NM

Close Coupled Centrifugal Pumps
with flanged connections

calpeda®



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 EN 1092-1, PN 16
from NM 65/... to NM 100/250	Flanges for welding EN 1092-1, 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.

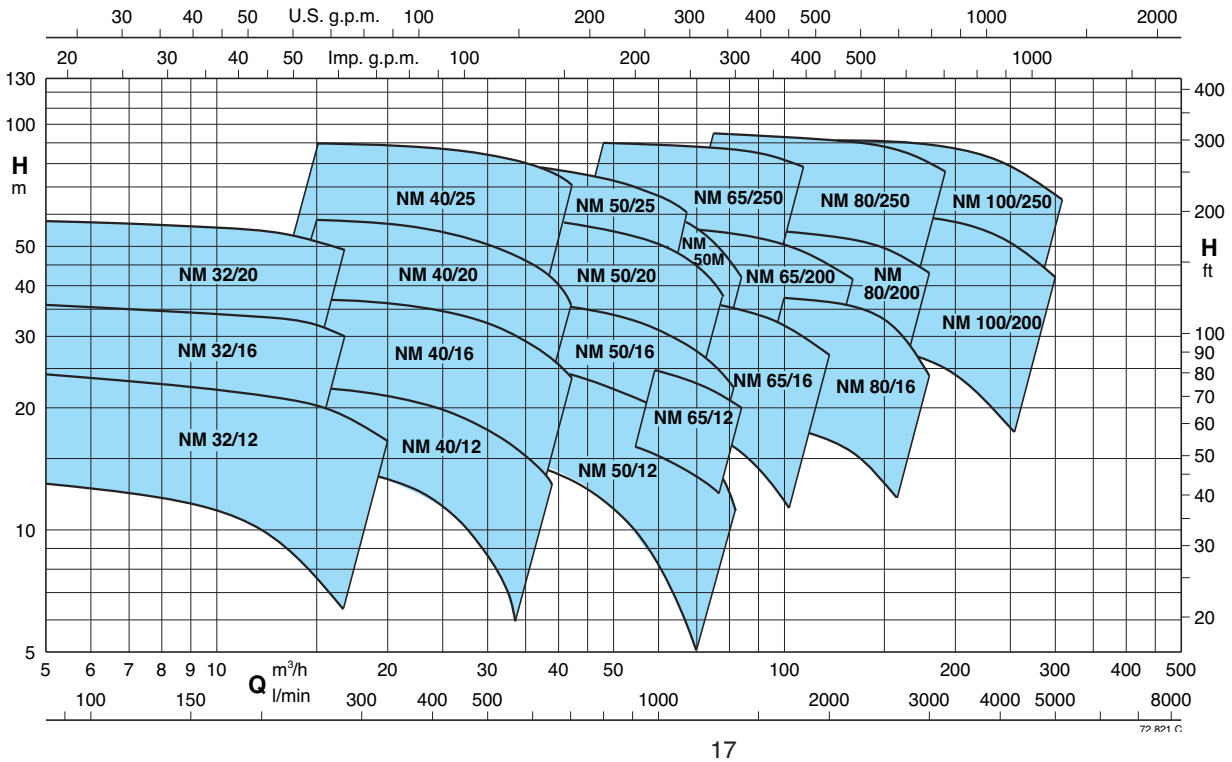
Motor
2-pole induction motor, 50 Hz (n = 2900 rpm).
NM: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% from 4 to 75 kW.
Insulation class F.
Protection IP 54.
Constructed in accordance with IEC 60034.

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.
- Explosion proof construction in accordance with Directive 94/9 EEC (ATEX).
- Higher or lower liquid or ambient temperatures.

Materials

Components	NM	B-NM
Pump casing Lantern bracket	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
Impeller	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
	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



Performance n ≈ 2900 rpm

B-NM	NM	P2 kW	P2 HP	Q m³/h	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	30
				l/min	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*					
B-NM 32/200DE	NM 32/20DE	2,2	3		38	37,5	37	36	35	33,5	32							
B-NM 32/200CE	NM 32/20CE	3	4		45	44,5	44	43,5	42,5	41	40	38	36*					
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	NM	P2 kW	P2 HP	Q m³/h	15	16,8	18,9	21	24	27	30	33	37,8	39	42	45	48	54
				l/min	250	280	315	350	400	450	500	550	630	650	700	850	800	900
B-NM 40/125F/A	NM 40/12F/A	1,1	1,5	H m	14	13,5	13	12	11	9,5	8	6						
B-NM 40/125C/A	NM 40/12C/A	1,5	2		17,5	17	16,5	16	15	13,5	12	10,5	7,5	6,5				
B-NM 40/125A/A	NM 40/12A/A	2,2	3		22	22	21,5	21	20	19	18	16,5	14	13	11,5			
B-NM 40/160C/A	NM 40/16C/A	2,2	3		23	22,5	22	21,5	20	18,5	16,5	14,5	11	10				
B-NM 40/160B/A	NM 40/16B/A	3	4		29	28,8	28	27,5	26,5	25	23,5	21,5	18	17	14			
B-NM 40/160A/A	NM 40/16A/A	4	5,5		37	36,5	36,5	36	35	33,5	32	30,5	27	26	23,5	20	17	
B-NM 40/200DE	NM 40/20DE	4	5,5		39	38	37	35,5	33,5	30,5	27	22,5	14					
B-NM 40/200CE	NM 40/20CE	4	5,5		41,5	40,5	39,5	38	36	33,5								
B-NM 40/200BE	NM 40/20BE	5,5	7,5		50	49,5	48,5	47,5	45,5	43,5	41,5	37,5	30,5					
	NM 40/20ARE	5,5	7,5		55	54,5	54	53	51	49								
B-NM 40/200A/A	NM 40/20A/A	7,5	10		57,5	57	56,5	55,5	54,5	52,5	50,5	48	42,5	40,5	35			
B-NM 4025/C/A	NM 40/25C/A	9,2	12,5		61	61	60,5	59,5	58,5	56,5	53,5	49,5	41,5	40	33,5			
B-NM 4025/B/A	NM 40/25B/A	11	15		69,5	69,5	69	68,5	67	65,5	63,5	60,5	53,5	51	45			
B-NM 4025/A/A	NM 40/25A/A	15	20		90	90	89,5	89	88,5	87	85	83	77,5	76	70,5			

B-NM	NM	P2 kW	P2 HP	Q m³/h	24	27	30	33	37,8	42	48	54	60	66	69	72	75	78	81	84
				l/min	400	450	500	550	630	700	800	900	1000	1100	1150	1200	1250	1300	1350	1400
B-NM 50/125F/A	NM 50/12F/A	2,2	3	H m			15,5	15	14	13,5	12	10	8	6						
B-NM 50/125D/A	NM 50/12D/A	3	4				20	19,5	18,5	18	16,5	14,5	13	10,5	9	8				
B-NM 50/125A/A	NM 50/12A/A	4	5,5				24	24	23	22,5	21	19,5	17,5	15	14	12,5	11,5	10		
B-NM 50/125S/A	NM 50/12S/A	4	5,5				26,5	26	25,5	24,5	23,5	22	20	18	16,5	15,5	14	13	11	
B-NM 50/160B/A	NM 50/16B/A	5,5	7,5				31	30,5	29,5	28	26	24	21,5	19	17,5	15,5	13,5	11,5	9,5	
B-NM 50/160A/A	NM 50/16A/A	7,5	10				38,5	38	37,5	36,5	34,5	32,5	30	27	25,5	24	22,5	20,5	19	
B-NM 50/200B/A	NM 50/20B/A	9,2	12,5		48	47,5	47,5	47	45,5	44,5	42,5	40	37	33	30,5	28	25,5	23		
B-NM 50/200A/A	NM 50/20A/A	11	15		55	55	54,5	54,5	53,5	52	50	48	45	41,5	39,5	37	35	32,5		
B-NM 50/200S/A	NM 50/20S/A	15	20		60	60	59,5	59,5	58,5	57,5	55,5	53,5	50,5	47	45	43	40,5	37		
B-NM 5025/C/A	NM 50/25C/A	11	15		55	54,5	54	53	51,5	49,5	46	41,5	35,5	28,5	24,5					
B-NM 5025/B/A	NM 50/25B/A	15	20		69	68,5	68	67,5	66	64	61	57	52,5	46,5	43					
B-NM 5025/A/A	NM 50/25A/A	18,5	25		80,5	80,5	80	79,5	78,5	77	74,5	71,5	67	61,5	58,5					
B-NM 5025/65EE	NM 50M/EE	11	15			48	47,5	47	46	45	43	40	37	32	29,5	27	24			
B-NM 5025/65DE	NM 50M/DE	15	20				57	56,5	56	55	53	51	48	44,5	42	39,5	37	32	29	25*
B-NM 5025/65CE	NM 50M/CE	18,5	25				68	67,5	67	66,5	65	63	61	58	56	53,5	51,5	48	45,5	42*

B-NM	NM	P2 kW	P2 HP	Q m³/h	37,8	42	48	54	60	66	75	84	96	108	120	132	150	168
				l/min	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*				
B-NM 65/250BE	NM 65/250BE	30	40				79,5	79	78,5	78*	77*	75*	72*	67*				
B-NM 65/250AE	NM 65/250AE	37	50				90	89,5	89	88,5*	87,5*	86*	83,5*	78,5*				

Performance n ≈ 2900 rpm

B-NM	NM	P2 kW	P2 HP	Q m³/h	75	84	96	108	120	132	150	168	180	192	210	240	270	300
				l/min	1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000
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	H m	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.

P2 Rated motor power output.
H Total head in m.

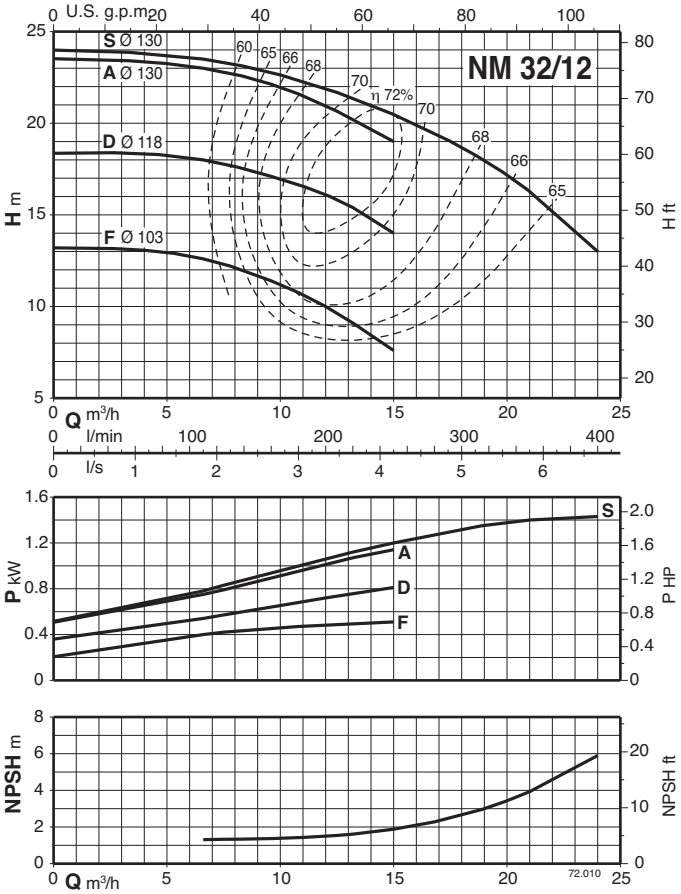
* Maximum suction lift 1-2 m.
° With 1 m suction head.
Tolerances according to ISO 9906, annex A.

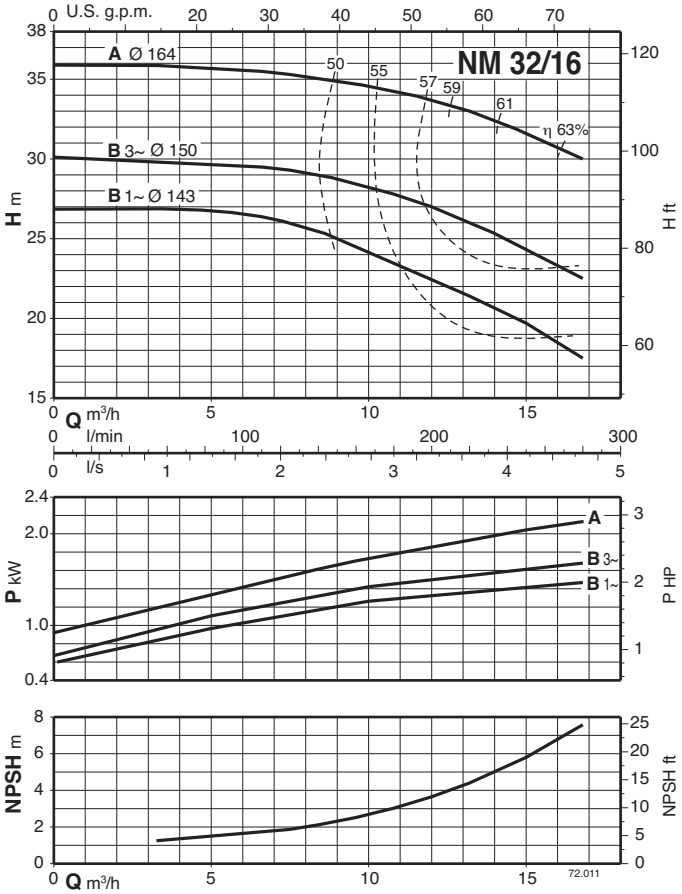
Rated currents

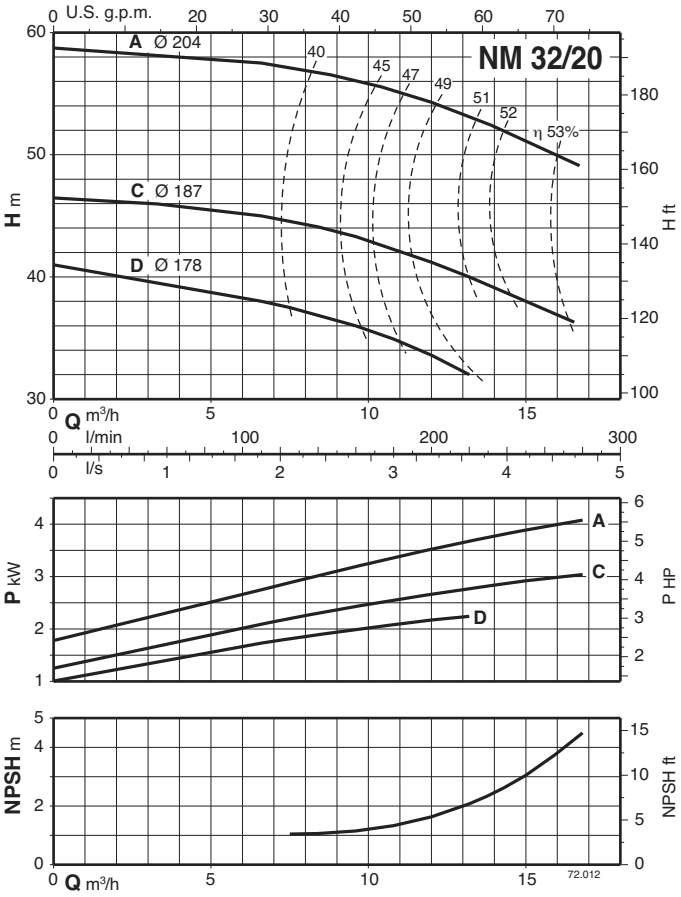
P2 kW	P2 HP	230V Δ / 400V Y IN A	400V Δ / 690V Y IN A	IN A	IA/IN
0,55	0,75	3	1,7		4,3
0,75	1	4	2,3		5,2
1,1	1,5	5	2,9		5,3
1,5	2	7,5	4,3		5,8
2,2	3	9,15	5,3		6
3	4	11,5	6,6		9
4	5,5		9,6	5,5	9,3
5,5	7,5		12	7	8,3
7,5	10		16	9,2	8,8
9,2	12,5		18,5	10,7	8,3
11	15		21,5	12,4	8,4
15	20		27,5	15,9	8,8
18,5	25		34	19,6	9,7
22	30		42	24,2	9
30	40		54	31,2	9
37	50		68	39,5	8,5
45	60		85	49	8
55	75		105	60	7,2
75	100		140	81	6

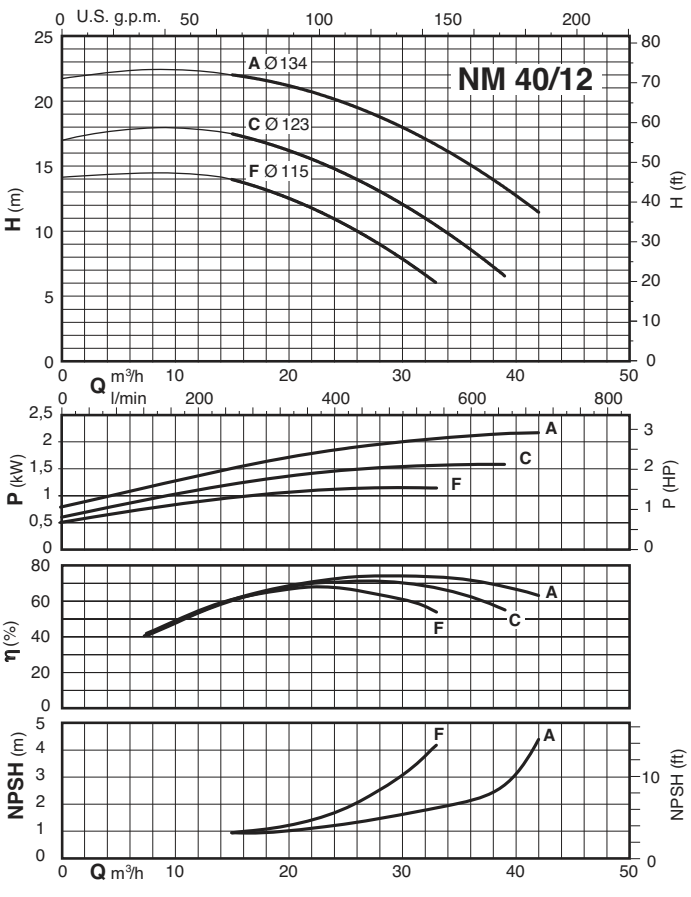
P2 Potenza nominale motore.
IA/IN Corrente di spunto / Corrente nominale.

Characteristic curves n ≈ 2900 rpm

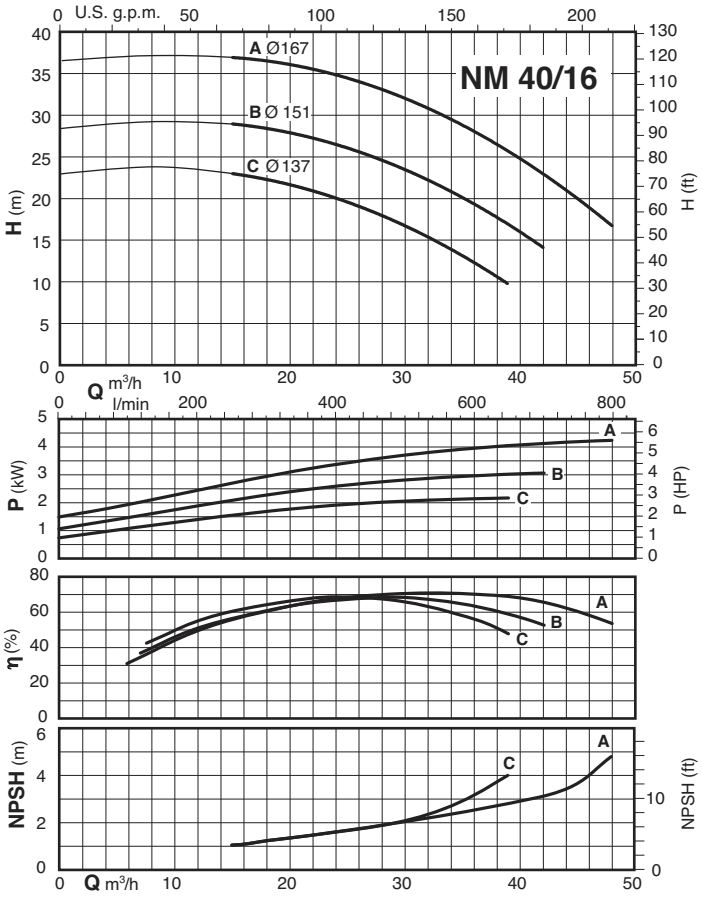


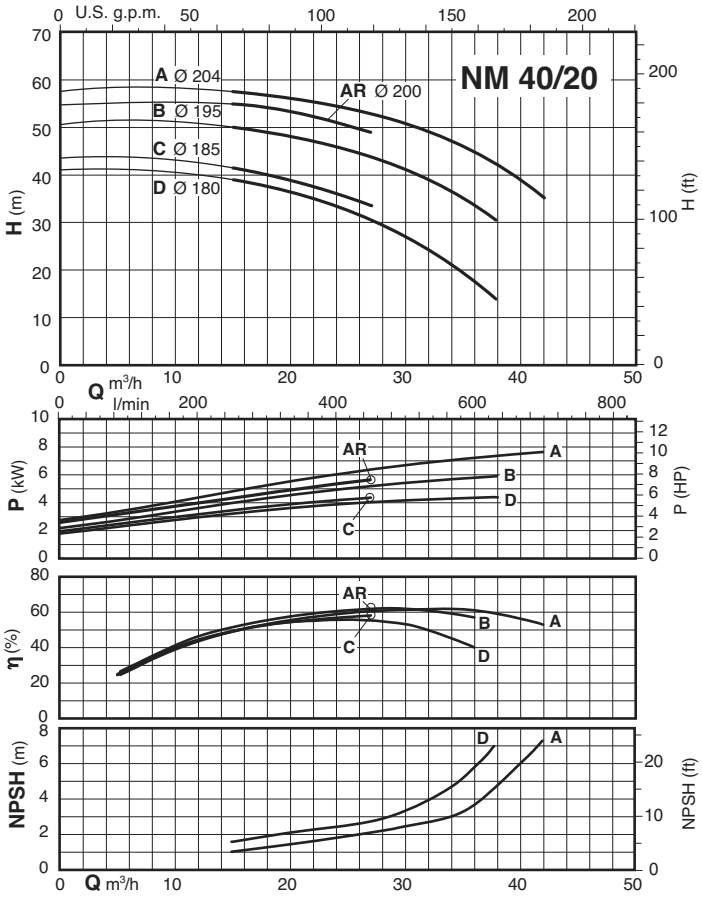


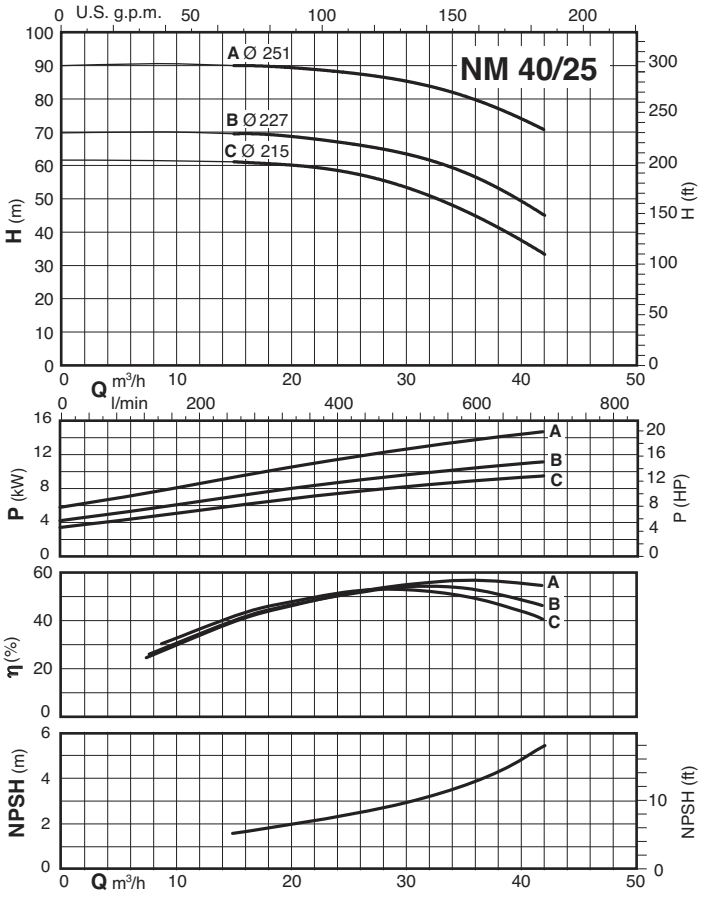


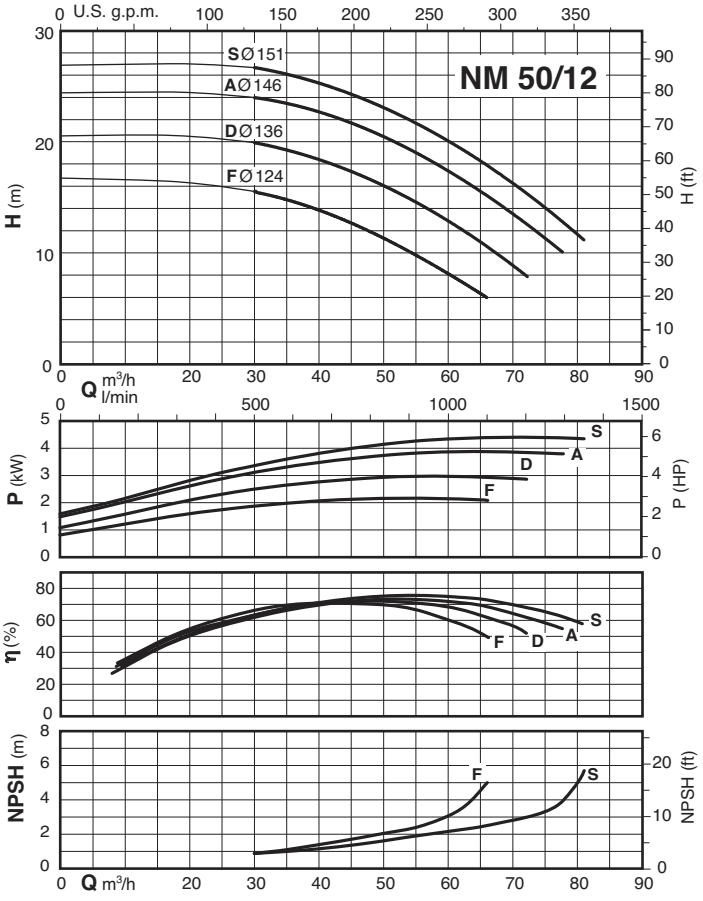


Characteristic curves n ≈ 2900 rpm

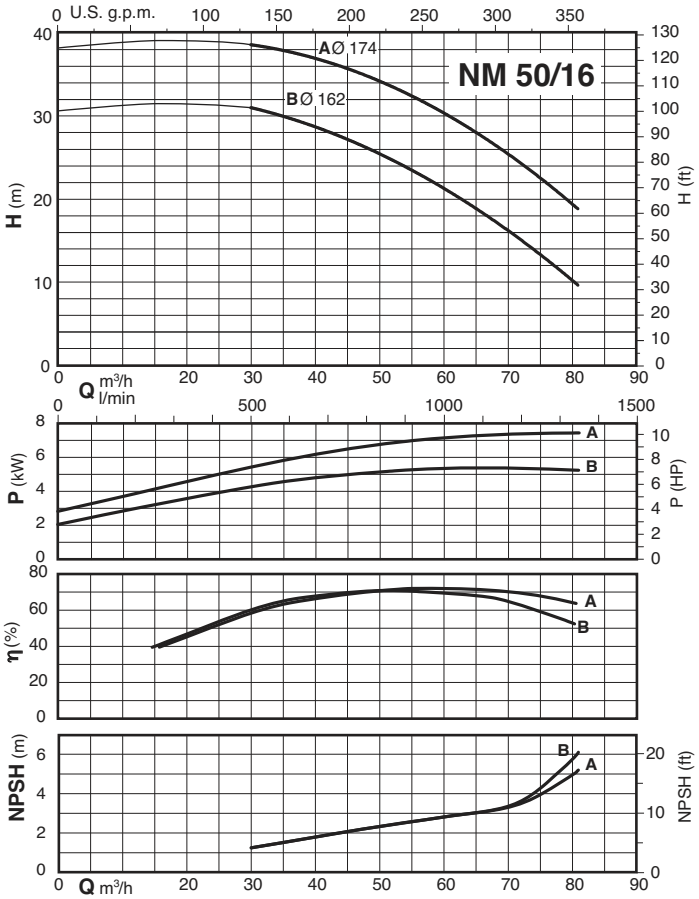


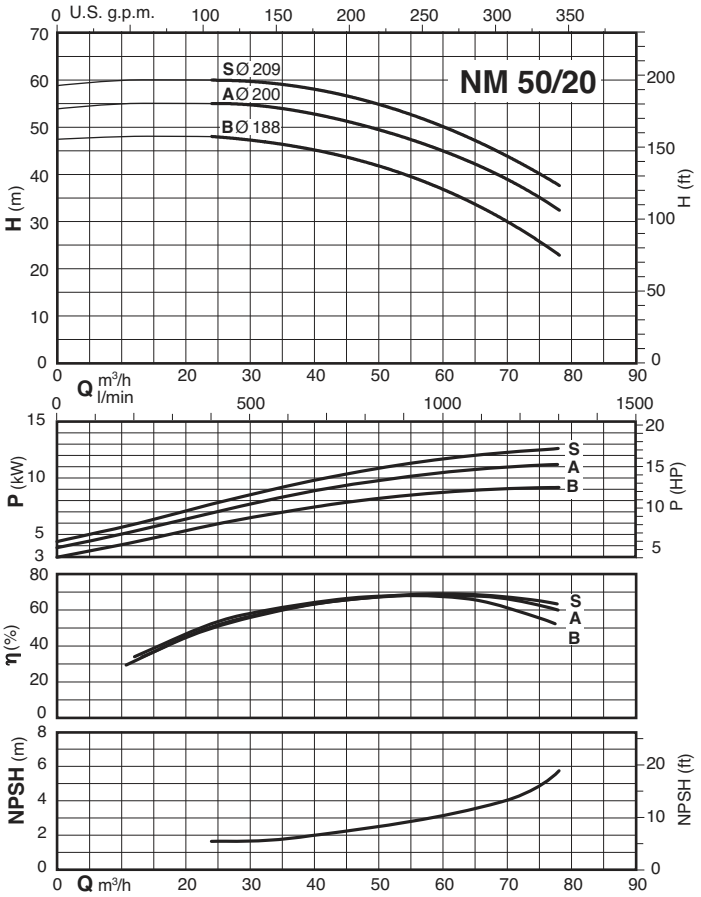


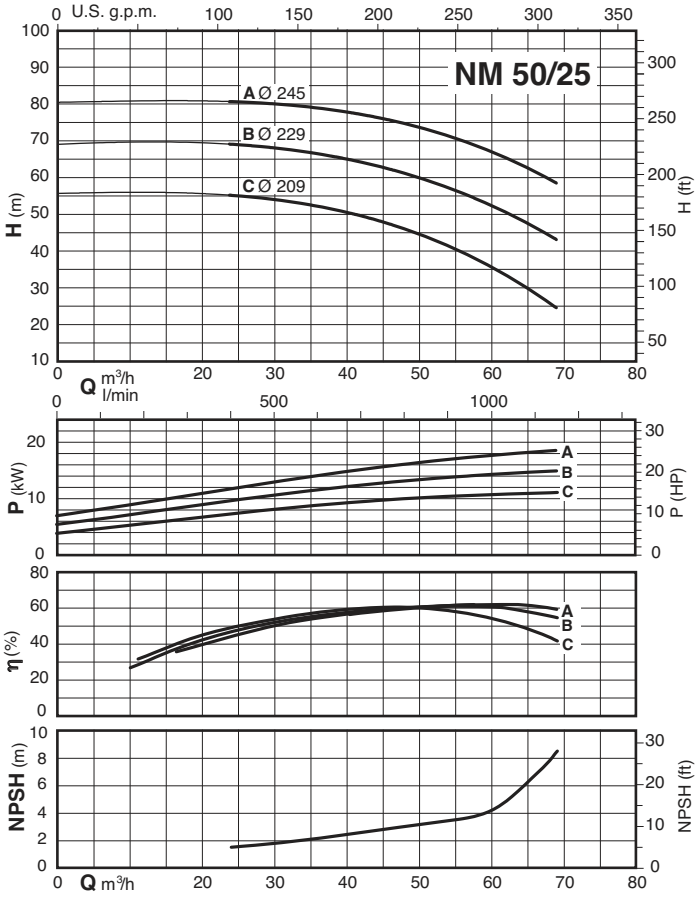


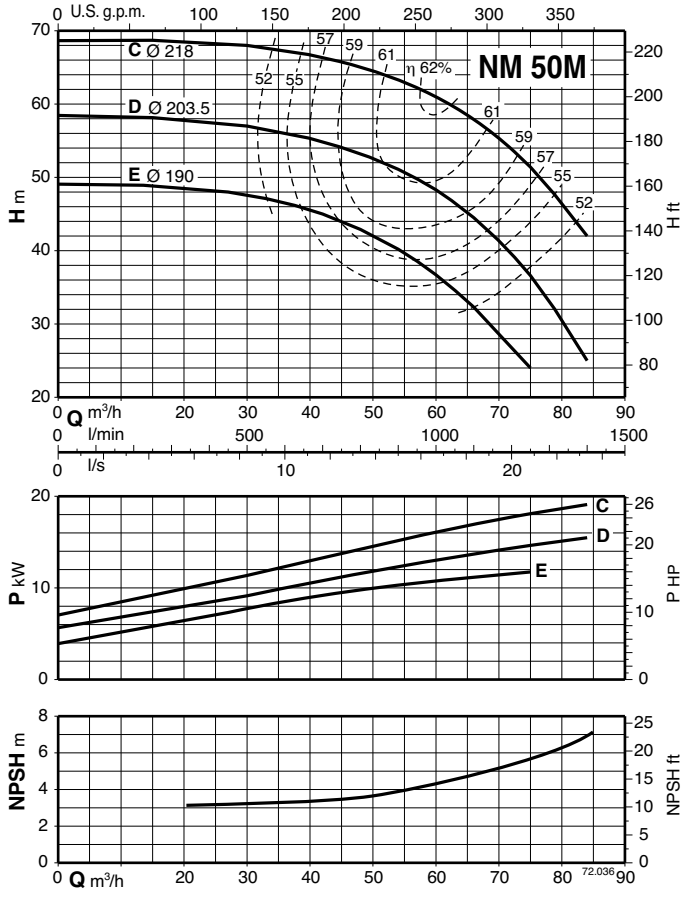


Characteristic curves n ≈ 2900 rpm

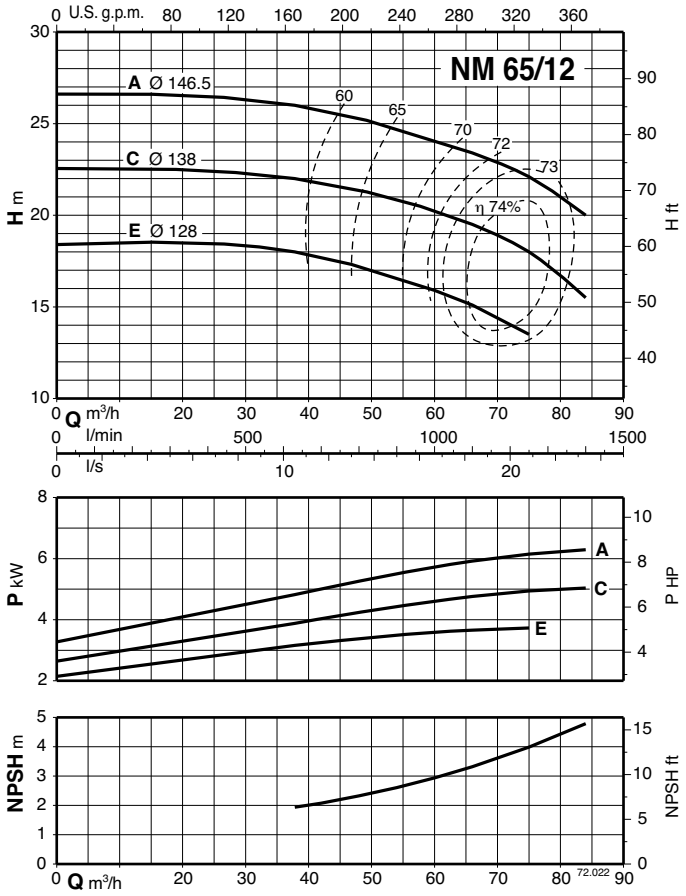


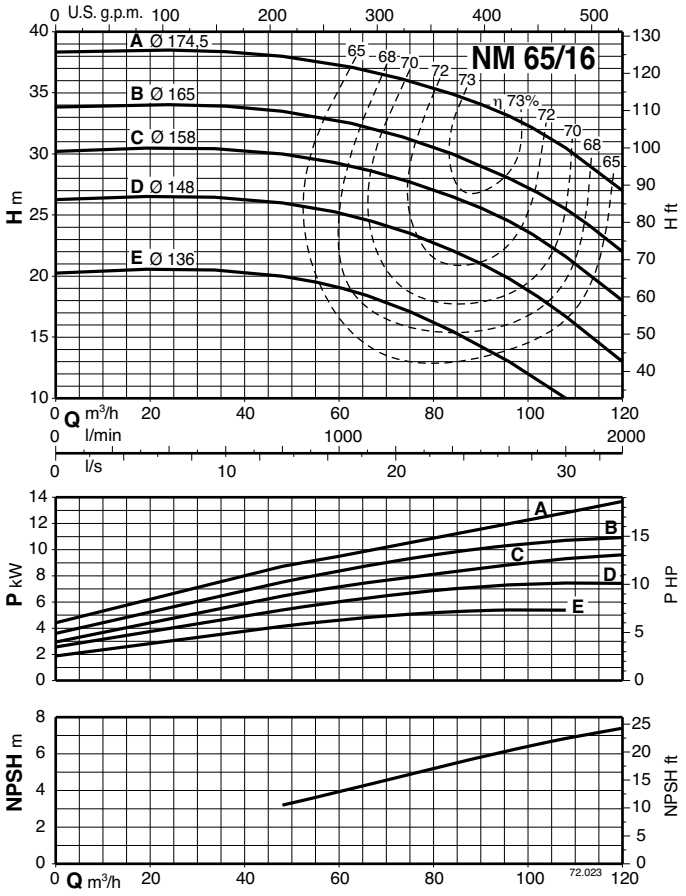


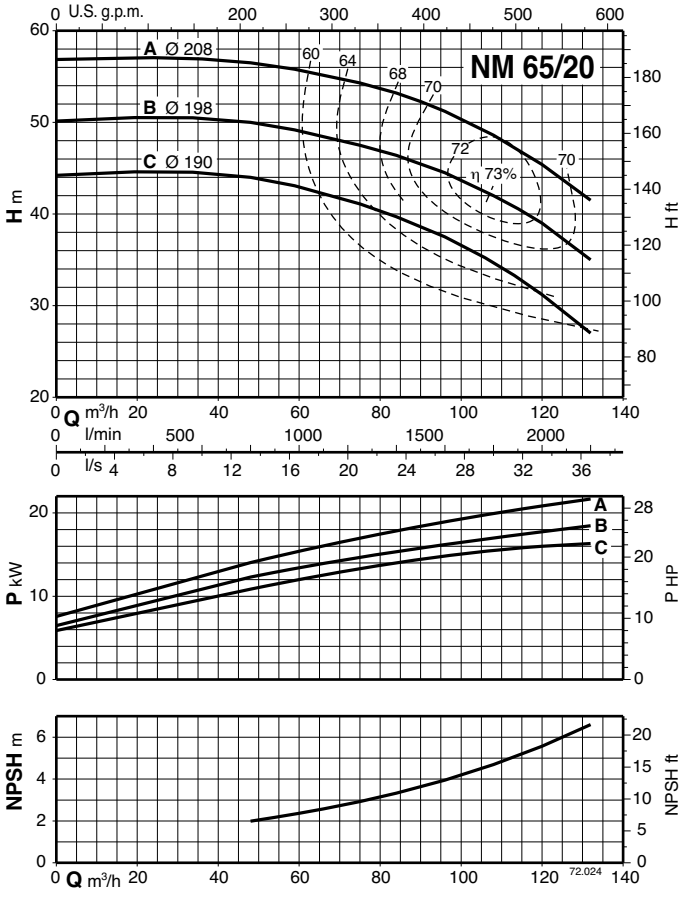


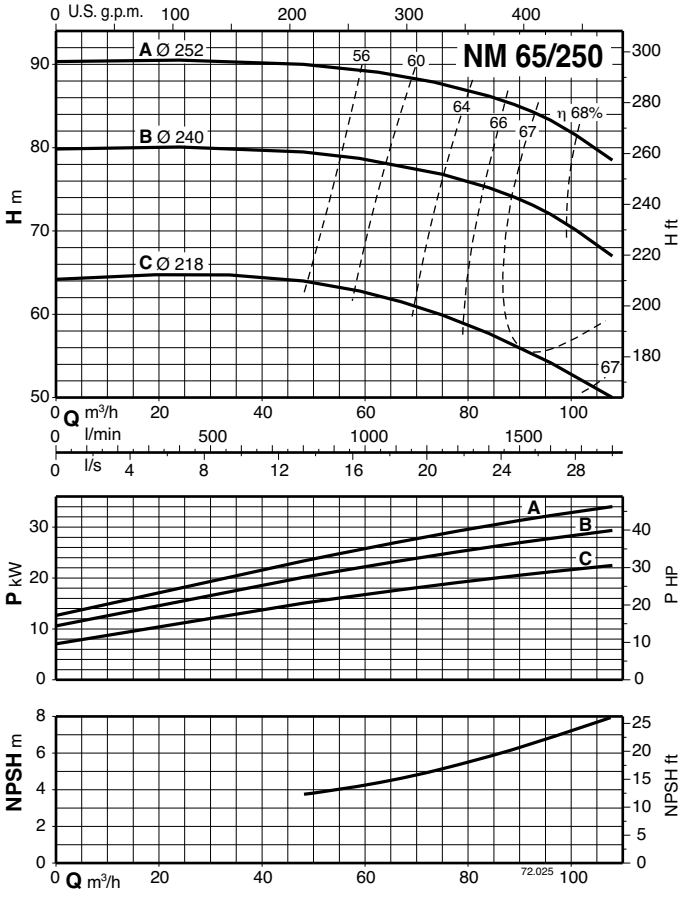


Characteristic curves n ≈ 2900 rpm

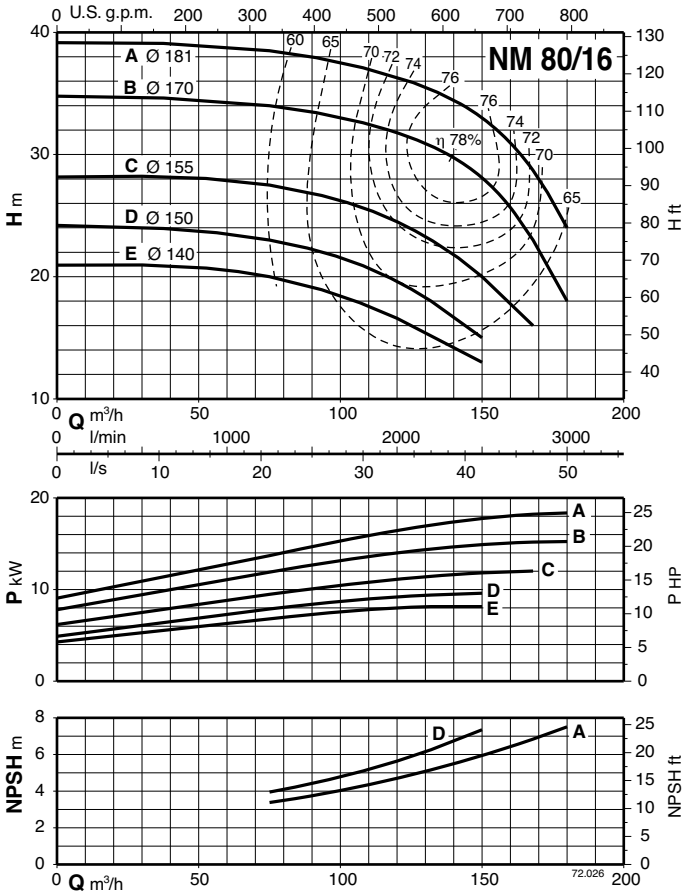


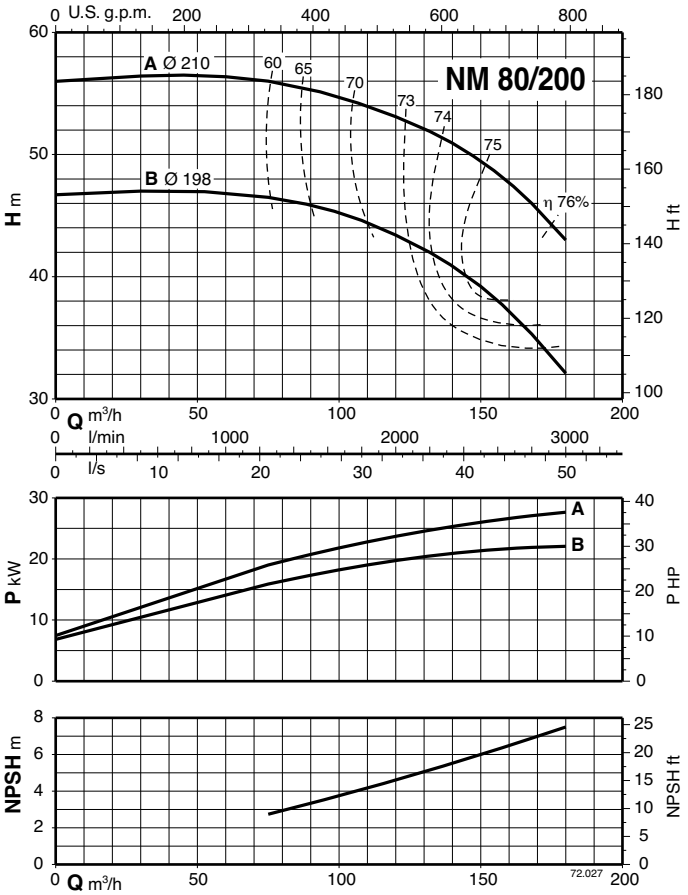


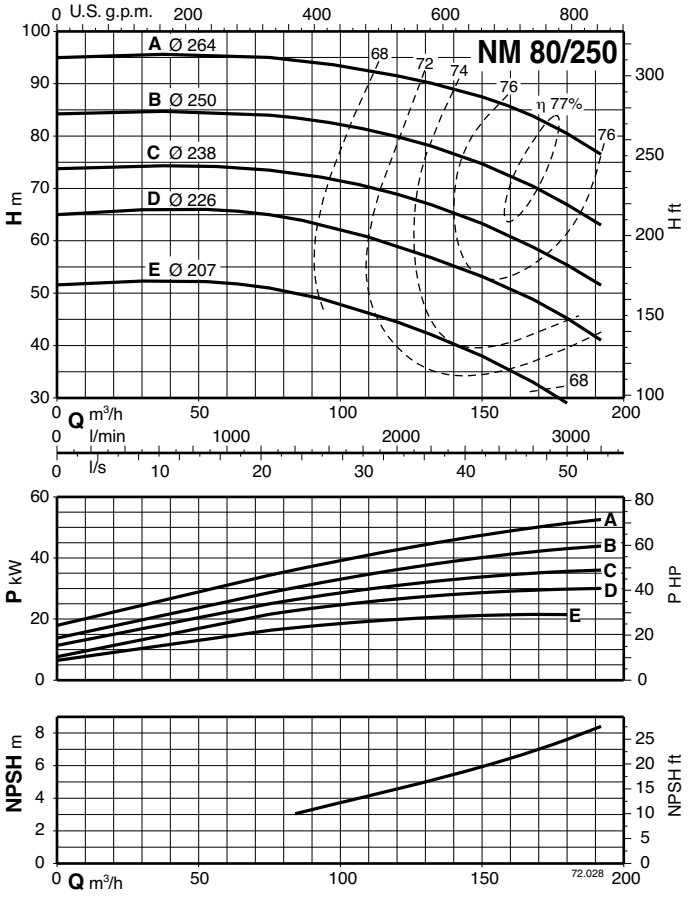




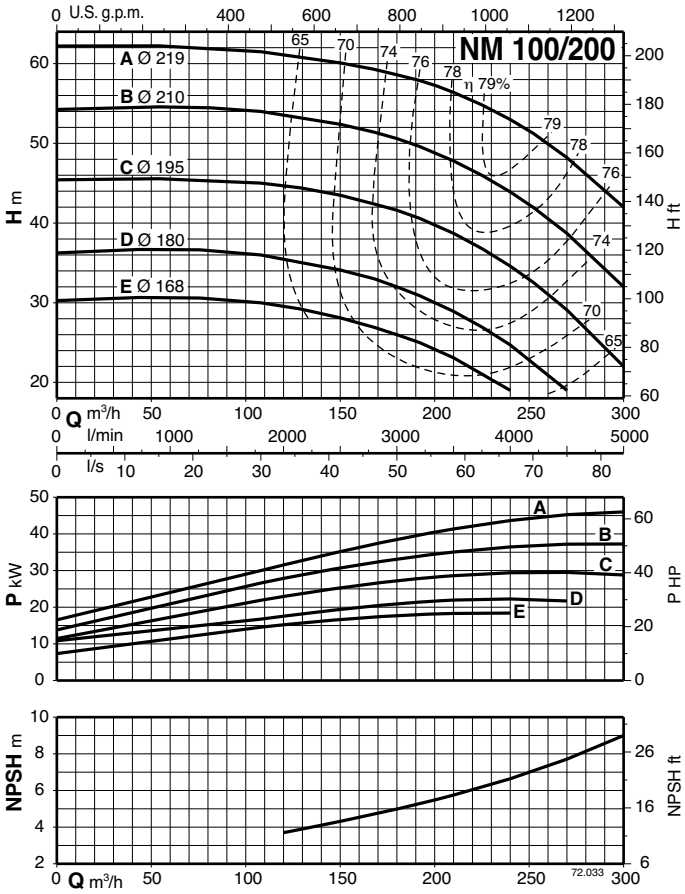
Characteristic curves n ≈ 2900 rpm

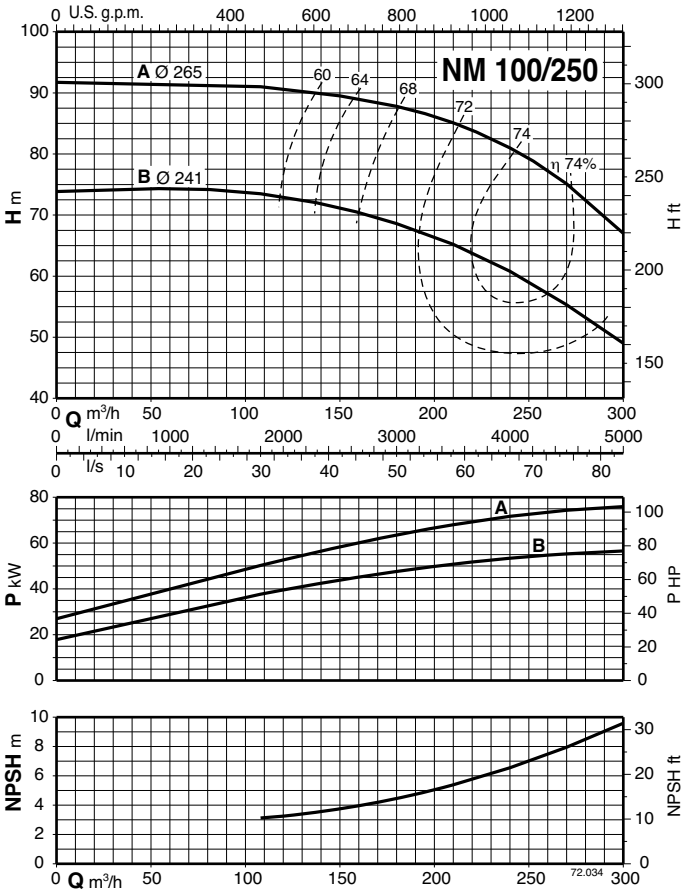






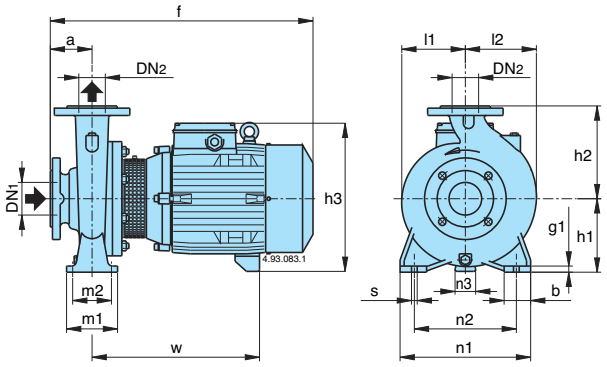
Characteristic curves n ≈ 2900 rpm



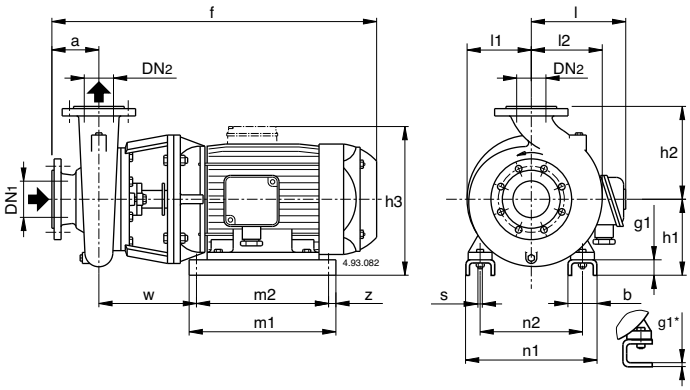


Dimensions and weights

1

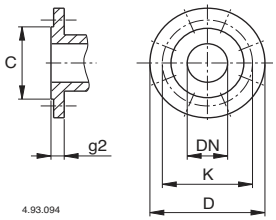


2



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	240	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	260	100	70	240	190	47	-	50	14	-	120	120	250	12	36-34
	NM 32/20DE NM 32/20CE NM 32/20AE	50	32	80	410 475 475	160	180	288	100	70	240	190	62 60 60	-	50	14	-	140	140	250 295 295	12	39 49 52
	NM 40/12A/A-C/A-F/A	65	40	80	410	112	140	240	100	70	210	160	37	-	50	14	-	100	113	250	12	31-29-27
	NM 40/16C/A NM 40/16B/A NM 40/16A/A	65	40	80	410 475 475	132	160	260	100	70	240	190	47 45 45	-	50	14	-	119	119	250 295 295	12	36 45 49
	NM 40/20CE-DE NM 40/20AE-ARE-BE	65	40	100	495 525	160	180	288 320	100	70	265	212	60 49	-	50	14	-	140	140	295 320	12	55-55 72-65-65
	NM 40/25B/A-C/A NM 40/25A/A	65	40	100	640 690	180	225	365	125	95	320	250	50	-	65	14	-	175	175	410 460	15	116-110 133
	NM 50/12F/A NM 50/12D/A NM 50/12A/A-S/A	65	50	100	430 495 495	132	160	260	100	70	240	190	47 45 45	-	50	14	-	121	137	250 295 295	12	38 47 51-51
	NM 50/16A/A-B/A	65	50	100	525	160	180	320	100	70	265	212	49	-	50	14	-	127	141	320	14	70-64
	NM 50/20A/A-B/A NM 50/20S/A	65	50	100	640 695	160	200	345	100	70	265	212	40	-	50	14	-	140	153	410 460	15	106-100 112
	NM 50/25C/A NM 50/25B/A NM 50/25A/A	65	50	100	645 695 720	180	225	365	125	95	320	250	50	-	65	14	-	175	175	415 465 465	15	126 132 147
2	NM 50M/EE NM 50M/DE NM 50M/CE	65	50	100	700 750 775	192	225	377	298	258	262	216	-	20	69	12	-	175	175	239	6*	135 151 165
1	NM 65/12EE NM 65/12AE-CE	80	65	100	495 525	160	180	288 320	125	95	280	212	60 49	-	65	14	-	134	156	295 320	15	55 73-67
	NM 65/16DE-EE NM 65/16BE-CE NM 65/16AE	80	65	100	525 640 690	160	200	320 345 345	125	95	280	212	49 40 40	-	65	14	- - -	150	172	320 410 460	15	75-70 106-100 121
	NM 65/20CE NM 65/20BE	80	65	100	690 715	180	225	365	125	95	320	250	50	-	65	14	-	155	175	460	15	127 139
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 NM 65/250AE	80	65	100	825 945	202 245	250	408 -	400 475	360 425	344 408	254 318	-	20 25	90 90	14 18	- 290	175	190	245 263	42 45	195-174 299
1	NM 80/16EE NM 80/16CE-DE NM 80/16BE NM 80/16AE	100	80	125	545 670 720 745	180	225	340 365 365 365	125	95	320	250	60 50 50 50	-	65	14	- - - -	165	193	320 415 465 465	15	83 113-108 130 144
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 NM 80/250AE-BE-CE	100	80	125	850 970	202 245	280	408 -	400 475	360 425	344 408	254 318	-	20 25	90 90	14 18	- 290	191	210	245 263	42 45	203-182 377-361-331
	NM 100/200EE NM 100/200CE-DE NM 100/200AE-BE	125	100	125	800 850 970	192 202 245	280	377 408 -	298 400 475	258 360 425	262 344 408	216 254 318	-	20 20 25	69 90 90	12 14 18	- - 290	180	212	239 245 263	6* 42 45	173 195-174 355-323
	NM 100/250BE NM 100/250AE	125	100	140	980 1050	245 275	280	-	475 480	425 430	408 460	318 356	-	25	90 104	18	290 330	205	233	263 305	45 50	386 498

Flanges
EN 1092-2

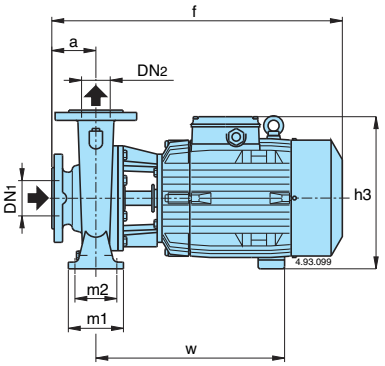


mm						
DN	C	K	D	Holes		g2
				N°	Ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

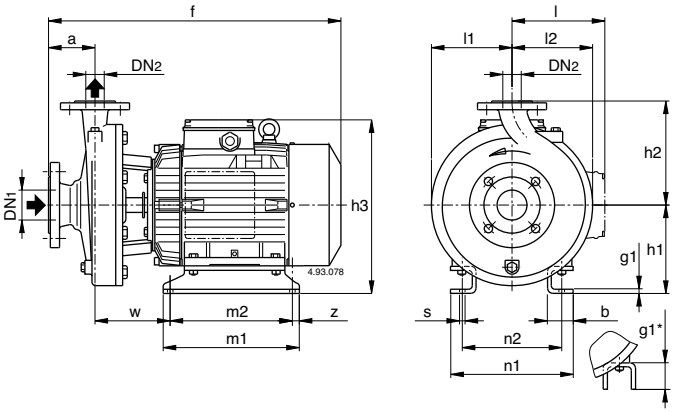
Pumps with packed gland, dimensions available on request.

Dimensions and weights

3

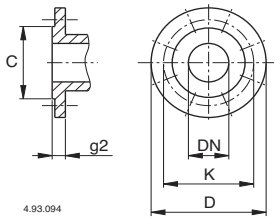


4



Picture	B- 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
3	B-NM 32/125SE-AE B-NM 32/125DE-FE	50	32	80	450	112	140	240	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	260	100	70	240	190	47	-	50	14	-	120	120	295 315	12	44 45
	B-NM 32/200DE B-NM 32/200CE B-NM 32/200AE	50	32	80	475 530 530	160	180	288	100	70	240	190	45 60 60	-	50	14	-	140	140	315 350 350	12	49 57 61
	B-NM 40/125F/A B-NM 40/125A/A-C/A	65	40	80	455 475	112	140	240	100	70	210	160	37	-	50	14	-	100	113	295 315	12	33 37-35
	B-NM 40/160C/A B-NM 40/160B/A B-NM 40/160A/A	65	40	80	475 530 530	132	160	260	100	70	240	190	47 45 45	-	50	14	-	119	119	315 350 350	12	45 53 57
	B-NM 40/200CE-DE B-NM 40/200AE-BE	65	40	100	550 580	160	180	288 320	100	70	265	212	60 49	-	50	14	-	140	140	350 375	12	63-62 80-74
4	B-NM 4025/B/A-C/A B-NM 4025/A/A	65	40	100	635 685	192	225	377	298	258	262	216	-	20	69	12	-	175	175	174	6	130-124 147
3	B-NM 50/125F/A B-NM 50/125D/A B-NM 50/125A/A-S/A	65	50	100	495 550 550	132	160	260	100	70	240	190	47 45 45	-	50	14	-	121	137	315 350 350	12	49 58 63-63
	B-NM 50/160A/A-B/A	65	50	100	580	160	180	320	100	70	265	212	49	-	50	14	-	127	141	375	14	80-74
4	B-NM 50/200S/A-A/A-B/A	65	50	100	695	192	200	377	298	258	262	216	-	20	69	12	-	140	153	234	6	128-121
	B-NM 5025/C/A B-NM 5025/B/A B-NM 5025/A/A	65	50	100	635 685 710	192	225	377	298	258	262	216	-	20	69	12	-	175	175	174	6	135 144 155
	B-NM 5025/65EE B-NM 5025/65DE 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
3	B-NM 65/125AE-CE	80	65	100	580	160	180	320	125	95	280	212	49	-	65	14	-	134	156	375	15	93-72
	B-NM 65/160DE-EE B-NM 65/160CE	80	65	100	575 660	160	200	320 345	125	95	280	212	49 40	-	65	14	-	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	192 192 202	225	377 377 408	298 298 400	258 258 360	262 262 344	216 216 254	-	20	69 69 90	12 12 14	-	155	175	239 239 245	6 6 42*	157 177 179
	B-NM 65/250BE-CE NM 65/250BE B-NM 65/250AE	80	65	100	825 840 945	202 222 245	250	408 - -	400 387 475	360 347 425	344 369 408	254 279 318	-	20 20 25	90 90 90	14 14 18	- 270 290	175	190	245 258 263	42* 42* 45*	210-189 350
3	B-NM 80/160EE B-NM 80/160DE	100	80	125	605 685	180	225	340 365	125	95	320	250	60 50	-	65	14	-	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