

### Construction

Close-coupled, centrifugal pumps; electric motor with extended shaft directly connected to the pump.

**NM:** single-impeller

**NMD:** with two back-to-back impellers (with axial thrust balancing).

**Connections:** threaded ports ISO 228/1 (BS 2779).

### Applications

- For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
- For water supply.
- For heating, air-conditioning, cooling and circulation plants.
- For civil and industrial applications.
- For fire fighting applications.
- For irrigation.

### Operating conditions

Liquid temperature from -10 °C to +90 °C.

Ambient temperature up to 40° C.

Total suction lift up to 7 m.

Maximum permissible working pressure up to 10 bar (16 bar for pumps NMD 25/190; NMD 32/210; NMD 40/180).  
Continuous duty.

### Motor

2-pole induction motor, 50 Hz (n = 2900 rpm).

**NM, NMD:** three-phase 230/400 V ± 10% up to 3 kW;

400/690 V ± 10% from 4 to 9,2 kW;

**NMM, NMDM:** single-phase 230 V ± 10%, with thermal protector.

Insulation class F.

Protection IP 54.

Constructed in accordance with IEC 34.

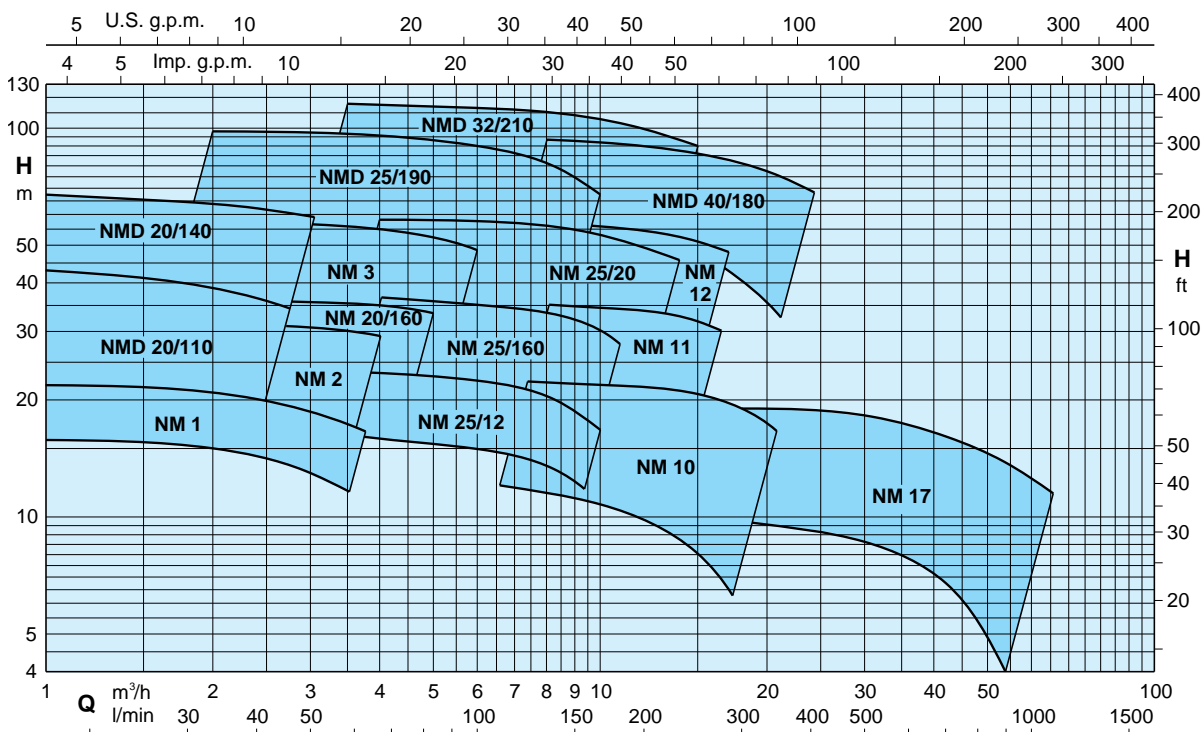
### Special features on request

- Other voltages.
- Frequency 60 Hz (as per 60 Hz data sheet).
- Protection IP 55.
- Special mechanical seal
- Higher or lower liquid or ambient temperatures.

### Materials

Components	NM, NMD	B-NM, B-NMD	I-NM, I-NMD
Pump casing	Cast iron	Bronze	Cr Ni Mo steel AISI 316
Lantern bracket	GJL 200 EN 1561	G-Cu Sn 10 UNI 7013	
Impeller	Brass P-Cu Zn 40 Pb 2 UNI 5705		
NM 17	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 UNI 7013	Cr Ni Mo steel AISI 316
Shaft	Cr steel AISI 430	Cr Ni Mo steel AISI 316	
	Cr Ni steel AISI 303 1,1 -1,5 - 2,2 kW		
Mechanical seal	Carbon - Ceramic - NBR		

### Coverage chart $n \approx 2900$ rpm



### Performance $n \approx 2900$ rpm

	NM	P <sub>2</sub>		Q m³/h														
		kW	HP															
				l/min	16	20	25	31,5	40	50	60	70	80	90	100	110	125	140
	NM 1/AE ●	0,37	0,5	H m	22	21,5	21	20,5	20	19	17,5	15,5						
	NM 2/BE ●	0,55	0,75		27	26,5	26	25,5	25	24	23	22	20					
	NM 2/SE ●	0,55	0,75		31	30,5	30	29	27,5	25,5	23,5	20	16					
	NM 2/AE ●	0,75	1		33,5	33	32,5	32	31,5	30,5	29,5	28,5	27	26	24			
	NMM 3/CE	1,1	1,5			37,5	37,5	37	36,5	36	35	34	32					
	NM 3/CE	1,1	1,5			37,5	37,5	37	36,5	36	35	34	32	30,5*	28,5*			
	NMM 3/BE	1,5	2			42	42	41	41,5	40,5	40	39	37	35*	32*			
	NM 3/BE	1,5	2			47	47	46,5	46	45,5	45	44	43	41,5*	40*	37,5*	33*	26*
	NM 3/AE	2,2	3			56	55,5	55,5	55	54,5	53,5	52,5	51,5	50*	48*	46*	42*	36*

B-NM B-NMD I-NMD	NM NMD	P <sub>2</sub>		Q m³/h														
		kW	HP															
				l/min	16	20	25	31,5	40	50	60	70	80	90	100	110	125	140
B-NMD 20/110BE ●	NMD 20/110BE ●	0,45	0,6	H m	33	32	31	29	26,5	23	18							
B-NMD 20/110ZE ●	NMD 20/110ZE ●	0,55	0,75		37	36	35	33	30,5	27,5	23	18*						
B-NMD 20/110AE ●	NMD 20/110AE ●	0,75	1		43	42	40,5	39	36,5	33	29	25*						
I-B-NMD 20/140BE	NMD 20/140BE	1,1	1,5		52	51,5	51	50	48,5	47	45							
I-B-NMD 20/140BE	NMD 20/140BE	1,1	1,5		53	52,5	52	51	50	48	46	43,5	40					
I-B-NMD 20/140AE	NMD 20/140AE	1,5	2		57,5	57	56,5	55,5	54	51,5	49	46	43	40	36			
I-B-NMD 20/140AE	NMD 20/140AE	1,5	2		67	66,5	66	64,5	63	61,5	59	57	53,5	50	46			
B-NM 20/160BE ●	NM 20/160BE ●	0,75	1					30,5	30	29,5	28,5	27,5	26,5	25,5	24	22*		
B-NM 20/160AE ●	NM 20/160AE ●	1,1	1,5					36	35,5	35	34,5	33,5	32	30,5	29	27*		

B-NMD, B-NMD I-NM, I-NMD	NM NMD	P <sub>2</sub>		Q m³/h																
		kW	HP																	
				l/min	40	50	60	80	100	110	125	140	160	180	200	220	250	280		
B-NM 25/125BE ●	NM 25/12BE ●	0,55	0,75	H m	20	19,9	19,8	19,3	18,5	18	17,3	16,3	15*	13,2*	11*					
B-NM 25/125AE ●	NM 25/12AE ●	0,75	1		23,5	23,4	23,3	22,9	22,1	21,7	20,9	20	18,7*	17,1*	15,2*					
B-NM 25/160BE ●	NM 25/160BE ●	1,1	1,5			31	30,7	30	28,5	28	27	26	23							
B-NM 25/160AE ●	NM 25/160AE ●	1,5	2			36,5	36,2	35,5	34,5	34	33,5	32,5	31	28,5*	26*					
I-B-NM 25/200BE	NM 25/20BE	2,2	3			42,5	42	41	40	39,5	38,5	37,5	36	33*	29*					
I-B-NM 25/200AE	NM 25/20AE	3	4			50	49,7	49	48	47,5	47	46,5	45,5	44*	42*	39*				
I-B-NM 25/200SE	NM 25/20SE	4	5,5			59	58,5	58	57,5	57	56,5	55,5	54,5	53	51,5	49*	44,5*	37*		
I-B-NMD 25/190CE	NMD 25/190CE	2,2	3			62	60,5	59	55,5	51	48,5	44	38*							
I-B-NMD 25/190BE	NMD 25/190BE	3	4			76	75	74	70	66	64	60	54	46*						
I-B-NMD 25/190AE	NMD 25/190AE	4	5,5		98	97	96	93,5	90	88	84	79	70*							

	NM	P <sub>2</sub>		Q m³/h														
		kW	HP															
				l/min	110	125	140	160	180	200	220	250	280	315	350	400	450	500
	NM 10/FE ●	0,55	0,75	H m	12,5	12,5	12	11,5	11	10	9	7,5						
	NM 10/DE ●	0,75	1		18	18	17,5	17	16,5	16	15,5	14						
	NM 10/AE ●	1,1	1,5		23	23	22,5	22	21,5	21	20,5	19						
	NM 10/SE ●	1,5	2		23,5	23,5	23	22,5	22	21,5	21	20,5	19*	18,5*	16,5*	13*		
	NMM 11/BE	1,5	2		26,5	25,5	25	24	23	22,5	21,5	19,5	17,5					
	NM 11/BE	1,5	2		29,5	29,5	29	28,5	27,5	27	26	25*	22,5*					
	NM 11/AE	2,2	3		35,5	35,5	35	34,5	34	33,5	33	32*	30*					
	NM 12/DE	2,2	3		38	37,5	37	36	35	33,5	32							
	NM 12/CE	3	4		45	44,5	44	43,5	42,5	41	40	38	36*					
	NM 12/AE	4	5,5	57,5	57	56	55,5	55	54,5	53,5	51,5	49*						

### Performance $n \approx 2900$ rpm

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B-NMD I-NMD	NMD	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	H															
		kW	HP		5,4	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24		
B-NMD 32/210DE	NMD 32/210DE	4	5,5	H m	71	69	67,5	65	62,5	58	53	46	37*							
B-NMD 32/210CE	NMD 32/210CE	5,5	7,5		84	83	82	81	79	76	73	69	64*	54*						
B-NMD 32/210BE	NMD 32/210BE	7,5	10		104	103	102	100	98	95	92	88	84*	76*						
B-NMD 32/210AE	NMD 32/210AE	9,2	12,5		114	113	112	110	108	105	103	99	96*	90*						
I-B-NMD 40/180DE	NMD 40/180DE	4	5,5					60	59,5	57	56	53	51,5	48	44	39	34*	25*		
I-B-NMD 40/180CE	NMD 40/180CE	5,5	7,5					69	68	67	66	64,5	63	60	57	53	48*	40*		
I-B-NMD 40/180BE	NMD 40/180BE	7,5	10					87	86	85	84	82,5	81	78	75	71	66*	59*		
I-B-NMD 40/180AE	NMD 40/180AE	9,2	12,5					94	93	92	91	89,5	88	85	82	78	74*	67*		

B-NM	NM	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	H															
		kW	HP		21	24	27	30	33	37,8	42	48	54	60	66	75	84	96		
B-NM 17/HE●	NM 17/HE●	1,1	1,5	H m	9,5	9,2	9	8,6	8,2	7,5	6,7	5,5	3,5*							
B-NM 17/GE●	NM 17/GE●	1,5	2		12	11,7	11,5	11,2	11	10,3	9,7	8,5	7*	4*						
B-NM 17/FE	NM 17/FE	2,2	3				16	16	15,5	15	14,5	14	13	11,5*	10*	8*				
B-NM 17/DE	NM 17/DE	3	4					18	18	17,5	17	16,5	15,5	14*	13*	11,5*				

**NM, NMD** Standard construction.  
**B-NM, B-NMD** Bronze construction.  
**I-NM, I-NMD** Stainless steel construction.

P<sub>2</sub> Rated motor power output.  
**H** Total head in m.

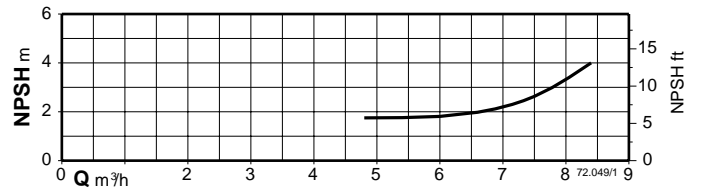
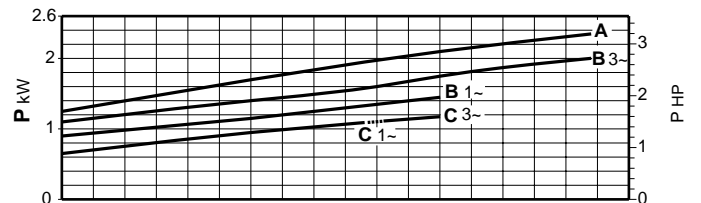
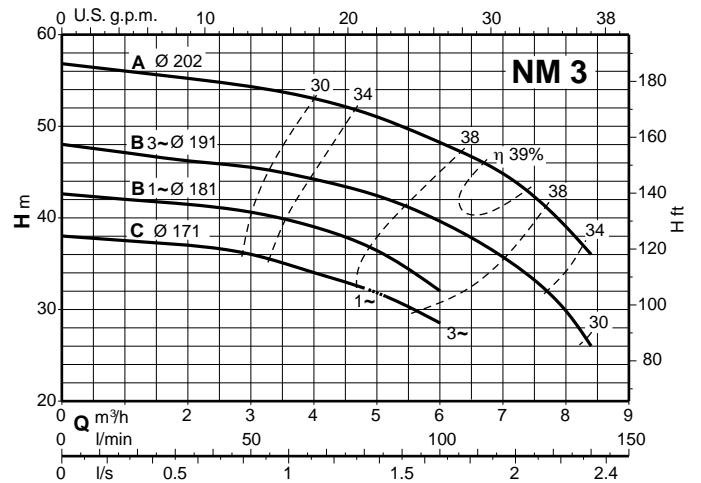
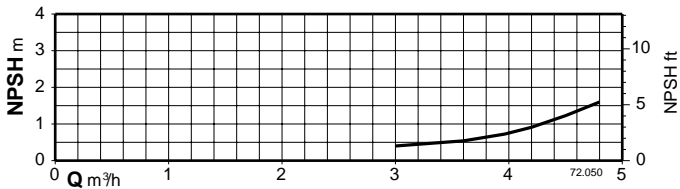
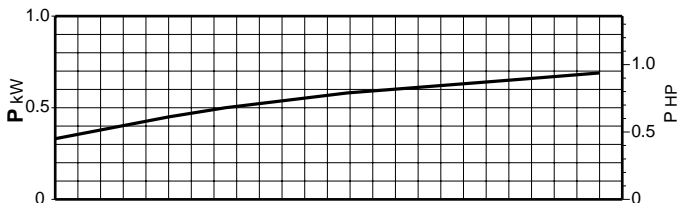
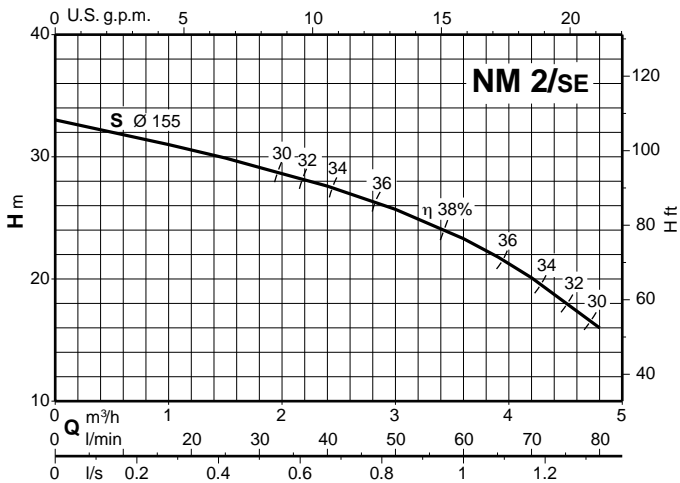
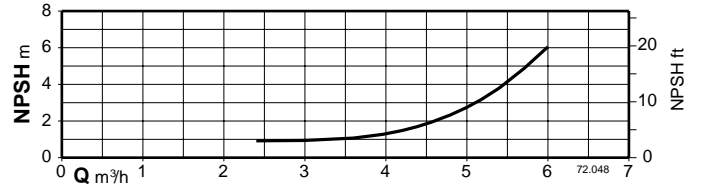
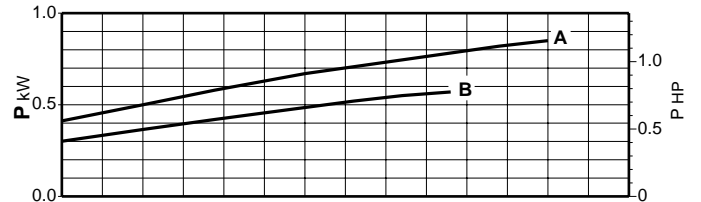
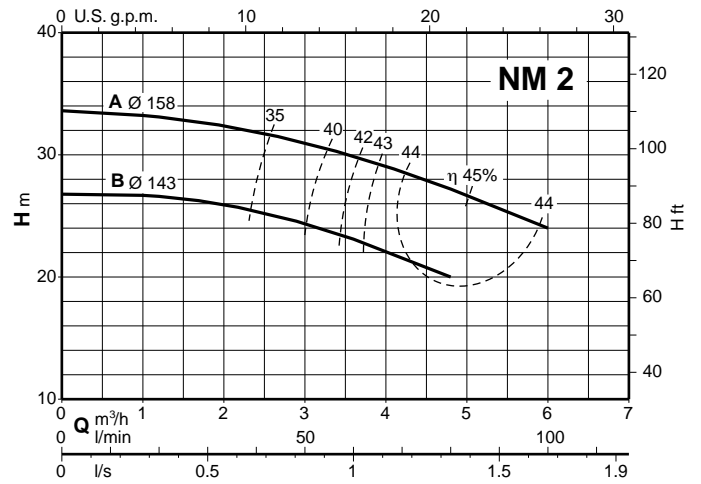
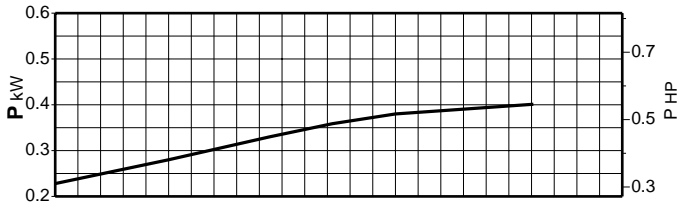
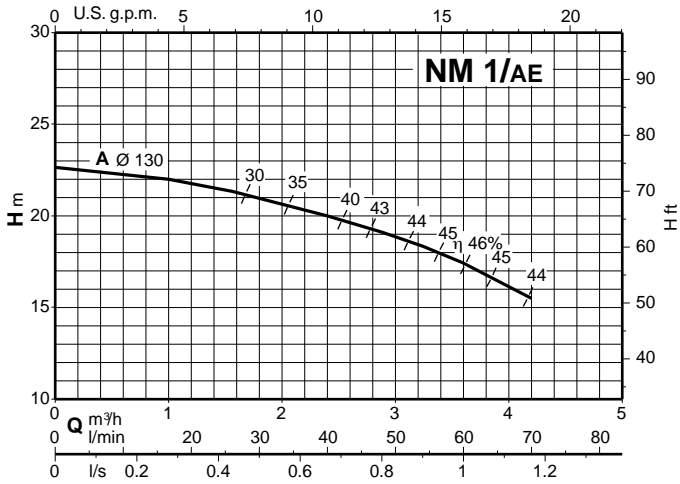
● With single-phase motor = NMM - NMDM.  
 \* Maximum suction lift 1-2 m.  
 Tolerances according to ISO 9906, annex A.

### Rated currents

P1 kW	P2		230 V 1~ IN A	IA/IN	P2					
	kW	HP			230 V Δ / 400 V Y			400 V Δ / 690 V Y		
					kW	HP	IN A	IN A	IN A	IA/IN
0,62	0,37	0,5	3	2,7	0,37	0,5	2,3	1,3		3,8
0,72	0,45	0,6	3,6	2,9	0,45	0,6	2,3	1,3		3,5
0,91	0,55	0,75	4,5	3,1	0,55	0,75	3	1,7		4,3
1,2	0,75	1	5,8	3	0,75	1	4	2,3		5,2
1,6	1,1	1,5	7,4	3	1,1	1,5	5	2,9		5,3
2	1,5	2	9,2	3,8	1,5	2	7,5	4,3		5,8
					2,2	3	9,15	5,3		6
					3	4	11,5	6,6		7,9
					4	5,5		9,6	5,5	7,3
					5,5	7,5		12	7	8,3
					7,5	10		16	9,2	8,8
					9,2	12,5		20	11,5	10

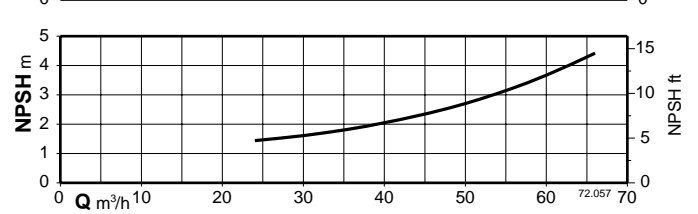
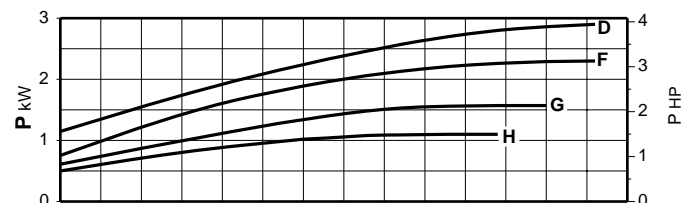
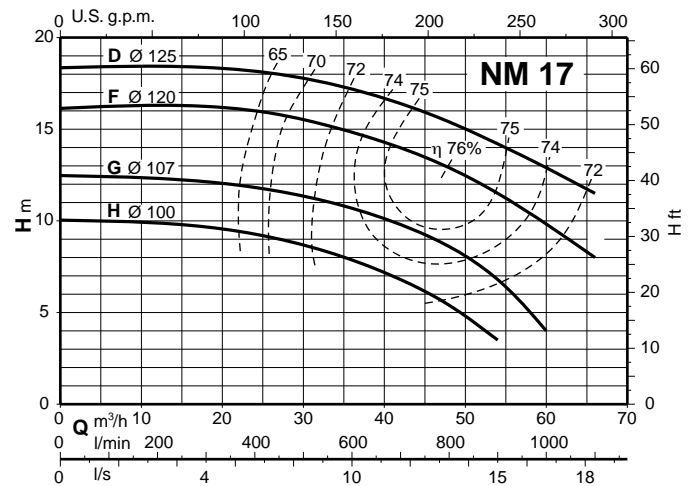
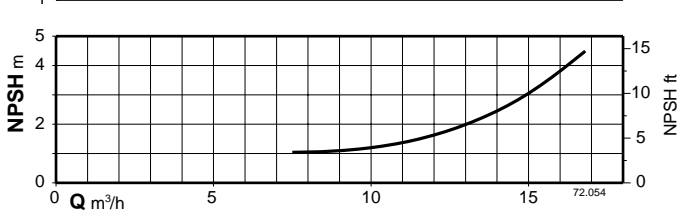
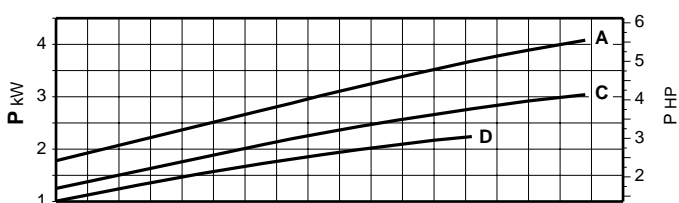
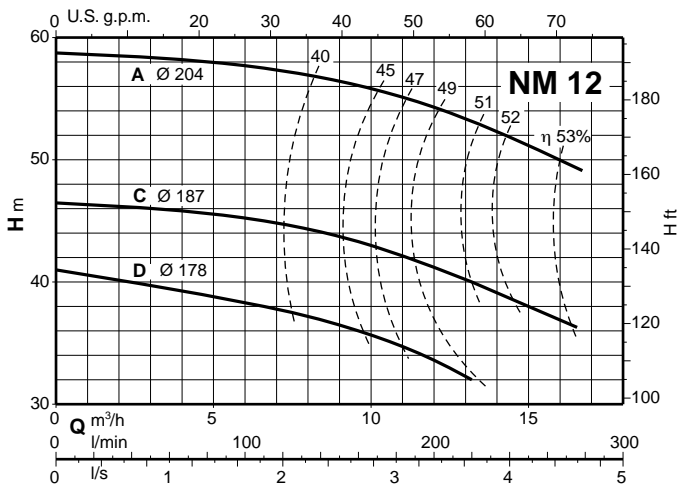
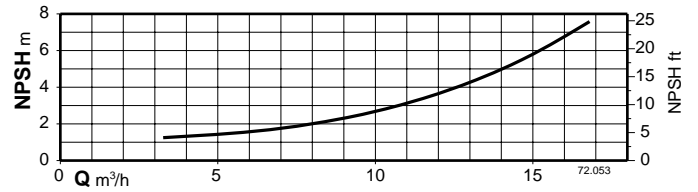
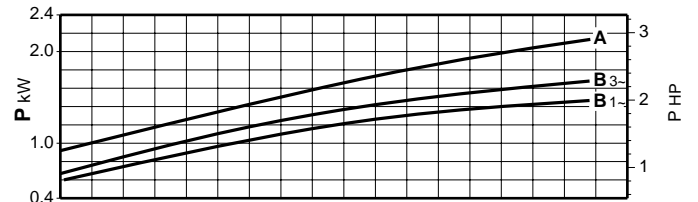
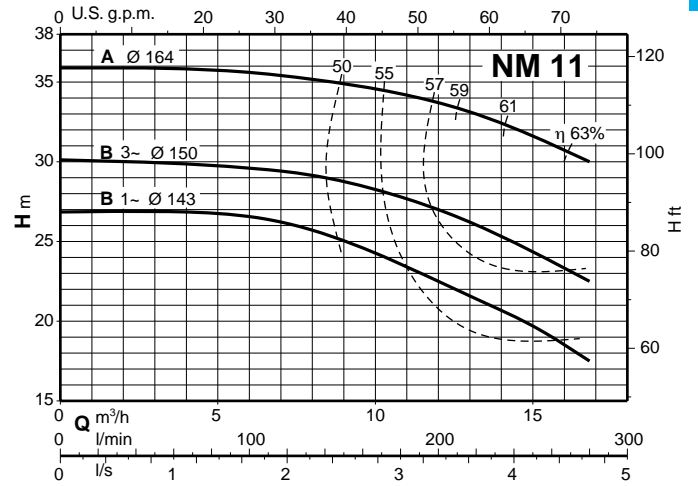
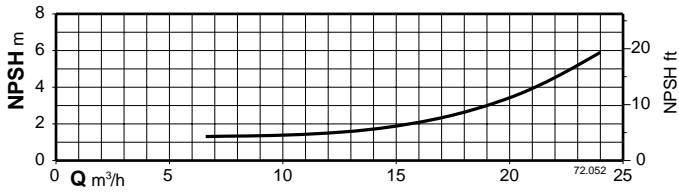
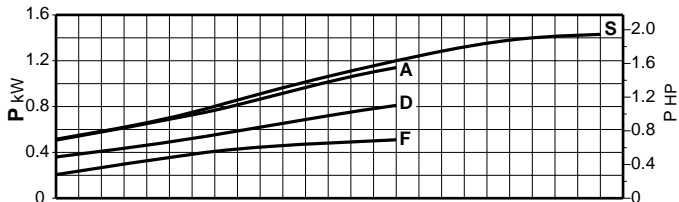
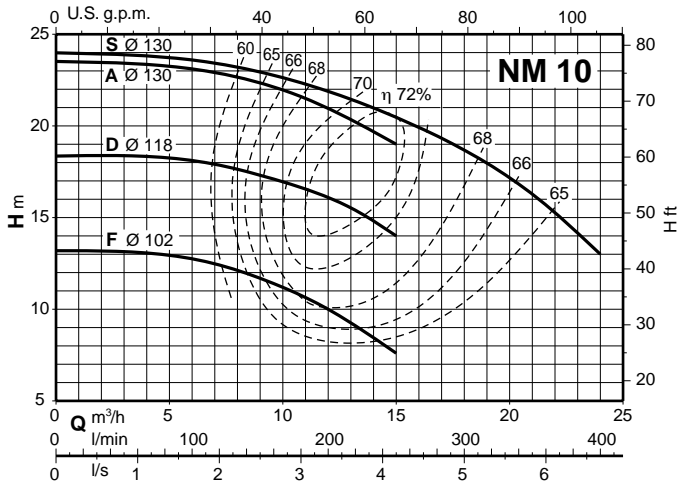
P1 Maximum power input.  
 P2 Rated motor power output.  
 IA/IN D.O.L. starting current / Nominal current

**Characteristic curves  $n \approx 2900$  rpm**

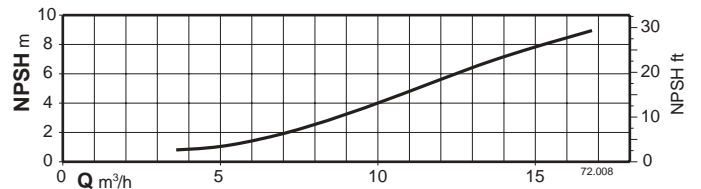
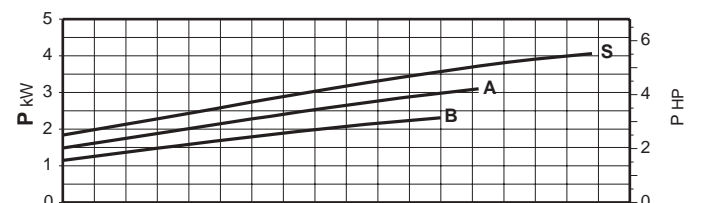
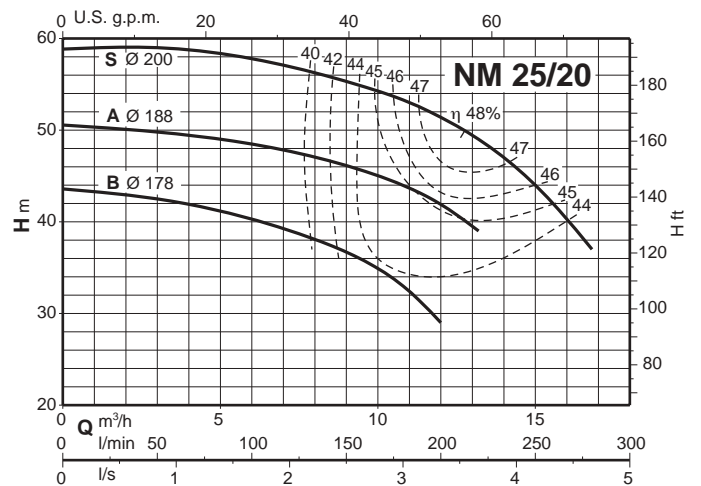
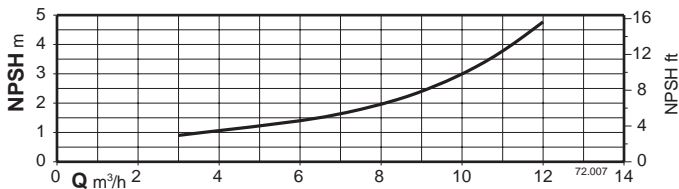
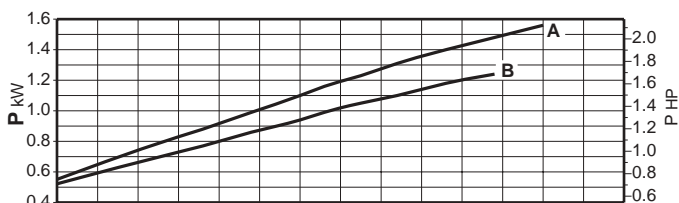
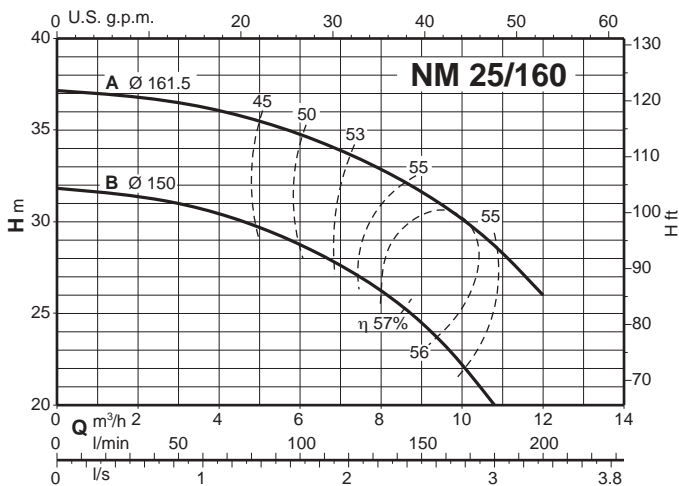
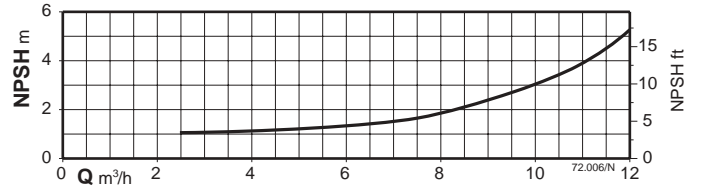
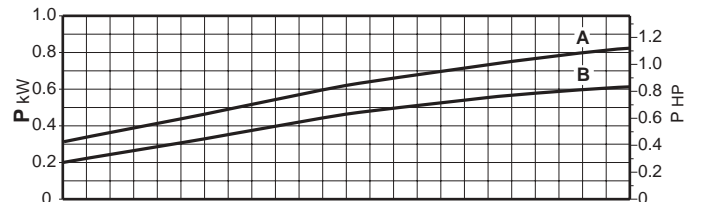
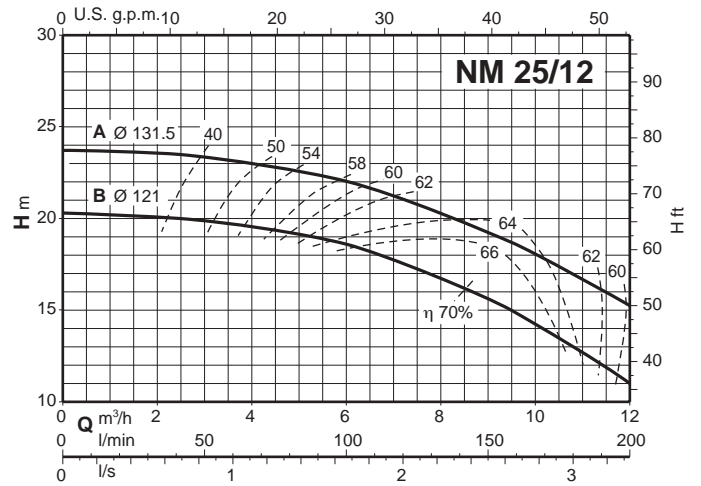
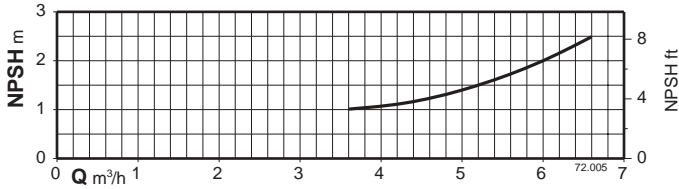
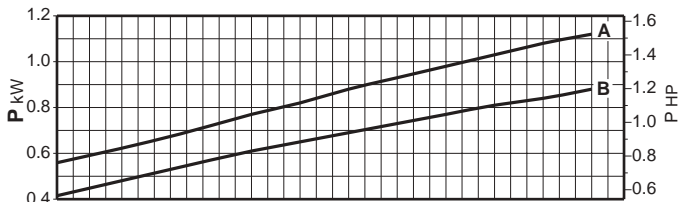
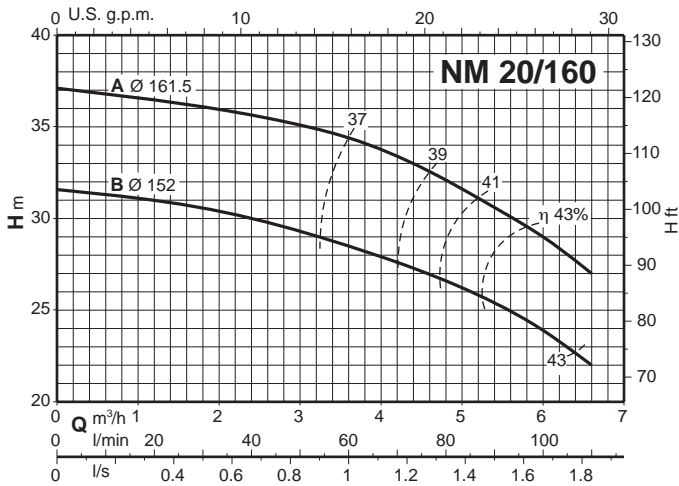


**Characteristic curves  $n \approx 2900$  rpm**

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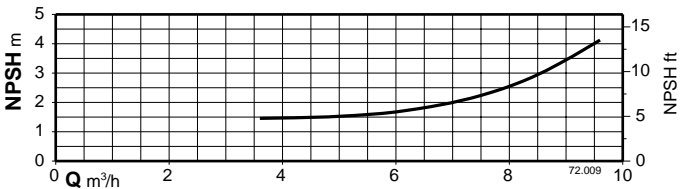
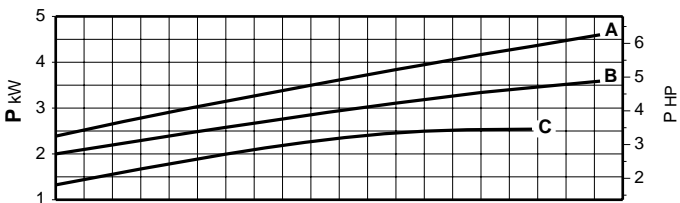
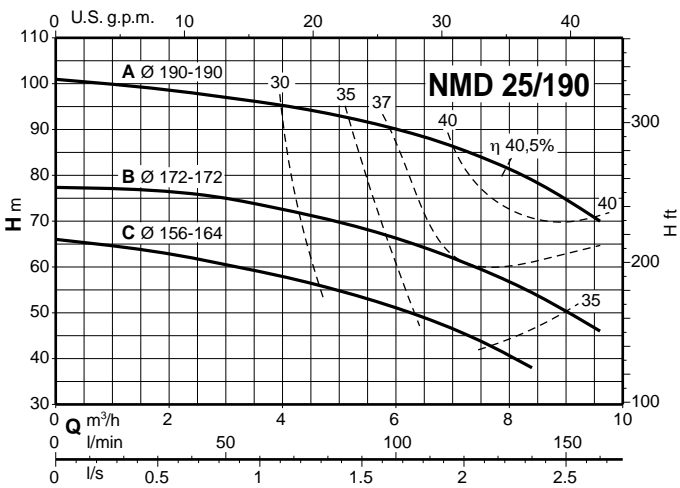
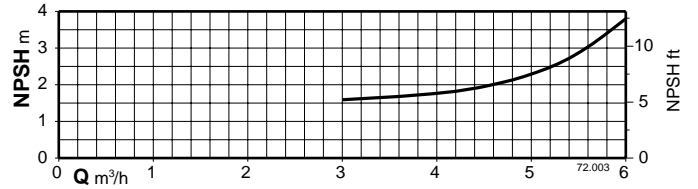
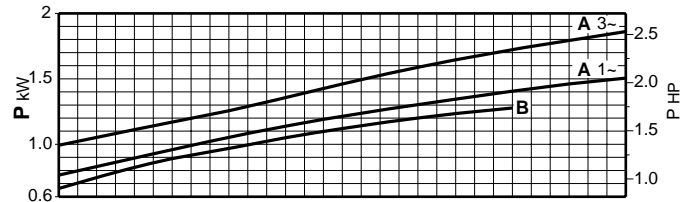
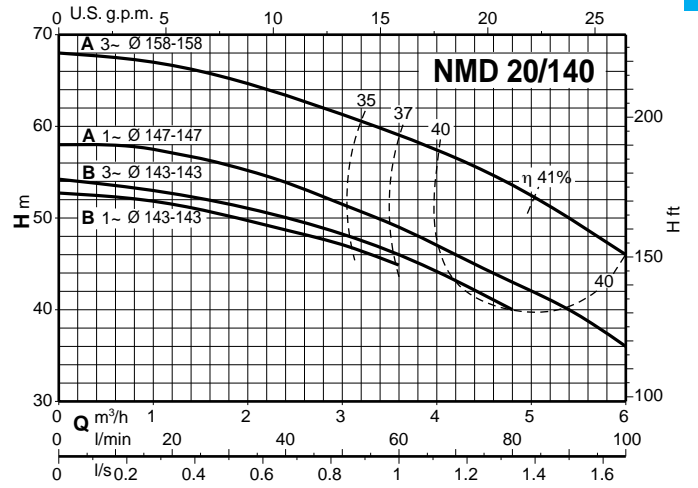
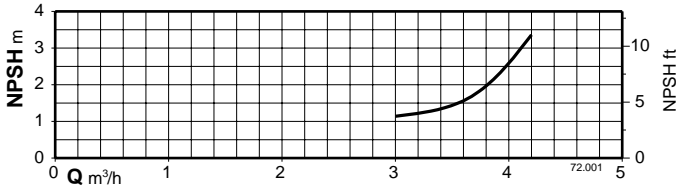
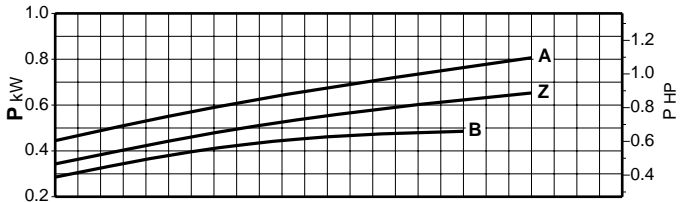
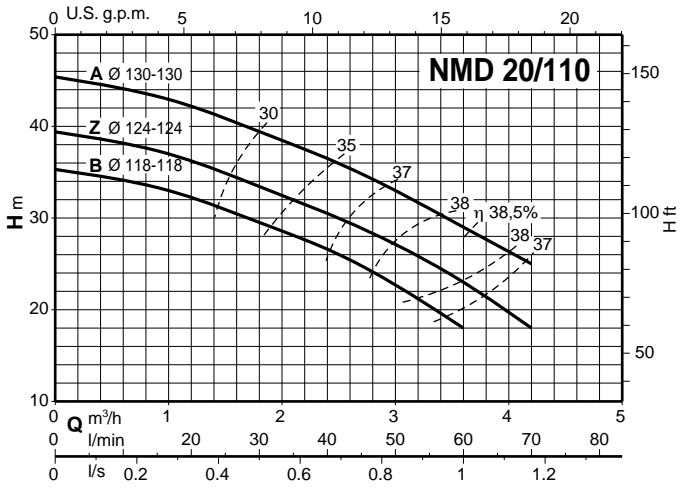


**Characteristic curves  $n \approx 2900$  rpm**

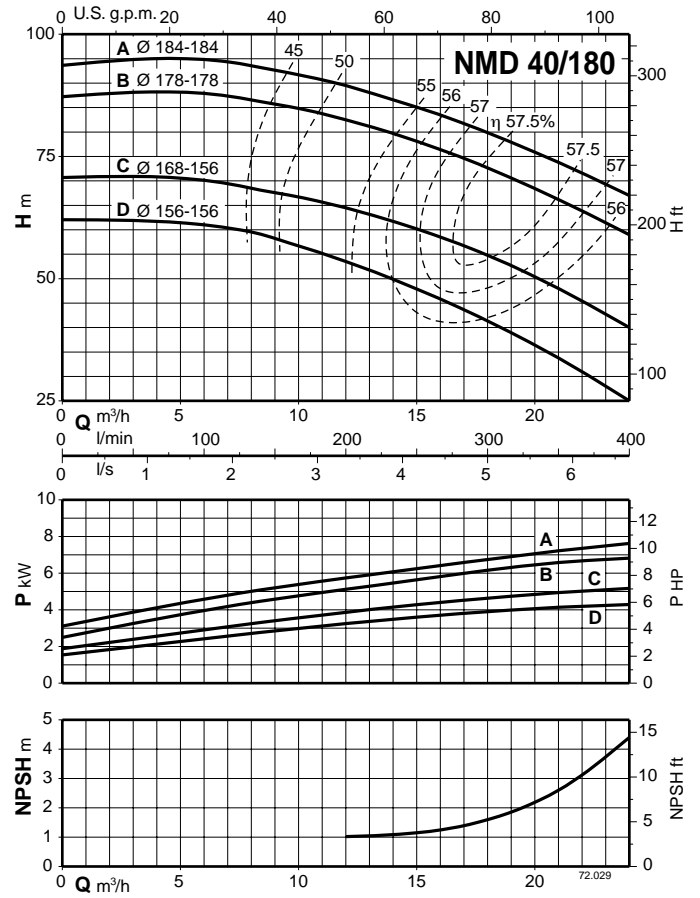
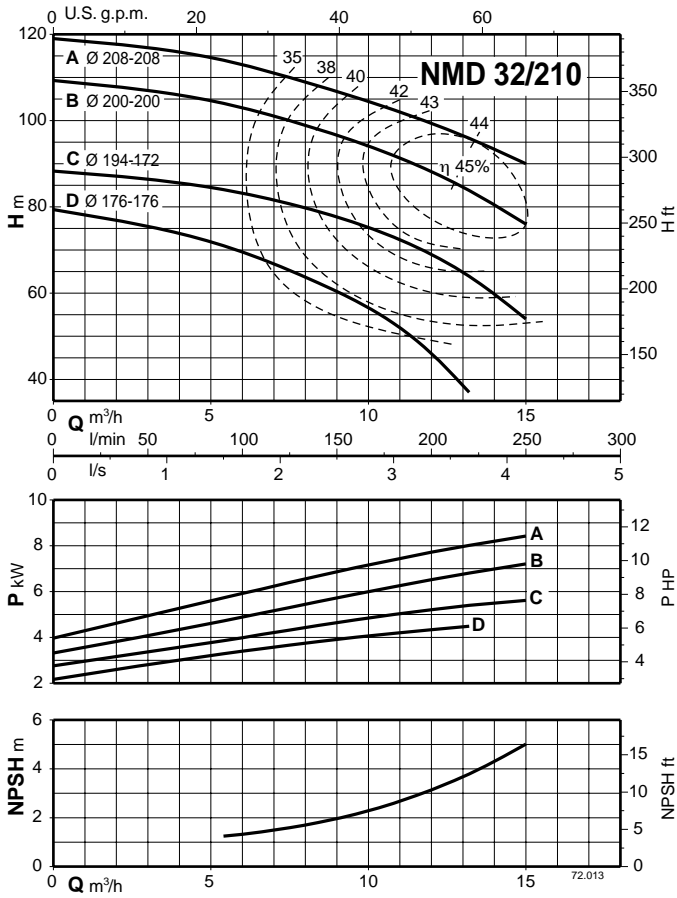


### Characteristic curves $n \approx 2900$ rpm

1

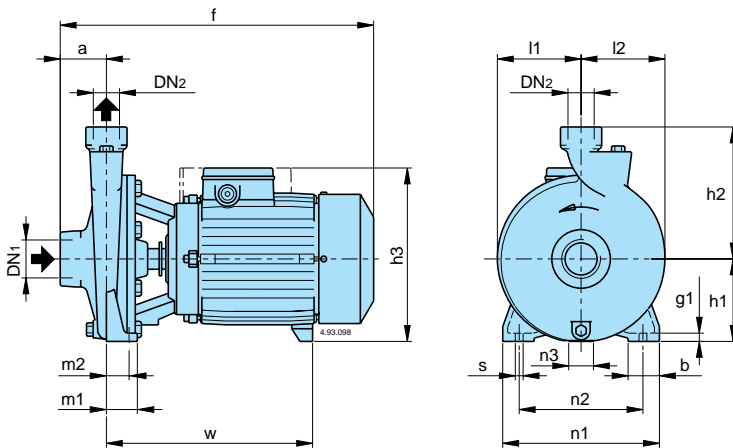


**Characteristic curves  $n \approx 2900$  rpm**



### Dimensions and weights

1

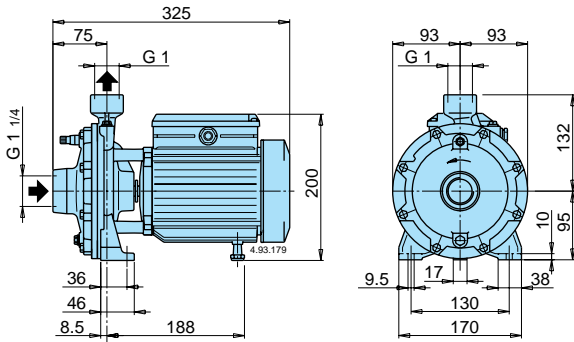


TYPE	NMM kg	NM kg	B-NM kg	I-NM kg
NM 1/AE	8,7	8,6		
NM 2/BE	14	13,1		
NM 2/SE	14,2	13,3		
NM 2/AE	15,1	14,2		
NM 3/CE	24	22,9		
NM 3/BE	26	25,1		
NM 3/AE		26,1		
B- NM 20/160BE	19,9	18,4	21	
B- NM 20/160AE	20,7	19,7	22,5	
NM 25/12BE	13,2	12,3		
NM 25/12AE	14,2	13,3		
B- NM 25/125BE			18,2	
B- NM 25/125AE			18,2	
B- NM 25/160BE	20,4	19,7	22,8	
B- NM 25/160AE	22,5	21,5	24	
NM 25/20BE		28,6		
NM 25/20AE		37,9		
NM 25/20SE		41,7		
I- B- NM 25/200BE			32,7	31
I- B- NM 25/200AE			40,7	38,6
I- B- NM 25/200SE			44,7	42,6
NM 10/FE	19,3	18,5		
NM 10/DE	19,4	18,8		
NM 10/AE	20,2	19,3		
NM 10/SE	22,1	21,5		
NM 11/BE	24,7	24,1		
NM 11/AE		25,1		
NM 12/DE		30,5		
NM 12/CE		39		
NM 12/AE		43		
B- NM 17/HE	23	22,2	29,2	
B- NM 17/GE	24,2	23,2	30,2	
B- NM 17/FE		25,2	32,2	
B- NM 17/DE		33,2	40,2	

B-NM I-NM	NM	DN <sub>1</sub> ISO 228	DN <sub>2</sub>	mm															
				a	f	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	b	s	l <sub>1</sub>	l <sub>2</sub>	w	g <sub>1</sub>
	NM 1/AE	G 1	G 1	40	261	80	132	176	40	32	170	140	17	35	9,5	77	81	171	10
	NM 2/AE-SE-BE	G 1	G 1	45	305	95	150	203	40	32	190	160	17	35	9,5	87	90	218	10
	NM 3/AE-BE-CE	G 1	G 1	50	375	112	180	222	55	43	245	205	37	45	11,5	110	113	244	12
B-NM 20/160AE-BE	NM 20/160AE-BE	G 1 1/4	G 3/4	53	375	100	150	210	37,5	27,5	190	150	30	38	9,5	102	102	246	10
	NM 25/12AE-BE	G 1 1/2	G 1	56	313	90	140	195	37,5	27,5	170	130	9	38	9,5	85	88	250	10
B-NM 25/125AE-BE		G 1 1/2	G 1	56	380	90	140	200	37,5	27,5	170	130	9	38	9,5	85	88	250	10
B-NM 25/160AE-BE	NM 25/160AE-BE	G 1 1/2	G 1	56	380	100	160	210	37,5	27,5	190	150	30	38	9,5	102	102	246	10
	NM 25/20BE	G 1 1/2	G 1	63	393	125	180	235	45	32,5	245	200	49	45	11,5	125	125	251	11
	NM 25/20AE-SE	G 1 1/2	G 1	63	455	125	180	253	45	32,5	245	200	42	45	11,5	125	125	295	11
I- B- NM 25/200BE		G 1 1/2	G 1	63	405	125	180	235	45	32,5	245	200	49	45	11,5	125	125	263	11
I- B- NM 25/200AE-SE		G 1 1/2	G 1	63	455	125	180	253	45	32,5	245	200	42	45	11,5	125	125	295	11
	NM 10/SE-AE-DE-FE	G 2	G 1 1/4	63	382	100	150	210	50	35	190	140	30	50	13	90	97	239	14
	NM 11/AE-BE	G 2	G 1 1/4	70	400	112	170	222	50	35	210	160	37	50	15	103	110	247	14
	NM 12/DE	G 2	G 1 1/4	70	400	132	190	242	50	35	240	190	47	50	15	125	127	247	14
	NM 12/AE-CE	G 2	G 1 1/4	70	465	132	190	260	50	35	240	190	45	50	15	125	127	300	14
B-NM 17/FE- GE-HE	NM 17/FE- GE-HE	G 2 1/2	G 2 1/2	80	417	112	160	222	50	35	210	160	37	50	14	96	113	257	14
B-NM 17/DE	NM 17/DE	G 2 1/2	G 2 1/2	80	475	112	160	240	50	35	210	160	20	50	14	96	113	295	14

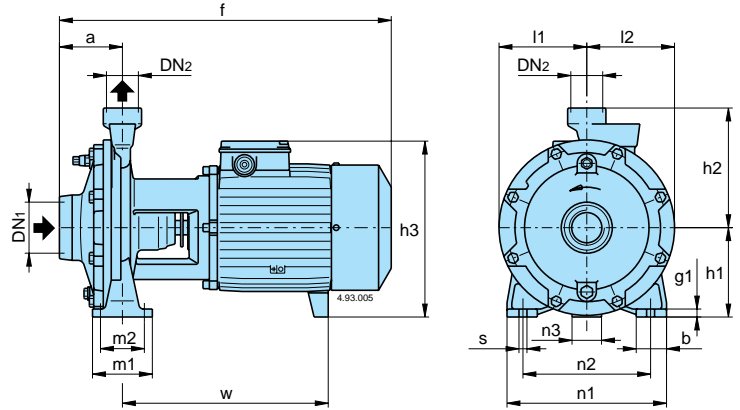
### Dimensions and weights

#### NMD 20/110



TYPE	NMDM kg	NMD kg	B-NMD kg
B- NMD 20/110BE	13	12,1	13,4
B- NMD 20/110ZE	14	13	14,2
B- NMD 20/110AE	15,1	14,2	17,4

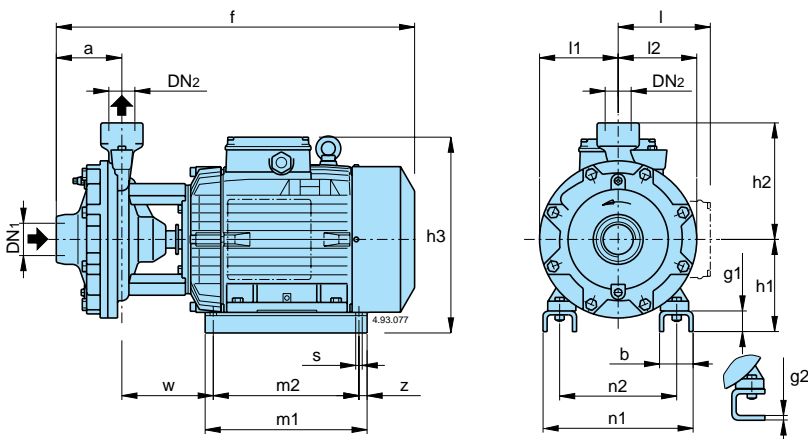
#### NMD 20/140 NMD 25/190



TYPE	NMDM kg	NMD kg	B-NMD kg	I-NMD kg
I- B- NMD 20/140BE	23,9	22,7	25,2	25
I- B- NMD 20/140AE	25,2	24,8	27,6	29,2
I- B- NMD 25/190CE		39	42,7	40
I- B- NMD 25/190BE		46,7	51	48
I- B- NMD 25/190AE		51	55	52

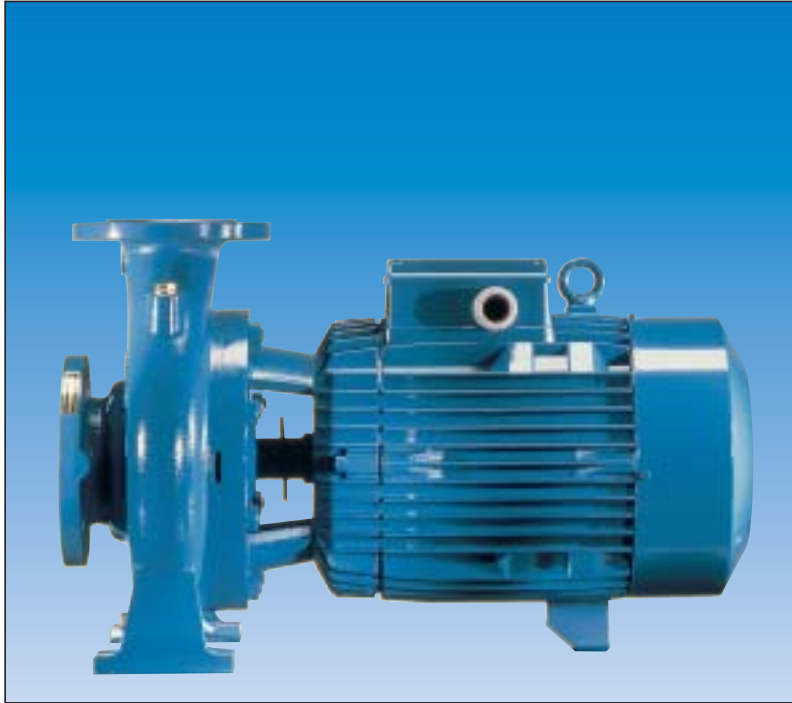
B-NMD I-NMD	NMD	DN1 DN2 ISO 228	mm																
			a	f	h1	h2	h3	m1	m2	n1	n2	n3	b	s	l1	l2	w	g1	
I-B-NMD 20/140AE-BE	NMD 20/140AE-BE	G 1 1/4 G 1	80	410	112	150	222	75	55	200	160	37	50	38	9,5	110	110	256	10
I-B-NMD 25/190CE	NMD 25/190CE	G 1 1/2 G 1		447		250												274	
I-B-NMD 25/190BE	NMD 25/190BE		97	495	140	180	268	100	70	240	190	49	50	14	133	133	306	13	
I-B-NMD 25/190AE	NMD 25/190AE			495		268												306	

#### NMD 32/210 NMD 40/180



TYPE	NMD kg	B-NMD kg	I-NMD kg
B- NMD 32/210DE	60	66	
B- NMD 32/210CE	70	76	
B- NMD 32/210BE	76,5	82	
B- NMD 32/210AE	99	105	
I- B- NMD 40/180DE	59	65	61
I- B- NMD 40/180CE	69	75	71
I- B- NMD 40/180BE	75,5	81	77
I- B- NMD 40/180AE	97	102	99

B-NMD I-NMD	NMD	DN1 DN2 ISO 228	mm																		
			a	f	h1	h2	h3	m1	m2	n1	n2	z	b	s	l	l1	l2	w	g1	g2	
B- NMD 32/210DE	NMD 32/210DE	G 2 G 1 1/4	110	525	155	215	283	205	175	194	140		54	10	-	150	150	139	-	6	
B- NMD 32/210BE-CE	NMD 32/210BE-CE			550	150	215	-	280	250	258	190	15	68	12	170	150	108	38	-		
B- NMD 32/210AE	NMD 32/210AE			625	170		355	298	268	286	216		70	12	-		152	38	-		
I- B- NMD 40/180DE	NMD 40/180DE	G 2 G 1 1/2	121	530	155	215	283	205	175	194	140		54	10	-	145	145	133	-	6	
I- B- NMD 40/180BE-CE	NMD 40/180BE-CE			555	150	215	-	280	250	258	190	15	68	12	170	145	102	38	-		
I- B- NMD 40/180AE	NMD 40/180AE			630	170		355	298	268	286	216		70	12	-		145	38	-		



### Construction

Close-coupled centrifugal pumps; electric motor with extended shaft directly connected to the pump. Pump casing with axial suction and radial delivery on top, main dimensions and performance according to EN 733.

**Connections:** Flanges according to PN 10, EN 1092-2.

**Counter-flanges** (on request)

Sizes	Flanges
from NM 32/... to NM 50/...	Screwed flanges UNI 2247, PN 16
from NM 65/... to NM 100/250	Flanges for welding UNI 2277, UNI 2278, PN 10

### Applications

- For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
- For water supply.
- For heating, air conditioning, cooling and circulation plants.
- For civil and industrial applications.
- For fire fighting applications. - For irrigation.

### Operating conditions

Liquid temperature from -10 °C to +90 °C.  
Ambient temperature up to 40° C.  
Total suction lift up to 7 m.  
Maximum permissible working pressure up to 10 bar.  
Continuous duty.

### Motor

2-pole induction motor, 50 Hz (n = 2900 rpm).  
**NM:** three-phase 230/400 V ± 10% up to 3 kW;  
400/690 V ± 10% from 4 to 75 kW.  
Insulation class F.  
Protection IP 54.  
Constructed in accordance with IEC 34.

### Special features on request

- Other voltages. - Frequency 60 Hz (as per 60 Hz data sheet).
- Protection IP 55.- Special mechanical seal.
- Packed gland (only for NM standard construction).
- Single-phase motor (NMM) up to 1.5 kW. - Motor EEx-d II B T4.
- Higher or lower liquid or ambient temperatures.

### Materials

Components	NM	B-NM	I-NM
Pump casing	Cast iron	Bronze	Cr Ni Mo steel AISI 316
Lantern bracket	GJL 200 EN 1561	G-Cu Sn 10 UNI 7013	
Impeller	Cast iron	Bronze	
	GJL 200 EN 1561	G-Cu Sn 10 UNI 7013	
	Brass P- Cu Zn 40 Pb 2 UNI 5705 for NM 32/12-16-20, NM 40/20 B-NM 32/125-160-200, B-NM 40/200		
Shaft	Cr Ni steel AISI 303 up to 2.2 kW	Cr Ni Mo steel AISI 316	
	Cr steel AISI 430 from 3 kW to 75 kW		
Mechanical seal	Carbon - Ceramic - NBR		
Counter-flanges	Steel Fe 430B UNI 7070		

### Coverage chart n ≈ 2900 rpm

