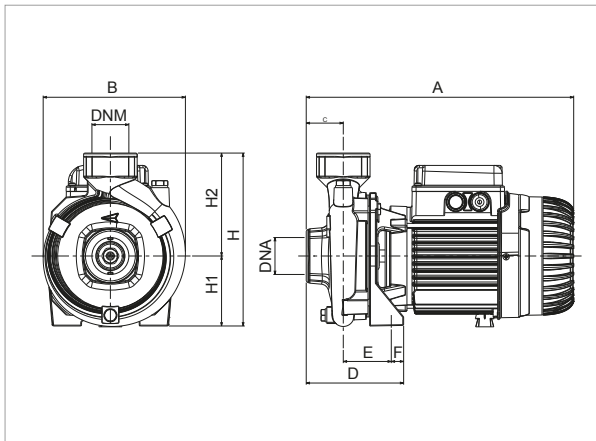


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 36/100 M	1x220-240 V ~	2.1	1.85	2.5	8.8	-	45	2850	40	450
K 36/100 T	3x230-400 V ~	2	1.85	2.5	6.9-4	IE2	22	2870	-	-

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 36/100	333	200	50	114	64	15	140	9	255	105	150	1½" G	1" G	427	246	307	0.032	23.3

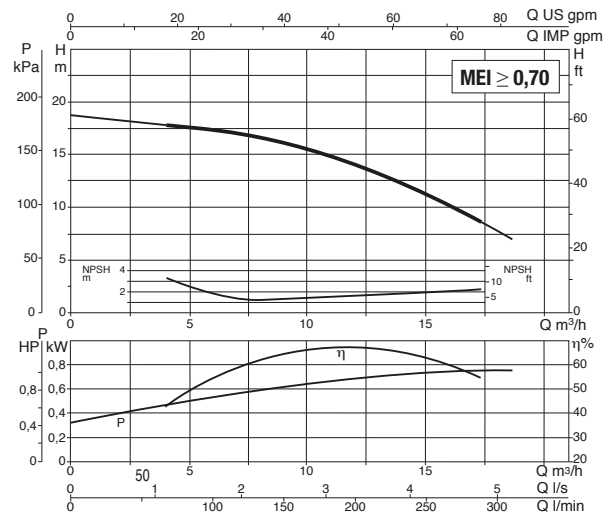
K 12/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

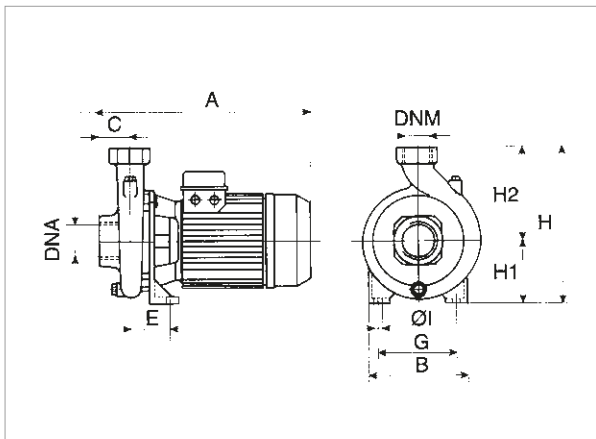


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 12/200 M	1x220-240 V ~	1.1	0.75	1	5.2	-	18.5	2940	25	450
K 12/200 T	3x230-400 V ~	0.97	0.75	1	4-2.3	IE2	22.1-12.8	2940	-	-

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 12/200	325	173	45	118	58	15	110	9.5	218	85	125	1 1/2	1 1/2	392	232	280	0,026	13.7

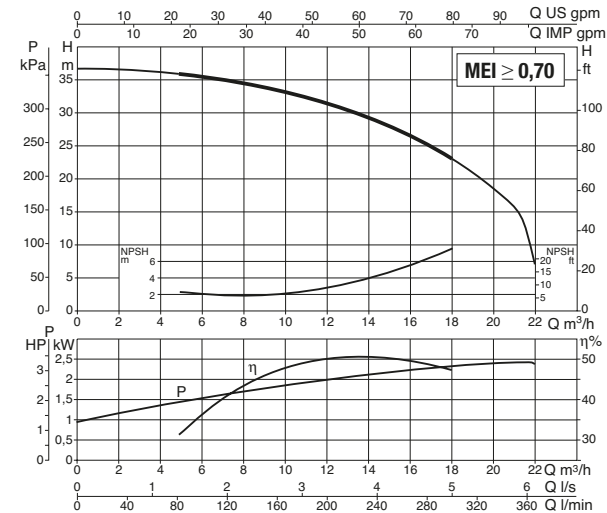
K 36/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

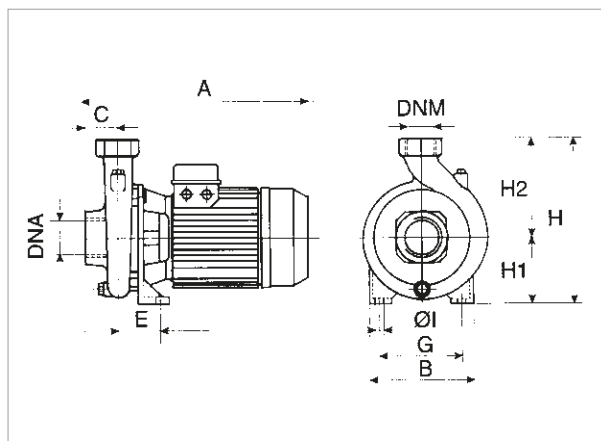


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.		
			kW	HP						
K 36/200 T	3x230-400 V ~	3	2.2	3	9-5.2	IE2	45-26	2860		

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 36/200 T	425	250	55	86	175	14	320	135	185	2" G	1 1/4" G	512	276	345	0.049	33.1

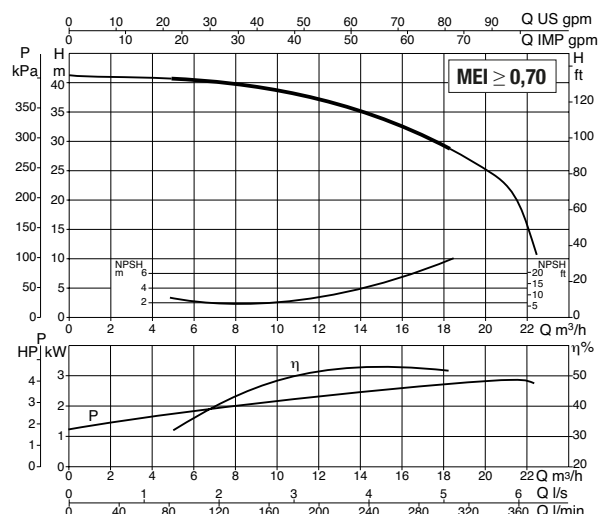
K 40/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

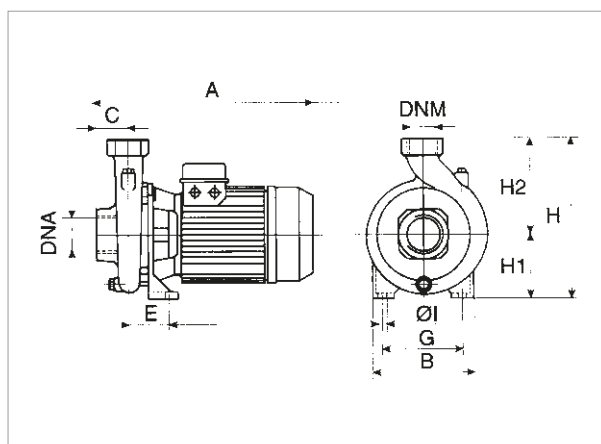


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 40/200 T	3x230-400 V ~	3.5	3	4	11.1-6.4	IE2	67.5-39	2830

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 40/200	425	250	55	86	175	14	320	135	185	2" G	1 1/4" G	512	276	345	0.049	34.9

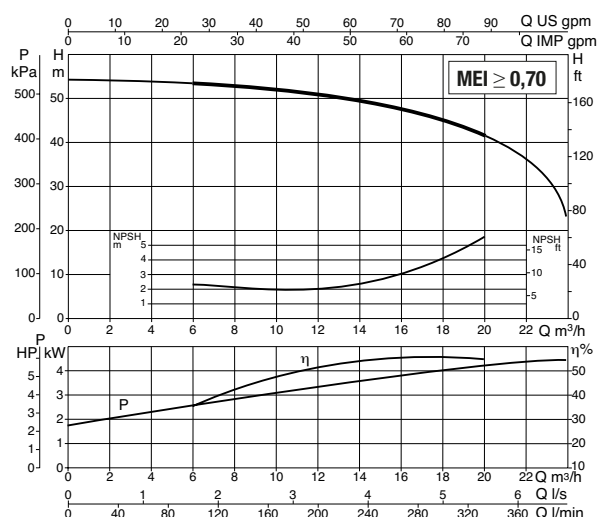
K 55/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

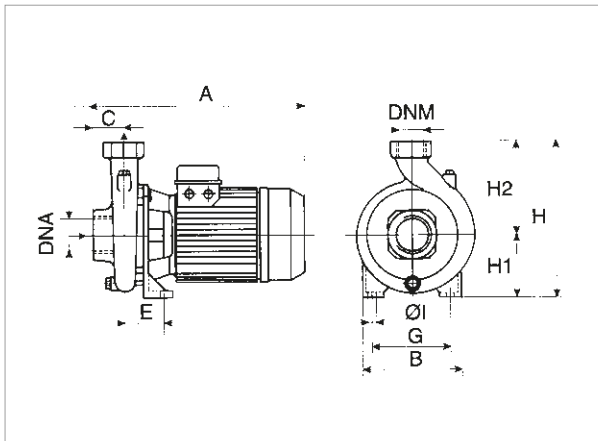


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 55/200 T	3x230-400 V ~	5.1	4	5.5	16.3-9.4	IE2	104-60	2880

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 55/200	425	250	55	86	175	14	320	135	185	2" G	1 1/4" G	512	276	345	0.049	39

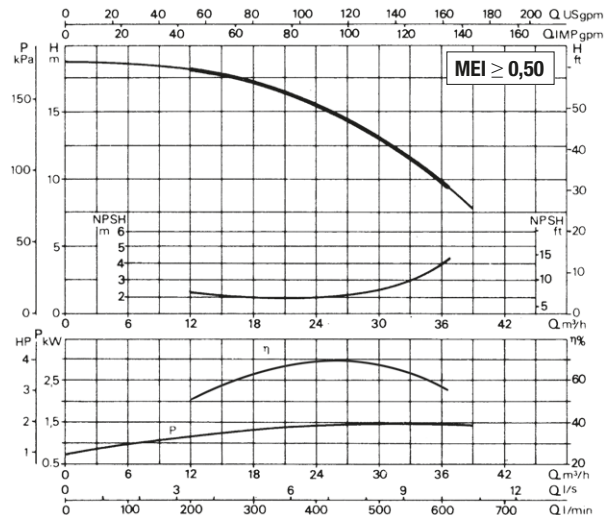
K 14/400 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

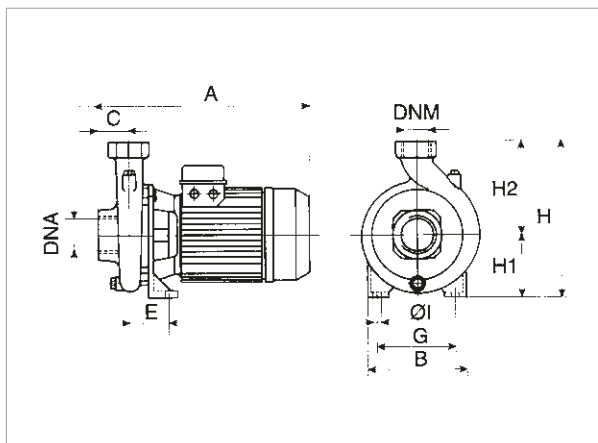


MODEL	ELECTRICAL DATA									
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 14/400 M	1x220-240 V ~	2.1	1.85	2.5	9.5	-	38	2850	40	450
K 14/400 T	3x230-400 V ~	2.1	1.85	2.5	7-4	IE2	37.5-21.7	2850	-	-

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 14/400 M	430	200	62	74	120	11	270	105	165	2" G	2" G	427	246	307	0.032	24.5
K 14/400 T	358	200	62	74	120	11	270	105	165	2" G	2" G	427	246	307	0.032	22

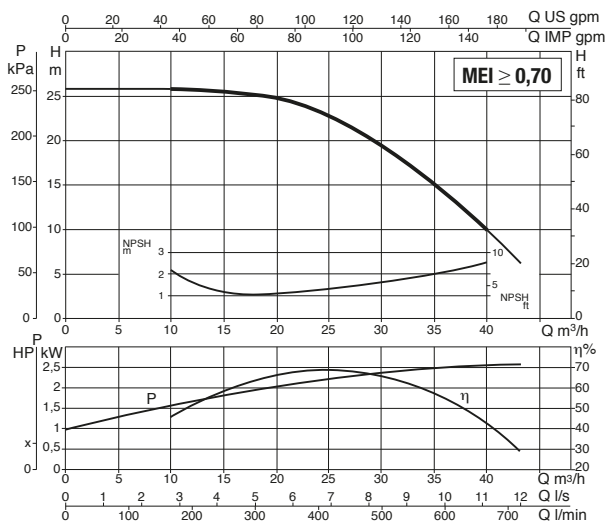
K 11/500 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

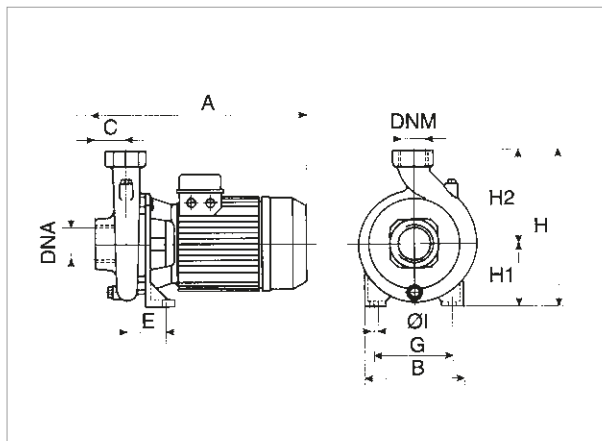


MODEL	ELECTRICAL DATA							
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 11/500 T	3x230-400 V ~	2.9	2.2	3	9.3-5.4	IE2	45-26	2950

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 11/500	440	240	62	100	155	14	312	132	180	2 1/2" G	2" G	512	286	345	0.049	34.2

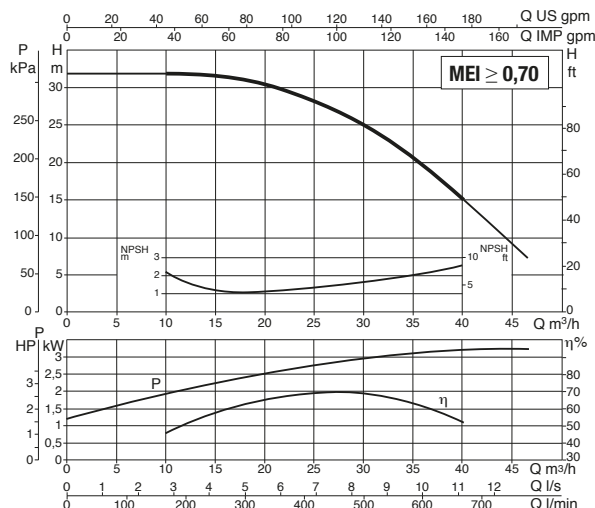
K 18/500 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

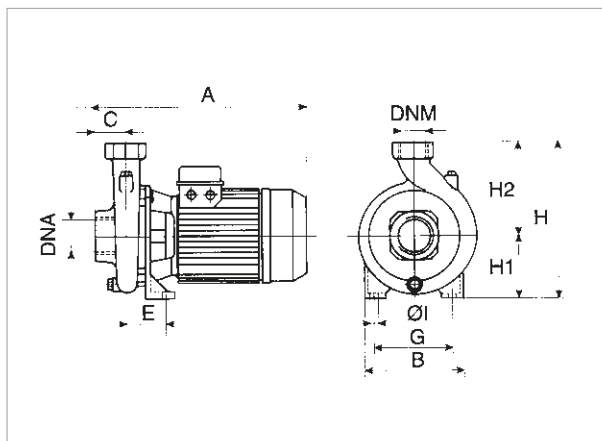


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 18/500 T	3x230-400 V ~	3.8	3	4	13-7.5	IE2	67.5-39	2950

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 18/500	440	240	62	100	155	14	312	132	180	2 1/2" G	2" G	512	286	345	0.049	36.6

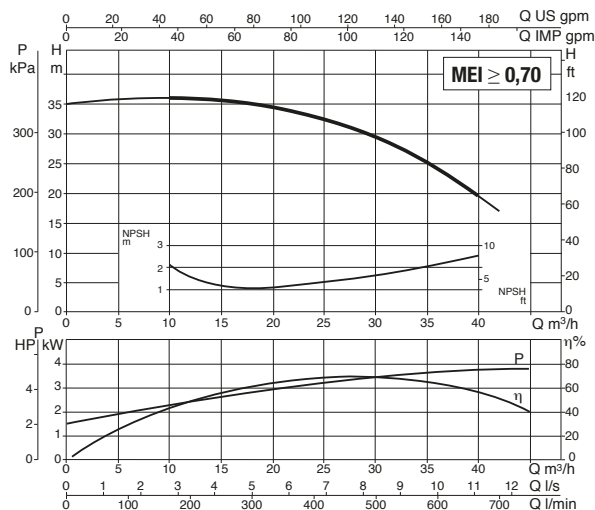
K 28/500 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

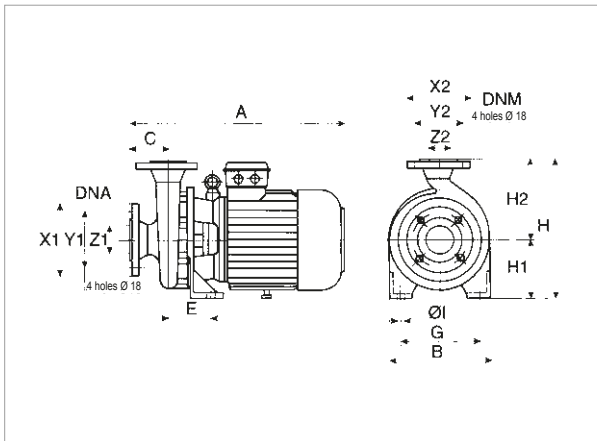


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					µF	Vc
K 28/500 T	3x230-400 V ~	4.55	4	5.5	13.7-8	IE2	104-60	2950	-	-

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 28/500	440	240	62	100	155	14	312	132	180	2 1/2" G	2" G	512	286	345	0.049	40.6

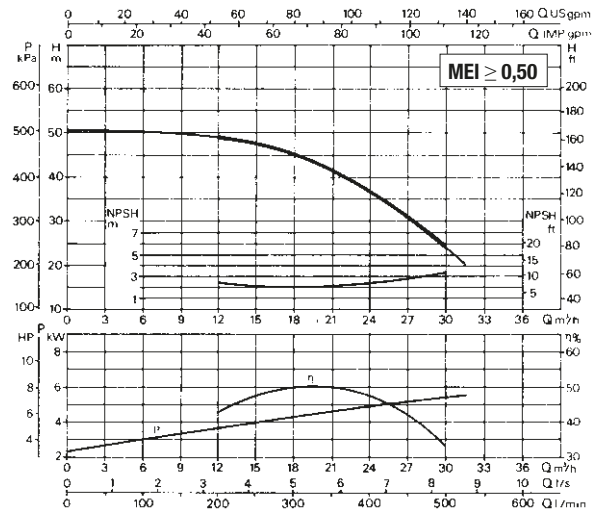
K 40/400 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



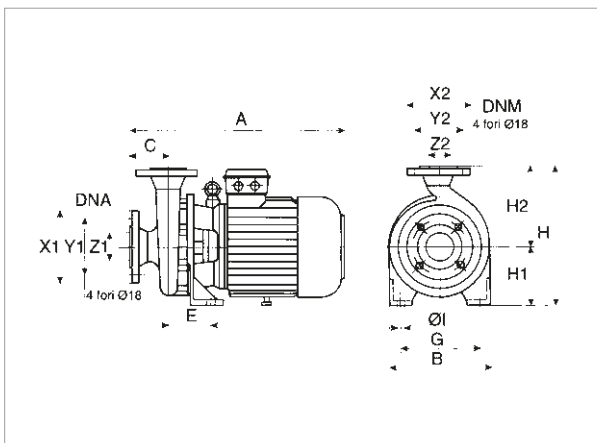
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 40/400 T	3 x 400V ~ ¹	7	5.5	7.5	11.5	IE2	78	2900

MODEL	A	B	C	E	G	Ø1	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 40/400	560	273	100	110	212	14	360	160	200	185	145	65	165	125	50	680	330	572	0.128	79

¹ star start-up possible (A)

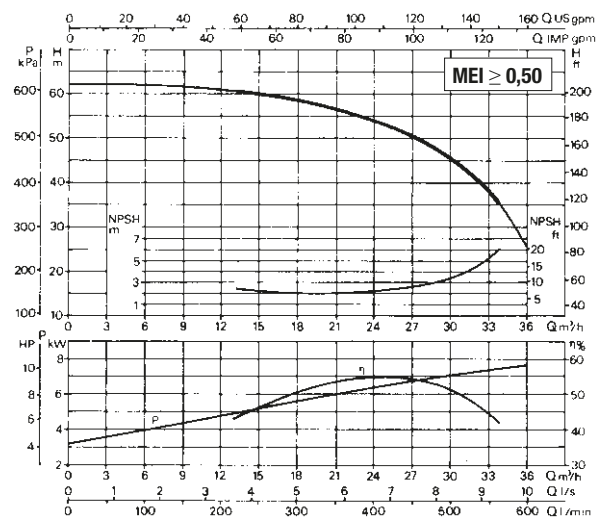
K 50/400 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



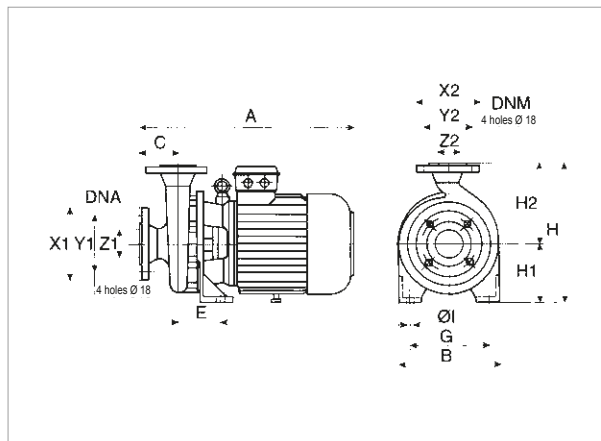
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 50/400 T	3 x 400V ~ ¹	9	7.5	10	14.5	IE3	112	2910

MODEL	A	B	C	E	G	Ø1	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 50/400	560	273	100	110	212	14	360	160	200	185	145	65	165	125	50	680	330	572	0.128	78.8

¹ star start-up possible (A)

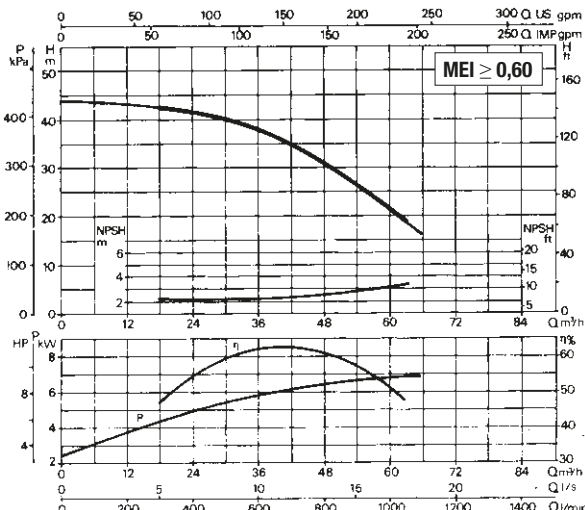
K 30/800 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



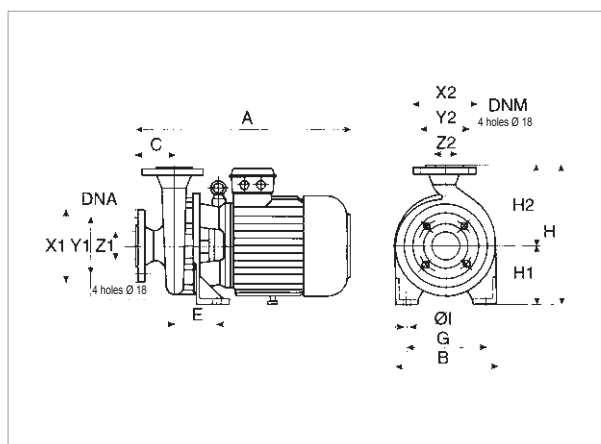
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 30/800 T	3 x 400 V ~ ¹	7.6	7.5	10	13.4	IE3	112	2920

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 30/800	600	273	100	110	212	14	385	160	225	200	160	80	185	145	65	680	330	572	0.128	90.2

¹ star start-up possible (Δ)

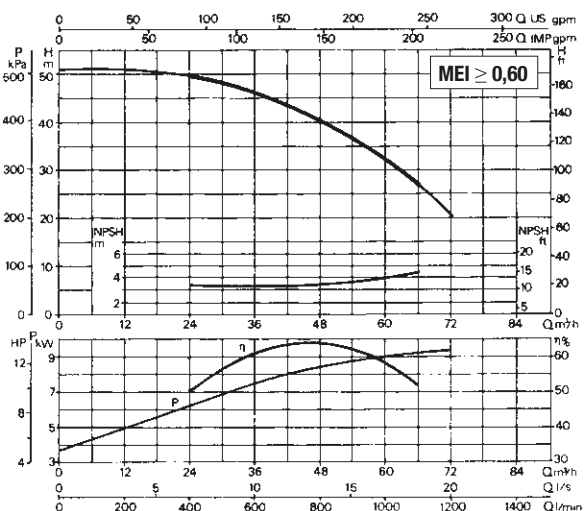
K 40/800 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



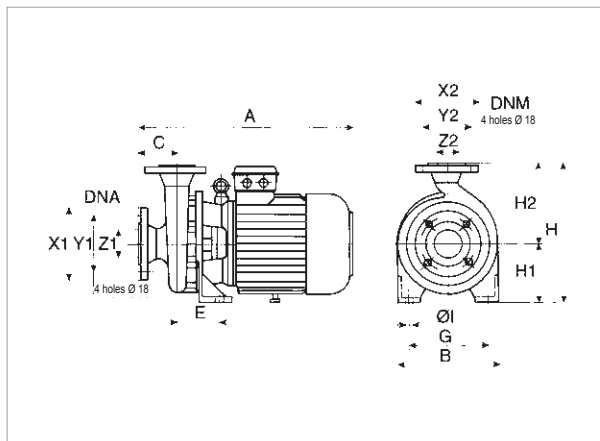
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 40/800 T	3 x 400 V ~ ¹	10.2	9.2	12.5	17.1	IE3	135	2920

MODEL	A	B	C	E	G	I	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 40/800	600	273	100	110	212	14	385	160	225	200	160	80	185	145	65	680	330	572	0.128	95

¹ star start-up possible (Δ)

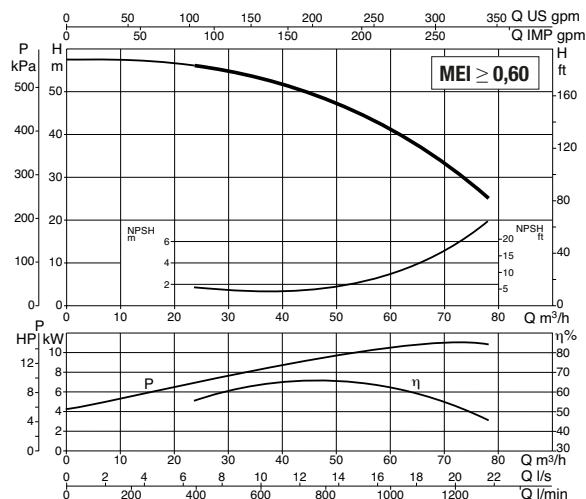
K 50/800 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



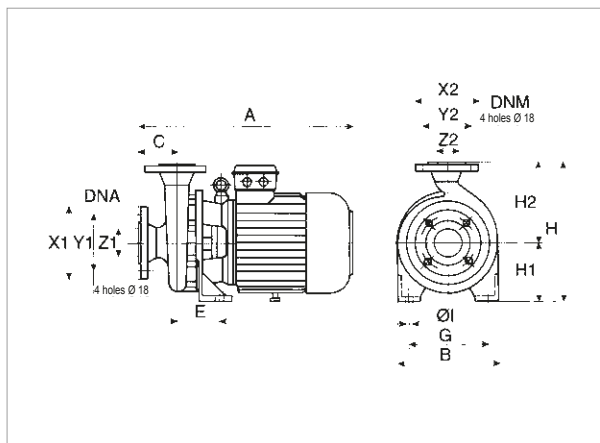
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 50/800 T	3 x 400 V ~ ¹	11.6	11	15	20	IE3	193	2900

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 50/800	600	273	100	110	212	14	385	160	225	200	160	80	185	145	65	680	330	572	0.128	104.3

¹ star start-up possible (Δ)

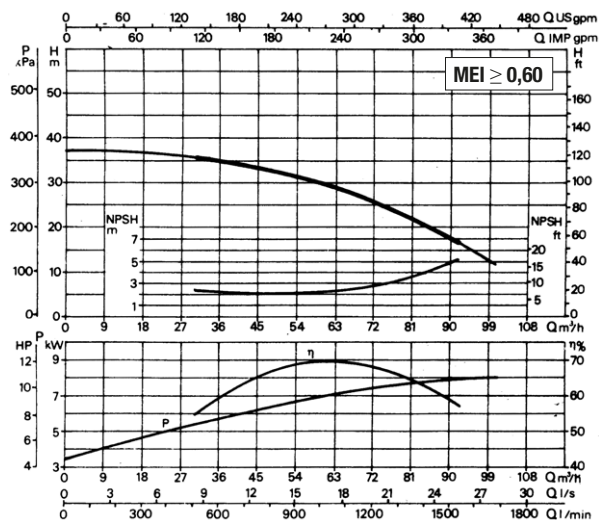
K 20/1200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



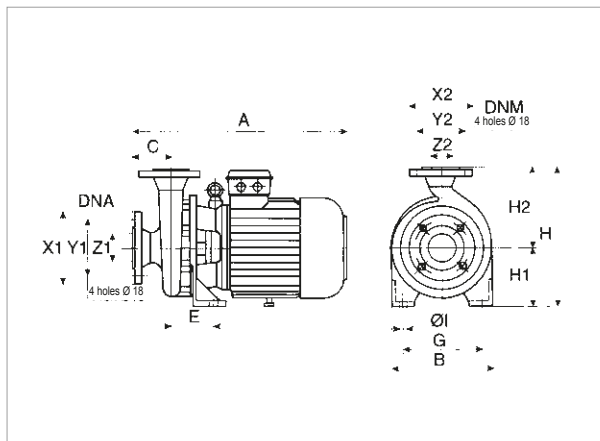
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 20/1200 T	3 x 400 V ~ ¹	8.3	7.5	10	15	IE3	112	2920

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 20/1200	600	273	100	110	212	14	385	160	225	200	160	80	185	145	65	680	330	572	0.128	88

¹ star start-up possible (Δ)

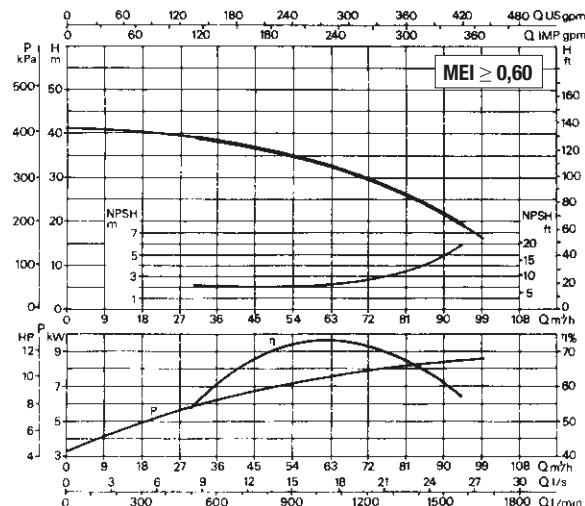
K 25/1200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



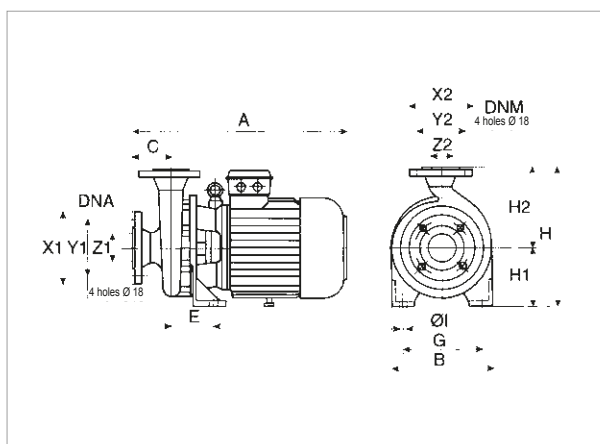
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		I _n A	MOTOR TYPE	I _{st.} A	rpm n. 1/min.
			kW	HP				
K 25/1200 T	3 x 400 V ~ ¹	9.1	9.2	12.5	17.3	IE3	135	2910

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 25/1200	600	273	100	110	212	14	385	160	225	200	160	80	185	145	65	680	330	572	0.128	94

¹ star start-up possible (Δ)

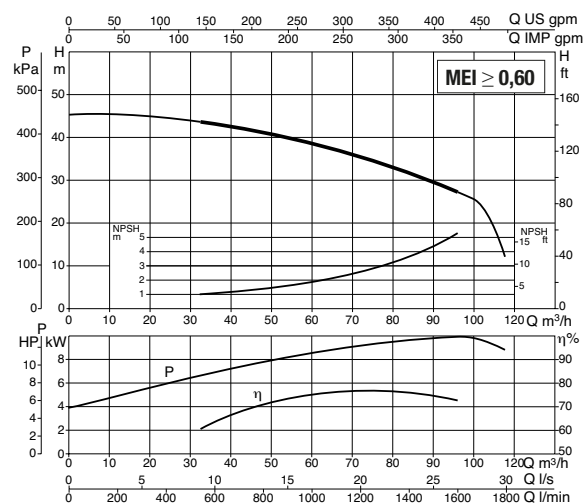
K 35/1200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +110°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



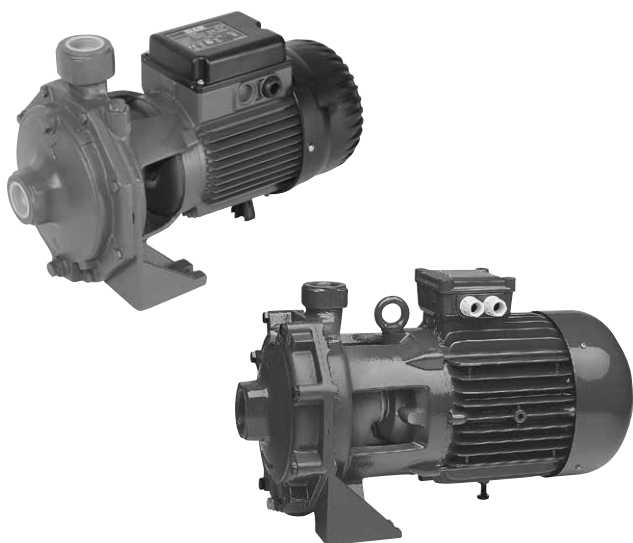
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		I _n A	MOTOR TYPE	I _{st.} A	rpm n. 1/min.
			kW	HP				
K 35/1200 T	3 x 400 V ~ ¹	10.6	11	15	18.4	IE3	193	2900

MODEL	A	B	C	E	G	ØI	H	H1	H2	DNA			DNM			PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
										x1	y1	z1	x2	y2	z2	L/A	L/B	H		
K 35/1200	600	273	100	110	212	14	385	160	225	200	160	80	185	145	65	680	330	572	0.128	100

¹ star start-up possible (Δ)

K TWIN-IMPELLER

TWIN-IMPELLER ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 1,2 to 30 m³/h with head up to 97 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

K 35/40, K 45/50,
K 35/100, K 40/100, K 55/100 :from -10 °C to +50 °C

K 55/50, K 66/100, K 90/100
K 70/300, K 80/300, K 70/400, K 80/400 :from -15 °C to +110 °C

Maximum ambient temperature: +40°C

Maximum operating pressure:

K 35/40, K 35/100, K 40/100 :6 bar (600 kPa)

K 45/50, K 55/50 :8 bar (800 kPa)

K 55/100, K 66/100 :10 bar (1000 kPa)

K 90/100, K 70/300, K 80/300, K 70/400, K 80/400 :12 bar (1200 kPa)

Protection class:

IP 55, IP 44 per K 35/40, K 45/50, K 55/50, K 35/100, K 40/100

Protection class at the terminal board: IP 55

Insulation class:

Standard voltage:

single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz up to 4 kW included - 400 V Δ 50 Hz
from 5,5 kW

Installation: fixed, horizontal or vertical position, provided that the motor is always above the pump.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Twin-impeller centrifugal pump designed for the realisation of pressurization units in water systems and filling of pressure vessels.

Suitable for sprinkler systems and other general water supply uses.

CONSTRUCTION FEATURES OF THE PUMP

Pump body and motor support in cast iron.

Technopolymer impeller.

Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3.

IE2 motors as standard, from 0,75 kW to 5,5 kW - IE3 ≥ 7,5 kW.

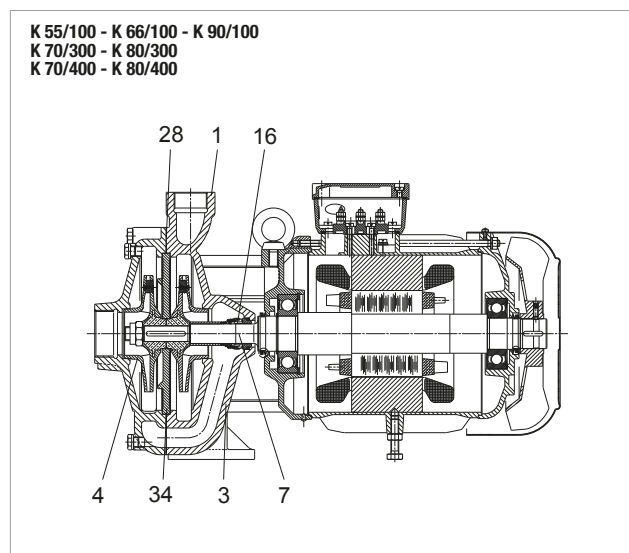
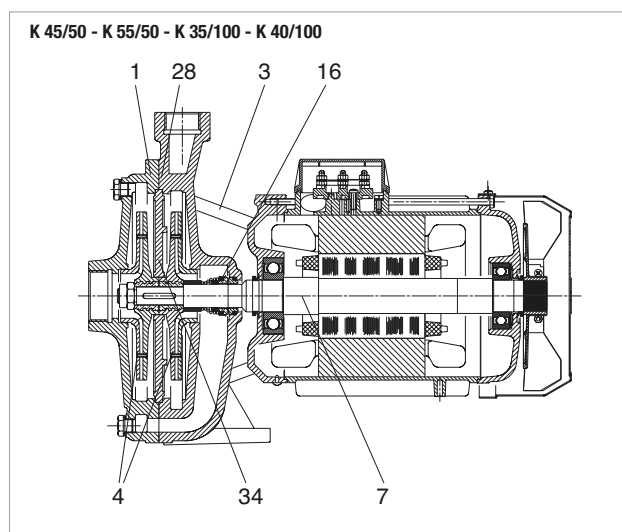
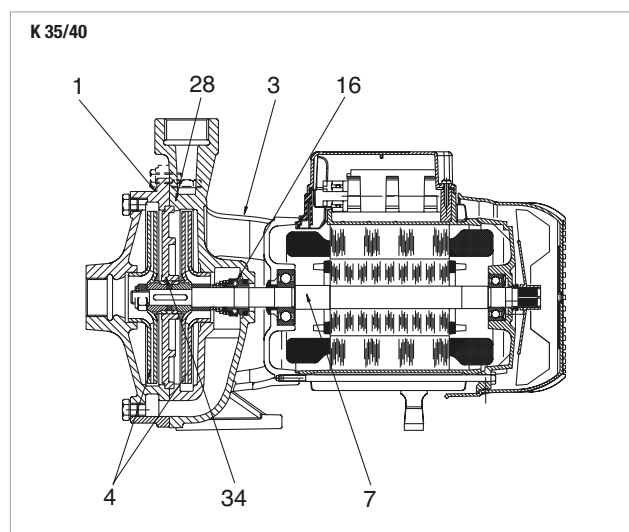
K TWIN-IMPELLER

TWIN-IMPELLER ELECTRIC PUMPS

MATERIALS

No.	PARTS*	MATERIALS	MODELS
1	PUMP BODY	CAST IRON 200 UNI ISO 185	
3	SUPPORT	CAST IRON 200 UNI ISO 185	
4	IMPELLER	TECHNOPOLYMER A	K 35/40; K 45/50; K 35/100; K 40/100; K 55/100
		TECHNOPOLYMER B	K 55/50; K 66/100; K 90/100; K 70/300; K 80/300; K 70/400; K 80/400
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12CRS13 UNI 6900/71	K 35/40
		AISI 303 STAINLESS STEEL X10CRNIS 1089 UNI 6900/71	K 45/50; K 55/50; K 35/100; K 40/100; K 55/100; K 66/100; K 90/100
		AISI 304 STAINLESS STEEL X5 1810 UNI 6900/71	K 70/300; K 80/300; K 70/400; K 80/400
16	MECHANICAL SEAL	CARBON / CERAMIC	
28	GASKET	NBR RUBBER	K 35/40; K 45/50; K 55/50; K 55/100; K 35/100; K 40/100
		GUARNITAL	K 66/100; K 90/100; K 70/300; K 80/300; K 70/400; K 80/400
34	INTERMEDIATE DISC	CAST IRON 200 UNI ISO 185	K 35/40; K 45/50; K 55/50; K 55/100; K 66/100; K 90/100; K 70/300; K 70/400; K 80/300; K 80/400

* In contact with the liquid



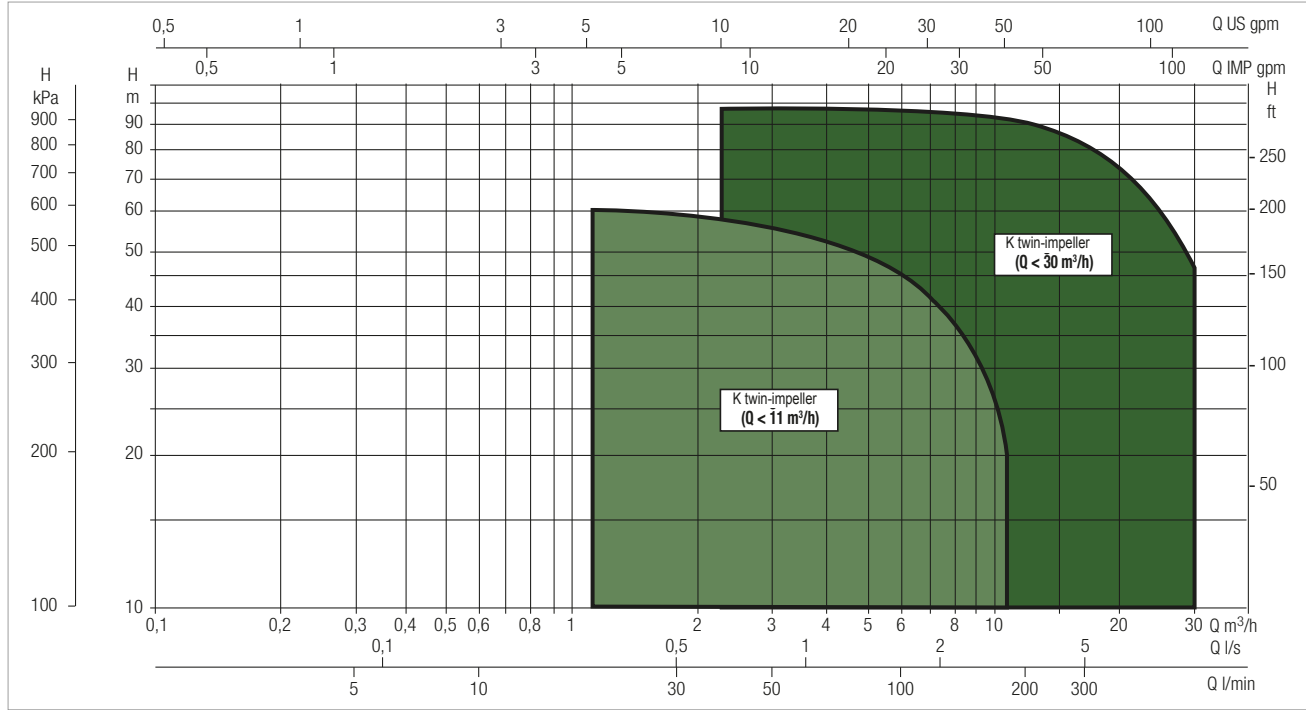
K TWIN-IMPELLER RANGE

ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

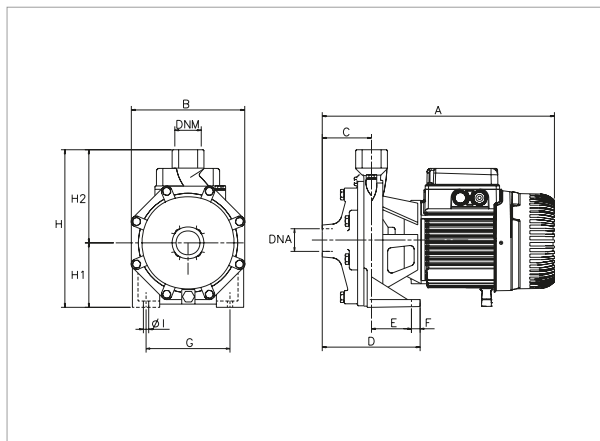


SELECTION TABLE

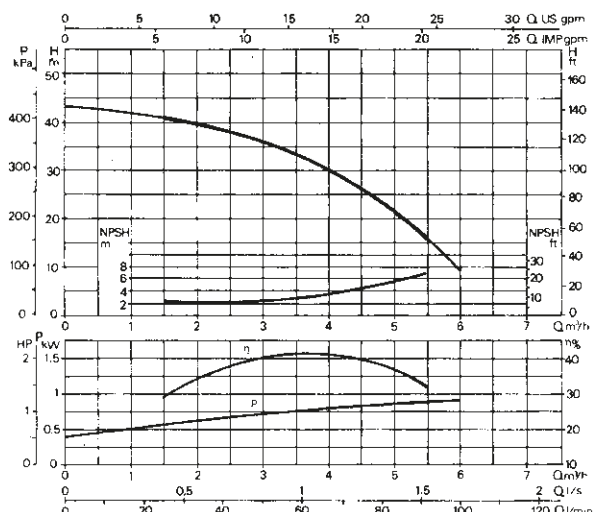
MODEL	Q=															
	0	1.2	1.8	2.4	3.6	4.8	6	7.2	9	9.6	10.8	12	15	18	24	30
	Q=															
	0	20	30	40	60	80	100	120	150	160	180	200	250	300	400	500
K 35/40 M-T	43.5	41.5	40	38	33	23.5										
K 45/50 M-T	51	49	47.5	46	42	37	30									
K 55/50 M-T	62	60	58	57	52	45	34									
K 35/100 M-T	38.5			37.5	36.5	35	32	28.5	18.5	17.5						
K 40/100 M-T	44			43.4	42.5	41	39	35.7	29	26	18.5					
K 55/100 T	62			59.5	57	54.5	51	47	39	36						
K 66/100 T	73			70	67.5	64	60.5	57	49	47						
K 90/100 T	83.5			82	79.5	76.5	72.5	68	61	58						
K 70/300 T	76						74	73	72	71.5	70	69	65	60.5	43.5	
K 80/300 T	95						93	92.2	91	90.5	90	89.5	87	82	68	
K 70/400 T	86								84	83.2	82.5	82	79	76	65	47
K 80/400 T	97									95	94.5	94	92	89	80	64

K 35/40 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

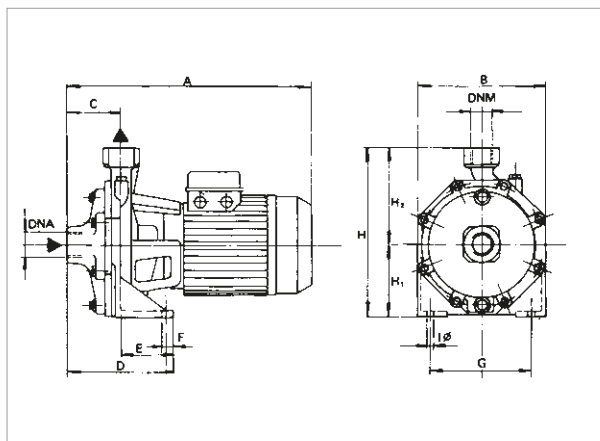


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 35/40 M	1x220-240 V ~	1.2	0.75	1	5.5	-	18.5	2800	20	450
K 35/40 T	3x230-400 V ~	1.2	0.75	1	3.8-2.2	IE2	22.14-12.8	2850	-	-

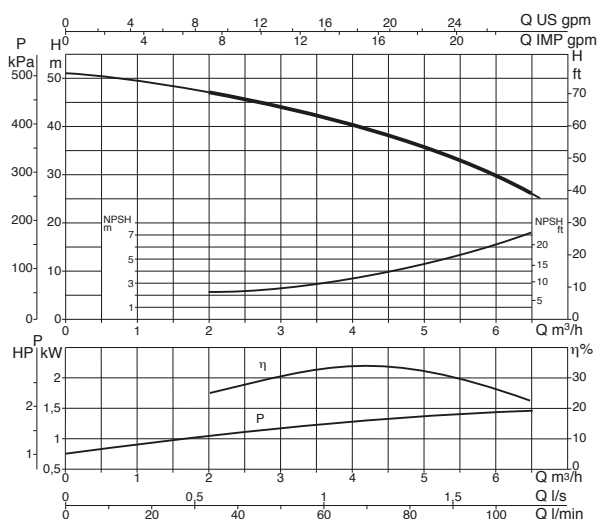
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 35/40	342	180	76	148	72	15	148	9.5	235	100	135	1" G	1" G	392	232	262	0.024	15.9

K 45/50 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

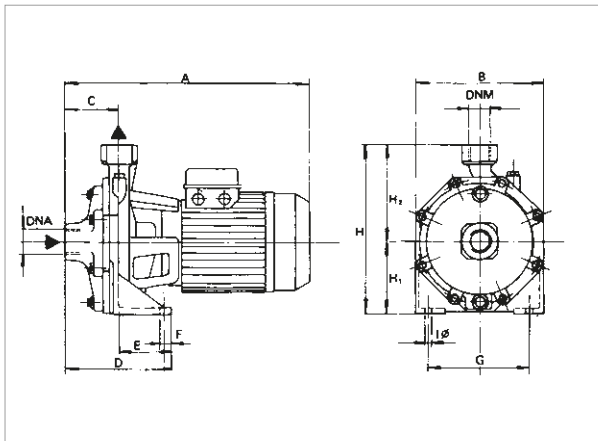


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 45/50 M	1x220-240 V ~	1.86	1.1	1.5	8.3	-	29.2	2800	31.5	450
K 45/50 T	3x230-400 V ~	1.96	1.1	1.5	7.2-4	IE2	31.1-18	2850	-	-

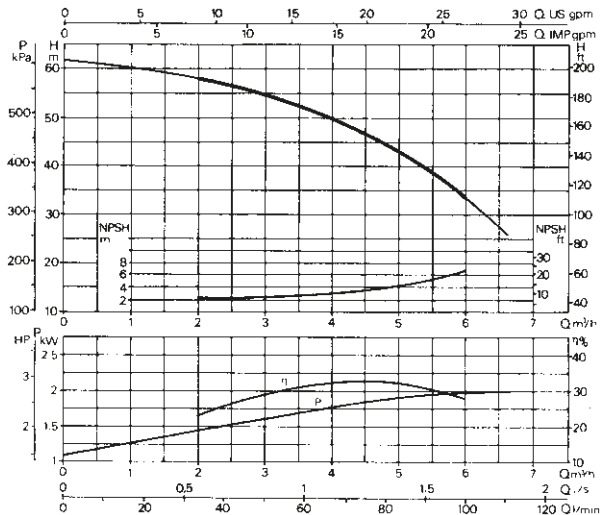
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 45/50	370	210	75	144	69	15	165	11.5	268	118	150	1 1/4" G	1" G	415	234	295	0.028	23.3

K 55/50 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

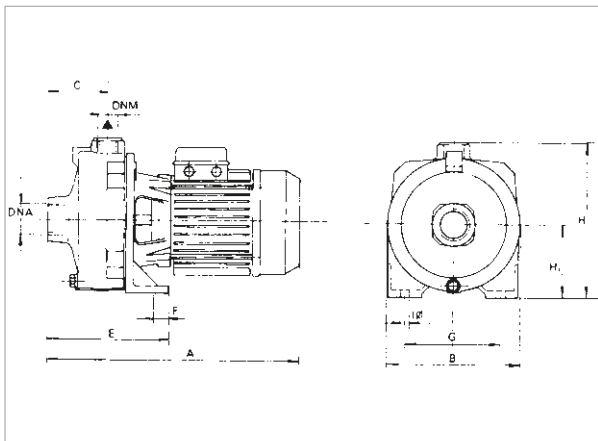


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 55/50 M	1x220-240 V ~	2.7	1.85	2.5	12.8	-	48	2850	40	450
K 55/50 T	3x230-400 V ~	2.5	1.85	2.5	8.4-4.8	IE2	37.6-21.7	2850	-	-

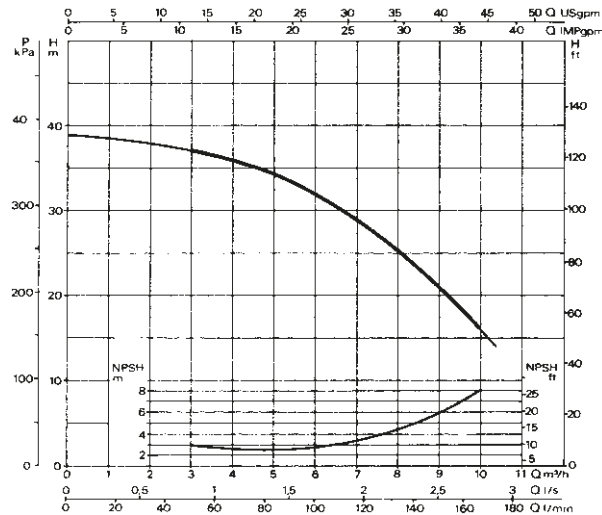
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 55/50	370	210	75	144	69	15	165	11.5	268	118	150	1 1/4" G	1" G	415	234	295	0.032	27.2

K 35/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

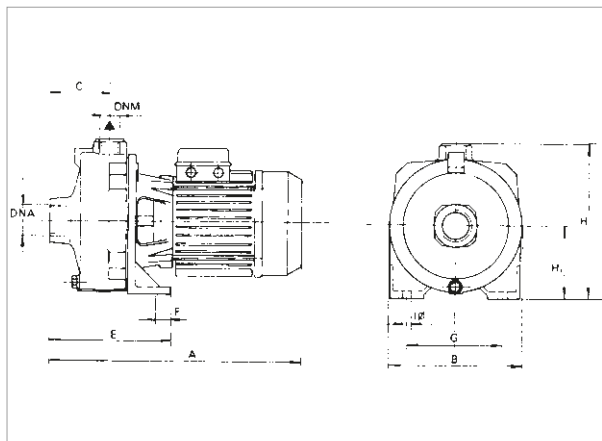


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 35/100 M	1x220-240 V ~	1.56	1.1	1.5	7.1	-	33	2780	25	450
K 35/100 T	3x230-400 V ~	1.65	1.1	1.5	6.5-3.5	IE2	21	2850	-	-

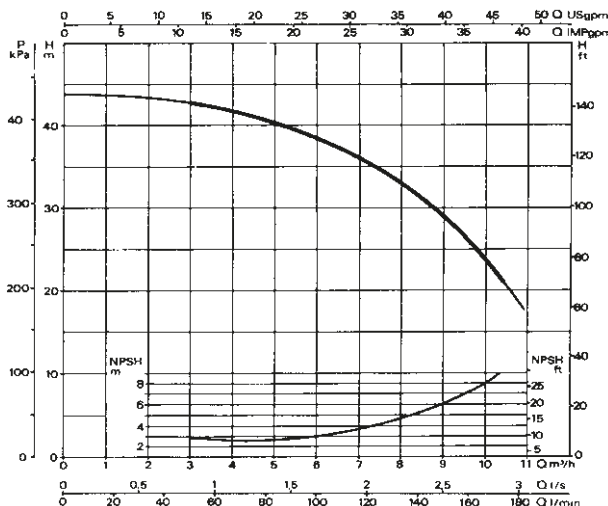
MODEL	A	B	C	E	F	G	ØI	H	H1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
												L/A	L/B	H		
K 35/100	387	205	88	169	20	145	11	233	108	1 1/2" G	1" G	415	234	295	0.028	22

K 40/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10°C to 50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

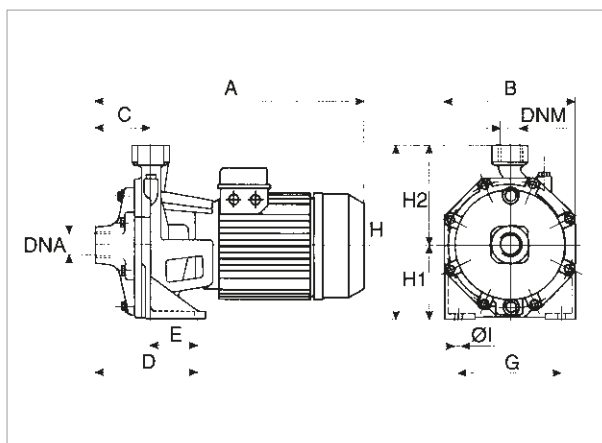


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		I _n A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 40/100 M	1x220-240 V ~	2	1.85	2.5	9	-	45	2850	40	450
K 40/100 T	3x230-400 V ~	2	1.85	2.5	7-4	IE2	22	2850	-	-

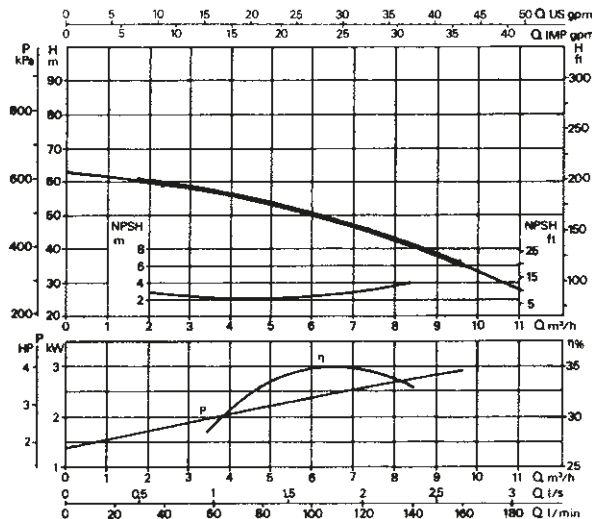
MODEL	A	B	C	D	E	F	G	ØI	H	H1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
													L/A	L/B	H		
K 40/100 M	461	205	88	179	20	20	145	11	233	108	1 1/2" G	1" G	510	234	285	0.034	25.9
K 40/100 T	387	205	88	179	20	20	145	11	233	108	1 1/2" G	1" G	415	234	295	0.028	22

K 55/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

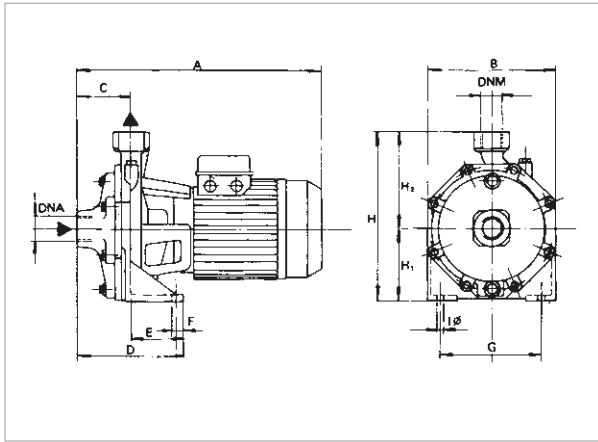


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		I _n A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 55/100 T	3x230-400 V ~	3.9	2.2	3	11.6-6.7	IE2	67.5-39	2850

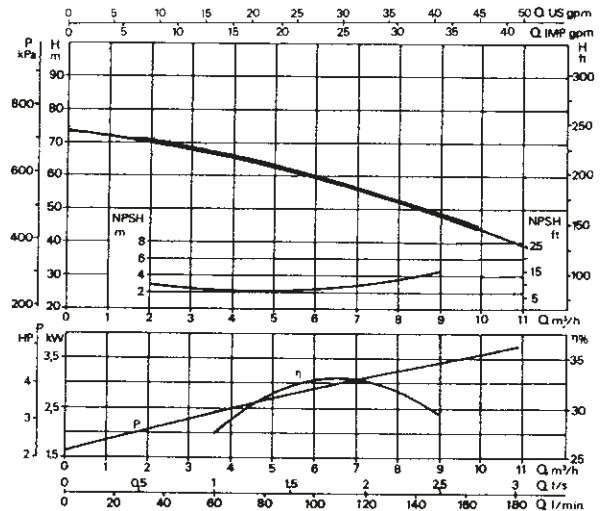
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 55/100	450	256	88	160	72	18	200	14	312.5	140	172.5	1 1/2" G	1" G	500	274	333	0.045	38.1

K 66/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

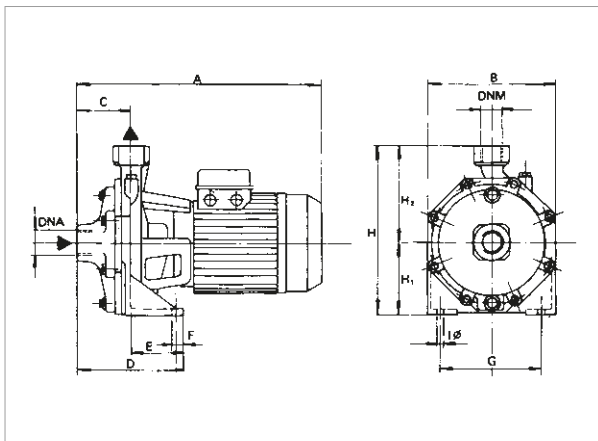


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 66/100 T	3x230-400 V ~	4.7	3	4	14.6-8.4	IE2	103.8-60	2900

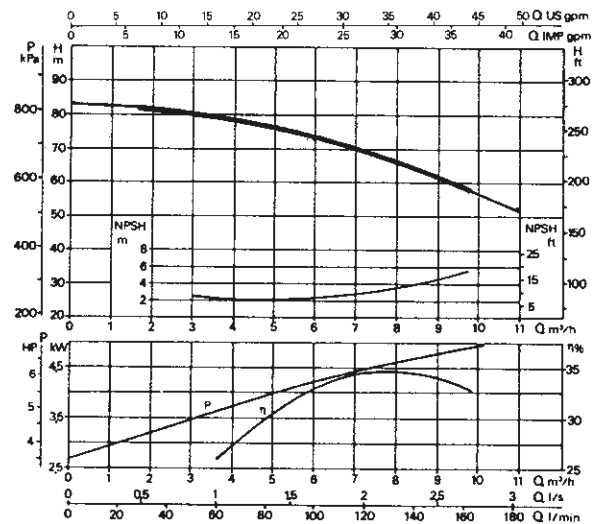
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 66/100	450	256	88	160	72	18	200	14	312.5	140	172.5	1 1/2" G	1" G	500	274	333	0.045	40.7

K 90/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15°C to +110°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

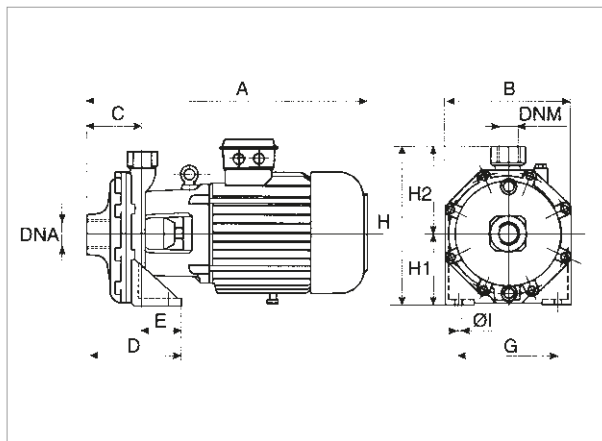


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 90/100 T	3x230-400 V ~	5.4	4	5.5	16.5-9.5	IE2	103.8-60	2850

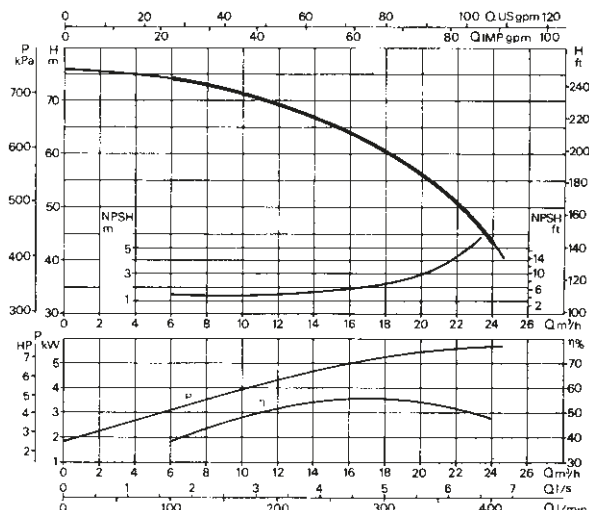
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 90/100	450	256	88	160	72	18	200	14	312.5	140	172.5	1 1/2" G	1" G	500	274	333	0.045	44

K 70/300 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



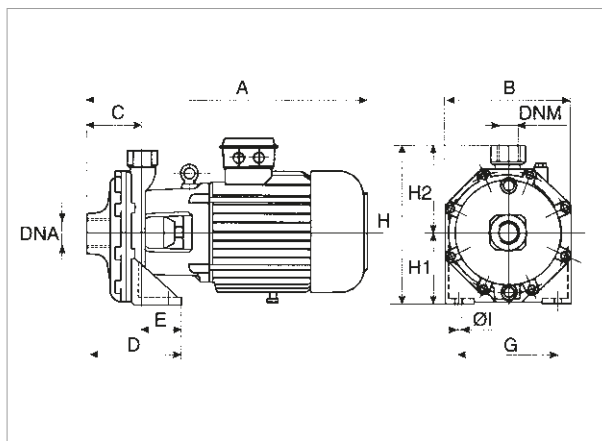
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 70/300 T	3 x 230-400 V ~ ¹	7.1	5.5	7.5	12.9	IE2	77.9	2900

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 70/300	595	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	72

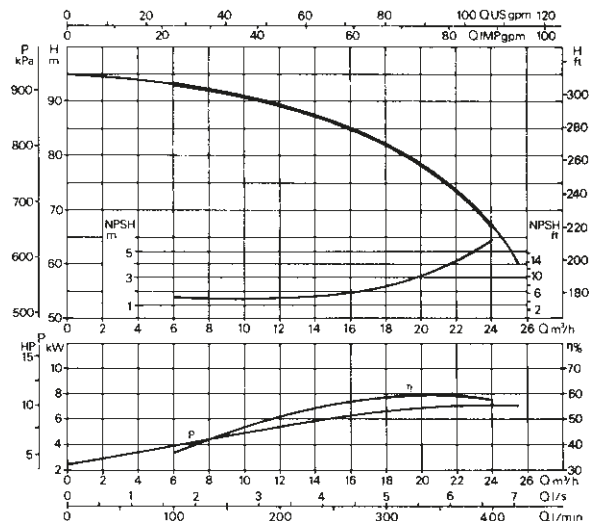
¹ star start-up possible (Δ)

K 80/300 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



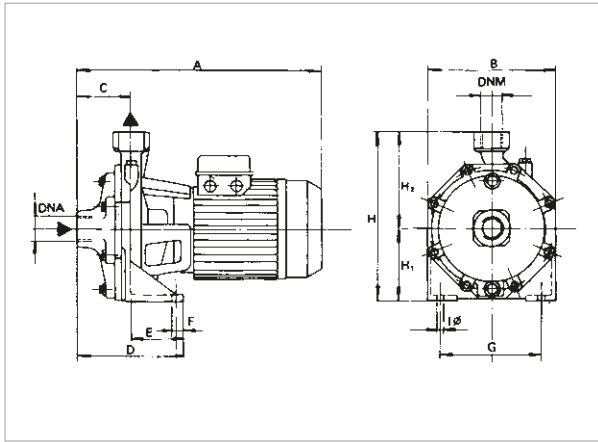
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 80/300 T	3 x 230-400 V ~ ¹	9.10	7.5	10	15.20	IE3	112	2910

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 80/300	595	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	78.5

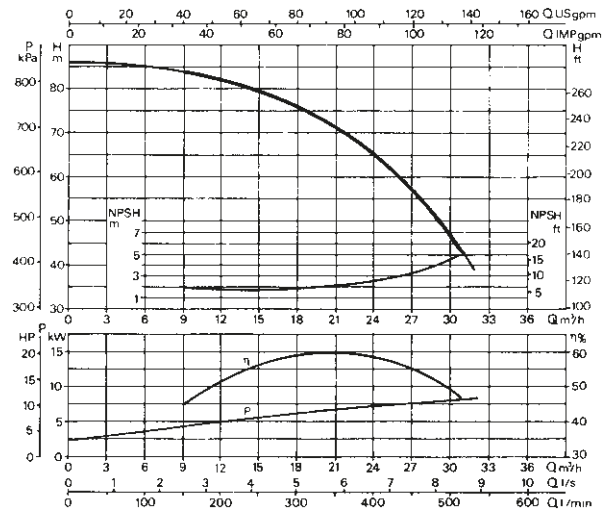
¹ star start-up possible (Δ)

K 70/400 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



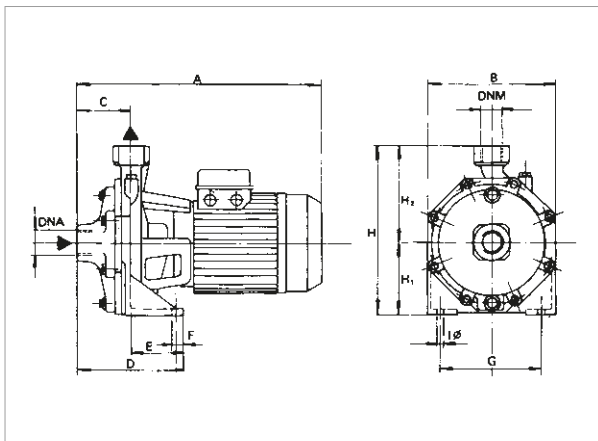
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 70/400 T	3 x 230-400 V ~ 1	9.20	9.2	12.5	15.50	IE3	135	2930

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 70/400	635	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	74

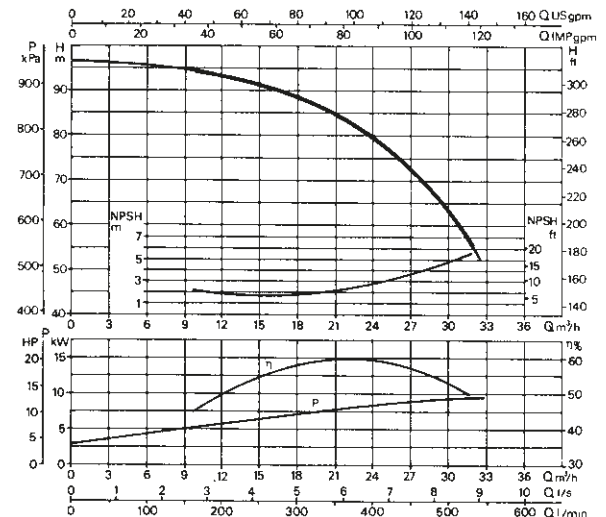
¹ star start-up possible (A)

K 80/400 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15°C to +110°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 80/400 T	3 x 230-400 V ~ 1	10.80	11	15	18.50	IE3	193	2940

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
														L/A	L/B	H		
K 80/400	635	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	78

¹ star start-up possible (A)

NKM-G / NKP-G

STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS



TECHNICAL DATA

Rotation speed: 1450 - 2900 1/min.

Operating range: from 1 to 460 m³/h with head of up to 96 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from -10°C to +140°C.

Maximum ambient temperature: +40 °C.

Maximum operating pressure: 16 bar - 1600 kPa (for DN 200 max 10 bar).

Flanging: PN 16 DIN 2533 - PN 10 DIN 2532 for DN 200

Protection class: IP55

Insulation class: F

Standard voltage: 230/400 V 50 Hz up to 2,2 kW included
400 V Δ 50 Hz above 2,2 kW

Installation: normally in horizontal or vertical position, provided that the motor is always above the pump.

Special executions on requests: pumps for liquids other than water.
Other voltages and/or frequencies.

APPLICATIONS

Standardised centrifugal monobloc electric pumps with coupling, designed for a wide range of applications, such as:

- Water supply.
- Hot water circulation for the heating system.
- Circulation of cold water for air conditioning and refrigeration systems.
- Transfer of liquids in agricultural, horticultural, and industrial environments.
- Installation of pumping assemblies.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron single stage spiral body complying with DIN-EN 733 (formerly DIN 24255), cast iron support, flanges complying with DIN 2533, and DIN 2532 for DN 200. Cast iron impeller, closed and dynamically balanced, with compensation of the axial thrust through balancing holes, operation on interchangeable wear rings (on request). AISI 304 stainless steel pump shaft.

Seal device: standardised mechanical seal according to DIN 24960 in carbon/silicon carbide with EPDM OR rings.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type motor with external ventilation, B3/B5 construction, two poles for NKP and four poles for NKM. Rotor running on ball bearings, largely oversized to ensure low noise and durability. For the protection of the motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations. For liquids with densities higher than water, motors with proportionally higher powers are required.

Construction according to the standard: CEI 2-3.

IE2 motors as standard from 0,75 kW - IE3 ≥ 7,5 kW (IE2 ≥ 7,5 kW only outside the EU)

NKM-G / NKP-G

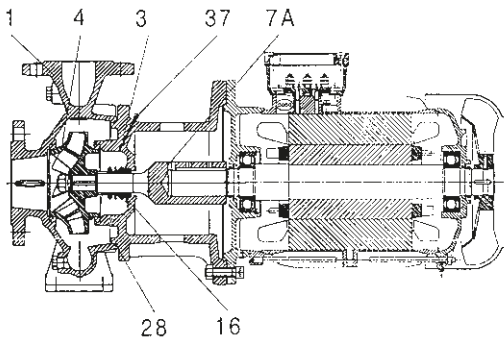
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

MATERIALS

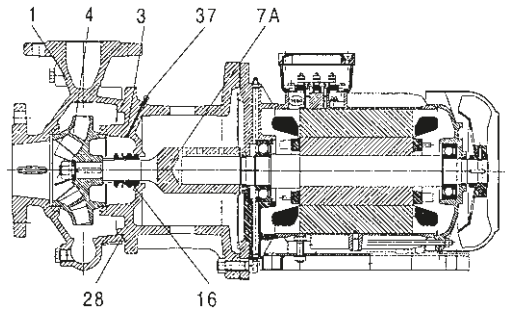
No.	PARTS	MATERIALS (standard version)
1	PUMP BODY	CAST IRON 250 UNI ISO 185
3	SUPPORT	CAST IRON 250 UNI ISO 185
4	IMPELLER	CAST IRON 250 UNI ISO 185
7A	PUMP SHAFT	AISI 304 STAINLESS STEEL - UNI 6900/71
16	MECHANICAL SEAL	CARBON/SILICON CARBIDE - EPDM
28	OR RING	EPDM
31	SEAL SPACER	AISI 304 STAINLESS STEEL - UNI 6900/71
36	SEAL HOLDING DISC	CAST IRON 250 UNI ISO 185
37	BLEED COCK	AISI 304 STAINLESS STEEL - UNI 6900/71

No.	PARTS	MATERIALS (version on request)
4	IMPELLER	BRONZE GCuSn5Zn5Pb5 UNI 7013/8a-72
16	MECHANICAL SEAL	SILICON CARBIDE/SILICON CARBIDE - EPDM SILICON CARBIDE/SILICON CARBIDE - VITON CARBON/SILICON CARBIDE - VITON

VERSION WITH MOTOR UP TO 7,5 KW INCLUDED

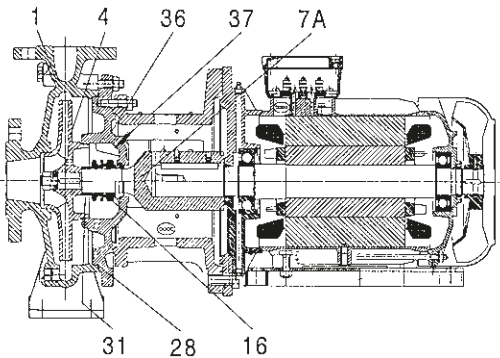


VERSION WITH MOTOR OVER 7,5 KW



VERSION FOR MODELS:

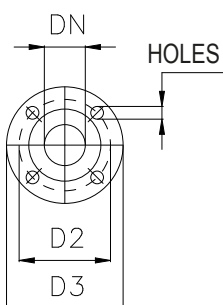
NKM-G 65-315/309/11 /4
 NKM-G 100-315/316/22 /4, NKM-G125-250/243/15 /4,
 NKM-G 80-200/200/4 /4,
 NKM-G 80-250/270/11 /4, NKM-G 80-315/305/15 /4,
 NKM-G 80-315/320/18.5 /4, NKM-G 80-315/334/22 /4,
 NKM-G 100-250/250/11 /4, NKM-G 150-200/218/11 /4



NKM-G / NKP-G

STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

FLANGE SIZES (mm)

		Nominal diameter (DN)							Nominal diameter (DN)				
		DIN 2533 PN 16							DIN 2533 PN 16				DIN 2533 PN 16
	DN	32	40	50	65			80	100	125	150	200	
	D2	100	110	125	145			160	180	210	240	295	
	D3	140	150	165	185			200	220	250	285	340	
HOLES	Ø	18							18				22
	No.	4							8				8

- Denomination index: (example)

	NKM	-	G	100	-	200	/	198	/	A	W	/	BAQE	/	5.5	/	4
NKM = 4 poles NKP = 2 poles																	
G = with coupling																	
Nominal diameter of the delivery port:																	
Nominal diameter of the impeller:																	
Actual diameter of the impeller:																	
Material codes: A = Cast iron B = Cast iron with bronze impeller																	
Wear rings (only if present)																	
Seal description																	
Motor power in kW																	
Number of poles 4 = 4 poles 2 = 2 poles																	

DESCRIPTION OF THE MECHANICAL SEAL

Position	Code	Description of the seal
1	A	O-ring seal with fixed guide
	B	Rubber bellows seal
	C	O-ring seal with spring guide
	D	O-ring seal balanced
	M	Rubber bellows seal
	X	Metal bellows seal
2 & 3	Materials	
	A	Impregnated carbon/metal
	B	Impregnated carbon/resin
	C	Other carbon types
	S	Chromium steel
	U	Tungsten carbide
	Q	Silicon carbide
	V	Aluminium oxide (ceramic)
X	Other ceramic types	
4	Materials	
	P	Nitrile rubber (NBR)
	S	Silicon rubber
	T	Teflon (PTFE)
	E	EPDM
	V	Viton
5	Materials	
	V	Reinforced

NKM-G / NKP-G

STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

PRODUCT CODE DESCRIPTION

NOMINAL DIAMETER OF THE IMPELLER	Cod.
125	1
160	2
200	3
250	4
315	5
125.1	K
160.1	L
200.1	M

Cod.	PUMP/IMPELLER MATERIALS
1	A (01) = cast iron/cast iron
2	B (03) = cast iron/bronze
5	A (01) + Wr*
6	B (03) + Wr*

* With wear rings

Cod.	P2 NOMINAL KW
1	0.37
2	0.55
3	0.75
4	1.1
5	1.5
6	2.2
7	3
8	4
9	5.5
A	7.5
B	11
C	15
D	18.5
E	22
F	30

PUMP TYPE	Cod.
32	1
40	2
50	3
65	4
80	5
100	6
125	7
150	8

Cod.	SEAL DEVICE
1	BAQE
5	BQQV*
7	BAQV*
G	BQQE*

* On request

IDENTIFICATION	Cod.
DAB PUMPS S.p.A.	D

Cod.	CODE PUMP TYPE
B	NKM-G / NKP-G 50 Hz
C	NKM-G / NKP-G 60 Hz

IDENTIFICATION	Cod.
DAB PUMPS S.p.A.	1

Cod.	VOLTAGE	Poles
0	Without motor	
1	3 x 220-240/380-415 V 50 Hz (<0,75 kW) 3 x 220-277/380-480 V 60 Hz	2
2	3 x 380-480 V 60 Hz	2
3	3 x 220-240/380-415 V 50 Hz (<0,75 kW) 3 x 220-277/380-480 V 60 Hz	4
4	3 x 380-480 V 60 Hz	4
A	3 x 220-240/380-415 V 50 Hz - IE2	2
B	3 x 380-415 V 50 Hz - IE2	2
C	3 x 220-240/380-415 V 50 Hz - IE2	4
D	3 x 380-415 V 50 Hz - IE2	4
U	3 x 220-240/380-415 V 50 Hz - IE3	2
V	3 x 380-415 V 50 Hz - IE3	2
W	3 x 220-240/380-415 V 50 Hz - IE3	4
X	3 x 380-415 V 50 Hz - IE3	4

Product code

1 D 1 1 1 1 B 1 1

NKM-G RANGE

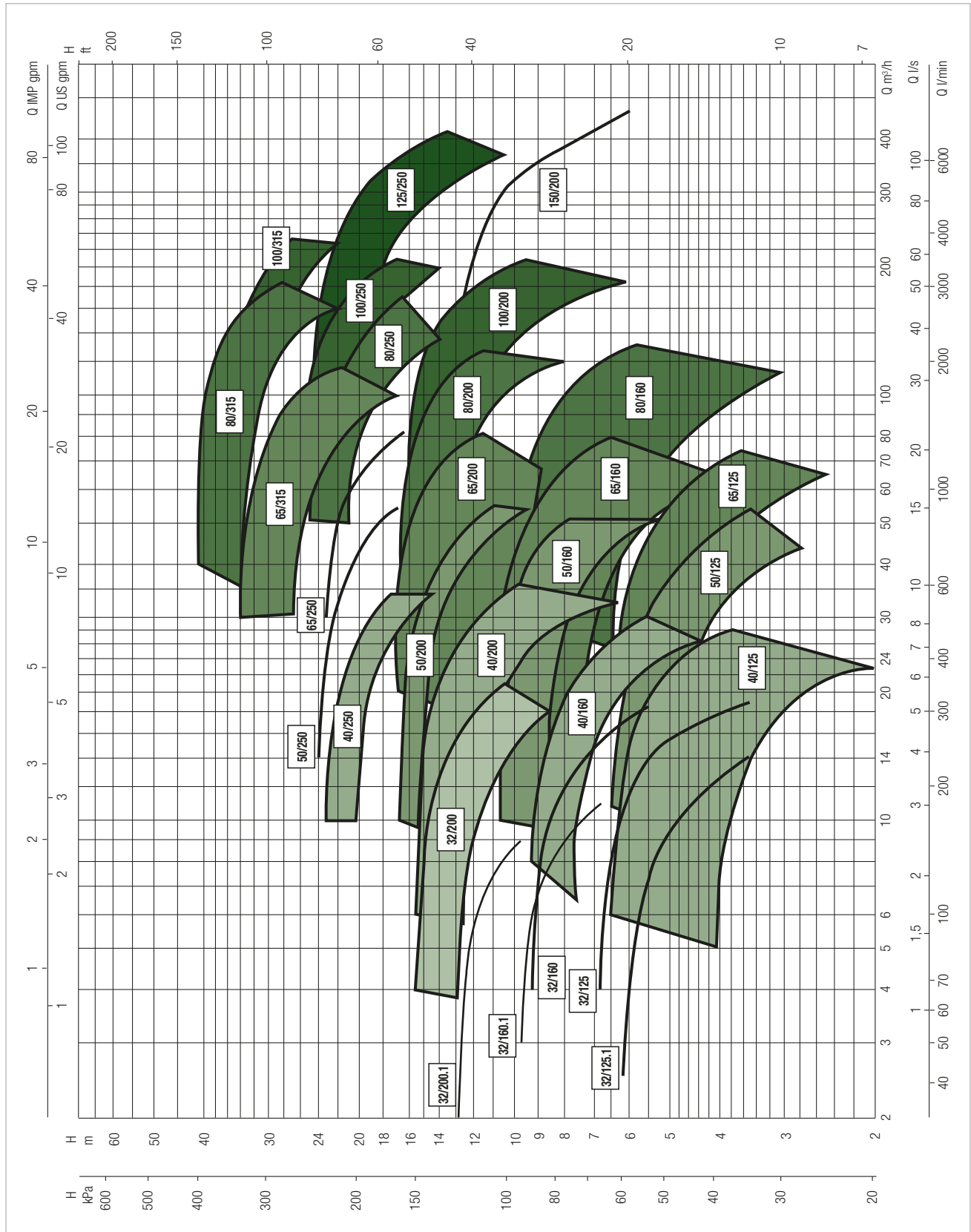
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

≈ 1450 1/min



SELECTION TABLE - NKM-G

MODEL	Q=	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	
	m ³ /h	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	
NKM-G 32-125.1/140/0.25/4	H	6.2	5.8	4.2																
NKM-G 32-125/142/ 0.37/4	(m)	7	6.75	5.85	4.2															
NKM-G 32-160.1/169/0.37/4		8.9	8.2	4.6																
NKM-G 32-160/169/0.55/4		9.4	9	7.9	5.6															
NKM-G 32-200.1/200/0.55/4		12.7	11.2	7.2																
NKM-G 32-200/200/ 0,75/4		13	12.5	11.1	8.45															
NKM-G 32-200/219/ 1,1 /4		16	15.4	14.3	12.2															
NKM-G 40-125/115/ 0.25/4		4.2	4.1	3.7	3	2.1														
NKM-G 40-125/130/ 0.37/4		5.4	5.3	5.4	4	3.5														
NKM-G 40-125/142/ 0.55/4		6.6	6.5	6.2	5.7	4.8														
NKM-G 40-160/153/ 0.55/4		7.6	7.6	7.5	6.7	5.5														
NKM-G 40-160/166/ 0.75/4		9.2	9.2	9	8.4	7.4	5.7													
NKM-G 40-200/200/ 1,1 /4		12.5	12.5	12.3	11.2	9.7	7.7													
NKM-G 40-200/219/ 1,5 /4		15.6	15.6	15.3	14.7	13.4	11.8	9.8												
NKM-G 40-250/245/ 2,2 /4		20.6	20.5	20.1	19.2	17.8	16													
NKM-G 40-250/260/ 3 /4		23.3	23.1	22.8	22.2	20.8	19													
NKM-G 50-125/130/ 0.55/4		5.5		5.2	5	4.7	4.3	3.9	3.3	2.6										
NKM-G 50-125/141/ 0.75/4		6.5		6.3	6.1	5.8	5.5	5	4.5	3.9										
NKM-G 50-160/161/ 1.1 /4		8.6		8.6	8.5	8.2	7.8	7.3	6.7	5.7										
NKM-G 50-160/177/ 1,5 /4		10.7		10.7	10.7	10.5	10.2	9.8	9.2	8.3										
NKM-G 50-200/210/ 2,2 /4		15.3		15.3	15.2	14.8	14	13.3	12.1	10.8	9.4									
NKM-G 50-200/219/ 3 /4		16.8		16.8	16.5	16.1	15.5	14.6	13.6	12.4	10.9									
NKM-G 50-250/263/ 4 /4		23.8		23.8	23.8	23.4	22.7	21.6	20.4	19	17.1									
NKM-G 65-125/130/ 0.75/4		5.1		4.9	4.8	4.75	4.7	4.4	4.2	3.8	3.4	3	2.5							
NKM-G 65-125/144/ 1.1 /4		6.5		6.4	6.4	6.3	6.2	6	5.75	5.5	5.1	4.65	4.2	3.75						
NKM-G 65-160/153/ 1,1 /4		7.4		7.4	7.3	7.15	6.9	6.65	6.25	5.8	5.3	4.4								
NKM-G 65-160/165/ 1,5 /4		8.9			8.8	8.7	8.6	8.3	8	7.6	7.15	6.6	6							
NKM-G 65-160/177/ 2,2 /4		10.5				10.4	10.3	10.2	9.9	9.6	9.2	8.75	8.2	7.4	6.6					
NKM-G 65-200/210/ 3 /4		15.3				15.2	15.2	15.1	14.6	14.1	13.5	12.9	12.2	11.3						
NKM-G 65-200/219/ 4 /4		17				17	16.9	16.8	16.4	16.2	15.8	15.2	14.3	13.8	12.6					
NKM-G 65-250/263/ 5,5 /4		24.1				23.8	23.6	23.3	22.8	22.3	21.5	20.8	19.7	18.6	17.3					
NKM-G 65-315/279/ 7,5 /4		27							26	25.5	25	24.5	23.6	22.7	21.5	20.2	19			
NKM-G 65-315/309/11 /4		34.2								33.2	33	32.5	32	31.5	30.7	29.8	29	28	25	21.7

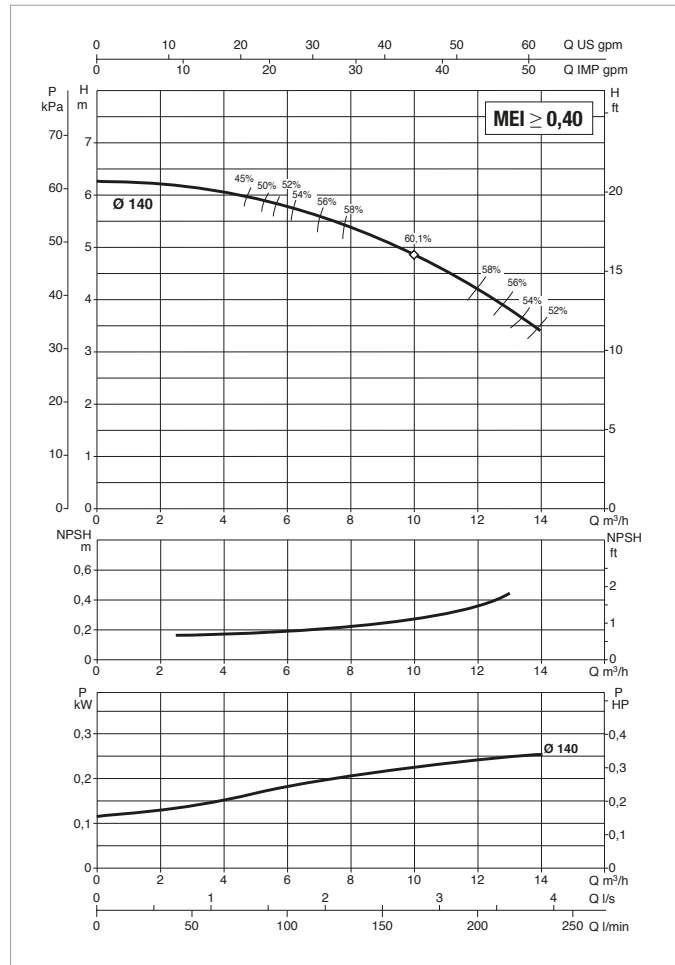
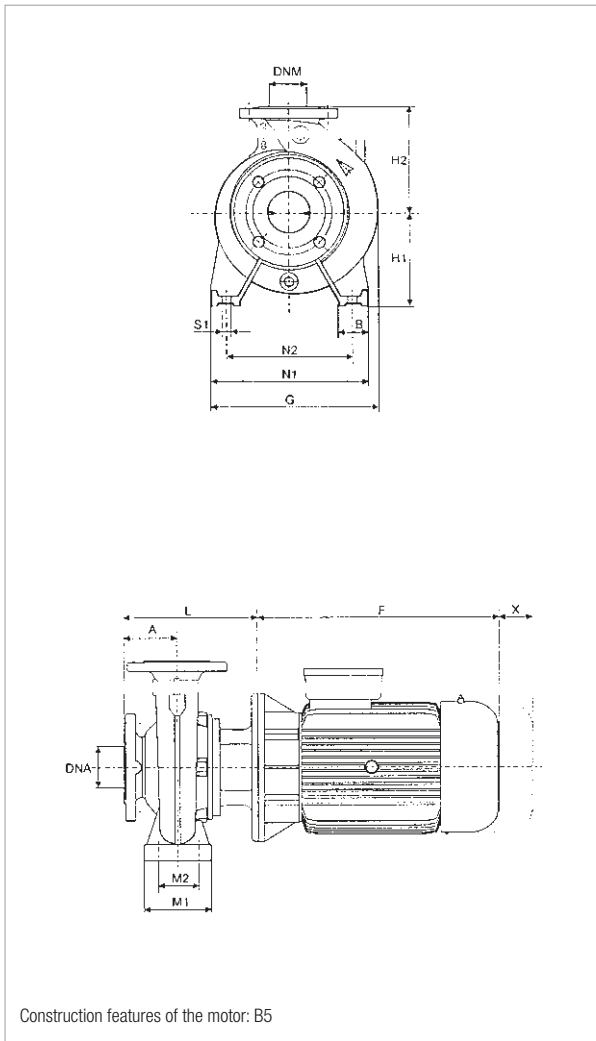
SELECTION TABLE - NKM-G

MODEL	Q=	0	30	36	42	48	54	60	66	72	78	84	90	102	114	120	150	180	210	240	270	300	330	360	390	420	
	m ³ /h	0	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	
NKM-G 80-160/153-136/1,5/4	H (m)	6.5	6.35	6.3	6.2	5.95	5.75	5.55	5.3	5	4.7	4.5	4.25	3.65	3												
NKM-G 80-160/163/ 2,2 /4		8.65	8.5	8.45	8.3	8.15	7.9	7.7	7.4	7.2	6.9	6.65	6.3	5.7	4.9	4.6											
NKM-G 80-160/177/ 3 /4		10.2	10.2	10.1	10	9.9	9.75	9.65	9.5	9.25	9	8.8	8.6	7.9	7.2	6.7											
NKM-G 80-200/200/ 4 /4		13.2			13.1	13	12.9	12.8	12.7	12.4	12	11.7	11.3	10.4	9.3	8.7											
NKM-G 80-200/222/ 5,5 /4		16.6			16.5	16.5	16.4	16.2	16.1	16	15.7	15.4	15	14.3	13.3	12.7											
NKM-G 80-250/240/ 7,5 /4		20.4			20.3	20.3	20.2	20.1	20	19.9	19.8	19.5	19	18	16.7	16											
NKM-G 80-250/270/11 /4		25.6			25.5	25.5	25.4	25.1	25	24.8	24.6	24.2	24	23	21.5	21											
NKM-G 80-315/305/15 /4		32.9					32.7	32.6	32.6	32.5	32.4	32	31.6	30.5	29.5	28.9	24										
NKM-G 80-315/320/18,5 /4		36.8					36.7	36.7	36.6	36.5	36.5	36.5	36.1	35.5	34.5	34	29.5										
NKM-G 80-315/334/22 /4		41					40.8	40.8	40.7	40.6	40.6	40.4	40.2	39.8	39	38.5	34.8	29									
NKM-G100-200/200/ 5,5 /4		12.7						12.6	12.6	12.5	12.5	12.4	12.3	12	11.5	11.4	10.1	8.5									
NKM-G100-200/214/ 7,5 /4		15.6						15.4	15.4	15.3	15.2	15.1	15	14.7	14.5	14.3	13.3	11.6	9.8								
NKM-G100-250/250/11 /4		21.1						21	21	21	21	21	21	20.9	20	19.8	18	16									
NKM-G100-250/270/15 /4		25.5						25.5	25.5	25.5	25.3	25.1	25.1	25	24.5	24	22.5	20.5	17.5								
NKM-G100-315/300/18,5 /4		32											31.5	31.4	31	30.5	28.8	26	23								
NKM-G100-315/316/22 /4		36											35.5	35.2	35	34.6	33.2	31	28	24							
NKM-G125-250/243/15 /4		19.5												19.3	19.3	19.2	19.2	18.7	17.8	16.8	15.5	14.1	12.5	10.9			
NKM-G125-250/256/18,5 /4		21.9													21.8	21.8	21.7	21.6	21.3	20.5	19.5	18.5	17.2	15.6	14	12	
NKM-G125-250/266/22 /4		24.6													24.4	24.2	24.1	24	23.5	22.9	22	21	19.8	18.5	16.7	15	
NKM-G150-200/218/11 /4		13.2													13.1	13	13	12.8	12.5	12.1	11.5	11	10.4	9.7	9	8	7

NKM-G 32-125.1- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

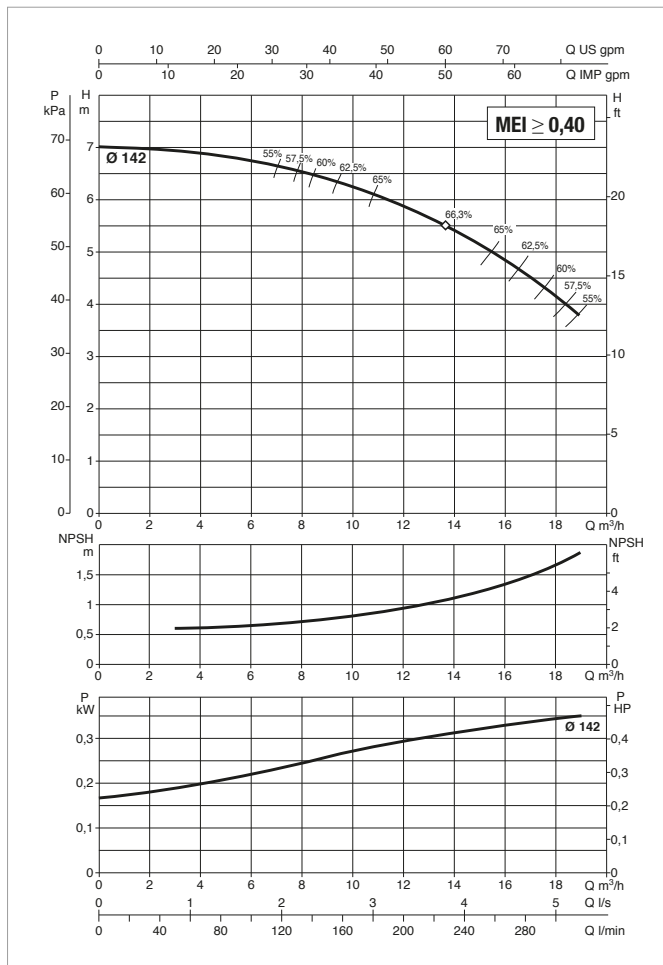
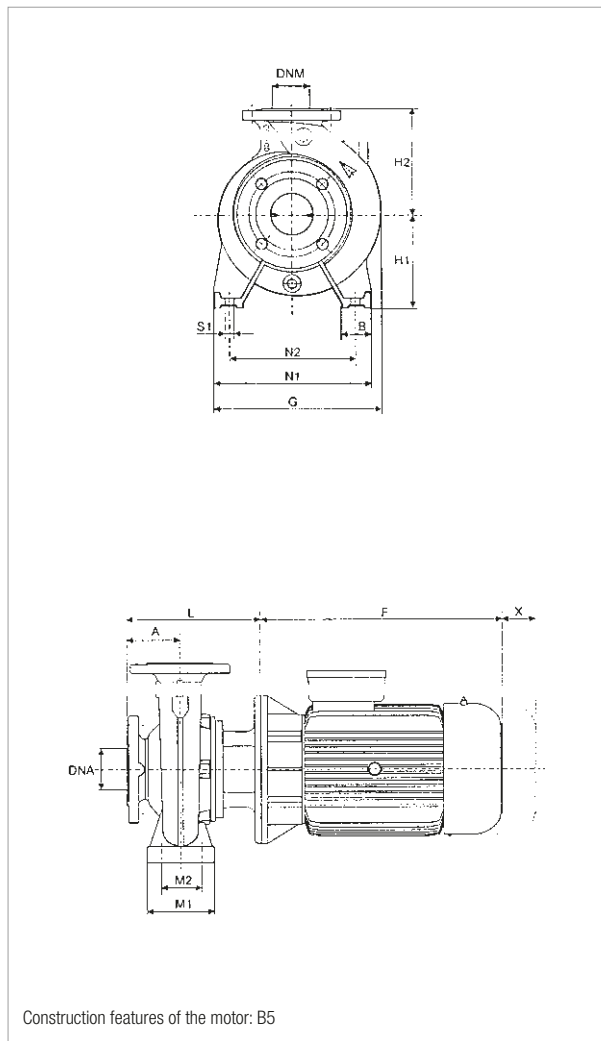
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		TYPE MOTOR
			kW	HP	IE2	IE3	
NKM-G 32-125.1/140/0.25/4	MEC 71	230 - 400V ~	0.25	0.33	1.6/0.9	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 32-125.1/140/0.25/4	80														50	208	-		234	112

NKM-G 32-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

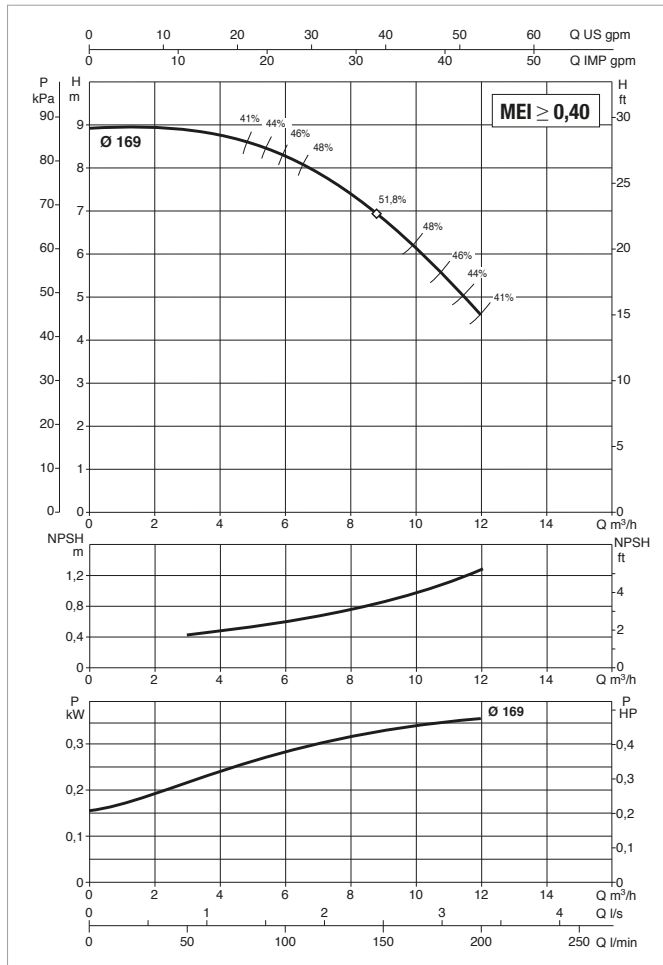
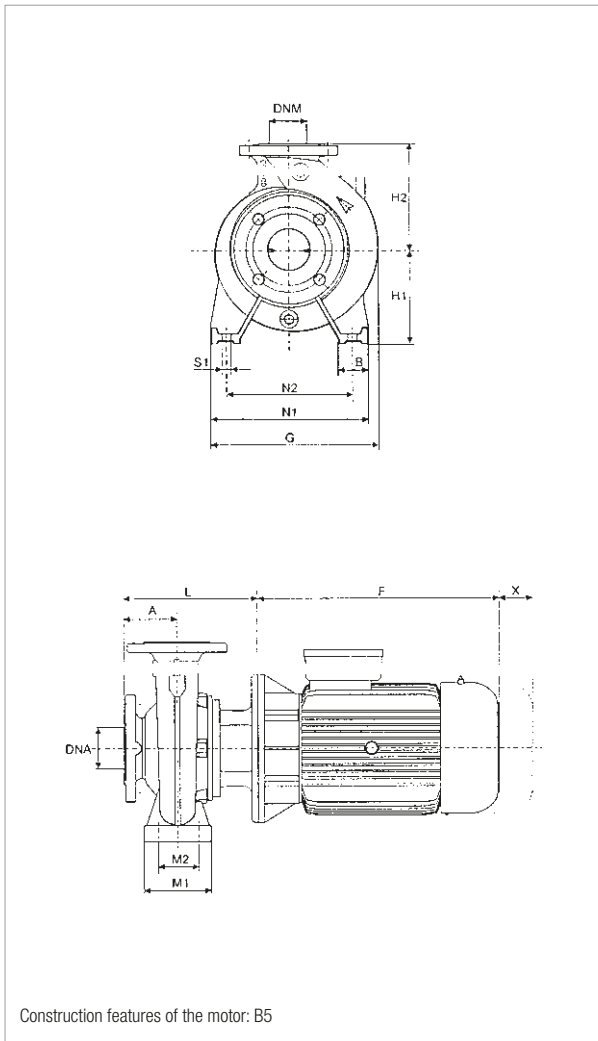
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 32-125/142/ 0.37/4	MEC 71	230 - 400 V ~	0.37	0.5	1.7/0.98	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 32-125/142/ 0.37/4	80														50	208	-		234	112

NKM-G 32-160.1- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



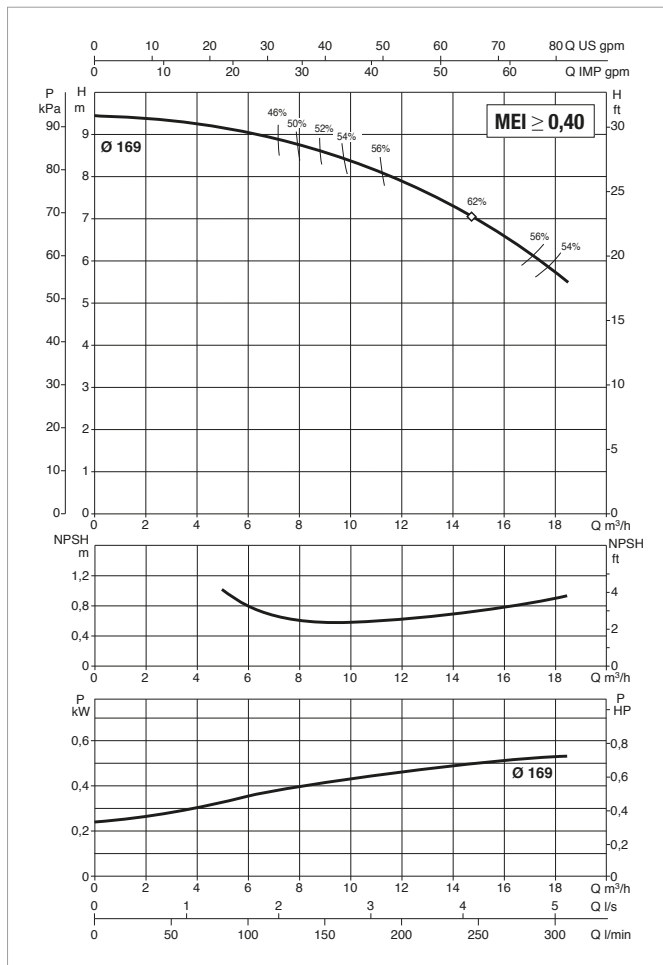
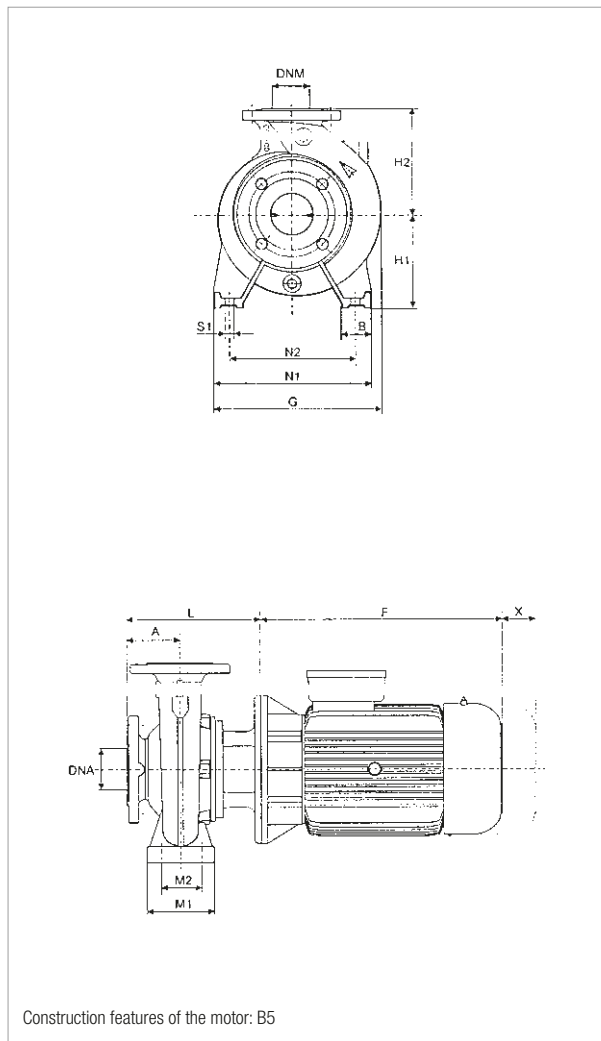
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		TYPE MOTOR
			kW	HP	IE2	IE3	
NKM-G 32-160.1/169/0.37/4	MEC 71	230 - 400 V ~	0.37	0.5	1.7/0.98	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 32-160.1/169/0.37/4	80	50	208	-	245	132	160	201	100	70	240	190	M10	100	28	50	32	620	370	480	0.110	36	-

NKM-G 32-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

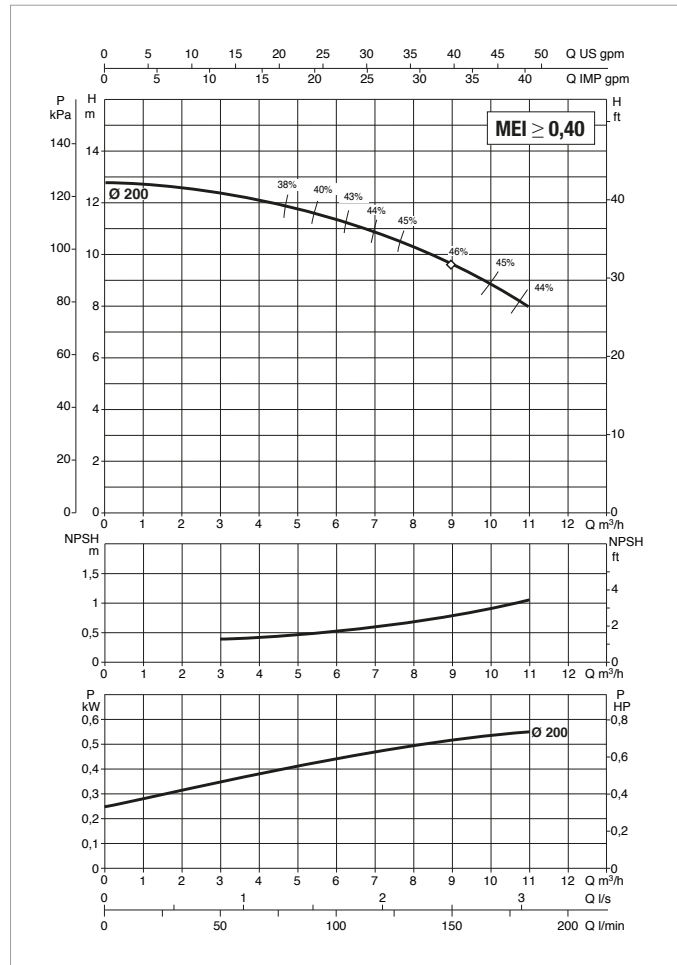
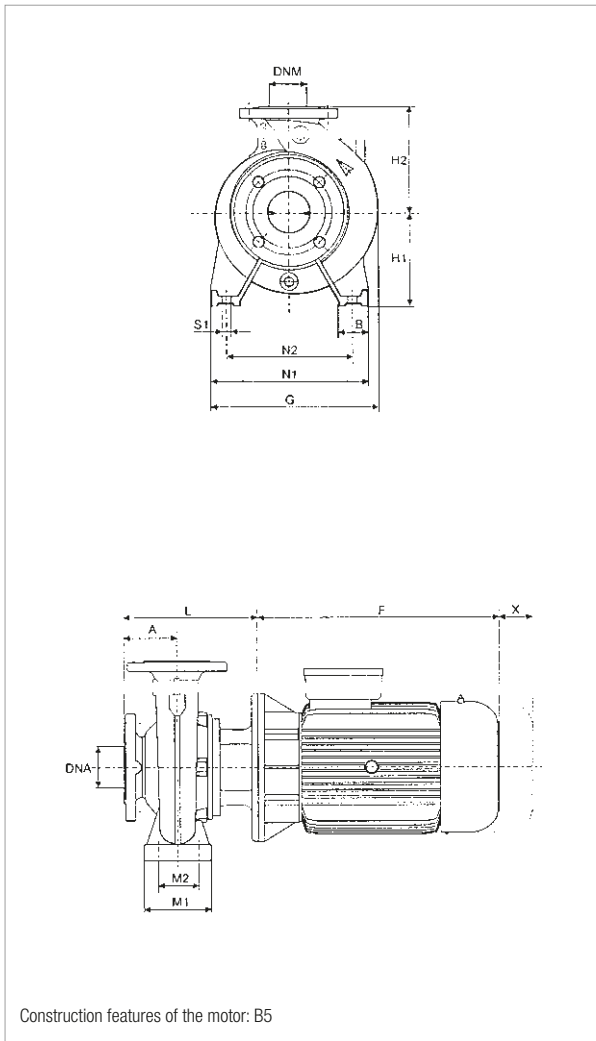
MODEL	ELECTRICAL DATA						MOTOR TYPE
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G 32-160/169/0.55/4	MEC 80	230/400 V	0.55	0.75	2.6/1.5	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 32-160/169/0.55/4	80														50	234	-		245	132

NKM-G 32-200.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

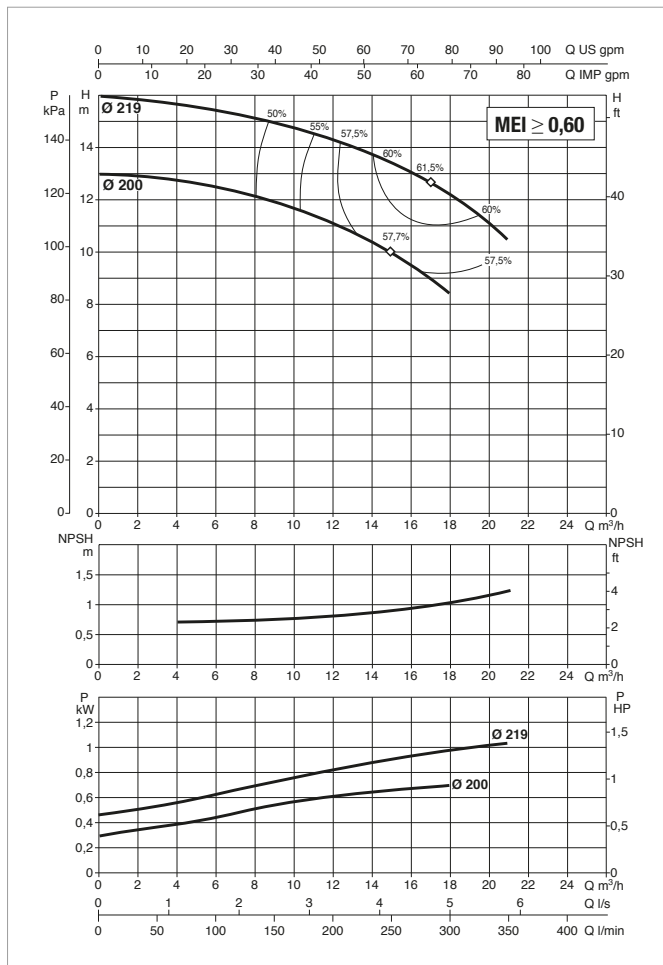
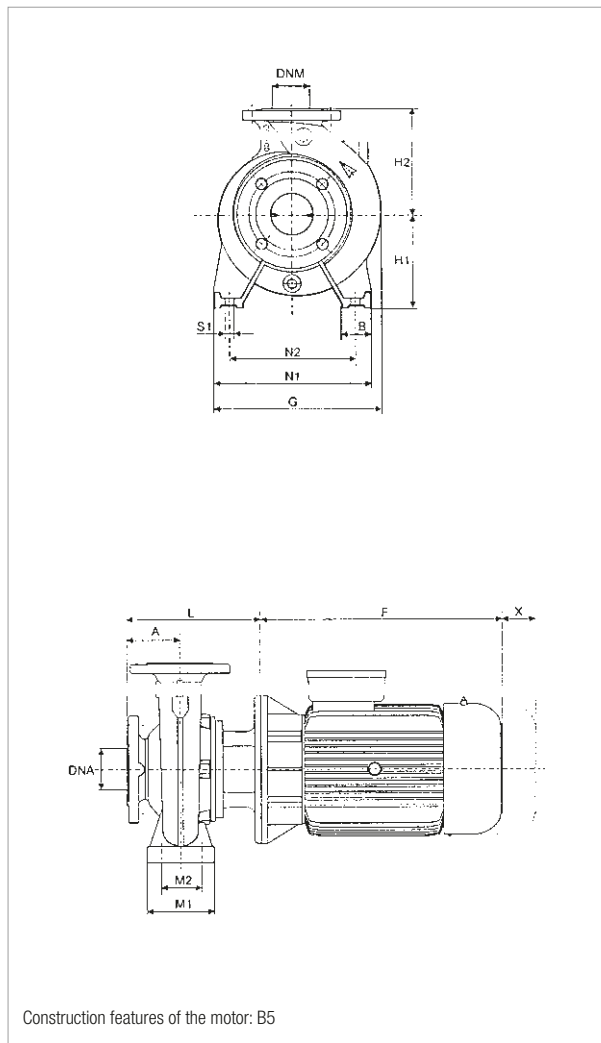
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 32-200.1/200/0.55/4	MEC 80	230/400 V	0.55	0.75	2.6/1.5	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 32-200.1/200/0.55/4	80	50	234	-	279	160	180	226	100	70	240	190	M10	100	28	50	32	620	370	480	0.110	51	-

NKM-G 32-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

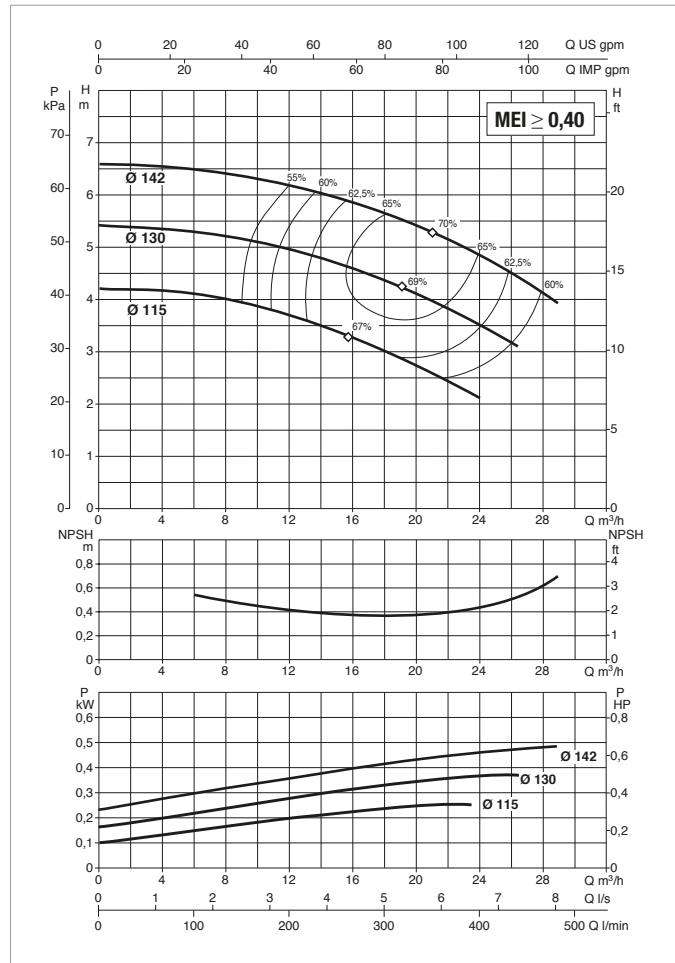
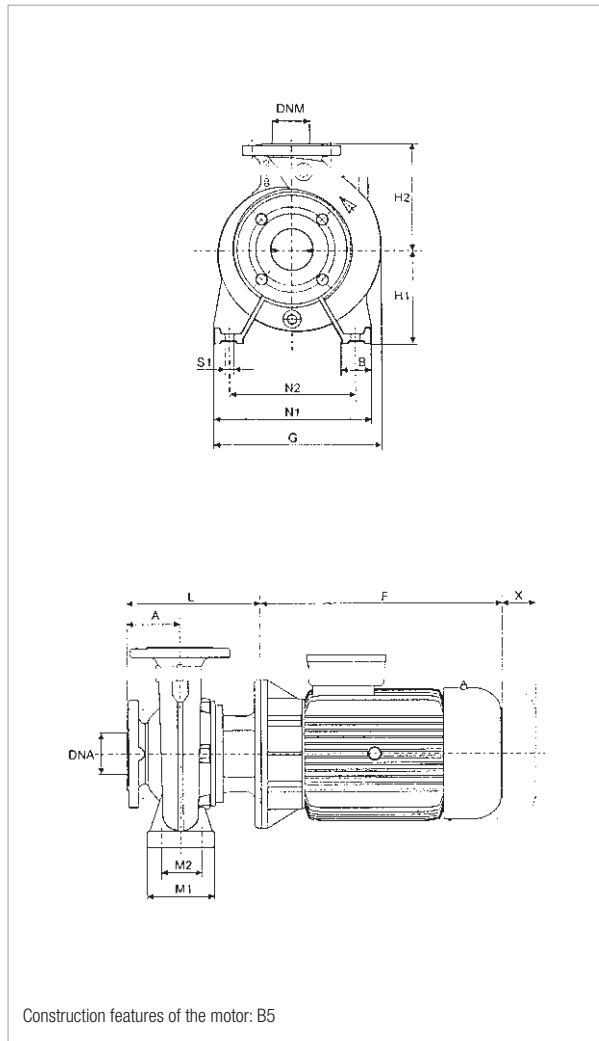
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 32-200/200/ 0,75/4	MEC 80	230/400 V	0.75	1	3.57/2.06	-	IE2
NKM-G 32-200/219/ 1,1 /4	MEC 90 S	230/400 V	1.1	1.5	4.68/2.7	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 32-200/200/ 0,75/4	80														50	234	-		279	160
NKM-G 32-200/219/ 1,1 /4	80	50	247	-	279	160	180	226	100	70	240	190	M10	100	28	50	32	620	370	480	0.110	62	-

NKM-G 40-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

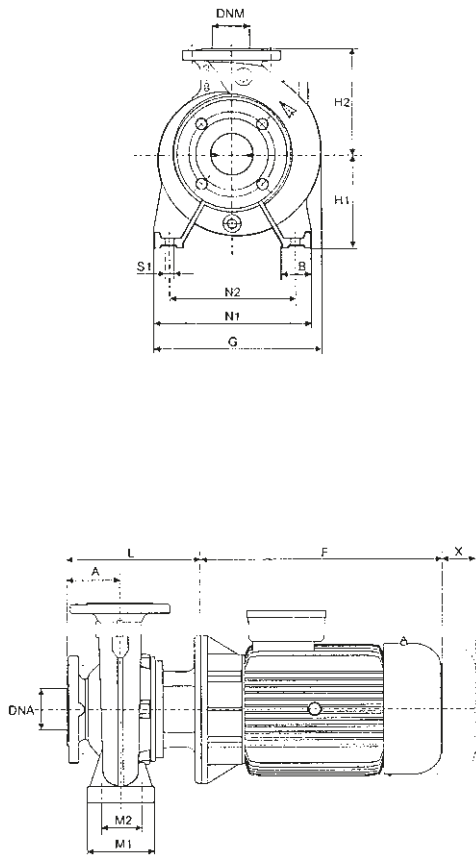
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 40-125/115/ 0.25/4	MEC 71	230/400 V	0.25	0.33	1.6/0.11	-	IE2
NKM-G 40-125/130/ 0.37/4	MEC 71	230/400 V	0.37	0.5	1.7/0.98	-	IE2
NKM-G 40-125/142/ 0.55/4	MEC 80	230/400 V	0.55	0.75	2.6/1.5	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 40-125/115/ 0.25/4	80	50	208	-	235	112	140	201	100	70	210	160	M10	100	28	65	40	620	370	480	0.110	37	-
NKM-G 40-125/130/ 0.37/4	80	50	208	-	235	112	140	201	100	70	210	160	M10	100	28	65	40	620	370	480	0.110	40	-
NKM-G 40-125/142/ 0.55/4	80	50	234	-	235	112	140	201	100	70	210	160	M10	100	28	65	40	620	370	480	0.110	47	-

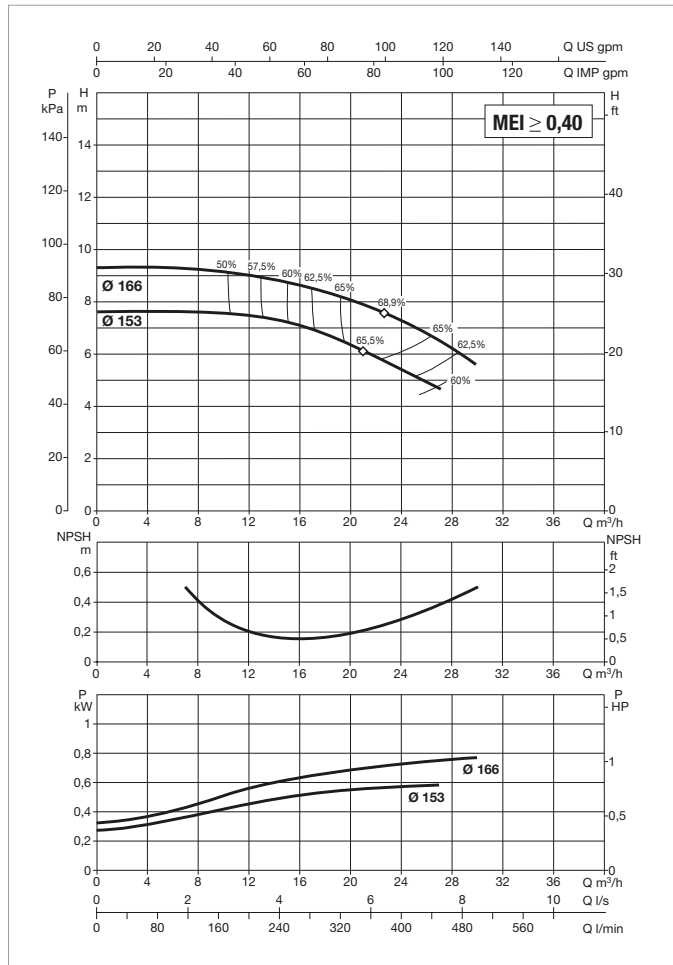
NKM-G 40-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

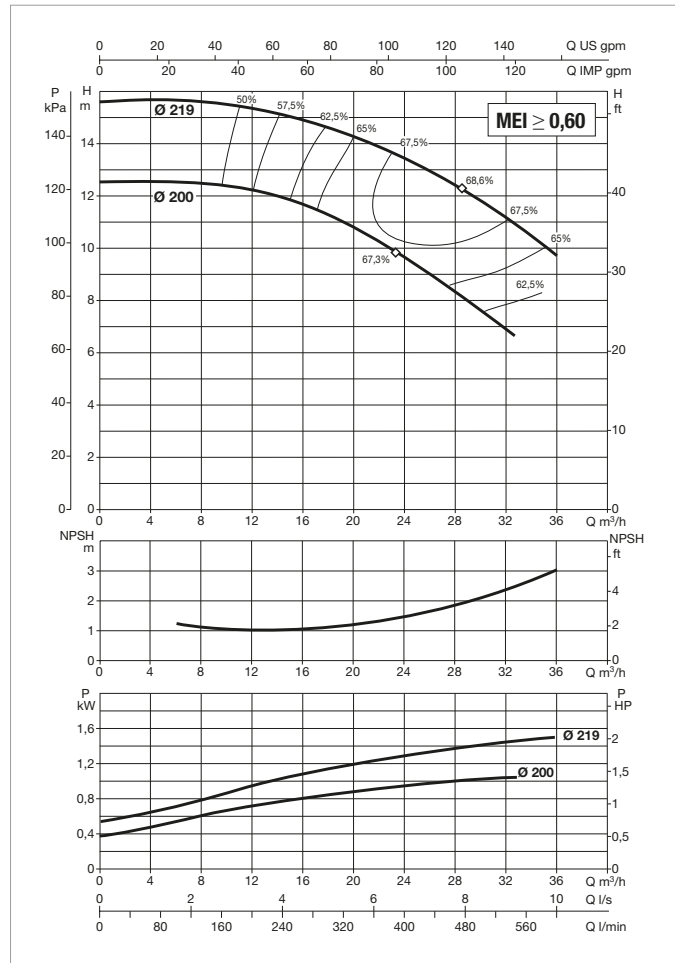
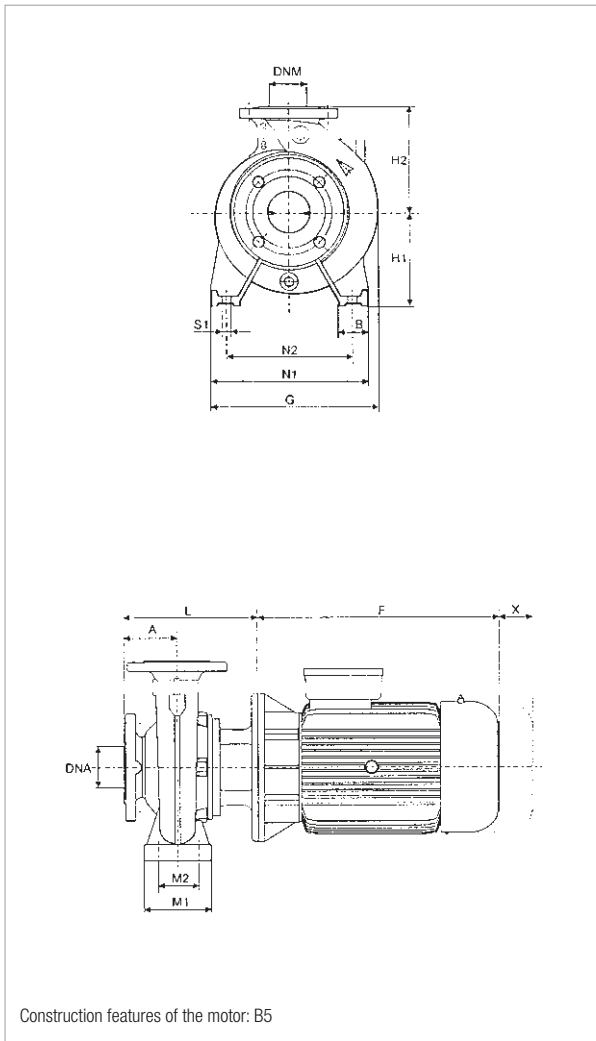
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 40-160/153/ 0.55/4	MEC 80	230/400 V	0.55	0.75	2.6/1.5	-	IE2
NKM-G 40-160/166/ 0.75/4	MEC 80	230/400 V	0.75	1	3.57/2.06	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 40-160/153/ 0.55/4	80	50	234	-	253	132	160	226	100	70	240	190	M10	100	28	65	40	620	370	480	0.110	48	-
NKM-G 40-160/166/ 0.75/4	80	50	234	-	253	132	160	226	100	70	240	190	M10	100	28	65	40	620	370	480	0.110	50	-

NKM-G 40-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

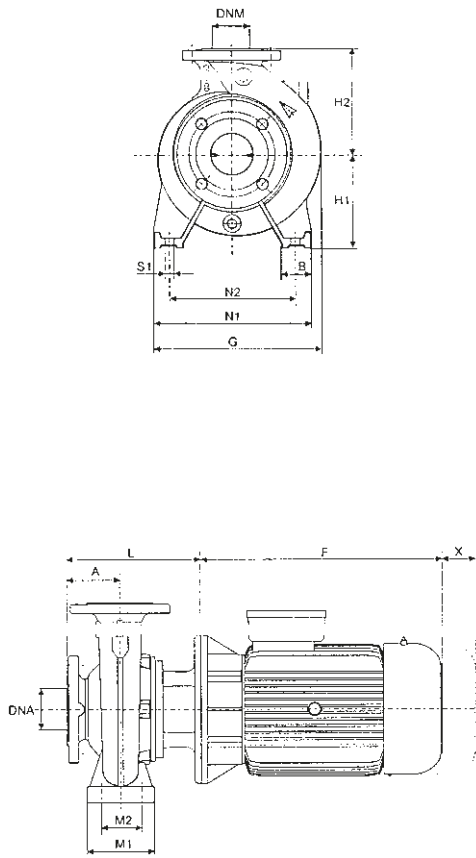
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 40-200/200/ 1,1 /4	MEC 90 S	230/400 V	1.1	1.5	4.68/2.7	-	IE2
NKM-G 40-200/219/ 1,5 /4	MEC 90 L	230/400 V	1.5	2	6.24/3.6	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 40-200/200/ 1,1 /4	100	50	247	-	296	160	180	246	100	70	265	212	M10	100	28	65	40	620	370	480	0.110	64	-
NKM-G 40-200/219/ 1,5 /4	100	50	272	-	296	160	180	246	100	70	265	212	M10	100	28	65	40	620	370	480	0.110	66	-

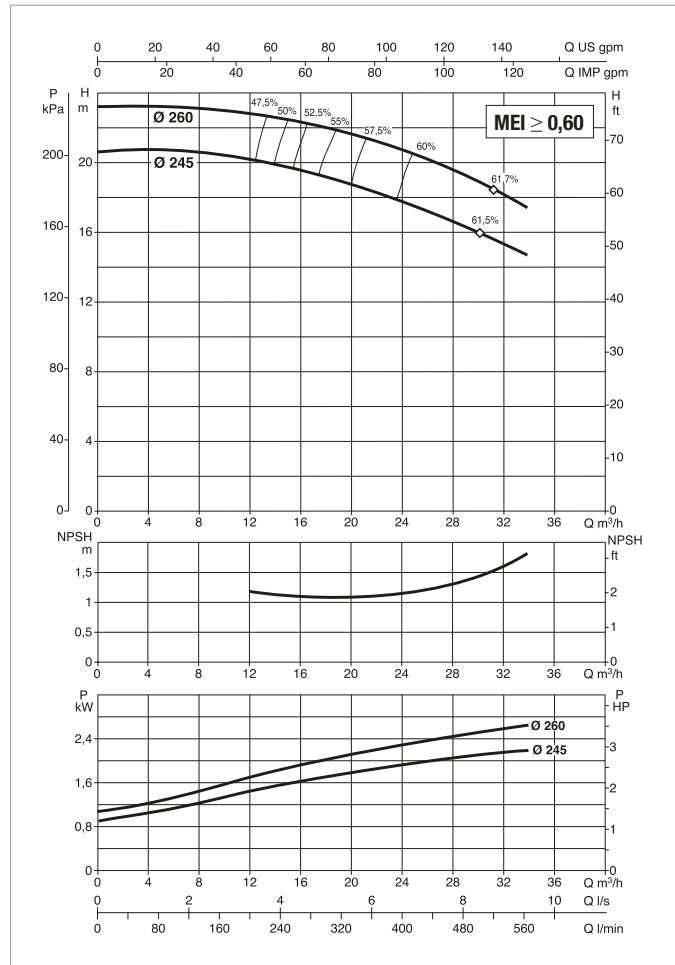
NKM-G 40-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

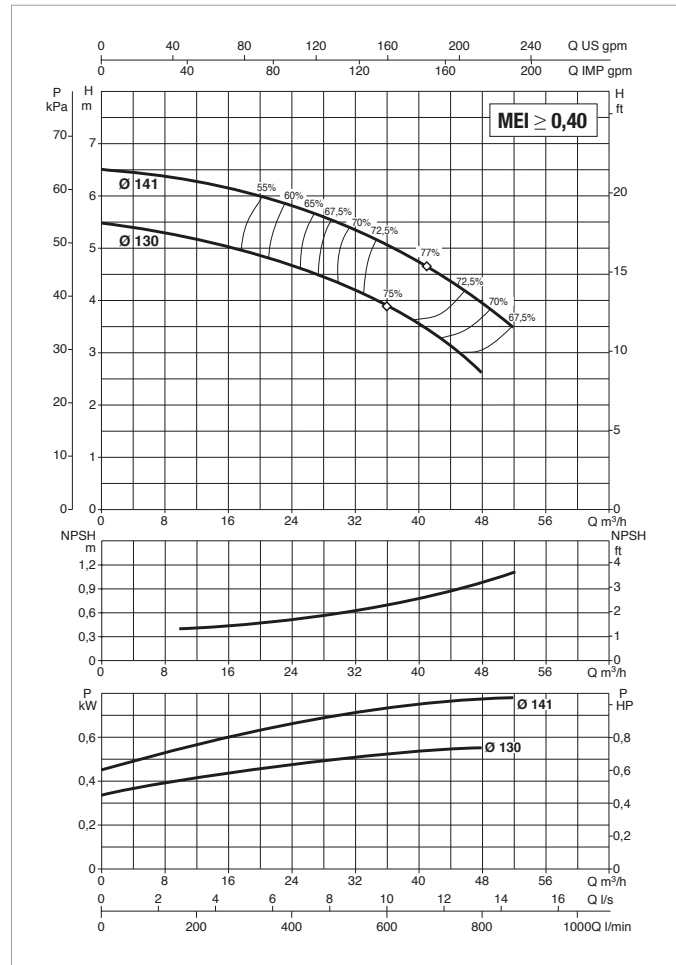
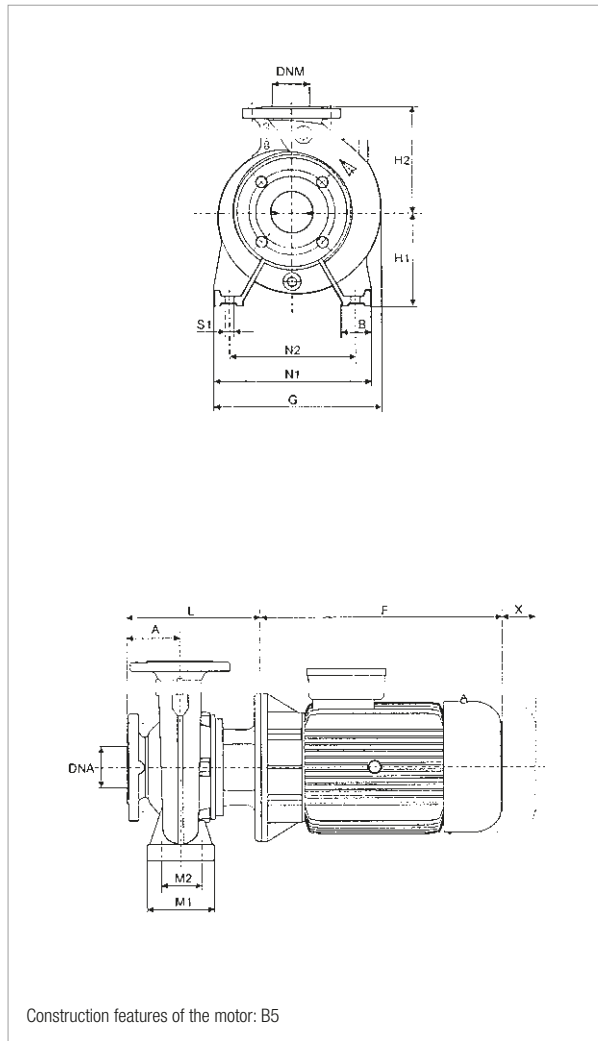
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 40-250/245/ 2,2 /4	MEC 100 L	230/400 V	2.2	3	8.75/5.05	-	IE2
NKM-G 40-250/260/ 3 /4	MEC 100 L	400 V Δ	3	4	6.25	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 40-250/245/ 2,2 /4	100														65	301	-		336	180
NKM-G 40-250/260/ 3 /4	100	65	301	-	336	180	225	274	125	95	320	250	M10	100	28	65	40	670	420	540	0.152	89	-

NKM-G 50-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

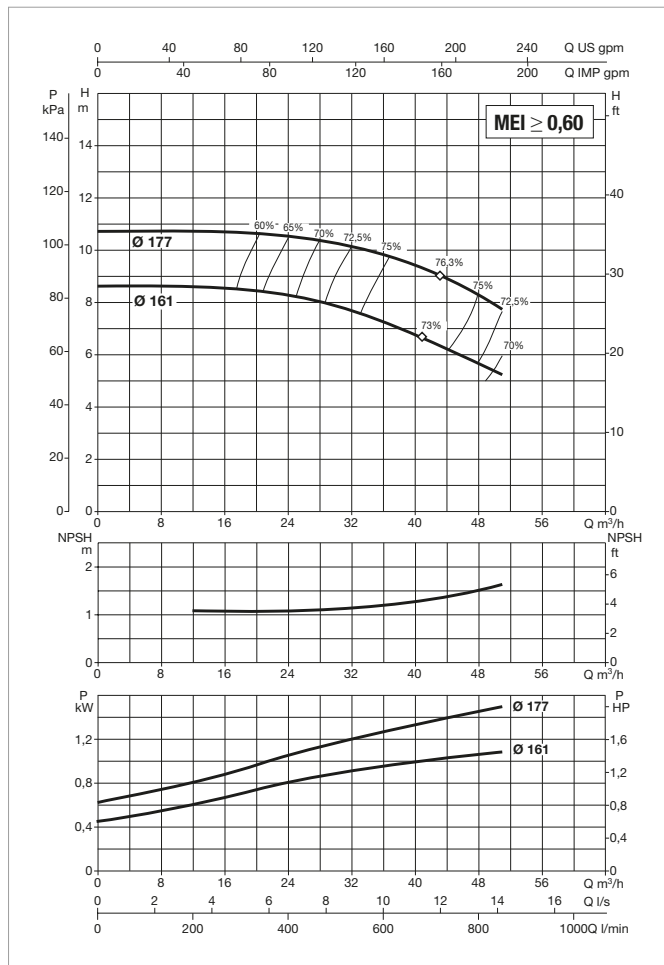
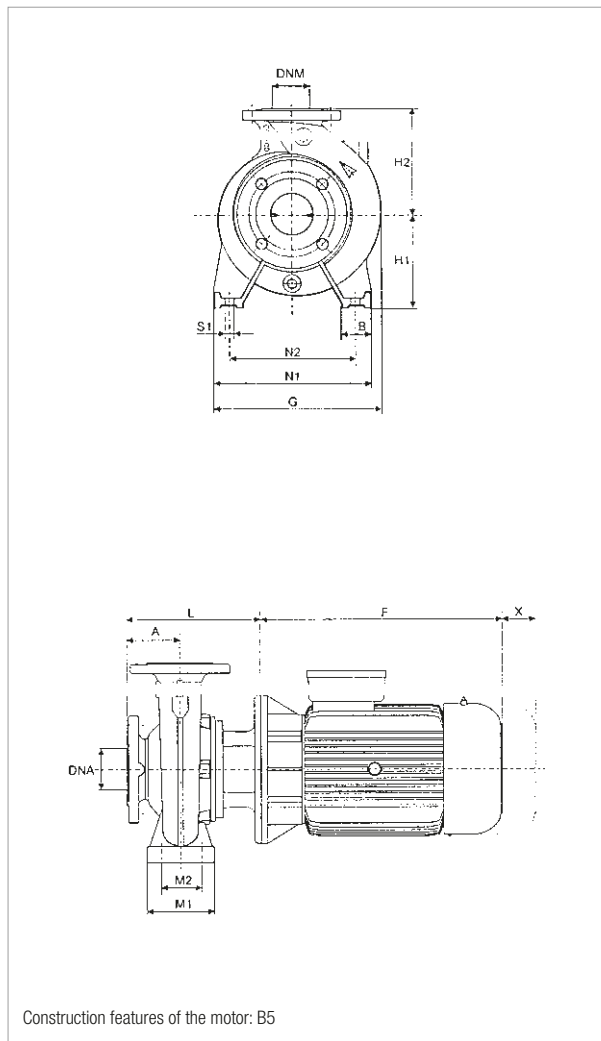
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 50-125/130/ 0.55/4	MEC 71	230/400 V	0.55	0.75	2.6/1.5	-	IE2
NKM-G 50-125/141/ 0.75/4	MEC 80	230/400 V	0.75	1	3.57/2.06	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 50-125/130/ 0.55/4	100														50	234	-		250	132
NKM-G 50-125/141/ 0.75/4	100	50	234	-	250	132	160	246	100	70	240	190	M10	100	28	65	50	620	370	480	0.110	51	-

NKM-G 50-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

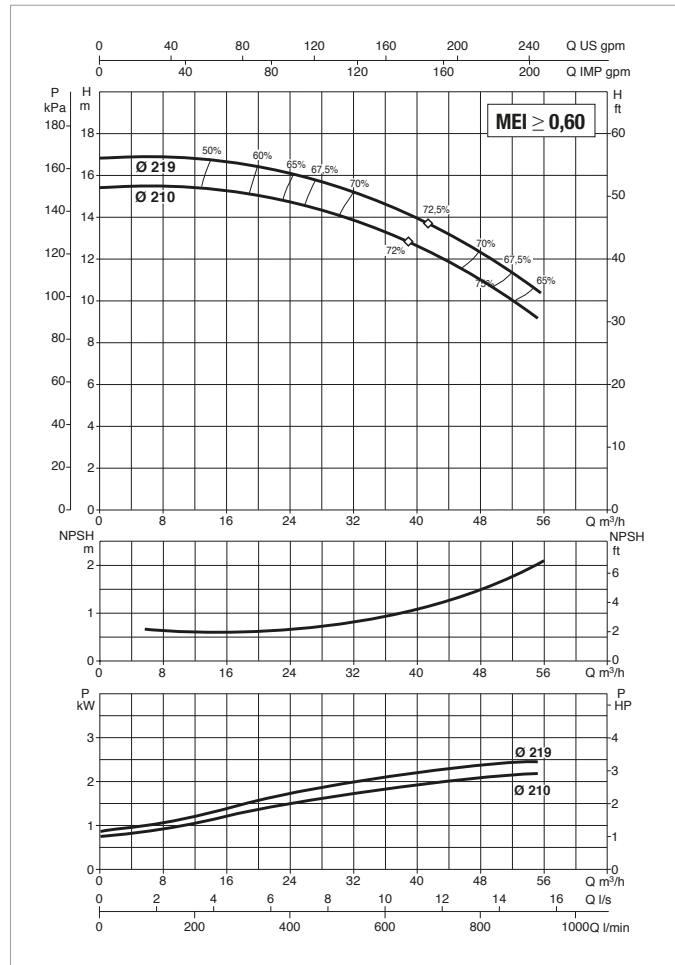
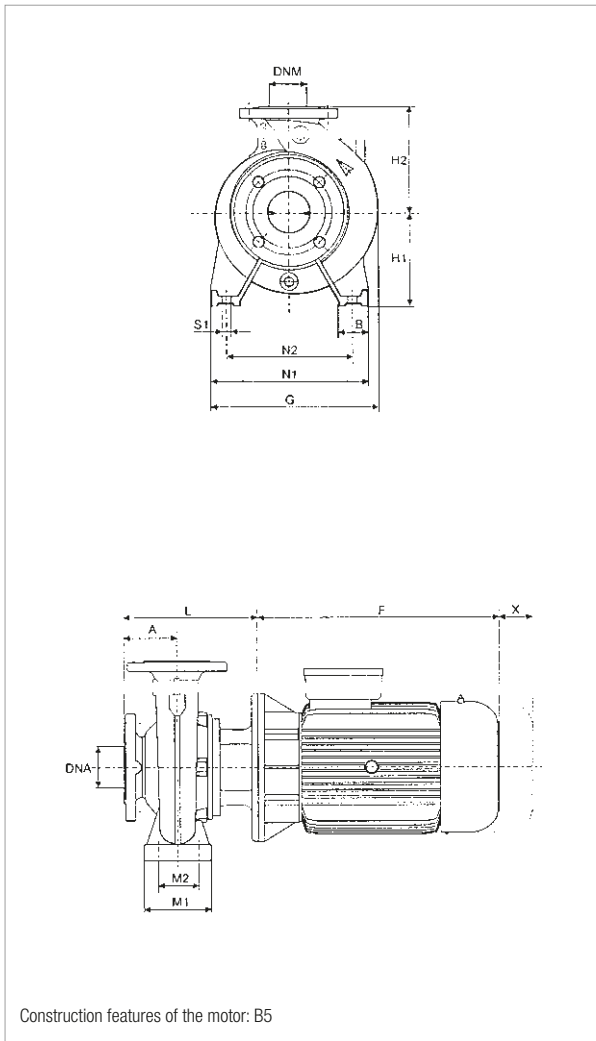
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 50-160/161/ 1.1 /4	MEC 90 S	230/400 V	1.1	1.5	4.68/2.7	-	IE2
NKM-G 50-160/177/ 1,5 /4	MEC 90 L	230/400 V	1.5	2	6.24/3.6	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 50-160/161/ 1.1 /4	100	50	247	-	282	160	180	274	100	70	265	212	M10	100	28	65	50	620	370	480	0.110	58	-
NKM-G 50-160/177/ 1,5 /4	100	50	272	-	282	160	180	274	100	70	265	212	M10	100	28	65	50	620	370	480	0.110	60	-

NKM-G 50-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

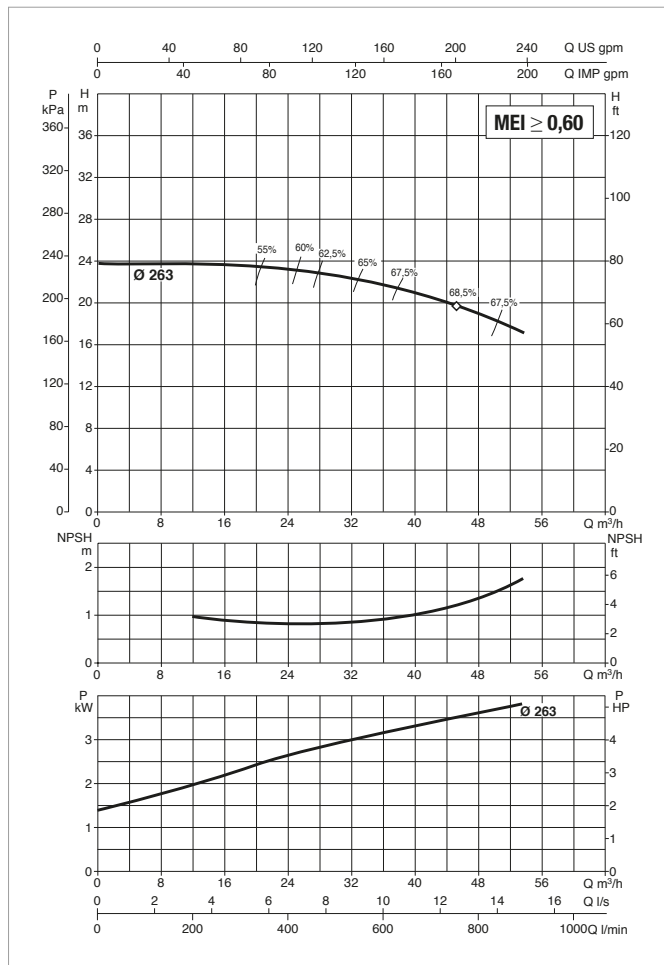
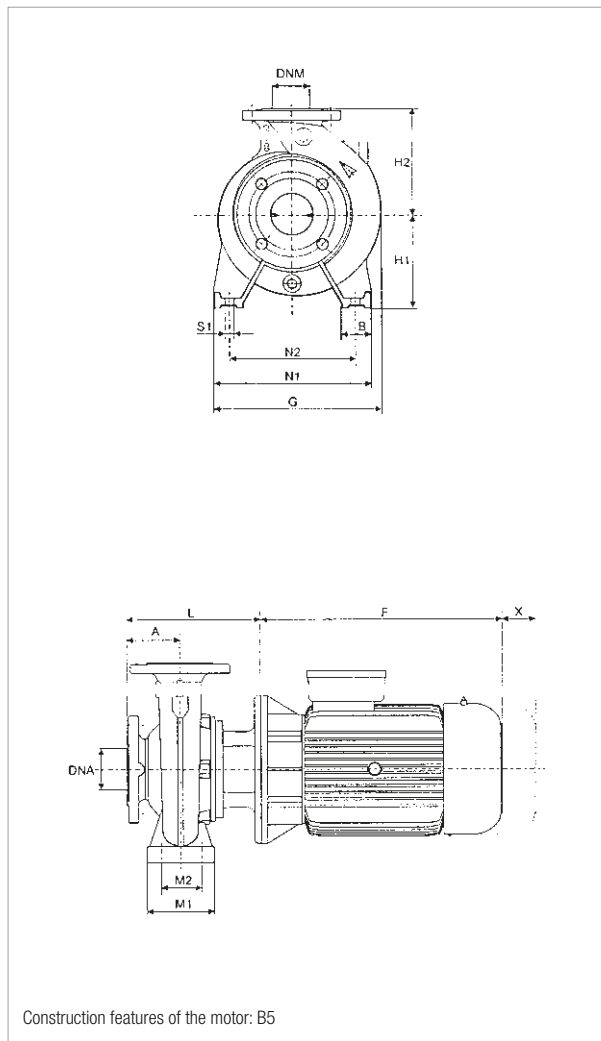
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 50-200/210/ 2,2 /4	MEC 100 L	230/400 V	2.2	3	8.75/5.05	-	IE2
NKM-G 50-200/219/ 3 /4	MEC 100 L	400 V Δ	3	4	6.25	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 50-200/210/ 2,2 /4	100	50	301	-	302	160	200	274	100	70	265	212	M10	100	28	65	50	670	420	540	0.152	79	-
NKM-G 50-200/219/ 3 /4	100	50	301	-	302	160	200	274	100	70	265	212	M10	100	28	65	50	670	420	540	0.152	81	-

NKM-G 50-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

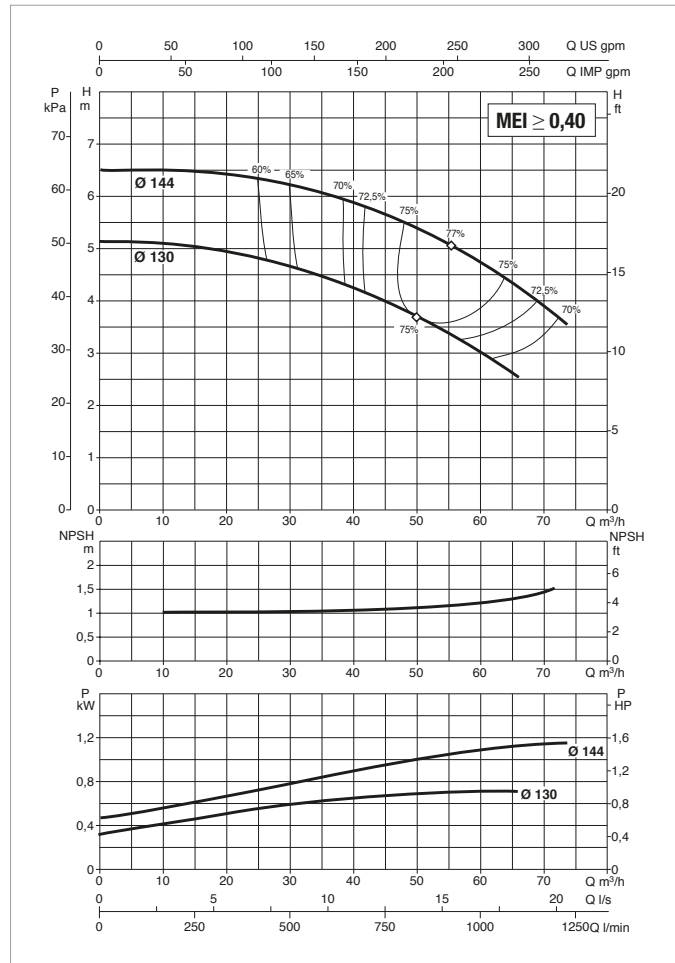
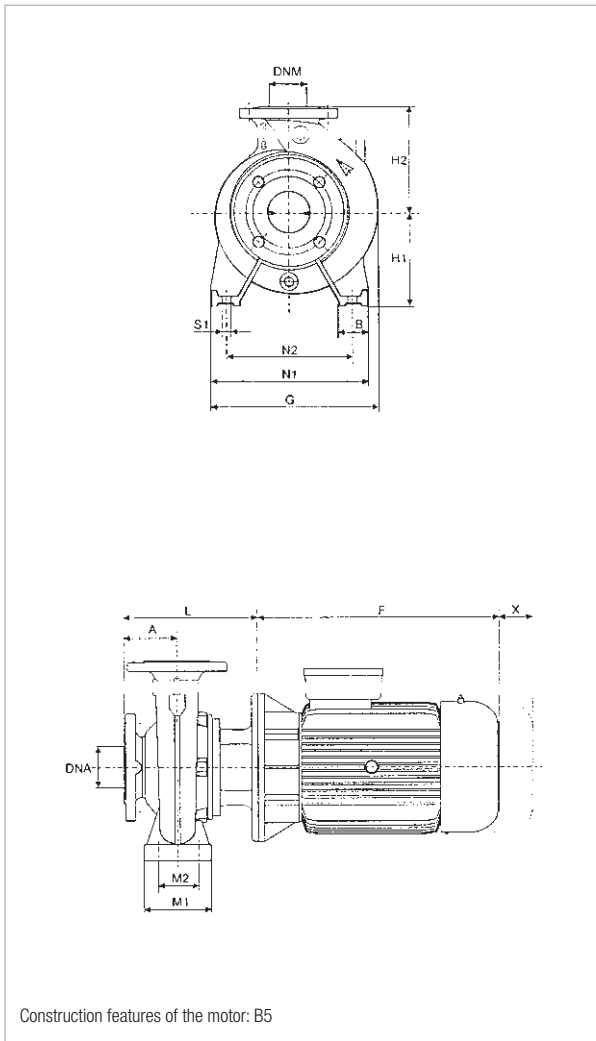
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G 50-250/263/ 4 /4	MEC 112 M	400 V Δ	4	5.5	7.95	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 50-250/263/ 4 /4	100														65	301	-		343	180

NKM-G 65-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

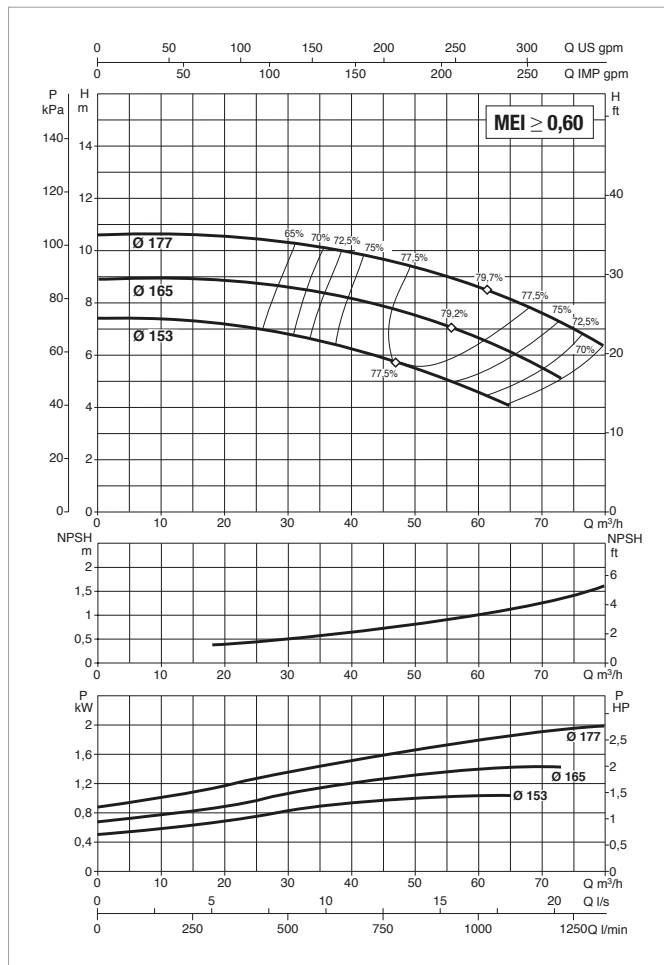
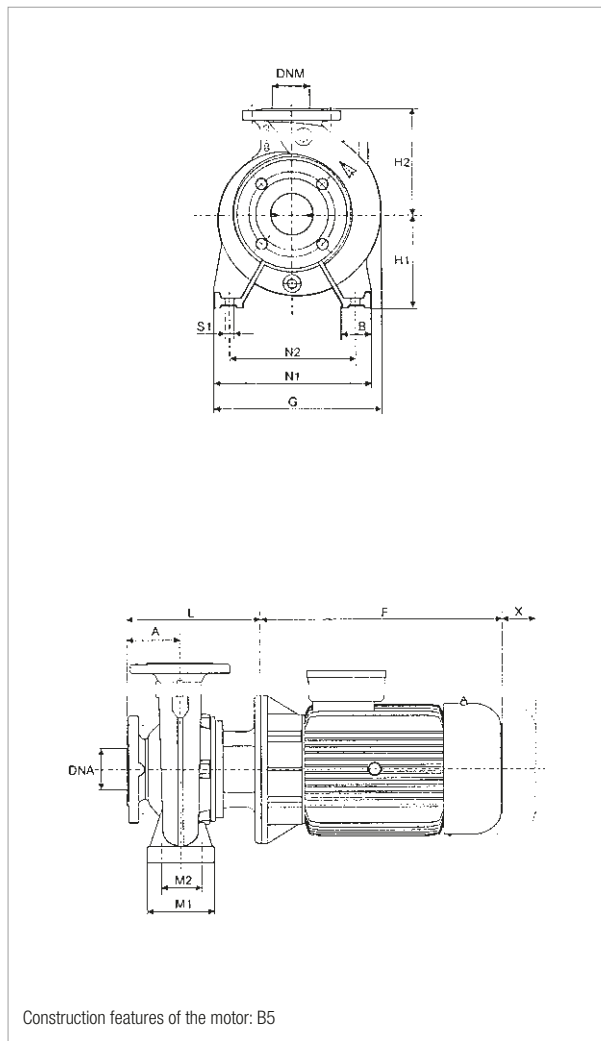
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 65-125/130/ 0.75/4	MEC 80	230/400 V	0.75	1	3.57/2.06	-	IE2
NKM-G 65-125/144/ 1.1 /4	MEC 90 S	230/400 V	1.1	1.5	4.68/2.7	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 65-125/130/ 0.75/4	100	65	234	-	286	160	180	246	125	95	280	212	M10	100	28	80	65	620	370	480	0.110	55	-
NKM-G 65-125/144/ 1.1 /4	100	65	247	-	286	160	180	246	125	95	280	212	M10	100	28	80	65	620	370	480	0.110	61	-

NKM-G 65-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

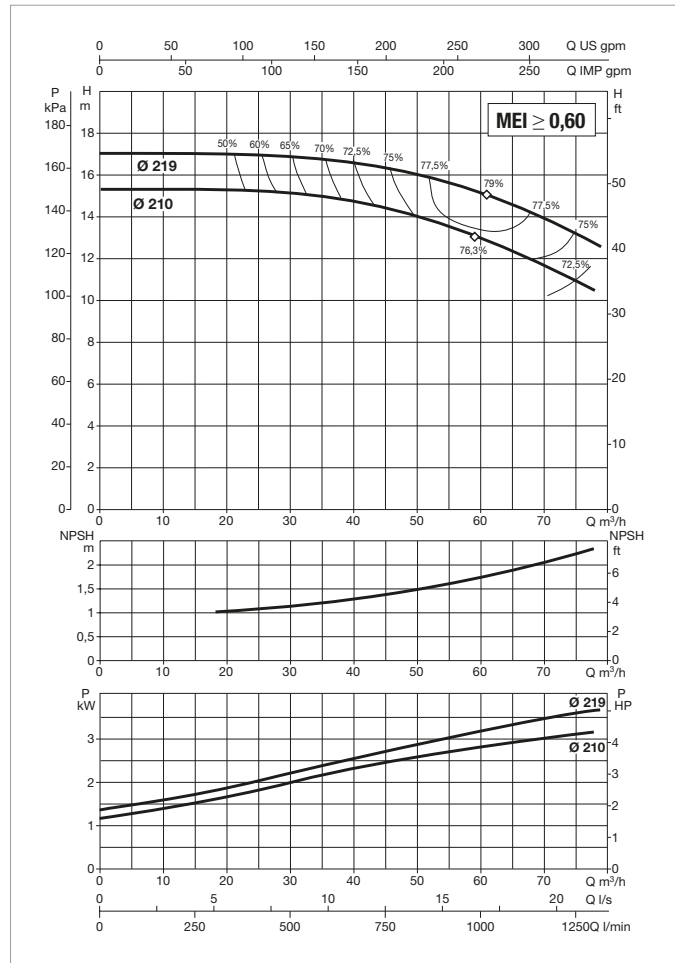
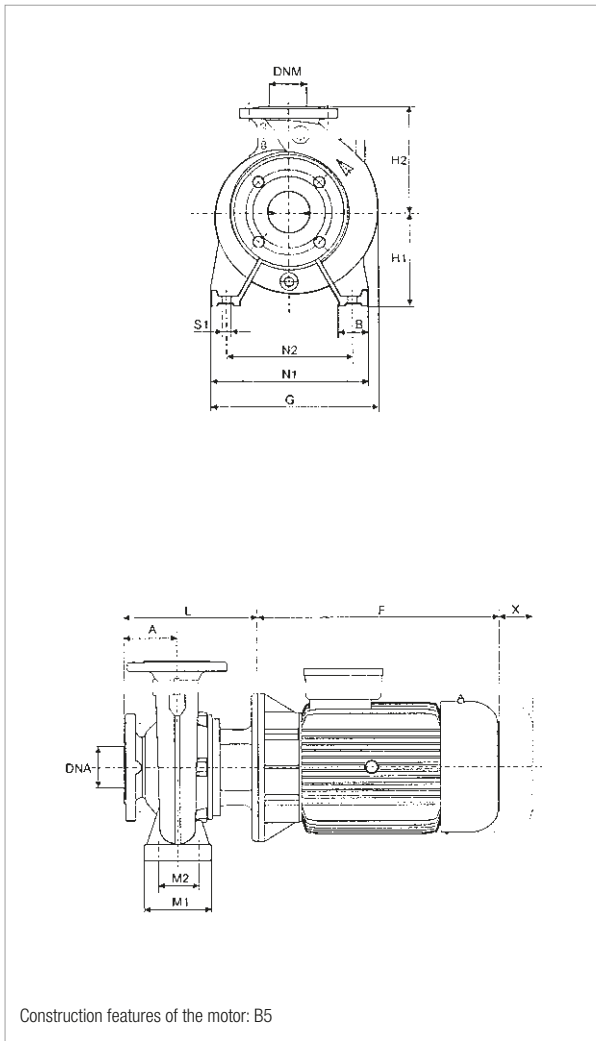
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 65-160/153/ 1,1 /4	MEC 90 S	230/400 V	1.1	1.5	4.68/2.7	-	IE2
NKM-G 65-160/165/ 1,5 /4	MEC 90 L	230/400 V	1.5	2	6.24/3.6	-	IE2
NKM-G 65-160/177/ 2,2 /4	MEC 100 L	230/400 V	2.2	3	8.75/5.05	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 65-160/153/ 1,1 /4	100	65	247	-	302	160	200	246	125	95	280	212	M10	100	28	80	65	670	420	540	0.152	63	-
NKM-G 65-160/165/ 1,5 /4	100	65	272	-	302	160	200	246	125	95	280	212	M10	100	28	80	65	670	420	540	0.152	64	-
NKM-G 65-160/177/ 2,2 /4	100	65	301	-	302	160	200	274	125	95	280	212	M10	100	28	80	65	670	420	540	0.152	76	-

NKM-G 65-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

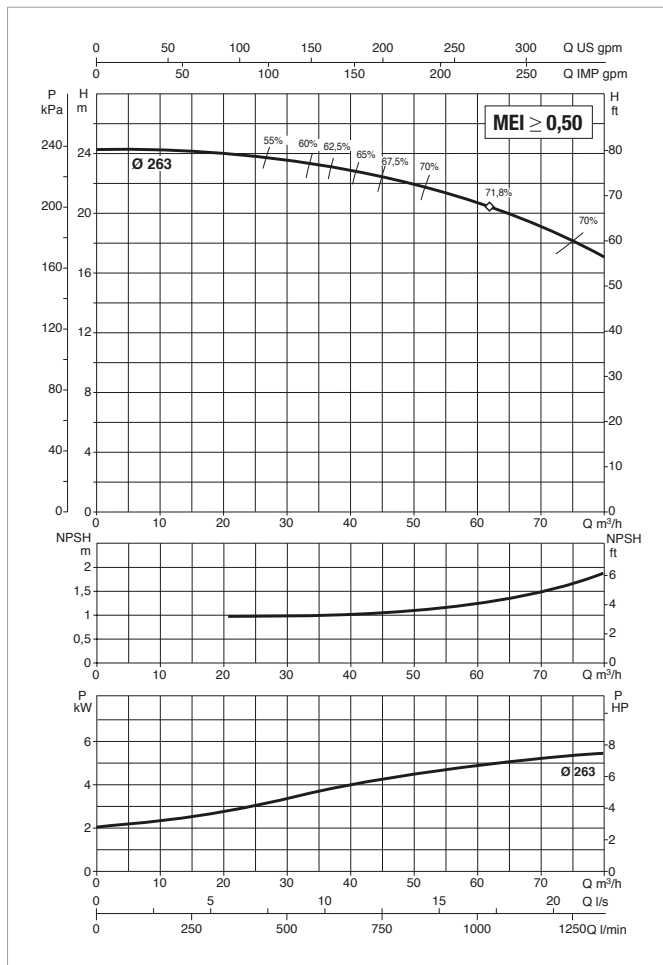
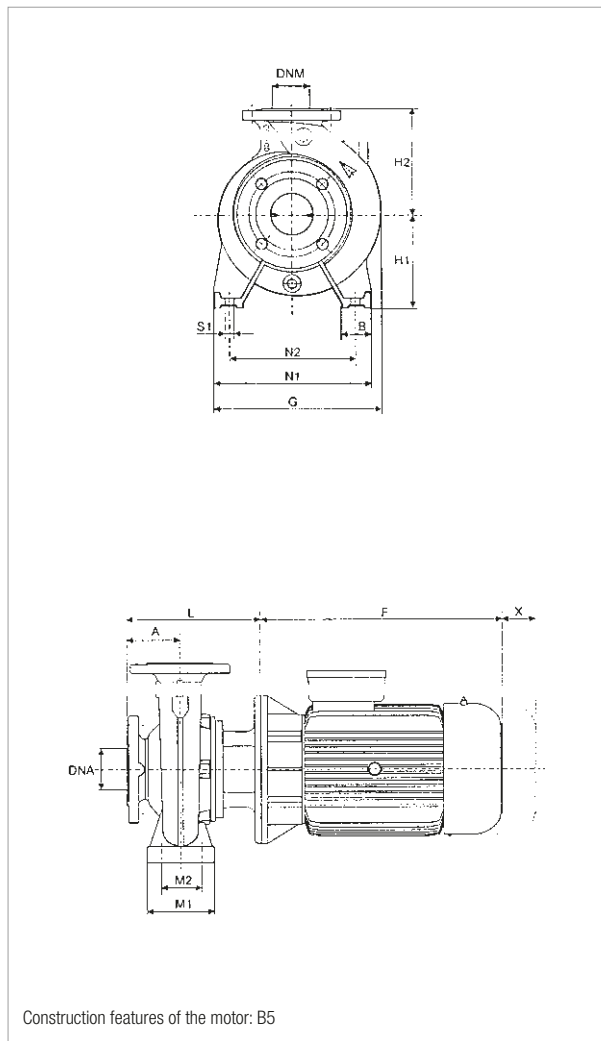
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G 65-200/210/ 3 /4	MEC 100 L	400 V Δ	3	4	6.25	-	IE2
NKM-G 65-200/219/ 4 /4	MEC 112 M	400 V Δ	4	5.5	7.95	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 65-200/210/ 3 /4	100														65	301	-		333	180
NKM-G 65-200/219/ 4 /4	100	65	301	-	333	180	225	274	125	95	320	250	M10	140	28	80	65	670	420	540	0.152	96	-

NKM-G 65-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

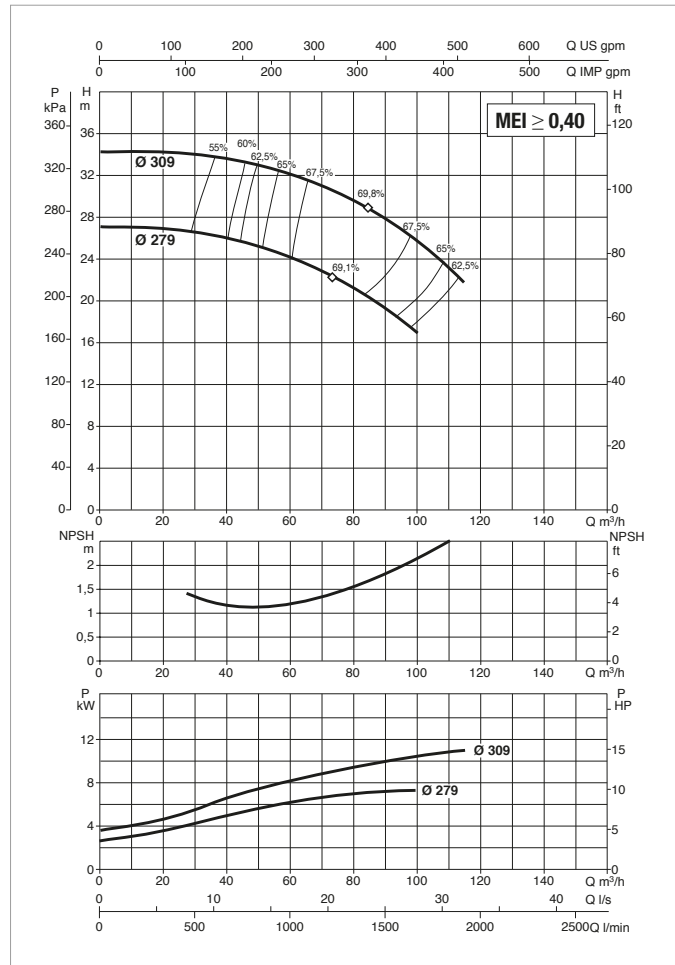
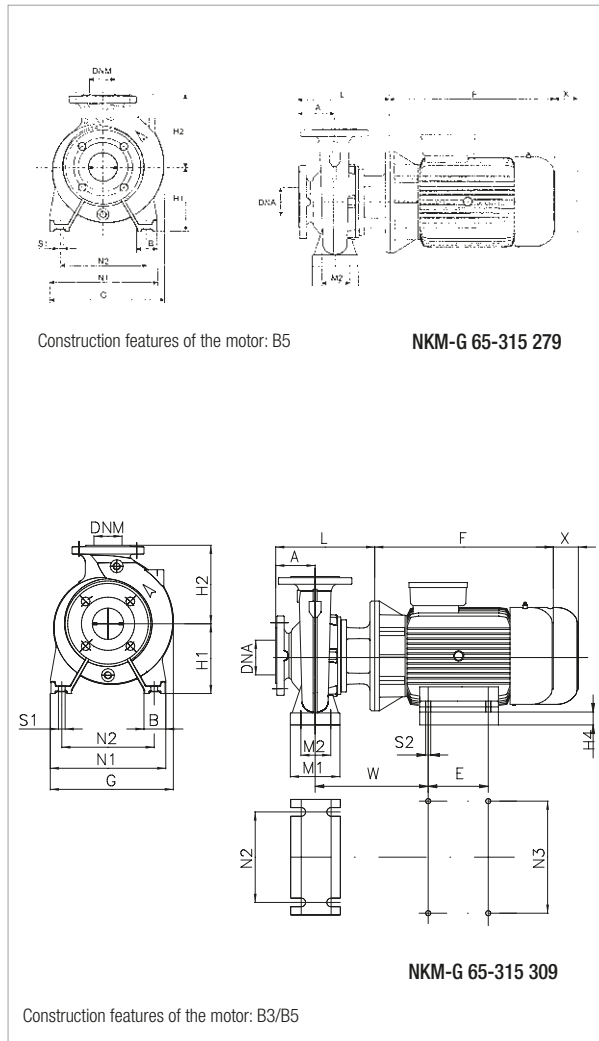
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 65-250/263/ 5,5 /4	MEC132 S	400 V Δ	5.5	7.5	10.6	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 65-250/263/ 5,5 /4	100														80	390	-		370	200

NKM-G 65-315- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



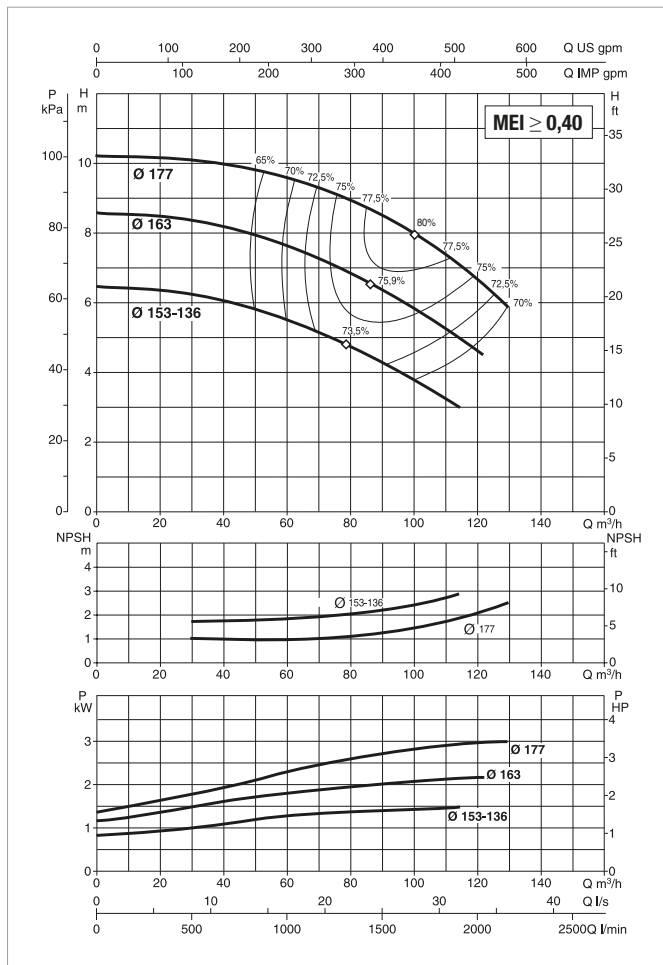
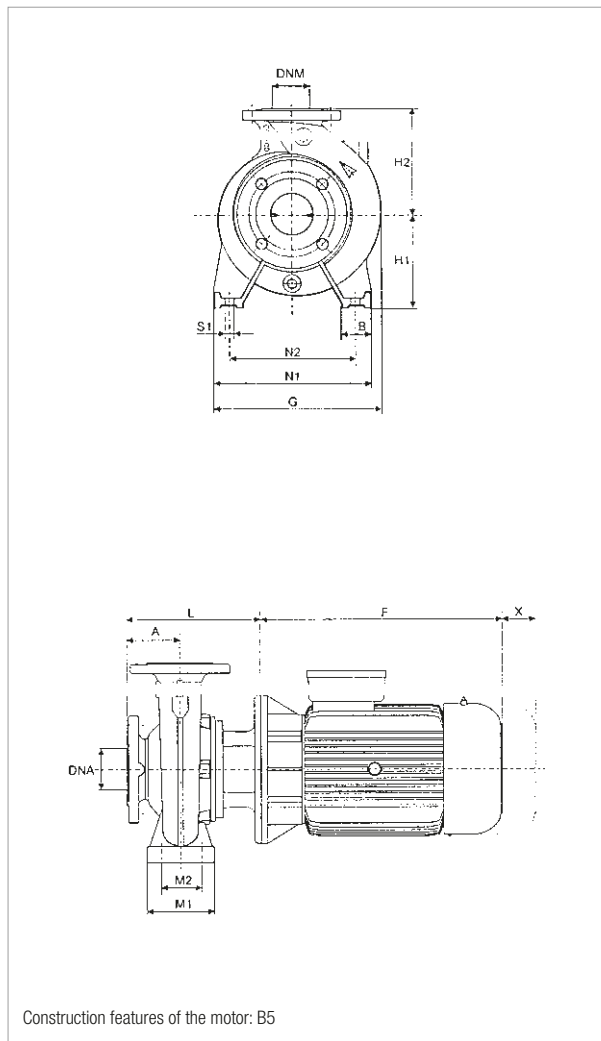
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G 65-315/279/ 7,5 /4	MEC 132 M	400 V Δ	7.5	10	14.2	14.6	IE2 / IE3
NKM-G 65-315/309/11 /4	MEC 160 M	400 V Δ	11	15	21.6	20.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
				NKM-G 65-315/279/ 7,5 /4	125																		80	-	430		437	429
NKM-G 65-315/309/11 /4	125	80	210	505	505	429	225	280	398	160	120	400	315	254	M14	M12	402	140	65	38	80	65	1030	530	640	0.349	206	231

NKM-G 80-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

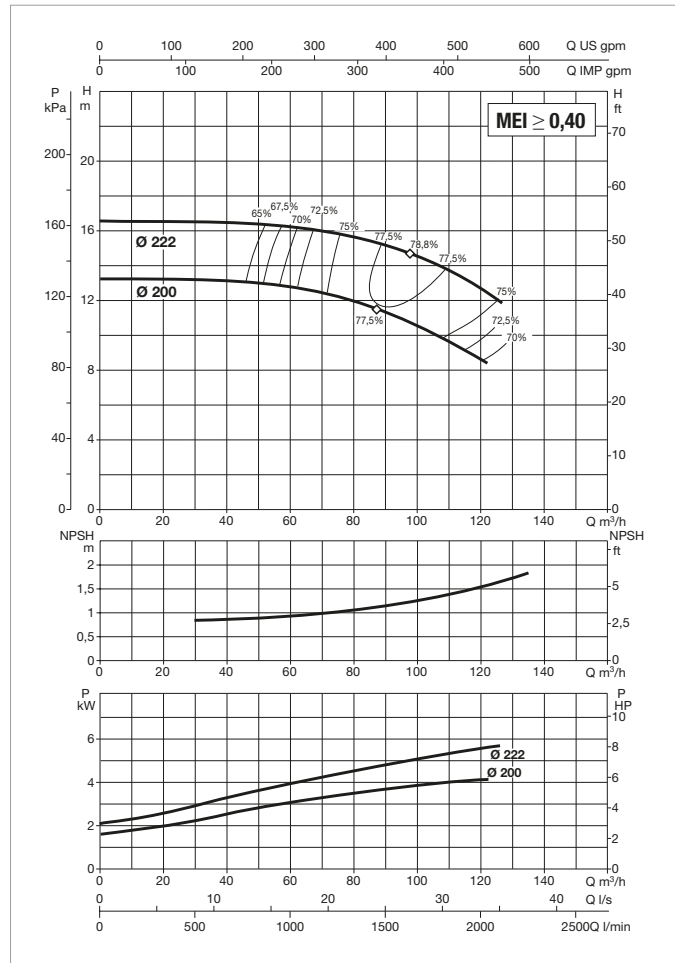
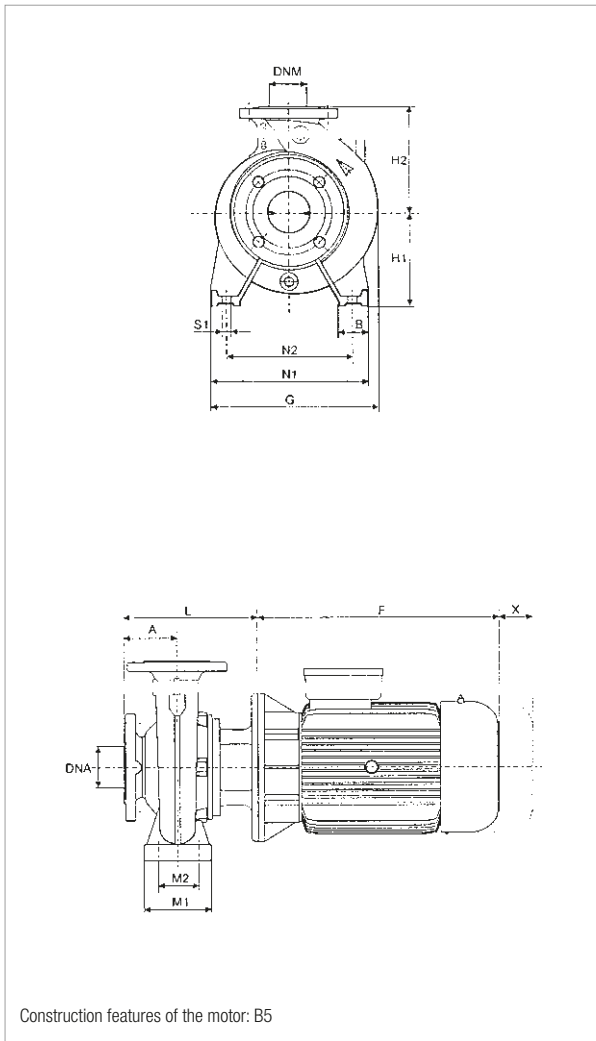
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G 80-160/153-136/1.5/4	MEC 90 L	230/400 V	1.5	2	6.24/3.6	-	IE2
NKM-G 80-160/163/ 2,2 /4	MEC 100 L	230/400 V	2.2	3	8.75/5.05	-	IE2
NKM-G 80-160/177/ 3 /4	MEC 100 L	400 V Δ	3	4	6.25	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G 80-160/153-136/1.5/4	125	65	272	-	342	180	225	299	125	95	320	250	M10	140	28	100	80	670	420	540	0.152	83	-
NKM-G 80-160/163/ 2,2 /4	125	65	301	-	342	180	225	299	125	95	320	250	M10	140	28	100	80	670	420	540	0.152	83	-
NKM-G 80-160/177/ 3 /4	125	65	301	-	342	180	225	299	125	95	320	250	M10	140	28	100	80	670	420	540	0.152	87	-

NKM-G 80-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

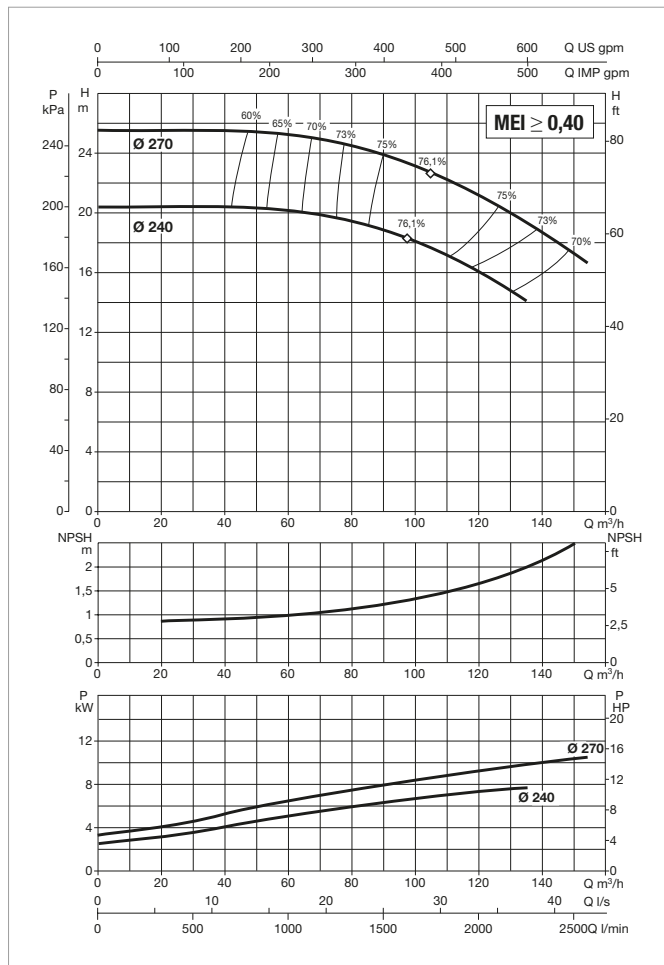
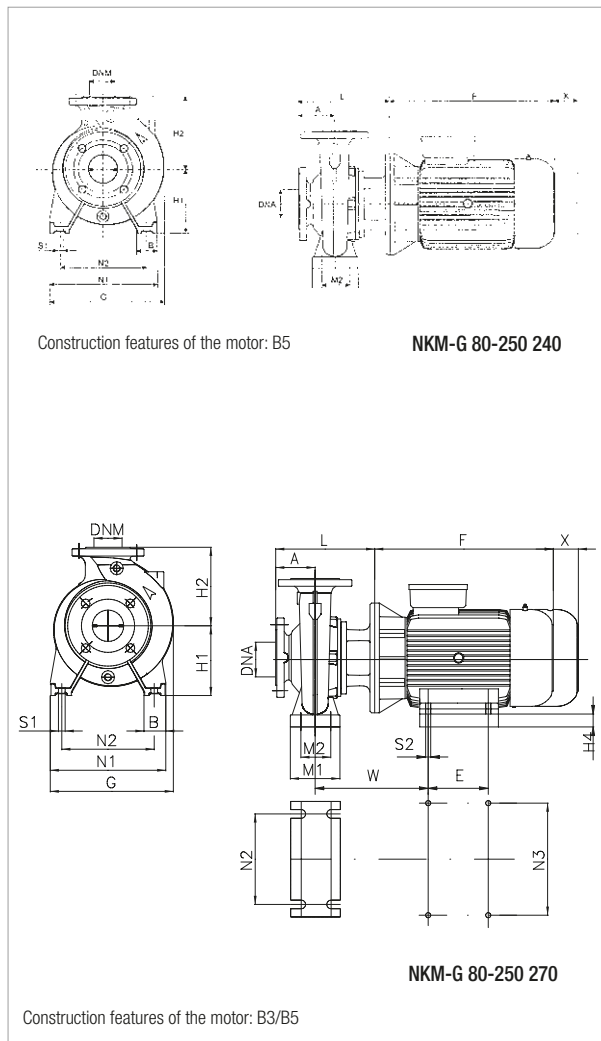
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 80-200/200/ 4 /4	MEC 112 M	400 V Δ	4	5.5	7.95	-	IE2
NKM-G 80-200/222/ 5,5 /4	MEC 132 S	400 V Δ	5.5	7.5	10.6	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
			NKM-G 80-200/200/ 4 /4	125														65	301	-		365	180
NKM-G 80-200/222/ 5,5 /4	125	65	390	-	365	180	250	368	125	95	345	280	M10	140	38	100	80	1030	530	640	0.349	147	-

NKM-G 80-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



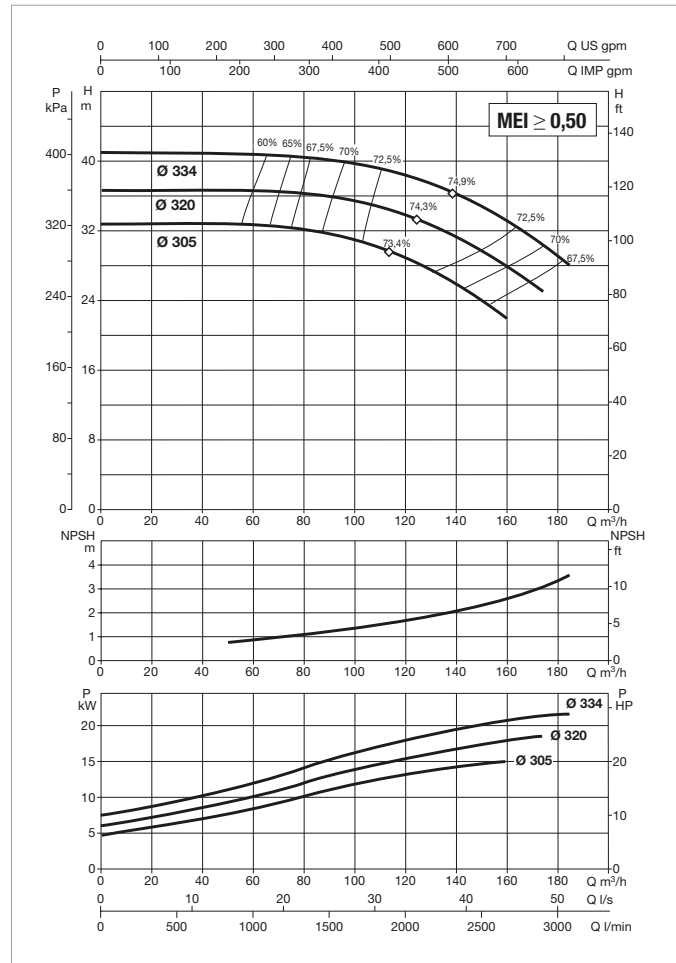
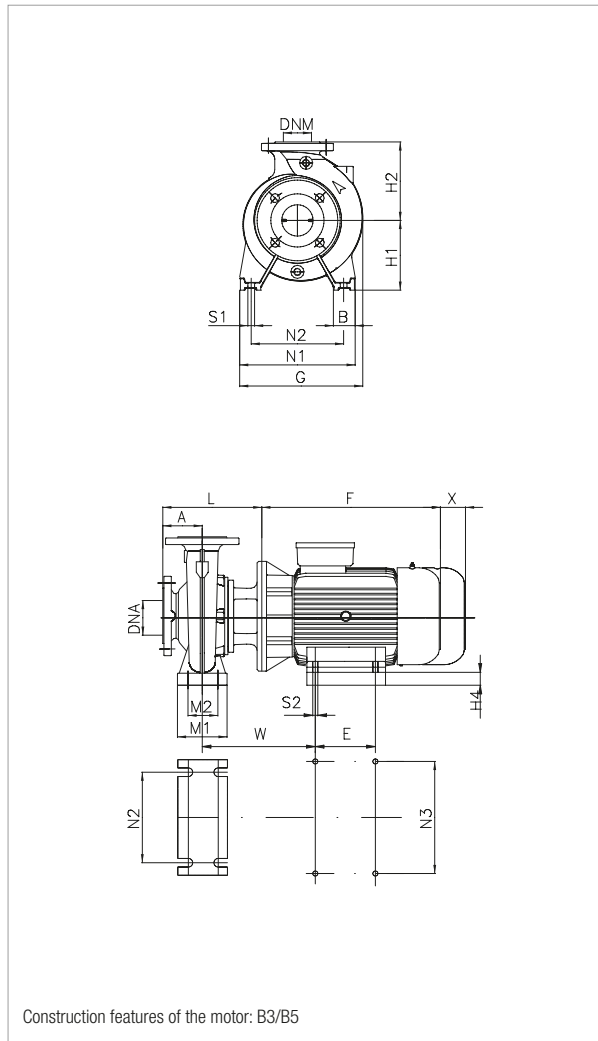
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 80-250/240/ 7,5 /4	MEC 132 M	400 V Δ	7.5	10	14.2	14.6	IE2 / IE3
NKM-G 80-250/270/11 /4	MEC 160 M	400 V Δ	11	15	21.6	20.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
NKM-G 80-250/240/ 7,5 /4	125	80	-	430	437	410	200	280	368	160	120	400	315	-	M14	-	-	140	-	38	100	80	1030	530	640	0.349	152	153
NKM-G 80-250/270/11 /4	125	80	210	505	505	410	200	280	398	160	120	400	315	254	M14	M12	381	140	40	38	100	80	1030	530	640	0.349	180	205

NKM-G 80-315- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

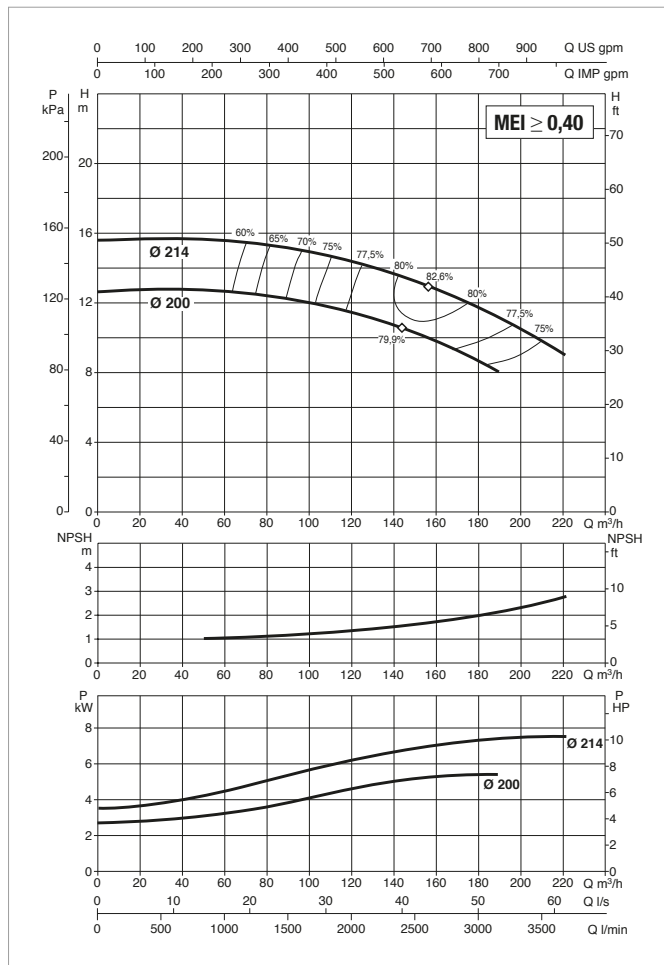
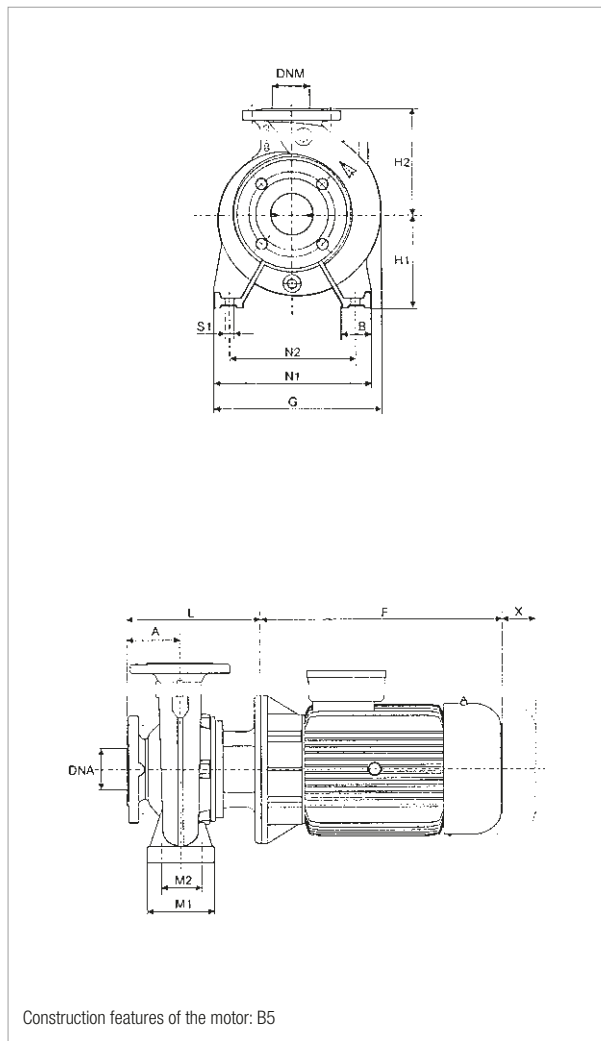
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 80-315/305/15 /4	MEC 160 L	400 V Δ	15	20	29	28	IE2 / IE3
NKM-G 80-315/320/18,5 /4	MEC 180 M	400 V Δ	18.5	25	33	34	IE2 / IE3
NKM-G 80-315/334/22 /4	MEC 180 L	400 V Δ	22	30	40	40.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H4	Ø (mm) Mech. seal	DNA	DNN	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
NKM-G 80-315/305/15 /4	125	80	254	560	548	460	250	315	398	160	120	400	315	254	M14	M12	402	140	90	38	100	80	1130	580	740	0.485	227	263
NKM-G 80-315/320/18,5 /4	125	80	241	580	580	460	250	315	398	160	120	400	315	279	M14	M12	429	140	70	38	100	80	1130	580	740	0.485	259	275
NKM-G 80-315/334/22 /4	125	80	279	580	580	460	250	315	398	160	120	400	315	279	M14	M12	415	140	70	38	100	80	1130	580	740	0.485	256	298

NKM-G 100-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

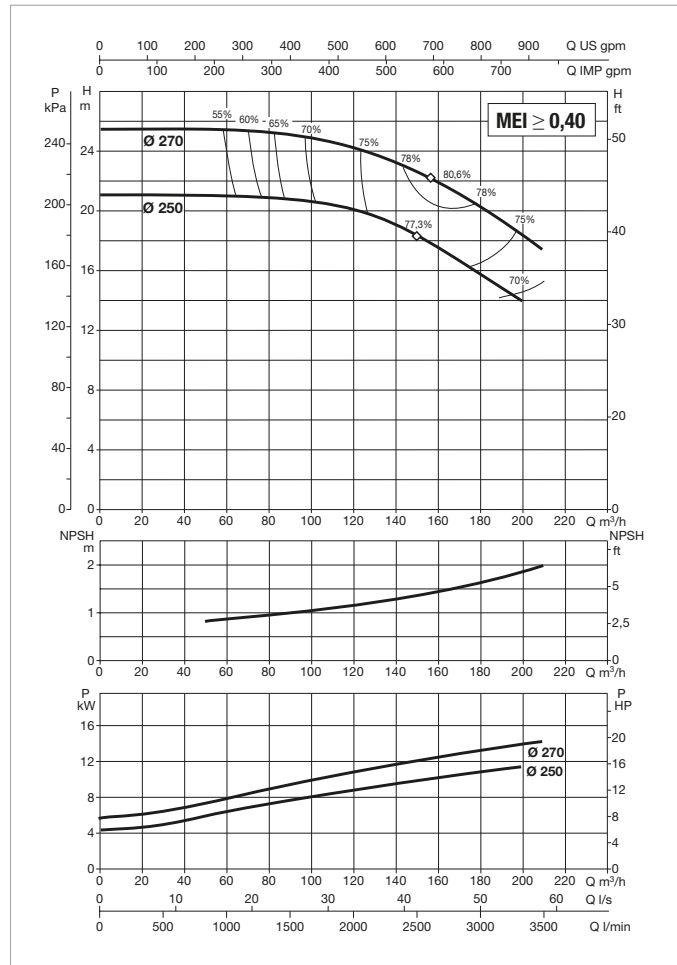
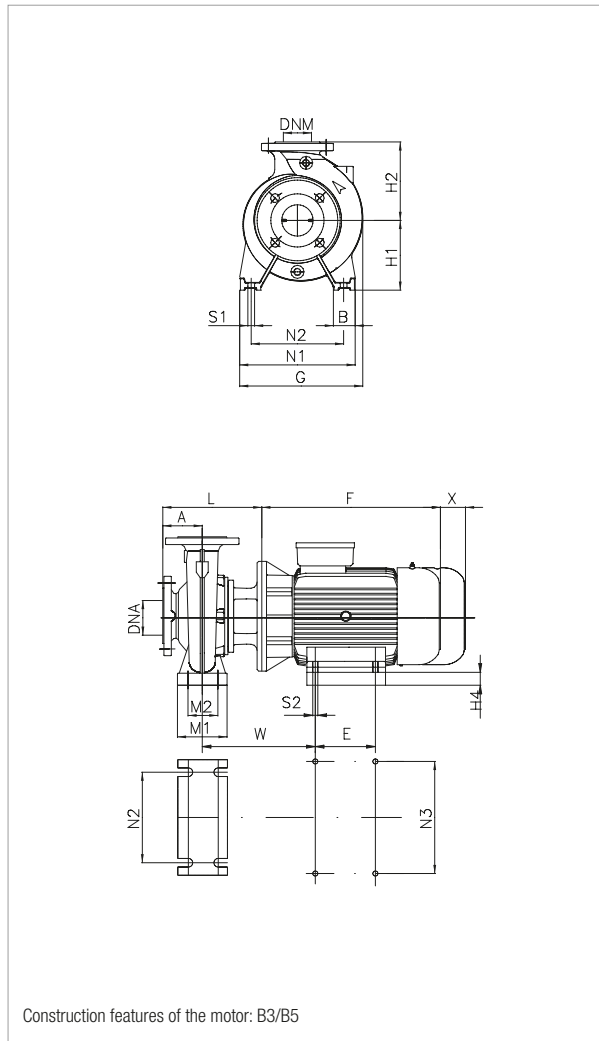
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G100-200/200/ 5.5 /4	MEC 132 S	400 V Δ	5.5	7.5	10.6	-	IE2
NKM-G100-200/214/ 7.5 /4	MEC 132 M	400 V Δ	7.5	10	14.2	14.6	IE2 / IE3

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKM-G100-200/200/ 5.5 /4	125	80	390	-	392	200	280	368	160	120	360	280	M14	140	38	125	100	1030	530	640	0.349	160	-
NKM-G100-200/214/ 7.5 /4	125	80	430	437	392	200	280	368	160	120	360	280	M14	140	38	125	100	1030	530	640	0.349	140	149

NKM-G 100-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

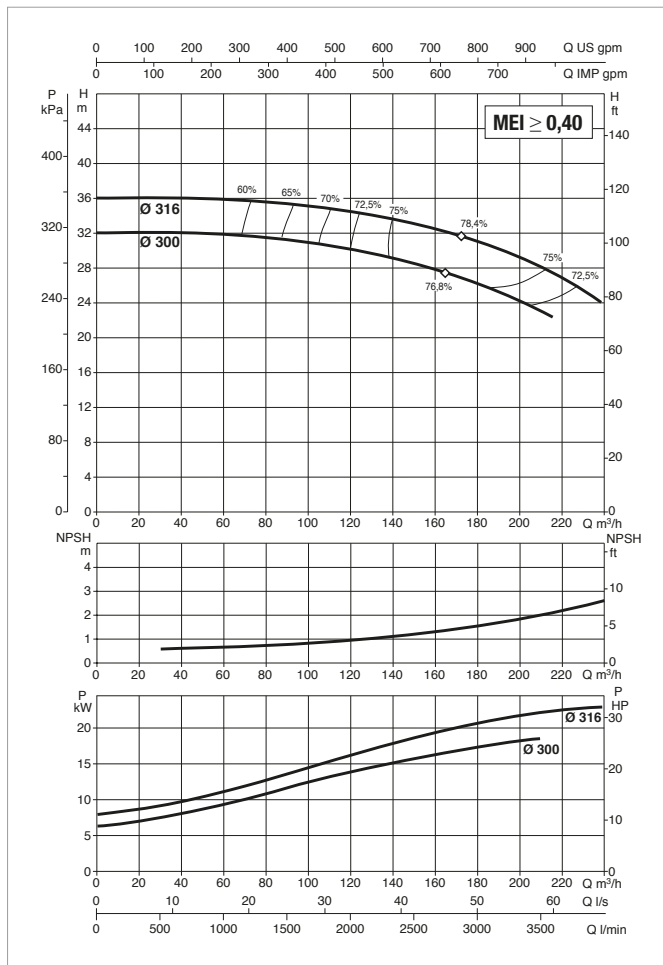
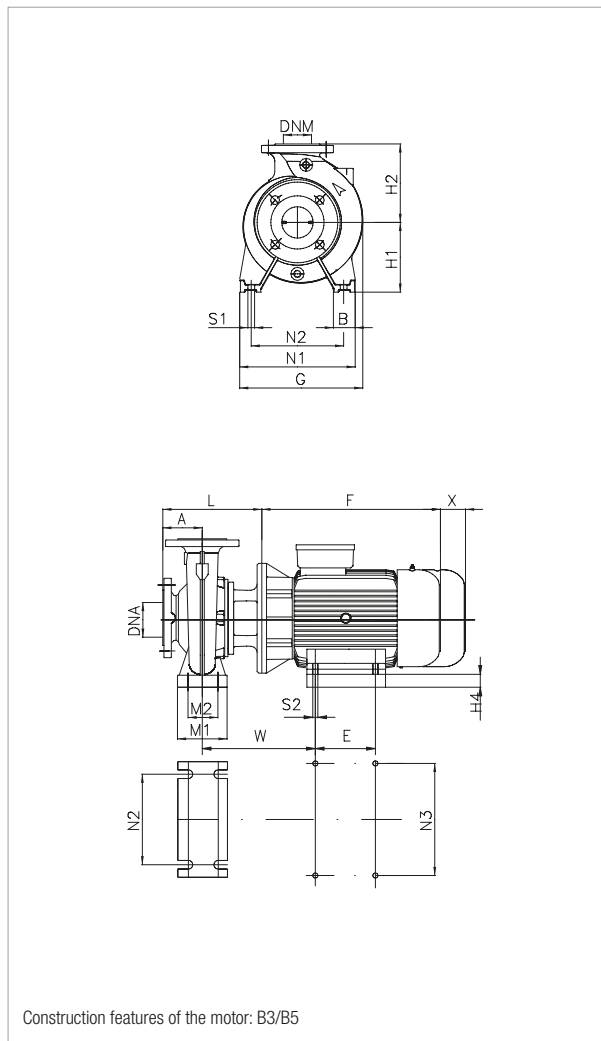
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G100-250/250/11 /4	MEC 160 M	400 V Δ	11	15	21.6	20.5	IE2 / IE3
NKM-G100-250/270/15 /4	MEC 160 L	400 V Δ	15	20	29	28	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
				NKM-G100-250/250/11 /4	140																		80	210	505		505	424
NKM-G100-250/270/15 /4	140	80	254	560	548	424	225	280	413	160	120	400	315	254	M14	M12	381	140	65	38	125	100	1030	530	640	0.485	227	237

NKM-G 100-315- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

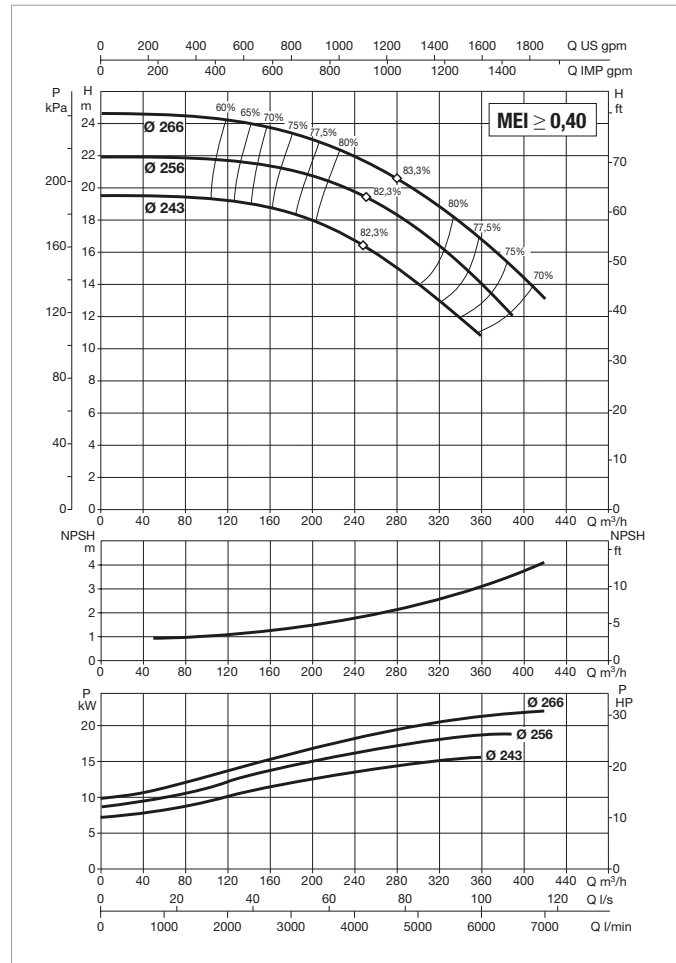
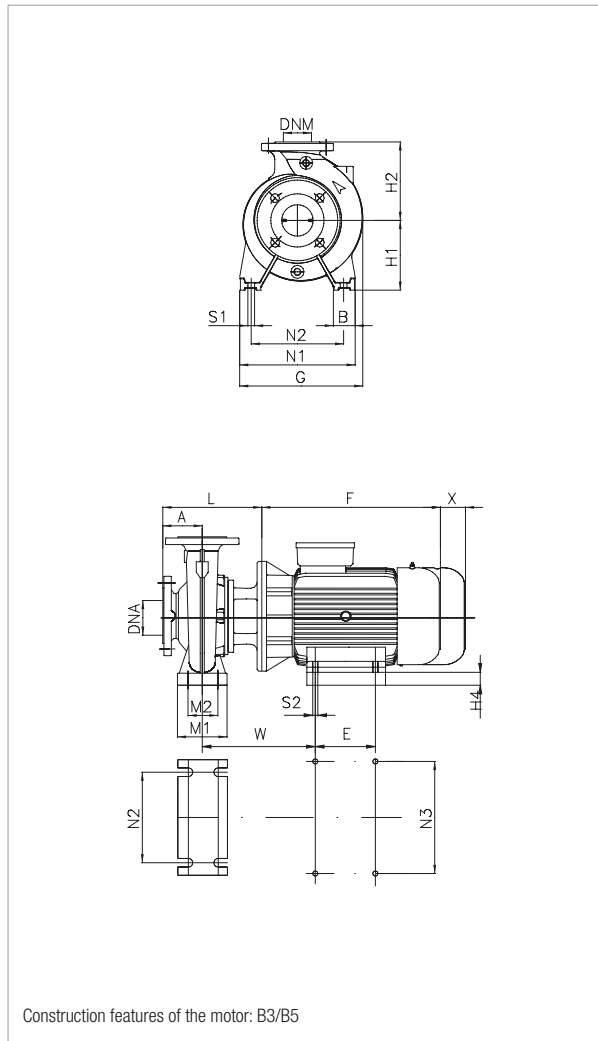
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G100-315/300/18.5 /4	MEC 180 M	400 V Δ	18.5	25	33	34	IE2 / IE3
NKM-G100-315/316/22 /4	MEC 180 L	400 V Δ	22	30	40	40.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOL. (m³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
				NKM-G100-315/300/18.5 /4	140																		80	241	580		580	478
NKM-G100-315/316/22 /4	140	80	279	580	580	478	250	315	413	160	120	400	315	279	M14	M12	415	140	70	38	125	100	1030	530	640	0.485	261	272

NKM-G 125-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

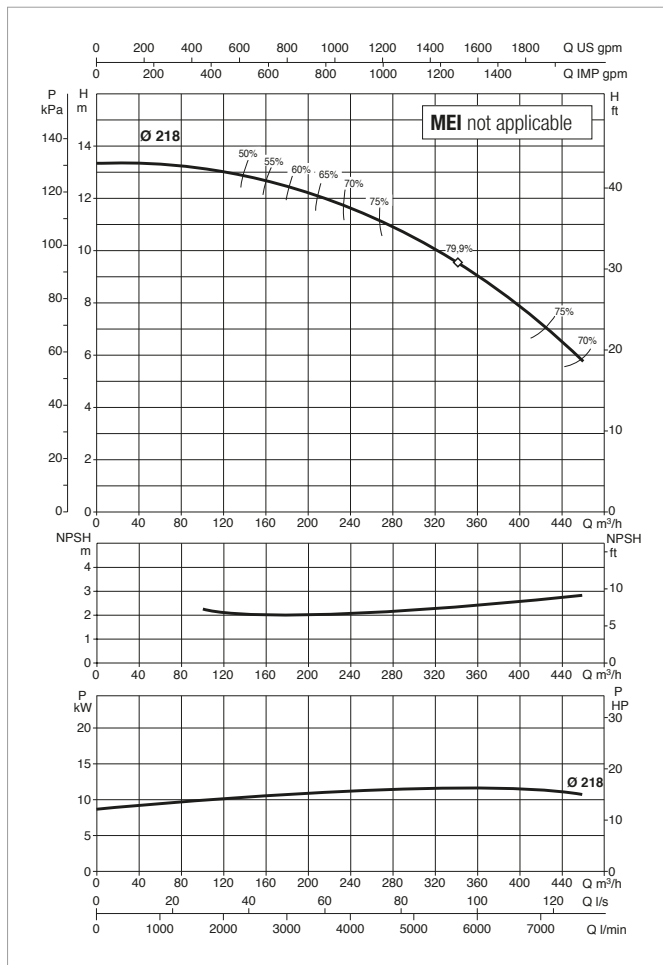
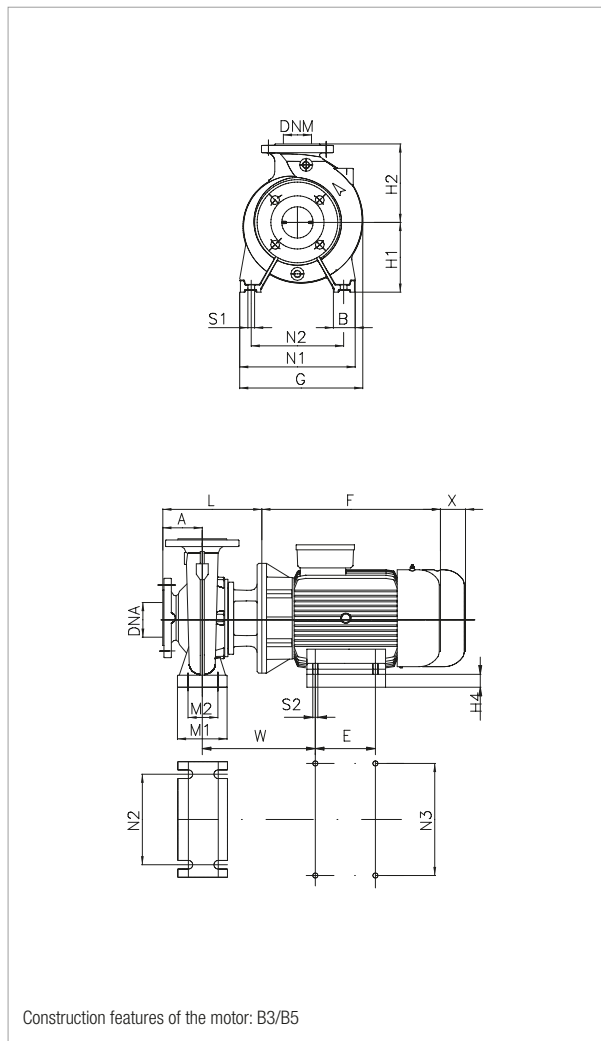
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G125-250/243/15 /4	MEC 160 L	400 V Δ	15	20	29	28	IE2 / IE3
NKM-G125-250/256/18,5 /4	MEC 180 M	400 V Δ	18.5	25	33	34	IE2 / IE3
NKM-G125-250/266/22 /4	MEC 180 L	400 V Δ	22	30	40	40.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H4	Ø (mm) Mech. seal	DNA	DNN	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
				NKM-G125-250/243/15 /4	140																		80	254	560		548	472
NKM-G125-250/256/18,5 /4	140	80	241	580	580	472	250	355	413	160	120	400	315	279	M14	M12	394	140	70	38	150	125	1130	580	740	0.485	253	290
NKM-G125-250/266/22 /4	140	80	279	580	580	472	250	355	413	160	120	400	315	279	M14	M12	394	140	70	38	150	125	1130	580	740	0.485	271	309

NKM-G 150-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G150-200/218/11 /4	MEC 160 M	400 V Δ	11	15	21.6	20.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																	L/A	L/B	H		IE2	IE3
				NKM-G150-200/218/11 /4	160																	100	210	505		505	593

NKP-G RANGE

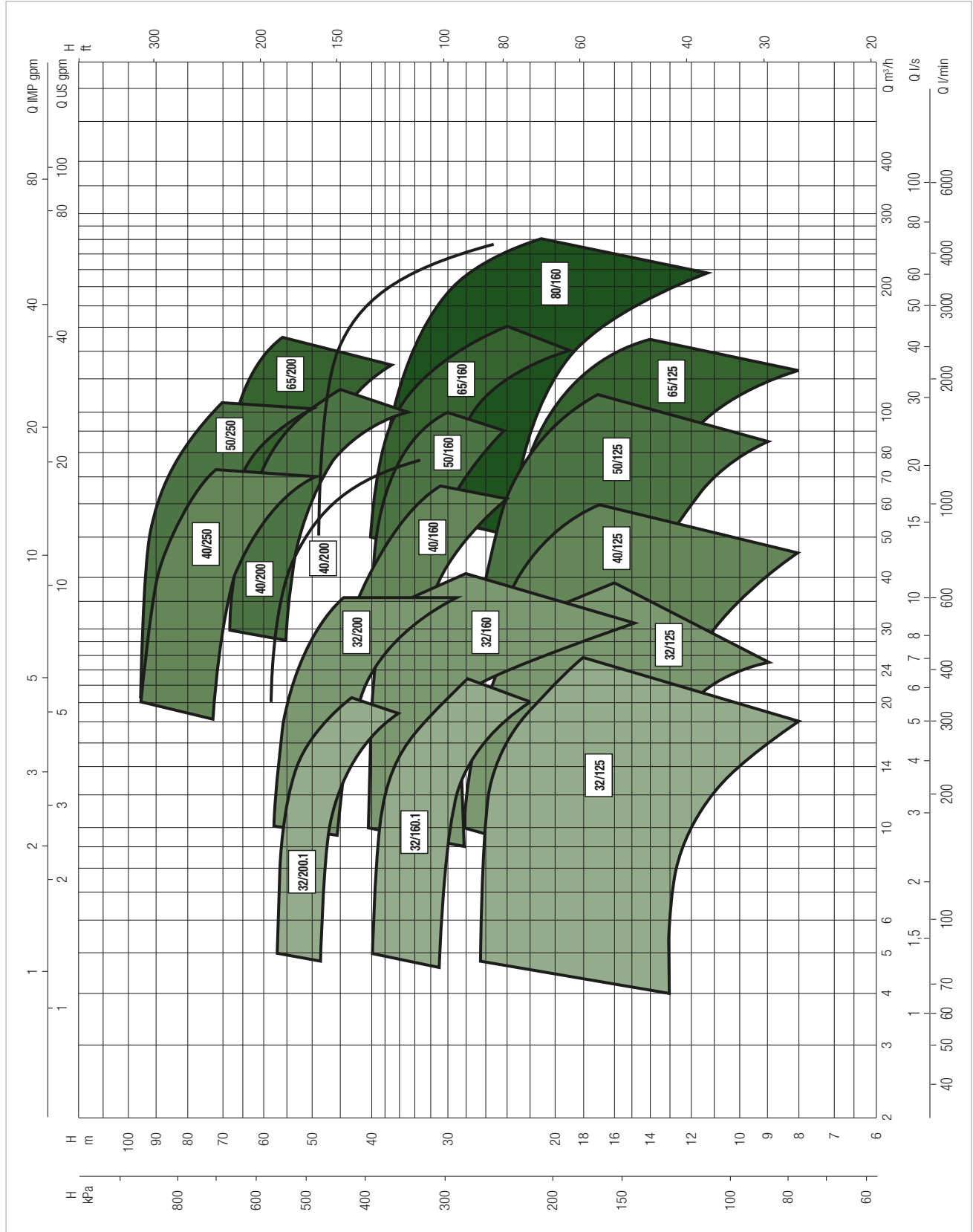
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

2900 1/min



SELECTION TABLE - NKP-G 32

MODEL	Q=m ³ /h	0	6	12	18	24	30	36	42
	Q=l/min	0	100	200	300	400	500	600	700
NKP-G 32-125.1/102/0.75/2	H (m)	13	12.5	11	8				
NKP-G 32-125.1/115/1.1/2		17.2	17	15	12.5				
NKP-G 32-125.1/125/1.5/2		21	20.8	19	16.8				
NKP-G 32-125.1/140/2.2/2		27	26.9	25.9	23	19.5			
NKP-G 32-125/110/ 1.1 /2		15.8	15.2	14.5	12.9	9.9			
NKP-G 32-125/120/ 1.5 /2		19.3	18.9	18.2	16.8	14.5			
NKP-G 32-125/130/ 2.2 /2		23.6	23.1	23	21.6	19.6	16.8		
NKP-G 32-125/142/ 3 /2		28.6	28	27.6	26.5	24.6	21.8	17.9	
NKP-G 32-160.1 155/2.2/2		31.7	32.4	31	26.7				
NKP-G 32-160.1 166/3 /2		36.7	37.3	36.3	32.8	27			
NKP-G 32-160.1 177/4/2		42.7	43.4	42.6	38.5	33.9			
NKP-G 32-160/151 /3 /2		30.5	30	29	27	24	19.5		
NKP-G 32-160/163 /4 /2		36.2	36	35	33.5	30.5	27	22	
NKP-G 32-160/177 /5,5/2		43.5	43.2	42.6	41.5	39	36	31.5	25.5
NKP-G 32-200.1 188/4 /2		45.3	44.4	40.8	34.4	26.8			
NKP-G 32-200.1 205/5,5/2		56.6	55.7	52	45.8	36.2			
NKP-G 32-200/190/ 5.5 /2		46.9	46.5	45	43	40	35	29	
NKP-G 32-200/210/ 7.5 /2		58.8	58	57	56	53	49	44	

SELECTION TABLE - NKP-G 40

MODEL	Q=m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66	72
	Q=l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200
NKP-G 40-125/107/ 1.5 /2	H (m)	14.7	14.5	14.3	13.8	13	11.8	10.5	8.6	7				
NKP-G 40-125/120/ 2.2 /2		19	18.7	18.4	17.8	17	15.9	14.6	13	11				
NKP-G 40-125/130/ 3 /2		22.8	22.5	22.3	22	21.2	20.2	19	17.4	15.5	13.5			
NKP-G 40-125/139/ 4 /2		26.4	26.2	26	25.6	25	24	23	21.5	19.5	17.5	15		
NKP-G 40-160/158/ 5,5 /2		33.7			34	33.4	32.4	31	29.5	27	24			
NKP-G 40-160/172/ 7,5 /2		40.7			40.2	40.1	39.8	38.5	37.5	35.5	33	30	26.5	
NKP-G 40-200/210/11 /2		57.1	57	57	56.8	56.5	56	55	53	50	47	43.5	39	
NKP-G 40-250/230/15 /2		72.5			72.5	72	70	68	66	62.5	60	56	51.5	
NKP-G 40-250/245/18.5 /2		83			83	82.5	81.5	80	77	74	71.5	67.5	63.5	58.5
NKP-G 40-250/260/22 /2		96			95	94.5	93.5	92	90	87.5	84	81	76.5	71.5

SELECTION TABLE - NKP-G 50

MODEL	Q=m³/h	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	
	Q=l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	
NKP-G 50-125/115/ 3 /2	H (m)	17				16.5	16	15.5	15	14.5	13.7	13	12	11	10	9				
NKP-G 50-125/125/ 4 /2		20.5				20	19.5	19.1	18.5	18	17.5	16.5	15.8	14.8	14	12.5	11.5			
NKP-G 50-125/135/ 5,5 /2		24				23.6	23.5	23.2	22.8	22.2	21.5	21	20	19.1	18.5	17.5	16.5	13.4		
NKP-G 50-125/144/ 7,5 /2		28				27.8	27.5	27.3	27	26.5	25.8	25.3	24.5	23.5	23	21.5	20.5	18	15.5	
NKP-G 50-160/153/ 7.5 /2		31.9				31.5	31.5	31.5	31.2	31	30.5	29.5	28.5	27.5	26	25	23.5			
NKP-G 50-160/169/11 /2		39.6					39.5	39.3	39.1	39	38.5	38	37.2	36.5	35	34	32.5			
NKP-G 50-200/200/15 /2		55.1					54.7	54.6	54	53.5	52	51	49	47.5	45.5	43	41			
NKP-G 50-200/210/18,5 /2		61.7					61.7	61.6	61.5	60.5	59	58	56.5	55	53	51	48.5	43		
NKP-G 50-200/219/22 /2		67.7					67.5	67.4	66.5	66	65.5	64	62.5	61	59.5	57	55	50		
NKP-G 50-250/230/22 /2		73.6					73.2	73.1	72.8	72	71	68.5	67	65	62.5	60	57	49		
NKP-G 50-250/257/30 /2		93					92.5	92.3	92	91.5	91	89	87.5	86	83	81	78	72		

SELECTION TABLE - NKP-G 65

MODEL	Q=m³/h	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	120	150	
	Q=l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2200	2500	
NKP-G 65-125/120-110/4/2	H (m)	16					15	14.6	14.2	13.7	13.3	12.8	12.3	12	11.4	10	8.5	8				
NKP-G 65-125/127/ 5,5 /2		19.5					19	18.9	18.7	18.4	18.1	17.5	17.2	16.9	16.5	15.8	14.5	13	12			
NKP-G 65-125/137/ 7,5 /2		23.5					23.1	23	22.8	22.6	22.5	22	21.6	21.1	20.7	20.2	19	17.5	14.8	12		
NKP-G 65-160/157/11 /2		32.5							32.3	32	31.9	1.3	30.2	30	29.2	28.7	27	24.8	23.6			
NKP-G 65-160/173/15 /2		40.1							39.7	39.6	39.5	39.5	39	38.5	38.2	37.5	36	34.5	33.5	26.9		
NKP-G 65-200/190/18,5 /2		51.1							51	50.8	50.5	50	49	48.5	48	47.5	45	42.5	41			
NKP-G 65-200/200/22 /2		56.4							56.1	56.1	56	55.8	55.5	55	54.8	54.5	53	51	49			
NKP-G 65-200/219/30 /2		68.9							68.8	68.8	68.7	68.7	68.6	68.5	68.4	67.5	66	64	63.1	57		

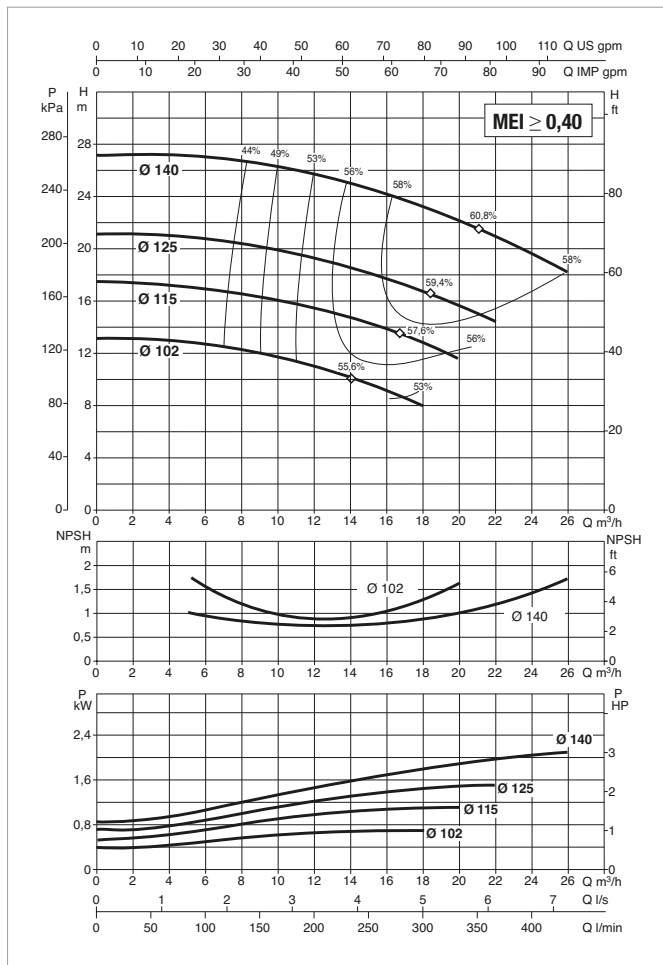
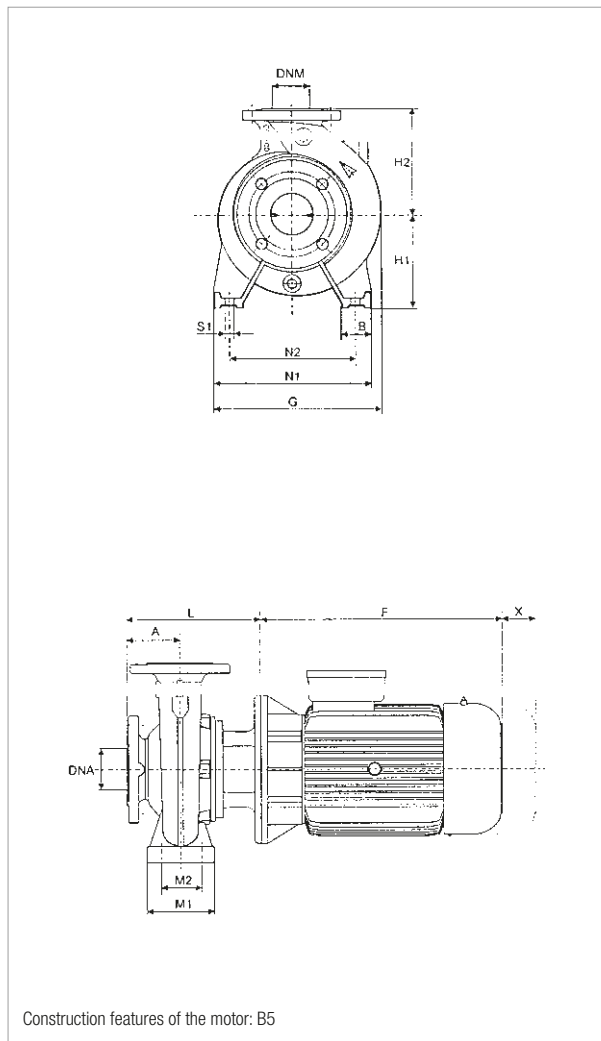
SELECTION TABLE - NKP-G 80

MODEL	Q=m³/h	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	120	150	180	210	240	
	Q=l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2200	2500	3000	3500	4000	
NKP-G 80-160/147-127/11 /2	H (m)	24.5														22	21.4	20.4	20	17.4	16.8	12			
NKP-G 80-160/153/15 /2		30.5														29	28.4	27.5	27	24.5	21.3	18.3			
NKP-G 80-160/163/18,5 /2		35.5														34.3	33.6	32.6	32.3	29.8	26.8	23.6	20		
NKP-G 80-160/169/22 /2		38.5														37.2	36.8	36	35.8	33.5	30.8	27.5	24		
NKP-G 80-200/190/30 /2		408.3														47.9	47.6	47.5	47.3	44.7	41	36	29		

NKP-G 32-125.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

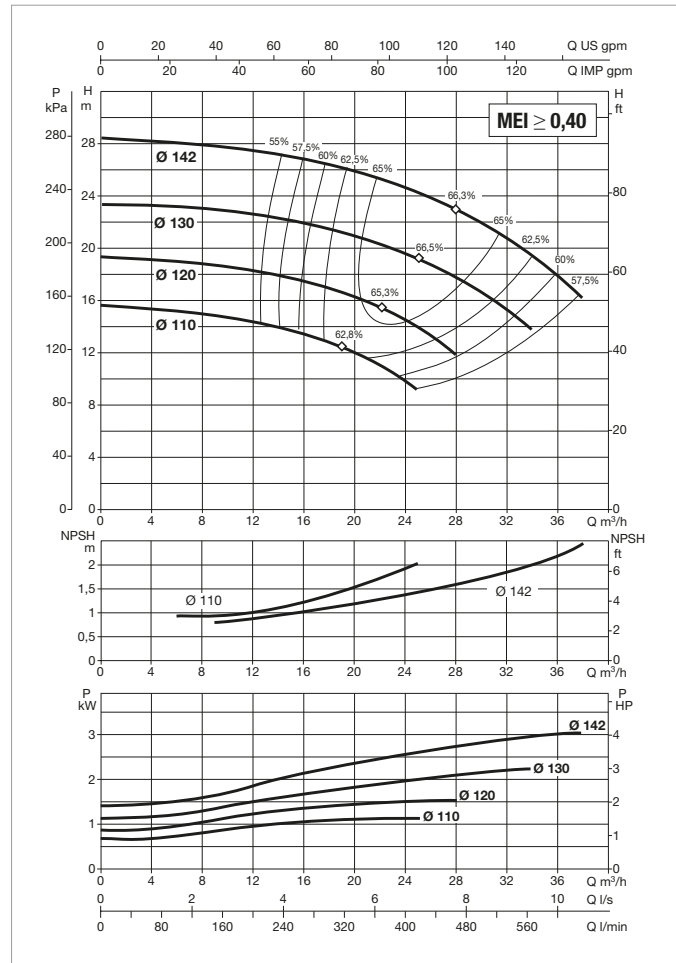
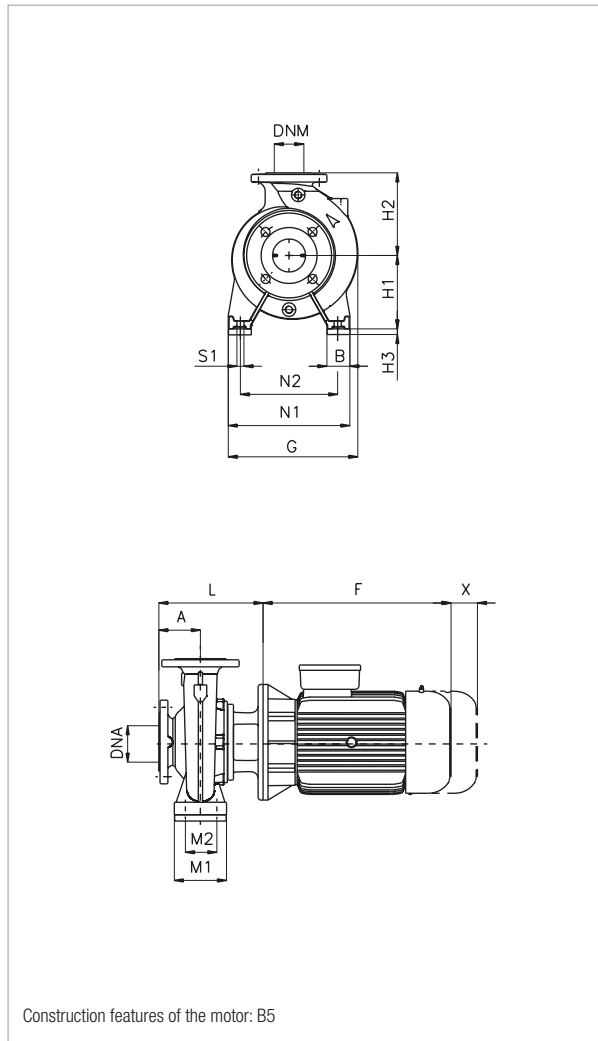
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 32-125.1/102/0.75/2	MEC 80	230/400 V	0.75	1	2.81/1.62	-	IE2
NKP-G 32-125.1/115/1.1/2	MEC 80	230/400 V	1.1	1.5	4.07/2.36	-	IE2
NKP-G 32-125.1/125/1.5/2	MEC 90 S	230/400 V	1.5	2	5.8/3.35	-	IE2
NKP-G 32-125.1/140/2.2/2	MEC 90 L	230/400 V	2.2	3	8.23/4.75	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 32-125.1/102/0.75/2	80	50	234	-	234	112	140	226	100	70	190	140	M10	100	28	50	32	620	370	480	0.110	35	-
NKP-G 32-125.1/115/1.1/2	80	50	234	-	234	112	140	226	100	70	190	140	M10	100	28	50	32	620	370	480	0.110	47	-
NKP-G 32-125.1/125/1.5/2	80	50	247	-	234	112	140	226	100	70	190	140	M10	100	28	50	32	620	370	480	0.110	52	-
NKP-G 32-125.1/140/2.2/2	80	50	272	-	234	112	140	226	100	70	190	140	M10	100	28	50	32	620	370	480	0.110	54	-

NKP-G 32-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

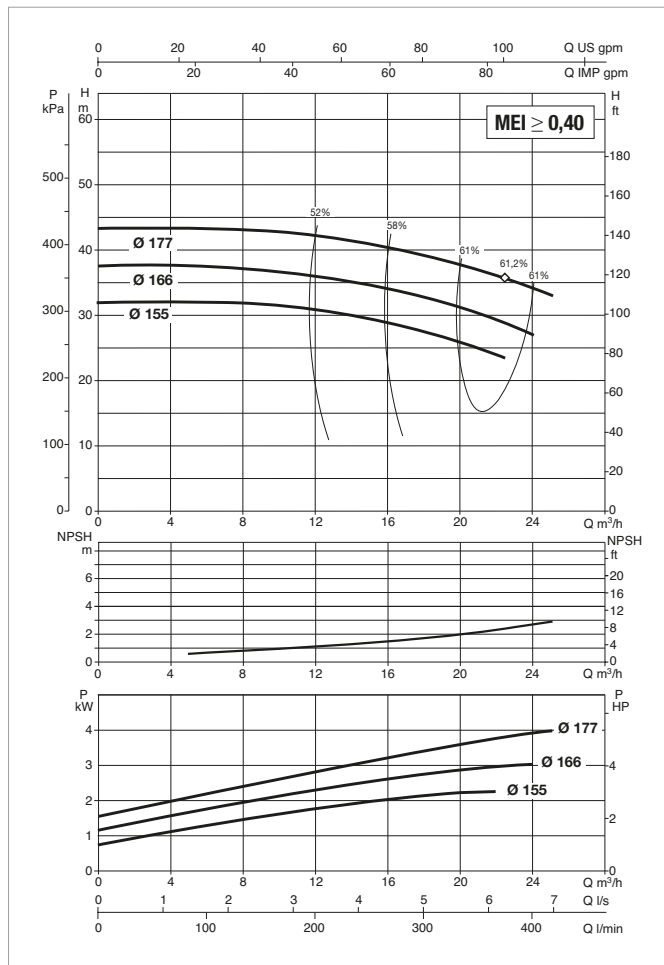
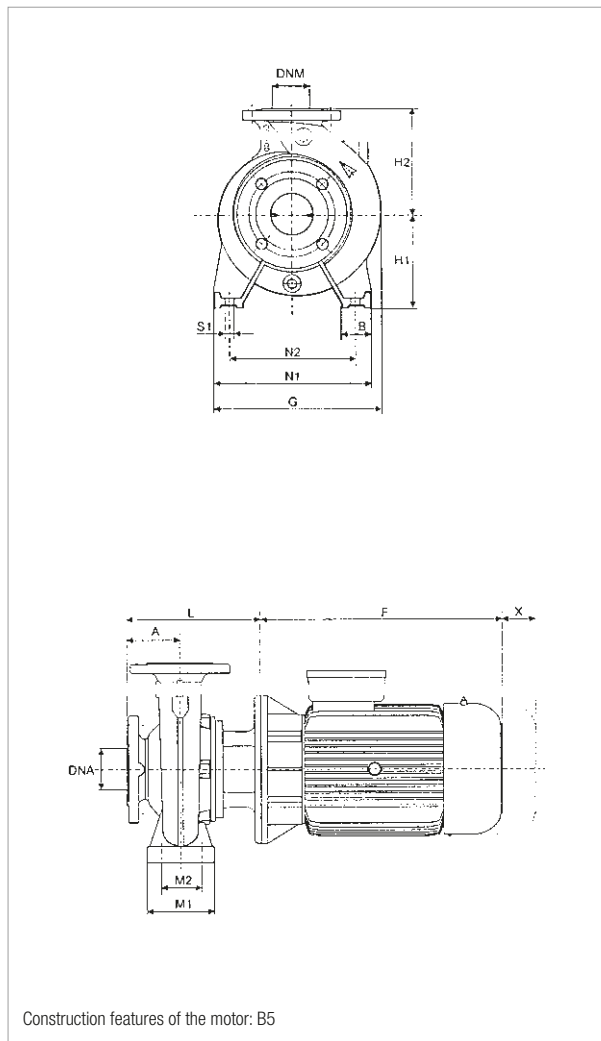
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 32-125/110/ 1.1 /2	MEC 80	230/400 V	1.1	1.5	4.07/2.36	-	IE2
NKP-G 32-125/120/ 1.5 /2	MEC 90 S	230/400 V	1.5	2	5.8/3.35	-	IE2
NKP-G 32-125/130/ 2.2 /2	MEC 90 L	230/400 V	2.2	3	8.23/4.75	-	IE2
NKP-G 32-125/142/ 3 /2	MEC 100 L	400 V Δ	3	4	5.85	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	H3	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3															L/A	L/B	H		IE2	IE3
NKP-G 32-125/110/ 1.1 /2	80	50	234	-	234	112	140	226	100	70	190	140	M10	100	-	28	50	32	620	370	480	0.110	40	-
NKP-G 32-125/120/ 1.5 /2	80	50	247	-	234	112	140	226	100	70	190	140	M10	100	-	28	50	32	620	370	480	0.110	52	-
NKP-G 32-125/130/ 2.2 /2	80	50	272	-	234	112	140	226	100	70	190	140	M10	100	-	28	50	32	620	370	480	0.110	54	-
NKP-G 32-125/142/ 3 /2	80	50	301	-	250	112	140	254	100	70	190	140	M10	100	20	28	50	32	670	420	540	0.152	67	-

NKP-G 32-160.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

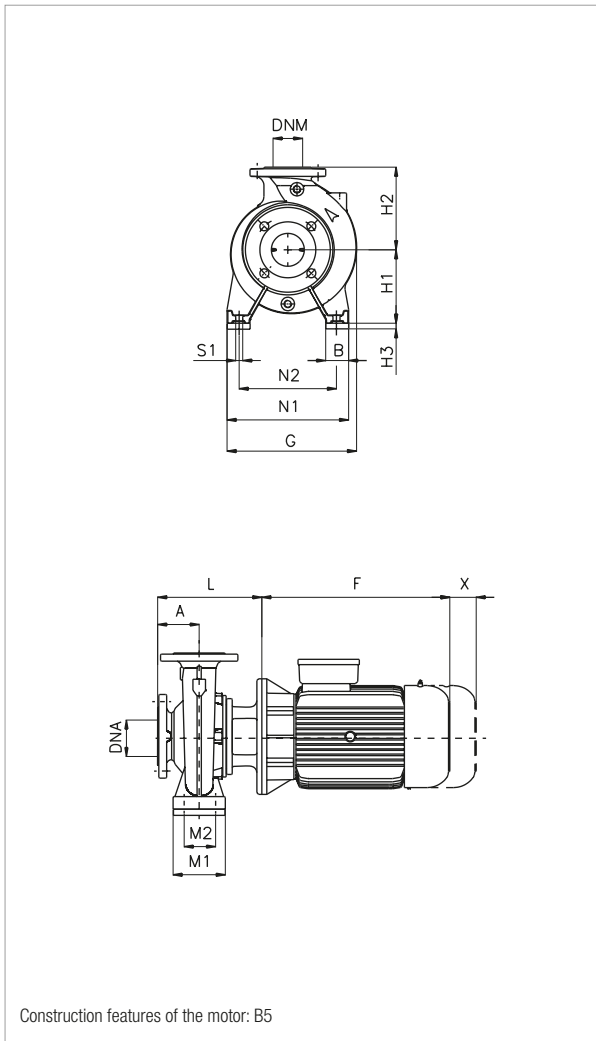
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 32-160.1 155/2.2/2	MEC 90 L	230/400 V	2.2	3	8.23/4.75	-	IE2
NKP-G 32-160.1 166/3 /2	MEC 100 L	400 V Δ	3	4	5.85	-	IE2
NKP-G 32-160.1 177/4/2	MEC 112 M	400 V Δ	4	5.5	8.5	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 32-160.1 155/2.2/2	80	50	272	-	245	132	160	226	100	70	240	190	M10	100	28	50	32	620	370	480	0.110	49	-
NKP-G 32-160.1 166/3 /2	80	50	301	-	250	132	160	254	100	70	240	190	M10	100	28	50	32	670	420	540	0.152	61	-
NKP-G 32-160.1 177/4/2	80	50	301	-	250	132	160	254	100	70	240	190	M10	100	28	50	32	670	420	540	0.152	83	-

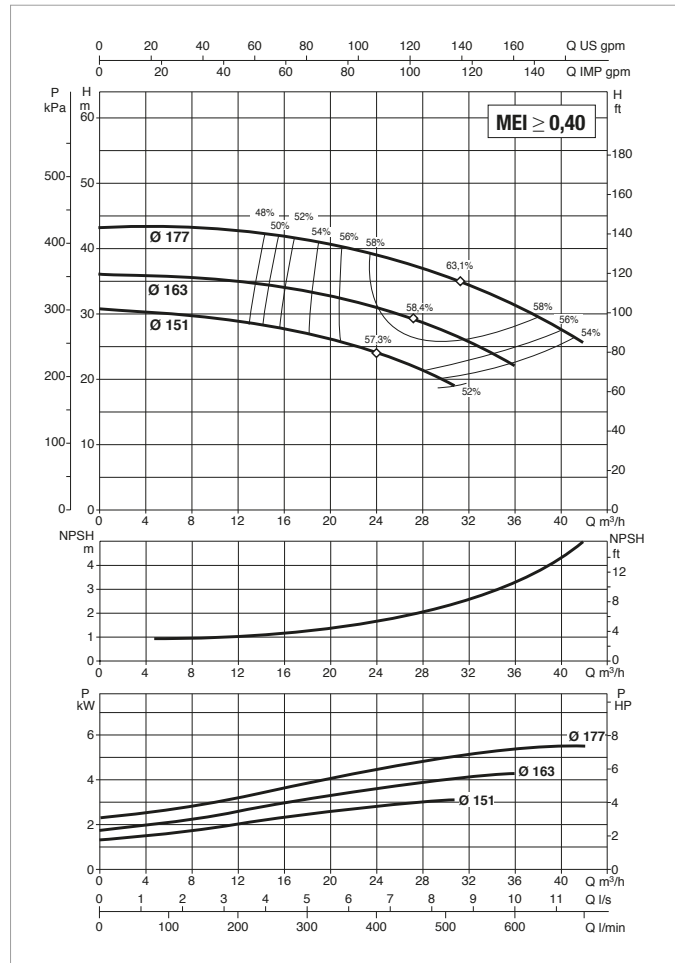
NKP-G 32-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

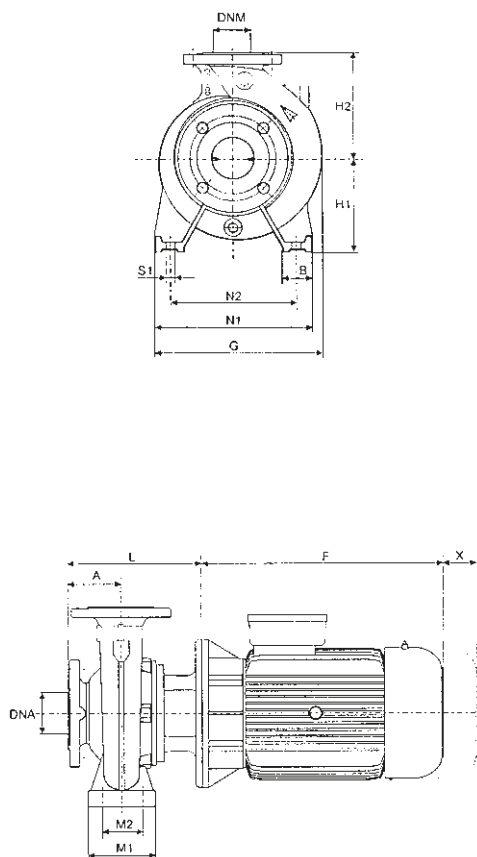
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 32-160/151 /3 /2	MEC 100 L	400 V Δ	3	4	5.85	-	IE2
NKP-G 32-160/163 /4 /2	MEC 112 M	400 V Δ	4	5.5	8.05	-	IE2
NKP-G 32-160/177 /5,5/2	MEC 132 S	400 V Δ	5.5	7.5	10.4	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	H3	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3															L/A	L/B	H		IE2	IE3
			NKP-G 32-160/151 /3 /2	80															50	301	-		250	132
NKP-G 32-160/163 /4 /2	80	50	301	-	250	132	160	254	100	70	240	190	M10	-	100	28	50	32	670	420	540	0.152	83	-
NKP-G 32-160/177 /5,5/2	80	50	390	-	300	132	160	293	100	70	240	190	M10	20	100	28	50	32	830	430	520	0.186	105	-

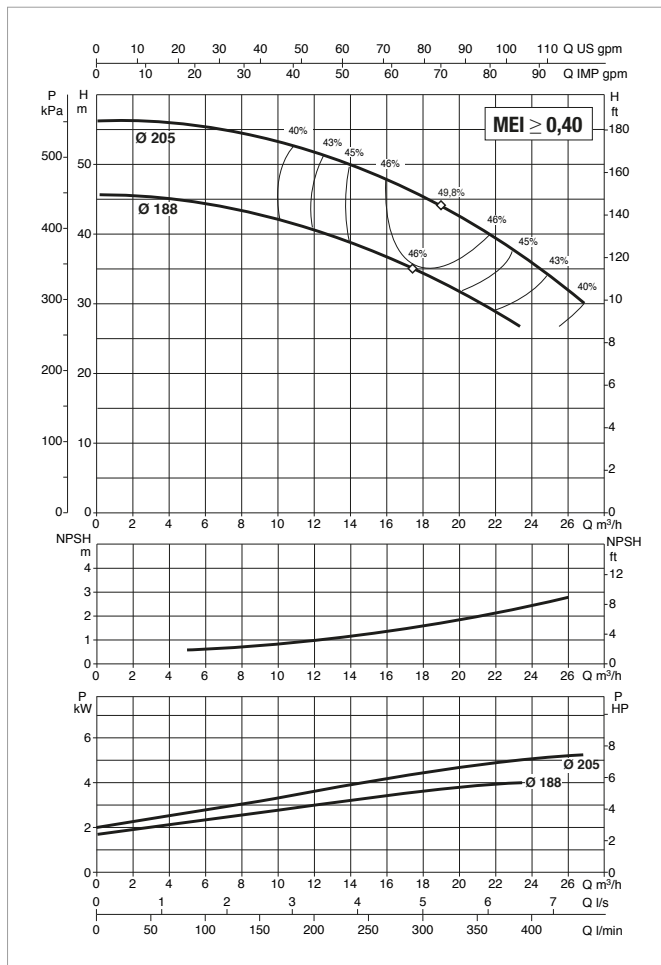
NKP-G 32-200.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

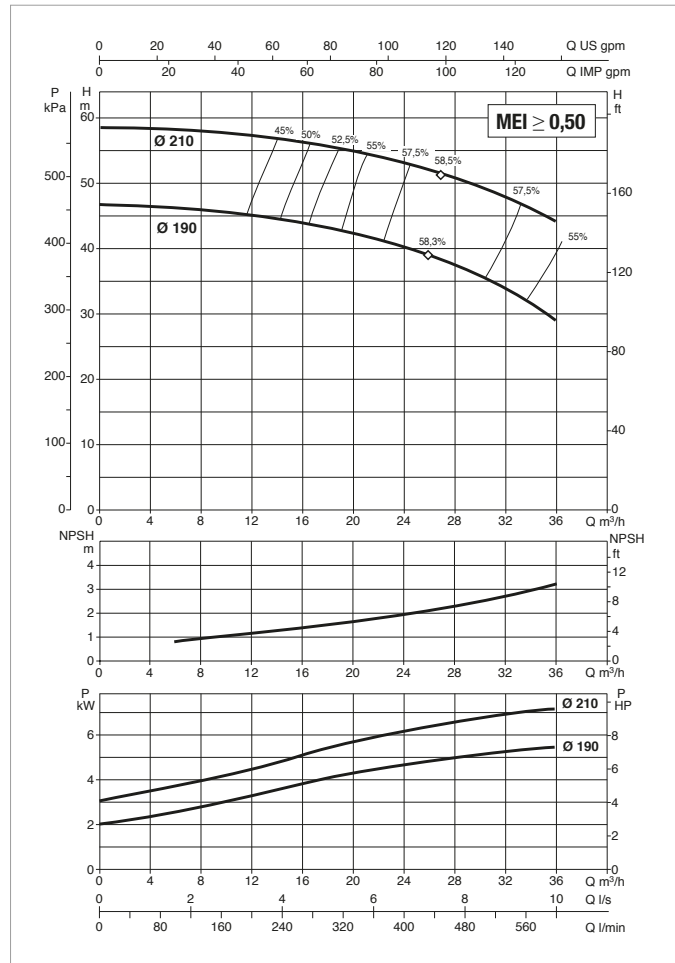
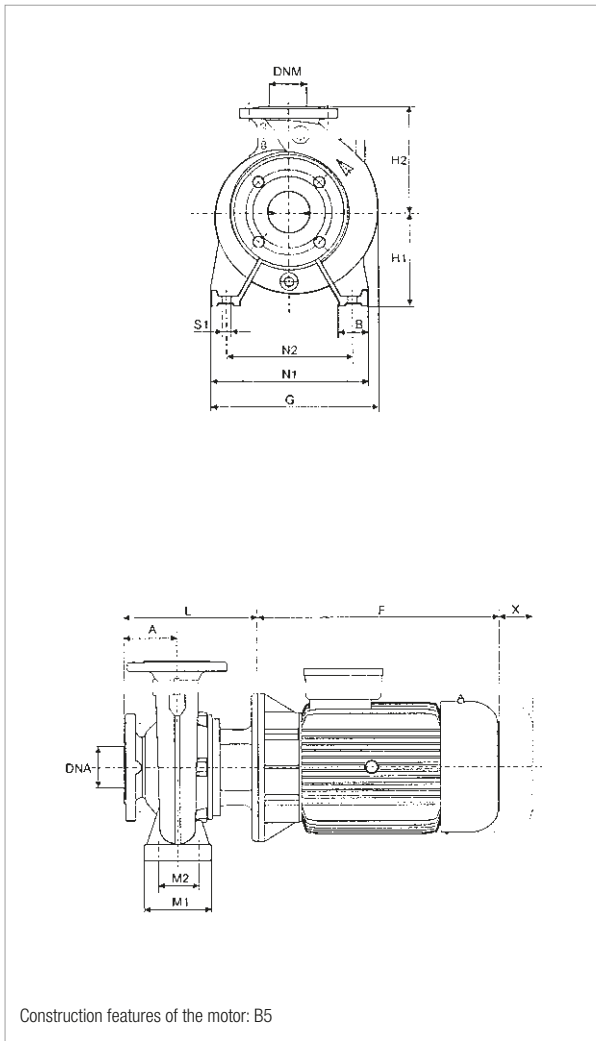
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 32-200.1 188/4 /2	MEC 112 M	400 V Δ	4	5.5	8.05	-	IE2
NKP-G 32-200.1 205/5,5/2	MEC 132 S	400 V Δ	5.5	7.5	10.4	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 32-200.1 188/4 /2	80	50	301	-	279	160	180	254	100	70	240	190	M10	100	28	50	32	670	420	540	0.152	83	-
NKP-G 32-200.1 205/5,5/2	80	50	390	-	300	160	180	293	100	70	240	190	M10	100	28	50	32	830	430	520	0.186	105	-

NKP-G 32-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

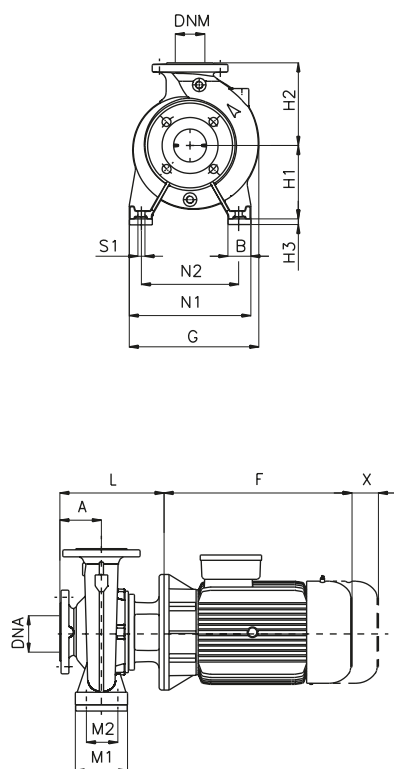
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKP-G 32-200/190/ 5.5 /2	MEC 132 S	400 V Δ	5.5	7.5	10.4	-	IE2
NKP-G 32-200/210/ 7.5 /2	MEC 132 S	400 V Δ	7.5	10	14	13.4	IE2 / IE3

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 32-200/190/ 5.5 /2	80	50	390	-	300	160	180	293	100	70	240	190	M10	100	28	50	32	830	430	520	0.186	117	-
NKP-G 32-200/210/ 7.5 /2	80	50	390	437	300	160	180	293	100	70	240	190	M10	100	28	50	32	830	430	520	0.186	88	98

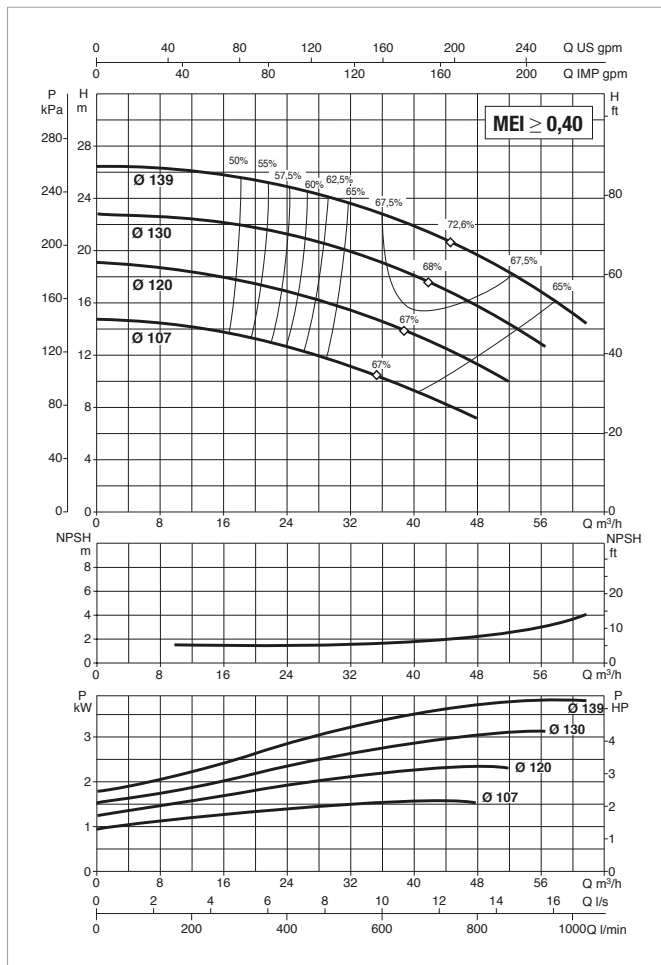
NKP-G 40-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≅ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

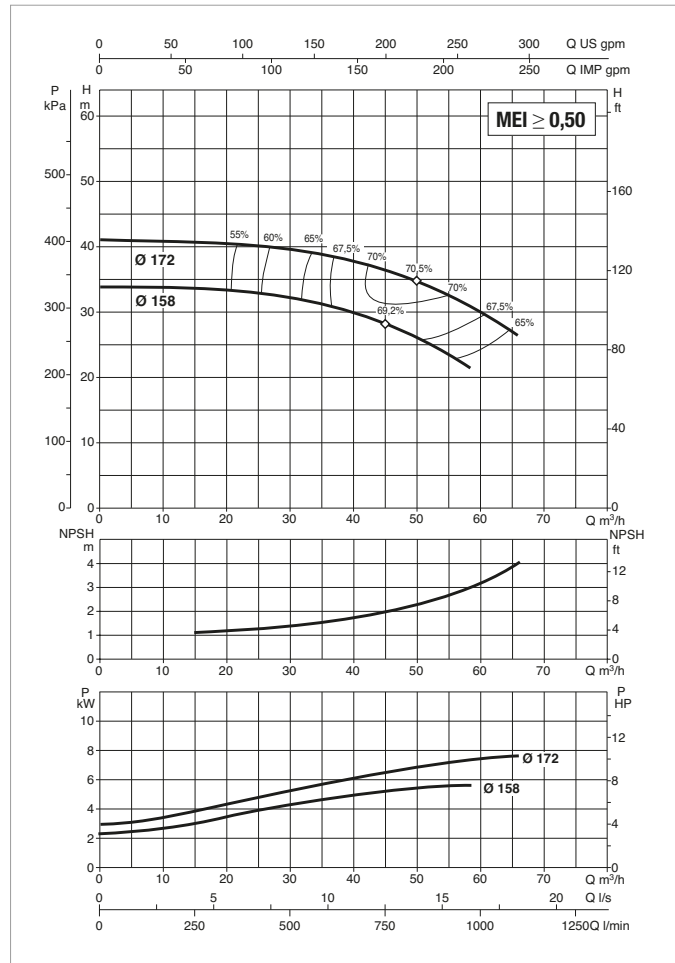
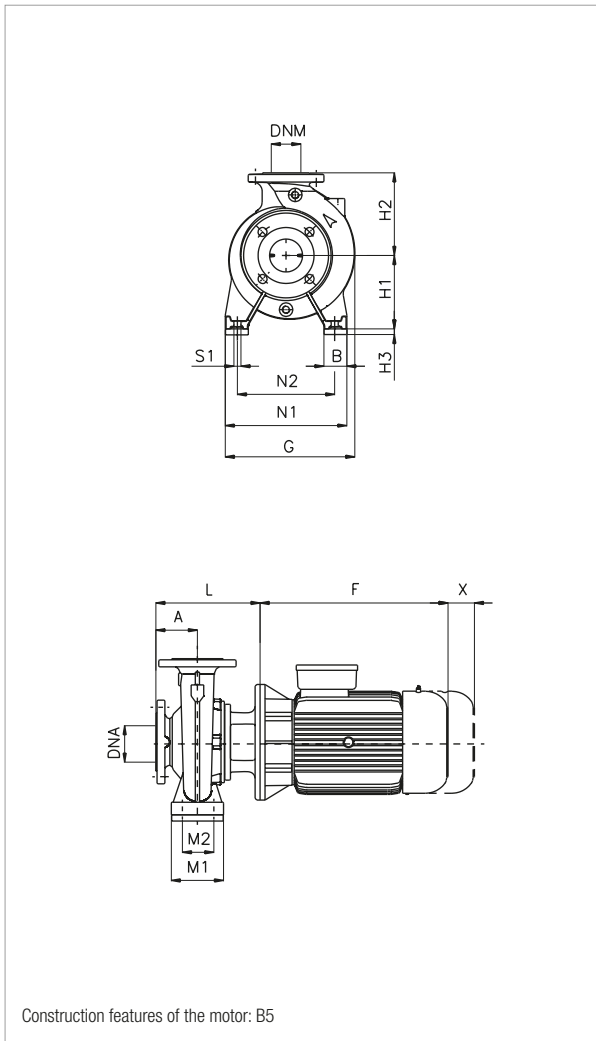
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 40-125/107/ 1.5 /2	MEC 90 S	230/400 V	1.5	2	5.8/3.35	-	IE2
NKP-G 40-125/120/ 2.2 /2	MEC 90 L	230/400 V	2.2	3	8.23/4.75	-	IE2
NKP-G 40-125/130/ 3 /2	MEC 100 L	400 V Δ	3	4	5.85	-	IE2
NKP-G 40-125/139/ 4 /2	MEC 112	400 V Δ	4	5.5	8.05	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	H3	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3															L/A	L/B	H		IE2	IE3
NKP-G 40-125/107/ 1.5 /2	80	50	247	-	234	112	140	226	100	70	210	160	M10	100	-	28	65	40	620	370	480	0.110	57	-
NKP-G 40-125/120/ 2.2 /2	80	50	272	-	234	112	140	226	100	70	210	160	M10	100	-	28	65	40	620	370	480	0.110	70	-
NKP-G 40-125/130/ 3 /2	80	50	301	-	300	112	140	254	100	70	210	160	M10	100	20	28	65	40	670	420	540	0.152	76	-
NKP-G 40-125/139/ 4 /2	80	50	301	-	300	112	140	254	100	70	210	160	M10	100	20	28	65	40	670	420	540	0.152	98	-

NKP-G 40-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

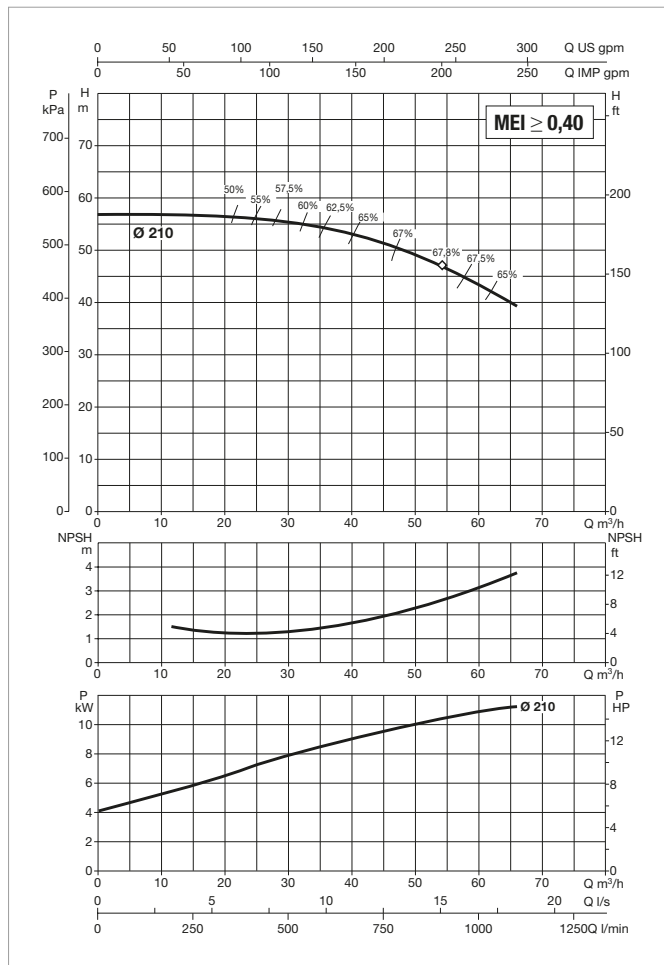
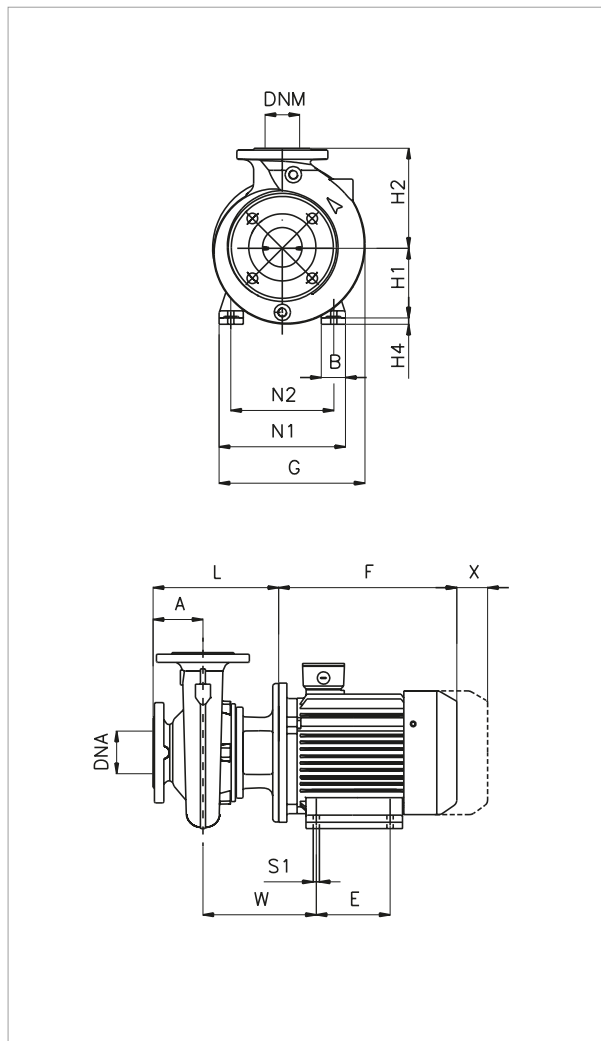
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 40-160/158/ 5,5 /2	MEC 132 S	400 V Δ	5.5	7.5	10.4	-	IE2
NKP-G 40-160/172/ 7,5 /2	MEC 132 S	400 V Δ	7.5	10	14	13.4	IE2 / IE3

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	H3	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3															L/A	L/B	H		IE2	IE3
NKP-G 40-160/158/ 5,5 /2	80	50	390	-	300	132	160	293	100	70	240	190	M10	100	20	28	65	40	830	430	520	0.186	110	-
NKP-G 40-160/172/ 7,5 /2	80	50	390	437	300	132	160	293	100	70	240	190	M10	100	20	28	65	40	830	430	520	0.186	114	90

NKP-G 40-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

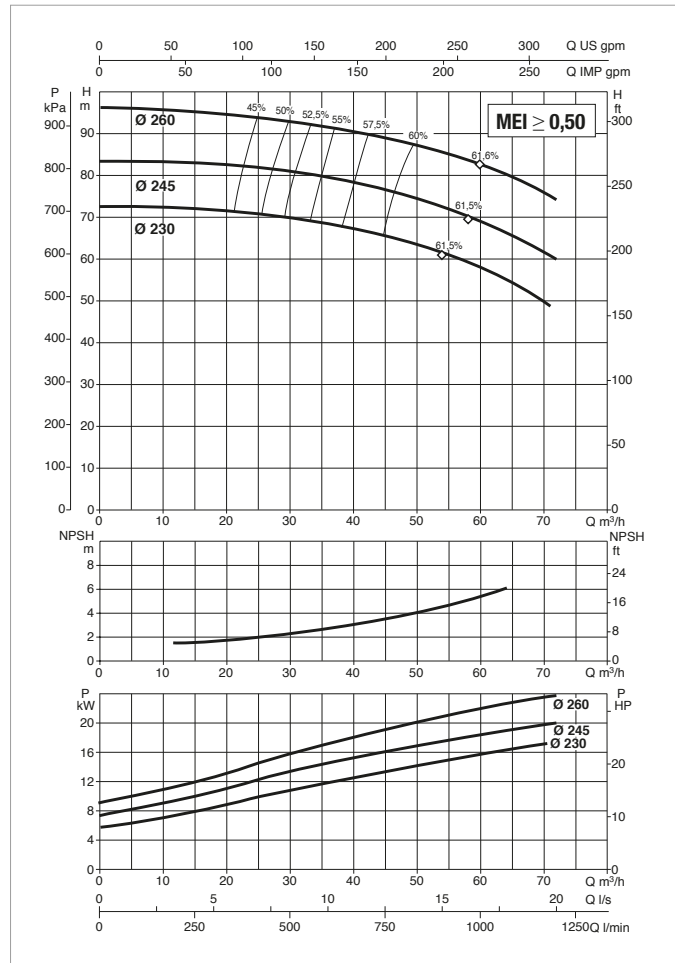
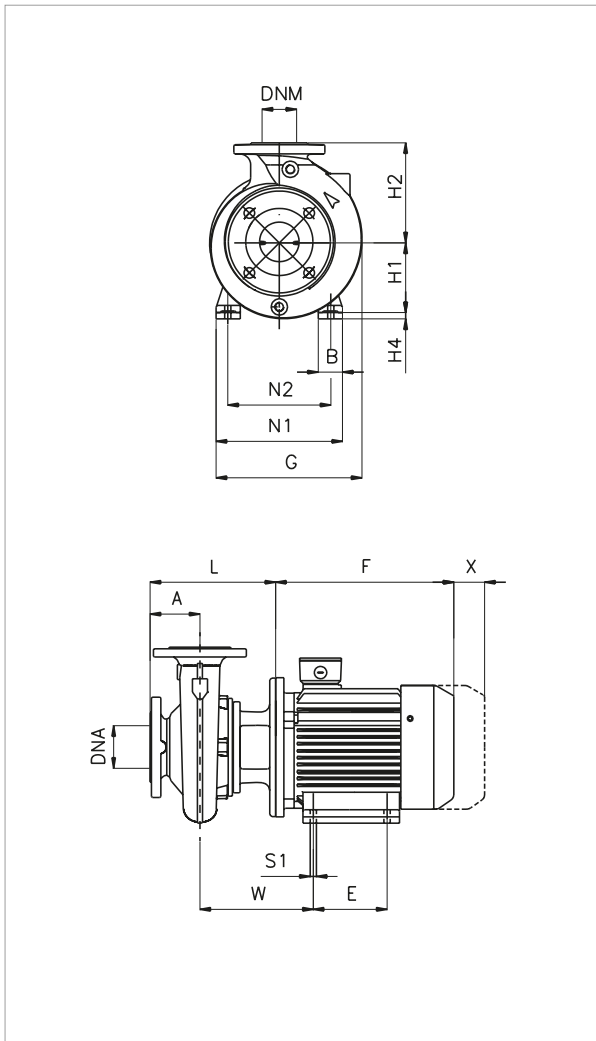
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 40-200/210/11 /2	MEC 160 M	400 V Δ	11	15	20.2	19.4	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3														L/A	L/B	H		IE2	IE3
				NKP-G 40-200/210/11 /2	100														67	210	505		505	350

NKP-G 40-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

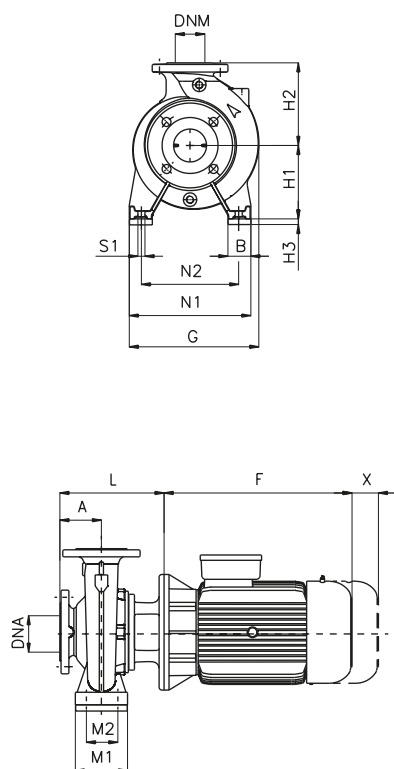
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 40-250/230/15 /2	MEC 160 M	400 V Δ	15	20	27	26.5	IE2 / IE3
NKP-G 40-250/245/18.5 /2	MEC 160 L	400 V Δ	18.5	25	33	32	IE2 / IE3
NKP-G 40-250/260/22 /2	MEC 180 M	400 V Δ	22	30	39.5	38	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3																L/A	L/B	H		IE2	IE3
				NKP-G 40-250/230/15 /2	100																67	210	505		505	350
NKP-G 40-250/245/18.5 /2	100	67	254	560	549	350	160	225	343	-	-	314	254	M12	351	100	20	28	65	40	1030	530	640	0.349	177	192
NKP-G 40-250/260/22 /2	100	74	241	580	580	350	180	225	343	-	-	345	279	M12	364	100	-	28	65	40	1030	530	640	0.349	182	223

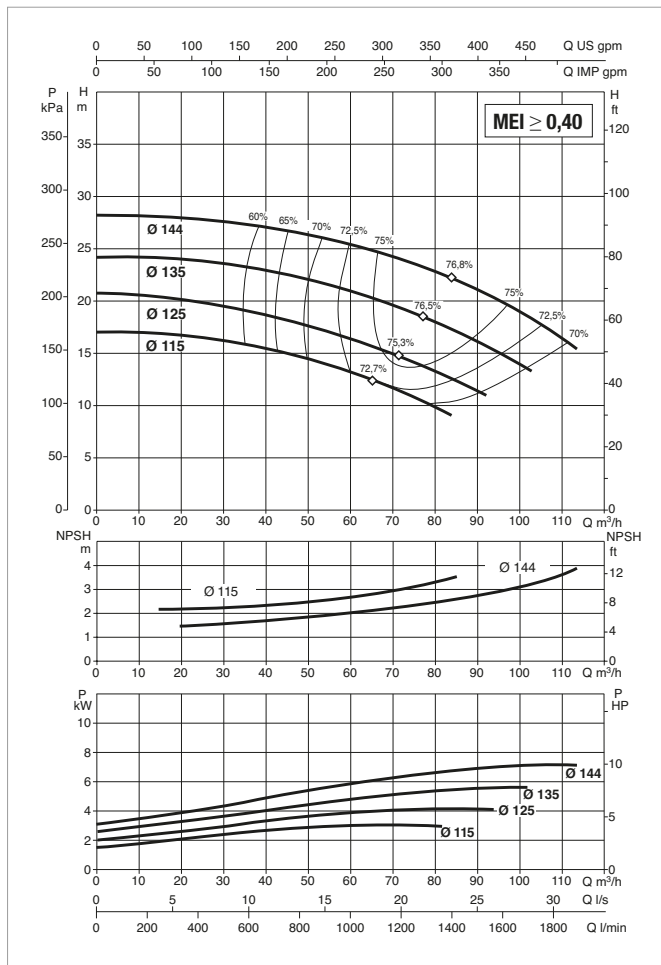
NKP-G 50-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

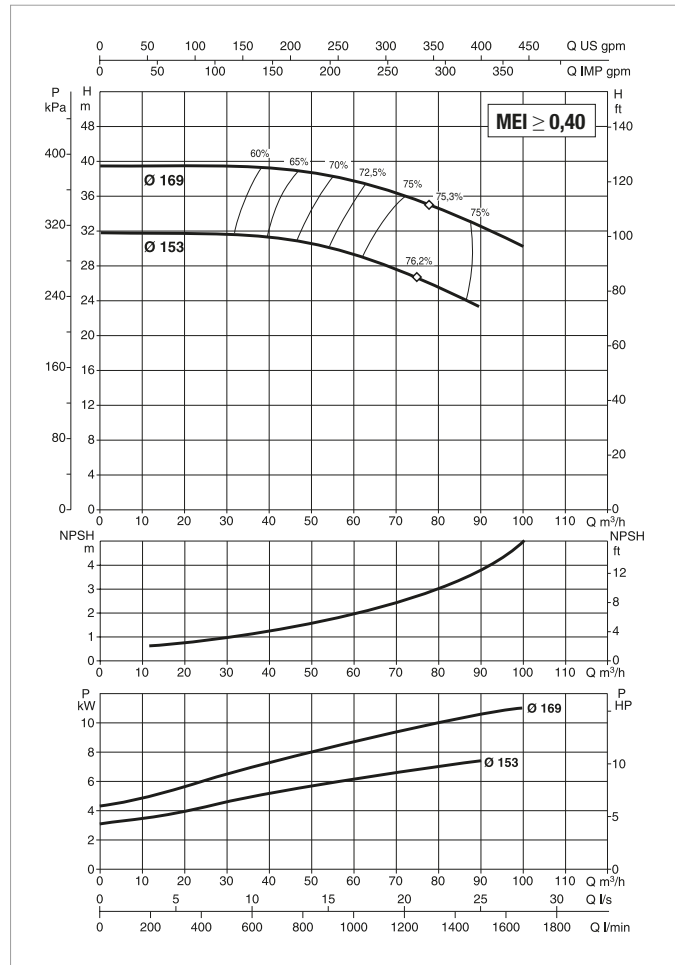
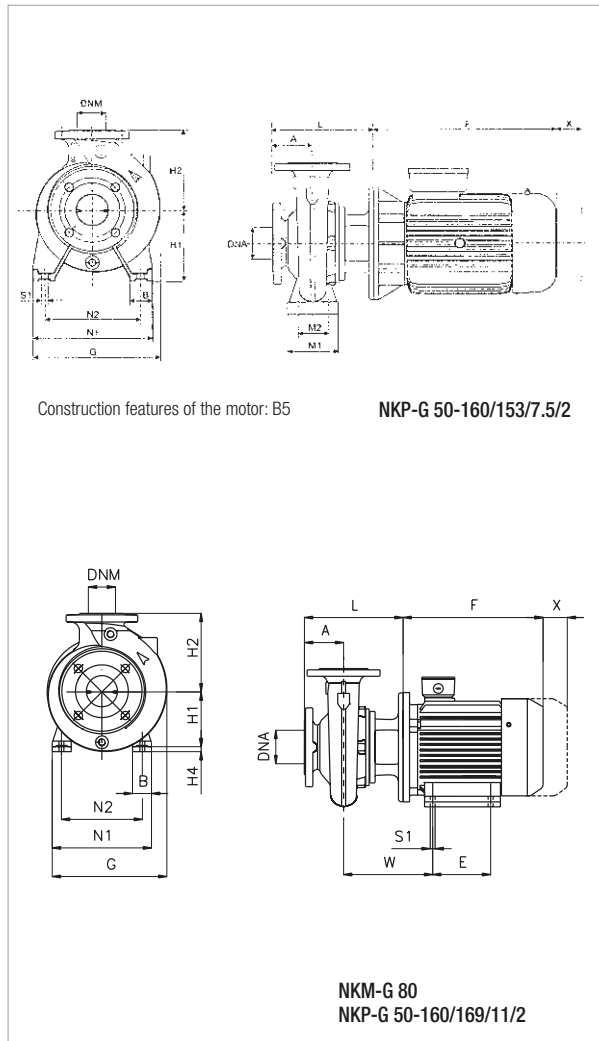
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 50-125/115/ 3 /2	MEC 100 L	400 V Δ	3	4	5.85	-	IE2
NKP-G 50-125/125/ 4 /2	MEC 112 M	400 V Δ	4	5.5	8.05	-	IE2
NKP-G 50-125/135/ 5,5 /2	MEC 132 S	400 V Δ	5.5	7.5	10.4	-	IE2
NKP-G 50-125/144/ 7,5 /2	MEC 132 S	400 V Δ	7.5	10	14	13.4	IE2 / IE3

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	H3	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
			IE2	IE3															L/A	L/B	H		IE2	IE3
NKP-G 50-125/115/ 3 /2	100	50	301	-	251	132	160	274	100	70	240	190	M10	100	-	28	65	50	670	420	540	0.152	78	-
NKP-G 50-125/125/ 4 /2	100	50	301	-	251	132	160	274	100	70	240	190	M10	100	-	28	65	50	670	420	540	0.152	113	-
NKP-G 50-125/135/ 5,5 /2	100	50	390	-	300	132	160	313	100	70	240	190	M10	100	20	28	65	50	830	430	520	0.186	115	-
NKP-G 50-125/144/ 7,5 /2	100	50	390	437	300	132	160	313	100	70	240	190	M10	100	20	28	65	50	830	430	520	0.186	87	96

NKP-G 50-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

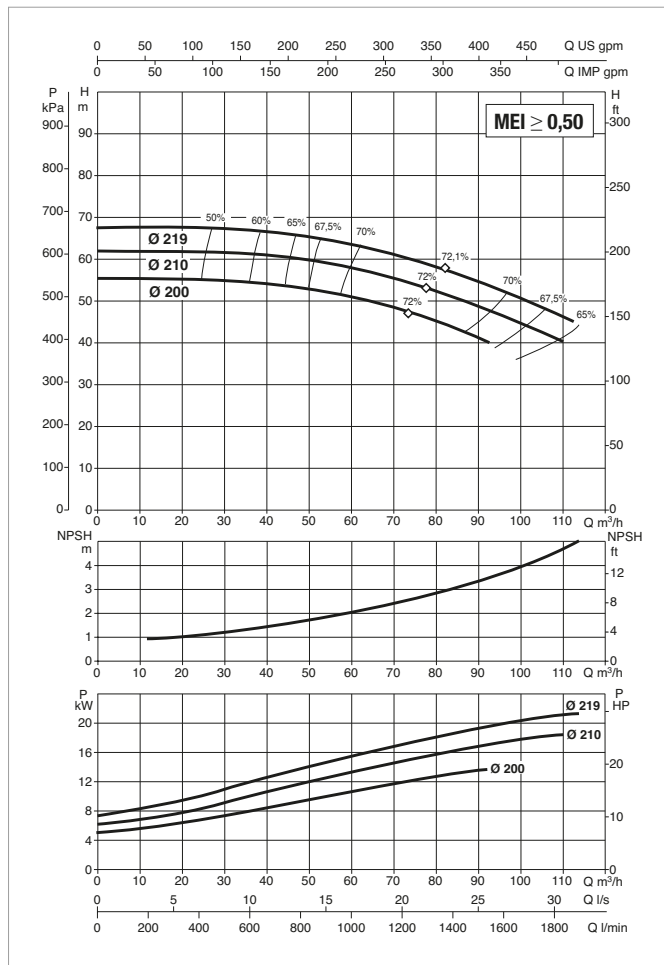
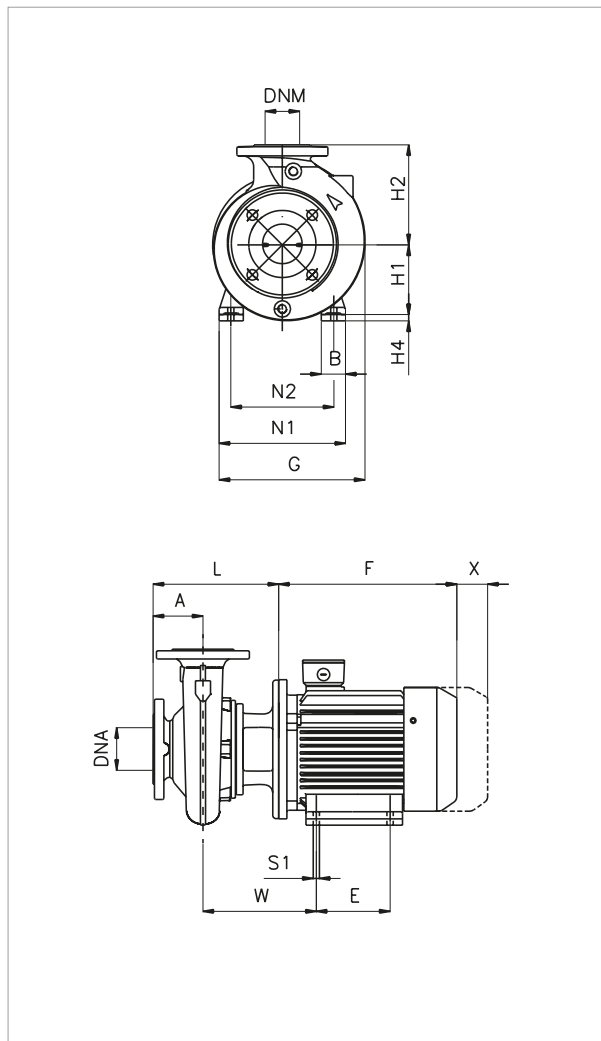
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 50-160/153/ 7.5 /2	MEC 132 S	400 V Δ	7.5	10	14	13.4	IE2 / IE3
NKP-G 50-160/169/11 /2	MEC 160 M	400 V Δ	11	15	20.2	19.4	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOL. (m ³)	WEIGHT kg	
				IE2	IE3																L/A	L/B	H		IE2	IE3
				NKP-G 50-160/153/ 7.5 /2	100																50	-	390		437	300
NKP-G 50-160/169/11 /2	100	67	210	505	505	350	160	180	343	-	-	314	254	M12	351	100	20	28	65	50	1030	530	640	0.349	115	96

NKP-G 50-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

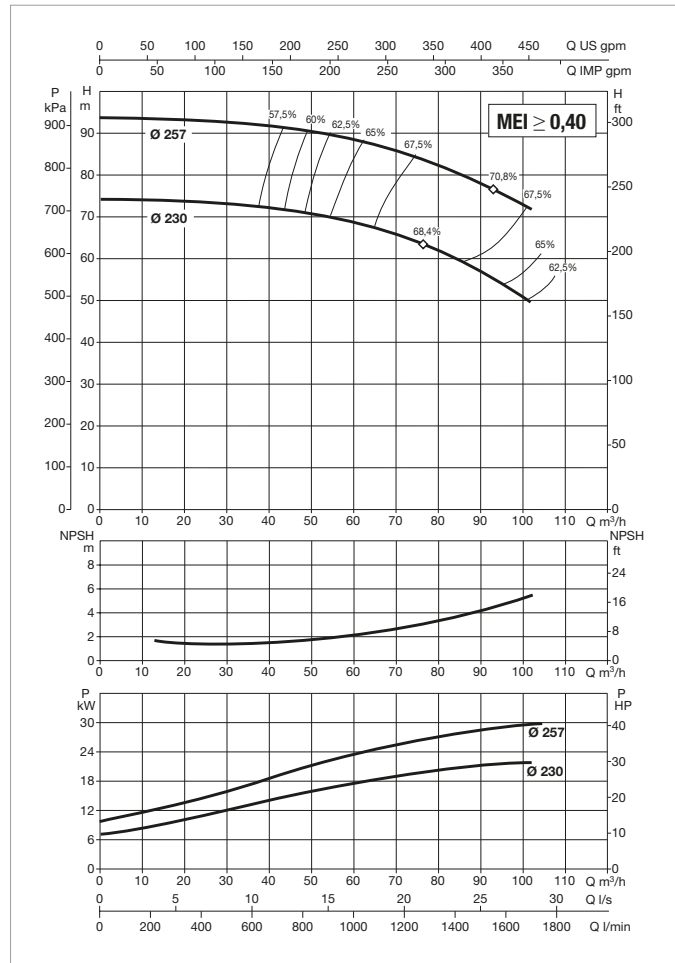
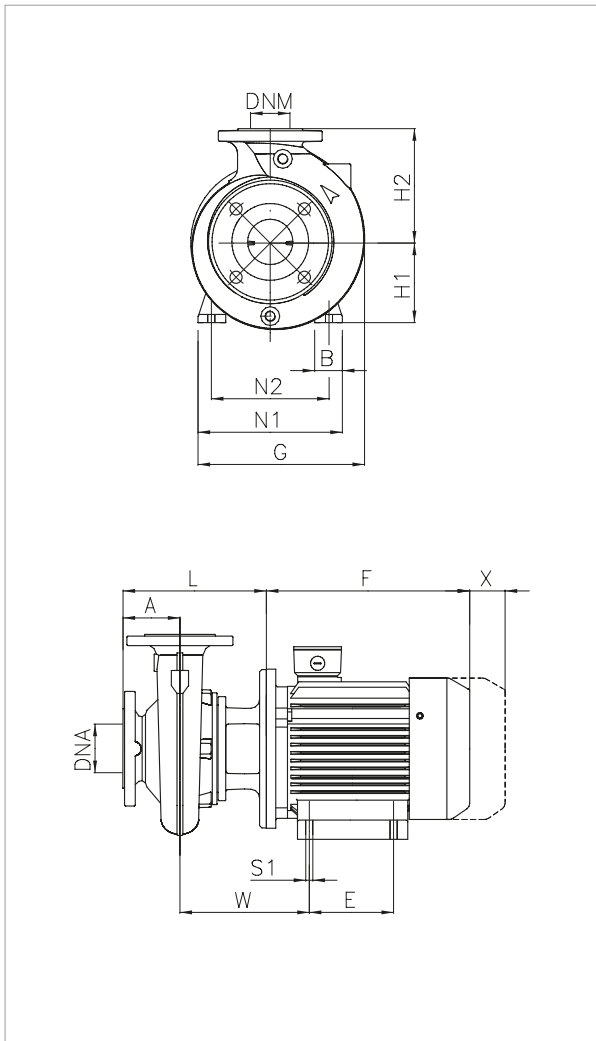
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 50-200/200/15 /2	MEC 160 M	400 V Δ	15	20	27	26.5	IE2 / IE3
NKP-G 50-200/210/18.5 /2	MEC 160 L	400 V Δ	18.5	25	33	32	IE2 / IE3
NKP-G 50-200/219/22 /2	MEC 180 M	400 V Δ	22	30	39.5	38	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 50-200/200/15 /2	100	67	210	505	505	350	160	200	343	314	254	M12	351	100	20	28	65	50	1030	530	640	0.349	138	176
NKP-G 50-200/210/18.5 /2	100	67	254	560	549	350	160	200	343	314	254	M12	351	100	20	28	65	50	1030	530	640	0.349	166	187
NKP-G 50-200/219/22 /2	100	74	241	580	580	350	160	200	343	345	279	M12	364	100	-	28	65	50	1030	530	640	0.349	179	218

NKP-G 50-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

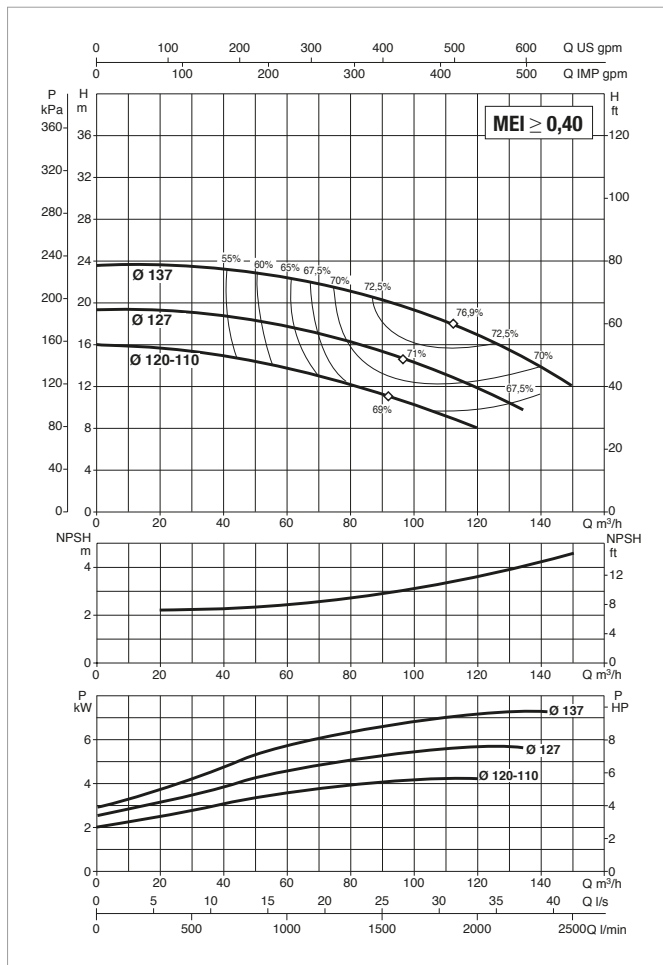
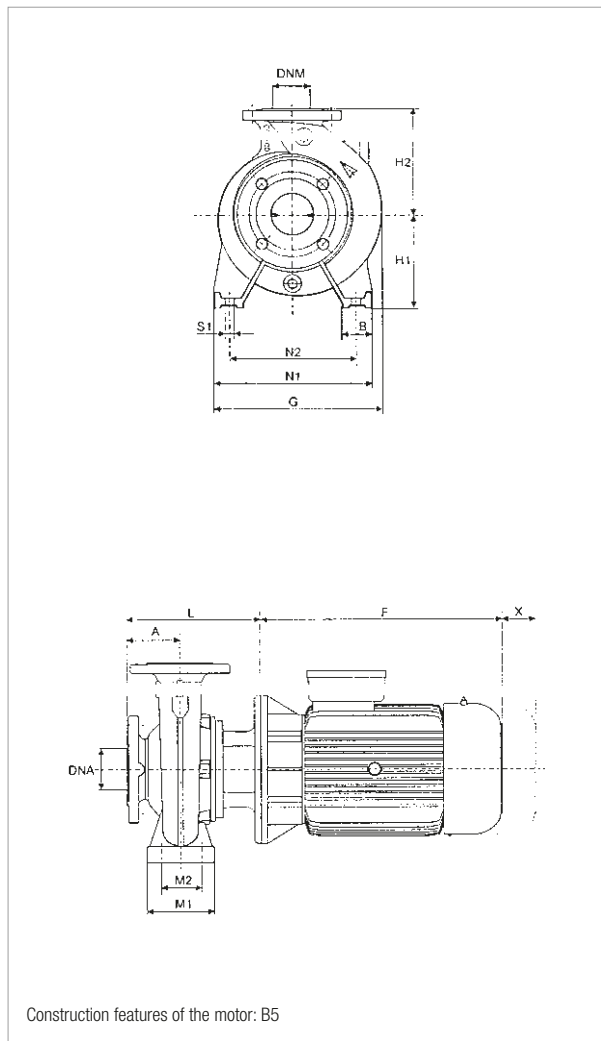
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 50-250/230/22 /2	MEC 180 M	400 V Δ	22	30	39.5	38	IE2 / IE3
NKP-G 50-250/257/30 /2	MEC 200 L	400 V Δ	30	40	52	52	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	N1	N2	S1	W	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3													L/A	L/B	H		IE2	IE3
NKP-G 50-250/230/22 /2	100	74	241	580	580	350	180	225	343	345	279	M12	364	100	28	65	50	1030	530	640	0.349	182	223
NKP-G 50-250/257/30 /2	100	85	305	660	670	400	200	225	343	388	318	M14	376	100	28	65	50	1130	580	740	0.485	325	351

NKP-G 65-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

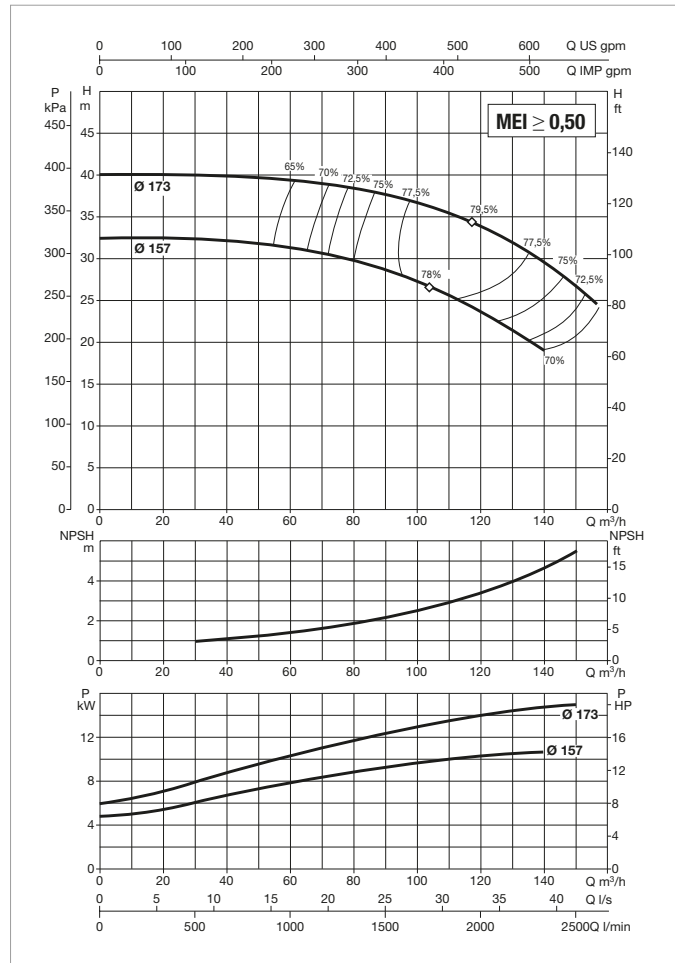
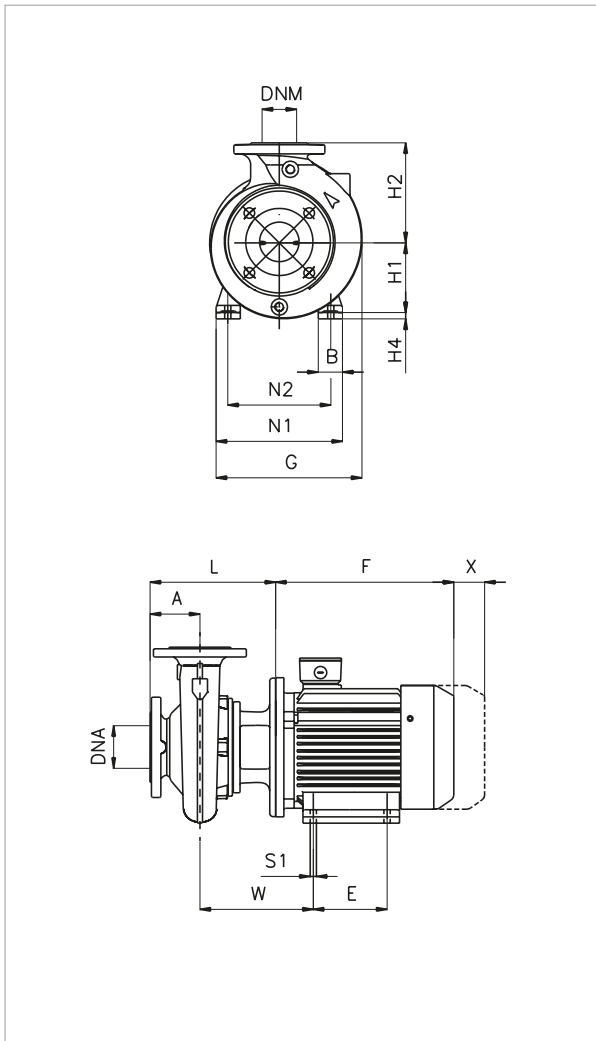
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 65-125/120-110/4/2	MEC 112	400 V Δ	4	5.5	8.05	-	IE2
NKP-G 65-125/127/ 5.5 /2	MEC 132 S	400 V Δ	5.5	7.5	10.4	-	IE2
NKP-G 65-125/137/ 7.5 /2	MEC 132 S	400 V Δ	7.5	10	14	13.4	IE2 / IE3

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
			IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 65-125/120-110/4/2	100	65	301	-	286	160	180	274	125	95	280	212	M10	100	28	80	65	670	420	540	0.152	104	-
NKP-G 65-125/127/ 5.5 /2	100	65	390	-	300	160	180	313	125	95	280	212	M10	100	28	80	65	830	430	520	0.186	113	-
NKP-G 65-125/137/ 7.5 /2	100	65	390	437	300	160	180	313	125	95	280	212	M10	100	28	80	65	830	430	520	0.186	91	94

NKP-G 65-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

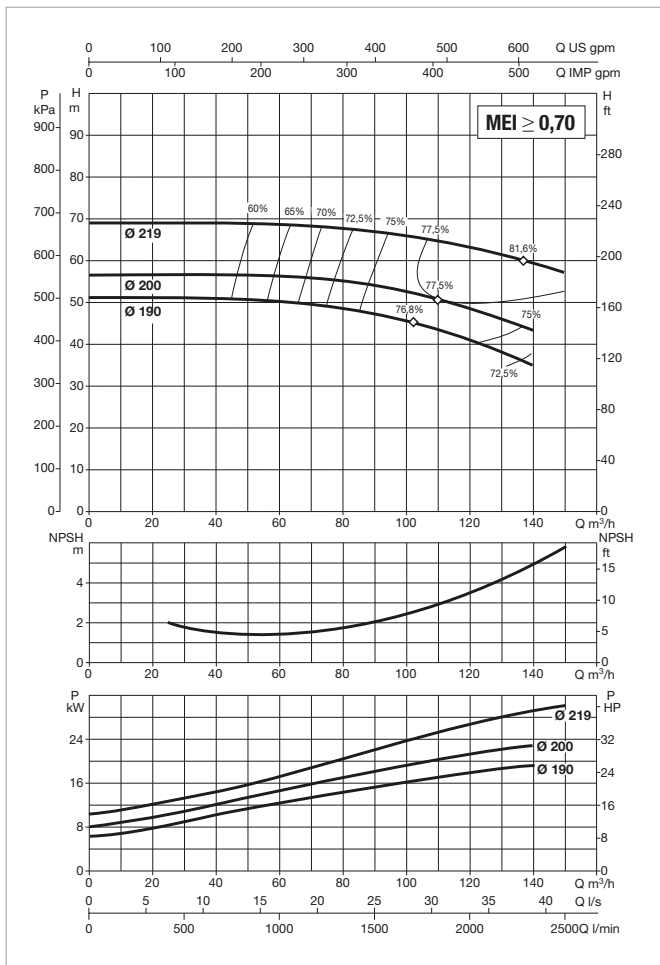
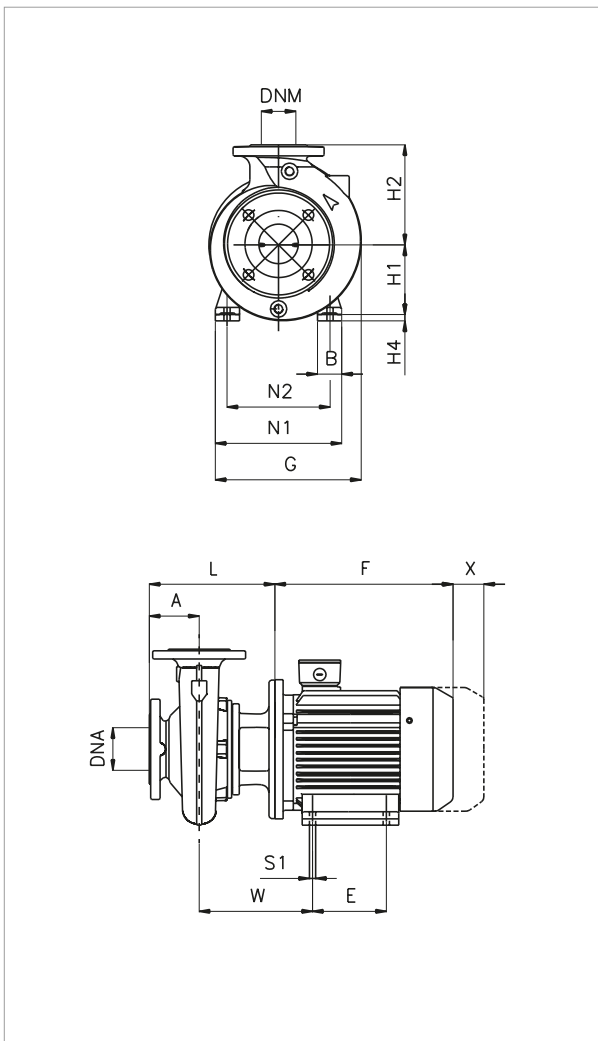
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 65-160/157/11 /2	MEC 160 M	400 V Δ	11	15	20.2	19.4	IE2 / IE3
NKP-G 65-160/173/15 /2	MEC 160 M	400 V Δ	15	20	27	26.5	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
				IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 65-160/157/11 /2	100	67	210	505	505	350	160	200	343	314	254	M12	351	100	20	28	80	65	1030	530	640	0.349	122	166
NKP-G 65-160/173/15 /2	100	67	210	505	505	350	160	200	343	314	254	M12	351	100	20	28	80	65	1030	530	640	0.349	134	172

NKP-G 65-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

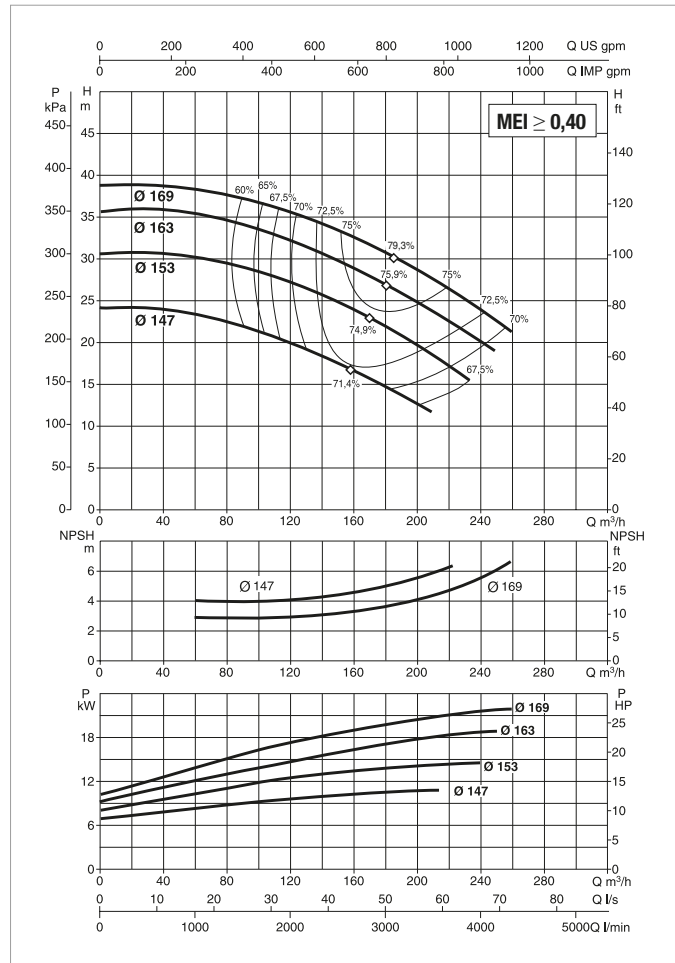
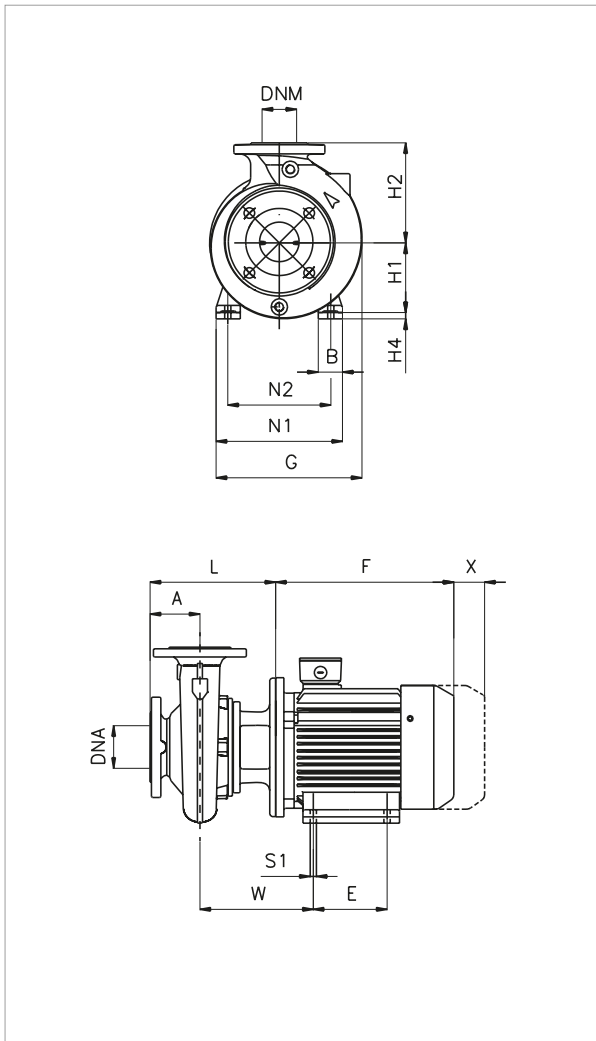
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 65-200/190/18.5 /2	MEC 160 L	400 V Δ	18.5	25	33	32	IE2 / IE3
NKP-G 65-200/200/22 /2	MEC 180 M	400 V Δ	22	30	39.5	38	IE2 / IE3
NKP-G 65-200/219/30 /2	MEC 200 L	400 V Δ	30	40	52	52	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 65-200/190/18.5 /2	100	67	254	560	549	350	160	225	343	314	254	M12	351	100	20	28	80	65	1030	530	640	0.349	165	192
NKP-G 65-200/200/22 /2	100	74	241	580	580	350	180	225	343	345	279	M12	364	100	-	28	80	65	1030	530	640	0.349	183	223
NKP-G 65-200/219/30 /2	100	85	305	660	670	400	200	225	343	388	318	M14	376	100	-	28	80	65	1130	580	740	0.485	234	351

NKP-G 80-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

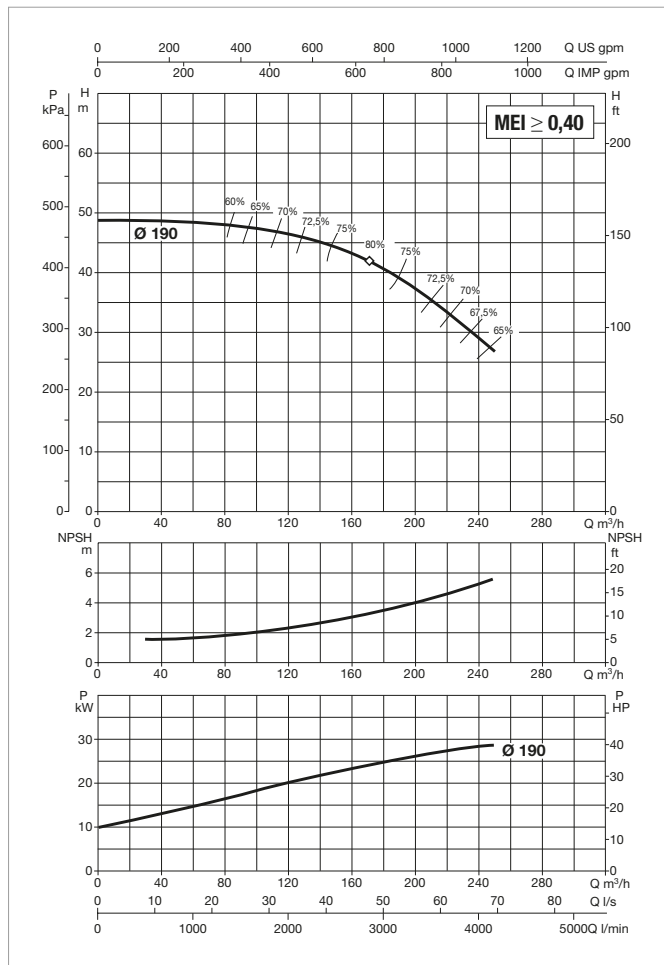
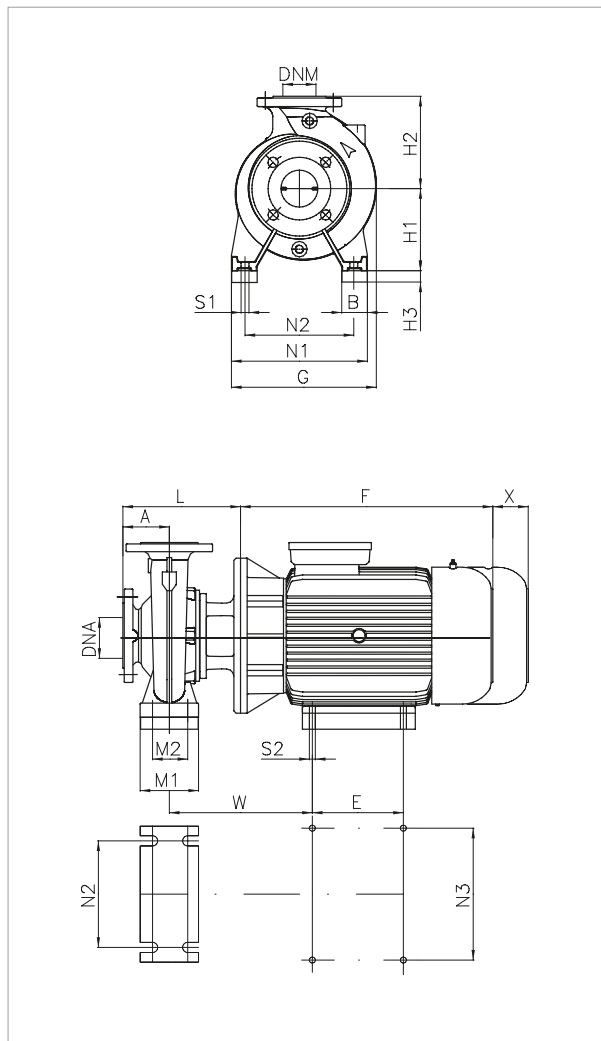
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 80-160/147-127/11 /2	MEC 160 M	400 V Δ	11	15	20.2	19.4	IE2 / IE3
NKP-G 80-160/153/15 /2	MEC 160 M	400 V Δ	15	20	27	26.5	IE2 / IE3
NKP-G 80-160/163/18.5 /2	MEC 160 L	400 V Δ	18.5	25	33	32	IE2 / IE3
NKP-G 80-160/169/22 /2	MEC 180 M	400 V Δ	22	30	39.5	38	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	N1	N2	S1	W	X	H4	Ø (mm) Mech. seal	DNa	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3														L/A	L/B	H		IE2	IE3
NKP-G 80-160/153/15 /2	125	67	210	505	505	350	160	225	368	314	254	M12	351	140	20	28	100	80	1030	530	640	0.349	149	181
NKP-G 80-160/163/18.5 /2	125	67	254	560	549	350	160	225	368	314	254	M12	351	140	20	28	100	80	1030	530	640	0.349	173	192
NKP-G 80-160/169/22 /2	125	74	241	580	580	350	180	225	368	345	279	M12	364	140	-	28	100	80	1130	580	740	0.485	187	221

NKP-G 80-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≅ 2900 1/min

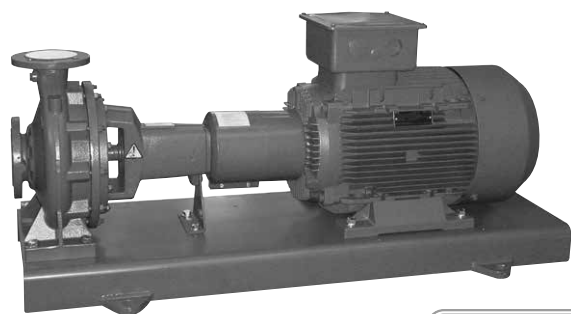


See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				
			P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKP-G 80-200/190/30 /2	MEC 200 L	400 V Δ	30	40	52	52	IE2 / IE3

MODEL	A	B	E	F		G	H1	H2	L	M1	M2	N1	N2	N3	S1	S2	W	X	H3	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
				IE2	IE3																		L/A	L/B	H		IE2	IE3
				NKP-G 80-200/190/30 /2	125																		65	305	660		670	400



TECHNICAL DATA

Rotation speed: 1450 - 2900 1/min.

Operating range:

from 1 to 470 m³/h with head up to 143 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from -10°C to +140°C.

Maximum ambient temperature: +40 °C.

Maximum operating pressure:

16 bar - 1600 kPa (for DN 200 max 10 bar).

Flanging: PN 16 DIN 2533

PN 10 DIN 2532 for DN 200

Installation: normally in the horizontal position.

Special executions on requests: pumps for liquids other than water.

Packing (also externally powered).

Other voltages and/or frequencies.

APPLICATIONS

Standardised centrifugal single-stage pumps, designed for a wide range of applications, such as:

Water supply.

Hot water circulation for the heating system.

Circulation of cold water for air conditioning and refrigeration systems.

Transfer of liquids in agricultural, horticultural, and industrial environments.

Installation of pumping assemblies.

They can be coupled, using an elastic joint (standard or spacer), to a 2-pole or 4-pole electric motor, and installed on a formed metal sheet base in accordance with UNI EN 23661.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron single stage spiral body complying with DIN-EN 733 (formerly DIN 24255), seal holder cover and cast iron motor support, flanges complying with DIN 2533 (DIN 2532 for DN 200). Cast iron impeller, closed and dynamically balanced, with compensation of the axial thrust through balancing holes, operation on interchangeable wear rings (on request). Stainless steel pump shaft supported by two permanently lubricated oversized ball bearings, housed inside an appropriate chamber in the support.

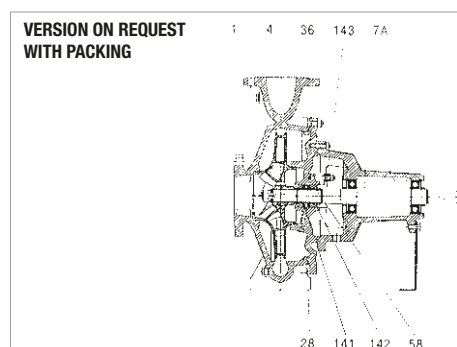
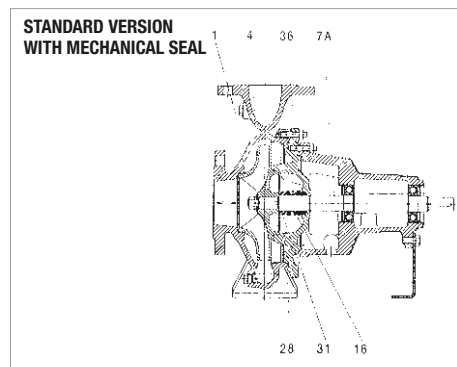
Standard seal device: standardised mechanical seal according to DIN 24960 in carbon/silicon carbide with EPDM OR rings.

Packing with lubricating hydraulic ring and stuffing box in two easily removable parts available on request.

MATERIALS

No.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON 250 UNI ISO 185
4	IMPELLER	CAST IRON 200 UNI ISO 185
7A	PUMP SHAFT	AISI 420 STAINLESS STEEL UNI 6900/71
28	OR RING	VITON
36	SEAL HOLDING DISC	CAST IRON 250 UNI ISO 185
16	MECHANICAL SEAL	CARBON/SILICON CARBIDE
31	SEAL SPACER	AISI 304 STAINLESS STEEL UNI 6900/71

No.	PARTS	MATERIALS
58	SEAL BUSHING	AISI 420 STAINLESS STEEL UNI 6900/71
141	HYDRAULIC RING	AISI 304 STAINLESS STEEL UNI 6900/71
142	STUFFING BOX	RAMIE IMPREGNATED PTFE

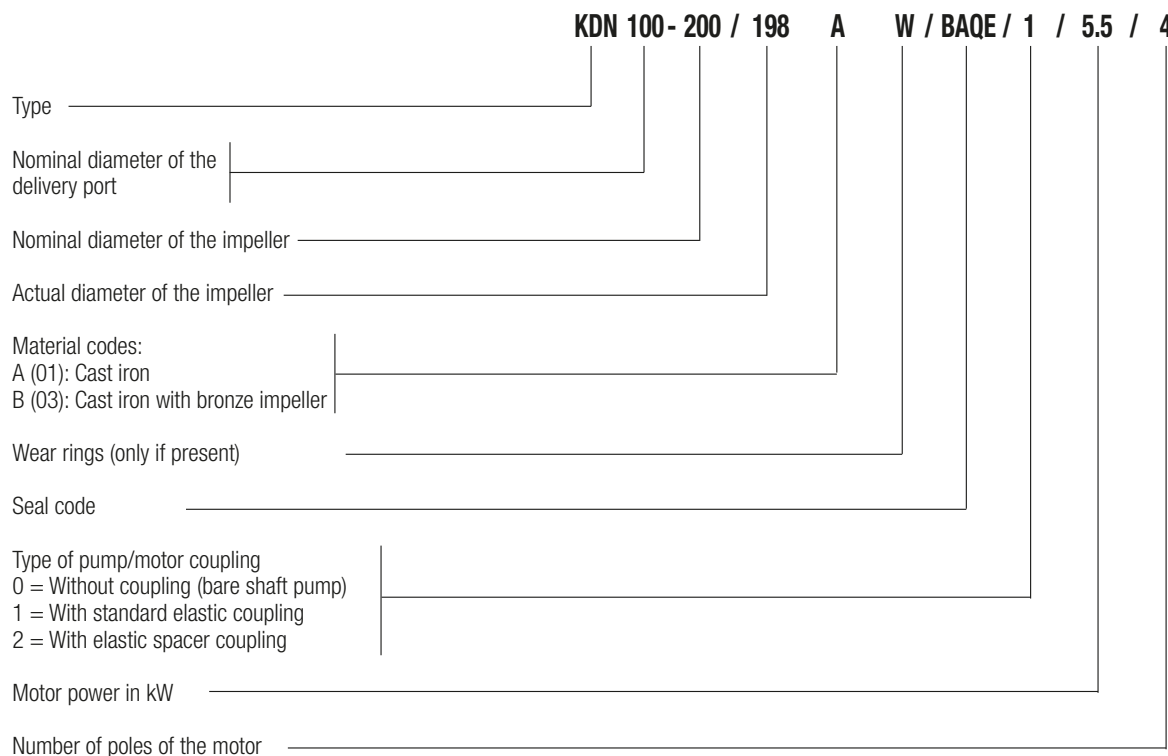


DENOMINATION INDEX

In the description of the bare shaft pump no mention is made of the coupling or motor data.

In the description of the pumps mounted on a base without a motor, the motor data are not mentioned.

The example given describes an NK 100-200 type pump with a cast iron 198 Ø impeller, with BAQE type mechanics, standard coupling and 4-poles 5,5 kW motor running on 380-415 V 50 Hz.



PUMP MATERIAL CODES

Component	VERSION	
	A (01) cast iron	B (03) cast iron with bronze impeller
Pump body	GG25	GG25
SEAL HOLDER DISC	GG25	GG25
Stuffing box	OT Cu 62 Si1	OT Cu 62 Si1
Impeller	GG25	GCuSn5Zn5Pb5 UNI 7013/8a-72
Wear rings*	GG20	GG20
Pump shaft	AISI 420 UNI 6900/71	
Shaft sleeve*	AISI 420 UNI 6900/71	

PACKING CODES

Position	Code	Description of the packing
1	S	Stuffing box type
Position	Code	Cooling
2	N	Stuffing box not cooled
	K	Stuffing box cooled
Position	Code	Sealing liquid
3	E	With internal liquid
	F	With external liquid
	O	Without hydraulic ring

* On request

** Only for packing or balanced mechanical seal.

DESCRIPTION OF THE MECHANICAL SEAL

Position	Code	Description of the seal
1	A	O-ring seal with fixed guide
	B	Rubber bellows seal
	C	O-ring seal with spring guide
	D	O-ring seal balanced
	M	Rubber bellows seal
	X	Metal bellows seal
Position	Code	Materials
2 & 3	A	Impregnated carbon/metal
	B	Impregnated carbon/resin
	C	Other carbon types
	S	Chromium steel
	U	Tungsten carbide
	Q	Silicon carbide
	V	Aluminium oxide (ceramic)
	X	Other ceramic types
Position	Code	Materials
4	P	Nitrile rubber (NBR)
	S	Silicon rubber
	T	Teflon (PTFE)
	E	EPDM
	V	Viton
	M	PTFE coated O-ring
Position	Code	Materials
5	v	Reinforced

PRODUCT CODE DESCRIPTION

NOMINAL DIAMETER OF THE IMPELLER	Cod.
125	1
160	2
200	3
250	4
315	5
125.1	K
160.1	L
200.1	M

PUMP TYPE	Cod.
KDN 32	1
KDN 40	2
KDN 50	3
KDN 65	4
KDN 80	5
KDN 100	6
KDN 125	7
KDN 150	8

IDENTIFICATION	Cod.
DAB PUMPS S.p.A.	D

	Cod.
DAB PUMPS S.p.A.	1

Cod.	PUMP/IMPELLER MATERIALS
1	A (01) = cast iron/cast iron
2	B (03) = cast iron/bronze
3	
4	
5	A (01) + Wr*
6	B (03) + Wr*
7	
8	

Cod.	SEAL DEVICE
1	BAQE
2	BAQE-RMG12
5	BQQV*
7	BAQV*
A	SNE*
B	SNO*
C	SNF*
G	BQQE*

* On request

Cod.	JOINT
0	Without joint
1	With standard elastic coupling
2	With elastic spacer coupling

* Bare shaft pump

Cod.	P2 NOMINAL
0	bare shaft
1	0.37
2	0.55
3	0.75
4	1.1
5	1.5
6	2.2
7	3
8	4
9	5.5
A	7.5
B	11
C	15
D	18.5
E	22
F	30
G	37
H	45
K	55
L	75
M	90
N	110
P	132

Cod.	VOLTAGE	PO-LES
0	Without motor	
1	3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz	2
2	3 x 380-480 V 60 Hz	2
3	3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz	4
4	3 x 380-480 V 60 Hz	4
A	3 x 220-240/380-415 V 50 Hz - IE2	2
B	3 x 380-415 V 50 Hz - IE2	2
C	3 x 220-240/380-415 V 50 Hz - IE2	4
D	3 x 380-415 V 50 Hz - IE2	4
U	3 x 220-240/380-415 V 50 Hz - IE3	2
V	3 x 380-415 V 50 Hz - IE3	2
W	3 x 220-240/380-415 V 50 Hz - IE3	4
X	3 x 380-415 V 50 Hz - IE3	4

Product code

1 D 1 1 1 1 1 1 1

← Bare shaft pump → 0 0 0
 ← Pump with base without motor → 0
 ← Complete electric pump with base →

GENERAL DATA

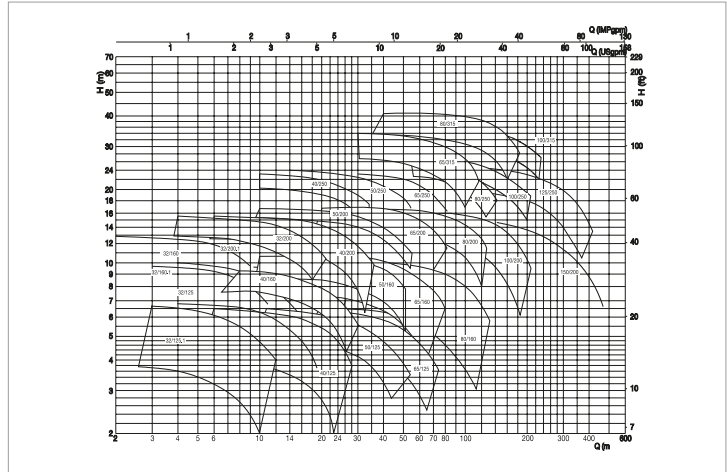
Supplied with closed asynchronous type motor, external ventilation cooling, 2 or 4 poles.

Rotor running on ball bearings, largely oversized to ensure low noise and durability.

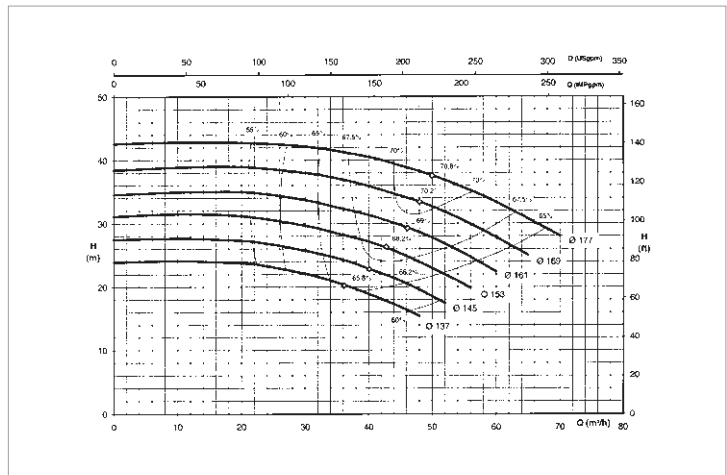
Electrical protection: in compliance with the EEC 89/336 ELECTROMAGNETIC COMPATIBILITY DIRECTIVE and subsequent amendments, the EEC 73/23 LOW VOLTAGE DIRECTIVE and subsequent amendments, as well as CEI 2-3 standards.

INSTRUCTIONS FOR THE IDENTIFICATION OF THE PUMP AND MOTOR REQUIRED.

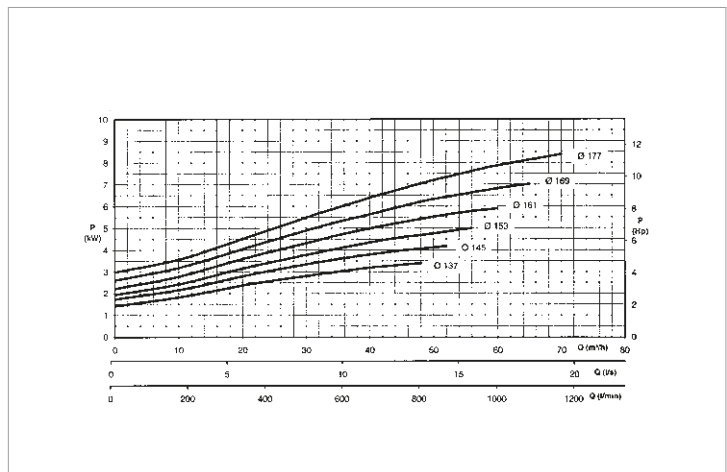
1. On the general chart supplied, find the family pump that indicatively offers the required flow rate and head characteristics.



2. Look for the most appropriate characteristic on the characteristic curves for each family.



3. On the power chart, identify the power required by the pump in order to operate at the required level.



4. Due to the possibility of variations in the pumped liquid flow rate, which can cause an oscillation of the point of operation, a higher power absorption may occur. When selecting the motor, allow for the following safety margins:

Safety margin according to ISO 5199

REQUIRED PUMP SHAFT POWER (kW)	POWER OF THE MOTOR TO USE P2 (kW)
322	355
286	315
227	250
181	200
145	160
120	132
100	110
81	90
68	75
49	55
40	45
32.5	37
26	30
19	22
15.9	18.5
12.8	15
9.1	11
6.1	7.5
4.3	5.5
3.2	4
2.3	3
1.7	2.2
1.1	1.5
0.81	1.1
0.55	0.75
0.40	0.55
0.27	0.37
0.18	0.25

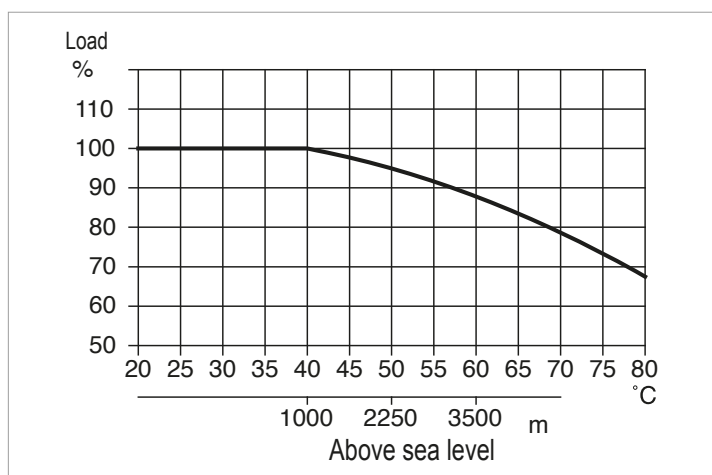
If the pump is to be used with liquids with fairly high specific weight and viscosity values, apply any required corrections to the power of the motor to be installed (check the suitability of the construction materials in contact with the liquid).

5. With the name of the pump and the power of the motor, look through the following technical data to find the name of the most suitable base (complete with motor, spacer coupling, and coupling cover).
6. The pump and base required will be delivered already assembled and aligned, although an alignment check is always required after installation (see INSTRUCTION MANUAL).

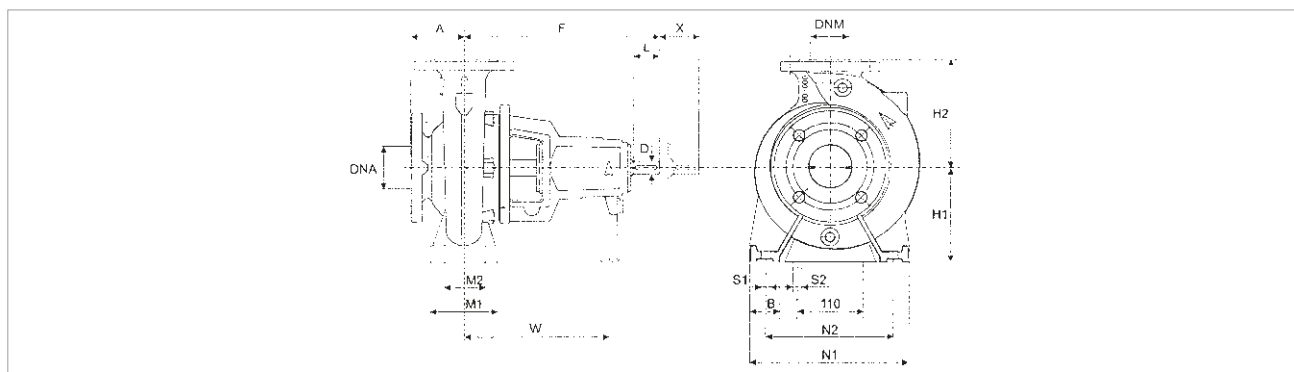
Ambient temperature

From -30 °C to +40 °C

Due to the low density, and therefore low cooling effect of the air, operation at an ambient temperature above 40 °C, or at an altitude exceeding 1000 m above sea level, requires a reduction of the rated motor load in accordance with this table.



DIMENSIONS OF BARE SHAFT PUMPS



MODEL	η MAX 1450 min ⁻¹		η MAX 2900 min ⁻¹		FLANGE DIMENSIONS		PUMP DIMENSIONS				BASE DIMENSIONS					BOLT HOLES		SHAFT END		X	WEIGHT kg	
	Q m ³ /h	H m	Q m ³ /h	H m	DNA	DNM	A	F	H1	H2	B	M1	M2	N1	N2	W	S1	S2	D			L
KDN 32-125.1	10.5	5.5	20.9	22	50	32	80	360	112	140	50	100	70	190	140	260	M12	M12	24	50	100	37
KDN 32-125	13.6	5.8	28	22.8	50	32	80	360	112	140	50	100	70	190	140	260	M12	M12	24	50	100	36
KDN 32-160.1	8.7	8.3	17.5	33	50	32	80	360	132	160	50	100	70	240	190	260	M12	M12	24	50	100	38
KDN 32-160	15.9	8.6	31	34	50	32	80	360	132	160	50	100	70	240	190	260	M12	M12	24	50	100	38
KDN 32-200.1	8.5	11.4	18	45	50	32	80	360	160	180	50	100	70	240	190	260	M12	M12	24	50	100	46
KDN 32-200	17.7	13.2	35.5	52.5	50	32	80	360	160	180	50	100	70	240	190	260	M12	M12	24	50	100	46
KDN 40-125	21.8	5.6	46	21.5	65	40	80	360	112	140	50	100	70	210	160	260	M12	M12	24	50	100	39
KDN 40-160	25.8	9.2	50	37.2	65	40	80	360	132	160	50	100	70	240	190	260	M12	M12	24	50	100	41
KDN 40-200	29	12.6	57	51	65	40	100	360	160	180	50	100	70	265	212	260	M12	M12	24	50	100	49
KDN 40-250	31	19.1	62	77	65	40	100	360	180	225	65	125	95	320	250	260	M12	M12	24	50	100	57
KDN 50-125	41	5.4	83	21.5	65	50	100	360	132	160	50	100	70	240	190	260	M12	M12	24	50	100	42
KDN 50-160	43.3	9.3	87.5	37	65	50	100	360	160	180	50	100	70	265	212	260	M12	M12	24	50	100	44
KDN 50-200	41	14	81	56	65	50	100	360	160	200	50	100	70	265	212	260	M12	M12	24	50	100	51
KDN 50-250	49	19.1	100	76	65	50	100	360	180	225	65	125	95	320	250	260	M12	M12	24	50	100	59
KDN 65-125	57	5.2	114	21	80	65	100	360	160	180	65	125	95	280	212	260	M12	M12	24	50	100	46
KDN 65-160	61	8.6	121	34.5	80	65	100	360	160	200	65	125	95	280	212	260	M12	M12	24	50	100	47
KDN 65-200	62	14.8	123	59	80	65	100	360	180	225	65	125	95	320	250	260	M12	M12	24	50	140	66
KDN 65-250	65.4	20	129	81	80	65	100	470	200	250	80	160	120	360	280	340	M16	M12	32	80	140	93
KDN 65-315	84	31.5	-	-	80	65	125	470	225	280	80	160	120	400	315	340	M16	M12	32	80	140	112
KDN 80-160	101	8.1	195	33.5	100	80	125	360	180	225	65	125	95	320	250	260	M12	M12	24	50	140	55
KDN 80-200	101	14.4	200	57.5	100	80	125	470	180	250	65	125	95	345	280	340	M12	M12	32	80	140	84
KDN 80-250	103	23	215	88	100	80	125	470	200	280	80	160	120	400	315	340	M16	M12	32	80	140	104
KDN 80-315	136	35	-	-	100	80	125	470	250	315	80	160	120	400	315	340	M16	M12	32	80	140	122
KDN 100-200	163	13.4	315	53	125	100	125	470	200	280	80	160	120	360	280	340	M16	M12	32	80	140	96
KDN 100-250	159	21.8	313	87	125	100	140	470	225	280	80	160	120	400	315	340	M16	M12	32	80	140	111
KDN 100-315	187	34.1	-	-	125	100	140	470	250	315	80	160	120	400	315	340	M16	M12	32	80	140	126
KDN 125-250	289	20.5	-	-	150	125	140	470	250	355	80	160	120	400	315	340	M16	M12	32	80	140	135
KDN 150-200	378	10	-	-	200	150	160	470	280	400	100	200	150	550	450	340	M20	M12	32	80	140	178

FLANGE DIMENSIONS (mm)

	Nominal diameter (DN)								
	DIN 2533 PN 16								DIN 2533 PN 10
	32	40	50	65	80	100	125	150	200
D(32	40	50	65	80	100	125	150	200
D)	100	110	125	145	160	180	210	240	295
D[140	150	165	185	200	220	250	285	340
S	18	18	18	18	18	18	18	22	22
NO. OF HOLES	4	4	4	4	8	8	8	8	8

KDN - 4 POLE RANGE

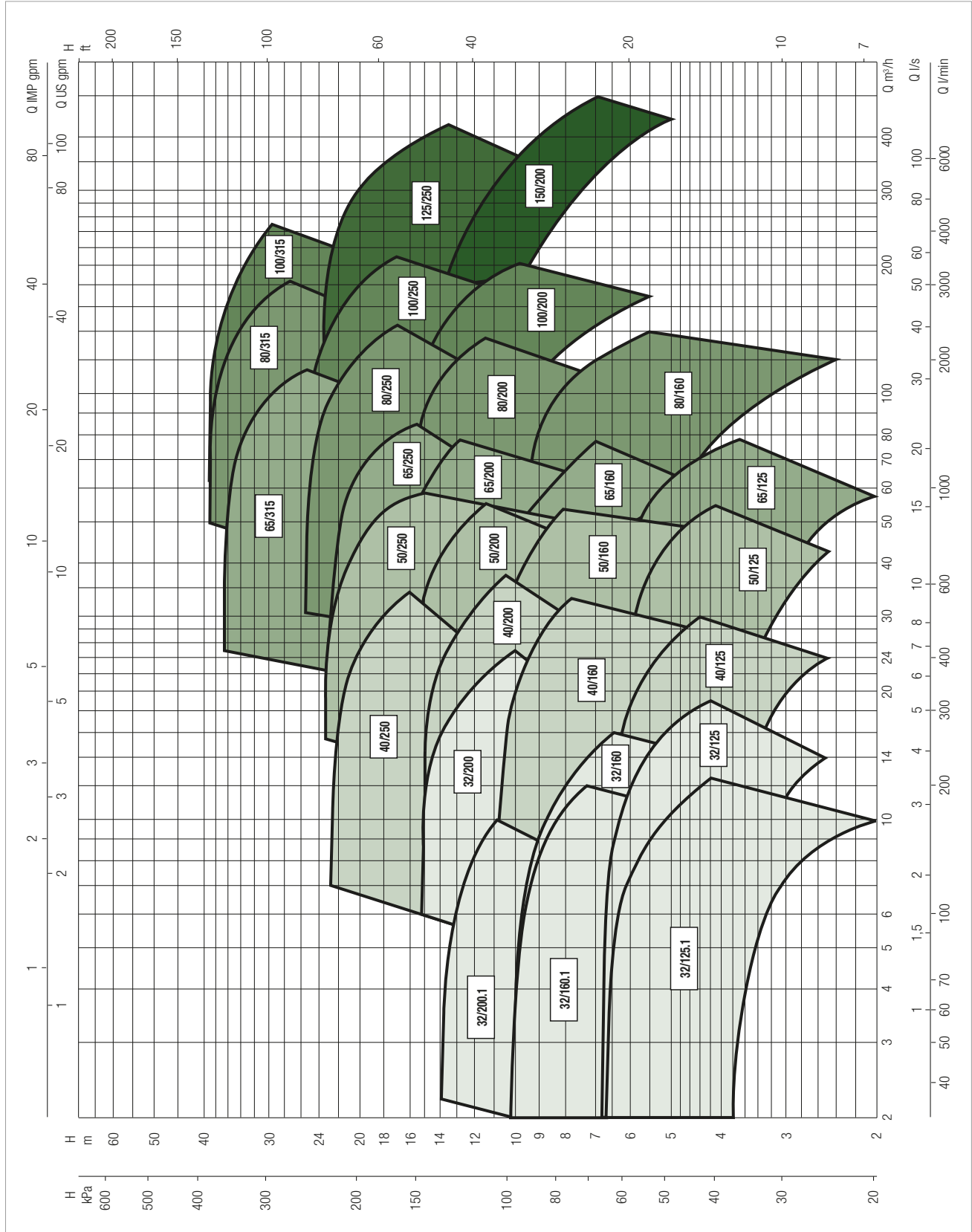
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 1450 1/min



KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 32

MODEL	Q=m ³ /h	0	3	6	12	18	24
	Q=l/min	0	50	100	200	300	400
KDN 32-125.1/105	H (m)	3.5	3.4	3.1			
KDN 32-125.1/110		3.9	3.8	3.5			
KDN 32-125.1/115		4.25	4.2	3.9			
KDN 32-125.1/120		4.7	4.6	4.3			
KDN 32-125.1/125		5.1	5.1	4.8			
KDN 32-125.1/130		5.6	5.6	5.3			
KDN 32-125.1/135		6.1	6	5.8	4.4		
KDN 32-125.1/140		6.6	6.6	6.4	5.1		
KDN 32-125/115		4.3		4.1	3.2		
KDN 32-125/120		4.75		4.6	3.75		
KDN 32-125/125		5.2		5.05	4.2		
KDN 32-125/130		5.7		5.5	4.8		
KDN 32-125/135		6.2		6	5.3	3.65	
KDN 32-125/142		6.9		6.75	6.15	4.5	
KDN 32-160.1/137		5.3	5.3	4.7			
KDN 32-160.1/145		6.2	6.1	5			
KDN 32-160.1/153		7	7	6.6			
KDN 32-160.1/161		8	7.9	7.6			
KDN 32-160.1/169		8.9	8.9	8.6	5.5		
KDN 32-160.1/177		9	9.8	9.5	6.6		
KDN 32-160/137		5.9		5.6	4.4		
KDN 32-160/145		6.7		6.5	5.3		
KDN 32-160/153		7.6		7.4	6.25		
KDN 32-160/161		8.5		8.25	7.25		
KDN 32-160/169		9.5		9.3	8.4	6.6	
KDN 32-160/177		10.5		10.4	9.6	7.8	
KDN 32-200.1/170		8.6	8.5	7.2			
KDN 32-200.1/180		9.8	9.8	9			
KDN 32-200.1/190		11.3	11.1	10.5			
KDN 32-200.1/200		12.8	12.7	11.7	8.3		
KDN 32-200.1/207		13.8	13.8	13	8.9		
KDN 32-200/170		8.6		8.2	6.7		
KDN 32-200/180		9.9		9.6	8.2		
KDN 32-200/190		11.2		10.9	9.7	7	
KDN 32-200/200		12.6		12.3	11.1	8.7	
KDN 32-200/210		14.3		14	13.1	10.7	
KDN 32-200/219		15.7		15.4	14.8	13	9.8

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

TABELLA DI SELEZIONE - KDN 40

MODEL	Q=m ³ /h	0	6	12	18	24	30	36
	Q=l/min	0	100	200	300	400	500	600
KDN 40-125/115	H (m)	4.2	4.1	3.8	3.2	2.4		
KDN 40-125/120		4.6	4.5	4.2	3.7	2.9		
KDN 40-125/125		5.1	4.9	4.7	4.1	3.3		
KDN 40-125/130		5.5	5.4	5.2	4.7	3.9		
KDN 40-125/135		6	5.9	5.8	5.3	4.6		
KDN 40-125/142		6.7	6.6	6.5	6	5.3	4.1	
KDN 40-160/137		5.9	5.8	5.8	5	3.7		
KDN 40-160/145		6.7	6.6	6.5	6	4.8		
KDN 40-160/153		7.6	7.6	7.5	7	6.8		
KDN 40-160/161		8.6	8.5	8.4	8	7.1	5.6	
KDN 40-160/169		9.6	9.5	9.5	9.1	8.3	7	
KDN 40-160/177		10.7	10.7	10.6	10.2	9.5	8.3	
KDN 40-200/170		8.4	8.4	8.2	7.4	5.7		
KDN 40-200/180		9.7	9.7	9.4	8.8	7.2		
KDN 40-200/190		10.9	10.8	10.7	10.2	8.8	6.8	
KDN 40-200/200		12.2	12.1	12	11.7	10.4	8.6	
KDN 40-200/210		13.6	13.5	13.5	13.2	12.1	10.6	
KDN 40-200/219		15	15	15	14.7	13.8	12.4	10.4
KDN 40-250/220		15.8		15.6	14.8	13.6	12	
KDN 40-250/230		17.4		17.2	16.5	15.3	13.7	
KDN 40-250/240	19.1		19	18.2	17	15.5		
KDN 40-250/250	20.7		20.6	20	18.9	17.5		
KDN 40-250/260	22.7		22.6	22.1	21	19.5		

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 50

MODEL	Q=m ³ /h	0	12	18	24	30	36	42	48	54
	Q=l/min	0	200	300	400	500	600	700	800	900
KDN 50-125/115	H (m)	4.2	4.1	3.9	3.6	3.3	2.9	2.3		
KDN 50-125/120		4.6	4.4	4.3	4	3.7	3.3	2.8		
KDN 50-125/125		5	4.9	4.7	4.5	4.2	3.7	3.3		
KDN 50-125/130		5.6	5.4	5.2	5	4.7	4.2	3.8	3.2	
KDN 50-125/135		6	5.8	5.7	5.5	5.2	4.8	4.3	3.8	
KDN 50-125/139		6.3	6.2	6.1	5.9	5.6	5.2	4.8	4.2	
KDN 50-125/144		6.7	6.7	6.6	6.4	6.2	5.8	5.3	4.8	4.1
KDN 50-160/137		6	6	5.9	5.6	5.2	4.8			
KDN 50-160/145		6.8	6.7	6.7	6.5	6.2	5.8			
KDN 50-160/153		7.6	7.6	7.5	7.4	7.2	6.7			
KDN 50-160/161		8.4	8.4	8.3	8.2	8.1	7.7			
KDN 50-160/169		9.4	9.3	9.2	9.2	9.1	8.8			
KDN 50-160/177		10.4	10.3	10.3	10.2	10.1	9.95			
KDN 50-200/170		9.5	9.3	9.2	8.8	8	6.85			
KDN 50-200/180		10.6	10.6	10.5	10.1	9.5	8.6	7.3		
KDN 50-200/190		11.8	11.7	11.6	11.4	10.8	10.1	8.9		
KDN 50-200/200		13.1	13	13	12.8	12.3	11.6	10.6	9.4	
KDN 50-200/210		14.6	14.6	14.5	14.4	13.9	13.2	12.2	11	
KDN 50-200/219		16	16	16	15.9	15.4	14.2	13.8	12.7	11.4
KDN 50-250/220		15.9	15.7	15.6	15.4	14.9	13.8	12.4	10.5	xxx
KDN 50-250/230		17.4	17.3	17.2	17	16.5	15.5	14.2	12.6	10.3
KDN 50-250/240		19	19	19	18.8	18.2	17.4	16.2	14.7	12.4
KDN 50-250/250		20.8	20.8	20.7	20.6	20.1	19.2	18.1	17	14.8
KDN 50-250/263		23	23	22.9	22.8	22.5	21.7	20.6	19.4	17.5

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 65

MODEL	Q=m ³ /h	0	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	
	Q=l/min	0	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	
KDN 65-125/120/110	H (m)	3.75		3.5	3.3	3.2	2.9	2.7	2.3	1.9								
KDN 65-125/120		4.25		3.9	3.8	3.6	3.3	3.1	2.7	2.3								
KDN 65-125/125		4.7		4.4	4.25	4.1	3.8	3.6	3.25	2.8								
KDN 65-125/130		5.1		4.9	4.75	4.6	4.3	4.1	3.8	3.3	2.8							
KDN 65-125/135		5.6		5.4	5.3	5.2	4.9	4.7	4.3	3.9	3.5	3						
KDN 65-125/140		6		5.9	5.8	5.7	5.5	5.2	4.9	4.5	4.1	3.6						
KDN 65-125/144		6.4		6.35	6.25	6.2	5.9	5.7	5.4	5	4.65	4.2	3.7					
KDN 65-160/137		5.8		5.7	5.4	5.2	4.75	4.3	3.7									
KDN 65-160/145		6.5		6.5	6.3	6	5.7	5.3	4.75	4.1								
KDN 65-160/153		7.3		7.2	7.2	6.9	6.7	6.3	5.8	5.25								
KDN 65-160/161		8.2		8.1	8.1	7.9	7.7	7.3	6.85	6.3	5.8							
KDN 65-160/169		9.1		9.1	9	8.9	8.7	8.4	8	7.6	7.1	6.4						
KDN 65-160/177		10		10	9.9	9.8	9.7	9.45	9.1	8.7	8.2	7.5						
KDN 65-200/170		9.3	9.3	9.2	9.2	9	8.5	7.9	7.1	6.3								
KDN 65-200/180		10.4	10.4	10.4	10.3	10.2	10	9.5	8.8	8.1								
KDN 65-200/190		12.1	12	12	12	11.9	11.5	11.1	10.5	9.8	8.8							
KDN 65-200/200		13.3	13.3	13.3	13.2	13.1	13	12.8	12.3	11.6	10.8							
KDN 65-200/210		14.8	14.7	14.7	14.7	14.6	14.6	14.3	13.8	13.4	12.7	12						
KDN 65-200/219		16.2	16.2	16.2	16.1	16	15.9	15.8	15.4	15	14.4	13.5	12.7					
KDN 65-250/220		15.8		15.8	15.5	15.1	14.5	14	13.2	12	10.7							
KDN 65-250/230		17.4		17.4	17.2	16.8	16.3	15.7	15	14.1	12.7	11.4						
KDN 65-250/240		19		19	18.9	18.5	18.1	17.5	16.8	16	14.7	13.6						
KDN 65-250/250		20.7		20.7	20.6	20.4	20	19.5	18.8	18	17	15.9	14.5					
KDN 65-250/263		23.2		23	23	22.9	22.5	22.2	21.6	20.8	19.8	18.6	17.4	16				
KDN 65-315/260		22.3		22.2	22.1	22	21.5	21	20.5	20	19.2	18.4	17	16	15			
KDN 65-315/275		25.1		25.1	25	24.8	24.6	24.1	23.5	23	22.5	21.5	20.5	19.4	18.1			
KDN 65-315/290		28.2		28.2	28.1	28	27.8	27.3	27	26.5	25.5	25	24	23.1	22	19.5		
KDN 65-315/305		31.7		31.5	31.4	31.4	31.3	31.2	30.8	30.4	29.6	29	28	27.2	26.1	23.5		
KDN 65-315/320		35.7		35.4	35.3	35.2	35.1	35	34.8	34.5	33.8	33.5	32.5	31.5	30.8	28	24.8	

CENTRIFUGAL PUMPS

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 80

MODEL	Q=m ³ /h	0	42	48	54	60	66	72	78	84	90	102	114	120	150	180
	Q=l/min	0	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2000	2500	3000
KDN 80-160/147/127	H (m)	5.7	5.4	5.25	5.05	4.8	4.6	4.35	4.15	3.85	3.6	3.1	2.5	2.2		
KDN 80-160/153/136		6.4	6.2	6.05	5.85	5.7	5.4	5.15	4.8	4.65	4.4	3.85	3.3	3		
KDN 80-160/153		7.3	7.1	6.9	6.7	6.5	6.3	6	5.75	5.4	5.2	4.55	3.9	3.6		
KDN 80-160/161		8.2	8	7.9	7.75	7.5	7.3	7.05	6.8	6.5	6.25	5.6	4.9	4.6		
KDN 80-160/169		9.1	9	8.85	8.7	8.6	8.35	8.1	7.85	7.6	7.3	6.75	6	5.7		
KDN 80-160/177		10	9.9	9.85	9.8	9.7	9.5	9.3	9.1	8.85	8.7	8.1	7.25	6.9		
KDN 80-200/170		9.2	9.1	9	8.7	8.5	8.2	7.8	7.5	7.1	6.7	5.6				
KDN 80-200/180		10.3	10.2	10.2	10	9.9	9.6	9.2	9	8.6	8.2	7.2				
KDN 80-200/190		11.4	11.4	11.3	11.2	11.1	11	10.7	10.5	10.1	9.8	8.7	6.8			
KDN 80-200/200		12.7	12.6	12.6	12.6	12.5	12.4	12.3	12	11.6	11.4	10.5	9.4	8.8		
KDN 80-200/210		14.1	14	14	14	13.9	13.8	13.7	13.6	13.3	13.1	12.1	11.2	10.6		
KDN 80-200/222		15.9	15.9	15.8	15.7	15.6	15.6	15.5	15.4	15.3	15	14.3	13.4	12.8		
KDN 80-250/220		16	15.9	15.8	15.7	15.6	15.5	15.2	14.9	14.5	13.9	12.8				
KDN 80-250/230		17.3	17.3	17.2	17.1	17	16.9	16.8	16.5	16	15.5	14.3	12.4			
KDN 80-250/240		19	19	19	18.9	18.8	18.7	18.6	18.4	18	17.6	16.6	15.3	14.6		
KDN 80-250/250		20.8	20.7	20.7	20.7	20.6	20.5	20.4	20.3	19.9	19.6	18.6	17.4	16.8		
KDN 80-250/260		22.6	22.5	22.5	22.4	22.3	22.2	22.1	22	21.8	21.4	20.6	19.6	19	15.1	
KDN 80-250/270		24.5	24.4	24.4	24.4	24.3	24.2	24.1	24	23.7	23.3	22.4	21.4	20.7	16.3	
KDN 80-315/275		24.8		24.8	24.8	24.7	24.6	24.5	24.4	24.3	24	23	21.4	20.5		
KDN 80-315/290		27.8		27.8	27.8	27.7	27.7	27.6	27.6	27.5	27.4	26.5	25	24.6	19.1	
KDN 80-315/305	31.4		31.4	31.3	31.2	31.2	31.2	31.2	31.2	30.9	30	29	28.5	24		
KDN 80-315/320	34.8		34.7	34.6	34.6	34.5	34.4	34.3	34	33.9	33.8	33.2	32.8	28.8		
KDN 80-315/334	38.3		38.2	38.2	38.2	38.2	38.2	38.1	38	37.9	37.6	37	36.9	33.1	28	

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 100

MODEL	Q=m ³ /h	0	60	66	72	78	84	90	102	114	120	150	180	210	240	
	Q=l/min	0	1000	1100	1200	1300	1400	1500	1700	1900	2000	2500	3000	3500	4000	
KDN 100-200/180	H (m)	10.1	10.1	10.1	10	9.9	9.7	9.5	9.1	8.5	8.3	7	5.4			
KDN 100-200/190		11.6	11.5	11.4	11.3	11.2	11.1	11	10.5	10.1	10	8.6	7			
KDN 100-200/200		12.9	12.8	12.8	12.8	12.7	12.6	12.5	12.2	11.8	11.6	10.4	8.8			
KDN 100-200/210		14.3	14.2	14.2	14.2	14.2	14.1	14	13.8	13.5	13.3	12.3	10.7	9		
KDN 100-200/219		16	15.7	15.7	15.6	15.6	15.5	15.5	15.3	15.1	15	14	12.5	10.8		
KDN 100-250/220		15.2	14.9	14.9	14.9	14.8	14.7	14.6	14.3	13.7	13.4	11.4				
KDN 100-250/230		16.9	16.7	16.7	16.6	16.5	16.4	16.3	16.1	15.7	15.3	13.6	11.1			
KDN 100-250/240		18.5	18.3	18.3	18.3	18.2	18.1	18	17.9	17.6	17.4	15.7	13.3			
KDN 100-250/250		20.1	20	20	19.9	19.8	19.7	19.6	19.5	19.4	19.2	17.6	15.4			
KDN 100-250/260		22.3	22.1	22.1	22.1	22	21.9	21.8	21.7	21.5	21.4	19.8	17.7	15.1		
KDN 100-250/270		24.3	24.3	24.3	24.3	24.3	24.3	24.2	24.1	23.7	23.5	22.1	20.1	17.3		
KDN 100-315/275		25.1	25	25	25	24.9	24.8	24.7	24.6	24.4	24	22	19			
KDN 100-315/290		28	27.9	27.9	27.9	27.9	27.8	27.7	27.6	27.5	27	25.5	23			
KDN 100-315/305		31.3	31.1	31.1	31.1	31	30.9	30.8	30.7	30.6	30.5	29	27	24		
KDN 100-315/320		34.5	34.4	34.4	34.4	34.4	34.4	34.3	34.2	34.1	34	33	31	28.1		
KDN 100-315/334		38.2	38.2	38.1	38.1	38.1	38	38	37.7	37.5	37.3	36.5	34.8	32	28.8	

SELECTION TABLE - KDN 125

MODEL	Q=m ³ /h	0	102	114	120	150	180	210	240	270	300	330	360	390	420	
	Q=l/min	0	1700	1900	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	
KDN 125-250/220	H (m)	15	14.9	14.9	14.8	14.5	14	13	11.8	10.5	9.2					
KDN 125-250/230		16.6	16.6	16.6	16.5	16.3	15.6	14.8	13.8	12.5	12.3	9.5				
KDN 125-250/240		18.2	18.1	18.1	18.1	18	17.7	16.8	15.8	14.5	13.3	11.6	10.1			
KDN 125-250/250		19.9	19.8	19.8	19.7	19.6	19.4	18.7	17.8	16.6	15.5	14	12.3			
KDN 125-250/260		21.7	21.7	21.6	21.5	21.4	21.3	20.6	19.9	18	17.7	16.3	14.6	13		
KDN 125-250/269		23.9	23.9	23.9	23.8	23.6	23.2	22.7	22.1	22.2	20.2	19	17.5	15.6	14	

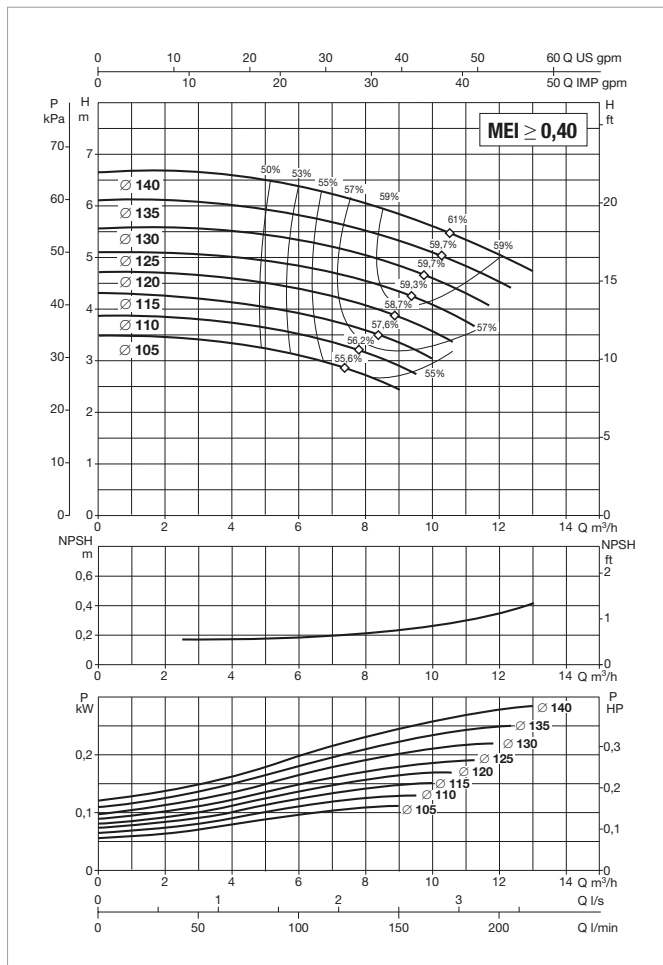
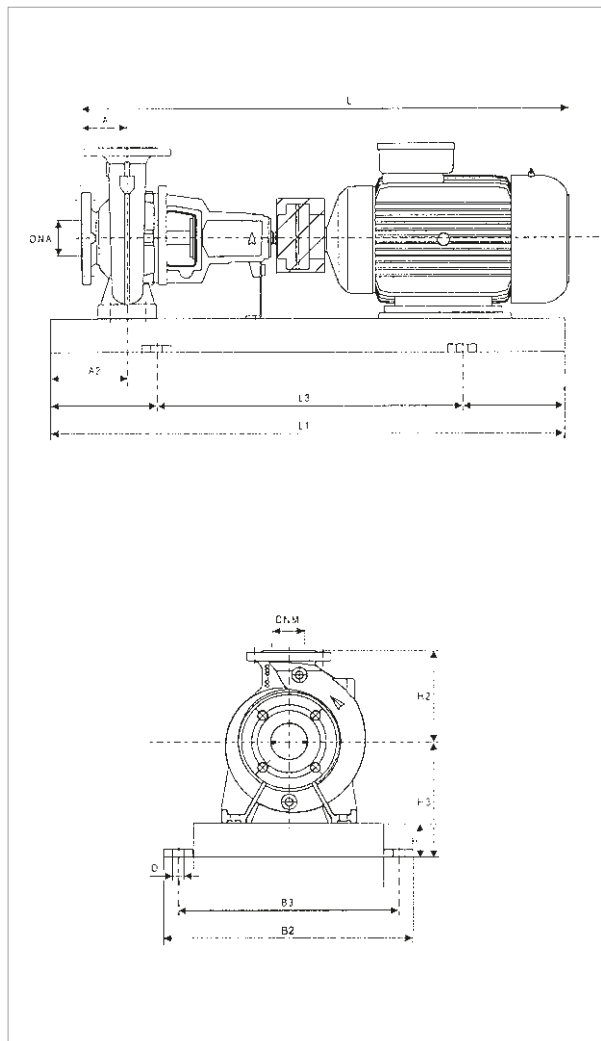
SELECTION TABLE - KDN 150

MODEL	Q=m ³ /h	0	102	114	120	150	180	210	240	270	300	330	360	390	420	
	Q=l/min	0	1700	1900	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	
KDN 150-200/210/170	H (m)	8.9	8.9	8.9	8.8	8.7	8.6	8.3	7.9	7.4	6.8	6.2	5.4	4.5		
KDN 150-200/218/182		10.4	10.4	10.4	10.3	10.2	9.9	9.5	9.1	8.6	8.1	7.4	6.6	5.8		
KDN 150-200/218/200		11.4	11.4	11.4	11.4	11.2	10.9	10.6	10.1	9.7	9.2	8.5	7.8	6.9	5.9	
KDN 150-200/218		12.9	12.7	12.7	12.6	12.4	12.1	11.7	11.2	10.7	10.2	9.6	8.8	8	7.1	
KDN 150-200/224		13.8	13.6	13.6	13.5	13.3	13	12.6	12.2	11.7	11.2	10.6	9.9	9.2	8.2	

KDN 32-125.1 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA			
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A
KDN 32-125.1	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5

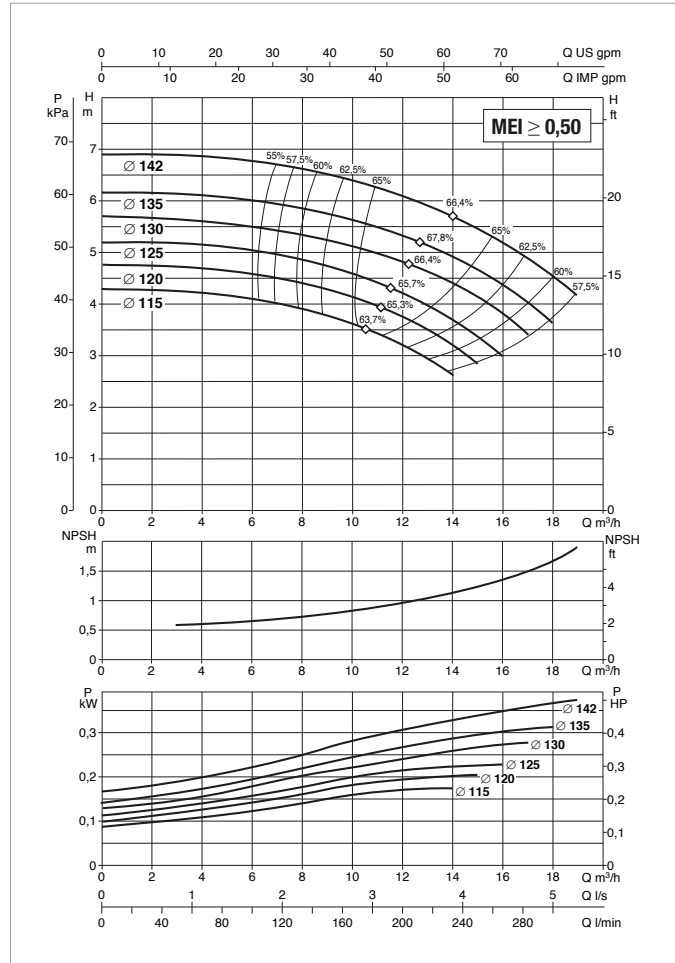
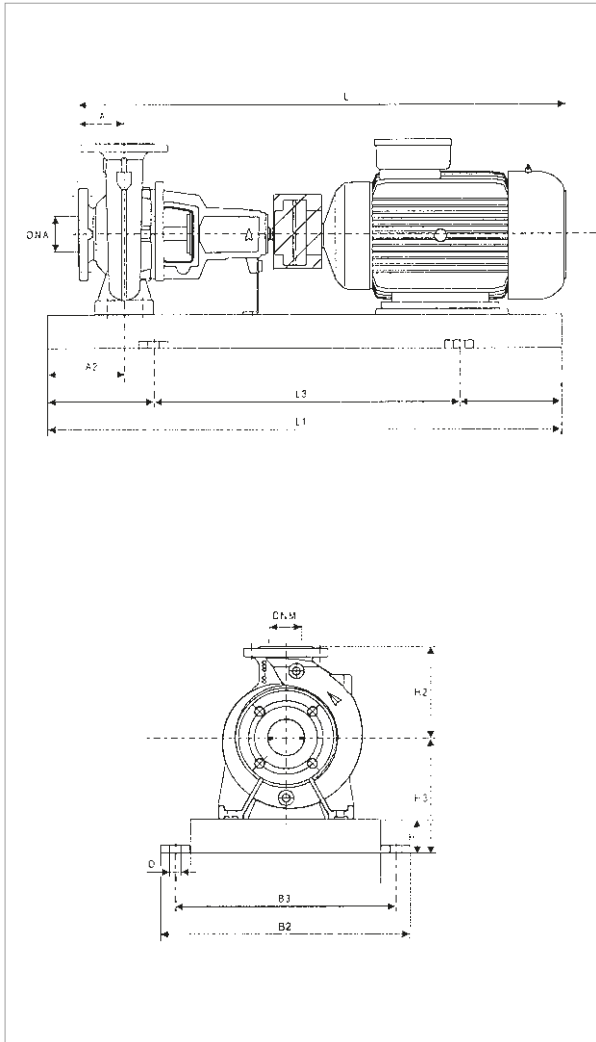
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING		SPACER COUPLING		REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	L	WEIGHT kg	L	WEIGHT kg	
KDN 32-125.1	0.37	80	60	140	65	177	800	540	360	320	19	50	32	730	81	830	86	2
	0.55	80	60	140	65	177	800	540	360	320	19	50	32	730	83	830	88	2

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 32-125	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.06	IE2

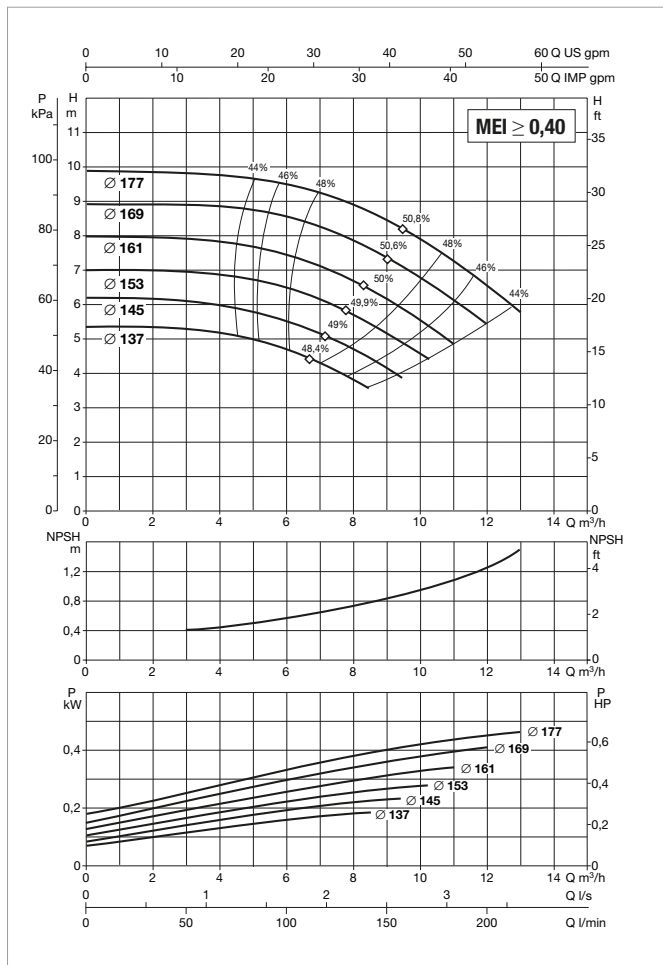
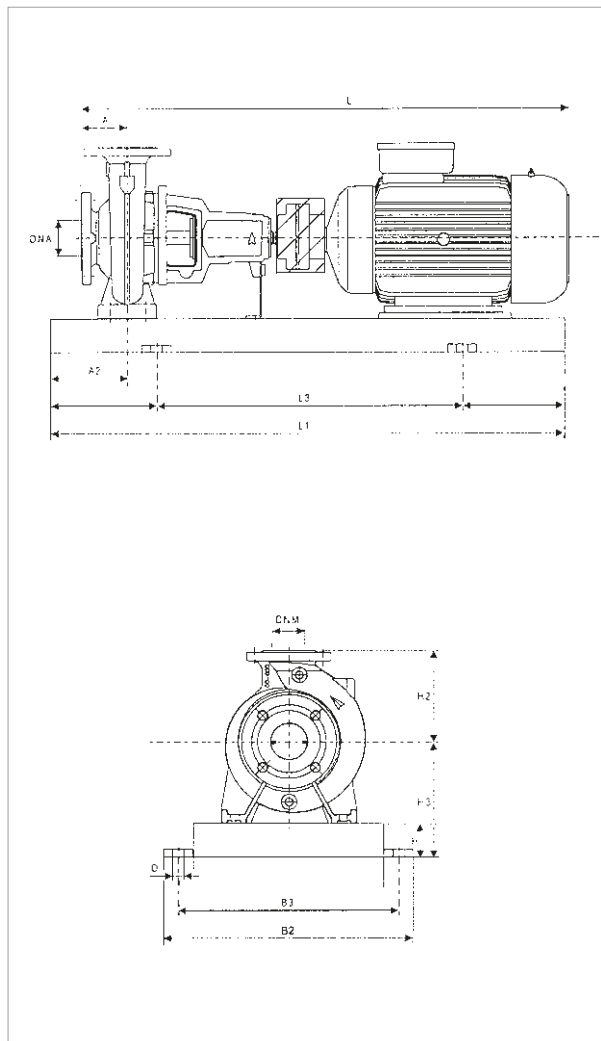
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 32-125	0.37	80	60	140	65	177	800	540	360	320	19	50	32	730	81	-	-	830	86	-	-	2
	0.55	80	60	140	65	177	800	540	360	320	19	50	32	730	83	-	-	830	88	-	-	2
	0.75	80	60	140	65	177	800	540	360	320	19	50	32	-	-	730	84	-	-	830	89	2

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160.1 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 32-160.1	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.07	IE2

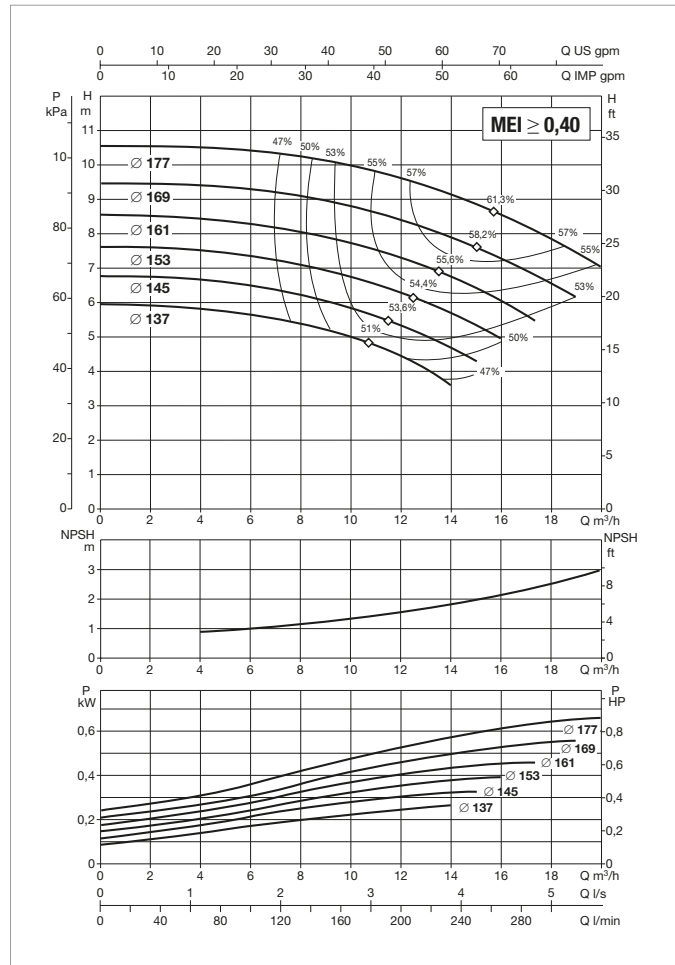
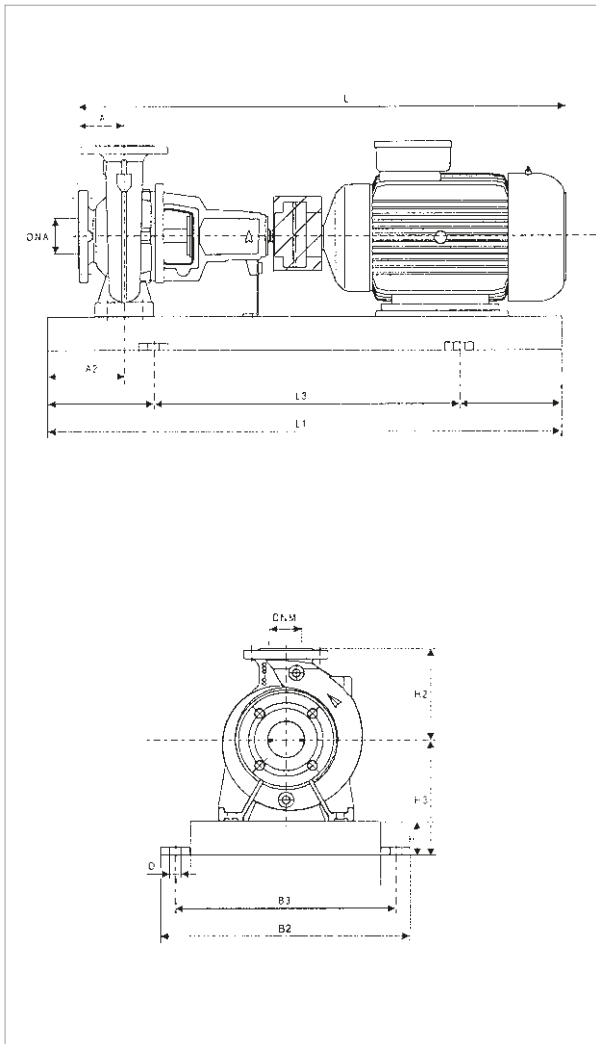
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg													
KDN 32-160.1	0.37	80	60	160	65	197	800	540	360	320	19	50	32	730	83	-	-	830	88	-	-	2
	0.55	80	60	160	65	197	800	540	360	320	19	50	32	730	86	-	-	830	91	-	-	2
	0.75	80	60	160	65	197	800	540	360	320	19	50	32	-	-	730	86	-	-	830	91	2

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 32-160	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.07	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.7	IE2

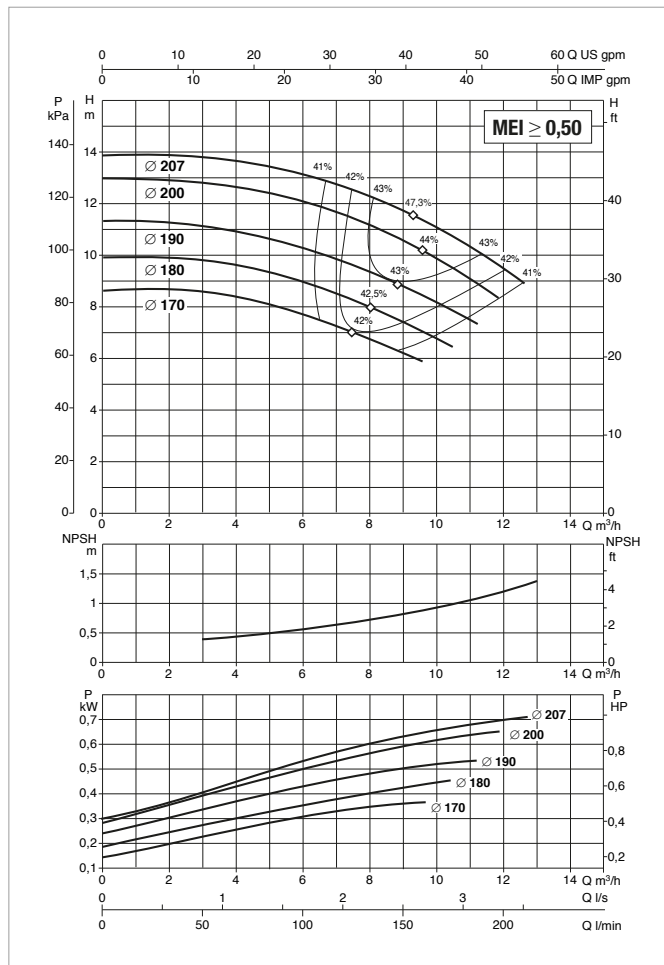
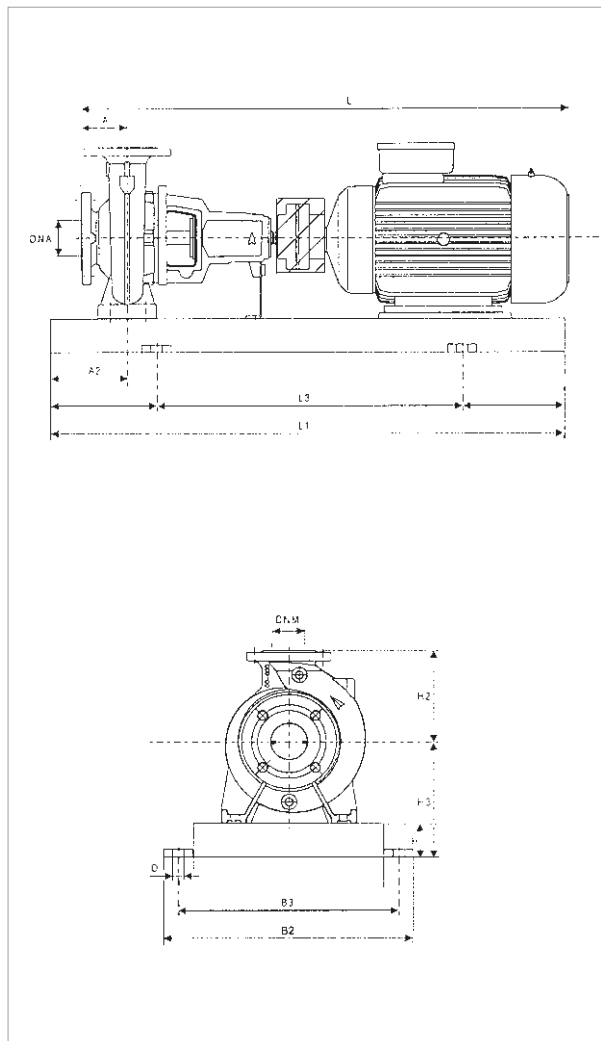
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg									
KDN 32-160	0.37	80	60	160	65	197	800	540	360	320	19	50	32	730	83	-	-	830	88	-	-	2
	0.55	80	60	160	65	197	800	540	360	320	19	50	32	730	85	-	-	830	90	-	-	2
	0.75	80	60	160	65	197	800	540	360	320	19	50	32	-	-	730	86	-	-	830	91	2
	1.1	80	60	160	65	197	800	540	360	320	19	50	32	-	-	790	88	-	-	890	93	2

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200.1 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 32-200.1	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.09	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.7	IE2

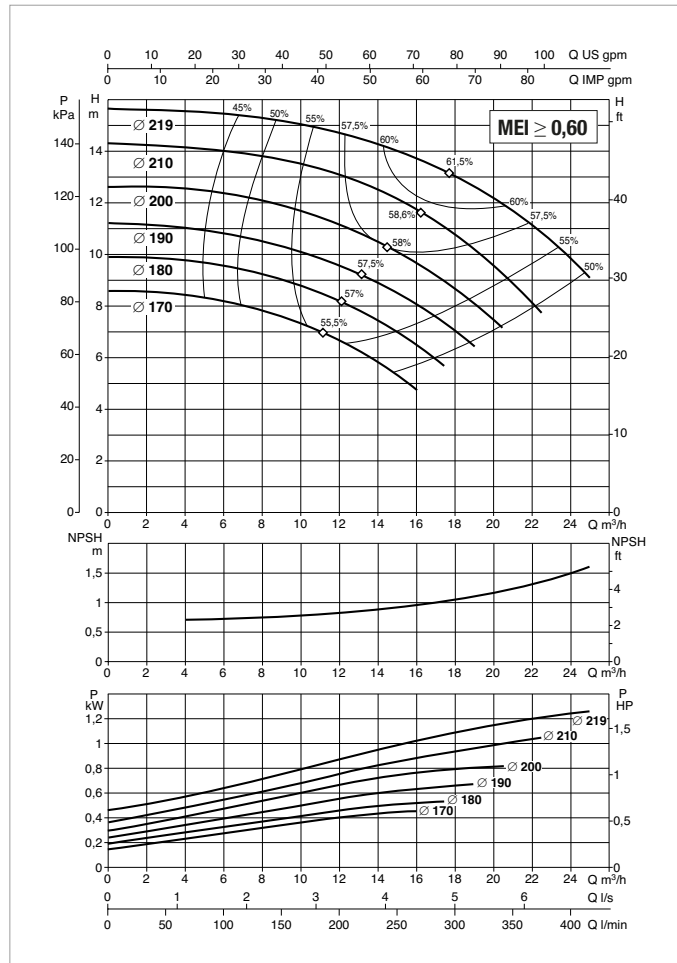
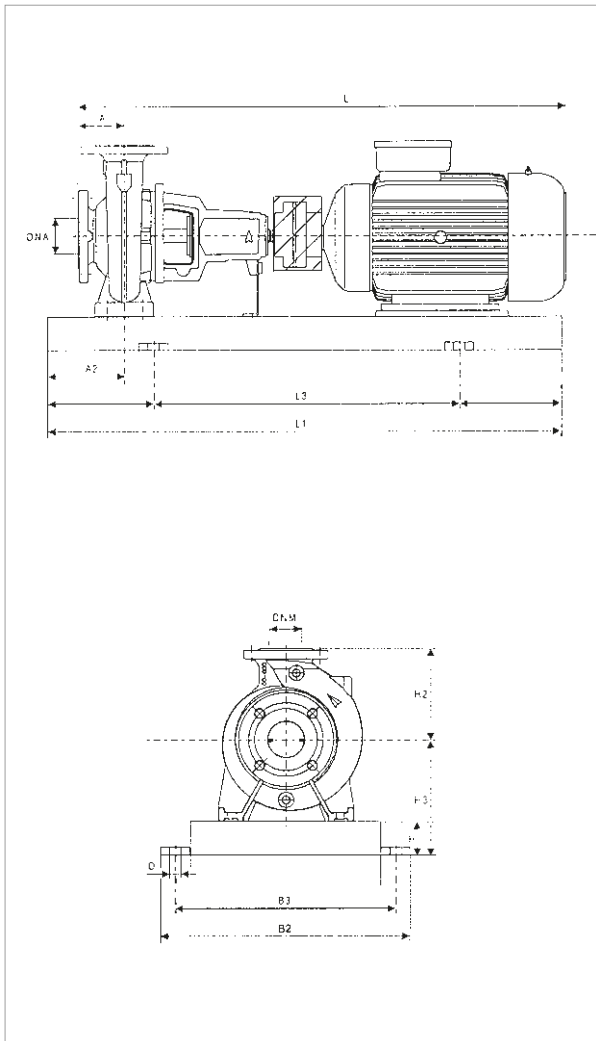
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2			
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg												
KDN 32-200.1	0.37	80	60	180	65	225	800	540	360	320	19	50	32	730	87	-	-	830	92	-	-	2	
	0.55	80	60	180	65	225	800	540	360	320	19	50	32	730	89	-	-	830	94	-	-	2	
	0.75	80	60	180	65	225	800	540	360	320	19	50	32	-	-	730	101	-	-	830	106	2	
	1.1	80	60	180	65	225	800	540	360	320	19	50	32	-	-	790	106	-	-	890	111	2	

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				-	IE2	
KDN 32-200	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.08	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.8	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	-	6.24/3.6	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	-	8.75/5.05	IE2

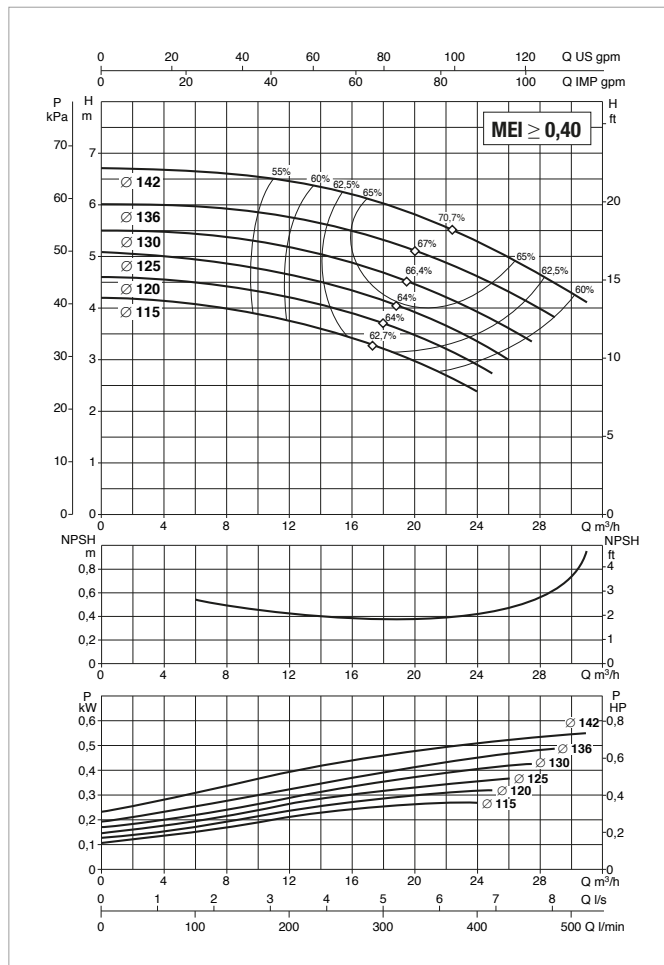
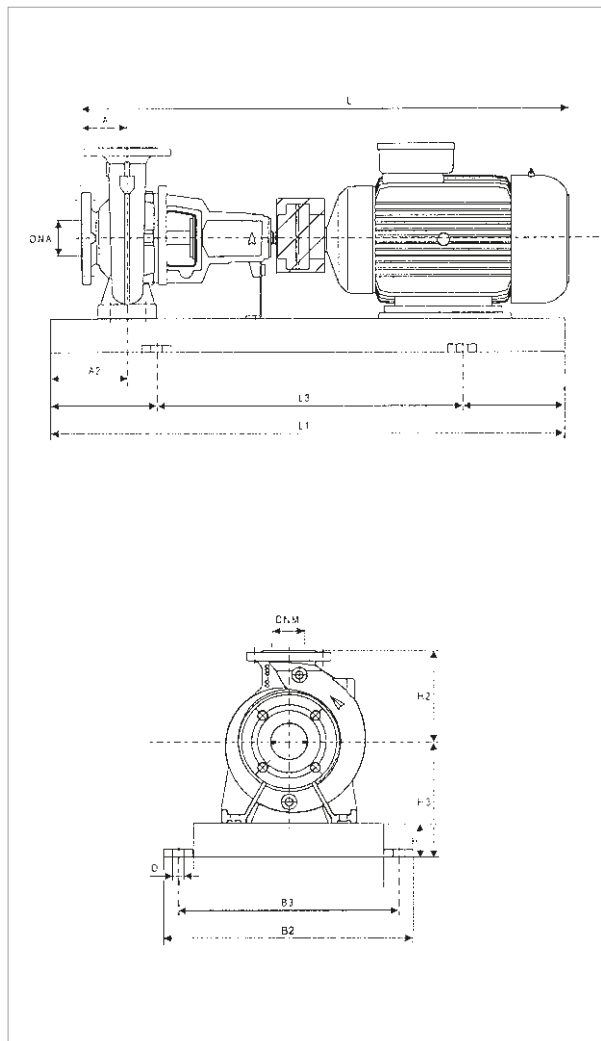
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg									
KDN 32-200	0.37	80	60	180	65	225	800	540	360	320	19	50	32	730	87	-	-	830	92	-	-	2
	0.55	80	60	180	65	225	800	540	360	320	19	50	32	730	89	-	-	830	94	-	-	2
	0.75	80	60	180	65	225	800	540	360	320	19	50	32	-	-	730	90	-	-	830	95	2
	1.1	80	60	180	65	225	800	540	360	320	19	50	32	-	-	790	101	-	-	890	106	2
	1.5	80	60	180	65	225	900	600	390	350	19	50	32	-	-	830	101	-	-	930	106	3
	2.2	80	60	180	65	225	900	600	390	350	19	50	32	-	-	830	102	-	-	930	107	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 40-125	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.10	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.9	IE2

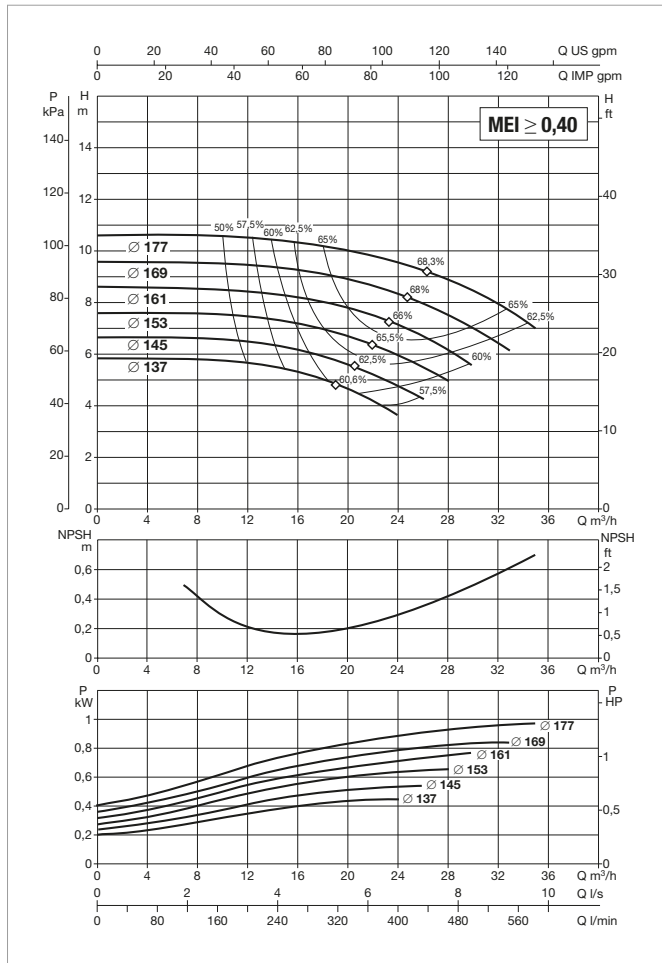
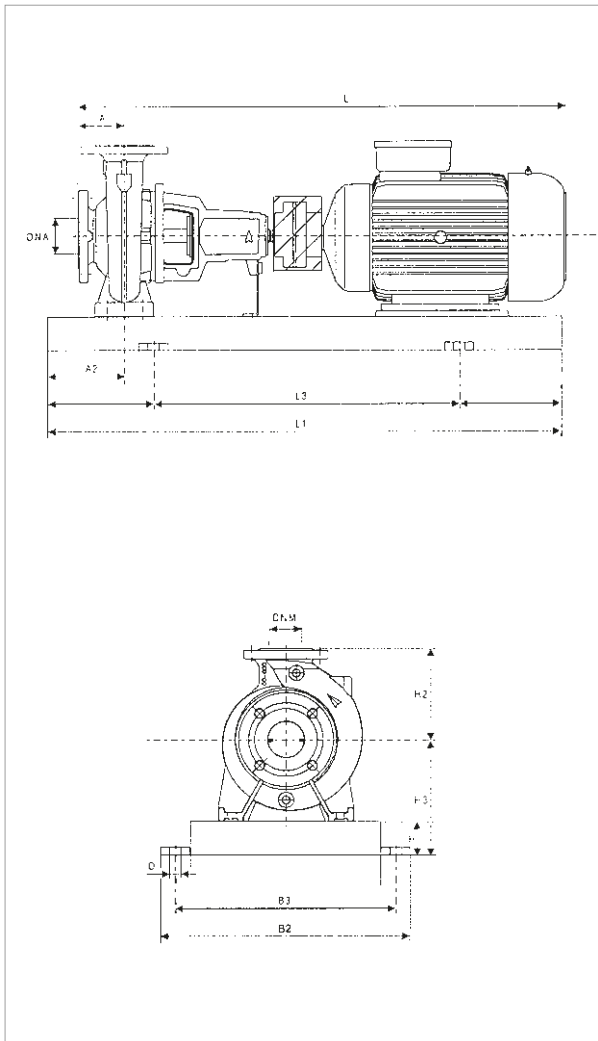
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg													
KDN 40-125	0.37	80	60	140	65	177	800	540	360	320	19	65	40	730	81	-	-	830	86	-	-	2
	0.55	80	60	140	65	177	800	540	360	320	19	65	40	730	83	-	-	830	88	-	-	2
	0.75	80	60	140	65	177	800	540	360	320	19	65	40	-	-	730	84	-	-	830	89	2
	1.1	80	60	140	65	177	800	540	360	320	19	65	40	-	-	790	86	-	-	890	81	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				-	IE2	
KDN 40-160	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.11	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.10	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	-	6.24/3.7	IE2

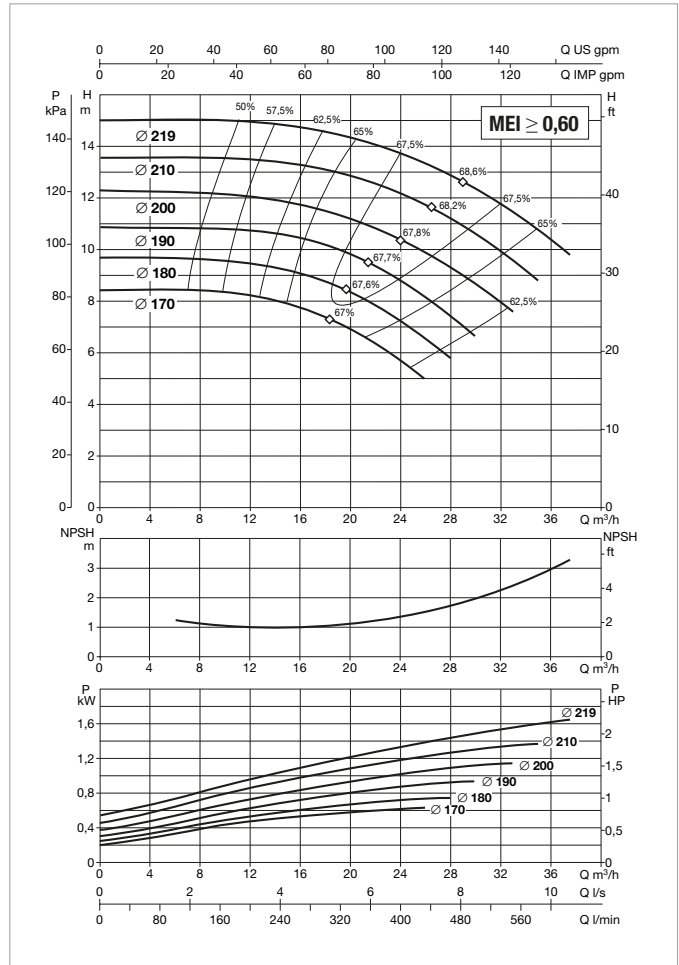
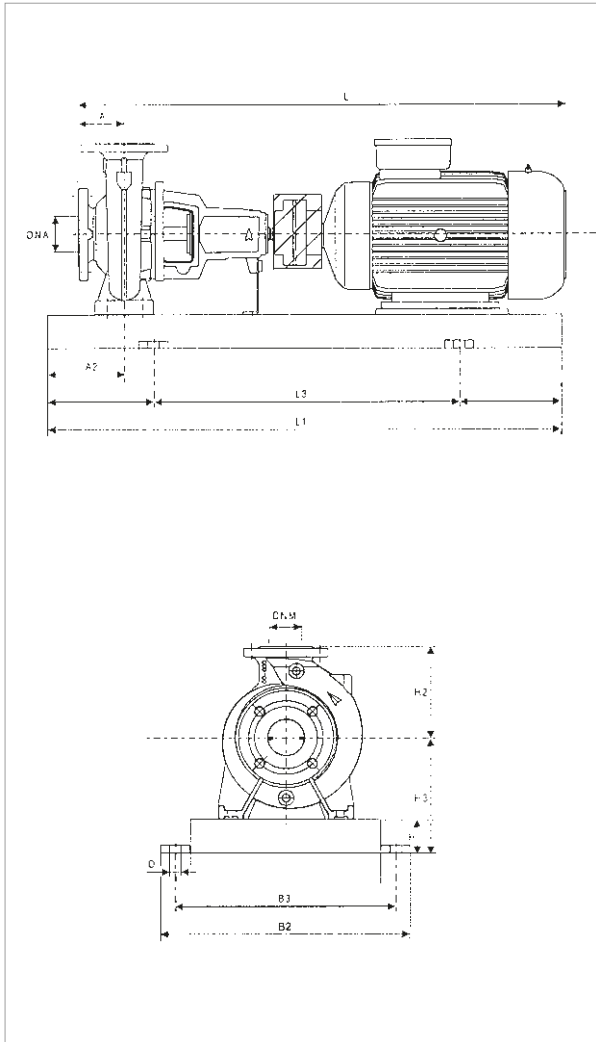
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
														L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 40-160	0.37	80	60	160	65	197	800	540	360	320	19	65	40	730	85	-	-	830	90	-	-	2
	0.55	80	60	160	65	197	800	540	360	320	19	65	40	730	89	-	-	830	94	-	-	2
	0.75	80	60	160	65	197	800	540	360	320	19	65	40	-	-	730	89	-	-	830	94	2
	1.1	80	60	160	65	197	800	540	360	320	19	65	40	-	-	790	91	-	-	890	96	2
	1.5	80	60	160	65	197	900	600	390	350	19	65	40	-	-	830	101	-	-	930	106	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 40-200	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.12	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.11	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	-	6.24/3.8	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	-	8.75/5.06	IE2
	3	MEC 100L	3 x 400 V - Δ	-	6.25	IE2

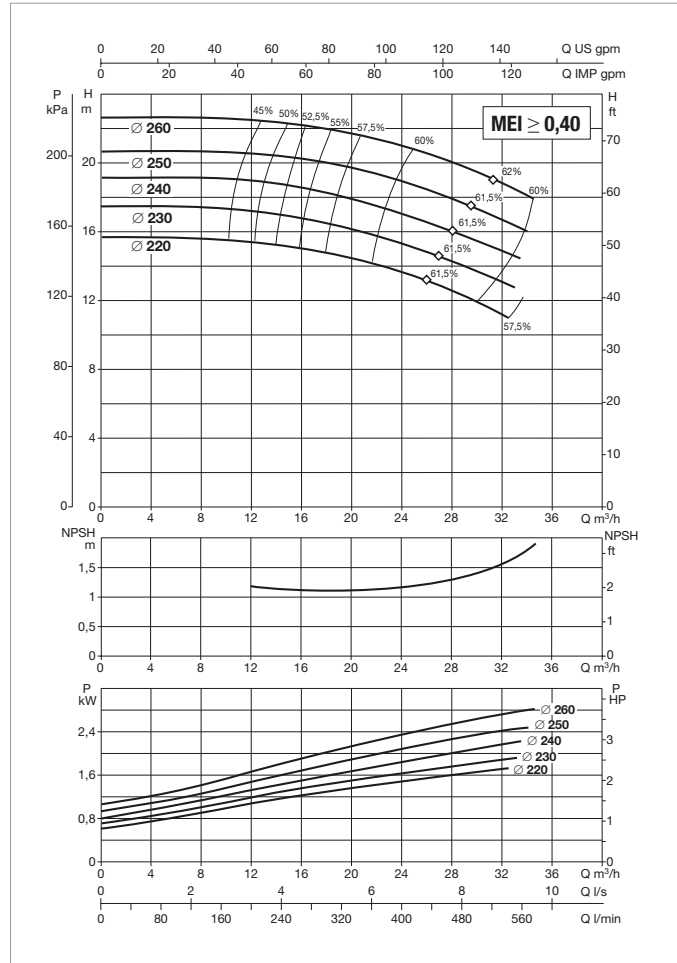
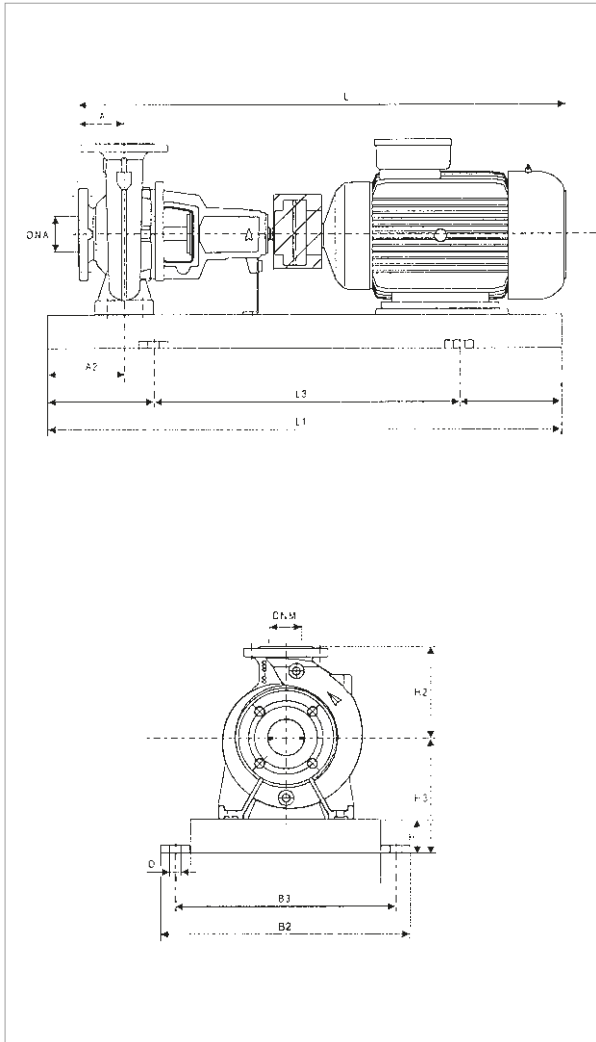
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 40-200	0.55	100	60	180	65	225	900	600	390	350	19	65	40	750	98	-	-	850	103	-	-	3
	0.75	100	60	180	65	225	900	600	390	350	19	65	40	-	-	750	98	-	-	850	103	3
	1.1	100	60	180	65	225	900	600	390	350	19	65	40	-	-	810	101	-	-	910	106	3
	1.5	100	60	180	65	225	900	600	390	350	19	65	40	-	-	850	105	-	-	950	110	3
	2.2	100	60	180	65	225	900	600	390	350	19	65	40	-	-	850	111	-	-	950	116	3
	3	100	60	180	65	225	900	600	390	350	19	65	40	-	-	850	118	-	-	950	123	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 40-250	1.5	MEC 90L	3 x 230 - 400 V ~	6.24/3.9	-	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.07	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2

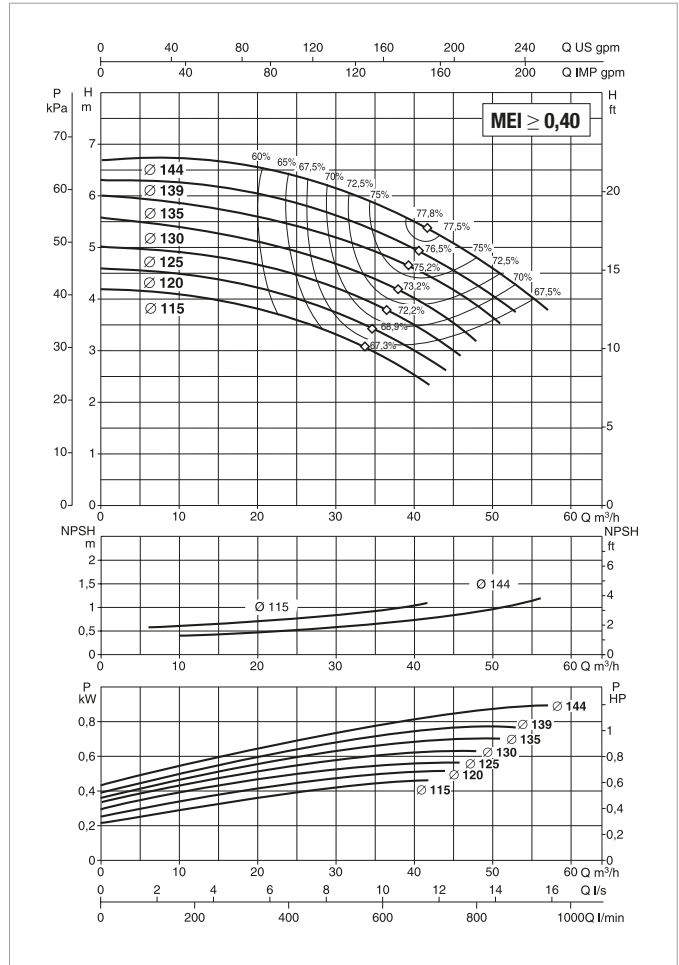
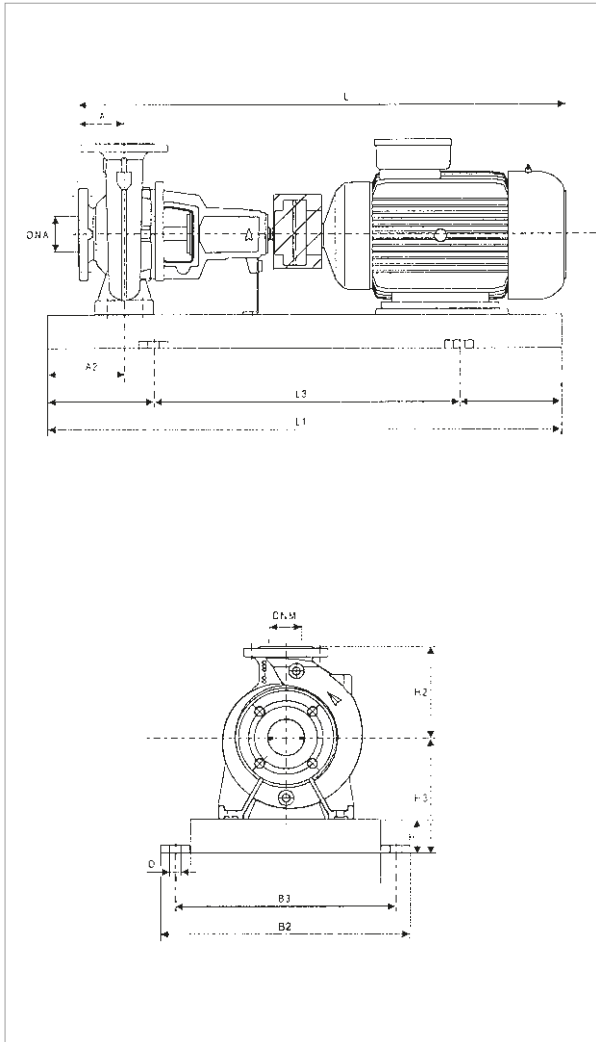
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 40-250	1.5	100	75	225	80	260	1000	660	450	400	24	65	40	850	125	-	-	950	130	-	-	4
	2.2	100	75	225	80	260	1000	660	450	400	24	65	40	850	129	-	-	950	134	-	-	4
	3	100	75	225	80	260	1000	660	450	400	24	65	40	850	149	-	-	950	154	-	-	4
	4	100	75	225	80	260	1000	660	450	400	24	65	40	935	200	-	-	1035	205	-	-	4

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 50-125	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.13	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.12	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	-	6.24/3.10	IE2

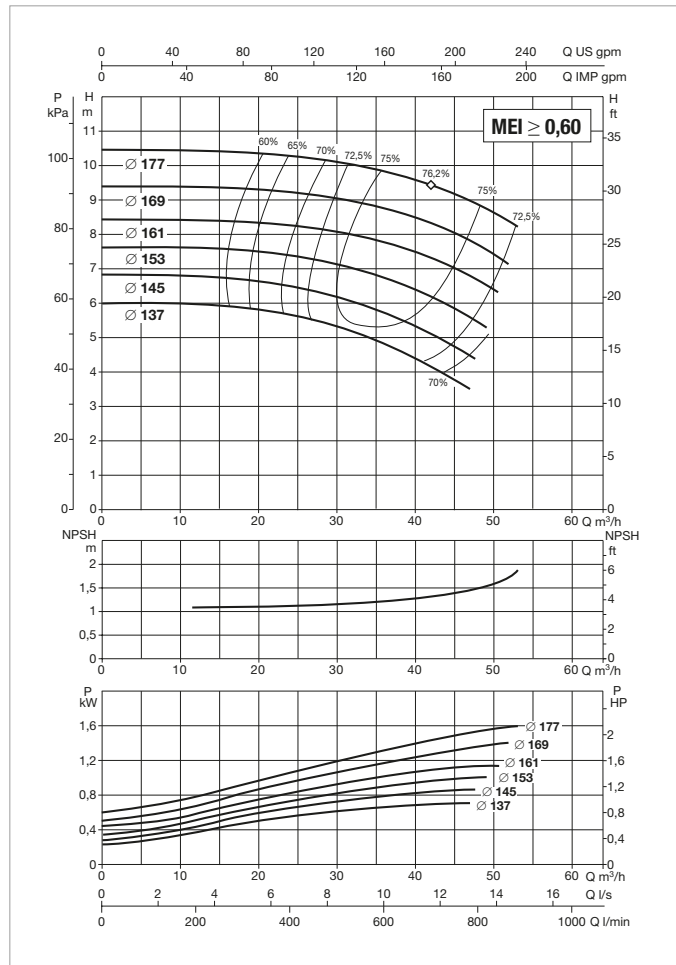
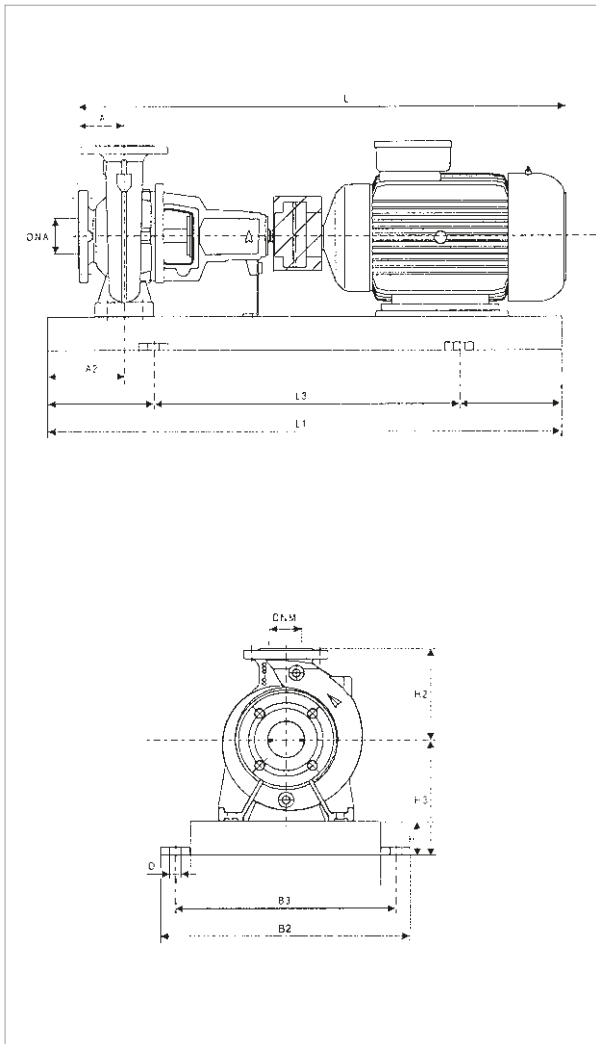
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 50-125	0.37	100	60	160	65	197	800	540	360	320	19	65	50	750	87	-	-	850	92	-	-	2
	0.55	100	60	160	65	197	800	540	360	320	19	65	50	750	90	-	-	850	95	-	-	2
	0.75	100	60	160	65	197	800	540	360	320	19	65	50	-	-	750	91	-	-	850	96	2
	1.1	100	60	160	65	197	800	540	360	320	19	65	50	-	-	810	93	-	-	910	98	2
	1.5	100	60	160	65	197	900	600	390	350	19	65	50	-	-	850	101	-	-	950	106	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			-	IE2	
KDN 50-160	0.55	MEC 80	3 x 230 - 400 V ~	2.6/1.5	-	-
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.14	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.13	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	-	6.24/3.11	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	-	8.75/5.08	IE2
	3	MEC 100L	3 x 400 V - Δ	-	6.25	IE2

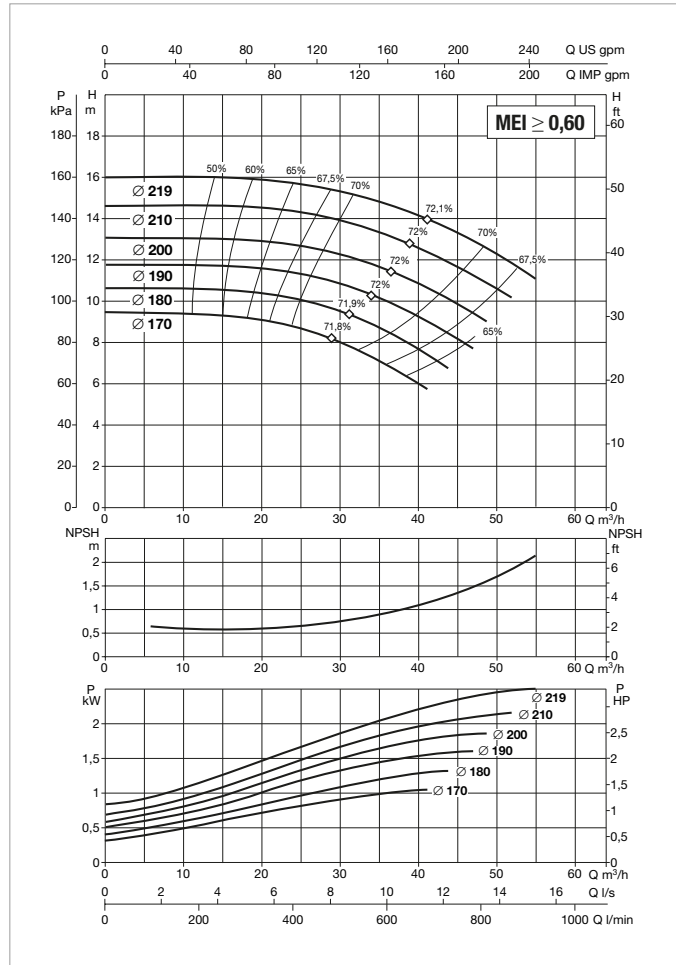
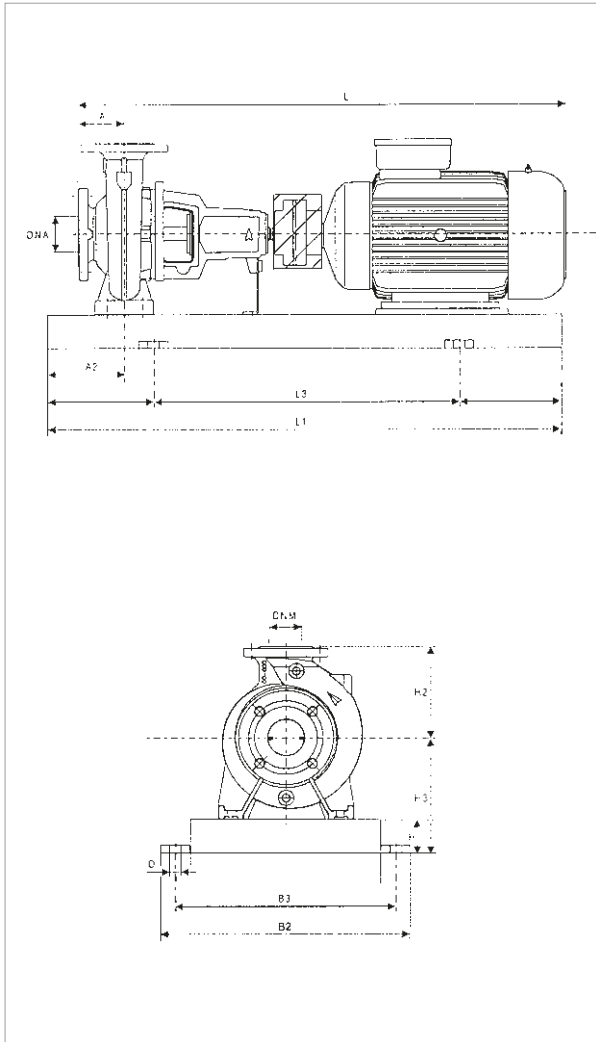
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 50-160	0.55	100	60	180	65	225	900	600	390	350	19	65	50	750	97	-	-	850	102	-	-	3
	0.75	100	60	180	65	225	900	600	390	350	19	65	50	-	-	750	98	-	-	850	103	3
	1.1	100	60	180	65	225	900	600	390	350	19	65	50	-	-	810	100	-	-	910	105	3
	1.5	100	60	180	65	225	900	600	390	350	19	65	50	-	-	850	103	-	-	950	108	3
	2.2	100	60	180	65	225	900	600	390	350	19	65	50	-	-	850	107	-	-	950	112	3
	3	100	60	180	65	225	900	600	390	350	19	65	50	-	-	850	110	-	-	950	115	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 50-200	0.75	MEC 80	3 x 230 - 400 V ~	3.57/2.15	-	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	4.68/2.14	-	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	6.24/3.12	-	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.09	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
														L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 50-200	0.75	100	60	200	65	225	900	600	390	350	19	65	50	750	104	-	-	850	109	-	-	3
	1.1	100	60	200	65	225	900	600	390	350	19	65	50	810	107	-	-	910	112	-	-	3
	1.5	100	60	200	65	225	900	600	390	350	19	65	50	850	114	-	-	950	119	-	-	3
	2.2	100	60	200	65	225	900	600	390	350	19	65	50	850	123	-	-	950	128	-	-	3
	3	100	60	200	65	225	900	600	390	350	19	65	50	850	122	-	-	950	127	-	-	3
	4	100	60	200	65	225	900	600	390	350	19	65	50	935	122	-	-	1035	127	-	-	3

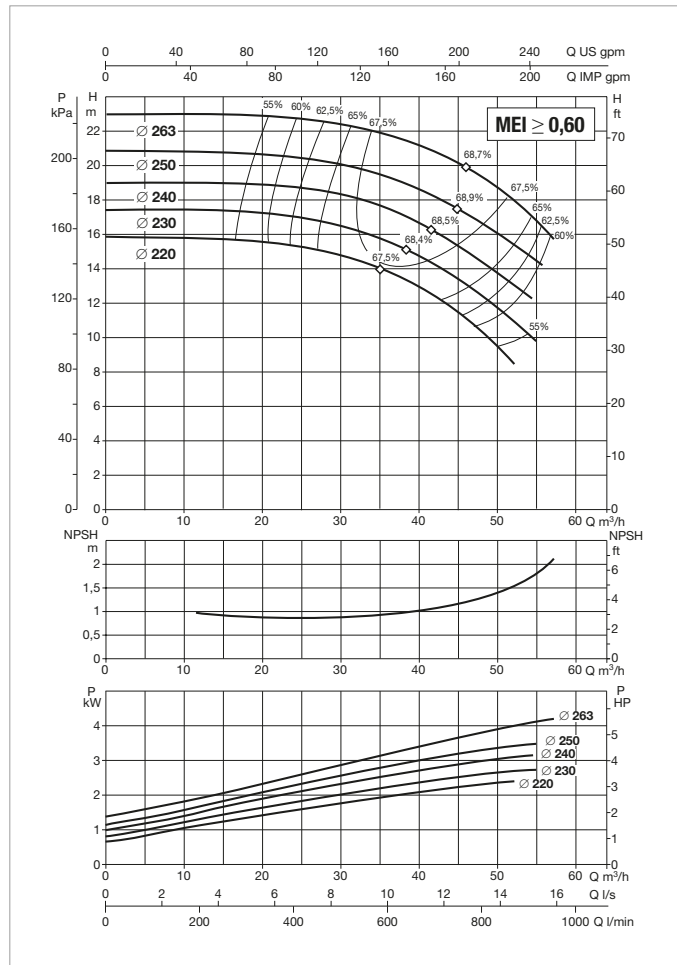
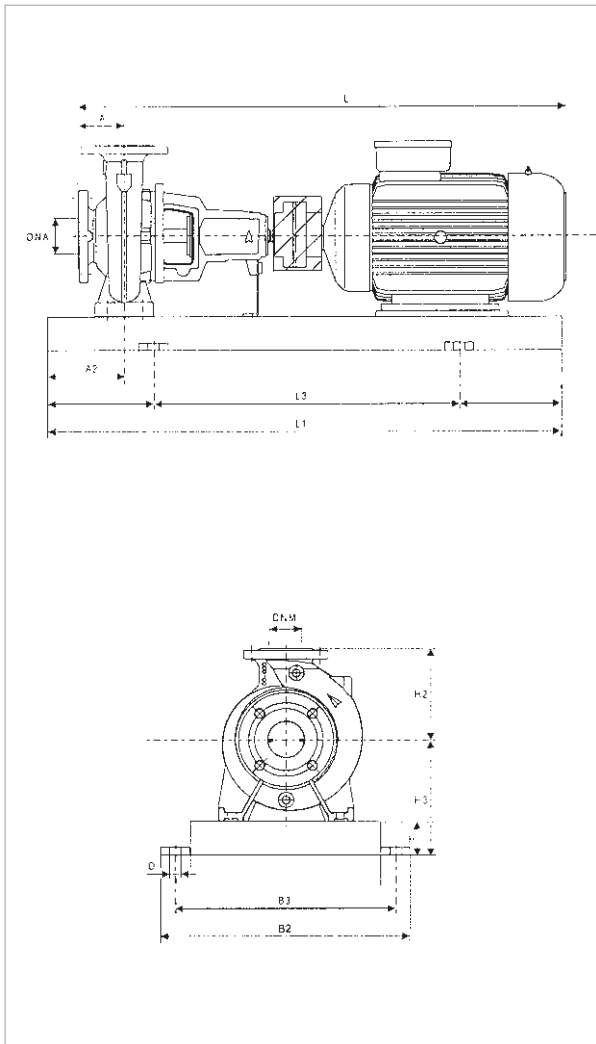
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 50-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 50-250	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.11	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2

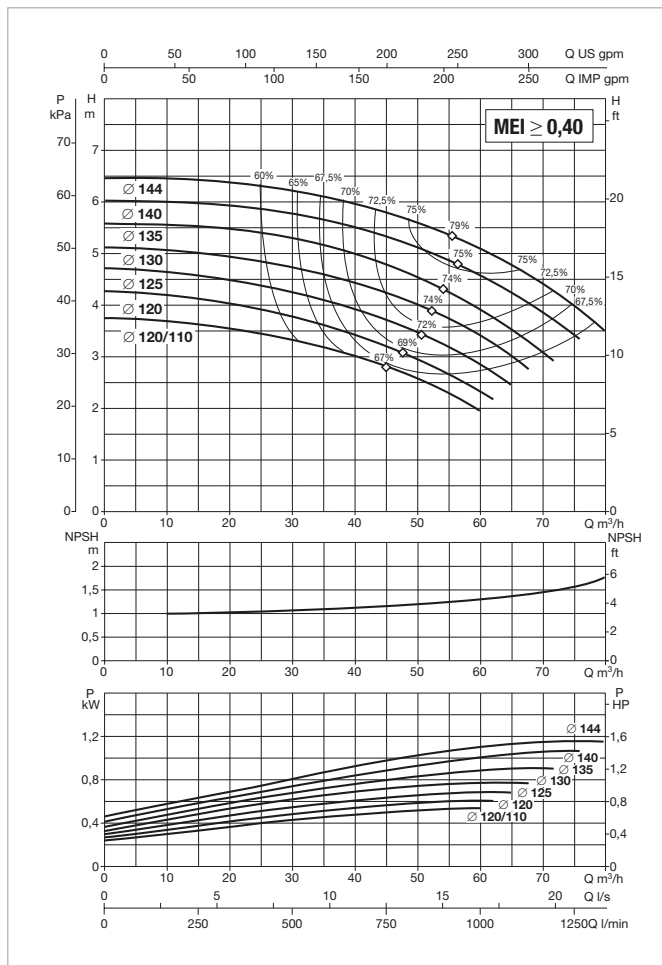
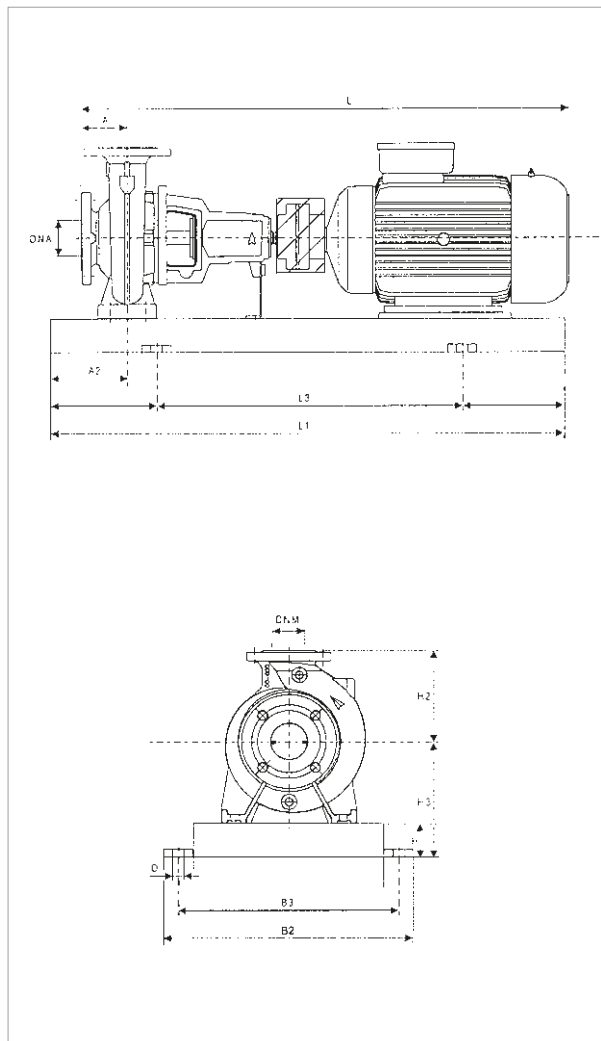
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 50-250	2.2	100	75	225	80	260	1000	660	450	400	24	65	50	850	135	-	-	950	140	-	-	4
	3	100	75	225	80	260	1000	660	450	400	24	65	50	850	138	-	-	950	143	-	-	4
	4	100	75	225	80	260	1000	660	450	400	24	65	50	935	165	-	-	1035	170	-	-	4
	5.5	100	75	225	80	260	1120	740	490	440	24	65	50	935	173	-	-	1035	178	-	-	5

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				-	IE2	
KDN 65-125	0.37	MEC 71	3 x 230 - 400 V ~	1.7/0.975	-	-
	0.55	MEC 80	3 x 230 - 400 V ~	-	2.6/1.5	IE2
	0.75	MEC 80	3 x 230 - 400 V ~	-	3.57/2.16	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	-	4.68/2.15	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	-	6.24/3.13	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	-	8.75/5.12	IE2

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	-		IE2		-		IE2		
														L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 65-125	0.37	100	60	180	65	225	900	600	390	350	19	80	50	714	94	-	-	814	99	-	-	3
	0.55	100	60	180	65	225	900	600	390	350	19	80	50	-	-	757	97	-	-	857	102	3
	0.75	100	60	180	65	225	900	600	390	350	19	80	50	-	-	750	98	-	-	850	103	3
	1.1	100	60	180	65	225	900	600	390	350	19	80	50	-	-	810	100	-	-	910	105	3
	1.5	100	60	180	65	225	900	600	390	350	19	80	50	-	-	850	103	-	-	950	108	3
	2.2	100	60	180	65	225	900	600	390	350	19	80	50	-	-	850	107	-	-	950	112	3

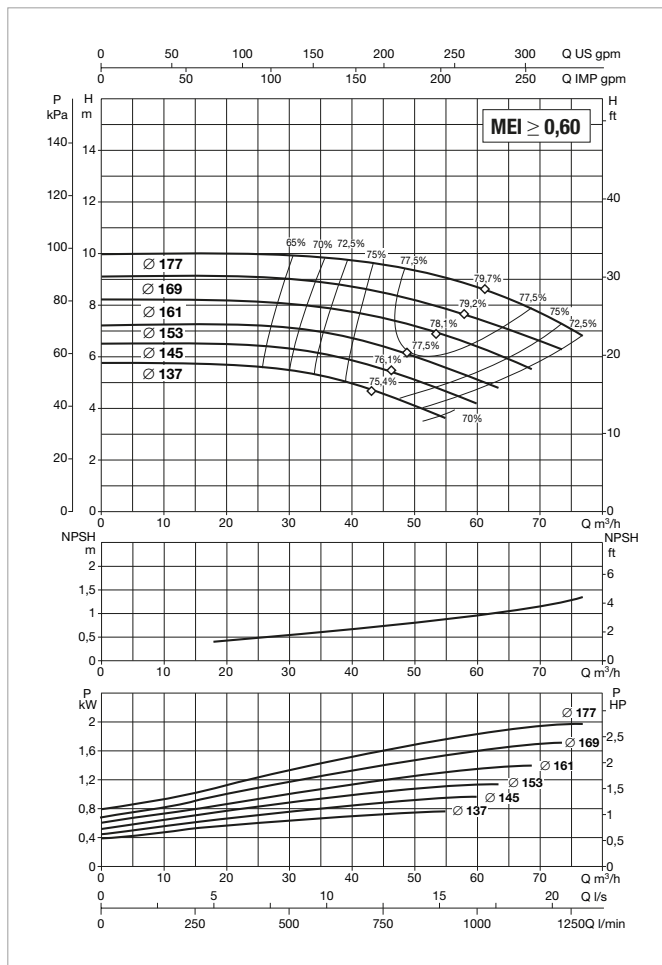
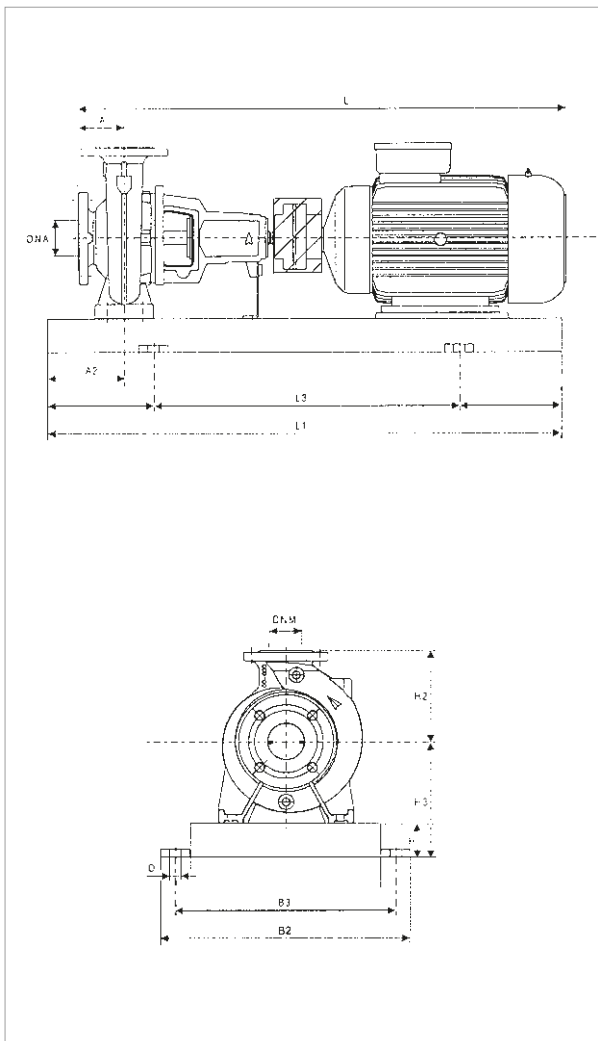
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 65-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 65-160	0.75	MEC 80	3 x 230 - 400 V ~	3.57/2.17	-	IE2
	1.1	MEC 90S	3 x 230 - 400 V ~	4.68/2.17	-	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	6.24/3.14	-	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.13	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2

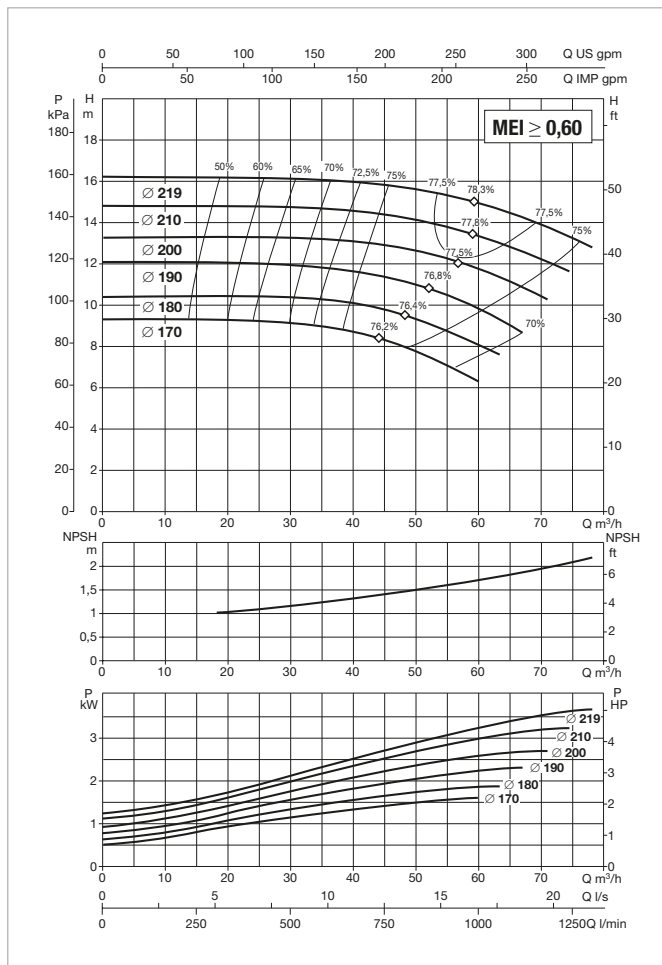
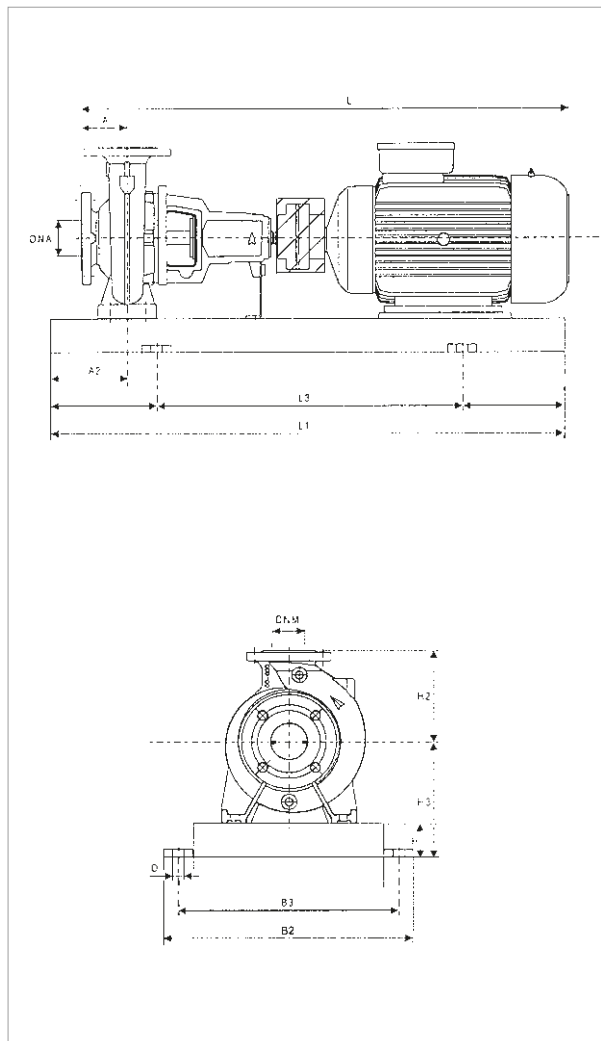
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-160	0.75	100	60	200	65	225	900	600	390	350	19	80	65	750	101	-	-	850	106	-	-	3
	1.1	100	60	200	65	225	900	600	390	350	19	80	65	810	103	-	-	910	108	-	-	3
	1.5	100	60	200	65	225	900	600	390	350	19	80	65	850	114	-	-	950	119	-	-	3
	2.2	100	60	200	65	225	900	600	390	350	19	80	65	850	114	-	-	950	119	-	-	3
	3	100	60	200	65	225	900	600	390	350	19	80	65	850	148	-	-	950	153	-	-	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 65-200	1.1	MEC 90S	3 x 230 - 400 V ~	4.68/2.18	-	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	6.24/3.15	-	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.14	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)									FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-200	1.1	100	75	225	80	260	1000	660	450	400	24	80	65	810	141	-	-	950	146	-	-	4
	1.5	100	75	225	80	260	1000	660	450	400	24	80	65	850	143	-	-	990	148	-	-	4
	2.2	100	75	225	80	260	1120	740	490	440	24	80	65	850	147	-	-	990	152	-	-	5
	3	100	75	225	80	260	1120	740	490	440	24	80	65	850	150	-	-	990	155	-	-	5
	4	100	75	225	80	260	1120	740	490	440	24	80	65	935	150	-	-	1075	155	-	-	5
	5.5	100	75	225	80	260	1120	740	490	440	24	80	65	935	200	-	-	1075	205	-	-	5

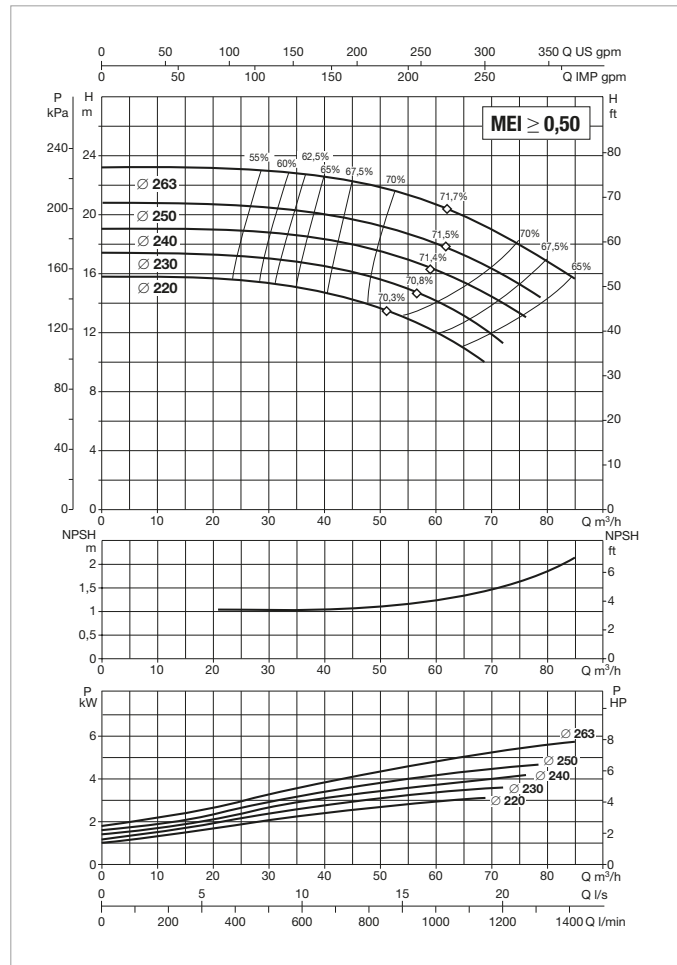
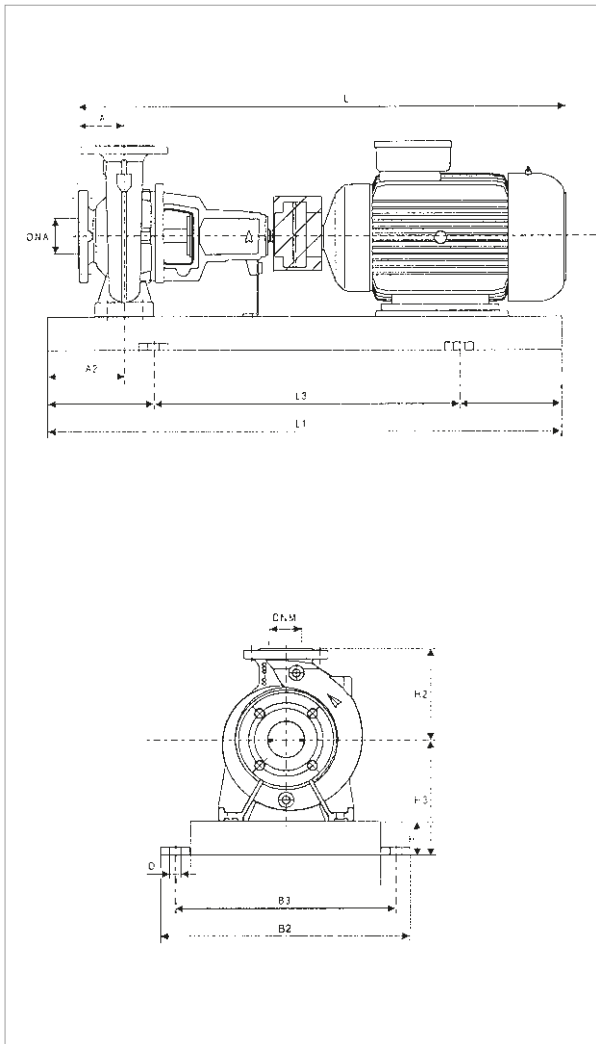
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 65-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 65-250	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3

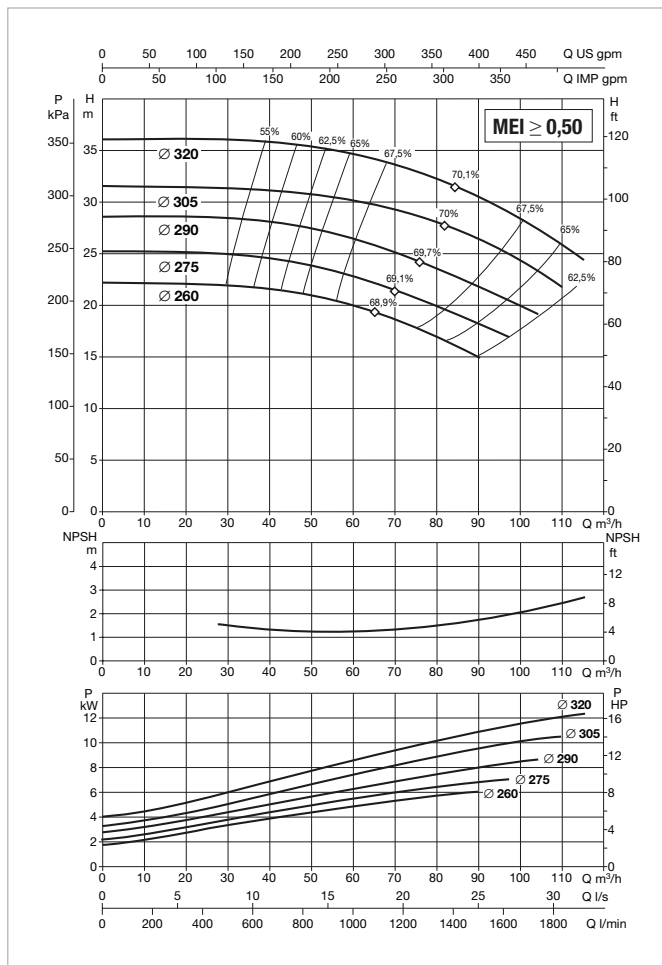
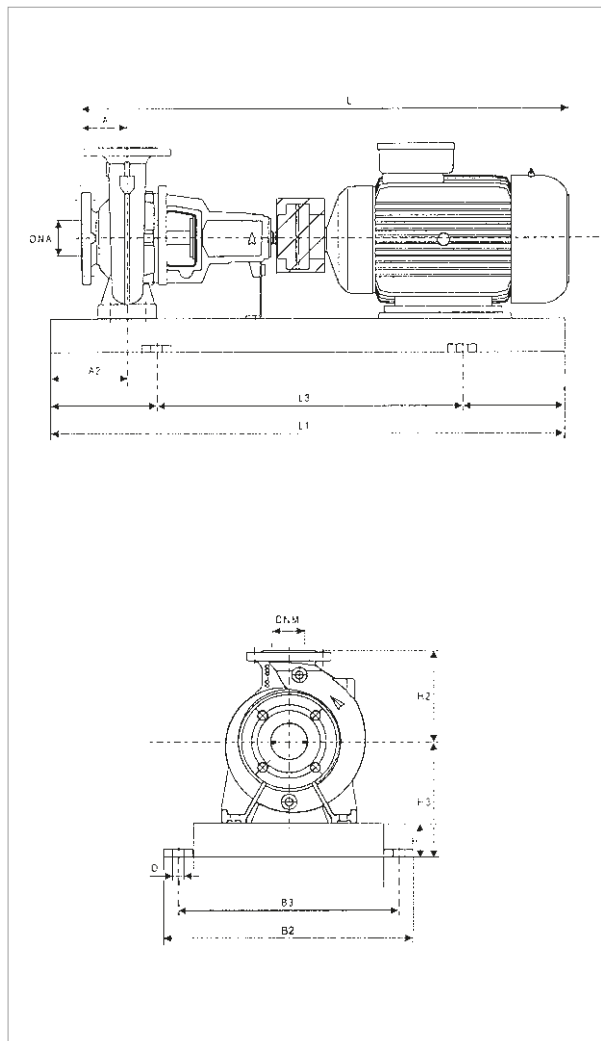
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 65-250	3	100	90	250	80	280	1120	740	490	440	24	80	65	960	178	-	-	1100	186	-	-	5
	4	100	90	250	80	280	1120	740	490	440	24	80	65	1045	185	-	-	1185	193	-	-	5
	5.5	100	90	250	80	280	1120	740	490	440	24	80	65	1045	201	-	-	1185	209	-	-	5
	7.5	100	90	250	80	280	1120	740	490	440	24	80	65	1085	257	1092	238	1225	265	1232	246	6
	11	100	90	250	80	280	1250	840	540	490	24	80	65	1190	257	1190	277	1330	265	1330	285	6

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-315 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 65-315	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	MEC 180M	3 x 400 V - Δ	33	34	IE2 / IE3

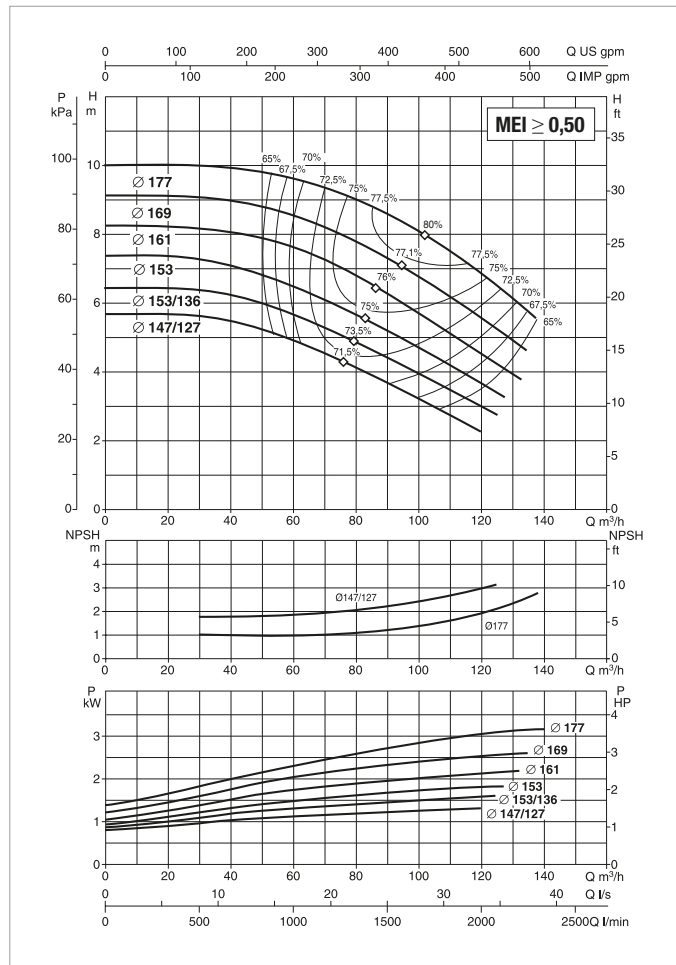
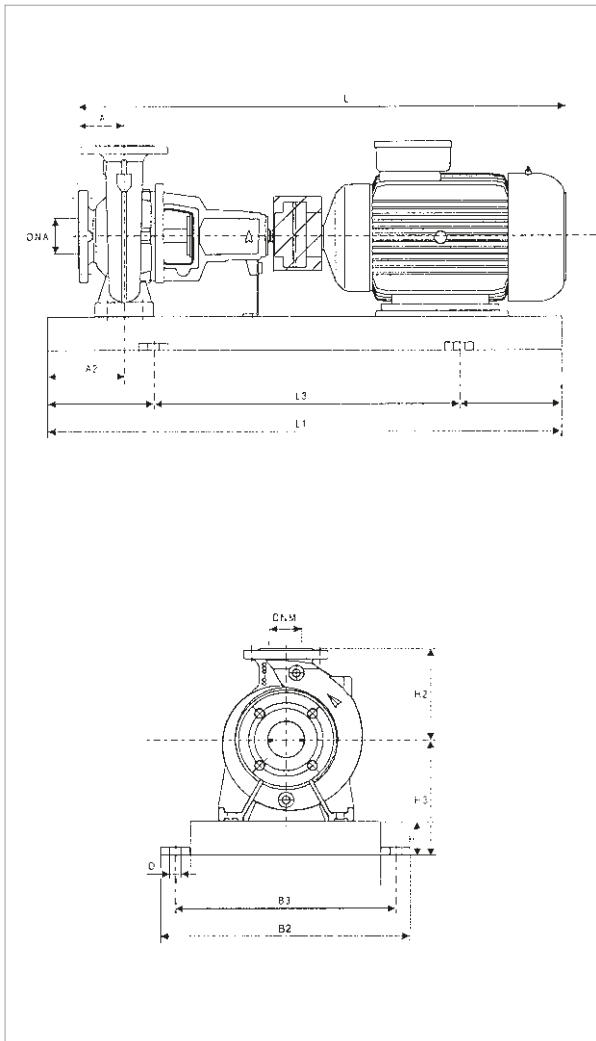
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-315	5.5	125	90	280	80	305	1250	840	540	490	24	80	65	1070	259	-	-	1210	267	-	-	6
	7.5	125	90	280	80	305	1250	840	540	490	24	80	65	1110	292	1117	273	1250	300	1257	281	6
	11	125	90	280	80	305	1250	840	540	490	24	80	65	1215	297	1215	271	1355	305	1355	279	6
	15	125	90	280	100	325	1400	940	610	550	28	80	65	1220	297	1258	272	1360	305	1398	280	7
	18.5	125	90	280	100	325	1400	940	610	550	28	80	65	1290	322	1290	291	1430	330	1430	299	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 80-160	1.1	MEC 90S	3 x 230 - 400 V ~	4.68/2.19	-	IE2
	1.5	MEC 90L	3 x 230 - 400 V ~	6.24/3.16	-	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.15	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2

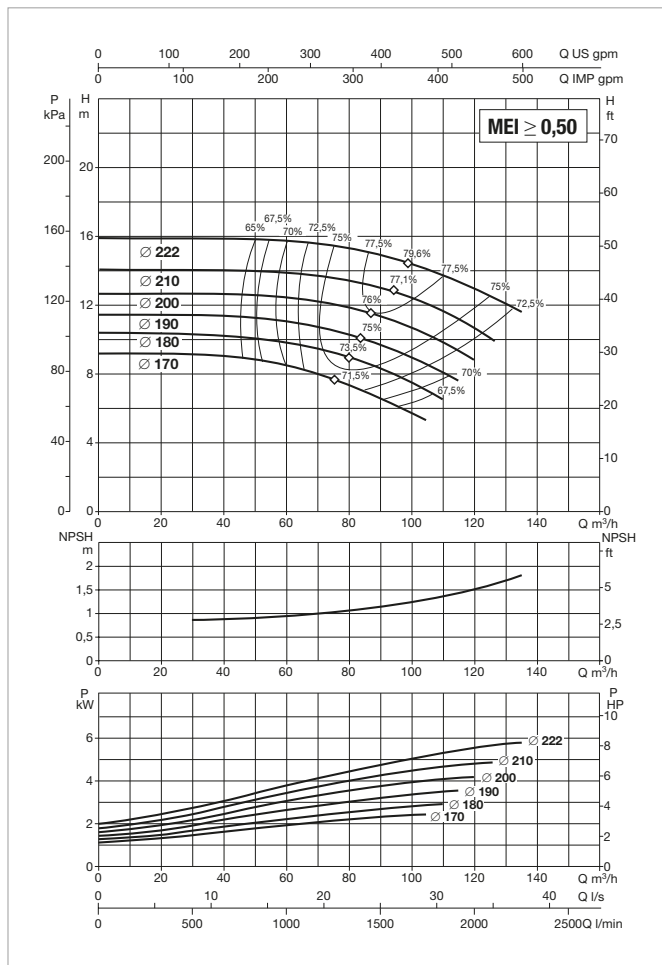
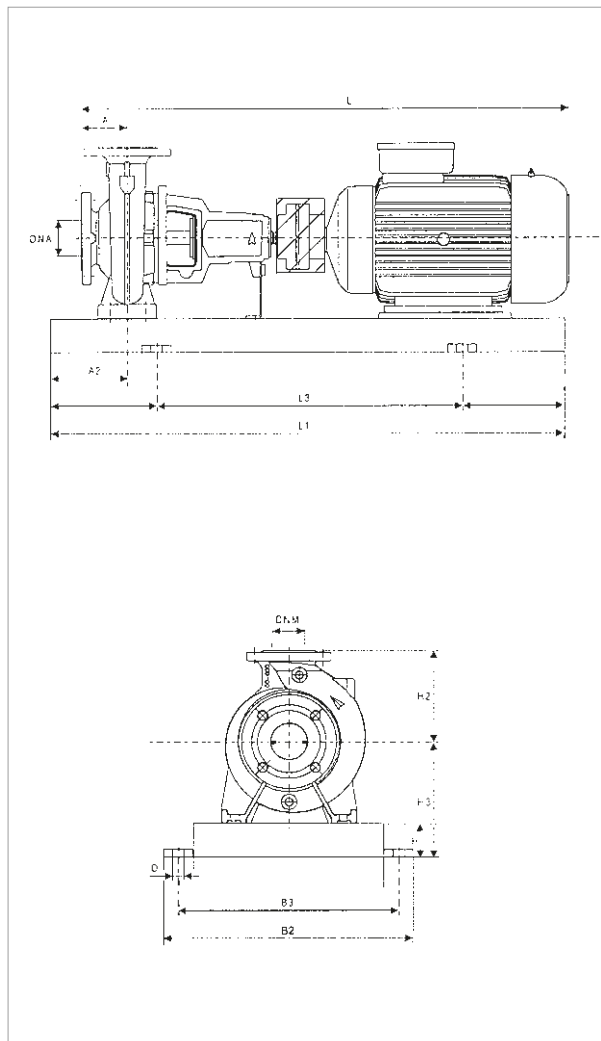
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 80-160	1.1	125	75	225	80	260	1000	660	450	400	24	100	80	835	125	-	-	975	133	-	-	4
	1.5	125	75	225	80	260	1000	660	450	400	24	100	80	875	127	-	-	1015	135	-	-	4
	2.2	125	75	225	80	260	1000	660	450	400	24	100	80	875	139	-	-	1015	147	-	-	4
	3	125	75	225	80	260	1000	660	450	400	24	100	80	875	138	-	-	1015	146	-	-	4
	4	125	75	225	80	260	1000	660	450	400	24	100	80	960	138	-	-	1100	146	-	-	4
	5.5	125	75	225	80	260	1120	740	490	440	24	100	80	960	163	-	-	1100	171	-	-	5

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 80-200	1.5	MEC 90L	3 x 230 - 400 V ~	6.24/3.17	-	IE2
	2.2	MEC 100L	3 x 230 - 400 V ~	8.75/5.16	-	IE2
	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 80-200	1.5	125	75	250	80	260	1120	740	490	440	24	100	80	985	161	-	-	1125	169	-	-	5
	2.2	125	75	250	80	260	1120	740	490	440	24	100	80	985	166	-	-	1125	174	-	-	5
	3	125	75	250	80	260	1120	740	490	440	24	100	80	985	168	-	-	1125	176	-	-	5
	4	125	75	250	80	260	1120	740	490	440	24	100	80	1070	188	-	-	1210	196	-	-	5
	5.5	125	75	250	80	260	1120	740	490	440	24	100	80	1070	188	-	-	1210	196	-	-	5
	7.5	125	75	250	80	260	1120	740	490	440	24	100	80	1110	188	1117	169	1250	196	1257	177	5
	11	125	75	250	80	260	1250	840	540	490	24	100	80	1215	197	1215	171	1355	205	1355	179	6

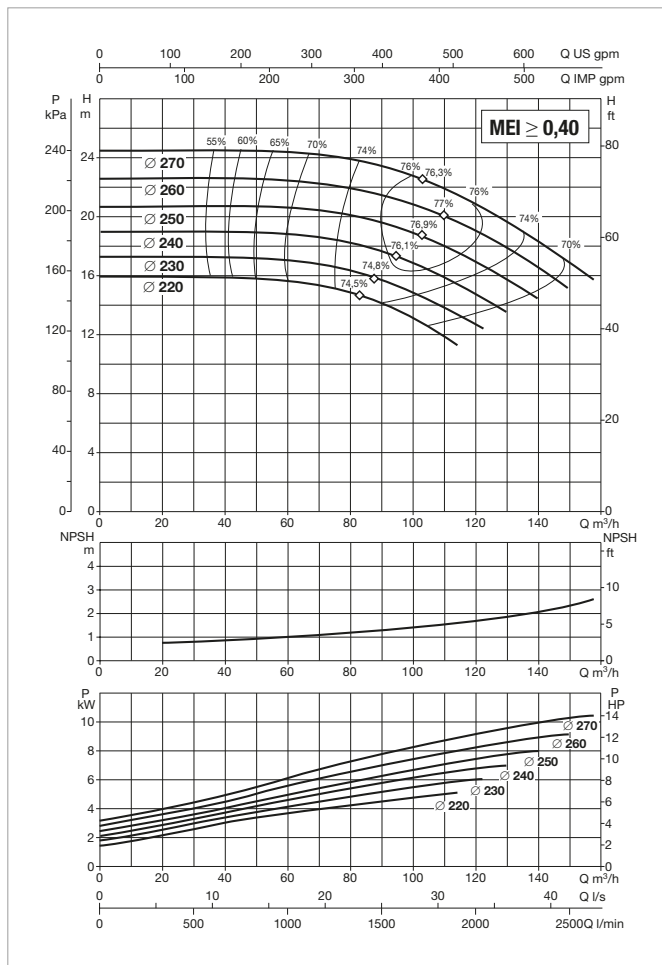
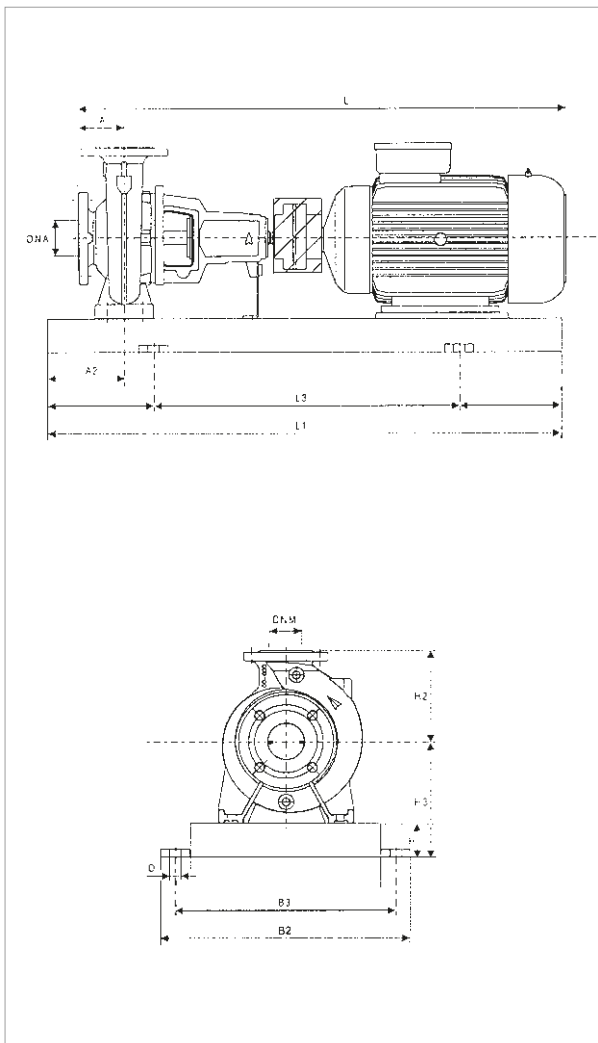
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 80-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 80-250	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3

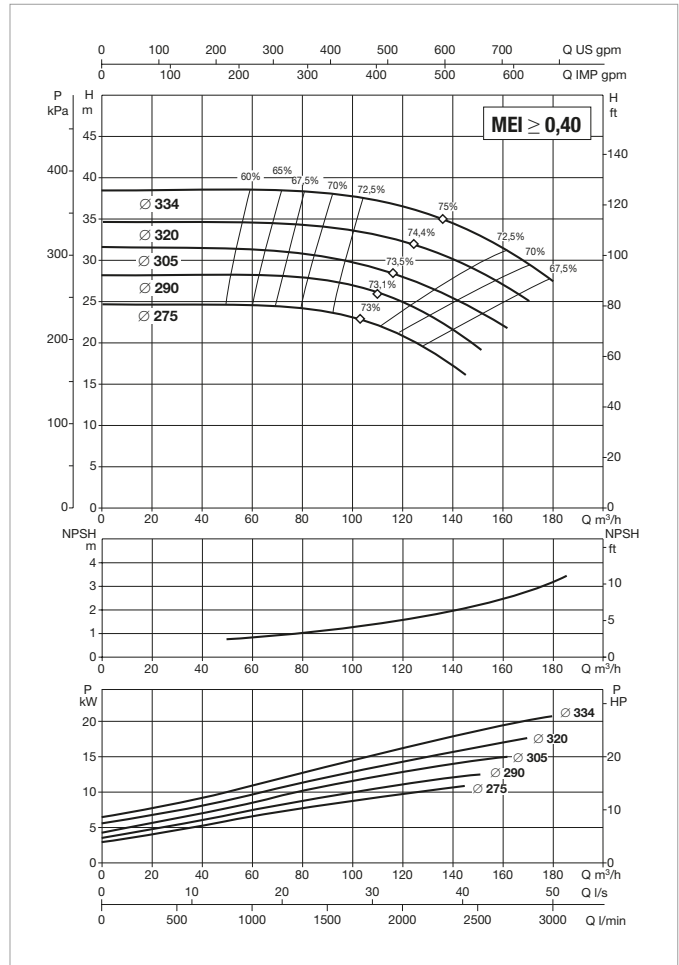
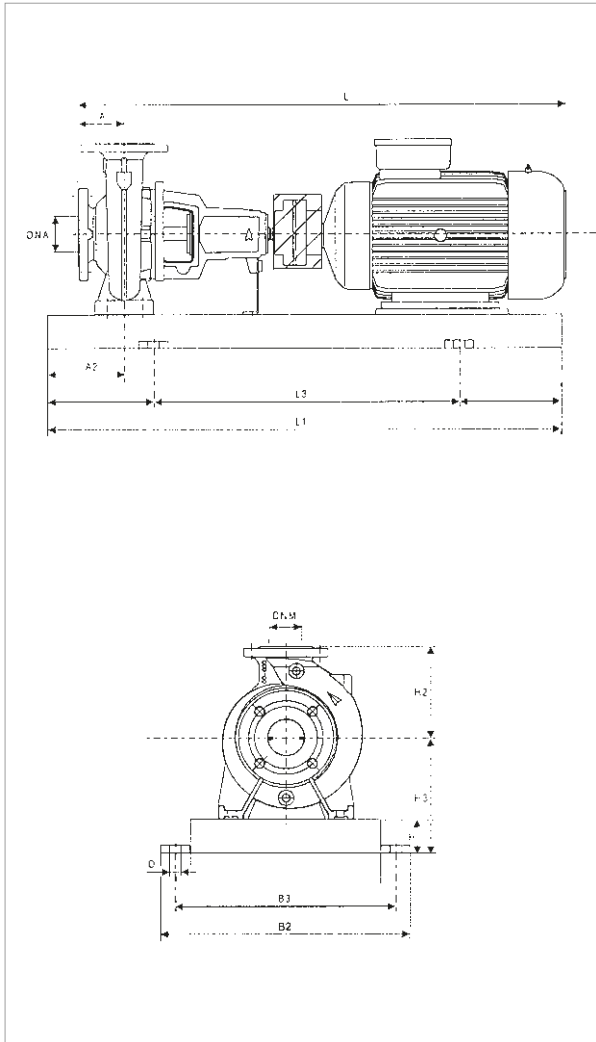
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 80-250	4	125	90	280	80	280	1250	840	540	490	24	100	80	1070	219	-	-	1210	227	-	-	6
	5.5	125	90	280	80	280	1250	840	540	490	24	100	80	1070	219	-	-	1210	227	-	-	6
	7.5	125	90	280	80	280	1250	840	540	490	24	100	80	1110	219	1117	200	1250	227	1257	208	6
	11	125	90	280	80	280	1250	840	540	490	24	100	80	1215	258	1215	232	1355	266	1355	240	6
	15	125	90	280	80	280	1250	840	540	490	24	100	80	1220	277	1258	252	1360	285	1398	260	6

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-315 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 80-315	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	MEC 180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	MEC 180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3

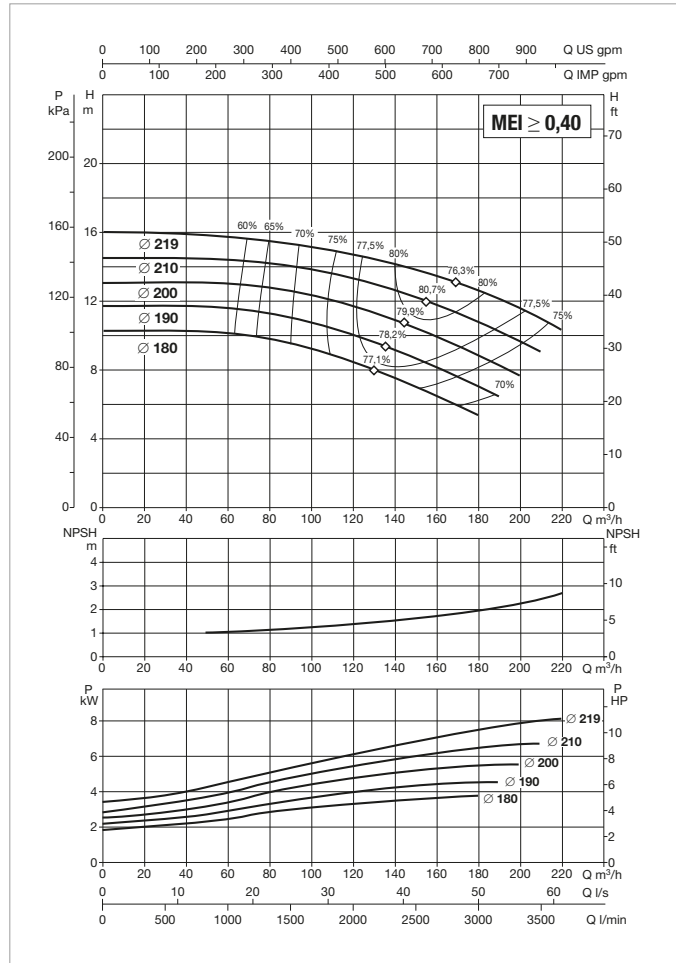
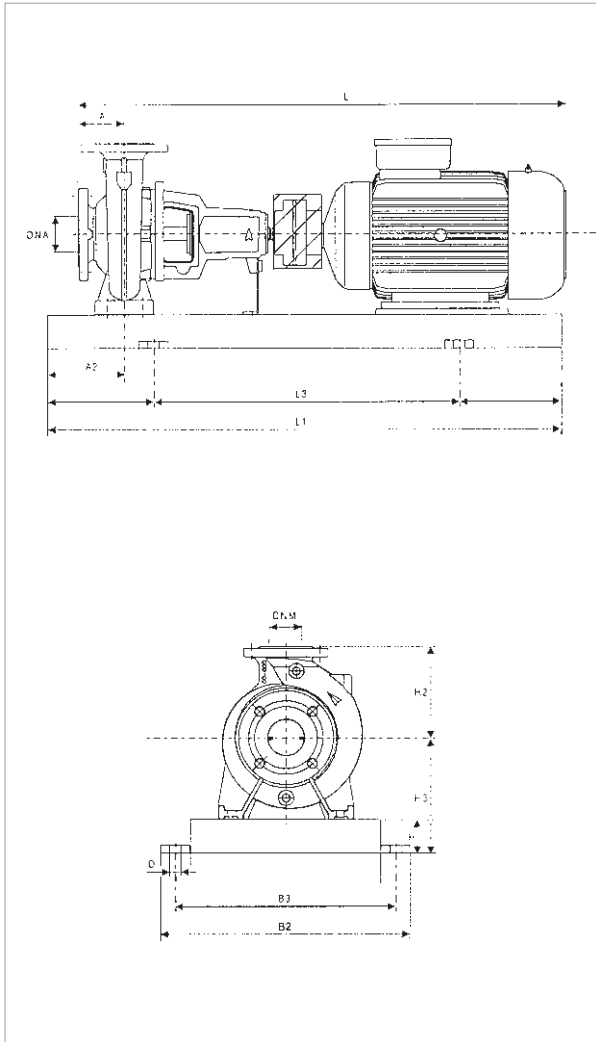
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 80-315	7.5	125	90	315	80	330	1250	840	540	490	24	100	80	1110	390	1117	371	1250	398	1257	379	6
	11	125	90	315	80	330	1250	840	540	490	24	100	80	1215	390	1215	364	1355	398	1355	372	6
	15	125	90	315	100	350	1400	940	610	550	28	100	80	1220	390	1258	365	1360	398	1398	373	7
	18.5	125	90	315	100	350	1400	940	610	550	28	100	80	1290	409	1290	378	1430	417	1430	386	7
	22	125	90	315	100	350	1400	940	610	550	28	100	80	1328	348	1328	318	1468	356	1468	326	7
	30	125	90	315	100	350	1400	940	610	550	28	100	80	1370	384	1380	384	1510	392	1520	392	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 100-200	3	MEC 100L	3 x 400 V - Δ	6.25	-	IE2
	4	MEC 112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 100-200	3	125	90	280	80	280	1120	740	490	440	24	125	100	985	181	-	-	1125	189	-	-	5
	4	100	90	280	80	280	1120	740	490	440	24	125	100	1070	188	-	-	1210	196	-	-	5
	5.5	100	90	280	80	280	1120	740	490	440	24	125	100	1070	214	-	-	1210	222	-	-	5
	7.5	100	90	280	80	280	1120	740	490	440	24	125	100	1110	209	1117	190	1250	217	1257	198	5
	11	100	90	280	80	280	1250	840	540	490	24	125	100	1215	307	1215	281	1355	315	1355	289	6
	15	100	90	280	80	280	1250	840	540	490	24	125	100	1220	380	1258	355	1360	388	1398	363	6

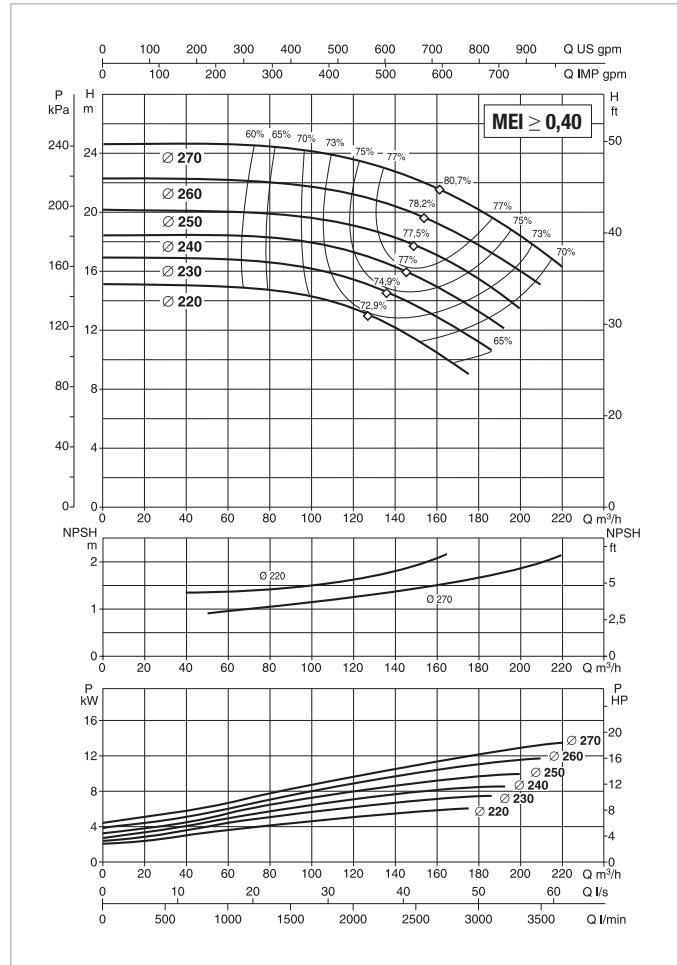
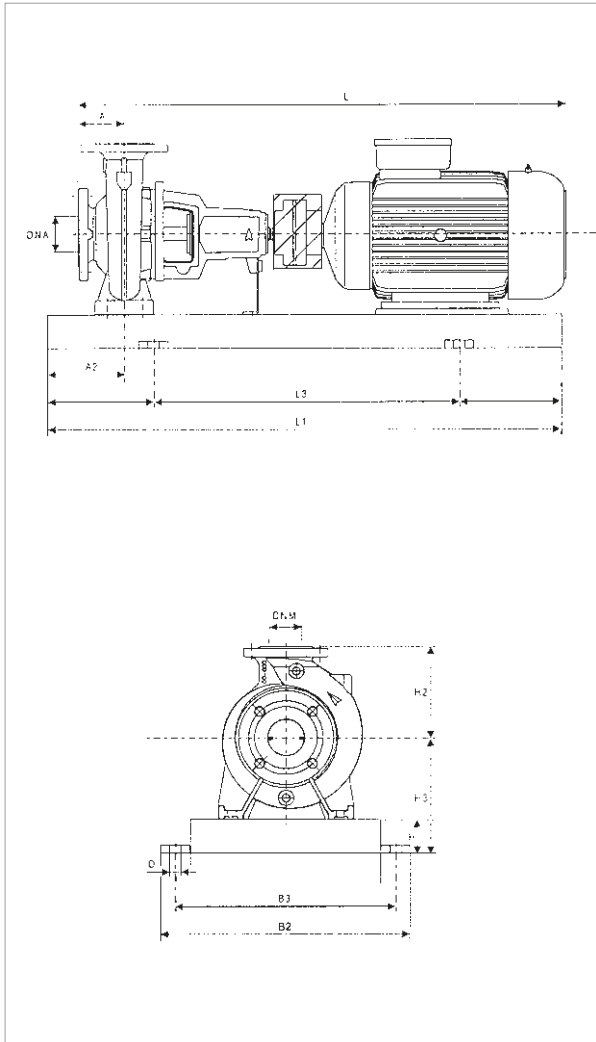
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 100-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 100-250	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	MEC 180M	3 x 400 V - Δ	33	34	IE2 / IE3

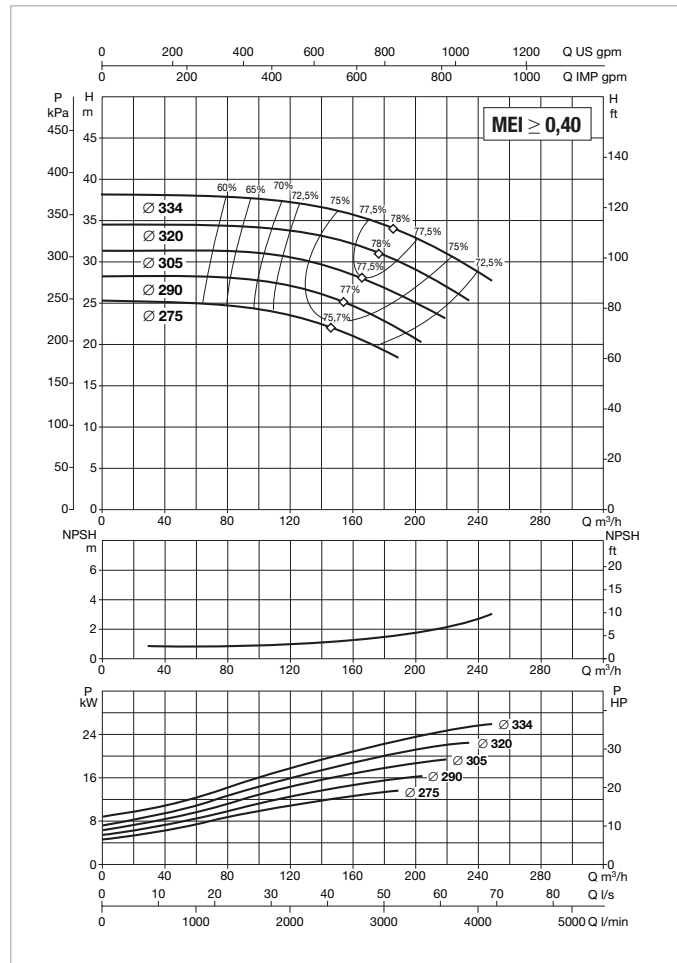
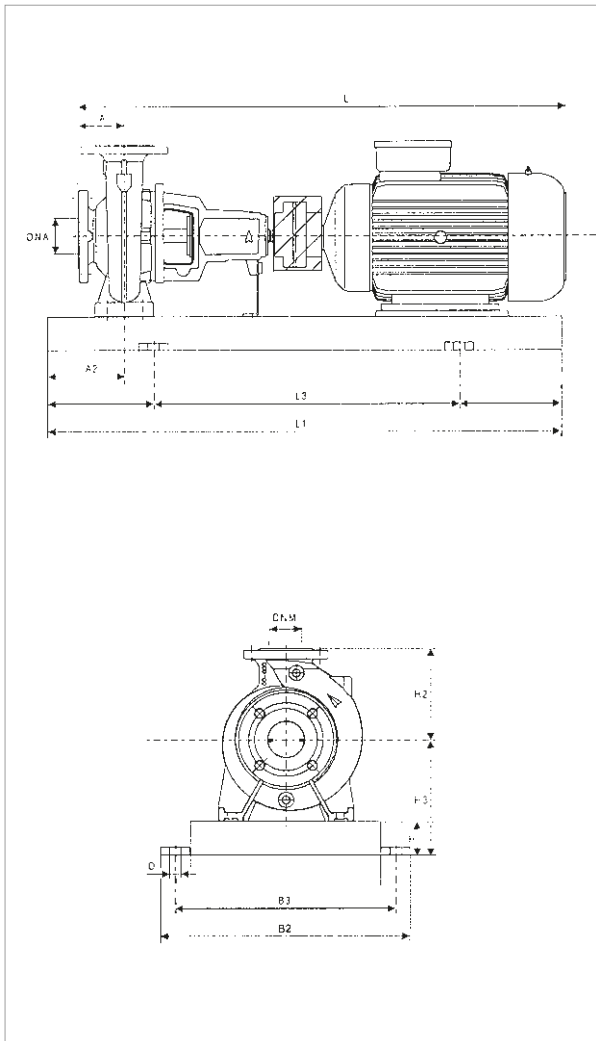
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 100-250	5.5	140	90	280	80	305	1250	840	540	490	24	125	100	1085	241	-	-	1225	249	-	-	6
	7.5	140	90	280	80	305	1250	840	540	490	24	125	100	1125	250	1132	231	1265	258	1272	239	6
	11	140	90	280	80	305	1250	840	540	490	24	125	100	1230	292	1230	266	1370	300	1370	274	6
	15	140	90	280	100	325	1400	940	610	550	28	125	100	1235	300	1273	275	1375	308	1413	283	7
	18.5	140	90	280	100	325	1400	940	610	550	28	125	100	1305	578	1305	547	1445	586	1445	555	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-315 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 100-315	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	MEC 180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	MEC 180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	MEC 225S	3 x 400 V - Δ	66.5	65	IE2 / IE3

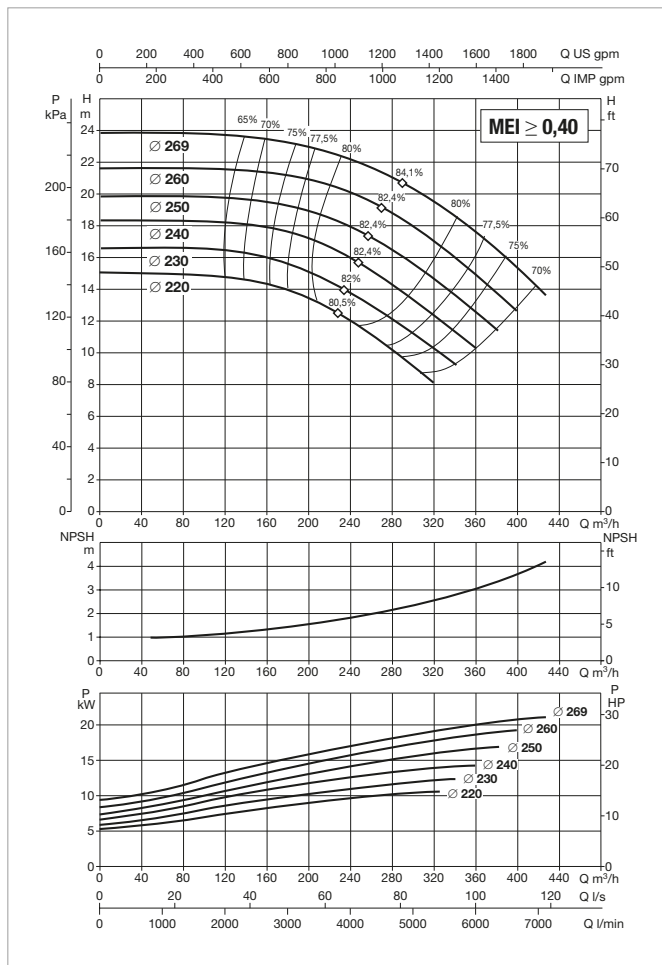
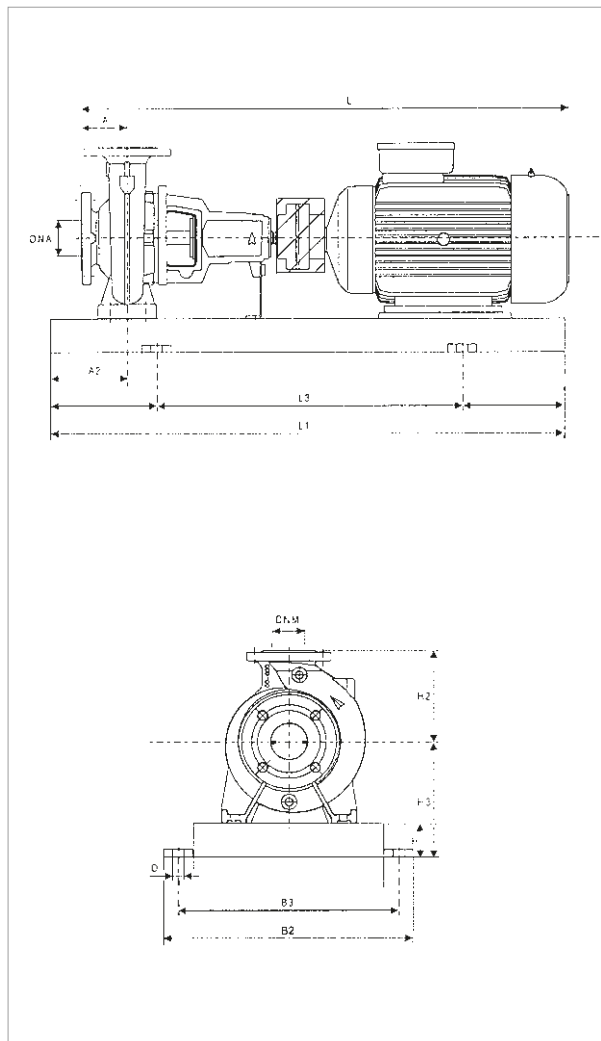
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DN A	DN M	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 100-315	11	140	90	315	80	330	1250	840	540	490	24	125	100	1230	313	1230	287	1370	321	1370	295	6
	15	140	90	315	100	350	1400	940	610	550	28	125	100	1325	300	1273	275	1375	308	1413	283	7
	18.5	140	90	315	100	350	1400	940	610	550	28	125	100	1305	346	1305	315	1445	354	1445	323	7
	22	140	90	315	100	350	1400	940	610	550	28	125	100	1343	372	1343	342	1483	380	1483	350	7
	30	140	90	315	100	350	1400	940	610	550	28	125	100	1385	458	1395	458	1525	466	1535	466	7
	37	140	90	315	100	350	1400	940	610	550	28	125	100	1430	518	1440	524	1570	526	1580	532	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 125-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 125-250	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	MEC 180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	MEC 180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)									FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 125-250	7.5	140	90	355	80	330	1250	840	540	490	24	150	125	1125	310	1132	291	1265	318	1272	299	6
	11	140	90	355	80	330	1250	840	540	490	24	150	125	1230	328	1230	302	1370	336	1370	310	6
	15	140	90	355	100	350	1400	940	610	550	28	150	125	1235	416	1273	391	1375	424	1413	399	7
	18.5	140	90	355	100	350	1400	940	610	550	28	150	125	1305	422	1305	391	1445	430	1445	399	7
	22	140	90	355	100	350	1400	940	610	550	28	150	125	1343	463	1343	433	1483	471	1483	441	7
	30	140	90	355	100	350	1400	940	610	550	28	150	125	1385	511	1395	511	1525	519	1535	519	7

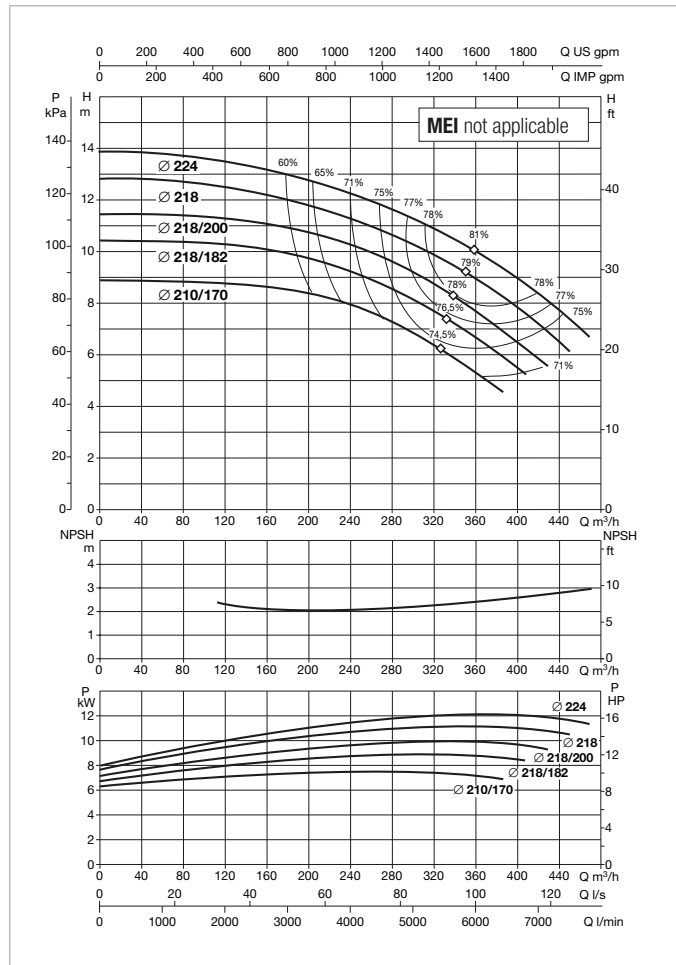
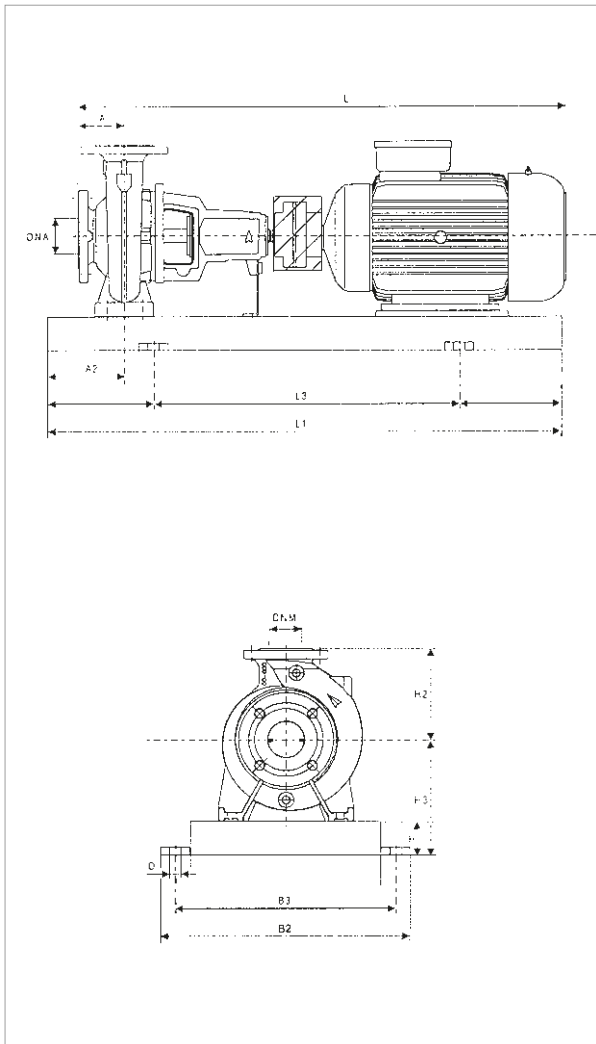
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 150-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 150-200	5.5	MEC 132S	3 x 400 V - Δ	10.6	-	IE2
	7.5	MEC 132M	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	MEC 160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	MEC 180M	3 x 400 V - Δ	33	34	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 150-200	5.5	160	110	400	100	380	1800	1200	730	670	28	200	150	1105	454	-	-	1245	462	-	-	9
	7.5	160	110	400	100	380	1800	1200	730	670	28	200	150	1145	470	1152	451	1285	478	1292	459	9
	11	160	110	400	100	380	1800	1200	730	670	28	200	150	1250	481	1250	455	1390	489	1390	463	9
	15	160	110	400	100	380	1800	1200	730	670	28	200	150	1255	501	1293	476	1395	509	1433	484	9
	18.5	160	110	400	100	380	1800	1200	730	670	28	200	150	1325	535	1325	504	1465	543	1465	512	9

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						230	400				
MEC 71	0.25	1400	60.00	0.710	3 x 230/400	1.60	0.90	2.88	2.15	2.26	4
MEC 71	0.37	1340	67.00	0.780	3 x 230/400	1.70	0.98	4.75	2.84	2.64	4
MEC 80	0.55	1410	71.00	0.720	3 x 230/400	2.60	1.50	5.33	2.78	2.89	4
MEC 80	0.75	1430	79.80	0.795	3 x 230/400	3.57	2.06	6.65	3.58	3.54	4
MEC 90S	1.10	1440	82.20	0.723	3 x 230/400	4.68	2.70	7.27	3.43	3.47	4
MEC 90L	1.50	1430	82.56	0.732	3 x 230/400	6.24	3.60	6.67	3.39	3.30	4
MEC 100L	2.20	1450	83.38	0.756	3 x 230/400	8.75	5.05	8.40	3.45	3.75	4

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 100L	3.00	1440	86.72	0.800	3 x 400 Δ	6.25	3.61	6.91	2.70	3.11	4
MEC 112M	4.00	1450	87.19	0.832	3 x 400 Δ	7.95	4.59	8.72	3.17	3.53	4
MEC 132S	5.50	1460	88.78	0.851	3 x 400 Δ	10.60	6.15	7.97	2.37	3.13	4
MEC 132M	7.50	1460	89.81	0.849	3 x 400 Δ	14.20	8.20	8.70	2.62	3.07	4
MEC 160M	11.00	1470	90.44	0.818	3 x 400 Δ	21.60	12.47	8.32	2.70	2.95	4
MEC 160L	15.00	1470	90.48	0.834	3 x 400 Δ	29.00	16.74	8.16	2.58	2.96	4
MEC 180M	18.50	1470	92.00	0.873	3 x 400 Δ	33.00	19.05	7.66	2.93	3.23	4
MEC 180L	22.00	1470	92.31	0.862	3 x 400 Δ	40.00	23.09	7.86	2.63	3.19	4
MEC 200L	30.00	1480	92.80	0.874	3 x 400 Δ	53.31	30.78	8.72	3.17	3.53	4
MEC 225S	37.00	1480	93.22	0.865	3 x 400 Δ	66.50	38.39	6.74	2.13	2.86	4
MEC 225M	45.00	1480	93.09	0.881	3 x 400 Δ	79.50	45.90	7.53	2.34	2.92	4
MEC 250M	55.00	1490	94.22	0.843	3 x 400 Δ	98.00	56.58	8.47	2.82	3.36	4
MEC 280S	75.00	1480	94.48	0.876	3 x 400 Δ	132.00	76.50	8.69	2.96	3.56	4
MEC 280M	90.00	1480	94.78	0.895	3 x 400 Δ	154.00	89.00	9.49	3.42	3.80	4
MEC 315S	110.00	1490	94.70	0.877	3 x 400 Δ	195.00	112.59	7.14	2.51	3.44	4
MEC 315M	132.00	1490	94.80	0.879	3 x 400 Δ	235.00	135.68	7.08	2.55	3.39	4
MEC 315L	160.00	1490	95.00	0.877	3 x 400 Δ	285.00	164.55	7.18	2.67	3.40	4
MEC 315L	200.00	1490	95.10	0.874	3 x 400 Δ	350.00	202.08	7.25	2.77	3.41	4
MEC355M	250.00	1490	96.01	0.88	3 x 400 Δ	425.00	246.40	7.27	2.42	3.50	4
MEC355L	315.00	1490	95.98	0.88	3 x 400 Δ	538.00	311.88	8.08	2.46	3.83	4

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE3 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 132M	7.50	1460	90.40	0.820	3 x 400 Δ	14.60	8.44	8.50	2.70	3.20	4
MEC 160M	11.00	1470	91.40	0.850	3 x 400 Δ	20.50	11.85	8.40	2.90	3.10	4
MEC 160L	15.00	1470	92.10	0.850	3 x 400 Δ	28.00	16.18	8.30	2.90	3.00	4
MEC 180M	18.50	1470	92.60	0.850	3 x 400 Δ	34.00	19.65	7.90	2.40	3.00	4
MEC 180L	22.00	1470	92.90	0.850	3 x 400 Δ	40.50	23.41	8.30	2.60	3.10	4
MEC 200L	30.00	1470	93.60	0.870	3 x 400 Δ	53.50	30.92	8.60	2.80	3.40	4
MEC 225S	37.00	1480	93.90	0.880	3 x 400 Δ	65.00	37.57	7.50	2.20	2.60	4
MEC 225M	45.00	1480	94.20	0.880	3 x 400 Δ	78.50	45.38	8.00	2.50	2.80	4
MEC 250M	55.00	1480	94.60	0.870	3 x 400 Δ	96.00	55.49	8.10	2.40	2.80	4
MEC 280S	75.00	1490	95.00	0.880	3 x 400 Δ	130.00	75.14	7.40	2.20	2.90	4
MEC 280M	90.00	1490	95.20	0.880	3 x 400 Δ	156.00	90.17	6.80	2.10	2.60	4
MEC 315S	110.00	1490	95.40	0.860	3 x 400 Δ	190.00	109.83	6.90	2.20	3.00	4
MEC 315M	132.00	1490	95.60	0.860	3 x 400 Δ	230.00	132.95	6.90	2.30	3.00	4
MEC 315L	160.00	1490	95.80	0.870	3 x 400 Δ	275.00	158.96	6.90	2.30	2.90	4
MEC 315L	200.00	1490	96.00	0.880	3 x 400 Δ	340.00	196.53	6.70	2.30	2.80	4
MEC 355M	250.00	1490	96.00	0.890	3 x 400 Δ	420.00	242.77	7.70	2.60	2.70	4
MEC 355L	315.00	1490	96.00	0.890	3 x 400 Δ	530.00	306.36	7.80	2.80	2.70	4

KDN - 2 POLE RANGE

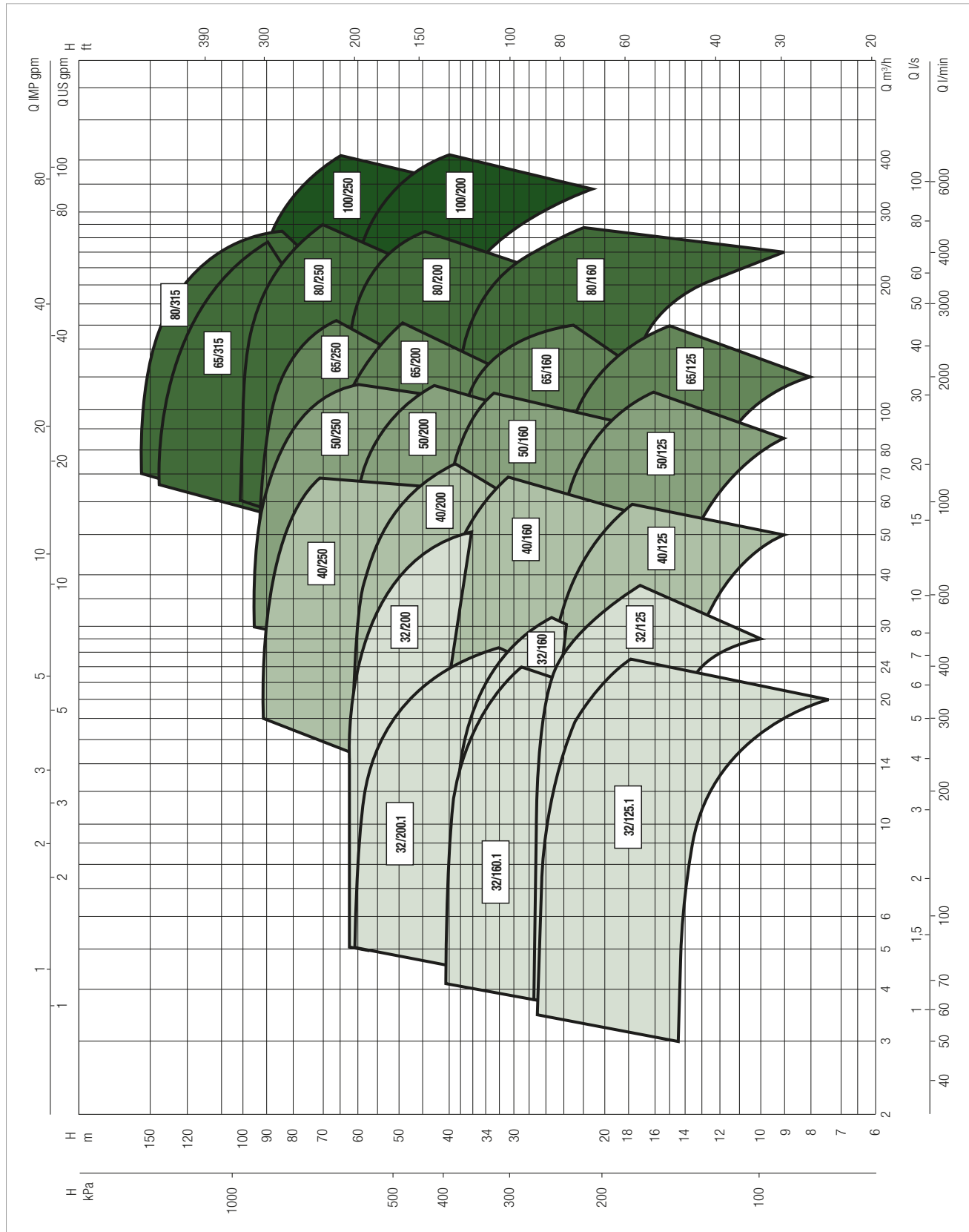
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 2900 1/min



KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 32

MODEL	Q=m ³ /h	0	6	12	18	24	30	36	42	48
	Q=l/min	0	100	200	300	400	500	600	700	800
KDN 32-125.1/105	H (m)	13.8	13.6	12.3	9.7					
KDN 32-125.1/110		15.5	15.2	13.9	11.5					
KDN 32-125.1/115		17.1	16.8	15.5	13.2					
KDN 32-125.1/120		18.8	18.5	17.3	15.1					
KDN 32-125.1/125		20.5	20.3	19.1	17					
KDN 32-125.1/130		22.3	22.2	21.3	19					
KDN 32-125.1/135		24.4	24.1	23.3	21.1	17.8				
KDN 32-125.1/140		26.5	26.4	25.6	23.4	20.1				
KDN 32-125/115		17.3		16.5	15.1	12.9				
KDN 32-125/120		19		18.2	17	14.9	11.1			
KDN 32-125/125		20.9		20.1	18.9	16.9	13.5			
KDN 32-125/130		22.9		22	21	19.1	16.2			
KDN 32-125/135		24.9		24	22.1	21.5	18.5	14.7		
KDN 32-125/142		27.8		27	26.1	24.5	21.7	18		
KDN 32-160.1/137		21.5	21.2	19.3						
KDN 32-160.1/145		24.7	24.5	22.3	16.5					
KDN 32-160.1/153		28.3	28	26	20.5					
KDN 32-160.1/161		32	31.8	30	25					
KDN 32-160.1/169		36	35.7	34.4	29.5					
KDN 32-160.1/177		39.5	39.3	38.2	34.5	26				
KDN 32-160/137		23.7		22.6	20.7	17.6				
KDN 32-160/145		27		25.8	23.9	21.2	16.9			
KDN 32-160/153		30.4		29.5	27.7	25.8	21.2			
KDN 32-160/161		34		33	31.7	29.1	25.5			
KDN 32-160/169		38		37.3	36	33.6	35.7	26.5		
KDN 32-160/177		41.8		41.5	40.5	38.4	35.3	31.4		
KDN 32-200.1/170		34.3	34.2	31.9	23.5					
KDN 32-200.1/180		39.4	39.2	36.7	30					
KDN 32-200.1/190		45.3	44.7	41.5	35.5					
KDN 32-200.1/200		51.5	51	47.3	41	35				
KDN 32-200.1/207		55.3	55	51.8	46.4	37				
KDN 32-200/170		34		33	31	27	21			
KDN 32-200/180	39		38.5	36.5	32.5	28				
KDN 32-200/190	45		43.5	42	39	34	28.5			
KDN 32-200/200	51		49	48	45	40.5	35			
KDN 32-200/210	57		56	55	52.5	48.5	43	36		
KDN 32-200/219	63		62	61	59	56.5	52.5	46.5	39.5	

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 40

MODEL	Q=m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66	72
	Q=l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200
KDN 40-125/115	H (m)	16.8		13.3	15.6	15	14.3	13.2	12.6	9.8				
KDN 40-125/120		18.5		18	17.5	17	16	15	13.5	11.8				
KDN 40-125/125		20.4		20	19.5	19	18	16.7	15.3	13.5				
KDN 40-125/130		22		21.8	21.5	21	20	19	17.5	15.7	14			
KDN 40-125/135		24.1		24	23.9	23.4	22.5	21.5	20	18.3	16.4			
KDN 40-125/142		26.8		26.6	26.4	26	25.3	24.4	23	21.4	19.4	17		
KDN 40-160/137		23.9			23.8	23	22	20.5	18	15				
KDN 40-160/145		27.5			27.4	27	25.7	24.2	22.1	19.5				
KDN 40-160/153		31.1			31	30.5	29.5	28	26.5	24	21			
KDN 40-160/161		34.5			34.5	34.4	33.7	32.3	30.5	28.5	25.8	22.5		
KDN 40-160/169		38.4			38.4	38.2	38	37	35	33.5	31	28		
KDN 40-160/177		42.6			42.5	42.4	42	41.5	40	38.5	35	33	30	
KDN 40-200/170		33.6			33	32.6	32	30	26.5	22.5				
KDN 40-200/180		38.8			38.5	38	37	35	32.5	29	25			
KDN 40-200/190		43.4			43.1	43	42.7	41	38	35	31.5	27		
KDN 40-200/200		48.7			48.4	48.2	47.5	46.5	44	41.5	38.5	34.5		
KDN 40-200/210		54.3			54.1	54	53.6	53	51	48.5	46	42.5	38	
KDN 40-200/219		60			59.8	59.7	59.4	59	57	55	52.5	49.5	46	40
KDN 40-250/220		63.1			62.8	62.5	61	59	57	55	52	48		
KDN 40-250/230		69.5			69.3	68.5	67.8	66	63.5	61	58	55	51	
KDN 40-250/240		76.3			76	75.8	75	73	70.5	68	65	62	58.5	
KDN 40-250/250		82.8			82.5	82	81.8	80	78	75.5	72.5	69	66	
KDN 40-250/260		91			90.5	90	89.5	88.5	86.5	84	81	78	74	

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 50

MODEL	Q=m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	
	Q=l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	
KDN 50-125/115	H (m)	17.1					15.9	15.5	15	14.3	13.6	13	12.2	11.5	10.4	9				
KDN 50-125/120		18.2						17.5	17	16.5	16	15.3	14.7	14	13.2	12	11.2	10		
KDN 50-125/125		19.8						19.4	19	18.5	17.9	17.4	16.6	16	15.1	14	13	11.8		
KDN 50-125/130		21.5						21.1	20.8	20.5	19.8	19.2	18.5	17.8	17	16.5	15.2	14		
KDN 50-125/135		23.2						23	22.6	22.3	21.8	21.2	20.6	19.9	19.3	18.4	17.5	16.3	13.7	
KDN 50-125/139		24.7						24.5	24.3	24	23.5	23	22.4	21.6	20.8	20	19.2	18	15.5	
KDN 50-125/144		25.9						26.5	26.4	26.1	25.6	25.1	24.5	24	23.2	22.3	21.5	20.5	17.8	15
KDN 50-160/137		24.2						23.8	23.7	23.5	22.5	22	21	20.3	19	18	16.8	15		
KDN 50-160/145		27.2						27	26.9	26.6	26.4	25.5	25	23.8	23	21.5	20.5	19		
KDN 50-160/153		30.3						30.3	30.2	30	29.9	29.5	28.5	27.7	26.5	25.5	24.5	23		
KDN 50-160/161		33.8						33.7	33.7	33.6	33.6	33.3	32.5	31.8	31	29.8	28.5	27.5		
KDN 50-160/169		37.7						37.7	37.5	37.5	37.4	37	36.2	35.7	35.5	34.2	33	31.5	29	
KDN 50-160/177		41.6						41.5	41.5	41.3	41.2	41	40.6	40.5	39.5	38.8	38	36.7	33.5	
KDN 50-200/170		37.9						37	36.8	36.4	35	34	32	30	27	25				
KDN 50-200/180		42.5						42	41.7	41.4	40.5	39.5	38	36	34	32	29			
KDN 50-200/190		47.2						46.8	46.6	46	45.7	44.5	43.5	42	40	38	35.5	33		
KDN 50-200/200		52.4						52.2	52	18	51.5	50.5	49	47.5	46	44.5	42	40		
KDN 50-200/210		58.4						58.4	58.2	58	57.5	56.5	55.5	54	52.5	51	49	46.5	41.5	
KDN 50-200/219		64						64	64	64	63.5	62.5	61.5	60	58.5	57	55	53	48.5	
KDN 50-250/220		63.7						63.3	63.1	63	62	61	59	57.5	55	53	50	46.5	36	
KDN 50-250/230		69.6						69.3	69	68.8	68.5	68	66	64	62	60	57	54	45	
KDN 50-250/240		76						75.8	75.5	75.3	75	74.5	73	71.5	69	67	65	62	55	
KDN 50-250/250		83.2						83	82.9	82.8	83.5	82	80.5	78.5	77	75	72.5	70	64	
KDN 50-250/263		92.1						92	91.8	91.6	91.5	91.3	89.9	88.5	86.5	84.5	82.5	80	75	61

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 65

MODEL	Q=m ³ /h	0	48	54	60	66	72	78	84	90	102	114	120	150	180	210	240
	Q=l/min	0	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2000	2500	3000	3500	4000
KDN 65-125/120/110	H (m)	16	14.4	14	13.6	13.1	12.8	12.2	11.9	11.4	10.2	8.7	8				
KDN 65-125/120		17.8	16	15.6	15.3	14.9	14.4	13.9	13.4	13	11.5	10.3	9.4				
KDN 65-125/125		19.4	17.8	17.5	17.1	16.8	16.4	16	15.4	15	13.5	12.2	11.4				
KDN 65-125/130		21	19.6	19.5	19.1	18.9	18.5	18	17.5	17	15.7	14.2	13.2				
KDN 65-125/135		22.6	21.8	21.5	21.3	21	20.5	20.1	19.6	19.2	18	16.5	15.6				
KDN 65-125/140		24	23.6	23.5	23.4	23	22.8	22.3	22	21.4	20.3	18.9	18	13.8			
KDN 65-125/144		25.6	25.5	25.4	25.2	25	24.6	24.3	24	23.4	22.5	21.1	20.2	16			
KDN 65-160/137		23.1	22.4	22	21.7	21.3	20.5	19.7	19	18	16						
KDN 65-160/145		26.2	25.7	25.5	25	24.6	24	23.5	22.7	22	20	17.8	16.5				
KDN 65-160/153		29.1	28.8	28.5	28.6	28.5	28	27.5	26.6	26	24	22	21				
KDN 65-160/161		32.6	32.5	32.4	32.3	32	31.7	31.3	30.5	30	28.5	26.5	25.5				
KDN 65-160/169		36.4	36.3	36.2	36.1	36	35.7	35.3	34.7	34	32.7	31	30				
KDN 65-160/177		40.1	39.9	39.8	39.7	40	39.8	39.5	39	38.5	37.2	35.5	34.7	28.5			
KDN 65-200/170		37.2	36.8	36.7	36.6	36.5	36	35	34	32.5	30	27	25				
KDN 65-200/180		41.7	41.4	41.3	41.2	41.1	41	40.5	40	39	36.5	34	32				
KDN 65-200/190		48.3	48.2	48.1	48	47.9	47.5	47	41	45	43	40.5	39				
KDN 65-200/200		53.2	53.1	52.9	52.8	52.7	52.5	52.3	52	51.8	50	48	46.5				
KDN 65-200/210		59.2	59.1	59	58.9	58.8	58.7	58.5	58.2	58	56.5	54.5	53.5				
KDN 65-200/219		64.9	64.9	64.8	64.5	64.3	64.1	64	63.8	62.5	62.4	61	60	52.5			
KDN 65-250/220		63.2	62.8	62.5	62	61	60	59.5	58	57	54	50.5	48				
KDN 65-250/230		69.5	69.5	69	68.5	68	67	66	65	64	63	58.5	56.5				
KDN 65-250/240		76	75.7	75.5	75	75	74	73	72	71	69	66	64				
KDN 65-250/250		83	82.3	82.3	82.2	82	81.5	81	80	79	76.5	73.5	72	60			
KDN 65-250/263		92.6	91.8	91.8	91.7	91.5	91.5	91	90	89.5	87.5	85	83	72.5			
KDN 65-315/260		92.8				92.7	91.9	90.9	89.7	88.5	85.5	81.9	79.9	67.8			
KDN 65-315/275		105				104.5	103.9	103.1	102.1	101.1	98.5	95.5	93.8	83.3	69.5		
KDN 65-315/290		117.1				117.0	116.5	115.9	115.1	114.3	112.2	109.7	108.3	99.4	87.6		
KDN 65-315/305		130				129.6	129.2	128.7	128.0	127.3	125.5	123.2	121.9	113.8	103.0	89.6	
KDN 65-315/320		143				142.9	142.6	142.1	141.6	140.9	139.3	137.3	136.2	128.9	119.1	106.8	92.0

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 80

MODEL	Q=m ³ /h	0	90	102	114	120	150	180	210	240	270	300
	Q=l/min	0	1500	1700	1900	2000	2500	3000	3500	4000	4500	5000
KDN 80-160/147/127	H (m)	23	21.5	207	20	19.5	17	14.5	11.8	8.8		
KDN 80-160/153/136		25.6	24.5	23.8	23	22.5	20.2	17.5	15	11.8		
KDN 80-160/153		29.3	28	27.3	26.5	26	23.5	20.7	16.5	14.5		
KDN 80-160/161		32.8	32	31.5	30.5	30	27.8	25	21.5	18.5		
KDN 80-160/169		36.5	35.7	35.2	34.5	34.2	32	29.5	26.5	22.6	18.5	
KDN 80-160/177		40	39.5	39.2	38.7	38.5	37	34.8	31.8	27.8	23	
KDN 80-200/170		36.6	35.7	35.5	34.5	34	31	27	21.5			
KDN 80-200/180		41	40.6	40.5	40	39.5	37	33	27.5			
KDN 80-200/190		45.7	45.4	45	44.5	44	42	29	34			
KDN 80-200/200		50.8	50.4	50.2	50	49.6	49	46.5	41	35		
KDN 80-200/210		56.3	55.9	55.8	55.7	55.6	54.8	52	48	43		
KDN 80-200/222		63.6	63.4	63.3	63.2	63.1	63	60	56.5	51.5	45	
KDN 80-250/220		62.6	62.5	62.4	62	61.8	60	55.5	49			
KDN 80-250/230		68.3	68.2	68.1	68	67.9	67	63	57	50		
KDN 80-250/240		75.5	75.4	75.3	75.2	75	74.5	71	65.5	58.5		
KDN 80-250/250		82.5	82.3	82	81.9	81.7	82	78.5	74	67.5	60.5	
KDN 80-250/260		90	89.7	89.6	86.5	89.3	89	86.5	82	77	70	61.5
KDN 80-250/270		97.9	97.8	97.5	91.3	97	96.5	94	89	84	77	69
KDN 80-315/275		101	101	100.8	100.8	100.7	100.1	97.6	92	82.7	73.5	
KDN 80-315/290		114	113.9	113.8	113.8	113.7	112	109.8	106.6	99.3	92.5	80.1

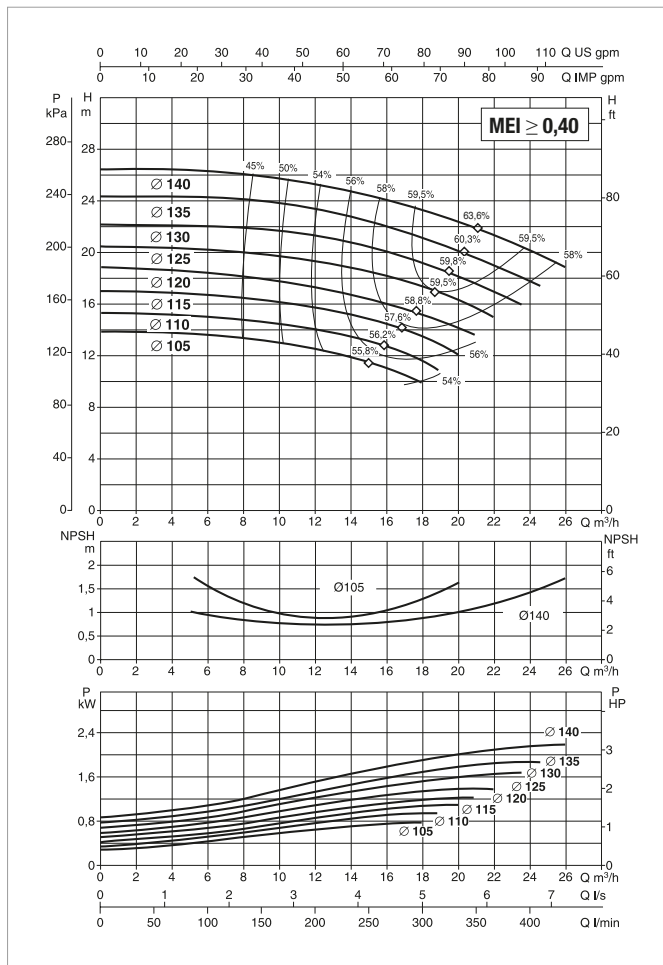
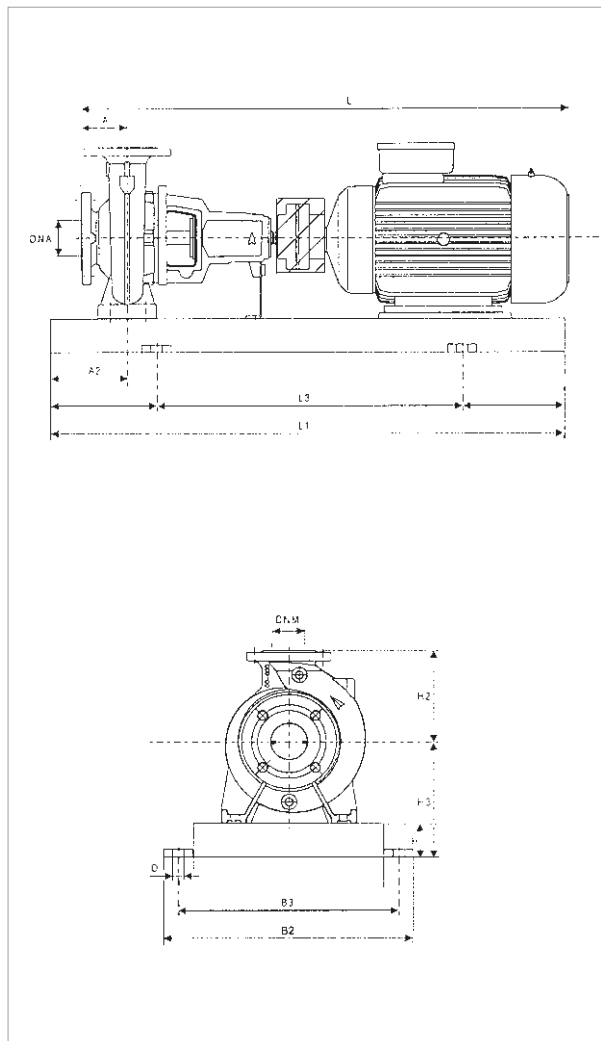
SELECTION TABLE - KDN 100

MODEL	Q=m ³ /h	0	150	180	210	240	270	300	330	360	390	420
	Q=l/min	0	2500	3000	3500	4000	4500	4500	5500	6000	6500	7000
KDN 100-200/180	H (m)	40.4	40	38	36	33	30.5	28	25			
KDN 100-200/190		46.5	45	44	42	39	37	34.5	31	28		
KDN 100-200/200		51.5	51	50	48.5	46	44	42	39	35	31.5	
KDN 100-200/210		57.5	57	56	55	53	51	49	46	43	39	36
KDN 100-200/219		64	62.5	62	61	60	58	56	53	50	47	43
KDN 100-250/220		61.1	60	59.5	57	54	50.5	46.5	42			
KDN 100-250/230		67.4	66.9	66.5	64	61	58	54	49	44		
KDN 100-250/240		73.5	72.9	71	70.5	69	66	63	58.5	53		
KDN 100-250/250		79.7	79.5	79	78.8	77	74	71	67	62.5		
KDN 100-250/260		88.6	88.2	88.1	88	86	83	79.5	76	71.5	66	

KDN 32-125.1 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 32-125.1	0.75	MEC 80	3 x 230 - 400 V ~	2.81/1.62	-	IE2
	1.1	MEC 80	3 x 230 - 400 V ~	4.07/2.36	-	IE2
	1.5	MEC 90S	3 x 230 - 400 V ~	5.80/3.35	-	IE2
	2.2	MEC 90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	MEC 100L	3 - 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 - 400 V - Δ	8.05	-	IE2

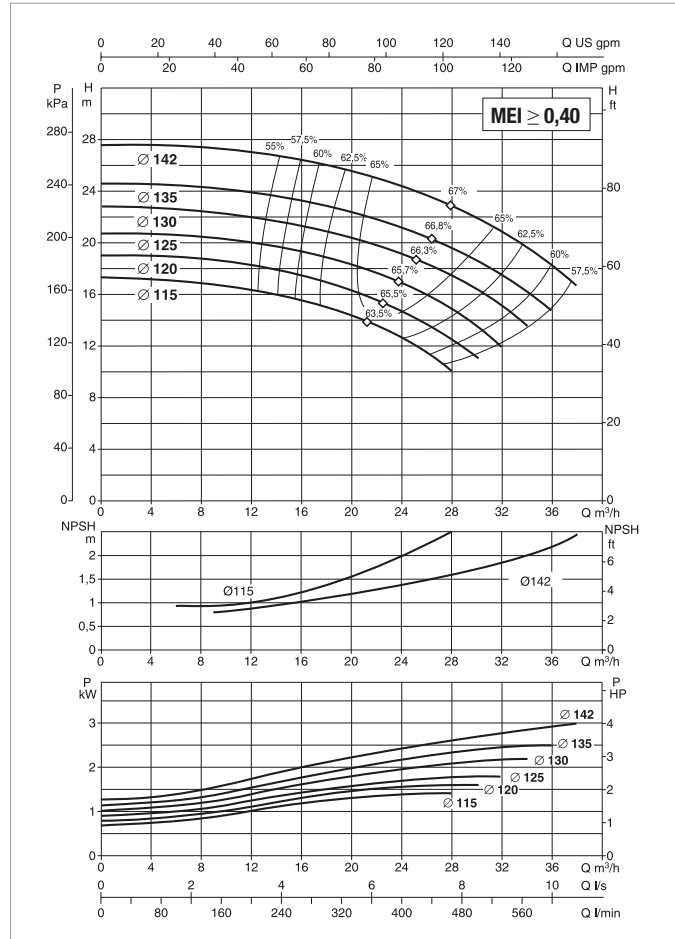
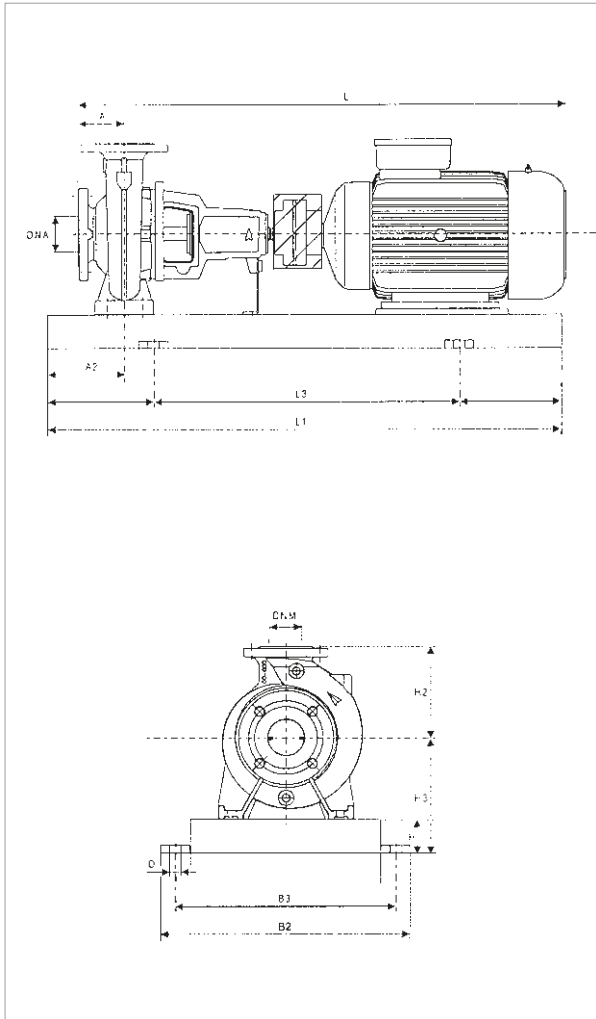
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)									FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 32-125.1	0.75	80	60	140	65	177	800	540	360	320	19	50	32	740	85	-	-	840	90	-	-	2
	1.1	80	60	140	65	177	800	540	360	320	19	50	32	740	86	-	-	840	91	-	-	2
	1.5	80	60	140	65	177	800	540	360	320	19	50	32	765	93	-	-	865	98	-	-	3
	2.2	80	60	140	65	177	900	600	390	350	19	50	32	790	100	-	-	890	105	-	-	3
	3	80	60	140	65	177	900	600	390	350	19	50	32	830	102	-	-	930	107	-	-	3
	4	80	60	140	65	177	900	600	390	350	19	50	32	845	102	-	-	945	107	-	-	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 32-125	1.1	MEC 80	3 x 230 - 400 V ~	4.07/2.36	-	IE2
	1.5	MEC 90S	3 x 230 - 400 V ~	5.80/3.35	-	IE2
	2.2	MEC 90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	MEC 100L	3 - 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 - 400 V - Δ	8.05	-	IE2

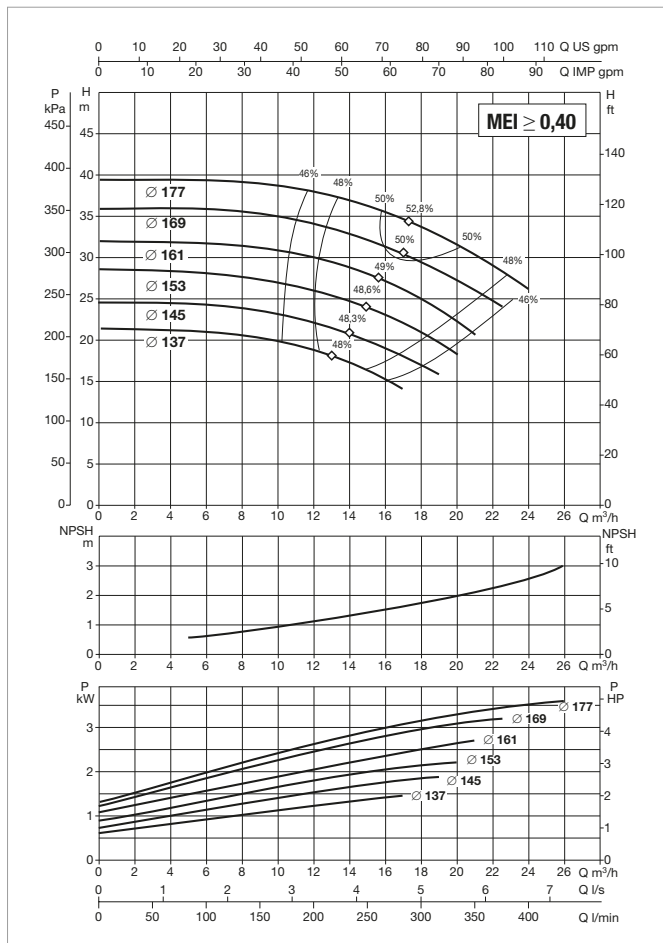
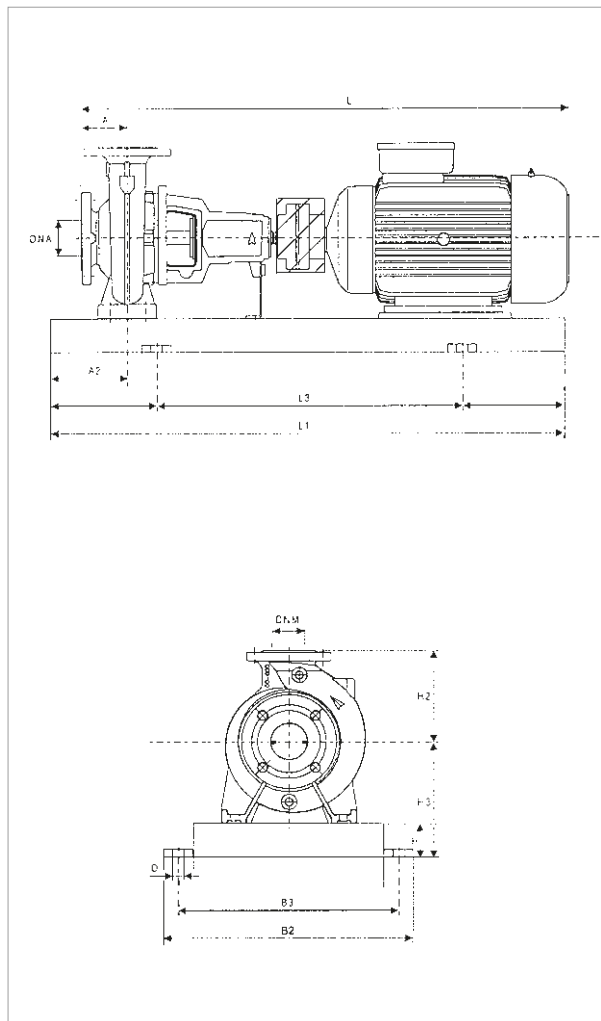
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 32-125	1.1	80	60	140	65	177	800	540	360	320	19	50	32	740	85	-	-	840	90	-	-	2
	1.5	80	60	140	65	177	800	540	360	320	19	50	32	765	86	-	-	865	91	-	-	2
	2.2	80	60	140	65	177	900	600	390	350	19	50	32	790	93	-	-	890	98	-	-	3
	3	80	60	140	65	177	900	600	390	350	19	50	32	830	96.3	-	-	930	101.3	-	-	3
	4	80	60	140	65	177	900	600	390	350	19	50	32	845	117	-	-	945	122	-	-	3

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160.1 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	SIZE MOTOR	POWER INPUT 50 Hz	In A		TYPE MOTOR
				IE2	IE3	
KDN 32-160.1	1.1	MEC 80	3 x 230 - 400 V ~	4.07/2.36	-	IE2
	1.5	MEC 90S	3 x 230 - 400 V ~	5.80/3.35	-	IE2
	2.2	MEC 90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	MEC 100L	3 - 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 - 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 - 400 V - Δ	10.4	-	IE2

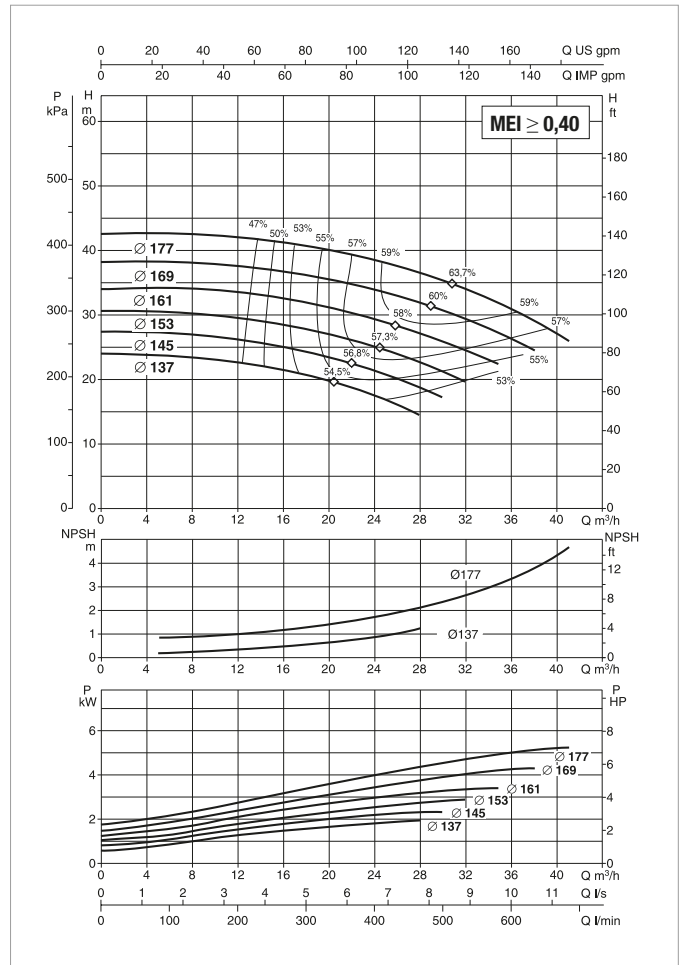
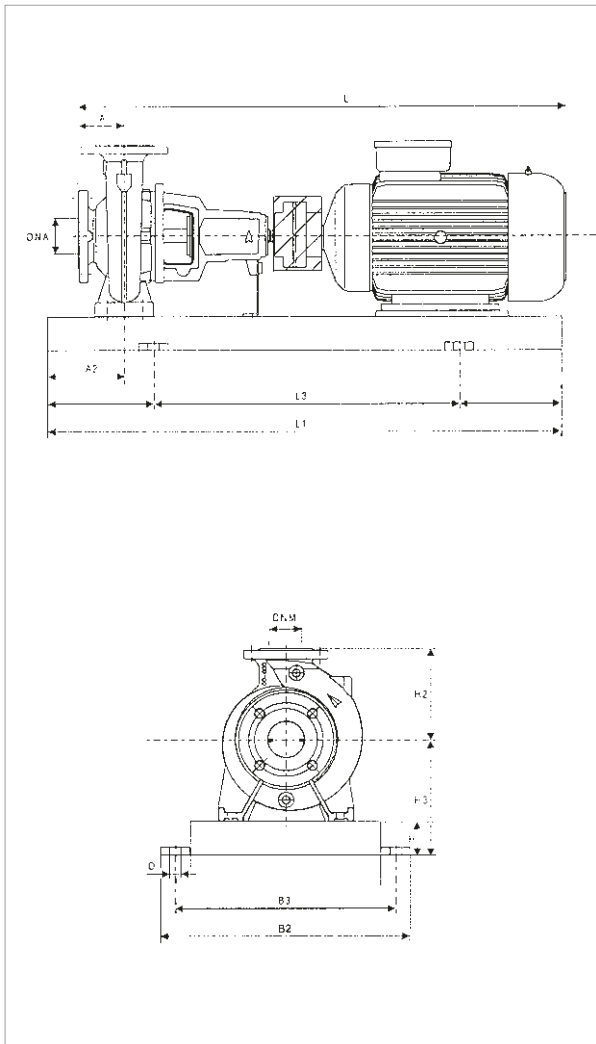
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 32-160.1	1.5	80	60	160	65	197	800	540	360	320	19	50	32	740	91	-	-	840	96	-	-	2
	1.5	80	60	160	65	197	800	540	360	320	19	50	32	765	94	-	-	865	99	-	-	2
	2.2	80	60	160	65	197	900	600	390	350	19	50	32	790	102	-	-	890	107	-	-	3
	3	80	60	160	65	197	900	600	390	350	19	50	32	830	102	-	-	930	107	-	-	3
	4	80	60	160	65	197	900	600	390	350	19	50	32	845	104	-	-	945	109	-	-	3
	5.5	80	60	160	80	212	1000	660	450	400	24	50	32	915	136	-	-	1015	141	-	-	4

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 32-160	2.2	MEC 90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	MEC 100L	3 x 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3

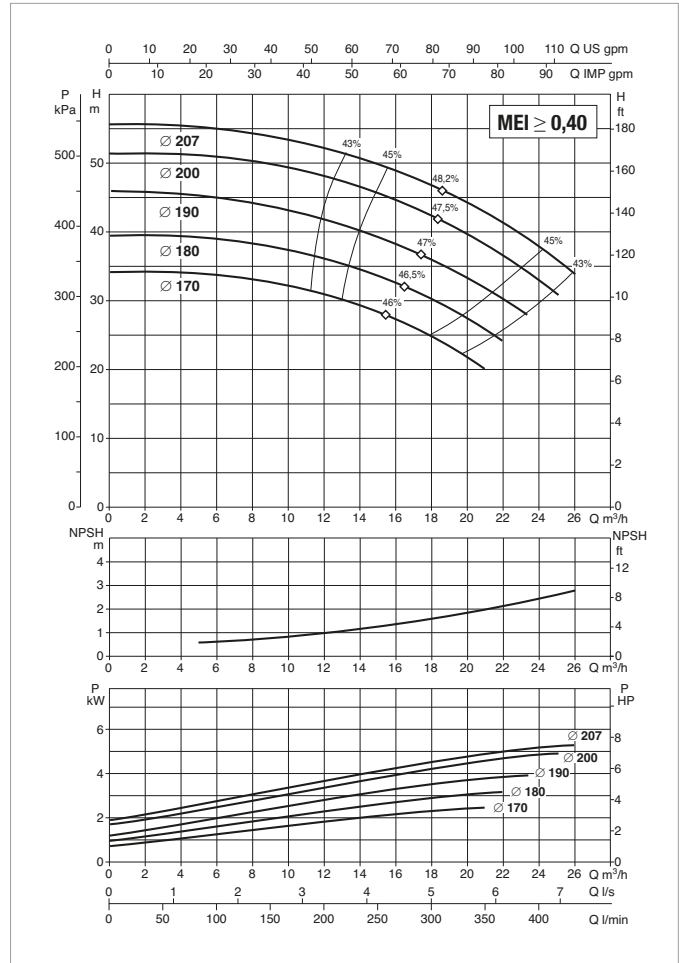
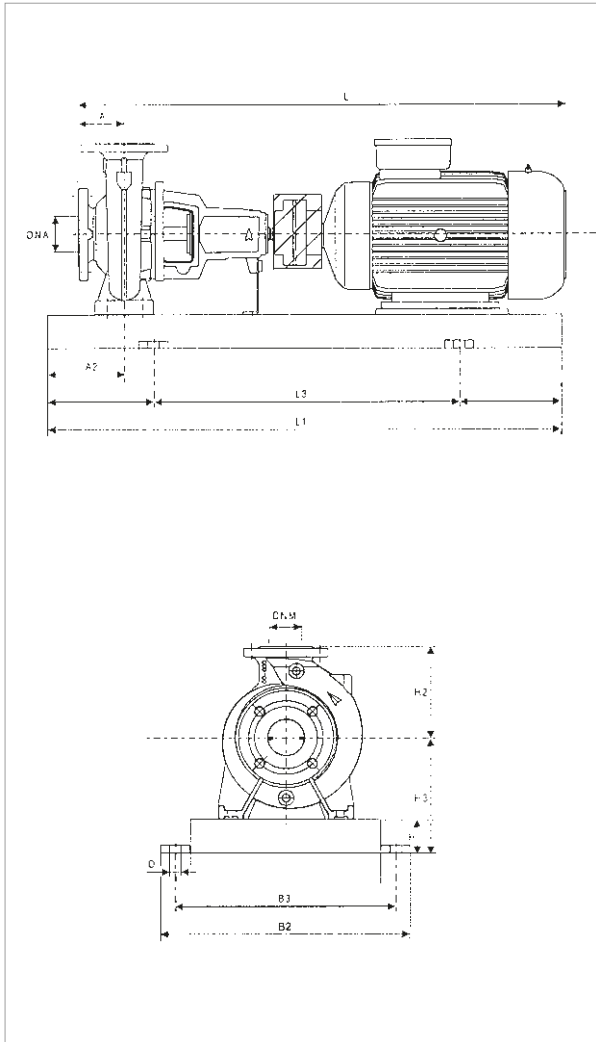
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
														L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 32-160	2.2	80	60	160	65	197	900	600	390	350	19	50	32	790	92	-	-	97	100	-	-	3
	3	80	60	160	65	197	900	600	390	350	19	50	32	830	102	-	-	107	107	-	-	3
	4	80	60	160	65	197	900	600	390	350	19	50	32	845	104	-	-	109	109	-	-	3
	5.5	80	60	160	80	212	1000	660	450	400	24	50	32	915	136	-	-	141	141	-	-	4
	7.5	80	60	160	80	212	1000	660	450	400	24	50	32	915	139	925	113	1015	144	1025	118	4

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200.1 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 32-200.1	2.2	MEC 90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	MEC 100L	3 x 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3

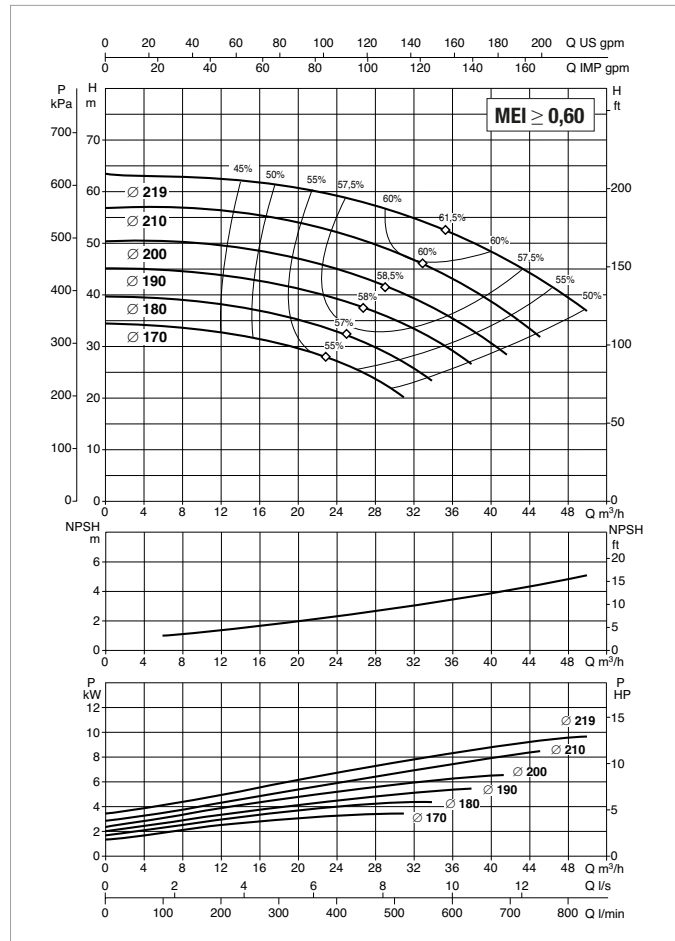
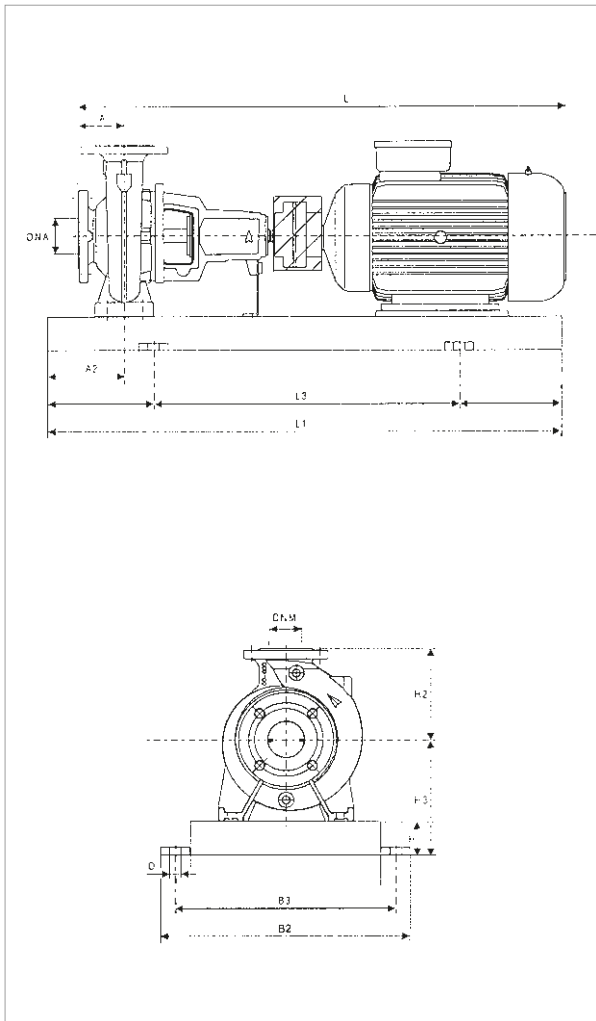
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 32-200.1	2.2	80	60	180	65	225	900	600	390	350	19	50	32	790	108	-	-	890	113	-	-	3
	3	80	60	180	65	225	900	600	390	350	19	50	32	830	140	-	-	930	145	-	-	3
	4	80	60	180	65	225	900	600	390	350	19	50	32	845	143	-	-	945	148	-	-	3
	5.5	80	60	180	80	240	1000	660	450	400	24	50	32	915	143	-	-	1015	148	-	-	4
	7.5	80	60	180	80	240	1000	660	450	400	24	50	32	915	166	925	140	1015	171	1025	145	4

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 32-200	3	MEC 100L	3 x 400 V - Δ	5.85	-	IE3
	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE3
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE3
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3

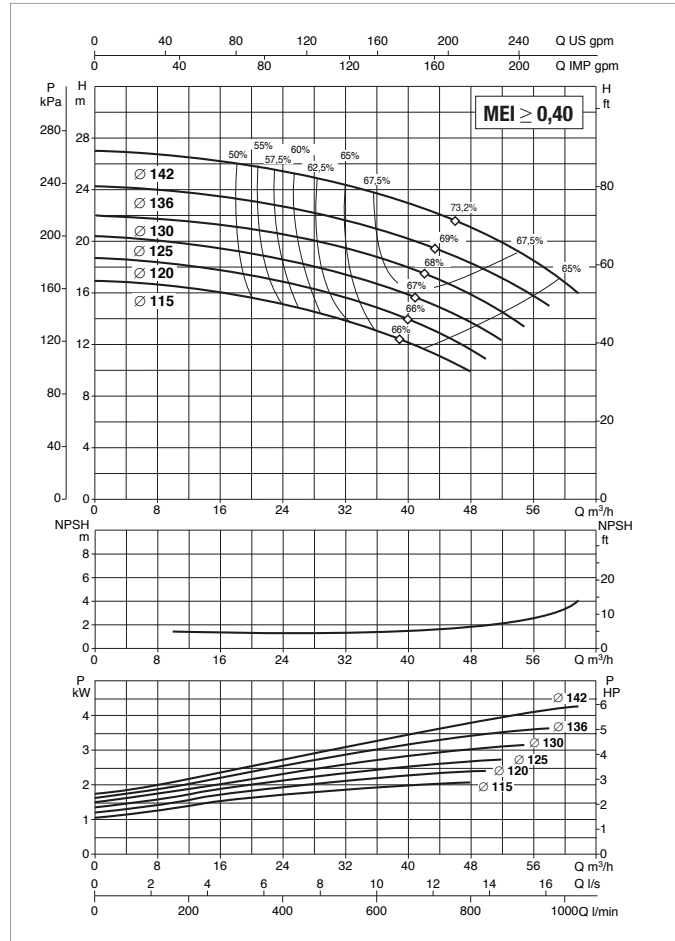
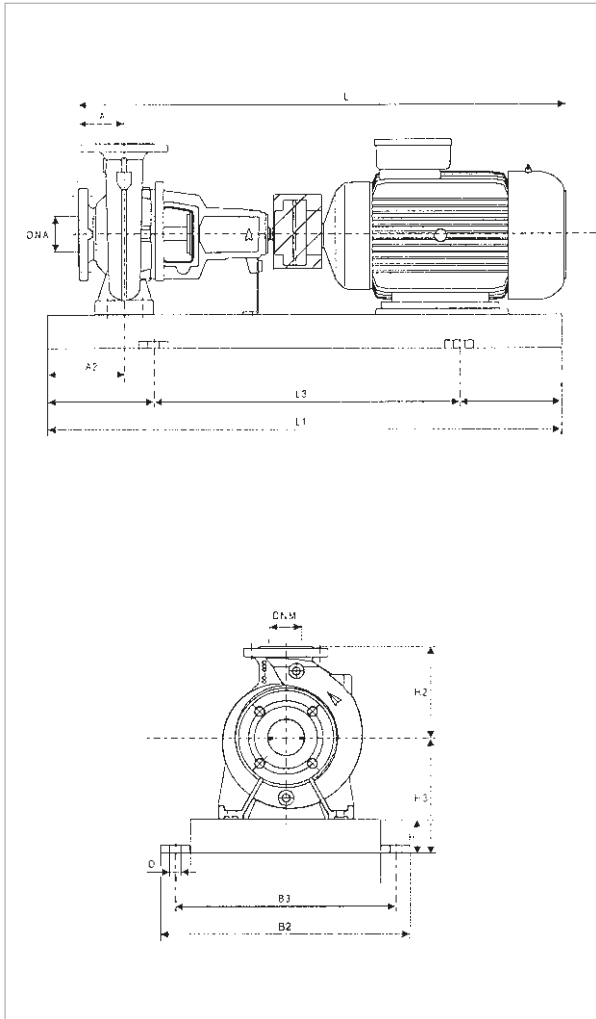
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 32-200	3	80	60	180	65	225	900	600	390	350	19	50	32	830	103	-	-	930	108	-	-	3
	4	80	60	180	65	225	900	600	390	350	19	50	32	845	104	-	-	945	109	-	-	3
	5.5	80	60	180	80	240	1000	660	450	400	24	50	32	915	143	-	-	1015	148	-	-	4
	7.5	80	60	180	80	240	1000	660	450	400	24	50	32	915	177	925	151	1015	182	1025	156	4
	11	80	60	180	80	240	1120	740	490	440	24	50	32	1060	237	1060	214	1160	242	1160	219	5
	15	80	60	180	80	240	1120	740	490	440	24	50	32	1060	248	1060	221	1160	253	1160	226	5

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 40-125	1.5	MEC 90S	3 x 230 - 400 V ~	5.80/3.35	-	IE2
	2.2	MEC 90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	MEC 100L	3 x 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3

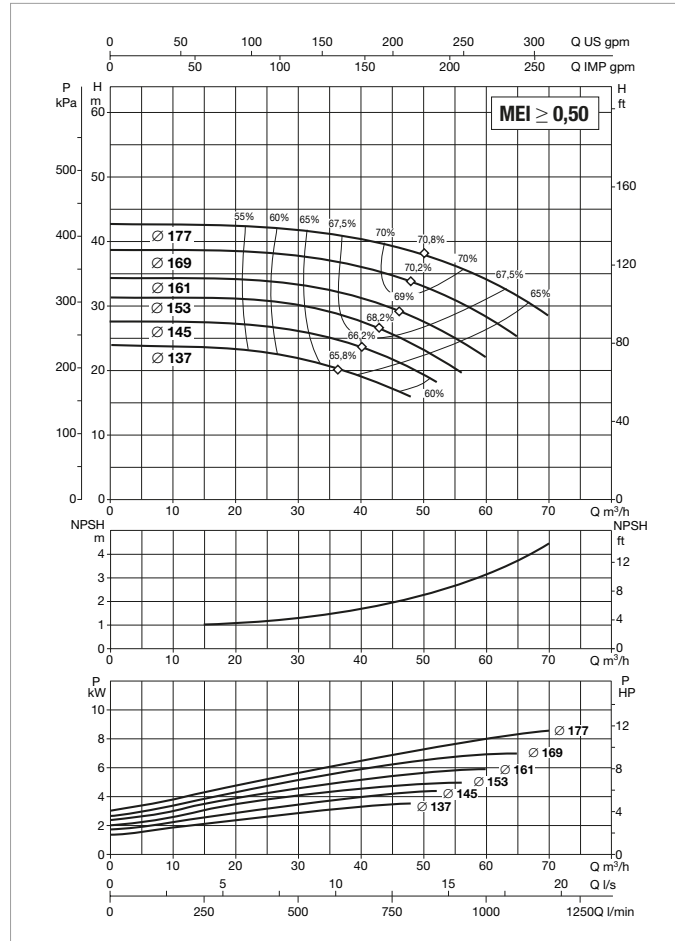
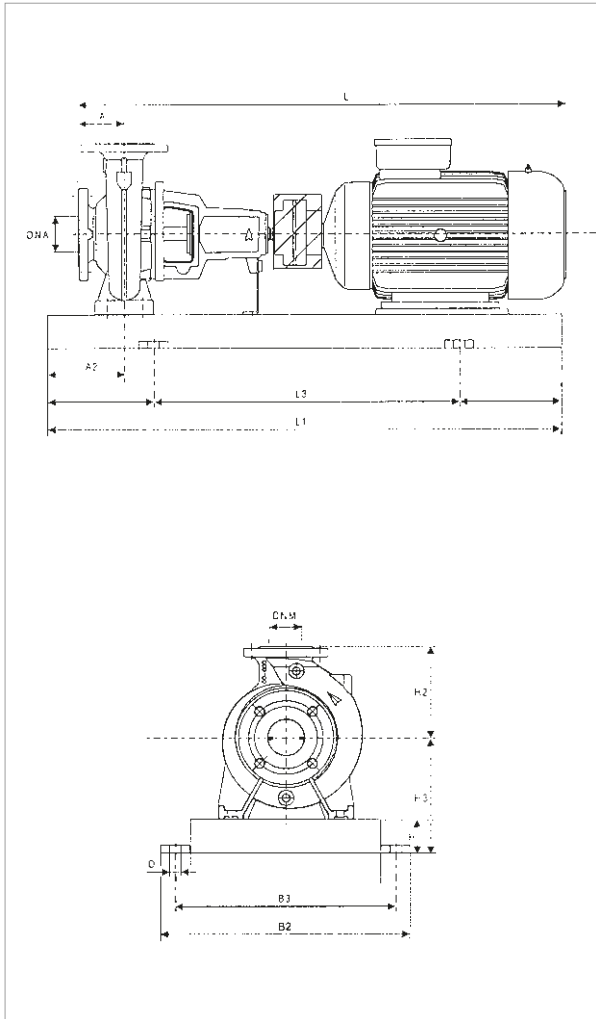
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 40-125	1.5	80	60	140	65	177	800	540	360	320	19	65	40	765	86	-	-	865	91	-	-	2
	2.2	80	60	140	65	177	900	600	390	350	19	65	40	790	91	-	-	890	96	-	-	3
	3	80	60	140	65	177	900	600	390	350	19	65	40	830	91	-	-	930	96	-	-	3
	4	80	60	140	65	177	900	600	390	350	19	65	40	845	102	-	-	945	107	-	-	3
	5.5	80	60	140	80	212	1000	660	450	400	24	65	40	915	134	-	-	1015	139	-	-	4
	7.5	80	60	140	80	212	1000	600	450	400	24	65	40	915	137	925	111	1015	142	1025	116	4

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 40-160	3	MEC 100L	3 x 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3

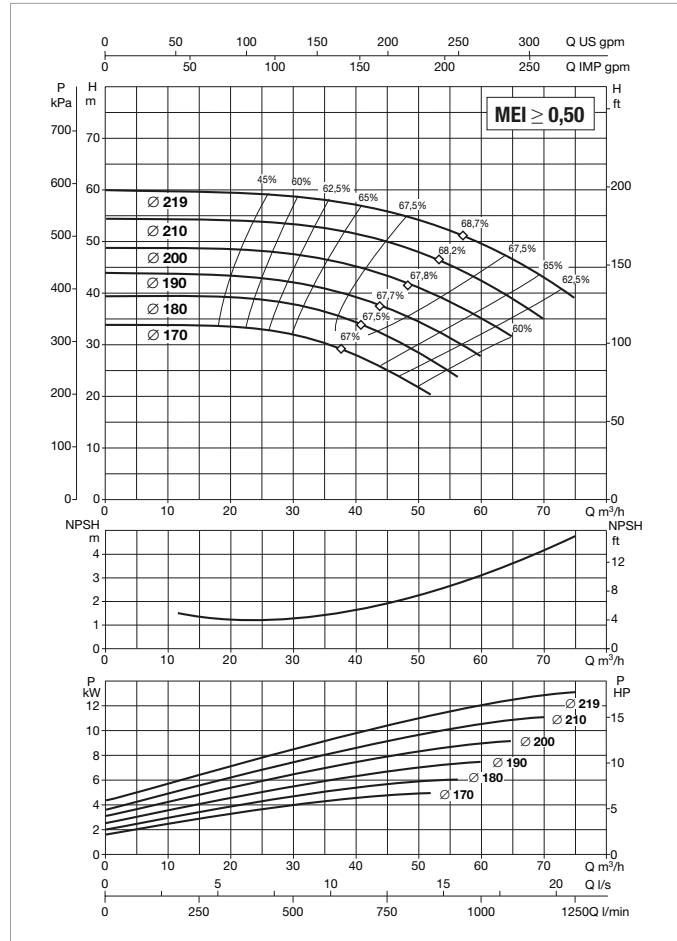
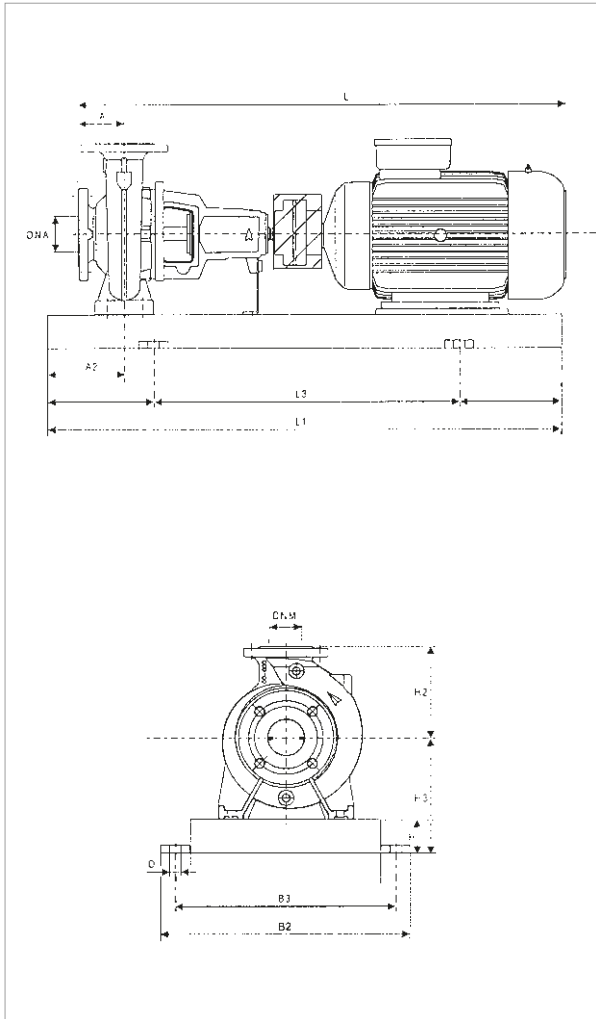
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 40-160	3	80	60	160	65	197	900	600	390	350	19	65	40	826	102	-	-	930	107	-	-	3
	4	80	60	160	65	197	900	600	390	350	19	65	40	846	104	-	-	945	109	-	-	3
	5.5	80	60	160	80	212	1000	660	450	400	24	65	40	959	160	-	-	1015	165	-	-	4
	7.5	80	60	160	80	212	1000	660	450	400	24	65	40	915	165	925	139	1015	170	1025	144	4
	11	80	60	160	80	240	1120	740	490	440	24	65	40	1060	173	1060	150	1160	178	1160	155	5
	15	80	60	160	80	240	1120	740	490	440	24	65	40	1060	173	1060	146	1160	178	1160	151	5

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 40-200	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 40-200	4	100	60	180	65	225	900	600	390	350	19	65	40	865	135	-	-	965	140	-	-	3
	5.5	100	60	180	80	240	1000	660	450	400	24	65	40	935	146	-	-	1035	151	-	-	4
	7.5	100	60	180	80	240	1000	660	450	400	24	65	40	935	147	945	121	1035	152	1045	126	4
	11	100	60	180	80	240	1120	740	490	440	24	65	40	1080	221	1080	198	1180	226	1180	203	5
	15	100	60	180	80	240	1120	740	490	440	24	65	40	1080	231	1080	204	1180	236	1180	209	5
	18.5	100	60	180	80	240	1120	740	490	440	24	65	40	1135	231	1123	199	1235	236	1223	204	5

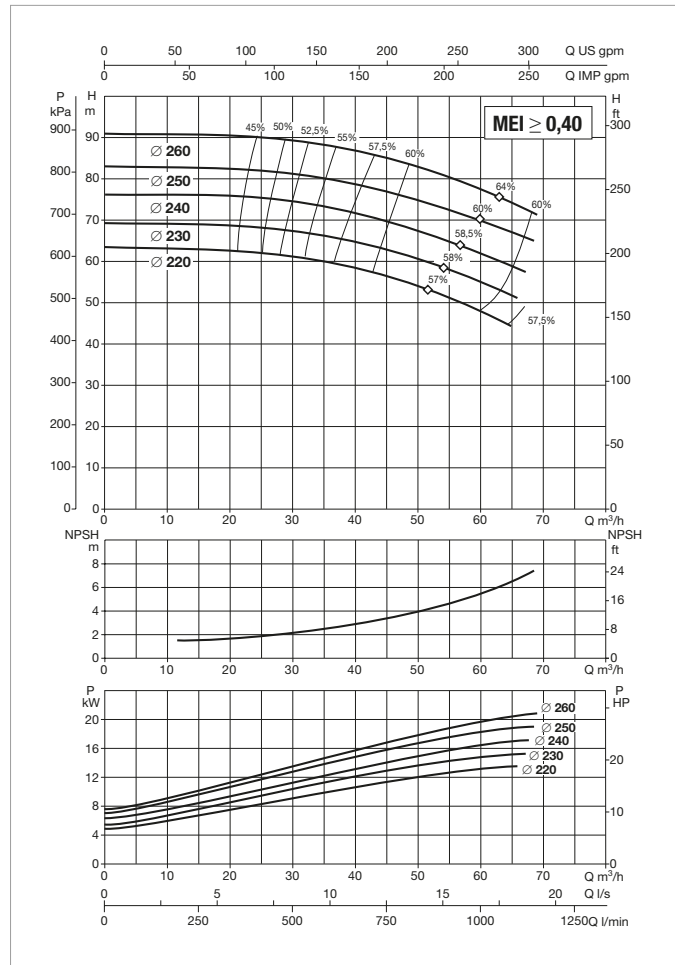
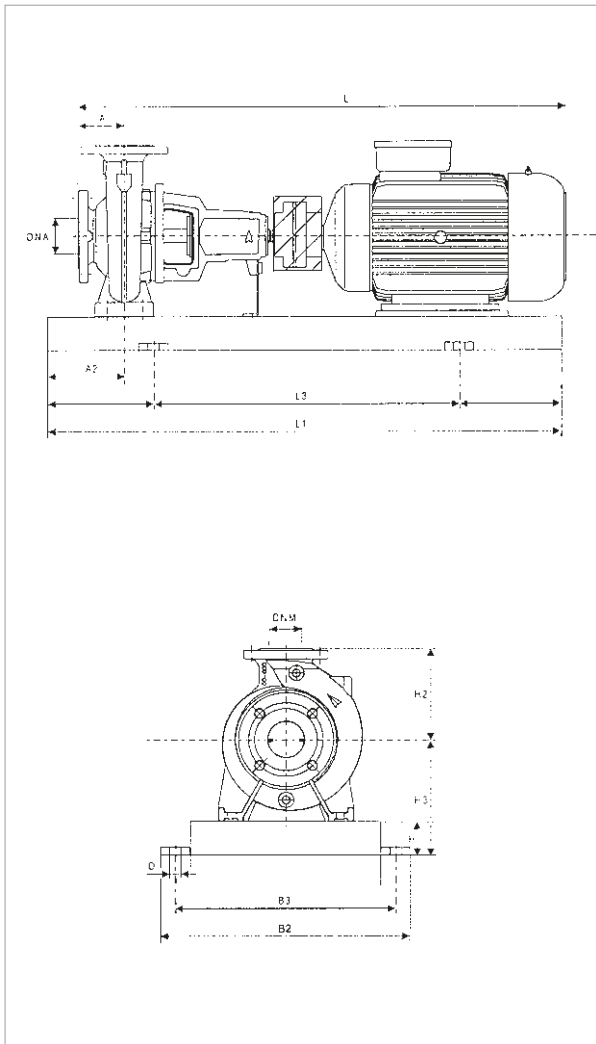
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 40-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 40-250	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3

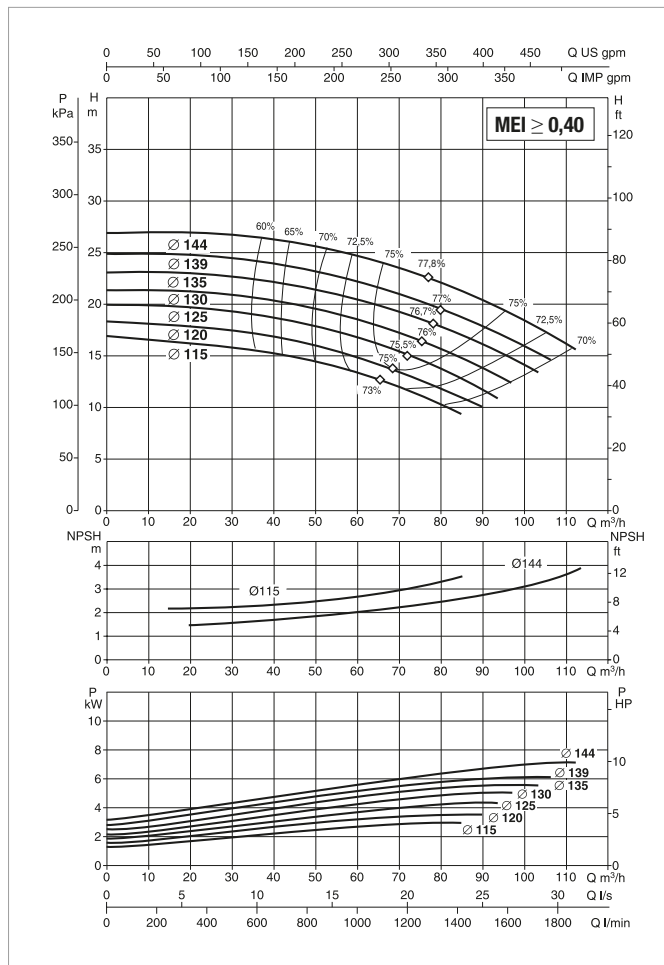
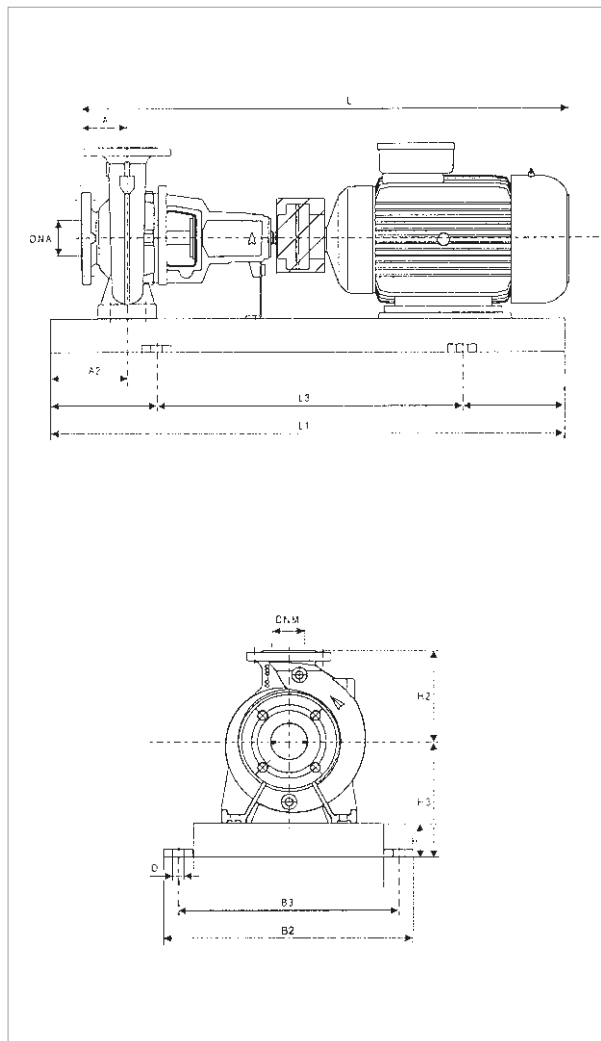
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg													
KDN 40-250	11	100	75	225	80	260	1250	840	540	490	24	65	40	1080	236	1080	213	1180	241	1180	218	6
	15	100	75	225	80	260	1250	840	540	490	24	65	40	1080	278	1080	251	1180	283	1180	256	6
	18.5	100	75	225	80	260	1250	840	540	490	24	65	40	1135	298	1123	266	1235	303	1223	271	6
	22	100	75	225	80	260	1250	840	540	490	24	65	40	1155	320	1155	278	1255	325	1255	283	6
	30	100	75	225	100	300	1400	940	610	550	28	65	40	1235	320	1245	332	1335	325	1345	337	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 50-125	3	MEC 100L	3 x 400 V - Δ	5.85	-	IE2
	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 50-125	3	100	60	160	65	197	900	600	390	350	19	65	50	850	105	-	-	950	110	-	-	3
	4	100	60	160	65	197	900	600	390	350	19	65	50	865	109	-	-	965	114	-	-	3
	5.5	100	60	160	80	212	1000	660	450	400	24	65	50	935	143	-	-	1035	148	-	-	4
	7.5	100	60	160	80	212	1000	660	450	400	24	65	50	935	143	945	117	1035	148	1045	122	4
	11	100	60	160	80	240	1120	740	490	400	24	65	50	1080	143	1080	120	1180	148	1180	125	5

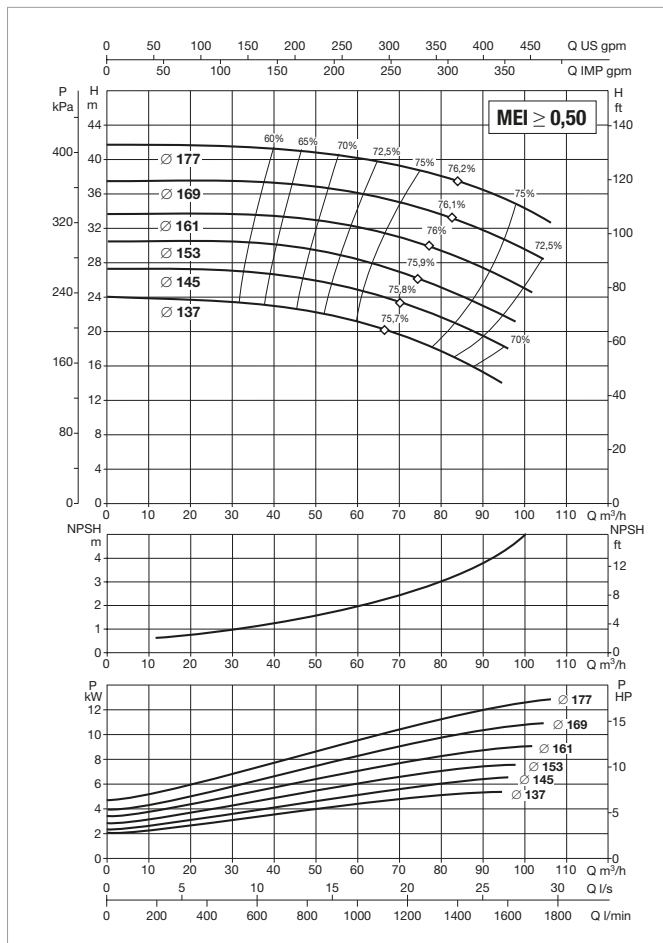
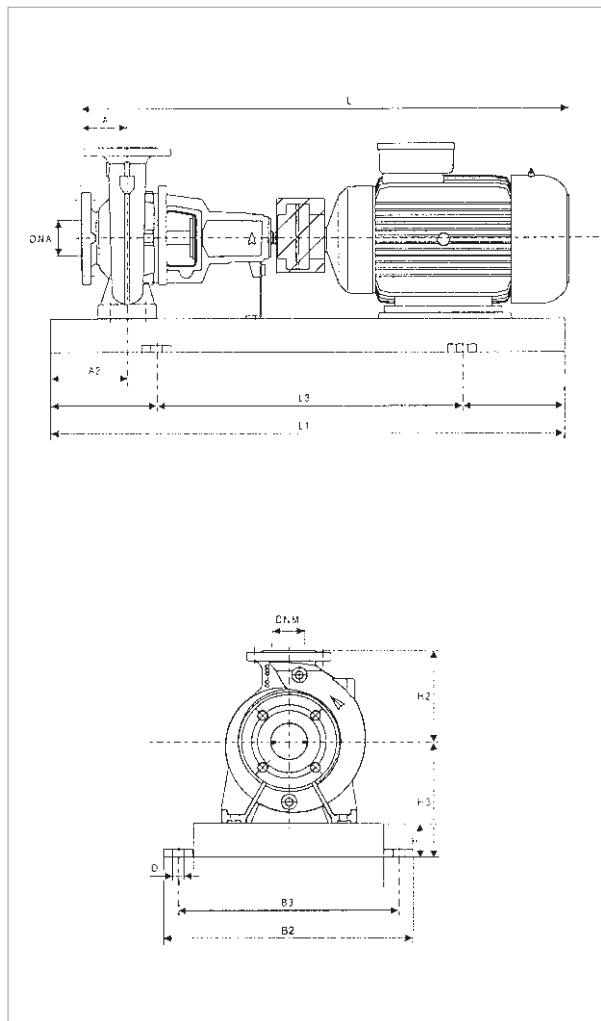
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 50-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 50-160	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3

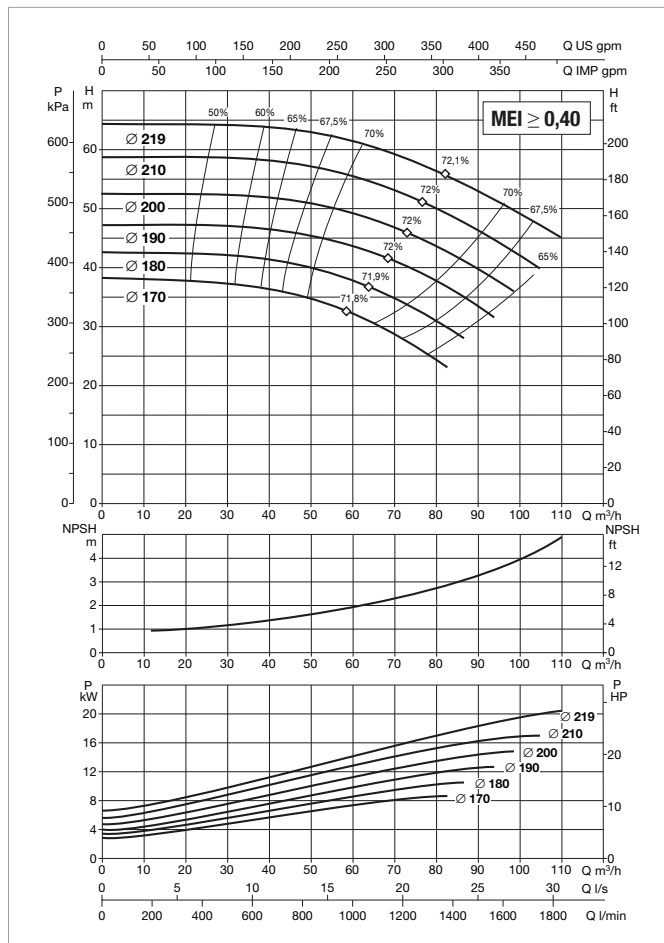
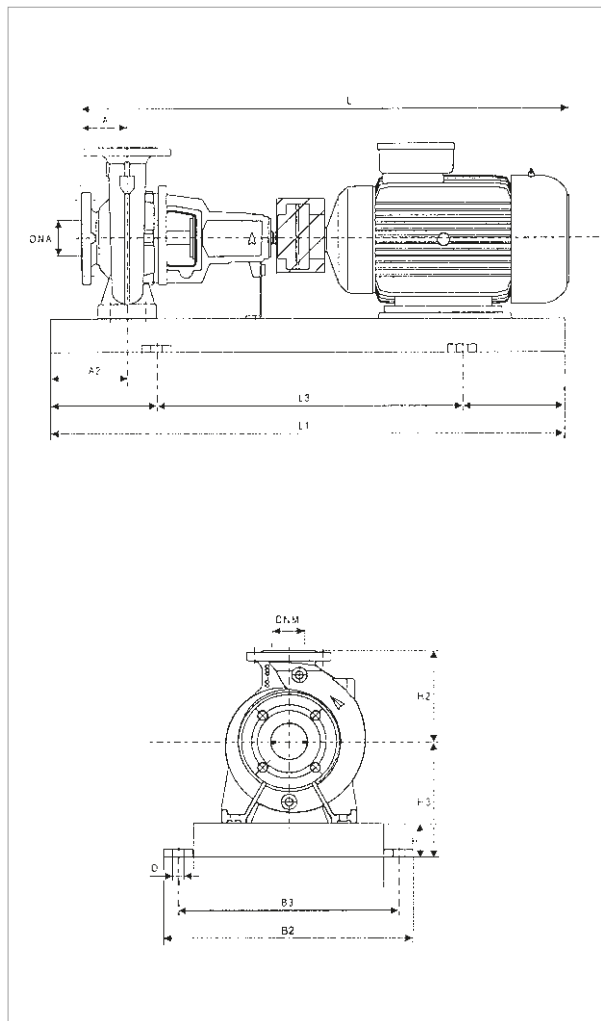
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 50-160	4	100	60	180	65	225	900	600	390	350	19	65	50	865	132	-	-	965	137	-	-	3
	5.5	100	60	180	80	240	1000	660	450	400	24	65	50	935	143	-	-	1035	148	-	-	4
	7.5	100	60	180	80	240	1000	660	450	400	24	65	50	935	177	945	151	1035	182	1045	156	4
	11	100	60	180	80	240	1120	740	490	440	24	65	50	1080	188	1080	165	1180	193	1180	170	5
	15	100	60	180	80	240	1120	740	490	440	24	65	50	1080	200	1080	173	1180	205	1180	178	5
	18.5	100	60	180	80	240	1120	740	490	440	24	65	50	1135	202	1123	170	1235	207	1223	175	5

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 50-200	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3

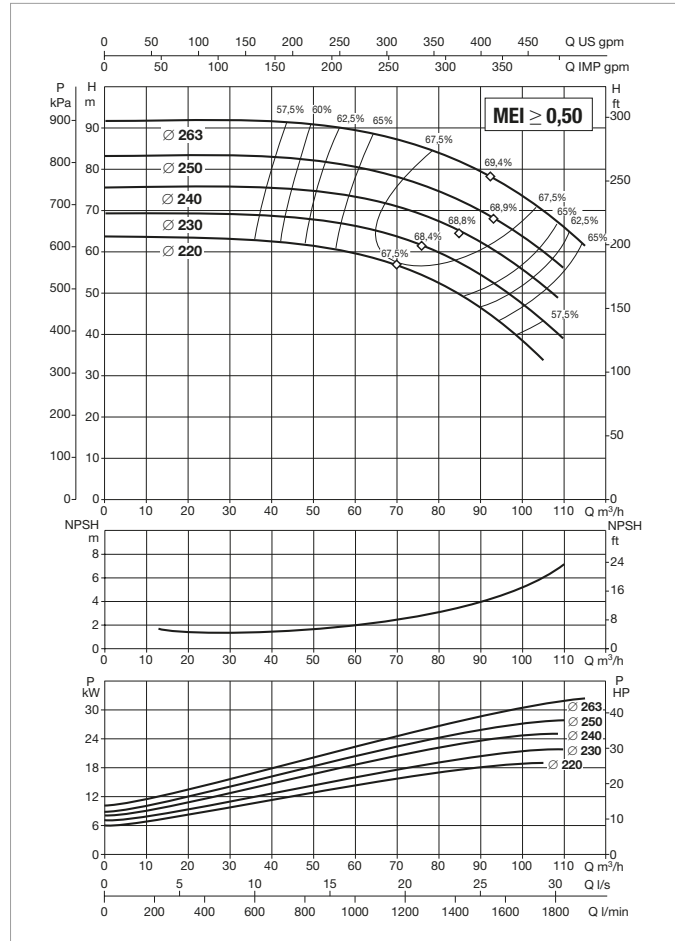
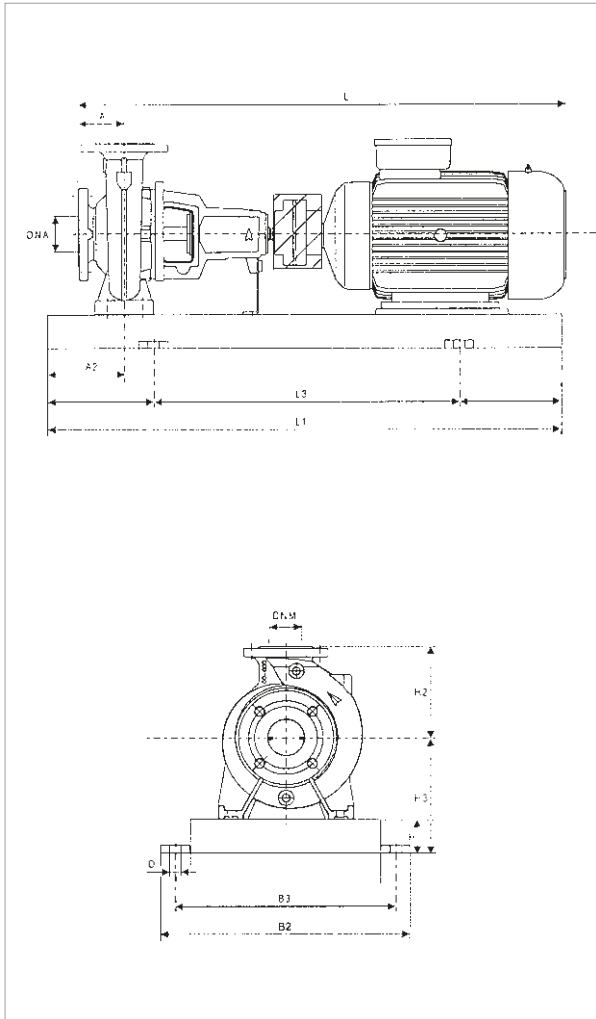
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 50-200	7.5	100	60	200	80	240	1000	600	450	400	24	65	50	935	176	945	150	1035	181	1045	155	4
	11	100	60	200	80	240	1120	740	490	440	24	65	50	1080	186	1080	163	1180	191	1180	168	5
	15	100	60	200	80	240	1120	740	490	400	24	65	50	1080	280	1080	253	1180	285	1180	258	5
	18.5	100	60	200	80	240	1120	740	490	440	24	65	50	1135	283	1123	251	1235	288	1223	256	5
	22	100	60	200	80	260	1120	740	490	440	24	65	50	1155	290	1155	248	1255	295	1255	253	5
	30	100	60	200	80	280	1250	840	540	490	24	65	50	1235	290	1245	302	1335	295	1345	307	6

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 50-250	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3

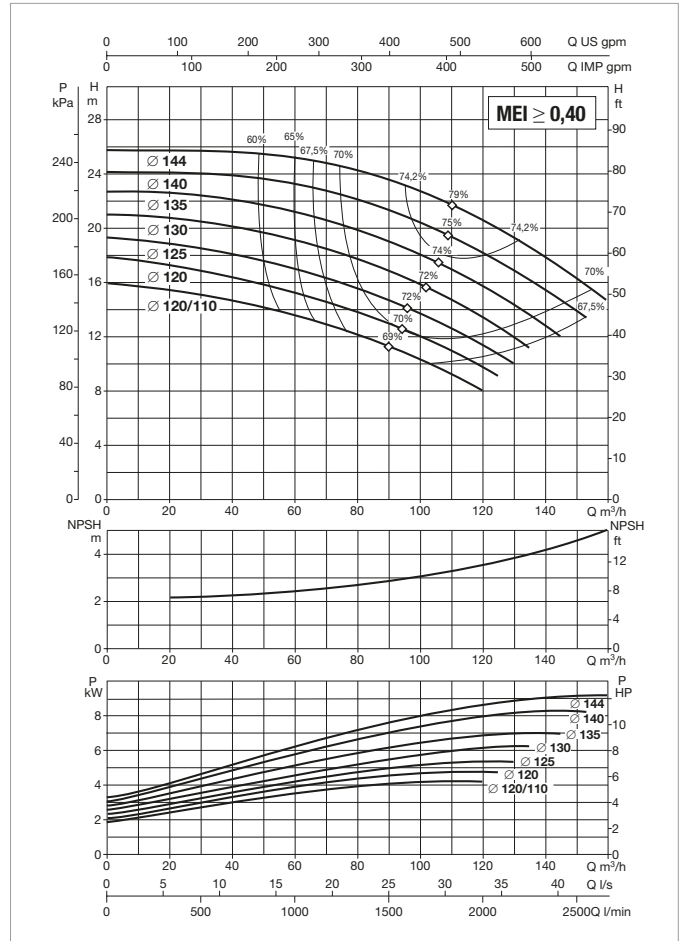
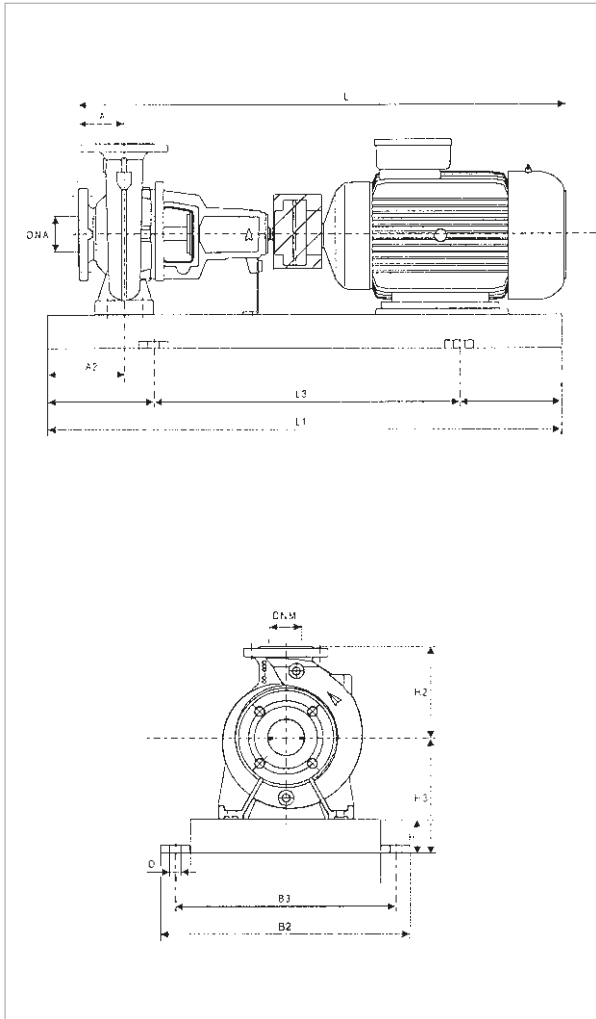
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)									FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 50-250	15	100	75	225	80	260	1250	840	540	490	24	65	50	1080	260	1080	233	1180	265	1180	238	6
	18.5	100	75	225	80	260	1250	840	540	490	24	65	50	1135	289	1123	257	1235	294	1223	262	6
	22	100	75	225	80	260	1250	840	540	490	24	65	50	1155	319	1155	277	1255	324	1255	282	6
	30	100	75	225	100	300	1400	940	610	550	28	65	50	1235	407	1245	419	1335	412	1345	424	7
	37	100	75	225	100	300	1400	940	610	550	28	65	50	1235	333	1245	358	1335	338	1345	363	7
	45	100	75	225	100	325	1400	940	610	550	28	65	50	1280	374	1285	413	1380	379	1385	418	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 65-125	4	MEC 112M	3 x 400 V - Δ	8.05	-	IE2
	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3

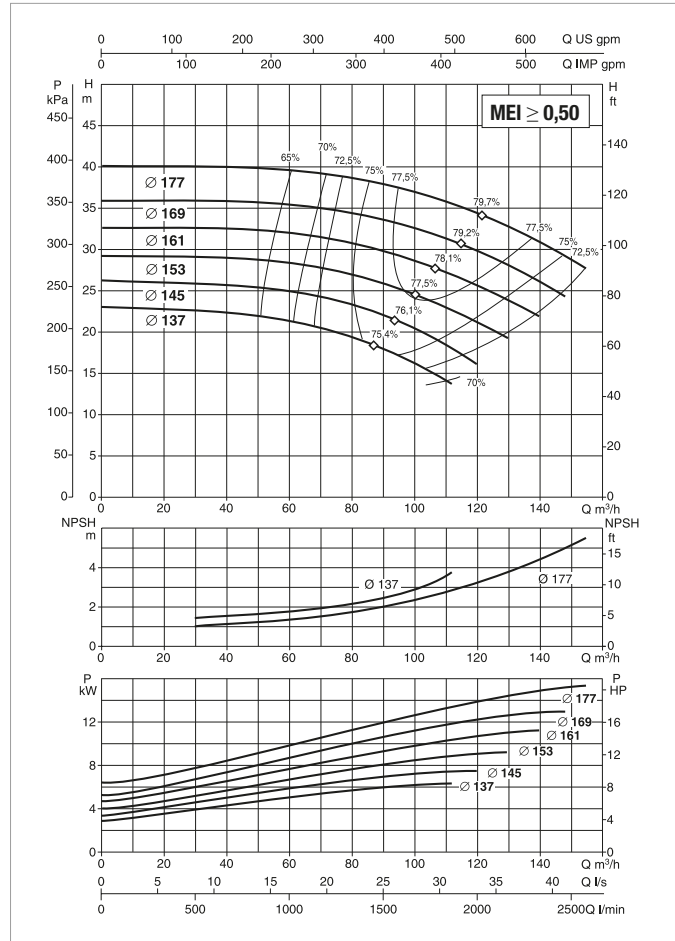
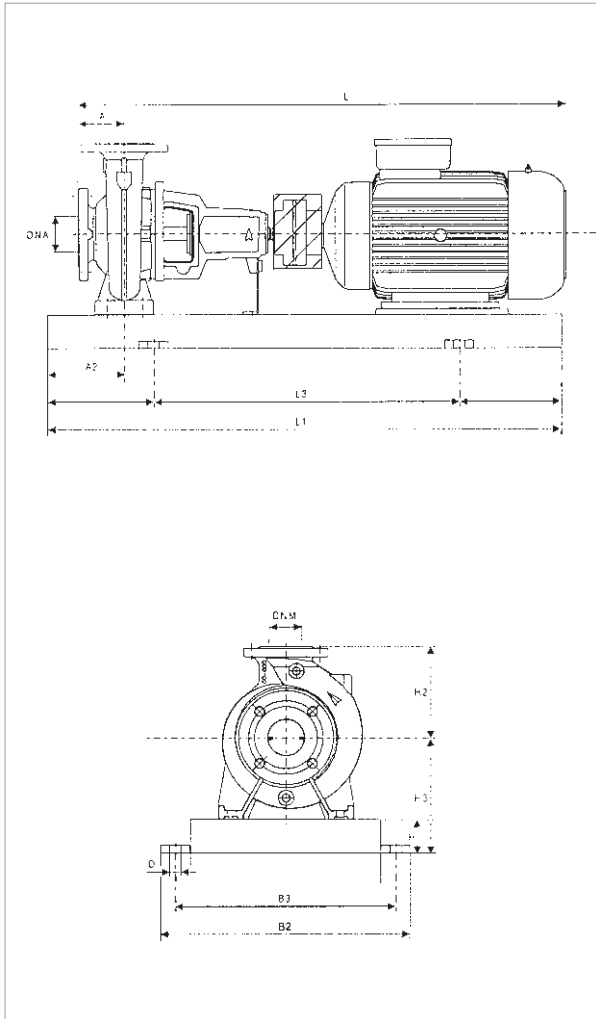
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-125	4	100	60	180	65	225	900	600	390	350	19	80	65	865	132	-	-	965	137	-	-	3
	5.5	100	60	180	80	240	1000	660	450	400	24	80	65	935	143	-	-	1035	148	-	-	4
	7.5	100	60	180	80	240	1000	660	450	400	24	80	65	935	146	945	120	1035	151	1045	125	4
	11	100	60	180	80	240	1120	740	490	440	24	80	65	1080	175	1080	152	1180	180	1180	157	5
	15	100	60	180	80	240	1120	740	490	440	24	80	65	1080	180	1080	153	1180	185	1180	158	5

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 65-160	5.5	MEC 132S	3 x 400 V - Δ	10.4	-	IE2
	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-160	5.5	100	60	200	80	240	1000	660	450	400	24	80	65	935	149	-	-	1035	154	-	-	4
	7.5	100	60	200	80	240	1000	660	450	400	24	80	65	935	173	945	147	1035	178	1045	152	4
	11	100	60	200	80	240	1120	740	490	440	24	80	65	1080	183	1080	160	1180	188	1180	165	5
	15	100	60	200	80	240	1120	740	490	440	24	80	65	1080	220	1080	193	1180	225	1180	198	5
	18.5	100	60	200	80	240	1120	740	490	440	24	80	65	1135	220	1123	188	1235	225	1223	193	5
	22	100	60	200	80	260	1120	740	490	440	24	80	65	1155	220	1155	178	1255	225	1255	183	5

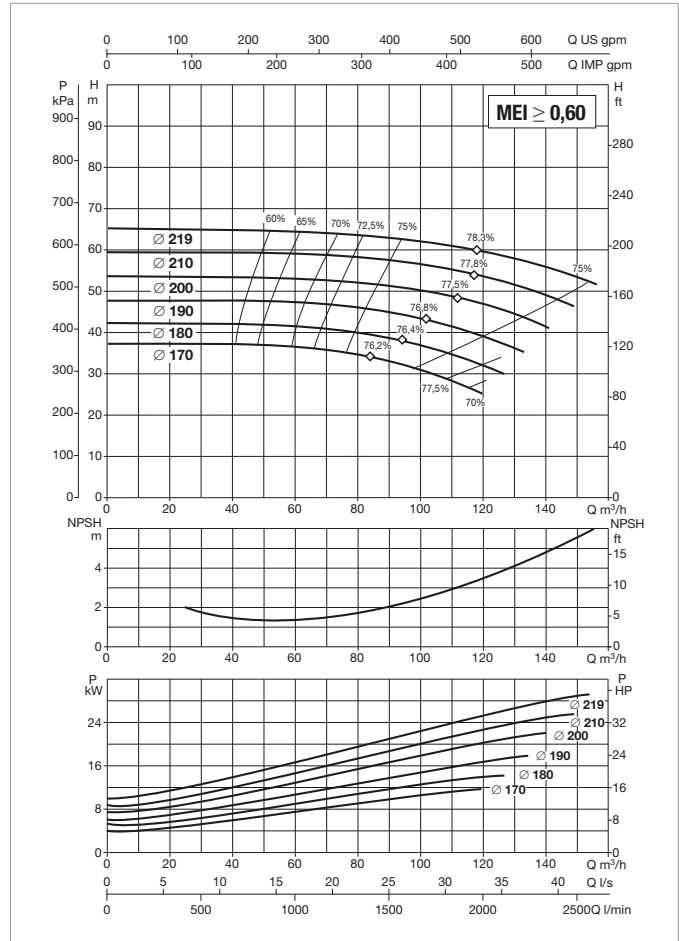
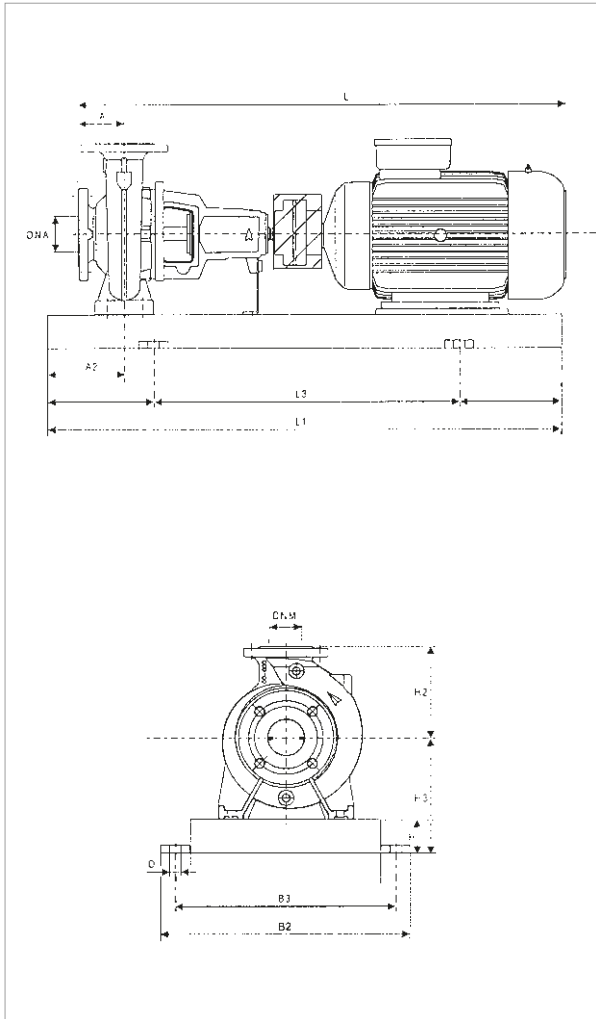
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 65-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 65-200	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3

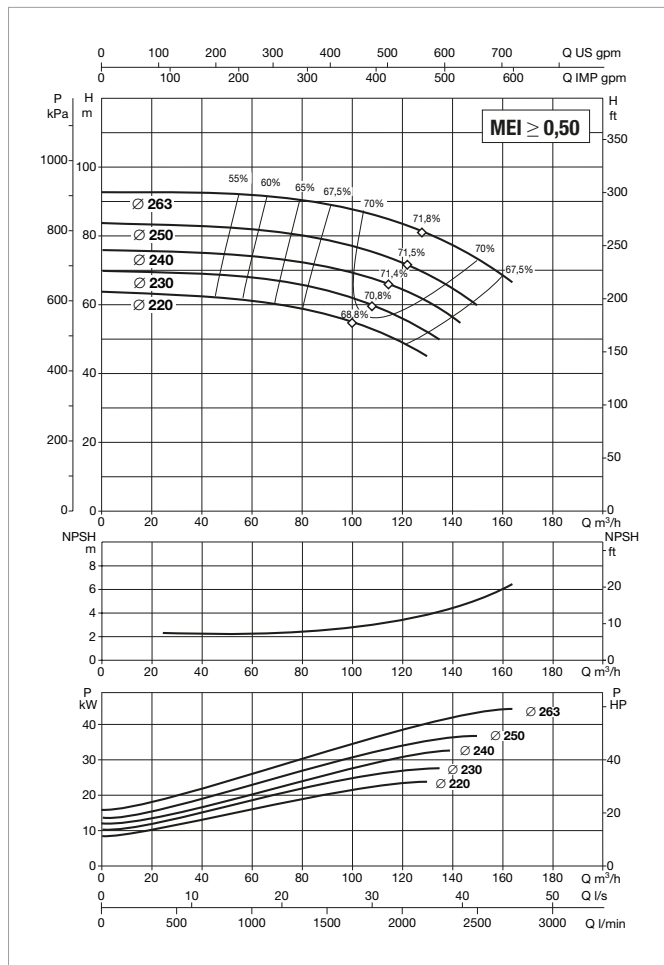
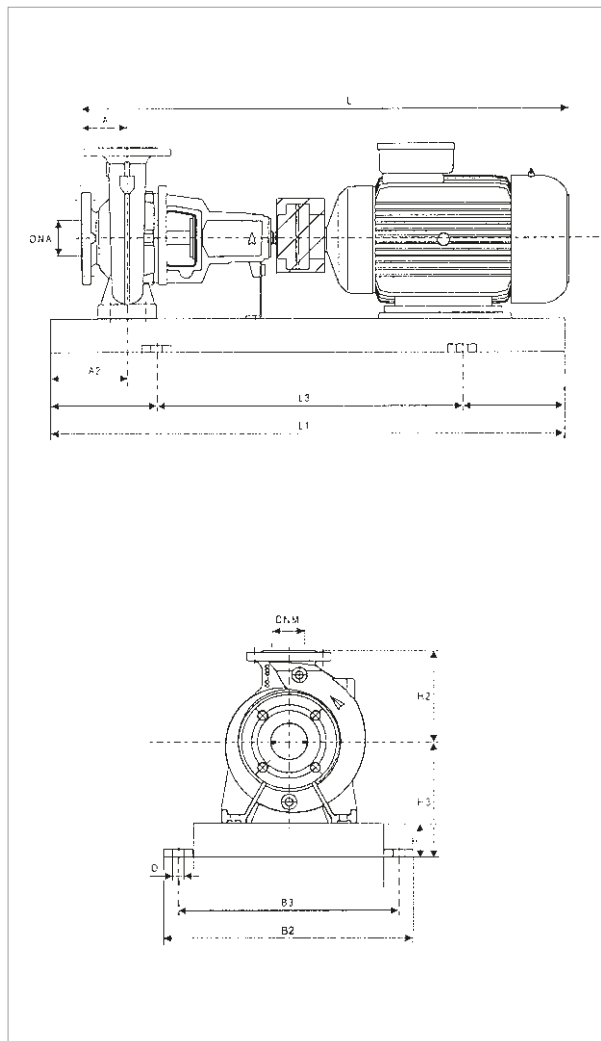
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-200	11	100	75	225	80	260	1250	840	540	490	24	80	65	1080	267	1080	244	1220	272	1220	249	6
	15	100	75	225	80	260	1250	840	540	490	24	80	65	1080	279	1080	252	1220	284	1220	257	6
	18.5	100	75	225	80	260	1250	840	540	490	24	80	65	1135	289	1123	257	1235	294	1223	262	6
	22	100	75	225	80	260	1250	840	540	490	24	80	65	1155	332	1155	290	1295	337	1295	295	6
	30	100	75	225	100	300	1400	940	610	550	28	80	65	1235	406	1245	418	1375	411	1385	423	7
	37	100	75	225	100	300	1400	940	610	550	28	80	65	1235	406	1245	431	1375	411	1385	436	7

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 65-250	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	MEC 225M	3 x 400 V - Δ	94	95	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 65-250	22	100	90	250	80	280	1250	840	540	490	24	80	65	1265	319	1265	277	1405	327	1405	285	6
	30	100	90	250	80	300	1400	940	610	550	28	80	65	1345	460	1355	472	1485	468	1495	480	7
	37	100	90	250	80	300	1400	940	610	550	28	80	65	1345	477	1355	502	1485	485	1495	510	7
	45	100	90	250	80	325	1400	940	610	550	28	80	65	1390	550	1395	589	1530	558	1535	597	7
	55	100	90	250	80	350	1600	1060	660	600	24	80	65	1490	672	1460	717	1630	680	1600	725	8

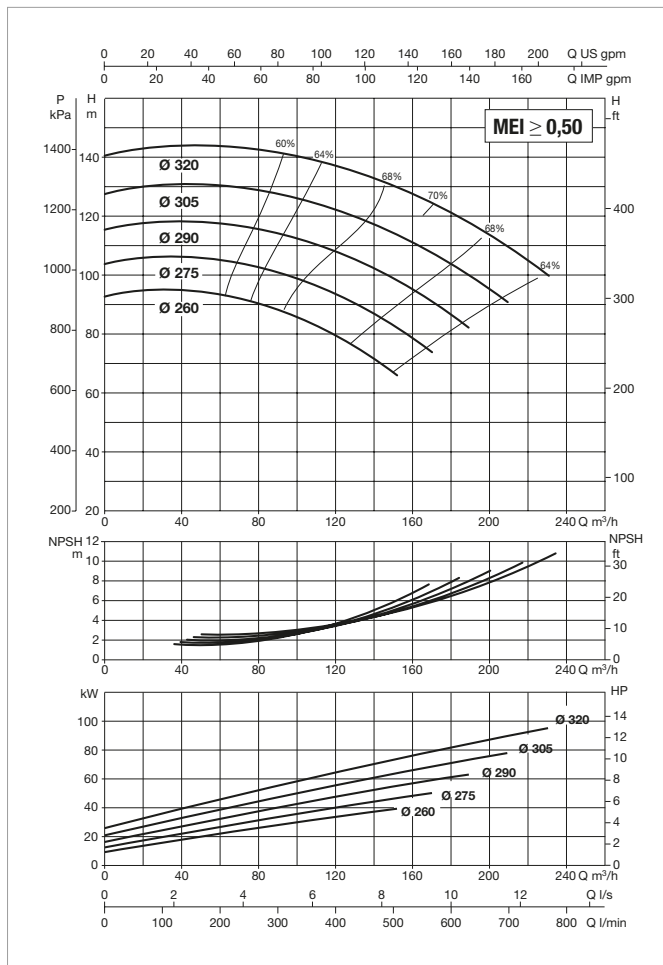
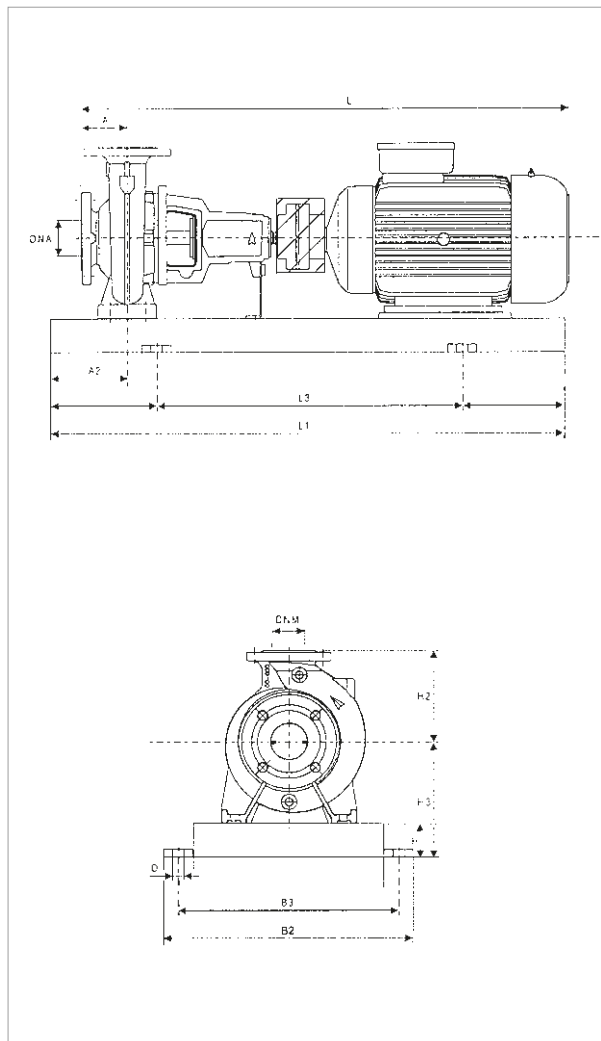
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 65-315 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 65-315	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	MEC 250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	MEC 280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	MEC 280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	MEC 315S	3 x 400 V - Δ	188	184	IE2 / IE3

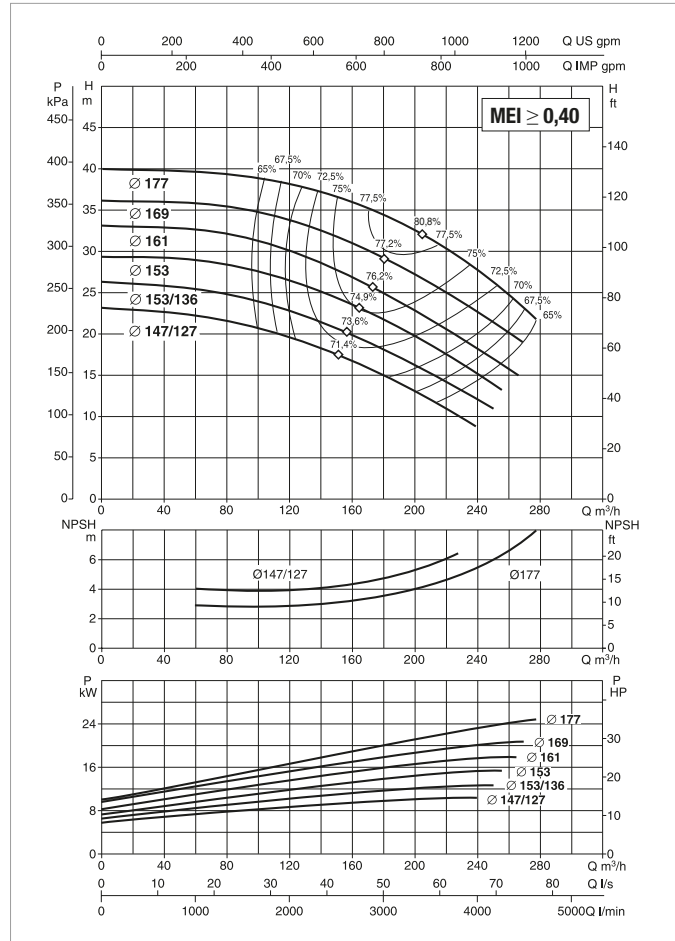
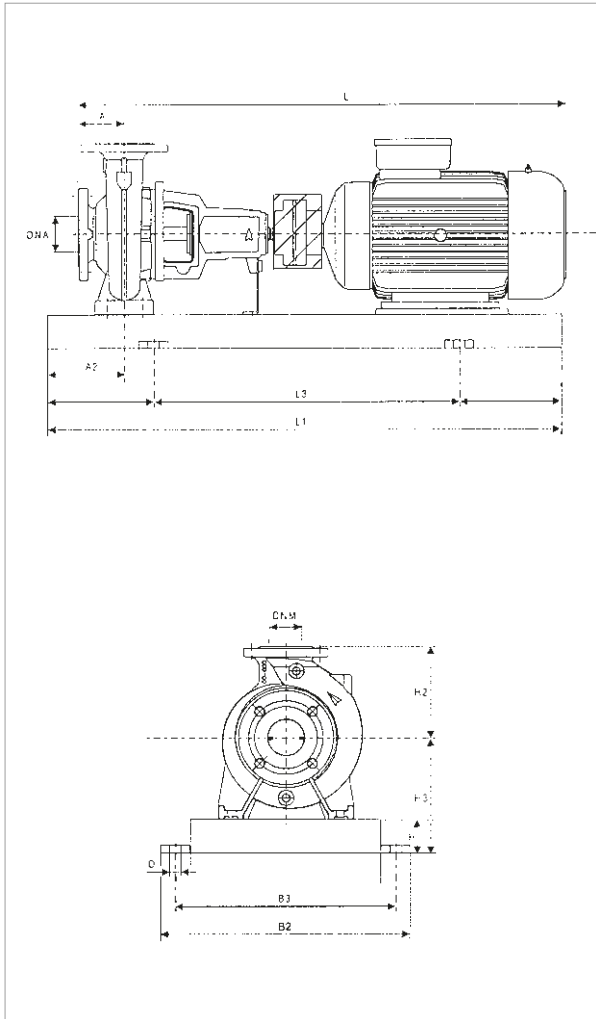
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
														L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 65-315	45	125	90	280	100	325	1600	1060	660	600	28	80	65	1415	695	1420	734	1555	703	1560	742	8
	55	125	90	280	100	325	1600	1060	660	600	28	80	65	1515	695	1515	740	1655	703	1655	748	8
	75	125	90	280	100	325	1800	1200	730	670	28	80	65	1570	849	1568	849	1710	857	1708	857	9
	90	125	90	280	100	325	1800	1200	730	670	28	80	65	1620	669	1620	651	1760	677	1760	659	9
	110	125	90	280	100	325	2000	1340	910	830	28	80	65	1840	1119	1805	1219	1980	1127	1945	1227	9

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 80-160	7.5	MEC 132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	MEC 160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	MEC 160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 80-160	7.5	125	75	225	80	260	1120	740	490	440	24	100	80	960	189	970	163	1100	197	1110	171	5
	11	125	75	225	80	260	1250	840	540	490	24	100	80	1105	298	1105	275	1245	306	1245	283	6
	15	125	75	225	80	260	1250	840	540	490	24	100	80	1105	298	1105	271	1245	306	1245	279	6
	18.5	125	75	225	80	260	1250	840	540	490	24	100	80	1160	298	1148	266	1300	306	1288	274	6
	22	125	75	225	80	260	1250	840	540	490	24	100	80	1180	253	1180	211	1320	261	1320	219	6
	30	125	75	225	80	260	1400	940	610	550	28	100	80	1260	304	1270	316	1400	312	1410	324	7
	37	125	75	225	80	260	1400	940	610	550	28	100	80	1260	383	1270	408	1400	391	1410	416	7

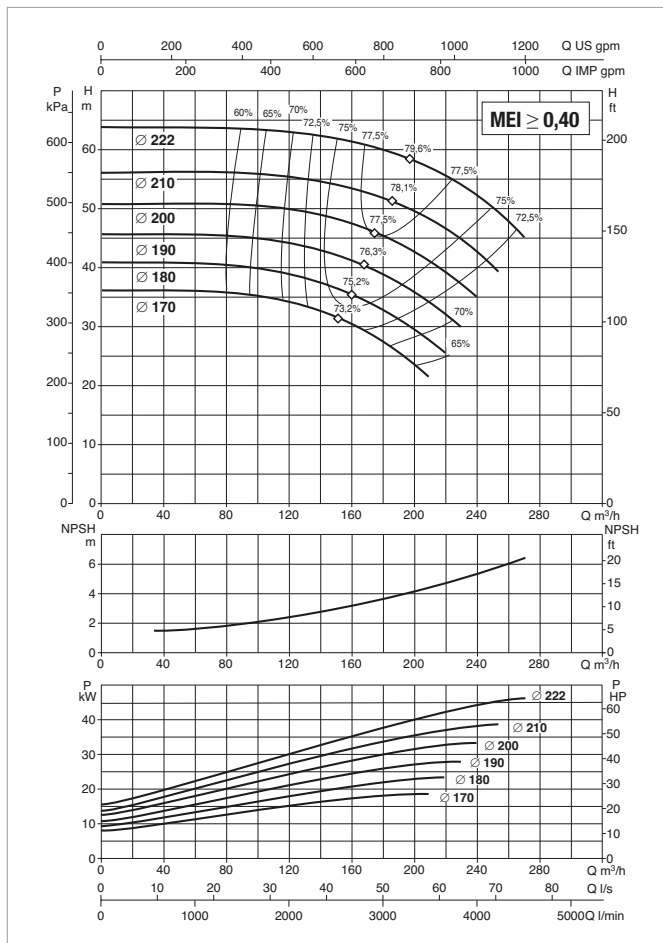
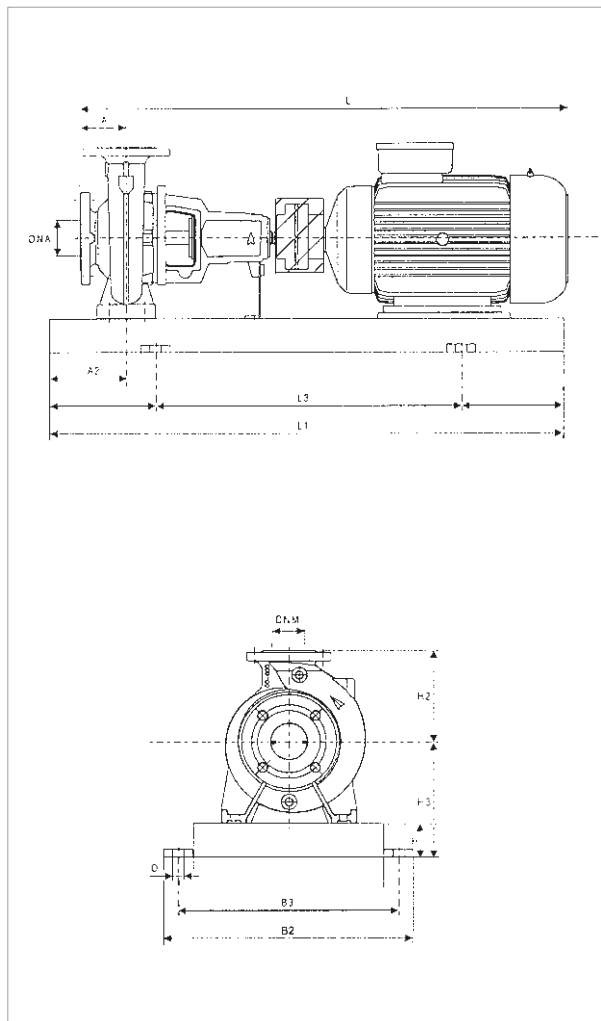
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 80-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 80-200	18.5	MEC 160L	3 x 400 V - Δ	33	32	IE2 / IE3
	22	MEC 180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	MEC 250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	MEC 280S	3 x 400 V - Δ	130	124	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 80-200	18.5	125	75	250	80	260	1250	840	540	490	24	100	80	1270	239	1258	207	1410	247	1398	215	6
	22	125	75	250	80	260	1250	840	540	490	24	100	80	1290	275	1290	233	1430	283	1430	241	6
	30	125	75	250	100	300	1400	940	610	550	28	100	80	1370	432	1380	444	1510	440	1520	452	7
	37	125	75	250	100	300	1400	940	610	550	28	100	80	1370	455	1380	480	1510	463	1520	488	7
	45	125	75	250	100	325	1400	940	610	550	28	100	80	1415	548	1420	587	1555	556	1560	595	7
	55	125	75	250	100	350	1600	1060	660	600	28	100	80	1515	494	1515	539	1655	502	1655	547	8
	75	125	75	250	100	380	1800	1200	730	670	28	100	80	1570	609	1568	609	1710	617	1708	617	9

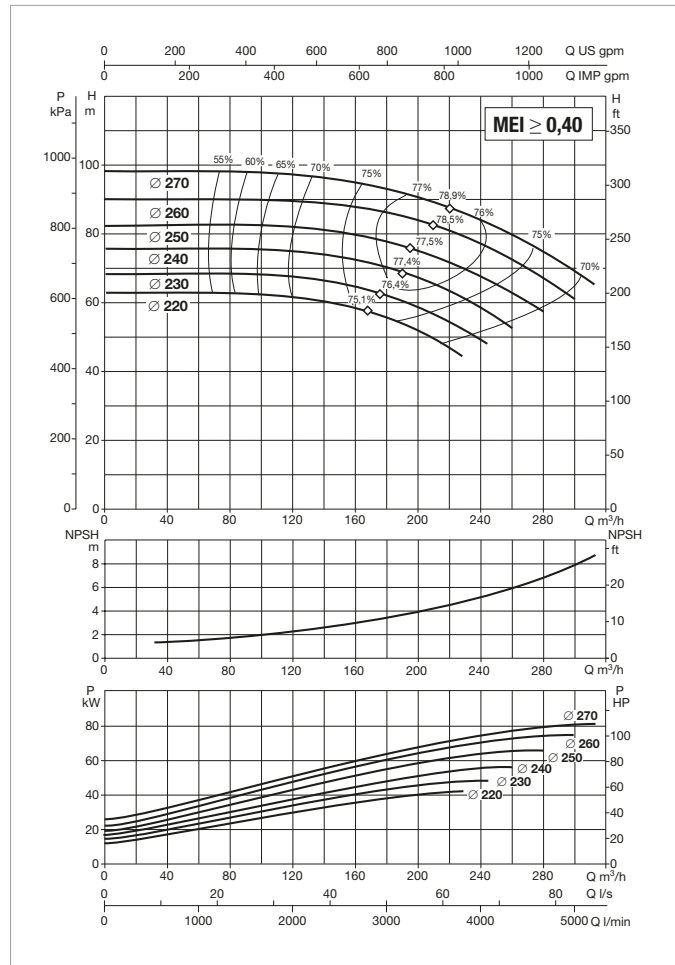
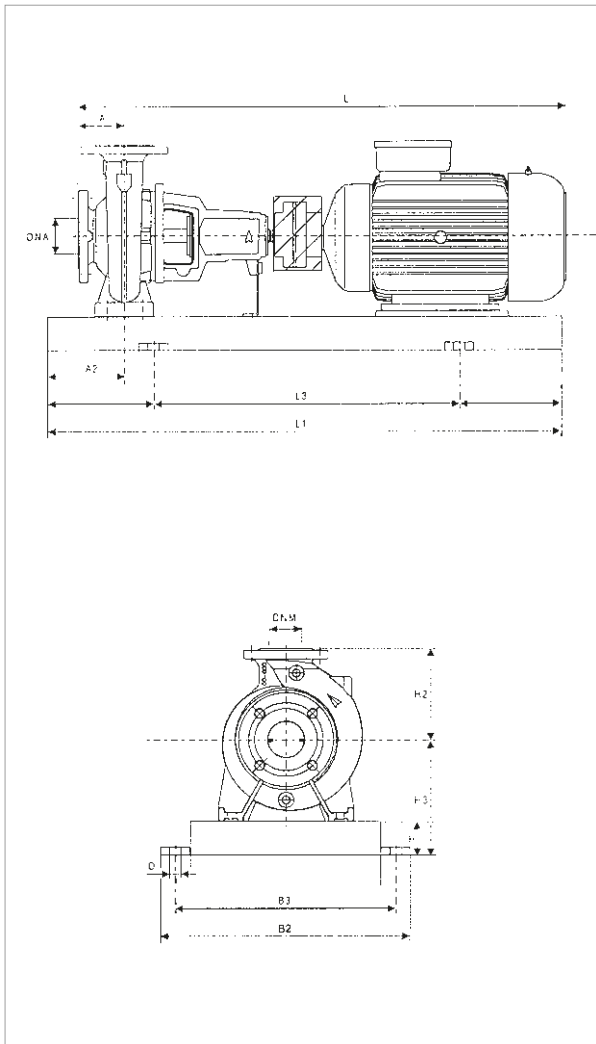
Dimension and electrical data based on sizing definition following the instructions on page 96.



KDN 80-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 80-250	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	MEC 250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	MEC 280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	MEC 280M	3 x 400 V - Δ	154	148	IE2 / IE3

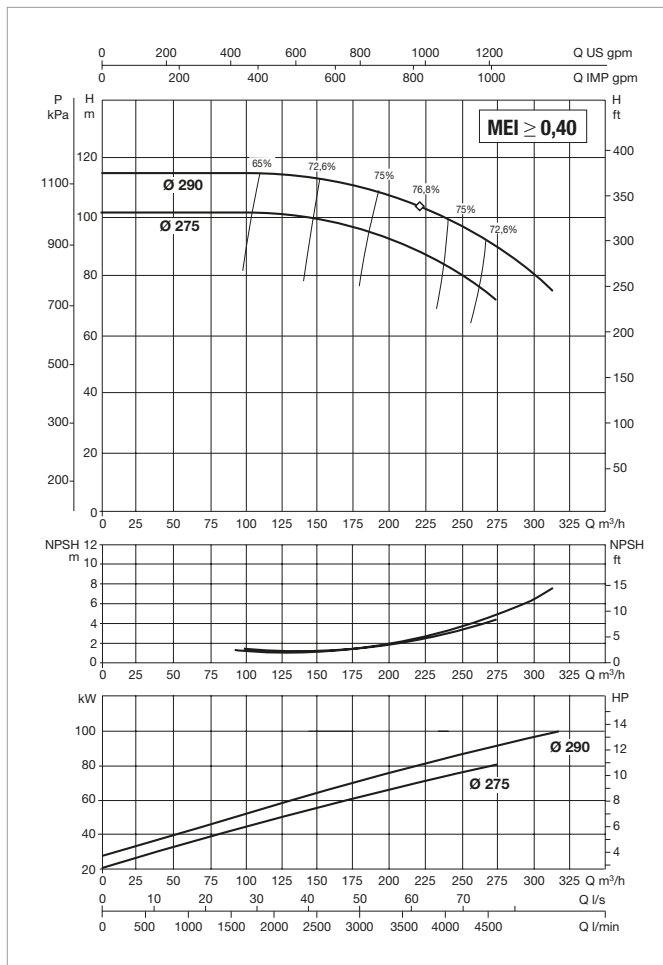
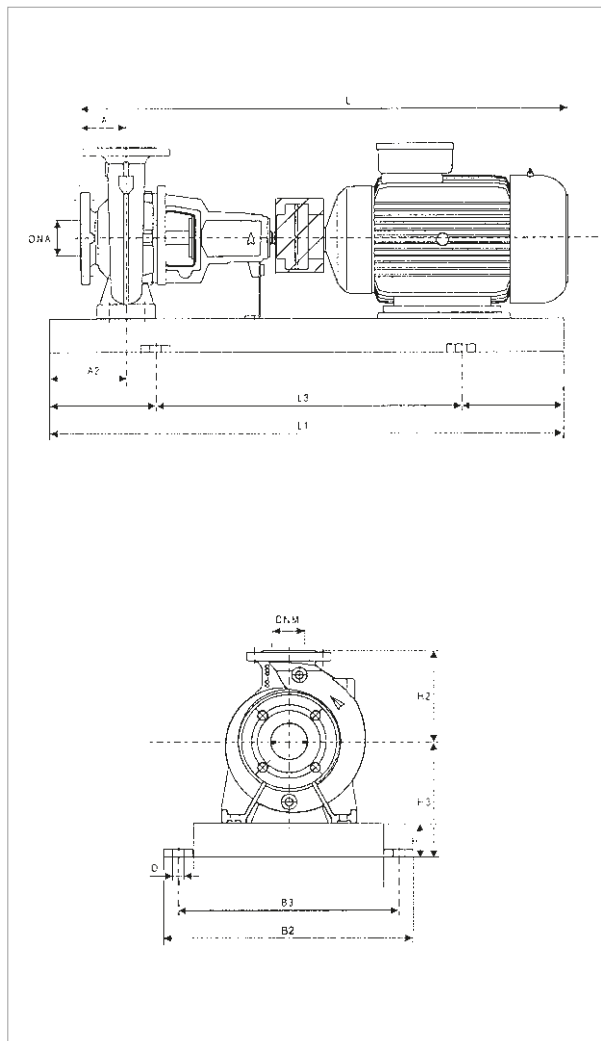
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
														L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 80-250	37	125	90	280	100	300	1400	940	610	550	28	100	80	1370	471	1380	496	1510	479	1520	504	7
	45	125	90	280	100	300	1400	940	610	550	28	100	80	1415	545	1420	584	1555	553	1560	592	7
	55	125	90	280	100	300	1600	1060	660	600	28	100	80	1515	650	1515	695	1655	658	1655	703	8
	75	125	90	280	100	300	1800	1200	730	670	28	100	80	1570	641	1568	641	1710	649	1708	649	9
	90	125	90	280	100	300	1800	1200	730	670	28	100	80	1620	909	1620	891	1760	917	1760	899	9

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-315 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 80-315	55	MEC 250M	3 x 400 V ~ Δ	94	95	IE2 / IE3
	75	MEC 280S	3 x 400 V ~ Δ	130	124	IE2 / IE3
	90	MEC 280M	3 x 400 V ~ Δ	154	148	IE2 / IE3
	110	MEC 315S	3 x 400 V ~ Δ	188	184	IE2 / IE3

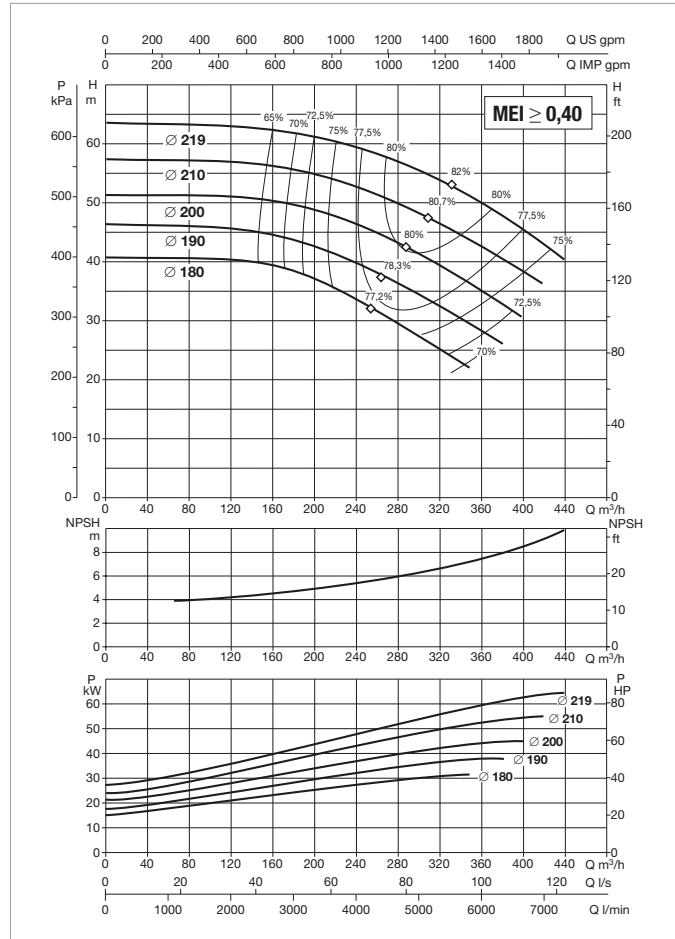
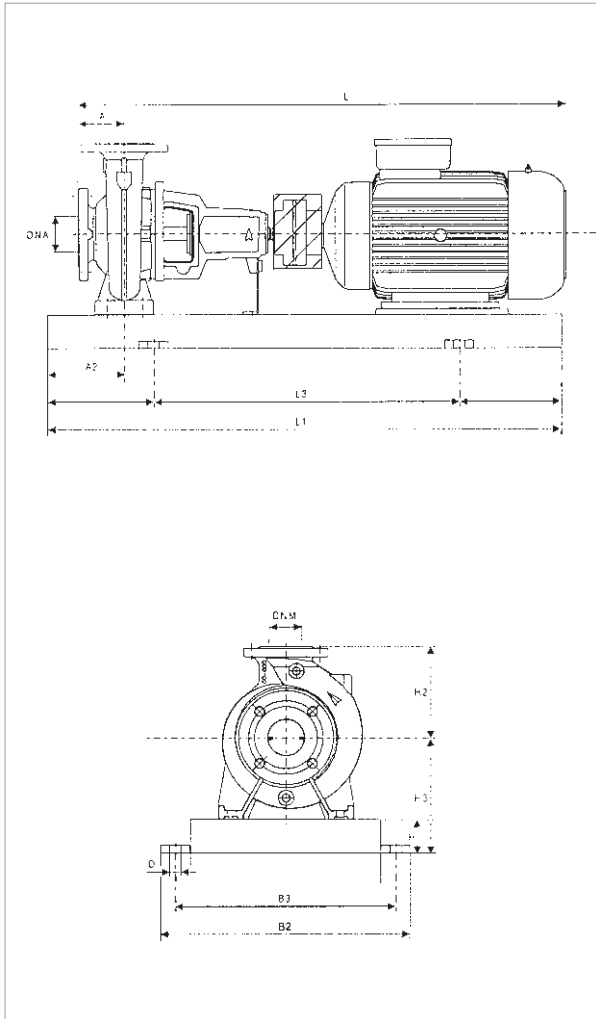
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 80-315	55	125	90	315	100	350	1600	1060	660	600	28	100	80	1515	707	1515	538	1655	715	1655	546	8
	75	125	90	315	100	350	1800	1200	730	670	28	100	80	1570	861	1568	628	1710	869	1708	636	9
	90	125	90	315	100	350	1800	1200	730	670	28	100	80	1620	681	1620	663	1760	689	1760	671	9
	110	125	90	315	120	370	2000	1340	910	830	28	100	80	1840	1131	1805	1231	1980	1139	1945	1239	9

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 100-200	30	MEC 200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	MEC 200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	MEC 250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	MEC 280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	MEC 280M	3 x 400 V - Δ	154	148	IE2 / IE3

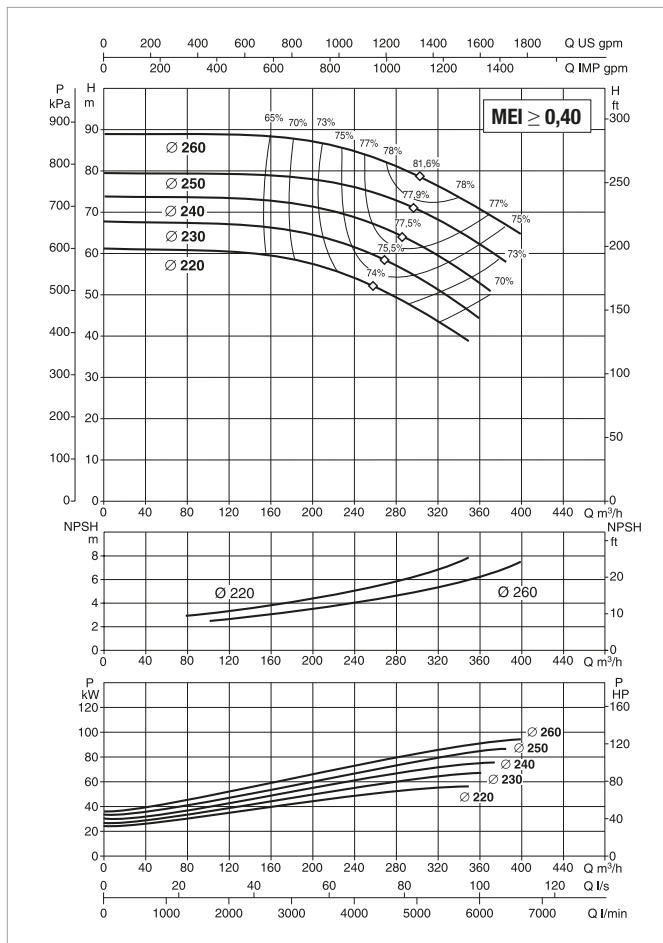
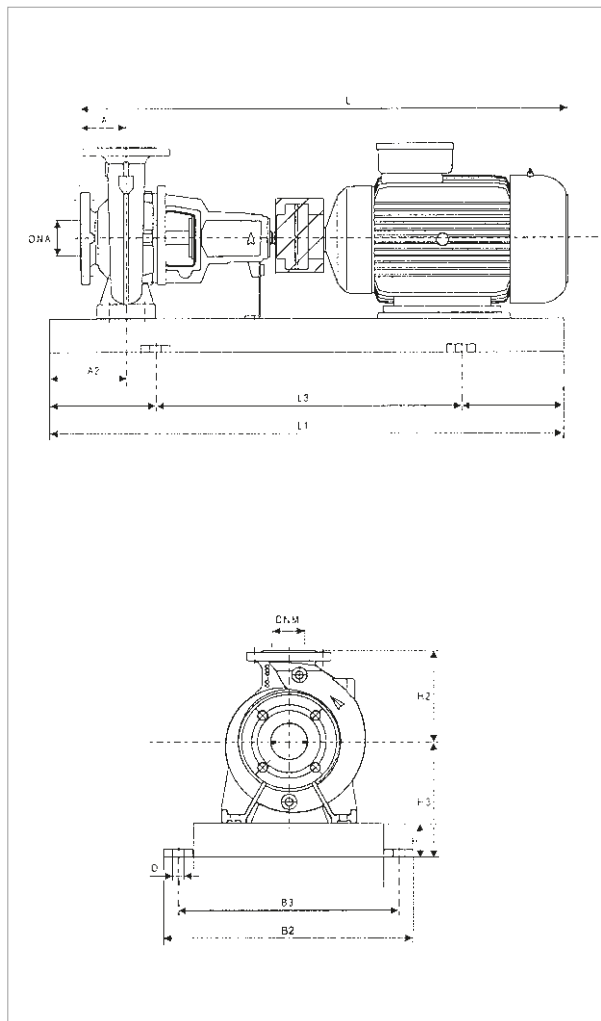
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 100-200	30	125	90	280	100	300	1400	940	610	550	28	125	100	1370	454	1380	466	1510	462	1520	474	7
	37	125	90	280	100	300	1400	940	610	550	28	125	100	1370	402	1380	427	1510	410	1520	435	7
	45	125	90	280	100	325	1400	940	610	550	28	125	100	1415	549	1420	588	1555	557	1560	596	7
	55	125	90	280	100	350	1600	1060	660	600	28	125	100	1515	623	1515	668	1655	631	1655	676	8
	75	125	90	280	100	380	1800	1200	730	670	28	125	100	1570	621	1568	621	1710	629	1708	629	9
	90	125	90	280	100	380	1800	1200	730	670	28	125	100	1620	621	1620	603	1760	629	1760	611	9

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 100-250	45	MEC 225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	MEC 250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	MEC 280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	MEC 280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	MEC 315S	3 x 400 V - Δ	188	184	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H2	H	H3	L1	L3	B2	B3	D	DN A	DN M	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg											
KDN 100-250	45	125	90	280	100	325	1600	1060	660	600	28	125	100	1430	696	1435	735	1570	704	1575	743	8
	55	125	90	280	100	325	1600	1060	600	600	28	125	100	1530	696	1530	741	1670	704	1670	749	8
	75	125	90	280	100	380	1800	1200	730	670	28	125	100	1585	850	1583	850	1725	858	1723	858	9
	90	125	90	280	100	380	1800	1200	730	670	28	125	100	1635	670	1635	652	1775	678	1775	660	9
	110	125	90	280	100	435	2000	1340	910	830	28	125	100	1855	1120	1820	1220	1995	1128	1960	1228	9

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/ Mn	POLES
						230	400				
MEC 71	0.25	2790	69.81	0.778	3 x 230/400	1.15	0.67	5.06	2.90	3.01	2
MEC 71	0.37	2820	72.79	0.783	3 x 230/400	1.61	0.93	5.40	2.69	2.99	2
MEC 80	0.55	2810	76.97	0.800	3 x 230/400	2.23	1.29	6.41	3.43	3.13	2
MEC 80	0.75	2880	81.52	0.823	3 x 230/400	2.81	1.62	7.93	3.47	3.33	2
MEC 80	1.10	2870	81.82	0.826	3 x 230/400	4.07	2.36	7.92	3.42	3.25	2
MEC 90S	1.50	2880	82.95	0.794	3 x 230/400	5.80	3.35	8.85	4.18	3.80	2
MEC 90L	2.20	2870	83.41	0.811	3 x 230/400	8.23	4.75	8.31	3.87	1.87	2

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/ Mn	POLES
						400	690				
MEC 100L	3.00	2880	86.25	0.861	3 x 400 Δ	5.85	3.40	8.93	3.17	3.70	2
MEC 112M	4.00	2910	87.10	0.856	3 x 400 Δ	8.05	4.65	9.14	2.99	3.53	2
MEC 132S	5.50	2910	88.40	0.873	3 x 400 Δ	10.40	6.00	7.77	2.53	3.26	2
MEC 132S	7.50	2900	88.40	0.882	3 x 400 Δ	14.00	8.08	7.62	2.34	3.11	2
MEC 160M	11.00	2930	89.82	0.890	3 x 400 Δ	20.20	11.66	6.24	2.16	2.79	2
MEC 160M	15.00	2940	90.46	0.890	3 x 400 Δ	27.00	15.59	7.03	2.57	3.02	2
MEC 160L	18.50	2940	91.49	0.893	3 x 400 Δ	33.00	19.05	7.27	2.69	3.21	2
MEC 180M	22.00	2960	92.05	0.875	3 x 400 Δ	39.50	23.00	8.33	2.80	3.43	2
MEC 200L	30.00	2950	92.50	0.899	3 x 400 Δ	52.00	30.02	7.79	2.37	3.06	2
MEC 200L	37.00	2960	92.90	0.897	3 x 400 Δ	64.00	36.95	7.62	2.50	3.22	2
MEC 225M	45.00	2960	92.94	0.901	3 x 400 Δ	78.50	45.32	6.73	2.40	2.85	2
MEC 250M	55.00	2970	93.97	0.900	3 x 400 Δ	94.00	54.50	8.33	2.42	3.04	2
MEC 280S	75.00	2980	94.12	0.895	3 x 400 Δ	130.00	74.50	7.73	2.36	3.21	2
MEC 280M	90.00	2980	94.51	0.918	3 x 400 Δ	154.00	89.00	7.97	2.80	3.44	2
MEC 315S	110.00	2980	94.53	0.893	3 x 400 Δ	188.00	110.00	8.06	2.53	3.53	2
MEC 315M	132.00	2970	94.80	0.923	3 x 400 Δ	220.00	130.00	6.18	2.14	2.77	2
MEC 315L	160.00	2970	94.80	0.926	3 x 400 Δ	265.00	155.00	5.96	2.12	2.65	2
MEC 315L	200.00	2970	95.20	0.925	3 x 400 Δ	330.00	190.00	5.78	2.10	2.55	2
MEC355M	250.00	2980	96.04	0.897	3 x 400 Δ	418.50	242.60	7.84	2.37	3.77	2
MEC355L	315.00	2980	96.43	0.903	3 x 400 Δ	521.50	302.30	7.96	2.36	3.81	2

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

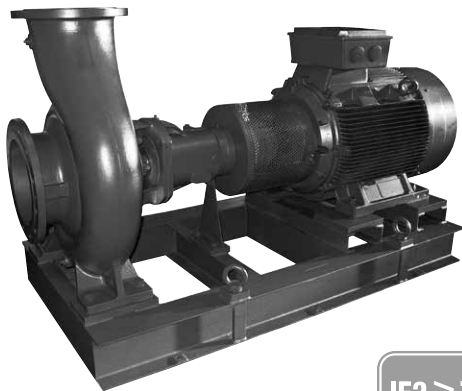
IE3 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 132S	7.50	2920	90.10	0.900	3 x 400 Δ	13.40	7.75	8.50	2.20	3.20	2
MEC 160M	11.00	2940	91.20	0.900	3 x 400 Δ	19.40	11.21	7.60	2.40	3.30	2
MEC 160M	15.00	2920	91.30	0.900	3 x 400 Δ	26.50	15.32	7.70	2.60	3.30	2
MEC 160L	18.50	2920	92.40	0.910	3 x 400 Δ	32.00	18.50	8.20	2.80	3.40	2
MEC 180M	22.00	2950	92.70	0.910	3 x 400 Δ	38.00	21.97	8.70	2.60	3.90	2
MEC 200L	30.00	2960	93.30	0.890	3 x 400 Δ	52.00	30.06	9.00	3.00	3.90	2
MEC 200L	37.00	2960	93.70	0.910	3 x 400 Δ	63.00	36.42	9.00	3.10	3.90	2
MEC 225M	45.00	2960	94.00	0.910	3 x 400 Δ	76.00	43.93	8.30	2.50	3.60	2
MEC 250M	55.00	2970	94.30	0.890	3 x 400 Δ	95.00	54.91	7.20	2.30	3.60	2
MEC 280S	75.00	2970	94.70	0.920	3 x 400 Δ	124.00	71.68	8.00	2.40	3.30	2
MEC 280M	90.00	2970	95.00	0.920	3 x 400 Δ	148.00	85.55	8.10	2.50	3.30	2
MEC 315S	110.00	2980	95.20	0.910	3 x 400 Δ	184.00	106.36	6.70	1.80	3.10	2
MEC 315M	132.00	2980	95.40	0.920	3 x 400 Δ	220.00	127.17	6.50	1.80	2.90	2
MEC 315L	160.00	2980	95.60	0.920	3 x 400 Δ	265.00	153.18	6.60	1.90	2.80	2
MEC 315L	200.00	2980	95.80	0.920	3 x 400 Δ	330.00	190.75	6.10	1.80	2.60	2
MEC 355M	250.00	2980	95.80	0.920	3 x 400 Δ	410.00	236.99	6.90	2.00	2.90	2
MEC 355L	315.00	2980	95.80	0.920	3 x 400 Δ	520.00	300.58	5.70	1.70	2.40	2

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS



TECHNICAL DATA

Rotation speed: 970 - 1450 - 2900 1/min.

Operating range:

from 4 to 3200 m³/h with head up to 158 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from -20°C to +120°C.

Maximum ambient temperature: +40 °C.

Maximum operating pressure:

16 bar as standard up to DN 200, 10 bar for KDN 250 - 300 - 350

Optional PN 16 for KDN 250 - 300 - 350 in the spheroidal cast iron version (H).

Installation: normally in the horizontal position.

Special executions on requests: pumps for liquids other than water. Special materials and other voltages and/or frequencies.

APPLICATIONS

Standardised centrifugal monobloc electric pumps with coupling, designed for a wide range of applications, such as:

- Central heating
- Water supply
- Air conditioning
- Refrigeration
- Industry
- Fire fighting
- Environmental engineering

CONSTRUCTION FEATURES OF THE PUMP

Non self-priming single stage spiral body centrifugal pump with axial suction port, radial delivery port and horizontal axis components, in compliance with ISO 2858/DIN 24256.

KDN pumps have PN 16 nominal sizes and performances.

The suction and delivery flanges are in compliance with EN 7005 PN 10 or 16. All the pumps are dynamically balanced according to ISO 1940 class 6.3; the impellers are hydraulically balanced.

Pump and motor are installed on a single base according to EN 23 661, made of fully welded steel.

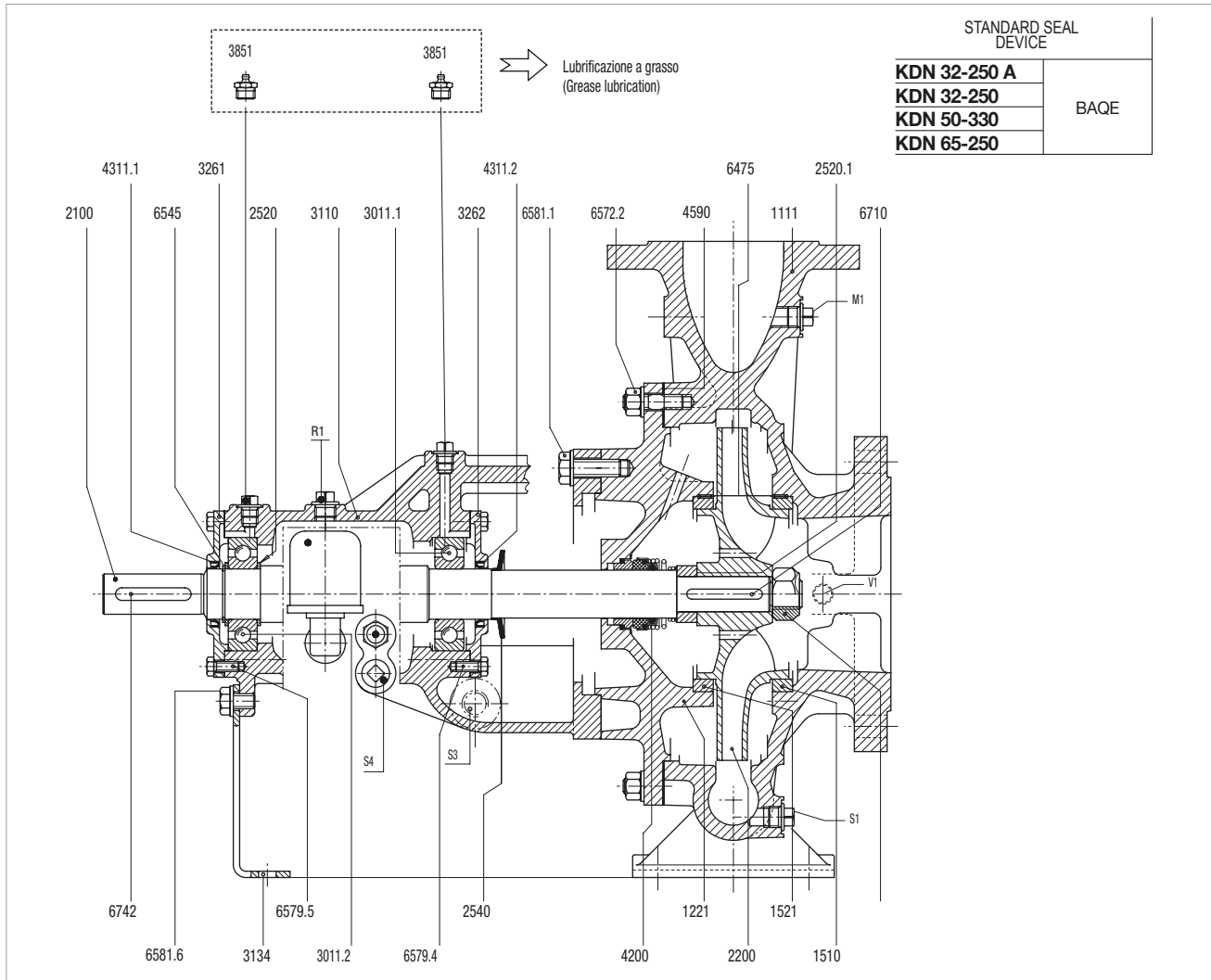
Oversize pumps have a base with welded steel profiles.

Thanks to the particular pump design, the bearings, the impeller, and the seal can be removed without detaching the pump body from the piping (back-pull-out design).

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



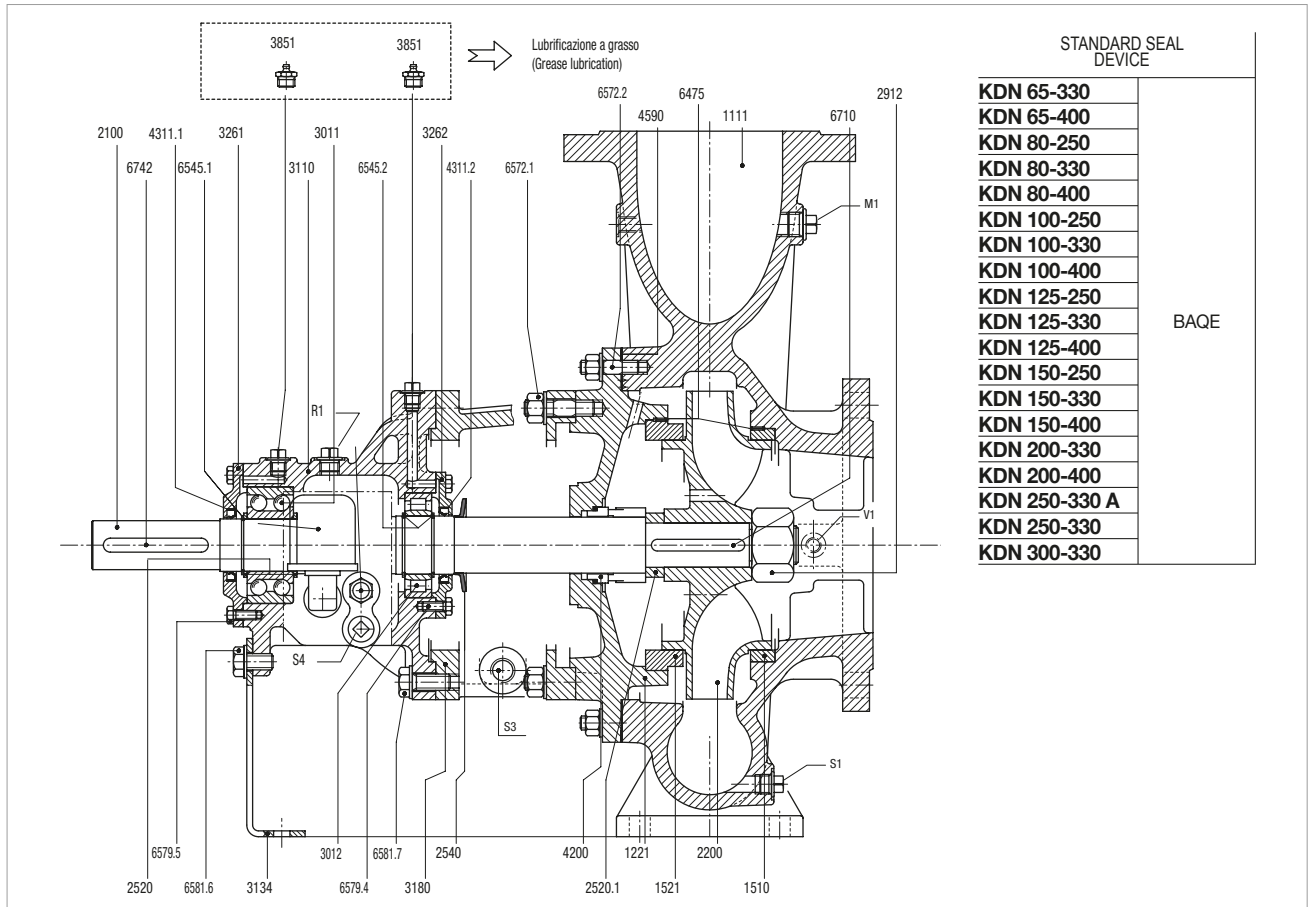
No.	PARTS	MATERIALS
1111	PUMP BODY	CAST IRON GG25
1221	COVER	CAST IRON GG25
1510	FRONT END WEAR RING	CAST IRON GG25
1521	REAR END WEAR RING	CAST IRON GG25
2100	SHAFT	AISI 420
2200	IMPELLER	CAST IRON GG25 CAST IRON GS400 CAST IRON GS400 CF8M STEEL
2520	SHOULDER RING	STEEL
2520.1	SHOULDER RING	STEEL
2540	THROWER	RUBBER
2912	IMPELLER NUT	CAST IRON GG25
3011.1	BALL BEARING	NA
3011.2	BALL BEARING	NA
3110	SUPPORT	CAST IRON GG25
3134	SUPPORT FOOT	STEEL
3261	BEARING COVER, DRIVE SIDE	CAST IRON GG25
3262	BEARING COVER, PUMP SIDE	CAST IRON GG25
4200	MECHANICAL SEAL	CARBON/SILICON CARBIDE
4311.1	SEAL RING	NBR
4311.2	SEAL RING	NBR

No.	PARTS	MATERIALS
4590	GASKET	NONAM
6475	DOWEL	STEEL 8.8
6545	SHAFT CIRCLIP	STEEL
6572.2	STUD BOLT + WASHER + NUT	STEEL
6579.4	SCREW	STEEL 8.8
6579.5	SCREW	STEEL 8.8
6581.1	SCREW + WASHER	STEEL 8.8
6581.6	SCREW + WASHER	STEEL 8.8
6710	IMPELLER KEY	STEEL
6742	COUPLING KEY	STEEL
M1	PRESSURE GAUGE CONNECTION	
R1	OIL FILLING	
S1	PUMP DRAIN PLUG	
S3	MECH. SEAL /PACKING DRAIN CONNECTION	
S4	OIL DRAIN PLUG	
V1	VACUUM GAUGE CONNECTION	
	GREASE LUBRICATION	
3851	GREASER	

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



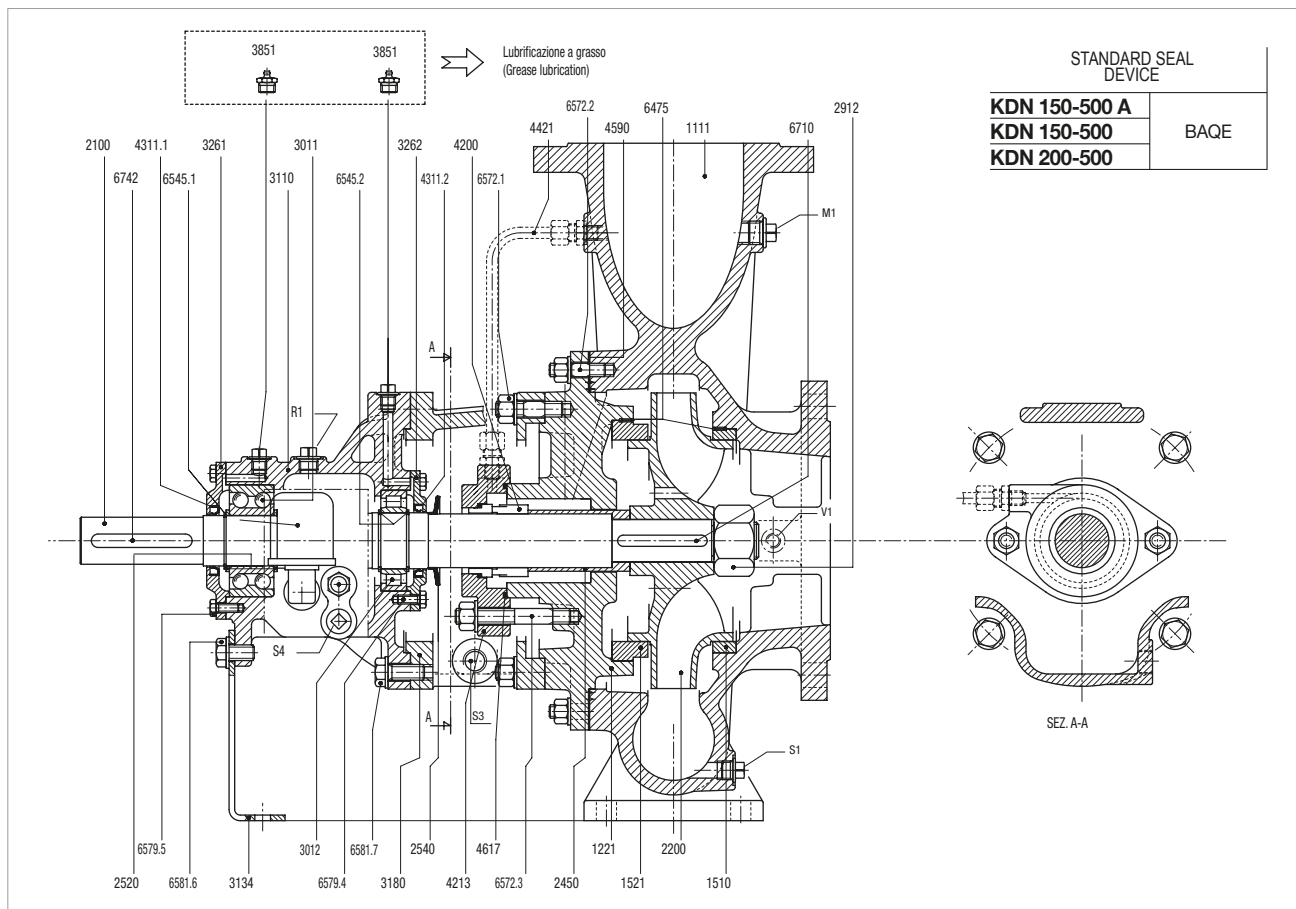
No.	PARTS	MATERIALS
1111	PUMP BODY	CAST IRON GG25
1221	COVER	CAST IRON GG25
1510	FRONT END WEAR RING	CAST IRON GG25
1521	REAR END WEAR RING	CAST IRON GG25
2100	SHAFT	AISI 420
2200	IMPELLER	CAST IRON GG25 CAST IRON GS400 CAST IRON GS400 CF8M STEEL CAST IRON GG25
2520	SHOULDER RING	STEEL
2520.1	SHOULDER RING	STEEL
2540	THROWER	RUBBER
2912	IMPELLER NUT	CAST IRON GG25
3011	BALL BEARING	NA
3012	ROLLER BEARING	NA
3110	SUPPORT	CAST IRON GG25
3134	SUPPORT FOOT	STEEL
3180	SUPPORT	CAST IRON GG25
3261	BEARING COVER, DRIVE SIDE	CAST IRON GG25
3262	BEARING COVER, PUMP SIDE	CAST IRON GG25
4200	MECHANICAL SEAL	TUNGSTEN CARBIDE/CARBON
4311.1	SEAL RING	NBR
4311.2	SEAL RING	NBR

No.	PARTS	MATERIALS
4590	GASKET	NONAM
6475	DOWEL	STEEL 8.8
6545.1	SHAFT CIRCLIP	STEEL
6545.2	SHAFT CIRCLIP	STEEL
6572.1	STUD BOLT + WASHER + NUT	STEEL
6572.2	STUD BOLT + WASHER + NUT	STEEL
6579.4	SCREW	STEEL 8.8
6579.5	SCREW	STEEL 8.8
6581.6	SCREW + WASHER	STEEL 8.8
6581.7	SCREW + WASHER	STEEL 8.8
6710	IMPELLER KEY	STEEL
6742	COUPLING KEY	STEEL
M1	PRESSURE GAUGE CONNECTION	
R1	OIL FILLING	
S1	PUMP DRAIN PLUG	
S3	MECH. SEAL/PACKING DRAIN CONNECTION	
V1	VACUUM GAUGE CONNECTION	
	GREASE LUBRICATION	
3851	GREASER	

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



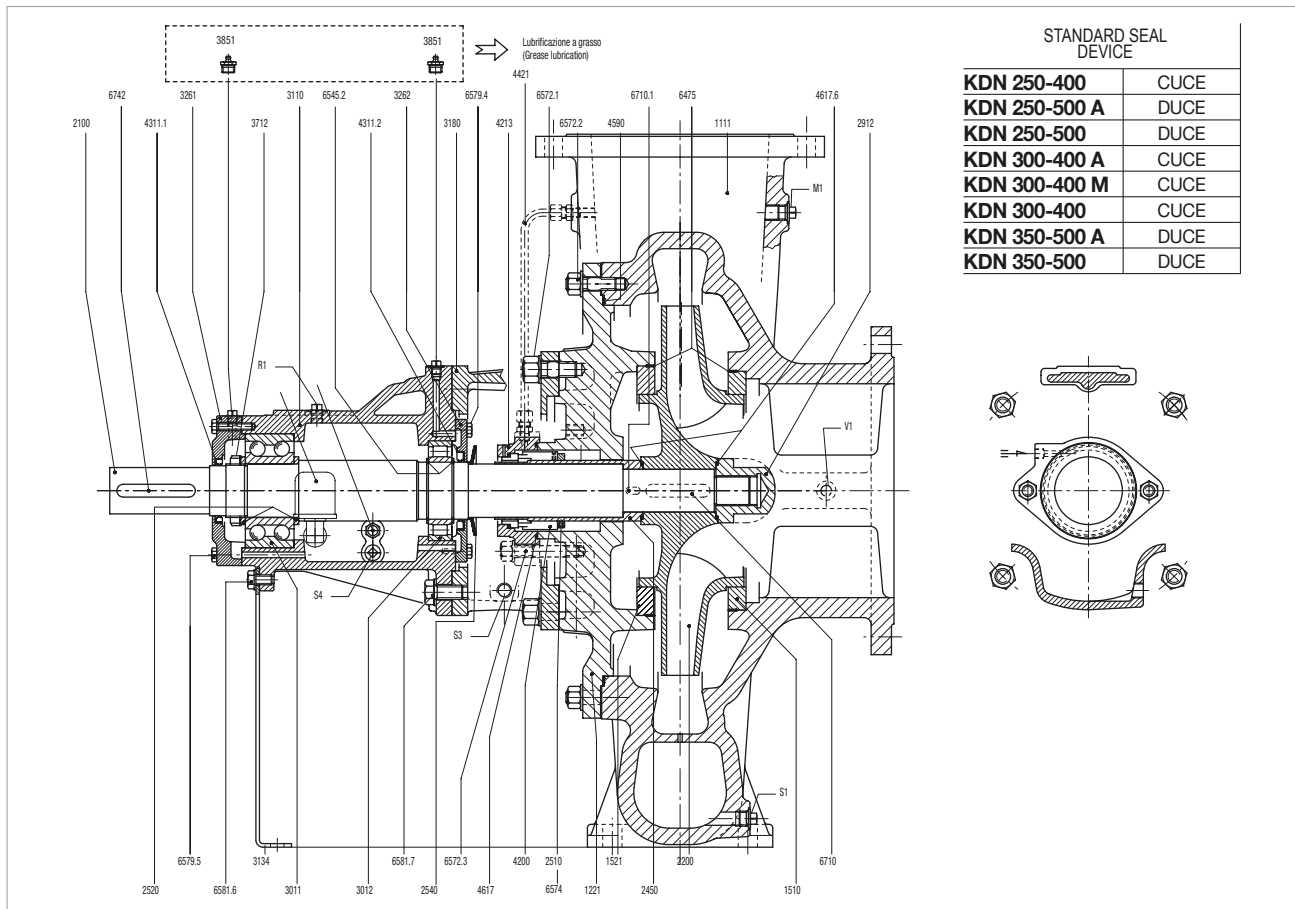
No.	PARTS	MATERIALS
1111	PUMP BODY	CAST IRON GG25
1221	COVER	CAST IRON GG25
1510	FRONT END WEAR RING	CAST IRON GG25
1521	REAR END WEAR RING	CAST IRON GG25
2100	SHAFT	AISI 420
2200	IMPELLER	CAST IRON GG25
2450	SHAFT SLEEVE	AISI 303
2520	SHOULDER RING	STEEL
2540	THROWER	RUBBER
2912	IMPELLER NUT	CAST IRON GG25
3011	BALL BEARING	NA
3012	ROLLER BEARING	NA
3110	SUPPORT	CAST IRON GG25
3134	SUPPORT FOOT	STEEL
3180	SUPPORT	CAST IRON GG25
3261	BEARING COVER, DRIVE SIDE	CAST IRON GG25
3262	BEARING COVER, PUMP SIDE	CAST IRON GG25
4200	MECHANICAL SEAL	CARBON/SILICON CARBIDE
4213	CARRIER FOR MECHANICAL SEAL	CAST IRON GS400
4311.1	SEAL RING	NBR
4311.2	SEAL RING	NBR

No.	PARTS	MATERIALS
4421	PIPE	AISI 316
4590	GASKET	NONAM
4617	O-RING	NBR
6475	DOWEL	STEEL 8.8
6545.1	SHAFT CIRCLIP	STEEL
6545.2	SHAFT CIRCLIP	STEEL
6572.1	STUD BOLT + WASHER + NUT	STEEL
6572.2	STUD BOLT + WASHER + NUT	STEEL
6572.3	STUD BOLT + WASHER + NUT	STEEL
6579.4	SCREW	STEEL 8.8
6579.5	SCREW	STEEL 8.8
6581.6	SCREW + WASHER	STEEL 8.8
6710	IMPELLER KEY	STEEL
6742	COUPLING KEY	STEEL
M1	PRESSURE GAUGE CONNECTION	
R1	OIL FILLING	
S1	PUMP DRAIN PLUG	
S3	MECH. SEAL /PACKING DRAIN CONNECTION	
V1	VACUUM GAUGE CONNECTION	
	GREASE LUBRICATION	
3851	GREASER	

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



STANDARD SEAL DEVICE	
KDN 250-400	CUCE
KDN 250-500 A	DUCE
KDN 250-500	DUCE
KDN 300-400 A	CUCE
KDN 300-400 M	CUCE
KDN 300-400	CUCE
KDN 350-500 A	DUCE
KDN 350-500	DUCE

No.	PARTS	MATERIALS	
1111	PUMP BODY	CAST IRON GG25	CAST IRON GS400
1221	COVER	CAST IRON GG25	CAST IRON GS400
1510	FRONT END WEAR RING	CAST IRON GG25	
1521	REAR END WEAR RING	CAST IRON GG25	
2100	SHAFT	AISI 420	
2200	IMPELLER	CAST IRON GG25	
2450	SHAFT SLEEVE	AISI 303	
2510	SPACER RING	CAST IRON GG25	
2520	SHOULDER RING	STEEL	
2540	THROWER	RUBBER	
2912	IMPELLER NUT	CAST IRON GG25	
3011	BALL BEARING	NA	
3012	ROLLER BEARING	NA	
3110	SUPPORT	CAST IRON GG25	
3134	SUPPORT FOOT	STEEL	
3180	SUPPORT	CAST IRON GG25	
3261	BEARING COVER, DRIVE SIDE	CAST IRON GG25	
3262	BEARING COVER, PUMP SIDE	CAST IRON GG25	
3712	BEARING NUT	STEEL	
4200	MECHANICAL SEAL	TUNGSTEN CARBIDE/CARBON	
4213	CARRIER FOR MECHANICAL SEAL	CAST IRON GS400	
4311.1	SEAL RING	NBR	
4311.2	SEAL RING	NBR	
4421	PIPE	AISI 316	
4590	GASKET	NONAM	GRAPHITE

No.	PARTS	MATERIALS
4617	O-RING	NBR
4617.6	O-RING	NBR
6475	DOWEL	STEEL 8.8
6545.2	SHAFT CIRCLIP	STEEL
6572.1	STUD BOLT + WASHER + NUT	STEEL
6572.2	STUD BOLT + WASHER + NUT	STEEL
6572.3	STUD BOLT + WASHER + NUT	STEEL
6574	SCREW	STEEL 8.8
6579.4	SCREW	STEEL 8.8
6579.5	SCREW	STEEL 8.8
6581.6	SCREW + WASHER	STEEL 8.8
6581.7	SCREW + WASHER	STEEL 8.8
6710	IMPELLER KEY	STEEL
6710.1	IMPELLER KEY	STEEL
6742	COUPLING KEY	STEEL
M1	PRESSURE GAUGE CONNECTION	
R1	OIL FILLING	
S1	PUMP DRAIN PLUG	
S3	MECH. SEAL /PACKING DRAIN CONNECTION	
S4	OIL DRAIN PLUG	
V1	VACUUM GAUGE CONNECTION	
	GREASE LUBRICATION	
3851	GREASER	

KDN OVERSIZE

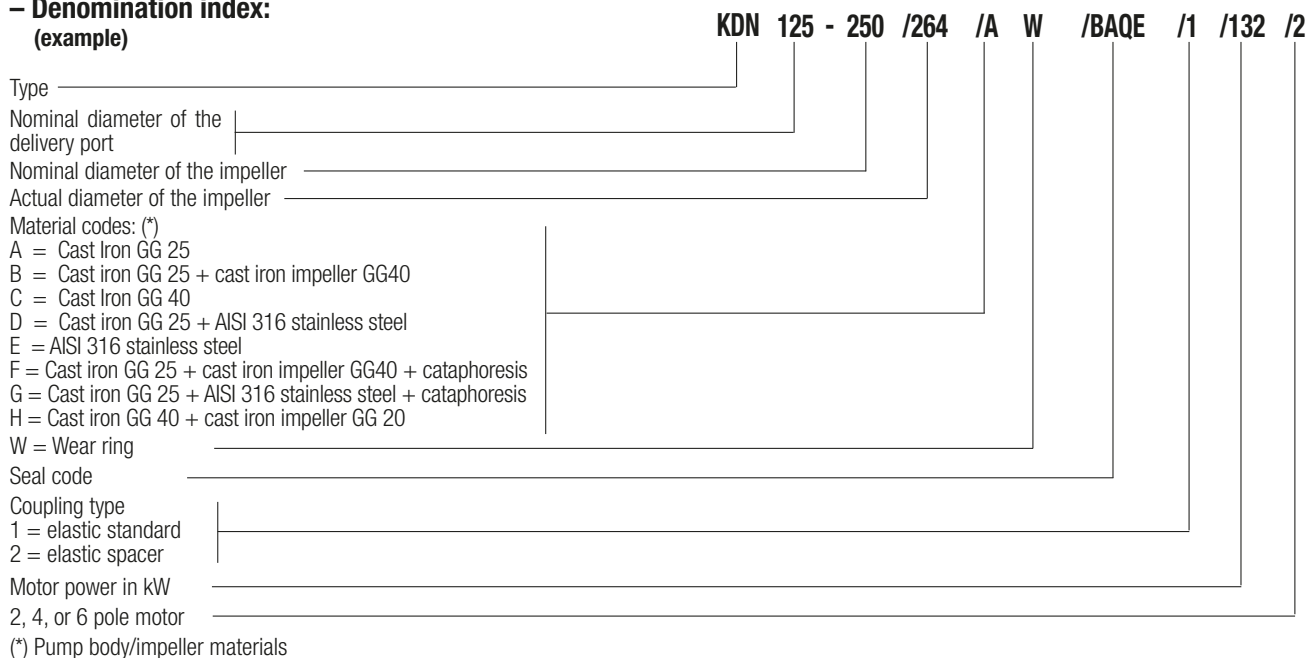
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PRODUCT DESCRIPTION

In the description of the pumps without a motor, the motor data are not mentioned. In the description of the bare shaft pump no mention is made of the coupling or motor data.

The example describes an KDN 125-250 with 264 mm. impeller, in cast iron with wear rings, with BAQE type mechanics, standard coupling, and a 132 kW 2-pole motor.

– Denomination index: (example)



PACKING CODES

Position	Code	Description of the seal
1	S	Stuffing box type
		Cooling
2	N	Stuffing box not cooled
	K	Stuffing box cooled
		Sealing liquid
	E	With internal liquid
3	F	With external liquid
	O	Without sealing liquid

DESCRIPTION OF THE MECHANICAL SEAL

Position	Code	Description of the seal
1	A	O-ring seal with fixed guide
	B	Rubber bellows seal
	C	O-ring seal with spring guide
	D	O-ring seal balanced
	G	Rubber bellows seal with reduced seal faces
	M	Rubber bellows seal
	X	Metal bellows seal
		Materials
2 & 3	A	Impregnated carbon/metal
	B	Impregnated carbon/synthetic resin
	C	Other carbon types
	S	Chromium steel
	U	Tungsten carbide
	Q	Silicon carbide
	V	Aluminium oxide (ceramic)
X	Other types of ceramic/carbide	
		Materials
4	P	Nitrile rubber (NBR)
	S	Silicon rubber
	T	Teflon (PTFE)
	E	EPDM
	V	FKM
	M	PTFE coated O-ring

- Flow rate: max 3200 m³/h

- Head: max 157 m3/h

Pumped liquid temperature range: from -10 °C to +120 °C (other temperatures available on request)

- Operating pressure: 16 bar as standard up to DN 200, 10 bar for KDN 250 - 300 - 350

Optional PN 16 for KDN 250 - 300 - 350 in the spheroidal cast iron version (H).

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PRODUCT CODE DESCRIPTION

NOMINAL DIAMETER OF THE IMPELLER	Cod.
250	4
400	8
500	9
330A	A
330	B
500A	D
400M	E
400A	F
250A	G

Cod.	PUMP/IMPELLER MATERIALS
A	Spheroidal cast iron + cast iron impeller + W*
5	Cast iron/cast iron + W*
6	Cast iron/spheroidal cast iron + W*
7	Full spheroidal cast iron + W*
8	Cast iron/AISI 316 impeller + W*
9	Full AISI 316 + W*
P	6 + Cataphoresis
R	8 + Cataphoresis

* With wear rings

Cod.	JOINT
0	Without coupling *)
1	With standard coupling
2	With spacer coupling

PUMP TYPE	Cod.
32 oversize	L
65 oversize	A
80 oversize	B
100 oversize	C
125 oversize	D
150 oversize	H
200 oversize	E
250 oversize	F
300 oversize	G
350 oversize	I

Cod.	SEAL (1)
1	BAQE
2	BAQE (RMG12)
5	BQQV
7	BAQV
A	SNE
B	SNO
C	SNF
D	SKO
E	GQQE
F	GQQV
G	BQQE
S	DUCE
T	CUCE

(1) For standard seals see the Technical Data section

Cod.	P2 NOMINAL
0	bare shaft
1	0.37
2	0.55
3	0.75
4	1.1
5	1.5
6	2.2
7	3
8	4
9	5.5
A	7.5
B	11
C	15
D	18.5
E	22
F	30
G	37
H	45
K	55
L	75
M	90
N	110
P	132
Q	160
R	200
S	250
T	315
U	355
V	400
W	450
Z	500

Cod.	VOLTAGE	PO-LES
0	Without motor	
1	3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz	2
2	3 x 380-480 V 60 Hz	2
3	3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz	4
4	3 x 380-480 V 60 Hz	4
7	3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz	6
8	3 x 380-480 V 60 Hz	6
A	3 x 220-240/380-415 V 50 Hz - IE2	2
B	3 x 380-415 V 50 Hz - IE2	2
C	3 x 220-240/380-415 V 50 Hz - IE2	4
D	3 x 380-415 V 50 Hz - IE2	4
E	3 x 220-240/380-415 V 50 Hz - IE2	6
F	3 x 380-415 V; 50 Hz; e45; IE2	6
U	3 x 220-240/380-415 V 50 Hz - IE3	2
V	3 x 380-415 V 50 Hz - IE3	2
W	3 x 220-240/380-415 V 50 Hz - IE3	4
X	3 x 380-415 V 50 Hz - IE3	4
Y	3 x 220-240/380-415 V 50 Hz - IE3	6
Z	3 x 380-415 V 50 Hz - IE3	6

Product code

1 F 1 K 1 1 B X 3

— Bare shaft pump — **0 0 0**
 — Pump with base without motor — **0**
 — Complete electric pump with base —

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

GENERAL DATA

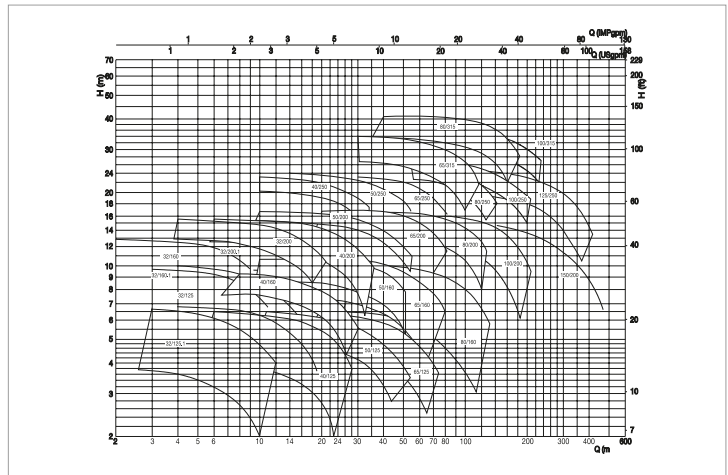
Supplied with closed asynchronous type motor, external ventilation cooling, 2 or 4 poles.

Rotor running on ball bearings, largely oversized to ensure low noise and durability.

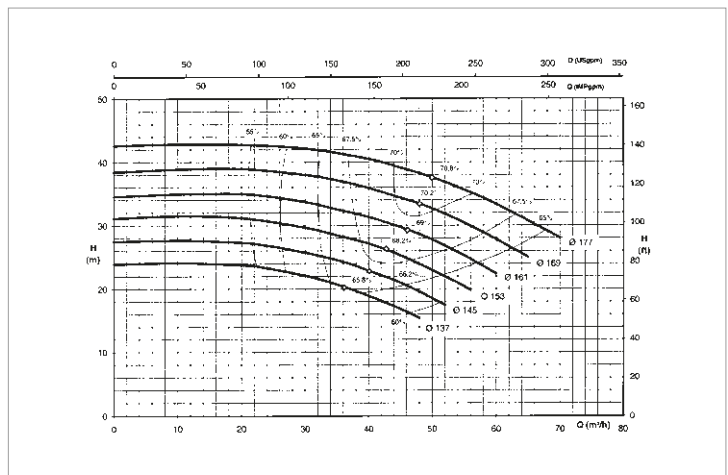
Electrical protection: in compliance with the EEC 89/336 ELECTROMAGNETIC COMPATIBILITY DIRECTIVE and subsequent amendments, the EEC 73/23 LOW VOLTAGE DIRECTIVE and subsequent amendments, as well as CEI 2-3 standards.

INSTRUCTIONS FOR THE IDENTIFICATION OF THE PUMP AND MOTOR REQUIRED.

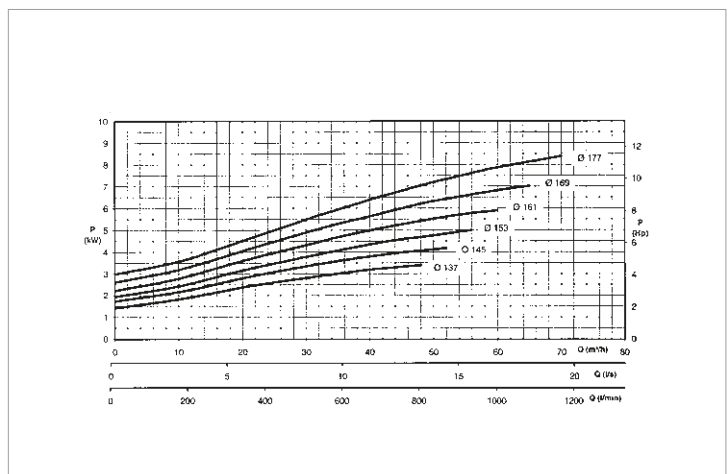
1. On the general chart supplied, find the family pump that indicatively offers the required flow rate and head characteristics.



2. Look for the most appropriate characteristic on the characteristic curves for each family.



3. On the power chart, identify the power required by the pump in order to operate at the required level.



KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

- Due to the possibility of variations in the pumped liquid flow rate, which can cause an oscillation of the point of operation, a higher power absorption may occur. When selecting the motor, allow for the following safety margins:

Safety margin according to ISO 5199

REQUIRED PUMP SHAFT POWER (kW)	POWER OF THE MOTOR TO USE P2 (kW)
322	355
286	315
227	250
181	200
145	160
120	132
100	110
81	90
68	75
49	55
40	45
32.5	37
26	30
19	22
15.9	18.5
12.8	15
9.1	11
6.1	7.5
4.3	5.5
3.2	4
2.3	3
1.7	2.2
1.1	1.5
0.81	1.1
0.55	0.75
0.40	0.55
0.27	0.37
0.18	0.25

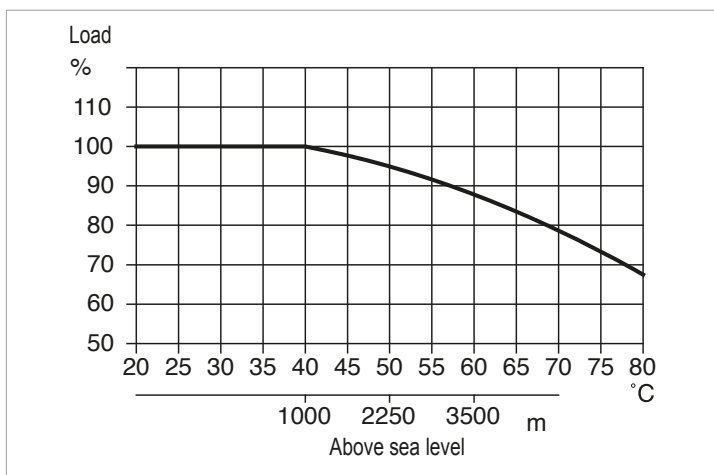
If the pump is to be used with liquids with fairly high specific weight and viscosity values, apply any required corrections to the power of the motor to be installed (check the suitability of the construction materials in contact with the liquid).

- With the name of the pump and the power of the motor, look through the following technical data to find the name of the most suitable base (complete with motor, spacer coupling, and coupling cover).
- The pump and base required will be delivered already assembled and aligned, although an alignment check is always required after installation (see INSTRUCTION MANUAL).

Ambient temperature

From -30 °C to +40 °C

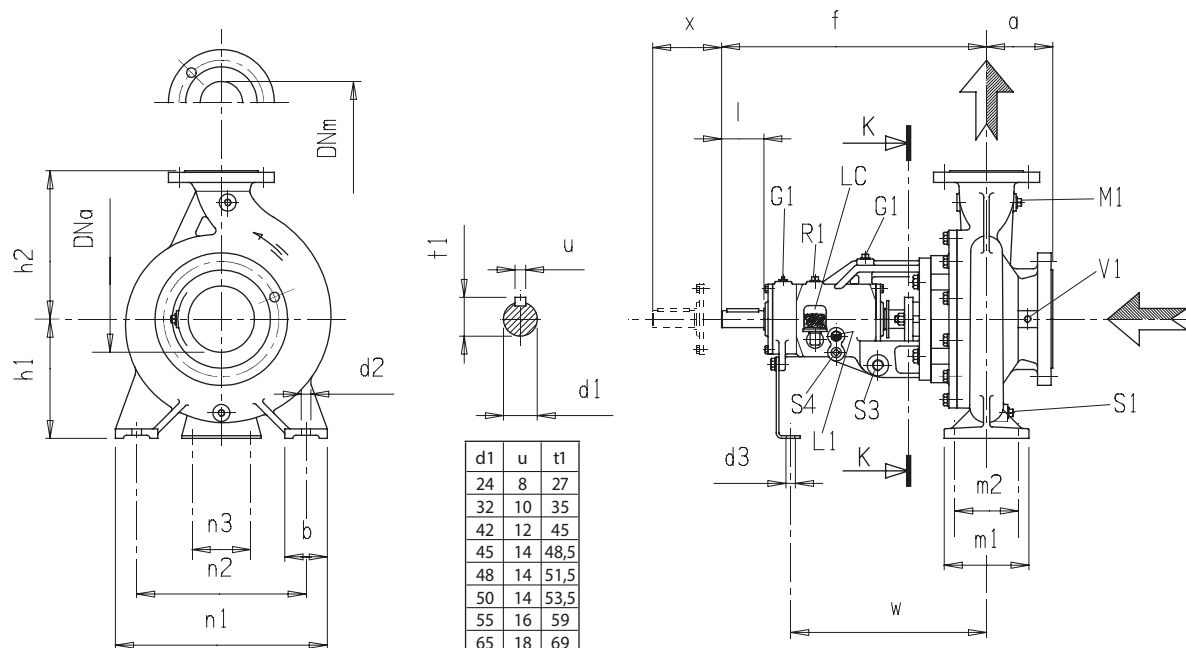
Due to the low density, and therefore low cooling effect of the air, operation at an ambient temperature above 40 °C, or at an altitude exceeding 1000 m above sea level, requires a reduction of the rated motor load in accordance with this table.



KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

DIMENSIONS OF BARE SHAFT PUMPS

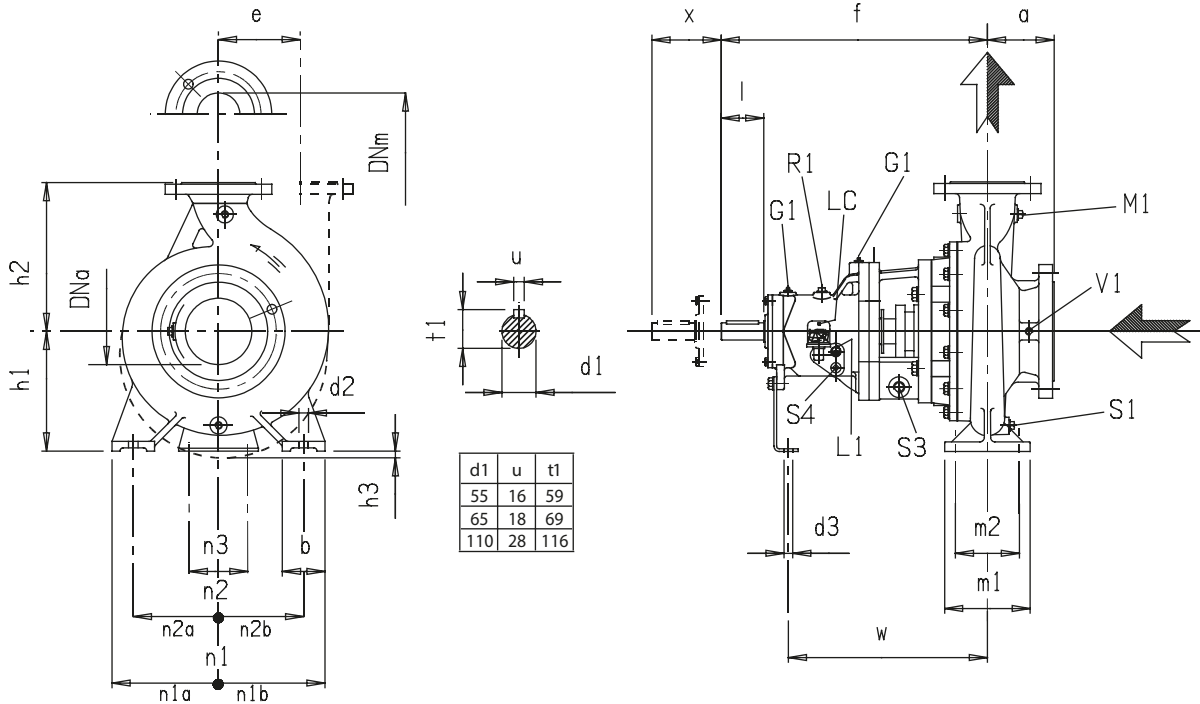


		Grease lubrication		Oil lubrication	
M1	Pressure gauge connection	G1	Greaser	R1	Oil filling $\frac{3}{8}$ "
S1	Drain plug			L1	Oil level $\frac{3}{8}$ "
S3	Packing drain connection $\frac{1}{2}$ "			S4	Oil drain plug $\frac{3}{8}$ "
V1	Vacuum gauge connection			LC	Constant level oil $\frac{1}{4}$ "

Type	Supp.	DNa	DNm	a	f	h1	h2	b	m1	m2	n1	n2	d2	n3	d3	w	x	d1	l	M1	S1	V1	kg
KDN 32-250A	2	50	32	100	500	180	225	65	125	95	320	250	14	110	14	370	100	32	80	3/8"	1/4"	1/4"	78
KDN 32-250	2	50	32	100	500	180	225	65	125	95	320	250	14	110	14	370	100	32	80	3/8"	1/4"	1/4"	78
KDN 50-330	2	80	50	125	500	225	280	65	125	95	345	280	14	110	14	370	100	32	80	3/8"	1/4"	1/4"	116
KDN 65-250	2	100	65	125	500	200	250	80	160	120	360	280	18	110	14	370	140	32	80	3/8"	1/4"	1/4"	88
KDN 65-330	3	100	65	125	530	225	280	80	160	120	400	315	18	110	14	370	140	42	110	3/8"	1/4"	1/4"	152
KDN 65-400	3	100	65	125	530	280	355	80	160	120	435	355	18	110	14	370	140	42	110	3/8"	1/4"	1/4"	180
KDN 80-250	2	125	80	125	500	225	280	80	160	120	400	315	18	110	14	370	140	32	80	3/8"	3/8"	3/8"	100
KDN 80-330	3	125	80	125	530	250	315	80	160	120	400	315	18	110	14	370	140	42	110	3/8"	3/8"	3/8"	155
KDN 80-400	3	125	80	125	530	280	355	80	160	120	435	355	18	110	14	370	140	42	110	3/8"	3/8"	3/8"	185
KDN 100-250	3	125	100	140	530	225	280	80	160	120	400	315	18	110	14	370	140	42	110	3/8"	3/8"	3/8"	130
KDN 100-330	3	125	100	140	530	250	315	80	160	120	400	315	18	110	14	370	140	42	110	3/8"	3/8"	3/8"	170
KDN 100-400	3	125	100	140	530	280	355	100	200	150	500	400	23	110	14	370	140	42	110	3/8"	3/8"	3/8"	200
KDN 125-250	3	150	125	140	530	250	355	80	160	120	400	315	18	110	14	370	140	42	110	1/2"	3/8"	3/8"	140
KDN 125-330	3	150	125	140	530	280	355	100	200	150	500	400	23	110	14	370	140	42	110	1/2"	3/8"	3/8"	190
KDN 125-400	3	150	125	140	530	315	400	100	200	150	500	400	23	110	14	370	140	42	110	1/2"	3/8"	3/8"	220
KDN 150-250	3	200	150	160	530	280	375	100	200	150	500	400	23	110	14	370	180	42	110	1/2"	1/2"	3/8"	180
KDN 150-330	4	200	150	160	670	315	400	100	200	150	550	450	22	140	18	500	180	55 ¹⁾	110	1/2"	1/2"	3/8"	255
KDN 150-400	4	200	150	160	670	315	450	100	200	150	550	450	22	140	18	500	180	55 ¹⁾	110	1/2"	1/2"	3/8"	298
KDN 150-500	4	200	150	180	670	355	500	100	200	150	550	450	22	140	18	500	180	55	110	1/2"	1/2"	3/8"	410
KDN 150-500A	4	200	150	180	670	355	500	100	200	150	550	450	22	140	18	500	180	55	110	1/2"	1/2"	3/8"	410

¹⁾ Size d1 Ø 48 on request for pumps according to DIN 24256 - ISO 2858

DIMENSIONS OF BARE SHAFT PUMPS



		Grease lubrication		Oil lubrication	
M1	Pressure gauge connection	G1	Greaser	R1	Oil filling $\frac{3}{8}$ "
S1	Drain plug			L1	Oil level $\frac{3}{8}$ "
S3	Packing drain connection $\frac{1}{2}$ "			S4	Oil drain plug $\frac{3}{8}$ "
V1	Vacuum gauge connection			LC	Constant level oil $\frac{1}{4}$ "

Type	Supp.	DNa	DNm	a	f	h1	h2	b	m1	m2	n1	n1a	n1b	n2	n2a	n2b	d2	n3	d3	h3	and	w	x	d1	l	M1	S1	V1	kg
KDN 200-330	4	250	200	200	670	355	450	100	200	150	550	275	275	450	225	225	22	140	18			500	180	55	110	1/2"	1/2"	3/8"	360
KDN 200-400	4	250	200	185	670	355	500	100	200	150	550	275	275	450	225	225	22	140	18			500	180	55	110	1/2"	1/2"	3/8"	390
KDN 200-500	4	250	200	185	670	400	580	140	250	190	800	400	400	660	330	330	27	140	18	15		500	180	55	110	1/2"	1/2"	3/8"	400
KDN 250-330	4	300	250	250	670	400	525	140	250	190	700	350	350	560	280	280	27	140	18			500	240	55	110	1/2"	1/2"	3/8"	410
KDN 250-400	5	300	250	225	780	400	600	125	250	190	690	345	345	560	280	280	27	140	18			545	180	65	140	1/2"	1/2"	3/8"	650
KDN 250-500	5	300	250	300	800	500	500	130	260	190	830	380	450	710	320	390	27	140	18		425	565	250	65	140	1/2"	1/2"	3/8"	700
KDN 250-500A	5	300	250	300	800	500	500	130	260	190	830	380	450	710	320	390	27	140	18		425	565	250	65	140	1/2"	1/2"	3/8"	700
KDN 300-330	4	350	300	300	720	500	670	150	360	280	900	450	450	750	375	375	27	140	18			550	240	55	110	1/2"	1/2"	3/8"	780
KDN 300-400	5	350	300	325	790	400	640	125	250	190	690	345	345	560	280	280	27	140	18			555	240	65	140	1/2"	1/2"	3/8"	800
KDN 300-400A	5	350	300	325	790	400	640	125	250	190	690	345	345	560	280	280	27	140	18			555	240	65	140	1/2"	1/2"	3/8"	800
KDN 300-400M	5	350	300	300	845	500	670	150	360	280	900	450	450	750	375	375	27	140	18		610	240	65	140	1/2"	1/2"	3/8"	900	
KDN 350-500	6	400	350	380	1150	600	600	150	400	300	1000	450	550	850	375	475	27	140	18		450	800	380	110	210	1/2"	1/2"	3/8"	1080
KDN 350-500A	6	400	350	380	1150	600	600	150	400	300	1000	450	550	850	375	475	27	140	18		450	800	380	110	210	1/2"	1/2"	3/8"	1080

KDN OVERSIZE - 2 POLE RANGE

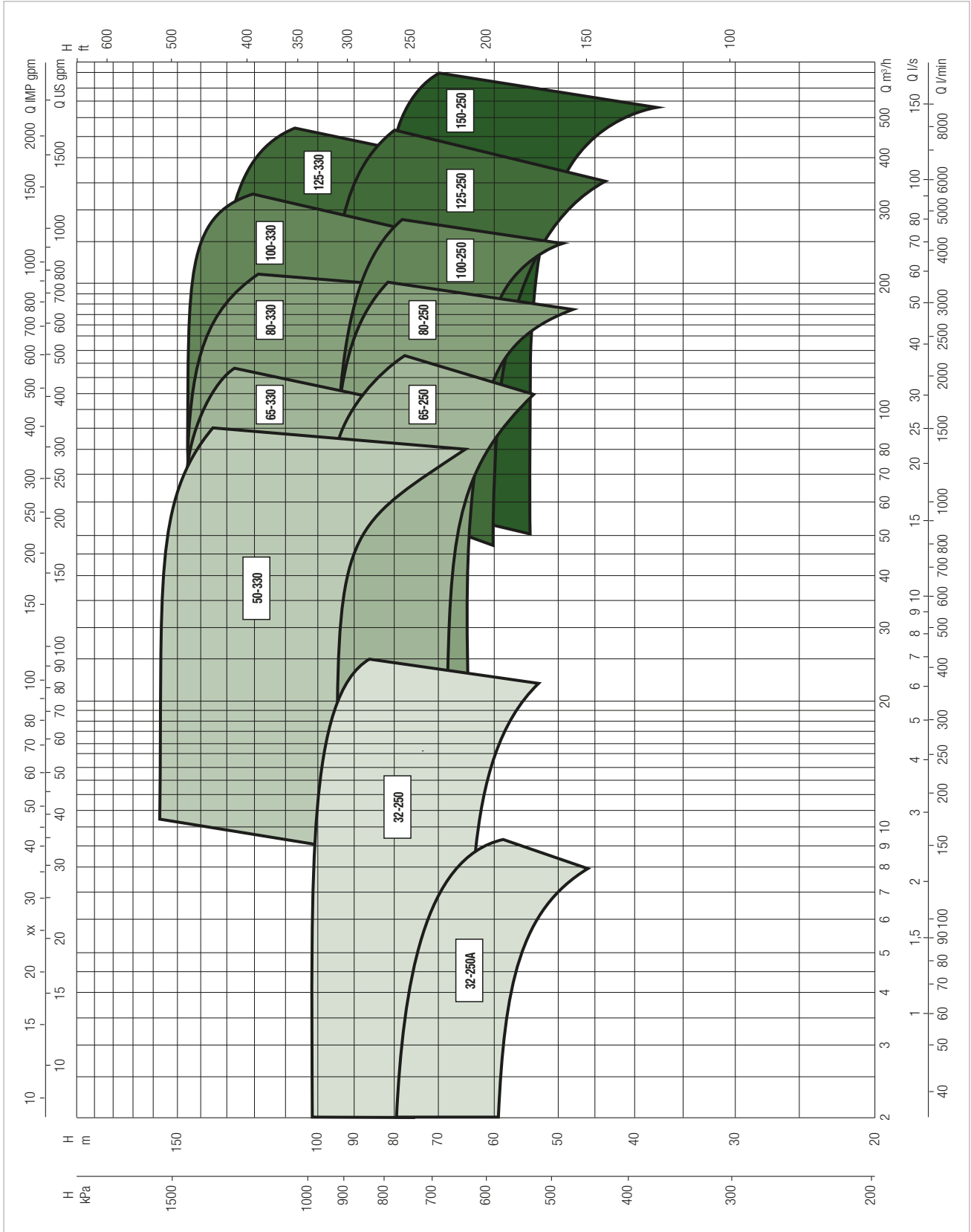
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 2900 1/min



KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 32

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24
	Q=l/min	0	33	67	100	133	167	200	267	333	400
KDN 32-250 A / 244	H (m)	61	59	57	53	46					
KDN 32-250 A / 254		68	66	63	59	53					
KDN 32-250 A / 259		75	73	69	65	60	52				
KDN 32-250 A / 264		81	79	76	72	68	60				
KDN 32-250 / 224		63		63	63	63	62	62	59	55	
KDN 32-250 / 234		71		71	71	71	70	70	68	64	
KDN 32-250 / 244		81		81	81	80	80	80	79	76	68
KDN 32-250 / 254		91		91	91	91	90	90	89	85	78
KDN 32-250 / 264		100		100	100	100	100	100	98	95	87

SELECTION TABLE - KDN 50

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24	40	60	80	100
	Q=l/min	0	33	67	100	133	167	200	267	333	400	667	1000	1333	1667
KDN 50-330 / 270	H (m)	95								95	94	93	85	64	
KDN 50-330 / 290		115								115	114	113	106	88	
KDN 50-330 / 310		132								132	132	132	128	114	100
KDN 50-330 / 328		157								157	156	156	154	145	137

SELECTION TABLE - KDN 65

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24	40	60	80	100	120	130
	Q=l/min	0	33	67	100	133	167	200	267	333	400	667	1000	1333	1667	2000	2167
KDN 65-250 / 224	H (m)	67								66	66	66	64	61	56		
KDN 65-250 / 234		74								73	73	73	71	67	62	55	
KDN 65-250 / 244		81								81	80	80	79	76	71	65	
KDN 65-250 / 254		89								89	89	89	88	85	81	75	71
KDN 65-250 / 264		100								100	99	99	98	95	91	85	80
KDN 65-330 / 270		92								92	91	91	89	83	74		
KDN 65-330 / 290		110								110	109	108	105	100	92		
KDN 65-330 / 310		128								128	128	128	125	122	116	105	
KDN 65-330 / 328		150								150	149	149	148	144	139	128	

SELECTION TABLE - KDN 80

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24	40	60	80	100	120	130	150	180	200	
	Q=l/min	0	33	67	100	133	167	200	267	333	400	667	1000	1333	1667	2000	2167	2500	3000	3333	
KDN 80-250 / 224	H (m)	65										64	64	64	62	60	58	54			
KDN 80-250 / 234		71											71	71	71	69	67	65	61	55	
KDN 80-250 / 244		79											79	78	78	77	74	72	69	62	
KDN 80-250 / 254		87											87	86	86	85	83	80	78	72	
KDN 80-250 / 264		98											97	97	96	95	94	92	90	86	81
KDN 80-330 / 270		93											92	92	90	89	86	84	80	68	
KDN 80-330 / 290		108											107	107	106	105	102	100	96	85	
KDN 80-330 / 310		127											126	126	125	125	123	122	120	111	
KDN 80-330 / 328		148											147	147	146	146	143	142	139	130	123

KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 100

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24	40	60	80	100	120	130	150	180	200	260	280	300	
	Q=l/min	0	33	67	100	133	167	200	267	333	400	667	1000	1333	1667	2000	2167	2500	3000	3333	4333	4667	5000	
KDN 100-250 / 224	H (m)	63										63	63	63	62	62	61	61	59	57				
KDN 100-250 / 234		71											71	71	71	70	70	70	69	68	65	55		
KDN 100-250 / 244		77											77	77	77	77	77	76	76	75	72	63		
KDN 100-250 / 254		86											86	86	86	86	85	85	84	83	81	74	70	
KDN 100-250 / 264		94											94	94	93	93	93	92	92	91	89	84	80	
KDN 100-330 / 270		93														92	92	91	90	88	85	70		
KDN 100-330 / 290		110														109	109	108	107	105	102	90	85	
KDN 100-330 / 310		129														128	128	127	127	125	123	112	107	102
KDN 100-330 / 328		148														148	148	147	147	146	145	137	135	120

SELECTION TABLE - KDN 125

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24	40	60	80	100	120	130	150	180	200	260	280	300	400	450	
	Q=l/min	0	33	67	100	133	167	200	267	333	400	667	1000	1333	1667	2000	2167	2500	3000	3333	4333	4667	5000	6667	7500	
KDN 125-250 / 220	H (m)	60													59	59	59	58	57	56	55	53	49			
KDN 125-250 / 235		72														71	71	71	70	70	69	68	66	62		
KDN 125-250 / 250		83														82	82	82	82	82	81	80	79	77	68	
KDN 125-250 / 264		97														97	97	97	97	97	96	95	94	93	86	
KDN 125-330 / 270		96														96	96	96	96	95	94	93	90	87	68	
KDN 125-330 / 290		112														112	112	111	111	110	110	109	107	104	92	
KDN 125-330 / 300		122														122	122	121	121	121	120	119	118	117	106	98
KDN 125-330 / 310		132														132	132	132	132	131	131	130	130	128	120	110

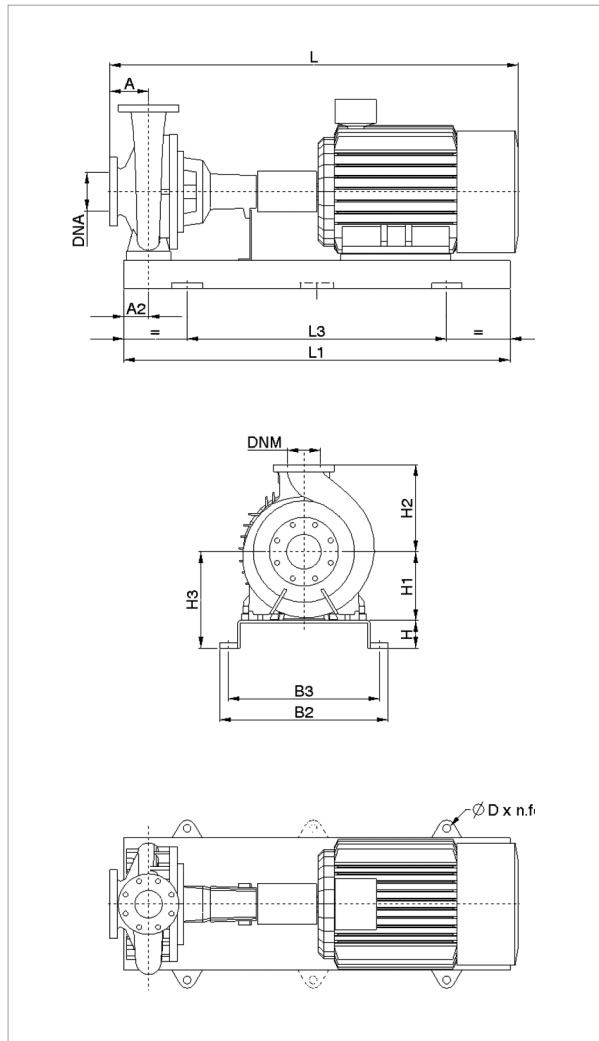
SELECTION TABLE - KDN 150

MODEL	Q=m ³ /h	0	2	4	6	8	10	12	16	20	24	40	60	80	100	120	130	150	180	200	260	280	300	400	450	500	600
	Q=l/min	0	33	67	100	133	167	200	267	333	400	667	1000	1333	1667	2000	2167	2500	3000	3333	4333	4667	5000	6667	7500	8334	10000
KDN 150-250 / 220	H (m)	54													54	53	53	53	53	53	53	52	51	47	45	43	
KDN 150-250 / 235		62													62	62	61	61	61	61	61	60	59	56	54	51	
KDN 150-250 / 250		72													72	72	72	72	72	72	72	71	71	68	67	64	56
KDN 150-250 / 264		87													87	87	86	86	86	86	86	85	85	83	81	79	74

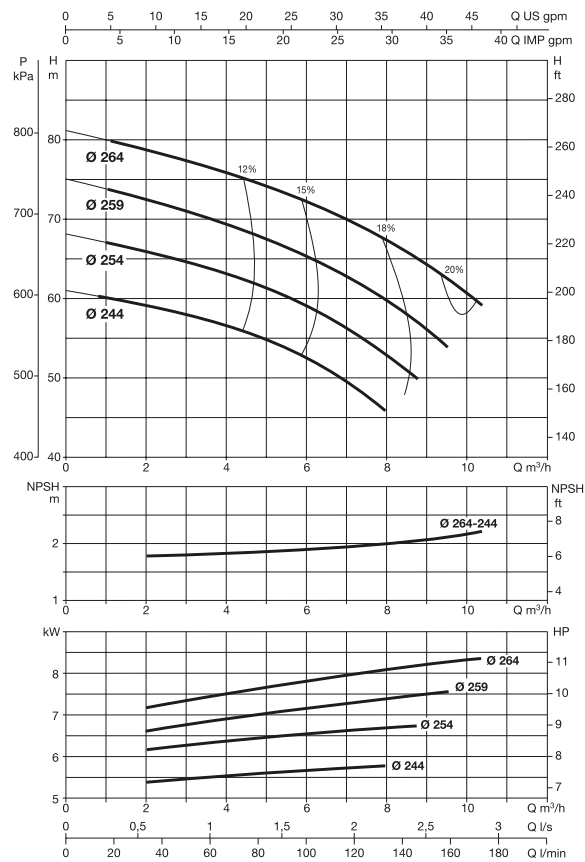
KDN 32-250A - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 32-250A	1.5	90S	3 x 230 - 400 V ~	5.80/3.35	-	IE2
	2.2	90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	100L	3 x 400 V - Δ	5.85	-	IE2
	5.5	132S	3 x 400 V - Δ	10.40	-	IE2
	7.5	132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3

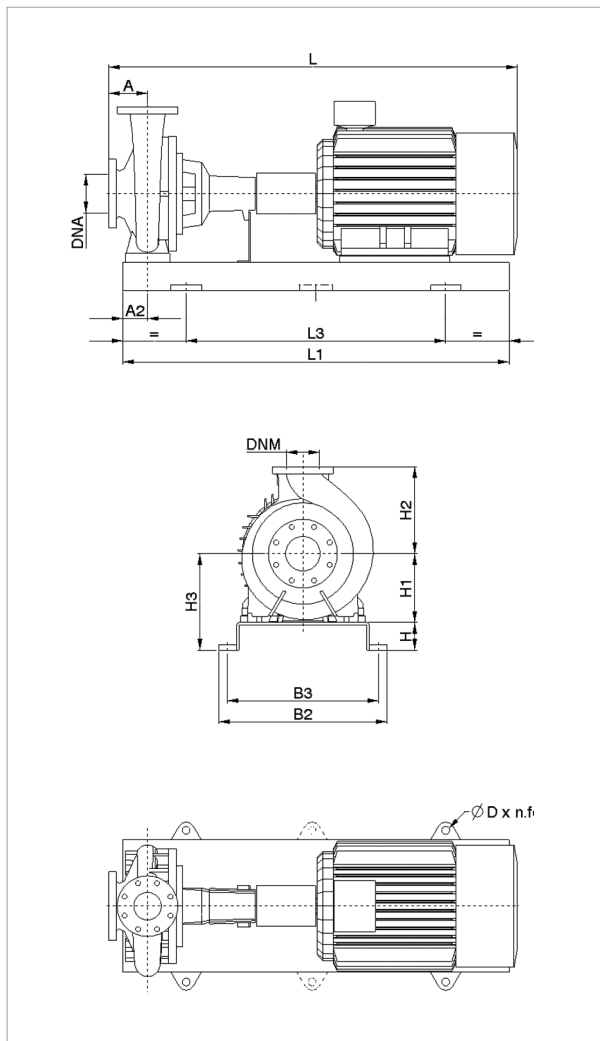
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 32-250A	1.5	100	75	80	180	225	260	1000	660	450	400	24x4	50	32	924	140.2	-	-	1025	141.8	-	-	4
	2.2	100	75	80	180	225	260	1000	660	450	400	24x4	50	32	949	144.2	-	-	1050	145.8	-	-	4
	3	100	75	80	180	225	260	1000	660	450	400	24x4	50	32	989	154.2	-	-	1090	155.7	-	-	4
	5.5	100	75	80	180	225	260	1120	740	490	440	24x4	50	32	1074	194.3	-	-	1175	196.1	-	-	5
	7.5	100	75	80	180	225	260	1120	740	490	440	24x4	50	32	1074	198	1124	174	1175	217	1225	193	5
	11	100	75	80	180	225	260	1250	840	540	490	24x4	50	32	1219	259	1269	236	1320	274	1370	251	6

Dimension and electrical data based on sizing definition following the instructions on page 176.

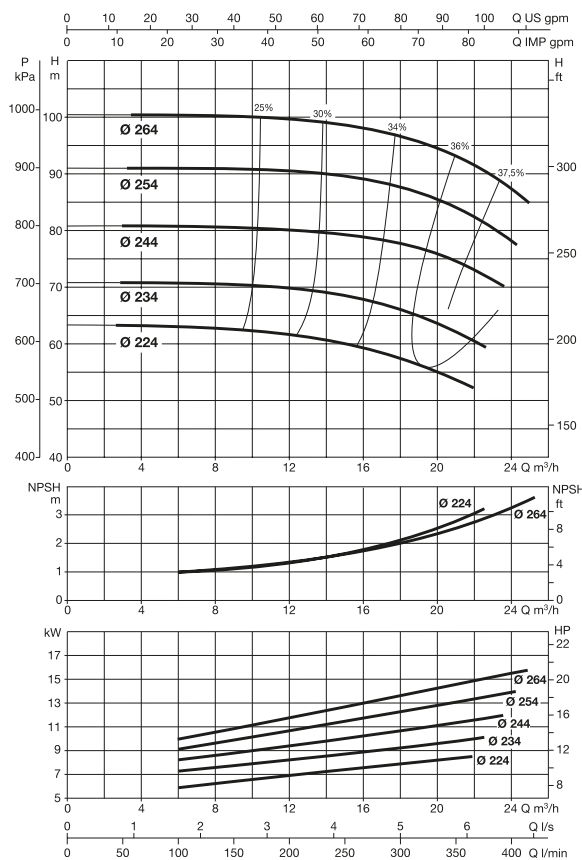
KDN 32-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 32-250	1.5	90S	3 x 230 - 400 V ~	5.80/3.35	-	IE2
	2.2	90L	3 x 230 - 400 V ~	8.23/4.75	-	IE2
	3	100L	3 x 400 V - Δ	5.85	-	IE2
	5.5	132S	3 x 400 V - Δ	10.40	-	IE2
	7.5	132S	3 x 400 V - Δ	14	13.4	IE2 / IE3
	11	160M	3 x 400 V - Δ	20.2	19.4	IE2 / IE3
	15	160M	3 x 400 V - Δ	27	26.5	IE2 / IE3
	18.5	160L	3 x 400 V - Δ	33	32	IE2 / IE3

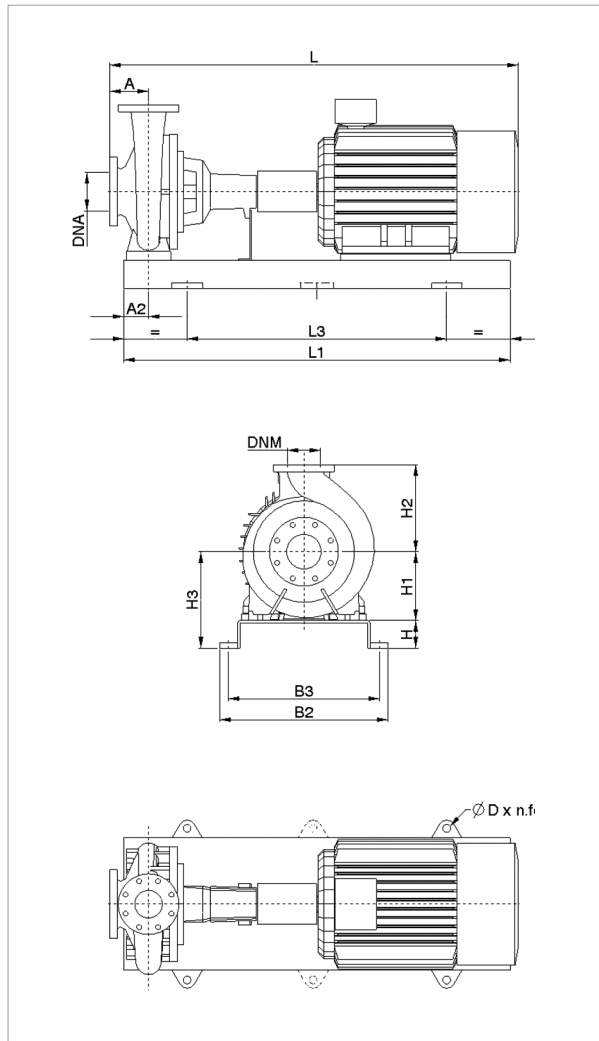
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		-		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg						
KDN 32-250	1.5	100	75	80	180	225	260	1000	660	450	400	24x4	50	32	924	140.2	-	-	1025	141.8	-	-	4
	2.2	100	75	80	180	225	260	1000	660	450	400	24x4	50	32	949	144.2	-	-	1050	145.8	-	-	4
	3	100	75	80	180	225	260	1000	660	450	400	24x4	50	32	989	154.2	-	-	1090	155.7	-	-	4
	5.5	100	75	80	180	225	260	1120	740	490	440	24x4	50	32	1074	191	-	-	1175	191	-	-	5
	7.5	100	75	80	180	225	260	1120	740	490	440	24x4	50	32	1074	198	1124	174	1175	217	1225	193	5
	11	100	75	80	180	225	260	1250	840	540	490	24x4	50	32	1219	259	1269	236	1320	274	1370	251	6
	15	100	75	80	180	225	260	1250	840	540	490	24x4	50	32	1219	273	1269	246	1320	288	1370	261	6
	18.5	100	75	80	180	225	260	1250	840	540	490	24x4	50	32	1274	295	1324	263	1375	310	1425	278	6

Dimension and electrical data based on sizing definition following the instructions on page 176.

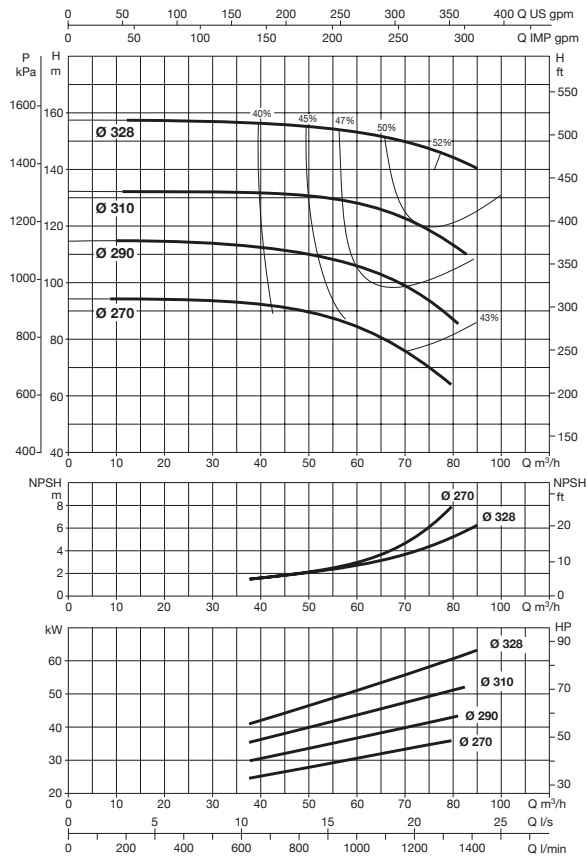
KDN 50-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 50-330	22	180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3

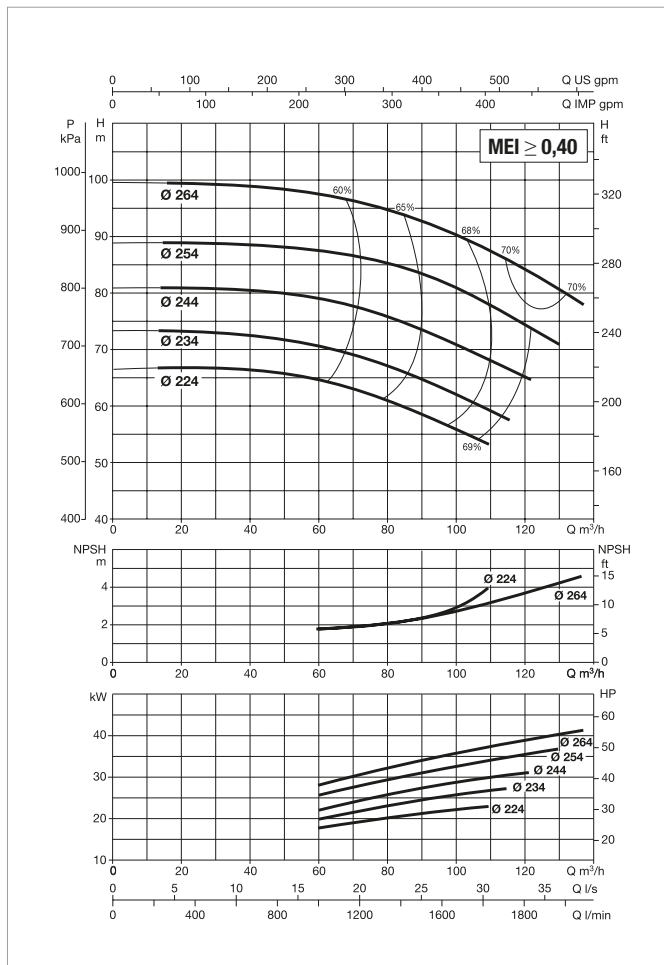
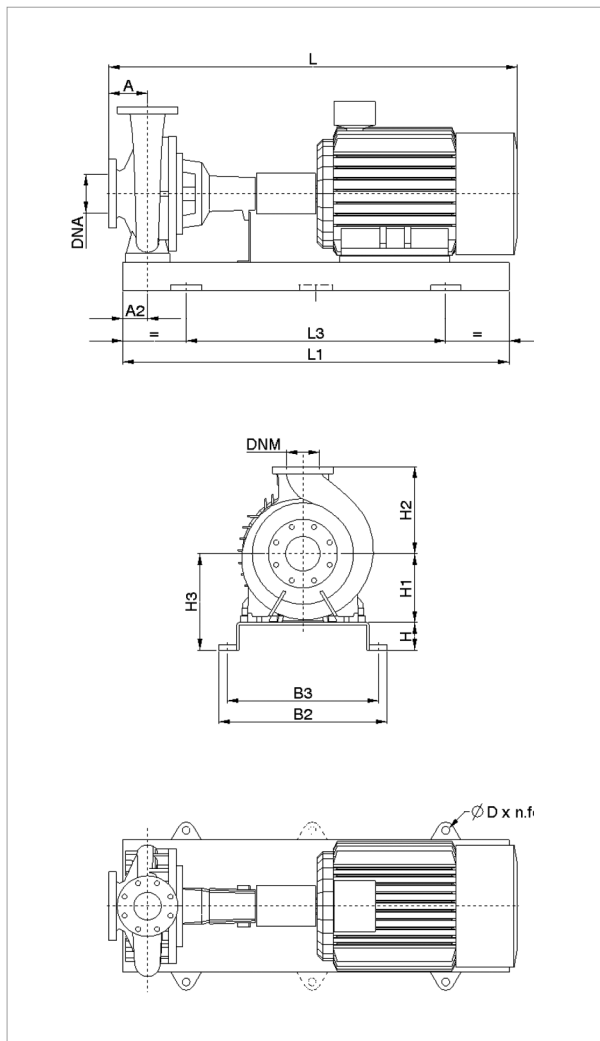
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg				
KDN 50-330	22	125	75	80	225	280	305	1250	840	540	490	24x4	80	50	1319	364	1369	322	1420	379	1470	337	6
	30	125	75	100	225	280	325	1400	940	610	550	28x4	80	50	1399	429	1449	441	1500	444	1550	402	7
	37	125	75	100	225	280	325	1400	940	610	550	28x4	80	50	1399	446	1449	471	1500	461	1550	486	7
	45	125	75	100	225	280	325	1400	940	610	550	28x4	80	50	1474	502	1545	541	1575	517	1646	556	7
	55	125	75	100	250	280	350	1600	1060	660	600	28x4	80	50	1404	618	1475	663	1505	633	1576	678	8
	75	125	75	100	280	280	380	1800	1200	730	670	28x4	80	50	1599	841	1670	839	1700	856	1771	854	9
	90	125	75	100	280	280	380	1800	1200	730	670	28x4	80	50	1649	892	1720	874	1750	907	1821	889	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 65-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 65-250	22	180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 65-250	22	125	90	80	200	250	280	1250	840	540	490	24x4	100	65	1319	336	1369	294	1460	351	1510	309	6
	30	125	90	100	200	250	300	1400	940	610	550	28x4	100	65	1399	401	1449	413	1540	416	1590	428	7
	37	125	90	100	200	250	300	1400	940	610	550	28x4	100	65	1399	418	1449	443	1540	433	1590	458	7
	45	125	90	100	225	250	325	1400	940	610	550	28x4	100	65	1474	474	1545	513	1615	489	1686	528	7
	55	125	90	100	250	250	350	1600	1060	660	600	28x4	100	65	1404	590	1475	635	1545	605	1616	650	8

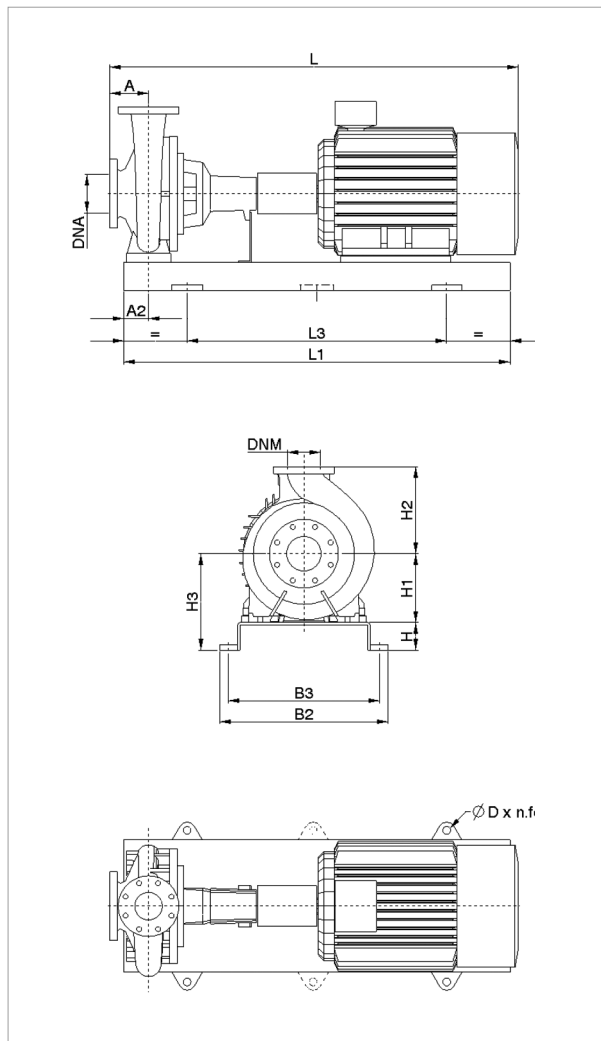
Dimension and electrical data based on sizing definition following the instructions on page 176.



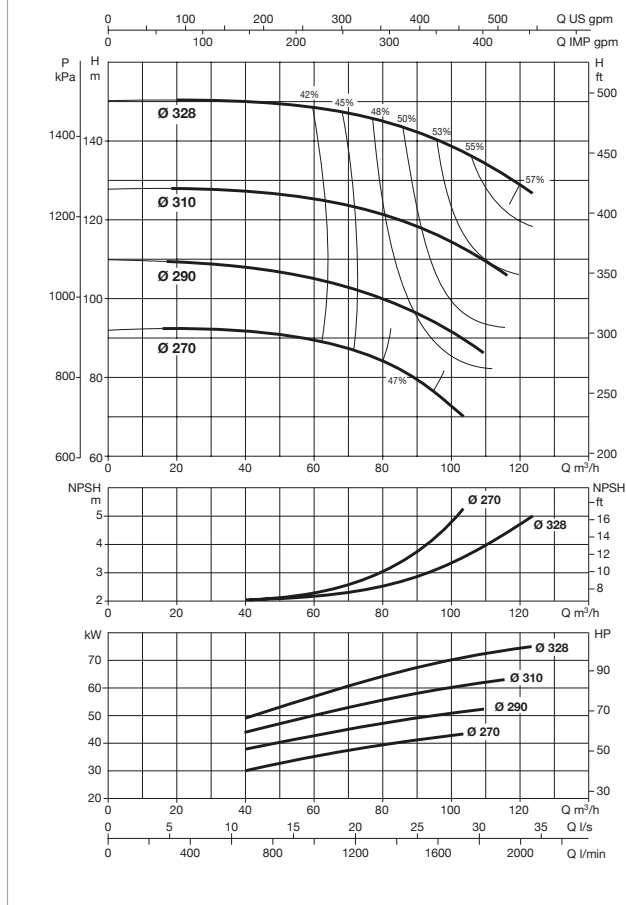
KDN 65-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 65-330	22	180M	3 x 400 V - Δ	39.5	38	IE2 / IE3
	30	200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V - Δ	188	184	IE2 / IE3

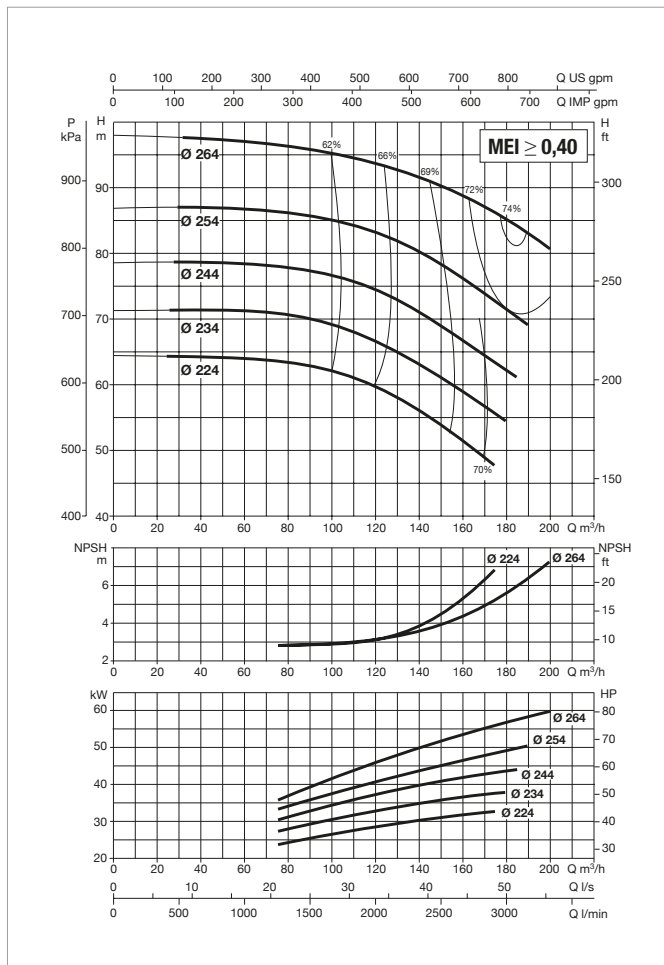
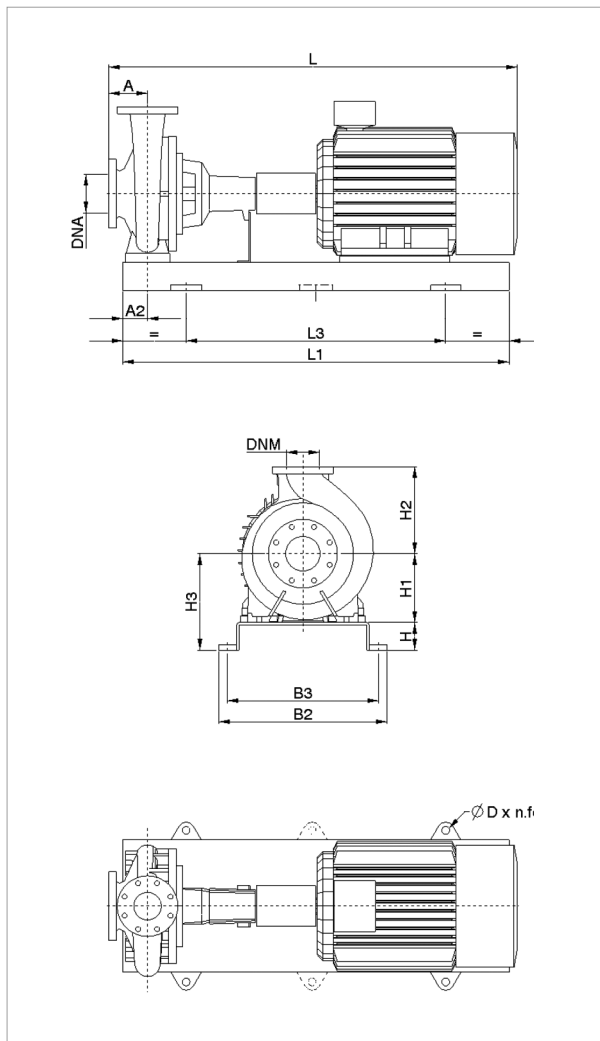
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg				
KDN 65-330	22	125	90	100	225	280	325	1400	940	610	550	28x4	100	65	1349	419	1399	377	1490	434	1540	392	7
	30	125	90	100	225	280	325	1400	940	610	550	28x4	100	65	1429	465	1479	477	1570	480	1620	492	7
	37	125	90	100	225	280	325	1400	940	610	550	28x4	100	65	1429	482	1479	507	1570	497	1620	522	7
	45	125	90	100	225	280	325	1600	1060	660	600	28x4	100	65	1504	555	1575	594	1645	570	1716	609	8
	55	125	90	100	250	280	350	1600	1060	660	600	28x4	100	65	1434	654	1505	699	1575	669	1646	714	8
	75	125	90	100	280	280	380	1800	1200	730	670	28x4	100	65	1629	894	1700	892	1770	909	1841	907	9
	90	125	90	100	280	280	380	1800	1200	730	670	28x4	100	65	1679	1014	1750	996	1820	1029	1891	1011	9
	110	125	90	120	315	280	435	2000	1340	910	830	28x4	100	65	1899	1314	1987	1419	2040	1329	2128	1434	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 80-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 80-250	30	200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3

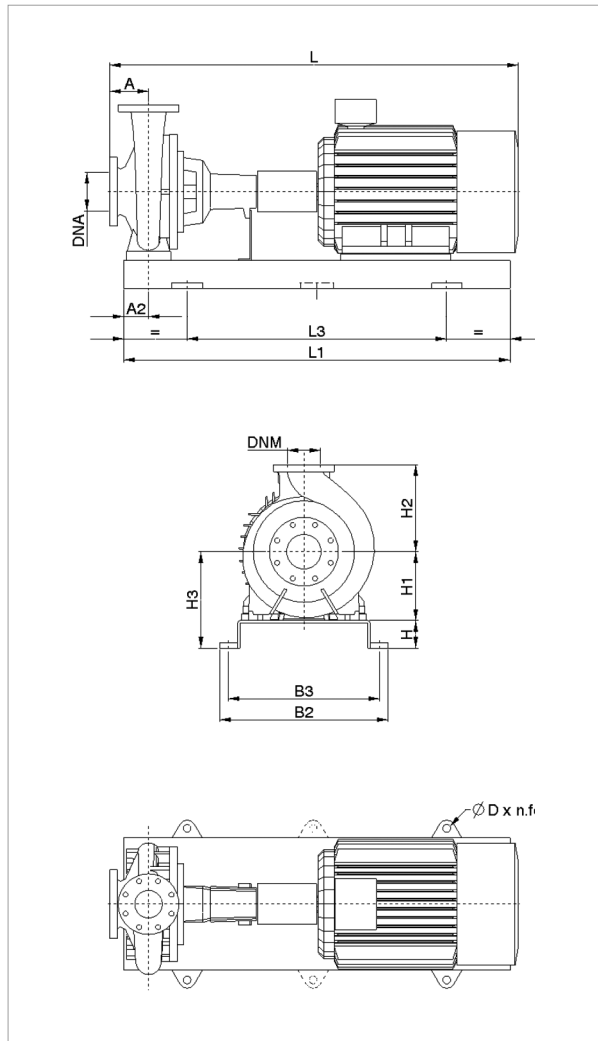
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 80-250	30	125	90	100	225	280	325	1400	940	610	550	28x4	125	80	1399	413	1449	425	1540	428	1590	440	7
	37	125	90	100	225	280	325	1400	940	610	550	28x4	125	80	1399	430	1470	455	1540	445	1611	470	7
	45	125	90	100	225	280	325	1400	940	610	550	28x4	125	80	1474	486	1545	525	1615	501	1686	540	7
	55	125	90	100	250	280	350	1600	1060	660	600	28x4	125	80	1404	602	1475	647	1545	617	1616	662	8
	75	125	90	100	280	280	380	1800	1200	730	670	28x4	125	80	1599	842	1670	840	1740	857	1811	855	9
	90	125	90	100	280	280	380	1800	1200	730	670	28x4	125	80	1649	962	1720	944	1790	977	1861	959	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

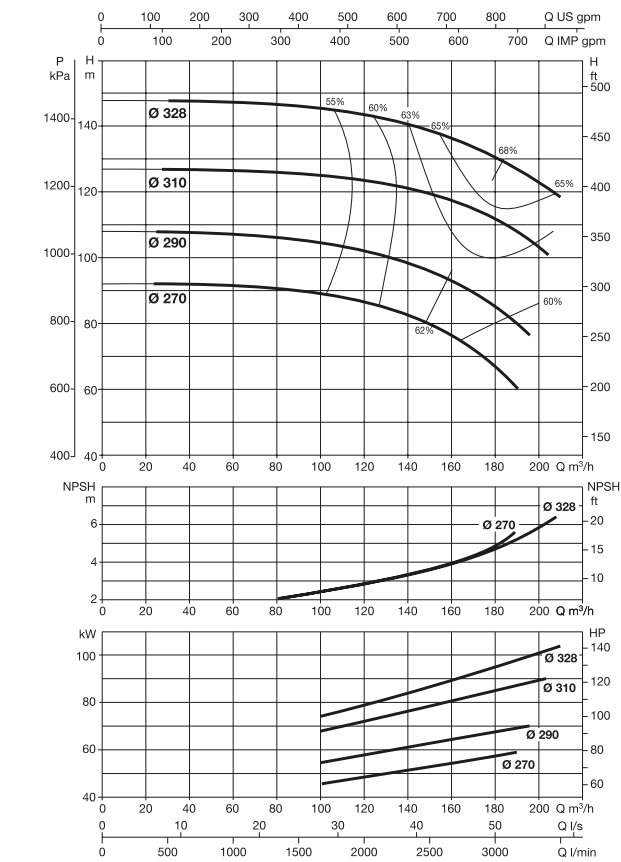
KDN 80-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 80-330	30	200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V - Δ	188	184	IE2 / IE3
	132	315M	3 x 400 V - Δ	220	220	IE2 / IE3
160	315L	3 x 400 V - Δ	265	265	IE2 / IE3	

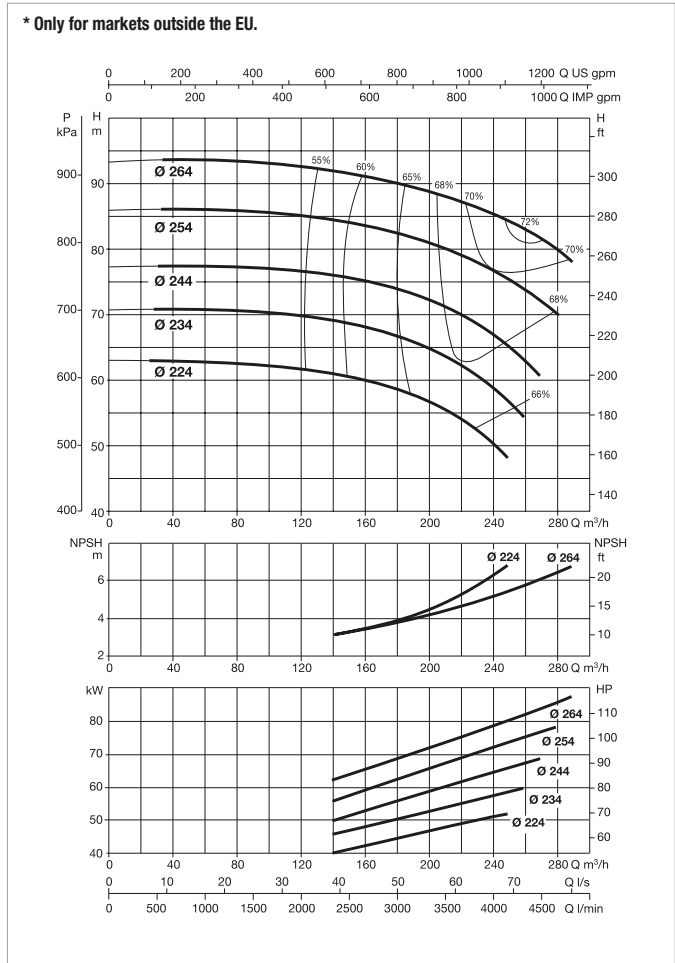
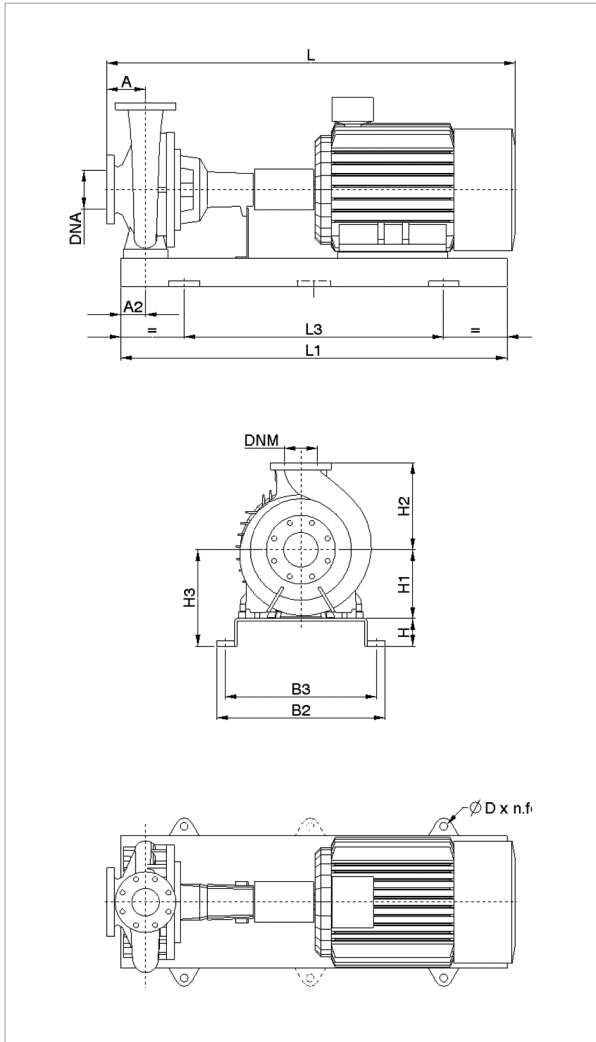
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
		IE2	IE3	IE2	IE3	IE2	IE3																
KDN 80-330	30	125	90	100	250	315	350	1400	940	610	550	28x4	125	80	1429	468	1479	480	1570	483	1620	495	7
	37	125	90	100	250	315	350	1400	940	610	550	28x4	125	80	1429	485	1500	510	1570	500	1641	525	7
	45	125	90	100	250	315	350	1600	1060	660	600	28x4	125	80	1504	558	1575	597	1645	573	1716	612	8
	55	125	90	100	250	315	350	1600	1060	660	600	28x4	125	80	1434	657	1505	702	1575	672	1646	717	8
	75	125	90	100	280	315	380	1800	1200	730	670	28x4	125	80	1629	897	1700	895	1770	912	1841	910	9
	90	125	90	100	280	315	380	1800	1200	730	670	28x4	125	80	1679	1017	1750	999	1820	1032	1891	1014	9
	110	125	90	120	315	315	435	2000	1340	910	830	28x4	125	80	1899	1317	1987	1422	2040	1332	2128	1437	10
	132	125	95	190	315	315	505	1550	1250	680	635	20x4	125	80	2039	1345	2127	1405	2180	1360	2268	1420	11
160	125	95	190	315	315	505	1550	1250	680	635	20x4	125	80	2039	1450	2127	1545	2180	1465	2268	1560	11	

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 100-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	2 POLES			IE2	IE3	
KDN 100-250	30	200L	3 x 400 V - Δ	52	52	IE2 / IE3
	37	200L	3 x 400 V - Δ	64	63	IE2 / IE3
	45	225M	3 x 400 V - Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V - Δ	188	184	IE2 / IE3
132	315M	3 x 400 V - Δ	220	220	IE2 / IE3	

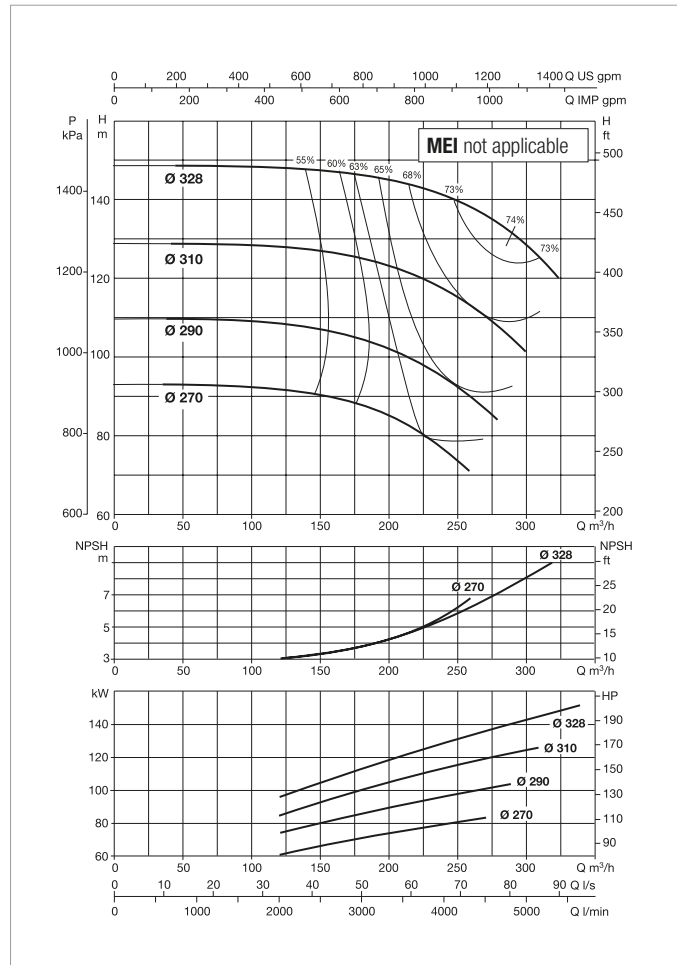
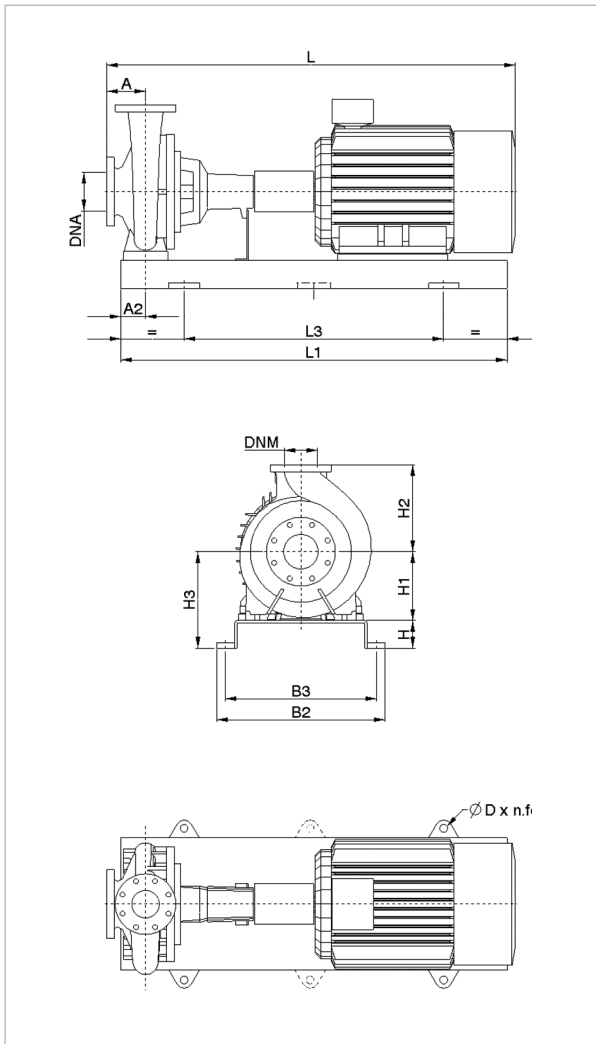
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg														
KDN 100-250	30	140	90	100	225	280	325	1400	940	610	550	28x4	125	100	1444	443	1494	455	1585	458	1635	470	7
	37	140	90	100	225	280	325	1400	940	610	550	28x4	125	100	1444	460	1515	485	1585	475	1656	500	7
	45	140	90	100	225	280	325	1600	1060	660	600	28x4	125	100	1519	533	1590	572	1660	548	1731	587	8
	55	140	90	100	250	280	350	1600	1060	660	600	28x4	125	100	1449	632	1520	677	1590	647	1661	692	8
	75	140	90	100	280	280	380	1800	1200	730	670	28x4	125	100	1644	872	1715	870	1785	887	1856	885	9
	90	140	90	100	280	280	380	1800	1200	730	670	28x4	125	100	1694	992	1765	974	1835	1007	1906	989	9
	110	140	90	120	315	280	435	2000	1340	910	830	28x4	125	100	1914	1292	2002	1397	2055	1307	2143	1412	10
	132	140	110	165	315	280	480	1550	1250	680	635	20x4	125	100	2054	1320	2142	1380	2195	1335	2283	1395	11

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 100-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 100-330	45	225M	3 x 400 V ~ Δ	78.5	76	IE2 / IE3
	55	250M	3 x 400 V ~ Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V ~ Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V ~ Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V ~ Δ	188	184	IE2 / IE3
	132	315M	3 x 400 V ~ Δ	220	220	IE2 / IE3
	160	315L	3 x 400 V ~ Δ	265	265	IE2 / IE3
	200	315L	3 x 400 V ~ Δ	330	330	IE2 / IE3

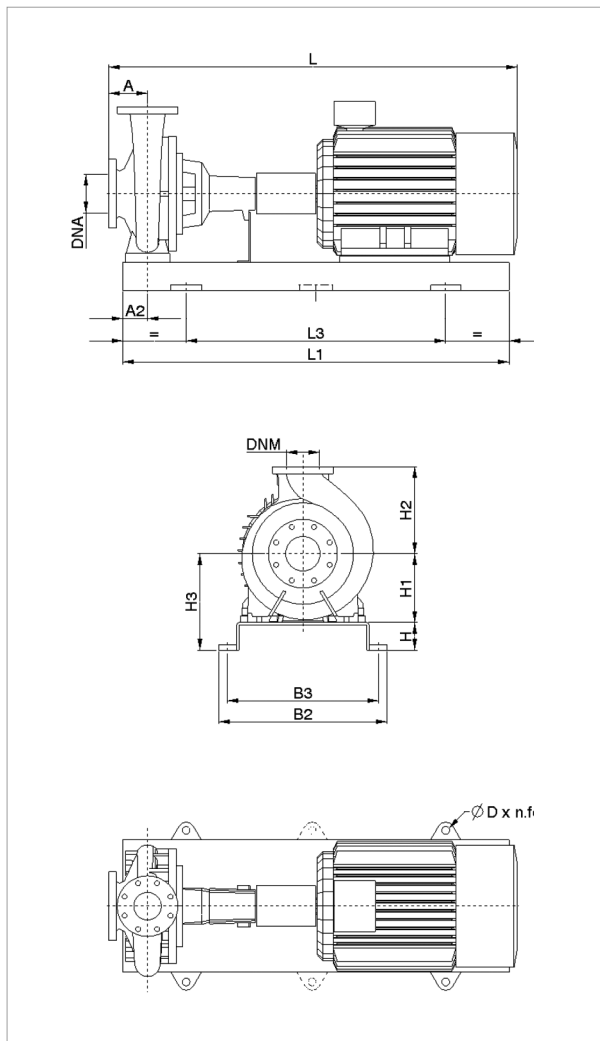
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 100-330	45	140	90	100	250	315	350	1600	1060	660	600	28x4	125	100	1519	573	1590	612	1660	588	1731	627	8
	55	140	90	100	250	315	350	1600	1060	660	600	28x4	125	100	1449	672	1520	717	1590	687	1661	732	8
	75	140	90	100	280	315	380	1800	1200	730	670	28x4	125	100	1644	912	1715	910	1785	927	1856	925	9
	90	140	90	100	280	315	380	1800	1200	730	670	28x4	125	100	1694	1032	1765	1014	1835	1047	1906	1029	9
	110	140	90	120	315	315	435	2000	1340	910	830	28x4	125	100	1914	1332	2002	1437	2055	1347	2143	1452	10
	132	140	95	190	315	315	505	1550	1250	680	635	20x4	125	100	2054	1360	2142	1420	2195	1375	2283	1435	11
	160	140	95	190	315	315	505	1550	1250	680	635	20x4	125	100	2054	1465	2142	1560	2195	1480	2283	1575	11
	200	140	95	190	315	315	505	1550	1250	680	635	20x4	125	100	2054	1505	2142	1600	2195	1520	2283	1615	11

Dimension and electrical data based on sizing definition following the instructions on page 176.

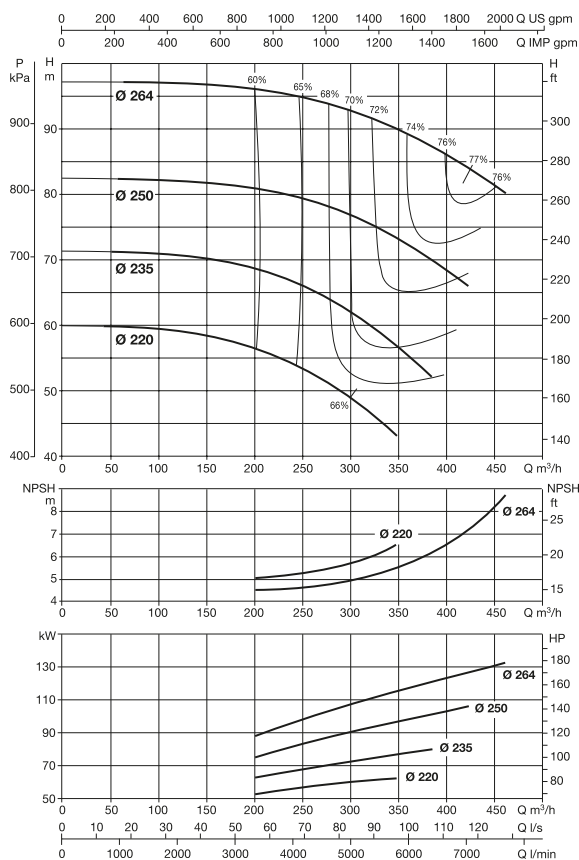
KDN 125-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 125-250	55	250M	3 x 400 V - Δ	94	95	IE2 / IE3
	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V - Δ	188	184	IE2 / IE3
	132	315M	3 x 400 V - Δ	220	220	IE2 / IE3
	160	315L	3 x 400 V - Δ	265	265	IE2 / IE3

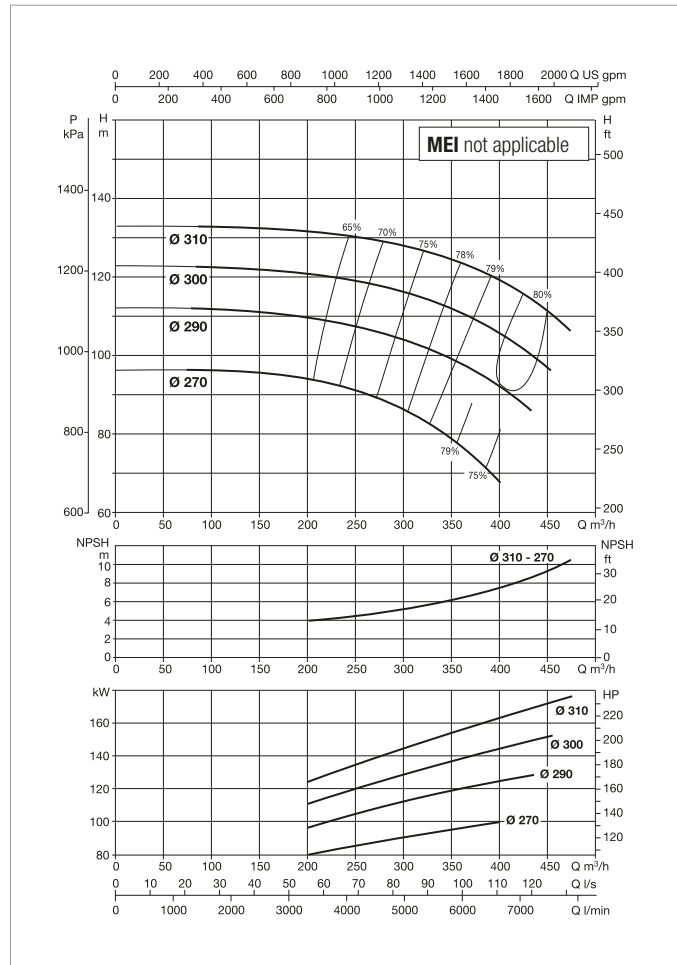
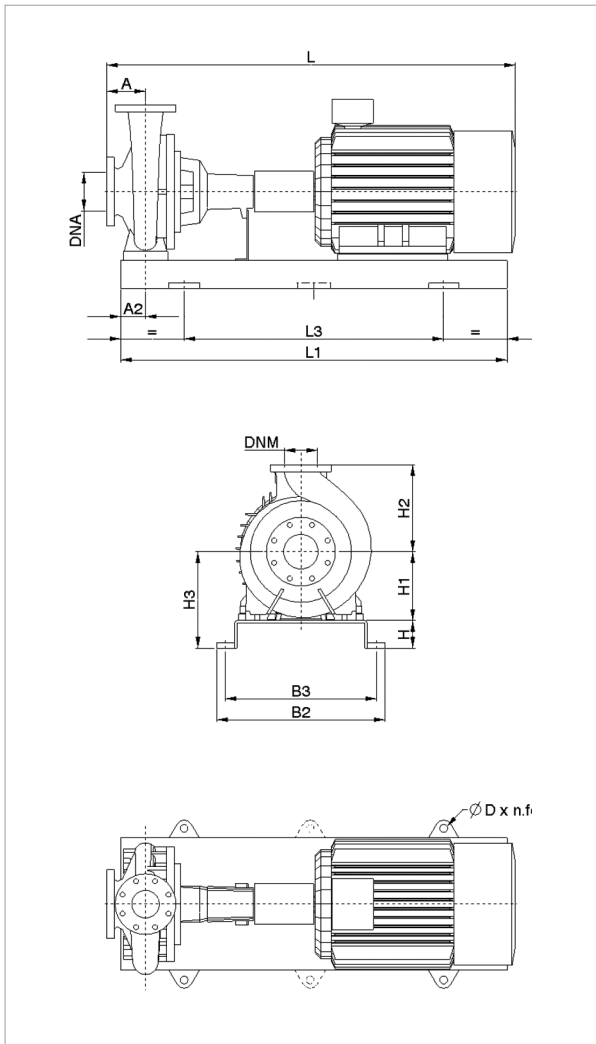
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 125-250	55	140	90	100	250	355	350	1600	1060	660	600	28x4	150	125	1449	642	1520	687	1590	657	1661	702	8
	75	140	90	100	280	355	380	1800	1200	730	670	28x4	150	125	1644	882	1715	880	1785	897	1856	895	9
	90	140	90	100	280	355	380	1800	1200	730	670	28x4	150	125	1694	1002	1765	984	1835	1017	1906	999	9
	110	140	90	120	315	355	435	2000	1340	910	830	28x4	150	125	1914	1302	2002	1407	2055	1317	2143	1422	10
	132	140	95	190	315	355	505	1550	1250	680	635	20x4	150	125	2054	1330	2142	1390	2195	1345	2283	1405	11
	160	140	95	190	315	355	505	1550	1250	680	635	20x4	150	125	2054	1435	2142	1530	2195	1450	2283	1545	11

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 125-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 125-330	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V - Δ	188	184	IE2 / IE3
	132	315M	3 x 400 V - Δ	220	220	IE2 / IE3
	160	315L	3 x 400 V - Δ	265	265	IE2 / IE3
	200	315L	3 x 400 V - Δ	330	330	IE2 / IE3

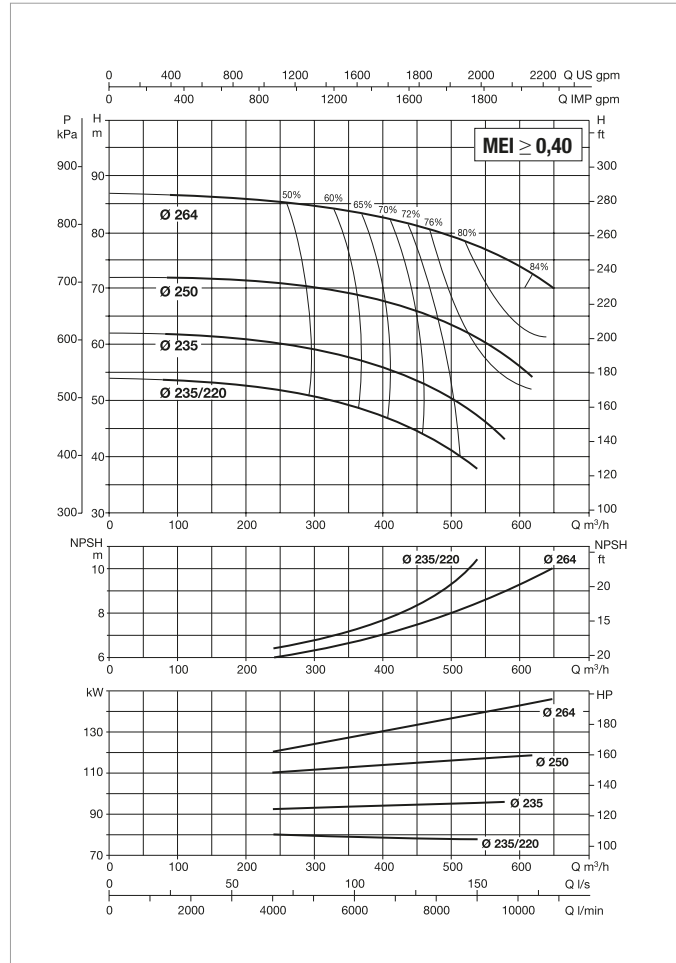
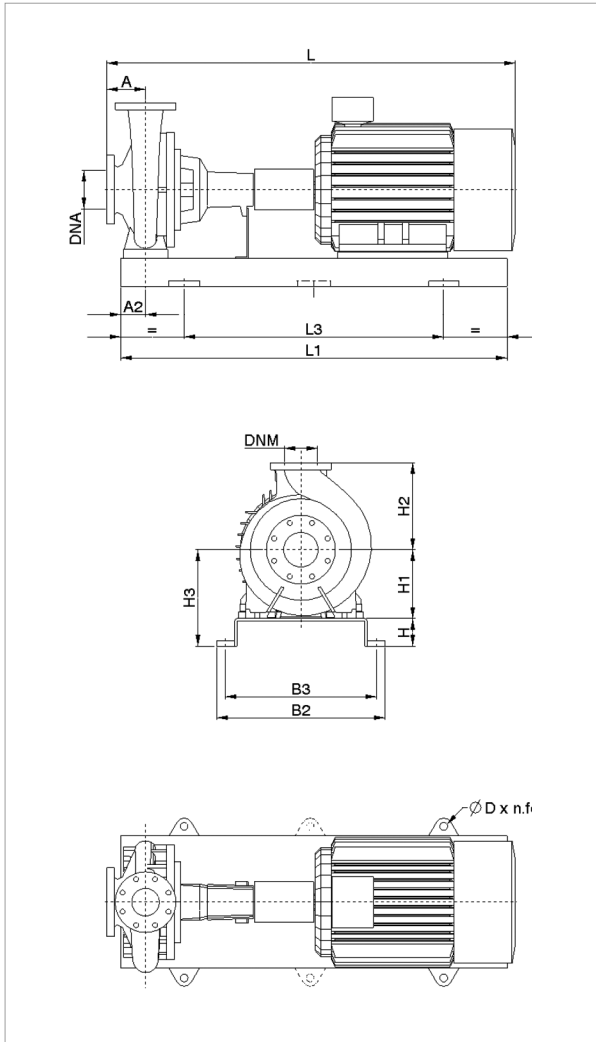
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 125-330	75	140	110	100	280	355	380	1800	1200	730	670	28x4	150	125	1644	932	1715	930	1785	947	1856	945	9
	90	140	110	100	280	355	380	1800	1200	730	670	28x4	150	125	1694	1052	1765	1034	1835	1067	1906	1049	9
	110	140	110	120	315	355	435	2000	1340	910	830	28x4	150	125	1914	1352	2002	1457	2055	1367	2143	1472	10
	132	140	115	220	315	355	535	1570	1270	680	635	20x4	150	125	2054	1420	2142	1480	2195	1435	2283	1495	12
	160	140	115	220	315	355	535	1570	1270	680	635	20x4	150	125	2054	1525	2142	1620	2195	1540	2283	1635	12
	200	140	115	220	315	355	535	1570	1270	680	635	20x4	150	125	2054	1565	2142	1660	2195	1580	2283	1675	12

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 2 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-250	75	280S	3 x 400 V - Δ	130	124	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	148	IE2 / IE3
	110	315S	3 x 400 V - Δ	188	184	IE2 / IE3
	132	315M	3 x 400 V - Δ	220	220	IE2 / IE3
	160	315L	3 x 400 V - Δ	265	265	IE2 / IE3
	200	315L	3 x 400 V - Δ	330	330	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNa	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 150-250	75	160	110	100	280	375	380	1800	1200	730	670	28x4	200	150	1664	922	1735	920	1845	937	1916	935	9
	90	160	110	100	280	375	380	1800	1200	730	670	28x4	200	150	1714	1042	1785	1024	1895	1057	1966	1039	9
	110	160	110	120	315	375	435	2000	1340	910	830	28x4	200	150	1934	1342	2022	1447	2115	1357	2203	1462	10
	132	160	115	220	315	375	535	1570	1270	680	635	20x4	200	150	2074	1410	2162	1470	2255	1425	2343	1485	12
	160	160	115	220	315	375	535	1570	1270	680	635	20x4	200	150	2074	1515	2162	1610	2255	1530	2343	1625	12
	200	160	115	220	315	375	535	1570	1270	680	635	20x4	200	150	2074	1555	2162	1650	2255	1570	2343	1665	12

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/ Mn	POLES
						230	400				
MEC 71	0.25	2790	69.81	0.778	3 x 230/400	1.15	0.67	5.06	2.90	3.01	2
MEC 71	0.37	2820	72.79	0.783	3 x 230/400	1.61	0.93	5.40	2.69	2.99	2
MEC 80	0.55	2810	76.97	0.800	3 x 230/400	2.23	1.29	6.41	3.43	3.13	2
MEC 80	0.75	2880	81.52	0.823	3 x 230/400	2.81	1.62	7.93	3.47	3.33	2
MEC 80	1.10	2870	81.82	0.826	3 x 230/400	4.07	2.36	7.92	3.42	3.25	2
MEC 90S	1.50	2880	82.95	0.794	3 x 230/400	5.80	3.35	8.85	4.18	3.80	2
MEC 90L	2.20	2870	83.41	0.811	3 x 230/400	8.23	4.75	8.31	3.87	1.87	2

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/ Mn	POLES
						400	690				
MEC 100L	3.00	2880	86.25	0.861	3 x 400 Δ	5.85	3.40	8.93	3.17	3.70	2
MEC 112M	4.00	2910	87.10	0.856	3 x 400 Δ	8.05	4.65	9.14	2.99	3.53	2
MEC 132S	5.50	2910	88.40	0.873	3 x 400 Δ	10.40	6.00	7.77	2.53	3.26	2
MEC 132S	7.50	2900	88.40	0.882	3 x 400 Δ	14.00	8.08	7.62	2.34	3.11	2
MEC 160M	11.00	2930	89.82	0.890	3 x 400 Δ	20.20	11.66	6.24	2.16	2.79	2
MEC 160M	15.00	2940	90.46	0.890	3 x 400 Δ	27.00	15.59	7.03	2.57	3.02	2
MEC 160L	18.50	2940	91.49	0.893	3 x 400 Δ	33.00	19.05	7.27	2.69	3.21	2
MEC 180M	22.00	2960	92.05	0.875	3 x 400 Δ	39.50	23.00	8.33	2.80	3.43	2
MEC 200L	30.00	2950	92.50	0.899	3 x 400 Δ	52.00	30.02	7.79	2.37	3.06	2
MEC 200L	37.00	2960	92.90	0.897	3 x 400 Δ	64.00	36.95	7.62	2.50	3.22	2
MEC 225M	45.00	2960	92.94	0.901	3 x 400 Δ	78.50	45.32	6.73	2.40	2.85	2
MEC 250M	55.00	2970	93.97	0.900	3 x 400 Δ	94.00	54.50	8.33	2.42	3.04	2
MEC 280S	75.00	2980	94.12	0.895	3 x 400 Δ	130.00	74.50	7.73	2.36	3.21	2
MEC 280M	90.00	2980	94.51	0.918	3 x 400 Δ	154.00	89.00	7.97	2.80	3.44	2
MEC 315S	110.00	2980	94.53	0.893	3 x 400 Δ	188.00	110.00	8.06	2.53	3.53	2
MEC 315M	132.00	2970	94.80	0.923	3 x 400 Δ	220.00	130.00	6.18	2.14	2.77	2
MEC 315L	160.00	2970	94.80	0.926	3 x 400 Δ	265.00	155.00	5.96	2.12	2.65	2
MEC 315L	200.00	2970	95.20	0.925	3 x 400 Δ	330.00	190.00	5.78	2.10	2.55	2
MEC355M	250.00	2980	96.04	0.897	3 x 400 Δ	418.50	242.60	7.84	2.37	3.77	2
MEC355L	315.00	2980	96.43	0.903	3 x 400 Δ	521.50	302.30	7.96	2.36	3.81	2

KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE3 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 132S	7.50	2920	90.10	0.900	3 x 400 Δ	13.40	7.75	8.50	2.20	3.20	2
MEC 160M	11.00	2940	91.20	0.900	3 x 400 Δ	19.40	11.21	7.60	2.40	3.30	2
MEC 160M	15.00	2920	91.30	0.900	3 x 400 Δ	26.50	15.32	7.70	2.60	3.30	2
MEC 160L	18.50	2920	92.40	0.910	3 x 400 Δ	32.00	18.50	8.20	2.80	3.40	2
MEC 180M	22.00	2950	92.70	0.910	3 x 400 Δ	38.00	21.97	8.70	2.60	3.90	2
MEC 200L	30.00	2960	93.30	0.890	3 x 400 Δ	52.00	30.06	9.00	3.00	3.90	2
MEC 200L	37.00	2960	93.70	0.910	3 x 400 Δ	63.00	36.42	9.00	3.10	3.90	2
MEC 225M	45.00	2960	94.00	0.910	3 x 400 Δ	76.00	43.93	8.30	2.50	3.60	2
MEC 250M	55.00	2970	94.30	0.890	3 x 400 Δ	95.00	54.91	7.20	2.30	3.60	2
MEC 280S	75.00	2970	94.70	0.920	3 x 400 Δ	124.00	71.68	8.00	2.40	3.30	2
MEC 280M	90.00	2970	95.00	0.920	3 x 400 Δ	148.00	85.55	8.10	2.50	3.30	2
MEC 315S	110.00	2980	95.20	0.910	3 x 400 Δ	184.00	106.36	6.70	1.80	3.10	2
MEC 315M	132.00	2980	95.40	0.920	3 x 400 Δ	220.00	127.17	6.50	1.80	2.90	2
MEC 315L	160.00	2980	95.60	0.920	3 x 400 Δ	265.00	153.18	6.60	1.90	2.80	2
MEC 315L	200.00	2980	95.80	0.920	3 x 400 Δ	330.00	190.75	6.10	1.80	2.60	2
MEC 355M	250.00	2980	95.80	0.920	3 x 400 Δ	410.00	236.99	6.90	2.00	2.90	2
MEC 355L	315.00	2980	95.80	0.920	3 x 400 Δ	520.00	300.58	5.70	1.70	2.40	2

KDN OVERSIZE - 4 POLE RANGE

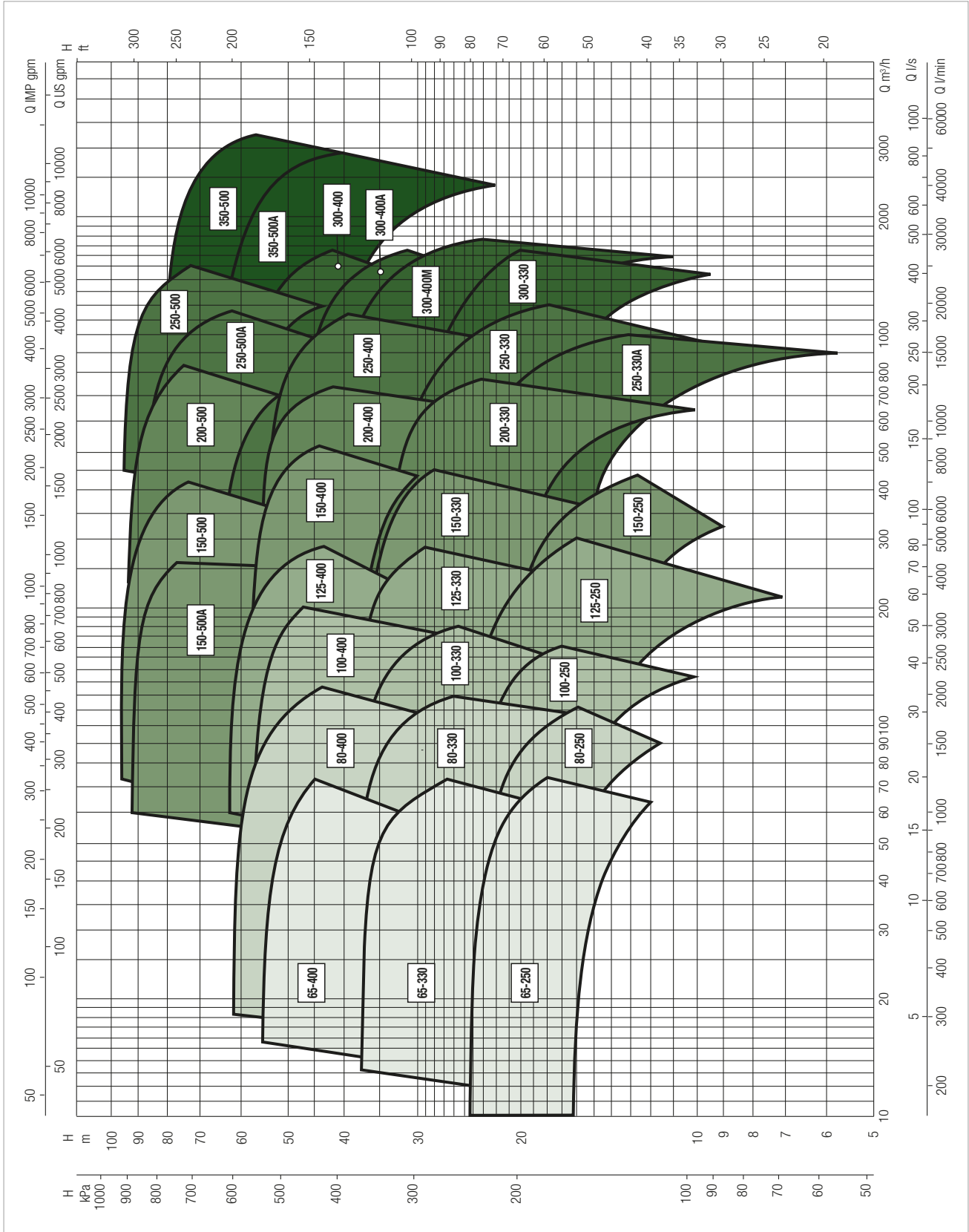
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 1450 1/min



KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 65

MODEL	Q=m ³ /h	0	10	20	30	40	50	60	70	80
	Q=l/min	0	167	333	500	667	833	1000	1167	1333
KDN 65-250 / 224	H (m)	16	16	16	15	15	14			
KDN 65-250 / 244		21	21	20	20	19	18	16		
KDN 65-250 / 264		25	25	25	24	24	23	21	19	17
KDN 65-330 / 270		23	23	23	22	21	19	15		
KDN 65-330 / 290		28	27	27	26	25	23	20		
KDN 65-330 / 310		32	32	32	32	31	29	26	22	
KDN 65-330 / 328		38	38	38	37	36	35	33	29	
KDN 65-400 / 350		38	38	38	37	36	34	31		
KDN 65-400 / 370		44	43	43	43	42	40	38		
KDN 65-400 / 390		50	50	50	49	48	46	44	42	
KDN 65-400 / 408		55	55	54	54	53	51	49	46	

SELECTION TABLE - KDN 80

MODEL	Q=m ³ /h	0	10	20	30	40	50	60	70	80	100	120
	Q=l/min	0	167	333	500	667	833	1000	1167	1333	1667	2000
KDN 80-250 / 224	H (m)	16		16	16	16	16	15	14	13		
KDN 80-250 / 244		19		19	19	19	19	18	17	17	14	
KDN 80-250 / 264		23		23	23	23	22	22	21	21	18	
KDN 80-330 / 270		24		24	24	24	23	23	21	19	15	
KDN 80-330 / 290		28		28	28	28	27	26	25	24	19	
KDN 80-330 / 310		33		33	33	33	33	33	32	31	27	
KDN 80-330 / 328		38		38	38	38	38	38	37	36	32	26
KDN 80-400 / 330		37		37	37	37	37	36	35	33	28	
KDN 80-400 / 350		43		43	43	43	43	42	41	39	34	
KDN 80-400 / 370		48		49	49	48	48	47	46	44	39	
KDN 80-400 / 390		55		54	54	54	54	53	52	51	47	41
KDN 80-400 / 408		62		61	61	61	61	60	59	57	52	46

SELECTION TABLE - KDN 100

MODEL	Q=m ³ /h	0	10	20	30	40	50	60	70	80	100	120	150	180	200
	Q=l/min	0	167	333	500	667	833	1000	1167	1333	1667	2000	2500	3000	3333
KDN 100-250 / 224	H (m)	16			16	16	16	15	15	15	14	13			
KDN 100-250 / 244		19			19	19	19	19	19	19	19	18	17		
KDN 100-250 / 264		23			23	23	23	23	23	23	23	22	21	19	
KDN 100-330 / 270		23			23	23	23	23	23	23	23	21	19		
KDN 100-330 / 290		27			27	27	27	27	27	27	27	26	24	19	
KDN 100-330 / 310		32			32	32	32	32	32	32	32	31	30	25	
KDN 100-330 / 328		37			37	37	37	37	37	37	37	36	35	32	26
KDN 100-400 / 330		37			37	36	36	36	35	35	35	34	32	28	
KDN 100-400 / 350		41			41	41	41	41	40	40	40	39	37	33	
KDN 100-400 / 370		47			47	47	47	47	46	46	46	45	43	40	36
KDN 100-400 / 390		53			53	53	53	53	52	52	52	51	50	47	44
KDN 100-400 / 408		59			59	59	59	58	58	58	58	57	57	54	51

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 125

MODEL	Q=m ³ /h	0	10	20	30	40	50	60	70	80	100	120	150	180	200	250	300	
	Q=l/min	0	167	333	500	667	833	1000	1167	1333	1667	2000	2500	3000	3333	4167	5000	
KDN 125-250 / 220	H (m)	15				15	15	14	14	14	14	13	12	11	9			
KDN 125-250 / 235		18				18	18	18	17	17	17	17	16	14	13	10		
KDN 125-250 / 250		21				21	21	21	21	21	21	20	20	19	18	17	14	
KDN 125-250 / 264		24				24	24	24	24	24	24	24	24	23	23	22	19	16
KDN 125-330 / 270		25				24	24	24	24	24	24	24	23	22	19	17		
KDN 125-330 / 290		28				28	28	28	28	28	28	28	27	26	25	23		
KDN 125-330 / 310		34				33	33	33	33	33	33	33	33	32	31	30	25	
KDN 125-330 / 328		38				38	38	38	38	38	38	38	38	38	37	36	33	
KDN 125-400 / 330		40				40	40	40	40	40	40	39	39	37	34	31		
KDN 125-400 / 350		44				44	44	44	44	44	44	44	44	42	39	37		
KDN 125-400 / 370		50				50	50	50	49	49	49	49	49	48	45	43	33	
KDN 125-400 / 390		55				55	55	55	55	55	55	55	55	54	52	51	42	
KDN 125-400 / 408		61				61	61	61	61	61	61	61	61	60	59	57	51	41

SELECTION TABLE - KDN 150

MODEL	Q=m ³ /h	0	10	20	30	40	50	60	70	80	100	120	150	180	200	250	300	350	400	450	500	
	Q=l/min	0	167	333	500	667	833	1000	1167	1333	1667	2000	2500	3000	3333	4167	5000	5833	6667	7500	8334	
KDN 150-250 / 220	H (m)	14					14	14	14	13	13	13	13	13	11	10						
KDN 150-250 / 235		16					16	16	16	16	16	16	15	15	15	13	12	10				
KDN 150-250 / 250		19					18	18	18	18	18	18	18	18	17	16	15	13				
KDN 150-250 / 264		22					21	21	21	21	21	21	21	20	20	19	18	17	14			
KDN 150-330 / 260		22					22	22	22	21	21	21	21	21	21	20	18	15				
KDN 150-330 / 280		26					26	26	26	26	26	26	25	25	25	24	23	21				
KDN 150-330 / 300		30					30	30	30	30	30	30	30	29	29	28	27	25	23			
KDN 150-330 / 315		34					34	33	33	33	33	33	33	33	33	32	31	29	27			
KDN 150-330 / 328		37					37	37	37	37	37	37	36	36	36	35	35	33	31	28		
KDN 150-400 / 330		37					37	37	37	37	37	37	37	37	37	36	35	34	31			
KDN 150-400 / 350		42					42	42	42	42	42	42	42	42	42	42	41	39	37	33		
KDN 150-400 / 370		47					47	47	47	47	47	47	47	47	47	46	45	44	41	38		
KDN 150-400 / 390		54					53	53	53	53	53	53	53	53	53	52	51	50	47	44		
KDN 150-400 / 408		60					60	60	60	60	60	60	60	60	59	59	58	56	53	49	44	
KDN 150-500 A / 440		65					65	64	64	64	64	63	62	60	58	51						
KDN 150-500A / 460		72					71	71	71	71	71	70	69	68	65	57						
KDN 150-500A / 480		78					78	77	77	77	77	76	75	73	71	63						
KDN 150-500A / 500		85					84	84	84	84	84	83	82	81	79	70						
KDN 150-500A / 518		91					91	91	91	91	91	91	90	88	86	79						
KDN 150-500 / 440		68									68	68	68	67	66	63	57	48				
KDN 150-500 / 460		74									74	74	73	73	72	69	64	56				
KDN 150-500 / 480		82									81	81	81	80	79	77	72	66	58			
KDN 150-500 / 500		89									89	89	88	88	87	85	81	76	68			
KDN 150-500 / 518		96									96	96	96	95	95	93	89	84	75			

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 200

MODEL	Q=m ³ /h	0	10	20	30	40	50	60	70	80	100	120	150	180	200	250	300	350	400	450	500	600	700	800	
	Q=l/min	0	167	333	500	667	833	1000	1167	1333	1667	2000	2500	3000	3333	4167	5000	5833	6667	7500	8334	10000	11667	13334	
KDN 200-330 / 270	H (m)	20									20	20	20	20	20	20	19	19	18	17	16	12			
KDN 200-330 / 290		24										24	24	24	24	24	24	24	23	23	22	22	19		
KDN 200-330 / 310		29										29	29	29	29	29	29	29	29	28	28	27	25	21	
KDN 200-330 / 328		34										34	34	33	33	33	33	33	33	33	33	32	31	27	
KDN 200-400 / 330		32										32	32	32	32	32	31	31	31	30	29	28	23		
KDN 200-400 / 350		38										38	38	38	38	38	38	37	37	37	36	35	31		
KDN 200-400 / 370		43										43	43	43	43	43	43	43	42	42	42	41	37		
KDN 200-400 / 390		48										48	48	48	48	48	48	48	48	48	48	47	45	37	
KDN 200-400 / 408		54										54	54	54	54	54	54	54	54	53	53	53	51	46	
KDN 200-500 / 430		65										65	65	65	65	65	65	65	64	64	63	62	60	56	51
KDN 200-500 / 450		72										72	72	72	72	71	71	71	71	70	69	67	62	58	
KDN 200-500 / 470		76										76	77	77	77	76	76	76	76	75	74	72	68	63	
KDN 200-500 / 490		82										82	83	82	82	82	82	82	82	81	80	79	76	71	65
KDN 200-500 / 508		94										94	94	94	94	94	93	93	92	92	91	89	86	81	75

SELECTION TABLE - KDN 250

MODEL	Q=m ³ /h	0	250	300	350	400	450	500	600	700	800	900	1000	1100	1200	1400	1500	
	Q=l/min	0	4167	5000	5833	6667	7500	8334	10000	11667	13334	15000	16667	18334	20000	23334	25001	
KDN 250-330A / 275/32°	H (m)	17	16	15	15	15	14	14	12	11	8	6						
KDN 250-330A / 275/16°		20	19	18	18	18	17	17	16	14	11	8						
KDN 250-330A / 275		23	22	21	21	21	20	20	18	17	14	11						
KDN 250-330A / 285		26	24	24	23	23	23	22	21	19	17	14						
KDN 250-330A / 295		28		26	26	25	25	24	23	22	20	17	13					
KDN 250-330 / 310/16°		23		20	19	19	18	18	17	15	13	11						
KDN 250-330/310/290		26		24	24	23	23	22	20	18	17	14	12					
KDN 250-330 / 310/300		28		26	25	25	24	24	23	21	18	17	13					
KDN 250-330 / 310		30		28	27	27	26	26	25	23	22	19	17					
KDN 250-330 / 320		32		30	30	30	29	29	28	26	25	23	21					
KDN 250-330 / 328		35		33	33	33	32	32	30	29	28	26	24					
KDN 250-400 / 330		33		33	32	32	31	31	29	27	25	22						
KDN 250-400 / 350		39		38	38	37	37	36	35	33	31	29	26					
KDN 250-400 / 370		44		43	43	43	43	42	41	40	38	35	32					
KDN 250-400 / 390		50		50	50	50	49	49	48	47	45	43	40	36				
KDN 250-400 / 408		54		54	54	54	54	54	53	52	50	48	45	41				
KDN 250-500A / 440		61		61	61	61	61	60	58	55	51	45						
KDN 250-500A / 460		68		68	68	68	67	67	65	62	58	53	46					
KDN 250-500A / 480		76		75	75	75	75	74	73	70	67	62	57					
KDN 250-500A / 500		82		82	82	82	82	82	81	79	76	72	67	60				
KDN 250-500A / 518		89		89	89	89	89	88	87	85	82	78	74	68				
KDN 250-500 / 440		60						60	59	57	56	55	54	50	44			
KDN 250-500 / 460		66						66	66	66	65	64	61	58	53			
KDN 250-500 / 480		75						75	75	75	74	73	72	69	65			
KDN 250-500 / 500		84						84	84	84	83	83	82	80	76	66		
KDN 250-500 / 518		94						94	94	94	94	93	92	90	87	79	72	

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 300

MODEL	Q=m ³ /h	0	250	300	350	400	450	500	600	700	800	900	1000	1100	1200	1400	1500	1600		
	Q=l/min	0	4167	5000	5833	6667	7500	8334	10000	11667	13334	15000	16667	18334	20000	23334	25001	26667		
KDN 300-330 / 325/36 °	H (m)	19						18	18	17	16	16	15	14	13	10				
KDN 300-330 / 325/24°		22							21	20	20	19	18	17	16	15	13	11		
KDN 300-330 / 325/12°		24							23	23	22	21	20	20	19	17	15	13		
KDN 300-330 / 325		28							26	25	25	24	23	22	21	20	18	16		
KDN 300-330 / 335		30							28	27	27	26	25	25	24	23	21	19	17	
KDN 300-330 / 345		32							30	30	29	29	28	27	27	26	23	22	21	
KDN 300-400M / 350		25							24	23	23	22	21	20	19	18	16	14	11	
KDN 300-400M / 380		32							31	31	31	30	29	29	28	27	25	22	20	
KDN 300-400M / 395		37							36	36	35	35	34	34	33	32	29	27	25	
KDN 300-400M / 408		41							40	40	40	39	38	37	37	36	34	31	29	
KDN 300-400 A / 330/7 °		33					33	32	32	32	31	31	30	29	28	26	21			
KDN 300-400 A / 370/340		39					38	38	38	38	38	37	36	35	34	33	29	27		
KDN 300-400A / 370/355		43						43	43	42	42	41	41	40	39	38	34	32	28	
KDN 300-400A / 370		47					47	47	47	47	47	46	46	45	44	42	39	36	33	
KDN 300-400 / 340		40			40	39	39	39	39	38	37	36	35	33	32	28				
KDN 300-400 / 370		49				48	48	47	47	46	46	45	44	42	41	38				
KDN 300-400 / 390		54				53	53	53	53	52	51	51	50	49	48	46	42	39		
KDN 300-400 / 408		59				59	59	59	58	58	57	57	56	55	54	53	50	48	45	

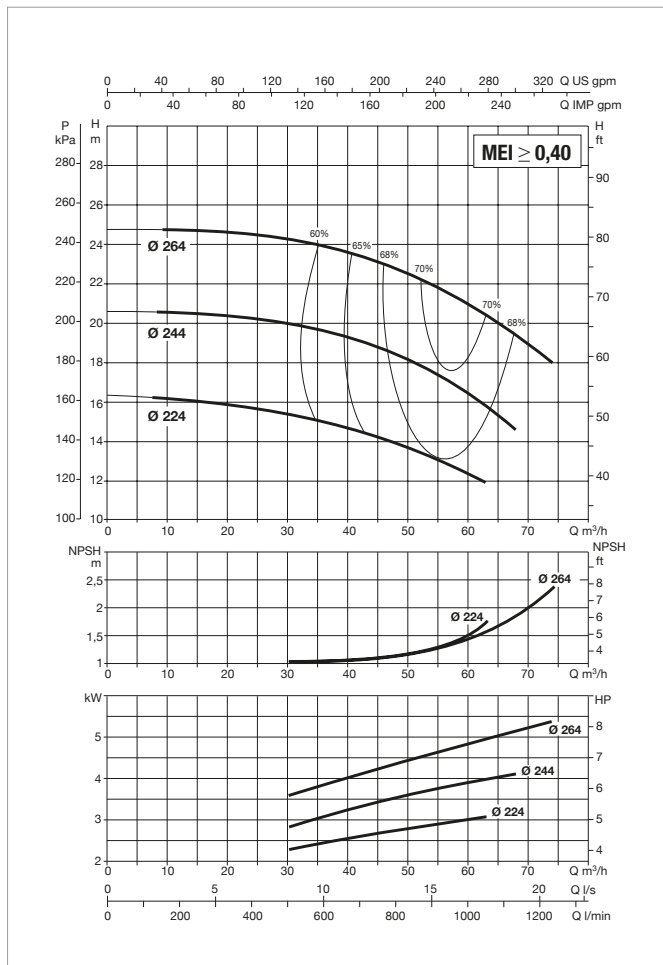
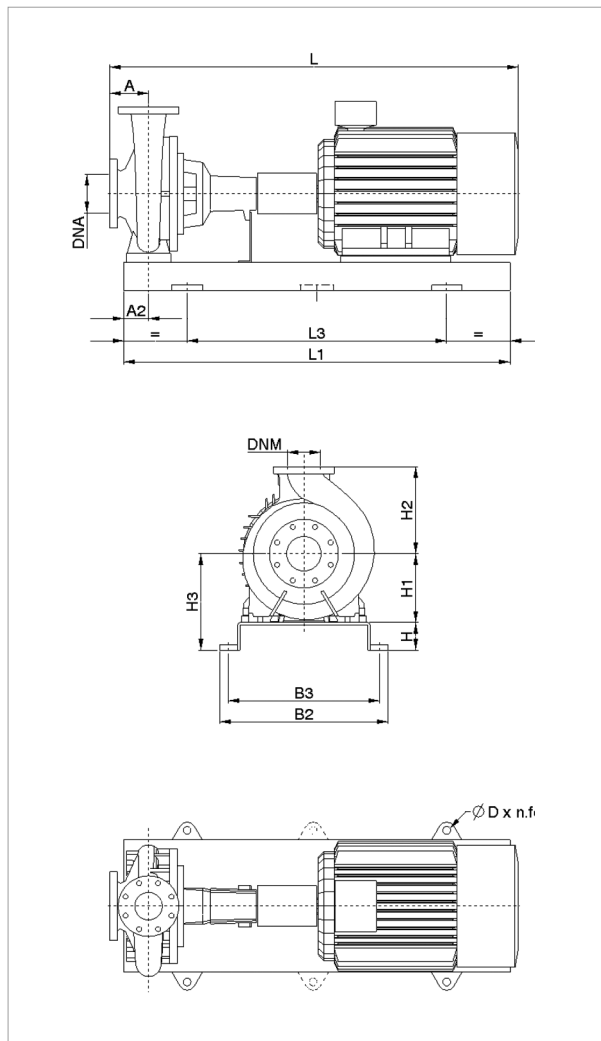
SELECTION TABLE - KDN 350

MODEL	Q=m ³ /h	0	250	300	350	400	450	500	600	700	800	900	1000	1100	1200	1400	1500	1600	2000	2500	1600	3000		
	Q=l/min	0	4167	5000	5833	6667	7500	8334	10000	11667	13334	15000	16667	18334	20000	23334	25001	26667	33334	41668	46668	50001		
KDN 350-500A / 405/16°	H (m)	41					41	41	40	40	40	40	40	40	39	38	38	37	32					
KDN 350-500A / 405		50					50	50	50	50	50	50	49	49	49	49	48	47	43	33				
KDN 350-500A / 435		57					57	57	57	57	57	57	57	57	57	56	56	55	55	51	42	34		
KDN 350-500A / 465		65					64	64	64	64	64	64	64	64	64	64	63	63	62	59	51	44		
KDN 350-500 / 430		49					48	48	48	48	48	47	47	47	47	47	46	46	45	42	36			
KDN 350-500 / 460		61					61	61	60	60	60	59	59	59	58	58	57	56	54	47	40			
KDN 350-500 / 490		70					70	70	69	69	69	69	69	69	69	68	67	66	63	58	52	48		
KDN 350-500 / 518		81					81	81	81	80	80	80	80	80	80	80	80	79	78	76	71	66	63	

KDN 65-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 65-250	2.2	100L	3 x 230 - 400 V ~	8.75/5.05	-	IE2
	3	100L	3 x 400 V - Δ	6.25	-	IE2
	4	112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 65-250	2.2	125	90	80	200	250	280	1120	740	490	440	24x4	100	65	1014	169	-	-	1155	169	-	-	5
	3	125	90	80	200	250	280	1120	740	490	440	24x4	100	65	1014	177	-	-	1155	177	-	-	5
	4	125	90	80	200	250	280	1120	740	490	440	24x4	100	65	1029	193	-	-	1170	193	-	-	5
	5.5	125	90	80	200	250	280	1120	740	490	440	24x4	100	65	1099	209	-	-	1240	209	-	-	5
	7.5	125	90	80	200	250	280	1120	740	490	440	24x4	100	65	1099	218	1149	199	1240	233	1290	214	5

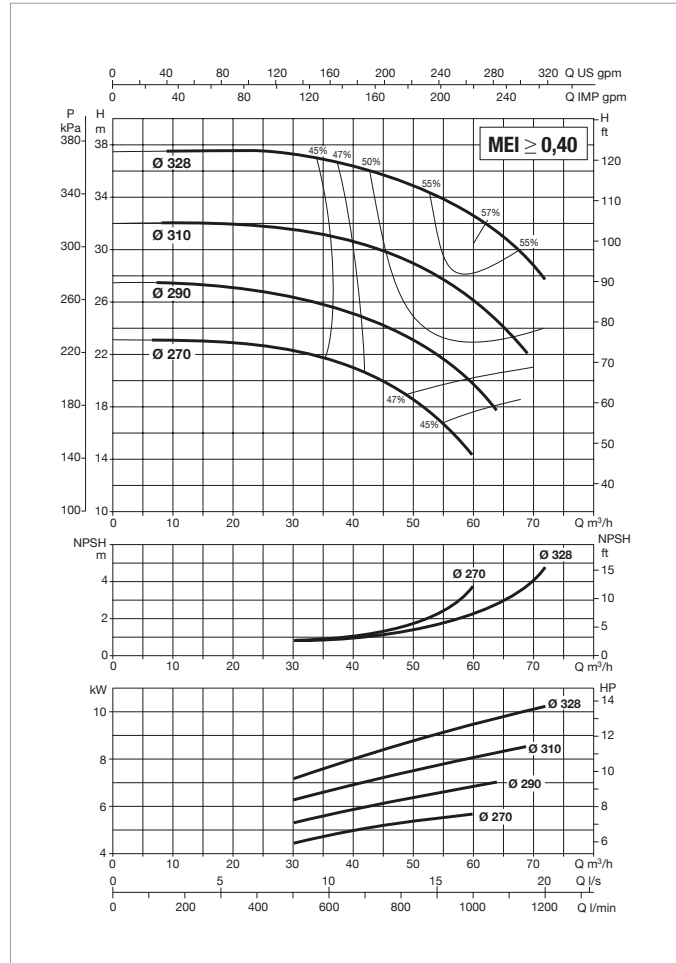
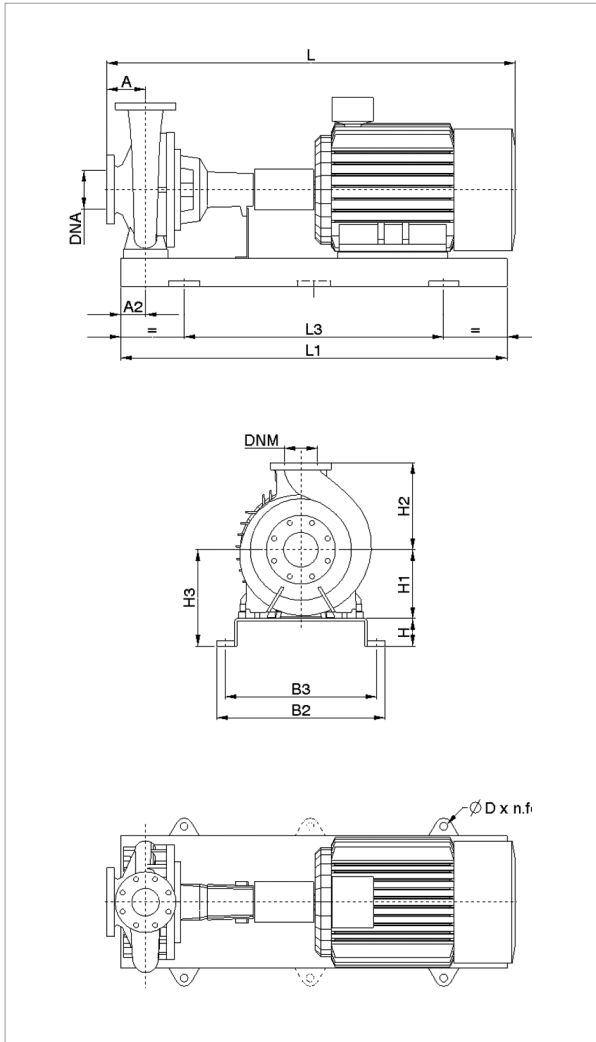
Dimension and electrical data based on sizing definition following the instructions on page 176.



KDN 65-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 65-330	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3

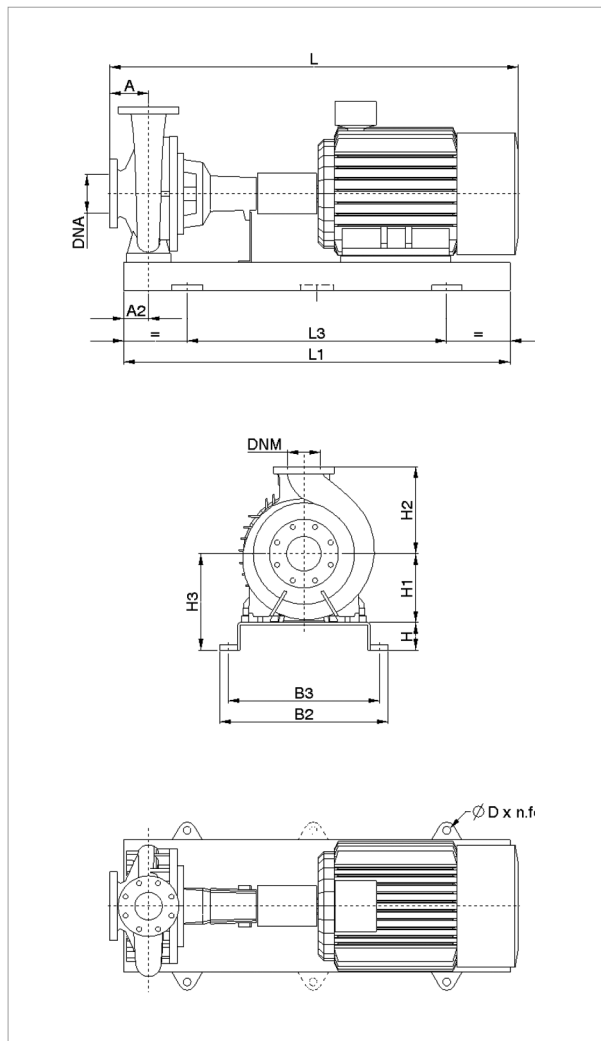
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg				
KDN 65-330	5.5	125	90	80	225	280	305	1250	840	540	490	24x4	100	65	1129	286	-	-	1270	286	-	-	6
	7.5	125	90	80	225	280	305	1250	840	540	490	24x4	100	65	1129	295	1179	276	1270	310	1320	291	6
	11	125	90	80	225	280	305	1250	840	540	490	24x4	100	65	1274	339	1324	313	1415	354	1465	328	6
	15	125	90	100	225	280	325	1400	940	610	550	28x4	100	65	1329	374	1379	349	1470	389	1520	364	7

Dimension and electrical data based on sizing definition following the instructions on page 176.

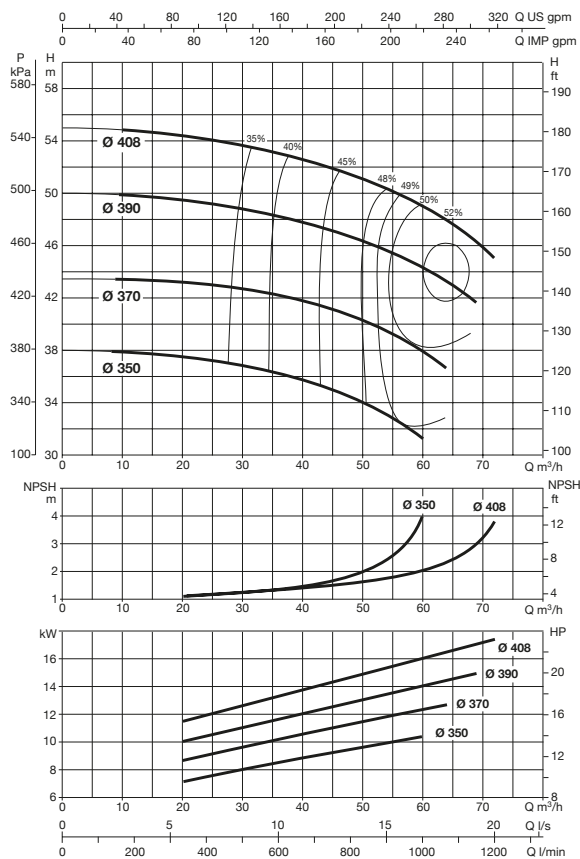
KDN 65-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 65-400	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3

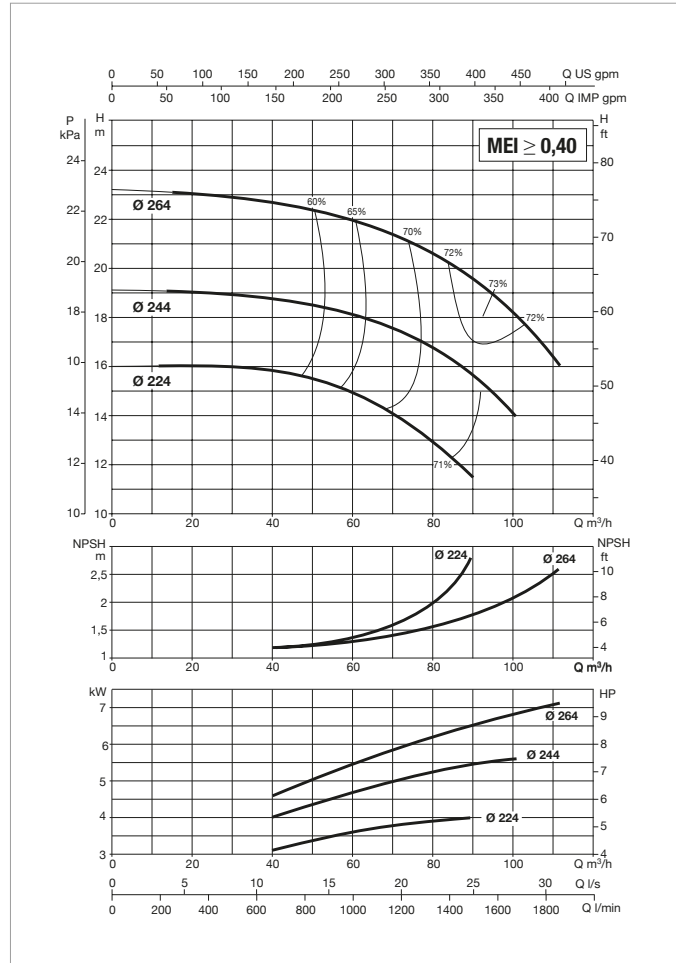
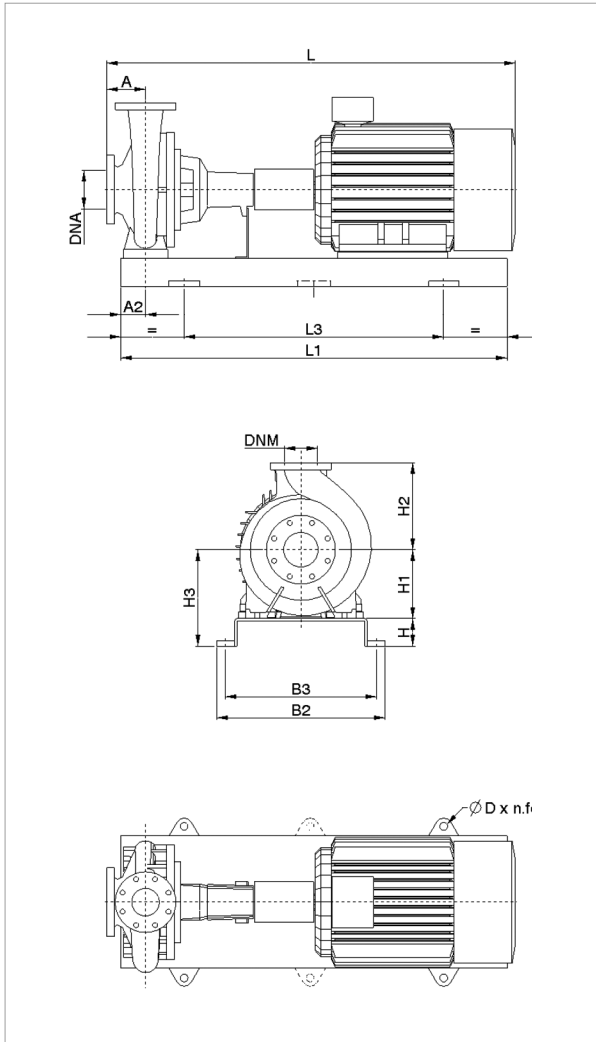
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 65-400	11	125	90	100	280	355	380	1400	940	610	550	28x4	100	65	1274	386	1324	360	1415	401	1465	375	7
	15	125	90	100	280	355	380	1400	940	610	550	28x4	100	65	1329	402	1379	377	1470	417	1520	392	7
	18.5	125	90	100	280	355	380	1400	940	610	550	28x4	100	65	1349	443	1399	412	1490	458	1540	427	7
	22	125	90	100	280	355	380	1400	940	610	550	28x4	100	65	1387	461	1437	431	1528	476	1578	446	7

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 80-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 80-250	4	112M	3 x 400 V - Δ	7.95	-	IE2
	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3

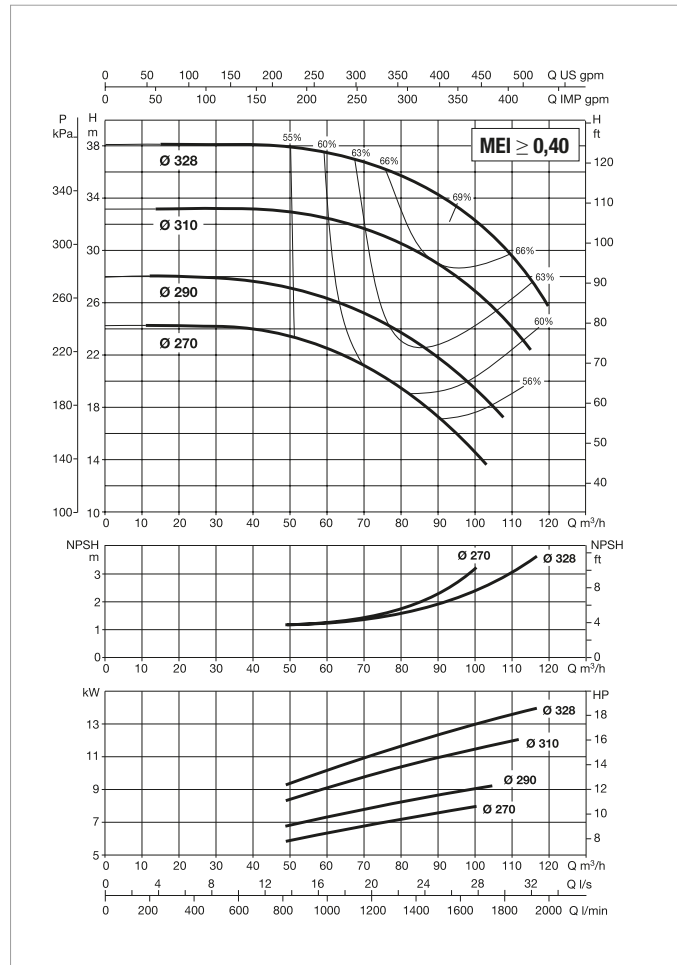
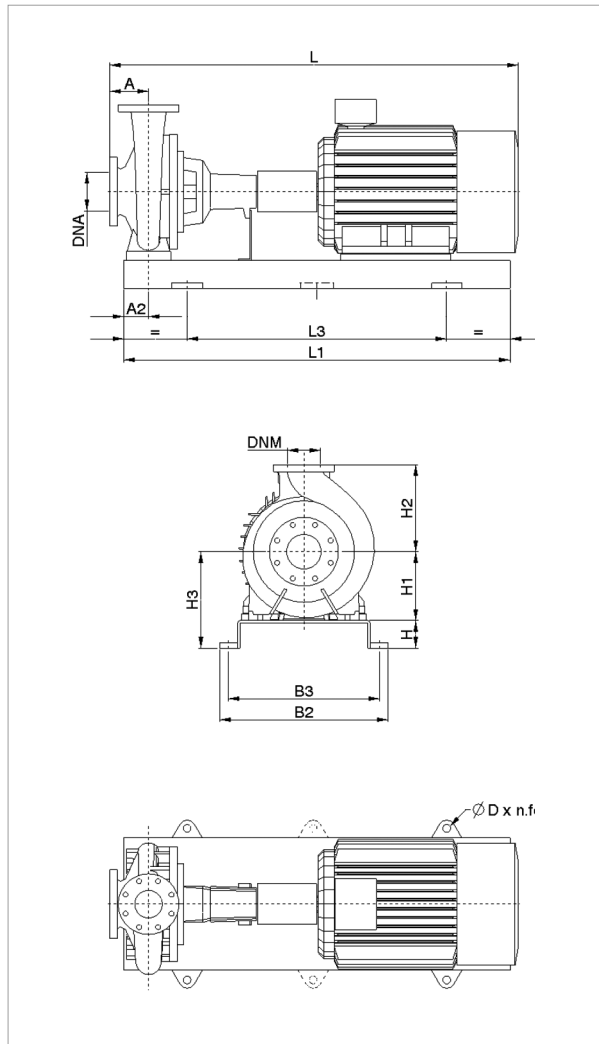
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 80-250	4	125	90	80	225	280	305	1250	840	540	490	24x4	125	80	1029	218	-	-	1170	218	-	-	6
	5.5	125	90	80	225	280	305	1250	840	540	490	24x4	125	80	1099	234	-	-	1240	234	-	-	6
	7.5	125	90	80	225	280	305	1250	840	540	490	24x4	125	80	1099	243	1149	224	1240	258	1290	239	6
	11	125	90	80	225	280	305	1250	840	540	490	24x4	125	80	1244	287	1294	261	1385	302	1435	276	6
	15	125	90	80	225	280	305	1250	840	540	490	24x4	125	80	1299	303	1349	278	1440	318	1490	293	6

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 80-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 80-330	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3

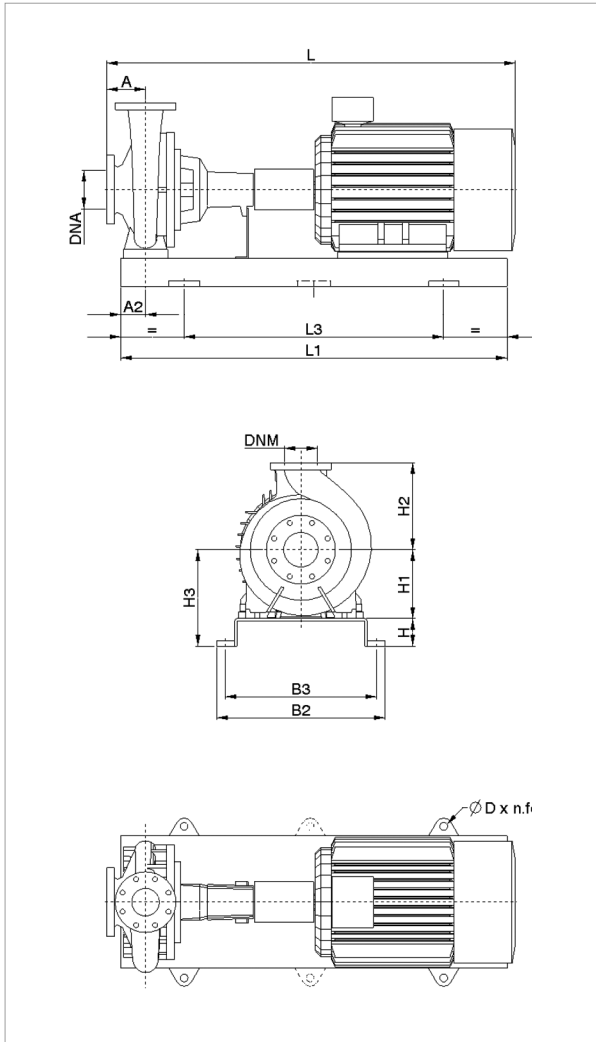
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 80-330	5.5	125	90	80	250	315	330	1250	840	540	490	24x4	125	80	1129	289	-	-	1270	289	-	-	6
	7.5	125	90	80	250	315	330	1250	840	540	490	24x4	125	80	1129	298	1179	279	1270	313	1320	294	6
	11	125	90	80	250	315	330	1250	840	540	490	24x4	125	80	1274	342	1324	316	1415	357	1465	331	6
	15	125	90	100	250	315	350	1400	940	610	550	28x4	125	80	1329	377	1379	352	1470	392	1520	367	7
	18.5	125	90	100	250	315	350	1400	940	610	550	28x4	125	80	1349	418	1399	387	1490	433	1540	402	7

Dimension and electrical data based on sizing definition following the instructions on page 176.

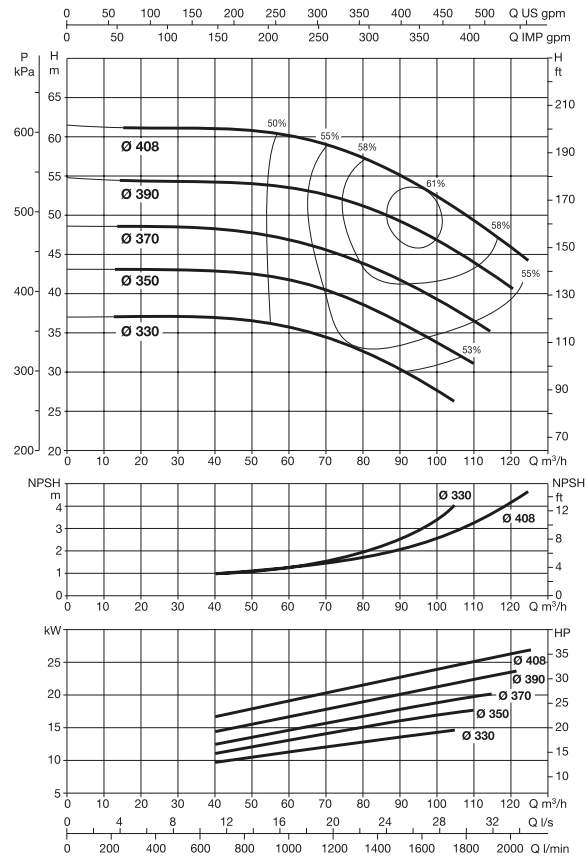
KDN 80-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 80-400	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3

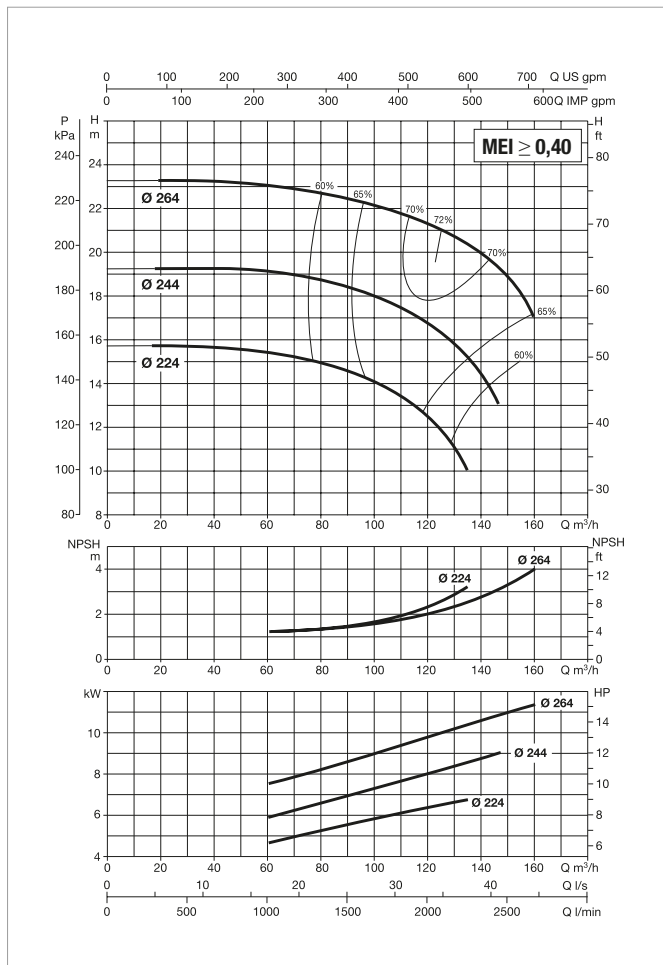
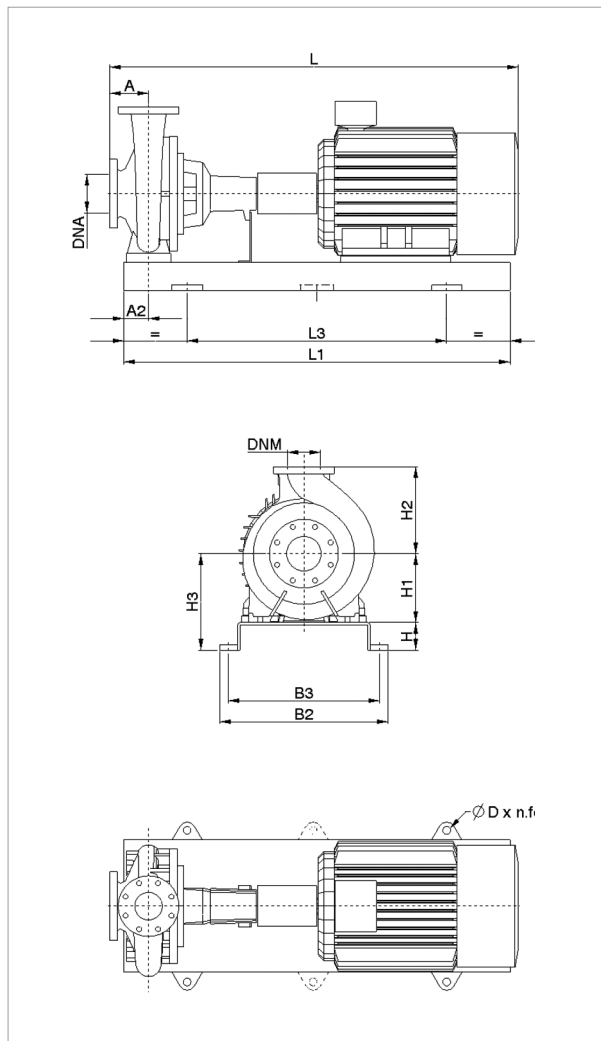
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 80-400	11	125	90	100	280	355	380	1400	940	610	550	28x4	125	80	1274	391	1324	365	1415	406	1465	380	7
	15	125	90	100	280	355	380	1400	940	610	550	28x4	125	80	1329	407	1379	382	1470	422	1520	397	7
	18.5	125	90	100	280	355	380	1400	940	610	550	28x4	125	80	1349	448	1399	417	1490	463	1540	432	7
	22	125	90	100	280	355	380	1400	940	610	550	28x4	125	80	1387	466	1437	436	1528	481	1578	451	7
	30	125	90	100	280	355	380	1400	940	610	550	28x4	125	80	1429	530	1479	530	1570	545	1620	545	7
	37	125	90	100	280	355	380	1400	940	610	550	28x4	125	80	1474	579	1545	585	1615	594	1686	600	7

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 100-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 100-250	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3

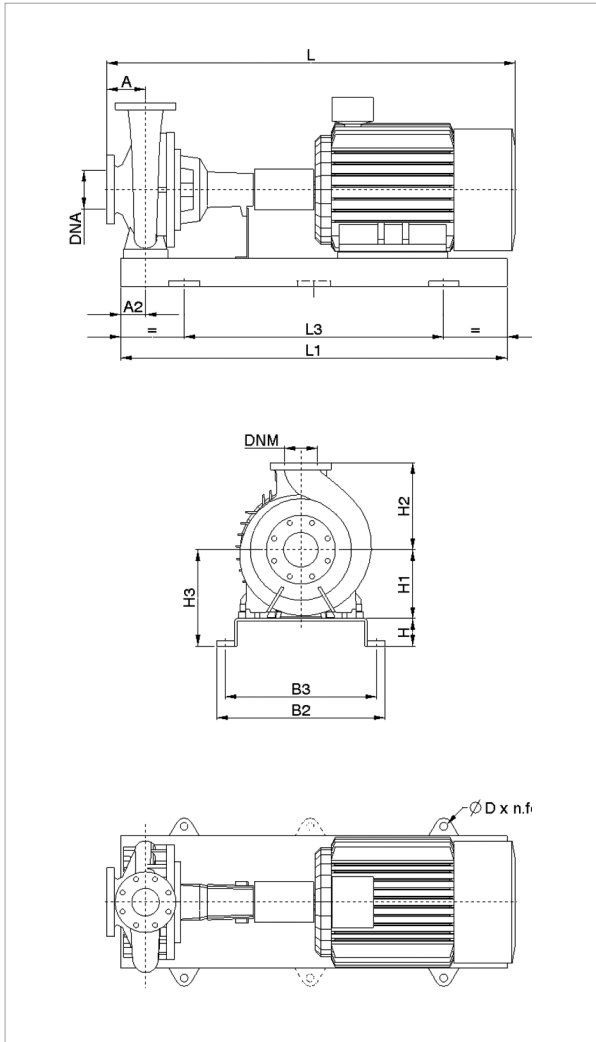
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 100-250	5.5	140	90	80	225	280	305	1250	840	540	490	24x4	125	100	1144	264	-	-	1285	264	-	-	6
	7.5	140	90	80	225	280	305	1250	840	540	490	24x4	125	100	1144	273	1194	254	1285	288	1335	269	6
	11	140	90	80	225	280	305	1250	840	540	490	24x4	125	100	1289	317	1339	291	1430	332	1480	306	6
	15	140	90	100	225	280	325	1400	940	610	550	28x4	125	100	1344	352	1394	327	1485	367	1535	342	7
	18.5	140	90	100	225	280	325	1400	940	610	550	28x4	125	100	1364	393	1414	362	1505	408	1555	377	7

Dimension and electrical data based on sizing definition following the instructions on page 176.

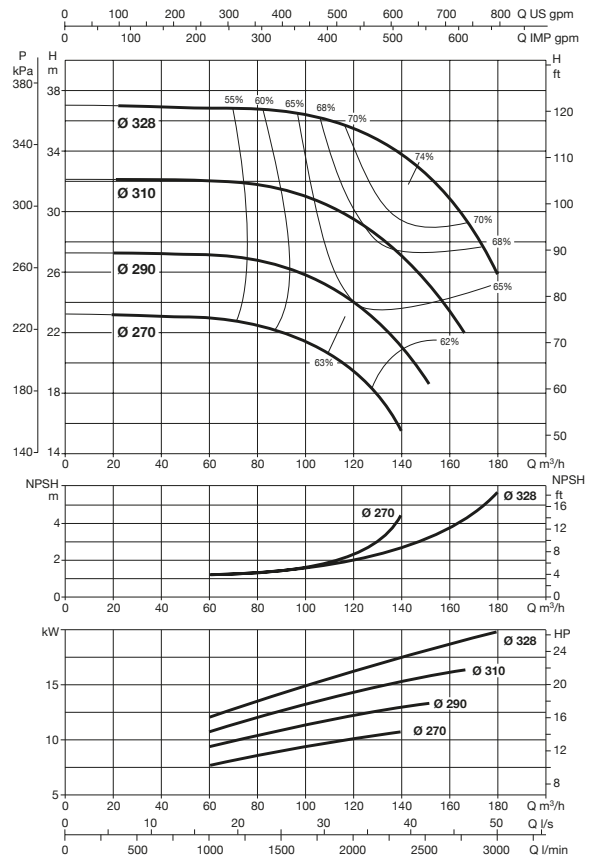
KDN 100-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 100-330	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	160M	3 x 400 V - Δ	21.6	2.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 100-330	5.5	140	90	80	250	315	330	1250	840	540	490	24x4	125	100	1144	304	-	-	1285	304	-	-	6
	7.5	140	90	80	250	315	330	1250	840	540	490	24x4	125	100	1144	313	1194	294	1285	328	1335	309	6
	11	140	90	80	250	315	330	1250	840	540	490	24x4	125	100	1289	357	1339	331	1430	372	1480	346	6
	15	140	90	100	250	315	350	1400	940	610	550	28x4	125	100	1344	392	1394	367	1485	407	1535	382	7
	18.5	140	90	100	250	315	350	1400	940	610	550	28x4	125	100	1364	433	1414	402	1505	448	1555	417	7
	22	140	90	100	250	315	350	1400	940	610	550	28x4	125	100	1402	451	1452	421	1543	466	1593	436	7
	30	140	90	100	250	315	350	1400	940	610	550	28x4	125	100	1444	515	1494	515	1585	530	1635	530	7

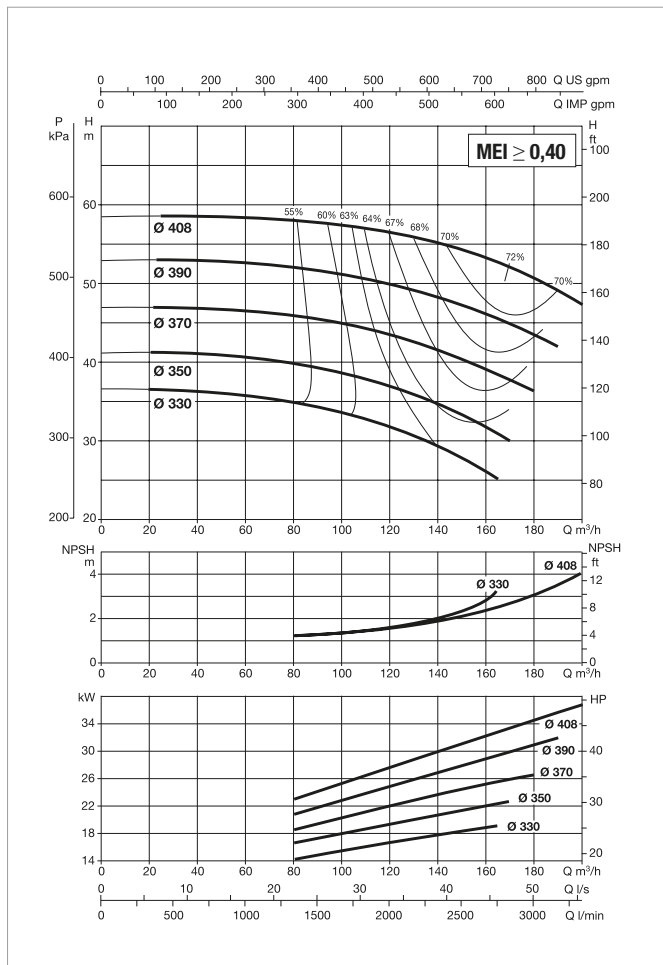
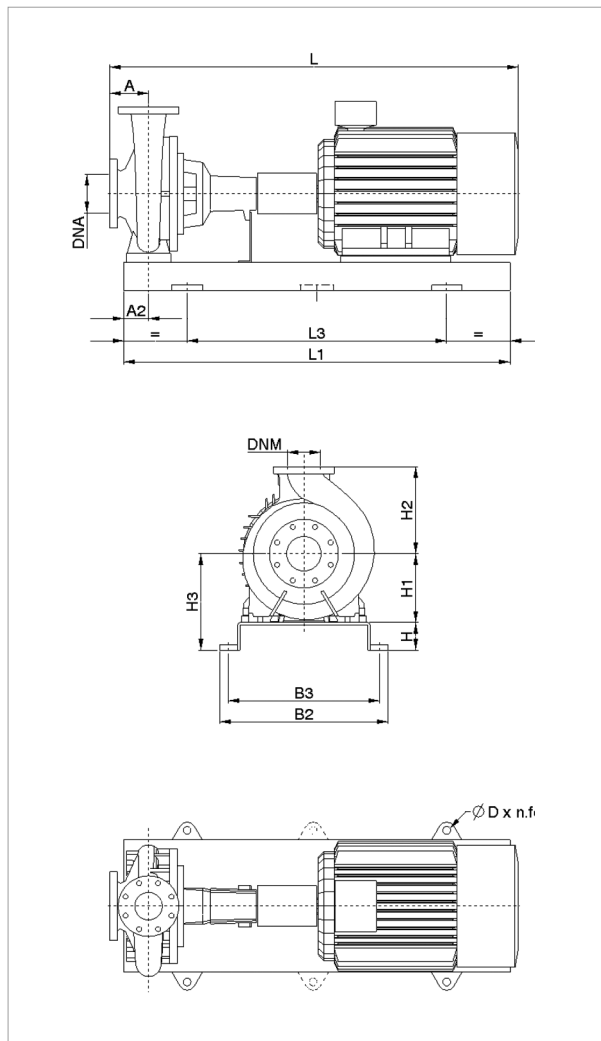
Dimension and electrical data based on sizing definition following the instructions on page 176.



KDN 100-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 100-400	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	68.5	IE2 / IE3

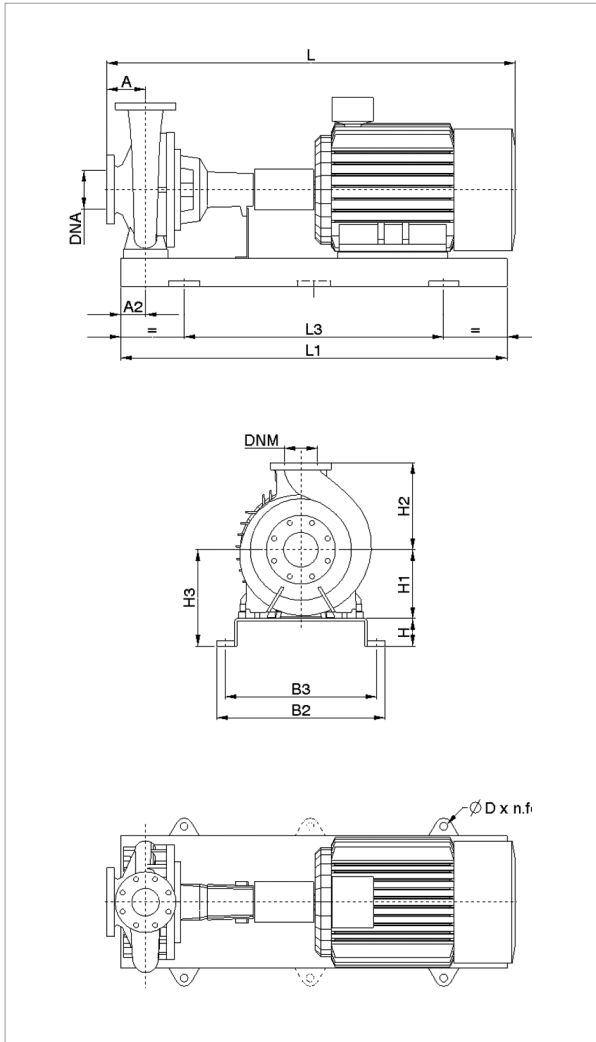
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 100-400	11	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1289	423	1339	397	1430	438	1480	412	8
	15	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1344	439	1394	414	1485	454	1535	429	8
	18.5	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1364	480	1414	449	1505	495	1555	464	8
	22	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1402	498	1452	468	1543	513	1593	483	8
	30	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1444	562	1494	562	1585	577	1635	577	8
	37	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1489	611	1560	617	1630	626	1701	632	8
	45	140	110	100	280	355	380	1600	1060	660	600	28x4	125	100	1519	627	1590	647	1660	642	1731	662	8

Dimension and electrical data based on sizing definition following the instructions on page 176.

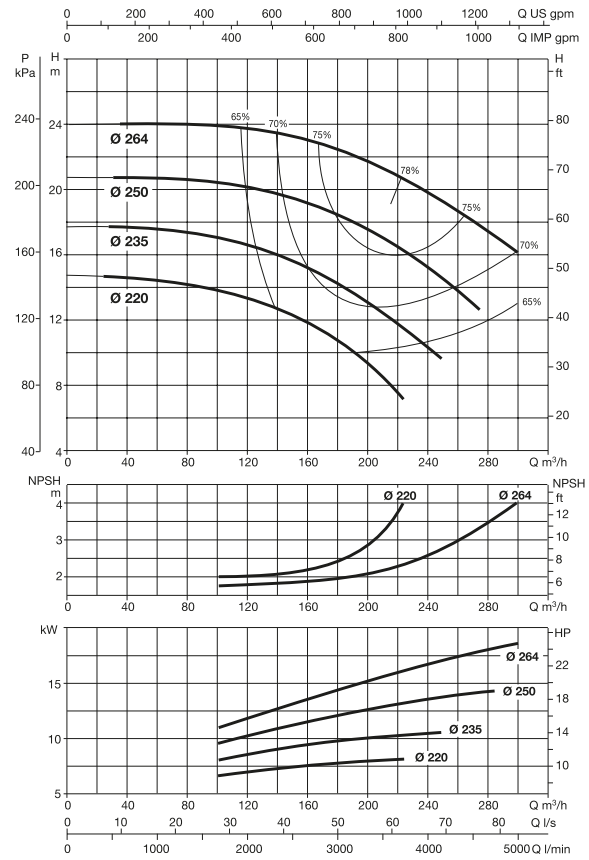
KDN 125-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 125-250	5.5	132S	3 x 400 V - Δ	10.60	-	IE2
	7.5	132S	3 x 400 V - Δ	14.2	14.6	IE2 / IE3
	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 125-250	5.5	140	90	80	250	355	330	1250	840	540	490	24x4	150	125	1144	274	-	-	1285	274	-	-	6
	7.5	140	90	80	250	355	330	1250	840	540	490	24x4	150	125	1144	283	1194	264	1285	298	1335	279	6
	11	140	90	80	250	355	330	1250	840	540	490	24x4	150	125	1289	327	1339	301	1430	342	1480	316	6
	15	140	90	100	250	355	350	1400	940	610	550	28x4	150	125	1344	362	1394	337	1485	377	1535	352	7
	18.5	140	90	100	250	355	350	1400	940	610	550	28x4	150	125	1364	403	1414	372	1505	418	1555	387	7
	22	140	90	100	250	355	350	1400	940	610	550	28x4	150	125	1402	421	1452	391	1543	436	1593	406	7

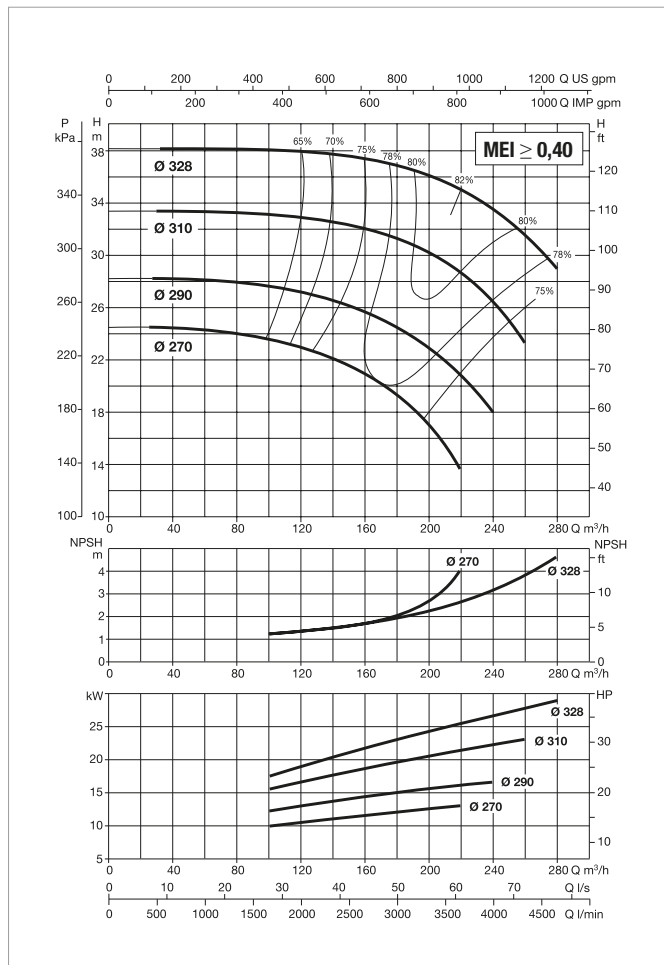
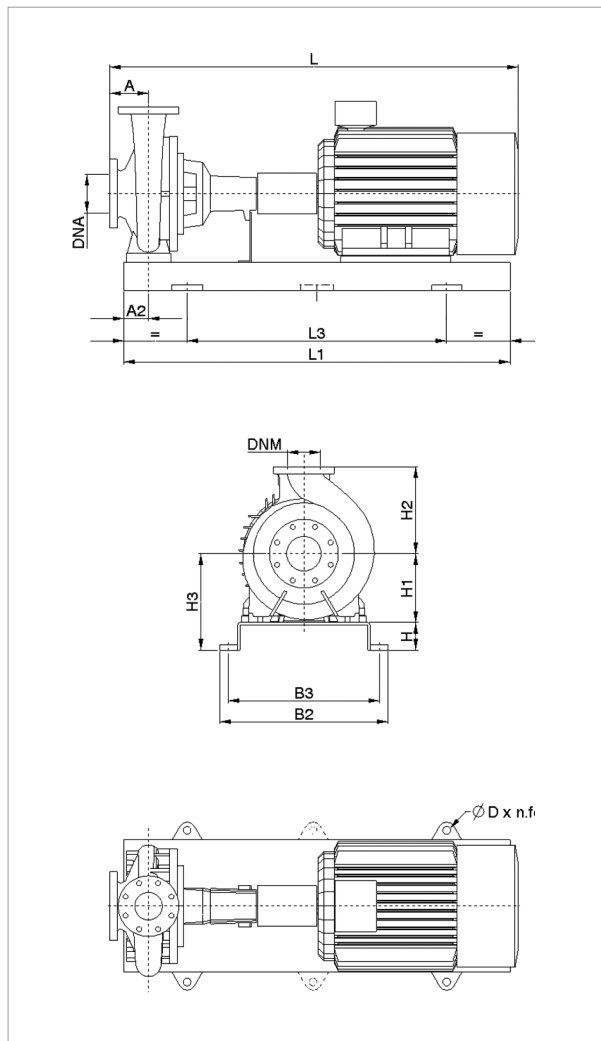
Dimension and electrical data based on sizing definition following the instructions on page 176.



KDN 125-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 125-330	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 125-330	11	140	110	100	280	355	380	1600	1060	660	600	28x4	150	125	1289	413	1339	387	1430	428	1480	402	8
	15	140	110	100	280	355	380	1600	1060	660	600	28x4	150	125	1344	429	1394	404	1485	444	1535	419	8
	18.5	140	110	100	280	355	380	1600	1060	660	600	28x4	150	125	1364	470	1414	439	1505	485	1555	454	8
	22	140	110	100	280	355	380	1600	1060	660	600	28x4	150	125	1402	488	1452	458	1543	503	1593	473	8
	30	140	110	100	280	355	380	1600	1060	660	600	28x4	150	125	1444	552	1494	552	1585	567	1635	567	8
	37	140	110	100	280	355	380	1600	1060	660	600	28x4	150	125	1489	601	1560	607	1630	616	1701	622	8

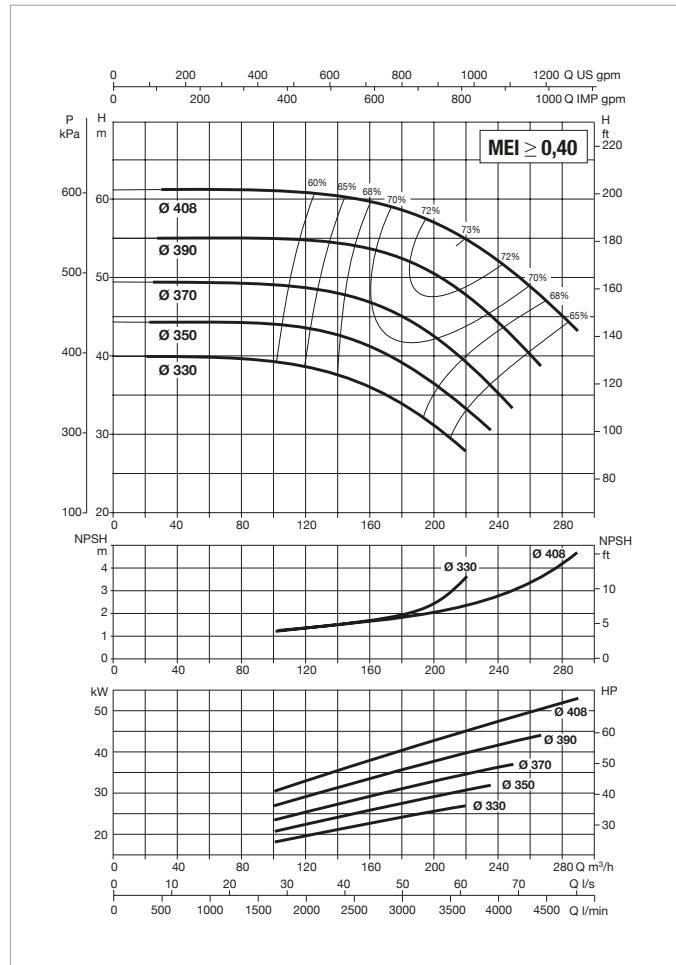
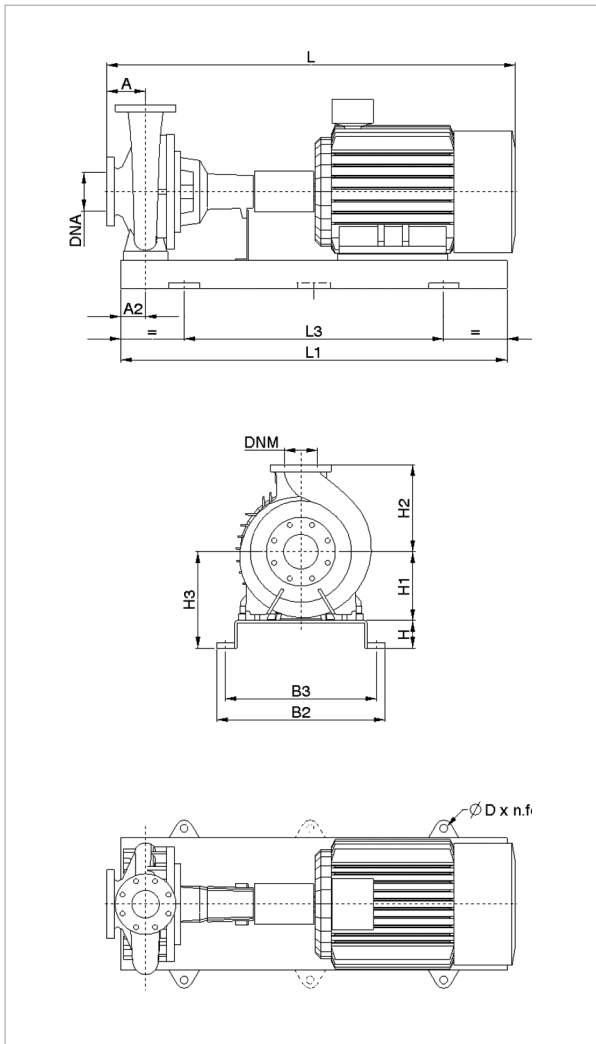
Dimension and electrical data based on sizing definition following the instructions on page 176.



KDN 125-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 125-400	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3

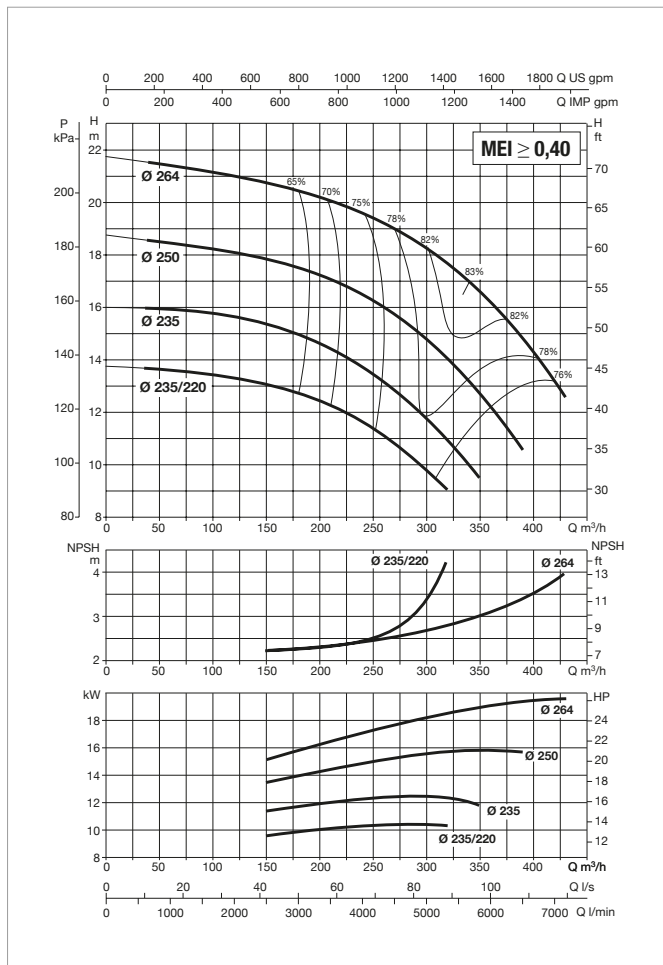
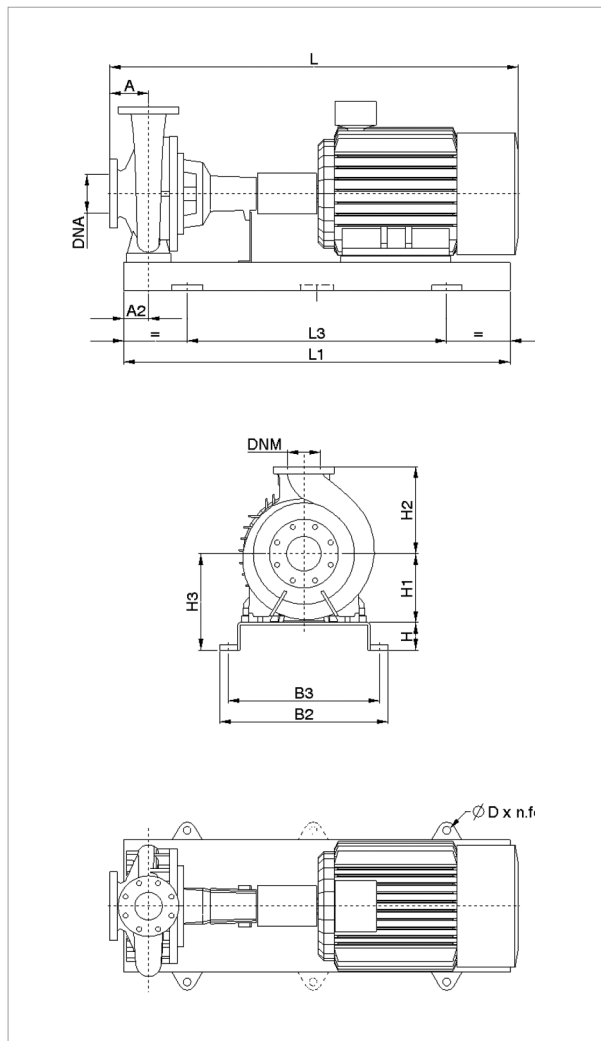
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 125-400	18.5	140	110	100	315	400	415	1600	1060	660	600	28x4	150	125	1364	500	1414	469	1505	515	1555	484	8
	22	140	110	100	315	400	415	1600	1060	660	600	28x4	150	125	1402	518	1452	488	1543	533	1593	503	8
	30	140	110	100	315	400	415	1600	1060	660	600	28x4	150	125	1444	582	1494	582	1585	597	1635	597	8
	37	140	110	100	315	400	415	1600	1060	660	600	28x4	150	125	1489	631	1560	637	1630	646	1701	652	8
	45	140	110	100	315	400	415	1600	1060	660	600	28x4	150	125	1519	647	1590	667	1660	662	1731	682	8
	55	140	110	100	315	400	415	1600	1060	660	600	28x4	150	125	1589	759	1660	774	1730	774	1801	789	8
	75	140	110	100	315	400	415	1800	1200	730	670	28x4	150	125	1644	962	1715	962	1785	977	1856	977	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-250	11	160M	3 x 400 V - Δ	21.6	20.5	IE2 / IE3
	15	160L	3 x 400 V - Δ	29	28	IE2 / IE3
	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3

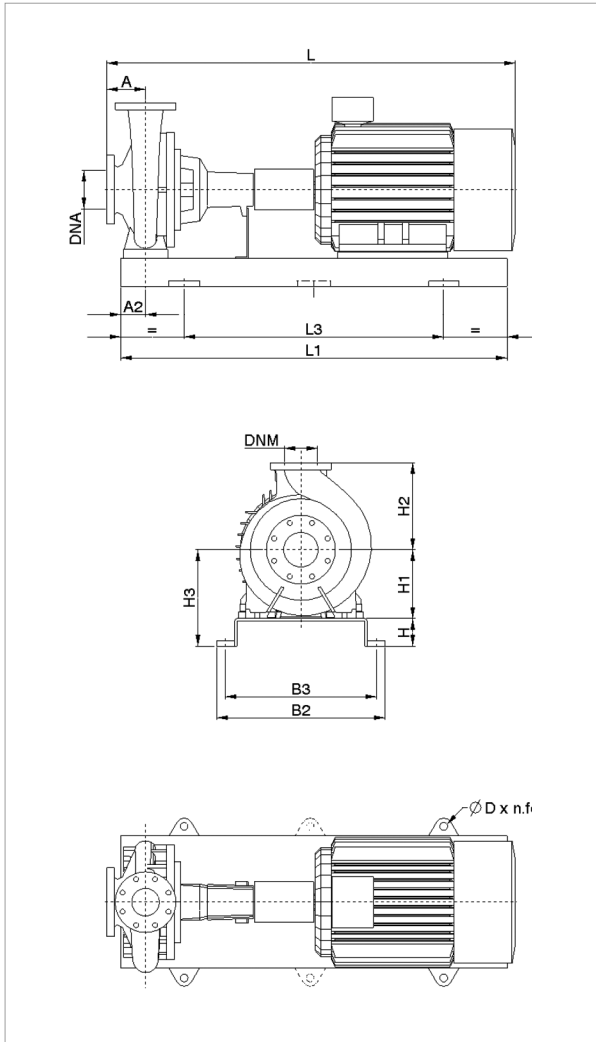
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 150-250	11	160	110	100	280	375	380	1600	1060	660	600	28x4	200	150	1309	403	1359	377	1490	418	1540	392	8
	15	160	110	100	280	375	380	1600	1060	660	600	28x4	200	150	1364	419	1414	394	1545	434	1595	409	8
	18.5	160	110	100	280	375	380	1600	1060	660	600	28x4	200	150	1384	460	1434	429	1565	475	1615	444	8
	22	160	110	100	280	375	380	1600	1060	660	600	28x4	200	150	1422	478	1472	448	1603	493	1653	463	8
	30	160	110	100	280	375	380	1600	1060	660	600	28x4	200	150	1464	542	1514	542	1645	557	1695	557	8

Dimension and electrical data based on sizing definition following the instructions on page 176.

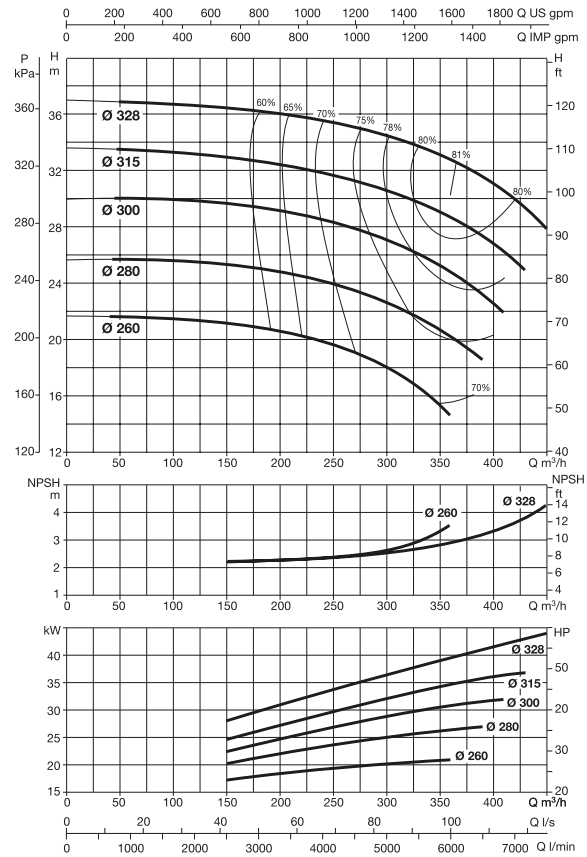
KDN 150-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-330	18.5	180M	3 x 400 V - Δ	33	34	IE2 / IE3
	22	180L	3 x 400 V - Δ	40	40.5	IE2 / IE3
	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING			SPACER COUPLING			REF.		
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2			IE3	
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		L	WEIGHT kg
KDN 150-330	18.5	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1524	621	1574	590	1705	636	1755	605	9
	22	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1562	639	1612	609	1743	654	1793	624	9
	30	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1604	703	1654	703	1785	718	1835	718	9
	37	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1649	752	1720	758	1830	767	1901	773	9
	45	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1679	768	1750	788	1860	783	1931	803	9
	55	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1749	880	1820	895	1930	895	2001	910	9

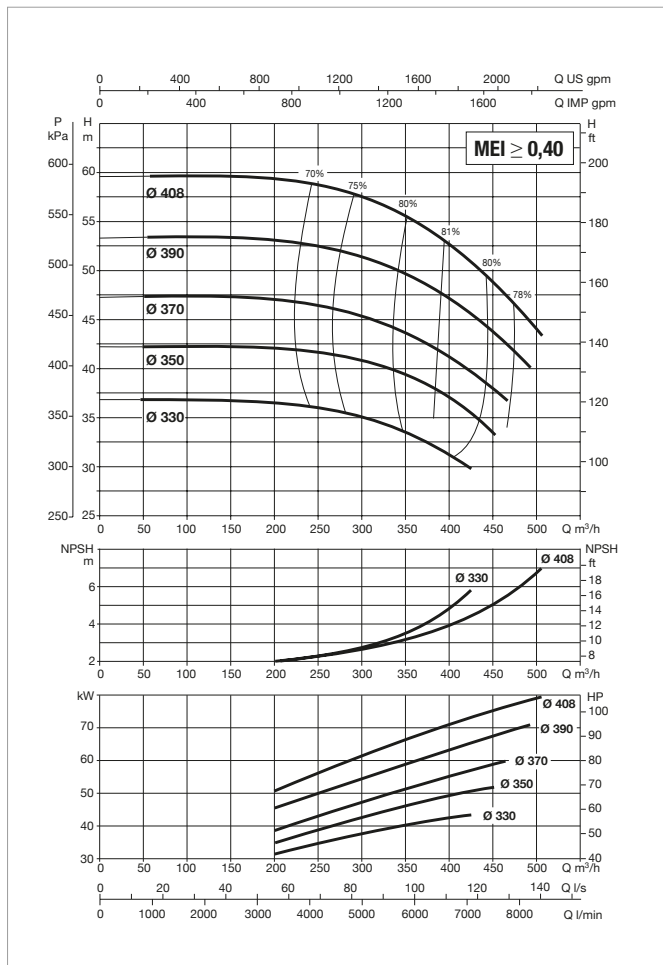
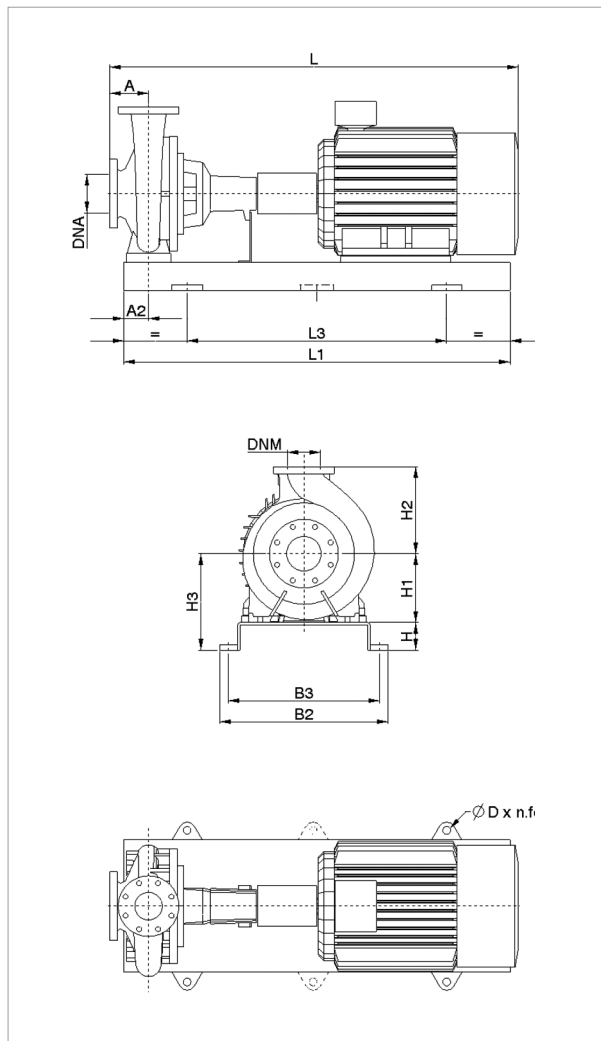
Dimension and electrical data based on sizing definition following the instructions on page 176.



KDN 150-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-400	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3

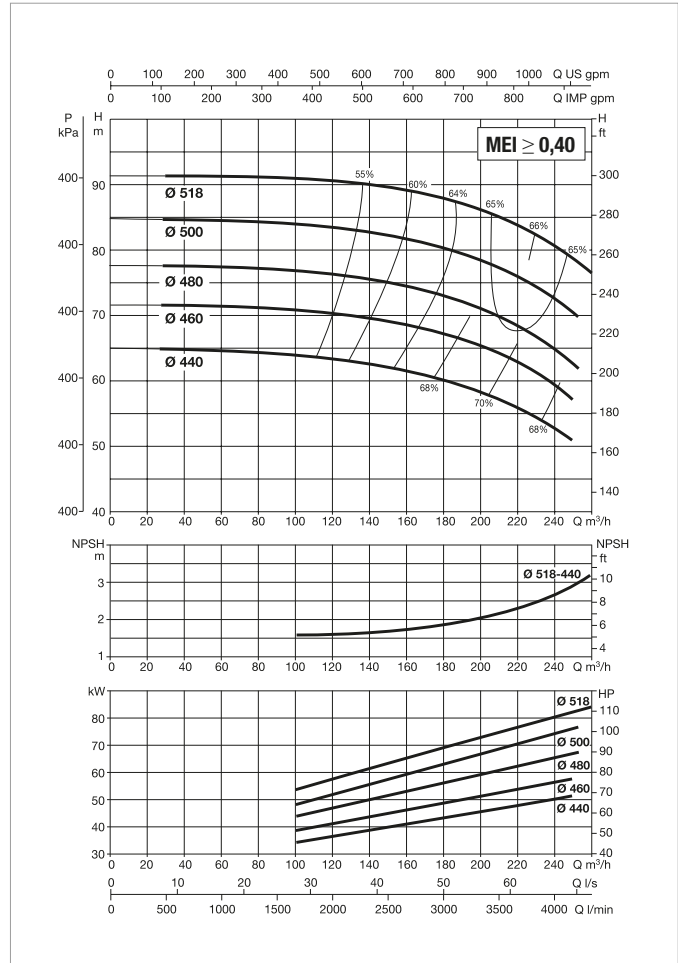
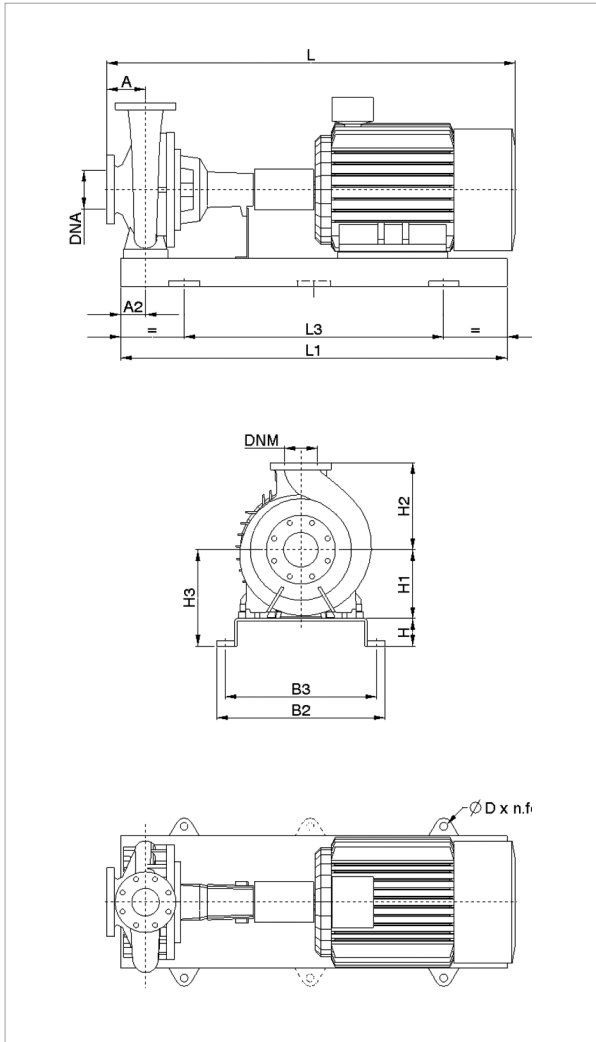
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNa	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 150-400	37	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1649	795	1720	801	1830	810	1901	816	9
	45	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1679	811	1750	831	1860	826	1931	846	9
	55	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1749	923	1820	938	1930	938	2001	953	9
	75	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1804	1040	1875	1040	1985	1055	2056	1055	9
	90	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1854	1160	1925	1145	2035	1175	2106	1160	9
	110	160	110	120	315	450	435	2000	1340	910	830	28x4	200	150	2104	1460	2175	1595	2285	1475	2356	1610	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-550A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-550A	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3

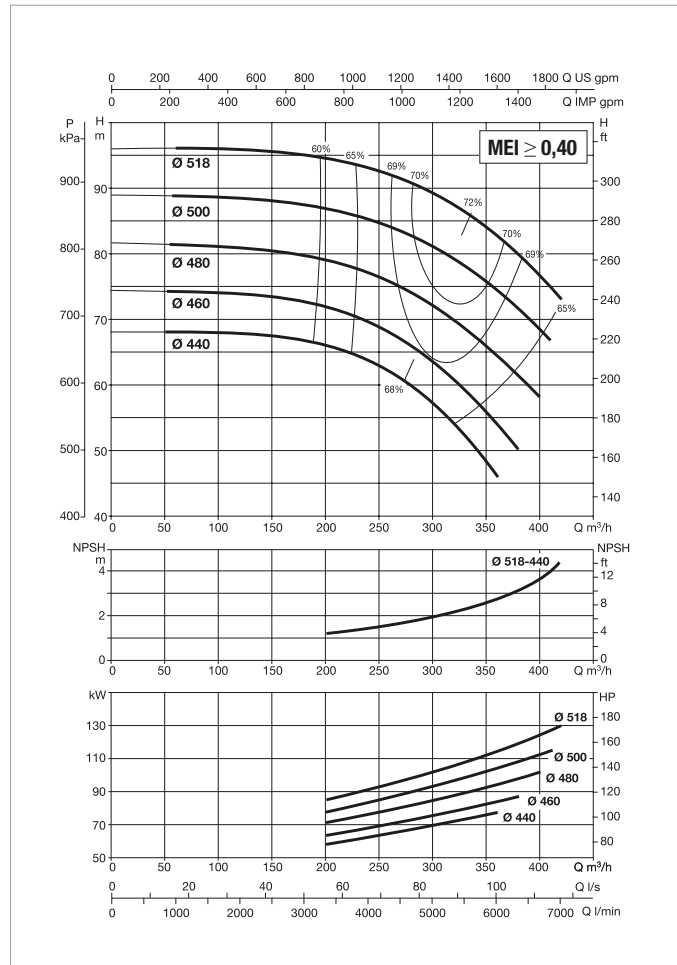
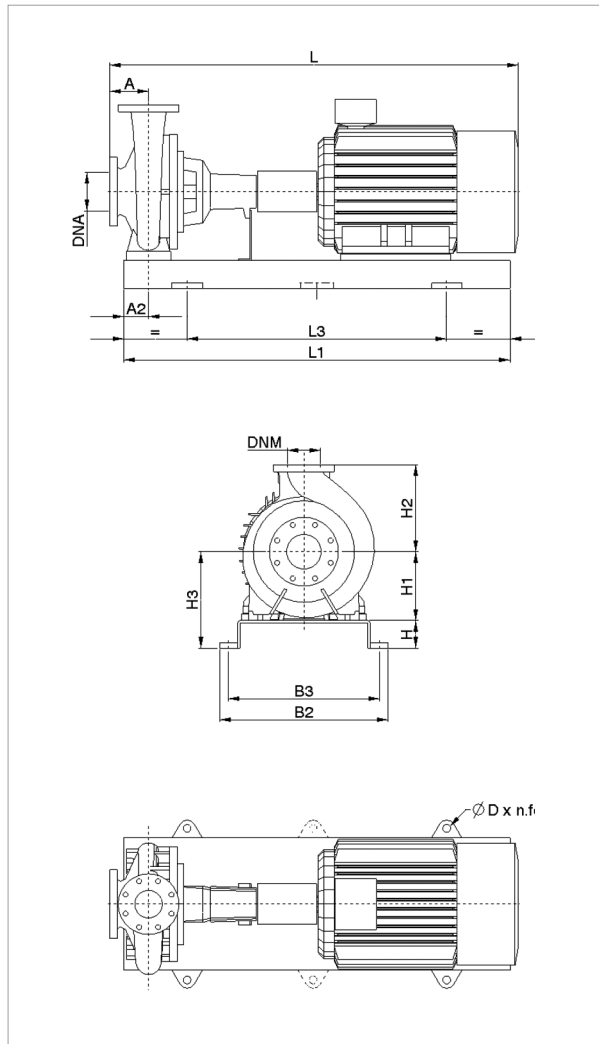
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 150-550A	37	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1669	907	1740	913	1850	922	1921	928	9
	45	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1699	923	1770	943	1880	938	1951	958	9
	55	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1769	1035	1840	1050	1950	1050	2021	1065	9
	75	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1824	1152	1895	1152	2005	1167	2076	1167	9
	90	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1874	1272	1945	1257	2055	1287	2126	1272	9
	110	180	110	120	355	500	475	2000	1340	910	830	28x4	200	150	2124	1572	2195	1707	2305	1587	2376	1722	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 150-500	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3
	250	355	3 x 400 V - Δ	425	420	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 150-500	75	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1824	1152	1895	1152	2005	1167	2076	1167	9
	90	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1874	1272	1945	1257	2055	1287	2126	1272	9
	110	180	110	120	355	500	475	2000	1340	910	830	28x4	200	150	2124	1572	2212	1707	2305	1587	2393	1722	10
	132	180	120	205	355	500	560	1770	1170	715	670	20x4	200	150	2234	1705	2322	1780	2415	1720	2503	1795	13
	160	180	120	205	355	500	560	1770	1170	715	670	20x4	200	150	2234	1795	2322	1860	2415	1810	2503	1875	13
	200	180	120	205	355	500	560	1770	1170	715	670	20x4	200	150	2234	1955	2322	1955	2415	1970	2503	1970	13
	250	180	120	205	355	500	560	2000	1400	960	915	20x4	200	150	2354	730	2442	(*)	2535	745	2623	(*)	14

Dimension and electrical data based on sizing definition following the instructions on page 176.

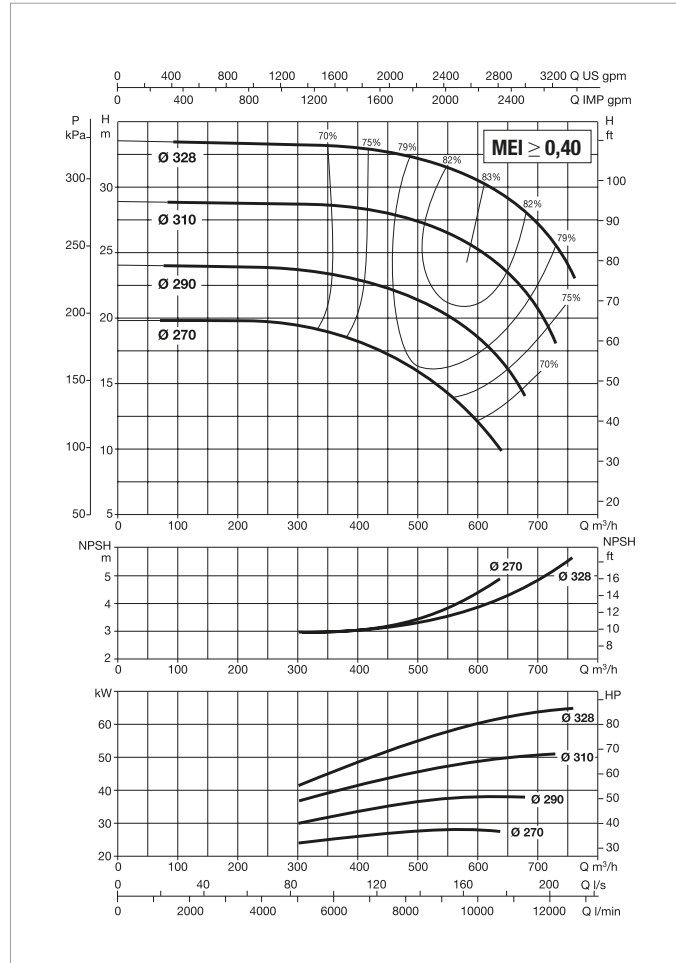
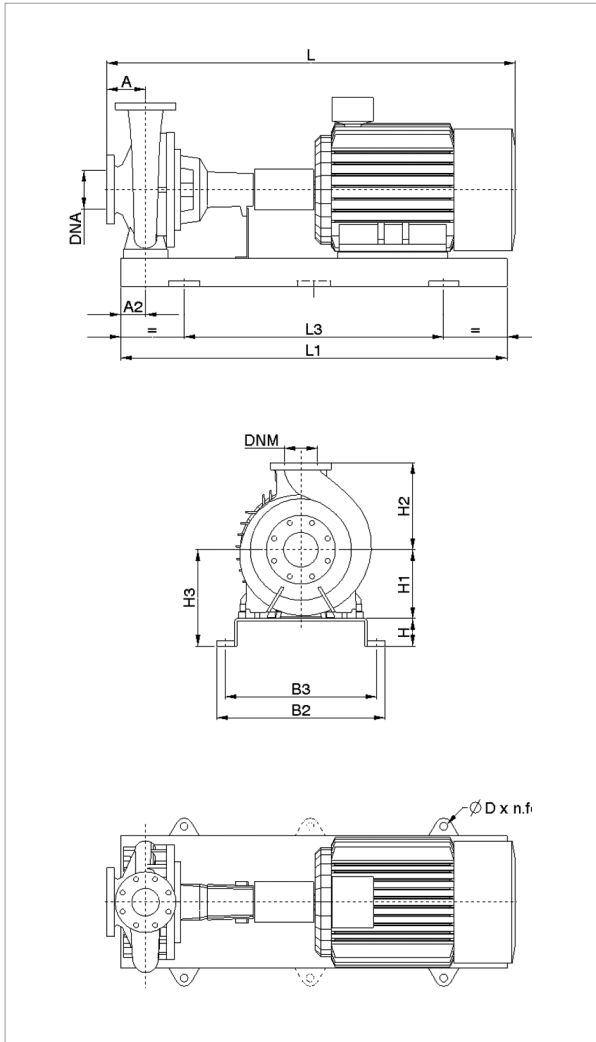
(*) Data on request.



KDN 200-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 200-330	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3

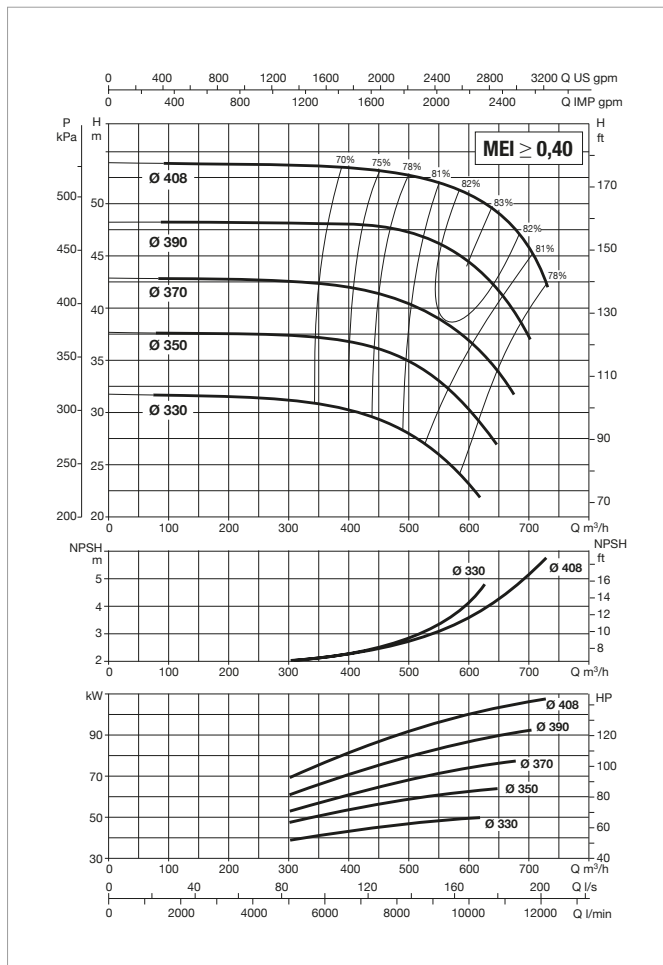
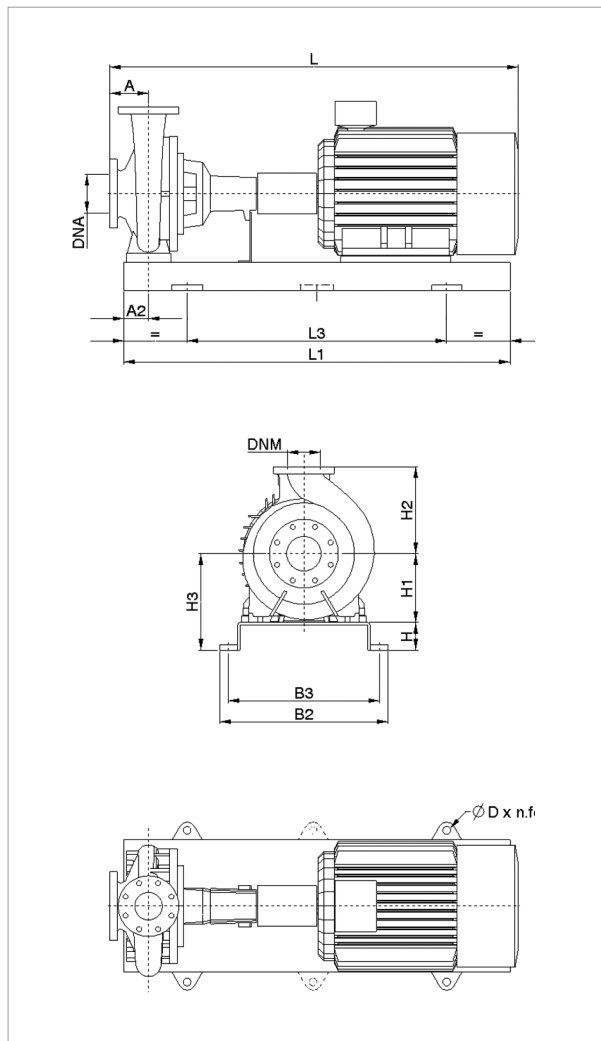
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 200-330	30	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1644	808	1694	808	1825	823	1875	823	9
	37	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1689	857	1760	814	1870	872	1941	829	9
	45	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1719	873	1790	877	1900	888	1971	892	9
	55	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1789	985	1860	888	1970	1000	2041	903	9
	75	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1844	1102	1915	985	2025	1117	2096	1000	9
	90	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1894	1222	1965	1087	2075	1237	2146	1102	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 200-400	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3

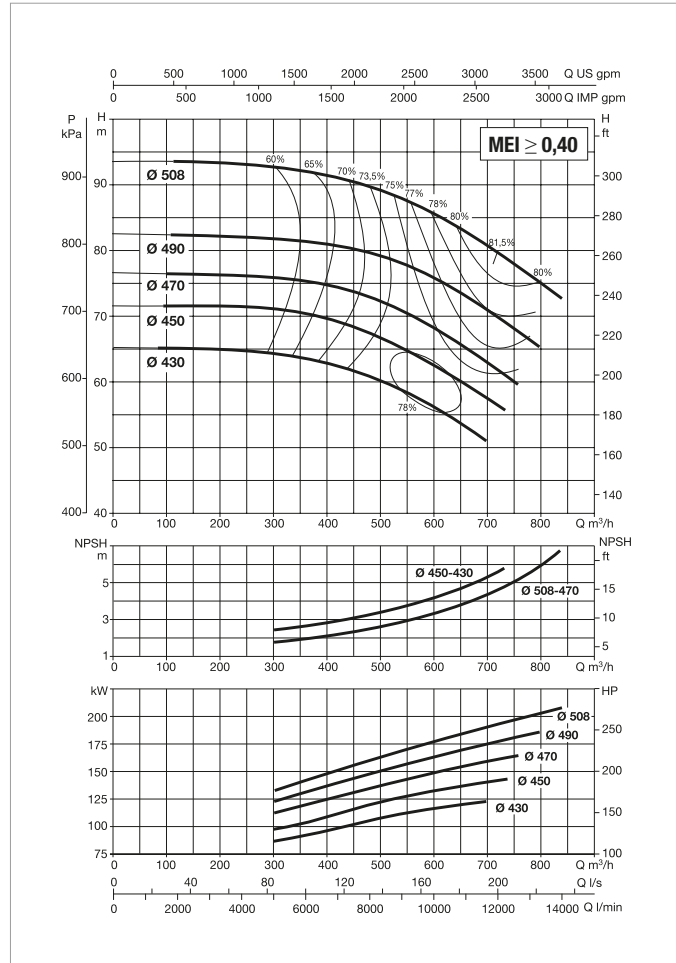
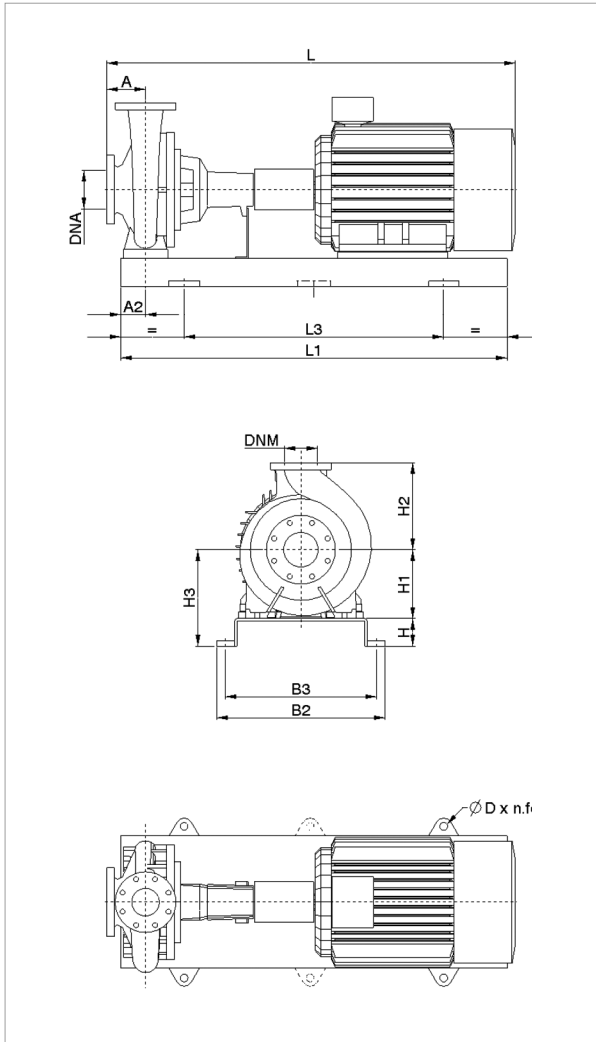
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg		
KDN 200-400	37	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1674	887	1745	893	1855	902	1926	908	8
	45	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1704	903	1775	923	1885	918	1956	938	8
	55	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1774	1015	1845	1030	1955	1030	2026	1045	8
	75	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1829	1132	1900	1132	2010	1147	2081	1147	8
	90	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1879	1252	1950	1237	2060	1267	2131	1252	8
	110	185	110	120	355	500	475	2000	1340	910	830	28x4	250	200	2129	1552	2217	1687	2310	1567	2398	1702	8
	132	185	125	205	355	500	560	1770	1170	715	670	20x4	250	200	2239	1435	2327	1510	2420	1450	2508	1525	8

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 200-500	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	175	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3
	250	355	3 x 400 V - Δ	425	420	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 200-500	75	185	145	185	400	580	585	1650	1050	960	915	20x4	250	200	1935	1120	2006	1120	2115	1135	2186	1135
	90	185	145	185	400	580	585	1650	1050	960	915	20x4	250	200	1935	1120	2006	1105	2115	1135	2186	1120
	110	185	145	205	400	580	605	1800	1200	960	915	20x4	250	200	2025	1600	2113	1735	2205	1615	2293	1750
	132	185	145	205	400	580	605	1800	1200	960	915	20x4	250	200	2025	1600	2113	1675	2205	1615	2293	1690
	160	185	145	205	400	580	605	1800	1200	960	915	20x4	250	200	2025	1600	2113	1665	2205	1615	2293	1680
	200	185	145	205	400	580	605	1800	1200	960	915	20x4	250	200	2025	1600	2113	1600	2205	1615	2293	1615
	250	185	145	205	400	580	605	2050	1450	960	915	20x4	250	200	2355	1825	(*)	(*)	(*)	1840	(*)	(*)

Dimension and electrical data based on sizing definition following the instructions on page 176.

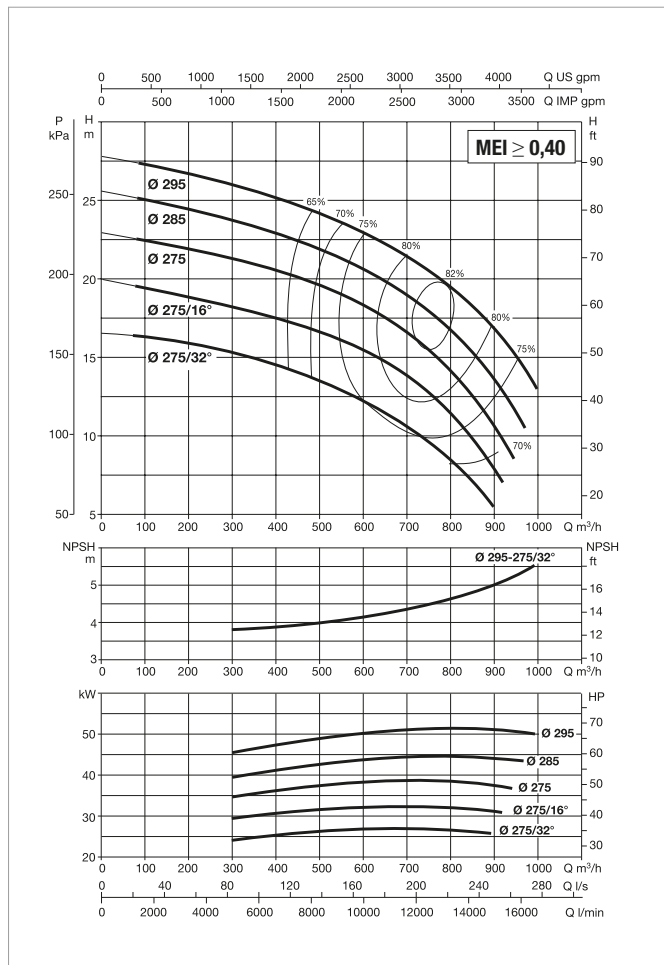
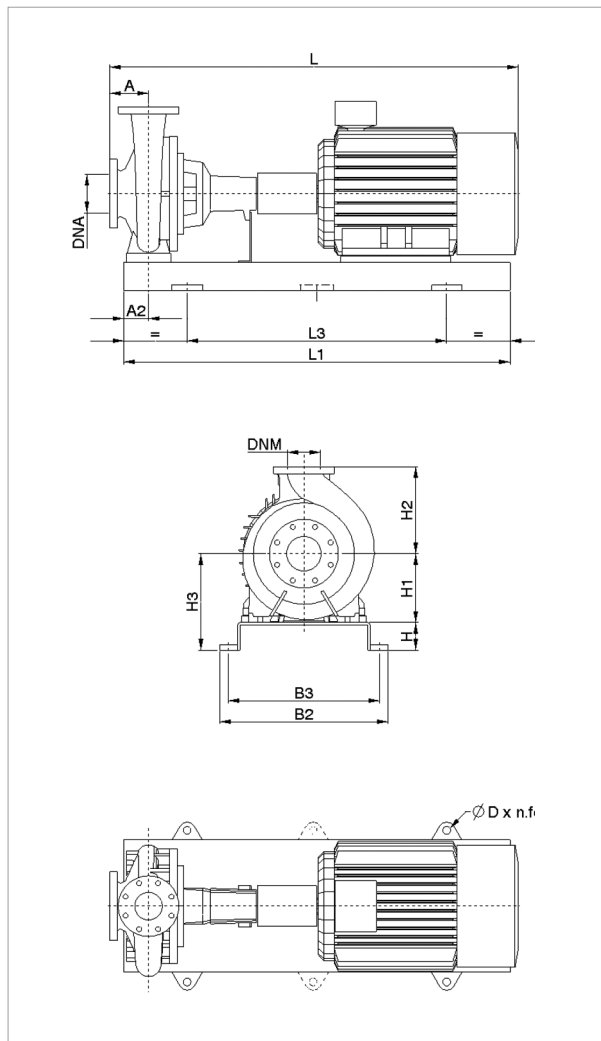
(*) Data on request.



KDN 250-330A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 250-330A	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3

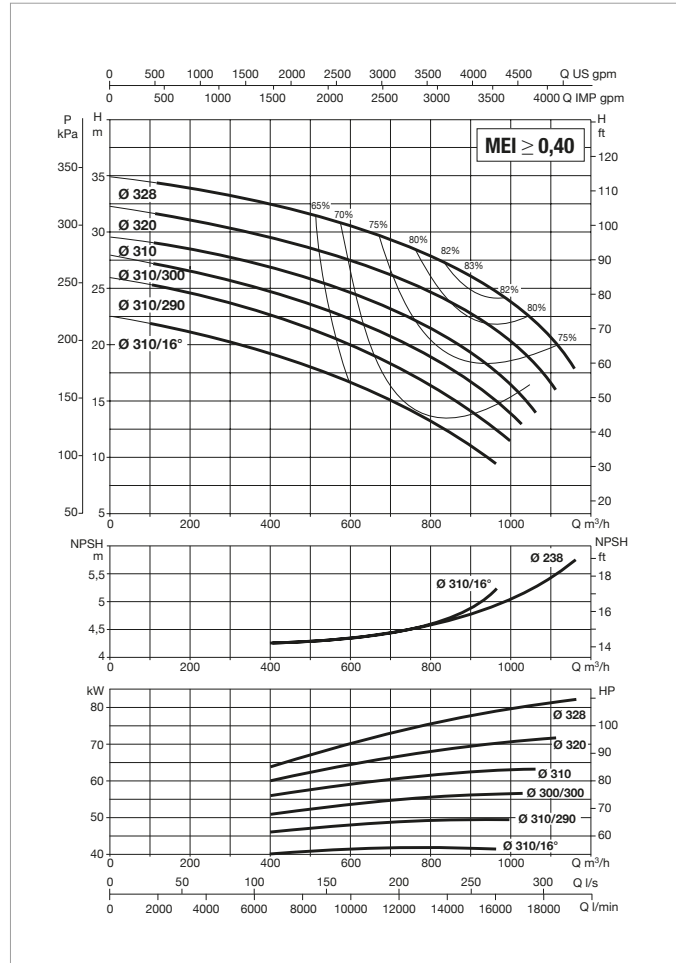
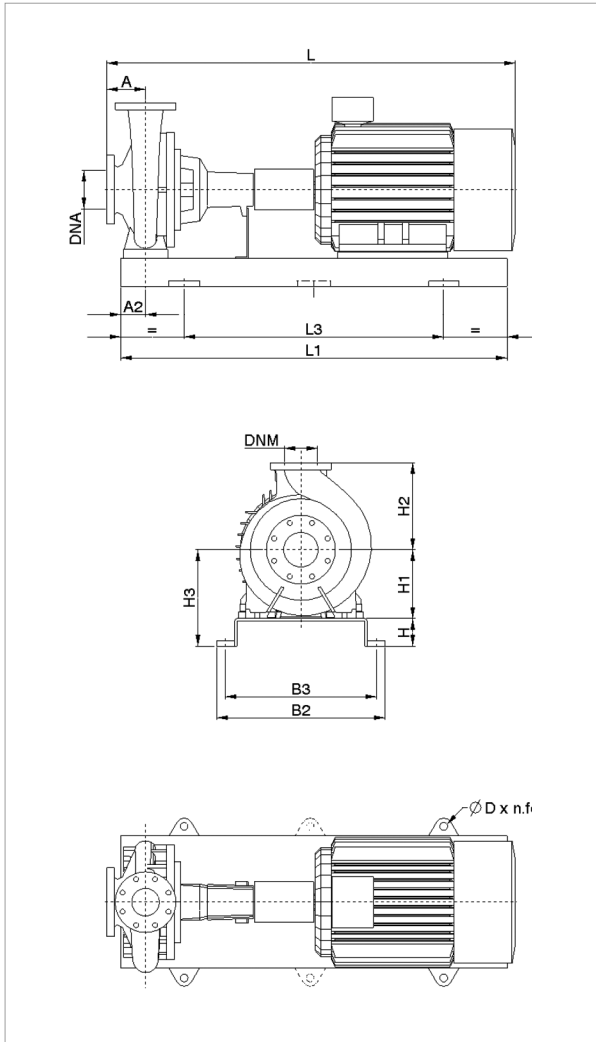
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 250-330A	30	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1694	912	1744	912	1935	927	1985	927	10
	37	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1739	961	1810	918	1980	976	2051	933	10
	45	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1769	977	1840	981	2010	992	2081	996	10
	55	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1839	1089	1910	992	2080	1104	2151	1007	10
	75	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1894	1206	1965	1089	2135	1221	2206	1104	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 250-330	30	200L	3 x 400 V - Δ	53.5	53.5	IE2 / IE3
	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3

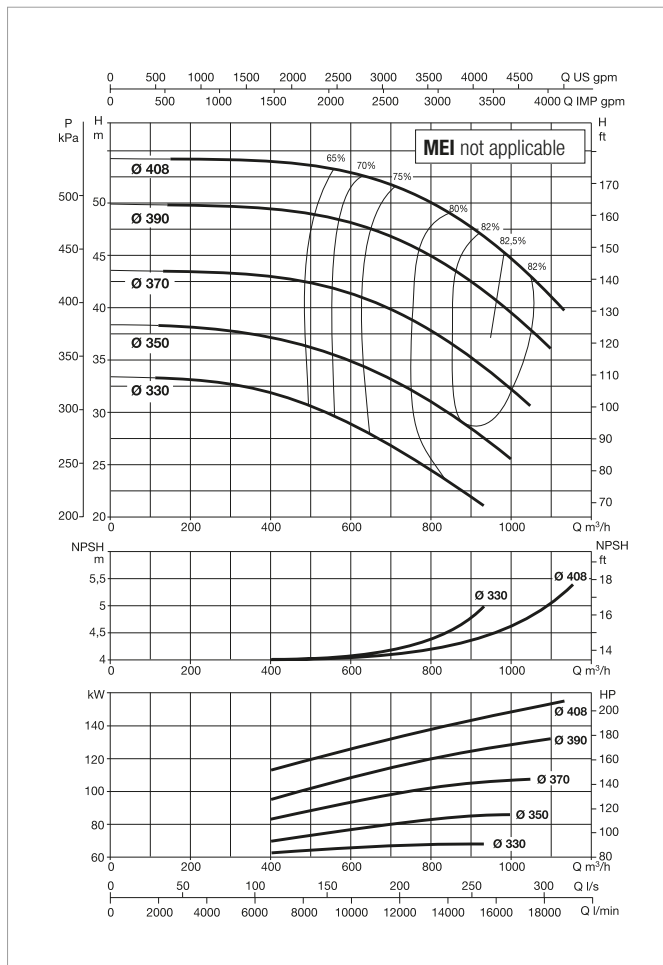
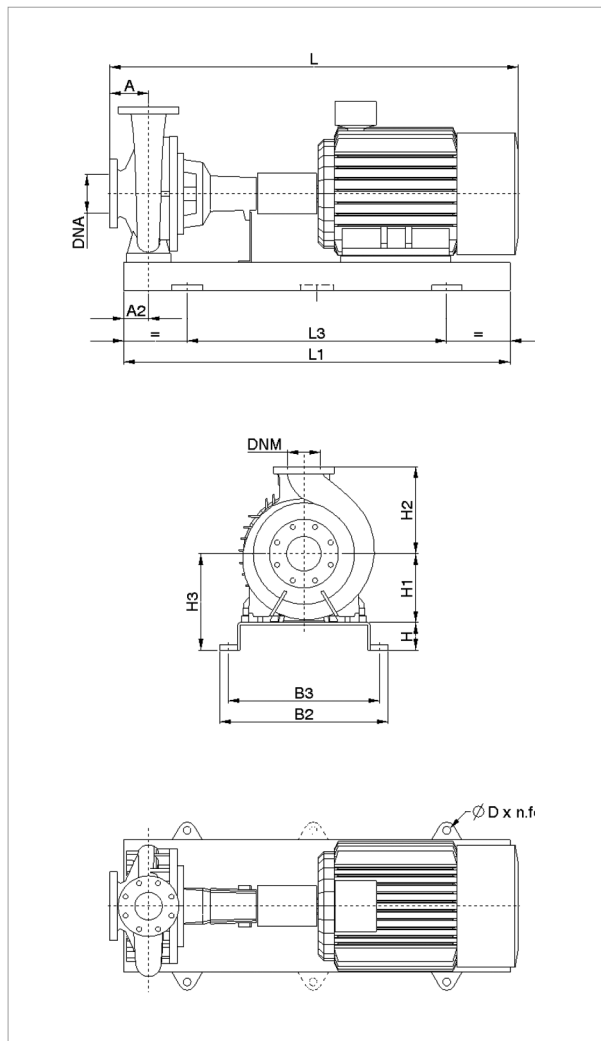
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg				
KDN 250-330	30	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1694	912	1744	912	1935	927	1985	927	10
	37	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1739	961	1810	967	1980	976	2051	982	10
	45	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1769	977	1840	997	2010	992	2081	1012	10
	55	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1839	1089	1910	1104	2080	1104	2151	1119	10
	75	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1894	1206	1965	1206	2135	1221	2206	1221	10
	90	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	1944	1326	2015	1311	2185	1341	2256	1326	10
	110	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	2194	1572	2282	1707	2435	1587	2523	1722	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 250-400	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3

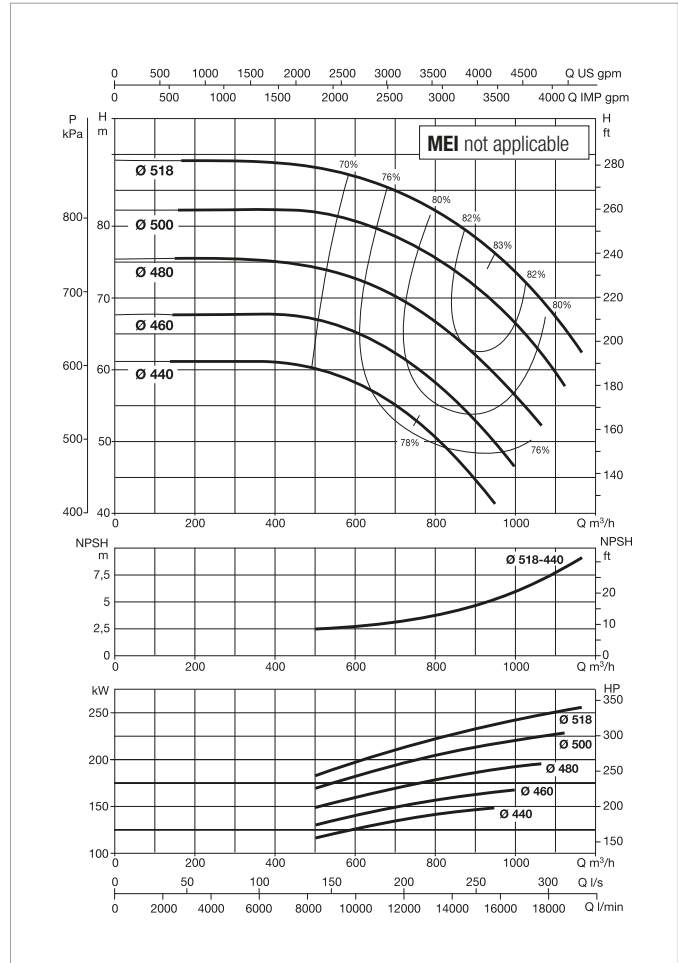
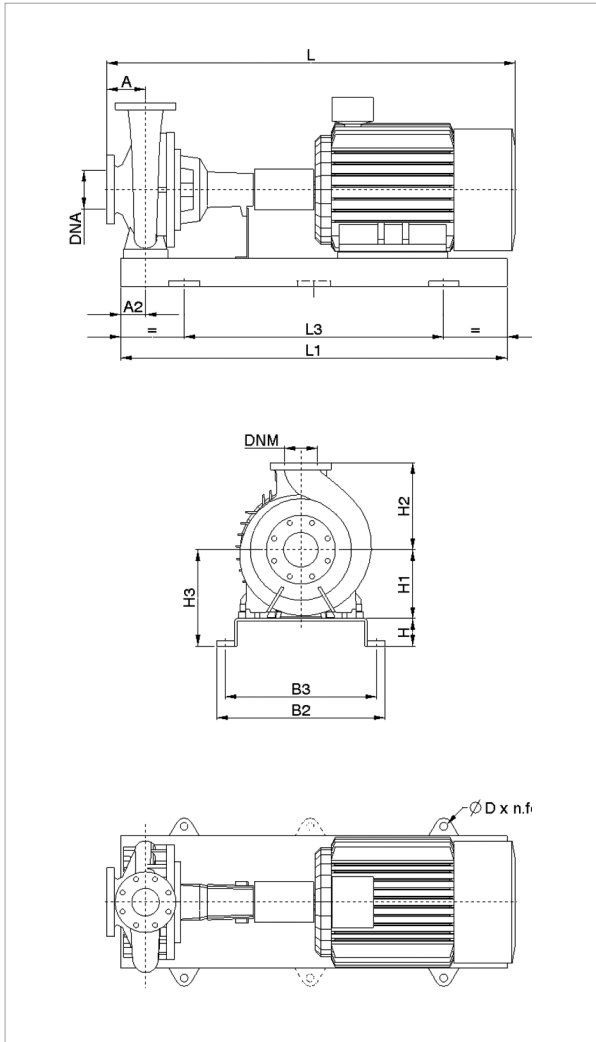
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg
KDN 250-400	75	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	1979	1446	2050	1446	2160	1461	2231	1461
	90	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	2029	1566	2100	1551	2210	1581	2281	1566
	110	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	2279	1812	2367	1947	2460	1827	2548	1962
	132	225	155	210	400	600	610	1880	1280	995	950	20x6	300	250	2389	1695	2477	1770	2570	1710	2658	1785
	160	225	155	210	400	600	610	1880	1280	995	950	20x6	300	250	2389	1785	2477	1850	2570	1800	2658	1865

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-500A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 250-500A	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3
	250	355	3 x 400 V - Δ	425	420	IE2 / IE3
	315	355	3 x 400 V - Δ	538	530	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 250-500A	132	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2484	1745	2572	1820	2735	1760	2823	1835
	160	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2484	1835	2572	1900	2735	1850	2823	1915
	200	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2484	1995	2572	1995	2735	2010	2823	2010
	250	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	2780	(*)	(*)	(*)	(*)	(*)	(*)
	315	300	155	210	500	500	710	2500	1900	1095	1050	20X6	300	250	(*)	(*)	(*)	(*)	2855	(*)	(*)	(*)

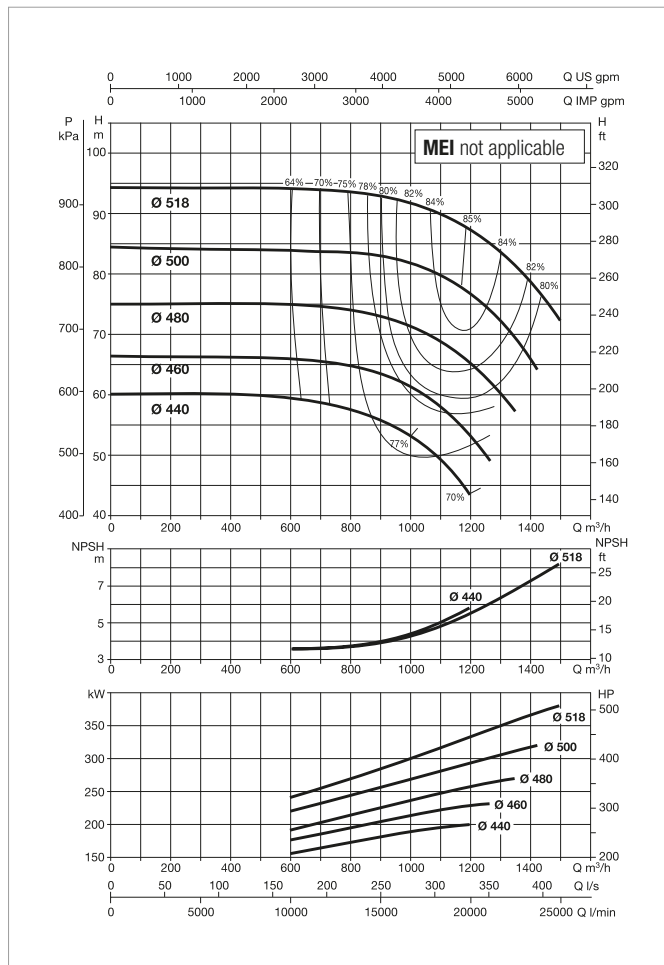
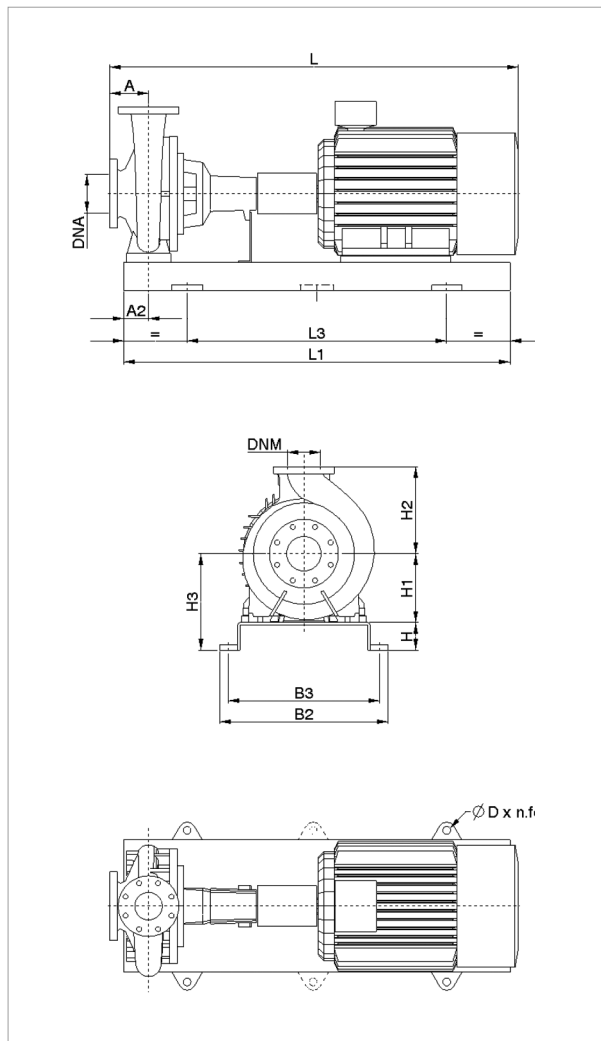
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 250-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 250-500	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3
	250	355	3 x 400 V - Δ	425	420	IE2 / IE3
	315	355	3 x 400 V - Δ	538	530	IE2 / IE3
	355	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
400	400	3 x 400 V - Δ	(*)	(*)	IE2 / IE3	

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 250-500	110	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2374	1625	2462	1760	2625	1640	2713	1775
	132	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2484	1745	2572	1820	2735	1760	2823	1835
	160	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2484	1835	2572	1900	2735	1850	2823	1915
	200	300	155	210	500	500	710	2250	1650	995	950	20X6	300	250	2484	1995	(*)	1995	2735	2010	(*)	2010
	250	300	155	210	500	500	710	2500	1900	1095	1050	20X5	300	250	2599	(*)	(*)	(*)	2850	(*)	(*)	(*)
	315	300	155	210	500	500	710	2500	1900	1095	1050	20X6	300	250	2600	2780	(*)	(*)	2850	2795	(*)	(*)
	355	300	155	210	500	500	710	2500	1900	1095	1050	20X6	300	250	1104	700	(*)	(*)	1355	715	(*)	(*)
	400	300	155	210	500	500	710	2650	2050	1200	1155	20X6	300	250	1104	700	(*)	(*)	1355	715	(*)	(*)

Dimension and electrical data based on sizing definition following the instructions on page 176.

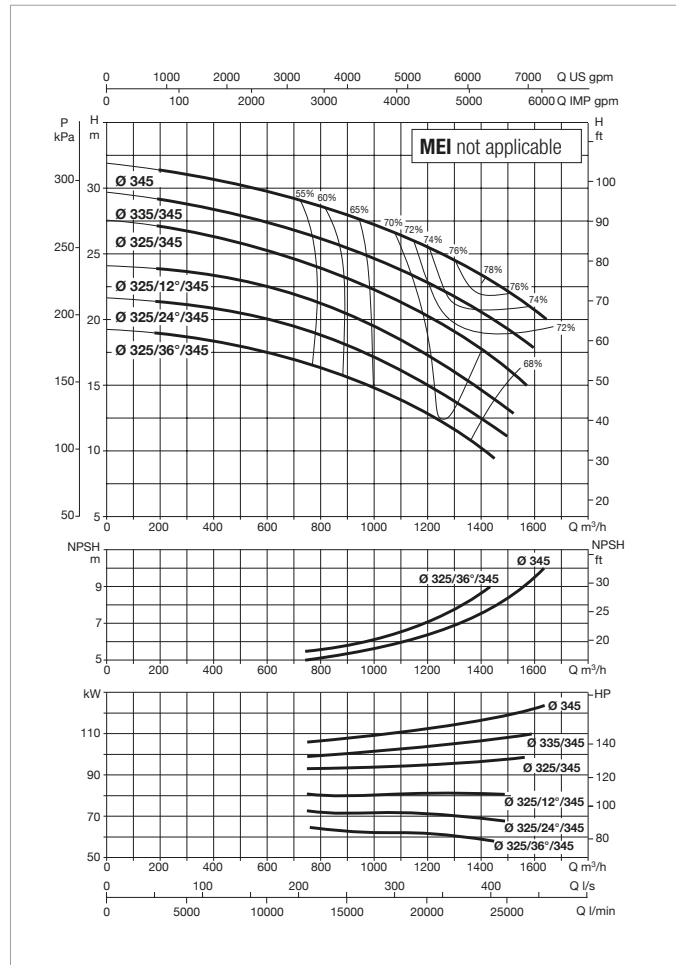
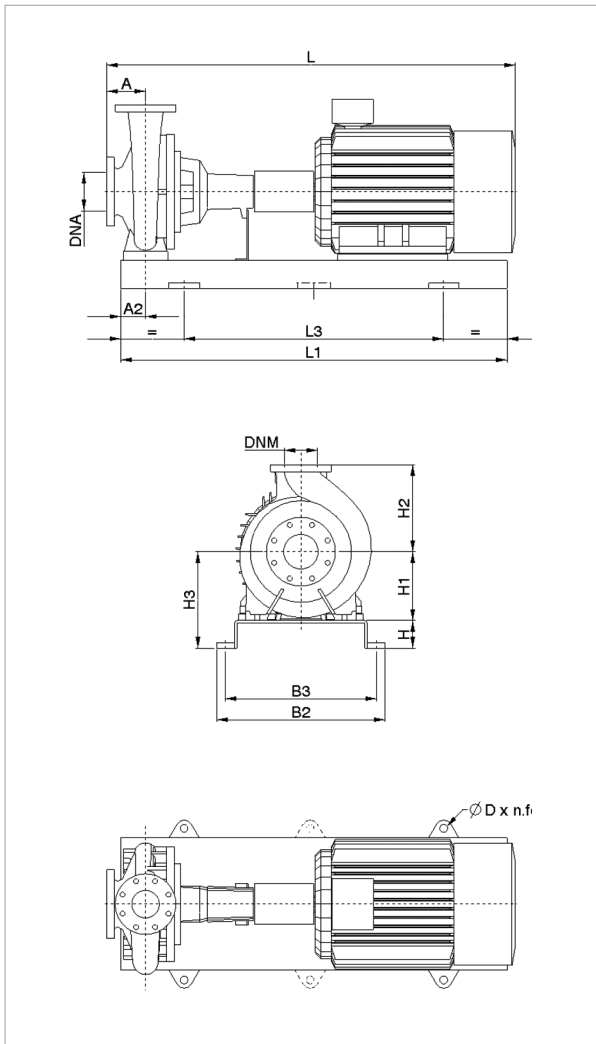
(*) Data on request.



KDN 300-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 300-330	37	225S	3 x 400 V - Δ	66.5	65	IE2 / IE3
	45	225M	3 x 400 V - Δ	79.5	78.5	IE2 / IE3
	55	250M	3 x 400 V - Δ	98	96	IE2 / IE3
	75	280S	3 x 400 V - Δ	132	130	IE2 / IE3
	90	280M	3 x 400 V - Δ	154	156	IE2 / IE3
	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3

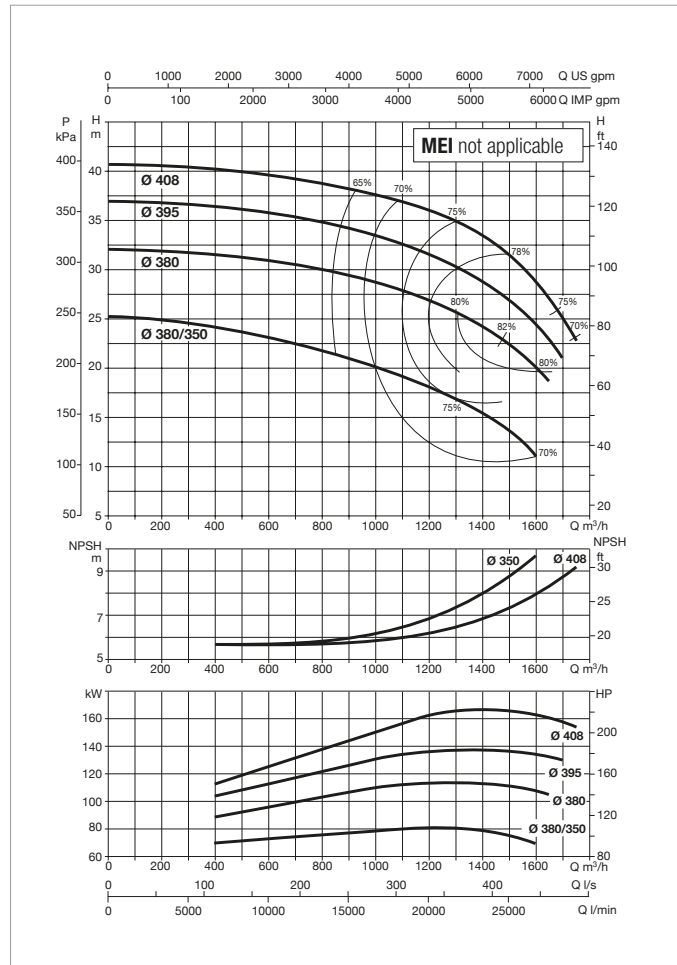
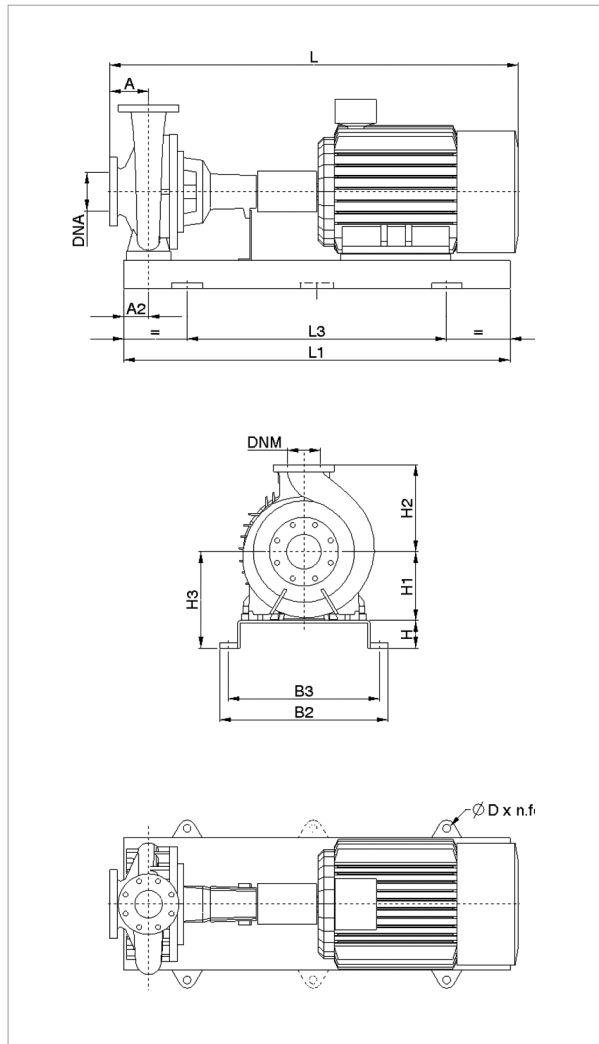
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 300-330	37	300	230	185	500	670	685	1650	1050	960	915	16x4	350	300	1839	1094	1910	1100	2080	1109	2151	1115
	45	300	230	185	500	670	685	1650	1050	960	915	16x4	350	300	1869	1110	1940	1130	2110	1125	2181	1145
	55	300	230	185	500	670	685	1700	1100	960	915	16x4	350	300	1939	1222	2010	1237	2180	1237	2251	1252
	75	300	230	185	500	670	685	1800	1200	960	915	20x4	350	300	1994	1339	2065	1339	2235	1354	2306	1354
	90	300	230	185	500	670	685	1800	1200	960	915	20x4	350	300	2044	1459	2115	1444	2285	1474	2356	1459
	110	300	230	205	500	670	705	1930	1330	960	915	20x4	350	300	2294	1705	2382	1840	2535	1720	2623	1855
	132	300	230	205	500	670	705	1930	1330	960	915	20x4	350	300	2404	1825	2492	1900	2645	1840	2733	1915

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400M - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 300-400M	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3

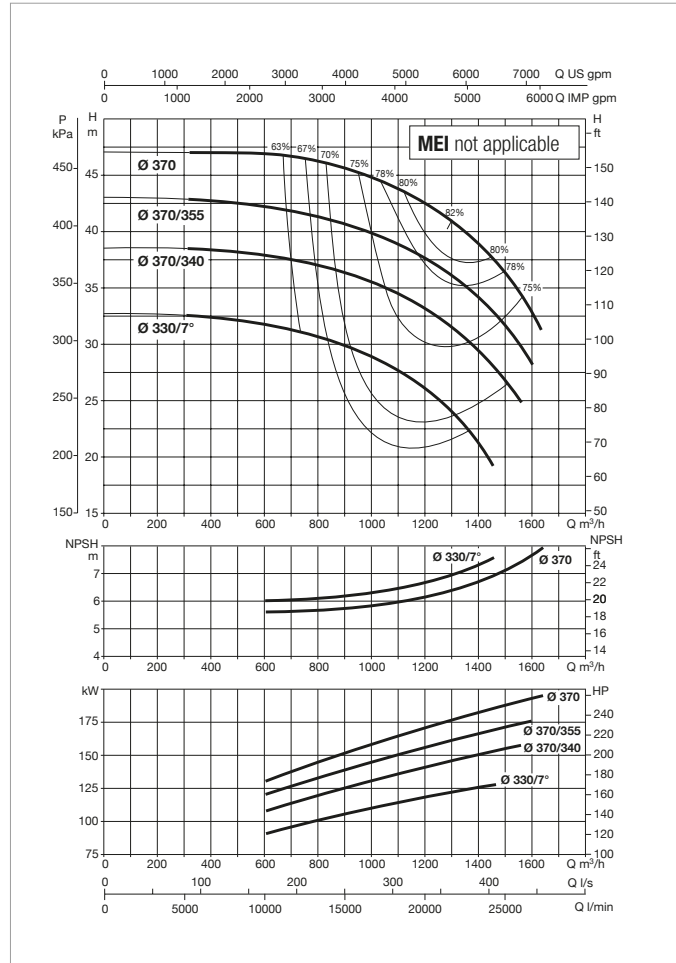
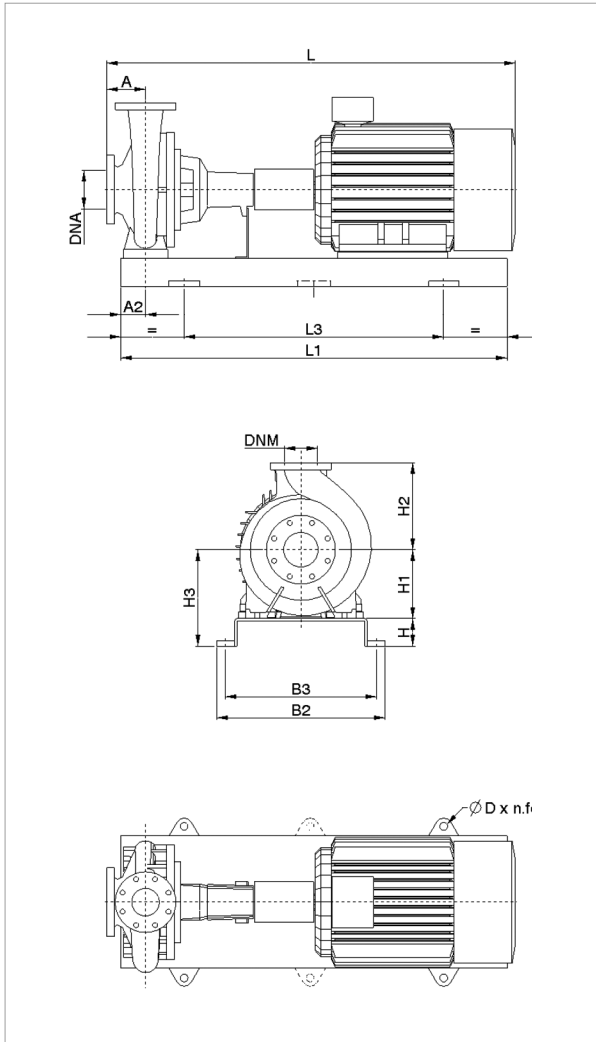
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg							
KDN 300-400M	110	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	2389	1725	2477	1860	2630	1740	2718	1875
	132	325	145	210	400	640	610	1880	1280	995	950	20x6	350	300	2499	1845	2587	1920	2740	1860	2828	1935
	160	325	145	210	400	640	610	1880	1280	995	950	20x6	350	300	2499	1935	2587	2000	2740	1950	2828	2015
	200	325	145	210	400	640	610	1880	1280	995	950	20x6	350	300	2499	2095	2587	2095	2740	2110	2828	2110

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 300-400A	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3
	250	355	3 x 400 V - Δ	425	420	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg
KDN 300-400A	110	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	2389	1725	2477	1860	2630	1740	2718	1875
	132	325	145	210	400	640	610	1880	1280	995	950	20X6	350	300	2499	1845	2587	1920	2740	1860	2828	1935
	160	325	145	210	400	640	610	1880	1280	995	950	20X6	350	300	2499	1935	2587	2000	2740	1950	2828	2015
	200	325	145	210	400	640	610	1880	1280	995	950	20X6	350	300	2499	2095	2587	2095	2740	2110	2828	2110
	250	325	145	210	400	640	610	2250	1650	1095	1050	20X6	350	300	1119	800	(*)	(*)	1360	815	(*)	(*)

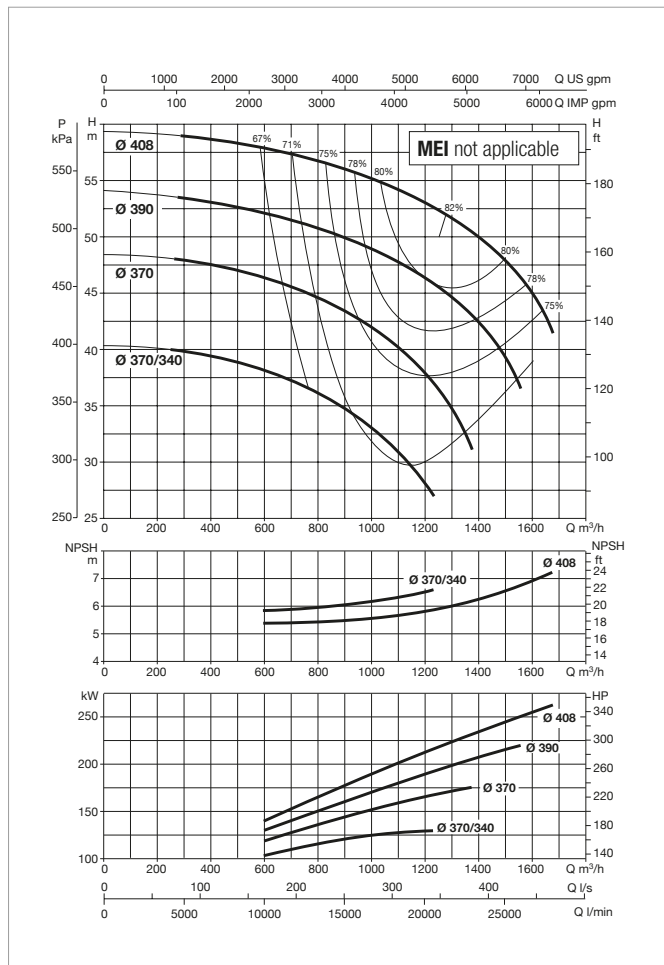
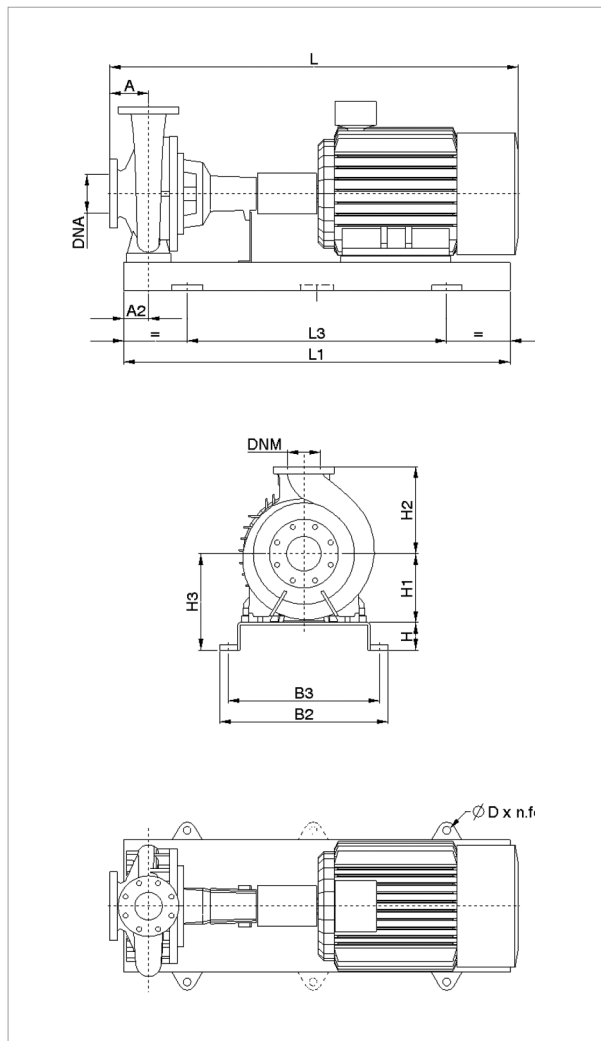
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 4 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 300-400	110	315S	3 x 400 V - Δ	195	190	IE2 / IE3
	132	315M	3 x 400 V - Δ	235	230	IE2 / IE3
	160	315L	3 x 400 V - Δ	285	275	IE2 / IE3
	200	315L	3 x 400 V - Δ	350	340	IE2 / IE3
	250	355	3 x 400 V - Δ	425	420	IE2 / IE3
	315	355	3 x 400 V - Δ	538	530	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 300-400	110	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	2389	1725	2477	1860	2630	1740	2718	1875
	132	325	145	210	400	640	610	1880	1280	995	950	20X6	350	300	2499	1845	2587	1920	2740	1860	2828	1935
	160	325	145	210	400	640	610	1880	1280	995	950	20X6	350	300	2499	1935	2587	2000	2740	1950	2828	2015
	200	325	145	210	400	640	610	1880	1280	995	950	20X6	350	300	2499	2095	2587	2095	2740	2110	2828	2110
	250	325	145	210	400	640	610	2250	1650	1095	1050	20X6	350	300	1119	2480	(*)	(*)	1360	2495	(*)	(*)
	315	325	145	210	400	640	610	2250	1650	1095	1050	20X6	350	300	2645	2480	(*)	(*)	2720	2495	(*)	(*)

Dimension and electrical data based on sizing definition following the instructions on page 176.

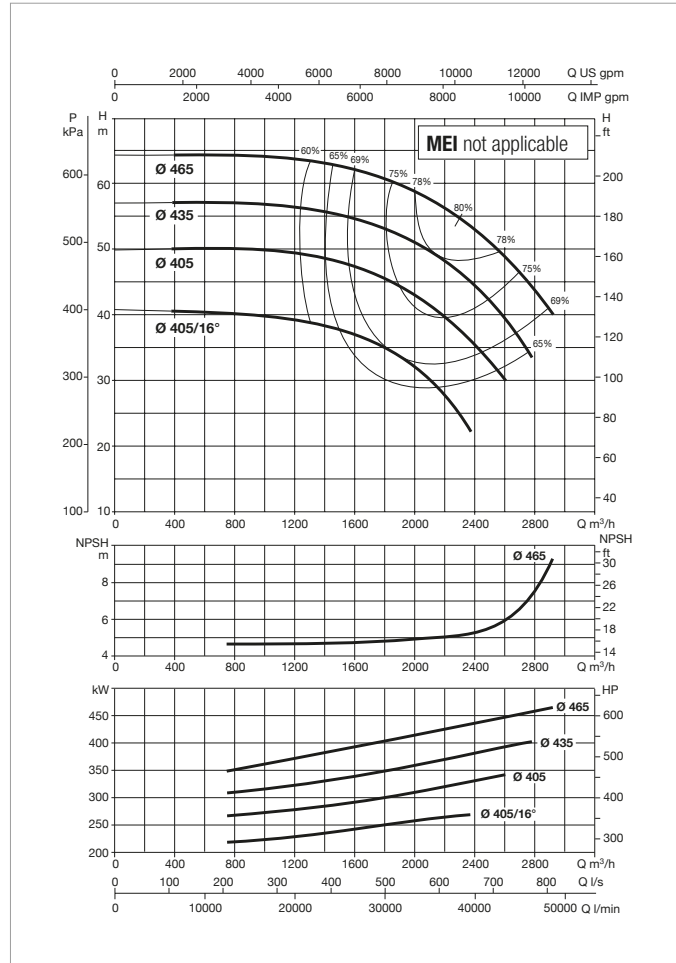
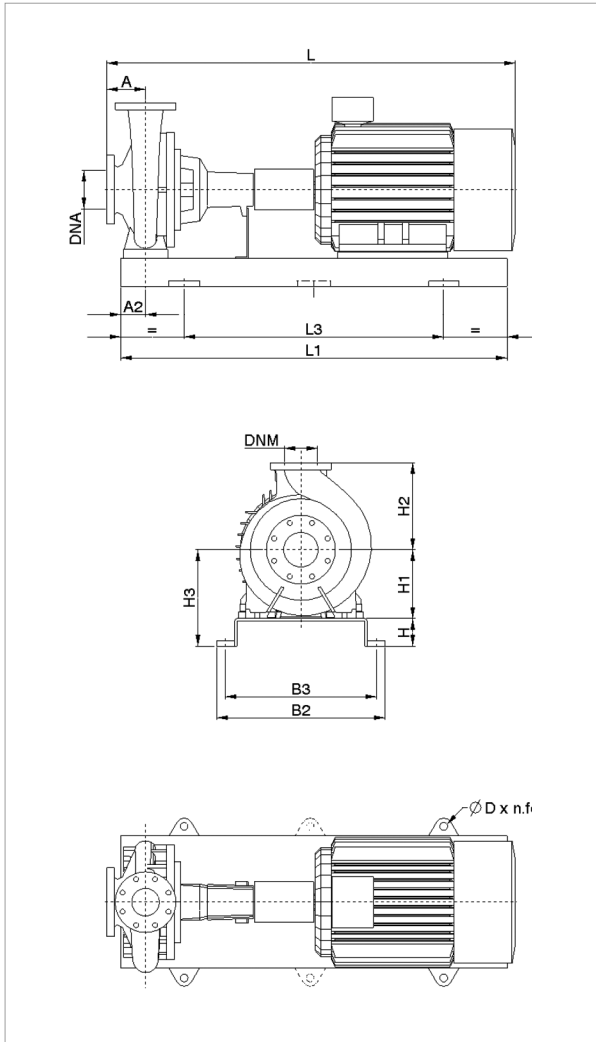
(*) Data on request.



KDN 350-500A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 350-500A	315	355	3 x 400 V - Δ	538	530	IE2 / IE3
	355	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	400	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	500	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 350-500A	315	380	295	240	600	600	840	2700	2100	1305	1260	20x6	400	350	3114	1080	(*)	1080	3115	1095	(*)	1095
	355	385	300	240	600	615	840	3000	2100	1305	1260	(*)	400	350	3115	4250	(*)	4250	(*)	(*)	(*)	4250
	400	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	500	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

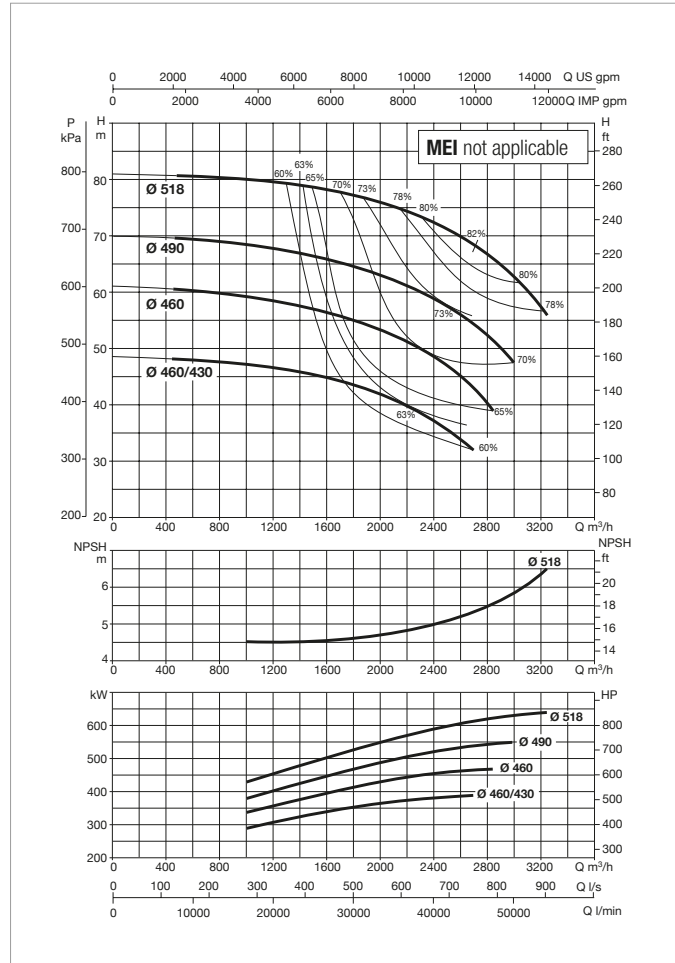
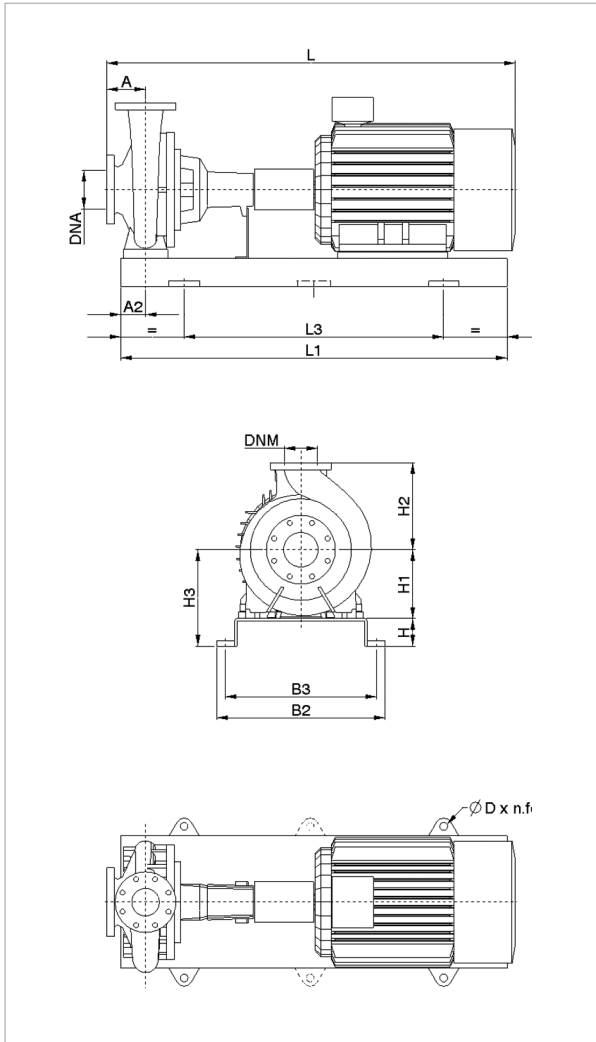
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 350-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	4 POLES			IE2	IE3	
KDN 350-500	355	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	400	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	500	355	3 x 400 V - Δ	(*)	(*)	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg													
KDN 350-500	355	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	400	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	500	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						230	400				
MEC 71	0.25	1400	60.00	0.710	3 x 230/400	1.60	0.90	2.88	2.15	2.26	4
MEC 71	0.37	1340	67.00	0.780	3 x 230/400	1.70	0.98	4.75	2.84	2.64	4
MEC 80	0.55	1410	71.00	0.720	3 x 230/400	2.60	1.50	5.33	2.78	2.89	4
MEC 80	0.75	1430	79.80	0.795	3 x 230/400	3.57	2.06	6.65	3.58	3.54	4
MEC 90S	1.10	1440	82.20	0.723	3 x 230/400	4.68	2.70	7.27	3.43	3.47	4
MEC 90L	1.50	1430	82.56	0.732	3 x 230/400	6.24	3.60	6.67	3.39	3.30	4
MEC 100L	2.20	1450	83.38	0.756	3 x 230/400	8.75	5.05	8.40	3.45	3.75	4

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 100L	3.00	1440	86.72	0.800	3 x 400 Δ	6.25	3.61	6.91	2.70	3.11	4
MEC 112M	4.00	1450	87.19	0.832	3 x 400 Δ	7.95	4.59	8.72	3.17	3.53	4
MEC 132S	5.50	1460	88.78	0.851	3 x 400 Δ	10.60	6.15	7.97	2.37	3.13	4
MEC 132M	7.50	1460	89.81	0.849	3 x 400 Δ	14.20	8.20	8.70	2.62	3.07	4
MEC 160M	11.00	1470	90.44	0.818	3 x 400 Δ	21.60	12.47	8.32	2.70	2.95	4
MEC 160L	15.00	1470	90.48	0.834	3 x 400 Δ	29.00	16.74	8.16	2.58	2.96	4
MEC 180M	18.50	1470	92.00	0.873	3 x 400 Δ	33.00	19.05	7.66	2.93	3.23	4
MEC 180L	22.00	1470	92.31	0.862	3 x 400 Δ	40.00	23.09	7.86	2.63	3.19	4
MEC 200L	30.00	1480	92.80	0.874	3 x 400 Δ	53.31	30.78	8.72	3.17	3.53	4
MEC 225S	37.00	1480	93.22	0.865	3 x 400 Δ	66.50	38.39	6.74	2.13	2.86	4
MEC 225M	45.00	1480	93.09	0.881	3 x 400 Δ	79.50	45.90	7.53	2.34	2.92	4
MEC 250M	55.00	1490	94.22	0.843	3 x 400 Δ	98.00	56.58	8.47	2.82	3.36	4
MEC 280S	75.00	1480	94.48	0.876	3 x 400 Δ	132.00	76.50	8.69	2.96	3.56	4
MEC 280M	90.00	1480	94.78	0.895	3 x 400 Δ	154.00	89.00	9.49	3.42	3.80	4
MEC 315S	110.00	1490	94.70	0.877	3 x 400 Δ	195.00	112.59	7.14	2.51	3.44	4
MEC 315M	132.00	1490	94.80	0.879	3 x 400 Δ	235.00	135.68	7.08	2.55	3.39	4
MEC 315L	160.00	1490	95.00	0.877	3 x 400 Δ	285.00	164.55	7.18	2.67	3.40	4
MEC 315L	200.00	1490	95.10	0.874	3 x 400 Δ	350.00	202.08	7.25	2.77	3.41	4
MEC355M	250.00	1490	96.01	0.88	3 x 400 Δ	425.00	246.40	7.27	2.42	3.50	4
MEC355L	315.00	1490	95.98	0.88	3 x 400 Δ	538.00	311.88	8.08	2.46	3.83	4

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE3 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 132M	7.50	1460	90.40	0.820	3 x 400 Δ	14.60	8.44	8.50	2.70	3.20	4
MEC 160M	11.00	1470	91.40	0.850	3 x 400 Δ	20.50	11.85	8.40	2.90	3.10	4
MEC 160L	15.00	1470	92.10	0.850	3 x 400 Δ	28.00	16.18	8.30	2.90	3.00	4
MEC 180M	18.50	1470	92.60	0.850	3 x 400 Δ	34.00	19.65	7.90	2.40	3.00	4
MEC 180L	22.00	1470	92.90	0.850	3 x 400 Δ	40.50	23.41	8.30	2.60	3.10	4
MEC 200L	30.00	1470	93.60	0.870	3 x 400 Δ	53.50	30.92	8.60	2.80	3.40	4
MEC 225S	37.00	1480	93.90	0.880	3 x 400 Δ	65.00	37.57	7.50	2.20	2.60	4
MEC 225M	45.00	1480	94.20	0.880	3 x 400 Δ	78.50	45.38	8.00	2.50	2.80	4
MEC 250M	55.00	1480	94.60	0.870	3 x 400 Δ	96.00	55.49	8.10	2.40	2.80	4
MEC 280S	75.00	1490	95.00	0.880	3 x 400 Δ	130.00	75.14	7.40	2.20	2.90	4
MEC 280M	90.00	1490	95.20	0.880	3 x 400 Δ	156.00	90.17	6.80	2.10	2.60	4
MEC 315S	110.00	1490	95.40	0.860	3 x 400 Δ	190.00	109.83	6.90	2.20	3.00	4
MEC 315M	132.00	1490	95.60	0.860	3 x 400 Δ	230.00	132.95	6.90	2.30	3.00	4
MEC 315L	160.00	1490	95.80	0.870	3 x 400 Δ	275.00	158.96	6.90	2.30	2.90	4
MEC 315L	200.00	1490	96.00	0.880	3 x 400 Δ	340.00	196.53	6.70	2.30	2.80	4
MEC 355M	250.00	1490	96.00	0.890	3 x 400 Δ	420.00	242.77	7.70	2.60	2.70	4
MEC 355L	315.00	1490	96.00	0.890	3 x 400 Δ	530.00	306.36	7.80	2.80	2.70	4

KDN OVERSIZE - 6 POLE RANGE

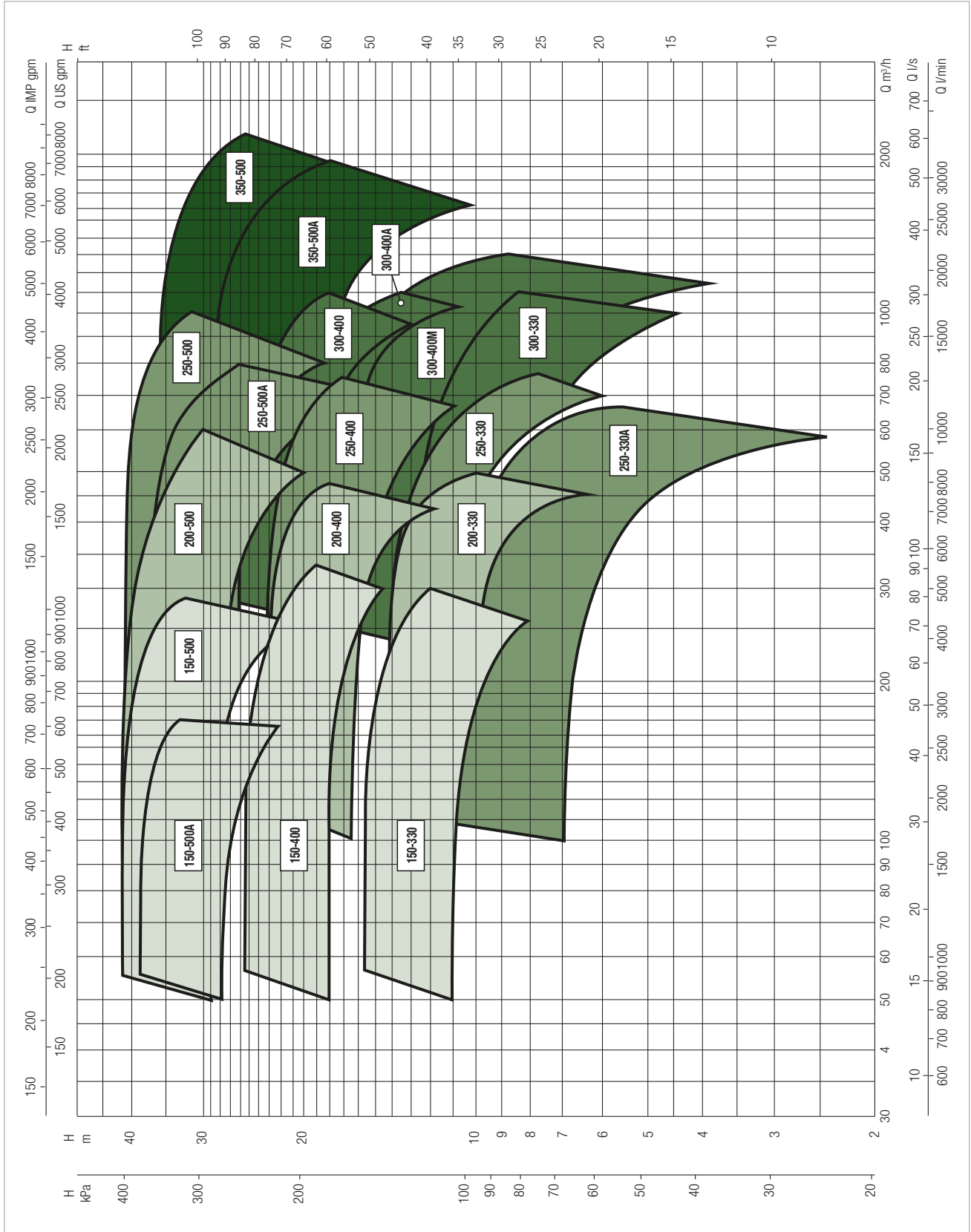
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 970 1/min



KDN OVERSIZE - 6 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 150

MODEL	Q=m ³ /h	0	50	100	150	200	250	300
	Q=l/min	0	833	1667	2500	3333	4167	5000
KDN 150-330 / 280	H (m)	11	11	11	11	10	8	
KDN 150-330 / 300		13	13	13	12	12	10	
KDN 150-330 / 315		14	14	14	14	13	12	
KDN 150-330 / 328		16	16	16	15	15	14	12
KDN 150-400 / 350		18	18	18	18	17	16	14
KDN 150-400 / 370		20	20	20	20	19	18	16
KDN 150-400 / 390		23	23	23	23	22	21	18
KDN 150-400 / 408		25	25	25	25	25	23	21
KDN 150-500 / 440		29	29	29	28	24		
KDN 150-500 / 480		35	35	35	33	31	27	
KDN 150-500 / 518		41	41	41	40	39	35	
KDN 150-500A / 440		28	28	27	24			
KDN 150-500A / 480		33	33	32	29			
KDN 150-500A / 518		39	39	39	36			

SELECTION TABLE - KDN 200

MODEL	Q=m ³ /h	0	50	100	150	200	250	300	400	450	500	600
	Q=l/min	0	833	1667	2500	3333	4167	5000	6667	7500	8334	10000
KDN 200-330 / 290	H (m)	10		10	10	10	10	10	8	6		
KDN 200-330 / 310		12		12	12	12	12	12	11	8		
KDN 200-330 / 328		14		14	14	14	14	14	13	12	10	
KDN 200-400 / 350		16		16	16	16	16	16	13			
KDN 200-400 / 370		18		18	18	18	18	18	16			
KDN 200-400 / 390		21		21	21	21	20	20	19	17		
KDN 200-400 / 408		23		23	23	23	23	23	22	20		
KDN 200-500 / 430		28		28	28	28	27	27	24	22	20	
KDN 200-500 / 470		34		34	34	34	33	33	30	28	26	
KDN 200-500 / 508		41		41	41	41	40	40	37	36	34	30

SELECTION TABLE - KDN 250

MODEL	Q=m ³ /h	0	50	100	150	200	250	300	400	450	500	600	700	800	1000
	Q=l/min	0	833	1667	2500	3333	4167	5000	6667	7500	8334	10000	11667	13334	16667
KDN 250-330 / 310	H (m)	13		12	12	12	12	11	11	10	10	8	6		
KDN 250-330 / 320		14		13	13	13	13	13	12	12	11	10	8		
KDN 250-330 / 328		15		15	15	14	14	14	13	13	13	11	10		
KDN 250-330 / 275/32°		7		7	7	7	6	6	5	5	4	2			
KDN 250-330 / 275		10		10	9	9	9	9	8	7	7				
KDN 250-330 / 295		12		12	12	11	11	11	10	9	9	7			
KDN 250-400 / 350		16		16	16	16	16	16	15	15	14	12			
KDN 250-400 / 370		19		19	19	19	18	18	18	18	17	15	13		
KDN 250-400 / 390		22		22	22	21	21	21	21	21	20	18			
KDN 250-400 / 408		23		23	23	23	23	23	23	23	22	21	18		
KDN 250-500 / 440		26				26	26	26	25	25	25	24	22	19	
KDN 250-500 / 480		32				32	32	32	32	32	32	31	30	28	
KDN 250-500 / 518		40				40	40	40	40	40	40	40	39	38	31
KDN 250-500A / 440		27				27	27	26	25	24	23	20			
KDN 250-500A / 480		33				33	33	33	32	31	30	27	23		
KDN 250-500A / 518		39				39	39	38	38	37	36	34	31	26	

KDN OVERSIZE - 6 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 300

MODEL	Q=m ³ /h	0	50	100	150	200	250	300	400	450	500	600	700	800	1000	1200	
	Q=l/min	0	833	1667	2500	3333	4167	5000	6667	7500	8334	10000	11667	13334	16667	20000	
KDN 300-330 / 325/24°	H (m)	9				9	9	9	9	9	8	8	7	6	5		
KDN 300-330 / 325		12				11	11	11	11	11	10	10	9	9	7		
KDN 300-330 / 345		14				13	13	13	13	13	12	12	12	11	9		
KDN 300-400 / 370		20				20	20	20	20	20	20	20	19	18	16		
KDN 300-400 / 390		23				23	23	23	22	22	22	22	21	21	20	17	
KDN 300-400 / 408		26				25	25	25	25	25	25	25	24	24	23	20	
KDN 300-400A / 340		17					17	16	16	16	16	16	16	15	14	11	
KDN 300-400A / 355		18					x	18	18	18	18	18	18	17	16	13	
KDN 300-400A / 370		20					x	20	20	20	20	20	20	19	18	16	
KDN 300-400M / 380/350		10					x	10	10	10	10	10	9	9	8	6	
KDN 300-400M / 380		14					x	14	14	14	14	14	13	13	12	10	6
KDN 300-400M / 395		16					x	16	16	16	16	16	15	15	14	12	9
KDN 300-400M / 408		18					x	18	18	18	18	18	17	17	16	15	11

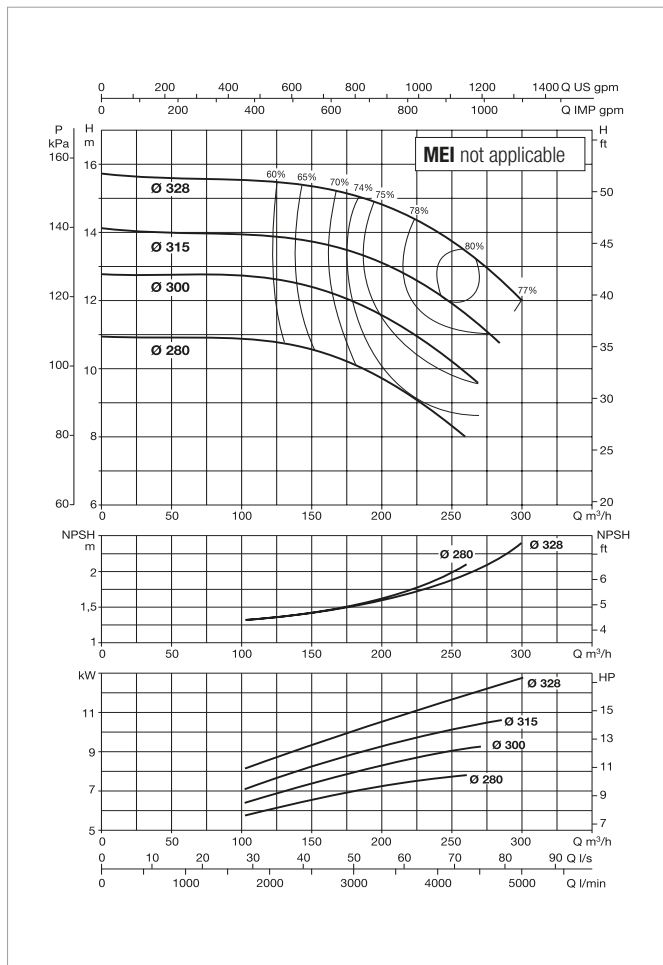
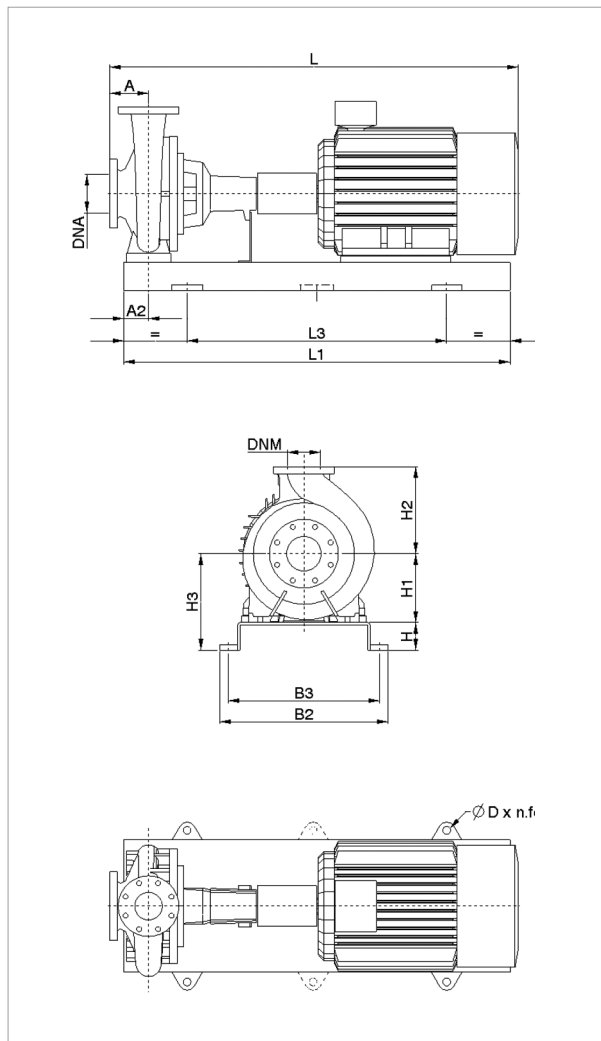
SELECTION TABLE - KDN 350

MODEL	Q=m ³ /h	0	50	100	150	200	250	300	400	450	500	600	700	800	1000	1200	1600	1700	1800	1900	2000		
	Q=l/min	0	833	1667	2500	3333	4167	5000	6667	7500	8334	10000	11667	13334	16667	20000	26667	28334	30001	31667	33334		
KDN 350-500 / 460/430	H (m)	22							22	22	21	21	21	21	20	20	17	16	14				
KDN 350-500 / 460		27								27	27	27	27	26	26	26	25	22	21	19			
KDN 350-500 / 490		31								31	31	31	31	31	30	30	29	26	26	24	23	21	
KDN 350-500 / 518		36								36	36	36	36	36	36	35	35	33	32	31	30	28	
KDN 350-500A / 405/16°		18								18	18	18	18	18	18	17	16	9					
KDN 350-500A / 405/435		22								22	22	22	22	22	22	22	20	16	14				
KDN 350-500A / 435		26								26	26	26	26	25	25	25	24	20	18	16			
KDN 350-500A / 465		29								29	29	29	29	29	29	28	27	24	23	21	19		

KDN 150-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 150-330	7.5	160L	3 x 400 V - Δ	16.4	15.80	IE2 / IE3
	11	160L	3 x 400 V - Δ	23.6	23.10	IE2 / IE3
	15	180L	3 x 400 V - Δ	31.5	29.70	IE2 / IE3

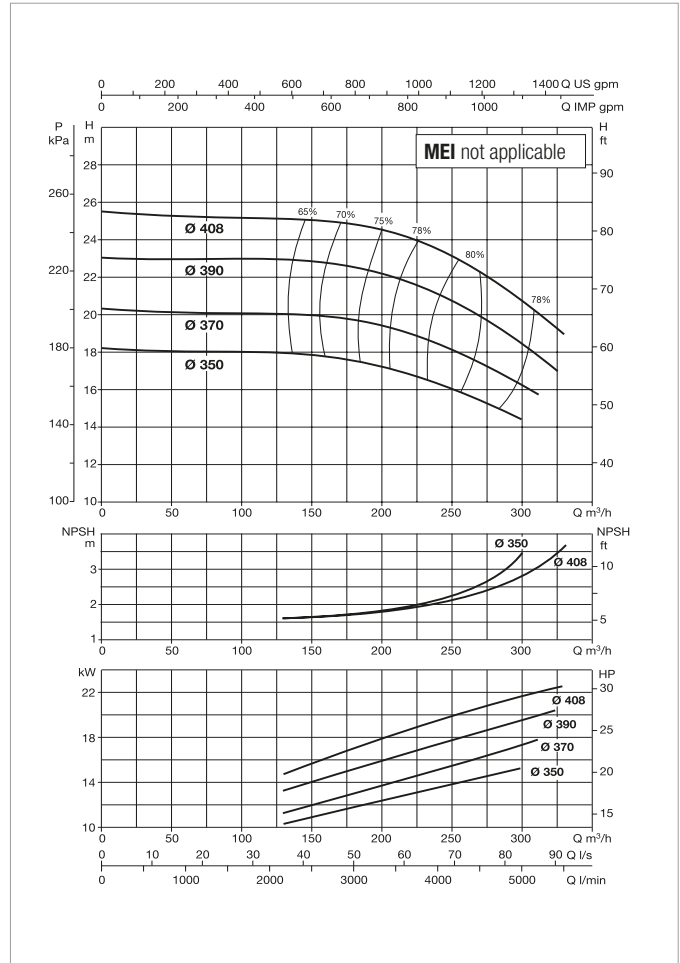
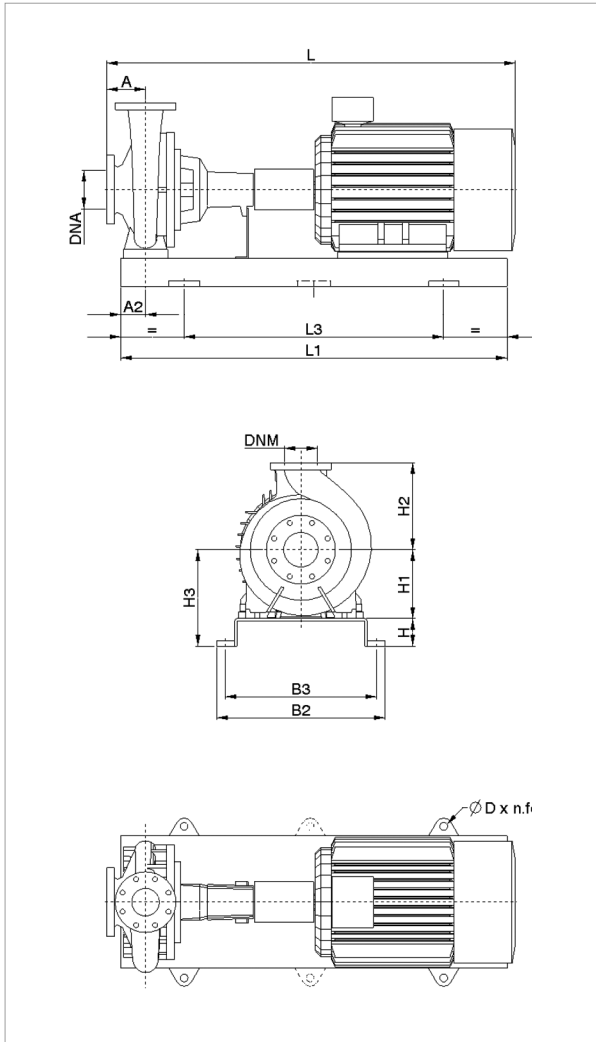
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg														
KDN 150-330	7.5	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1504	438	1554	438	1685	453	1735	453	9
	11	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1504	438	1554	438	1685	453	1735	453	9
	15	160	110	100	315	400	415	1800	1200	730	670	28x4	200	150	1562	438	1612	438	1743	453	1793	453	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-400	18.5	200L	3 x 400 V - Δ	36.5	36	IE2 / IE3
	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3

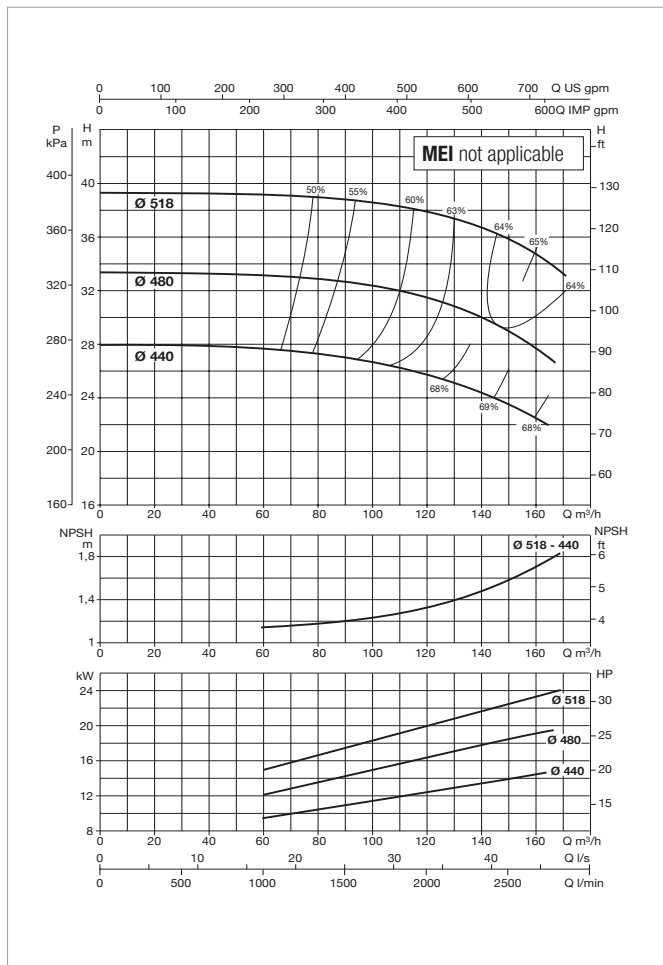
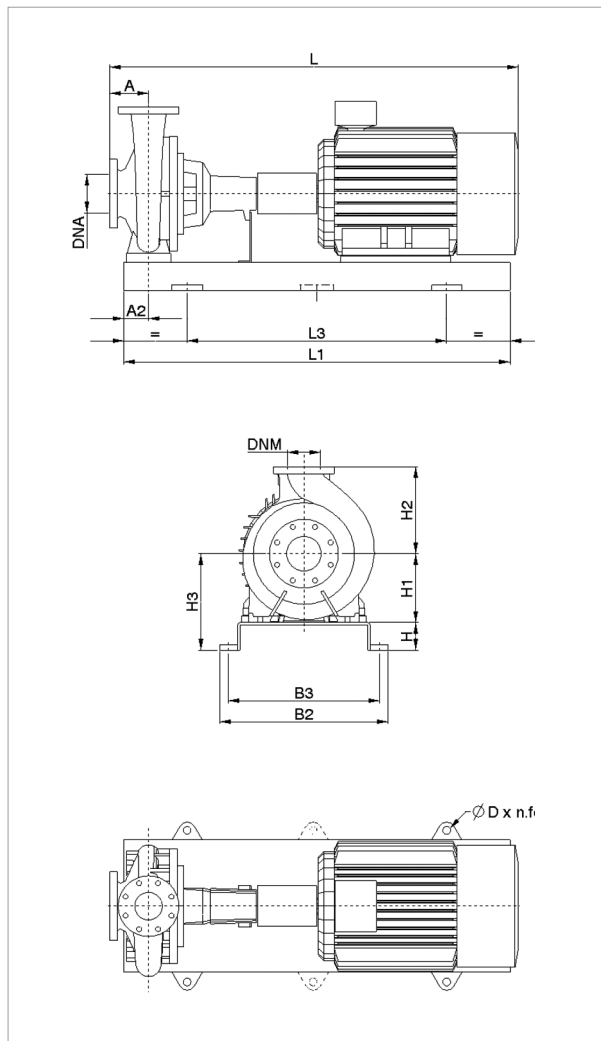
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING			SPACER COUPLING			REF.			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		L		WEIGHT kg	L	WEIGHT kg
															L	WEIGHT kg	L	WEIGHT kg					
KDN 150-400	18.5	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1604	481	1654	481	1785	496	1835	496	9
	22	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1604	481	1654	481	1785	496	1835	496	9
	30	160	110	100	315	450	415	1800	1200	730	670	28x4	200	150	1679	481	1729	481	1860	496	1910	496	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-500A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 150-500A	11	160L	3 x 400 V - Δ	23.6	23.10	IE2 / IE3
	15	180L	3 x 400 V - Δ	31.5	29.70	IE2 / IE3
	18.5	200L	3 x 400 V - Δ	36.5	36	IE2 / IE3
	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3

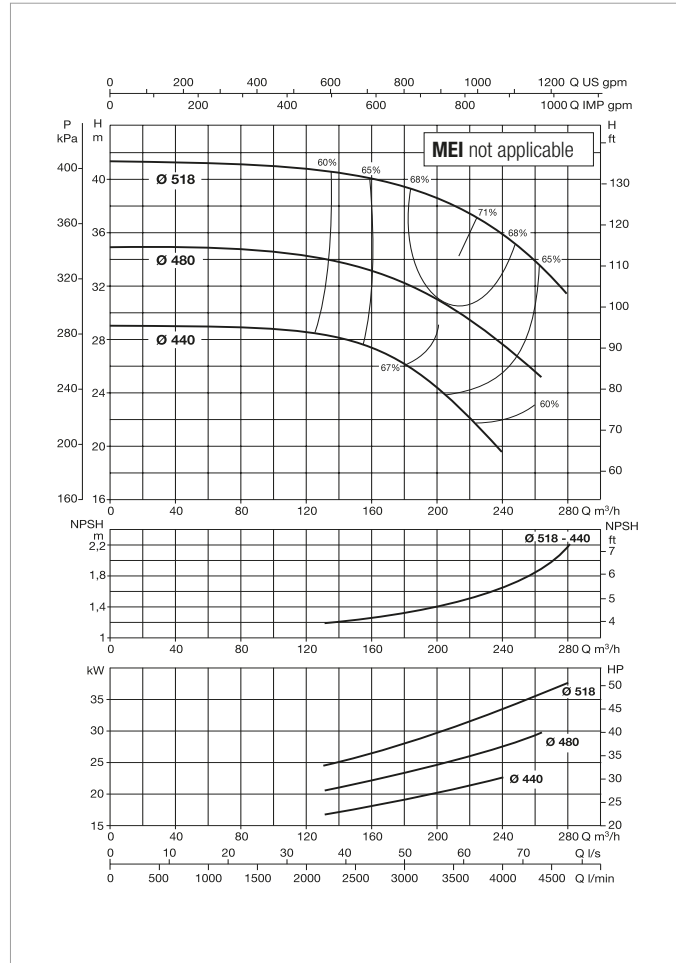
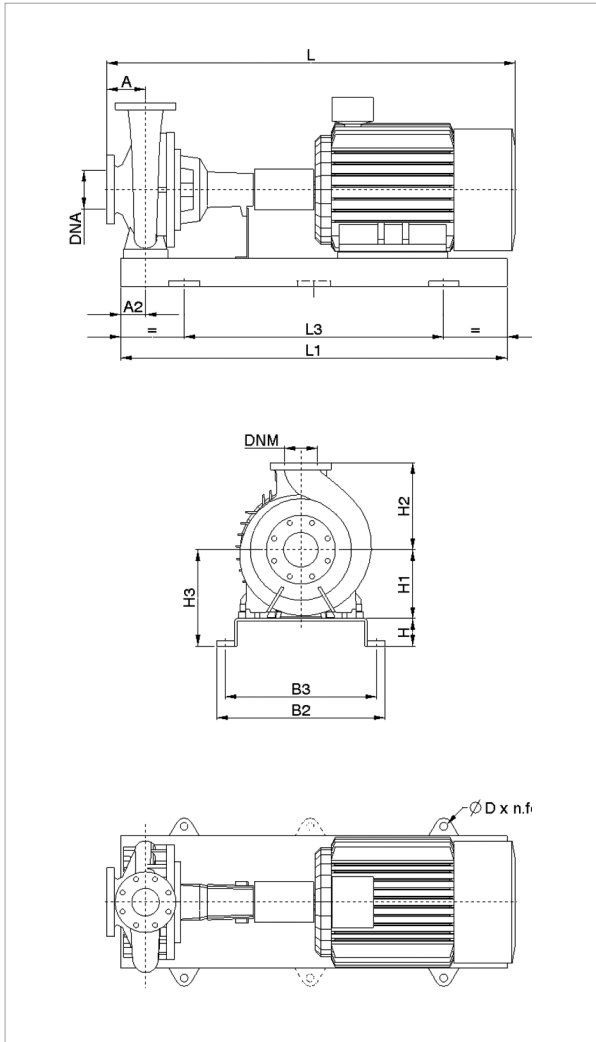
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 150-500A	11	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1524	593	1574	593	1705	608	1755	608	9
	15	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1582	593	1632	593	1763	608	1813	608	9
	18.5	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1624	593	1674	593	1805	608	1855	608	9
	22	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1624	593	1674	593	1805	608	1855	608	9
	30	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1699	593	1749	593	1880	608	1930	608	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 150-500	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3
	37	250M	3 x 400 V - Δ	69	66.60	IE2 / IE3
	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3

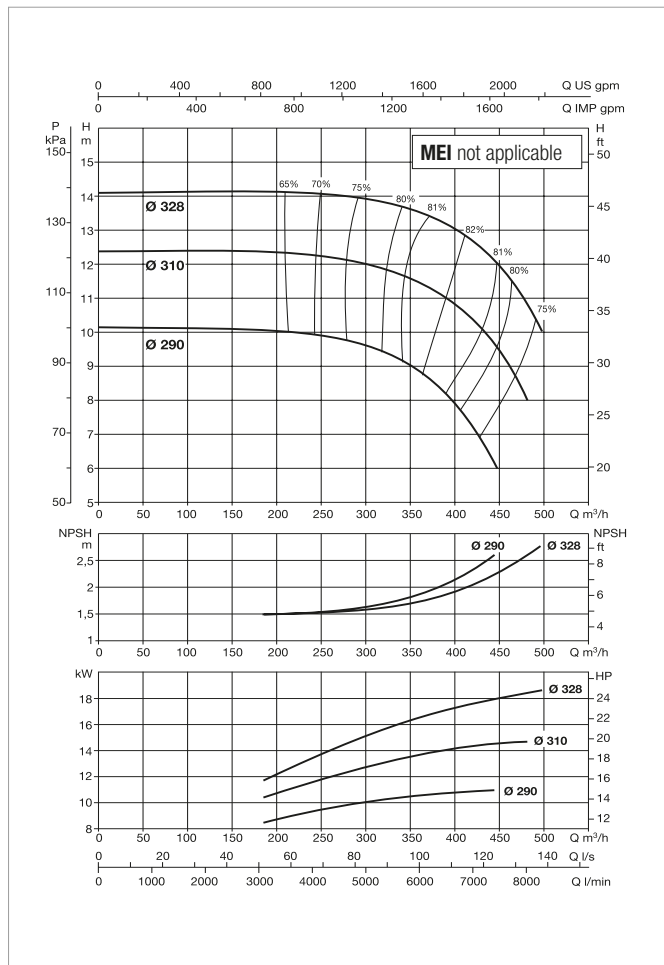
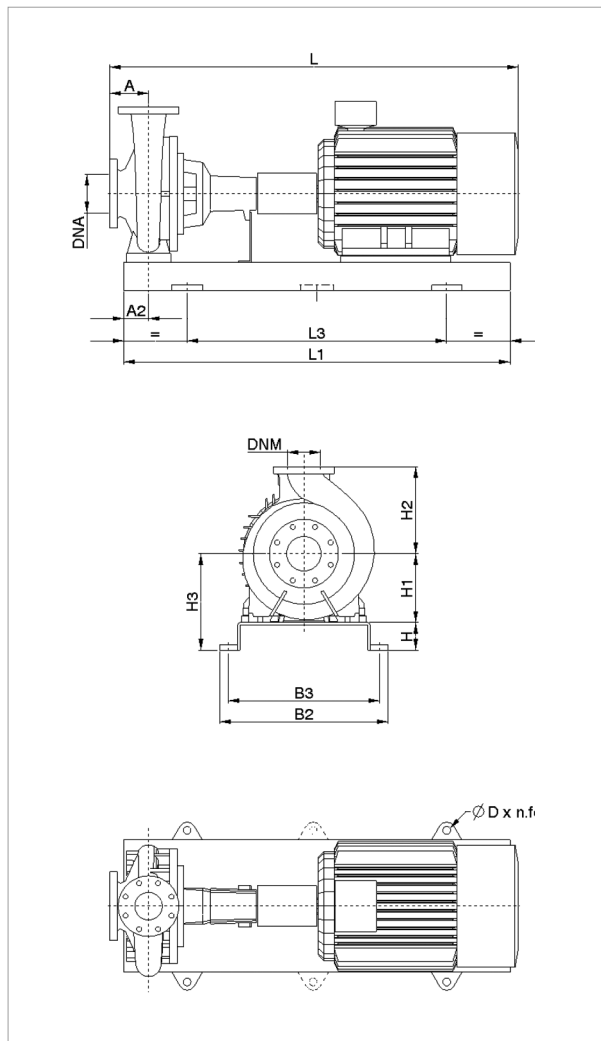
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg												
KDN 150-500	22	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1624	593	1674	593	1805	608	1855	608	9
	30	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1699	593	1749	593	1880	608	1930	608	9
	37	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1769	593	1840	593	1950	608	2021	608	9
	45	180	110	100	355	500	455	1800	1200	730	670	28x4	200	150	1824	593	1895	593	2005	608	2076	608	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 200-330	11	160L	3 x 400 V - Δ	23.6	23.10	IE2 / IE3
	15	180L	3 x 400 V - Δ	31.5	29.70	IE2 / IE3
	18.5	200L	3 x 400 V - Δ	36.5	36	IE2 / IE3
	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3

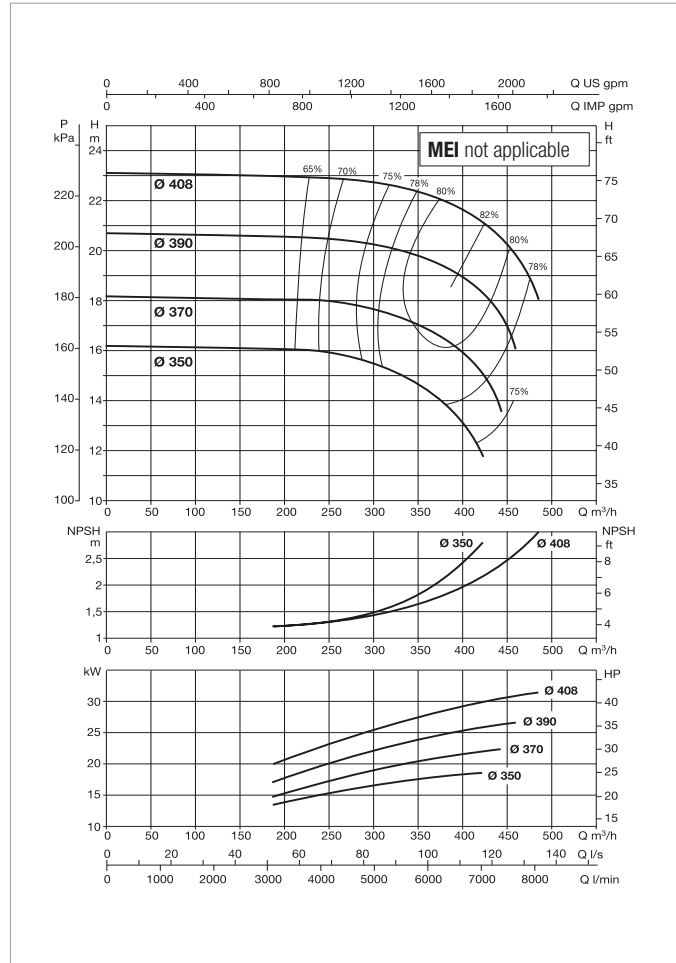
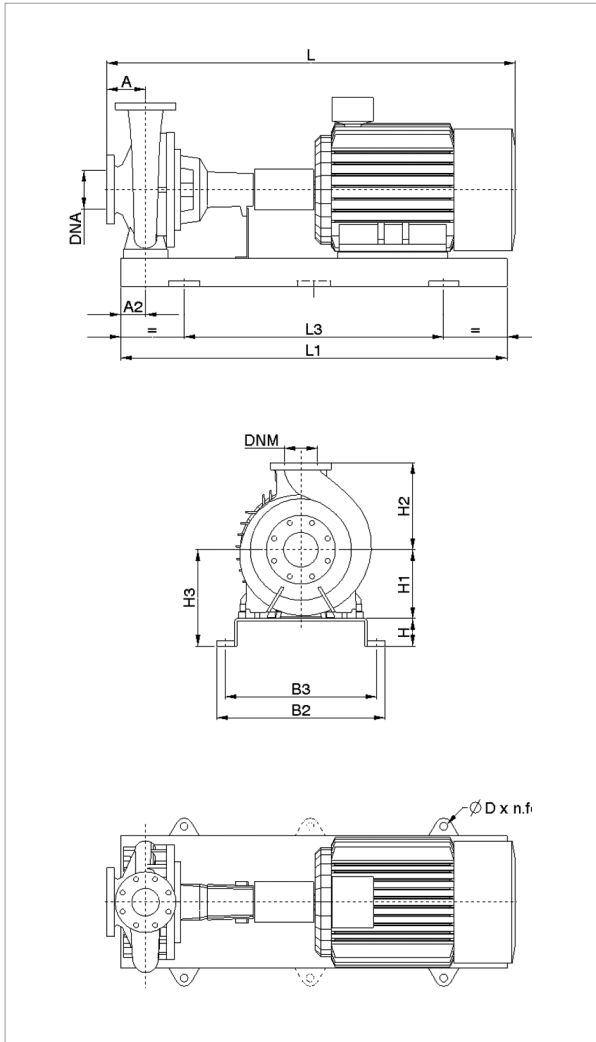
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DnA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 200-330	11	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1544	543	1594	543	1725	558	1775	558	9
	15	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1602	543	1652	543	1783	558	1833	558	9
	18.5	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1644	543	1694	543	1825	558	1875	558	9
	22	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1644	543	1694	543	1825	558	1875	558	9
	30	200	110	100	355	450	455	1800	1200	730	670	28x4	250	200	1719	543	1769	543	1900	558	1950	558	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 200-400	15	180L	3 x 400 V - Δ	31.5	29.70	IE2 / IE3
	18.5	200L	3 x 400 V - Δ	36.5	36	IE2 / IE3
	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3
	37	250M	3 x 400 V - Δ	69	66.60	IE2 / IE3

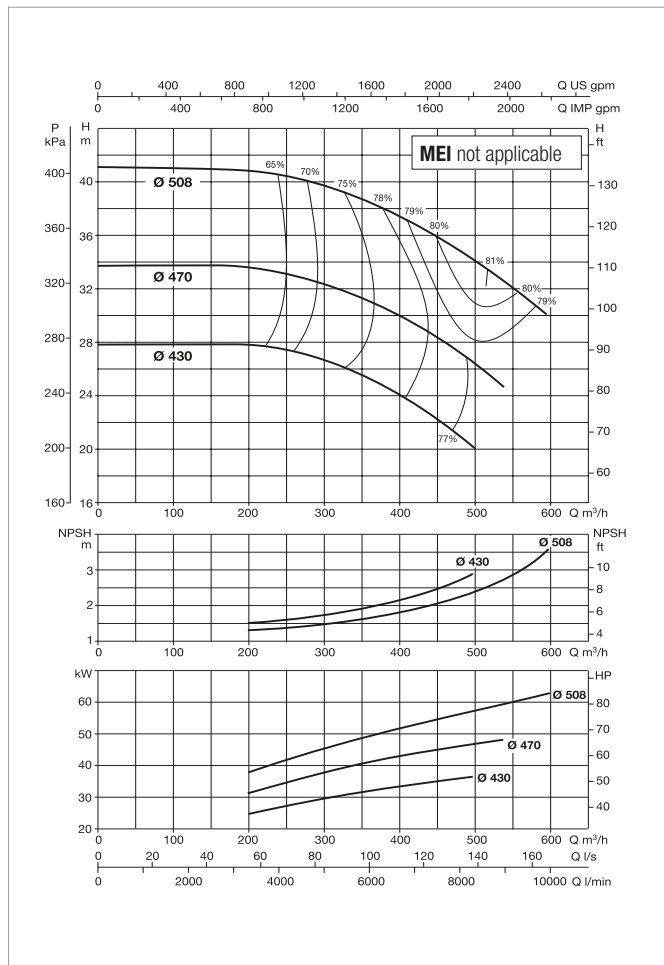
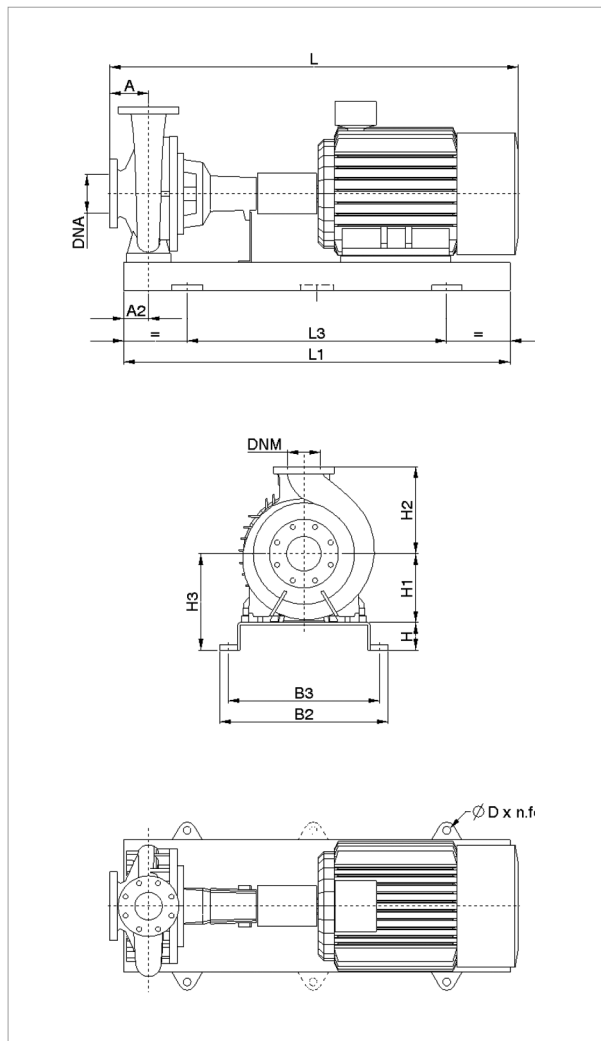
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.	
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L		WEIGHT kg
KDN 200-400	15	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1587	573	1637	573	1768	588	1818	588	9
	18.5	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1629	573	1679	573	1810	588	1860	588	9
	22	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1629	573	1679	573	1810	588	1860	588	9
	30	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1704	573	1754	573	1885	588	1935	588	9
	37	185	110	100	355	500	455	1800	1200	730	670	28x4	250	200	1774	573	1845	573	1955	588	2026	588	9

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 200-500	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3
	37	250M	3 x 400 V - Δ	69	66.60	IE2 / IE3
	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 200-500	22	185	145	185	400	580	(*)	(*)	(*)	(*)	(*)	(*)	250	200	1935	1010	1985	1010	2115	1037	2165	1037
	30	185	145	185	400	580	(*)	(*)	(*)	(*)	(*)	(*)	250	200	1935	1070	1985	1070	2115	1097	2165	1097
	37	185	145	185	400	580	(*)	(*)	(*)	(*)	(*)	(*)	250	200	1935	1105	2006	1105	2115	1132	2186	1132
	45	185	145	185	400	580	585	1650	1050	960	915	20x4	250	200	1935	1120	2006	1120	2115	1135	2186	1135
	55	185	145	185	400	580	585	1650	1050	960	915	20x4	250	200	1935	1120	2006	1120	2115	1135	2186	1135
	75	185	145	205	400	580	605	1800	1200	960	915	20x4	250	200	2025	1600	2096	1600	2205	1615	2276	1615

Dimension and electrical data based on sizing definition following the instructions on page 176.

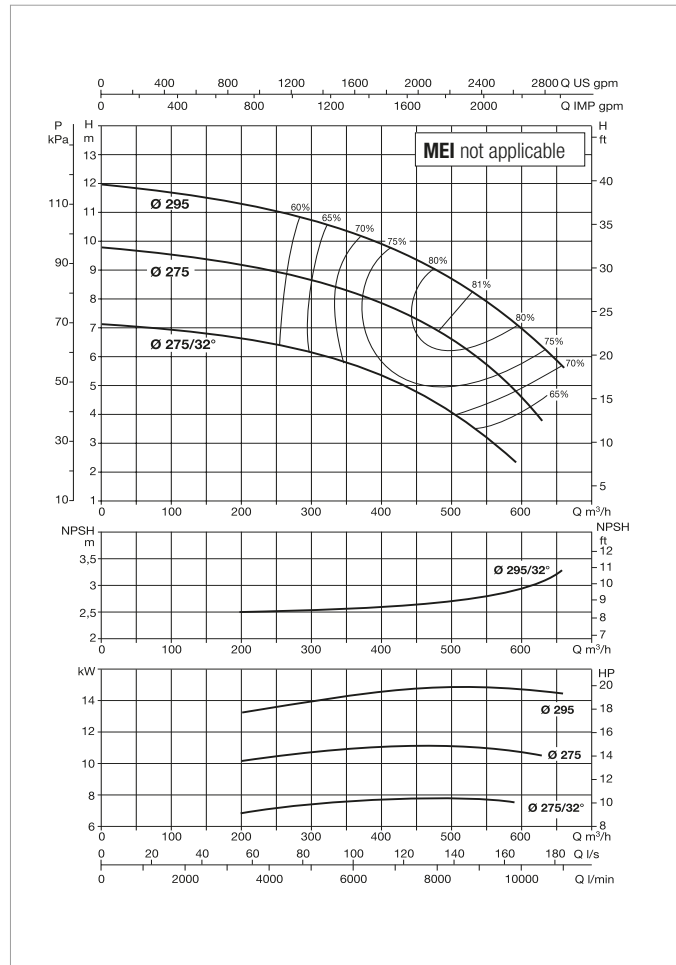
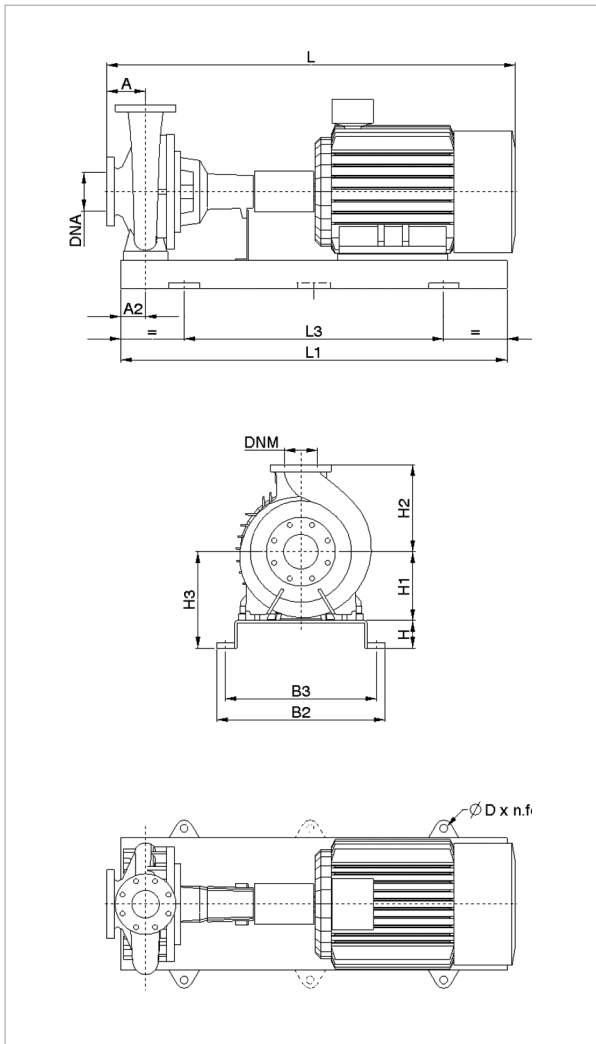
(*) Data on request.



KDN 250-330A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 250-330A	7.5	160L	3 x 400 V - Δ	16.4	15.80	IE2 / IE3
	11	160L	3 x 400 V - Δ	23.6	23.10	IE2 / IE3
	15	180L	3 x 400 V - Δ	31.5	29.70	IE2 / IE3

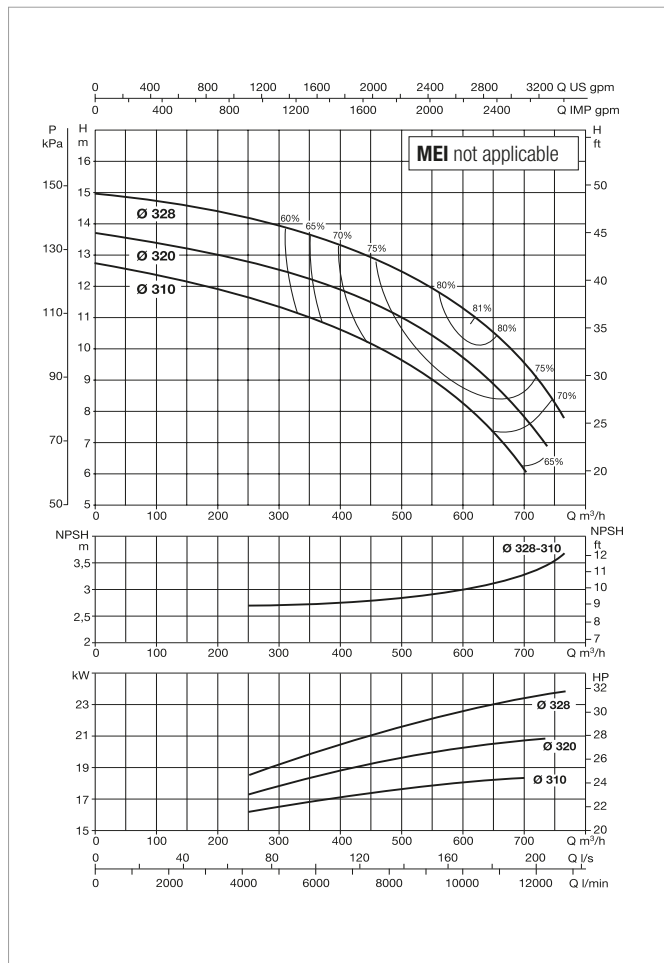
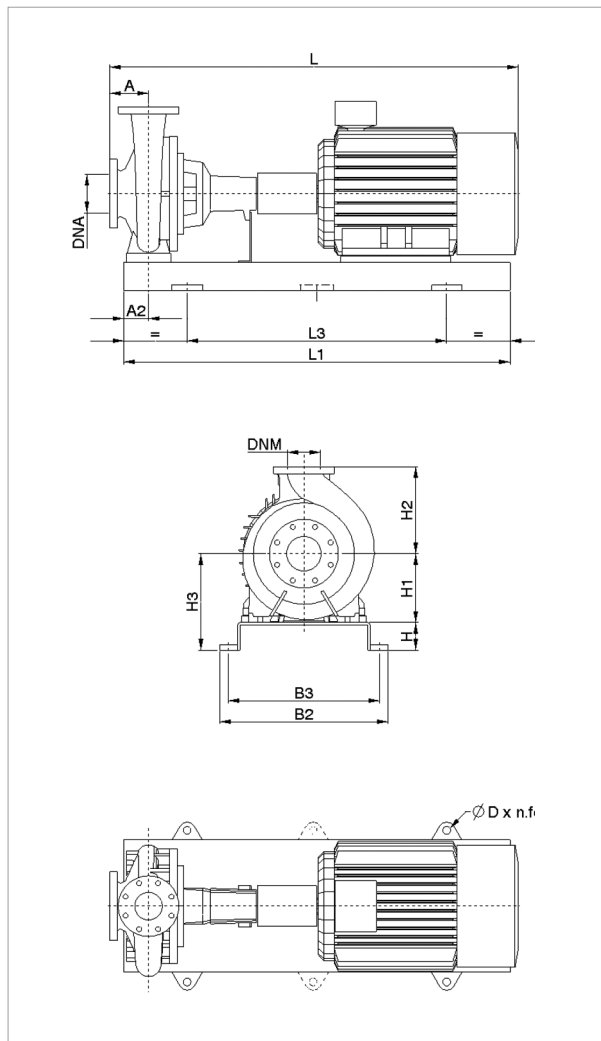
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg														
KDN 250-330A	7.5	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10
	11	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10
	15	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 250-330	15	180L	3 x 400 V - Δ	31.5	29.70	IE2 / IE3
	18.5	200L	3 x 400 V - Δ	36.5	36	IE2 / IE3
	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3

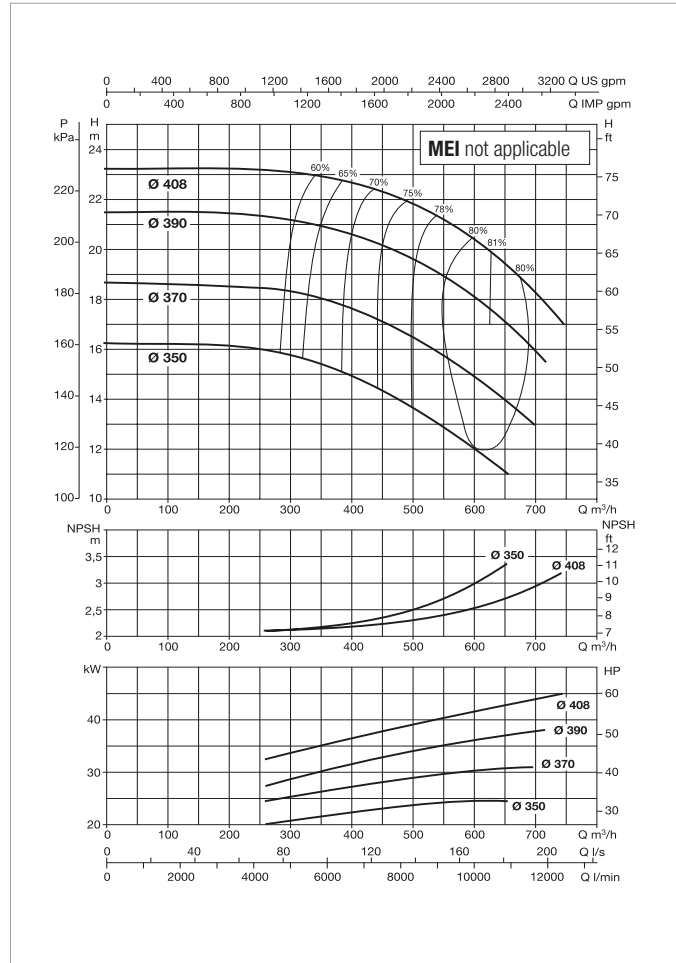
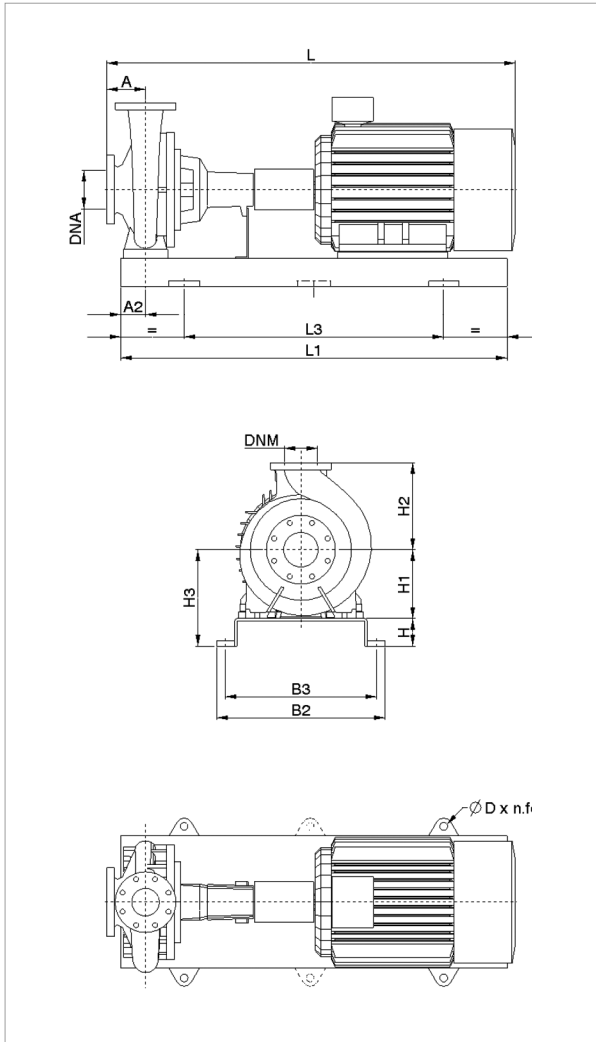
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg												
KDN 250-330	15	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10
	18.5	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10
	22	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10
	30	250	135	120	400	525	520	2000	1340	910	830	28x4	300	250	924	647	974	647	1165	662	1215	662	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 250-400	37	250M	3 x 400 V - Δ	69	66.60	IE2 / IE3
	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3

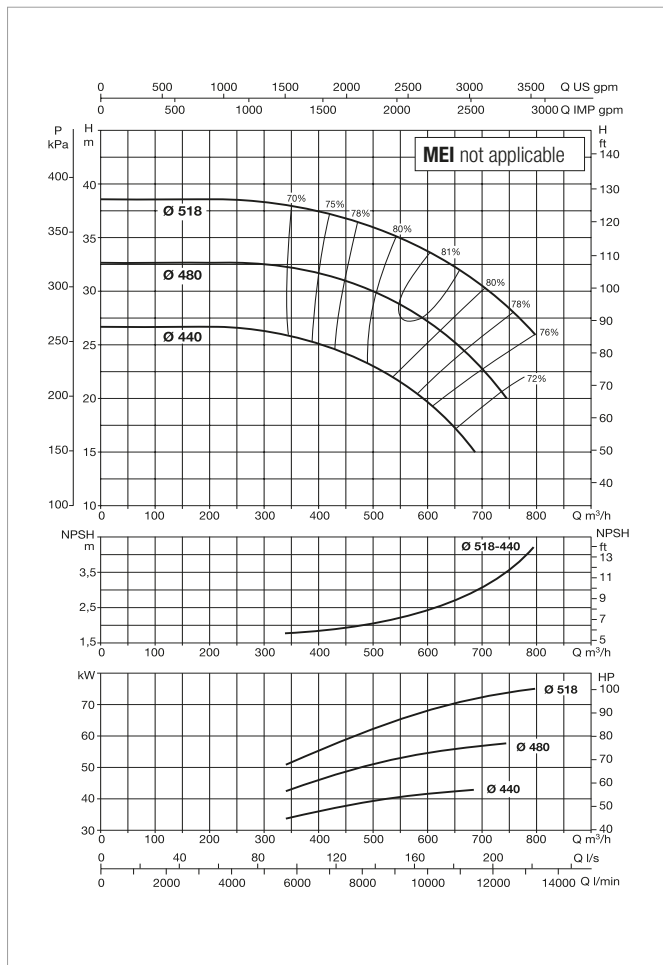
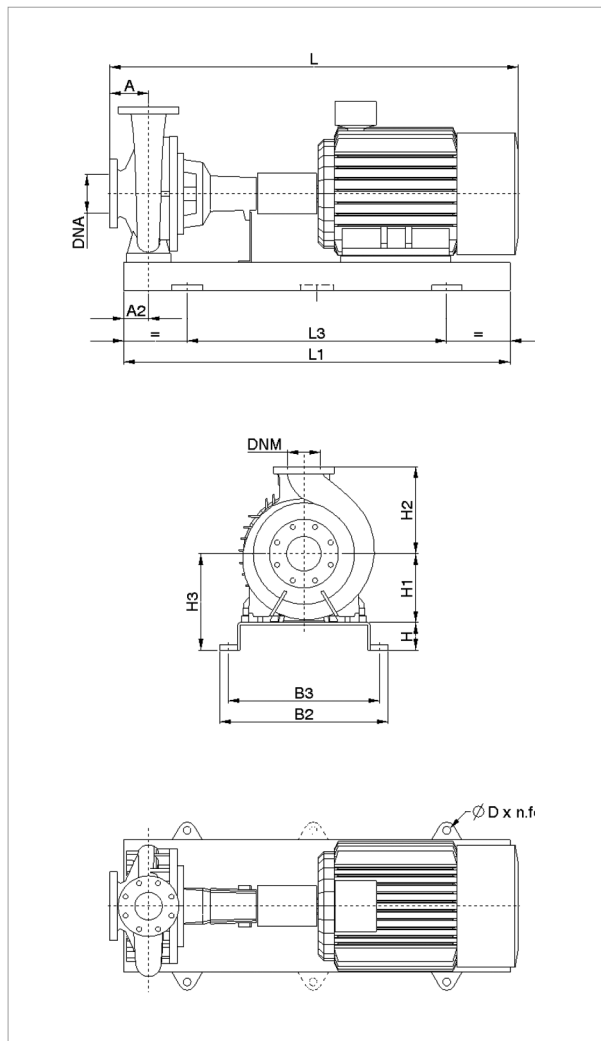
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg				
KDN 250-400	37	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	1009	887	1080	887	1190	902	1261	902	10
	45	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	1009	887	1080	887	1190	902	1261	902	10
	55	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	1009	887	1080	887	1190	902	1261	902	10
	75	225	135	120	400	600	520	2000	1340	910	830	28x4	300	250	1009	887	1080	887	1190	902	1261	902	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-500A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 250-500A	37	250M	3 x 400 V - Δ	69	66.60	IE2 / IE3
	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3
	90	315M	3 x 400 V - Δ	162	159	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING						
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3			
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg			
KDN 250-500A	37	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	45	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	55	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	75	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	90	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

Dimension and electrical data based on sizing definition following the instructions on page 176.

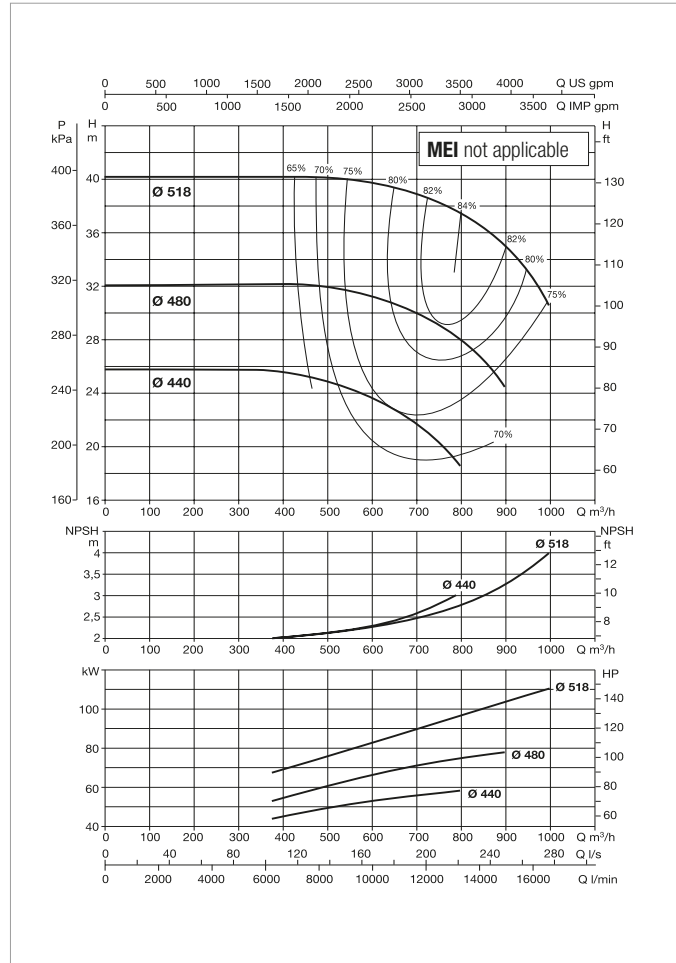
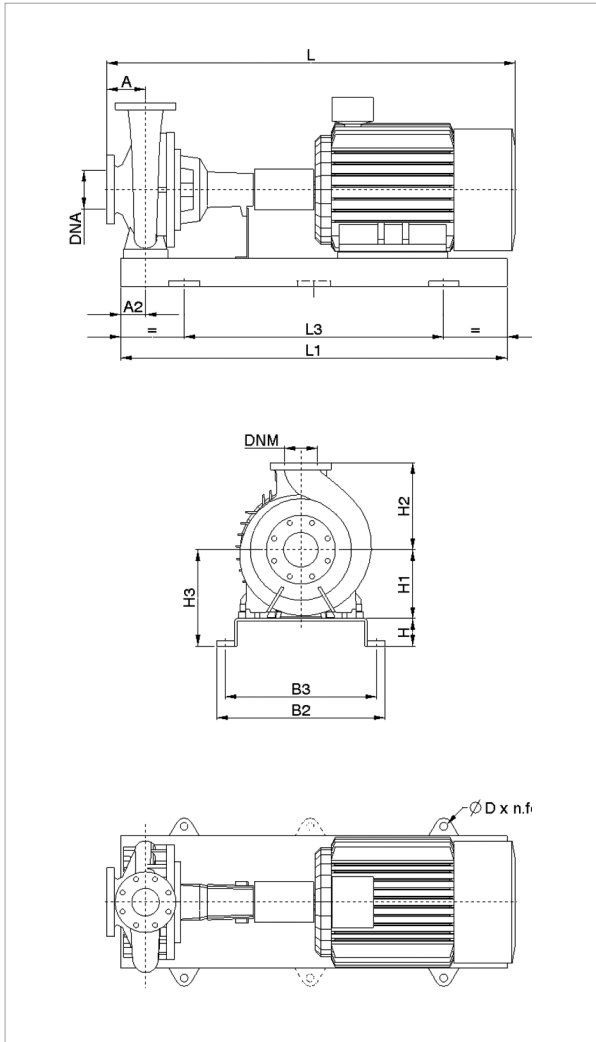
(*) Data on request.



KDN 250-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 250-500	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3
	90	315M	3 x 400 V - Δ	162	159	IE2 / IE3
	110	315M	3 x 400 V - Δ	194	192	IE2 / IE3
	132	315M	3 x 400 V - Δ	(*)	(*)	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg
KDN 250-500	45	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	55	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	75	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	90	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	110	300	155	210	500	500	710	2250	825	995	950	20x4	300	250	2280	2350	2368	(*)	2530	2365	2618	(*)
	132	300	155	210	500	500	(*)	(*)	(*)	(*)	(*)	(*)	300	250	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

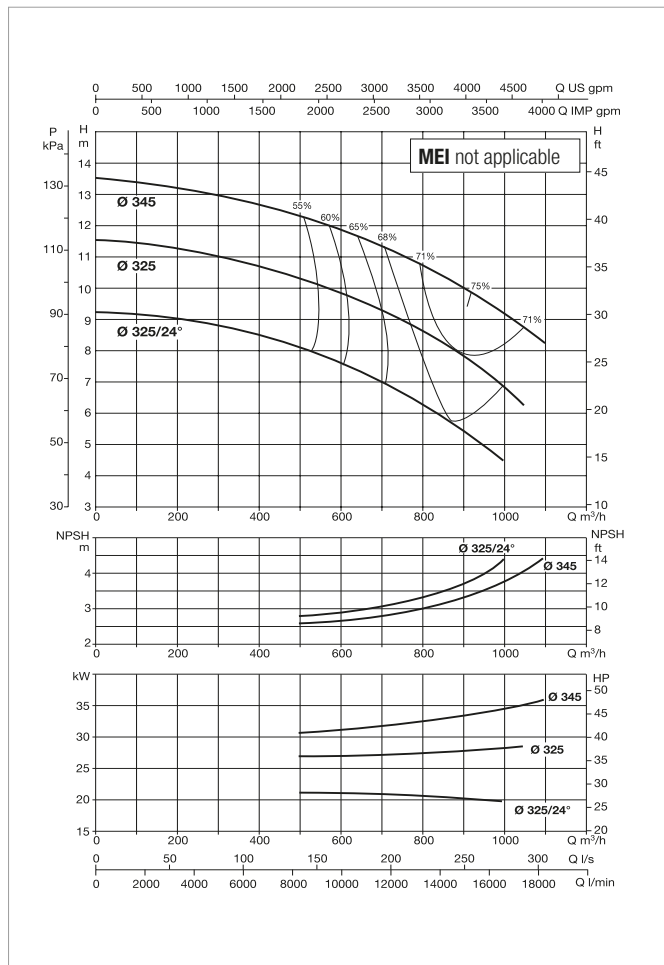
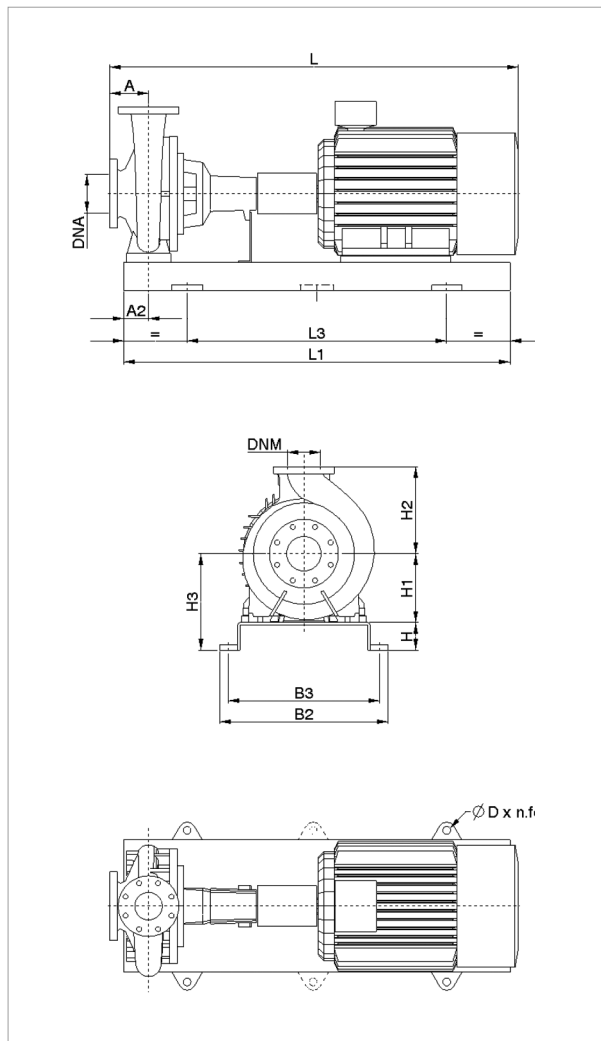
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 300-330	22	200L	3 x 400 V - Δ	44	42.50	IE2 / IE3
	30	225M	3 x 400 V - Δ	55	54.80	IE2 / IE3
	37	250M	3 x 400 V - Δ	69	66.60	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)										FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING						
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3			
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg															
KDN 300-330	22	300	230	185	500	670	(*)	(*)	(*)	(*)	(*)	(*)	350	300	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	30	300	230	185	500	670	(*)	(*)	(*)	(*)	(*)	(*)	350	300	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	37	300	230	185	500	670	(*)	(*)	(*)	(*)	(*)	(*)	350	300	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

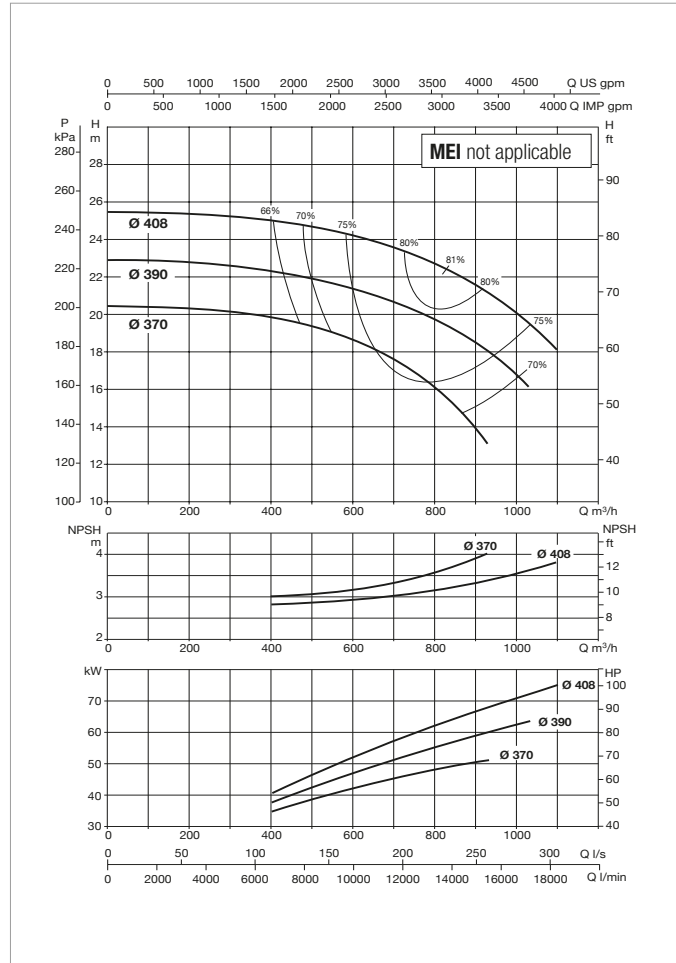
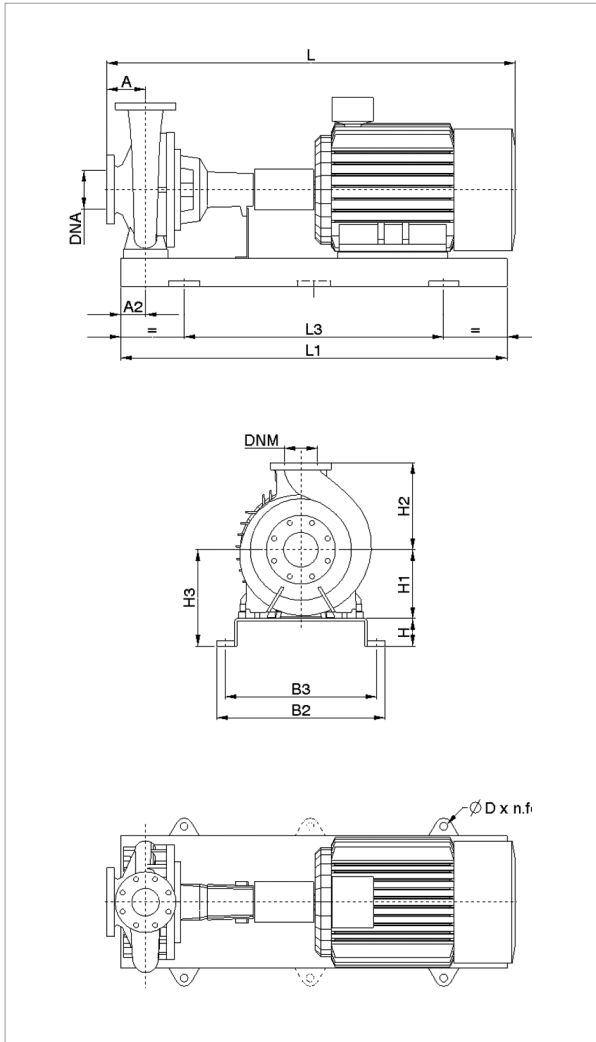
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 300-400	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3
	90	315M	3 x 400 V - Δ	162	159	IE2 / IE3
	110	315M	3 x 400 V - Δ	194	192	IE2 / IE3

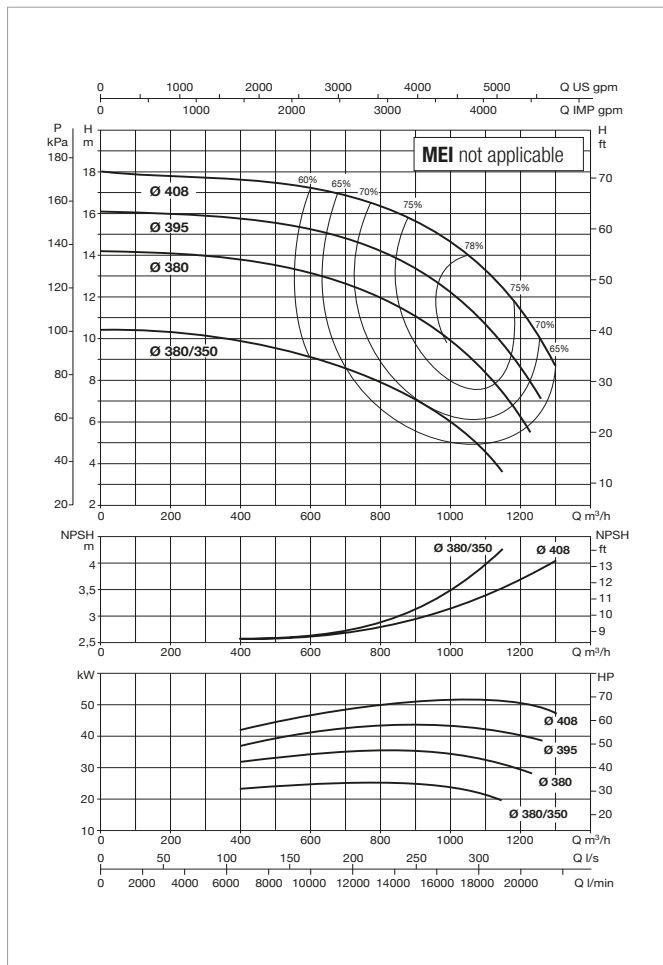
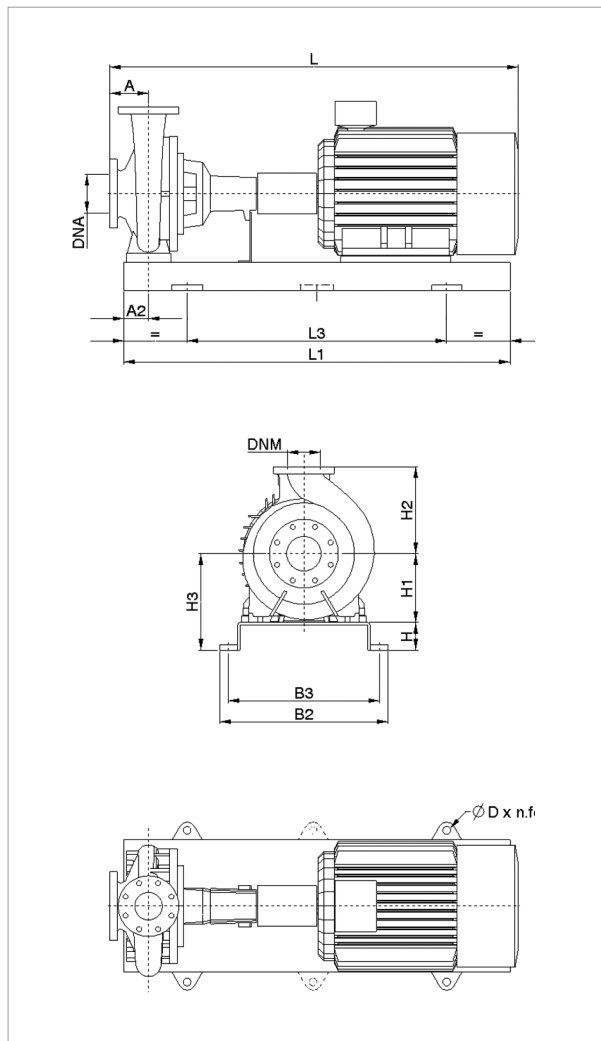
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
															L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 300-400	45	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	55	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	75	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	90	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	110	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1207	800	1360	815	1448	815	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400M - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 300-400M	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3
	90	315M	3 x 400 V - Δ	162	159	IE2 / IE3

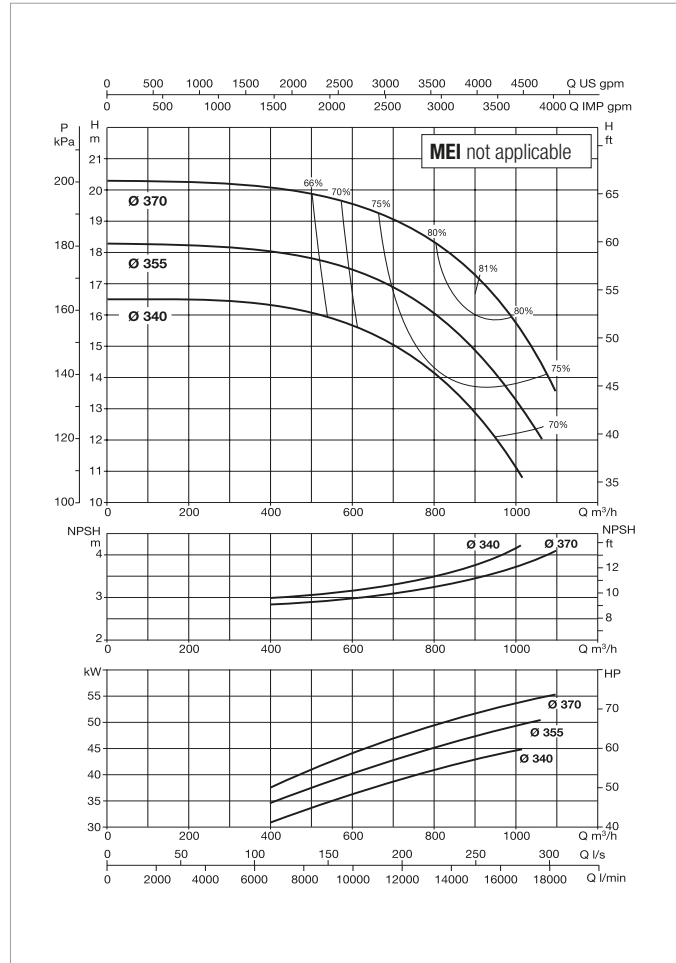
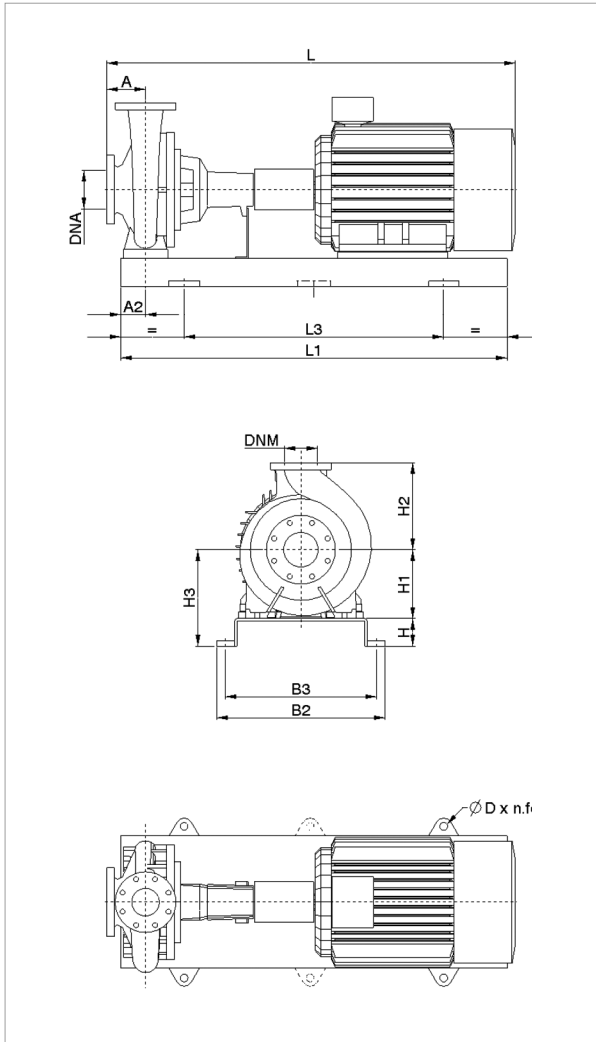
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg														
KDN 300-400M	45	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	55	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	75	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	90	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 300-400A	45	280S	3 x 400 V - Δ	85.9	80.60	IE2 / IE3
	55	280M	3 x 400 V - Δ	103	98.10	IE2 / IE3
	75	315S	3 x 400 V - Δ	134	135	IE2 / IE3
	90	315M	3 x 400 V - Δ	162	159	IE2 / IE3

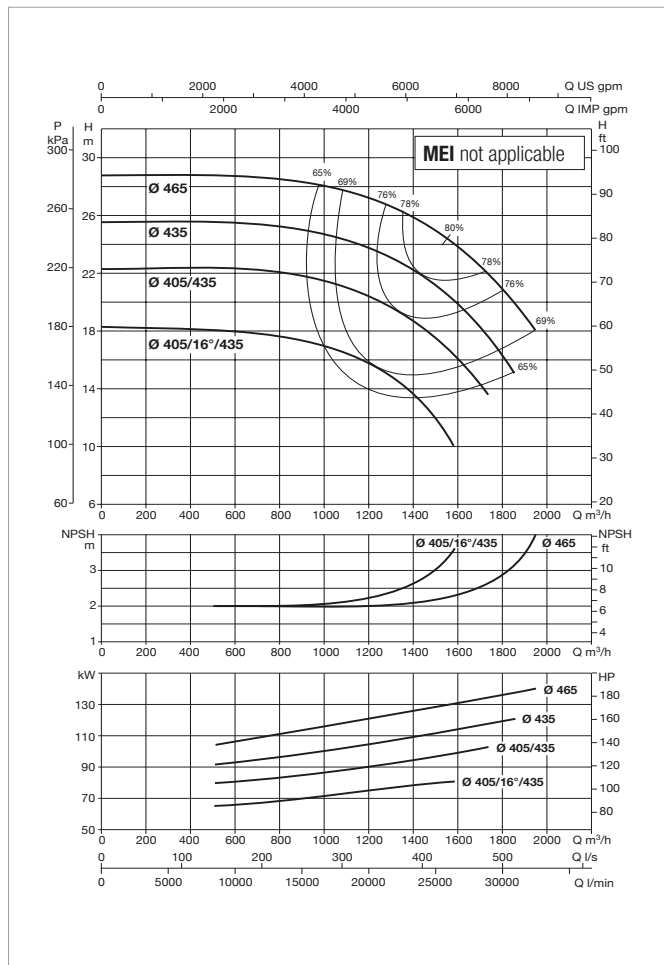
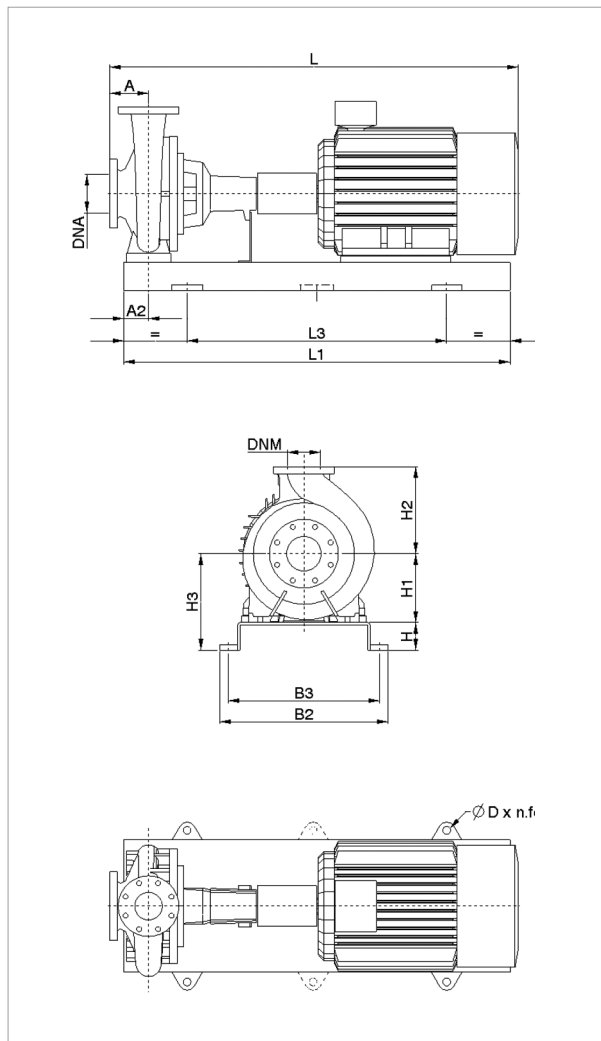
MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING				REF.
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3		
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg														
KDN 300-400A	45	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	55	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	75	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10
	90	325	135	120	400	640	520	2000	1340	910	830	28x4	350	300	1119	800	1190	800	1360	815	1431	815	10

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 350-500A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW)	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
	6 POLES			IE2	IE3	
KDN 350-500A	90	315M	3 x 400 V - Δ	162	159	IE2 / IE3
	110	315M	3 x 400 V - Δ	194	192	IE2 / IE3
	132	315M	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	160	315M	3 x 400 V - Δ	(*)	(*)	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg													
KDN 350-500A	90	380	295	240	600	600	840	2490	1890	1305	1260	20x6	400	350	2587	1080	2658	1080	2588	1095	2659	1095
	110	380	295	240	600	600	840	2490	1890	1305	1260	20x6	400	350	2587	1080	2675	1080	2588	1095	2676	1095
	132	380	295	240	600	600	840	2490	1890	1305	1260	20x6	400	350	2587	1080	2675	1080	2588	1095	2676	1095
	160	380	295	240	600	600	840	2700	2100	1305	1260	20x6	400	350	3114	1080	3202	1080	3115	1095	3203	1095

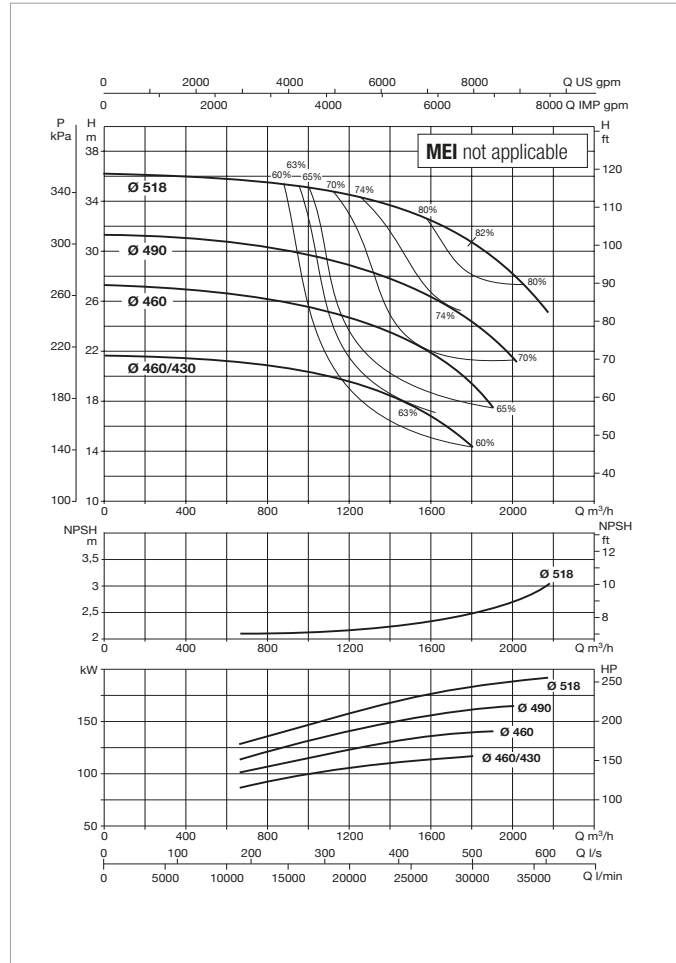
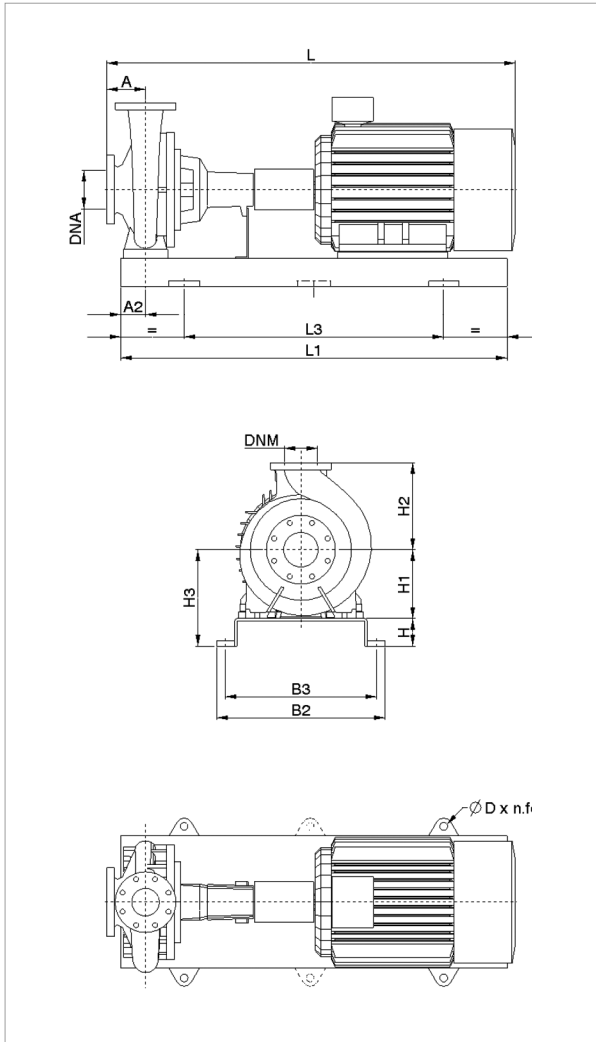
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 350-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA					
	POWER (kW) 6 POLES	MOTOR SIZE	POWER INPUT 50 Hz	In A		MOTOR TYPE
				IE2	IE3	
KDN 350-500	110	315M	3 x 400 V - Δ	194	192	IE2 / IE3
	132	315M	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	160	315M	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	200	355L	3 x 400 V - Δ	(*)	(*)	IE2 / IE3
	250	355L	3 x 400 V - Δ	(*)	(*)	IE2 / IE3

MODEL	POWER (kW)	UNIT DIMENSIONS (mm)											FLANGE DIMENSIONS (mm)		STANDARD COUPLING				SPACER COUPLING			
		A	A2	H	H1	H2	H3	L1	L3	B2	B3	D	DNA	DNM	IE2		IE3		IE2		IE3	
		L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	L	WEIGHT kg	
KDN 350-500	110	380	295	240	600	600	840	2490	1890	1305	1260	20x6	400	350	2587	1080	2675	1080	2588	1095	2676	1095
	132	380	295	240	600	600	840	2490	1890	1305	1260	20x6	400	350	2587	1080	2675	1080	2588	1095	2676	1095
	160	380	295	240	600	600	840	2490	1890	1305	1260	20x6	400	350	2587	1080	2675	1080	2588	1095	2676	1095
	200	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	250	380	(*)	(*)	600	600	600	(*)	(*)	(*)	(*)	(*)	400	350	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN OVERSIZE - 6 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=970 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC132M2	5.50	970	86.3	0.75	3 x 400 Δ	12.4	7.16	7.49	3.18	2.88	6
MEC160M	7.50	970	87.5	0.76	3 x 400 Δ	16.4	9.47	6.83	3.13	2.90	6
MEC160L	11.00	970	88.7	0.76	3 x 400 Δ	23.6	13.61	7.06	3.30	2.90	6
MEC180L	15.00	980	89.7	0.76	3 x 400 Δ	31.5	18.19	7.00	2.00	2.10	6
MEC200L1	18.50	980	90.3	0.81	3 x 400 Δ	36.5	21.07	7.41	2.66	3.05	6
MEC200L2	22.00	980	91.0	0.79	3 x 400 Δ	44.0	25.41	8.21	3.54	3.54	6
MEC225M	30.00	980	91.8	0.86	3 x 400 Δ	55.0	31.74	5.73	2.09	2.13	6
MEC250M	37.00	980	92.5	0.84	3 x 400 Δ	69.0	39.85	7.98	3.40	3.49	6
MEC280S	45.00	980	92.8	0.82	3 x 400 Δ	85.9	49.61	6.29	2.29	3.02	6
MEC280M	55.00	980	93.2	0.82	3 x 400 Δ	103	59.73	6.34	2.34	2.99	6
MEC315S	75.00	990	93.8	0.87	3 x 400 Δ	134	77.37	7.03	2.43	2.88	6
MEC315M	90.00	990	94.0	0.86	3 x 400 Δ	162	93.53	7.22	2.61	2.90	6
MEC315L1	110.00	990	94.3	0.87	3 x 400 Δ	194	112.01	7.36	2.69	2.90	6

IE3 STANDARD MOTOR ELECTRIC DATA

=970 1/min

MOTOR TYPE	P2 NOMINAL kW	SPEED rpm	YIELD %	POWER FACTOR COS φ	POWER INPUT 50 Hz	In A		Start-up current Ia/In	Start-up torque Ma/Mn	Maximum torque M/k/Mn	POLES
						400	690				
MEC 160M	7.50	970	89.10	0.770	3 x 400 Δ	15.80	9.13	6.00	2.40	2.40	6
MEC 160L	11.00	975	90.30	0.760	3 x 400 Δ	23.10	13.35	6.80	2.90	2.60	6
MEC 180L	15.00	980	91.20	0.800	3 x 400 Δ	29.70	17.17	7.80	2.90	3.30	6
MEC 200L	18.50	980	91.70	0.810	3 x 400 Δ	36.00	20.81	7.30	2.80	2.80	6
MEC 200L	22.00	980	92.20	0.810	3 x 400 Δ	42.50	24.57	7.70	3.00	2.90	6
MEC 225M	30.00	985	92.90	0.850	3 x 400 Δ	54.80	31.68	6.20	2.10	2.20	6
MEC 250M	37.00	985	93.30	0.860	3 x 400 Δ	66.60	38.50	8.30	2.90	3.40	6
MEC 280S	45.00	990	93.70	0.860	3 x 400 Δ	80.60	46.59	7.80	2.70	3.10	6
MEC 280M	55.00	990	94.10	0.860	3 x 400 Δ	98.10	56.71	8.20	2.90	3.20	6
MEC 315S	75.00	990	94.60	0.850	3 x 400 Δ	135.00	78.03	7.70	2.40	3.10	6
MEC 315M	90.00	990	94.90	0.860	3 x 400 Δ	159.00	91.91	7.40	2.30	3.00	6
MEC 315L	110.00	990	95.10	0.870	3 x 400 Δ	192.00	110.98	6.50	2.00	2.60	6

KVC - KVCX

INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 50 to 200 l/min with head up to 113 m.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41 safety standards).

From 0°C to +40°C for other uses.

Maximum ambient temperature: +40 °C.

Maximum operating pressure: 12 bar (1200 kPa).

Protection class: IP 55

Insulation class: F

Standard voltage: single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz

IE2 ≥ 0,75 kW

Installation: fixed, vertical or horizontal position, provided that the motor is always above the pump.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Vertical multistage centrifugal pump suitable for small to medium user water systems. Suitable for pressurization units, filling of pressure vessels, sprinkler and watering systems, fire-fighting and washing systems, channelling of condensate and cooling water. Innovative and robust design.

CONSTRUCTION FEATURES OF THE PUMP

KVC: Technopolymer delivery and suction bodies, and in-line suction and delivery ports with threaded metal insert.

KVCX: technopolymer suction body with threaded metal insert; stainless steel threaded delivery port on pump liner.

Impellers, diffuser bodies and diffusers in technopolymer, fully rust-proof. AISI 304 stainless steel pump liner, adjustment rings and seal disc. Carbon/ceramic mechanical seal, fitted on the AISI 303 stainless-steel drive shaft extension.

CONSTRUCTION FEATURES OF THE MOTOR

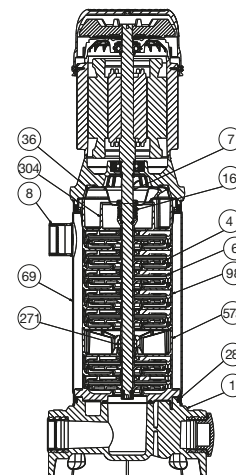
Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

Overload protection to be provided by the user for the three-phase version. Construction according to CEI 2-3 / CEI 61-69 (EN 60335-2-41).

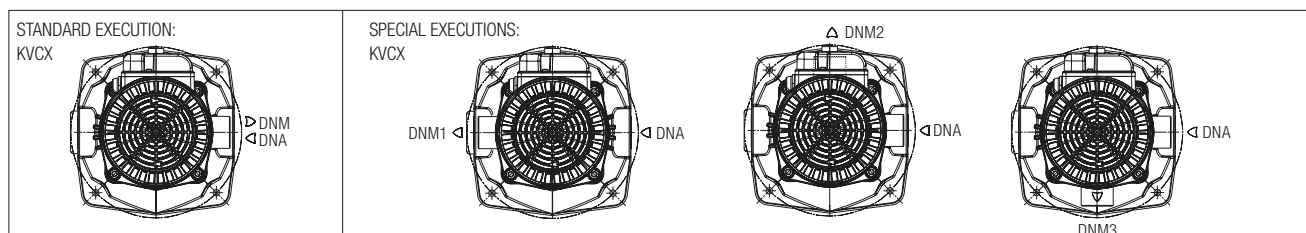
MATERIALS

No.	PARTS*	MATERIALS
1	PUMP BODY	TECHNOPOLYMER A
4	IMPELLER	TECHNOPOLYMER B
6	DIFFUSER	TECHNOPOLYMER B
7	SHAFT WITH ROTOR	AISI 303 STAINLESS STEEL X10 CrNi S 1089 UNI 6900/71
16	MECHANICAL SEAL	SILICON CARBIDE/SILICON
28	OR RING	EPDM RUBBER
36	SEAL HOLDING DISC	AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71
57a	INTERMEDIATE STAGE	TECHNOPOLYMER B
69	LINER	AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER B
271	CENTERING BUSHING	BRONZE B14
304	CONVEYOR	TECHNOPOLYMER B
8	DNM (standard for KVCX only)	

* In contact with the liquid.



KVCX SUCTION AND DELIVERY PORT ORIENTATION



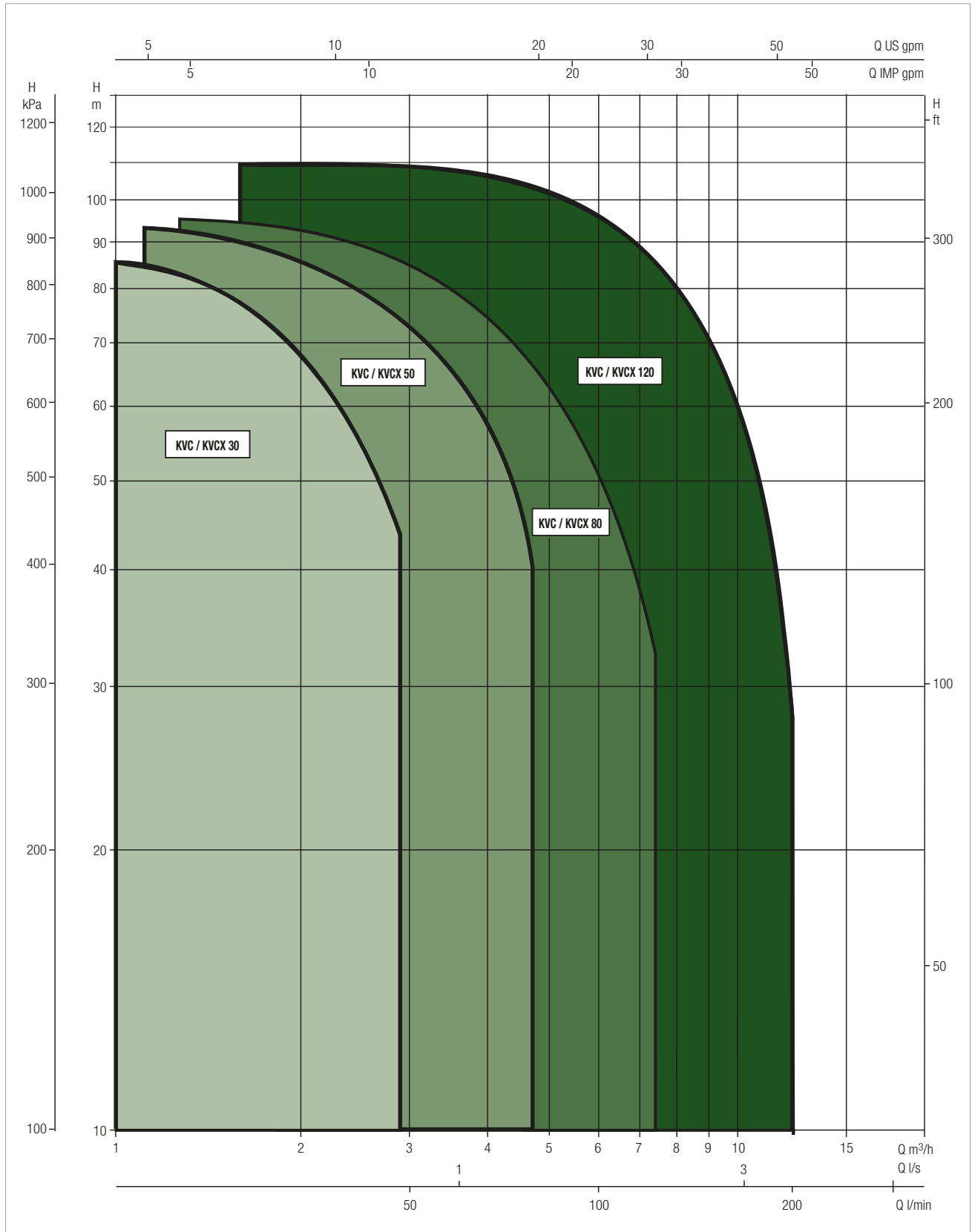
KVC - KVCX RANGE

INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = $1 \text{ mm}^2/\text{s}$ and density equal to 1000 kg/m^3 . Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



SELECTION TABLE - KVC / KVCX 30

MODEL		Q=m ³ /h	0	0.6	1.2	1.8	2.4	3	3.3
SINGLE-PHASE	THREE-PHASE	Q=l/min	0	10	20	30	40	50	55
KVC/KVCX 15/30 M	KVC/KVCX 15/30 T	H (m)	22.4	21.2	19.2	16.7	13.8	9.9	7.6
KVC/KVCX 25/30 M	KVC/KVCX 25/30 T		33.9	32.1	29.1	25.3	20.9	15.0	11.6
KVC/KVCX 35/30 M	KVC/KVCX 35/30 T		45.6	43.2	39.1	34.1	28.2	20.2	15.6
KVC/KVCX 45/30 M	KVC/KVCX 45/30 T		56.6	53.5	48.4	42.0	34.6	24.5	19.0
KVC/KVCX 50/30 M	KVC/KVCX 50/30 T		69.8	66.2	59.9	52.2	43.1	30.9	23.9
KVC/KVCX 60/30 M	KVC/KVCX 60/30 T		82.0	77.0	70.0	61.0	49.5	35.5	27.5
KVC/KVCX 70/30 M	KVC/KVCX 70/30 T		95.0	90.0	81.5	71.0	58.7	42.0	32.5

SELECTION TABLE - KVC / KVCX 50

MODEL		Q=m ³ /h	0	0.6	1.2	1.8	2.4	3	3.3	3.9	4.8
SINGLE-PHASE	THREE-PHASE	Q=l/min	0	10	20	30	40	50	55	65	80
KVC/KVCX 20/50 M	KVC/KVCX 20/50 T	H (m)	27.4	26.9	26.0	24.9	23.1	21.1	19.8	16.9	11.4
KVC/KVCX 30/50 M	KVC/KVCX 30/50 T		41.1	40.3	39.0	37.3	34.7	31.6	29.7	25.3	17.1
KVC/KVCX 40/50 M	KVC/KVCX 40/50 T		54.9	53.7	52.0	49.7	46.3	42.1	39.6	33.7	22.9
KVC/KVCX 55/50 M	KVC/KVCX 55/50 T		68.6	67.1	65.0	62.1	57.9	52.7	49.5	42.1	28.6
KVC/KVCX 65/50 M	KVC/KVCX 65/50 T		82.3	80.6	78.0	74.6	69.4	63.2	59.4	50.6	34.3
KVC/KVCX 75/50 M	KVC/KVCX 75/50 T		96.0	94.0	91.0	87.0	81.0	73.8	69.3	59.0	40.0

SELECTION TABLE - KVC / KVCX 80

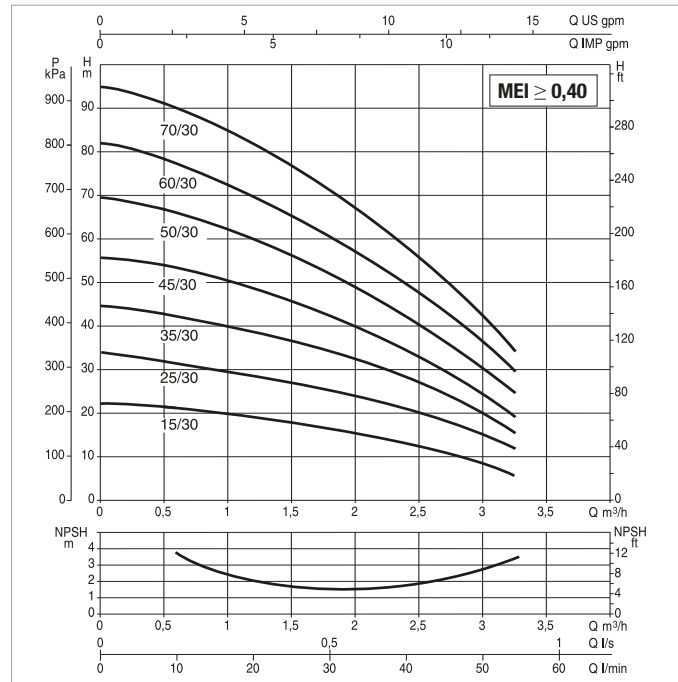
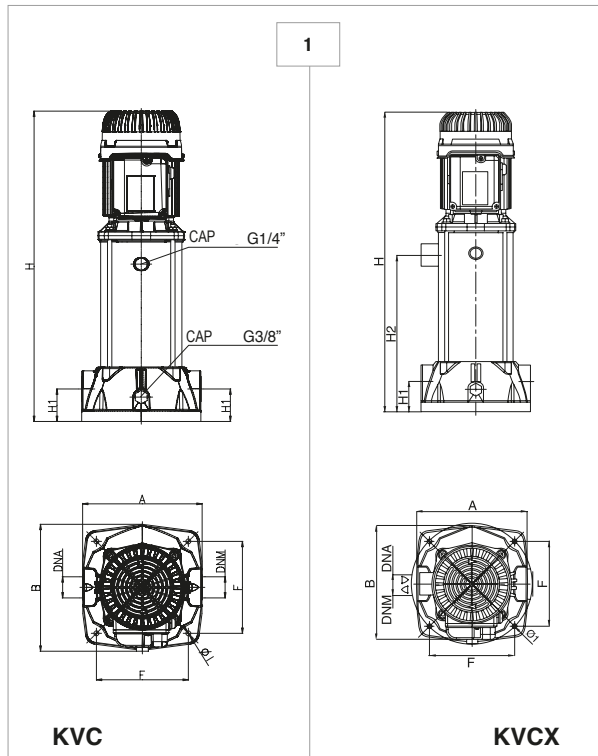
MODEL		Q=m ³ /h	0	0.6	1.2	1.8	2.4	3	3.3	3.9	4.8	5.4	6	7.2
SINGLE-PHASE	THREE-PHASE	Q=l/min	0	10	20	30	40	50	55	65	80	90	100	120
KVC/KVCX 15/80 M	KVC/KVCX 15/80 T	H (m)	22.8	22.4	21.7	21.1	20.3	19.1	18.3	16.8	14.0	11.7	9.5	4.5
KVC/KVCX 20/80 M	KVC/KVCX 20/80 T		34.6	34.0	33.0	32.1	30.9	29.2	28.0	25.8	21.7	18.3	14.9	7.5
KVC/KVCX 30/80 M	KVC/KVCX 30/80 T		46.6	45.8	44.6	43.4	41.8	39.5	38.0	35.2	29.8	25.5	21.0	11.0
KVC/KVCX 40/80 M	KVC/KVCX 40/80 T		58.8	57.9	56.5	55.0	53.1	50.3	48.5	45.0	38.4	33.1	27.6	15.1
KVC/KVCX 45/80 M	KVC/KVCX 45/80 T		71.3	70.2	68.7	66.9	64.7	61.4	59.4	55.3	47.5	41.4	34.9	19.9
KVC/KVCX 55/80 M	KVC/KVCX 55/80 T		84.0	82.8	81.2	79.2	76.6	72.9	70.7	66.0	57.1	50.3	42.8	25.5
-	KVC/KVCX 65/80 T		97.0	95.7	94.0	91.8	88.9	84.7	82.5	77.2	67.3	59.9	51.5	32.0

SELECTION TABLE - KVC / KVCX 120

MODEL		Q=m ³ /h	0	0.6	1.2	1.8	2.4	3	3.3	3.9	4.8	5.4	6	7.2	8.4	9.6	10.8	12
SINGLE-PHASE	THREE-PHASE	Q=l/min	0	10	20	30	40	50	55	65	80	90	100	120	140	160	180	200
KVC/KVCX 25/120 M	KVC/KVCX 25/120 T	H (m)	30.4	30.3	30.2	30.0	29.9	29.6	29.3	28.7	27.7	26.9	25.9	23.2	19.9	16.4	12.0	7.0
KVC/KVCX 35/120 M	KVC/KVCX 35/120 T		46.2	46.1	45.7	45.3	44.8	44.0	43.7	42.7	40.9	39.3	37.4	33.7	29.4	24.2	18.0	11.0
KVC/KVCX 45/120 M	KVC/KVCX 45/120 T		62.4	62.0	61.4	60.8	60.1	59.1	58.6	57.5	55.3	53.4	51.4	46.2	40.6	34.0	26.3	17.0
-	KVC/KVCX 60/120 T		78.0	77.5	76.7	75.9	75.1	73.9	73.3	71.5	68.3	65.9	63.2	58.0	51.0	43.4	35.0	24.5
-	KVC/KVCX 70/120 T		95.0	94.3	93.4	92.5	91.4	89.8	88.9	86.8	83.2	80.5	77.9	71.7	63.9	54.7	44.0	31.0
-	KVC/KVCX 85/120 T		112.7	111.6	110.3	109.0	107.6	105.7	104.5	101.9	97.5	94.1	89.9	81.6	72.1	61.2	48.9	34.0

KVC / KVCX 30 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

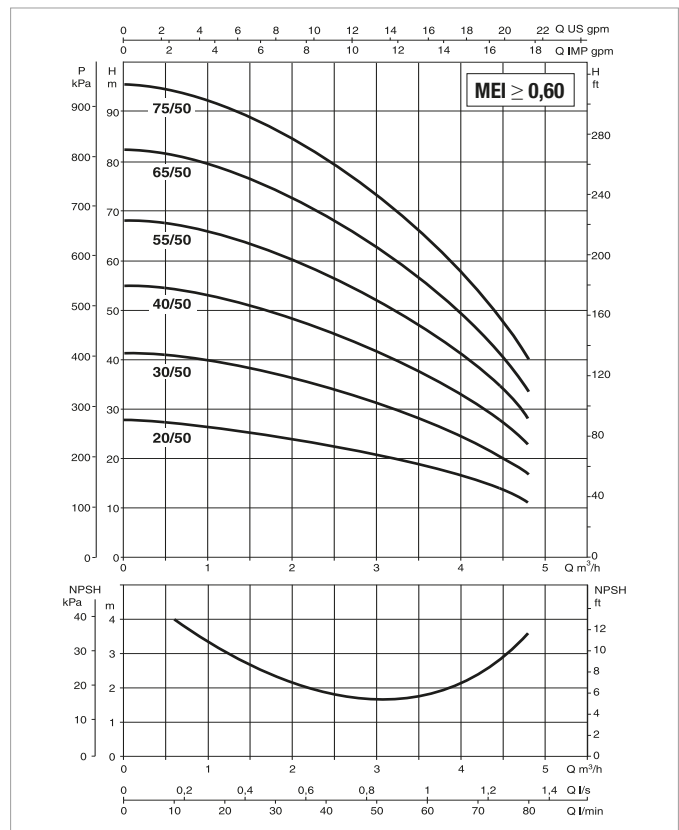
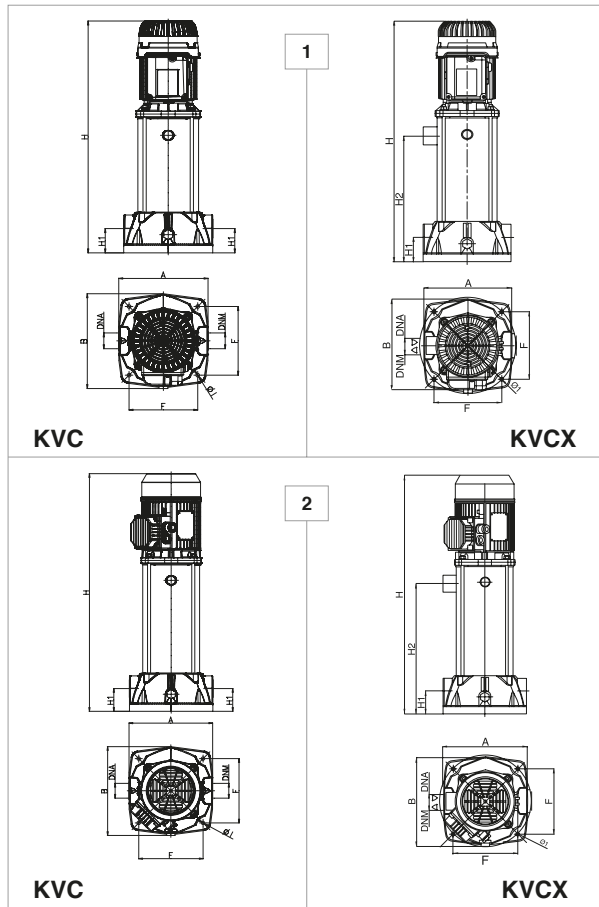
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	NO. OF IMPELLERS	ELECTRICAL DATA									
		POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
				kW	HP					µF	Vc
KVC-KVCX 15/30 M	2	1x220-240 V ~	0.36	0.25	0.33	1.6	-	13.7	2800	14	450
KVC-KVCX 15/30 T		3x230-400 V ~	0.45	0.25	0.33	1.4-0.8	-	15.9-9.2	2800	-	-
KVC-KVCX 25/30 M	3	1x220-240 V ~	0.52	0.37	0.5	2.4	-	13.7	2800	14	450
KVC-KVCX 25/30 T		3x230-400 V ~	0.54	0.37	0.5	1.7-1.0	-	15.9-9.2	2800	-	-
KVC-KVCX 35/30 M	4	1x220-240 V ~	0.7	0.45	0.6	3.2	-	13.7	2800	14	450
KVC-KVCX 35/30 T		3x230-400 V ~	0.64	0.45	0.6	2.1-1.2	-	15.9-9.2	2800	-	-
KVC-KVCX 45/30 M	5	1x220-240 V ~	0.9	0.55	0.75	4	-	13.7	2800	14	450
KVC-KVCX 45/30 T		3x230-400 V ~	0.75	0.55	0.75	2.4-1.4	-	15.9-9.2	2800	-	-
KVC-KVCX 50/30 M	6	1x220-240 V ~	1.1	0.75	1	4.9	-	19.5	2800	16	450
KVC-KVCX 50/30 T		3x230-400 V ~	0.97	0.75	1	3.8-2.2	IE2	16	2800	-	-
KVC-KVCX 60/30 M	7	1x220-240 V ~	1.2	0.8	1.1	5.6	-	28	2800	20	450
KVC-KVCX 60/30 T		3x230-400 V ~	1.2	0.8	1.1	3.8-2.2	IE2	21.4-12.4	2800	-	-
KVC-KVCX 70/30 M	8	1x220-240 V ~	1.4	1	1.36	6.5	-	30	2800	25	450
KVC-KVCX 70/30 T		3x230-400 V ~	1.4	1	1.36	4.4-2.6	IE2	22.1-12.8	2800	-	-

MODEL	EXTERNAL DESIGN	A	B	F	H	H1	H2	Ø I	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
											L/A	L/B	H		single-phase	three-phase
KVC 15/30	1	221	235	170	450	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	14	14
KVC 25/30	1	221	235	170	478	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	14.4	14.4
KVC 35/30	1	221	235	170	505	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.071	14	14
KVC 45/30	1	221	235	170	533	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.071	14.4	14.4
KVC 50/30	1	221	235	170	598	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.079	16.2	16.2
KVC 60/30	1	221	235	170	625	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.079	17.2	17.2
KVC 70/30	1	221	235	170	653	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.084	18.4	18.4
KVCX 15/30	1	221	235	170	450	60	184	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	14	14
KVCX 25/30	1	221	235	170	478	60	184	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	14.4	14.4
KVCX 35/30	1	221	235	170	505	60	239	9	G 1" 1/4	G 1" 1/4	300	360	600	0.071	14	14
KVCX 45/30	1	221	235	170	533	60	239	9	G 1" 1/4	G 1" 1/4	300	360	600	0.071	14.4	14.4
KVCX 50/30	1	221	235	170	598	60	332	9	G 1" 1/4	G 1" 1/4	300	360	600	0.079	16.2	16.2
KVCX 60/30	1	221	235	170	625	60	332	9	G 1" 1/4	G 1" 1/4	300	360	600	0.079	17.2	17.2
KVCX 70/30	1	221	235	170	653	60	359	9	G 1" 1/4	G 1" 1/4	300	360	600	0.084	18.4	18.4

KVC / KVCX 50 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

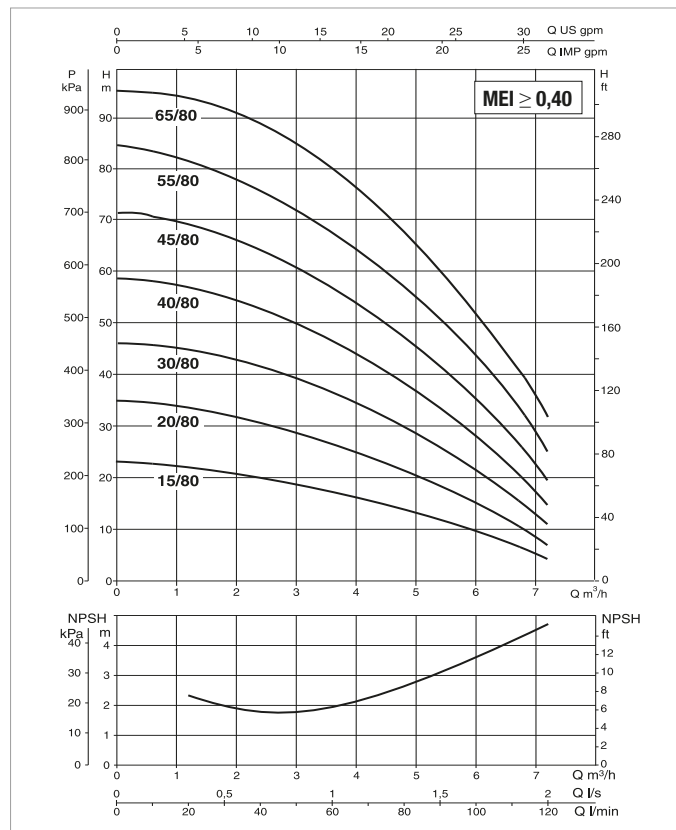
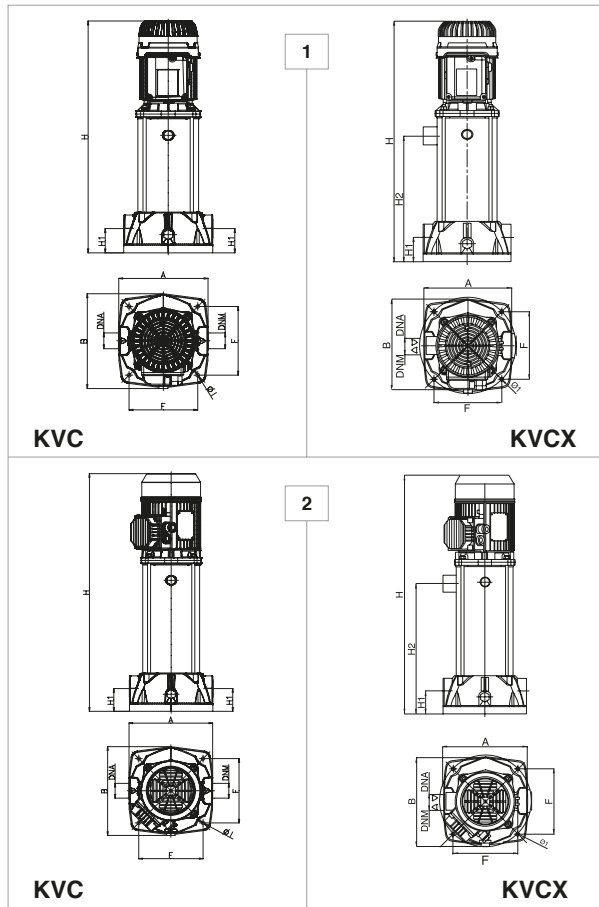
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	NO. OF IMPELLERS	POWER INPUT 50 Hz	P1 MAX kW	ELECTRICAL DATA							
				P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
				kW	HP					µF	Vc
KVC-KVCX 20/50 M	2	1x220-240 V ~	0.55	0.37	0.5	2.5	-	13.7	2800	14	450
KVC-KVCX 20/50 T		3x230-400 V ~	0.54	0.37	0.5	1.7-1.0	-	15.9-9.2	2800	-	-
KVC-KVCX 30/50 M	3	1x220-240 V ~	0.9	0.55	0.75	4	-	13.7	2800	14	450
KVC-KVCX 30/50 T		3x230-400 V ~	0.75	0.55	0.75	2.4-1.4	-	15.9-9.2	2800	-	-
KVC-KVCX 40/50 M	4	1x220-240 V ~	1.2	0.8	1.1	5.6	-	28	2800	20	450
KVC-KVCX 40/50 T		3x230-400 V ~	1.2	0.8	1.1	3.8-2.2	IE2	21.4-12.4	2800	-	-
KVC-KVCX 55/50 M	5	1x220-240 V ~	1.4	1	1.36	6.4	-	30	2800	25	450
KVC-KVCX 55/50 T		3x230-400 V ~	1.4	1	1.36	4.4-2.6	IE2	22.1-12.8	2800	-	-
KVC-KVCX 65/50 M	6	1x220-240 V ~	1.7	1.1	1.5	7.4	-	29.2	2800	31.5	450
KVC-KVCX 65/50 T		3x230-400 V ~	1.7	1.1	1.5	7.4	IE2	21	2800	-	-
KVC-KVCX 75/50 M	7	1x220-240 V ~	2	1.5	2	9	-	38	2800	31.5	450
KVC-KVCX 75/50 T		3x230-400 V ~	1.9	1.5	2	7.7-4.3	IE2	22	2800	-	-

MODEL	EXTERNAL DESIGN	A	B	F	H	H1	H2	Ø I	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
											L/A	L/B	H		single-phase	three-phase
KVC 20/50	1	221	235	170	450	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.5	13.5
KVC 30/50	1	221	235	170	478	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.7	13.7
KVC 40/50	1	221	235	170	505	60	-	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	15.8	15.8
KVC 55/50	1	221	235	170	533	60	-	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	17.0	17.0
KVC 65/50	2	221	235	170	600	60	-	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	20.2	19.8
KVC 75/50	2	221	235	170	627	60	-	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	21.2	20.6
KVCX 20/50	1	221	235	170	450	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.5	13.5
KVCX 30/50	1	221	235	170	478	60	184	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.7	13.7
KVCX 40/50	1	221	235	170	505	60	184	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	15.8	15.8
KVCX 55/50	1	221	235	170	533	60	239	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	17.0	17.0
KVCX 65/50	2	221	235	170	600	60	239	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	20.2	19.8
KVCX 75/50	2	221	235	170	627	60	332	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	21.2	20.6

KVC / KVCX 80 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

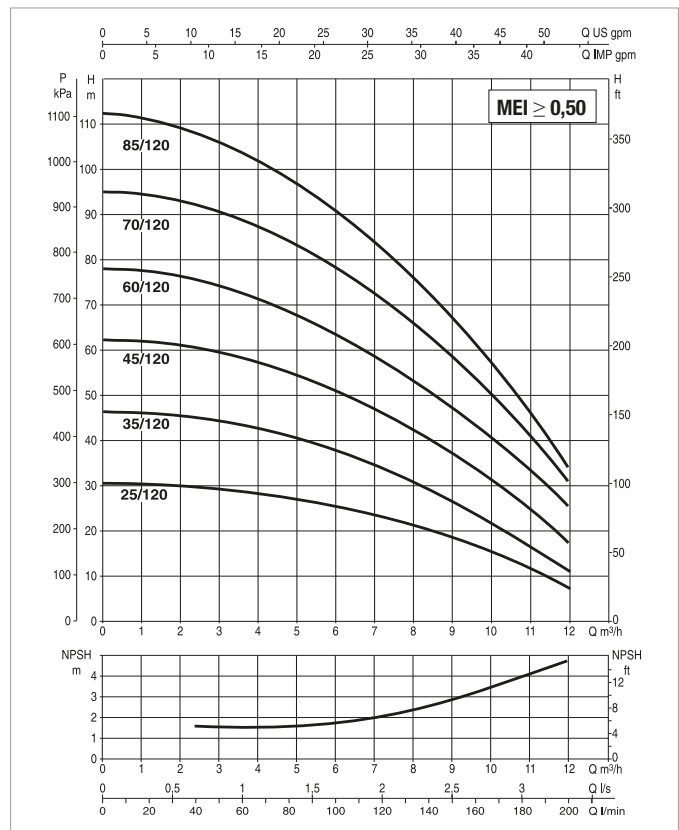
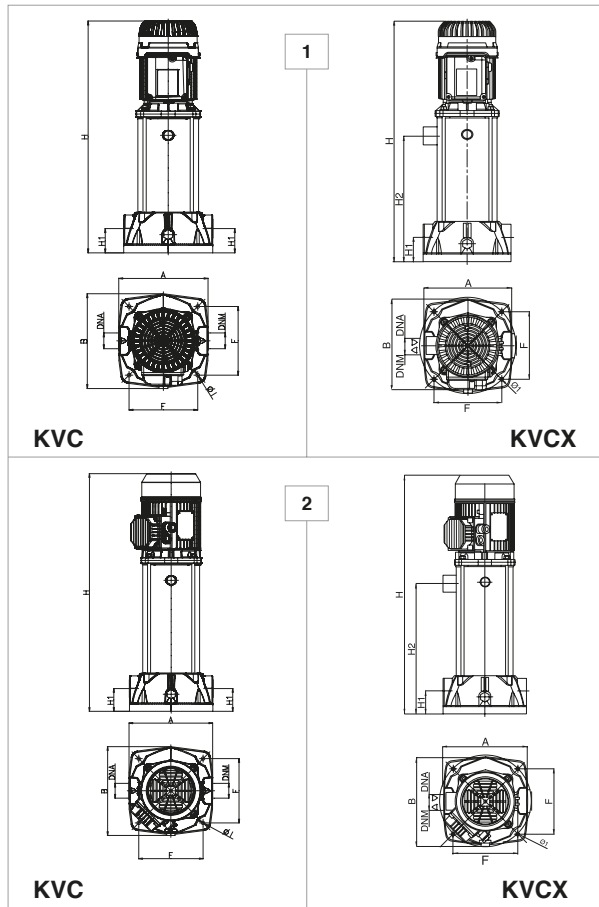
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	No. IMPELLERS	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
				kW	HP					µF	Vc
KVC-KVCX 15/80 M	2	1x220-240 V ~	0.55	0.37	0.5	2.5	-	13.7	2800	14	450
KVC-KVCX 15/80 T		3x230-400 V ~	0.54	0.37	0.5	1.7-1.0	-	15.9-9.2	2800	-	-
KVC-KVCX 20/80 M	3	1x220-240 V ~	0.9	0.55	0.75	4.1	-	13.7	2800	14	450
KVC-KVCX 20/80 T		3x230-400 V ~	0.75	0.55	0.75	2.4-1.4	-	15.9-9.2	2800	-	-
KVC-KVCX 30/80 M	4	1x220-240 V ~	1.2	0.8	1.1	5.6	-	28	2800	20	450
KVC-KVCX 30/80 T		3x230-400 V ~	1.2	0.8	1.1	3.8-2.2	IE2	21.4-12.4	2800	-	-
KVC-KVCX 40/80 M	5	1x220-240 V ~	1.4	1	1.36	6.5	-	30	2800	25	450
KVC-KVCX 40/80 T		3x230-400 V ~	1.4	1	1.36	4.4-2.6	IE2	22.1-12.8	2800	-	-
KVC-KVCX 45/80 M	6	1x220-240 V ~	1.7	1.1	1.5	7.4	-	29.2	2800	31.5	450
KVC-KVCX 45/80 T		3x230-400 V ~	1.7	1.1	1.5	5.4-3.1	IE2	31.1-18.0	2800	-	-
KVC-KVCX 55/80 M	7	1x220-240 V ~	2	1.5	2	9	-	38	2800	31.5	450
KVC-KVCX 55/80 T		3x230-400 V ~	1.9	1.5	2	6.2-3.6	IE2	37.5-21.7	2800	-	-
KVC-KVCX 65/80 T	8	3x230-400 V ~	2.2	2.2	3	8-4.6	IE2	32	2800	-	-

MODEL	EXTERNAL DESIGN	A	B	F	H	H1	H2	ØI	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg	
											L/A	L/B	H		single-phase	three-phase
KVC 15/80	1	221	235	170	450	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.5	13.5
KVC 20/80	1	221	235	170	478	60	-	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.7	13.7
KVC 30/80	1	221	235	170	505	60	-	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	15.7	15.5
KVC 40/80	1	221	235	170	533	60	-	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	17.0	17.0
KVC 45/80	2	221	235	170	600	60	-	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	20.1	20.2
KVC 55/80	2	221	235	170	627	60	-	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	21.2	20.0
KVC 65/80	2	221	235	170	655	60	-	9	G 1" 1/4	G 1" 1/4	300	360	760	0.082	-	21.6
KVCX 15/80	1	221	235	170	450	60	184	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.5	13.5
KVCX 20/80	1	221	235	170	478	60	184	9	G 1" 1/4	G 1" 1/4	300	360	600	0.065	13.7	13.7
KVCX 30/80	1	221	235	170	505	60	239	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	15.7	15.5
KVCX 40/80	1	221	235	170	533	60	239	9	G 1" 1/4	G 1" 1/4	300	360	656	0.071	17.0	17.0
KVCX 45/80	2	221	235	170	600	60	332	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	20.1	20.2
KVCX 55/80	2	221	235	170	627	60	332	9	G 1" 1/4	G 1" 1/4	300	360	735	0.079	21.2	20.0
KVCX 65/80	2	221	235	170	655	60	359	9	G 1" 1/4	G 1" 1/4	300	360	760	0.082	-	21.6

KVC / KVCX 120 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	ELECTRICAL DATA										
	NO. OF IMPELLERS	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
				kW	HP					µF	Vc
KVC-KVCX 25/120 M	2	1x220-240 V ~	1.5	1	1.36	6.5	-	30	2800	25	450
KVC-KVCX 25/120 T		3x230-400 V ~	1.5	1	1.36	5-2.9	IE2	22.1-12.8	2800	-	-
KVC-KVCX 35/120 M	3	1x220-240 V ~	1.9	1.1	1.5	7.4	-	30	2800	31.5	450
KVC-KVCX 35/120 T		3x230-400 V ~	1.9	1.1	1.5	6-3.5	IE2	31.1-18	2800	-	-
KVC-KVCX 45/120 M	4	1x220-240 V ~	2.6	1.85	2.5	12	-	54	2800	40	450
KVC-KVCX 45/120 T		3x230-400 V ~	2.5	1.85	2.5	7.9-4.6	IE2	48.4-28	2800	-	-
KVC-KVCX 60/120 T	5	3x230-400 V ~	3.1	2.2	3	9.3-5.4	IE2	53-31	2800	-	-
KVC-KVCX 70/120 T	6	3x230-400 V ~	3.8	3	4	11.8-6.8	IE2	78-45	2800	-	-
KVC-KVCX 85/120 T	7	3x230-400 V ~	4.3	3	4	13.5-7.8	IE2	90-53	2800	-	-

MODEL	EXTERNAL DESIGN	A	B	F	H	H1	H2	Ø I	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	WEIGHT kg	
											L/A	L/B	H		single-phase	three-phase
KVC 25/120 *	1	221	235	170	450	60	-	9	G 1" 1/4	G 1" 1/4	300	360	585	0.058	17.0	17.1
KVC 35/120 *	2	221	235	170	480	60	-	9	G 1" 1/4	G 1" 1/4	300	360	585	0.061	20.1	20.2
KVC 45/120 *	2	221	235	170	507	60	-	9	G 1" 1/4	G 1" 1/4	300	360	715	0.064	20.2	21.9
KVC 60/120	2	221	235	170	610	60	-	9	G 1" 1/4	G 1" 1/4	300	360	715	0.067	-	21.6
KVC 70/120	2	221	235	170	675	60	-	9	G 1" 1/4	G 1" 1/4	300	360	810	0.074	-	24.0
KVC 85/120	2	221	235	170	702	60	-	9	G 1" 1/4	G 1" 1/4	300	360	810	0.077	-	25.0
KVCX 25/120 *	1	221	235	170	450	60	184	9	G 1" 1/4	G 1" 1/4	300	360	585	0.061	17.0	17.1
KVCX 35/120 *	2	221	235	170	480	60	184	9	G 1" 1/4	G 1" 1/4	300	360	585	0.061	20.1	20.2
KVCX 45/120 *	2	221	235	170	507	60	239	9	G 1" 1/4	G 1" 1/4	300	360	715	0.067	20.2	21.9
KVCX 60/120	2	221	235	170	610	60	239	9	G 1" 1/4	G 1" 1/4	300	360	715	0.065	-	21.6
KVCX 70/120	2	221	235	170	675	60	332	9	G 1" 1/4	G 1" 1/4	300	360	810	0.076	-	24.0
KVCX 85/120	2	221	235	170	702	60	332	9	G 1" 1/4	G 1" 1/4	300	360	810	0.076	-	25.0

* H only valid for the three-phase version

KV 3-6-10

MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING



TECHNICAL DATA

Operating range:

from 1,8 to 13,5 m³/h with head up to 139 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41).

from -15°C to +110°C for other uses.

Maximum ambient temperature: +40 °C.

Maximum operating pressure: 18 bar (1800 kPa).

Protection class: IP 55

Insulation class: F

Standard voltage: single-phase 220-240 V / 50 Hz.
three-phase 230-400 V / 50 Hz
IE2 ≥ 0,75 kW

Installation: fixed, vertical position.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Vertical multistage centrifugal pump suitable for small to medium user water systems. Suitable for pressurisation units, boiler supply, hot water circulation, channelling of condensate and cooling water, fire fighting and washing systems, drinking water supply and filling of pressure vessels, sprinkler and watering systems.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron delivery and suction bodies treated against corrosion. Impellers, diffuser bodies and diffusers in technopolymer. AISI 304 stainless steel pump liner and adjustment rings. Pump shaft in AISI 416 stainless steel. AISI 316 stainless steel sliding bushing.

Bronze sliding bushing guide, self-lubricated using the pumped liquid itself. Carbon/ceramic mechanical seal. Rigid coupling motor shaft to pump shaft connection. Threaded counter-flanges supplied as standard.

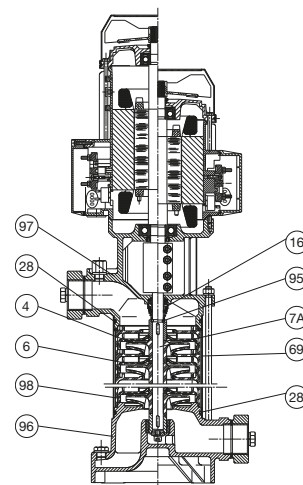
CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions. Overload protection to be provided by the user for the three-phase version. Construction according to CEI 2-3 / CEI 61-69 (EN 60335-2-41).

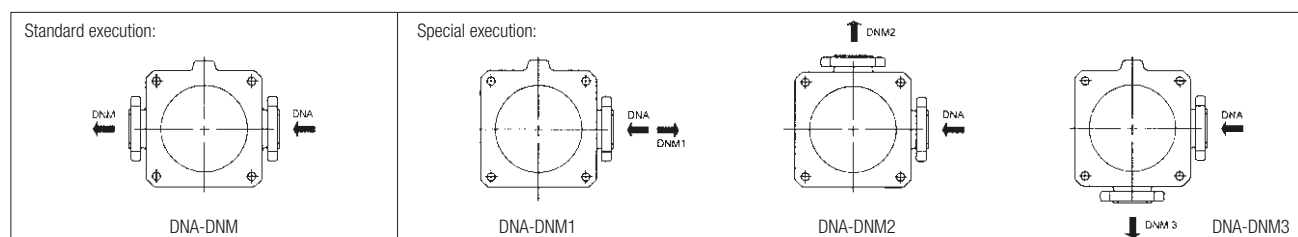
MATERIALS

No.	PARTS*	MATERIALS
4	IMPELLER	TECHNOPOLYMER B
6	DIFFUSER	TECHNOPOLYMER B
7A	PUMP SHAFT	AISI 416 STAINLESS STEEL X12 CrS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON / CERAMIC
28	OR RING	EPDM RUBBER
69	LINER	AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71
95	OR RING	EPDM RUBBER
96	SUCTION BODY	CAST IRON 200 UNI ISO 185
97	DELIVERY BODY	CAST IRON 200 UNI ISO 185
98	DIFFUSER BODY	TECHNOPOLYMER B

* In contact with the liquid.



ORIENTATION OF THE SUCTION AND DELIVERY CONNECTORS:



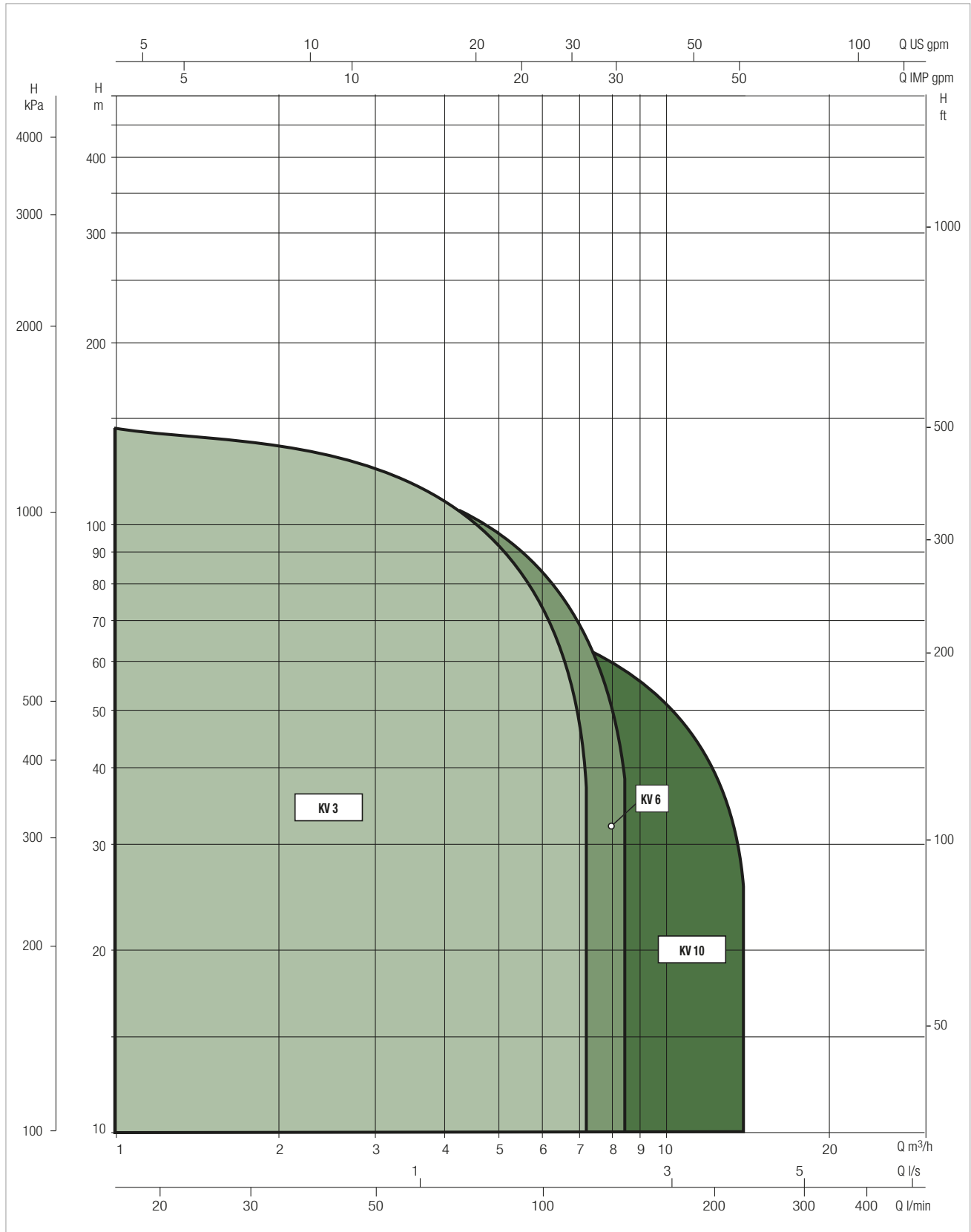
KV 3-6-10 RANGE

MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



SELECTION TABLE - KV 3

MODEL		P2 NOMINAL		Q=m ³ /h	0	1.8	3.6	5.4	7.2
SINGLE-PHASE	THREE-PHASE	kW	HP	Q=l/min	0	30	60	90	120
KV 3/10 M	KV 3/10 T	1.1	1.5	H (m)	88	77	63.5	45.7	21
KV 3/12 M	KV 3/12 T	1.5	2		105.6	92.4	76.2	54.8	25.2
KV 3/15 M	KV 3/15 T	1.85	2.5		132	115.5	95.3	68.6	31.5
-	KV 3/18 T	2.2	3		158.4	138.6	114.3	82.3	37.8

SELECTION TABLE - KV 6

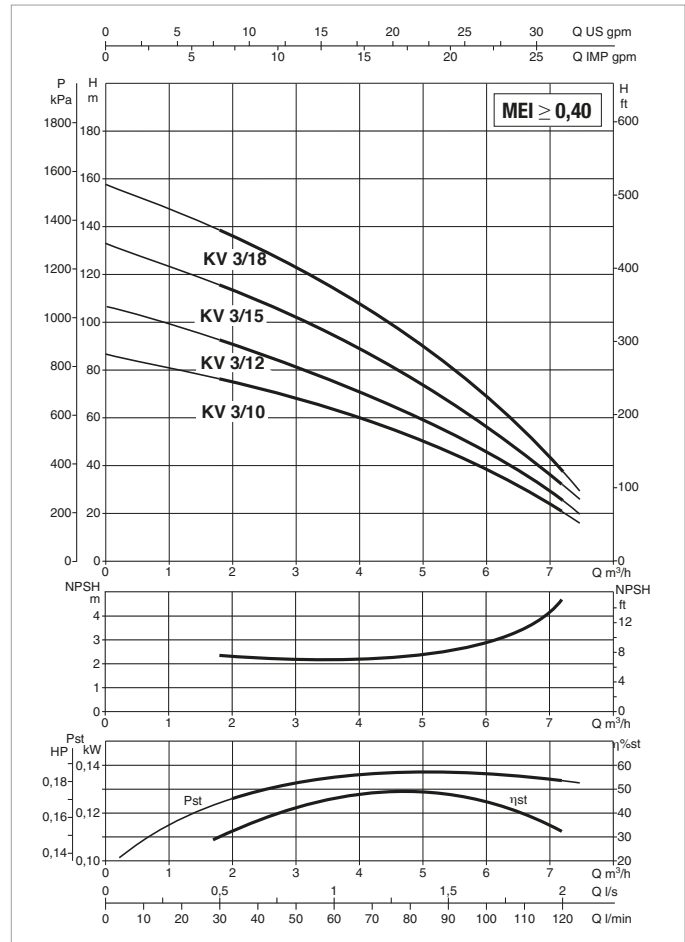
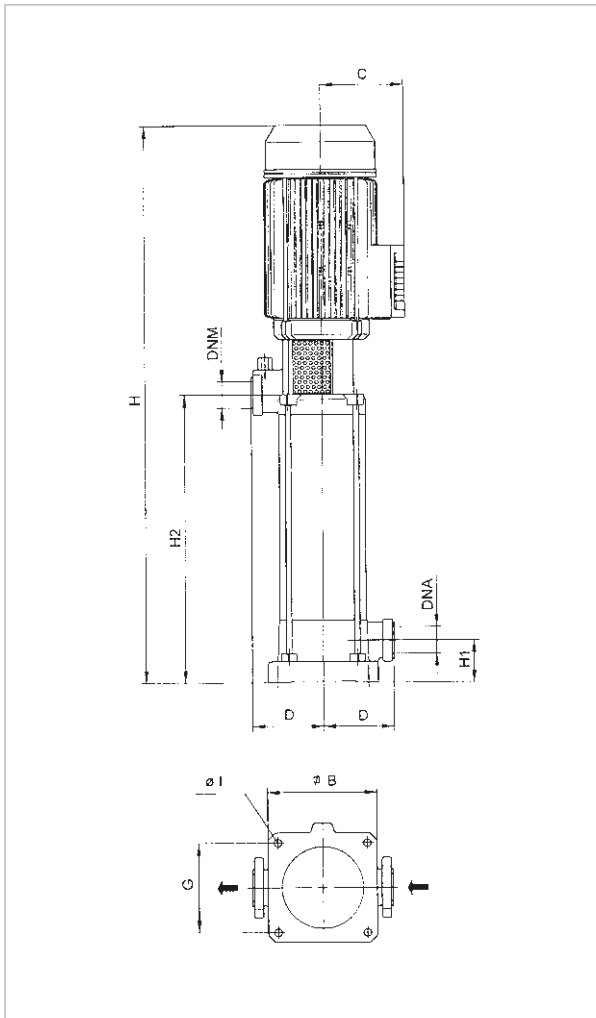
MODEL		P2 NOMINAL		Q=m ³ /h	0	1.8	3.6	5.4	7.2	8.4
SINGLE-PHASE	THREE-PHASE	kW	HP	Q=l/min	0	30	60	90	120	140
KV 6/7 M	KV 6/7 T	1.1	1.5	H (m)	62.3	57.8	51.5	42.5	29.5	18.6
KV 6/9 M	KV 6/9 T	1.5	2		80.1	74.3	66.2	54.6	38	23.9
KV 6/11 M	KV 6/11 T	1.85	2.5		97.9	90.8	81	66.8	46.4	29.2
-	KV 6/15 T	2.2	3		133.5	123.8	110.4	91.1	63.3	39.8

SELECTION TABLE - KV 10

MODEL		P2 NOMINAL		Q=m ³ /h	0	1.8	3.6	5.4	7.2	8.4	10.2	12	13.8
SINGLE-PHASE	THREE-PHASE	kW	HP	Q=l/min	0	30	60	90	120	140	170	200	230
KV 10/4 M	KV 10/4 T	1.1	1.5	H (m)	38.2	37.4	36.2	34.4	32	29.7	25.5	20	12.6
KV 10/5 M	KV 10/5 T	1.5	2		47.8	46.8	45.2	43	40	37.2	31.9	25	15.8
-	KV 10/6 T	1.85	2.5		57.3	56.1	54.2	51.6	48	44.6	38.2	30	18.9
-	KV 10/8 T	2.2	3		76.4	74.8	72.3	68.8	64	59.4	51	40	25.2

KV 3 - MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -15°C to +110°C for other uses.
 Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.
 The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

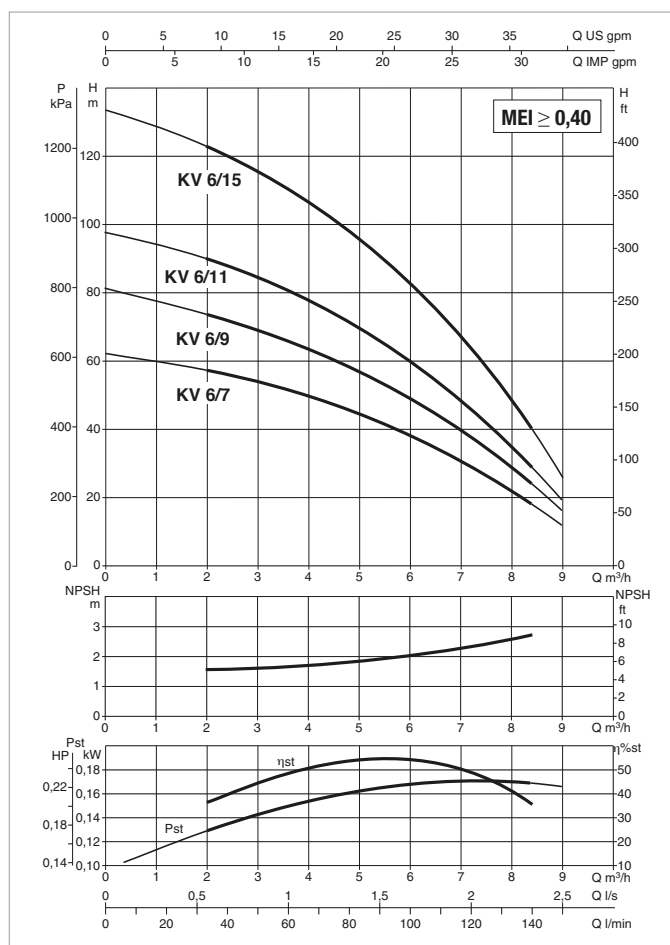
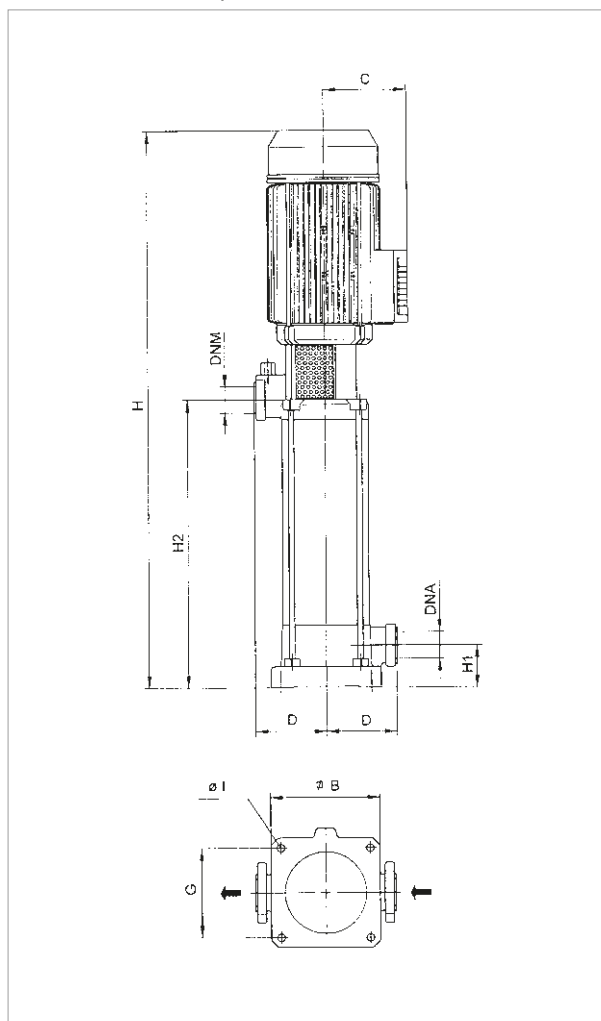
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
			kW	HP					µF	Vc
KV 3/10 M	1x220-240 V ~	1.77	1.1	1.5	7.8	-	29	2800	31.5	450
KV 3/10 T	3x230-400 V ~	1.8	1.1	1.5	7.4	IE2	21	2850	-	-
KV 3/12 M	1x220-240 V ~	2.34	1.5	2	9.6	-	38	2750	40	450
KV 3/12 T	3x230-400 V ~	2.06	1.5	2	7.5-4	IE2	22	2750	-	-
KV 3/15 M	1x220-240 V ~	2.5	1.85	2.5	11.3	-	48	2850	40	450
KV 3/15 T	3x230-400 V ~	2.6	1.85	2.5	7.5-4.3	IE2	57-33	2850	-	-
KV 3/18 T	3x230-400 V ~	3.3	2.2	3	10-5.8	IE2	78-45	2850	-	-

MODEL	B	C	D	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
											L/A	L/B	H		
KV 3/10 M	155	111	100	127	11	782	60	472	1" 1/4	1" 1/4	972	232	232	0.052	27.2
KV 3/10 T	155	111	100	127	11	782	60	472	1" 1/4	1" 1/4	972	232	232	0.052	26.3
KV 3/12 M	155	116	100	127	11	846	60	536	1" 1/4	1" 1/4	972	232	232	0.052	30.6
KV 3/12 T	155	111	100	127	11	846	60	536	1" 1/4	1" 1/4	972	232	232	0.052	28
KV 3/15 M	155	116	100	127	11	942	60	632	1" 1/4	1" 1/4	1212	232	232	0.065	33
KV 3/15 T	155	116	100	127	11	942	60	632	1" 1/4	1" 1/4	1212	232	232	0.065	31.9
KV 3/18 T	155	116	100	127	11	1116	60	728	1" 1/4	1" 1/4	1212	232	232	0.065	35.8

KV 6 - MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -15°C to +110°C for other uses.

Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

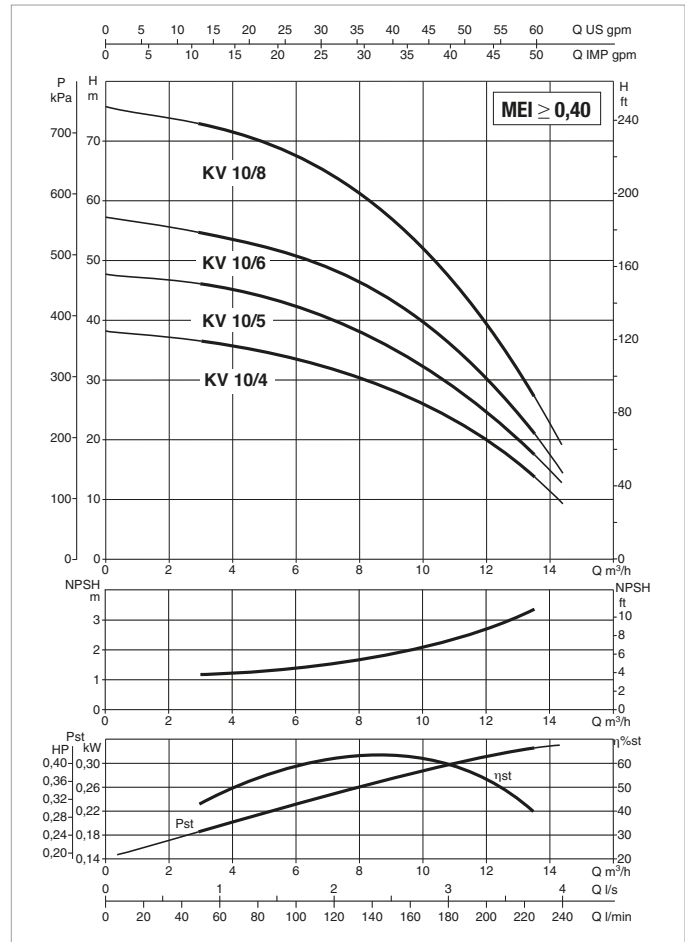
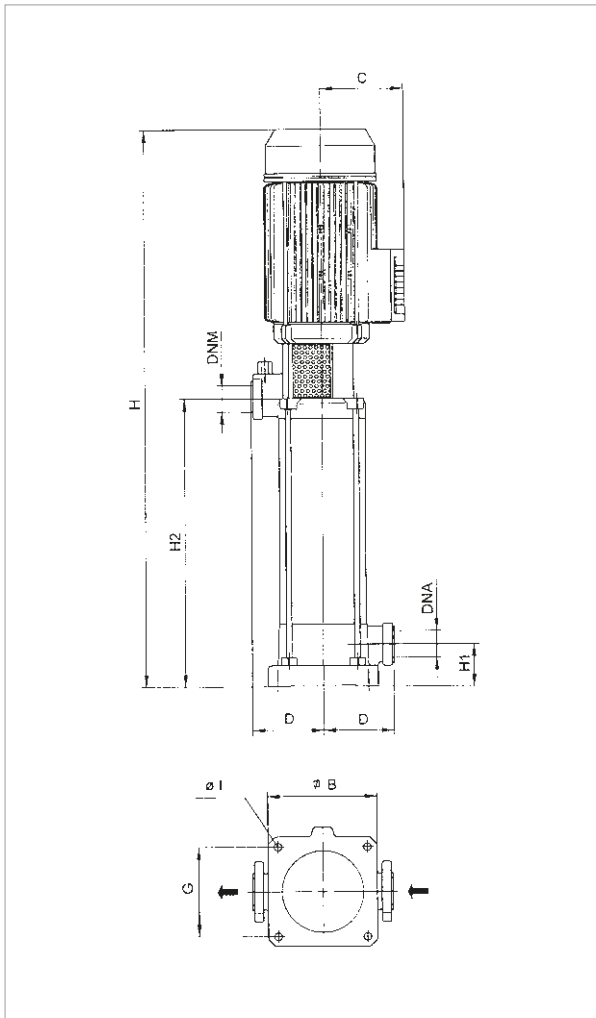
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
			kW	HP					μF	Vc
KV 6/7 M	1x220-240 V ~	1.68	1.1	1.5	7.5	-	29	2800	31.5	450
KV 6/7 T	3x230-400 V ~	1.6	1.1	1.5	5-2.9	IE2	38-22	2850	-	-
KV 6/9 M	1x220-240 V ~	2.1	1.5	2	9.4	-	38	2850	40	450
KV 6/9 T	3x230-400 V ~	2	1.5	2	7.5-4.2	IE2	22	2850	-	-
KV 6/11 M	1x220-240 V ~	2.5	1.85	2.5	11.1	-	48	2850	40	450
KV 6/11 T	3x230-400 V ~	2.3	1.85	2.5	7.3-4.2	IE2	43-25	2850	-	-
KV 6/15 T	3x230-400 V ~	3.3	2.2	3	11-6.3	IE2	78-45	2850	-	-

MODEL	B	C	D	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
											L/A	L/B	H		
KV 6/7 M	155	111	100	127	11	685	60	376	1" 1/4	1" 1/4	972	232	232	0.052	26.1
KV 6/7 T	155	111	100	127	11	685	60	376	1" 1/4	1" 1/4	972	232	232	0.052	25.2
KV 6/9 M	155	116	100	127	11	750	60	440	1" 1/4	1" 1/4	972	232	232	0.052	29
KV 6/9 T	155	111	100	127	11	750	60	440	1" 1/4	1" 1/4	972	232	232	0.052	26.8
KV 6/11 M	155	116	100	127	11	815	60	504	1" 1/4	1" 1/4	972	232	232	0.052	31.3
KV 6/11 T	155	116	100	127	11	815	60	504	1" 1/4	1" 1/4	972	232	232	0.052	27.7
KV 6/15 T	155	116	100	127	11	1020	60	632	1" 1/4	1" 1/4	1212	232	232	0.065	34.5

KV 10 - MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -15°C to +110°C for other uses.
 Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.
 The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	1/min.	CAPACITOR	
			kW	HP					µF	Vc
KV 10/4 M	1x220-240 V ~	1.9	1.1	1.5	8.3	-	29	2850	31.5	450
KV 10/4 T	3x230-400 V ~	1.9	1.1	1.5	6.1-3.5	IE2	38-22	2850	-	-
KV 10/5 M	1x220-240 V ~	2.4	1.5	2	10.4	-	45	2850	40	450
KV 10/5 T	3x230-400 V ~	2.3	1.5	2	8-4.5	IE2	22	2850	-	-
KV 10/6 M	1x220-240 V ~	2.6	1.85	2.5	12.5	-	54	2850	40	450
KV 10/6 T	3x230-400 V ~	2.8	1.85	2.5	8.7-5	IE2	57-33	2850	-	-
KV 10/8 T	3x230-400 V ~	3.7	2.2	3	11.8-6.8	IE2	78-45	2850	-	-

MODEL	B	C	D	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
											L/A	L/B	H		
KV 10/4 M	155	111	100	127	11	590	60	280	1" 1/4	1" 1/4	712	232	232	0.038	27.2
KV 10/4 T	155	111	100	127	11	590	60	280	1" 1/4	1" 1/4	712	232	232	0.038	26.3
KV 10/5 M	155	116	100	127	11	625	60	312	1" 1/4	1" 1/4	712	232	232	0.038	30.6
KV 10/5 T	155	111	100	127	11	625	60	312	1" 1/4	1" 1/4	972	232	232	0.052	28
KV 10/6 M	155	116	100	127	11	738	60	344	1" 1/4	1" 1/4	972	232	232	0.052	33
KV 10/6 T	155	111	100	127	11	738	60	344	1" 1/4	1" 1/4	972	232	232	0.052	31.9
KV 10/8 T	155	116	100	127	11	798	60	408	1" 1/4	1" 1/4	972	232	232	0.052	35.8

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING



TECHNICAL DATA

Operating range:

from 4 to 118 m³/h with head up to 319 meters.

Pumped liquid: clean, without solids or abrasives, non-viscous, non-aggressive, non-crystallized and chemically neutral, with properties similar to water.

Liquid temperature range: from -15°C to +120°C.

Maximum ambient temperature: +40°C.

Maximum working pressure: 25 bar (2500kPa) NKV 10-15-20-65-95
32 bar (3200kPa) NKV 32-45

Protection level: IP 55.

Insulation class: F.

Standard voltage: single-phase 230/400 V / 50 Hz
three-phase 400 V Δ / 50 Hz starting from 3.

Installation: fixed, vertical mounting.

Special version on request:
other voltages and / or power supply frequencies.
60 Hz version.

APPLICATIONS

Vertical multistage centrifugal pump suitable for medium to large user water systems. Recommended for pressurisation units, boiler supply, hot water and cooling water circulation, fire fighting and washing systems, drinking water supply and filling of pressure vessels, sprinkler and watering systems and water purification systems.

PUMP FEATURES

NKV 10-15-20

All the parts in contact with liquid are made of stainless steel.

AISI 304 microcast stainless steel internal pump body, ULTEM diffusers, AISI 431 pump shaft, impellers and pump sleeve in stainless steel AISI 304. External pump body and support in cast iron with cataphoresis paint coating. The cartridge mechanical seal is made of silicon carbide/silicon carbide, maintenance-free, and can be dismantled without removing the motor starting from 5.5 kW. Rigid motor-pump coupling.

NKV 32-45-65-95

Impellers, diffusers and sleeve in AISI 304 stainless steel to ensure durability, high efficiency and performance. Pump shaft in stainless steel AISI 431.

Pump body and seal holding disc in cast iron with cataphoresis paint coating. Carbon stage body bushing, to ensure durability in case of dry operation. Oversized ball bearings, fitted on the motor support to ensure duration and eliminate axial adjustments. PTFE WRAS approved floating wear ring for consistent performance. Silicon carbide / carbon mechanical seal that can be dismantled without removing the motor starting from 5.5 kW.

Rigid motor-pump coupling. Special full stainless steel version on request.

CONSTRUCTION FEATURES OF THE MOTOR

Closed with external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Motor protection is the responsibility of the user

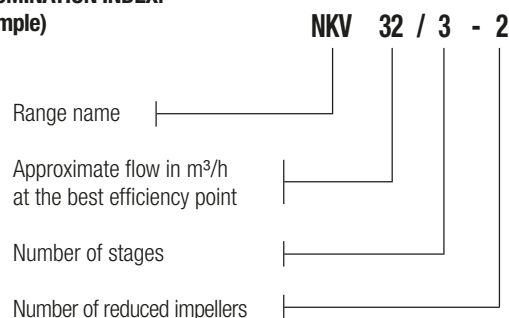
Manufactured according to CEI 2-3.

Motor frame: NKV 10 - 15 - 20 : B5 - V1

NKV 32 - 45 - 65 - 95: B14 for 4kW and B5 from 5,5kW included.

DENOMINATION INDEX:

(Example)



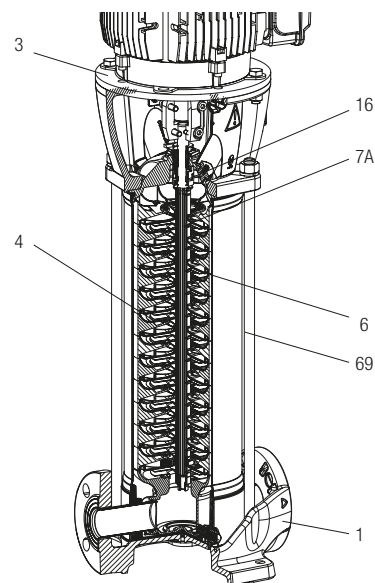
NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

MATERIALS NKV 10-15-20

N°	PARTS	MATERIALS *
1	EXTERNAL PUMP BODY	CAST IRON WITH CATAPHORESIS
	INTERNAL PUMP BODY*	STAINLESS STEEL AISI 304
3	SUPPORT	CAST IRON WITH CATAPHORESIS
4	IMPELLER*	STAINLESS STEEL AISI 304
6	DIFUSSER*	TECHNOPOLYMER "ULTEM"
7A	PUMP SHAFT*	STAINLESS STEEL AISI 431
16	MECHANICAL SEAL*	CARTRIDGE SiC/SiC/EPDM
69	EXTERNAL CASING*	STAINLESS STEEL AISI 304

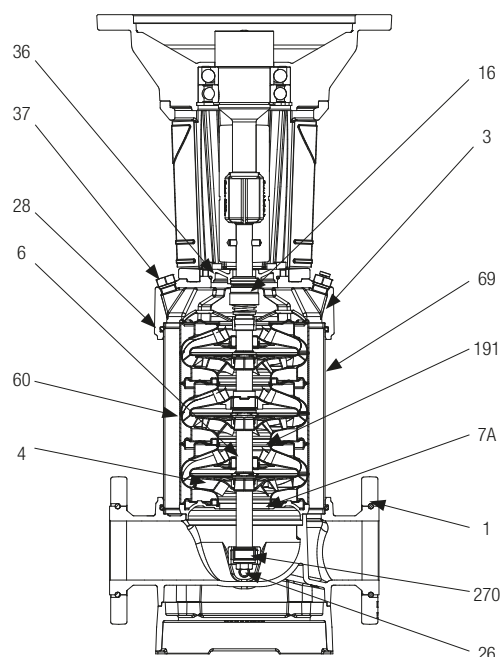
* In contact with the liquid.



MATERIALS NKV 32-45-65-95

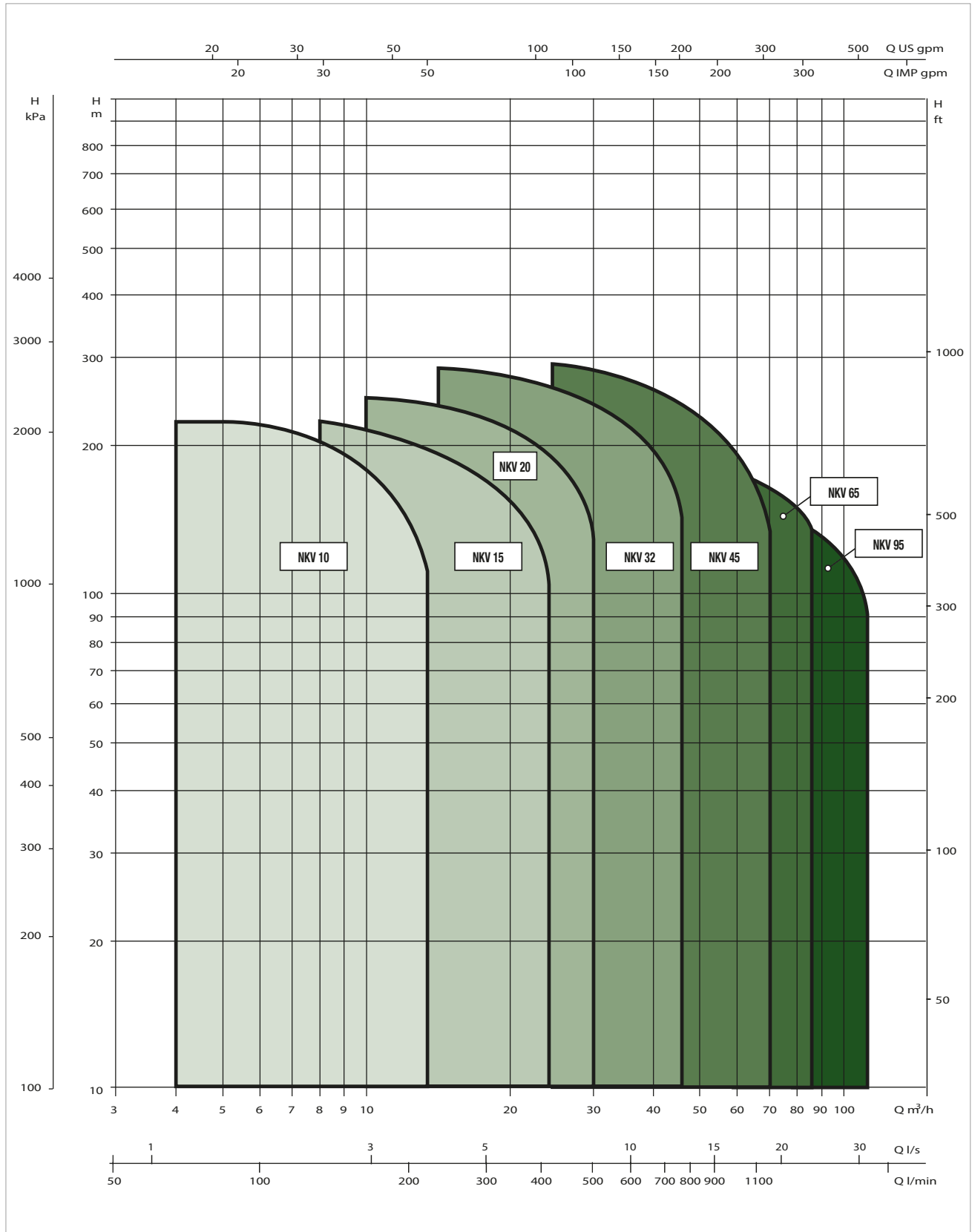
N°	PARTS	MATERIALS *
1	PUMP BODY	CAST IRON WITH CATAPHORESIS
3	FLANGE	CAST IRON WITH CATAPHORESIS
4	IMPELLER	STAINLESS STEEL AISI 304
6	STAGE BODY AND DIFUSSER	STAINLESS STEEL AISI 304
7A	PUMP SHAFT	STAINLESS STEEL AISI 431
16	MECHANICAL SEAL	SiC, CARBON, EPDM
26	DARIN PLUG	STAINLESS STEEL AISI 304
28	O-RING	EPDM
36	SEAL DISK	STAINLESS STEEL AISI 316
37	LOADING CAP	STAINLESS STEEL AISI 304
60	INTERMEDIATE BEARING	GRAPHITE
69	EXTERNAL CASING	STAINLESS STEEL AISI 304
191	FLOATING ADJUSTMENT RING	PTFE
270	GUIDE BUSHING	TUNGSTEN CARBIDE

* In contact with the liquid.



PERFORMANCE RANGE

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - NKV 10

MODEL	Q=m³/h	0	4	8	10	12
	Q=l/min	0	66	132	167	200
NKV 10/2 T	H (m)	20,2	20	18,3	15,8	12,5
NKV 10/3 T		30,3	31	27,5	23,6	18,8
NKV 10/4 T		40,4	41	36,7	31,5	25,1
NKV 10/5 T		50,5	51	45,8	39,4	31,3
NKV 10/6 T		60,5	61	55,0	47,3	37,6
NKV 10/7 T		70,6	72	64,2	55,1	43,8
NKV 10/8 T		80,7	82	73,3	63,0	50,1
NKV 10/9 T		90,8	92	82,5	70,9	56,4
NKV 10/10 T		100,9	102	91,7	78,8	62,6
NKV 10/12 T		121,1	123	110,0	94,5	75,2
NKV 10/14 T		141,3	143	128,3	110,3	87,7
NKV 10/16 T		161,5	164	146,7	126,0	100,2
NKV 10/18 T		181,6	184	165,0	141,8	112,7
NKV 10/20 T		201,8	205	183,3	157,5	125,3
NKV 10/22 T	222	225	202	173,3	137,8	

SELECTION TABLE - NKV 15

MODEL	Q=m³/h	0	4	8	10	12	14	16	18	20	22	24
	Q=l/min	0	66	132	167	200	233	264	300	334	367	400
NKV 15/2 T	H (m)	27,2	26,7	26	26,1	25,5	24,5	23,2	21,6	19,8	17,4	14,6
NKV 15/3 T		40,8	40,0	40	39,1	38,3	36,8	34,8	32,5	29,7	26,1	21,9
NKV 15/4 T		54,4	53,4	53	52,1	51,0	49,0	46,4	43,3	39,6	34,8	29,2
NKV 15/5 T		68,0	66,7	66	65,2	63,8	61,3	58,1	54,1	49,5	43,5	36,5
NKV 15/6 T		81,6	80,1	79	78,2	76,5	73,6	69,7	64,9	59,4	52,2	43,8
NKV 15/7 T		95,2	93,4	92	91,2	89,3	85,8	81,3	75,8	69,3	60,9	51,1
NKV 15/8 T		108,8	106,8	106	104,3	102,0	98,1	92,9	86,6	79,2	69,6	58,4
NKV 15/9 T		122,4	120,1	119	117,3	114,8	110,3	104,5	97,4	89,1	78,4	65,7
NKV 15/10 T		136,0	133,5	132	130,4	127,5	122,6	116,1	108,2	99,0	87,1	73,0
NKV 15/12 T		163,2	160,2	158	156,4	153,0	147,1	139,3	129,9	118,8	104,5	87,6
NKV 15/14 T		190,4	186,9	185	182,5	178,5	171,6	162,6	151,5	138,6	121,9	102,2
NKV 15/16 T		217,6	213,6	211	208,6	204,0	196,1	185,8	173,2	158,4	139,3	116,8
NKV 15/17 T		231,2	226,9	225	221,6	216,75	208,4	197,4	184	168,3	148	124,1

SELECTION TABLE - NKV 20

MODEL	Q=m³/h	0	4	8	10	12	14	16	18	20	22	24	26	29
	Q=l/min	0	66	132	167	200	233	264	300	334	367	400	433	483
NKV 20/2 T	H (m)	29,3	28,8	28,8	28,6	28	27,6	26,9	25,9	24,6	22,9	21,2	19,1	15,8
NKV 20/3 T		43,9	43,2	43,1	42,9	42	41,5	40,4	38,8	36,9	34,4	31,8	28,7	23,6
NKV 20/4 T		58,6	57,6	57,5	57,2	56	55,3	53,8	51,8	49,2	45,9	42,4	38,2	31,5
NKV 20/5 T		73,2	71,9	71,9	71,5	71	69,1	67,3	64,7	61,5	57,4	52,9	47,8	39,4
NKV 20/6 T		87,9	86,3	86,3	85,8	85	82,9	80,7	77,7	73,8	68,8	63,5	57,4	47,3
NKV 20/7 T		102,5	100,7	100,6	100,1	99	96,8	94,2	90,6	86,1	80,3	74,1	66,9	55,2
NKV 20/8 T		117,2	115,1	115,0	114,4	113	110,6	107,6	103,6	98,4	91,8	84,7	76,5	63,1
NKV 20/9 T		131,8	129,5	129,4	128,8	127	124,4	121,1	116,5	110,8	103,2	95,3	86,0	70,9
NKV 20/10 T		146,5	143,9	143,8	143,1	141	138,2	134,5	129,5	123,1	114,7	105,9	95,6	78,8
NKV 20/12 T		175,8	172,7	172,5	171,7	169	165,9	161,4	155,4	147,7	137,6	127,1	114,7	94,6
NKV 20/14 T		205,1	201,4	201,3	200,3	198	193,5	188,3	181,3	172,3	160,6	148,2	133,8	110,4
NKV 20/16 T		234,4	230,2	230,0	228,9	226	221,2	215,2	207,2	196,9	183,5	169,4	152,9	126,1
NKV 20/17 T		249	244,6	244,4	243,2	240	235	228,7	220,1	209,2	195	180	162,5	134

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - NKV 32

MODEL	Q=m ³ /h	0	15	18	22	25	30	35	40	45
	Q=l/min	0	250	300	367	417	500	583	667	750
NKV 32/2-2 T	H (m)	36	33,5	32,5	30,5	29,5	26,5	22,5	18	12,5
NKV 32/2 T		48,5	43,5	42,5	41	39,5	36,5	33,5	29	23,5
NKV 32/3-2 T		60	54,5	53	50,5	48	44	38	31,5	23,5
NKV 32/3 T		73	65	63,5	61	59	55	50	43,5	35,5
NKV 32/4-2 T		84,5	76,5	74	70,5	68	62	55	46	35
NKV 32/4 T		98	88	86	83	80,5	75	69	60	49,5
NKV 32/5-2 T		109,5	99,5	97	93	89,5	83	74	63	49,5
NKV 32/5 T		122,5	109,5	107	103,5	100	93,5	85,5	75	61,5
NKV 32/6-2 T		134	121,5	118,5	113,5	109,5	101,5	91	78	61,5
NKV 32/6 T		146,5	131	128	123,5	119,5	111,5	102	89	73
NKV 32/7-2 T		158	142,5	139	133,5	128,5	119	107	91,5	72,5
NKV 32/7 T		171	152,5	149	144	139,5	130	119	103,5	85
NKV 32/8-2 T		182,5	164,5	160	154	148,5	137,5	124	106	84,5
NKV 32/8 T		194,5	174	169,5	164	158,5	147,5	134,5	117	95,5
NKV 32/9-2 T		208,5	188,5	184	177	171	159	144	124,5	100,5
NKV 32/9 T		221	198	194	187,5	181,5	169,5	155,5	136	112
NKV 32/10-2 T		233	210	205	197,5	191	177,5	161	139	112
NKV 32/10 T		246,5	221,5	217	210	203,5	190,5	175	153,5	126,5
NKV 32/11-2 T		258	233,5	228,5	220,5	213	198,5	180,5	156,5	127
NKV 32/11 T		271	243,5	238	230,5	223,5	209	192	168	138,5
NKV 32/12-2 T	282,5	255,5	249,5	241	233	217	197,5	171	139	
NKV 32/12 T	295	265,5	259,5	251	243	227,5	208,5	182,5	150,5	
NKV 32/13-2 T	307	277,5	271	261,5	252,5	235,5	214	185,5	151	
NKV 32/13 T	319,5	287	280,5	271,5	263	246	225,5	197	162,5	

SELECTION TABLE - NKV 45

MODEL	Q=m ³ /h	0	15	18	22	25	30	35	40	45	54	60	65	70
	Q=l/min	0	250	300	367	417	500	583	667	750	900	1000	1083	1166
NKV 45/2-2 T	H (m)	38,5	37,5	37	36,5	35,5	34,5	33	31	28,5	23	18,5	14,5	10
NKV 45/2 T		48,5	47,5	47	46	45,5	44	43	41,5	39	34	30,5	26,5	23
NKV 45/3-2 T		63	62	61,5	60,5	59,5	58	56	53,5	50	42	36	30	24
NKV 45/3 T		73,5	72	71	70	69	67	65,5	63	60	52,5	47	41	34
NKV 45/4-2 T		87,5	86	85	83,5	82	80	77,5	74	69,5	59,5	51	43	34
NKV 45/4 T		97,5	96	94,5	93	91,5	89	86,5	84	79,5	69,5	62	54,5	45
NKV 45/5-2 T		112	109,5	108,5	106,5	105	102	99	94,5	89	76,5	66	56	45
NKV 45/5 T		122	119,5	118	115,5	114	111	108	104,5	99	86,5	77	67,5	56
NKV 45/6-2 T		137,5	135	133,5	131	129	126	122	117,5	110,5	95,5	83,5	72	58
NKV 45/6 T		147,5	145	143,5	140,5	138,5	135	131,5	127	121	106	95	83,5	71
NKV 45/7-2 T		162,5	160	158	155,5	153	149,5	145	139,5	132	115	101	87,5	73
NKV 45/7 T		172,5	170	168	165	162,5	158,5	154,5	149,5	142,5	125,5	112	99	83
NKV 45/8-2 T		187	184	182	178,5	176	171,5	167	160,5	152	132	116,5	101	83
NKV 45/8 T		197	194	191,5	188	185,5	181	176,5	170,5	162,5	142,5	127,5	112,5	94
NKV 45/9-2 T		211,5	208	205,5	202	199	194	188,5	181,5	172	149,5	132	114,5	94
NKV 45/9 T		221,5	218	215,5	211,5	208	203	198	191,5	182	160	143	126	106
NKV 45/10-2 T		235,5	231,5	229	225	221,5	216	210	202	191,5	166,5	147	127,5	106
NKV 45/10 T		246	242	239	234	230,5	225	219	212	201,5	177	158	139	117
NKV 45/11-2 T		261	256,5	254	249	245,5	239,5	233	224,5	213	186	164,5	143,5	119
NKV 45/11 T		271	267	263,5	258,5	255	249	242,5	234,5	223,5	196,5	175,5	155	130
NKV 45/12-2 T	285,5	280,5	277,5	272,5	268,5	261,5	254,5	245,5	232,5	203	179,5	156,5	130	
NKV 45/12 T	295,5	290,5	287,5	282	277,5	271	264	255,5	243	213,5	191	168,5	142	
NKV 45/13-2 T	309,5	304,5	301	295,5	291	284	276	266	252,5	220,5	195	170	142	

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - NKV 65

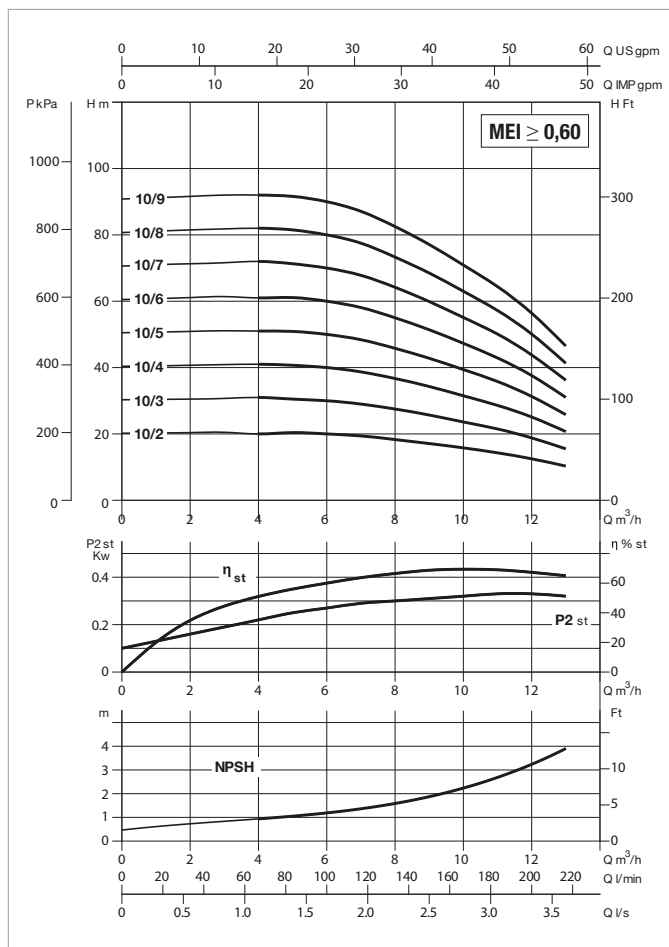
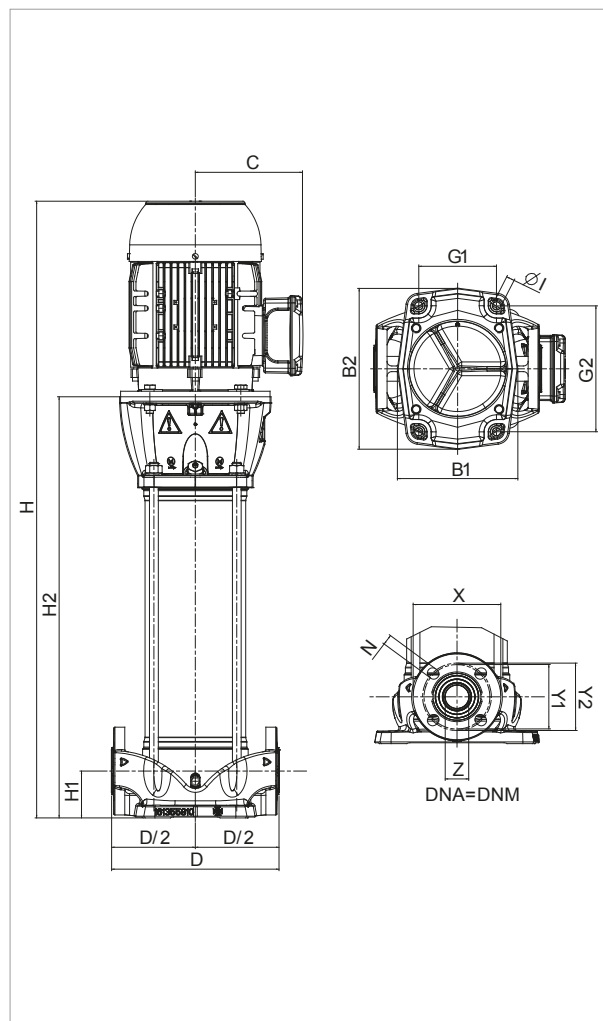
MODEL	Q=m ³ /h	0	30	36	42	45	54	60	72	78	85
	Q=l/min	0	500	600	700	750	900	1000	1200	1300	1417
NKV 65/2-2 T	H (m)	39	37,5	36,5	35,5	35	33	31	25	22	17,5
NKV 65/2 T		56,5	51	49,5	48,5	48	46	45	41	38,5	34,5
NKV 65/3-2 T		67,5	63,5	62	60,5	59,5	56,5	54	46,5	42	35,5
NKV 65/3 T		84,5	76	74	72,5	71,5	69	67	61,5	57,5	51,5
NKV 65/4-2 T		95,5	88,5	86	84	83	79	75,5	66	60,5	52
NKV 65/4 T		113,5	102,5	100	97,5	96,5	92,5	90,5	83	78	70
NKV 65/5-2 T		125	116	113	110,5	109	104,5	101	90	83	72,5
NKV 65/5 T		142	129	125,5	122,5	121	116,5	114	105	98,5	88,5
NKV 65/6-2 T		153	141,5	137,5	134,5	133	127,5	123	110	102	89,5
NKV 65/6 T		170	154	150	147	145	139,5	136	125	117,5	105,5
NKV 65/7-2 T		181,5	166,5	162,5	158,5	156,5	150	145	130,5	120,5	106,5
NKV 65/7 T		199	180,5	175,5	172	169,5	163,5	159,5	147	138	124
NKV 65/8-2 T		210	193	188	184	181,5	174	168,5	152	141,5	125
NKV 65/8 T		227	206	200	196	193,5	186	181,5	167	157	141

SELECTION TABLE - NKV 95

MODEL	Q=m ³ /h	0	45	54	60	72	78	85	96	108	118
	Q=l/min	0	750	900	1000	1200	1300	1417	1600	1800	1967
NKV 95/2-2 T	H (m)	44,5	43	42	41	38,5	36,5	34	28,5	21,5	15
NKV 95/2 T		62	55,5	53	51,5	49	47,5	45	41	35	28,5
NKV 95/3-2 T		75,5	70,5	68	66,5	62,5	59,5	56	48,5	38,5	28,5
NKV 95/3 T		93,5	84	80,5	78	74	72	69	62,5	53,5	44
NKV 95/4-2 T		108	100	97	94,5	89	85,5	81	71,5	59	46
NKV 95/4 T		125,5	112,5	108	105	99,5	96,5	92,5	84	72	60
NKV 95/5-2 T		139	127,5	123,5	120	113,5	109	103,5	92	76	60
NKV 95/5 T		156	140	134,5	130,5	123,5	120	114,5	104,5	89	74
NKV 95/6-2 T		170,5	156	150,5	146,5	138,5	134	127	113,5	94,5	75,5
NKV 95/6 T		188	169	161,5	157	149	144,5	138,5	126	108	89,5

NKV 10 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da -15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

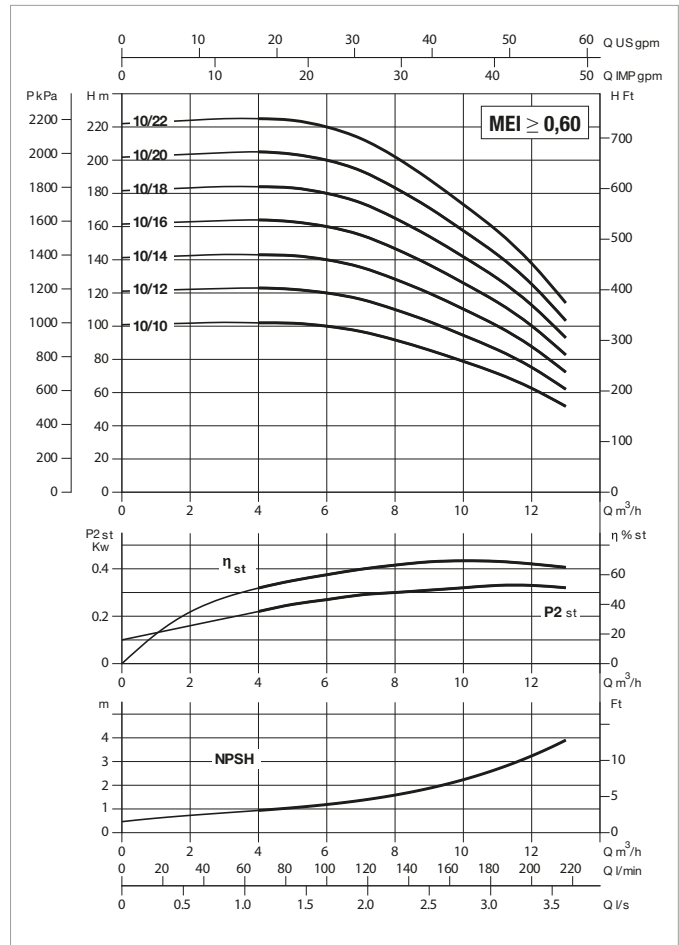
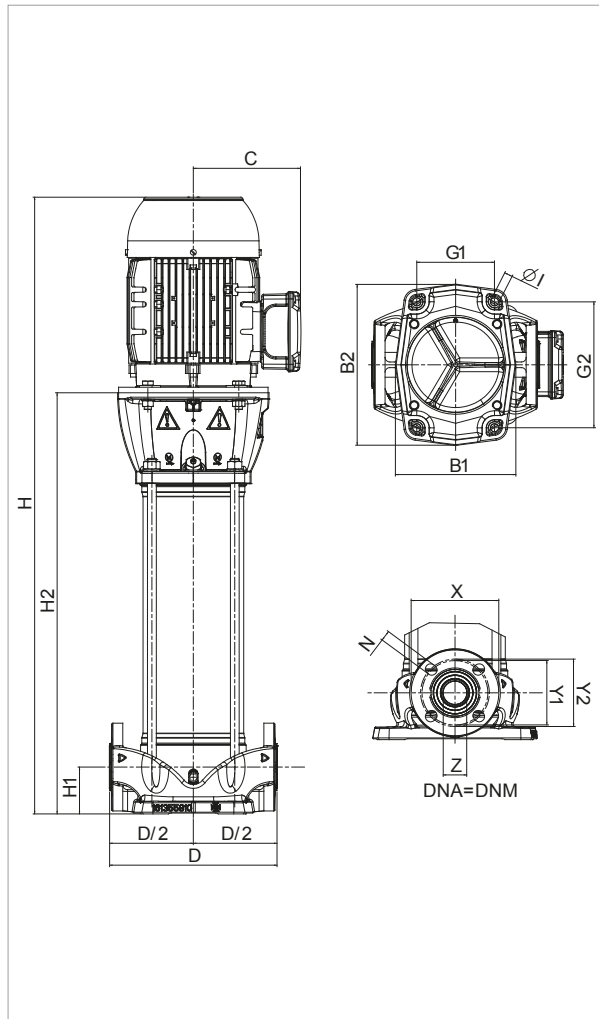
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A		MOTOR TYPE	Ist A		RPM
			kW	HP	IE2	IE3		IE2	IE3	
NKV 10/2 T	3 x 230 - 400 V ~	0,8	0,75	1,02	2,81/1,62	-	IE2	22,25/12,85	-	2880
NKV 10/3 T	3 x 230 - 400 V ~	1,2	1,10	1,496	4,07/2,36	-	IE2	32,23/18,69	-	2870
NKV 10/4 T	3 x 230 - 400 V ~	1,6	1,50	2,04	5,8/3,35	-	IE2	51,35/29,65	-	2880
NKV 10/5 T	3 x 230 - 400 V ~	2,0	2,2	2,992	8,23/4,75	-	IE2	68,37/39,47	-	2870
NKV 10/6 T	3 x 230 - 400 V ~	2,4	2,2	2,992	8,23/4,75	-	IE2	68,37/39,47	-	2870
NKV 10/7 T	3 x 400 V ~	2,7	3,0	4,08	5,85	-	IE2	52,24	-	2880
NKV 10/8 T	3 x 400 V ~	3,1	3,0	4,08	5,85	-	IE2	52,24	-	2880
NKV 10/9 T	3 x 400 V ~	3,4	3,0	4,08	5,85	-	IE2	52,24	-	2880

MODEL	STAGE N°	B1	B2	G1	G2	I	C		D	D/2	H		H1	H2	DNA = DNM (DN 40)					PACK. DIMENSIONS			VOL. mc	WEIGHT Kg	
							IE2	IE3			IE2	IE3			X	Y1	Y2	Z	N	L/A	L/B	H		IE2	IE3
NKV 10/2 T	2	201	274	130	215	13,5	145	-	280	140	611,4	-	80	356,4	150	110	115	40	17,5	800	400	400	0,128	43,41	-
NKV 10/3 T	3	201	274	130	215	13,5	145	-	280	140	644,4	-	80	389,4	150	110	115	40	17,5	800	400	400	0,128	44,94	-
NKV 10/4 T	4	201	274	130	215	13,5	155	-	280	140	692,4	-	80	422,4	150	110	115	40	17,5	800	400	400	0,128	49,81	-
NKV 10/5 T	5	201	274	130	215	13,5	155	-	280	140	750,4	-	80	455,4	150	110	115	40	17,5	800	400	400	0,128	54,62	-
NKV 10/6 T	6	201	274	130	215	13,5	155	-	280	140	783,4	-	80	488,4	150	110	115	40	17,5	800	400	400	0,128	55,46	-
NKV 10/7 T	7	201	274	130	215	13,5	180	-	280	140	863,4	-	80	538,4	150	110	115	40	17,5	960	400	370	0,142	65,54	-
NKV 10/8 T	8	201	274	130	215	13,5	180	-	280	140	896,4	-	80	571,4	150	110	115	40	17,5	960	400	370	0,142	66,36	-
NKV 10/9 T	9	201	274	130	215	13,5	180	-	280	140	929,4	-	80	604,4	150	110	115	40	17,5	960	400	370	0,142	67,25	-

NKV 10 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da -15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

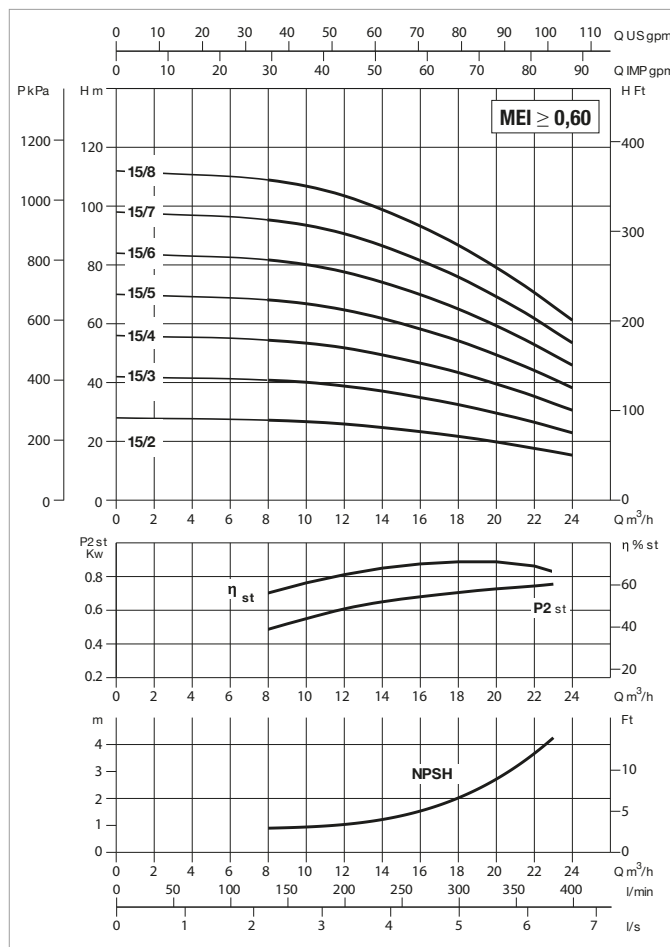
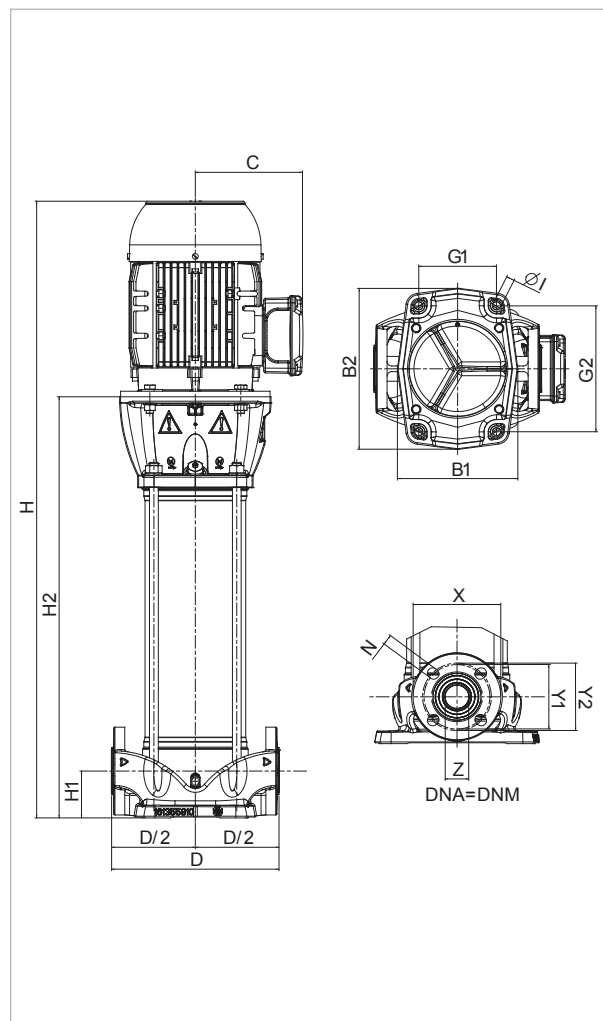
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A		MOTOR TYPE	Ist A		RPM
			KW	HP	IE2	IE3		IE2	IE3	
NKV 10/10 T	3 x 400 V ~	3,8	4,0	5,44	8,05	-	IE2	73,58	-	2910
NKV 10/12 T	3 x 400 V ~	4,5	4,0	5,44	8,05	-	IE2	73,58	-	2910
NKV 10/14 T	3 x 400 V ~	5,2	5,5	7,48	10,4	-	IE2	80,81	-	2910
NKV 10/16 T	3 x 400 V ~	6,0	5,5	7,48	10,4	-	IE2	80,81	-	2910
NKV 10/18 T	3 x 400 V ~	6,7	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900
NKV 10/20 T	3 x 400 V ~	7,5	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900
NKV 10/22 T	3 x 400 V ~	8,2	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900

MODEL	STAGE N°	B1	B2	G1	G2	I	C		D	D/2	H		H1	H2	DNA = DNM (DN 40)					PACK. DIMENSIONS			VOL. mc	WEIGHT Kg	
							IE2	IE3			IE2	IE3			X	Y1	Y2	Z	N	L/A	L/B	H		IE2	IE3
NKV 10/10 T	10	201	274	130	215	13,5	190	-	280	140	977,4	-	80	637,4	150	110	115	40	17,5	1150	500	400	0,230	77,05	-
NKV 10/12 T	12	201	274	130	215	13,5	190	-	280	140	1043,4	-	80	703,4	150	110	115	40	17,5	1150	500	400	0,230	78,70	-
NKV 10/14 T	14	201	274	130	215	13,5	210	-	280	140	1238,8	-	80	848,8	150	110	115	40	17,5	1360	500	530	0,360	107,32	-
NKV 10/16 T	16	201	274	130	215	13,5	210	-	280	140	1304,8	-	80	914,8	150	110	115	40	17,5	1360	500	530	0,360	109	-
NKV 10/18 T	18	201	274	130	215	13,5	210	188	280	140	1370,8	1239,8	80	980,8	150	110	115	40	17,5	1650	500	580	0,479	116,66	116
NKV 10/20 T	20	201	274	130	215	13,5	210	188	280	140	1436,8	1305,8	80	1046,8	150	110	115	40	17,5	1650	500	580	0,479	118,34	98
NKV 10/22 T	22	201	274	130	215	13,5	210	188	280	140	1502,8	1371,8	80	1112,8	150	110	115	40	17,5	1650	500	580	0,479	120,02	108

NKV 15 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: from $-15\text{ }^{\circ}\text{C}$ to $+120\text{ }^{\circ}\text{C}$ - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

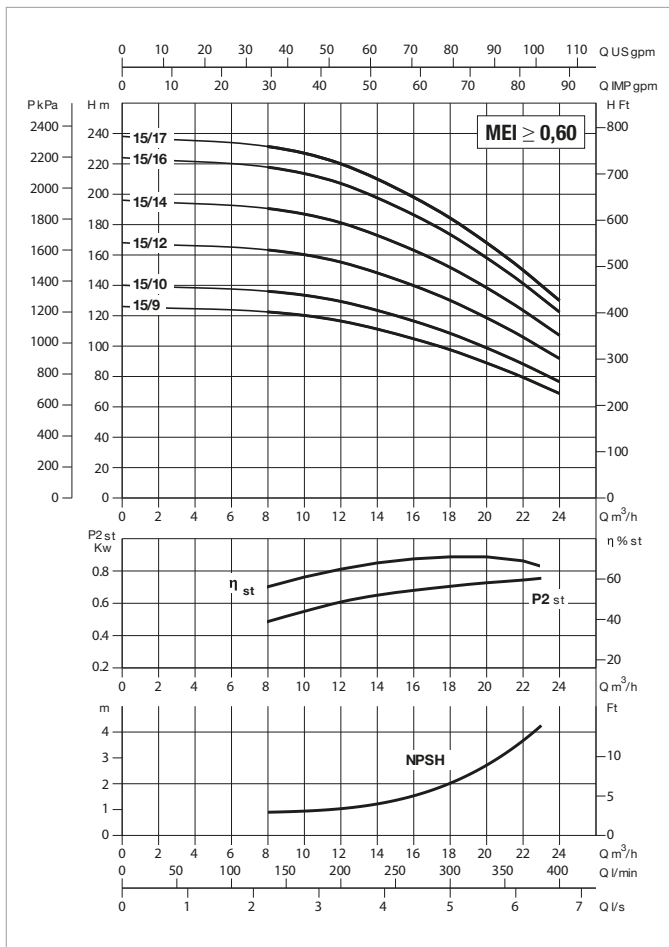
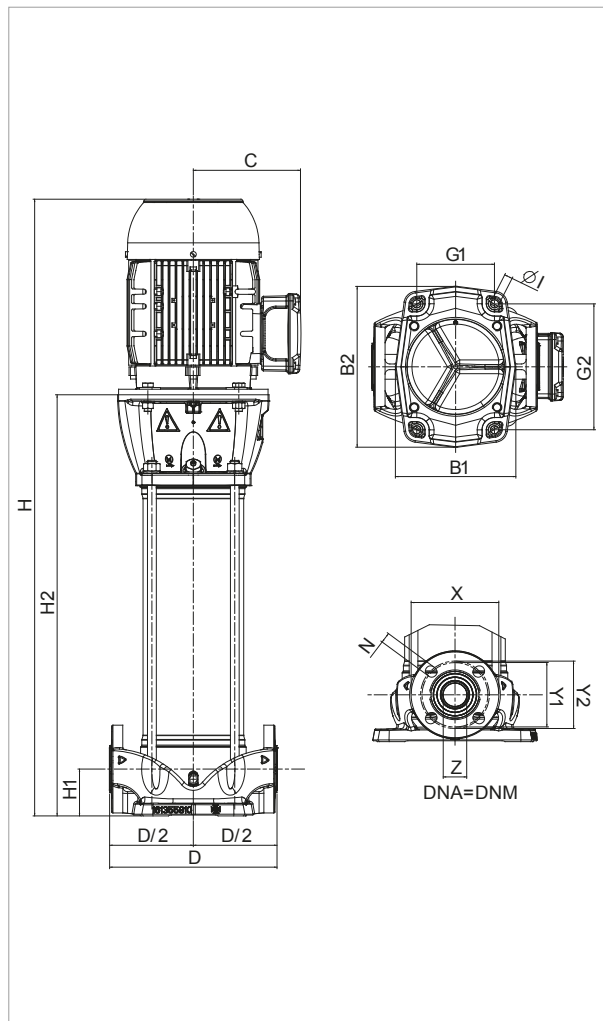
The performance curves are based on kinematic viscosity values = $1\text{ mm}^2/\text{s}$ and density equivalent to $1000\text{ kg}/\text{m}^3$. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A		MOTOR TYPE	Ist A		RPM
			kW	HP	IE2	IE3		IE2	IE3	
NKV 15/2 T	3 x 230 - 400 V ~	1,8	2,20	2,992	8,23/4,75	-	IE2	68,37/39,47	-	2870
NKV 15/3 T	3 x 400 V ~	2,6	3	4,08	5,85	-	IE2	52,24	-	2880
NKV 15/4 T	3 x 400 V ~	3,5	4	5,44	8,05	-	IE2	73,58	-	2910
NKV 15/5 T	3 x 400 V ~	4,4	4	5,44	8,05	-	IE2	73,58	-	2910
NKV 15/6 T	3 x 400 V ~	5,2	5,5	7,48	10,4	-	IE2	80,81	-	2910
NKV 15/7 T	3 x 400 V ~	6,0	5,5	7,48	10,4	-	IE2	80,81	-	2910
NKV 15/8 T	3 x 400 V ~	6,9	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900

MODEL	STAGE N°	B1	B2	G1	G2	I	C		D	D/2	H		H1	H2	DNA = DNM (DN 50)				PACK. DIMENSIONS			VOL. mc	WEIGHT Kg	
							IE2	IE3			IE2	IE3			X	Y	Z	N	L/A	L/B	H		IE2	IE3
NKV 15/2 T	2	201	274	130	215	13,5	155	-	300	150	651,4	-	90	356,4	165	125	67	18	800	400	400	0,128	54,68	-
NKV 15/3 T	3	201	274	130	215	13,5	180	-	300	150	731,4	-	90	406,4	165	125	67	18	800	400	400	0,128	64,67	-
NKV 15/4 T	4	201	274	130	215	13,5	190	-	300	150	779,4	-	90	439,4	165	125	67	18	800	400	400	0,128	74,93	-
NKV 15/5 T	5	201	274	130	215	13,5	190	-	300	150	812,4	-	90	472,4	165	125	67	18	960	400	370	0,142	76,19	-
NKV 15/6 T	6	201	274	130	215	13,5	210	-	300	150	974,8	-	90	584,8	165	125	67	18	1150	500	400	0,230	104,31	-
NKV 15/7 T	7	201	274	130	215	13,5	210	-	300	150	1007,8	-	90	617,8	165	125	67	18	1150	500	400	0,230	105,62	-
NKV 15/8 T	8	201	274	130	215	13,5	210	188	300	150	1040,8	1063,5	90	650,8	165	125	67	18	1360	500	400	0,230	112,83	106

NKV 15 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C TO +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

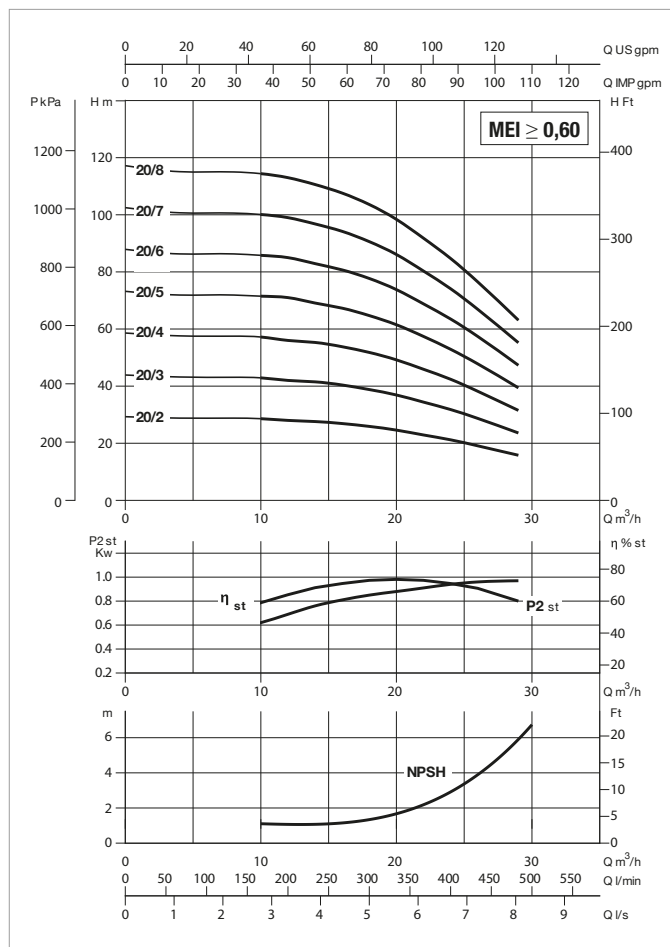
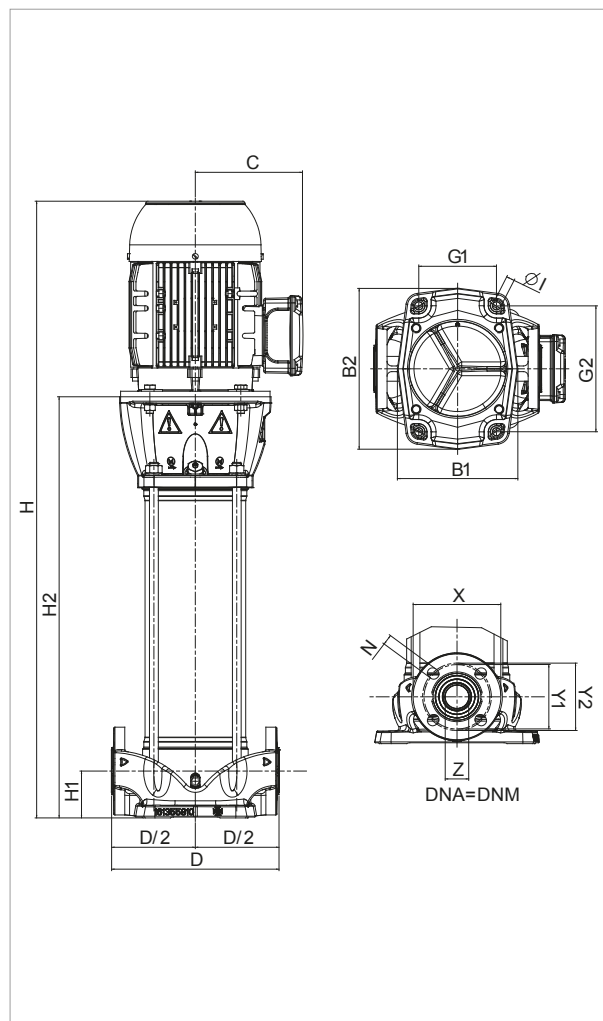
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A		MOTOR TYPE	Ist A		RPM
			kW	HP	IE2	IE3		IE2	IE3	
NKV 15/9 T	3 x 400 V ~	7,7	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900
NKV 15/10 T	3 x 400 V ~	8,5	11	14,96	22,4	19,4	IE2 / IE3	126,05	147	2930
NKV 15/12 T	3 x 400 V ~	10,2	11	14,96	22,4	19,4	IE2 / IE3	126,05	147	2930
NKV 15/14 T	3 x 400 V ~	11,8	11	14,96	22,4	19,4	IE2 / IE3	126,05	147	2930
NKV 15/16 T	3 x 400 V ~	13,4	15	20,4	29,5	26,5	IE2 / IE3	189,81	204	2940
NKV 15/17 T	3 x 400 V ~	14,3	15	20,4	29,5	26,5	IE2 / IE3	189,81	204	2940

MODEL	STAGE N°	B1	B2	G1	G2	I	C		D	D/2	H		H1	H2	DNA = DNM (DN 50)				PACK. DIMENSIONS			VOL. mc	WEIGHT Kg	
							IE2	IE3			IE2	IE3			X	Y	Z	N	L/A	L/B	H		IE2	IE3
NKV 15/10 T	10	201	274	130	215	13,5	255	242	300	150	1251	1297,5	90	746	165	125	67	18	1360	500	530	0,360	170,30	194
NKV 15/12 T	12	201	274	130	215	13,5	255	242	300	150	1317	1396,5	90	812	165	125	67	18	1360	500	530	0,360	172,77	185
NKV 15/14 T	14	201	274	130	215	13,5	255	242	300	150	1383	1495,5	90	878	165	125	67	18	1650	500	580	0,479	175,31	195
NKV 15/16 T	16	201	274	130	215	13,5	255	242	300	150	1449	1594,5	90	944	165	125	67	18	1650	500	580	0,479	185,78	162
NKV 15/17 T	17	201	274	130	215	13,5	255	242	300	150	1762,5	1644	90	1257,5	165	125	67	18	1850	500	580	0,537	187,02	193

NKV 20 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: from - 15 °C to +120 °C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

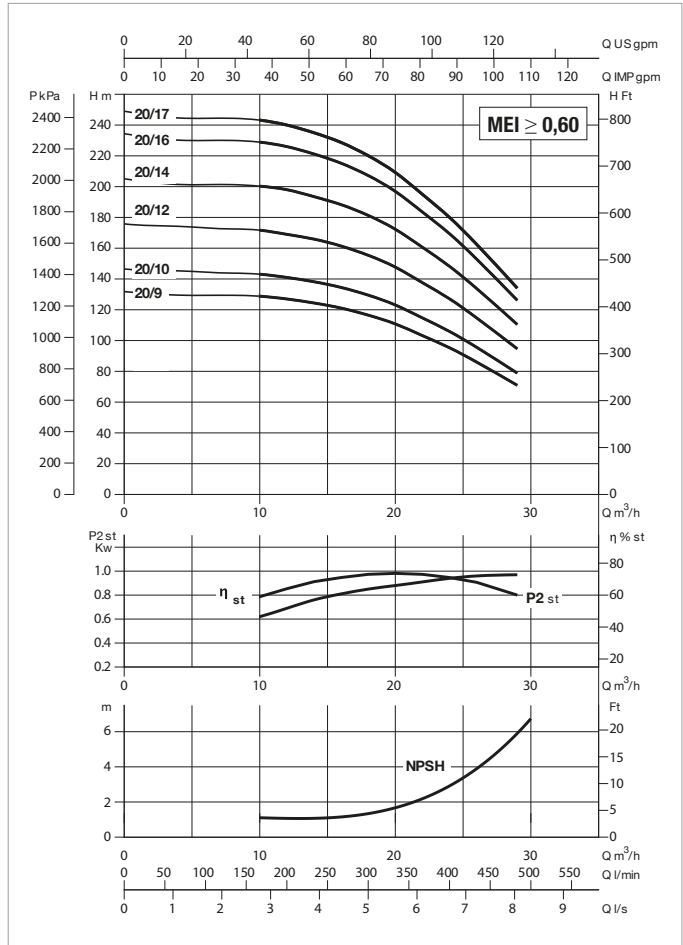
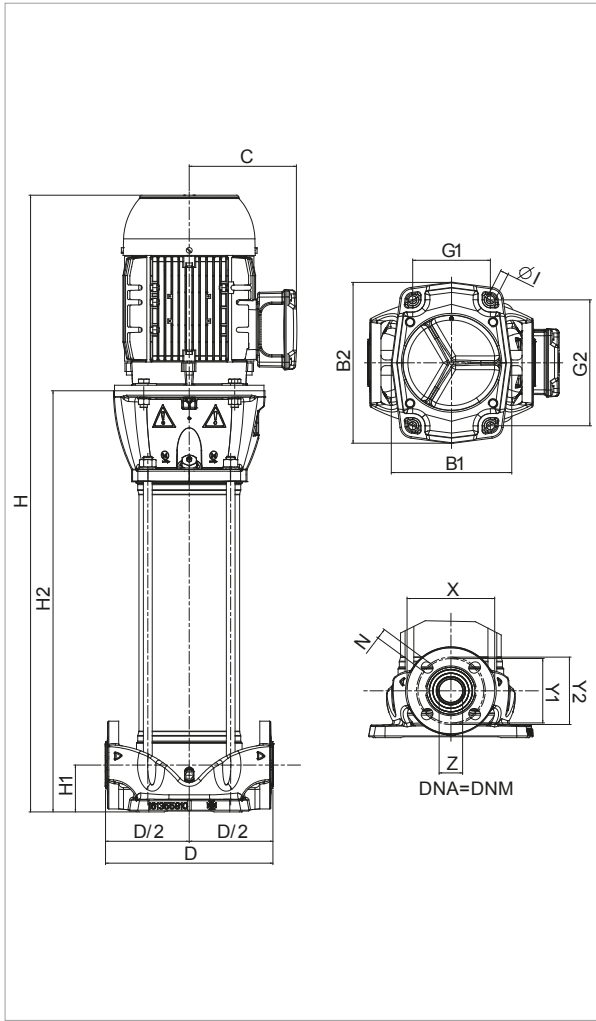
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A		MOTOR TYPE	Ist A		RPM
			kW	HP	IE2	IE3		IE2	IE3	
NKV 20/2 T	3 x 230 - 400 V ~	2,3	2,2	2,99	8,23/4,75	-	IE2	68,37/39,47	-	2870
NKV 20/3 T	3 x 400 V ~	3,4	4	5,44	8,05	-	IE2	73,58	-	2910
NKV 20/4 T	3 x 400 V ~	4,4	5,5	7,48	10,4	-	IE2	80,81	-	2910
NKV 20/5 T	3 x 400 V ~	5,5	5,5	7,48	10,4	-	IE2	80,81	-	2910
NKV 20/6 T	3 x 400 V ~	6,7	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900
NKV 20/7 T	3 x 400 V ~	7,8	7,5	10,2	14,8	13,4	IE2 / IE3	106,68	114	2900
NKV 20/8 T	3 x 400 V ~	8,7	11	14,96	22,4	19,4	IE2 / IE3	126,05	147	2930

MODEL	STAGE N°	B1	B2	G1	G2	I	C		D	D/2	H		H1	H2	DNA = DNM (DN 50)				PACK. DIMENSIONS			VOL. mc	WEIGHT Kg	
							IE2	IE3			IE2	IE3			X	Y	Z	N	L/A	L/B	H		IE2	IE3
NKV 20/2 T	2	201	274	130	215	13,5	155	-	300	150	651,4	-	90	356,4	165	125	67	18	800	400	400	0,128	45	-
NKV 20/3 T	3	201	274	130	215	13,5	190	-	300	150	746,4	-	90	406,4	165	125	67	18	800	400	400	0,128	60	-
NKV 20/4 T	4	201	274	130	215	13,5	210	-	300	150	908,8	-	90	518,8	165	125	67	18	960	400	370	0,142	74	-
NKV 20/5 T	5	201	274	130	215	13,5	210	-	300	150	941,8	-	90	551,8	165	125	67	18	960	400	370	0,142	76	-
NKV 20/6 T	6	201	274	130	215	13,5	210	188	300	150	974,8	964,5	90	584,8	165	125	67	18	1150	500	400	0,230	83	95
NKV 20/7 T	7	201	274	130	215	13,5	210	188	300	150	1007,8	1014	90	617,8	165	125	67	18	1150	500	400	0,230	84	103
NKV 20/8 T	8	201	274	130	215	13,5	255	242	300	150	1185	1198,5	90	680	165	125	67	18	1360	500	530	0,360	116	191

NKV 20 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da -15°C TO +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

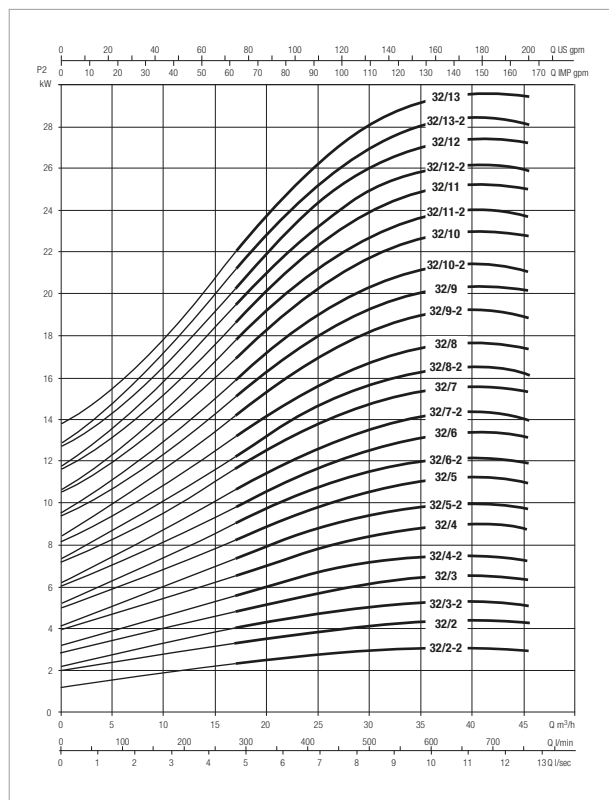
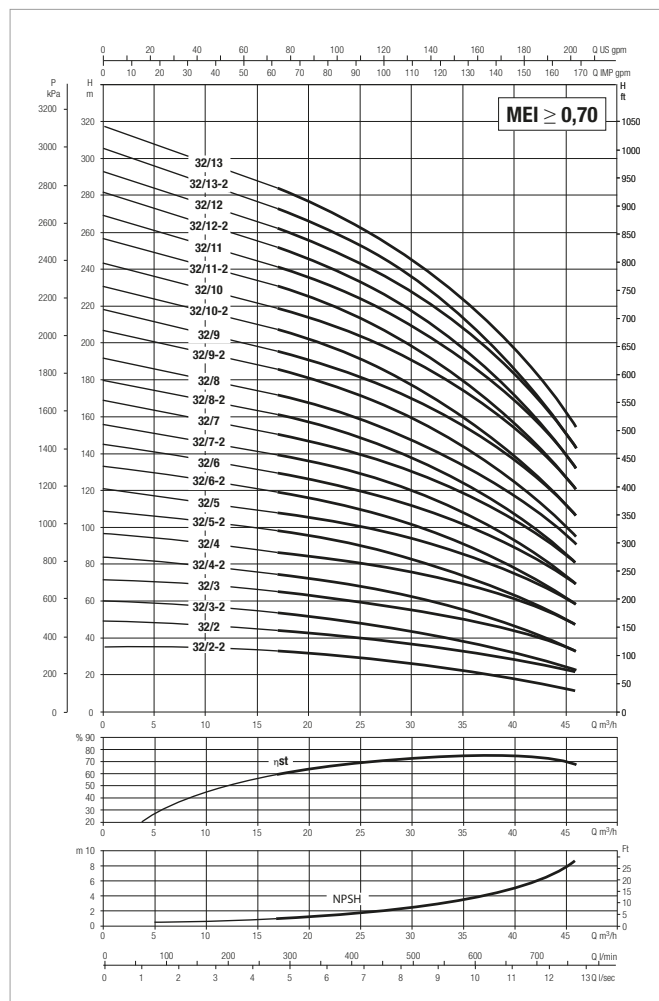
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A		MOTOR TYPE	Ist A		RPM
			kW	HP	IE2	IE3		IE2	IE3	
NKV 20/9 T	3 x 400 V ~	9,8	11	14,96	22,4	19,4	IE2 / IE3	126,05	147	2930
NKV 20/10 T	3 x 400 V ~	10,9	11	14,96	22,4	19,4	IE2 / IE3	126,05	147	2930
NKV 20/12 T	3 x 400 V ~	13,0	15	20,4	29,5	26,5	IE2 / IE3	189,81	204	2940
NKV 20/14 T	3 x 400 V ~	15,2	15	20,4	29,5	26,5	IE2 / IE3	189,81	204	2940
NKV 20/16 T	3 x 400 V ~	17,1	18,5	25,16	35,5	32	IE2 / IE3	239,91	262	2940
NKV 20/17 T	3 x 400 V ~	18,2	18,5	25,16	35,5	32	IE2 / IE3	239,91	262	2940

MODEL	STAGE N°	B1	B2	G1	G2	I	C		D	D/2	H		H1	H2	DNA = DNM (DN 50)				PACK. DIMENSIONS			VOL. mc	WEIGHT Kg	
							IE2	IE3			IE2	IE3			X	Y	Z	N	L/A	L/B	H		IE2	IE3
NKV 20/9 T	9	201	274	130	215	13,5	255	242	300	150	1218	1248	90	713	165	125	67	18	1360	500	530	0,360	117	137
NKV 20/10 T	10	201	274	130	215	13,5	255	242	300	150	1251	1297,5	90	746	165	125	67	18	1360	500	530	0,360	128	177
NKV 20/12 T	12	201	274	130	215	13,5	255	242	300	150	1317	1396,5	90	812	165	125	67	18	1360	500	530	0,360	141	187
NKV 20/14 T	14	201	274	130	215	13,5	255	242	300	150	1383	1495,5	90	878	165	125	67	18	1650	500	580	0,479	143	194
NKV 20/16 T	16	201	274	130	215	13,5	255	242	300	150	1504	1638,5	90	944	165	125	67	18	1850	500	580	0,479	161	185
NKV 20/17 T	17	201	274	130	215	13,5	255	242	300	150	1817,5	1688	90	1257,5	165	125	67	18	1850	500	580	0,537	162	220

NKV 32 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C to +120°C - Maximum working pressure: 32 bar (3200 kPa)



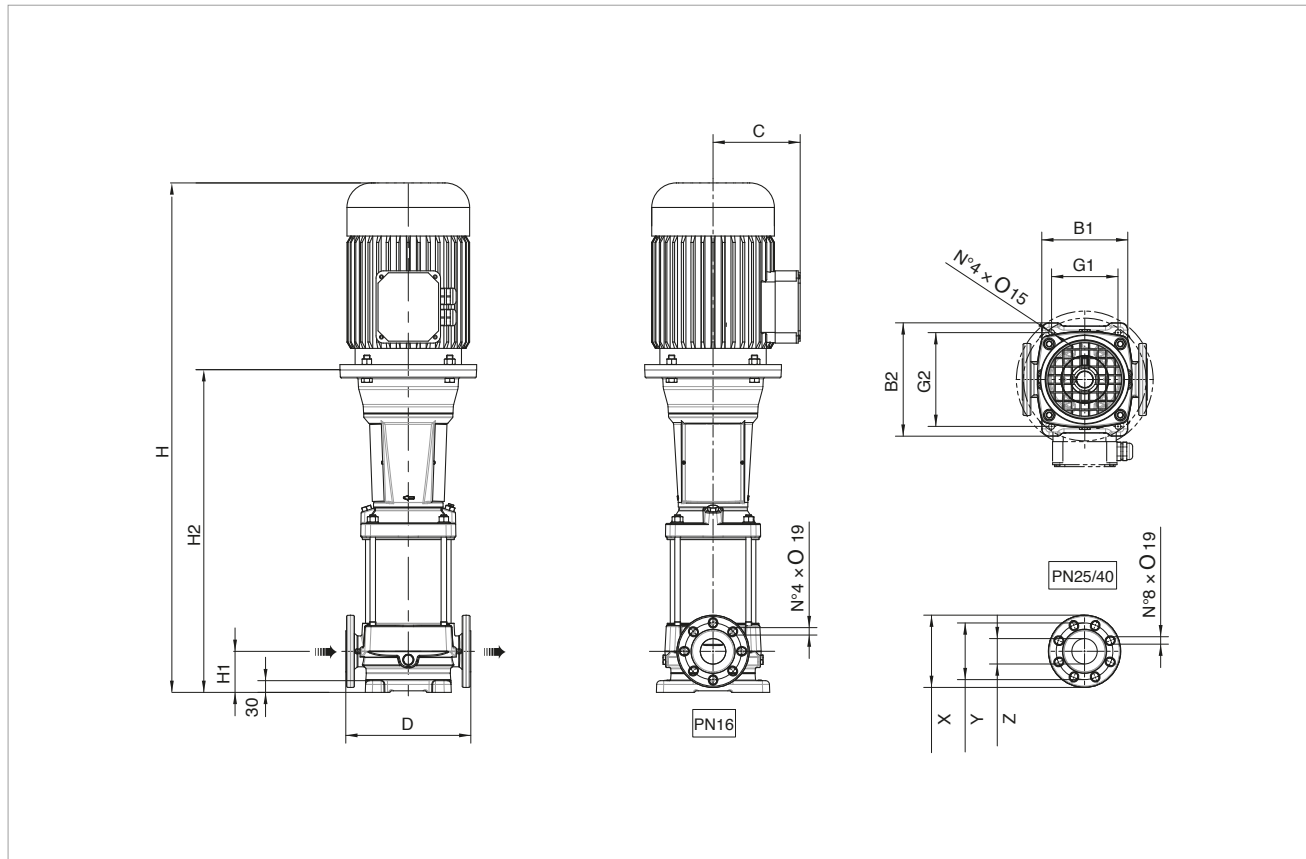
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P2 NOMINAL		MOTOR TYPE	In A		Ist A		1/min	RPM	
		kW	HP		IE2	IE3	IE2	IE3		max	min
NKV 32/2-2 T	3 x 400 V Δ	4	5,5	MEC 112M	8,1	-	74	-	2910	2980	2910
NKV 32/2 T	3 x 400 V Δ	5,5	7,5	MEC 132S	10,4	-	81	-	2910	2980	2910
NKV 32/3-2 T	3 x 400 V Δ	5,5	7,5	MEC 132S	10,4	-	81	-	2910	2980	2910
NKV 32/3 T	3 x 400 V Δ	7,5	10	MEC 132S	14	13,4	107	114	2900	2980	2900
NKV 32/4-2 T	3 x 400 V Δ	7,5	10	MEC 132S	14	13,4	107	114	2900	2980	2900
NKV 32/4 T	3 x 400 V Δ	11	15	MEC 160M	20,2	19,4	126	147	2930	2980	2930
NKV 32/5-2 T	3 x 400 V Δ	11	15	MEC 160M	20,2	19,4	126	147	2930	2980	2930
NKV 32/5 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 32/6-2 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 32/6 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 32/7-2 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 32/7 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 32/8-2 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 32/8 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 32/9-2 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 32/9 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 32/10-2 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 32/10 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 32/11-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 32/11 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 32/12-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 32/12 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 32/13-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 32/13 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950

NKV 32 - EVERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C to +120°C - Maximum working pressure: 32 bar (3200 kPa)

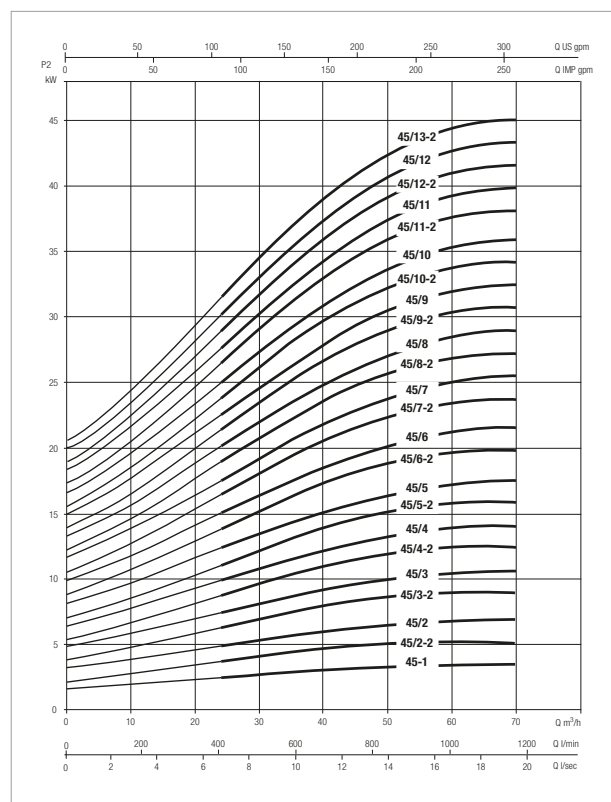
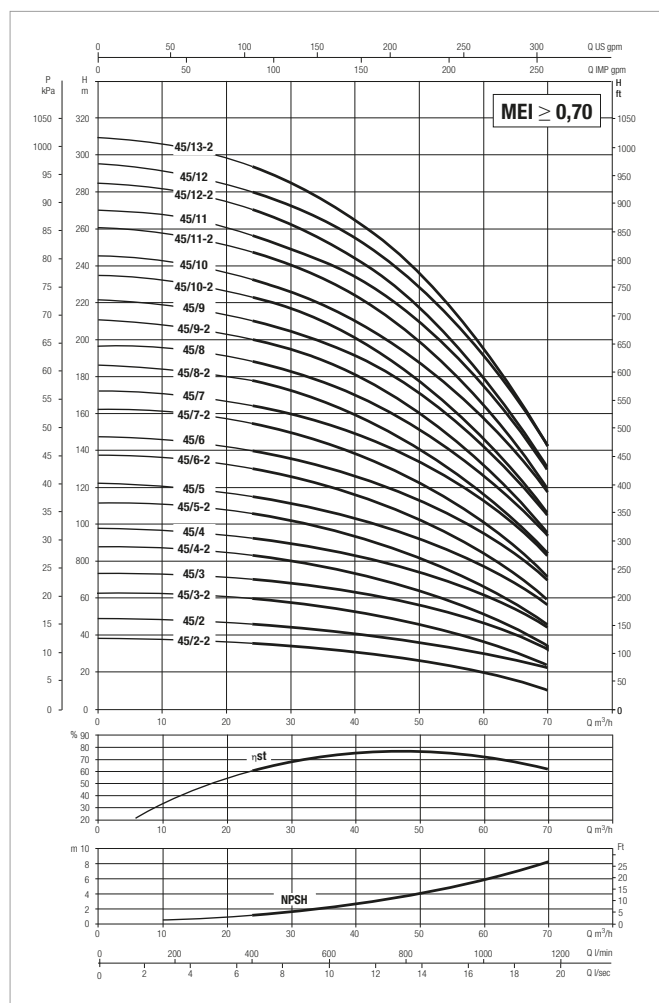


Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

MODEL	STAGE N°	B1	B2	G1	G2	C		D	H		H1	H2	DNA = DNM (DN 65)			WEIGHT Kg	
						IE2	IE3		IE2	IE3			X	Y	Z	IE2	IE3
NKV 32/2-2 T	2	220	290	170	240	145	-	320	887	-	105	537	185	145	65	93	-
NKV 32/2 T	2	220	290	170	240	161	-	320	1115	-	105	724	185	145	65	140	-
NKV 32/3-2 T	3	220	290	170	240	161	-	320	1196	-	105	806	185	145	65	144	-
NKV 32/3 T	3	220	290	170	240	161	188	320	1196	1243	105	806	185	145	65	151	125
NKV 32/4-2 T	4	220	290	170	240	161	188	320	1298	1325	105	888	185	145	65	158	132
NKV 32/4 T	4	220	290	170	240	198	242	320	1413	1345	105	908	185	145	65	206	203
NKV 32/5-2 T	5	220	290	170	240	198	242	320	1495	1427	105	990	185	145	65	210	207
NKV 32/5 T	5	220	290	170	240	198	242	320	1495	1495	105	990	185	145	65	224	214
NKV 32/6-2 T	6	220	290	170	240	198	242	320	1577	1577	105	1072	185	145	65	228	218
NKV 32/6 T	6	220	290	170	240	198	242	320	1577	1577	105	1072	185	145	65	228	218
NKV 32/7-2 T	7	220	290	170	240	198	242	320	1659	1659	105	1154	185	145	65	232	222
NKV 32/7 T	7	220	290	170	240	238	242	320	1714	1703	105	1154	185	145	65	253	243
NKV 32/8-2 T	8	220	290	170	240	238	242	320	1796	1785	105	1236	185	145	65	257	247
NKV 32/8 T	8	220	290	170	240	238	242	320	1796	1785	105	1236	185	145	65	257	247
NKV 32/9-2 T	9	220	290	170	240	238	260	320	1898	1898	105	1318	185	145	65	291	283
NKV 32/9 T	9	220	290	170	240	238	260	320	1898	1898	105	1318	185	145	65	291	283
NKV 32/10-2 T	10	220	290	170	240	238	260	320	1985	1980	105	1400	185	145	65	298	290
NKV 32/10 T	10	220	290	170	240	297	292	320	2065	2075	105	1405	185	145	65	357	363
NKV 32/11-2 T	11	220	290	170	240	297	292	320	2147	2157	105	1487	185	145	65	361	367
NKV 32/11 T	11	220	290	170	240	297	292	320	2147	2157	105	1487	185	145	65	361	367
NKV 32/12-2 T	12	220	290	170	240	297	292	320	2229	2239	105	1569	185	145	65	365	371
NKV 32/12 T	12	220	290	170	240	297	292	320	2229	2239	105	1569	185	145	65	365	371
NKV 32/13-2 T	13	220	290	170	240	297	292	320	2311	2321	105	1651	185	145	65	369	375
NKV 32/13 T	13	220	290	170	240	297	292	320	2311	2321	105	1651	185	145	65	369	375

NKV 45 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C to +120°C - Maximum working pressure: 32 bar (3200 kPa)



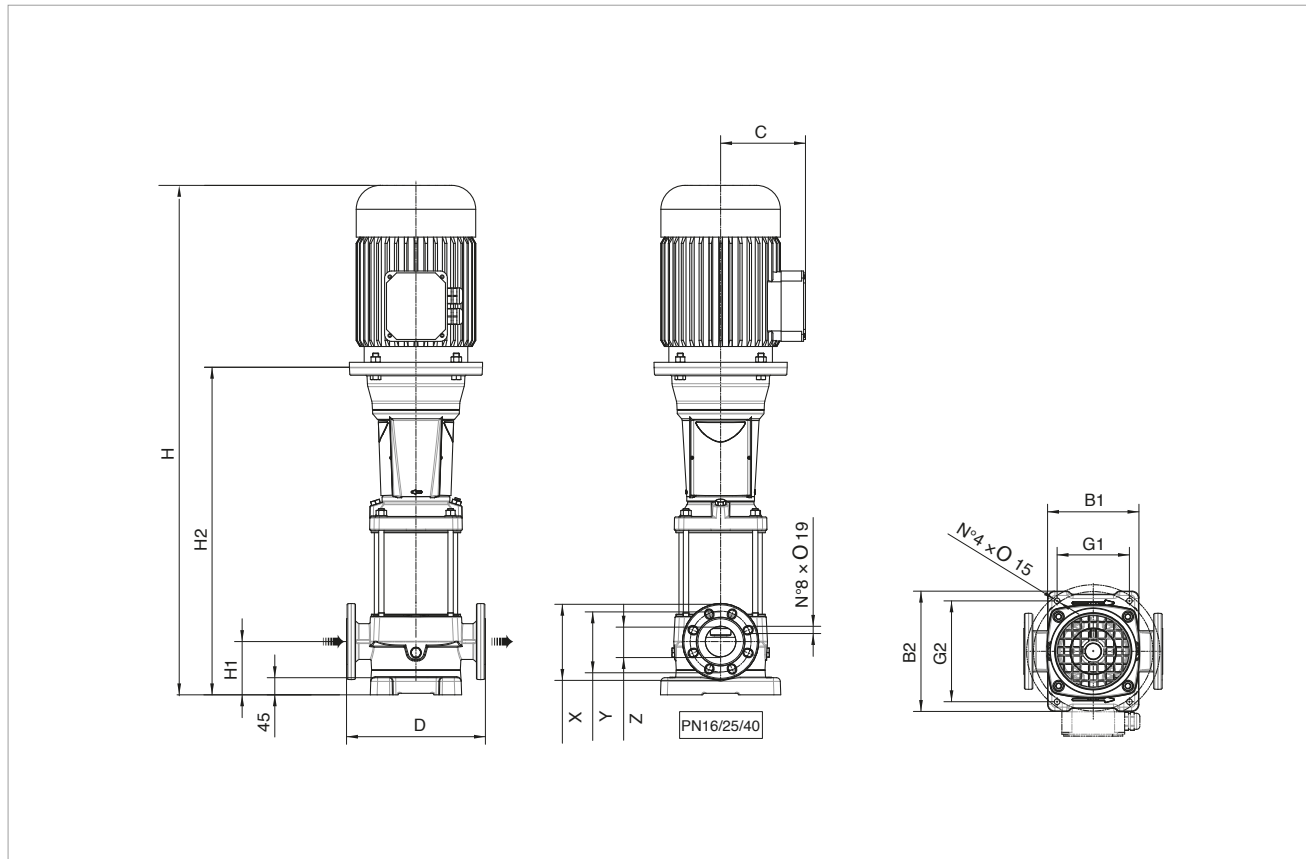
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P2 NOMINAL		MOTOR TYPE	In A		Ist A		1/min	RPM	
		kW	HP		IE2	IE3	IE2	IE3		max	min
NKV 45/2-2 T	3 x 400 V Δ	5,5	7,5	MEC 132S	10,4	-	81	-	2910	2980	2910
NKV 45/2 T	3 x 400 V Δ	7,5	10	MEC 132S	14	13,4	107	114	2900	2980	2900
NKV 45/3-2 T	3 x 400 V Δ	11	15	MEC 160M	20,2	19,4	126	147	2930	2980	2930
NKV 45/3 T	3 x 400 V Δ	11	15	MEC 160M	20,2	19,4	126	147	2930	2980	2930
NKV 45/4-2 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 45/4 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 45/5-2 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 45/5 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 45/6-2 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 45/6 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 45/7-2 T	3 x 400 V Δ	30	40	MEC 200L	64	52	405	468	2950	2990	2950
NKV 45/7 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 45/8-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 45/8 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 45/9-2 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 45/9 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 45/10-2 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 45/10 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 45/11-2 T	3 x 400 V Δ	45	60	MEC 225M	64	76	528	631	2960	2990	2960
NKV 45/11 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960
NKV 45/12-2 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960
NKV 45/12 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960
NKV 45/13-2 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960

NKV 45 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 32 bar (3200 kPa)

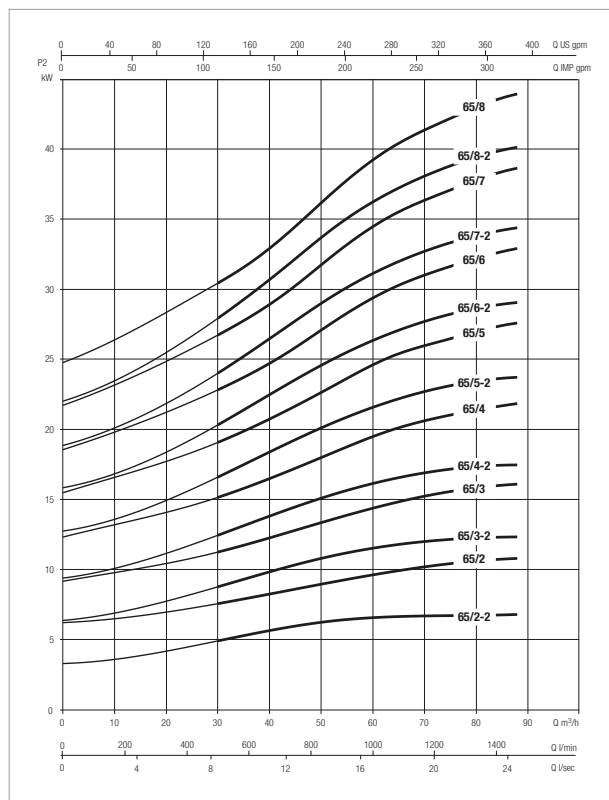
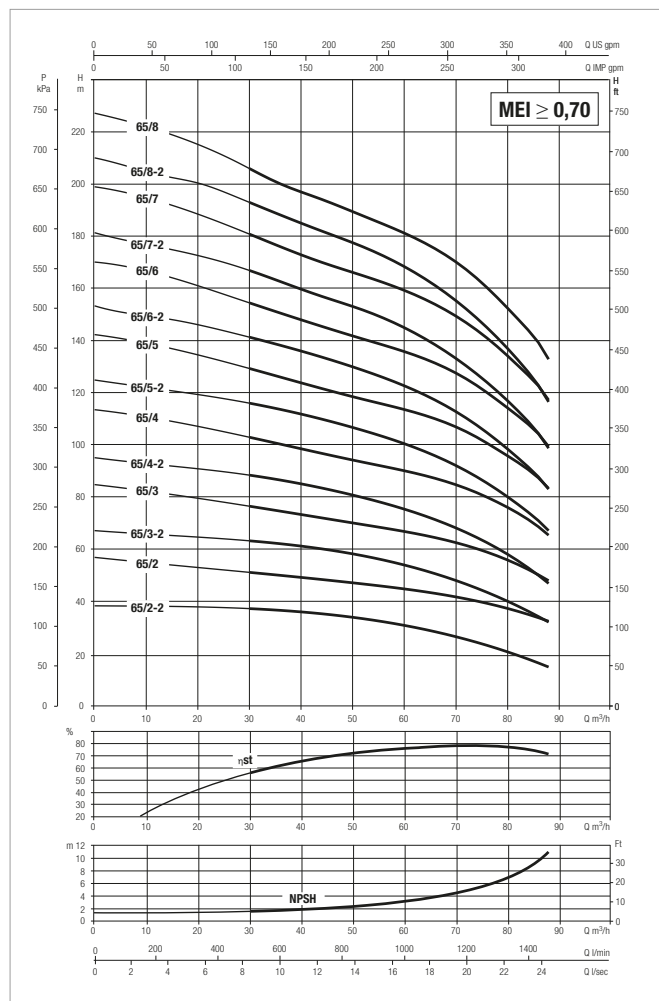


Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

MODEL	STAGE N°	B1	B2	G1	G2	C		D	H		H1	H2	DNA = DN (DN 80)			WEIGHT Kg	
						IE2	IE3		IE2	IE3			X	Y	Z	IE2	IE3
NKV 45/2-2 T	2	240	316	190	265	161	-	365	1149	-	140	759	200	160	80	146	-
NKV 45/2 T	2	240	316	190	265	161	188	365	1149	1196	140	759	200	160	80	153	127
NKV 45/3-2 T	3	240	316	190	265	198	242	365	1366	1298	140	861	200	160	80	208	205
NKV 45/3 T	3	240	316	190	265	198	242	365	1366	1298	140	861	200	160	80	208	205
NKV 45/4-2 T	4	240	316	190	265	198	242	365	1448	1448	140	943	200	160	80	226	216
NKV 45/4 T	4	240	316	190	265	198	242	365	1448	1448	140	943	200	160	80	226	216
NKV 45/5-2 T	5	240	316	190	265	238	242	365	1585	1574	140	1025	200	160	80	251	241
NKV 45/5 T	5	240	316	190	265	238	242	365	1585	1574	140	1025	200	160	80	251	241
NKV 45/6-2 T	6	240	316	190	265	238	260	365	1687	1687	140	1107	200	160	80	284	276
NKV 45/6 T	6	240	316	190	265	238	260	365	1687	1687	140	1107	200	160	80	284	276
NKV 45/7-2 T	7	240	316	190	265	297	292	365	1854	1864	140	1194	200	160	80	350	356
NKV 45/7 T	7	240	316	190	265	297	292	365	1854	1864	140	1194	200	160	80	350	356
NKV 45/8-2 T	8	240	316	190	265	297	292	365	1936	1946	140	1276	200	160	80	354	360
NKV 45/8 T	8	240	316	190	265	297	292	365	1936	1946	140	1276	200	160	80	354	360
NKV 45/9-2 T	9	240	316	190	265	297	292	365	2018	2028	140	1358	200	160	80	375	384
NKV 45/9 T	9	240	316	190	265	297	292	365	2018	2028	140	1358	200	160	80	375	384
NKV 45/10-2 T	10	240	316	190	265	297	292	365	2100	2110	140	1440	200	160	80	379	388
NKV 45/10 T	10	240	316	190	265	297	292	365	2100	2110	140	1440	200	160	80	379	388
NKV 45/11-2 T	11	240	316	190	265	333	315	365	2227	2232	140	1522	200	160	80	441	449
NKV 45/11 T	11	240	316	190	265	333	315	365	2227	2232	140	1522	200	160	80	441	449
NKV 45/12-2 T	12	240	316	190	265	333	315	365	2309	2314	140	1604	200	160	80	445	453
NKV 45/12 T	12	240	316	190	265	333	315	365	2309	2314	140	1604	200	160	80	445	453
NKV 45/13-2 T	13	240	316	190	265	333	315	365	2391	2396	140	1686	200	160	80	449	457

NKV 65 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da -15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



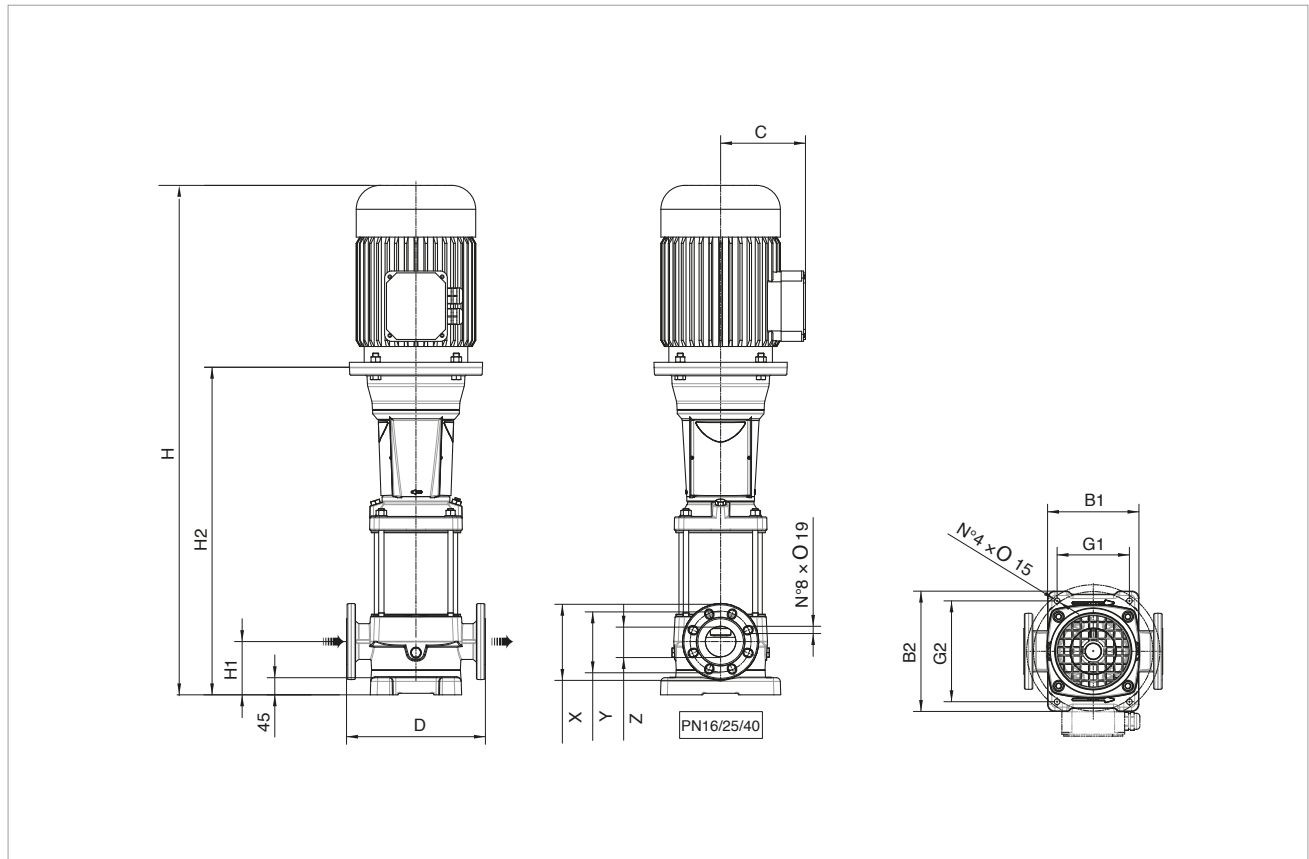
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P2 NOMINAL		MOTOR TYPE	In A		Ist A		1/min	RPM	
		kW	HP		IE2	IE3	IE2	IE3		max	min
NKV 65/2-2 T	3 x 400 V Δ	7,5	10	MEC 132S	14	13,4	107	114	2900	2980	2900
NKV 65/2 T	3 x 400 V Δ	11	15	MEC 160M	20,2	19,4	126	147	2930	2980	2930
NKV 65/3-2 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 65/3 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 65/4-2 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 65/4 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 65/5-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 65/5 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 65/6-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 65/6 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 65/7-2 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 65/7 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960
NKV 65/8-2 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960
NKV 65/8 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960

NKV 65 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)

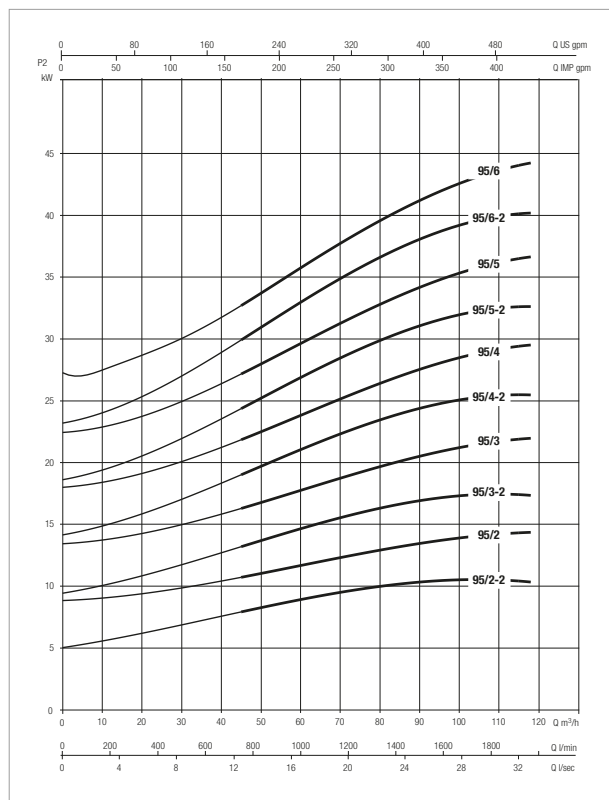
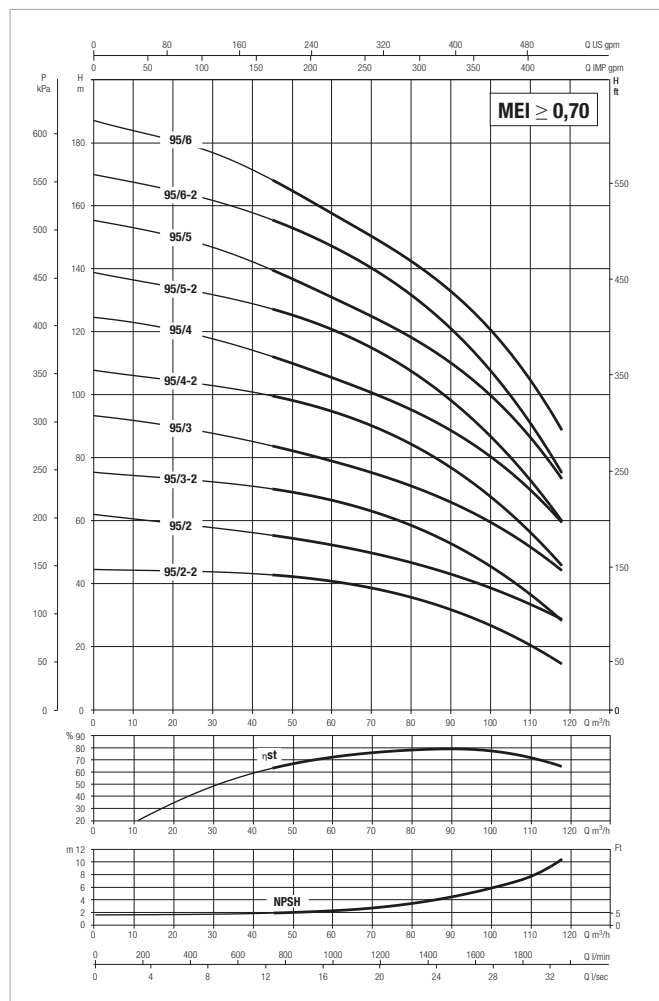


Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

MODEL	STAGE N°	B1	B2	G1	G2	C		D	H		H1	H2	DNA = DNM (DN 100)			WEIGHT Kg	
						IE2	IE3		IE2	IE3			X	Y	Z	IE2	IE3
NKV 65/2-2 T	2	240	316	190	265	161	161	365	1219,2	1266,2	140	829,2	230	180	100	108	84
NKV 65/2 T	2	240	316	190	265	198	198	365	1354,2	1354,2	140	849,2	230	180	100	178	155
NKV 65/3-2 T	3	240	316	190	265	198	198	365	1446,3	1446,3	140	941,3	230	180	100	198	171
NKV 65/3 T	3	240	316	190	265	238	235	365	1501,3	1490,3	140	941,3	230	180	100	243,9	213
NKV 65/4-2 T	4	240	316	190	265	238	235	365	1593,4	1582,4	140	1033,4	230	180	100	243,9	213
NKV 65/4 T	4	240	316	190	265	238	238	365	1613,4	1613,4	140	1033,4	230	180	100	293,7	255
NKV 65/5-2 T	5	240	316	190	265	297	300	365	1790,5	1800,5	140	1130,5	230	180	100	472	471
NKV 65/5 T	5	240	316	190	265	297	300	365	1790,5	1800,5	140	1130,5	230	180	100	472	471
NKV 65/6-2 T	6	240	316	190	265	297	300	365	1882,6	1892,6	140	1222,6	230	180	100	472	471
NKV 65/6 T	6	240	316	190	265	297	300	365	1882,6	1892,6	140	1222,6	230	180	100	503	517
NKV 65/7-2 T	7	240	316	190	265	297	300	365	1974,7	1984,7	140	1314,7	230	180	100	503	517
NKV 65/7 T	7	240	316	190	265	333	335	365	2019,7	2024,7	140	1314,7	230	180	100	624	653
NKV 65/8-2 T	8	240	316	190	265	333	335	365	2111,8	2116,8	140	1406,8	230	180	100	624	653
NKV 65/8 T	8	240	316	190	265	333	335	365	2111,8	2116,8	140	1406,8	230	180	100	624	653

NKV 95 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da -15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



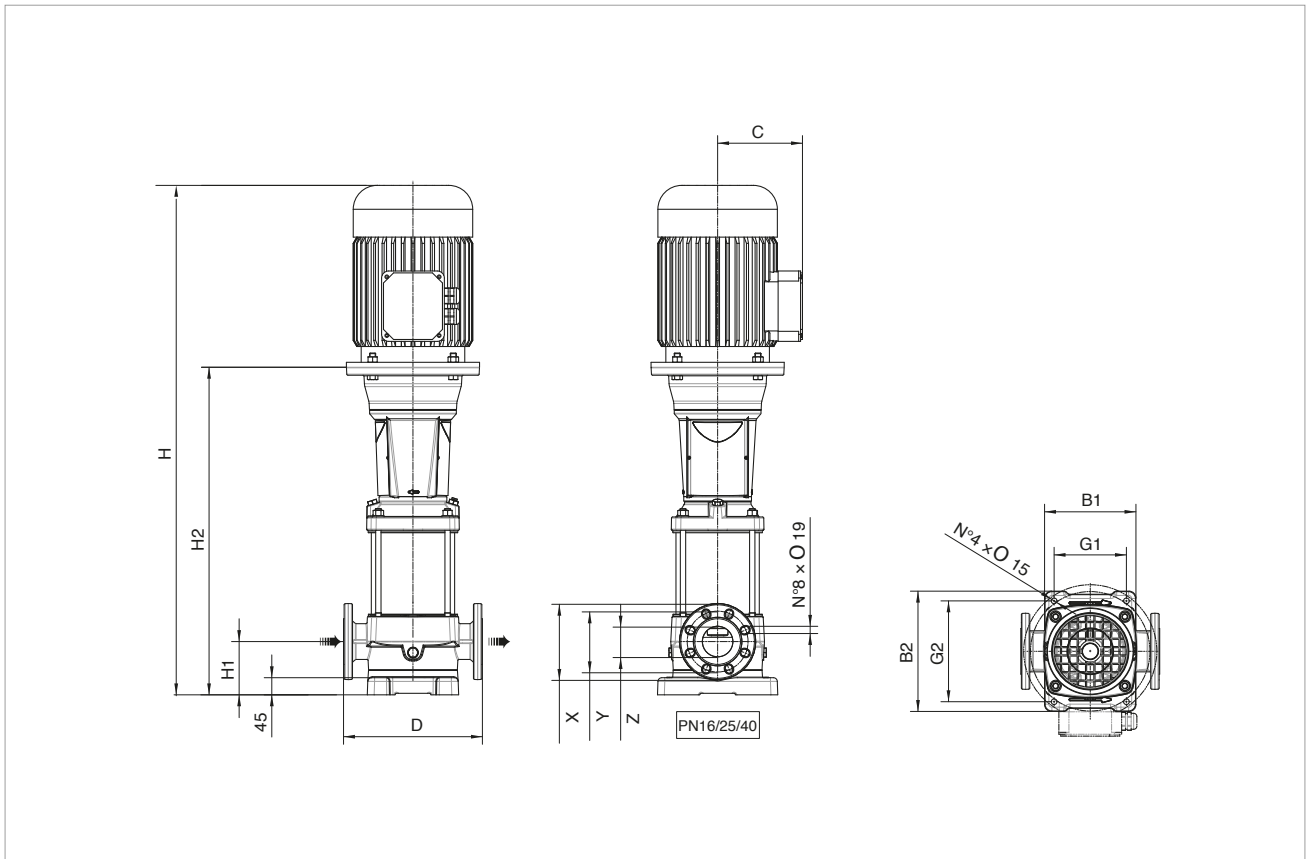
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

MODEL	VOLTAGE 50 Hz	P2 NOMINAL		MOTOR TYPE	In A		Ist A		1/min	RPM	
		kW	HP		IE2	IE3	IE2	IE3		max	min
NKV 95/2-2 T	3 x 400 V Δ	11	15	MEC 160M	20,2	19,4	126	147	2930	2980	2930
NKV 95/2 T	3 x 400 V Δ	15	20	MEC 160M	27	26,5	190	204	2940	2980	2940
NKV 95/3-2 T	3 x 400 V Δ	18,5	25	MEC 160L	33	32	240	262	2940	2990	2940
NKV 95/3 T	3 x 400 V Δ	22	30	MEC 180M	39,5	38	329	331	2960	2990	2960
NKV 95/4-2 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 95/4 T	3 x 400 V Δ	30	40	MEC 200L	52	52	405	468	2950	2990	2950
NKV 95/5-2 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 95/5 T	3 x 400 V Δ	37	50	MEC 200L	64	63	488	567	2960	2990	2960
NKV 95/6-2 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960
NKV 95/6 T	3 x 400 V Δ	45	60	MEC 225M	78,5	76	528	631	2960	2990	2960

NKV 95 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

MODEL	STAGE N°	B1	B2	G1	G2	C		D	H		H1	H2	DNA = DNM (DN 100)			WEIGHT Kg	
						IE2	IE3		IE2	IE3			X	Y	Z	IE2	IE3
NKV 95/2-2 T	2	260	341	199	280	198	198	380	1354,2	1354,2	140	849,2	230	180	100	20,2	186
NKV 95/2 T	2	260	341	199	280	198	198	380	1354,2	1354,2	140	849,2	230	180	100	27	196
NKV 95/3-2 T	3	260	341	199	280	238	235	380	1501,3	1490,3	140	941,3	230	180	100	33	217
NKV 95/3 T	3	260	341	199	280	238	238	380	1521,3	1521,3	140	941,3	230	180	100	39,5	238
NKV 95/4-2 T	4	260	341	199	280	297	300	380	1698,4	1708,4	140	1038,4	230	180	100	52	343
NKV 95/4 T	4	260	341	199	280	297	300	380	1698,4	1708,4	140	1038,4	230	180	100	52	343
NKV 95/5-2 T	5	260	341	199	280	297	300	380	1790,5	1800,5	140	1130,5	230	180	100	64	379
NKV 95/5 T	5	260	341	199	280	297	300	380	1790,5	1800,5	140	1130,5	230	180	100	64	379
NKV 95/6-2 T	6	260	341	199	280	333	335	380	1927,6	1932,6	140	1222,6	230	180	100	78,5	455
NKV 95/6 T	6	260	341	199	280	333	335	380	1927,6	1932,6	140	1222,6	230	180	100	78,5	455

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

GENERAL INFORMATION

The MEI index (Minimum Efficiency Index) was issued with the objective of defining a performance threshold value applicable to all the water pumps found on the market. The MEI index takes into account the size of the pump, its specific speed, and its speed of rotation.

The regulation applies to centrifugal pumps used for pumping clean waters included in the following categories:

- Axial suction pumps with support (ESOB)
- Horizontal monobloc axial suction pumps (ESCC)
- In-line monobloc axial suction pumps (ESCCI)
- Multistage vertical pumps (MS-V)
- Multistage submerged pumps (MSS)

MEI is a dimensionless indicator for hydraulic performance, and a measure of the quality of the sizing of the pump in relation to the performance.

The higher the MEI value, the better is the sizing of the pump in relation to the performance, and the lower is the annual energy consumption due to the use of the pump. In theory, the upper limit of the MEI values is open, and only depends on physical and technological limitations.

The minimum efficiency index (MEI) is based on the maximum diameter of the impeller. Multistage vertical water pumps must be tested in the 3-stage version.

The value of reference for the more efficient water pumps is $MEI \geq 0,70$.

The efficiency of a pump with turned impeller is generally lower to that of a pump with full impeller diameter. The turning of the impeller adapts the pump to a fixed point of operation, resulting in lower energy consumption.

The operation of this water pump with variable operating points can be more efficient and economical if controlled, for example, by means of a variable speed motor adapting the operation of the pump to the system.

The information on the efficiency of reference can be found at the address: www.dabpumps.com. In alternative contact your local sales representatives.

The $MEI=0,7$ and $MEI=0,4$ efficiency charts for the different types of pumps can be found at the website: www.europump.org/efficiencycharts

PUMP MODEL	IMPELLER	MEI
K 20/41	-	not applicable
K 30/70	-	
K 36/100	Full	$\geq 0,70$
K 30/100	Turned	
K 12/200	Full	$\geq 0,70$
K 55/200 T	Full	$\geq 0,70$
K 36/200 T	Turned	
K 40/200 T	Turned	
K 14/400	Full	$\geq 0,40$
K 28/500	Full	$\geq 0,70$
K 11/500 T	Turned	
K 18/500 T	Turned	
K 50/400 T	Full	$\geq 0,50$
K 40/400 T	Turned	
K 50/800 T	Full	$\geq 0,60$
K 30/800 T	Turned	
K 40/800 T	Turned	
K 35/1200 T	Full	$\geq 0,60$
K 20/1200 T	Turned	
K 25/1200 T	Turned	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	IMPELLER	MEI
NKM-G 32-125.1/140 T 0,25	Full	≥ 0,40
NKP-G 32-125.1/140 T 2,2	Full	≥ 0,40
NKP-G 32-125.1/102 T 0,75	Turned	
NKP-G 32-125.1/115 T 1,1	Turned	
NKP-G 32-125.1/125 T 1,5	Turned	
NKM-G 32-160.1/169 T 0,37	Full	≥ 0,40
NKP-G 32-160.1/177	Full	≥ 0,40
NKP-G 32-160.1/155 T 2,2	Turned	
NKP-G 32-160.1/166 T 3	Turned	
NKM-G 32-200.1/200 T 0,55	Full	≥ 0,40
NKP-G 32-200.1/205 T 5,5	Full	≥ 0,40
NKP-G 32-200.1/188 T 4	Turned	
NKM-G 32-125/142 T 0,37	Full	≥ 0,40
NKP-G 32-125/142 T 3	Full	≥ 0,40
NKP-G 32-125/110 T 1,1	Turned	
NKP-G 32-125/120 T 1,5	Turned	
NKP-G 32-125/130 T 2,2	Turned	
NKM-G 32-160/169 T 0,55	Full	≥ 0,40
NKP-G 32-160/177 T 5,5	Full	≥ 0,40
NKP-G 32-160/151 T 3	Turned	
NKP-G 32-160/163 T 4	Turned	
NKM-G 32-200/219 T 1,1	Full	≥ 0,60
NKM-G 32-200/200 T 0,75	Turned	
NKP-G 32-200/210 T 7,5	Full	≥ 0,50
NKP-G 32-200/190 T 5,5	Turned	
NKM-G 40-125/142 T 0,55	Full	≥ 0,40
NKM-G 40-125/115 T 0,25	Turned	
NKM-G 40-125/130 T 0,37	Turned	
NKP-G 40-125/139 1 A T 4	Full	≥ 0,40
NKP-G 40-125/107 7 A T 1,5	Turned	
NKP-G 40-125/120 5 A T 2,2	Turned	
NKP-G 40-125/130 3 A T 3	Turned	≥ 0,40
NKM-G 40-160/166 T 0,75	Full	
NKM-G 40-160/153 T 0,55	Turned	
NKP-G 40-160/172 T 7,5	Full	≥ 0,50
NKP-G 40-160/158 T 5,5	Turned	≥ 0,60
NKM-G 40-200/219 T 1,5	Full	
NKM-G 40-200/200 T 1,1	Turned	
NKP-G 40-200/210 T 11	Full	≥ 0,40

PUMP MODEL	IMPELLER	MEI
NKM-G 40-250/260 T 3	Full	≥ 0,60
NKM-G 40-250/245 T 2,2	Turned	
NKP-G 40-250/260 T 22	Full	≥ 0,50
NKP-G 40-250/230 T 15	Turned	
NKP-G 40-250/245 T 18,5	Turned	
NKM-G 50-125/141 T 0,75	Full	≥ 0,40
NKM-G 50-125/130 T 0,55	Turned	
NKP-G 50-125/144 T 6,9	Full	≥ 0,40
NKP-G 50-125/115 T 3	Turned	
NKP-G 50-125/125 T 4	Turned	
NKP-G 50-125/135 T 5,5	Turned	
NKM-G 50-160/177 T 1,5	Full	≥ 0,60
NKM-G 50-160/161 T 1,1	Turned	
NKP-G 50-160/169 T 11	Full	≥ 0,40
NKP-G 50-160/153 T 7,5	Turned	
NKM-G 50-200/219 T 3	Full	≥ 0,60
NKM-G 50-200/210 T 2,2	Turned	
NKP-G 50-200/219 T 22	Full	≥ 0,50
NKP-G 50-200/200 T 15	Turned	
NKP-G 50-200/210 T 18,5	Turned	
NKM-G 50-250/263 T 4	Full	≥ 0,60
NKP-G 50-250/257 T 30	Full	≥ 0,40
NKP-G 50-250/230 T 22	Turned	
NKM-G 65-125/144 T 1,1	Full	≥ 0,40
NKM-G 65-125/130 T 0,75	Turned	
NKP-G 65-125/137 T 7,5	Full	≥ 0,40
NKP-G 65-125/120 T 4	Turned	
NKP-G 65-125/127 T 5,5	Turned	
NKM-G 65-160/177 T 2,2	Full	≥ 0,60
NKM-G 65-160/153 T 1,1	Turned	
NKM-G 65-160/165 T 1,5	Turned	
NKP-G 65-160/173 T 15	Full	≥ 0,50
NKP-G 65-160/157 T 11	Turned	
NKM-G 65-200/219 T 4	Full	≥ 0,60
NKM-G 65-200/210 T 3	Turned	
NKP-G 65-200/219 T 30	Full	≥ 0,70
NKP-G 65-200/190 T 18,5	Turned	
NKP-G 65-200/200 T 22	Turned	
NKM-G 65-250/263 T 5,5	Full	≥ 0,50
NKM-G 65-315/309 T 11	Full	≥ 0,40
NKM-G 65-315/279 T 7,5	Turned	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	IMPELLER	MEI
NKM-G 80-160/177 T 3	Full	≥ 0,40
NKM-G 80-160/153-136 T 1,5	Turned	
NKM-G 80-160/163 T 2,2	Turned	
NKP-G 80-160/169 T 22	Full	≥ 0,40
NKP-G 80-160/147-127 T 11	Turned	
NKP-G 80-160/153 T 15	Turned	
NKP-G 80-160/163 T 18,5	Turned	≥ 0,40
NKM-G 80-200/222 T 5,5	Full	
NKM-G 80-200/200 T 4	Turned	≥ 0,40
NKP-G 80-200/190 T 30	Full	≥ 0,40
NKM-G 80-250/270 T 11	Full	≥ 0,40
NKM-G 80-250/240 T 7,5	Turned	
NKM-G 80-315/334 T 22	Full	≥ 0,50
NKM-G 80-315/305 T 15	Turned	
NKM-G 80-315/320 T 18,5	Turned	
NKM-G 100-200/214 T 7,5	Full	≥ 0,40
NKM-G 100-200/200 T 5,5	Turned	
NKM-G 100-250/270 T 15	Full	≥ 0,40
NKM-G 100-250/250 T 11	Turned	
NKM-G 100-315/316 T 22	Full	≥ 0,40
NKM-G 100-315/300 T 18,5	Turned	
NKM-G 125-250/266 T 22	Full	≥ 0,40
NKM-G 125-250/243 T 15	Turned	
NKM-G 125-250/256 T 18,5	Turned	
NKM-G 150-200/218 T 11	-	not applicable

PUMP MODEL	IMPELLER	MEI
KDN 32-125.1/140 4P	Full	≥ 0,40
KDN 32-125.1/105 4P	Turned	
KDN 32-125.1/110 4P	Turned	
KDN 32-125.1/115 4P	Turned	
KDN 32-125.1/120 4P	Turned	
KDN 32-125.1/125 4P	Turned	
KDN 32-125.1/130 4P	Turned	≥ 0,40
KDN 32-125.1/135 4P	Turned	
KDN 32-125.1/140 2P	Full	
KDN 32-125.1/105 2P	Turned	
KDN 32-125.1/110 2P	Turned	
KDN 32-125.1/115 2P	Turned	
KDN 32-125.1/120 2P	Turned	≥ 0,40
KDN 32-125.1/125 2P	Turned	
KDN 32-125.1/130 2P	Turned	
KDN 32-125.1/135 2P	Turned	
KDN 32-160.1/177 4P	Full	
KDN 32-160.1/137 4P	Turned	
KDN 32-160.1/145 4P	Turned	≥ 0,40
KDN 32-160.1/153 4P	Turned	
KDN 32-160.1/161 4P	Turned	
KDN 32-160.1/169 4P	Turned	
KDN 32-160.1/177 2P	Full	
KDN 32-160.1/137 2P	Turned	
KDN 32-160.1/145 2P	Turned	≥ 0,40
KDN 32-160.1/153 2P	Turned	
KDN 32-160.1/161 2P	Turned	
KDN 32-160.1/169 2P	Turned	
KDN 32-200.1/207 4P	Full	
KDN 32-200.1/170 4P	Turned	
KDN 32-200.1/180 4P	Turned	≥ 0,50
KDN 32-200.1/190 4P	Turned	
KDN 32-200.1/200 4P	Turned	
KDN 32-200.1/207 2P	Full	≥ 0,40
KDN 32-200.1/170 2P	Turned	
KDN 32-200.1/180 2P	Turned	
KDN 32-200.1/190 2P	Turned	
KDN 32-200.1/200 2P	Turned	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	IMPELLER	MEI
KDN 32-125/142 4P	Full	≥ 0,50
KDN 32-125/115 4P	Turned	
KDN 32-125/120 4P	Turned	
KDN 32-125/125 4P	Turned	
KDN 32-125/130 4P	Turned	
KDN 32-125/135 4P	Turned	
KDN 32-125/142 2P	Full	≥ 0,40
KDN 32-125/115 2P	Turned	
KDN 32-125/120 2P	Turned	
KDN 32-125/125 2P	Turned	
KDN 32-125/130 2P	Turned	
KDN 32-125/135 2P	Turned	
KDN 32-160/177 4P	Full	≥ 0,40
KDN 32-160/137 4P	Turned	
KDN 32-160/145 4P	Turned	
KDN 32-160/153 4P	Turned	
KDN 32-160/161 4P	Turned	
KDN 32-160/169 4P	Turned	
KDN 32-160/177 2P	Full	≥ 0,40
KDN 32-160/137 2P	Turned	
KDN 32-160/145 2P	Turned	
KDN 32-160/153 2P	Turned	
KDN 32-160/161 2P	Turned	
KDN 32-160/169 2P	Turned	
KDN 32-200/219 4P	Full	≥ 0,60
KDN 32-200/170 4P	Turned	
KDN 32-200/180 4P	Turned	
KDN 32-200/190 4P	Turned	
KDN 32-200/200 4P	Turned	
KDN 32-200/210 4P	Turned	
KDN 32-200/219 2P	Full	≥ 0,60
KDN 32-200/170 2P	Turned	
KDN 32-200/180 2P	Turned	
KDN 32-200/190 2P	Turned	
KDN 32-200/200 2P	Turned	
KDN 32-200/210 2P	Turned	

PUMP MODEL	IMPELLER	MEI
KDN 40-125/142 4P	Full	≥ 0,40
KDN 40-125/115 4P	Turned	
KDN 40-125/120 4P	Turned	
KDN 40-125/125 4P	Turned	
KDN 40-125/130 4P	Turned	
KDN 40-125/135 4P	Turned	
KDN 40-125/142 2P	Full	≥ 0,40
KDN 40-125/115 2P	Turned	
KDN 40-125/120 2P	Turned	
KDN 40-125/125 2P	Turned	
KDN 40-125/130 2P	Turned	
KDN 40-125/135 2P	Turned	
KDN 40-160/177 4P	Full	≥ 0,40
KDN 40-160/137 4P	Turned	
KDN 40-160/145 4P	Turned	
KDN 40-160/153 4P	Turned	
KDN 40-160/161 4P	Turned	
KDN 40-160/169 4P	Turned	
KDN 40-160/177 2P	Full	≥ 0,50
KDN 40-160/137 2P	Turned	
KDN 40-160/145 2P	Turned	
KDN 40-160/153 2P	Turned	
KDN 40-160/161 2P	Turned	
KDN 40-160/169 2P	Turned	
KDN 40-200/219 4P	Full	≥ 0,60
KDN 40-200/170 4P	Turned	
KDN 40-200/180 4P	Turned	
KDN 40-200/190 4P	Turned	
KDN 40-200/200 4P	Turned	
KDN 40-200/210 4P	Turned	
KDN 40-200/219 2P	Full	≥ 0,50
KDN 40-200/170 2P	Turned	
KDN 40-200/180 2P	Turned	
KDN 40-200/190 2P	Turned	
KDN 40-200/200 2P	Turned	
KDN 40-200/210 2P	Turned	

HYDRAULIC EFFICIENCY

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	IMPELLER	MEI
KDN 40-250/260 4P	Full	≥ 0,40
KDN 40-250/220 4P	Turned	
KDN 40-250/230 4P	Turned	
KDN 40-250/240 4P	Turned	
KDN 40-250/250 4P	Turned	
KDN 40-250/260 2P	Full	≥ 0,40
KDN 40-250/220 2P	Turned	
KDN 40-250/230 2P	Turned	
KDN 40-250/240 2P	Turned	
KDN 40-250/250 2P	Turned	
KDN 50-125/144 4P	Full	≥ 0,40
KDN 50-125/115 4P	Turned	
KDN 50-125/120 4P	Turned	
KDN 50-125/125 4P	Turned	
KDN 50-125/130 4P	Turned	
KDN 50-125/135 4P	Turned	≥ 0,40
KDN 50-125/139 4P	Turned	
KDN 50-125/144 2P	Full	
KDN 50-125/115 2P	Turned	
KDN 50-125/120 2P	Turned	
KDN 50-125/125 2P	Turned	≥ 0,40
KDN 50-125/130 2P	Turned	
KDN 50-125/135 2P	Turned	
KDN 50-125/139 2P	Turned	
KDN 50-160/177 4P	Full	
KDN 50-160/137 4P	Turned	
KDN 50-160/145 4P	Turned	
KDN 50-160/153 4P	Turned	
KDN 50-160/161 4P	Turned	
KDN 50-160/169 4P	Turned	≥ 0,50
KDN 50-160/177 2P	Full	
KDN 50-160/137 2P	Turned	
KDN 50-160/145 2P	Turned	
KDN 50-160/153 2P	Turned	
KDN 50-160/161 2P	Turned	
KDN 50-160/169 2P	Turned	

PUMP MODEL	IMPELLER	MEI
KDN 50-200/219 4P	Full	≥ 0,60
KDN 50-200/170 4P	Turned	
KDN 50-200/180 4P	Turned	
KDN 50-200/190 4P	Turned	
KDN 50-200/200 4P	Turned	
KDN 50-200/210 4P	Turned	≥ 0,40
KDN 50-200/219 2P	Full	
KDN 50-200/170 2P	Turned	
KDN 50-200/180 2P	Turned	
KDN 50-200/190 2P	Turned	
KDN 50-200/200 2P	Turned	≥ 0,60
KDN 50-200/210 2P	Turned	
KDN 50-250/263 4P	Full	
KDN 50-250/220 4P	Turned	
KDN 50-250/230 4P	Turned	
KDN 50-250/240 4P	Turned	≥ 0,50
KDN 50-250/250 4P	Turned	
KDN 50-250/263 2P	Full	
KDN 50-250/220 2P	Turned	
KDN 50-250/230 2P	Turned	
KDN 50-250/240 2P	Turned	≥ 0,40
KDN 50-250/250 2P	Turned	
KDN 65-125/144 4P	Full	
KDN 65-125/120-110 4P	Turned	
KDN 65-125/120 4P	Turned	
KDN 65-125/125 4P	Turned	≥ 0,40
KDN 65-125/130 4P	Turned	
KDN 65-125/135 4P	Turned	
KDN 65-125/140 4P	Turned	
KDN 65-125/144 2P	Full	
KDN 65-125/120-110 2P	Turned	
KDN 65-125/120 2P	Turned	
KDN 65-125/125 2P	Turned	
KDN 65-125/130 2P	Turned	
KDN 65-125/135 2P	Turned	
KDN 65-125/140 2P	Turned	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	IMPELLER	MEI
KDN 65-160/177 4P	Full	≥ 0,60
KDN 65-160/137 4P	Turned	
KDN 65-160/145 4P	Turned	
KDN 65-160/153 4P	Turned	
KDN 65-160/161 4P	Turned	
KDN 65-160/169 4P	Turned	
KDN 65-160/177 2P	Full	≥ 0,50
KDN 65-160/137 2P	Turned	
KDN 65-160/145 2P	Turned	
KDN 65-160/153 2P	Turned	
KDN 65-160/161 2P	Turned	
KDN 65-160/169 2P	Turned	
KDN 65-200/219 4P	Full	≥ 0,60
KDN 65-200/170 4P	Turned	
KDN 65-200/180 4P	Turned	
KDN 65-200/190 4P	Turned	
KDN 65-200/200 4P	Turned	
KDN 65-200/210 4P	Turned	
KDN 65-200/219 2P	Full	≥ 0,60
KDN 65-200/170 2P	Turned	
KDN 65-200/180 2P	Turned	
KDN 65-200/190 2P	Turned	
KDN 65-200/200 2P	Turned	
KDN 65-200/210 2P	Turned	
KDN 65-250/263 4P	Full	≥ 0,50
KDN 65-250/220 4P	Turned	
KDN 65-250/230 4P	Turned	
KDN 65-250/240 4P	Turned	
KDN 65-250/250 4P	Turned	
KDN 65-250/263 2P	Full	
KDN 65-250/220 2P	Turned	
KDN 65-250/230 2P	Turned	
KDN 65-250/240 2P	Turned	
KDN 65-250/250 2P	Turned	
KDN 65-250/263 2P	Full	≥ 0,50
KDN 65-250/220 2P	Turned	
KDN 65-250/230 2P	Turned	
KDN 65-250/240 2P	Turned	
KDN 65-250/250 2P	Turned	
KDN 65-250/263 2P	Full	

PUMP MODEL	IMPELLER	MEI
KDN 65-315/320 4P	Full	≥ 0,50
KDN 65-315/260 4P	Turned	
KDN 65-315/275 4P	Turned	
KDN 65-315/290 4P	Turned	
KDN 65-315/305 4P	Turned	
KDN 65-315/320 2P	Full	
KDN 65-315/260 2P	Turned	
KDN 65-315/275 2P	Turned	
KDN 65-315/290 2P	Turned	
KDN 65-315/305 2P	Turned	
KDN 80-160/177 4P	Full	≥ 0,50
KDN 80-160/147-127 4P	Turned	
KDN 80-160/153-136 4P	Turned	
KDN 80-160/153 4P	Turned	
KDN 80-160/161 4P	Turned	
KDN 80-160/169 4P	Turned	
KDN 80-160/177 2P	Full	≥ 0,40
KDN 80-160/147-127 2P	Turned	
KDN 80-160/153-136 2P	Turned	
KDN 80-160/153 2P	Turned	
KDN 80-160/161 2P	Turned	
KDN 80-160/169 2P	Turned	
KDN 80-200/222 4P	Full	≥ 0,50
KDN 80-200/170 4P	Turned	
KDN 80-200/180 4P	Turned	
KDN 80-200/190 4P	Turned	
KDN 80-200/200 4P	Turned	
KDN 80-200/210 4P	Turned	
KDN 80-200/222 2P	Full	≥ 0,40
KDN 80-200/170 2P	Turned	
KDN 80-200/180 2P	Turned	
KDN 80-200/190 2P	Turned	
KDN 80-200/200 2P	Turned	
KDN 80-200/210 2P	Turned	

HYDRAULIC EFFICIENCY

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	IMPELLER	MEI
KDN 80-250/270 4P	Full	≥ 0,40
KDN 80-250/220 4P	Turned	
KDN 80-250/230 4P	Turned	
KDN 80-250/240 4P	Turned	
KDN 80-250/250 4P	Turned	
KDN 80-250/260 4P	Turned	
KDN 80-250/270 2P	Full	≥ 0,40
KDN 80-250/220 2P	Turned	
KDN 80-250/230 2P	Turned	
KDN 80-250/240 2P	Turned	
KDN 80-250/250 2P	Turned	
KDN 80-250/260 2P	Turned	
KDN 80-315/334 4P	Full	≥ 0,40
KDN 80-315/275 4P	Turned	
KDN 80-315/290 4P	Turned	
KDN 80-315/305 4P	Turned	
KDN 80-315/320 4P	Turned	
KDN 80-315/290 2P	Full	≥ 0,40
KDN 80-315/275 2P	Turned	
KDN 100-200/219 4P	Full	≥ 0,40
KDN 100-200/180 4P	Turned	
KDN 100-200/190 4P	Turned	
KDN 100-200/200 4P	Turned	
KDN 100-200/210 4P	Turned	
KDN 100-200/219 2P	Full	≥ 0,40
KDN 100-200/180 2P	Turned	
KDN 100-200/190 2P	Turned	
KDN 100-200/200 2P	Turned	
KDN 100-200/210 2P	Turned	

PUMP MODEL	IMPELLER	MEI
KDN 100-250/270 4P	Full	≥ 0,40
KDN 100-250/220 4P	Turned	
KDN 100-250/230 4P	Turned	
KDN 100-250/240 4P	Turned	
KDN 100-250/250 4P	Turned	
KDN 100-250/260 4P	Turned	
KDN 100-250/260 2P	Full	≥ 0,40
KDN 100-250/220 2P	Turned	
KDN 100-250/230 2P	Turned	
KDN 100-250/240 2P	Turned	
KDN 100-250/250 2P	Turned	
KDN 100-315/334 4P	Full	≥ 0,40
KDN 100-315/275 4P	Turned	
KDN 100-315/290 4P	Turned	
KDN 100-315/305 4P	Turned	
KDN 100-315/320 4P	Turned	≥ 0,40
KDN 125-250/269 4P	Full	
KDN 125-250/220 4P	Turned	
KDN 125-250/230 4P	Turned	
KDN 125-250/240 4P	Turned	
KDN 125-250/250 4P	Turned	
KDN 125-250/260 4P	Turned	not applicable
KDN 150-200/218 4P	Full	
KDN 150-200/210-170 4P	Turned	
KDN 150-200/218-182 4P	Turned	
KDN 150-200/218-200 4P	Turned	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
KVC 25/30 M	3	$\geq 0,40$	31.30	34.00	33.56
KVC 25/30 T			32.38	34.30	33.85
KVC 15/30 M	2		35.93	38.72	38.51
KVC 15/30 T			29.86	31.50	31.20
KVC 35/30 M	4		35.95	38.50	37.99
KVC 35/30 T			34.43	37.02	36.55
KVC 45/30 M	5		34.29	36.35	36.08
KVC 45/30 T			35.00	37.44	37.00
KVC 50/30 M	6		29.03	30.86	30.56
KVC 50/30 T			30.67	32.77	32.21
KVC 60/30 M	7		28.82	30.95	30.56
KVC 60/30 T			30.25	32.28	31.96
KVC 70/30 M	8		35.16	37.89	37.32
KVC 70/30 T			30.29	32.40	31.98
KVC 30/50 M	3		40.75	43.10	42.76
KVC 30/50 T			40.19	43.10	42.60
KVC 20/50 M	2		41.40	42.95	42.35
KVC 20/50 T			38.53	41.47	41.04
KVC 40/50 M	4	40.73	43.34	42.91	
KVC 40/50 T		38.85	41.40	40.92	
KVC 55/50 M	5	38.90	41.70	41.20	
KVC 55/50 T		38.97	41.61	41.15	
KVC 65/50 M	6	37.53	39.21	38.75	
KVC 65/50 T		36.52	40.13	39.42	
KVC 75/50 M	7	36.39	38.91	38.35	
KVC 75/50 T		36.51	39.61	39.05	
KVC 20/80 M	3	45.00	47.70	47.37	
KVC 20/80 T		45.45	47.80	47.29	
KVC 15/80 M	2	43.13	46.70	45.99	
KVC 15/80 T		41.78	44.09	43.43	
KVC 30/80 M	4	44.06	46.30	45.84	
KVC 30/80 T		42.16	45.10	44.44	
KVC 40/80 M	5	43.43	46.97	46.80	
KVC 40/80 T		41.94	44.40	43.89	
KVC 45/80 M	6	41.91	43.96	43.57	
KVC 45/80 T		41.06	43.74	43.31	
KVC 55/80 M	7	41.05	43.00	42.63	
KVC 55/80 T		40.75	43.51	43.05	
KVC 65/80 T	8	41.08	44.02	43.48	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
KVC 35/120 M	3	$\geq 0,50$	49.31	51.00	50.76
KVC 35/120 T			49.83	51.80	51.38
KVC 25/120 M	2		45.13	46.90	46.75
KVC 25/120 T			42.16	44.54	44.20
KVC 45/120 M	4		47.59	49.50	48.96
KVC 45/120 T			47.47	49.30	49.00
KVC 60/120 T	5		47.81	49.44	48.97
KVC 70/120 T	6		47.58	49.00	48.61
KVC 85/120 T	7		49.23	50.84	50.20

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}	
KV 3/10 M	10	$\geq 0,40$	47.83	52.40	51.69	
KV 3/10 T			48.71	52.30	51.44	
KV 3/12 M	12		49.22	53.67	52.94	
KV 3/12 T			45.09	48.45	47.97	
KV 3/15 M	15		46.57	50.40	49.75	
KV 3/15 T			47.81	52.55	51.54	
KV 3/18 T	18		48.11	41.91	51.17	
KV 6/7 M	7		$\geq 0,40$	50.28	54.00	53.47
KV 6/7 T				50.66	54.57	53.74
KV 6/9 M	9			50.52	55.10	54.34
KV 6/9 T		45.85		49.42	49.11	
KV 6/11 M	11	49.10		52.67	52.16	
KV 6/11 T		48.37		51.58	51.06	
KV 6/15 T	15	51.09		55.20	54.44	
KV 10/4 M	4	$\geq 0,40$		53.89	55.88	55.60
KV 10/4 T				53.72	57.24	56.93
KV 10/5 M	5			54.72	57.27	56.81
KV 10/5 T			54.92	57.35	56.73	
KV 10/6 M	6		57.77	60.20	59.48	
KV 10/6 T			57.97	60.30	59.88	
KV 10/8 T	8		57.41	60.77	60.59	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 10/3	3	$\geq 0,60$	63.39	66.41	65.77
NKV 10/2	2		64.88	67.70	67.39
NKV 10/4	4		63.30	65.89	65.29
NKV 10/5	5		65.48	69.58	68.81
NKV 10/6	6		66.55	68.40	67.76
NKV 10/7	7		66.11	68.52	67.86
NKV 10/8	8		64.66	67.13	66.08
NKV 10/9	9		66.77	68.94	68.26
NKV 10/10	10		66.44	69.13	68.43
NKV 10/12	12		65.97	68.88	67.71
NKV 10/14	14		63.80	66.29	65.51
NKV 10/16	16		62.88	65.32	64.69
NKV 10/18	18		64.39	66.91	66.19
NKV 10/20	20		64.45	66.82	66.19
NKV 10/22	22	65.23	67.61	66.72	

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 15/3	3	$\geq 0,60$	68.74	72.03	71.26
NKV 15/2	2		67.43	71.35	70.68
NKV 15/4	4		70.15	72.54	71.91
NKV 15/5	5		70.40	74.23	73.48
NKV 15/6	6		70.19	73.29	72.46
NKV 15/7	7		69.81	73.65	72.91
NKV 15/8	8		68.06	71.49	70.86
NKV 15/9	9		69.77	73.07	72.30
NKV 15/10	10		66.95	70.35	69.67
NKV 15/12	12		70.09	74.28	73.55
NKV 15/14	14		69.44	72.75	72.00
NKV 15/16	16		70.90	74.76	74.01
NKV 15/17	17		70.55	74.26	73.35

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 20/3	3	$\geq 0,60$	70.47	71.40	70.59
NKV 20/2	2		67.45	73.36	72.50
NKV 20/4	4		66.24	69.74	69.33
NKV 20/5	5		72.31	74.50	73.90
NKV 20/6	6		70.37	73.40	72.90
NKV 20/7	7		70.13	74.04	73.38
NKV 20/8	8		69.63	72.06	71.60
NKV 20/9	9		71.68	74.41	73.68
NKV 20/10	10		70.44	73.42	72.96
NKV 20/12	12		71.47	74.11	73.45
NKV 20/14	14		71.33	75.51	74.86
NKV 20/16	16		71.04	74.50	74.00
NKV 20/17	17		71.67	74.66	74.14

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 32/3	3	$\geq 0,70$	70.08	74.12	73.16
NKV 32/2-2	2		65.89	69.98	69.26
NKV 32/2	2		70.08	74.12	73.16
NKV 32/3-2	3		67.38	71.10	70.20
NKV 32/4-2	4		68.05	71.78	70.92
NKV 32/4	4		70.08	74.12	73.16
NKV 32/5-2	5		68.40	72.20	71.44
NKV 32/5	5		70.08	74.12	73.16
NKV 32/6-2	6		68.62	72.49	71.81
NKV 32/6	6		70.08	74.12	73.16
NKV 32/7-2	7		68.82	72.70	72.04
NKV 32/7	7		70.08	74.12	73.16
NKV 32/8-2	8		68.96	72.86	72.22
NKV 32/8	8		70.08	74.12	73.16
NKV 32/9-2	9		69.06	72.98	72.37
NKV 32/9	9		70.08	74.12	73.16
NKV 32/10-2	10		69.15	73.09	72.47
NKV 32/10	10		70.08	74.12	73.16
NKV 32/11-2	11		69.24	73.17	72.55
NKV 32/11	11		70.08	74.12	73.16
NKV 32/12-2	12		69.29	73.25	72.63
NKV 32/12	12		70.08	74.12	73.16
NKV 32/13-2	13		69.37	73.31	72.66
NKV 32/13	13	70.08	74.12	73.16	

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 45/3	3	$\geq 0,70$	73.47	76.37	75.25
NKV 45/2-2	2		69.13	71.65	70.46
NKV 45/2	2		73.47	76.37	75.25
NKV 45/3-2	3		69.79	73.42	72.55
NKV 45/4-2	4		70.11	74.21	73.56
NKV 45/4	4		73.47	76.37	75.25
NKV 45/5-2	5		70.36	74.67	74.14
NKV 45/5	5		73.47	76.37	75.25
NKV 45/6-2	6		70.50	74.96	74.52
NKV 45/6	6		73.47	76.37	75.25
NKV 45/7-2	7		70.56	75.16	74.80
NKV 45/7	7		73.47	76.37	75.25
NKV 45/8-2	8		70.67	75.32	75.00
NKV 45/8	8		73.47	76.37	75.25
NKV 45/9-2	9		70.70	75.43	75.16
NKV 45/9	9		73.47	76.37	75.25
NKV 45/10-2	10		70.73	75.52	75.28
NKV 45/10	10		73.47	76.37	75.25
NKV 45/11-2	11		70.82	75.60	75.38
NKV 45/11	11		73.47	76.37	75.25
NKV 45/12-2	12	70.84	75.66	75.46	
NKV 45/12	12	73.47	76.37	75.25	
NKV 45/13-2	13	70.85	75.71	75.54	

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 65/3	3	$\geq 0,70$	73.71	78.96	77.11
NKV 65/2-2	2		70.92	77.97	77.08
NKV 65/2	2		73.71	78.96	77.11
NKV 65/3-2	3		72.27	77.22	76.17
NKV 65/4-2	4		72.52	77.33	76.58
NKV 65/4	4		73.71	78.96	77.11
NKV 65/5-2	5		73.15	77.48	76.31
NKV 65/5	5		73.71	78.96	77.11
NKV 65/6-2	6		73.78	77.69	75.76
NKV 65/6	6		73.71	78.96	77.11
NKV 65/7-2	7		73.84	77.87	75.86
NKV 65/7	7		73.71	78.96	77.11
NKV 65/8-2	8		73.87	78.00	75.94
NKV 65/8	8		73.71	78.96	77.11

HYDRAULIC EFFICIENCY


EU 547/2012 REGULATION - MEI

PUMP MODEL	NUMBER OF STAGES	MEI	η_{PL}	η_{BEP}	η_{OL}
NKV 95/3	3	$\geq 0,70$	74.38	79.43	77.94
NKV 95/2-2	2		72.37	78.87	77.79
NKV 95/2	2		74.38	79.43	77.94
NKV 95/3-2	3		73.03	78.58	77.65
NKV 95/4-2	4		73.56	78.64	77.44
NKV 95/4	4		74.38	79.43	77.94
NKV 95/5-2	5		73.82	78.74	77.41
NKV 95/5	5		74.38	79.43	77.94
NKV 95/6-2	6		73.90	78.83	77.51
NKV 95/6	6		74.38	79.43	77.94

ACCESSORIES

ACCESSORIES


CENTRIFUGAL PUMPS

COUNTER-FLANGE KIT	MODEL	COUNTER FLANGES AND GASKETS	THREADED	MATERIAL	PN	NKM-GE - NKP-GE NKM-G- NKP-G	KDNE - KDN
 <p>DN 32</p>	DN 32	1 x DN 32 + 1 x DN 50	Threaded	STEEL	16	•	•
	DN 40	1 x DN 40 + 1 x DN 65	Threaded	STEEL	16	•	•
	DN 50	1 x DN 50 + 1 x DN 65	Threaded	STEEL	16	•	•
	DN 65	1 x DN 65 + 1 x DN 80	Threaded	STEEL	16	•	•
	DN 32	1 x DN 32 + 1 x DN 50	To be welded	STEEL	16	•	•
	DN 40	1 x DN 40 + 1 x DN 65	To be welded	STEEL	16	•	•
	DN 50	1 x DN 50 + 1 x DN 65	To be welded	STEEL	16	•	•
	DN 50/1	1 x DN 50 + 1 x DN 80	To be welded	STEEL	16		•
	DN 65	1 x DN 65 + 1 x DN 80	To be welded	STEEL	16	•	•
	DN 65/1	1 x DN 65 + 1 x DN 100	To be welded	STEEL	16		•
	DN 80	1 x DN 80 + 1 x DN 100	To be welded	STEEL	16	•	•
	DN 80/1	1 x DN 80 + 1 x DN 125	To be welded	STEEL	16		•
	DN 100	1 x DN 100 + 1 x DN 125	To be welded	STEEL	16	•	•
	DN 125	1 x DN 125 + 1 x DN 150	To be welded	STEEL	16	•	•
	DN 150	1 x DN 150 + 1 x DN 200	To be welded	STEEL	16 (10 x DN 200)	•	•
	DN 200	1 x DN 200 + 1 x DN 250	To be welded	STEEL	16 (10 x DN 200)		•
	DN 250/1	1 x DN 250 + 1 x DN 300	To be welded	STEEL	16		•
DN 300	1 x DN 300 + 1 x DN 350	To be welded	STEEL	16		•	
DN 350	1 x DN 350 + 1 x DN 400	To be welded	STEEL	16		•	

The kit includes the suction and delivery counter-flanges with gaskets, screws and bolts required for the size of the relevant pump.

ACCESSORIES - VERTICAL CENTRIFUGAL PUMPS

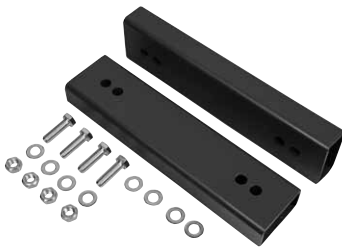
COUNTER-FLANGE KIT	MODEL	COUNTER FLANGES AND GASKETS	THREADED	MATERIAL	PN	NKV 10-15-20	NKV 32 - 45	NKV 65- 95
 <p>DN 40</p>	DN 40	2 x DN 40	Threaded	STEEL	40	•		
	DN 50	2 x DN 50	Threaded	STEEL	40	•		
	DN 65	2 x DN 65	Threaded	STEEL	40		•	
	DN 80	2 x DN 80	Threaded	STEEL	40		•	•
	DN 100	2 x DN 100	Threaded	STEEL	25			•

PORTS	MODEL	KVC	KVCX
	MT 1" ¼ PORTS	•	•

Ports must be ordered separately, one for the suction, and one for the delivery

ACCESSORIES

CENTRIFUGAL PUMPS

SPACER KIT	MODEL	FOR PUMP TYPE	P2 kW	DIMENSIONS A x B x H mm	NKM-G 4 POLES	NKP-G 2 POLES
 <p>SPACER KIT nr 5</p>	SPACER KIT nr 1	NKM-G 65-315/309/1¼	11	90 x 335 x 65	•	
	SPACER KIT nr 5	NKM-G 80-250/270/1¼	11	80 x 290 x 40	•	
	SPACER KIT nr 2	NKM-G 80-315/305/15/4	15	90 x 335 x 90	•	
	SPACER KIT nr 3	NKM-G 80-315/320/18,5/4	18.5	100 x 320 x 70	•	
		NKM-G 80-315/334/22/4	22			
	SPACER KIT nr 1	NKM-G100-250/250/1¼	11	90 x 335 x 65	•	
		NKM-G100-250/270/15/4	15			
	SPACER KIT nr 3	NKM-G100-315/300/18.5/4	18.5	100 x 320 x 70	•	
		NKM-G100-315/316/22/4	22			
	SPACER KIT nr 2	NKM-G125-250/243/15/4	15	90 x 335 x 90	•	
	SPACER KIT nr 3	NKM-G125-250/256/18,5/4	18.5	100 x 320 x 70	•	
		NKM-G125-250/266/22/4	22			
	SPACER KIT nr 4	NKM-G150-200/218/1¼	11	80 x 290 x 120	•	
	SPACER KIT nr 6	NKP-G 32-125/142/ 3/2	3	50 x 100 x 20		•
		NKP-G 32-160/177/5,5/2	5.5			
		NKP-G 40-125/130/ 3/2	3			
		NKP-G 40-125/139/ 4/2	4			
		NKP-G 40-160/158/ 5,5/2	5.5			
		NKP-G 40-160/172/ 7,5/2	7.5			
	SPACER KIT nr 7	NKP-G 40-200/210/1½	11	70 x 332 x 20		•
		NKP-G 40-250/230/15/2	15			
		NKP-G 40-250/245/18,5/2	18.5			
	SPACER KIT nr 6	NKP-G 50-125/135/ 5,5/2	5.5	50 x 100 x 20		•
		NKP-G 50-125/144/ 7,5/2	7.5			
	SPACER KIT nr 7	NKP-G 50-160/169/1½	11	70 x 332 x 20		•
		NKP-G 50-200/200/15/2	15			
		NKP-G 50-200/210/18,5/2	18.5			
		NKP-G 65-160/157/1½	11			
NKP-G 65-160/173/15/2		15				
NKP-G 65-200/190/18,5/2		18.5				
NKP-G 80-160/147-127/1½		11				
NKP-G 80-160/153/15/2		15				
NKP-G 80-160/163/18,5/2		18.5				
SPACER KIT nr 8	NKP-G 80-200/190/30/2	30	70 x 125 x 20		•	

Available on request, separately from the pump. Used to place the pump in the horizontal position during installation, to compensate for the different pump / motor axis heights.

The kits include two spacers with sizes A (width), B (length), and H (height) as shown in the table.

Spacers with H size exceeding 20 mm are supplied with screws, nuts, and washers to secure the pump/motor to the spacer.

TECHNICAL APPENDIX

CONVERSION TABLE FOR UNITS OF MEASURE

CHARACTERISTIC	SYSTEM UNIT OF MEASURE	UNIT OF MEASURE	SYMBOL	CONVERSIONS		
				SYSTEM	INTERNATIONAL SYSTEM (SI)	IMPERIAL SYSTEM
LENGTH	Technical and International	metre decimetre centimetre millimetre	m dm cm mm	1 dm = 0,1 m 1 cm = 0,01 m 1 mm = 0,001 m		1 m = 3,28 ft 1 dm = 3,937 in 1 cm = 0,3937 in
	Imperial	inch foot yard	1", in 1", ft yd	1" = 25,4 mm 1" ft = 0,3048 m 1 yd = 0,9144 m		1 ft = 12" 1 yd = 3 ft = 26"
AREA	Technical and International	metres squared centimetres squared millimetres squared	m ² cm ² mm ²	1 cm ² = 0,0001 m ² 1 mm ² = 0,01 cm ²		1 m ² = 1,196 sq.yd 1 m ² = 10,764 sq.ft 1 cm ² = 0,155 sq.in
	Imperial	square inch square foot square yard	sq.in sq.ft sq.yd	1 sq.in = 6,45 cm ² 1 sq.ft = 0,0929 m ² 1 sq.yd = 0,836 m ²		1 sq.ft = 144 sq.in 1 sq.yd = 1,296 sq.in 1 sq.yd = 9 sq.ft
VOLUME	Technical and International	metre cubed decimetre cubed centimetre cubed litre cubed	m ³ cm ³ mm ³ l	1 m ³ = 1.000 dm ³ 1 cm ³ = 0,001 m ³ = 1.000 cm ³ 1 mm ³ = 0,001 dm ³ 1 l = dm ³		1 dm ³ = 0,22 Imp.gal 1 dm ³ = 0,264 US.gal 1 dm ³ = 61,0 cu.in
	Imperial	cubic inch cubic feet Imperial gallons U.S. gallons	cu.in cu.ft Imp.gal USA.gal	1 cu.in = 16,39 cm ³ 1 cu.ft = 28,34 m ³ 1 Imp.gal = 4,546 m ³ 1 US.gal = 3,785 dm ³		1 Imp.gal = 1,201 US.gal 1 US.gal = 0,833 Imp.gal
TEMPERATURE	Technical and International	degrees Centigrade degrees Kelvin	°C °K	°C = °K - 273 °K = °C + 273		°C = 5/9 x (°F - 32) °K = 5/9 x (°F - 32) + 273
	Imperial	degrees Fahrenheit	°F	°F = 9/5 x °C + 32		-
		freezing point of water at atmospheric pressure: boiling point of water at atmospheric pressure:		0°C = 273 °K = 032 °F 100°C = 373 °K = 212 °F		
WEIGHT and FORCE	Technical	kilogram	kg	-	1 kg = 9,81 N	1 kg = 2,203 lb
	International	Newton	N	1 N = 0,102 kg	-	1 N = 0,22546 lb
	Imperial	pound	lb	1 lb = 0,454 kg	1 lb = 4,452 N	-
SPECIFIC WEIGHT	Technical	kilogram per decimetre cubed	kg/dm ³	-	1 kg/dm ³ = 9,807 N/dm ³	1 kg/dm ³ = 62,46 lb/cu.ft
	International	Newton per decimetre cubed	N/dm ³	1 N/dm ³ = 0,102 kg/dm ³	-	1 N/dm ³ = 6,36 lb/cu.ft
	Imperial	pound per cubic foot	lb/dm ³	1 lb/cu.ft = 0,01600 kg/dm ³	1 lb/cu.ft = 0,160 N/dm ³	-
PRESSURE	Technical	atmospheres	kg/cm ²	-	1 kg/cm ² = 98,067 kPa 1 kg/cm ² = 0,9807 bar	1 kg/cm ² = 14,22 psi
	International	Pascal kiloPascal bar	Pa kPa bar	1 kPa = 0,0102 kg/cm ² 1 bar = 1,02 kg/cm ²	1 kPa = 1.000 Pa 1 bar = 100.000 Pa	1 kPa = 0,145 psi 1 bar = 14,50 psi
	Imperial	pounds per square inch	psi	1 psi = 0,0703 kg/cm ²	1 psi = 0,06895 bar 1 psi = 6,894 kPa	-
FLOW	Technical	litres per minute litres per second metres cubed per hour	l/min l/s m ³ /h	1 l/min = 0,0167 l/s 1 l/s = 3,6 m ³ /h 1 m ³ /h = 16,667 l/min	1 l/s = 0,001 m ³ /s	1 l/min = 0,22 imp.g.p.m. 1 l/min = 0,264 US.g.p.m. 1 m ³ /h = 3,666 imp.g.p.m. 1 m ³ /h = 4,403 US.g.p.m.
	International	metres cubed per second	m ³ /s	1 m ³ /s = 1.000 l/s 1 m ³ /s = 3.600 m ³ /h	-	1 m ³ /s = 13,198 imp.g.p.m. 1 m ³ /s = 15,852 US.g.p.m.
	Imperial	imperial gallons per minute U.S. gallons per minute	Imp.g.p.m. US.g.p.m.	1 Imp.g.p.m. = 4,546 l/min 1 Imp.g.p.m. = 0,273 m ³ /h 1 US.g.p.m. = 3,785 l/min 1 US.g.p.m. = 0,227 m ³ /h	-	1 Imp.g.p.m. = 1,201 US.g.p.m. 1 US.g.p.m. = 0,833 Imp.g.p.m.
TORQUE	Technical	kilogram metre	kgm	-	1 kgm = 9,807 Nm	1 kgm = 7,233 ft.lb
	International	Newton metre	Nm	1 Nm = 0,102 kgm	-	1 Nm = 0,7376 ft.lb
	Imperial	foot pound	ft.lb	1 ft.lb = 0,138 kgm	1 ft.lb = 1,358 Nm	-
WORK and ENERGY	Technical	kilogram metre vapour-horsepower hour	kgm CVh		1 kgm = 9,807 J 1 CVh = 0,736 kWh	1 kgm = 7,233 ft.lb 1 Nm = 0,986 HP.hr.
	International	Joule kiloWatt hour	J kWhq	1 J = 0,102 kgm kWh = 1,36 CVh	-	1 Nm = 0,7376 ft.lb 1 Nm = 0,7376 ft.lb
	Imperial	foot pound Horsepower hour	ft.lb HP.hr.	1 ft.lb = 0,138 kgm 1 HP.hr. = 1,014 CVh	1 ft.lb = 0,358 Nm 1 HP.hr. = 0,746 kWh	-
POWER	Technical	Horse power	HP	1 HP = 0,736 kW	1 HP = 736 W	-
	International	Watt kiloWatt	W kW	1 W = 0,00136 Hp 1 kW = 1,36 Hp	1 kW = 1.000 W	-
KINETIC VISCOSITY	Technical	stokes centistokes	1 St 1 cSt	1 St = 1 cm ² /s 1 cSt = 0,01 St	1 St = 0.0001 m ² /s	1 St = 0.00107 ft ² /s
	International	m ² /s	m ² /s	1 m ² /s = 10.000 St	1 m ² /s = 10.000 cm ² /s	1 m ² /s = 10.764 ft ² /s
	Imperial	square foot per second	ft ² /s	1 ft ² /s = 929 St	1 ft ² /s = 0.0929 m ² /s	-

GENERAL INFORMATION

FUNDAMENTAL TERMS USED IN PUMPS

The following is a list of fundamental terms used in pumps and an explanation of their meanings. Their knowledge is necessary in order to discuss hydraulic pumps. All measurements are given in Technical units. Reference should be made to the chart for their international and Anglo-Saxon equivalents.

HEAD

Head means height, difference in level, gradient. For example if a pump has a flow of Q litres per second and a head of 30 metres, it means that it is capable of raising Q litres of liquid by 30 metres every second (therefore achieving a 30 metre gradient). For each given pump, the head is determined by its construction, such as the external diameter of the impeller and the speed of rotation, but it is not affected by the pumped liquid. This means that the pump as such can raise by 30 metres Q litres per second of water, petrol, mercury, etc.; the only difference in the three cases will be the power of the motor required.

SPECIFIC WEIGHT OF A LIQUID OR FLUID

The specific weight of a liquid or fluid is the weight per unit volume of the liquid/fluid. Specific weight is usually measured in kg/dm³ or kg/l, remembering that 1 dm³ equals 1 litre.

PRESSURE

Pressure means weight per unit of area (e.g. kg/cm²), and it should not be confused with head. In the case of liquids, the pressure that the liquid exerts on a surface is given by the product of the head (or height) of the liquid, multiplied by its specific weight. For this reason, the column of several km of air on the earth's surface produces at sea level a pressure of about 1kg/cm² (equal to approx. 1 atmosphere). If the same column were of water rather than air, the pressure would be some 700 to 800 times greater, due to the fact that water has a specific weight approximately 700-800 times greater than that of air.

Bearing in mind that a column of water 10 m high is equivalent to approx. 1 kg/cm², if we placed a manometer on the delivery of the pump, the following pressure increases would be measured:

- | | |
|--|---|
| a) with petrol (specific weight 0,7 kg/dm ³) | = 00,7 x 0,001 x 30 x 100 = 2,1 kg/cm ² |
| b) with water (specific weight 1,0 kg/dm ³) | = 00,1 x 0,001 x 30 x 100 = 3,0 kg/cm ² |
| c) with mercury (specific weight 13,6 kg/dm ³) | = 13,6 x 0,001 x 30 x 100 = 40,8 kg/cm ² |

FLOW

Flow means the quantity of liquid or fluid that passes through a point, such as the delivery outlet of a pump, or a cross section of a pipe, in the set unit of time.

This can be measured in litres per minute (l/min), litres per second (l/s), cubic metres per hour (m³/h) etc.

It should be noted that there is a perfect analogy between the flow of water through a pipe and the flow of electricity through a wire. It is sufficient to remember that hydraulic head is equivalent to electrical potential or voltage, and hydraulic flow is equivalent to electric current or amperes in electrotechnics. Even their behaviour is the same. Just as a thin wire restricts the flow of electricity more than one with a larger section, in the same way, a pipe of a smaller diameter offers a greater resistance to the flow of a liquid than one of a larger one. Just as the passage of electric current through the wire to a cable needs a voltage difference, in the same way, the flow of a liquid or fluid through a pipe needs a certain head.

There will never be a movement of liquid between two points of a perfectly horizontal pipe, and with the liquid at the same head in both points. This is due to the fact that, in the same way as the cable exerts a certain resistance to the passage of the electric current (electric resistance), the pipe also exerts a certain resistance to the passage of the fluid, the extent of which depends on the quality of the pipe (material, shape, presence of scale) and its section, and therefore the speed at which the fluid runs through the pipe. This resistance is called head loss.

HEAD LOSS

Head loss is that part of the head, possessed by the liquid, which is lost when passing through a pipe, a valve, a filter, etc. This loss cannot be recovered, as it is lost due to friction. Going back to the analogy between electrical and hydraulic phenomena, just as the losses in a cable increase in proportion with the current, so head losses are proportionally greater as the speed of the liquid increases. This means that the more the flow is restricted by scaled pipes, clogged filters, partially closed valves etc. the greater the head loss will be.

PUMP

A pump is a machine used to give a certain head to a liquid that passes through it. The head can be used to raise the liquid to a higher level, or to make it flow inside a pipe, or even in the open air, so that it covers a certain distance. The characteristics of a pump are:

- Flow** (the quantity of liquid that is moved through the pump in a unit of time)
- Head** (that is the height at which the pump is capable lifting the flow)

Based on the existing relationship between the flow and the head, it is possible to have:

- Pumps with small flow and large head (piston pumps, rotary pumps, small centrifugal pumps).
- Pumps with medium flow and medium head (centrifugal pumps in general).
- Pumps with large flow and small head (helico-centrifugal pumps, propeller pumps).

Centrifugal pumps, helico-centrifugal pumps and propeller pumps have a rotary motion and their speed is universally measured in revolutions per minute (rpm). With these machines operating at a given speed, for each given value of flow, there is only one value of head. This means that in order to increase or decrease the performance of these types of pumps, the operating speed must be varied accordingly. Basically, the liquid passing through the pump is supplied with energy that is related to the head and the speed of the liquid itself. This energy supplied within the unit of time is known as delivered power.

DELIVERED POWER

The delivered power is the power delivered by the pump to the liquid. The value of this delivered power depends on three factors: flow, head, and specific weight of the pumped liquid. The higher these three factors, the higher is the power delivered by the pump. For example, a pump delivering petrol does less work than when delivering sulphuric acid, because the specific weights of the two liquids are different.

In order to pump a liquid, a pump must be driven by a motor. In the vast majority of cases, this is either an electric, or an internal combustion motor. Electric motors use electric power, while internal combustion motors (engines) use oil or oil derivative fuels. The power that the pump needs in order to operate is called absorbed power.

DELIVERED POWER CALCULATION

Delivered power is normally expressed in kW or HP, indicating with:

Q = the flow

H = the head in metres of the column of liquid (m.c.l.)

γ = the specific weight of the liquid

The delivered power (P3) is calculated using one of the following equations:

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/s)} \times H \text{ (m.c.l.)}}{75} \text{ in HP}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (m}^3\text{/h)} \times H \text{ (m.c.l.)}}{270} \text{ in HP}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/s)} \times H \text{ (m.c.l.)}}{102} \text{ in kW}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/min)} \times H \text{ (m.c.l.)}}{4500} \text{ in HP}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (m}^3\text{/h)} \times H \text{ (m.c.l.)}}{367} \text{ in kW}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/min)} \times H \text{ (m.c.l.)}}{6120} \text{ in kW}$$

ABSORBED POWER

Absorbed power is the power that the pump absorbs from the motor, to give to the liquid the delivered power discussed above.

Not all the absorbed power becomes delivered power, as some power is lost through friction, and even more within the pump itself, due to hydraulic losses. It is therefore clear that the delivered power is always less than the absorbed power, and the relation between the two is a number always lower than 1. This number is known as the efficiency.

YIELD

The efficiency is obtained by dividing the delivered power by the absorbed power, and is normally expressed as a percentage. For example, an efficiency of 75 % of a pump indicates that only 75 % of the absorbed power is converted into delivered power, with the remaining 25 % being lost due to friction. Therefore, the higher the efficiency of a pump, the smaller the portion of absorbed power being lost. If one then considers that the cost of energy relates to the absorbed power, it immediately becomes apparent just how important efficiency is. If we compare two pumps with the same 1 HP delivered power, but with an efficiency of 50 % for the first, and 60 % for the second, we can assume that the first one will need 2 HP to supply 1, while the second will only need 1,67 HP to achieve the same result. This means that the efficiency of a pump expresses, better than any other parameter, the quality of the pump and the related savings in terms of operating costs.

CALCULATION OF POWER OUTPUTS

P1: is the power absorbed by the motor in kW (generally indicated by the wattmeter).

P2: the power delivered by the motor in kW. This is measured at the brake (it basically is the power absorbed by the pump).

P3: the power delivered by the pump in kW.

$$\text{Power output of the motor } \eta = \frac{P_2}{P_1}$$

$$\text{Power output of the motor } \eta = \frac{P_3}{P_2}$$

$$\text{Power output of the motor } \eta = \frac{P_3}{P_1}$$

THE HEAD OF A PUMP AND ITS MEASUREMENT

The head of a pump is always the differential head, or that given by the pump itself. This is generally expressed in metres. In order to ascertain the head of a surface pump, during its operation it is necessary to measure the value of the head both at the suction and at the delivery of the pump itself, making sure that the readings are taken at the same level, which is called the reference plane. Two cases are possible, depending on installation:

- 1) the value of the head at the suction is negative (i.e. below zero shown on the manometer): in this case, the level of the liquid collected is lower than the level of the suction inlet.
- 2) the value of the head at the suction is positive (i.e. above zero shown on the manometer) in this case, the level of the liquid collected is higher than the level of the suction inlet (flooded suction).

In the first case the head of the pump is given by the sum of the two readings, while in the second it is given by subtracting the value of the head at the suction inlet from the value at the delivery outlet.

Finally, it is necessary to make sure that the readings at the suction and the delivery have been taken from apertures of the same diameter, so that they are not distorted by a difference in the speed of the liquid at the point of measurement. Any correction is made by calculating the dynamic head, or that part of the head linked with the speed of the liquid, which means that part of the head that the liquid possesses at the measuring section, due to the fact that it is moving. The dynamic head H_d , expressed in metres, is calculated using the following formula:

$$H_d = \frac{v^2}{2g}$$

where: v = speed of the fluid at the measuring point, given in m/s

g = acceleration of gravity (9,81), expressed in m/s²

$2g = 2 \times 9,81 = 19,62 \text{ m/s}^2$

The correction of the head is given by the difference between the dynamic head at the delivery, and the dynamic head at the suction. It is therefore clear that if the readings upstream and downstream the pump have been taken on pipes of the same diameter, and therefore with the liquid flowing at the same speed, the correction is zero.

To find the head of submersible impeller pumps, it is sufficient, during operation, to measure the head at the delivery port. In this case, the head of the pump is then given by adding the value read to the dynamic head (at the delivery outlet), and to the difference in level between the free surface of the liquid collected and the manometer.

VARIATION IN PUMP HEAD IN RELATION TO SPEED VARIATION

The performance of a pump is directly connected to its speed in rpm (n). Providing that there is no cavitation, the law of similarity may be used, which is expressed as follows:

$$Q_x = Q \times \frac{n_x}{n}$$

$$H_x = H \times \left(\frac{n_x}{n}\right)^2$$

$$P_{2-x} = P_2 \times \left(\frac{n_x}{n}\right)^3$$

For example, when doubling the number of revolutions (n_x) one obtains:

Q_x = the value of the flow doubles

H_x = the value of the head is 4 times higher

P_{2-x} = the value of the absorbed power is 8 times higher

$Q - H - P_2$ are the values at speed n

$Q_x - H_x - P_{2-x}$ are the values at speed n_x .

PRACTICAL NOTES ON NPSH

NPSH stands for Net Positive Suction Head.

The physical meaning of this expression is the absolute pressure that must exist at the suction port of the pump in order to pump the liquid without causing cavitation.

This can occur when the absolute pressure falls to values likely to allow the formation of vapour bubbles within the fluid, causing the pump to work with reduced head.

Therefore, NPSH can also be seen as the pressure required to compensate load losses in the path between the suction port and the point with the lowest pressure of the impeller.

All this demonstrates the importance of checking that the pump is not producing cavitation, as in addition to creating high noise similar to metal hammering, cavitation will also quickly damage the impeller.

A special formula associates the NPSH value required by the pump with the conditions of the system and with the type of liquid, allowing to calculate the minimum pressure required at the suction, and consequently to determine the position in which to locate the pump in relation to the free surface of the liquid to be pumped.

The general NPSH formula is:

$$NPSH = Z1 + \left(\frac{p1 + pb - pv}{\gamma} \times 10 \right) - Hr$$

$$Z1 = NPSH - \left(\frac{p1 + pb - pv}{\gamma} \times 10 \right) + Hr$$

where:

Z1 = the difference in level (in m) between the axis of the pump and the free surface of the liquid to be pumped.

p1 = the possible pressure (in kg/cm²) on the surface of the liquid in the tank from which it is collected. If the liquid is collected from an open tank and the surface of the liquid is in contact with the atmosphere, p1 will be equal to 0.

pb = atmospheric pressure (in kg/cm²) at the site of installation.

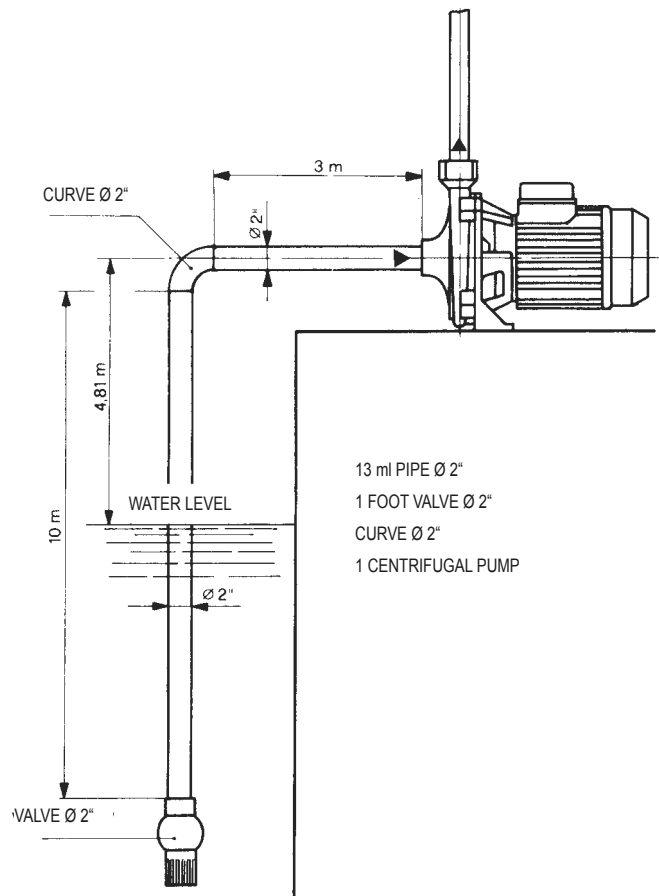
pv = the vapour tension (in kg/cm²) of the liquid at pumping temperature.

γ = the specific weight (in kg/dm³) of the liquid at pumping temperature.

10 = conversion factor of the units of measure used.

Hr = head loss (in m) in the suction pipework.

To give a practical example, the diagram below is of a system (see the Figure) for a centrifugal pump, for which a flow rate Q of 235 l/min is required, under four different conditions.



CALCULATION OF THE HEAD LOSS AT THE SUCTION (Hr)

Flow rate : $Q = 235 \text{ l/min} = 0,00392 \text{ m}^3/\text{s}$
 Cross section area of the pipe : $S = 19,6 \text{ cm}^2 = 0,00196 \text{ m}^2$

Velocity of the water in the pipe : $V = Q/S = \frac{0,00392}{0,00196} = 2 \text{ m/s}$

The head losses (see table 1 & 2) are:

- 2" foot valve = 0,610 m
- Curve (assume $\frac{d}{R} = 1$) = 0,058 m
- Suction piping (10 m + 3 m) = 1,370 m
- Total loss at the suction = 2,040 m

Let's now consider the four different conditions, notwithstanding the Hr head losses, and assuming an NPSH for the pump equal to 3,25 m, at the flow rate being considered. The atmospheric pressure p_b can be read from the diagram, the vapour tension p_v and the specific weight can be found on table 3.

1st case: system at sea level and water at 20 °C.

$$3,25 = Z_1 + \left(\frac{1,033 - 0,0238}{0,9982} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{1,033 - 0,0238}{0,9982} \times 10 \right) + 2,04 = - 4,82$$

Which means that the pump, for the flow rate being considered, can collect water at 20° from a maximum depth of 4,82 m. It must be noted that a for flow rate greater than 235 l/min, when increasing the value of the NPSH of the pump and the head loss at the suction, the maximum suction depth will be less 4,82m. The opposite happens for flow rates lower than 235 l/min. From this, it follows that in order to bring the pump back to regular operation, it is often sufficient to partially close the delivery valve and reduce the flow rate.

2nd case: system at sea level and water at 60 °C.

$$3,25 = Z_1 + \left(\frac{1,033 - 0,2031}{0,9831} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{1,033 - 0,2031}{0,9831} \times 10 \right) + 2,04 = - 3,15$$

Which means that the pump, for the flow rate being considered, can collect water at 60° from a maximum depth of 3,15 m.

3rd case: system at sea level and water at 90°C.

$$3,25 = Z_1 + \left(\frac{1,033 - 0,7149}{0,9653} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{1,033 - 0,7149}{0,9653} \times 10 \right) + 2,04 = - 1,99$$

Which means that the free surface of the water at 90 °C for the flow rate considered must be 1,99 metres higher than the axis of the pump.

4th case: system at 1500 m above sea level and water at 50 °C.

$$3,25 = Z_1 + \left(\frac{0,860 - 0,1258}{0,9880} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{0,860 - 0,1258}{0,9880} \times 10 \right) + 2,04 = - 2,14$$

Which means that the pump, for the flow rate being considered, in a system at 1500 metres above sea level can collect water at 50 °C from a maximum depth of 2,14 metres.

Note: it's always wise to include a safety margin (0,5m for cold water) to allow for errors and unforeseen variations in the estimated values. Such a margin is even more important with liquids near boiling point, as small temperature changes can produce large differences in operating conditions. For example, in case 3, if the temperature of the water were at any time to reach 95°C, instead of 90 °C, the necessary pump suction pressure would no longer be 1,99 metres, but would increase from 1,99 metres to 3,51 metres.

NOTES ON THE MOTORS OF ELECTRIC PUMPS

INDEX OF SYMBOLS USED	
P_1	: POWER ABSORBED BY THE MOTOR IN KW.
P_2	: POWER DELIVERED BY THE MOTOR IN KW OR HP.
$V \sim$	= AC POWER INPUT VOLTAGE AT THE MAINS.
Hz	= FREQUENCY IN CYCLES PER SECOND OF THE POWER INPUT VOLTAGE.
I	= CURRENT ABSORBED BY THE MOTOR IN AMPERES.
$\cos\varphi$	= POWER FACTOR.
$n^{1/min}$	= SPEED OF ROTATION IN RPM.
η	= OUTPUT POWER (RELATION BETWEEN DEVELOPED POWER AND ABSORBED POWER P_2/P_1).
p	= NUMBER OF POLES OF THE MOTOR.
Cn	= NOMINAL TORQUE OF THE MOTOR.

NO-LOAD SPEED OF ROTATION

The no-load speed of single-phase and three-phase electric induction motors is given by the formula:

$$n^{1/min} = \frac{120 \times \text{Hz}}{p}$$

No-load speed of rotation $n^{1/min}$

FREQUENCY Hz	2 POLES	4 POLES
50	3000	1500
60	3600	1800

The full-load speed is 2 to 7 % lower than the no-load speed (2 to 7 % sliding).

CURRENT ABSORBED

$$\text{Single-phase: } I = \frac{1000 \times P_2 \text{ (kW)}}{V \times \cos\varphi \times \eta} \quad \text{or: } I = \frac{736 \times P_2 \text{ (HP)}}{V \times \cos\varphi \times \eta}$$

$$\text{Three-phase: } I = \frac{1000 \times P_2 \text{ (kW)}}{1.73 \times V \times \cos\varphi \times \eta} \quad \text{or: } I = \frac{736 \times P_2 \text{ (HP)}}{1.73 \times V \times \cos\varphi \times \eta}$$

ABSORBED POWER

$$\text{Single-phase: } P_1 \text{ (kW)} = \frac{V \times I \times \cos\varphi}{1000}$$

$$\text{Three-phase: } P_1 \text{ (kW)} = \frac{1.73 \times V \times I \times \cos\varphi}{1000}$$

POWER DELIVERED AT THE MOTOR AXIS

$$\text{Single-phase: } P_2 \text{ (kW)} = \frac{V \times I \times \cos\varphi \times \eta}{1000} \quad \text{or: } P_2 \text{ (HP)} = \frac{V \times I \times \cos\varphi \times \eta}{736}$$

$$\text{Three-phase: } P_2 \text{ (kW)} = \frac{1.73 \times V \times I \times \cos\varphi \times \eta}{1000} \quad \text{or: } P_2 \text{ (HP)} = \frac{1.73 \times V \times I \times \cos\varphi \times \eta}{736}$$

YIELD

$$\eta = \frac{P_2 \text{ (kW)}}{P_1 \text{ (kW)}}$$

POWER FACTOR

$$\text{Single-phase: } \cos\varphi = \frac{P_2 (\text{kW}) \times 1000}{V \times I \times \eta}$$

$$\text{or: } \cos\varphi = \frac{P_1 (\text{kW}) \times 1000}{V \times I}$$

$$\text{Three-phase: } \cos\varphi = \frac{P_2 (\text{kW}) \times 1000}{1,73 \times V \times I \times \eta}$$

$$\text{or: } \cos\varphi = \frac{P_1 (\text{kW}) \times 1000}{1,73 \times V \times I}$$

TORQUE FACTOR

$$C_n = \frac{P_2 (\text{kW}) \times 1000}{1.027 \times n^{1/\text{min}}} \text{ in kgm}$$

$$C_n = \frac{P_2 (\text{HP}) \times 736}{1.027 \times n^{1/\text{min}}} \text{ in kgm}$$

$$C_n = \frac{702 \times \text{HP}}{n^{1/\text{min}}} \text{ in decaNewtonmetres}$$

RELATIONSHIP BETWEEN KW AND HP

$$1 \text{ HP} = 0,736 \text{ kW}$$

$$1 \text{ kW} = 1,36 \text{ HP}$$

$$\frac{\text{HP}}{1.36} = \text{kW}$$

$$\text{kW} \times 1,36 = \text{HP}$$

STARTING CURRENT (ISP)

The starting current (at switch on) of a motor is 4 to 8 times greater than the nominal current, depending on the power of the motor.

$$I_{sp} = I_n \times 4 \div 8$$

DETAILS ON CAPACITORS

The approximate current absorbed by a capacitor is:

$$I = \frac{6,28 \times F \times C \times V}{1,000,000}$$

Where:

I = current in Amps absorbed by the capacitor.

F = frequency in Hz of the applied voltage.

C = capacity of capacitor μF .

V = applied voltage.

Example:

The current absorbed by a 14 μF capacitor connected to a 220 Volt - 50 Hz power input is:

$$I = \frac{6,28 \times 50 \times 14 \times 220}{1,000,000} = 0,96 \text{ Amperes}$$

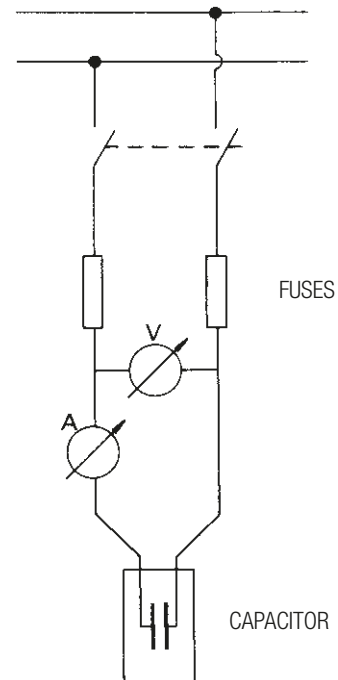
The approximate capacity of a capacitor is determined by:

$$C = \frac{I}{6,28 \times F \times V} \times 1,000,000$$

Example:

The capacity of a capacitor absorbing 1,4 Amps connected to a 220 Volt - 50 Hz power input is:

$$C = \frac{1.4}{6,28 \times 50 \times 220} \times 1,000,000 = 20,2 \mu\text{F}$$



STAR-DELTA START-UP

The normally delta Δ connected motor is connected to the network using a star type connection. The current and the starting torque are both reduced to 1/3 of the value they would be if delta Δ connected.

PROTECTION

It is recommended that motors are connected to the power input network using appropriate three-fuse thermal magnetic circuit breakers, or in any case circuit breakers complying with current local regulations.


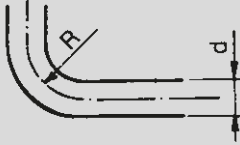
HEAD LOSS

In centimetres of column water for each metre of straight pipe

V	Q h	PIPE DIAMETER IN mm.																	
		20	25	30	40	50	65	80	100	125	150	175	200	250	300	350	400	450	500
0.5	Q	9.4	14.7	21.2	37.7	59.0	115	151	235	369	530	723	940	1480	2120	2880	3770	4780	5890
	h	2.4	1.9	1.5	1.0	0.8	0.56	0.46	0.36	0.28	0.23	0.19	0.16	0.13	0.105	0.089	0.076	0.067	0.06
0.6	Q	11.3	17.7	25.4	45.3	70.7	138	181	282	442	636	887	1130	1770	2540	3460	4520	5730	7060
	h	3.3	2.6	2.1	1.5	1.12	0.78	0.65	0.5	0.39	0.32	0.27	0.23	0.18	0.15	0.12	0.11	0.096	0.086
0.7	Q	13.2	20.6	29.7	52.9	82.5	161	211	329	516	742	1010	1315	2070	2960	4040	5270	6690	8250
	h	4.4	3.4	2.7	1.9	1.5	1.0	0.86	0.67	0.52	0.43	0.36	0.31	0.24	0.2	0.17	0.15	0.13	0.12
0.8	Q	15.05	23.6	33.9	60.4	94.5	184	241	377	590	848	1155	1505	2360	3390	4620	6030	7650	9420
	h	5.6	4.3	3.4	2.5	1.9	1.3	1.1	0.86	0.67	0.55	0.46	0.4	0.31	0.26	0.22	0.19	0.17	0.15
0.9	Q	16.95	26.5	38.2	68.0	106.0	207	272	423	664	955	1300	1695	2660	3810	5200	6780	8600	10600
	h	6.9	5.3	4.3	3.0	2.4	1.7	1.4	1.1	0.84	0.69	0.58	0.5	0.39	0.32	0.27	0.24	0.21	0.19
1.0	Q	18.8	29.5	42.4	75.5	117.7	230	302	471	737	1060	1445	1880	2950	4230	5770	7530	9550	11770
	h	8.3	6.4	5.1	3.7	2.9	2.1	1.7	1.3	1.0	0.84	0.71	0.61	0.48	0.4	0.34	0.29	0.26	0.23
1.1	Q	20.7	32.4	46.6	83.0	129.5	252	332	518	81	1165	1585	2070	3250	4650	6350	8290	10500	12950
	h	9.9	7.6	6.2	4.4	3.4	2.4	2.0	1.6	1.2	1.0	0.85	0.74	0.58	0.48	0.4	0.35	0.31	0.28
1.2	Q	22.6	35.4	50.9	90.6	141.0	276	362	565	885	1272	1730	2260	3550	5080	6930	9040	11450	14140
	h	11.7	9.0	7.2	5.2	4.0	2.9	2.4	1.9	1.5	1.2	1.0	0.87	0.69	0.56	0.48	0.42	0.37	0.32
1.3	Q	24.5	38.3	55.0	98.0	153.0	299	392	612	960	1378	1875	2450	3840	5500	7500	9800	12400	15320
	h	13.5	10.4	8.4	6.0	4.7	3.3	2.8	2.2	1.71	1.4	1.15	1.0	0.8	0.66	0.56	0.49	0.43	0.38
1.4	Q	26.35	41.3	59.3	105.5	165.0	302	422	660	1032	1473	2020	2635	4140	5920	8090	10530	13370	16500
	h	15.4	11.9	9.6	6.9	5.4	3.8	3.2	2.5	2.0	1.6	1.3	1.17	0.92	0.76	0.64	0.56	0.5	0.44
1.5	Q	28.25	44.2	63.6	113.0	176.5	345	452	707	1106	1590	2165	2825	4430	6350	8660	11300	14320	17680
	h	17.4	13.5	10.9	7.8	6.1	4.4	3.6	2.8	2.25	1.82	1.5	1.34	1.05	0.87	0.74	0.64	0.57	0.51
1.6	Q	30.1	47.1	67.8	121.0	188.5	368	483	753	1180	1695	2310	3010	4730	6770	9240	12055	5015270	18850
	h	19.6	15.3	12.4	8.9	6.9	4.9	4.1	3.2	2.55	2.05	1.7	1.53	1.18	0.99	0.84	0.72	0.64	0.58
1.7	Q	32.0	50.1	72.0	128.0	200.0	392	513	800	1253	1802	2455	3200	5020	7190	9820	12800	16230	20030
	h	21.9	17.2	13.9	10.0	7.8	5.4	4.6	3.6	2.85	2.3	1.95	1.7	1.33	1.11	0.94	0.81	0.73	0.65
1.8	Q	33.9	53.0	76.3	136.0	212.0	415	543	848	1327	1905	2600	3390	5320	7610	10380	13550	17200	21200
	h	24.2	19.1	15.4	11.1	8.7	6.0	5.1	4.0	3.15	2.6	2.2	1.9	1.48	1.24	1.05	0.91	0.81	0.73
1.9	Q	35.8	56.0	80.5	143.5	224.0	438	573	895	1400	2015	2740	3580	5610	8040	10960	14300	18150	22400
	h	26.8	21.0	17.0	12.3	9.6	6.8	5.6	4.4	3.45	2.85	2.45	2.1	1.64	1.38	1.17	1.01	0.9	0.81
2.0	Q	37.7	59.0	84.8	151.0	235.5	461	603	943	1475	2120	2885	3765	5910	8460	11540	15060	19100	23570
	h	29.6	23.0	18.6	13.4	10.5	7.5	6.2	4.9	3.8	3.17	2.7	2.33	1	1.52	1.3	1.12	0.99	0.89
2.1	Q	39.5	62.0	89.0	158.5	247.5	484	633	990	1548	225	3030	3955	6200	8890	12100	15810	20050	24750
	h	32.2	25.1	20.4	14.8	11.5	8.2	6.8	5.4	4.2	3.5	2.95	2.55	2.0	1.68	1.43	1.22	1.08	0.98
2.2	Q	41.5	64.9	93.2	176.0	259.0	507	663	1036	1620	2330	3175	4145	6500	9300	12700	16570	21000	25930
	h	35.0	27.3	22.3	16.2	12.5	9.1	7.4	5.9	4.6	3.85	3.25	2.8	22	1.85	1.56	1.34	1.18	1.08
2.3	Q	43.3	67.9	97.5	173.5	271.0	530	694	1082	1695	2440	3320	4330	6800	9730	13270	17310	21950	27100
	h	38.0	29.7	24.2	17.7	13.6	9.8	8.1	6.4	5.0	4.15	3.5	3.05	2.4	2.03	1.7	1.46	1.28	1.18
2.4	Q	45.2	70.8	101.5	181.0	282.5	553	724	1130	1770	2545	3460	4520	7090	10140	13850	18090	22900	28300
	h	42.1	32.1	26.2	19.1	14.7	10.6	8.8	6.9	5.45	4.55	3.8	3.3	2.62	2.21	1.85	1.58	1.38	1.28
2.5	Q	47.1	73.7	105.8	189.0	294.5	576	755	1178	1843	2650	3610	4710	7390	10570	14420	18820	23880	29450
	h	45.0	34.7	28.3	20.5	16.0	11.4	9.6	7.5	5.9	4.9	4.1	3.58	2.84	2.4	2.0	1.7	1.5	1.4
2.6	Q	49.0	76.6	110.0	196.0	306.0	599	785	1225	1915	2755	3755	4900	7680	11000	15000	19590	24820	30630
	h	48.3	37.3	30.4	22.2	17.2	12.3	10.4	8.1	6.35	5.25	4.4	3.85	3.07	2.59	2.17	1.84	1.62	1.51
2.7	Q	50.9	79.6	114.3	204.0	318.0	622	815	1271	1990	2860	3900	5090	7980	111410	15590	20340	25800	31820
	h	51.7	40.0	32.5	23.8	18.5	13.2	11.2	8.7	6.85	5.65	4.75	4.15	3.3	2.78	2.34	1.98	1.74	1.62
2.8	Q	52.7	82.6	118.5	211.5	330.0	645	845	1320	2060	2970	4040	5280	8270	11830	16160	21090	26730	33000
	h	55.2	42.5	34.8	25.5	19.9	14.0	12.0	9.3	7.35	6.05	5.10	4.45	3.56	2.98	2.51	2.13	1.88	1.74
2.9	Q	54.6	85.5	123.0	219.0	342.0	668	875	1365	2140	3075	4190	5460	8560	12250	16730	21480	27700	34200
	h	58.7	45.1	37.1	27.1	21.3	15.2	12.8	10.0	7.85	6.45	5.5	4.75	3.82	3.18	2.7	2.3	2.03	1.87
3.0	Q	56.5	88.5	127.0	226.5	354.0	691	905	1414	2210	3180	4330	5650	8850	12690	17310	22600	28650	35350
	h	62.9	47.9	39.6	28.8	22.6	16.3	13.6	10.7	8.4	6.9	5.9	5.1	4.1	3.4	2.9	2.5	2.2	2.0

HEAD LOSS

in cm of column of water in bends, gate valves, and foot valves

VELOCITY OF WATER IN m/s	SHARP EDGED BENDS					NORMAL BENDS					GATE VALVE	FOOT VALVE	NON-RETURN VALVE	HEAD LOSS ON EXIT FROM PIPES $V^2/2G$
														
	$\alpha = 30^\circ$	$\alpha = 40^\circ$	$\alpha = 60^\circ$	$\alpha = 80^\circ$	$\alpha = 90^\circ$	$\frac{d}{R} = 0,4$	$\frac{d}{R} = 0,6$	$\frac{d}{R} = 0,8$	$\frac{d}{R} = 1$	$\frac{d}{R} = 1,5$				
0,10	0,03	0,04	0,05	0,07	0,08	0,07	0,08	0,01	0,0155	0,027	0,03	30	30	0,05
0,15	0,06	0,73	0,1	0,14	0,17	0,016	0,019	0,024	0,033	0,06	0,033	31	31	0,12
0,2	0,11	0,13	0,18	0,26	0,31	0,028	0,033	0,04	0,059	0,11	0,058	31	31	0,21
0,25	0,17	0,21	0,28	0,4	0,48	0,044	0,052	0,063	0,091	0,17	0,09	31	31	0,32
0,3	0,25	0,3	0,41	0,6	0,7	0,063	0,074	0,09	0,13	0,25	0,13	31	31	0,46
0,35	0,33	0,4	0,54	0,8	0,93	0,085	0,10	0,12	0,18	0,33	0,18	31	31	0,62
0,4	0,43	0,52	0,71	1,0	1,2	0,11	0,13	0,16	0,23	0,43	0,23	32	31	0,82
0,5	0,67	0,81	1,1	1,6	1,9	0,18	0,21	0,26	0,37	0,67	0,37	33	32	1,27
0,6	0,97	1,2	1,6	2,3	2,8	0,25	0,29	0,36	0,52	0,97	0,52	34	32	1,84
0,7	1,35	1,65	2,2	3,2	3,9	0,34	0,40	0,48	0,70	1,35	0,7	35	32	2,5
0,8	1,7	2,1	2,8	4,0	4,8	0,45	0,53	0,64	0,93	1,7	0,95	36	33	3,3
0,9	2,2	2,7	6	5,2	6,2	0,57	0,67	0,82	1,18	2,2	1,2	37	34	4,2
1,0	2,7	3,3	4,5	6,4	7,6	0,7	0,82	1,0	1,45	2,7	1,45	38	35	5,1
1,5	6,0	7,3	10,0	14,0	17,0	1,6	1,9	2,3	3,3	6,0	3,3	47	40	11,5
2,0	11,0	14,0	18,0	26,0	31,0	2,8	3,3	4,0	5,8	11,0	5,8	61	48	20,4
2,5	17,0	21,0	28,0	40,0	48,0	4,4	5,2	6,3	9,1	17,0	9,1	78	58	32,0
3,0	25,0	30,0	41,0	60,0	70,0	6,3	7,4	9,0	13,0	25,0	13,0	100	71	46,0
3,5	33,0	40,0	55,0	78,0	93,0	8,5	10,0	12,0	18,0	33,0	18,0	123	85	62,0
4,0	43,0	52,0	70,0	100,0	120,0	11,0	13,0	16,0	23,0	42,0	23,0	150	100	82,0
4,5	55,0	67,0	90,0	130,0	160,0	14,0	21,0	26,0	37,0	55,0	37,0	190	120	103,0
5,0	67,0	82,0	110,0	160,0	190,0	18,0	29,0	36,0	52,0	67,0	52,0	220	140	127,0

Q = flow rate in l/min

v = velocity of water in metres per second

d = diameter of pipes in m metres

h = head loss in cm of water column for each metre of pipework, calculated according to the Lang formula:

$$h = \lambda \times \frac{100}{d} \times \frac{v^2}{2g} \quad \lambda = 0,02 + \frac{0,0018}{\sqrt{v \times d}}$$

The only loss in bends is that due to the contraction of the liquid stream when changing direction (the development of the curves must therefore be included in the length of the pipework); the head loss for gate valves has been determined through technical tests.

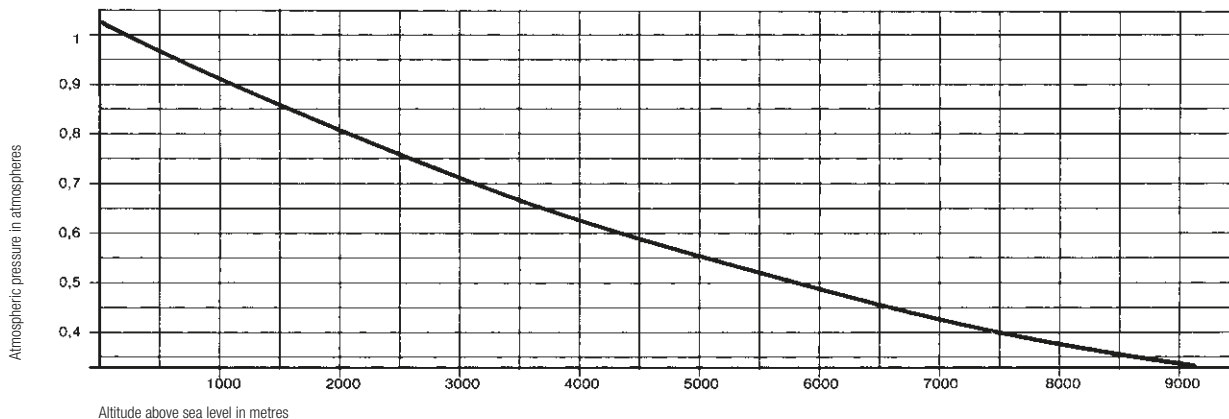
The head loss for gate valves and normal bends is equal to that of 5 m of straight pipework, while that of non-return valves is equal to 15 m.

The values given are for pipes with a completely smooth internal surface. In case of rough or scaled pipes, allowances must be made accordingly.

VAPOUR TENSION AND SPECIFIC WEIGHT OF WATER AS A FUNCTION OF TEMPERATURE

t °C	pv kg/cm ²	γ kg/dm ³	t °C	pv kg/cm ²	γ kg/dm ³	t °C	pv kg/cm ²	γ kg/dm ³	t °C	pv kg/cm ²	γ kg/dm ³
00	0.0062	0.9998	41	0.793	0.9917	82	0.5234	0.9705	170	008.076	0.8973
01	0.0067	0.9999	42	0.836	0.9913	83	0.5447	0.9698	175	009.101	0.8920
02	0.0072	0.9999	43	0.881	0.9909	84	0.5667	0.9693	180	010.225	0.8869
03	0.0077	1.0000	44	0.0928	0.9905	85	0.5897	0.9687	185	011.456	0.8814
04	0.0083	1.0000	45	0.0977	0.9900	86	0.6129	0.9680	190	012.800	0.8760
05	0.0089	1.0000	46	0.1028	0.9898	87	0.6372	0.9673	195	014.265	0.8703
06	0.0095	0.9999	47	0.1082	0.9883	88	0.6623	0.9667	200	015.857	0.8646
07	0.0102	0.9999	48	0.1138	0.9889	89	0.6882	0.9659	205	017.858	0.8587
08	0.0109	0.9998	49	0.1197	0.9885	90	0.7149	0.9653	210	019.456	0.8528
09	0.0117	0.9997	50	0.1258	0.9880	91	0.7425	0.9646	215	021.477	0.8465
10	0.0125	0.9996	51	0.1322	0.9876	92	0.7710	0.9640	220	023.659	0.8403
11	0.0134	0.9995	52	0.1388	0.9871	93	0.8004	0.9632	225	026.007	0.8339
12	0.0143	0.9994	53	0.1457	0.9866	94	0.8307	0.9625	230	028.531	0.8272
13	0.0153	0.9993	54	0.1530	0.9861	95	0.8619	0.9619	235	031.239	0.8206
14	0.0163	0.9992	55	0.1605	0.9857	96	0.8942	0.9611	240	034.140	0.8136
15	0.0174	0.9990	56	0.1683	0.9852	97	0.9271	0.9604	245	037.244	0.8064
16	0.0185	0.9989	57	0.1765	0.9847	98	0.9616	0.9596	250	040.560	0.7992
17	0.0197	0.9987	58	0.1850	0.9842	99	0.9969	0.9590	255	044.100	0.7918
18	0.0210	0.9985	59	0.1939	0.9836	100	1.0032	0.9583	260	047.870	0.7840
19	0.0224	0.9984	60	0.2031	0.9831	102	1.1092	0.9568	265	051.880	0.7759
20	0.0238	0.9982	61	0.2127	0.9826	104	1.1898	0.9554	270	056.140	0.7678
21	0.0253	0.9979	62	0.2227	0.9821	106	1.2751	0.9540	275	060.660	0.7593
22	0.0269	0.9977	63	0.2330	0.9816	108	1.6354	0.9525	280	065.460	0.7506
23	0.0286	0.9974	64	0.2438	0.9810	110	1.4609	0.9510	285	070.540	0.7416
24	0.0304	0.9972	65	0.2550	0.9804	112	1.5618	0.9495	290	075.920	0.7323
25	0.0323	0.9970	66	0.2666	0.9800	114	1.6684	0.9479	286	081.600	0.7227
26	0.0343	0.9966	67	0.2787	0.9794	116	1.7809	0.9464	300	087.610	0.7214
27	0.0363	0.9964	68	0.2912	0.9788	118	1.8995	0.9448	305	093.950	0.7017
28	0.0385	0.9961	69	0.3042	0.9782	120	2.0245	0.9431	310	100.640	0.6906
29	0.0408	0.9957	70	0.3177	0.9777	122	2.1561	0.9414	315	107.690	0.6793
30	0.0432	0.9955	71	0.3317	0.9771	124	2.2947	0.9398	320	115.130	0.6671
31	0.0458	0.9952	72	0.3463	0.9765	126	2.4404	0.9381	325	122.950	0.6540
32	0.0485	0.9949	73	0.3613	0.9759	128	2.5935	0.9365	330	131.180	0.6402
33	0.0513	0.9946	74	0.3869	0.9754	130	2.7544	0.9348	335	139.850	0.6257
34	0.0542	0.9942	75	0.3931	0.9748	135	3.1920	0.9305	340	148.960	0.6093
35	0.0573	0.9939	76	0.4098	0.9742	140	3.6850	0.9260	345	157.540	0.5910
36	0.0606	0.9934	77	0.4274	0.9737	145	4.2370	0.9216	350	168.630	0.5724
37	0.0640	0.9932	78	0.4451	0.9730	150	4.8540	0.9169	355	179.240	0.5512
38	0.0675	0.9928	79	0.4637	0.9724	155	5.5400	0.9121	360	190.420	0.5243
39	0.0713	0.9925	80	0.4829	0.9718	160	6.3020	0.9073	365	202.210	0.4926
40	0.0752	0.9921	81	0.5028	0.9712	165	7.1460	0.9023	370	214.680	0.4484

ATMOSPHERIC PRESSURE AT VARIOUS HEIGHTS



TECHNICAL APPENDIX

CENTRIFUGAL PUMPS

FLOW RATE OF WATER FROM NOZZLES AND FIRE HOSES IN l/s AS A FUNCTION OF THE PRESSURE MEASURED UPSTREAM THE NOZZLE, IN METRES OF COLUMN OF WATER.

Ø NOZZLE IN mm	PRESSURE in m.c.w.												
	4	6	8	10	12	14	16	18	20	22	24	26	28
1	0.0068	0.0083	0.0096	0.0107	0.0118	0.0127	0.0136	0.0144	0.0152	0.0159	0.0167	0.0174	0.018
2	0.273	0.0334	0.0386	0.0432	0.0473	0.0511	0.0546	0.0579	0.0611	0.064	0.0668	0.696	0.0722
3	0.614	0.0751	0.0868	0.097	0.1063	0.1148	0.1228	0.13	0.137	0.144	0.15	0.156	0.162
4	0.109	0.133	0.154	0.175	0.189	0.204	0.218	0.231	0.244	0.255	0.267	0.278	0.288
5	1.171	0.209	0.242	0.271	0.296	0.32	0.342	0.363	0.383	0.401	0.419	0.4336	0.453
6	0.246	0.301	0.348	0.389	0.426	0.455	0.492	0.522	0.55	0.577	0.603	0.627	0.652
7	0.334	0.408	0.472	0.527	0.578	0.625	0.667	0.708	0.747	0.783	0.817	0.851	0.883
8	0.436	0.534	0.616	0.689	0.755	0.815	0.871	0.925	0.975	1.022	1.067	1.11	1.152
9	0.553	0.677	0.782	0.875	0.958	1.035	1.107	1.172	1.236	1.297	1.355	1.41	1.461
10	0.684	0.836	0.966	1.08	1.183	1.27	1.368	1.448	1.523	1.6	1.672	1.742	1.808
11	0.83	1.017	1.173	1.313	1.439	1.555	1.66	1.76	1.855	1.99	2.03	2.117	2.196
12	0.982	1.2	1.387	1.55	1.7	1.87	1.964	2.08	2.19	2.3	2.4	2.5	2.59
13	1.154	1.412	1.63	1.825	2.0	2.16	2.31	2.45	2.58	2.7	2.83	2.94	3.05
14	1.337	1.635	1.89	2.113	2.313	2.5	2.67	2.834	2.99	3.135	3.27	3.41	2.538
15	1.535	1.88	2.17	2.417	2.66	2.87	3.07	3.25	3.43	3.6	3.76	3.91	4.06
16	1.742	2.132	2.464	2.757	3.02	3.26	3.486	3.7	3.9	4.08	4.27	4.45	4.62
17	1.97	2.413	2.787	3.119	3.417	3.686	3.947	4.18	4.41	4.62	4.83	58.025	5.21
18	2.21	2.703	3.125	3.499	3.83	4.13	4.42	4.68	4.94	5.18	5.42	5.64	5.85
20	2.73	3.34	3.86	4.32	4.73	5.11	5.46	5.78	6.11	6.4	6.78	6.96	7.23
22	3.298	4.04	4.66	5.22	5.72	6.17	6.75	7.0	7.48	7.74	8.07	8.4	8.8
25	4.265	5.22	6.02	6.74	7.38	7.87	8.52	9.04	9.53	9.99	10.42	10.85	11.25
26	4.6	5.64	6.5	7.27	7.97	8.61	9.2	9.76	10.28	10.69	11.27	11.71	12.16
28	5.36	6.56	7.56	8.46	9.28	10.2	10.7	11.36	11.9	12.55	13.12	13.64	14.09
32	6.97	8.55	9.85	11.02	12.08	13.05	13.93	14.8	15.6	16.7	17.2	17.79	18.44
35	8.358	10.23	11.8	13.2	14.45	15.6	16.7	17.7	18.68	19.59	20.43	21.26	22.09
45	13.8	16.9	19.5	21.82	23.9	25.84	27.6	29.3	30.9	32.39	33.8	35.2	26.5
55	20.3	25.2	28.5	32.6	35.7	38.6	41.2	44.0	46.1	48.3	50.5	52.6	54.5
65	28.5	34.8	40.2	45.0	49.3	53.4	56.9	60.5	63.6	66.6	69.7	72.6	75.4
75	38.3	46.9	54.2	60.6	66.4	71.7	76.6	81.4	85.6	90.0	93.9	97.7	101.4
85	49.4	60.5	69.7	77.0	85.5	92.4	98.7	104.7	110.3	115.7	121.0	125.0	130.5
95	61.5	75.4	87.0	97.4	106.5	115.2	123.0	130.5	137.6	143.3	150.8	157.0	162.8

Ø NOZZLE IN mm	PRESSURE in m.c.w.												
	4	6	8	10	12	14	16	18	20	22	24	26	28
1	0.0068	0.0083	0.0096	0.0107	0.0118	0.0127	0.0136	0.0144	0.0152	0.0159	0.0167	0.0174	0.018
2	0.273	0.0334	0.0386	0.0432	0.0473	0.0511	0.0546	0.0579	0.0611	0.064	0.0668	0.696	0.0722
3	0.614	0.0751	0.0868	0.097	0.1063	0.1148	0.1228	0.13	0.137	0.144	0.15	0.156	0.162
4	0.109	0.133	0.154	0.175	0.189	0.204	0.218	0.231	0.244	0.255	0.267	0.278	0.288
5	1.171	0.209	0.242	0.271	0.296	0.32	0.342	0.363	0.383	0.401	0.419	0.4336	0.453
6	0.246	0.301	0.348	0.389	0.426	0.455	0.492	0.522	0.55	0.577	0.603	0.627	0.652
7	0.334	0.408	0.472	0.527	0.578	0.625	0.667	0.708	0.747	0.783	0.817	0.851	0.883
8	0.436	0.534	0.616	0.689	0.755	0.815	0.871	0.925	0.975	1.022	1.067	1.11	1.152
9	0.553	0.677	0.782	0.875	0.958	1.035	1.107	1.172	1.236	1.297	1.355	1.41	1.461
10	0.684	0.836	0.966	1.08	1.183	1.27	1.368	1.448	1.523	1.6	1.672	1.742	1.808
11	0.83	1.017	1.173	1.313	1.439	1.555	1.66	1.76	1.855	1.99	2.03	2.117	2.196
12	0.982	1.2	1.387	1.55	1.7	1.87	1.964	2.08	2.19	2.3	2.4	2.5	2.59
13	1.154	1.412	1.63	1.825	2.0	2.16	2.31	2.45	2.58	2.7	2.83	2.94	3.05
14	1.337	1.635	1.89	2.113	2.313	2.5	2.67	2.834	2.99	3.135	3.27	3.41	2.538
15	1.535	1.88	2.17	2.417	2.66	2.87	3.07	3.25	3.43	3.6	3.76	3.91	4.06
16	1.742	2.132	2.464	2.757	3.02	3.26	3.486	3.7	3.9	4.08	4.27	4.45	4.62
17	1.97	2.413	2.787	3.119	3.417	3.686	3.947	4.18	4.41	4.62	4.83	58.025	5.21
18	2.21	2.703	3.125	3.499	3.83	4.13	4.42	4.68	4.94	5.18	5.42	5.64	5.85
20	2.73	3.34	3.86	4.32	4.73	5.11	5.46	5.78	6.11	6.4	6.78	6.96	7.23
22	3.298	4.04	4.66	5.22	5.72	6.17	6.75	7.0	7.48	7.74	8.07	8.4	8.8
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26	4.6	5.64	6.5	7.27	7.97	8.61	9.2	9.76	10.28	10.69	11.27	11.71	12.16
28	5.36	6.56	7.56	8.46	9.28	10.2	10.7	11.36	11.9	12.55	13.12	13.64	14.09
32	6.97	8.55	9.85	11.02	12.08	13.05	13.93	14.8	15.6	16.7	17.2	17.79	18.44
35	8.358	10.23	11.8	13.2	14.45	15.6	16.7	17.7	18.68	19.59	20.43	21.26	22.09
45	13.8	16.9	19.5	21.82	23.9	25.84	27.6	29.3	30.9	32.39	33.8	35.2	26.5
55	20.3	25.2	28.5	32.6	35.7	38.6	41.2	44.0	46.1	48.3	50.5	52.6	54.5
65	28.5	34.8	40.2	45.0	49.3	53.4	56.9	60.5	63.6	66.6	69.7	72.6	75.4
75	38.3	46.9	54.2	60.6	66.4	71.7	76.6	81.4	85.6	90.0	93.9	97.7	101.4
85	49.4	60.5	69.7	77.0	85.5	92.4	98.7	104.7	110.3	115.7	121.0	125.0	130.5
95	61.5	75.4	87.0	97.4	106.5	115.2	123.0	130.5	137.6	143.3	150.8	157.0	162.8

TECHNICAL APPENDIX

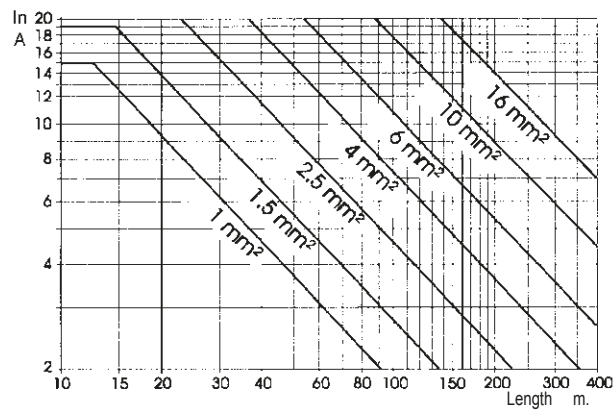
CENTRIFUGAL PUMPS

TABLE OF EQUIVALENT STANDARDS FOR MATERIALS

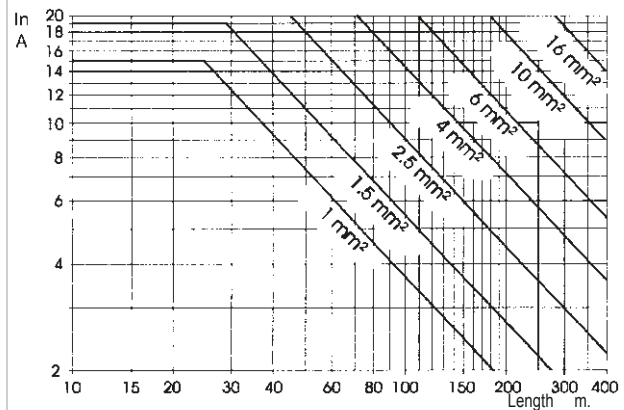
MATERIAL	UNI		DIN		ISO	AISI	ASTM
STEEL	X 30Cr13	UNI 6900/71	X 30Cr13	DIN 17440	-	AISI 420B	-
	X 12CrS13	UNI 6900/71	X 12CrS13	DIN 17440	-	AISI 416	-
	X 20Cr13	UNI 6900/71	X 20Cr13	DIN 17440	-	AISI 420A	S 42000 A 276
	X 10CrNiS1809	UNI 6900/71	X 10CrNiS1809	DIN 17440	XIII-17 ISO 683/XIII	AISI 303	S 30300 A 276
	X 5CrNi 1810	UNI 6900/71	X 5CrNi 1810	DIN 17440	XIII-11 ISO 683/XIII	AISI 304	S 30400 A 276
	X 10CrS17	UNI 6900/71	X 10CrS17	DIN 17440	XIII-84 ISO 683/XIII	AISI 430F	-
CAST IRON	G 20	UNI ISO 185	GG 20	DIN 1691	Grade 20 ISO R 185	-	Class 25 A 48
	G 25	UNI ISO 185	GG 25	DIN 1691	Grade 20 ISO R 185	-	Class 35 A 48
BRASS	G CuZn38Al 1Fe 1Mn	UNI 6138/68	-	-	-	-	B 30 C 86550
	P CuZn40 Pb2	UNI 5705	P CuZn40 Pb2	DIN 17660	-	-	C 37740
BRONZE	G CuSn12	UNI 7013/72	G CuSn12	DIN 17006	CuSn 12 ISO 1338	-	B 205 C 90700

CHART FOR THE SELECTION OF THE POWER INPUT CABLE IN RELATION TO LENGTH

Voltage 1 x 230 V ~ direct start
3 % voltage drop
Ambient temperature 30 °C



Voltage 3 x 400 V ~ direct start
3 % voltage drop
Ambient temperature 30 °C



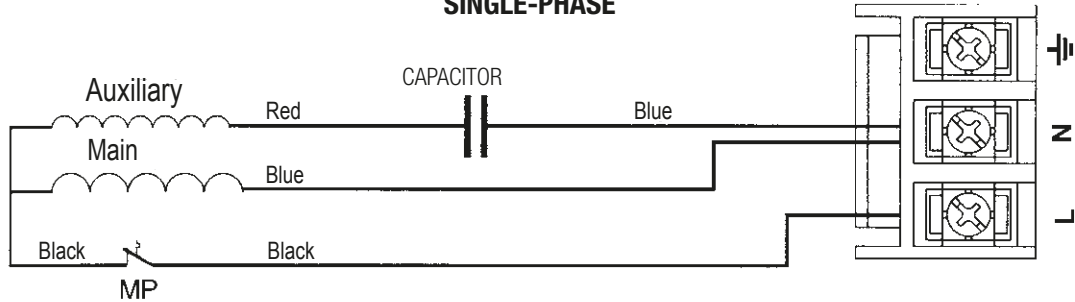
EXPLANATION OF PUMP DATA PLATES

No.	SERIAL NUMBER	-
Q	FLOW	m³/h
H	HEAD	m
H max	MAXIMUM HEAD	m
H min	MINIMUM HEAD	m
-	REVOLUTIONS PER MINUTE	1/min
-	ABSORBED POWER	kWass
-	NOMINAL DEVELOPED POWER	HP
-	VOLTAGE	V ~
-	FREQUENCY	Hz
-	CURRENT	A
-	PROTECTION CLASS (IEC)	IP
I.C.L.	INSULATION CLASS	µF Vc
-	CAPACITY AND VOLTAGE OF CAPACITOR	µF Vc
∇_m	MAXIMUM IMMERSION	m
Lwa	NOISE LEVEL	dB

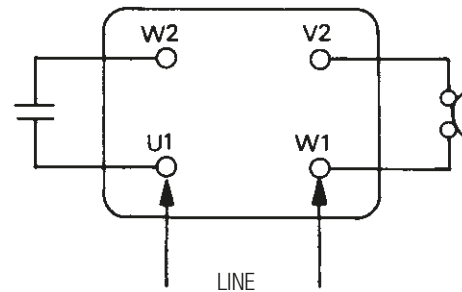
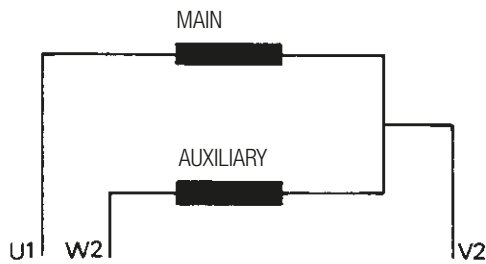
DAB WATER • TECHNOLOGY DAB PUMPS S.p.A. Via Marco Polo, 14 35035 Mestrino (PD) - Italy					
		N.		TF	S1
Q	m³/h	H	m	HP	
Hmax	m	Hmin	m	I.C.L. F	kW ass.
1/min	IP	Hz	µF	V~	MADE IN ITALY

WIRING DIAGRAMS FOR ELECTRIC MOTORS

SINGLE-PHASE



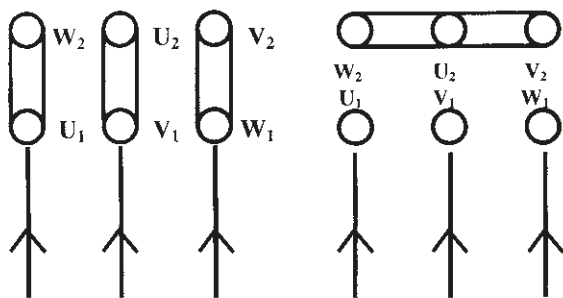
Overload protection inside the winding - MEC 63-71 M



Overload protection inside the terminal board - MEC 80 M

THREE-PHASE

3 ~ 230/400 V

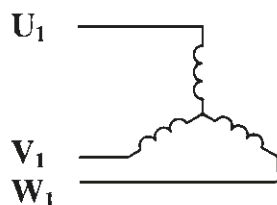
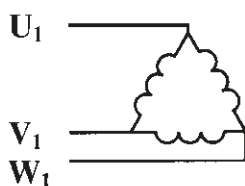


Power input line
230 V

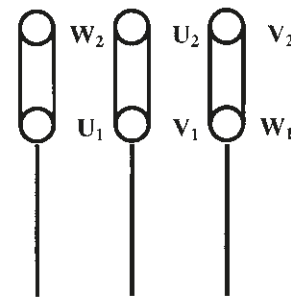
400 V

TRIANGLE connection

STAR connection

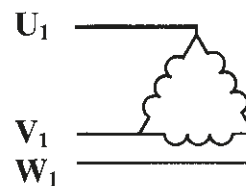


3 ~ 400 Δ V



Power input line

DELTA connection



Clockwise rotation when viewed from the fan end





WATER • TECHNOLOGY

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