

### 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.

### 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		

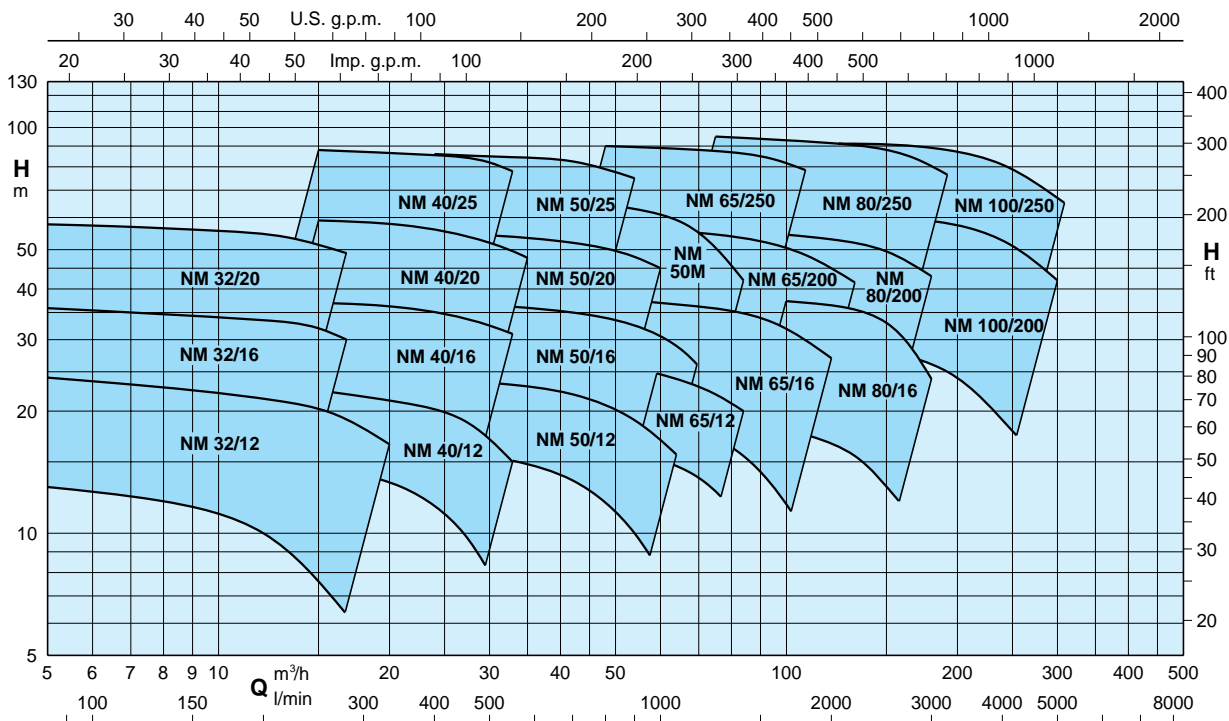
### Motor

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.

### Coverage chart n ≈ 2900 rpm



**Performance  $n \approx 2900$  rpm**

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

B-NM I-NM	NM	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	15	16,8	18,9	21	24	27	30	33	37,8	42	48	54	60	66	
		kW	HP		H m														
					250	280	315	350	400	450	500	550	630	700	800	900	1000	1100	
B-NM 40/125FE	NM 40/12FE	1,1	1,5	H m	14,5	14	13,5	13	11,5	10	8*								
B-NM 40/125CE	NM 40/12CE	1,5	2		18	17,5	17	16,5	15,5	14	12	10*							
B-NM 40/125AE	NM 40/12AE	2,2	3		22,5	22	21,5	21	20	19	17,5	15*							
B-NM 40/160CE	NM 40/16CE	2,2	3		26	25,5	25	24	23	21									
B-NM 40/160BE	NM 40/16BE	3	4		31,5	31	30,5	30	29	27,5	25,5								
B-NM 40/160AE	NM 40/16AE	4	5,5		37	36,8	36,3	36	35	34	32,5	31*							
B-NM 40/200CE	NM 40/20CE	4	5,5		44	43	42	41	39	36,5									
B-NM 40/200BE	NM 40/20BE	5,5	7,5		51,5	51	50	49	48	46	43,5	40,5							
	NM 40/20ARE	5,5	7,5		55	54,5	54	53	51	49									
B-NM 40/200AE	NM 40/20AE	7,5	10		59	58,5	58	57,5	56	54	52	49	45	40*					
I-B-NM 4025/CE	NM 40/25CE	9,2	12,5	63,5	63	62,5	61,5	60	58*	55,5*	52*								
I-B-NM 4025/BE	NM 40/25BE	11	15	71,5	71	70,5	69,5	68	67*	65*	62*								
I-B-NM 4025/AE	NM 40/25AE	15	20	88	87,5	87	86,5	85,5	84*	82*	78*								

B-NM I-NM	NM	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	24	27	30	33	37,8	42	48	54	60	66	75	84	96	108	
		kW	HP		H m														
					400	450	500	550	630	700	800	900	1000	1100	1250	1400	1600	1800	
B-NM 50/125FE	NM 50/12FE	2,2	3	H m			15,5	15	14,5	13,5	12	10*	8*						
B-NM 50/125DE	NM 50/12DE	3	4				18,5	18	17,5	16,5	15,5	13,5*	11,5*						
B-NM 50/125AE	NM 50/12AE	4	5,5				23,5	23	22,5	22	20,5	19*	17,5*	15*					
B-NM 50/160BE	NM 50/16BE	5,5	7,5				31	30,5	30	29	27,5	25,5	23,5*	21*					
B-NM 50/160AE	NM 50/16AE	7,5	10					36,5	36	35,5	35	34	32,5	30,5*	28*	23*			
B-NM 50/200BE	NM 50/20BE	9,2	12,5			48	47,5	47	46,5	45,5	44,5	43*	41*	37*					
B-NM 50/200AE	NM 50/20AE	11	15			55	55	54,5	54	53	52	50,5*	48*	45*					
I-B-NM 5025/CE	NM 50/25CE	11	15			60,5	59,5	58,5	57,5	55	52	47*	40*						
I-B-NM 5025/BE	NM 50/25BE	15	20			71	70,5	70	69,5	68	66,5	64*	60*						
I-B-NM 5025/AE	NM 50/25AE	18,5	25			86	85,5	85	84,5	84	82,5	80*	75*						
I-B-NM 5025/65EE	NM 50M/EE	11	15			48	47,5	47	46	45	43	40	37	32	24				
I-B-NM 5025/65DE	NM 50M/DE	15	20				57	56,5	56	55	53	51	48	44,5	37	25*			
I-B-NM 5025/65CE	NM 50M/CE	18,5	25				68	67,5	67	66,5	65	63	61	58	51,5	42*			

B-NM I-NM	NM	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	37,8	42	48	54	60	66	75	84	96	108	120	132	150	168	
		kW	HP		H m														
					630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	
	NM 65/12EE	4	5,5	H m	18	17,5	17	16,5	16	15	13,5*								
B-NM 65/125CE	NM 65/12CE	5,5	7,5		22	21,5	21	20,5	20	19,5	18	15,5*							
B-NM 65/125AE	NM 65/12AE	7,5	10		26	25,5	25	24,5	24	23,5	22	20*							
B-NM 65/160EE	NM 65/16EE	5,5	7,5				20	19,5	19	18,5	17	15,5	13*	10*					
B-NM 65/160DE	NM 65/16DE	7,5	10				26	25,5	25	24,5	23,5	22	20*	16,5*	13*				
B-NM 65/160CE	NM 65/16CE	9,2	12,5				30	29,5	29	28,5	28	26,5	24,5*	21,5*	18*				
B-NM 65/160BE	NM 65/16BE	11	15				33,5	33	32,5	32	31	30	28*	25,5*	22*				
B-NM 65/160AE	NM 65/16AE	15	20				38	37,5	37	36,5	36	35	33*	30,5*	27*				
B-NM 65/200CE	NM 65/20CE	15	20				44	43,5	43	42,5	41	39,5	37,5*	35*	31*	27*			
B-NM 65/200BE	NM 65/20BE	18,5	25				50	49,5	49	48,5	47,5	46,5	44,5*	42*	39*	35*			
B-NM 65/200AE	NM 65/200AE	22	30				56,5	56	55,5	55	54,5	53,5	51*	48,5*	45,5*	41,5*			
B-NM 65/250CE	NM 65/250CE	22	30				64	63,5	63	61,5*	60*	57,5*	54,5*	50*					
I-B-NM 65/250BE	NM 65/250BE	30	40				79,5	79	78,5	78*	77*	75*	72*	67*					
I-B-NM 65/250AE	NM 65/250AE	37	50				90	89,5	89	88,5*	87,5*	86*	83,5*	78,5*					

**Performance  $n \approx 2900$  rpm**

B-NM	NM	P <sub>2</sub>		Q m <sup>3</sup> /h l/min	H m															
		kW	HP		75	84	96	108	120	132	150	168	180	192	210	240	270	300		
B-NM 80/160EE	NM 80/16EE	7,5	10	20	19,3	18,5	17,5*	16,5*	15,5*	13*										
B-NM 80/160DE	NM 80/16DE	9,2	12,5	23	22,5	22	21*	19,5*	18*	15*										
B-NM 80/160CE	NM 80/16CE	11	15	27,5	27	26,5	25,5*	24,5*	23*	20*	16*									
B-NM 80/160BE	NM 80/16BE	15	20	34	33,5	33	32,5*	32*	31*	28*	23*	18*								
B-NM 80/160AE	NM 80/16AE	18,5	25	38,5	38	37,5	37*	36,5*	36*	33*	29*	24*								
	NM 80/200BE	22	30	46,5	46	45,5	44,5	43,5*	42*	39*	35,5*	32*								
	NM 80/200AE	30	40	56	55,5	55	54	53*	52*	49,5*	46*	43*								
	NM 80/250EE	22	30	51	50	48,5	46,5	44,5*	42*	38*	33*	29*								
	NM 80/250DE	30	40	65	64	62,5	61	59*	56,5*	53*	49*	45,5*	41*							
	NM 80/250CE	37	50	73,5	73	72	70,5	69*	67*	63*	59*	55,5*	51,5*							
	NM 80/250BE	45	60	84	83,5	82,5	81,5	80*	78*	74,5*	70,5*	67*	63*							
	NM 80/250AE	55	75	95	94,5	93,5	92,5	91,5*	90*	87,5*	84*	80,5*	76,5*							
	NM 100/200EE	18,5	25				30	29,5	29	28	27	26*	25*	23*	19*					
	NM 100/200DE	22	30				36	35,5	35	34	33	32*	31*	29*	24,5*	19*				
	NM 100/200CE	30	40				45	44,5	44	43,5	42,5	41,5*	40,5*	39*	34,5*	29*	22°			
	NM 100/200BE	37	50				54	53,5	53	52,5	51,5	50,5*	49,5*	48*	44*	38,5*	32°			
	NM 100/200AE	45	60				61,5	61	60,5	60	59,5	58,5*	58*	56,5*	53*	48*	42°			
	NM 100/250BE	55	75				73,5	73	72,5	71,5	70	68,5*	67*	65*	61*	55,5*	48,5°			
	NM 100/250AE	75	100				91	90,5	90	89,5	88,5	88*	87*	85*	81*	75*	67°			

**NM** Standard construction.

**B-NM** Bronze construction.

**I-NM** Stainless steel construction.

P<sub>2</sub> Rated motor power output.

H Total head in m.

\* Maximum suction lift 1-2 m.

◦ With 1 m suction head.

Tolerances according to ISO 9906, annex A.

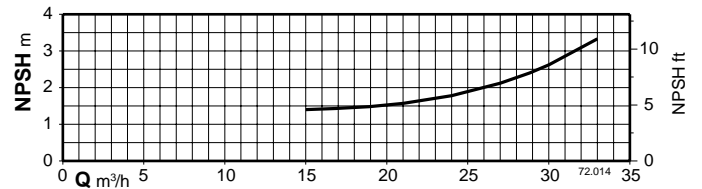
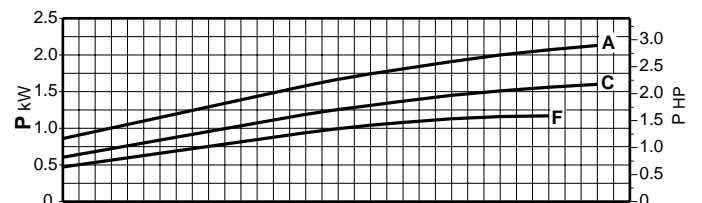
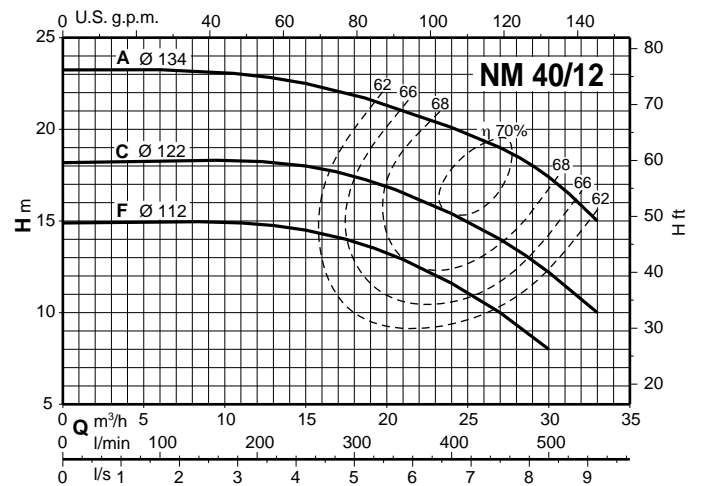
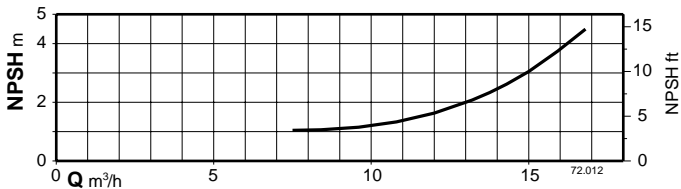
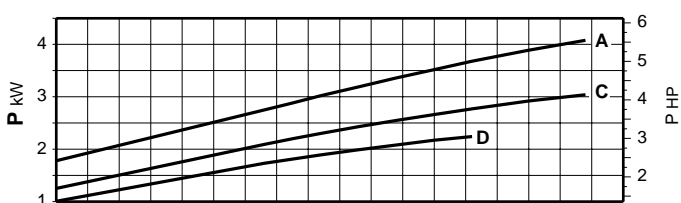
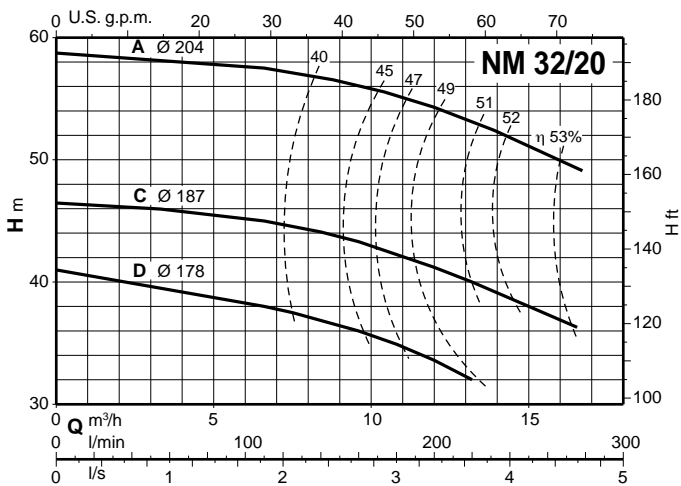
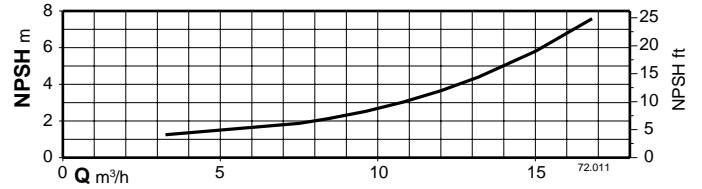
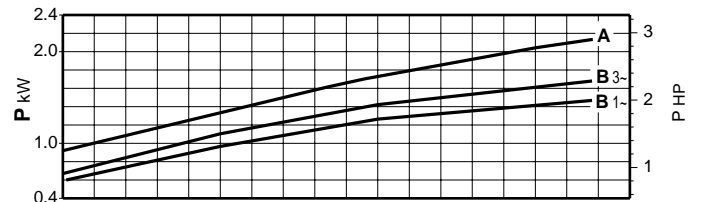
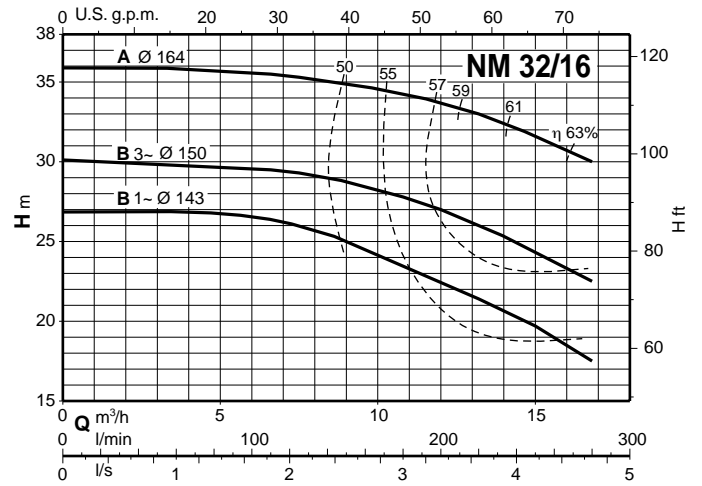
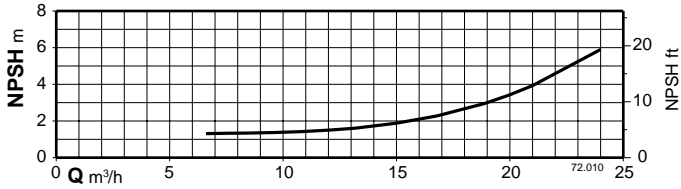
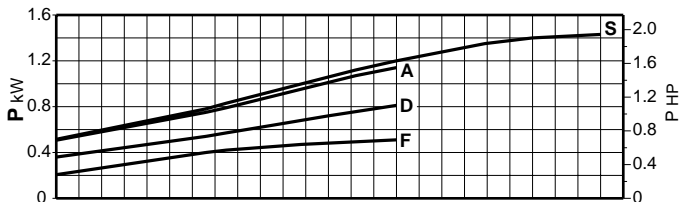
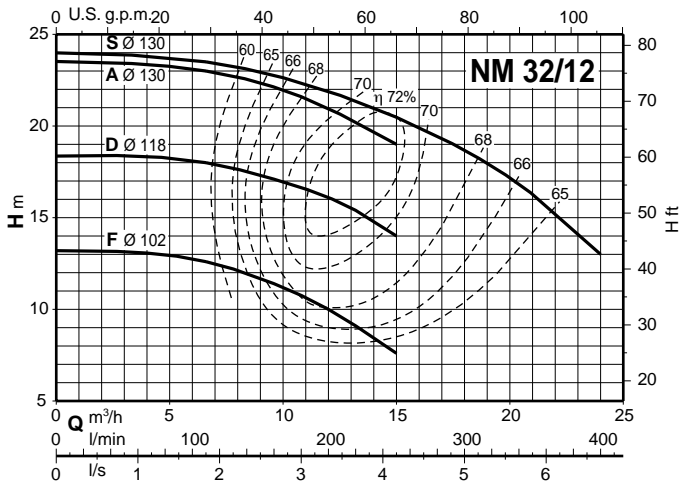
**Rated currents**

P <sub>2</sub>		230V Δ / 400V Y			IA/IN
kW	HP	IN A	IN A	IN A	
0,55	0,75	3	1,7		4,3
0,75	1	4	2,3		5,2
1,1	1,5	5	2,9		5,3
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
11	15		23	13,5	10,4
15	20		30	17,5	13,3
18,5	25		37	21,5	13,5
22	30		42,5	24,5	8,5
30	40		54,5	31,5	8,4
37	50		68	39,5	8,5
45	60		85	49	8
55	75		105	60	7,2
75	100		140	81	6

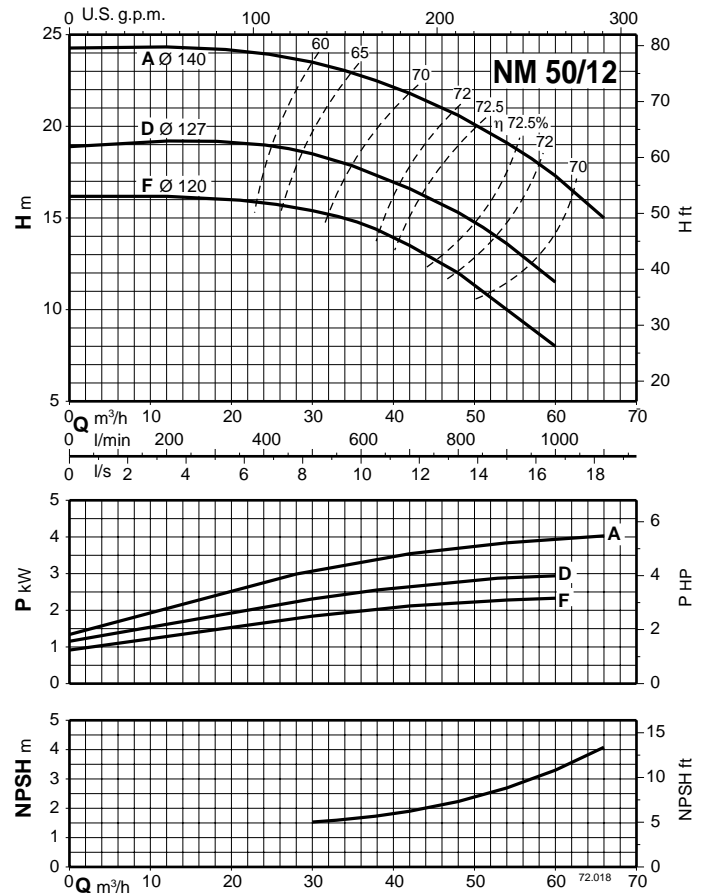
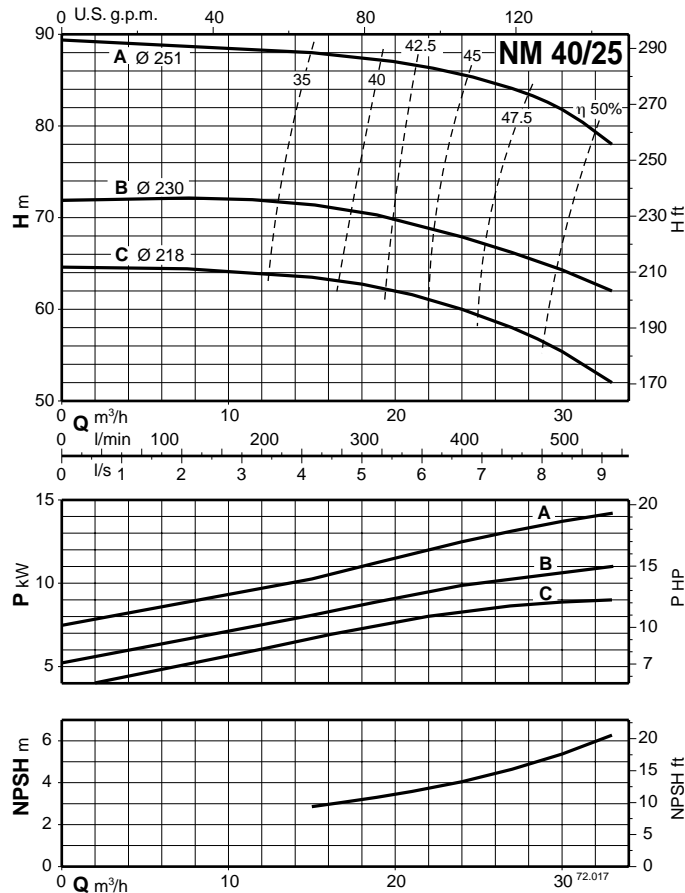
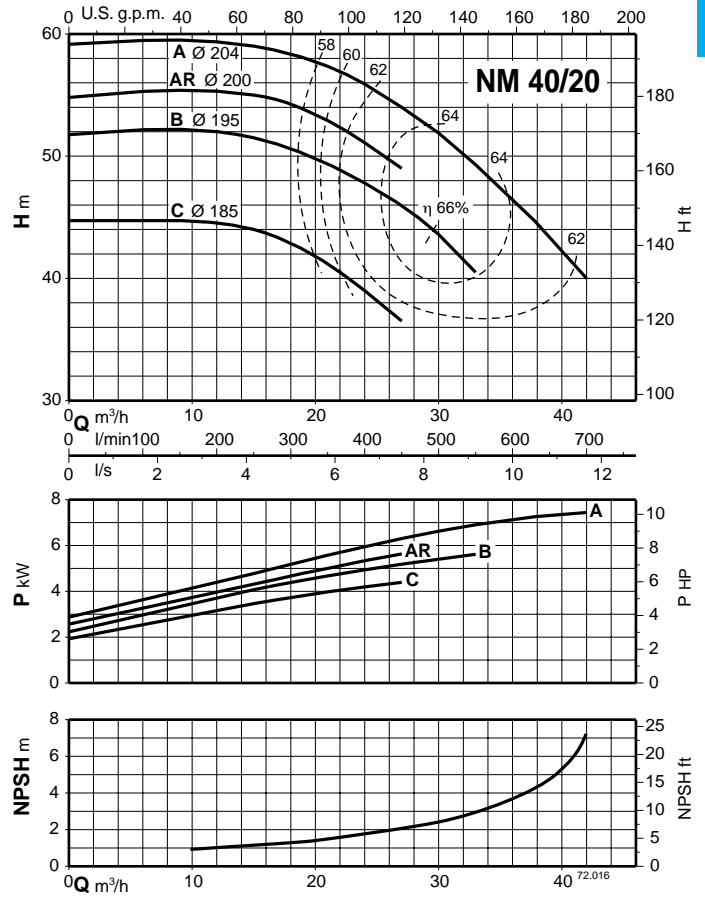
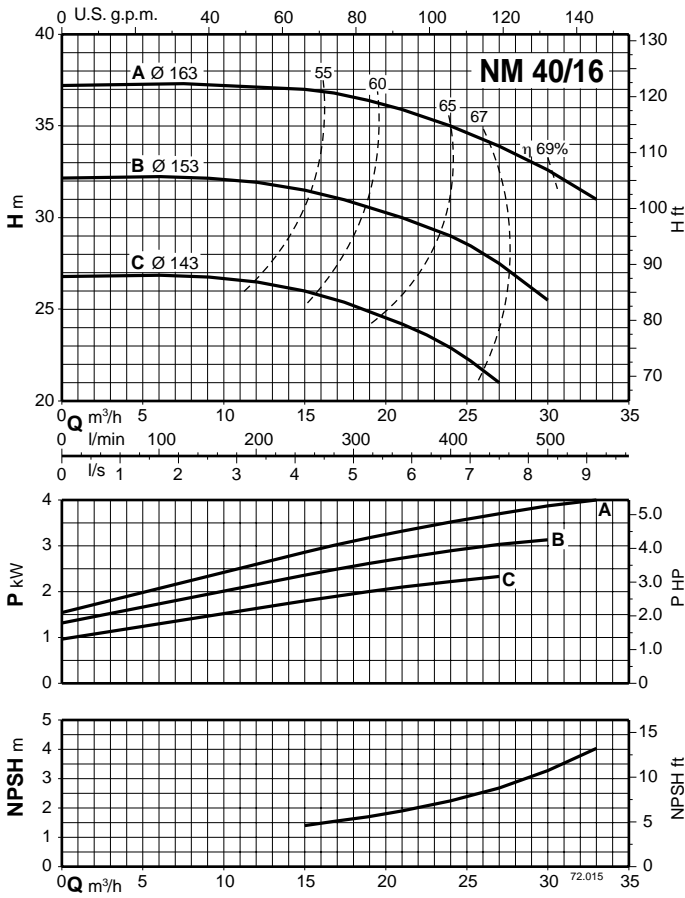
P<sub>2</sub> Rated motor power output.

IA/IN D.O.L. starting current / Nominal current

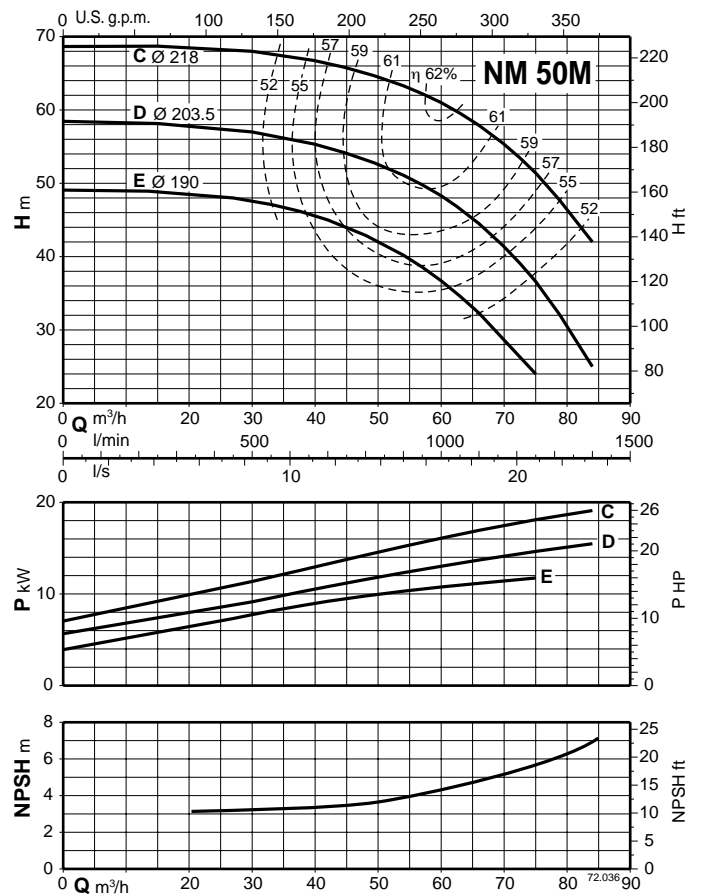
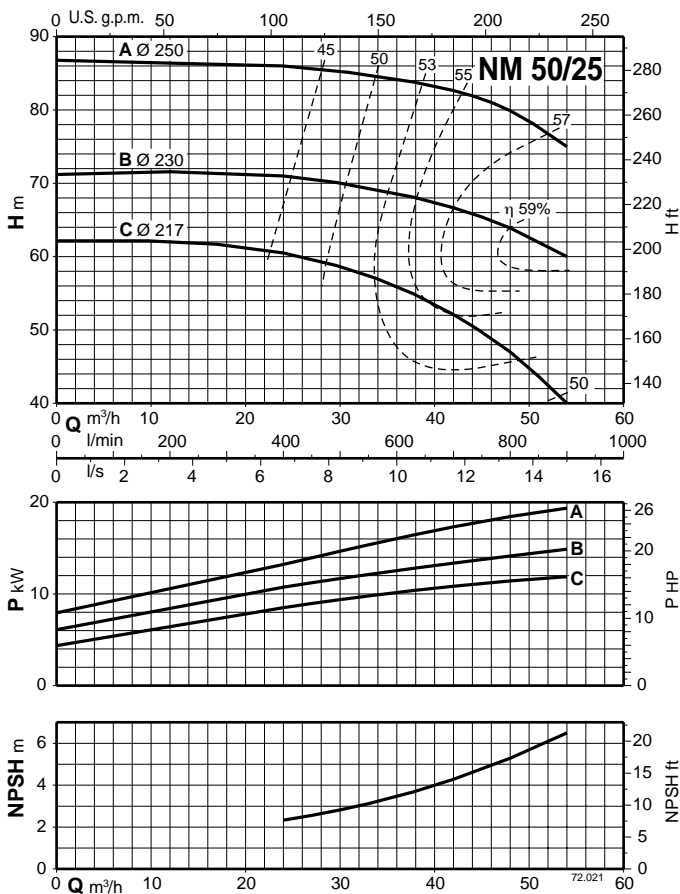
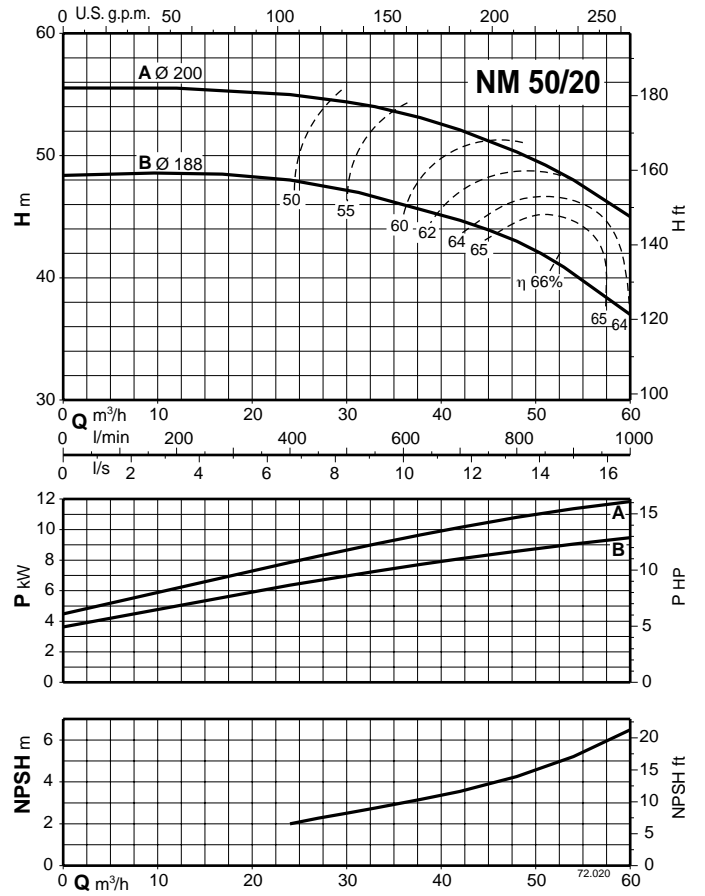
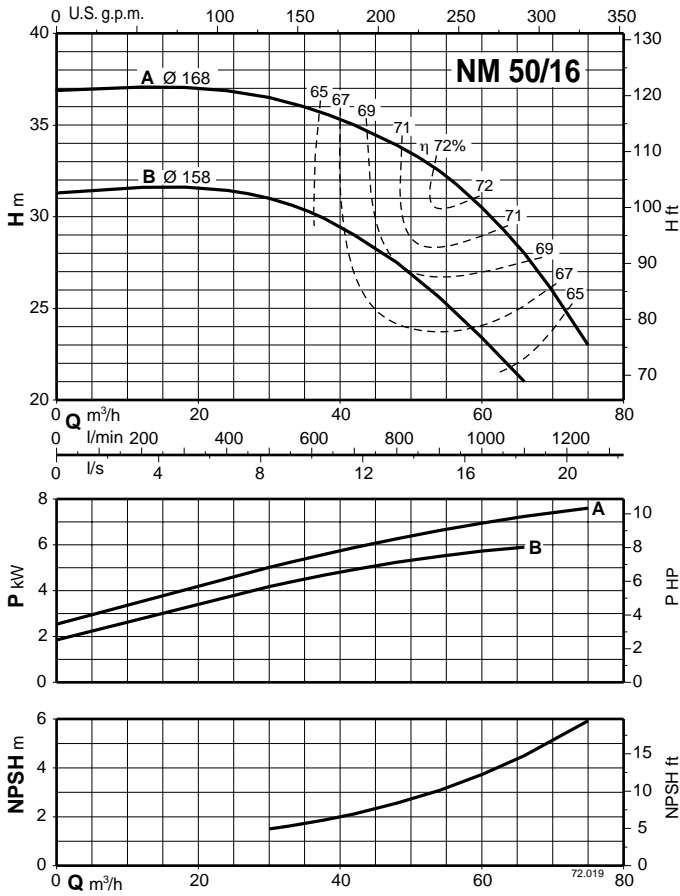
Characteristic curves  $n \approx 2900$  rpm



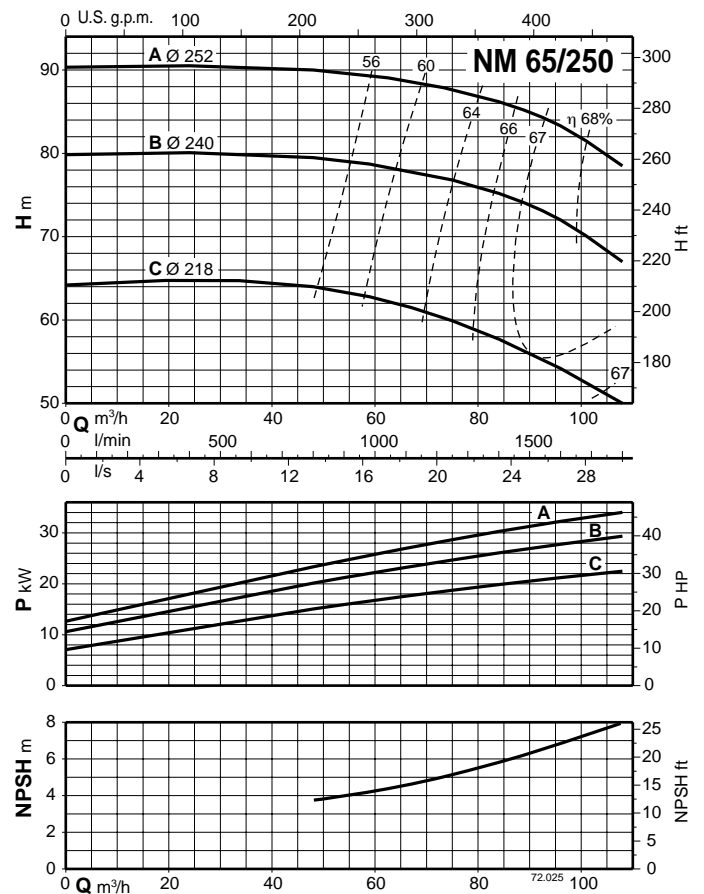
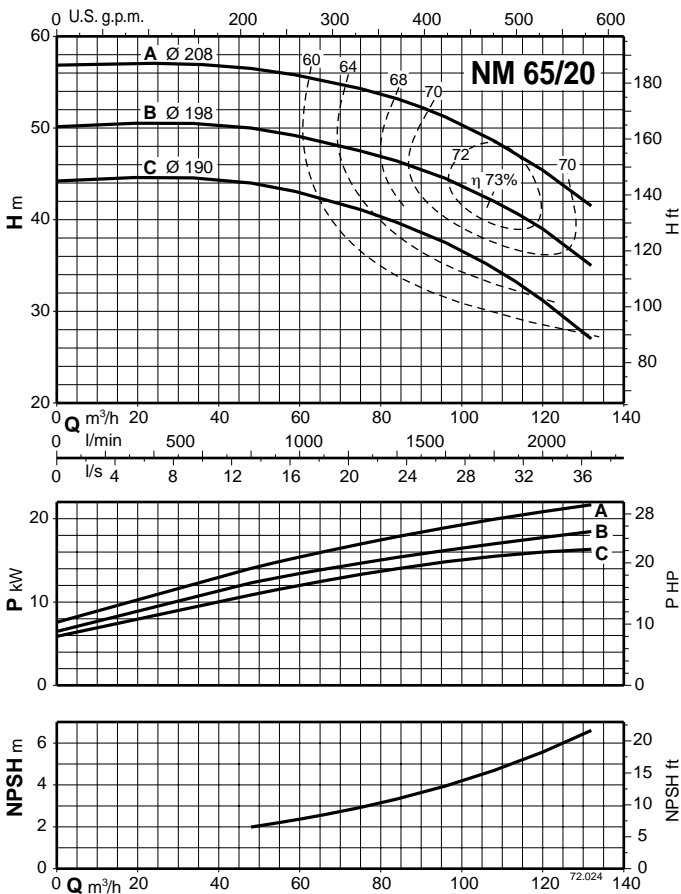
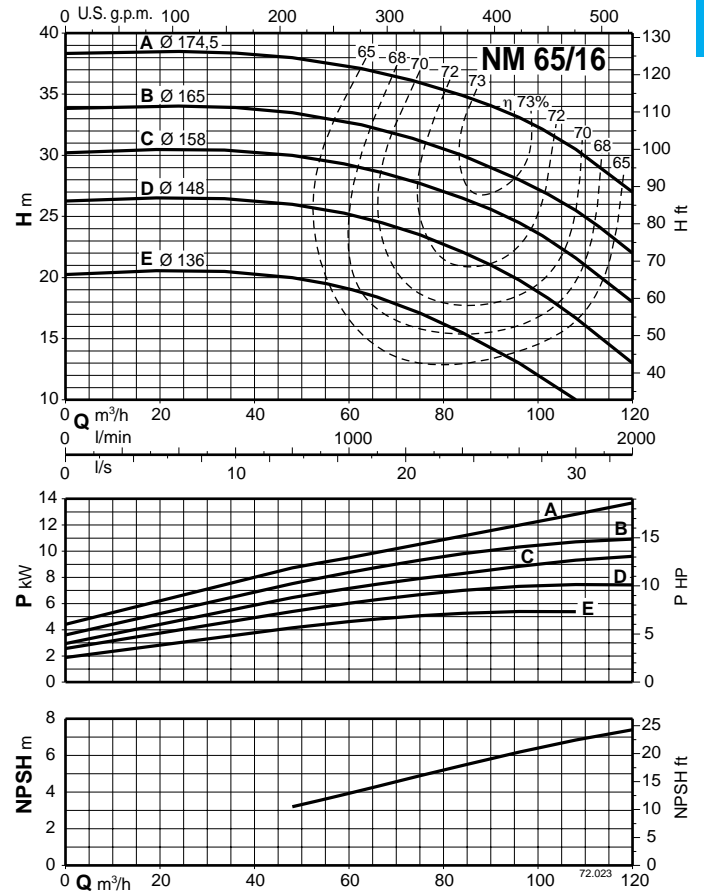
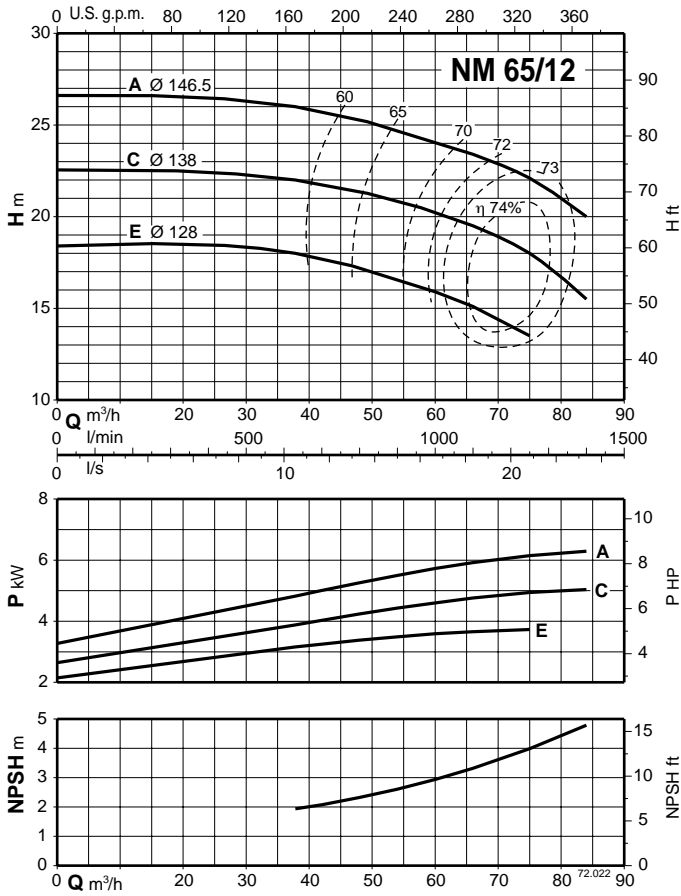
Characteristic curves  $n \approx 2900$  rpm



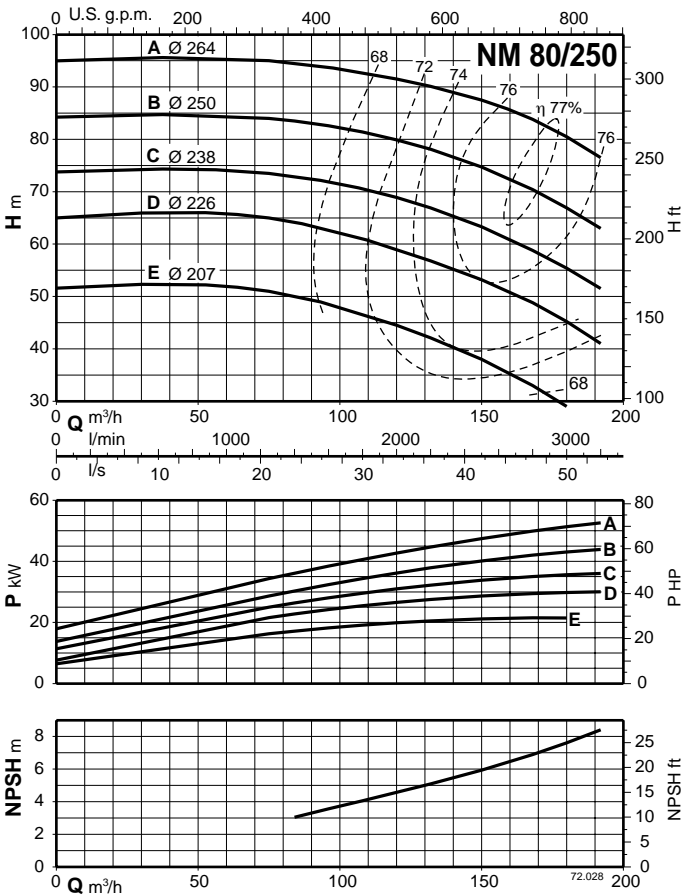
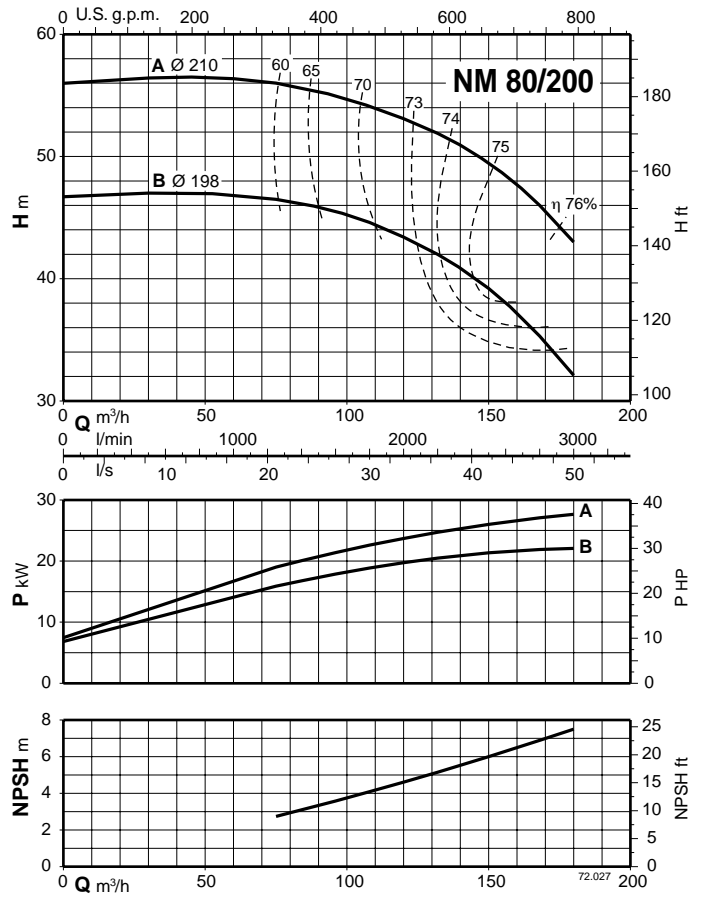
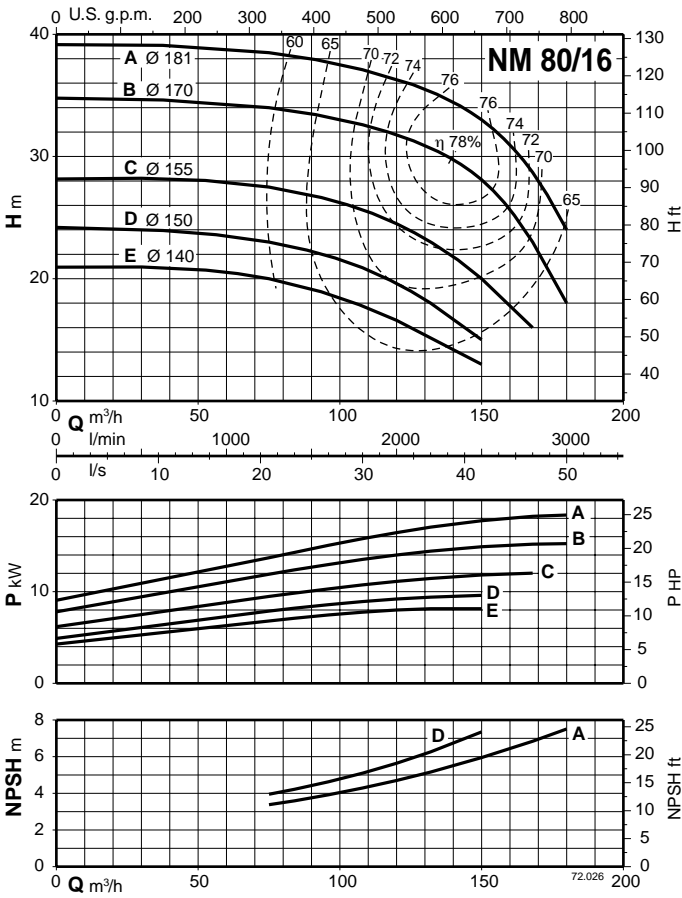
Characteristic curves  $n \approx 2900$  rpm



Characteristic curves  $n \approx 2900$  rpm

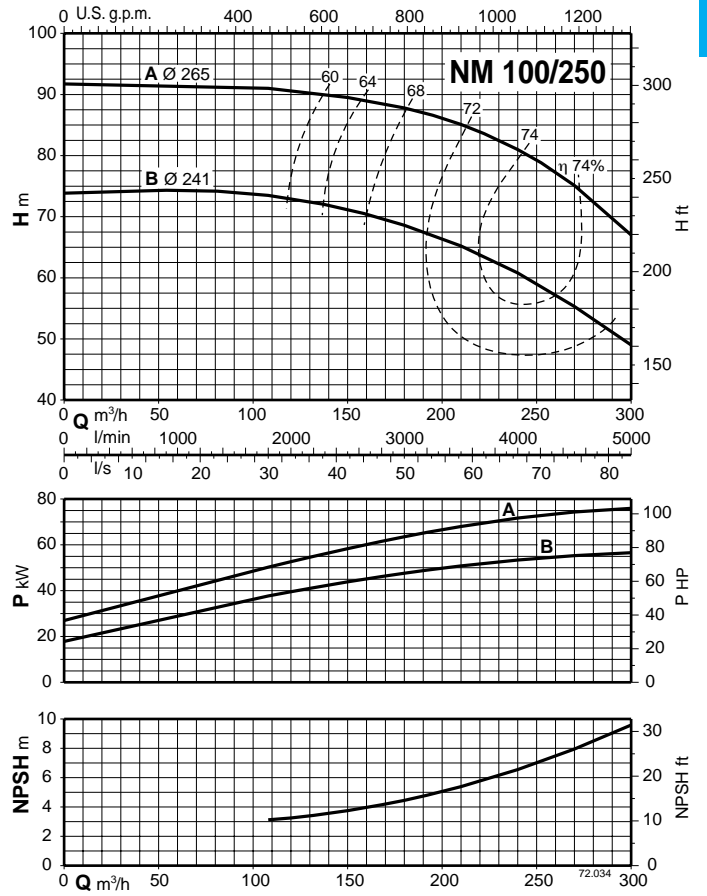
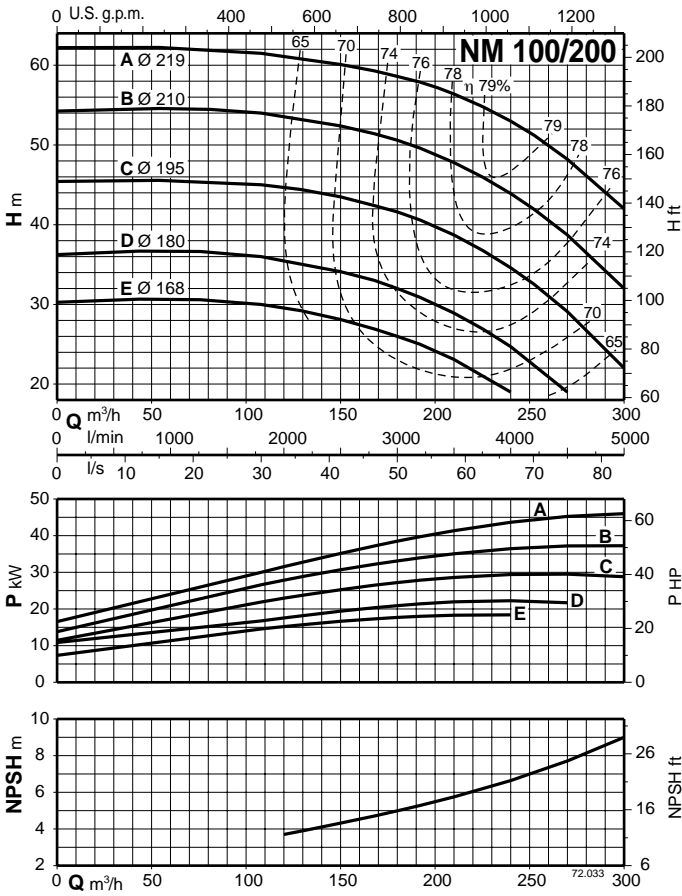


Characteristic curves  $n \approx 2900$  rpm

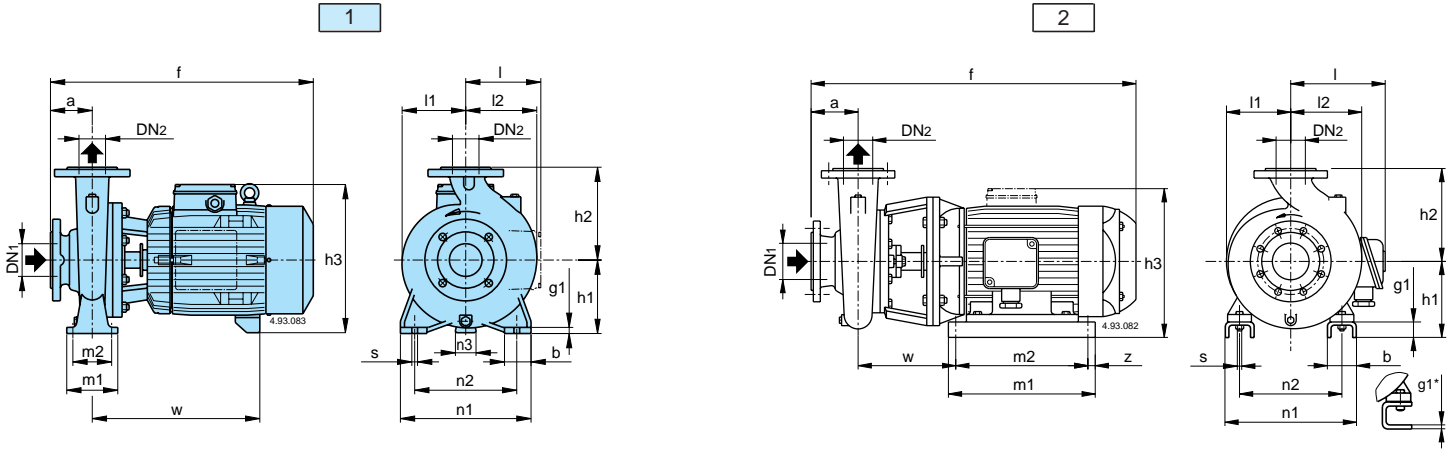


Characteristic curves  $n \approx 2900$  rpm

2

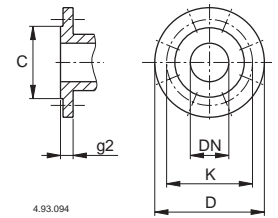


## Dimensions and weights



Picture	NM	mm																			kg												
		DN1	DN2	a	f	h1	h2	h3	m1	m2	n1	n2	n3	z	b	s	l	l1	l2	w		g1											
1	NM 32/12SE-AE-DE-FE	50	32	80	405	112	140	222	100	70	190	140	37	-	50	14	-	93	97	245	12	27-25-24-24											
	NM 32/16AE-BE	50	32	80	410	132	160	242	100	70	240	190	47	-	50	14	-	120	120	250	12	36-34											
	NM 32/20DE	50	32	80	410	160	180	270	100	70	240	190	62	-	50	14	-	140	140	250	12	39											
	NM 32/20CE				60			288					295							49													
	NM 32/20AE				60			288					295							52													
	NM 40/12AE-CE-FE	65	40	80	410	112	140	222	100	70	210	160	37	-	50	14	-	100	113	250	12	31-29-27											
	NM 40/16CE	65	40	80	410	132	160	242	100	70	240	190	47	-	50	14	-	119	119	250	12	36											
	NM 40/16BE				470			260					295							45													
	NM 40/16AE				470			260					295							49													
	NM 40/20CE	65	40	100	490	160	180	288	100	70	265	212	60	-	50	14	-	140	140	295	12	55											
	NM 40/20AE-ARE-BE				525			-					320							49		170	140	320	12	72-65-65							
	NM 40/25BE-CE	65	40	100	640	180	225	365	125	95	320	250	50	-	65	14	-	175	175	410	15	116-110											
	NM 40/25AE				690			365					320							50		147	133										
	NM 50/12FE	65	50	100	430	132	160	242	100	70	240	190	47	-	50	14	-	121	137	250	12	38											
	NM 50/12DE				490			260					295							47													
NM 50/12AE	490				260			295					51																				
NM 50/16AE-BE	65	50	100	525	160	180	-	100	70	265	212	49	-	50	14	170	127	141	320	14	70-64												
NM 50/20AE-BE	65	50	100	640	160	200	345	100	70	265	212	40	-	50	14	-	140	153	410	15	106-100												
NM 50/25CE	65	50	100	645	180	225	365	125	95	320	250	50	-	65	14	-	175	175	415	15	126												
NM 50/25BE				695			365					320							50		132												
NM 50/25AE				720			365					320							50		147												
2	NM 50M/EE	65	50	100	700	192	225	377	298	258	262	216	-	20	69	12	-	175	175	239	6*	135											
	NM 50M/DE				750			377												298		258	262	216	151								
	NM 50M/CE				775			377												298		258	262	216	165								
1	NM 65/12EE	80	65	100	490	160	180	288	125	95	280	212	60	-	65	14	-	134	156	295	15	55											
	NM 65/12AE-CE				525			-					320							49		170	134	320	15	73-67							
	NM 65/16DE-EE	80	65	100	525	160	200	-	125	95	280	212	49	-	65	14	-	150	172	320	15	75-70											
	NM 65/16BE-CE				640			345					40							460		106-100											
	NM 65/16AE				690			345					40							460		121											
NM 65/20CE	80	65	100	690	180	225	365	125	95	320	250	50	-	65	14	-	155	175	460	15	127												
NM 65/20BE				715			365					320							50		139												
2	NM 65/200AE	80	65	100	825	202	225	408	400	360	344	254	-	20	90	14	-	155	175	245	42	164											
	NM 65/250BE-CE	80	65	100	825	202	250	408	400	360	344	254	-	20	90	14	-	175	190	245	42	195-174											
	NM 65/250AE				945			245												475		425	424	318	25	106	18	290	175	190	263	45	299
1	NM 80/16EE	100	80	125	545	180	225	-	125	95	320	250	60	-	65	14	-	170	-	320	15	83											
	NM 80/16CE-DE				670			365					50							113-108													
	NM 80/16BE				720			365					50							130													
	NM 80/16AE				745			365					50							144													
2	NM 80/200AE-BE	100	80	125	850	202	250	408	400	360	344	254	-	20	90	14	-	170	194	245	42	194-173											
	NM 80/250DE-EE	100	80	125	850	202	280	408	400	360	344	254	-	20	90	14	-	190	210	245	42	203-182											
	NM 80/250AE-BE-CE				970			245												475		425	424	318	25	106	18	290	191	210	263	45	377-361-331
	NM 100/200EE				800			192												377		298	258	262	216	20	69	12	-	239	6*	173	
	NM 100/200CE-DE	125	100	125	850	202	280	408	400	360	344	254	-	20	90	14	-	180	212	245	42	195-174											
	NM 100/200AE-BE				970			245												475		425	424	318	25	106	18	290	263	45	355-323		
NM 100/250BE	125	100	140	980	245	280	-	475	425	424	318	-	25	106	123	18	290	330	263	45	386												
NM 100/250AE				1050			275												480		430	479	356	-	25	106	123	18	330	205	233	305	50

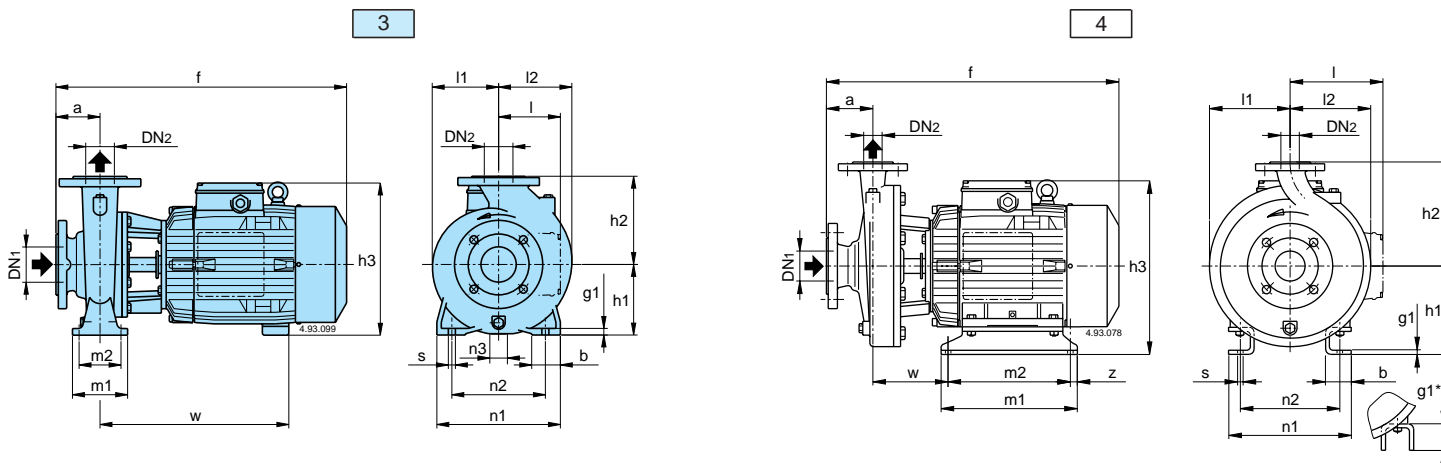
### Flanges EN 1092-2



mm						
DN	C	K	D	Holes		g2
				N°	Ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

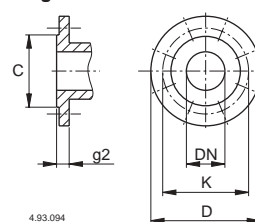
### Dimensions and weights

2



Picture	B- NM I- NM	mm																			kg		
		DN1	DN2	a	f	h1	h2	h3	m1	m2	n1	n2	n3	z	b	s	l	l1	l2	w	g1	B- NM	I- NM
3	B- NM 32/125SE-AE B- NM 32/125DE-FE	50	32	80	450	112	140	222	100	70	190	140	37	-	50	14	-	93	97	290	12	33-32 31-29	
	B- NM 32/160BE B- NM 32/160AE	50	32	80	455 475	132	160	242	100	70	240	190	47	-	50	14	-	120	120	295 315	12	44 45	
	I- B- NM 32/200DE I- B- NM 32/200CE I- B- NM 32/200AE	50	32	80	475 525 525	160	180	270 288 288	100	70	240	190	45 60 60	-	50	14	-	140	140	315 350 350	12	49 57 61	45 55 59
	B- NM 40/125FE B- NM 40/125AE-CE	65	40	80	455 475	112	140	222	100	70	210	160	37	-	50	14	-	100	113	295 315	12	33 37-35	
	B- NM 40/160CE B- NM 40/160BE B- NM 40/160AE	65	40	80	475 525 525	132	160	242 260 260	100	70	240	190	47 45 45	-	50	14	-	119	119	315 350 350	12	45 53 57	
	B- NM 40/200CE B- NM 40/200AE-BE	65	40	100	545 580	160	180	288 --	100	70	265	212	60 49	-	50	14	-	140	140	350 375	12	63 80-74	
4	I- B- NM 4025/BE-CE I- B- NM 4025/AE	65	40	100	635 685	192	225	377	298	258	262	216	-	20	69	12	-	175	175	174	6	130-124 147	127-120 144
	B- NM 50/125FE B- NM 50/125DE B- NM 50/125AE	65	50	100	495 545 545	132	160	242 260 260	100	70	240	190	47 45 45	-	50	14	-	121	137	315 350 350	12	49 58 63	
4	B- NM 50/160AE-BE	65	50	100	580	160	180	-	100	70	265	212	49	-	50	14	170	127	141	375	14	80-74	
	B- NM 50/200AE-BE	65	50	100	695	192	200	377	298	258	262	216	-	20	69	12	-	140	153	234	6	128-121	
	I- B- NM 5025/CE I- B- NM 5025/BE I- B- NM 5025/AE	65	50	100	635 685 710	192	225	377	298	258	262	216	-	20	69	12	-	175	175	174	6	135 144 155	130 138 149
	I- B- NM 5025/65EE I- B- NM 5025/65DE I- B- NM 5025/65CE	65	50	100	635 685 710	192	225	377	298	258	262	216	-	20	69	12	-	175	175	174	6	135 144 155	130 138 149
3	B- NM 65/125AE-CE	80	65	100	580	160	180	-	125	95	280	212	49	-	65	14	170	134	156	375	15	93-72	
	B- NM 65/160DE-EE B- NM 65/160CE	80	65	100	575 660	160	200	- 345	125	95	280	212	49 40	-	65	14	170 -	150	172	375 430	15	83-78 108	
4	B- NM 65/160BE B- NM 65/160AE	80	65	100	695 745	192	200	377	298	258	262	216	-	20	69	12	-	150	172	234	6	149 166	
	B- NM 65/200CE B- NM 65/200BE B- NM 65/200AE	80	65	100	750 775 825	192	225	377 408	298 400	258 360	262 344	216 254	-	20	69 90	12 14	-	155	175	239 239 245	6 6 42*	157 177 179	
	B- NM 65/250BE-CE I- NM 65/250BE I- B- NM 65/250AE	80	65	100	825 840 945	202	250	408 - 475	400 387 425	360 347 425	344 369 424	254 279 318	-	20 25	90 106	14 18	- 290	175	190	245 258 263	42* 42* 45*	210-189 277 343	
3	B- NM 80/160EE B- NM 80/160DE	100	80	125	605 685	180	225	- 365	125	95	320	250	60 50	-	65	14	170 -	165	193	375 430	15	108 116	
4	B- NM 80/160CE B- NM 80/160BE B- NM 80/160AE	100	80	125	725 775 800	192	225	377	298	258	262	216	-	20	69	12	-	165	193	239	6	155 163 166	

Flanges EN 1092-2



mm						
DN	C	K	D	Holes		g2
				N°	Ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24