



### 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).

The pumps in bronze are supplied fully painted.

### 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, 60 Hz (n = 3450 rpm).

**NM, NMD:** three-phase 220/380 V, 380/660 V.

**NMM, NMDM:** single-phase 220 V.

With thermal protector up to 1.1 kW.

Insulation class F.

Protection IP 54.

Constructed in accordance with IEC 60034.

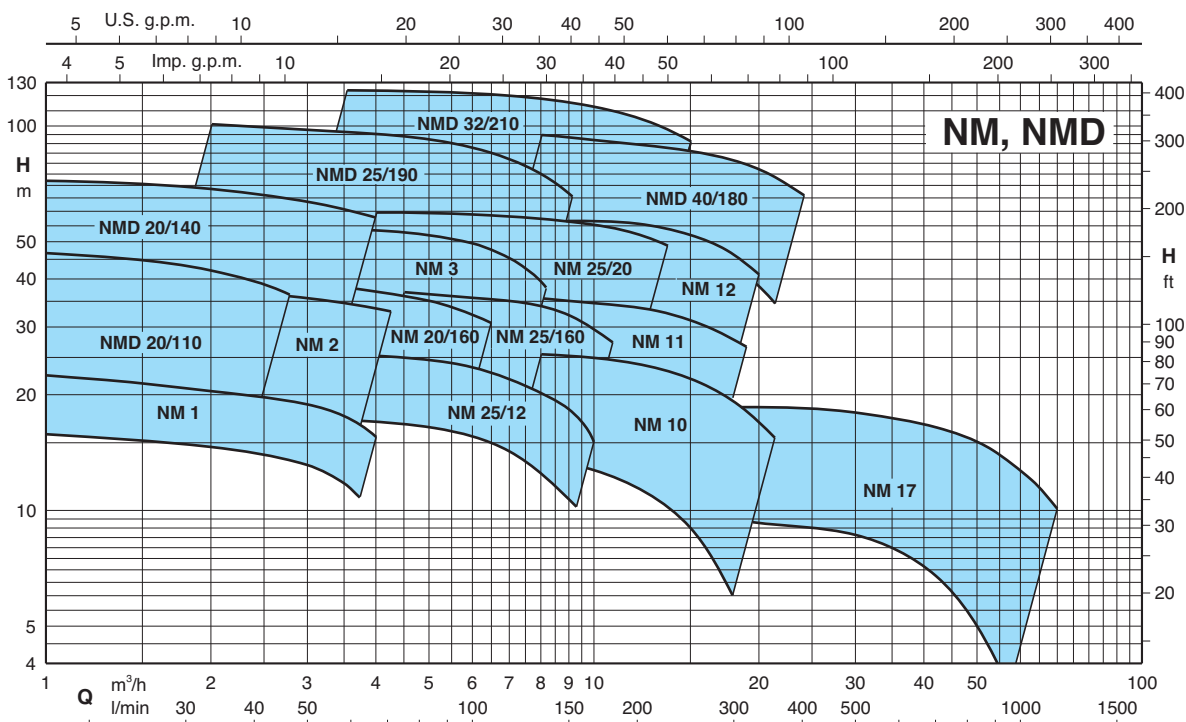
### Special features on request

- Other voltages.
- Protection IP 55.
- Special mechanical seal
- Higher or lower liquid or ambient temperatures.


### Materials

Components	NM, NMD	B-NM, B-NMD
Pump casing	Cast iron	Bronze
Lantern bracket	GJL 200 EN 1561	G-Cu Sn 10 EN 1982
Impeller	Brass P- Cu Zn 40 Pb 2 UNI 5705	
NM 17	Cast iron	Bronze
	GJL 200 EN 1561	G-Cu Sn 10 EN 1982
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 = 3450 rpm



#### Performance n ≈ 3450 rpm

	NM	P <sub>2</sub>		Q m³/h l/min	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4
		kW	HP		16	20	25	31,5	40	50	60	70	80	90	100	110	125	140
		H m																
	NM 1/AE-60●	0,37	0,5	22	21,8	21,5	21	20,3	19,4	18,1	16,3	14,2						
	NM 2/B-60/A●	0,55	0,75	27	26,5	26	25,5	25	24	23	22	20						
	NM 2/S-60/A●	0,55	0,75	32	31,5	31	30,5	30	28	25,5	23	19,5						
	NM 2/A-60/A●	0,75	1	36	35,5	35	34,5	34	32,5	31,5	30	28,5	27					
	NMM 3/CE-60	1,1	1,5		39,5	39	39	38	37	36,5	35	33,5						
	NM 3/CE-60	1,1	1,5		40	39,5	39,5	39	38	37	36	34						
	NMM 3/BE-60	1,5	2		45,5	45	45	44,5	44	43	42	41	32*	29*				
	NM 3/BE-60	1,5	2		47	46,5	46	45,5	45	44,5	43,5	42	40*	37*	33,5*	28*		
	NM 3/AE-60	2,2	3		55,5	55	54,5	54	53,5	53	52,5	52	51*	49*	46,5*	42*		35*

B-NM B-NMD	NM NMD	P <sub>2</sub>		Q m³/h l/min	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4
		kW	HP		16	20	25	31,5	40	50	60	70	80	90	100	110	125	140
		H m																
B-NMD 20/110B-60/A●	NMD 20/110B-60/A●	0,45	0,6	36,5	35,5	34	32	28,5	24	19*								
B-NMD 20/110Z-60/A●	NMD 20/110Z-60/A●	0,55	0,75	41	40	38	36	32,5	28	23	17*							
B-NMD 20/110A-60/A●	NMD 20/110A-60/A●	0,75	1	47	46,5	45	42,5	39	34	29	23,5*							
B-NMDM 20/140BE-60	NMDM 20/140BE-60	1,1	1,5	59	58,5	58	57	55	52	47,5								
B-NMD 20/140BE-60	NMD 20/140BE-60	1,1	1,5	60	59,5	59	58	56	53	49	45							
B-NMDM 20/140AE-60	NMDM 20/140AE-60	1,5	2	66,5	65,5	65	64	62,5	60	57,5	55	51	47,5					
B-NMD 20/140AE-60	NMD 20/140AE-60	1,5	2	77	76,5	76	75	73,5	71	69	66	63	59	54				
B-NM 20/160BE-60●	NM 20/160BE-60●	0,75	1				33	33	32	31	30	28,5	26,5	25	23*			
B-NM 20/160AE-60●	NM 20/160AE-60●	1,1	1,5				39	38,5	38	37	36	35	34	33	31*			

B-NM B-NMD	NM NMD	P <sub>2</sub>		Q m³/h l/min	2,4	3	3,6	4,8	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8
		kW	HP		40	50	60	80	100	110	125	140	160	180	200	220	250	280
		H m																
B-NM 25/12B-60/A●	NM 25/12BE-60/A●	0,55	0,75	20,8	20,8	20,7	20,3	19,6	19,2	18,4	17,6	16,1	14,3	12	9,3			
B-NM 25/12A-60/A●	NM 25/12AE-60/A●	0,75	1	24,5	24,6	24,6	24,3	23,6	23,1	22,4	21,6	20,4	19	17	14,5			
B-NM 25/160BE-60●	NM 25/160BE-60●	1,1	1,5		32	31,5	31	30	29	28	26,5	23,5*						
B-NM 25/160AE-60●	NM 25/160AE-60●	1,5	2		38	37,5	37	36	35,5	34,5	33	31	27,5	22,5*				
B-NM 25/200BE-60	NM 25/20BE-60	2,2	3		46	45,5	45	44	43,5	42,5	41,5	39	36,5	33*				
B-NM 25/200AE-60	NM 25/20AE-60	3	4		53	52,5	52	51,5	48,5	50	49	47,5	45,5	43	40*			
B-NM 25/200SE-60	NM 25/20SE-60	4	5,5		60	59,5	59	58,5	58	57,5	56,5	55	54	52	50	45,5		
B-NMD 25/190CE-60	NMD 25/190CE-60	2,2	3	69	67	65	60	53	50	42								
B-NMD 25/190BE-60	NMD 25/190BE-60	3	4	81	80	78	73	67,5	64	58	51,5	41*						
B-NMD 25/190AE-60	NMD 25/190AE-60	4	5,5	98	97	95	92	87	84	79	72,5	63*						

	NM	P <sub>2</sub>		Q m³/h l/min	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	30
		kW	HP		110	125	140	160	180	200	220	250	280	315	350	400	450	500
		H m																
	NM 10/FE-60●	0,55	0,75	14	13,5	13	12,5	12	11,5	10,5	9							
	NM 10/DE-60●	0,75	1	19,5	19	19	18,5	18	17,5	16,5	15,5							
	NM 10/AE-60●	1,1	1,5	24,5	24	24	23,5	23	22	21,5	20							
	NM 10/SE-60●	1,5	2	26	26	25,5	25,5	25	24,5	24	22,5	21	19	16,5	12,5			
	NMM 11/BE-60	1,5	2	29,5	29	28,5	28	27	26	25	22,5	20						
	NM 11/BE-60	1,5	2	31	30,5	30	29,5	29	28	27	25	23*						
	NM 11/AE-60	2,2	3	36,5	36	35,5	35	34	33	32,5	31	29*						
	NM 12/DE-60	2,2	3	39	38	37,5	36,5	35	34	32*								
	NM 12/CE-60	3	4	45	44,5	44	43	42	41	40	37	34*						
	NM 12/AE-60	4	5,5	57	56,5	56	55,5	55	54	53	51	49*						

#### Performance n ≈ 3450 rpm

1

B-NMD	NMD	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	5,4	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	
		kW	HP		90	100	110	125	140	160	180	200	220	250	280	315	350	400	
B-NMD 32/210DE-60	NMD 32/210DE-60	4	5,5	H m	68	67	65	63	60	55	50	45	40*						
B-NMD 32/210CE-60	NMD 32/210CE-60	5,5	7,5		89	88	87	85	83	79	74	68	63	52*					
B-NMD 32/210BE-60	NMD 32/210BE-60	7,5	10		110	109	108	106	104	100	96	91	86	78*					
B-NMD 32/210AE-60	NMD 32/210AE-60	9,2	12,5		121	120	119	118	117	114	110	105	99	89*					
B-NMD 40/180DE-60	NMD 40/180DE-60	4	5,5					60	58,5	57	55,5	53,5	51,5	47,5	43,5	38,5	33,5		
B-NMD 40/180CE-60	NMD 40/180CE-60	5,5	7,5					68	67,5	66,5	65,5	64	63	59,5	57	50	47,5		
B-NMD 40/180BE-60	NMD 40/180BE-60	7,5	10					86,5	86	84,5	83,5	82	80	77,5	74	68	65,5	58*	
B-NMD 40/180AE-60	NMD 40/180AE-60	9,2	12,5					93,5	92,5	91,5	90,5	89	87	84,5	83	75,5	73,5	66*	

B-NM	NM	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	21	24	27	30	33	37,8	42	48	54	60	66	75	84	96
		kW	HP		350	400	450	500	550	630	700	800	900	1000	1100	1250	1400	1600
B-NM 17/HE-60●	NM 17/HE-60●	1,1	1,5	H m	9,2	9	8,7	8,5	8	7,5	6,5	5	3,5*					
B-NM 17/GE-60●	NM 17/GE-60●	1,5	2		12	11,8	11,6	11,5	11	10,5	9,5	8	6,5	4,5*				
B-NM 17/FE-60	NM 17/FE-60	2,2	3			16	15,8	15,5	15	14,5	14	12,7	11,5	10	8*			
B-NM 17/DE-60	NM 17/DE-60	3	4					18	17,7	17,5	17	16,5	15,5	14	12,5	11*		

NM, NMD Standard construction.  
B-NM, B-NMD Bronze 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.

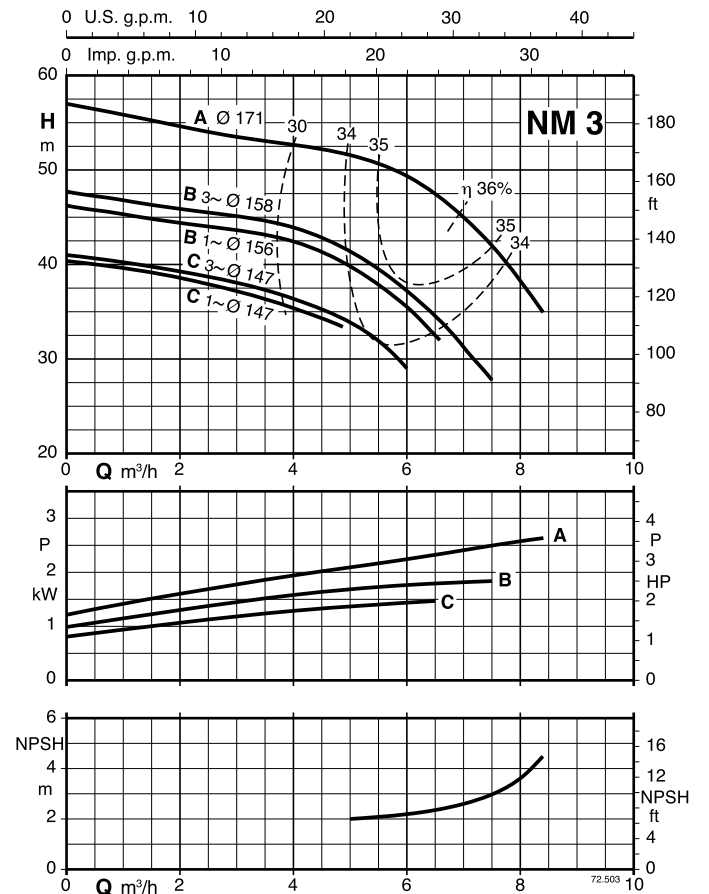
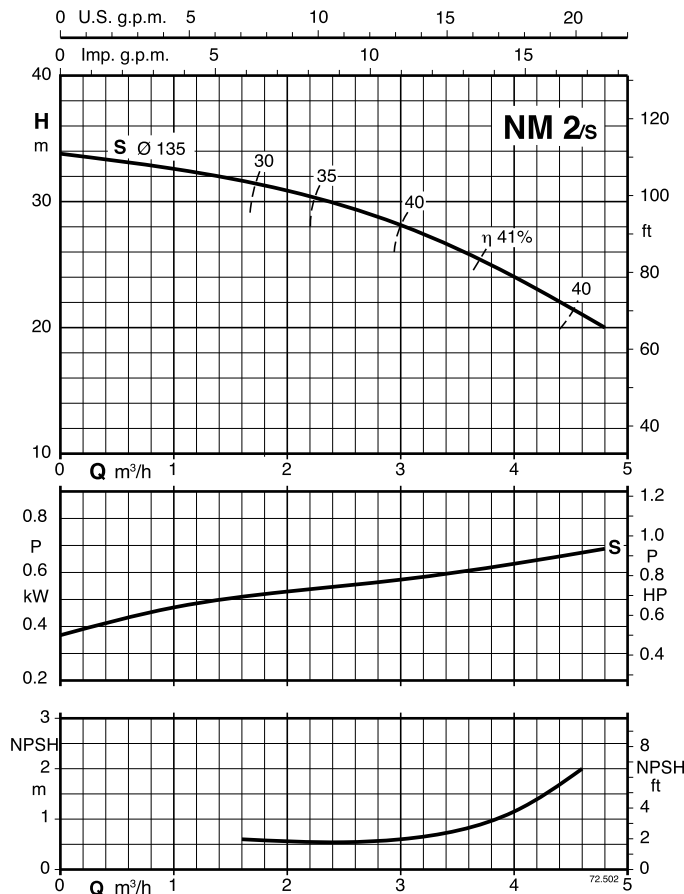
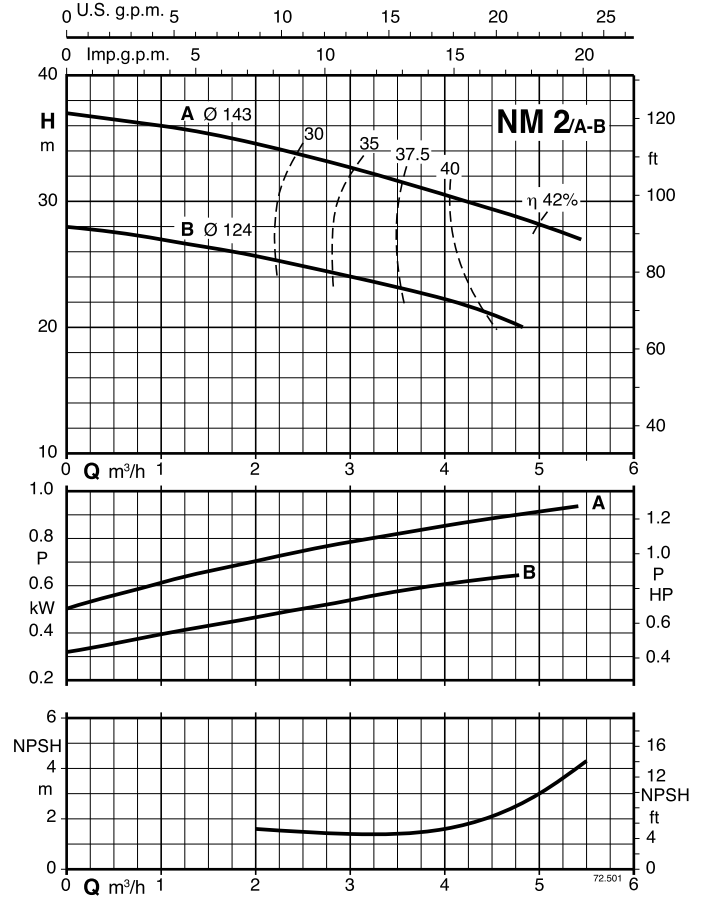
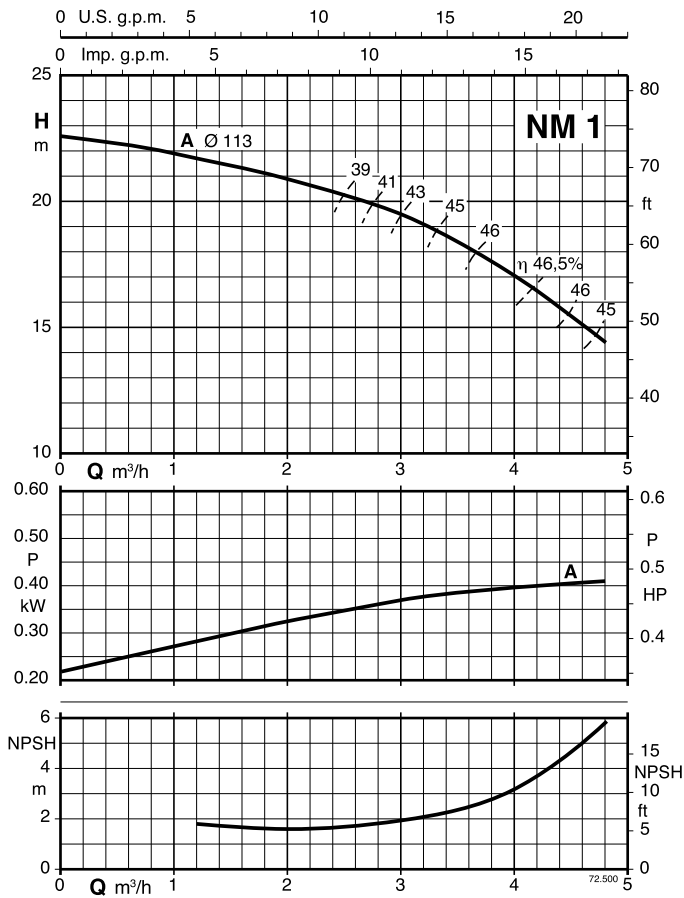
#### Rated currents

P <sub>2</sub>		220 V 1~	
kW	HP	IN A	IA/IN
0,37	0,5	3,4	2,3
0,45	0,6	4,1	2,5
0,55	0,75	5,2	3,1
0,75	1	6,5	2,9
1,1	1,5	8,5	3
1,5	2	10,6	3,8

P <sub>2</sub>		220 V Δ / 380 V Y			
kW	HP	380 V Δ / 660 V Y			IA/IN
		IN A	IN A	IN A	
0,37	0,5	3	1,7		3,8
0,45	0,6	2,6	1,5		3,5
0,55	0,75	3,3	1,9		4,3
0,75	1	4,5	2,6		5,2
1,1	1,5	5,7	3,3		5,3
1,5	2	9	5,2		6
2,2	3	10,7	6,2		5,9
3	4	13	7,5		9,5
4	5,5		11,3	6,5	9,8
5,5	7,5		14,5	8,4	8,2
7,5	10		18,2	10,5	9,5
9,2	12,5		21,5	12,4	8,2

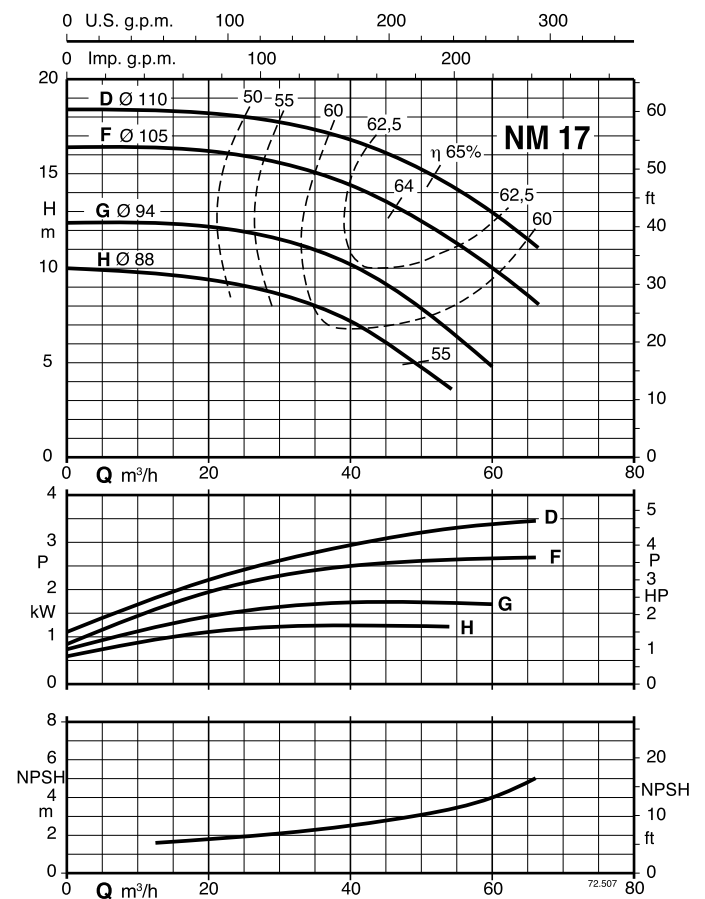
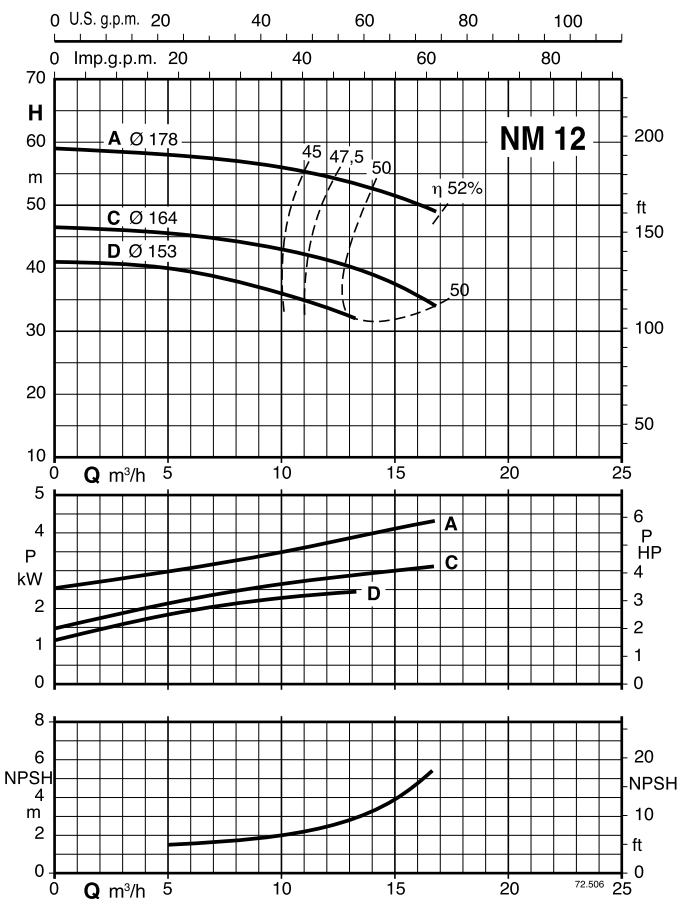
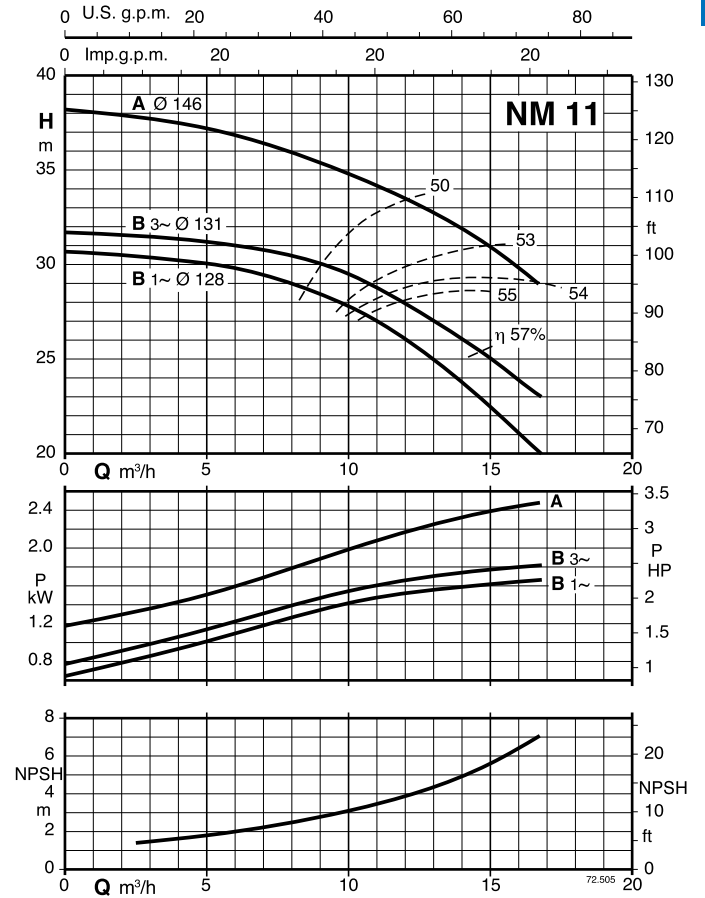
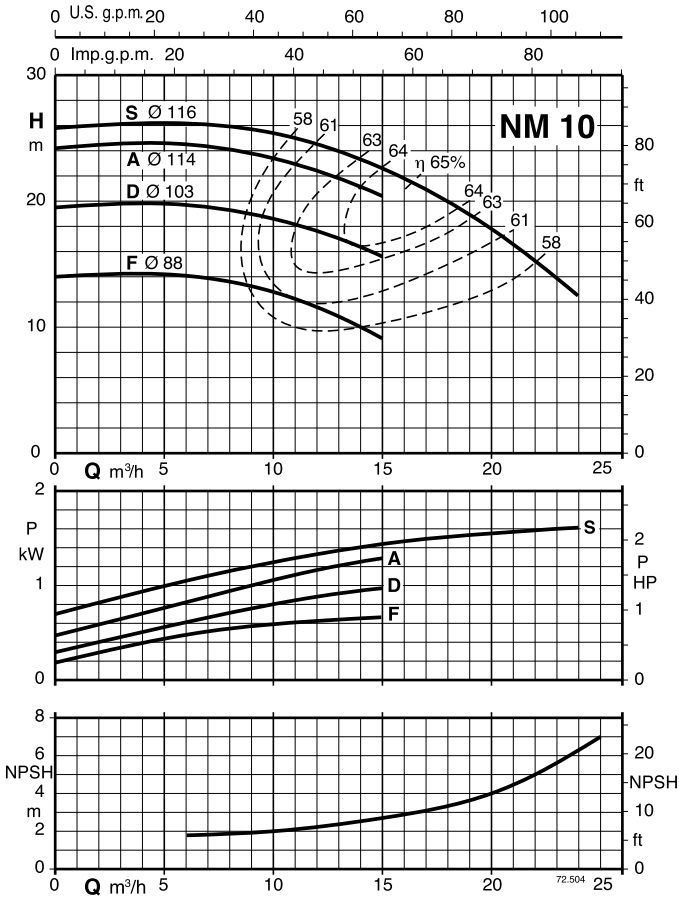
P<sub>2</sub> Rated motor power output.  
IA/IN D.O.L. starting current / Rated current

Characteristic curves n = 3450 rpm

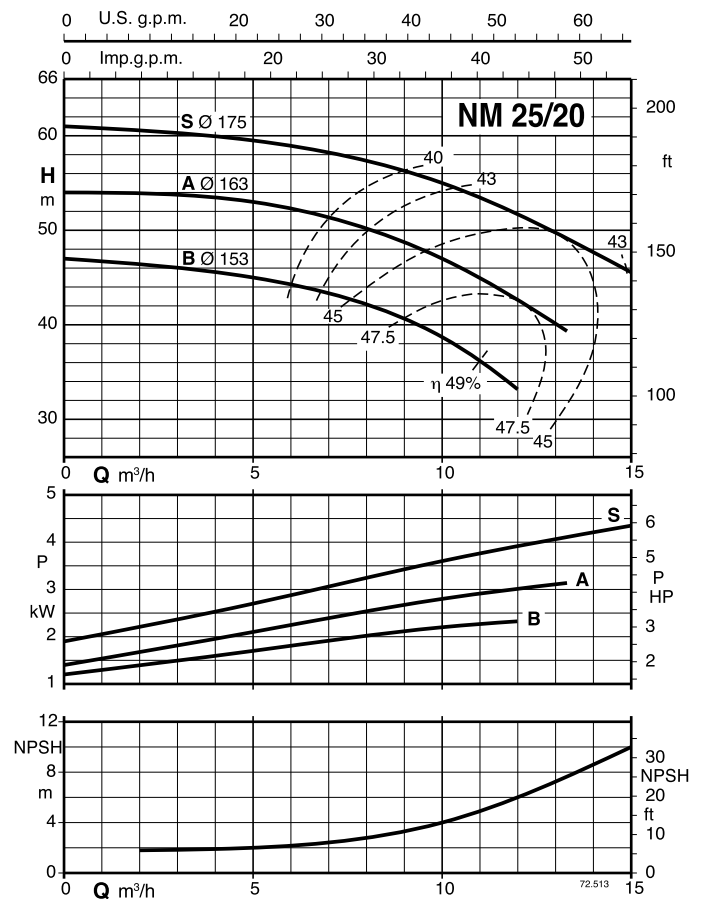
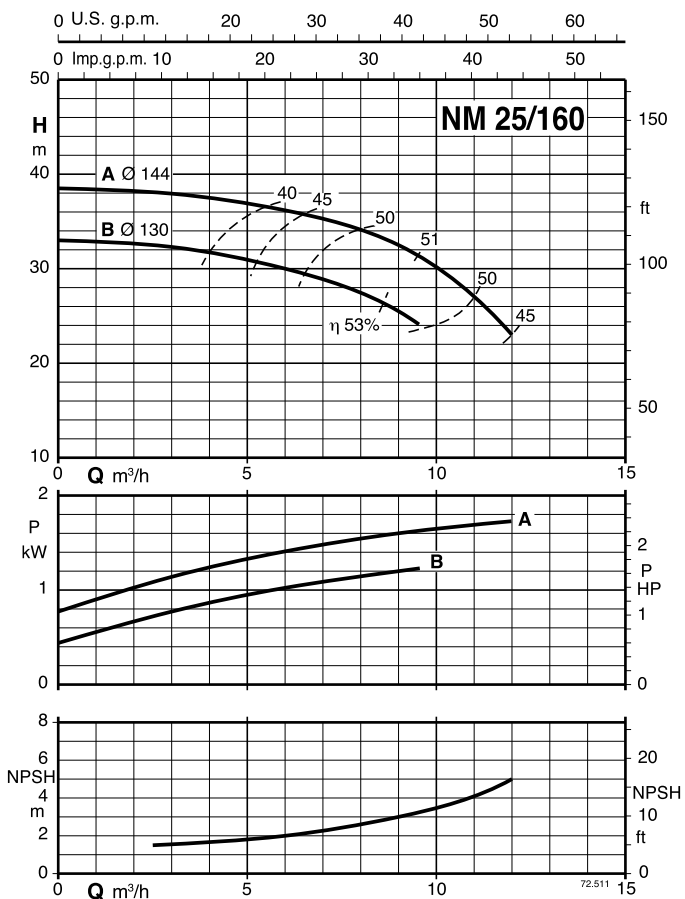
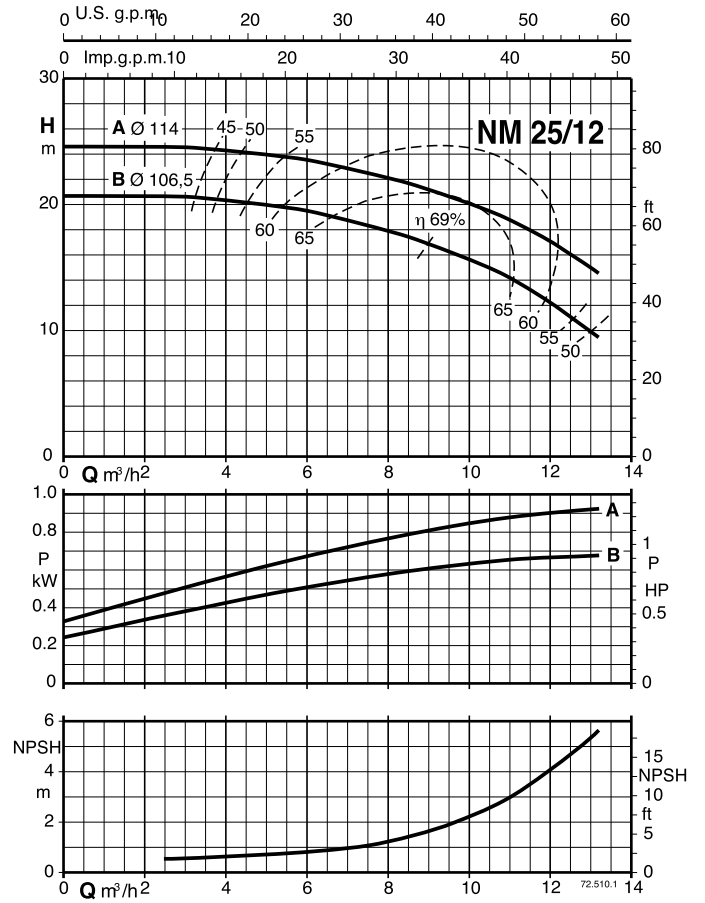
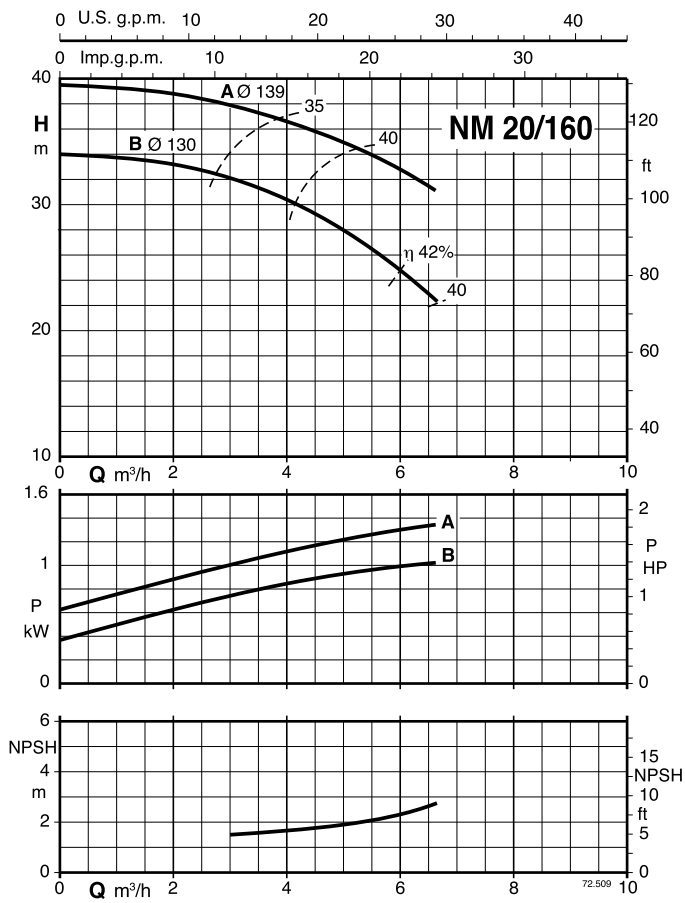


### Characteristic curves n = 3450 rpm

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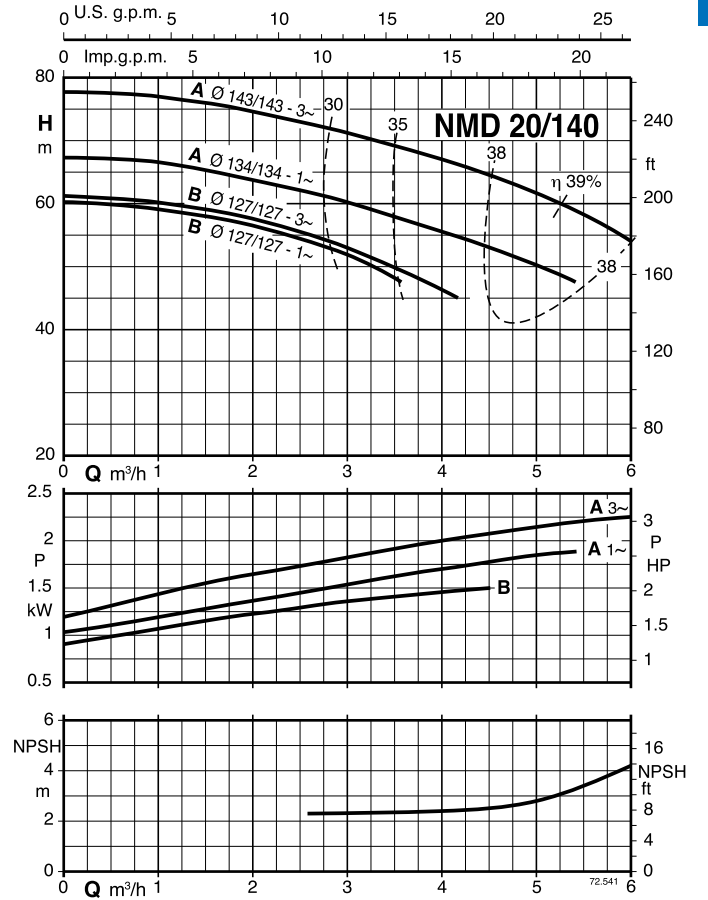
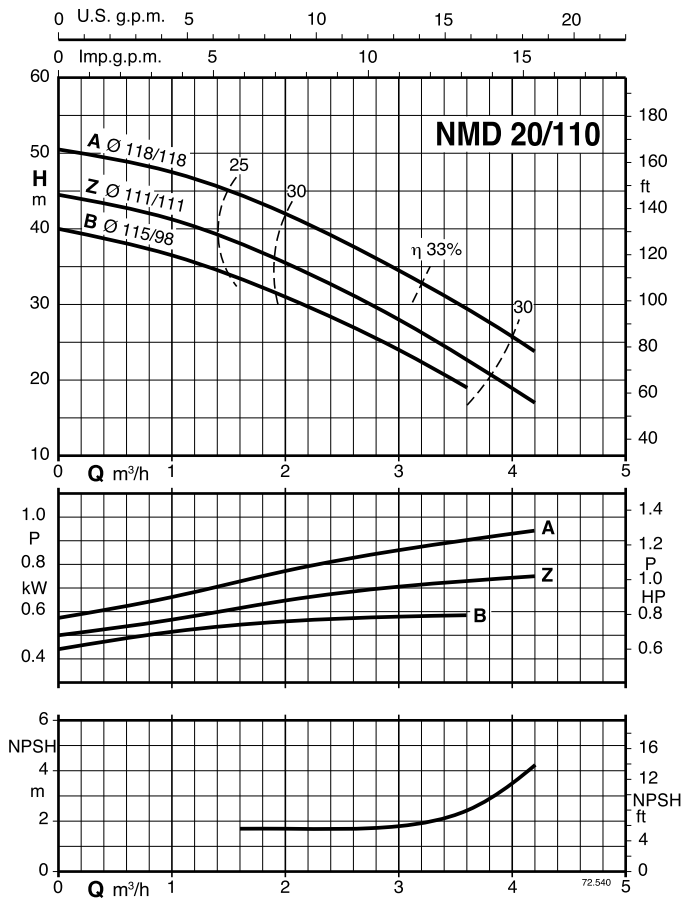


Characteristic curves n = 3450 rpm

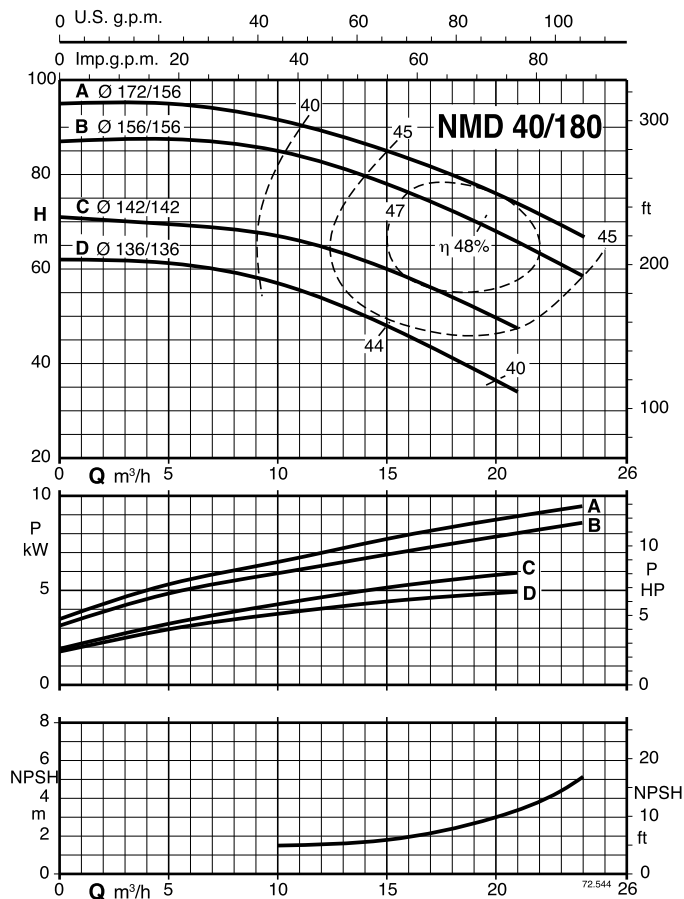
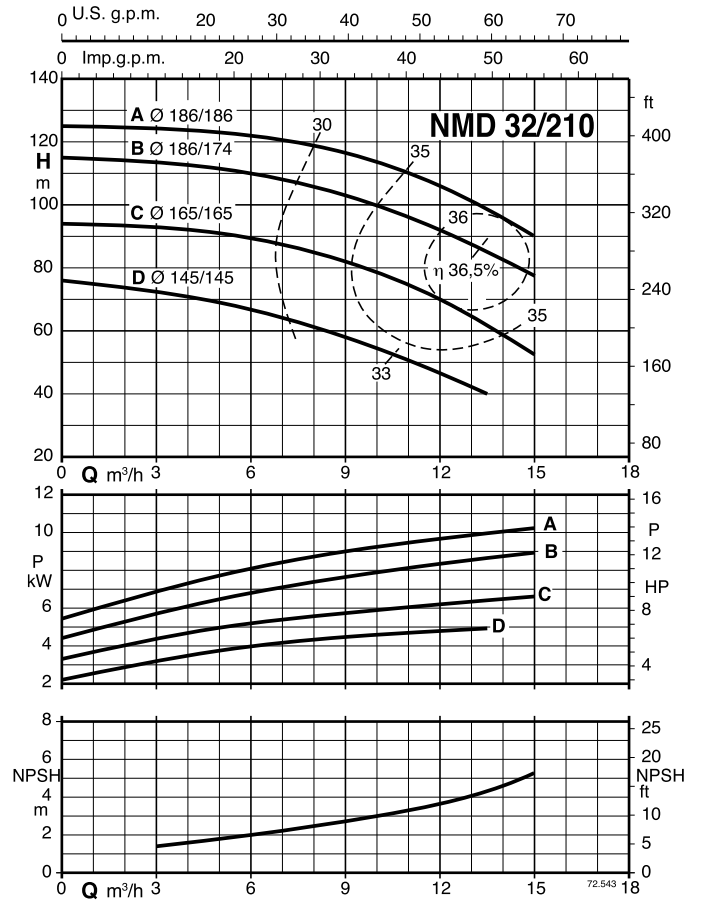
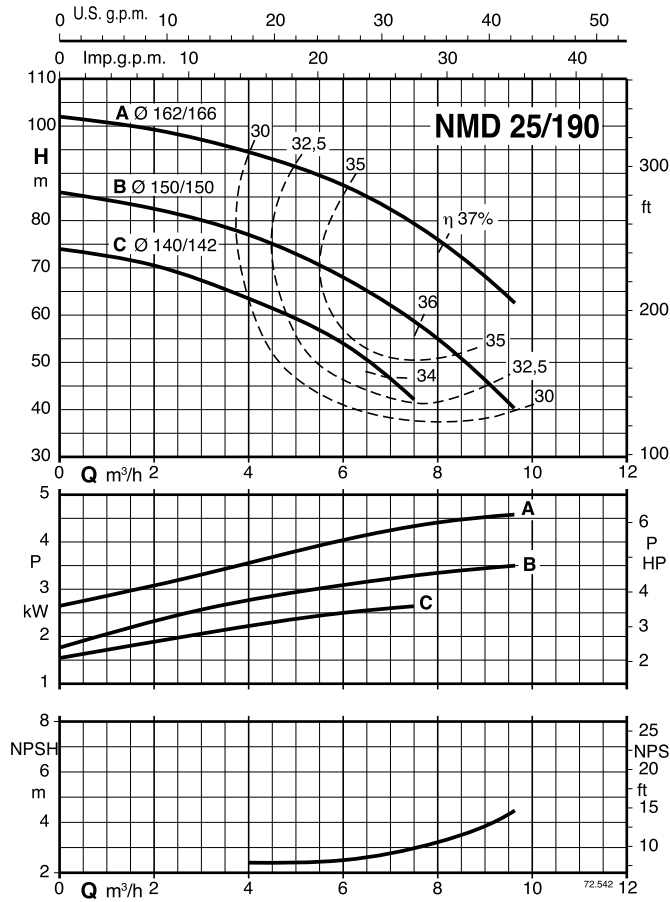


### Characteristic curves n = 3450 rpm

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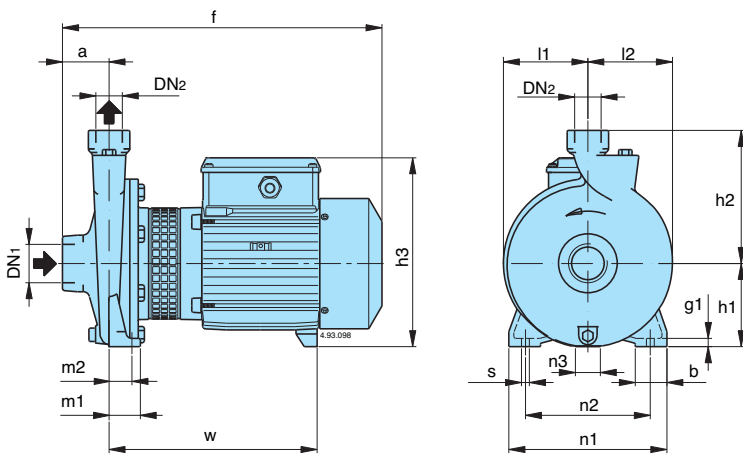
### Characteristic curves n = 3450 rpm





### Dimensions and weights

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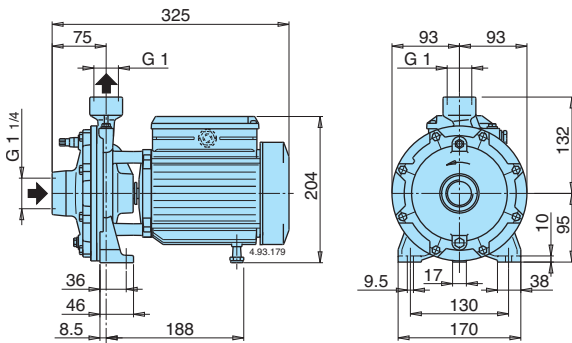


TYPE	NMM kg	NM kg	B-NM kg
NM 1/AE-60	8,7	8,6	
NM 2/B-60/A	14	13,1	
NM 2/S-60/A	14,2	13,3	
NM 2/A-60/A	15,1	14,2	
NM 3/CE-60	24	22,9	
NM 3/BE-60	26	25,1	
NM 3/AE-60		26,1	
B- NM 20/160BE-60	19,9	18,4	21
B- NM 20/160AE-60	20,7	19,7	22,5
B- NM 25/12B-60/A	13,2	12,3	13,5
B- NM 25/12A-60/A	14,2	13,3	14,5
B- NM 25/160BE-60	20,4	19,7	22,8
B- NM 25/160AE-60	22,5	21,5	24
NM 25/20BE-60		28,6	
NM 25/20AE-60		37,9	
NM 25/20SE-60		41,7	
B- NM 25/200BE-60			32,7
B- NM 25/200AE-60			40,7
B- NM 25/200SE-60			44,7
NM 10/FE-60	19,3	18,5	
NM 10/DE-60	19,4	18,8	
NM 10/AE-60	20,2	19,3	
NM 10/SE-60	22,1	21,5	
NM 11/BE-60	24,7	24,1	
NM 11/AE-60		25,1	
NM 12/DE-60		30,5	
NM 12/CE-60		39	
NM 12/AE-60		43	
B- NM 17/HE-60	23	22,2	29,2
B- NM 17/GE-60	24,2	23,2	30,2
B- NM 17/FE-60		25,2	32,2
B- NM 17/DE-60		33,2	40,2

B-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-60	G 1	G 1	40	261	80	132	176	40	32	170	140	17	35	9,5	77	81	171	10	
	NM 2/A-60/A,S-60/A,B-60/A	G 1	G 1	45	305	95	150	207	40	32	190	160	17	35	9,5	87	90	218	10	
	NM 3/AE-60,BE-60,CE-60	G 1	G 1	50	375	112	180	240	55	43	245	205	37	45	11,5	110	113	244	12	
B- NM 20/160AE-60,BE-60	NM 20/160AE-60,BE-60	G 1 1/4	G 3/4	53	375	100	150	228	37,5	27,5	190	150	30	38	9,5	102	102	246	10	
B- NM 25/12A-60/A,B-60/A	NM 25/12A-60/A,B-60/A	G 1 1/2	G 1	56	313	90	140	199	37,5	27,5	170	130	9	38	9,5	85	88	195	10	
B- NM 25/160AE-60,BE-60	NM 25/160AE-60,BE-60	G 1 1/2	G 1	56	380	100	160	228	37,5	27,5	190	150	30	38	9,5	102	102	246	10	
	NM 25/20BE-60	G 1 1/2	G 1	63	393	125	180	253	45	32,5	245	200	49	45	11,5	125	125	251	11	
	NM 25/20AE-60,SE-60	G 1 1/2	G 1	63	460	125	180	253	45	32,5	245	200	42	45	11,5	125	125	295	11	
B- NM 25/200BE-60		G 1 1/2	G 1	63	405	125	180	253	45	32,5	245	200	49	45	11,5	125	125	263	11	
B- NM 25/200AE-60,-SE-60		G 1 1/2	G 1	63	460	125	180	253	45	32,5	245	200	42	45	11,5	125	125	295	11	
	NM 10/SE-60,AE-60,DE-60,FE-60	G 2	G 1 1/4	63	382	100	150	228	50	35	190	140	30	50	13	90	97	239	14	
	NM 11/AE-60,BE-60	G 2	G 1 1/4	70	400	112	170	240	50	35	210	160	37	50	15	103	110	247	14	
	NM 12/DE-60	G 2	G 1 1/4	70	400	132	190	260	50	35	240	190	47	50	15	125	127	247	14	
	NM 12/AE-60,CE-60	G 2	G 1 1/4	70	470	132	190	260	50	35	240	190	45	50	15	125	127	300	14	
B- NM 17/FE-60,GE-60,HE-60	NM 17/FE-60,GE-60,HE-60	G 2 1/2	G 2 1/2	80	417	112	160	240	50	35	210	160	37	50	14	96	113	257	14	
B- NM 17/DE-60	NM 17/DE-60	G 2 1/2	G 2 1/2	80	480	112	160	240	50	35	210	160	20	50	14	96	113	295	14	

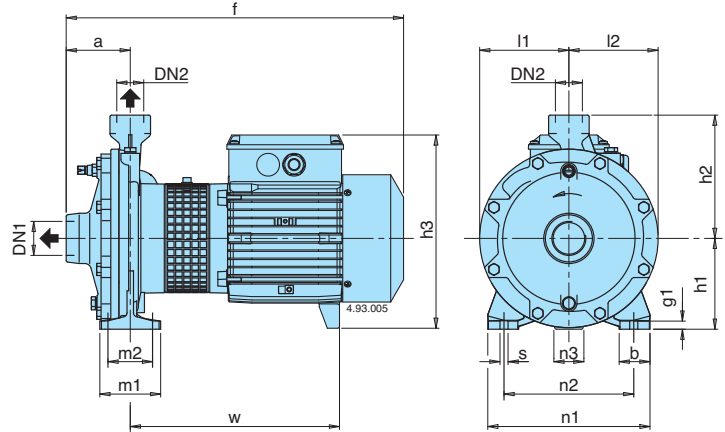
### Dimensions and weights

#### NMD 20/110



TYPE	NMDM kg	NMD kg	B-NMD kg
B- NMD 20/110B-60/A	13	12,1	13,4
B- NMD 20/110Z-60/A	14	13	14,2
B- NMD 20/110A-60/A	15,1	14,2	17,4

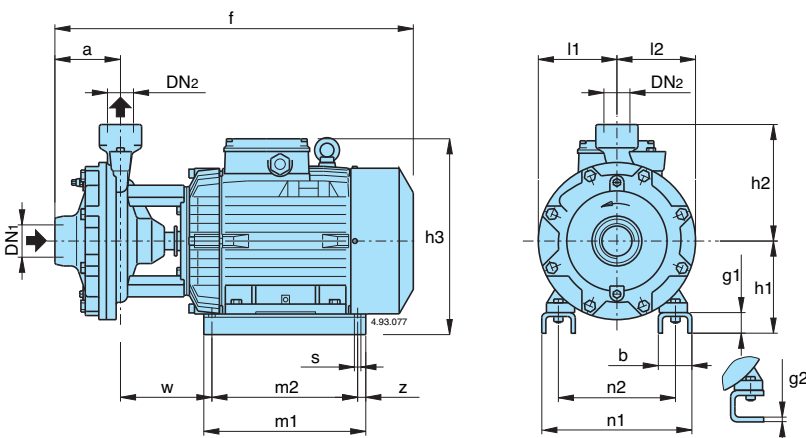
#### NMD 20/140 NMD 25/190



TYPE	NMDM kg	NMD kg	B-NMD kg
B- NMD 20/140BE-60	23,9	22,7	25,2
B- NMD 20/140AE-60	25,2	24,8	27,6
B- NMD 25/190CE-60		39	42,7
B- NMD 25/190BE-60		46,7	51
B- NMD 25/190AE-60		51	55

B-NMD	NMD	DN <sub>1</sub> ISO 228	DN <sub>2</sub> ISO 228	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>
B-NMD 20/140AE-60, BE-60	NMD 20/140AE-60, BE-60	G 1 1/4	G 1	80	417	112	152	243	75	55	200	160	37	38	9,5	110	110	256	10
B-NMD 25/190CE-60	NMD 25/190CE-60	G 1 1/2	G 1		447													274	
B-NMD 25/190BE-60	NMD 25/190BE-60			97	500	140	180	268	100	70	240	190	49	50	14	133	133	306	13
B-NMD 25/190AE-60	NMD 25/190AE-60				500														306

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



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

B-NMD	NMD	DN <sub>1</sub> ISO 228	DN <sub>2</sub> ISO 228	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>	z	b	s	l	l <sub>1</sub>	l <sub>2</sub>	w	g <sub>1</sub>	g <sub>2</sub>	
B-NMD 32/210DE-60	NMD 32/210DE-60	G 2	G 1 1/4	110	530	155	215	283	205	175	194	140	15	54	10	-	150	150	139	-	6	
B-NMD 32/210BE-60, CE-60	NMD 32/210BE-60, CE-60			110	550	150	215	310	280	250	258	286	216	15	68	12	-	150	150	108	38	-
B-NMD 32/210AE-60	NMD 32/210AE-60			110	625	170	215	355	298	268	286	216	15	70	12	-	150	150	152	38	-	
B-NMD 40/180DE-60	NMD 40/180DE-60	G 2	G 1 1/2	121	535	155	215	283	205	175	194	140	15	54	10	-	145	145	133	-	6	
B-NMD 40/180BE-60, CE-60	NMD 40/180BE-60, CE-60			121	555	150	215	310	280	250	258	190	15	68	12	-	145	145	102	38	-	
B-NMD 40/180AE-60	NMD 40/180AE-60			121	630	170	215	355	298	268	286	216	15	70	12	-	145	145	145	38	-	