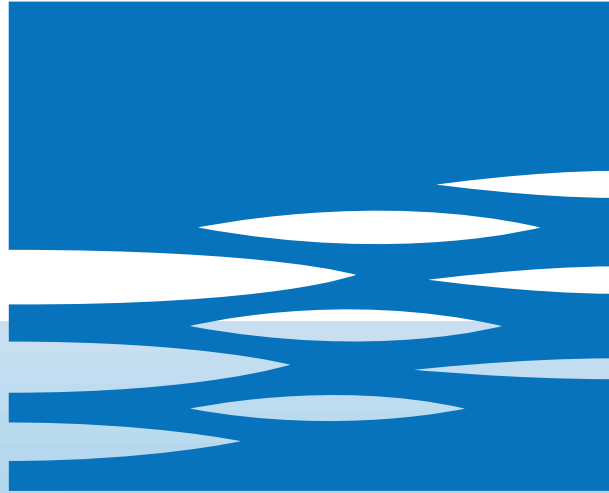




EBARA

SPECIFICATION

50Hz

Rev. 0

PUMP		
Liquid Handled	Type of liquid	Clean water
	Working temperature [°C]	min. -5 max. +90 max. +110 (H, HS, HW, HSW version) max. +120 (E version)
Maximum working pressure [MPa]		1
Construction	Impeller	Closed centrifugal type for 32, 40, 50 series Reinforced laser welding for 40-200/11, 50-200/15 Closed centrifugal three dimensional blades for 65 series
	Shaft seal type	Mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction	Flange DN 50, 65 according to EN 1092-2 Flange DN 80 according to UNI 2236-67 (4 holes)
	Discharge	Flange DN 32, 40, 50, 65 according to EN 1092-2
Material	Casing	Cast iron EN-GJL-250-EN 1561
	Impeller	AISI 304 (32, 40, 50 series) AISI 316 made by precision casting (65 series)
	Shaft seal	Ceramic/Carbon/NBR (see Optionals on pag. 307-310)
	Shaft	AISI 304 (wet extension)
	Bracket	Aluminium/Cast iron
Accessory	Counterflange	DN 32, 40, 50, 65, 80 (see pag. 315)
Applicable standard of test		ISO 9906 - Annex A

MOTOR				
Type	3D		3DS	3DP
	Electric - TEFC			
	Single Phase	Three Phase		
Efficiency (Reg. 640/2009)	-	IE2 from 1.1 kW to 22 kW IE3 from 7.5 kW to 22 kW		
No. of Poles	2			
Rotation speed [min ⁻¹]	≈2900			
Insulation Class	F	F (temperature rise class B)		
Protection degree	IP 55			
Power rating [kW]	1.1 ÷ 2.2	1.1 ÷ 22		
	[HP]	1.5 ÷ 3	1.5 ÷ 30	
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	Provided by the user			
Casing material	Aluminium			
Motor support	Cast iron / Aluminium			
Dimensions of cable entry	M20x1.5	PG 13.5 PG 16 PG 21	M20x1.5, M25x1.5, M32x1.5, M40x1.5	
Flange mount (IEC motor)	/		IM B5 (up to 2.2 kW) IM B35 (3.0 kW and above)	IM B3

SELECTION CHART

50Hz

Rev. 0

3D SERIES 32 SIZE

Pump type	kW	HP	l/min 0	100	150	200	250	300	333	360	400	450
			m³/h 0	6	9	12	15	18	20	21.6	24	27
32-125/1.1(M) *	1.1	1.5	23	22.4	21.2	19.3	17.1	14.4	12.5	-	-	-
32-160/1.5(M) *	1.5	2	28.5	27.5	25.9	23.7	21.3	18.5	16.4	-	-	-
32-160/2.2(M) *	2.2	3	36.7	35.4	34.1	32.2	29.8	27.3	25.5	-	-	-
32-200/3.0	3	4	44	43	41	39	36.5	33	31	-	-	-
32-200/4.0	4	5.5	53	52.5	51	49	46	43	41	39	-	-
32-200/7.5	7.5	10	68	67	65	63	61	57	55	53	50	46

3D SERIES 40 SIZE

Pump type	kW	HP	l/min 0	200	250	300	350	400	450	500	600	700
			m³/h 0	12	15	18	21	24	27	30	36	42
40-125/1.5(M) *	1.5	2	19	18.2	17.6	16.8	15.9	14.8	13.7	12.4	9.6	6.3
40-125/2.2(M) *	2.2	3	25	24.4	23.9	23.2	22.4	21.4	20.4	19.2	16.5	13.7
40-160/3.0	3	4	31	29.4	28.7	27.8	26.8	25.8	24.8	23.7	21.4	18.7
40-160/4.0	4	5.5	38.8	37.2	36.5	35.7	34.8	33.8	32.8	31.8	29.5	27
40-200/5.5	5.5	7.5	45.5	44.5	44	43	42	41	40	39	36.3	33
40-200/7.5	7.5	10	55	53.5	53	52	51.5	50.5	49.5	48.5	46	43
40-200/11	11	15	71	70	69	68.5	67.5	67	66	65	63	60

3D SERIES 50 SIZE

Pump type	kW	HP	l/min 0	400	500	600	700	800	900	1000	1100	1200
			m³/h 0	24	30	36	42	48	54	60	66	72
50-125/2.2(M) *	2.2	3	19.5	18	17	15.7	14.2	12.6	10.9	9	-	-
50-125/3.0	3	4	22.5	21.5	20.8	19.8	18.5	17.1	15.5	13.8	12	10
50-125/4.0	4	5.5	26.5	25.8	25.3	24.5	23.5	22.2	20.7	19	17.2	15.3
50-160/5.5	5.5	7.5	33	32	31.5	30.5	29.3	27.9	26.2	24.4	22.4	20
50-160/7.5	7.5	10	39.5	38.2	37.6	36.9	35.8	34.5	32.9	30.9	28.9	26.7
50-200/9.2	9.2	12.5	51.5	-	49.5	48	46.5	44.5	42.5	40	37.6	34.4
50-200/11	11	15	57.5	-	55.5	54.5	52.5	51	49	47	44.5	42
50-200/15	15	20	71	-	69.5	68.5	67	65.5	63.5	61.5	59	56

3D SERIES 65 SIZE

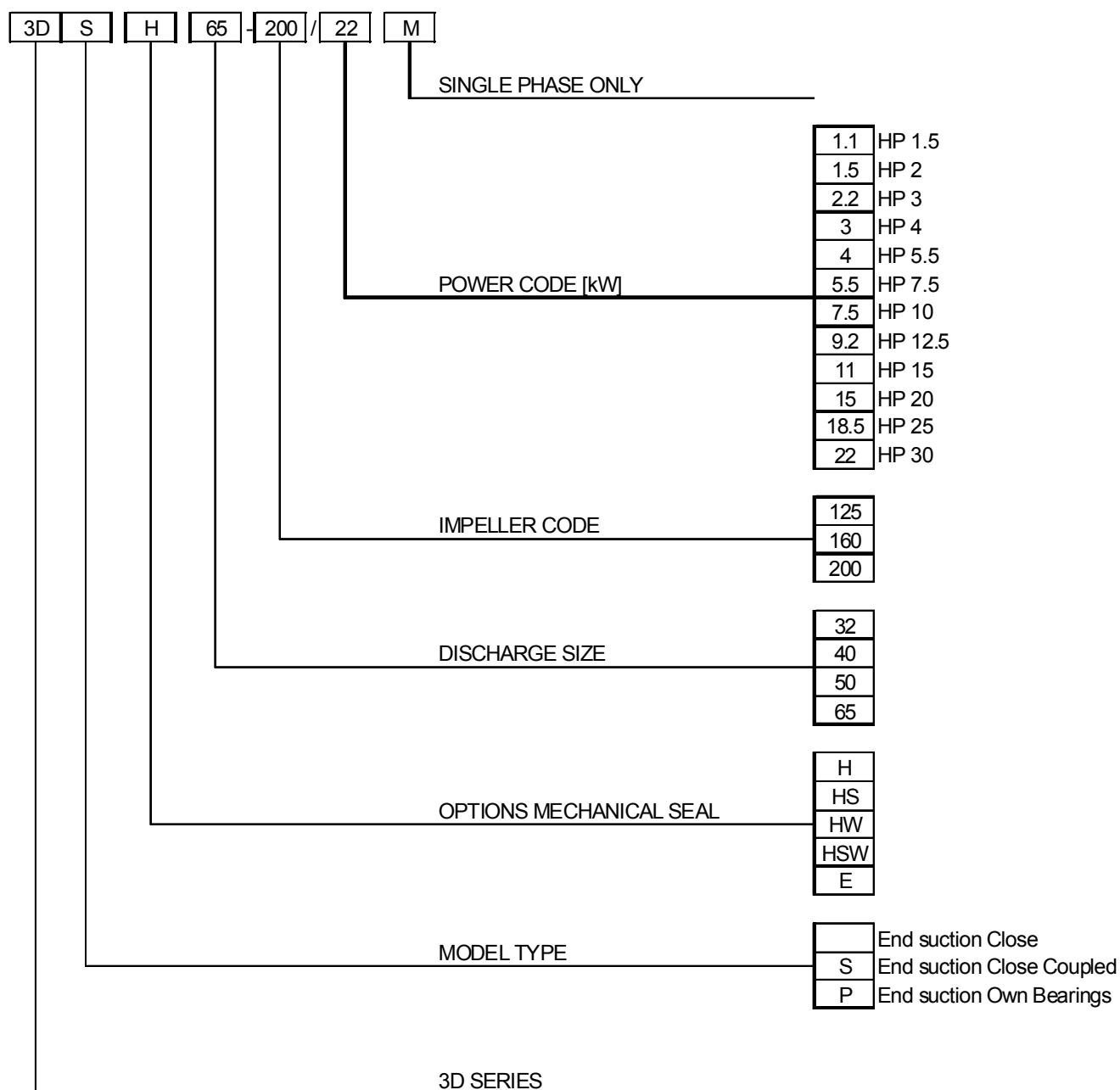
Pump type	kW	HP	l/min 0	600	700	1000	1300	1600	1900	2100	2200	2300
			m³/h 0	36	42	60	78	96	114	126	132	138
65-125/4.0	4	5.5	22	20.4	19.8	17.2	14	10.4	6	-	-	-
65-125/5.5	5.5	7.5	26	-	25	22.5	19.4	15.5	11	8	-	-
65-125/7.5	7.5	10	31	-	29.6	27.5	24.7	21.5	17.8	14.7	13	-
65-160/7.5	7.5	10	31.6	-	29	26.6	23.5	19.8	15.5	12.3	-	-
65-160/9.2	9.2	12.5	36.5	-	34.7	32.4	29.6	26.3	22.2	18.8	17	-
65-160/11	11	15	40.5	-	39	37	34	31	27	23	22	20
65-160/15	15	20	48	-	46	44	41.5	38.4	34.6	31.9	30.5	29
65-200/15	15	20	54	-	51	47	43	38.6	33.3	29.2	27	-
65-200/18.5	18.5	25	60	-	58	55	51	47	41.5	37.9	35.9	33.6
65-200/22	22	30	68	-	65.5	62.5	58.5	54.5	49.5	46	44.5	42.5

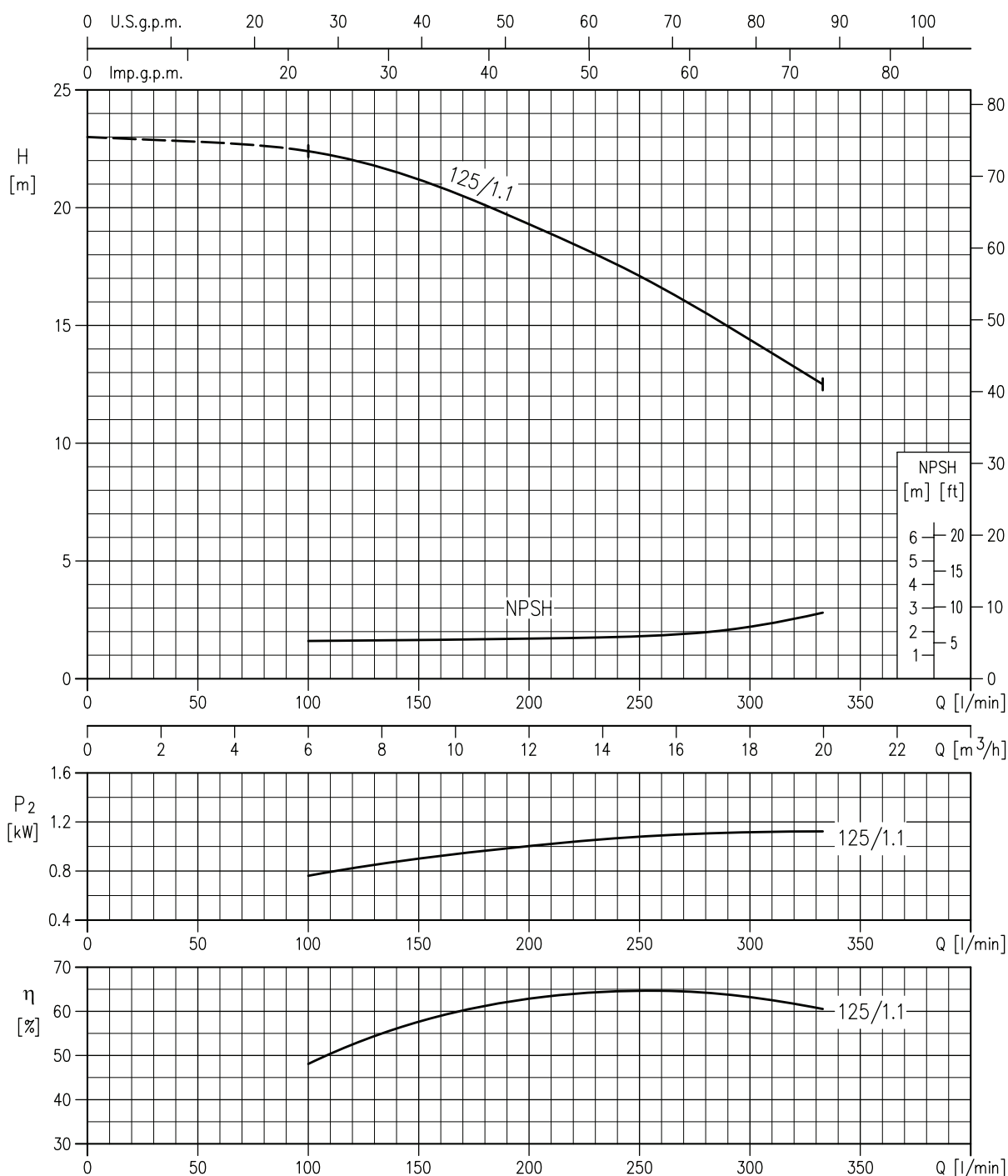
* Single phase version only for 3D type

TYPE KEY AND CURVE SPECIFICATIONS

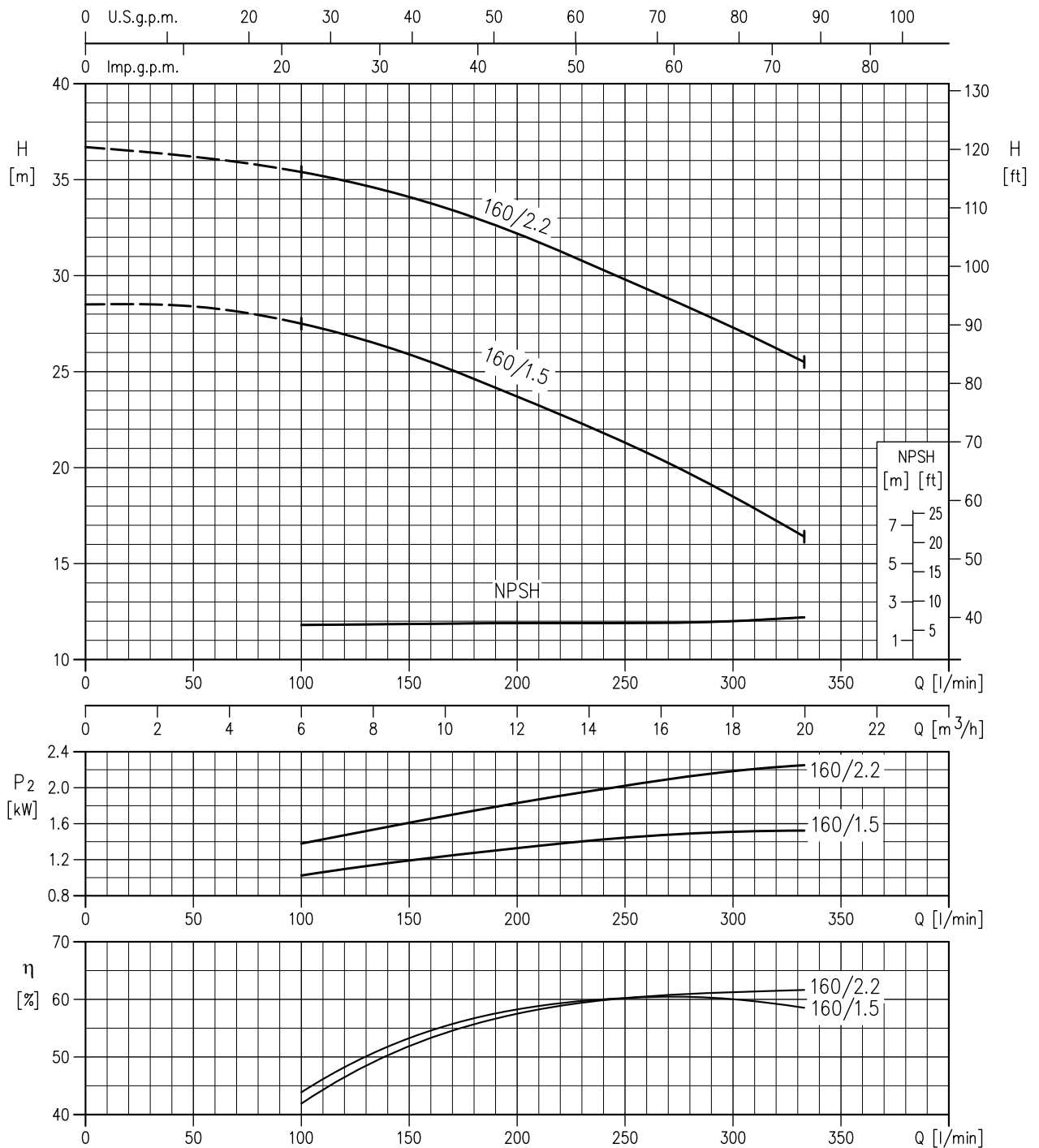
50Hz

Rev. 0

TYPE KEY

32-125/1.1 (1.1kW) MEI > 0.70 – impeller diameter = 133 mm

Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

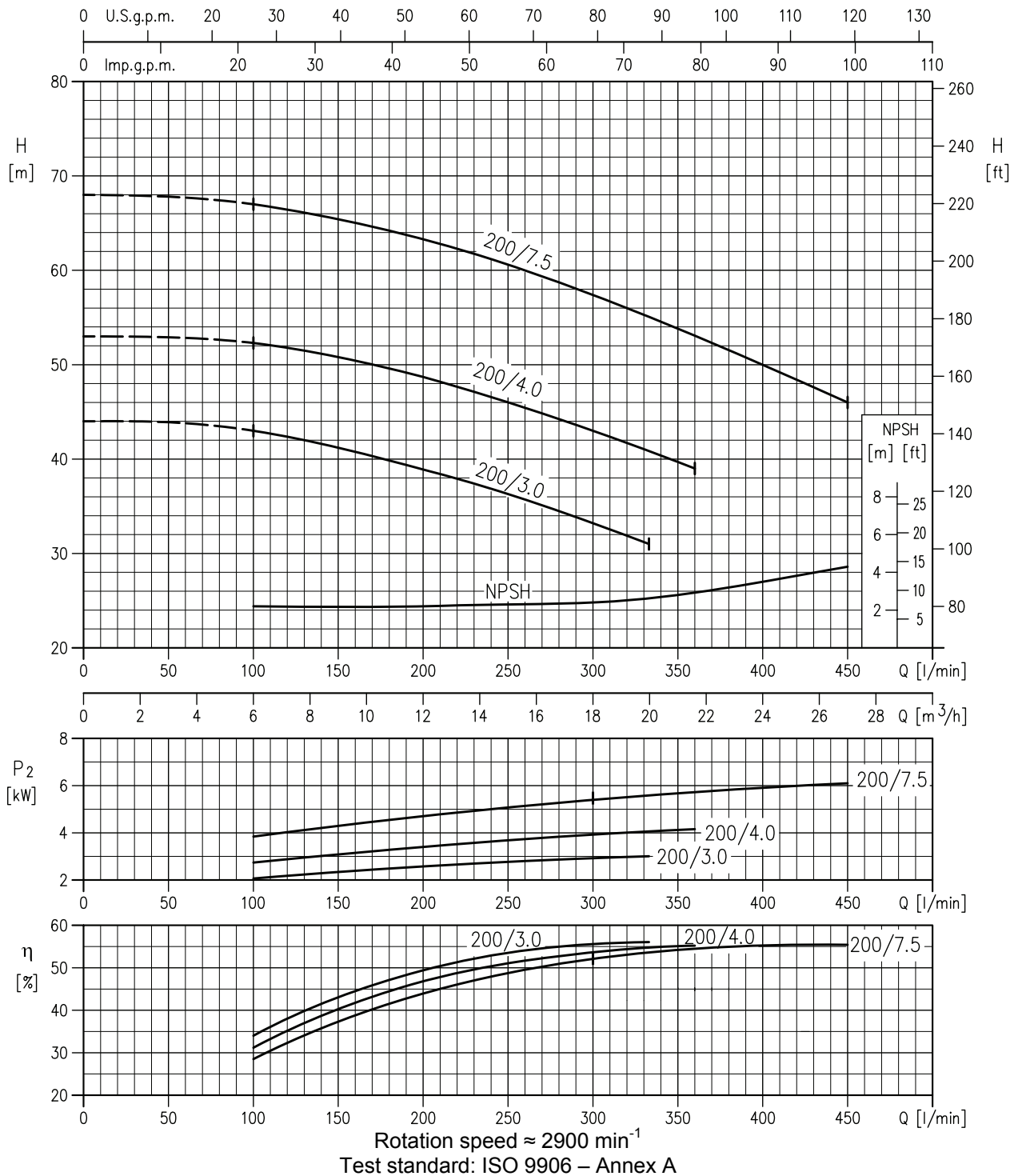
32-160/1.5 (1.5kW) MEI > 0.70 – impeller diameter = 151 mm**32-160/2.2 (2.2kW) MEI > 0.70 – impeller diameter = 166 mm**

Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

32-200/3.0 (3.0kW) MEI > 0.40 – impeller diameter = 186 mm

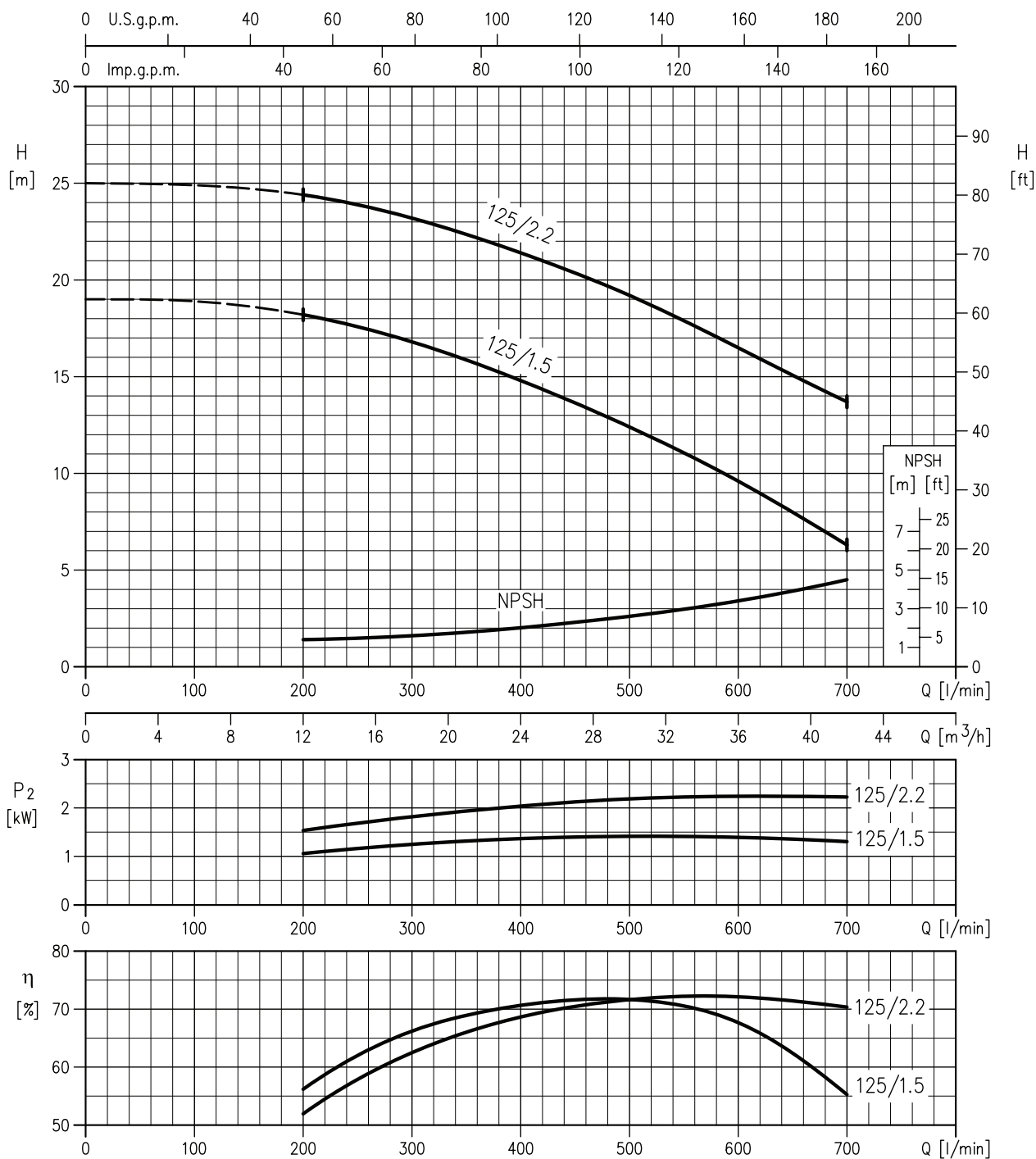
32-200/4.0 (4.0kW) MEI > 0.40 – impeller diameter = 200 mm

32-200/7.5 (7.5kW) MEI > 0.50 – impeller diameter = 224 mm



40-125/1.5 (1.5kW) MEI > 0.50 – impeller diameter = 125 mm

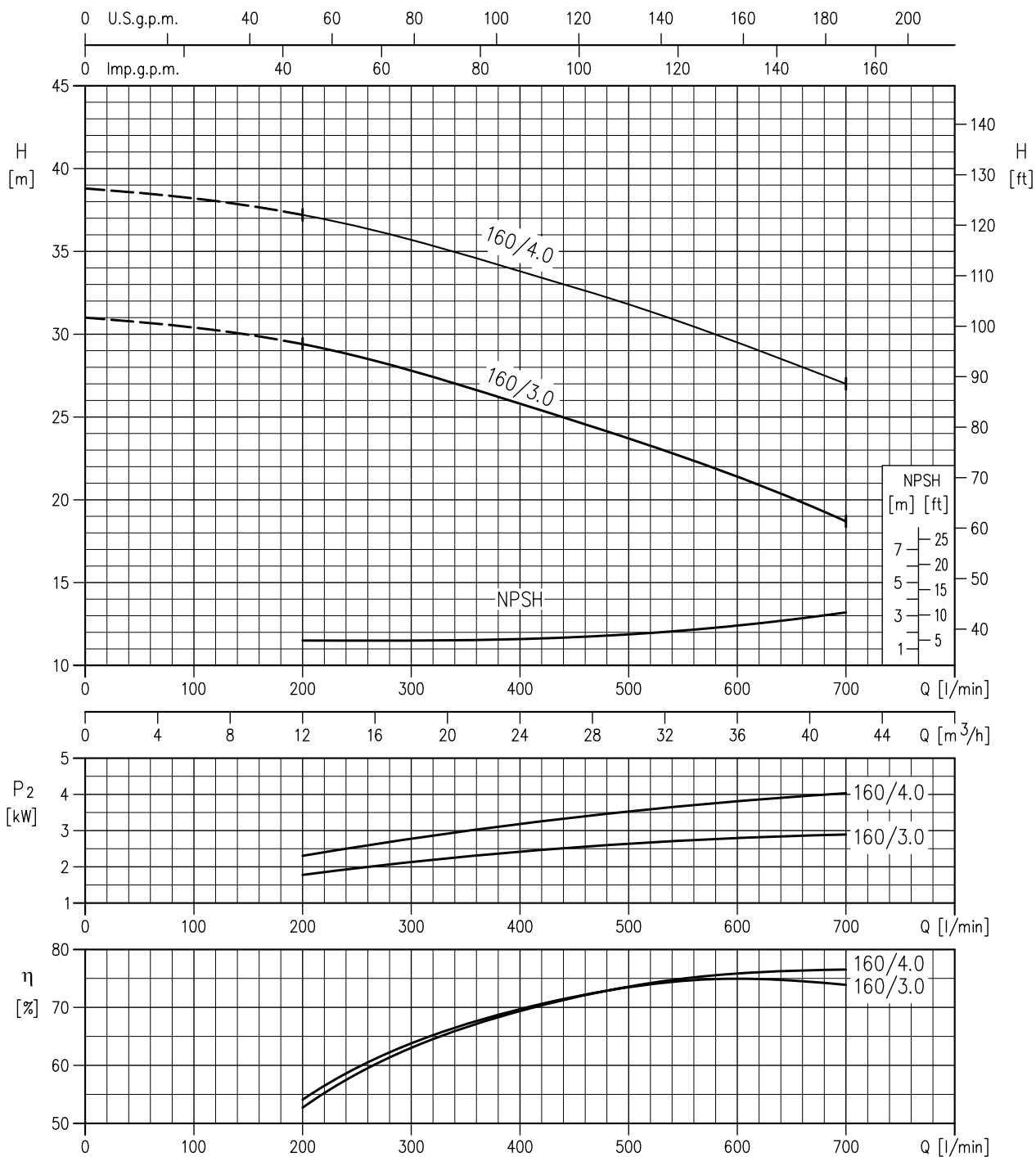
40-125/2.2 (2.2kW) MEI > 0.50 – impeller diameter = 140 mm



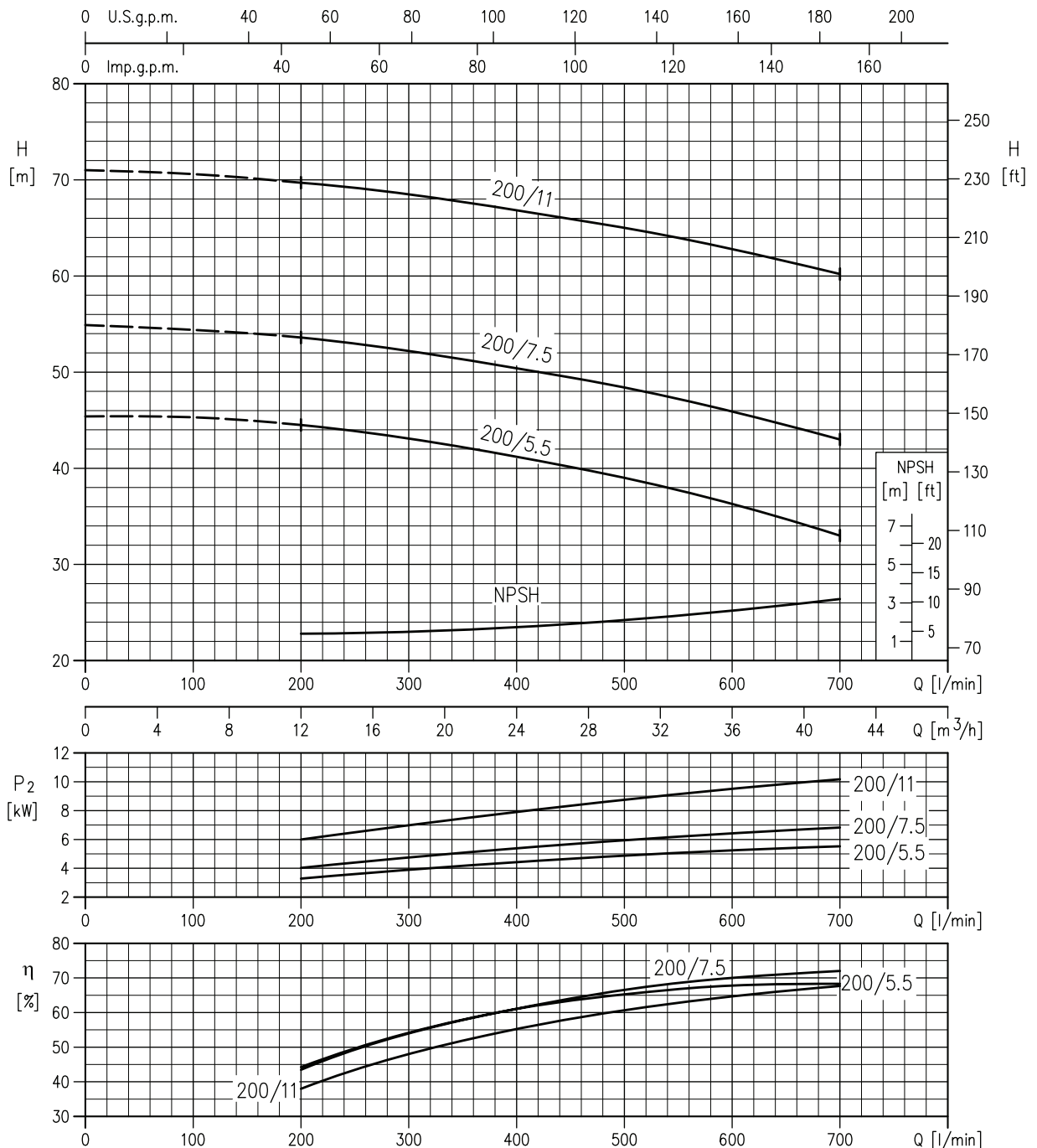
Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

40-160/3.0 (3.0kW) MEI > 0.70 – impeller diameter = 151 mm

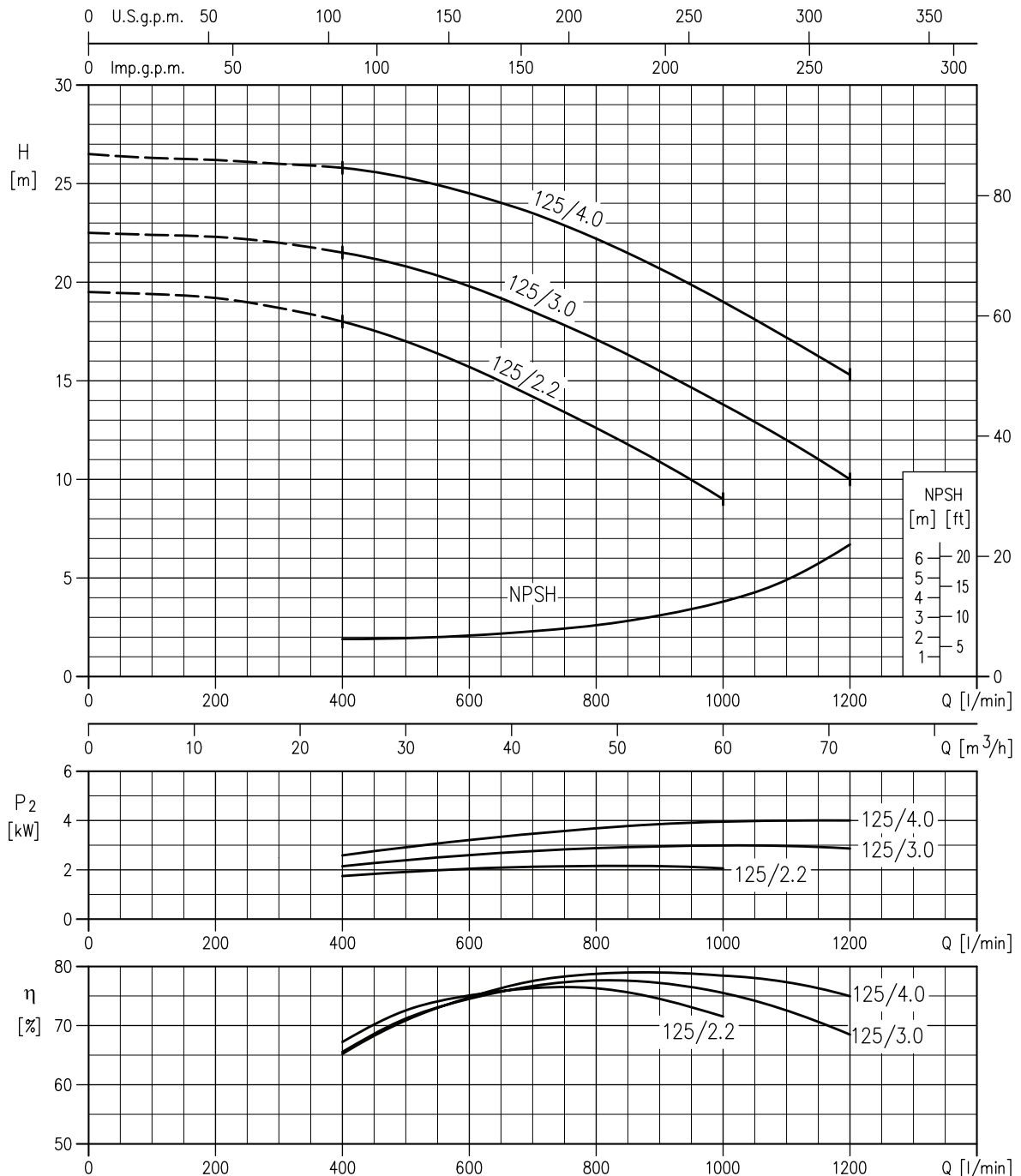
40-160/4.0 (4.0kW) MEI > 0.70 – impeller diameter = 166 mm



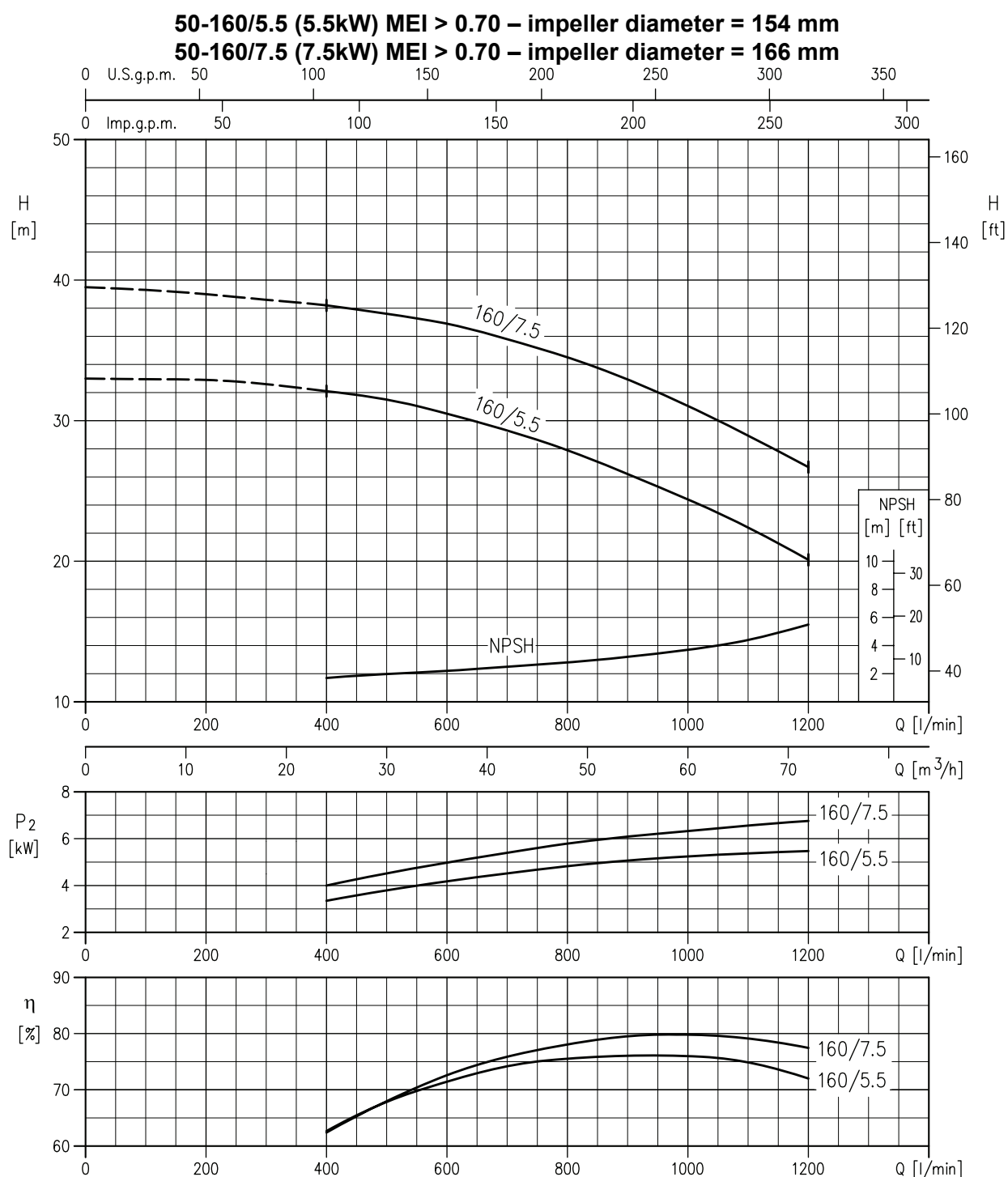
Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

40-200/5.5 (5.5kW) MEI > 0.70 – impeller diameter = 183 mm**40-200/7.5 (7.5kW) MEI > 0.70 – impeller diameter = 200 mm****40-200/11 (11kW) MEI > 0.70 – impeller diameter = 224 mm**

Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

50-125/2.2 (2.2kW) MEI > 0.60 – impeller diameter = 126 mm**50-125/3.0 (3.0kW) MEI > 0.60 – impeller diameter = 131 mm****50-125/4.0 (4.0kW) MEI > 0.60 – impeller diameter = 140 mm**

Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

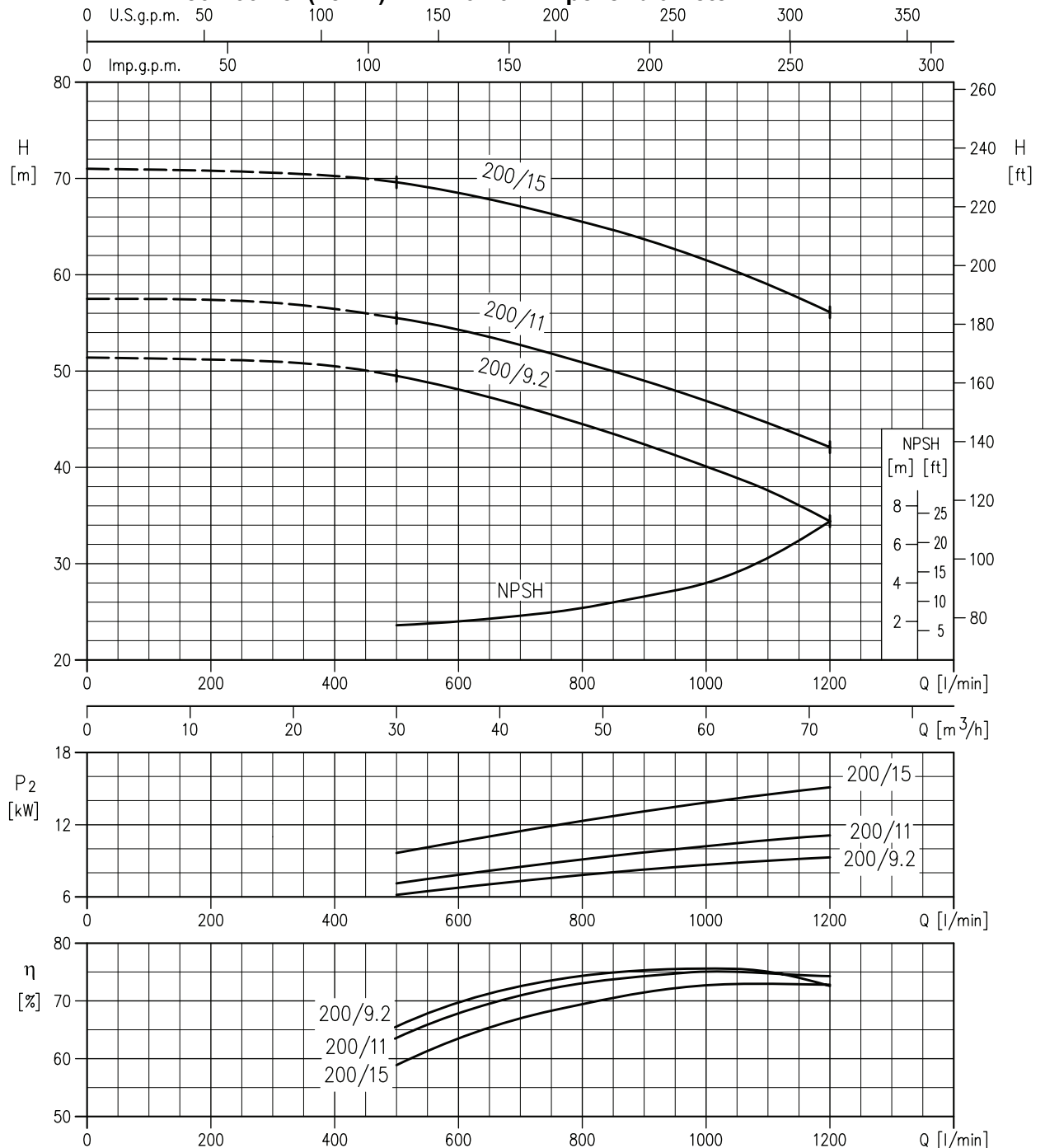


Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

50-200/9.2 (9.2kW) MEI > 0.70 – impeller diameter = 191 mm

50-200/11 (11kW) MEI > 0.70 – impeller diameter = 200 mm

50-200/15 (15kW) MEI > 0.70 – impeller diameter = 224 mm

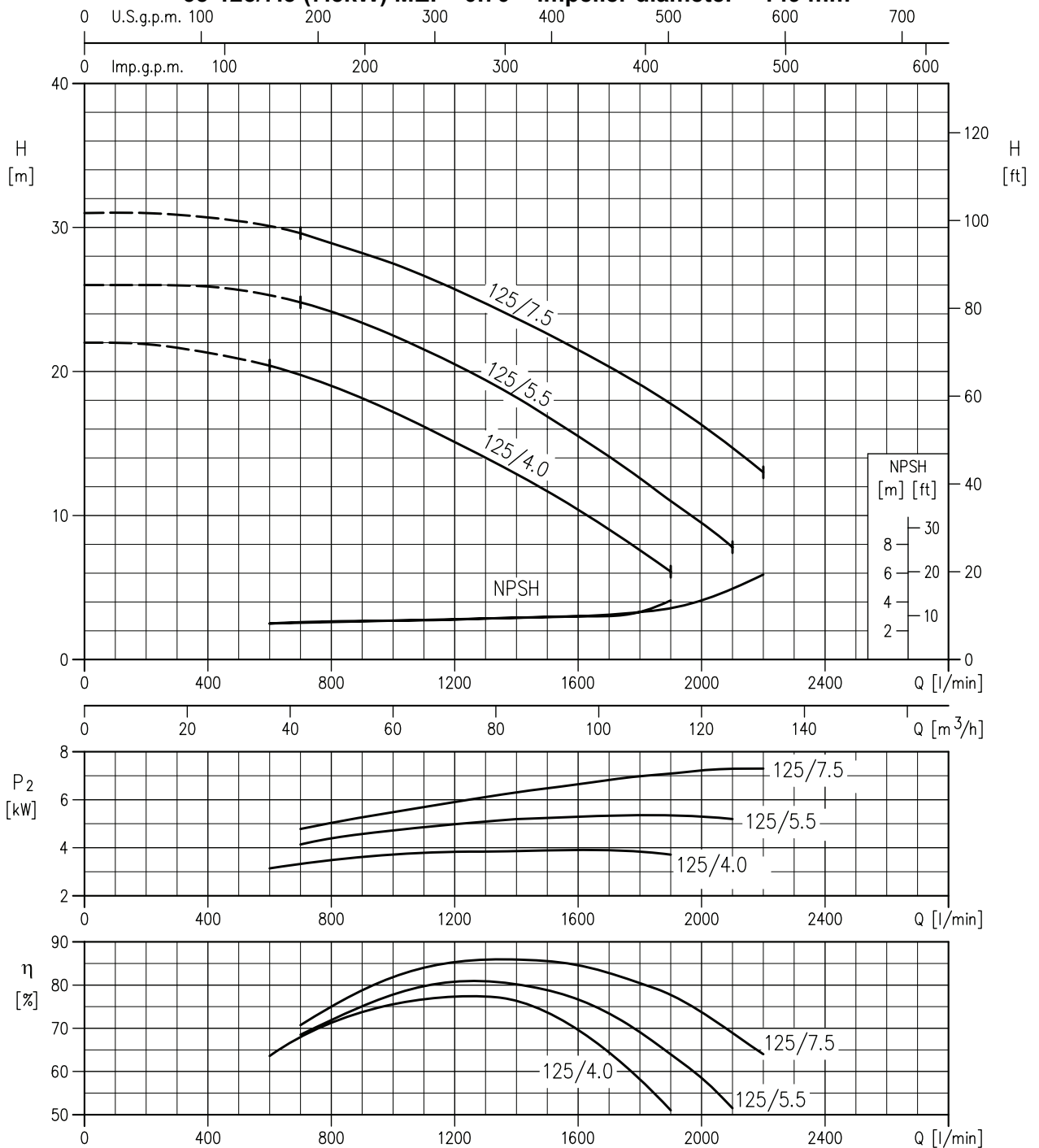


Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

65-125/4.0 (4.0kW) MEI > 0.70 – impeller diameter = 128 mm

65-125/5.5 (5.5kW) MEI > 0.70 – impeller diameter = 138 mm

65-125/7.5 (7.5kW) MEI > 0.70 – impeller diameter = 149 mm



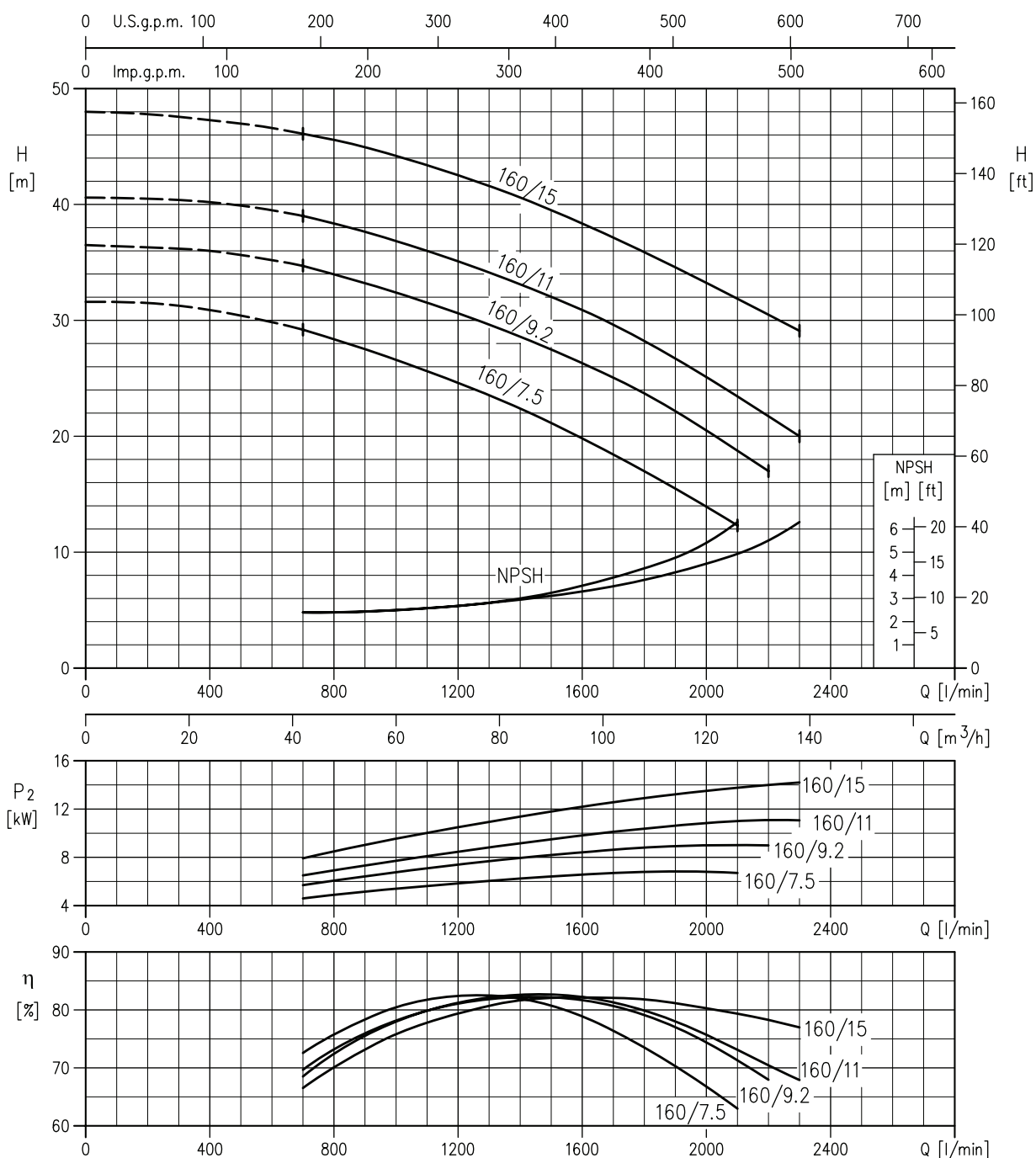
Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

65-160/7.5 (7.5kW) MEI > 0.70 – impeller diameter = 153 mm

65-160/9.2 (9.2kW) MEI > 0.70 – impeller diameter = 161 mm

65-160/11 (11kW) MEI > 0.70 – impeller diameter = 168 mm

65-160/15 (15kW) MEI > 0.70 – impeller diameter = 178 mm



Rotation speed $\approx 2900 \text{ min}^{-1}$
Test standard: ISO 9906 – Annex A

PERFORMANCE CURVE

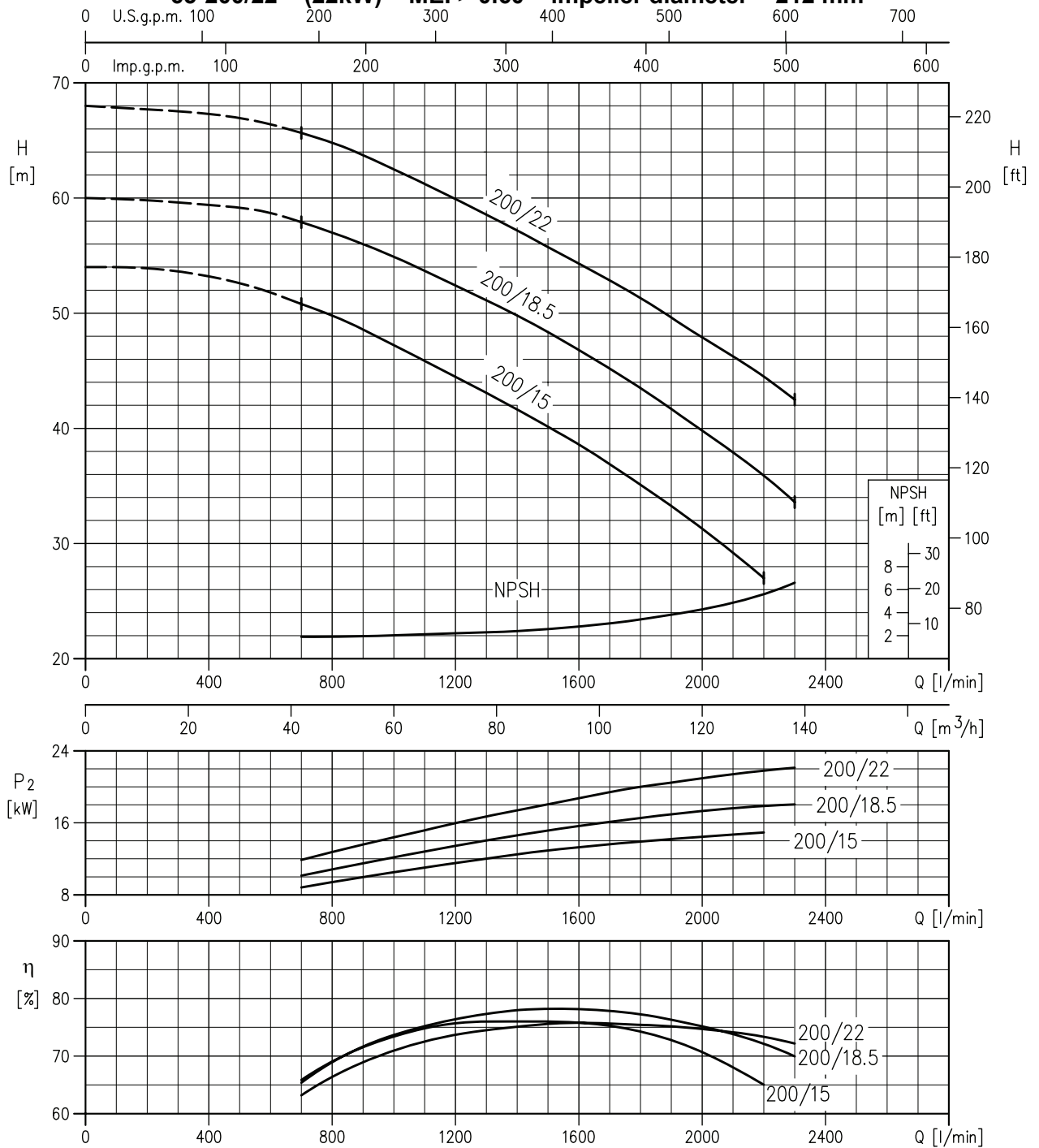
50Hz

Rev. 0

65-200/15 (15kW) MEI > 0.60 – impeller diameter = 190 mm

65-200/18.5 (18.5kW) MEI > 0.60 – impeller diameter = 201 mm

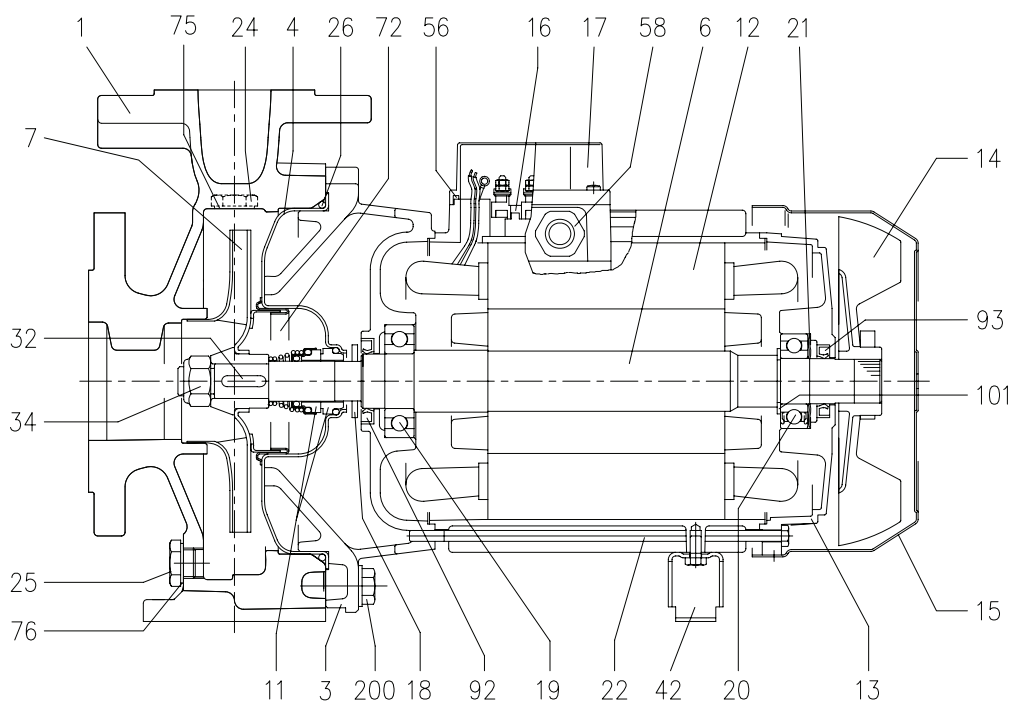
65-200/22 (22kW) MEI > 0.60 – impeller diameter = 212 mm



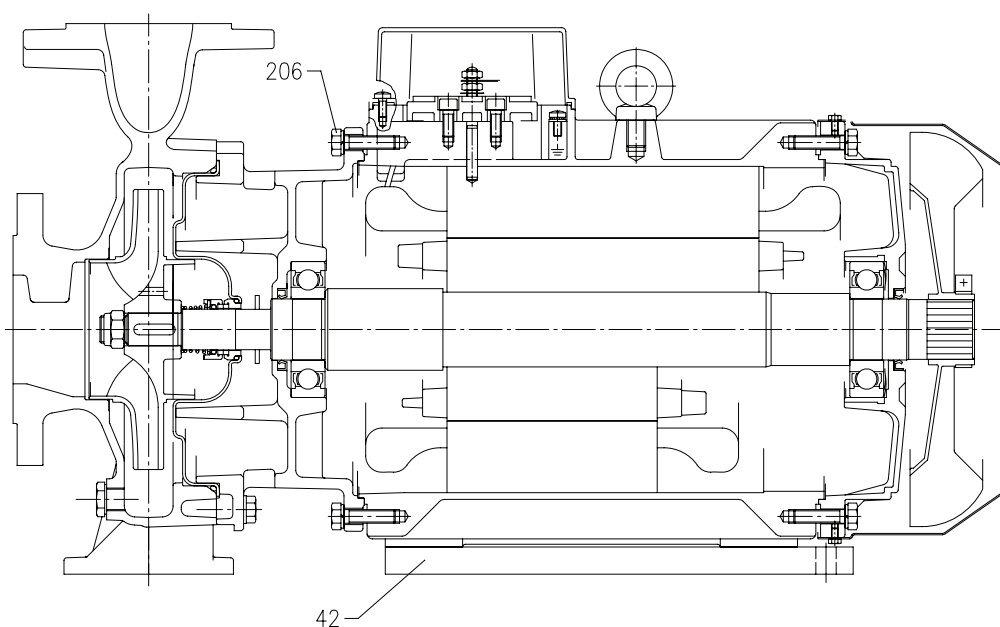
Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906 – Annex A

SECTIONAL VIEW DRAWING 3D 32, 40, 50, 65

UP TO 11 kW



15 kW AND ABOVE



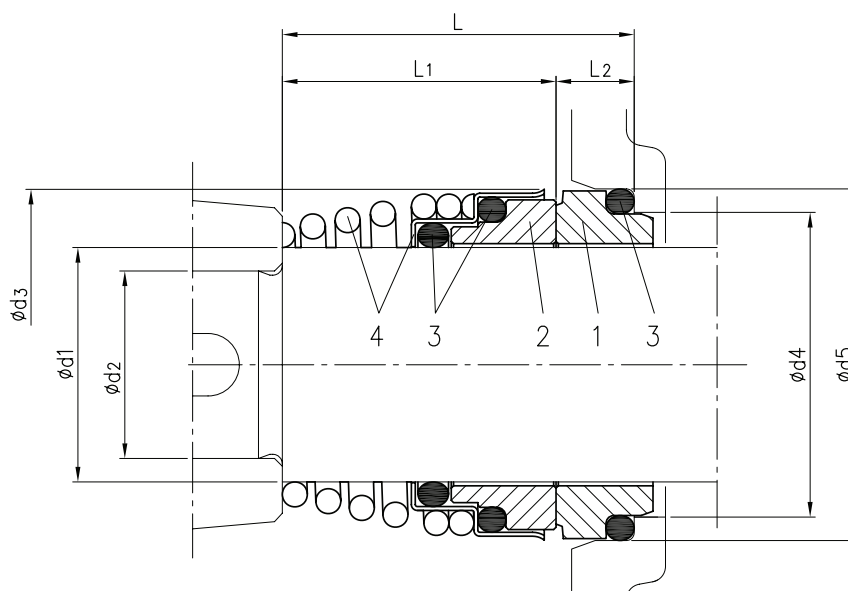
3D SECTIONAL VIEW TABLE

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
001	Casing	Cast iron EN-GJL-250-EN 1561			1
003	Motor bracket	[1]			1
004	Casing cover	EN 1.4301 (AISI 304)			1
006	Shaft with rotor - Wet extension	EN 1.4301 (AISI 304)			1
007	Impeller	[2]			1
011	Mechanical seal	[3]	[3]		1
012	Motor frame with stator	-			1
013	Motor cover	Aluminium			1
014	Fan	PA			1
015	Fan cover	Fe P04 Galvanized			1
016	Terminal	-			1
017	Terminal box cover	Aluminium (three phase version)			1
018	Splash ring	NBR	Up to 11 kW 40x21.5x2	EBARA DRAWING	1
	15 kW and above		50x29.5x3		
019	Bearing	-	[4]		1
020	Bearing	-	[4]		1
021	Adjusting ring	Steel C70			1
022	Tie rod	Fe 42 Galvanized	Up to 3 kW M5	EBARA DRAWING	4
			For 4 - 5.5 - 7.5 kW M6		
			9.2 e 11kW M8		
	Screw	Gv. Steel 8.8 strenght class ISO 898-1	15 kW and above M10x40	UNI 5739	
24	Priming plug	Brass	G 3/8" L=8		1
25	Draining plug	Brass	G 3/8" L=8		1
026	"O" ring	NBR [5]	32-125, 40-125 158.11x5.34	OR 6625	1
			32-160, 40-160, 50-125, 65-125 183.52x5.34	OR 6720	
			32-200, 40-200, 50-160, 227.96x5.34	OR 6895	
			50-200, 65-160, 65-200		
032	Key	EN 1.4401 (AISI 316)	Up to 11 kW A 6x6x25	UNI 6604	1
			50-200/15 A 8x7x30		
			15 kW and above		
034	Impeller nut	EN 1.4301 (AISI 304)	Up to 11kW M16x1.5	UNI 7474	1
			50-200/15 M18x1.5		
			15 kW and above M20x1.5		
042	Foot	Aluminium / Galvanized steel		EBARA DRAWING	[6]
056	Box gasket	NBR			1
058	Cable gland	-			[7]
072	Casing ring [8]	EN 1.4301 (AISI 304)			1
075	Washer	Aluminum	22x17x1.5	EBARA DRAWING	1
076	Washer	Aluminum			1
092	Lip seal	-	Up to 3kW 25x40x7	DIN 3760 without spring	1
			From 4 to 7.5 kW 30x47x7		
			From 9.2 kW to 11 kW 40x55x7		
			From 15 kW to 22 kW 45x60x7		
093	Lip seal	-	Up to 4 kW 25x40x7	DIN 3760 without spring	1
			From 5.5 kW to 7.5 kW 30x47x7		
			From 9.2 kW to 11 kW 40x55x7		
			From 15 kW to 22 kW 45x60x7		
101	Snap ring [9]	Carbon tool steels TC 80	Ø 40	UNI 7435	1
200	Screw	Gv. Steel 8.8 strenght class ISO 898-1	32-125 M 8x30	UNI 5739	8
			40-125		10
			32-160		
			40-160		12
			50-125		
			65-125		
235	Washer	Galvanized Steel	32-200, 40-200 8.4x17	UNI 6592	8
			50-160, 50-200		10
			65-160, 65-200		
			32-125		12
			40-125		
			32-160		
			40-160		
			50-125		
			65-125		
			32-200, 40-200		
			50-160, 50-200		
			65-160, 65-200		
206	Screw for bracket [10]	Gv. Steel 8.8 strenght class ISO 898-1	M 10x40	UNI 5739	4

Counterflange kit on request see p. 315

- [1] Cast iron EN-GJL-200-EN 1561 for 3D 32-200/3 and models with 15, 18.5, 22 kW motor
Aluminum AL-EN-1706-AC-46000-D for all the others;
- [2] EN 1.4301 (AISI 304) for 32, 40, 50 series;
EN 1.4401 (AISI 316) for 65 series
- [3] For special version and dimensions see pag. 307+310
- [4] See pag. 311
- [5] FPM for H, HS, HW, HSW version;
EPDM for E version
- [6] 0 for 65-160/15 kW;
1 for pumps up to 11 kW
2 for 65-200/15, 18.5, 22 kW
- [7] 1 for pumps with motor up to 11 kW
2 for pumps with 15 kW motor and above
- [8] Only for: 32-200, 40-200, 50-160, 50-200
- [9] Only for pumps with 9.2 and 11 kW motor
- [10] Only for pumps with 15 kW motor and above

MECHANICAL SEAL (standard, H, and E version)



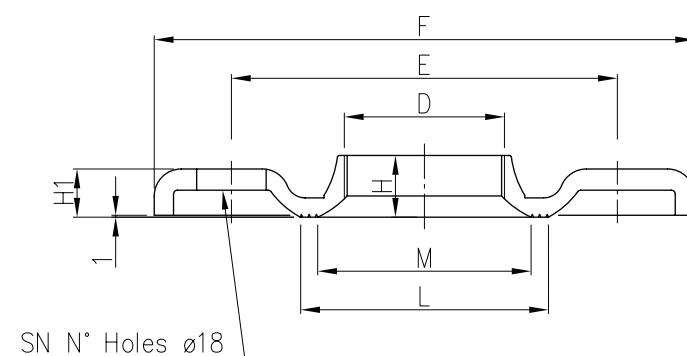
Version	Pumpp type	Dimensions								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + Spring
Standard	32-125/160/200	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	NBR	EN 1.4401 (AISI 316)
	40-125/160/200												
	50-125/160/200												
	65-125												
	65-160/7.5												
	65-160/9.2												
	65-160/11												
H	65-160/15	30	24	46	39	45	42.5	32.5	10	Carbon	Ceramic	FPM	EN 1.4401 (AISI 316)
	65-200												
	32-125/160/200												
	40-125/160/200												
	50-125/160/200												
	65-125												
	65-160/7.5												
E	65-160/9.2	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	EPDM	EN 1.4401 (AISI 316)
	65-160/11												
	65-160/15												
	65-200												
	32-125/160/200												
	40-125/160/200												
	50-125/160/200												

3D BEARINGS

Pump type	Ball bearing	
	Pump side	Fan side
3D 32-125/1.1	6205-SRSH	6205-SRSH
3D 32-160/1.5		
3D 32-160/2.2		
3D 32-200/3.0		
3D 32-200/4.0	6206-2RS1	6206-2RS1
3D 32-200/7.5	6306-2RS1	
3D 40-125/1.5	6205-SRSH	6205-SRSH
3D 40-125/2.2		
3D 40-160/3.0		
3D 40-160/4.0	6206-2RS1	6206-2RS1
3D 40-200/5.5	6306 2RS1	
3D 40-200/7.5	6308-2RS1	
3D 40-200/11	6308-2RS1	6208-2RS1
3D 50-125/2.2	6205-SRSH	6205-SRSH
3D 50-125/3.0		
3D 50-125/4.0	6206-2RS1	6206-2RS1
3D 50-160/5.5	6306-2RS1	
3D 50-160/7.5	6308-2RS1	
3D 50-200/9.2	6308-2RS1	6208-2RS1
3D 50-200/11	6309-2RS1	6309-2RS1
3D 50-200/15	6206-2RS1	6205-SRSH
3D 65-125/4.0	6306-2RS1	6206-2RS1
3D 65-125/5.5	6308-2RS1	6208-2RS1
3D 65-160/7.5		
3D 65-160/9.2	6309-2RS1	6309-2RS1
3D 65-160/11		
3D 65-160/15	6309-2RS1	6309-2RS1
3D 65-200/15		
3D 65-200/18.5		
3D 65-200/22		

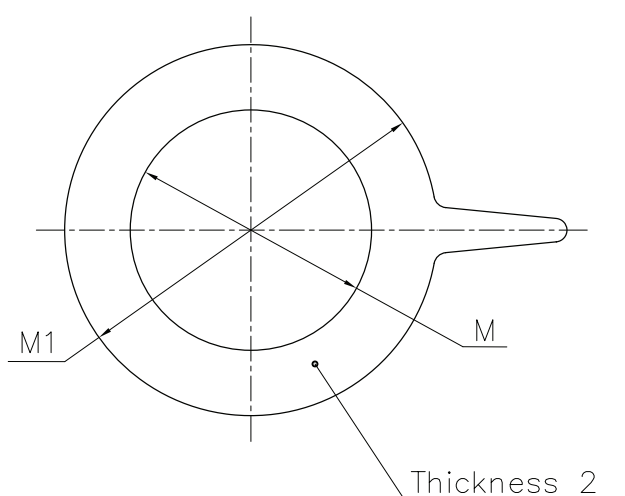
FITTINGS

COUNTERFLANGES GALVANIZED STEEL



Dimensions									Screws	
DN	D	E	F	H	H1	L	M	SN	DIMENSION	MATERIAL
32	G 1 ¼	100	140	15	11.5	67	50	4	M16x55	Gv. Steel 8.8 Strenght class ISO 898-1
40	G 1 ½	110	150	17.5	11.5	72	58	4		
50	G 2	125	165	19	15	89	70	4		
65	G 2 ½	145	185	23	14	104	88	4		
80	G 3	160	200	24	14.5	117.5	100	4		

GASKETS

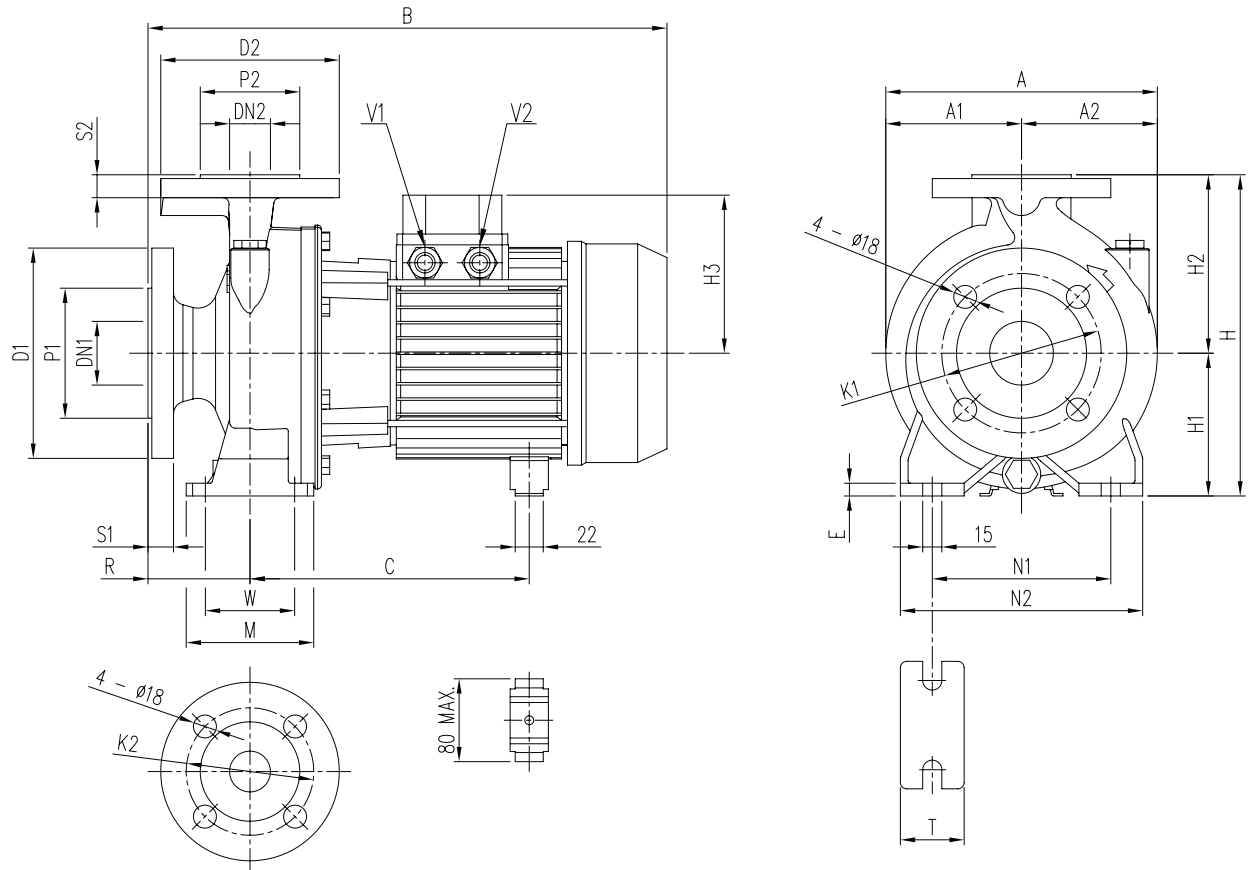


DN	M	M1
32	38	82
40	50	93
50	60	107
65	80	125
80	90	140

Material: EPDM for standard version
FPM for hot water version

PUMP 3D

UP TO 11 kW



Model	Dimensions [mm]																																Weight [kgf]			
	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	H3										B			C		V1	V2		[1-]	[3-]	[°] [3-]						
	DN1	P1	K1	D1	S1	DN2	P2	K2	D2	S2	H	H1	H2	[1-]	[3-]	R	W	M	N1	N2	T	E	A	A1	A2	[1-]	[3-]				[3-]	[1-]	[3-]	[3-]	[1-]	[3-]
32-125/1.1 (M)	50	102	125	165	20	32	78	100	140	18	252	112	140	141	124	80	70	100	140	190	50	10	213	106.5	106.5	408	407	-	219+230	219+230	-	M20x1.5	PG 13.5	25	29.5	-
32-160/1.5 (M)	50	102	125	165	20	32	78	100	140	18	292	132	160	141	124	80	70	100	190	240	50	10	254	127	127	408	407	-	219+230	219+230	-	M20x1.5	PG 13.5	29	33.5	-
32-160/2.2 (M)	50	102	125	165	20	32	78	100	140	18	292	132	160	141	124	80	70	100	190	240	50	10	254	127	127	408	432	-	219+230	244+255	-	M20x1.5	PG 13.5	35.7	36	-
32-200/3.0	50	102	125	165	20	32	78	100	140	18	340	160	180	-	124	80	70	100	190	240	50	10	296	148	148	-	471	-	-	244+255	-	-	PG 13.5	-	47.5	-
32-200/4.0	50	102	125	165	20	32	78	100	140	18	340	160	180	-	141	80	70	100	190	240	50	10	296	148	148	-	494	-	-	253	-	-	PG 16	-	50	-
32-200/7.5	50	102	125	165	20	32	78	100	140	18	340	160	180	-	150	80	70	100	190	240	50	10	296	148	148	-	519	539	-	275	PG 13.5	-	PG 16	-	62	65.1
40-125/1.5 (M)	65	122	145	185	20	40	88	110	150	18	252	112	140	141	124	80	70	100	160	210	50	10	220	108	112	408	407	-	219+230	219+230	-	M20x1.5	PG 13.5	25.5	30	-
40-125/2.2 (M)	65	122	145	185	20	40	88	110	150	18	252	112	140	141	124	80	70	100	160	210	50	10	220	108	112	408	432	-	219+230	244+255	-	M20x1.5	PG 13.5	31.7	32	-
40-160/3.0	65	122	145	185	20	40	88	110	150	18	292	132	160	-	124	80	70	100	190	240	50	12	254	127	127	-	471	-	-	244+255	-	-	PG 13.5	-	39	-
40-160/4.0	65	122	145	185	20	40	88	110	150	18	292	132	160	-	141	80	70	100	190	240	50	12	254	127	127	-	494	-	-	253	-	-	PG 16	-	48	-
40-200/5.5	65	122	145	185	20	40	88	110	150	18	340	160	180	-	150	100	70	100	212	265	50	12	296	148	148	-	539	-	-	275	PG 13.5	-	PG 16	-	60	-
40-200/7.5	65	122	145	185	20	40	88	110	150	18	340	160	180	-	150	100	70	100	212	265	50	12	296	148	148	-	539	559	-	275	PG 13.5	-	PG 16	-	63	66.1
40-200/11	65	122	145	185	20	40	88	110	150	18	340	160	180	-	178	100	70	100	212	265	50	12	296	148	148	-	595	-	-	359	PG 13.5	-	PG 21	-	80	82.4
50-125/2.2 (M)	65	122	145	185	20	50	102	125	165	20	292	132	160	141	124	100	70	100	190	240	50	10	254	127	127	428	452	-	219+230	244+255	-	M20x1.5	PG 13.5	34.4	37	-
50-125/3.0	65	122	145	185	20	50	102	125	165	20	292	132	160	-	124	100	70	100	190	240	50	10	254	127	127	-	491	-	-	244+255	-	-	PG 13.5	-	39.5	-
50-125/4.0	65	122	145	185	20	50	102	125	165	20	292	132	160	-	141	100	70	100	190	240	50	10	254	127	127	-	514	-	-	253	-	-	PG 16	-	48	-
50-160/5.5	65	122	145	185	20	50	102	125	165	20	340	160	180	-	150	100	70	100	212	265	50	10	296	148	148	-	539	-	-	275	PG 13.5	-	PG 16	-	60	-
50-160/7.5	65	122	145	185	20	50	102	125	165	20	340	160	180	-	150	100	70	100	212	265	50	10	296	148	148	-	539	559	-	275	PG 13.5	-	PG 16	-	64	67.1
50-200/9.2	65	122	145	185	20	50	102	125	165	20	360	160	200	-	178	100	70	100	212	265	50	10	296	148	148	-	595	-	-	359	PG 13.5	-	PG 21	-	77	77
50-200/11	65	122	145	185	20	50	102	125	165	20	360	160	200	-	178	100	70	100	212	265	50	10	296	148	148	-	595	-	-	359	PG 13.5	-	PG 21	-	80	82.4
65-125/4.0	80	138	160	200	22	65	122	145	185	20	340	160	180	-	141	100	95	125	212	280	65	12	263	127	136	-	514	-	-	253	-	-	PG 16	-	53	-
65-125/5.5	80	138	160	200	22	65	122	145	185	20	340	160	180	-	150	100	95	125	212	280	65	12	263	127	136	-	539	-	-	275	PG 13.5	-	PG 16	-	65	-
65-125/7.5	80	138	160	200	22	65	122	145	185	20	340	160	180	-	150	100	95	125	212	280	65	12	263	127	136	-	539	559	-	275	PG 13.5	-	PG 16	-	69.5	72.6
65-160/7.5	80	138	160	200	22	65	122	145	185	20	360	160	200	-	150	100	95	125	212	280	65	12	296	148	148	-	539	559	-	275	PG 13.5	-	PG 16	-	70	73.1
65-160/9.2	80	138	160	200	22	65	122	145	185	20	360	160	200	-	178	100	95	125	212	280	65	12	296	148	148	-	595	-	-	359	PG 13.5	-	PG 21	-	85	85
65-160/11	80	138	160	200	22	65	122	145	185	20	360	160	200	-	178	100	95	125	212	280	65	12	296	148	148	-	595	-	-	359	PG 13.5	-	PG 21	-	85	87.4

(*) Only for IE3 Motors

PUMP 3D

15 kW AND ABOVE

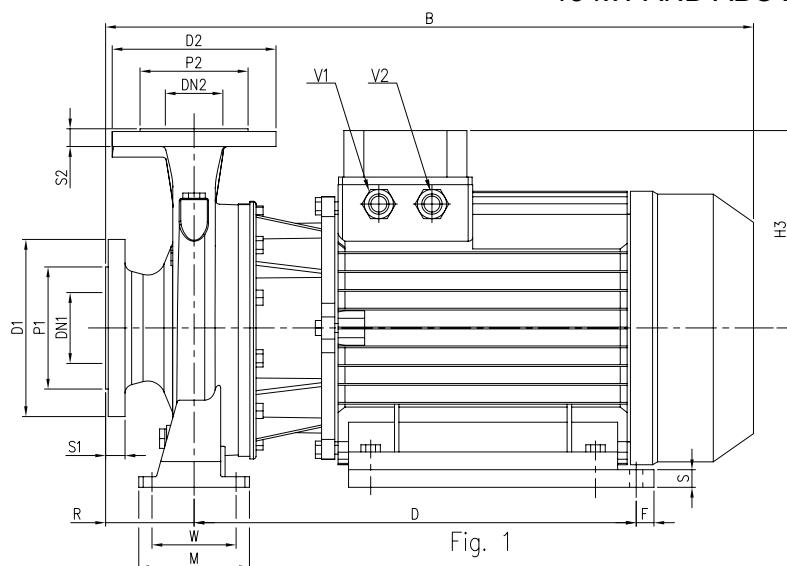


Fig. 1

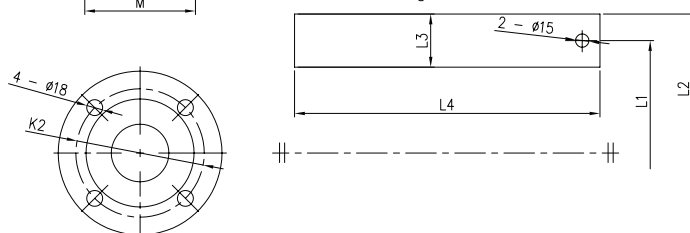
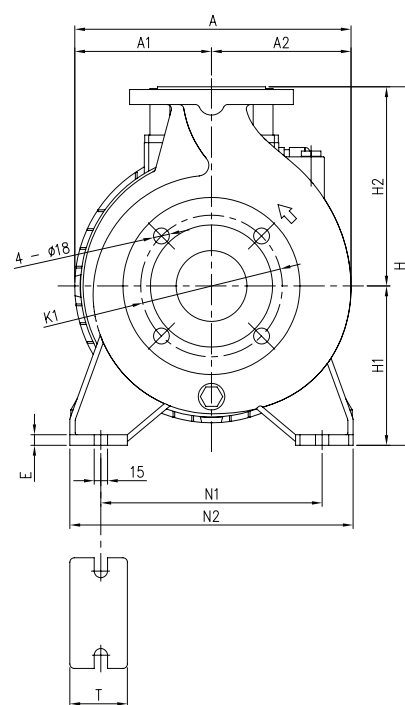
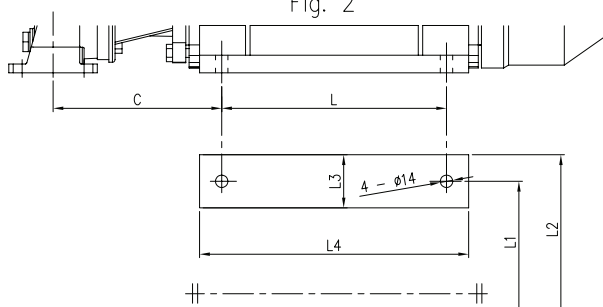


Fig. 2



Model	Dimensions [mm]																																Weight [kgf]						
	Ø DN1	Ø P1	Ø K1	Ø D1	S1	Ø DN2	Ø P2	Ø K2	Ø D2	S2	H	H1	H2	H3	Fig.	R	W	M	N1	N2	T	E	A	A1	A2	B	C	L	L1	L2	L3	L4	D	F	S	V1	V2	(*)	
50-200/15	65	122	145	185	20	50	102	125	165	20	360	160	200	223	2	100	70	100	212	265	50	10	296	154.5	141.5	723	190.5	254	254	318	64	304	-	-	-	PG 21	PG 21	121	124.1
65-160/15	80	138	160	200	22	65	122	145	185	20	360	160	200	223	2	100	95	125	212	280	65	12	296	154.5	141.5	732	199.5	254	254	318	64	304	-	-	-	PG 21	PG 21	126	129.1
65-200/15	80	138	160	200	22	65	122	145	185	20	405	180	225	223	1	100	95	125	250	320	65	12	312	154.5	157.5	732	-	-	254	314	60	345	499.5	20	20	PG 21	PG 21	126	129.1
65-200/18.5	80	138	160	200	22	65	122	145	185	20	405	180	225	223	1	100	95	125	250	320	65	12	312	154.5	157.5	732	-	-	254	314	60	345	499.5	20	20	PG 21	PG 21	140	146.3
65-200/22	80	138	160	200	22	65	122	145	185	20	405	180	225	223	1	100	95	125	250	320	65	12	312	154.5	157.5	732	-	-	254	314	60	345	499.5	20	20	PG 21	PG 21	152	158.1

(*) Only for IE3 Motors

DIMENSIONS AND WEIGHT

50Hz

Rev. 0

Model	Dimensions [mm]																																Weight [kgf]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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(*) Only for IE3 Motors

DIMENSIONS AND WEIGHT

50Hz

Rev. 0

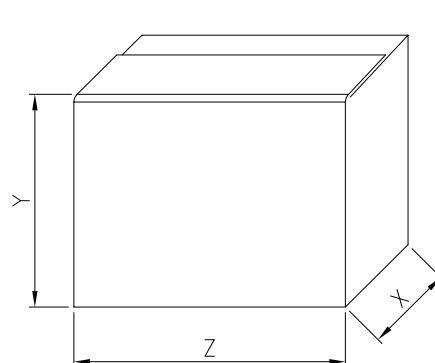
Model	Dimensions [mm]																										Weight [kgf]	
	Ø DN1	Ø P1	Ø K1	Ø D1	Ø S1	Ø DN2	Ø P2	Ø K2	Ø D2	Ø S2	H	H1	H2	H3	R	A	B	B1	D	E	N1	N2	N3	T	V1	V2		(°)
32-125/1.1	50	102	125	165	20	32	78	100	140	18	302	112	140	139	80	213	715	272	80	550	300	340	250	710	M25x1.5	M20x1.5	50.5	-
32-160/1.5	50	102	125	165	20	32	78	100	140	18	342	132	160	148	80	254	760	317	80	590	350	390	300	750	M25x1.5	M20x1.5	58.5	-
32-160/2.2	50	102	125	165	20	32	78	100	140	18	342	132	160	148	80	254	760	317	80	590	350	390	300	750	M25x1.5	M20x1.5	61.5	-
32-200/3.0	50	102	125	165	20	32	78	100	140	18	390	160	180	155	80	296	809	366	80	590	350	390	300	750	M25x1.5	M20x1.5	83.9	-
32-200/4.0	50	102	125	165	20	32	78	100	140	18	390	160	180	171	80	296	831	388	80	590	350	390	300	750	M25x1.5	M20x1.5	86.9	-
32-200/7.5	50	102	125	165	20	32	78	100	140	18	390	160	180	198	80	296	885	442	100	650	350	390	300	850	M32x1.5	M32x1.5	115.2	117.2
40-125/1.5	65	122	145	185	20	40	88	110	150	18	302	112	140	148	80	220	760	317	80	550	300	340	250	710	M25x1.5	M20x1.5	76.2	-
40-125/2.2	65	122	145	185	20	40	88	110	150	18	302	112	140	148	80	220	760	317	80	550	300	340	250	710	M25x1.5	M20x1.5	56.9	-
40-160/3.0	65	122	145	185	20	40	88	110	150	18	342	132	160	155	80	254	809	366	80	590	350	390	300	750	M25x1.5	M20x1.5	93.4	-
40-160/4.0	65	122	145	185	20	40	88	110	150	18	342	132	160	171	80	254	831	388	80	590	350	390	300	750	M25x1.5	M20x1.5	74.8	-
40-200/5.5	65	122	145	185	20	40	88	110	150	18	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M20x1.5	105	-
40-200/7.5	65	122	145	185	20	40	88	110	150	18	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	111.7	113.7
40-200/11	65	122	145	185	20	40	88	110	150	18	390	160	180	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	129.8	140.6
50-125/2.2	65	122	145	185	20	50	102	125	165	20	342	132	160	148	100	254	780	317	80	550	350	390	300	710	M25x1.5	M20x1.5	80	-
50-125/3.0	65	122	145	185	20	50	102	125	165	20	342	132	160	155	100	254	829	366	80	590	350	390	300	750	M25x1.5	M20x1.5	91.1	-
50-125/4.0	65	122	145	185	20	50	102	125	165	20	342	132	160	171	100	254	851	388	80	590	350	390	300	750	M25x1.5	M20x1.5	91.7	-
50-160/5.5	65	122	145	185	20	50	102	125	165	20	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	111.5	-
50-160/7.5	65	122	145	185	20	50	102	125	165	20	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	113.4	115.4
50-200/9.2	65	122	145	185	20	50	102	125	165	20	410	160	200	198	100	296	945	482	100	650	350	390	300	850	M32x1.5	M32x1.5	123.1	124.1
50-200/11	65	122	145	185	20	50	102	125	165	20	410	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M32x1.5	133.6	144.4
50-200/15	65	122	145	185	20	50	102	125	165	20	410	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	137.5	154.4
65-125/4.0	80	138	160	200	22	65	122	145	185	20	390	160	180	171	100	263	851	388	80	590	350	390	300	750	M25x1.5	M20x1.5	70.9	-
65-125/5.5	80	138	160	200	22	65	122	145	185	20	390	160	180	198	100	263	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	115.3	-
65-125/7.5	80	138	160	200	22	65	122	145	185	20	390	160	180	198	100	263	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	127.9	129.9
65-160/7.5	80	138	160	200	22	65	122	145	185	20	410	160	200	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	131.2	133.2
65-160/9.2	80	138	160	200	22	65	122	145	185	20	410	160	200	198	100	296	945	482	100	650	350	390	300	850	M32x1.5	M32x1.5	137	138
65-160/11	80	138	160	200	22	65	122	145	185	20	410	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	134	144.8
65-160/15	80	138	160	200	22	65	122	145	185	20	455	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	134.1	151
65-200/15	80	138	160	200	22	65	122	145	185	20	455	180	225	238	100	312	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	139.1	156
65-200/18.5	80	138	160	200	22	65	122	145	185	20	455	180	225	238	100	312	1115	654	100	800	380	420	330	1000	M40x1.5	M40x1.5	149.7	156.2
65-200/22	80	138	160	200	22	65	122	145	185	20	455	180	225	268	100	312	1150	690	100	800	410	450	360	1000	M40x1.5	M40x1.5	204	211

(*) Only for IE3 Motors

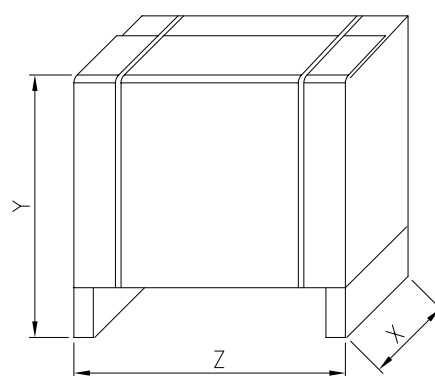
PACKING 3D

Pump type	Packing [mm]			Weight [kgf]			Pack type
	X	Y	Z	[1~]	[3~]	(*) [3~]	
32-125/1.1 (M)	250	300	450	30.4	31.5	-	1
32-160/1.5 (M)	280	330	430	30.7	35.5	-	
32-160/2.2 (M)	280	340	490	38.67	44.87	-	
32-200/3.0	350	488	550	-	52.4	-	2
32-200/4.0	350	488	550	-	53.8	-	
32-200/7.5	350	488	700	-	66.3	-	
40-125/1.5 (M)	250	300	450	29.9	39.12	-	1
40-125/2.2 (M)	280	340	490	33.82	34	-	
40-160/3.0	350	488	550	-	39.8	-	
40-160/4.0	350	488	550	-	52.6	-	2
40-200/5.5	350	488	550	-	64.4	-	
40-200/7.5	350	488	700	-	68.4	-	
40-200/11	350	488	700	-	91	-	1
50-125/2.2 (M)	280	340	490	36.1	39	-	
50-125/3.0	350	488	550	-	40.1	-	
50-125/4.0	350	488	550	-	52.6	-	2
50-160/5.5	350	488	550	-	64.2	-	
50-160/7.5	350	488	700	-	68.6	71.7	
50-200/9.2	350	488	700	-	81.1	81.1	
50-200/11	350	488	700	-	85	87.4	
50-200/15	390	532	880	-	130	133.1	
65-125/4.0	350	488	550	-	57.9	-	
65-125/5.5	350	488	550	-	70.8	-	
65-125/7.5	350	488	700	-	78.7	81.8	
65-160/7.5	350	488	700	-	74.8	77.9	
65-160/9.2	350	488	700	-	93	93	
65-160/11	350	488	700	-	87	89.4	
65-160/15	390	532	880	-	135.5	138.6	
65-200/15	390	532	880	-	135	138.1	
65-200/18.5	390	532	880	-	149.5	155.8	
65-200/22	390	532	880	-	164.5	170.6	

(*) Only for IE3 Motors



TYPE 1



TYPE 2

MOTOR DATA 3D

Pump type		Power		Efficiency		Capacitor		Efficiency (% load)			Input		Full load current				Locked rotor current			
Single Phase	Three Phase	[kW]	[HP]	Single Phase	Three Phase	Single Phase	Three Phase	Three phase			Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase
						[μF]	[V]	50%	75%	100%			230 V	230 V	400 V	690 V	230 V	230 V	400 V	690 V
3D 32-125/1.1 M	3D 32-125/1.1	1.1	1.5	-	IE2	31.5	450	79.5	82.0	82.5	1.51	1.82	6.7	5.6	3.2	-	23.5	57.0	33.0	-
3D 32-160/1.5 M	3D 32-160/1.5	1.5	2.0	-	IE2	40	450	79.5	82.0	82.5	2.10	1.82	9.6	5.6	3.2	-	47	57.0	33.0	-
3D 32-160/2.2 M	3D 32-160/2.2	2.2	3.0	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-	63.8	75.0	43.5	-
-	3D 32-200/3.0	3.0	4.0	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-	-	100.0	57.7	-
-	3D 32-200/4.0	4.0	5.5	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-	-	151.0	87.0	-
-	3D 32-200/7.5	7.5	10.0	-	IE2	-	-	86.1	88.2	88.8	-	8.45	-	-	13.7	7.9	-	-	140.0	81.0
-	3D 32-200/7.5	7.5	10.0	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9	-	-	144.0	83.0
3D 40-125/1.5 M	3D 40-125/1.5	1.5	2.0	-	IE2	40	450	79.5	82.0	82.5	2.10	1.82	9.6	5.6	3.2	-	47	57.0	33.0	-
3D 40-125/2.2 M	3D 40-125/2.2	2.2	3.0	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-	63.8	75.0	43.5	-
-	3D 40-160/3.0	3.0	4.0	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-	-	100.0	57.7	-
-	3D 40-160/4.0	4.0	5.5	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-	-	151.0	87.0	-
-	3D 40-200/5.5	5.5	7.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0	-	-	116.0	67.0
-	3D 40-200/7.5	7.5	10.0	-	IE2	-	-	86.1	88.2	88.8	-	8.45	-	-	13.7	7.9	-	-	140.0	81.0
-	3D 40-200/7.5	7.5	10.0	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9	-	-	144.0	83.0
-	3D 40-200/11	11.0	15.0	-	IE2	-	-	88.9	90.3	90.2	-	12.20	-	-	21.9	12.7	-	-	186.0	108.0
-	3D 40-200/11	11.0	15.0	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3	-	-	184.0	107.0
3D 50-125/2.2 M	3D 50-125/2.2	2.2	3.0	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-	63.8	75.0	43.5	-
-	3D 50-125/3.0	3.0	4.0	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-	-	100.0	57.7	-
-	3D 50-125/4.0	4.0	5.5	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-	-	151.0	87.0	-
-	3D 50-160/5.5	5.5	7.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0	-	-	116.0	67.0
-	3D 50-160/7.5	7.5	10.0	-	IE2	-	-	86.1	88.2	88.8	-	8.45	-	-	13.7	7.9	-	-	140.0	81.0
-	3D 50-160/7.5	7.5	10.0	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9	-	-	144.0	83.0
-	3D 50-200/9.2	9.2	12.5	-	IE2	-	-	88.6	90.0	89.9	-	10.23	-	-	16.8	9.7	-	-	166.0	96.0
-	3D 50-200/9.2	9.2	12.5	-	IE3	-	-	90.1	90.8	90.9	-	10.12	-	-	17.2	10.0	-	-	166.0	96.0
-	3D 50-200/11	11.0	15.0	-	IE2	-	-	88.9	90.3	90.2	-	12.20	-	-	21.9	12.7	-	-	186.0	108.0
-	3D 50-200/11	11.0	15.0	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3	-	-	184.0	107.0
-	3D 50-200/15	15.0	20.0	-	IE2	-	-	89.3	91.0	91.1	-	18.00	-	-	30.0	17.3	-	-	246.0	143.0
-	3D 50-200/15	15.0	20.0	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3	-	-	225.0	130.0
-	3D 65-125/4.0	4.0	5.5	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-	-	151.0	87.0	-
-	3D 65-125/5.5	5.5	7.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0	-	-	116.0	67.0
-	3D 65-125/7.5	7.5	10.0	-	IE2	-	-	86.1	88.2	88.8	-	8.45	-	-	13.7	7.9	-	-	140.0	81.0
-	3D 65-125/7.5	7.5	10.0	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9	-	-	144.0	83.0
-	3D 65-160/7.5	7.5	10.0	-	IE2	-	-	86.1	88.2	88.8	-	8.45	-	-	13.7	7.9	-	-	140.0	81.0
-	3D 65-160/7.5	7.5	10.0	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9	-	-	144.0	83.0
-	3D 65-160/9.2	9.2	12.5	-	IE2	-	-	88.6	90.0	89.9	-	10.23	-	-	16.8	9.7	-	-	166.0	96.0
-	3D 65-160/9.2	9.2	12.5	-	IE3	-	-	90.1	90.8	90.9	-	10.12	-	-	17.2	10.0	-	-	166.0	96.0
-	3D 65-160/11	11.0	15.0	-	IE2	-	-	88.9	90.3	90.2	-	12.20	-	-	21.9	12.7	-	-	186.0	108.0
-	3D 65-160/11	11.0	15.0	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3	-	-	184.0	107.0
-	3D 65-160/15	15.0	20.0	-	IE2	-	-	89.3	91.0	91.1	-	18.00	-	-	30.0	17.3	-	-	246.0	143.0
-	3D 65-160/15	15.0	20.0	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3	-	-	225.0	130.0
-	3D 65-200/15	15.0	20.0	-	IE2	-	-	89.3	91.0	91.1	-	18.00	-	-	30.0	17.3	-	-	246.0	143.0
-	3D 65-200/15	15.0	20.0	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3	-	-	225.0	130.0
-	3D 65-200/18.5	18.5	25.0	-	IE2	-	-	89.8	91.2	91.7	-	20.17	-	-	36.3	21.0	-	-	325.0	188.0
-	3D 65-200/18.5	18.5	25.0	-	IE3	-	-	91.6	93.0	92.6	-	19.98	-	-	35.0	20.3	-	-	328.0	190.0
-	3D 65-200/22	22.0	30.0	-	IE2	-	-	89.9	91.9	92.4	-	23.80	-	-	40.8	23.6	-	-	383.0	222.0
-	3D 65-200/22	22.0	30.0	-	IE3	-	-	92.0	93.1	93.2	-	23.58	-	-	39.7	23.6	-	-	391.0	227.0

3D NOISE DATA

Pump type	Power		L _{pA} - dB(A) *
	[kW]	[HP]	
3D 32-125/1.1 (M)	1.1	1.5	69
3D 32-160/1.5 (M)	1.5	2.0	
3D 32-160/2.2 (M)	2.2	3.0	
3D 32-200/3.0	3.0	4.0	76
3D 32-200/4.0	4.0	5.5	
3D 32-200/7.5	7.5	10.0	79
3D 40-125/1.5 (M)	1.5	2.0	69
3D 40-125/2.2 (M)	2.2	3.0	
3D 40-160/3.0	3.0	4.0	76
3D 40-160/4.0	4.0	5.5	
3D 40-200/5.5	5.5	7.5	79
3D 40-200/7.5	7.5	10.0	
3D 40-200/11	11.0	15.0	82
3D 50-125/2.2 (M)	2.2	3.0	69
3D 50-125/3.0	3.0	4.0	76
3D 50-125/4.0	4.0	5.5	
3D 50-160/5.5	5.5	7.5	79
3D 50-160/7.5	7.5	10.0	
3D 50-200/9.2	9.2	12.5	82
3D 50-200/11	11.0	15.0	
3D 50-200/15	15.0	20.0	86
3D 65-125/4.0	4.0	5.5	76
3D 65-125/5.5	5.5	7.5	79
3DM 65-125/7.5	7.5	10.0	
3D 65-160/7.5	7.5	10.0	
3D 65-160/9.2	9.2	12.5	82
3D 65-160/11	11.0	15.0	
3D 65-160/15	15.0	20.0	86
3D 65-200/15	15.0	20.0	
3D 65-200/18.5	18.5	25.0	
3D 65-200/22	22.0	30.0	

* Mean value of several measures at 1m distance around the pump.

Tolerance ± 2.5 dB.