

EBARA

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PUMP SPECIFICATIONS

50 Hz

Rev.F

				Version	3SF4	3PF4	3LSF4	3LPF4
Pump sizes				32-125	■	■	■	■
				32-160	■	■	■	■
				32-200	■	■	■	■
				40-125	■	■	■	■
				40-160	■	■	■	■
				40-200	■	■	■	■
				50-125	■	■	■	■
				50-160	■	■	■	■
				50-200	■	■	■	■
				65-125	■	■	■	■
				65-160	■	■	■	■
				65-200	■	■	■	■
				65-250	-	-	●	●
				80-160	-	-	●	●
				80-200	-	-	●	●
				80-250	-	-	●	●
Liquid Handled	Type of liquid			Clean water and moderately aggressive fluids				
	Temperature			/		Clean water, drinking water, water contains glycol for E version		
		min.	[°C]	-10		-10 -20 for E version		
max.	+90 110 for (H-HS version)			+110 +120 for E version				
Maximum working pressure				[MPa]	1			

■ Available also with H and HS option for 32, 40, 50, 65-125/160/200.

● Available also with H and E option for 65-250, 80.

— Not available.

PUMP SPECIFICATIONS

50 Hz

Rev.F

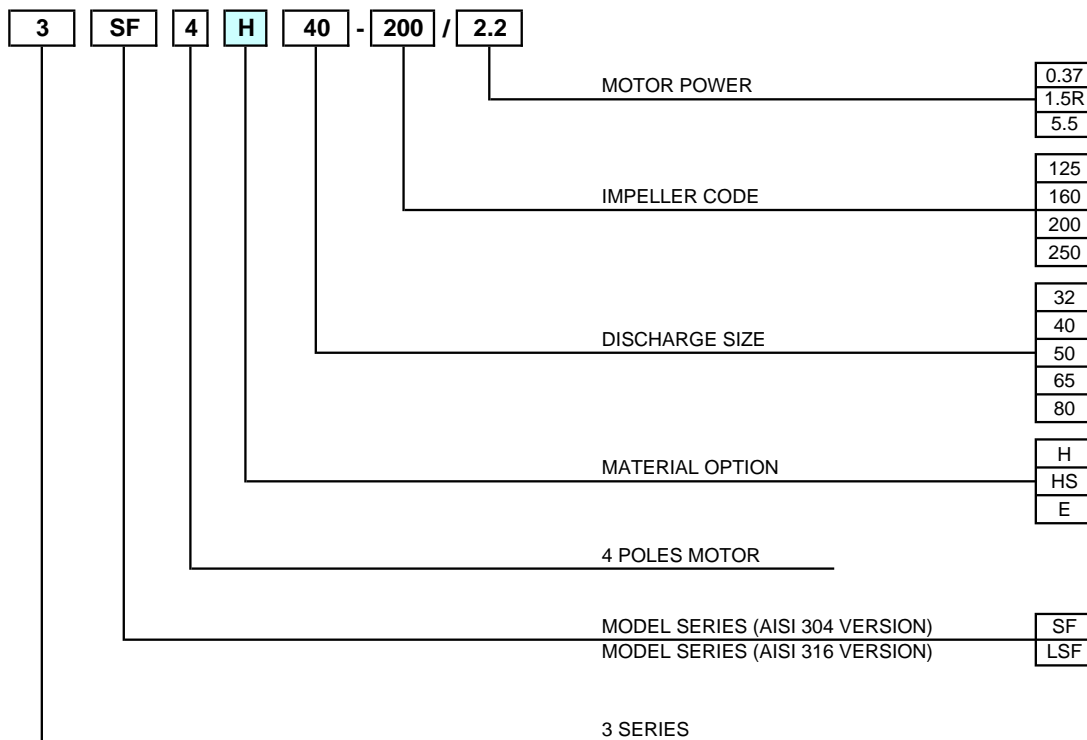
Version			3SF4	3PF4	3LSF4	3LPF4	
Construction	Impeller	Closed centrifugal type for [32, 40, 50 version] Reinforced laser welding for [40-200/1.5, 50-200/2.2] Closed centrifugal three dimensional blades for [65 and 80 version]					
	Shaft seal type	Mechanical seal			Mechanical seal with stationary ring secured against rotation. Mechanical seal for [H-E option]		
	Bearing	Sealed ball bearing					
Pipe Connection	Suction	32-125/160/200	Flange DN50 according DIN 2532 standard				
		40-125/160/200	Flange DN65 according DIN 2532 standard				
		50-125/160/200	Flange DN65 according DIN 2532 standard				
		65-125/160/200/250	Flange DN80 according DIN 2532 standard				
		80-160/200/250	Flange DN100 according DIN 2532 standard				
	Discharge	32-125/160/200	Flange DN32 according DIN 2532 standard				
		40-125/160/200	Flange DN40 according DIN 2532 standard				
		50-125/160/200	Flange DN50 according DIN 2532 standard				
		65-125/160/200/250	Flange DN65 according DIN 2532 standard				
		80-160/200/250	Flange DN80 according DIN 2532 standard				
Material	Casing	32-125/160/200	EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)		
		40-125/160/200					
		50-125/160/200					
		65-125/160/200					
		65-250	/		EN 1.4401 (AISI 316) Made by precision casting		
	Impeller	32-125/160/200	EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)		
		40-125/160/200					
		50-125/160/200					
			65-125/160/200	EN 1.4401 (AISI 316) Made by precision casting			
			65-250	/		EN 1.4401 (AISI 316) Made by precision casting	
	Casing cover	32-125/160/200	EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)		
		40-125/160/200					
		50-125/160/200					
			65-125/160/200	/		EN 1.4401 (AISI 316) Made by precision casting	
		80-160/200/250	/		EN 1.4401 (AISI 316) Made by precision casting		
Mechanical seal		32-125/160/200	Ceramic/Carbon/NBR [standard version]		SiC/SiC/FPM [L version]		
		40-125/160/200	Ceramic/Carbon/FPM [H option]				
		50-125/160/200	SiC/SiC/FPM [HS option]				
			65-250	/		SiC/SiC/FPM [L version] Ceramic/Carbon/FPM [H option] SiC/Carbon/EPDM [E option]	
		80-160/200/250	/		SiC/SiC/FPM [L version] Ceramic/Carbon/FPM [H option] SiC/Carbon/EPDM [E option]		
O-ring			NBR FPM for [H-HS option]		FPM		
Shaft	32, 40, 50, 65	d=19	EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)		
	50-200/2.2	d=22					
	80-160	d=19					
	65-250	d=24	/		EN 1.4404 (AISI 316L)	EN 1.4462 (Duplex stainless steel)	
	80-200/250	d=24	/		EN 1.4404 (AISI 316L)	EN 1.4462 (Duplex stainless steel)	
Bracket	Cast iron - aluminium						

SELECTION CHART

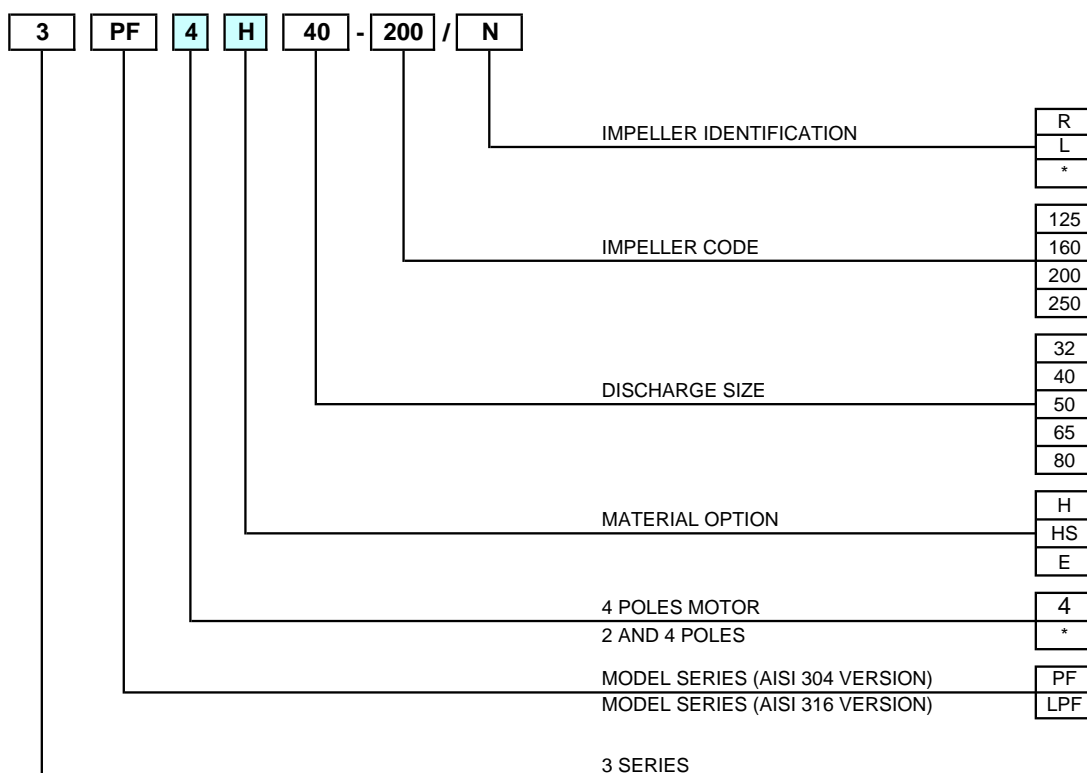
50 Hz

Rev.F

TYPE KEY: SF4



TYPE KEY: PF4



*) No indication

SELECTION CHART

50 Hz

Rev.F

3 SERIES SF4 and PF4 version: 32, 40, 50

Pump type		Motor		Q=Capacity													
		kW	HP	l/min	0	50	100	150	175	200	250	300	350	400	500	600	650
					3	6	9	10,5	12	15	18	21	24	30	36	39	
H=Total manometric head in meters																	
3(.)SF4 32-125/0.25	3(.)PF 32-125	0.25	0.33	5.7	5.5	4.7	3.5	2.8	-	-	-	-	-	-	-	-	-
3(.)SF4 32-160/0.37R	3(.)PF 32-160/R	0.37	0.5	7.3	7	6.2	5	4.2	-	-	-	-	-	-	-	-	-
3(.)SF4 32-160/0.37	3(.)PF 32-160	0.37	0.5	9	8.7	8.1	7	6.3	-	-	-	-	-	-	-	-	-
3(.)SF4 32-200/0.55R	3(.)PF 32-200/R	0.55	0.75	10.8	10.3	9.2	7.3	6.2	-	-	-	-	-	-	-	-	-
3(.)SF4 32-200/0.55	3(.)PF 32-200	0.55	0.75	12.5	12	11	9.2	8	-	-	-	-	-	-	-	-	-
3(.)SF4 32-200/0.75	3(.)PF 32-200/L	0.75	1	17.5	17.1	16.1	14.3	13.2	-	-	-	-	-	-	-	-	-
3(.)SF4 40-125/0.37R	3(.)PF 40-125/R	0.37	0.5	5.1	-	4.8	4.5	4.3	4	3.4	2.6	1.8	-	-	-	-	-
3(.)SF4 40-125/0.37	3(.)PF 40-125	0.37	0.5	6.5	-	6.3	6	5.8	5.5	4.9	4.2	3.4	-	-	-	-	-
3(.)SF4 40-160/0.55R	3(.)PF 40-160/R	0.55	0.75	7.7	-	7.3	6.9	6.6	6.3	5.7	5	4.3	-	-	-	-	-
3(.)SF4 40-160/0.55	3(.)PF 40-160	0.55	0.75	9.1	-	8.6	8.1	7.8	7.5	6.9	6.2	5.4	-	-	-	-	-
3(.)SF4 40-200/1.1R	3(.)PF 40-200/R	1.1	1.5	11.6	-	11.2	10.8	10.5	10.1	9.4	8.6	7.8	-	-	-	-	-
3(.)SF4 40-200/1.1	3(.)PF 40-200	1.1	1.5	13.6	-	13.2	12.7	12.4	12.1	11.4	10.6	9.6	-	-	-	-	-
3(.)SF4 40-200/1.5	3(.)PF 40-200/L	1.5	2	18	-	17.7	17.3	17.1	16.8	16.1	15.2	14.2	-	-	-	-	-
3(.)SF4 50-125/0.55R	3(.)PF 50-125/R	0.55	0.75	5.4	-	-	-	-	5.2	5	4.7	4.4	4	3.2	2.3	-	-
3(.)SF4 50-125/0.55	3(.)PF 50-125	0.55	0.75	6.4	-	-	-	-	6.2	6	5.7	5.4	5	4.2	3.3	-	-
3(.)SF4 50-160/1.1R	3(.)PF 50-160/R	1.1	1.5	8.2	-	-	-	-	7.8	7.6	7.2	6.9	6.4	5.5	4.5	4	-
3(.)SF4 50-160/1.1	3(.)PF 50-160	1.1	1.5	9.5	-	-	-	-	9.1	8.9	8.6	8.3	7.9	7	6	5.5	-
3(.)SF4 50-200/1.5R	3(.)PF 50-200/R	1.5	2	12.7	-	-	-	-	12.1	11.8	11.4	11	10.5	9.3	8	7.2	-
3(.)SF4 50-200/1.5	3(.)PF 50-200	1.5	2	14	-	-	-	-	13.3	13	12.7	12.2	11.8	10.6	9.2	8.4	-
3(.)SF4 50-200/2.2	3(.)PF 50-200/L	2.2	3	17.8	-	-	-	-	17.5	17.3	17	16.6	16.2	15.1	13.8	13.1	-

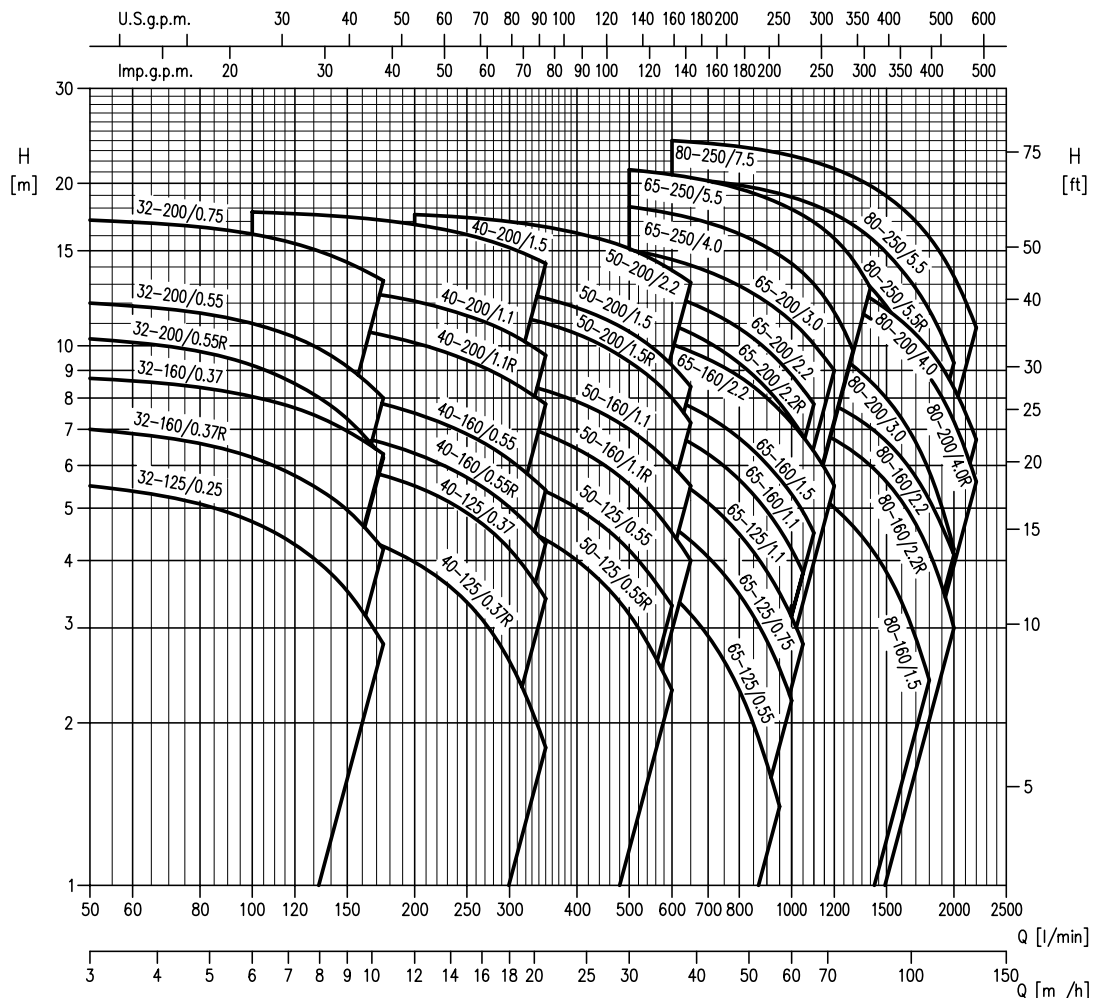
3 SERIES SF4 and PF4 version: 65, 80

Pump type		Motor		Q=Capacity																	
		kW	HP	l/min	0	300	350	500	600	800	950	1000	1050	1100	1200	1300	1400	1600	1800	2000	2200
				m³/h	0	18	21	30	36	48	57	60	63	66	72	78	84	96	108	120	132
H=Total manometric head in meters																					
3(.)SF4 65-125/0.55	3(.)PF 65-125/R	0.55	0.75	5.3	4.8	4.6	4	3.5	2.3	1.4	-	-	-	-	-	-	-	-	-	-	-
3(.)SF4 65-125/0.75	3(.)PF 65-125	0.75	1	6.4	6	5.8	5.2	4.6	3.5	2.5	2.2	-	-	-	-	-	-	-	-	-	-
3(.)SF4 65-125/1.1	3(.)PF 65-125/L	1.1	1.5	7.7	7.2	7	6.3	5.7	4.5	3.5	3.2	2.8	-	-	-	-	-	-	-	-	-
3(.)SF4 65-160/1.1	3(.)PF 65-160/R	1.1	1.5	8.6	-	8.1	7.4	6.9	5.7	4.6	4.2	3.8	-	-	-	-	-	-	-	-	-
3(.)SF4 65-160/1.5	3(.)PF 65-160	1.5	2	9.7	-	9.2	8.5	8	6.7	5.7	5.3	4.9	4.5	-	-	-	-	-	-	-	-
3(.)SF4 65-160/2.2	3(.)PF4 65-160/L	2.2	3	11.8	-	11.3	10.6	10.1	8.8	7.6	7.2	6.8	6.4	5.5	-	-	-	-	-	-	-
3(.)SF4 65-200/2.2R	3(.)PF4 65-200/R	2.2	3	13	-	12.4	11.6	10.9	9.3	7.8	7.3	6.8	-	-	-	-	-	-	-	-	-
3(.)SF4 65-200/2.2	3(.)PF4 65-200	2.2	3	14.5	-	13.9	13	12.4	10.8	9.3	8.8	8.3	7.8	-	-	-	-	-	-	-	-
3(.)SF4 65-200/3	3(.)PF4 65-200/L	3	4	16.3	-	15.8	15.1	14.4	12.9	11.6	11.1	10.6	10.1	9	-	-	-	-	-	-	-
3LSF4 65-250/4	3LPF 65-250	4	5.5	18.8	-	-	18.1	17.6	16.1	14.7	14.2	13.7	13	11.6	9.8	-	-	-	-	-	-
3LSF4 65-250/5.5	3LPF 65-250/L	5.5	7.5	21.8	-	-	21.2	20.8	19.6	18.4	17.9	17.5	17	15.8	14.4	12.8	-	-	-	-	-
3LSF4 80-160/1.5	3LPF4 80-160/R	1.5	2	7.3	-	-	-	6.8	6.3	5.9	5.7	5.6	5.4	5	4.6	4.2	3.4	2.4	-	-	-
3LSF4 80-160/2.2R	3LPF4 80-160	2.2	3	8.6	-	-	-	8.1	7.8	7.4	7.3	7.1	7	6.7	6.4	6	5.2	4.2	3	-	-
3LSF4 80-160/2.2	3LPF4 80-160/L	2.2	3	9.5	-	-	-	9.1	8.8	8.4	8.3	8.2	8	7.8	7.4	7.1	6.2	5.2	4.1	-	-
3LSF4 80-200/3	3LPF 80-200/R	3	4	12.4	-	-	-	12	11.5	10.9	10.7	10.4	10.2	9.7	9.2	8.6	7.3	5.9	4.2	-	-
3LSF4 80-200/4R	3LPF 80-200	4	5.5	14.8	-	-	-	14.4	13.9	13.4	13.2	12.9	12.7	12.2	11.7	11.2	10.1	8.8	7.2	5.6	-
3LSF4 80-200/4	3LPF 80-200/L	4	5.5	16.0	-	-	-	15.4	14.9	14.3	14.1	13.9	13.7	13.2	12.8	12.3	11.1	9.9	8.4	6.7	-
3LSF4 80-250/5.5R	3LPF4 80-250/R	5.5	7.5	18.5	-	-	-	17.7	17	16.3	16	15.7	15.4	14.6	13.8	12.9	10.7	8.4	-	-	-
3LSF4 80-250/5.5	3LPF4 80-250	5.5	7.5	21.2	-	-	-	20.5	19.9	19.1	18.9	18.6	18.2	17.6	16.8	15.9	13.8	11.7	9.3	-	-
3LSF4 80-250/7.5	3LPF4 80-250/L	7.5	10	24.5	-	-	-	24	23.4	22.8	22.5	22.2	21.9	21.3	20.6	19.8	18	15.9	13.5	10.8	-

SELECTION CHART

50 Hz

Rev.F



PERFORMANCE CURVES

The specifications below qualify the curves shown on the following pages.

- ◆ Tolerances according to ISO 9906 Annex A
- ◆ The curves refer to effective speed of asynchronous motors at 50 Hz
- ◆ Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)
- ◆ The NPSH curve is an average curve obtained in the same conditions of performance curves. During the pump selection, consider to get a safety margin of at least 1 m.
- ◆ The continuous curves indicate the recommended working range. The dotted curve is only a guide.
- ◆ In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.
- ◆ Symbols explanation:

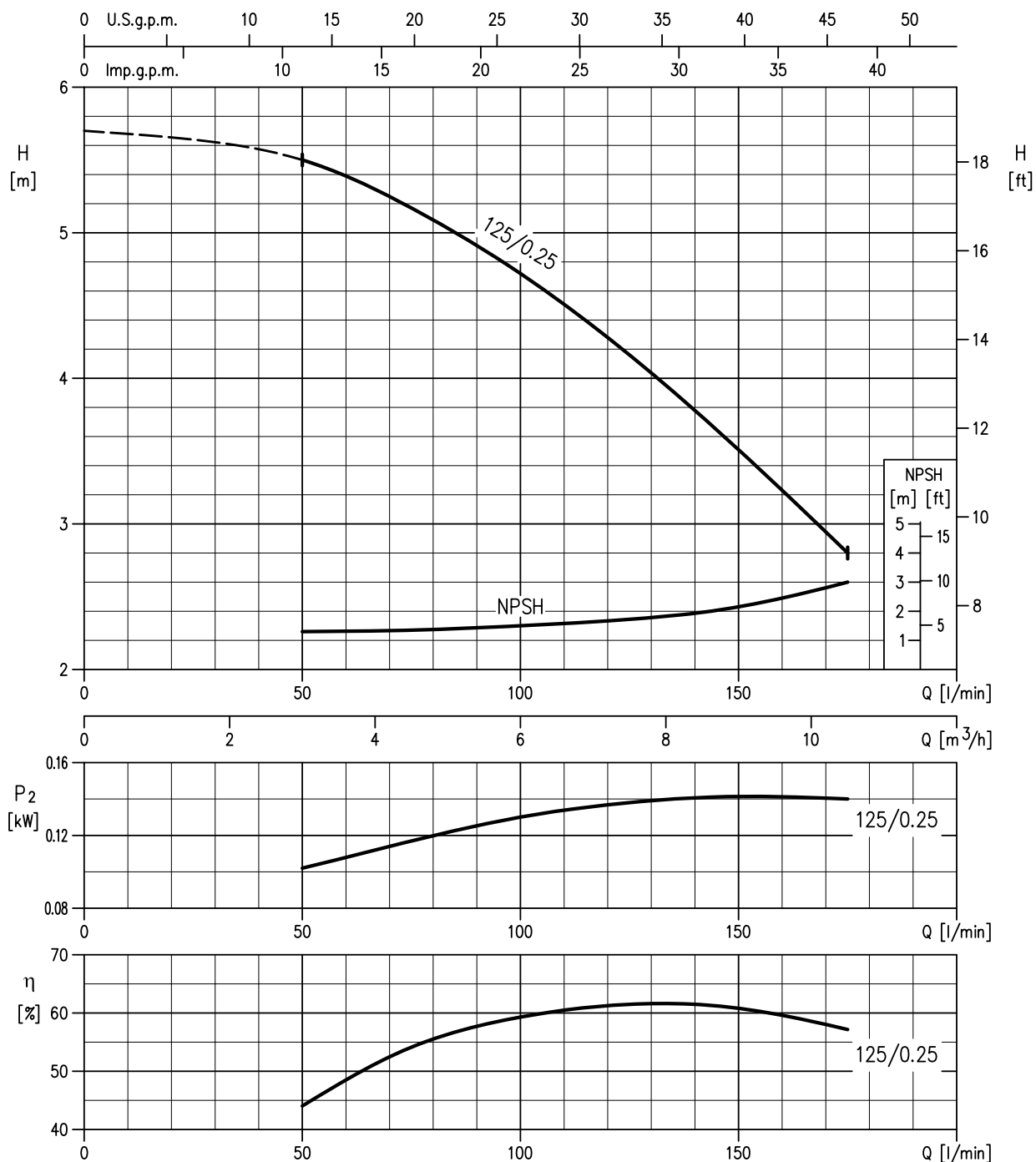
- Q = volume flow rate
- H = total head
- P_2 = pump power input (shaft power)
- η = pump efficiency
- NPSH = net positive suction head required by the pump

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 32-125/0.25 and 3(.)PF 32-125 (0.25kW) – impeller diameter = 133 mm



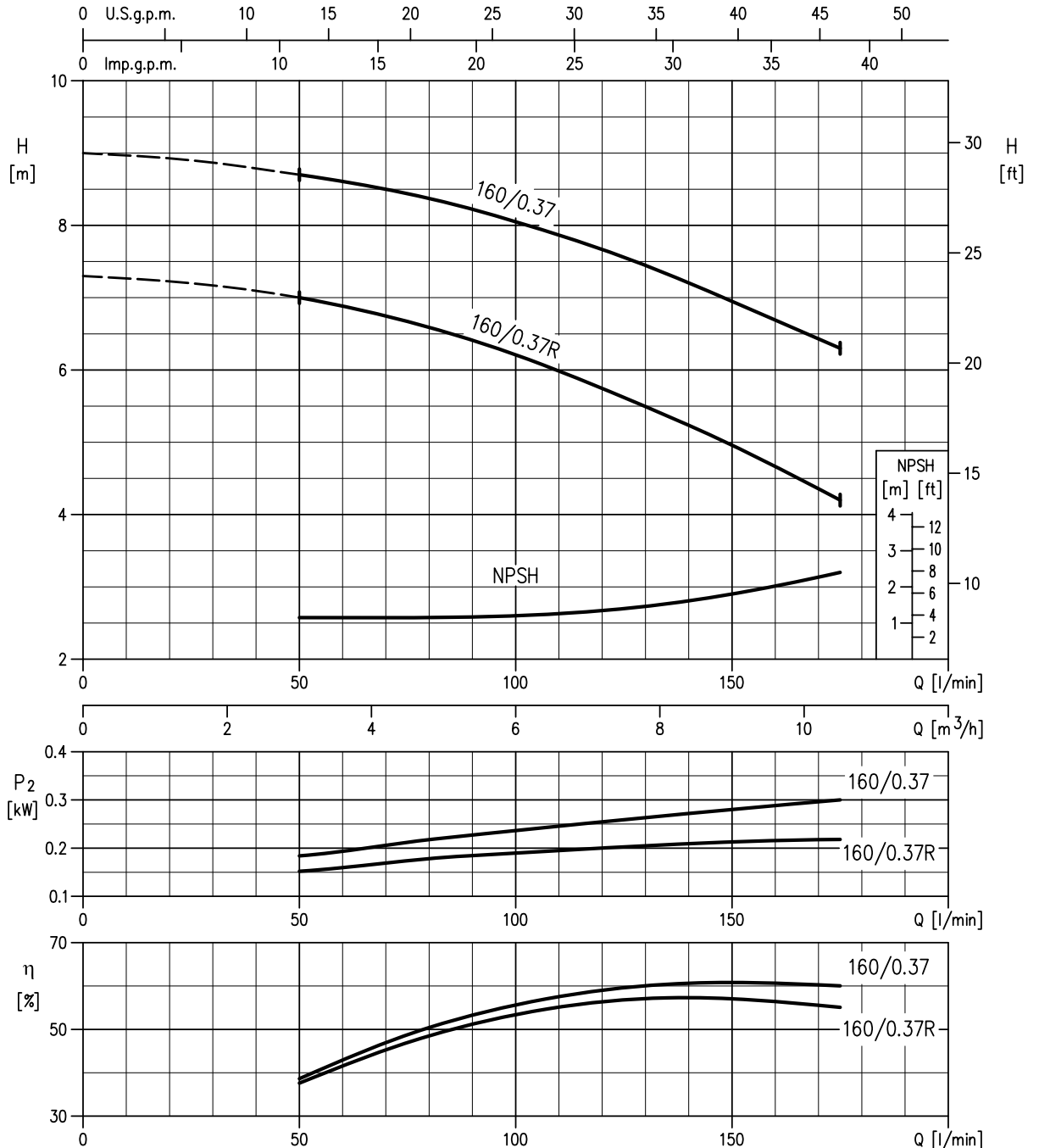
Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 32-160/0.37R and 3(.)PF 32-160/R (0.37kW) – impeller diameter = 151 mm
 3(.)SF4 32-160/0.37 and 3(.)PF 32-160 (0.37kW) – impeller diameter = 166 mm



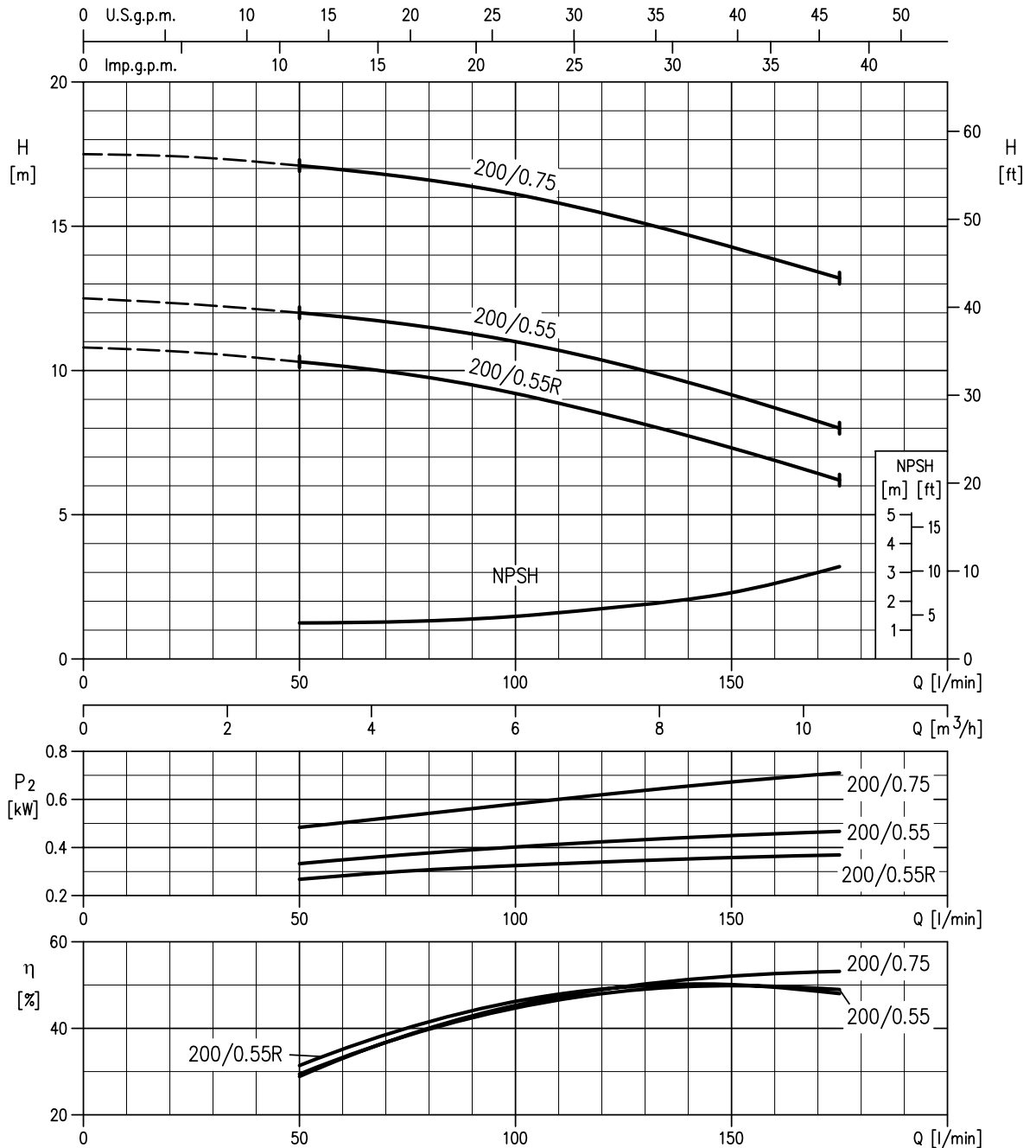
Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 32-200/0.55R and 3(.)PF 32-200/R (0.55kW) – impeller diameter = 186 mm
 3(.)SF4 32-200/0.55 and 3(.)PF 32-200 (0.55kW) – impeller diameter = 200 mm
 3(.)SF4 32-200/0.75 and 3(.)PF 32-200/L (0.75kW) – impeller diameter = 224 mm



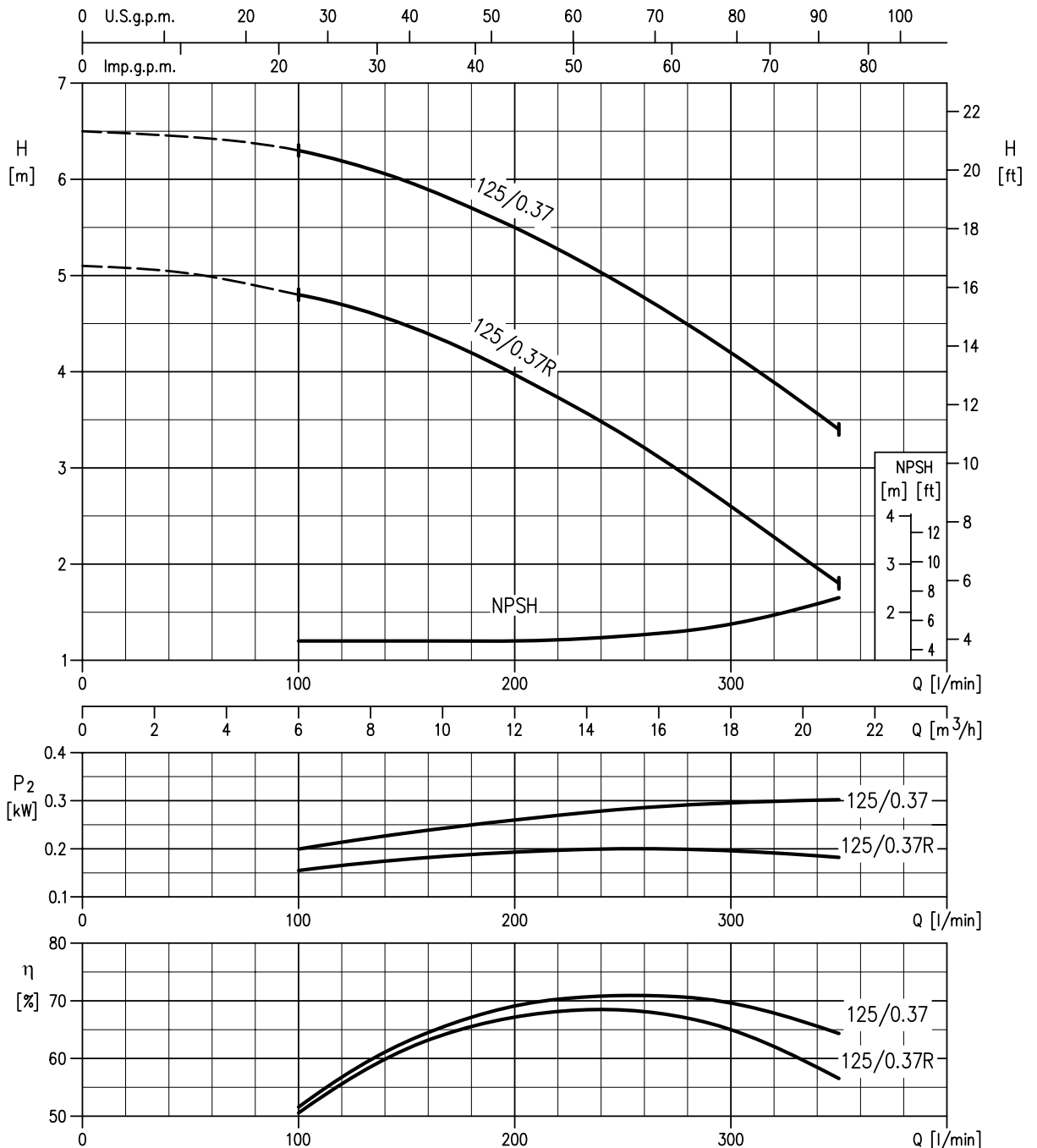
Rotation speed ≈ 1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 40-125/0.37R and 3(.)PF 40-125/R (0.37kW) – impeller diameter = 125 mm
 3(.)SF4 40-125/0.37 and 3(.)PF 40-125 (0.37kW) – impeller diameter = 140 mm



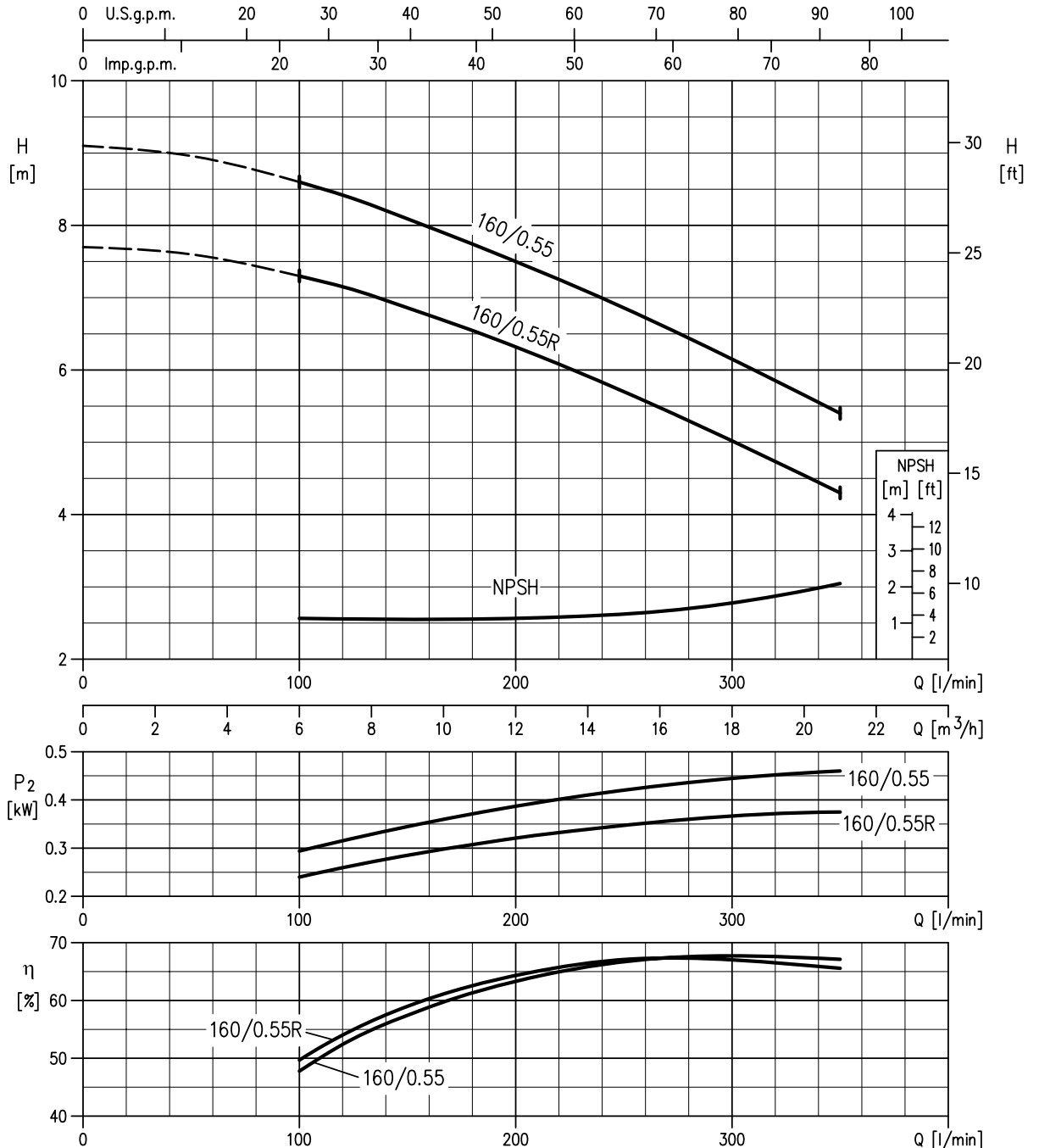
Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 40-160/0.55R and 3(.)PF 40-160/R (0.55kW) – impeller diameter = 151 mm
 3(.)SF4 40-160/0.55 and 3(.)PF 40-160 (0.55kW) – impeller diameter = 166 mm



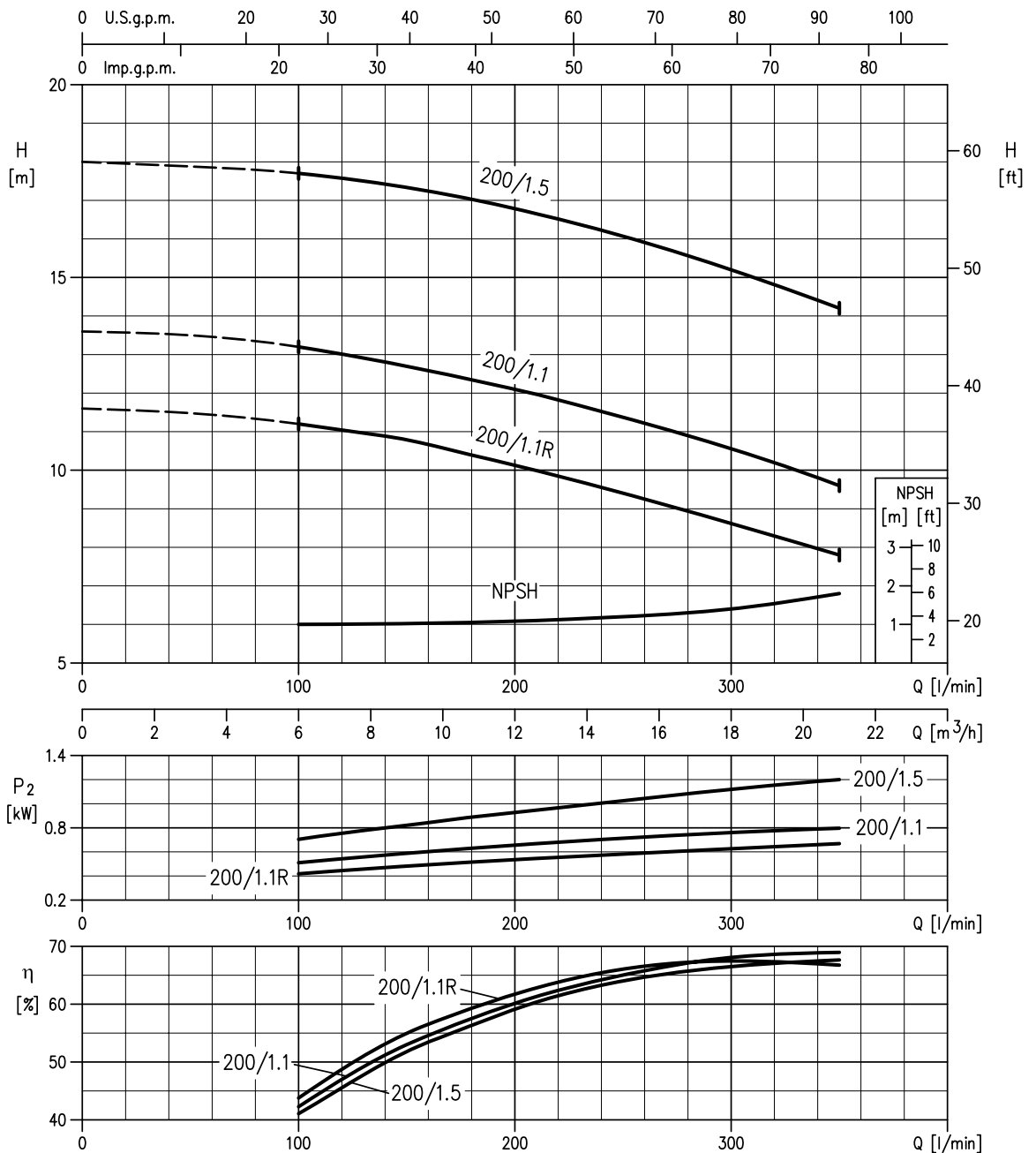
Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 40-200/1.1R and 3(.)PF 40-200/R (1.1kW) – impeller diameter = 183 mm
 3(.)SF4 40-200/1.1 and 3(.)PF 40-200 (1.1kW) – impeller diameter = 200 mm
 3(.)SF4 40-200/1.5 and 3(.)PF 40-200/L (1.5kW) – impeller diameter = 224 mm



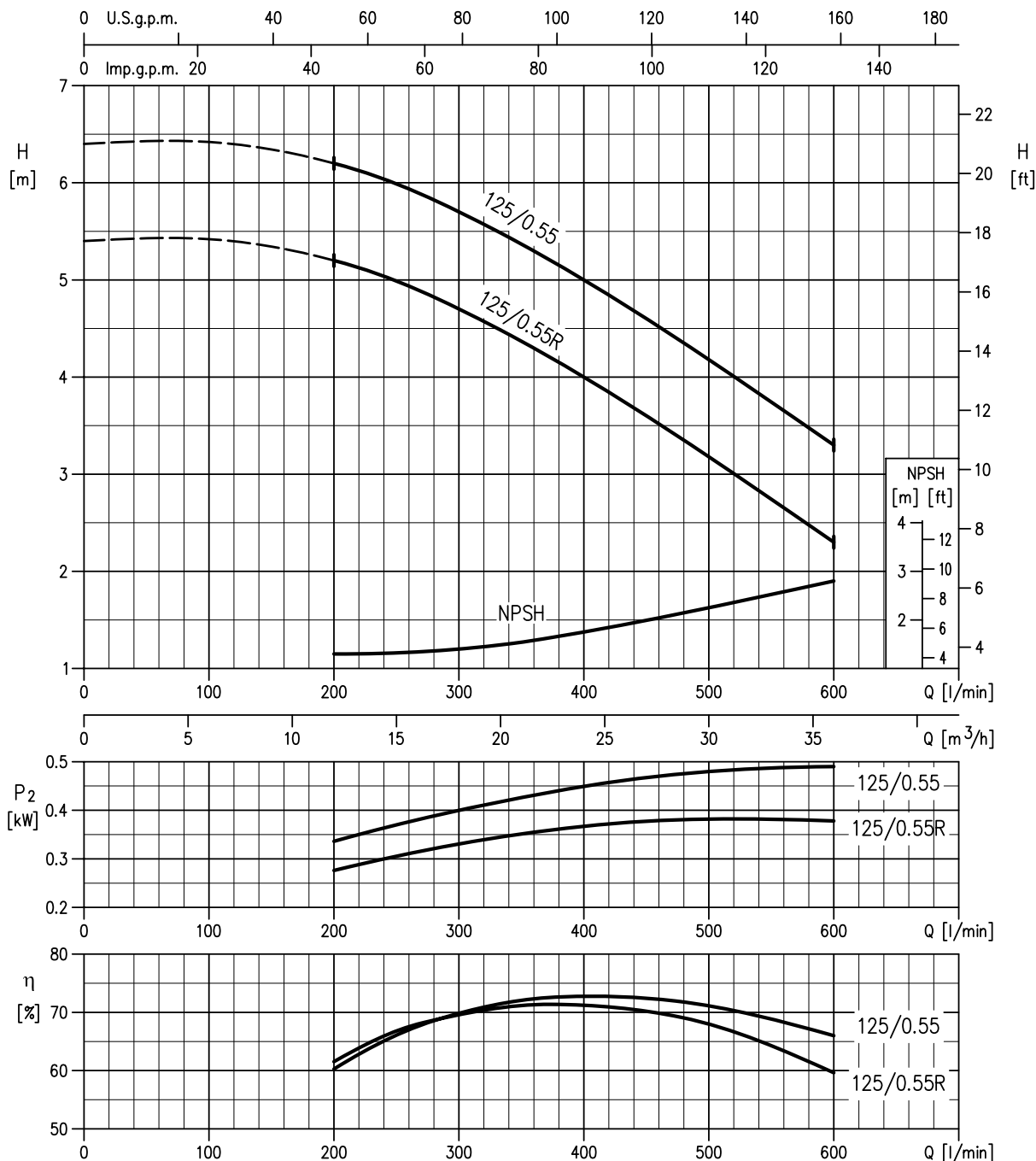
Rotation speed ≈ 1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 50-125/0.55R and 3(.)PF 50-125/R (0.55kW) – impeller diameter = 131 mm
 3(.)SF4 50-125/0.55 and 3(.)PF 50-125 (0.55kW) – impeller diameter = 140 mm



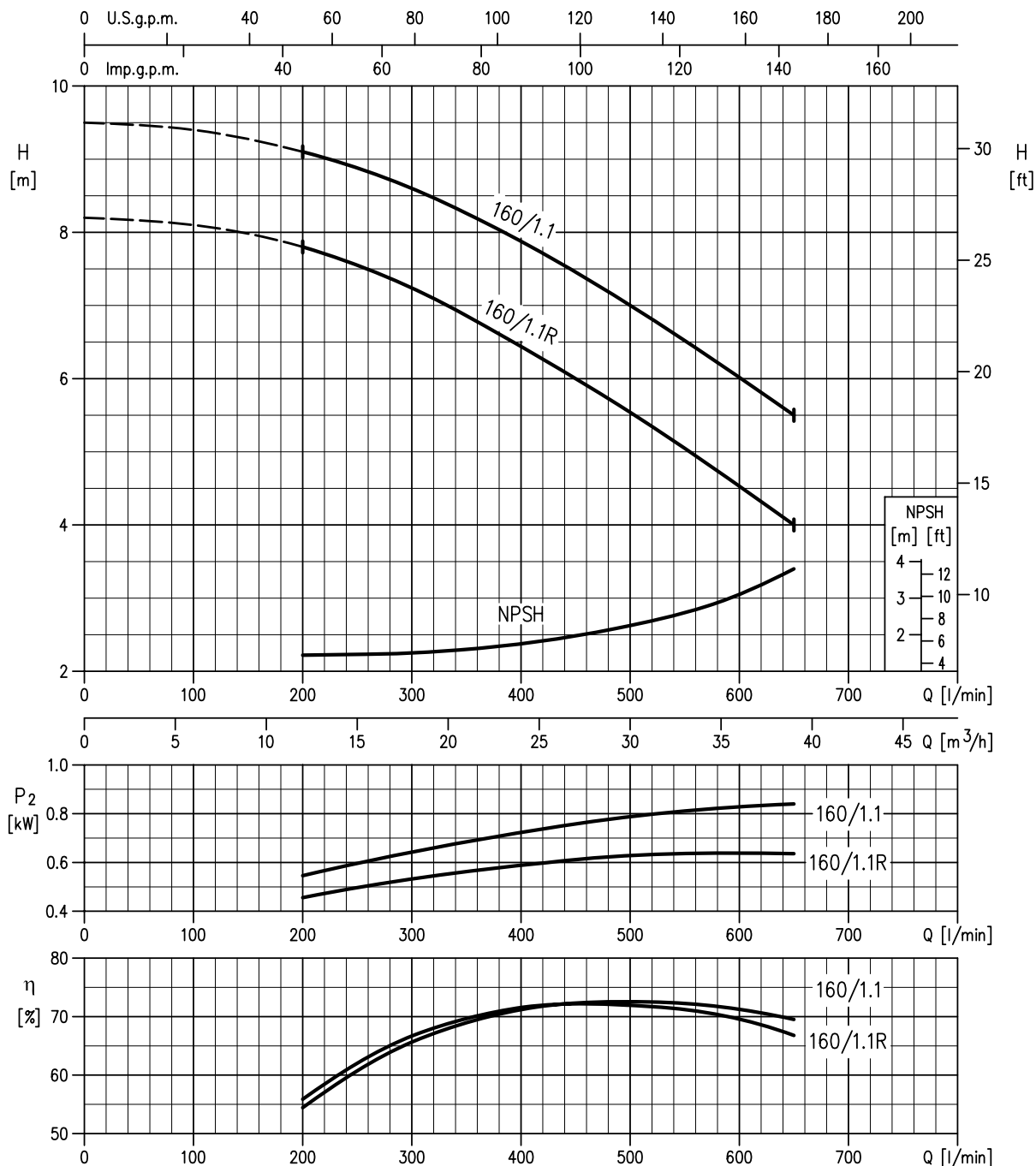
Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 50-160/1.1R and 3(.)PF 50-160/R (1.1kW) – impeller diameter = 154 mm
 3(.)SF4 50-160/1.1 and 3(.)PF 50-160 (1.1kW) – impeller diameter = 166 mm



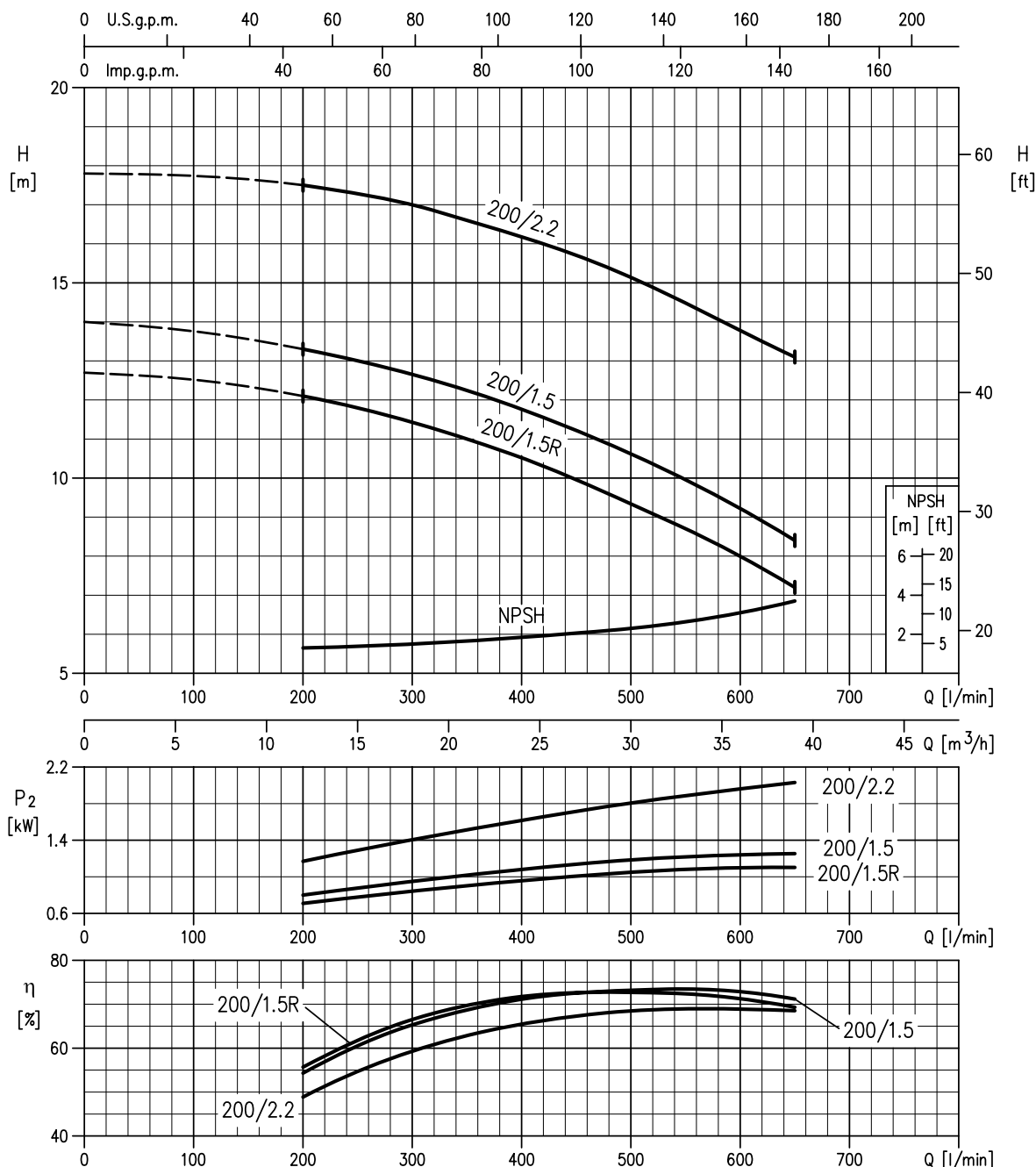
Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 50-200/1.5R and 3(.)PF 50-200/R (1.5kW) – impeller diameter = 191 mm
 3(.)SF4 50-200/1.5 and 3(.)PF 50-200 (1.5kW) – impeller diameter = 200 mm
 3(.)SF4 50-200/2.2 and 3(.)PF 50-200/L (2.2kW) – impeller diameter = 224 mm



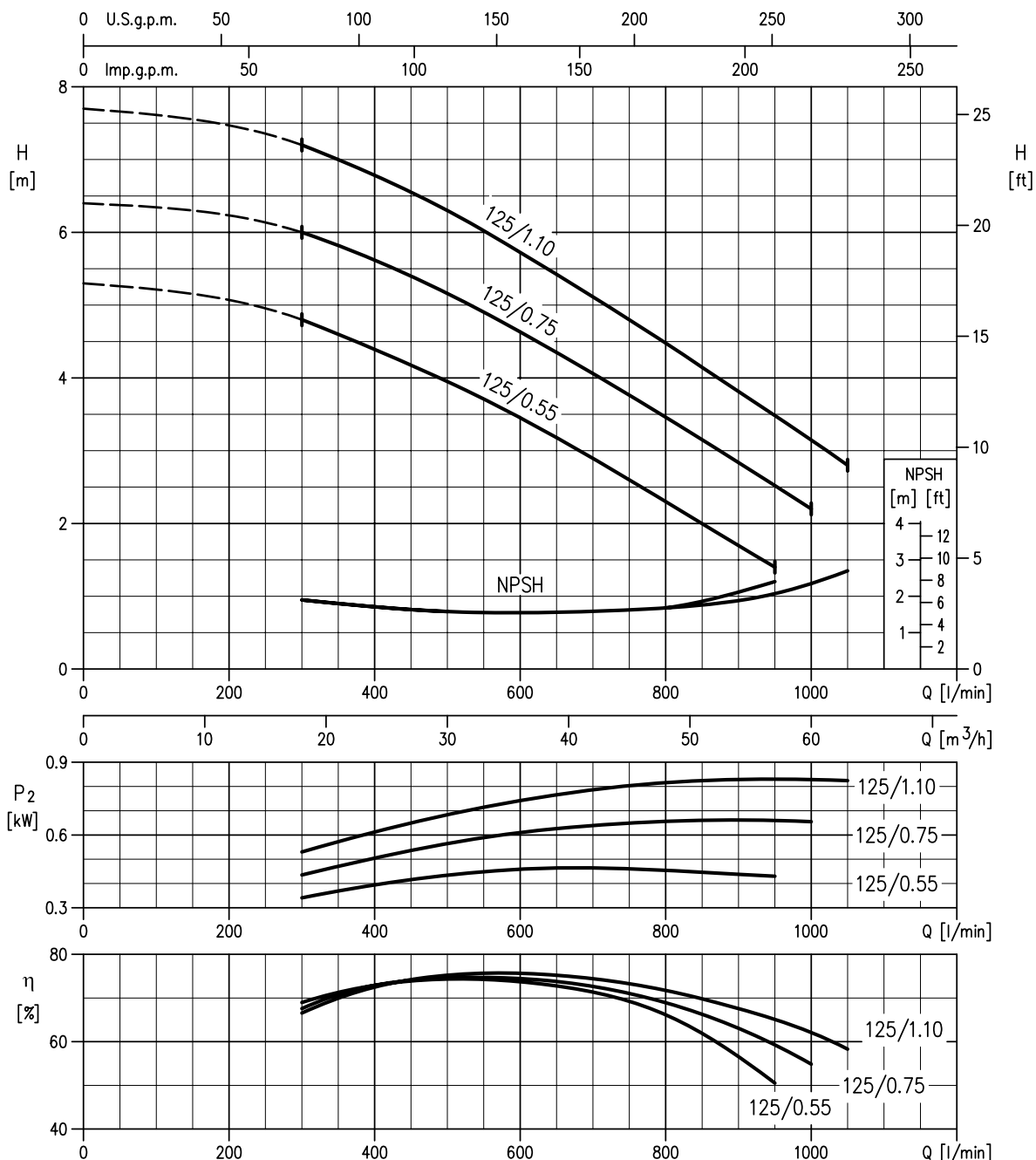
Rotation speed ≈ 1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 65-125/0.55 and 3(.)PF 65-125/R (0.55kW) – impeller diameter = 128 mm
 3(.)SF4 65-125/0.75 and 3(.)PF 65-125 (0.75kW) – impeller diameter = 138 mm
 3(.)SF4 65-125/1.1 and 3(.)PF 65-125/L (1.10kW) – impeller diameter = 149 mm



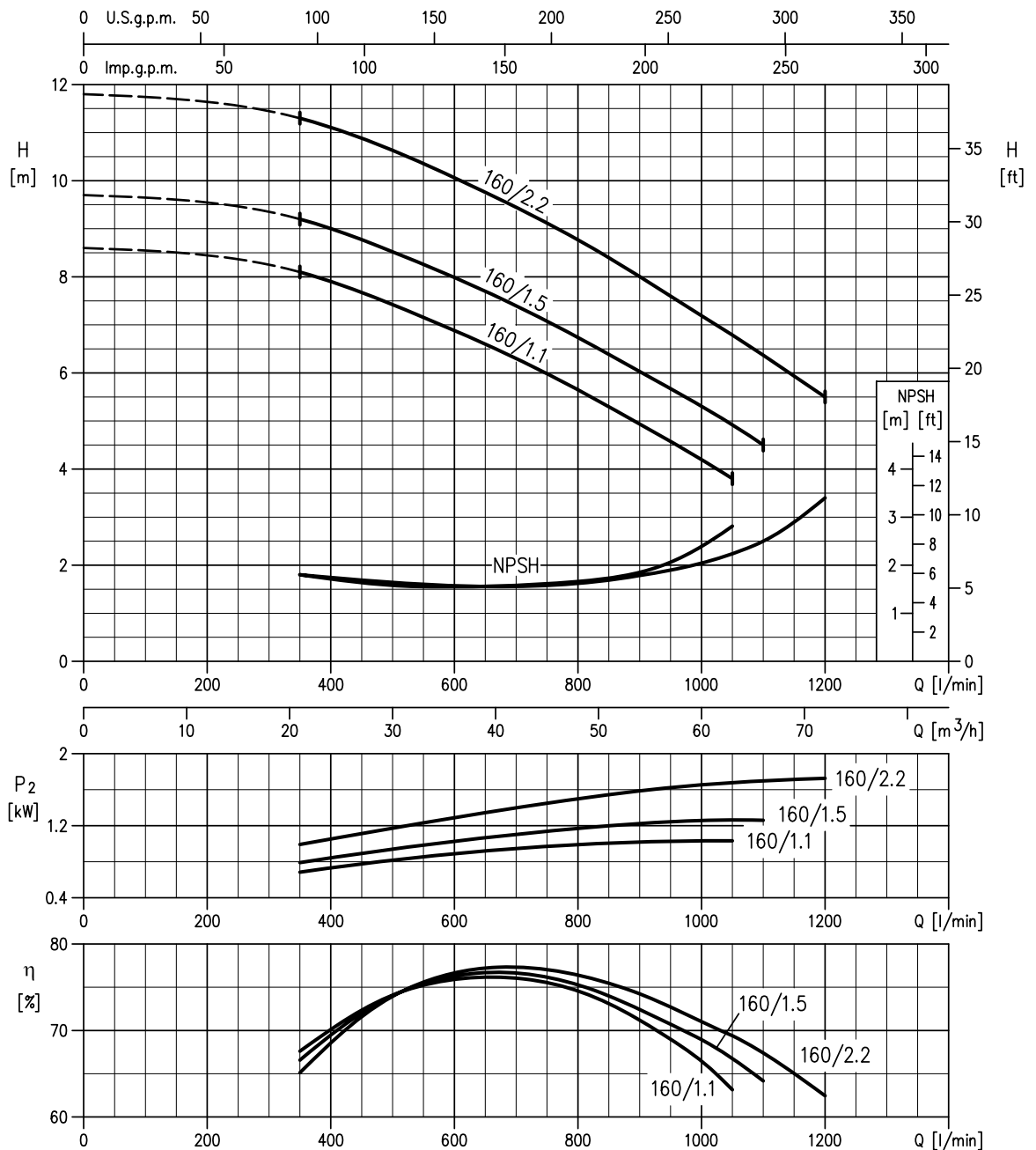
Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 65-160/1.1 and 3(.)PF 65-160/R (1.1kW) – impeller diameter = 161 mm
 3(.)SF4 65-160/1.5 and 3(.)PF 65-160 (1.5kW) – impeller diameter = 168 mm
 3(.)SF4 65-160/2.2 and 3(.)PF4 65-160/L (2.2kW) – impeller diameter = 178 mm



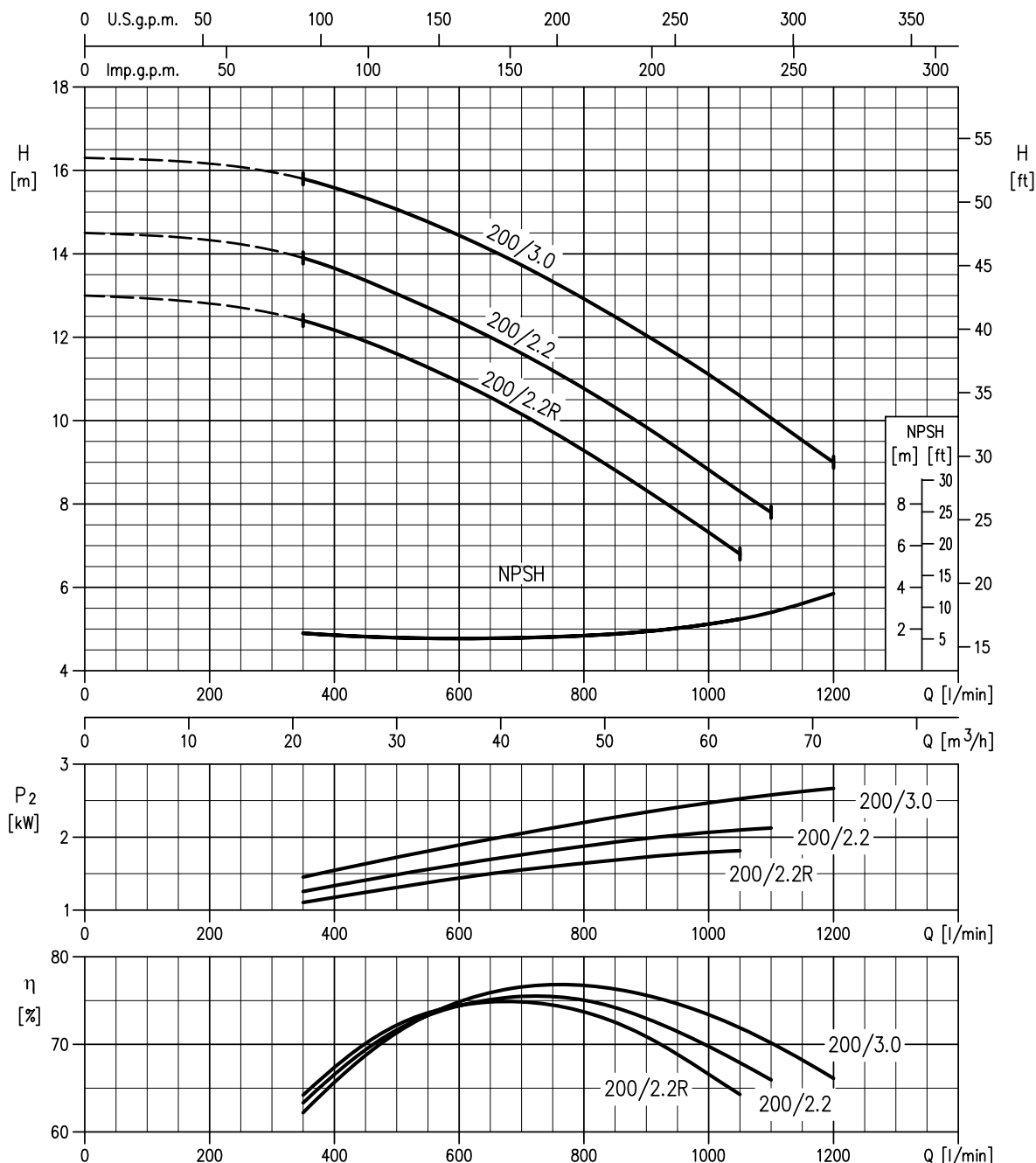
Rotation speed ≈ 1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3(.)SF4 65-200/2.2R and 3(.)PF4 65-200/R (2.2kW) – impeller diameter = 190 mm
 3(.)SF4 65-200/2.2 and 3(.)PF4 65-200 (2.2kW) – impeller diameter = 201 mm
 3(.)SF4 65-200/3 and 3(.)PF4 65-200/L (3.0kW) – impeller diameter = 212 mm



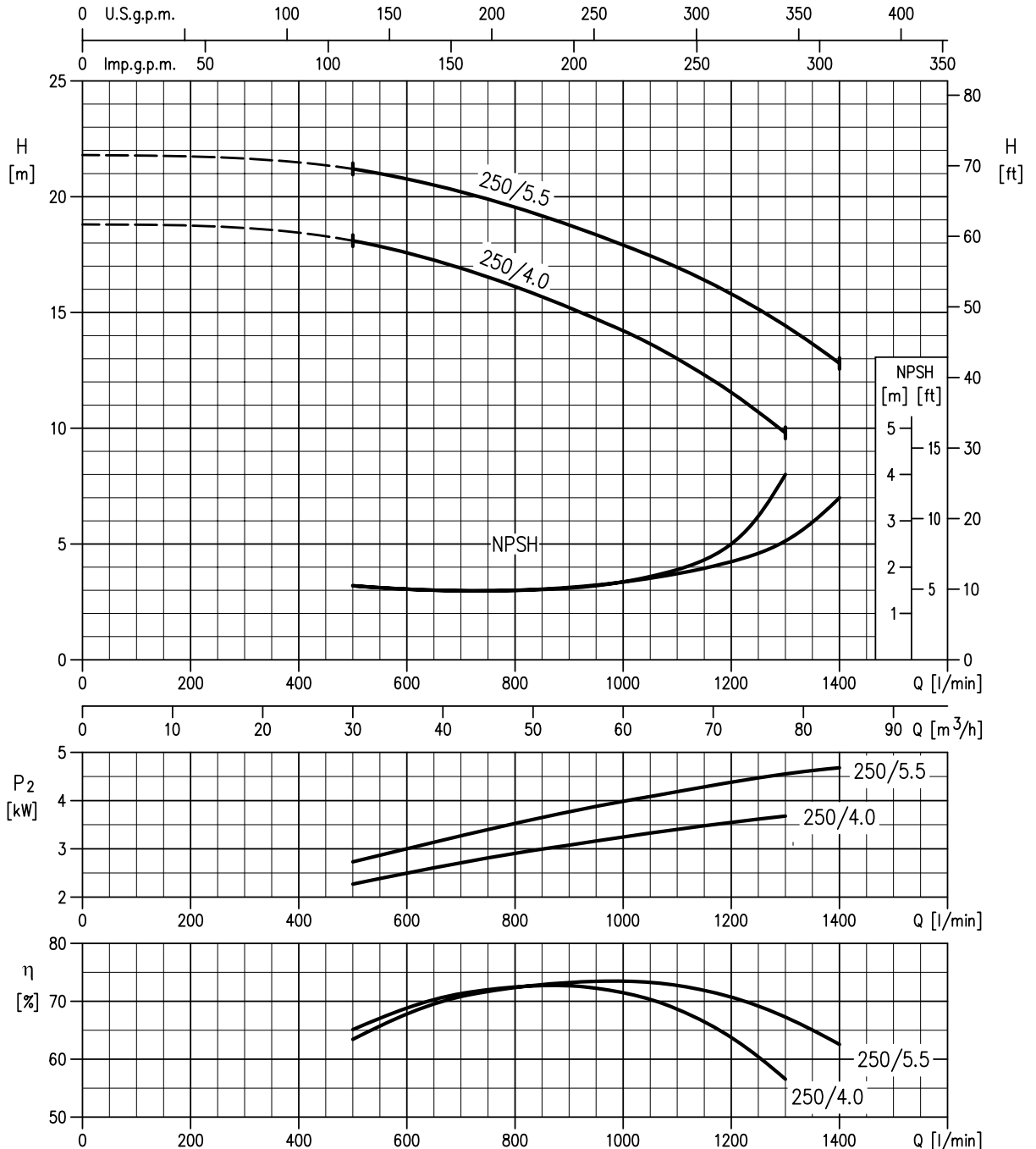
Rotation speed ≈ 1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3LSF4 65-250/4 and 3LPF 65-250 (4.0kW) – impeller diameter = 235 mm
 3LSF4 65-250/5.5 and 3LPF 65-250/L (5.5kW) – impeller diameter = 250 mm



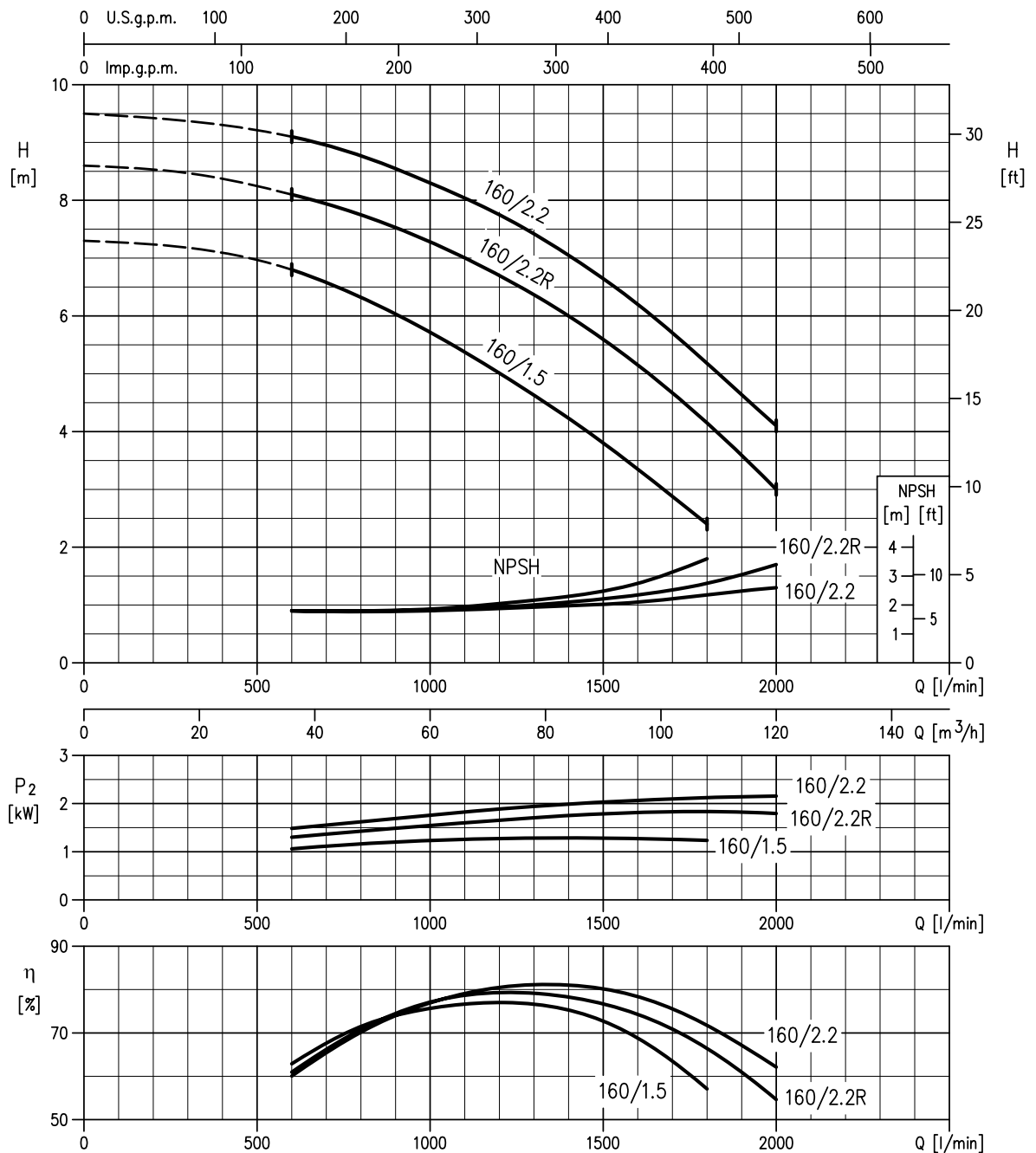
Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3LSF4 80-160/1.5 and 3LPF4 80-160/R (1.5kW) – impeller diameter = 156 mm
 3LSF4 80-160/2.2R and 3LPF4 80-160 (2.2kW) – impeller diameter = 165 mm
 3LSF4 80-160/2.2 and 3LPF4 80-160/L (2.2kW) – impeller diameter = 174 mm



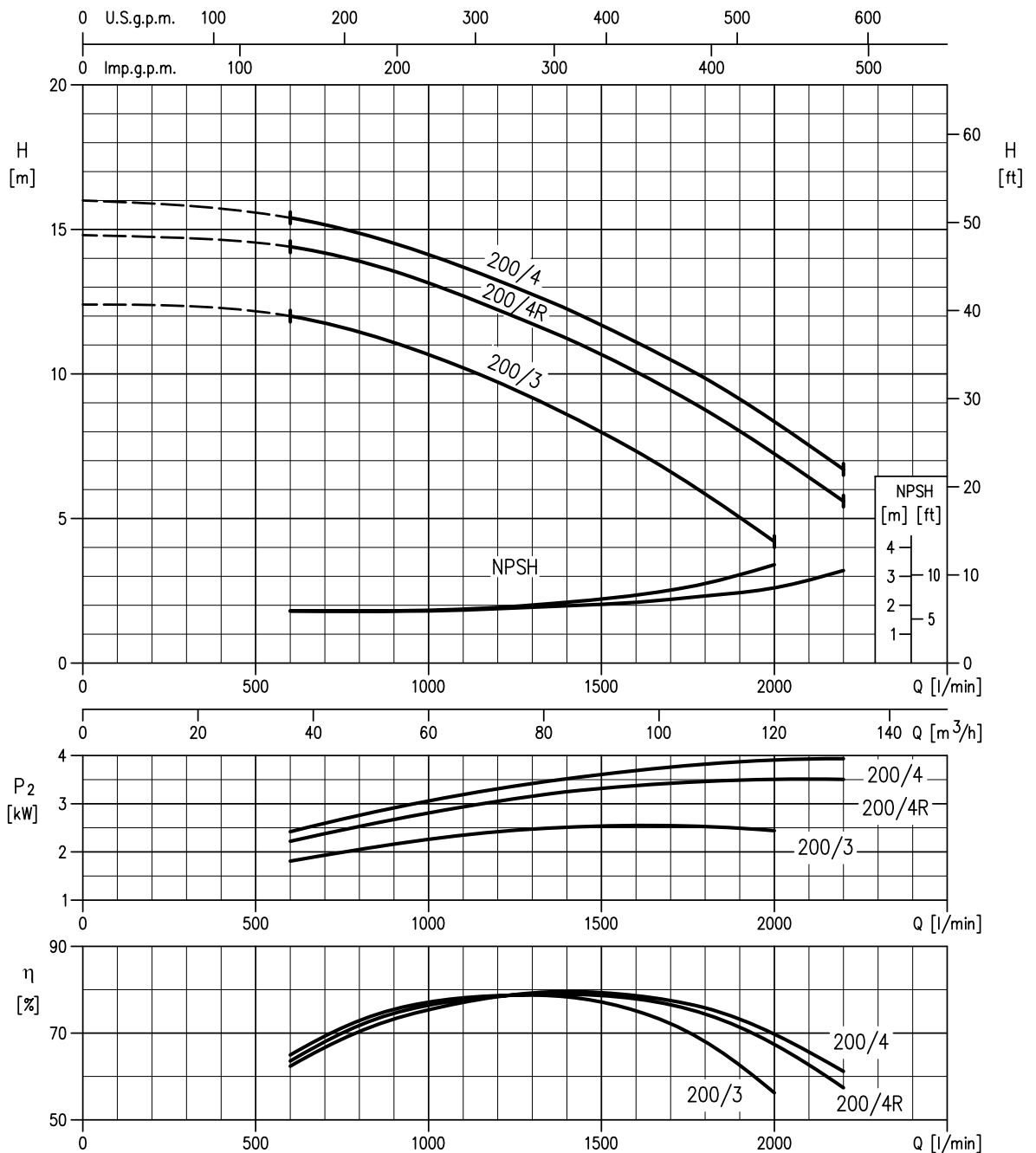
Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50 Hz

Rev.F

3LSF4 80-200/3 and **3LPF 80-200/R** (3.0kW) – impeller diameter = 196 mm
3LSF4 80-200/4R and **3LPF 80-200** (4.0kW) – impeller diameter = 211 mm
3LSF4 80-200/4 and **3LPF 80-200/L** (4.0kW) – impeller diameter = 219 mm



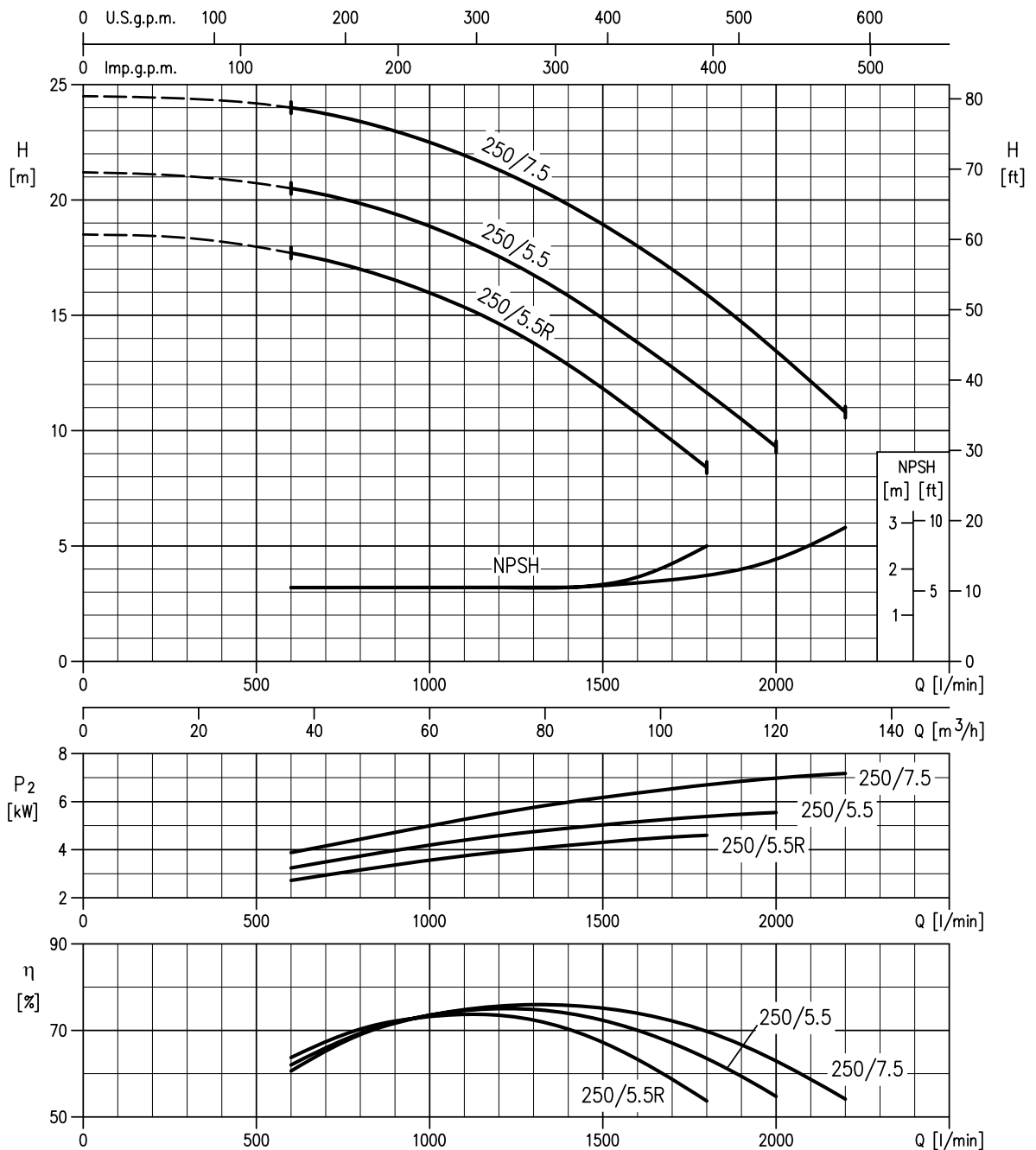
Rotation speed ≈ 1400 min⁻¹
 Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

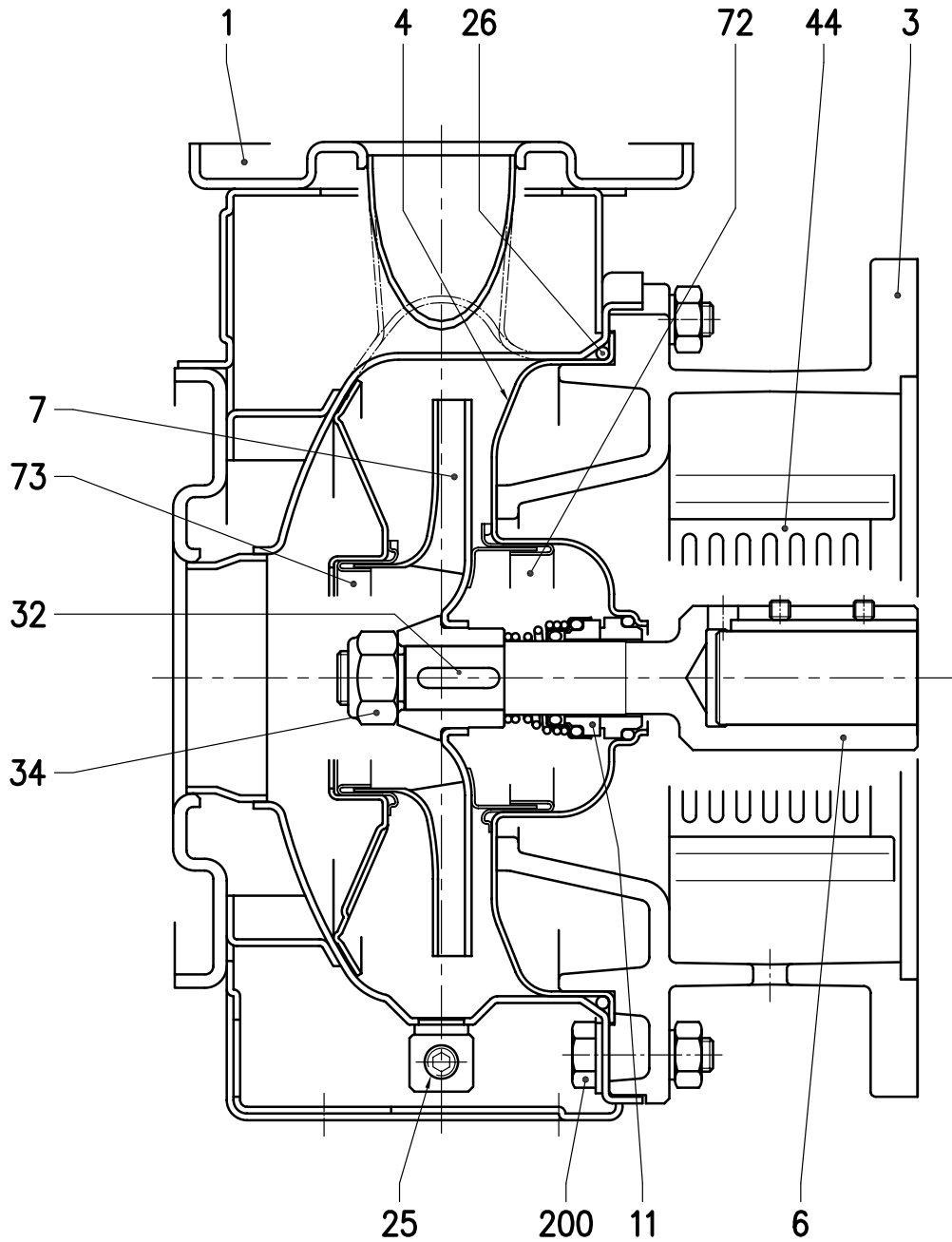
50 Hz

Rev.F

3LSF4 80-250/5.5R and 3LPF4 80-250/R (5.5kW) – impeller diameter = 230 mm
 3LSF4 80-250/5.5 and 3LPF4 80-250 (5.5kW) – impeller diameter = 246 mm
 3LSF4 80-250/7.5 and 3LPF4 80-250/L (7.5kW) – impeller diameter = 263 mm



Rotation speed ≈1400 min⁻¹
 Test standard : ISO 9906 Annex A



N°	PART NAME	MATERIAL		DIMENSIONS	STANDARD	N. FOR 1 UNIT
		3SF4	3LSF4			
001	Casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
003	Motor bracket	Cast iron EN-GJL-200-EN 1561				1
004	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
006	Coupling - Part in contact with liquid	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	See table p. 318		1
007	Impeller 32, 40, 50 65-125/160/200	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
		EN 1.4401 (AISI 316)				
011	Mechanical seal	Carbon/Ceramic/NBR Carbon/Ceramic/FPM (H option) SiC/SiC/FPM (HS option)	SiC/SiC/FPM	See p. 313÷317		1
025	Draining plug	EN 1.4401 (AISI 316) / PTFE		R 1/8" L=8	DIN 906	1
026	"O" ring 32-125, 40-125 32-160, 40-160, 50-125, 65-125 32-200, 40-200, 50-160, 50-200, 65-160, 65-200	NBR FPM (version H and HS)	FPM	158.11x5.34	OR 6625	1
				183.52x5.34	OR 6720	
				227.96x5.34	OR 6895	
032	Key	EN 1.4401 (AISI 316)		6x6x25	UNI 6604	1
034	Impeller nut Other model 50-200/2.2	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
				M18x1.5		
044	Protection	EN 1.4301 (AISI 304)			EBARA DRAWING	2
072	Casing ring (not for 65 version) [1]	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
073	Casing ring (not for 65 version)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
200	Screw 32-125, 40-125 40-160, 40-200, 50-125, 50-160, 50-200, 65-125, 65-160, 65-200	Stainless steel A2 70 class ISO 3506/1		M 8x30	UNI 5739	8
				M 10x35	UNI 5739	[2]

Counterflange kit on request see p. 319-320

[1] Only for version 32-200, 40-200, 50-160, 50-200

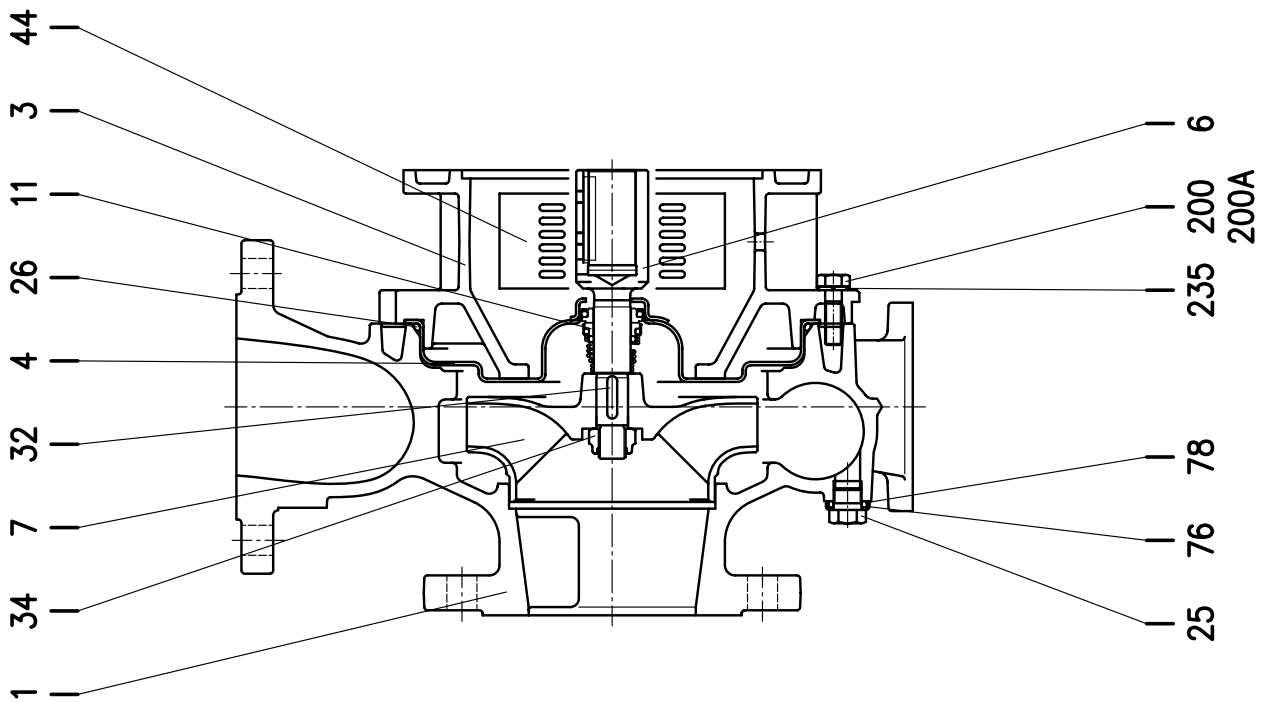
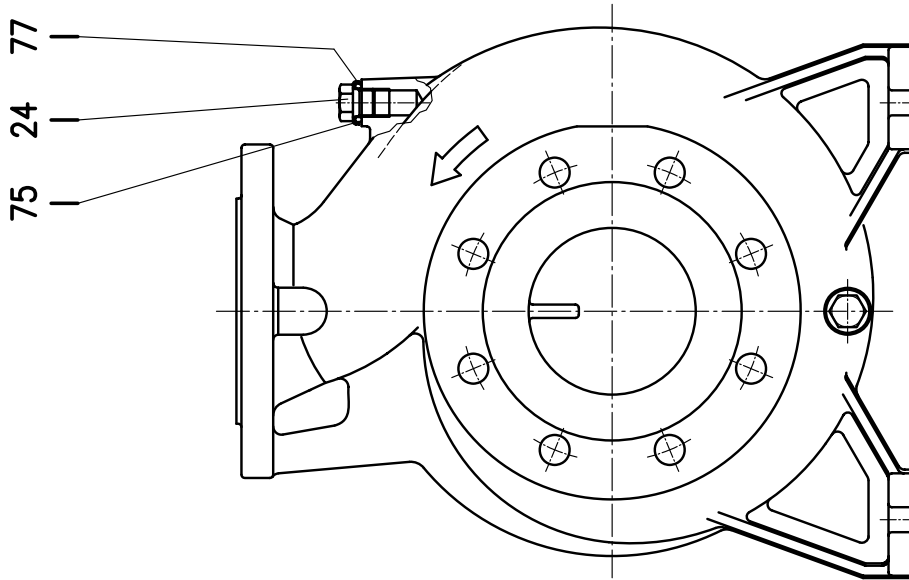
[2] N° for 1 unit=10 for 32-160, 40-160, 50-125, 65-125

N° for 1 unit=12 for 32-200, 40-200, 50-160, 50-200, 65-160, 65-200

CONSTRUCTIONS **3LSF4 80-160**

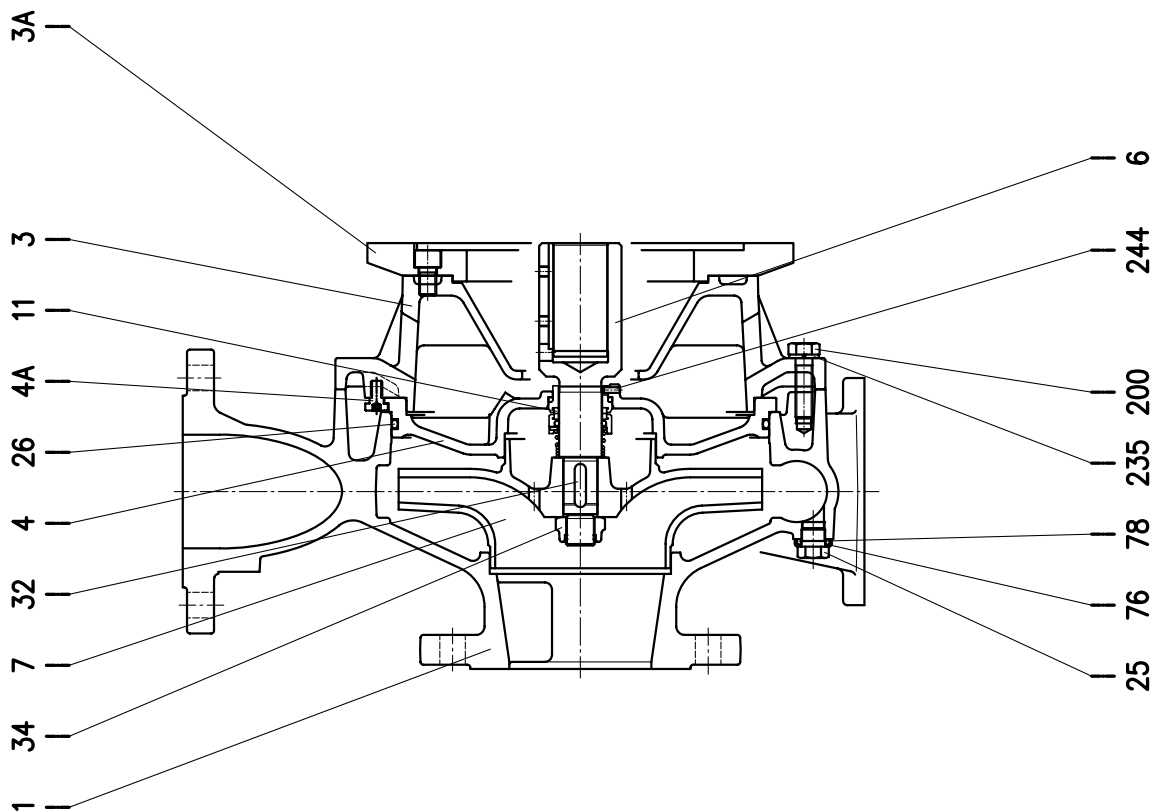
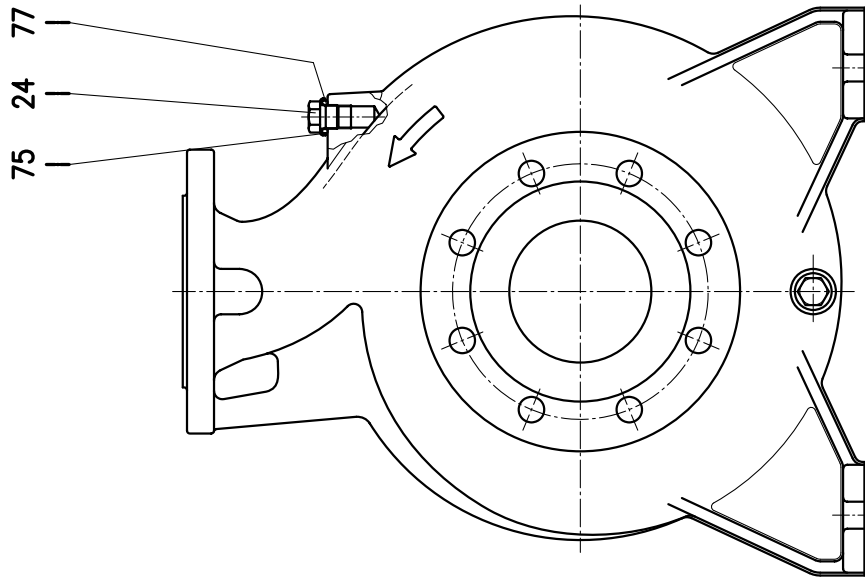
50 Hz

Rev.F



N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	N. FOR 1 UNIT
001	Casing	EN 1.4401 (AISI 316)			1
003	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
004	Casing cover	EN 1.4404 (AISI 316L)			1
006	Coupling	EN 1.4404 (AISI 316L)	See table p. 318		1
007	Impeller	EN 1.4401 (AISI 316)			1
011	Mechanical seal	SiC/SiC/FPM Ceramic/Carbon/FPM (H option) SiC/Carbon/EPDM (E option)	See p. 313-317		1
024	Plug	EN 1.4404 (AISI 316L)	G3/8	EPE DRAWING	1
025	Plug		G3/8	EPE DRAWING	1
026	"O" ring	FPM EPDM (E option)	227.96x5.34	OR 6895	1
032	Key	EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
034	Impeller nut	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
044	Protection	EN 1.4301 (AISI 304)		EPE DRAWING	2
075	Washer (plug)	EN 1.4404 (AISI 316L)			1
076	Washer (plug)				1
077	O-ring (plug)	FPM EPDM (E option)			1
078	O-ring (plug)				1
200	Screw	Stainless steel A2-70 class ISO 3506/1	M 10x35	UNI 5739	10
200A	Screw		M 10x30		2
235	Washer	EN 1.4301(AISI 304)	10.5	UNI 8842	12

Counterflange kit on request, see table p. 319-320

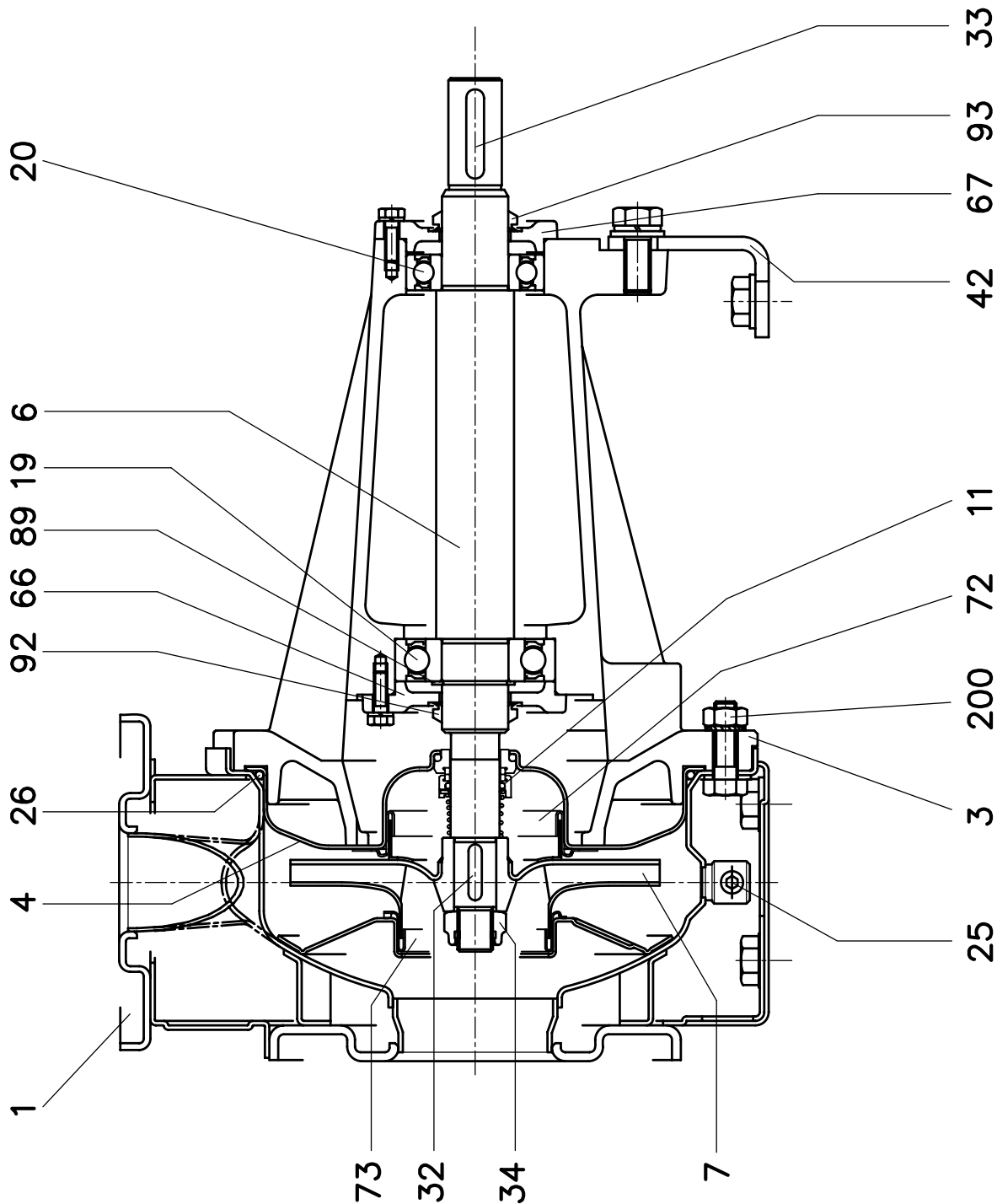


N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	N. FOR 1 UNIT
001	Casing	EN 1.4401 (AISI 316)			1
003	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
003A	Adapter ring [1]	Cast iron EN-GJL-200-EN 1561			1
004	Casing cover	EN 1.4401 (AISI 316)			1
004A	Screw for casing cover	EN 1.4301(AISI 304)			2
006	Coupling	EN 1.4404 (AISI 316L)	See table p. 318		1
007	Impeller	EN 1.4401 (AISI 316)			1
011	Mechanical seal	SiC/SiC/FPM Ceramic/Carbon/FPM (H option) SiC/Carbon/EPDM (E option)	See p. 313-317		1
024	Plug	EN 1.4404 (AISI 316L)	G3/8	EPE DRAWING	1
025	Plug		G3/8	EPE DRAWING	1
026	"O" ring	FPM EPDM (E version)	253.36x5.34	OR 6995	1
032	Key	EN 1.4401 (AISI 316)	8x7x30	UNI 6604	1
034	Impeller nut	EN 1.4404 (AISI 316L)	M20x1.5	UNI 7474	1
075	Washer (plug)	EN 1.4404 (AISI 316L)			1
076	Washer (plug)				
077	O-ring (plug)	FPM			1
078	O-ring (plug)	EPDM (E version)			1
200	Screw	Stainless steel A2-70 class ISO 3506/1	M 12x45	UNI 5739	10
235	Washer	EN 1.4301(AISI 304)	13	UNI 8842	10
244	Pin [2]	EN 1.4301(AISI 304)	4x12		1

Counterflange kit on request, see table p. 319-320

[1] Only for 65-250/5.5kW

[2] Not for H and E option



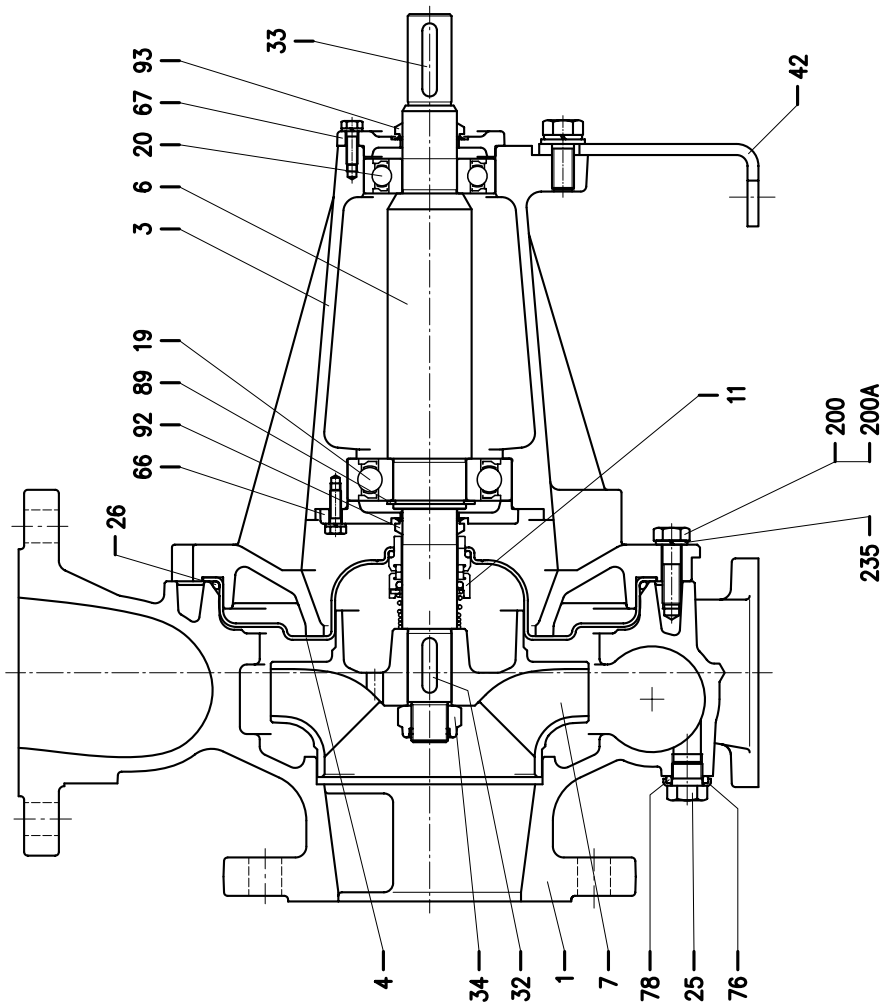
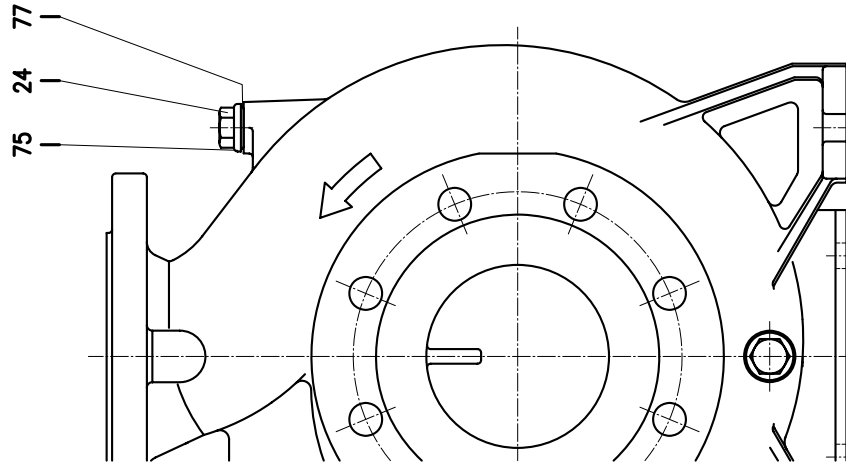
N°	PART NAME		MATERIAL		DIMENSIONS	STANDARD	N. FOR 1 UNIT
			3PF(4)	3LPF(4)			
001	Casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
003	Support		Cast iron EN-GJL-200-EN 1561				1
004	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
006	Shaft - Part in contact with liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
007	Impeller	32-40-50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
		65-125/160/200	EN 1.4401 (AISI 316)				
011	Mechanical seal		Carbon/Ceramic/NBR Carbon/Ceramic/FPM (H option) SiC/SiC/FPM (HS option)	SiC/SiC/FPM	See p. 313-317		1
019	Bearing		-		See table p. 312		1
020	Bearing		-		See table p. 312		1
025	Draing plug		EN 1.4401 (AISI 316) / PTFE		R 1/8" L=8	DIN 906	1
026	"O" ring	32-125, 40-125	NBR FPM (version H and HS)	FPM	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, 50-200, 65-160, 65-200			227.96x5.34	OR 6895	
032	Key		EN 1.4401 (AISI 316)		6x6x25	UNI 6604	1
033	Key		C 40		8x7x40	UNI 6604	1
034	Impeller nut	Other model	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
		50-200/2.2			M18x1.5		
042	Pump support		Zinc-coated steel			EBARA DRAWING	1
066	Impeller side bearing cover		Cast iron EN-GJL-200-EN 1561				1
067	Motor side bearing cover		Cast iron EN-GJL-200-EN 1561				1
072	Casing ring (not for 65 version) [1]		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
073	Casing ring (not for 65 version)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
089	Snap ring	32-125, 32-160, 40-125, 50-125	Carbon tool steel TC 80		Ø30	UNI 7435	1
		Other model			Ø40		
092	"V" ring		-		VS - 0030		1
093	"V" ring		-		VS - 0030		1
200	Screw	32-125, 40-125	Stainless steel A2 70 class ISO 3506/1		M 8x30	UNI 5739	8
		40-160, 40-200, 50-125, 50-160, 50-200, 65-125, 65-160, 65-200			M 10x35	UNI 5739	[2]

Counterflange kit on request see p. 319-320

[1] For version: 32-200, 40-200, 50-160, 50-200

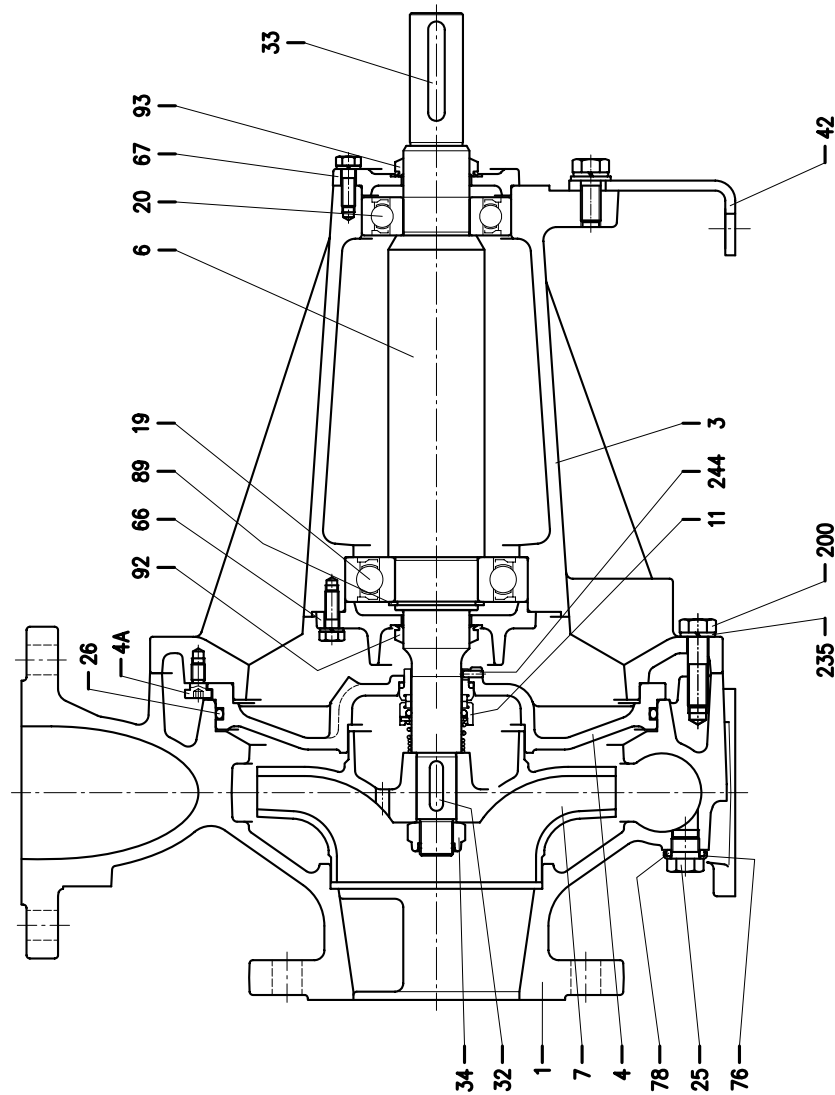
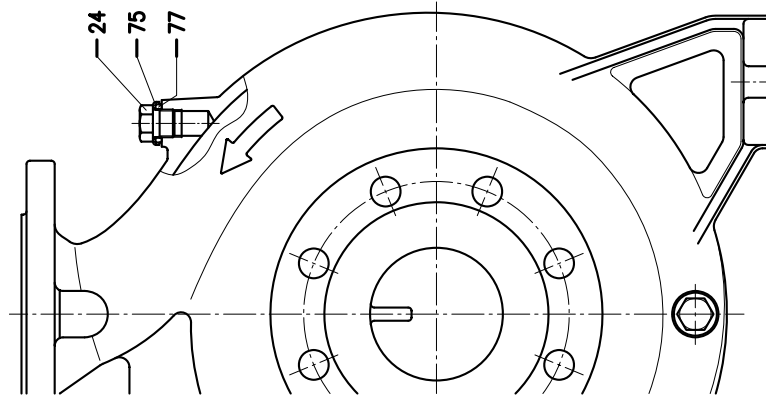
[2] N° for 1 unit=10 for 32-160, 40-160, 50-125, 65-125

N° for 1 unit=12 for 32-200, 40-200, 50-160, 50-200, 65-160, 65-200



N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	N. FOR 1 UNIT
001	Casing	EN 1.4401 (AISI316)			1
003	Support	Cast iron EN-GJL-200-EN 1561			1
004	Casing cover	EN 1.4404 (AISI316L)			1
006	Shaft	EN 1.4404 (AISI316L)-Part in contact with liquid			1
007	Impeller	EN 1.4401 (AISI316)			1
011	Mechanical seal	SiC/SiC/FPM Ceramic/Carbon/FPM (H option) SiC/Carbon/EPDM (E option)	See p. 313-317		1
019	Bearing	-	See table p. 312		1
020	Bearing	-	See table p. 312		1
024	Plug	EN 1.4404 (AISI316L)	G3/8	EPE DRAWING	1
025	Plug		G3/8	EPE DRAWING	1
026	"O" ring	FPM EPDM (E option)	227.96x5.34	OR 6895	1
032	Key	EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
033	Key	C 40	8x7x40		1
034	Impeller nut	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
042	Pump support	Zinc-coated steel		EPE DRAWING	1
066	Impeller side bearing cover	Cast iron EN-GJL-200-EN 1561			1
067	Motor side bearing cover	Cast iron EN-GJL-200-EN 1561			1
075	Washer (plug)	EN 1.4404 (AISI 316L)			1
076	Washer (plug)				1
077	O-ring (plug)	FPM			1
078	O-ring (plug)	EPDM (E option)			1
089	Snap ring	Carbon tool steels TC 80	Ø 40	UNI 7435	1
092	"V" ring	-	VS-0030		1
093	"V" ring	-			1
200	Screw	Stainless steel A2 70 class ISO 3506/1	M 10x35	UNI 5739	10
200A	Screw		M 10x30		2
235	Washer	EN 1.4301(AISI 304)	10.5	UNI 8842	12

Counterflange kit on request, see table p. 319-320



N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	N. FOR 1 UNIT
001	Casing	EN 1.4401 (AISI316)			1
003	Support	Cast iron EN-GJL-200-EN 1561			1
004	Casing cover	EN 1.4401 (AISI316)			1
004A	Screw for casing cover	EN 1.4301 (AISI 304)			2
006	Shaft	EN 1.4462 (Duplex stainless steel)-Part in contact with liquid			1
007	Impeller	EN 1.4401 (AISI316)			1
011	Mechanical seal	SIC/SIC/FPM Ceramic/Carbon/FPM (H option) Sic/Carbon/EPDM (E option)	See p. 313-317		1
019	Bearing	-	See table p. 312		1
020	Bearing	-	See table p. 312		1
024	Plug	EN 1.4404 (AISI316L)	G3/8		1
025	Plug	EN 1.4404 (AISI316L)	G3/8		1
026	"O" ring	FPM EPDM (E version)	253.36x5.34	OR 6995	1
032	Key	EN 1.4401 (AISI 316)	8x7x30	UNI 6604	1
033	Key	C 40	10x8x60	UNI 6604	1
034	impeller nut	EN 1.4404 (AISI 316L)	M20x1.5	UNI 7474	1
042	Pump support	Zinc-coated steel			1
066	Impeller side bearing cover	Cast iron EN-GJL-200-EN 1561			1
067	Motor side bearing cover	Cast iron EN-GJL-200-EN 1561			1
075	Washer (plug)	EN 1.4404 (AISI 316L)			1
076	Washer (plug)	EN 1.4404 (AISI 316L)			1
077	O-ring (plug)	FPM			1
078	O-ring (plug)	EPDM (E version)			1
089	Snap ring	Carbon tool steels TC 80	Ø 50	UNI 7435	1
092	"V" ring	-	VS-0040		1
093	"V" ring	-	VS-0040		1
200	Screw	Stainless steel A2 70 class ISO 3506/1	M 12x45	UNI 5739	10
235	Washer	EN 1.4301 (AISI 304)	13	UNI 8842	10
244	Pin [1]	EN 1.4301 (AISI 304)	4x12	UNI 6873	1

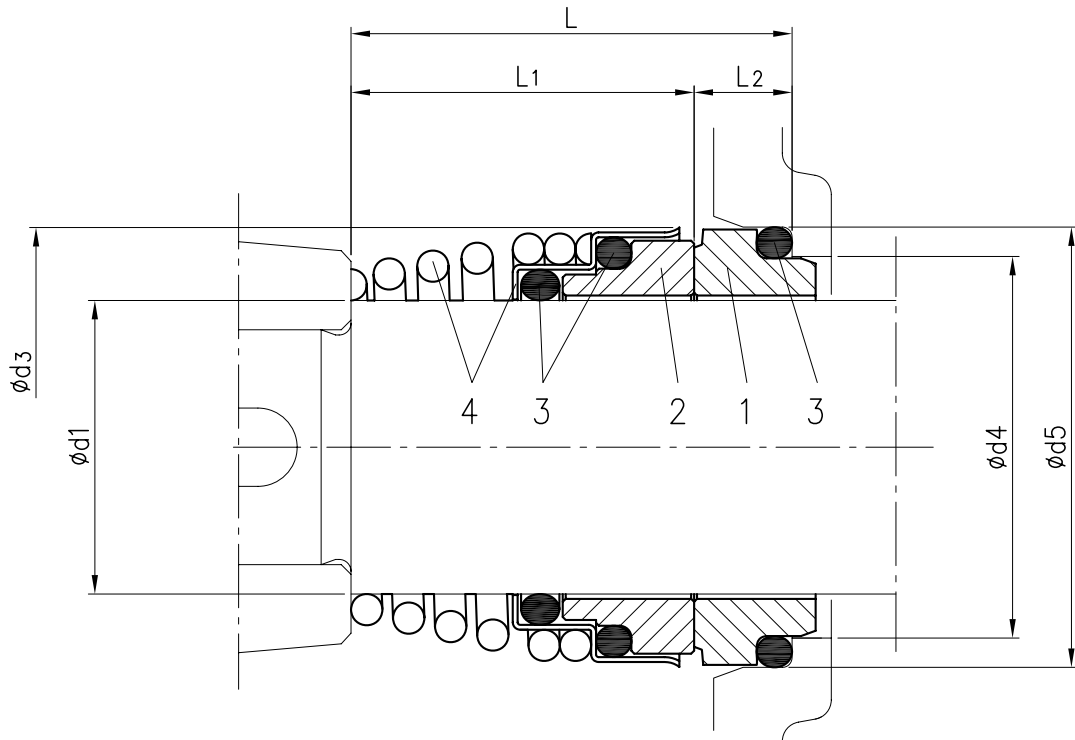
Counterflange kit on request, see table p. 319-320

[1] Not for H and E option.

BALL BEARING

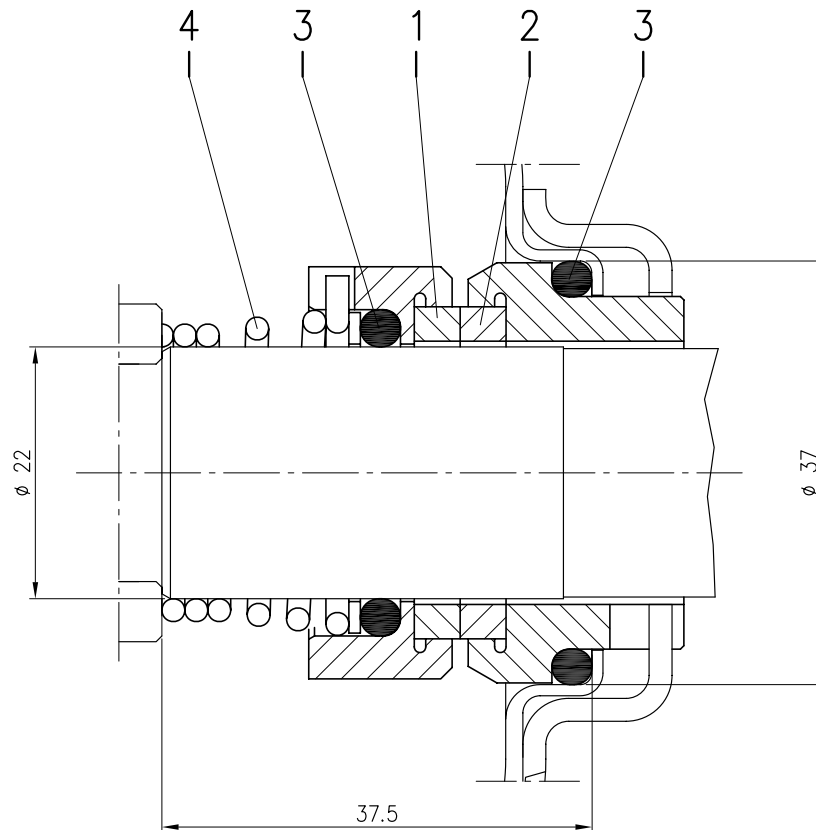
Pump type	Ball bearing	
	Pump side	Motor side
3(.)PF 32-125		
3(.)PF 32-160/R	6306-2RS1 C3	6206-2RS1 C3
3(.)PF 32-160		
3(.)PF 32-200/R		
3(.)PF 32-200	6308-2RS1 C3	6306-2RS1 C3
3(.)PF 32-200/L		
3(.)PF 40-125/R		
3(.)PF 40-125	6306-2RS1 C3	6206-2RS1 C3
3(.)PF 40-160/R		
3(.)PF 40-160		
3(.)PF 40-200/R		
3(.)PF 40-200	6308-2RS1 C3	6306-2RS1 C3
3(.)PF 40-200/L		
3(.)PF 50-125/R	6306-2RS1 C3	6206-2RS1 C3
3(.)PF 50-125		
3(.)PF 50-160/R		
3(.)PF 50-160		
3(.)PF 50-200/R	6308-2RS1 C3	6306-2RS1 C3
3(.)PF 50-200		
3(.)PF 50-200/L		
3(.)PF 65-125/R		
3(.)PF 65-125	6306-2RS1 C3	6206-2RS1 C3
3(.)PF 65-125/L		
3(.)PF 65-160/R		
3(.)PF 65-160		
3(.)PF4 65-160/L	6308-2RS1 C3	6306-2RS1 C3
3(.)PF4 65-200/R		
3(.)PF4 65-200		
3(.)PF4 65-200/L		
3LPF 65-250	6310-2RS1 C3	6308-2RS1 C3
3LPF 65-250/L		
3LPF4 80-160/R		
3LPF4 80-160	6308-2RS1 C3	6308-2RS1 C3
3LPF4 80-200/L		
3LPF 80-200/R		
3LPF 80-200		
3LPF 80-200/L	6310-2RS1 C3	6308-2RS1 C3
3LPF4 80-250/R		
3LPF4 80-250		
3LPF4 80-250/L		

MECHANICAL SEAL FOR STANDARD AND H VERSION



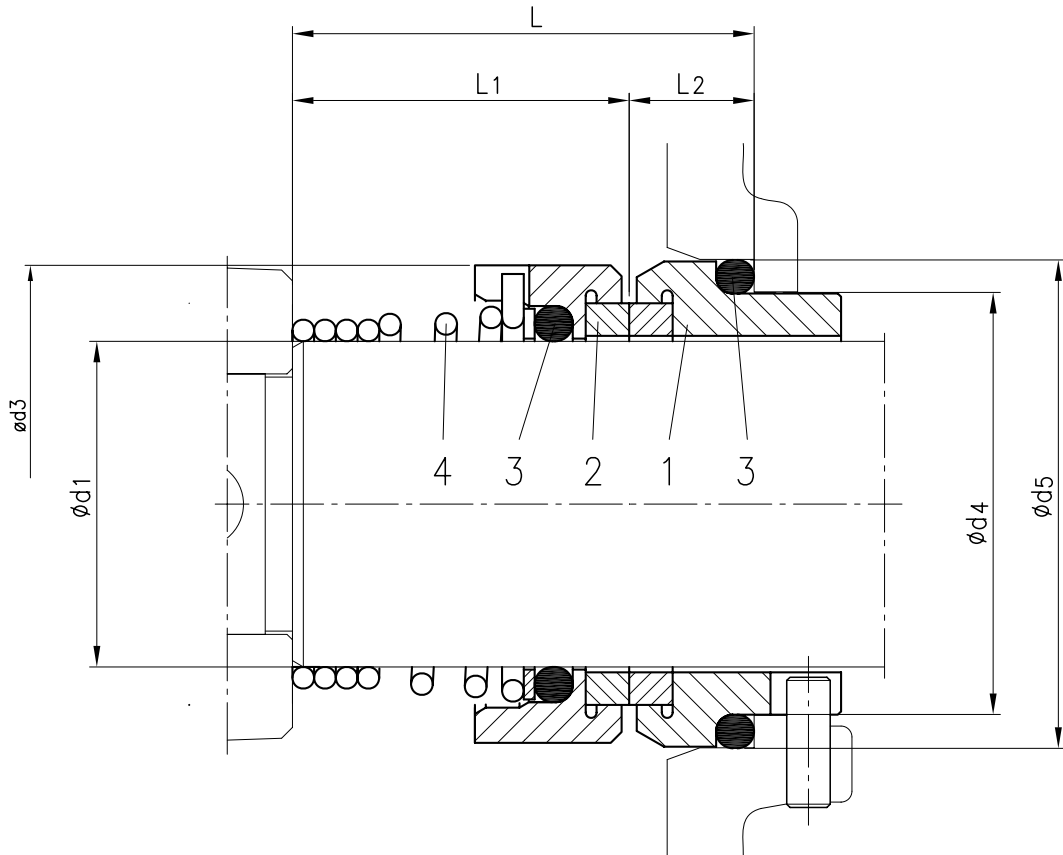
Version	Manufacturer Reference			Pump type	Dimensions							Material			
	Manuf.	Description	Material Description		d1	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 rubber	4 Frame + spring
Standard	Roten	UNITEN 3K	X6X62V6	32-125/160/200	22	38	31	37	37.5	27.5	10	Carbon	Ceramic	NBR	EN 1.4401 (AISI 316)
			40-125/160/200												
			50-125/160/200												
			65-125/160/200												
H			XYXY2VY	32-125/160/200	22	38	31	37	37.5	27.5	10	Carbon	Ceramic	FPM	
				40-125/160/200											
				50-125/160/200											
				65-125/160/200											
		80-160	30	46	39	45	42.5	32.5	10						
		65-250													
		80-200/250													

MECHANICAL SEAL FOR L VERSION Ø22



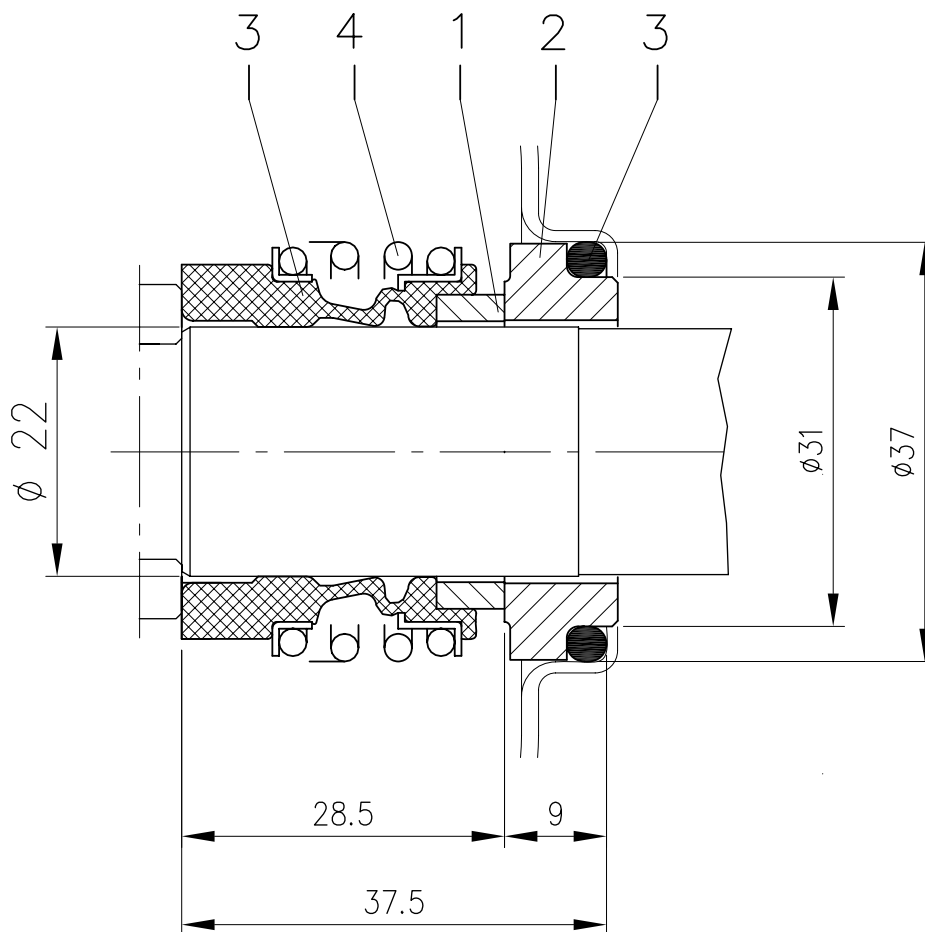
Manufacturer Reference			Pump type	Material			
Manuf.	Description	Material Description		1 Stationary seal ring	2 Rotary seal ring	3 rubber	4 Frame + spring
Burgmann	M377GN85/22-00-R	Q1Q1VGG	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)

MECHANICAL SEAL FOR L VERSION Ø30



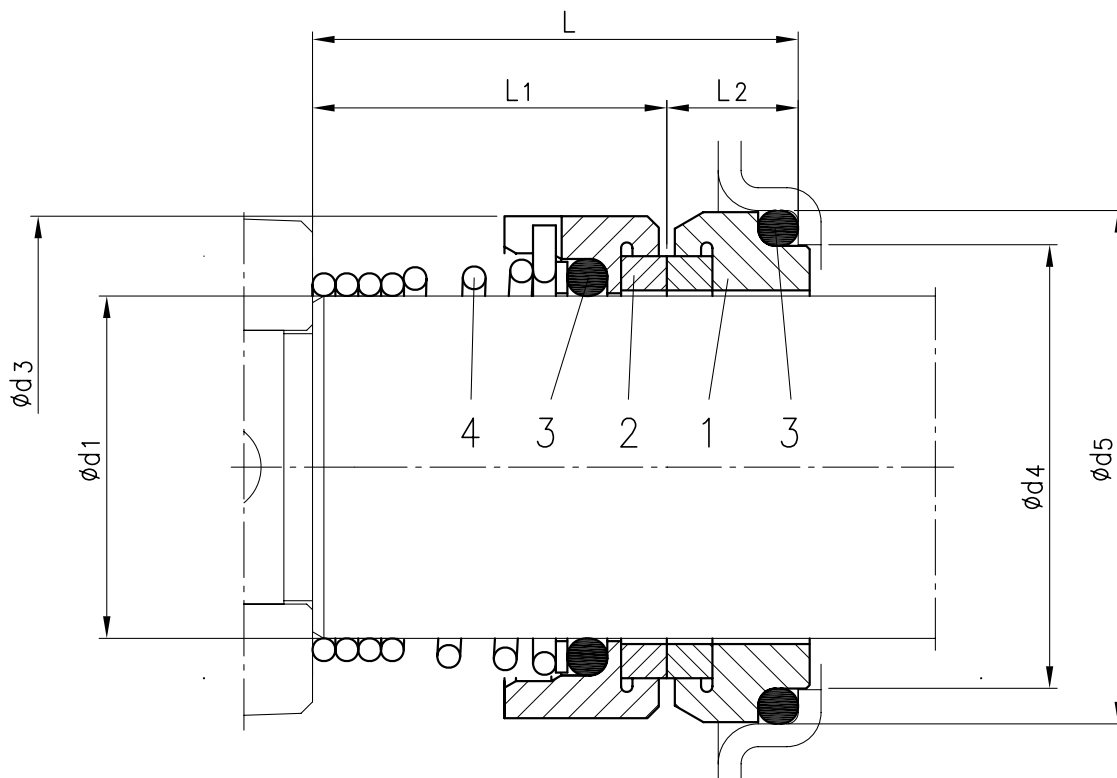
Manufacturer Reference			Pump type	Dimensions						Material				
Manuf.	Description	Material Description		d1	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 rubber	4 Frame + spring
Burgmann	M377GN85-R	Q1Q1VGG	65-250 80-200/250	30	44	39	45	42.5	31	11.5	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)

MECHANICAL SEAL FOR HS VERSION



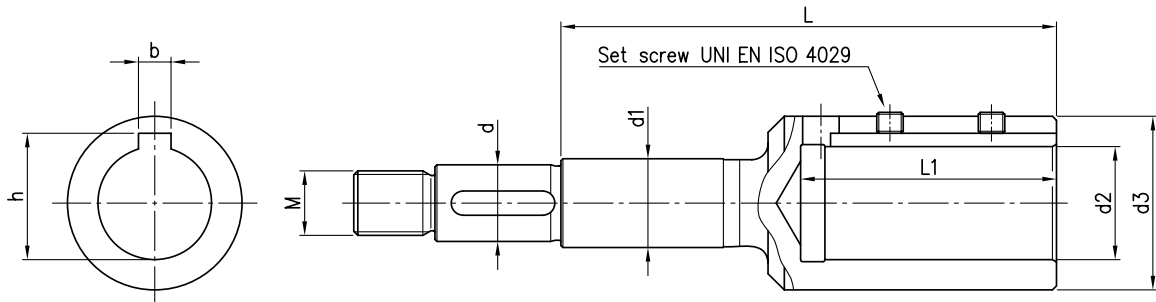
Manufacturer Reference			Pump type	Material			
Manuf.	Description	Material Description		1 Stationary seal ring	2 Rotary seal ring	3 rubber	4 Frame + spring
Burgmann	MG1S6/22-G3	Q1Q1VGG	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)

MECHANICAL SEAL FOR E VERSION



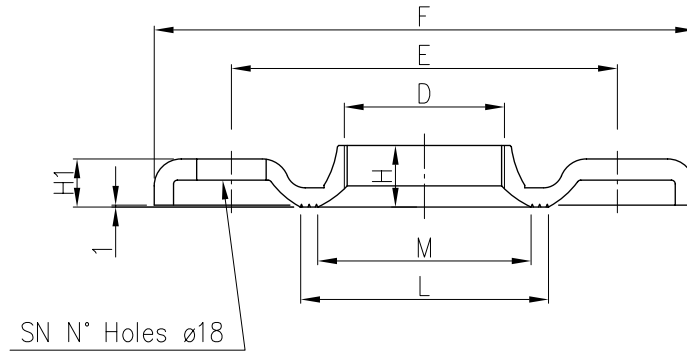
Version	Manufacturer Reference			Pump type	Dimensions							Material			
	Manuf.	Description	Material Description		d1	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 rubber	4 Frame + spring
E	Burgmann	M377GNX/35-00-R	Q1BEGG	80-160	22	36	31	37	37.5	26	11.5	Carbon	SiC	EPDM	EN 1.4571 (AISI 316Ti)
				65-250	30	44	39	45	42.5	31	11.5				
				80-160/200											

COUPLING



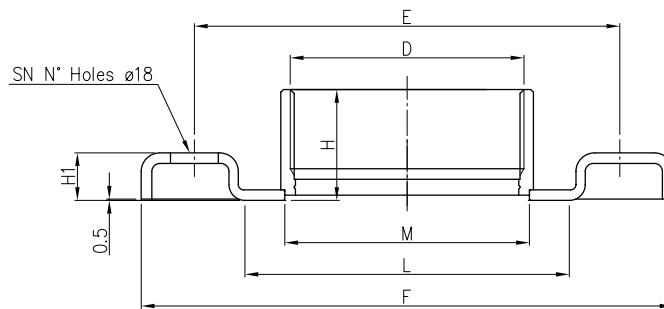
Type pumps	kW	HP	Motor Size	Dimensions mm									
				d	d1	d2	d3	M	L	L1	b	h	Set screw
32-125/0.25	0.25	0.33	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
32-160/0.37R	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
32-160/0.37	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
32-200/0.55R	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
32-200/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
32-200/0.75	0.75	1	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-125/0.37R	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
40-125/0.37	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
40-160/0.55R	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-160/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-200/1.1R	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-200/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-200/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-125/0.55R	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-125/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-160/1.1R	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-160/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-200/1.5R	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-200/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-200/2.2	2.2	3	100	22	22	28	43	M18x1.5	153	63	8	31.3	M8x8
65-125/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
65-125/0.75	0.75	1	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
65-125/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-160/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-160/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-200/2.2R	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-200/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-200/3	3	4	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-250/4	4	5.5	112	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
65-250/5.5	5.5	7.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8
80-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
80-160/2.2R	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
80-160/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
80-200/3	3	4	100	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
80-200/4R	4	5.5	112	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
80-200/4	4	5.5	112	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
80-250/5.5R	5.5	7.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8
80-250/5.5	5.5	7.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8
80-250/7.5	7.5	10	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8

COUNTERFLANGE ZINCKED STEEL



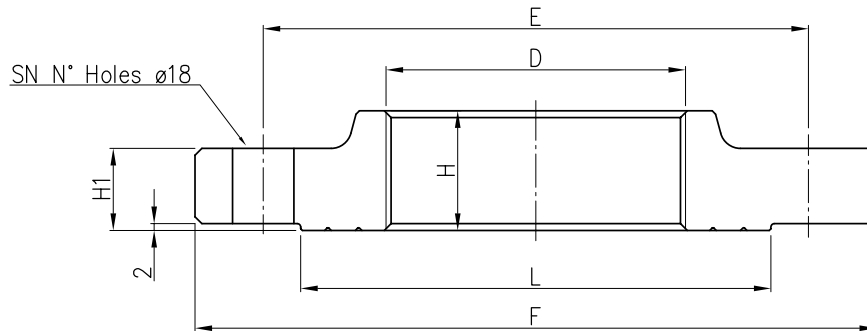
DN	D	Counterflange							Screw	
		E	F	H	H1	L	M	SN	DIMENSIONS	MATERIAL
32	G 1 1/4	100	100	15	11.5	67	50	4	M16x55	Zn. Steel 8.8 strenght class ISO 898-1
40	G 1 1/2	110	110	17.5	11.5	72	58	4		
50	G2	125	125	19	15	89	70	4		
65	G 2 1/2	145	185	23	14	104	88	4		
80	G3	160	200	24	16	117.5	100	8	M16x60	
100	G4	180	220	29	16	144	125	8		

COUNTERFLANGE EN 1.4404 (AISI 316L)



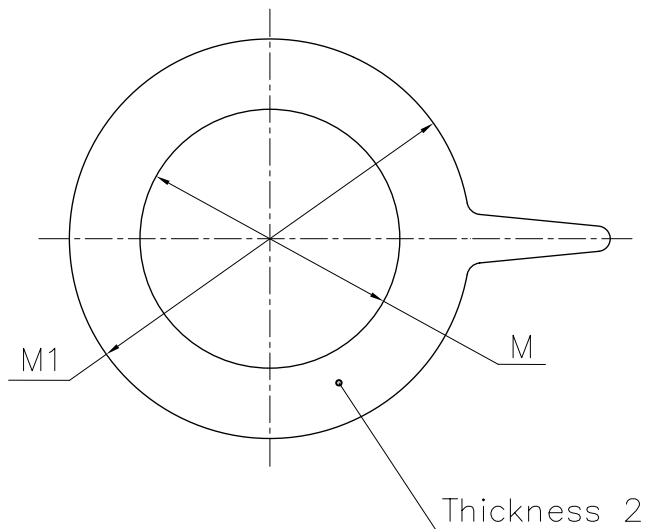
DN	D	Counterflange							Screw	
		E	F	H	H1	L	M	SN	DIMENSIONS	MATERIAL
32	G 1 1/4	100	140	29.5	14	66	44	4	M16x55	A2-70 class ISO 3506-1
40	G 1 1/2	110	150	29.5	14	71	50.5			
50	G 2	125	165	34	16	83	63			
65	G 2 1/2	145	185	40	16	103	80			
80	G3	160	200	42	18	122	92	8	M16x60	

COUNTERFLANGE EN 1.4404 (AISI 316L) DN100



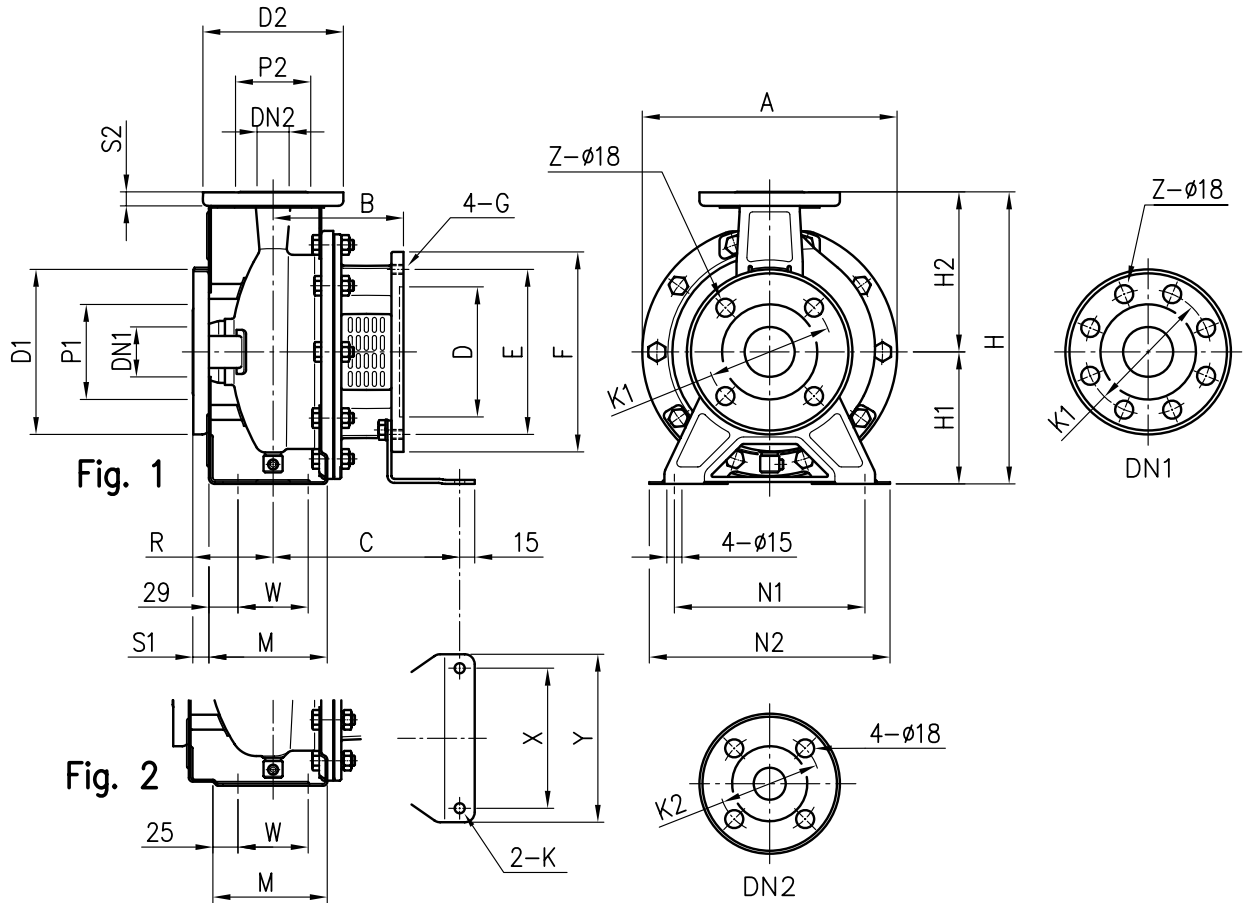
DN	D	Counterflange						Screw	
		E	F	H	H1	L	SN	DIMENSIONS	MATERIAL
100	G4	180	220	35	20	150	8	M16x70	A2-70 class ISO 3506-1

GASKET



DN	M	M1
32	38	82
40	50	93
50	60	107
65	80	125
80	90	140
100	115	160

Material : EPDM for standard version
FPM for L version



Pump type	Fig.	Dimensions [mm]																										Weight [kgf]				
		DN1	P1	K1	D1	S1	Z	[1]	[2]	DN2	P2	K2	D2	S2	H	H1	H2	M	N1	N2	R	W	A	B	C	D	E		F	G	X	Y
32-125/0.25	1	50	95	125	165	16	4	-	32	75	100	140	14	252	112	140	114	140	190	80	70	213	108	153	110	130	160	M8	112	140	8	15
32-160/0.37R	1	50	95	125	165	16	4	-	32	75	100	140	14	292	132	160	118	190	240	80	70	254	108	153	110	130	160	M8	112	140	8	19.5
32-160/0.37	1	50	95	125	165	16	4	-	32	75	100	140	14	292	132	160	118	190	240	80	70	254	108	153	110	130	160	M8	112	140	8	19.5
32-200/0.55R	1	50	95	125	165	16	4	-	32	75	100	140	14	340	160	180	119	190	240	80	70	296	118	174	130	165	200	M10	140	168	10	24
32-200/0.55	1	50	95	125	165	16	4	-	32	75	100	140	14	340	160	180	119	190	240	80	70	296	118	174	130	165	200	M10	140	168	10	24
32-200/0.75	1	50	95	125	165	16	4	-	32	75	100	140	14	340	160	180	119	190	240	80	70	296	118	174	130	165	200	M10	140	168	10	24
40-125/0.37R	1	65	115	145	185	16	4	-	40	80	110	150	14	252	112	140	114	160	210	80	70	213	108	153	110	130	160	M8	112	140	8	16.5
40-125/0.37	1	65	115	145	185	16	4	-	40	80	110	150	14	252	112	140	114	160	210	80	70	213	108	153	110	130	160	M8	112	140	8	16.5
40-160/0.55R	1	65	115	145	185	16	4	-	40	80	110	150	14	292	132	160	118	190	240	80	70	254	118	174	130	165	200	M10	140	168	10	20
40-160/0.55	1	65	115	145	185	16	4	-	40	80	110	150	14	292	132	160	118	190	240	80	70	254	118	174	130	165	200	M10	140	168	10	20
40-200/1.1R	2	65	115	145	185	16	4	-	40	80	110	150	14	340	160	180	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	27
40-200/1.1	2	65	115	145	185	16	4	-	40	80	110	150	14	340	160	180	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	27
40-200/1.5	2	65	115	145	185	16	4	-	40	80	110	150	14	340	160	180	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	27
50-125/0.55R	2	65	115	145	185	16	4	-	50	95	125	165	16	292	132	160	114	190	240	100	70	254	118	174	130	165	200	M10	140	168	10	21
50-125/0.55	2	65	115	145	185	16	4	-	50	95	125	165	16	292	132	160	114	190	240	100	70	254	118	174	130	165	200	M10	140	168	10	21
50-160/1.1R	2	65	115	145	185	16	4	-	50	95	125	165	16	340	160	180	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	26
50-160/1.1	2	65	115	145	185	16	4	-	50	95	125	165	16	340	160	180	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	26
50-200/1.5R	2	65	115	145	185	16	4	-	50	95	125	165	16	360	160	200	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	29.5
50-200/1.5	2	65	115	145	185	16	4	-	50	95	125	165	16	360	160	200	115	212	265	100	70	296	130	186	130	165	200	M10	140	168	10	29.5
65-125/0.55	2	80	134	160	200	18	8	4	65	115	145	185	16	340	160	180	140	212	280	100	95	254	118	174	130	165	200	M10	140	168	10	26
65-125/0.75	2	80	134	160	200	18	8	4	65	115	145	185	16	340	160	180	140	212	280	100	95	254	118	174	130	165	200	M10	140	168	10	27.5
65-125/1.1	2	80	134	160	200	18	8	4	65	115	145	185	16	340	160	180	140	212	280	100	95	254	130	186	130	165	200	M10	140	168	10	28.5
65-160/1.1	2	80	134	160	200	18	8	4	65	115	145	185	16	360	160	200	140	212	280	100	95	296	130	186	130	165	200	M10	140	168	10	29.5
65-160/1.5	2	80	134	160	200	18	8	4	65	115	145	185	16	360	160	200	140	212	280	100	95	296	130	186	130	165	200	M10	140	168	10	30

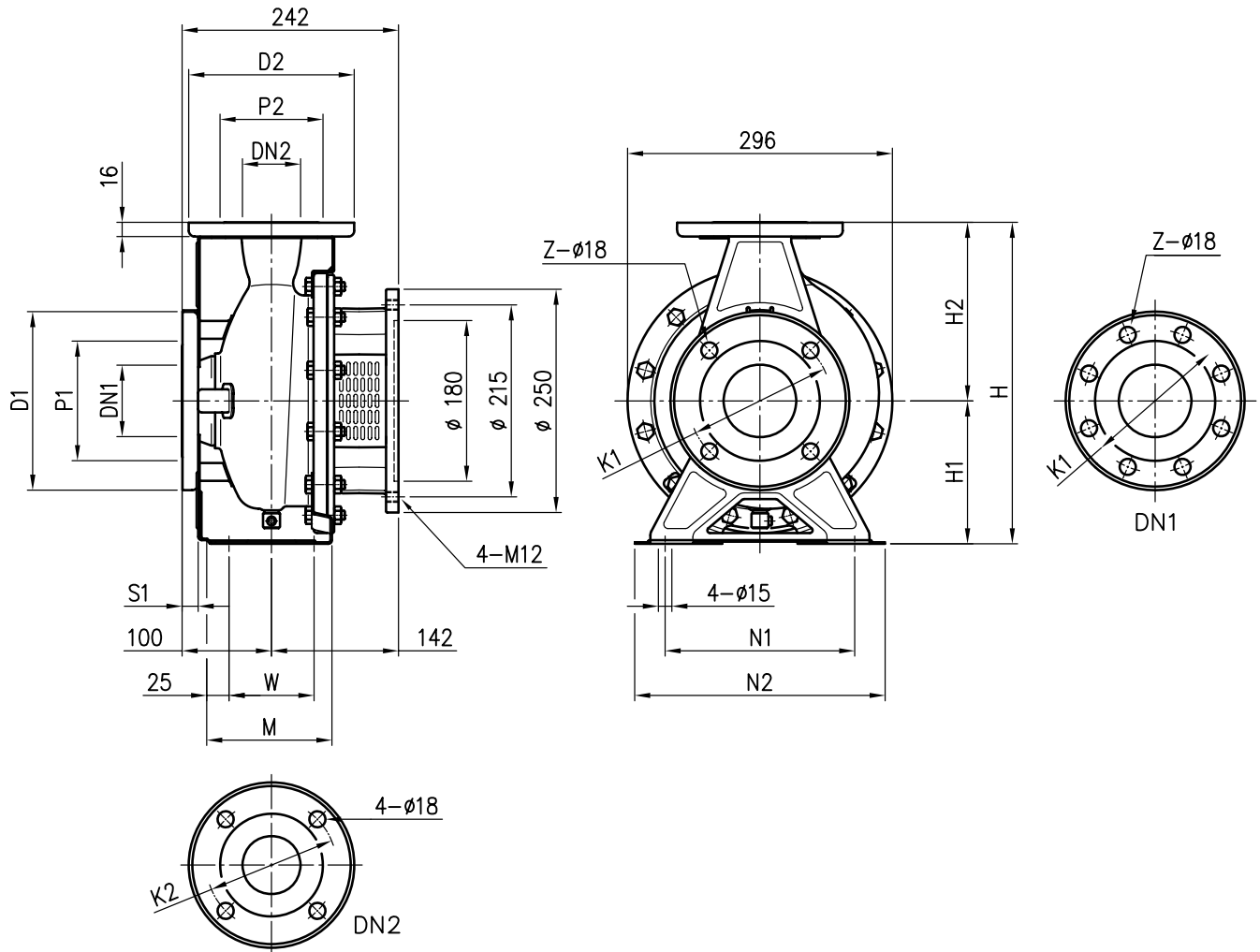
[1] Standards

[2] On request

DIMENSIONS **3(.)SF4 50, 65**

50 Hz

Rev.F



Pump type	Dimensions [mm]																	Weight [kgf]	
	DN1	P1	K1	D1	S1	Z		DN2	P2	K2	D2	H	H1	H2	M	N1	N2		W
50-200/2.2	65	115	145	185	16	4	-	50	95	125	165	360	160	200	115	212	265	70	29.5
65-160/2.2	80	134	160	200	18	8	4	65	115	145	185	360	160	200	140	212	280	95	30
65-200/2.2R	80	134	160	200	18	8	4	65	115	145	185	405	180	225	140	250	320	95	29.5
65-200/2.2	80	134	160	200	18	8	4	65	115	145	185	405	180	225	140	250	320	95	29.5
65-200/3	80	134	160	200	18	8	4	65	115	145	185	405	180	225	140	250	320	95	30

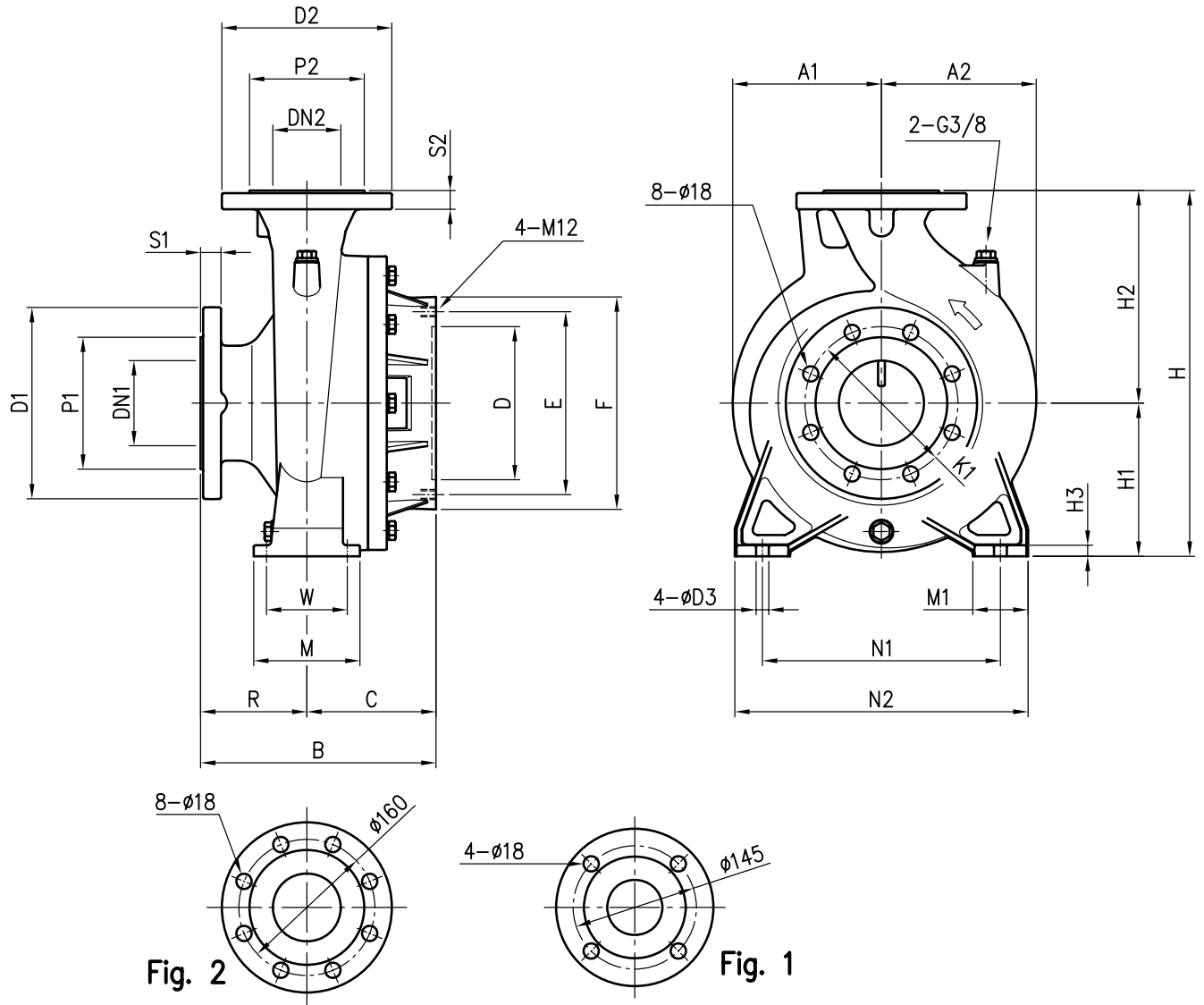
[1] Standars

[2] On request

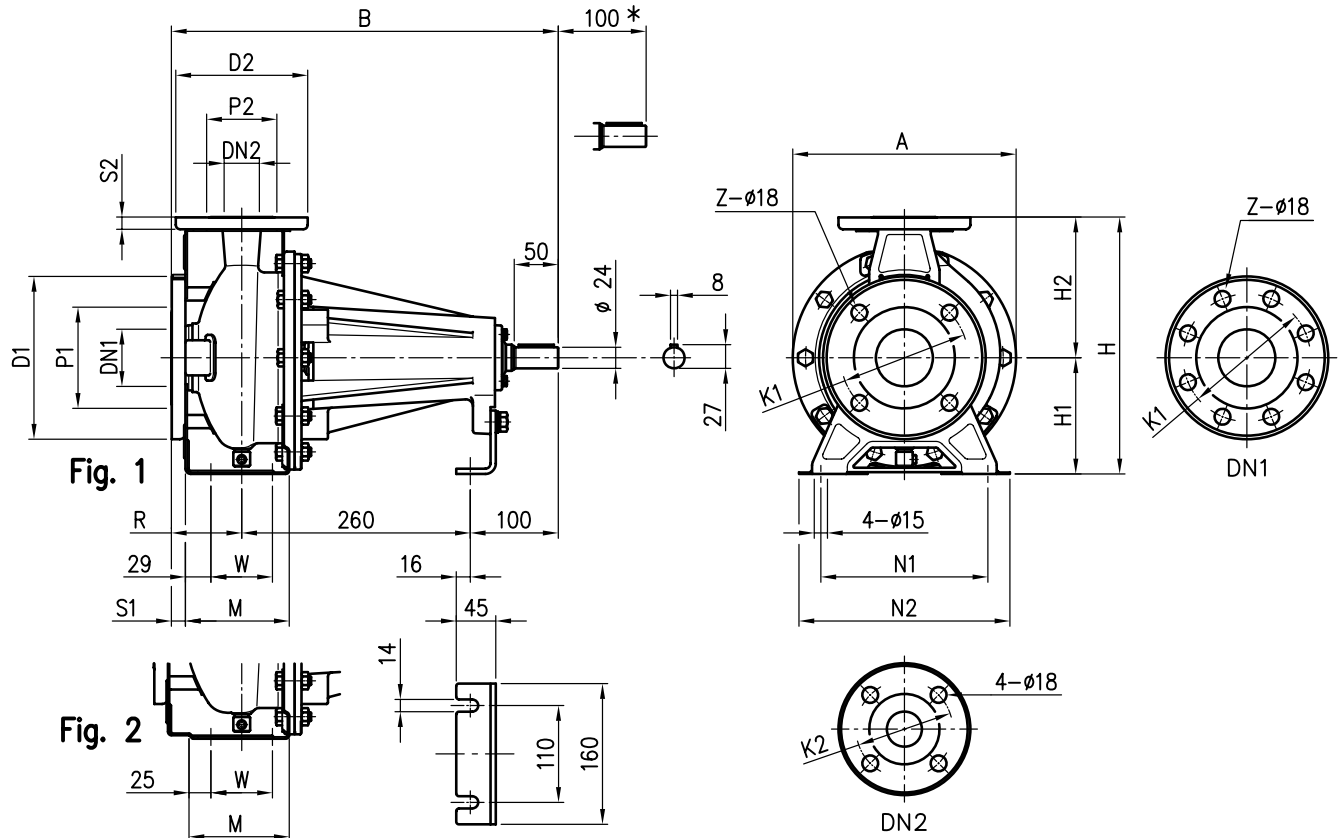
DIMENSIONS **3LSF4 65-250, 80**

50 Hz

Rev.F



Pump type	Dimensions [mm]																							Weight [kgf]				
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	R	W	N1	N2	M	M1	D3	B	C	D		E	F	A1	A2
65-250/4	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	15	100	120	280	360	160	80	19	252	152	180	215	250	175	182	56.5
65-250/5.5	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	15	100	120	280	360	160	80	19	252	152	230	265	300	175	182	53.5
80-160/2.2R	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	13	125	95	250	320	125	65	15	267	142	180	215	250	147	173	50.5
80-160/2.2	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	13	125	95	250	320	125	65	15	267	142	180	215	250	147	173	50.5
80-200/3	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	13	125	95	280	345	125	65	15	277	152	180	215	250	175	182	59
80-200/4	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	13	125	95	280	345	125	65	15	277	152	180	215	250	175	182	60.5
80-200/4R	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	13	125	95	280	345	125	65	15	277	152	180	215	250	175	182	60.5
80-250/5.5	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	15	125	120	315	400	160	80	19	300	175	230	265	300	175	192	58
80-250/5.5R	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	15	125	120	315	400	160	80	19	300	175	230	265	300	175	192	58
80-250/7.5	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	15	125	120	315	400	160	80	19	300	175	230	265	300	175	192	59



* Space for disassembly

Pump type	Fig.	Dimensions [mm]																				Weight [kgf]		
		DN1	P1	K1	D1	S1	Z	[1]	[2]	DN2	P2	K2	D2	S2	H	H1	H2	M	N1	N2	R		W	A
32-125	1	50	95	125	165	16	4	-	32	75	100	140	14	252	112	140	114	140	190	80	70	213	440	17
32-160	1	50	95	125	165	16	4	-	32	75	100	140	14	292	132	160	118	190	240	80	70	254	440	19
32-200	1	50	95	125	165	16	4	-	32	75	100	140	14	340	160	180	119	190	240	80	70	296	440	27
40-125	1	65	115	145	185	16	4	-	40	80	110	150	14	252	112	140	114	160	210	80	70	213	440	17
40-160	1	65	115	145	185	16	4	-	40	80	110	150	14	292	132	160	118	190	240	80	70	254	440	19
40-200	2	65	115	145	185	16	4	-	40	80	110	150	14	340	160	180	115	212	265	100	70	296	460	27
50-125	2	65	115	145	185	16	4	-	50	95	125	165	16	292	132	160	114	190	240	100	70	254	460	19
50-160	2	65	115	145	185	16	4	-	50	95	125	165	16	340	160	180	115	212	265	100	70	296	460	28
50-200	2	65	115	145	185	16	4	-	50	95	125	165	16	360	160	200	115	212	265	100	70	296	460	27
65-125	2	80	134	160	200	18	8	4	65	115	145	185	16	340	160	180	140	212	280	100	95	254	460	28
65-160	2	80	134	160	200	18	8	4	65	115	145	185	16	360	160	200	140	212	280	100	95	296	460	29
65-200	2	80	134	160	200	18	8	4	65	115	145	185	16	405	180	225	140	250	320	100	95	296	460	30

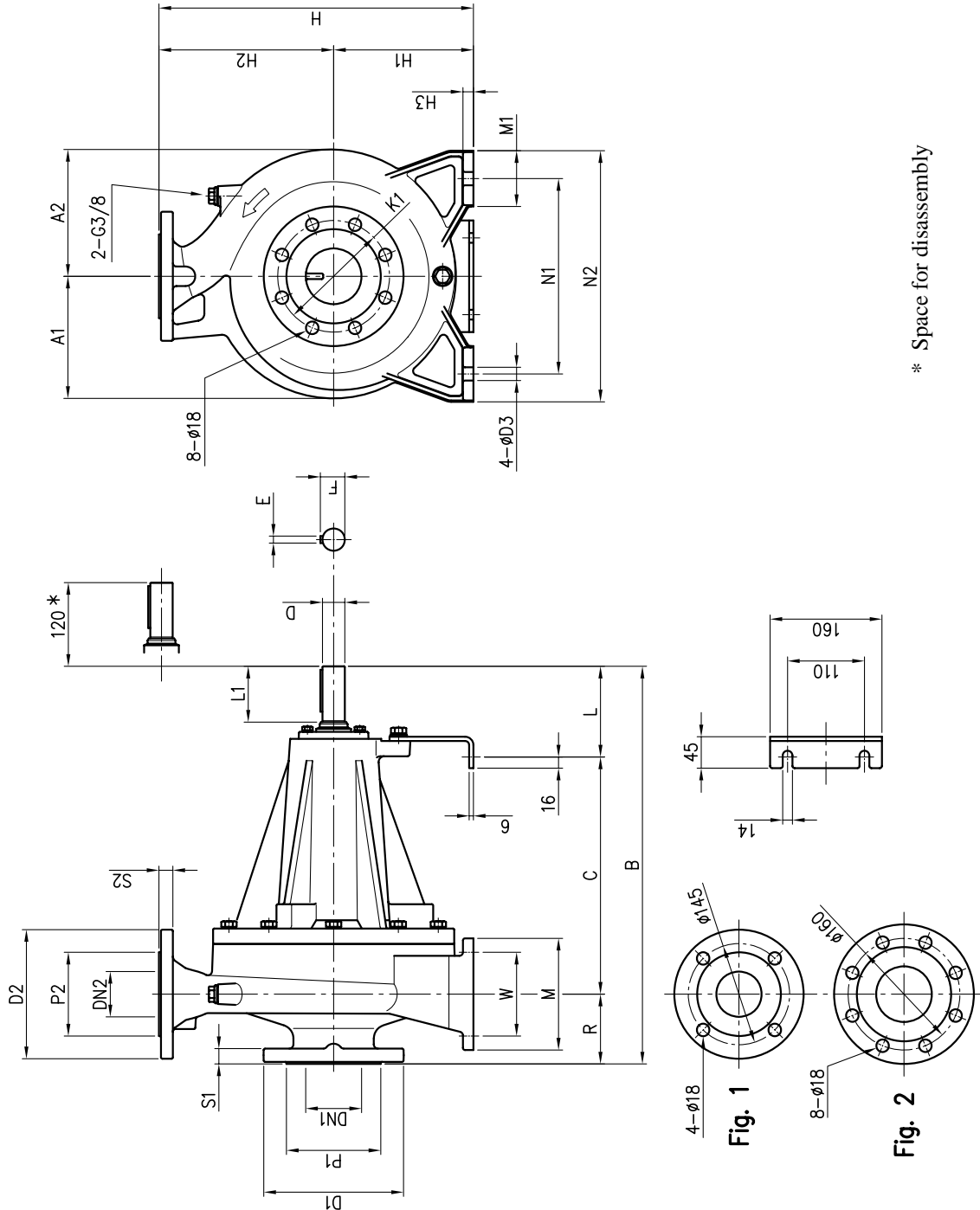
[1] Standard

[2] On request

DIMENSIONS 3LPF4 65-250, 80

50 Hz

Rev.F



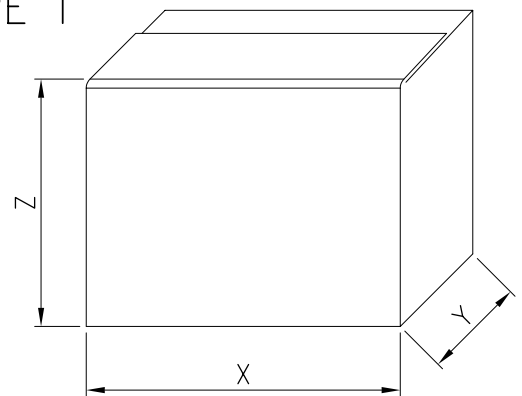
* Space for disassembly

Pump type	Dimensions [mm]																				Weight [kgf]									
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	R	W	N1	N2	M	M1	L	L1	D	D3	E	F	A1	A2	B	C	Weight
3LPF 65-250	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	15	100	120	280	360	160	80	130	80	32	19	10	35	175	182	570	340	82
3LPF4 80-160	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	13	125	95	250	320	125	65	100	50	24	15	8	27	147	173	485	260	56
3LPF 80-200	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	13	125	95	280	345	125	65	130	80	32	15	10	35	175	182	595	340	83
3LPF4 80-250	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	15	125	120	315	400	160	80	130	80	32	19	10	35	175	192	595	340	84

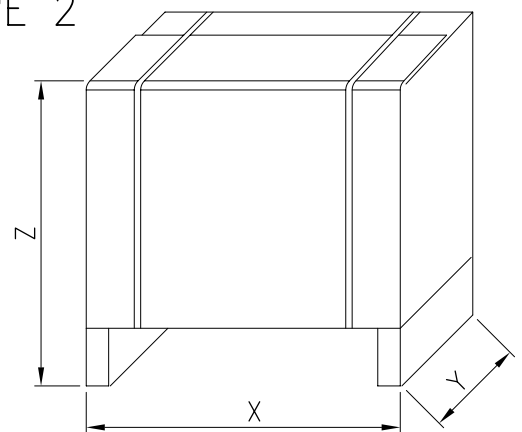
PACKING AND WEIGHT **3(.)SF4**

Type pumps	PACKING [mm]			WEIGHT [Kg]	PACK TYPE
	X	Y	Z		
32-125/0.25	374	424	405	17	1
32-160/0.37R				21	
32-160/0.37					
32-200/0.55R					
32-200/0.55				26	
32-200/0.75					
40-125/0.37R					
40-125/0.37				18.5	
40-160/0.55R					
40-160/0.55				22	
40-200/1.1R					
40-200/1.1				29	
40-200/1.5					
50-125/0.55R					
50-125/0.55				23	
50-160/1.1R					
50-160/1.1				28	
50-200/1.5R					
50-200/1.5				31.5	
50-200/2.2					
65-125/0.55					
65-125/0.75					
65-125/1.1					
65-160/1.1					
65-160/1.5					
65-160/2.2					
65-200/2.2R					
65-200/2.2					
65-200/3					
65-250/4	780	475	620	63.5	2
65-250/5.5				60.5	
80-160/1.5	580	390	545	56.5	
80-160/2.2R					
80-160/2.2					
80-200/3	780	475	620	66	
80-200/4R				67.5	
80-200/4				67.5	
80-250/5.5R				65	
80-250/5.5					
80-250/7.5				66	

TYPE 1



TYPE 2



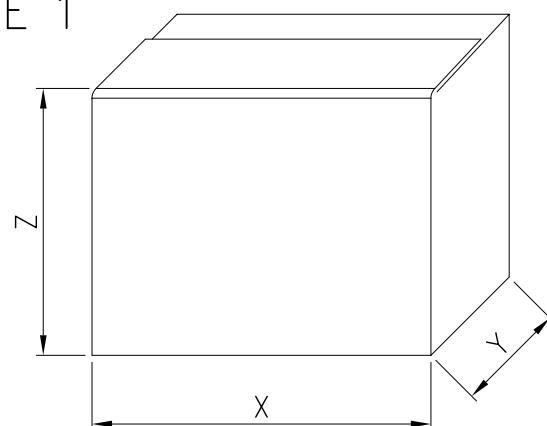
PACKING AND WEIGHT 3(.)PF4

50 Hz

Rev.F

Type pumps	PACKING [mm]			WEIGHT [Kg]	PACK TYPE
	X	Y	Z		
32-125	490	280	340	18	1
32-160/R				20	
32-160				20	
32-200/R	500	330	390	28.5	
32-200				28.5	
32-200/L				28.5	
40-125/R	490	280	340	18	
40-125				18	
40-160/R				20	
40-160	500	330	390	20	
40-200/R				28.5	
40-200				28.5	
40-200/L	28.5				
50-125/R	490	280	340	20	
50-125				20	
50-160/R				29	
50-160	500	330	390	29	
50-200/R				29.5	
50-200				29.5	
50-200/L	29.5				
65-125/R	500	330	390	29	
65-125				29	
65-125/L				29	
65-160/R	500	330	390	30.5	
65-160				30.5	
65-160/L				30.5	
65-200/R	860	375	440	31.5	
65-200				31.5	
65-200/L				31.5	
65-250	780	475	608	86	2
65-250/L				86	
80-160/R	580	390	545	60	
80-160				60	
80-160/L				60	
80-200/R	780	475	610	87	
80-200				87	
80-200/L				87	
80-250/R	780	475	610	88	
80-250				88	
80-250/L				88	

TYPE 1



TYPE 2

