

# NM4, NMS4 Close Coupled Centrifugal Pumps

n ≈ 1450 rpm



3



## Construction

Close-coupled centrifugal pumps; electric motor with extended shaft directly connected to the pump up to 15 kW, new bracket construction for standard motors (Stub-shaft construction) from 18,5 to 75 kW with integrated thrust bearing. Pump casing with axial suction and radial delivery on top, main dimensions and performance according to EN 733 with additional sizes for completion. NM(S)4: version with pump casing and lantern bracket in cast iron. B-NM(S)4: version with pump casing and lantern bracket/casing cover in bronze. (the pumps are supplied fully painted).

## Connections

Sizes	Connections
NM4 25/...	Threaded ports ISO 228
from NM4 32/.. to NMS4 150/400	Flanges according to PN 10, EN 1092-2

## Counter-flanges (on request)

Sizes	Flanges
from NM4 32/.. to NM4 50/..	Screwed flanges EN 1092-1, PN 16
from NM4 32/.. to NMS4 150/400	Flanges for welding EN 1092-1, PN 10

## Applications

- For clean liquids without abrasives, which are non-aggressive for the pump materials (contents of solids up to 0,2%).
- For water supply. - For heating, air conditioning, cooling and circulation plants. - For civil and industrial applications.
- When low noise operating is required. - 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

4-pole induction motor, 50 Hz (n ≈ 1450 rpm).  
**NM4, NMS4:** 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.

**Classification scheme IE2 for three-phase motor from 0,75 kW.**  
 Constructed in accordance with: EN 60034-1; EN 60034-30.

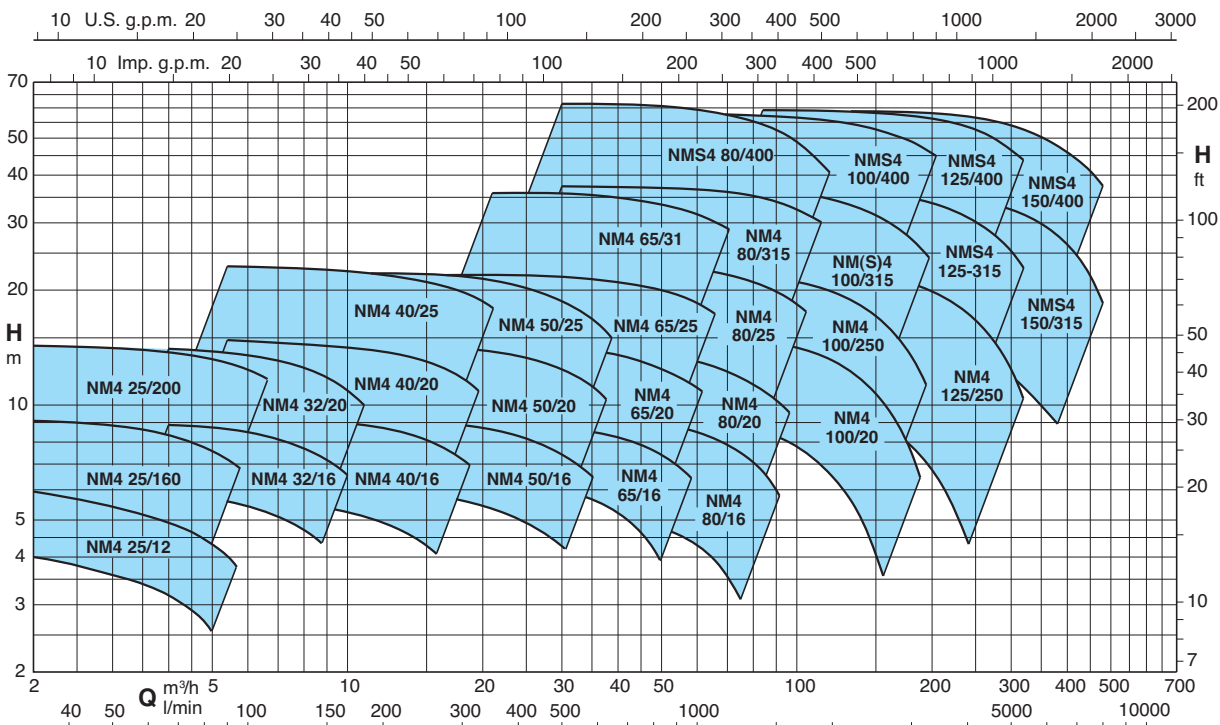
## Special features on request

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

## Materiali

Components	NM4, NMS4	B-NM4, B-NMS4
Pump casing Lantern bracket NM4 Casing cover for NMS4	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
Lantern bracket NMS4	Cast iron GJL 200 EN 1561	
Impeller	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
	Brass P- Cu Zn 40 Pb 2 UNI 5705 For NM4 25/125 - 25/160 - 25/200 - NM4 32/16 - 32/20 - 40/20	
Shaft	AISI 303 up to 1,1 kW	Cr Ni Mo steel AISI 316
	AISI 430 from 1,5 kW to 75 kW	
Mechanical seal	Carbon - Ceramic - NBR	
Counter-flanges	Steel Fe 430B UNI 7070	

## Coverage chart n ≈ 1450 rpm





## Performance n ≈ 1450 rpm

B-NMS4	NM4 - NMS4	P <sub>2</sub>		Q m <sup>3</sup> /h																				
		kW	HP																					
						l/min	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000
	NM4 100/20C/A	3	4	H m	9,4	9,3	9,2	9,1	8,9	8,5	8	7,3	6,5	5,6	4*									
	NM4 100/20B/A	4	5,5		12	11,9	11,8	11,7	11,5	11,2	10,7	10	9,3	8,4	6,7*	4,5*								
	NM4 100/20A/A	5,5	7,5		15,2	15,2	15,1	15	14,9	14,7	14,3	13,8	13,1	12,2	10,7*	9*	7,5*	6*						
	NM4 100/25B/A	7,5	10		19,5	19,5	19,4	19,3	19	18,7	18,2	17,5	16,6	15,6	13,8*	11,7*	10*	8,4*	5,5*					
	NM4 100/25A/A	9,2	12,5		22,3	22,3	22,2	22,1	21,9	21,7	21,2	20,5	19,8	18,8	17,1*	15*	13,4*	11,7*	8,9*					
B-NMS4 100/315C	NM4 100/315C/A	11	15		26,9	26,9	26,8	26,6	26,2	25,7	24,9	23,8	22,7	21,3	18,9*	15,9*	13,7*	11,3*						
B-NMS4 100/315B	NM4 100/315B/A	15	20		31,5	31,5	31,4	31,3	31,2	30,8	30,2	29,3	28,2	26,9	24,6*	21,8*	19,8*	17,6*	14*					
B-NMS4 100/315A	NMS4 100/315A	18,5	25		36,9	36,9	36,8	36,7	36,6	36,4	36	35,3	34,5	33,4	31,4*	29*	27,2*	25,3*	22,2*					
B-NMS4 100/400C	NMS4 100/400C	22	30		41,3	41,2	41,1	41	40,7	40,4	39,8	39	38	36,5	34*	31*	28,7*	26*						
B-NMS4 100/400B	NMS4 100/400B	30	40		50,2	50,1	50	49,9	49,7	49,4	48,8	48	47,1	46	44*	41,3*	39,5*	37*	33,5*					
B-NMS4 100/400A	NMS4 100/400A	37	50	58,2	58,1	58	57,9	57,8	57,6	57,2	56,3	55,7	54,5	52,7*	50,5*	49*	47*	44*						

B-NMS4	NM4 - NMS4	P <sub>2</sub>		Q m <sup>3</sup> /h																				
		kW	HP																					
						l/min	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000	5500	6000	6500	7000	7500
	NM4 125/25E/A	5,5	7,5	H m	11	10,8	10,5	10,1	9,7	9,1	8,3	7,8	7,2	6,2	4,4*									
	NM4 125/25D/A	7,5	10		14	13,9	13,7	13,4	13	12,4	11,6	11	10,4	9,4	7,4*	5,1*								
	NM4 125/25C/A	9,2	12,5		16,7	16,6	16,4	16,2	15,9	15,4	14,6	14,1	13,5	12,5	10,4*	8,2*	5,8*							
B-NMS4 125/250B	NM4 125/250B/A	11	15		19,3	19,2	19,1	18,9	18,7	18,2	17,5	17	16,3	15,3	13,3*	10,9*	8,2*							
B-NMS4 125/250A	NM4 125/250A/A	15	20		22,7	22,7	22,6	22,4	22,2	21,8	21,2	20,8	20,1	19,3	17,4*	15*	12,4*	9,3*						
B-NMS4 125/315C	NMS4 125/315C	18,5	25		27,9	27,8	27,7	27,6	27,2	26,5	25,6	24,9	24	22,8	20,2*	17*	13,5*	9,5*						
B-NMS4 125/315B	NMS4 125/315B	22	30		31,8	31,7	31,6	31,5	31,1	30,6	29,7	29,1	28,5	27,3	24,9*	22*	18,5*	14,3*						
B-NMS4 125/315A	NMS4 125/315A	30	40		36,8	36,8	36,7	36,6	36,4	35,9	35,2	34,7	34,2	33,2	31*	28,4*	25,3*	21,6*						
B-NMS4 125/400C	NMS4 125/400C	37	50		45,4	45,3	45,2	45,1	44,9	44,4	43,7	43	42	40	37*	33*	28,5*	23,5*						
B-NMS4 125/400B	NMS4 125/400B	45	60		51,4	51,3	51,2	51,1	50,9	50,4	49,7	49	48,2	46,8	44*	40,5*	36*	31,5*						
B-NMS4 125/400A	NMS4 125/400A	55	75	59,2	59,1	59	58,9	58,7	58,2	57,7	57,2	56,7	55,7	53,5*	50,5*	46,5*	42,5*							
B-NMS4 150/315D	NMS4 150/315D	18,5	25					22,8	22,6	22,3	22	21,7	21,1	20	18,6	17	15,1	13	10,6*	8*				
B-NMS4 150/315C	NMS4 150/315C	22	30					25,6	25,4	25,1	24,9	24,7	24,2	23,3	22	20,4	18,5	16,5	14,1*	11,6*	8,9*			
B-NMS4 150/315B	NMS4 150/315B	30	40					30,6	30,6	30,5	30,3	30,1	29,7	29	27,9	26,5	24,9	23	20,8*	18,3*	15,4*			
B-NMS4 150/315A	NMS4 150/315A	37	50					35,6	35,6	35,5	35,4	35,3	35,2	34,6	33,7	32,5	31	29,2	27,1*	24,7*	21,8*	18,5*		
B-NMS4 150/400C	NMS4 150/400C	45	60					45	44,9	44,7	44,5	44	43,5	42,5	40,5	38,5	36	33,5	30,5*	27*	23,5*	19,5*		
B-NMS4 150/400B	NMS4 150/400B	55	75					50,8	50,7	50,5	50,3	50	49,5	48,5	47	45	43	40,5	38*	35*	32*	28,5*		
B-NMS4 150/400A	NMS4 150/400A	75	100					58,8	58,7	58,6	58,5	58,3	58,3	57,9	57	55,5	54	52	49,5	47*	44*	41*	37,5	

**NM4, NMS4** Standard construction.  
**B-NM4, B-NMS4** Bronze construction.

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

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

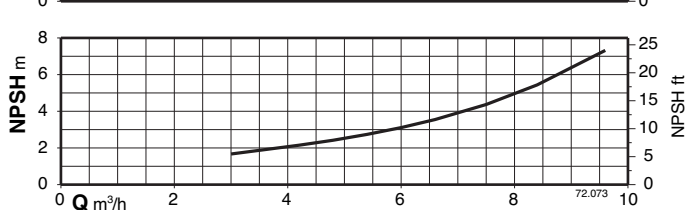
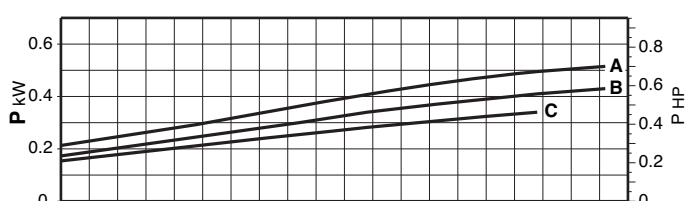
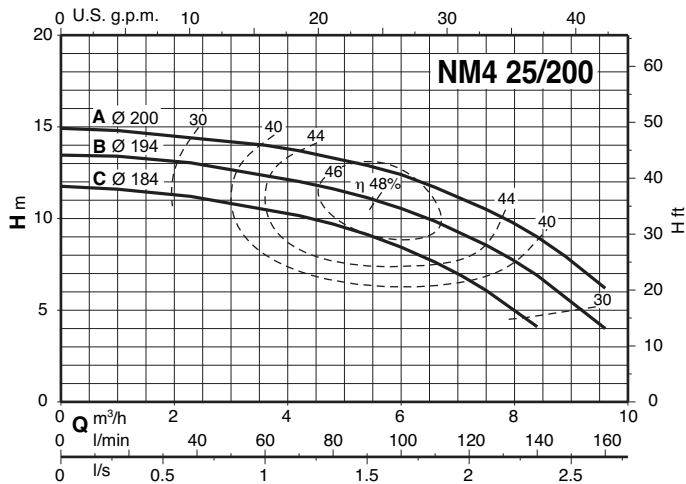
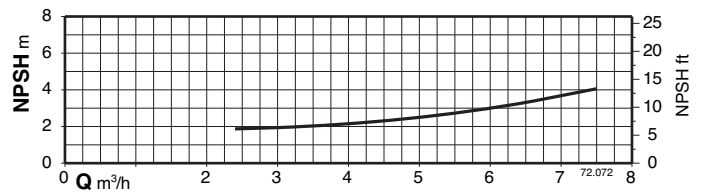
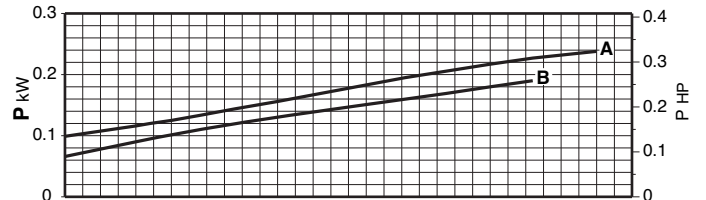
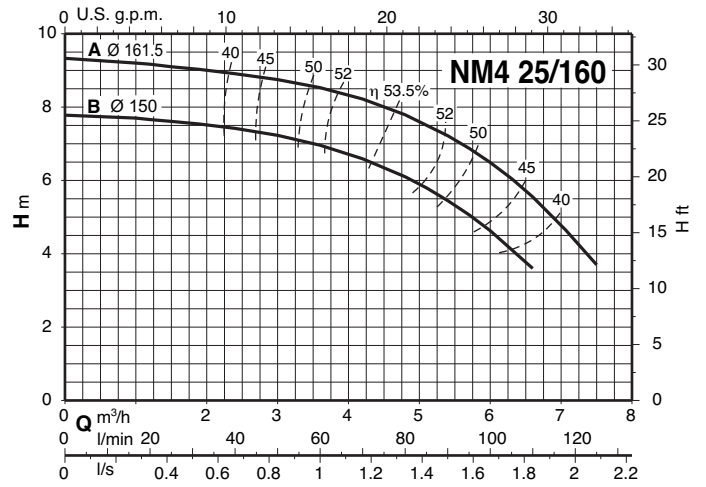
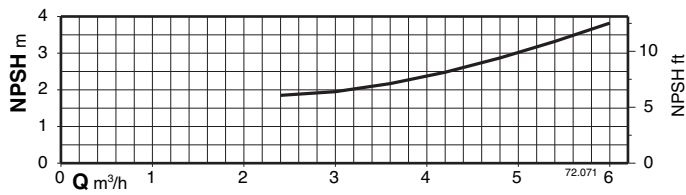
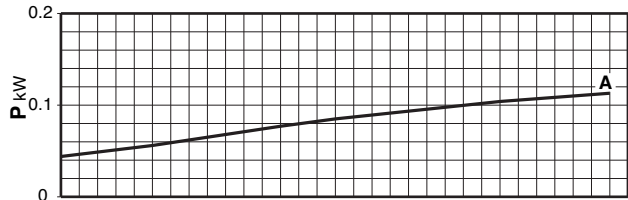
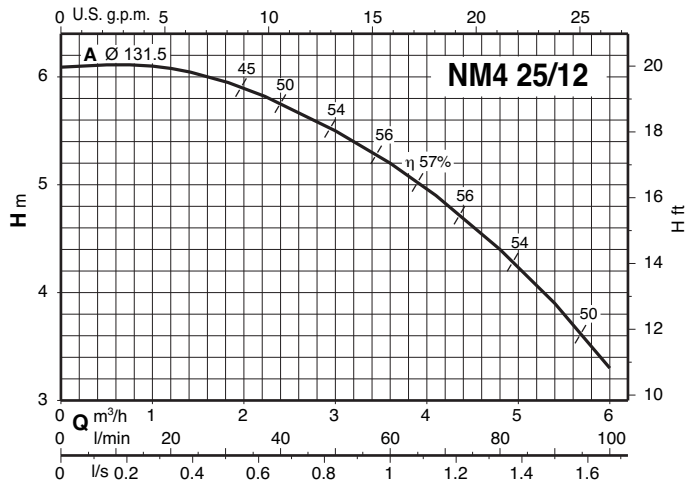
## Rated currents

P <sub>2</sub>		230 V Δ / 400 V Y		
kW	HP	In A	In A	I <sub>A</sub> /I <sub>N</sub>
0,25	0,34	1,4	0,8	3,7
0,37	0,5	1,65	0,95	4,2
0,55	0,75	2,6	1,5	4,8
0,75	1	3,3	1,9	5,2
1,1	1,5	5	2,9	4,7
1,5	2	6	3,5	5
2,2	3	8,6	5	6,1
3	4	11,1	6,4	9

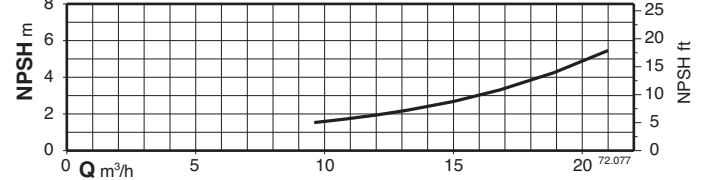
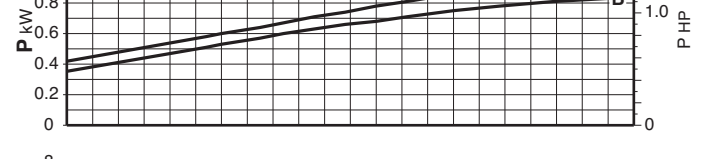
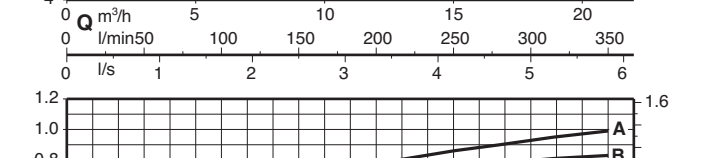
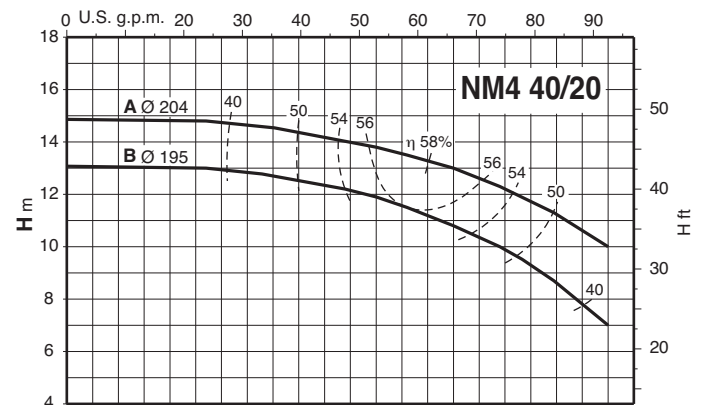
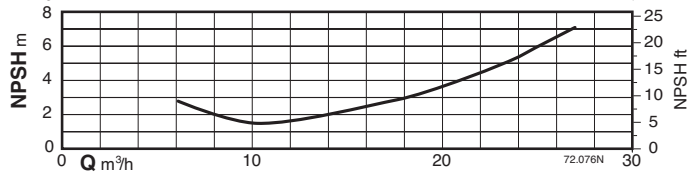
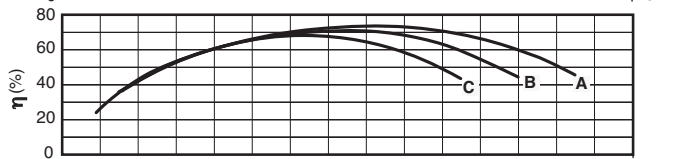
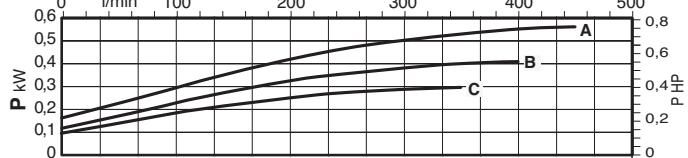
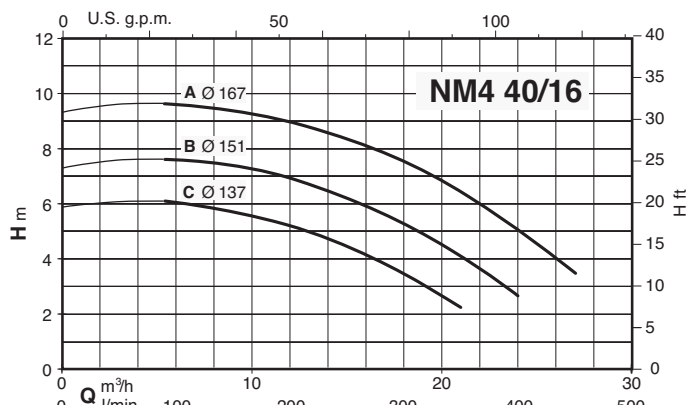
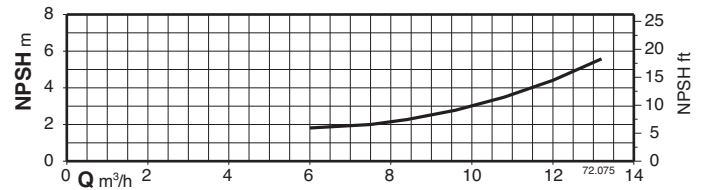
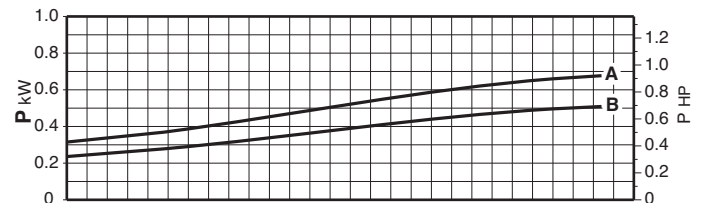
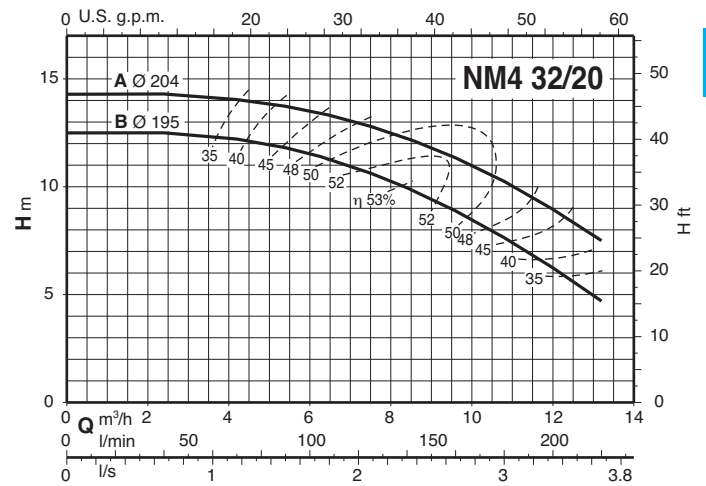
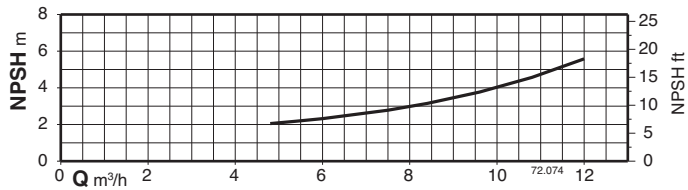
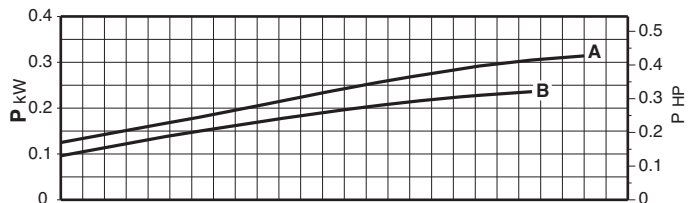
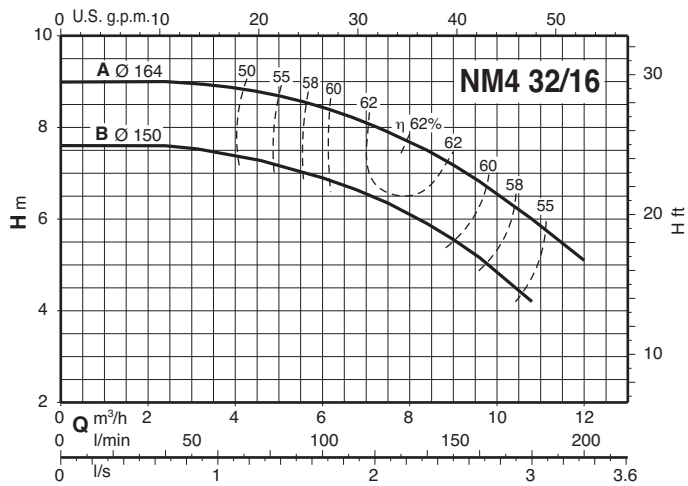
P <sub>2</sub>		400 V Δ / 690 V Y		
kW	HP	In A	In A	I <sub>A</sub> /I <sub>N</sub>
4	5,5	8,3	4,8	9,3
5,5	7,5	12,5	7,2	7,7
7,5	10	16	9,2	9,4
9,2	12,5	19	11	9,3
11	15	22,5	13	6,9
15	20	29	16,7	7
18,5	25	34,5	19,9	6,4
22	30	40,5	23,4	6,7
30	40	55	31,8	6,7
37	50	67	38,5	6,8
45	60	81	46,8	6,9
55	75	96	55,4	7,5
75	100	130	75	6,8

P<sub>2</sub> Rated motor power output.  
I<sub>A</sub>/I<sub>N</sub> D.O.L. starting current / Nominal current

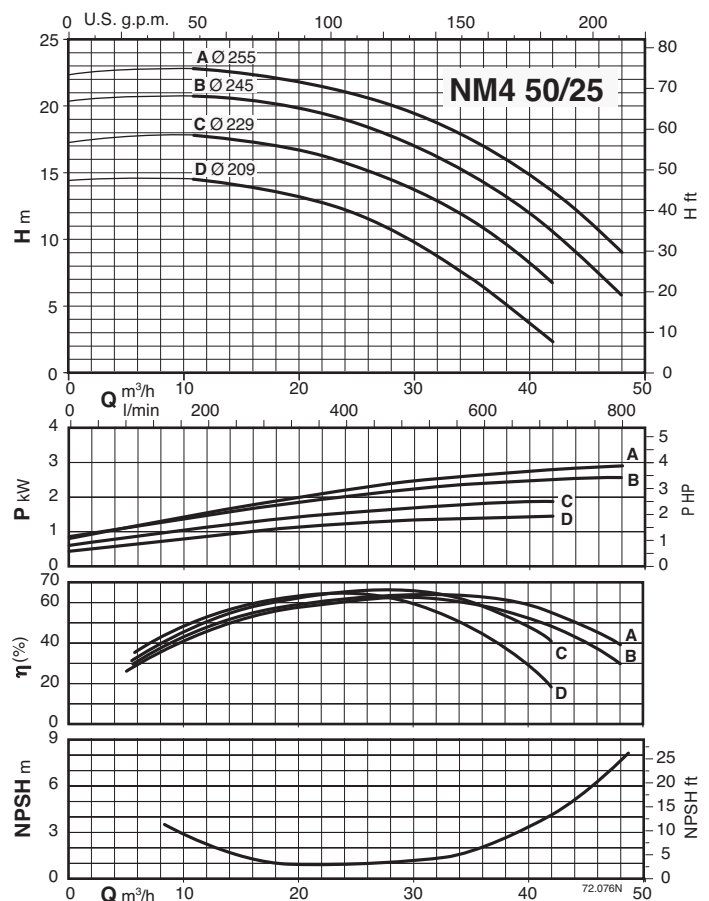
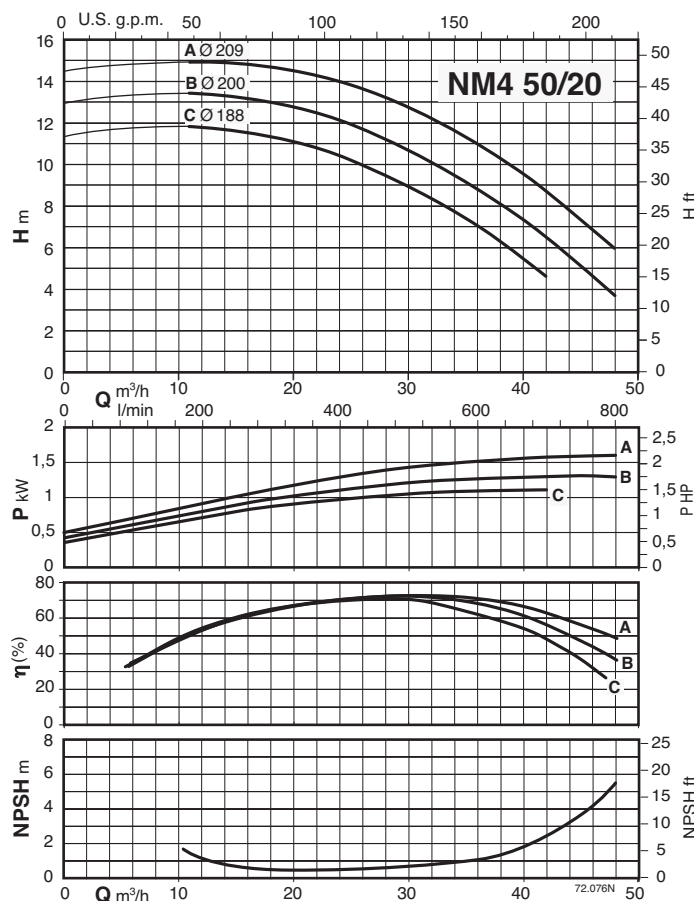
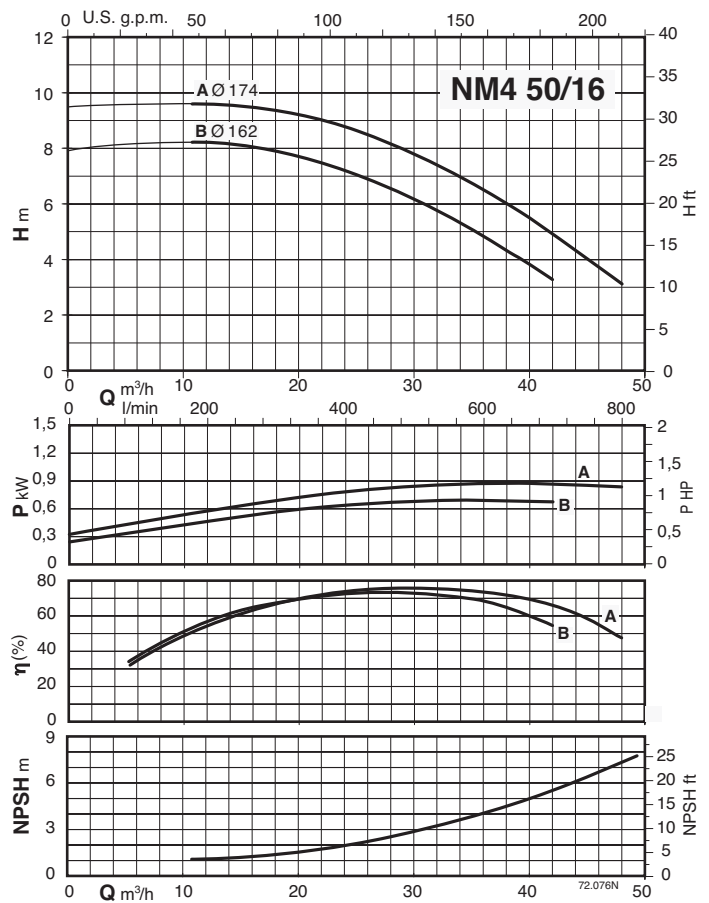
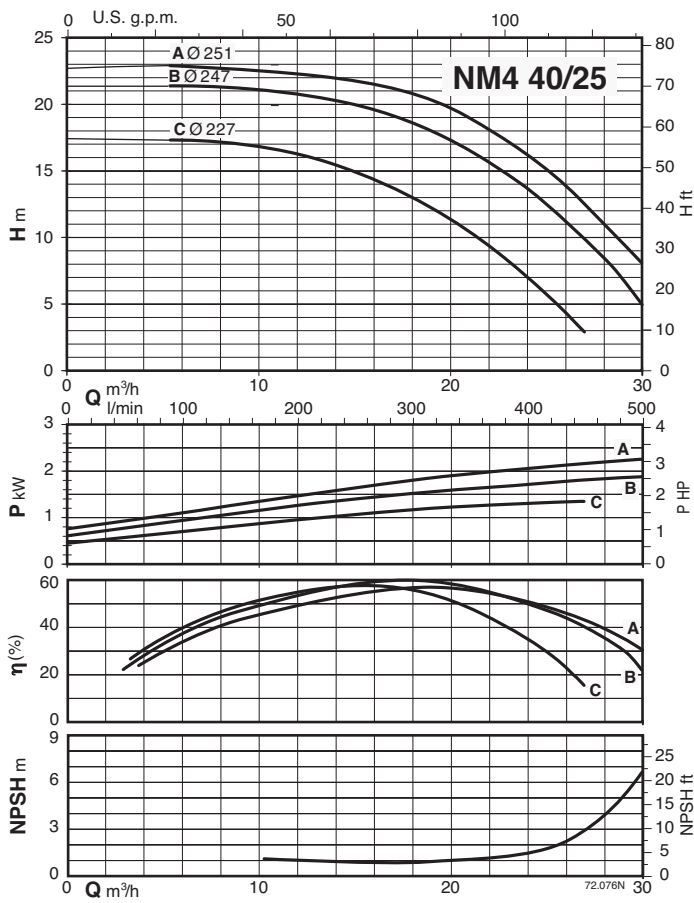
## Characteristic curves $n \approx 1450$ rpm



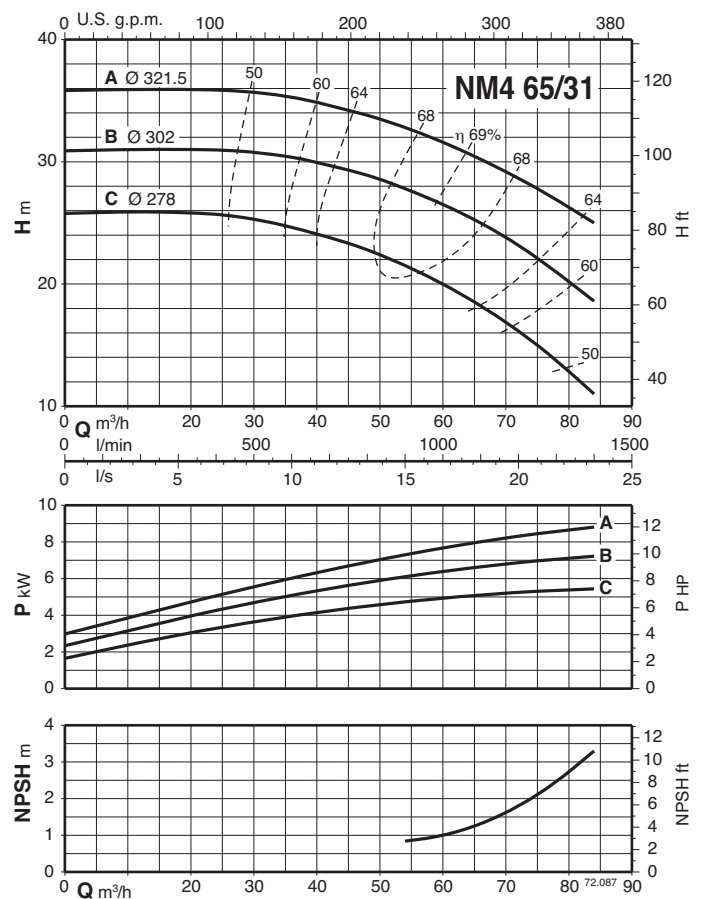
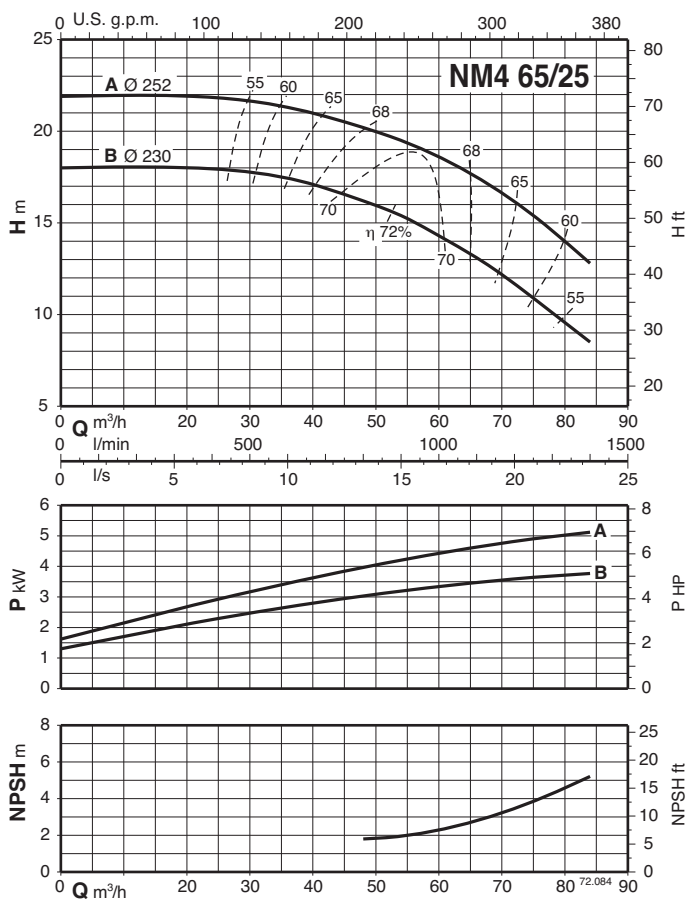
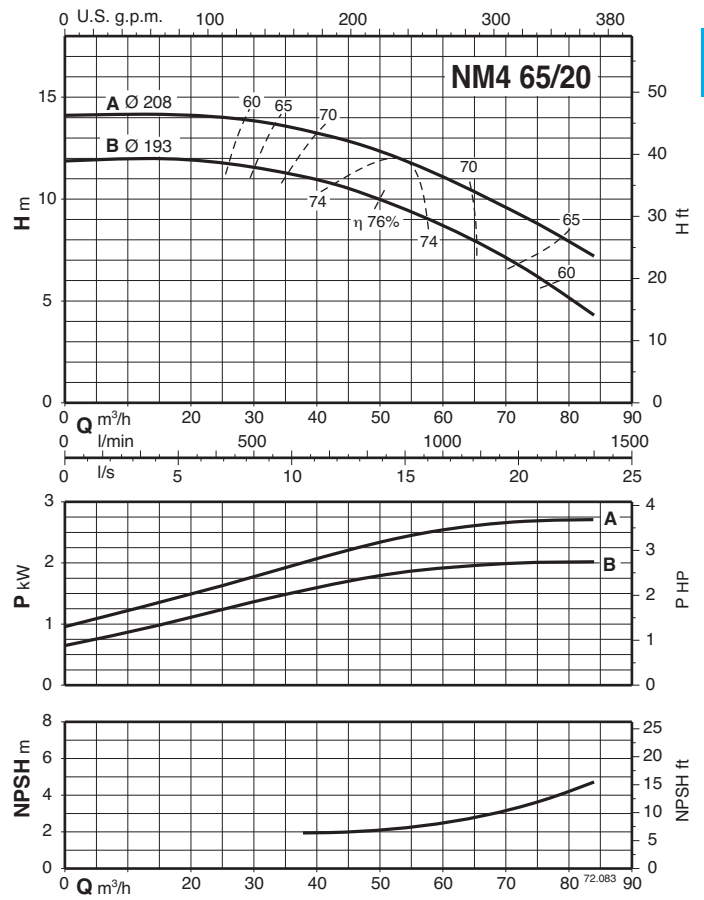
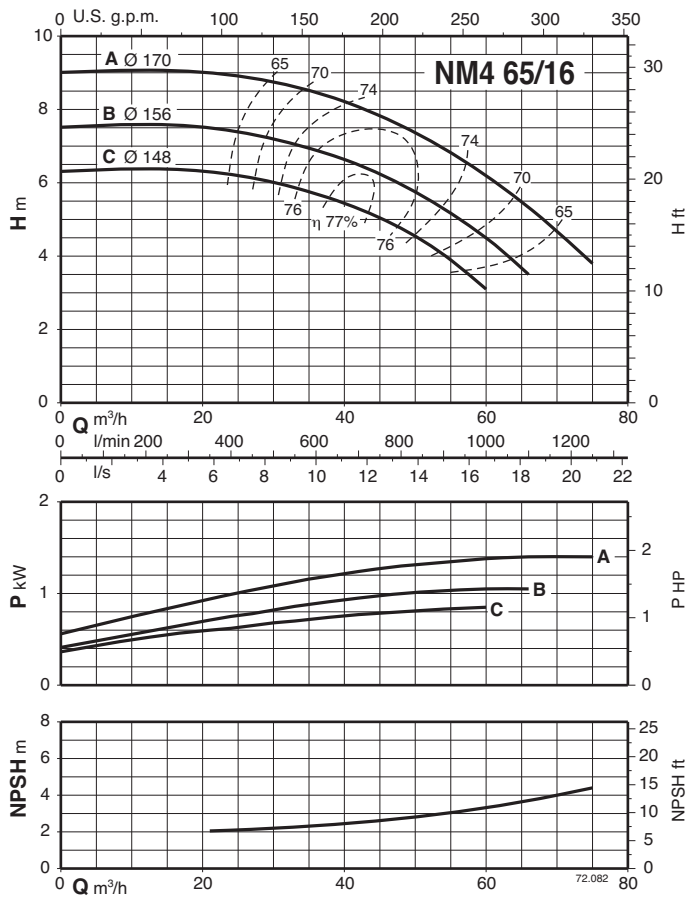
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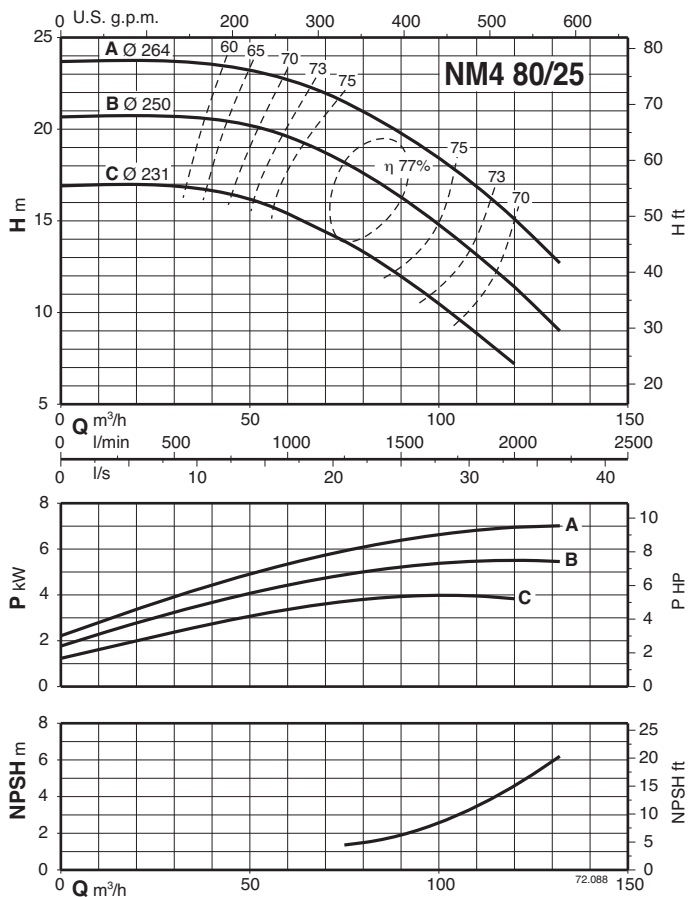
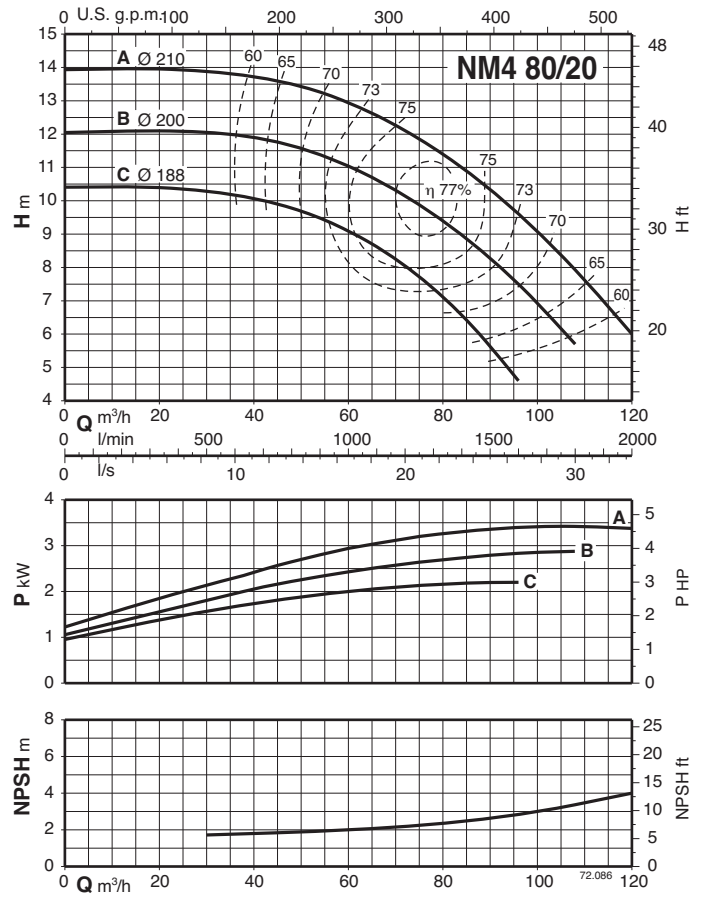
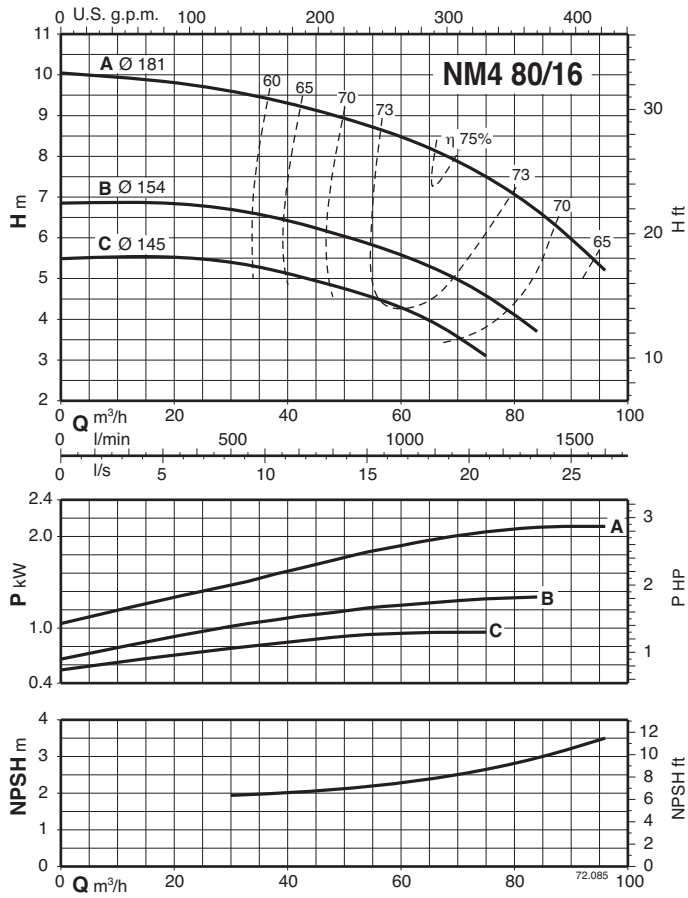
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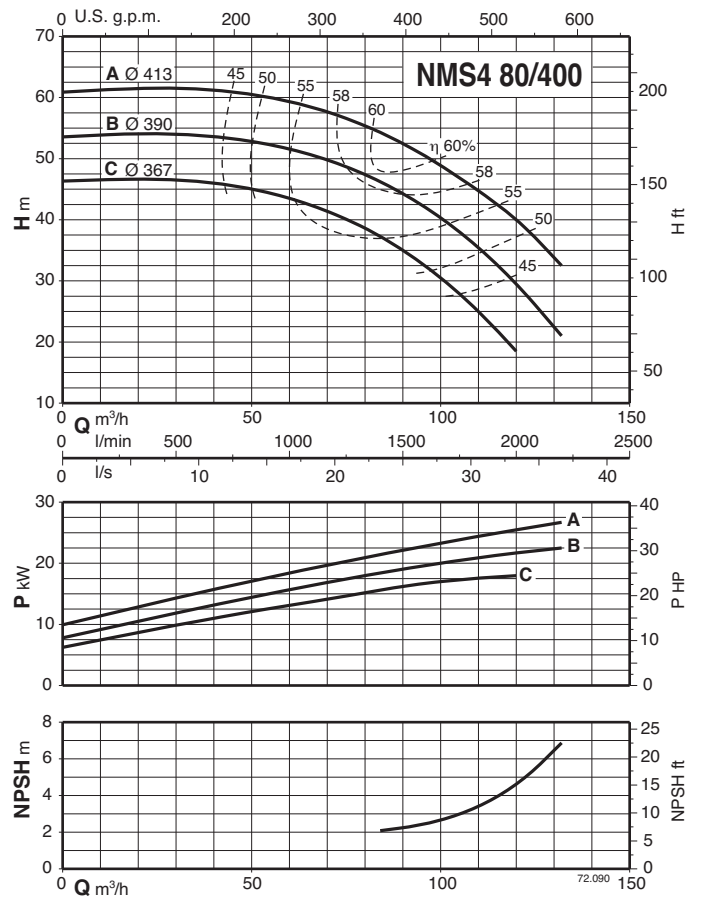
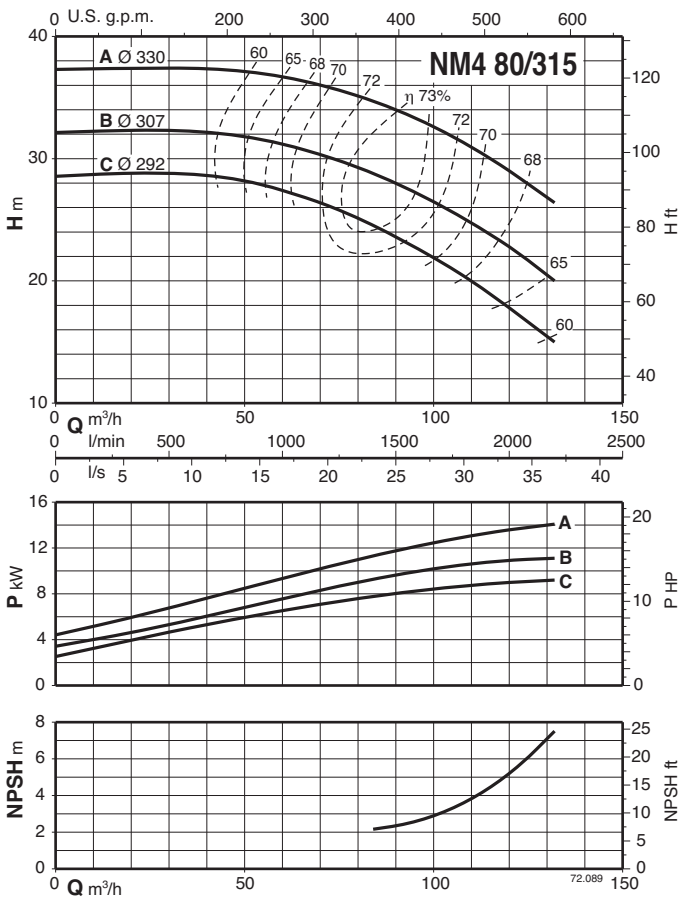


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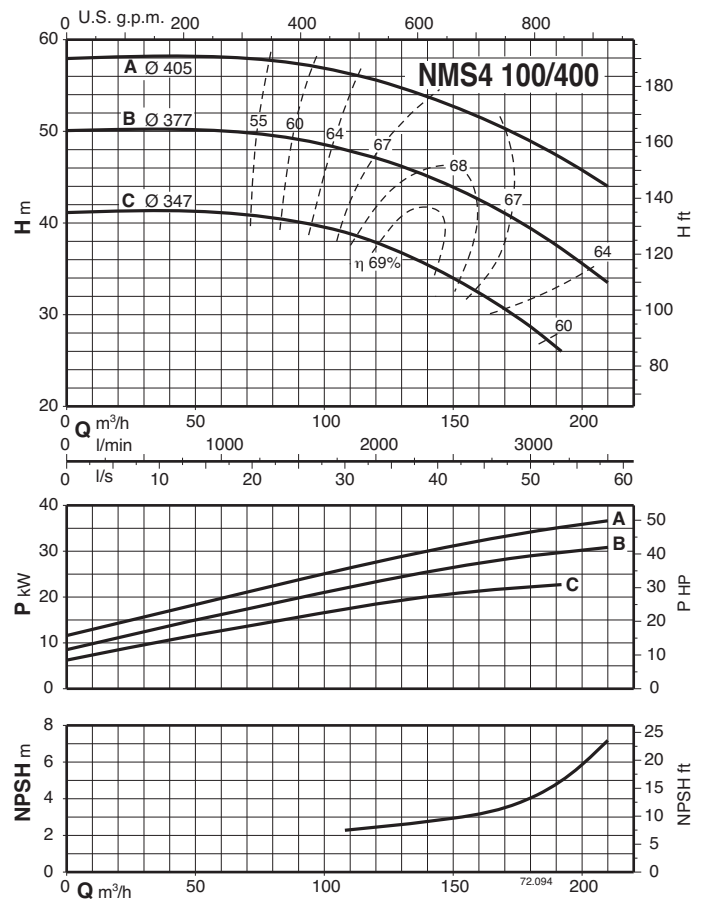
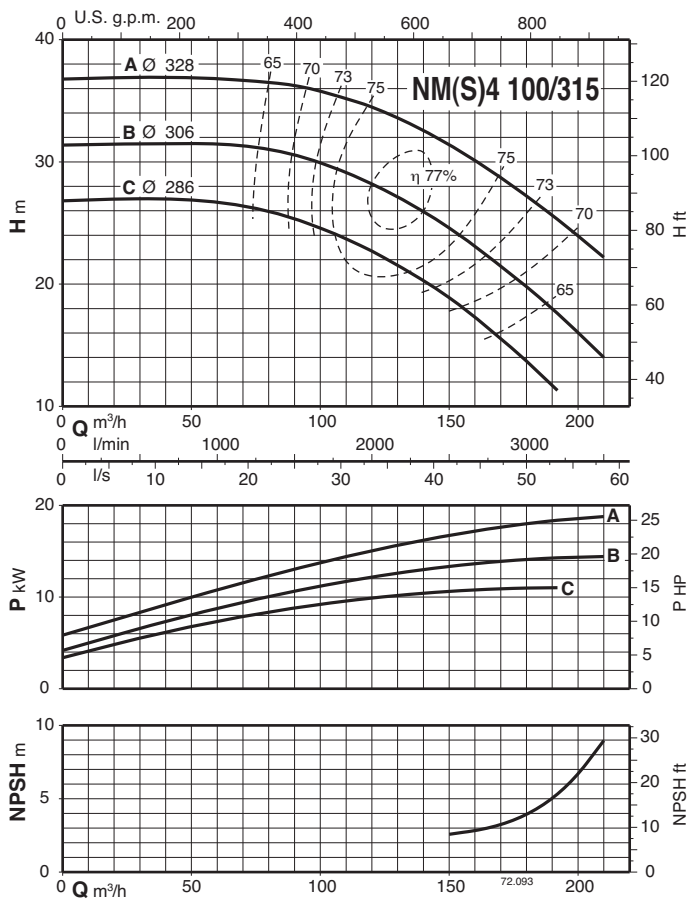
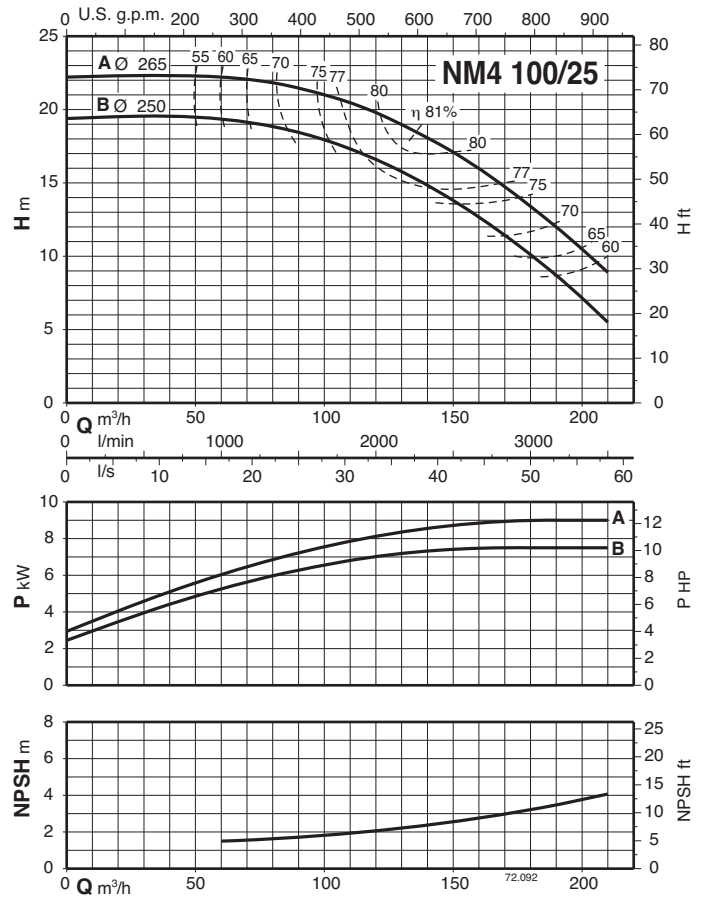
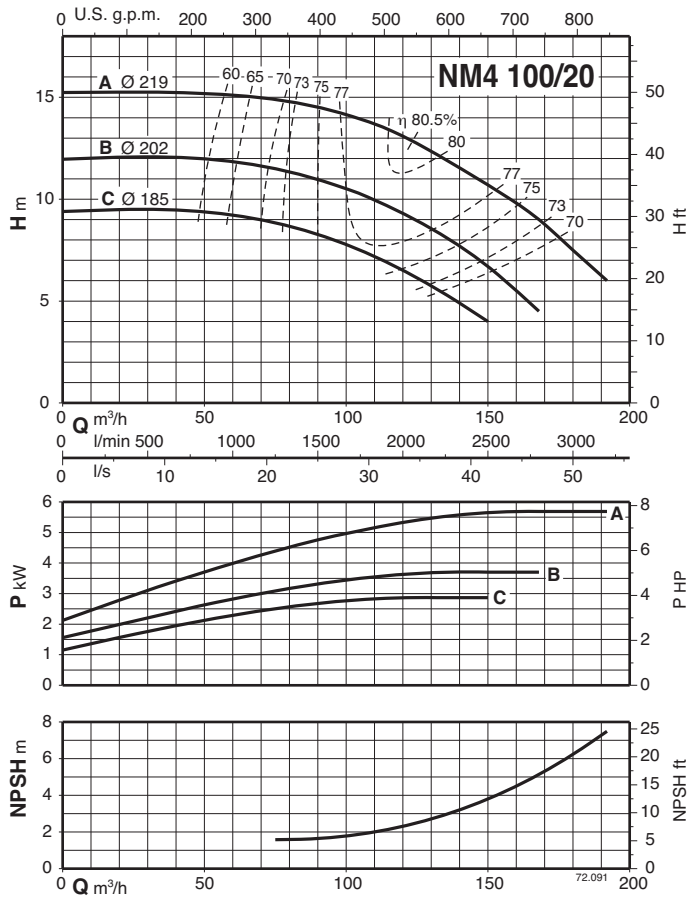


## Characteristic curves $n \approx 1450$ rpm

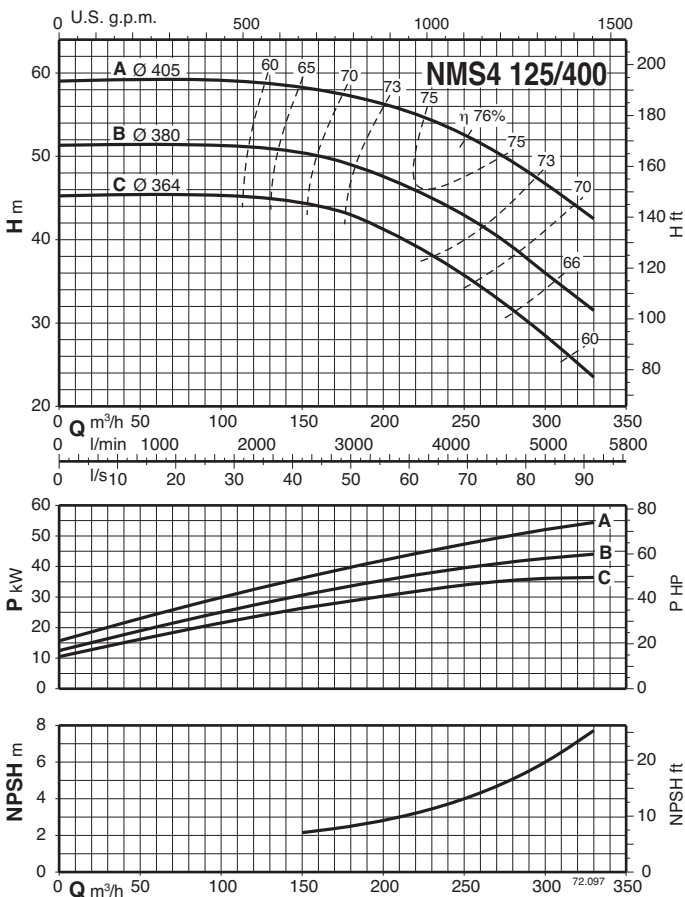
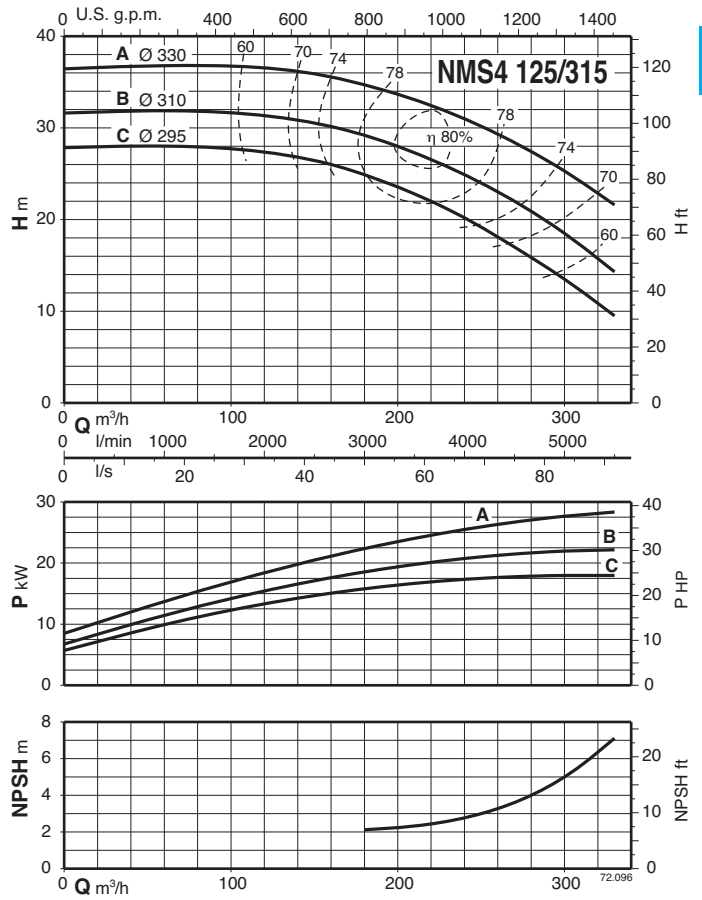
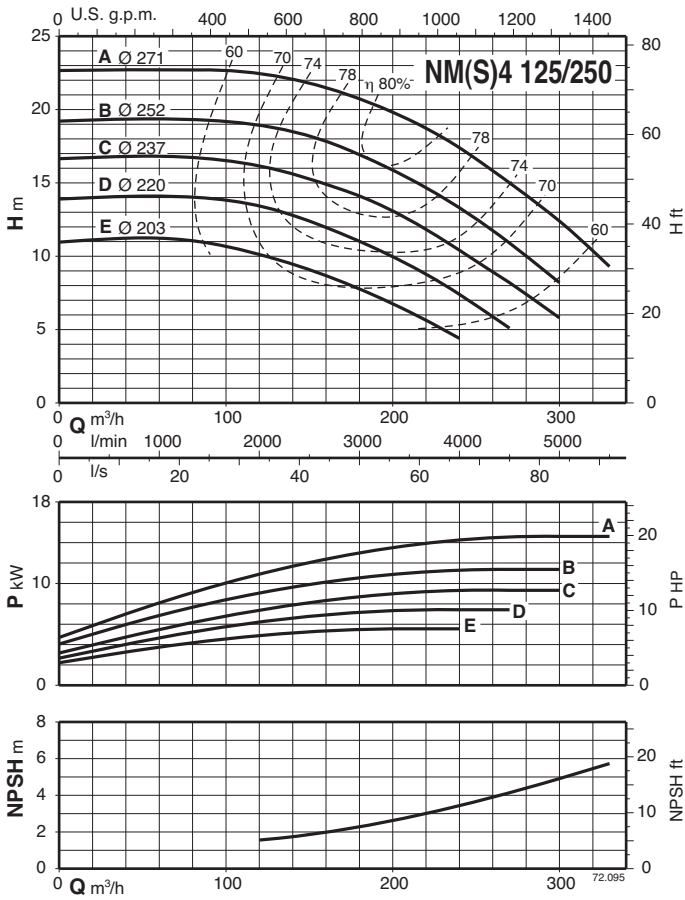


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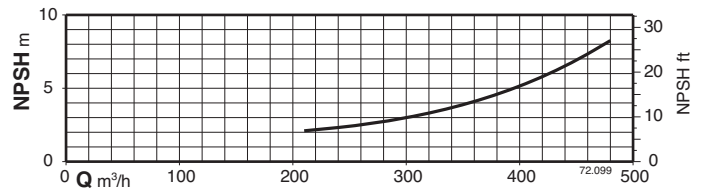
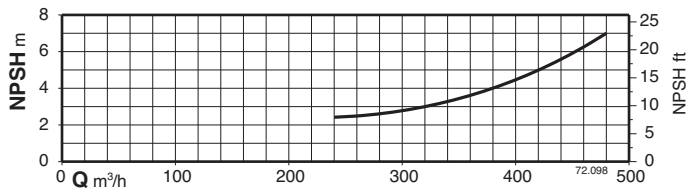
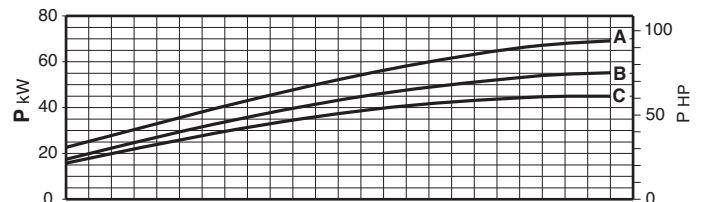
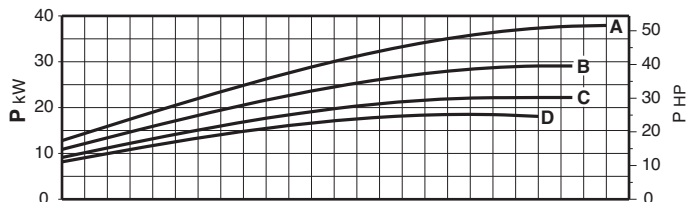
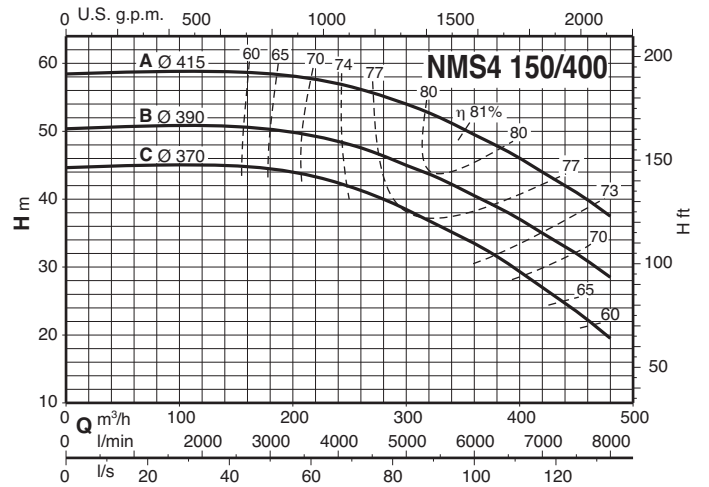
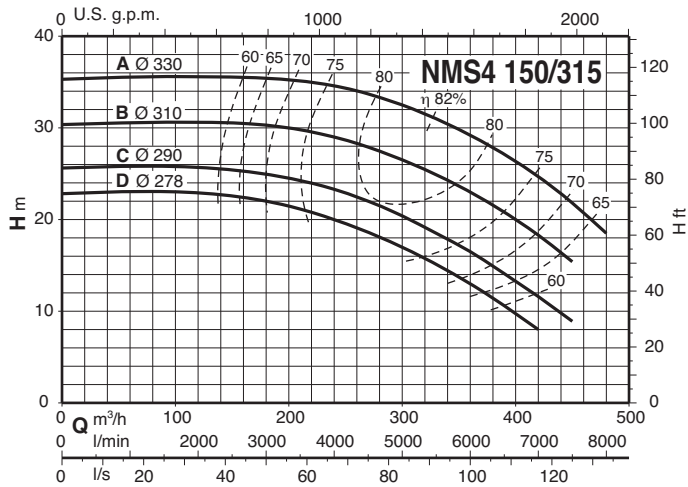


## Characteristic curves $n \approx 1450$ rpm

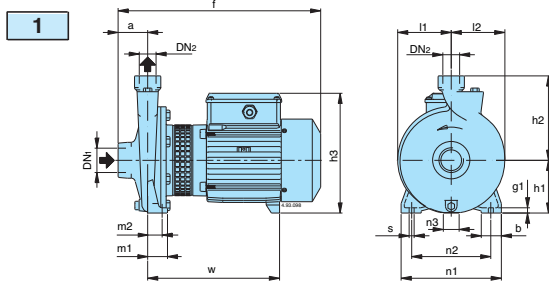


3

## Characteristic curves $n \approx 1450$ rpm



## Dimensions and weights

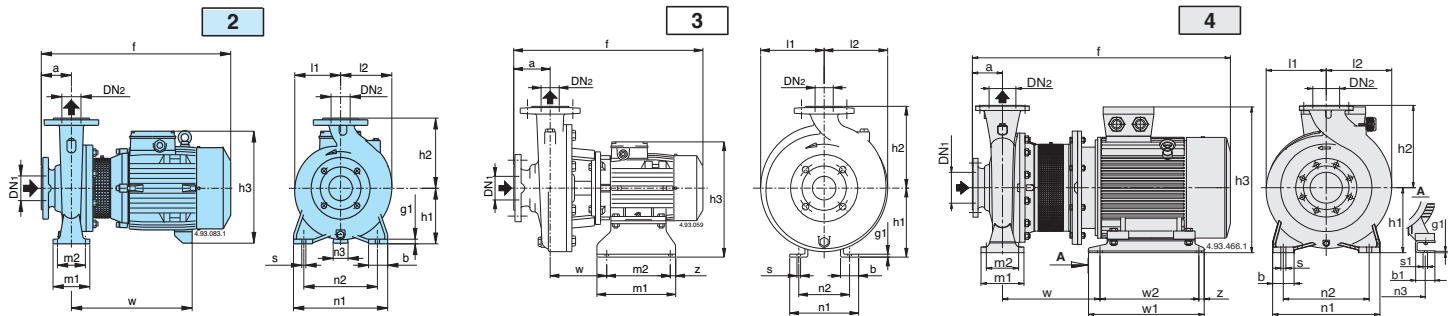


Standard construction

Picture	NM4	DN1	DN2	mm															kg	
		ISO 228		a	f	h1	h2	h3	m1	m2	n1	n2	n3	b	s	l1	l2	w		g
1	NM4 25/12A/A	G 1 1/2	G 1	56	313	90	140	199	37,5	27,5	170	130	9	38	9,5	85	88	250	10	13,5
	NM4 25/160AE-BE			56	380	100	160	228	37,5	27,5	190	150	30	38	9,5	102	102	250	10	17,5
	NM4 25/200A/A-BE-CE			63	385	125	180	253	45	32,5	245	200	49	45	11,5	125	125	250	11	27-23-21,5

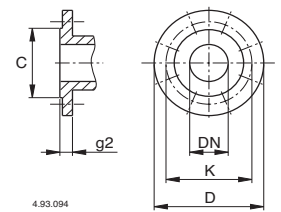
Bronze construction B-NM4

Picture	B-NM4	DN1	DN2	mm															kg	
		ISO 228		a	f	h1	h2	h3	m1	m2	n1	n2	n3	b	s	l1	l2	w		g
1	B-NM4 25/160AE-BE	G 1 1/2	G 1	56	380	100	160	228	37,5	27,5	190	150	30	38	9,5	102	102	250	10	19-19
	B-NM4 25/200A/A-BE-CE			63	400	125	180	253	45	32,5	245	200	49	45	11,5	125	125	250	11	29-25-23



Picture	B-NM4	DN1	DN2	mm																	kg	
		a	f	h1	h2	h3	m1	m2	n1	n2	n3	z	b	s	l	l1	l2	w	g1			
2	B-NM4 32/16A-B	50	32	80	410	132	160	260	100	70	240	190	47	-	50	14	-	120	120	255	12	38-38
	B-NM4 32/20A/A-B	50	32	80	410	160	180	288	100	70	240	190	62	-	50	14	-	140	140	255	12	45-41
	B-NM4 40/16A/A-B-C	65	40	80	410	132	160	260	100	70	240	190	47	-	50	14	-	119	119	255	12	43-40-38
3	B-NM4 40/20A/A-B/A	65	40	100	470	160	180	288	100	70	265	212	62	-	50	14	-	140	140	295	12	55-55
	B-NM4 40/25A/B	65	40	100	535	190	225	318	205	175	190	140	-	15	54	10	-	175	175	156	6	73-73
2	B-NM4 50/16A/A-B/A	65	50	100	470	160	180	288	100	70	265	212	62	-	50	14	-	127	141	295	12	55-55
	B-NM4 50/25A/C/B-D/A	65	50	100	535	190	225	318	205	175	190	140	-	15	54	10	-	175	175	156	6	79,5-79,5
3	B-NM4 50/25A/B-B/B	65	50	100	560		225	350	280	250	230	190	-		60	12	-			125		105-92
	B-NM4 65/16B/A-C/A	80	65	100	470	160	200	288	125	95	280	212	62	-	65	14	-	150	172	295	15	63-63
2	B-NM4 65/16A/A	80	65	100	495		200	306					60	-			-			300		71

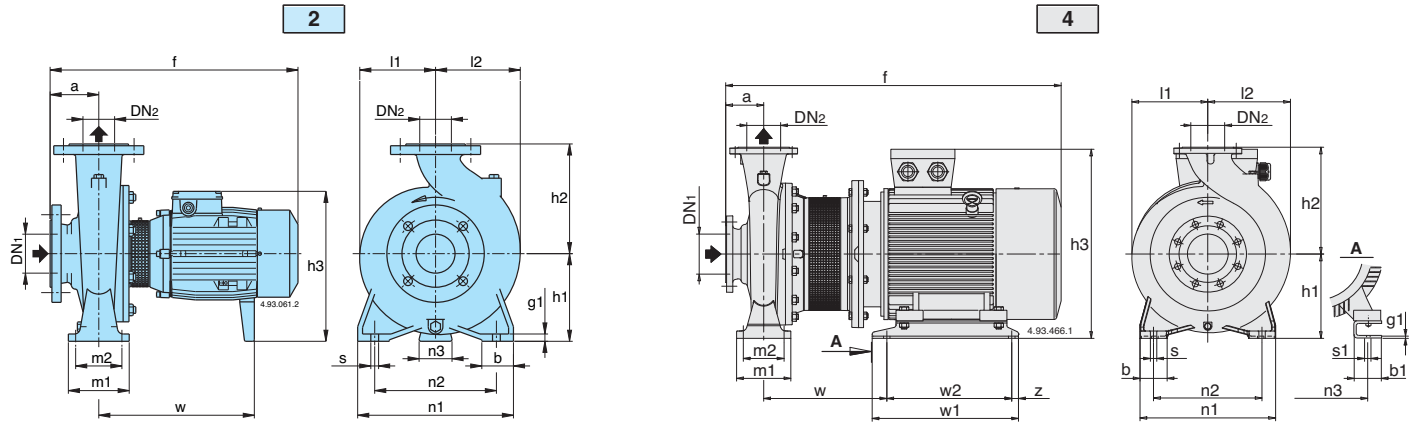
Flanges EN 1092-2



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
150	211	240	285	8	23	26
200	266	295	340	8	23	30

Picture	B-NMS4	DN1	DN2	mm																			kg	
		a	f	h1	h2	h3	m1	m2	n1	n2	n3	z	b	b1	s	s1	l1	l2	w	w1	w2	g1		
4	B-NMS4 80/315A-B	100	80	125	948	250	315	455	160	80	400	315	254	20	80	60	80	15	220	232	271	395	435	6
	B-NMS4 80/400B-C	125	80	125	1025	280	355	538	160	80	435	355	318	25	80	70	80	15	268	268	318	435	520	6
	B-NMS4 80/400A				1025			580					318	25		70	80	15			271	395	435	6
	B-NMS4 100/315B-C	125	100	140	963	250	315	455	160	100	400	315	254	20	80	60	80	15	230	250	271	395	435	6
	B-NMS4 100/315A				1035			508					279	25		70	80	15			312	382	432	6
	B-NMS4 100/400C				1040			538					279	25		70	15				319	435	520	6
	B-NMS4 100/400B	125	100	140	1040	280	355	580	200	100	500	400	318	25	100	83	100	19	268	280	334	455	540	6
	B-NMS4 100/400A				1199			605					356	55		103	19				385	460	540	8
	B-NMS4 125/250A-B	150	125	140	951	250	355	455	160	125	400	315	254	20	80	60	80	15	235	268	259	395	435	6
	B-NMS4 125/315B-C	150	125	140	1040	280	355	538	200	125	500	400	279	25	100	70	100	15	247	278	318	435	520	6
	B-NMS4 125/315A				1040			580					318	25		83	19				334	455	540	6
	B-NMS4 125/400B-C				1199			640					356	25		103	19				385	461	540	8
	B-NMS4 125/400A	150	125	140	1237	315	400	707	200	125	500	400	406	25	100	100	100	24	280	305	454	461	540	8
	B-NMS4 150/315C-D				1060			538					279	25		70	19				318	435	520	6
	B-NMS4 150/315B	200	150	160	1060	280	400	580	200	150	550	450	318	25	100	83	100	19	260	298	434	455	540	6
	B-NMS4 150/315A				1219			605					356	25		103	19				406	460	540	8
	B-NMS4 150/400C				1219			640					356	25		103	19				410	461	540	8
	B-NMS4 150/400B	200	150	160	1257	315	450	707	200	150	550	450	406	25	100	100	24	295	328	454	461	540	8	
	B-NMS4 150/400A				1330			747					440	45		100	24				482	625	535	8

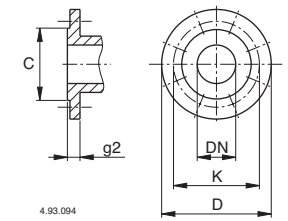
### Dimensions and weights



Standard construction

Flanges EN 1092-2

Picture	NM4	mm																			kg		
		DN1	DN2	a	f	h1	h2	h3	m1	m2	n1	n2	n3	z	b	s	l	l1	l2	w	g1		
2	NM4 32/16AE-BE	50	32	80	410	132	160	260	100	70	240	190	47	-	50	14	-	120	120	255	12	30,5-30	
	NM4 32/20A/A-BE	50	32	80	410	160	180	288	100	70	240	190	62	-	50	14	-	140	140	255	12	38-34,5	
	NM4 40/16A/B-B/A-C/A	65	40	80	410	132	160	268	100	70	240	190	47	-	50	14	-	119	119	255	12	37-33-31	
	NM4 40/20A/A-B/A	65	40	100	470	160	180	288	100	70	265	212	62	-	50	14	-	140	140	295	12	41-40,5	
	NM4 40/25B/B-C/B	65	40	100	495	180	225	308	125	95	320	250	60	-	65	14	-	175	175	300	15	66,5-62	
	NM4 40/25A/B				330															78			
	NM4 50/16A/B-B/B	65	50	100	470	160	180	288	100	70	265	212	62	-	50	14	-	127	141	295	12	40-39,5	
	NM4 50/20C/B	65	50	100	480	160	200	288	100	70	265	212	62	60	-	50	14	-	140	153	305	14	44,5
	NM4 50/20A/B-B/B				310																57-52,5		
	NM4 50/25C/B-D/A	65	50	100	490	180	225	308	125	95	320	250	60	-	65	14	-	175	175	300	15	68-68	
	NM4 50/25A/B-B/B				330															85,5-77,5			
	NM4 65/16B/A-C/A	80	65	100	470	160	200	288	125	95	280	212	62	60	-	65	14	-	150	172	255	15	48-48
	NM4 65/16A/A				300																54,5		
	NM4 65/20B/A	80	65	100	505	180	225	308	125	95	320	250	60	-	65	14	-	155	175	310	15	61	
	NM4 65/20A/A				330															73,5			
	NM4 65/25B/A	80	65	100	540	200	250	360	160	120	360	280	60	-	80	18	-	175	190	345	18	97	
	NM4 65/25A/A				645															385		415	116
	NM4 65/31B/A-C/A	80	65	125	670	225	280	410	160	120	400	315	75	-	80	18	-	220	220	455	20	164-153	
	NM4 65/31A/A				720															385		410	176
	NM4 80/16C/A	100	80	125	495	180	225	288	125	95	320	250	62	60	-	65	14	-	165	193	295	15	53
	NM4 80/16A/A-B/A				520																308		308
	NM4 80/20C/A	100	80	125	540	180	250	308	125	95	345	280	60	-	65	14	-	170	194	320	15	74,5	
	NM4 80/20A/A-B/A				560															340		340	91-82
	NM4 80/25C/A	100	80	125	565	200	280	360	160	120	400	315	60	-	80	18	-	191	210	335	20	102	
NM4 80/25A/A-B/A	670				385															410		135-124	
NM4 80/31C/A	100	80	125	720	250	315	435	160	120	400	315	90	-	80	18	-	220	232	465	20	181		
3	NM4 80/315A/A-B/A	100	80	125	850	260	315	466	435	395	314	254	-	20	74	14	-	220	232	210	6	269-248	
	NM4 100/20B/A-C/A	125	100	125	565	200	280	360	160	120	360	280	60	-	80	18	-	180	212	330	20	99-90	
NM4 100/20A/A	665				385															410		109	
2	NM4 100/25B/A	125	100	140	685	225	280	410	160	120	400	315	75	-	80	18	-	205	233	415	20	143	
	NM4 100/25A/A				735															465		465	152
3	NM4 100/315B/A-C/A	125	100	140	865	260	315	466	435	395	314	254	-	20	74	14	-	230	250	210	6	280-261	
2	NM4 125/25D/A-E/A	150	125	140	685	250	355	435	160	120	400	315	90	-	80	18	-	235	268	415	20	161-149	
	NM4 125/25C/A				735															465		465	173
3	NM4 125/250A/A-B/A	150	125	140	865	260	355	466	435	395	314	254	-	20	74	14	-	235	268	210	6	261-243	



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
150	211	240	285	8	23	26
200	266	295	340	8	23	30

Picture	NMS4	mm																				kg								
		DN1	DN2	a	f	h1	h2	h3	m1	m2	n1	n2	n3	z	b	b1	s	s1	l1	l2	w	w1	w2	g1						
4	NMS4 80/400B-C	125	80	125	1025	280	355	538	160	80	435	355	318	25	80	70	80	15	268	268	318	435	520	6	6					
	NMS4 80/400A				1025																					334	455	540	6	
	NMS4 100/315A	125	100	140	1035	250	315	508	160	100	400	315	279	25	80	70	80	15	230	250	312	382	432	6	6					
	NMS4 100/400C				1040																					318	435	520	6	
	NMS4 100/400B				1040																					318	455	540	6	
	NMS4 100/400A	1199	356	460	540	8																								
	NMS4 125/315B-C	150	125	140	1040	280	355	538	200	125	500	400	279	25	100	70	83	100	15	247	278	318	435	520	6	6				
	NMS4 125/315A				1040																						334	455	540	6
	NMS4 125/400B-C	150	125	140	1199	315	400	640	200	125	500	400	356	25	100	103	100	19	24	280	305	385	461	540	8	8				
	NMS4 125/400A				1237																						454	461	540	8
	NMS4 150/315C-D	200	150	160	1060	280	400	580	200	150	550	450	279	25	100	70	83	100	19	260	298	318	435	520	6	6				
	NMS4 150/315B				1219																						334	455	540	6
	NMS4 150/315A	200	150	160	1219	280	400	605	200	150	550	450	356	25	100	103	100	19	24	295	328	406	460	540	8	8				
	NMS4 150/400C				1219																						410	461	540	8
	NMS4 150/400B				1257																						454	461	540	8
NMS4 150/400A	1330	440	45																											