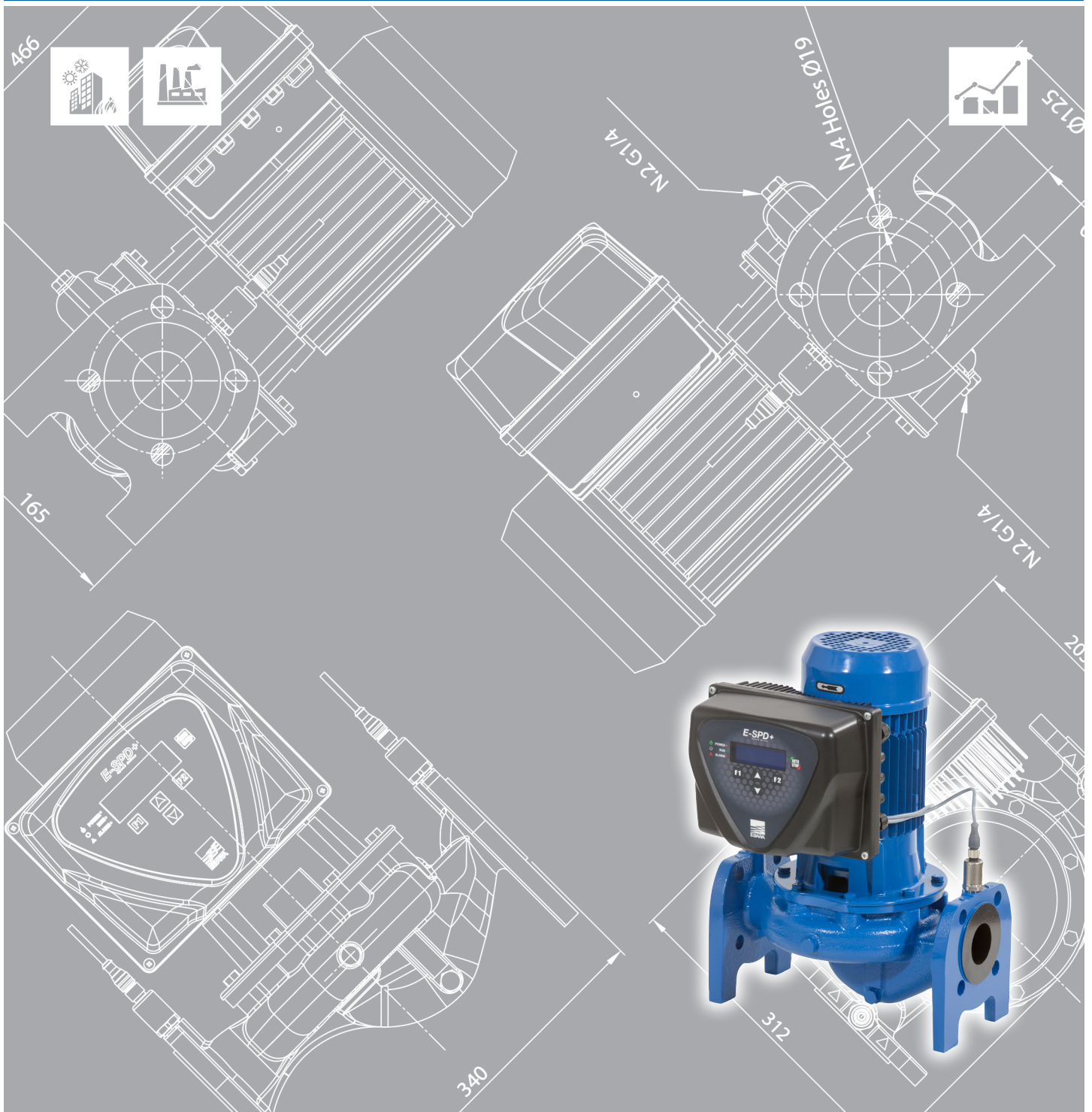


Looking ahead,
going beyond expectations
Ahead > Beyond



3E-K Series

Data Book 50Hz



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DEFINITION AND USE OF 3E-K

The 3E-K is non-self-priming, in line, centrifugal pumps with VFD.

TYPICAL APPLICATIONS

INDUSTRY	BUILDING SERVICE	WATER SUPPLY
		

PRINCIPLE OF OPERATION

3E-K units are designed to operate with a pump controlled by an **INVERTER** on board the motor. The unit thus maintains constant pressure in the water circuit. With a single INVERTER controlling a single pump.

OPERATING CONDITIONS

Ebara 3E-K can be used, in their standard versions, for civil, industrial and applications, as follows:

- building service
- water lifting and handling

The conveyed fluid must be: clean, brine (anti-freezing liquidground or mixed water, free of solid or fibrous suspensions and aggressive chemical substances.

The units must be installed under cover, protected from the weather and freezing.

- Conveyed water temperature -10 + 120°C.
- Ambient operating temperature 0 - 40°C, no higher than 1000 m above sea level.
- Max relative humidity 50% at +40°C.

NB: The system available NPSH must be greater than the NPSH demanded from the pump. For applications with different technical specifications, uses and climatic conditions (type of vector fluid, marine and aggressive industrial conditions), please contact our sales network.

To see 3E pump datasheet.

TESTS AND TRIALS

Before shipping, all EBARA pressurisation units (or components) are subject to hydraulic, mechanical and electrical testing.

MECHANICAL AND HYDRAULIC TESTS

- Pump direction of rotation
- Mechanical testing of moving parts and running noise (on each pump)
- Tightness test with delivery port closed and nameplate rating tests

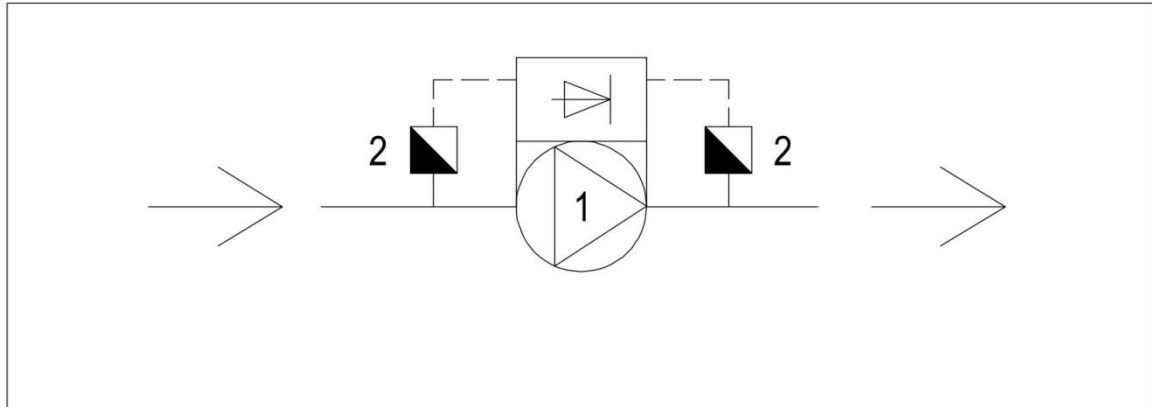
ELECTRICAL TESTS

- Earthing system continuity
- Applied voltage (dielectric rigidity)
- Insulation resistance

Principle of Operation of UNITS

3E-K units with E-SPD are designed to operate with each pumps controlled by an INVERTER installed on board its motor, on the terminal box. The system is controlled by an INVERTER in relation to the reference signal supply by two pressure transmitters (4 - 20 mA passive). As the system pressure varies, the pump varies its rotary speed to restore it to the setpoint. If the water demand exceeds the capacity, the pump goes into regulation mode to maintain the pressure setpoint. If the water demand drops off, the pressure tends to increase and the pump gradually reduces its speed to restore the correct operating pressure. Once the system pressure has been restored and the water demand is 0, the pump reduces the speed to minimum frequency without stop. The pump stop must be managed by external signal.

CIRCULATING UNIT WATER CIRCUIT DIAGRAM



Two pressure transducers installed on pump

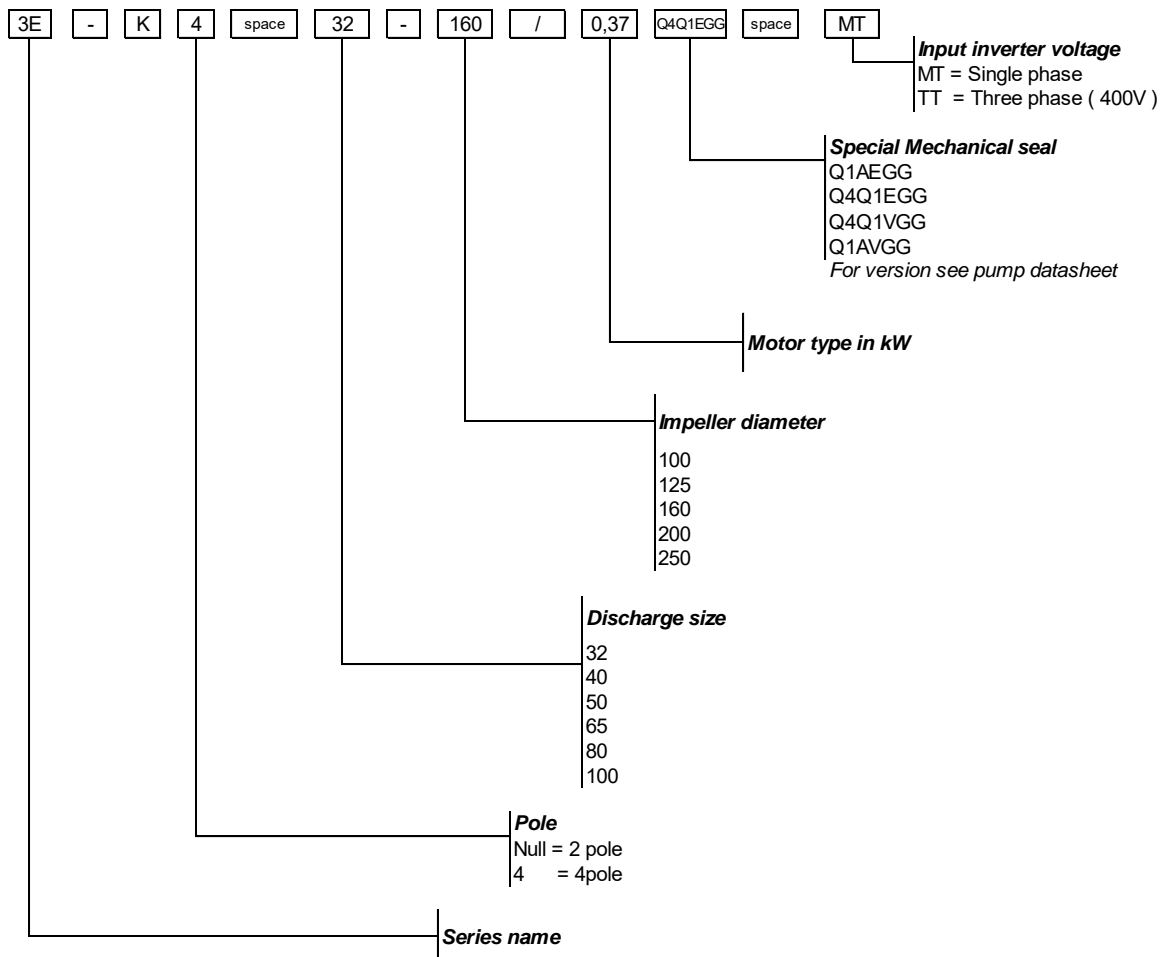
Supply system upstream from unit at the discretion of the customer of the system designer

1 – Pump with inverter “ 3E-K ”

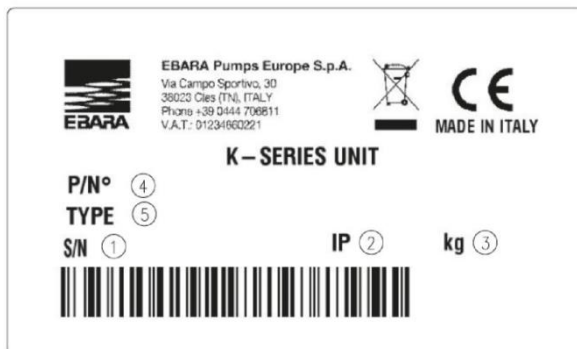
2 – Pressure Transducer

TYPE KEY

3E-K



NAME PLATE



- 1) "S/N" Serial number
- 2) "IP" Protection degree
- 3) "kg" Weight [kg]
- 4) "P/N°" Pump item number
- 5) "TYPE" Pump model

PRODUCT SPECIFICATIONS PUMP WITH INVERTER

PUMP WITH INVERTER							
Version		3E-K					
Operating range	Nominal flow rate (m ³ /h)	32	40	50	65	80	100
	Maximum working pressure	1MPa / 10 bar or 1.6 MPa / 16 bar depending on the model					
	Liquid temperature range	-10°C÷120°C					
	Ambient operating temperature (no higher than 1000 m above sea level)	-10°C÷40°C					
Pump	3E	•	•	•	•	•	•
Motor	ETM	2 poles From 0.37 to 11 Kw 4 poles From 0.37 to 3 Kw					
Control	Pressure transmitter	1.4404 (AISI 316L)					
Inverter	E-SPD+	Single-phase Supply inverter up to 2.2 kW					
		Three-phase Supply inverter up to 11 kW					
Frame	Base plate	11 Kw motor and above					

• : Standard ◦ : Optional

TECHNICAL PUMP DATA

PUMP					
3E					
Liquid Handled	Type of liquid		Clean water, Brine (anti-freezing liquid) [1]		
	Maximum working pressure		10 bar / 16 bar depending on the model		
	Maximum suction pressure		10 bar / 16 bar Shut-off pressure		
	Liquid temperature range		-10°C÷120°C		
Construction	Impeller		Closed centrifugal type		
	Shaft seal type		Mechanical seal (with air ventiration system)		
	Bearing		Sealed ball bearing (Inside of the Motor)		
Pipe Connetion	Suction And Discharge	32	Flange DN32		
		40	Flange DN40		
		50	Flange DN50		
		65	Flange DN65		
		80	Flange DN80		
		100	Flange DN100		
		According EN 1092-2 Standard			
Material	Casing		Cast iron EN-GJL-250-EN 1561		
	Impeller	32, 40, 50, 65 series	EN 1.4301 (AISI 304)		
		80, 100 series	EN 1.4404 (AISI 316L)		
	Casing cover	32, 40, 50, 65 series	EN 1.4301 (AISI 304)		
		80, 100 series	EN 1.4404 (AISI 316) stainless casting		
	Mechanical Seal		Q1AEGG	SiC/Carbon/EPDM	●
			Q4Q1EGG	SiC/SiC/EPDM	○
			Q4Q1VGG	SiC/SiC/FPM	○
			Q1AVGG	SiC/Carbon/FPM	○
	O-ring		EPDM		●
			FPM		○
	Shaft	Designation		Extended Shaft	
		30,40,50,65 series		EN 1.4301 (AISI 304) for wetted part	
80,100 series		EN 1.4404 (AISI 316L) for wetted part Carbon steel for dry part			
Bracket		Aluminum			
Accessory (upon request)			Counter Flange (See pump datasheet)		
Applicable standard of test			ISO 9906:2012 – Grade 3B		

● : Standard ○ : Optional

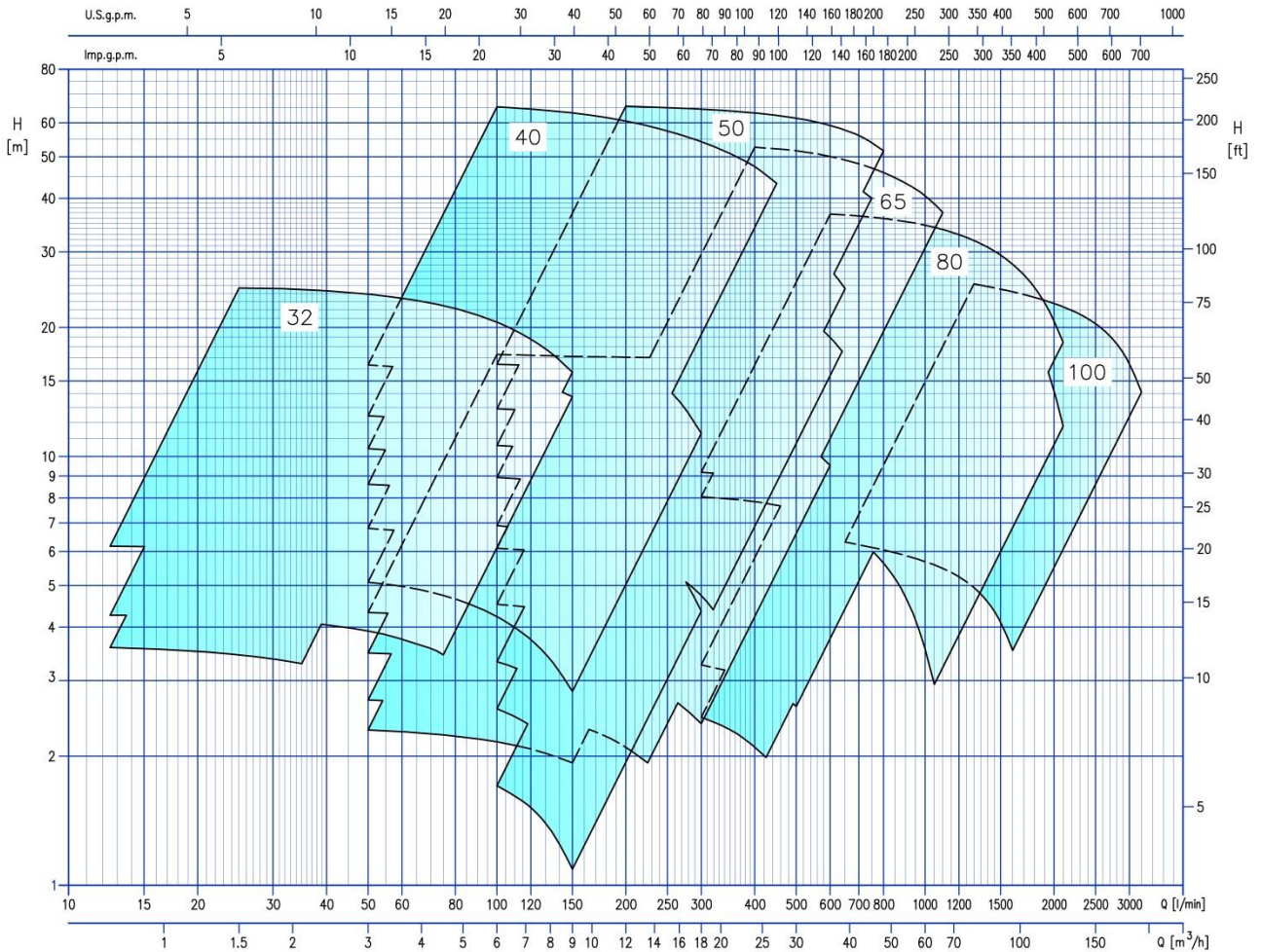
[1] : Viscosity and Density shall be equivalent with water.

TECHNICAL MOTOR DATA

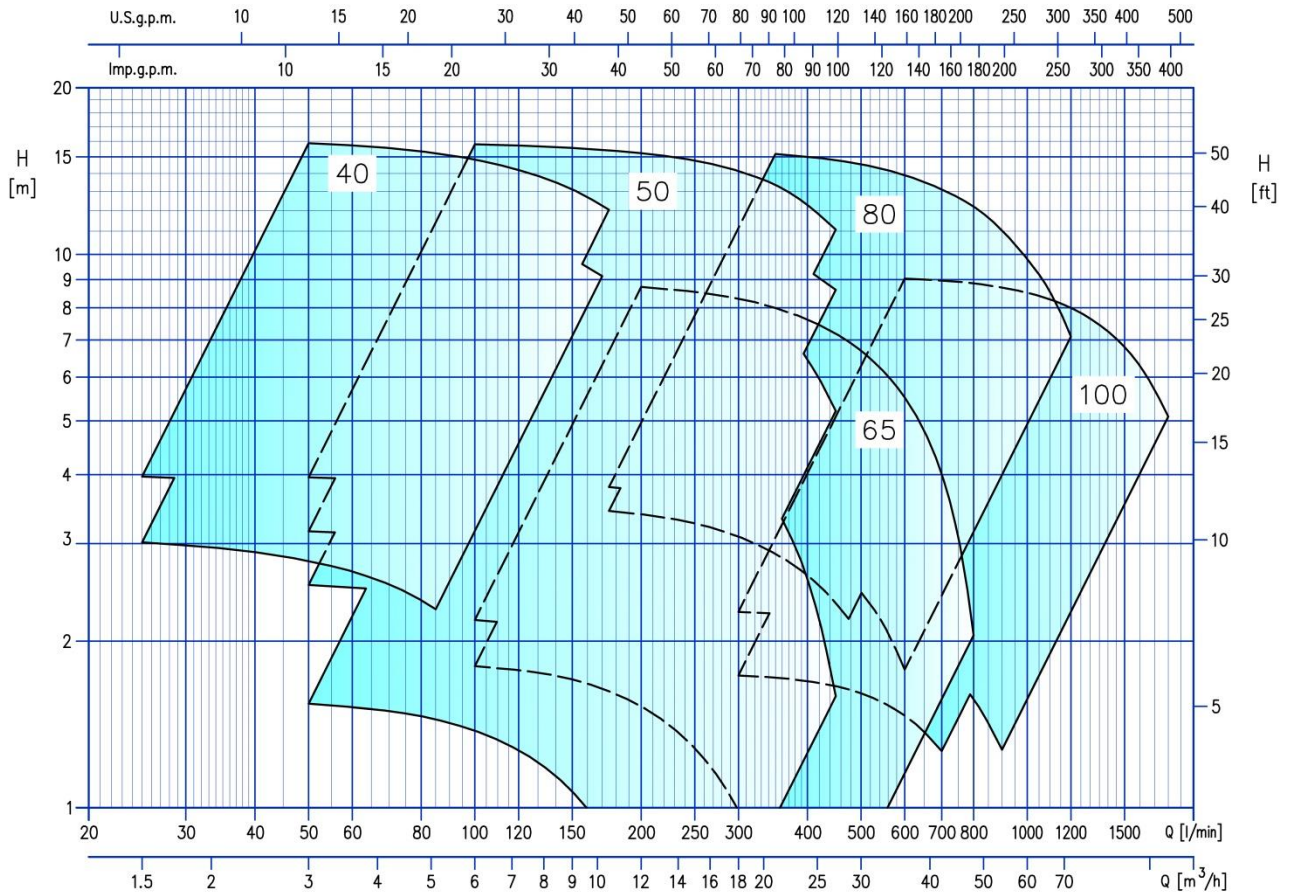
MOTOR				
Version		3E(.)		
Power source	Frequency	50 Hz		
	Phase	Three-phase		
	Rotation speed	2900 min-1	1450 min-1	
	Power rating	0.37 ÷ 11 kW	0.37 ÷ 3 kW	
		0.5 ÷ 15 HP	0.5 ÷ 10 HP	
Voltage	230/400 ± 10% V (up to 4 kW) 400/690 ± 10% V (5.5 kW and above)			
Type	Type	Electric - TEFC		
	Efficiency level	IE2 from 0.37 kW up to 0.55 kW IE3 from 0.75 kW up to 37 kW		
	N° of poles	2	4	
	Protection degree	IP 55		
	Insulation class	F (temperature rise class B)		
Others	Over load protection	Provided by the user		
	Casing Material	Aluminium		
	Motor support material	Cast iron / Aluminum		
	Dimensions of cable entry	PG11, PG13.5, PG16, PG21 M20x1.5, M25x1.5		
	Flange mount (IEC motor)	---		

PERFORMANCE RANGE

RESEAU PUMP WITH INVERTER 3E-K 32-40-50-65-80-100 2 Poli



RESEAU PUMP WITH INVERTER 3E-K 40-50-65-80-100 4 Poli



CURVE SPECIFICATION

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 $\nu = 1 \text{ mm}^2/\text{s}$ (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 0.5 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
- P2 = pump power input (shaft power)
- η = pump efficiency
- NPSH = net positive suction head required by the pump
- MEI = minimum efficiency index

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.

Information on benchmark efficiency is available at: www.europump.org (Ecodesign section)

Information on benchmark efficiency graph for MEI = 0.7 for the pump are available at: www.europump.org/efficiencycharts (refer to "Multistage Vertical 2900 rpm")

Minimum efficiency index (MEI)

Pump type	MEI
3E-K(.) 32	> 0.70
3E-K(.) 40	> 0.70
3E-K(.) 50	> 0.70
3E-K(.) 65	> 0.70
3E-K(.) 80	> 0.70
3E-K(.) 100	> 0.70

SELECTION CHART 3E-K 32, 40, 50 2 Poles

Model	Supply		Motor		Q=Capacity								
	Single phase	Three phase	kW	HP	l/min	0	25	50	70	75	100	125	150
					m ³ /h	0	1.5	3.0	4.2	4.5	6.0	7.5	9.0
H=Total manometric head in meters													
3E-K 32-125/0,37	•	•	0.37	0.5	14.6	14.3	13.8	13.2	-	-	-	-	-
3E-K 32-125/0,55	•	•	0.55	0.75	17.2	17.1	16.8	16.4	16.3	15.7	14.8	13.8	-
3E-K 32-125/0,75	•	•	0.75	1	24.9	24.8	23.9	22.8	22.5	20.6	18.3	15.7	-

Model	Supply		Motor		Q=Capacity									
	Single phase	Three phase	kW	HP	l/min	0	100	150	200	230	250	300	400	450
					m ³ /h	0	6.0	9.0	12.0	13.8	15.0	18.0	24.0	27.0
H=Total manometric head in meters														
3E-K 40-160/1,1	•	•	1.1	1.5	21.6	20.5	19.0	17.0	15.5	14.4	11.3	-	-	
3E-K 40-160/1,5	•	•	1.5	2	28.6	27.3	25.9	24.1	22.9	-	-	-	-	
3E-K 40-160/2,2	•	•	2.2	3	35.3	34.5	33.2	31.5	30.2	29.3	26.7	-	-	
3E-K 40-200/3	-	•	3	4	43	42	39.9	37.5	36.0	35.0	32.2	-	-	
3E-K 40-200/4	-	•	4	5.5	51.0	50.0	48.0	45.5	44.0	42.5	39.8	-	-	
3E-K 40-200/7,5	-	•	7.5	10	65.5	65.5	63.5	60.5	58.5	57.5	54.0	47.5	43.5	

Model	Supply		Motor		Q=Capacity												
	Single phase	Three phase	kW	HP	l/min	0	200	250	300	350	400	450	500	640	650	750	800
					m ³ /h	0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	38.4	39.0	45.0	48.0
H=Total manometric head in meters																	
3E-K 50-100/0,37	•	•	0.37	0.5	7.8	6.9	55.8	4.4	-	-	-	-	-	-	-	-	-
3E-K 50-100/0,55	•	•	0.55	0.75	11.4	10.3	9.2	-	-	-	-	-	-	-	-	-	-
3E-K 50-100/0,75	•	•	0.75	1	14.7	13.3	12.1	-	-	-	-	-	-	-	-	-	-
3E-K 50-125/1,5	•	•	1.5	2	18.2	18.2	17.6	17.0	16.2	15.2	-	-	-	-	-	-	-
3E-K 50-125/2,2	•	•	2.2	3	24.6	24.5	24.1	23.5	22.8	21.9	20.8	-	-	-	-	-	-
3E-K 50-160/3	-	•	3	4	29.2	27.7	27.0	26.2	25.3	24.2	23.1	21.8	17.7	-	-	-	-
3E-K 50-160/4	-	•	4	5.5	37.1	35.9	35.2	34.3	33.4	32.4	31.3	30.1	26.4	24.6	-	-	-
3E-K 50-200/5,5	-	•	5.5	7.5	43.5	42.5	42.0	41.5	40.5	39.7	38.7	37.7	34.0	33.7	-	-	-
3E-K 50-200/7,5	-	•	7.5	10	53.5	51.5	51.0	50.5	50.0	49.5	48.5	47.5	44.5	44.0	40.0	-	-
3E-K 50-200/11	-	•	11	15	67.5	65.5	65.0	64.5	64.0	63.5	62.5	61.5	58.0	57.5	54.0	51.5	-

• : Standard

SELECTION CHART 3E-K 65, 80, 100 2 Poles

Model	Supply		Motor		Q=Capacity										
	Single phase	Three phase	kW	HP	l/min	100	200	300	400	450	500	600	900	1000	1100
					m ³ /h	6.0	12.0	18.0	24.0	27.0	30.0	36.0	54.0	60.0	66.0
H=Total manometric head in meters															
3E-K 65-100/0,55	•	•	0.55	0.75	9.5	9.2	8.6	7.7	-	-	-	-	-	-	-
3E-K 65-100/0,75	•	•	0.75	1	11.1	10.8	10.3	9.5	8.4	7.7	-	-	-	-	-
3E-K 65-100/1,1	•	•	1.1	1.5	14.4	13.9	13.5	13.0	12.2	11.7	11.1	9.5	-	-	-
3E-K 65-100/1,5	•	•	1.5	2	18.1	17.3	17.0	16.1	16.6	16.3	-	-	-	-	-
3E-K 65-200/9,2	-	•	9.2	12.5	48.5	-	-	-	47.5	47.0	46.0	44.5	37.8	34.9	-
3E-K 65-200/11	-	•	11	15	54.0	-	-	-	53.0	52.5	51.5	50.0	43.5	40.5	37.3

Model	Supply		Motor		Q=Capacity										
	Single phase	Three phase	kW	HP	l/min	600	700	850	1000	1100	1300	1600	1900	2000	2100
					m ³ /h	36.0	42.0	51.0	60.0	66.0	78.0	96.0	114.0	120.0	126.0
H=Total manometric head in meters															
3E-K 80-100/1,5	•	•	1.5	2	12.4	9.9	9.2	8.0	-	-	-	-	-	-	-
3E-K 80-100/2,2	•	•	2.2	3	14.5	13.1	12.6	11.7	10.5	-	-	-	-	-	-
3E-K 80-160/9,2	-	•	9.2	12.5	33.6	32.4	32.0	31.1	30.0	29.1	26.9	22.5	16.7	14.4	12.0
3E-K 80-160/11	-	•	11	15	37.9	36.9	36.5	35.7	34.6	33.8	31.9	28.1	22.9	20.7	18.5

Model	Supply		Motor		Q=Capacity								
	Single phase	Three phase	kW	HP	l/min	1300	1500	1700	1900	2100	2500	3000	3200
					m ³ /h	78.0	90.0	102.0	114.0	126.0	150.0	180.0	192.0
H=Total manometric head in meters													
3E-K 100-160/11	-	•	11	15	28.7	25.3	24.6	23.9	23.1	22.4	20.4	16.5	14.1

• : Standard

SELECTION CHART 3E-K 4 Poles

Model	Supply		Motor		Q=Capacity					
	Single phase	Three phase	kW	HP	l/min	50	100	150	170	175
					m ³ /h	3	6.0	9.0	10.2	10.5
H=Total manometric head in meters										
3E-K4 40-200/0,55	•	•	0.55	0.75	12.6	12.1	11.2	9.8	9.1	-
3E-K4 40-200/0,75	•	•	0.75	1	16.2	15.9	14.8	13.1	12.3	12.0

Model	Supply		Motor		Q=Capacity							
	Single phase	Three phase	kW	HP	l/min	100	150	200	250	300	400	450
					m ³ /h	6.0	9.0	12.0	15.0	18.0	24.0	27.0
H=Total manometric head in meters												
3E-K4 50-125/0,37	•	•	0.37	0.5	6.1	6.2	5.9	5.5	5.0	4.3	2.6	1.6
3E-K4 50-200/0,75	•	•	0.75	1	10.5	10.1	9.8	9.5	9.0	8.3	6.5	5.2
3E-K4 50-200/1,1	•	•	1.1	1.5	13.0	12.6	12.4	12.1	11.6	10.9	9.4	8.6
3E-K4 50-200/1,5	•	•	1.5	2	16.4	15.8	15.6	15.2	14.8	14.2	12.3	11.1

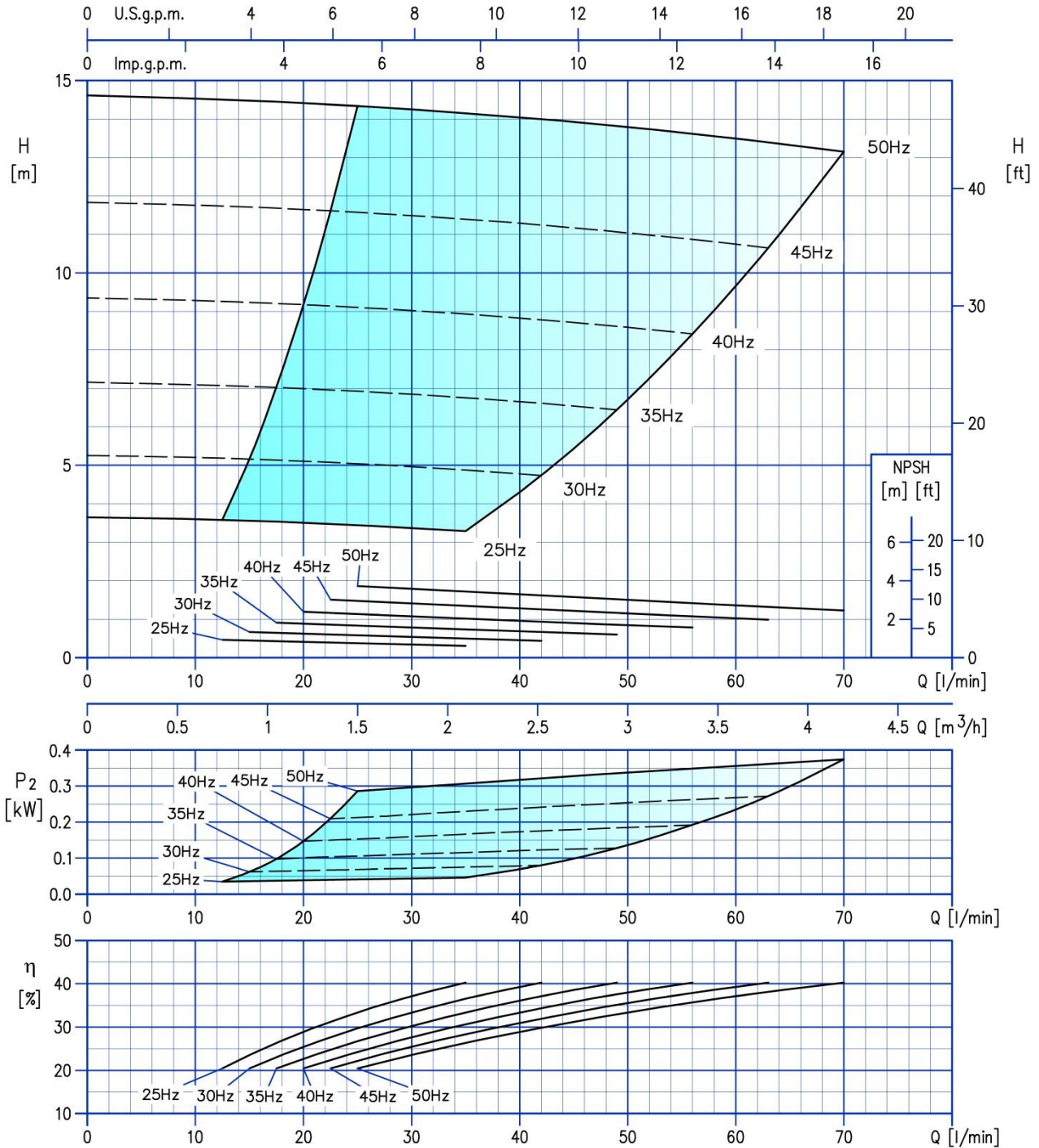
Model	Supply		Motor		Q=Capacity										
	Single phase	Three phase	kW	HP	l/min	200	250	300	350	400	500	600	700	750	800
					m ³ /h	12.0	15.0	18.0	21.0	24.0	30.0	36.0	42.0	45.0	48.0
H=Total manometric head in meters															
3E-K4 65-160/0,75	•	•	0.75	1	7.4	7.3	7.1	6.8	6.5	6.1	5.1	4.0	2.6	1.9	-
3E-K4 65-160/1,1	•	•	1.1	1.5	8.8	8.8	8.6	8.3	8.0	7.6	6.7	5.5	4.0	3.1	2.1

Model	Supply		Motor		Q=Capacity									
	Single phase	Three phase	kW	HP	l/min	350	500	600	800	950	1000	1050	1100	1200
					m ³ /h	21.0	30.0	36.0	48.0	57.0	60.0	63.0	66.0	72.0
H=Total manometric head in meters														
3E-K4 80-200/2,2	•	•	2.2	3	14.2	13.8	13.1	12.4	10.5	8.8	-	-	-	-
3E-K4 80-200/3	-	•	3	4	15.9	15.2	14.5	13.9	12.1	10.5	9.8	9.2	8.5	7.1

Model	Supply		Motor		Q=Capacity											
	Single phase	Three phase	kW	HP	l/min	600	800	950	1000	1050	1100	1200	1300	1400	1600	1800
					m ³ /h	36.0	48.0	57.0	60.0	63.0	66.0	72.0	78.0	84.0	96.0	108.0
H=Total manometric head in meters																
3E-K4 100-160/1,5	•	•	1.5	2	7.7	7.0	6.8	6.5	6.4	6.3	6.2	5.9	5.5	5.1	-	-
3E-K4 100-160/2,2	•	•	2.2	3	9.7	9.1	8.9	8.6	8.5	8.4	8.3	8.0	7.7	7.3	6.3	5.1

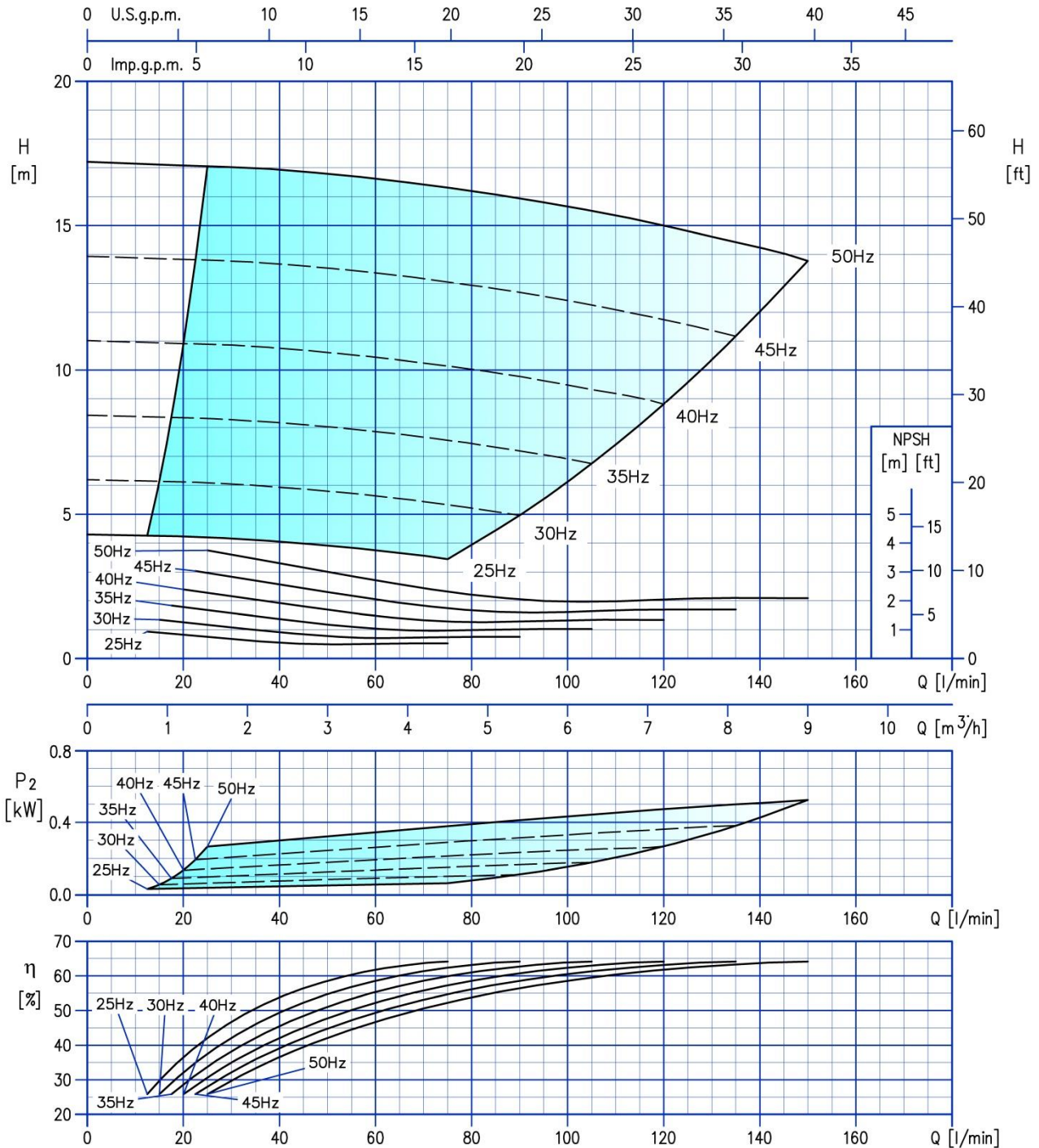
• : Standard

PERFORMANCE CURVE 3E-K 3E-K 32-125/0.37



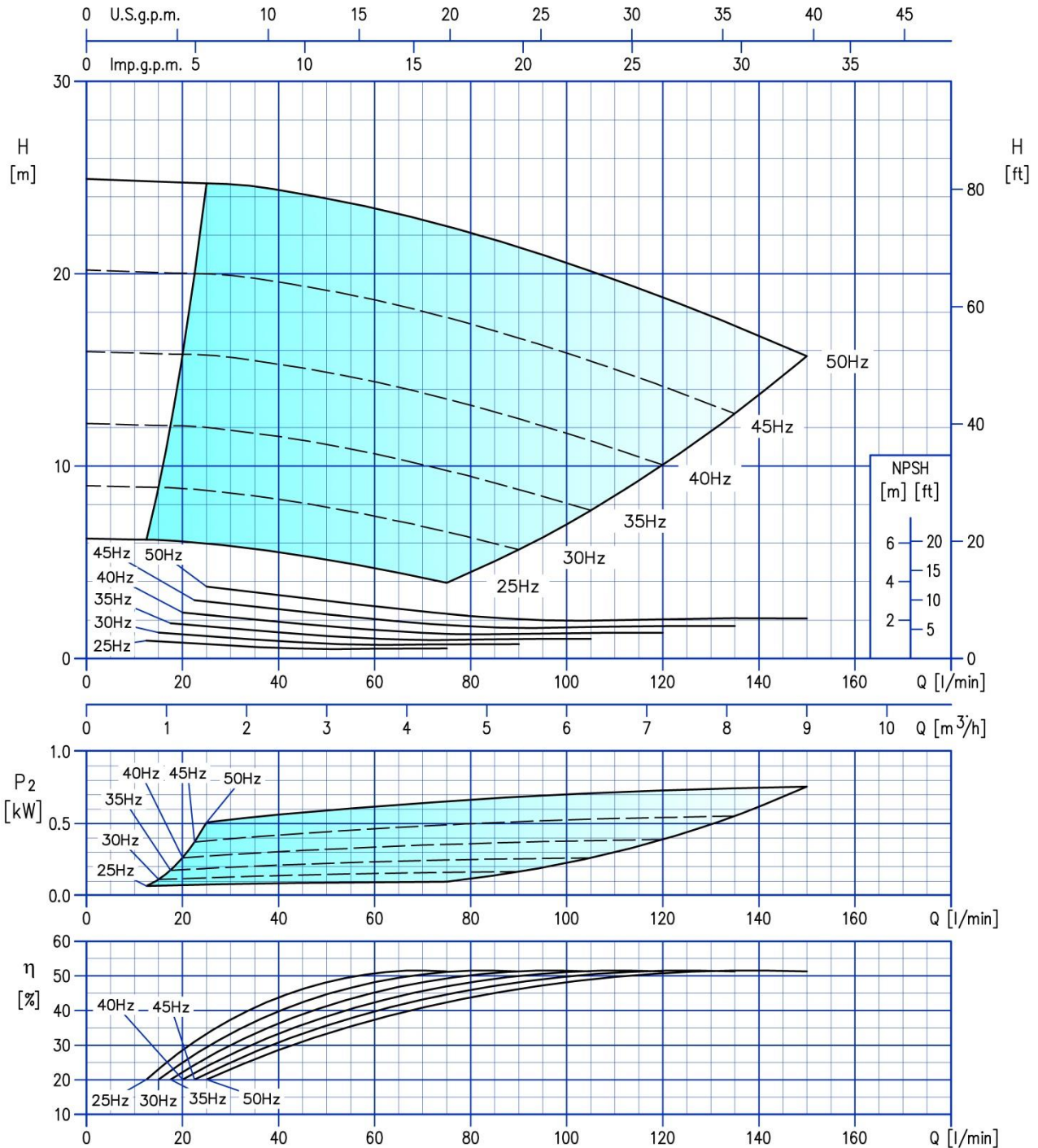
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 32-125/0.55



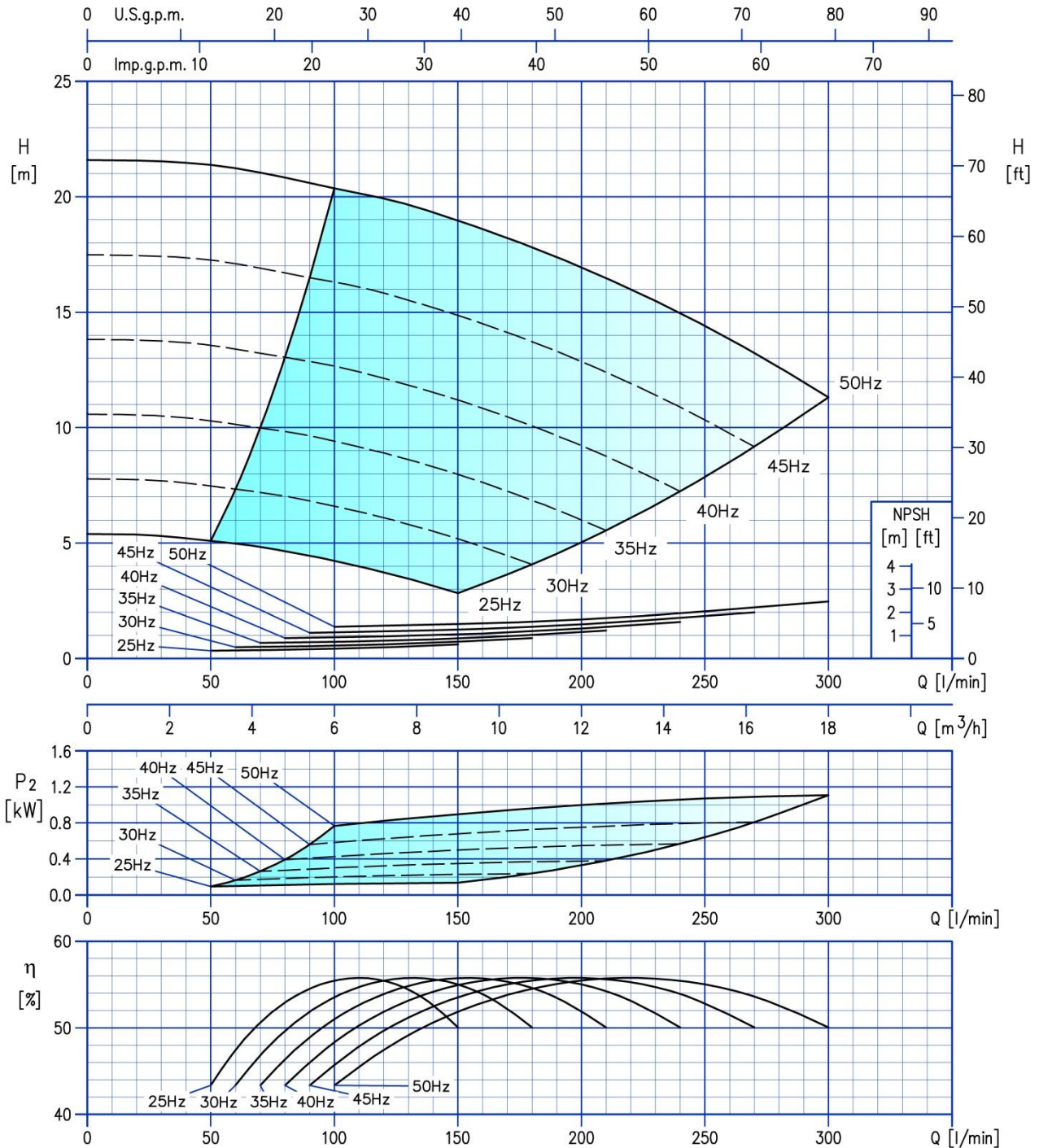
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 32-125/0.75



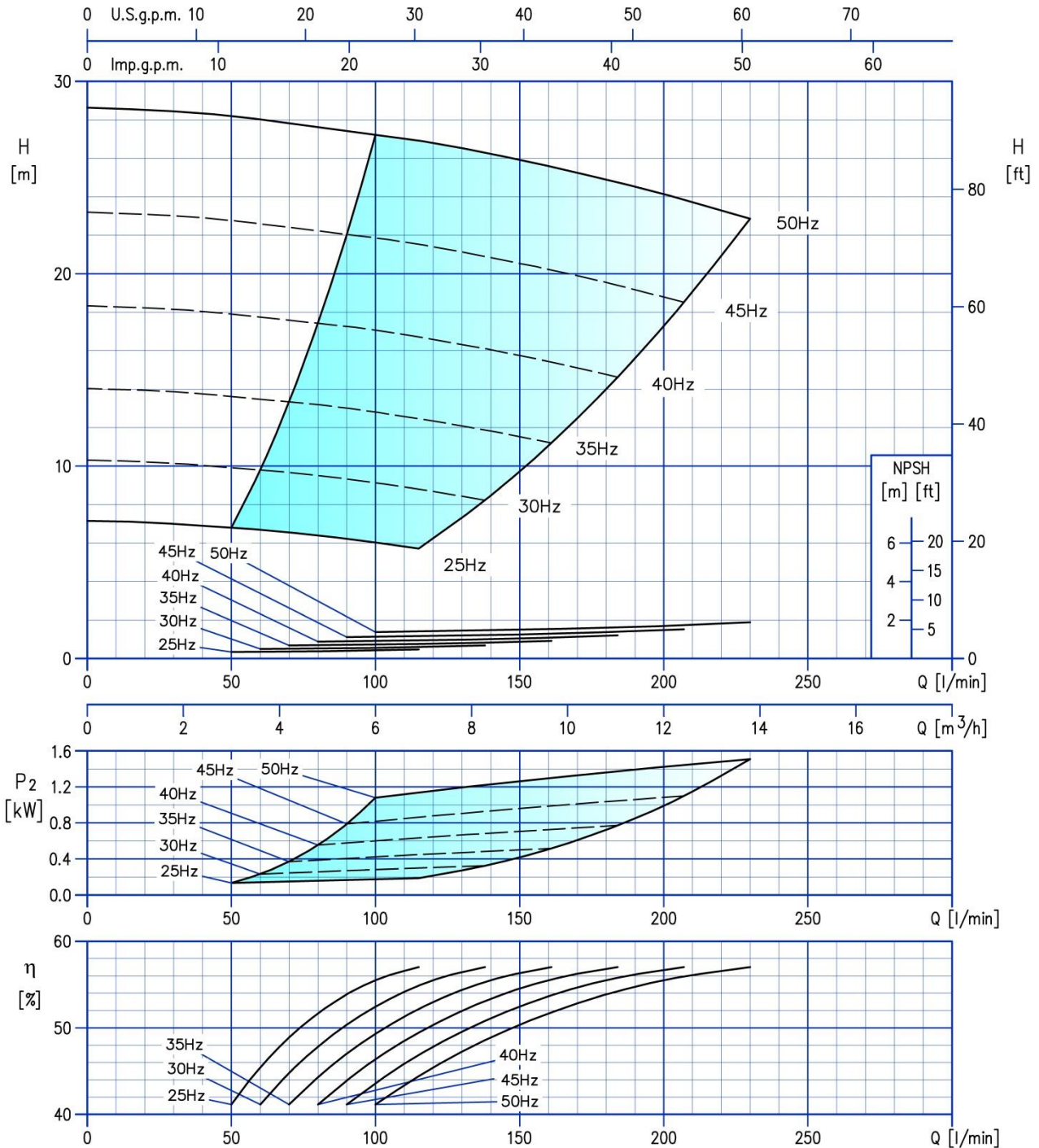
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 40-160/1.1



Test standard: ISO 9906: 2012 - Grade 3B

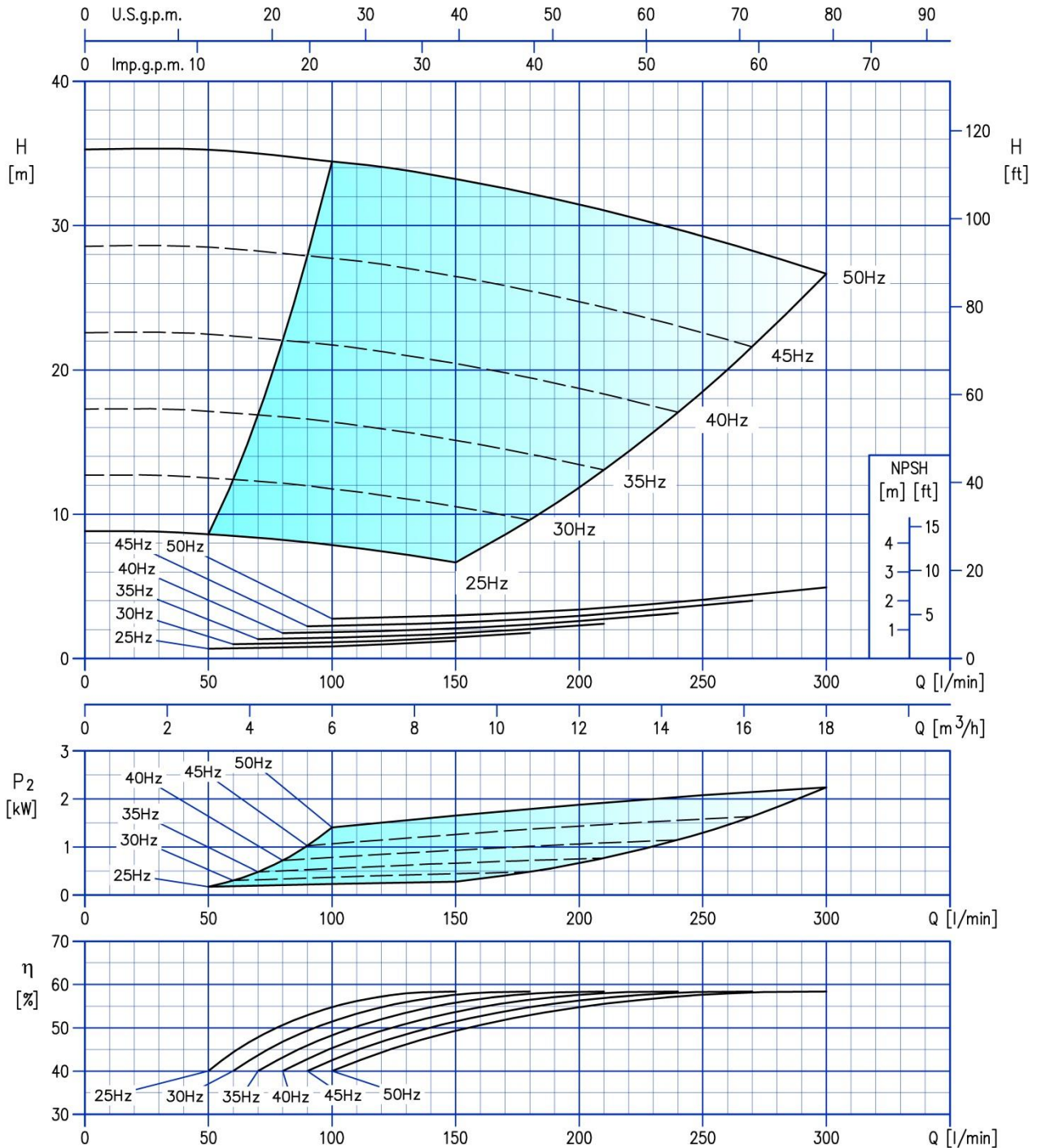
3E-K 40-160/1.5



Test standard: ISO 9906: 2012 - Grade 3B

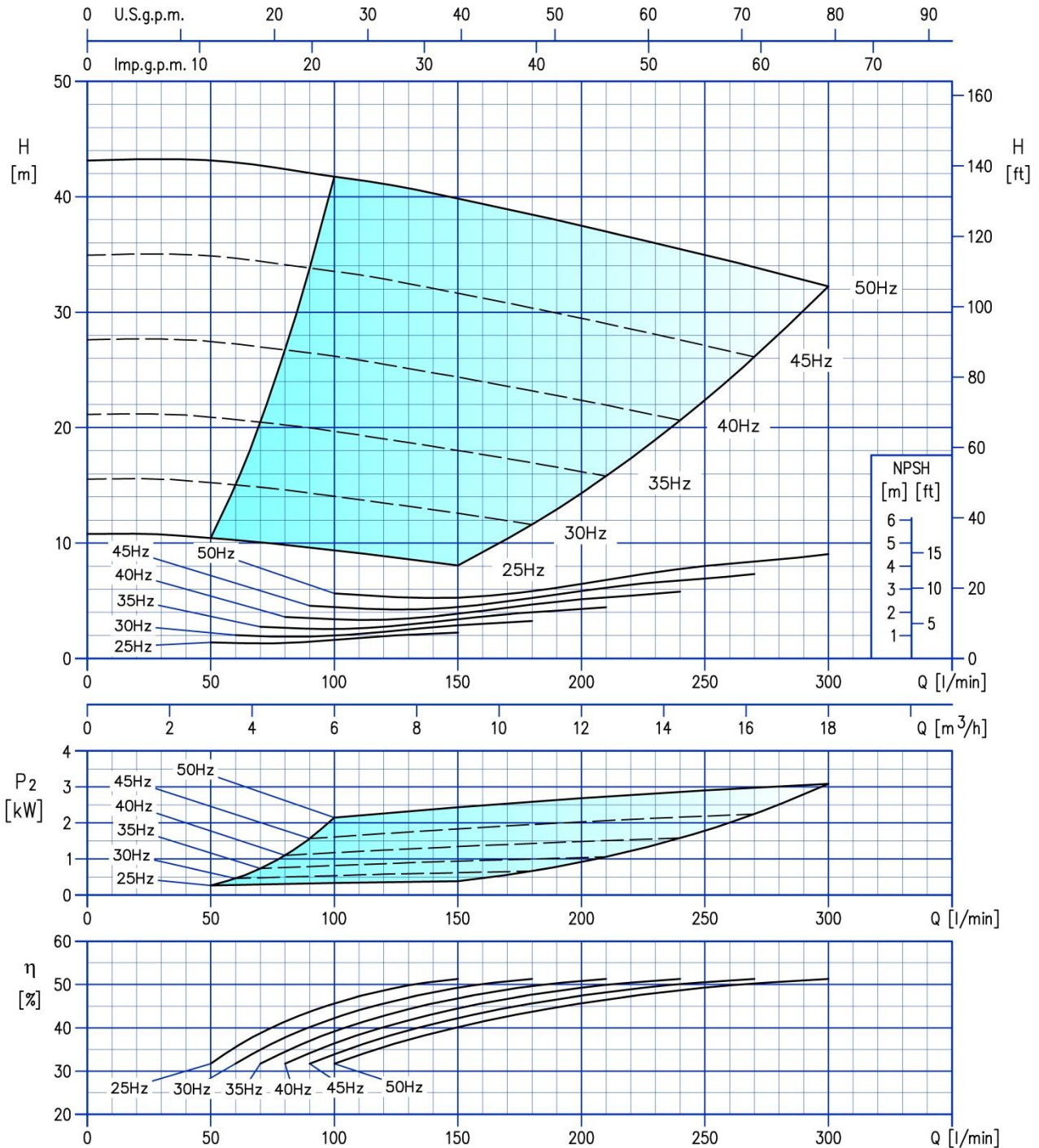
605

3E-K 40-160/2.2



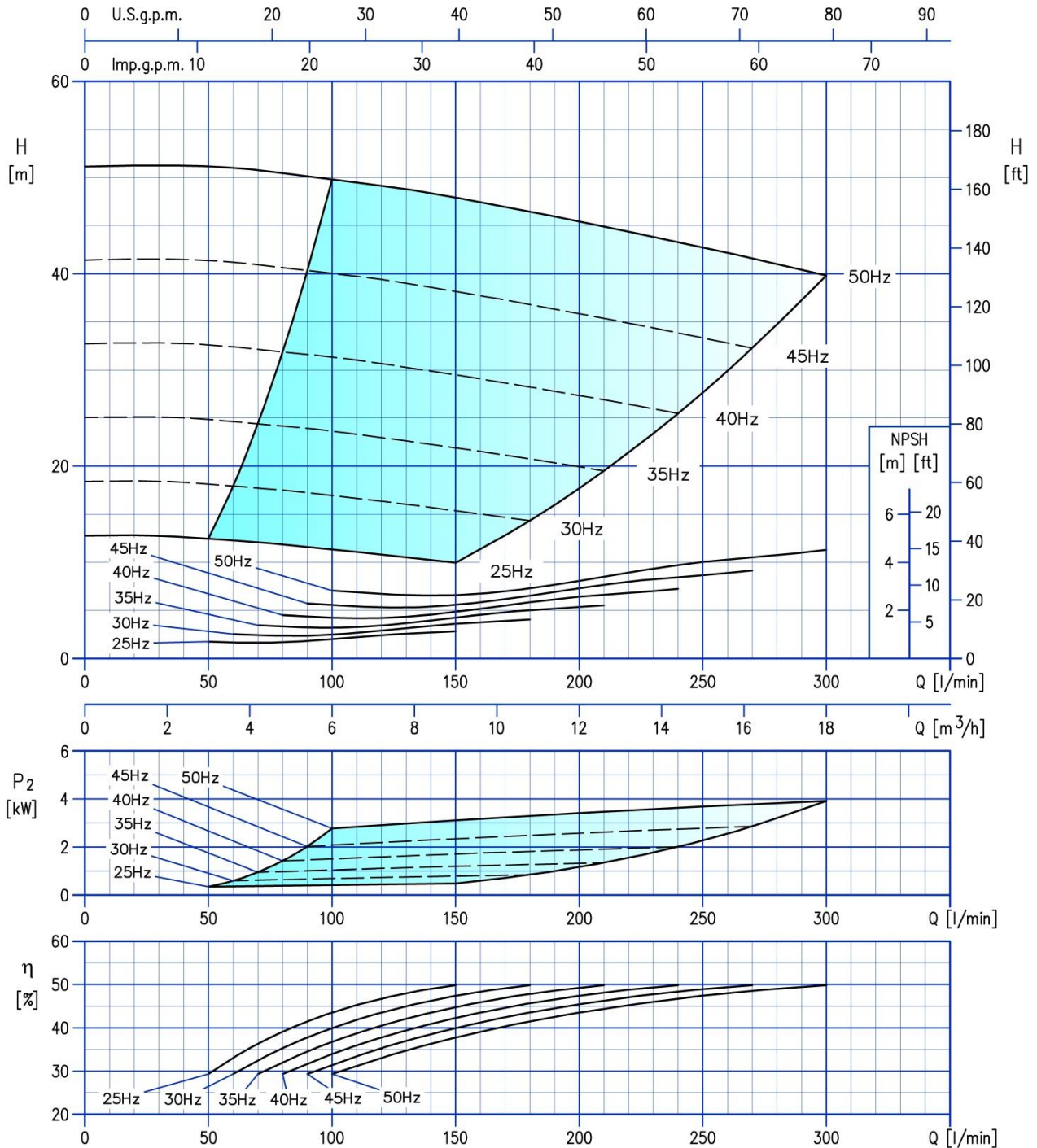
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 40-200/3



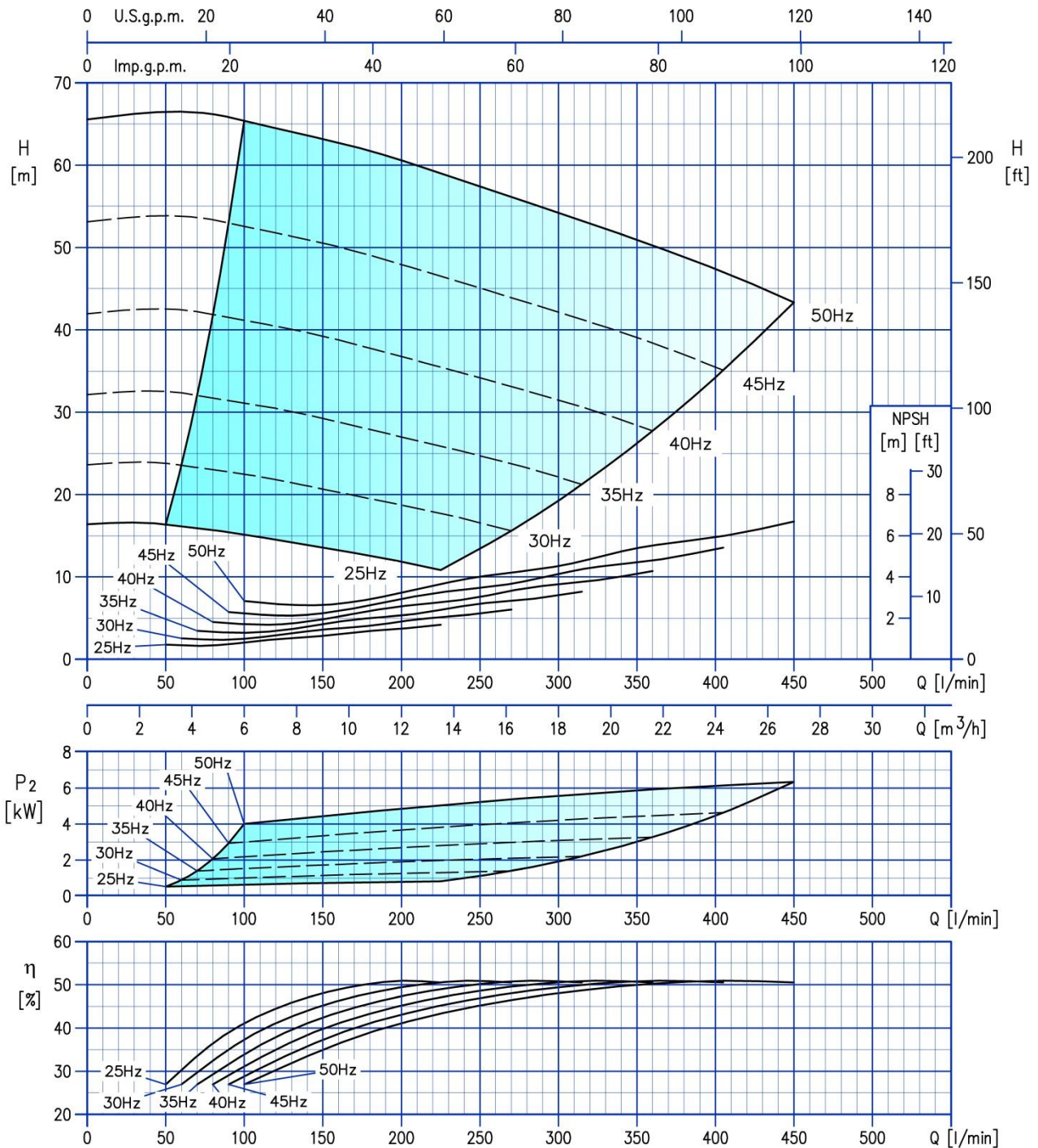
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 40-200/4



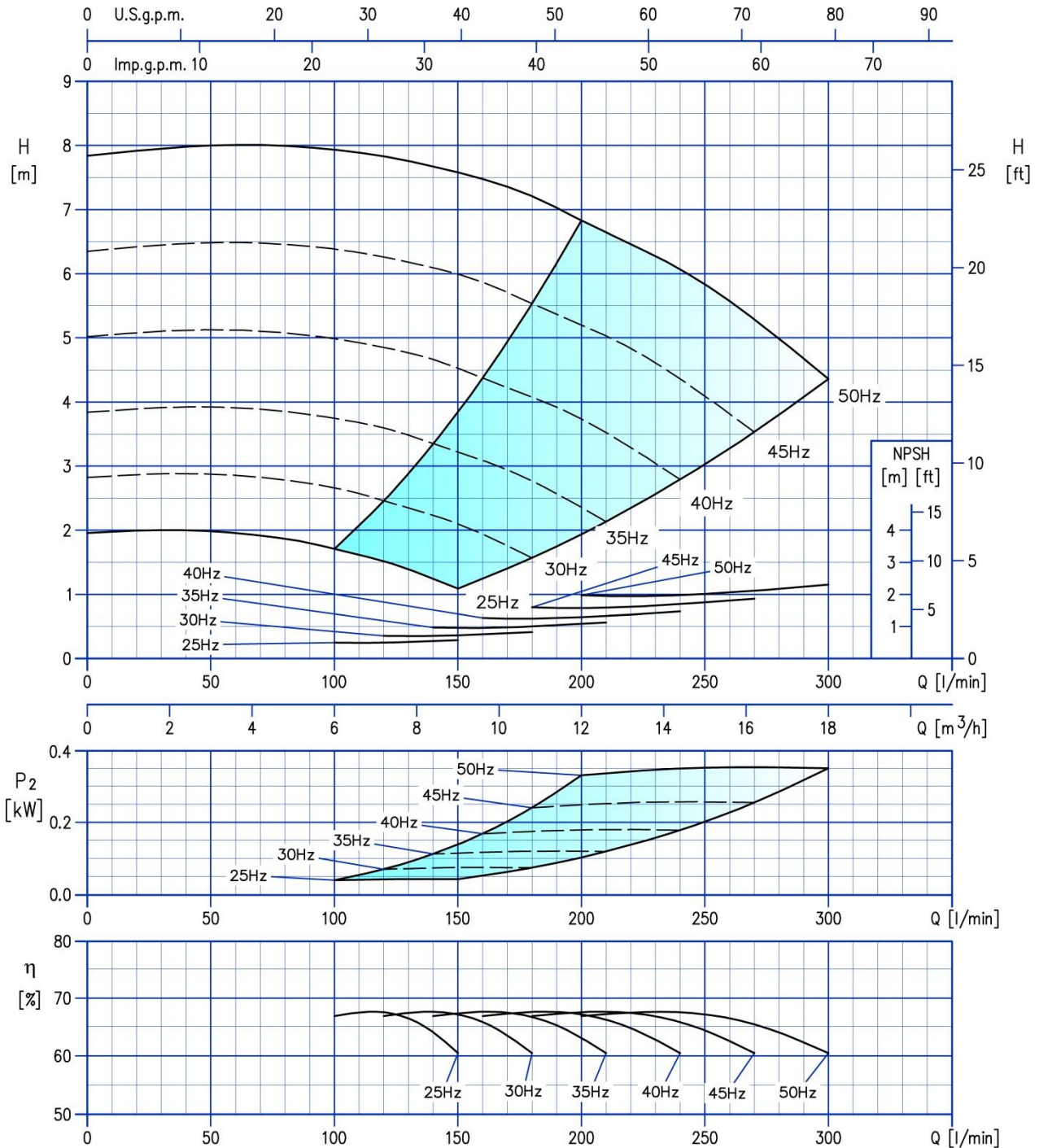
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 40-200/7.5



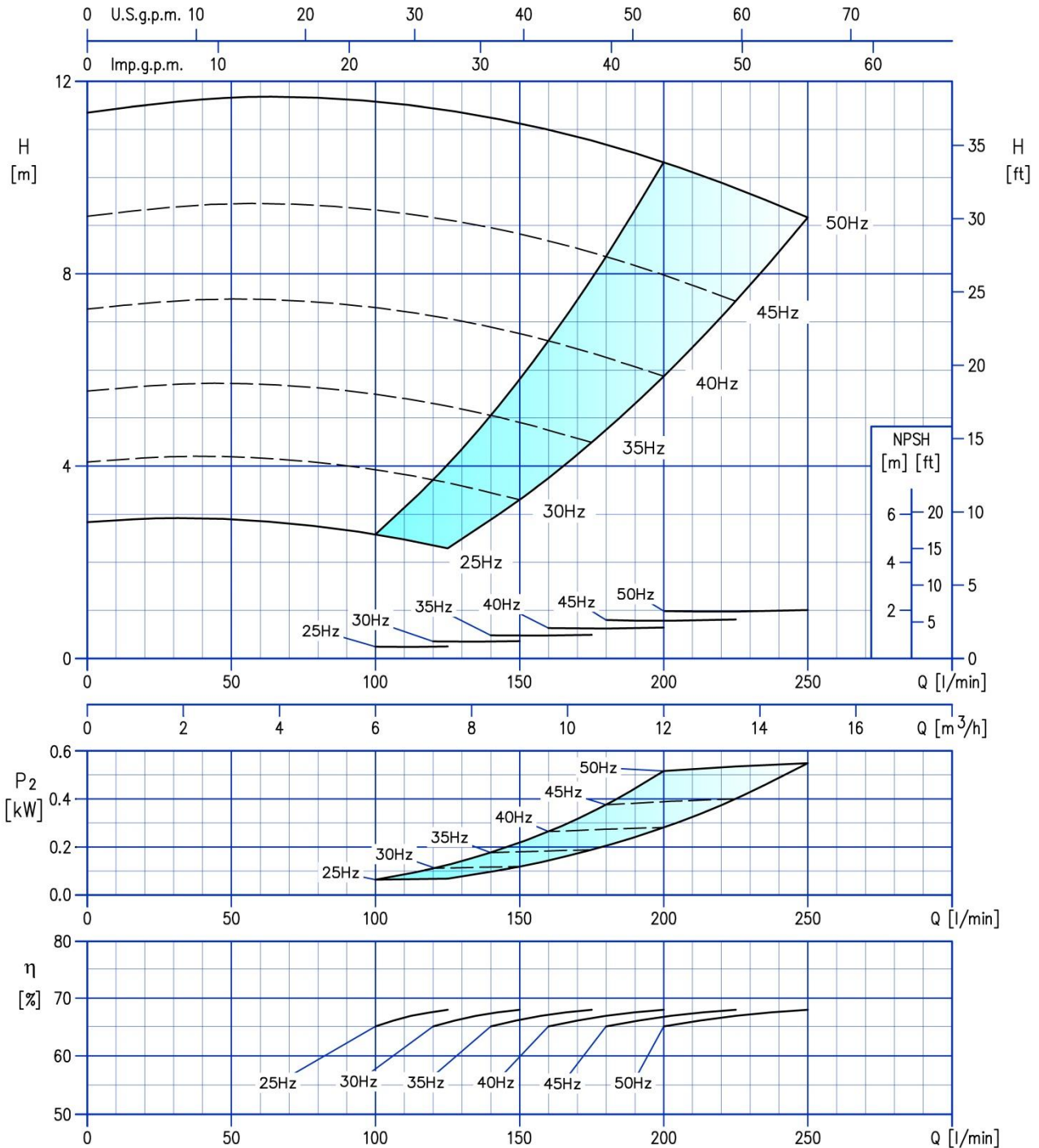
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-100/0.37



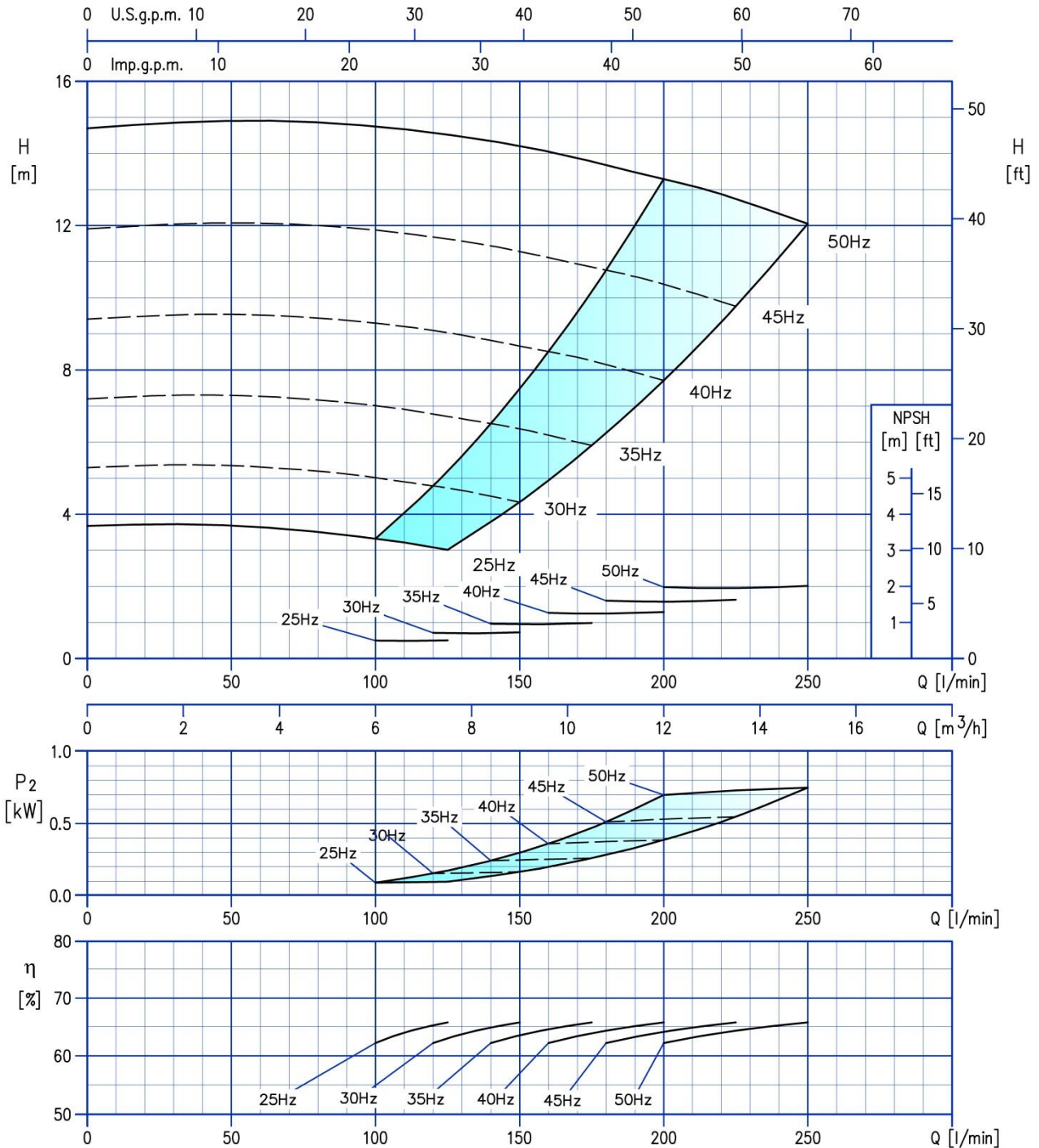
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-100/0.55



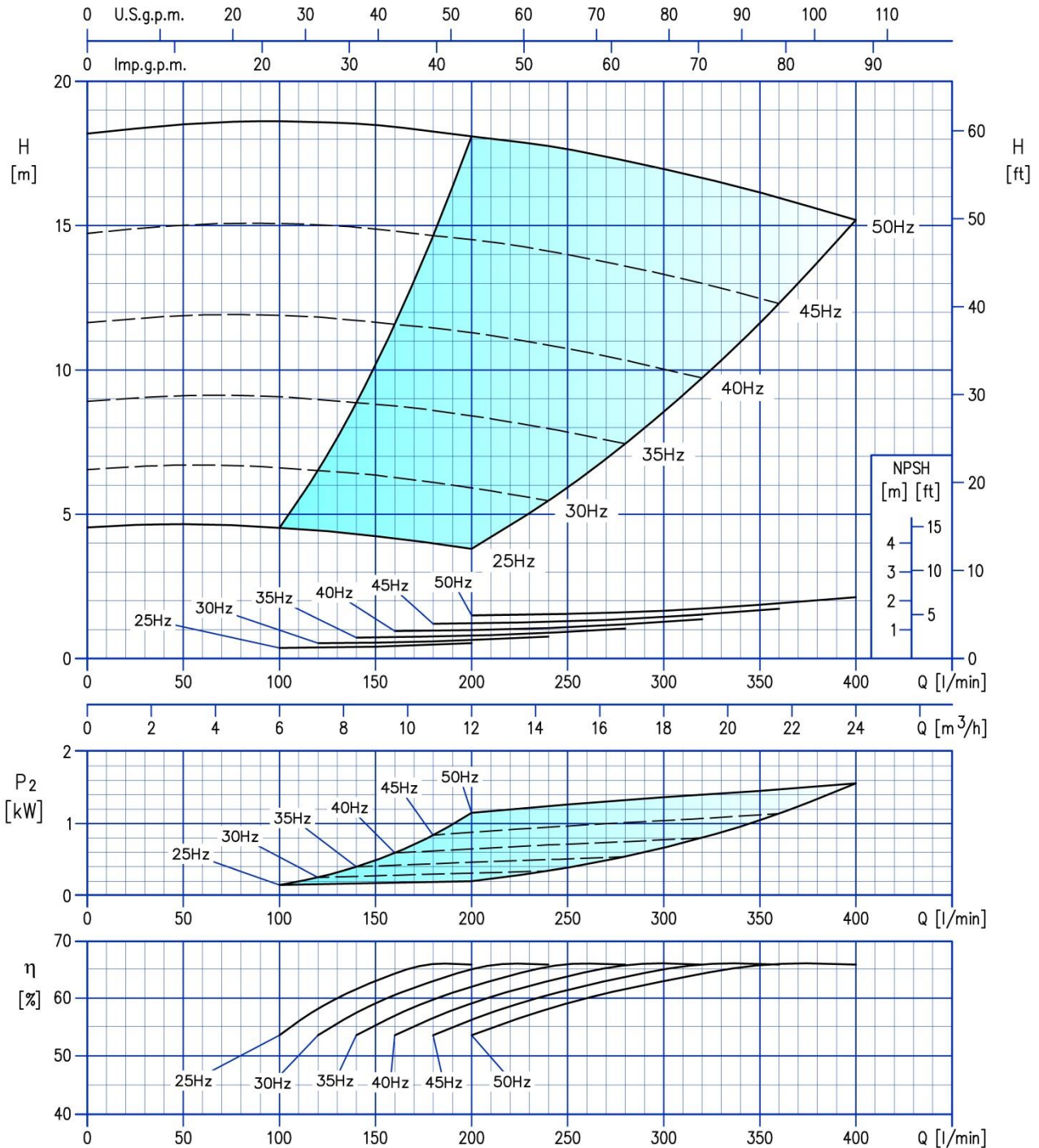
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-100/0.75



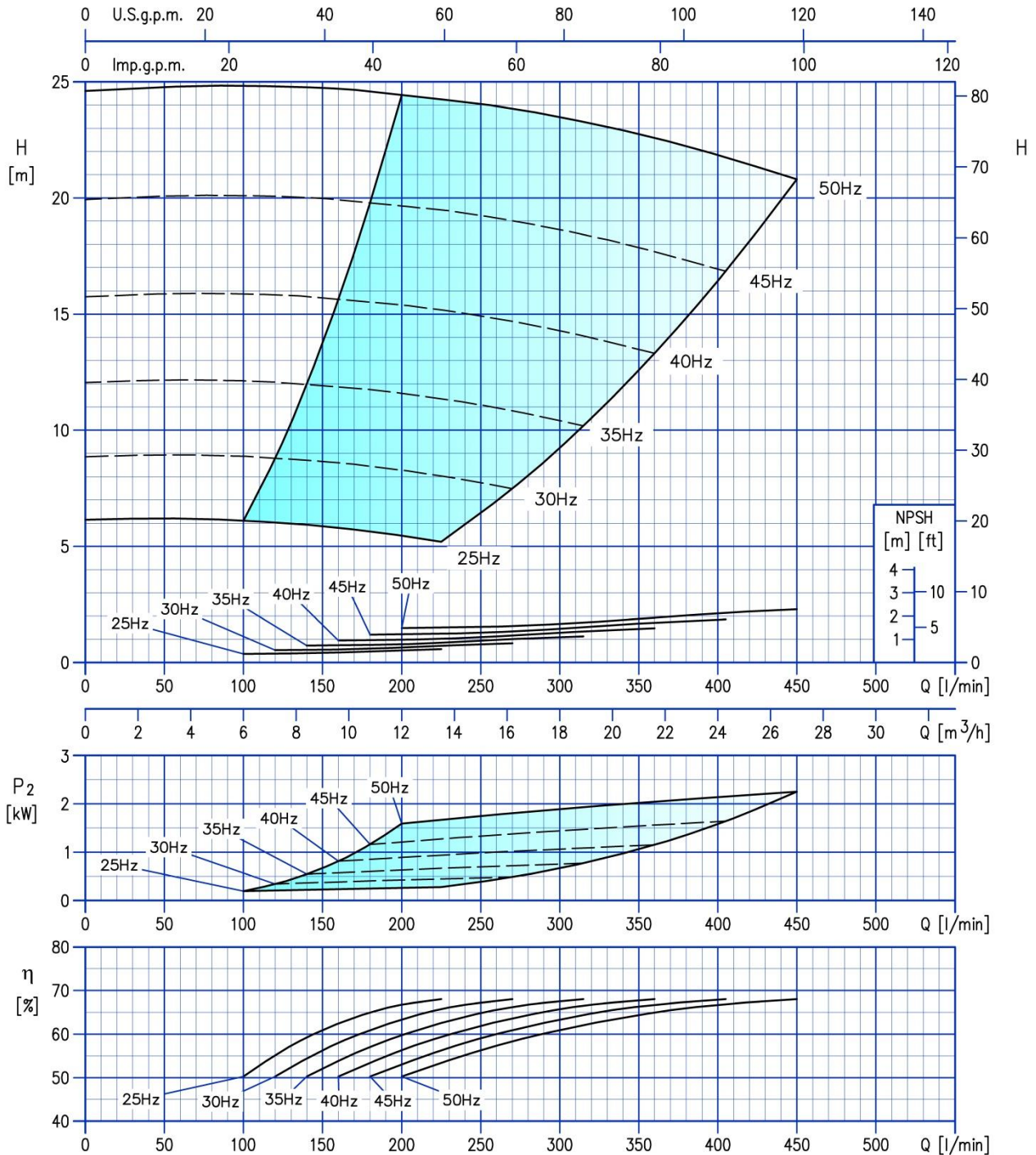
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-125/1.5



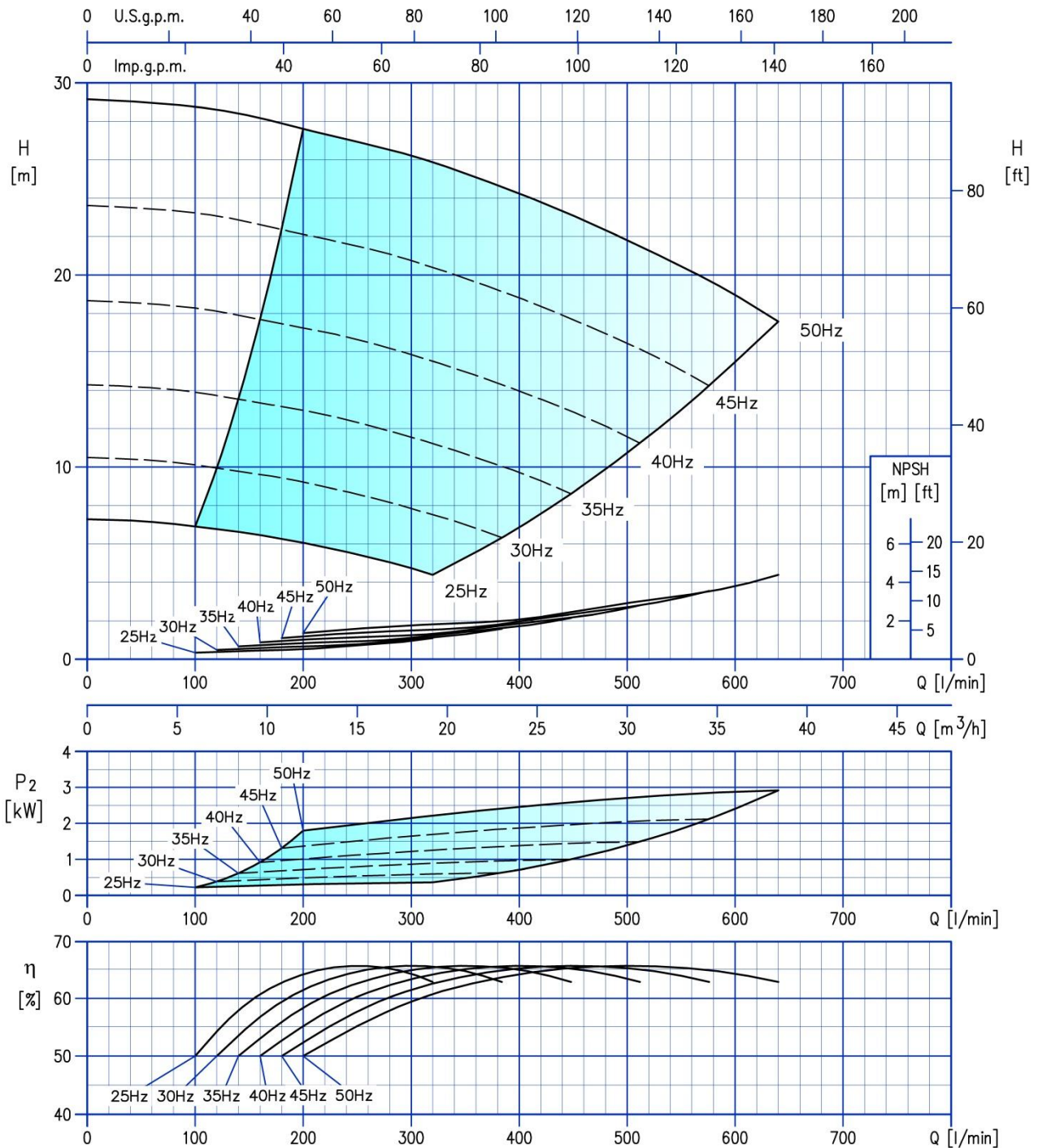
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-125/2.2



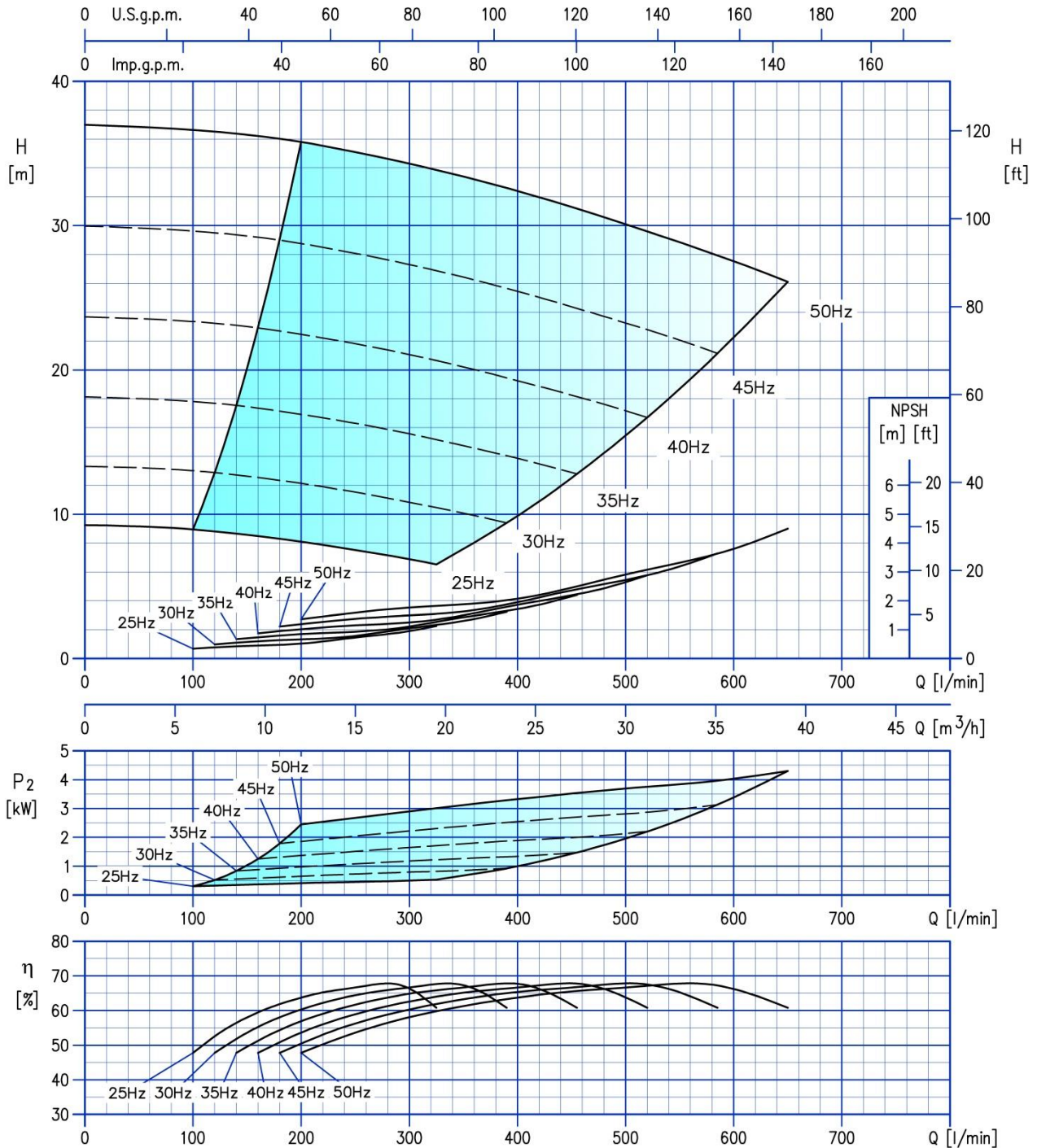
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-160/3



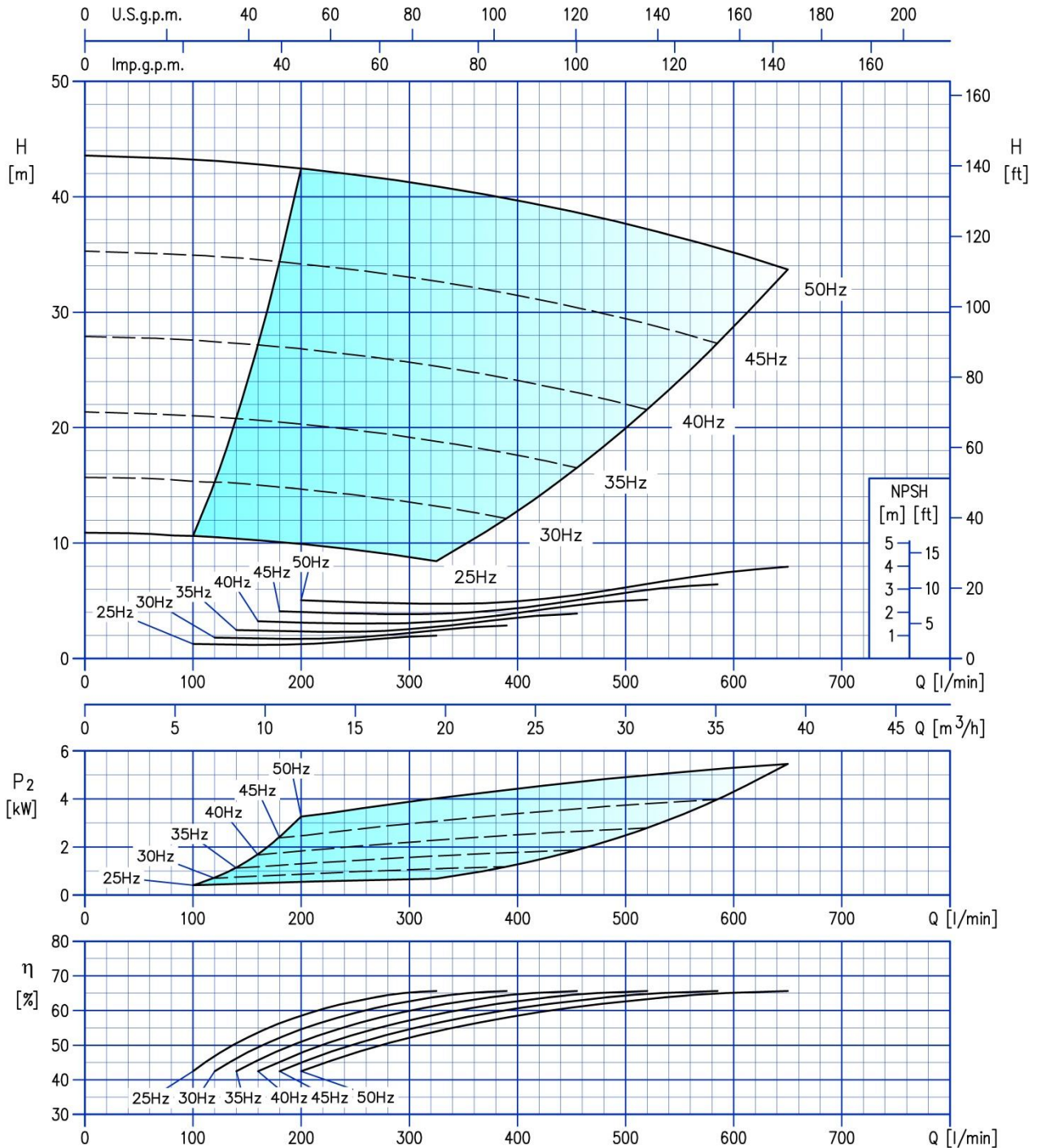
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-160/4



Test standard: ISO 9906: 2012 - Grade 3B

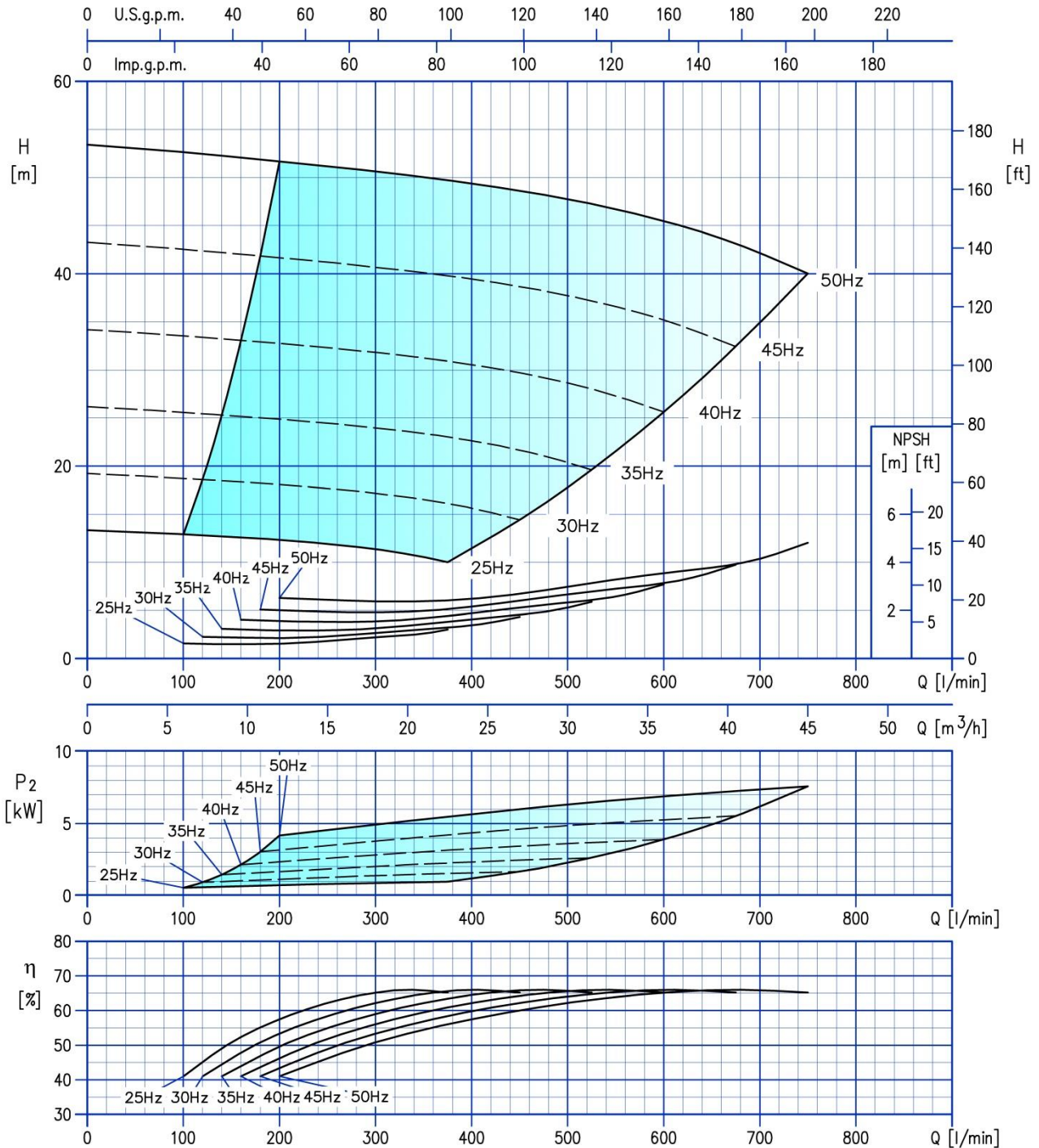
3E-K 50-200/5.5



Test standard: ISO 9906: 2012 - Grade 3B

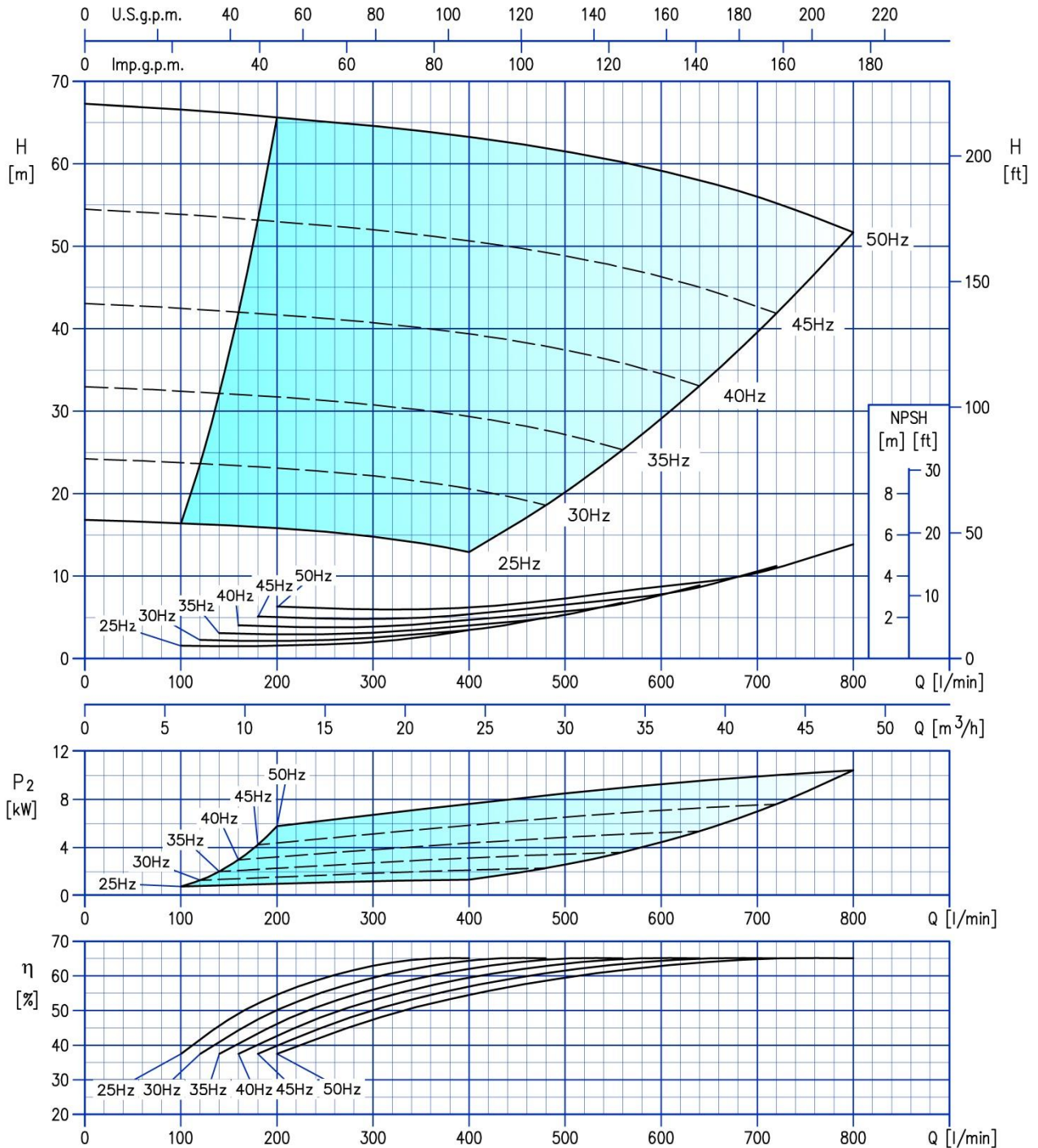
617

3E-K 50-200/7.5



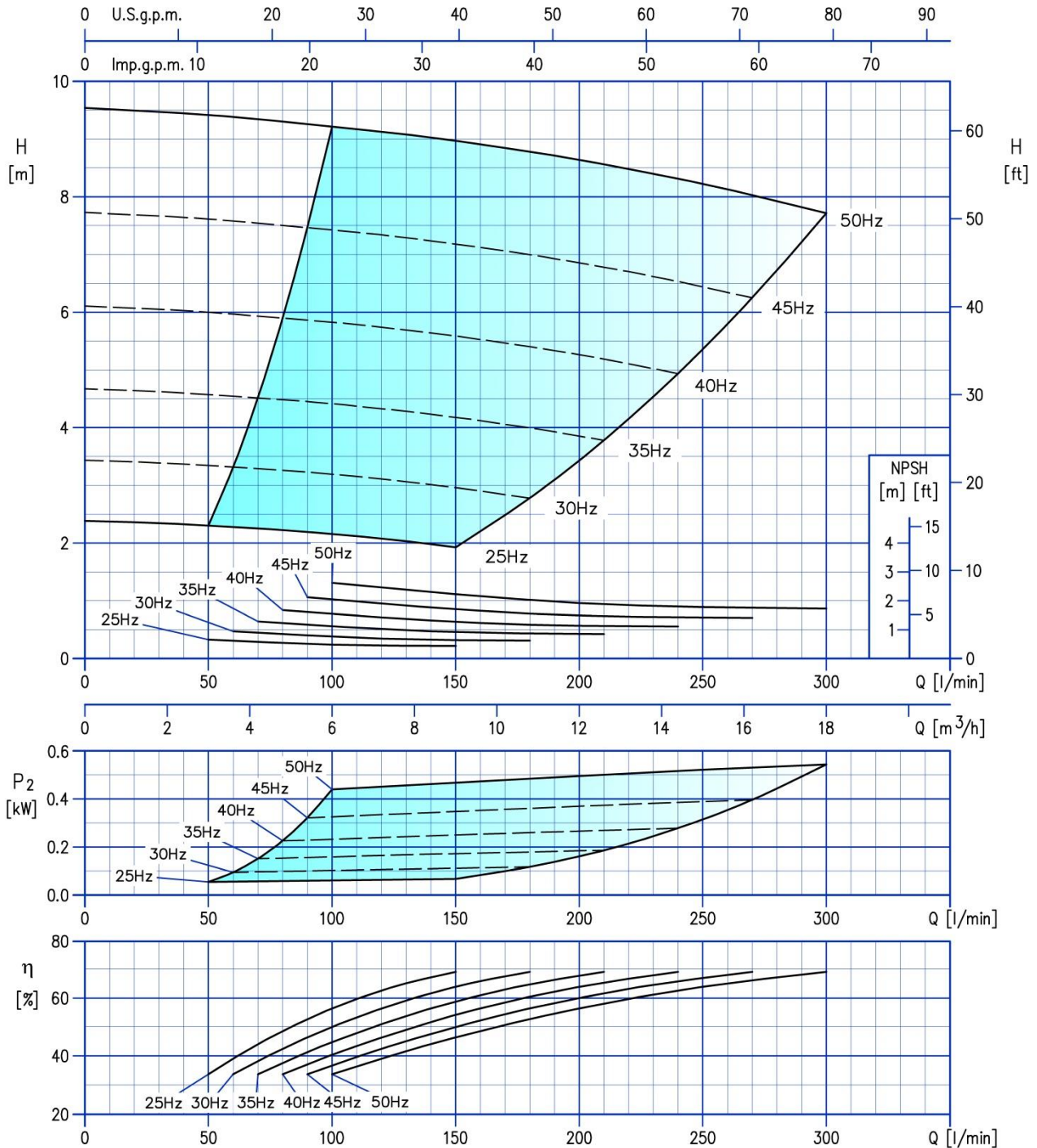
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 50-200/11



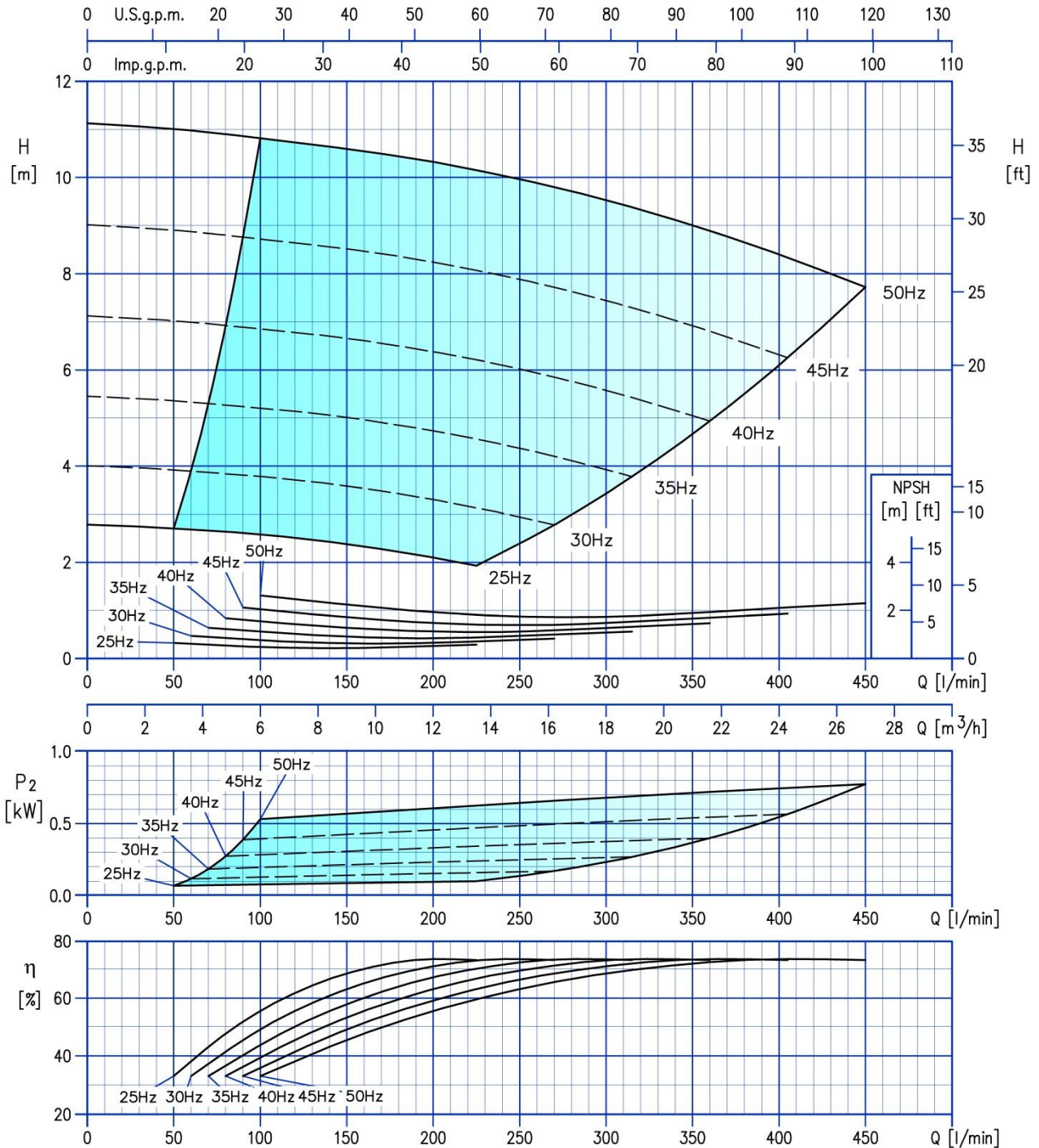
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 65-100/0.55



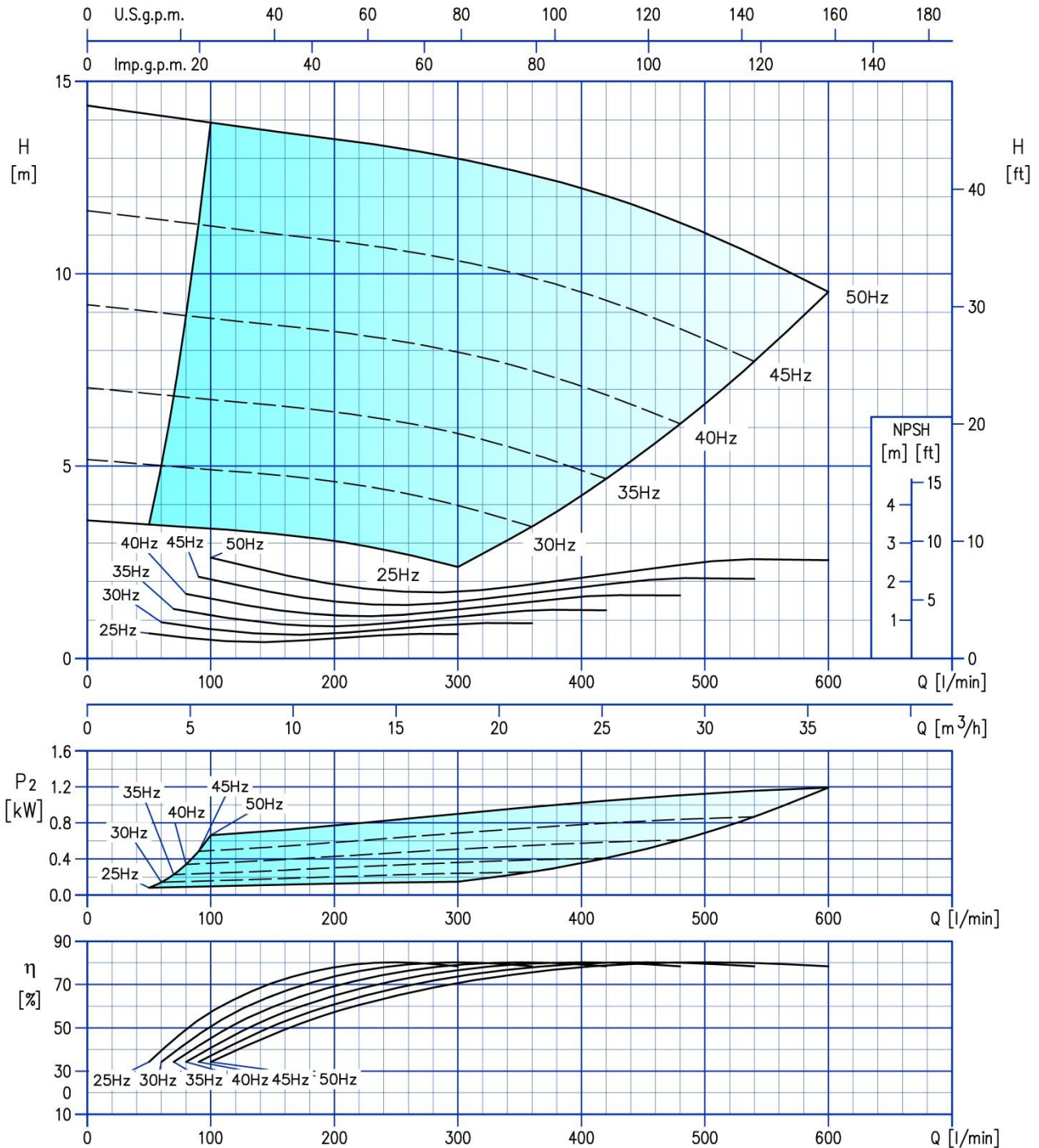
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 65-100/0.75



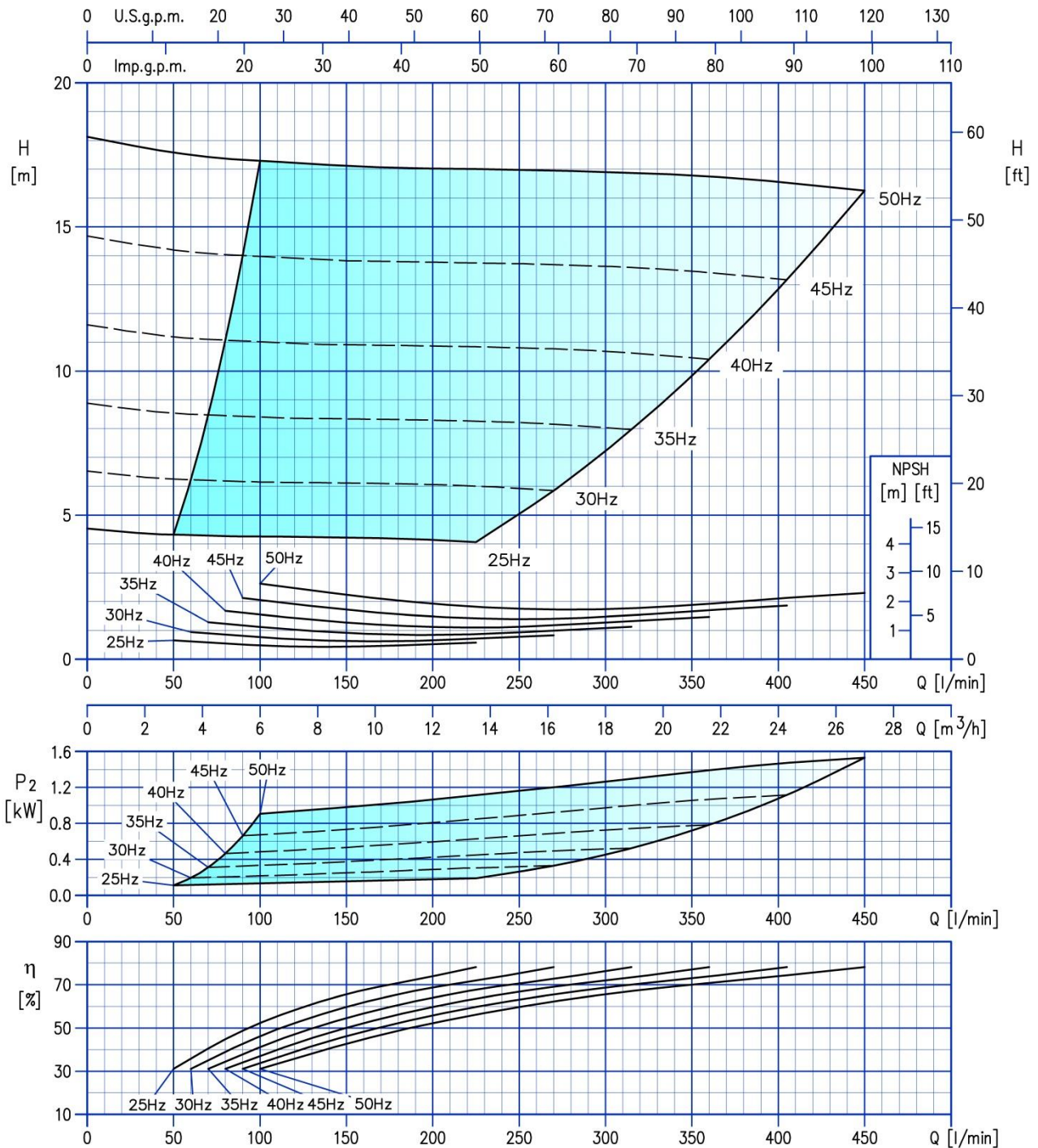
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 65-100/1.1



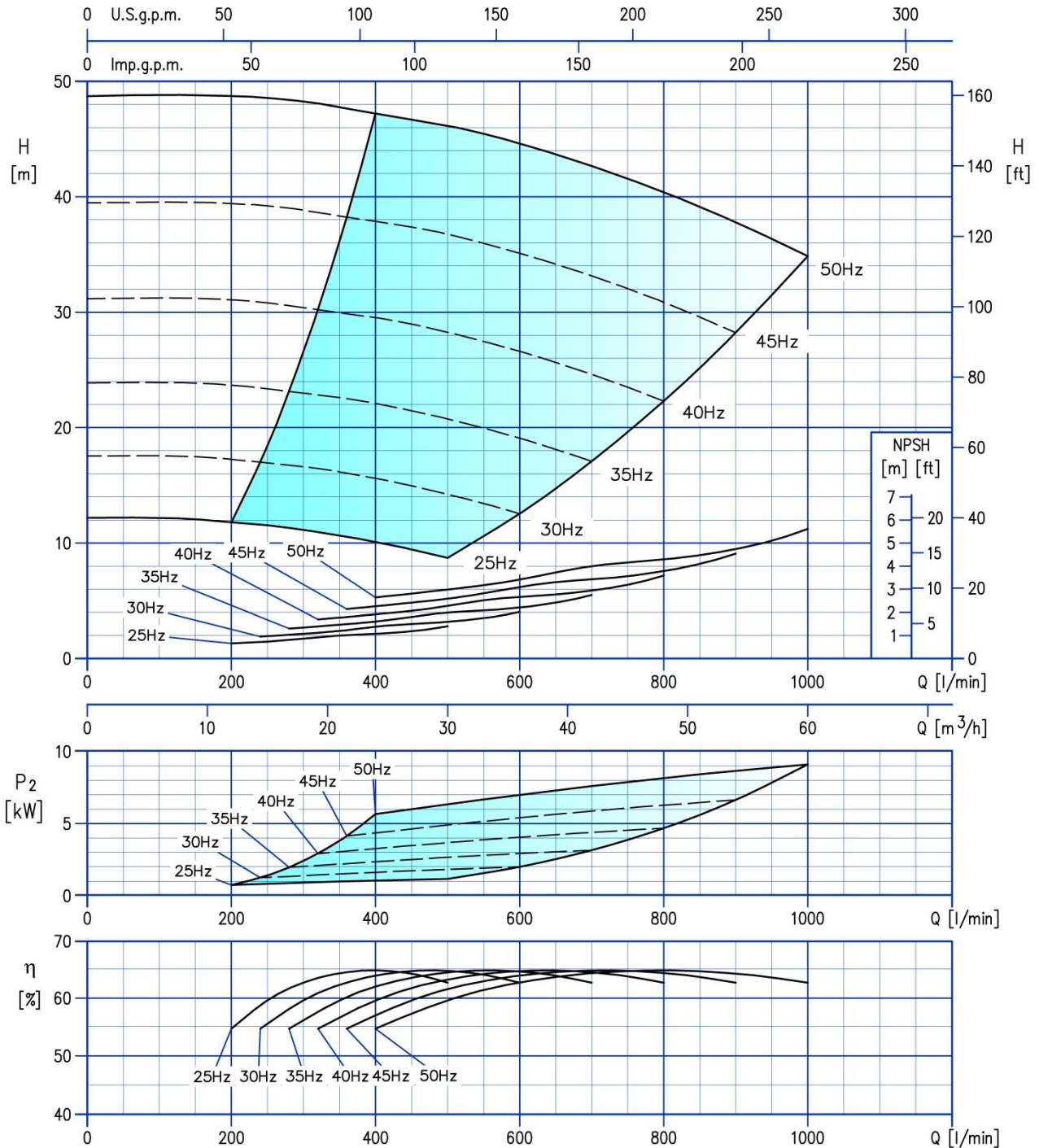
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 65-100/1.5



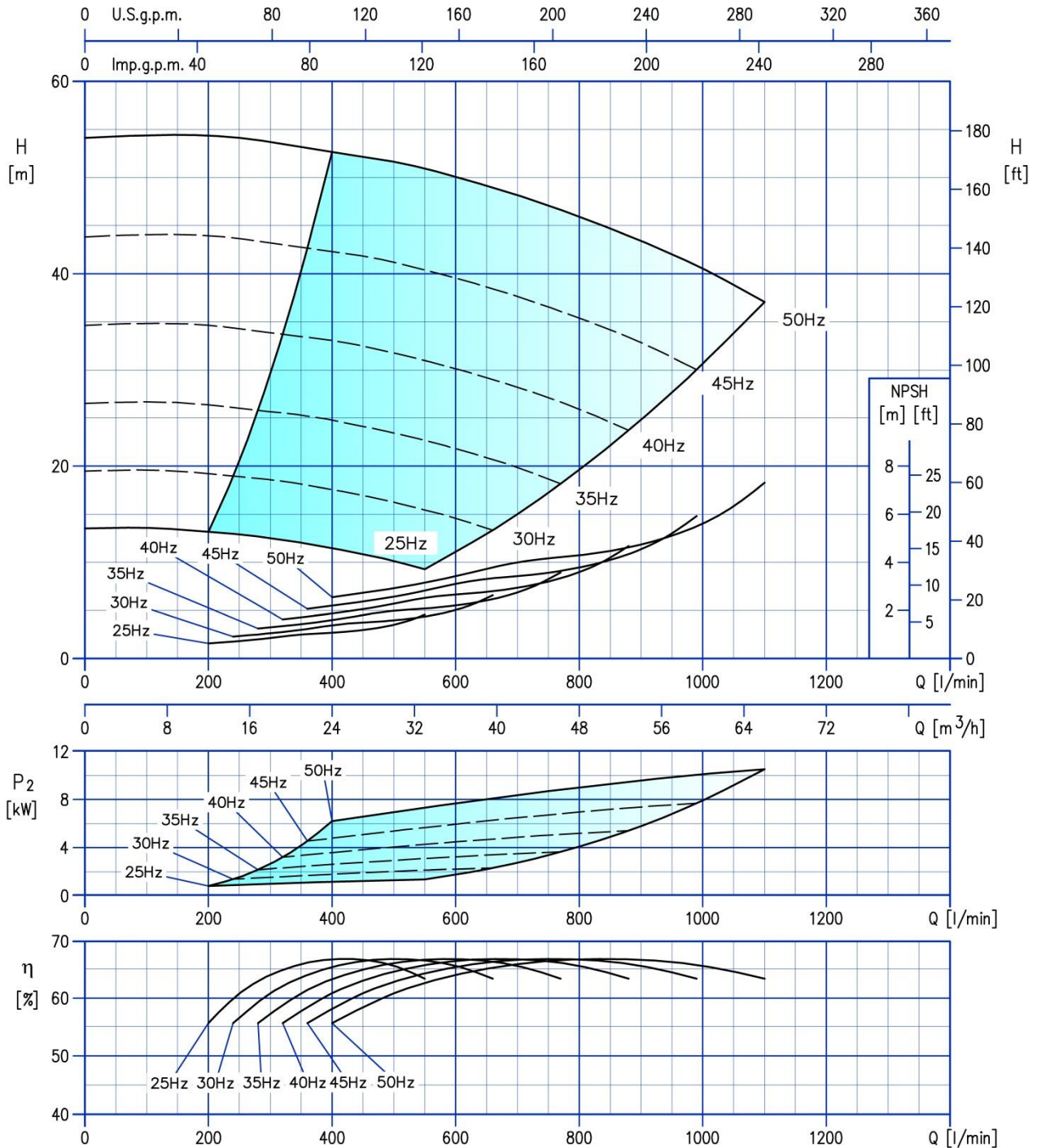
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 65-200/9.2



Test standard: ISO 9906: 2012 - Grade 3B

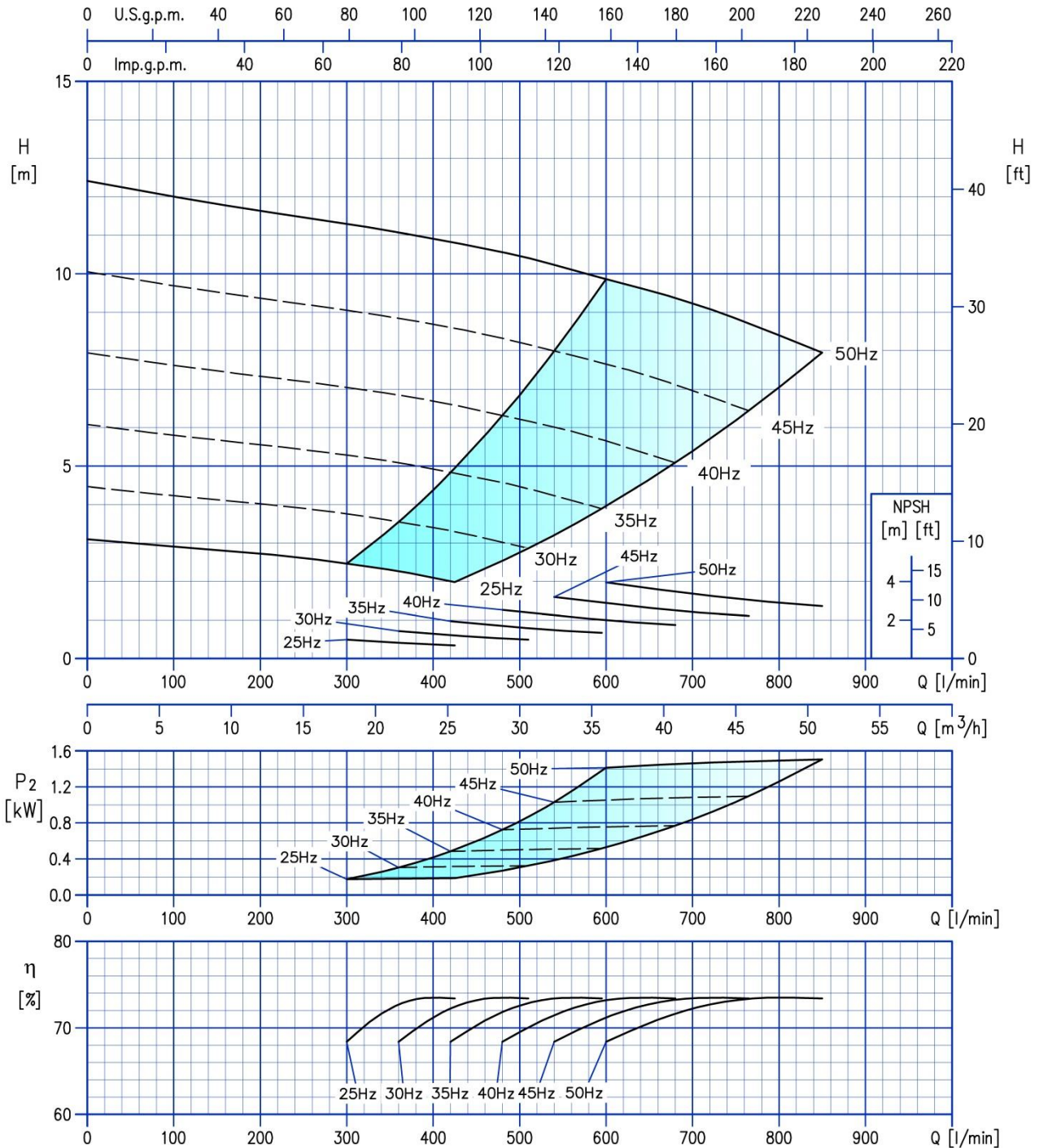
3E-K 65-200/11



Test standard: ISO 9906: 2012 - Grade 3B

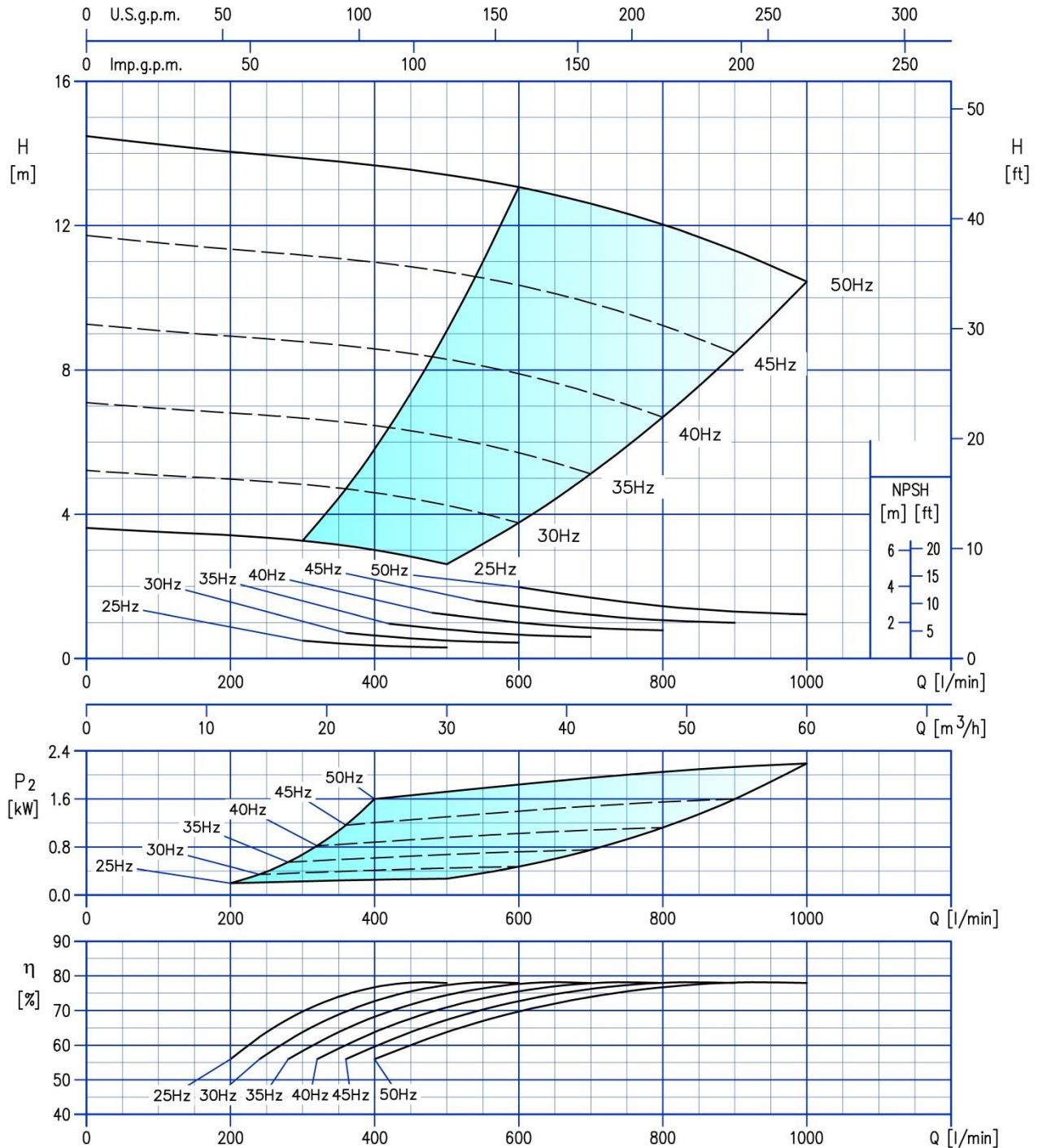
625

3E-K 80-100/1.5



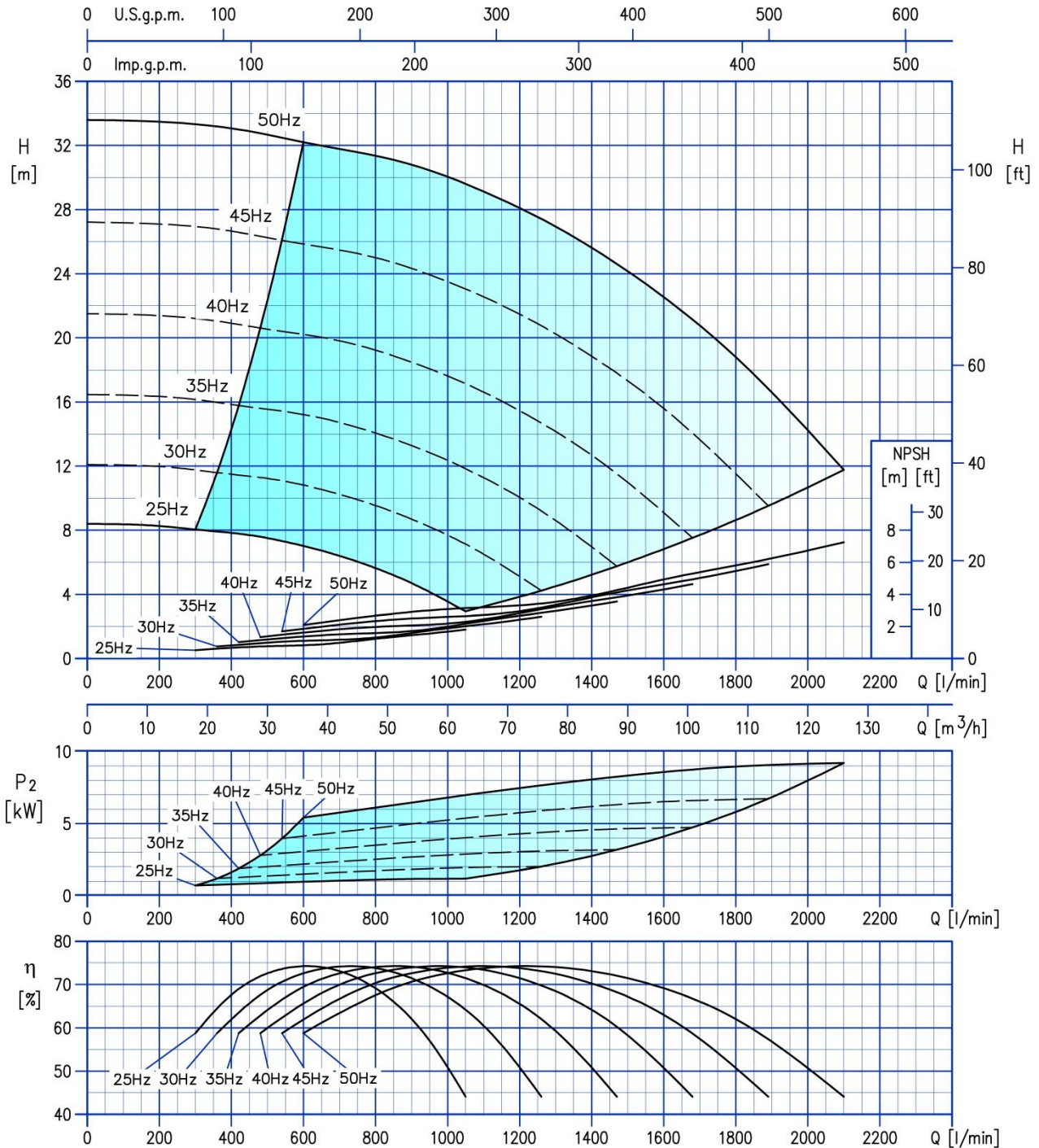
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 80-100/2.2



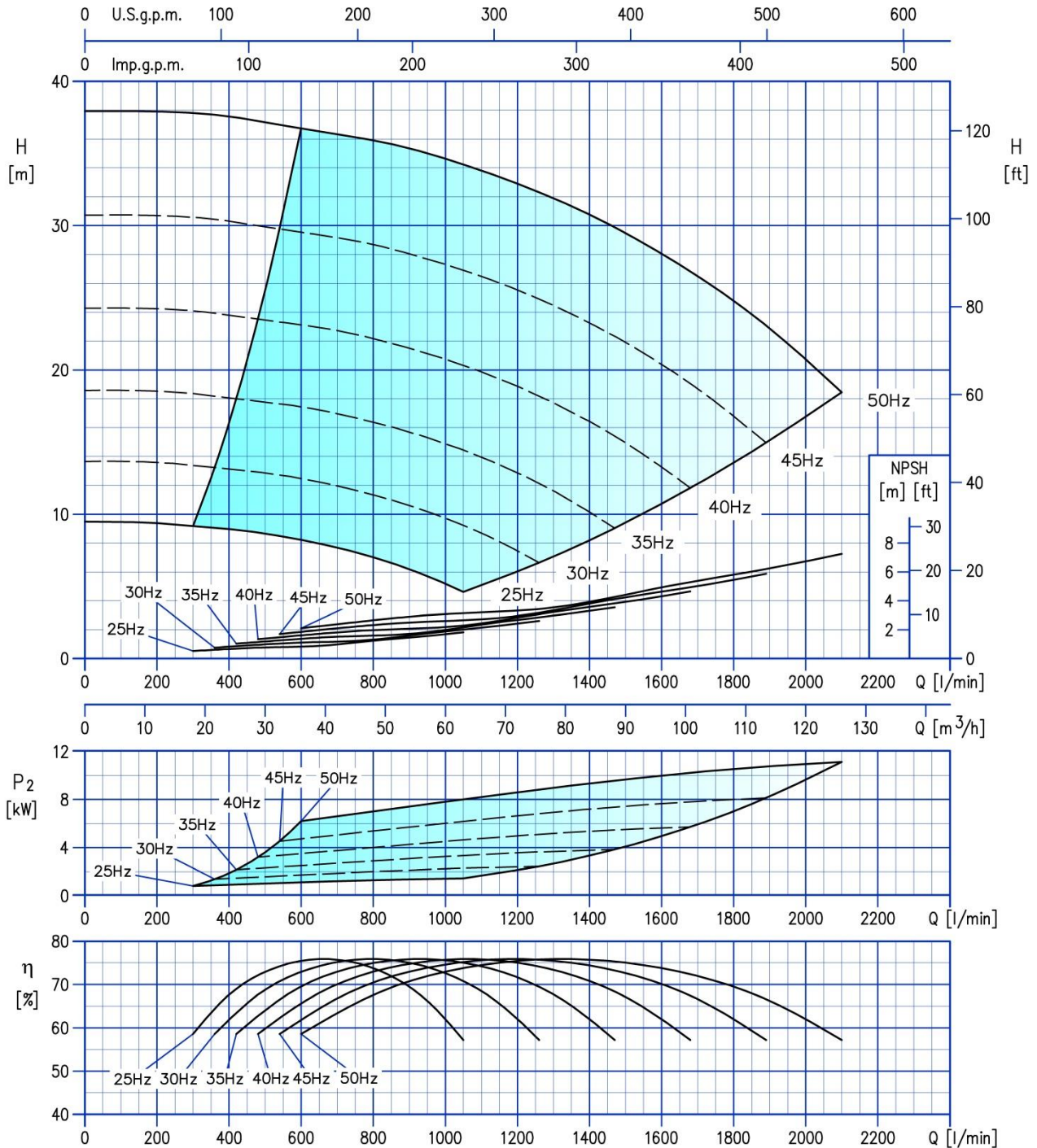
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 80-160/9.2



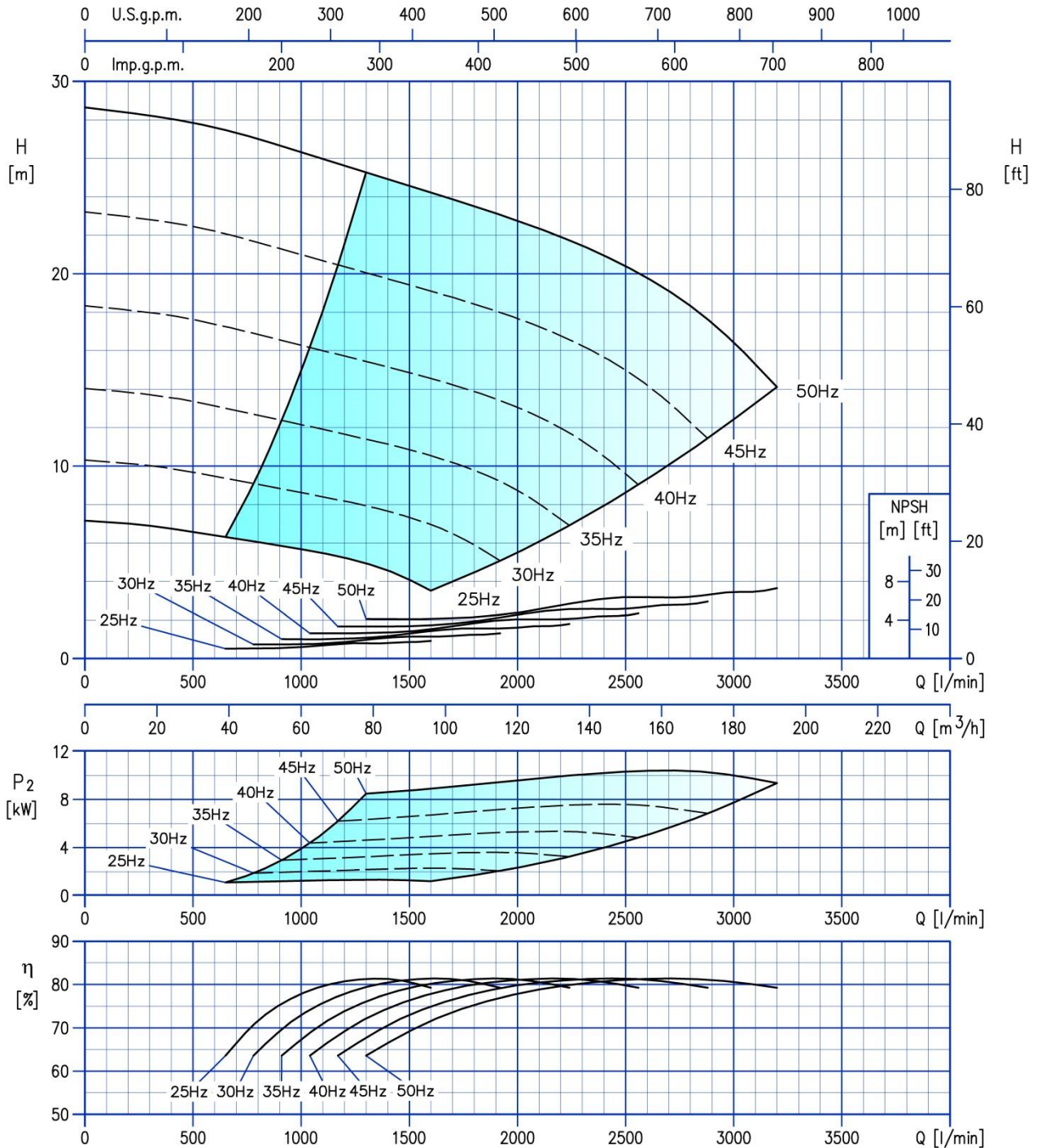
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 80-160/11



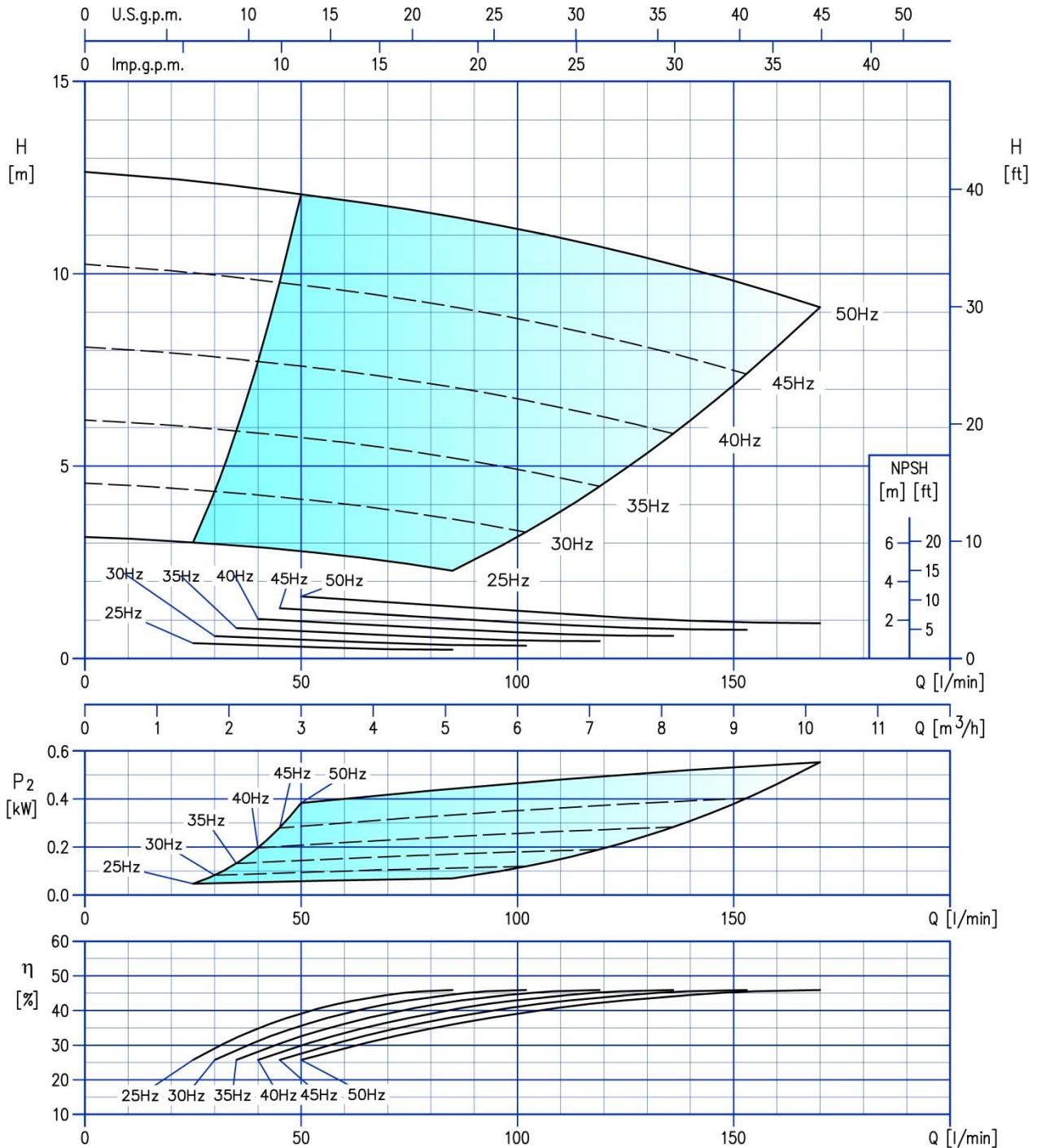
Test standard: ISO 9906: 2012 - Grade 3B

3E-K 100-160/11



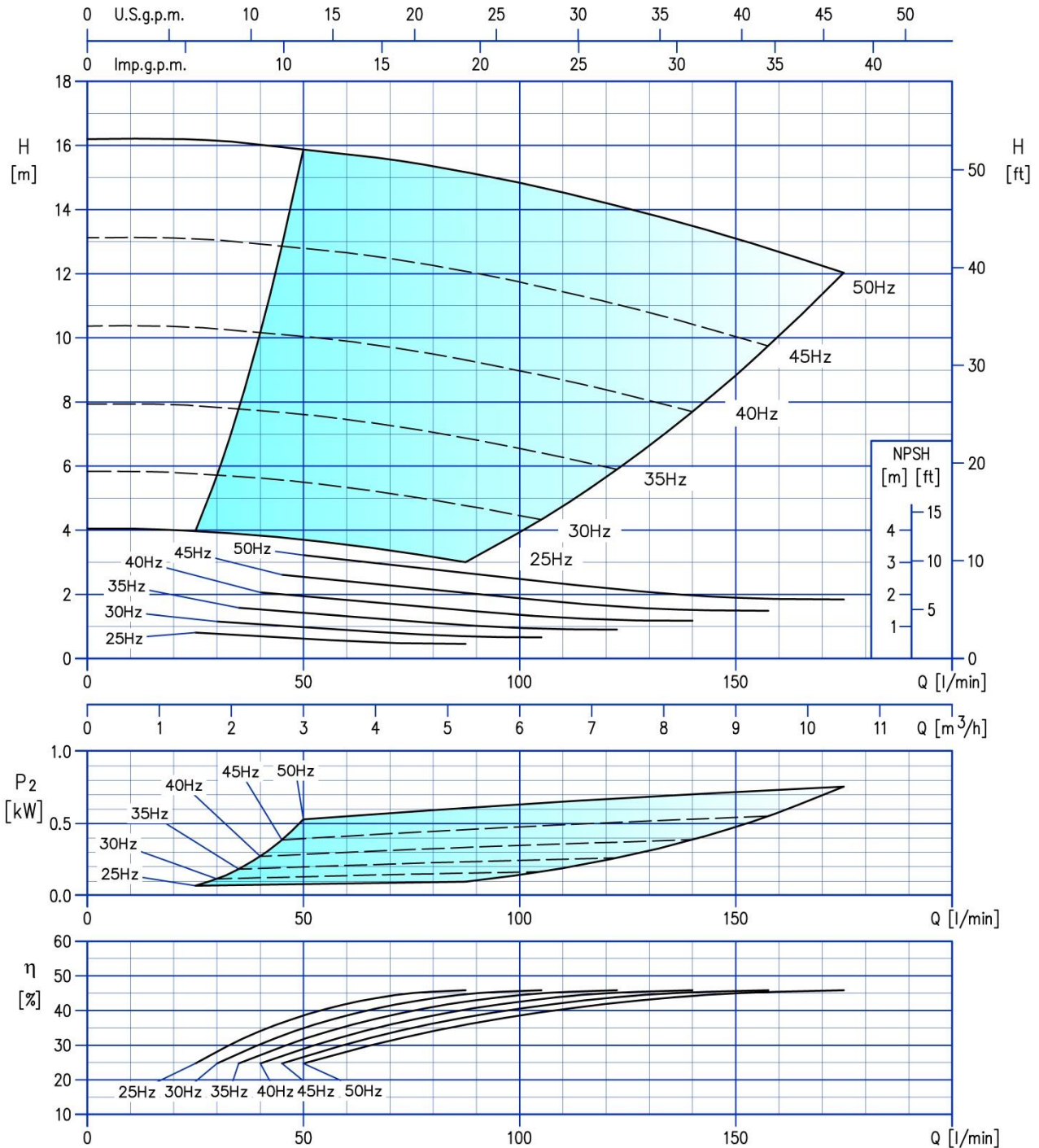
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 40-200/0.55



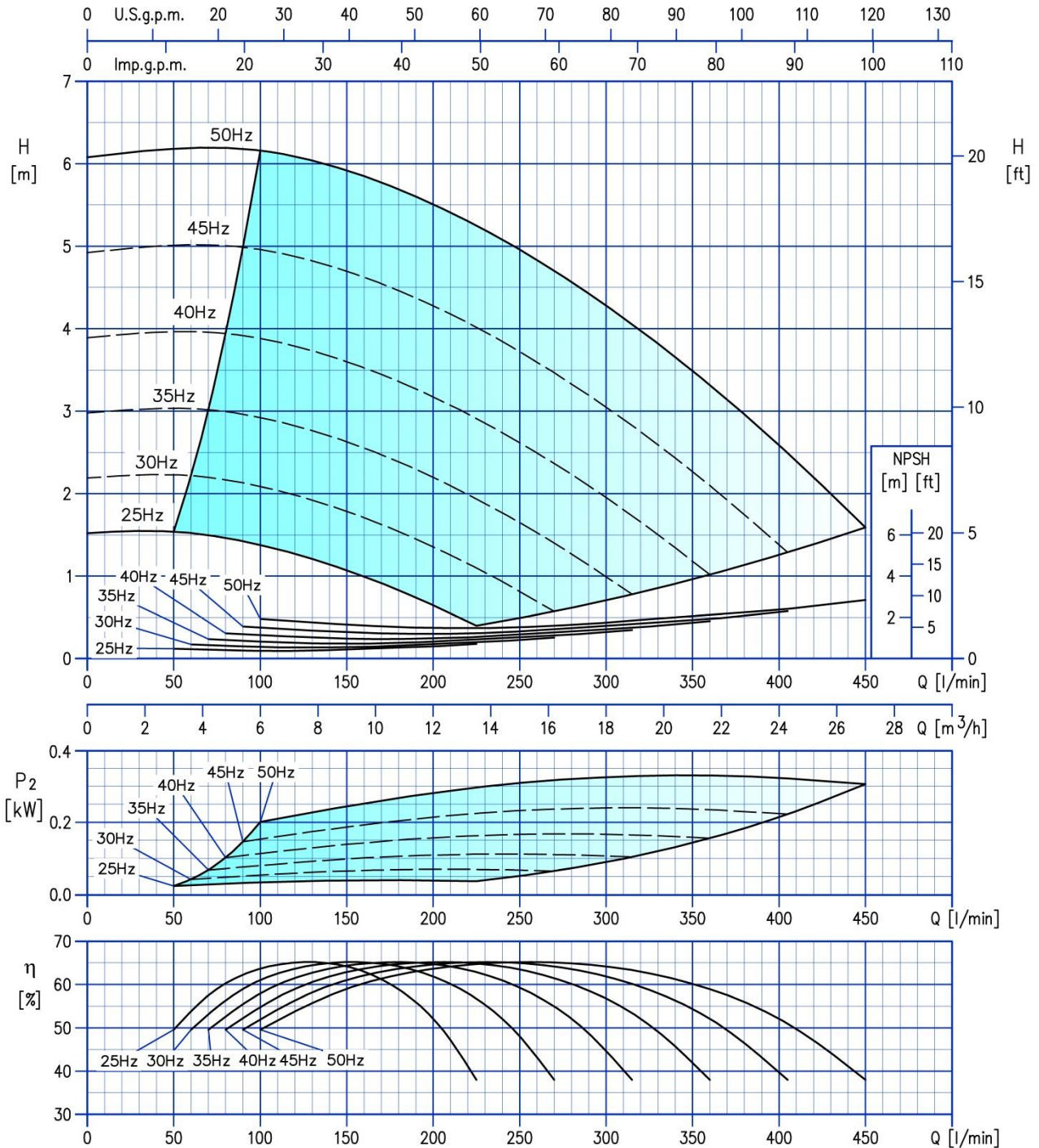
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 40-200/0.75



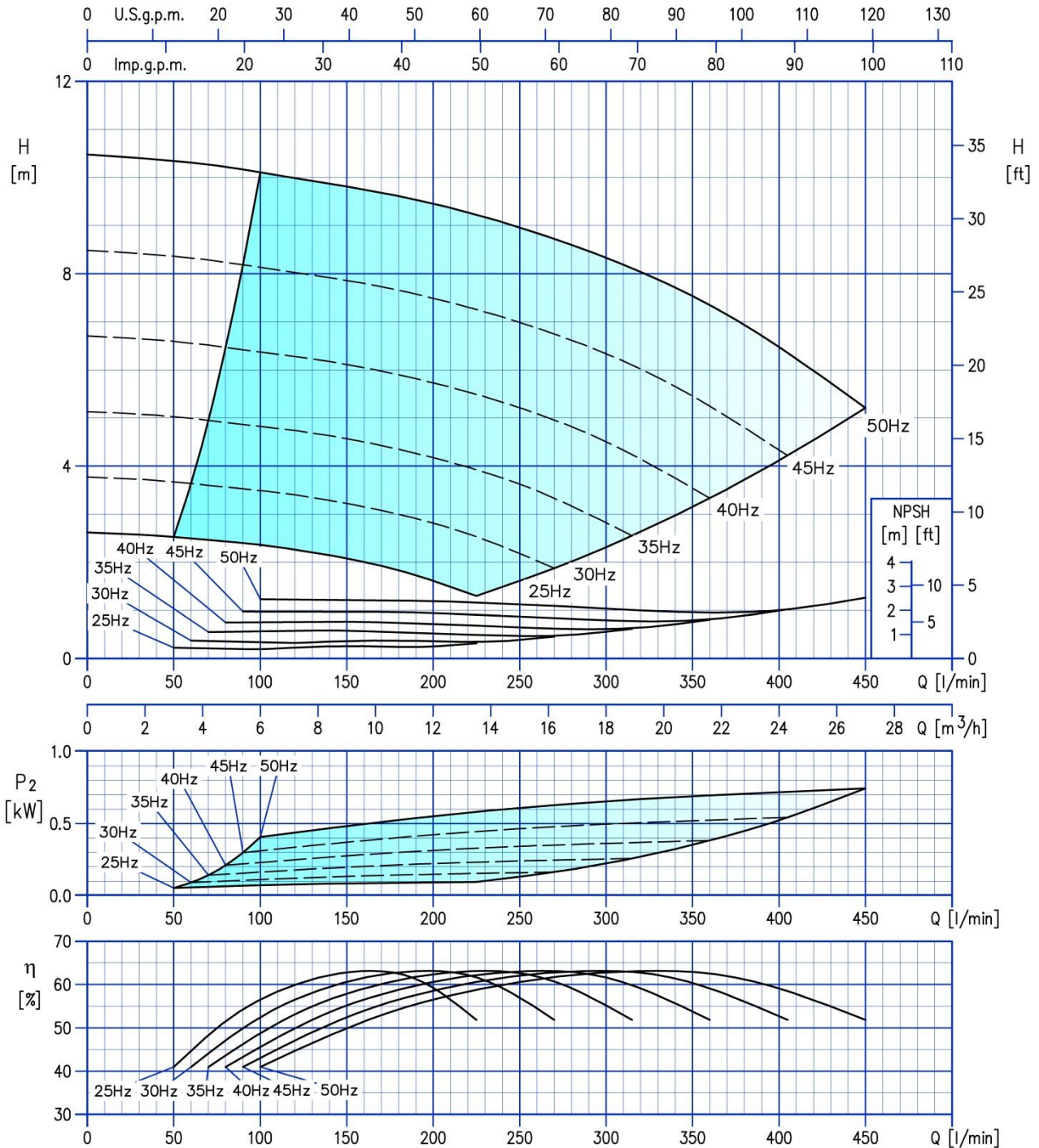
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 50-125/0.37



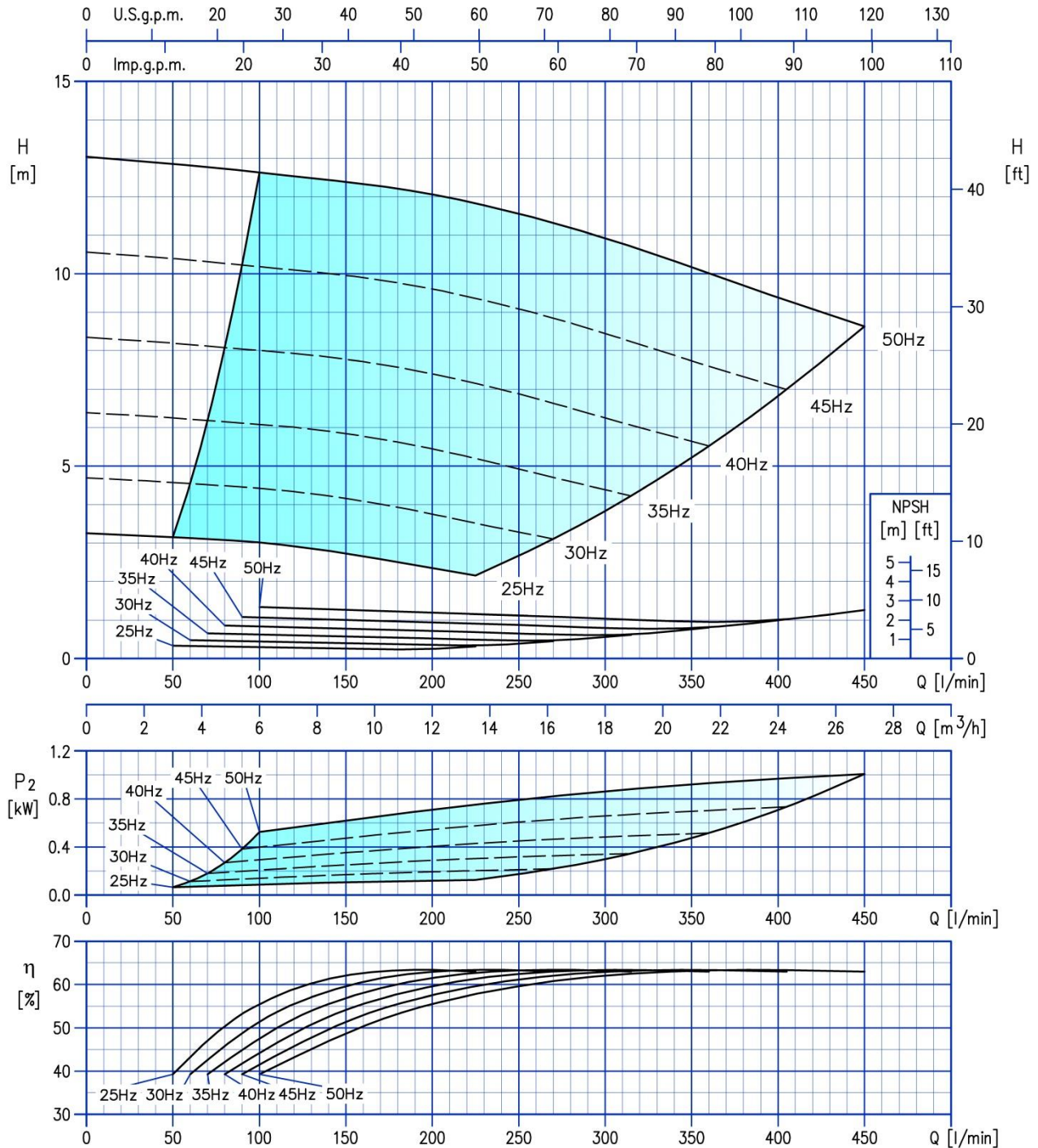
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 50-200/0.75



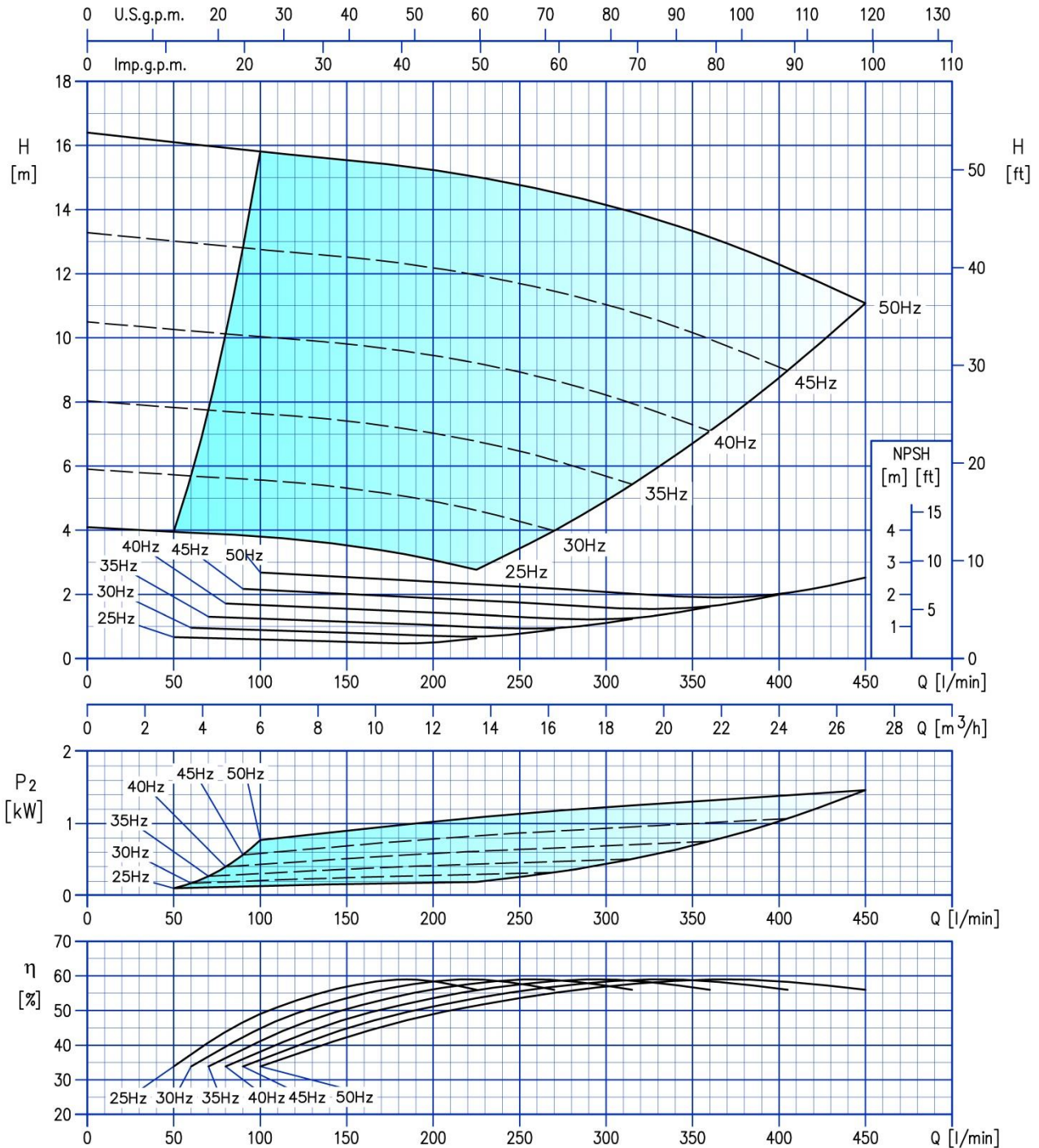
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 50-200/1.1



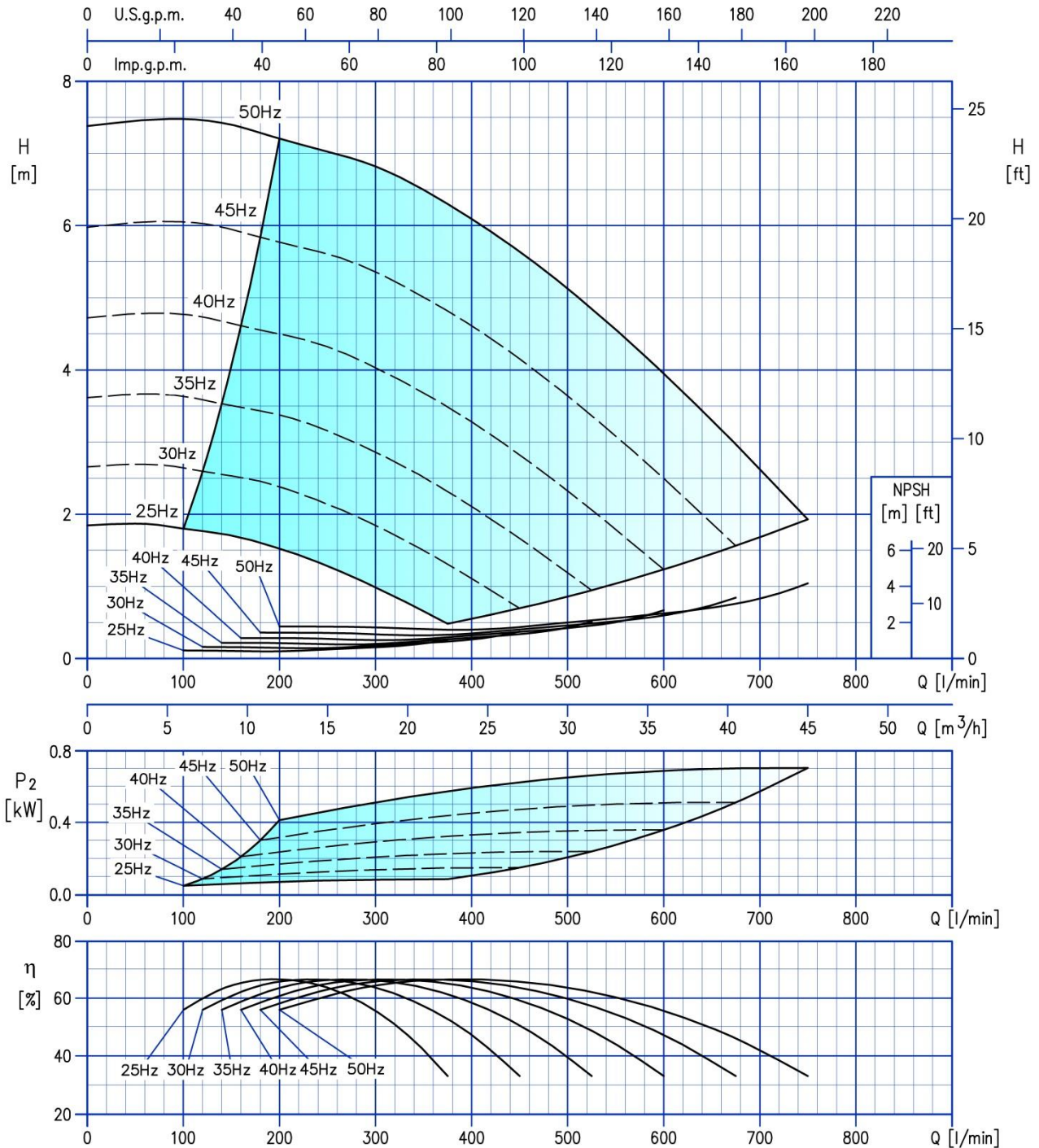
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 50-200/1.5



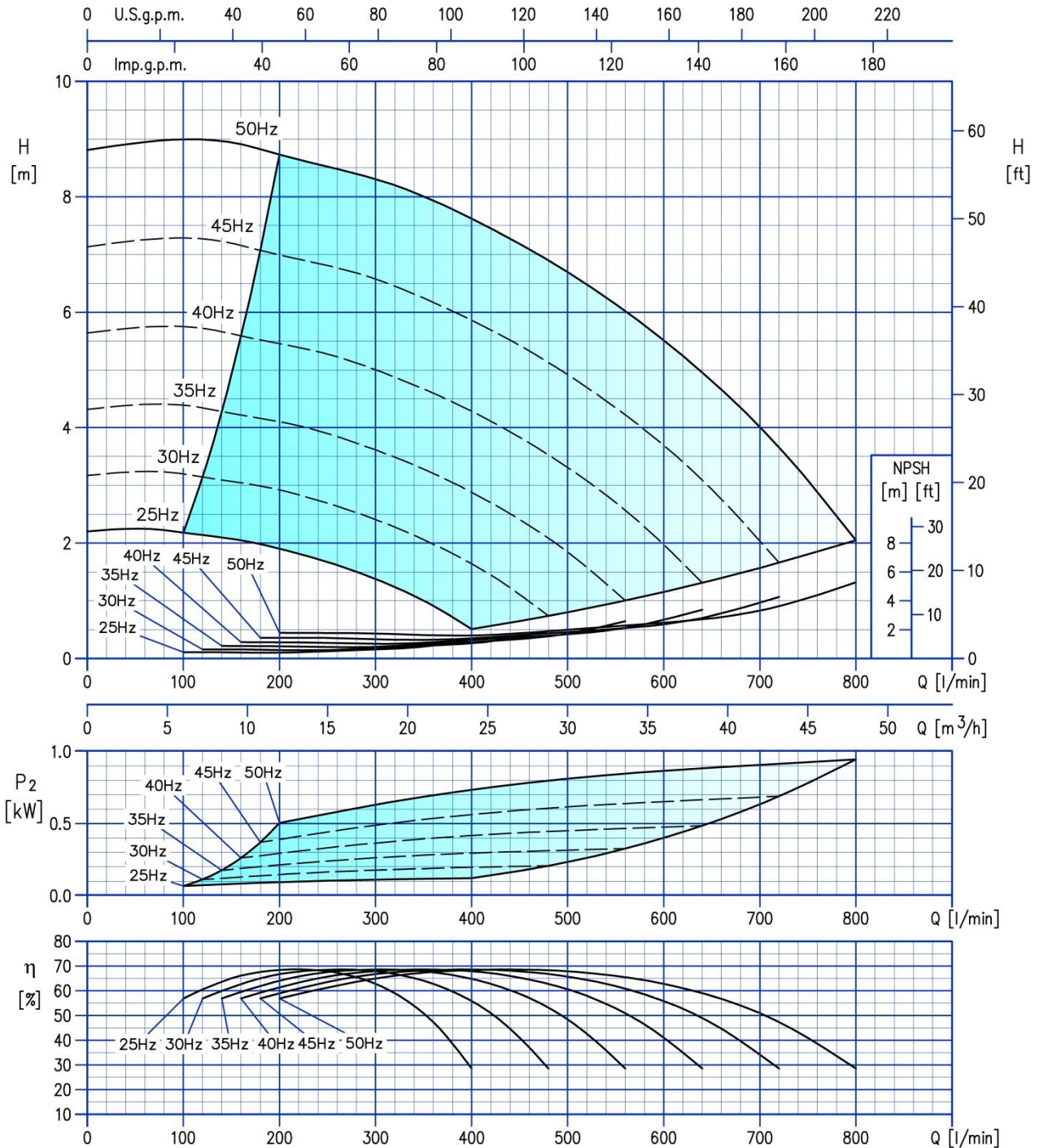
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 65-160/0.75



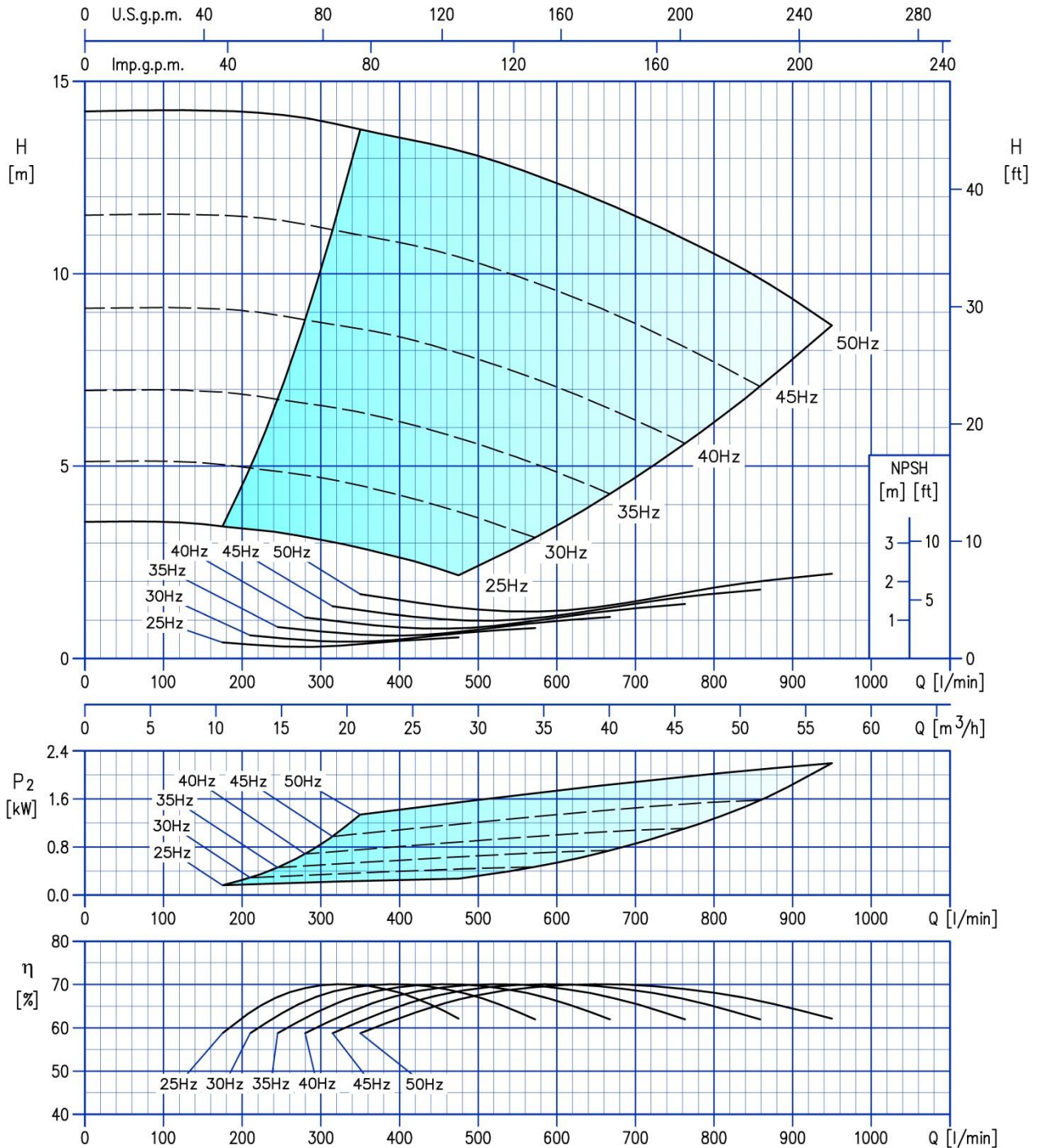
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 65-160/1.1



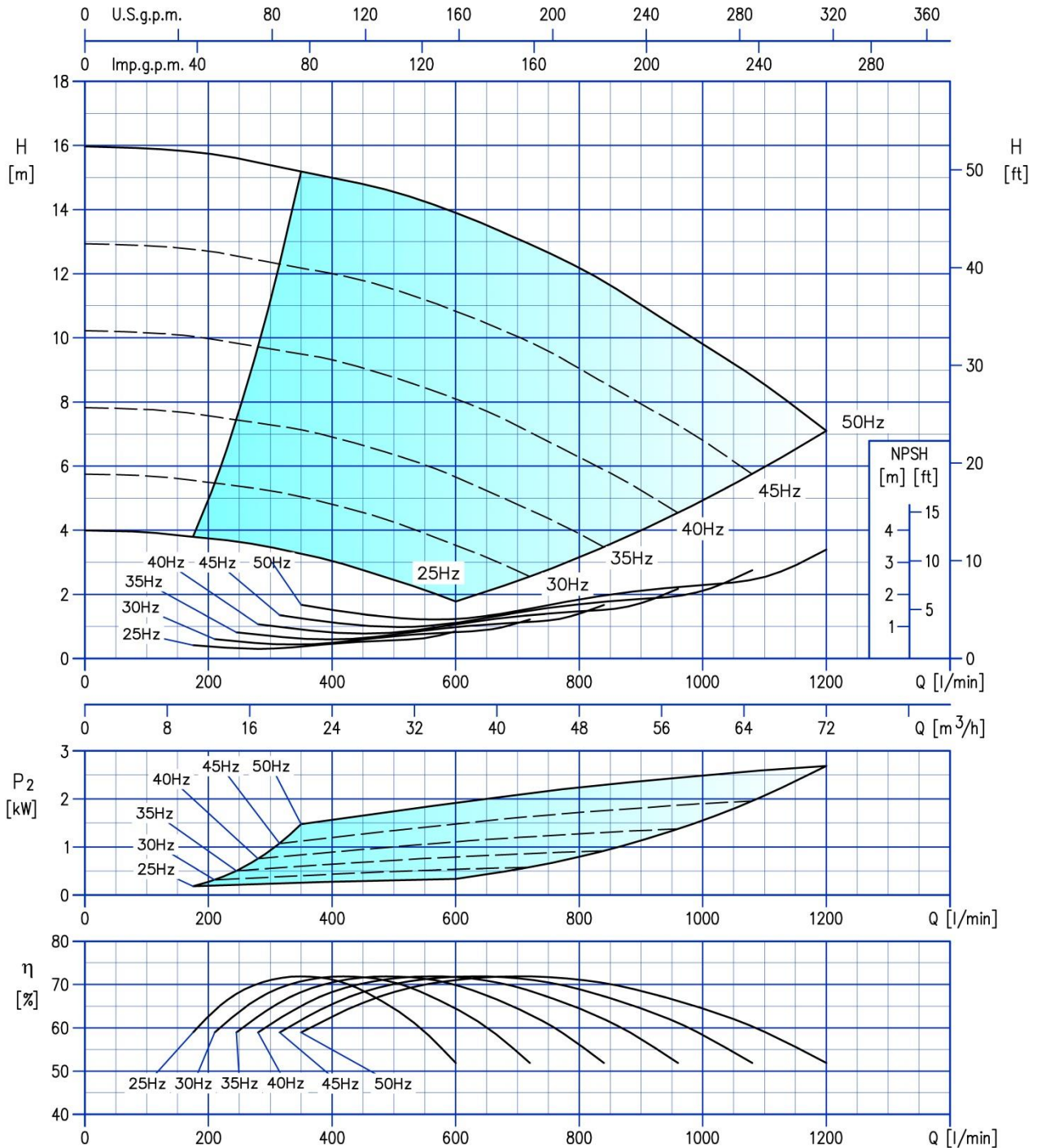
Test standard: ISO 9906: 2012 - Grade 3B

3E-K4 80-200/2.2



Test standard: ISO 9906: 2012 - Grade 3B

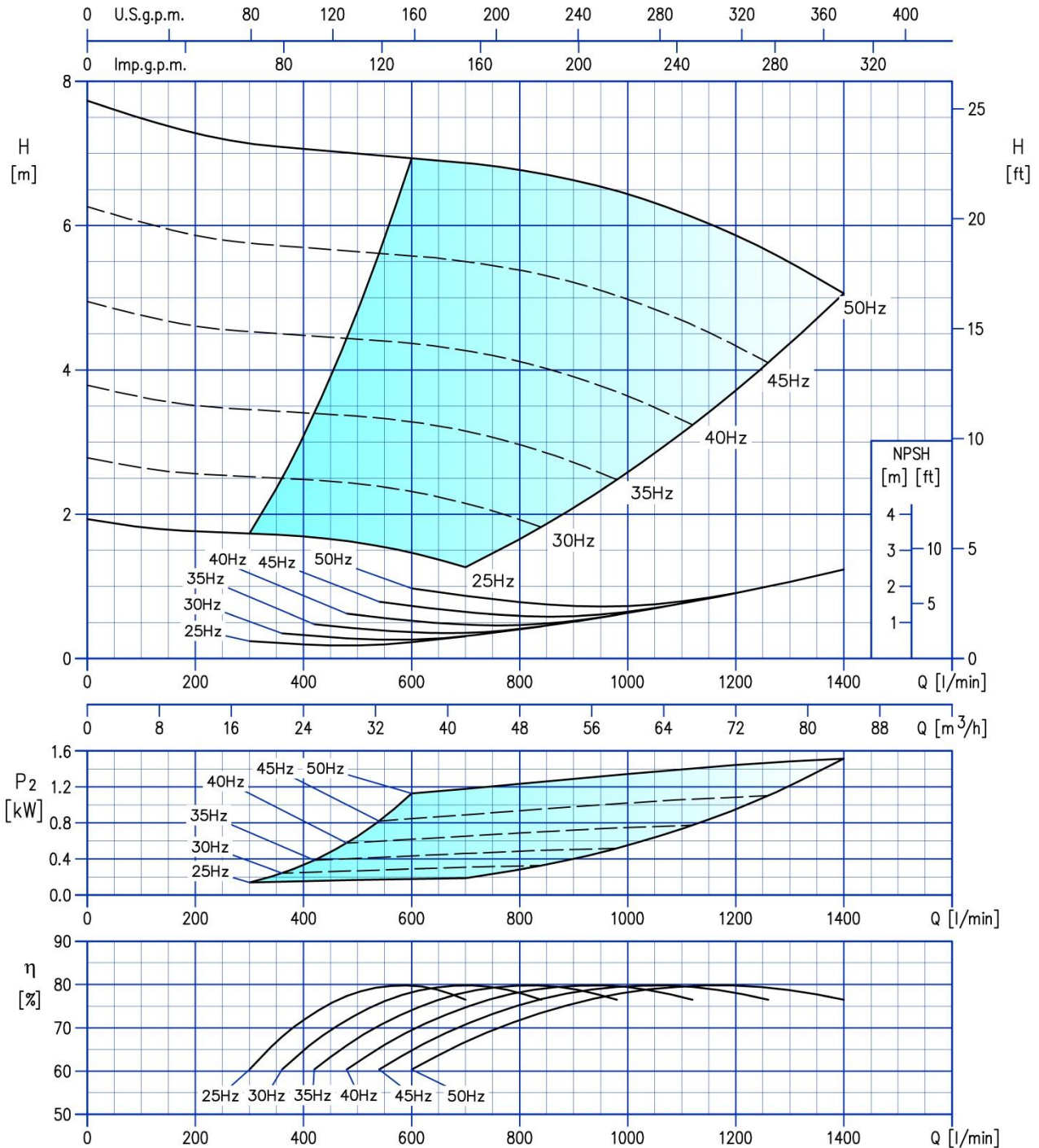
3E-K4 80-200/3



Test standard: ISO 9906: 2012 - Grade 3B

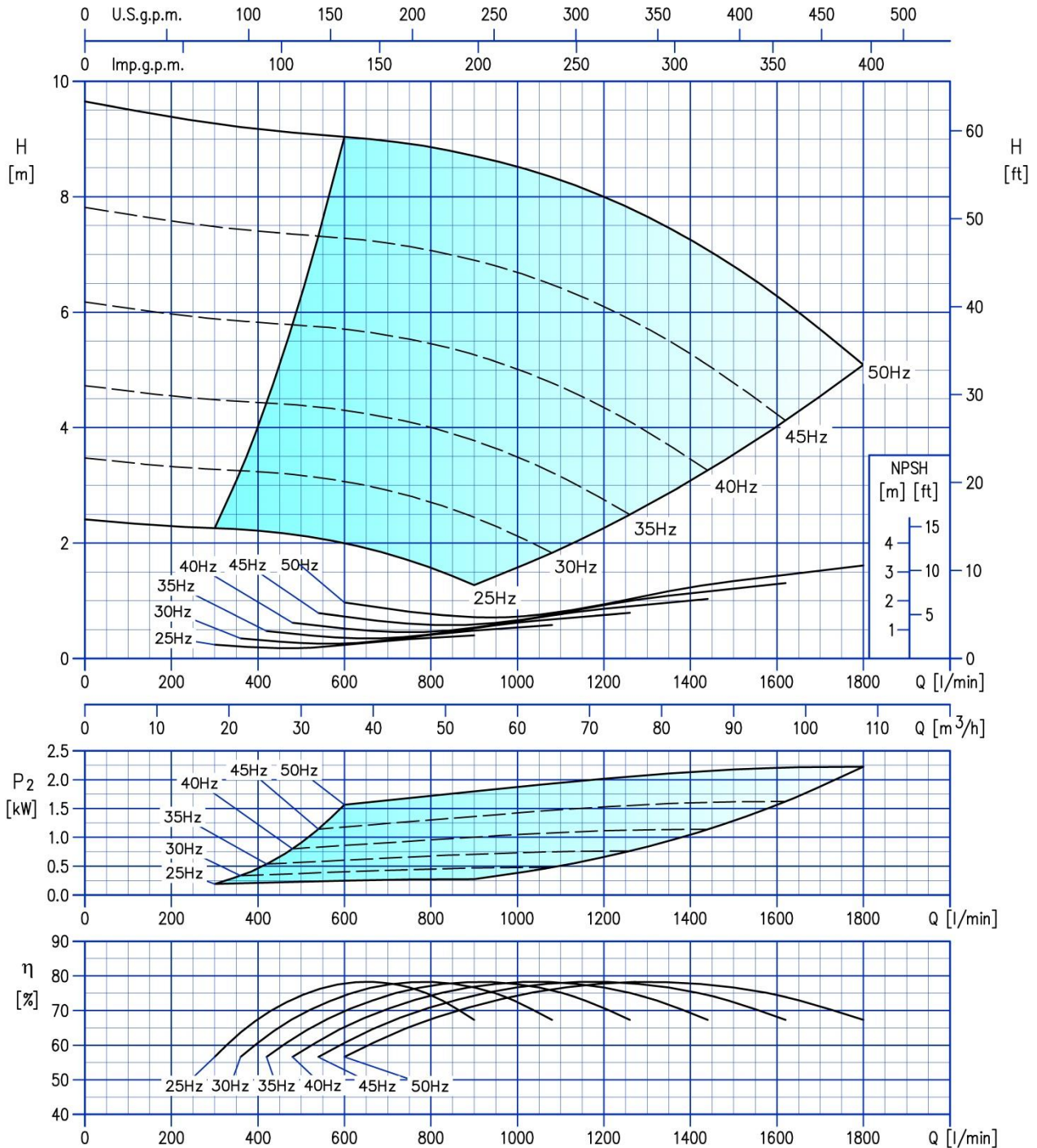
640

3E-K4 100-160/1.5



Test standard: ISO 9906: 2012 - Grade 3B

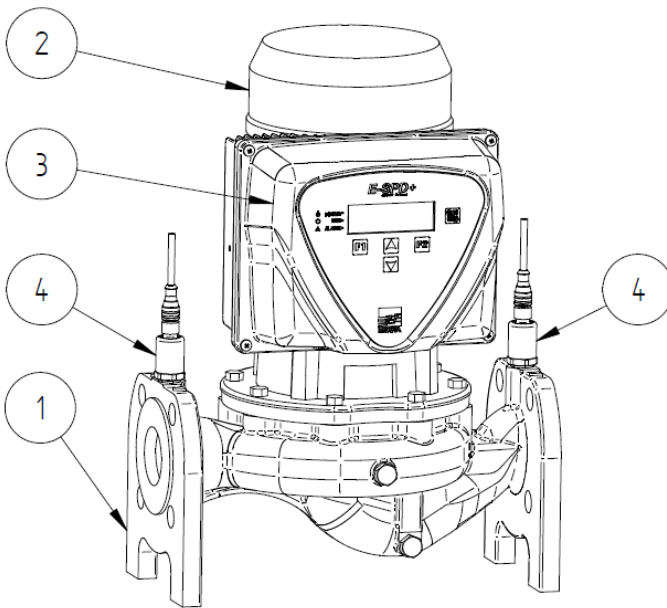
3E-K4 100-160/2.2



Test standard: ISO 9906: 2012 - Grade 3B

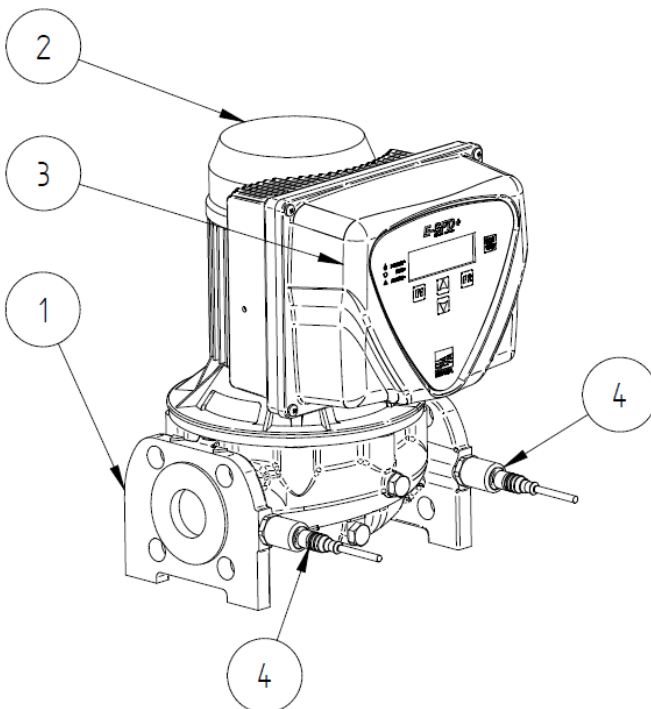
PUMP WITH INVERTER CONSTRUCTION

3E-K(.) 32-125
 3E-K(.) 40-160
 3E-K(.) 50-100, 50-125, 50-160
 3E-K(.) 65-100, 65-160
 3E-K(.) 80-100



N°	PART NAME	Quantity
1	Pump	1
2	Electric motor	1
3	E-SPD+	1
4	Pressure transducer	2

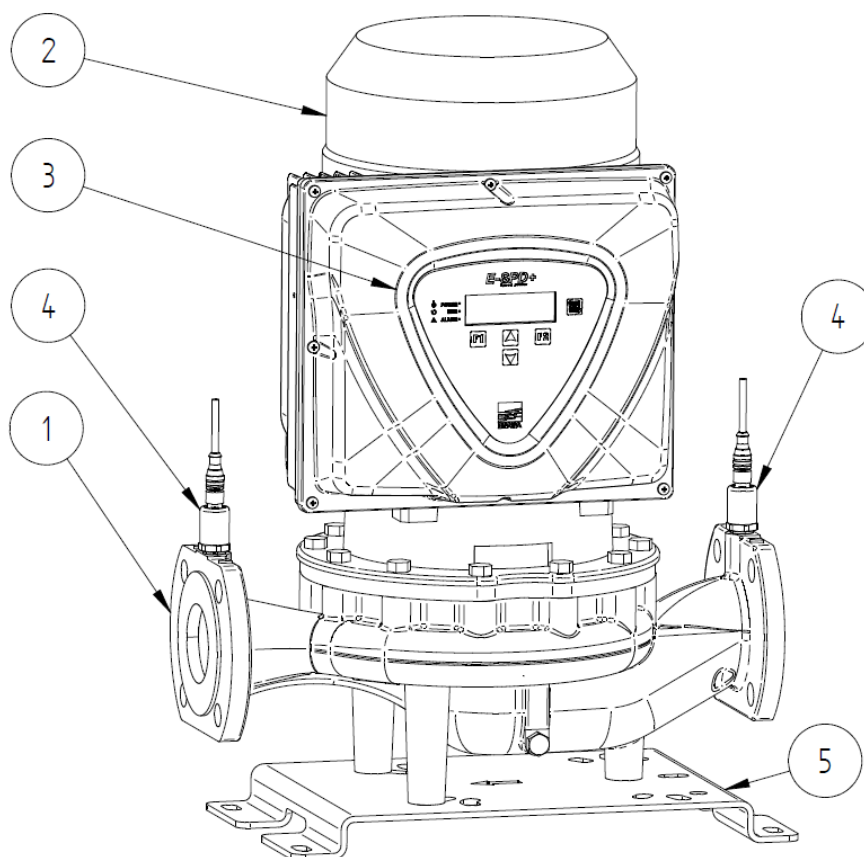
3E-K(.) 40-200



N°	PART NAME	Quantity
1	Pump	1
2	Electric motor	1
3	E-SPD+	1
4	Pressure transducer	2

643

3E-K(.) 50-200
 3E-K(.) 65-200
 3E-K(.) 80-160
 3E-K(.) 100-160

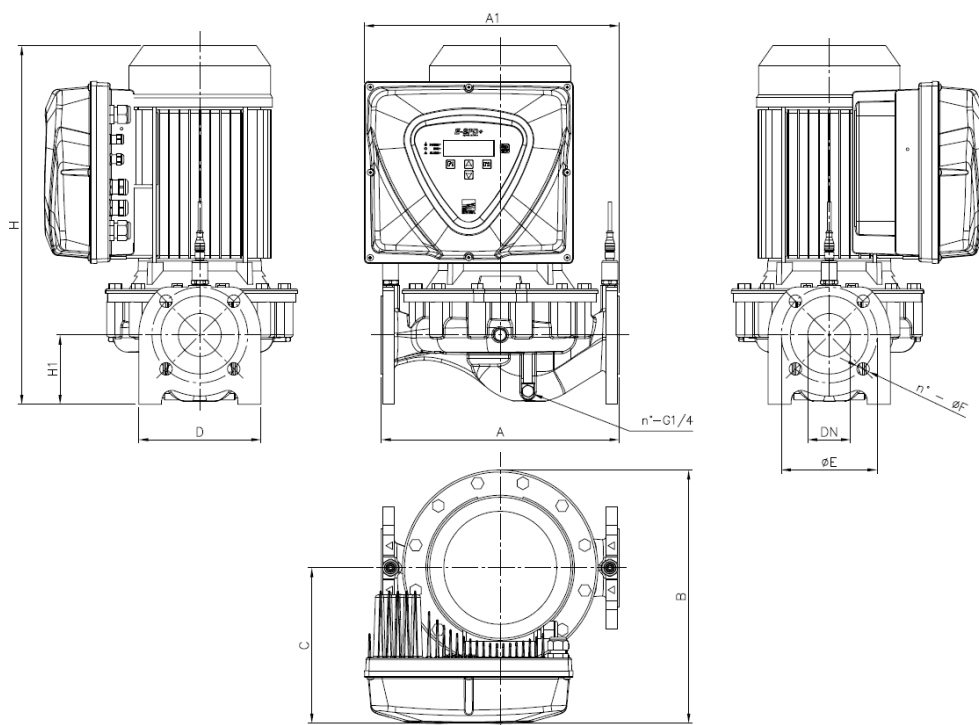


N°	PART NAME	Quantity
1	Pump	1
2	Electric motor	1
3	E-SPD+	1
4	Pressure transducer	2
5	Base plate [1]	1

[1] only for 11kW models and above

OVERALL DIMENSIONS PUMP WITH INVERTER 2 poles

3E-K 32, 40, 50-100, 50-125, 50-160



Pump with Inverter	Dimensions [mm]												
	kW	DN	A	A1 *	B	C	H	H1	D	ØE	n° - ØF	n° - G1/4	Weight [kg]
3E-K 32-125/0,37 (.)T	0.37	32	280	-	300	196	347	79	140	100	4 - Ø19	4	21
3E-K 32-125/0,55 (.)T	0.55	32	280	-	300	196	347	79	140	100	4 - Ø19	4	23
3E-K 32-125/0,75 (.)T	0.75	32	280	-	300	196	347	79	140	100	4 - Ø19	4	24
3E-K 40-160/1,1 (.)T	1.1	40	320	341	341	214	394	67	150	110	4 - Ø19	4	33
3E-K 40-160/1,5 (.)T	1.5	40	320	338	341	214	394	67	150	110	4 - Ø19	4	38
3E-K 40-160/2,2 (.)T	2.2	40	320	338	341	214	419	67	150	110	4 - Ø19	4	40
3E-K 40-200/3 TT	3	40	340	-	373	225	490	100	150	110	4 - Ø19	4	51
3E-K 40-200/4 TT	4	40	340	-	390	242	513	100	150	110	4 - Ø19	4	52
3E-K 40-200/7,5 TT	0.75	40	340	341	410	262	558	100	150	110	4 - Ø19	4	68
3E-K 50-100/0,37 (.)T	0.37	50	280	-	304	196	352	75	165	125	4 - Ø19	4	25
3E-K 50-100/0,55 (.)T	0.55	50	280	-	304	196	352	75	165	125	4 - Ø19	4	26
3E-K 50-100/0,75 (.)T	0.75	50	280	-	304	196	353	75	165	125	4 - Ø19	4	27
3E-K 50-125/1,5 (.)T	1.5	50	340	-	311	205	441	115	165	125	4 - Ø19	4	34
3E-K 50-125/2,2 (.)T	2.2	50	340	-	311	205	466	115	165	125	4 - Ø19	4	36
3E-K 50-160/3 TT	3	50	340	-	355	228	505	115	165	125	4 - Ø19	4	43
3E-K 50-160/4 TT	4	50	340	-	371	244	528	115	165	125	4 - Ø19	4	51

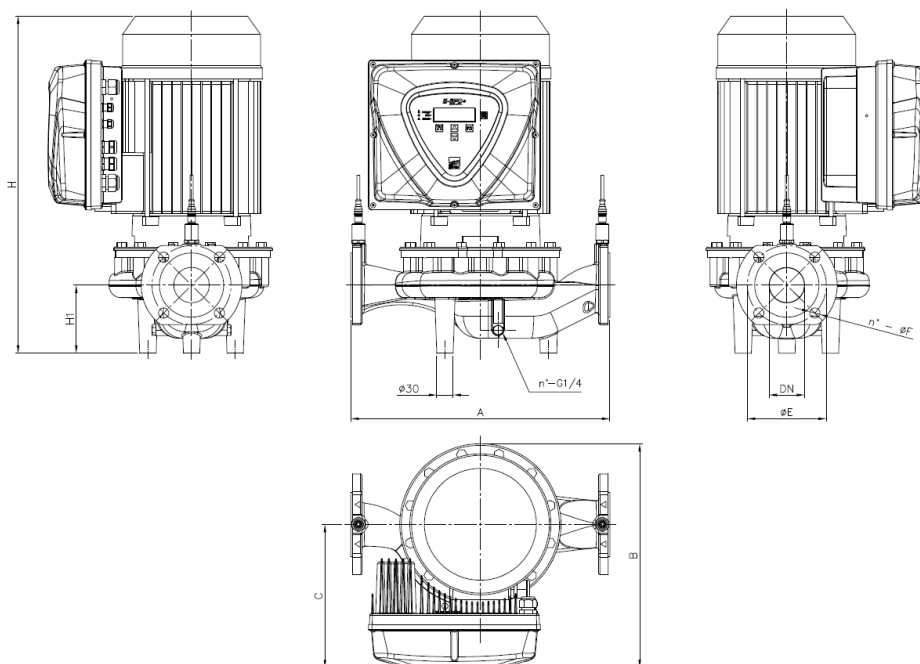
*: Only when "A1" is greater than "A"

3E-K 65-100, 80-100

Pump with Inverter	Dimensions [mm]												
	kW	DN	A	A1 *	B	C	H	H1	D	E	n°- ØF	n°- G1/4	Weight [kg]
3E-K 65-100/0,55 (.)T	0.55	65	340	-	300	196	353	82	185	145	4 - Ø19	4	26
3E-K 65-100/0,75 (.)T	0.75	65	340	-	300	196	352	82	185	145	4 - Ø19	4	28
3E-K 65-100/1,1 (.)T	1.1	65	340	-	310	205	408	82	185	145	4 - Ø19	4	30
3E-K 65-100/1,5 (.)T	1.5	65	340	-	310	205	408	82	185	145	4 - Ø19	4	32
3E-K 80-100/1,5 (.)T	1.5	80	340	-	300	196	353	82	185	145	4 - Ø19	4	40
3E-K 80-100/2,2 (.)T	2.2	80	340	-	300	196	352	82	185	145	4 - Ø19	4	42

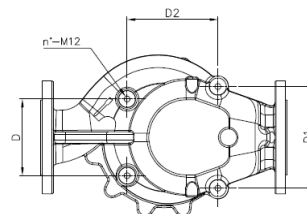
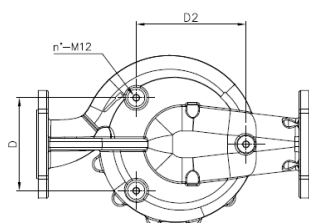
*: Only when "A1" is greater than "A"

3E-K 50-200/5.5/7.5, 65-200/9.2, 80-160/9.2



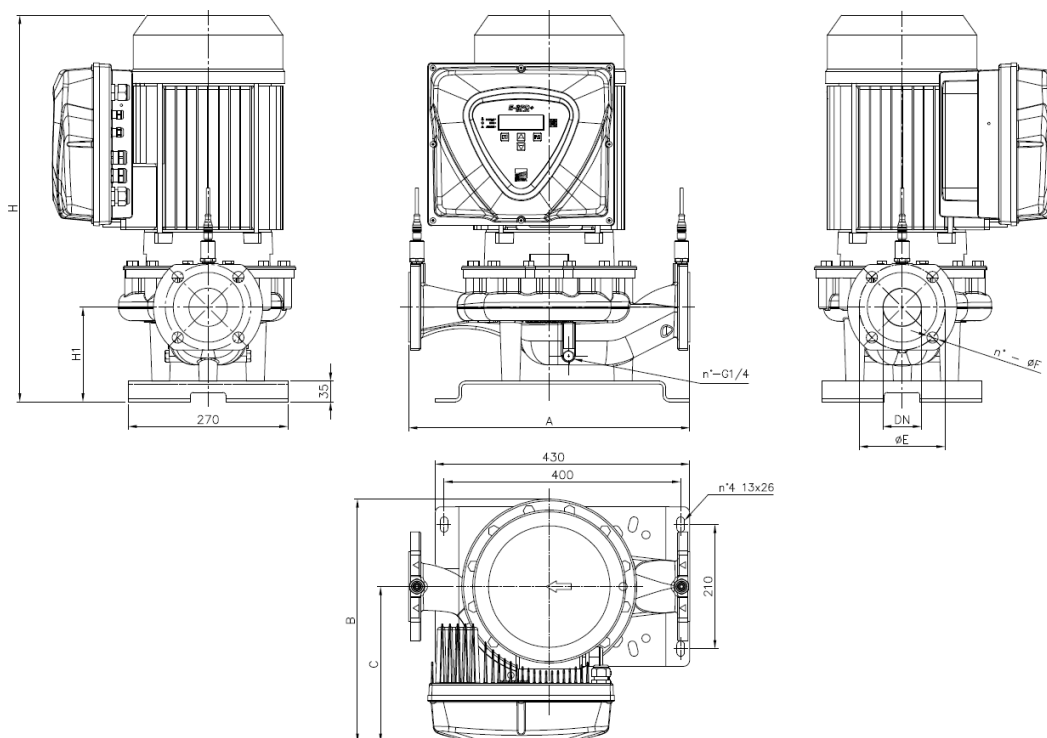
Foot detail view
50-200; 65-200

Foot detail view
80-160



Pump with Inverter	Dimensions [mm]														Weight [kg]
	kW	DN	A	B	C	H	H1	D	D1	D2	n°- M12	ØE	n°- ØF	n°- G1/4	
3E-K50-200/5.5 TT	5.5	50	440	383	235	554	115	181	-	157	3	125	4 - Ø19	4	65
3E-K50-200/7.5 TT	7.5	50	440	383	235	574	115	181	-	157	3	125	4 - Ø19	4	71
3E-K65-200/9.2 TT	9.2	65	475	410	262	620	125	160	-	190	3	145	4 - Ø19	2	82
3E-K80-160/9.2 TT	9.2	80	440	411	263	644	150	136	180	162	4	160	8 - Ø19	2	90

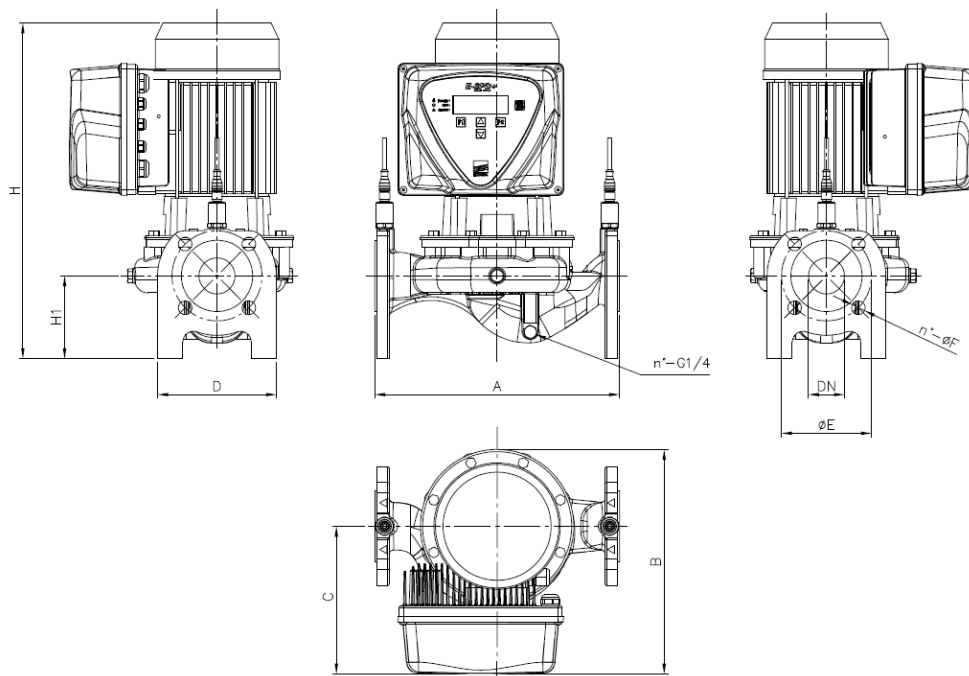
3E-K 50-200/11, 65-200/11, 80-160/11, 100-160/11



Pump with Inverter	Dimensions [mm]										
	kW	DN	A	B	C	H	H1	$\varnothing E$	$n^{\circ} - \varnothing F$	$n^{\circ} - G1/4$	Weight [kg]
3E-K50-200/11 TT	11	50	440	411	283	644	150	125	4 - $\varnothing 19$	4	88
3E-K65-200/11 TT	11	65	475	411	263	654	160	145	4 - $\varnothing 19$	2	88
3E-K80-160/11 TT	11	80	440	411	263	644	150	160	8 - $\varnothing 19$	2	93
3E-K100-160/11 TT	11	100	550	411	263	684	175	180	8 - $\varnothing 19$	2	106

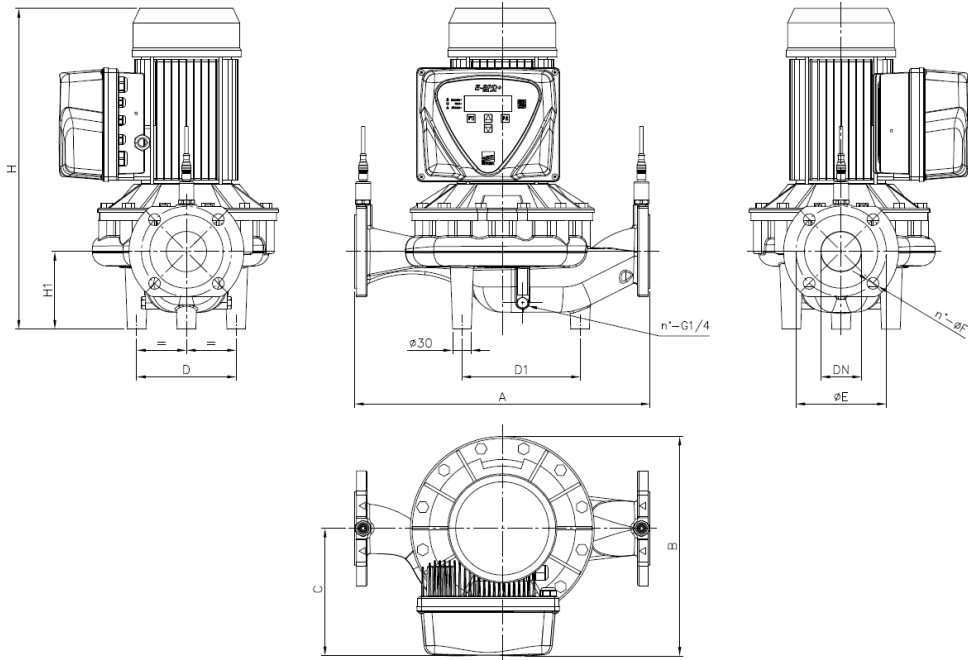
OVERALL DIMENSIONS PUMP WITH INVERTER 4 poles

3E-K4 40, 50-125, 65



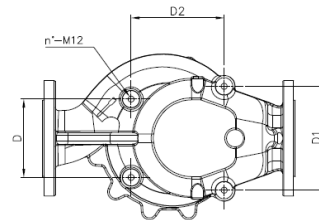
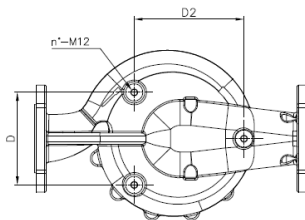
Pump with Inverter	Dimensions [mm]											Weight [kg]
	kW	DN	A	B	C	H	H1	D	ØE	n°- ØF	n°- G1/4	
3E-K4 40-200/0,55 (.)T	0.55	40	340	369	221	412	100	150	110	4 - Ø19	4	39
3E-K4 40-200/0,75 (.)T	0.75	40	340	374	226	452	100	150	110	4 - Ø19	4	46
3E-K4 50-125/0,37 (.)T	0.37	50	340	303	196	406	115	165	125	4 - Ø19	4	28
3E-K4 65-160/0,75 (.)T	0.75	65	360	361	212	457	105	185	145	4 - Ø19	4	43
3E-K4 65-160/1,1 (.)T	1.1	65	360	353	205	457	105	185	145	4 - Ø19	4	46

3E-K4 50-200, 80, 100



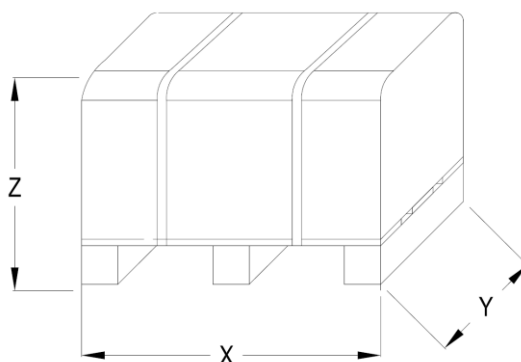
Foot detail view
50-200

Foot detail view
80-160; 80-200; 100-160



Pump with Inverter	Dimensions [mm]														
	kW	DN	A	B	C	H	H1	D	D1	D2	n°- M12	ØE	n°- ØF	n°- G1/4	Weight [kg]
3E-K4 50-200/0,75 (.)T	0.75	50	440	353	205	467	115	181	-	157	3	125	4 - Ø19	4	43
3E-K4 50-200/1,1(.)T	1.1	50	440	353	205	467	115	181	-	157	3	125	4 - Ø19	4	45
3E-K4 50-200/1,5 (.)T	1.5	50	440	353	205	506	115	181	-	157	3	125	4 - Ø19	4	46
3E-K4 80-200/2,2 (.)T	2.2	80	500	370	222	489	115	195	190	145	4	160	8 - Ø19	2	50
3E-K4 80-200/3 TT	3	80	500	370	222	529	115	195	190	145	4	160	8 - Ø19	2	58
3E-K4 100-160/1,5 (.)T	1.5	100	550	353	205	543	140	134	200	185	4	180	8 - Ø19	2	57
3E-K4 100-160/2,2 (.)T	2.2	100	550	370	222	528	140	134	200	185	4	180	8 - Ø19	2	57

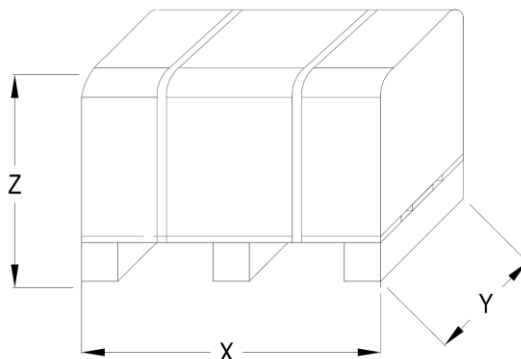
PACKING



3E-K 2 poles

Pump with inverter model	Overall dimensions packing			3E-K pump Weight [kg]	3E-K pump+packing Weight [kg]
	X	Y	Z		
3E-K 32-125/0,37 (.)T	450	390	630	21	31
3E-K 32-125/0,55 (.)T	450	390	630	23	33
3E-K 32-125/0,75 (.)T	450	390	630	24	34
3E-K 40-160/1,1 (.)T	640	530	800	33	49
3E-K 40-160/1,5 (.)T	640	530	800	38	54
3E-K 40-160/2,2 (.)T	640	530	800	40	56
3E-K 40-200/3 TT	640	530	800	51	67
3E-K 40-200/4 TT	640	530	800	52	68
3E-K 40-200/7,5 TT	640	530	800	68	84
3E-K 50-100/0,37 (.)T	450	390	630	25	35
3E-K 50-100/0,55 (.)T	450	390	630	26	36
3E-K 50-100/0,75 (.)T	450	390	630	27	37
3E-K 50-125/1,5 (.)T	450	390	630	34	44
3E-K 50-125/2,2 (.)T	450	390	630	36	46
3E-K 50-160/3 TT	640	530	800	43	59
3E-K 50-160/4 TT	640	530	800	51	67
3E-K 50-200/5,5 TT	640	530	800	65	81
3E-K 50-200/7,5 TT	640	530	800	71	87
3E-K 50-200/11 TT	640	530	800	88	104
3E-K 65-100/0,55 (.)T	450	390	630	26	36
3E-K 65-100/0,75 (.)T	450	390	630	28	38
3E-K 65-100/1,1 (.)T	450	390	630	30	40
3E-K 65-100/1,5 (.)T	450	390	630	32	42
3E-K 65-200/9,2 TT	640	530	800	82	98
3E-K 65-200/11 TT	640	530	1060	88	104
3E-K 80-100/1,5 (.)T	450	390	630	40	50
3E-K 80-100/2,2 (.)T	450	390	630	42	52
3E-K 80-160/9,2 TT	640	530	800	90	106
3E-K 80-160/11 TT	640	530	800	93	109
3E-K 100-160/11 TT	640	530	1060	106	122

3E-K 4 poles



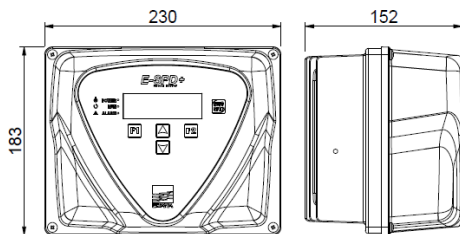
Pump with inverter model	Overall dimensions packing			3E-K pump Weight [kg]	3E-K pump+packing Weight [kg]
	X	Y	Z		
3E-K4 40-200/0,55 (.)T	640	530	800	39	55
3E-K4 40-200/0,75 (.)T	640	530	800	46	62
3E-K4 50-125/0,37 (.)T	450	390	630	28	38
3E-K4 50-200/0,75 (.)T	640	530	800	43	59
3E-K4 50-200/1,1 (.)T	640	530	800	45	61
3E-K4 50-200/1,5 (.)T	640	530	800	46	62
3E-K4 65-160/0,75 (.)T	640	530	800	43	59
3E-K4 65-160/1,1 (.)T	640	530	800	46	62
3E-K4 80-200/2,2 (.)T	640	530	800	50	66
3E-K4 80-200/3 TT	640	530	800	58	74
3E-K4 100-160/1,5 (.)T	640	530	800	57	73
3E-K4 100-160/2,2 (.)T	640	530	800	57	73

CONTROL PANEL VARIABLE SPEED E-SPD+ SPECIFICATION

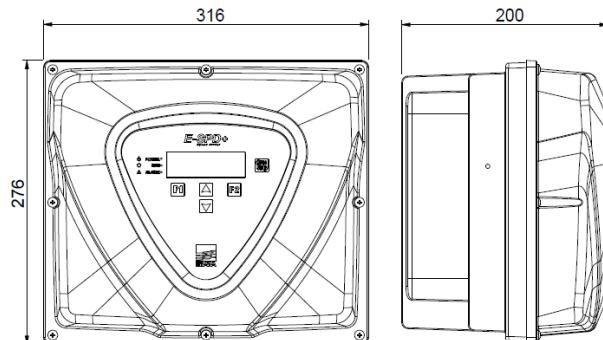
In-line electronic device for controlling electropumps, employing inverter technology. Starts and stops the pump and modulates the speed of the motor in relation to the water demand on the system, to maintain the operating pressure setting. Provides excellent comfort for the end user, significant energy savings and increased service life, the typical advantages of inverter controlled systems. E-SPD+ is an inverter that could be installed on the terminal box. It can be adapted on horizontal and vertical pumps. E-SPD+ can protect the system against overpressure, overcurrent, voltage fluctuation, dry run and water leak. The connection for this mode is made by communication line ON/OFF.

		E-SPD+			
Power	Version	MT 2200	TT 4000	TT 11000	
	Power Voltage	Single-phase 230 V	Three-phase 400 V		
	Output Voltage (pump)	Three-phase 230 V	Three-phase 400 V		
	Output frequency	50 ÷ 60Hz			
	Maximum pump power	2.2 kW	4 kW	11 Kw	
	Max I in	20 A	12 A	31 A	
	Max I out	11 A	11 A	30 A	
Others	Pressure setpoint	0.5 ÷ 40 bar			
	Protection degree	IP 55			
	Ambient Temperature	-10 ÷ 40°C			
	Pressurisation units	2-3 pumps			
	Weight	2,7 Kg	5		
	Protection	Dry-running			
		Over/under voltage			
Short-circuit					
Overload					
Overtemperature					
Pressure sensor fault					
Directives	2014/35/EU (LVD), 2014/30/EU (EMC), 2011/65/EU (RoHS II)				

MT 2200 / TT 4000



TT 11000



The dimensions may change without notice.