

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

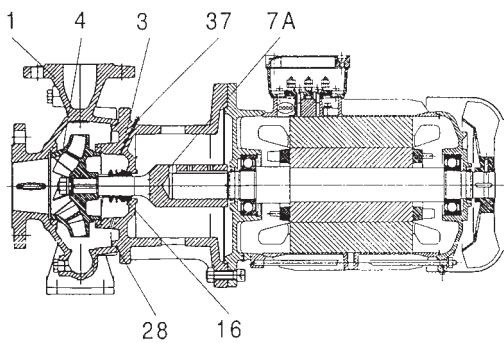
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

MATERIALS

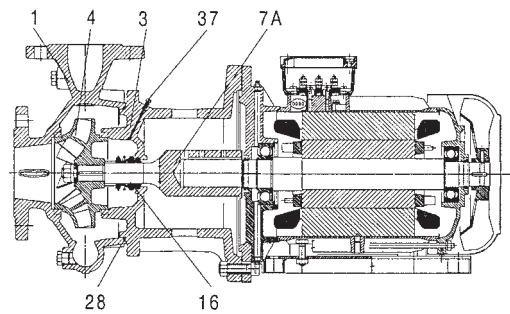
No.	PARTS	MATERIALS (standard version)
1	PUMP BODY	CAST IRON 250 UNI ISO 185
3	SUPPORT	CAST IRON 250 UNI ISO 185
4	IMPELLER	CAST IRON 250 UNI ISO 185
7A	PUMP SHAFT	AISI 304 STAINLESS STEEL - UNI 6900/71
16	MECHANICAL SEAL	CARBON/SILICON CARBIDE - EPDM
28	OR RING	EPDM
31	SEAL SPACER	AISI 304 STAINLESS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

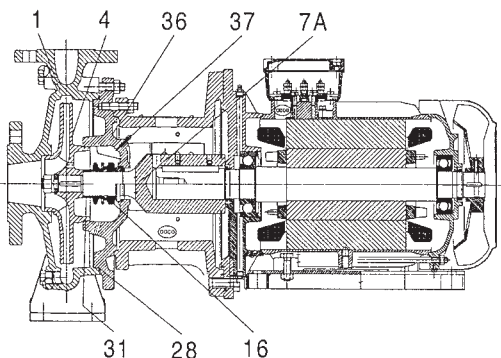


VERSION WITH MOTOR OVER 7,5 KW



VERSION FOR MODELS:

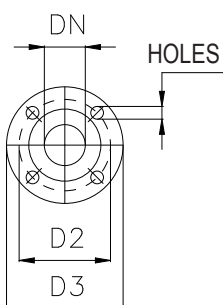
NKM-G 65-315/309/11 /4
 NKM-G 100-315/316/22 /4, NKM-G125-250/243/15 /4,
 NKM-G 80-200/200/4 /4,
 NKM-G 80-250/270/11 /4, NKM-G 80-315/305/15 /4,
 NKM-G 80-315/320/18.5 /4, NKM-G 80-315/334/22 /4,
 NKM-G 100-250/250/11 /4, NKM-G 150-200/218/11 /4



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

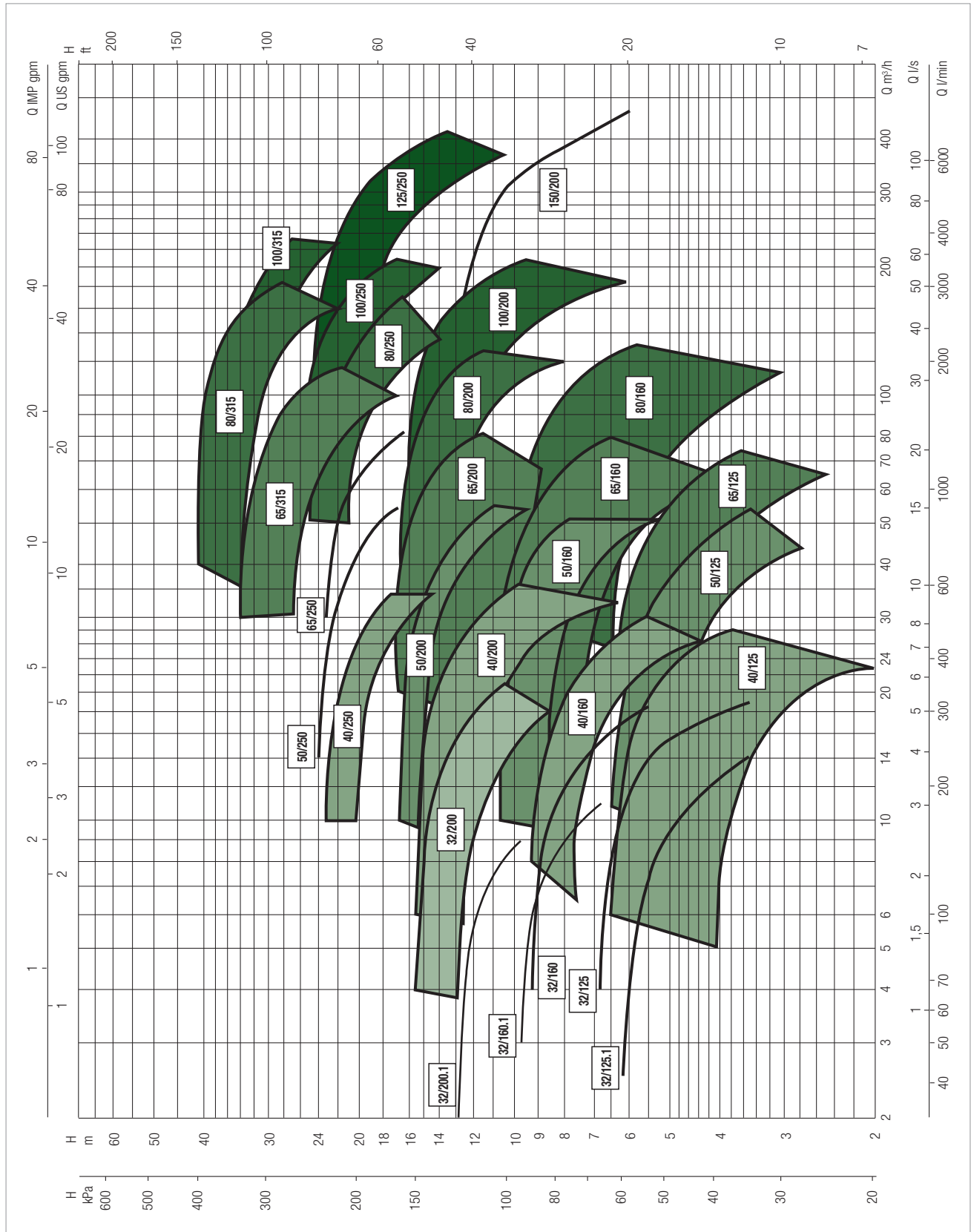
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

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	
	Q=																			
	l/min																			
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

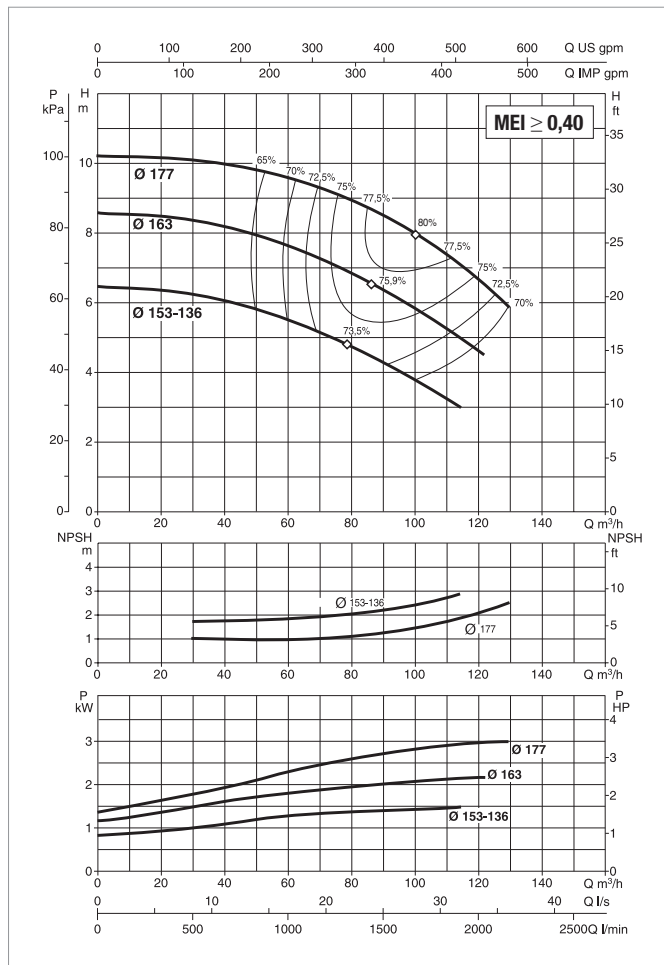
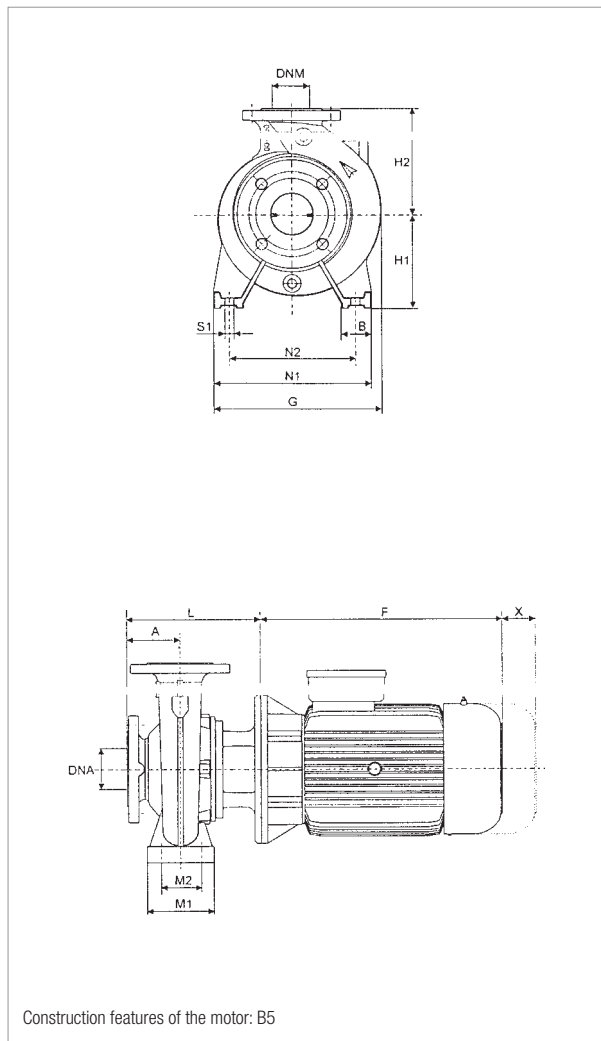
SELECTION TABLE - NKM-G

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		
	Q=	H (m)																										
	l/min																											
NKM-G 80-160/153-136/1,5/4		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 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.

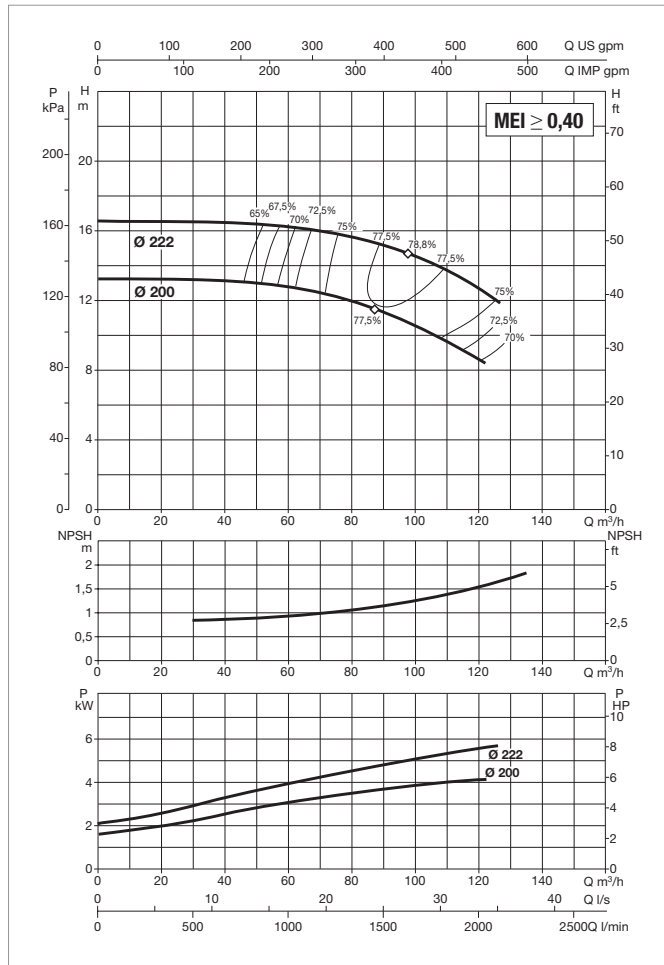
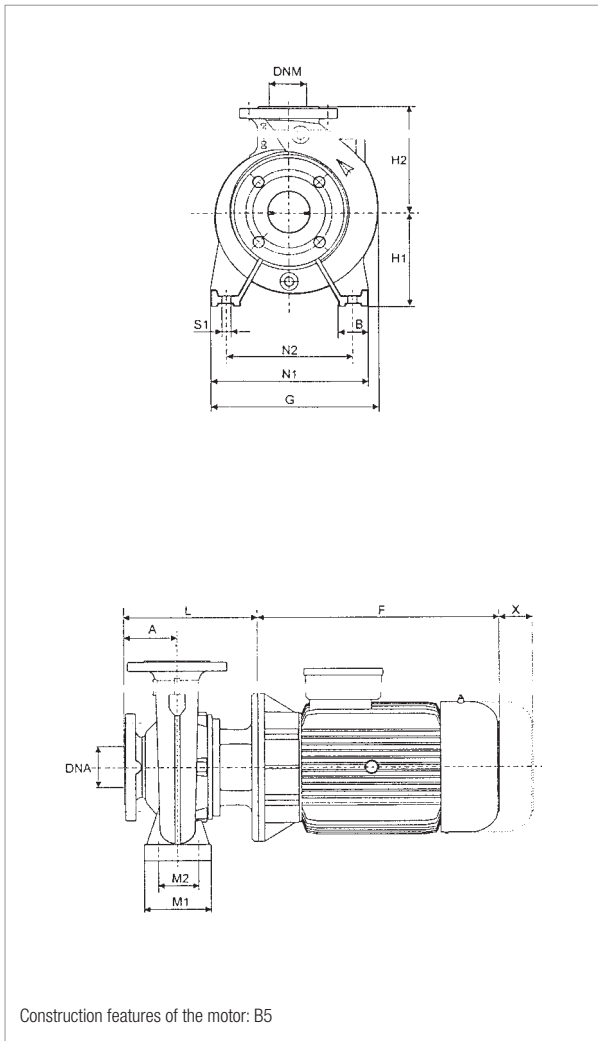
MODEL	MOTOR SIZE	POWER INPUT 50 Hz	ELECTRICAL DATA				MOTOR TYPE
			P2 NOMINAL		In A		
			kW	HP	IE2	IE3	
NKM-G 80-160/153-136/1.5/4	MEC 90 L	230/400 V	1.5	2	6.24/3.6	-	IE2
NKM-G 80-160/163/ 2,2 /4	MEC 100 L	230/400 V	2.2	3	8.75/5.05	-	IE2
NKM-G 80-160/177/ 3 /4	MEC 100 L	400 V Δ	3	4	6.25	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m ³)	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.

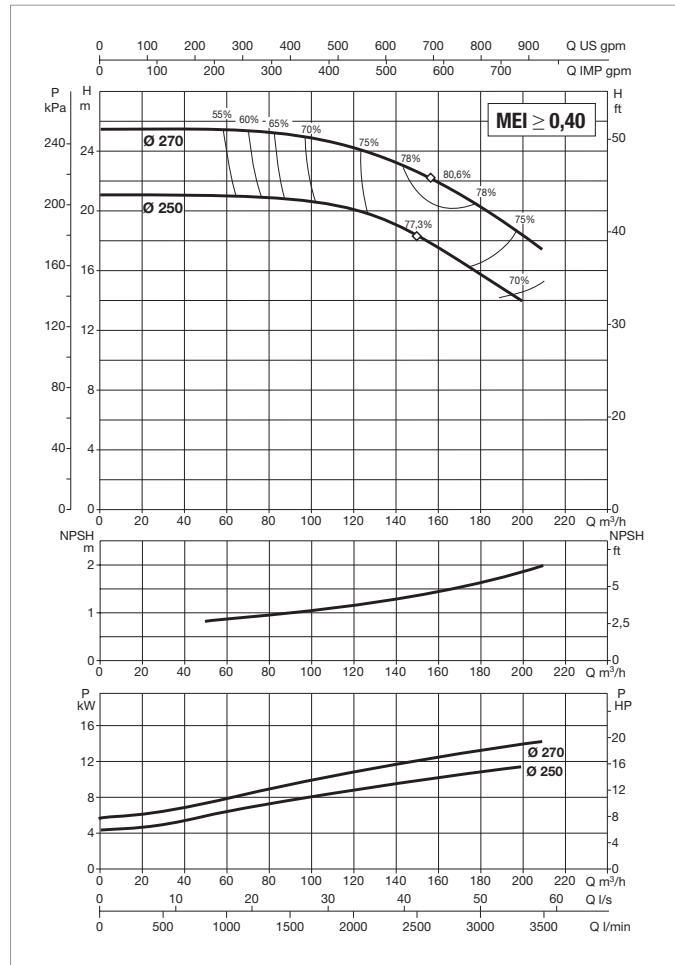
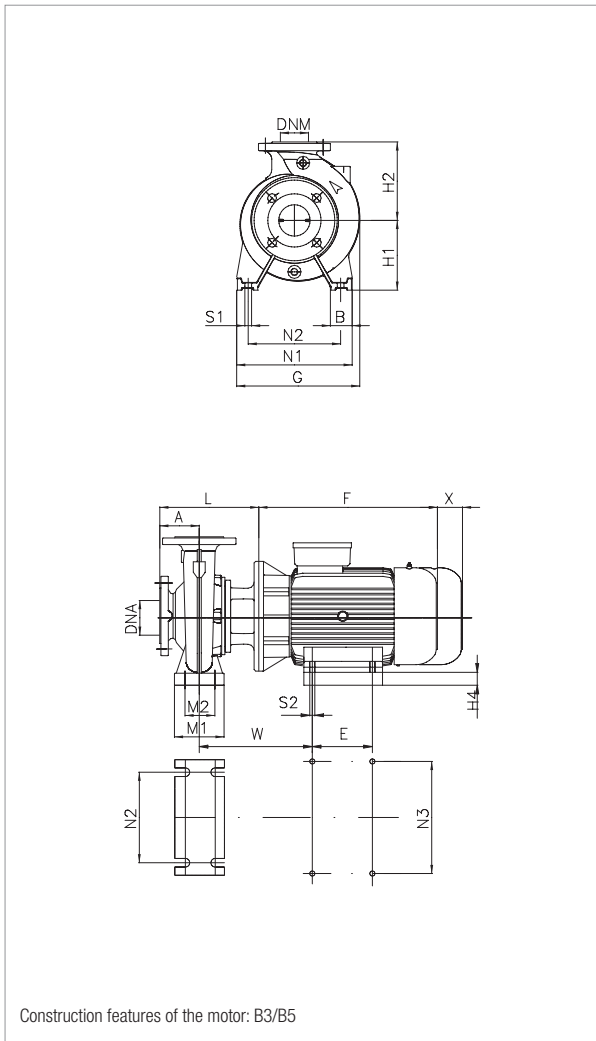
MODEL	ELECTRICAL DATA						
	MOTOR SIZE	POWER INPUT 50 Hz	P2 NOMINAL		In A		MOTOR TYPE
			kW	HP	IE2	IE3	
NKM-G 80-200/200/ 4 /4	MEC 112 M	400 V Δ	4	5.5	7.95	-	IE2
NKM-G 80-200/222/ 5,5 /4	MEC 132 S	400 V Δ	5.5	7.5	10.6	-	IE2

MODEL	A	B	F		G	H1	H2	L	M1	M2	N1	N2	S1	X	Ø (mm) Mech. seal	DNA	DNM	PACKING DIMENSIONS			VOLUME (m³)	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 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. (m³)	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