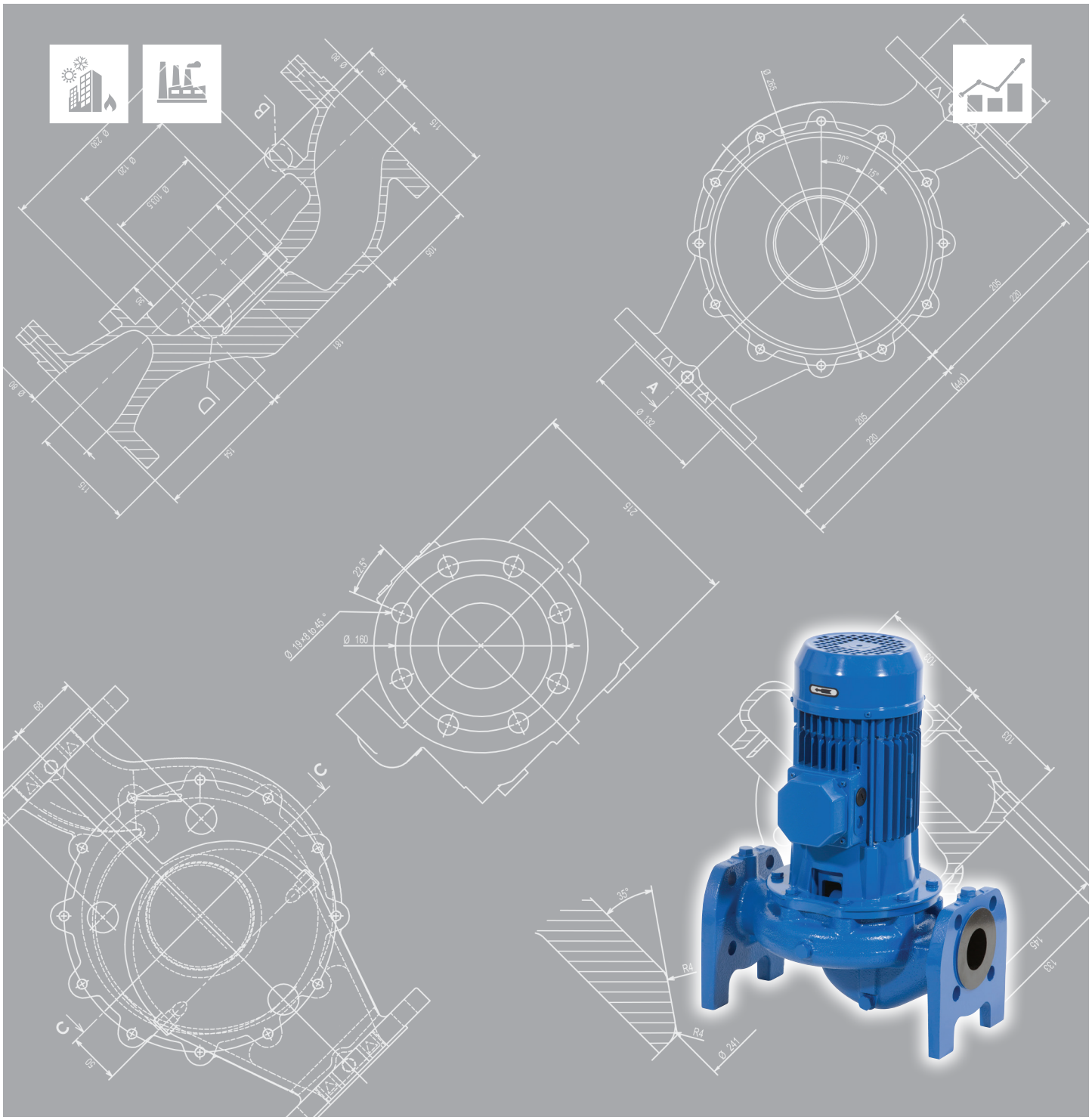
Looking ahead,
going beyond expectations

Ahead Beyond

EBARA

3E / 3ES (-K) Series

Data Book 50Hz



CONTENTS

50Hz

Rev.C

SPECIFICATION

PRODUCT FEATURES	201
MAIN APPLICATIONS	202
MODEL VARIATION	203
GENERAL SPECIFICATION PUMP	204
GENARAL SPECIFICATION MOTOR	205
PERFORMANCE RANGE 2 POLE	206
PERFORMANCE RANGE 4 POLE	207
SELECTION CHART 50Hz 2 POLE	208
SELECTION CHART 50Hz 4 POLE	209
TYPE KEY	210
PERFORMANCE CURVE SPECIFICATIONS / MEI INDEX VALUE	211
MEI INDEX SPECIFICATIONS	212
PERFORMANCE CURVE 2 POLE 32-125	213
PERFORMANCE CURVE 2 POLE 40-160	215
PERFORMANCE CURVE 2 POLE 40-200	216
PERFORMANCE CURVE 2 POLE 50-100	217
PERFORMANCE CURVE 2 POLE 50-125	218
PERFORMANCE CURVE 2 POLE 50-160	219
PERFORMANCE CURVE 2 POLE 50-200	220
PERFORMANCE CURVE 2 POLE 65-100	221
PERFORMANCE CURVE 2 POLE 65-125	222
PERFORMANCE CURVE 2 POLE 65-160	223
PERFORMANCE CURVE 2 POLE 65-200	224
PERFORMANCE CURVE 2 POLE 80-100	225
PERFORMANCE CURVE 2 POLE 80-160	227
PERFORMANCE CURVE 2 POLE 80-200	228
PERFORMANCE CURVE 2 POLE 100-160	229
PERFORMANCE CURVE 4 POLE 32-160	231
PERFORMANCE CURVE 4 POLE 32-200	232
PERFORMANCE CURVE 4 POLE 40-160	233
PERFORMANCE CURVE 4 POLE 40-200	234
PERFORMANCE CURVE 4 POLE 50-125	235
PERFORMANCE CURVE 4 POLE 50-160	236
PERFORMANCE CURVE 4 POLE 50-200	237
PERFORMANCE CURVE 4 POLE 65-125	238

CONTENTS

50Hz

Rev.C

PERFORMANCE CURVE 4 POLE 65-160 239
PERFORMANCE CURVE 4 POLE 65-200 240
PERFORMANCE CURVE 4 POLE 80-160 242
PERFORMANCE CURVE 4 POLE 80-200 243
PERFORMANCE CURVE 4 POLE 100-160 245

CONSTRUCTION

SECTIONAL VIEW DRAWING
3E 32-125,40-160,50-100/125/160,65-100/125,80-100 301
SECTIONAL VIEW TABLE
3E32-125,40-160,50-100/125/160,65-100/125,80-100 302
SECTIONAL VIEW DRAWING
3ES 32-125,40-160,50-100/125/160,65-100/125,80-100 307
SECTIONAL VIEW TABLE
3ES 32-125,40-160,50-100/125/160,65-100/125,80-100 308
SECTIONAL VIEW DRAWING 3ES 40-200,65-160 309
SECTIONAL VIEW TABLE 3ES 40-200,65-160 310
SECTIONAL VIEW DRAWING
3ES 50-200,65-200,80-160/200,100-160 311
SECTIONAL VIEW TABLE
3ES 50-200,65-200,80-160/200,100-160 312
SECTIONAL VIEW DRAWING
3E4 32-160,40-160,50-125/160,65-125 313
SECTIONAL VIEW TABLE
3E4 32-160,40-160,50-125/160,65-125 314
SECTIONAL VIEW DRAWING 3ES4 50-160,65-125 323
SECTIONAL VIEW TABLE 3ES4 50-160, 65-125 324
SECTIONAL VIEW DRAWING 3ES4 100-160 325
SECTIONAL VIEW TABLE 3ES4 100-160 326
SECTIONAL VIEW DRAWING
3ES4 32-200,40-200,65-160 329
SECTIONAL VIEW TABLE
3ES4 32-200,40-200,65-160 330
SECTIONAL VIEW DRAWING
3ES4 50-200,65-200,80-160/200 331
SECTIONAL VIEW TABLE
3ES4 50-200,65-200,80-160/200 332

CONTENTS

50Hz

Rev.C

BEARINGS 3E 2 POLE 333
BEARINGS 3E 4 POLE 334
MECHANICAL SEAL 3E 3ES 2 POLE 337
MECHANICAL SEAL 3E 3ES 4 POLE 339
COUPLING 3ES 2 POLE 342
COUPLING 3ES 4 POLE 343
BASE PLATE 344
COUNTER FLANGE & GASKET EPDM 345

DIMENSION & WEIGHT

DIMENSIONS & WEIGHT 3E 2 POLE 346
DIMENSIONS & WEIGHT 3E 4 POLE 347
DIMENSIONS & WEIGHT 3ES 2 POLE 348
DIMENSIONS & WEIGHT 3ES 4 POLE 349
PACKING 3E - 2POLE 350
PACKING 3E - 4POLE 351
PACKING 3ES - 2POLE 352
PACKING 3ES - 4POLE 353

TECHNICAL DATA

3E MOTOR DATA 2 POLE 354
3E MOTOR DATA 4 POLE 355
3ES MOTOR DATA 2 POLE 356
3ES MOTOR DATA 4 POLE 357
NOISE DATA 3E-3ES 2POLE 358
NOISE DATA 3E-3ES 4POLE 359

PRODUCT FEATURES

Energy-saving design

- ✓ Higher efficiency means lower energy consumption and motor output, and more compact size.

Easy installation and simple maintenance

- ✓ Alignment is not required.
- ✓ Back pull-out structure enables disassembly and inspection without removal of suction and discharge piping.
- ✓ Shield bearings eliminate need for adding or exchanging lubricating oil.
- ✓ Shaft seal flushing piping not required for the standard application.
- ✓ Air-bleeding not required.
- ✓ Simplified shaft seal and “O” ring body seal enable easy assembly.

Pump specifications & features

- ✓ Maximum operating pressure: 1.6 MPa(*)
- ✓ Liquid temperature range expansion: -10℃ to 120℃
- ✓ Back pull-out design
- ✓ ring casing seal

International standards

- ✓ Pump dimensions adopt EN733
- ✓ Mechanical seal adopts EN12756
- ✓ Protector fitted in accordance with EN294.
- ✓ Electric motor conforms to IEC60072-1 and IEC60034-1

(*) Several models are 1.0MPa

MAIN APPLICATIONS

BUILDING SERVICE



- ✓ Air conditioning-district heating & cooling
- ✓ HVAC system
- ✓ General water supply
- ✓ Hot water circulation
- ✓ Pressure boosting

WATER SUPPLY



- ✓ Water supply duties for municipalities
- ✓ Heat station
- ✓ Irrigation
- ✓ Drainage clean water
- ✓ Fire protection
- ✓ Swimming pool
- ✓ Pressure boosting

OEM



- ✓ Air conditioner
- ✓ Chilling unit
- ✓ Boiler
- ✓ Heat exchanger
- ✓ Coolant unit
- ✓ Water circulation unit

SPECIFICATION

50Hz

Rev.C

MODEL VARIATION

Version		3E		3ES	
pole		2 pole	4 pole	2 pole	4 pole
Pump Size	32-125	◆	-	◆	-
	32-160	-	◆	-	-
	32-200	-	◆	-	◆
	40-100	-	-	-	-
	40-160	◆	◆	◆	-
	40-200	◆	◆	◆	◆
	50-100	◆	-	◆	-
	50-125	◆	◆	◆	-
	50-160	◆	◆	◆	◆
	50-200	◆	◆	◆	◆
	65-100	◆	-	◆	-
	65-125	◆	◆	◆	◆
	65-160	◆	◆	◆	◆
	65-200	◆	◆	◆	◆
	80-100	◆	-	◆	-
	80-125	-	-	-	-
	80-160	◆	◆	◆	◆
	80-200	◆	◆	◆	◆
	80-250	-	-	-	-
	100-160	◆	◆	◆	◆
	100-200	-	-	-	-
	100-250	-	-	-	-

SPECIFICATION

50Hz

Rev.C

GENERAL SPECIFICATION PUMP

PUMP						
Version			3E		3ES	
Pole			2 pole	4 pole	2 pole	4 pole
Liquid Handled	Type of liquid		Clean water[1], Brine(anti-freezing liquid), Water/Glycol mixture up to 40% vol. [2]			
	Temperature [°C]		-10 to 120			
Maximum working pressure [MPa]			1.0 or 1.6 [3]			
Maximum suction pressure [MPa]			1.0 or 1.6 - Shut-off pressure			
Construction	Impeller		Closed centrifugal type Closed centrifugal three dimensional blades for 65 and 80 version			
	Shaft seal type		Mechanical seal (with air ventiration system)			
	Bearing		Sealed ball bearing (Inside of the Motor)			
Pipe Connection	Suction and Discharge	32-100/125/160/200	Flange DN32 according EN 1092-1 Standard			
		40-100/125/160/200	Flange DN40 according EN 1092-1 Standard			
		50-100/125/160/200	Flange DN50 according EN 1092-1 Standard			
		65-100/125/160/200	Flange DN65 according EN 1092-1 Standard			
		80-100/125/160/200/250	Flange DN80 according EN 1092-1 Standard			
		100-160/200/250	Flange DN100 according EN 1092-1 Standard			
Material	Casing		Cast iron EN-GJL-250-EN 1561			
	Impeller	32,40,50,65	EN 1.4301 (AISI 304)		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)	
		80 series	-		EN 1.4401 (AISI 316)	
		100 series	-		EN 1.4404 (AISI 316L)	
	Casing cover	32,40,50,65,80 series [3]	EN 1.4301 (AISI 304)		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)	
		80-250,100 series	-		EN 1.4404 (AISI 316L) stainless	
	Mechanical seal		SiC/Carbon/EPDM (Q1AEGG)		SiC/SiC/EPDM (Q4Q1EGG)	
	O-ring		EPDM			
	Shaft	Designation	Extended shaft		Stub-shaft	
		32,40,50,65,80 series [3]	EN 1.4301 (AISI 304) for wetted part Carbon steel for dry part		EN 1.4404 (AISI 316L) EN 1.4301 (AISI 304) - 0.75 kW for wetted part Carbon steel for dry part	
		100 series	-		EN 1.4404 (AISI 316L) for wetted part Carbon steel for dry part	
	Bracket		Aluminium		Cast iron EN-GJL-250-EN 1561	
Accessory (upon request)			Counter Flange (See page 345) Base plate for 11kW or above			
Applicable standard of test			ISO 9906:2012 – Grade 3B			

[1] Viscosity and Dencity shall be equivalent with water

[2] If water-glycol mixtures are used, differents power consumption and pump performances shall be considered.

[3] Depending on the model. See selection chart page 208 and 209

SPECIFICATION

50Hz

Rev.C

GENERAL SPECIFICATION MOTOR

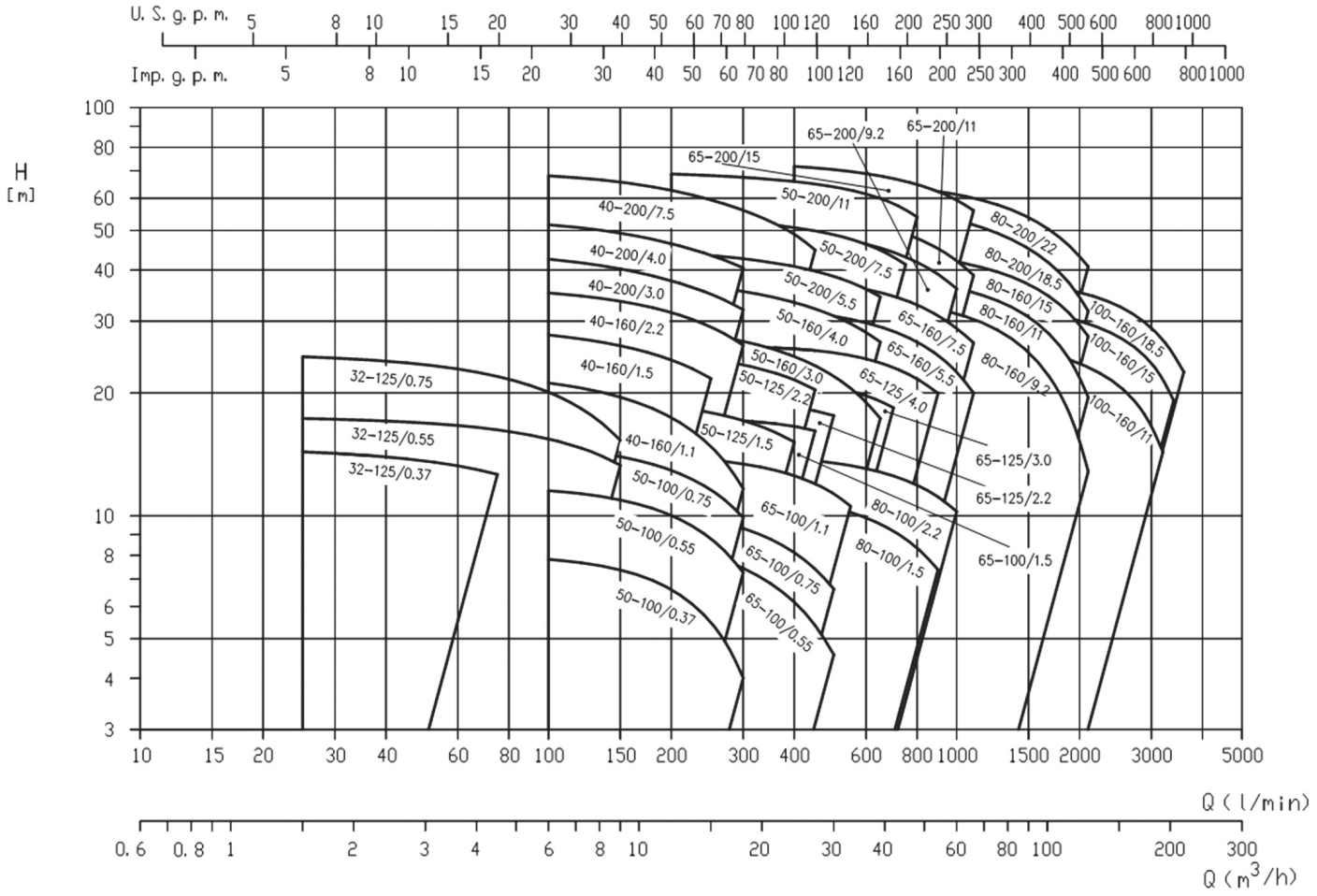
MOTOR					
Type		3E		3ES	
		Electric - TEFC			
		Three Phase			
Efficiency level (Reg. 640/2009)		IE2 from 0.37 kW up to 0.55 kW IE3 for 1.1 kW		IE3 from 0.75 kW up to 22 kW	
No. of Poles		2	4	2	4
Rotation speed	[min-1]	～2900	～1450	～2900	～1450
Insulation Class		F (temperature rise class B)			
Protection degree (CEI EN 60034-5)		IP55			
Power rating	[kW]	0.37 ÷ 1.1	0.37	0.75 ÷ 22	0.55 ÷ 3.0
	[HP]	0.5 ÷ 1.5	0.5	1 ÷ 30	0.75 ÷ 4.0
Frequency	[Hz]	50			
Voltage	[V]	230/400 ±10% (up to 1.1 kW)		230/400 ±10% (up to 3.0 kW) 400/690 ±10% (4.0 kW and above)	
Over load protection		Provided by the user			
Casing material		Aluminium			
Motor support material		Cast iron / Aluminium			
Dimensions of cable entry		PG11, PG13.5, PG16, PG21 M20x1.5, M25x1.5		M32x1.5, M40x1.5, M50x1.5 M10x1.5, M20x1.5, M25x1.5	
Flange mount (IEC motor)		---		IM B5	

SPECIFICATION

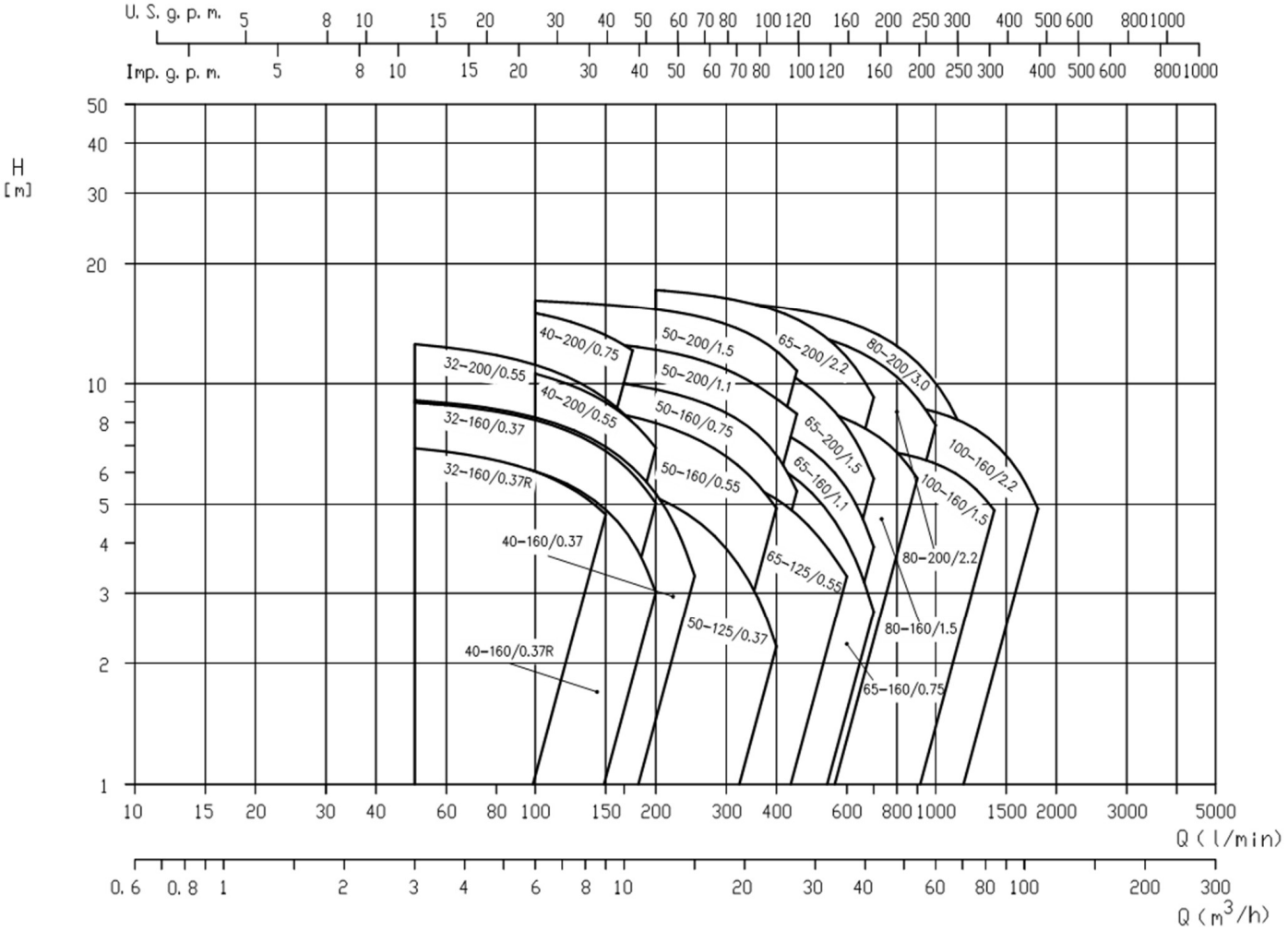
50Hz

Rev.C

PERFORMANCE RANGE 2 POLE



PERFORMANCE RANGE 4 POLE



SPECIFICATION

50Hz

Rev.C

SELECTION CHART 2 POLE

3E SERIES 32 SIZE

Pump type	kW	HP	Max working pressure (MPa)	l/min	0	25	50	75	100	125	150
				m^3/h	0	1.5	3	4.5	6	7.5	9
32-125/0.37	0.37	0.5	1.0		14.8	14.3	13.6	12.6	—	—	—
32-125/0.55	0.55	0.75	1.0		17.5	17.3	16.8	16.2	15.4	14.4	13.3
32-125/0.75	0.75	1	1.0		25.2	24.5	23.4	21.9	20.0	17.8	15.3

3E SERIES 40 SIZE

Pump type	kW	HP	Max working pressure (MPa)	l/min	0	100	150	200	250	300	400	450
				m^3/h	0	6	9	12	15	18	24	27
40-160/1.1	1.1	1.5	1.6		22.6	21.1	19.5	17.4	14.7	11.6	—	—
40-160/1.5	1.5	2	1.6		29.6	27.7	26.1	24	21.6	—	—	—
40-160/2.2	2.2	3	1.6		36.5	35.1	33.5	31.4	29.0	26.1	—	—
40-200/3.0	3	4	1.6		44.5	42.5	40.2	37.6	34.9	31.9	—	—
40-200/4.0	4	5.5	1.6		52.9	51.6	49.2	46.4	43.4	40.5	—	—
40-200/7.5	7.5	10	1.6		68.5	68.0	65.7	62.7	59.4	56.0	48.9	44.8

3E SERIES 50 SIZE

Pump type	kW	HP	Max working pressure (MPa)	l/min	0	100	200	300	400	450	500	650	750	800
				m^3/h	0	6	12	18	24	27	30	39	45	48
50-100/0.37	0.37	0.5	1.0		7.9	7.8	6.5	4.0	—	—	—	—	—	—
50-100/0.55	0.55	0.75	1.0		11.5	11.5	10.0	7.2	—	—	—	—	—	—
50-100/0.75	0.75	1	1.0		15.0	14.6	12.9	9.9	—	—	—	—	—	—
50-125/1.5	1.5	2	1.6		18.9	19.2	18.5	17.1	15.1	—	—	—	—	—
50-125/2.2	2.2	3	1.6		25.4	25.3	24.7	23.4	21.5	20.3	—	—	—	—
50-160/3.0	3	4	1.6		30.4	—	28.5	26.7	24.5	23.3	21.9	17.3	—	—
50-160/4.0	4	5.5	1.6		38.8	—	37.1	35.4	33.3	32.1	30.8	26.6	—	—
50-200/5.5	5.5	7.5	1.6		45.7	—	44	42.6	40.8	39.7	38.6	34.4	—	—
50-200/7.5	7.5	10	1.6		56.0	—	53.6	52.4	50.8	49.9	48.8	44.7	41.2	—
50-200/11	11	15	1.6		70.8	—	68.7	67.5	65.9	65.0	63.9	59.9	56.2	54.0

3E SERIES 65 SIZE

Pump type	kW	HP	Max working pressure (MPa)	l/min	0	100	150	200	250	400	450	500	550	700	900	1000	1100
				m^3/h	0	6	9	12	15	24	27	30	33	42	54	60	66
65-100/0.55	0.55	0.75	1.0		9.4	9.0	8.7	8.4	7.9	6.1	5.3	4.5	—	—	—	—	—
65-100/0.75	0.75	1	1.0		11.2	10.7	10.5	10.1	9.7	8.1	7.4	6.6	—	—	—	—	—
65-100/1.1	1.1	1.5	1.0		15.0	14.4	14.2	13.9	13.7	12.5	11.9	11.3	10.5	—	—	—	—
65-100/1.5	1.5	2	1.0		18.6	17.7	17.5	17.3	17.2	16.5	16.1	—	—	—	—	—	—
65-125/2.2	2.2	3	1.6		19.4	—	19.5	19.5	19.3	18.4	18.0	17.6	—	—	—	—	—
65-125/3.0	3	4	1.6		21.3	—	—	21.8	21.8	21.3	21.0	20.6	20.1	18.4	—	—	—
65-125/4.0	4	5.5	1.6		25.4	—	—	—	25.9	25.6	25.4	25.1	24.7	23.0	19.9	—	—
65-160/5.5	5.5	7.5	1.6		32.8	—	—	—	—	31.7	31.3	30.8	29.7	28.3	24.7	22.5	19.9
65-160/7.5	7.5	10	1.6		38.5	—	—	—	—	37.6	37.3	36.9	36.4	34.5	30.9	28.7	26.5
65-200/9.2	9.2	12.5	1.6		51.3	—	—	—	—	49.4	48.7	48.0	47.2	44.2	39.0	36.0	—
65-200/11	11	15	1.6		57.1	—	—	—	—	55.4	54.7	54.0	53.1	50.2	45.1	42.1	38.8
65-200/15	15	20	1.6		73.3	—	—	—	—	71.8	71.2	70.5	69.7	67.0	62.2	59.3	56.0

3E SERIES 80 SIZE

Pump type	kW	HP	Max working pressure (MPa)	l/min	0	400	600	900	1000	1100	1300	1500	1700	1900	2100
				m^3/h	0	24	36	54	60	66	78	90	102	114	126
80-100/1.5	1.5	2	1.0		12.5	10.9	9.8	7.3	—	—	—	—	—	—	—
80-100/2.2	2.2	3	1.0		14.8	13.8	13.0	11.1	10.2	—	—	—	—	—	—
80-160/9.2	9.2	12.5	1.6		35.3	—	33.8	32.0	31.2	30.3	28.0	25.1	21.6	17.5	12.8
80-160/11	11	15	1.6		39.9	—	38.6	36.8	36.1	35.2	33.2	30.6	27.6	23.9	19.5
80-160/15	15	20	1.6		45.5	—	44.4	42.6	41.9	41.0	39.1	36.9	34.2	31.1	27.5
80-200/18.5	18.5	25	1.6		58.8	—	57.4	54.3	53.0	51.6	48.5	45.1	41.2	36.8	31.7
80-200/22	22	30	1.6		66.6	—	64.8	62.3	61.2	60.0	57.2	53.8	49.9	45.5	40.7

3E SERIES 100 SIZE

Pump type	kW	HP	Max working pressure (MPa)	l/min	0	1300	1600	1900	2200	2500	2800	3000	3200	3400	3600
				m^3/h	0	78	96	114	132	150	168	180	192	204	216
100-160/11	11	15	1.6		29.9	26.3	25.2	24.0	22.6	20.8	18.4	16.5	14.3	—	—
100-160/15	15	20	1.6		34.7	32.6	31.6	30.4	29.0	27.4	25.3	23.6	21.6	19.1	—
100-160/18.5	18.5	25	1.6		39.1	37.4	36.7	35.6	34.3	32.6	30.5	28.8	26.9	24.8	22.5

SPECIFICATION

50Hz

Rev.C

SELECTION CHART 4 POLE

3E4 SERIES 32 SIZE

Pump type	kW	HP	Max. working pressure (MPa)	l/min	0	50	100	150	200
				m^3/h	0	3	6	9	12
32-160/0.37R	0.37	0.5	1.6		7.3	6.8	6.0	4.7	—
32-160/0.37	0.37	0.5	1.6		9.3	8.9	8.1	6.7	5.0
32-200/0.55	0.55	0.75	1.6		13.1	12.5	11.1	9.1	6.7

3E4 SERIES 40 SIZE

Pump type	kW	HP	Max. working pressure (MPa)	l/min	0	50	100	150	175	200	250
				m^3/h	0	3	6	9	10.5	12	15
40-160/0.37R	0.37	0.5	1.6		7.3	6.8	6.0	4.8	4.0	3.0	—
40-160/0.37	0.37	0.5	1.6		9.3	9.0	8.2	6.9	6.1	5.3	3.3
40-200/0.55	0.55	0.75	1.6		12.5	—	10.5	8.9	8.0	6.9	—
40-200/0.75	0.75	1	1.6		16.7	—	14.9	13.2	12.3	—	—

3E4 SERIES 50 SIZE

Pump type	kW	HP	Max. working pressure (MPa)	l/min	0	100	150	200	250	300	350	400	450
				m^3/h	0	6	9	12	15	18	21	24	27
50-125/0.37	0.37	0.5	1.6		6.1	6.0	5.6	5.1	4.5	3.8	3.0	2.1	—
50-160/0.55	0.55	0.75	1.6		9.5	8.9	8.5	7.9	7.3	6.5	5.7	4.8	—
50-200/0.75	0.75	1	1.6		10.9	10.5	10.1	9.6	9.1	8.4	7.6	6.6	5.3
50-200/1.1	1.1	1.5	1.6		13.5	12.9	12.5	12.1	11.5	10.8	10.0	9.1	8.4
50-200/1.5	1.5	2	1.6		16.9	16.1	15.7	15.3	14.7	14.0	13.1	12.0	10.7

3E4 SERIES 65 SIZE

Pump type	kW	HP	Max. working pressure (MPa)	l/min	0	200	250	300	350	400	500	600	700
				m^3/h	0	12	15	18	21	24	30	36	42
65-125/0.55	0.55	0.75	1.6		6.1	6.1	6.0	5.8	5.5	5.1	4.2	3.3	—
65-160/0.75	0.75	1	1.6		7.7	7.5	7.2	7.0	6.6	6.2	5.2	4.0	2.6
65-160/1.1	1.1	1.5	1.6		9.2	9.0	8.7	8.4	8.0	7.6	6.6	5.4	3.9
65-200/1.5	1.5	2	1.6		13.6	13.0	12.6	12.1	11.6	10.9	9.5	7.7	5.7
65-200/2.2	2.2	3	1.6		17.9	17.1	16.8	16.3	15.8	15.2	13.6	11.6	9.2

3E4 SERIES 80 SIZE

Pump type	kW	HP	Max. working pressure (MPa)	l/min	0	350	500	600	800	900	1000	1100	1200
				m^3/h	0	21	30	36	48	54	60	66	72
80-160/1.5	1.5	2	1.6		9.8	9.3	8.6	8.1	6.7	5.8	—	—	—
80-200/2.2	2.2	3	1.6		14.7	14.0	13.1	12.4	10.3	9.1	7.8	—	—
80-200/3.0	3	4	1.6		16.7	15.8	14.9	14.2	12.4	11.2	10	8.6	7.1

3E4 SERIES 100 SIZE

Pump type	kW	HP	Max. working pressure (MPa)	l/min	0	600	800	1000	1200	1400	1600	1800
				m^3/h	0	36	48	60	72	84	96	108
100-160/1.5	1.5	2	1.6		7.8	6.9	6.7	6.3	5.6	4.8	—	—
100-160/2.2	2.2	3	1.6		9.8	9.1	8.8	8.4	7.9	7.1	6.0	4.8

TYPE KEY

3E 4 32 - 125 / 0.75 R – Q1AEGG

Mechanical Seal
3E: Q1AEGG
3ES: Q4Q1EGG

Reduced Impeller
NA : Full diameter Impeller
R : Reduced Impeller

Motor Power (kW)
0.37/0.55/0.75/1.1/1.5/2.2/3/4/5.5/
7.5/9.2/11/15/18.5/22

Nominal impeller diameter in millimeters
100/125/160/200

Suction/Discharge nozzle, nominal size in millimeters
32/40/50/65/80/100

Number of poles
NA=2 poles
4=4 poles

3E Series
3E : Extended shaft model
3ES : Stub shaft model

SPECIFICATION

50Hz

Rev.C

PERFORMANCE CURVE SPECIFICATIONS

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

Tolerances according to ISO 9906:2012 - Grade 3B
The curves refer to effective speed of asynchronous motors at 50 Hz, 2 poles.
Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of ν = 1 mm^2/s (1 cSt)

The NPSH curve is an average curve obtained in the same conditions of performance curves.
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)
	=	pump efficiency
NPSH	=	net positive suction head required by the pump
MEI	=	minimum efficiency index

MEI INDEX VALUE

SIZE	MEI INDEX	
	2P	4P
32-125	≥ 0.7	-
32-160	-	≥ 0.7
32-200	-	≥ 0.5
40-160	≥ 0.7	≥ 0.7
40-200	≥ 0.4	≥ 0.7
50-100	≥ 0.5	-
50-125	≥ 0.6	≥ 0.7
50-160	≥ 0.5	≥ 0.7
50-200	≥ 0.7	≥ 0.4
65-100	≥ 0.7	-
65-125	≥ 0.5	≥ 0.7
65-160	≥ 0.4	≥ 0.5
65-200	≥ 0.6	≥ 0.4
80-100	≥ 0.7	-
80-160	≥ 0.5	≥ 0.5
80-200	≥ 0.5	≥ 0.7
100-160	≥ 0.7	≥ 0.6

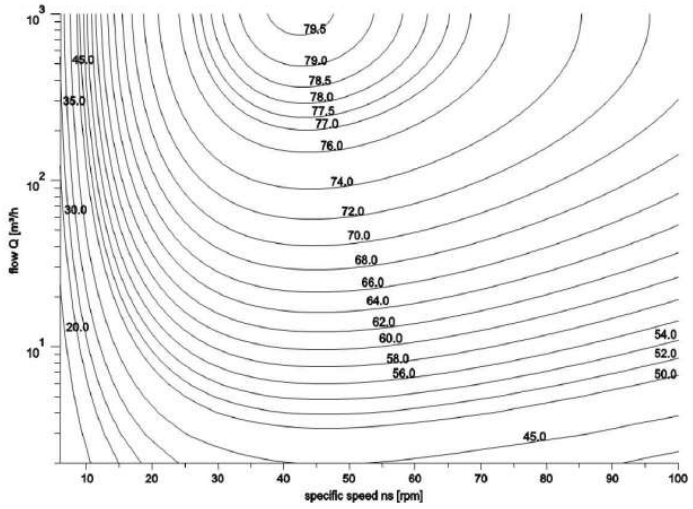
MEI INDEX SPECIFICATIONS

The minimum efficiency index (MEI) is a measure of the quality of a pump size in respect to its mean efficiency. The minimum efficiency index is based on the hydraulic efficiency and on the head at the best efficiency point.

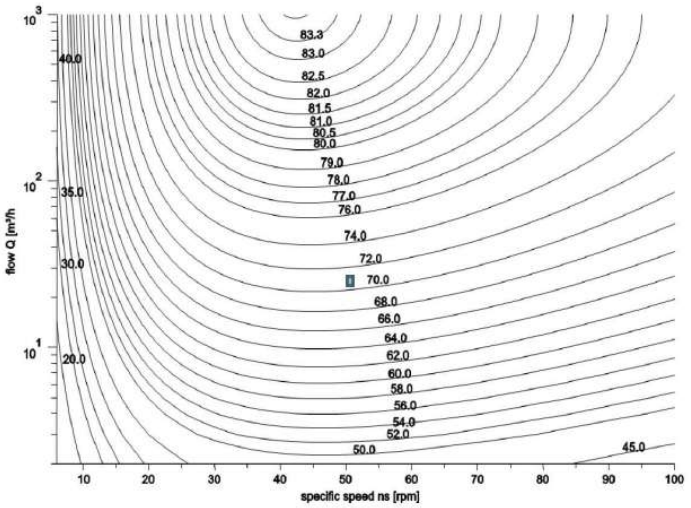
The efficiency of a pump with trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to a reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.

The operation of these water pumps with variable duty points may be more efficient and economical when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

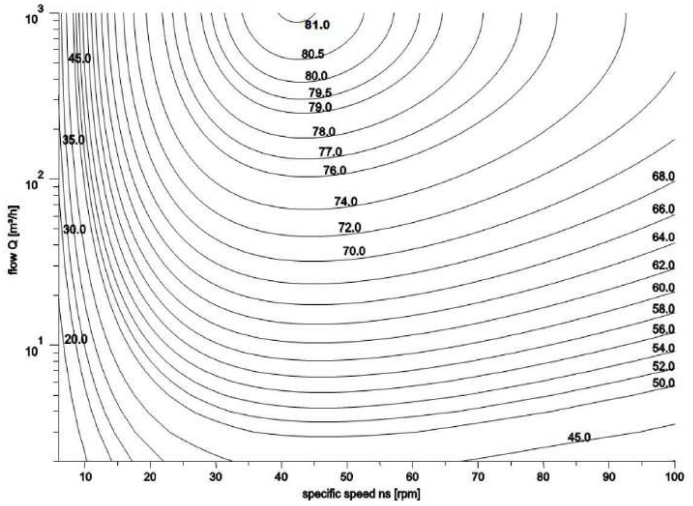
MEI = 0.4 for ESCCi 2900rpm



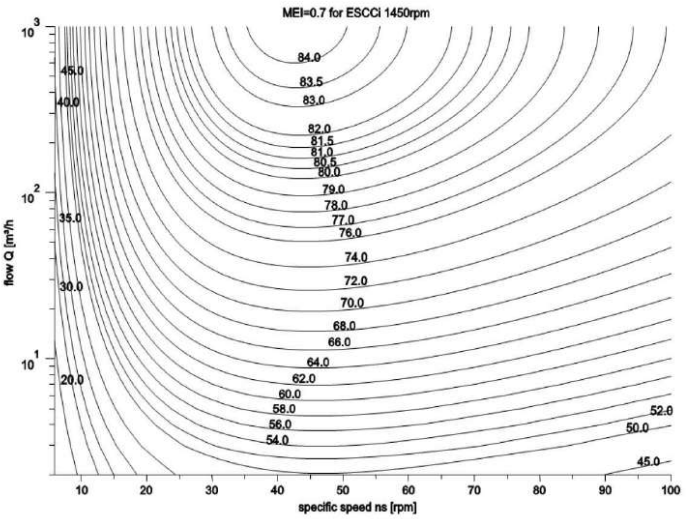
MEI=0.7 for ESCCi 2900 rpm



MEI = 0.4 for ESCCi 1450 rpm



MEI = 0.7 for ESCCi 1450rpm



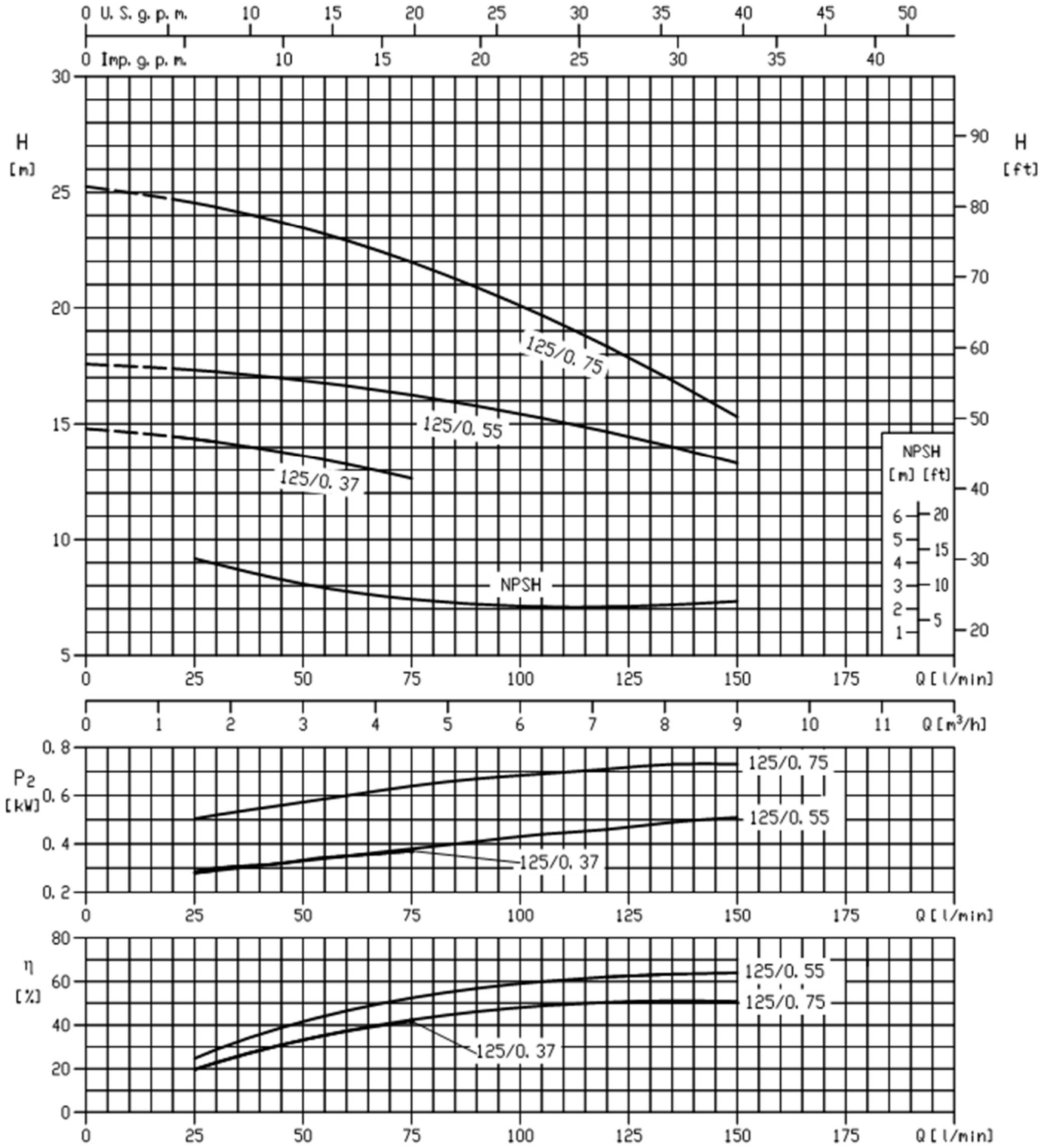
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 32-125 **2 POLE**

32-125/0.37 (0.37kW) - impeller diameter = 114 mm
32-125/0.55 (0.55kW) - impeller diameter = 118 mm
32-125/0.75 (0.75kW) - impeller diameter = 146 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

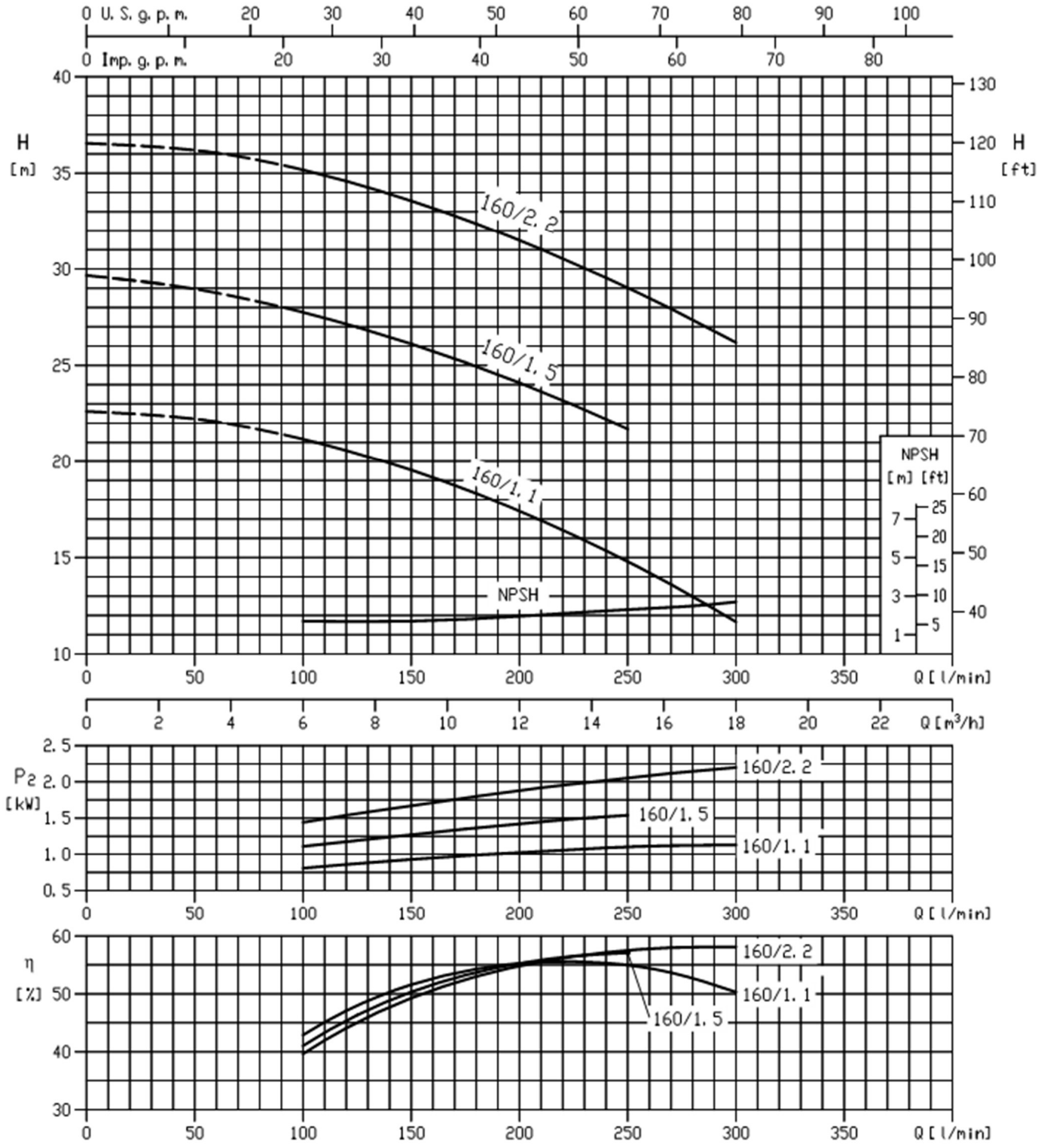
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 40-160 **2 POLE**

40-160/1.1 (1.1kW) - impeller diameter = 133 mm
40-160/1.5 (1.5kW) - impeller diameter = 151 mm
40-160/2.2 (2.2kW) - impeller diameter = 166 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

50Hz

Rev.C

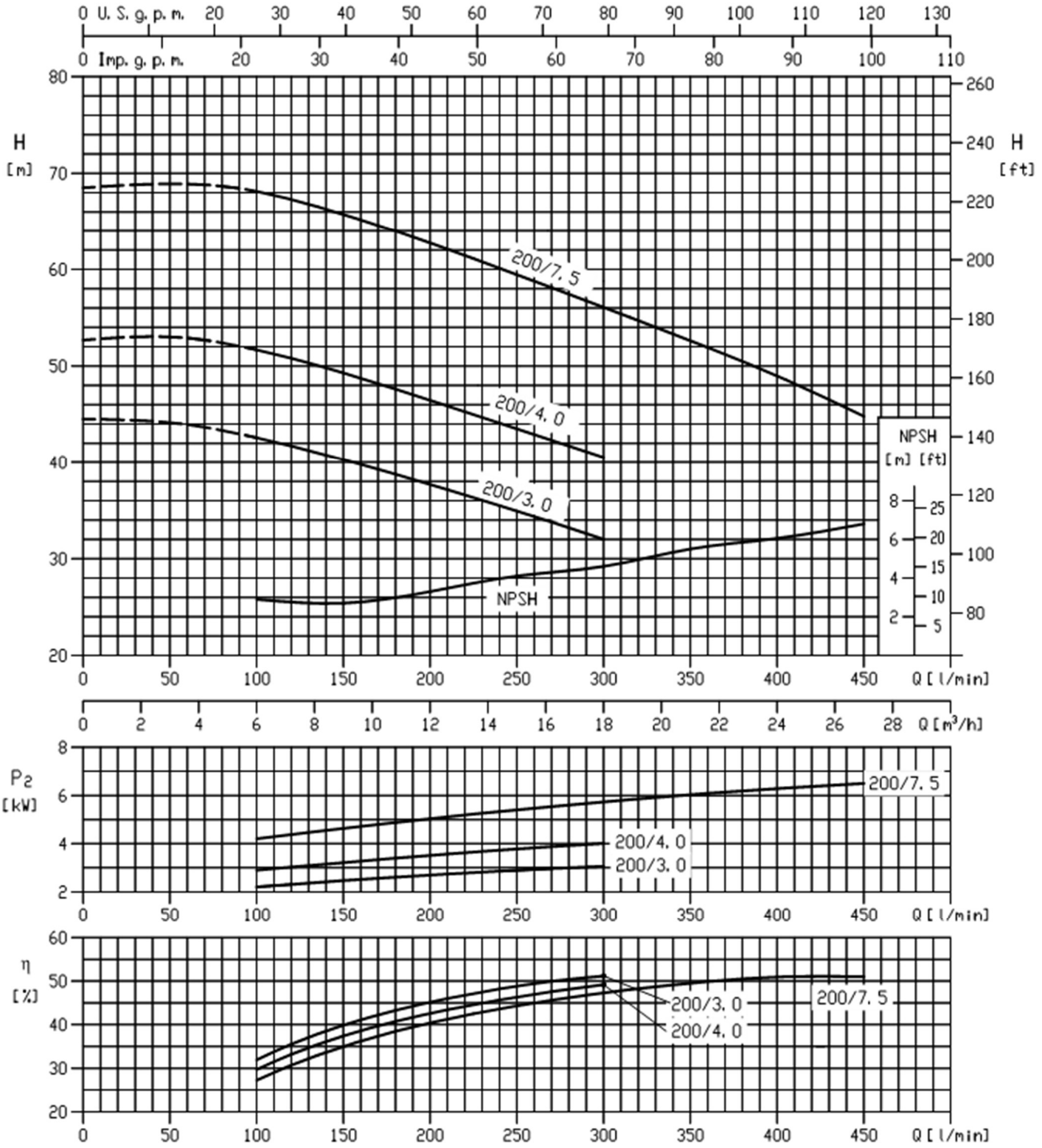
2 POLE

3E(S) 40-200

40-200/3.0 (3.0 kW) - impeller diameter = 186 mm

40-200/4.0 (4.0 kW) - impeller diameter = 200 mm

40-200/7.5 (7.5 kW) - impeller diameter = 224 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

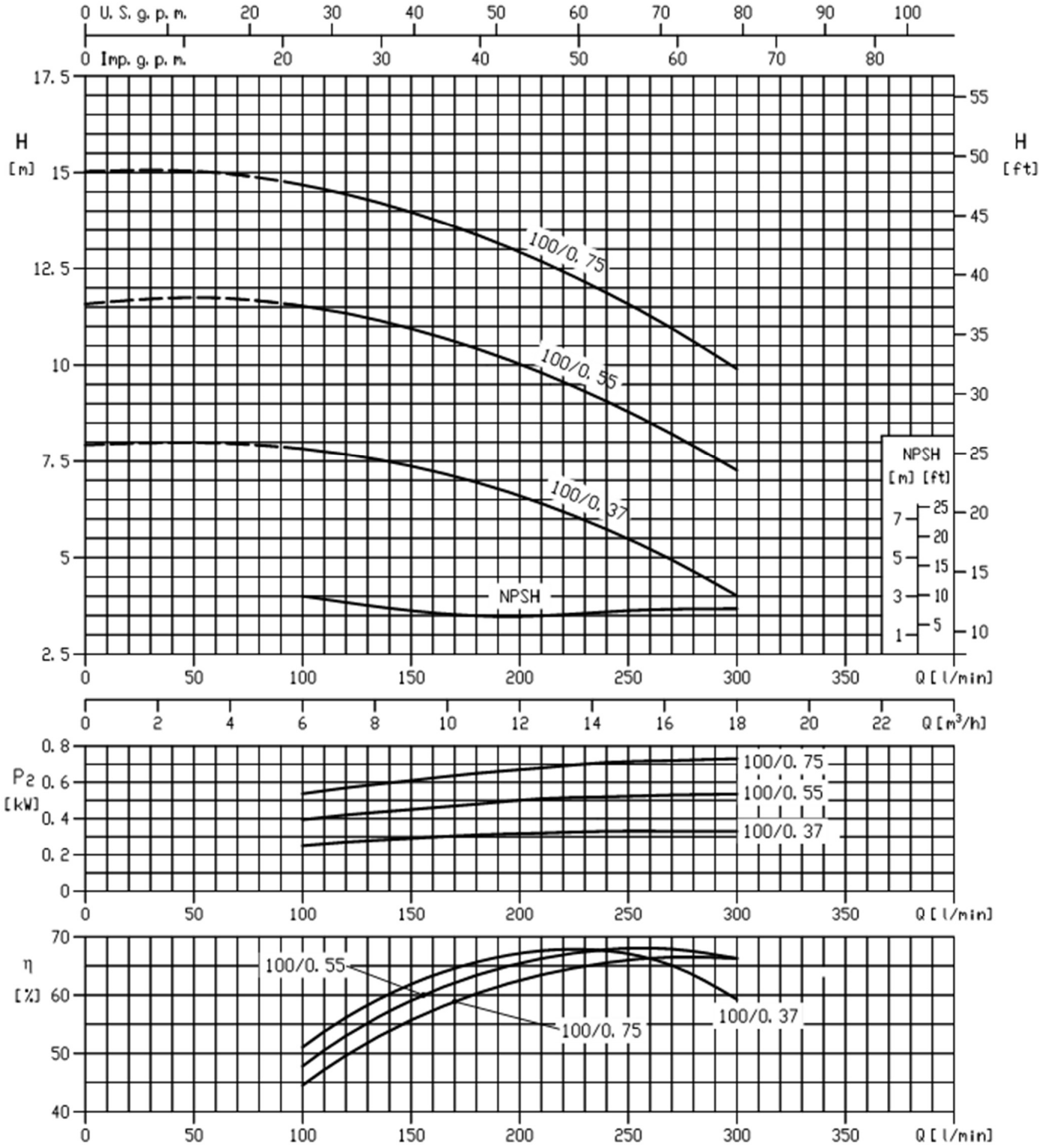
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 50-100 **2 POLE**

50-100/0.37 (0.37kW) - impeller diameter = 86 mm
50-100/0.55 (0.55kW) - impeller diameter = 101 mm
50-100/0.75 (0.75kW) - impeller diameter = 114 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

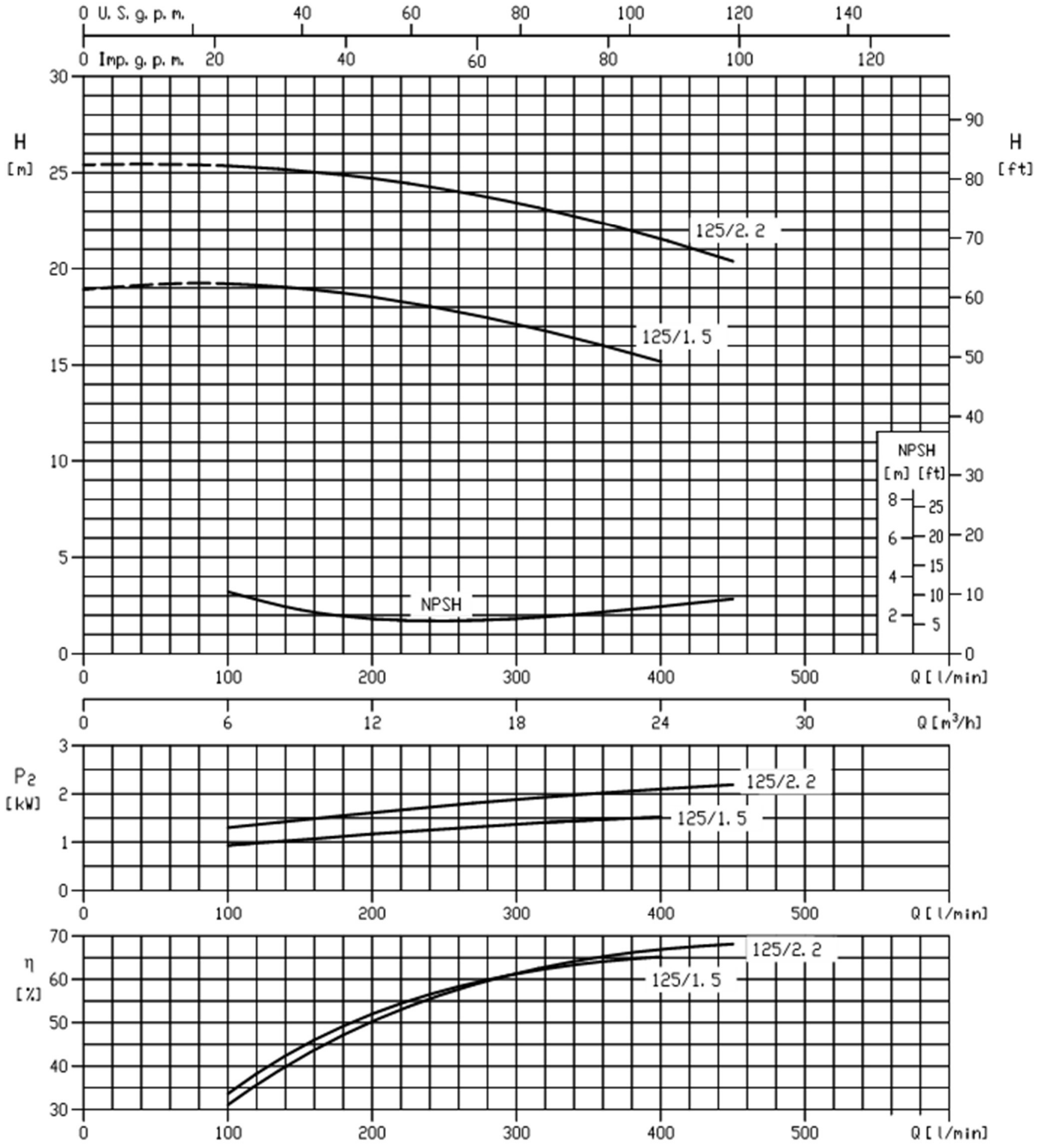
50Hz

Rev.C

3E(S) 50-125 **2 POLE**

50-125/1.5 (1.5 kW) - impeller diameter = 125 mm

50-125/2.2 (2.2 kW) - impeller diameter = 140 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

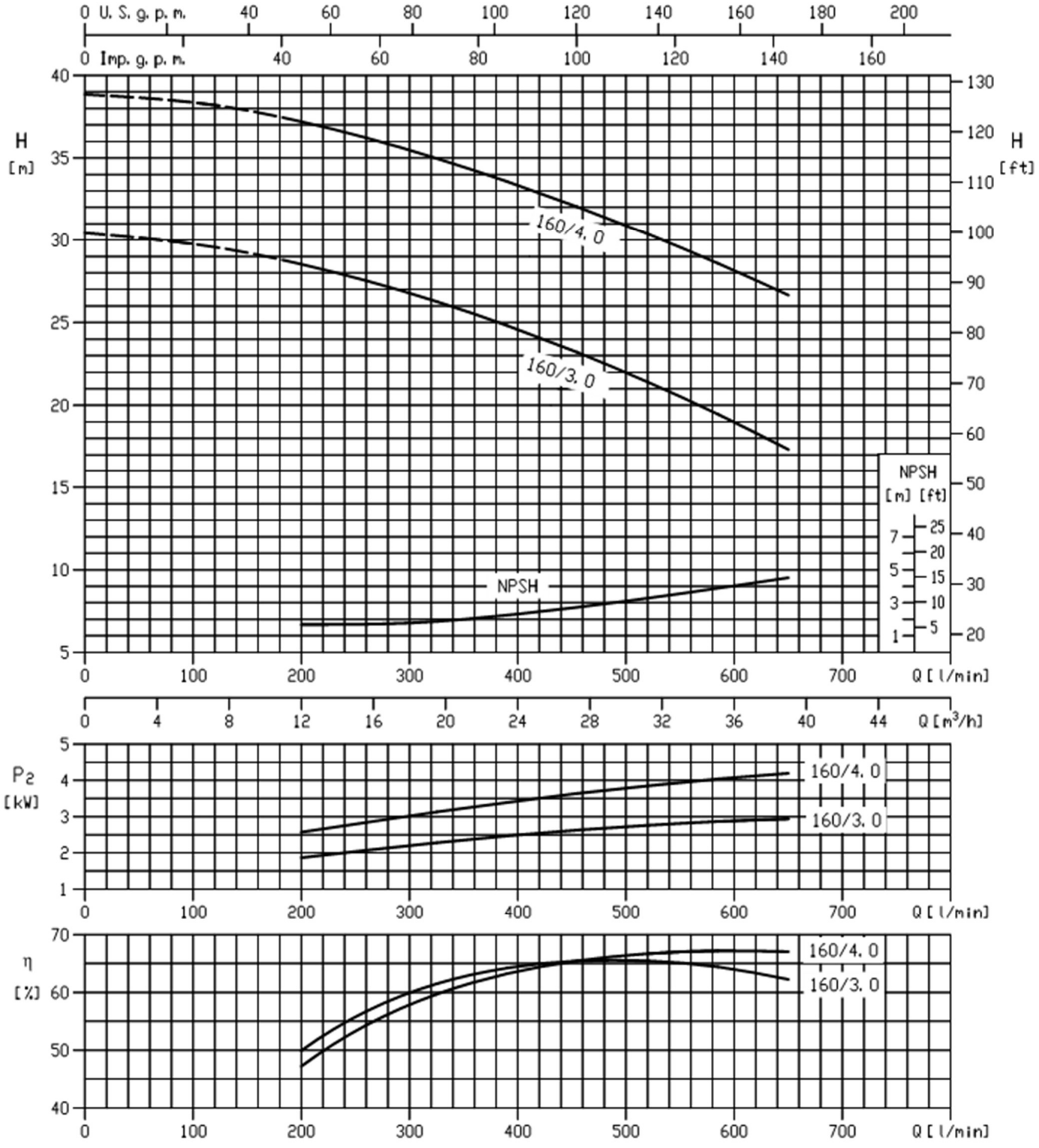
50Hz

Rev.C

3E(S) 50-160 **2 POLE**

50-160/3.0 (3.0 kW) - impeller diameter = 151 mm

50-160/4.0 (4.0 kW) - impeller diameter = 166 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

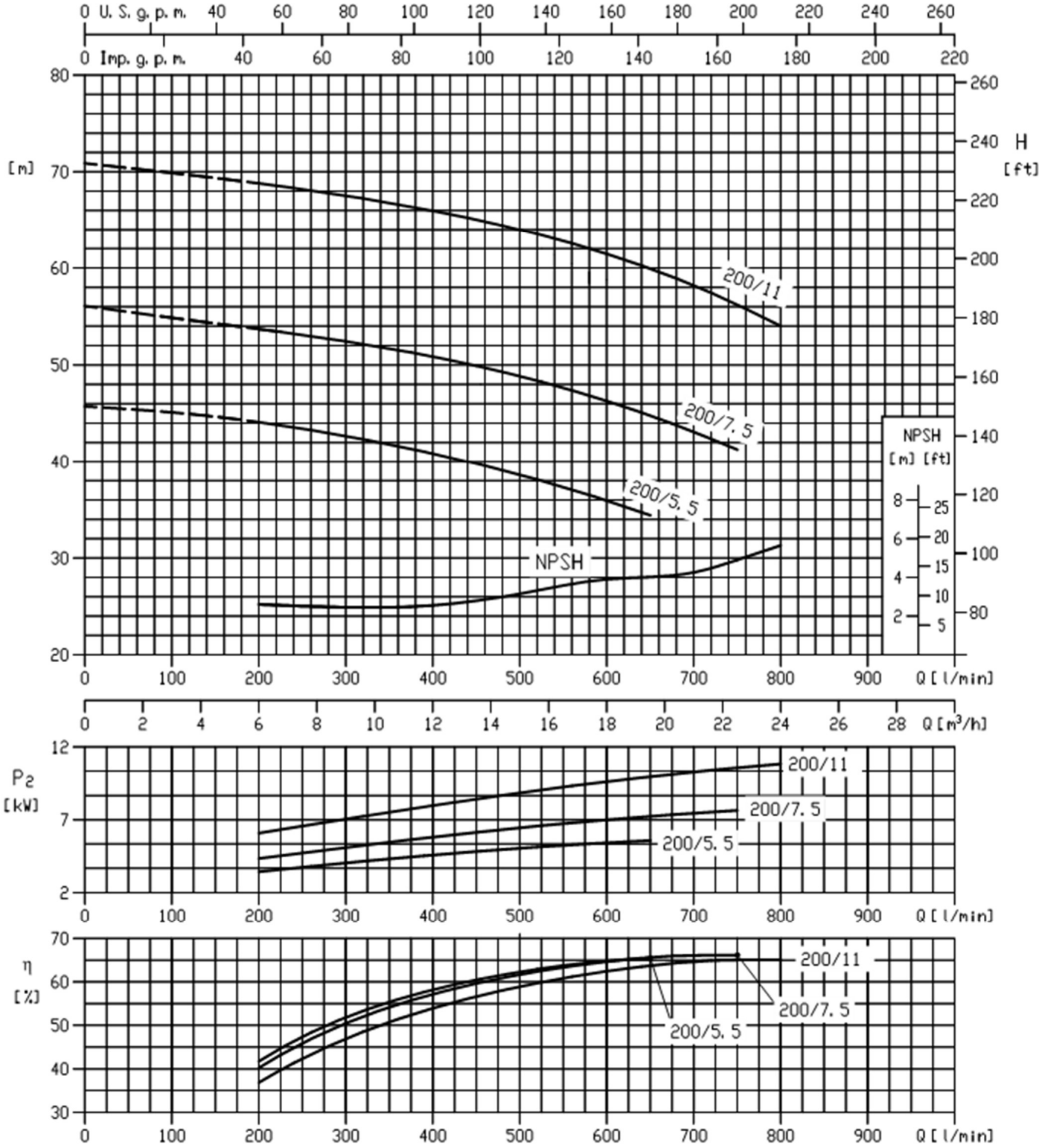
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 50-200 **2 POLE**

50-200/5.5 (5.5 kW) - impeller diameter = 183 mm
50-200/7.5 (7.5 kW) - impeller diameter = 200 mm
50-200/11 (11 kW) - impeller diameter = 224 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

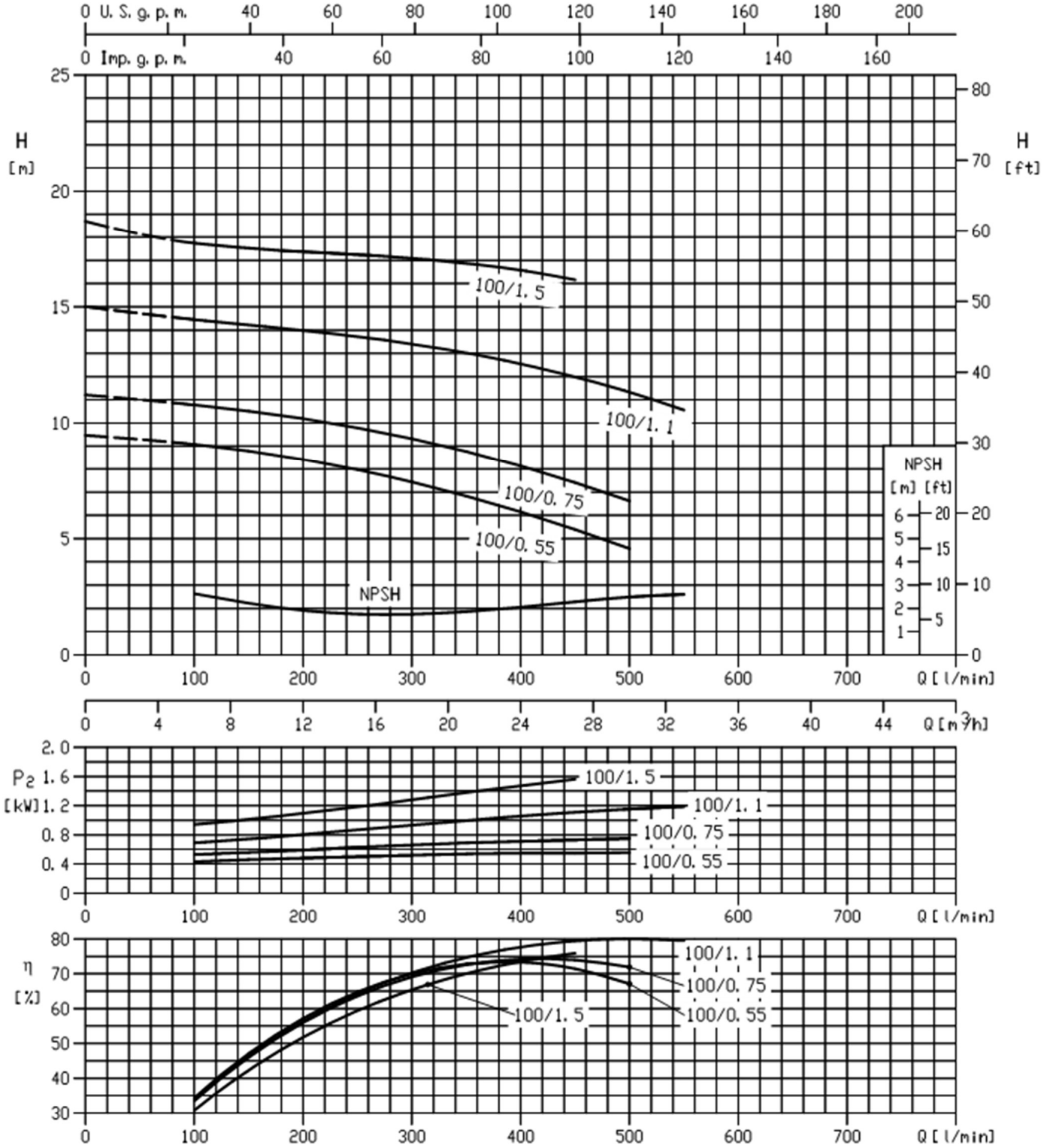
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 65-100 **2 POLE**

65-100/0.55 (0.55 kW) - impeller diameter = 88 mm
65-100/0.75 (0.75 kW) - impeller diameter = 94 mm
65-100/1.1 (1.1 kW) - impeller diameter = 104 mm
65-100/1.5 (1.5 kW) - impeller diameter = 114 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

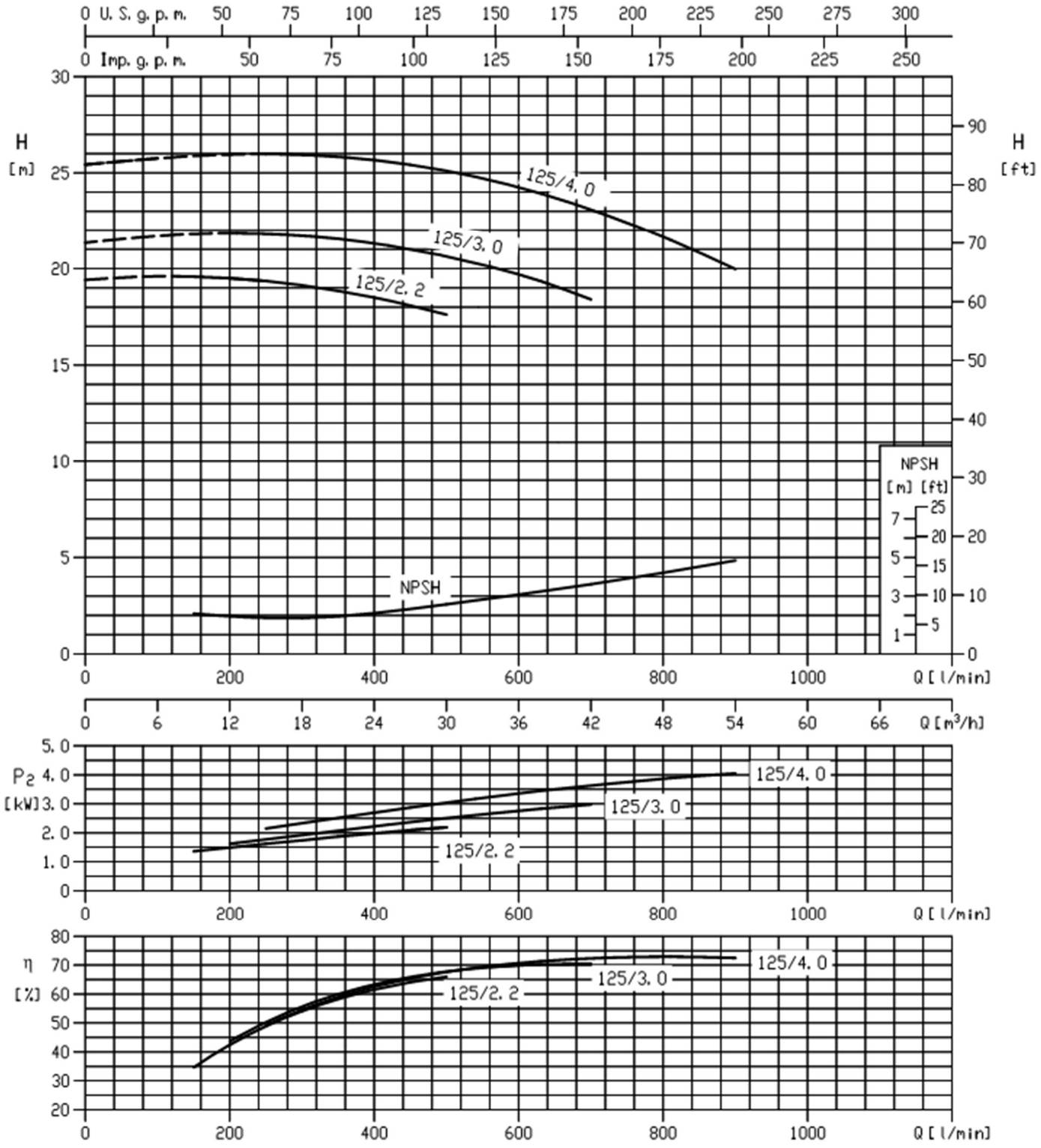
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 65-125 **2 POLE**

65-125/2.2 (2.2 kW) - impeller diameter = 126 mm
65-125/3.0 (3.0 kW) - impeller diameter = 131 mm
65-125/4.0 (4.0 kW) - impeller diameter = 140 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

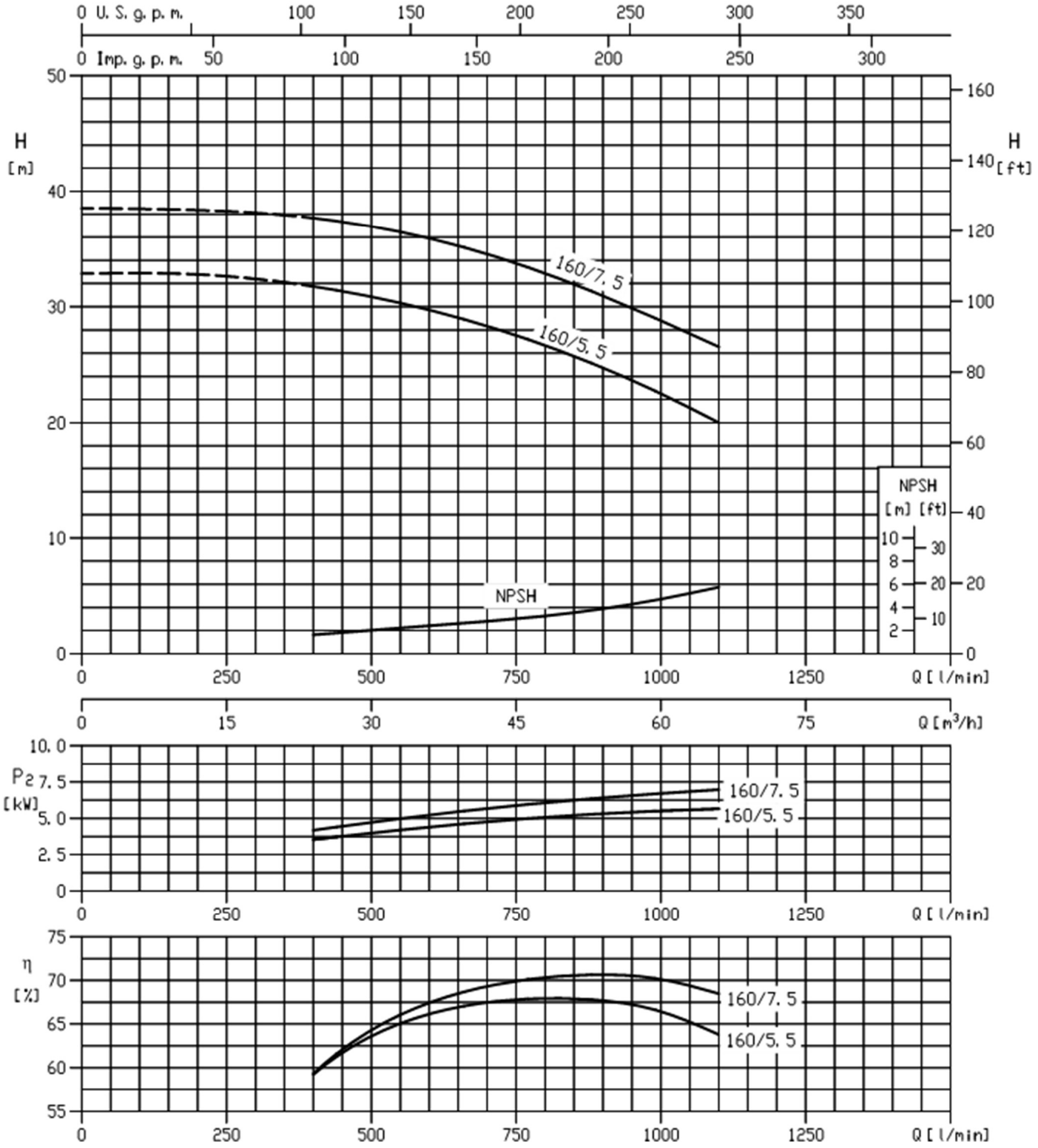
50Hz

Rev.C

3E(S) 65-160 **2 POLE**

65-160/5.5 (5.5 kW) - impeller diameter = 154 mm

65-125/7.5 (7.5 kW) - impeller diameter = 166 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

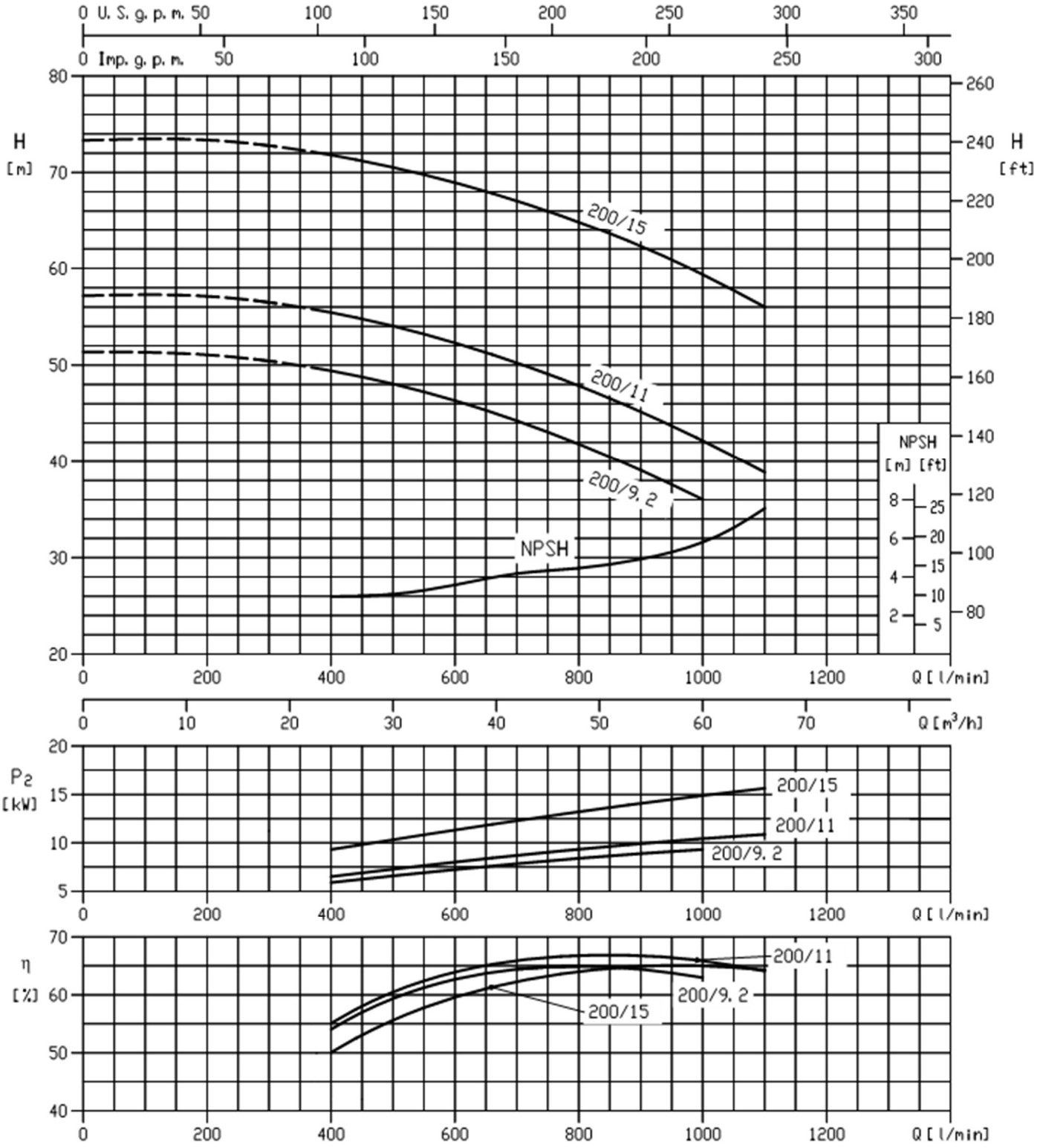
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 65-200 **2 POLE**

65-200/9.2 (9.2 kW) - impeller diameter = 191 mm
65-200/11 (11 kW) - impeller diameter = 200 mm
65-200/15 (15 kW) - impeller diameter = 224 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

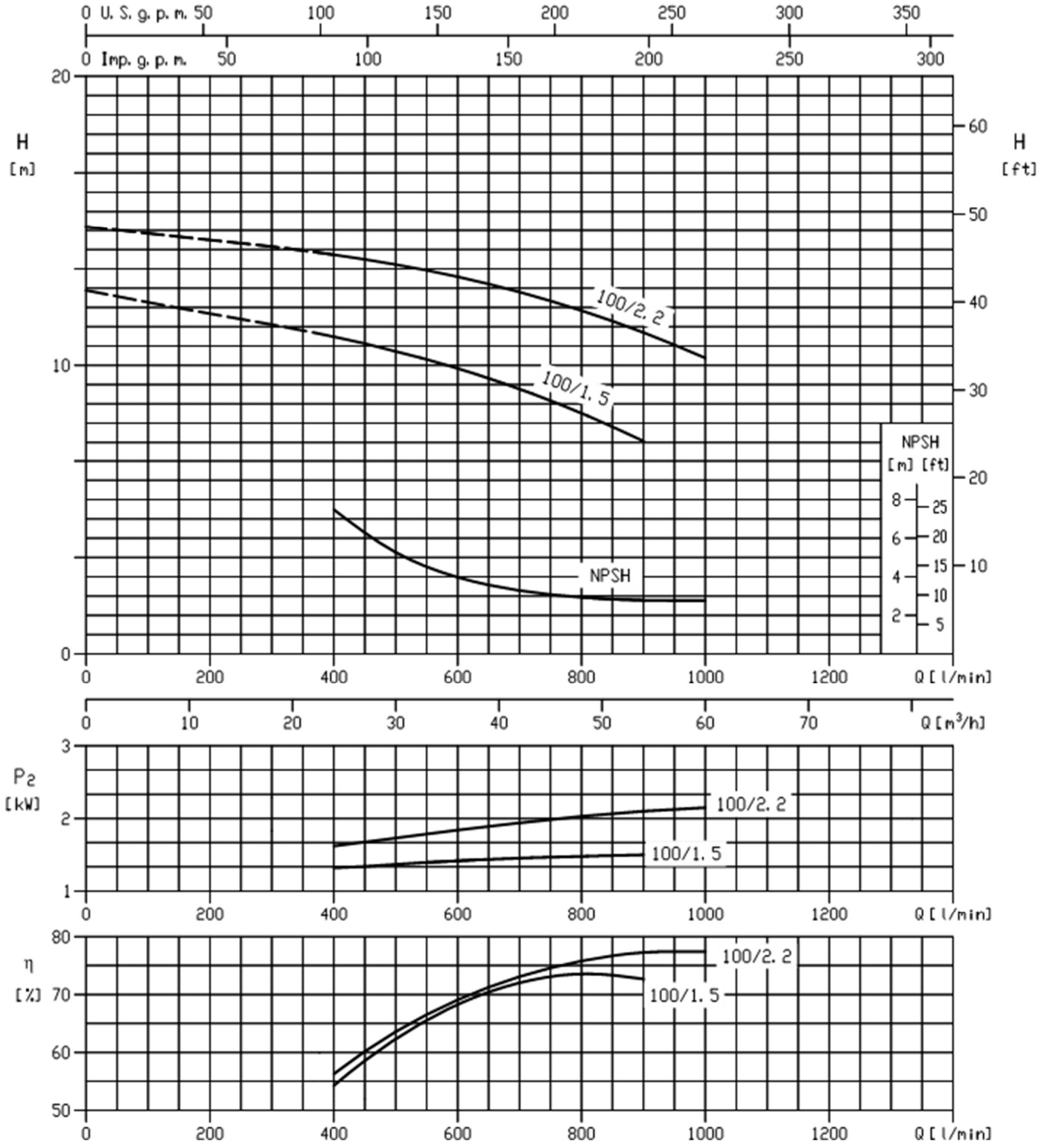
50Hz

Rev.C

3E(S) 80-100 **2 POLE**

80-100/1.5 (1.5 kW) - impeller diameter = 103 mm

80-100/2.2 (2.2 kW) - impeller diameter = 110 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

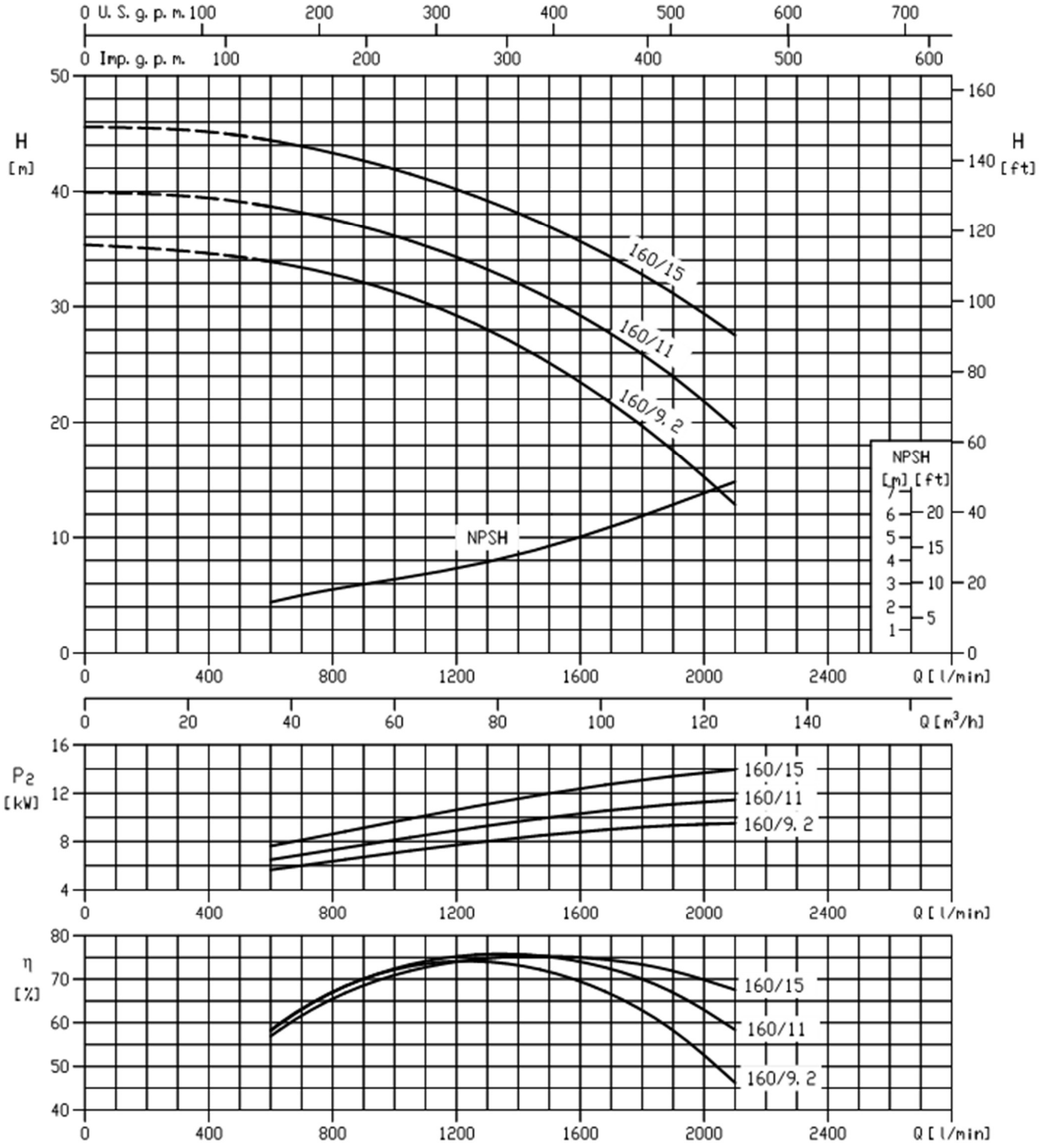
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 80-160 **2 POLE**

80-160/9.2 (9.2 kW) - impeller diameter = 160 mm
80-160/11 (11 kW) - impeller diameter = 168 mm
80-160/15 (15 kW) - impeller diameter = 178 mm



Rotation speed ≈ 2900 min^{-1}
Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

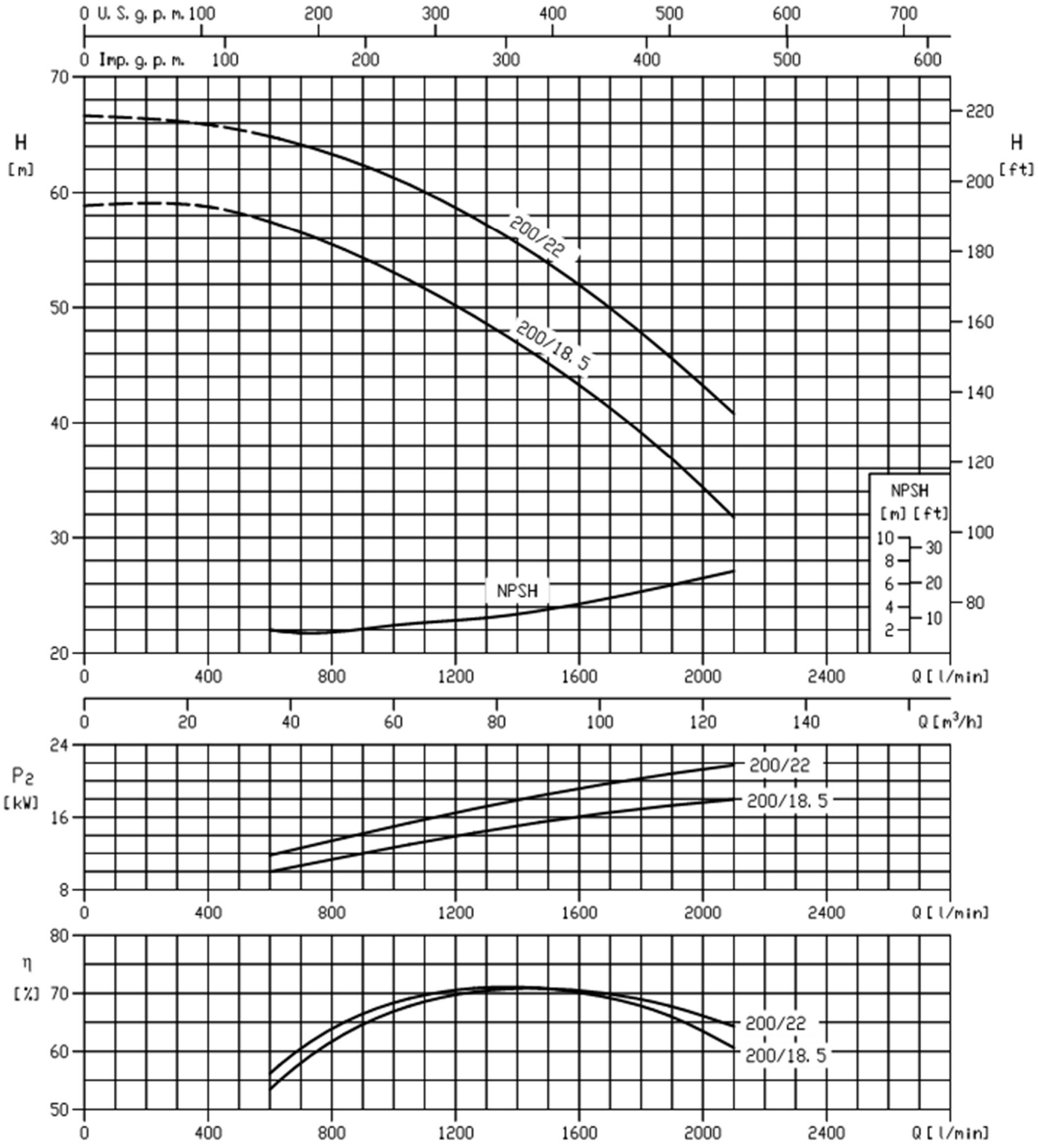
50Hz

Rev.C

3E(S) 80-200 **2 POLE**

80-200/18.5 (18.5 kW) - impeller diameter = 201 mm

80-200/22 (22 kW) - impeller diameter = 212 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

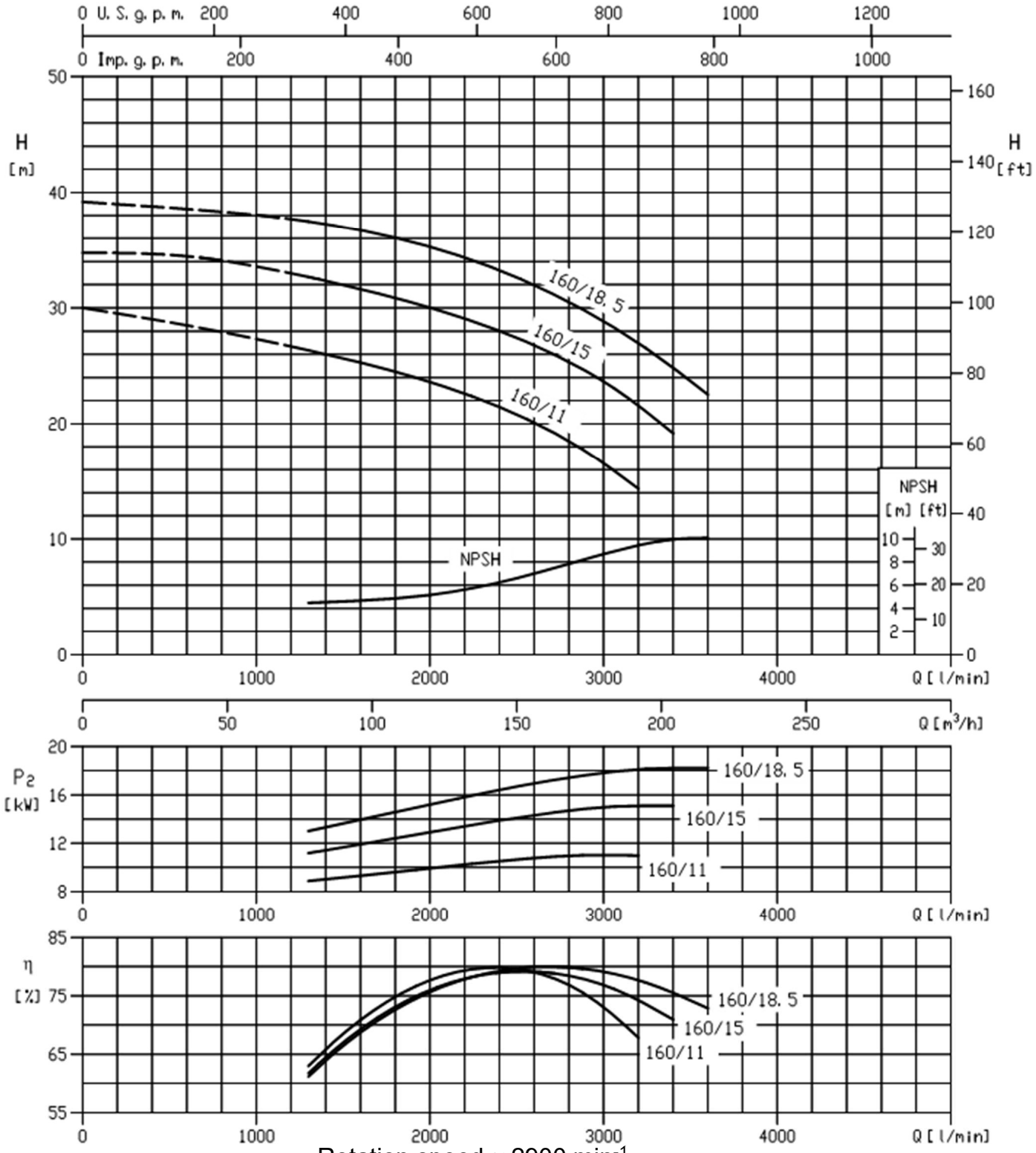
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 100-160 **2 POLE**

100-160/11 (11 kW) - impeller diameter = 154 mm
100-160/15 (15 kW) - impeller diameter = 165 mm
100-160/18.5 (18.5 kW) - impeller diameter = 174 mm



Rotation speed ≈ 2900 min^{-1}

Test standard : ISO 9906 Annex A

IN-LINE CENTRIFUGAL PUMPS 3E

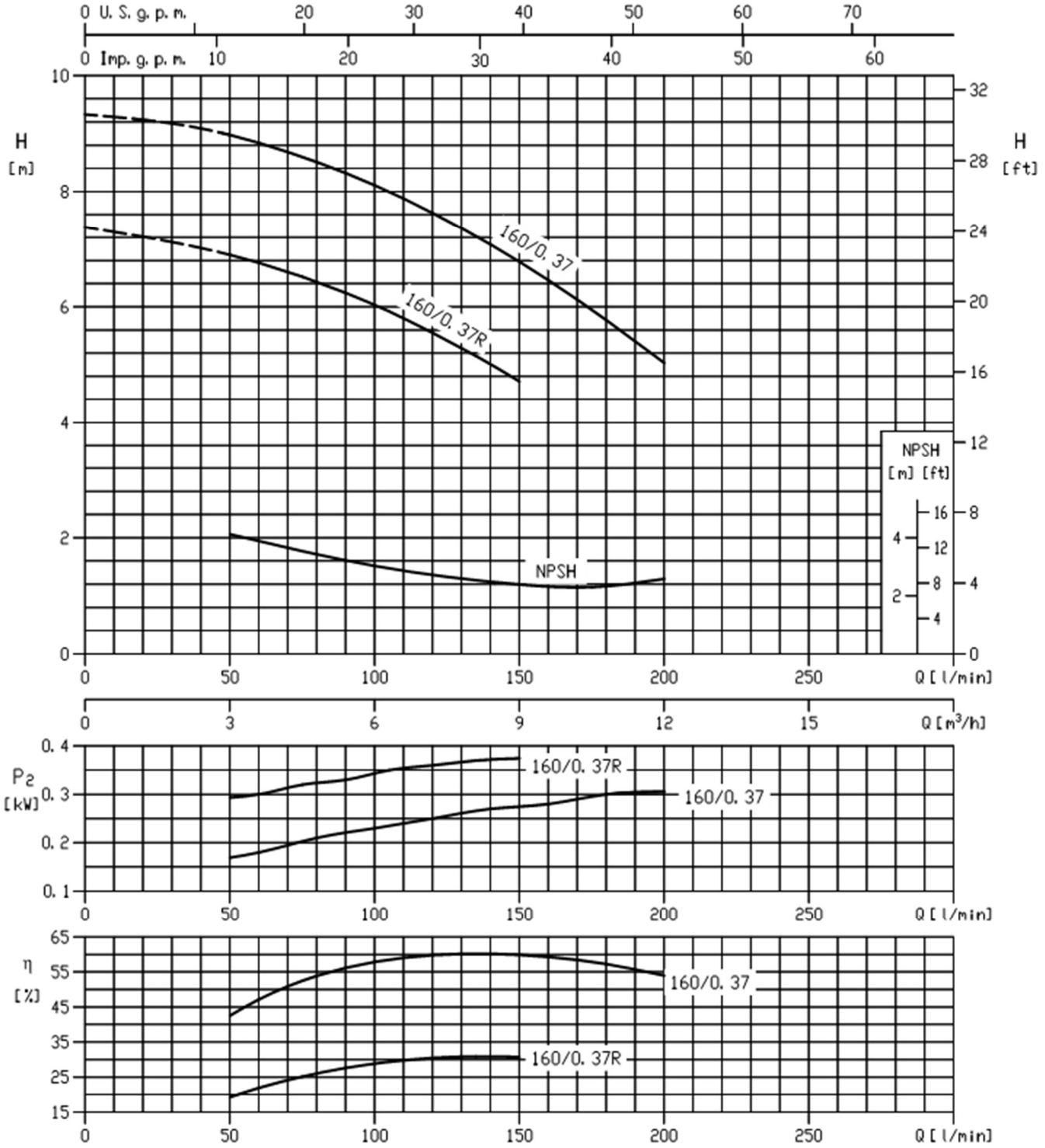
PERFORMANCE CURVE 50Hz

Rev.C

3E(S) 32-160 **4 POLE**

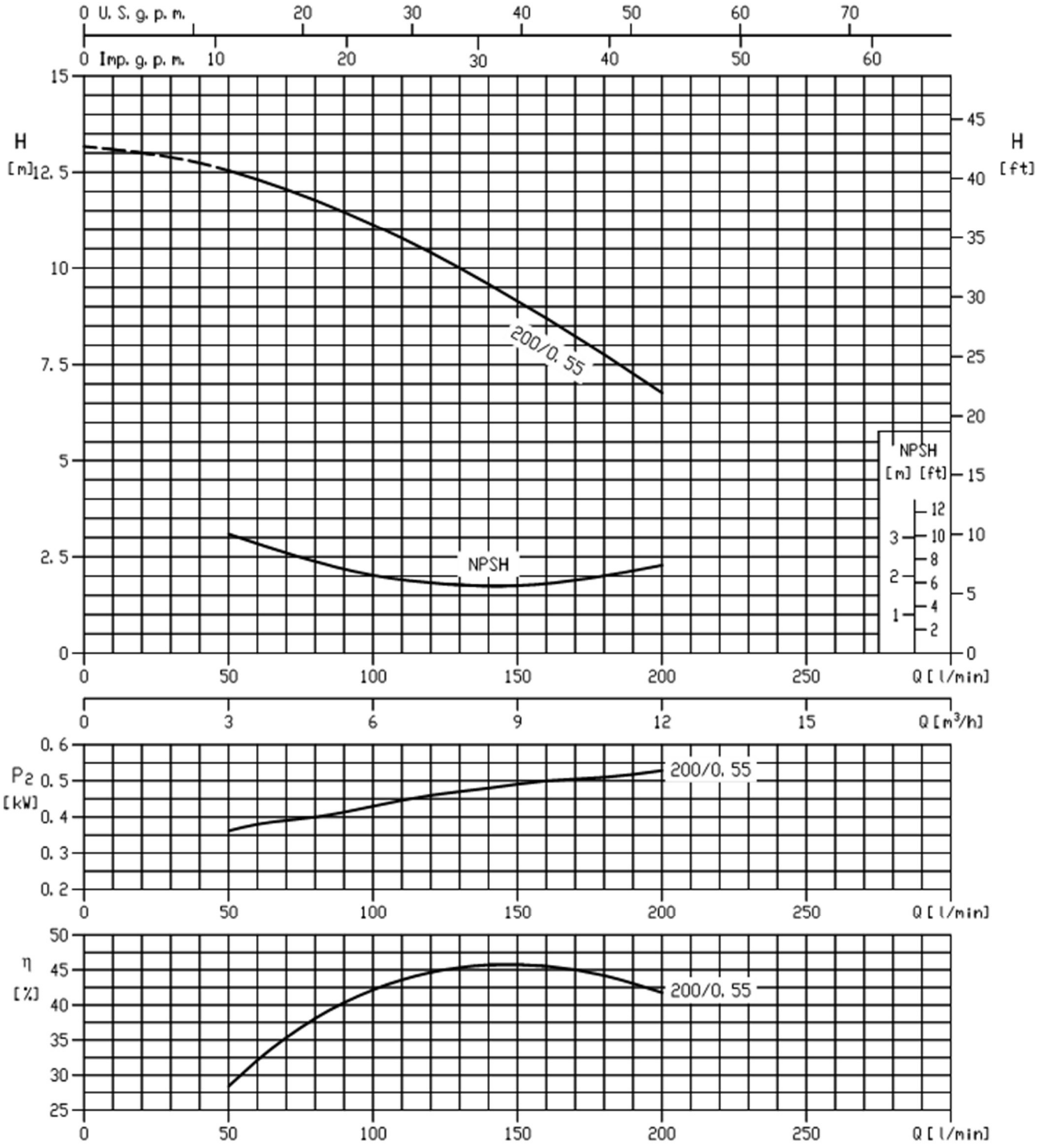
32-160/0.37R (0.37 kW) - impeller diameter = 151 mm

32-160/0.37 (0.37 kW) - impeller diameter = 166 mm



3E(S) 32-200 **4 POLE**

32-200/0.55 (0.37 kW) - impeller diameter = 200 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

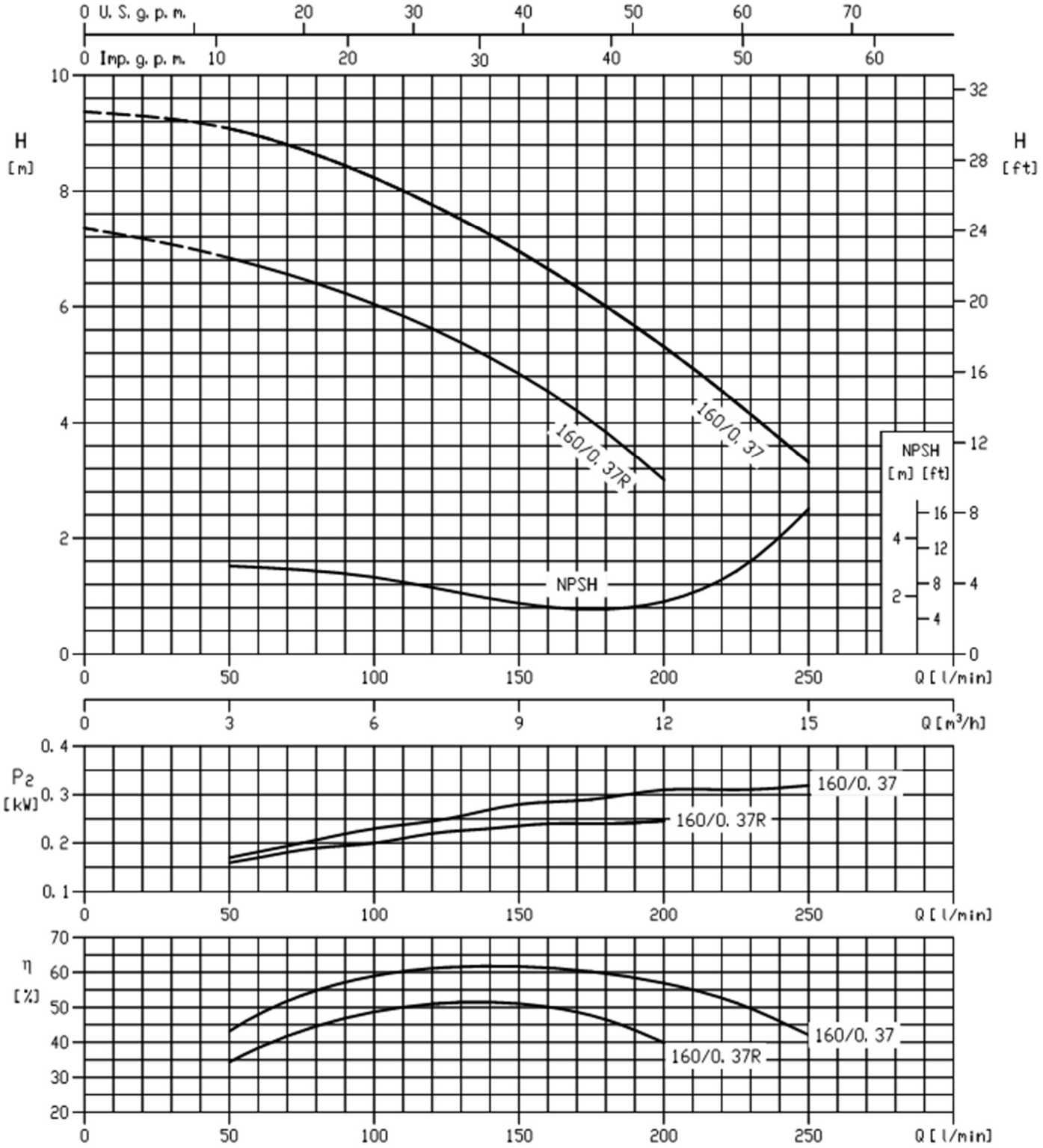
50Hz

Rev.C

3E(S) 40-160 **4 POLE**

40-160/0.37R (0.37 kW) - impeller diameter = 151 mm

40-160/0.37 (0.37 kW) - impeller diameter = 166 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

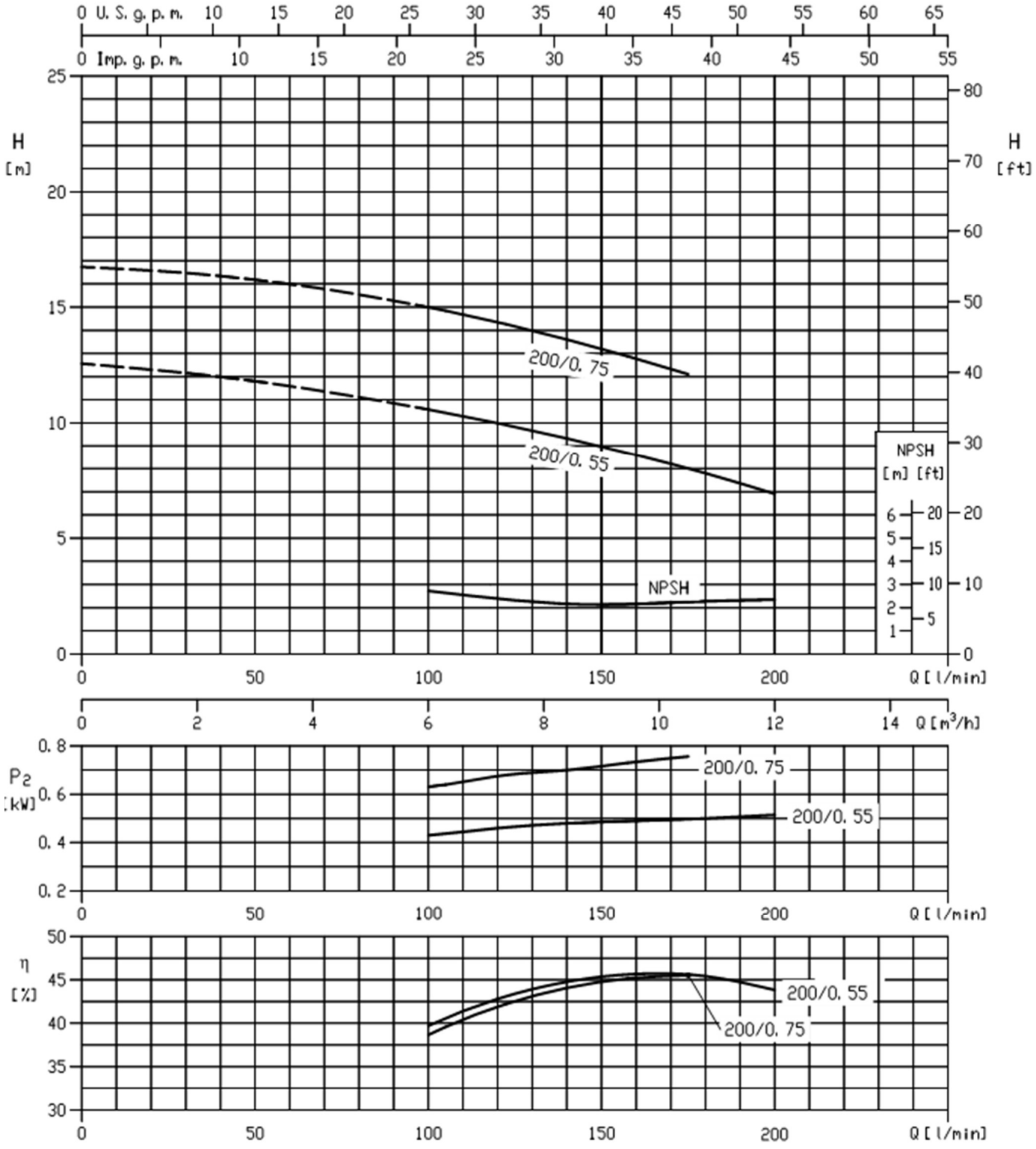
50Hz

Rev.C

3E(S) 40-200 **4 POLE**

40-200/0.55 (0.55 kW) - impeller diameter = 200 mm

40-200/0.75 (0.75 kW) - impeller diameter = 224 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

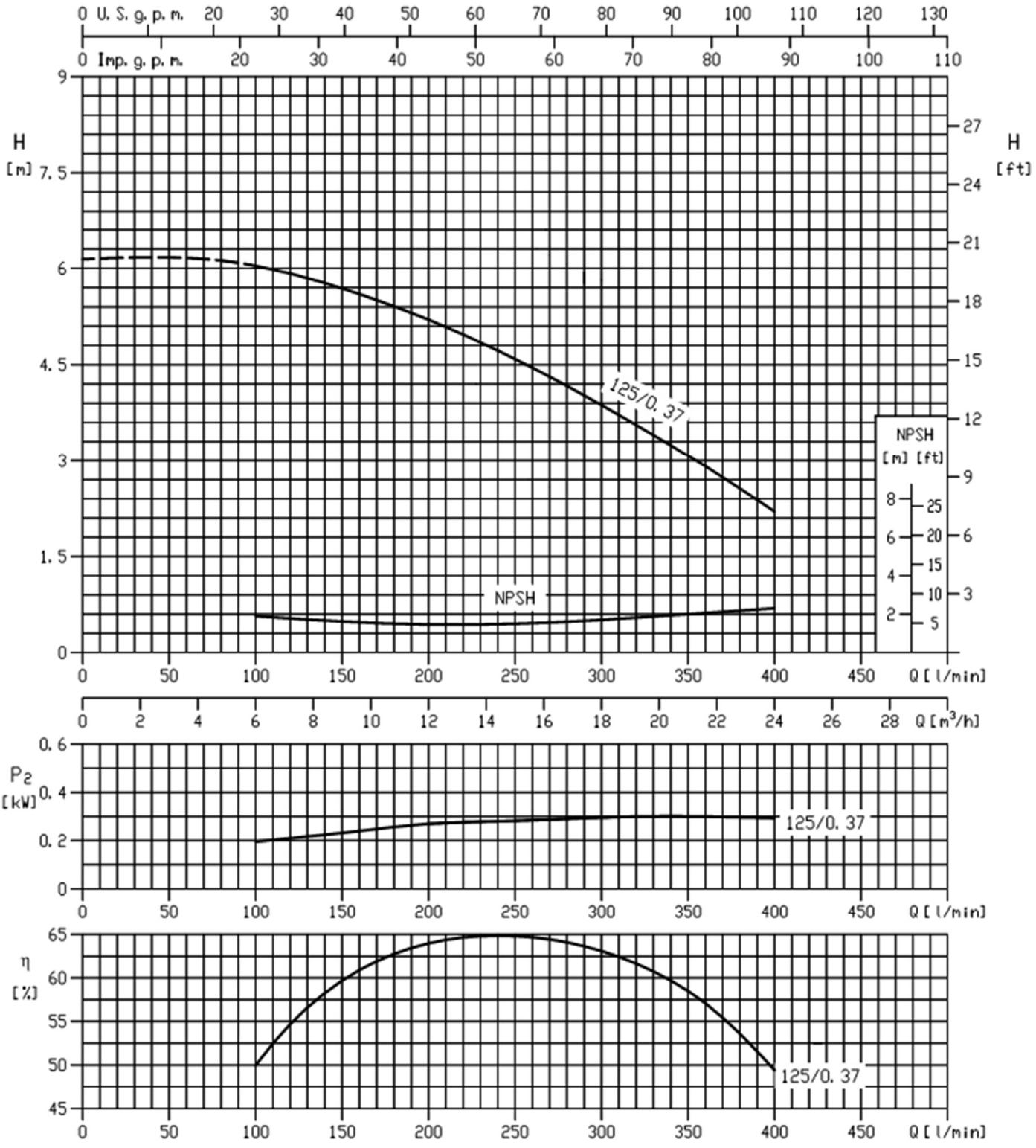
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 50-125 **4 POLE**

50-125/0.37 (0.37 kW) - impeller diameter = 140 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

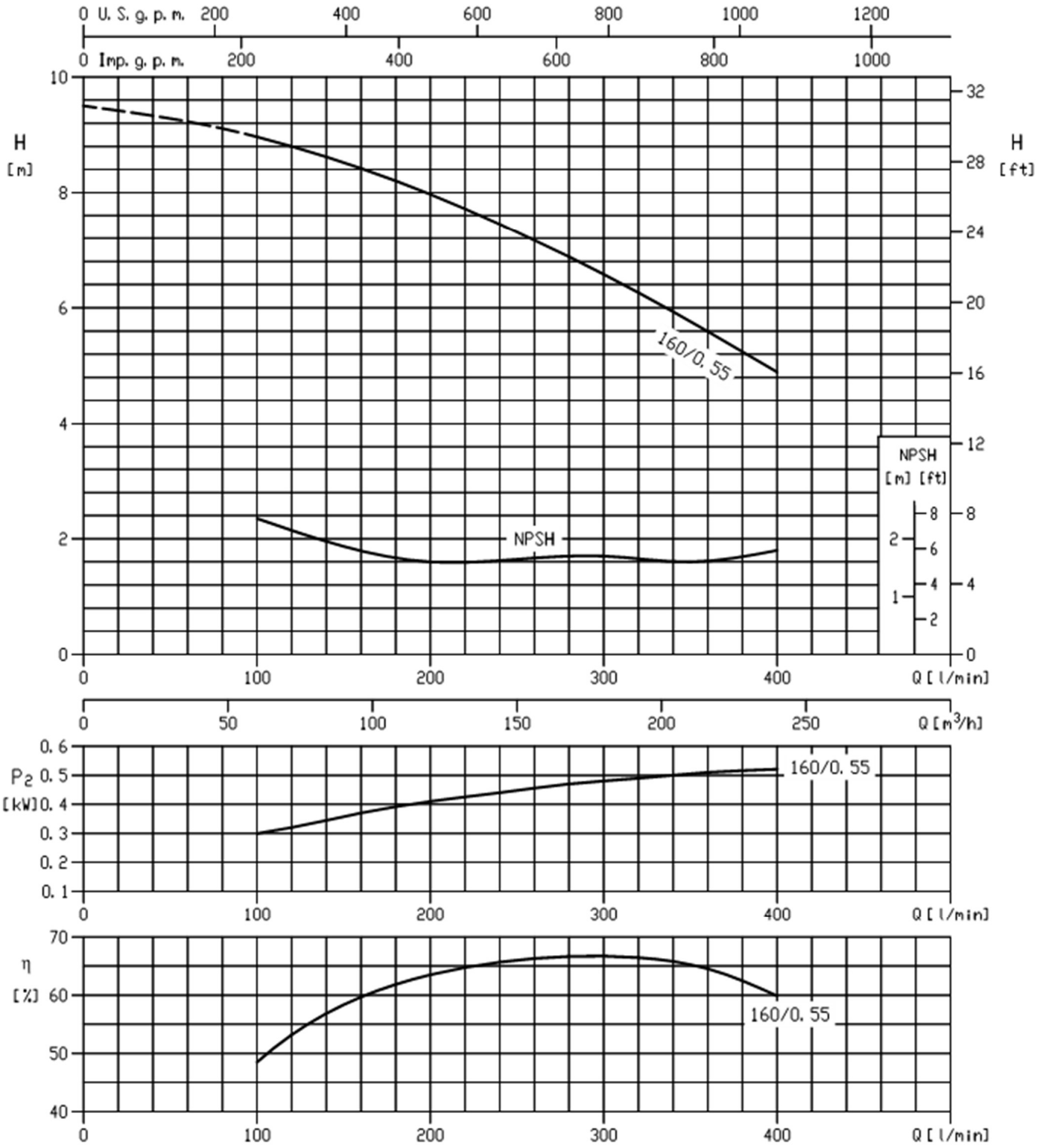
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 50-160 **4 POLE**

50-160/0.55 (0.55 kW) - impeller diameter = 166 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

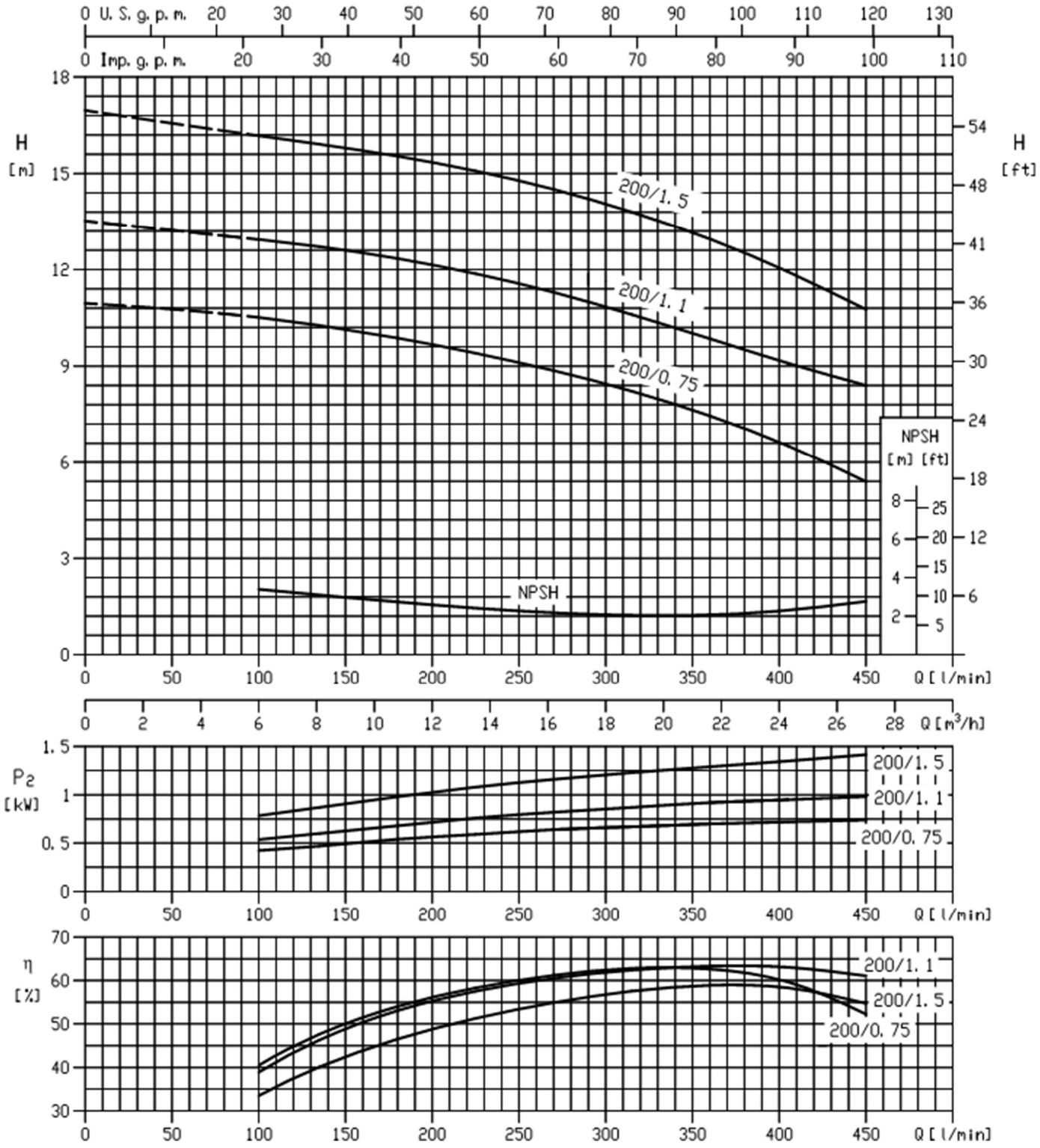
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 50-200 **4 POLE**

50-200/0.75 (0.75 kW) - impeller diameter = 183 mm
50-200/1.1 (1.1 kW) - impeller diameter = 200 mm
50-200/1.5 (1.5 kW) - impeller diameter = 224 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

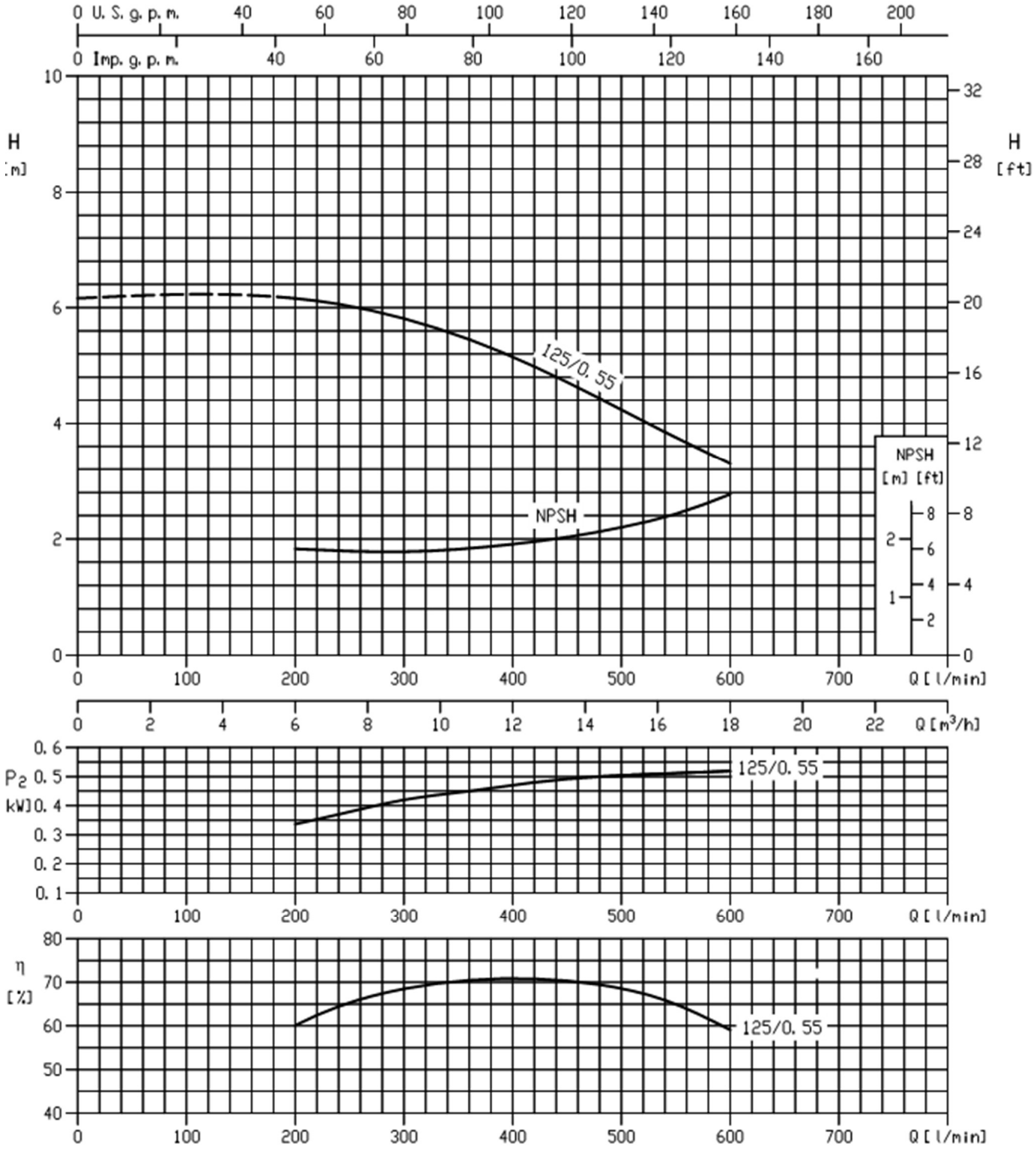
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 65-125 **4 POLE**

65-125 (0.55 kW) - impeller diameter = 140 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

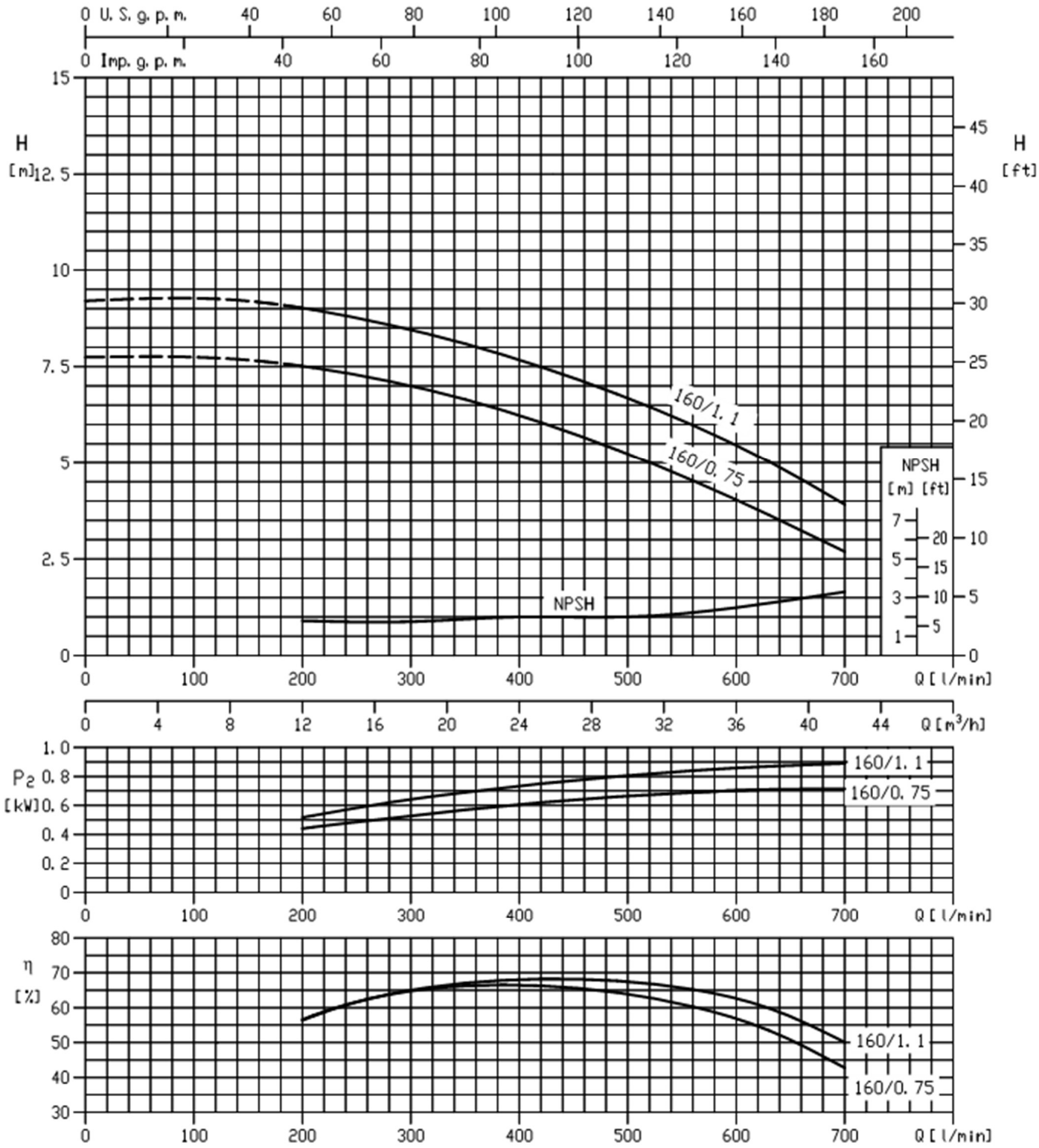
50Hz

Rev.C

3E(S) 65-160 **4 POLE**

65-160/0.75 (0.75 kW) - impeller diameter = 154 mm

65-160/1.1 (1.1 kW) - impeller diameter = 166 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

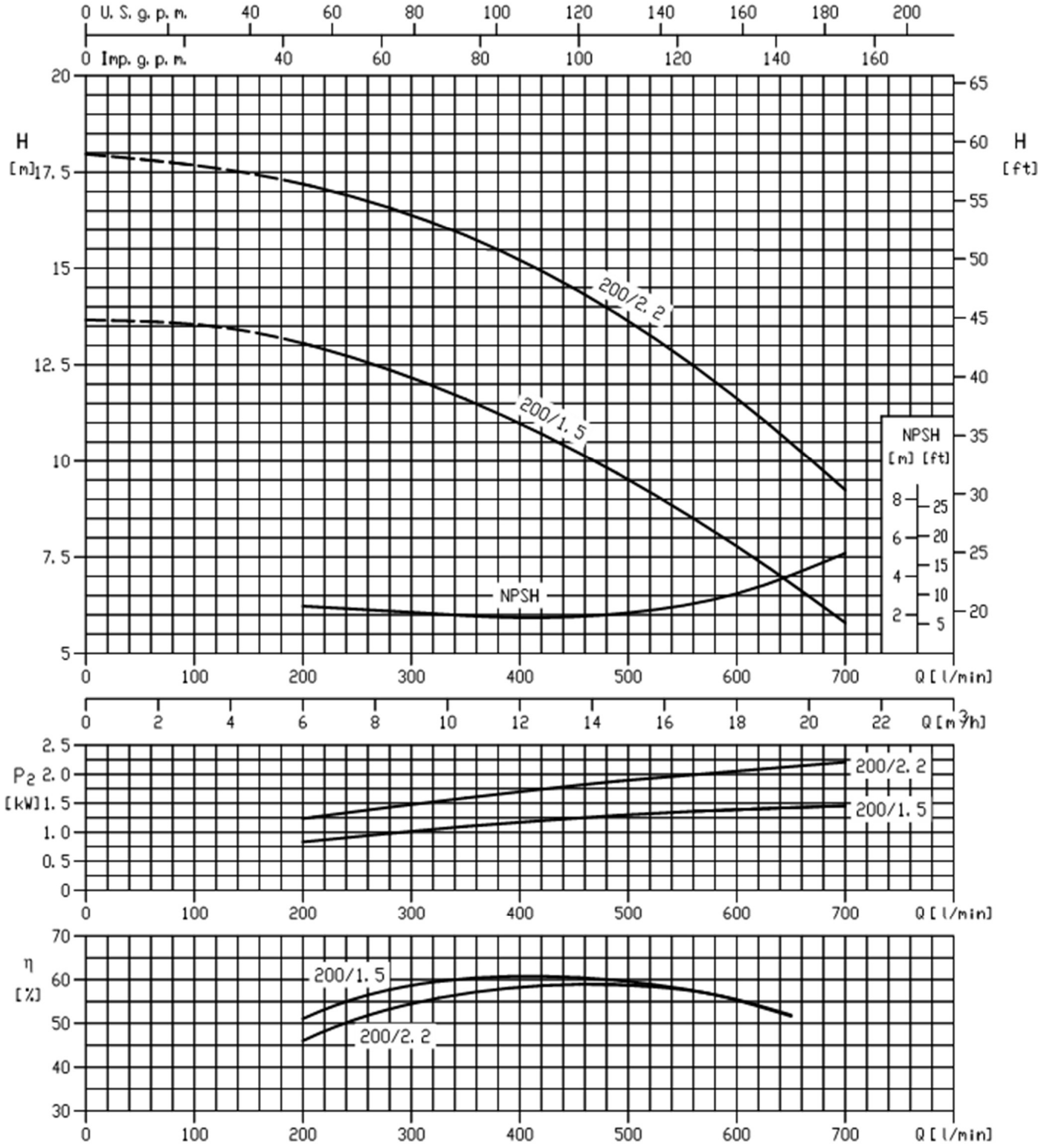
50Hz

Rev.C

3E(S) 65-200 **4 POLE**

65-200/1.5 (1.5 kW) - impeller diameter = 200 mm

65-200/2.2 (2.2 kW) - impeller diameter = 224 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

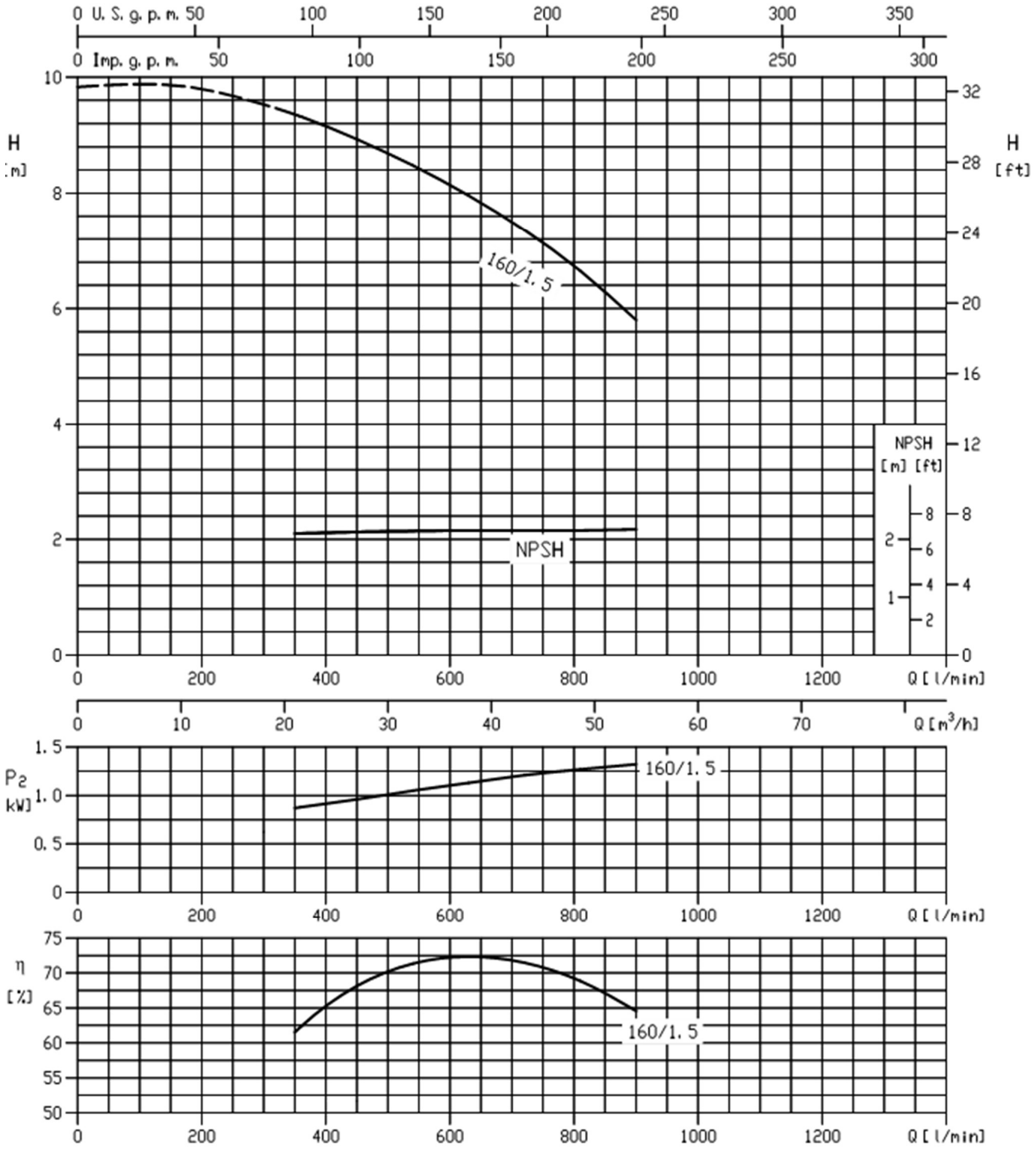
PERFORMANCE CURVE

50Hz

Rev.C

3E(S) 80-160 **4 POLE**

80-160/1.5 (1.5 kW) - impeller diameter = 168 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

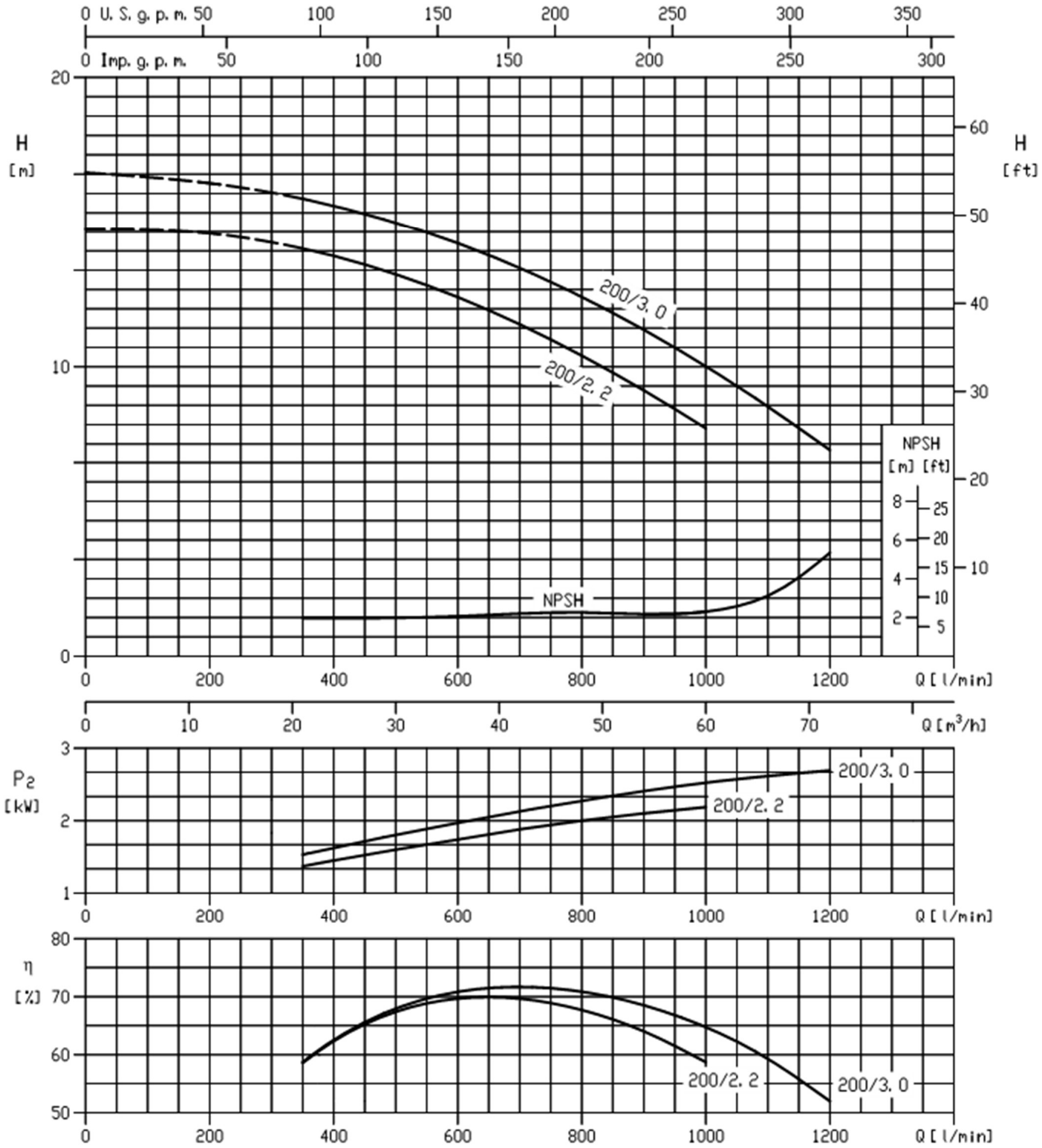
50Hz

Rev.C

3E(S) 80-200 **4 POLE**

80-200/2.2 (2.2 kW) - impeller diameter = 201 mm

80-200/3.0 (3.0 kW) - impeller diameter = 212 mm



Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

PERFORMANCE CURVE

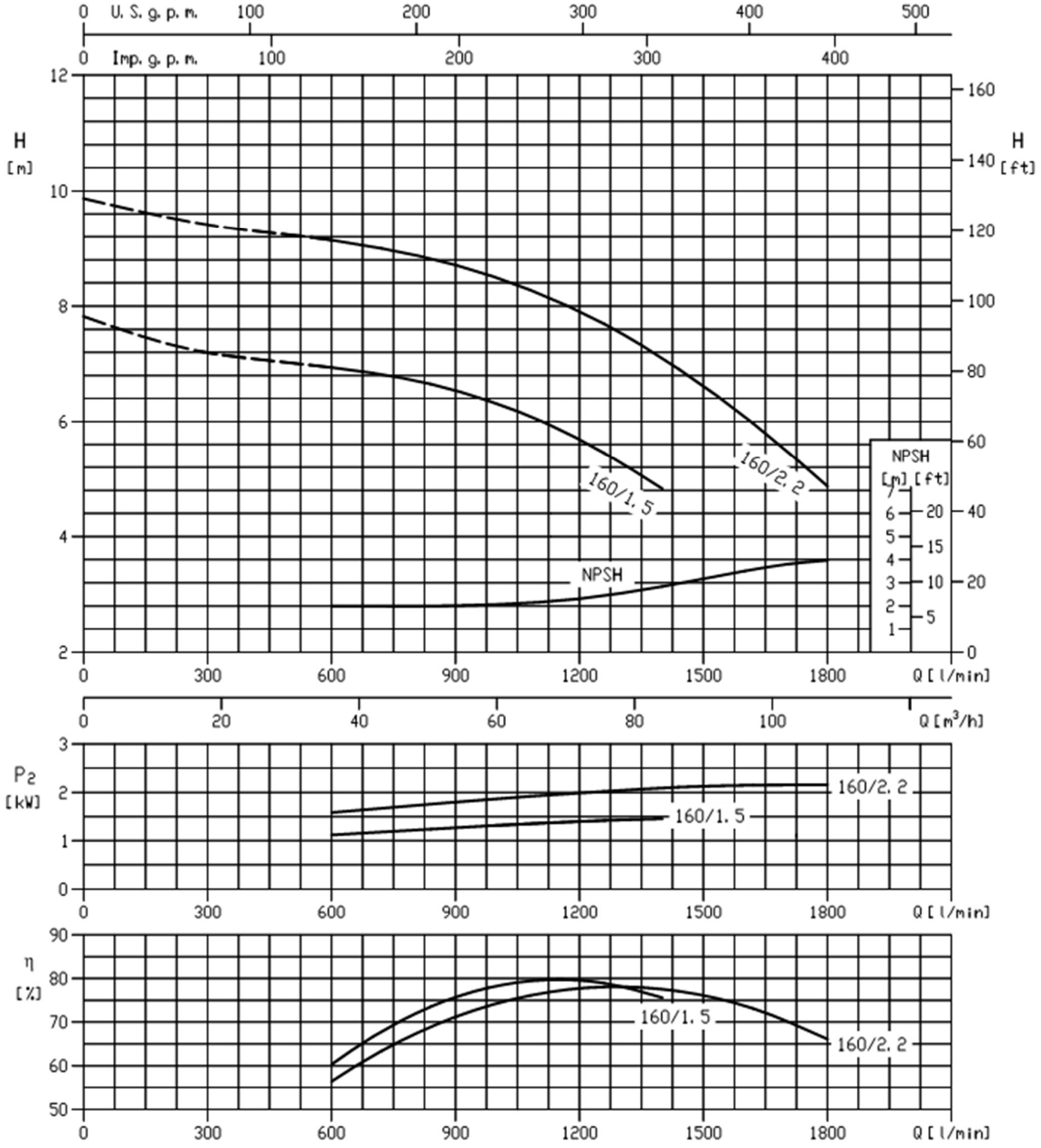
50Hz

Rev.C

3E(S) 100-160 **4 POLE**

100-160/1.5 (1.5 kW) - impeller diameter = 156 mm

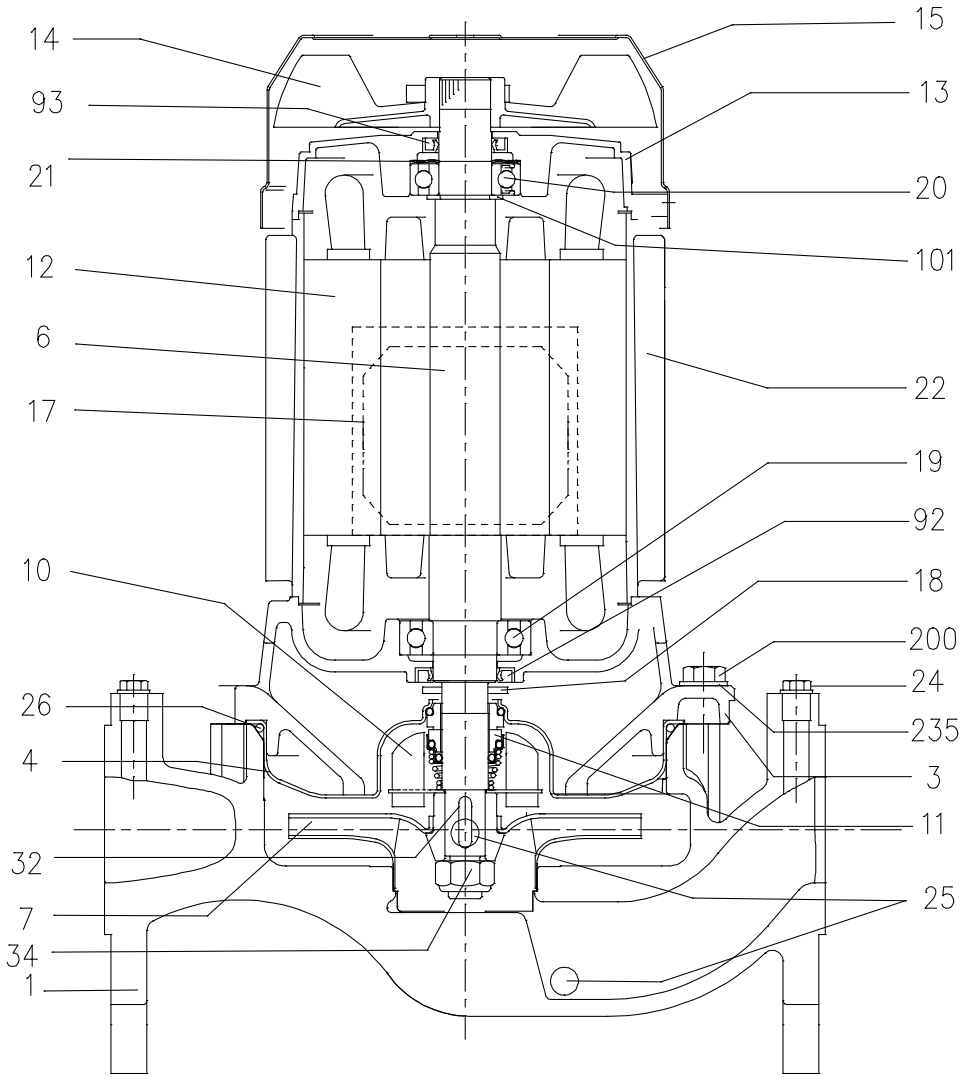
100-160/2.2 (2.2 kW) - impeller diameter = 174 mm

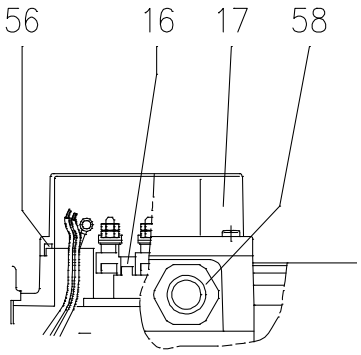


Rotation speed ≈ 1450 min^{-1}

Test standard : ISO 9906 Annex A

SECTIONAL VIEW DRAWING 3E 32-125, 40-160, 50-100, 65-100





CONSTRUCTION

50Hz

Rev.C

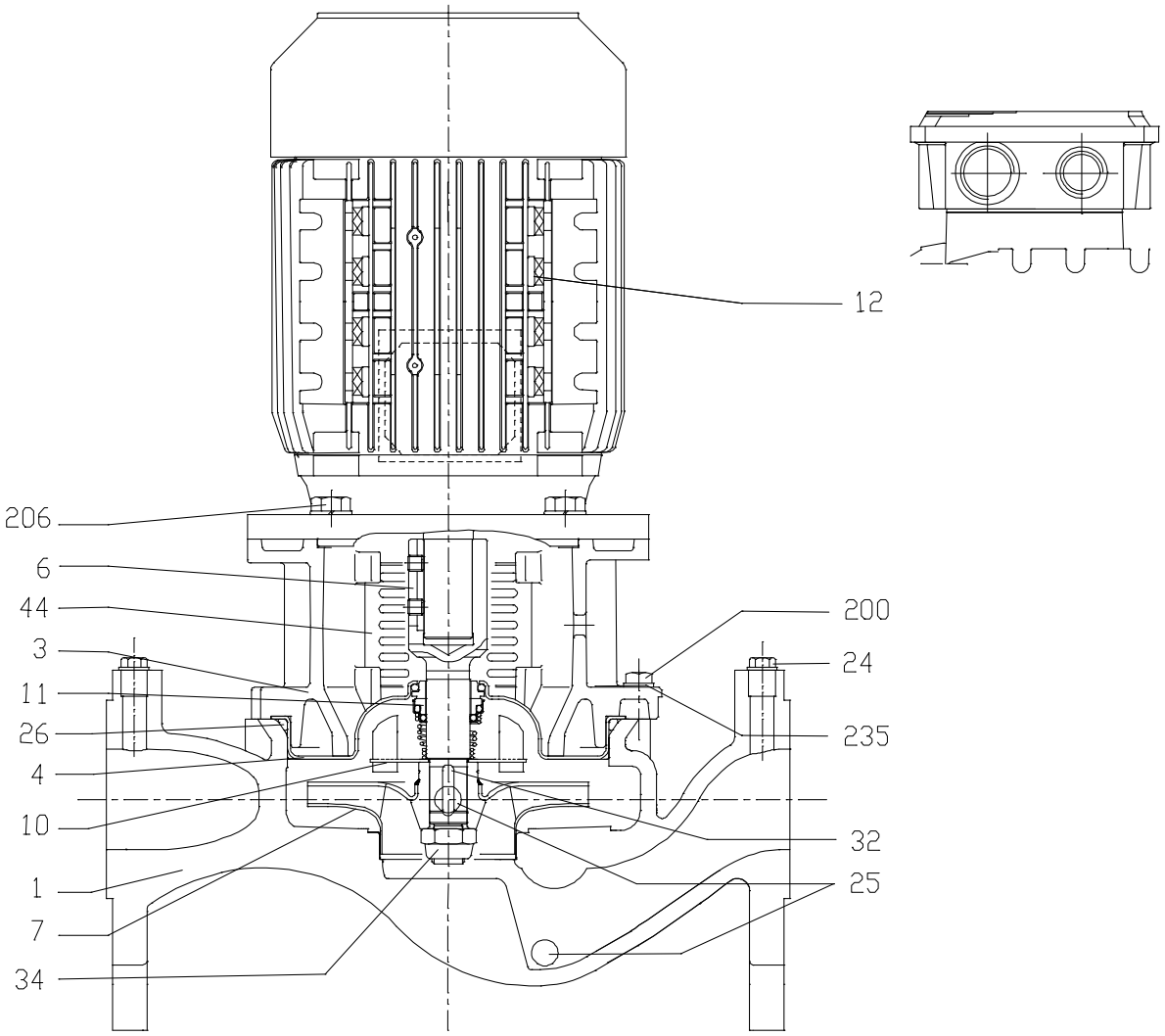
SECTIONAL VIEW TABLE 3E 32-125,40-160,50-100,65-100

No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing		Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket		Aluminum AL-EN-1706-AC-46000-D			1
4	Casing cover		EN 1.4301(AISI 304)			1
6	Shaft with rotor - Wet extension		EN 1.4301(AISI 304)			1
7	Impeller		EN 1.4301(AISI 304)			1
10	Baffle		EN 1.4301(AISI 304)			1
11	Mechanical seal [1]					1
12	Motor frame with stator		-			1
13	Motor cover		Aluminum			1
14	Fan		PA			1
15	Fan cover		Fe P04 Galvanized			1
16	Terminal		-			1
17	Terminal box cover		Aluminum (three phase version)			1
18	Splash ring	Up to 0.55 kW		25x14.5x2.5	EBARA DRAWING	1
		For 1.1 kW		40x21.5x2		
19	Bearing [3]		•			1
20	Bearing [3]		•			1
21	Adjusting ring		Steel C70			1
22	Tie rod	Up to 1.1 kW	Fe 42 Galvanized	M5	EBARA DRAWING	4
24	Plug		Brass	G 1/4		2
25	Drain plug		Brass	G 1/4		4
26	O-ring	32-125,50-100,65-100	EPDM	158.11x5.34	OR 6625	1
32	Key	Up to 0.55 kW	EN 1.4401(AISI 316)	4x4x14	UNI 6604	1
		For 1.1 kW		6x6x22		
34	Impeller nut	Up to 0.55 kW	EN 1.4301(AISI 304)	M10x1.25	UNI 7474	1
		For 1.1 kW		M16x1.5		
56	Box gasket		NBR			1
58	Cable gland		-			1
92	Lip seal	Up to 0.55 kW		15x30x5	DIN 3760 without spring	1
		For 1.1 kW		25x40x7		
93	Lip seal	Up to 0.55 kW		15x30x5	DIN 3760 without spring	1
		For 1.1 kW		17x32x6		
200	Screw	32-125,50-100,65-100	Gv. Steel 8.8 strength class ISO 898-1	M6x25	UNI 5739	8
		40-160		M10x35		10
235	Washer	32-125,50-100,65-100	Galvanized Steel	6.4x12.5	UNI 6592	8
		40-160		10.5x21		10

[1] See MECHANICAL SEAL pages

[3] See BEARING Pages

SECTIONAL VIEW DRAWING 3ES 32-125,40-160,50-100/125/160,65-100/125,80-100



SECTIONAL VIEW TABLE 3ES 32-125,40-160,50-100/125/160,65-100/125,80-100

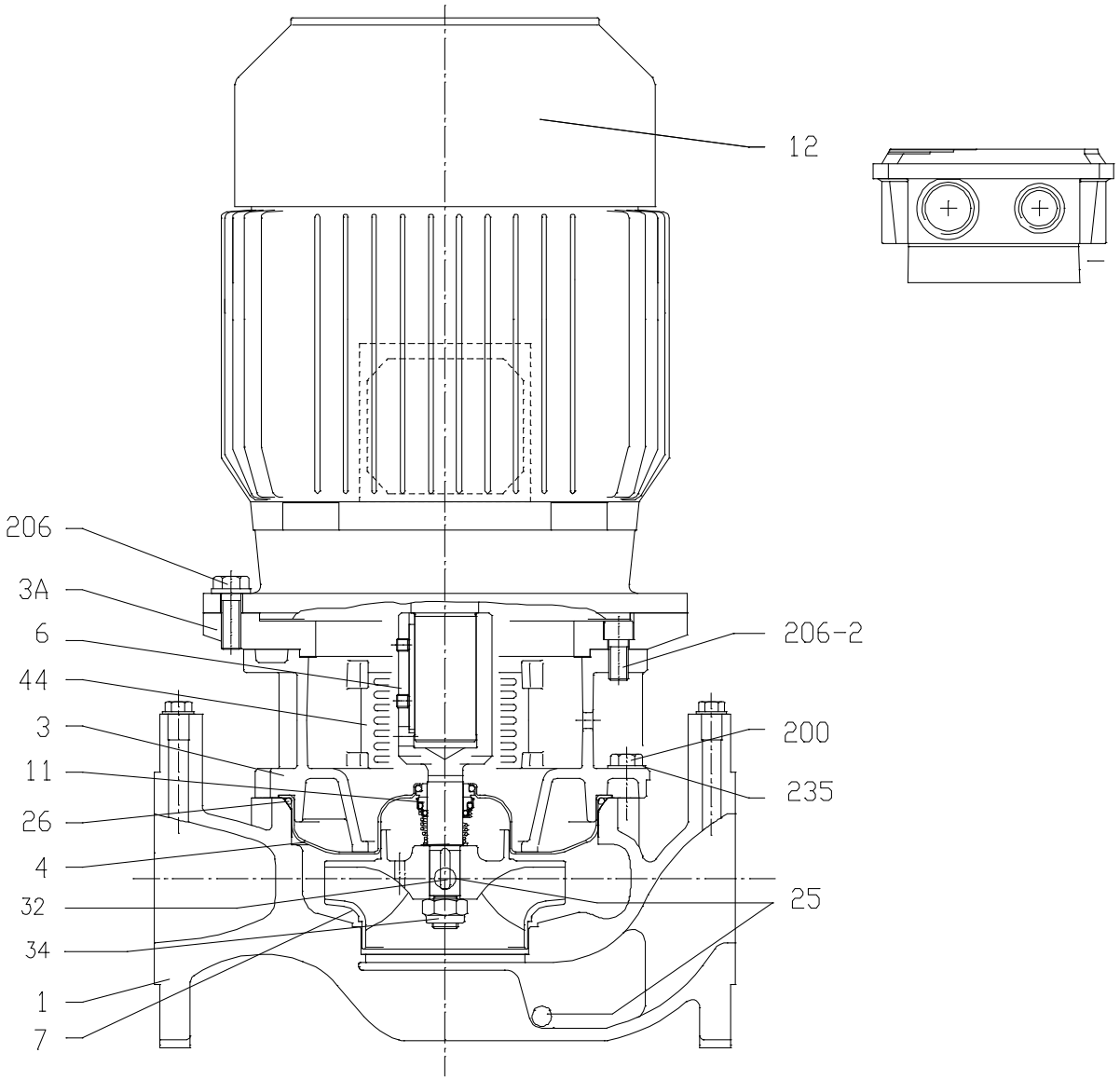
No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	QTY
1	Casing		Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket [3]		Cast iron EN-GJL-200-EN 1561			1
4	Casing cover		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
6	Coupling - Wet extensions [4]		EN 1.4404 (AISI 316L) EN 1.4301 (AISI 304) for 0.75 kW			1
7	Impeller		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
10	Baffle		EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316)			1
11	Mechanical seal [1]		-			1
12	Motor					1
24	Priming plug		Brass	G 1/4		2
25	Draining plug		Brass	G 1/4		4
26	O-ring	32-125,50-100,50-125,65-100,80-100	EPDM	158.11x5.34	OR 6625	1
		40-160,50-160,65-125		183.52x5.34	OR 6720	
32	Key	32-125,50-100	EN 1.4401 (AISI 316)	4x4x14	UNI 6604	1
		40-160,50-125,50-160,65-100,65-125,80-100		6x6x22		
34	Impeller nut		EN 1.4301 (AISI 304)	M16x1.5	UNI 7474	1
44	Protection		EN 1.4301 (AISI 304)		EBARA DRAWING	2
200	Screw	32-125,50-100,65-100	Gv. Steel 8.8 strength class ISO 898-1	M6x25	UNI 5739	8
		50-125,80-100		M8x30		
		40-160, 50-160,65-125		M10x35		10
206	Screw for bracket	0.75kW to 2.2kW	Gv. Steel 8.8 strength class ISO 898-1	M10x25	UNI 5739	4
		3kW to 4kW		M12x30		
235	Washer	50-100, 65-100	Galvanized Steel	6.4x12.5	UNI 6592	8
		32-125,50-125,80-100		8.4x17		
		40-160,50-160,65-125		10.5x21		10

[1] See MECHANICAL SEAL pages

[3] Cast iron EN-GJL-200-EN 1561 for motor of 0.75kW Aluminum AL-EN-1706-AC-46000-D for motor of 1.1 to 4kW

[4] See 3ES COUPLING page

SECTIONAL VIEW DRAWING 3ES 40-200,65-160



CONSTRUCTION

50Hz

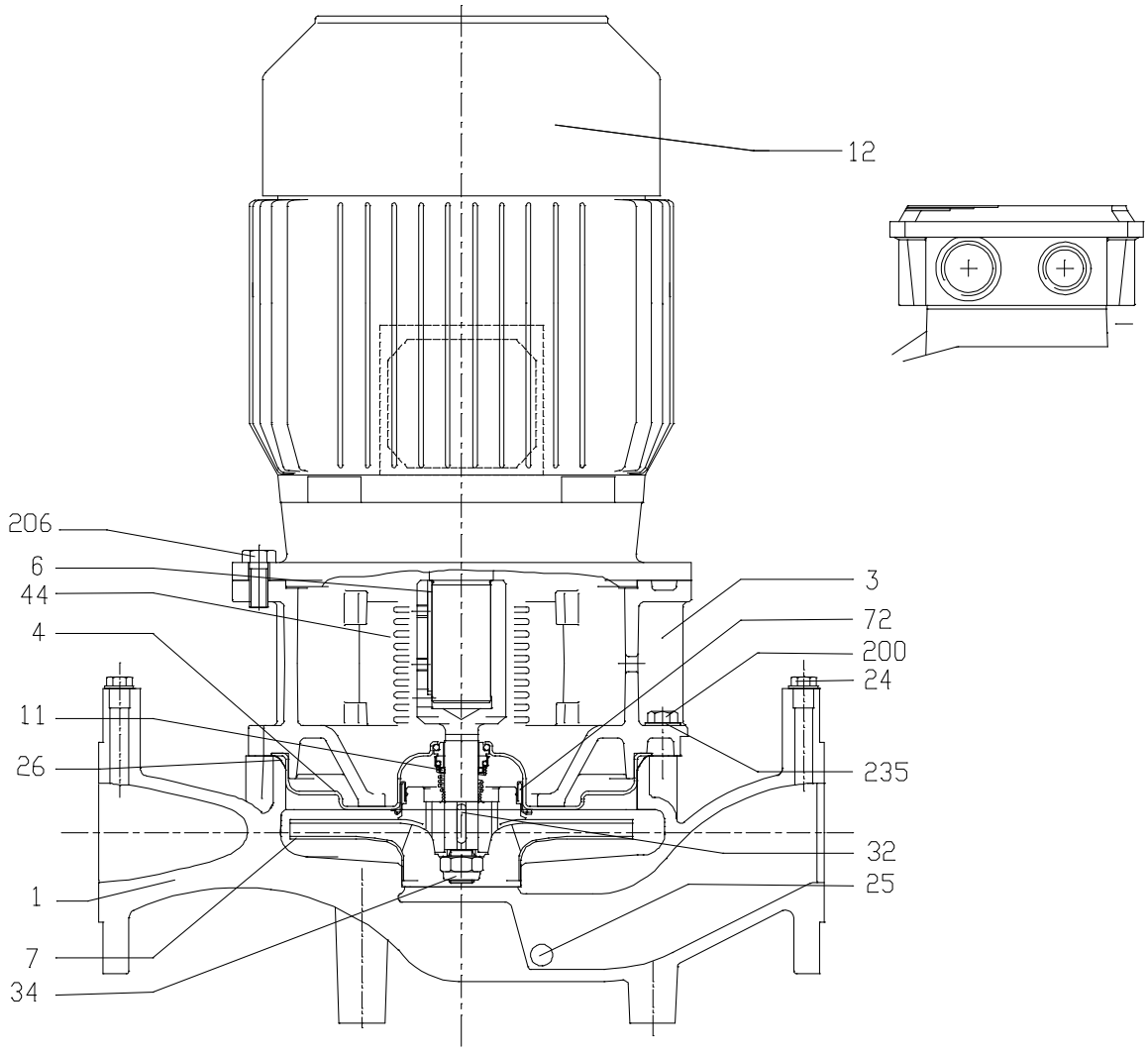
Rev.C

SECTIONAL VIEW TABLE 3ES 40-200,65-160

No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	QTY
1	Casing		Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket		Cast iron EN-GJL-200-EN 1561			1
3A	Adapter ring [4]		Cast iron EN-GJL-200-EN 1561			1
4	Casing cover		EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316)			1
6	Coupling - Wet extensions [3]		EN 1.4401 (AISI 316)			1
7	Impeller		EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316)			1
11	Mechanical seal [1]		SiC/SiC/EPDM			1
12	Motor					1
24	Priming plug	40-200	Brass	G 1/4		-
		65-160				2
25	Draining plug		Brass	G 1/4		4
26	O-ring		EPDM	227.96x5.34	OR 6895	1
32	Key		EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
34	Impeller nut		EN 1.4301 (AISI 304)	M16x1.5	UNI 7474	1
44	Protection		EN 1.4301 (AISI 304)		EBARA DRAWING	2
72	Casing ring		EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316)			1
200	Screw		Gv. Steel 8.8 strength class ISO 898-1	M 10x35		12
206	Screw for bracket		Gv. Steel 8.8 strength class ISO 898-1	M12x30	UNI 5739	4
206-2	Screw for adapter ring [4]		Gv. Steel 8.8 strength class ISO 898-1	M12x20	UNI 5931	4
235	Washer		Galvanized Steel	10.5x21	UNI 6592	12

[1] See MECHANICAL SEAL pages
[3] See 3ES COUPLING page
[4] Only for 80-125

SECTIONAL VIEW DRAWING 3ES 50-200,65-200,80-160/200,100-160



CONSTRUCTION

50Hz

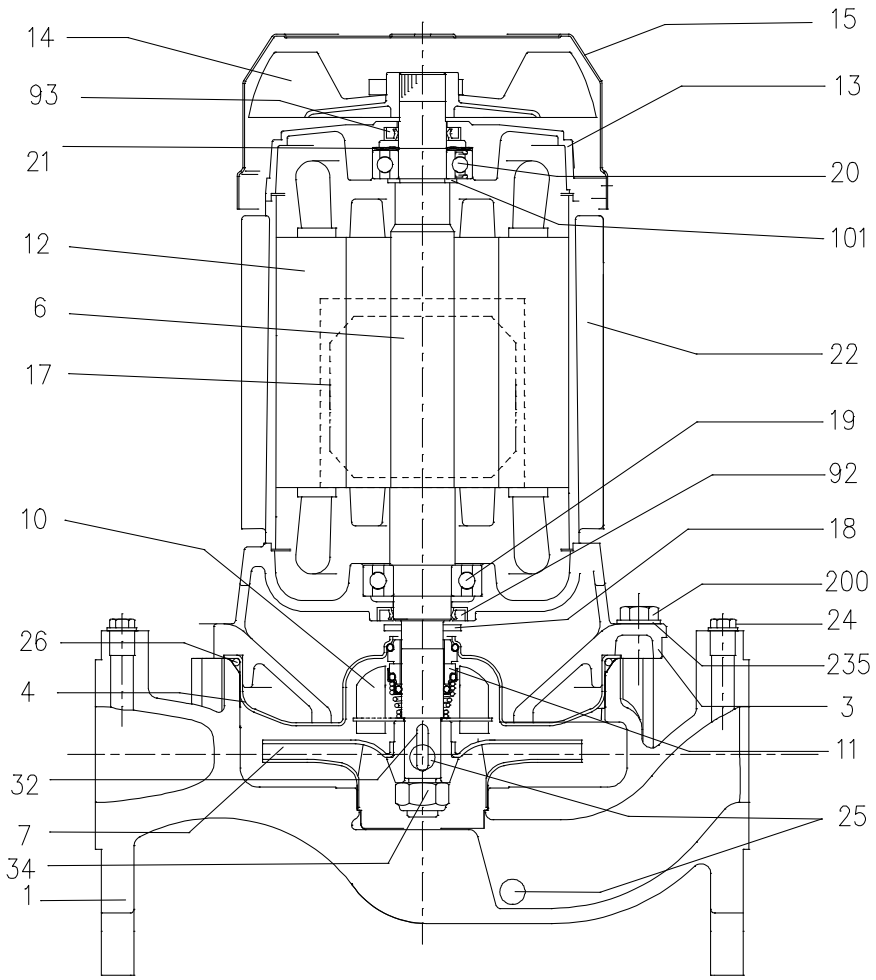
Rev.C

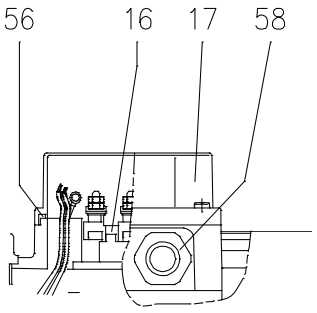
SECTIONAL VIEW TABLE 3ES 50-200,65-200,80-160/200,100-160

No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing		Cast iron EN-GJL250-EN 1561			1
3	Motor bracket		Cast iron EN-GJL-200-EN 1561			1
4	Casing cover [3]		EN 1.4301(AISI 304)			1
6	Coupling - Wet extensions [4]		EN 1.4301(AISI 304) [5]			1
7	Impeller [6]		-			1
11	Mechanical seal [1]		-			1
12	Motor					1
24	Priming plug		Brass	G 1/4		2
25	Drain plug	50-200	Brass	G 1/4		4
		Other models				2
26	O-ring		EPDM [2]	227.96x5.34	OR 6895	1
32	Key	50-200,65-200,80-160/9.2,80-160/11	EN 1.4401(AISI 316)	6x6x25	UNI 6604	1
		80-160/15,80-200,100-160		8x7x30		
34	Impeller nut	Up to11kW [7]	EN 1.4301(AISI 304)	M16x1.5	UNI 7474	1
		65-200/15		M18x1.5		
		15 kW and above		M20X1.5		
44	Protection		EN 1.4301(AISI 304)		EBARA	2
72	Casing ring [8]		EN 1.4301(AISI 304)			1
200	Screw		Gv. Steel 8.8 strength class ISO 898-1	M10x35	UNI 5739	12
206	Screw for bracket	From 5.5kW to 9.2kW	Gv. Steel 8.8 strength class ISO 898-1	M12x30	UNI 5739	4
		From 11kW to 18.5kW		M16x35		
		From 22kW to 37kW [9]		M16x45		
235	Washer		Galvanized Steel	10.5x21	UNI 6592	12

[1] See MECHANICAL SEAL pages
[2] FPM for Q1AVGG,Q4Q1VGG
EPDM for Q1AEGG,Q4Q1EGG
[3] EN 1.4404 (AISI 316L) for 100 series
[4] See 3ES COUPLING page
[5] EN 1.4404 (AISI 316L) for 100 series
[6] EN 1.4301(AISI 304) for 50,65 series;
EN 1.4401(AISI 316) for 80 series, EN 1.4404(AISI 316L) for 100 series
[7] Except for 100-160/11kW :M20x1.5
[8] Only for: 65-200
[9] Except for 80-200/22: M16x35

SECTIONAL VIEW DRAWING 3E4 32-160,40-160,50-125/160,65-125



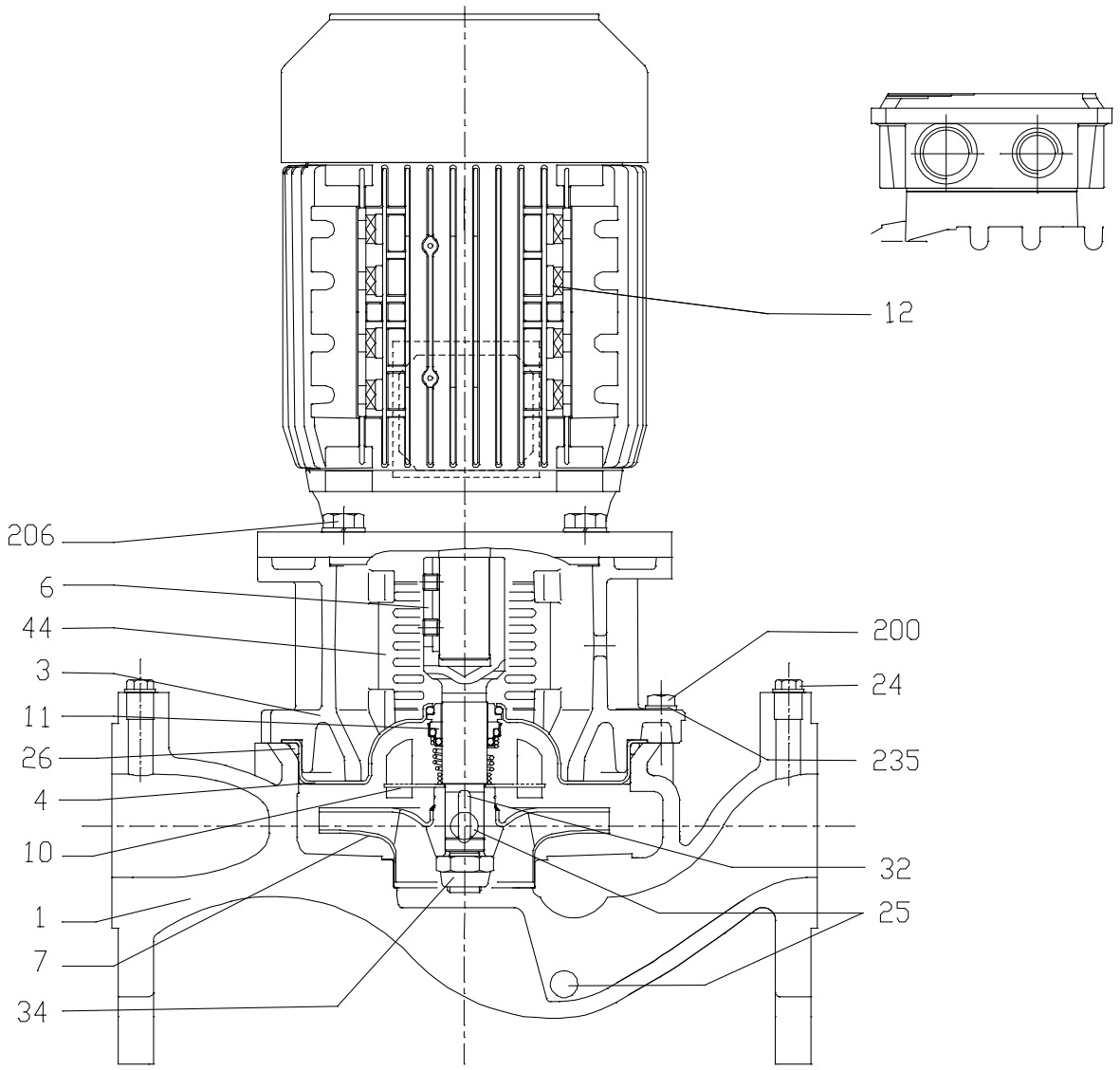


SECTIONAL VIEW TABLE 3E4 40-160

No	PART NAME	MATERIAL	DIMENSIONS	STANDARD	QTY
1	Casing	Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket	Aluminum AL-EN-1706-AC-46000-D			1
4	Casing cover	EN 1.4301(AISI 304)			1
6	Shaft with rotor-Part in contact with liquid	EN 1.4301 (AISI 304)			1
7	Impeller	EN 1.4301(AISI 304)			1
10	Baffle	EN 1.4301(AISI 304)			1
11	Mechanical seal [1]	SiC/met.Carbon/EPDM			1
12	Motor frame with stator	-			1
13	Motor cover	Aluminum			1
14	Fan	PA			1
15	Fan cover	Fe P04 Galvanized			1
16	Terminal				1
17	Terminal box cover	Aluminum (three phase version)			1
18	Splash ring	NBR	40x21.5x2	EBARA DRAWING	1
19	Bearing [3]	•			1
20	Bearing [3]	•			1
21	Adjusting ring	Steel C70			1
22	Tie rod	Fe 42 Galvanized	M5	EBARA DRAWING	4
24	Plug	Brass	G1/4	DIN 906	2
25	Drain plug	Brass	G1/4	DIN 906	4
26	O-ring	EPDM	183.52x5.34	OR 6720	1
32	Key	EN 1.4401 (AISI 316)	6x6x22	UNI 6604	1
34	Impeller nut	EN 1.4301(AISI 304)	M16x1.5	UNI 7474	1
56	Box gasket	NBR			1
58	Fasting nut				1
92	Lip seal	-	25x40x7	DIN 3760 without spring	1
93	Lip seal	-	17x32X7	DIN 3760 without spring	1
200	Screw	Gv. Steel 8.8 strength class ISO 898/1	M10x35	UNI 5739	10
235	Washer	Galvanized Steel	10.5x21	UNI 6592	10

[1] See MECHANICAL SEAL page
[3] See BEARING Pages

SECTIONAL VIEW DRAWING 3ES4 50-160,65-125

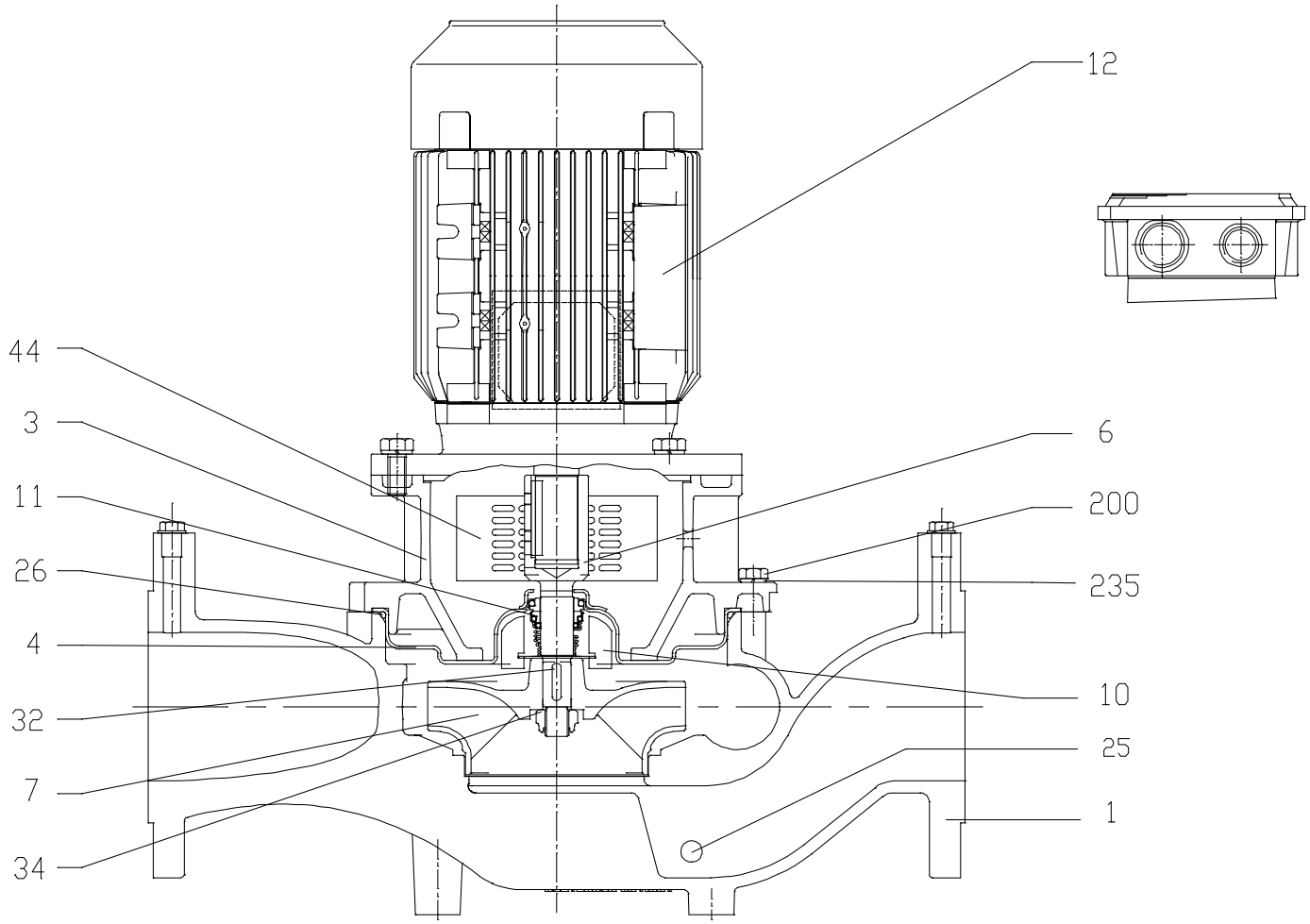


3ES4 50-160, 65-125 SECTIONAL VIEW TABLE

No	PART NAME	MATERIAL	DIMENSIONS	STANDARD	QTY
1	Casing	Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
6	Coupling - Part in contact with liquid	EN 1.4404 (AISI 316L)			1
7	Impeller	EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
10	Baffle	EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316)			1
11	Mechanical seal [1]	SiC/SiC/EPDM			1
12	Motor				1
24	Plug	Brass	G1/4	DIN 906	2
25	Drain plug	Brass	G1/4	DIN 906	4
26	O-ring	EPDM	183.52x5.34	OR 6720	1
32	Key	EN 1.4401 (AISI 316)	6x6x22	UNI 6604	1
34	impeller nut	EN 1.4301 (AISI 304)	M16x1.5	DIN 985	1
44	Protection	EN 1.4301 (AISI 304)		EBARA DRAWING	2
200	Screw	Gv. Steel 8.8 strength class ISO 898/1	M10x35	UNI 5739	10
206	Screw	Gv. Steel 8.8 strength class ISO 898/1	M10x25	UNI 5739	4
235	Washer	Galvanized Steel	10.5x21	UNI 6592	10

[1] See MECHANICAL SEAL page

SECTIONAL VIEW DRAWING 3ES4 100-160



CONSTRUCTION

50Hz

Rev.C

SECTIONAL VIEW TABLE 3ES 50-200,65-200,80-160/200,100-160

No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing		Cast iron EN-GJL250-EN 1561			1
3	Motor bracket		Cast iron EN-GJL-200-EN 1561			1
4	Casing cover [3]		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
6	Coupling - Wet extensions [4]		EN 1.4404 (AISI 316L) [5]			1
7	Impeller [6]		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
11	Mechanical seal [1]		SiC/SiC/EPDM			1
12	Motor					1
24	Priming plug		Brass	G 1/4		2
25	Drain plug	50-200	Brass	G 1/4		4
		Other models				2
26	O-ring		EPDM	227.96x5.34	OR 6895	1
32	Key	50-200,65-200,80-160/9.2,80-160/11	EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
		80-160/15,80-200,100-160		8x7x30		
34	Impeller nut	Up to11kW [7]	EN 1.4301 (AISI 304)	M16x1.5	UNI 7474	1
		65-200/15		M18x1.5		
		15 kW and above		M20X1.5		
44	Protection		EN 1.4301 (AISI 304)		EBARA	2
72	Casing ring [8]		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
200	Screw		Gv. Steel 8.8 strength class ISO 898-1	M10x35	UNI 5739	12
206	Screw for bracket	From 5.5kW to 9.2kW	Gv. Steel 8.8 strength class ISO 898-1	M12x30	UNI 5739	4
		From 11kW to 18.5kW		M16x35		
		From 22kW to 37kW [9]		M16x45		
235	Washer		Galvanized Steel	10.5x21	UNI 6592	12

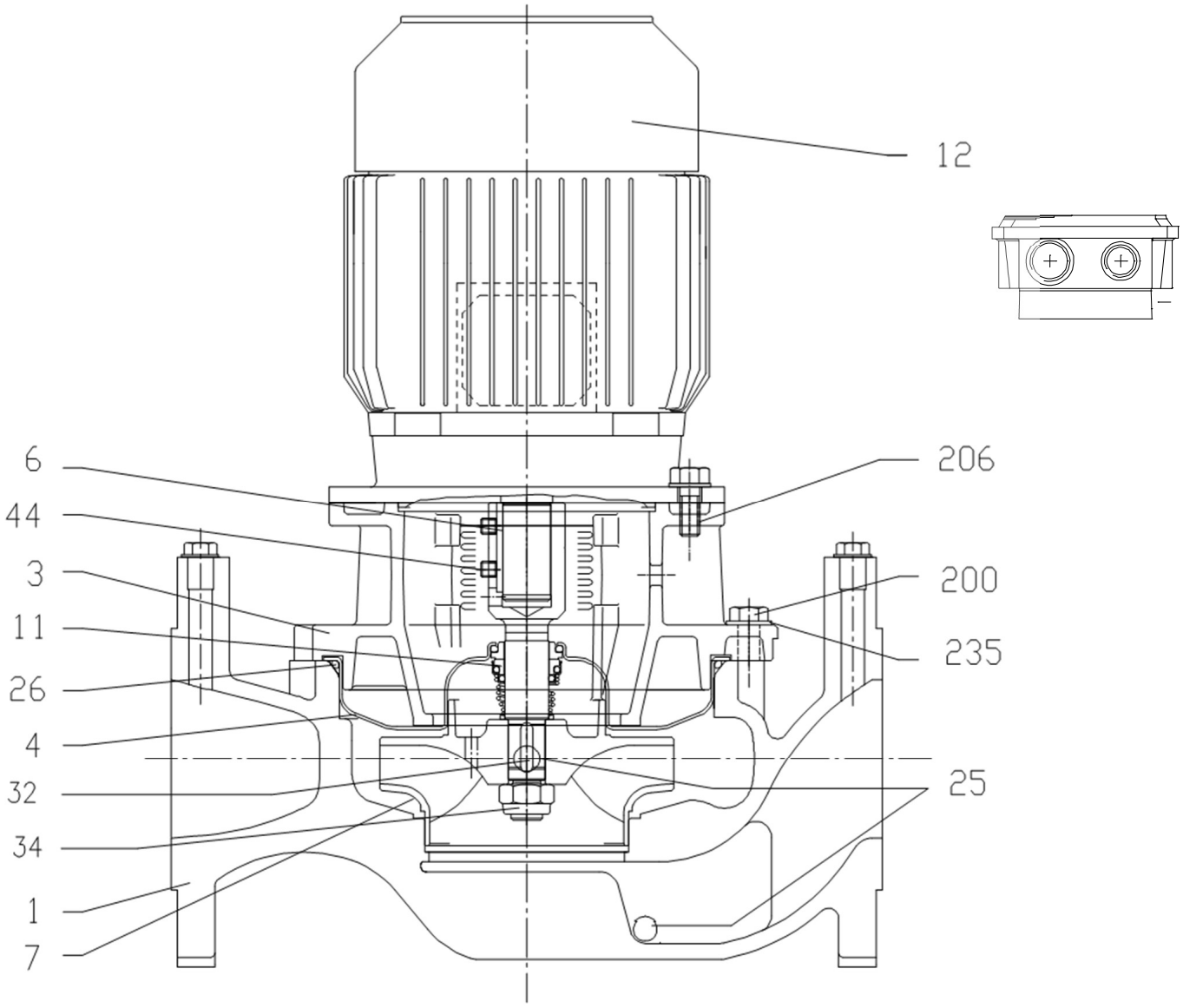
[1] See MECHANICAL SEAL pages
[3] EN 1.4404 (AISI 316L) for 100 series
[4] See 3ES COUPLING page
[5] EN 1.4404 (AISI 316L) for 100 series
[6] EN 1.4404(AISI 316L) for 100 series
[7] Except for 100-160/11kW :M20x1.5
[8] Only for: 65-200

CONSTRUCTION

50Hz

Rev.C

SECTIONAL VIEW DRAWING 3ES4 32-200,40-200,65-160



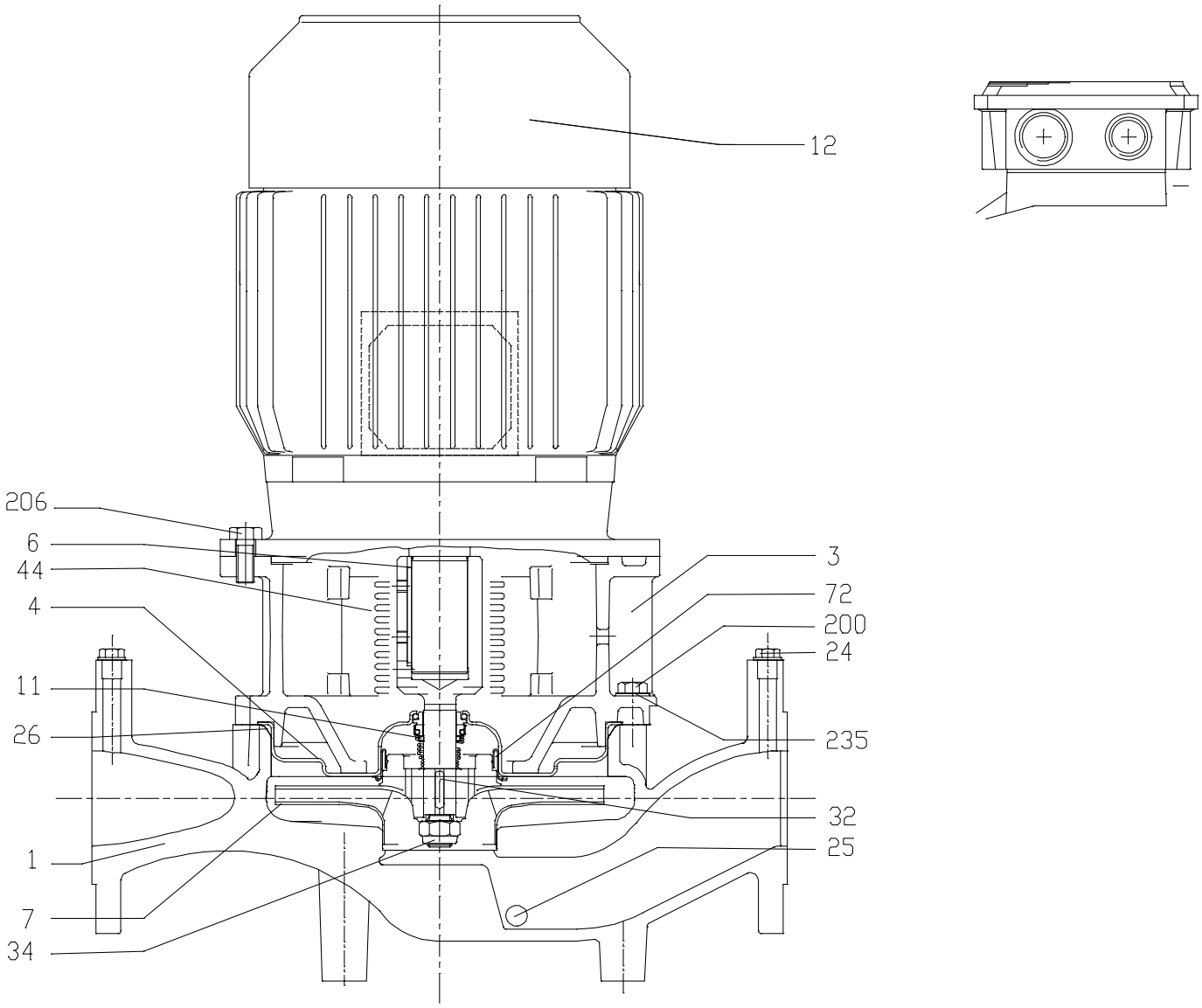
SECTIONAL VIEW TABLE 3ES4 32-200,40-200,65-160

No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	QTY
1	Casing		Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket		[3]			1
4	Casing cover		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
6	Coupling - Part in contact with liquid		EN 1.4404 (AISI 316L)			1
7	impeller		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
11	Mechanical seal [1]		SiC/SiC/EPDM			1
12	Motor					1
24	Plug	40-200	Brass	G1/4	DIN 906	-
		Other models				2
25	Drain plug		Brass	G1/4	DIN 906	4
26	O-ring		EPDM	227.96x5.34	OR 6895	1
32	Key		EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
34	impeller nut		EN1.4301 (AISI 304)	M16x1.5	UNI 7474	1
44	Protection		EN 1.4301 (AISI 304)		EBARA DRAWING	2
72	Casing ring		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
200	Screw		Gv. Steel 8.8 strength class ISO 898/1	M10x35	UNI 5739	12
206	Screw		Gv. Steel 8.8 strength class ISO 898/1	M10x25	UNI 5739	4
235	Washer		Galvanized Steel	10.5x21	UNI 6592	12

[1] See MECHANICAL SEAL page

[3] Cast iron EN-GJL-200-EN 1561 for motor of 0.75kW Aluminum AL-EN-1706-AC-46000-D for motor of 1.1kW

SECTIONAL VIEW DRAWING 3ES4 50-200,65-200,80-160/200



SECTIONAL VIEW TABLE 3ES4 50-200,65-200,80-160/200

No	PART NAME		MATERIAL	DIMENSIONS	STANDARD	QTY
1	Casing		Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket		[3]			1
4	Casing cover		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
6	Coupling - Part in contact with liquid		EN 1.4404 (AISI 316L)			1
7	impeller	50-200,65-200	EN 1.4404 (AISI 316L)			1
		80-160,80-200	EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316)			
11	Mechanical seal [1]		SiC/SiC/EPDM			1
12	Motor					1
24	Plug		Brass	G1/4	DIN 906	2
25	Drain plug		Brass	G1/4	DIN 906	4
26	O-ring		EPDM	227.96x5.34	OR 6895	1
32	Key		EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1
34	impeller nut		EN1.4301 (AISI 304)	M16x1.5	DIN 985	1
44	Protection		EN 1.4301 (AISI304)		EBARA DRAWING	2
72	Casing ring(not for 80 version) [4]		EN 1.4301 (AISI 304) or EN 1.4404 (AISI 316L)			1
200	Screw		Gv. Steel 8.8 strength class ISO 898/1	M10x35	UNI 5739	12
206	Screw	from 0.55 to 1.5kW	Gv. Steel 8.8 strength class ISO 898/1	M10x25	UNI 5739	4
		for 2.2 and 3kW		M12x30		
235	Washer		Galvanized Steel	10.5x21	UNI 6592	12

[1] See MECHANICAL SEAL page

[3] Cast iron EN-GJL-200-EN 1561 for motor of 0.75kW Aluminum AL-EN-1706-AC-46000-D for motor of 1.1kW

[4] Only for version 50-200, 65-200

BEARINGS 3E 2POLE

Pump type	Ball bearing	
	Pump side	Fan side
3E 32-125/0.37	6203	6202
3E 32-125/0.55		
3E 32-125/0.75		
3E 40-160/1.1	6205	6203
3E 40-160/1.5		
3E 40-160/2.2		
3E 40-200/3.0		6205
3E 40-200/4.0	6206	
3E 40-200/7.5	6306	6206
3E 50-100/0.37	6203	6202
3E 50-100/0.55		
3E 50-100/0.75		
3E 50-125/1.5	6205	6203
3E 50-125/2.2		
3E 50-160/3.0		6205
3E 50-160/4.0	6202	
3E 50-200/5.5	6306	6206
3E 50-200/7.5		
3E 50-200/11	6308	6208
3E 65-100/0.55	6203	6203
3E 65-100/0.75		
3E 65-100/1.1	6205	
3E 65-100/1.5		
3E 65-125/2.2		
3E 65-125/3.0		6205
3E 65-125/4.0	6206	
3E 65-160/5.5	6306	6206
3E 65-160/7.5		
3E 65-200/9.2	6308	6208
3E 65-200/11		
3E 65-200/15	6309	6309
3E 80-100/1.5	6205	6203
3E 80-100/2.2		
3E 80-160/9.2	6308	6208
3E 80-160/11		
3E 80-160/15	6309	6309
3E 80-200/18.5		
3E 80-200/22		
3E 100-160/11	6308	6208
3E 100-160/15	6309	6309
3E 100-160/18.5		

BEARINGS 3E 4POLE

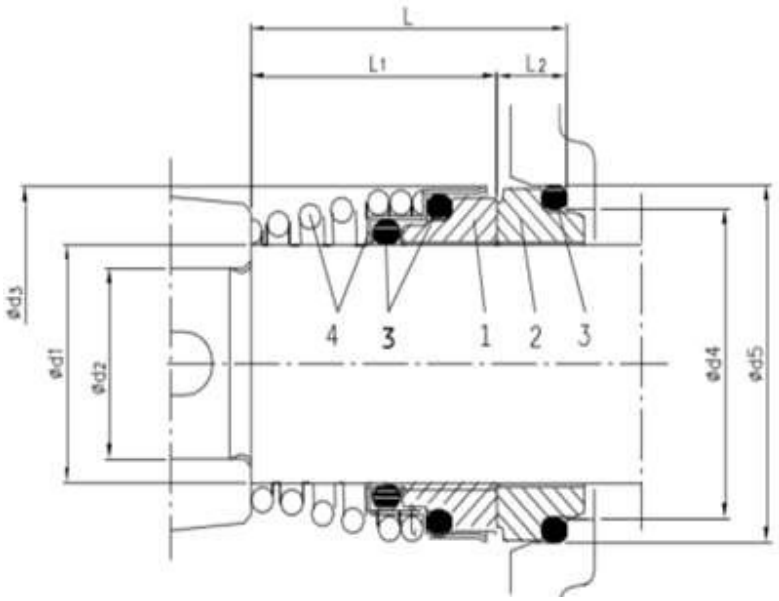
Pump type	Ball bearing	
	Pump side	Fan side
3E4 32-160/0.37R	6205-2DW C3	6203-2DW C3
3E4 32-160/0.37		
3E4 32-200/0.55		
3E4 40-160/0.37R		
3E4 40-160/0.37		
3E4 40-200/0.55		
3E4 40-200/0.75	6205-ZZ C3	6205-ZZ C3
3E4 50-125/0.37	6205-2DW C3	6203-2DW C3
3E4 50-160/0.55		
3E4 50-200/0.75	6205-ZZ C3	6205-ZZ C3
3E4 50-200/1.1		
3E4 50-200/1.5		
3E4 65-125/0.55	6205-2DW C3	6203-2DW C3
3E4 65-160/0.75	6205-ZZ C3	6205-ZZ C3
3E4 65-160/1.1		
3E4 65-200/1.5		
3E4 65-200/2.2	6206-ZZ C3	
3E4 80-160/1.5	6205-ZZ C3	6205-ZZ C3
3E4 80-200/2.2	6206-ZZ C3	6205-ZZ C3
3E4 80-200/3.0		
3E4 100-160/1.5	6205-2RS1 C3	6205-2RS1 C3
3E4 100-160/2.2	6206-2RS1 C3	

CONSTRUCTION

50Hz

Rev.C

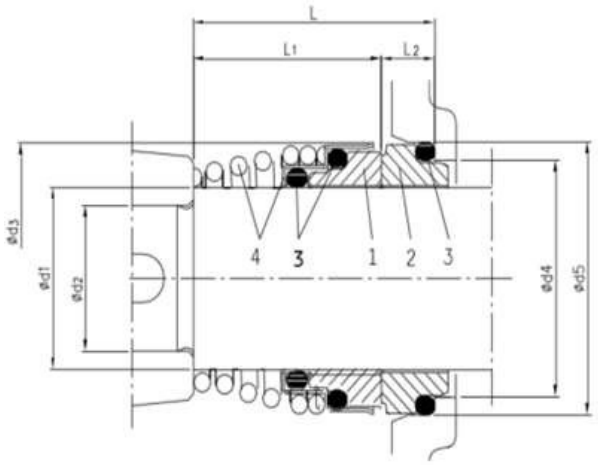
MECHANICAL SEAL 3E 3ES 2 POLE



Version	Pump type	Dimensions [mm]								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1.Rotary seal ring	2.Stationary seal ring	3.Rubber	4.Frame + Spring
3E (Q1AEGG)	32-125 50-100 65-100/0.55-0.75	15	12	26	21	26.9	29	22	7	Silicon Carbide	Metarialised Carbon	EPDM	EN 1.4401 (AISI 316)
	40-160/200 50-125/160/200 65-100/1.1-1.5 65-125/160/200 80-100 80-160/9.2-11	22	19	36	31	37	37.5	27.5	10				
	80-160/15 80-200 100-160	30	24	46	39	45	42.5	32.5	10				
3ES (Q4Q1EGG)	32-125 50-100 65-100/0.55-0.75	15	12	26	21	26.9	29	22	7	Silicon Carbide graphite	Silicon Carbide	EPDM	EN 1.4401 (AISI 316)
	40-160/200 50-125/160/200 65-100/1.1-1.5 65-125/160/200 80-100 80-160/9.2-11	22	19	36	31	37	37.5	27.5	10				
	80-160/15 80-200 100-160	30	24	46	39	45	42.5	32.5	10				

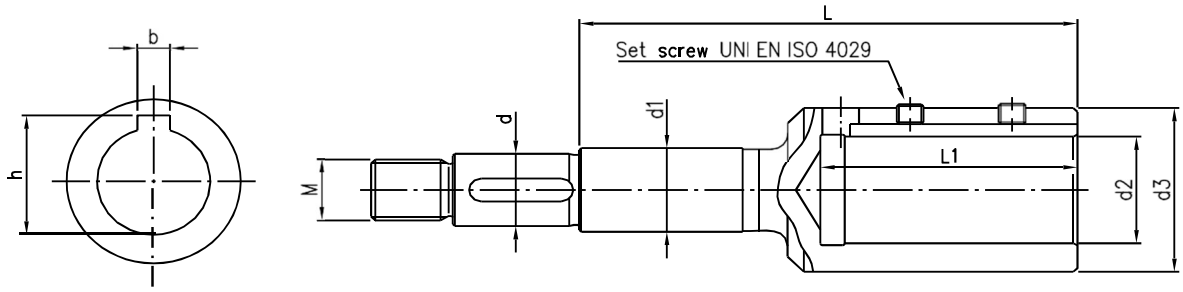
* The drawing is only indicative

MECHANICAL SEAL 3E 3ES 4 POLE



Version	Pump type	Dimensions [mm]								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Rotary seal ring	2 Stationary seal ring	3 Rubber	4 Frame + Spring
3E (Q1AEGG)	32-160/200 40-160/200 50-125/160/200 65-125/160/200 80-160/200 100-160	22	19	36	31	37	37.5	27.5	10	Silicon Carbide	Metallised Carbon	EPDM	EN 1.4401 (AISI 316)
3ES (Q4Q1EGG)	32-160/200 40-160/200 50-125/160/200 65-125/160/200 80-160/200 100-160	22	19	36	31	37	37.5	27.5	10	Silicon Carbide graphite	Silicon Carbide	EPDM	EN 1.4401 (AISI 316)

COUPLING 3ES 2 POLE



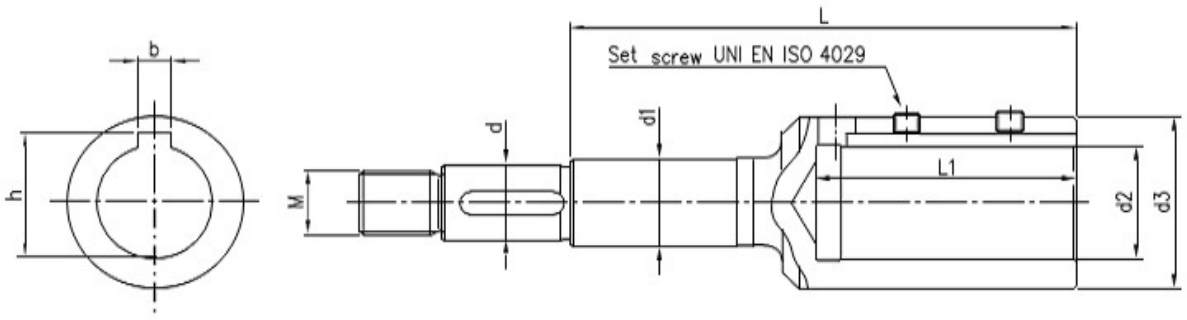
Pump type	Power [kW]	Power [HP]	Motor Size	Dimensions mm d	d1	d2	d3	M	L	L1	b	h	Set screw
32-125/0.75	0.75	1	80	12	15	19	33	M10x1.25	102.5	43	6	21.8	M6x6
40-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-160/2.2	2.2	3	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-200/3.0	3	4	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
40-200/4.0	4	5.5	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
40-200/7.5	7.5	10	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
50-100/0.75	0.75	1	80	12	15	19	33	M10x1.25	102.5	43	6	21.8	M6x6
50-125/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-125/2.2	2.2	3	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-160/3.0	3	4	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
50-160/4.0	4	5.5	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
50-200/5.5	5.5	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
50-200/7.5	7.5	10	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
50-200/11	11	15	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
65-100/0.75	0.75	1	80	12	15	19	33	M10x1.25	102.5	43	6	21.8	M6x6
65-100/1.1	1.1	2	80	12	15	19	33	M10x1.25	102.5	43	6	21.8	M6x6
65-100/1.5	1.5	2	90	12	15	19	33	M10x1.25	102.5	43	6	21.8	M6x6
65-125/2.2	2.2	3	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-125/3.0	3	4	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-125/4.0	4	5.5	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-160/5.5	5.5	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-160/7.5	7.5	10	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-200/9.2	9.2	12.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-200/11	11	15	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
65-200/15	15	20	160	22	22	42	63	M18x1.5	209	114	12	45.3	M8x8
80-100/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
80-100/2.2	2.2	3	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
80-160/9.2	9.2	12.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
80-160/11	11	15	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
80-160/15	15	20	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
80-200/18.5	18.5	25	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
80-200/22	22	30	180	24	30	48	72	M20x1.5	184	114	14	51.8	M10x10
100-160/11	11	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
100-160/15	15	20	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
100-160/18.5	18.5	25	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8

CONSTRUCTION

50Hz

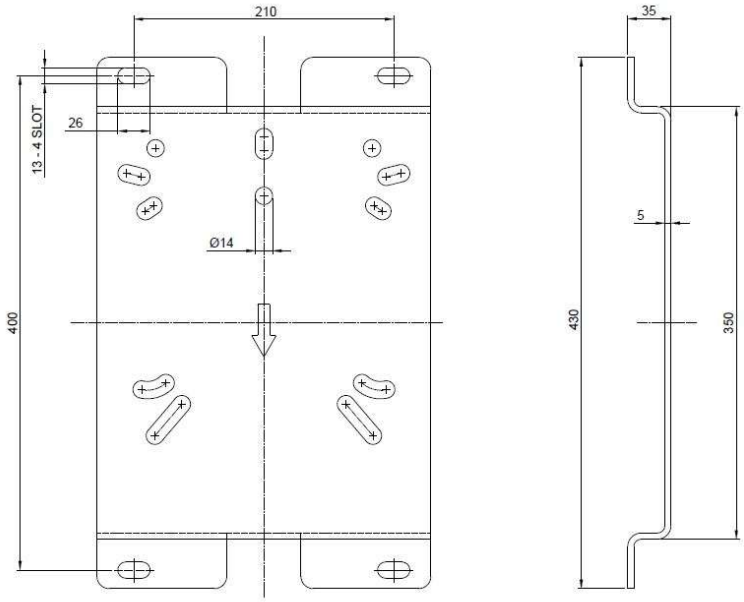
Rev.C

COUPLING 3ES 4 POLE



Pump type	Power		Motor Size	Dimensions mm									
	[kW]	[kW]		d	d1	d2	d3	M	L	L1	b	h	Set screw
32-200/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-200/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-200/0.75	0.75	1	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-160/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-200/0.75	0.75	1.5	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-200/1.1	1.1	1.5	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
65-125/0.55	0.55	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
65-160/0.75	0.75	1.5	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
65-160/1.1	1.1	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-200/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-200/2.2	2.2	3	100	22	22	28	43	M18x1.5	153	63	8	31.3	M8x8
80-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
80-200/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
80-200/3	3	4	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
100-160/1.5	1.5	2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
100-160/2.2	2.2	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8

BASE PLATE



*Pump Models	Hexagon head screws
50-200 65-200	3XM12
80-160,80-200, 100-160	4XM12

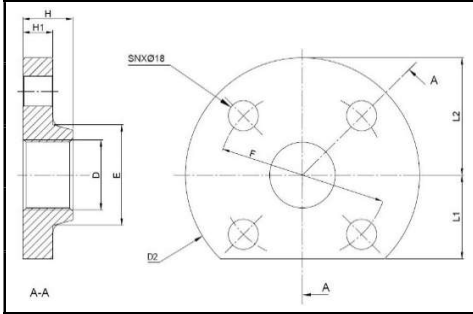
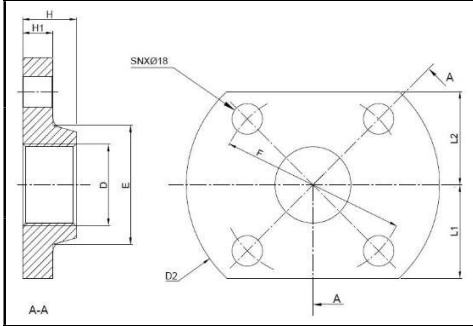
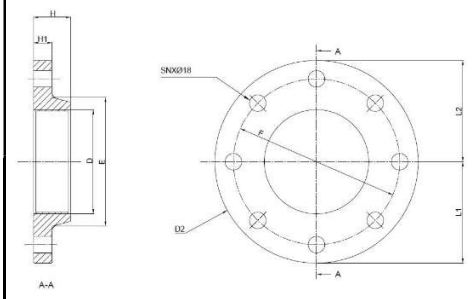
*Note: Baseplates are supplied as standard for 11kW motors and above

CONSTRUCTION

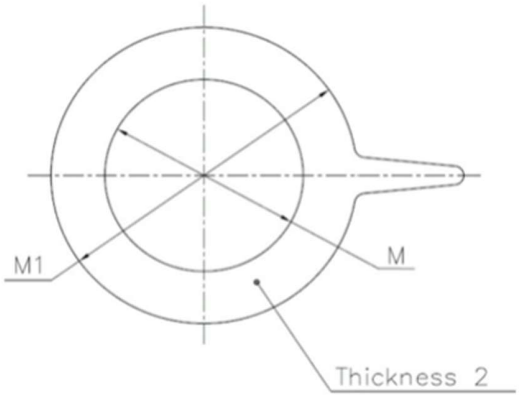
50Hz

Rev.C

COUNTER FLANGE

Counter flange	Pump type	Rated Pressure (PN)	Dimension (mm)											
			Counterflange										Bolt	
			DN	D	D2	E	F	H	H1	L1	L2	SN	Dimension	Material
	32-125 32-160 32-200 40-200 50-125 50-160 65-125 65-160 80-100	16	32	Rp 1"1/4	140	60	100	30	18	50	70	4	M16X55	A2-70 ISO 3506-1
		16	40	Rp 1"1/2	150	70	110	32	18	55	75	4		
		16	50	Rp 2"	165	84	125	28	18	62.5	82.5	4		
		16	65	Rp 2"1/2	185	104	145	32	18	72.5	92.5	4		
		16	80	Rp 3"	200	118	160	34	20	95	100	8	M16X60	
	40-160 50-100 50-200 65-100 65-200	16	40	Rp 1"1/2	150	70	110	32	18	55	55	4	M16X55	
		16	50	Rp 2"	165	84	125	28	18	62.5	62.5	4		
		16	65	Rp 2"1/2	185	104	145	32	18	72.5	72.5	4		
	80-160 80-200 100-160	16	80	Rp 3"	200	118	160	34	20	100	100	8	M16X60	
		16	100	Rp 4"	220	140	180	40	20	110	110	8		

GASKET EPDM



Dimensions [mm]

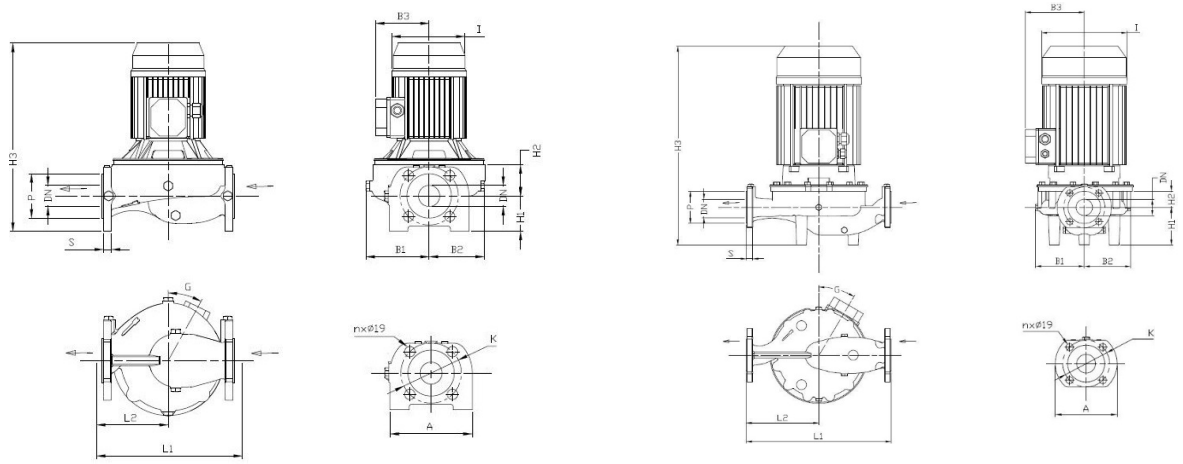
DN	M	M1
32	38	82
40	50	93
50	60	107
65	80	125
80	90	140
100	115	160

CONSTRUCTION

50Hz

Rev.C

DIMENSIONS & WEIGHT 3E 2 POLE



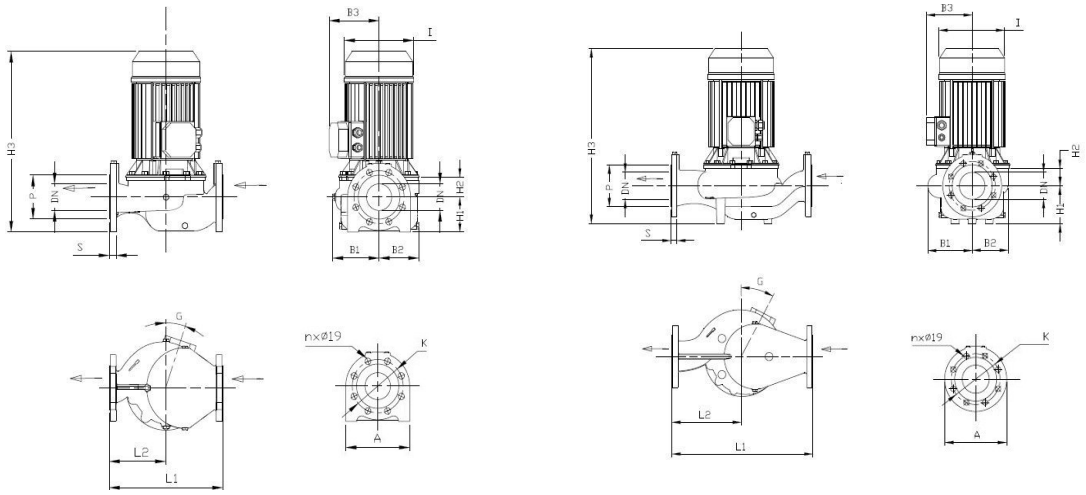
Model	Dimensions [mm]																Weight [kgf]
	Ø DN	Ø P	Ø K	S	L1	L2	H1	H2	H3	B1	B2	B3	G	I	n	A	
32-125/0.37	32	76	100	18	280	140	79	38	347	115	103	102	0	141	4	140	18
32-125/0.55	32	76	100	18	280	140	79	38	347	115	103	102	0	141	4	140	23.5
40-160/1.1	40	84	110	18	320	160	68	50	395	127	127	124	19	176	4	150	30
50-100/0.37	50	99	125	20	280	140	75	47	352	125	108	102	0	141	4	165	21.2
50-100/0.55	50	99	125	20	280	140	75	47	352	125	108	102	0	141	4	165	24
65-100/0.55	65	118	145	20	340	170	82	40	353	115	100	102	0	141	4	185	22.4

CONSTRUCTION

50Hz

Rev.C

DIMENSIONS & WEIGHT 3E 4 POLE



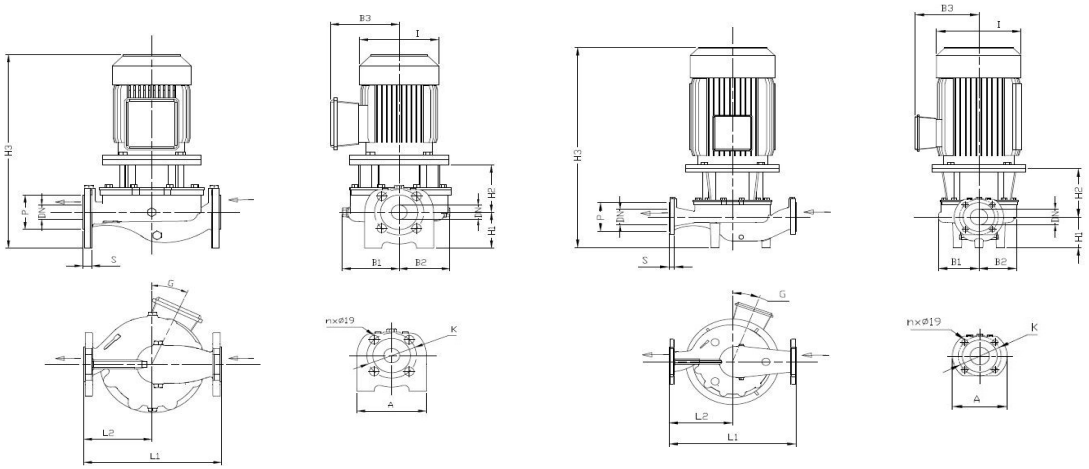
Model	Dimensions [mm]																Weight [kgf]
	Ø DN	Ø P	Ø K	S	L1	L2	H1	H2	H3	B1	B2	B3	G	I	n	A	
32-160/0.37R	32	76	100	18	340	170	100	50	412	125	125	119	18	159	4	140	32
32-160/0.37	32	76	100	18	340	170	100	50	412	125	125	119	18	159	4	140	32
40-160/0.37R	40	84	110	18	320	160	68	50	379	127	127	119	18	159	4	150	32
40-160/0.37	40	84	110	18	320	160	68	50	379	127	127	119	18	159	4	150	32
50-125/0.37	50	99	125	20	340	170	115	40	406	124	105	102	0	141	4	165	28

CONSTRUCTION

50Hz

Rev.C

DIMENSIONS & WEIGHT 3ES 2 POLE



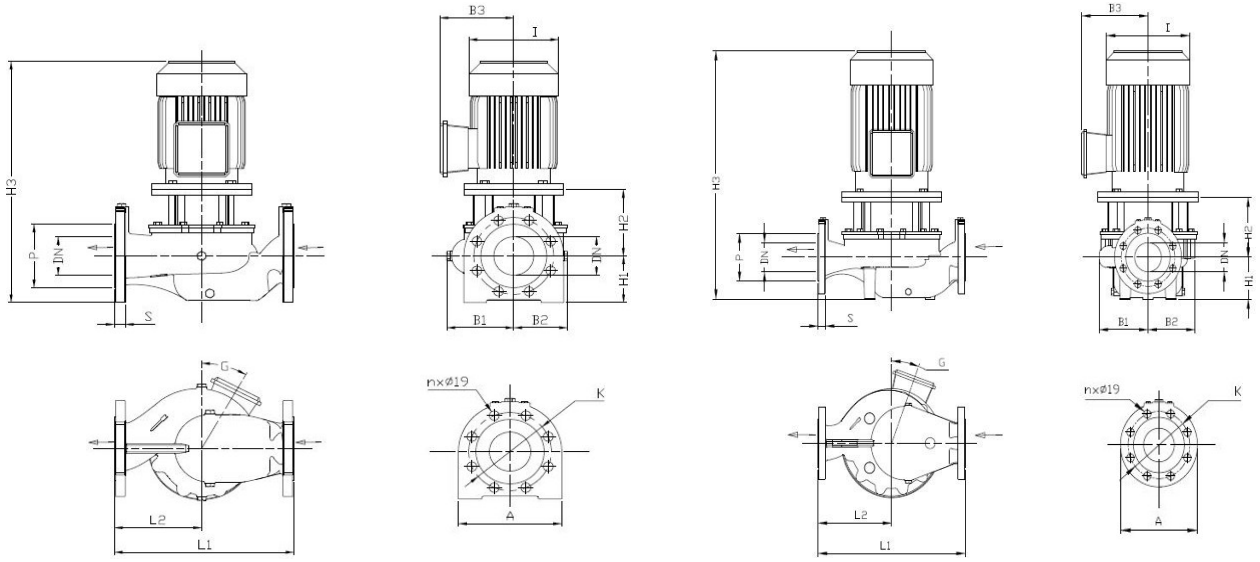
Model	Dimensions [mm]																Weight [kgf]
	Ø DN	Ø P	Ø K	S	L1	L2	H1	H2	H3	B1	B2	B3	G	I	n	A	
32-125/0.75	32	76	100	18	280	140	79	116	427	115	103	139	0	160	4	140	27.8
40-160/1.5	40	84	110	18	320	160	68	130	465	127	127	148	18	180	4	150	37.4
40-160/2.2	40	84	110	18	320	160	68	130	465	127	127	148	18	180	4	150	36.6
40-200/3.0	40	84	110	18	340	170	100	142	548	146	146	155	15	196	4	150	53.6
40-200/4.0	40	84	110	18	340	170	100	142	570	146	146	171	15	225	4	150	55.1
40-200/7.5	40	84	110	18	340	170	100	165	650	146	146	194	14	248	4	150	86.3
50-100/0.75	50	99	125	20	280	140	75	125	432	125	108	139	0	160	4	165	27.8
50-125/1.5	50	99	125	20	340	170	115	130	512	124	105	148	0	180	4	165	37.0
50-125/2.2	50	99	125	20	340	170	115	130	512	124	105	148	0	180	4	165	38.8
50-160/3.0	50	99	125	20	340	170	115	142	563	134	126	155	18	196	4	165	62.4
50-160/4.0	50	99	125	20	340	170	115	257	585	134	126	171	18	225	4	165	48.6
50-200/5.5	50	99	125	20	440	220	115	165	642	148	141	198	0	248	4	165	127.7
50-200/7.5	50	99	125	20	440	220	115	165	642	148	141	198	0	248	4	165	76.6
50-200/11	50	99	125	20	440	220	115	198	811	148	141	238	0	317	4	165	127.7
65-100/0.75	65	118	145	20	340	170	82	118	432	115	100	139	0	160	4	185	32.0
65-100/1.1	65	118	145	20	340	170	82	118	432	115	100	139	0	160	4	185	34.0
65-100/1.5	65	118	145	20	340	170	82	130	479	115	100	148	0	180	4	185	30.6
65-125/2.2	65	118	145	20	360	180	105	130	502	136	126	148	18	180	4	185	36.2
65-125/3.0	65	118	145	20	360	180	105	142	553	136	126	155	18	196	4	185	42.4
65-125/4.0	65	118	145	20	360	180	105	142	575	136	126	171	18	225	4	185	51.0
65-160/5.5	65	118	145	20	360	180	105	165	632	141	141	198	0	248	4	185	75.3
65-160/7.5	65	118	145	20	360	180	105	165	632	141	141	198	0	248	4	185	97.5
65-200/9.2	65	118	145	20	475	237.5	125	165	692	151	141	198	0	248	4	185	130.2
65-200/11	65	118	145	20	475	237.5	125	198	821	151	141	238	0	317	4	185	130.2
65-200/15	65	118	145	20	475	237.5	125	198	821	151	141	238	0	317	4	185	166.3
80-100/1.5	80	132	160	22	360	175	97	138	502	134	108	148	0	180	8	200	36.4
80-100/2.2	80	132	160	22	360	175	97	138	502	134	108	148	0	180	8	200	40.0
80-160/9.2	80	132	160	22	440	220	115	165	682	146	141	198	0	248	8	200	109.2
80-160/11	80	132	160	22	440	220	115	198	811	146	141	238	0	317	8	200	108.0
80-160/15	80	132	160	22	440	220	115	208	821	146	141	238	0	317	8	200	144.1
80-200/18.5	80	132	160	22	500	250	115	208	865	160	141	238	0	317	8	200	160.3
80-200/22	80	132	160	22	500	250	115	208	900	160	141	268	0	360	8	200	198.8
100-160/11	100	156	180	24	550	275	140	222	860	173	141	238	0	317	8	230	144.7
100-160/15	100	156	180	24	550	275	140	222	860	173	141	238	0	317	8	230	155.9
100-160/18.5	100	156	180	24	550	275	140	222	904	173	141	238	0	317	8	230	150.1

CONSTRUCTION

50Hz

Rev.C

DIMENSIONS & WEIGHT 3ES 4 POLE



Model	Dimensions [mm]																Weight [kgf]
	Ø DN	Ø P	Ø K	S	L1	L2	H1	H2	H3	B1	B2	B3	G	I	n	A	
32-200/0.55	32	76	100	18	440	220	100	118	450	144	140	139	0	160	4	140	39.4
40-200/0.55	40	84	110	18	340	170	100	118	450	146	146	139	14	160	4	150	38.7
40-200/0.75	40	84	110	18	340	170	100	118	450	146	146	139	15	160	4	150	35.2
50-160/0.55	50	99	125	20	340	170	115	118	465	134	126	139	18	160	4	165	32.4
50-200/0.75	50	99	125	20	440	220	115	118	465	148	141	139	0	160	4	165	38.7
50-200/1.1	50	99	125	20	440	220	115	130	512	148	141	148	0	180	4	165	46.1
50-200/1.5	50	99	125	20	440	220	115	130	512	148	141	148	0	180	4	165	47.7
65-125/0.55	65	118	145	20	360	180	105	118	455	136	126	139	18	160	4	185	34.3
65-160/0.75	65	118	145	20	360	180	105	118	455	141	141	139	0	160	4	185	38.9
65-160/1.1	65	118	145	20	360	180	105	130	502	141	141	148	0	180	4	185	47.8
65-200/1.5	65	118	145	20	475	237.5	125	130	522	151	141	148	0	180	4	185	52.0
65-200/2.2	65	118	145	20	475	237.5	125	142	573	151	141	155	0	196	4	185	55.7
80-160/1.5	80	132	160	22	440	220	115	130	512	146	141	148	0	180	8	200	62.9
80-200/2.2	80	132	160	22	500	250	115	142	563	160	141	155	0	196	8	200	65.1
80-200/3.0	80	132	160	22	500	250	115	142	563	160	141	155	0	196	8	200	66.8
100-160/1.5	100	156	180	24	550	275	140	144	551	173	141	148	0	177	8	230	76.3
100-160/2.2	100	156	180	24	550	275	140	156	602	173	141	155	0	196	8	230	99.8

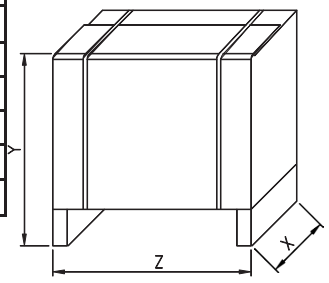
DIMENSIONS AND WEIGHT

50Hz

Rev.C

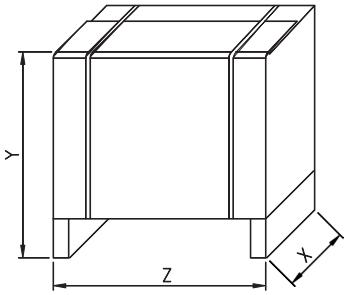
PACKING 3E - 2POLE

Pump Type	Packing [mm]			Total net weight (kg)
	Z	X	Y	
3E 32-125/0.37	450	390	610	24
3E 32-125/0.55	450	390	610	26.2
3E 40-160/1.1	450	390	610	35
3E 50-100/0.37	450	390	610	27
3E 50-100/0.55	450	390	610	29
3E 65-100/0.55	450	390	610	27.5



PACKING 3E - 4POLE

Pump Type	Packing [mm]			Total net weight (kg)
	Z	X	Y	
3E4 32-160/0.37	450	390	610	37
3E4 32-160/0.37R	450	390	610	37
3E4 40-160/0.37	450	390	610	37
3E4 40-160/0.37R	450	390	610	37
3E4 50-125/0.37	450	390	610	33



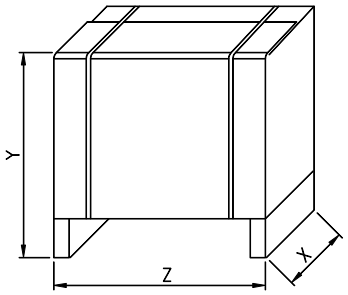
DIMENSIONS AND WEIGHT

50Hz

Rev.C

PACKING 3ES - 2POLE

Pump Type	Packing [mm]			Total net weight (kg)
	Z	X	Y	
3ES 32-125/0.75	450	390	610	32.9
3ES 40-160/1.5	450	390	610	42.4
3ES 40-160/2.2	450	390	610	41.7
3ES 40-200/3.0	450	390	700	58.7
3ES 40-200/4.0	640	530	785	65.1
3ES 40-200/7.5	640	530	785	96.3
3ES 50-100/0.75	450	390	610	32.9
3ES 50-125/1.5	450	390	700	42
3ES 50-125/2.2	450	390	700	43.9
3ES 50-160/3.0	450	390	700	67.5
3ES 50-160/4.0	640	530	785	58.6
3ES 50-200/5.5	640	530	785	137.7
3ES 50-200/7.5	640	530	785	86.6
3ES 50-200/11	640	530	1045	137.7
3ES 65-100/0.75	450	390	610	37.1
3ES 65-100/1.1	450	390	610	39
3ES 65-100/1.5	450	390	610	35.7
3ES 65-125/2.2	450	390	700	41.3
3ES 65-125/3.0	450	390	700	47.5
3ES 65-125/4.0	640	530	785	61
3ES 65-160/5.5	640	530	785	85.3
3ES 65-160/7.5	640	530	785	107.5
3ES 65-200/9.2	640	530	1045	140.2
3ES 65-200/11	640	530	1045	140.2
3ES 65-200/15	640	530	1045	176.3
3ES 80-100/1.5	450	390	700	41.5
3ES 80-100/2.2	450	390	700	45.1
3ES 80-160/9.2	640	530	1045	119.2
3ES 80-160/11	640	530	1045	118
3ES 80-160/15	640	530	1045	154.1
3ES 80-200/18.5	640	530	1045	170.3
3ES 80-200/22	760	610	1280	214.6
3ES 100-160/11	640	530	1045	154.7
3ES 100-160/15	640	530	1045	165.9
3ES 100-160/18.5	760	610	1280	165.9



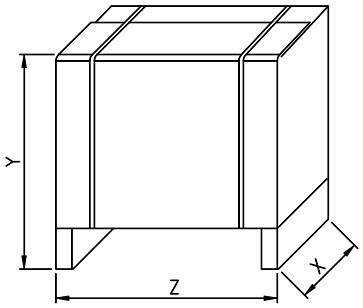
DIMENSIONS AND WEIGHT

50Hz

Rev.C

PACKING 3ES - 4POLE

Pump Type	Packing [mm]			Total net weight (kg)
	Z	X	Y	
3ES4 32-200/0.55	640	539	785	49.4
3ES4 40-200/0.55	450	390	610	43.8
3ES4 40-200/0.75	450	390	610	40.3
3ES4 50-160/0.55	450	390	610	37.5
3ES4 50-200/0.75	640	530	785	48.7
3ES4 50-200/1.1	640	530	785	56.1
3ES4 50-200/1.5	640	530	785	57.7
3ES4 65-125/0.55	450	390	610	39.4
3ES4 65-160/0.75	450	390	610	44
3ES4 65-160/1.1	450	390	700	52.9
3ES4 65-200/1.5	640	530	785	62
3ES4 65-200/2.2	640	530	785	65.7
3ES4 80-160/1.5	640	530	785	72.9
3ES4 80-200/2.2	640	530	785	75.1
3ES4 80-200/3.0	640	530	785	76.8
3ES4 100-160/1.5	640	530	785	86.3
3ES4 100-160/2.2	640	530	785	109.8



MOTOR DATA 3E 2 POLE

Pump type	Motor Power		Efficiency	Input [kW]	Efficiency (% load)			Full load current [A]			Locked rotor current [A]		
	[kW]	[HP]			50%	75%	100%	230 V	400 V	690 V	230 V	400 V	690 V
3E 32-125/0.37	0.37	0.5	IE3	0.71	75.1	78.5	78	2.4	1.4	-	12.7	7.30	-
3E 32-125/0.55	0.55	0.75		0.91	80.2	82.8	82.9	3.0	1.7	-	20.5	11.8	-
3E 40-160/1.1	1.1	1.5		1.77	83.5	84.3	84.6	5.8	3.3	-	47.4	27.4	-
3E 50-100/0.37	0.37	0.5		0.71	75.1	78.5	78	2.4	1.4	-	12.7	7.30	-
3E 50-100/0.55	0.55	0.75		0.91	80.2	82.8	82.9	3.0	1.7	-	20.5	11.8	-
3E 65-100/0.55	0.55	0.75		0.91	80.2	82.8	82.9	3.0	1.7	-	20.5	11.8	-

TECHNICAL DATA

50Hz

Rev.C

MOTOR DATA 3E 4 POLE

Pump type	Motor			Efficiency	Input [kW]	Efficiency (% load) and power-factor				Full load current [A]			Locked rotor current [A]		
	Size	Power				η%			cos-φ						
		[kW]	[HP]			50%	75%	100%		230 V	400 V	690 V	230 V	400 V	690 V
3E4 32-160/0.37R	80	0.37	0.5	IE2	0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3E4 32-160/0.37		0.37	0.5		0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3E4 40-160/0.37R	80	0.37	0.5		0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3E4 40-160/0.37		0.37	0.5		0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3E4 50-125/0.37	71	0.37	0.5	IE2	0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-

TECHNICAL DATA

50Hz

Rev.C

MOTOR DATA 3ES 2 POLE

Pump type	Motor			Input [kW]	Efficiency (% load) and power-factor				Full load current [A]			Locked rotor current [A]		
	Size	Power			η%			cos-φ						
		[kW]	[HP]		50%	75%	100%		230 V	400 V	690 V	230 V	400 V	690 V
3ES 32-125/0.75	80	0.75	1	1.26	78.7	81.7	81.5	0.78	4.3	2.5	-	29.4	17.0	-
3ES 40-160/1.5	90S	1.5	2	1.77	83.2	84.8	84.2	0.85	5.2	3.0	-	43.6	25.2	-
3ES 40-160/2.2	90L	2.2	3	2.61	85.0	86.2	86.5	0.82	8.0	4.6	-	73.3	42.3	-
3ES 40-200/3.0	100L	3.0	4	3.45	82.3	85.8	87.1	0.89	9.7	5.6	-	85.4	49.3	-
3ES 40-200/4.0	112M	4.0	5.5	4.51	86.8	87.8	88.1	0.93	12.1	7.0	-	116.4	67.2	-
3ES 40-200/7.5	132S	7.5	10	8.35	88.6	89.2	90.1	0.92	-	13.1	7.6	-	116.6	67.3
3ES 50-100/0.75	80	0.75	1	1.26	78.7	81.7	81.5	0.78	4.3	2.5	-	29.4	17.0	-
3ES 50-125/1.5	90S	1.5	2	1.77	83.2	84.8	84.2	0.85	5.2	3.0	-	43.6	25.2	-
3ES 50-125/2.2	90L	2.2	3	2.61	85.0	86.2	86.5	0.82	8.0	4.6	-	73.3	42.3	-
3ES 50-160/3.0	100L	3.0	4	3.45	82.3	85.8	87.1	0.89	9.7	5.6	-	85.4	49.3	-
3ES 50-160/4.0	112M	4.0	5.5	4.51	86.8	87.8	88.1	0.93	12.1	7.0	-	116.4	67.2	-
3ES 50-200/5.5	132S	5.5	7.5	6.24	88.0	88.5	89.2	0.9	-	10.0	5.8	-	89.0	51.4
3ES 50-200/7.5		7.5	10	8.35	88.6	89.2	90.1	0.92	-	13.1	7.6	-	116.6	67.3
3ES 50-200/11	160M	11	15	12.15	87.4	89.8	91.2	0.89	-	19.7	11.4	-	179.3	103.5
3ES 65-100/0.75	80	0.75	1	1.26	78.7	81.7	81.5	0.78	4.3	2.5	-	29.4	17.0	-
3ES 65-100/1.1	80	1.1	2	1.26	78.7	81.7	82.7	0.76	4.2	2.4	-	38.7	22.3	-
3ES 65-100/1.5	90S	1.5	2	1.77	83.2	84.8	84.2	0.85	5.2	3.0	-	43.6	25.2	-
3ES 65-125/2.2	90L	2.2	3	2.61	85.0	86.2	86.5	0.82	8.0	4.6	-	73.3	42.3	-
3ES 65-125/3.0	100L	3.0	4	3.45	82.3	85.8	87.1	0.89	9.7	5.6	-	85.4	49.3	-
3ES 65-125/4.0	112M	4.0	5.5	4.51	86.8	87.8	88.1	0.93	12.1	7.0	-	116.4	67.2	-
3ES 65-160/5.5	132S	5.5	7.5	6.24	88.0	88.5	89.2	0.9	-	10.0	5.8	-	89.0	51.4
3ES 65-160/7.5		7.5	10	8.35	88.6	89.2	90.1	0.92	-	13.1	7.6	-	116.6	67.3
3ES 65-200/9.2	132M	9.2	12.5	10.17	88.6	89.8	90.7	0.89	-	16.5	9.5	-	166.7	96.2
3ES 65-200/11	160M	11	15	12.15	87.4	89.8	91.2	0.89	-	19.7	11.4	-	179.3	103.5
3ES 65-200/15		15	20	16.46	91.0	91.3	91.9	0.89	-	26.7	15.4	-	259.0	149.5
3ES 80-100/1.5	90S	1.5	2	1.77	83.2	84.8	84.2	0.85	5.2	3.0	-	43.6	25.2	-
3ES 80-100/2.2	90L	2.2	3	2.61	85.0	86.2	86.5	0.82	8.0	4.6	-	73.3	42.3	-
3ES 80-160/9.2	132M	9.2	12.5	10.17	88.6	89.8	90.7	0.89	-	16.5	9.5	-	166.7	96.2
3ES 80-160/11	160M	11	15	12.15	87.4	89.8	91.2	0.89	-	19.7	11.4	-	179.3	103.5
3ES 80-160/15		15	20	16.46	91.0	91.3	91.9	0.89	-	26.7	15.4	-	259.0	149.5
3ES 80-200/18.5	160L	18.5	25	20.12	91.6	92.8	92.4	0.88	-	33.0	19.1	-	353.1	203.9
3ES 80-200/22	180M	22	30	23.69	92.3	92.9	92.9	0.9	-	38.0	22.0	-	361.0	209.0
3ES 100-160/11	160M	11	15	12.15	87.4	89.8	91.2	0.89	-	19.7	11.4	-	179.3	103.5
3ES 100-160/15		15	20	16.46	91.0	91.3	91.9	0.89	-	26.7	15.4	-	259.0	149.5
3ES 100-160/18.5	160L	18.5	25	20.12	91.6	92.8	92.4	0.88	-	33.0	19.1	-	353.1	203.9

TECHNICAL DATA

50Hz

Rev.C

MOTOR DATA 3ES 4 POLE

Pump type	Motor Size	Motor Power [kW]	Motor Power [HP]	Efficiency	Input [kW]	Efficiency (% load) and power-factor η% 50%	η% 75%	η% 100%	cos-φ	Full load current [A] 230 V	400 V	690 V	Locked rotor current [A] 230 V	400 V	690 V
3ES4 32-200/0.55	80	0.55	0.75	IE2	0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3ES4 40-200/0.55	80	0.55	0.75		0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3ES4 40-200/0.75	80	0.75	1	IE3	0.92	80.7	81.5	82.5	0.74	3.1	1.8	-	17.3	10.0	-
3ES4 50-160/0.55	80	0.55	0.75	IE2	0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3ES4 50-200/0.75	80	0.75	1	IE3	0.92	80.7	81.5	82.5	0.74	3.1	1.8	-	17.3	10.0	-
3ES4 50-200/1.1	90S	1.1	1.5		1.30	83.3	84.3	84.1	0.75	4.3	2.5	-	30.7	17.7	-
3ES4 50-200/1.5	90L	1.5	2		1.80	84.1	85.2	85.3	0.72	6.2	3.6	-	41.0	23.7	-
3ES4 65-125/0.55	80	0.55	0.75	IE2	0.71	71.9	75.9	77.7	0.75	2.4	1.4	-	14.8	8.6	-
3ES4 65-160/0.75	80	0.75	1	IE3	0.92	80.7	81.5	82.5	0.74	3.1	1.8	-	17.3	10.0	-
3ES4 65-160/1.1	90S	1.1	1.5		1.30	83.3	84.3	84.1	0.75	4.3	2.5	-	30.7	17.7	-
3ES4 65-200/1.5	90L	1.5	2		1.80	84.1	85.2	85.3	0.72	6.2	3.6	-	41.0	23.7	-
3ES4 65-200/2.2	100L	2.2	3		2.58	83.2	86.2	86.7	0.63	10.2	5.9	-	73.6	42.5	-
3ES4 80-160/1.5	90L	1.5	2	IE3	1.80	84.1	85.2	85.3	0.72	6.2	3.6	-	41.0	23.7	-
3ES4 80-200/2.2	100L	2.2	3		2.58	83.2	86.2	86.7	0.63	10.2	5.9	-	73.6	42.5	-
3ES4 80-200/3	100L	3.0	4		3.44	85.1	87.1	87.7	0.73	11.8	6.8	-	95.4	55.1	-
3ES4 100-160/1.5	90L	1.5	2		1.80	84.1	85.2	85.3	0.72	6.2	3.6	-	41.0	23.7	-
3ES4 100-160/2.2	100L	2.2	3		2.58	83.2	86.2	86.7	0.63	10.2	5.9	-	73.6	42.5	-

NOISE DATA 3E-3ES 2 POLE

Pump type	Power		LpA - dB(A) *
	[kW]	[HP]	
3E 32-125/0.37	0.37	0.5	61
3E 32-125/0.55	0.55	0.75	62
3E 32-125/0.75	0.75	1	
3E 40-160/1.1	1.1	1.5	69
3E 40-160/1.5	1.5	2	
3E 40-160/2.2	2.2	3	
3E 40-200/3	3	4	76
3E 40-200/4	4	5.5	
3E 40-200/7.5	7.5	10	79
3E 50-100/0.37	0.37	0.5	61
3E 50-100/0.55	0.55	0.75	62
3E 50-100/0.75	0.75	1	
3E 50-125/1.5	1.5	2	69
3E 50-125/2.2	2.2	3	
3E 50-160/3	3	4	76
3E 50-160/4	4	5.5	
3E 50-200/5.5	5.5	7.5	79
3E 50-200/7.5	7.5	10	
3E 50-200/11	11	15	82
3E 65-100/0.55	0.55	0.75	62
3E 65-100/0.75	0.75	1	
3E 65-100/1.1	1.1	1.5	69
3E 65-100/1.5	1.5	2	
3E 65-125/2.2	2.2	3	
3E 65-125/3	3	4	76
3E 65-125/4	4	5.5	
3E 65-160/5.5	5.5	7.5	79
3E 65-160/7.5	7.5	10	
3E 65-200/9.2	9.2	12.5	82
3E 65-200/11	11	15	
3E 65-200/15	15	20	86
3E 80-100/1.5	1.5	2	69
3E 80-100/2.2	2.2	3	
3E 80-160/9.2	9.2	12.5	82
3E 80-160/11	11	15	
3E 80-160/15	15	20	86
3E 80-200/18.5	18.5	25	
3E 80-200/22	22	30	
3E 100-160/11	11	15	80
3E 100-160/15	15	20	
3E 100-160/18.5	18.5	25	83-82

Pump type	Power		LpA - dB(A) *
	[kW]	[HP]	
3ES 32-125/0.75	0.75	1	<70
3ES 40-160/1.5	1.5	2	
3ES 40-160/2.2	2.2	3	
3ES 40-200/3	3	4	
3ES 40-200/4	4	5.5	
3ES 40-200/7.5	7.5	10	72
3ES 50-100/0.75	0.75	1	<70
3ES 50-125/1.5	1.5	2	
3ES 50-125/2.2	2.2	3	
3ES 50-160/3	3	4	
3ES 50-160/4	4	5.5	
3ES 50-200/5.5	5.5	7.5	72
3ES 50-200/7.5	7.5	10	
3ES 50-200/11	11	15	74
3ES 65-100/0.75	0.75	1	<70
3ES 65-100/1.1	1.1	1.5	
3ES 65-100/1.5	1.5	2	
3ES 65-125/2.2	2.2	3	<70
3ES 65-125/3	3	4	
3ES 65-125/4	4	5.5	
3ES 65-160/5.5	5.5	7.5	72
3ES 65-160/7.5	7.5	10	
3ES 65-200/9.2	9.2	12.5	
3ES 65-200/11	11	15	74
3ES 65-200/15	15	20	
3ES 80-100/1.5	1.5	2	<70
3ES 80-100/2.2	2.2	3	
3ES 80-160/9.2	9.2	12.5	72
3ES 80-160/11	11	15	74
3ES 80-160/15	15	20	
3ES 80-200/18.5	18.5	25	
3ES 80-200/22	22	30	77
3ES 100-160/11	11	15	74
3ES 100-160/15	15	20	
3ES 100-160/18.5	18.5	25	

* Mean value of several measures at 1m distance around the pump.
Tolerance ± 2.5 dB.
Sound pressure level of motor pumps with AEG

NOISE DATA 3E-3ES 4 POLE

Pump type	Power [kW]	Power [HP]	LpA - dB(A) *
3E4 32-160/0.37	0.37	0.5	<70
3E4 32-160/0.37R	0.37	0.5	
3E4 32-200/0.55	0.55	0.75	
3E4 40-160/0.37	0.37	0.5	
3E4 40-160/0.37R	0.37	0.5	
3E4 40-200/0.55	0.55	0.75	
3E4 40-200/0.75	0.75	1	
3E4 50-125/0.37	0.37	0.5	
3E4 50-160/0.55	0.55	0.75	
3E4 50-200/0.75	0.75	1	
3E4 50-200/1.1	1.1	1.5	
3E4 50-200/1.5	1.5	2	
3E4 65-125/0.55	0.55	0.75	
3E4 65-160/0.75	0.75	1	
3E4 65-160/1.1	1.1	1.5	
3E4 65-200/1.5	1.5	2	
3E4 65-200/2.2	2.2	3	
3E4 80-160/1.5	1.5	2	
3E4 80-200/2.2	2.2	3	
3E4 80-200/3	3	4	
3E4 100-160/1.5	1.5	2	
3E4 100-160/2.2	2.2	3	

Pump type	Power [kW]	Power [HP]	LpA - dB(A) *
3ES4 32-200/0.55	0.55	0.75	<70
3ES4 40-200/0.55	0.55	0.75	
3ES4 40-200/0.75	0.75	1	
3ES4 50-160/0.55	0.55	0.75	
3ES4 50-200/0.75	0.75	1	
3ES4 50-200/1.1	1.1	1.5	
3ES4 50-200/1.5	1.5	2	
3ES4 65-125/0.55	0.55	0.75	
3ES4 65-160/0.75	0.75	1	
3ES4 65-160/1.1	1.1	1.5	
3ES4 65-200/1.5	1.5	2	
3ES4 65-200/2.2	2.2	3	
3ES4 80-160/1.5	1.5	2	
3ES4 80-200/2.2	2.2	3	
3ES4 80-200/3	3	4	
3ES4 100-160/1.5	1.5	2	
3ES4 100-160/2.2	2.2	3	

* Mean value of several measures at 1m distance around the pump.
Tolerance ± 2.5 dB.
Sound pressure level of motor pumps with AEG



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All specifications could be subject to change