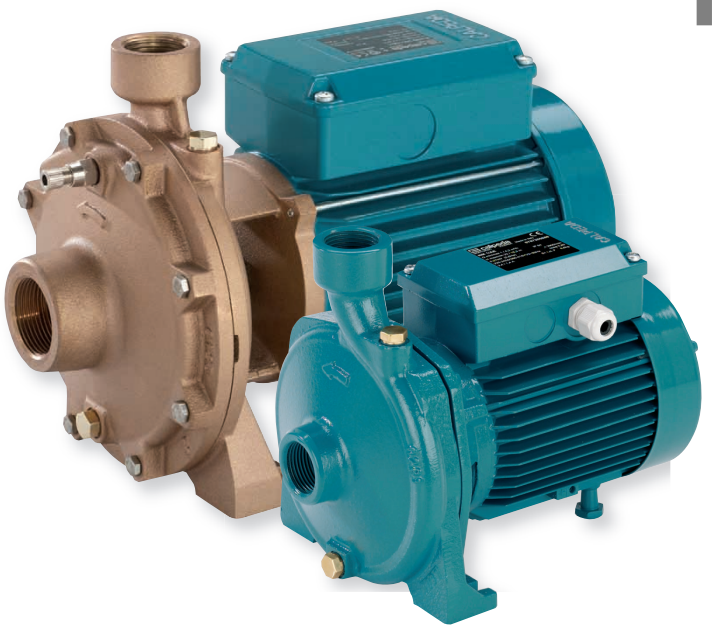
BEDU POMPEN

CLOSE-COUPLED CENTRIFUGAL PUMPS

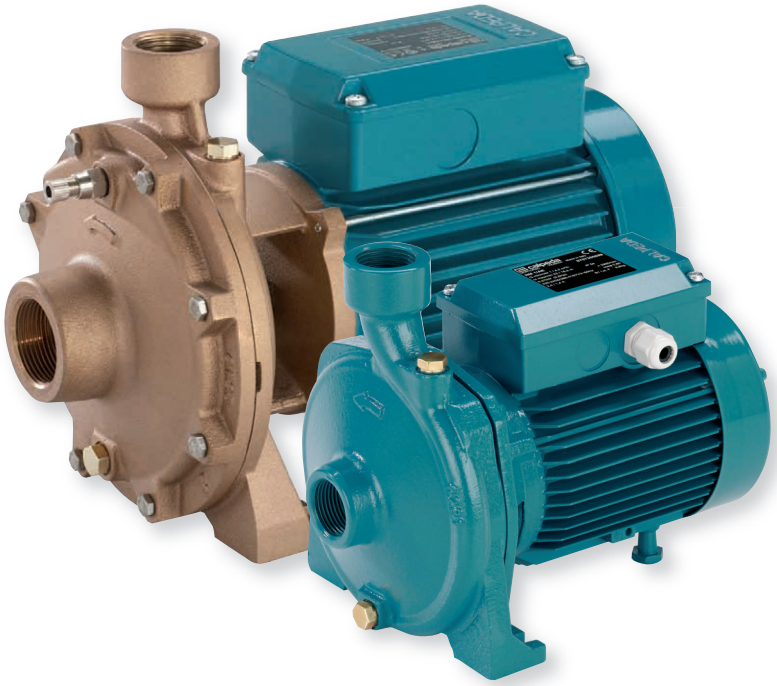
NM, NMD



made for your process

NM, NMD

Close Coupled Centrifugal Pumps
with threaded ports



The electropumps NM, B-NM series comply with the European Regulation no. 547/2012.

Materials

Components		NM, NMD	B-NM, B-NMD
Pump casing Lantern bracket		Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
Impeller		Brass P- Cu Zn 40 Pb 2 UNI 5705	
	NM 17	Cast iron GJL 200 EN 1561	Bronze 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	
	NM 6	Cr steel AISI 430	
Mechanical seal		Carbon - Ceramic - NBR	

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).
NM, NMD: version with pump casing and lantern bracket in cast iron.
B-NM, B-NMD: version with pump casing and lantern bracket in bronze. (the pumps are supplied fully painted).

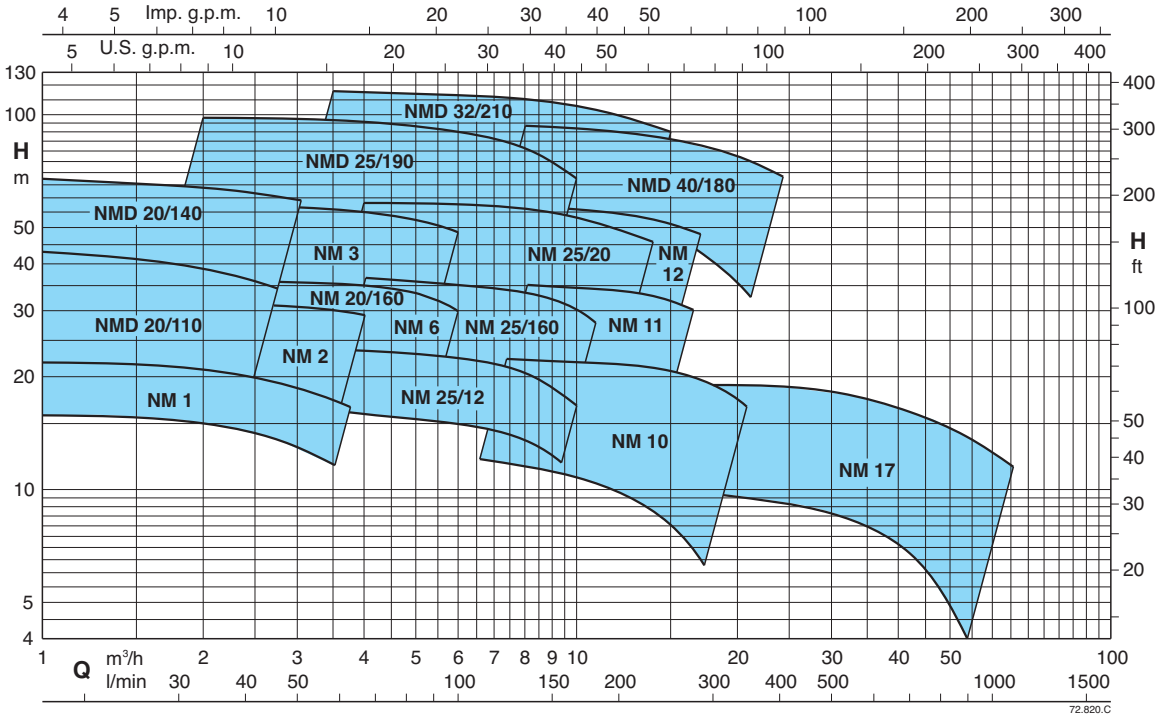
Applications
For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
For water supply.
For heating, air-conditioning, cooling and circulation plants.
For civil and industrial applications.
For fire fighting applications. For irrigation.

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, 50 Hz (n ≈ 2900 rpm).
NM, NMD: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% from 4 to 9,2 kW;
NMM, NMDM: single-phase 230 V ± 10%, with thermal protector.
Insulation class F. Protection IP 54.
Motor suitable for operation with frequency converter from 1,1 kW.
Classification scheme IE3 for three-phase motors from 0,75 kW.
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

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.
- Motor suitable for operation with frequency converter up to 0,75 kW.

Coverage chart n ≈ 2900 rpm



NM, NMD

Close Coupled Centrifugal Pumps
with threaded ports

BEDU POMPEN

Performance n ≈ 2900 rpm

NM	P_2 kW	P_2 HP	Q m^3/h	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
			l/min	16	20	25	31,5	40	50	60	70	80	90	100	110	125	140
NM 1/AE●	0,37	0,5		22	21,6	21,3	20,9	20,3	19,4	18,1	16,3						
NM 2/B/A●	0,55	0,75		27	26,5	26	25,5	25	24	23	22	20					
NM 2/S/A●	0,55	0,75		31	30,5	30	29	27,5	25,5	23,5	20	16					
NM 2/A/B●	0,75	1	H	33,5	33	32,5	32	31,5	30,5	29,5	28,5	27	26	24			
NM 6/B●	0,75	1	m				30,5	30	29,5	28,5	27,5	26,5	25,5	24	22	18	
NM 6/A●	1,1	1,5					35,5	35,2	34,7	34	33	32	30,5	29	27	23,5	19*
NMM 3/CE	1,1	1,5			37,5	37,5	37	36,5	36	35	34	32					
NM 3/C/A	1,1	1,5			37,5	37,5	37	36,5	36	35	34	32	30,5	28,5			
NMM 3/BE	1,5	2			42	42	41,5	41	40,5	40	39	37	35	32			
NM 3/B/A	1,5	2			47	47	46,5	46	45,5	45	44	43	41,5	40	37,5	33	26
NMM 3/A/A	1,8	2,5			47,5	47,5	47	46,5	46	45,5	44,5	43,5	42	40,5	38	33,5	26,5
NM 3/A/B	2,2	3			56	55,5	55,5	55	54,5	53,5	52,5	51,5	50	48	46	42	36

B-NM B-NMD	NM NMD	P_2 kW	P_2 HP	Q m^3/h	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
				l/min	16	20	25	31,5	40	50	60	70	80	90	100	110	125	140
B-NMD 20/110B/A●	NMD 20/110B/A●	0,45	0,6		33	32	31	29	26,5	23	18							
B-NMD 20/110Z/A●	NMD 20/110Z/A●	0,55	0,75		37	36	35	33	30,5	27,5	23	18						
B-NMD 20/110A/B●	NMD 20/110A/B●	0,75	1		43	42	40,5	39	36,5	33	29	25						
B-NMDM 20/140BE	NMDM 20/140BE	1,1	1,5	H	52	51,5	51	50	48,5	47	45							
B-NMD 20/140B/A	NMD 20/140B/A	1,1	1,5	m	53	52,5	52	51	50	48	46	43,5	40					
B-NMDM 20/140AE	NMDM 20/140AE	1,5	2		57,5	57	56,5	55,5	54	51,5	49	46	43	40	36			
B-NMD 20/140A/A	NMD 20/140A/A	1,5	2		67	66,5	66	64,5	63	61,5	59	57	53,5	50	46			
B-NM 20/160BE●	NM 20/160BE●	0,75	1					30,5	30	29,5	28,5	27,5	26,5	25,5	24	22		
B-NM 20/160A/A●	NM 20/160A/A●	1,1	1,5					36	35,5	35	34,5	33,5	32	30,5	29	27		

B-NM B-NMD	NM NMD	P_2 kW	P_2 HP	Q m^3/h	2,4	3	3,6	4,8	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18
				l/min	40	50	60	80	100	110	125	140	160	180	200	220	250	280	300
B-NM 25/12B/A●	NM 25/12B/A●	0,55	0,75		20	19,9	19,8	19,3	18,5	18	17,3	16,3	15	13,2	11				
B-NM 25/12A/B●	NM 25/12A/B●	0,75	1		23,5	23,4	23,3	22,9	22,1	21,7	20,9	20	18,7	17,1	15,2				
B-NM 25/160B/A●	NM 25/160B/A●	1,1	1,5			31	30,7	30	28,5	28	27	26	23						
B-NM 25/160A/A●	NM 25/160A/A●	1,5	2			36,5	36,2	35,5	34,5	34	33,5	32,5	31	28,5	26				
B-NM 25/200B/C	NM 25/20B/C	2,2	3	H		42,2	41,9	41,4	40,7	40,2	39,7	39	37,9	36,7	35,2	33,4			
B-NM 25/200A/B	NM 25/20A/B	3	4	m		49,9	49,8	49,4	48,9	48,5	48,1	47,5	46,6	45,6	44,4	43	40,8	37,9	
B-NM 25/200S/C	NM 25/20S/C	4	5,5			57,4	57,3	57	56,8	56,5	56,2	55,8	55,1	54,3	53,2	52	49,9	47,2	44,9
B-NMD 25/190C/B	NMD 25/190C/B	2,2	3		62	60,5	59	55,5	51	48,5	44	38							
B-NMD 25/190B/A	NMD 25/190B/A	3	4		76	75	74	70	66	64	60	54	46						
B-NMD 25/190A/B	NMD 25/190A/B	4	5,5		98	97	96	93,5	90	88	84	79	70						

NM	P_2 kW	P_2 HP	Q m^3/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
NM 10/FE●	0,55	0,75		12,5	12,5	12	11,5	11	10	9	7,5						
NM 10/DE●	0,75	1		18	18	17,5	17	16,5	16	15,5	14						
NM 10/A/A●	1,1	1,5		23	23	22,5	22	21,5	21	20,5	19						
NM 10/S/A●	1,5	2		23,5	23,5	23	22,5	22	21,5	21	20,5	19	18,5	16,5	13		
NMM 11/BE	1,5	2	H	26,5	25,5	25	24	23	22,5	21,5	19,5	17,5					
NM 11/B/A	1,5	2	m	29,5	29,5	29	28,5	27,5	27	26	25*	22,5*					
NMM 11/A	1,8	2,5		30,2	30,1	29,8	29,4	28,8	28,1	27,4	26	24,5					
NM 11/A/B	2,2	3		35,5	35,5	35	34,5	34	33,5	33	32*	30*					
NM 12/D/B	2,2	3		38	37,5	37	36	35	33,5	32							
NM 12/C/A	3	4		45	44,5	44	43,5	42,5	41	40	38	36					
NM 12/A/B	4	5,5		57,5	57	56	55,5	55	54,5	53,5	51,5	49					

NM, NMD

Close Coupled Centrifugal Pumps
with threaded ports

BEDU POMPEN

Performance n ≈ 2900 rpm

B-NMD	NMD	P_2		Q m^3/h	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	l/min	90	100	110	125	140	160	180	200	220	250	280	315	350	400
B-NMD 32/210D/B	NMD 32/210D/B	4	5,5		71	69	67,5	65	62,5	58	53	46	37*					
B-NMD 32/210C/A	NMD 32/210C/A	5,5	7,5		84	83	82	81	79	76	73	69	64*	54*				
B-NMD 32/210B/A	NMD 32/210B/A	7,5	10		104	103	102	100	98	95	92	88	84*	76*				
B-NMD 32/210A/B	NMD 32/210A/B	9,2	12,5	H	114	113	112	110	108	105	103	99	96*	90*				
B-NMD 40/180D/B	NMD 40/180D/B	4	5,5	m				60	59,5	57	56	53	51,5	48	44	39	34*	25*
B-NMD 40/180C/A	NMD 40/180C/A	5,5	7,5					69	68	67	66	64,5	63	60	57	53	48*	40*
B-NMD 40/180B/A	NMD 40/180B/A	7,5	10					87	86	85	84	82,5	81	78	75	71	66*	59*
B-NMD 40/180A/B	NMD 40/180A/B	9,2	12,5					94	93	92	91	89,5	88	85	82	78	74*	67*

B-NM	NM	P_2		Q m^3/h	21	24	27	30	33	37,8	42	48	54	60	66	75	84	96
		kW	HP	l/min	350	400	450	500	550	630	700	800	900	1000	1100	1250	1400	1600
B-NM 17/H/A●	NM 17/H/A●	1,1	1,5		9,5	9,2	9	8,6	8,2	7,5	6,7	5,5	3,5*					
B-NM 17/G/A●	NM 17/G/A●	1,5	2	H	12	11,7	11,5	11,2	11	10,3	9,7	8,5	7*	4*				
B-NM 17/F/B	NM 17/F/B	2,2	3	m		16	16	15,5	15	14,5	14	13	11,5*	10*	8*			
B-NM 17/D/A	NM 17/D/A	3	4				18	18	17,5	17	16,5	15,5	14*	13*	11,5*			

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

P_2 Rated motor power output.
H Total head in m.

● With single-phase motor = NMM - NMDM.
* Maximum suction lift 1-2 m.
Tolerances according to UNI EN ISO 9906:2012

Rated currents

	P_1	P_2		230 V 1~	
	kW	kW	HP	I_N A	I_A/I_N
	0,62	0,37	0,5	3	2,7
	0,72	0,45	0,6	3,6	2,9
	1	0,55	0,75	4,5	2,3
* NMM 25/12B/A	0,9	0,55	0,75	4,2	2,5
* NMM 10/FE	0,9	0,55	0,75	4,2	2,5
	1,3	0,75	1	6	3
* NMM 25/12A/A	1,2	0,75	1	5,4	3,3
* NMm 10/DE	1,2	0,75	1	5,8	2,6
	1,6	1,1	1,5	7,4	3
	2	1,5	2	9,2	3,8
	2,5	1,8	2,5	11,2	4,5

	P_2		230 V Δ / 400 V Y	400 V Δ / 690 V Y		
	kW	HP	I_N A	I_N A	I_N A	I_A/I_N
	0,37	0,5	2,3	1,3		3,8
	0,45	0,6	2,3	1,3		3,5
	0,55	0,75	3	1,7		3,6
* NM 25/12B/A	0,55	0,75	2,8	1,6		3,9
* NM 10/FE	0,55	0,75	4	2,3		4,8
	0,75	1	3,7	2,2		5,5
* NM 25/12A/B	0,75	1	3,5	2		6,1
* NM 10/DE	0,75	1	4	2,3		6,1
	1,1	1,5	4,6	2,7		5,5
	1,5	2	7,5	4,3		6,1
	2,2	3	9,15	5,3		8,4
	3	4	11,5	6,6		8,2
	4	5,5		9,6	5,5	8,9
	5,5	7,5		10,9	6,3	9,1
	7,5	10		14,3	8,3	9,1
	9,2	12,5		18,5	10,7	8,2

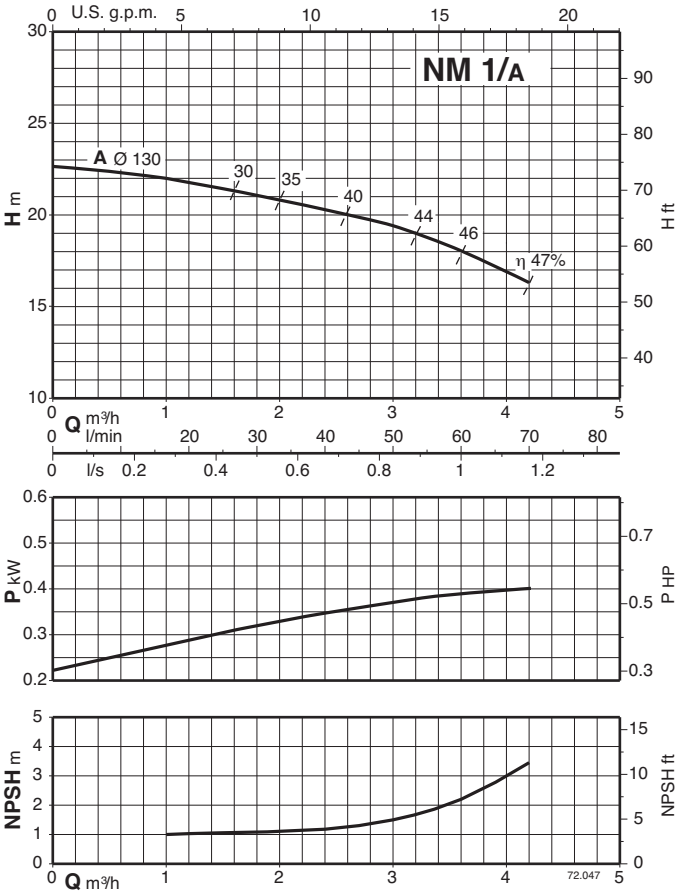
P_1 Maximum power input.
P_2 Rated motor power output.
I_A/I_N D.O.L. starting current / Nominal current

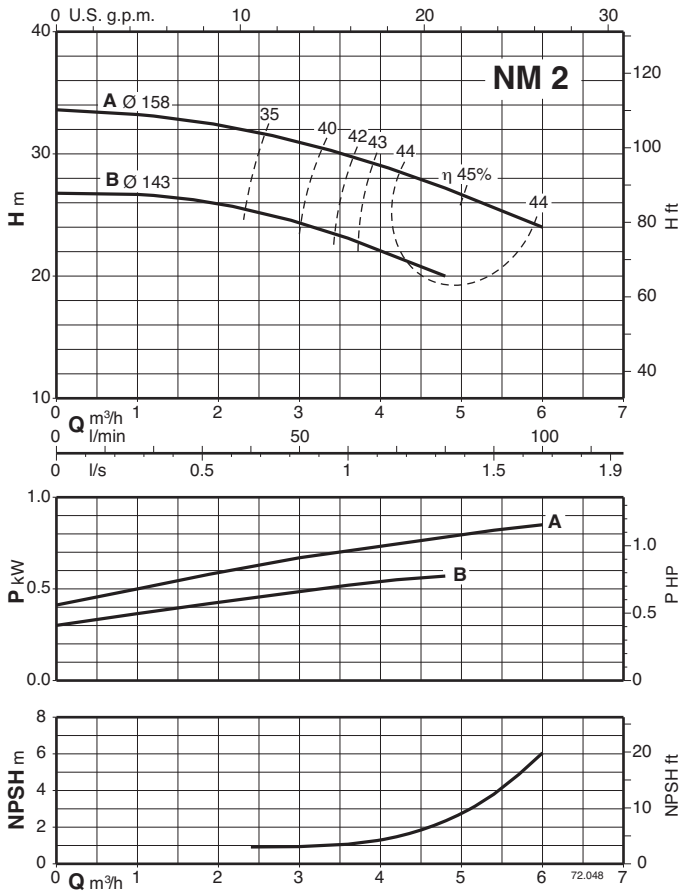
NM

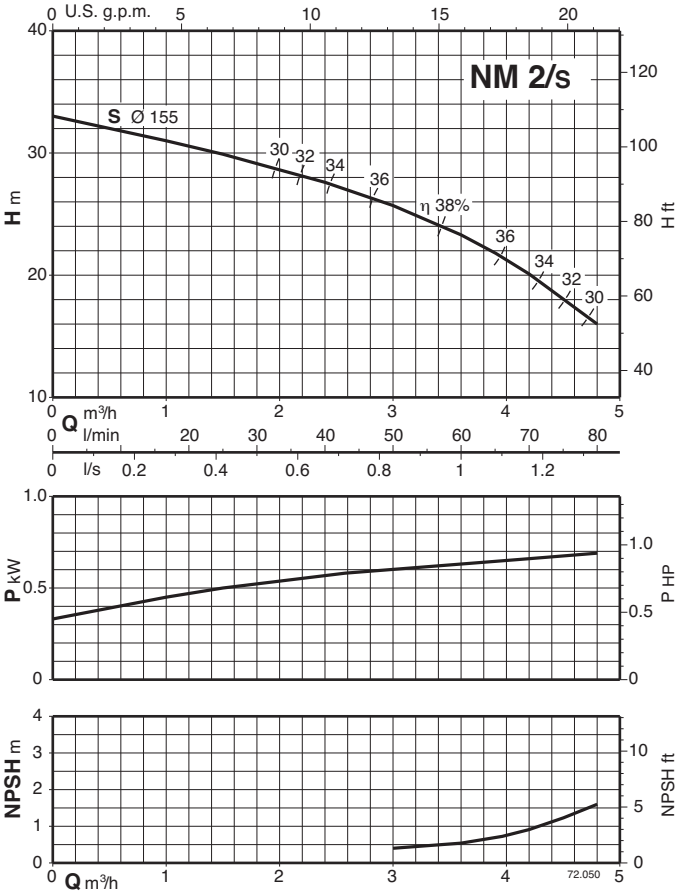
Close Coupled Centrifugal Pumps
with threaded ports

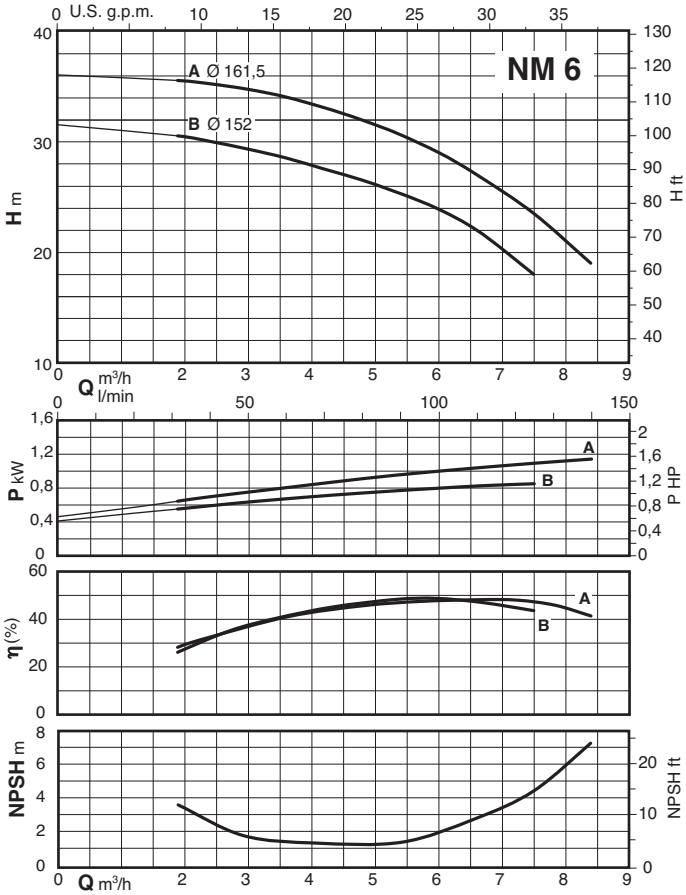
BEDU POMPEN

Characteristic curves n ≈ 2900 rpm









NM

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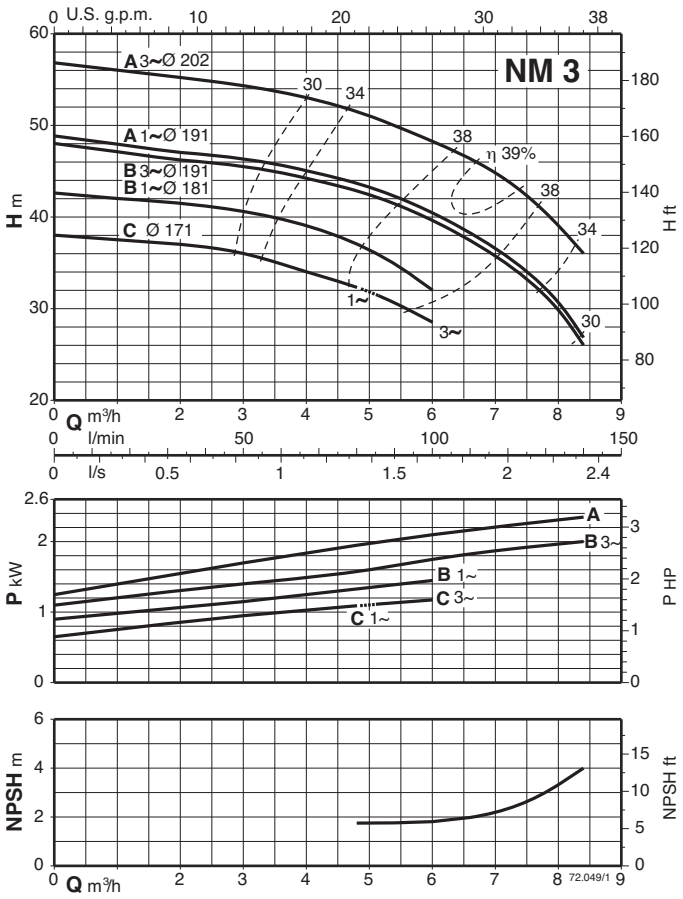

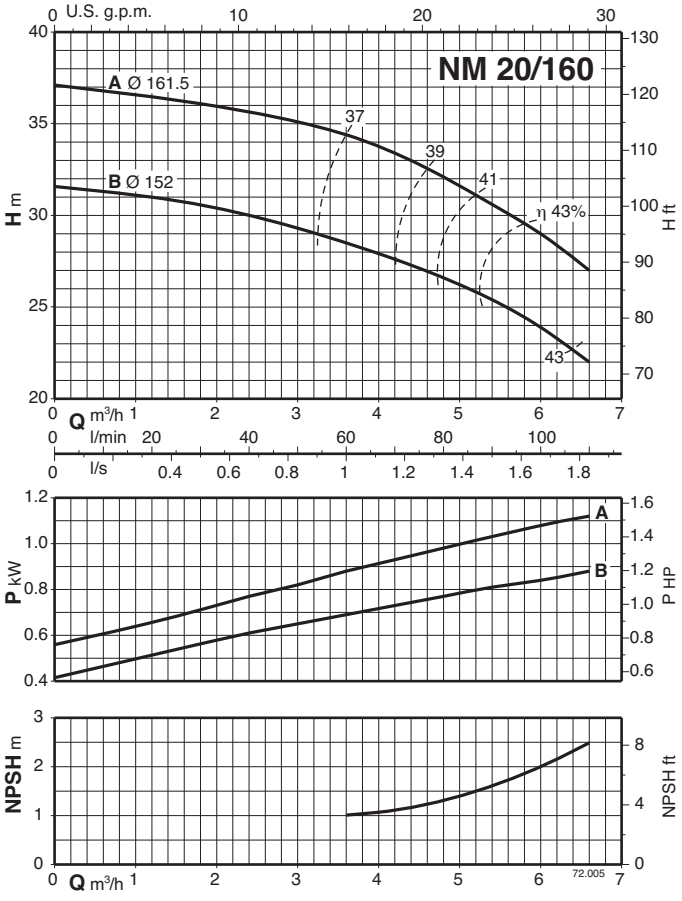

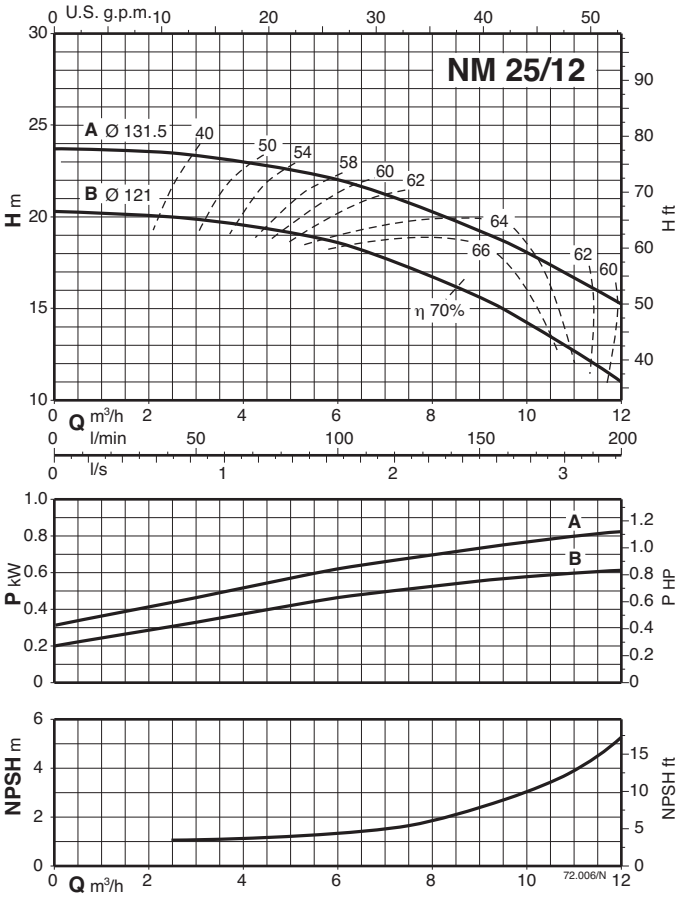

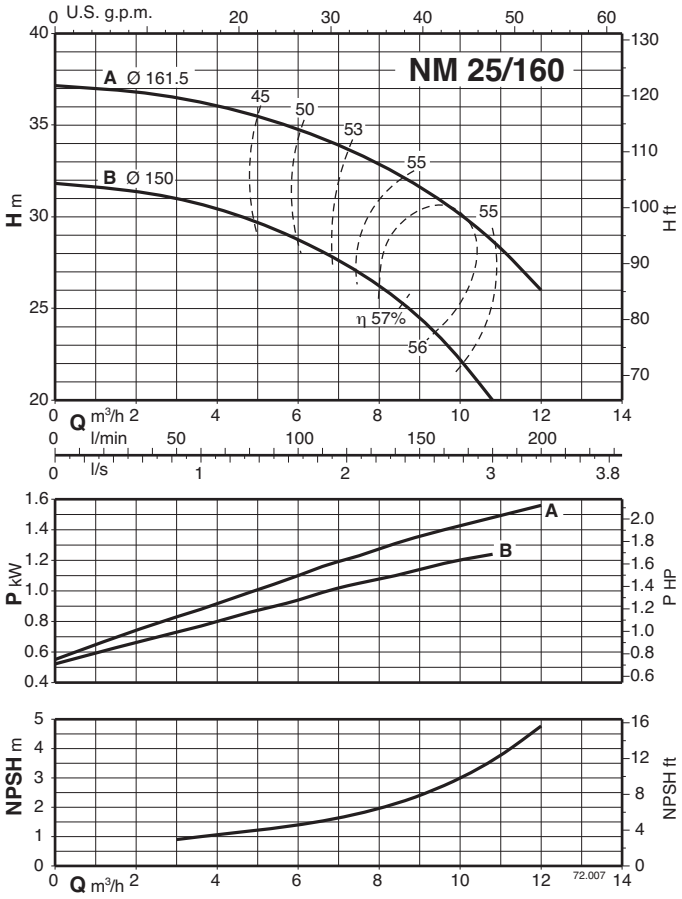

NM

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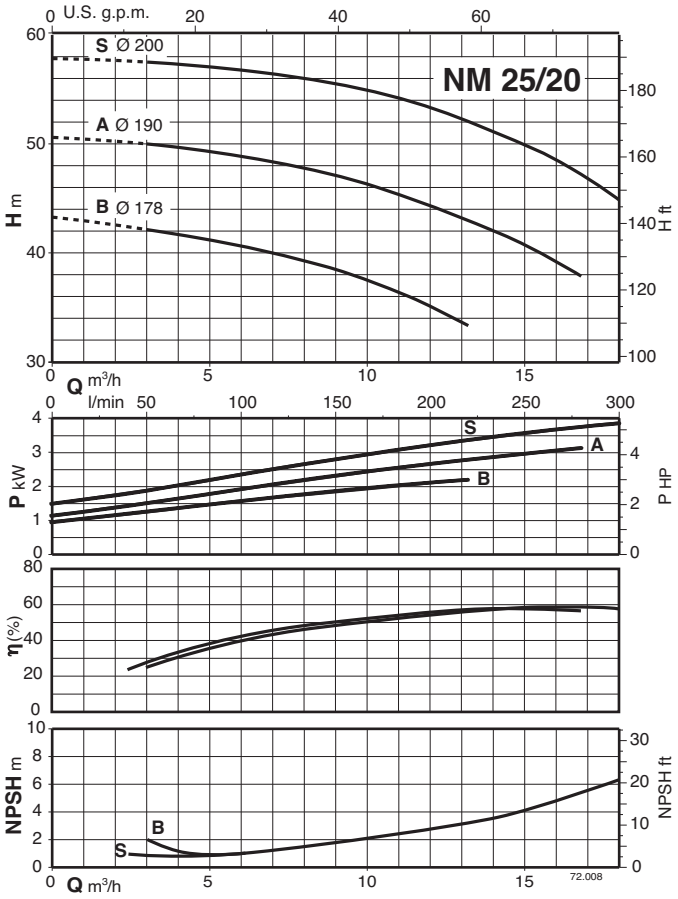
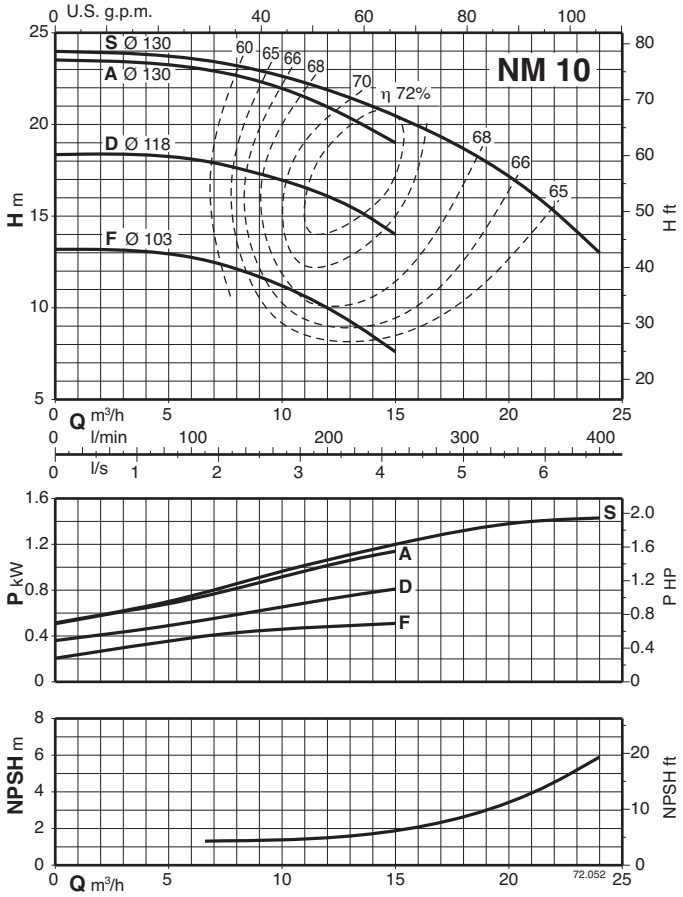
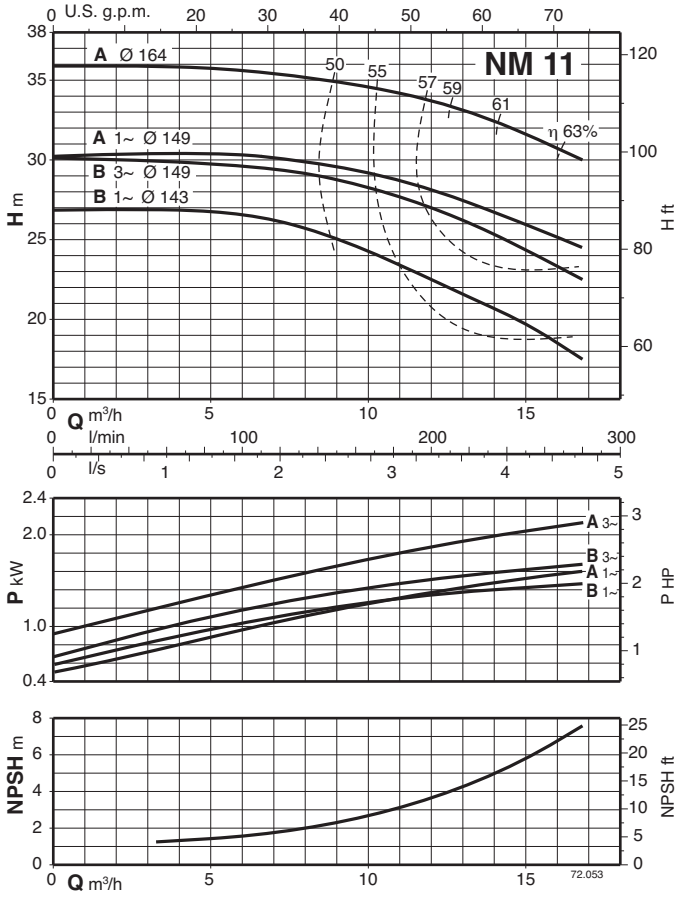
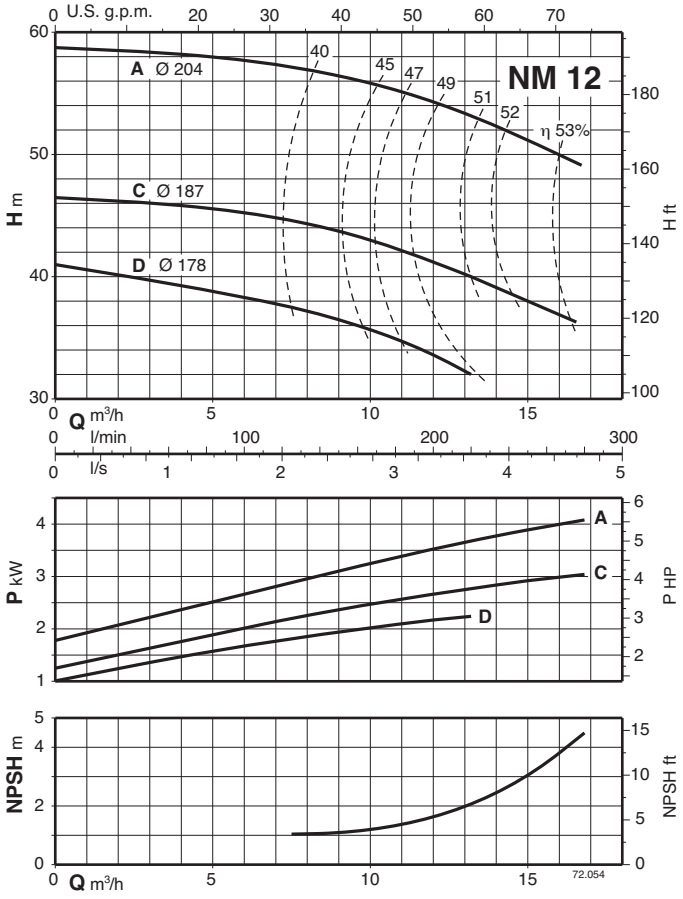
Characteristic curves n ≈ 2900 rpm





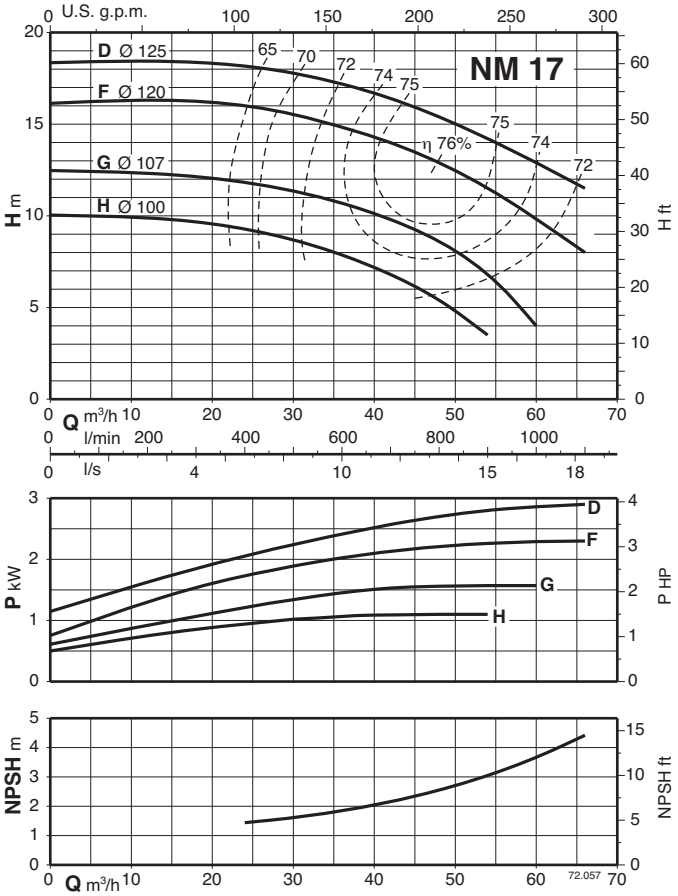


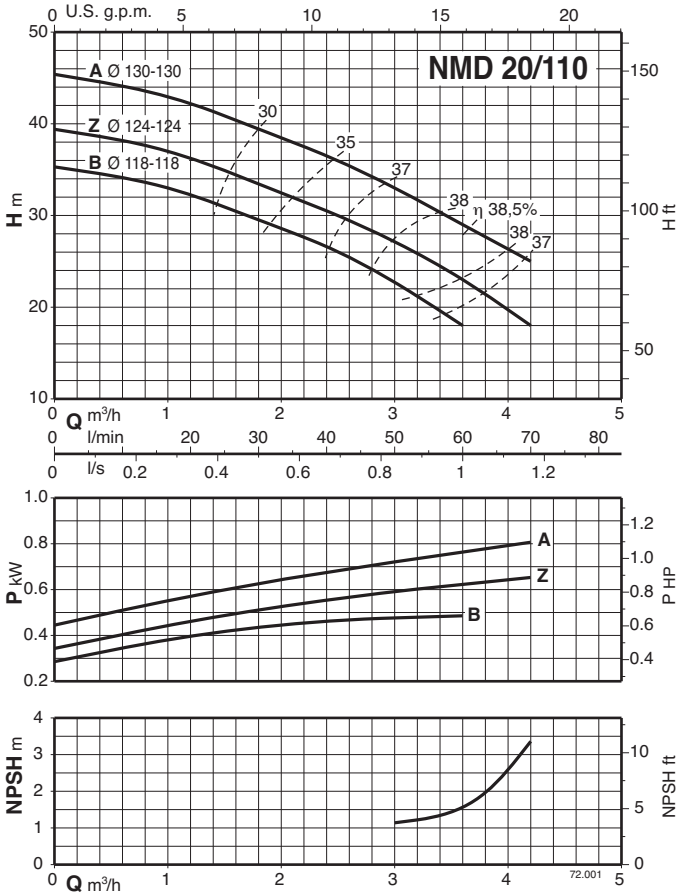


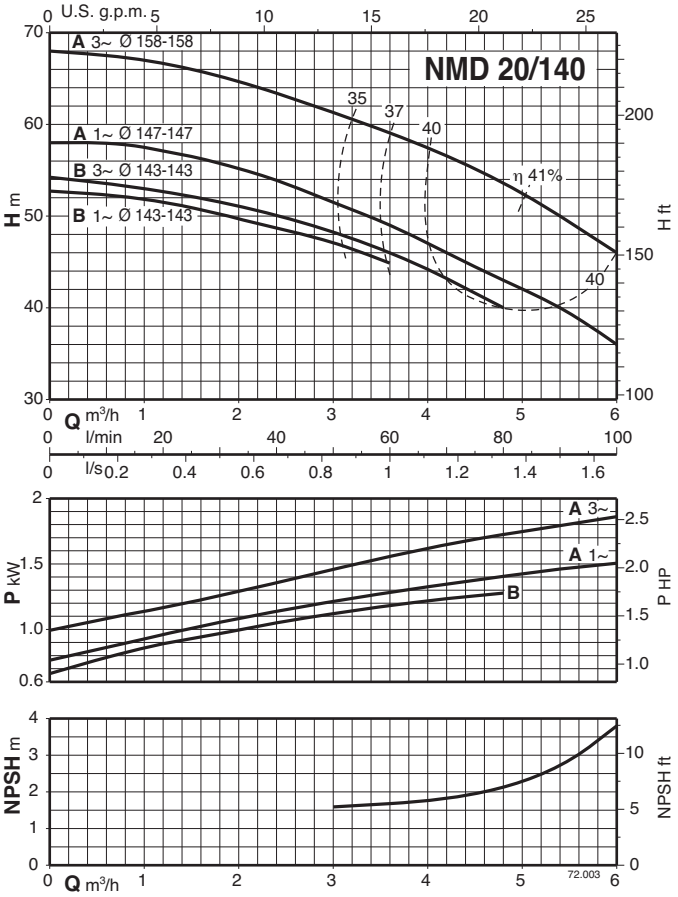
NMD

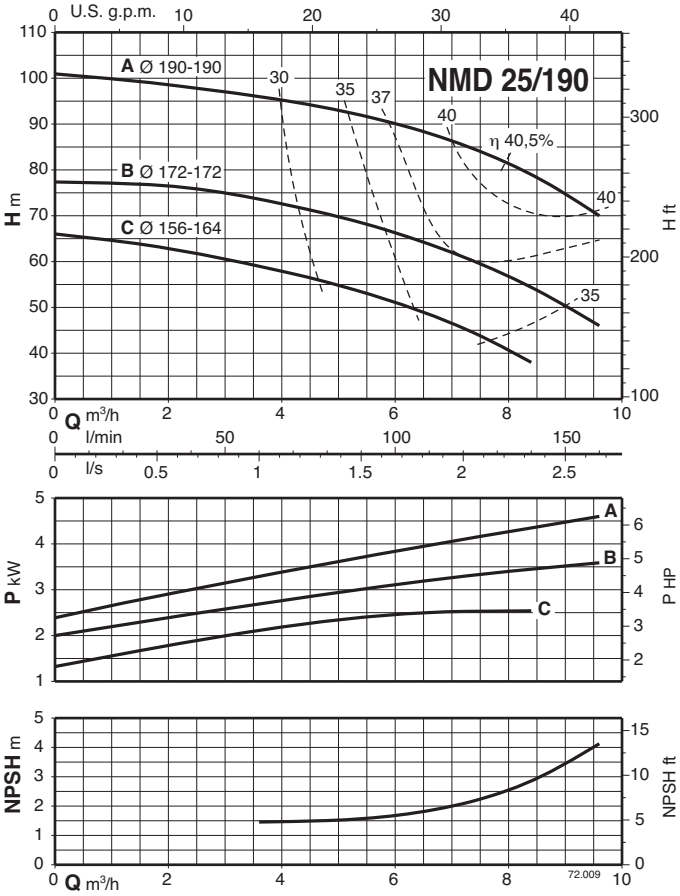
Close Coupled Centrifugal Pumps
with threaded ports

Characteristic curves n ≈ 2900 rpm





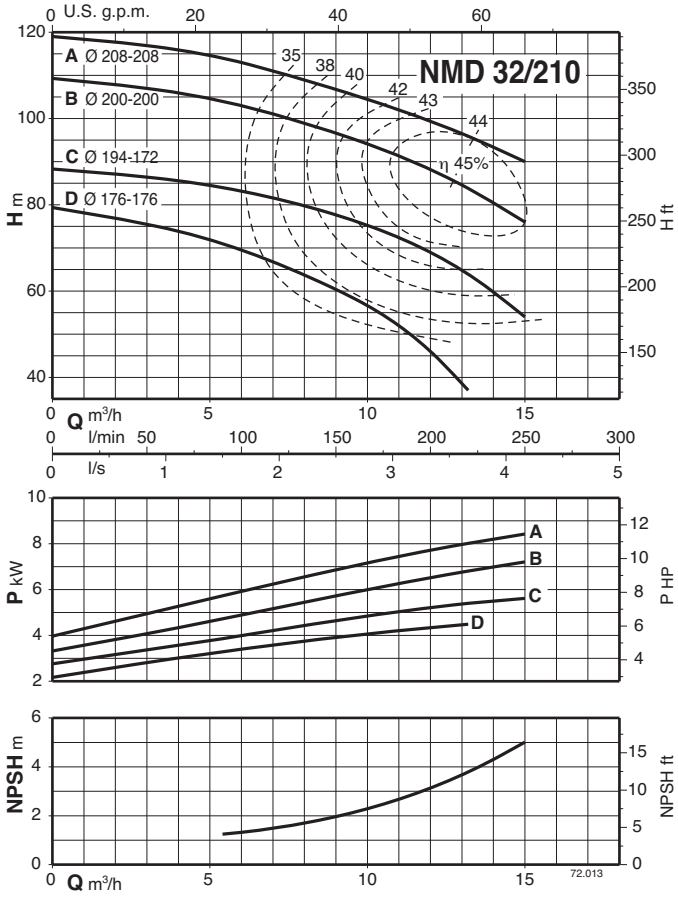


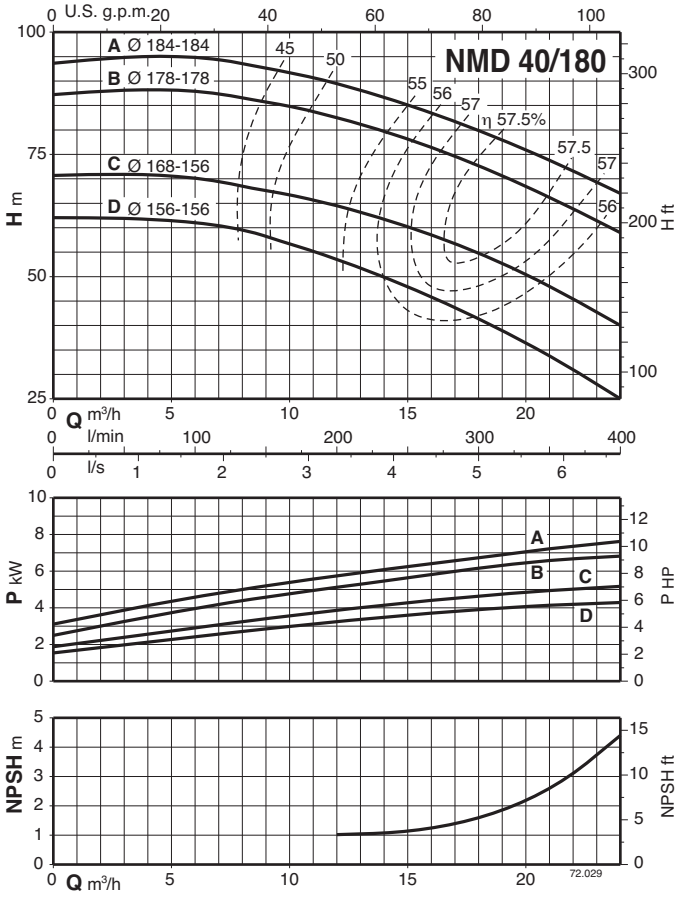


NMD

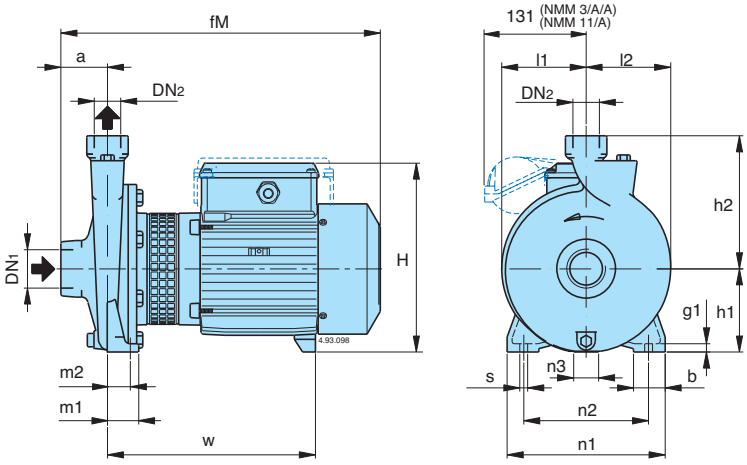
Close Coupled Centrifugal Pumps
with threaded ports

Characteristic curves n ≈ 2900 rpm





Dimensions and weights



TYPE	NMM kg	NM kg	B-NM kg
NM 1/AE	8,7	8,6	
NM 2/B/A	14	13,1	
NM 2/S/A	14,2	13,3	
NM 2/A/B	15,1	15	
NM 6/B	17,8	17,6	
NM 6/A	19,3	19	
NM 3/C/A	24	22,9	
NM 3/B/A	26	25,1	
NM 3/A/B	30,4	29,1	
B- **NM 20/160BE**	19,9	18,4	21
B- **NM 20/160A/A**	20,7	19,7	22,5
B- **NM 25/12B/A**	13,2	12,3	13,5
B- **NM 25/12A/B**	14,2	14,1	15,3
B- **NM 25/160B/A**	20,4	19,7	22,8
B- **NM 25/160A/A**	22,5	21,5	24
NM 25/20B/C		31,6	
NM 25/20A/B		40,9	
NM 25/20S/C		42,2	
B- NM 25/200B/C			35,7
B- NM 25/200A/C			43,7
B- NM 25/200S/C			45,2
NM 10/FE	19,3	18,5	
NM 10/DE	19,4	18,8	
NM 10/A/A	20,2	19,3	
NM 10/S/A	22,1	21,5	
NM 11/B/A	24,7	24,1	
NM 11/A/B		28,1	
NM 12/D/B		33,5	
NM 12/C/A		42	
NM 12/A/B		43,5	
B- NM 17/H/A	23	22,2	29,2
B- NM 17/G/A	24,2	23,2	30,2
B- NM 17/F/B		28,2	35,2
B- NM 17/D/A		36,2	43,2

B-NM	NM	DN_1	DN_2	mm															
		ISO 228		a	fM	h1	h2	H	m1	m2	n1	n2	n3	b	s	l1	l2	w	g1
	NM 1/AE	G 1	G 1	40	261	80	132	176	40	32	170	140	17	35	9,5	77	81	171	10
	NM 2/A/B-S/A-B/A	G 1	G 1	45	305	95	150	207	40	32	190	160	17	35	9,5	87	90	203	10
	NM 6/A-B	G 1 1/4	G 1	53	349	100	150	213	37,5	27,5	190	150	17	38	9,5	102	102	225	10
	NM 3/B/A-C/A **NM 3/A/B**	G 1	G 1	50	375 415	112	180	240	55	43	245	205	37	45	11,5	110	113	244 284	12
B-NM 20/160A/A-BE	**NM 20/160A/A-BE**	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/B-B/A	**NM 25/12A/B-B/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 25/160A/A-B/A	**NM 25/160A/A-B/A**	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 25/20B/C **NM 25/20A/B-S/C**	G 1 1/2	G 1	63	433 460	125	180	253 263	45	32,5	245	200	49 42	45	11,5	125	125	291 295	11
B-NM 25/200B/C **B-NM 25/200A/B-S/C**		G 1 1/2	G 1	63	445 460	125	180	253 263	45	32,5	245	200	49 42	45	11,5	125	125	303 295	11
	NM 10/S/A-A/A-DE-FE	G 2	G 1 1/4	63	382	100	150	228	50	35	190	140	30	50	13	90	97	239	14
	NM 11/B/A **NM 11/A/B**	G 2	G 1 1/4	70	400 440	112	170	240	50	35	210	160	37	50	15	103	110	247 287	14
	NM 12/D/B **NM 12/A/B-C/A**	G 2	G 1 1/4	70	440 470	132	190	260 270	50	35	240	190	47 45	50	15	125	127	287 300	14
B-NM 17/G/A-H/A **B-NM 17/F/B** **B-NM 17/D/A**	**NM 17/G/A-H/A** **NM 17/F/B** **NM 17/D/A**	G 2 1/2	G 2 1/2	80	417 463 480	112	160	240 240 250	50	35	210	160	37 37 20	50	14	96	113	257 304 295	14

NMD

Close Coupled Centrifugal Pumps
with threaded ports

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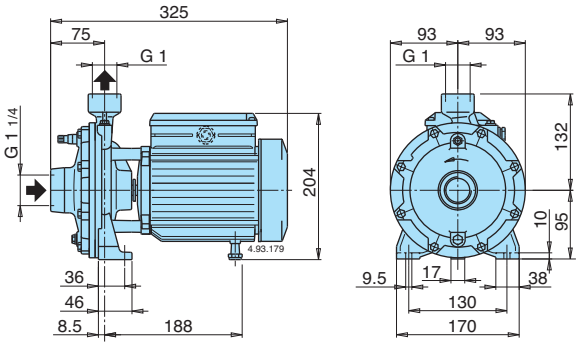
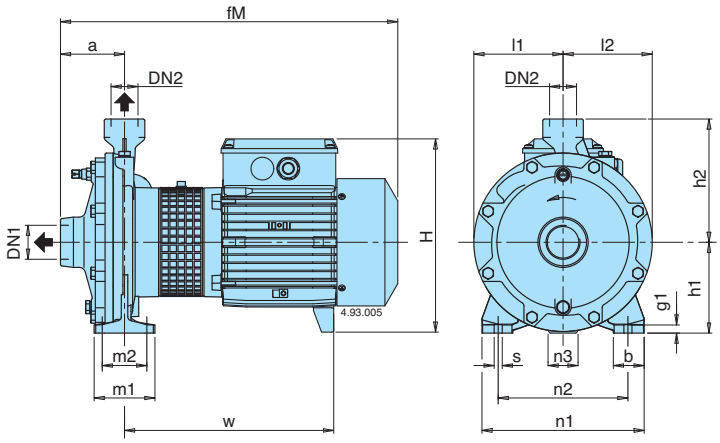
Dimensions and weights

NMD 20/110



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

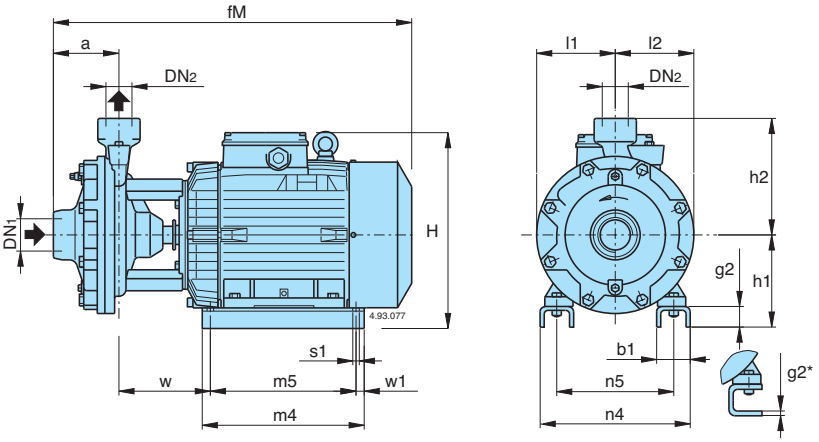
NMD 20/140
NMD 25/190



TYPE	NMDM kg	NMD kg	B-NMD kg
B- **NMD 20/140B/A**	23,9	22,7	25,2
B- **NMD 20/140A/A**	25,2	24,8	27,6
B- **NMD 25/190C/B**		42	45,7
B- **NMD 25/190B/A**		49,7	54
B- **NMD 25/190A/B**		51,5	55,5

B-NMD	NMD	DN1 ISO 228	DN2 ISO 228	mm															
				a	fM	h1	h2	H	m1	m2	n1	n2	n3	b	s	l1	l2	w	g1
B- NMD 20/140A/A-B/A	NMD 20/140A/A-B/A	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 25/190C/B	NMD 25/190C/B	G 1 1/2	G 1	97	487	140	180	268	100	70	240	190	50	50	14	133	133	314	13
B- NMD 25/190A/B-B/B	NMD 25/190A/B-B/A				500			278					49					306	

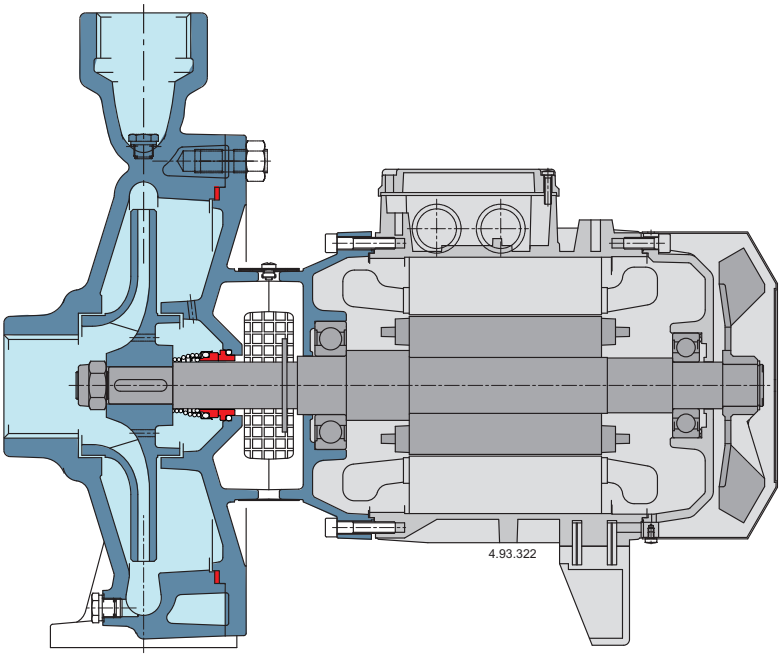
NMD 32/210
NMD 40/180



TYPE	NMD kg	B-NMD kg
B- **NMD 32/210D/B**	60,5	66,5
B- **NMD 32/210C/A**	71	77
B- **NMD 32/210B/A**	77	82,5
B- **NMD 32/210A/B**	99	105
B- **NMD 40/180D/B**	59,5	65,5
B- **NMD 40/180C/A**	70	76
B- **NMD 40/180B/A**	76	81,5
B- **NMD 40/180A/B**	97	102

B-NMD	NMD	DN1 ISO 228	DN2 ISO 228	mm															
				a	fM	h1	h2	H	m4	m5	n4	n5	w1	b1	s1	l1	l2	w	g2
B- NMD 32/210D/B	NMD 32/210D/B	G 2	G 1 1/4	110	530	155	215	293	205	175	194	140	15	54	10	150	150	139	6*
B- NMD 32/210B/A -C/A	NMD 32/210B/A -C/A				550	150		310	280	250	258	190		68	12			108	38
B- NMD 32/210A/B	NMD 32/210A/B				625	170		355	298	268	286	216		70	12			152	38
B- NMD 40/180D/B	NMD 40/180D/B	G 2	G 1 1/2	121	535	155	215	293	205	175	194	140	15	54	10	145	145	133	6*
B- NMD 40/180B/A -C/A	NMD 40/180B/A -C/A				555	150		310	280	250	258	190		68	12			102	38
B- NMD 40/180A/B	NMD 40/180A/B				630	170		355	298	268	286	216		70	12			145	38

Features



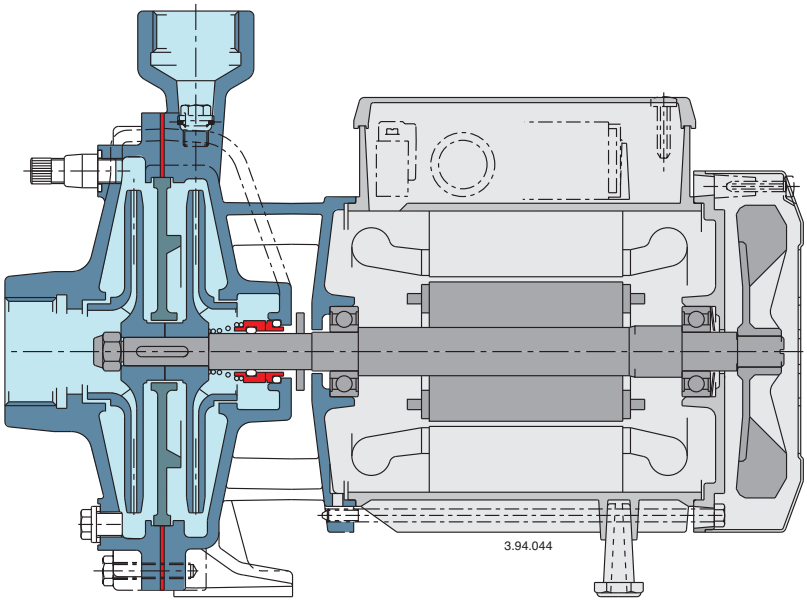
Compact Design
The compact design allows for easy installtion even in confined spaces.

Robust
The mechanical structure of the hydraulic parts in contact with the pumped liquid are dimensioned to guarantee the maximum resistence to mechanical stress.

A unique design
The lantern bracket design prevents contact with the pumps rotating parts, providing protection to the end user whilst allowing for inspection of the mechanical seal.

Reliable
The bearing and shaft are designed to ensure the reduction of the stress, providing high reliability under all operating conditions.

Features



Flexible
The option to choose between cast iron and bronze materias for the hydraulic parts in contact with the pumped liquid allows NMD series pumps to be selected for use with different types of liquids.

Robust
The mechanical structure of the hydraulic parts in contact with the pumped liquid are dimensioned to guarantee the maximum resistence to mechanical stress.

Reliable
The bearing and shaft are designed to ensure the reduction of the stress, providing high reliability under all operating conditions.

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