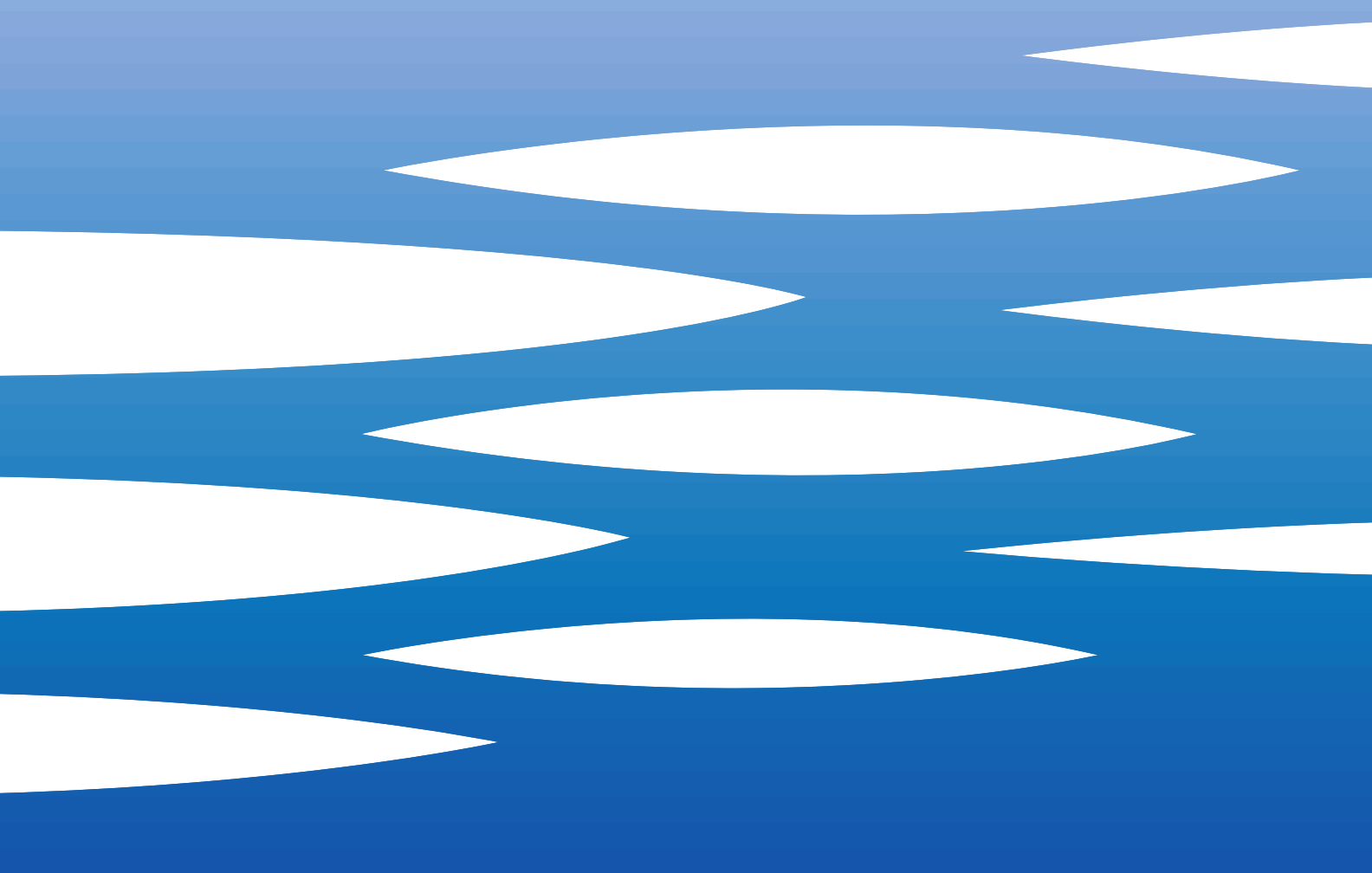


EBARA



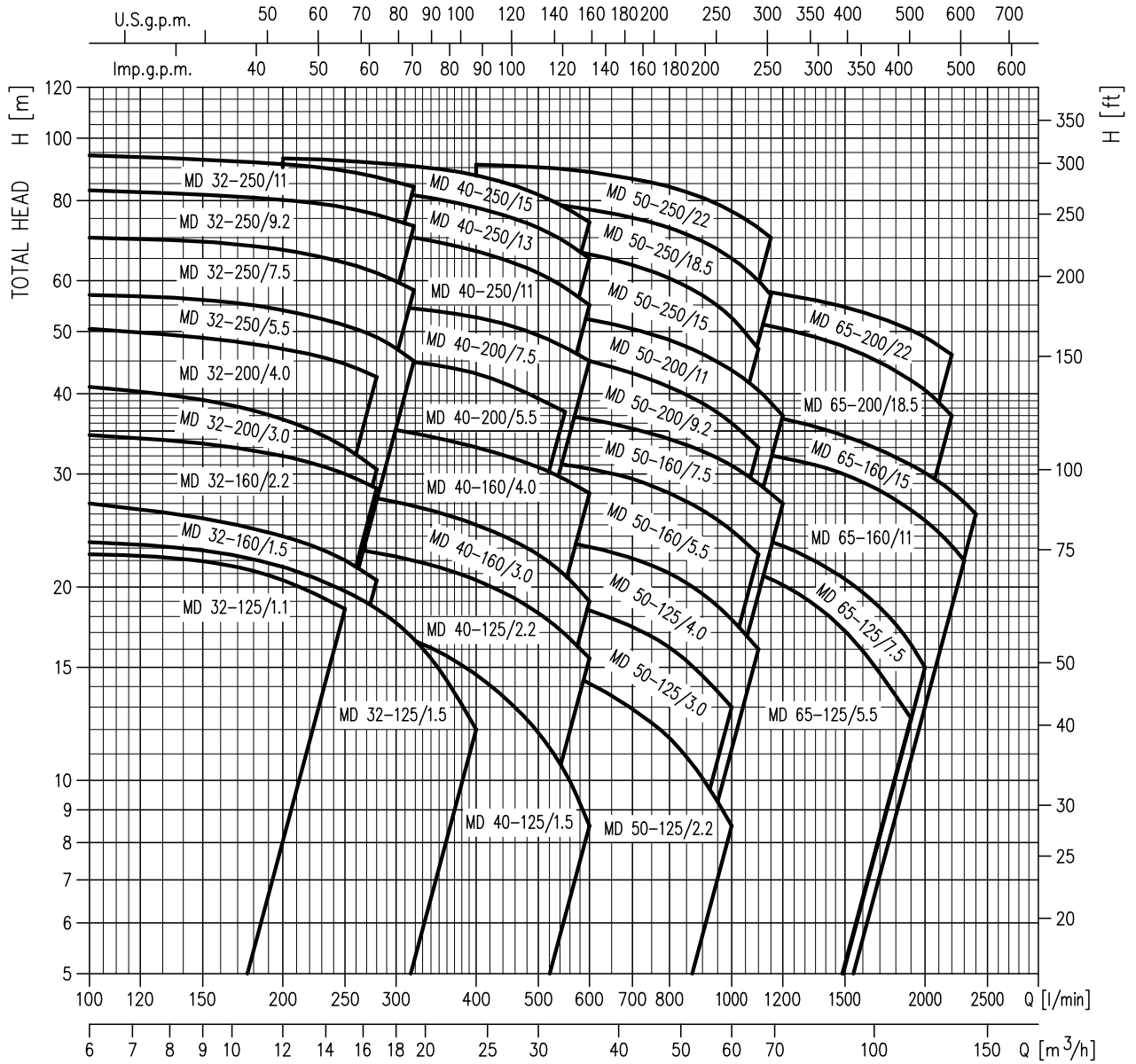
	Page
- CONTENTS	
CONTENTS	100
- SPECIFICATIONS	
SPECIFICATIONS	200
SELECTION CHART	201
SELECTION CHART	202
SELECTION CHART	203
PERFORMANCE CHART MD 32-125	204
PERFORMANCE CHART MD 32-160	205
PERFORMANCE CHART MD 32-200	206
PERFORMANCE CHART MD 32-250	207
PERFORMANCE CHART MD 40-125	208
PERFORMANCE CHART MD 40-160	209
PERFORMANCE CHART MD 40-200	210
PERFORMANCE CHART MD 40-250	211
PERFORMANCE CHART MD 50-125	212
PERFORMANCE CHART MD 50-160	213
PERFORMANCE CHART MD 50-200	214
PERFORMANCE CHART MD 50-250	215
PERFORMANCE CHART MD 65-125	216
PERFORMANCE CHART MD 65-160	217
PERFORMANCE CHART MD 65-200	218
- CONSTRUCTIONS	
SECTIONAL VIEW	300
CONSTRUCTIONS	301
CONSTRUCTIONS	302
MECHANICAL SEAL	303
DIAGRAM AND ELECTRIC CONNECTIONS THREE PHASE MOTOR	304
DIAGRAM AND ELECTRIC CONNECTIONS SINGLE PHASE MOTOR	305
FITTINGS	306
- DIMENSIONS	
DIMENSIONS	400
DIMENSIONS	401
PACKING AND WEIGHT	402
- MOTOR DATA	
MOTOR DATA	500

SPECIFICATIONS

50Hz

PUMP		
Liquid Handled	Type of liquid	Clean water
	Max temperature [°C]	90
	Maximum working pressure [MPa]	1
	Flange	UNI 2236
	Counterflange (On request)	UNI 2247
Construction	Impeller	Closed centrifugal type
	Shaft seal type	Mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction	Flange to DIN 2532 (50 mm - 65 mm - 80 mm)
	Discharge	Flange to DIN 2532 (32 mm - 40 mm - 50 mm - 65 mm)
Material	Casing	Cast iron
	Impeller	Cast iron/Bronze (see application page 301)
	Shaft seal	Ceramic/Carbon/NBR
	Shaft	AISI 304 (part in contact with liquid)
	Bracket	Cast iron
Applicable standard of test		ISO 9906 - Annex A

MOTOR		
Type	Electric - TEFC	
	Single Phase	Three Phase
No. of Poles	2	
Synchronous speed [min ⁻¹]	3000	
Insulation Class	F	
Protection degree	IP 55	
Power rating [kW]	1.1 ÷ 2.2	1.1 ÷ 22
	[HP]	1.5 ÷ 3
Frequency [Hz]	50	
Voltage [V]	230 ±10%	230/400 ±10% (up to 4 kW)
		400/690 ±10% (5.5 kW and above)
Capacitor	Built in	-
Over load protection	Built in	Provided by the user
Casing material	Aluminium	
Base material/motor support	Aluminium / Steel	
Dimensions of cable entry	PG 13.5 - PG 16 - PG 21 (see dimensions pages 400-401)	



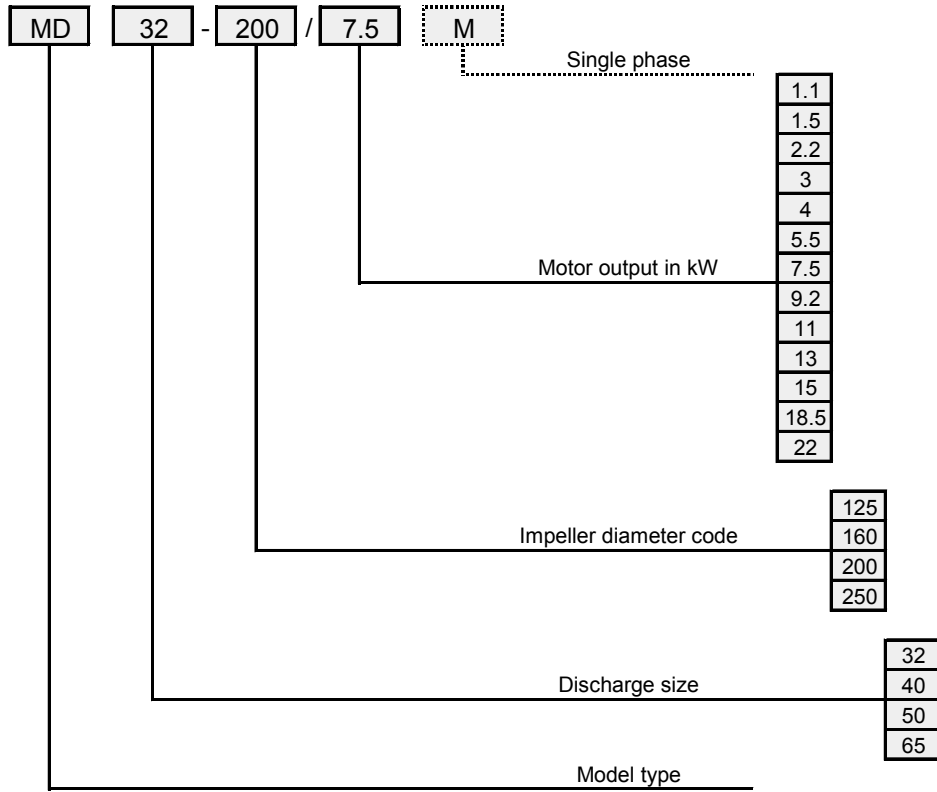
SELECTION CHART

50Hz

Pump Type	Power		Q=Capacity																							
	kW	HP	l/min	0	100	200	250	280	320	400	550	600	667	800	1000	1100	1150	1200	1400	1900	2000	2200	2300	2400		
			m ³ /h	0	6	12	15	17	19	24	33	36	40	48	60	66	69	72	84	114	120	132	138	144		
H=Total manometric head in meters																										
MD 32-125/1.1 (M)	1.1	1.5	23	22.5	20.5	18.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-125/1.5 (M)	1.5	2	24	23.5	21.5	19.7	18.5	16.6	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-160/1.5 (M)	1.5	2	28	27	24	22	20.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-160/2.2 (M)	2.2	3	35.5	34.5	32	30	28.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-200/3.0	3	4	43	41	36.5	33	30.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-200/4.0	4	5.5	52	50.5	47	44.5	42.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/5.5	5.5	7.5	58	57	54	51	49	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/7.5	7.5	10	71	70	67	64	62	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/9.2	9.2	12.5	84	83	80	78	76	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 32-250/11	11	15	95	94	91	89	87	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-125/1.5 (M)	1.5	2	20	19.5	18.4	17.7	17.2	16.5	14.6	10.3	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-125/2.2 (M)	2.2	3	25.5	25	23.5	23	22.5	22	20.5	16.9	15.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-160/3.0	3	4	31.5	30.5	29	28	27.5	26.5	25	21	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-160/4.0	4	5.5	39	38	36.5	36	35.5	35	33	29.5	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-200/5.5	5.5	7.5	48.5	48	47	46	45.5	44.5	42.5	37.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-200/7.5	7.5	10	58	57.5	56.5	55.5	55	54.5	52.5	47.5	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-250/11	11	15	74.5	-	73	72	71.5	70	66.5	58.5	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-250/13	13	17.5	85.5	-	84	83.5	82.5	81.5	78	69	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 40-250/15	15	20	94.5	-	93	92	91.5	90.5	88	78	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MD 50-125/2.2 (M)	2.2	3	17.5	-	-	-	-	-	16	14.8	14.3	13.5	11.7	8.5	-	-	-	-	-	-	-	-	-	-	-	
MD 50-125/3.0	3	4	21	-	-	-	-	-	19.5	18.6	18.2	17.6	16.1	13	-	-	-	-	-	-	-	-	-	-	-	
MD 50-125/4.0	4	5.5	25.5	-	-	-	-	-	24	23	23	22	21	17.8	16	-	-	-	-	-	-	-	-	-	-	
MD 50-160/5.5	5.5	7.5	33.5	-	-	-	-	-	32.5	31	30.5	30	28	24.5	22.5	-	-	-	-	-	-	-	-	-	-	
MD 50-160/7.5	7.5	10	39	-	-	-	-	-	38	37	36.5	35.5	34	31	29	28	27	-	-	-	-	-	-	-	-	
MD 50-200/9.2	9.2	12.5	50	-	-	-	-	-	48	46	45	44	41	36	33	-	-	-	-	-	-	-	-	-	-	
MD 50-200/11	11	15	56	-	-	-	-	-	54.5	53	52	51	48.5	43.5	40.5	39	37	-	-	-	-	-	-	-	-	
MD 50-250/15	15	20	71	-	-	-	-	-	69	67	66	64	60.5	52.5	47	-	-	-	-	-	-	-	-	-	-	
MD 50-250/18.5	18.5	25	82	-	-	-	-	-	80	78.5	77.5	76	72.5	65	60	57	-	-	-	-	-	-	-	-	-	
MD 50-250/22	22	30	93	-	-	-	-	-	91	89.5	88.5	87	84	77	72.5	70	-	-	-	-	-	-	-	-	-	
MD 65-125/5.5	5.5	7.5	24	-	-	-	-	-	-	-	23.2	23	22.5	21.5	20.5	20.5	20	18.2	12.5	-	-	-	-	-	-	
MD 65-125/7.5	7.5	10	27.5	-	-	-	-	-	-	-	26.5	26	25.5	24.5	24	23.5	23	21.5	16.3	15	-	-	-	-	-	
MD 65-160/11	11	15	34.5	-	-	-	-	-	-	-	-	34	33.5	33	32.5	32	32	30.5	26.5	25.5	23	22	-	-	-	
MD 65-160/15	15	20	39	-	-	-	-	-	-	-	-	-	38	37.5	37	36.5	36.5	35	31	30.5	28.5	27	26	-	-	
MD 65-200/18.5	18.5	25	55	-	-	-	-	-	-	-	-	-	53.5	52.5	51.5	51	50.5	48.5	42	40.5	37	-	-	-	-	
MD 65-200/22	22	30	61	-	-	-	-	-	-	-	-	-	59.5	58.5	58	57.5	57	55.5	50	49	46	-	-	-	-	

The performances of single-phase and three-phase are the same

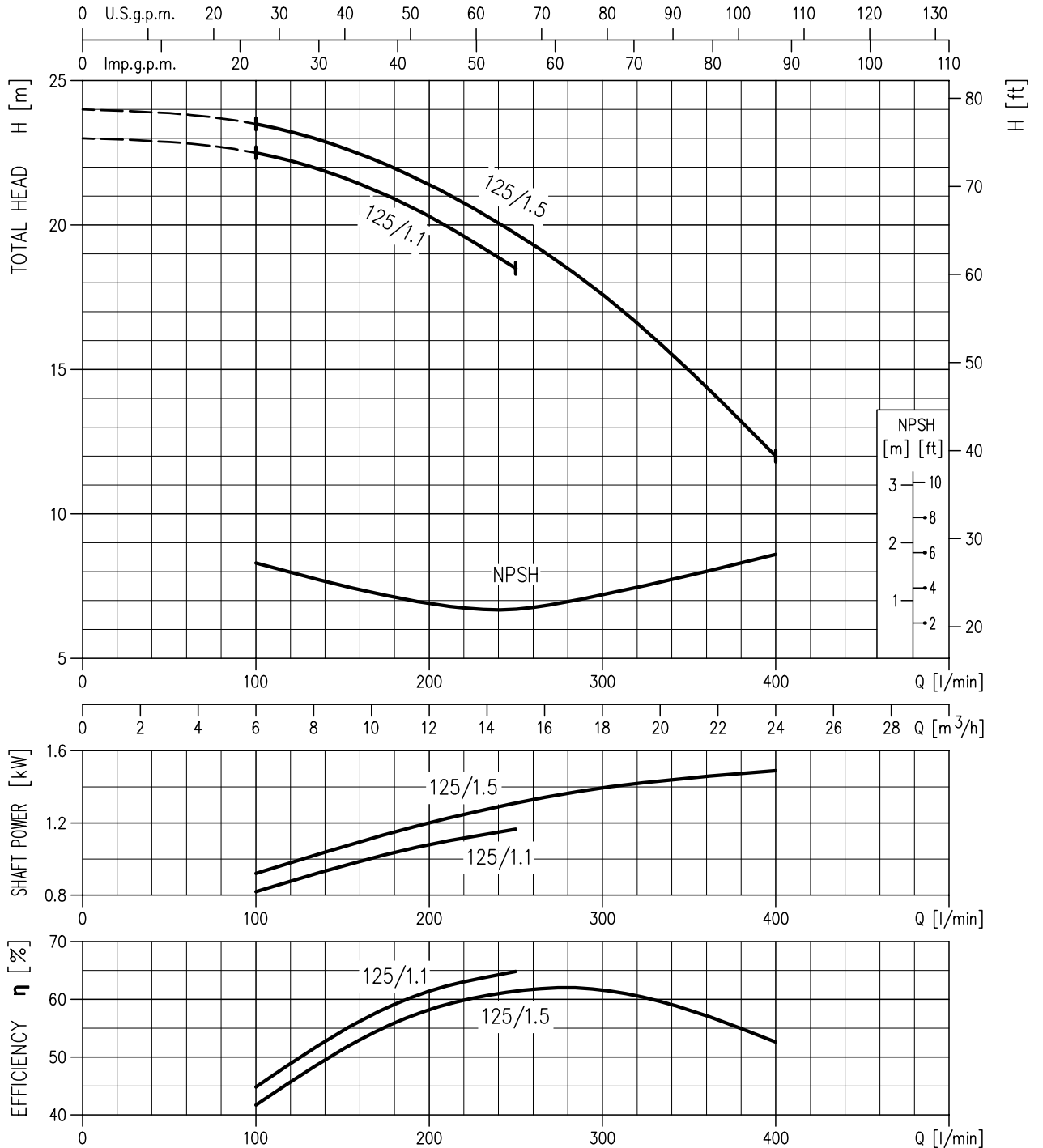
TYPE KEY:



PERFORMANCE CURVE

50Hz

MD 32-125/1.1 (1.1 kW) – Impeller diameter = 131 mm
 MD 32-125/1.5 (1.5 kW) – Impeller diameter = 134 mm

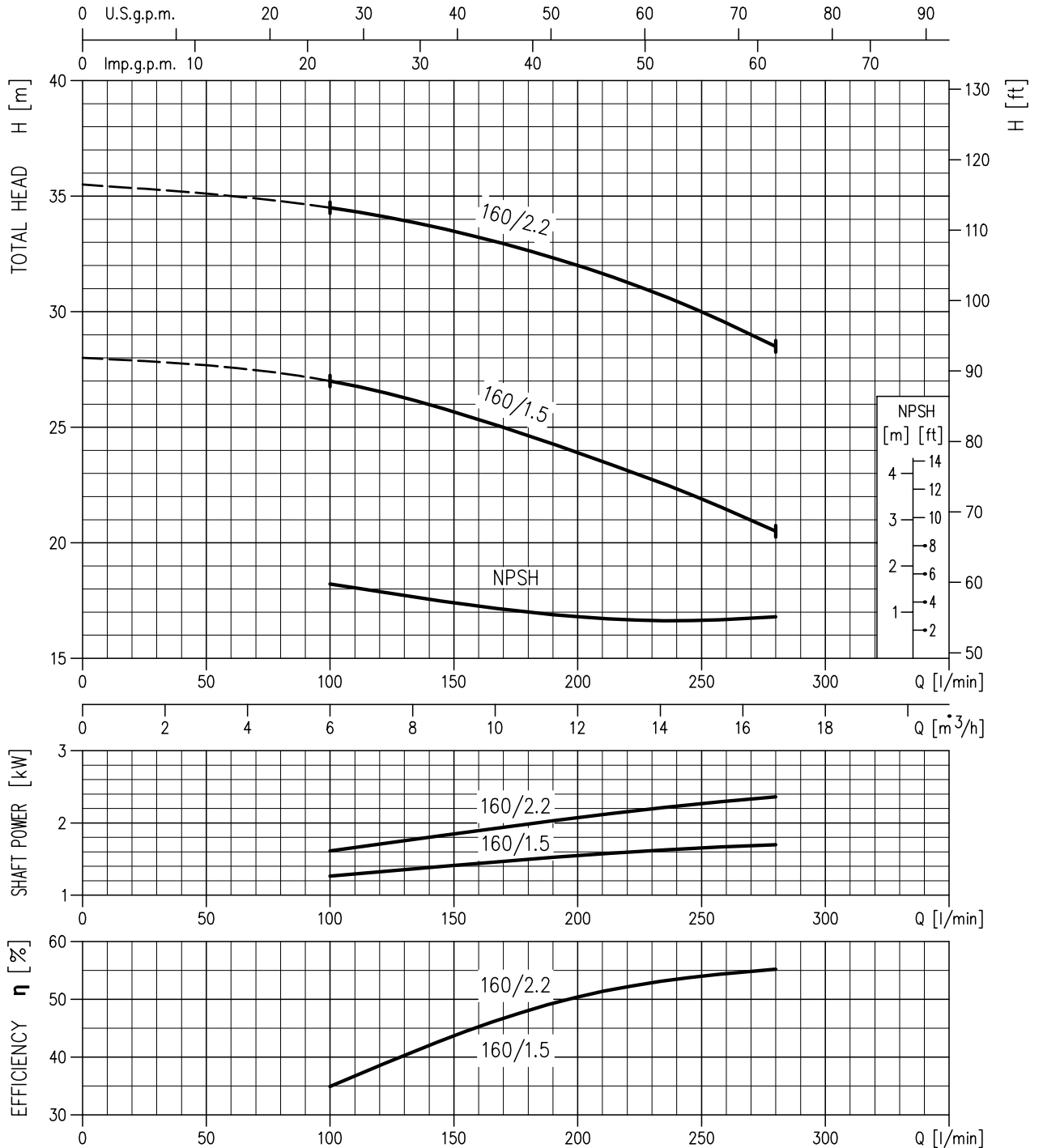


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 32-160/1.5 (1.5 kW) – Impeller diameter = 148 mm
 MD 32-160/2.2 (2.2 kW) – Impeller diameter = 163 mm

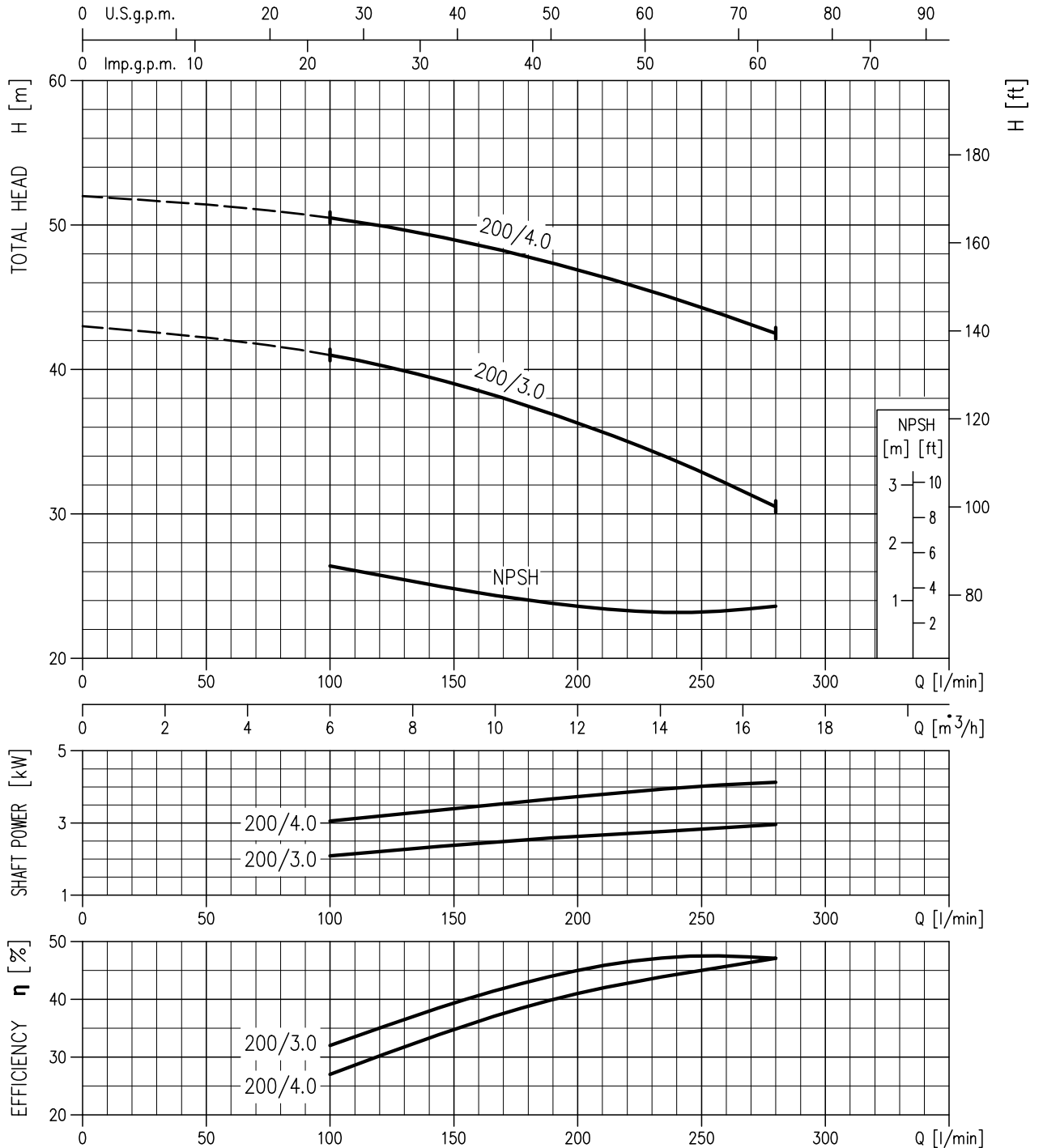


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 32-200/3.0 (3.0 kW) – Impeller diameter = 180 mm
 MD 32-200/4.0 (4.0 kW) – Impeller diameter = 195 mm

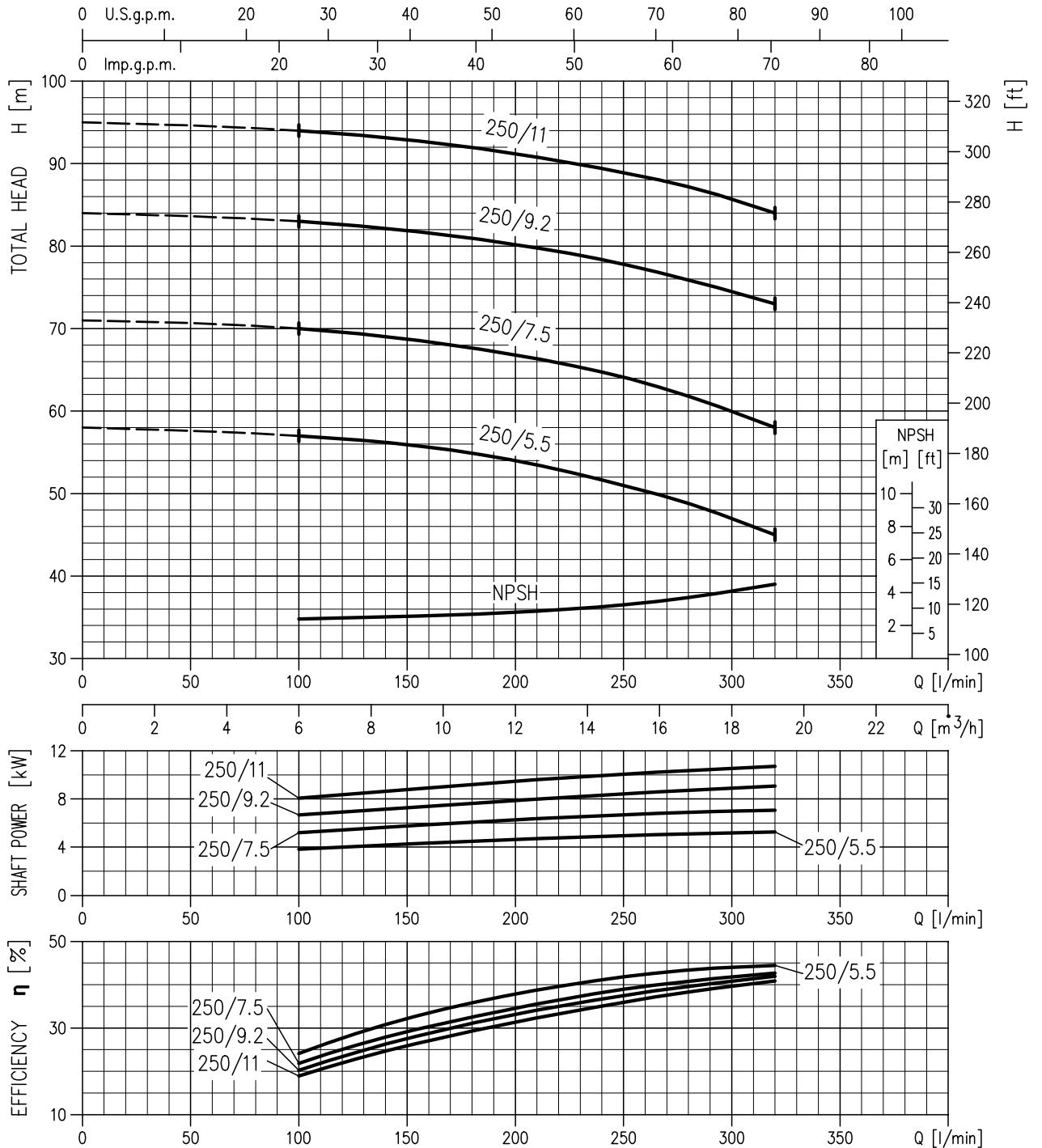


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 32-250/5.5 (5.5 kW) – Impeller diameter = 215 mm
 MD 32-250/7.5 (7.5 kW) – Impeller diameter = 236 mm
 MD 32-250/9.2 (9.2 kW) – Impeller diameter = 252 mm
 MD 32-250/11 (11 kW) – Impeller diameter = 265 mm

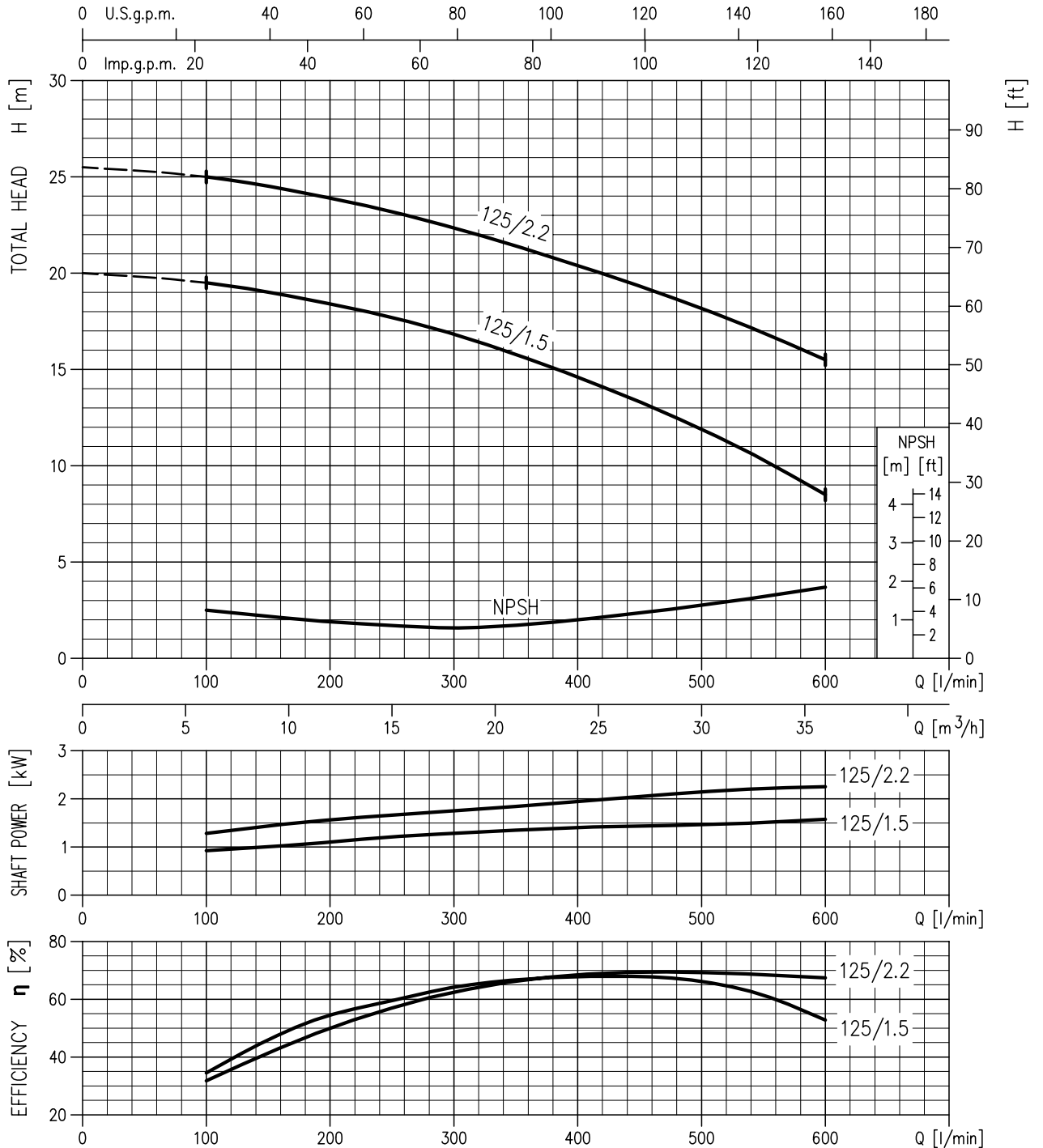


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 40-125/1.5 (1.5 kW) – Impeller diameter = 126 mm
 MD 40-125/2.2 (2.2 kW) – Impeller diameter = 138 mm

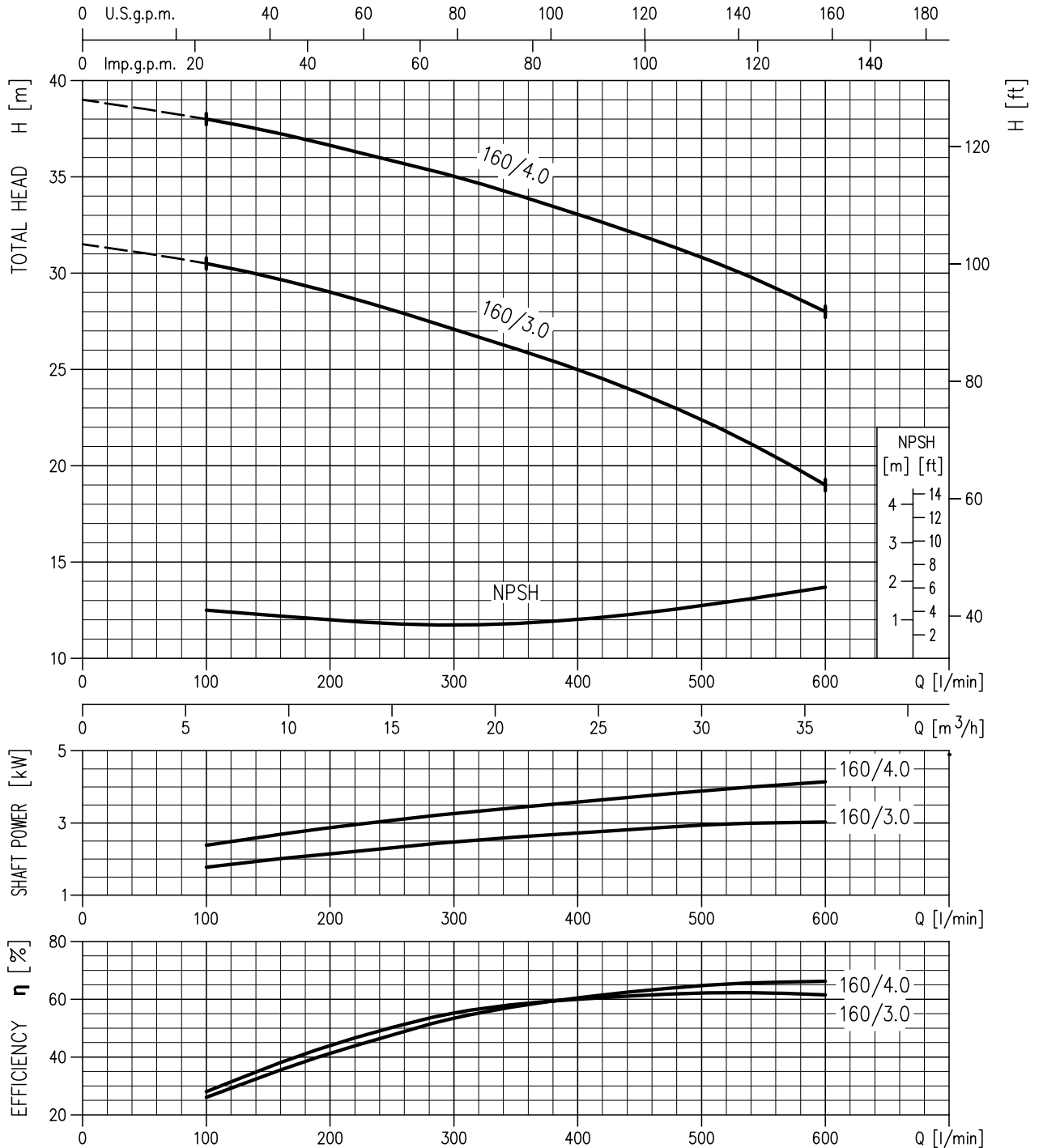


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 40-160/3.0 (3.0 kW) – Impeller diameter = 154.5 mm
 MD 40-160/4.0 (4.0 kW) – Impeller diameter = 168 mm

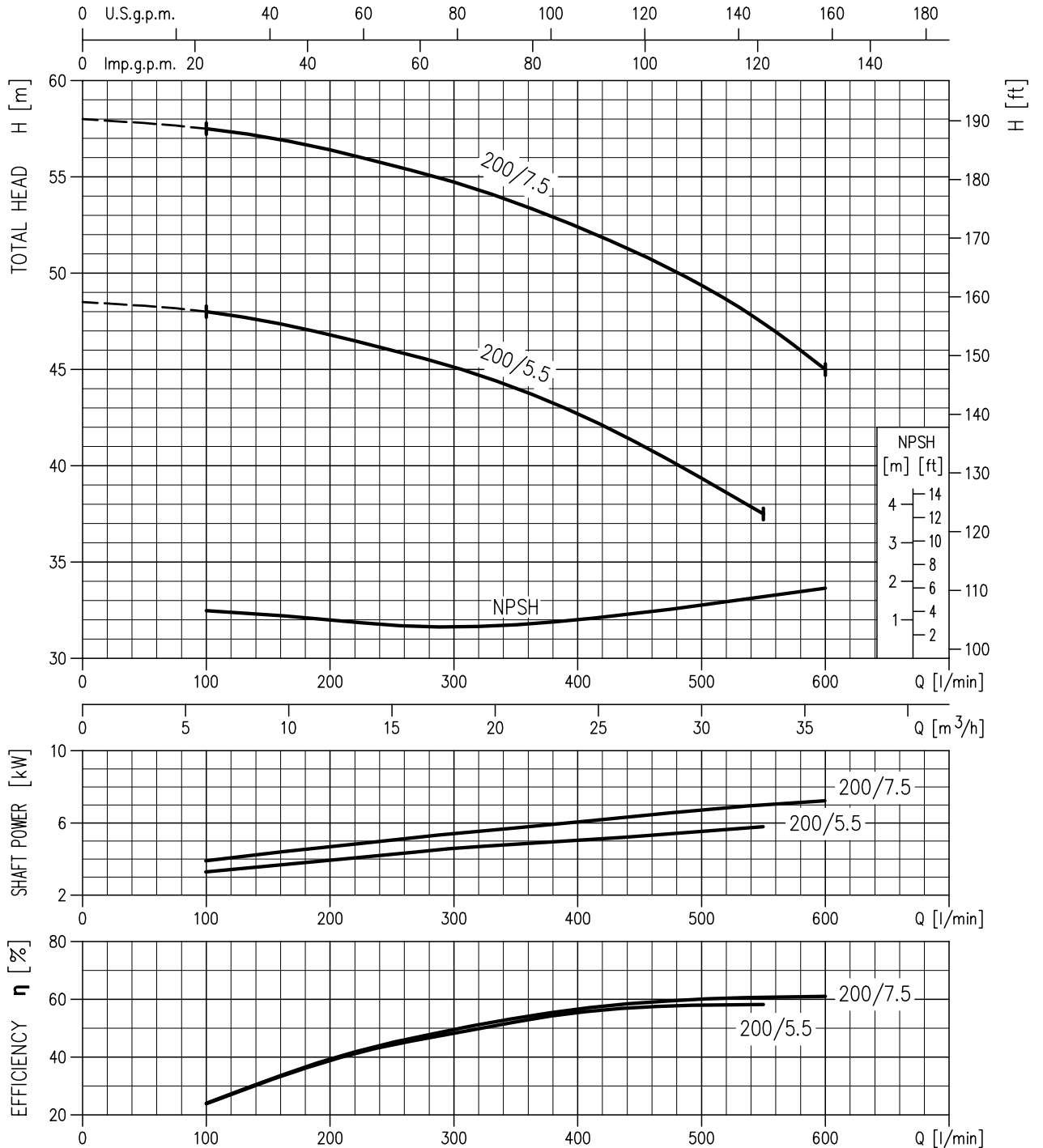


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 40-200/5.5 (5.5 kW) – Impeller diameter = 187 mm
 MD 40-200/7.5 (7.5 kW) – Impeller diameter = 203 mm

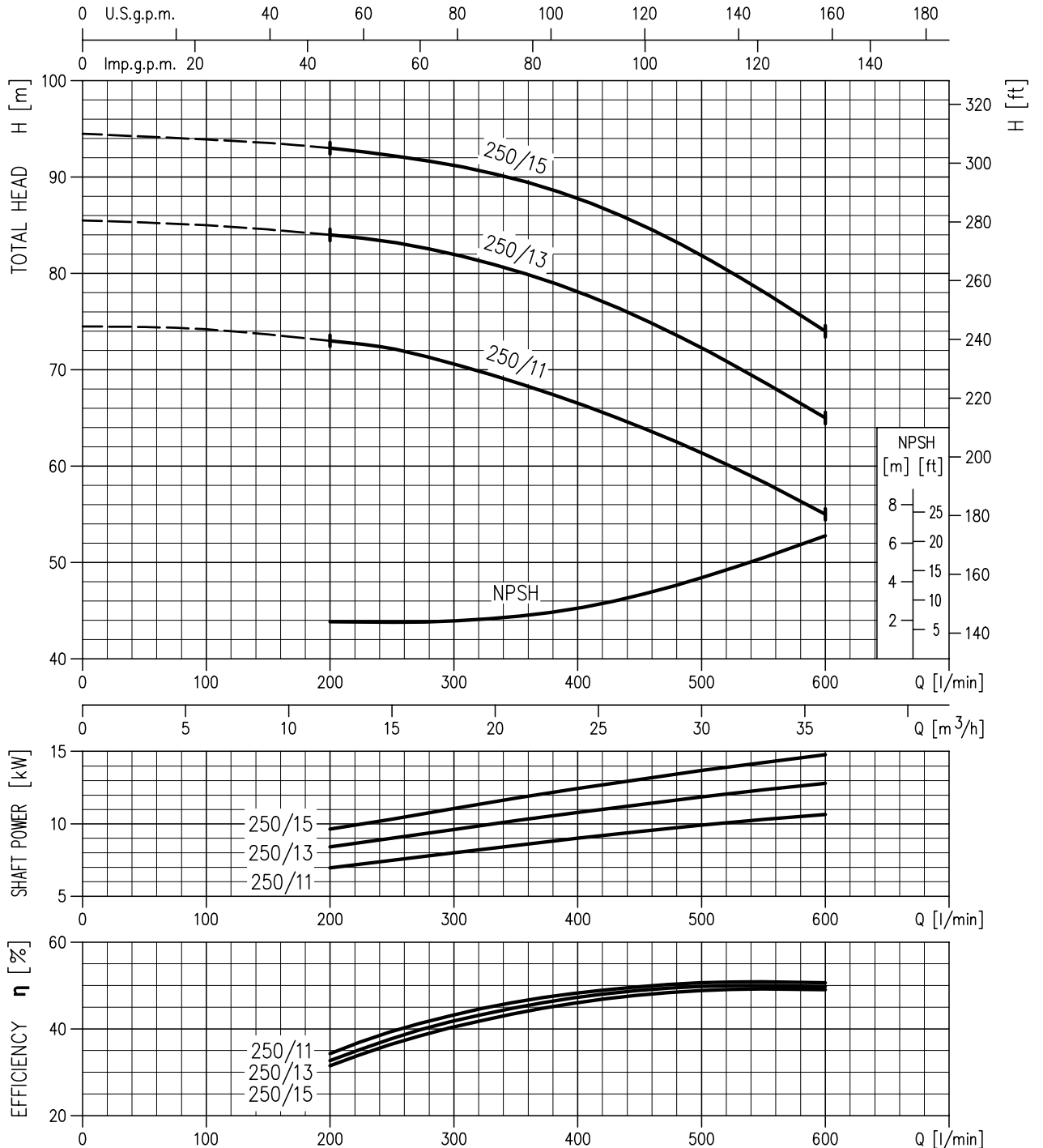


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 40-250/11 (11 kW) – Impeller diameter = 232 mm
 MD 40-250/13 (13 kW) – Impeller diameter = 246 mm
 MD 40-250/15 (15 kW) – Impeller diameter = 257 mm

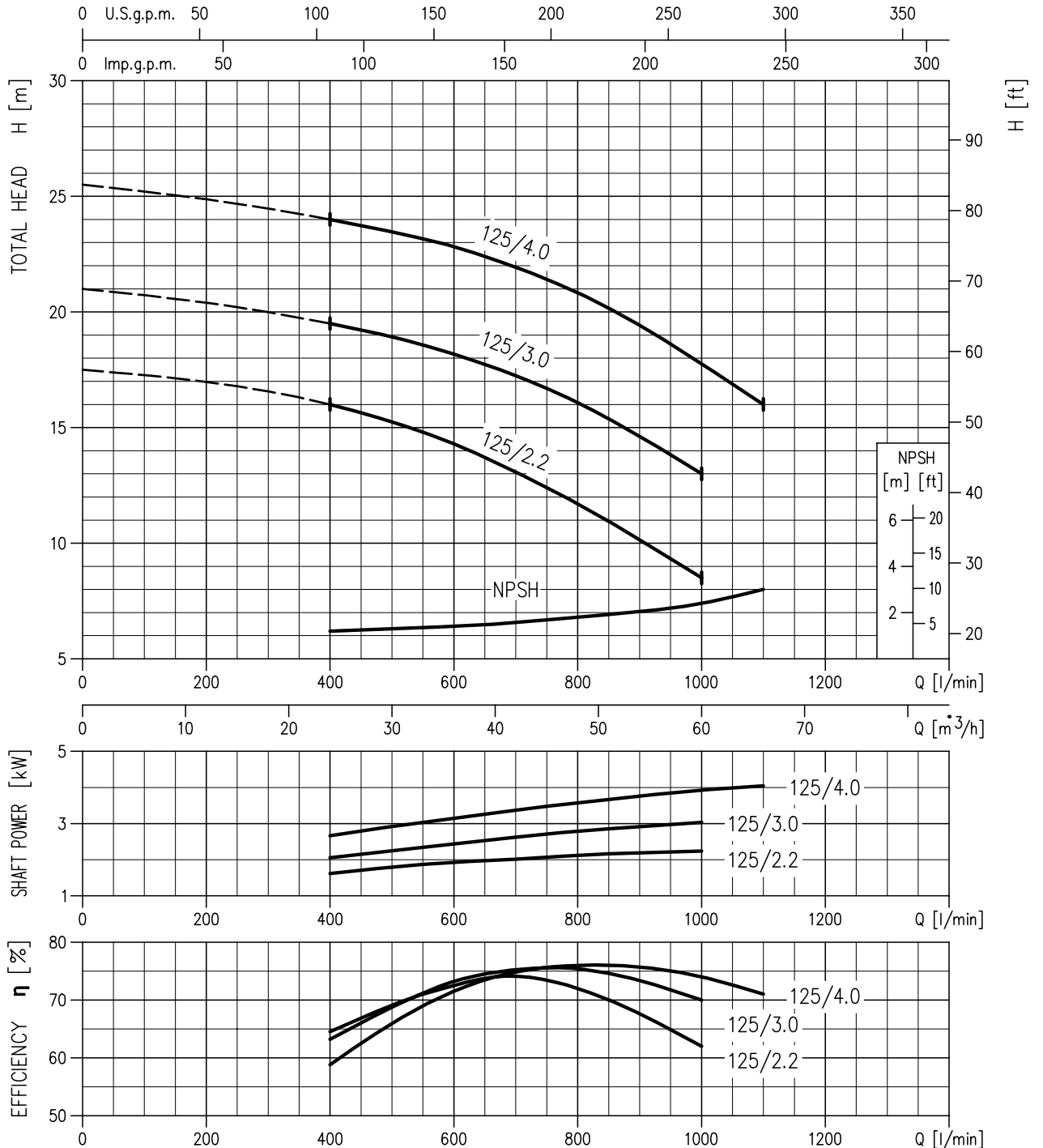


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 50-125/2.2 (2.2 kW) – Impeller diameter = 117 mm
 MD 50-125/3.0 (3.0 kW) – Impeller diameter = 125 mm
 MD 50-125/4.0 (4.0 kW) – Impeller diameter = 135 mm

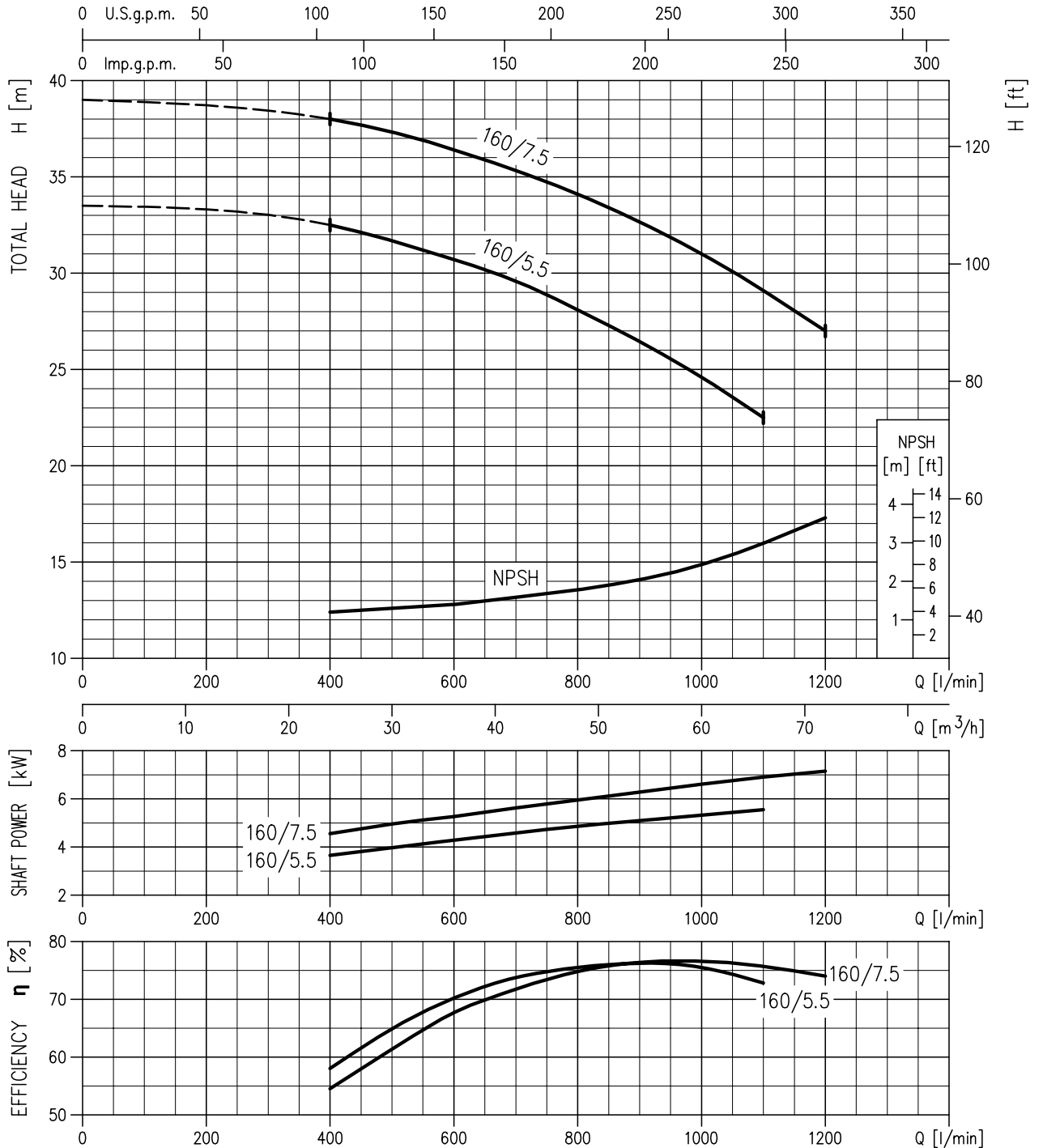


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 50-160/5.5 (5.5 kW) – Impeller diameter = 155 mm
 MD 50-160/7.5 (7.5 kW) – Impeller diameter = 166 mm

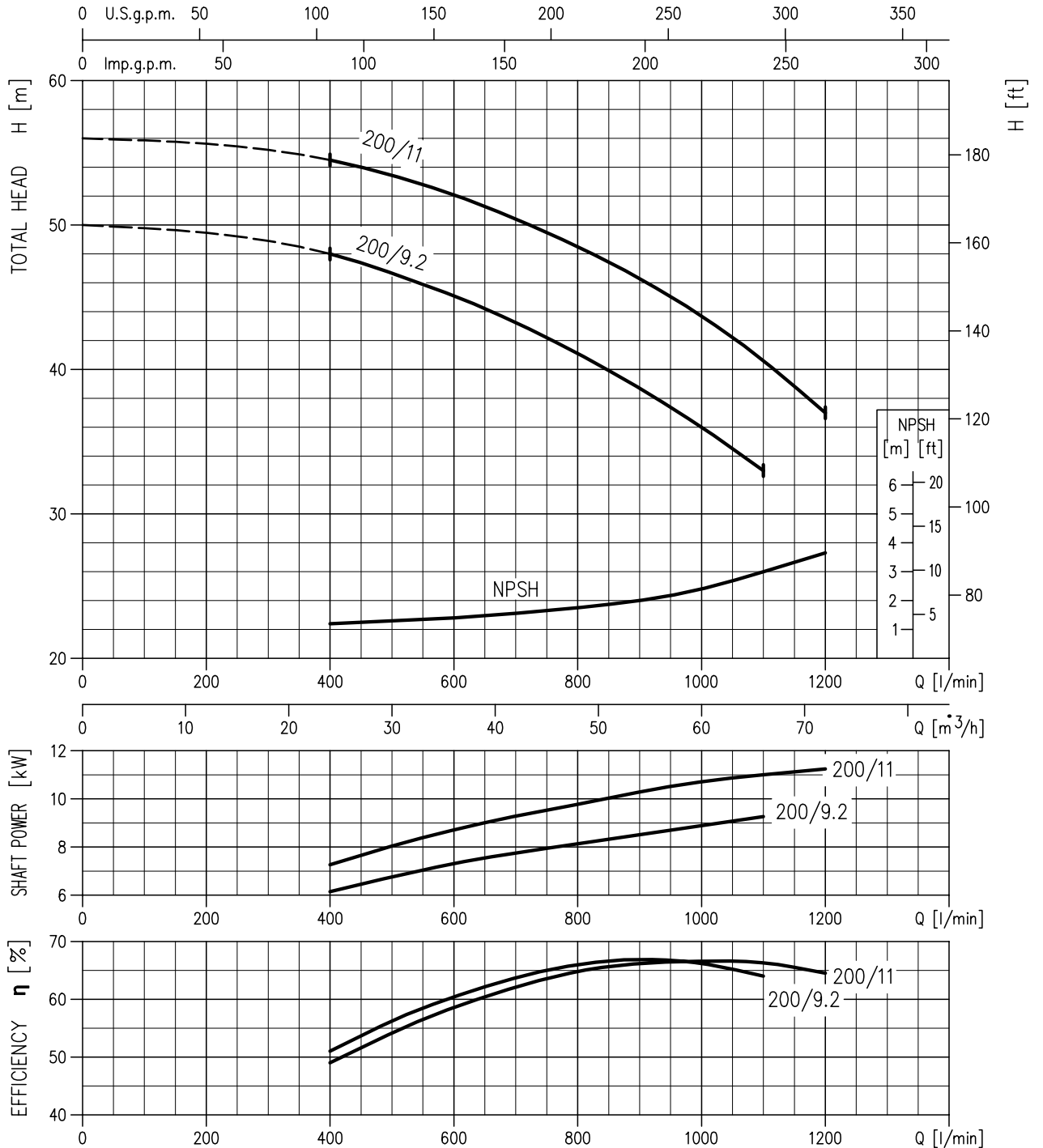


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 50-200/9.2 (9.2 kW) – Impeller diameter = 191 mm
 MD 50-200/11 (11 kW) – Impeller diameter = 200 mm

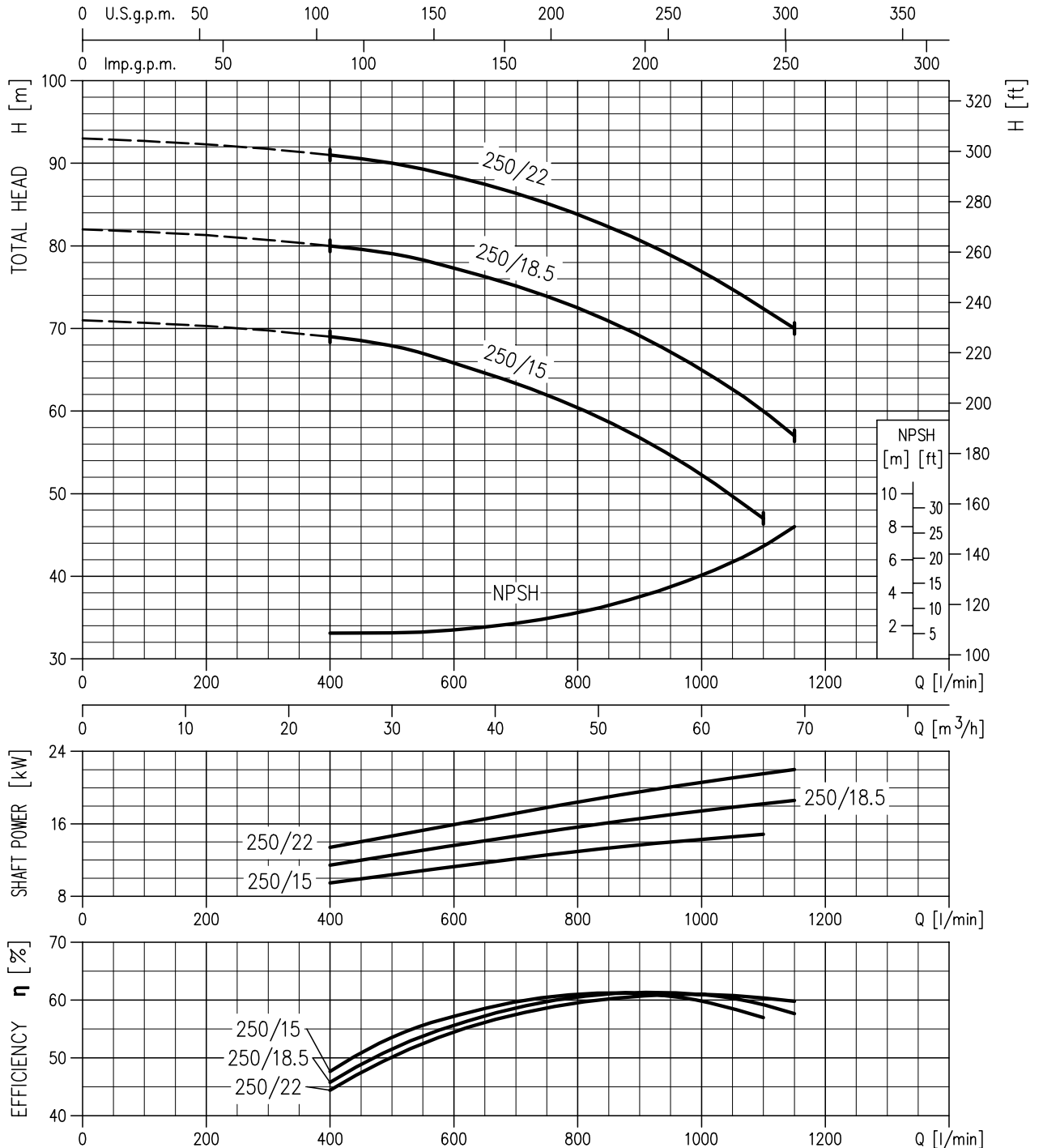


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 50-250/15 (15 kW) – Impeller diameter = 228 mm
 MD 50-250/18.5 (18.5 kW) – Impeller diameter = 242 mm
 MD 50-250/22 (22 kW) – Impeller diameter = 254 mm

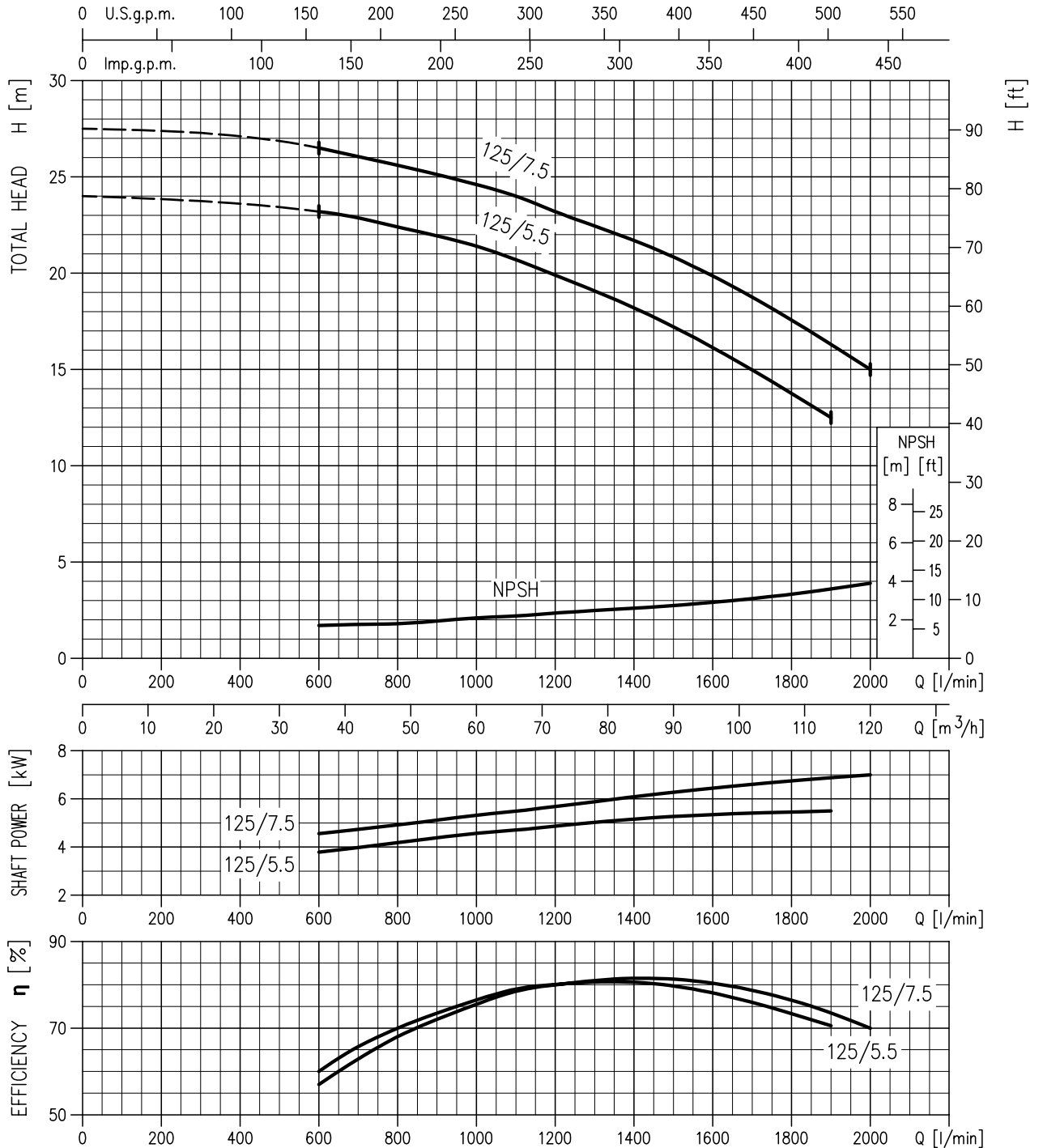


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 65-125/5.5 (5.5 kW) – Impeller diameter = 135 mm
 MD 65-125/7.5 (7.5 kW) – Impeller diameter = 142 mm

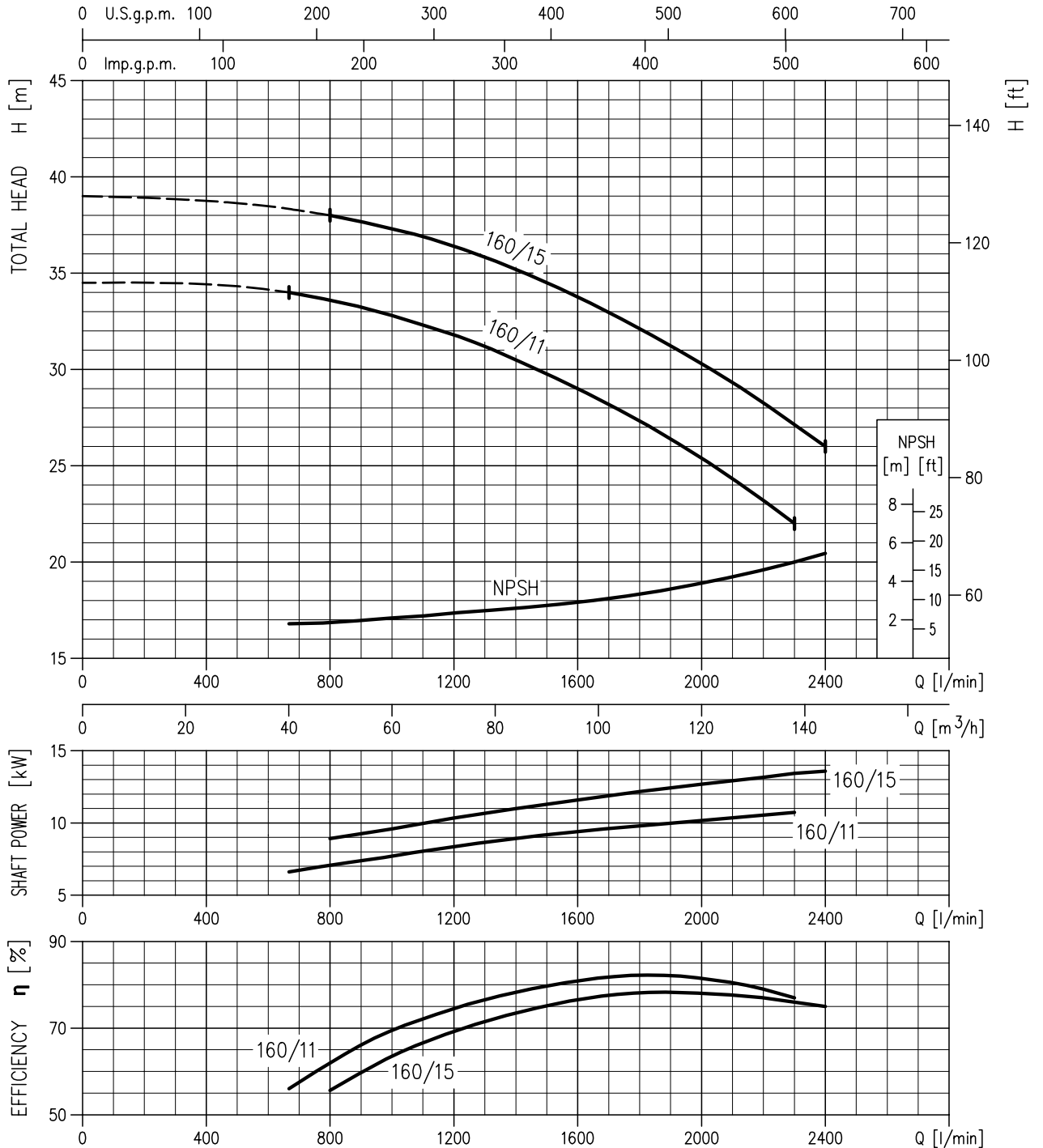


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

50Hz

MD 65-160/11 (11 kW) – Impeller diameter = 161.5 mm
 MD 65-160/15 (15 kW) – Impeller diameter = 169 mm

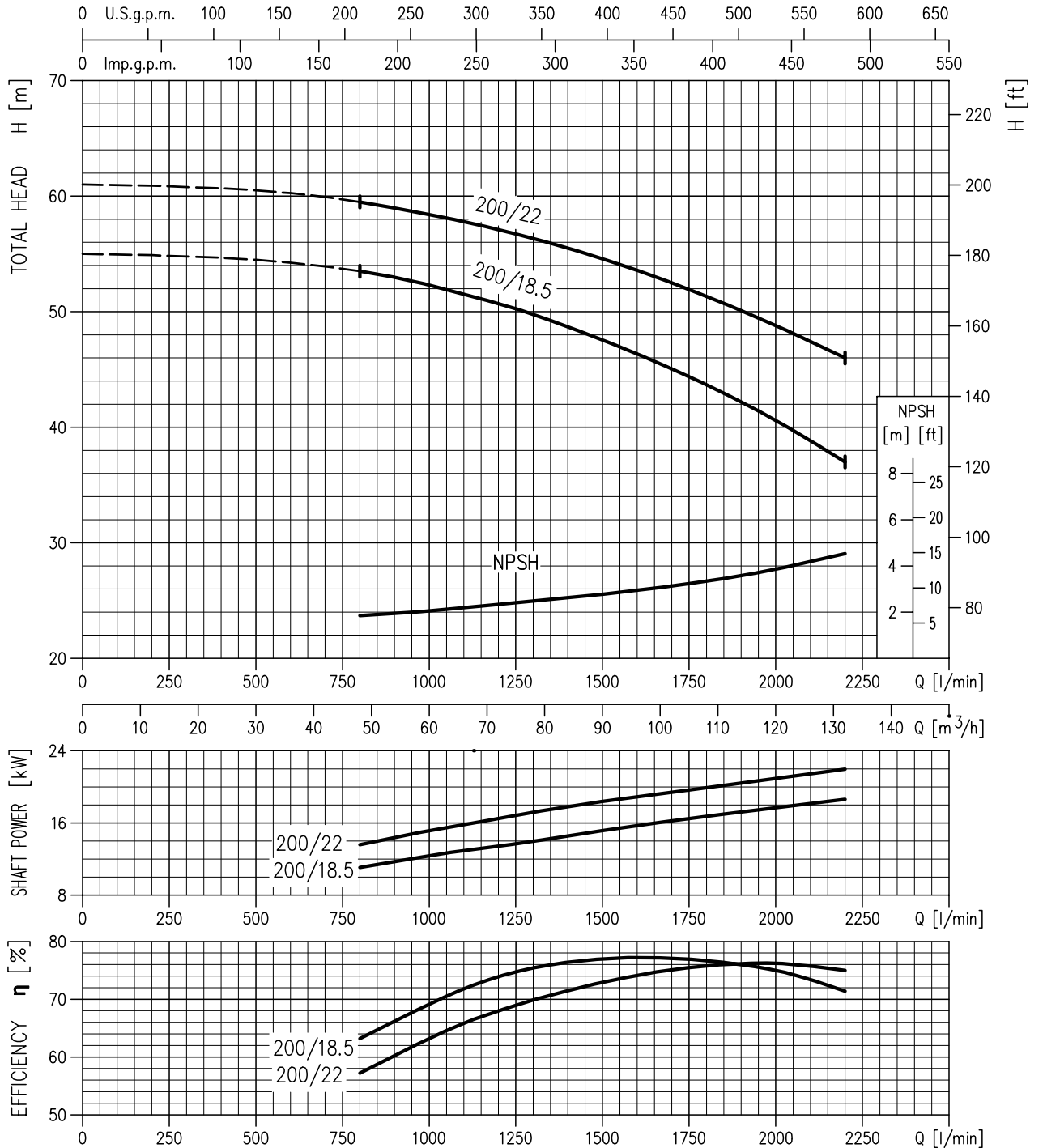


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

PERFORMANCE CURVE

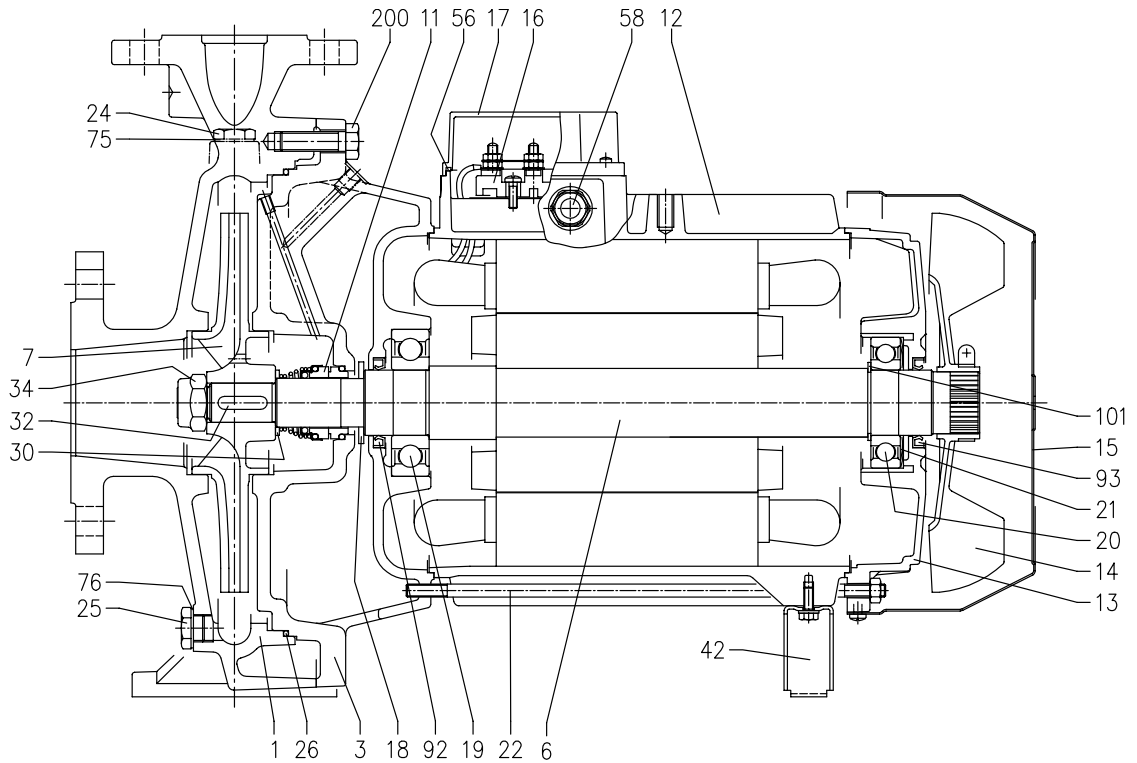
50Hz

MD 65-200/18.5 (18.5 kW) – Impeller diameter = 196 mm
 MD 65-200/22 (22 kW) – Impeller diameter = 206 mm

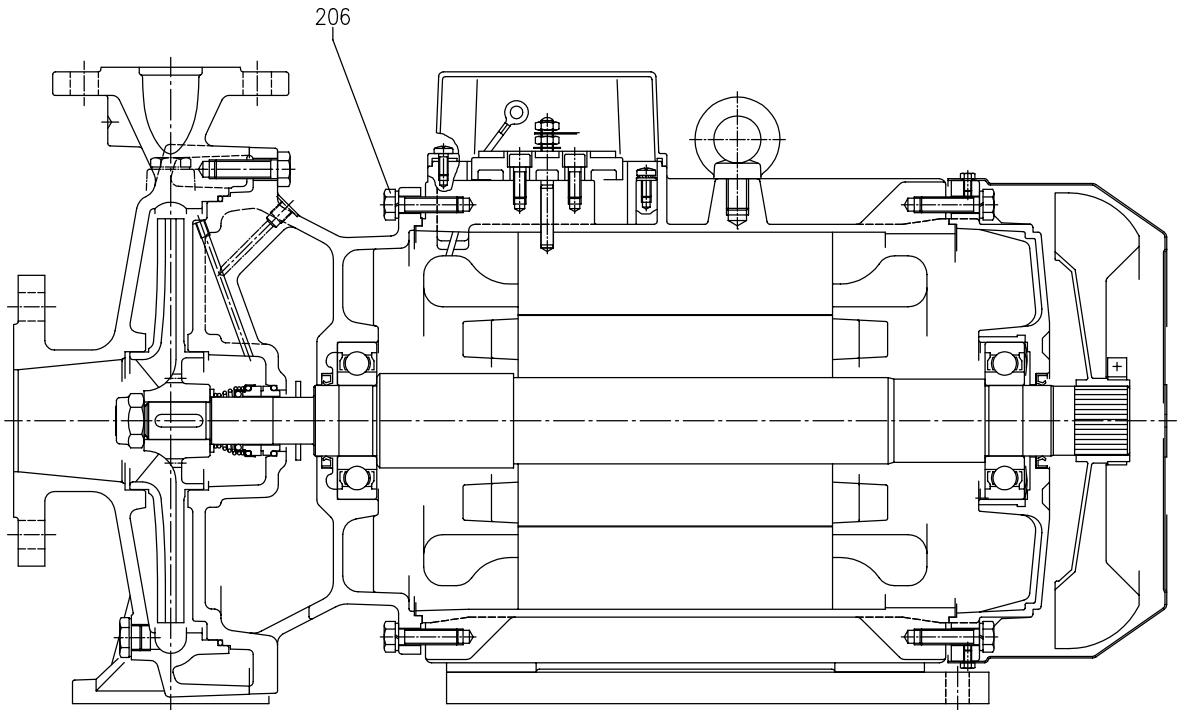


Rotation speed: $\approx 2900 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 - Annex A

SECTIONAL VIEW



UP TO 13 kW



15 kW AND ABOVE (NO 65-160/15)

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	N. FOR 1 UNIT	
1	Casing	Cast iron EN-GJL-200-EN 1561			1	
3	Motor bracket	Cast iron EN-GJL-200-EN 1561			1	
6	Shaft with rotor	AISI 304 (Part in contact with liquid)			1	
7	Impeller	Md xx-125, Md xx-160, Mdx-200	Cast iron EN-GJL-200-EN 1561		1	
		Md xx-250	Bronze			
11	Mechanical seal [3]	Carbon/Ceramic/NBR			1	
12	Motor frame with stator	-			1	
13	Motor cover	Aluminium			1	
14	Fan	Polypropilene			1	
15	Fan cover	Fe P04 Zinked			1	
16	Terminal box	-			1	
17	Terminal box cover	Plastic [1] - Aluminium [2]			1	
18	Splash ring	NBR	Up to 7.5 kW	40x21.5x3	EPE DRAWING	
			9.2 kW and above	50x29.5x3		
19	Pump side ball bearing	-	See table p.302		1	
20	Fan side ball bearing	-	See table p.302		1	
21	Adjusting ring	Steel C70			1	
22	Tie rod	Fe 42 Zinked	Up to 13 kW and MD 65-160/15	EPE DRAWING	4	
						Screw
24	Priming plug	Brass		EPE DRAWING	1	
25	Drain plug	Brass		EPE DRAWING	1	
26	O-ring	NBR	Md xx-125	147x3,53	EPE DRAWING	
			Md xx-160	176x3,53		
			Md xx-200	220x3,53		
			Md xx-250	277x3,53		
30	Spacer	AISI 304	22,5x26,9x2,5 (up to 7,5kW) 30,5x40x2,5 (9,2 kW and above)	EPE DRAWING	1	
32	Key	AISI 316	6x6x25 (up to 7,5kW)	UNI 6604	1	
			8x7x30 (9,2 kW and above)			
34	Impeller nut	AISI 304	M16x1,5 (up to 7,5kW)	UNI 7474	1	
			M20x1,5 (9,2 kW and above)			
42	Foot	Fe P04		EPE DRAWING	1	
56	Box gasket	NBR			1	
58	Cable entry[2]	-			1	
75	Washer	Aluminium	Ø 17 - G3/8		1	
76	Washer	Aluminium	Ø 17 - G3/8		1	
85*	Kit counterflange	Flange	Zincate steel	See table p.306	EPE DRAWING	
		Screw for flange	AISI 304	M16x55	UNI 5737	
		Gasket	EPDM	See table p.306	2	
92	Lip seal	-	Up to 3 kW	25x40x7	DIN 3760 without spring	
			From 4 to 7,5 kW	30x47x7		
			From 9,2 to 13 kW and 65-160/15	40x55x7		
			From 15 to 22 kW	45x60x7		
93	Lip seal	-	Up to 4 kW	25x40x7	DIN 3760 without spring	
			From 5,5 to 7,5 kW	30x47x7		
			From 9,2 to 13 kW and 65-160/15	40x55x7		
			From 15 to 22 kW	45x60x7		
101	Snap ring (only for 9,2-11-13 kW)	Carbon tool steels TC 80	Ø 40	UNI 7435	1	
200	Screw	Zn. steel 8.8 strenght class ISO 898/1	Md xx-125	M8x30	UNI 5739	
			Md xx-160	M10x35		
			Md xx-200			
			Md xx-250			
206	Screw	From 15kW and above (no 65-160/15)	Zn. steel 8.8 strenght class ISO 898/1	M10x40	UNI 5739	4

[1] Only for single-phase

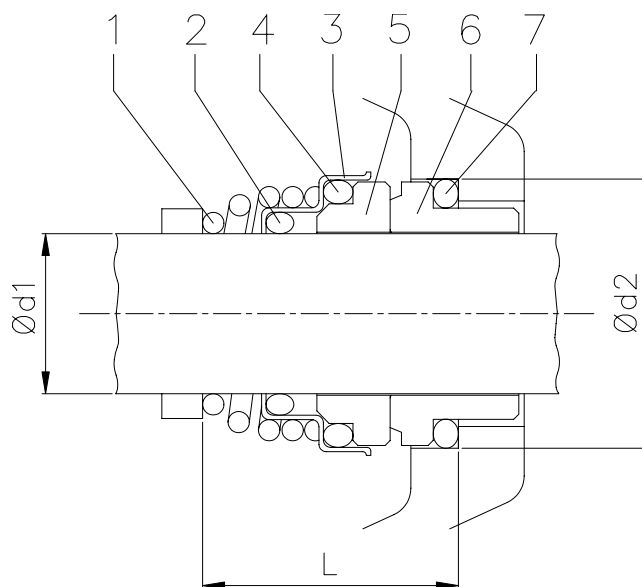
[2] Only for three-phase

[3] See constructions mechanical seal p. 303

*On request

Pump type	Ball Bearing	
	Pump side	Fan side
MD 32-125/1.1 (M)	6205 ZZ	6205 ZZ
MD 32-125/1.5 (M)		
MD 32-160/1.5 (M)		
MD 32-160/2.2 (M)		
MD 32-200/3.0		
MD 32-200/4.0	6206 ZZ	6205 ZZ
MD 32-250/5.5	6306 ZZ	6206 ZZ
MD 32-250/7.5		
MD 32-250/9.2	6308 ZZ	6208 ZZ
MD 32-250/11		
MD 40-125/1.5 (M)	6205 ZZ	6205 ZZ
MD 40-125/2.2 (M)		
MD 40-160/3.0		
MD 40-160/4.0	6206 ZZ	6205 ZZ
MD 40-200/5.5	6306 ZZ	6206 ZZ
MD 40-200/7.5		
MD 40-250/11	6308 ZZ	6208 ZZ
MD 40-250/13		
MD 40-250/15	6309 ZZ	6309 ZZ
MD 50-125/2.2 (M)	6205 ZZ	6205 ZZ
MD 50-125/3.0		
MD 50-125/4.0		
MD 50-160/5.5	6306 ZZ	6206 ZZ
MD 50-160/7.5		
MD 50-200/9.2	6308 ZZ	6208 ZZ
MD 50-200/11		
MD 50-250/15	6309 ZZ	6309 ZZ
MD 50-250/18,5		
MD 50-250/22		
MD 65-125/5.5	6306 ZZ	6206 ZZ
MD 65-125/7.5		
MD 65-160/11	6308 ZZ	6208 ZZ
MD 65-160/15		
MD 65-200/18.5	6309 ZZ	6209 ZZ
MD 65-200/22		

MECHANICAL SEAL



Pump type	Dimensions mm			Pump type	Dimensions mm								
	Ø d1	Ø d2	L		Ø d1	Ø d2	L						
MD 32-125/1.1 (M)	22	37	37.5	MD 40-250/15	30	45	42.5						
MD 32-125/1.5 (M)				MD 50-125/2.2 (M)	22	37	37.5						
MD 32-160/1.5 (M)				MD 50-125/3.0	22	37	37.5						
MD 32-160/2.2 (M)													
MD 32-200/3.0													
MD 32-200/4.0													
MD 32-250/5.5				30	45	42.5	MD 50-160/5.5	30	45	42.5			
MD 32-250/7.5							MD 50-200/9.2						
MD 32-250/9.2							MD 50-200/11						
MD 32-250/11							MD 50-250/15						
MD 40-125/1.5 (M)	22	37	37.5				MD 50-250/18,5				30	45	42.5
MD 40-125/2.2 (M)							MD 50-250/22						
MD 40-160/3.0							MD 65-125/5.5						
MD 40-160/4.0							MD 65-125/7.5						
MD 40-200/5.5							MD 65-160/11						
MD 40-200/7.5							MD 65-160/15						
MD 40-250/11				MD 65-200/18.5									
MD 40-250/13	MD 65-200/22												

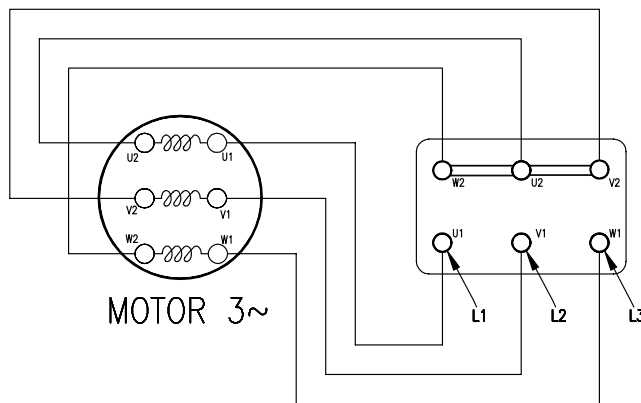
REF	PART NAME	MATERIAL STANDARD (ROTEN UNITEN 3 X6H62V6)	MATERIAL hot water maximum 110°C (ROTEN UNITEN 3 XYHY2VY)	MATERIAL OPTION (ROTEN UNITEN 3 XYXY33Y)	MATERIAL OPTION (ROTEN UNITEN 5 XYXYKKY)
1	Self driving spring	AISI 316	AISI 316	AISI 316	AISI 316
2	O Ring	NBR	FPM	FPM	FPM
3	Frame	AISI 304	AISI 304/AISI 316*	AISI 316	AISI 316
4	O Ring	NBR	FPM	FPM	FPM
5	Rotary seal ring	ceramic	ceramic	Tung. carbide	SiC
6	Stationary seal ring	carbon graphite	carbon graphite	Tung. carbide	SiC
7	O Ring	NBR	FPM	FPM	FPM

*Only for Ø 30

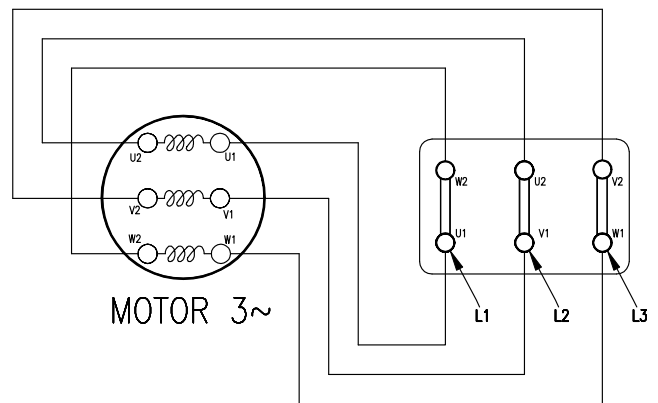
DIAGRAM AND ELECTRIC CONNECTIONS

THREE PHASE MOTOR

STAR CONNECTION

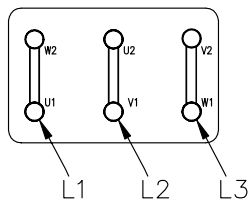


DELTA CONNECTION

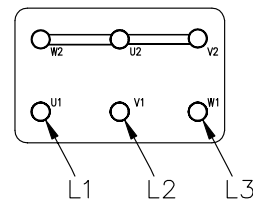


FOR MOTOR 4 kW AND BELOW

DELTA CONNECTION 230 V

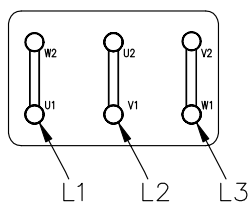


STAR CONNECTION 400 V



FOR MOTOR 5.5 kW AND ABOVE

DELTA CONNECTION 400 V



STAR CONNECTION 690 V

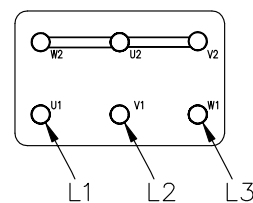
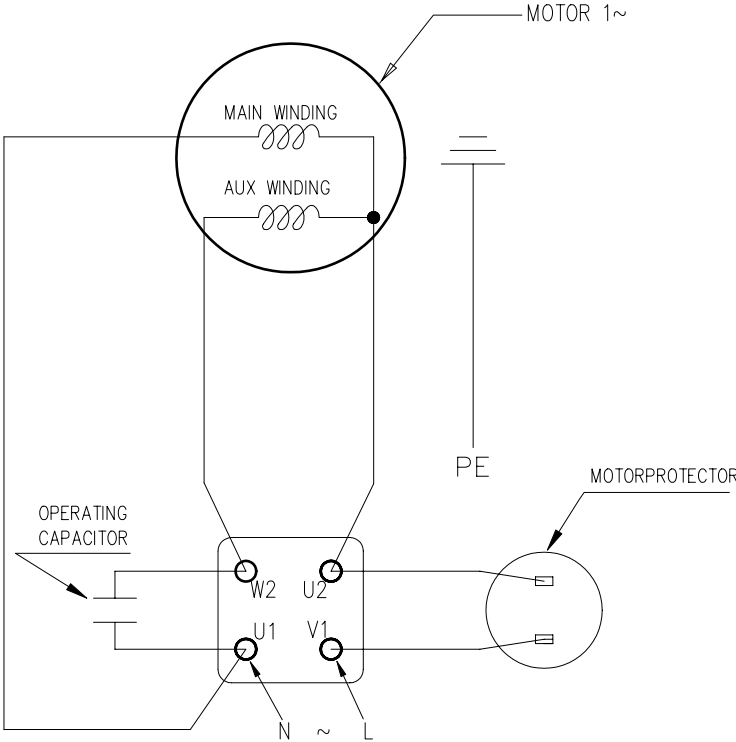
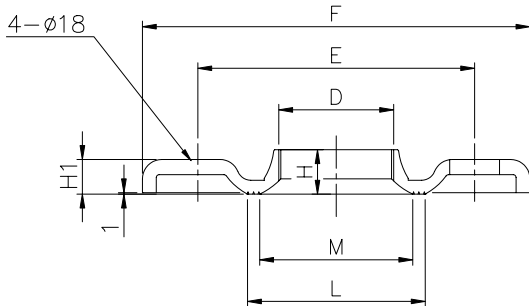


DIAGRAM AND ELECTRIC CONNECTIONS
SINGLE PHASE MOTOR

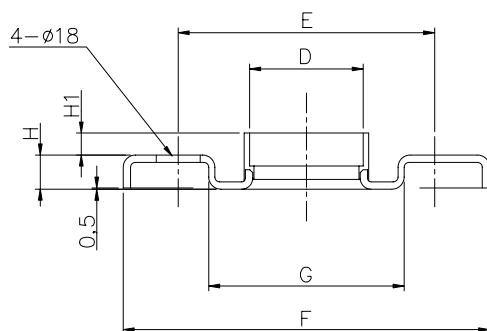


ZINKED STEEL COUNTER FLANGE (STANDARD)



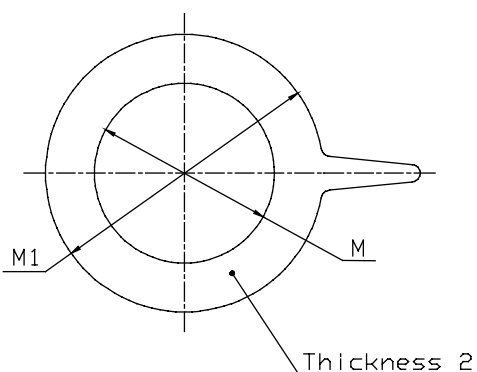
DIN	D	E	F	H	H1	L	M
32	G 1 1/4	100	140	15	11.5	67	50
40	G 1 1/2	110	150	17.5	11.5	72	58
50	G 2	125	165	19	15	89	70
65	G 2 1/2	145	185	23	14	104	88
80	G 3	160	200	24	16	117.5	100

AISI 304-AISI 316L COUNTER FLANGE (ON REQUEST)



DIN	D	E	F	G	H	H1
32	G 1 1/4	100	140	76	14	15.5
40	G 1 1/2	110	150	81	14	15.5
50	G 2	125	165	96	16	18
65	G 2 1/2	145	185	116	16	24
80	G3	160	200	134	18	24

GASKET

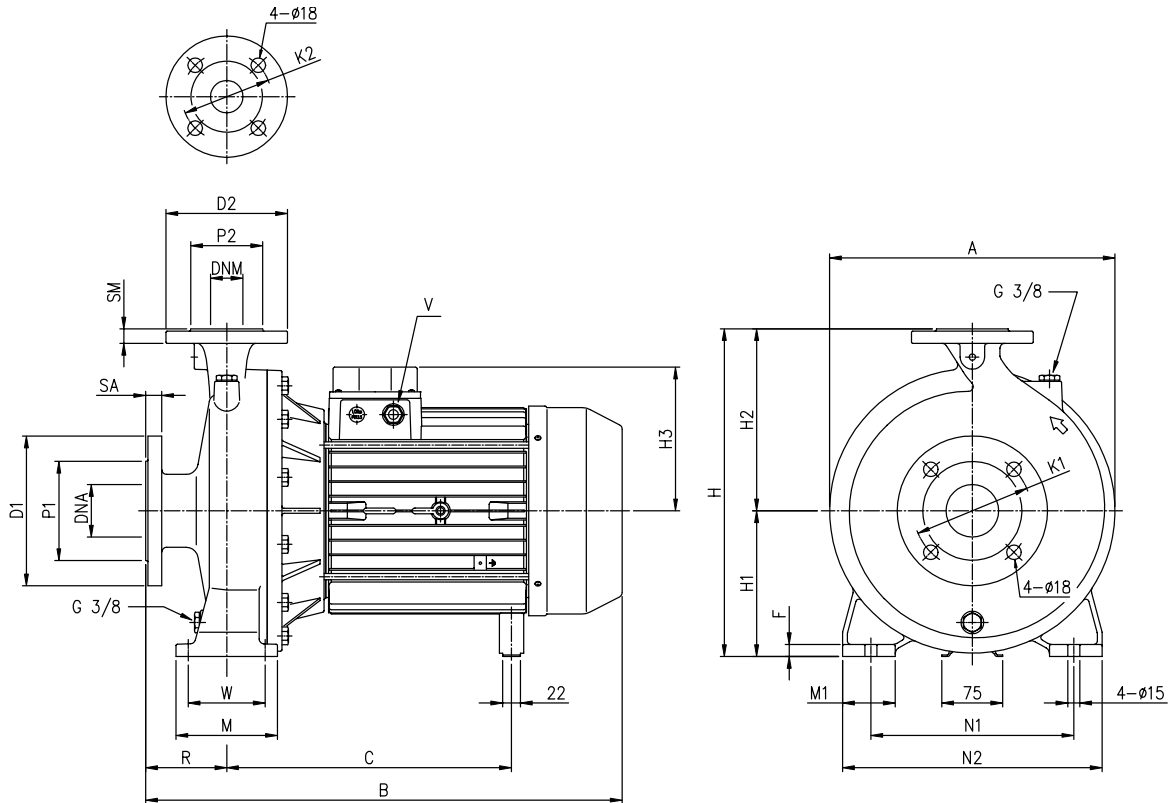


DIN	M	M1
32	38	82
40	50	93
50	60	107
65	80	125
80	90	140

Material : EPDM version for standard
 FPM version for hot water maximum 110°C

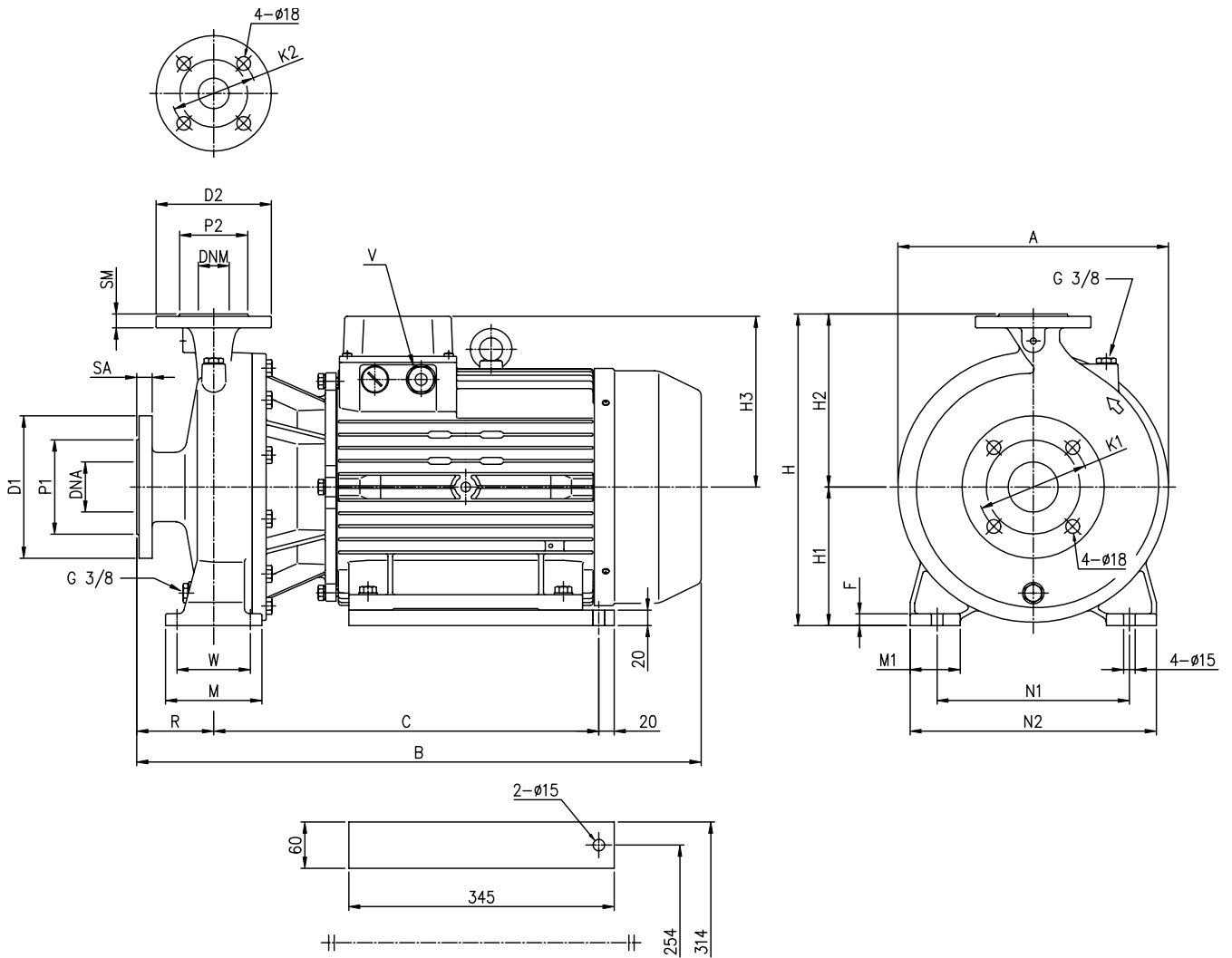
DIMENSIONS

50 Hz

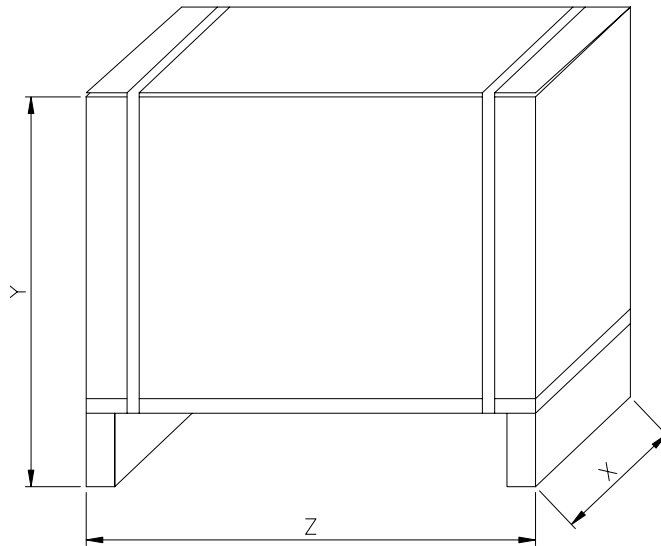
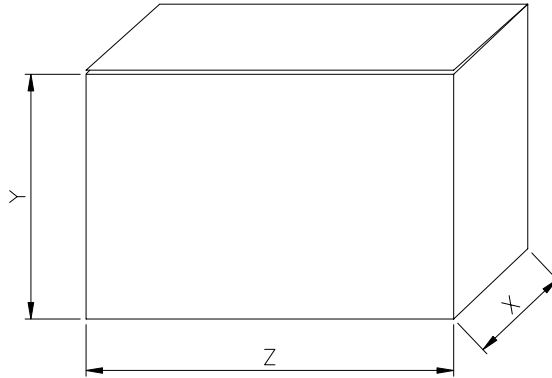


Pump type	Dimensions [mm]																																						
	DNA	P1	K1	D1	SA	DNM	P2	K2	D2	SM	H	H1	H2	H3	[1]	[2]	R	W	N1	M	N2	M1	F	A	B	C	V [1]												
MD 32-125/1.1 (M)	50	102	125	165		32	78	100	140	18	252	112	140	122	139		80	70	140	190	50	13	205	431	230	PG 13.5													
MD 32-125/1.5 (M)																																							
MD 32-160/1.5 (M)																					292	132	160										245						
MD 32-160/2.2 (M)																																							
MD 32-200/3																					340	160	180	134									290	459	254				
MD 32-200/4																																							
MD 32-250/5.5																																							
MD 32-250/7.5																																							
MD 32-250/9.2																					405	180	225	153			100	95	250	125	320	65	15	352	496	275			
MD 32-250/11																								181										540	588	351		PG 21	
MD 40-125/1.5 (M)											65	122	145	185	20	40	88	110	150	20	252	112	140	122	139		80	70	160	210	50	13	235	431	230	PG 13.5			
MD 40-125/2.2 (M)																																							
MD 40-160/3																					292	132	160	134									245	459	232				
MD 40-160/4																																							
MD 40-200/5.5																					340	160	180	153									290	495	278			PG 16	
MD 40-200/7.5																																							
MD 40-250/7.5																																							
MD 40-250/11																					405	180	225	181			95	250	125	320	65	15	352	588	351		PG 21		
MD 40-250/13																																							
MD 50-125/2.2 (M)	80	138	160	200	22	65	122	145	185	20											292	132	160	122	139		100	70	190	240	50	13	230	431	230	PG 13.5			
MD 50-125/3																																							
MD 50-125/4																																	451	232					
MD 50-160/5.5																					340		180	153									260	495	278		PG 16		
MD 50-160/7.5																																							
MD 50-200/9.2																																							
MD 50-200/11																					360		200	181									300	585	355		PG 21		
MD 50-200/11																																							
MD 65-125/5.5																					340	160	180	153					212					260	495	278		PG 16	
MD 65-125/7.5																																							
MD 65-160/11																											95		125	280	65								
MD 65-160/15											360		200	181										300	585	355		PG 21											

[1] Only for three-phase
 [2] Only for single-phase



Pump type	Dimensioni (mm)																									
	DNA	P1	K1	D1	SA	DNM	P2	K2	D2	SM	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A	B	C	V	
MD 40-250/15	65					40	88	110	150	18																
MD 50-250/15	65																									
MD 50-250/18.5	65	122	145	185	20	50	102	125	165	20	405	180	225	230	100	95	250	125	320	65	15	352	734	501	PG 21	
MD 50-250/22	65																									
MD 65-200/18.5	80	138	160	200	22	65	122	145	185													310	736	548		
MD 65-200/22	80																									



Pump type	PACKING [mm]			WEIGHT [kg]		Pump type	PACKING [mm]			WEIGHT [kg]	
	X	Y	Z	Pump	Pump+ packaging		X	Y	Z	Pump	Pump+ packaging
MD 32-125/1.1 (M)	255	305	455	27.6	29.3	MD 40-250/15	375	615	865	96.8	107
MD 32-125/1.5 (M)				28.3	30	MD 50-125/2.2 (M)				34	37
MD 32-160/1.5 (M)	285	335	435	31.5	33	MD 50-125/3.0	285	345	495	36	39.3
MD 32-160/2.2 (M)				35.4	37.4	MD 50-125/4.0				42.3	44.6
MD 32-200/3.0	335	395	505	44.1	47.5	MD 50-160/5.5	335	605	565	57.2	62.7
MD 32-200/4.0				50.5	53.2	MD 50-160/7.5				68.7	74.3
MD 32-250/5.5	375	560	585	70.5	76.2	MD 50-200/9.2	385	655	645	74	80.1
MD 32-250/7.5				74.6	80	MD 50-200/11				80.9	87.5
MD 32-250/9.2				84.3	91.7	MD 50-250/15	375	615	865	97.6	105
MD 32-250/11				87.3	94.8	MD 50-250/18.5				126	135
MD 40-125/1.5 (M)	255	305	455	28.9	31.2	MD 50-250/22	335	605	565	148	155
MD 40-125/2.2 (M)				31.9	36.6	MD 65-125/5.5				58.3	63.9
MD 40-160/3.0	285	345	495	39	41.5	MD 65-125/7.5	385	655	645	67	67.3
MD 40-160/4.0				45.7	48.1	MD 65-160/11				86.4	91.8
MD 40-200/5.5	355	605	565	60.1	66.7	MD 65-160/15	405	655	875	91.9	99.8
MD 40-200/7.5				68.5	70	MD 65-200/18.5				126	136
MD 40-250/11	375	560	685	90.7	102	MD 65-200/22				135	140
MD 40-250/13				93	104						

MOTOR DATA

50 Hz

Pump type	Power		Capacitor		Input [kW]		Full load current [A]				Locked rotor current			
	kW	HP	Single phase		Single phase	Three phase	Single phase 230 V	Three phase			Single phase 230 V	Three phase		
			μF	Vc				230 V	400 V	690 V		230 V	400 V	690 V
MD 32-125/1.1 (M)	1.1	1.5	31.5	450	1.60	1.55	7.1	5.2	3	-	24	35	20	-
MD 32-125/1.5 (M)	1.5	2	40	450	2.05	2.2	9.3	5.9	3.4	-	44	35	20	-
MD 32-160/1.5 (M)	1.5	2	40	450	2.28	2.2	10.3	5.9	3.4	-	44	35	20	-
MD 32-160/2.2 (M)	2.2	3	50	450	2.91	2.9	13.3	8.7	5	-	70	66	38	-
MD 32-200/3.0	3	4	-	-	-	4	-	12	6.9	-	-	97	56	-
MD 32-200/4.0	4	5.5	-	-	-	5.2	-	16	9.2	-	-	123	71	-
MD 32-250/5.5	5.5	7.5	-	-	-	6.3	-	-	11.2	6.5	-	-	95	55
MD 32-250/7.5	7.5	10	-	-	-	8.3	-	-	14.6	8.4	-	-	124	72
MD 32-250/9.2	9.2	12.5	-	-	-	11	-	-	18.3	10.6	-	-	128	74
MD 32-250/11	11	15	-	-	-	12	-	-	20.7	12	-	-	169	95.6
MD 40-125/1.5 (M)	1.5	2	40	450	2.08	2.3	9.5	6	3.5	-	44	35	20	-
MD 40-125/2.2 (M)	2.2	3	50	450	2.77	2.9	12.9	8.7	5	-	70	66	38	-
MD 40-160/3.0	3	4	-	-	-	3.8	-	11.4	6.6	-	-	97	56	-
MD 40-160/4.0	4	5.5	-	-	-	5.3	-	17	9.8	-	-	123	71	-
MD 40-200/5.5	5.5	7.5	-	-	-	6.6	-	-	11.5	6.6	-	-	95	55
MD 40-200/7.5	7.5	10	-	-	-	9.1	-	-	15.5	9	-	-	124	72
MD 40-250/11	11	15	-	-	-	12.3	-	-	20.6	11.9	-	-	169	95.6
MD 40-250/13	13	17.5	-	-	-	15.2	-	-	25.3	14.6	-	-	175	101
MD 40-250/15	15	20	-	-	-	17.2	-	-	29.1	16.8	-	-	180	104
MD 50-125/2.2 (M)	2.2	3	50	450	2.80	2.9	12.9	8.7	5	-	70	66	38	-
MD 50-125/3.0	3	4	-	-	-	3.6	-	10.7	6.2	-	-	97	56	-
MD 50-125/4.0	4	5.5	-	-	-	4.9	-	15.4	8.9	-	-	123	71	-
MD 50-160/5.5	5.5	7.5	-	-	-	6.7	-	-	11.8	6.8	-	-	95	55
MD 50-160/7.5	7.5	10	-	-	-	8.8	-	-	15	8.7	-	-	124	72
MD 50-200/9.2	9.2	12.5	-	-	-	11.2	-	-	19	11	-	-	128	74
MD 50-200/11	11	15	-	-	-	13.5	-	-	22	12.7	-	-	169	95.6
MD 50-250/15	15	20	-	-	-	17.5	-	-	29.7	17.2	-	-	180	104
MD 50-250/18,5	18.5	25	-	-	-	21	-	-	37.7	21.8	-	-	272	157
MD 50-250/22	22	30	-	-	-	24	-	-	41	23.7	-	-	320	185
MD 65-125/5.5	5.5	7.5	-	-	-	7	-	-	12	6.9	-	-	95	55
MD 65-125/7.5	7.5	10	-	-	-	8.2	-	-	14	8.1	-	-	124	72
MD 65-160/11	11	15	-	-	-	13	-	-	20.8	12	-	-	169	95.6
MD 65-160/15	15	20	-	-	-	16	-	-	27	15.6	-	-	180	104
MD 65-200/18.5	18.5	25	-	-	-	21	-	-	39	22.5	-	-	272	157
MD 65-200/22	22	30	-	-	-	24	-	-	43	24.8	-	-	320	185