

LENNTECH
WATER TREATMENT SOLUTIONS



LENNTECH
WATER TREATMENT SOLUTIONS

info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289

	Page
- SPECIFICATIONS	
PUMP SPECIFICATIONS	200
PUMP SPECIFICATIONS	201
TYPE KEY SF4	202
TYPE KEY PF4	203
SELECTION CHART	204
PERFORMANCE RANGE	205
PERFORMANCE CURVE 32-125	206
PERFORMANCE CURVE 32-160	207
PERFORMANCE CURVE 32-200	208
PERFORMANCE CURVE 40-125	209
PERFORMANCE CURVE 40-160	210
PERFORMANCE CURVE 40-200	211
PERFORMANCE CURVE 50-125	212
PERFORMANCE CURVE 50-160	213
PERFORMANCE CURVE 50-200	214
PERFORMANCE CURVE 65-125	215
PERFORMANCE CURVE 65-160	216
PERFORMANCE CURVE 65-200	217
PERFORMANCE CURVE 65-250	218
PERFORMANCE CURVE 80-160	219
PERFORMANCE CURVE 80-200	220
PERFORMANCE CURVE 80-250	221
- CONSTRUCTIONS	
SECTIONAL VIEW DRAWING 3SF4-3LSF4 (32,40,50,65-125/160/200)	300
SECTIONAL VIEW TABLE 3SF4-3LSF4 (32,40,50,65-125/160/200)	301
SECTIONAL VIEW DRAWING 3LSF4 80-160	302
SECTIONAL VIEW TABLE 3LSF4 80-160	303
SECTIONAL VIEW DRAWING 3LSF4 (65-250, 80-200/250)	304
SECTIONAL VIEW TABLE 3LSF4 (65-250, 80-200/250)	305
SECTIONAL VIEW DRAWING 3PF4-3LPF4 (32,40,50,65-125/160/200)	306
SECTIONAL VIEW TABLE 3PF4-3LPF4 (32,40,50,65-125/160/200)	307
SECTIONAL VIEW DRAWING 3LPF4 80-160	308
SECTIONAL VIEW TABLE 3LPF4 80-160	309
SECTIONAL VIEW DRAWING (65-250, 80-200/250)	310
SECTIONAL VIEW TABLE 3LPF4 (65-250, 80-200/250)	311
3(.)PF4 BALL BEARING	312
MECHANICAL SEAL (standard, H, E and special version)	313
MECHANICAL SEAL (L version Ø 22)	314
MECHANICAL SEAL (L version)	315
MECHANICAL SEAL (HS version and special version Ø 22)	316
MECHANICAL SEAL (HS, HW, HSW and special version)	317

CONTENTS

50Hz

Rev. G

COUPLING	318
COUNTERFLANGE ZINCKED STEEL	319
COUNTERFLANGE EN 1.4404 (AISI 316L) DN100	320

- DIMENSIONS

DIMENSIONS 3SF4-3LSF4 (32,40,50,65-125/160)	400
DIMENSIONS 3SF4-3LSF4 (50,65-160/200)	401
DIMENSIONS 3LSF4 (80-160)	402
DIMENSIONS 3LSF4 (65-250,80)	403
DIMENSIONS 3PF4-3LPF4 (32,40,50,65-125/160/200)	404
DIMENSIONS 3LPF4 (65-250,80)	405
PACKING AND WEIGHT 3SF4-3LSF4	406
PACKING AND WEIGHT 3PF4-3LPF4	407

SELECTION CHART

50Hz

Rev. G

Pump sizes				Version	3SF4	3PF4	3LSF4	3LPF4
				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 mode rarely aggressive fluids				
				/		Clean water, drinking water, water contains glycol for E version		
	Temperature		min.	[°C]	-10		-10 -20 for E version, Q1AEGG, U3U3EGG, Q1U3EGG, Q1Q1EGG, U3CEGG	
			max.					
Maximum working pressure				[MPa]	1			

■ Available also with H-HS-HW-HSW-E option for 32, 40, 50, 65-125/160/200, and mechanical seal special Q1AEGG, U3U3EGG, Q1Q1EGG, Q1U3EGG, U3CEGG

● Available also with H-HW-HSW-E option for 32, 40, 50, 65, 80 and mechanical seal special Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG, U3U3EGG. (U3U3EGG not available for model 65-250 and 80-200/250)

— Not available.

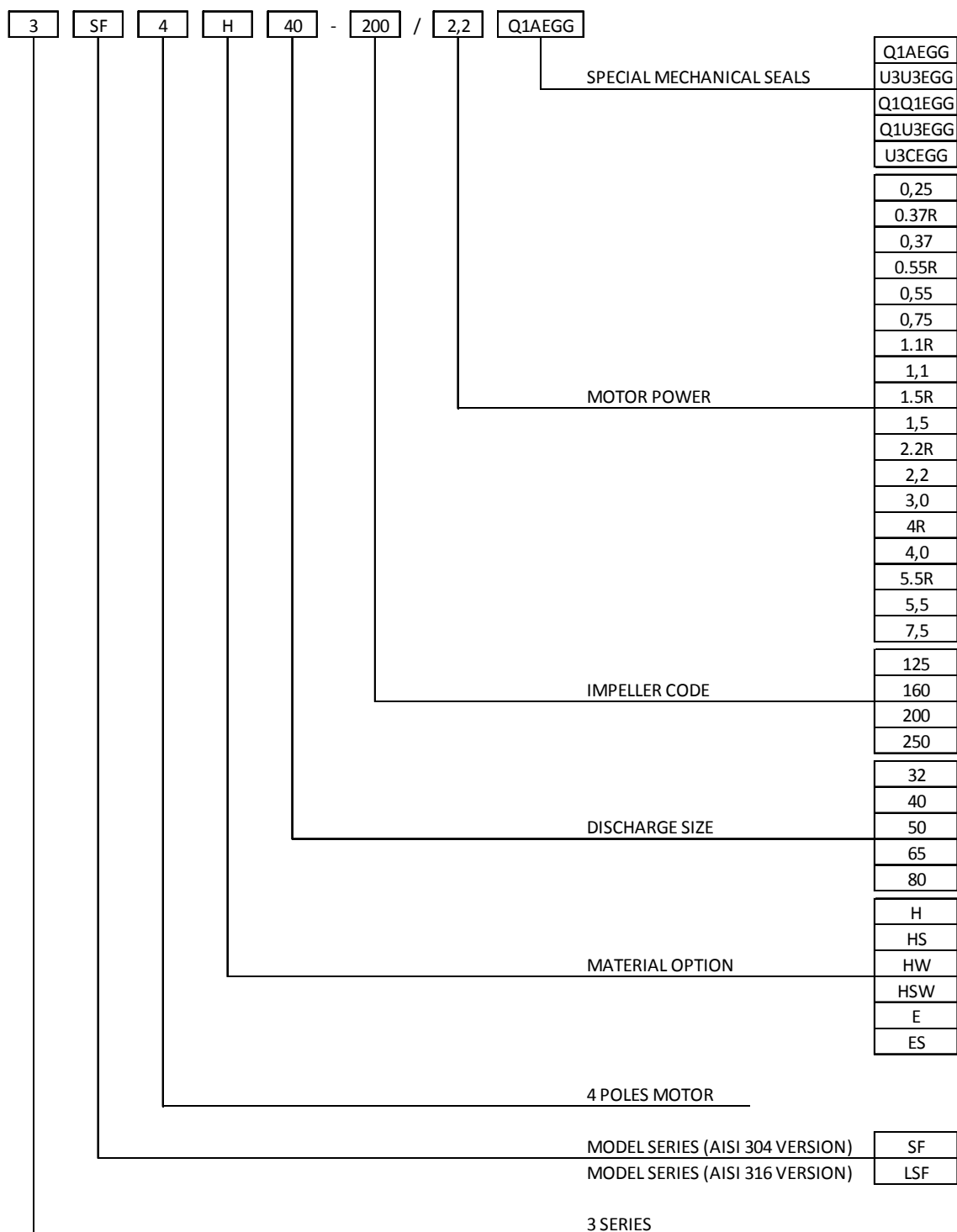
SELECTION CHART**50Hz**

Rev. G

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 40-125/160/200 50-125/160/200 65-125/160/200		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316 L)		
		65-250 80-160/200/250		/		EN 1.4404 (AISI 316 L) Made by pre cision casting		
		Impeller	32-125/160/200 40-125/160/200 50-125/160/200		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316 L)	
			65-125/160/200		EN 1.4401 (AISI 316) Made by pre cision casting			
	65-250 80-160/200/250		/		EN 1.4404 (AISI 316 L) Made by pre cision casting			
	Casing cover	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316 L)		
		65-250 80-160/200/250		/		EN 1.4401 (AISI 316) Made by pre cision casting		
		Mechanical seal	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200		Ceramic/Carbon/NBR (For version see page 313÷317)		SiC/SiC/FPM (For version see page 313÷317)	
	65-250 80-160/200/250		/					
	O-ring			NBR FPM for [H-HS-HW-HSW option] EPDM for [E, U3U3EGG, Q1Q1EGG, Q1U3EGG, U3CEGG, Q1AEGG]		FPM for [L, H-HW-HSW] EPDM for [E, ES, U3U3EGG, Q1Q1EGG, Q1U3EGG, U3CEGG, Q1AEGG]		
	Shaft	32, 40, 50, 65	d=19	EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316 L)		
		50-200/2.2	d=22					
		80-160	d=19					
		65-250 80-200/250	d=24	/		EN 1.4404 (AISI 316L)	EN 1.4462 (Duplex stainless steel)	
	Bracket				Cast iron - aluminium			

SELECTION CHART**50Hz**

Rev. G

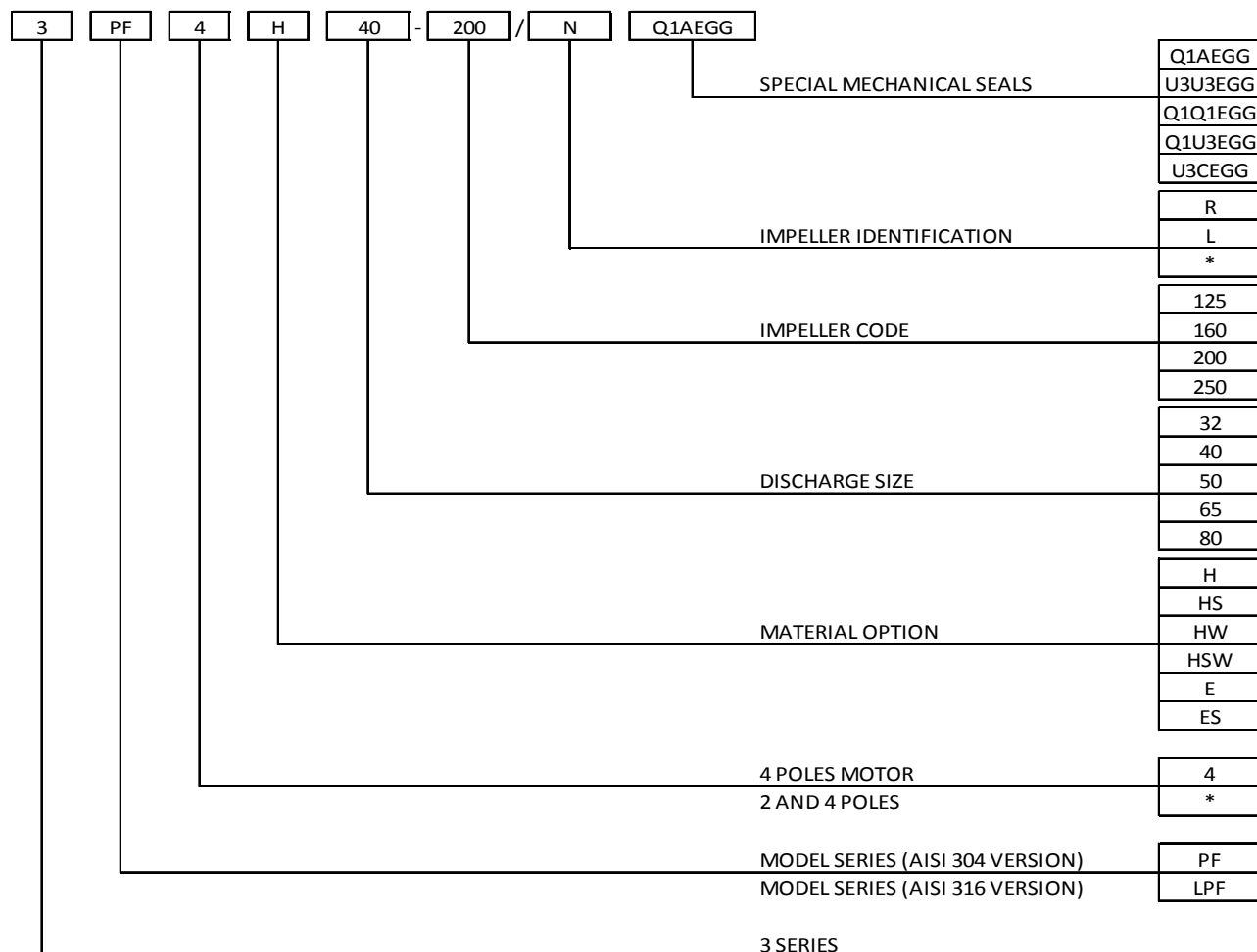
TYPE KEY: SF4

SELECTION CHART

50Hz

Rev. G

TYPE KEY: PF4

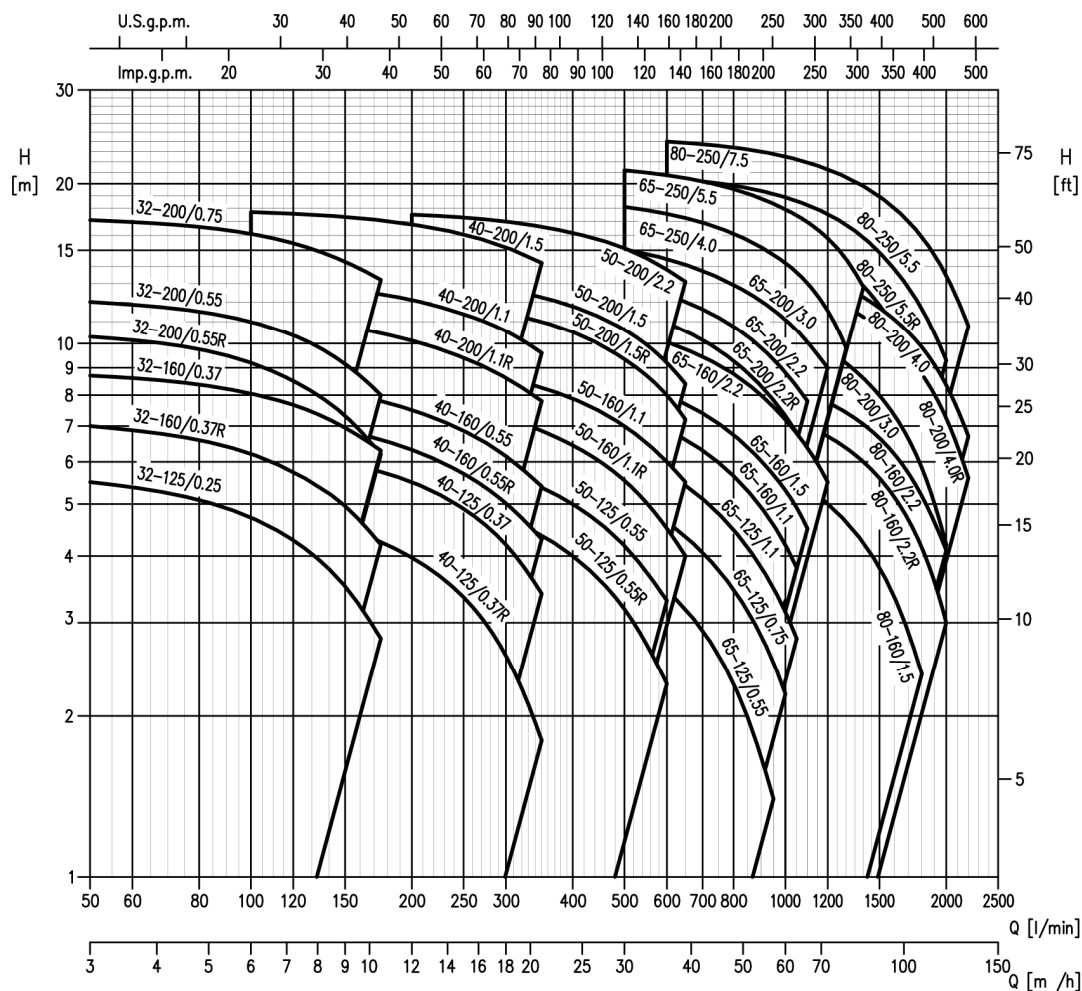


SELECTION CHART**3 SERIES SF4 and PF4 version: 32, 40, 50**

Pump type				Motor		Q=Capacity															
						l/min	0	50	100	150	175	200	250	300	350	400	500	600	650		
				kW	HP	m³/h	0	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())PF4	32-125	0,25	0,33	5,7	5,5	4,7	3,5	2,8	-	-	-	-	-	-	-	-	-	-	
3())SF4	32-160/0.37R	3())PF4	32-160/R	0,37	0,5	7,3	7	6,2	5	4,2	-	-	-	-	-	-	-	-	-	-	
3())SF4	32-160/0.37	3())PF4	32-160	0,37	0,5	9	8,7	8,1	7	6,3	-	-	-	-	-	-	-	-	-	-	
3())SF4	32-200/0.55R	3())PF4	32-200/R	0,55	0,75	10,8	10,3	9,2	7,3	6,2	-	-	-	-	-	-	-	-	-	-	
3())SF4	32-200/0.55	3())PF4	32-200	0,55	0,75	12,5	12	11	9,2	8	-	-	-	-	-	-	-	-	-	-	
3())SF4	32-200/0.75	3())PF4	32-200/L	0,75	1	17,5	17,1	16,1	14,3	13,2	-	-	-	-	-	-	-	-	-	-	
3())SF4	40-125/0.37R	3())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	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())PF4	50-200	1,5	2	14	-	-	-	-	13,3	13	12,7	12,2	11,8	10,6	9,2	8,4	-	-	

3 SERIES SF4 and PF4 version: 65, 80

Pump type				Motor		Q=Capacity																	
						l/min	0	300	350	500	600	800	950	1000	1050	1100	1200	1300	1400	1600	1800	2000	2200
				kW	HP	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()PF4	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()PF4	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()PF4	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()PF4	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()PF4	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	3LPF4	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	3LPF4	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	3LPF4	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	3LPF4	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		
3LSF4	80-200/4	3LPF4	80-200/L	4	5.5	16	-	-	-	15.4	14.9	14.3	14.1	13.9	13.7	13.2	12.8	12.3	11.1	9.9	8.4		
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		

PERFORMANCE RANGE**PERFORMANCE CURVE SPECIFICATIONS**

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

Tolerances according to ISO 9006:2012 - Grade 3B

The curves refer to effective speed of asynchronous motors at 50 Hz, 4 poles.

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

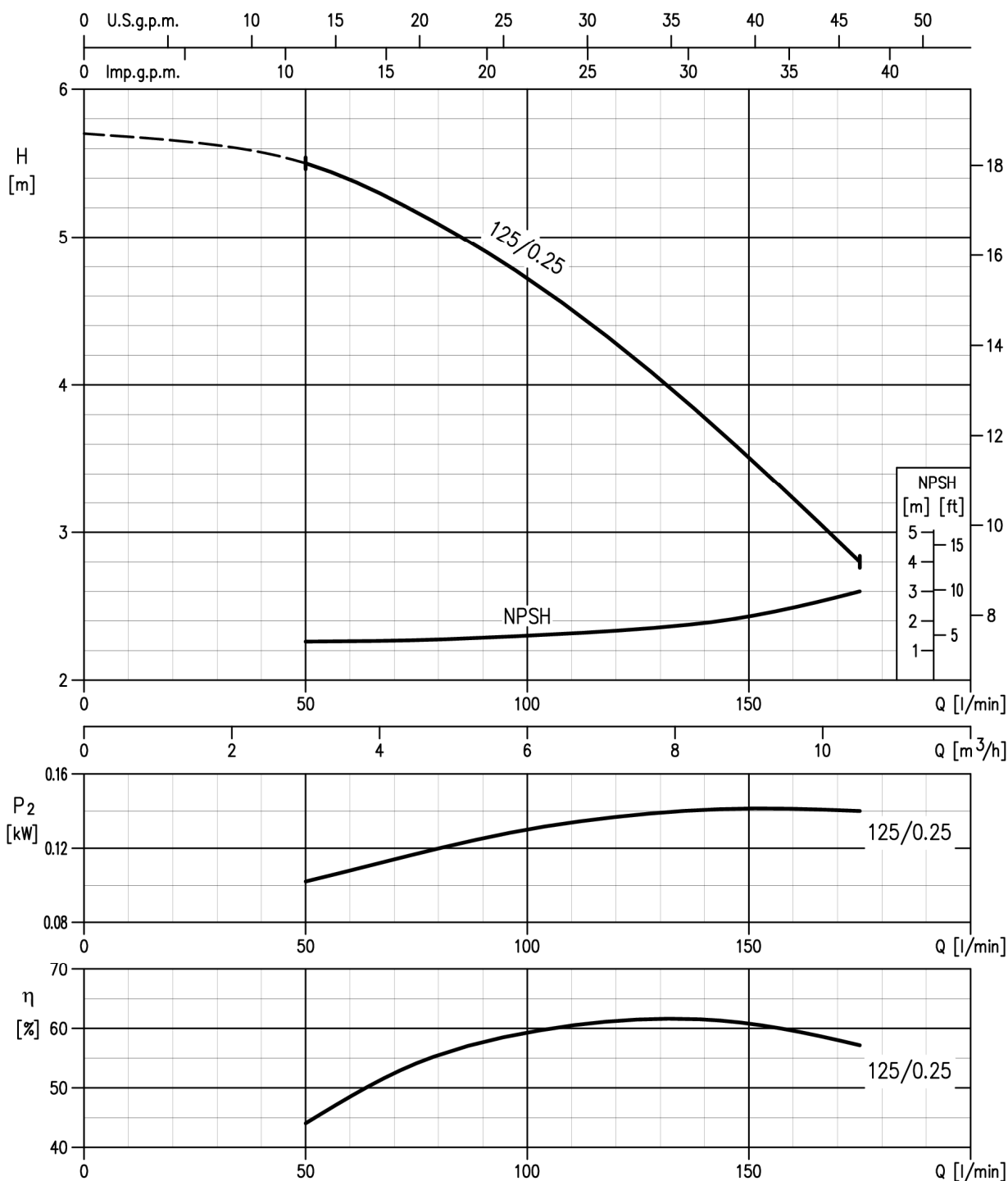
H = total head

P_2 = pump power input (shaft power)

η = pump efficiency

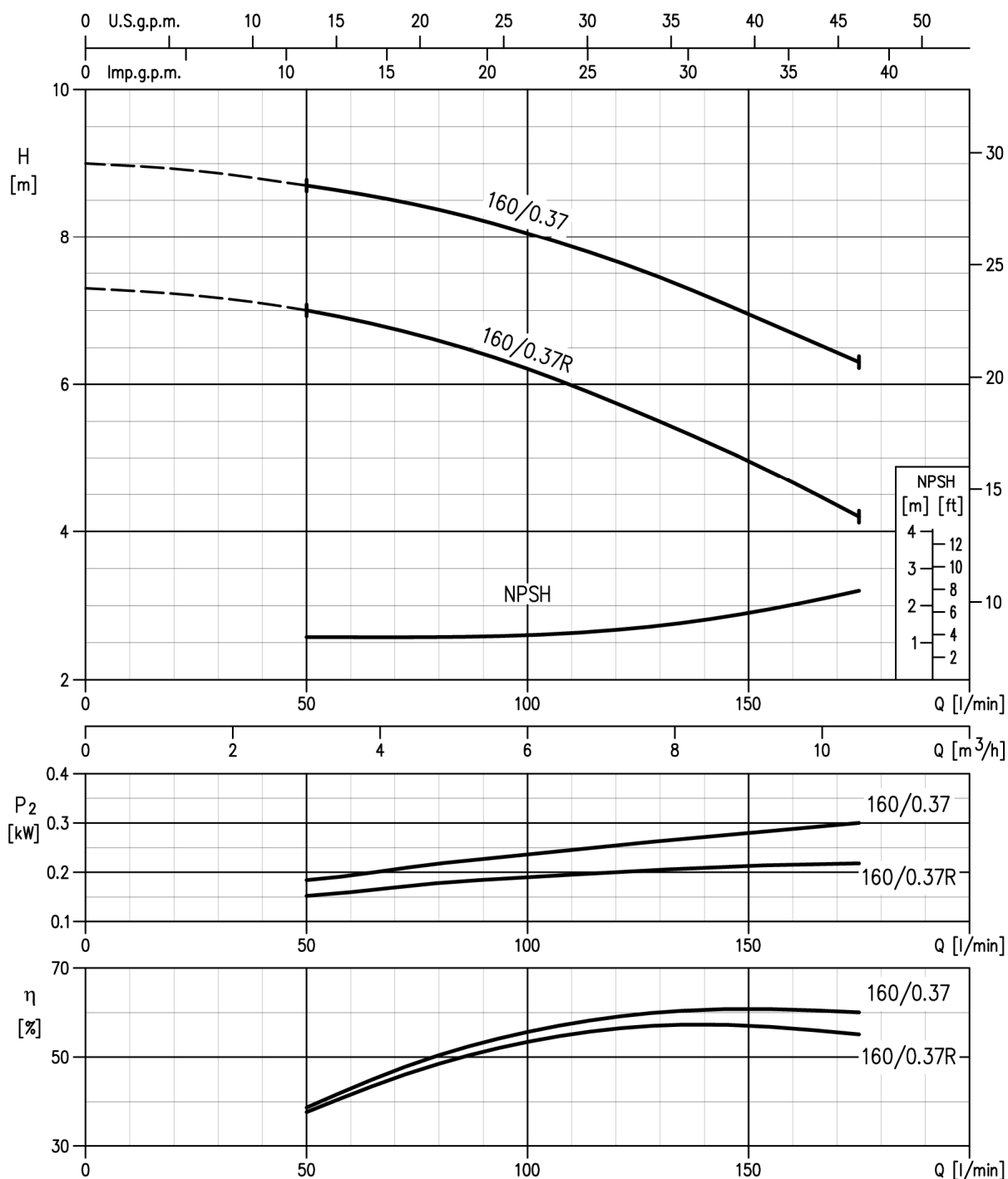
NPSH = net positive suction head required by the pump

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



Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

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

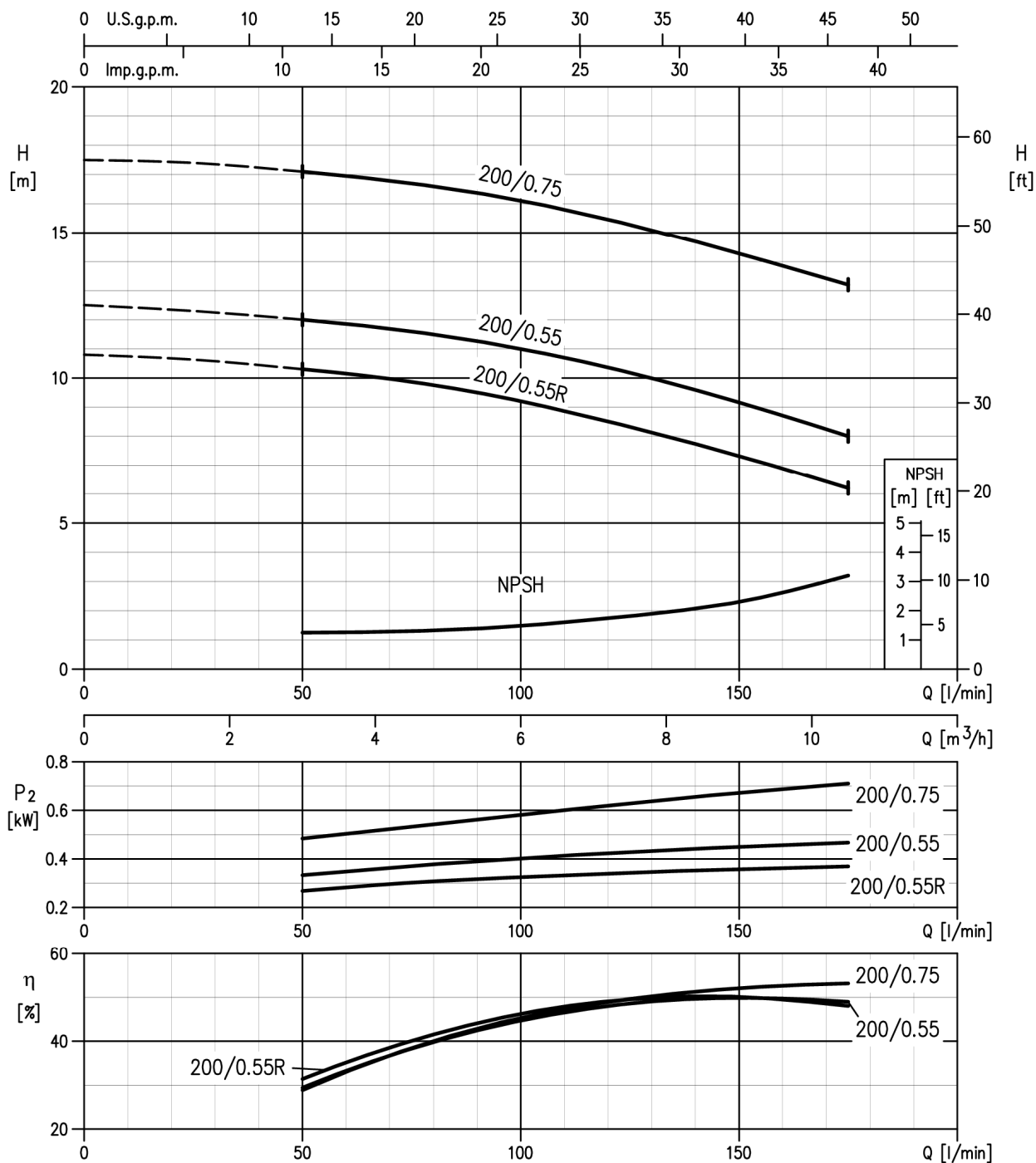


Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

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

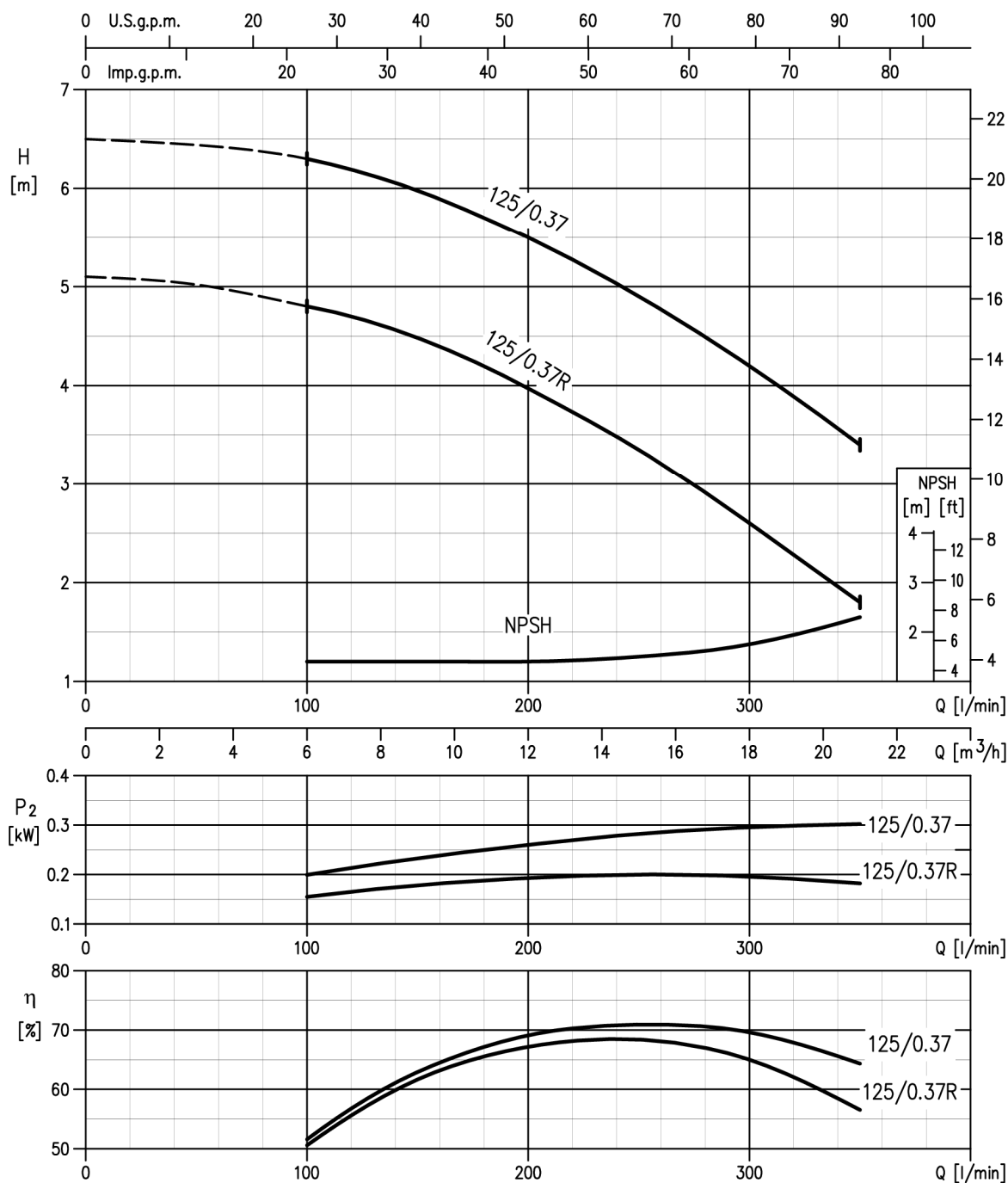


Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

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



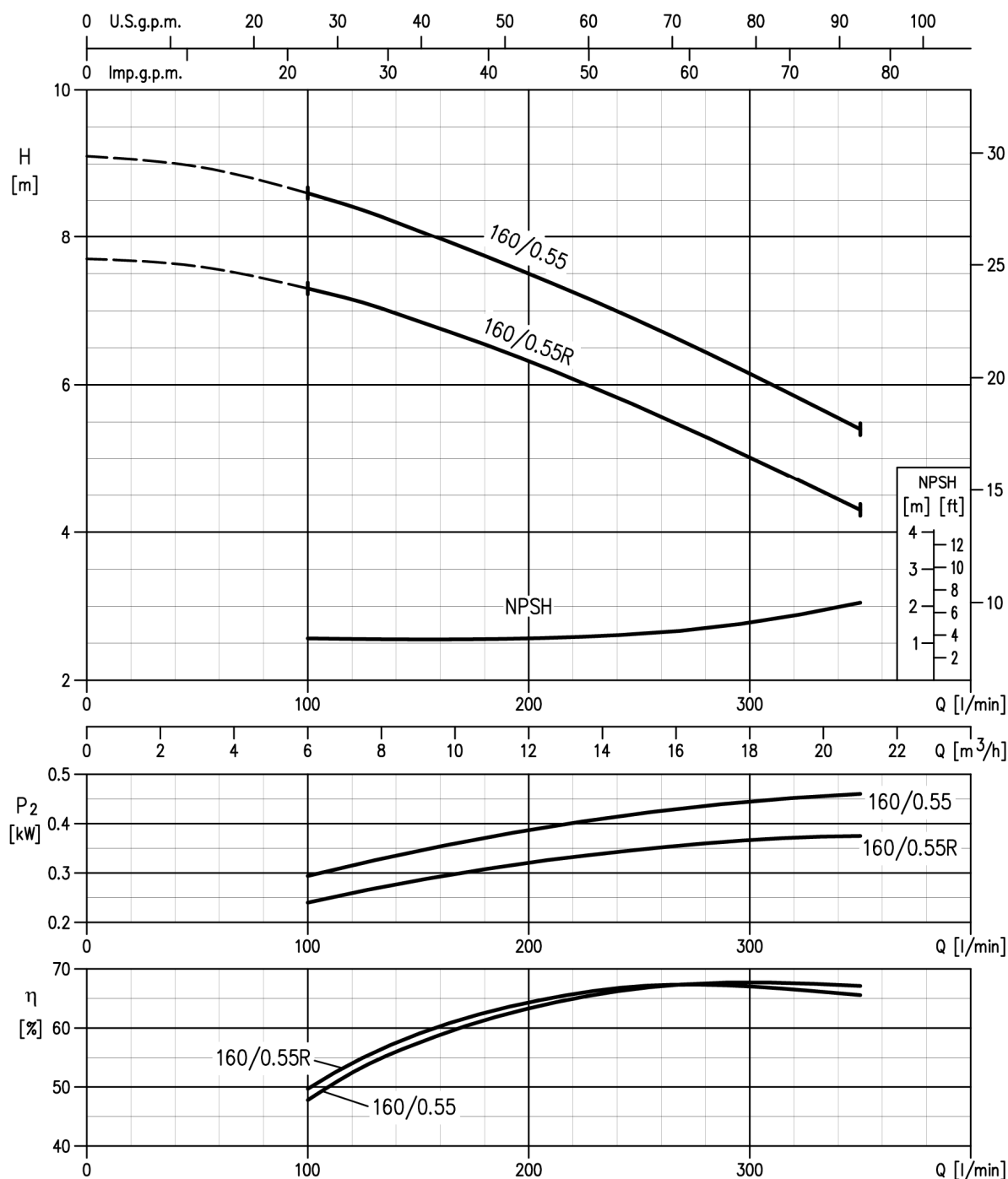
Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

PERFORMANCE CURVE**50Hz**

Rev. G

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

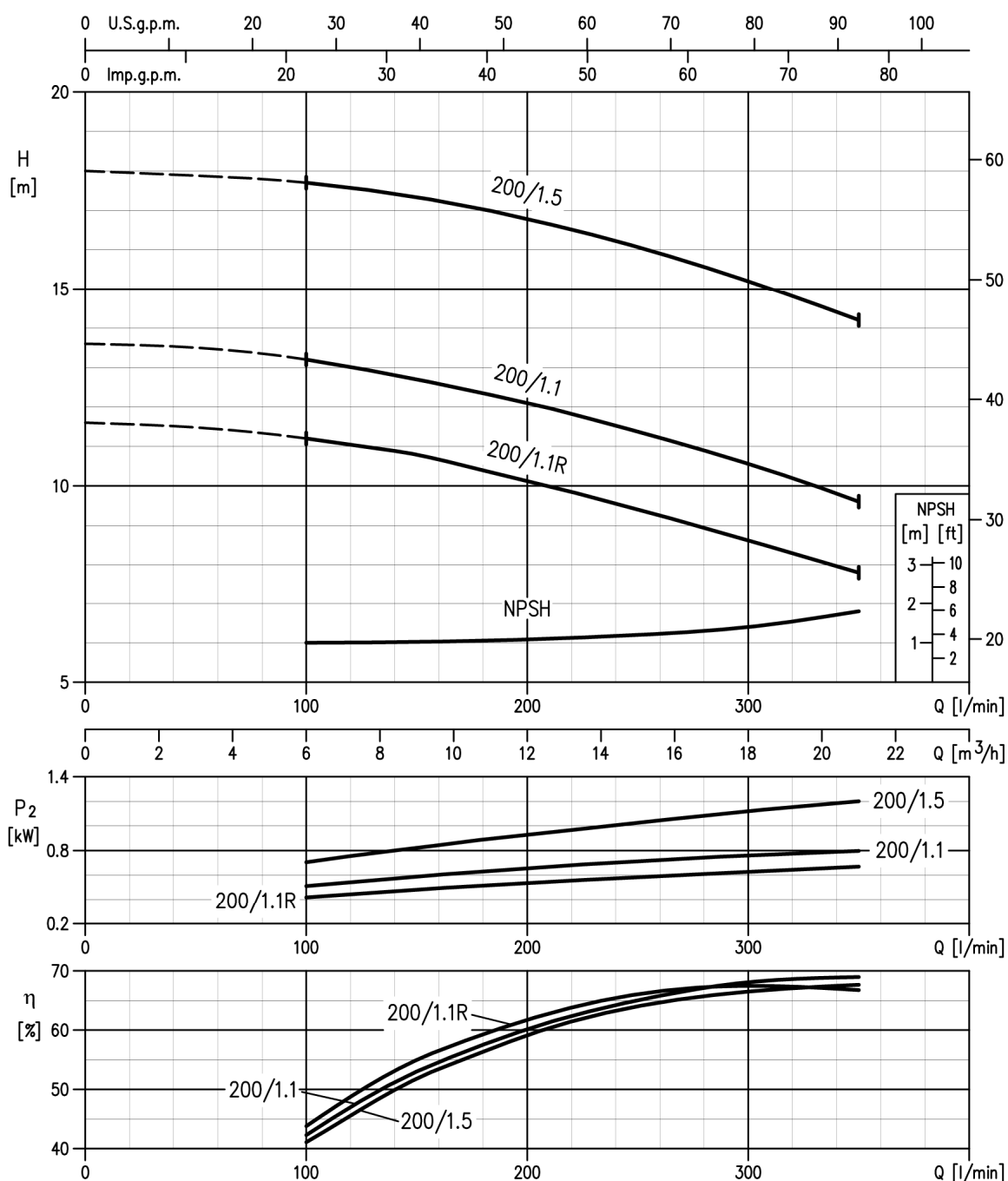


Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

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

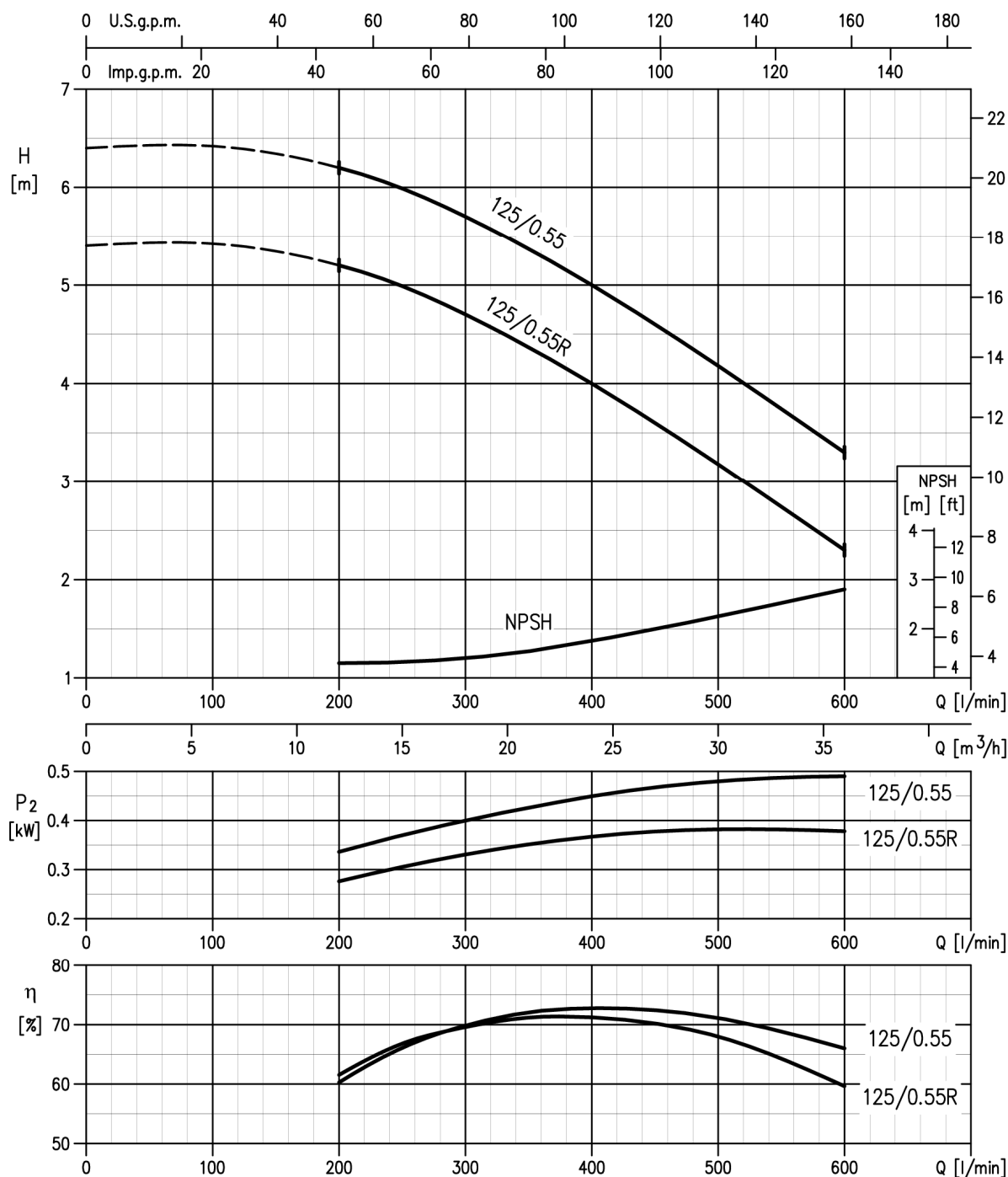
3(.)SF4 40-200/1.5 and 3(.)PF 40-200/L (1.5kW) – impeller diameter = 224 mm



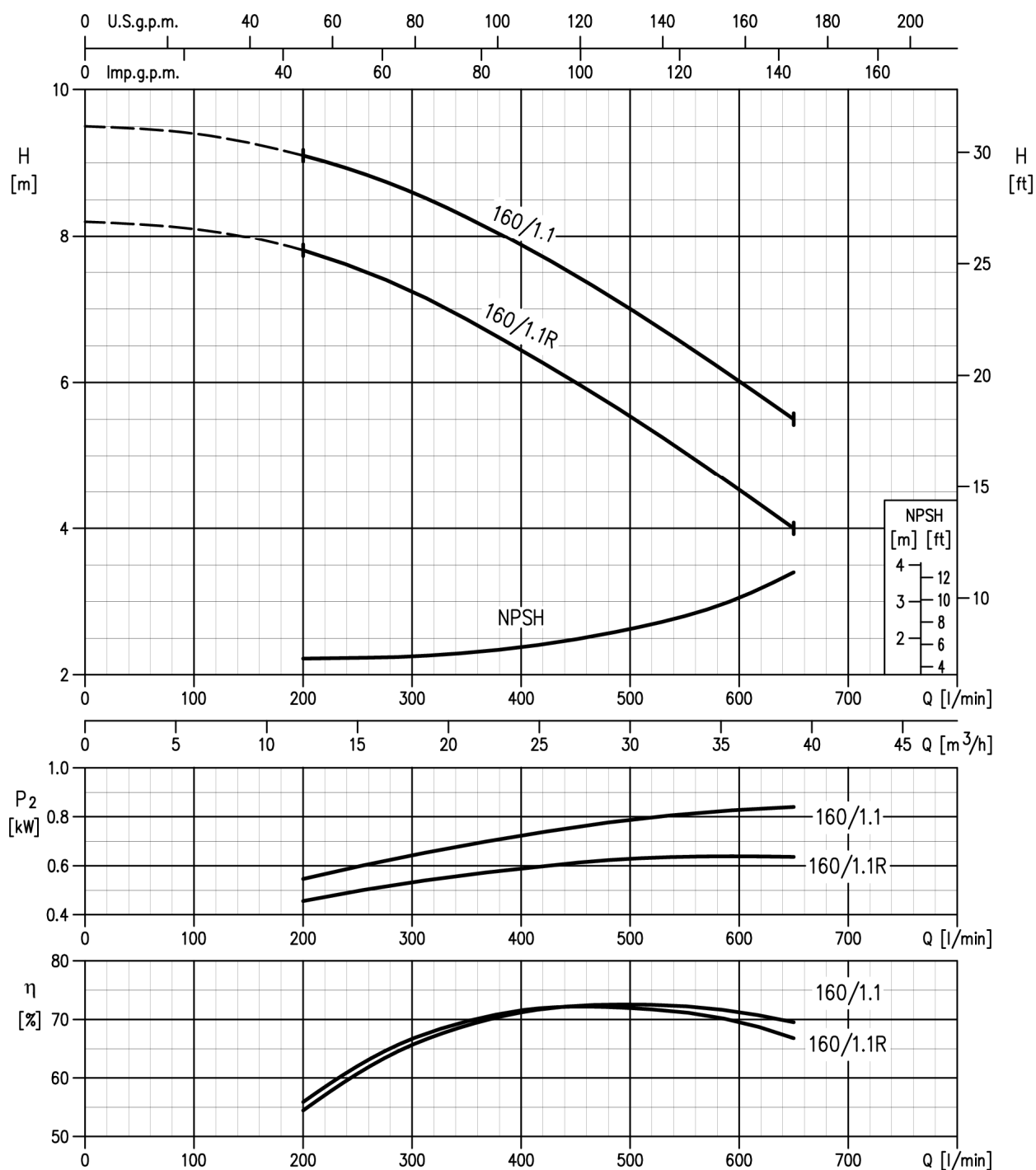
Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

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 $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

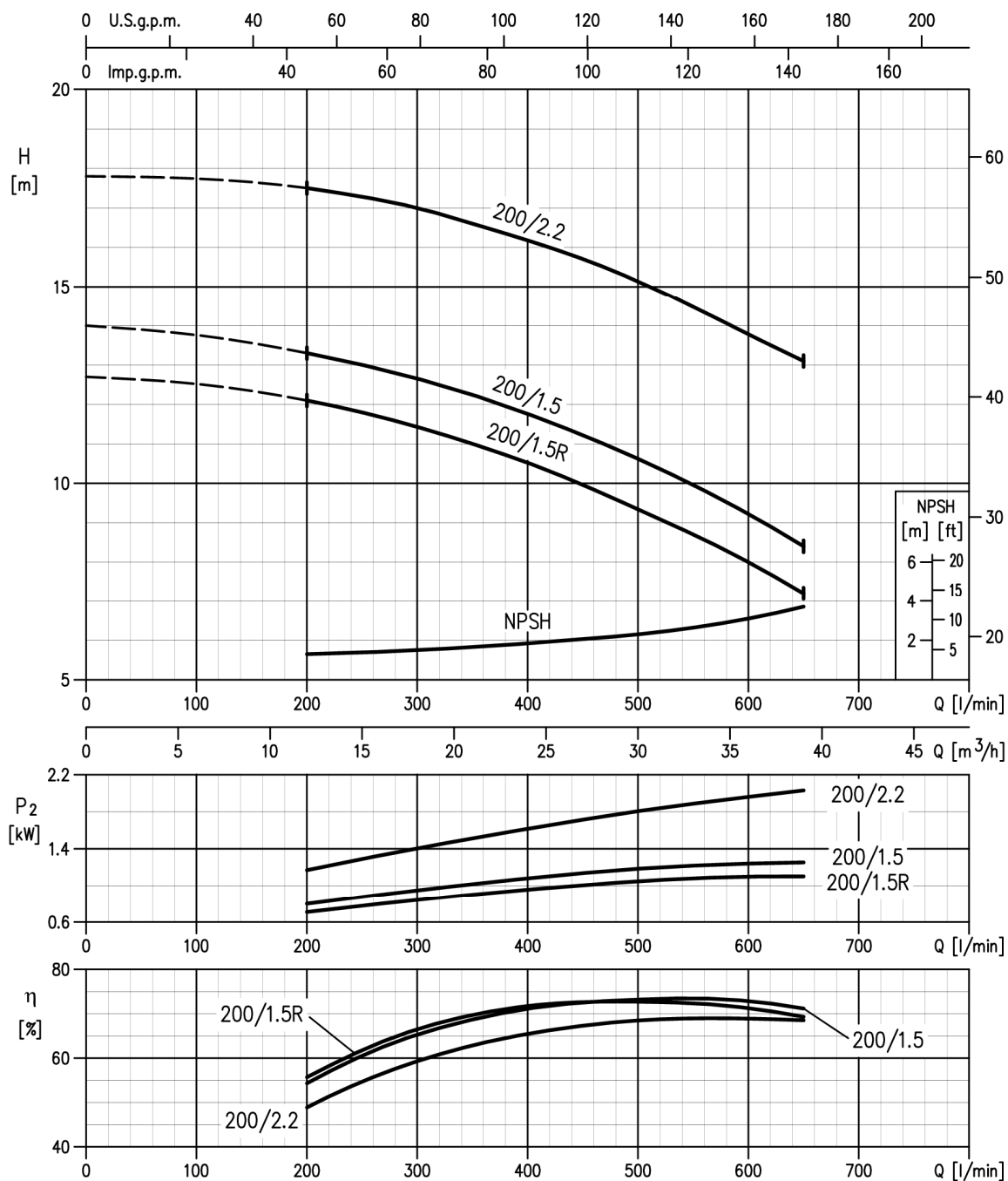
3(.)SF4 50-160/1.1R and 3(.)PF 50-160/R (1.1kW) – impeller diameter = 154 mm**3(.)SF4 50-160/1.1 and 3(.)PF 50-160 (1.1kW) – impeller diameter = 166 mm**Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

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

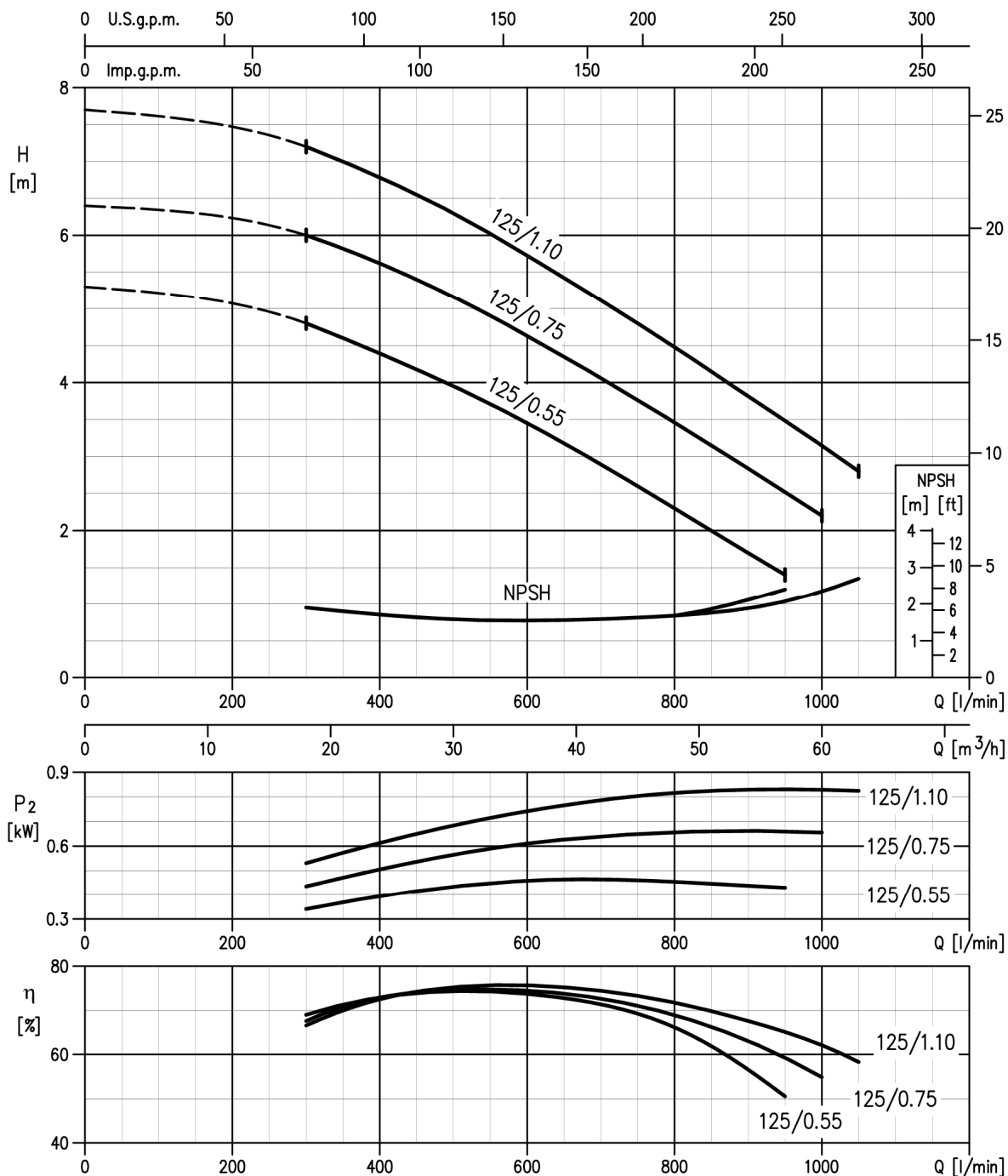
3(.)SF4 50-200/2.2 and 3(.)PF 50-200/L (2.2kW) – impeller diameter = 224 mm



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

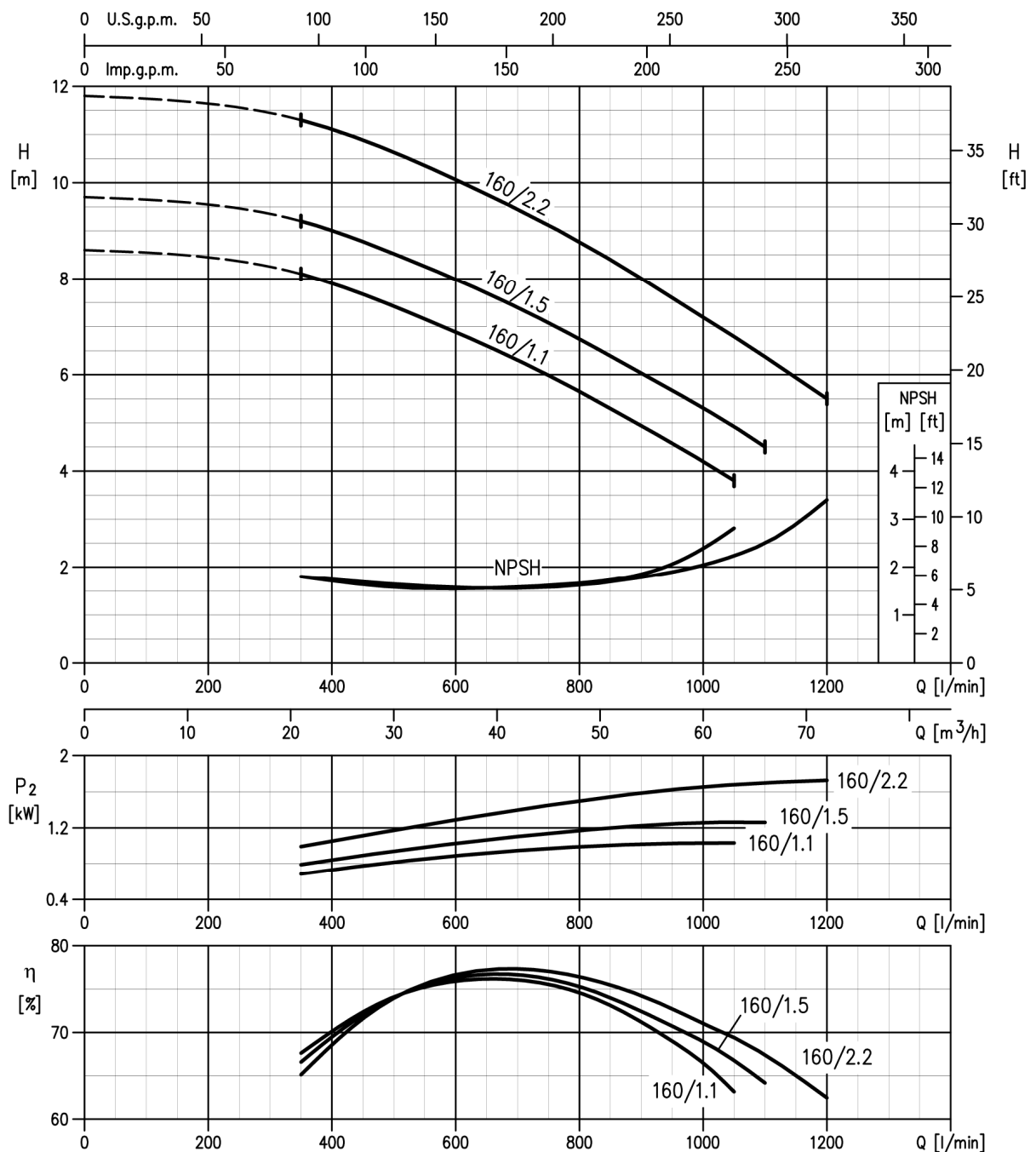
3(.)SF4 65-125/1.1 and 3(.)PF 65-125/L (1.10kW) – impeller diameter = 149 mm



Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

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

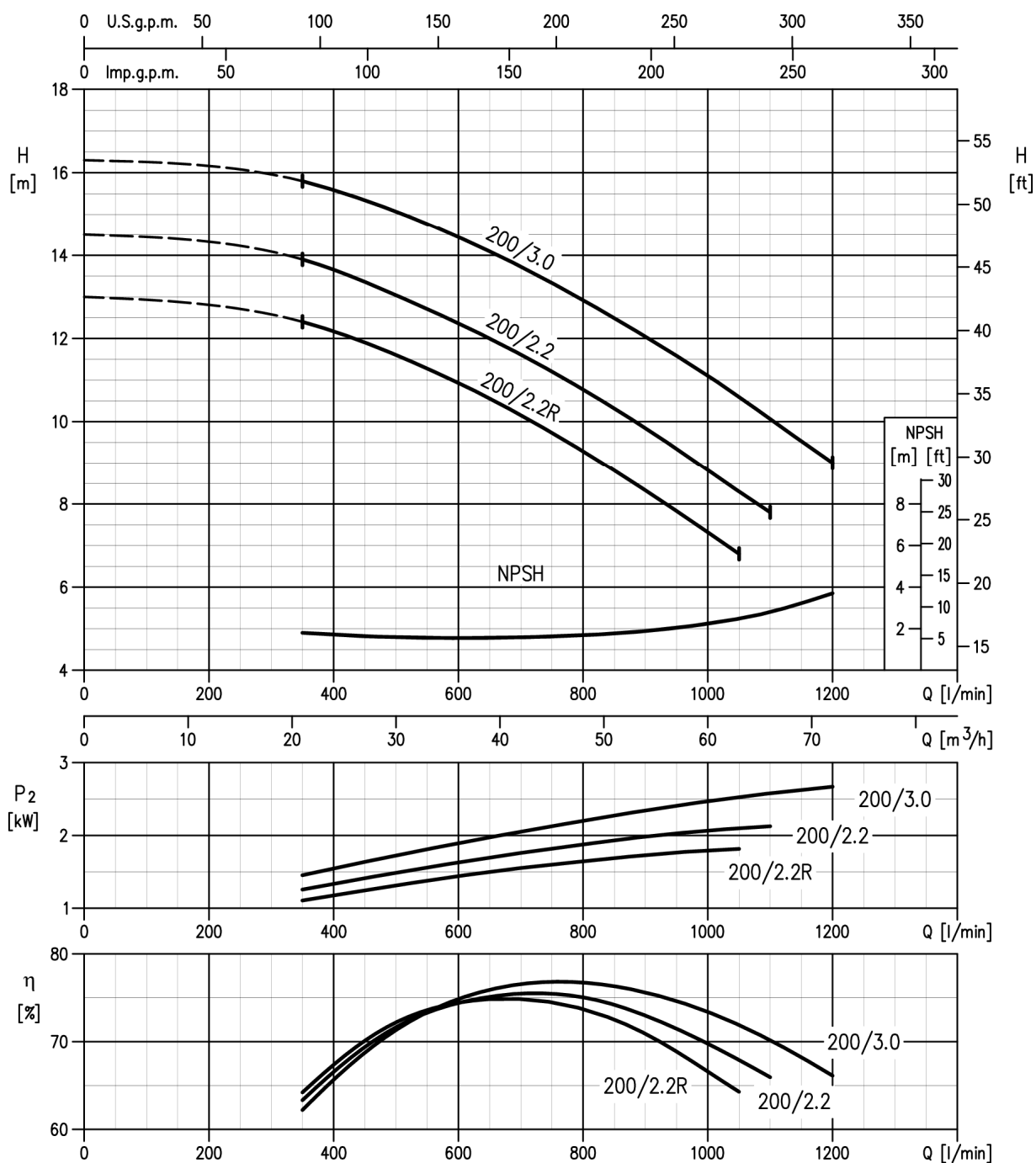


Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

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

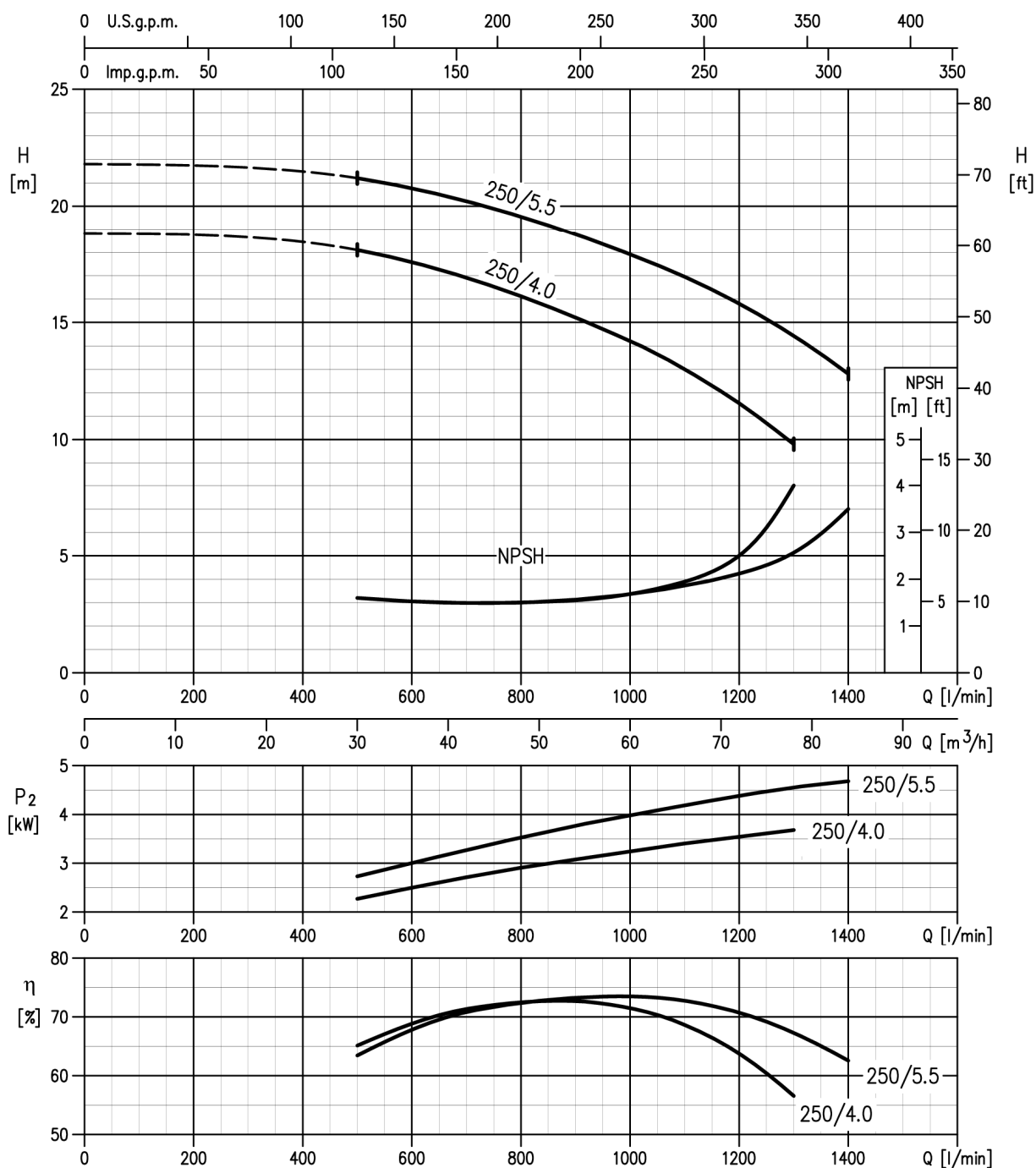
3(.)SF4 65-200/2.2 and 3(.)PF4 65-200 (2.2kW) – impeller diameter = 201 mm

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



Rotation speed $\approx 1400 \text{ min}^{-1}$
Test standard: ISO 9906:2012 - Grade 3B

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



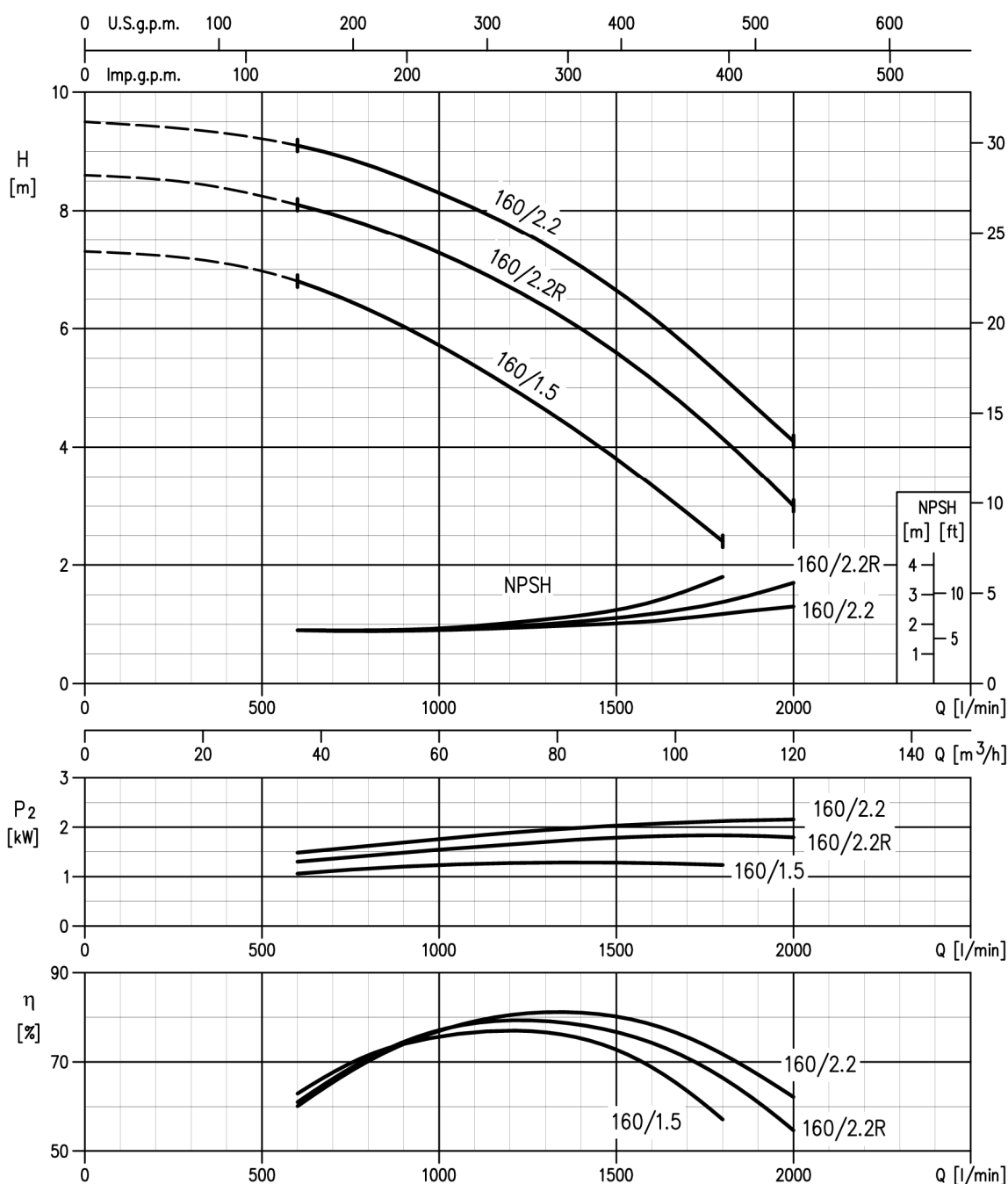
Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

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

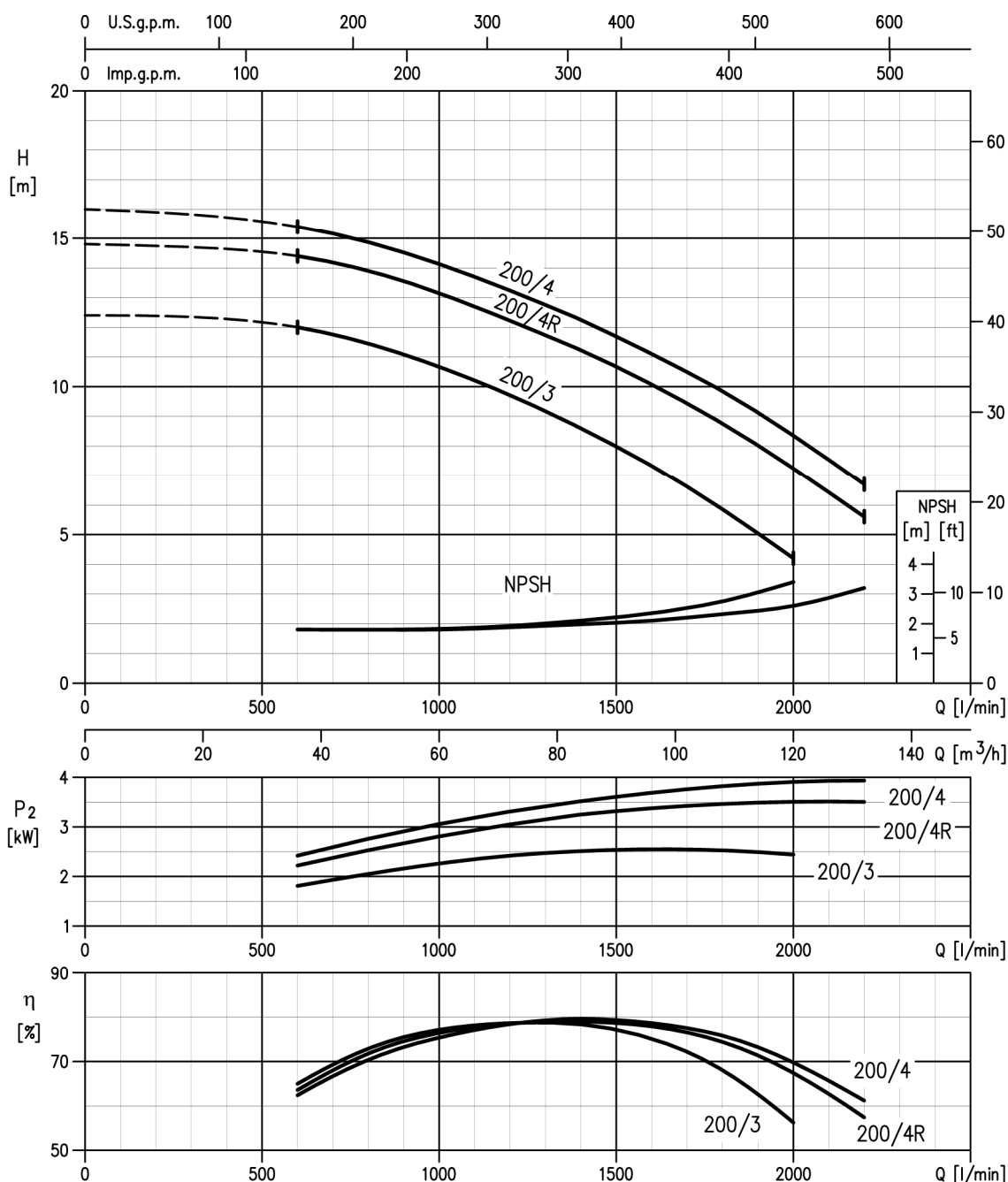


Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

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



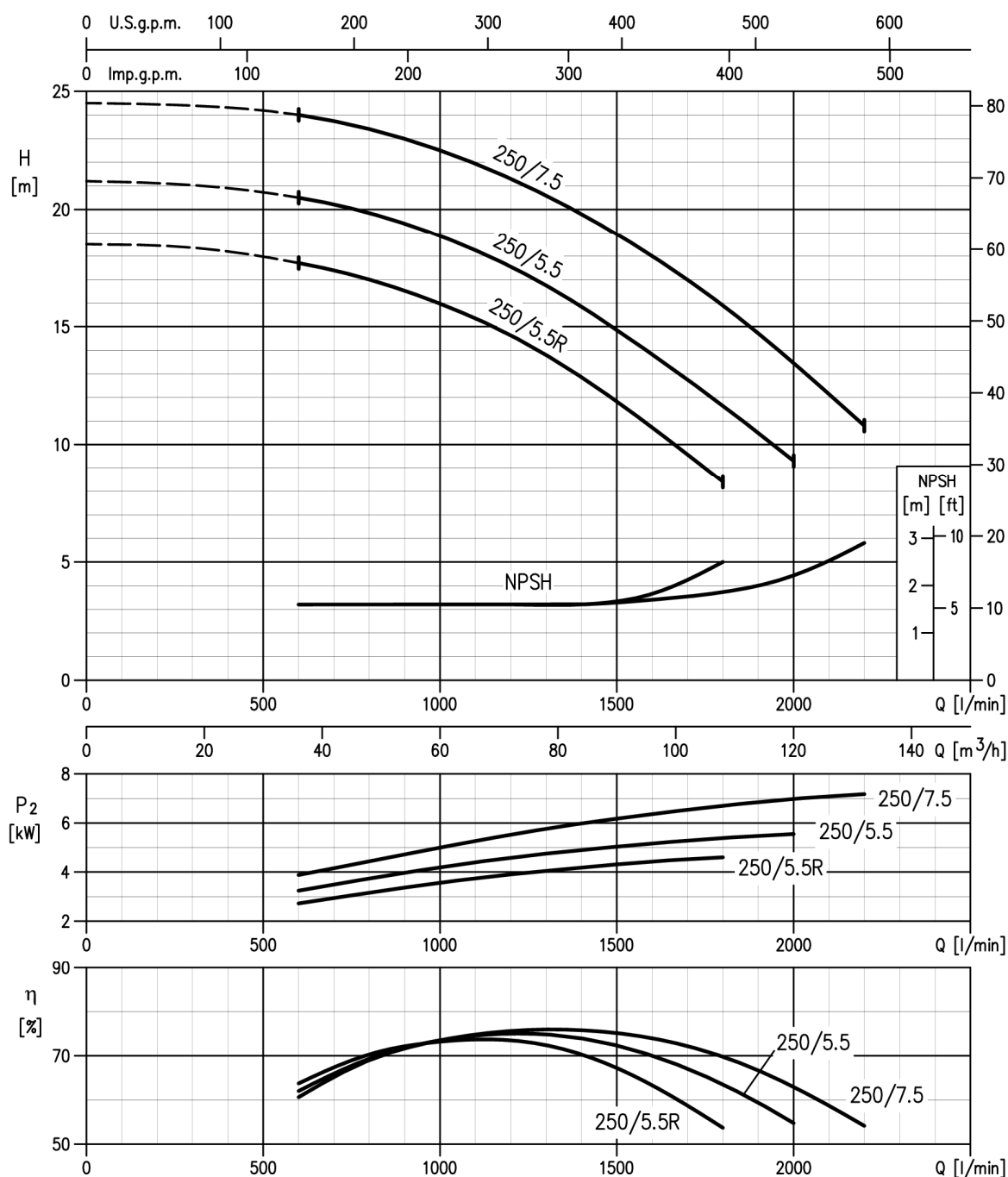
Rotation speed $\approx 1400 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

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

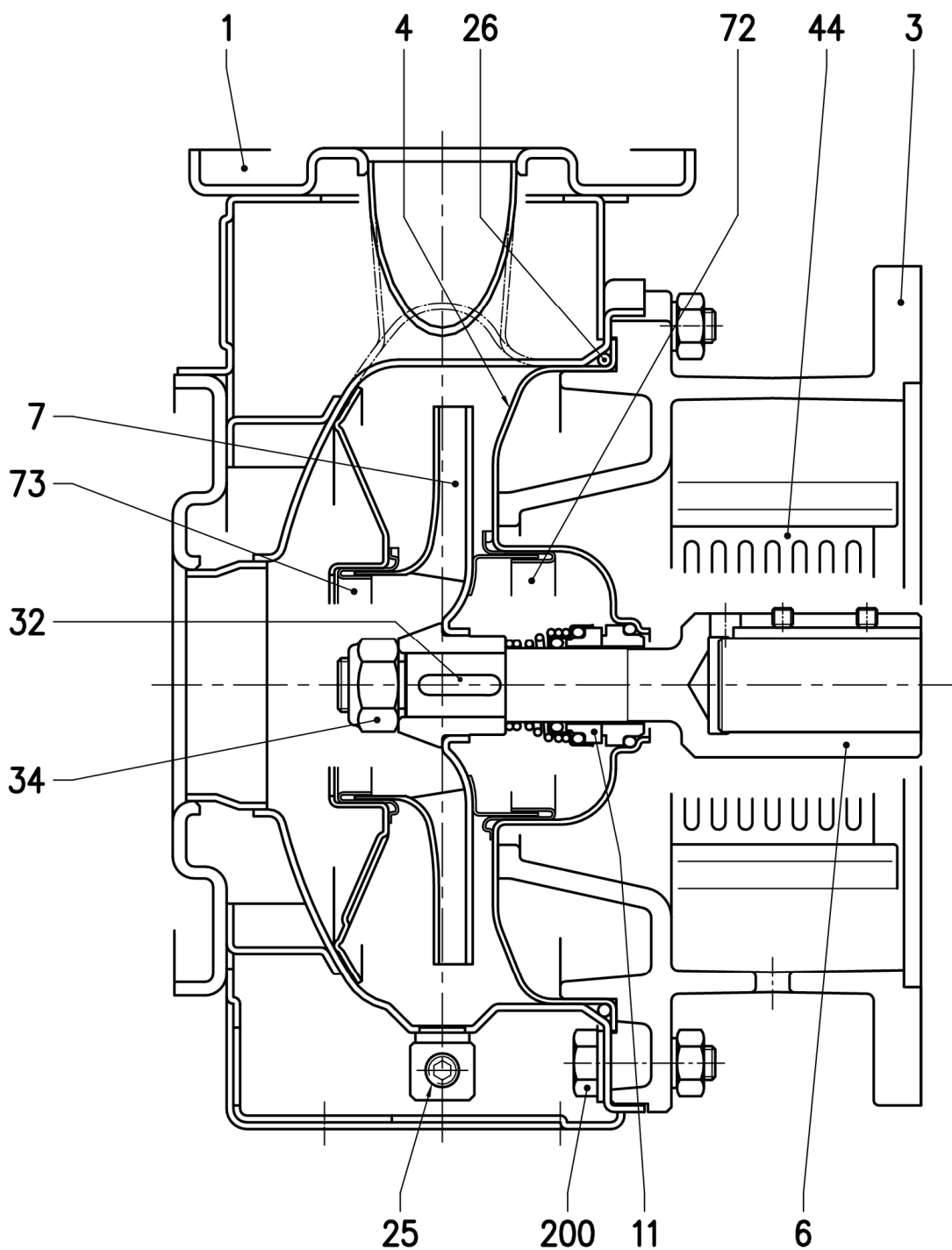
3LSF4 80-250/7.5 and 3LPF4 80-250/L (7.5kW) – impeller diameter = 263 mm



Rotation speed $\approx 1400 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

SECTIONAL VIEW DRAWING

3(.).SF4 32, 40, 50, 65



SECTIONAL VIEW TABLE
3(.)SF4 32, 40, 50, 65

N°	PART NAME		MATERIAL		DIMENSIONS	STANDARD	Q.TY
			3SF4	3LSF4			
1	Casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
3	Motor bracket		Cast iron EN-G JL-200-EN 1561				1
4	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
6	Coupling - Part in contact with liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	See table p. 318		1
7	Impeller	32, 40, 50 65-125/160/200	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
			EN 1.4401 (AISI 316)				
11	Mechanical seal		Carbon/Ceramic/NBR	SiC/SiC/FPM	See p.313÷317		1
25	Draing plug		EN 1.4401 (AISI 316) / PTFE		R 1/8" L=8	DIN 906	1
26	"O" ring	32-125, 40-125	NBR [3]	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	
32	Key		EN 1.440 1 (AISI 316)		6x6x25	UNI 6604	1
34	Impeller nut	Other model 50-200/2.2	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	M16x1.5 M18x1.5	UNI 7474	1
44	Protection		EN 1.430 1 (AISI 304)			EBARA DRAWING	2
72	Casing ring (not for 65 version) [1]		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
73	Casing ring (not for 65 version)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			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] Only for version 32-200, 40-200, 50-160, 50-200

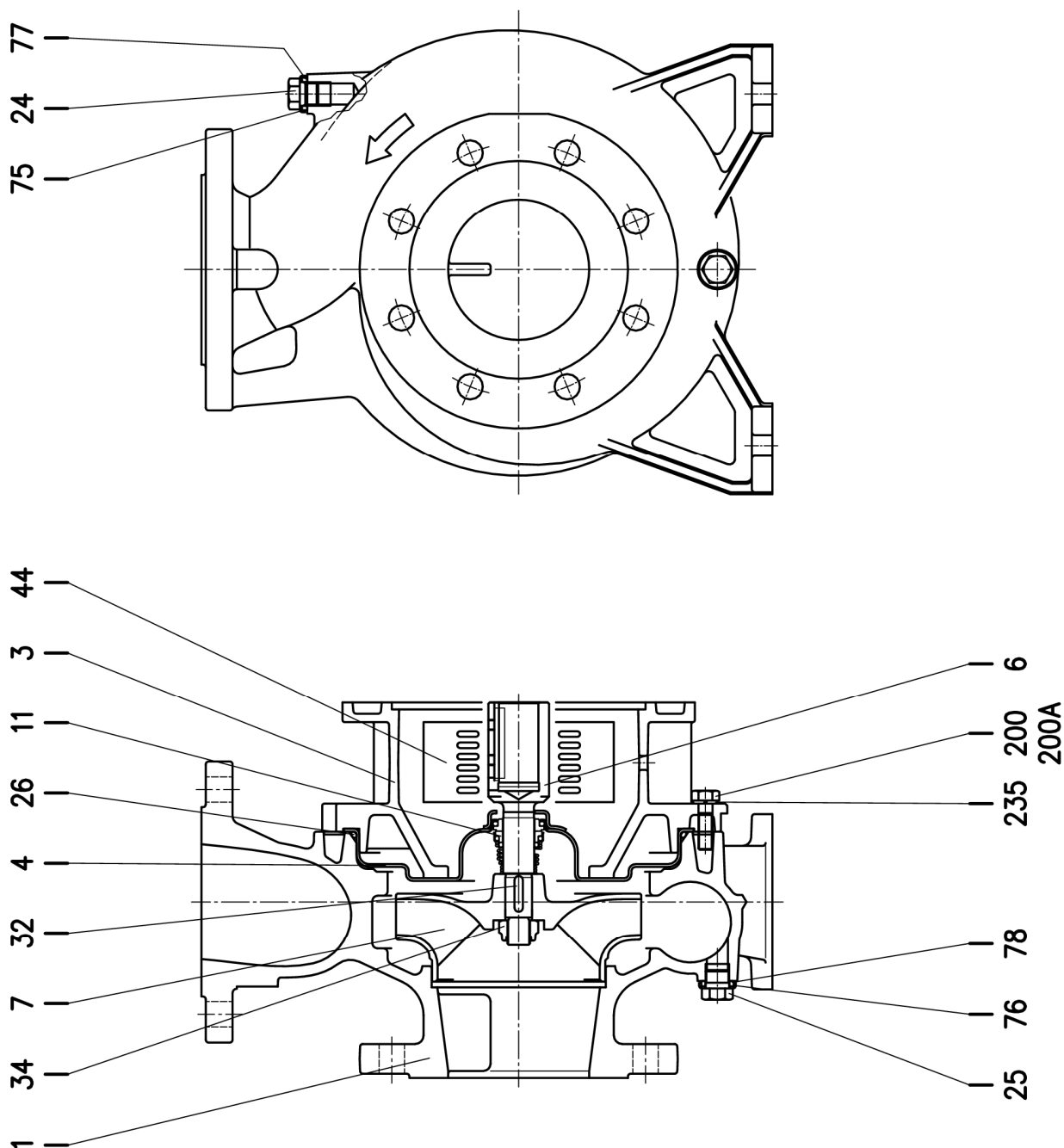
[2] N°for 1 unit=10 for 32-160, 40-160, 50-125, 65 -125

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

[3] FPM for H-HS-HW-HSW version

EPDM for E version , Q1AEGG, U3U3EGG, Q1Q1EGG, Q1U3EGG, U3CEGG

SECTIONAL VIEW DRAWING
3LSF4 80-160



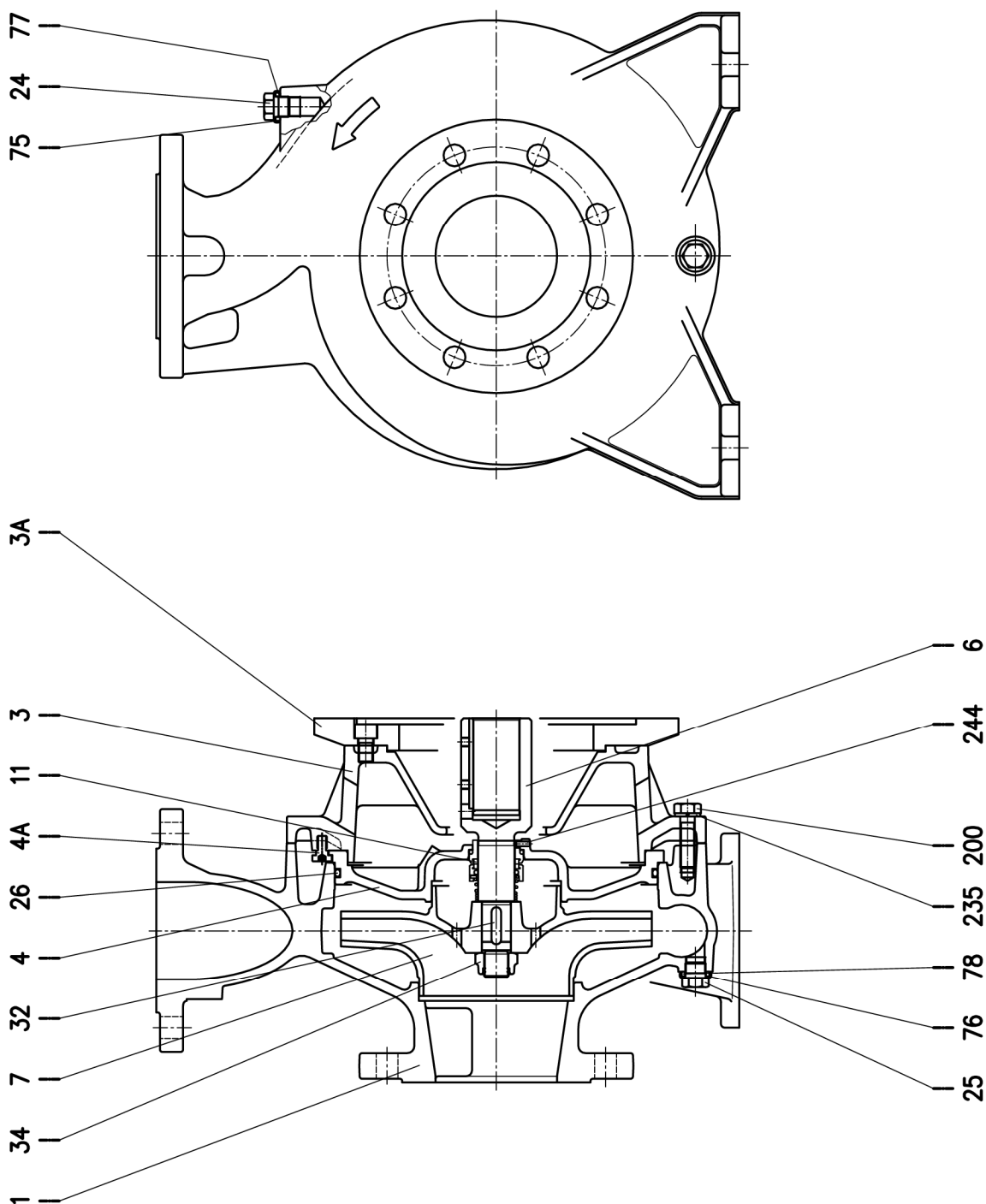
**SECTIONAL VIEW TABLE
3LSF4 80-160**

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	EN 1.4401 (AISI 316)			1
3	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4404 (AISI 316L)			1
6	Coupling	EN 1.4404 (AISI 316L)	See table p. 318		1
7	Impeller	EN 1.4401 (AISI 316)			1
11	Mechanical seal	SiC/SiC/FP	See p. 313÷317		1
24	Plug	EN 1.4404 (AISI 316L)	G3/8	EPE DRAWING	1
25	Plug		G3/8	EPE DRAWING	1
26	"O" ring	FPM [1]	227.96x5.34	OR 6895	1
32	Key	EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
34	Impeller nut	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
44	Protection	EN 1.4301 (AISI 304)		EPE DRAWING	2
75	Washer (plug)	EN 1.4404 (AISI 316L)			1
76	Washer (plug)				1
77	O-ring (plug)	FPM [1]			1
78	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

[1] FPM for H-HW-HSW option
EPDM for E version, U3U3EGG, Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG

SECTIONAL VIEW DRAWING
3LSF4 65-250, 80



SECTIONAL VIEW TABLE
3LSF4 65-250, 80

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	EN 1.4401 (AISI 316)			1
3	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
3A	Adapter ring [1]	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4401 (AISI 316)			1
4A	Screw for casing cover	EN 1.4301(AISI 304)			2
6	Coupling	EN 1.4404 (AISI 316L)	See table p. 318		1
7	Impeller	EN 1.4401 (AISI 316)			1
11	Mechanical seal	SiC/SiC/FPM	See p. 313÷317		1
24	Plug	EN 1.4404 (AISI 316L)	G3/8	EPE DRAWING	1
25	Plug		G3/8	EPE DRAWING	1
26	"O" ring	FPM [3]	253.36x5.34	OR 6995	1
32	Key	EN 1.4401 (AISI 316)	8x7x30	UNI 6604	1
34	Impeller nut	EN 1.4404 (AISI 316L)	M20x1.5	UNI 7474	1
75	Washer (plug)	EN 1.4404 (AISI 316L)			1
76	Washer (plug)				
77	O-ring (plug)	FPM [3]			1
78	O-ring (plug)				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

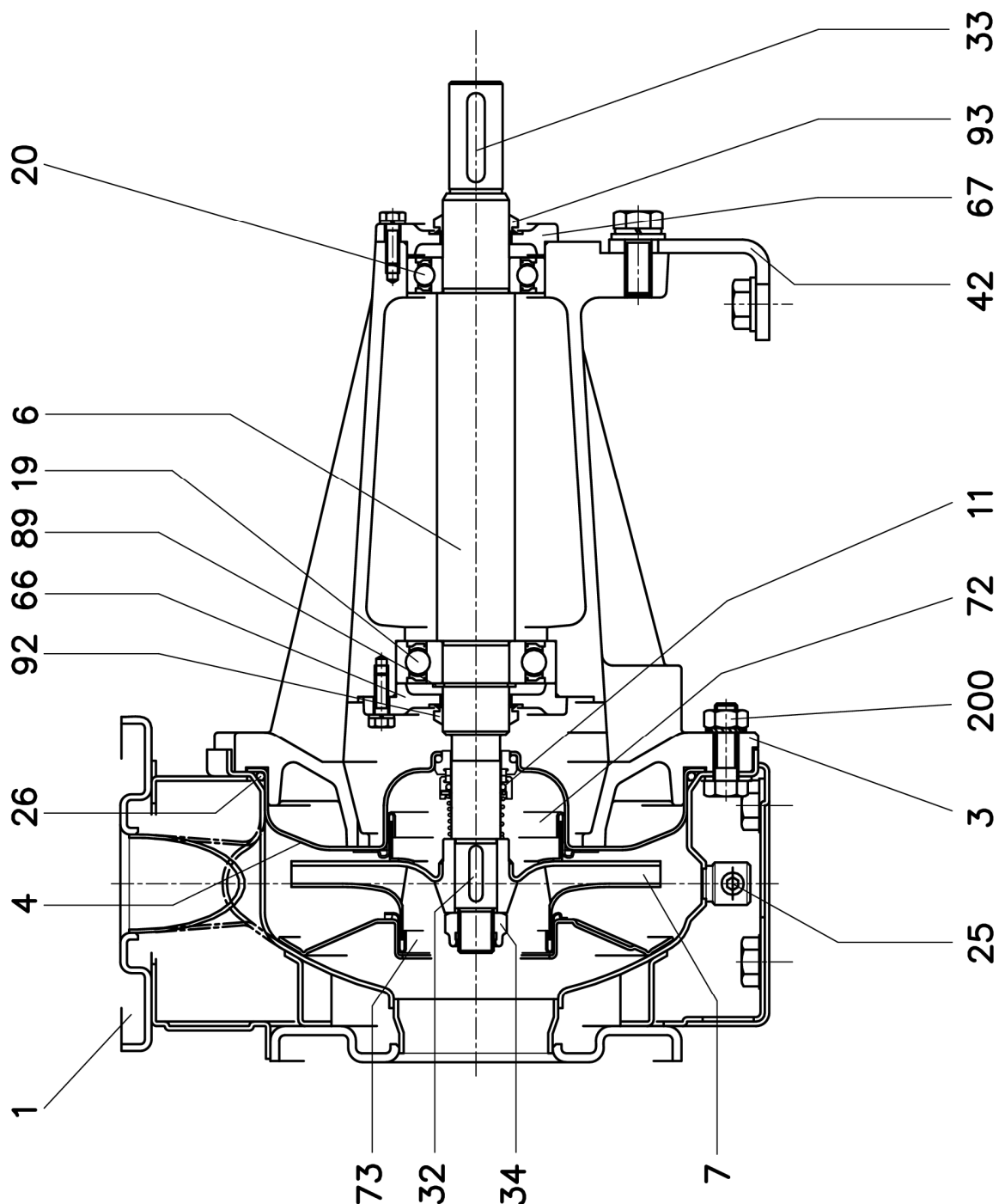
Counterflange kit on request, see table p. 319-320

[1] Only for 65-250/5.5kW

[2] Not for H and E option

[3] FPM for H-HW-HSW option

EPDM for E version, Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG



SECTIONAL VIEW TABLE
3(.).PF4 32, 40, 50, 65

N°	PART NAME		MATERIAL		DIMENSIONS	STANDARD	Q.TY
			3PF(4)	3LPF(4)			
1	Casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
3	Support		Cast iron EN-GJL-200-EN 1561				1
4	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
6	Shaft - Part in contact with liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
7	Impeller	32-40-50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
		65-125/160/200	EN 1.440 1 (AISI 316)				
11	Mechanical seal		Carbon/Ceramic/NBR	SiC/SiC/FPM	See p. 313+317		1
19	Bearing		-		See table p. 312		1
20	Bearing		-		See table p. 312		1
25	Draning plug		EN 1.4401 (AISI 316) / PTFE		R 1/8" L=8	DIN 906	1
26	"O" ring	32-125, 40-125	NBR [3]	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	
32	Key		EN 1.4401 (AISI 316)		6x6x25	UNI 6604	1
33	Key		C 40		8x7x40	UNI 6604	1
34	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		
42	Pump support		Zinc-coated steel			EBARA DRAWING	1
66	Impeller side beari ng cover		Cast iron EN-GJL-200-EN 1561				1
67	Motor side bearing cover		Cast iron EN-GJL-200-EN 1561				1
72	Casing ring (not fo r 65 version)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
73	Casing ring (not fo r 65 version)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
89	Snap ring	32-125, 32-160, 40-125, 50-125	Carbon tool steel TC 80		Ø30	UNI 7435	1
		Other model			Ø40		
92	"V" ring		-		VS - 0030		1
93	"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

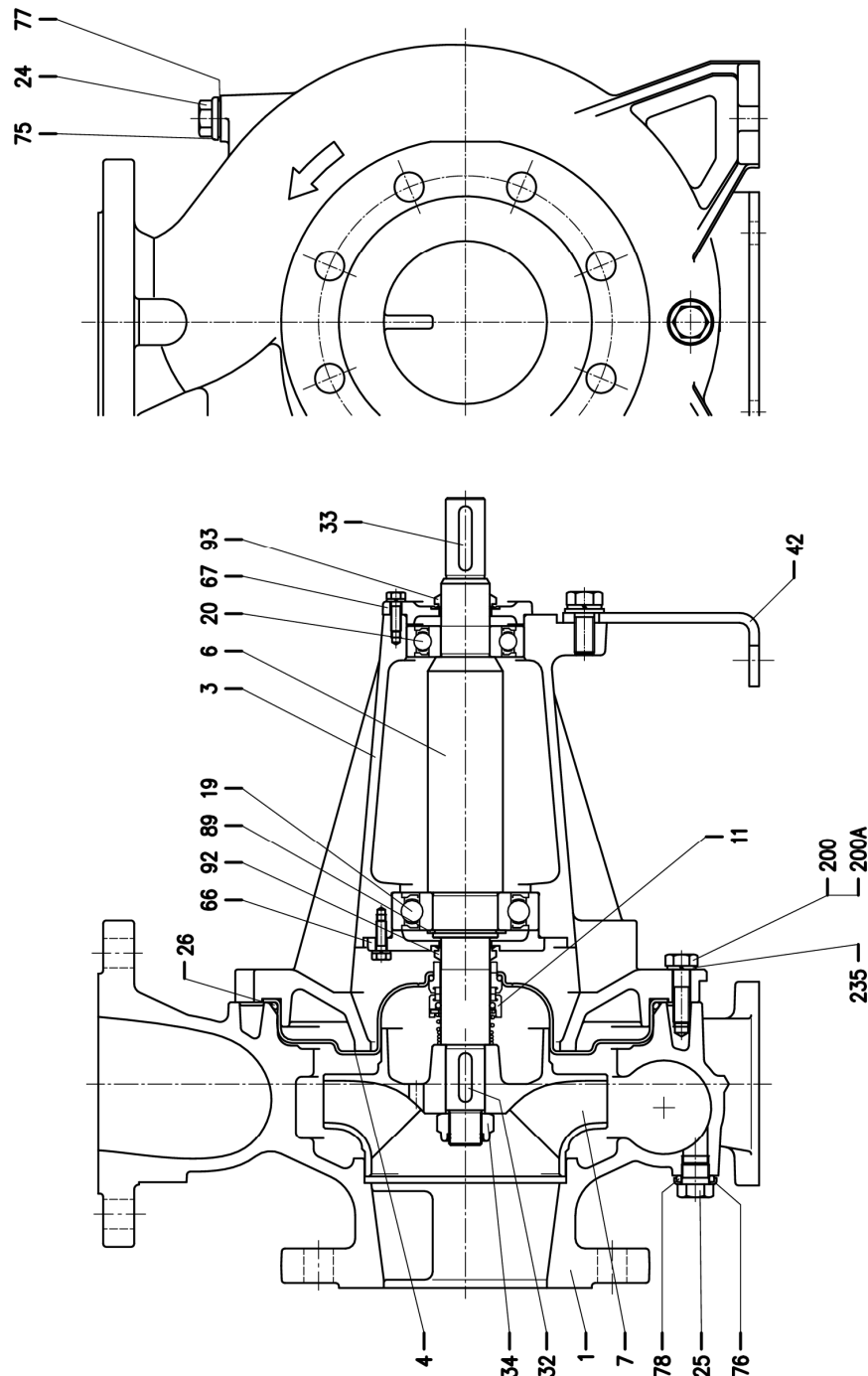
[2] N° for 1 unit=10 for 32-160, 40-160, 50-125, 65-125

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

[3] FPM for H-HS-HW-HSW option

EPDM for E version, Q1AEGG, U3U3EGG, Q1Q1EGG, Q1U3EGG, U3CEGG

SECTIONAL VIEW DRAWING
3LPF4 80-160



SECTIONAL VIEW DRAWING**3LPF4 80-160**

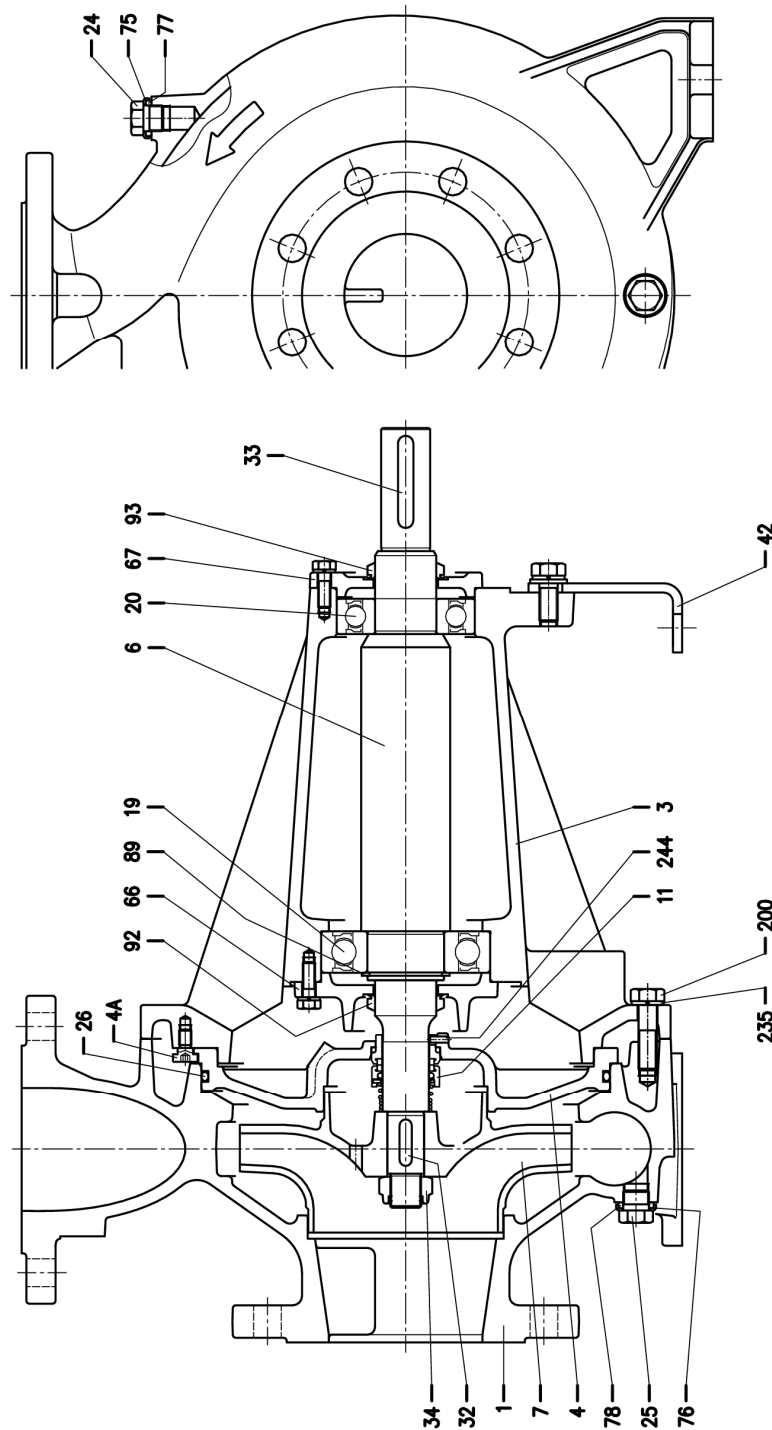
N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	EN 1.4401 (AISI 316)			1
3	Support	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4404 (AISI 316L)			1
6	Shaft	EN 1.4404 (AISI 316L)-Part in contact with liquid			1
7	Impeller	EN 1.4401 (AISI 316)			1
11	Mechanical seal	SiC/SiC/FPM	See p. 313-317		1
19	Bearing	-	See table p. 312		1
20	Bearing	-	See table p. 312		1
24	Plug	EN 1.4404 (AISI 316L)	G3/8	EPE DRAWING	1
25	Plug		G3/8	EPE DRAWING	1
26	"O" ring	FPM [1]	227.96x5.34	OR 6895	1
32	Key	EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
33	Key	C 40	8x7x40		1
34	Impeller nut	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
42	Pump support	Zinc-coated steel		EPE DRAWING	1
66	Impeller side bearing cover	Cast iron EN-GJL-200-EN 1561			1
67	Motor side bearing cover	Cast iron EN-GJL-200-EN 1561			1
75	Washer (plug)	EN 1.4404 (AISI 316L)			1
76	Washer (plug)				1
77	O-ring (plug)	FPM [1]			1
78	O-ring (plug)				1
89	Snap ring	Carbon tool steels TC 80	Ø 40	UNI 7435	1
92	"V" ring	-	VS-0030		1
93	"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

[1] FPM for H-HW-HSW option

EPDM for E version, U3U3EGG, Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG

SECTIONAL VIEW DRAWING
3LPF4 65-250, 80



SECTIONAL VIEW TABLE
3LPF4 65-250, 80

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q. TY
1	Casing	EN 1.4401 (AISI316)			1
3	Support	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4401 (AISI316)			1
4A	Screw for casing cover	EN 1.4301 (AISI 304)			2
6	Shaft	EN 1.4462 (Duplex stainless steel)-Part in contact with liquid			1
7	Impeller	EN 1.4401 (AISI316)			1
11	Mechanical seal	SiC/SiC/FPM	See p. 313-317		1
19	Bearing	-	See table p. 312		1
20	Bearing	-	See table p. 312		1
24	Plug	EN 1.4404 (AISI316L)	G3/8		1
25	Plug		G3/8		1
26	"O" ring	FPM [2]	253.36x5.34	OR 6995	1
32	Key	EN 1.4401 (AISI 316)	8x7x30	UNI 6604	1
33	Key	C 40	10x8x60	UNI 6604	1
34	Impeller nut	EN 1.4404 (AISI 316L)	M20x1.5	UNI 7474	1
42	Pump support	Zinc-coated steel			1
66	Impeller side bearing cover	Cast iron EN-GJL-200-EN 1561			1
67	Motor side bearing cover	Cast iron EN-GJL-200-EN 1561			1
75	Washer (plug)	EN 1.4404 (AISI 316L)			1
76	Washer (plug)				1
77	O-ring (plug)	FPM [2]			1
78	O-ring (plug)				1
89	Snap ring	Carbon tool steels TC 80	Ø 50	UNI 7435	1
92	"V" ring	-	VS-0040		1
93	"V" ring				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

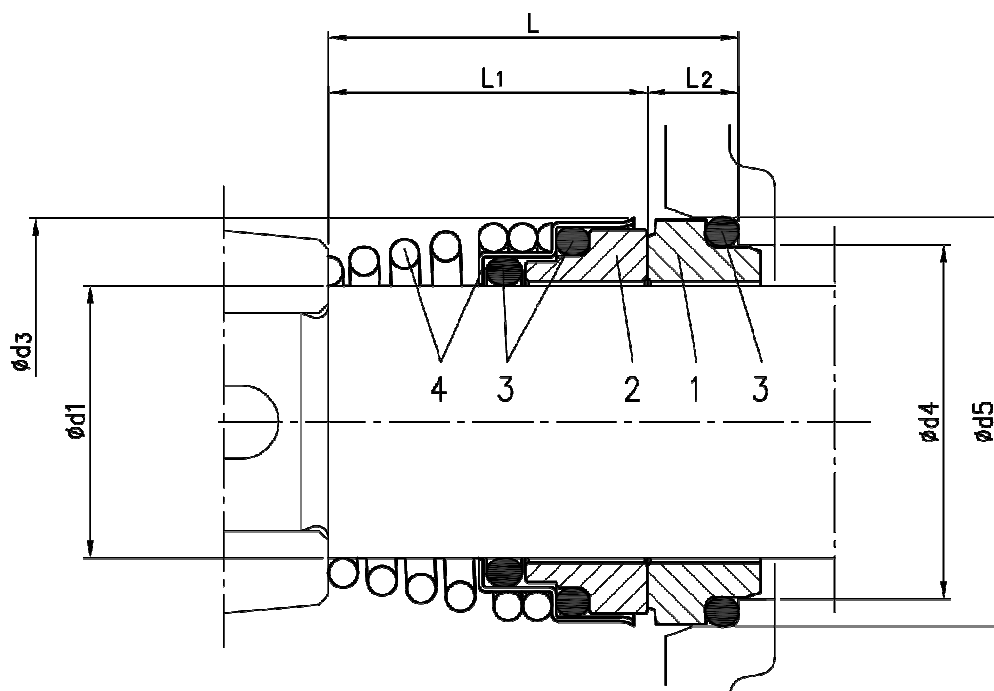
[1] Not for H and E option.

[2] FPM for H-HW-HSW option

EPDM for E version, Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG

3(.)PF4 BALL BEARING

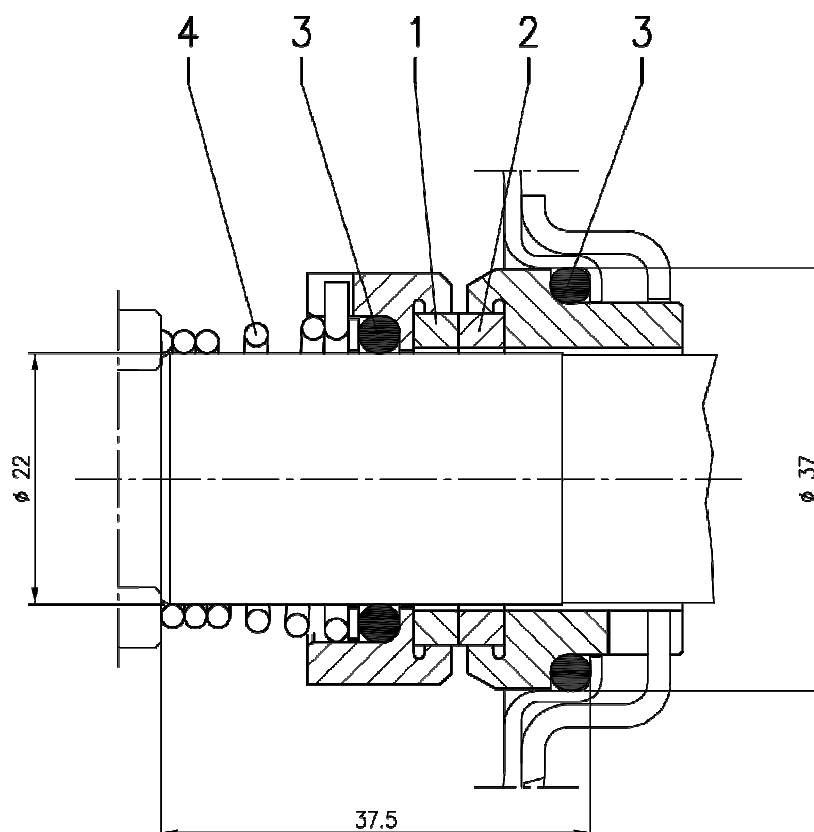
Pump type		Ball bearing	
		Pump side	Motor side
3(.)PF4	32-125	6306-2RS1 C3	6206-2RS1 C3
3(.)PF4	32-160/R		
3(.)PF4	32-160		
3(.)PF4	32-200 /R	6308-2RS1 C3	6306-2RS1 C3
3(.)PF4	32-200		
3(.)PF4	32-200 /L		
3(.)PF4	40-125 /R	6306-2RS1 C3	6206-2RS1 C3
3(.)PF4	40-125		
3(.)PF4	40-160 /R		
3(.)PF4	40-160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

MECHANICAL SEAL (standard, H, E and special version)

Version	Pump 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												
	65-125/160/200												
H	32-125/160/200	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	FPM	EN 1.4401 (AISI 316)
	40-125/160/200												
	50-125/160/200												
	65-125/160/200												
E	80-160	30	24	46	39	45	42.5	32.5	10	Carbon	Ceramic	EPDM	EN 1.4401 (AISI 316)
	65-250												
	80-200/250												
	80-200/250												
Q1AEGG*	65-250	30	24	46	39	45	42.5	32.5	10	Silicon Carbide	Metallised Carbon	EPDM	EN 1.4401 (AISI 316)
	80-200/250												

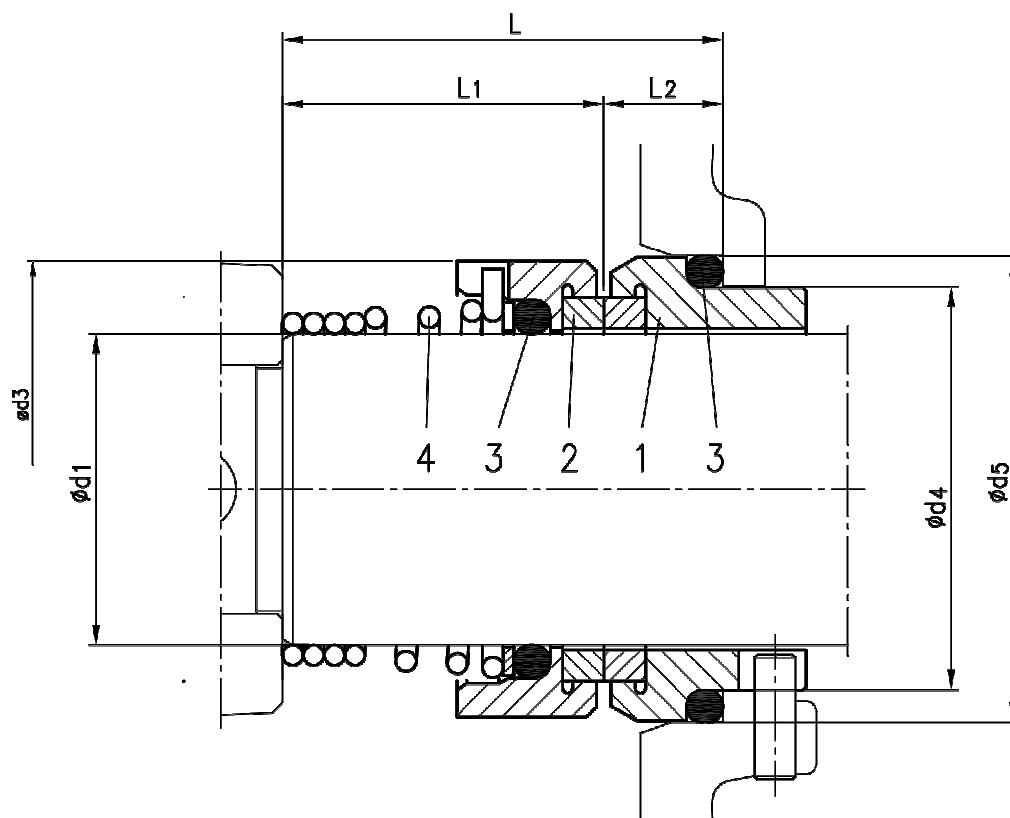
* The drawing is only indicative

MECHANICAL SEAL (L VERSION Ø22)

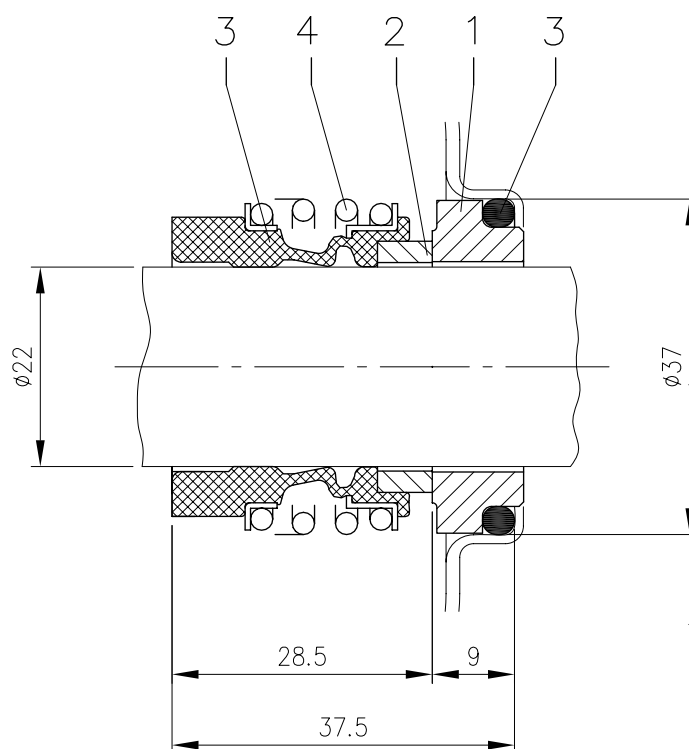


Version	Pump type	Material			
		1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + spring
L Ø22	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)

MECHANICAL SEAL (L VERSION Ø30)

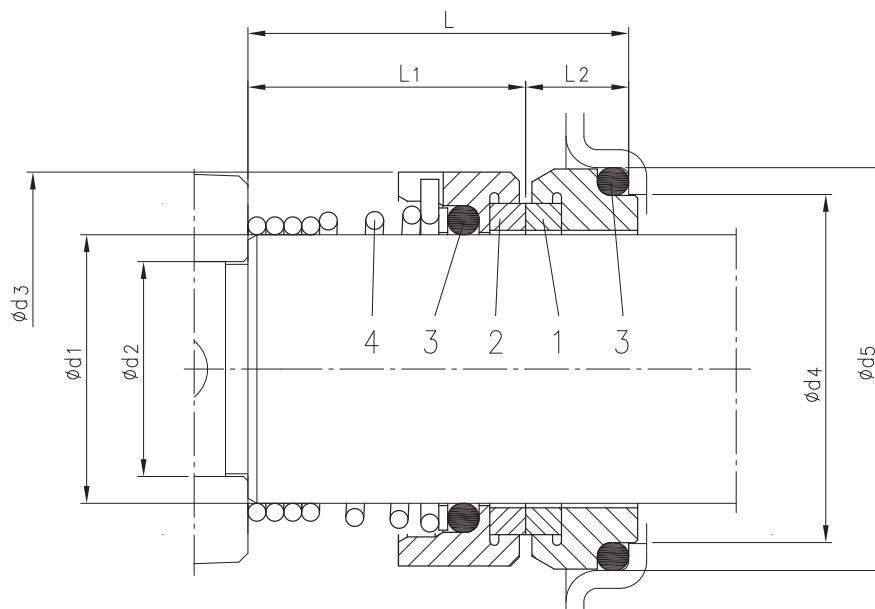


Version	Pump type	Dimensions								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + spring
L Ø30	65-250 80-200/250	30	24	44	39	45	42.5	31	11.5	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)

MECHANICAL SEAL (HS version e special version Ø22)

Version	Pump type	Material			
		1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + spring
HS Ø22	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)
Q1AEGG*	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	Silicon Carbide	Metallised Carbon	EPDM	EN 1.4401 (AISI 316)

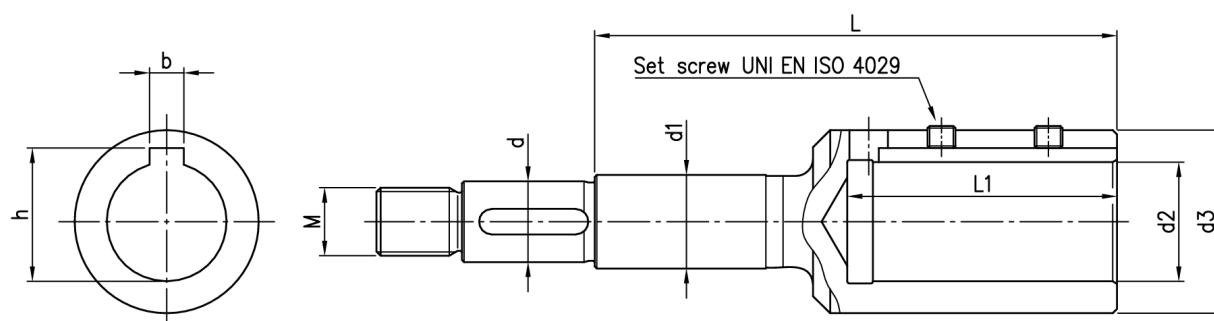
* The drawing is only indicative

MECHANICAL SEAL (HW, HSW, E and special version)

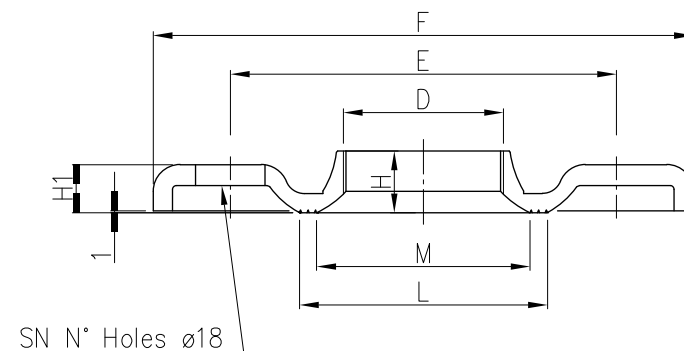
Version	Pump type	Dimensions								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + spring
HW	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	22	19	38	31	37	37.5	27.5	10	Tungsten Carbide	Tungsten Carbide	FPM	EN 1.4401 (AISI 316)
	65-250 80-200/250	30	24	46	39	45	42.5	32.5	10				
HSW	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	22	19	38	31	37	37.5	27.5	10	Tungsten Carbide	SiC	FPM	EN 1.4401 (AISI 316)
	65-250 80-200/250	30	24	46	39	45	42.5	32.5	10				
U3U3EGG*	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	22	19	38	31	37	37.5	27.5	10	Tungsten Carbide	Tungsten Carbide	EPDM	EN 1.4401 (AISI 316)
	65-250 80-200/250	30	24	46	39	45	42.5	32.5	10				
Q1Q1EGG*	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	22	19	38	31	37	37.5	27.5	10	Silicon Carbide	Silicon Carbide	EPDM	EN 1.4401 (AISI 316)
	65-250 80-200/250	30	24	46	39	45	42.5	32.5	10				
Q1U3EGG*	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	22	19	38	31	37	37.5	27.5	10	Silicon Carbide	Tungsten Carbide	EPDM	EN 1.4401 (AISI 316)
	65-250 80-200/250	30	24	46	39	45	42.5	32.5	10				
U3CEGG*	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200 80-160	22	19	38	31	37	37.5	27.5	10	Tungsten Carbide	Special Carbon	EPDM	EN 1.4401 (AISI 316)
	65-250 80-200/250	30	24	46	39	45	42.5	32.5	10				

* The drawing is only indicative

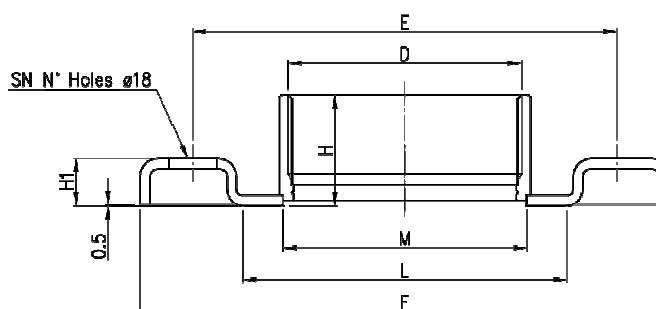
COUPLING



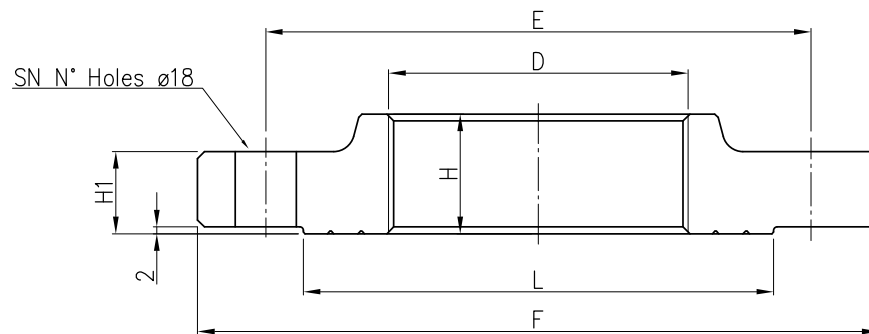
Type pumps	kW	HP	Motor Size	Dimensions mm										Set screw
				d	d1	d2	d3	M	L	L1	b	h		
32-125/0.25	0.25	0.33	71	19	22	14	28	M16x1.5	88	33	5	16	M5x6	
32-160/0.37R	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16	M5x6	
32-160/0.37	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16	M5x6	
32-200/0.55R	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
32-200/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
32-200/0.75	0.75	1	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
40-125/0.37R	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16	M5x6	
40-125/0.37	0.37	0.5	71	19	22	14	28	M16x1.5	88	33	5	16	M5x6	
40-160/0.55R	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
40-160/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
40-200/1.1R	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
40-200/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
40-200/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
50-125/0.55R	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
50-125/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
50-160/1.1R	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
50-160/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
50-200/1.5R	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
50-200/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
50-200/2.2	2.2	3	100	22	22	28	43	M18x1.5	153	63	8	31	M8x8	
65-125/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
65-125/0.75	0.75	1	80	19	22	19	33	M16x1.5	98	43	6	22	M6x6	
65-125/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
65-160/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
65-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
65-160/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31	M8x8	
65-200/2.2R	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31	M8x8	
65-200/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31	M8x8	
65-200/3	3	4	100	19	22	28	43	M16x1.5	122	63	8	31	M8x8	
65-250/4	4	5.5	112	24	30	28	43	M20x1.5	128	63	8	31	M8x8	
65-250/5.5	5.5	7.5	132	24	30	38	58	M20x1.5	151	84	10	41	M8x8	
80-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27	M8x8	
80-160/2.2R	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31	M8x8	
80-160/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31	M8x8	
80-200/3	3	4	100	24	30	28	43	M20x1.5	128	63	8	31	M8x8	
80-200/4R	4	5.5	112	24	30	28	43	M20x1.5	128	63	8	31	M8x8	
80-200/4	4	5.5	112	24	30	28	43	M20x1.5	128	63	8	31	M8x8	
80-250/5.5R	5.5	7.5	132	24	30	38	58	M20x1.5	151	84	10	41	M8x8	
80-250/5.5	5.5	7.5	132	24	30	38	58	M20x1.5	151	84	10	41	M8x8	
80-250/7.5	7.5	10	132	24	30	38	58	M20x1.5	151	84	10	41	M8x8	

COUNTERFLANGE ZINCKED STEEL

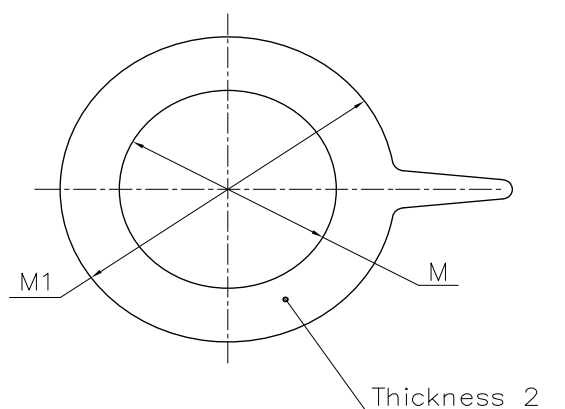
Counterflange									Screw	
DN	D	E	F	H	H1	L	M	SN	DIMENSIONS	MATERIAL
32	G 1 1/4	100	100	15	11.5	67	50	4	M16x55	Zn. Steel 8.8 strenght class ISO 898-1
40	G 1 1/2	110	110	17.5	11.5	72	58	4		
50	G2	125	125	19	15	89	70	4		
65	G 2 1/2	145	185	23	14	104	88	4		
80	G3	160	200	24	16	117.5	100	8	M16x60	
100	G4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

COUNTERFLANGE EN 1.4404 (AISI 316L)

Counterflange									Screw	
DN	D	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

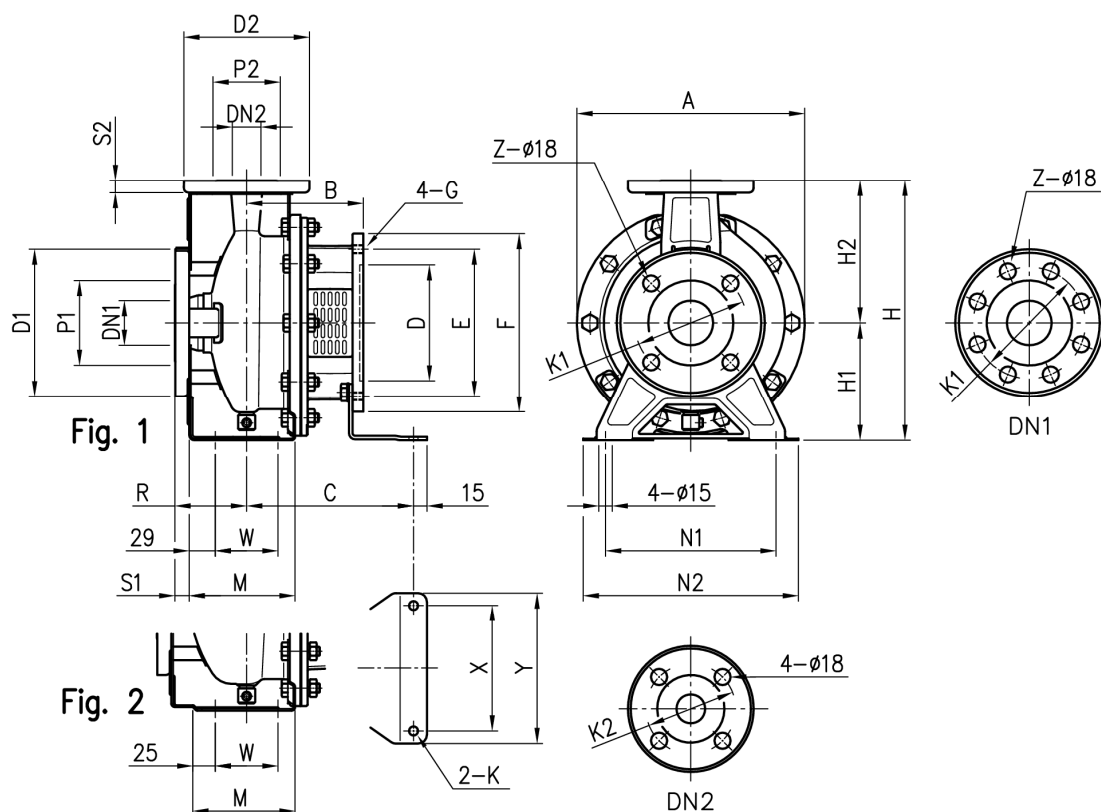
Counterflange								Screw	
DN	D	E	F	H	H1	L	SN	DIMENSIONS	MATERIAL
100	G4	180	220	35	20	150	8	M16x70	A2-70 class ISO 3506-1

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 3(.).SF4 32, 40, 50, 65

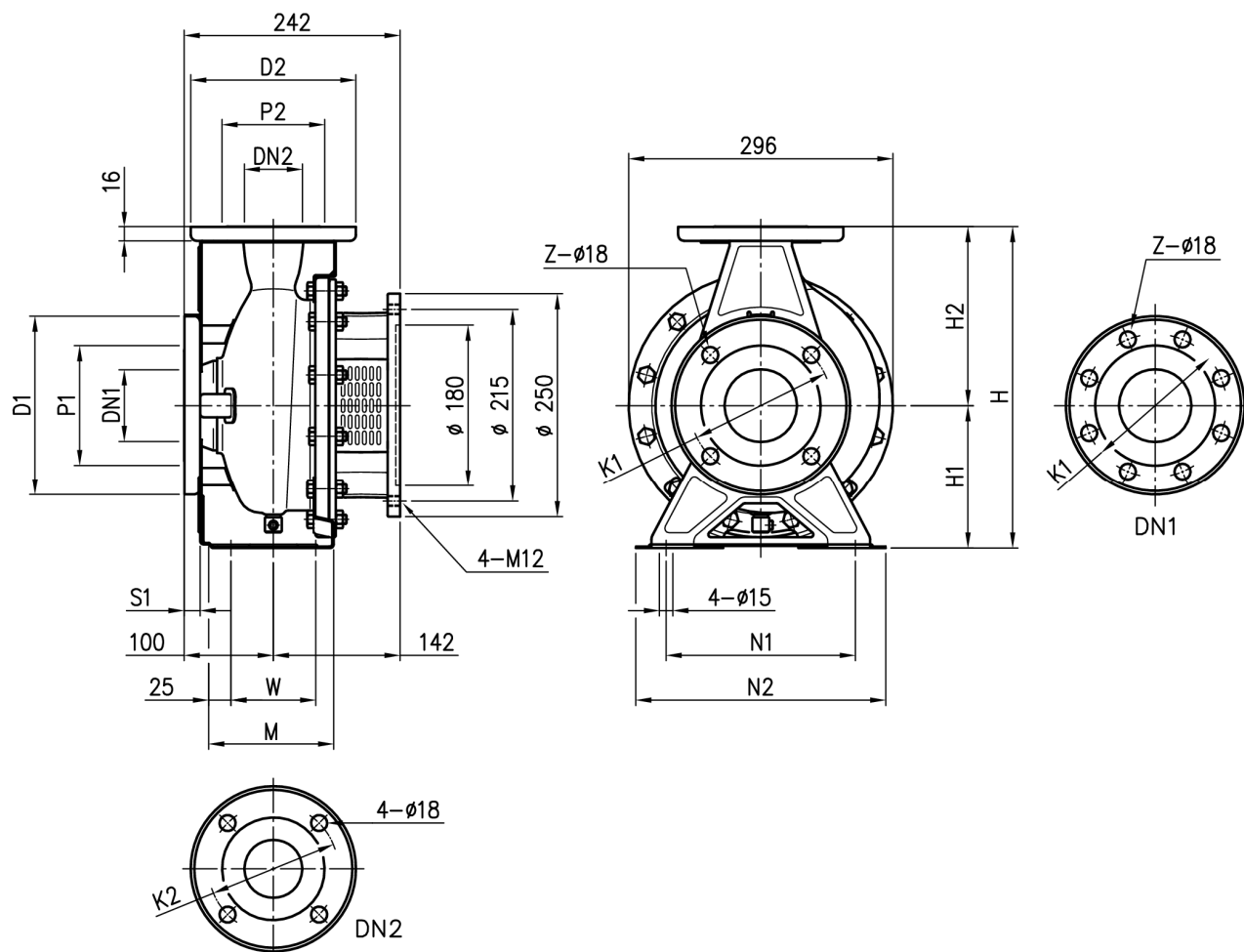


Pump type	Fig.	Dimensions [mm]																											Weight [kgf]			
		DN1	P1	K1	D1	S1	Z		DN2	P2	K2	D2	S2	H	H1	H2	M	N1	N2	R	W	A	B	C	D	E	F	G		X	Y	K
							[1]	[2]																								
32-125/0.25	1	50	95	125	165	16	4	-	32	75	100	140	14	252	112	140	114	140	190	80	70	213	108	153	110	130	160	M8	112	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] Standard [2] On request

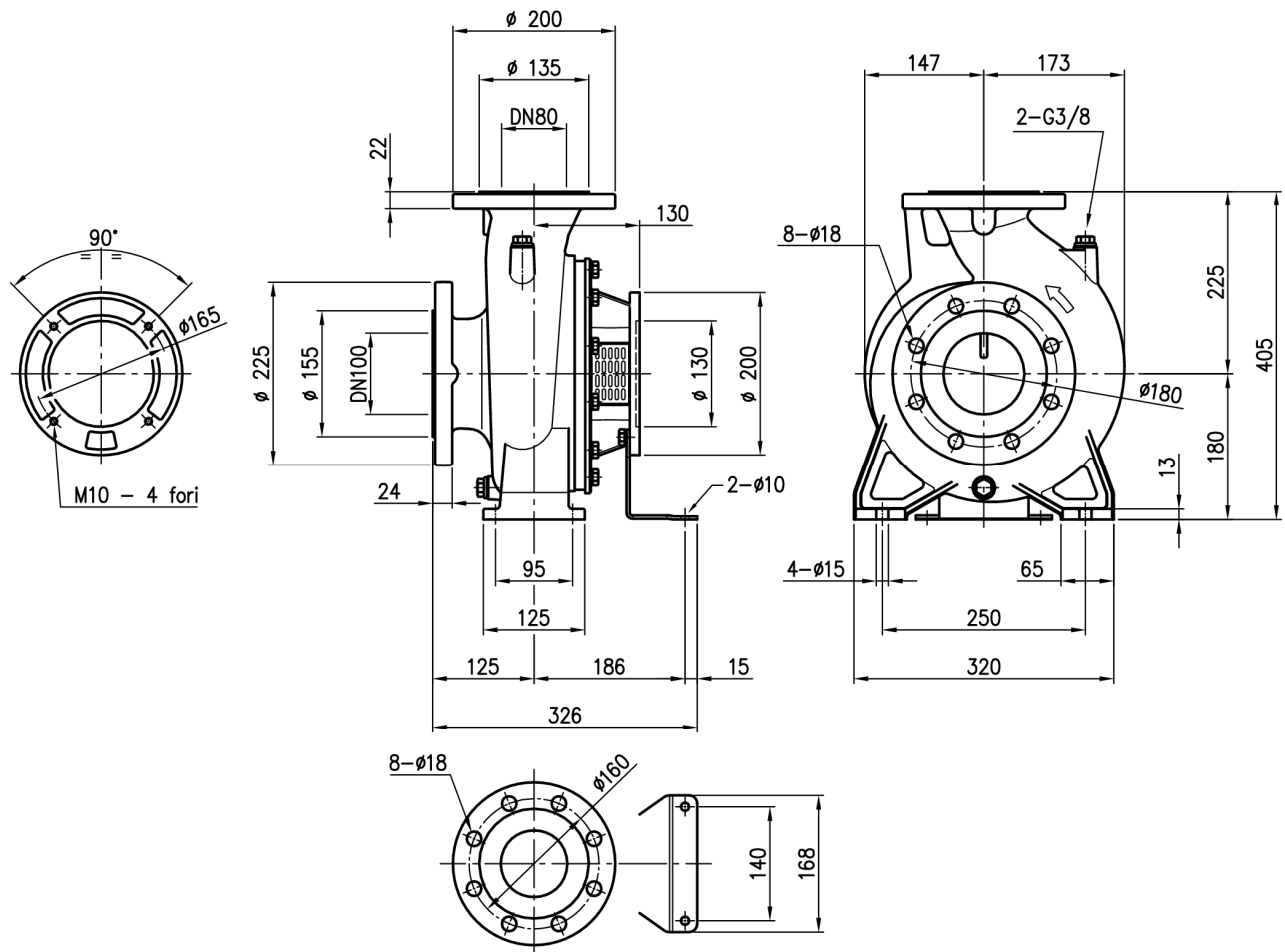
DIMENSIONS**50Hz**

Rev. G

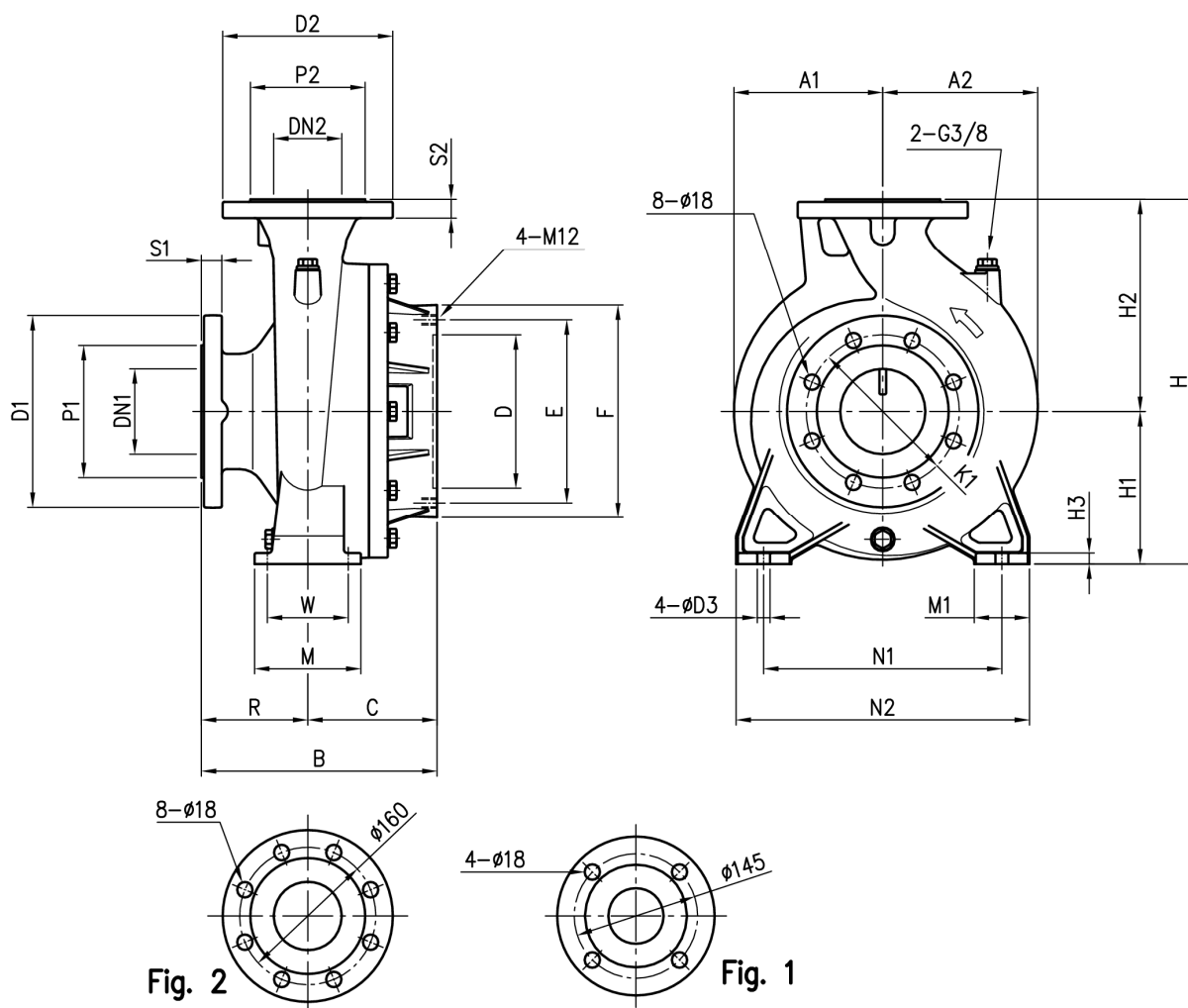
PUMP 3(.) SF4 50, 65

Pump type	Dimensions [mm]																		Weight [kgf]
	DN1	P1	K1	D1	S1	Z		DN2	P2	K2	D2	H	H1	H2	M	N1	N2	W	
						[1]	[2]												
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

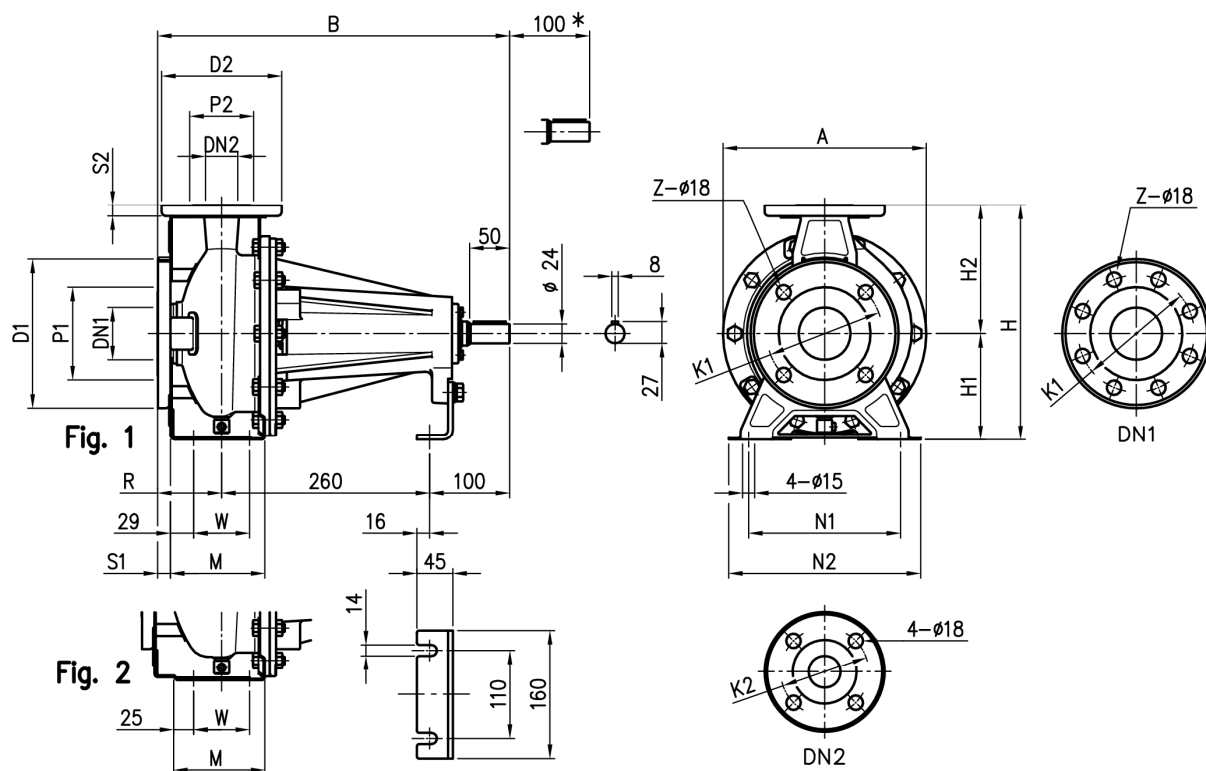
[1] Standard [2] On request

PUMP 3LSF4 80**80-160/1.5**

Pump weight: 50.2Kg

PUMP 3LSF4 65-250, 80

Pump type	Dimensions [mm]																										Weight [kgf]	
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	R	W	N1	N2	M	M 1	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

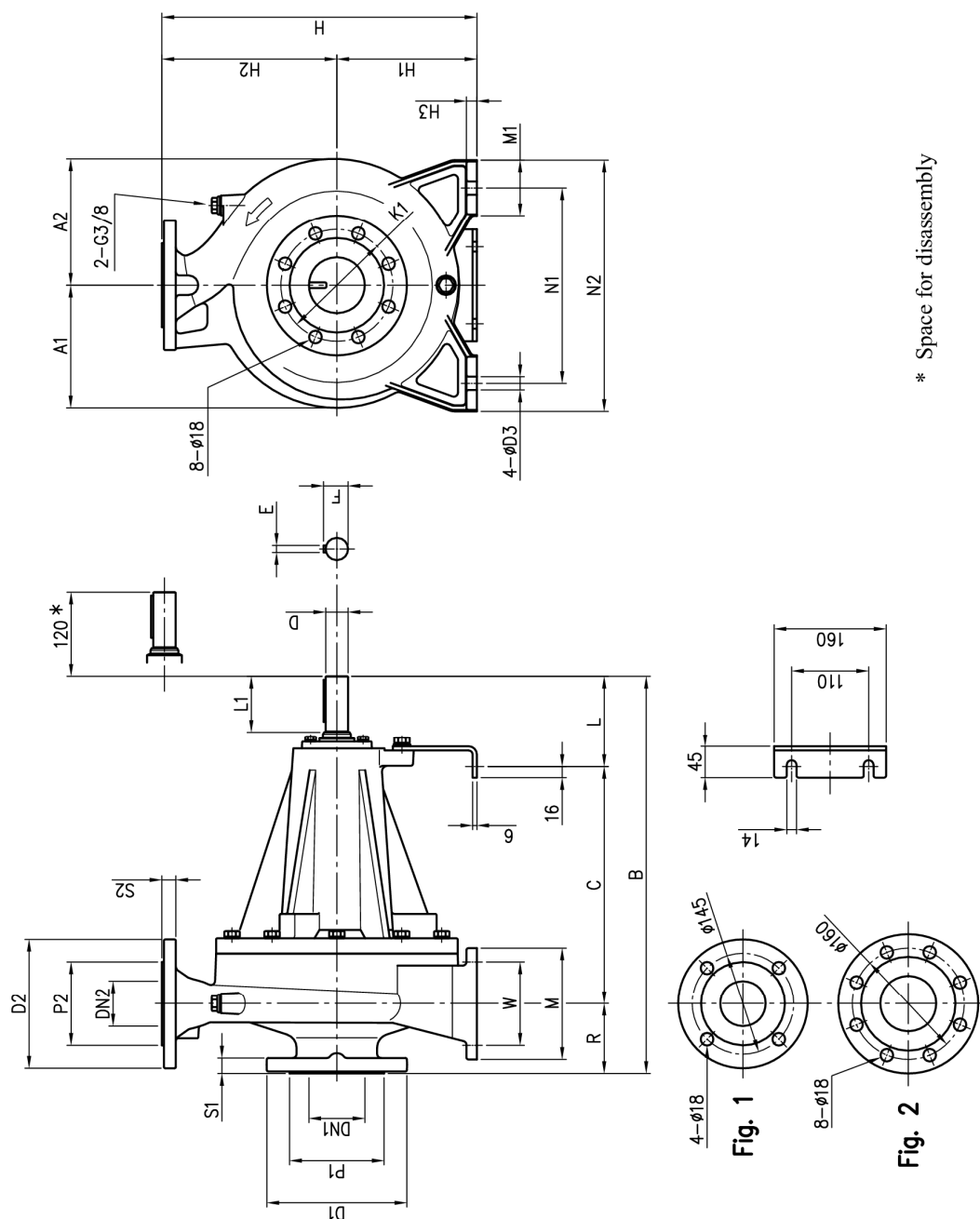
PUMP 3(.)PF4 32, 40, 50, 65

* Space for disassembly

Pump type	Fig.	Dimensions [mm]																						Weight [kgf]
		DN1	P1	K1	D1	S1	Z		DN2	P2	K2	D2	S2	H	H1	H2	M	N1	N2	R	W	A	B	
							[1]	[2]																
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

PUMP 3LPF4 65-250, 80



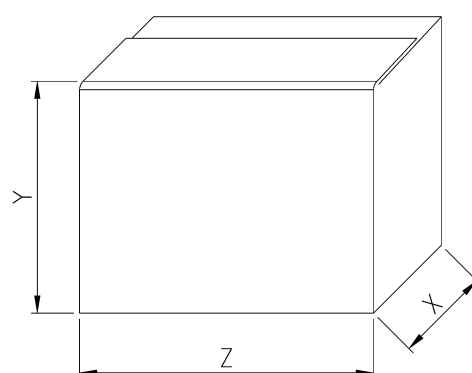
* Space for disassembly

Pump type	Dimensions [mm]																							Weight [kg]						
	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	
3LPF 63-250	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
3LPF 80-160	100	155	180	225	24	80 Fig. 2	135	200	22	403	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	225	13	125	95	250	345	125	65	130	80	32	15	10	35	175	182	585	340	83
3PEA 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

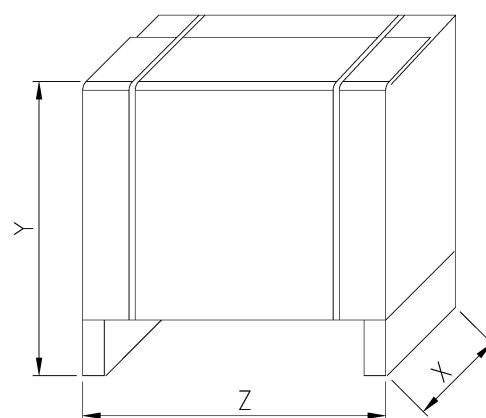
PACKING 3(.)SF4

Type pumps	PACKING [mm]			WEIGHT [Kg]	PACK TYPE
	X	Y	Z		
32-125/0.25	424	405	374	17	1
32-160/0.37R				21	
32-160/0.37					
32-200/0.55R				26	
32-200/0.55					
32-200/0.75					
40-125/0.37R				18.5	
40-125/0.37					
40-160/0.55R				22	
40-160/0.55					
40-200/1.1R				29	
40-200/1.1					
40-200/1.5					
50-125/0.55R				23	
50-125/0.55					
50-160/1.1R				28	
50-160/1.1					
50-200/1.5R				31.5	
50-200/1.5					
50-200/2.2					
65-125/0.55				28	
65-125/0.75				29.5	
65-125/1.1				30.5	
65-160/1.1				35	
65-160/1.5				31.5	
65-160/2.2				32	
65-200/2.2R				31.5	
65-200/2.2				31.5	
65-200/3				32	
65-250/4	475	620	780	63.5	2
65-250/5.5				60.5	
80-160/1.5	390	545	580	56.5	
80-160/2.2R					
80-160/2.2					
80-200/3	475	620	780	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



CENTRIFUGAL PUMPS

3 series F4 version

PACKING AND WEIGHT

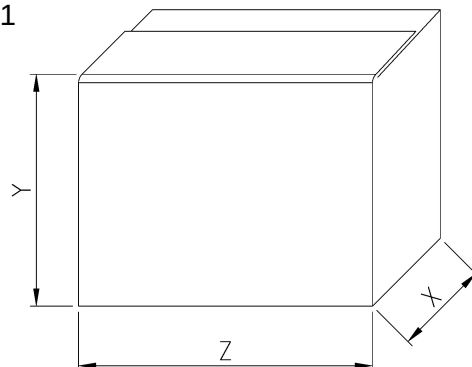
50Hz

Rev. G

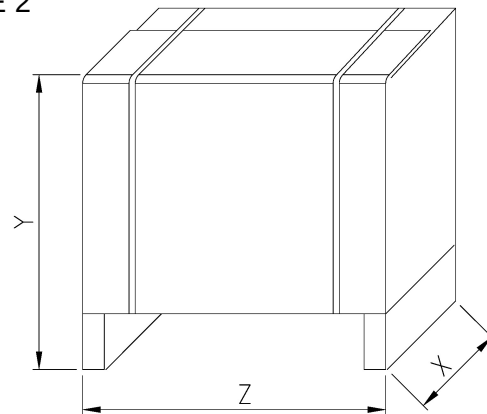
PACKING 3(.)PF4

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

TYPE 1



TYPE 2



LENNTECH
WATER TREATMENT SOLUTIONS

info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289