End Suction Centrifugal Pumps

NM SERIES (With 60 Hz Curves)

ATEX

TECHNICAL MANUAL

August/2016

General Information

NM Series

End Suction Centrifugal Pumps

Fields of Application

- Water supply and booster stations.
- Irrigation, overhead irrigation and draining.
- Filling and emptying of tanks and containers. • Circulating of hot and cold water in central heating and air-conditioning installations.
- Pumping of condensate.
- Water circulating for swimming pools.
- Sanitary and cleaning installations.
- For industrial applications and public services.
- Fresh water supply on ships.

Pumped Liquids

Thin, clean, non-aggressive and non-explosive liquids free from large solid particles or fibres.

Design

- Single-stage, end suction, centrifugal volute pump.
- Main dimensions according to EN 733.
- In addition to 25 basic sizes conforming to norms, we have developed 19 additional sizes. So we have 44 sizes of pumps.
- Single entry, closed impeller is hydraulically thrust compensated and dynamically balanced.
- Pump and motor are separate components, connected to each other via a flexible coupling and mounted on a common base plate.
- Maintenance is very much easier, the impeller shaft and other rotating parts being removable with no need to disconnect the suction and delivery pipes.
- In fact the use of one extension coupling enables a pump to be dismantled without moving either the driver or the pump casing.

Maximum interchangeability of components, identical parts can be used with various sizes of a pump, which greatly simplifies and reduces stock of spare parts.

Bearings

The pump has sturdy maintenance-free antifriction bearings, which are greased for life with high-temperature grease. A deflector on the shaft prevents leakage fluid from getting into bracket.

Shaft Seal

Pumps are supplied as standard a conventional packet gland, lantern ring for water sealing and lubricating of packing.

- Uncooled stuffing box without shaft sleeve is standard. (Up to 90 °C)
- Uncooled mechanical seal with or without shaft sleeve is optional. (Up To 90 °C)
- Water cooled stuffing box or mechanical seal is optional. (90 – 140 °C)

Pump Flanges

Technical Data

• Suction Nozzle……	: DN 50 ...DN 400
• Discharge Nozzle…….	: DN 32....DN 350
• Operating Pressure……..	: 10 Bar
• Casing Test Pressure…..	: 13 Bar
• Operating Temperature..	: -25 – 130 °C
• Impeller Diameter mm ø..	: 160...500 mm ø
• Speed Range……	: 1000 – 3600 RPM
• Capacity Range……	: 5 – 3500 m³ / h
• Head Range……	: 4 - 105 m

- Discharge Flanges : DIN 2533 – PN 16
- Suction Flanges : 20-200 DIN 2533 PN 16
  250, 350, 400DIN 2532 PN 10

Identification Code

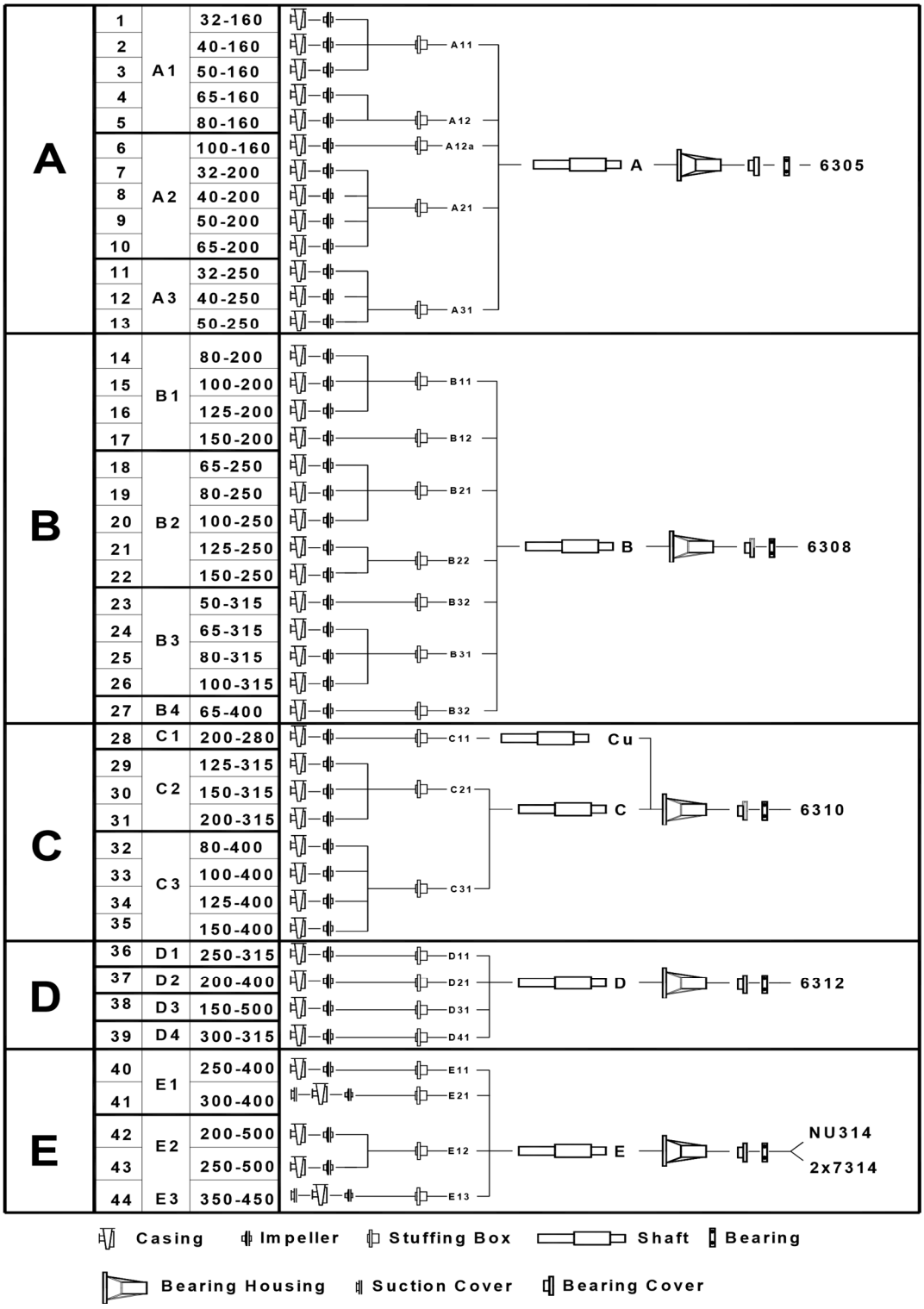
Example: NM 50 - 250

Design

Discharge Flange Nominal Diameter (mm)

Nominal Impeller Diameter

Interchangeability for Pumps



ATEX Description

ATEX Codification

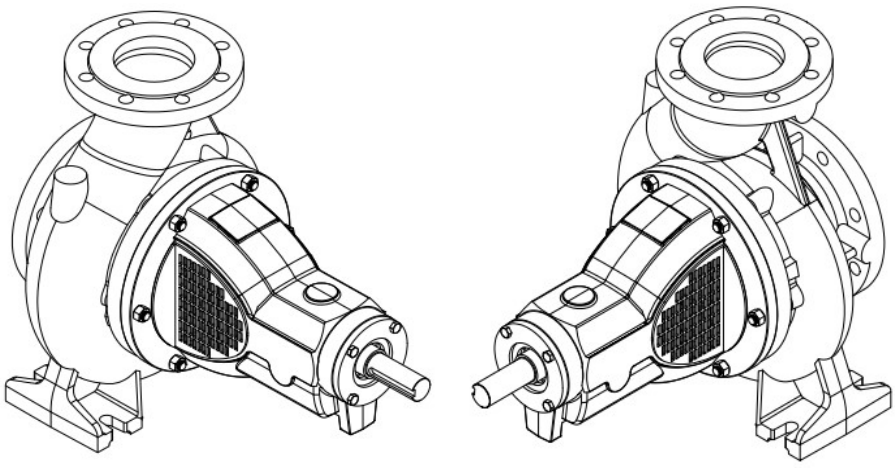
ATEX -95

Ex D c Tx (85 ºC – 200 ºC)

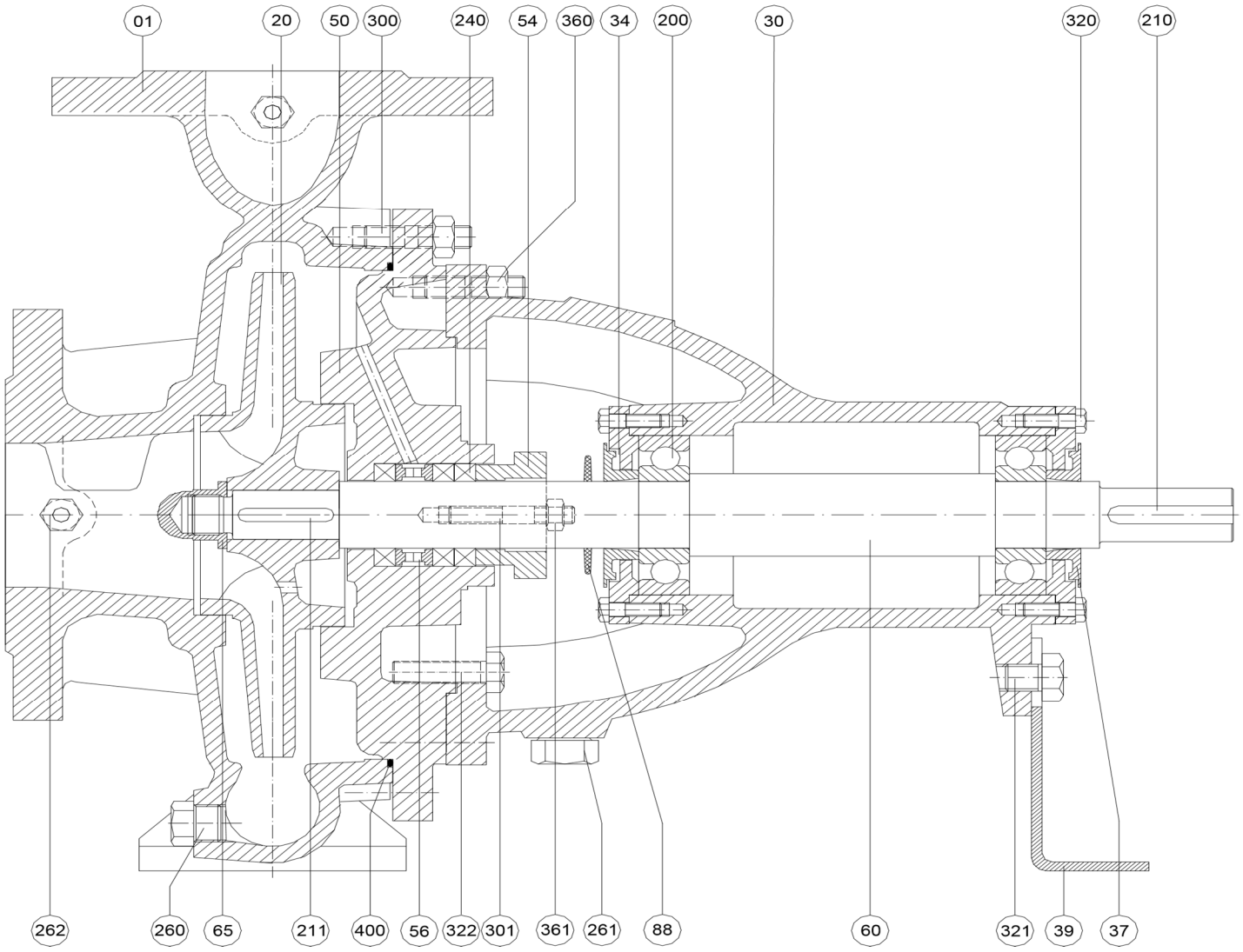
Equipment Groups (Annex I of Directive 94/9/EC)							
Group I (mines, mine gas and dust)		Group II (other explosive atmospheres gas/dust)					
		Category 1		Category 2		Category 3	
Category M 1	Category M 2	G (gas) (Zone 0)	D (dust) (Zone 20)	G (gas) (Zone 1)	D (dust) (Zone 21)	G (gas) (Zone 2)	D (dust) (Zone 22)
For equipment providing a very high level of protection when endangered by an explosive atmosphere	For equipment providing a high level of protection when likely to be endangered by an explosive atmosphere	For equipment providing a very high level of protection when used in areas where an explosive atmosphere is very likely to occur		For equipment providing a high level of protection when used in areas where an explosive atmosphere is likely to occur		For equipment providing a normal level of protection when used in areas where an explosive atmosphere is less likely to occur	

TEMPERATURE CLASS		
Temperature class required by the area classification	Ignition temperature of gas or vapor	Allowable temperature classes of equipment
T1	> 450 °C	T1 - T6
T2	> 300 °C	T2 - T6
T3	> 200 °C	T3 - T6
T4	> 135 °C	T4 - T6
T5	> 100 °C	T5 - T6
T6	> 85 °C	T6

Code	Description
II	The Usage in other non-mining explosive atmospheres
2	2. Category: High level of protection
G	For potentially explosive environments due to gases or vapors
T	Temperature class
X	ATEX Marking of the motor manufacturer

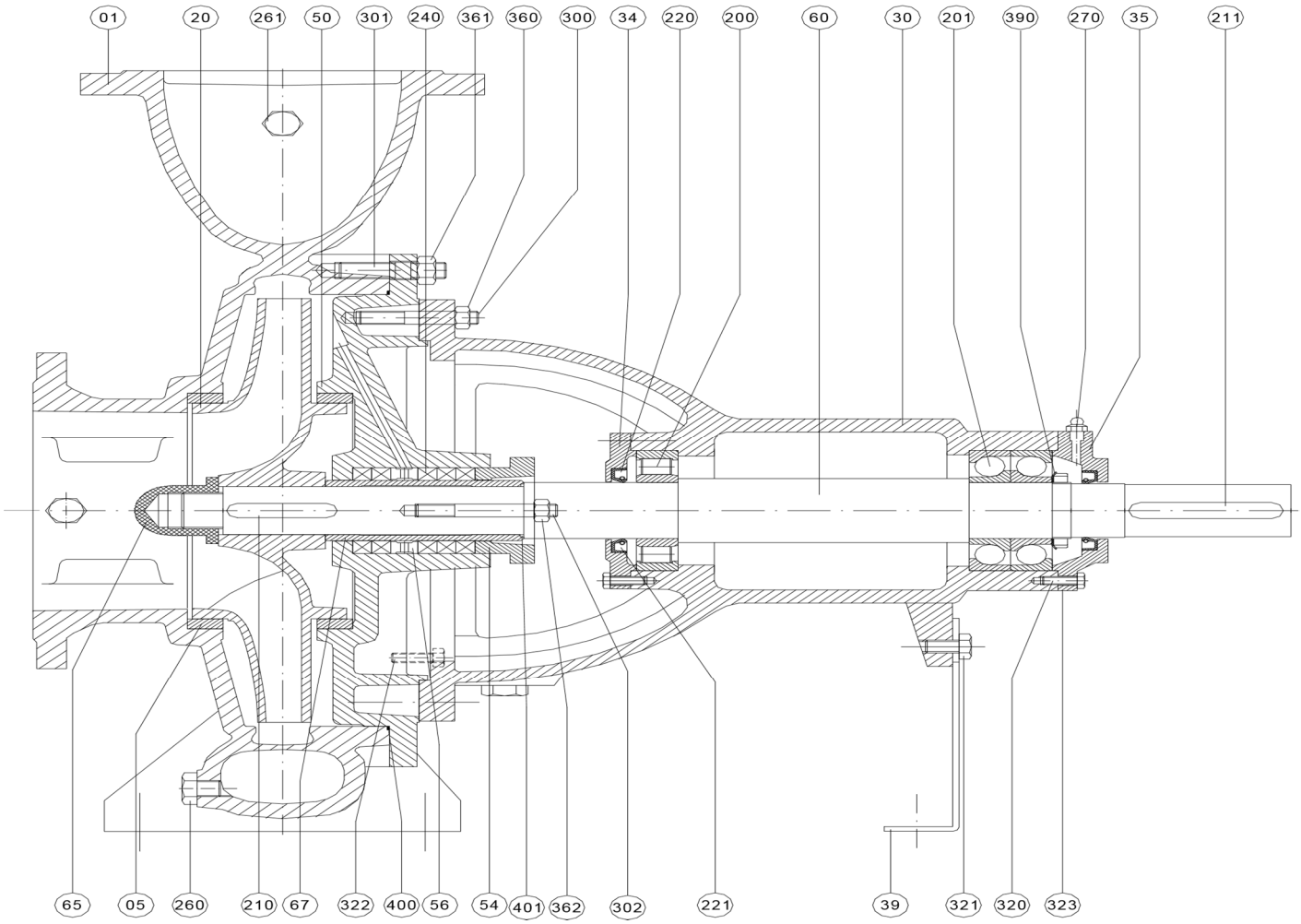


Cross-Sectional View of End Suction Centrifugal Pump



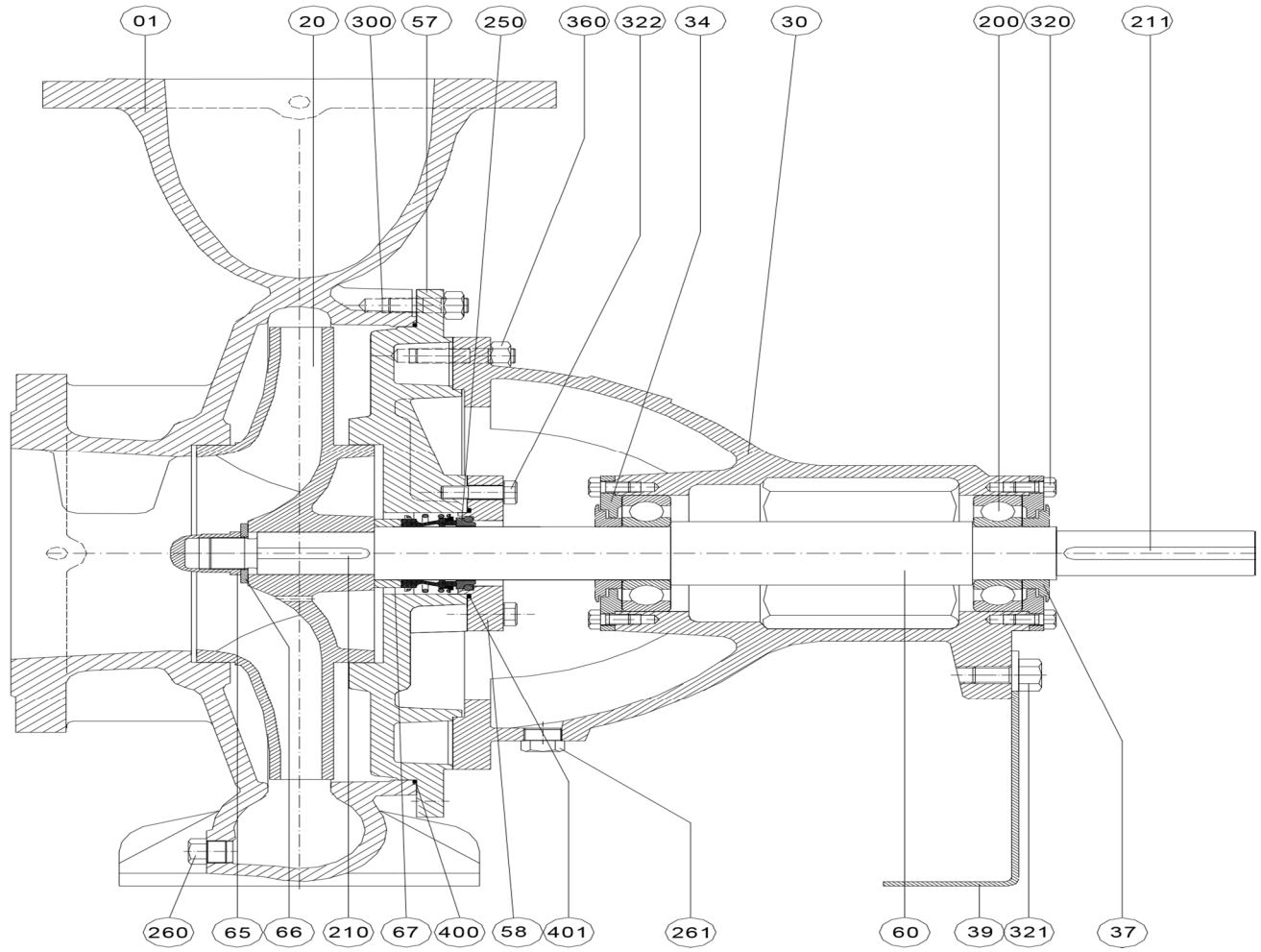
PART NO	PART NAME	PART NO	PART NAME
01	Pump Casing	211	Impeller Key
20	Impeller	240	Gland Packing
30	Bearing Housing	260	Drain Plug
34	Bearing Housing Cover	261	Plug
37	Lip Seal	262	Plug
39	Supporting Part	300	Stud
50	Stuffing Box	301	Stud for Gland
54	Gland	320	Hexagonal Bolt
56	Lantern Ring	321	Hexagonal Bolt
60	Pump Shaft	322	Hexagonal Bolt
65	Impeller Nut	360	Hexagonal Nut
88	Water Thrower	361	Hexagonal Nut for Gland
200	Ball Bearing	400	O-Ring
210	Coupling Key		

Cross-Sectional View of End Suction Centrifugal Pump



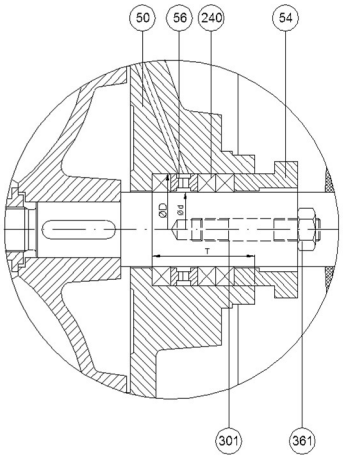
PART NO	PART NAME	PART NO	PART NAME
01	Pump Casing	221	Oil Seal
05	Wearing Ring	240	Gland Packing
20	Impeller	260	Drain Plug
30	Bearing Housing	261	Plug
34	Bearing Housing Cover	270	Greaser
35	Bearing Cover (Outside)	300	Stud
39	Supporting Foot	301	Stud
50	Stuffing Box	301	Stud for Gland
54	Gland	320	Hexagonal Bolt
56	Lantern Ring	321	Hexagonal Bolt
60	Pump Shaft	322	Hexagonal Bolt
65	Impeller Nut	323	Hexagonal Bolt
67	Sealing Sleeve	360	Hexagonal Nut
200	Bearing	361	Hexagonal Nut
201	Bearing	362	Nut for Gland
210	Impeller Key	390	Safety Ring

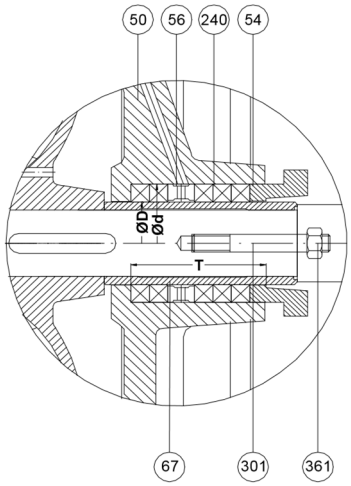
Cross-Sectional View of End Suction Centrifugal Pump (With Mechanical Seal)



PART NO	PART NAME	PART NO	PART NAME
01	Pump Casing	210	Impeller Key
20	Impeller	211	Coupling Key
30	Bearing Housing	250	Mechanical Seal
34	Bearing Housing Cover	260	Drain Plug
39	Supporting Foot	261	Plug
37	Bearing Cover	300	Stud
57	Stuffing Box	320	Hexagonal Bolt
58	Mech. Seal Cover	321	Hexagonal Bolt
60	Pump Shaft	322	Hexagonal Bolt
65	Impeller Nut	360	Hexagonal Nut
66	Ring	400	O-Ring
67	Mech. Seal Front Ring	401	O-Ring
200	Ball Bearing		

Group	Bearing System	Stuffing Box			Mechanical Seal Diameter	Pump Size
	Type of Bearing	Shaft $Ød_1$	Packing Ring Size ØD x Ød x T	Quantity		
A	2 x 6306 2RS-C3	Ø30	Ø46 x Ø30 x 45	3 Soft Packing + 1 Lantern Ring	Ø30	32–160, 40–160,50–160, 65–160, 80–160, 100–160, 32–200, 40–200, 50–200, 65–200, 32–250, 40–250, 50–250
B	2 x 6308 2RS-C3	Ø40	Ø60 x Ø40 x 55,5	3 Soft Packing + 1 Lantern Ring	Ø40	80–200,100–200, 125–200, 150–200, 65–250, 80–250, 100–250, 125–250, 150–250, 50–315, 65–315, 80–315, 100–315, 65–400
C	2 x 6310 2RS-C3	Ø50	Ø70 x Ø50 x 55	3 Soft Packing + 1 Lantern Ring	Ø50	200–280, 125–315, 150–315, 200–315, 80–400, 100–400, 125–400, 150–400
D	2 x 6312 2RS-C3	Ø60	Ø85 x Ø60 x 82	3 Soft Packing + 1 Lantern Ring	Ø60	250–315, 200–400, 150–500, 300,315
E	NU 314 2 x 7314	Ø75	Ø107,5 x Ø75 x 115,5	5 Soft Packing + 1 Lantern Ring	Ø75	250–400, 300–400, 200–500, 250–500, 350–450





Stuffing Box Detail for Group A, B, C, D	
Part No	**Part Name**
50	Stuffing Box
54	Glen
56	Lantern Ring
240	Gland
301	Stud for Gland
361	Nut for Gland

Stuffing Box Detail for Group E	
Part No	**Part Name**
50	Stuffing Box
54	Glen
56	Lantern Ring
67	Seal Sleeve
240	Gland
301	Stud for Gland
361	Nut for Gland

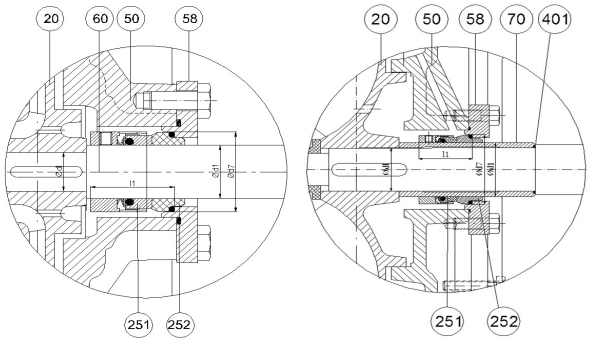
Bearings, Stuffing-Box, Mechanical Seal

BURGMAN M7N-M74N-M78N

- Single Seal
- Unbalanced
- Independent of direction of rotation
- To EN 12756

p_1	: 16 Bar
t	: -50...220 °C

Axial Movement	
d1≤25	: ±1,0 mm
28≤d1≤63	: ±1,5 mm
D1≥65	: ± 2,0 mm



Part No	Part Name for E
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
70	Seal Sleeve
251	Rotating Part of Mechanical Seal
252	Rotating Part of Mechanical Seal
401	Seal Sleeve O-Ring

Part No	Part Name for A, B, C, D
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
251	Rotating Part of Mechanical Seal
252	Stationary Part of Mechanical Seal

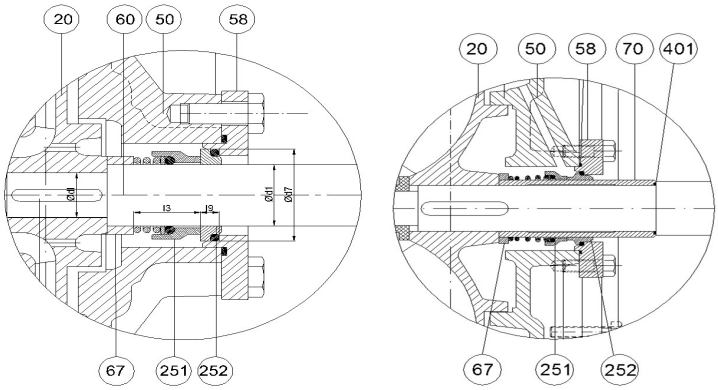
Group	Pump Size	Ø d1	Ø d7	Ø dl	l1=l1k
A	32–160, 40–160,50–160, 65–160, 80–160, 100–160, 32–200, 40–200, 50–200, 65–200, 32–250, 40–250, 50–250	Ø 30	Ø 45	Ø 22	42,5
B	80–200,100–200, 125–200, 150–200, 65–250, 80–250, 100–250, 125–250, 150–250, 50–315, 65–315, 80–315, 100–315, 65–400	Ø 40	Ø 58	Ø 30	45
C	200–280, 125–315, 150–315, 200–315, 80–400, 100–400, 125–400, 150–400	Ø 50	Ø 70	Ø 40	47,5
D	250–315, 200–400, 150–500, 300–315	Ø 60	Ø 80	Ø 50	52,5

E	250–400, 300–400, 200-500, 250-500, 350-450	Ø 75	Ø 97	Ø 60	60

BURGMAN M3N-M32N-M37N-M37GN

- Single Seal
- Unbalanced
- Conical Spring
- Dependent on direction of rotation
- To EN 12756

p_1	: 10 Bar
t	: -20…180 ˚C
Vg	: 10 m/s
Axial Movement	: ±1,0 mm



Part No	Part Name for A, B, C, D
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
67	Adjusting Ring
251	Rotating Part of Mechanical Seal
252	Stationary Part of Mechanical Seal

Part No	Part Name for E
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
67	Adjusting Ring
70	Seal Sleeve
251	Rotating Part of Mechanical Seal
252	Rotating Part of Mechanical Seal
401	Seal Sleeve O-Ring

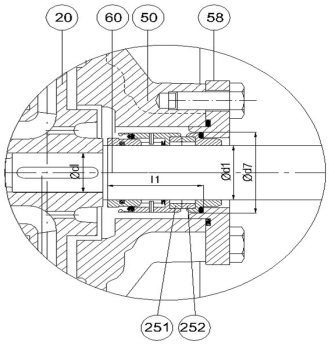
Group	Pump Size	Ø d1	Ø d7	Ø dl	l3	l9
A	32–160, 40–160,50–160, 65–160, 80–160, 100–160, 32–200, 40–200, 50–200, 65–200, 32–250, 40–250, 50–250	Ø 30	Ø 45	Ø 22	26,5	11,5
B	80–200,100–200, 125–200, 150–200, 65–250, 80–250, 100–250, 125–250, 150–250, 50– 315, 65–315, 80–315, 100–315, 65–400	Ø 40	Ø 58	Ø 30	36	14

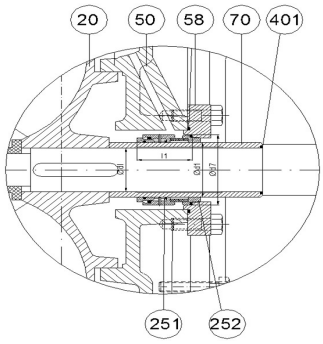
C	200–280, 125–315, 150–315, 200–315, 80–400, 100–400, 125–400, 150–400	Ø 50	Ø 70	Ø 40	47,5	47,5
D	250–315, 200–400, 150–500, 300–315	Ø 60	Ø 80	Ø 50	45	15
E	250–400, 300–400, 200–500, 250–500, 350–450	Ø 75	Ø 97	Ø 60	62	18

BURGMAN HJ92N-HJ977N-SHJ97G

- Single Seal
- Unbalanced
- Product Protected Spring
- Independent on Direction of Rotation
- To EN 12756

p_1	: 0.8…25 Bar
t (HJ92N)	: -50…220 ˚C
t (HJ92N)	: -20…180 ˚C
Vg	: 10 m/s
Axial Movement	: ± 0,5 mm





Part No	Part Name for A, B, C, D
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
251	Rotating Part of Mechanical Seal
252	Stationary Part of Mechanical Seal

Part No	Part Name for E
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
67	Adjusting Ring
70	Seal Sleeve
251	Rotating Part of Mechanical Seal
252	Rotating Part of Mechanical Seal
401	Seal Sleeve O-Ring

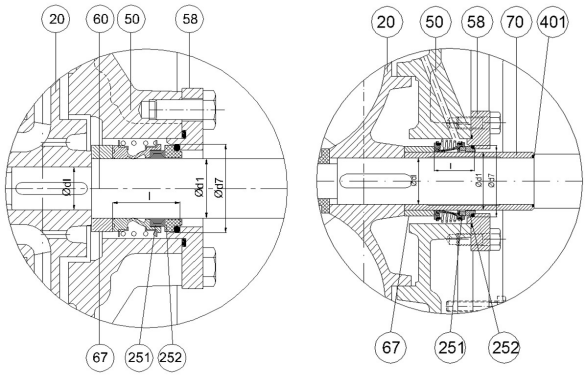
Group	Pump Size	Ø d1	Ø d7	Ø dl	l1
A	32–160, 40–160,50–160, 65–160, 80–160, 100–160, 32–200, 40–200, 50–200, 65–200, 32–250, 40–250, 50–250	Ø 30	Ø 45	Ø 22	42,5

B	80–200,100–200, 125–200, 150–200, 65–250, 80–250, 100–250, 125–250, 150–250, 50–315, 65–315, 80–315, 100–315, 65–400	Ø 40	Ø 58	Ø 30	45
C	200–280, 125–315, 150–315, 200–315, 80–400, 100–400, 125–400, 150–400	Ø 50	Ø 70	Ø 40	47,5
D	250–315, 200–400, 150–500, 300–315	Ø 60	Ø 80	Ø 50	52,5
E	250–400, 300–400, 200–500, 250–500, 350–450	Ø 75	Ø 97	Ø 60	60

BURGMAN MG1

- Single Seal
- Unbalanced
- Elastomer Bellows
- Independent on Direction of Rotation

p_1	: 12 Bar
t	: -20…120 ˚C
Vg	: 10 m/s



Part No	Part Name for A, B, C, D
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
67	Adjusting Ring
251	Rotating Part of Mechanical Seal
252	Stationary Part of Mechanical Seal

Part No	Part Name for E
20	Impeller
50	Mechanical Seal Box
58	Mechanical Seal Box Cover
67	Adjusting Ring
70	Seal Sleeve
251	Rotating Part of Mechanical Seal
252	Rotating Part of Mechanical Seal
401	Seal Sleeve O-Ring

Group	Pump Size	Ø d1	Ø d7	Ø dl	l

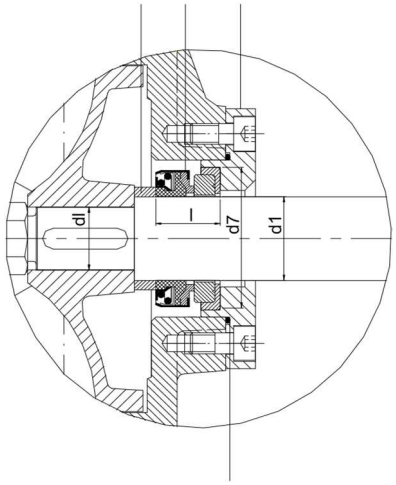
BURGMANN BT-AR

- Single Seal
- Unbalanced
- Rubber Bellows
- Independent on Direction of Rotation

A	32–160, 40–160,50–160, 65–160, 80–160, 100–160, 32–200, 40–200, 50–200, 65–200, 32–250, 40–250, 50–250	Ø 30	Ø 45	Ø 22	34
B	80–200,100–200, 125–200, 150–200, 65–250, 80–250, 100–250, 125–250, 150–250, 50–315, 65–315, 80–315, 100–315, 65–400	Ø 40	Ø 58	Ø 30	39
C	200–280, 125–315, 150–315, 200–315, 80–400, 100–400, 125–400, 150–400	Ø 50	Ø 70	Ø 40	40
D	250–315, 200–400, 150–500, 300–315	Ø 60	Ø 80	Ø 50	49
E	250–400, 300–400, 200–500, 250–500, 350–450	Ø 75	Ø 97	Ø 60	51,3

p_1	: 6 Bar
t	: -20…120 ˚C
Vg	: 10 m/s

67 250 58



400

Part No	Part Name for A, B, C, D
58	Mechanical Seal Box Cover
67	Adjusting Ring
251	Mechanical Seal
400	O-Ring for Cover

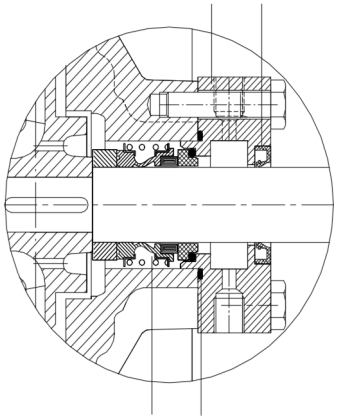
Group	Pump Size	Ø d1	Ø d7	Ø dl	l
A	32–160, 40–160,50–160, 65–160, 80–160, 100–160, 32–200, 40–200, 50–200, 65–200, 32–250, 40–250, 50–250	Ø 30	Ø 57	Ø 22	25
B	80–200,100–200, 125–200, 150–200, 65–250, 80–250, 100–250, 125–250, 150–250, 50–315, 65–315, 80–315,	Ø 40	Ø 68	Ø 30	30

	100–315, 65–400				
C	200–280, 125–315, 150–315, 200–315, 80–400, 100–400, 125–400, 150–400	Ø 50	Ø 88	Ø 40	38
D	250–315, 200–400, 150–500, 300–315	Ø 60	Ø 110	Ø 50	45

QUENCHING

A quench is used on the one hand when a single mechanical seal

58 220 does not function at all or only within certain limits without auxiliary measures or when a double mechanical seal with pressurized buffer medium is unnecessary. When an integral stationary seat stop is fitted, the quench pressure should not exceed 1 Bar.

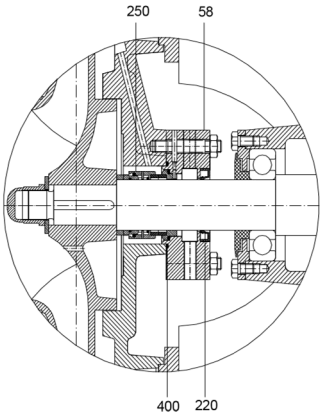


Absorption or removal of leakage by quench medium.
Monitoring of the mechanical seal's leakage rate by periodic measurement of the level of the quench medium in the circulation vessel or thermosyphon vessel.
Lubrication and cooling of the stand-by mechanical seal.

Exclusion of the air: For media reacting with atmospheric oxygen the quenching medium stops the leakage making contact with air.

250 400

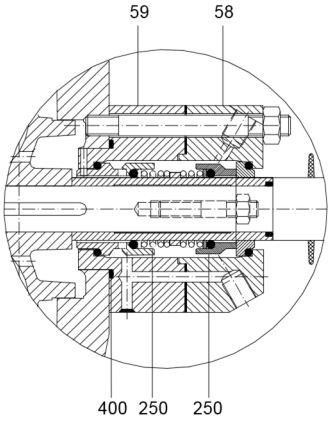
58	Mechanical Seal Cover for Quenching
220	Oil Seal
250	Mechanical Seal
400	O-Ring For the Cover



QUENCH WITH AN INTERNAL CIRCULATION

A pumped medium is injected into the area of the sliding faces from the discharge of the pumps.

58	Mechanical Seal Cover
220	Oil Seal
250	Mechanical Seal
400	O-Ring For the Cover

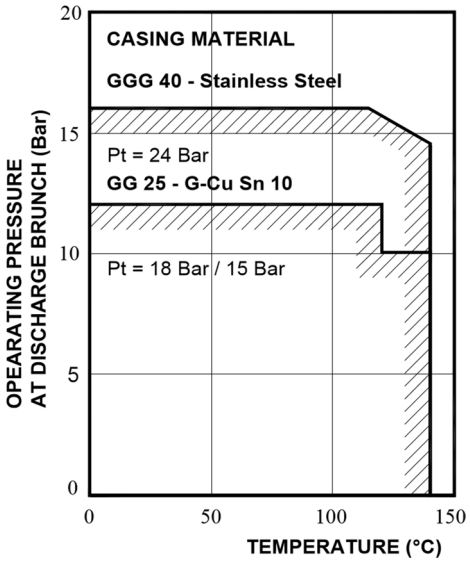


DOUBLE MECHANICAL SEAL APPLICATION

58	Mechanical Seal Cover
59	Mechanical Seal Cover
250	Mechanical Seal
400	O-Ring For the Cover

Technical Data

Temperature and Pressure Limits



Pt: Test Pressure

Casing Material	Temperature of Liquid	Max. Permissible Casing Pressure
Cast Iron GG 25 and Bronze G-CuSn 10	Up to 120 ˚C	12 Bar
	Up to 140 ˚C	10 Bar
Spheroidal Cast Iron GGG 40 and Stainless Steel AISI 304-316	Up to 120 ˚C	16 Bar
	Up to 140 ˚C	14 Bar

Material Options

Components / Material. No	0.6025	0.7040	2.1050.01	1.4021	1.4301	1.4401
Pump Casing	●	o	o		o	o
Back Cover	●	o	o		o	o
Impeller	●	o	o		o	o
Gland	o	●	o		o	o
Wearing Ring*	o	o	●		o	o
Shaft				●	o	o
Shaft Sleeve				●	o	o
Bearing Housing	●					
Bearing Cover	●					

● - Standard Manufacturing
o - Optional

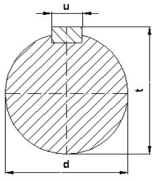
Material Equivalent

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL–250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS–400–15 (GGG40)	A 536 Gr.60–40–18
Cast Bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome Nickel Molybdenum Steel	1.4401	X5 Cr Ni Mo 18.10	A 276 Type 316

**Wearing Rings and Shaft Sleeves are upon request.*

Technical Data

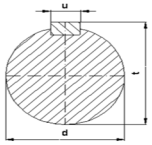
Key-Way and Shaft Dimensions for Motor Side



Group	d	t
A	24	28
B	32	37
C	42	47
D	55	61
E	65	72

l	l1
50	47
75	80
106	110
100	110
125	140

Key-Way and Shaft Dimensions for Impeller Side

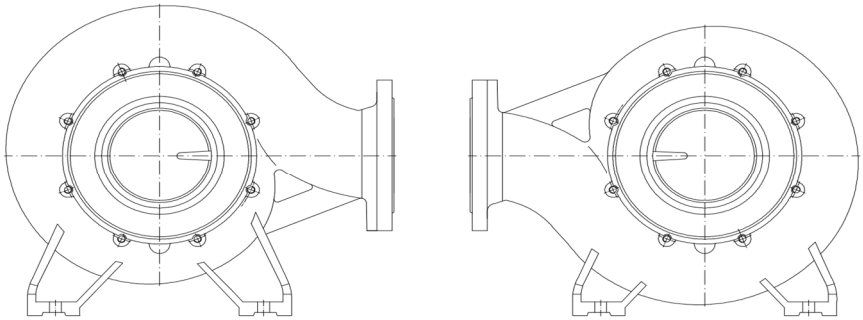


Group	d	t	u
A	22	26	6
B	30	34	8
C	40	45	10
D	50	55,5	14
E	60	67	18

NM-Cr

In this
discharg

steel. Also, pump
el.



Components / Material. No	0.6025	0.7040	2.1050.01	1.4021	1.4301	1.4401
Pump Casing					o	●
Back Cover					o	●
Impeller					o	●
Gland		●	o		o	o
Wearing Ring*			●		o	o
Shaft				●	o	o
Shaft Sleeve				●	o	o
Bearing Housing	●					
Bearing Cover	●					

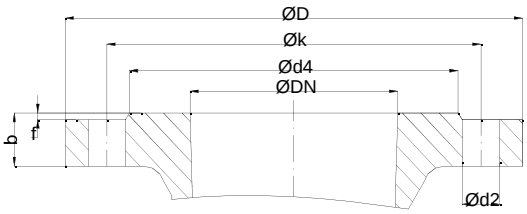
NM-CR	NM-CR	NM-CR
NM-CR 32–200	NM-CR 50–250	NM-CR 150–315
NM-CR 40–200	NM-CR 80–250	
NM-CR 50–200	NM-CR 100–250	
NM-CR 65–200	NM-CR 125–250	
NM-CR 80–200	NM-CR 150–250	
NM-CR 100–200		
NM-CR 125–200		

● - Standard Manufacturing

o - Optional

Flange Dimensions

Pump Suction And Discharge Flange Dimensions								
DNs / DNd	PN	ØD	Øk	Ød4	Ød2	b	f	Hole Quantity
32	16	140	100	78	18	18	2	4
40		150	110	88	18	18	3	4
50		165	125	102	18	20	3	4
65		185	145	122	18	20	3	4
80		200	160	138	18	22	3	8
100		220	180	158	18	24	3	8
125		250	210	188	18	26	3	8
150		285	240	212	22	26	3	8
200		340	295	268	22	30	3	12
250	10	395	350	320	22	28	3	12
300		445	400	370	22	28	4	12
350		505	460	430	22	34	4	16
400		565	515	482	26	34	4	16

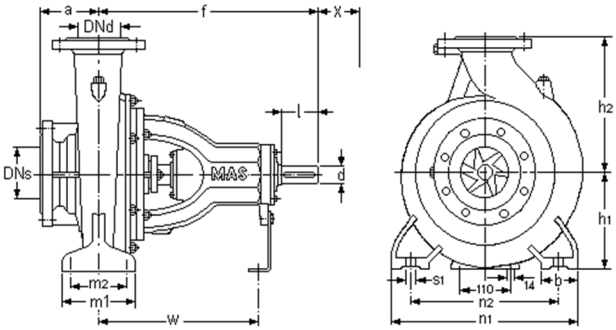


No	Pump Type	Flanges			
		DNs (mm) Suction		DNd (MM) Discharge	
1	32–160	50	PN 16	32	PN 16
2	32–200				
3	32–250				
4	40–160	65		40	
5	40–200				
6	40–250				
7	50–160	65		50	
8	50–200				
9	50–250				
10	50–315				
11	65–160	80		65	
12	65–200				
13	65–250				
14	65–315				
15	65–400				
16	80–160	100		80	
17	80–200				
18	80–250				
19	80–315				
20	80–400				

No	Pump Type	Flanges			
		DNs (mm) Suction		DNd (MM) Discharge	
21	100–160	125	PN 16	100	PN 16
22	100–200				
23	100–250				
24	100–315				
25	100–400				
26	125–200	150		125	
27	125–250				
28	125–315				
29	125–400				
30	150–200	200		150	
31	150–250				
32	150–315				
33	150–400				
34	150–500				
35	200–280	250	PN 10	200	
36	200–315				
37	200–400				
38	200–500				
39	250–315	300		250	PN 10
40	250–400				
41	250–500				
42	250-500A				
43	300-315A	300		300	
44	300–315				
45	300–400	350			
46	350–450	400		350	

NM Series
End Suction Centrifugal Pumps

Overall Dimensions



No	Type Added EN 733		Flanges		Length		Height		Pump Feet Fixing Details							Shaft End		(*) X	Weight
			DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	mm	kg
1	32–160		50	32	80	360	132	160	50	100	70	240	190	M12	260	24	50	65	37
2	32–200		50	32	80	360	160	180	50	100	70	240	190	M12	260	24	50	65	40
3		32–250	50	32	100	360	180	225	50	125	95	320	250	M12	260	24	50	80	45
4	40–160		65	40	80	360	132	160	50	100	70	240	190	M12	260	24	50	75	38
5	40–200		65	40	100	360	160	180	50	100	70	265	212	M12	260	24	50	75	44.5
6	40–250		65	40	100	360	180	225	65	125	95	320	250	M12	260	24	50	75	54
7	50–160		65	50	100	360	160	180	50	100	70	265	212	M12	260	24	50	80	41.5
8	50–200		65	50	100	360	160	200	50	100	70	265	212	M12	260	24	50	85	46.5
9	50–250		65	50	100	360	180	225	65	125	95	320	250	M12	260	24	50	85	54.5
10		50–315	80	50	100	470	225	280	80	160	120	360	280	M16	330	32	80	100	103
11	65–160		80	65	100	360	160	200	65	125	95	280	212	M12	260	24	50	100	44
12	65–200		80	65	100	360	180	225	65	125	95	320	250	M12	260	24	50	100	47.5
13	65–250		80	65	100	470	200	250	80	160	120	360	280	M16	340	32	80	100	77.5
14	65–315		80	65	125	470	225	280	80	160	120	400	315	M16	340	32	80	110	92
15		65–400	100	65	125	470	250	355	80	160	120	400	315	M16	340	32	80	110	125
16	80–160		100	80	125	360	180	225	65	125	95	320	250	M12	260	24	50	110	51
17	80–200		100	80	125	470	180	250	65	125	95	345	280	M12	340	32	80	110	75.5
18	80–250		100	80	125	470	200	280	80	160	120	400	315	M16	340	32	80	115	93
19	80–315		100	80	125	470	250	315	80	160	120	400	315	M16	340	32	80	120	107
20		80–400	100	80	125	530	280	355	100	200	150	500	400	M20	370	42	110	120	162
21		100–160	125	100	125	360	200	280	80	160	120	360	280	M16	260	24	50	120	-

22	100–200		125	100	125	470	200	280	80	160	120	360	280	M16	340	32	80	120	83
23	100–250		125	100	140	470	225	280	80	160	120	400	315	M16	340	32	80	130	95
24	100–315		125	100	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	110
25	100–400		125	100	140	530	280	355	100	200	150	500	400	M20	370	42	110	130	168

26		125–200	150	125	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	106.5
27	125–250		150	125	140	470	250	355	80	160	120	400	315	M16	340	32	80	140	105,5
28	125–315		150	125	140	530	280	355	100	200	150	500	400	M20	370	42	110	140	166,5
29	125–400		150	125	140	530	315	400	100	200	150	500	400	M20	370	42	110	140	189

30		150–200	200	150	160	470	280	355	100	200	150	500	400	M16	340	32	80	170	137.5
31		150–250	200	150	160	470	280	375	100	200	150	500	400	M16	340	32	80	140	137.5
32	150–315		200	150	160	530	280	400	100	200	150	550	450	M20	370	42	110	140	182.5
33	150–400		200	150	160	530	315	450	100	200	150	550	450	M20	370	42	110	140	210.5
34		150–500	200	150	180	700	400	525	110	250	200	620	500	M20	500	55	110	140	197

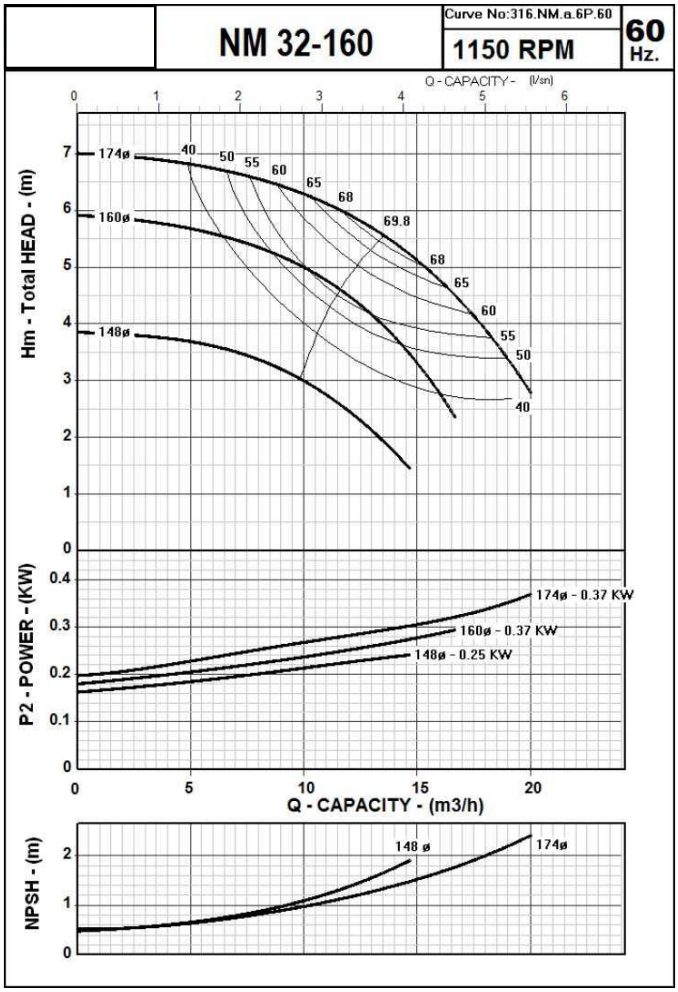
36		200–315	250	200	180	535	355	450	110	250	200	620	500	M20	410	42	110	160	201
36		200–400	250	200	180	710	400	500	110	250	200	620	500	M20	500	55	110	160	354
37		200–500	300	250	280	875	500	700	150	360	250	900	750	M28	560	65	140	320	615

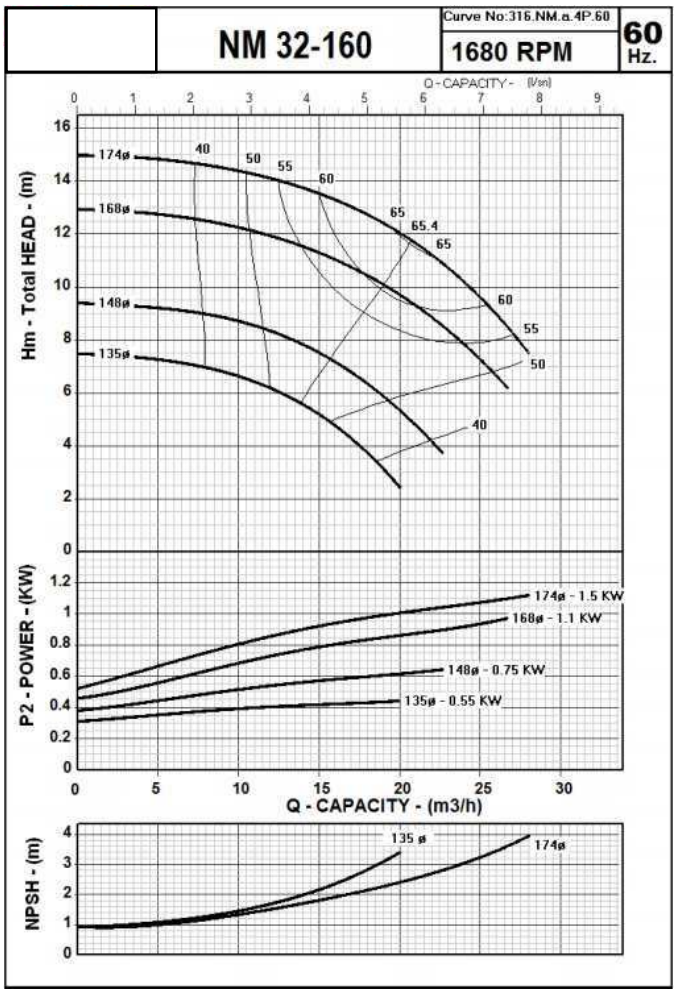
38		250–315	300	250	240	725	400	525	140	300	240	620	500	M24	500	55	110	200	419
39		250–400	300	250	225	865	400	550	140	300	240	620	500	M24	600	65	140	200	510
40		250–500	300	250	280	875	500	700	150	360	290	900	750	M28	560	65	140	320	615
41		250-500A	300	250	280	875	500	700	150	360	290	900	750	M28	560	65	140	320	615

42		300-315A	300	300	275	810	425	600	140	300	240	620	500	M24	550	55	140	270	516
43		300–315	300	300	275	810	425	600	140	300	240	620	500	M24	550	55	140	270	516
44		300–400	350	300	275	865	450	630	150	360	290	800	650	M24	550	65	140	300	636

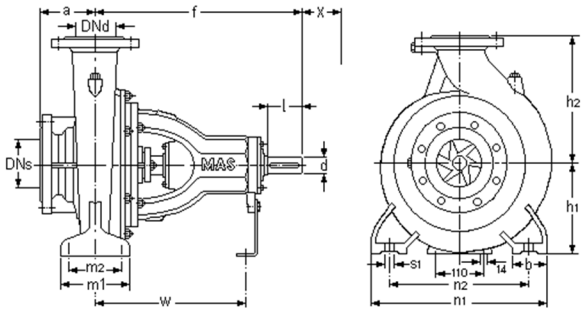
45		350–450	400	350	280	875	500	700	150	360	290	900	750	M24	560	65	140	300	755

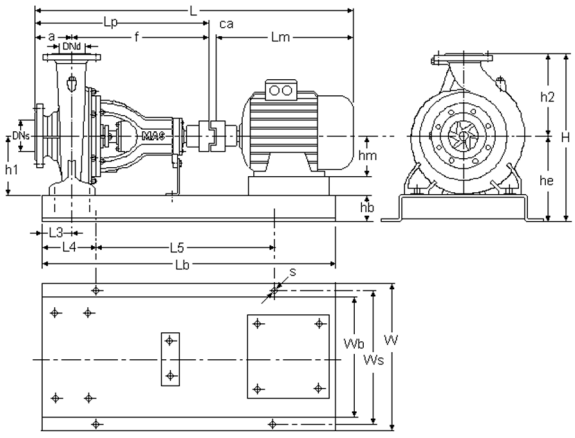
NM 32-160





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

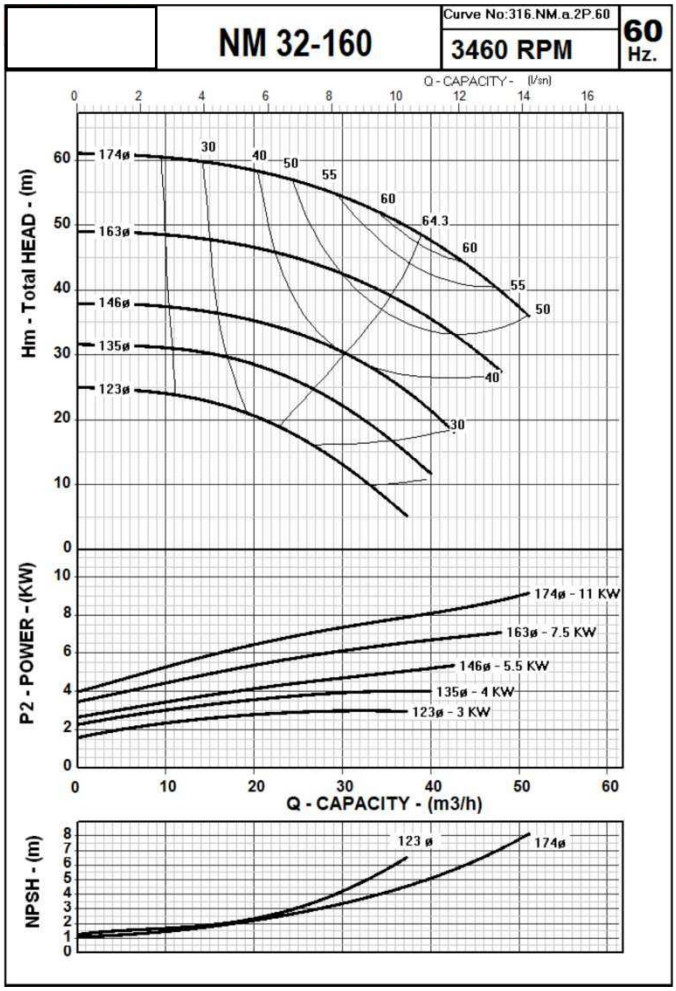




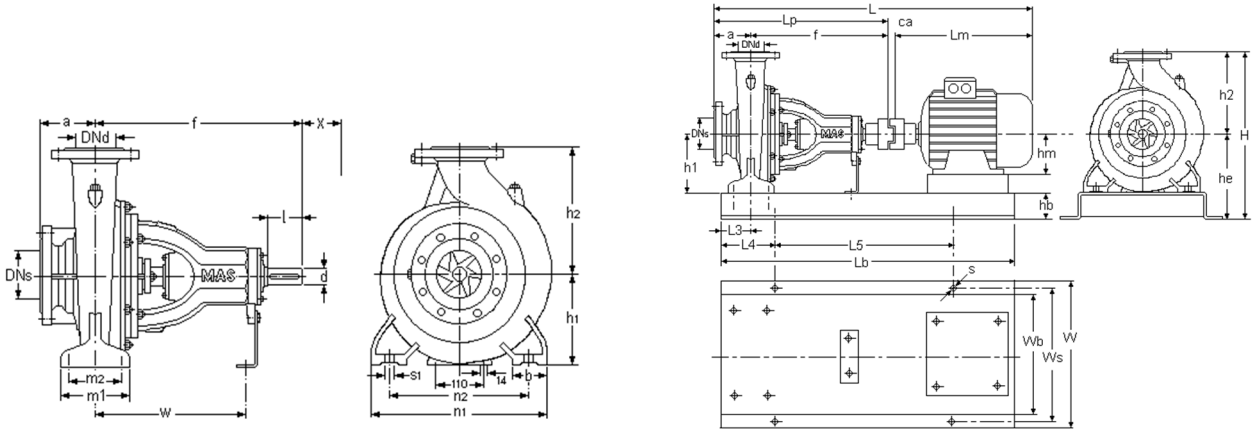
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
32–160	50	32	80	360	132	160	50	100	70	240	190	M12	260	24	50	65	37

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
32–160 6 poles 60 Hz	0,25	71	249	71	440	16	705	360	357	700	260	65	197	50	100	500	310	19
	0,37	80	279	80	440	16	735	360	357	700	260	65	197	60	100	500	310	19
32–160 4 poles 60 Hz	0,55	80	279	80	440	16	735	360	357	700	260	65	197	50	100	500	310	19
	0,75	80M	283,5	80	440	16	739,5	360	357	700	260	65	197	50	100	500	310	19
	1,1	90L	316,5	90	440	16	772,5	366	357	750	260	65	197	60	100	500	310	19
	1,5	90L	344,5	90	440	16	800,5	360	357	750	260	65	197	60	100	550	310	19

NM 32-160



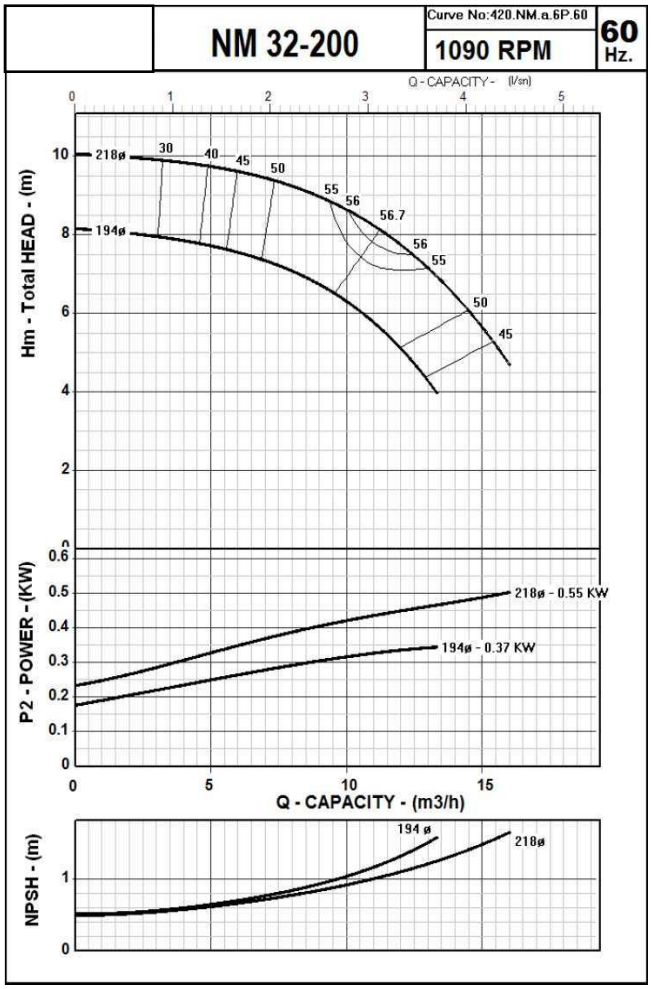
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

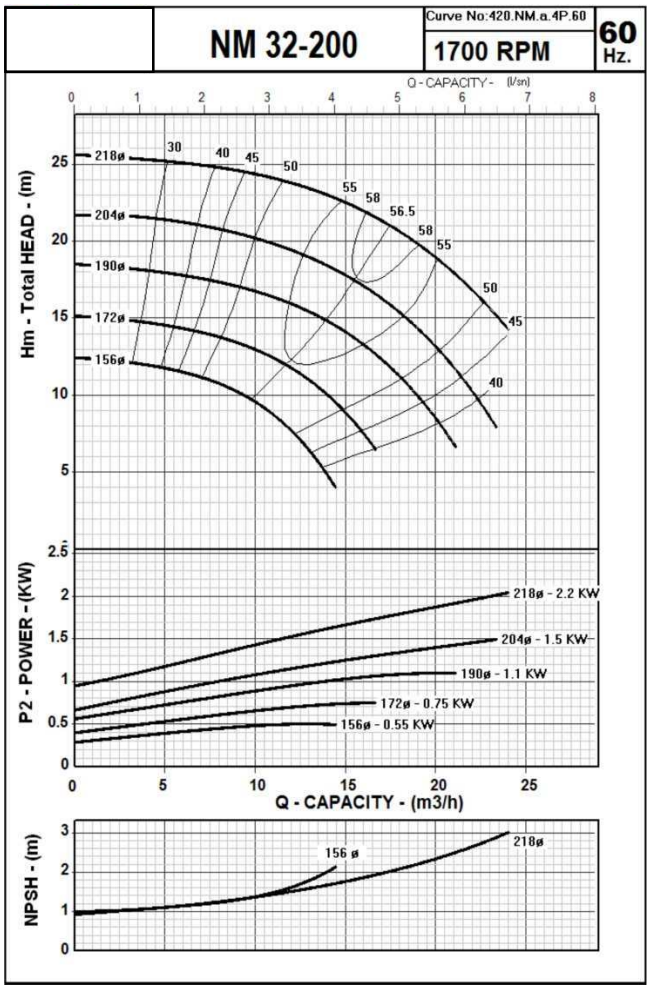


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
32–160	50	32	80	360	132	160	50	100	70	240	190	M12	260	24	50	65	37

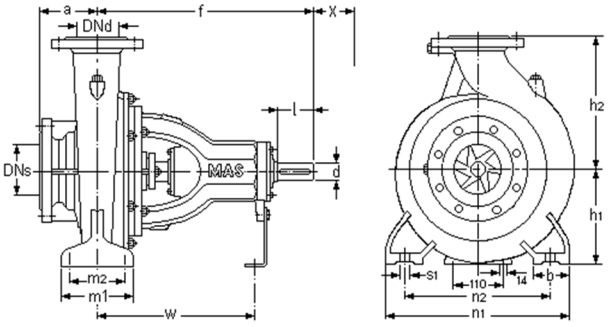
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
32–160 2 poles 60 Hz	3	100L	352	100	440	16	808	360	357	800	260	65	197	50	100	600	310	19
	4	112M	395,5	112	440	16	851,5	360	357	800	260	65	197	50	100	600	310	19
	5,5	132S	440,5	132	440	16	896,5	380	357	850	280	65	197	50	150	550	330	19
	7,5	132M	475,5	132	440	16	931,5	380	357	850	280	65	197	60	150	550	330	19
	11	160L	576	160	440	19	1035	440	400	950	340	80	240	60	150	650	390	19

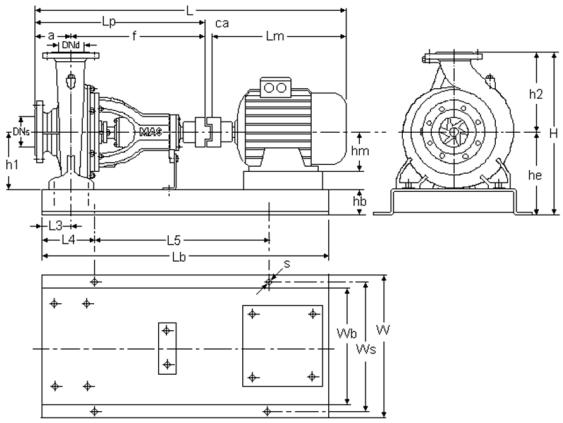
NM 32-200





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



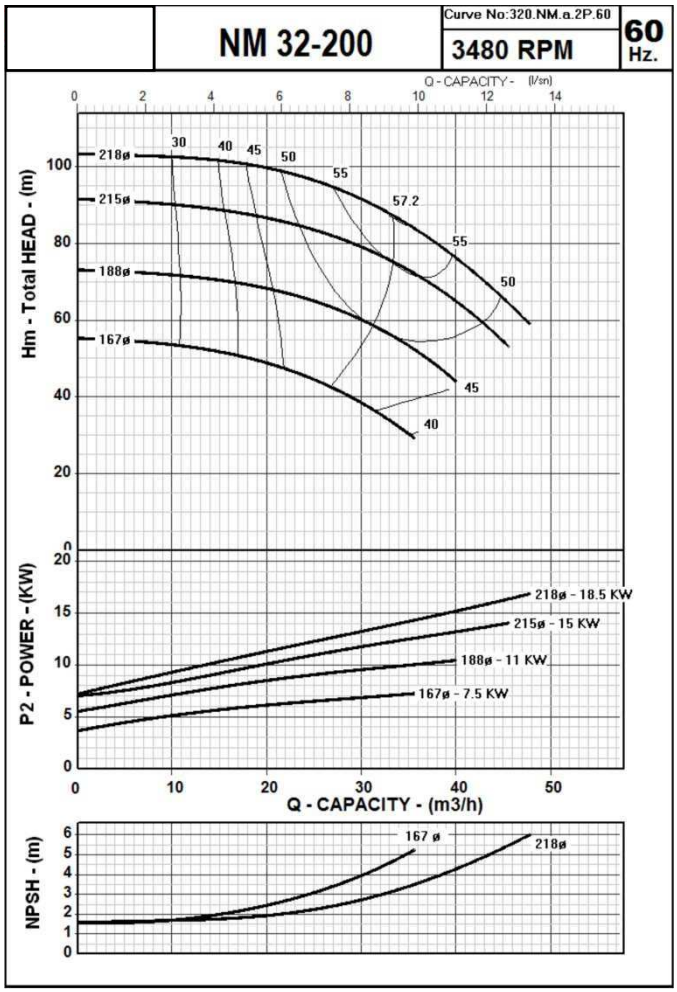


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
32–200	50	32	80	360	160	180	50	100	70	240	190	M12	260	24	50	65	40

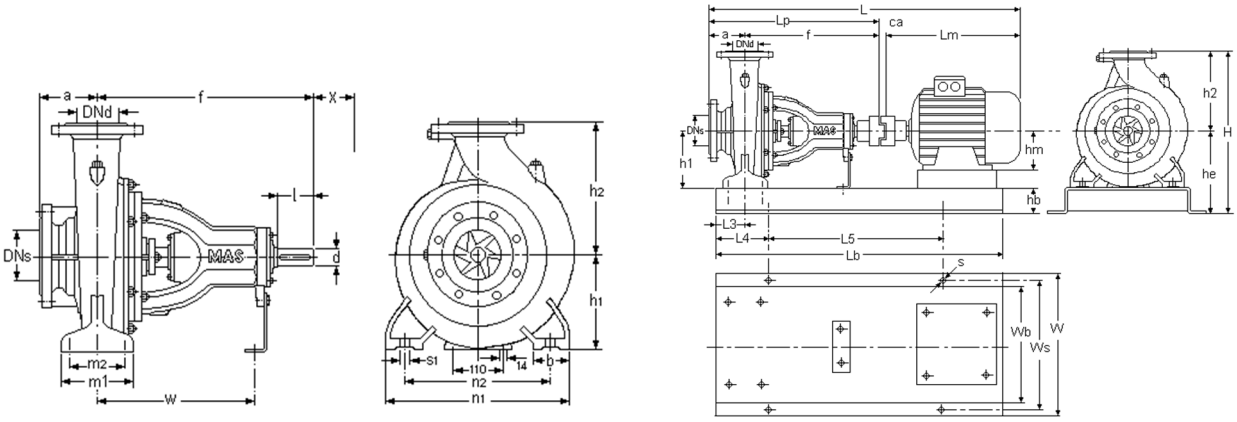
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
32–200	0,37	80	279	80	440	16	735	360	405	700	260	65	225	60	100	500	310	19

6 poles 60 Hz	0,55	80	279	80	440	16	735	360	405	700	260	65	225	60	100	500	310	19
32–200 4 poles 60 Hz	0,55	80	279	80	440	16	735	360	405	700	260	65	225	50	100	500	310	19
	0,75	80M	283,5	80	440	16	739,5	360	405	700	260	65	225	50	100	500	310	19
	1,1	90L	316,5	90	440	16	772,5	360	4005	750	260	65	225	50	100	550	310	19
	1,5	90L	344,5	90	440	16	800,5	360	405	750	260	65	225	50	100	550	310	19
	2,2	100L	352	100	440	16	808	360	405	800	260	65	225	60	100	600	310	19

NM 32-200



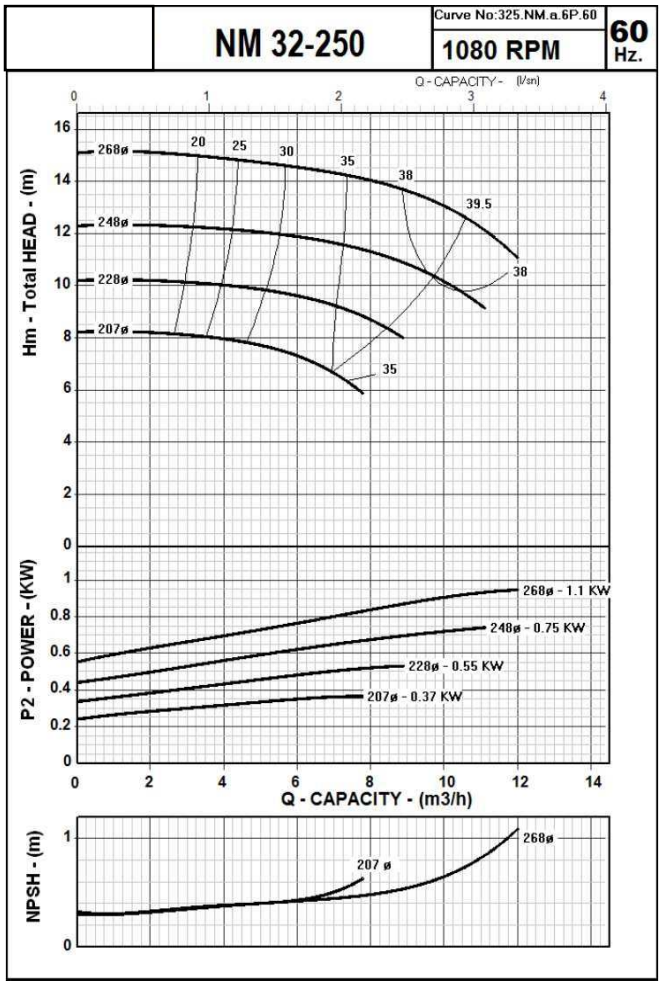
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

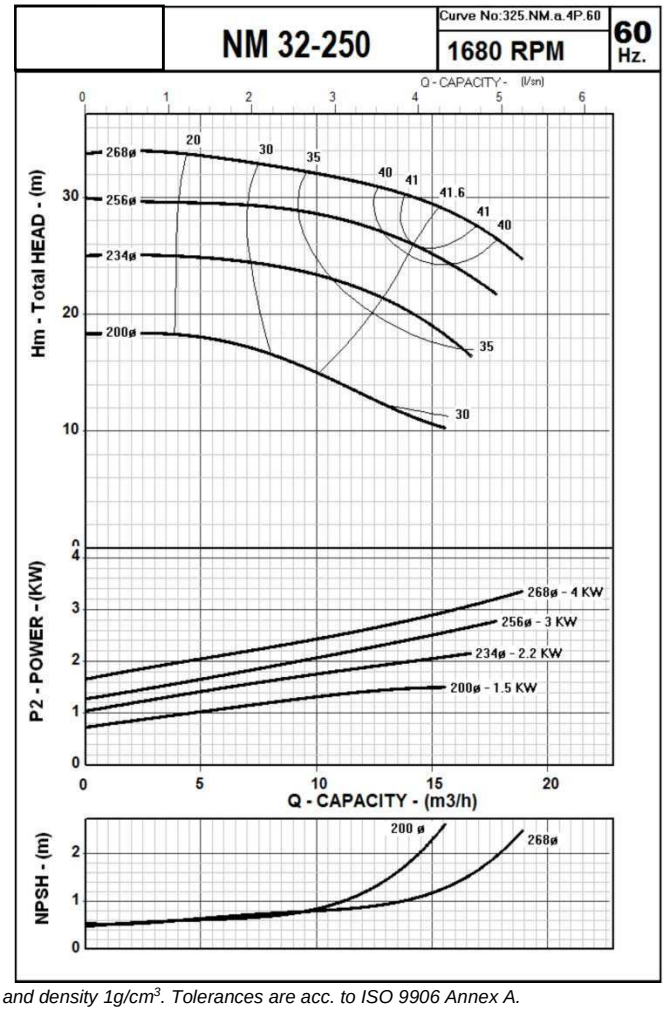


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
32–200	50	32	80	360	160	180	50	100	70	240	190	M12	260	24	50	65	40

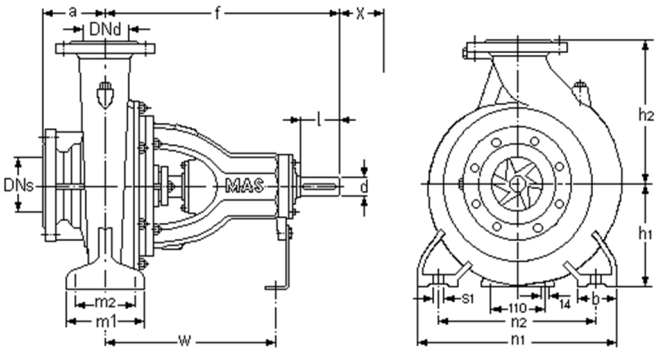
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
32–200 2 poles 60 Hz	7,5	132M	475,5	132	440	16	931,5	380	405	850	280	65	225	50	150	550	330	19
	11	160L	576	160	440	19	1035	440	420	950	340	80	240	50	150	650	390	19
	15	160L	576	160	440	19	1035	420	420	1000	320	80	240	60	150	700	370	19
	18,5	160L	576	160	440	19	1035	420	420	1000	320	80	240	60	150	700	370	19

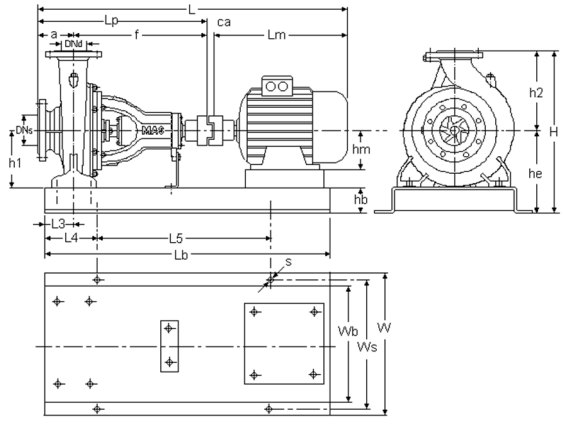
NM 32-250





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

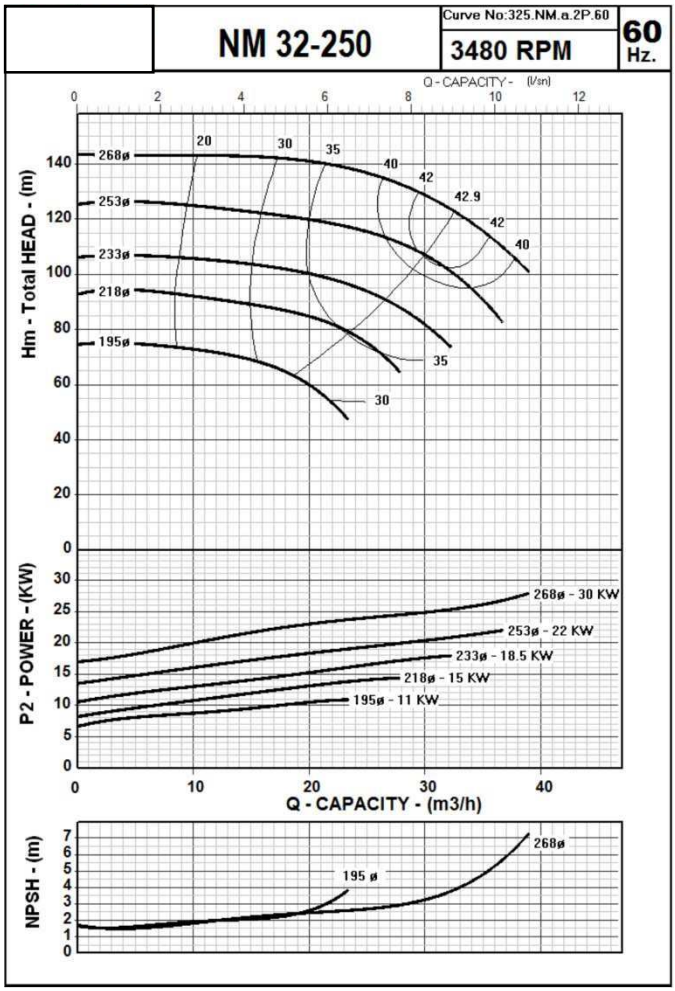




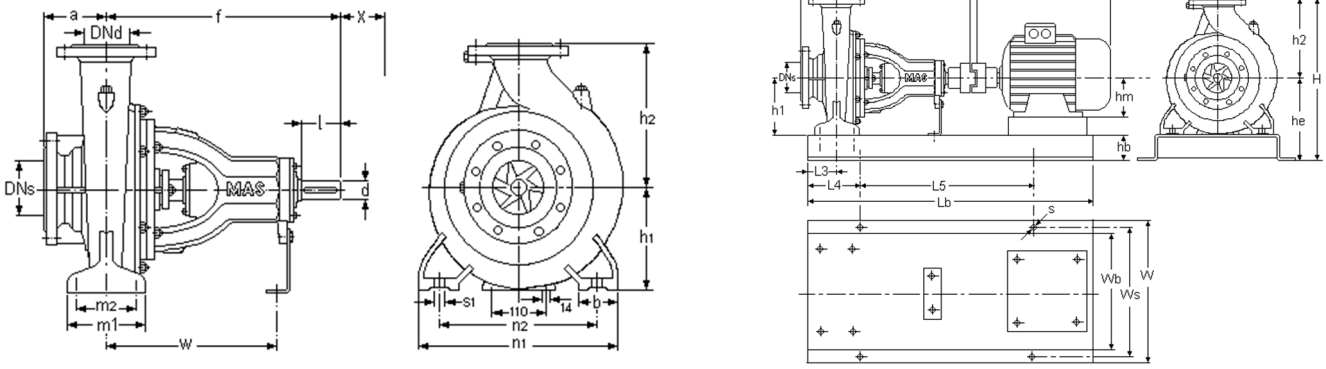
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
32–250	50	32	100	360	180	225	50	125	95	320	250	12	260	24	50	80	45

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
32–250 6 poles 60Hz	0,37	80	279	80	460	16	755	440	485	700	340	80	260	72	100	500	390	19
	0,55	80	279	80	460	16	755	440	485	700	340	80	260	72	100	500	390	19
	0,75	90S	309	90	460	16	785	440	485	750	340	80	260	72	100	500	390	19
	1,1	90L	334	90	460	16	810	440	485	750	340	80	260	72	100	500	390	19
32–250 4 poles 60Hz	1,5	90L	344,5	90	460	16	820,5	440	485	750	340	80	260	63	100	550	390	19
	2,2	100L	352	100	460	16	828	440	485	800	340	80	260	63	100	600	390	19
	3	100L	377	100	460	17	854	440	485	800	340	80	260	72	100	600	390	19
	4	112M	395,5	112	460	19	874,5	440	485	800	340	80	260	72	100	600	390	19

NM 32-250



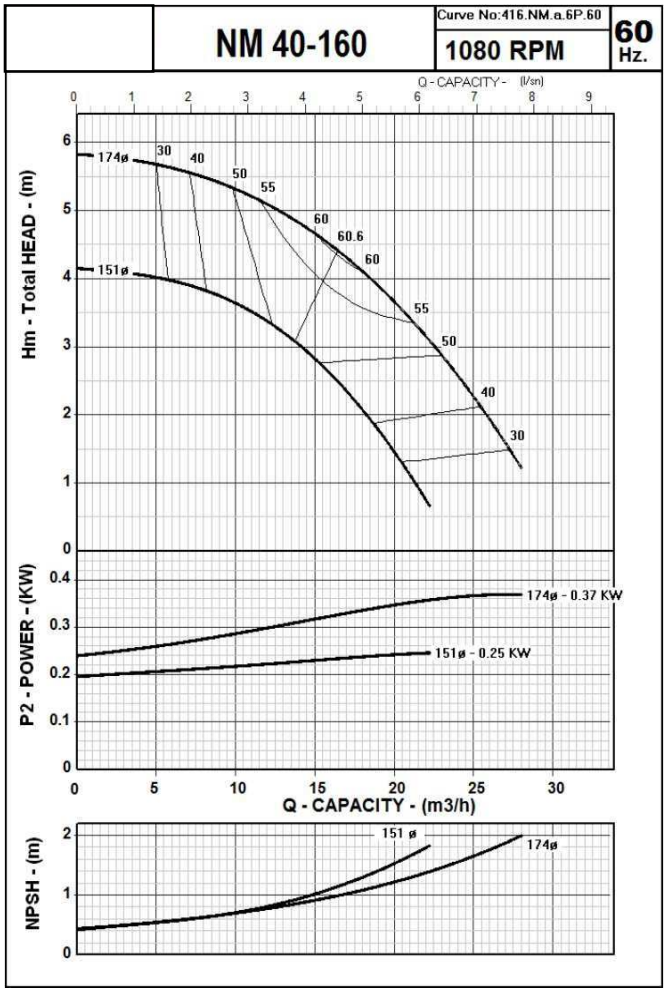
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

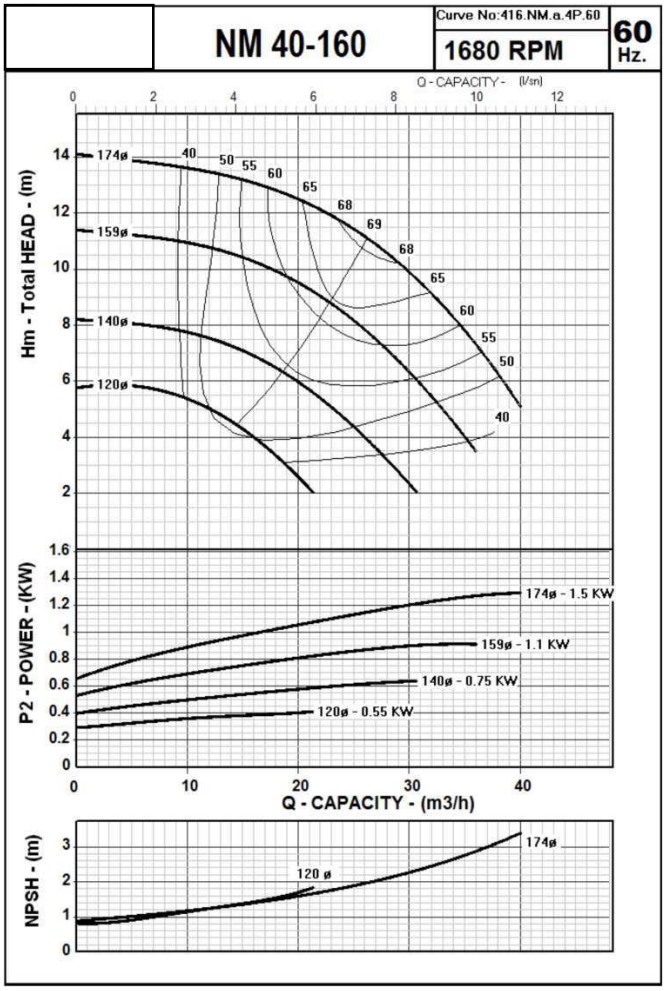


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
32–250	50	32	100	360	180	225	50	125	95	320	250	12	260	24	50	80	45

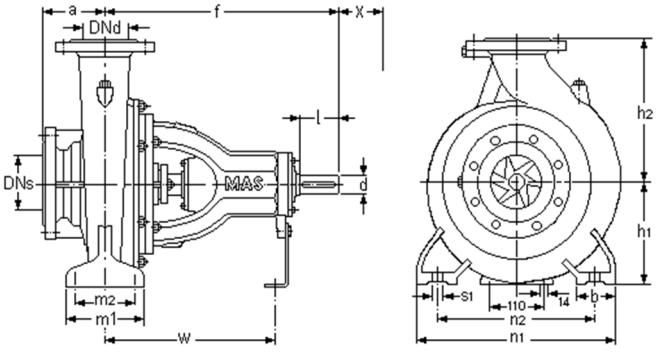
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
32–250 2 poles 60Hz	11	160L	576	160	460	19	1055	440	485	1000	340	80	260	63	150	700	390	19
	15	160L	576	160	460	19	1055	440	485	1000	340	80	260	63	150	700	390	19
	18,5	160L	576	160	460	19	1055	440	485	1050	340	80	260	63	150	750	390	19
	22	180M	629	180	460	27	1116	480	505	1050	380	100	280	72	150	750	430	19
	30	200L	665	200	460	27	1152	520	525	1100	420	100	300	72	150	800	470	19

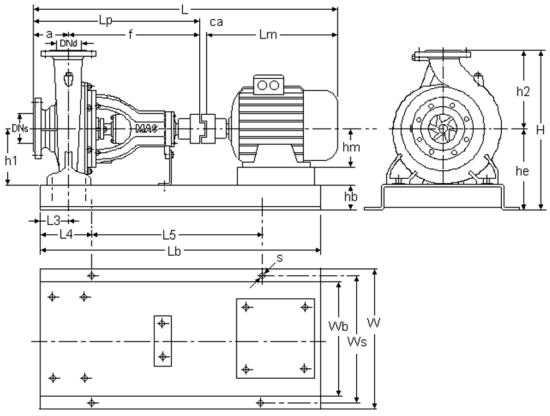
NM 40-160





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

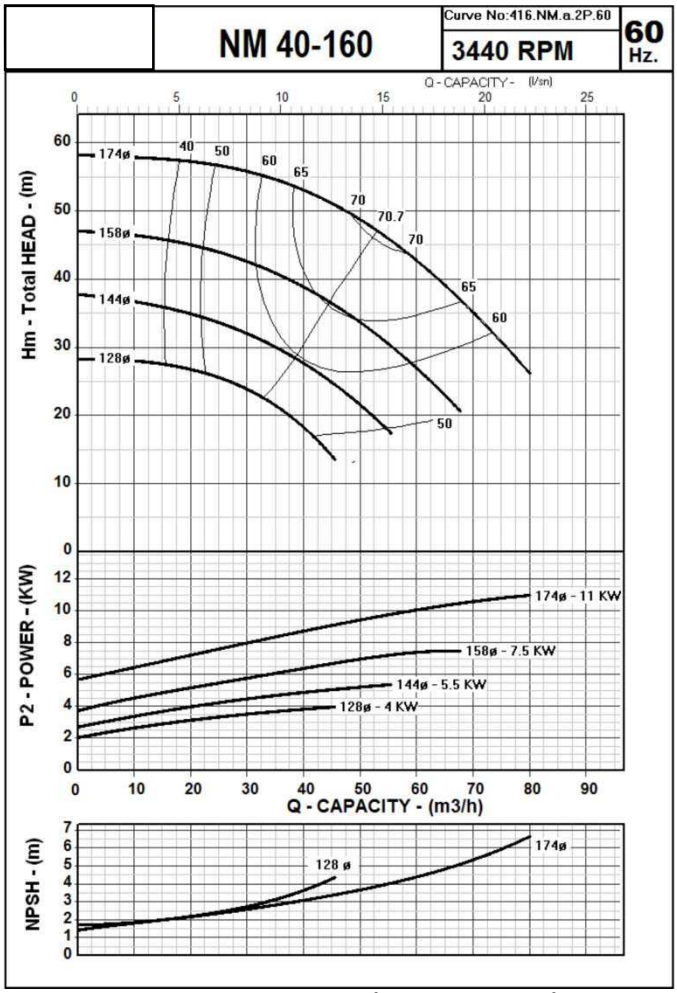




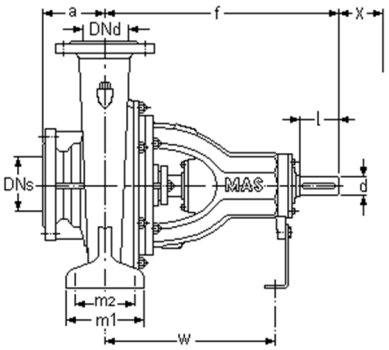
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
40-160	65	40	80	360	132	160	50	100	70	240	190	M12	260	24	50	75	38

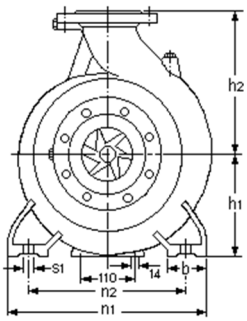
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
40–160 6 poles 60 Hz	0,25	71	249	71	440	16	705	360	357	700	260	65	197	60	100	500	310	19
	0,37	80	279	80	440	16	735	360	357	700	260	65	197	60	100	500	310	19
40–160 4 poles 60 Hz	0,55	80	279	80	440	16	735	360	357	700	260	65	197	50	100	500	310	19
	0,75	80M	283,5	80	440	16	739,5	360	357	700	260	65	197	50	100	500	310	19
	1,1	90L	316,5	90	440	16	772,5	360	357	750	260	65	197	60	100	550	310	19
	1,5	90L	344,5	90	440	16	800,5	360	357	750	260	65	197	60	100	550	310	19

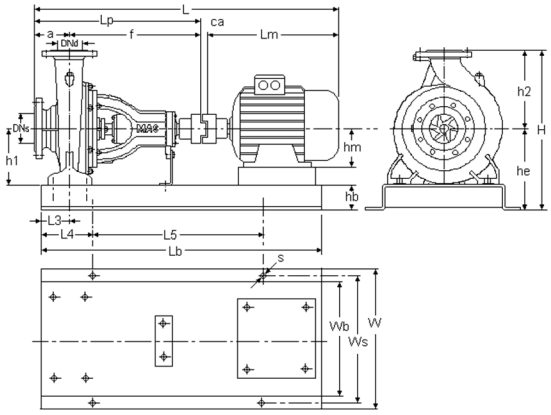
NM 40-160



The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



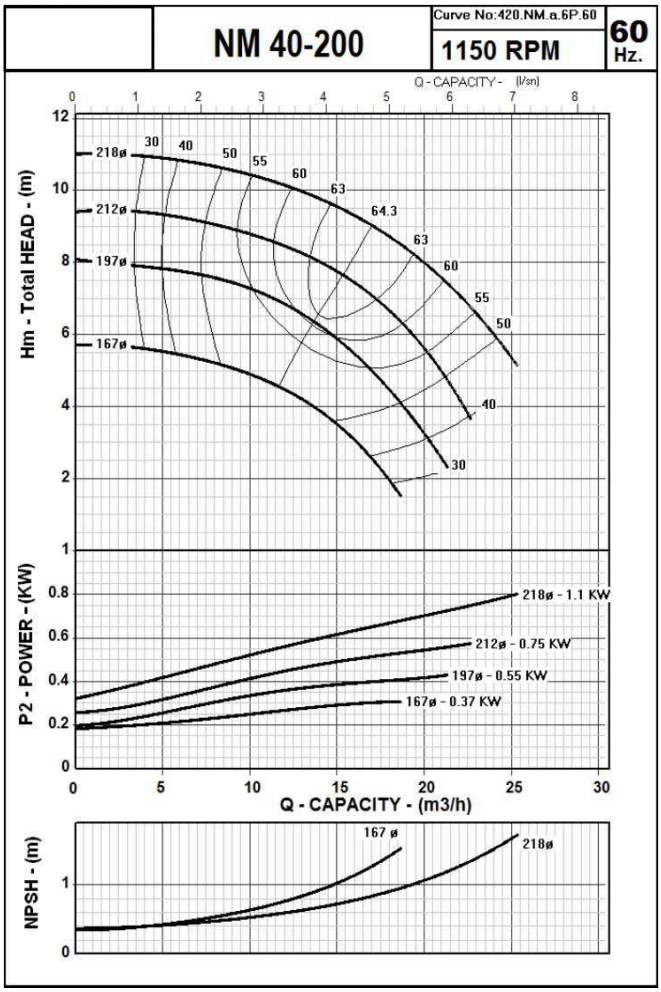


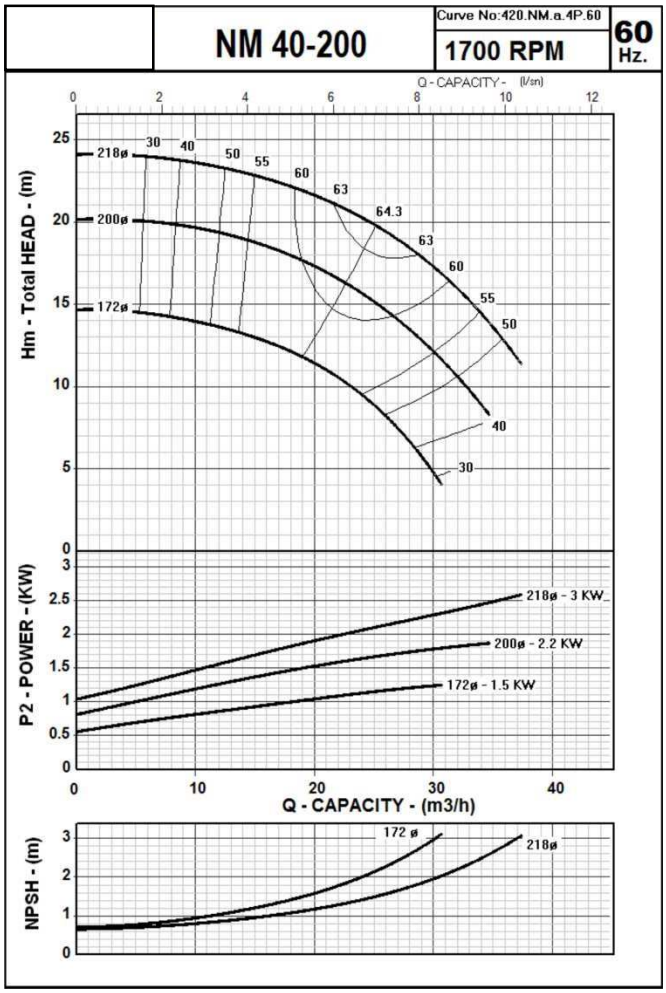


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
40-160	65	40	80	360	132	160	50	100	70	240	190	M12	260	24	50	75	38

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
40–160 2 poles 60 Hz	4	112M	395,5	112	440	17	852,5	360	357	800	260	65	197	50	100	600	310	19
	5,5	132S	440,5	132	440	19	899,5	380	357	850	280	65	197	50	150	550	330	19
	7,5	132M	475,5	132	440	19	934,5	380	357	850	280	65	197	50	150	550	330	19
	11	160L	576	160	440	19	1035	440	400	950	340	80	240	60	150	650	390	19

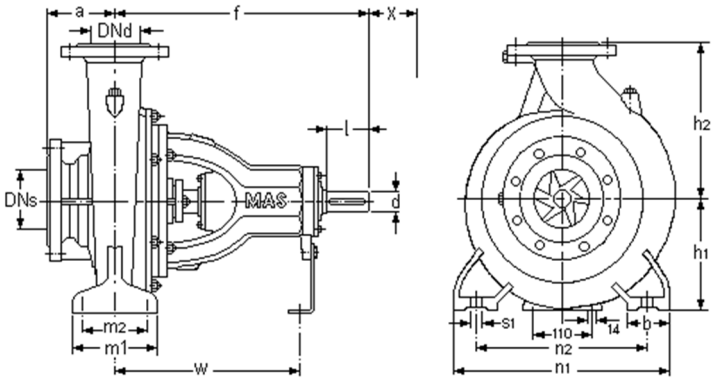
NM 40-200

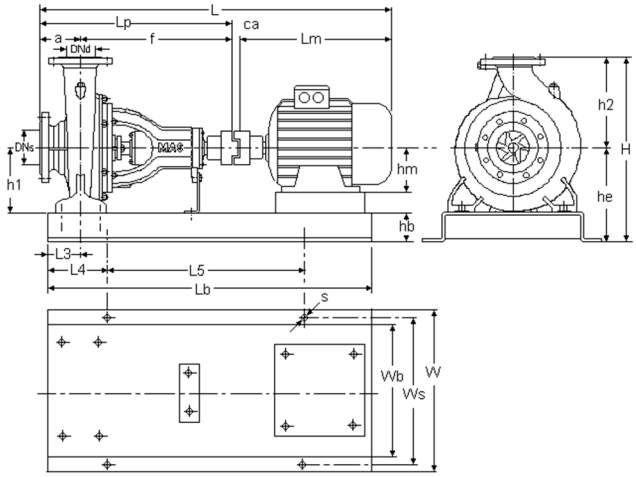




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

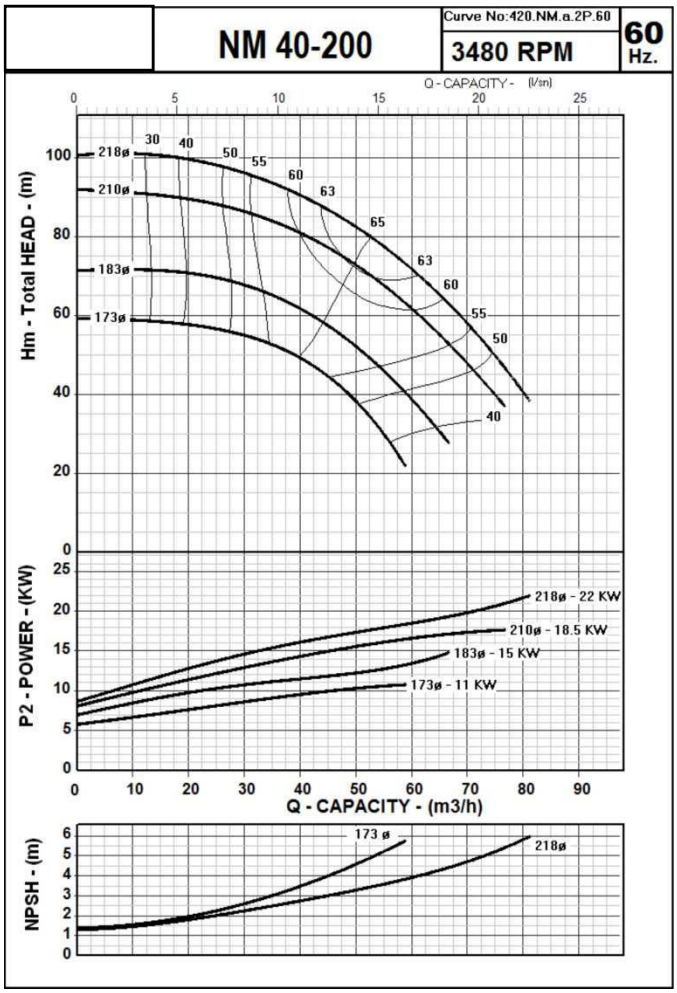
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
40–200	65	40	100	360	160	180	50	100	70	265	212	M12	260	24	50	75	44.5



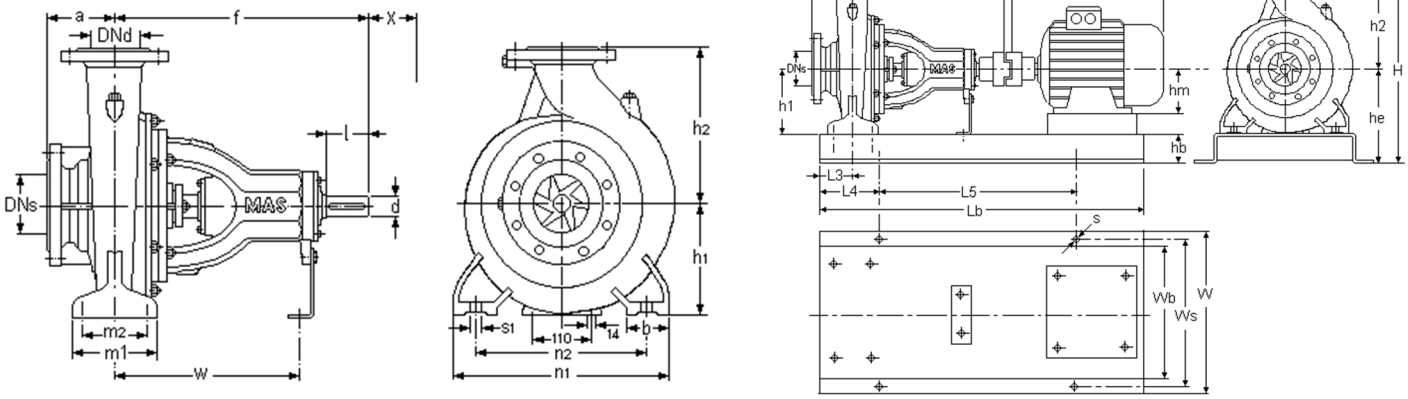


	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
40–200 6 poles 60 Hz	0,37	80	279	80	460	16	755	380	405	700	280	65	225	60	100	500	330	19
	0,55	80	279	80	460	16	755	380	405	700	280	65	225	60	100	500	330	19
	0,75	90S	309	90	460	16	785	380	405	750	280	65	225	60	100	550	330	19
	1,1	90L	334	90	460	16	810	380	405	750	280	65	225	60	100	550	330	19
40–200 4 poles 60 Hz	1,5	90L	344,5	90	460	16	820,5	380	405	750	280	65	225	50	100	550	330	19
	2,2	100L	352	100	460	17	829	380	405	800	280	65	225	60	100	600	330	19
	3	100L	377	100	460	17	854	380	405	800	280	65	225	60	100	600	330	19

NM 40-200



The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
40–200	65	40	100	360	160	180	50	100	70	265	212	M12	260	24	50	75	44.5

	MOTOR	PUMP	GENERAL	BASEPLATE

	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
40–200 2 poles 60 Hz	11	160L	576	160	460	19	1055	440	420	950	340	80	240	50	150	650	390	19
	15	160L	576	160	460	19	1055	440	420	1000	340	80	240	50	150	700	390	19
	18,5	160L	576	160	460	19	1055	420	420	1000	320	80	240	60	150	700	370	19
	22	180M	629	180	460	27	1116	480	460	1000	380	100	280	60	150	700	430	19

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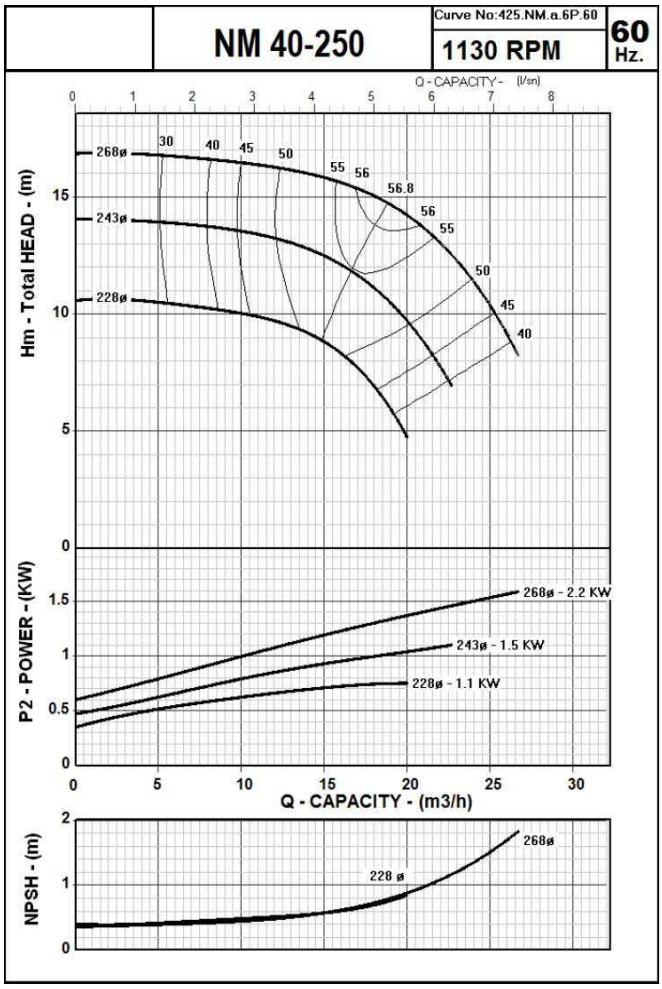
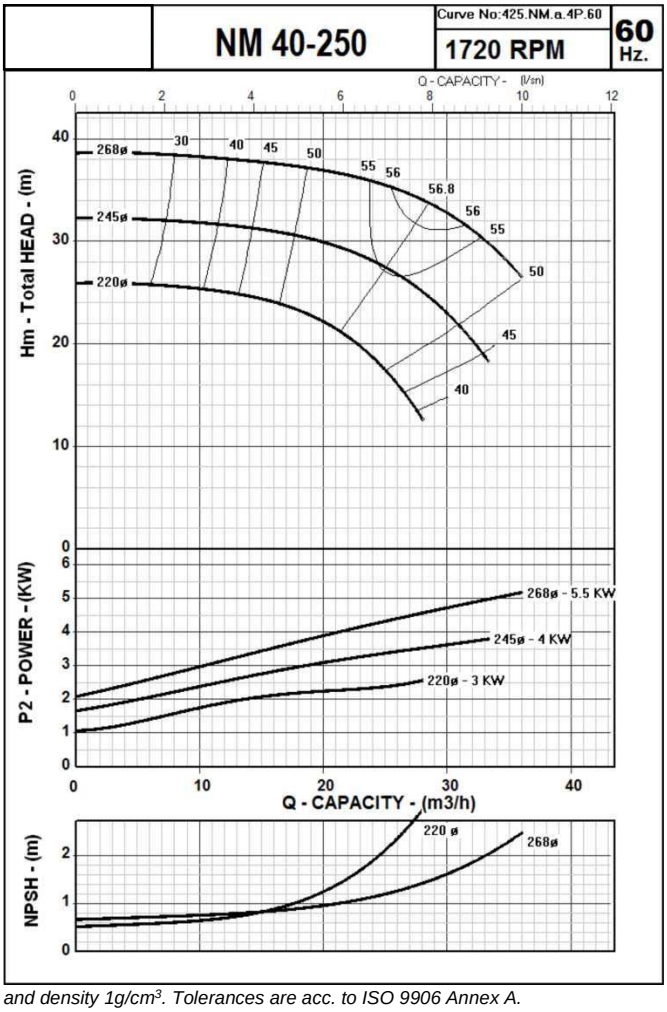
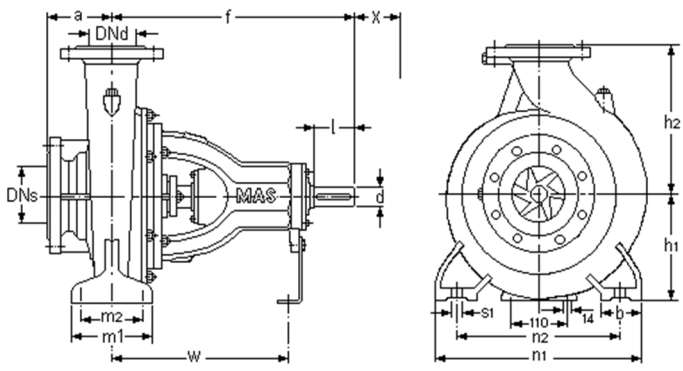
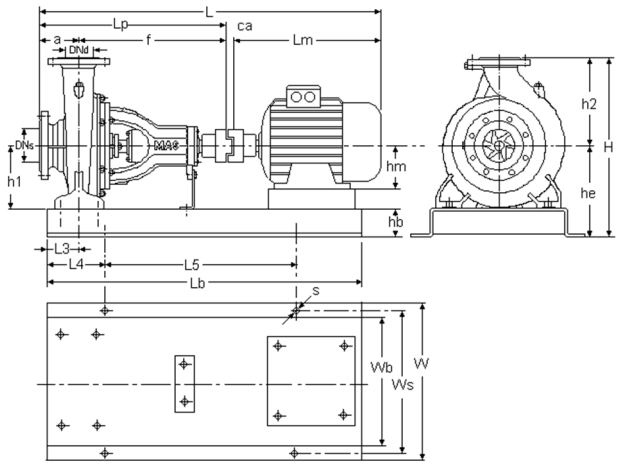
NM 40-250





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.





Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
40–250	65	40	100	360	180	225	65	125	95	320	250	M12	260	24	50	75	54

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
40–250 6 poles 60 Hz	1,1	90L	334	90	460	17	811	440	485	750	340	80	260	72	100	550	390	19
	1,5	100L	376	100	460	17	853	440	485	800	340	80	260	72	100	600	390	19
	2,2	112M	396	112	460	17	873	440	485	800	340	80	260	72	100	600	390	19
40–250 4 poles 60 Hz	3	100L	377	100	460	17	854	440	485	800	340	80	260	63	100	600	390	19
	4	112M	395,5	112	460	19	874,5	440	485	800	340	80	260	72	100	600	390	19
	5,5	132M	475,5	132	460	19	954,5	440	485	850	340	80	260	72	150	550	390	19

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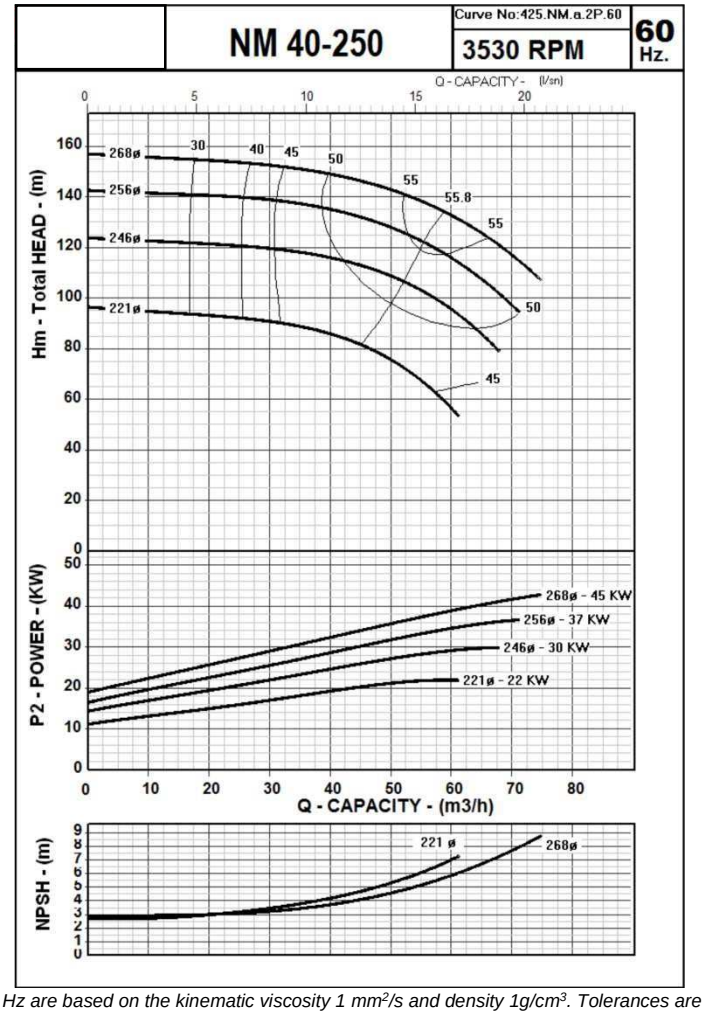
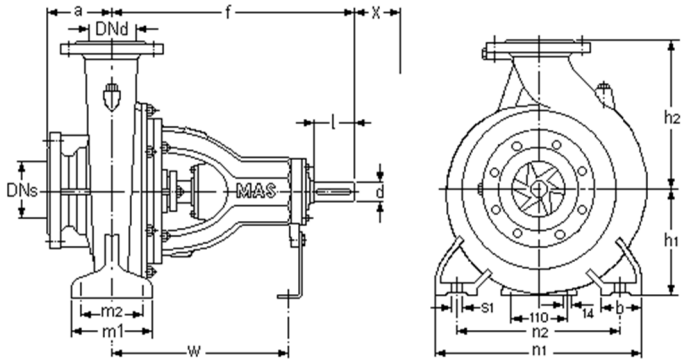
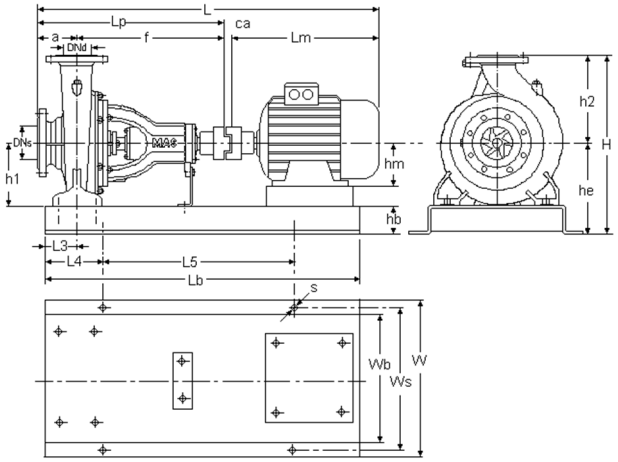
NM 40-250



The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

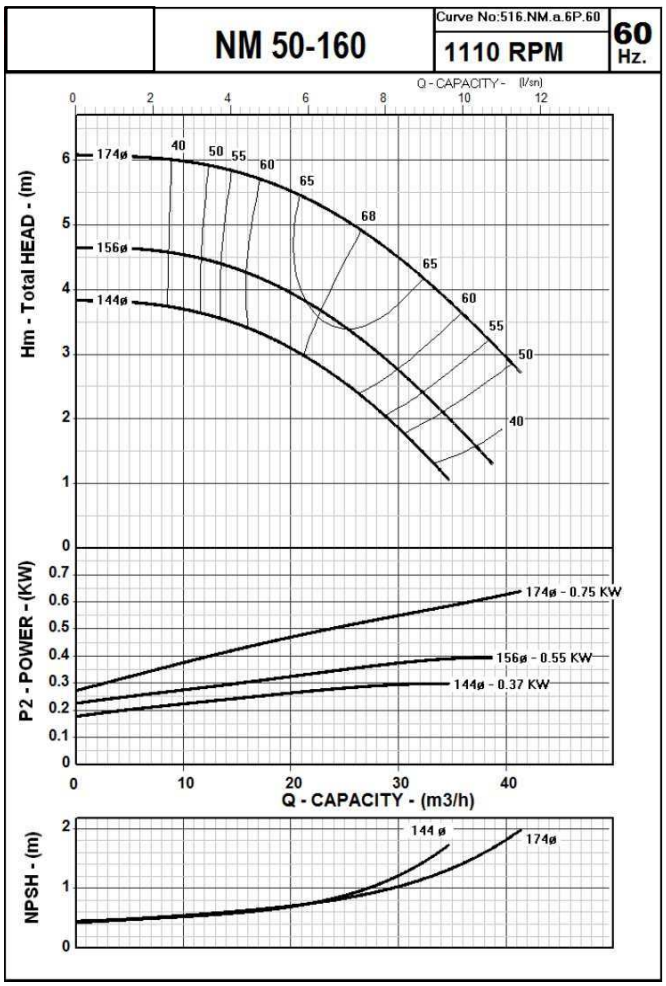


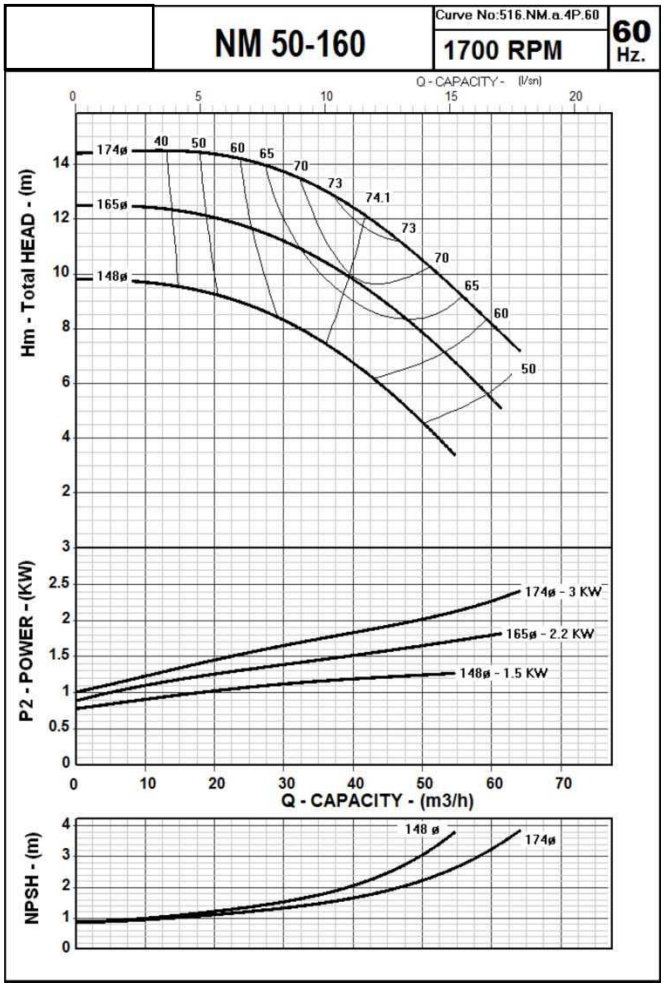


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
40–250	65	40	100	360	180	225	65	125	95	320	250	M12	260	24	50	75	54

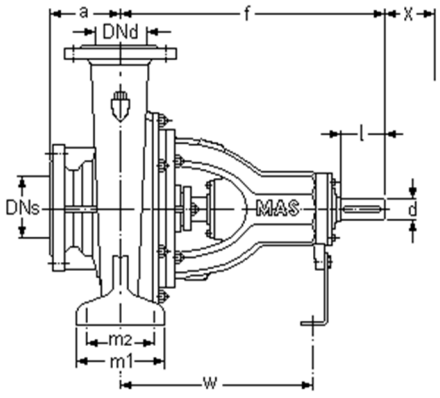
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
40–250 2 poles 60 Hz	22	180M	629	180	460	27	1116	480	505	1050	380	100	280	63	150	750	430	19
	30	200L	665	200	460	27	1152	520	525	1100	420	100	300	63	150	800	470	19
	37	200L	665	200	460	27	1152	520	525	1100	420	100	300	72	150	800	470	19
	45	225M	735	225	460	32	1227	600	570	1150	480	120	345	72	150	850	540	24

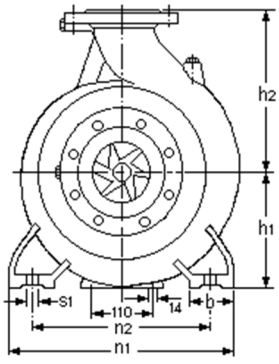
NM 50-160

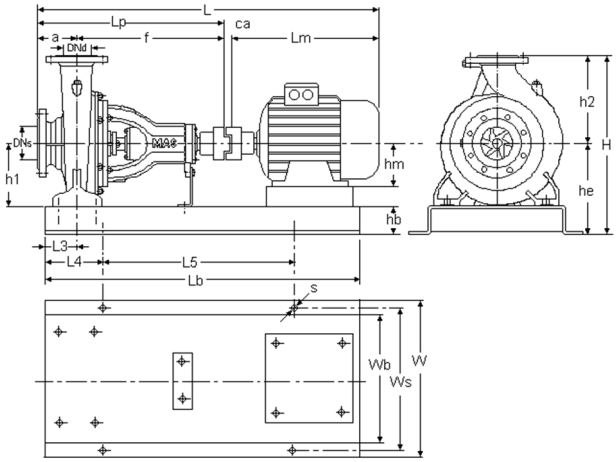




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



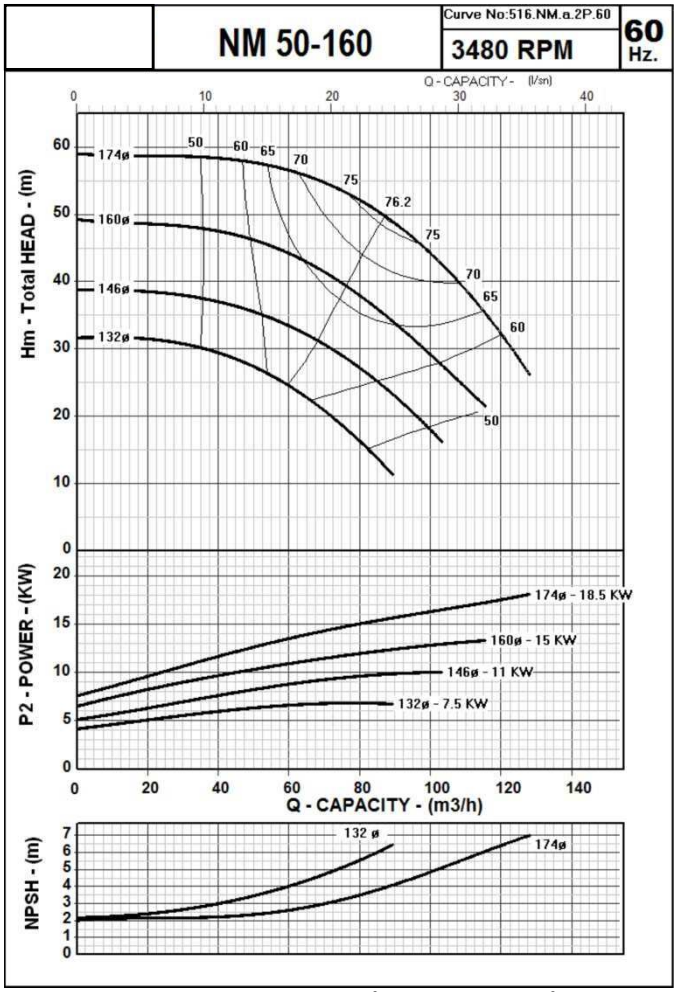




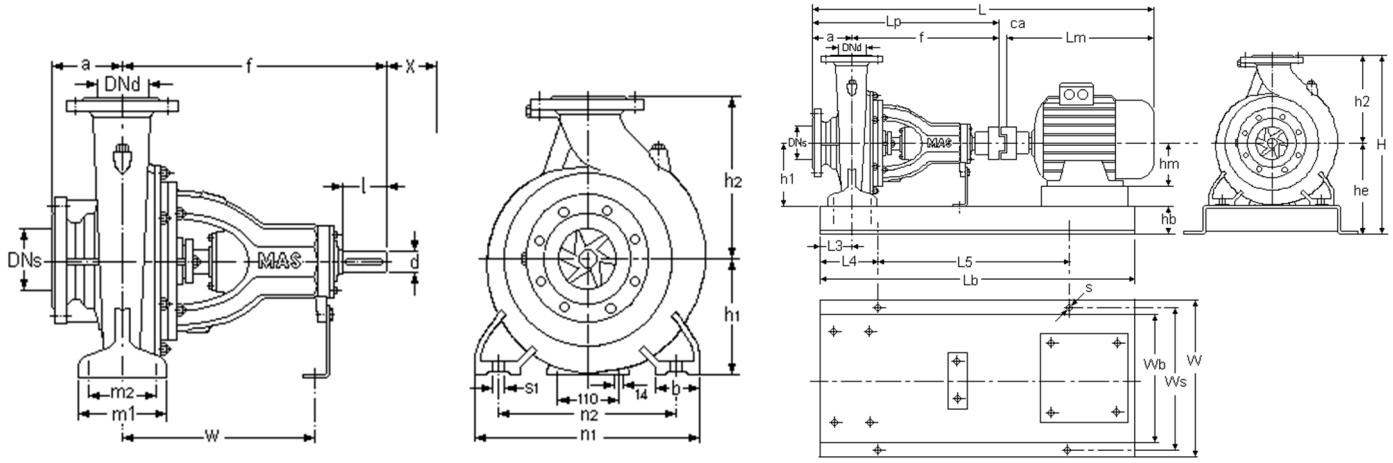
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–160	65	50	100	360	160	180	50	100	70	265	212	M12	260	24	50	80	41.5

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–160 6 poles 60 Hz	0,37	80	279	80	460	16	755	380	405	700	280	65	225	60	100	500	330	19
	0,55	80	279	80	460	16	755	380	405	700	280	65	225	60	100	500	330	19
	0,75	90S	309	90	460	16	785	380	405	750	280	65	225	60	100	550	330	19
50–160 4 poles 60 Hz	1,5	90L	344,5	90	460	16	820,5	380	405	750	280	65	225	50	100	550	330	19
	2,2	100L	352	100	460	17	829	380	405	800	280	65	225	60	100	600	330	19
	3	100L	377	100	460	17	854	380	405	800	280	65	225	60	100	600	330	19

NM 50-160



The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–160	65	50	100	360	160	180	50	100	70	265	212	M12	260	24	50	80	41.5

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–160 2 poles 60 Hz	7,5	132M	475,5	132	460	19	954,5	380	405	850	280	65	225	60	150	550	330	19
	11	160L	576	160	460	19	1055	440	420	950	340	80	240	50	150	650	390	19
	15	160L	576	160	460	19	1055	420	420	1000	320	80	240	60	150	700	370	19
	18,5	160L	576	160	460	19	1055	420	420	1000	320	80	240	60	150	700	370	19

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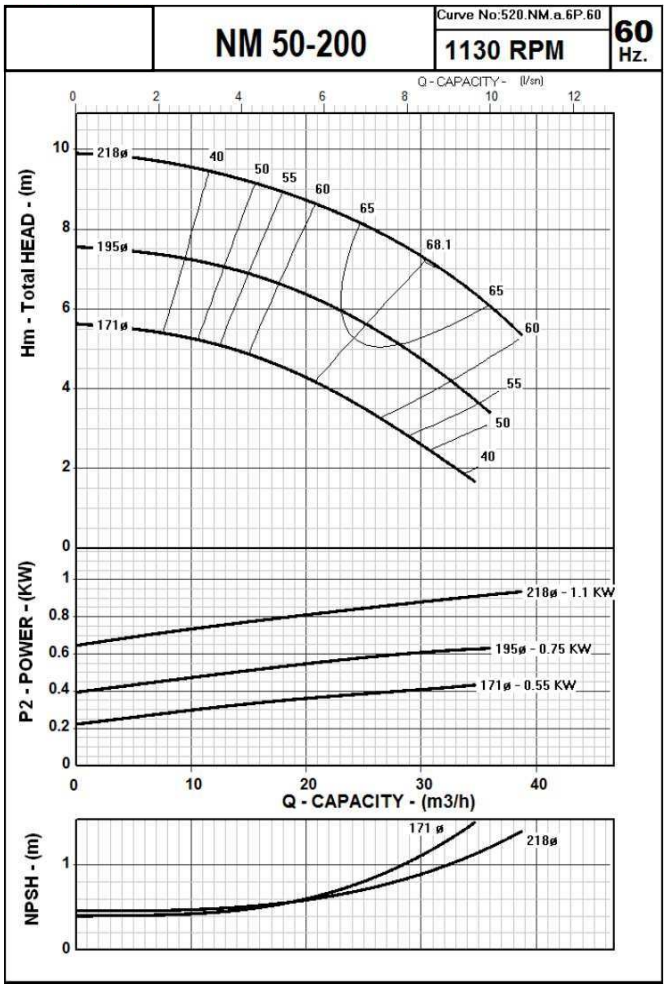
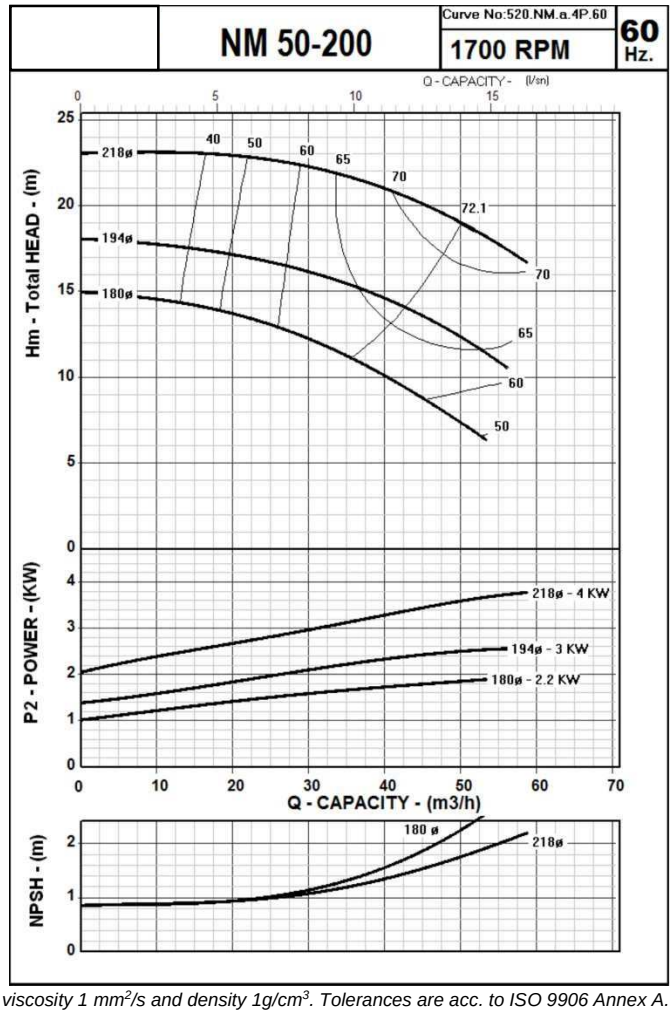
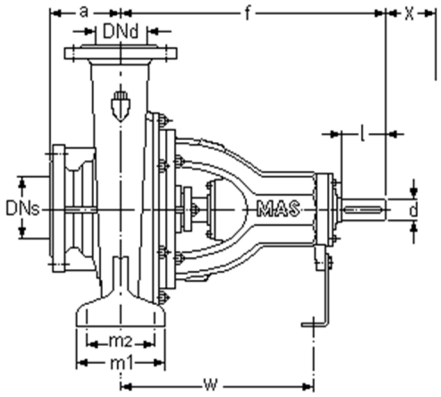
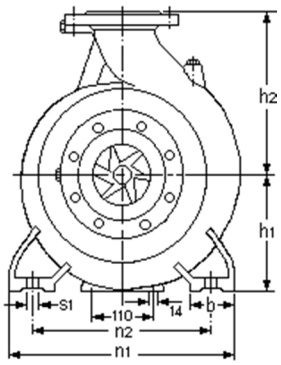
NM 50-200

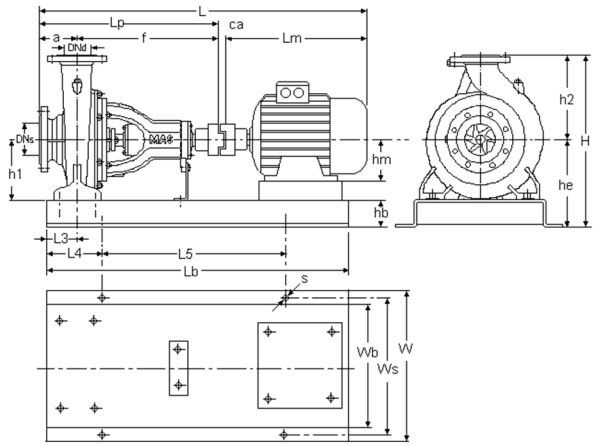




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.





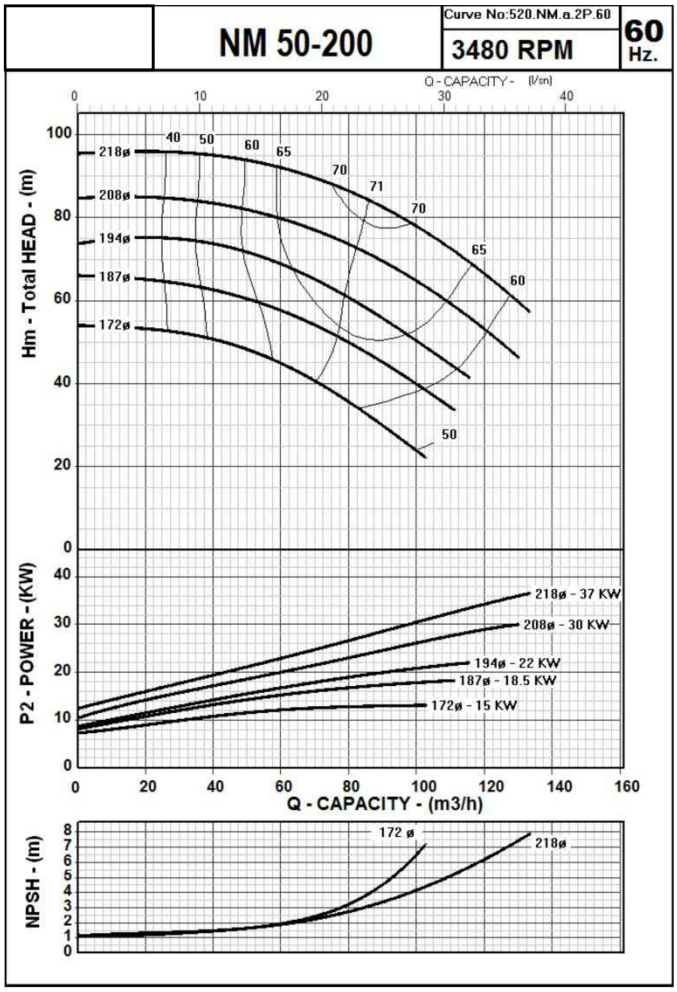


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–200	65	50	100	360	160	200	50	100	70	265	212	M12	260	24	50	85	46.5

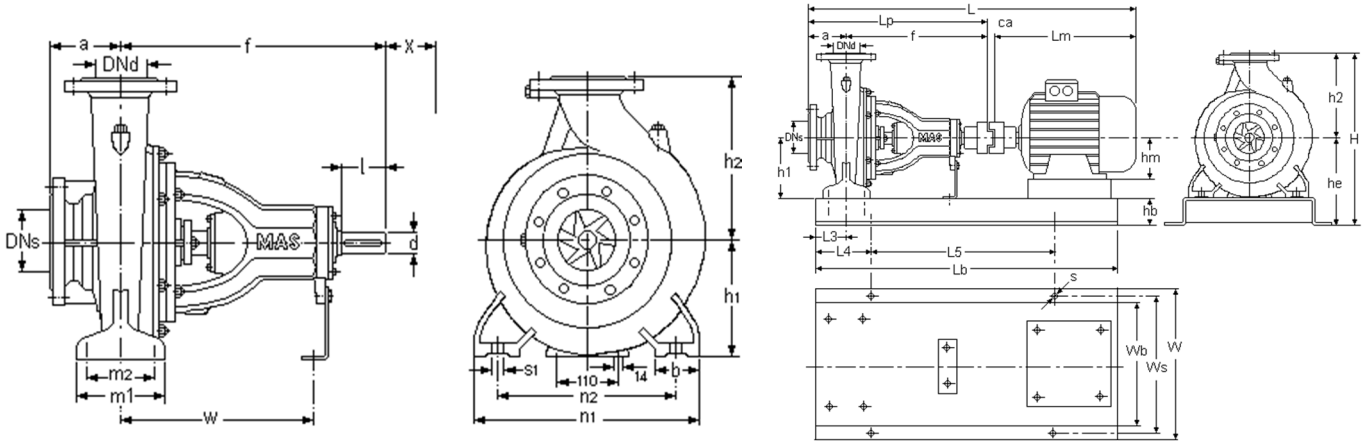
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–200	0,55	80	279	80	460	17	756	380	425	700	280	65	225	60	100	500	330	19

6 poles 60 Hz	0,75	90S	309	90	460	17	786	380	425	750	280	65	225	60	100	550	330	19
	1,1	90L	334	90	460	17	811	380	425	750	280	65	225	60	100	550	330	19
50–200 4 poles 60 Hz	2,2	100L	352	100	460	17	829	380	425	800	280	65	225	50	100	600	330	19
	3	100L	377	100	460	17	854	380	425	800	280	65	225	60	100	600	330	19
	4	112M	395,5	112	460	19	874,5	380	425	800	280	65	225	60	100	600	330	19

NM 50-200



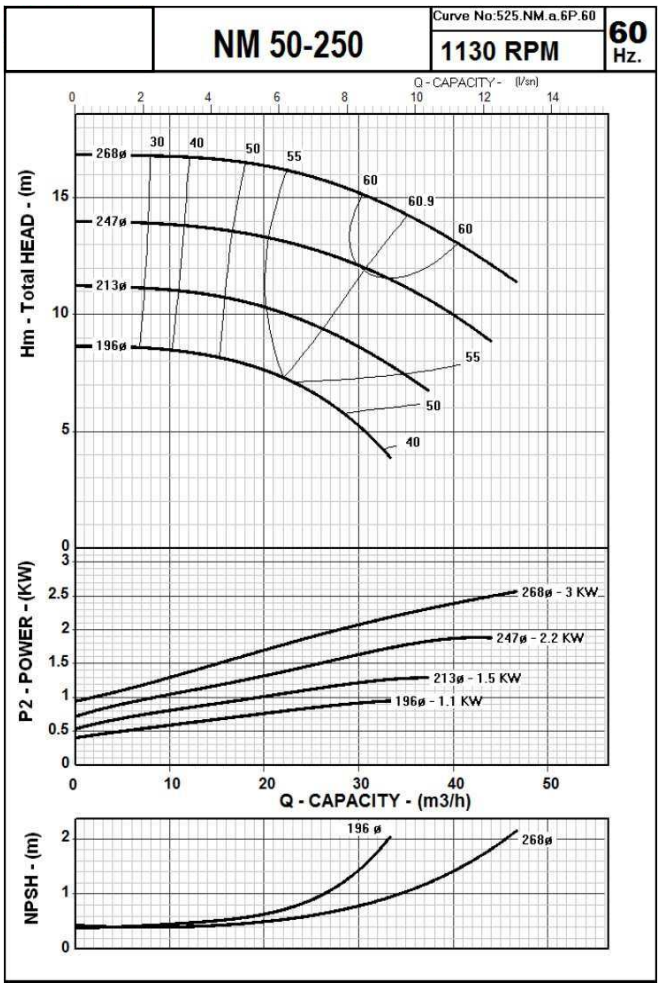
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

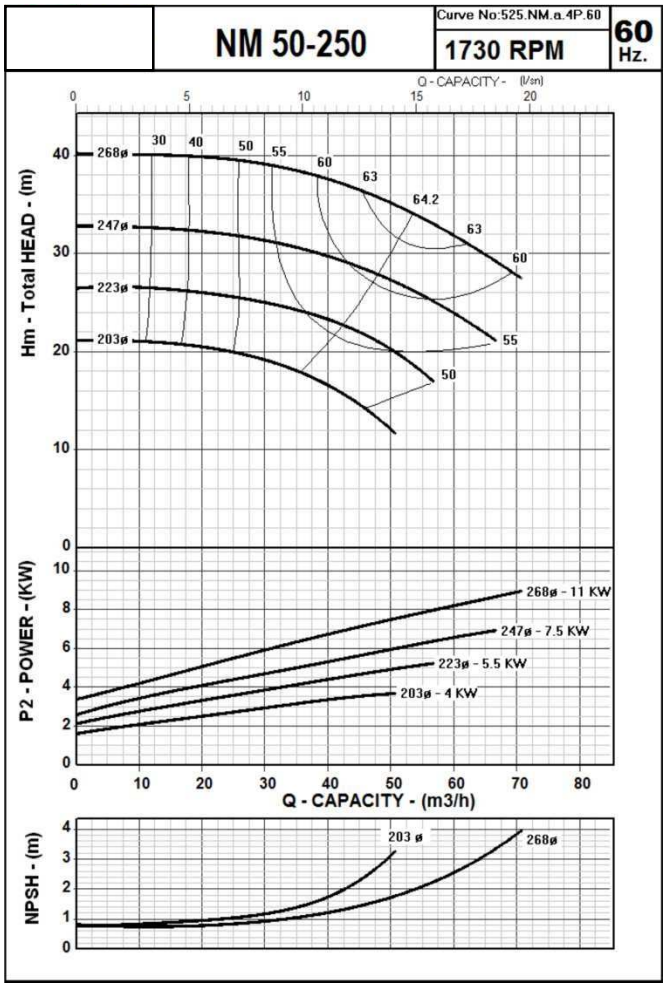


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–200	65	50	100	360	160	200	50	100	70	265	212	M12	260	24	50	85	46.5

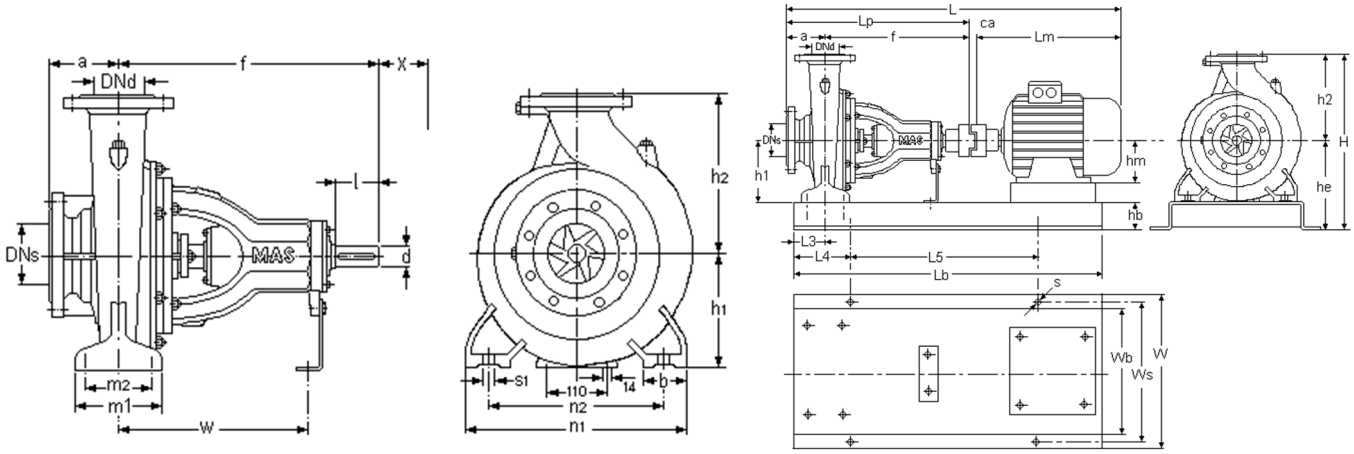
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–200 2 poles 60 Hz	15	160L	576	160	460	19	1055	440	440	1000	340	80	240	50	150	700	390	19
	18,5	160L	576	160	460	19	1055	440	440	1000	340	80	240	50	150	700	390	19
	22	180M	629	180	460	27	1116	480	480	1000	380	100	280	50	150	700	430	19
	30	200L	665	200	460	27	1152	520	500	1100	420	100	300	60	150	800	470	19
	37	200L	665	200	460	27	1152	520	500	1100	420	100	300	60	150	800	470	19

NM 50-250





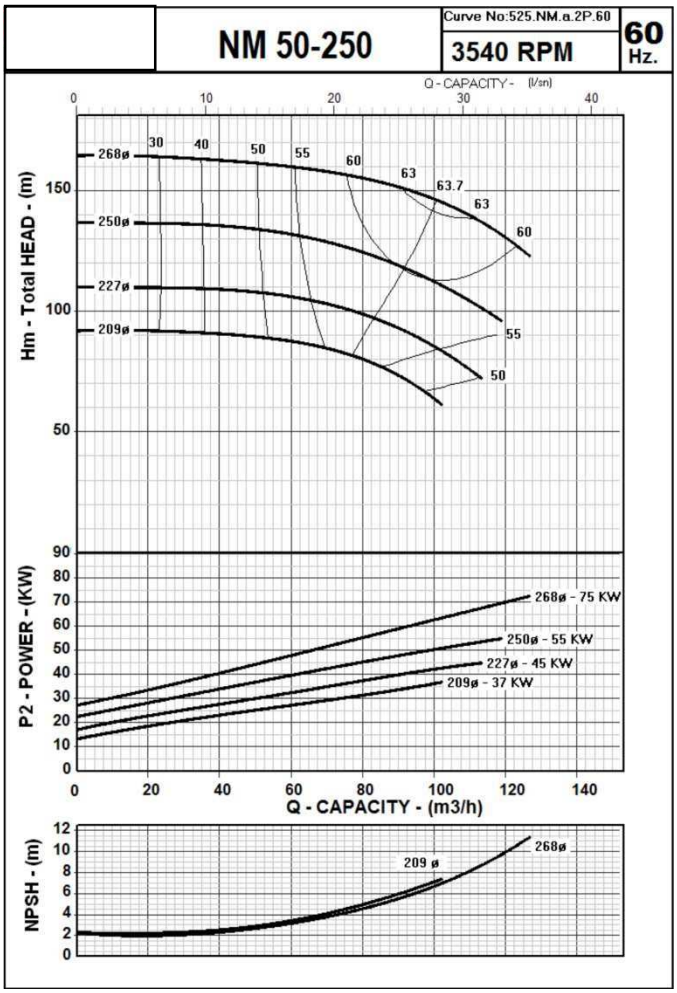
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.



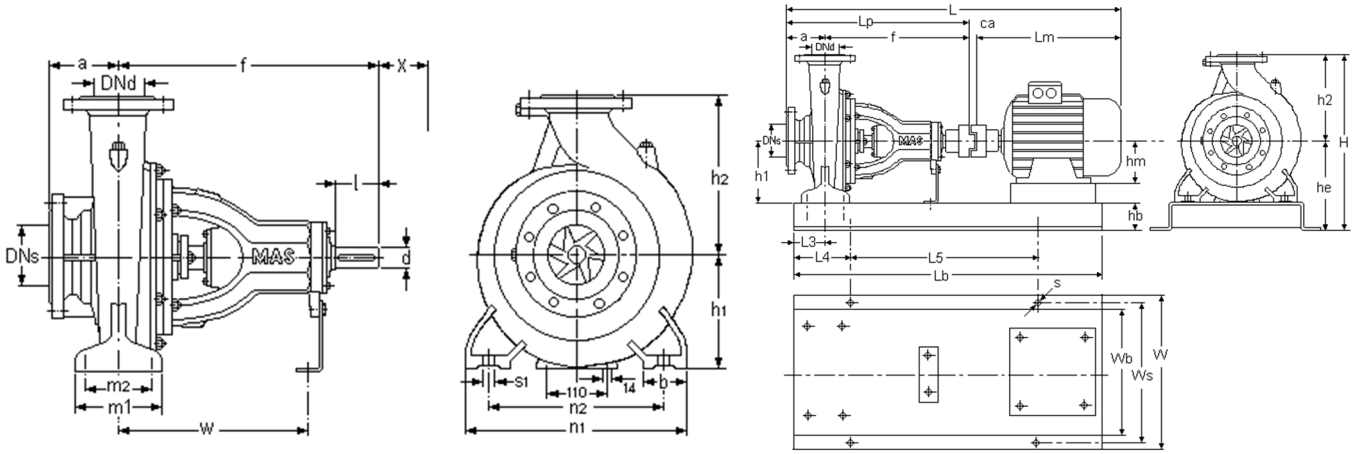
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–250	65	50	100	360	180	225	65	125	95	320	250	M12	260	24	50	85	54.5

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–250 6 poles 60 Hz	1,1	90L	334	90	460	19	813	520	505	750	420	100	280	72	100	550	470	19
	2,2	112M	396	112	460	19	875	520	505	800	420	100	280	72	100	600	470	19
	3	132S	498	132	460	19	977	520	505	850	420	100	280	72	150	550	470	19
	4	132M	498	132	460	19	977	440	485	850	340	80	260	63	150	550	390	19
50–250 4 poles 60 Hz	4	112M	395,5	112	460	19	874,5	440	485	800	340	80	260	63	100	600	390	19
	5,5	132M	475,5	132	460	19	954,5	440	485	850	340	80	260	63	150	550	390	19
	7,5	132M	475,5	132	460	19	954,5	520	505	900	420	100	280	72	150	600	470	19
	11	160L	576	160	460	19	1055	520	505	1000	420	100	280	72	150	700	470	19

NM 50-250



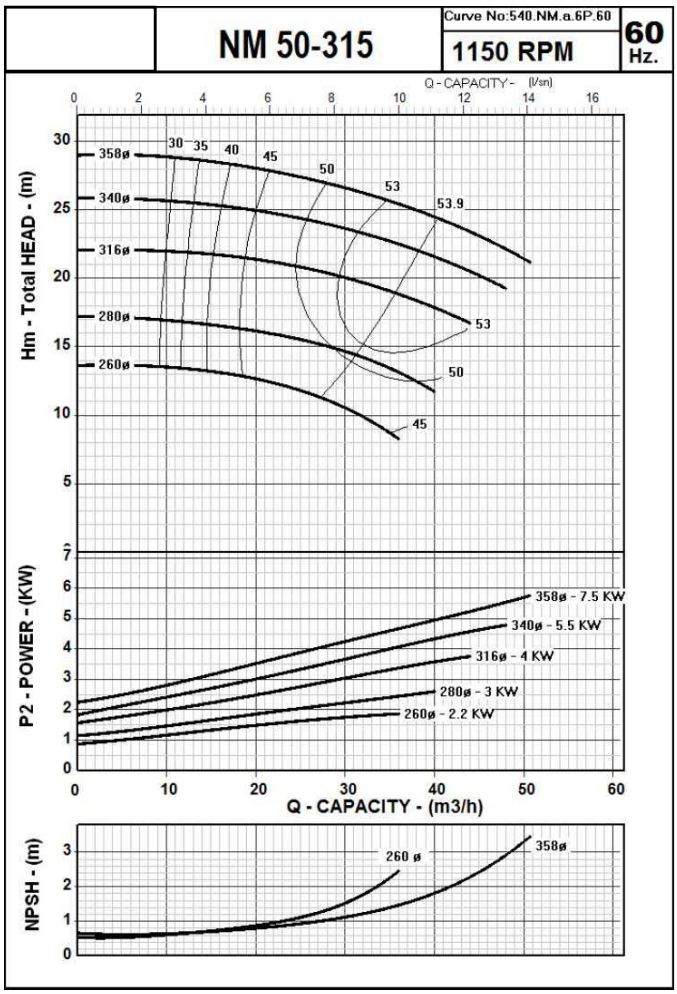
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

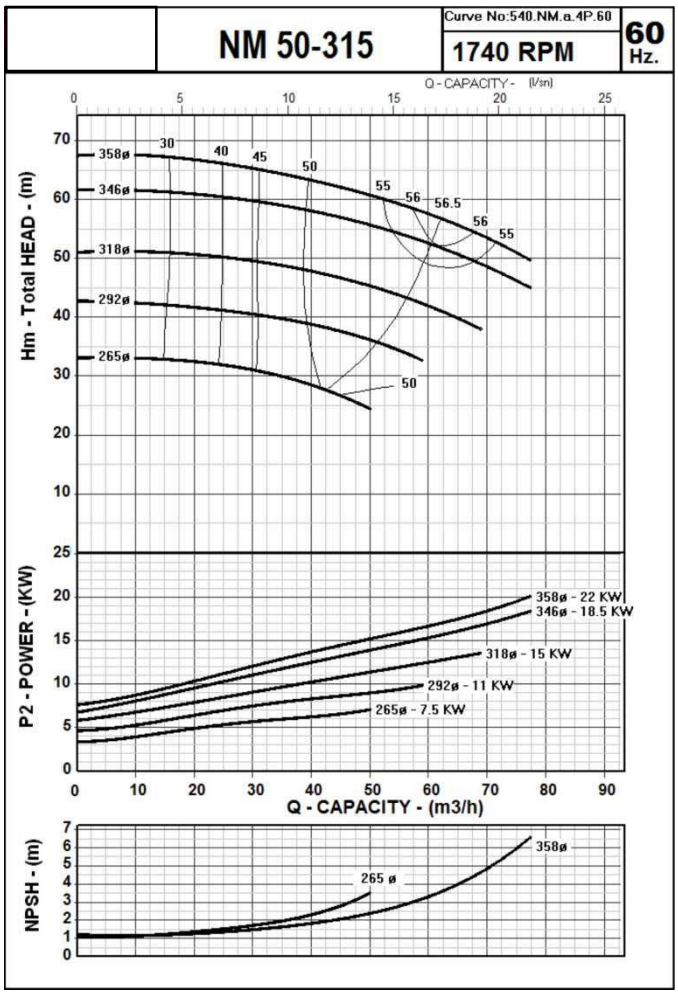


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–250	65	50	100	360	180	225	65	125	95	320	250	M12	260	24	50	85	54.5

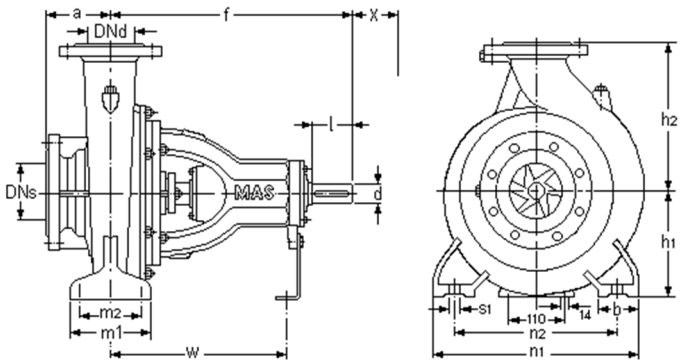
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–250 2 poles 60 Hz	37	200L	665	200	460	27	1152	520	525	1150	420	100	300	63	150	800	470	19
	45	225M	735	225	460	32	1227	550	550	1150	450	100	325	63	150	850	500	19
	55	250M	886	250	460	32	1378	520	575	1250	420	100	350	72	200	850	470	19
	75	280S	958	280	460	34	1452	520	605	1300	420	100	380	72	200	900	470	19

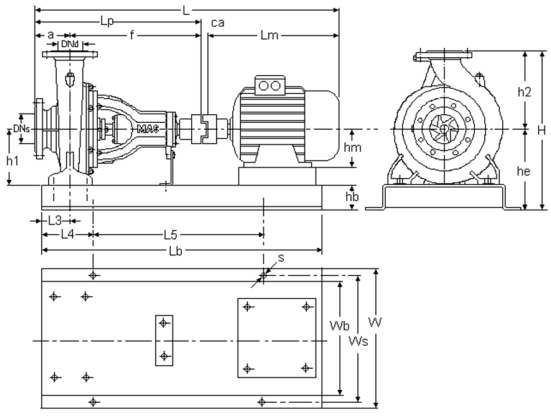
NM 50-315





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

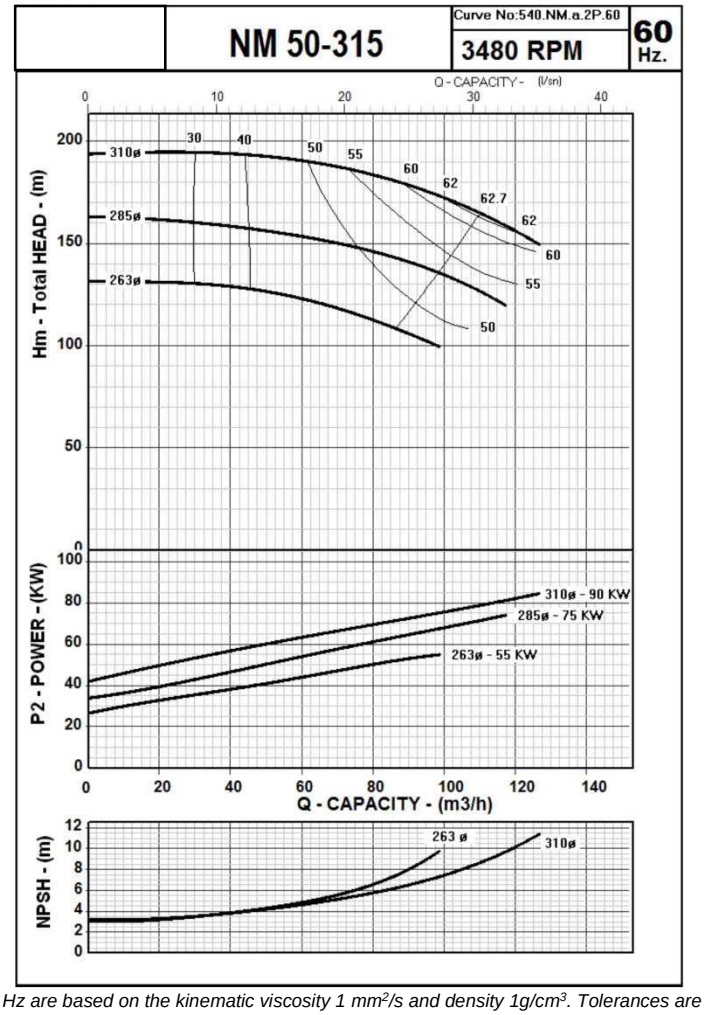




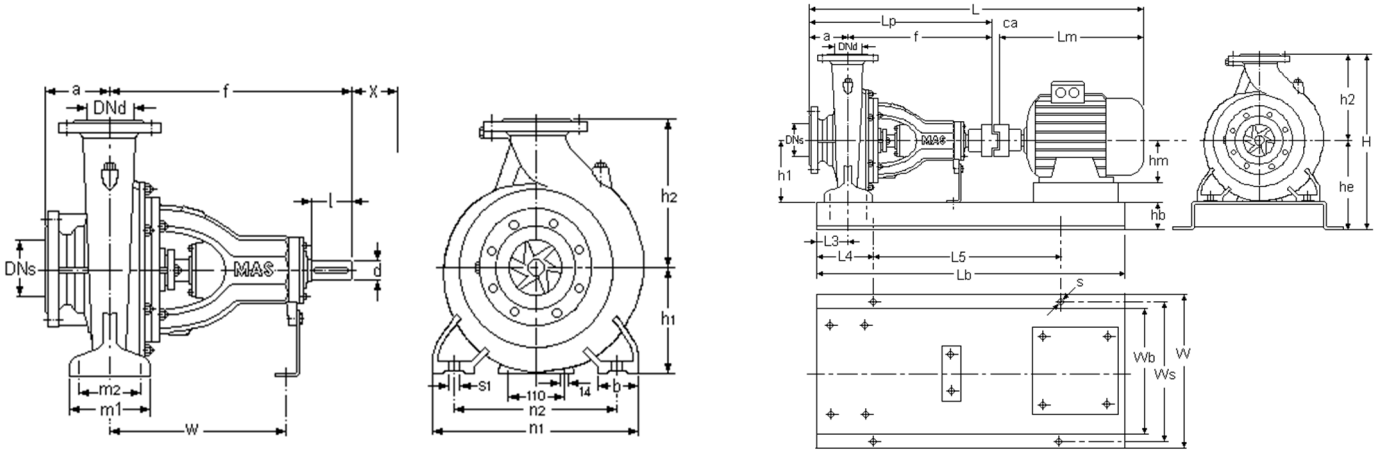
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–315	80	50	100	470	225	280	80	160	120	360	280	M16	330	32	80	100	103

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–315 6 poles 60 Hz	2,2	112M	396	112	570	19	985	480	605	950	380	100	325	90	150	650	430	19
	3	132S	498	132	570	19	1087	480	605	1000	380	100	325	90	150	700	430	19
	4	132M	498	132	570	19	1087	480	605	1050	380	100	325	90	150	750	430	19
	5,5	132M	498	132	570	19	1087	480	605	1050	380	100	325	90	150	750	430	19
	7,5	160M	600	160	570	19	1189	480	605	1150	380	100	325	90	150	850	430	19
50–315 4 poles 60 Hz	7,5	132M	475,5	132	570	19	1064,5	480	605	1050	380	100	325	80	150	750	430	19
	11	160L	576	160	570	19	1165	480	605	1100	380	100	325	80	150	800	430	19
	15	160L	576	160	570	27	1173	480	605	1150	380	100	325	90	150	850	430	19
	18,5	180M	629	180	570	27	1226	480	605	1150	380	100	325	90	150	850	430	19
	22	180L	629	180	570	27	1226	480	605	1200	380	100	325	90	150	900	430	19

NM 50-315



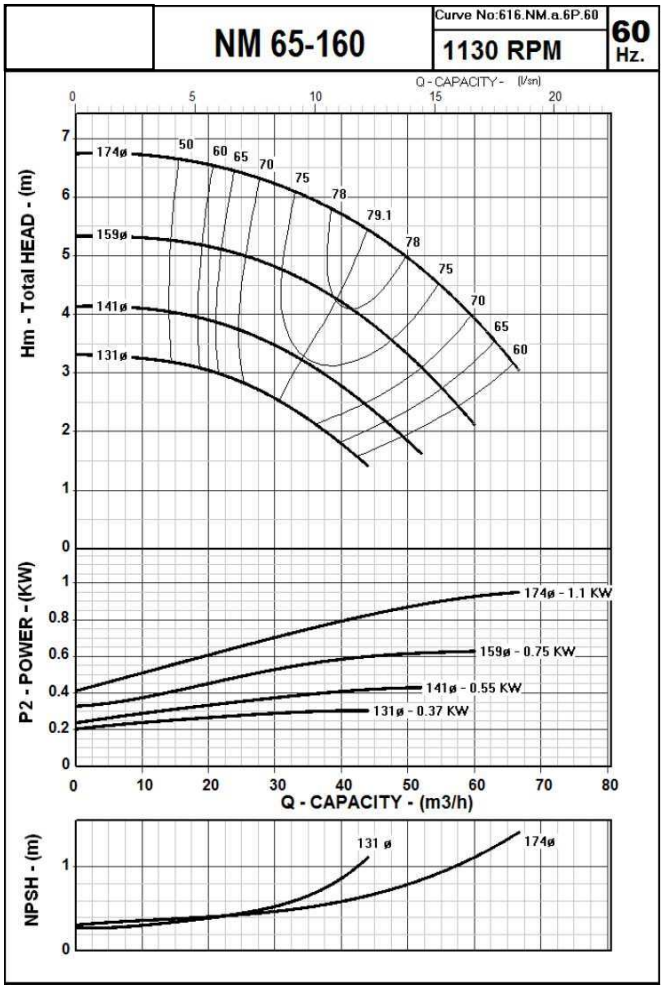
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

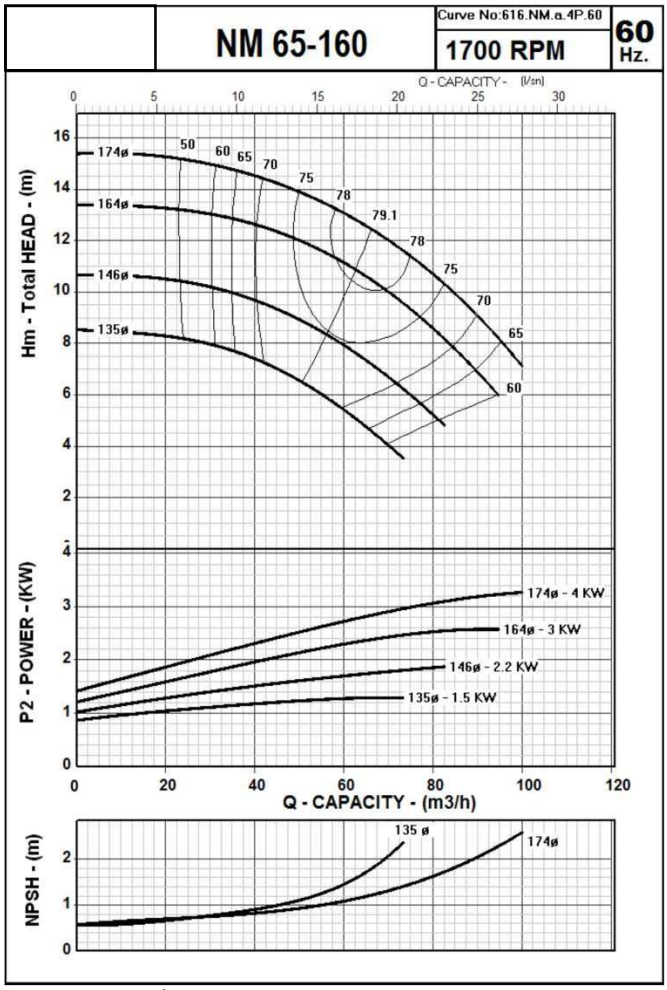


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
50–315	80	50	100	470	225	280	80	160	120	360	280	M16	330	32	80	100	103

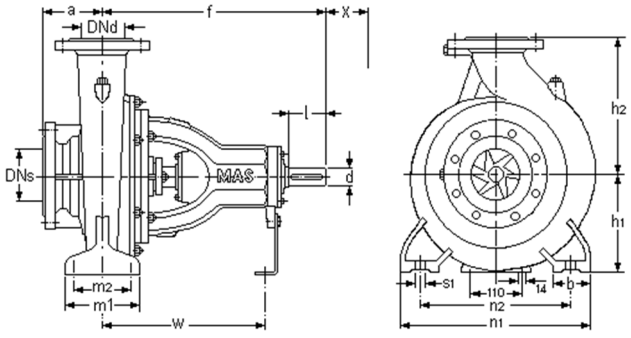
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
50–315 2 poles 60 Hz	55	250M	886	250	570	27	1483	620	650	1370	500	120	370	80	200	950	560	24
	75	280S	958	280	570	32	1560	720	700	1450	600	140	420	80	200	1050	660	24
	90	280M	958	280	570	34	1562	720	700	1450	600	140	420	80	200	1050	660	24

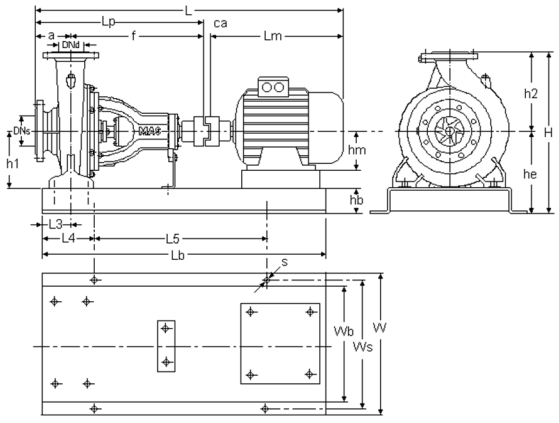
NM 65-160





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



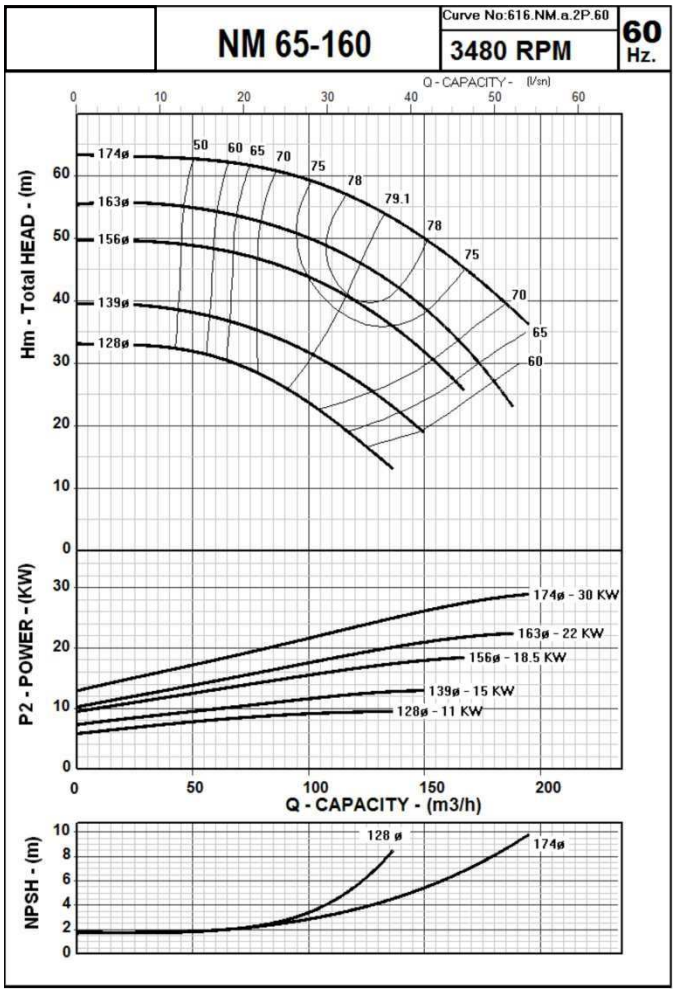


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–160	80	65	100	360	160	200	65	125	95	280	212	M12	260	24	50	100	44

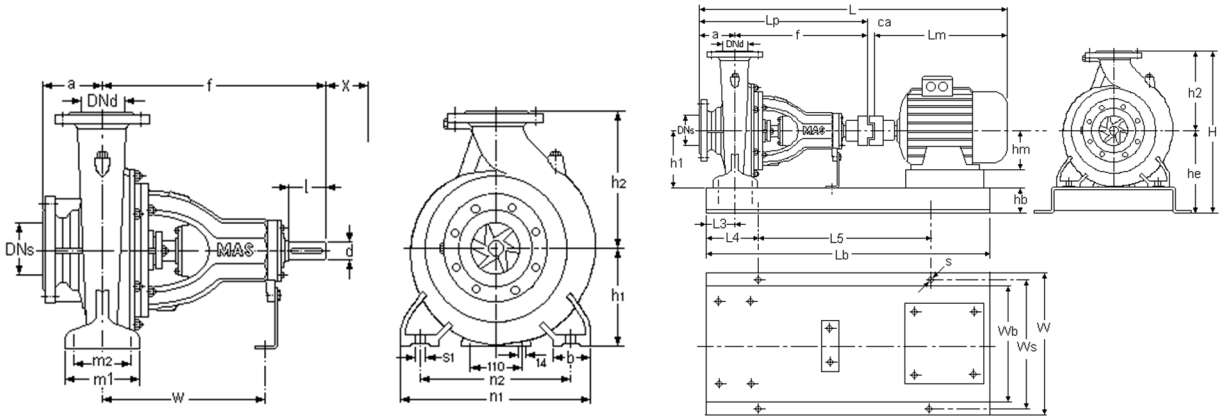
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–160 6 poles 60 Hz	0,37	80	279	80	460	16	755	400	425	700	300	65	225	72	100	500	350	19
	0,55	80	279	80	460	16	755	400	425	700	300	65	225	72	100	500	350	19
	0,75	90S	309	90	460	16	785	400	425	750	300	65	225	72	100	550	350	19

	1,1	90L	334	90	460	16	810	400	425	750	300	65	225	72	100	550	350	19
65–160 4 poles 60 Hz	1,5	90L	344,5	90	460	16	820,5	400	425	750	300	65	225	63	100	550	350	19
	2,2	100L	352	100	460	17	829	400	425	800	300	65	225	63	100	600	350	19
	3	100L	377	100	460	17	854	400	425	800	300	65	225	72	100	600	350	19
	4	112M	395,5	112	460	19	874,5	400	425	800	300	65	225	72	100	600	350	19

NM 65-160



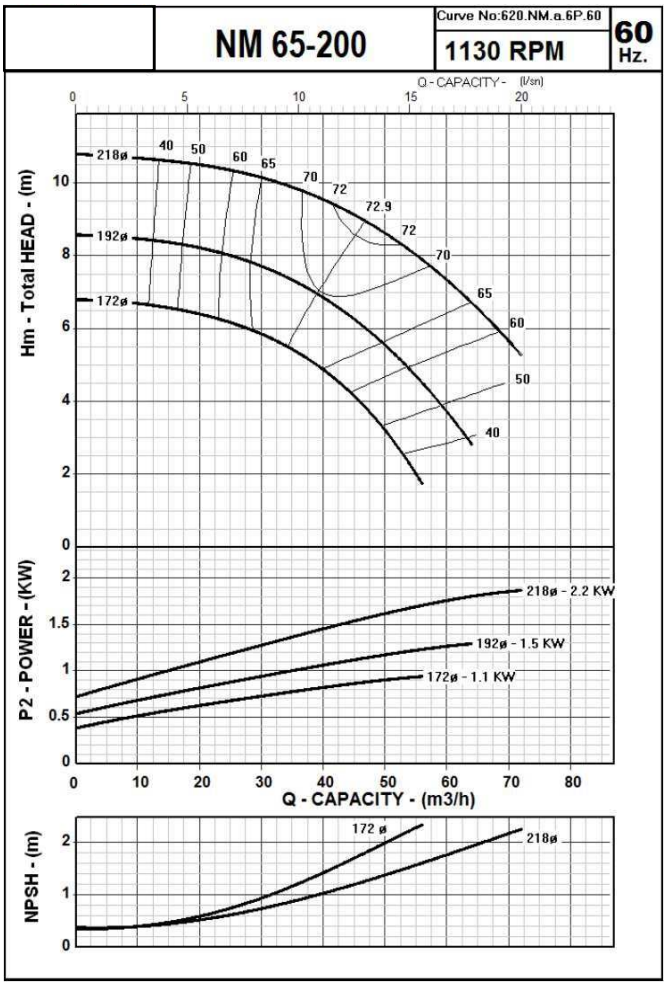
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

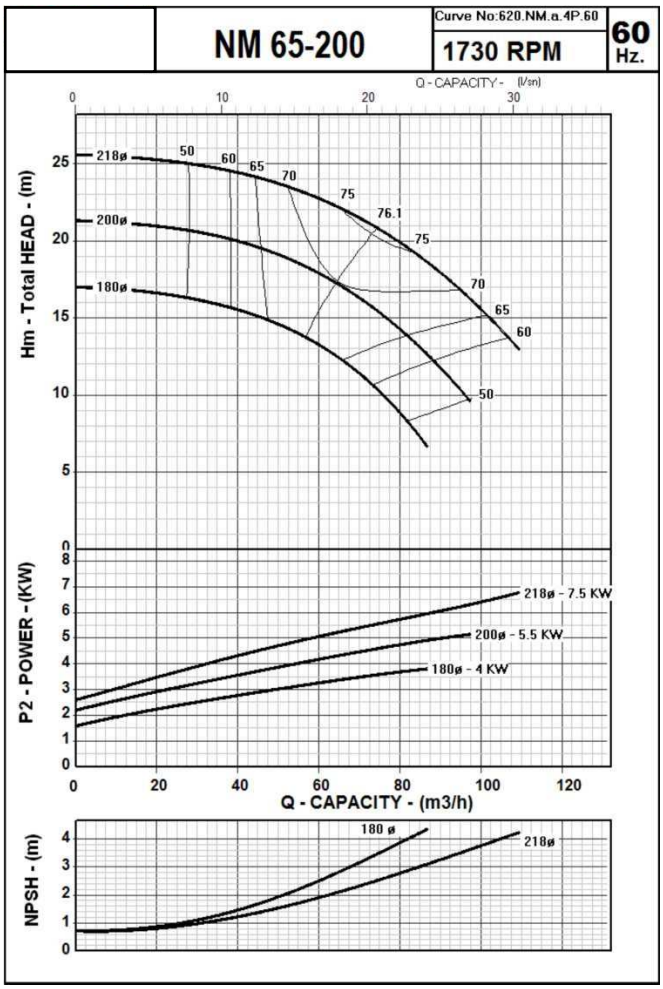


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–160	80	65	100	360	160	200	65	125	95	280	212	M12	260	24	50	100	44

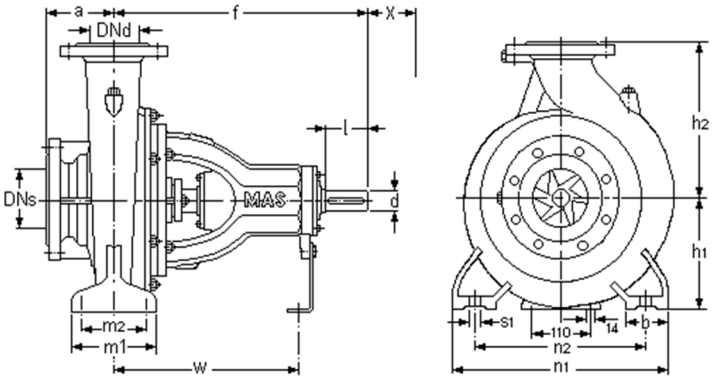
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–160 2 poles 60 Hz	11	160L	576	160	460	19	1055	440	440	1000	340	80	240	63	150	700	390	19
	15	160L	576	160	460	19	1055	440	440	1000	340	80	240	63	150	700	390	19
	18,5	160L	576	160	460	19	1055	440	440	1050	340	80	240	63	150	750	390	19
	22	180M	629	180	460	27	1116	480	480	1050	380	100	280	72	150	750	430	19
	30	200L	665	200	460	27	1152	520	500	1100	420	100	300	72	150	800	470	19

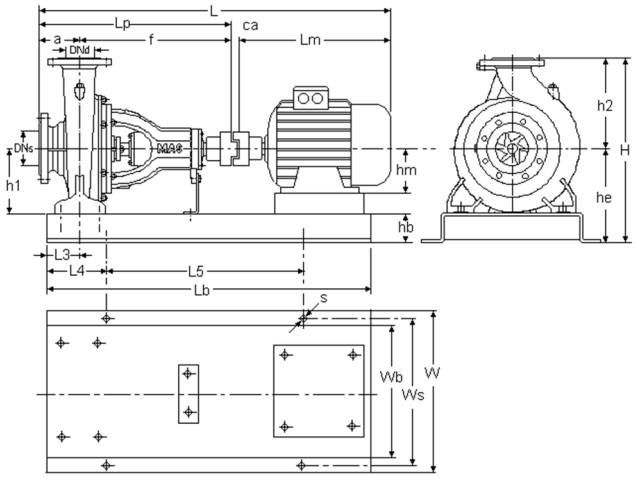
NM 65-200





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

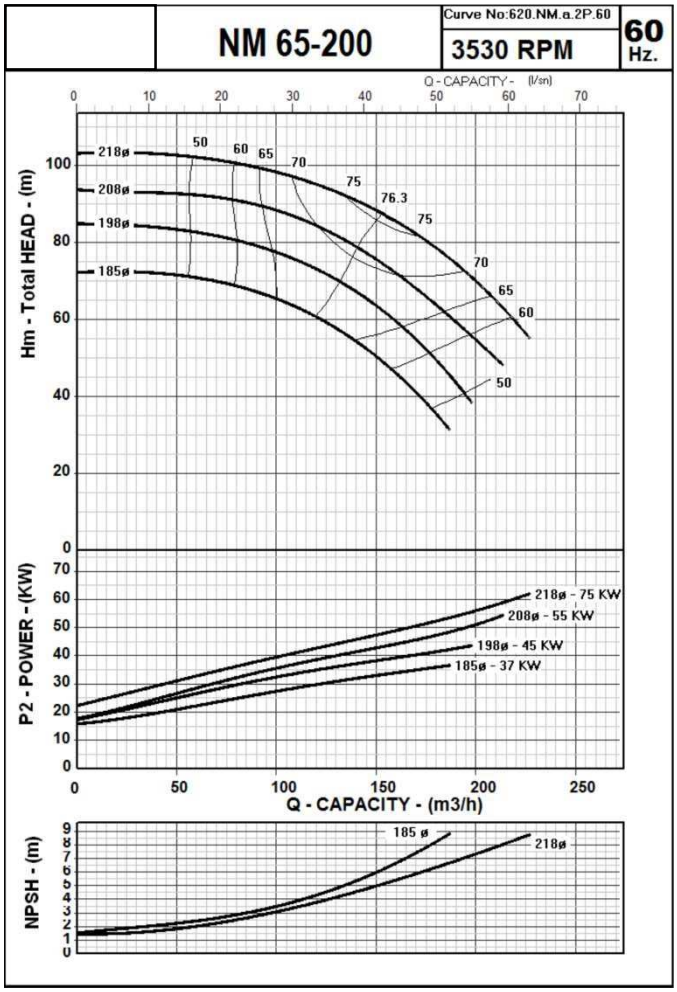




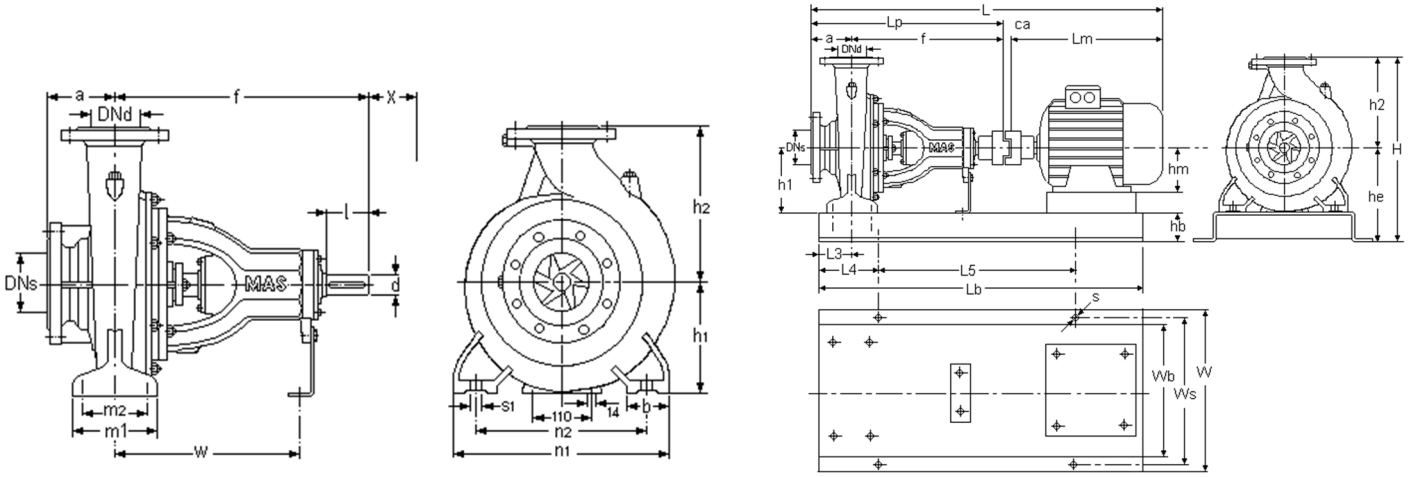
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–200	80	65	100	360	180	225	65	125	95	320	250	M12	260	24	50	100	47.5

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–200 6 poles 60 Hz	1,1	90L	334	90	460	19	813	440	485	750	340	80	260	72	100	550	390	19
	1,5	100L	376	100	460	19	855	440	485	800	340	80	260	72	100	600	390	19
	2,2	112M	396	112	460	19	875	440	485	800	340	80	260	72	100	600	390	19
65–200 4 poles 60 Hz	4	112M	395,5	112	460	19	874,5	440	485	800	340	80	260	63	100	600	390	19
	5,5	132M	475,5	132	460	19	954,5	440	485	850	340	80	260	72	150	550	390	19
	7,5	132M	475,5	132	460	19	954,5	440	485	900	340	80	260	72	150	600	390	19

NM 65-200



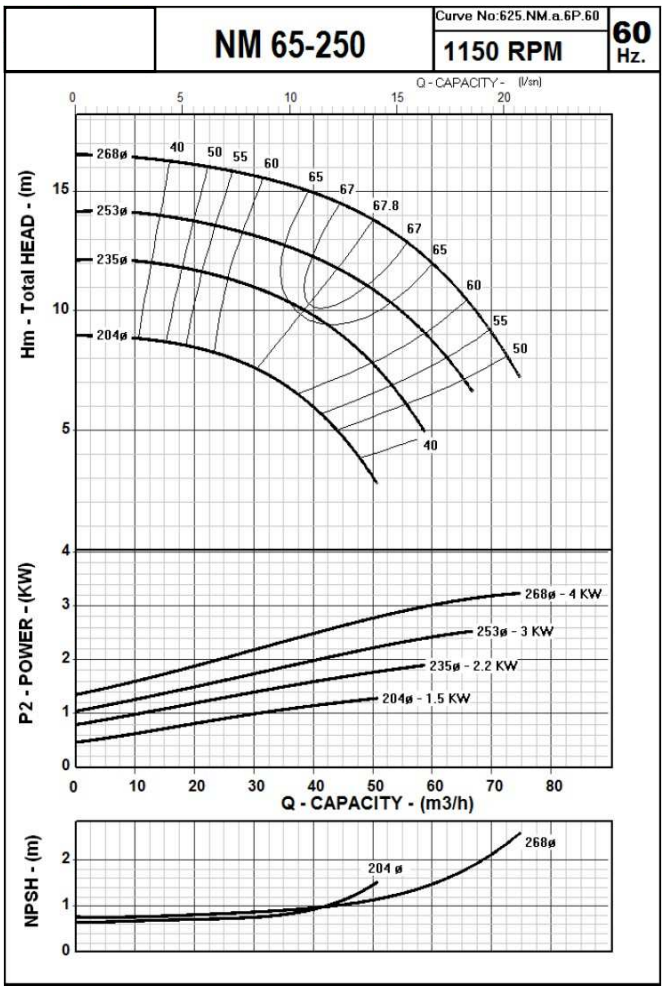
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

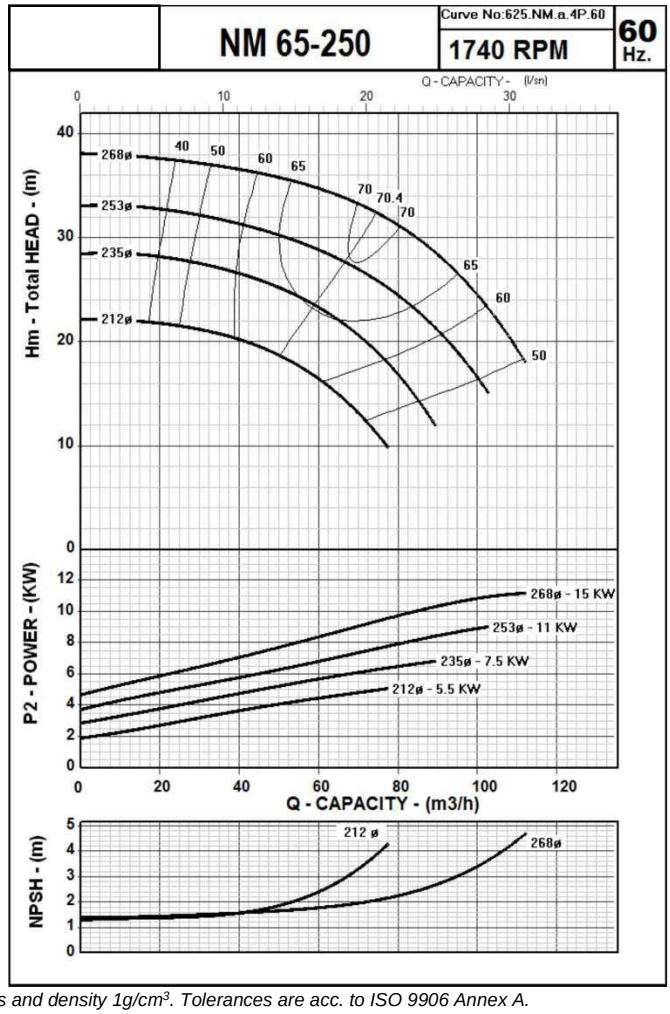


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–200	80	65	100	360	180	225	65	125	95	320	250	M12	260	24	50	100	47.5

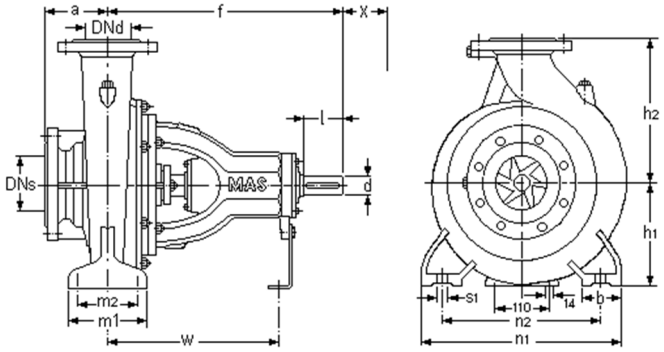
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–200 2 poles 60 Hz	37	200L	665	200	460	27	1152	520	525	1100	420	100	300	63	150	800	470	19
	45	225M	735	225	460	27	1222	600	570	1150	480	120	345	72	150	850	540	24
	55	250M	886	250	460	32	1378	620	595	1250	500	120	370	72	200	850	560	24
	75	280S	958	280	460	32	1450	720	645	1300	600	140	420	72	200	900	660	24

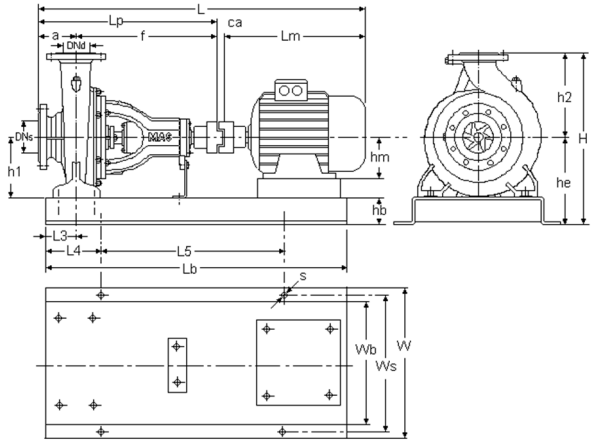
NM 65-250





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.



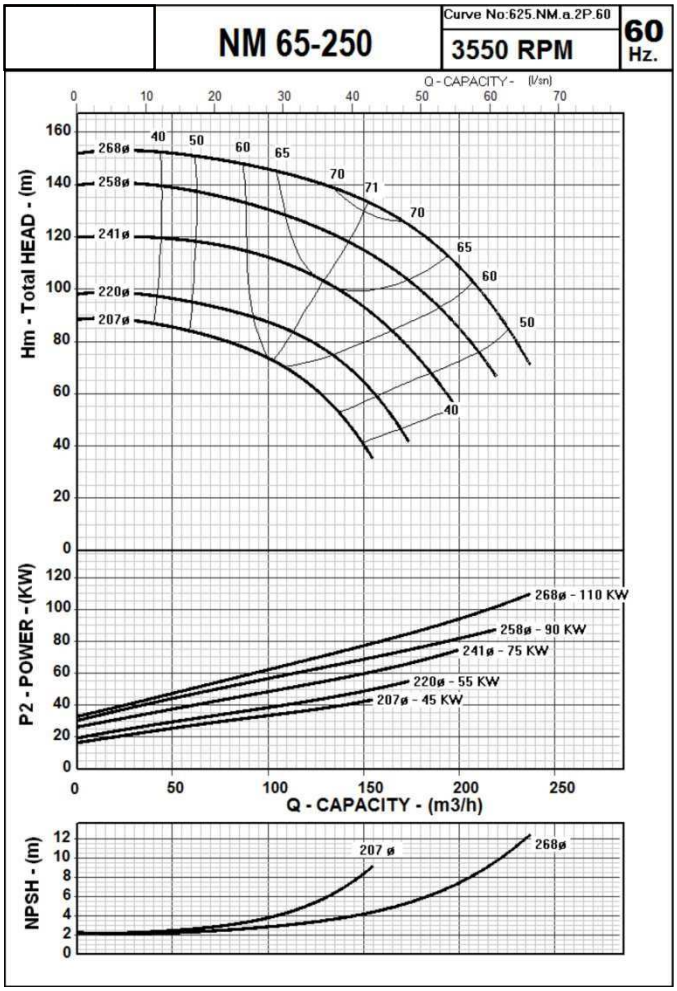


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–250	80	65	100	470	200	250	80	160	120	360	280	M16	340	32	80	100	77.5

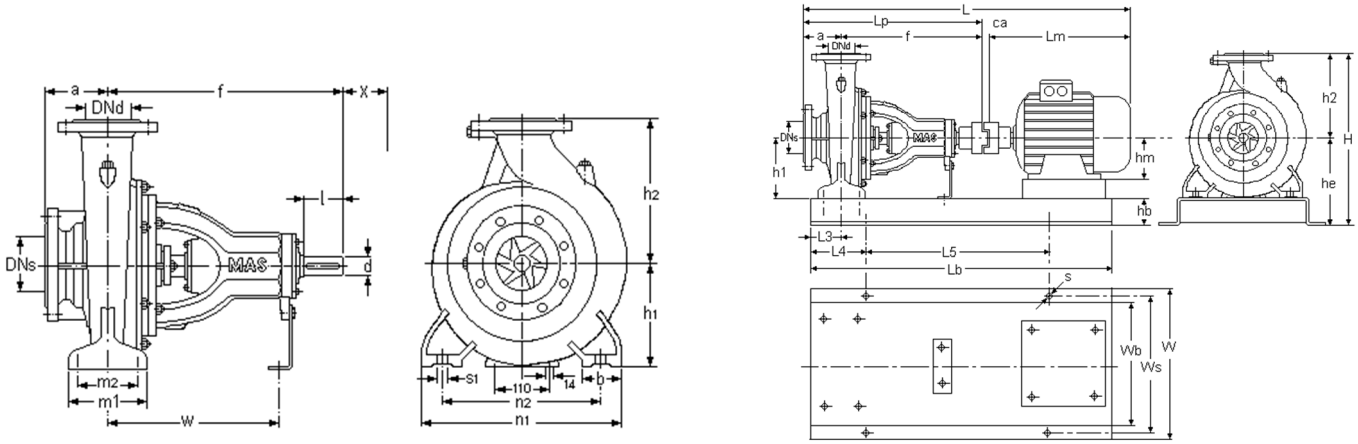
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–250 6 poles 60 Hz	1,5	100L	376	100	570	19	965	480	550	950	380	100	300	90	150	650	430	19
	2,2	112M	396	112	570	19	985	480	550	950	380	100	300	90	150	650	430	19
	3	132S	498	132	570	19	1087	480	550	1000	380	100	300	90	150	700	430	19

	4	132M	498	132	570	19	1087	480	550	1050	380	100	300	90	150	750	430	19
65–250 4 poles 60 Hz	5,5	132M	475,5	132	570	19	1064,5	480	550	1000	380	100	300	80	150	700	430	19
	7,5	132M	475,5	132	570	19	1064,5	480	550	1050	380	100	300	80	150	750	430	19
	11	160L	576	160	570	19	1165	480	550	1100	380	100	300	90	150	800	430	19
	15	160L	576	160	570	27	1173	480	550	1150	380	100	300	90	150	850	430	19

NM 65-250



The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

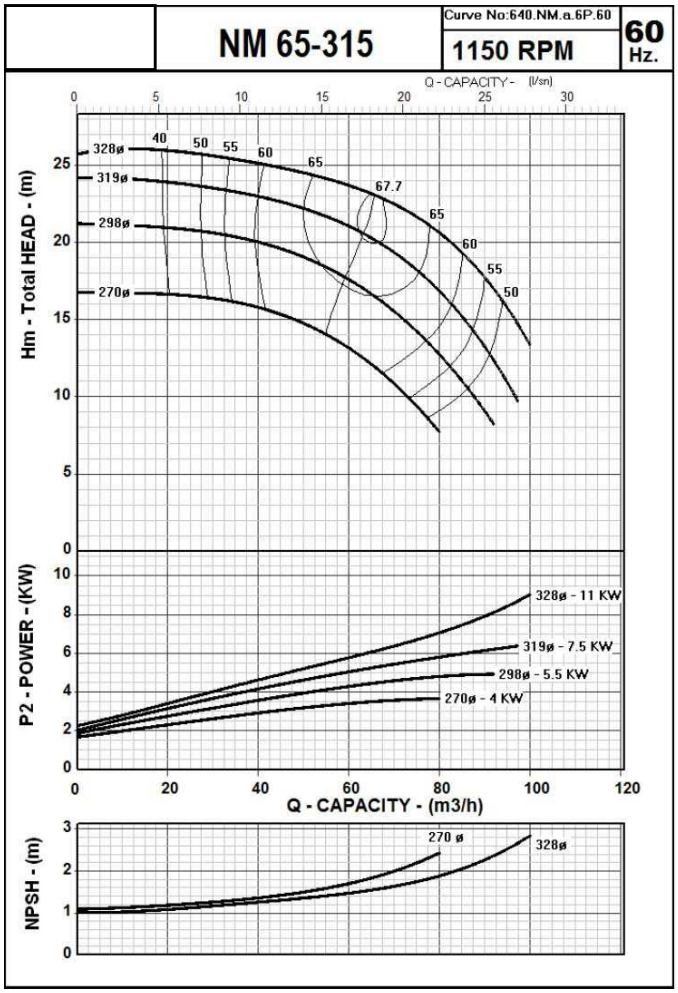


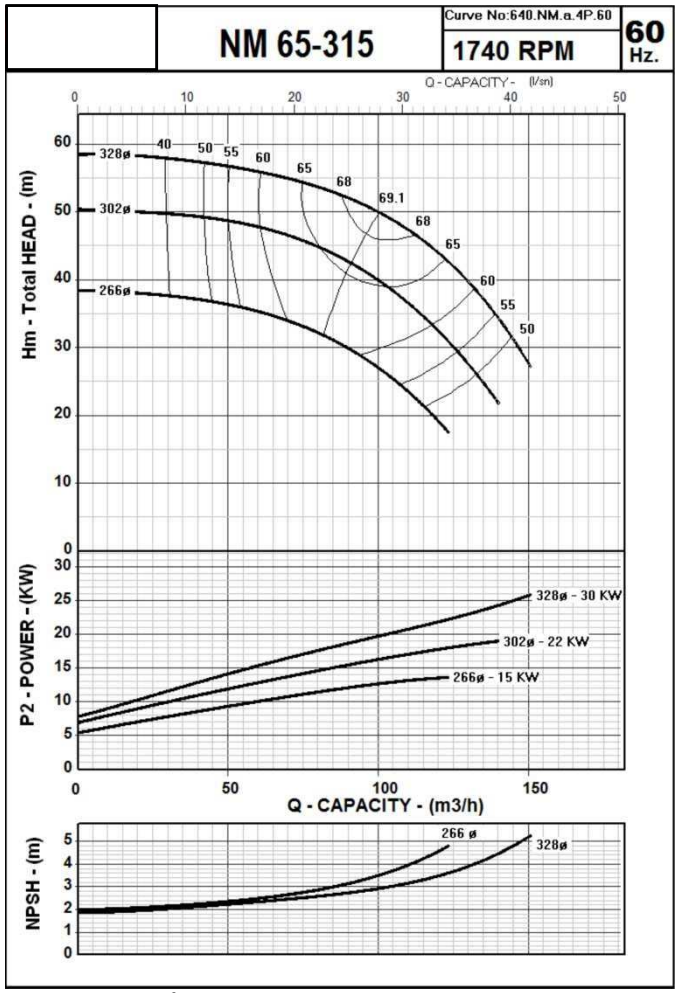
Pump	Flanges	Length	Height	Mounting Details	ShaftEnd	(*)	

Size	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	X mm	Weight kg
65–250	80	65	100	470	200	250	80	160	120	360	280	M16	340	32	80	100	77.5

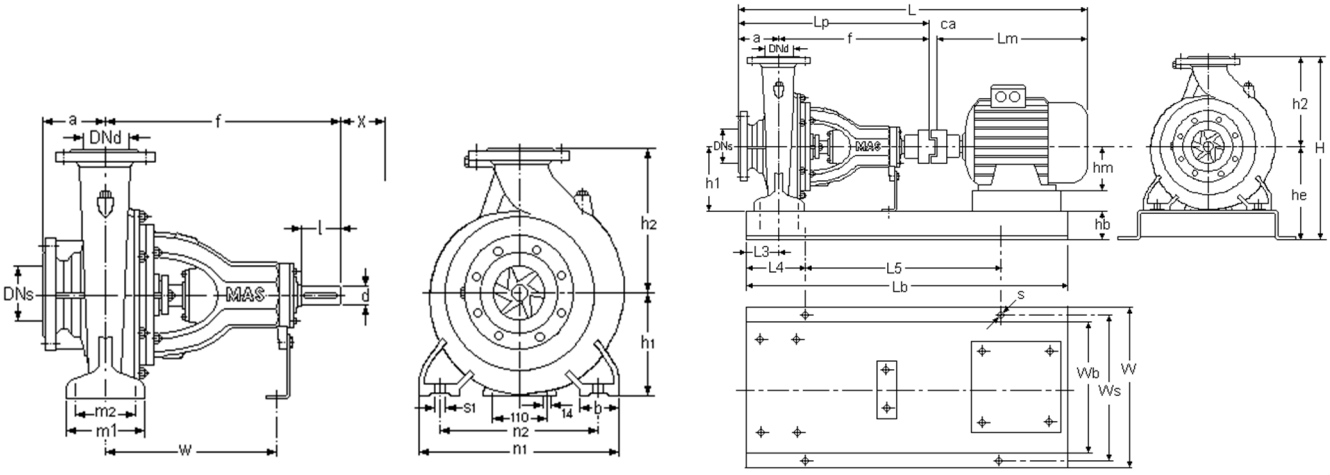
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–250 2 poles 60 Hz	45	225M	735	225	570	27	1332	600	595	1300	480	120	345	80	200	900	540	24
	55	250M	886	250	570	32	1488	620	620	1400	500	120	370	80	200	1000	560	24
	75	280S	958	280	570	32	1560	720	670	1450	600	140	420	90	200	1050	660	24
	90	280M	958	280	570	34	1562	720	670	1500	600	140	420	90	200	1100	660	24
	110	315S	1120	315	570	5	1695	770	725	1500	650	160	475	90	200	1100	710	24

NM 65-315





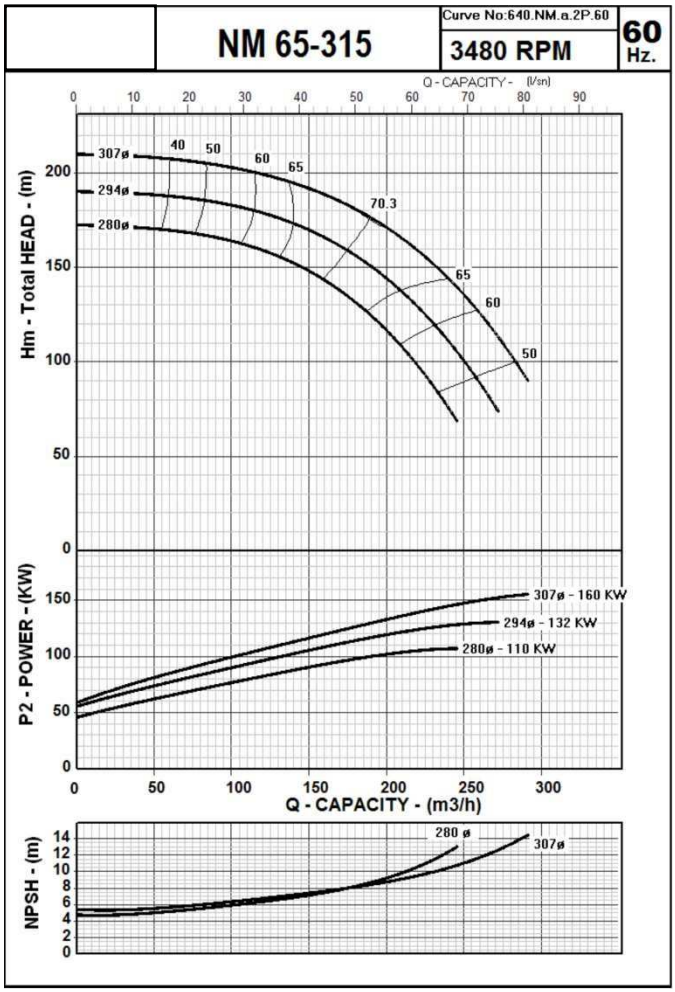
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



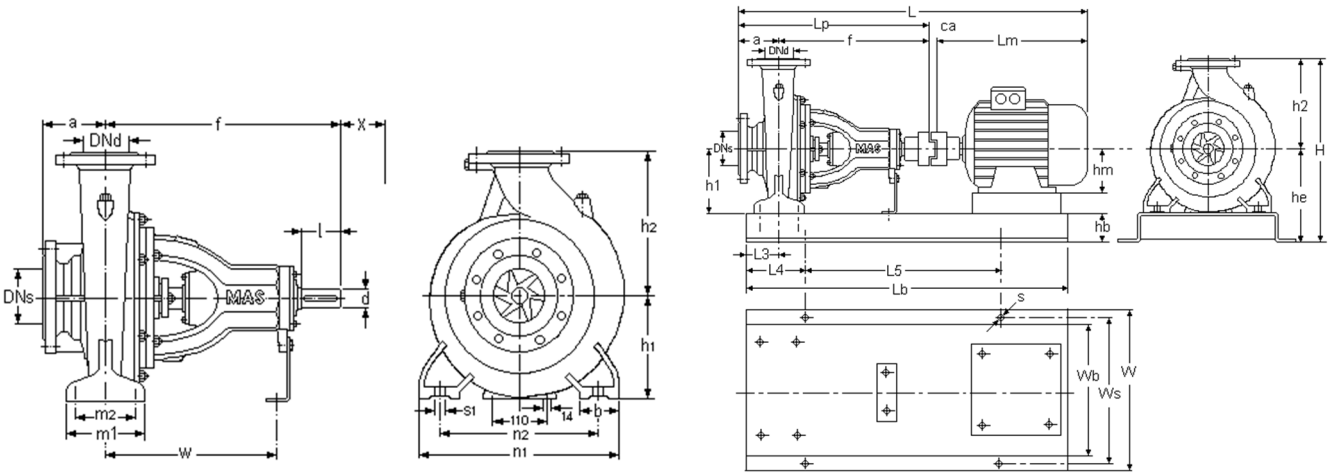
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–315	80	65	125	470	225	280	80	160	120	400	315	M16	340	32	80	110	92

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–315 6 poles 50 Hz	4	132M	498	132	595	27	1120	520	605	1050	420	100	325	90	150	750	470	19
	5,5	132M	498	132	595	27	1120	520	605	1050	420	100	325	90	150	750	470	19
	7,5	160M	600	160	595	27	1222	520	605	1150	420	100	325	90	150	850	470	19
	11	160L	644	160	595	27	1266	520	605	1150	420	100	325	90	150	850	470	19
65–315 4 poles 50 Hz	15	160L	576	160	595	27	1198	520	605	1150	420	100	325	80	150	850	470	19
	22	180L	629	180	595	27	1251	520	605	1200	420	100	325	90	150	900	470	19
	30	200L	665	200	595	34	1294	520	605	1250	420	100	325	80	200	850	470	19

NM 65-315



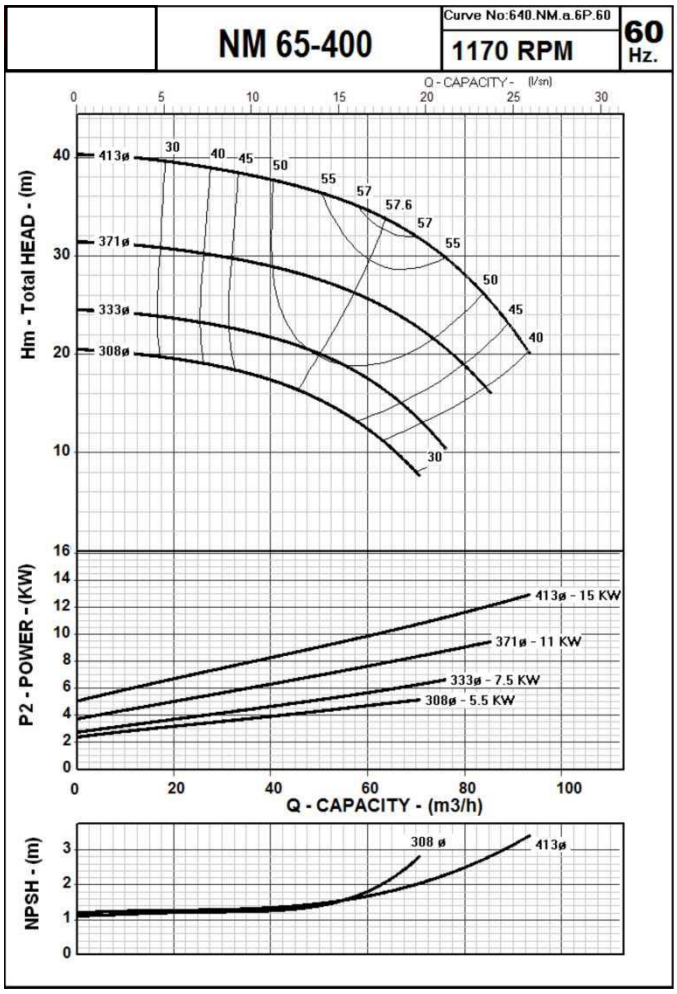
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

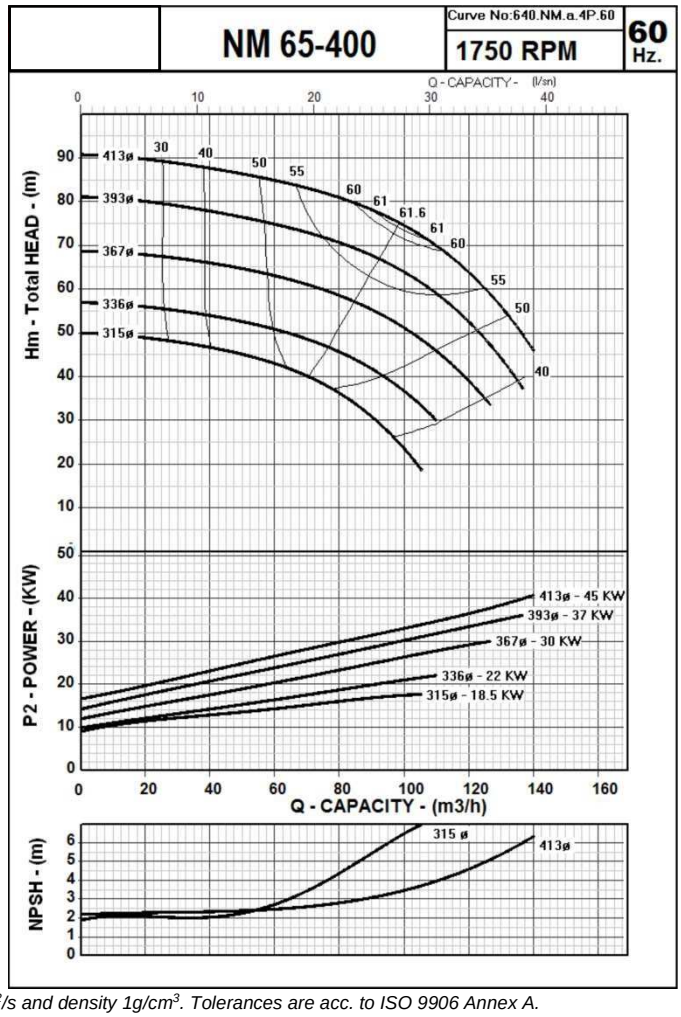


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
65–315	80	65	125	470	225	280	80	160	120	400	315	M16	340	32	80	110	92

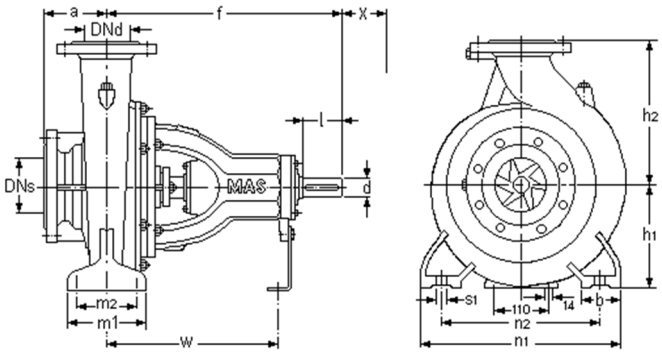
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–315 2 poles 50 Hz	110	315S	1120	315	595	34	1749	790	755	1500	650	160	475	90	200	1100	720	28
	132	315M	1120	315	595	43	1758	790	755	1550	650	160	475	90	200	1150	720	28
	160	315M	1120	315	595	43	1758	790	755	1550	650	160	475	90	200	1150	720	28

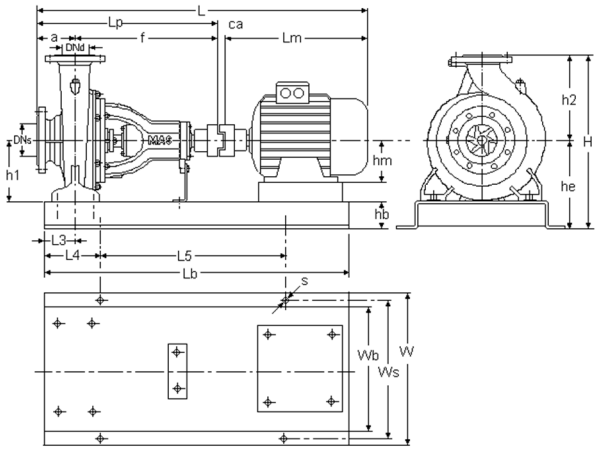
Performance Curves NM 80-160





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.



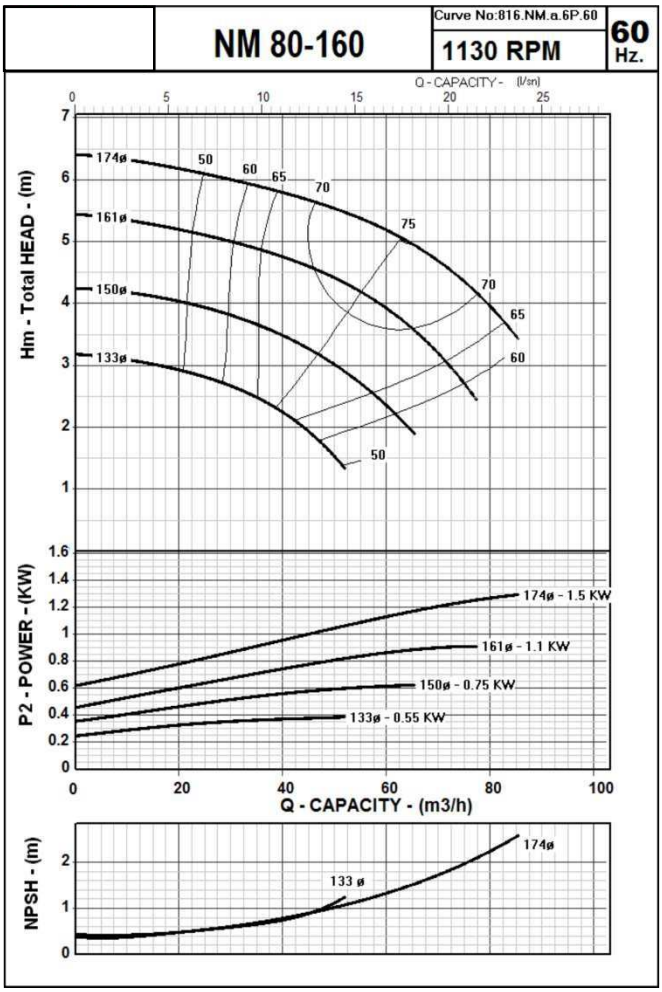


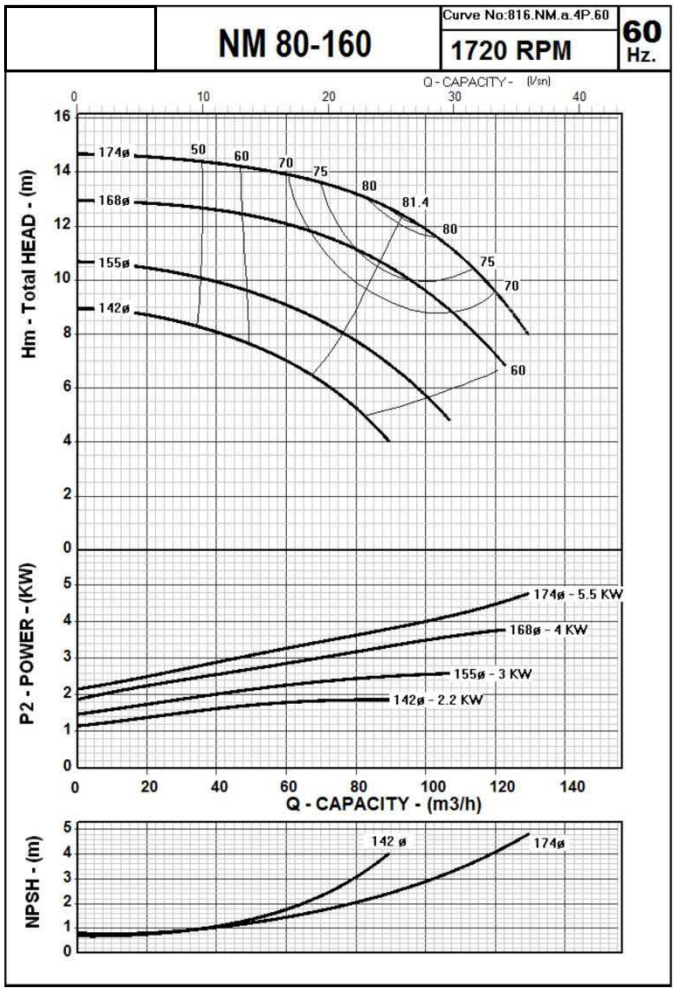
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X	Weight
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	mm	kg
65–400	100	65	125	470	250	355	80	160	120	400	315	M16	340	32	80	110	125

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
65–400 6 poles 50 Hz	5,5	132M	498	132	595	19	1112	520	705	1050	420	100	350	90	150	750	470	19
	7,5	160M	600	160	595	19	1214	520	705	1150	420	100	350	90	150	850	470	19
	11	160L	644	160	595	19	1258	520	705	1150	420	100	350	90	150	850	470	19
	15	180L	695	180	595	19	1309	520	705	1200	420	100	350	90	150	900	470	19

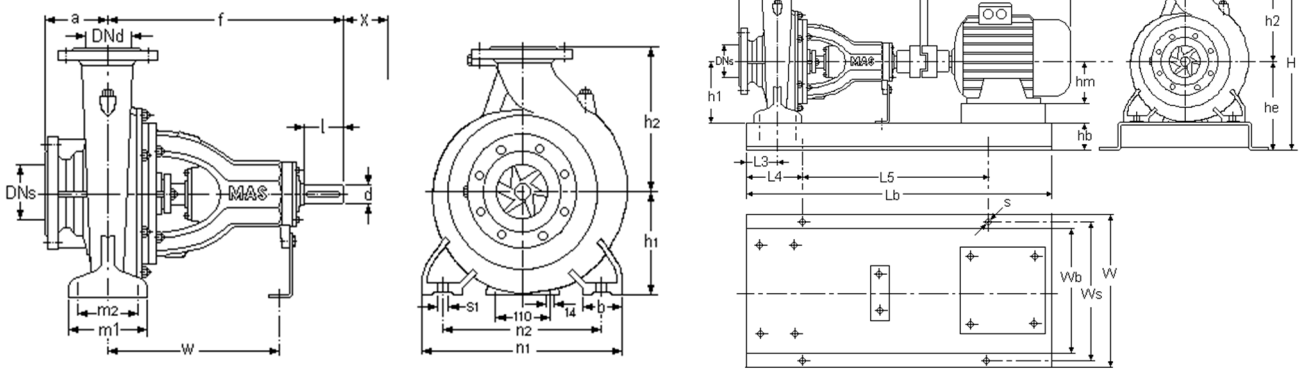
Performance Curves NM 80-160

65–400 4 poles 50 Hz	18,5	180M	629	180	595	19	1243	520	705	1150	420	100	350	80	150	850	470	19
	22	180L	629	180	595	32	1256	520	705	1200	420	100	350	80	200	800	470	19
	30	200L	665	200	595	32	1292	520	705	1250	420	100	350	80	200	850	470	19
	37	225M	765	225	595	34	1394	600	725	1300	480	120	370	90	200	900	540	24
	45	225M	765	225	595	34	1394	600	725	1300	480	120	370	90	200	900	540	24



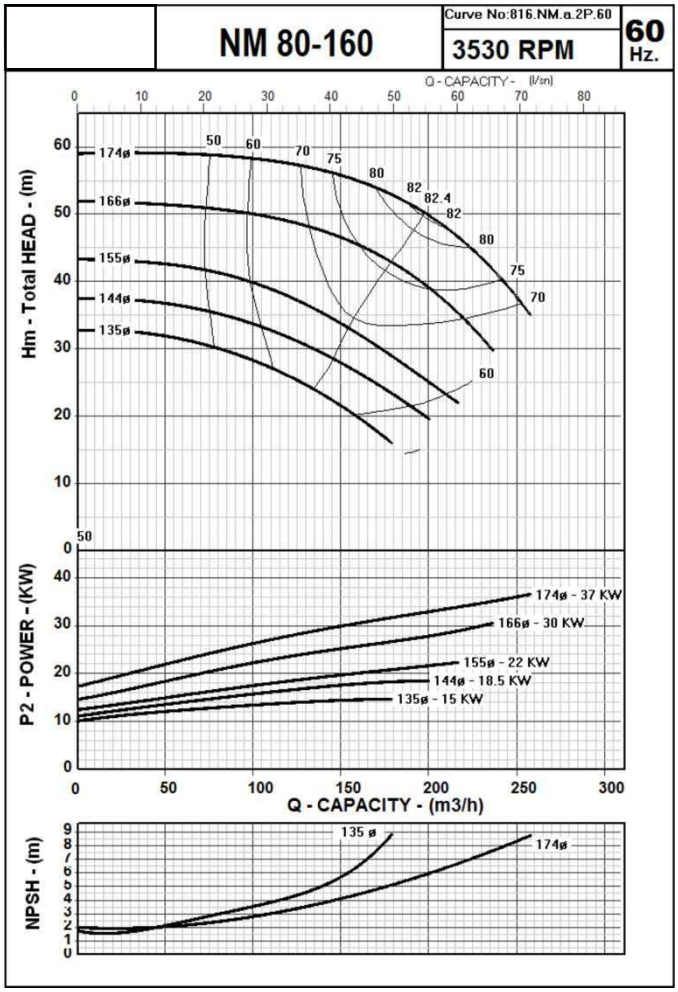


The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

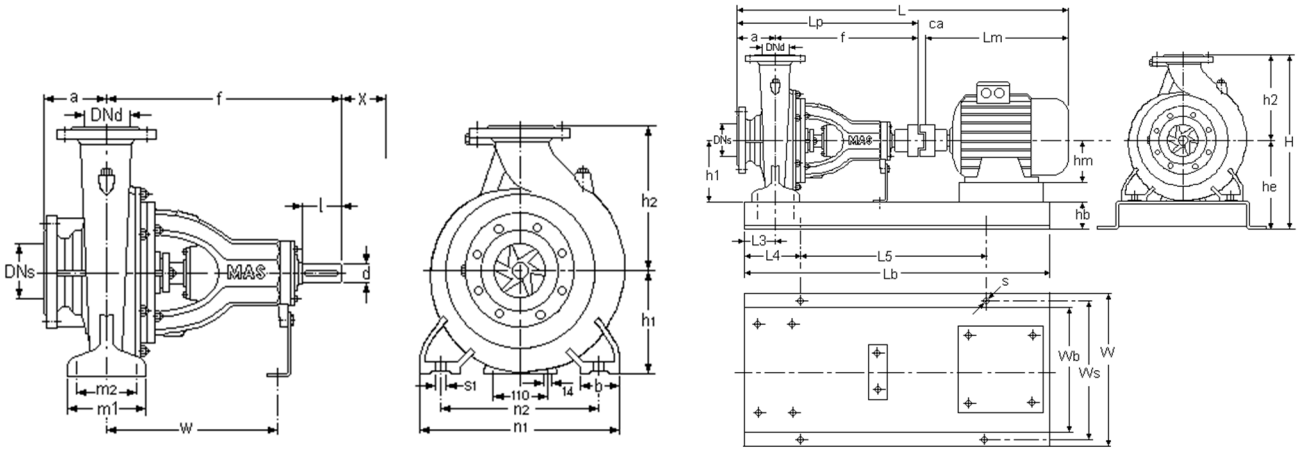


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–160	100	80	125	360	180	225	65	125	95	320	250	M12	260	24	50	110	51

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–160 6 poles 60 Hz	0,55	80	279	80	485	17	781	440	485	700	340	80	260	72	100	500	390	19
	0,75	90S	309	90	485	17	811	440	485	750	340	80	260	72	100	550	390	19
	1,1	90L	334	90	485	17	836	440	485	750	340	80	260	72	100	550	390	19
	1,5	100L	376	100	485	17	878	440	485	800	340	80	260	72	100	600	390	19
80–160 4 poles 60 Hz	2,2	100L	352	100	485	17	854	440	485	800	340	80	260	63	100	600	390	19
	3	100L	377	100	485	17	879	440	485	800	340	80	260	63	100	600	390	19
	4	112M	395,5	112	485	19	899,5	440	485	800	340	80	260	72	100	600	390	19
	5,5	132M	475,5	132	485	19	979,5	440	485	850	340	80	260	72	150	550	390	19



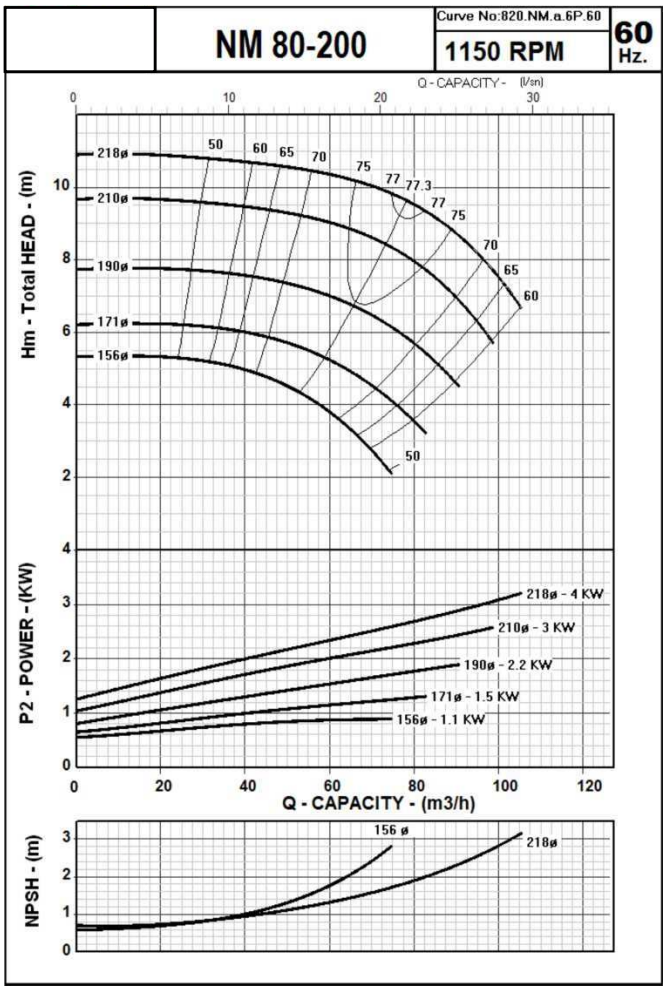
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

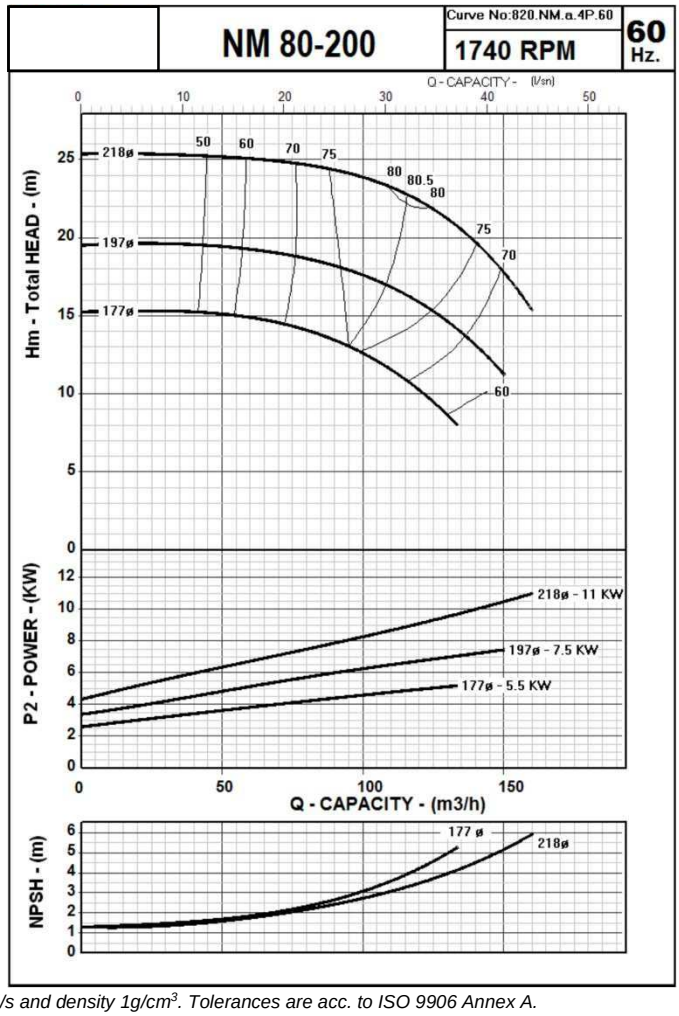


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–160	100	80	125	360	180	225	65	125	95	320	250	M12	260	24	50	110	51

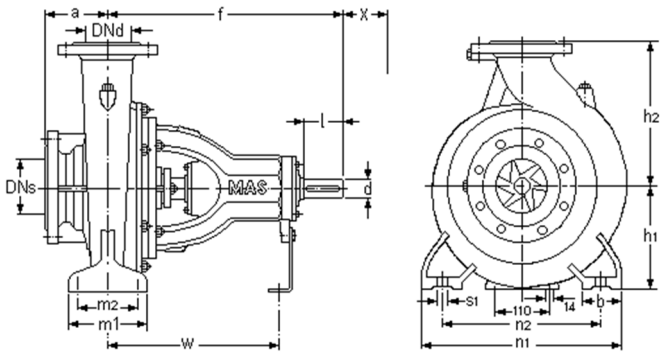
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–160 2 poles 60 Hz	15	160L	576	160	485	19	1080	440	485	1000	340	80	260	63	150	700	390	19
	18,5	160L	576	160	485	19	1080	440	485	1050	340	80	260	63	150	750	390	19
	22	180M	629	180	485	27	1141	480	505	1050	380	100	280	63	150	750	430	19
	30	200L	665	200	485	27	1177	520	525	1100	420	100	300	72	150	800	470	19
	37	200L	665	200	485	27	1177	520	525	1100	420	100	300	72	150	800	470	19

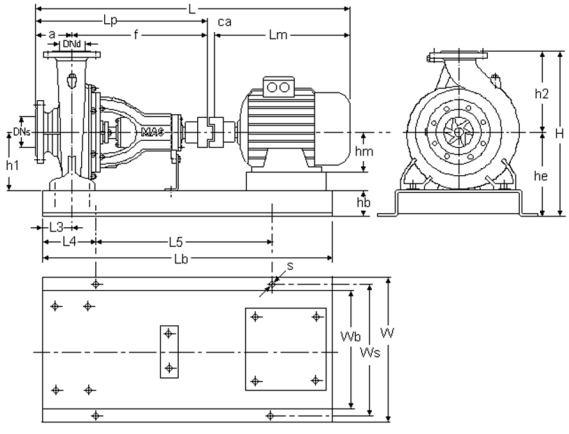
NM 80-200





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.



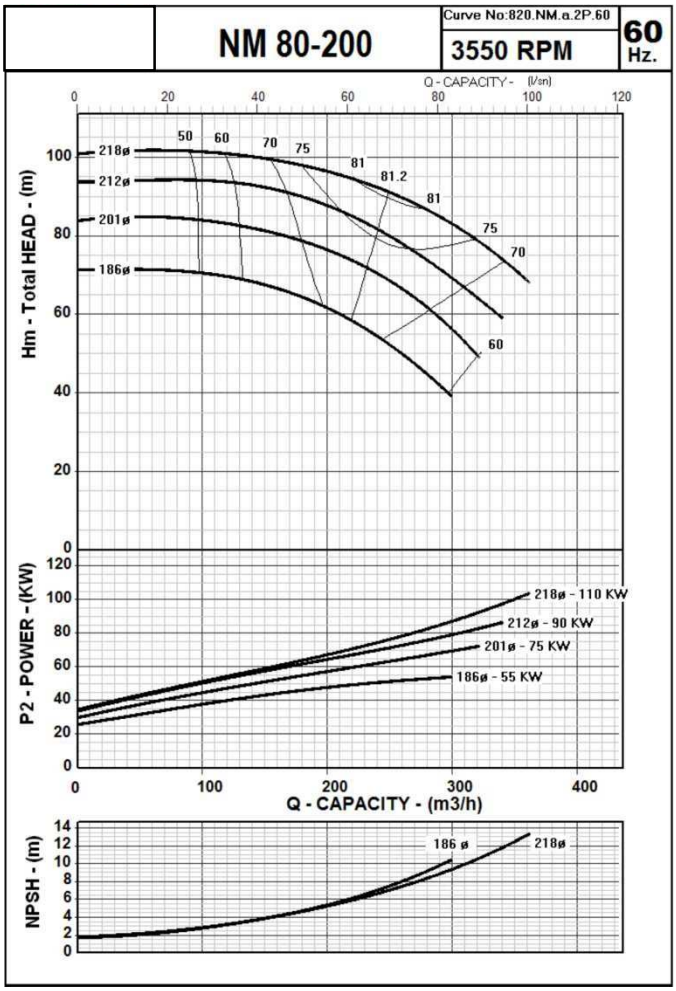


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–200	100	80	125	470	180	250	65	125	95	345	280	M12	340	32	80	110	75.5

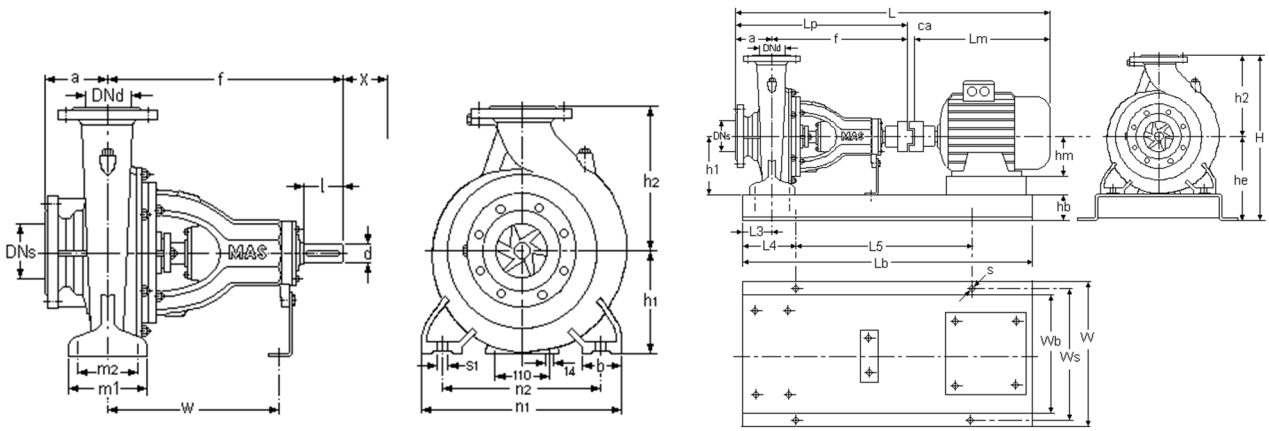
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–200	1,1	90L	334	90	595	19	948	460	510	900	360	80	260	72	150	600	410	19

6 poles 60 Hz	1,5	100L	376	100	595	19	990	460	510	900	360	80	260	72	150	600	410	19
	2,2	112M	396	112	595	19	1010	460	510	950	360	80	260	72	150	650	410	19
	3	132S	498	132	595	19	1112	460	510	950	360	80	260	72	150	650	410	19
	4	132M	498	132	595	19	1112	460	510	1000	360	80	260	72	150	700	410	19
80–200 4 poles 60 Hz	5,5	132M	475,5	132	595	19	1089,5	460	510	950	360	80	260	63	150	650	410	19
	7,5	132M	475,5	132	595	19	1089,5	460	510	1000	360	80	260	63	150	700	410	19
	11	160L	576	160	595	27	1198	460	510	1100	360	80	260	72	150	800	410	19

NM 80-200



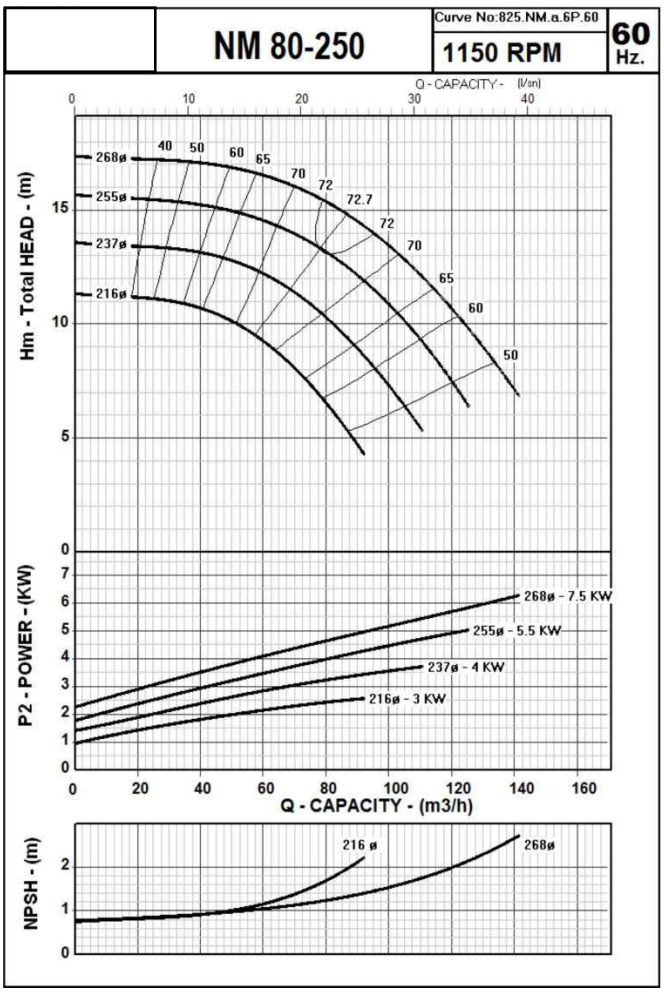
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

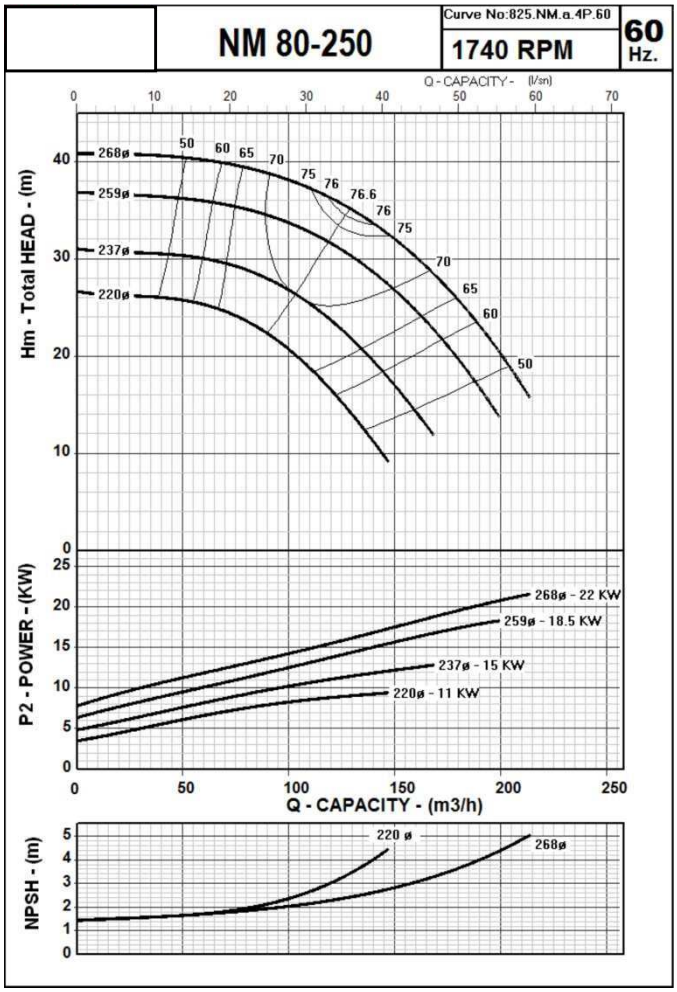


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–200	100	80	125	470	180	250	65	125	95	345	280	M12	340	32	80	110	75.5

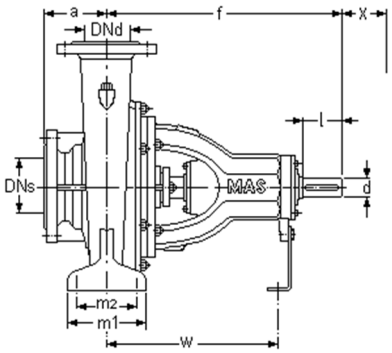
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–200 2 poles 60 Hz	55	250M	886	250	595	27	1508	600	620	1350	500	120	370	63	200	950	550	24
	75	280S	958	280	595	32	1585	720	670	1400	600	140	420	72	200	1000	660	24
	90	280M	958	280	595	32	1585	720	670	1450	600	140	420	72	200	1050	660	24
	110	315S	1120	315	595	5	1720	770	725	1500	650	160	475	63	200	1100	710	24

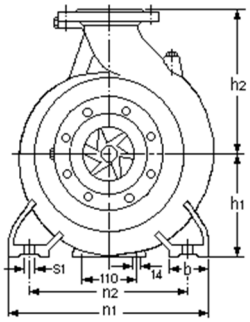
NM 80-250

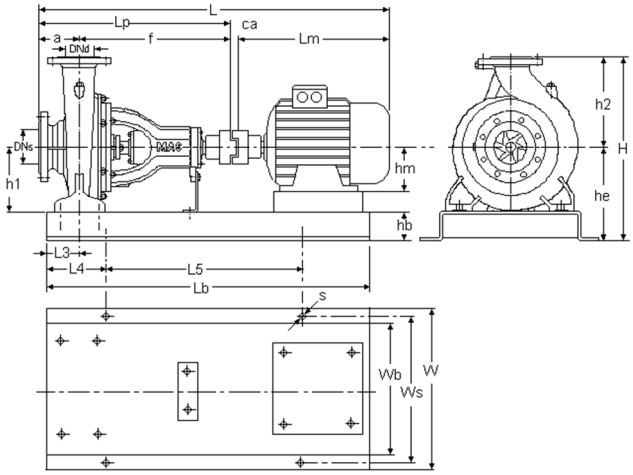




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



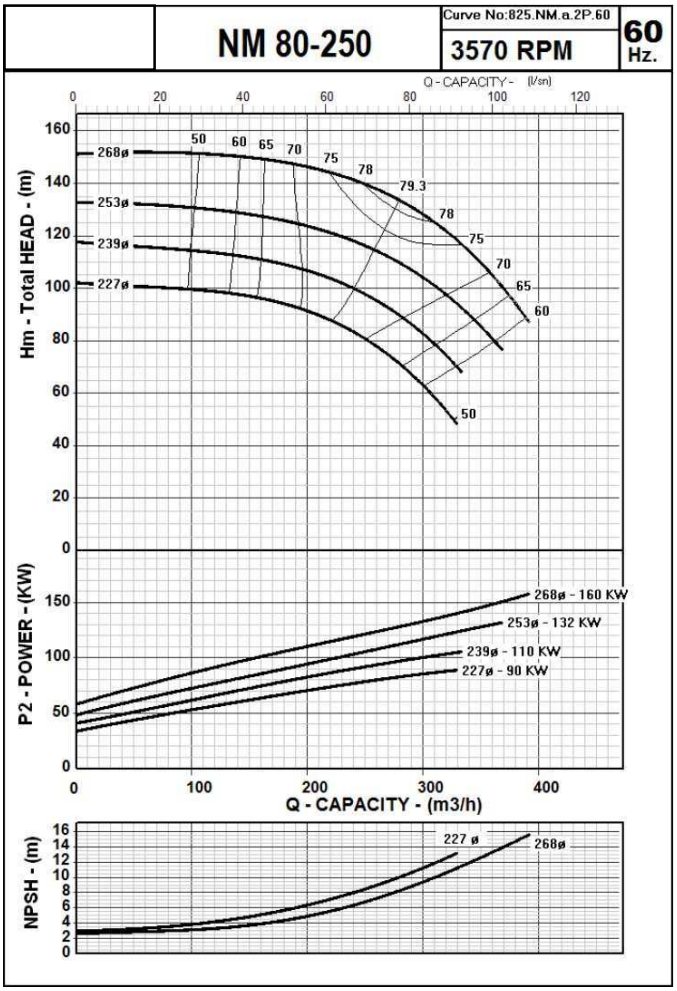




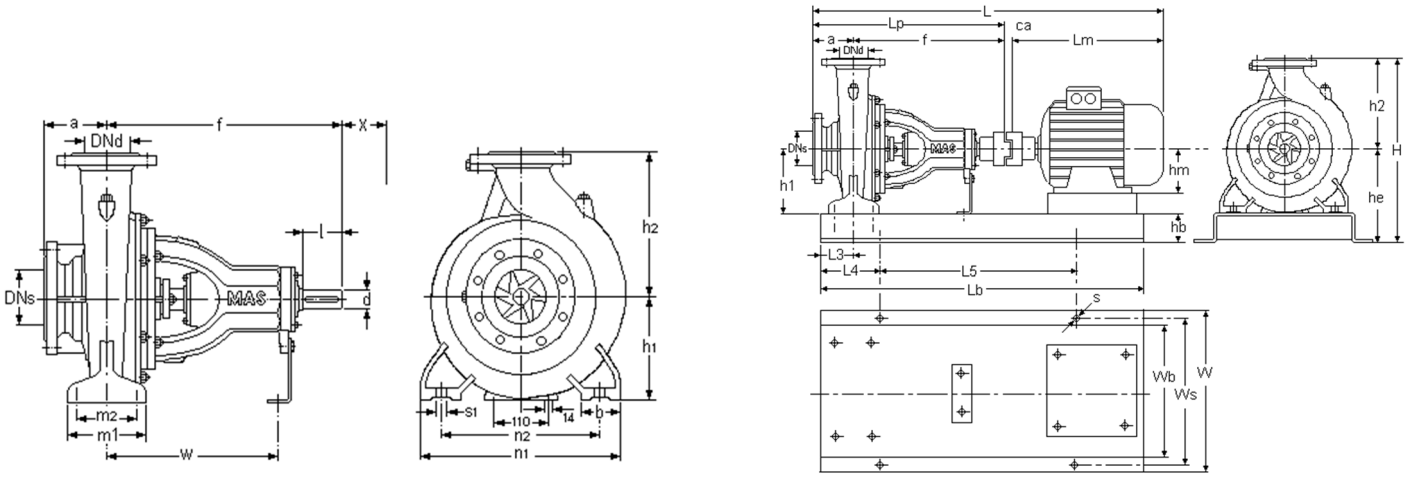
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–250	100	80	125	470	200	280	80	160	120	400	315	M16	340	32	80	115	93

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–250 6 poles 60 Hz	3	132S	498	132	595	19	1112	520	580	1000	420	100	300	90	150	700	470	19
	4	132M	498	132	595	19	1112	520	580	1050	420	100	300	90	150	750	470	19
	5,5	132M	498	132	595	19	1112	520	580	1050	420	100	300	90	150	750	470	19
	7,5	160M	600	160	595	19	1214	520	580	1150	420	100	300	90	150	850	470	19
80–250 4 poles 60 Hz	11	160L	576	160	595	19	1190	520	580	1100	420	100	300	80	150	800	470	19
	15	160L	576	160	595	27	1198	520	580	1150	420	100	300	80	150	850	470	19
	18,5	180M	629	180	595	27	1251	520	580	1150	420	100	300	90	150	850	470	19
	22	180L	629	180	595	32	1256	520	580	1200	420	100	300	90	150	900	470	19

NM 80-250



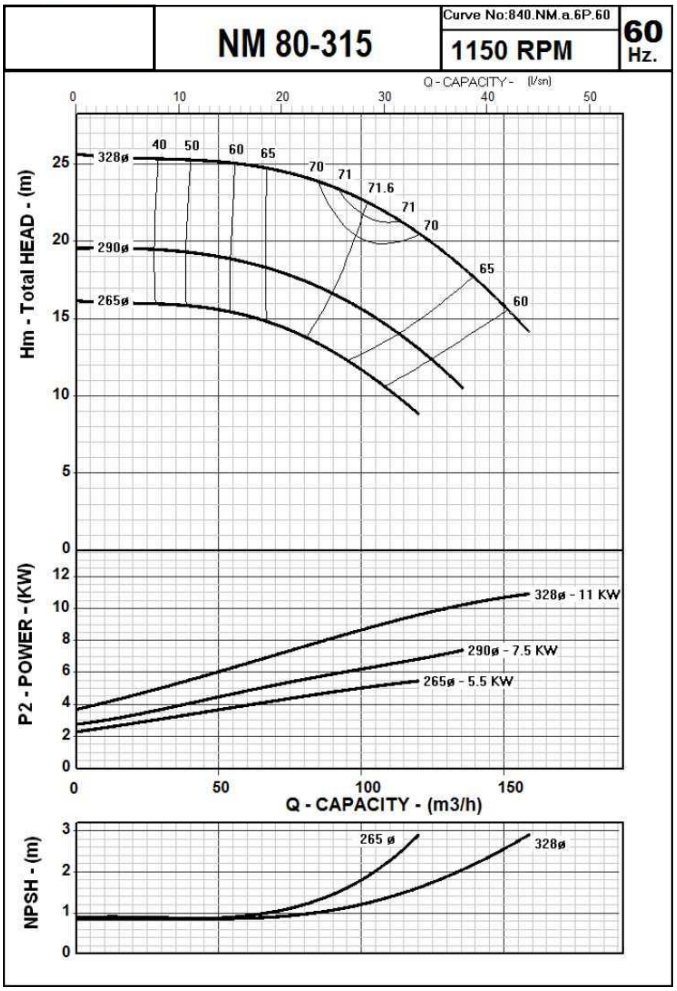
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

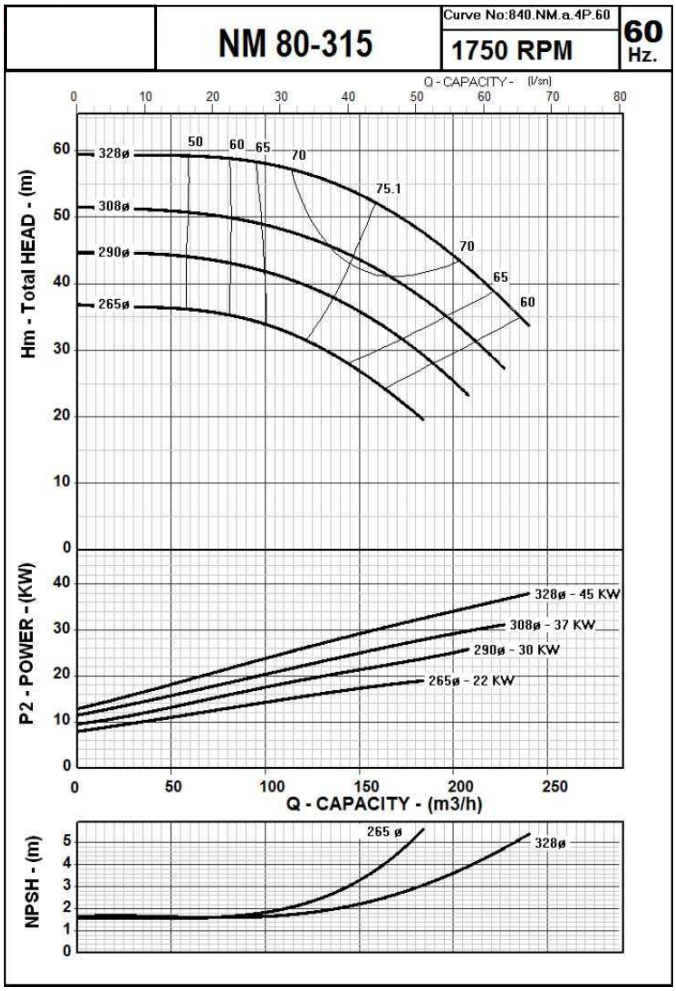


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–250	100	80	125	470	200	280	80	160	120	400	315	M16	340	32	80	115	93

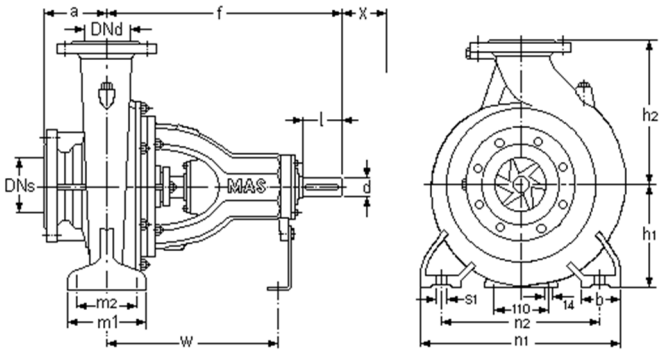
	MOTOR				PUMP			GENERAL			BASEPLATE							
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–250 2 poles 60 Hz	90	280M	958	280	595	34	1587	700	700	1500	600	140	420	80	200	1100	650	24
	110	315S	1120	315	595	34	1749	790	755	1500	650	160	475	90	200	1100	720	28
	132	315M	1120	315	595	43	1758	790	755	1550	650	160	475	90	200	1150	720	28
	160	315M	1120	315	595	43	1758	790	755	1550	650	160	475	90	200	1150	720	28

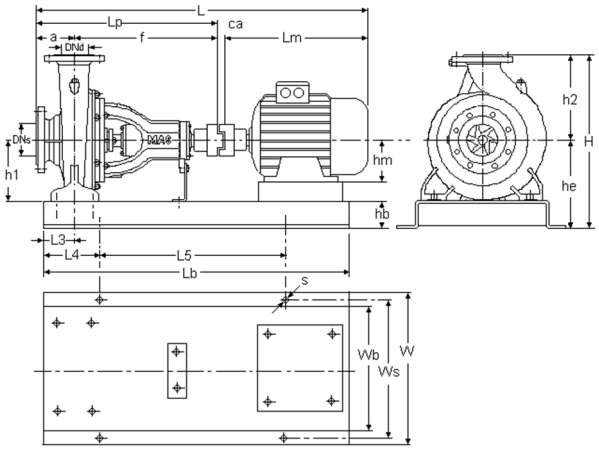
NM 80-315





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

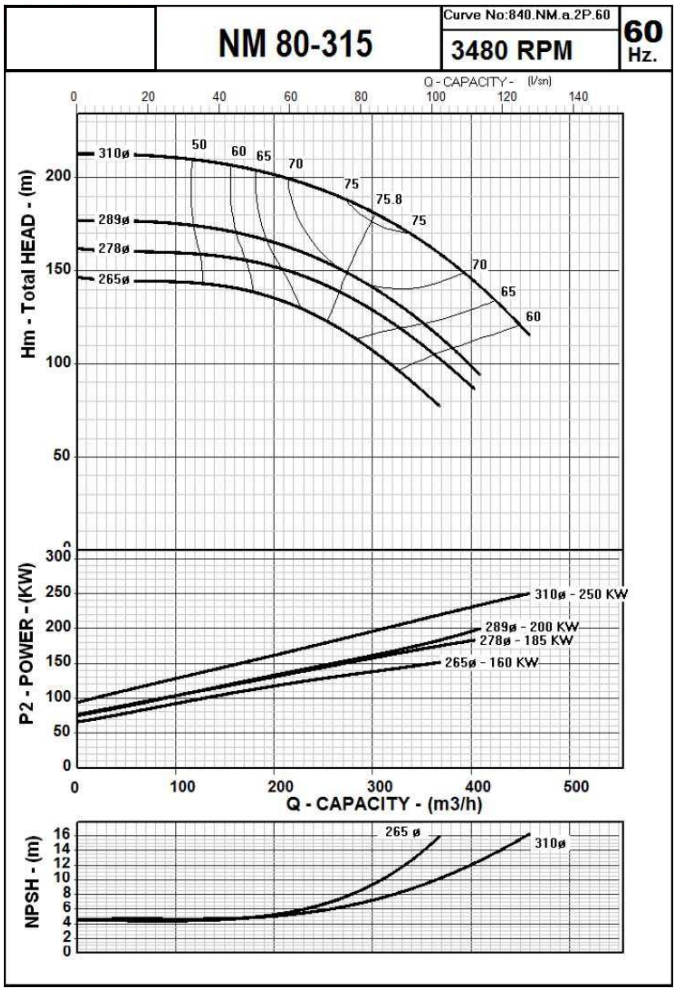




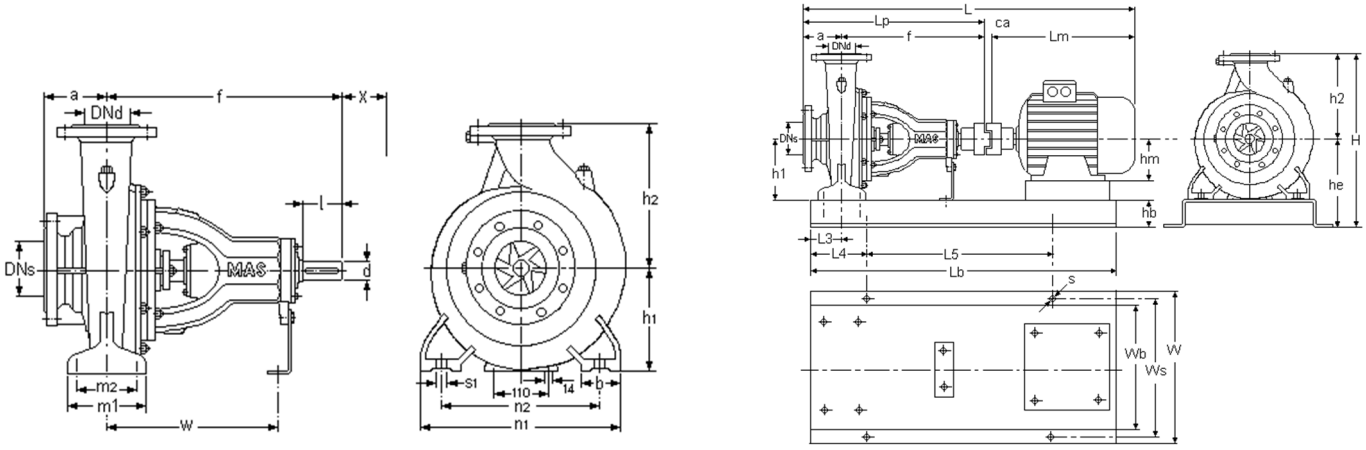
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–315	100	80	125	470	250	315	80	160	120	400	315	M16	340	32	80	120	107

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–315 6 poles 60 Hz	5,5	132M	498	132	595	27	1120	520	665	1050	420	100	350	90	150	750	470	19
	7,5	160M	600	160	595	27	1222	520	665	1150	420	100	350	90	150	850	470	19
	11	160L	644	160	595	27	1266	520	665	1150	420	100	350	90	150	850	470	19
80–315 4 poles 60 Hz	22	180L	629	180	595	27	1251	520	665	1200	420	100	350	80	200	800	470	19
	30	200L	665	200	595	32	1292	520	665	1250	420	100	350	90	200	850	470	19
	37	225M	765	225	595	32	1392	600	685	1300	480	120	370	90	200	900	540	24
	45	225M	765	225	595	34	1394	600	685	1300	480	120	370	90	200	900	540	24

NM 80-315



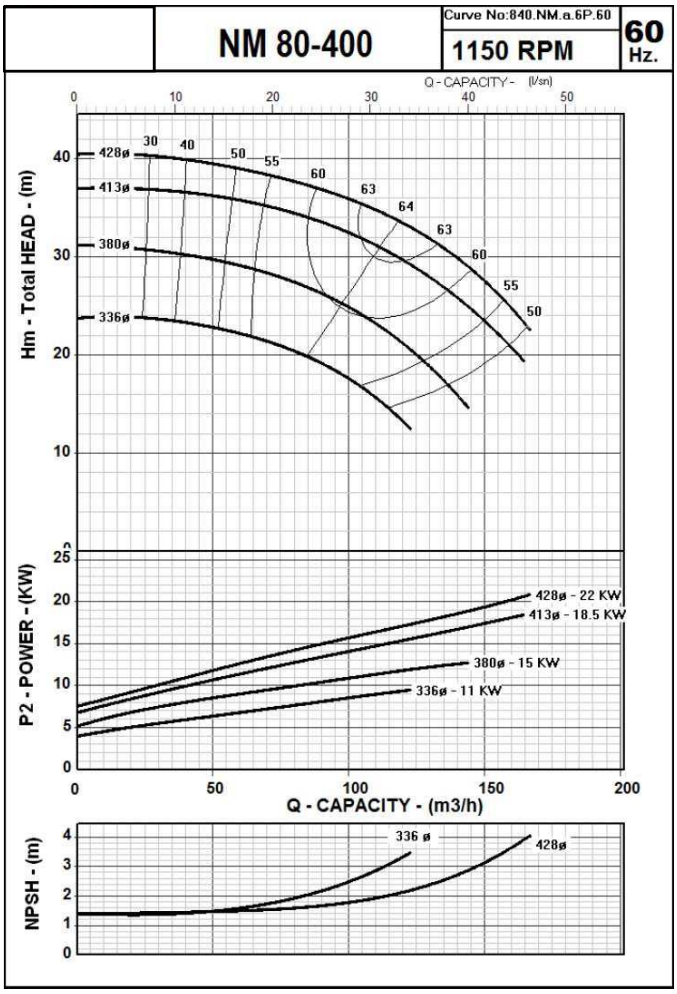
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

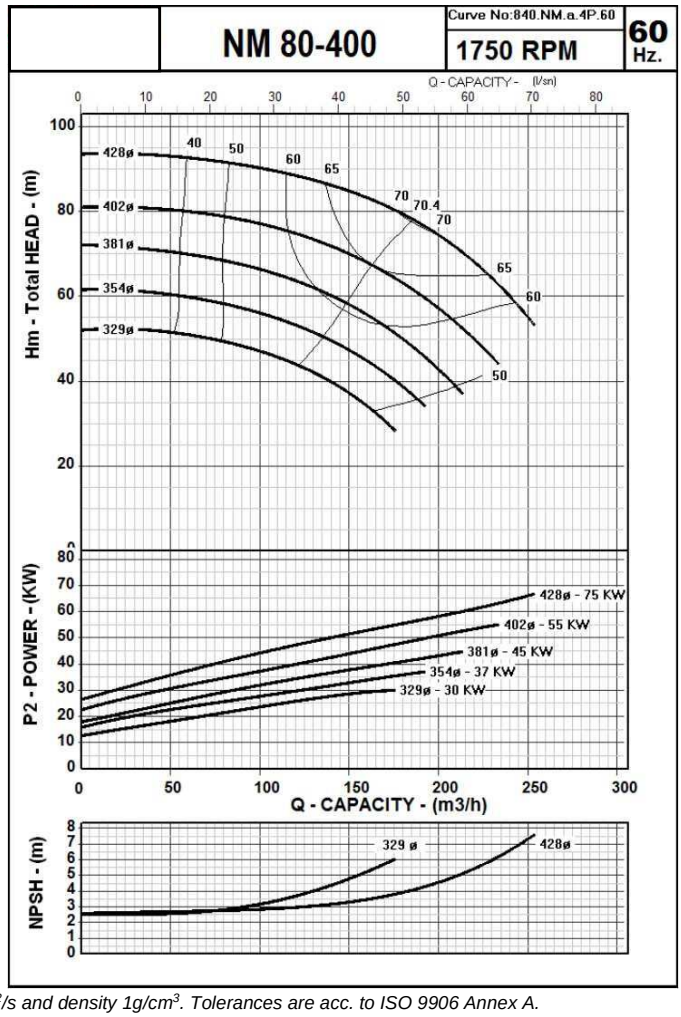


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–315	100	80	125	470	250	315	80	160	120	400	315	M16	340	32	80	120	107

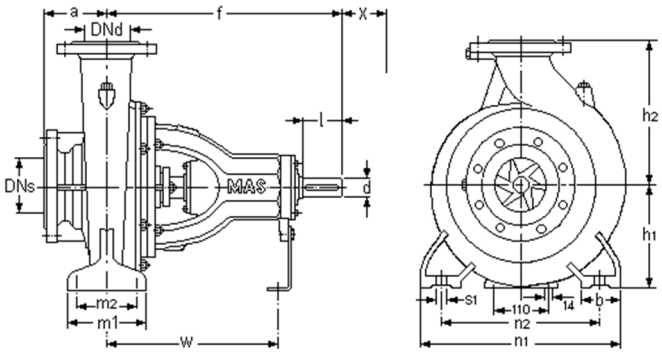
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–315 2 poles 60 Hz	160	315M	1120	315	595	43	1758	770	790	1550	650	160	475	80	200	1150	710	24
	185	315L	1190	315	595	43	1828	790	790	1450	650	160	475	90	200	1050	720	28
	200	315L	1190	315	595	43	1828	790	790	1450	650	160	475	90	200	1050	720	28
	250	355M	1337	355	595	5	1937	920	850	1700	800	160x2	535	90	300	1300	860	24

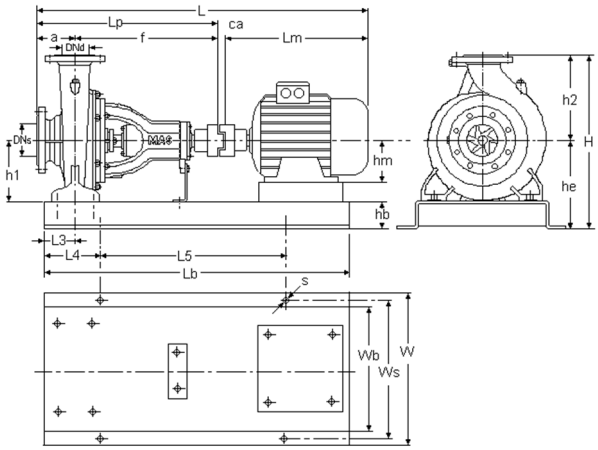
Performance Curves





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

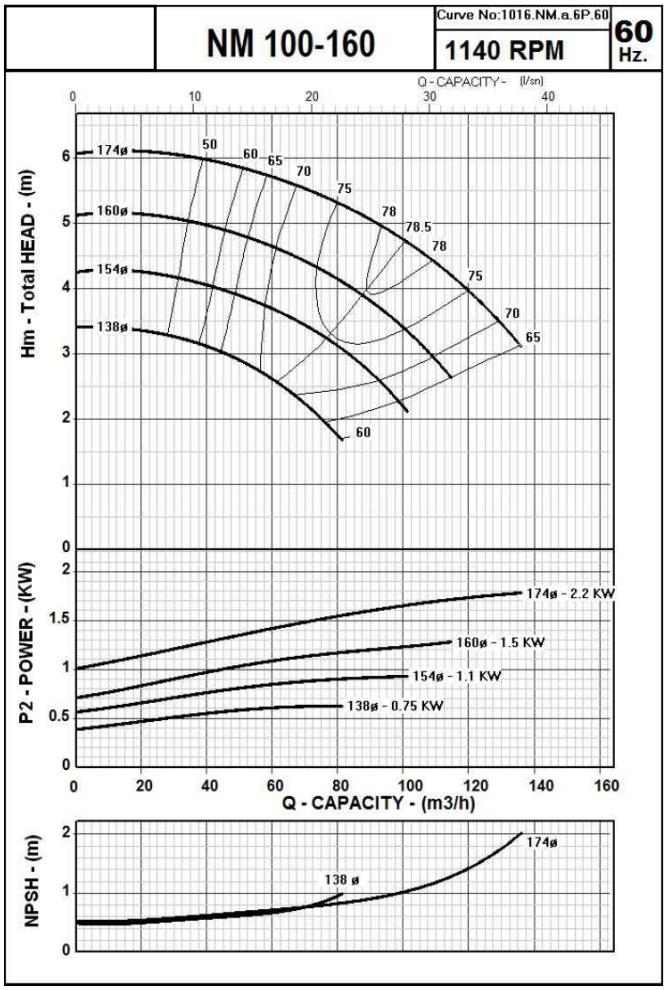


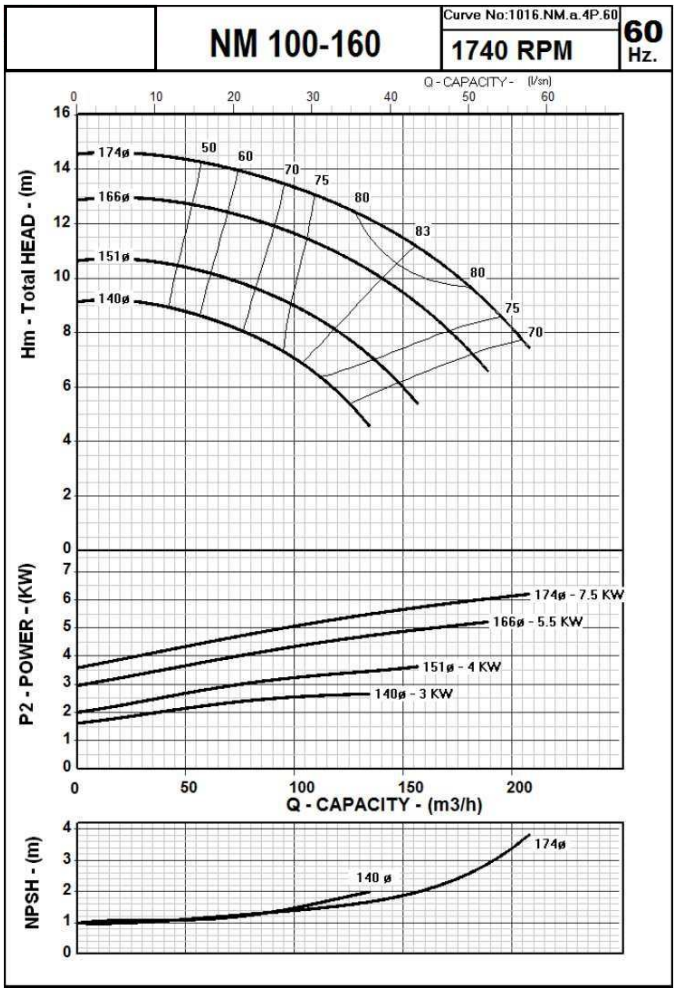


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
80–400	100	80	125	530	280	355	100	200	150	500	400	M20	370	42	110	120	162

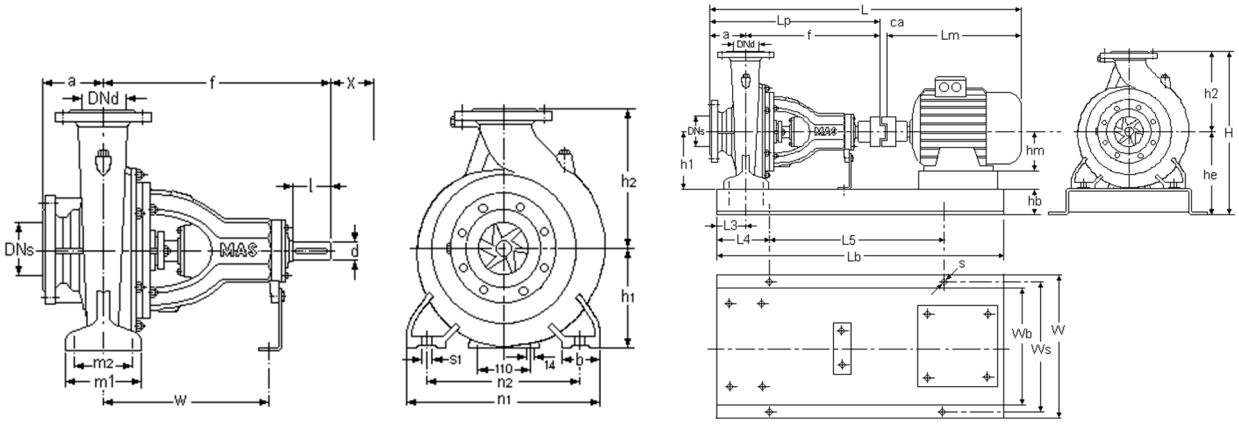
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
80–400 6 poles 60 Hz	11	160L	644	160	655	32	1331	640	775	1250	520	140	420	110	200	850	580	24
	15	180L	695	180	655	32	1382	640	775	1300	520	140	420	110	200	900	580	24
	18,5	200L	665	200	655	32	1352	640	775	1350	520	140	420	110	200	950	580	24
	22	200L	665	200	655	32	1352	640	775	1350	520	140	420	110	200	950	580	24
80–400 4 poles 60 Hz	30	200L	665	200	655	32	1352	640	775	1350	520	140	420	100	200	950	580	24
	37	225M	765	225	655	34	1454	640	775	1350	520	140	420	100	200	950	580	24
	45	225M	765	225	655	34	1454	640	775	1450	520	140	420	100	200	1050	580	24
	55	250M	886	250	655	43	1584	640	775	1450	520	140	420	110	200	1050	580	24
	75	280S	958	280	655	43	1656	720	775	1500	600	140	420	110	200	1100	660	24

NM 100-160





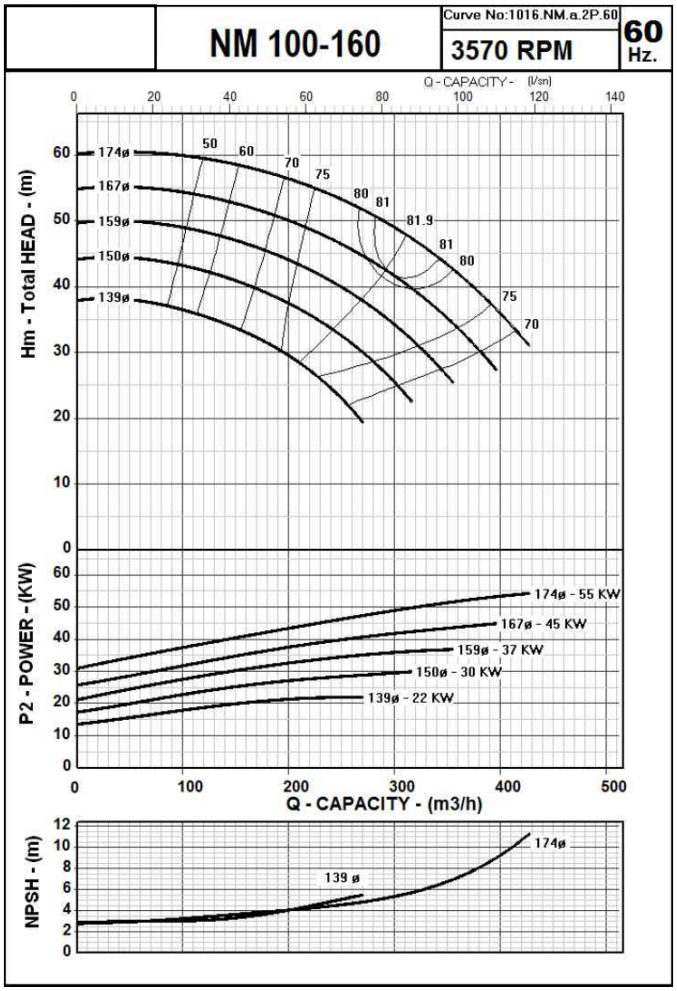
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



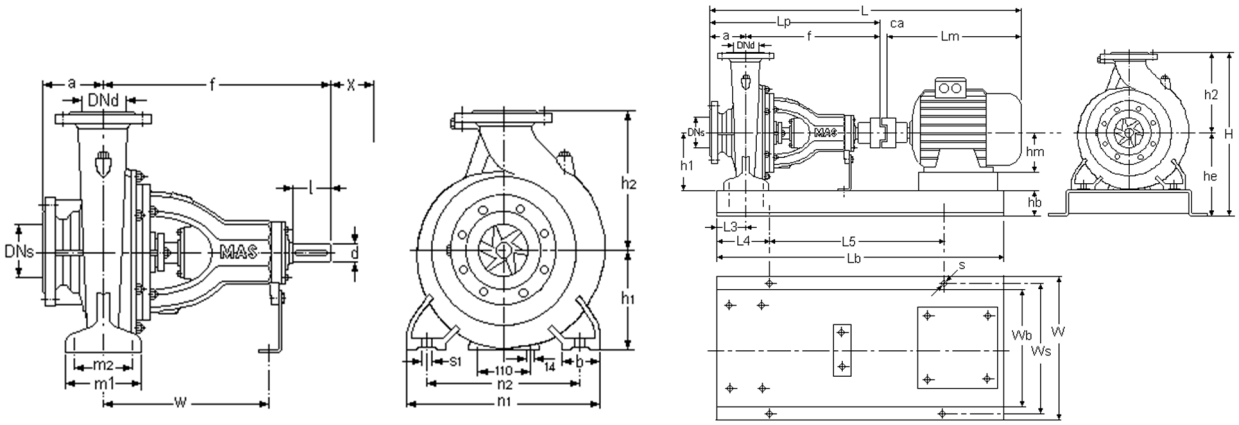
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100–160	125	100	125	360	200	280	80	160	120	360	280	M16	260	24	50	120	-

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–160 6 poles 60 Hz	0.75	90S	309	90	485	19	813	480	580	750	380	100	300	90	100	550	430	19
	1,1	90L	334	90	485	19	838	480	580	800	380	100	300	90	100	600	430	19
	1,5	100L	376	100	485	19	880	480	580	850	380	100	300	90	150	550	430	19
	2,2	112M	396	112	485	19	900	480	580	850	380	100	300	90	150	550	430	19
100–160 4 poles 60 Hz	3	100L	377	100	485	19	881	480	580	850	380	100	300	80	150	550	430	19
	4	112M	395,5	112	485	19	899,5	480	580	850	380	100	300	80	150	550	430	19
	5,5	132M	475,5	132	485	19	979,5	480	580	900	380	100	300	90	150	600	430	19
	7,5	132M	475,5	132	485	19	979,5	480	580	900	380	100	300	90	150	600	430	19

NM 100-160



The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100–160	125	100	125	360	200	280	80	160	120	360	280	M16	260	24	50	120	-

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–160 2 poles 60 Hz	22	180M	629	180	485	19	1133	480	580	1050	380	100	300	80	150	750	430	19
	30	200L	665	200	485	27	1177	520	580	1150	420	100	300	80	150	850	470	19
	37	200L	665	200	485	27	1177	520	580	1150	420	100	300	80	150	850	470	19
	45	225M	735	225	485	32	1252	600	625	1150	480	120	345	90	150	850	540	24
	55	250M	886	250	485	32	1403	620	650	1250	500	120	370	90	200	850	560	24

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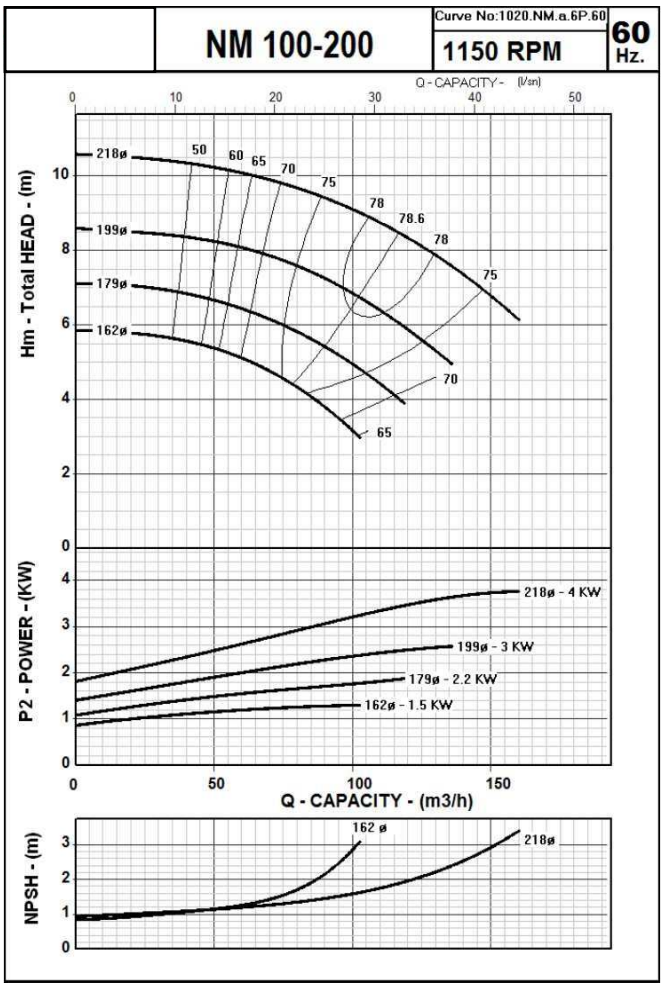
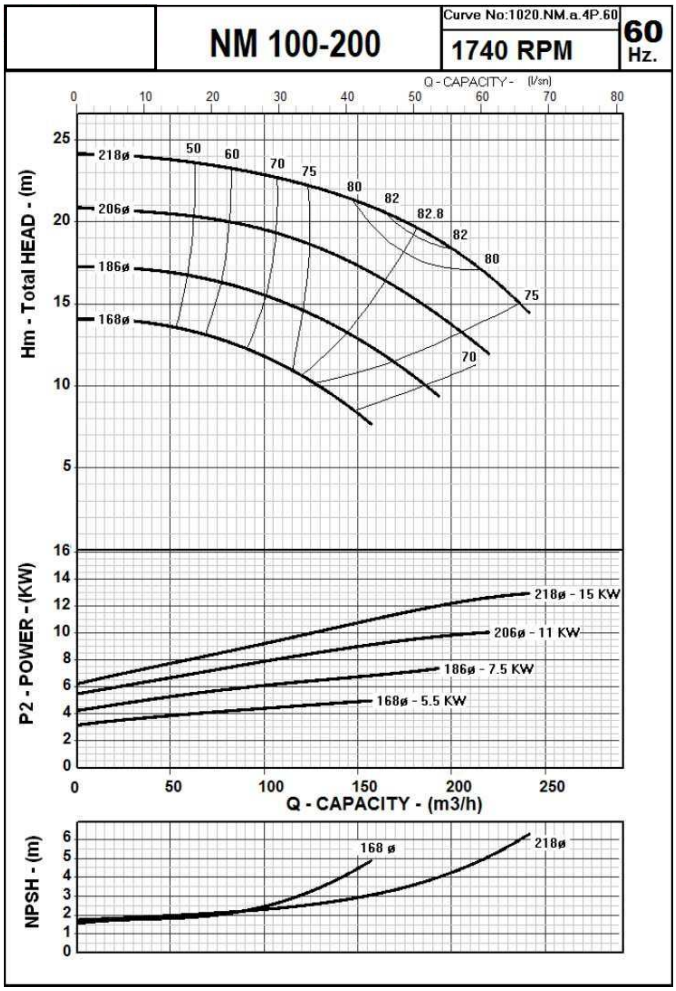
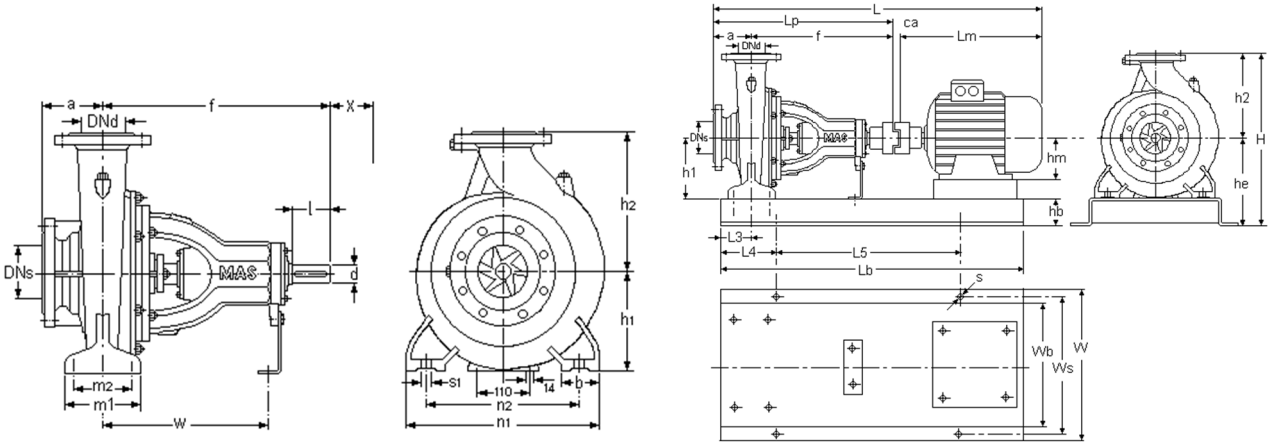
NM 100-200





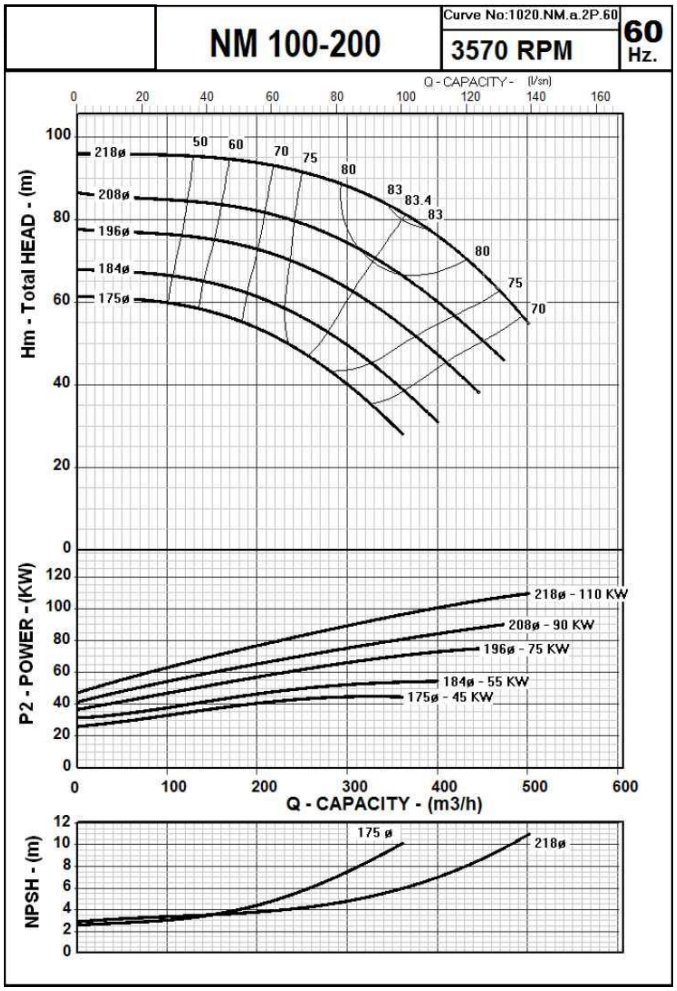
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



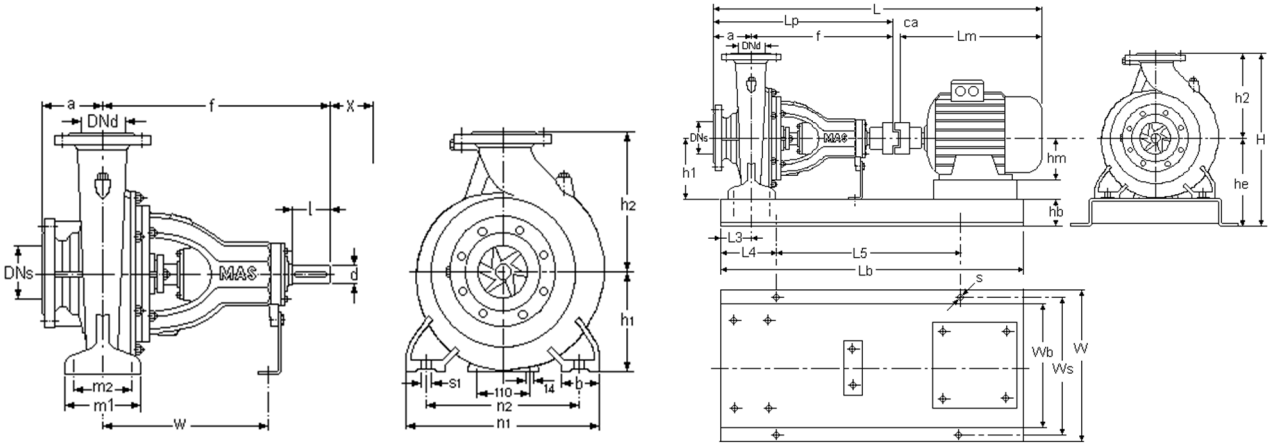
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100-200	125	100	125	470	200	280	80	160	120	360	280	M16	340	32	80	120	83

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–200 6 poles 60 Hz	1,5	100L	376	100	595	19	990	480	580	950	380	100	300	90	150	650	430	19
	2,2	112M	396	112	595	19	1010	480	580	950	380	100	300	90	150	650	430	19
	3	132S	498	132	595	19	1112	480	580	1000	380	100	300	90	150	700	430	19
	4	132M	498	132	595	19	1112	480	580	1050	380	100	300	90	150	750	430	19
100–200 4 poles 60 Hz	5,5	132M	475,5	132	595	19	1089,5	480	580	1000	380	100	300	80	150	700	430	19
	7,5	132M	475,5	132	595	19	1089,5	480	580	1050	380	100	300	80	150	750	430	19
	11	160L	576	160	595	19	1190	480	580	1100	380	100	300	90	150	800	430	19
	15	160L	576	160	595	27	1198	480	580	1150	380	100	300	90	150	850	430	19

NM 100-200



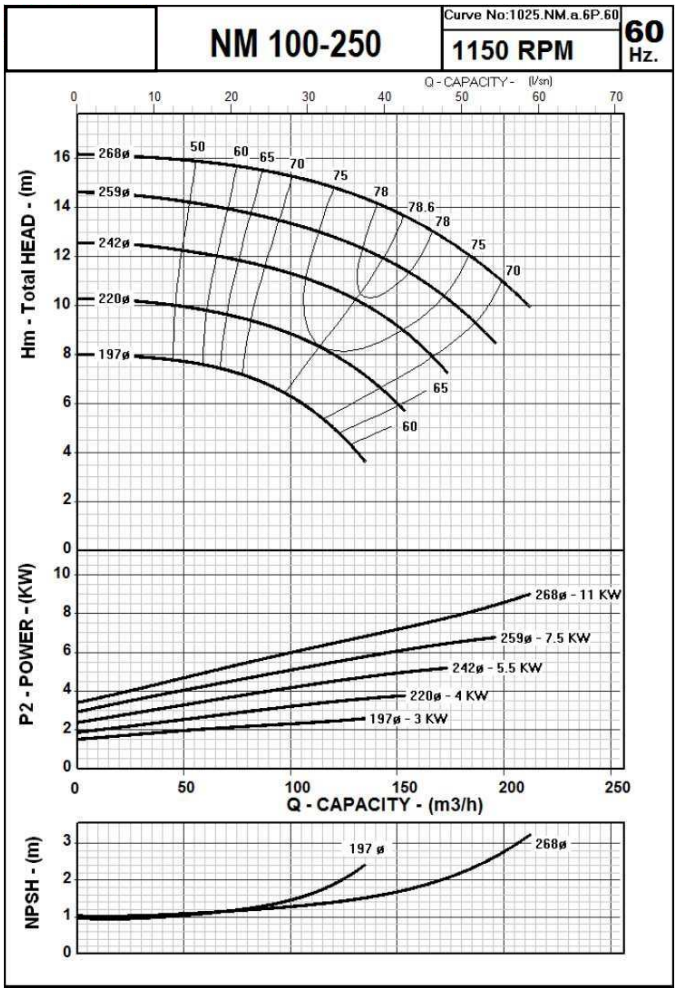
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

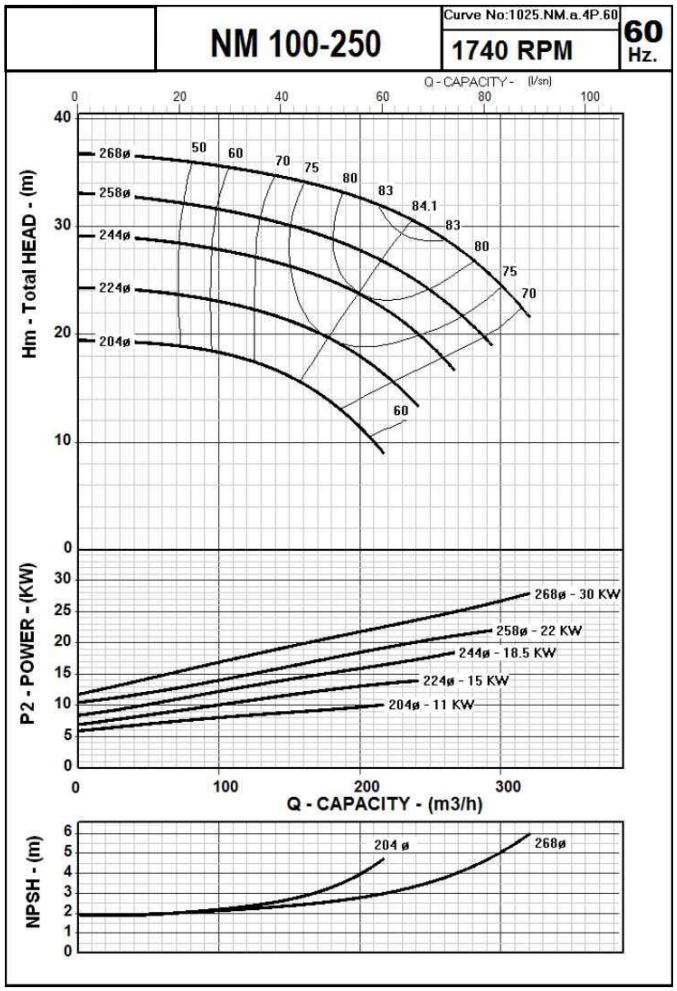


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X	Weight
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	mm	kg
100-200	125	100	125	470	200	280	80	160	120	360	280	M16	340	32	80	120	83

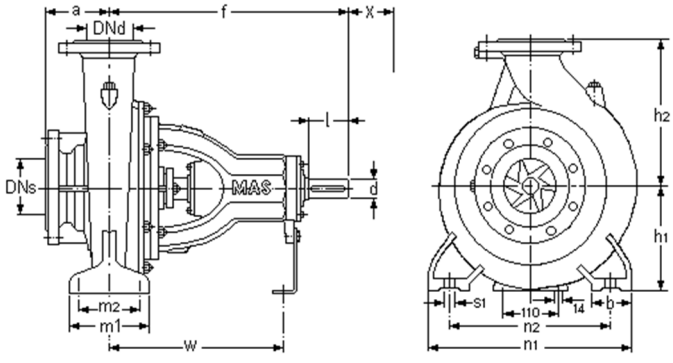
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–200 2 poles 60 Hz	45	225M	735	225	595	27	1357	600	625	1300	480	120	345	80	200	900	540	24
	55	250M	886	250	595	27	1508	620	650	1400	500	120	370	80	200	1000	560	24
	75	280S	958	280	595	34	1587	720	700	1450	600	140	420	80	200	1050	660	24
	90	280M	958	280	595	34	1587	720	700	1500	600	140	420	90	200	1100	660	24
	110	315S	1120	315	595	43	1758	790	755	1500	650	160	475	90	200	1100	720	28

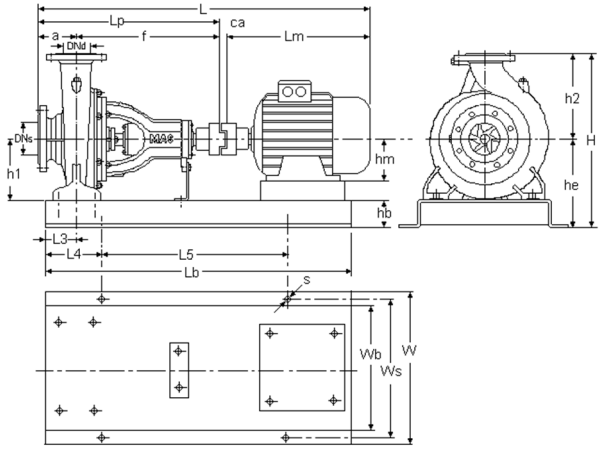
NM 100-250





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.





Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100-250	125	100	140	470	225	280	80	160	120	400	315	M16	340	32	80	130	95

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–250 6 poles 60 Hz	3	132S	498	132	610	19	1127	520	605	1000	420	100	325	90	150	700	470	19
	4	132M	498	132	610	19	1127	520	605	1050	420	100	325	90	150	750	470	19
	5,5	132M	498	132	610	19	1127	520	605	1050	420	100	325	90	150	750	470	19
	7,5	160M	600	160	610	19	1229	520	605	1150	420	100	325	90	150	850	470	19
	11	160L	644	160	610	19	1273	520	605	1150	420	100	325	90	150	850	470	19
100–250 4 poles 60 Hz	11	160L	576	160	610	19	1205	520	605	1100	420	100	325	80	150	800	470	19
	15	160L	576	160	610	27	1213	520	605	1150	420	100	325	80	150	850	470	19
	18,5	180M	629	180	610	27	1266	520	605	1170	420	100	325	80	150	850	470	19
	22	180L	629	180	610	32	1271	520	605	1200	420	100	325	90	150	900	470	19
	30	200L	665	200	610	32	1307	520	605	1250	420	100	325	90	200	850	470	19

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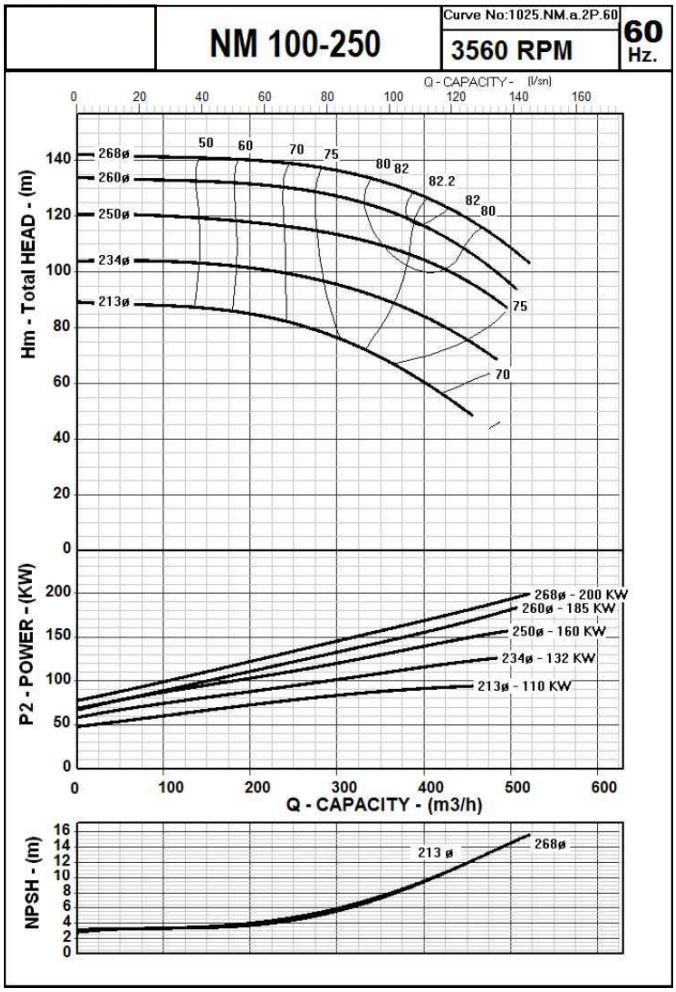
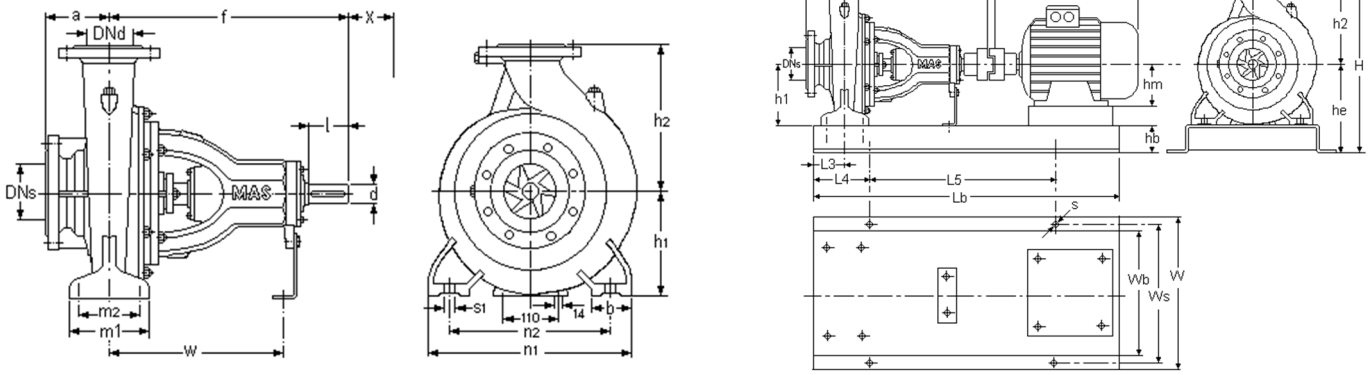
NM 100-250



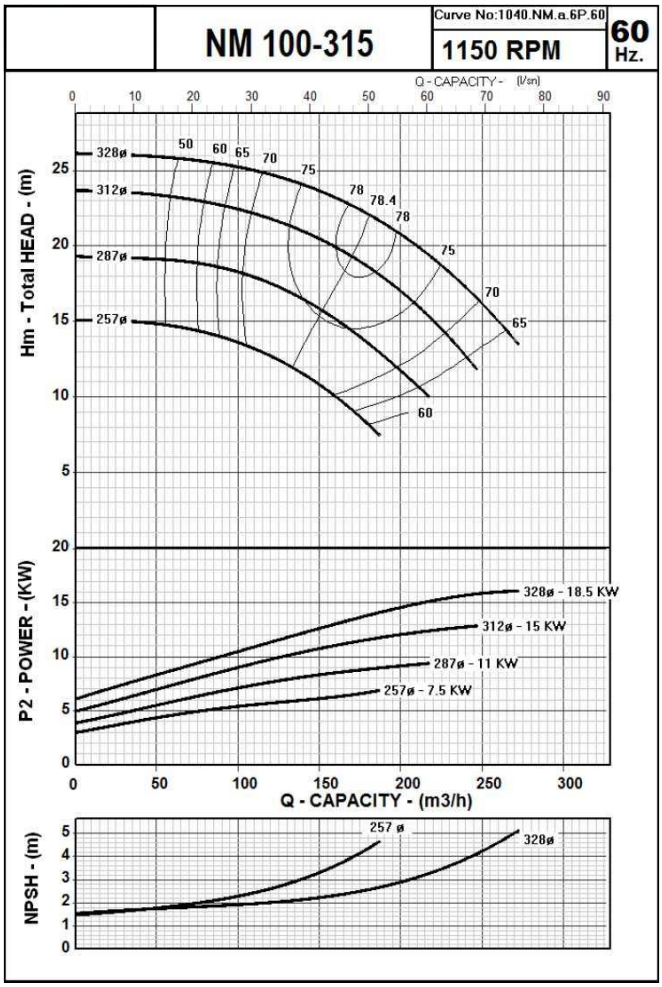
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

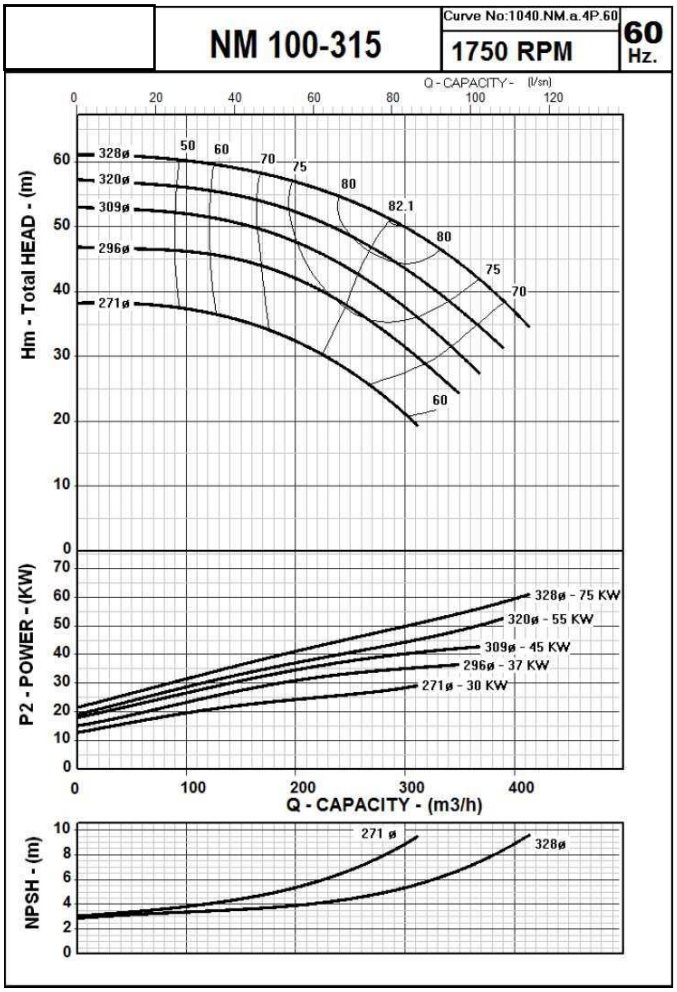


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100-250	125	100	140	470	225	280	80	160	120	400	315	M16	340	32	80	130	95

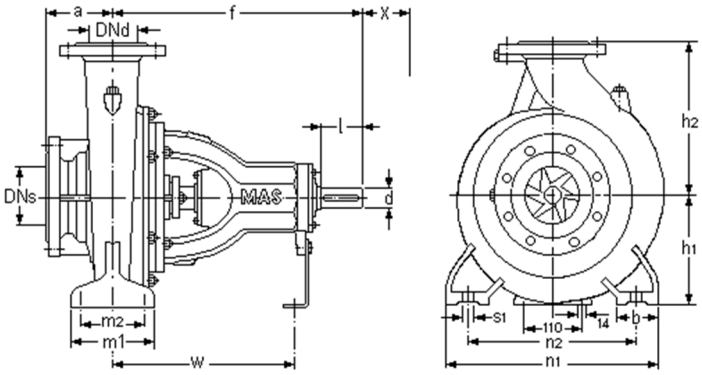
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–250 2 poles 60 Hz	110	315S	1120	315	610	5	1735	770	755	1500	650	160	475	80	200	1100	710	24
	132	315M	1120	315	610	5	1735	790	755	1550	650	160	475	80	200	1150	720	28
	160	315M	1120	315	610	5	1735	790	755	1550	650	160	475	80	200	1150	720	28
	185	315L	1190	315	610	5	1805	770	755	1600	650	160	475	80	200	1200	710	24
	200	315L	1190	315	610	5	1805	770	755	1600	650	160	475	80	300	1000	710	24

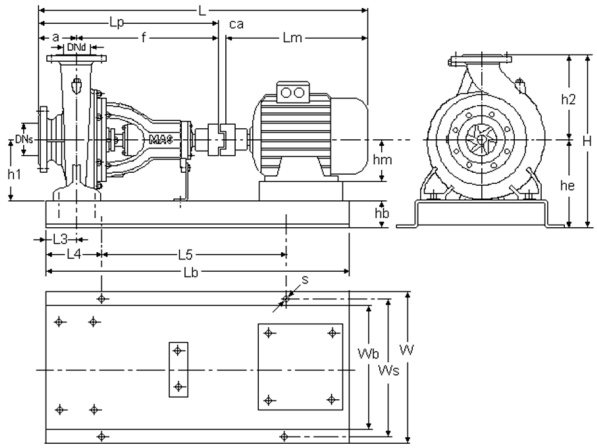
NM 100-315





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

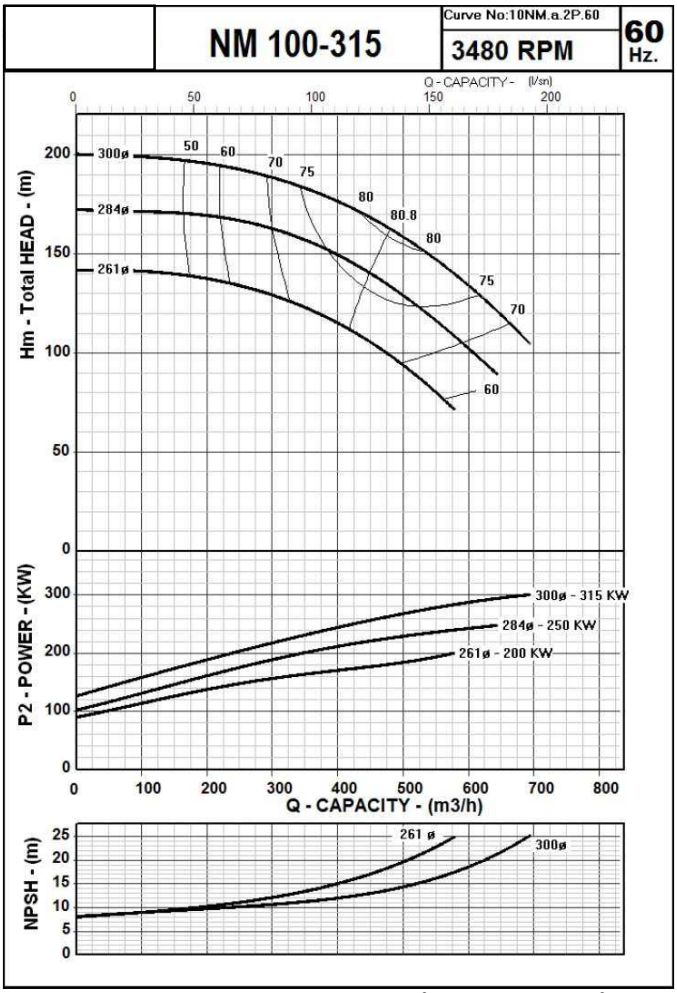




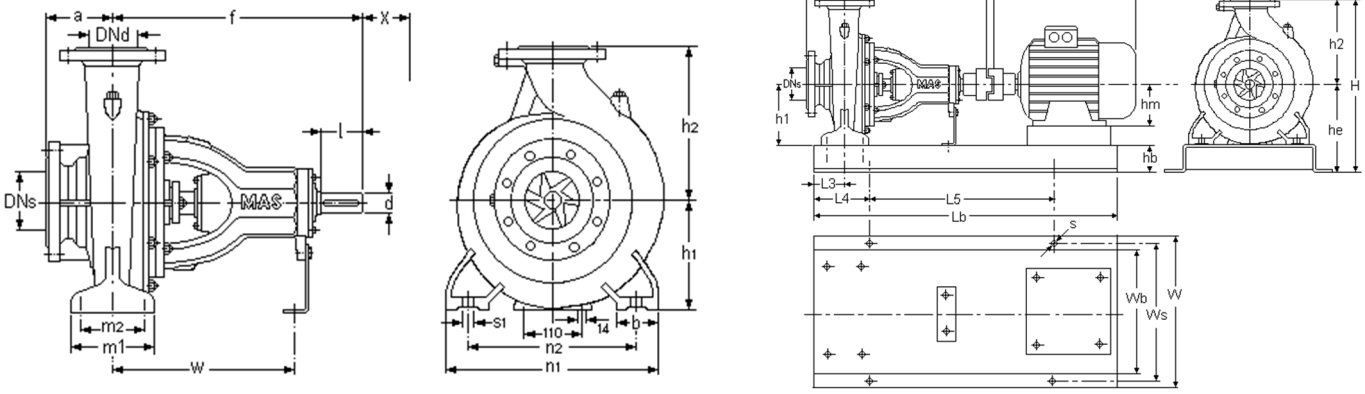
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100-315	125	100	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	110

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–315 6 poles 60 Hz	7,5	160M	600	160	610	27	1237	520	665	1150	420	100	350	80	150	850	470	19
	11	160L	644	160	610	27	1281	520	665	1150	420	100	350	80	150	850	470	19
	15	180L	660	180	610	34	1304	520	665	1200	420	100	350	80	150	900	470	19
	18,5	200L	747	200	610	34	1391	520	665	1250	420	100	350	80	200	850	470	19
100–315 4 poles 60 Hz	30	200L	747	200	610	34	1391	520	665	1250	420	100	350	80	200	850	470	19
	37	225S	790	225	610	43	1443	600	685	1300	480	120	370	80	200	900	540	24
	45	225M	820	225	610	43	1473	600	685	1300	480	120	370	80	200	900	540	24
	55	250M	896	250	610	43	1549	640	685	1400	520	120	370	80	200	1000	580	24
	75	280S	958	280	610	46	1614	720	735	1500	600	140	420	80	200	1100	660	24

NM 100-315



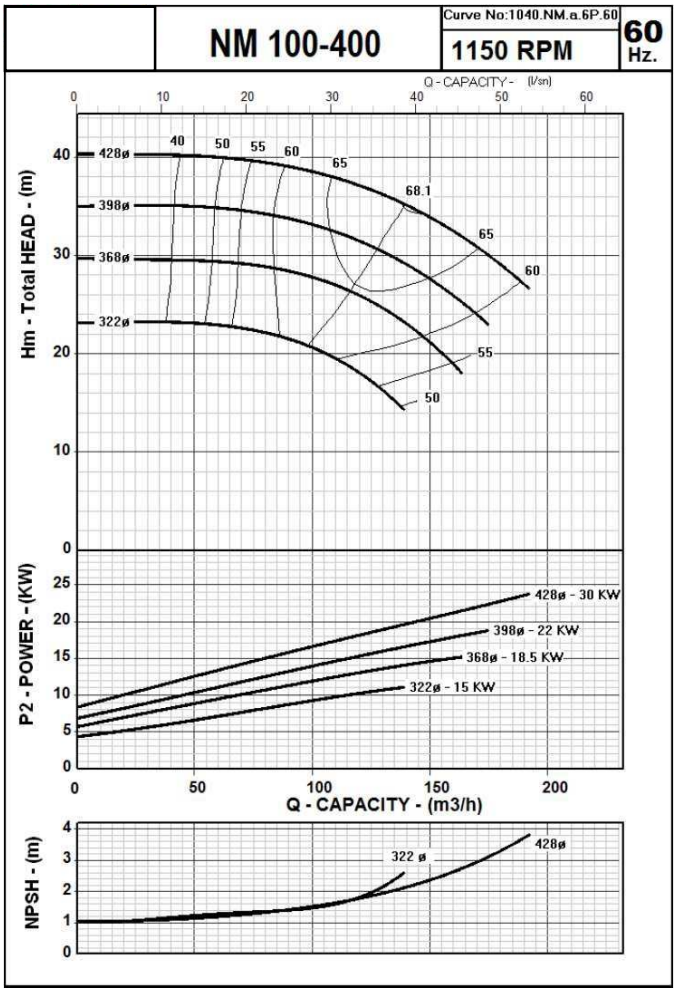
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

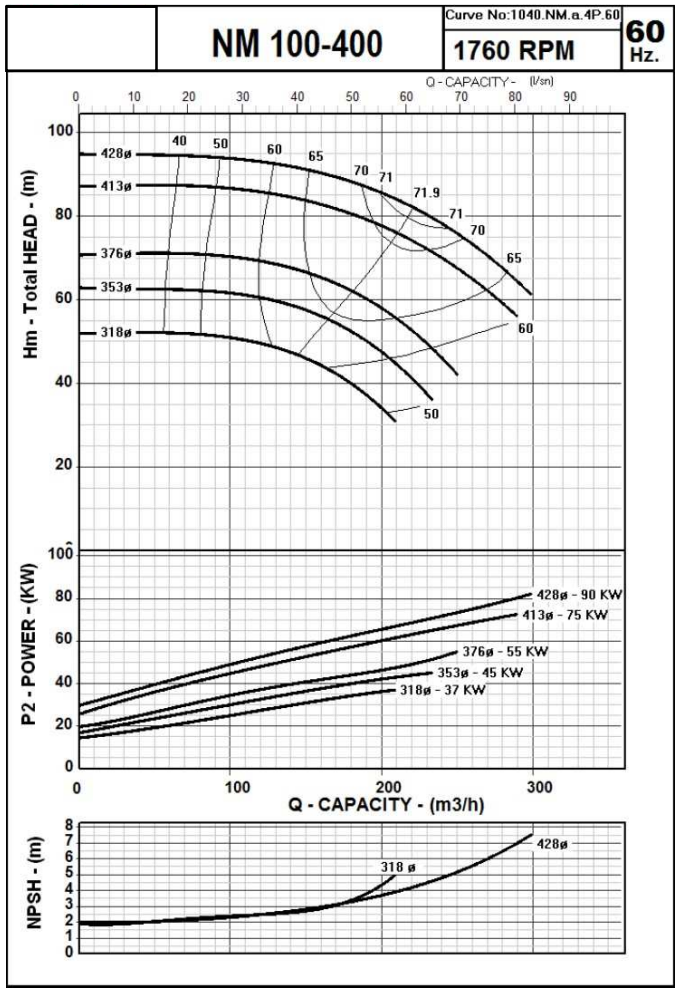


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100-315	125	100	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	110

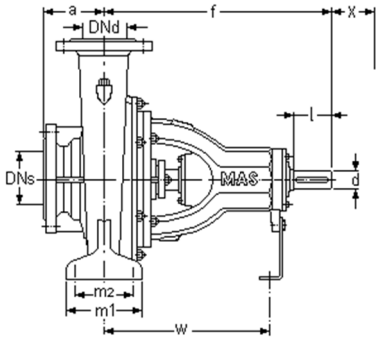
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–315 2 poles 60 Hz	200	315L	1190	315	610	5	1805	770	790	1600	650	160	475	80	200	1200	710	24
	250	355M	1337	355	610	5	1952	920	850	1700	800	160x2	535	80	300	1100	860	24
	315	355M	1337	355	610	5	1952	920	850	1700	800	160x2	535	80	300	1100	860	24

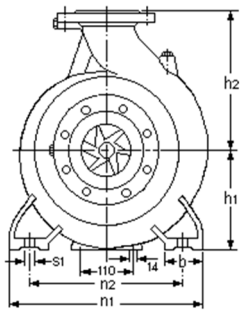
NM 100-400

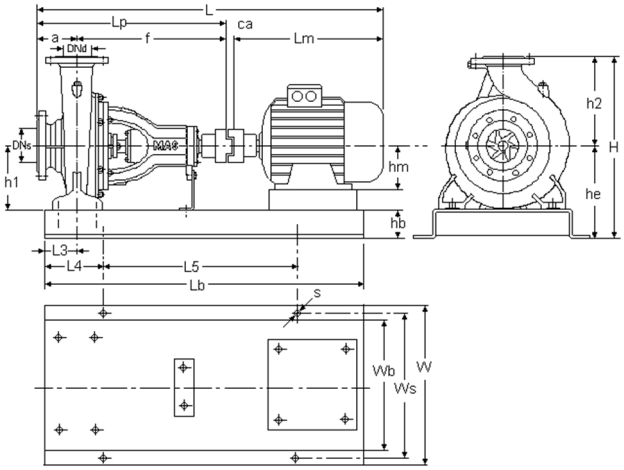




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



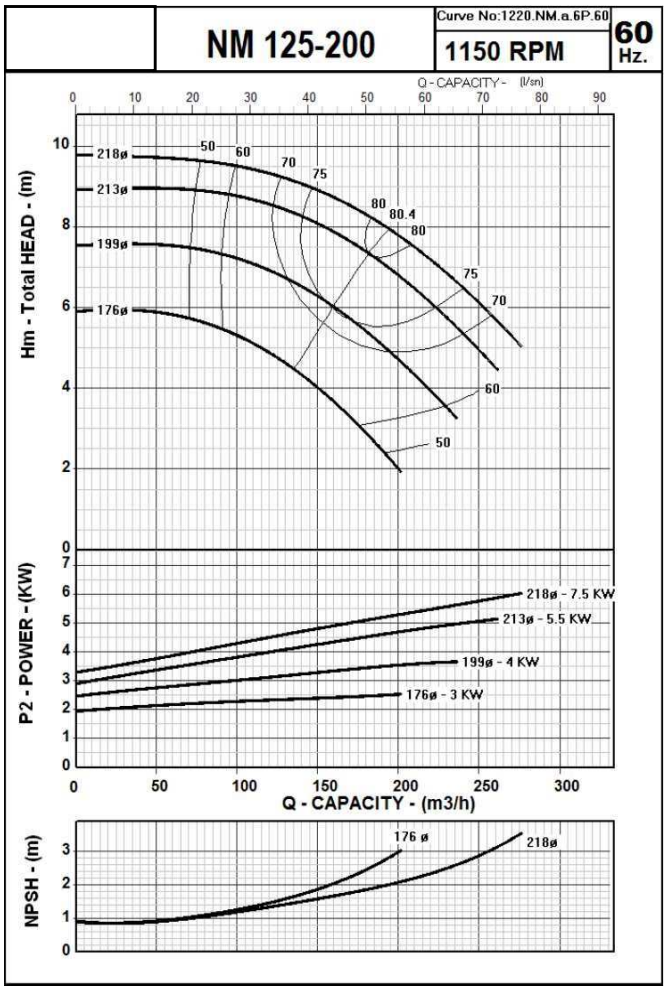


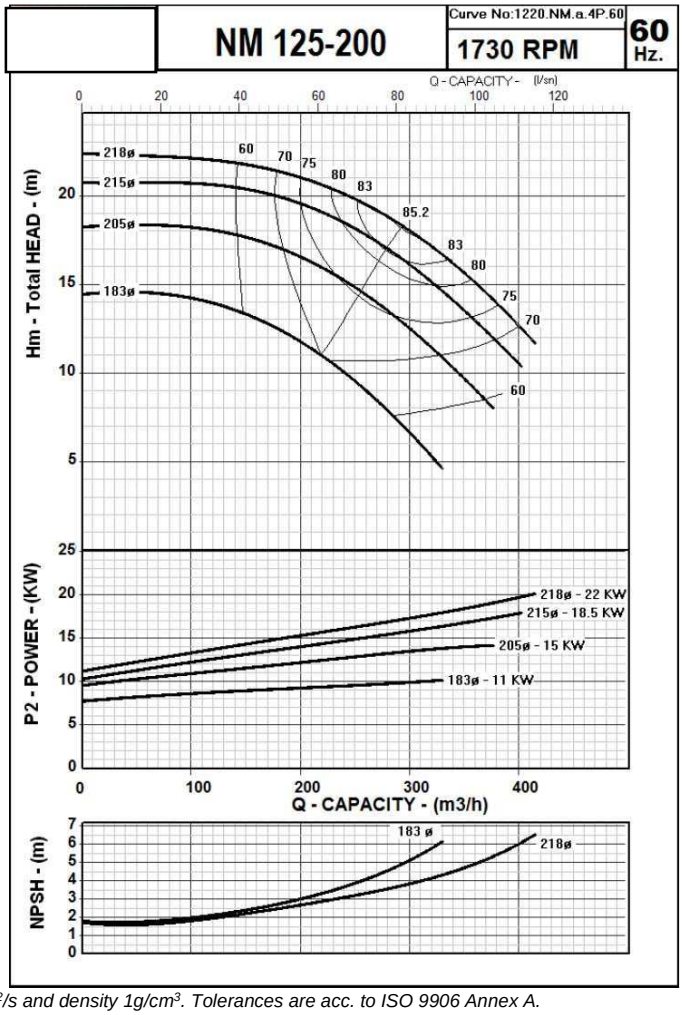


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
100-400	125	100	140	530	280	355	100	200	150	500	400	M20	370	42	110	130	168

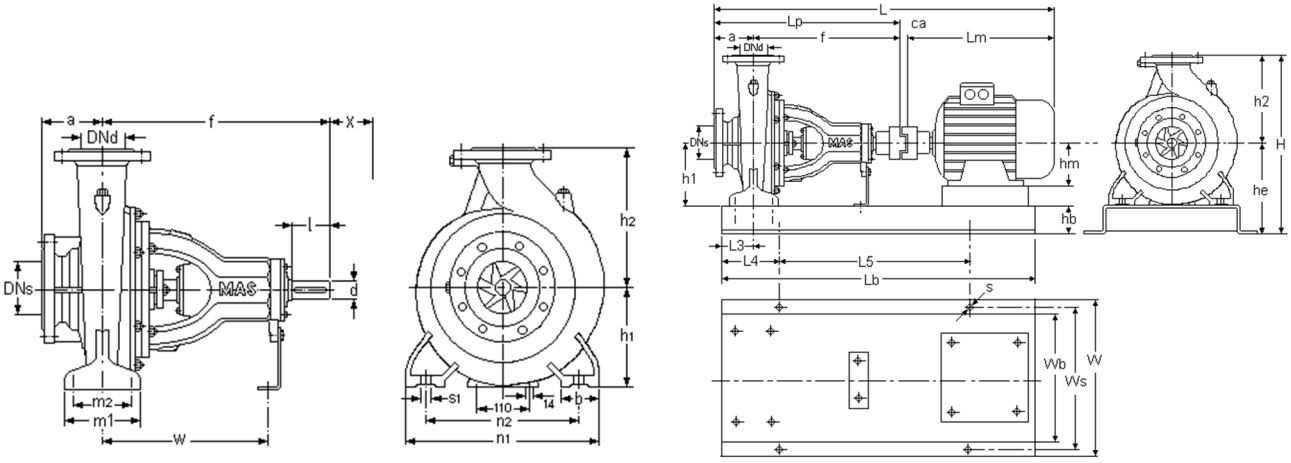
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
100–400 6 poles 60 Hz	15	180L	660	180	670	32	1362	640	775	1300	520	140	420	100	200	900	580	24
	18,5	200L	747	200	670	34	1451	640	775	1350	520	140	420	100	200	950	580	24
	22	200L	747	200	670	34	1451	640	775	1350	520	140	420	100	200	950	580	24
	30	225M	816	225	670	43	1529	640	775	1400	520	140	420	100	200	950	580	24
100–400 4 poles 60 Hz	37	225S	795	225	670	43	1508	640	775	1400	520	140	420	100	200	950	580	24
	45	225M	790	225	670	43	1503	640	775	1400	520	140	420	100	200	1000	580	24
	55	250M	896	250	670	43	1609	640	775	1450	520	140	420	100	200	1050	580	24
	75	280S	958	280	670	46	1674	720	775	1500	600	140	420	100	200	1100	660	24
	90	280M	958	280	670	46	1674	720	775	1500	600	140	420	100	200	1100	660	24

NM 125-200





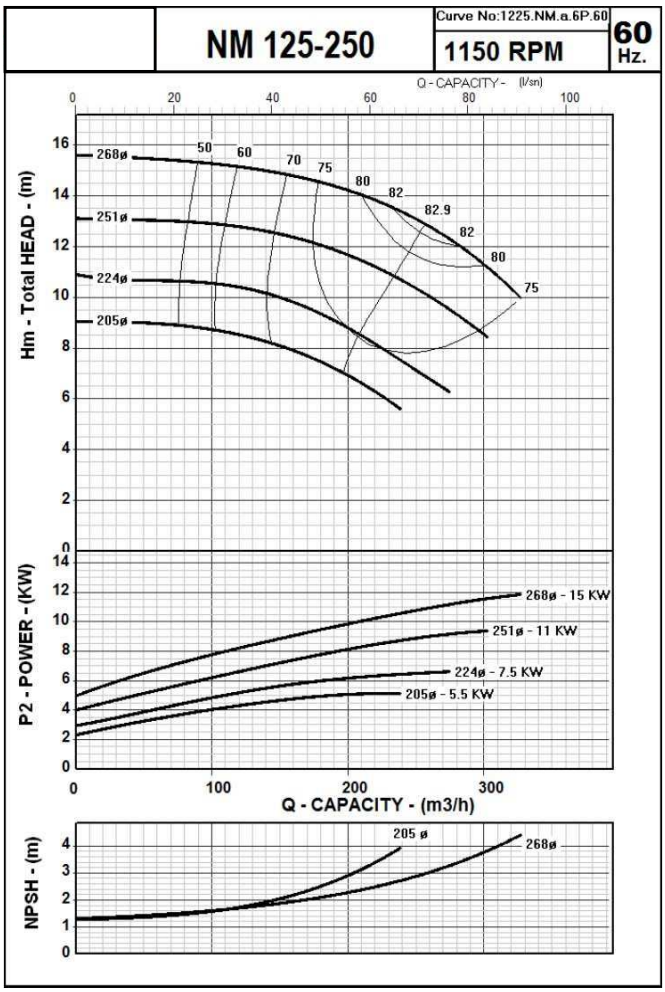
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

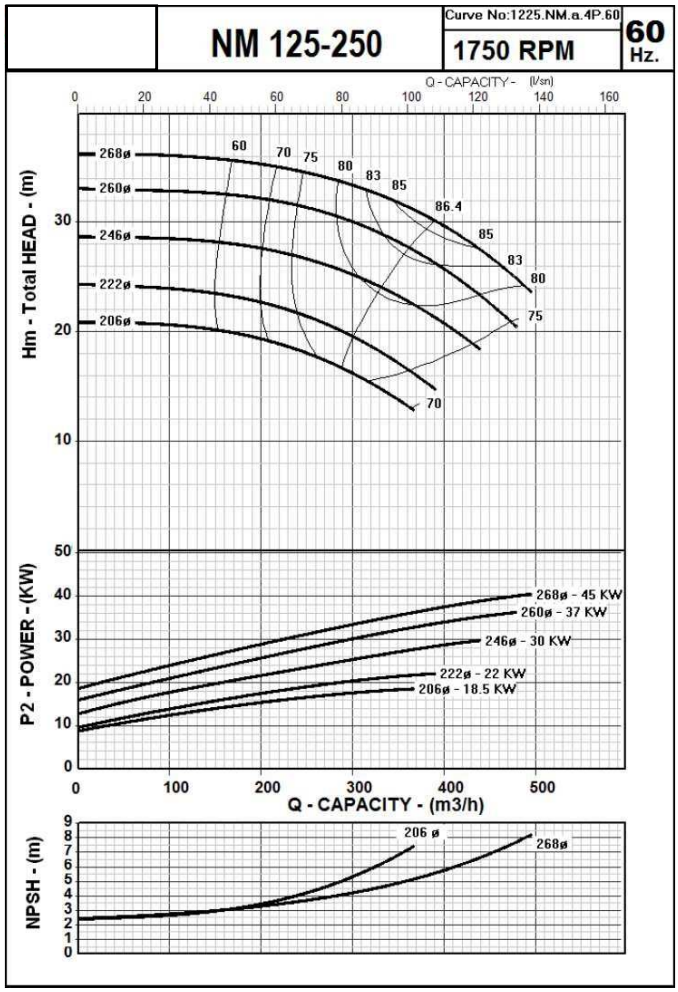


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
125–200	150	125	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	106.5

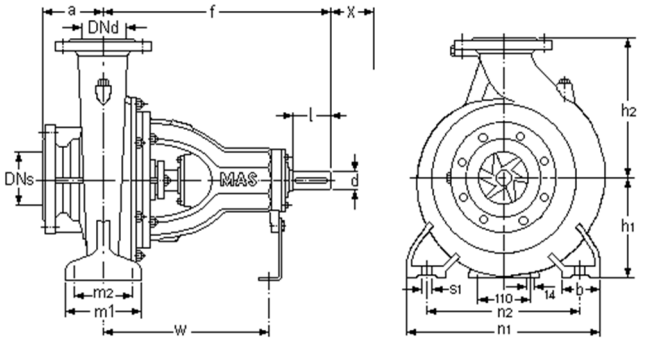
	MOTOR				PUMP		ENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
125–200 6 poles 60 Hz	3	132S	455	132	610	19	1084	520	665	1000	420	100	350	80	150	700	470	19
	4	132M	493	132	610	19	1122	520	665	1000	420	100	350	80	150	700	470	19
	5,5	132M	493	132	610	19	1122	520	665	1000	420	100	350	80	150	700	470	19
	7,5	160M	600	160	610	27	1237	520	665	1150	420	100	350	80	150	800	470	19
125–200 4 poles 60 Hz	11	160M	600	160	610	27	1237	520	665	1150	420	100	350	80	150	800	470	19
	15	160L	644	160	610	32	1286	520	665	1150	420	100	350	80	150	850	470	19
	18,5	180M	660	180	610	32	1302	520	665	1200	420	100	350	80	150	850	470	19
	22	180L	660	180	610	34	1304	520	665	1200	420	100	350	80	150	850	470	19

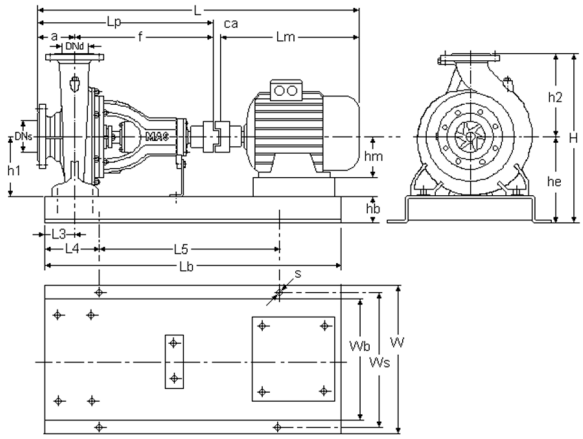
NM 125-250





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

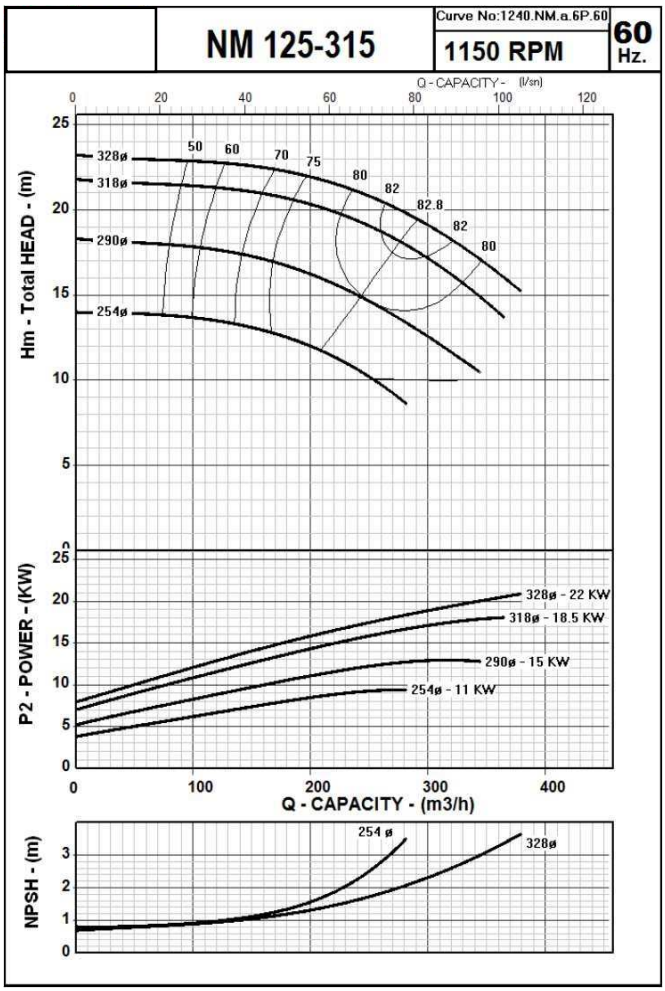


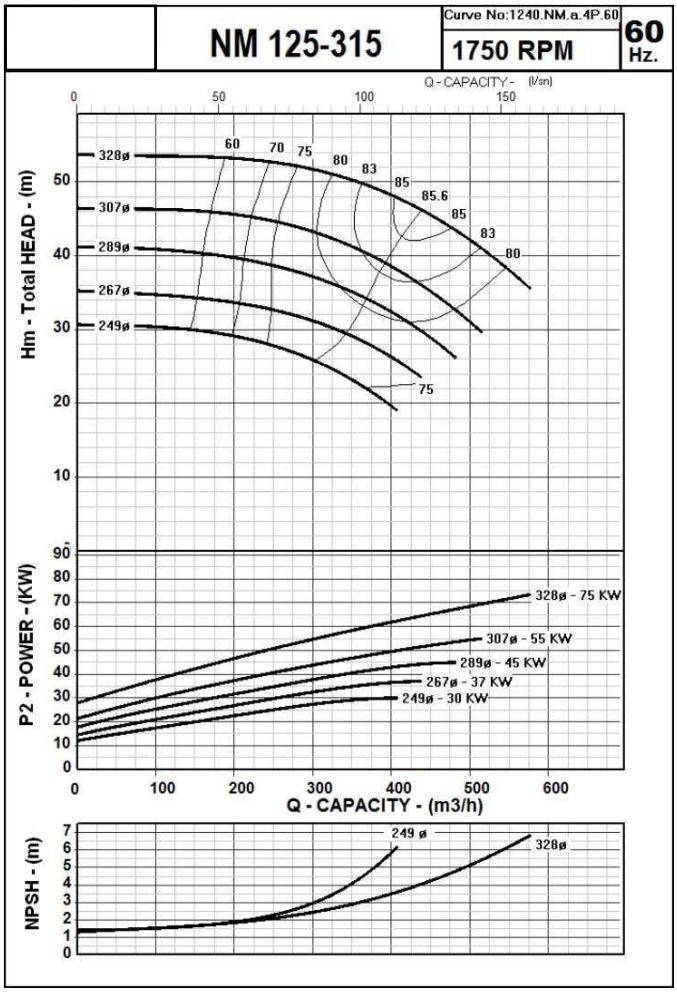


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
125–250	150	125	140	470	250	355	80	160	120	400	315	M16	340	32	80	140	105,5

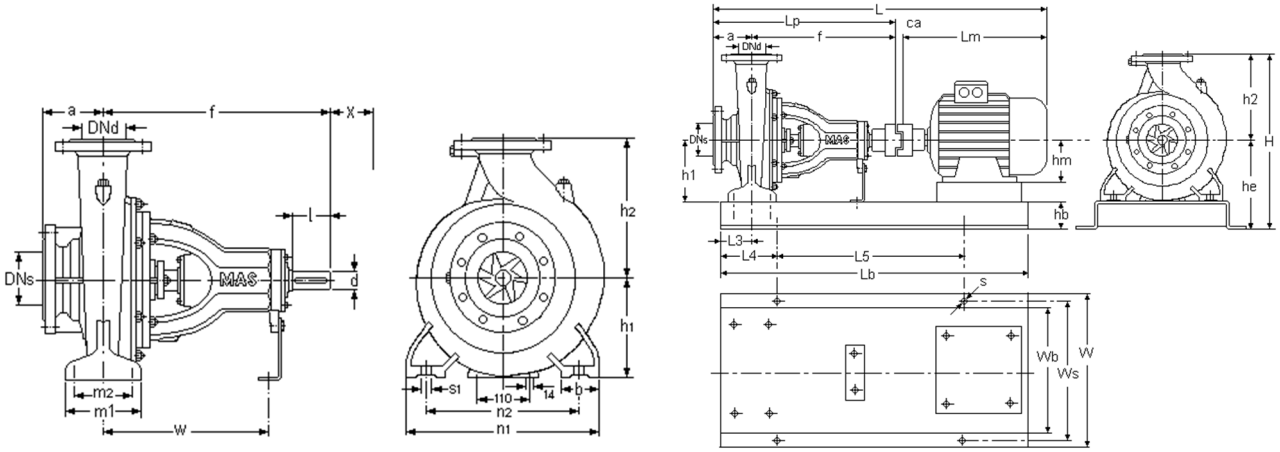
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
125–250 6 poles 60 Hz	5,5	132M	493	132	610	19	1122	520	705	1050	420	100	350	80	150	750	470	19
	7,5	160M	600	160	610	27	1237	520	705	1150	420	100	350	80	150	850	470	19
	11	160L	493	132	610	19	1122	520	705	1050	420	100	350	80	150	750	470	19
	15	180L	660	180	610	34	1304	520	705	1200	420	100	350	80	150	900	470	19
125–250 4 poles 60 Hz	18,5	180M	629	180	610	27	1266	520	705	1170	420	100	350	80	150	850	470	19
	22	180L	629	180	610	32	1271	520	705	1200	420	100	350	80	150	900	470	19
	30	200L	665	200	610	32	1307	520	705	1250	420	100	350	80	200	850	470	19
	37	225M	765	225	610	34	1409	600	725	1300	480	120	370	80	200	900	540	24
	45	225M	765	225	610	34	1409	600	725	1300	480	120	370	80	200	900	540	24

NM 125-315





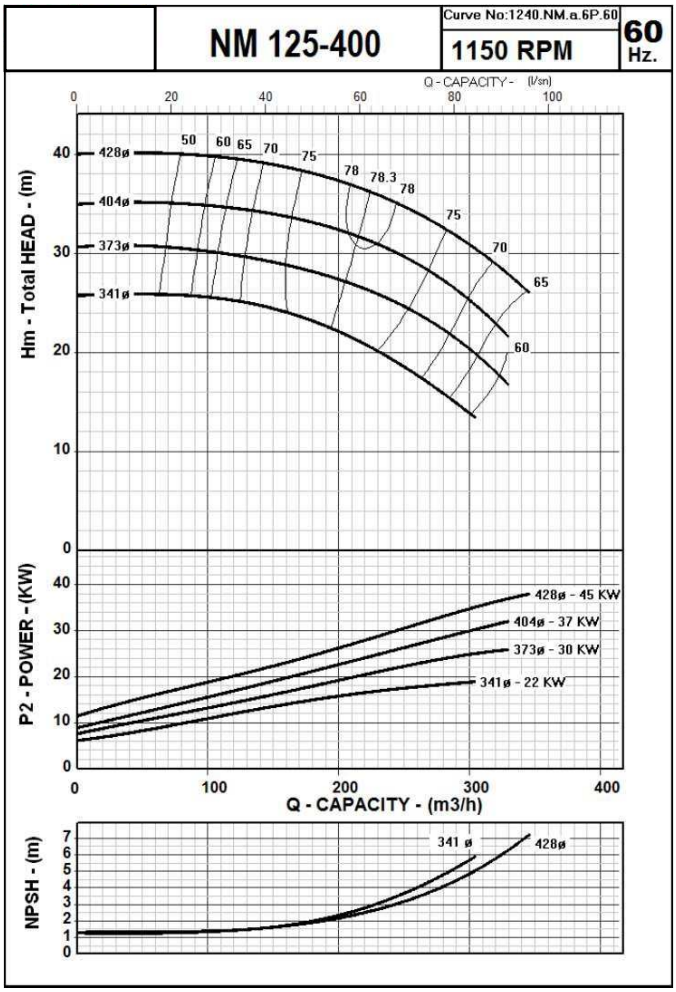
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

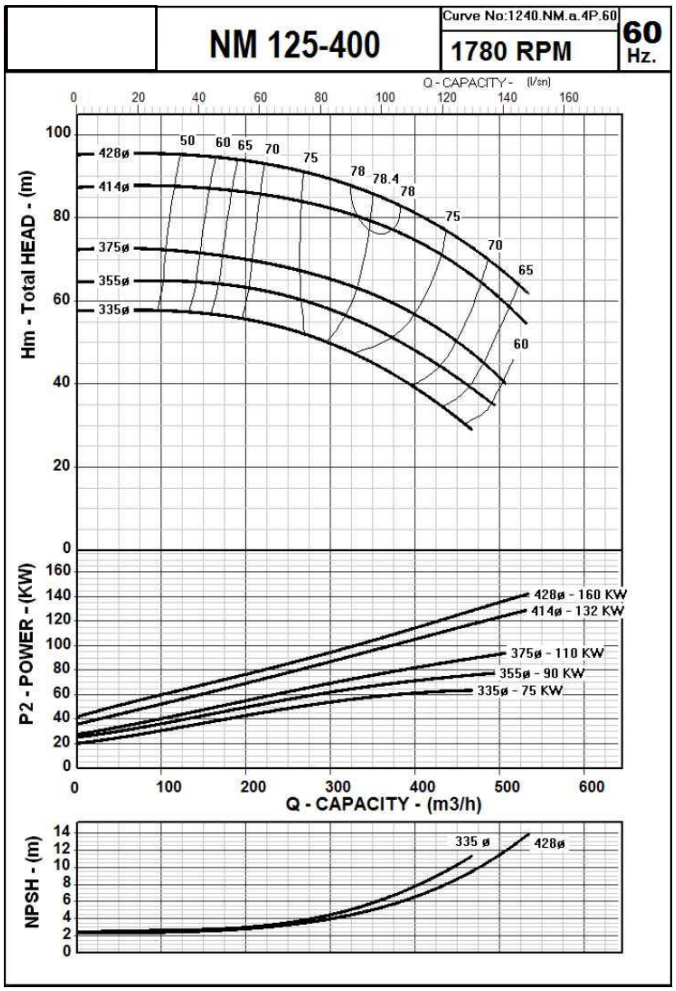


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
125–315	150	125	140	530	280	355	100	200	150	500	400	M20	370	42	110	140	166,5

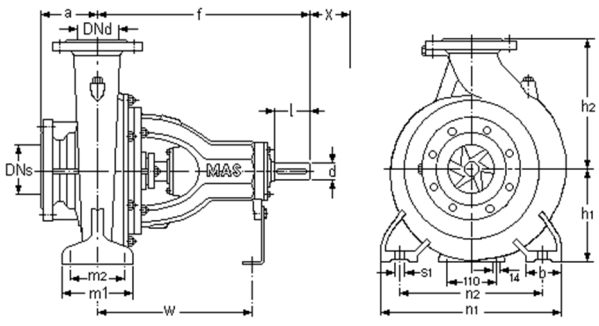
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
125–315 6 poles 60 Hz	11	160L	644	160	670	27	1341	640	775	1250	520	140	420	100	200	850	580	24
	15	180L	660	180	670	32	1362	640	775	1300	520	140	420	100	200	900	580	24
	18,5	200L	747	200	670	34	1451	640	775	1350	520	140	420	100	200	950	580	24
	22	200L	747	200	670	34	1451	640	775	1350	520	140	420	100	200	950	580	24
125–315 4 poles 60 Hz	30	200L	747	200	670	34	1451	640	775	1350	520	140	420	100	200	950	580	24
	37	225S	790	225	670	43	1503	640	775	1350	520	140	420	100	200	950	580	24
	45	225M	820	225	670	43	1533	640	775	1400	520	140	420	100	200	1000	580	24
	55	250M	896	250	670	43	1609	640	775	1450	520	140	420	100	200	1050	580	24
	75	280S	958	280	670	43	1671	720	775	1500	600	140	420	100	200	1100	660	24

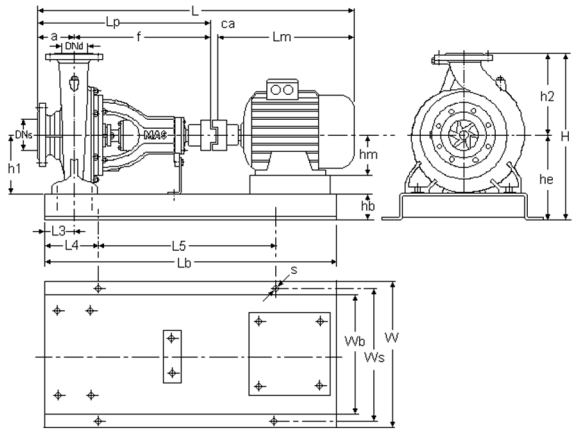
NM 125-400





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

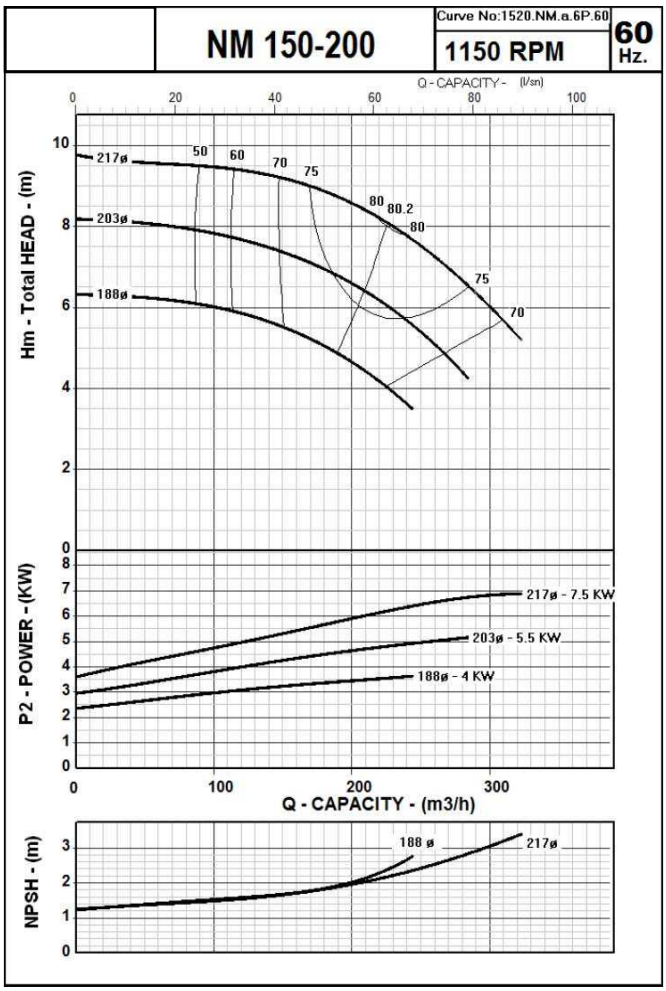


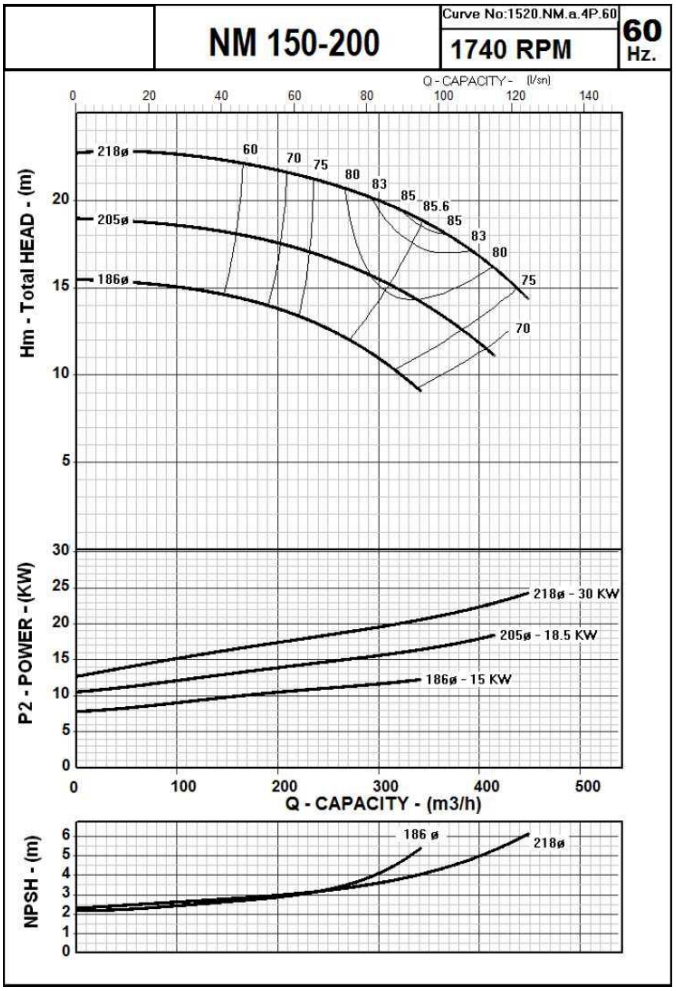


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
125–400	150	125	140	530	315	400	100	200	150	500	400	M20	370	42	110	140	189

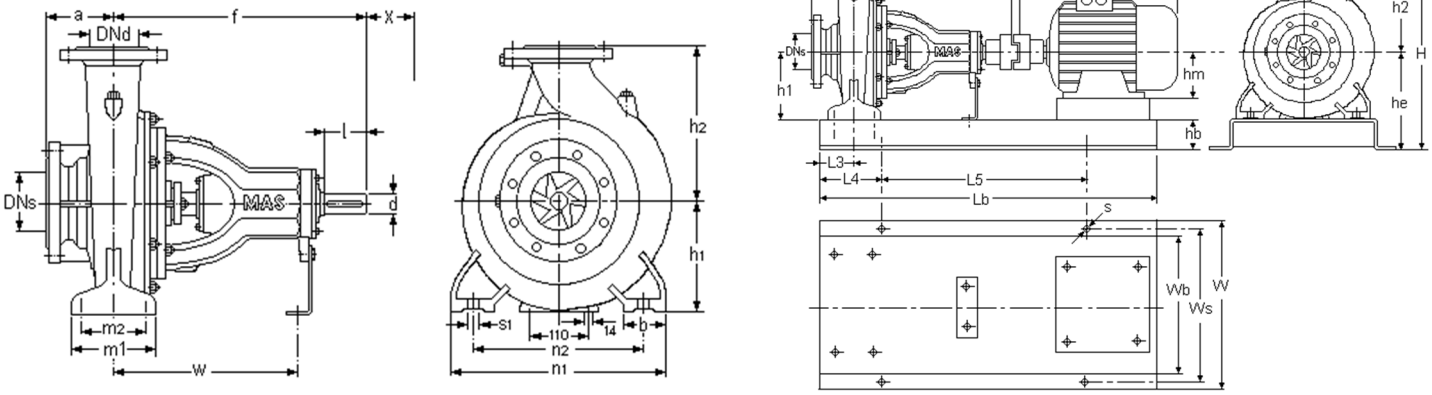
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
125–400 6 poles 60 Hz	22	200L	747	200	670	34	1451	640	855	1350	520	140	455	100	200	950	580	24
	30	225M	790	225	670	43	1503	640	855	1400	520	140	455	100	200	1000	580	24
	37	250M	896	250	670	43	1609	640	855	1450	520	140	455	100	200	1050	580	24
	45	280S	958	280	670	46	1674	720	855	1550	600	140	455	100	200	1100	660	24
125–400 4 poles 60 Hz	75	280S	958	280	670	46	1674	720	855	1550	600	140	455	100	200	1100	660	24
	90	280M	958	280	670	46	1674	720	855	1550	600	140	455	100	200	1150	660	24
	110	315S	1150	315	670	5	1825	770	875	1600	650	160	475	100	200	1200	710	24
	132	315M	1150	315	670	5	1825	770	875	1600	650	160	475	100	200	1200	710	24
	160	315M	1150	315	670	5	1825	770	875	1600	650	160	475	100	200	1200	710	24

NM 150-200





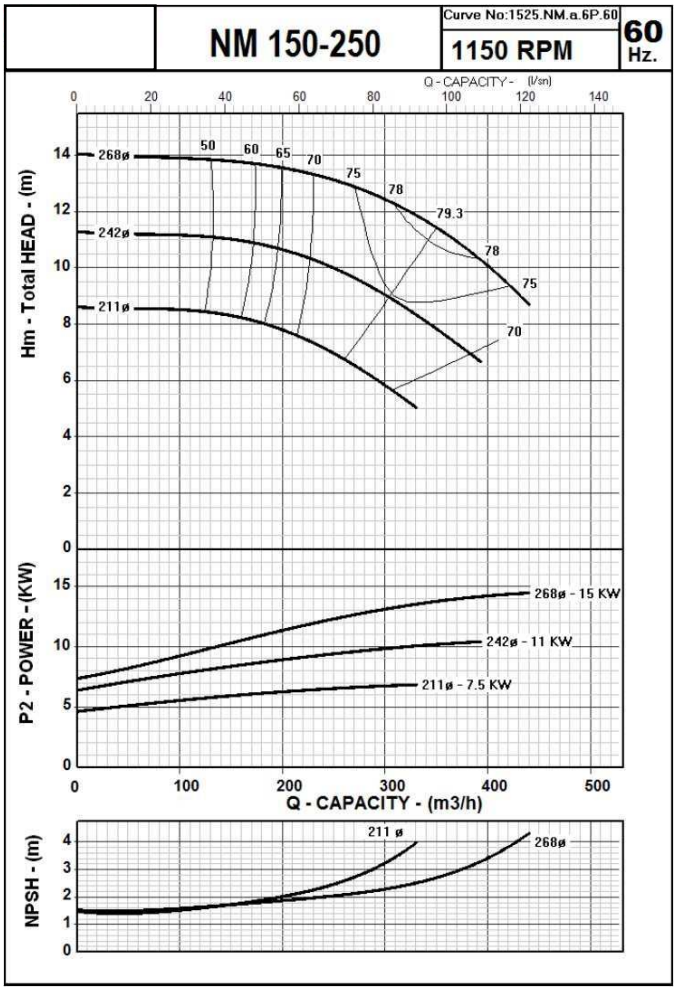
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

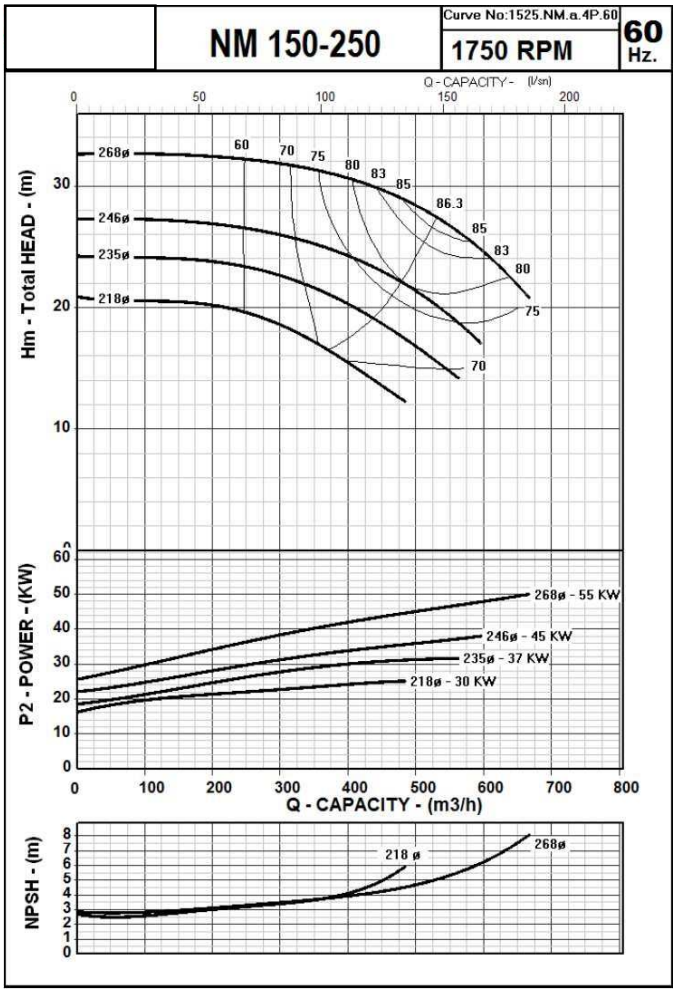


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
150-200	200	150	160	470	280	355	100	200	150	500	400	M16	340	32	80	170	137.5

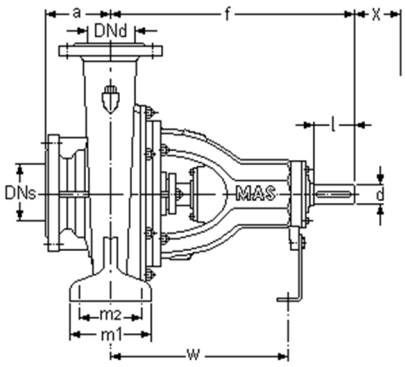
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
150–200 6 poles 60 Hz	4	132M	493	132	630	19	1142	640	775	1050	520	140	420	100	150	750	580	24
	5,5	132M	493	132	630	19	1142	640	775	1050	520	140	420	100	150	750	580	24
	7,5	160M	600	160	630	27	1257	640	775	1150	520	140	420	100	150	850	580	24
150–200 4 poles 60 Hz	15	160L	644	160	630	32	1306	640	775	1200	520	140	420	100	150	900	580	24
	18,5	180M	660	180	630	32	1322	640	775	1200	520	140	420	100	150	900	580	24
	30	180L	660	180	630	34	1324	640	775	1200	520	140	420	100	150	900	580	24

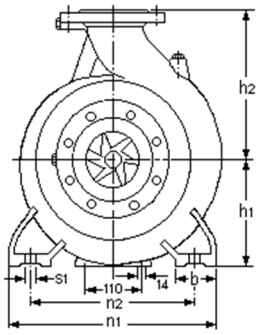
NM 150-250

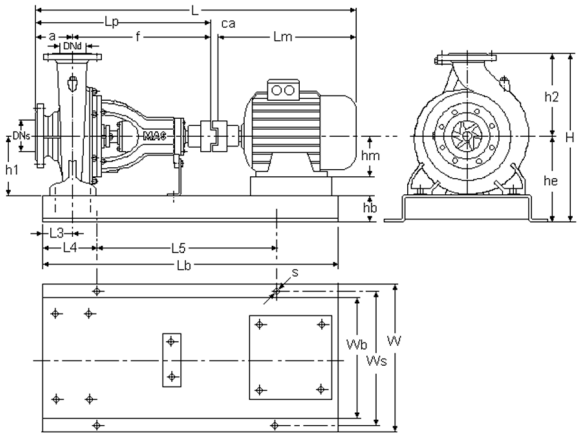




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density $1g/cm^3$. Tolerances are acc. to ISO 9906 Annex A.







Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
150-250	200	150	160	470	280	375	100	200	150	500	400	M16	340	32	80	140	137.5

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
150–250 6 poles 60 Hz	7,5	160M	600	160	630	27	1257	640	795	1200	520	140	420	100	150	900	580	24
	11	160L	644	160	630	32	1306	640	795	1200	520	140	420	100	150	900	580	24
	15	180L	660	180	630	34	1324	640	795	1250	520	140	420	100	200	850	580	24
150–250 4 poles 60 Hz	30	200L	747	200	630	34	1411	640	795	1300	520	140	420	100	200	900	580	24
	37	225S	790	225	630	43	1463	640	795	1300	520	140	420	100	200	900	580	24
	45	225M	820	225	630	43	1493	640	795	1300	520	140	420	100	200	900	580	24
	55	250M	896	250	630	43	1569	640	795	1400	520	140	420	100	200	1000	580	24

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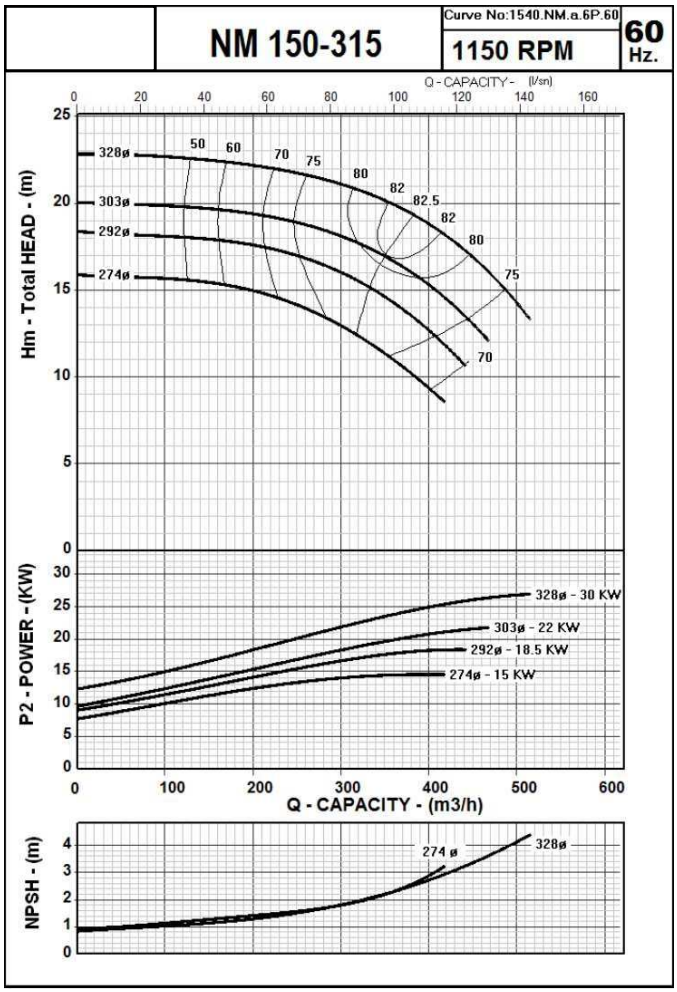
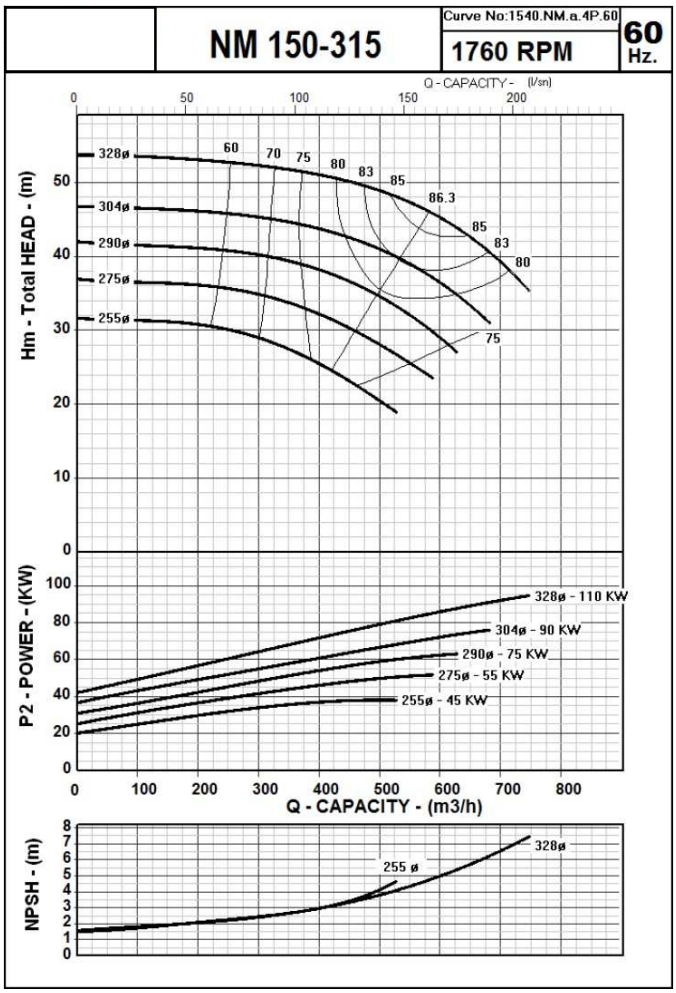
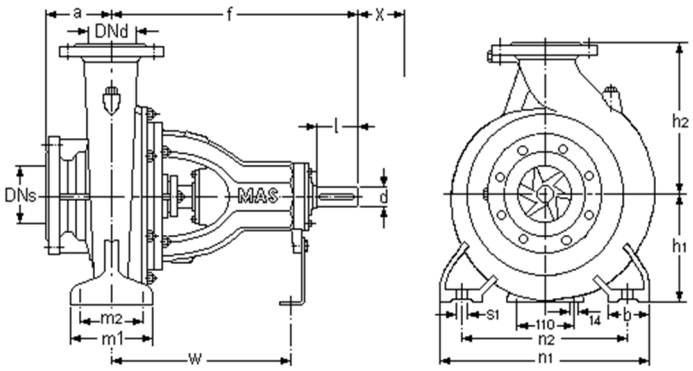
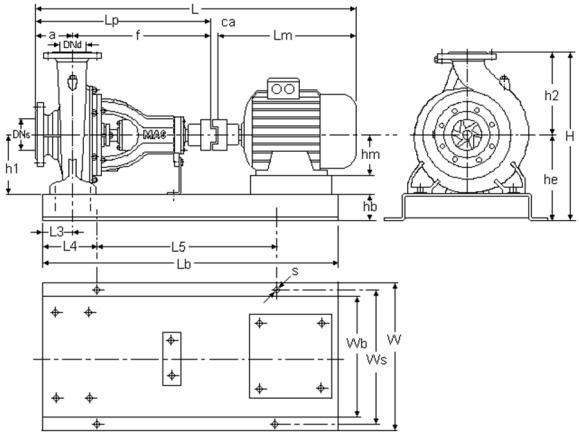
NM 150-315





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

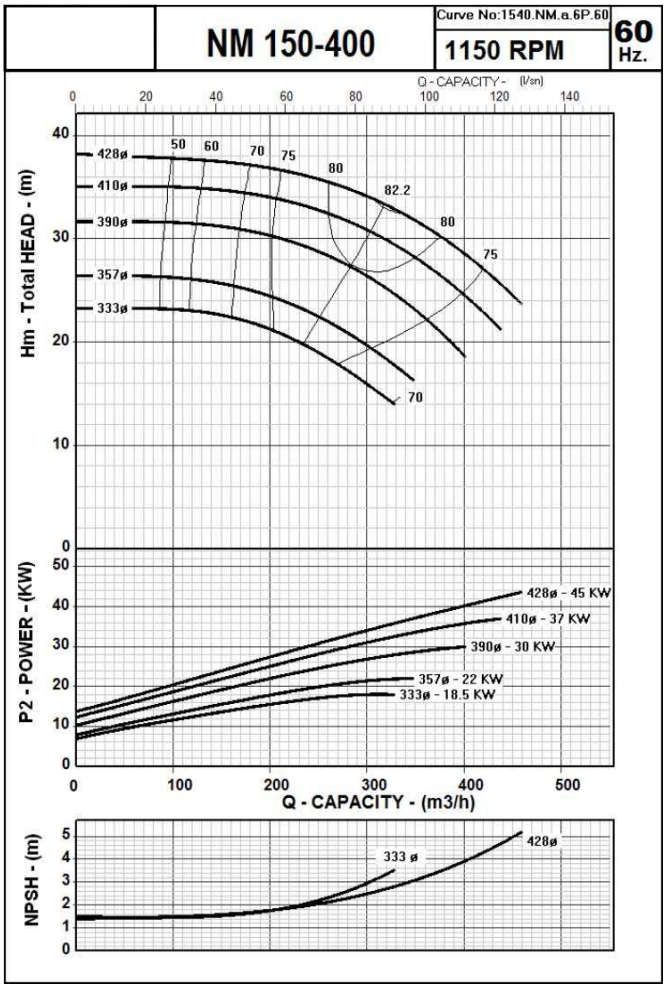


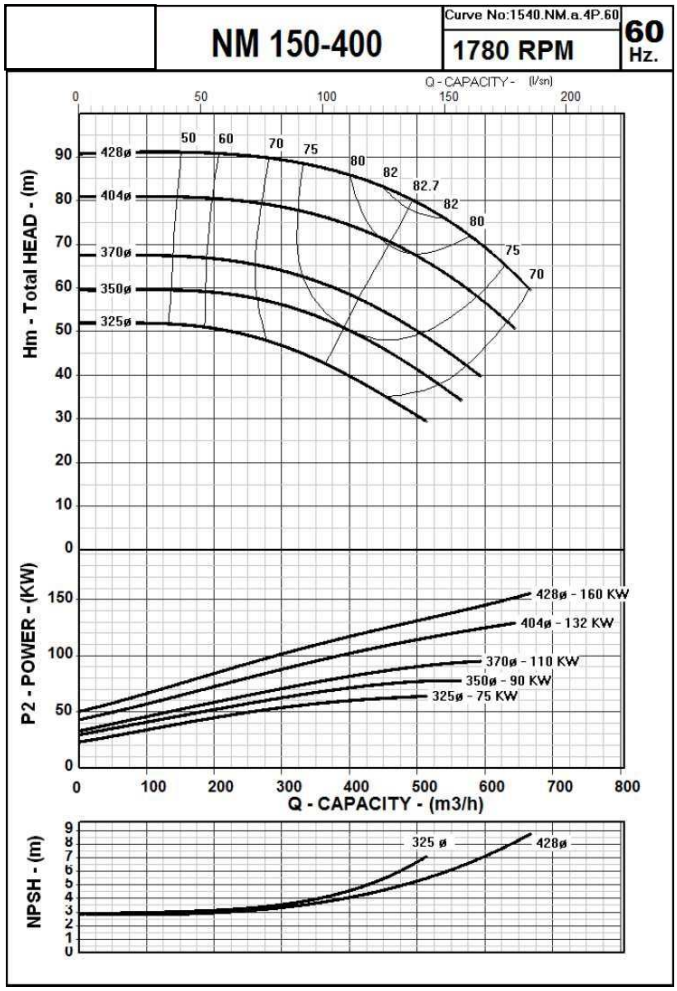


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
150-315	200	150	160	530	280	400	100	200	150	550	450	M20	370	42	110	140	182.5

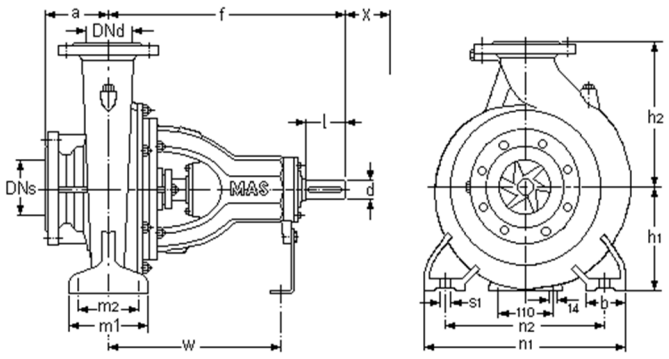
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
150–315 6 poles 60 Hz	15	180L	660	180	690	32	1382	720	820	1300	600	140	420	100	200	900	660	24
	18,5	200L	747	200	690	34	1471	720	820	1350	600	140	420	100	200	950	660	24
	22	200L	747	200	690	34	1471	720	820	1350	600	140	420	100	200	950	660	24
	30	225M	795	225	690	43	1528	720	820	1400	600	140	420	100	200	1000	660	24
150–315 4 poles 60 Hz	45	225M	795	225	690	43	1528	720	820	1400	600	140	420	100	200	1000	660	24
	55	250M	896	250	690	43	1629	720	820	1450	600	140	420	100	200	1050	660	24
	75	280S	958	280	690	46	1694	720	820	1550	600	140	420	100	200	1150	660	24
	90	280M	958	280	690	46	1694	720	820	1550	600	140	420	100	200	1150	660	24
	110	315S	1150	315	690	5	1845	770	875	1600	650	160	475	100	200	1200	710	24

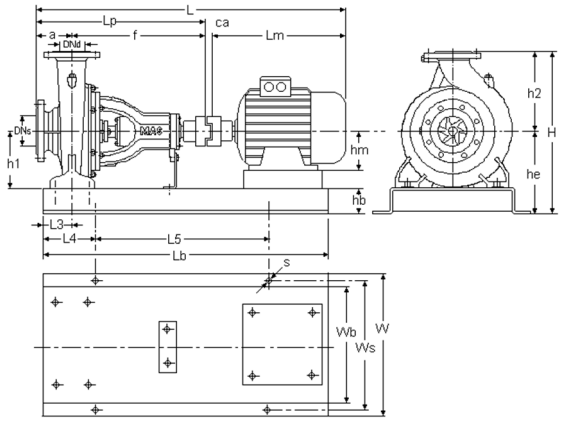
NM 150-400





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

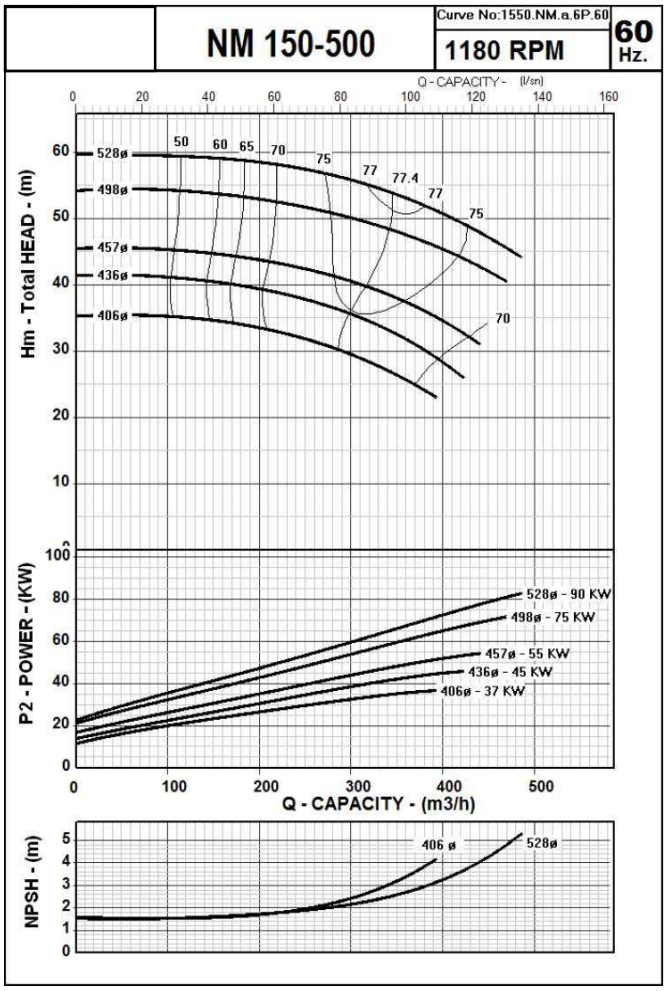


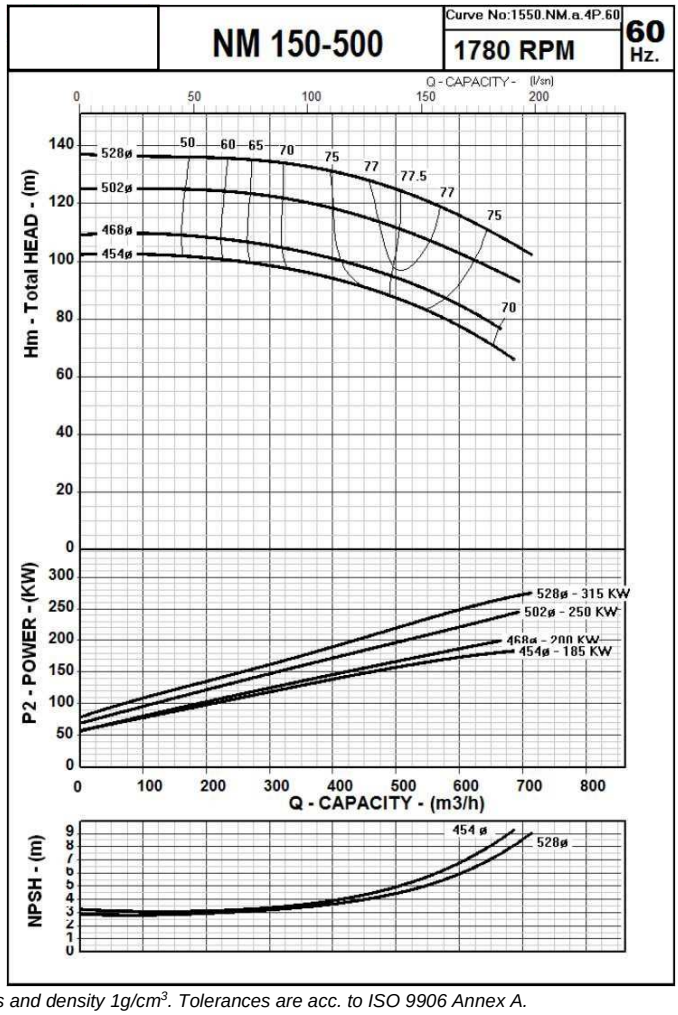


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
150-400	200	150	160	530	315	450	100	200	150	550	450	M20	370	42	110	140	210.5

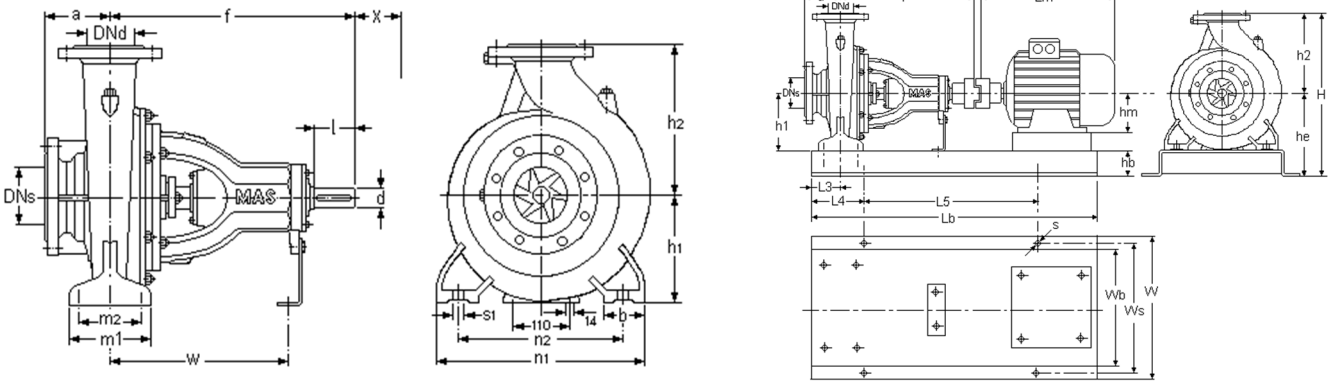
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
150–400 6 poles 60 Hz	18,5	200L	747	200	690	34	1471	720	905	1350	600	140	455	100	200	900	660	24
	22	200L	747	200	690	34	1471	720	905	1350	600	140	455	100	200	900	660	24
	30	225M	790	225	690	43	1523	720	905	1400	600	140	455	100	200	1000	660	24
	37	250M	896	250	690	43	1629	720	905	1450	600	140	455	100	200	1050	660	24
	45	280S	958	280	690	46	1694	720	905	1530	600	140	455	100	200	1100	660	24
150–400 4 poles 60 Hz	75	280S	958	280	690	46	1694	720	905	1530	600	140	455	100	200	1100	660	24
	90	280M	958	280	690	46	1694	720	905	1550	600	140	455	100	200	1150	660	24
	110	315S	1150	315	690	5	1845	770	925	1650	650	160	475	100	300	1050	710	24
	132	315M	1150	315	690	5	1845	770	925	1650	650	160	475	100	300	1050	710	24
	160	315M	1150	315	690	5	1845	770	925	1650	650	160	475	100	300	1050	710	24

NM 150-500





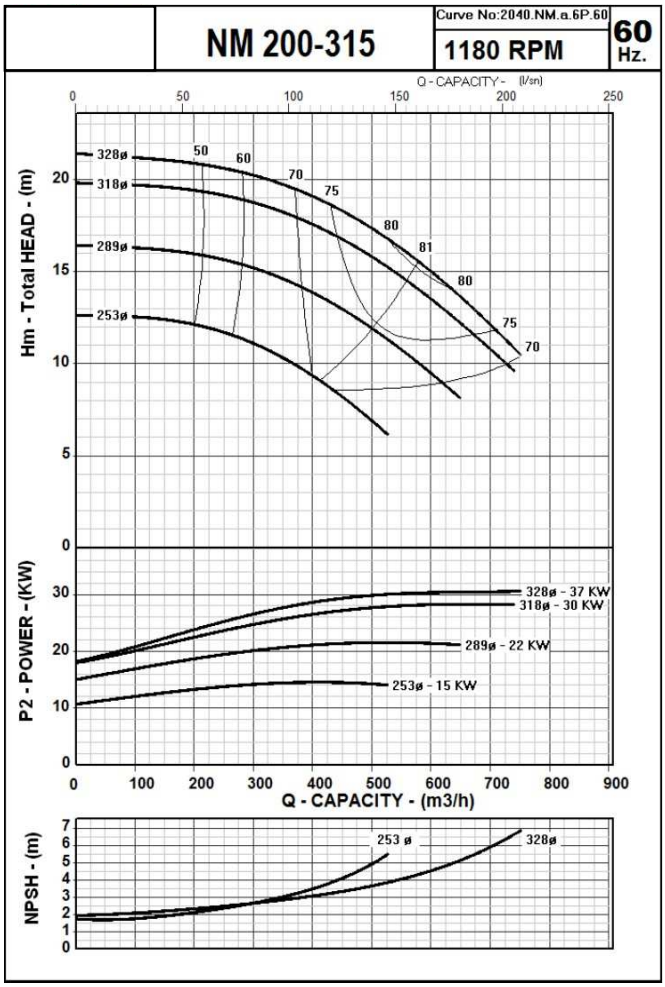
The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

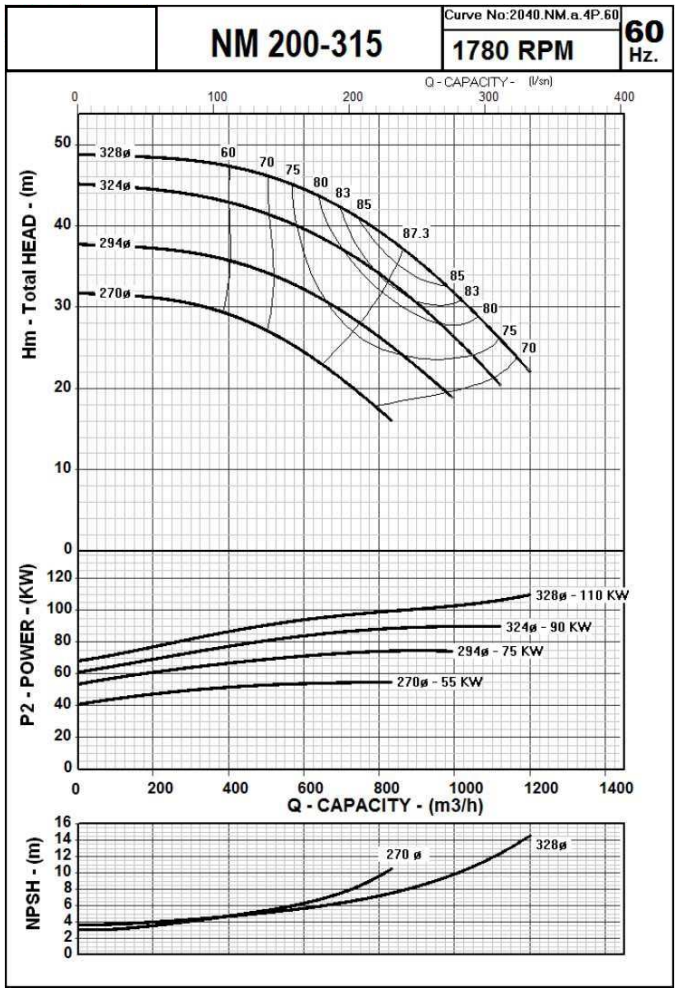


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
150-500	200	150	180	700	400	525	110	250	200	620	500	M20	500	55	110	140	197

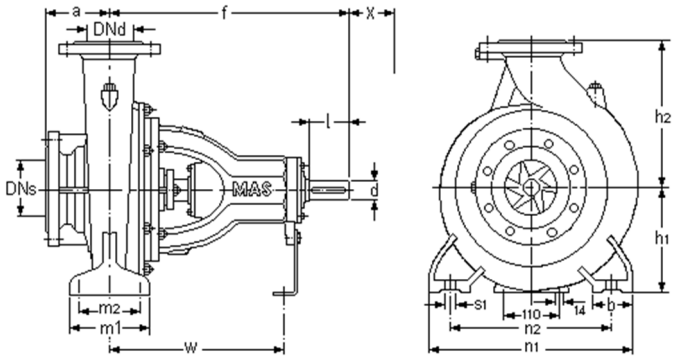
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
150–500 6 poles 60 Hz	37	250M	896	250	880	43	1819	770	1085	1700	650	160	560	125	300	1100	710	24
	45	280S	958	280	880	46	1884	770	1085	1750	650	160	560	125	300	1150	710	24
	55	280M	958	280	880	46	1884	770	1085	1750	650	160	560	125	300	1200	710	24
	75	315S	1150	315	880	5	2035	770	1085	1850	650	160	560	125	300	1250	710	24
	90	315M	1150	315	880	5	2035	770	1085	1850	650	160	560	125	300	1300	710	24
150–500 4 poles 60 Hz	185	315L	1220	315	880	5	2105	870	1085	1950	750	160	560	125	300	1350	810	24
	200	315L	1220	315	880	5	2105	870	1085	1950	750	160	560	125	300	1350	810	24
	250	355M	1377	355	880	5	2262	920	1105	2050	800	160x2	580	125	300	1450	860	24
	315	355M	1377	355	880	5	2262	920	1105	2050	800	160x2	580	125	300	1450	860	24

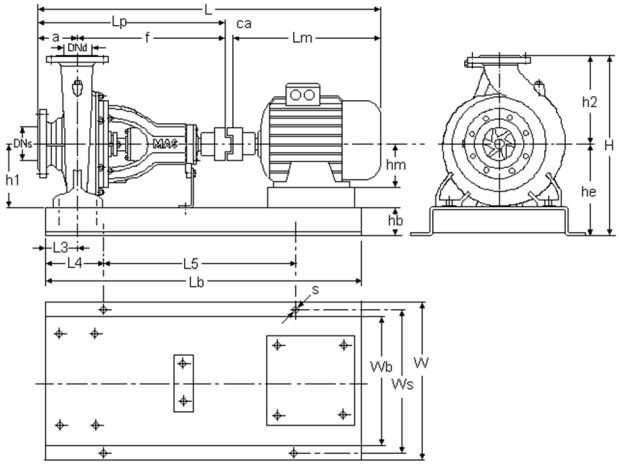
NM 200-315





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

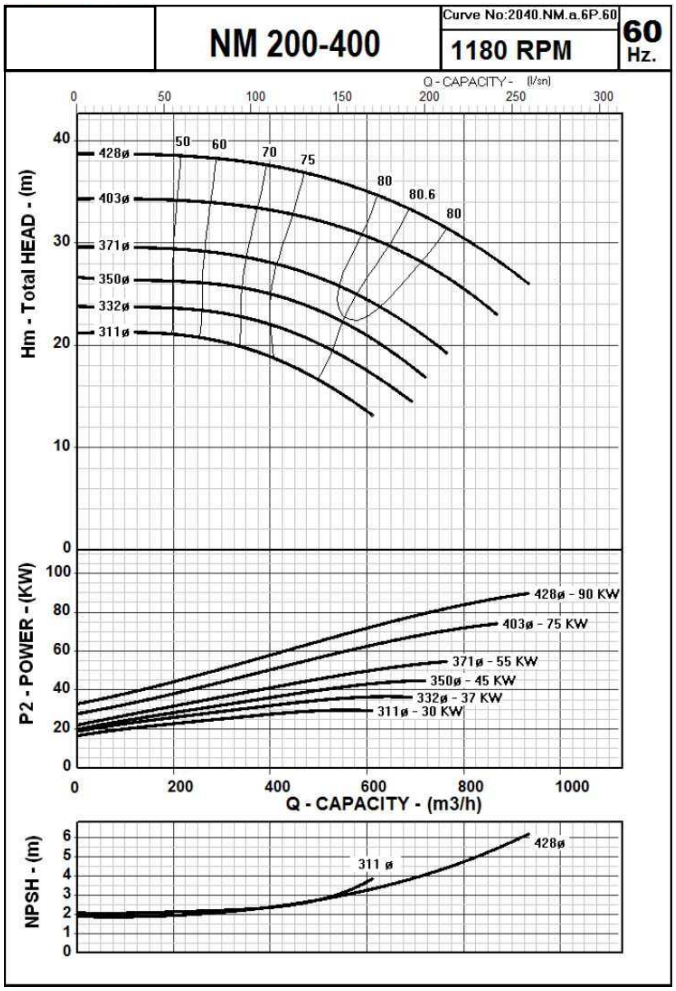


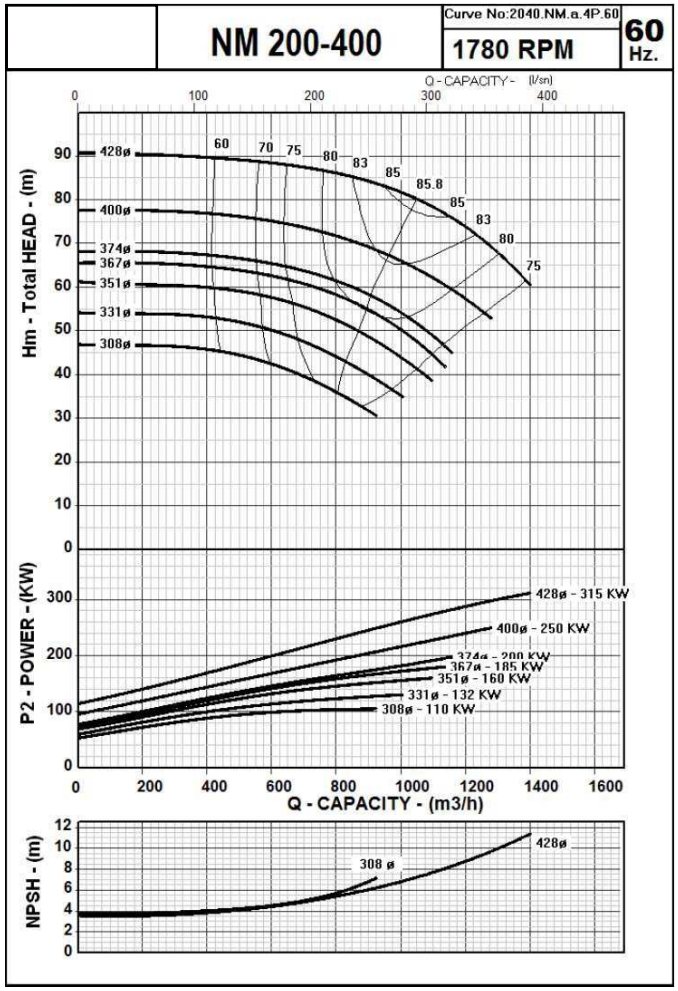


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
200-315	250	200	180	535	355	450	110	250	200	620	500	M20	410	42	110	160	201

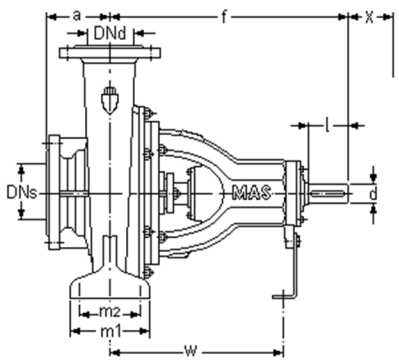
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
200–315 6 poles 60 Hz	15	180L	660	180	715	34	1409	770	965	1350	650	160	515	125	200	950	710	24
	22	200L	747	200	715	34	1496	770	965	1400	650	160	515	125	200	1000	710	24
	30	225M	790	225	715	43	1548	770	965	1450	650	160	515	125	200	1050	710	24
	37	250M	896	250	715	43	1654	770	965	1500	650	160	515	125	200	1100	710	24
200–315 4 poles 60 Hz	55	250M	896	250	715	43	1654	770	965	1500	650	160	515	125	200	1100	710	24
	75	280S	958	280	715	46	1719	770	965	1600	650	160	515	125	200	1200	710	24
	90	280M	958	280	715	46	1719	770	965	1600	650	160	515	125	200	1200	710	24
	110	315S	1150	315	715	5	1870	770	965	1700	650	160	515	125	300	1100	710	24

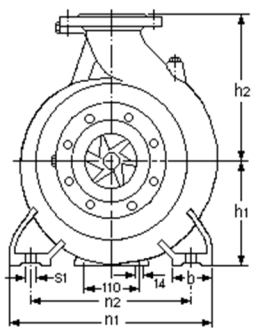
NM 200-400

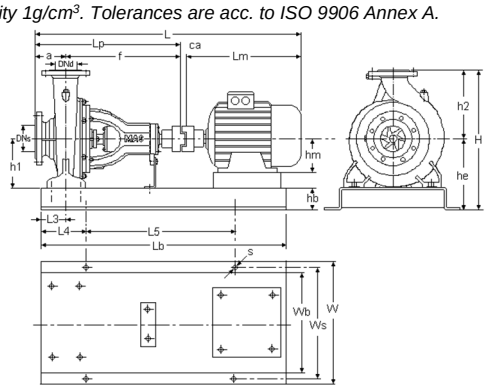




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.



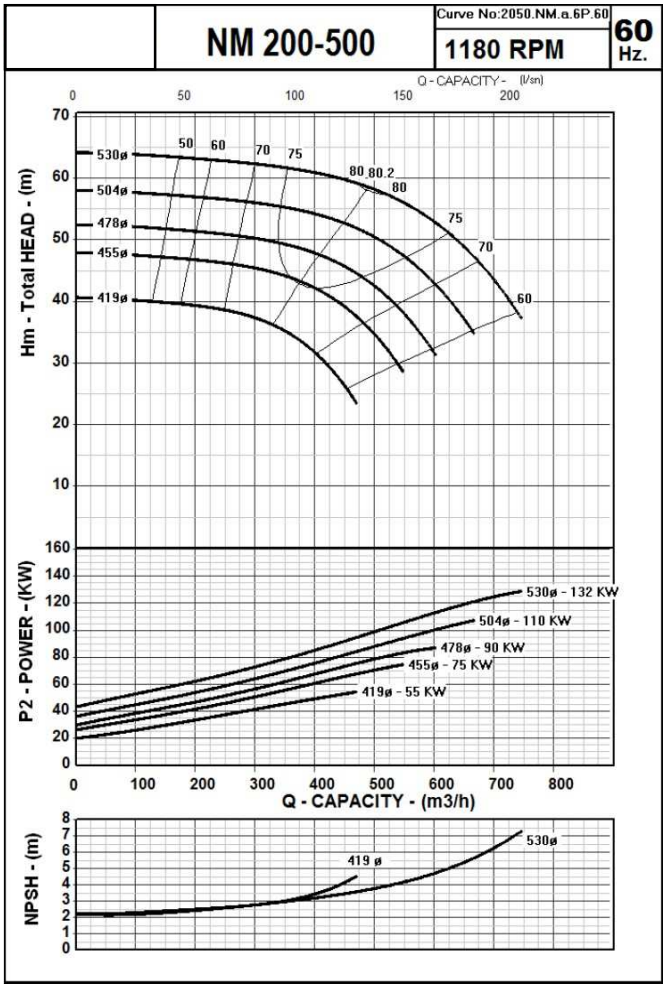


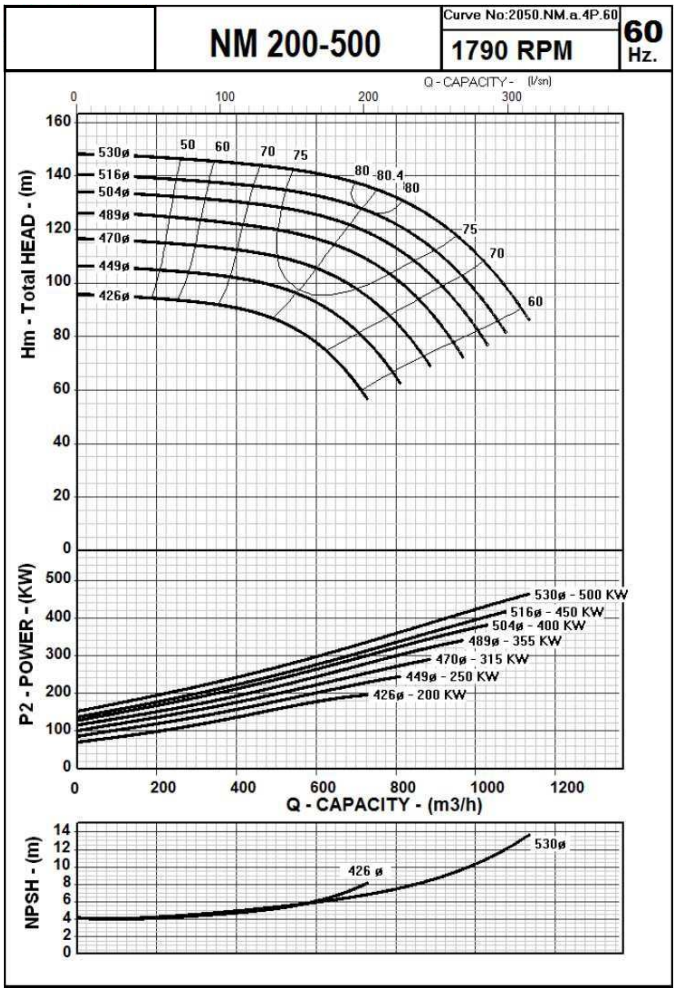


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
200-400	250	200	180	710	400	500	110	250	200	620	500	M20	500	55	110	160	354

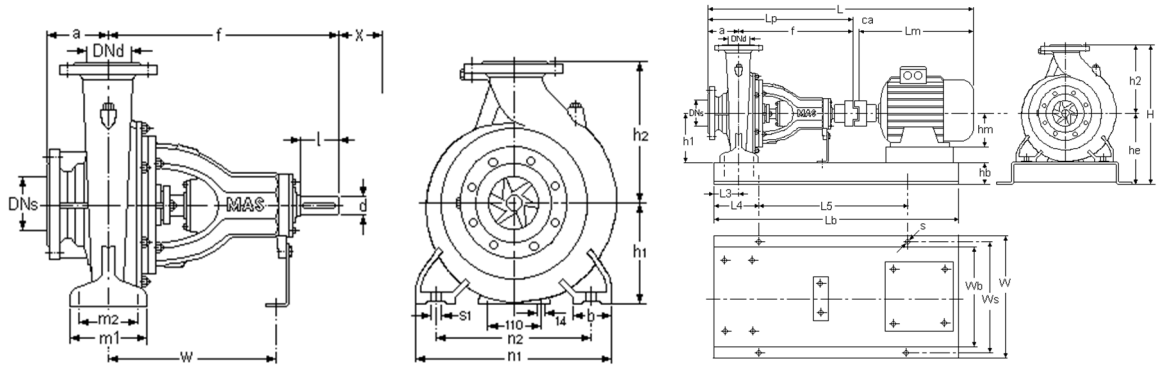
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
200–400 6 poles 60 Hz	30	225M	790	225	890	43	1723	770	1060	1650	650	160	560	125	300	1050	710	24
	37	250M	896	250	890	43	1829	770	1060	1700	650	160	560	125	300	1100	710	24
	45	280S	958	280	890	46	1894	770	1060	1750	650	160	560	125	300	1150	710	24
	55	280M	958	280	890	46	1894	770	1060	1800	650	160	560	125	300	1200	710	24
	75	315S	1150	315	890	5	2045	770	1060	1850	650	160	560	125	300	1250	710	24
	90	315M	1150	315	890	5	2045	770	1060	1900	650	160	560	125	300	1300	710	24
200–400 4 poles 60 Hz	110	315S	1150	315	890	5	2045	770	1060	1850	650	160	560	125	300	1250	710	24
	132	315M	1150	315	890	5	2045	770	1060	1900	650	160	560	125	300	1300	710	24
	160	315M	1150	315	890	5	2045	770	1060	1900	650	160	560	125	300	1300	710	24
	185	315L	1220	315	890	5	2115	770	1060	1950	650	160	560	125	300	1350	710	24
	200	315L	1220	315	890	5	2115	770	1060	1950	650	160	560	125	300	1350	710	24
	250	355M	1377	355	890	5	2272	920	1080	2100	800	160x2	580	125	300	2500	860	24
	315	355M	1377	355	890	5	2272	920	1080	2100	800	160x2	580	125	300	2500	860	24

NM 200-500





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
200-500	300	250	280	875	500	700	150	360	290	900	750	M28	560	65	140	320	615

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
200–500 6 poles 60 Hz	55	280M	958	280	1060	46	2064	870	1110	2000	750	160	560	150	300	1450	810	24
	75	315S	1150	315	1060	5	2215	870	1110	2050	750	160	560	150	300	1500	810	24
	90	315M	1150	315	1060	5	2215	870	1110	2050	750	160	560	150	300	1450	810	24
	110	315M	1150	315	1060	5	2215	870	1110	2050	750	160	560	150	300	1450	810	24
	132	315L	1220	315	1060	5	2285	870	1110	2150	750	160	560	150	300	1600	810	24
200–500 4 poles 60 Hz	200	315L	1220	315	1060	5	2285	870	1110	2150	750	160	560	150	300	1600	810	24
	250	355M	1377	355	1060	5	2442	920	1130	2350	800	160x2	580	150	300	1750	860	24
	315	355M	1377	355	1060	5	2442	920	1130	2350	800	160x2	580	150	300	1750	860	24
	355	355M	1377	355	1060	5	2442	920	1130	2350	800	160x2	580	150	300	1750	860	24
	400	355L	1507	355	1060	5	2572	920	1130	2350	800	160x2	580	150	300	1750	860	24
	450	400L	1610	400	1060	5	2675	1020	1130	2450	900	160x2	580	150	350	1750	960	24
	500	400L	1610	400	1060	5	2675	1020	1130	2450	900	160x2	580	150	350	1750	960	24

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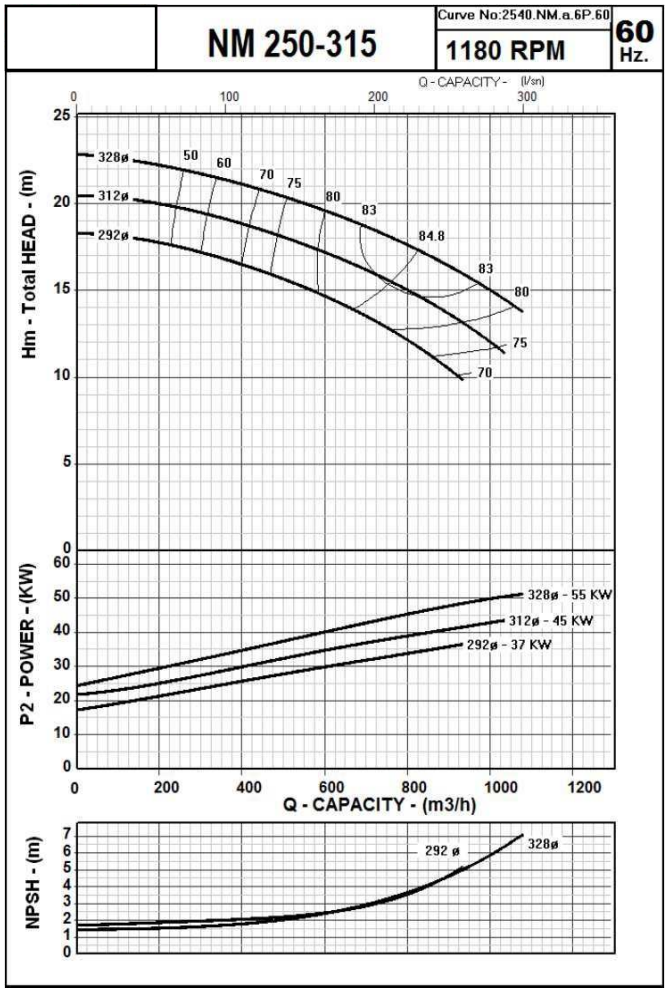
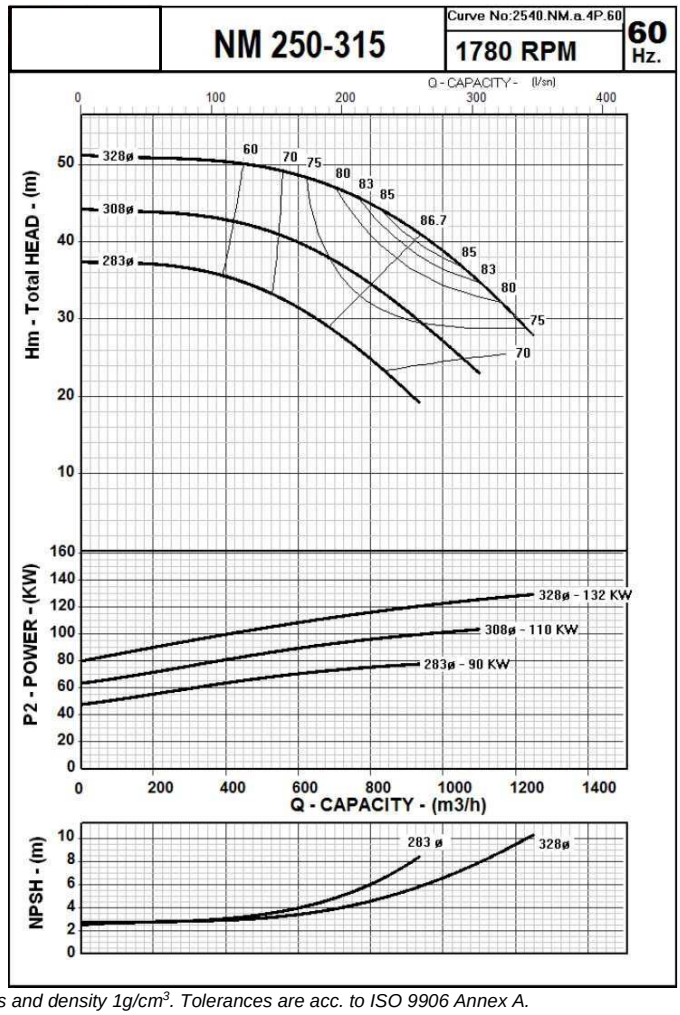
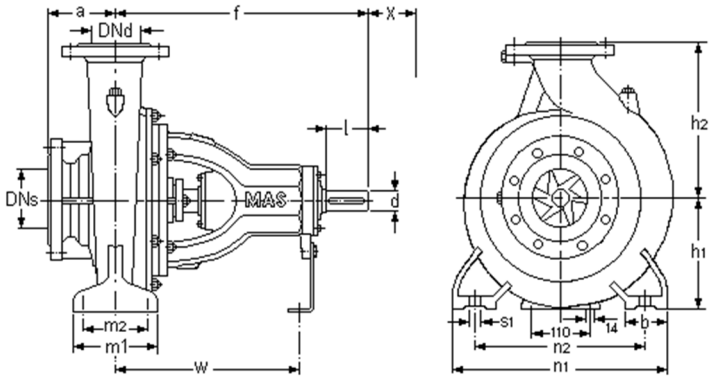
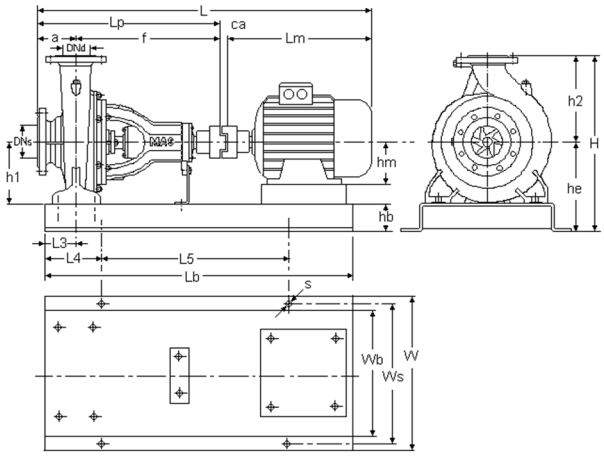
NM 250-315





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.

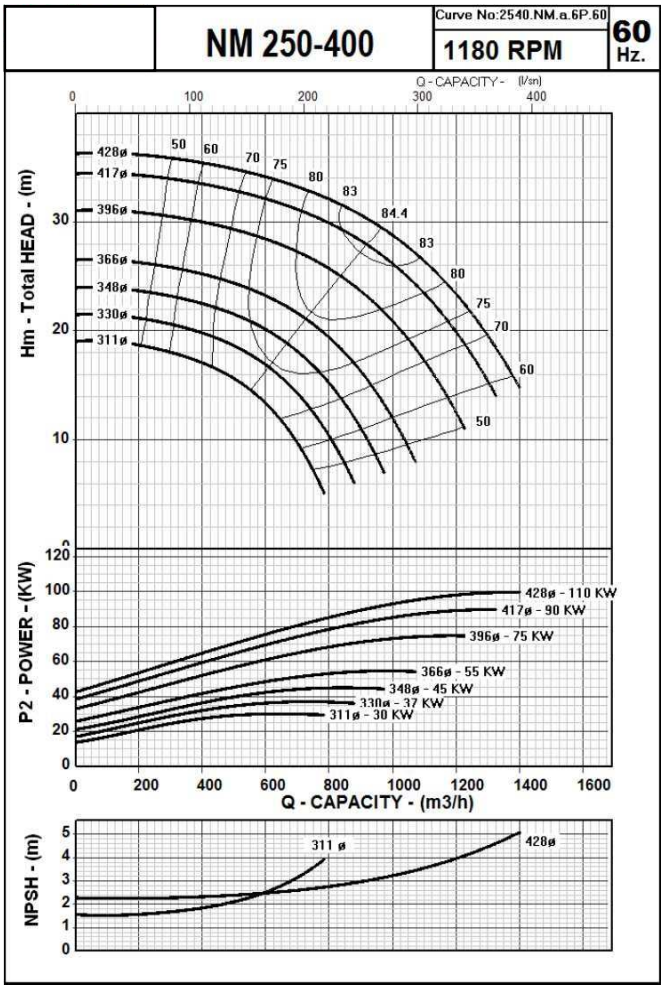


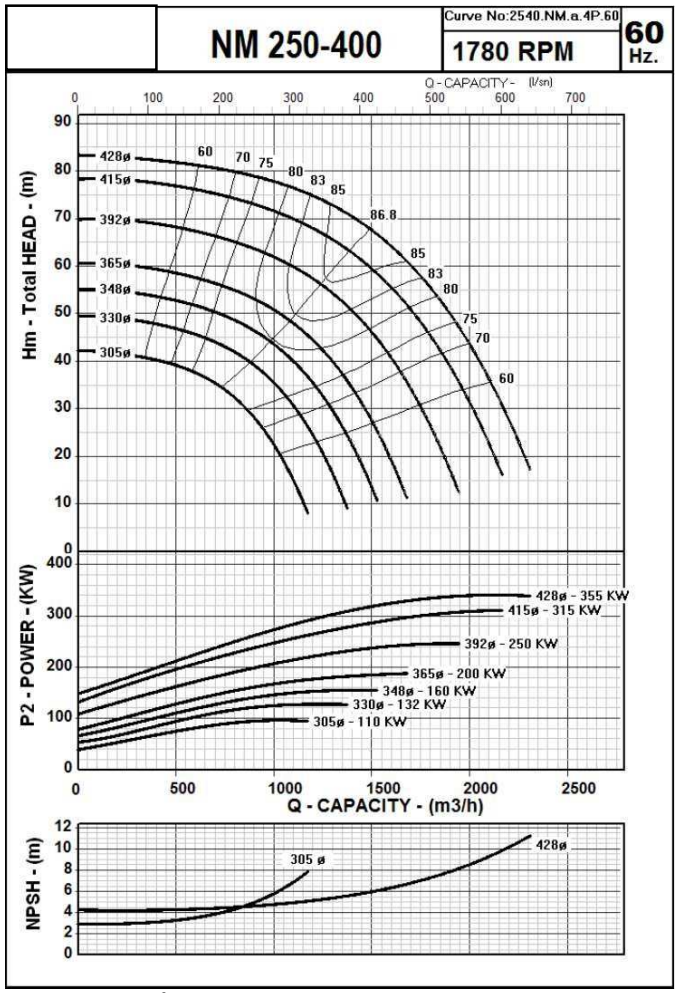


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
250-315	300	250	240	725	400	525	140	300	240	620	500	M24	500	55	110	200	419

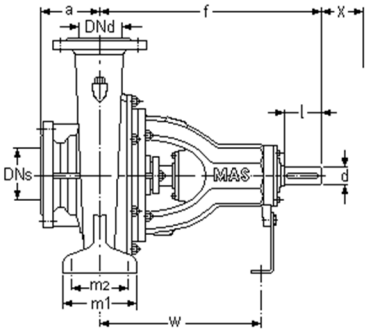
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
250–315 6 poles 60 Hz	37	250M	896	250	965	43	1904	770	1085	1700	650	160	560	150	300	1100	710	24
	45	280S	958	280	965	46	1969	770	1085	1800	650	160	560	150	300	1150	710	24
	55	280M	958	280	965	46	1969	770	1085	1800	650	160	560	150	300	1150	710	24
250–315 4 poles 60 Hz	90	280M	958	280	965	46	1969	770	1085	1800	650	160	560	150	300	1150	710	24
	110	315S	1150	315	965	5	2120	770	1085	1850	650	160	560	150	300	1250	710	24
	132	315M	1150	315	965	5	2120	770	1085	1850	650	160	560	150	300	1250	710	24

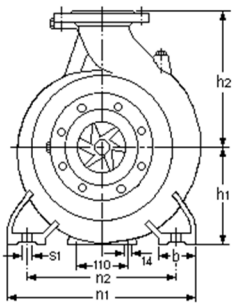
NM 250-400

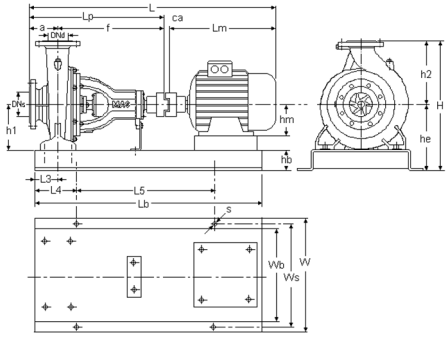




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.



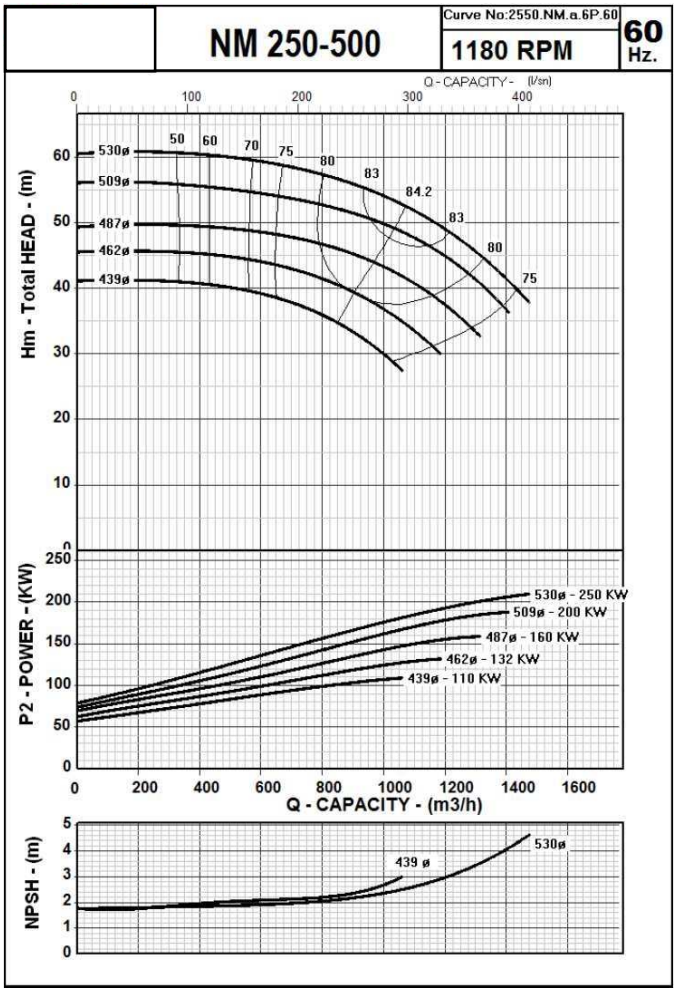


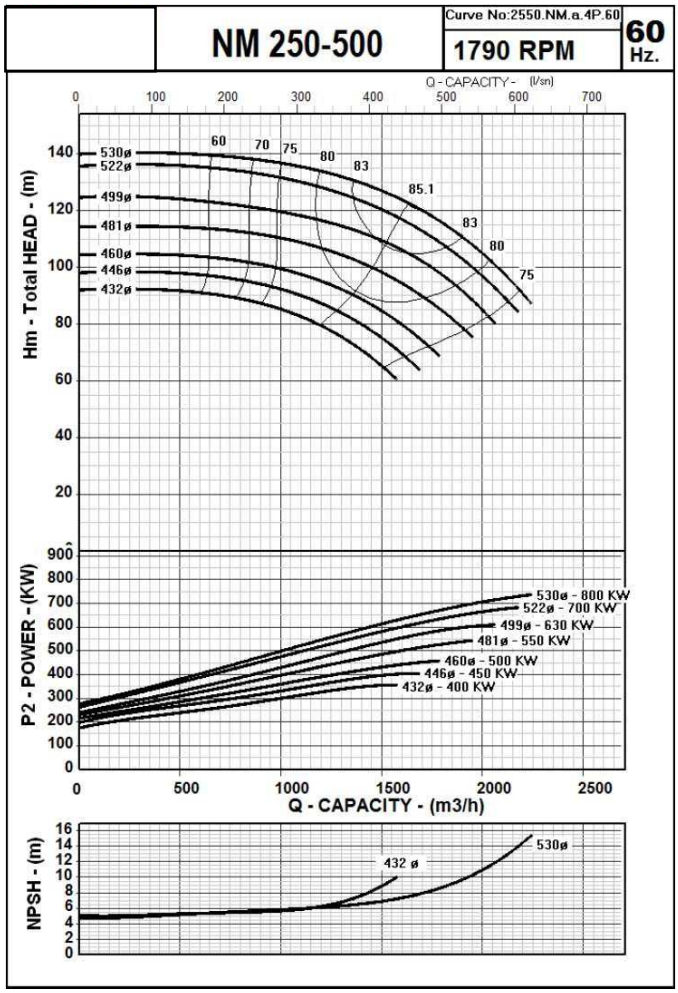


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X	Weight
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	mm	kg
250–400	300	250	225	865	400	550	140	300	240	620	500	M24	600	65	140	200	510

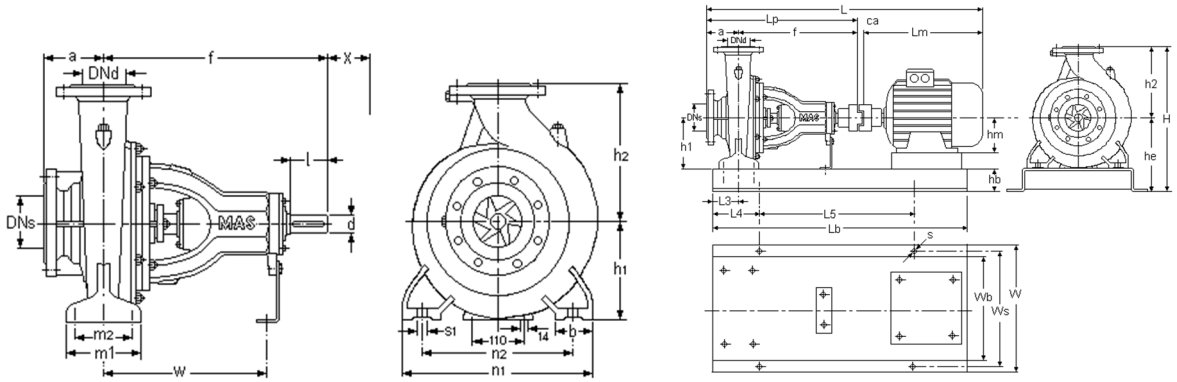
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
250–400 6 poles 60 Hz	30	225M	790	225	1090	34	1914	770	1110	1800	650	160	560	150	300	1200	710	24
	37	250M	896	250	1090	43	2029	770	1110	1900	650	160	560	150	300	1350	710	24
	45	280S	958	280	1090	46	2094	770	1110	2000	650	160	560	150	300	1400	710	24
	55	280M	958	280	1090	46	2094	770	1110	2000	650	160	560	150	300	1450	710	24
	75	315S	1150	315	1090	5	2245	770	1110	2050	650	160	560	150	300	1450	710	24
	90	315M	1150	315	1090	5	2245	770	1110	2100	650	160	560	150	300	1550	710	24
	110	315M	1150	315	1090	5	2245	770	1110	2100	650	160	560	150	300	1550	710	24
250–400 4 poles 60 Hz	110	315S	1150	315	1090	5	2245	770	1110	2050	650	160	560	150	300	1450	710	24
	132	315M	1150	315	1090	5	2245	770	1110	2100	650	160	560	150	300	1550	710	24
	160	315M	1150	315	1090	5	2245	770	1110	2100	650	160	560	150	300	1550	710	24
	200	315L	1220	315	1090	5	2315	770	1110	2200	650	160	560	150	300	1650	710	24
	250	355M	1377	355	1090	5	2472	920	1130	2250	800	160x2	580	150	300	1650	860	24
	315	355M	1377	355	1090	5	2472	920	1130	2250	800	160x3	580	150	300	1650	860	24
	355	355M	1377	355	1090	5	2472	920	1130	2250	800	160x4	580	150	300	1650	860	24

NM 250-500





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

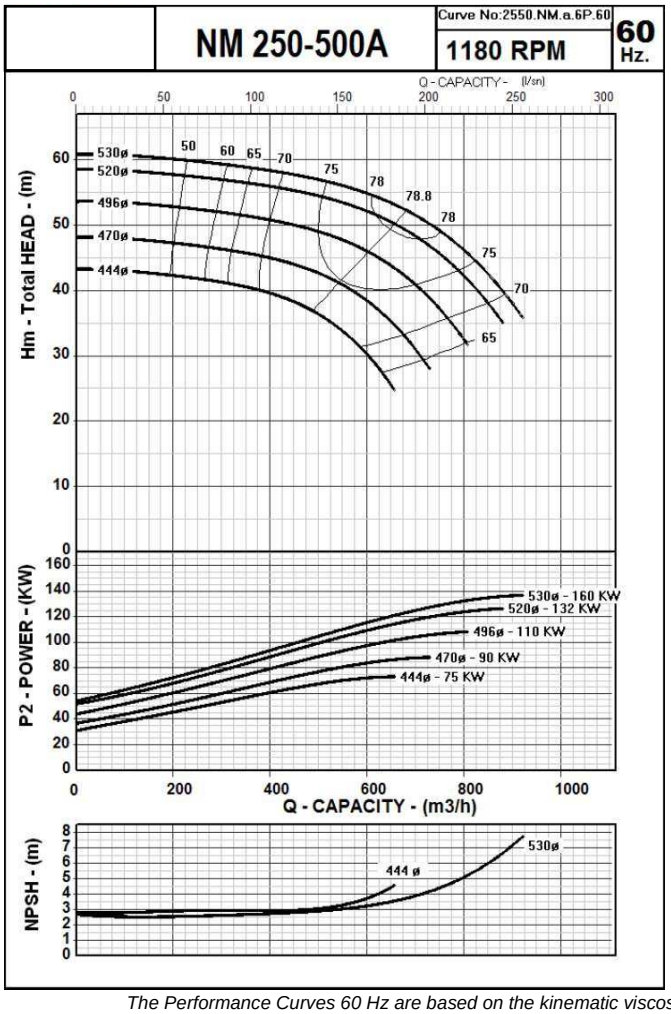


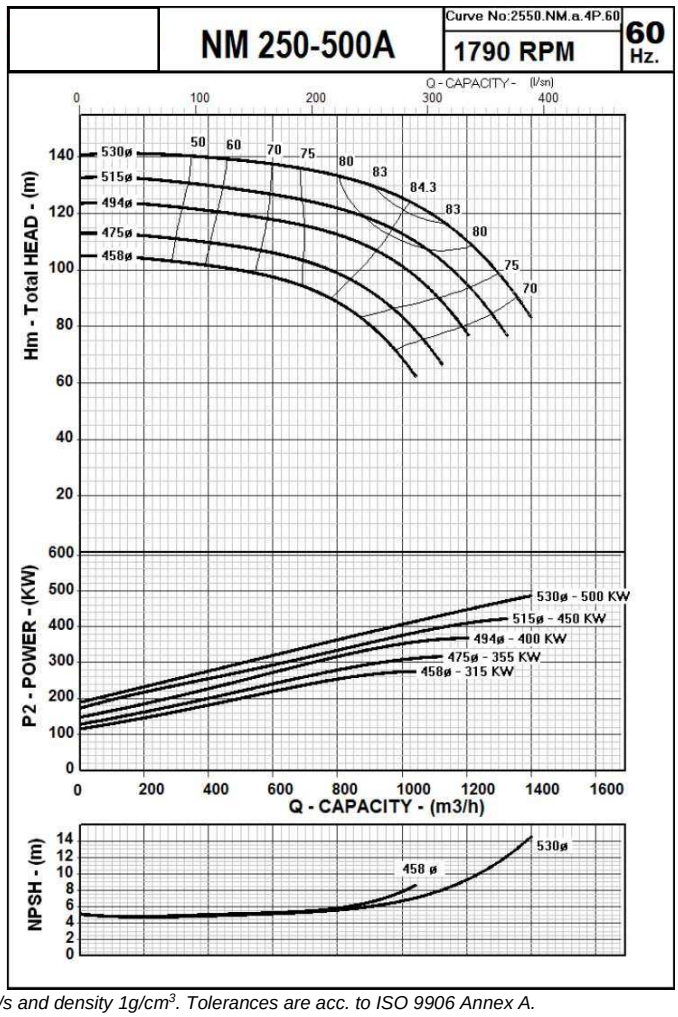
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X	Weight
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	mm	kg
250–500	300	250	280	875	500	700	150	360	290	900	750	M28	560	65	140	320	615

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
250–500 6 poles 60 Hz	110	315M	1150	315	1090	5	2245	870	1240	2100	750	160	610	150	300	1500	810	24
	132	315L	1220	315	1090	5	2315	870	1240	2200	750	160	610	150	300	1600	810	24
	160	315L	1220	315	1090	5	2315	870	1240	2200	750	160	610	150	300	1600	810	24
	185	355M	1377	355	1090	5	2472	920	1260	2350	800	160x2	630	150	300	1750	860	24
	200	355M	1377	355	1090	5	2472	920	1260	2350	800	160x2	630	150	300	1750	860	24
250–500 4 poles 60 Hz	400	355L	1507	355	1090	5	2602	920	1260	2400	800	160x2	630	150	300	1800	860	24
	450	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24
	500	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24
	550	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24
	630	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24
	700	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24

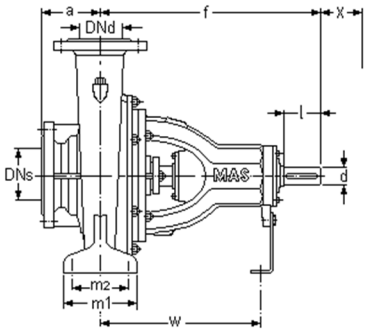
Performance Curves

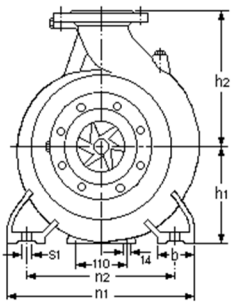
NM 250-500A

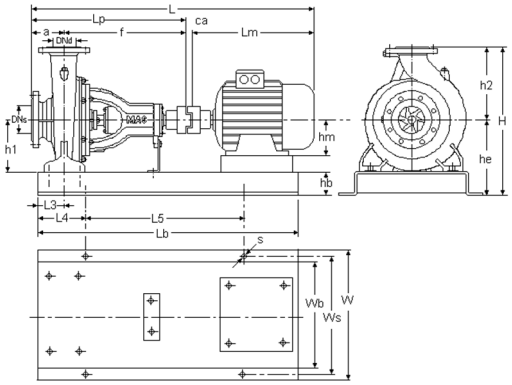




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



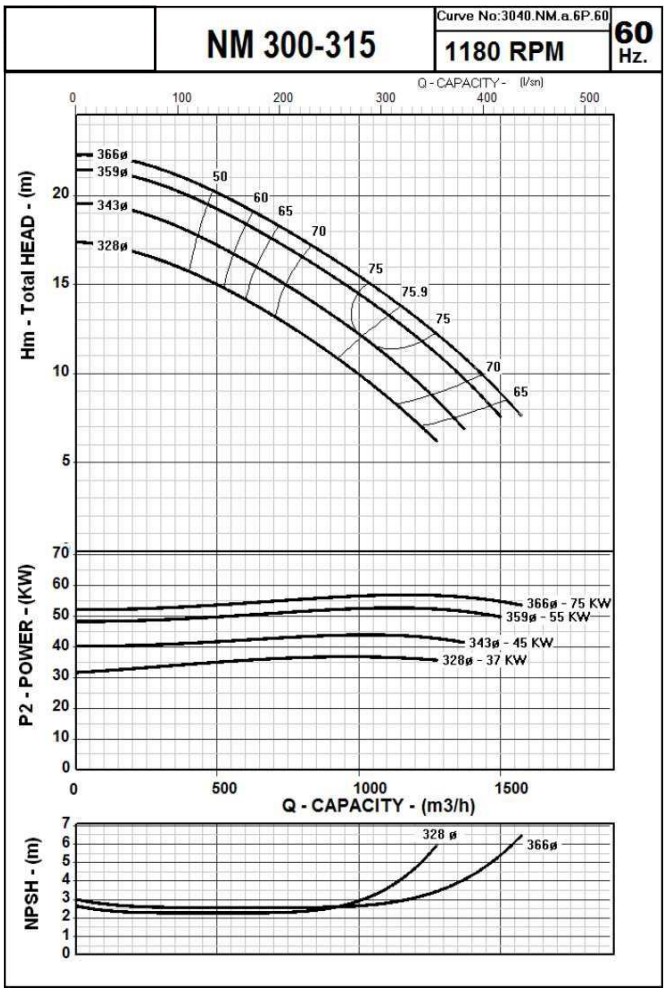


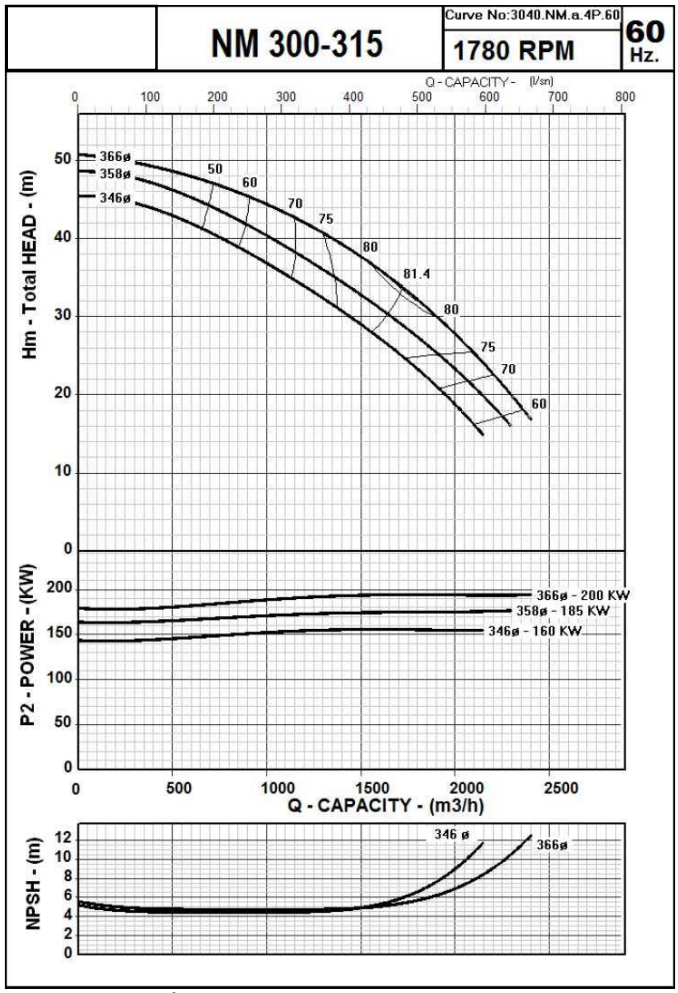


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
250–500A	300	250	280	875	500	700	150	360	290	900	750	M28	560	65	140	320	615

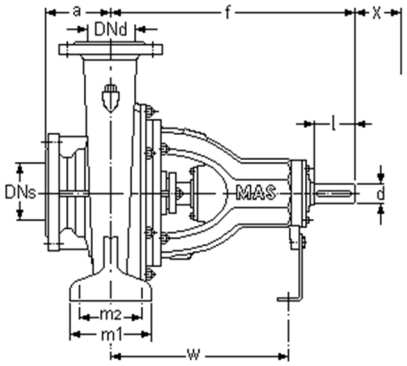
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
250–500A 6 poles 60 Hz	75	315S	1150	315	1090	5	2245	870	1240	2100	750	160	610	150	300	1500	810	24
	90	315M	1150	315	1090	5	2245	870	1240	2100	750	160	610	150	300	1500	810	24
	110	315M	1150	315	1090	5	2245	870	1240	2100	750	160	610	150	300	1500	810	24
	132	315L	1220	315	1090	5	2315	870	1240	2200	750	160	610	150	300	1600	810	24
	160	315L	1220	315	1090	5	2315	870	1240	2200	750	160	610	150	300	1600	810	24
250–500A 4 poles 60 Hz	315	355M	1377	355	1090	5	2472	920	1260	2350	800	160x2	630	150	300	1750	860	24
	355	355M	1377	355	1090	5	2472	920	1260	2350	800	160x2	630	150	300	1750	860	24
	400	355L	1507	355	1090	5	2602	920	1260	2400	800	160x2	630	150	300	1800	860	24
	450	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24
	500	400L	1610	400	1090	5	2705	1020	1260	2500	900	160x2	630	150	350	1800	960	24

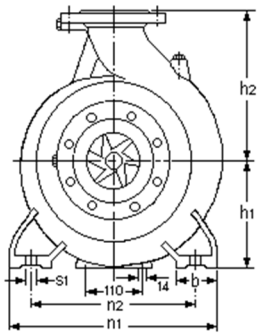
NM 300-315

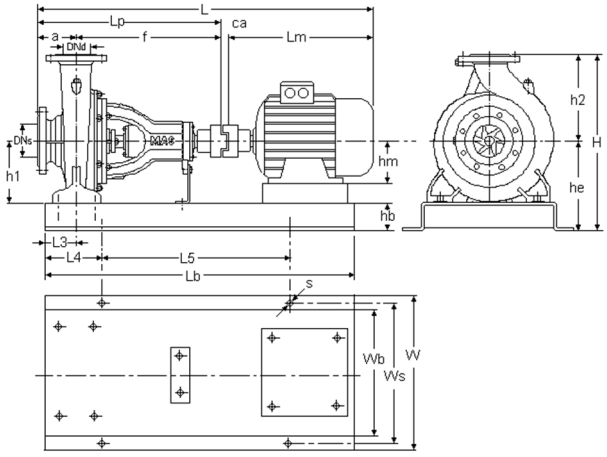




The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.





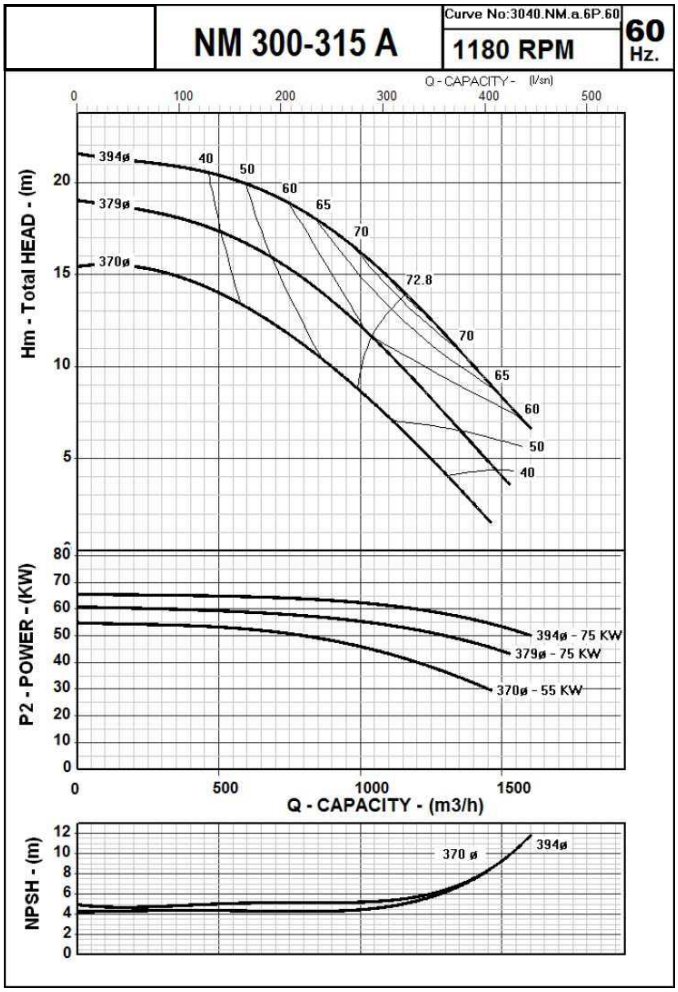


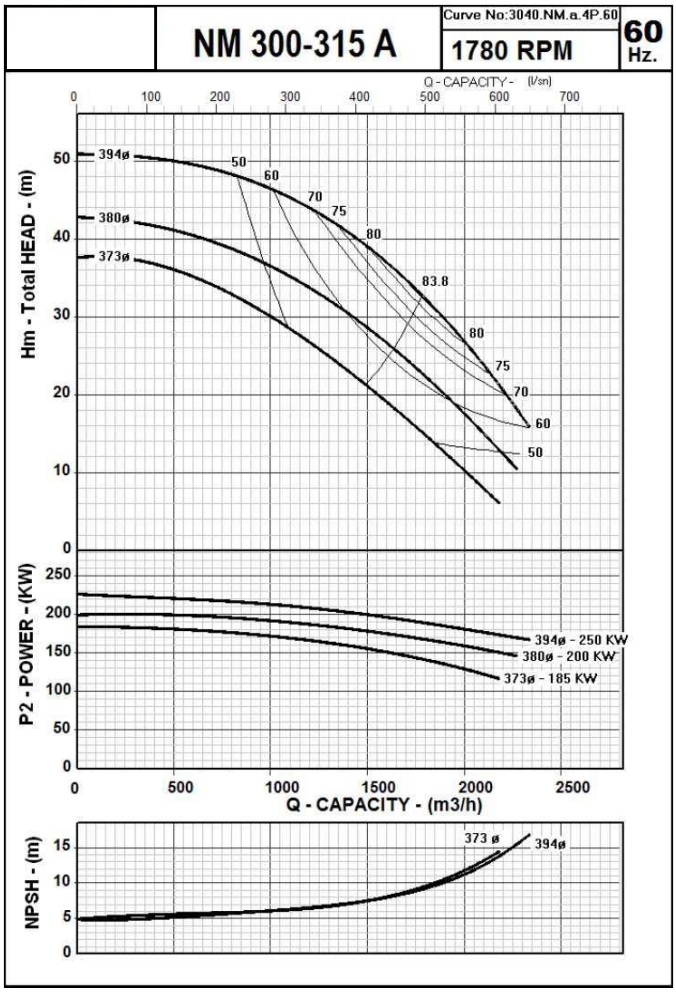
Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
300-315	300	300	275	810	425	600	140	300	240	620	500	M24	550	55	140	270	516

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
300–315 6 poles 60 Hz	37	250M	896	250	1035	43	1974	770	1185	1750	650	160	585	150	300	1150	710	24
	45	280S	958	280	1085	46	2089	770	1185	1900	650	160	585	150	300	1300	710	24
	55	280M	958	280	1085	46	2089	770	1185	1900	650	160	585	150	300	1300	710	24
	75	315S	1150	315	1085	5	2240	770	1185	2000	650	160	585	150	300	1400	710	24
300–315 4 poles 60 Hz	160	315M	1150	315	1085	5	2240	770	1185	2000	650	160	585	150	300	1400	710	24
	185	315L	1220	315	1085	5	2310	770	1185	2000	650	160	585	150	300	1400	710	24
	200	315L	1220	315	1085	5	2310	770	1185	2000	650	160	585	150	300	1400	710	24

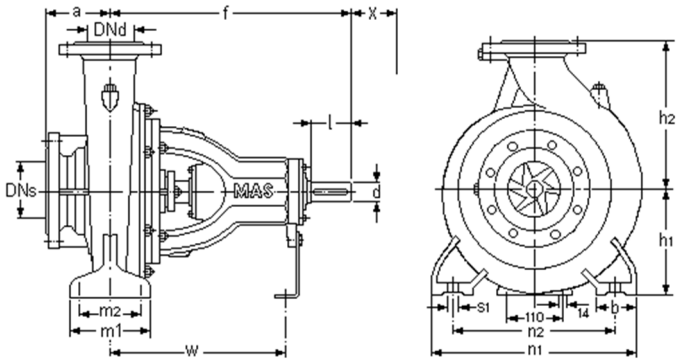
Performance Curves

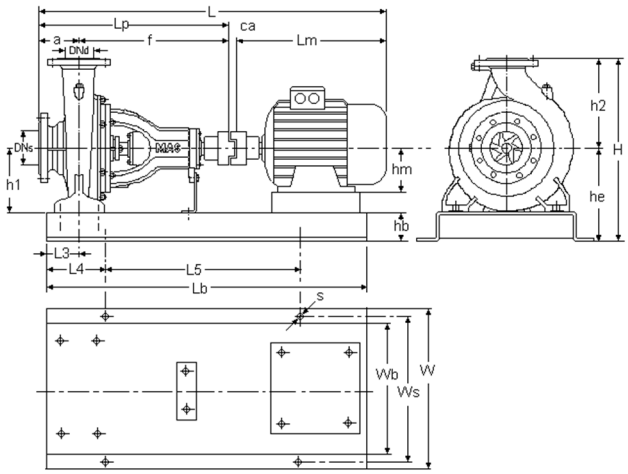
NM 300-315A





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.

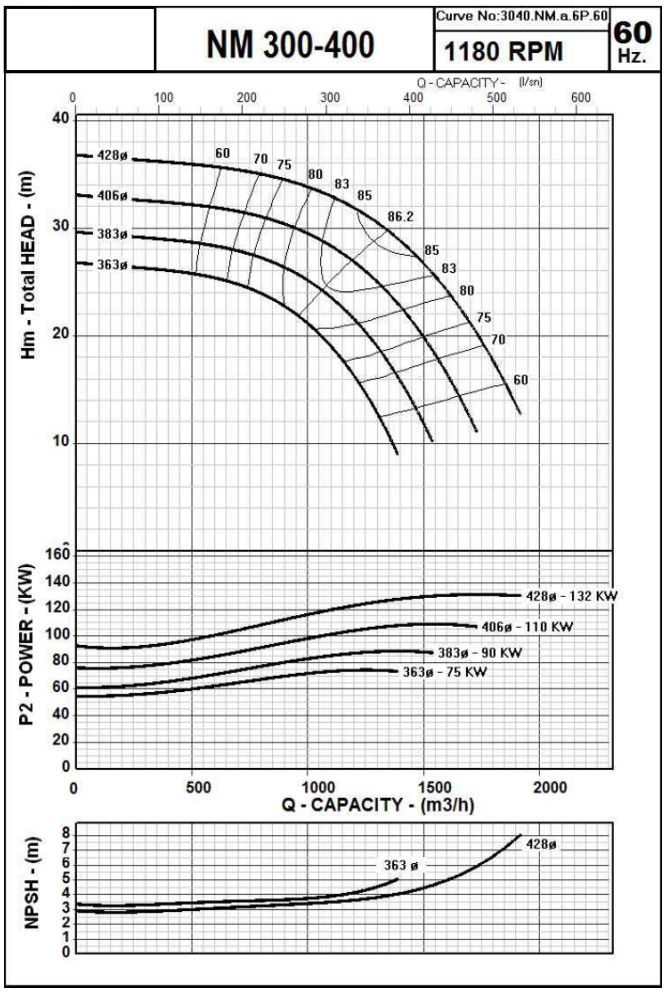


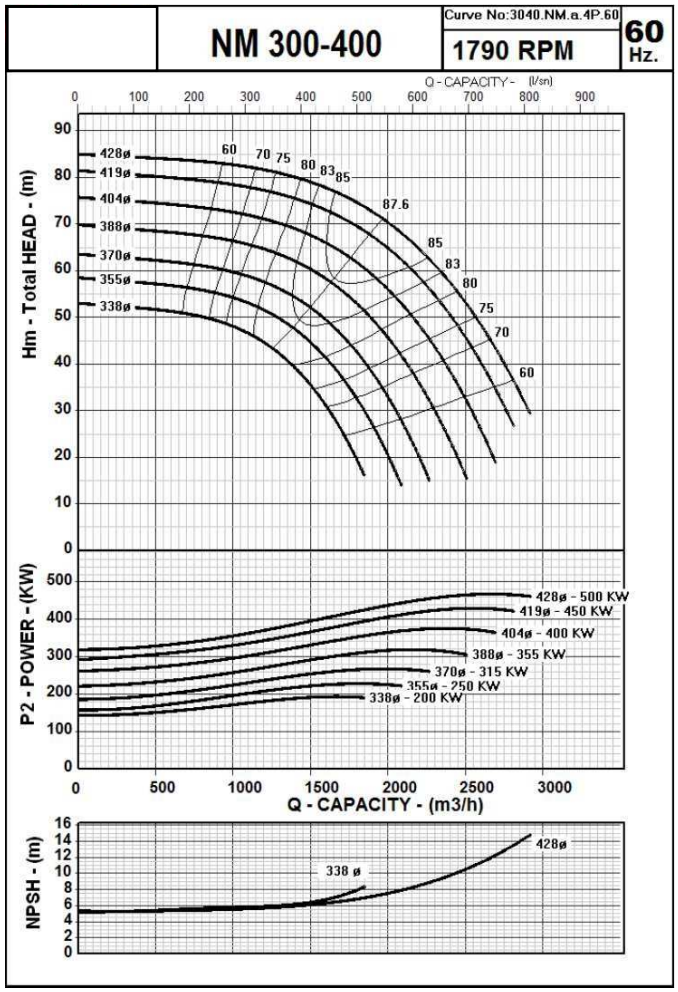


Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
300-315A	300	300	275	810	425	600	140	300	240	620	500	M24	550	55	140	270	516

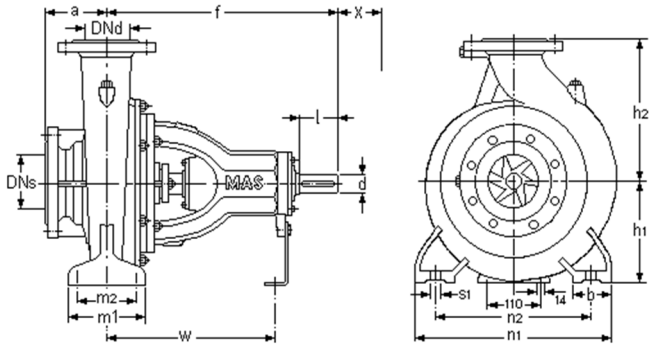
	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
300–315A 6 poles 60 Hz	55	280M	958	280	1085	46	2089	770	1185	1900	650	160	585	150	300	1300	710	24
	75	315S	1150	315	1085	5	2240	770	1185	2000	650	160	585	150	300	1400	710	24
300–315A 4 poles 60 Hz	185	315L	1220	315	1085	5	2310	770	1185	2000	650	160	585	150	300	1400	710	24
	200	315L	1220	315	1085	5	2310	770	1185	2000	650	160	585	150	300	1400	710	24
	250	355M	1377	355	1085	5	2467	920	1205	2150	800	160x2	605	150	300	1550	860	24

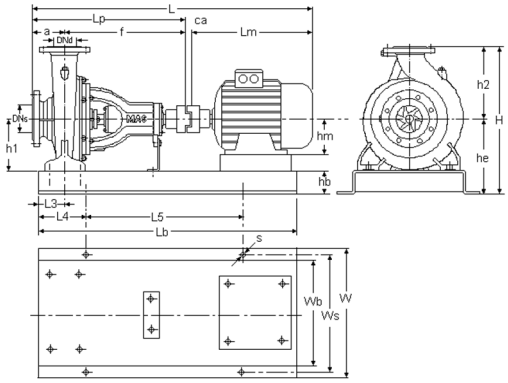
NM 300-400





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm²/s and density 1g/cm³. Tolerances are acc. to ISO 9906 Annex A.





Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X mm	Weight kg
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm		
300-400	350	300	275	865	450	630	150	360	290	800	650	24	550	65	140	300	636

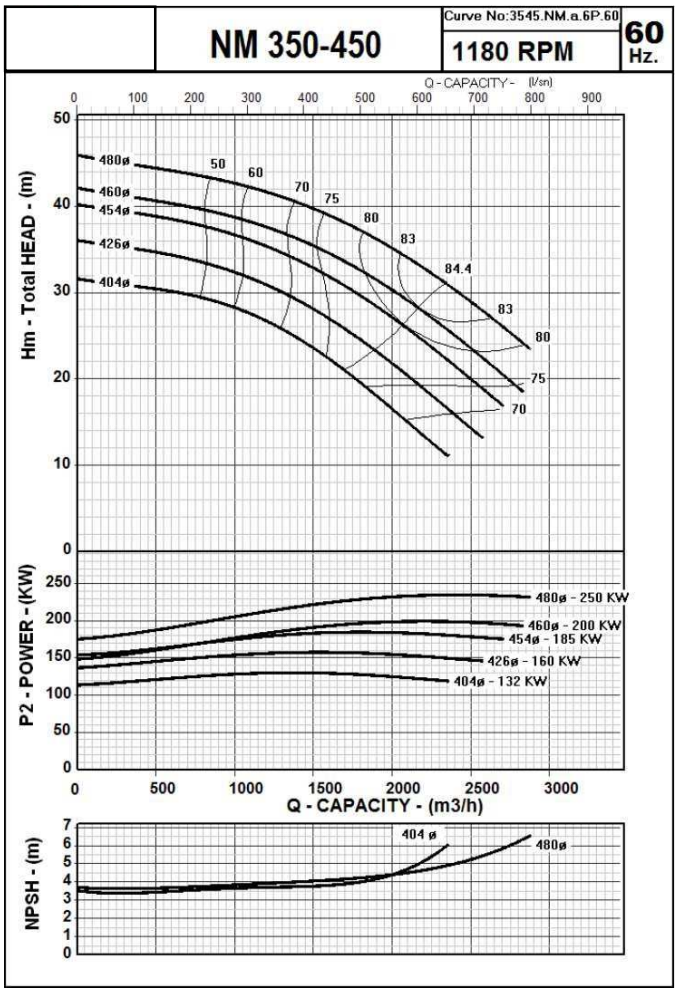
NM Series

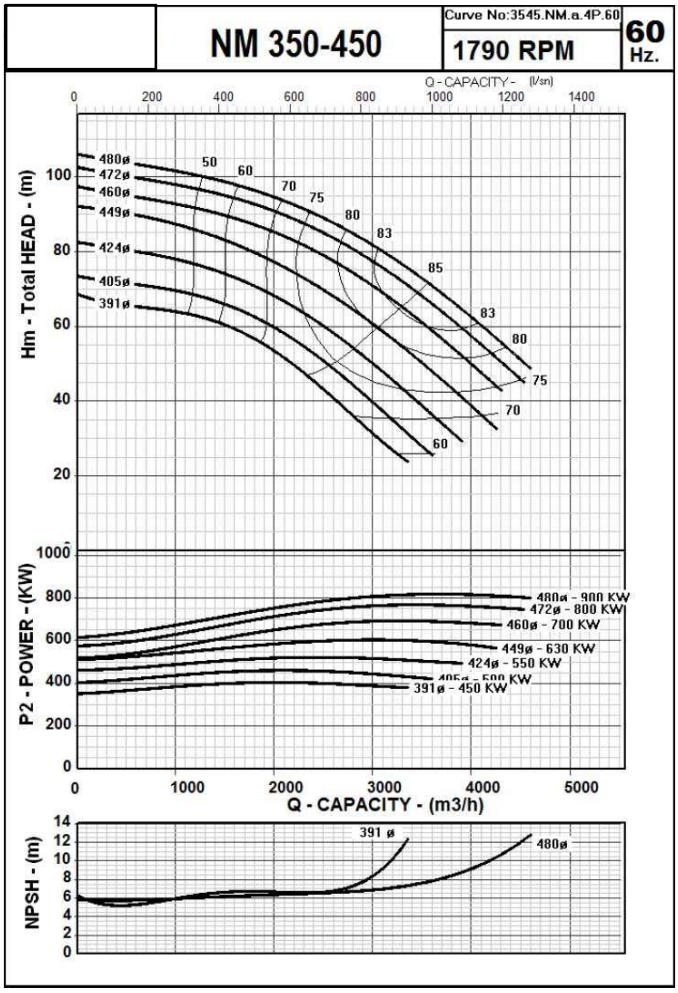
End Suction Centrifugal Pumps

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
300-400 6 poles 60 Hz	75	315S	1150	315	1140	5	2295	970	1260	2050	850	160x2	630	180	300	1450	910	24
	90	315M	1150	315	1140	5	2295	970	1260	2100	850	160x2	630	180	300	1500	910	24
	110	315M	1150	315	1140	5	2295	970	1260	2100	850	160x2	630	180	300	1500	910	24
	132	315L	1220	315	1140	5	2365	970	1260	2150	850	160x2	630	180	300	1550	910	24
300-400 4 poles 60 Hz	200	315L	1220	315	1140	5	2365	970	1260	2150	850	160x2	630	180	300	1550	910	24
	250	355M	1377	355	1140	5	2522	970	1260	2300	850	160x2	630	180	300	1700	910	24
	315	355M	1377	355	1140	5	2522	970	1260	2300	850	160x2	630	180	300	1700	910	24
	355	355M	1377	355	1140	5	2522	970	1260	2300	850	160x2	630	180	300	1700	910	24
	400	355L	1507	355	1140	5	2652	970	1260	2400	850	160x2	630	180	300	1800	910	24
	450	400L	1610	400	1140	5	2755	1020	1260	2500	900	160x2	630	180	350	1800	960	24
	500	400L	1610	400	1140	5	2755	1020	1260	2500	900	160x2	630	180	350	1800	960	24

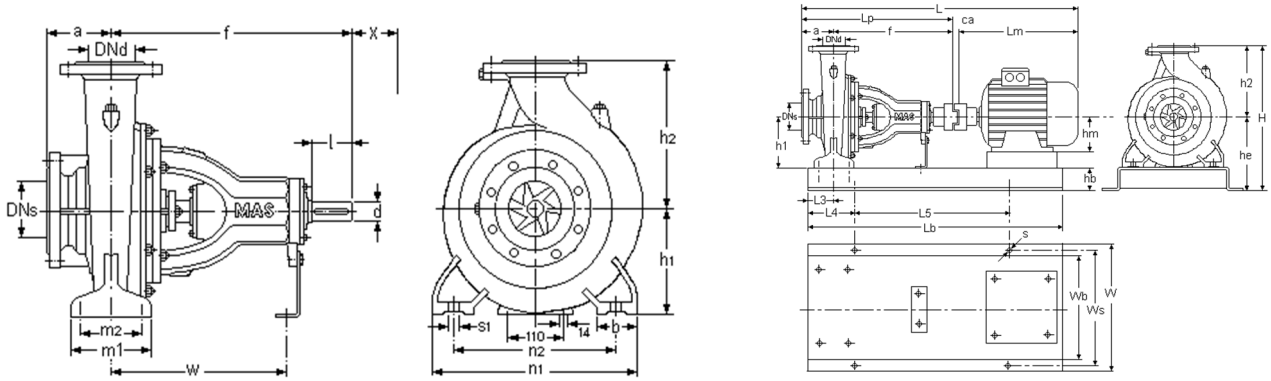
Performance Curves

NM 350-450





The Performance Curves 60 Hz are based on the kinematic viscosity 1 mm^2/s and density 1g/cm^3. Tolerances are acc. to ISO 9906 Annex A.



Pump Size	Flanges		Length		Height		Mounting Details							ShaftEnd		(*) X	Weight
	DNs mm	DNd mm	a mm	f mm	h1 mm	h2 mm	b mm	m1 mm	m2 mm	n1 mm	n2 mm	s1 mm	W mm	d mm	l mm	mm	kg
350-450	400	350	280	875	500	700	150	360	290	900	750	M24	560	65	140	300	755

	MOTOR				PUMP		GENERAL			BASEPLATE								
	KW	IEC	Lm mm	Hm mm	Lp mm	Ca mm	L mm	W mm	H Mm	Lb mm	Wb mm	Hb mm	He mm	L3 mm	L4 mm	L5 mm	Ws mm	S mm
350–450 6 poles 60 Hz	132	315L	1220	315	1154	5	2379	1070	1380	2150	950	160x2	680	180	300	1550	1010	24
	160	315L	1220	315	1154	5	2379	1070	1380	2150	950	160x2	680	180	300	1550	1010	24
	185	355M	1377	355	1154	5	2536	1070	1380	2300	950	160x2	680	180	300	1700	1010	24
	200	355M	1377	355	1154	5	2536	1070	1380	2300	950	160x2	680	180	300	1700	1010	24
	250	355M	1377	355	1154	5	2536	1070	1380	2300	950	160x2	680	180	300	1700	1010	24
350–450 4 poles 60 Hz	450	400L	1610	400	1154	5	2769	1070	1380	2500	950	160x2	680	180	350	1800	1010	24
	500	400L	1610	400	1154	5	2769	1070	1380	2500	950	160x2	680	180	350	1800	1010	24
	550	400L	1610	400	1154	5	2769	1070	1380	2500	950	160x2	680	180	350	1800	1010	24
	630	400L	1610	400	1154	5	2769	1070	1380	2500	950	160x2	680	180	350	1800	1010	24
	700	400L	1610	400	1154	5	2769	1070	1380	2500	950	160x2	680	180	350	1800	1010	24

Permissible Loads and Torques on Pump Flanges

Load and torque components on discharge flanges : F_{xD}, F_{yD}, F_{zD}, M_{xD}, M_{yD}, M_{zD}
Load and torque components on suction flanges : F_{xS}, F_{yS}, F_{zS}, M_{xS}, M_{yS}, M_{zS}
Dimension for force and torque : N, Nm

$F_{VD}=|F_{yD}|$: Amount of vertical load on discharge flange
$F_{VS}=|F_{yS}|$: Amount of vertical load on suction flange
$F_{HD}=(F_{xD2}+F_{zD2})_{1/2}$: Amount of horizontal load on discharge flange
$F_{HS}=(F_{xS2}+F_{zS2})_{1/2}$: Amount of horizontal load on suction flange
$M_D=(M_{xD2}+M_{yD2}+M_{zD2})_{1/2}$: Amount of torque on discharge flange
$M_S=(M_{xS2}+M_{yS2}+M_{zS2})_{1/2}$: Amount of torque on suction flange

$\Sigma F_V=2/3x\ F_{VD}+F_{VS}$: Sum of vertical loads
$\Sigma F_H=F_{HD}+F_{HS}$: Sum of horizontal loads
$\Sigma M=M_D+M_S$: Sum of torques

The load on the flange is permissible if the following condition is fulfilled.

$$(\Sigma F_V/\Sigma F_{Vmax})^2+(\Sigma F_H/\Sigma F_{Hmax})^2+(\Sigma M/\Sigma M_{max})^2 \leq 1$$

PUMP TYPE	F_{Vmax}[N]	F_{Hmax}[N]	M_{max}[Nm]
NM 32–160	2450	1850	350
NM 32–200			
NM 32–250			

PUMP TYPE	F_{Vmax}[N]	F_{Hmax}[N]	M_{max}[Nm]
NM 100–250	4750	3000	1400
NM 100–315	4900	3050	1450
NM 100–400			

NM 40–160	2550	1900	
NM 40–200			
NM 40–250			

NM 50–160	2650	1950	
NM 50–200			
NM 50–250			
NM 50–315	2900	2200	

NM 65–160	3000	2150	
NM 65–200			
NM 65–250			
NM 65–315	3250	2250	
NM 65–400			

NM 80–160	3600	2450	
NM 80–200			
NM 80–250			
NM 80–315	3850	2600	
NM 80–400			

NM 125–200	7850	4850	2700
NM 125–250	7050	4300	2300
NM 125–315			
NM 125–400			

NM 150–200	9900	6500	3600
NM 150–250			
NM 150–315	9550	6250	3450
NM 150–400			

NM 200–280	13200	9200	4000
NM 200–315			
NM 200–400	12750	8350	4600
NM 200–500			

NM 250–315	16500	11500	5000
NM 250–400	15950	10450	5750
NM 250–500			

NM 300–315	19800	13800	6000
NM 300–400			

NM 350–450	23100	16100	7500

Note: Pumps are mounted on base plate pressed of steel-sheet, filled with grout and discharge branch upward. Pump casing materials are GG 25, Bronze, GGG 40 and GS.

Moment of Inertia without Coupling

PUMP TYPE	MOMENT OF INERTIA I [kgm²]					
	Impeller GG 25 (ρ=7,3 kg/dm³)		Impeller Bronze (ρ=8,7 kg/dm³)		Impeller Cast Steel (ρ=7,8 kg/dm³)	
	Without Water	With Water	Without Water	With Water	Without Water	With Water
NM 32–160	0,0062	0,0072	0,0074	0,0084	0,0066	0,0076
NM 32–200	0,0123	0,0142	0,0147	0,0166	0,0131	0,0150
NM 32–250	0.0212	0.0272	0.0309	0.0381	0.293	0,345
NM 40–160	0,0065	0,0072	0,0078	0,0085	0,0070	0,0077
NM 40–200	0,0124	0,0145	0,0148	0,0169	0,0132	0,0153
NM 40–250	0,0293	0,0355	0,0349	0,0411	0,0313	0,0375
NM 50–160	0,0075	0,0087	0,0219	0,0231	0,0080	0,0092
NM 50–200	0,0136	0,0160	0,0142	0,0186	0,0125	0,0169
NM 50–250	0,0318	0,0380	0,0379	0,0441	0,0340	0,0402
NM 50–315	0.0645	0.0800	0,0788	0,0943	0,0696	0,0941
NM 65–160	0,0077	0,0100	0,0092	0,0115	0,0082	0,0105
NM 65–200	0,0150	0,0192	0,0179	0,0221	0,0160	0,0202
NM 65–250	0,0375	0,0465	0,0447	0,0537	0,0401	0,0491
NM 65–315	0,0745	0,0900	0,0888	0,1043	0,0796	0,0951
NM 65–400	0,2100	0,2575	0,2522	0,2997	0,2251	0,2726
NM 80–160	0,0098	0,0127	0,0117	0,0146	0,0105	0,0134
NM 80–200	0,0195	0,0255	0,0232	0,0292	0,0208	0,0268
NM 80–250	0,0400	0,0525	0,0477	0,0602	0,0427	0,0552
NM 80–315	0,0845	0,1077	0,1007	0,1239	0,0903	0,1135
NM 80–400	0,2200	0,2675	0,2622	0,3097	0,2351	0,2826
NM 100–200	0,0253	0,0327	0,0302	0,0376	0,0270	0,0344
NM 100–250	0,0448	0,0625	0,0534	0,0711	0,0479	0,0656
NM 100–315	0,0895	0,1205	0,1067	0,1377	0,0956	0,1266
NM 100–400	0,2108	0,2650	0,2512	0,3054	0,2252	0,2794

NM 125–200	0,0375	0,0545	0,0447	0,0617	0,0401	0,0571
NM 125–250	0,0520	0,0740	0,0556	0,0776	0,0620	0,0840
NM 125–315	0,1058	0,1480	0,1261	0,1683	0,1130	0,1552
NM 125–400	0,2358	0,3098	0,2810	0,3550	0,2520	0,3260

NM 150–200	0,0475	0,0645	0,0547	0,0717	0,0501	0,0671
NM 150–250	0,0675	0,0975	0,0804	0,1104	0,0721	0,1021
NM 150–315	0,1507	0,2123	0,1796	0,2412	0,1610	0,2226
NM 150–400	0,2707	0,3608	0,3226	0,4127	0,2892	0,3793
NM 150–500	0,6760	0.8450	0,8056	0,9746	0,7223	0,8913

NM 200–280	0,1607	0,2223	0,1896	0,2512	0,1710	0,2326
NM 200–315	0,3007	0,3908	0,3526	0,4427	0,3192	0,4093
NM 200–400	0,4030	0,5440	0,4803	0,6213	0,4306	0,5716
NM 200–500	0,7728	0,9815	0,9210	1,1297	0,8257	1,0344

Moment of Inertia without Coupling

PUMP TYPE	**MOMENT OF INERTIA I [kgm^2]**					
	Impeller GG 25 (ρ=7,3 kg/dm^3)		Impeller GG 25 (ρ=7,3 kg/dm^3)		Impeller GG 25 (ρ=7,3 kg/dm^3)	
	Without Water	Without Water	Without Water	Without Water	Without Water	Without Water
NM 250–315	0,2167	0,3077	0,2583	0,3493	0,2315	0,3225
NM 250–400	0,5595	0,7442	0,6668	0,8515	0,5978	0,7825
NM 250–500	0,9322	1,1932	1,1110	1,3720	0,9961	1,2571

NM 300–315	0,3595	0,4442	0,4668	0,5515	0,3978	0,5825
NM 300–400	0,4400	0,5985	0,5244	0,6829	0,4701	0,6286

NM 350–450	1,2000	1,850	1,4301	2,0801	1,2822	1,9322

For the water filling ρ=1 kg/dm^3 is used. In case the handled liquid has a different density or the impeller is made of other materials having also a different density, calculate moment of inertia according to the following examples.

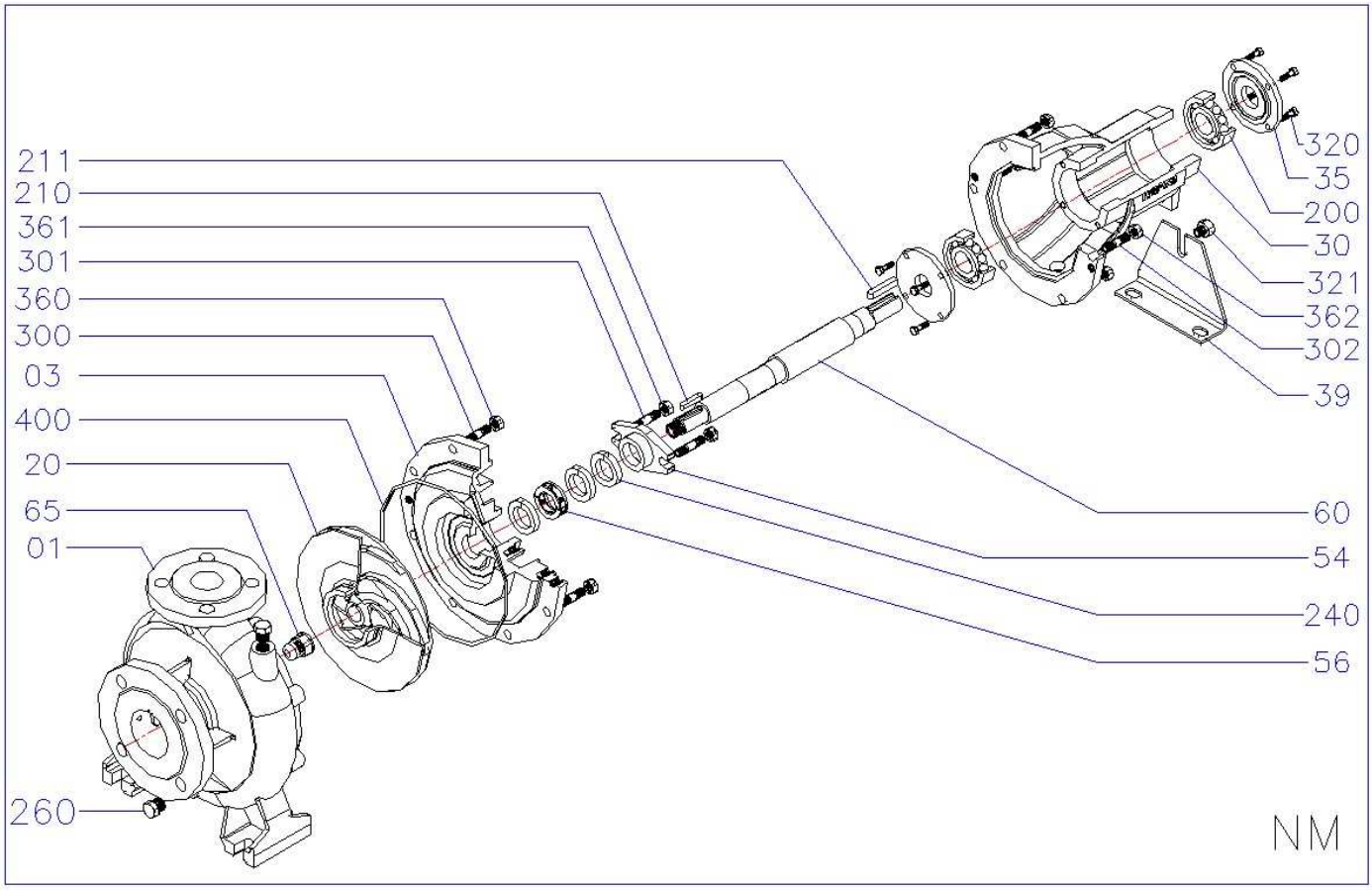
Example: Pump Size NM 100-250

Handled liquid density ρ=1.25 kg/dm^3, impeller cast iron GG ρ=7.3 kg/dm^3
I= (0.0625-0.0448) x1.25+0.0448=0.0669 kgm^2

Handled liquid density ρ=1 kg/dm^3, impeller ρ=8 kg/dm^3 (conversion from GG ρ=7.3 kg/dm^3)
I= 0.0448x8/7.3+(0.0625-0.0448)=0.0668 kgm^2

Handled liquid density ρ=1.25 kg/dm^3, impeller ρ=8 kg/dm^3
(Conversion from GG ρ=7.3 kg/dm^3 and water ρ=1 kg/dm^3)
I= 0.0448x8/7.3+(0.0625-0.0448)x1.25=0.0712 kgm^2

Exploded View



PART NO	PARTNAME	PART NO	PARTNAME
01	Pump Casing	211	Coupling Key
03	Stuffing Box	240	Gland Packing
20	Impeller	260	Drain Plug
30	Bearing Housing	300	Stud

35	Bearing Housing Cover	301	Stud for Gland
39	Supporting Foot	302	Stud
54	Gland	320	Hexagonal Bolt
56	Lantern Ring	321	Hexagonal Bolt
60	Pump Shaft	360	Hexagonal Nut
65	Impeller Nut	361	Hexagonal Nut for Gland
200	Ball Bearing	362	Hexagonal Nut
210	Impeller Key	400	O-Ring