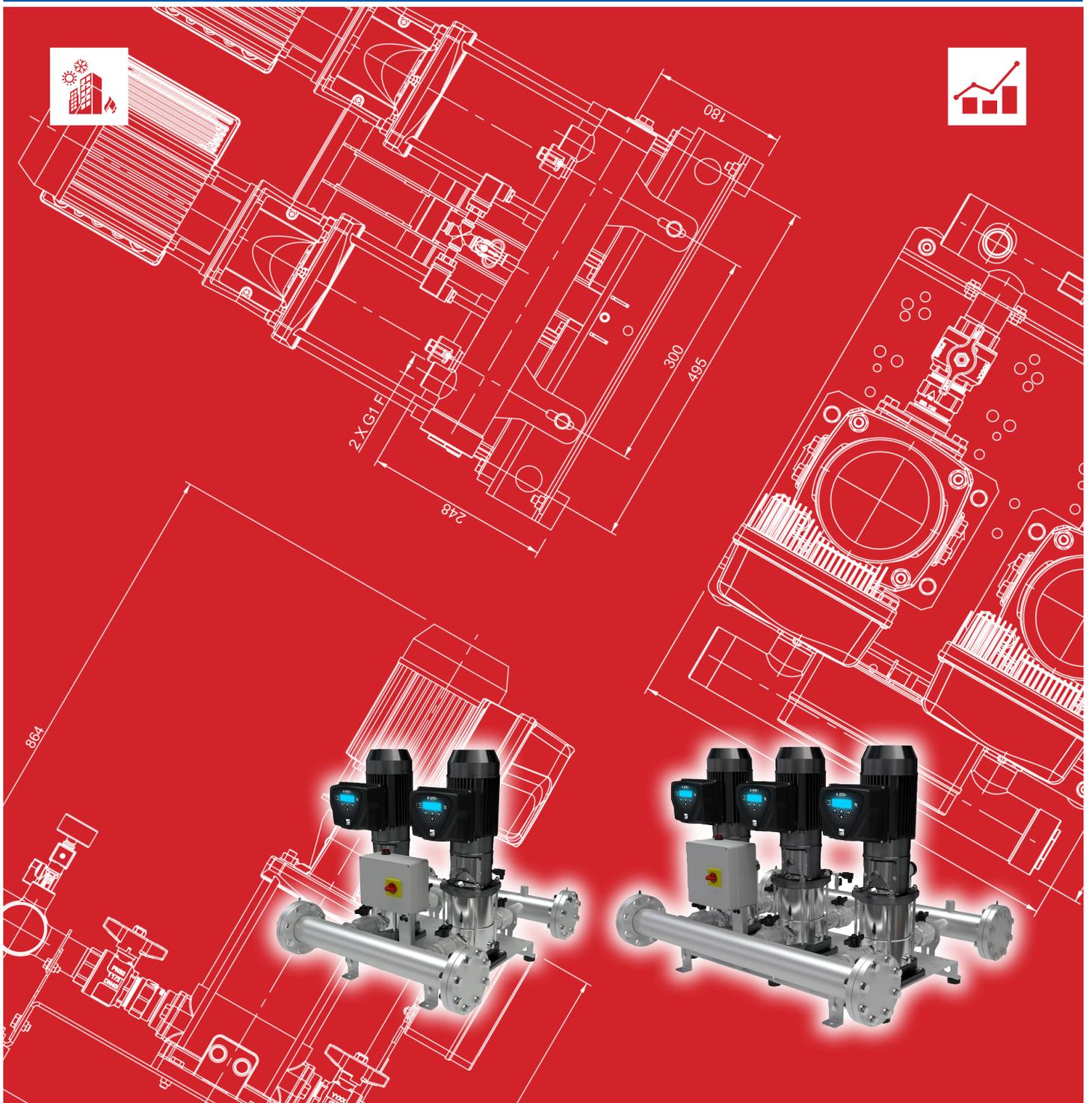


Looking ahead,
going beyond expectations
Ahead > Beyond



GPE EVMS

Data Book 50Hz



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DEFINITION AND USE OF BOOSTER SETS

In situations in which a municipal water mains is lacking or insufficient for the proper operation of the services, one must install a pressurization unit to provide acceptable pressure and flow rates to even in the most unfavourable services. Booster sets are used wherever there is a need to increase the pressure, or to pressurise a water circuit. **EBARA GPE booster sets** are automatic systems with 2 or more pumps operating in parallel, designed to provide a simple and reliable solution to the most common requirements for maintenance of water supply pressure for apartment buildings, hotels, centres, offices and schools as well as providing auxiliary service in industrial and agricultural applications. They stand out for their robust construction, compact size, excellent efficiency and silent operation. GPE units are equipped for connection to membrane and air cushion autoclaves. They are controlled by pressure transmitter.

TYPICAL APPLICATIONS

INDUSTRY	BUILDING SERVICE	WATER SUPPLY
		

OPERATING CONDITIONS

EBARA GPE booster sets can be used, in their standard versions, for civil, industrial and agricultural applications, as follows:

- building service
- water lifting and handling
- A/C
- heating
- irrigation
- washing systems

The conveyed fluid must be: clean, potable, ground 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 (depending on pumps).
- 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.

TESTS AND TRIALS

Before shipping, all EBARA booster sets are subject to hydraulic, mechanical and electrical testing.

MECHANICAL AND HYDRAULIC TESTS

- Pressure switch calibration (only if present)
- 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
- MANUAL trials (using button on control panel) for each pump
- AUTOMATIC trials (using switch on control panel) for unit

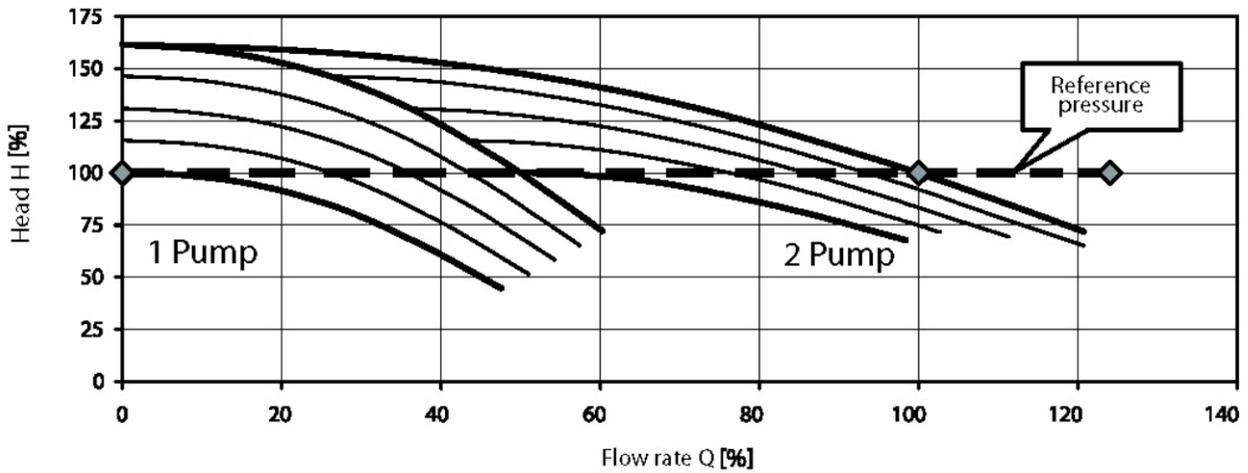
ELECTRICAL TESTS

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

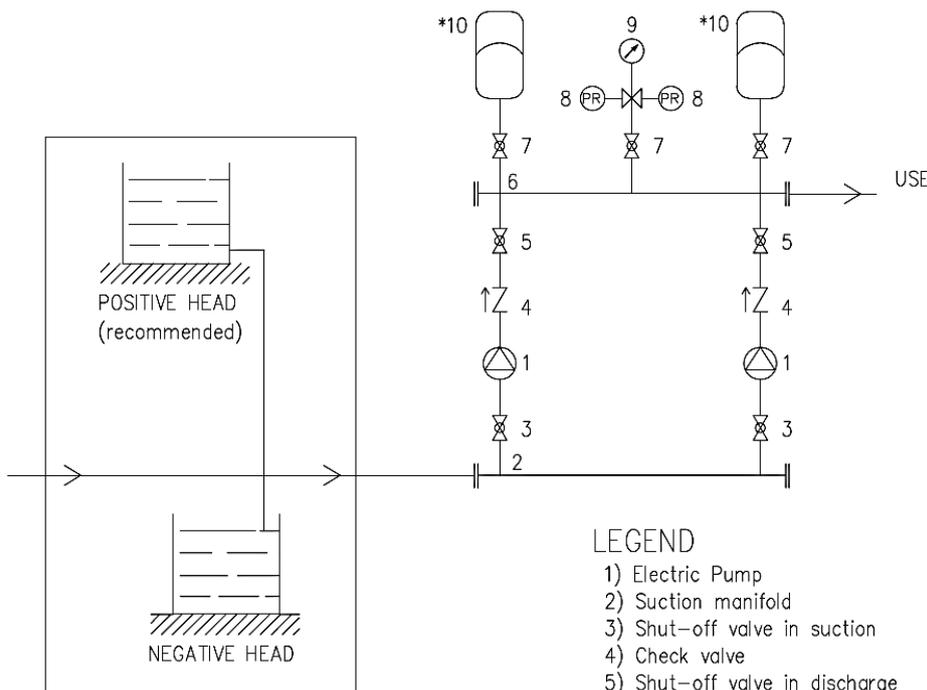
PRINCIPLE OF OPERATION OF GPE BOOSTER SETS WITH E-SPD+

GPE units with E-SPD+ are designed to operate with each pumps controlled by an INVERTER installed on board its motor. The system is controlled by an MASTER INVERTER in relation to the reference signal supply by a pressure transmitters (4 - 20 mA passive). As the system pressure varies, the MASTER pump varies its rotary speed to restore it to the setpoint. If the water demand exceeds the capacity of the pump, the second variable speed pump cuts in and, pump goes into regulation mode to maintain the pressure setpoint; this happens for all the pumps in the unit. If the water demand drops off, the pressure tends to increase and the latest pump gradually reduces its speed to restore the correct operating pressure. This results in the regulation of the speed of the other pumps, until they gradually turn off. Once the system pressure has been restored and the water demand is 0, the MASTER pump switches off automatically.

TWO PUMPS UNIT WITH CONSTANT PRESSURE REGULATION



GPE BOOSTER SET WATER CIRCUIT DIAGRAM

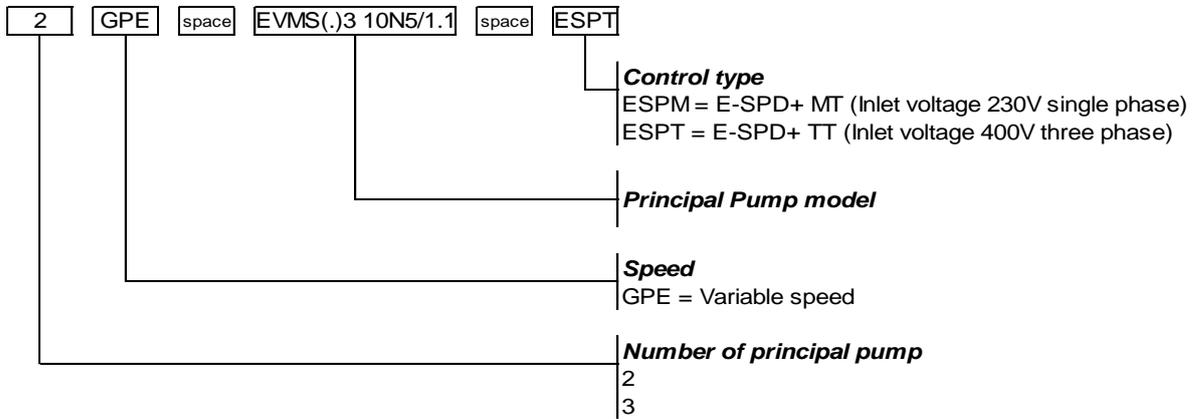


SUPPLY SYSTEM UPSTREAM FROM UNIT AT THE DISCRETION OF THE CUSTOMER OR THE SYSTEM DESIGNER.

LEGEND

- 1) Electric Pump
- 2) Suction manifold
- 3) Shut-off valve in suction
- 4) Check valve
- 5) Shut-off valve in discharge
- 6) Discharge manifold
- 7) Shut-off valve (Optional*)
- 8) Pump control/regulation pressure transmitter/pressure switch
- 9) Pressure gauge
- 10) Membrane vessel (Optional*)

TYPE KEY 2-3GPE EVMS



NAME PLATE

 EBARA Pumps Europe S.p.A. - UK Branch Unit A, Park 34, Collet Way, Southmead, Didcot Oxfordshire OX11 7WB Phone +44 01885 438027 VAT.: 731 5424 56		CE UK CA EAC 
MADE IN U.K.		
BOOSTER UNIT		
TYPE	①	
P/N	②	
S/N	③	

- 1) "TYPE" booster model
- 2) "P/N" booster item number
- 3) "S/N" booster serial number

PRODUCT SPECIFICATIONS HYDRAULIC COMPONENTS AND CONTROL

BOOSTER SET							
Version			EVMS				
Operating range	Nominal flow rate (m ³ /h)	Single pump	3	5	10	15	20
		2GPE	6	10	20	30	40
		3GPE	9	15	30	45	60
	Maximum working pressure		16 bar				
	Liquid temperature range		0÷+100°C [1]				
	Ambient operating temperature (no higher than 1000 m above sea level)		0÷40°C				
Hydraulic components	Frame		omega sheet (up to 7.5 kW) Galvanized steel				
	Manifold suction / discharge		Threaded / Flanged manifold (AISI 304)				
	Closing manifold	2GPE	Female cap for EVMS 3-5-10-15 Counterflange kit for EVMS 20				
		3GPE	Female cap for EVMS 3-5-10 Counterflange kit for EVMS 15-20				
		material	AISI 304				
	Check valve		Threaded check valve (Brass / NBR)				
Union Ball valve		Threaded union ball valve (Brass / PTFE)					
Control	Pressure gauge		M3A-ABS 50/FR / plastic-copper alloy				
	Pressure transmitter		EN 10088-1.4301 (AISI 304) / 1.4404 (AISI 316L)				

[1] For optional version ask the temperature range to the sales department.

ELECTRIC PANEL

BOOSTER SET							
Version			EVMS				
Operating range	Nominal flow rate (m ³ /h)	Single pump	3	5	10	15	20
		2GP(E)	6	10	20	30	40
		3GP(E)	9	15	30	45	60
Control panel	E-SPD+	single-phase supply inverter (up to 2.2 kW)	●	●	●	●	-
		three-phase supply inverter (up to 11 kW)	●	●	●	●	●

● : Standard ○ : Optional - : Not available

TECHNICAL PUMP DATA

EVMS 3-5-10-15-20

Version		PUMP															
		EVMS					EVMSG					EVMSL					
		Standard version					On request version										
Operating range	Nominal flow rate (m ³ /h)	3	5	10	15	20	3	5	10	15	20	3	5	10	15	20	
	Maximum working pressure	16 bar / 25 bar															
	Liquid temperature range	-30°C to 140°C															
Key components material	Impeller	EN 1.4301 (AISI 304)										EN 1.4401 (AISI 316L)					
	Intermediate casin	EN 1.4301 (AISI 304)										EN 1.4401 (AISI 316L)					
	Liner ring	EN 1.4301 (AISI 304) + PPS										EN 1.4401 (AISI 316L) + PPS					
	Bottom casing	EN 1.4301 (AISI 304)					Cast Iron					EN 1.4401 (AISI 316L)					
	Casing cover	EN 1.4301 (AISI 304)										EN 1.4401 (AISI 316L)					
	Shaft	EN 1.4301 (AISI 304) EVMS / EVMSG 3-10 , EVMS / EVMSG 5-15-20 (depend on models)															
		EN 1.4404 (AISI 316L) EVMSL 3-10 , EVMSL 5-15-20 (depend on models)															
		EN 1.4462 (AISI 329A) EVMS / EVMSG / EVMSL 5-15-20 (depend on models)															
	Shaft seal	See the shaft seal options															
	O-ring	EPDM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		FPM	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Outer casing	EN 1.4301 (AISI 304)										EN 1.4404 (AISI 316L)						
Motor bracket	Cast iron																
Base	Die cast aluminium					Cast iron					Die cast aluminium						
Pipe connection	Oval flange	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●															
		up to 16 bar															
	Round flange (DIN)	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○															
		up to 16 bar															
● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																	
From 16 bar a 25 bar																	

● : Standard ○ : Optional

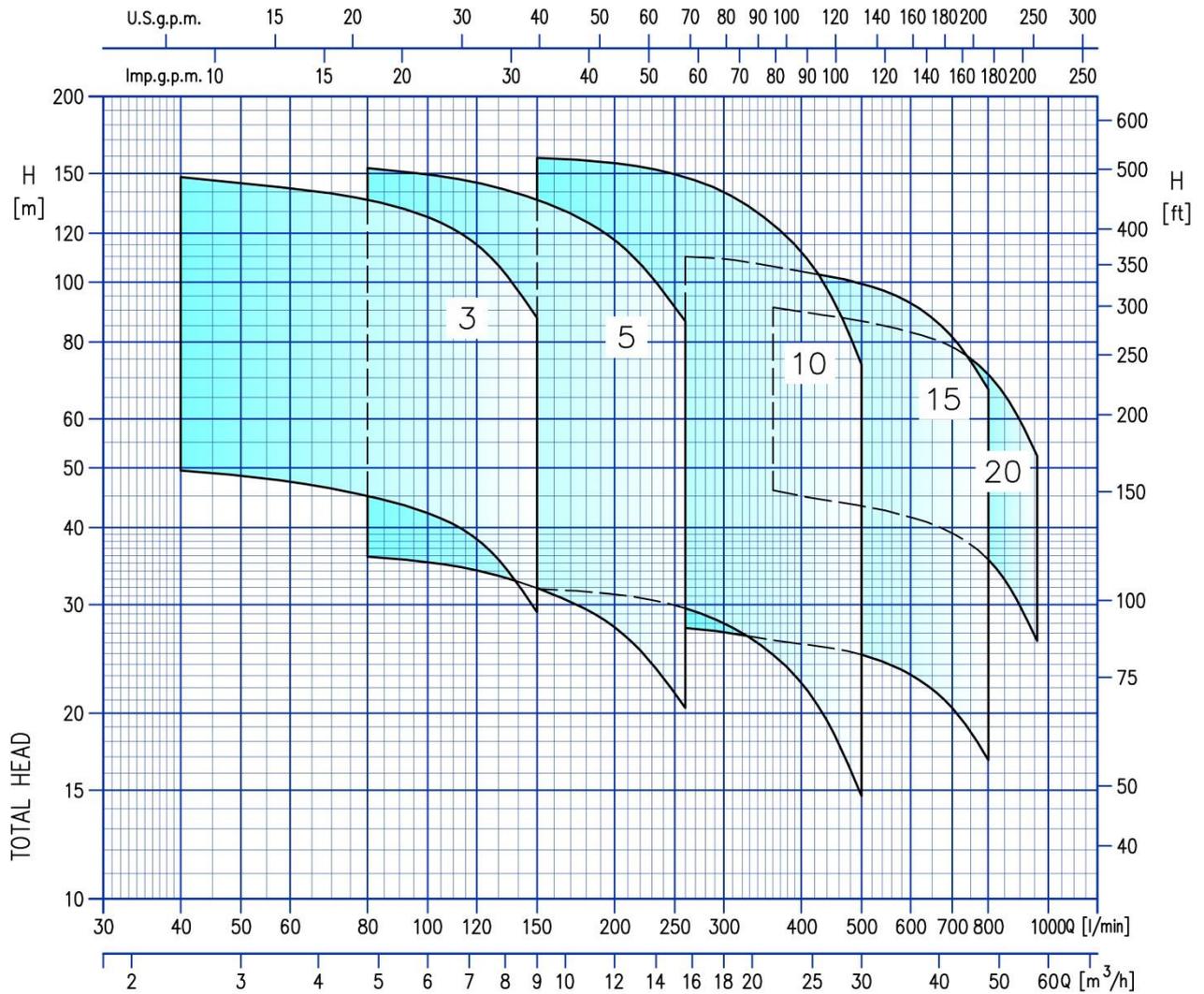


TECHNICAL MOTOR DATA

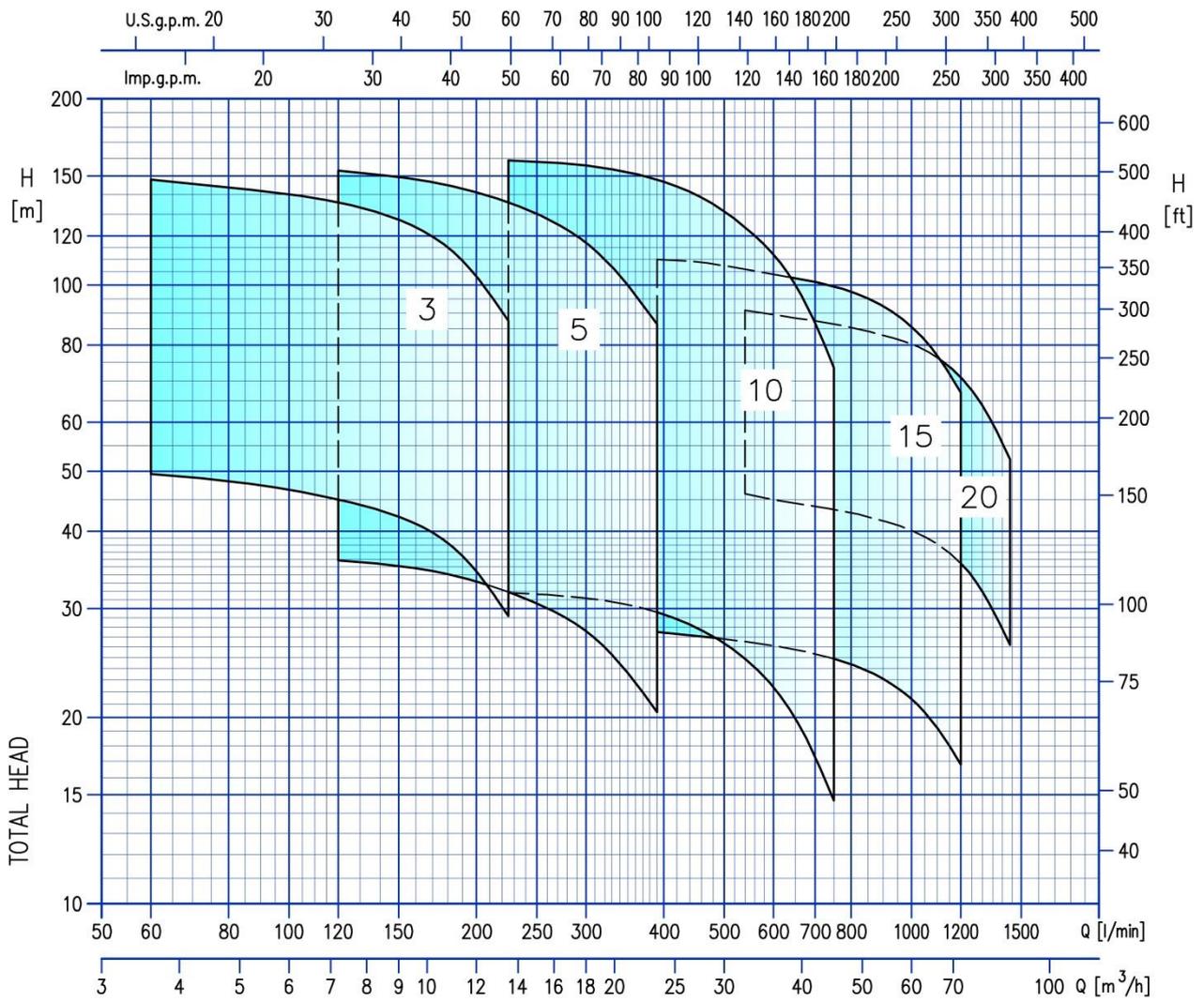
ETM MOTOR

ETM MOTOR		
Version	EVMS	
Power source	Frequency	50 Hz
	Phase	Three-phase
	Rotation speed	2900 min-1
	Power rating	0.75 ÷ 11 kW
		1.0 ÷ 15 HP
Voltage	230/400 ± 10% V (up to 4 kW)	
	400/690 ± 10% V (from 5.5 kW)	
Type	Type	Electric - TEFC
	Efficiency level	IE3
	N°of poles	2
	Protection degree	IP 55
	Insulation class	F (temperature rise class B)
Others	Thermal Protection	PTC is available for the above 1.5 kW
	Casing Material	Aluminium
	Flange mount (IEC motor)	IM B14 (up to 4 kW)
		IM B5 (from 5.5 kW)

PERFORMANCE RANGE BOOSTER SET 2GPE EVMS 3-5-10-15-20



BOOSTER SET 3GPE EVMS 3-5-10-15-20



CURVE SPECIFICATION MINIMUM EFFICIENCY INDEX (MEI)

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

Tolerances according to ISO 9906 Annex A

The curves refer to effective speed of asynchronous motors at 50 Hz

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)

The NPSH curve is an average curve obtained in the same conditions of performance curves.

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. The performance curves refer to 2 and 3 pumps booster sets.

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

1 = one pump on work performance curve

2 = two pumps on work performance curve

3 = three pumps on work performance curve

MEI = minimum efficiency index

Pressure drops of the booster's fittings are not considered

The minimum efficiency index (MEI) is a measure of the quality of a pump size respect to its mean efficiency.

The minimum efficiency index is based on the hydraulic efficiency and on the head at the best efficiency point.

Minimum efficiency index (MEI)

Pump Type	MEI *
EVMS3	> 0.70
EVMS5	> 0.70
EVMS10	> 0.70
EVMS15	> 0.70
EVMS20	> 0.70

****The values refer to the individual pumps***

SELECTION CHART 2GPE EVMS 3-5

Model	Motor		Maximum working pressure (MPa)	Q=Capacity							
	kW	HP		l/min	40	60	80	120	150	200	260
				m ³ /h	2.4	3.6	4.8	7.2	9.0	12.0	15.6
H=Total manometric head in meters											
2GPE EVMS3 7/0.75	0.75 + 0.75	1 + 1	1.6	51.5	49.5	47.5	45.0	38.3	29.2	-	-
2GPE EVMS3 8/0.75	0.75 + 0.75	1 + 1		59	56.5	54.5	51.5	44.0	33.4	-	-
2GPE EVMS3 9/1.1	1.1 + 1.1	1.5 + 1.5		66.5	63.5	61.0	58.0	49.0	37.6	-	-
2GPE EVMS3 10/1.1	1.1 + 1.1	1.5 + 1.5		73.5	70.5	68.0	64.5	54.5	41.5	-	-
2GPE EVMS3 11/1.1	1.1 + 1.1	1.5 + 1.5		81.0	77.5	74.5	71.0	60.0	46.0	-	-
2GPE EVMS3 13/1.5	1.5 + 1.5	2 + 2		96.0	91.5	88.0	84.0	71.0	54.5	-	-
2GPE EVMS3 15/1.5	1.5 + 1.5	2 + 2		111.0	106.0	102.0	97.0	82.0	62.5	-	-
2GPE EVMS3 19/2.2	2.2 + 2.2	3 + 3		140.0	134.0	129.0	123.0	104.0	79.5	-	-
2GPE EVMS3 21/2.2	2.2 + 2.2	3 + 3		155.0	148.0	142.0	136.0	115.0	87.5	-	-
2GPE EVMS5 4/0.75	0.75 + 0.75	1 + 1	1.6	38	-	-	35.9	34.1	31.9	27.6	20.4
2GPE EVMS5 5/1.1	1.1 + 1.1	1.5 + 1.5		47.5	-	-	45.0	42.5	39.9	34.5	25.5
2GPE EVMS5 6/1.5	1.5 + 1.5	2 + 2		57.0	-	-	54	51.0	48.0	41.5	30.6
2GPE EVMS5 7/1.5	1.5 + 1.5	2 + 2		66.5	-	-	63.0	59.5	56.0	48.5	35.7
2GPE EVMS5 8/2.2	2.2 + 2.2	3 + 3		76.0	-	-	72.0	68.0	64.0	55.0	41.0
2GPE EVMS5 9/2.2	2.2 + 2.2	3 + 3		85.5	-	-	81.0	77.0	72.0	62.0	46.0
2GPE EVMS5 10/2.2	2.2 + 2.2	3 + 3		95.0	-	-	90.0	88.5	80.0	69.0	51.0
2GPE EVMS5 11/2.2	2.2 + 2.2	3 + 3		104.0	-	-	98.5	94.0	87.5	76.0	56.0
2GPE EVMS5 12/3.0	3.0 + 3.0	4 + 4		114.0	-	-	108.0	102.0	95.5	83.0	61.0
2GPE EVMS5 14/3.0	3.0 + 3.0	4 + 4		133.0	-	-	126.0	119.0	112.0	96.5	71.5
2GPE EVMS5 15/3.0	3.0 + 3.0	4 + 4		142.0	-	-	135.0	128.0	120.0	104.0	76.5
2GPE EVMS5 17/4.0	4.0 + 4.0	5.5 + 5.5		161.0	-	-	153.0	145.0	136.0	117.0	86.5

SELECTION CHART 2GPE EVMS 10-15-20

Model	Motor		Maximum working pressure (MPa)	Q=Capacity													
	kW	HP		l/min	0	150	200	260	300	360	400	500	600	700	800	900	960
				m ³ /h	0	9.0	12.0	15.6	18.0	21.6	24.0	30.0	36.0	42.0	48.0	54.0	57.6
H=Total manometric head in meters																	
2GPE EVMS10 3/1.5	1.5 + 1.5	2 + 2	1.6	32.7	31.8	31.2	29.6	28.0	24.9	22.4	14.7	-	-	-	-	-	
2GPE EVMS10 4/2.2	2.2 + 2.2	3 + 3		43.6	42.4	41.7	39.5	37.3	33.2	29.8	19.6	-	-	-	-	-	
2GPE EVMS10 5/2.2	2.2 + 2.2	3 + 3		54.5	53.0	52.0	49.5	46.5	41.5	37.3	24.6	-	-	-	-	-	
2GPE EVMS10 6/2.2	2.2 + 2.2	3 + 3		65.5	63.5	62.5	59	56	50	45	29.5	-	-	-	-	-	
2GPE EVMS10 8/3.0	3.0 + 3.0	4 + 4		87.0	85	84	79	74.5	67	60	39.3	-	-	-	-	-	
2GPE EVMS10 9/4.0	4.0 + 4.0	5.5 + 5.5		98.0	95.5	93.5	89	84.0	74.5	67.0	44.0	-	-	-	-	-	
2GPE EVMS10 10/4.0	4.0 + 4.0	5.5 + 5.5		109.0	106.0	104.0	98.5	93.5	83.0	74.5	49.0	-	-	-	-	-	
2GPE EVMS10 11/4.0	4.0 + 4.0	5.5 + 5.5		120.0	116.0	115.0	109.0	103.0	91.5	82.0	54.0	-	-	-	-	-	
2GPE EVMS10 12/5.5	5.5 + 5.5	7.5 + 7.5		131.0	127.0	125.0	118.0	112.0	99.5	89.5	59.0	-	-	-	-	-	
2GPE EVMS10 14/5.5	5.5 + 5.5	7.5 + 7.5		153.0	148.0	146.0	138.0	131.0	116.0	104.0	68.5	-	-	-	-	-	
2GPE EVMS10 15/5.5	5.5 + 5.5	7.5 + 7.5		163.0	159.0	156.0	148.0	140.0	124.0	112.0	73.5	-	-	-	-	-	
2GPE EVMS15 2/2.2	2.2 + 2.2	3 + 3		1.6	30	-	-	28	27.1	26	26	25	23.1	20	16.8	-	-
2GPE EVMS15 3/3.0	3.0 + 3.0	4 + 4	45		-	-	42	40.5	40	39	37	34.7	31	25.2	-	-	
2GPE EVMS15 4/4.0	4.0 + 4.0	5.5 + 5.5	59		-	-	55	54.5	53	52	50	46.5	41	33.6	-	-	
2GPE EVMS15 5/5.5	5.5 + 5.5	7.5 + 7.5	74		-	-	69	68.0	66	65	62	58.0	51	42.0	-	-	
2GPE EVMS15 6/5.5	5.5 + 5.5	7.5 + 7.5	89		-	-	83	81.5	80	78	75	69.5	61	50.5	-	-	
2GPE EVMS15 7/7.5	7.5 + 7.5	10 + 10	103		-	-	97	95.0	93	91	87	81.0	72	58.5	-	-	
2GPE EVMS15 8/7.5	7.5 + 7.5	10 + 10	118.0		-	-	110.0	109.0	106.0	104	99.5	92.5	82	67.0	-	-	
2GPE EVMS20 3/5.5	4.0 + 4.0	5.5 + 5.5	50.5		-	-	-	-	46	45	43.4	41.6	39.2	35.5	29.9	26.2	
2GPE EVMS20 4/5.5	5.5 + 5.5	7.5 + 7.5	67		-	-	-	-	61.0	60.0	58.0	55.5	52.5	47	40.0	34.9	
2GPE EVMS20 5/7.5	7.5 + 7.5	10 + 10	84		-	-	-	-	76.0	75.0	72.5	69.5	65.5	59	50.0	43.5	
2GPE EVMS20 6/7.5	7.5 + 7.5	10 + 10	101		-	-	-	-	91	89.5	86.5	83	79	71	60	52	

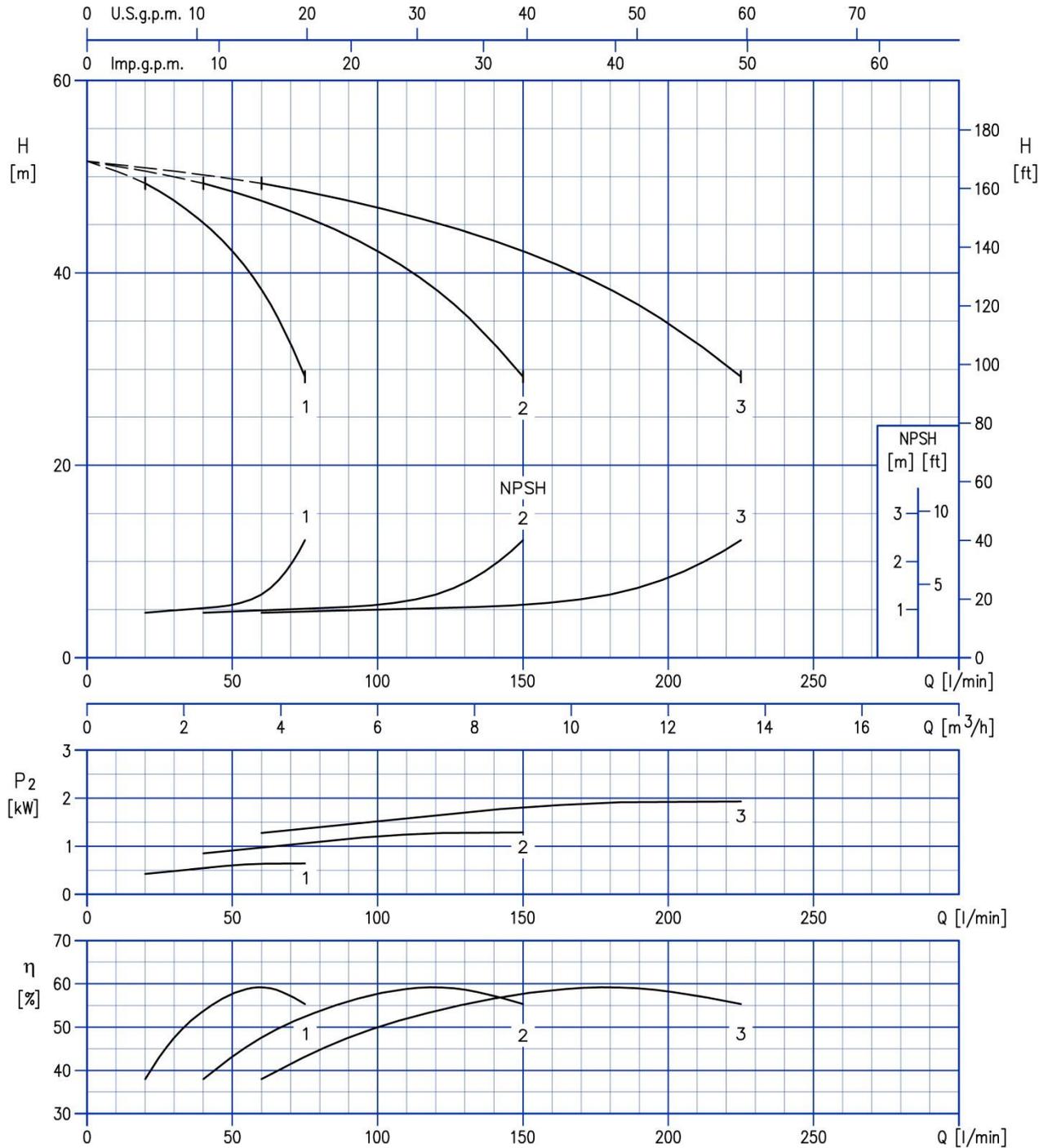
SELECTION CHART 3GPE EVMS 3-5

Model	Motor		Maximum working pressure (MPa)	Q=Capacity								
	kW	HP		l/min	0	60	90	120	180	225	300	390
				m ³ /h	0	3.6	5.4	7.2	10.8	13.5	18.0	23.4
				H=Total manometric head in meters								
3GPE EVMS3 7/0.75	0.75 + 0.75 + 0.75	1 + 1 + 1	1.6	51.5	49.5	47.5	45.0	38.3	29.2	-	-	-
3GPE EVMS3 8/0.75	0.75 + 0.75 + 0.75	1 + 1 + 1		59	56.5	54.5	51.5	44.0	33.4	-	-	-
3GPE EVMS3 9/1.1	1.1 + 1.1 + 1.1	1.5 + 1.5 + 1.5		66.5	63.5	61.0	58.0	49.0	37.6	-	-	-
3GPE EVMS3 10/1.1	1.1 + 1.1 + 1.1	1.5 + 1.5 + 1.5		73.5	70.5	68.0	64.5	54.5	41.5	-	-	-
3GPE EVMS3 11/1.1	1.1 + 1.1 + 1.1	1.5 + 1.5 + 1.5		81.0	77.5	74.5	71.0	60.0	46.0	-	-	-
3GPE EVMS3 13/1.5	1.5 + 1.5 + 1.5	2 + 2 + 2		96.0	91.5	88.0	84.0	71.0	54.5	-	-	-
3GPE EVMS3 15/1.5	1.5 + 1.5 + 1.5	2 + 2 + 2		111.0	106.0	102.0	97.0	82.0	62.5	-	-	-
3GPE EVMS3 19/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3		140.0	134.0	129.0	123.0	104.0	79.5	-	-	-
3GPE EVMS3 21/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3		155.0	148.0	142.0	136.0	115.0	87.5	-	-	-
3GPE EVMS5 4/0.75	0.75 + 0.75 + 0.75	1 + 1 + 1		1.6	38	-	-	35.9	34.1	31.9	27.6	20.4
3GPE EVMS5 5/1.1	1.1 + 1.1 + 1.1	1.5 + 1.5 + 1.5	47.5		-	-	45.0	42.5	39.9	34.5	25.5	-
3GPE EVMS5 6/1.5	1.5 + 1.5 + 1.5	2 + 2 + 2	57.0		-	-	54	51.0	48.0	41.5	30.6	-
3GPE EVMS5 7/1.5	1.5 + 1.5 + 1.5	2 + 2 + 2	66.5		-	-	63.0	59.5	56.0	48.5	35.7	-
3GPE EVMS5 8/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3	76.0		-	-	72.0	68.0	64.0	55.0	41.0	-
3GPE EVMS5 9/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3	85.5		-	-	81.0	77.0	72.0	62.0	46.0	-
3GPE EVMS5 10/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3	95.0		-	-	90.0	88.5	80.0	69.0	51.0	-
3GPE EVMS5 11/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3	104.0		-	-	98.5	94.0	87.5	76.0	56.0	-
3GPE EVMS5 12/3.0	3.0 + 3.0 + 3.0	4 + 4 + 4	114.0		-	-	108.0	102.0	95.5	83.0	61.0	-
3GPE EVMS5 14/3.0	3.0 + 3.0 + 3.0	4 + 4 + 4	133.0		-	-	126.0	119.0	112.0	96.5	71.5	-
3GPE EVMS5 15/3.0	3.0 + 3.0 + 3.0	4 + 4 + 4	142.0		-	-	135.0	128.0	120.0	104.0	76.5	-
3GPE EVMS5 17/4.0	4.0 + 4.0 + 4.0	5.5 + 5.5 + 5.5	161.0		-	-	153.0	145.0	136.0	117.0	86.5	-

SELECTION CHART 3GPE EVMS 10-15-20

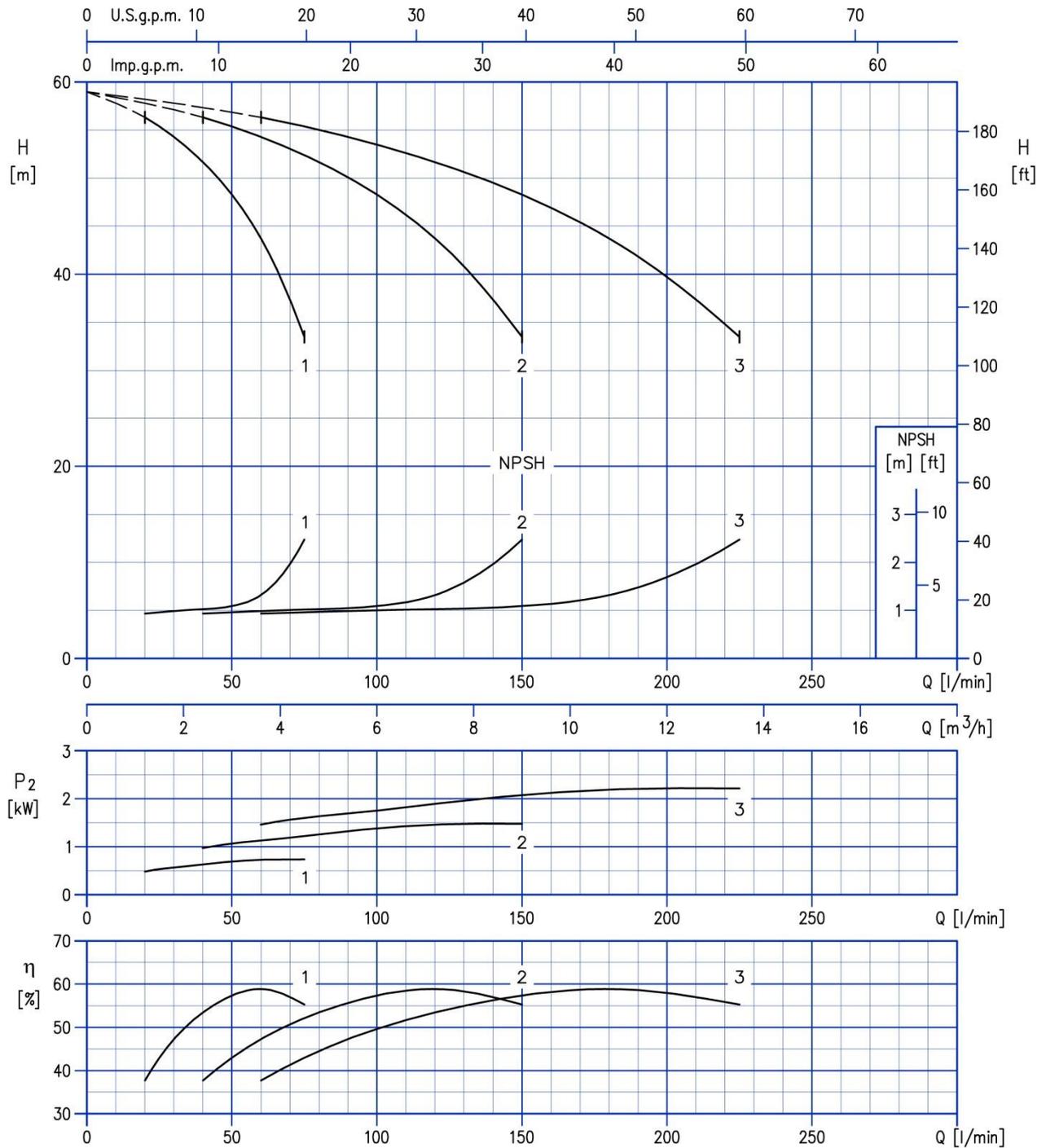
Model	Motor		Maximum working pressure (MPa)	Q=Capacity													
	kW	HP		l/min	0	225	300	390	450	540	600	750	900	###	1200	###	1440
				m³/h	0	13.5	18.0	23.4	27.0	32.4	36.0	45.0	54.0	63.0	72.0	81.0	86.4
H=Total manometric head in meters																	
3GPE EVMS10 3/1.5	1.5 + 1.5 + 1.5	2 + 2 + 2	1.6	32.7	31.8	31.2	29.6	28.0	24.9	22.4	14.7	-	-	-	-	-	
3GPE EVMS10 4/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3		43.6	42.4	41.7	39.5	37.3	33.2	29.8	19.6	-	-	-	-	-	
3GPE EVMS10 5/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3		54.5	53.0	52.0	49.5	46.5	41.5	37.3	24.6	-	-	-	-	-	
3GPE EVMS10 6/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3		65.5	63.5	62.5	59	56	50	45	29.5	-	-	-	-	-	
3GPE EVMS10 8/3.0	3.0 + 3.0 + 3.0	4 + 4 + 4		87.0	85	84	79	74.5	67	60	39.3	-	-	-	-	-	
3GPE EVMS10 9/4.0	4.0 + 4.0 + 4.0	5.5 + 5.5 + 5.5		98.0	95.5	93.5	89	84.0	74.5	67.0	44.0	-	-	-	-	-	
3GPE EVMS10 10/4.0	4.0 + 4.0 + 4.0	5.5 + 5.5 + 5.5		109.0	106.0	104.0	98.5	93.5	83.0	74.5	49.0	-	-	-	-	-	
3GPE EVMS10 11/4.0	4.0 + 4.0 + 4.0	5.5 + 5.5 + 5.5		120.0	116.0	115.0	109.0	103.0	91.5	82.0	54.0	-	-	-	-	-	
3GPE EVMS10 12/5.5	5.5 + 5.5 + 5.5	7.5 + 7.5 + 7.5		131.0	127.0	125.0	118.0	112.0	99.5	89.5	59.0	-	-	-	-	-	
3GPE EVMS10 14/5.5	5.5 + 5.5 + 5.5	7.5 + 7.5 + 7.5		153.0	148.0	146.0	138.0	131.0	116.0	104.0	68.5	-	-	-	-	-	
3GPE EVMS10 15/5.5	5.5 + 5.5 + 5.5	7.5 + 7.5 + 7.5		163.0	159.0	156.0	148.0	140.0	124.0	112.0	73.5	-	-	-	-	-	
3GPE EVMS15 2/2.2	2.2 + 2.2 + 2.2	3 + 3 + 3		1.6	30	-	-	28	27.1	26	26	25	23.1	20	16.8	-	-
3GPE EVMS15 3/3.0	3.0 + 3.0 + 3.0	4 + 4 + 4			45	-	-	42	40.5	40	39	37	34.7	31	25.2	-	-
3GPE EVMS15 4/4.0	4.0 + 4.0 + 4.0	5.5 + 5.5 + 5.5	59		-	-	55	54.5	53	52	50	46.5	41	33.6	-	-	
3GPE EVMS15 5/5.5	5.5 + 5.5 + 5.5	7.5 + 7.5 + 7.5	74		-	-	69	68.0	66	65	62	58.0	51	42.0	-	-	
3GPE EVMS15 6/5.5	5.5 + 5.5 + 5.5	7.5 + 7.5 + 7.5	89		-	-	83	81.5	80	78	75	69.5	61	50.5	-	-	
3GPE EVMS15 7/7.5	7.5 + 7.5 + 7.5	10 + 10 + 10	103		-	-	97	95.0	93	91	87	81.0	72	58.5	-	-	
3GPE EVMS15 8/7.5	7.5 + 7.5 + 7.5	10 + 10 + 10	118.0		-	-	110.0	109.0	106.0	104	99.5	92.5	82	67.0	-	-	
3GPE EVMS20 3/5.5	4.0 + 4.0 + 4.0	5.5 + 5.5 + 5.5	50.5		-	-	-	-	46	45	43.4	41.6	39.2	35.5	29.9	26.2	
3GPE EVMS20 4/5.5	5.5 + 5.5 + 5.5	7.5 + 7.5 + 7.5	67		-	-	-	-	61.0	60.0	58.0	55.5	52.5	47	40.0	34.9	
3GPE EVMS20 5/7.5	7.5 + 7.5 + 7.5	10 + 10 + 10	84		-	-	-	-	76.0	75.0	72.5	69.5	65.5	59	50.0	43.5	
3GPE EVMS20 6/7.5	7.5 + 7.5 + 7.5	10 + 10 + 10	101		-	-	-	-	91	89.5	86.5	83	79	71	60	52	

PERFORMANCE CURVE 2GPE 2-3 GPE EVMS 3-7/0.75



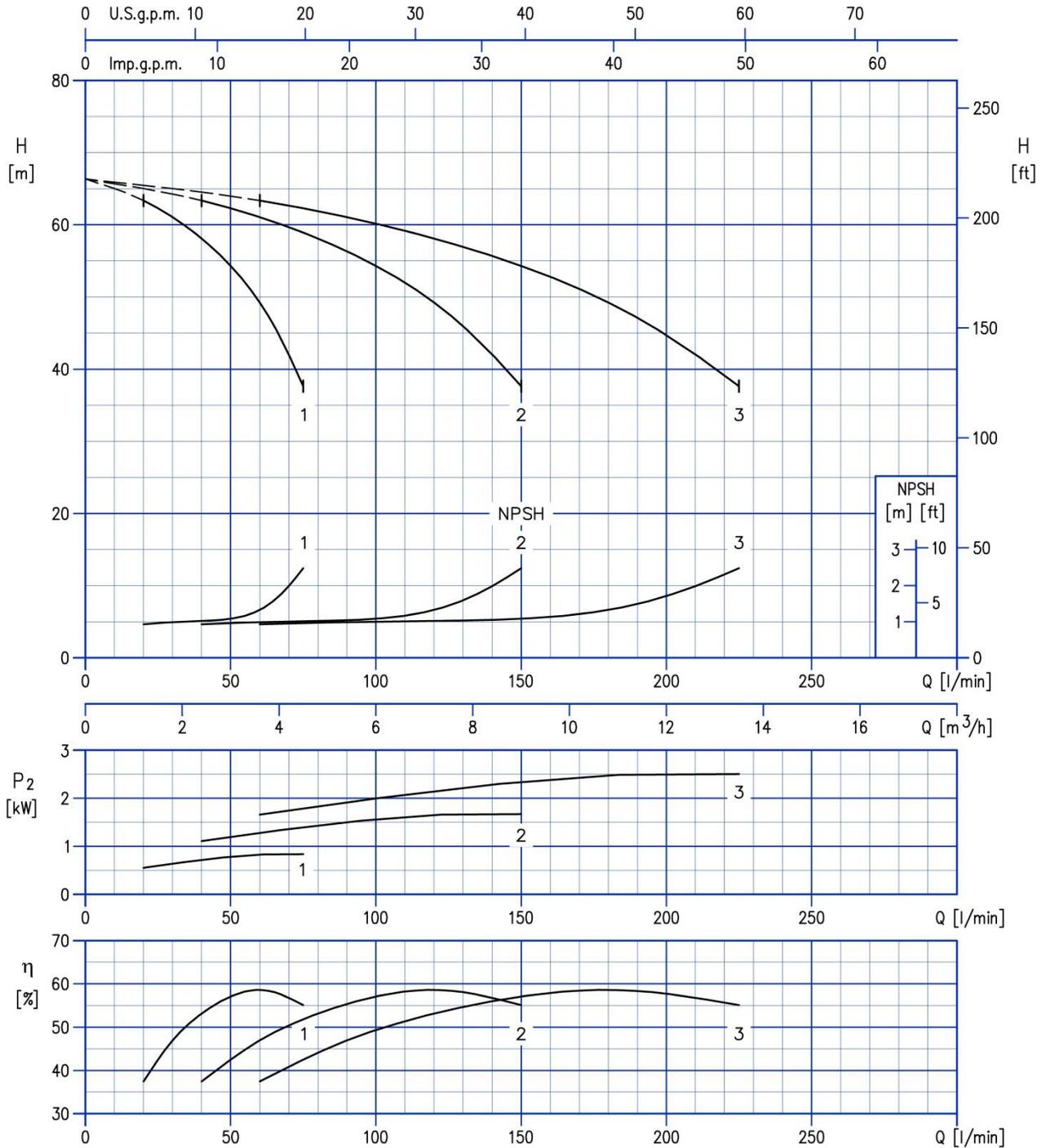
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 3-8/0.75



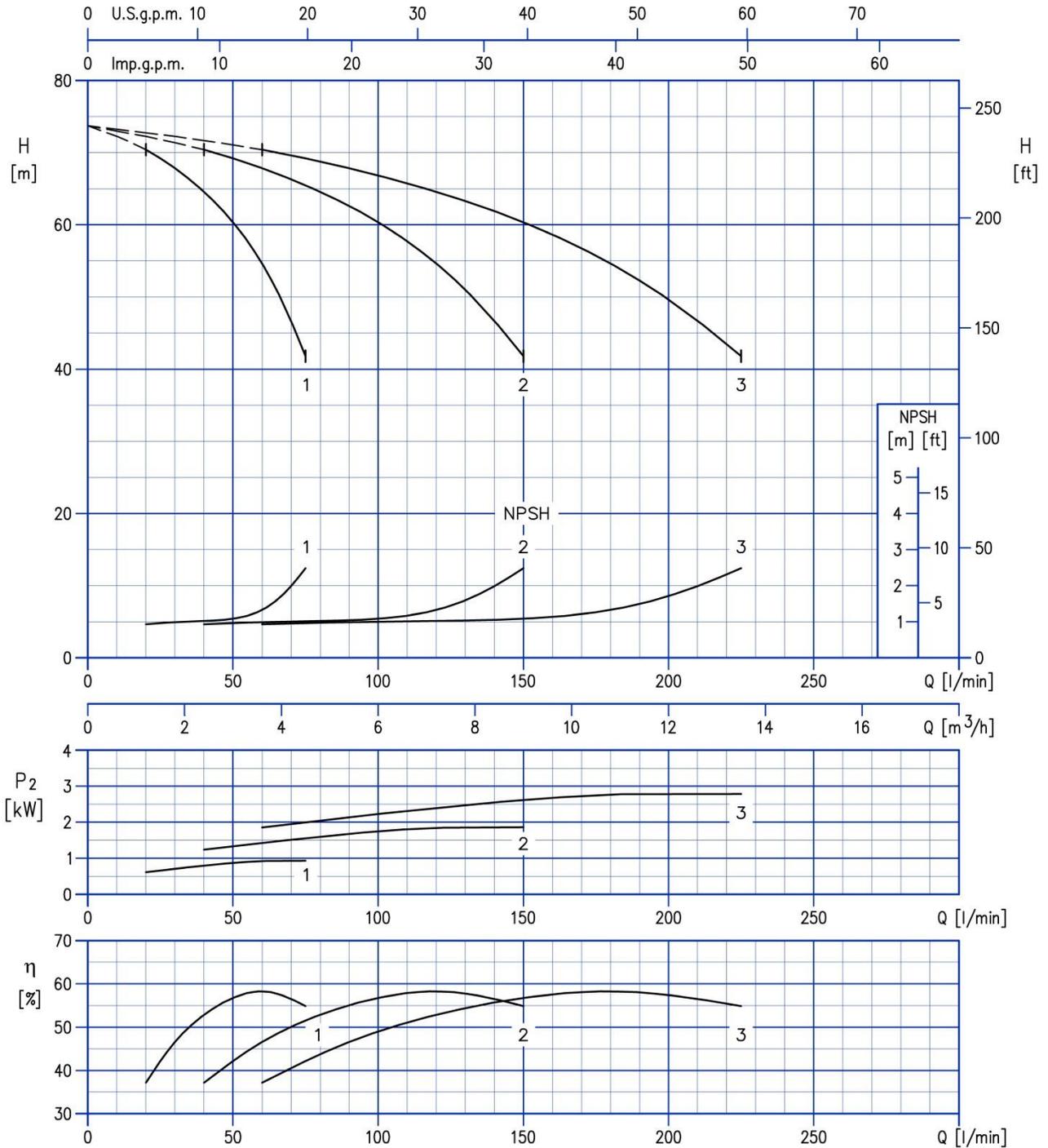
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 3-9/1.1



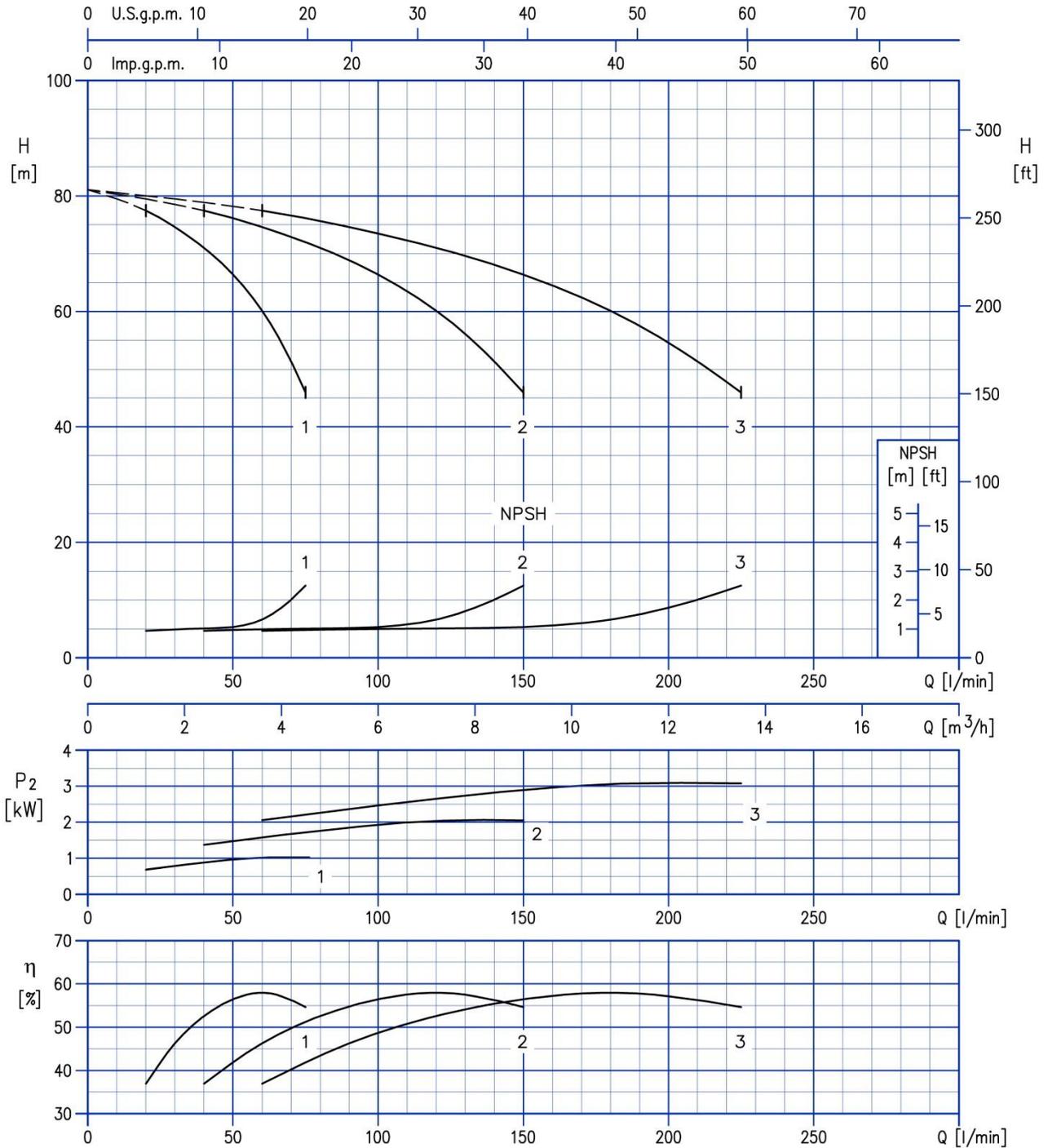
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 3-10/1.1



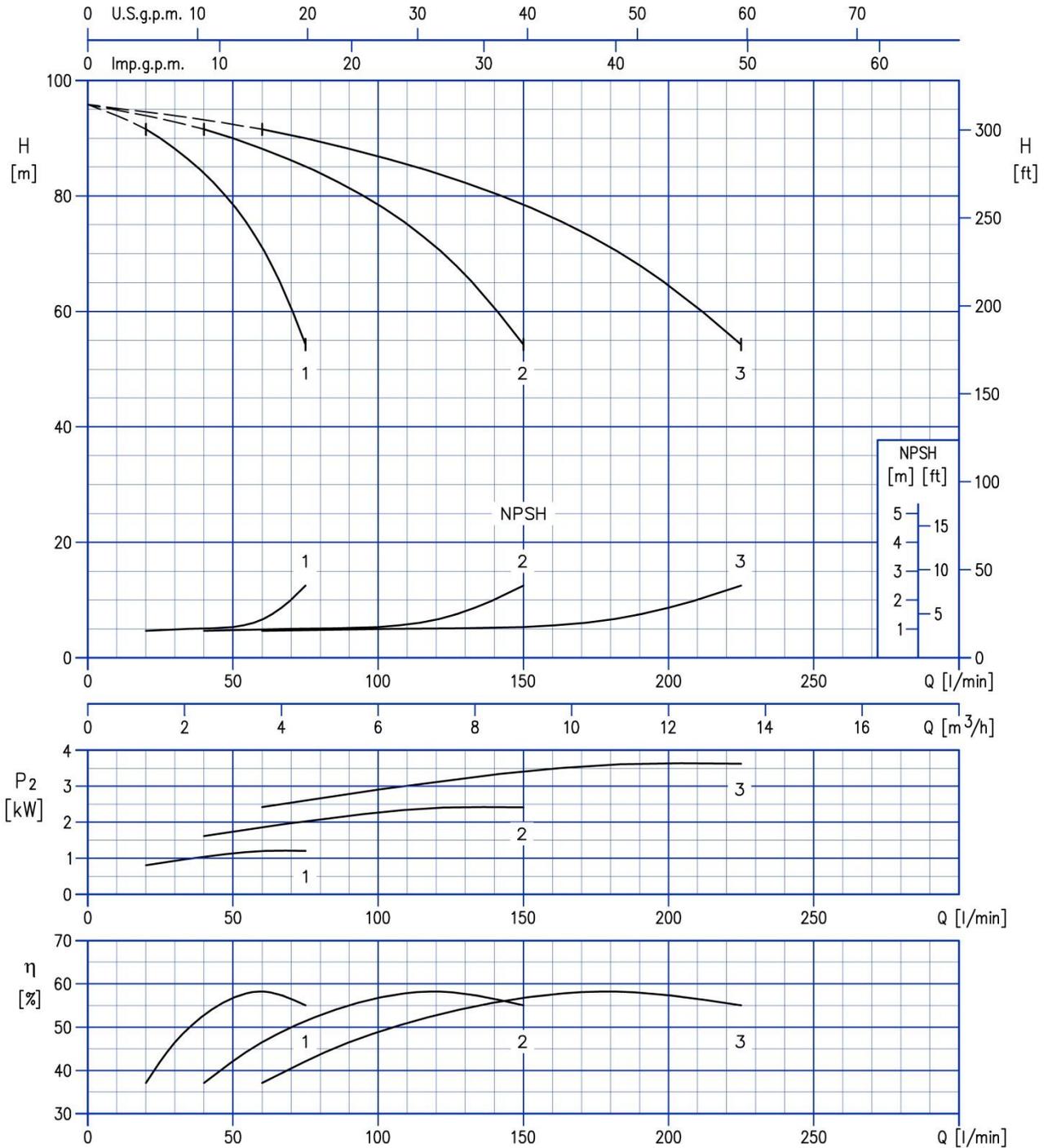
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2-3 GPE EVMS 3-11/1.1



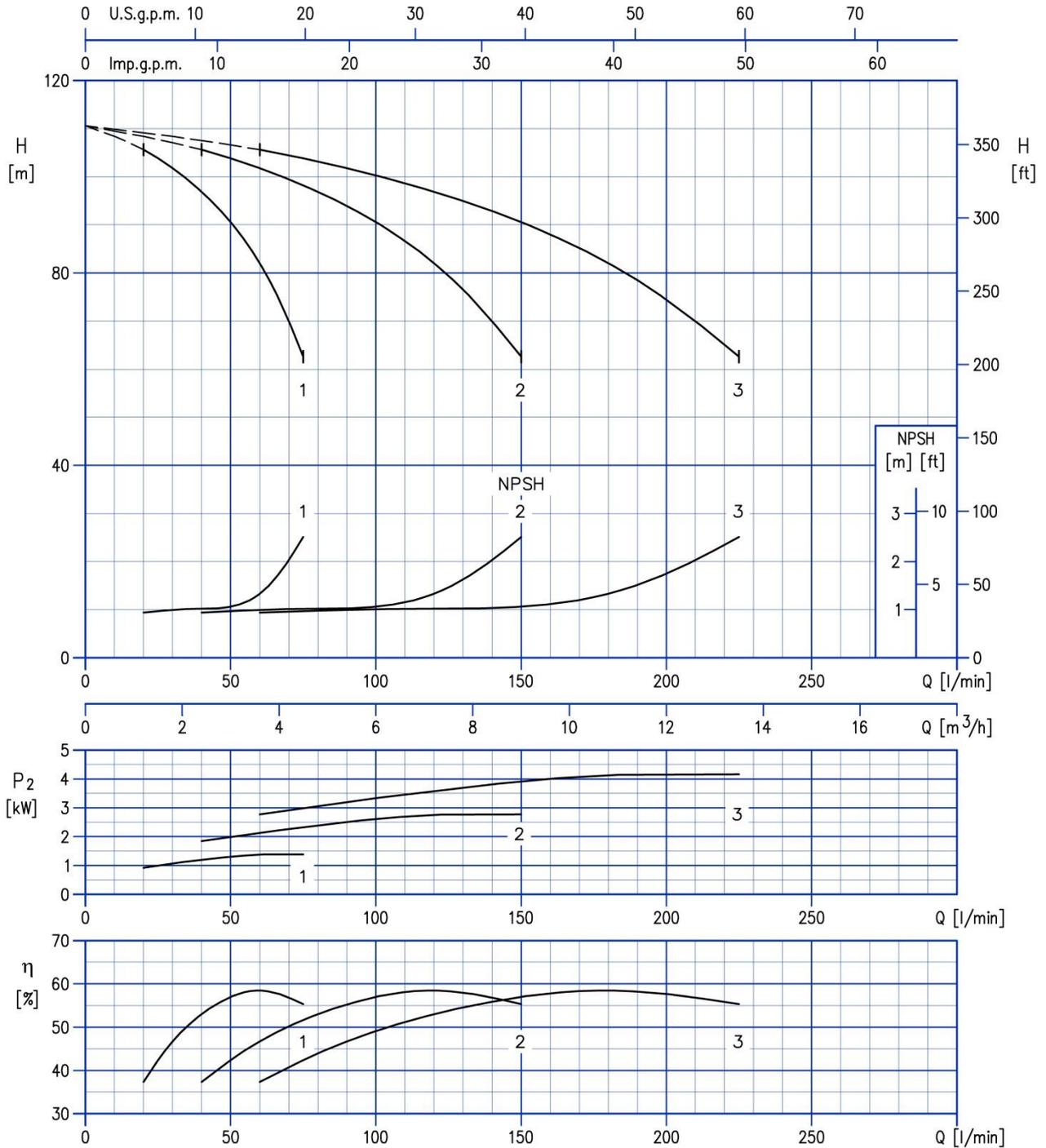
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 3-13/1.5



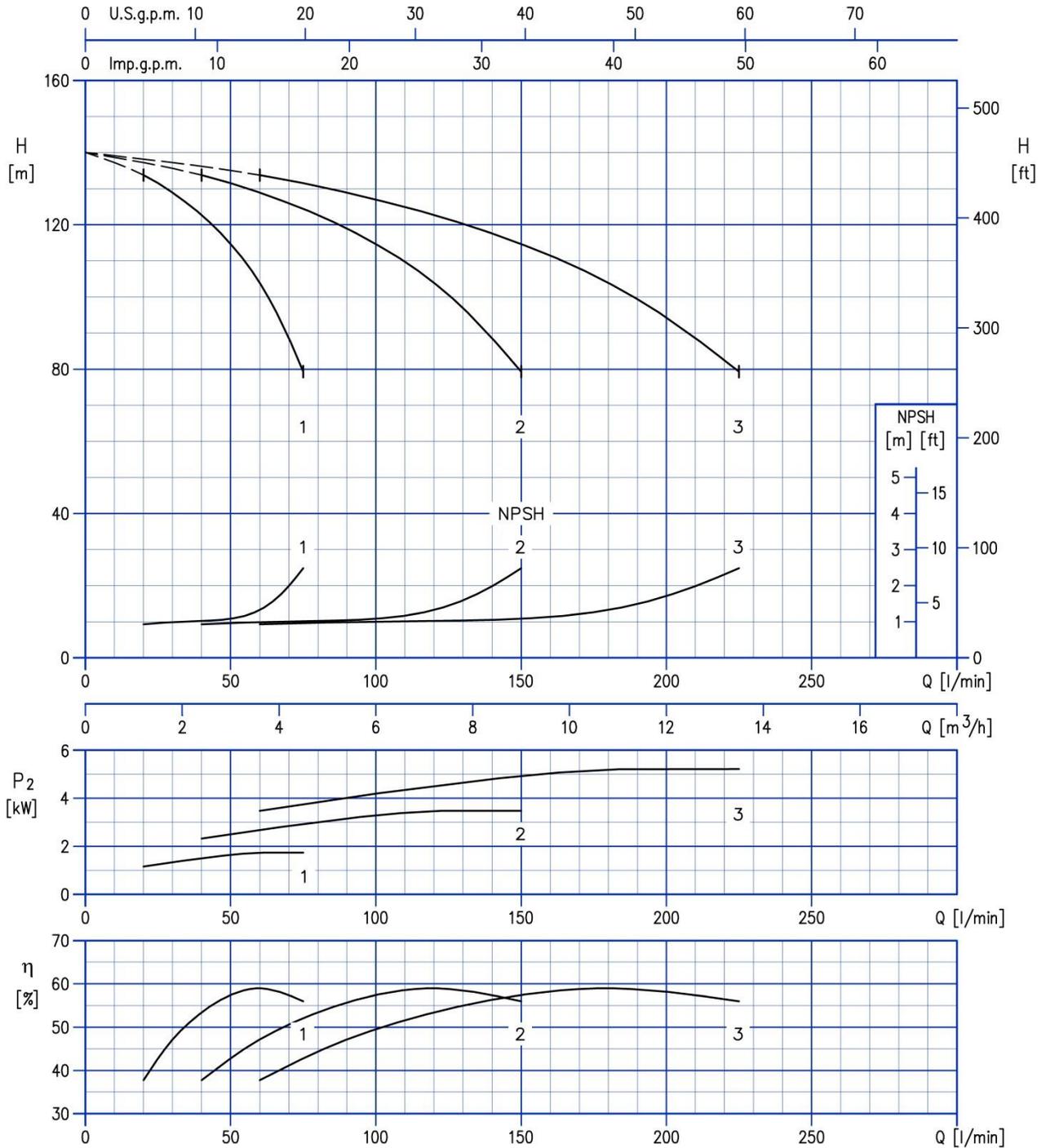
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 3-15/1.5



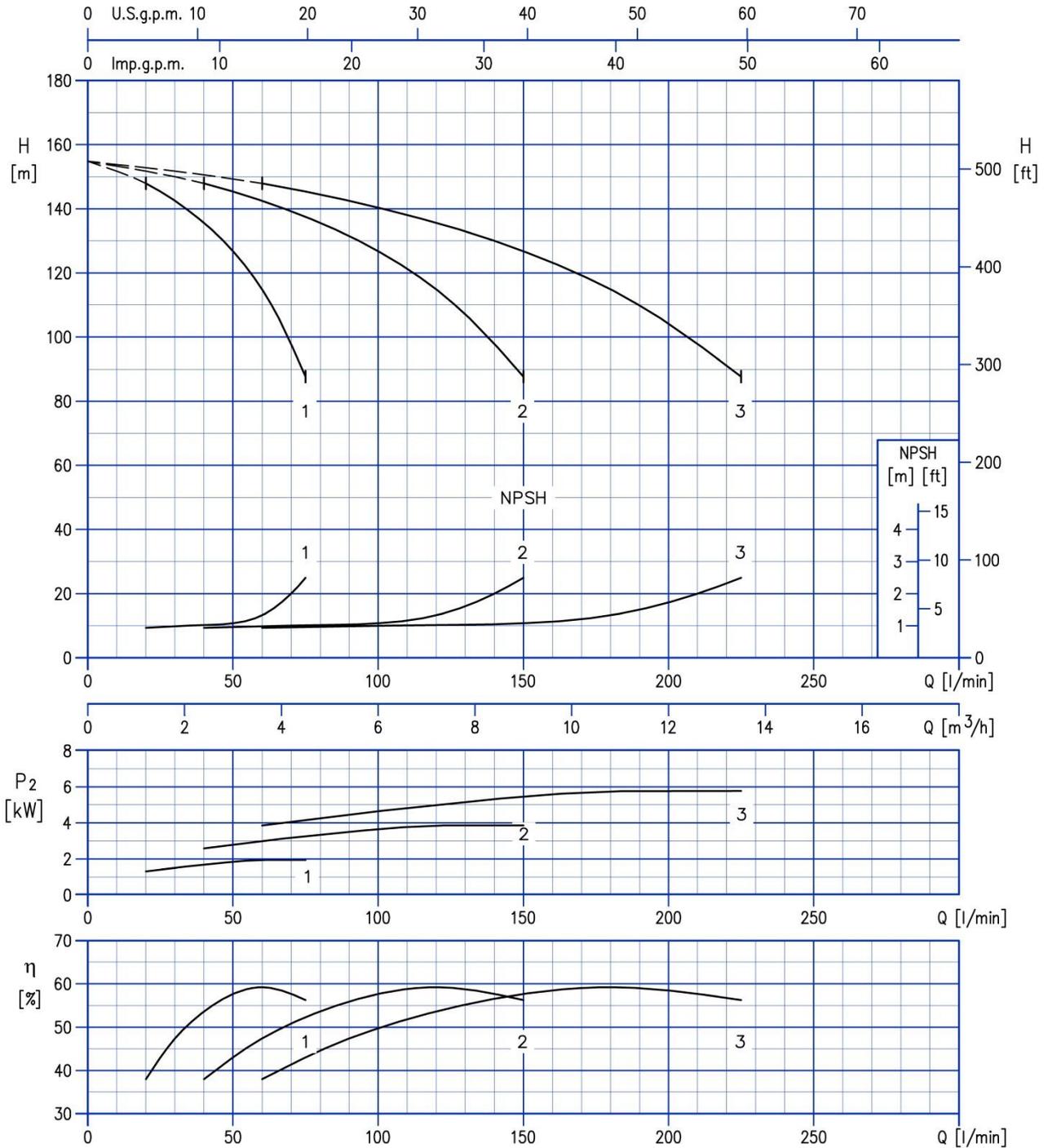
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 3-19/2.2



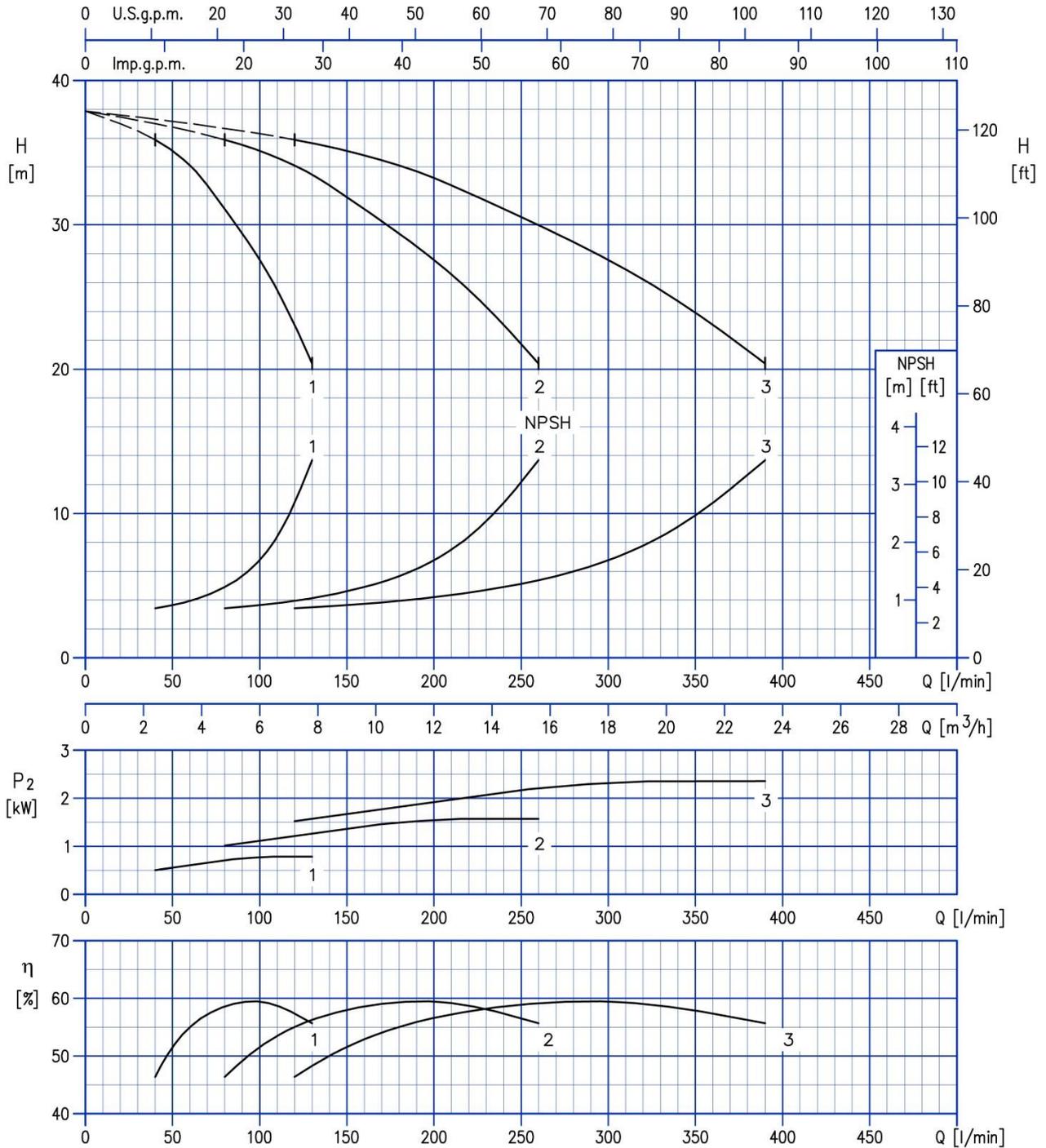
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2-3 GPE EVMS 3-21/2.2



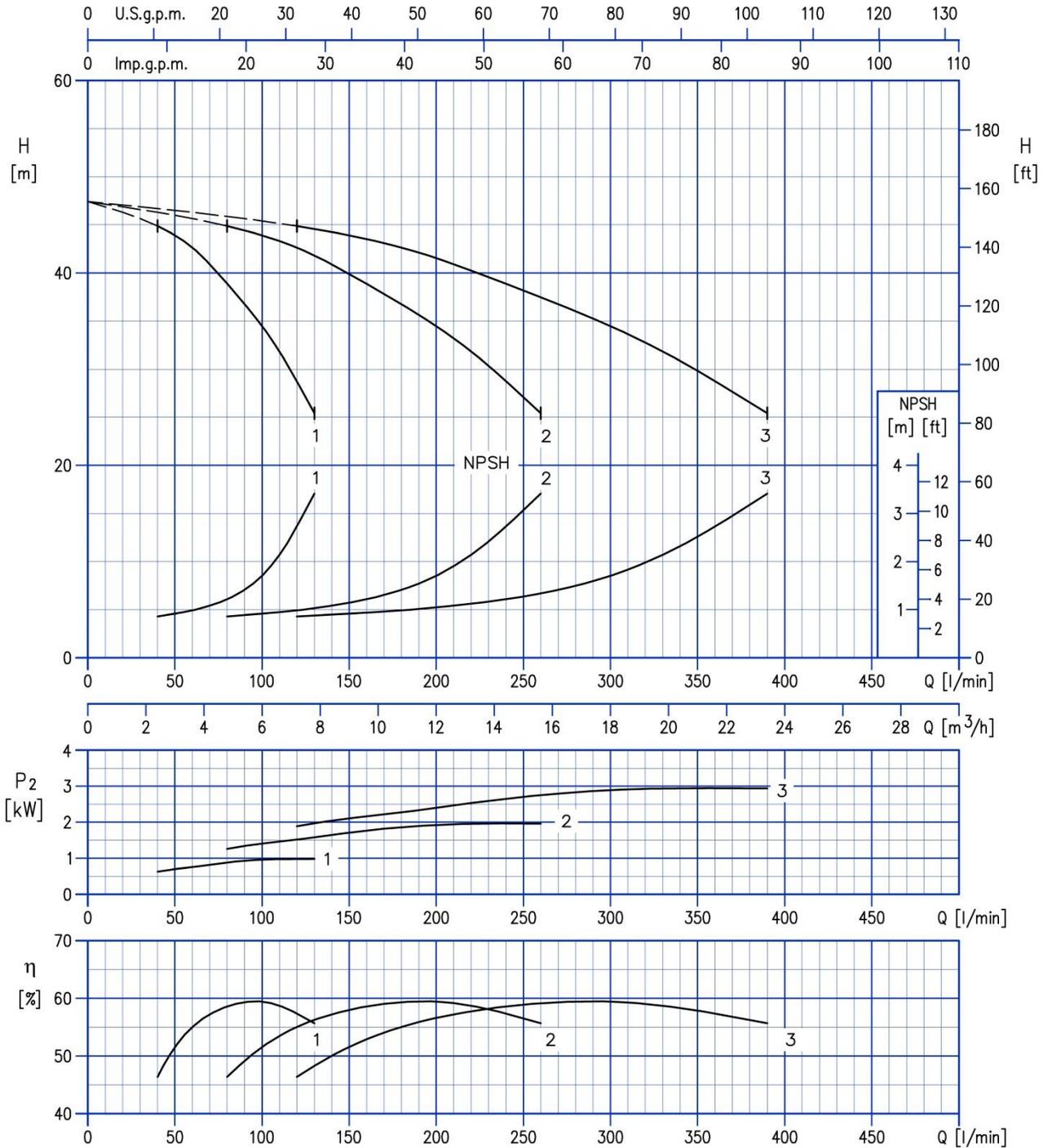
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 5-4/0.75



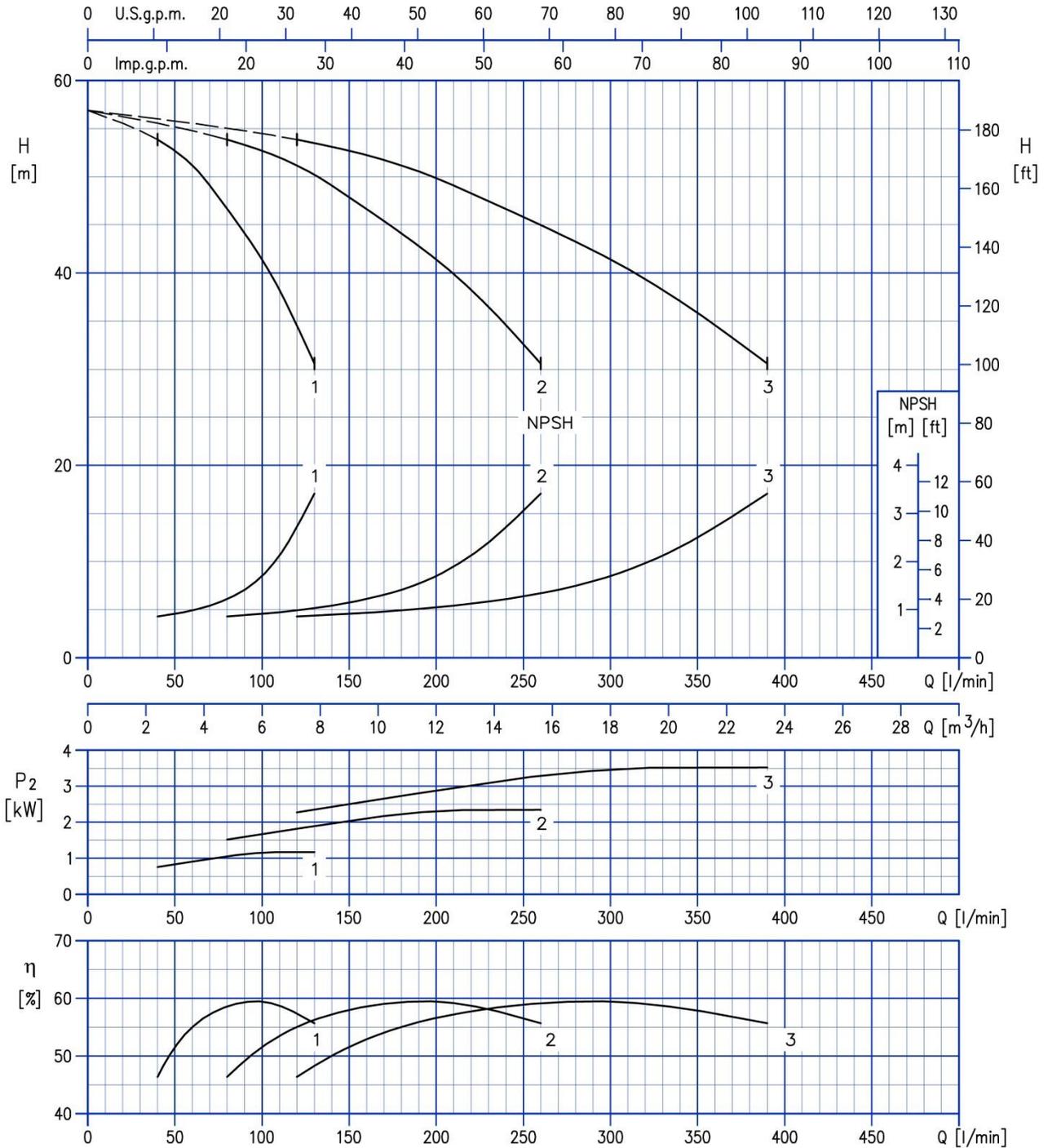
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2-3 GPE EVMS 5-5/1.1



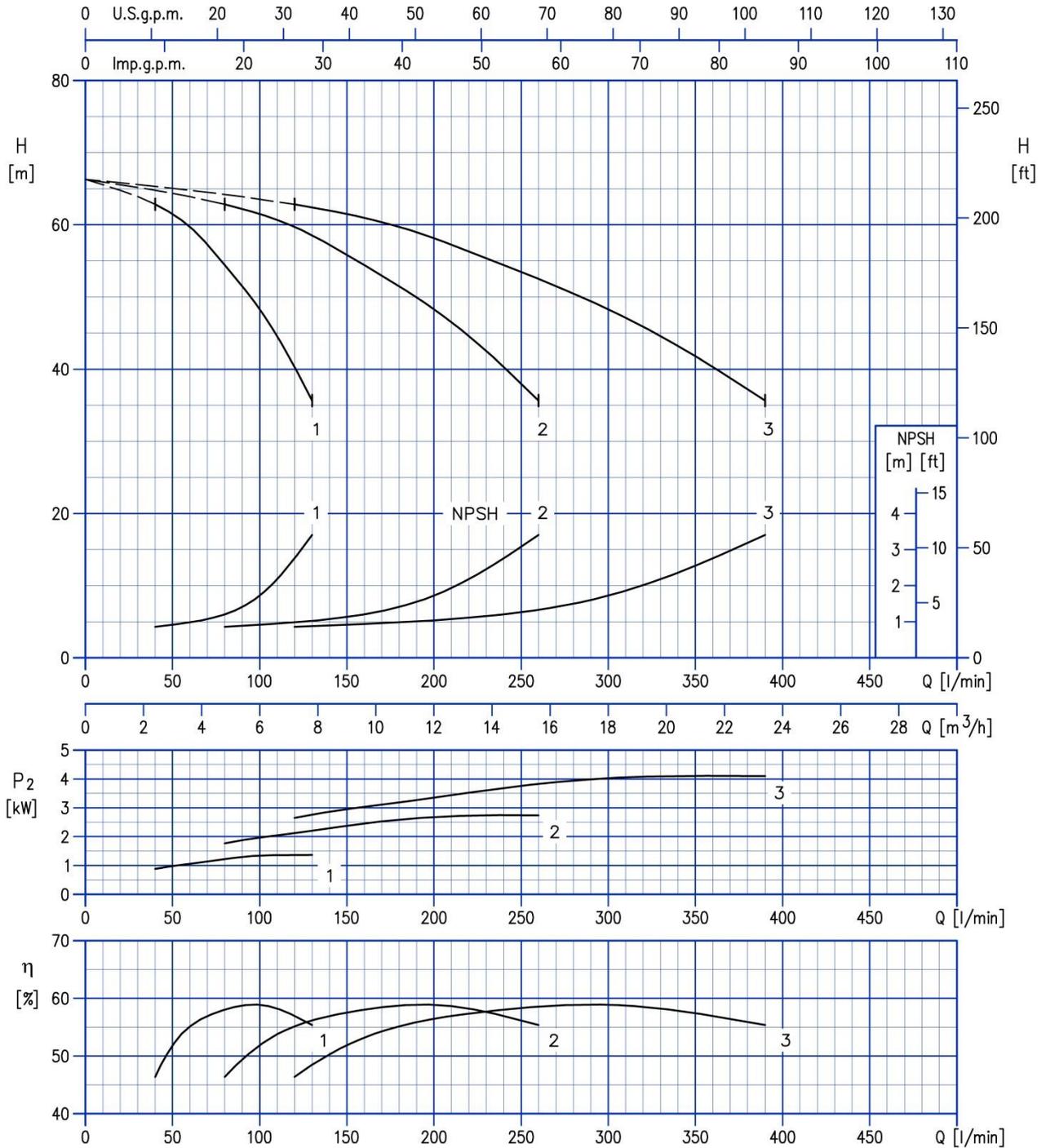
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 5-6/1.5



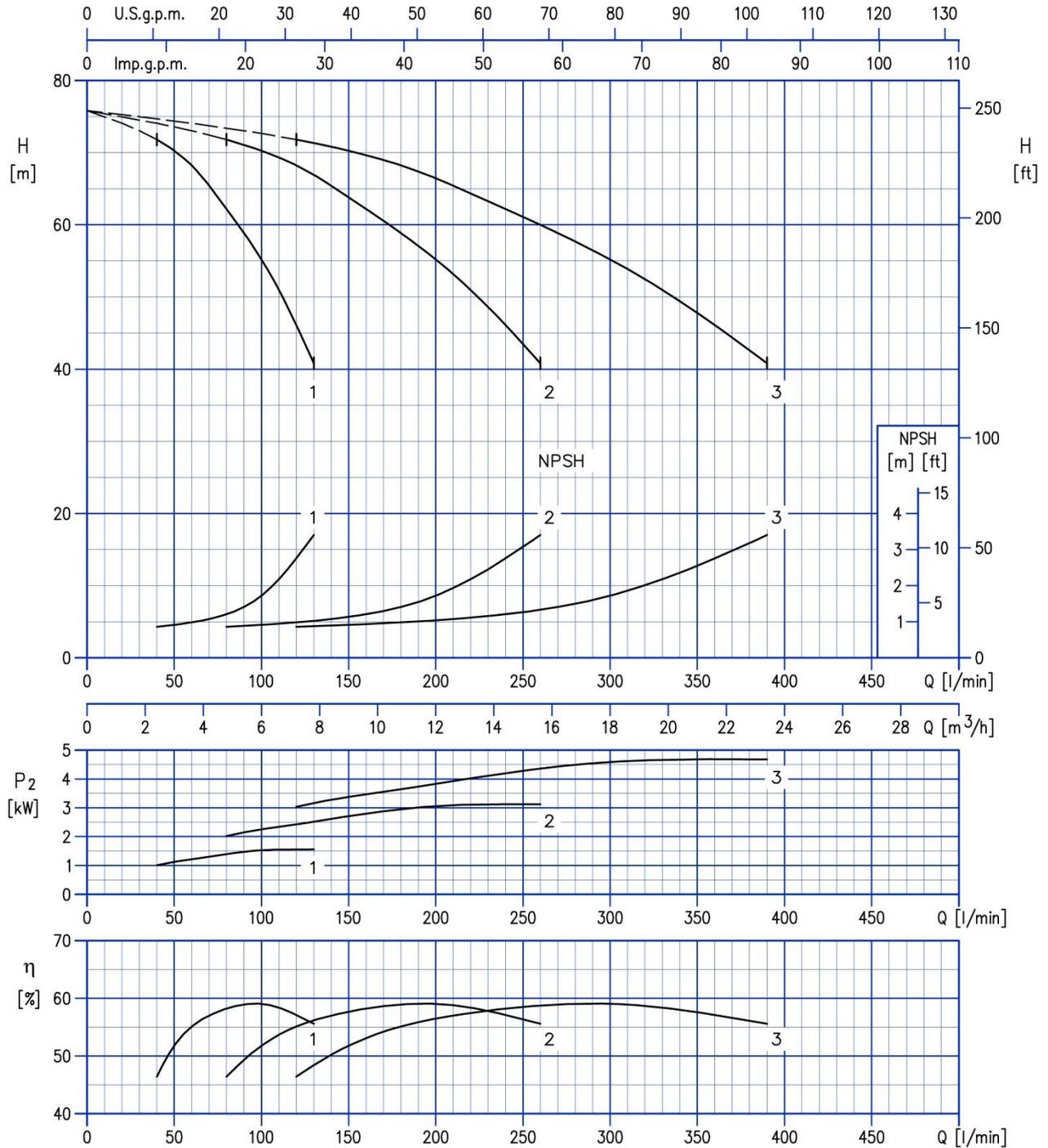
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2-3 GPE EVMS 5-7/1.5



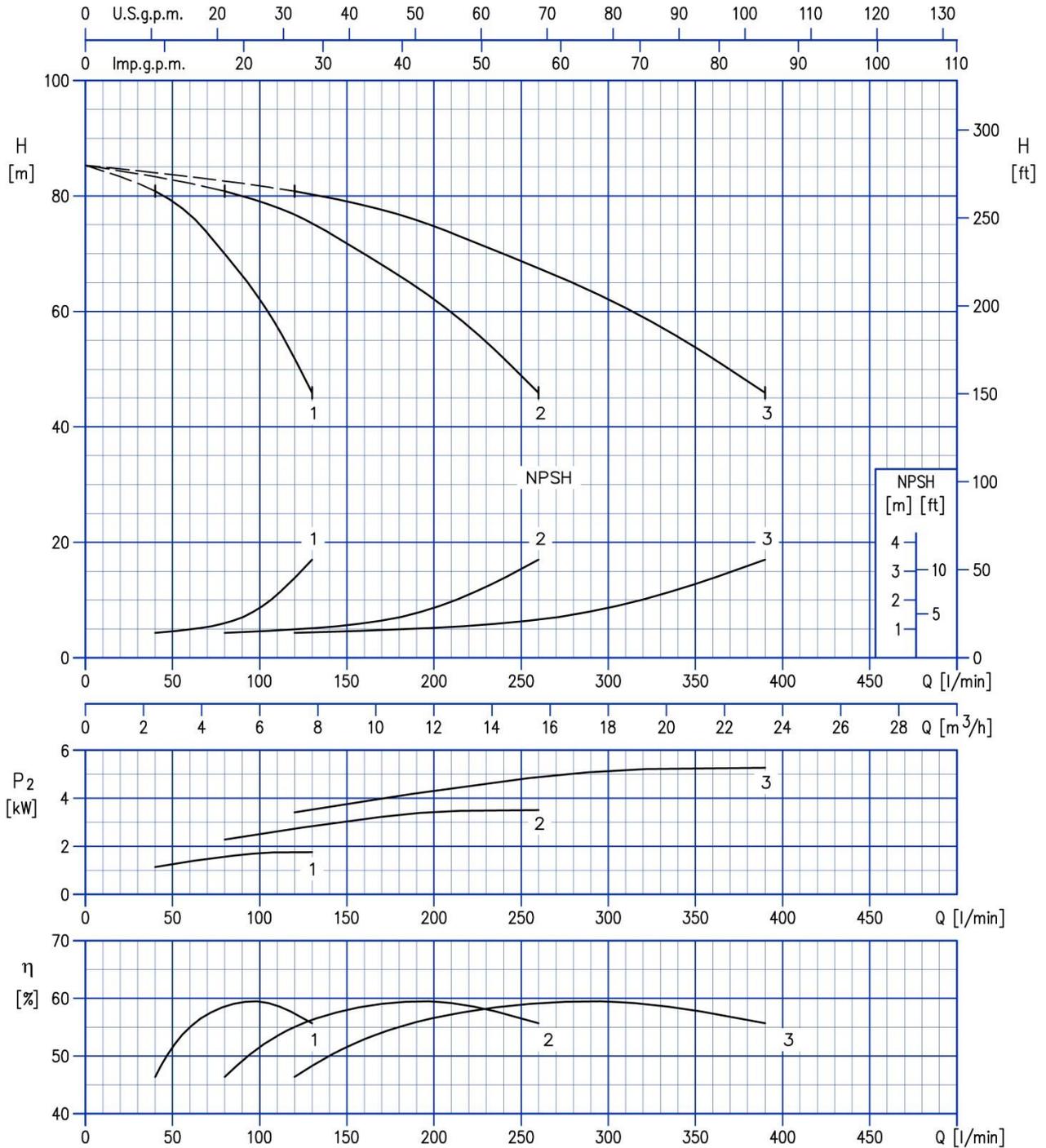
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 5-8/2.2



Test standard: ISO 9906: 2012 - Grade 3B

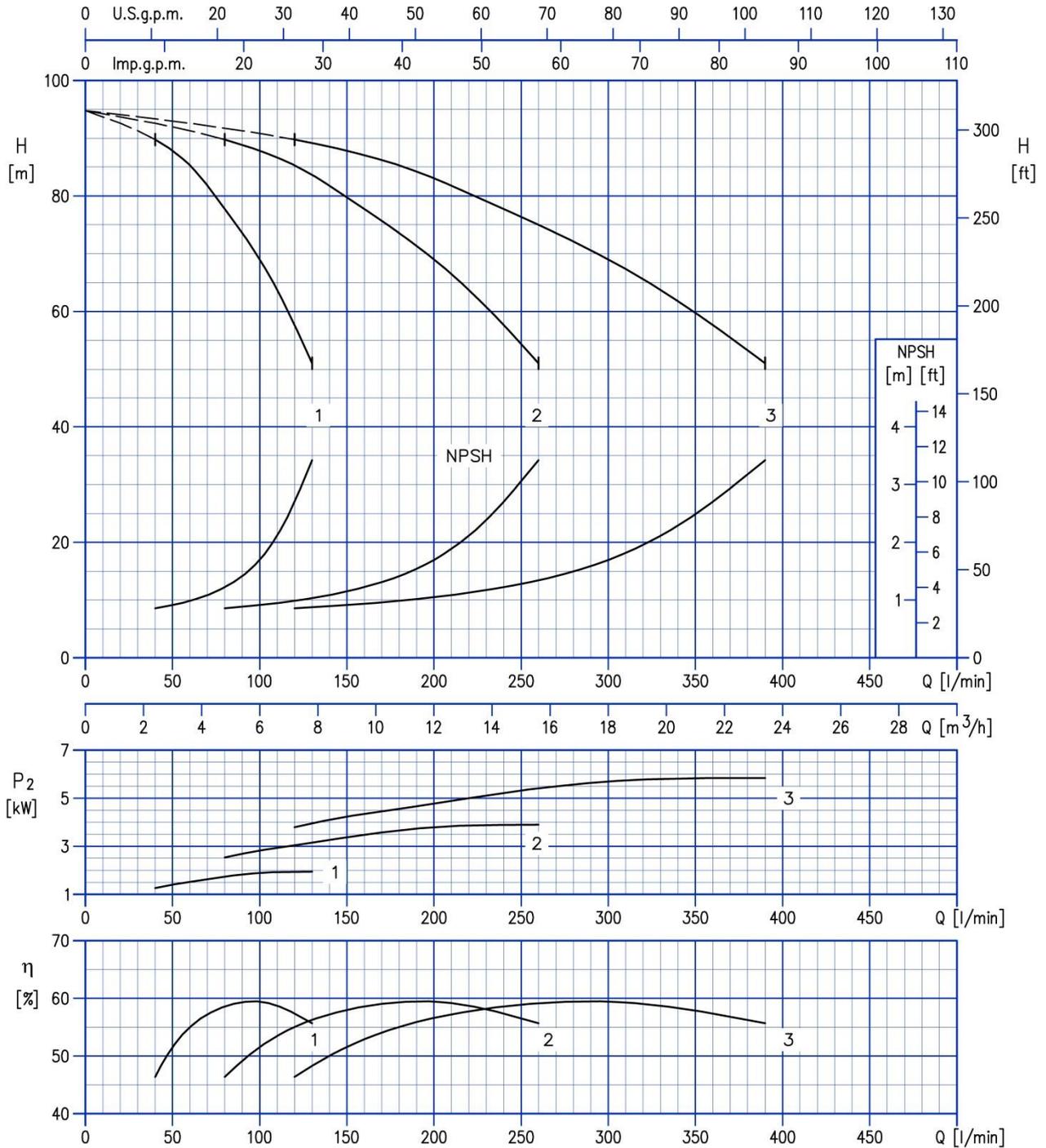
2-3 GPE EVMS 5-9/2.2



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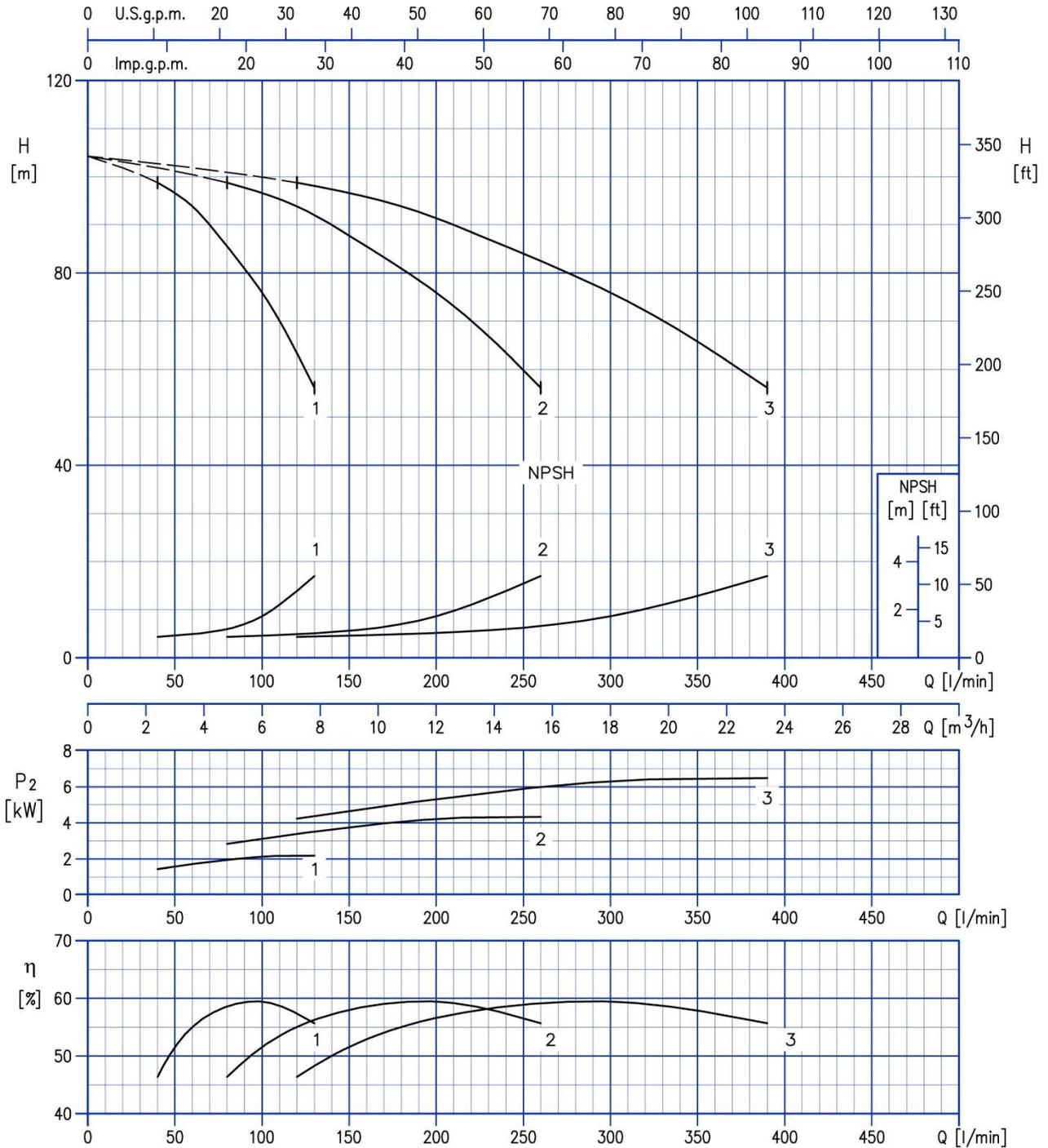
420

2-3 GPE EVMS 5-10/2.2



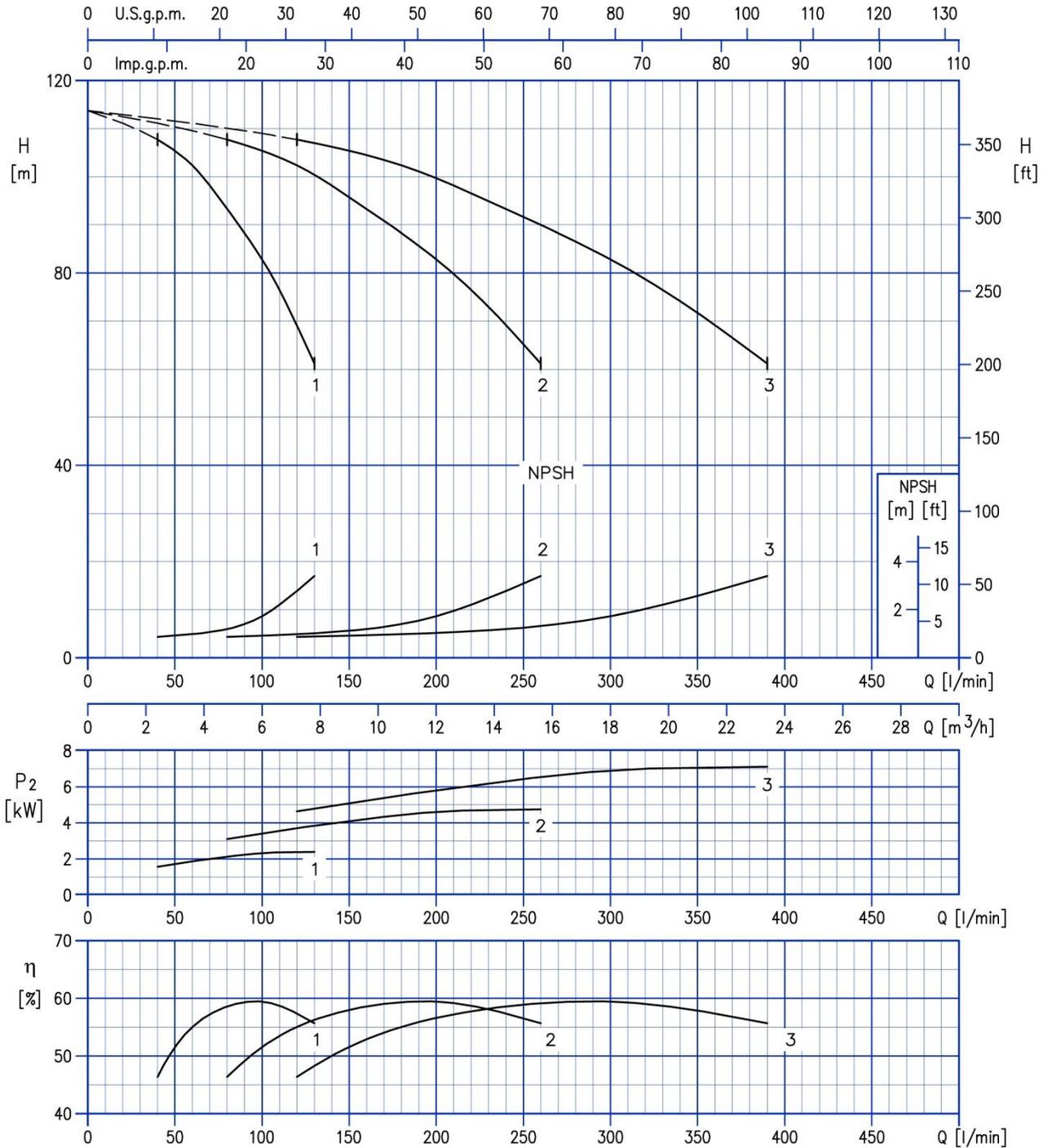
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2-3 GPE EVMS 5-11/2.2



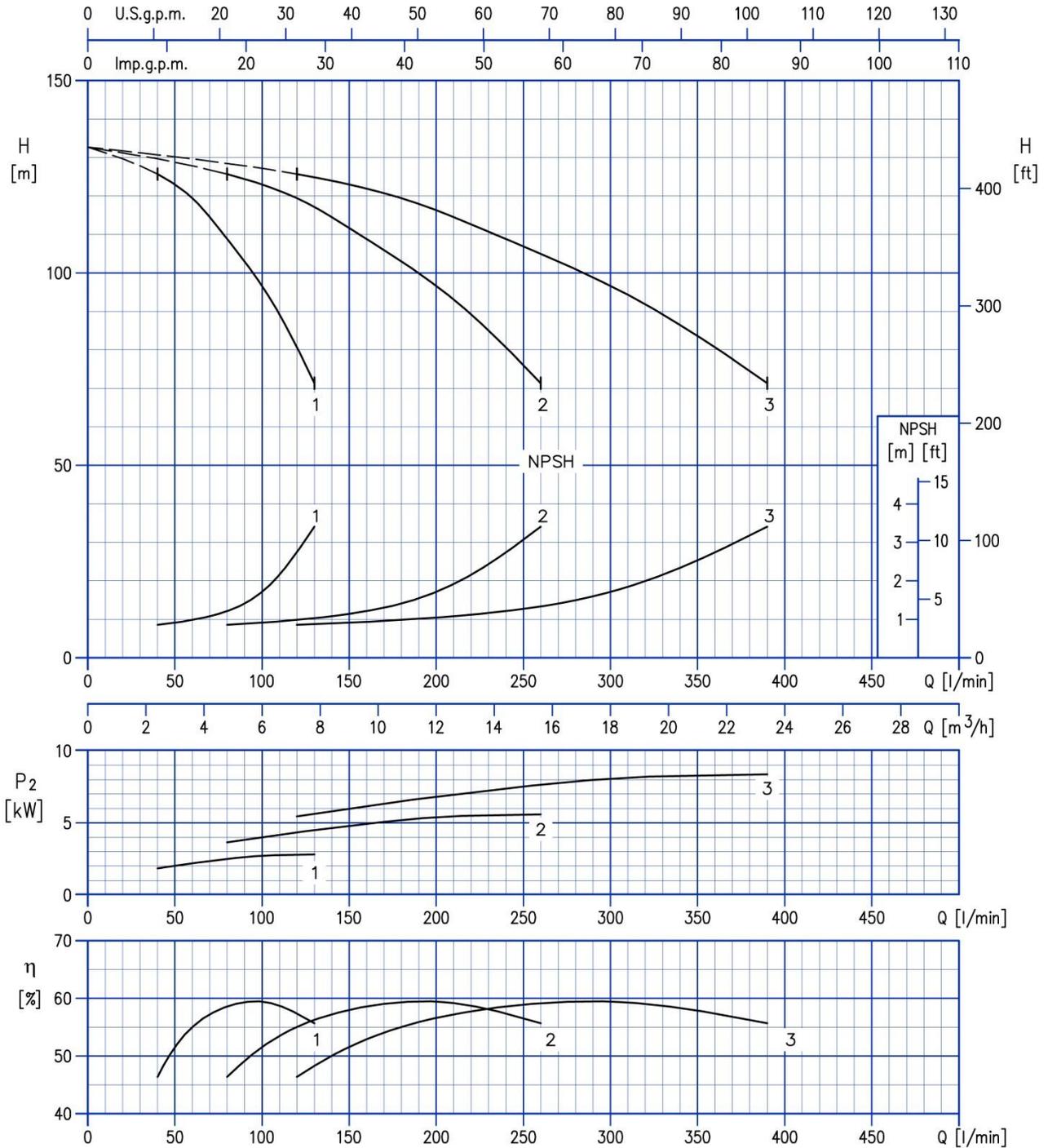
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2-3 GPE EVMS 5-12/3.0



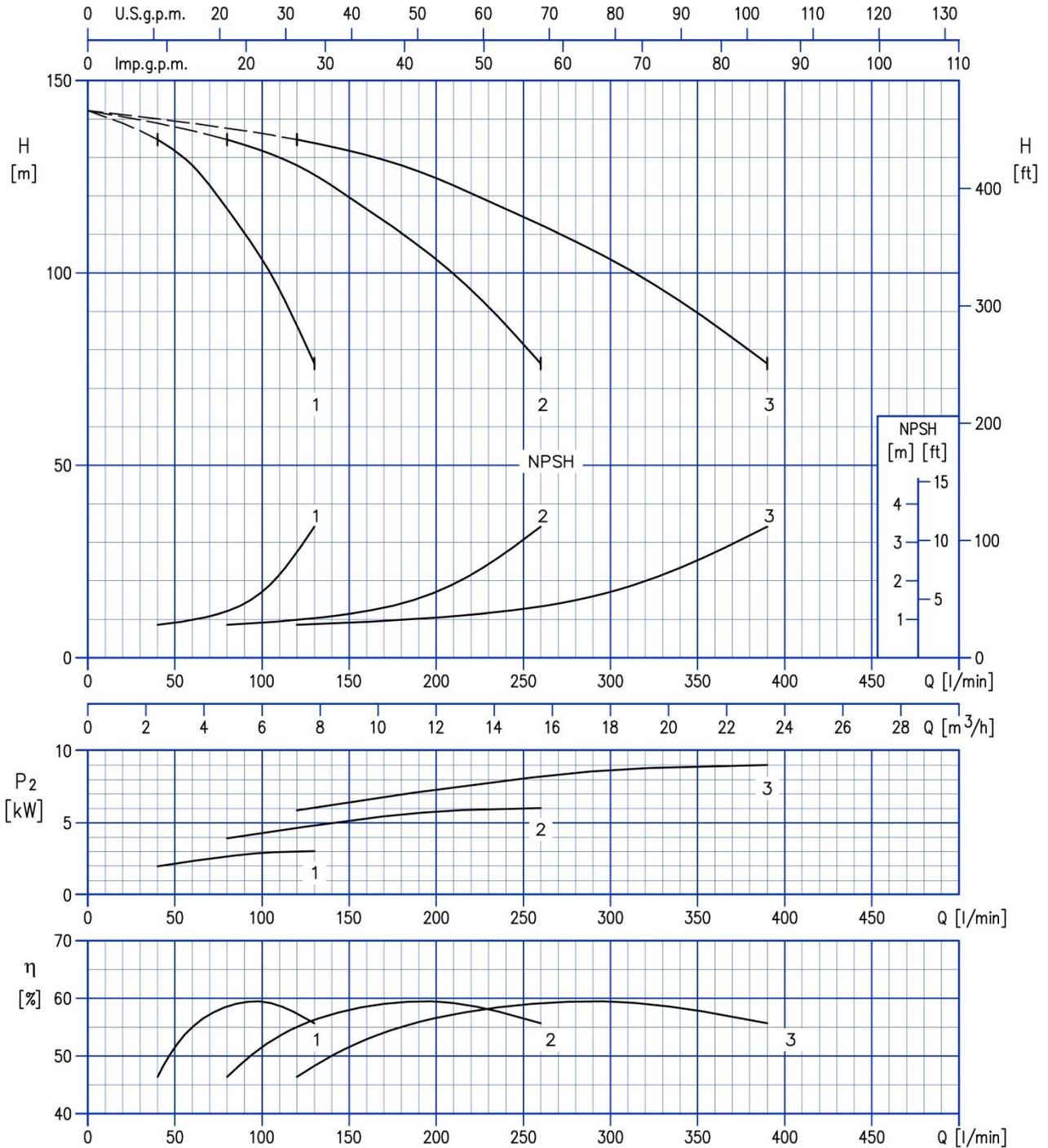
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2-3 GPE EVMS 5-14/3.0



Test standard: ISO 9906: 2012 - Grade 3B

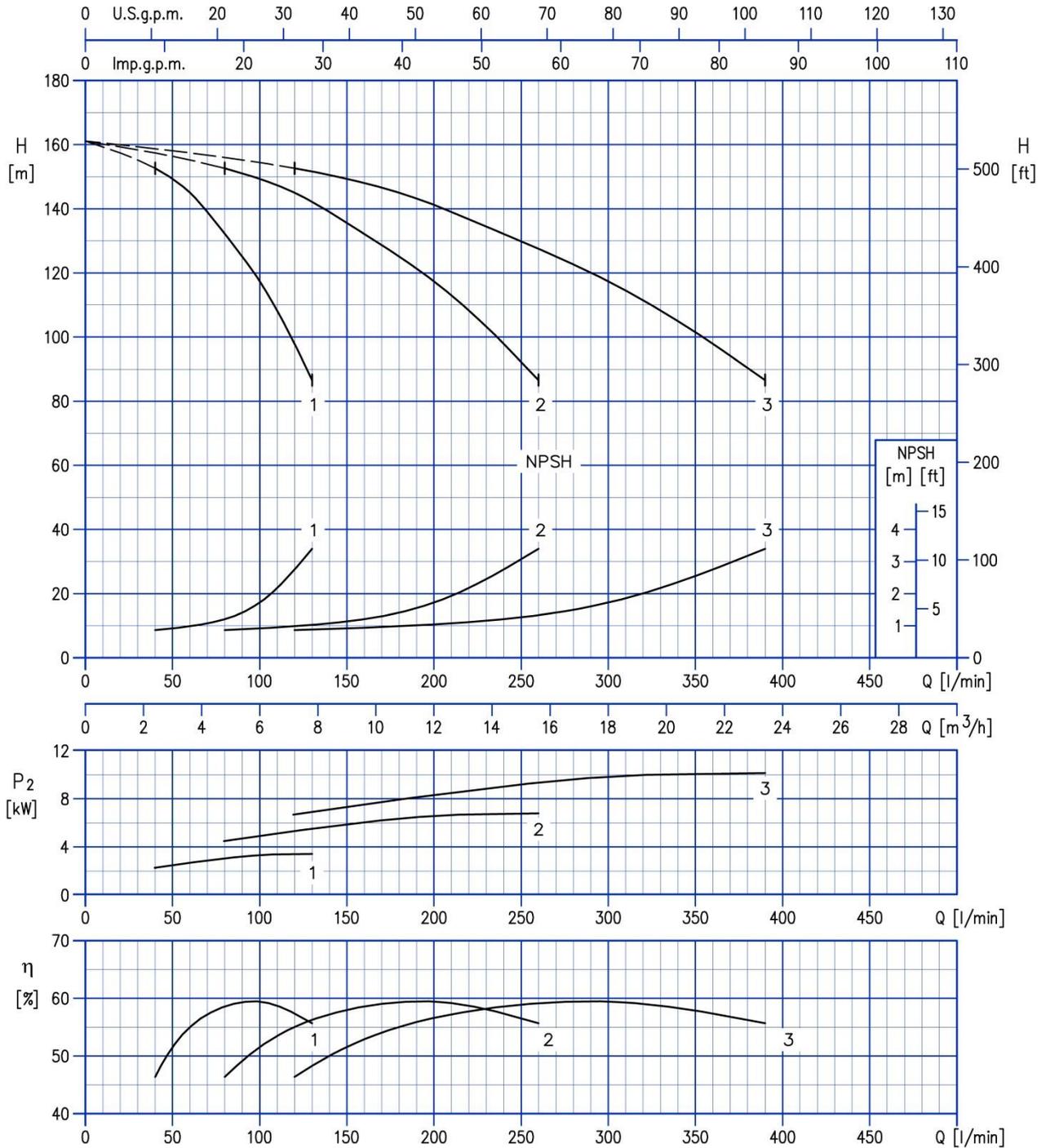
2-3 GPE EVMS 5-15/3.0



Test standard: ISO 9906: 2012 - Grade 3B

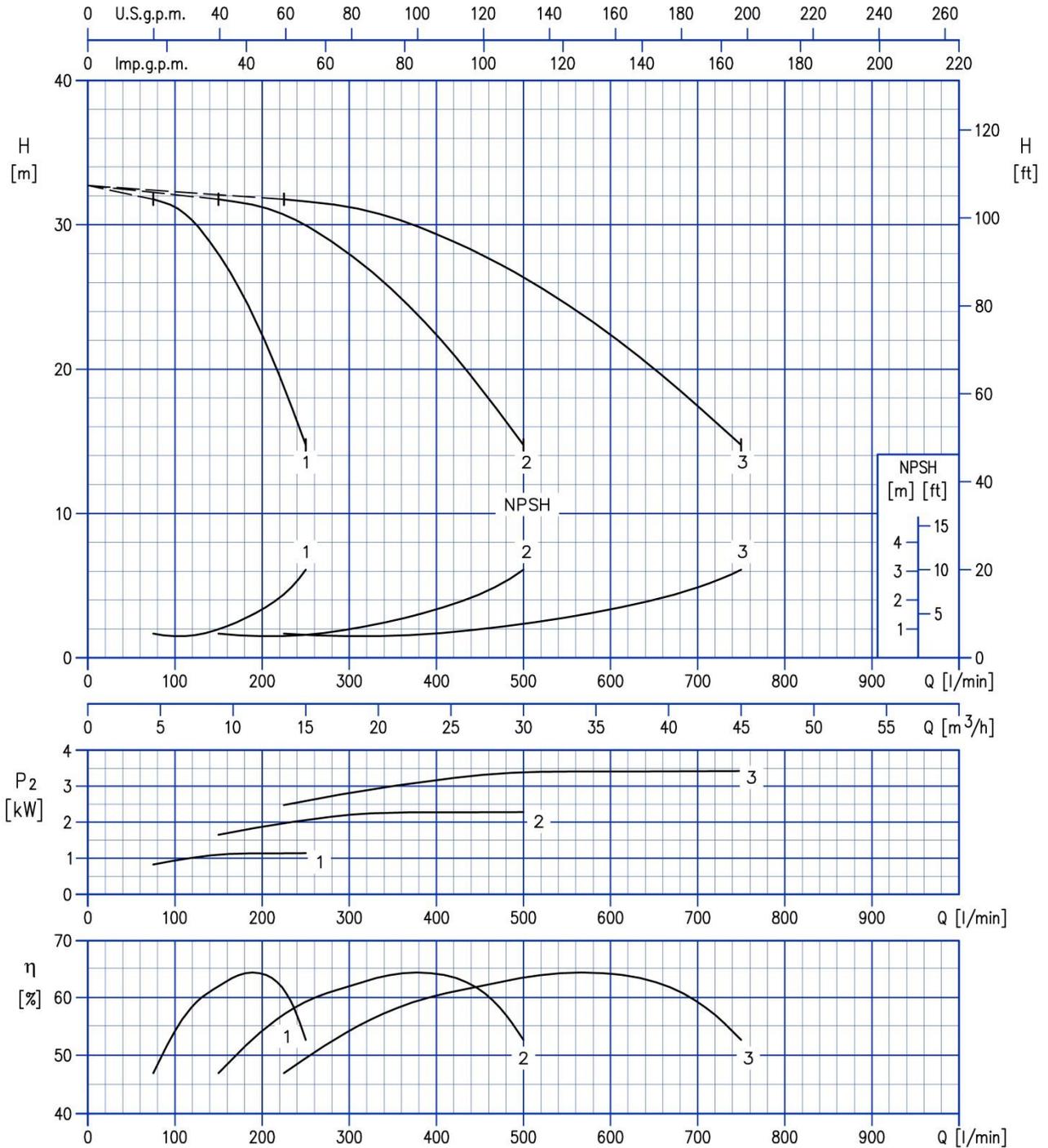
425

2-3 GPE EVMS 5-17/4.0



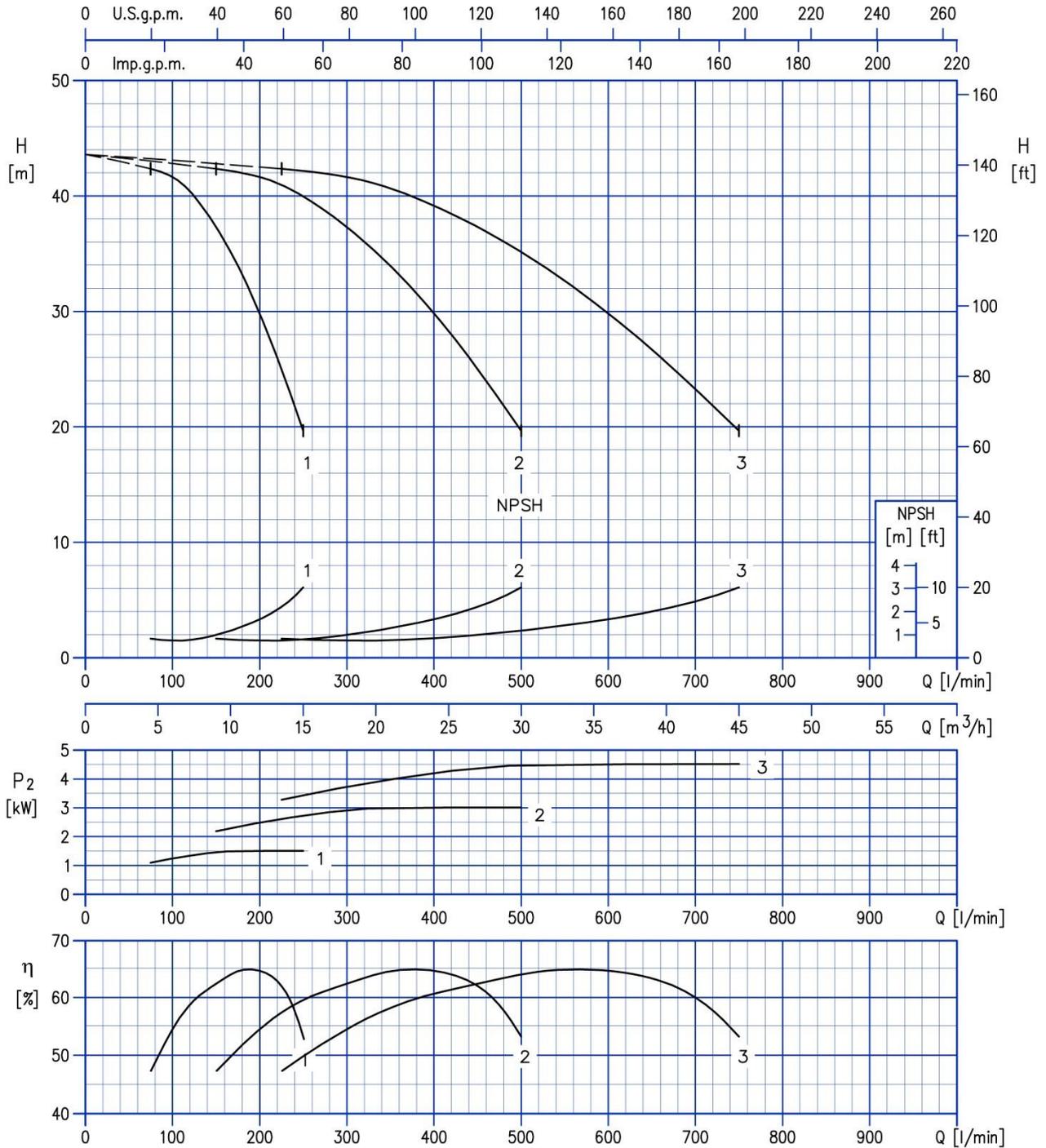
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2-3 GPE EVMS 10-3/1.5



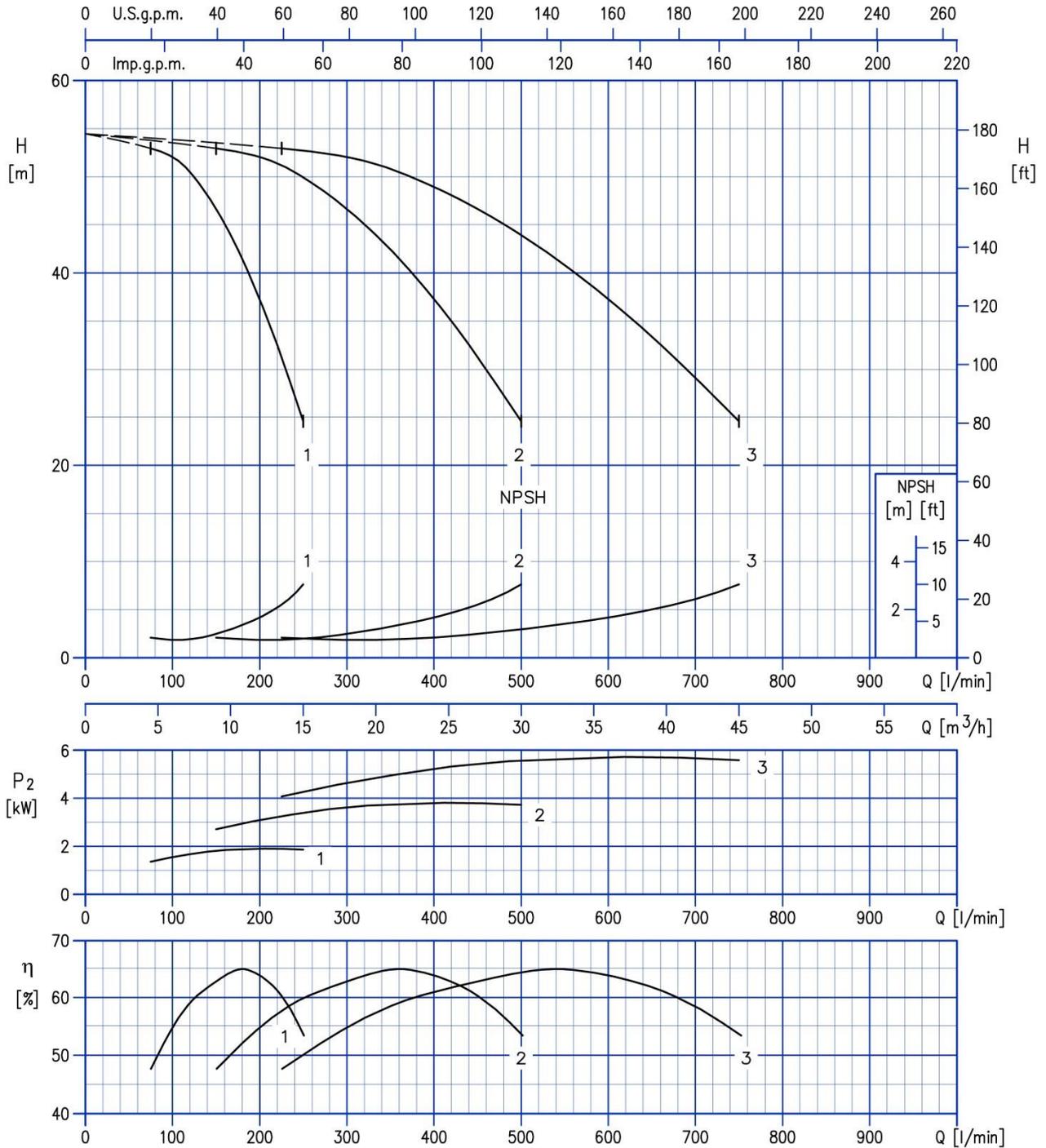
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2-3 GPE EVMS 10-4/2.2



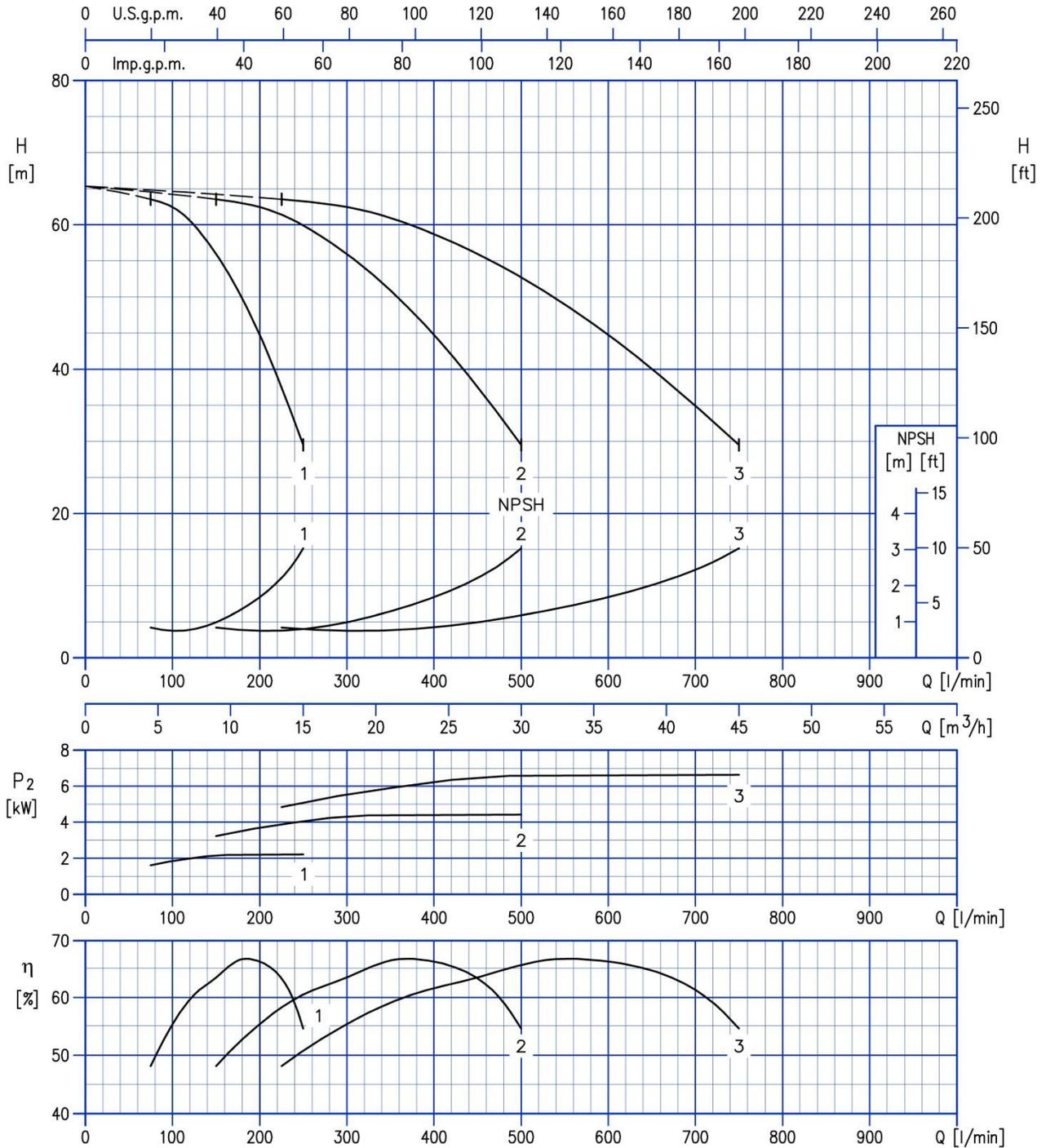
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2-3 GPE EVMS 10-5/2.2



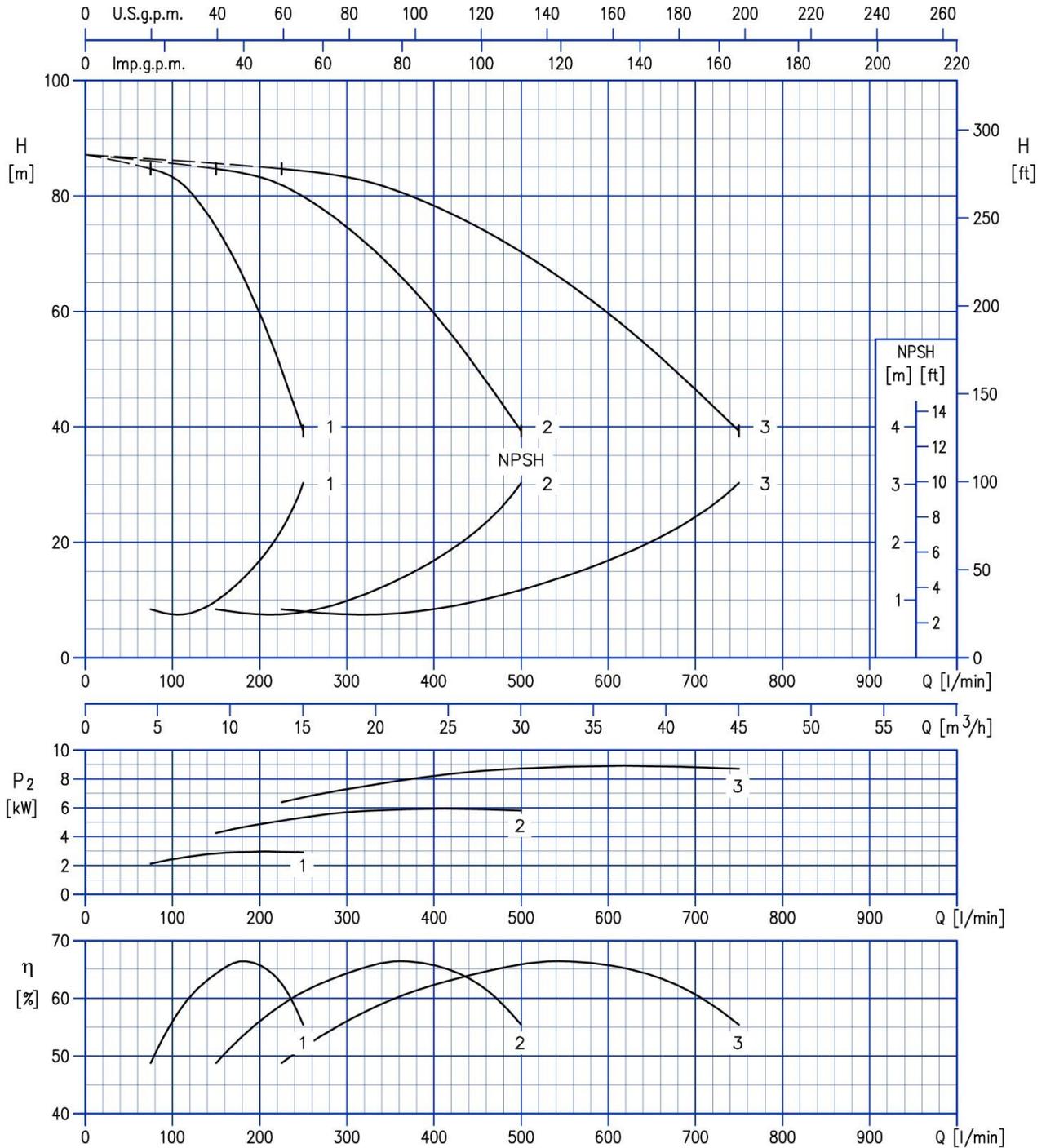
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2-3 GPE EVMS 10-6/2.2



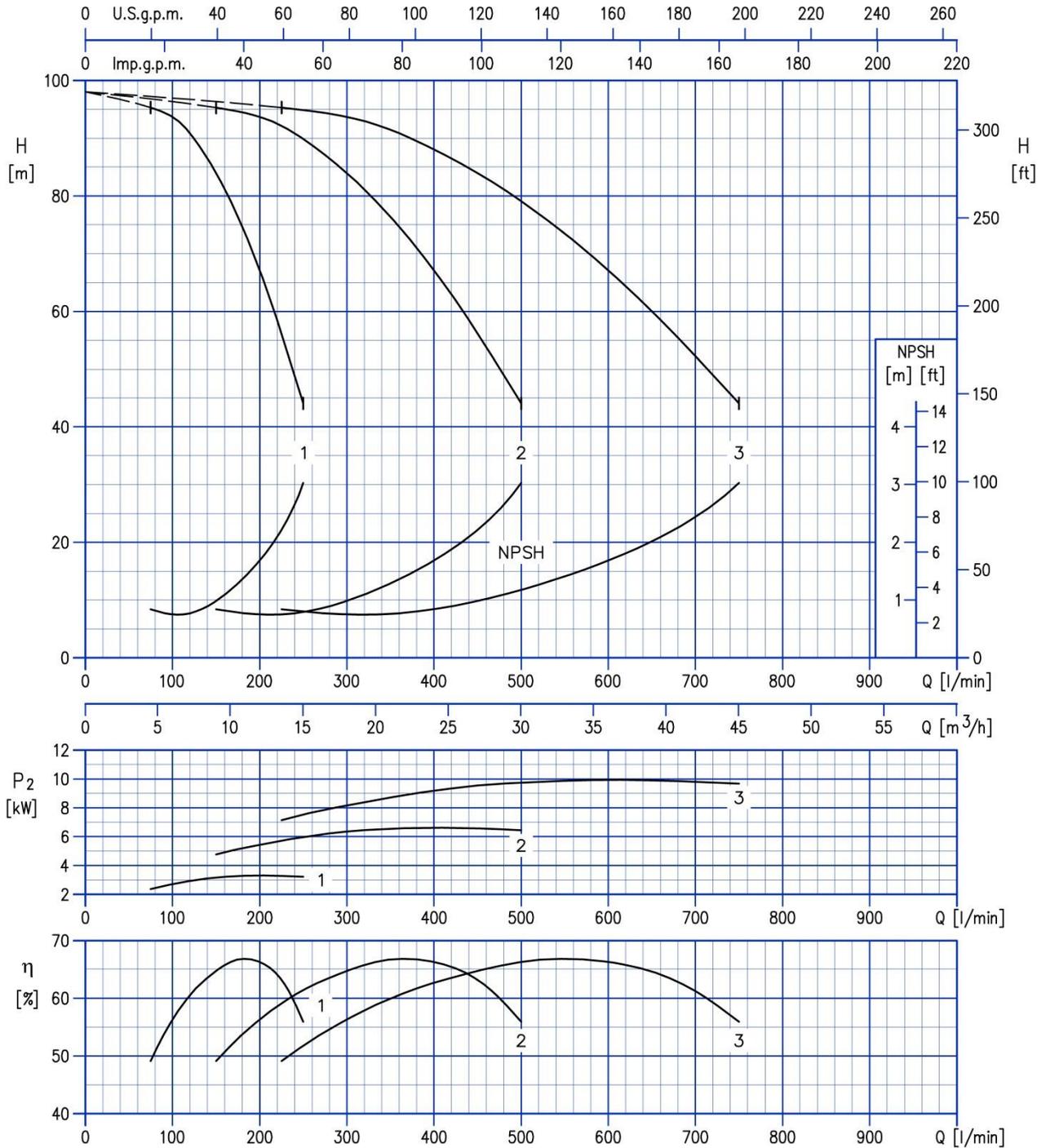
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2-3 GPE EVMS 10-8/3.0



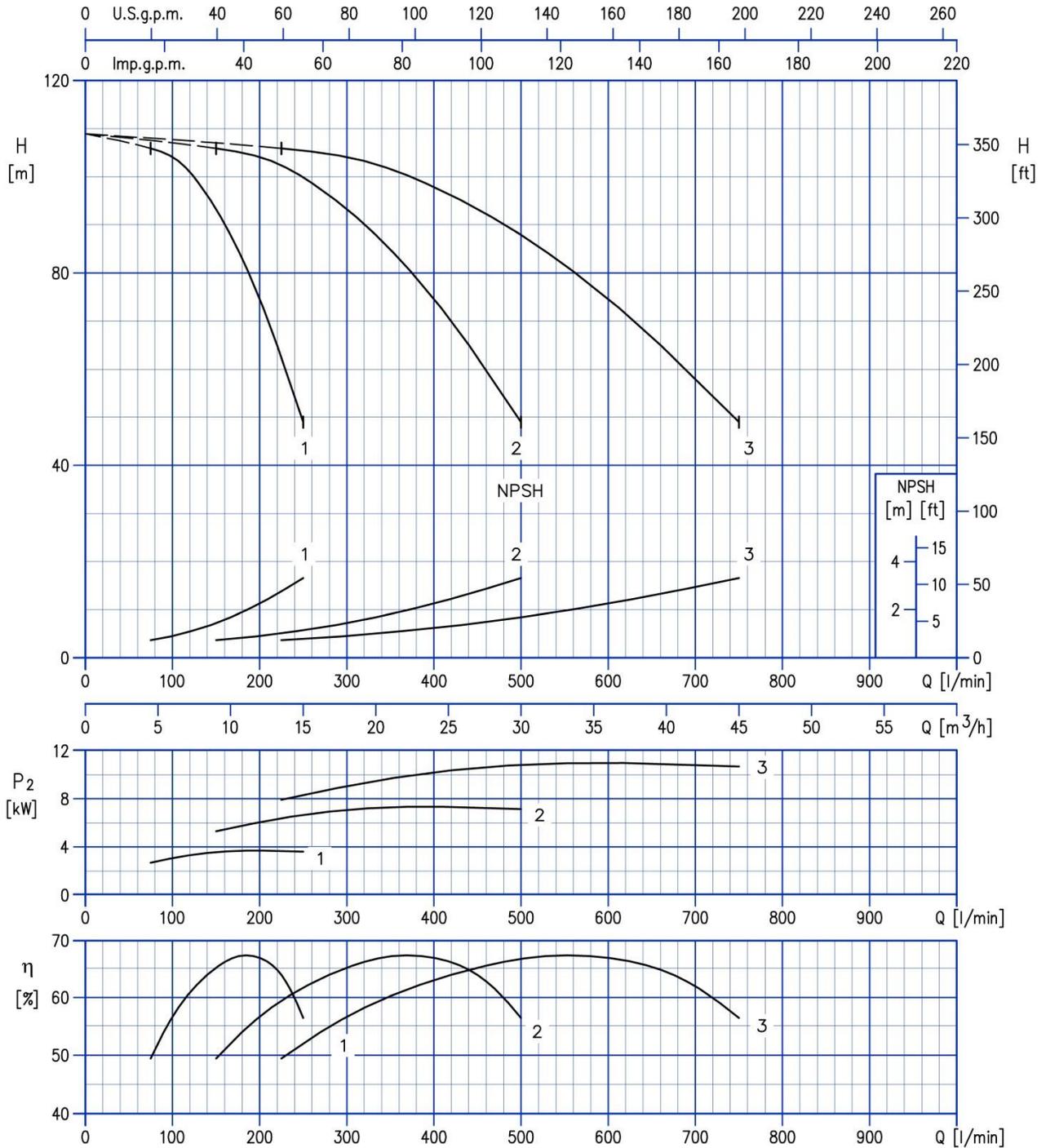
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2-3 GPE EVMS 10-9/4.0



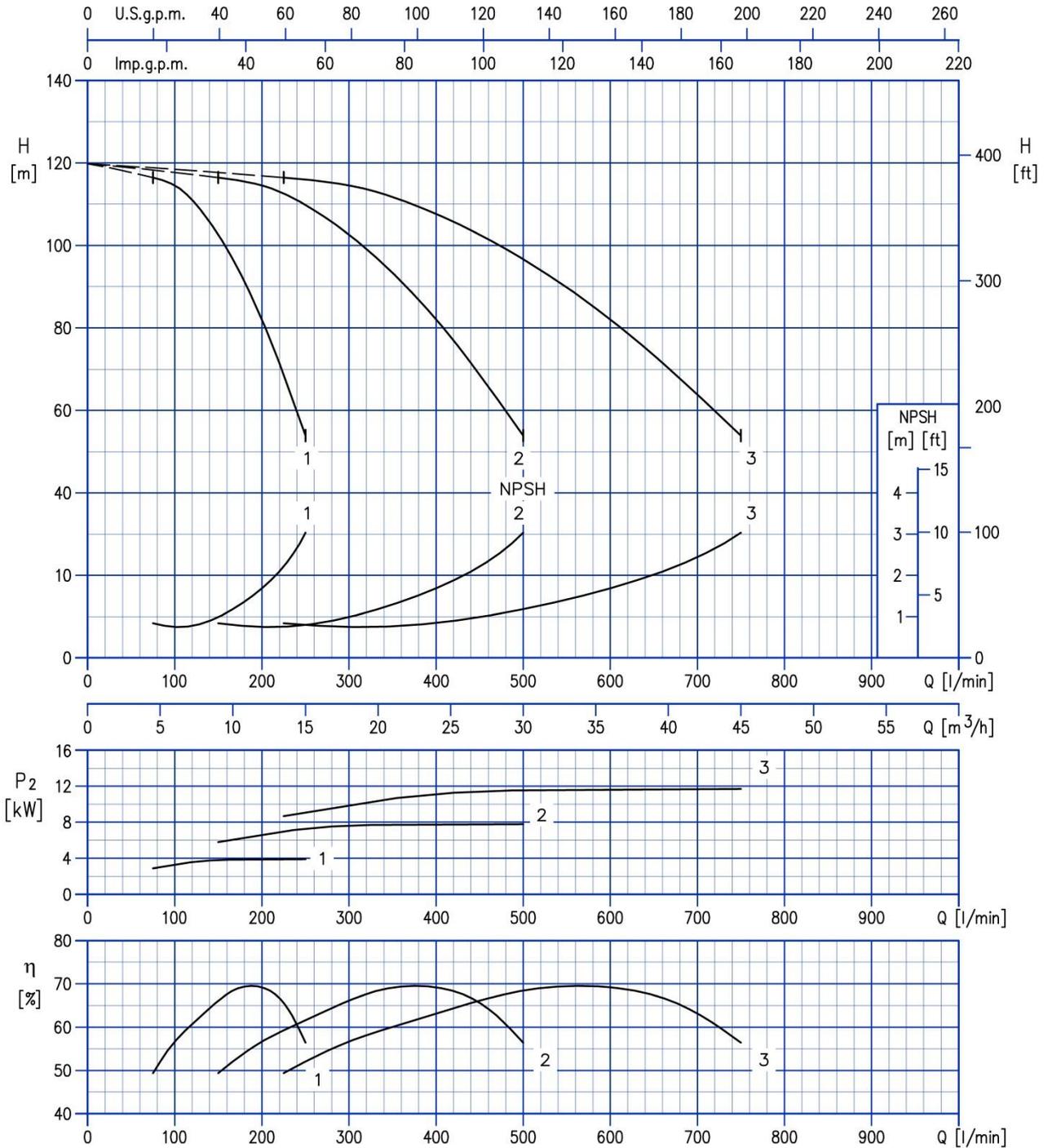
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2-3 GPE EVMS 10-10/4.0



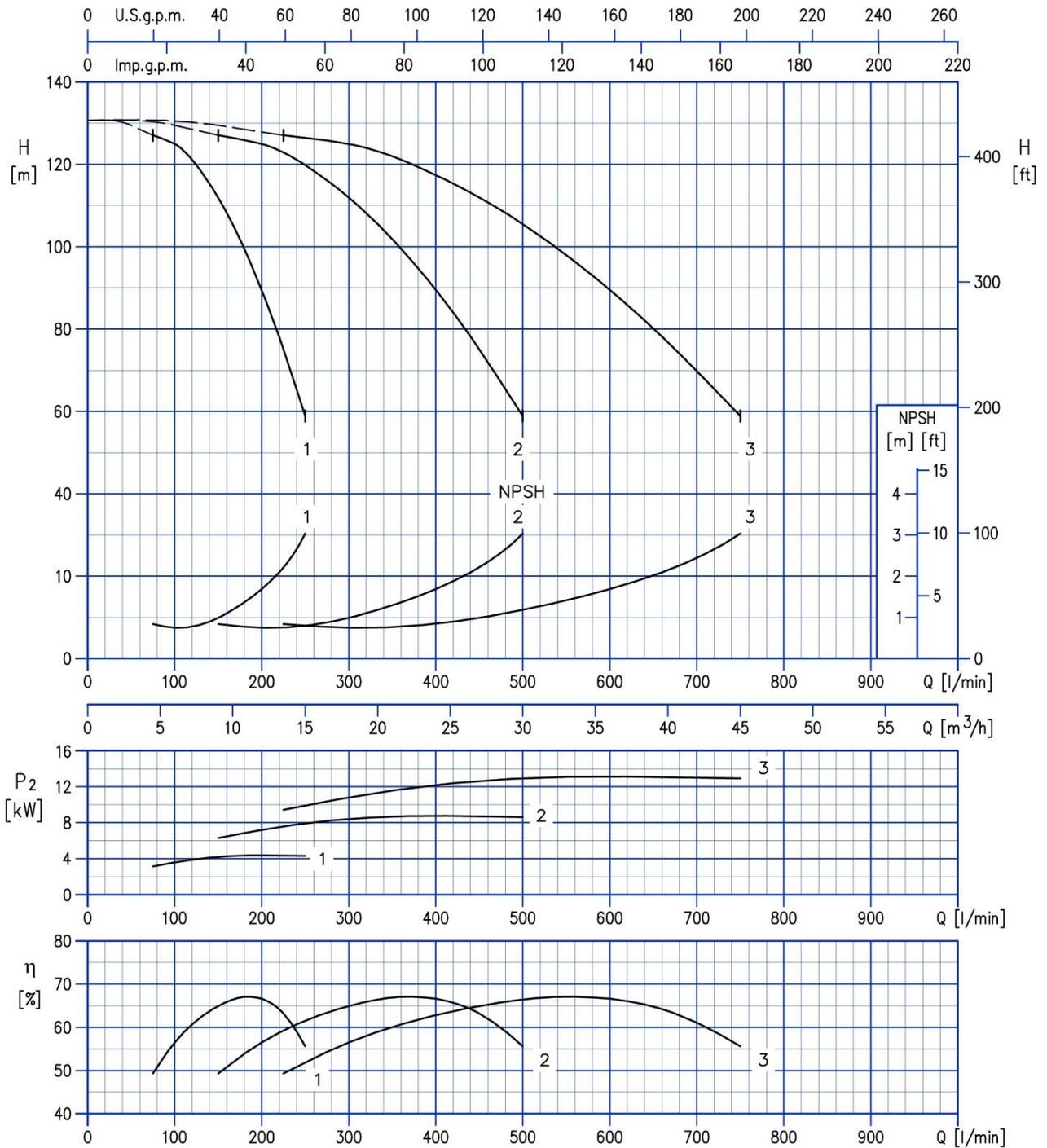
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2-3 GPE EVMS 10-11/4.0



Test standard: ISO 9906: 2012 - Grade 3B

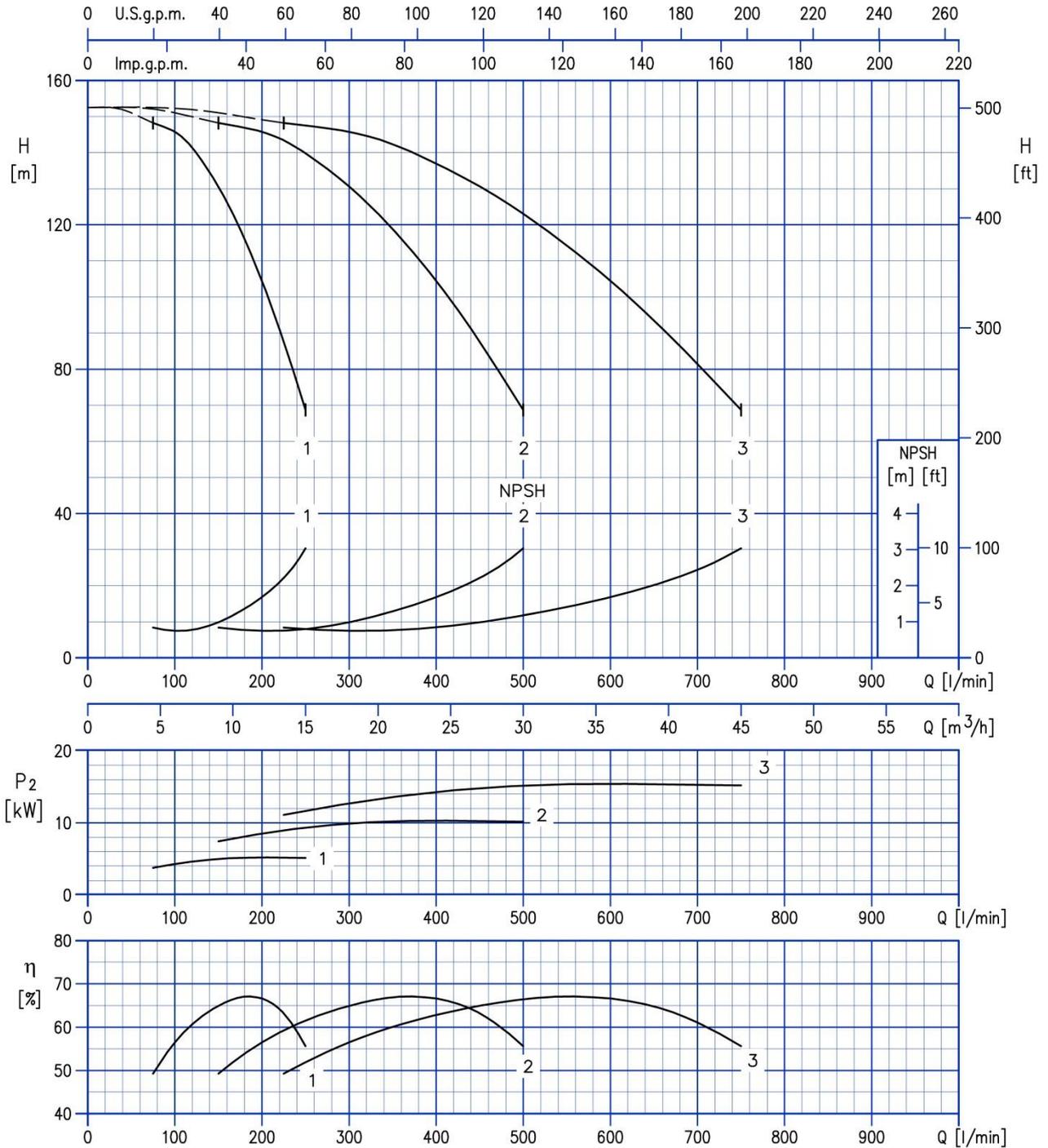
2-3 GPE EVMS 10-12/5.5



Test standard: ISO 9906: 2012 - Grade 3B

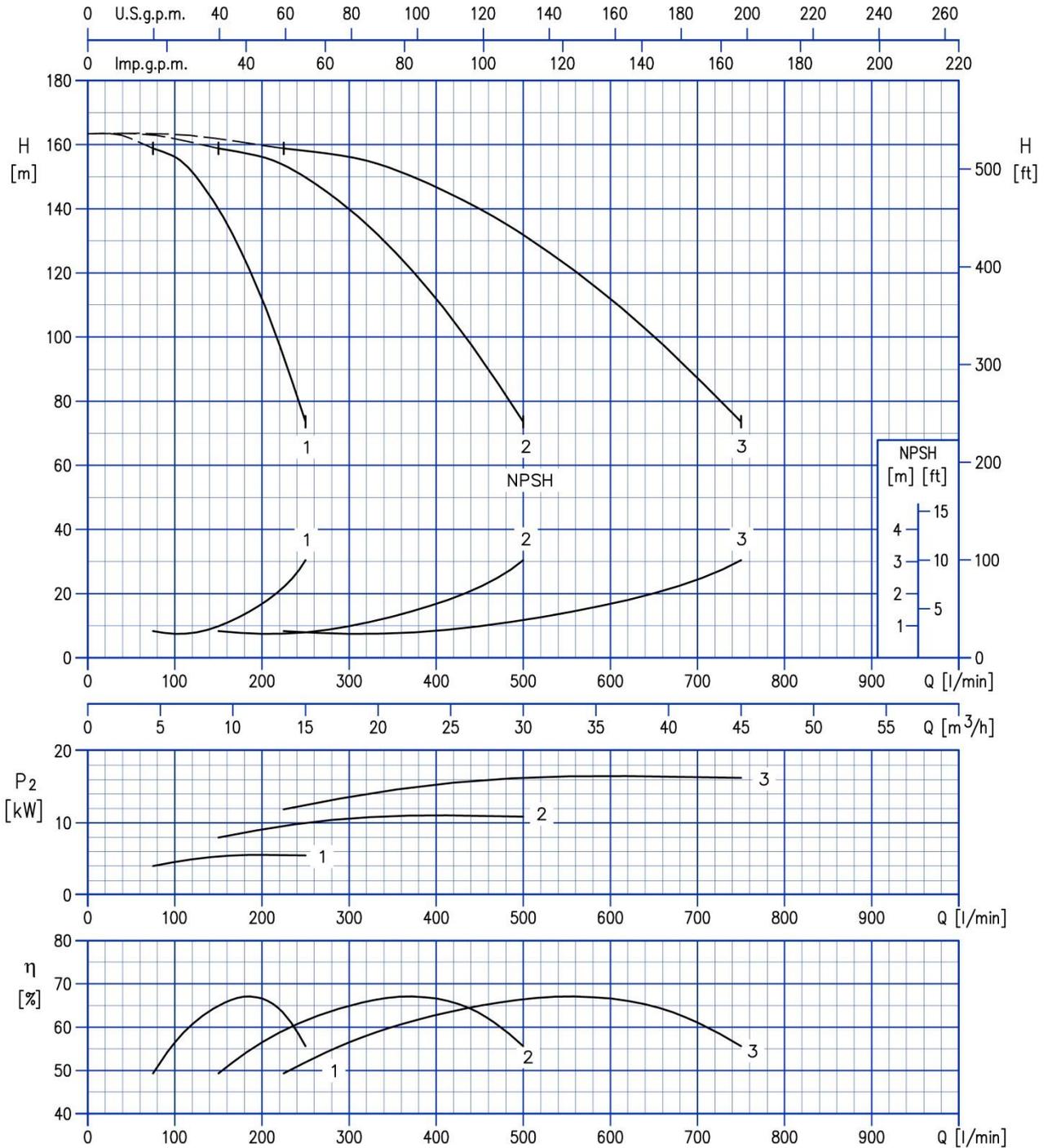
435

2-3 GPE EVMS 10-14/5.5



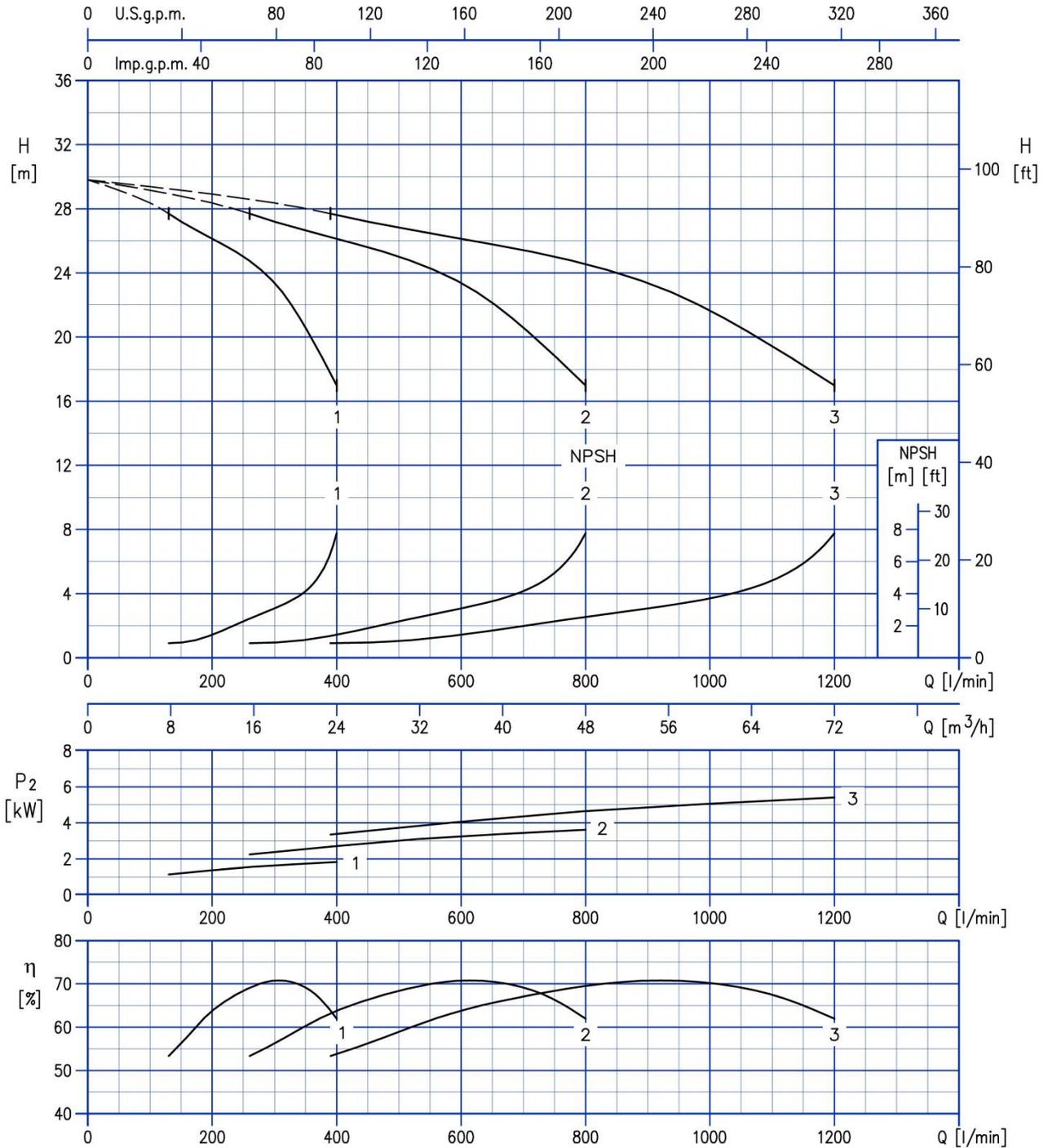
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 10-15/5.5



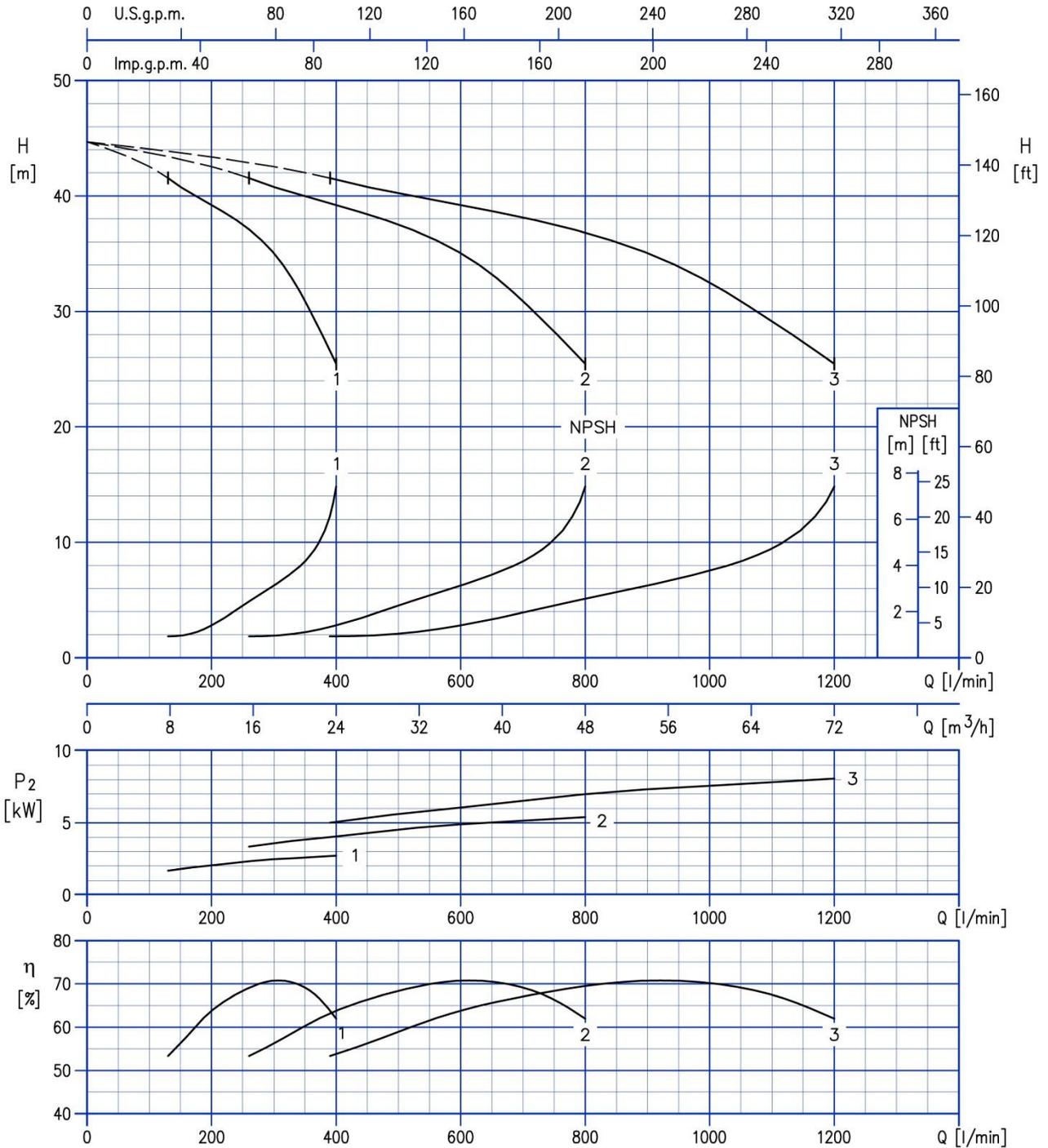
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 15-2/2.2



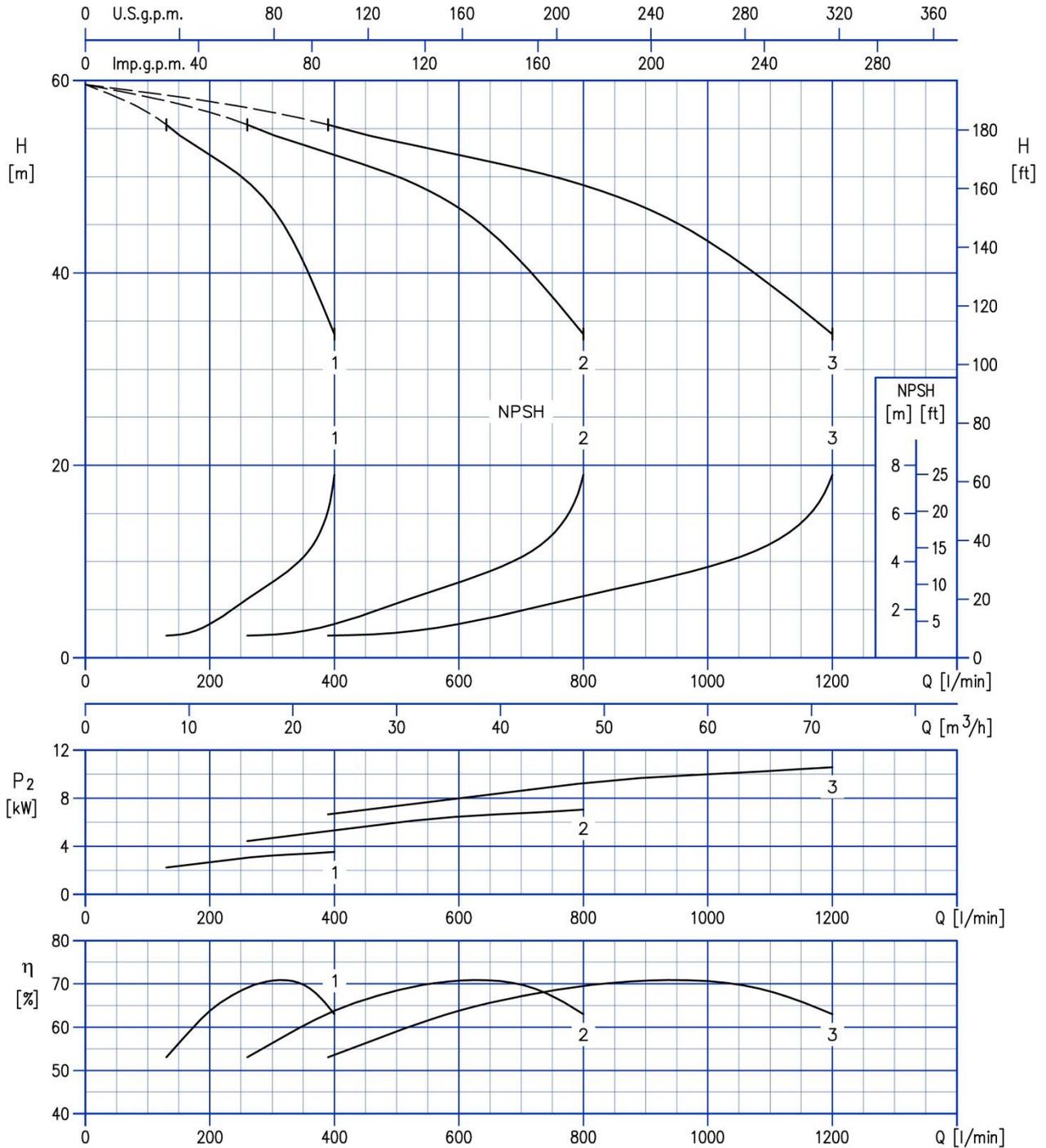
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 15-3/3.0



Test standard: ISO 9906: 2012 - Grade 3B

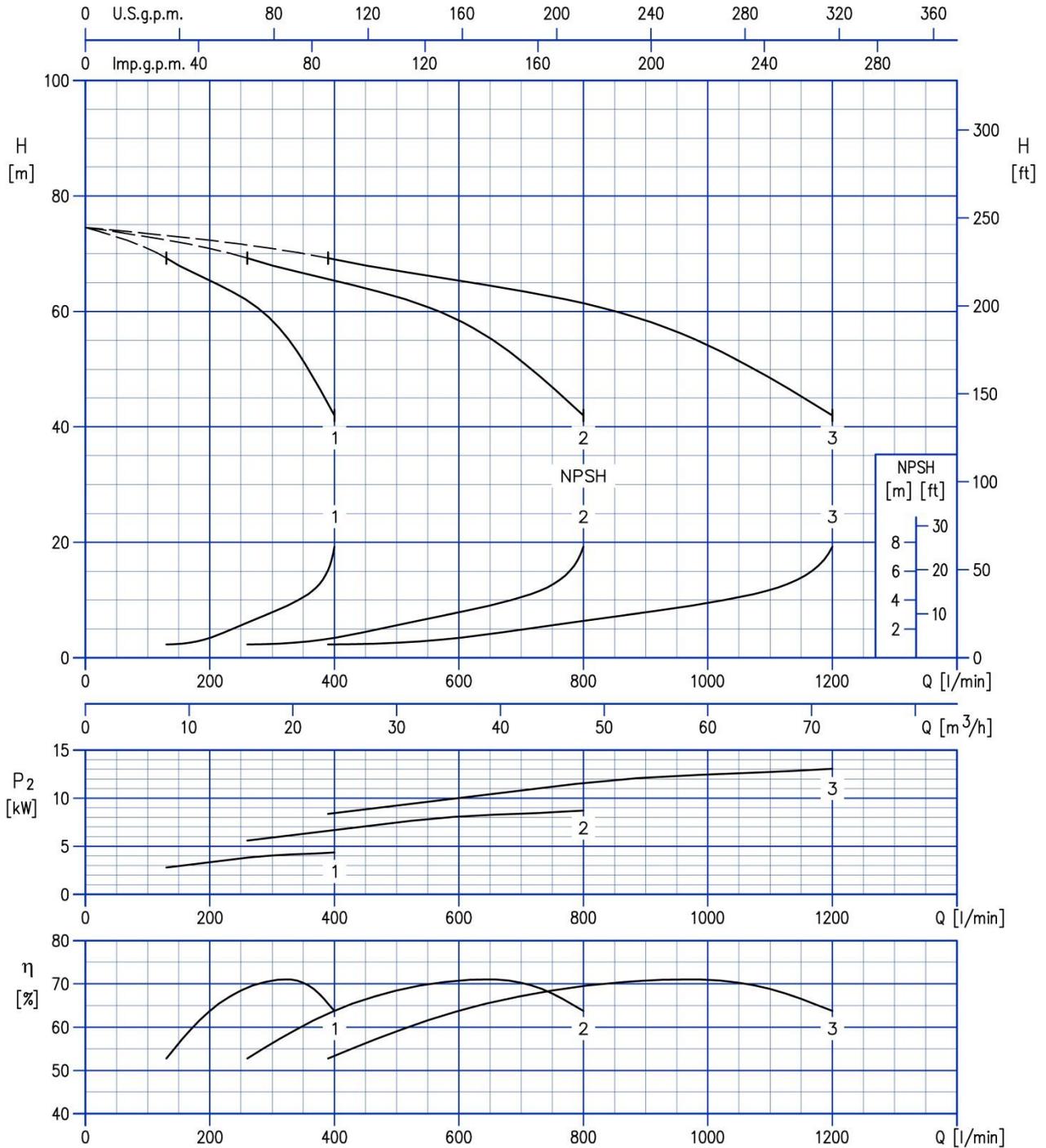
2-3 GPE EVMS 15-4/4.0



Test standard: ISO 9906: 2012 - Grade 3B

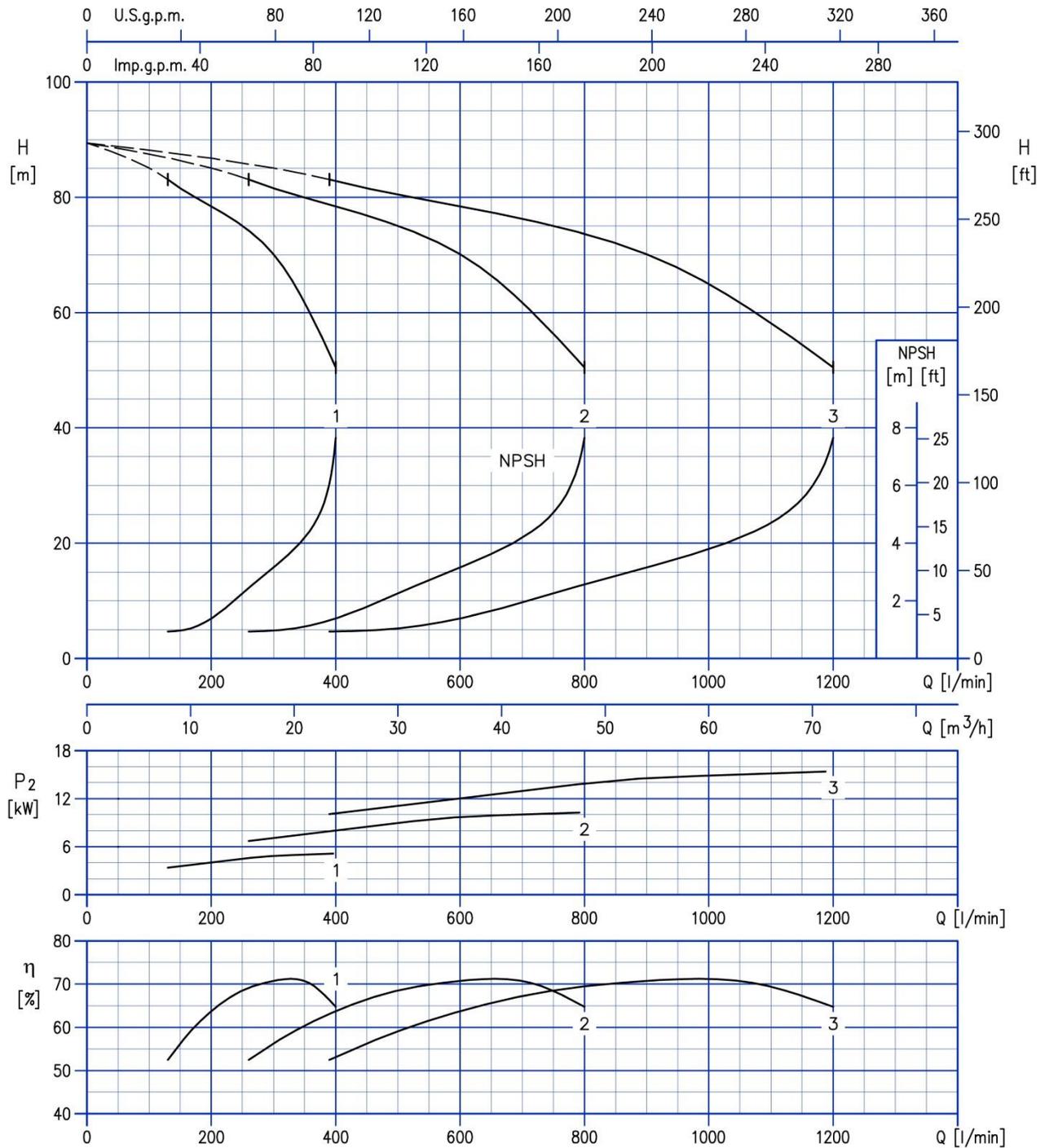
440

2-3 GPE EVMS 15-5/5.5



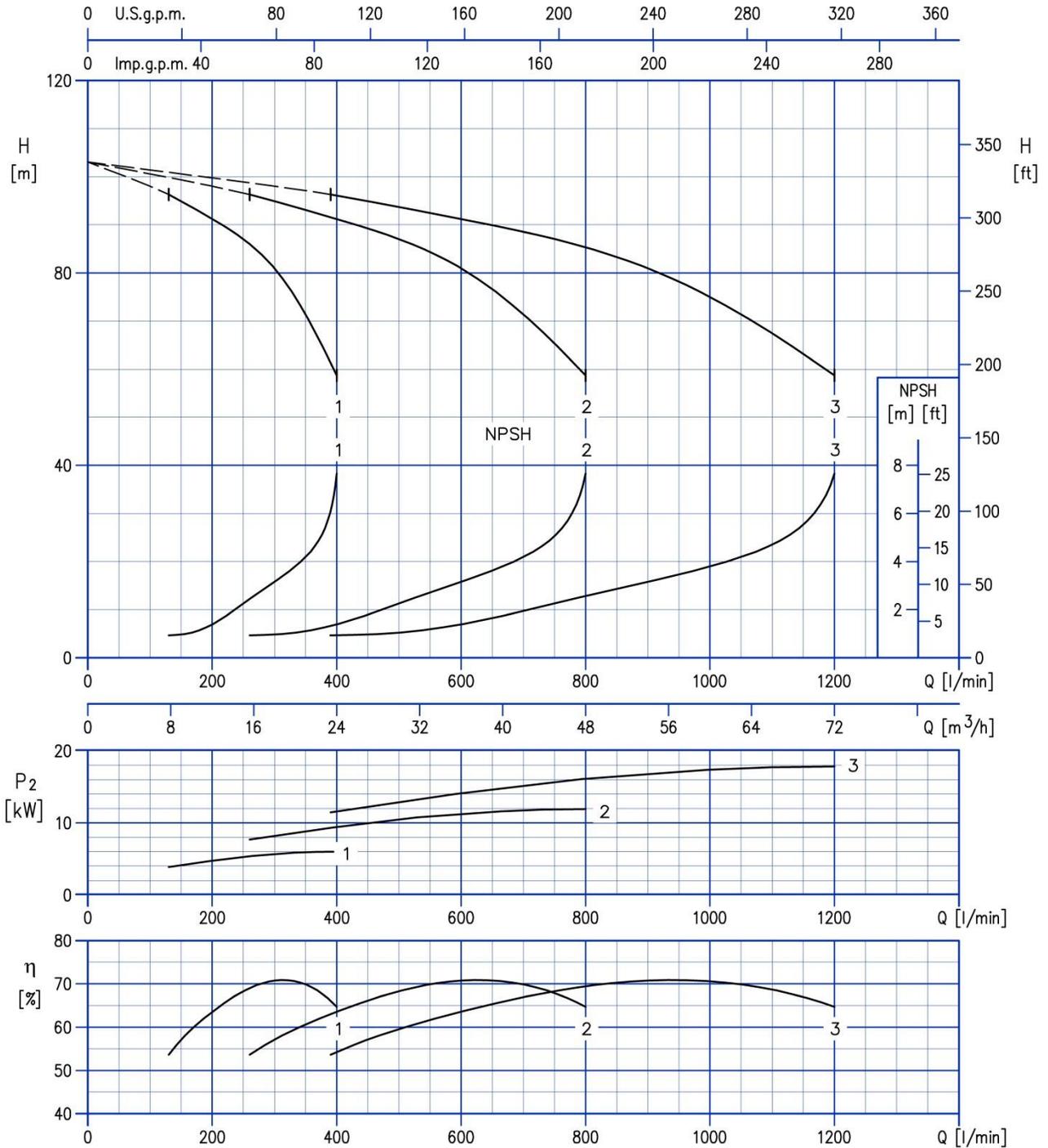
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 15-6/5.5



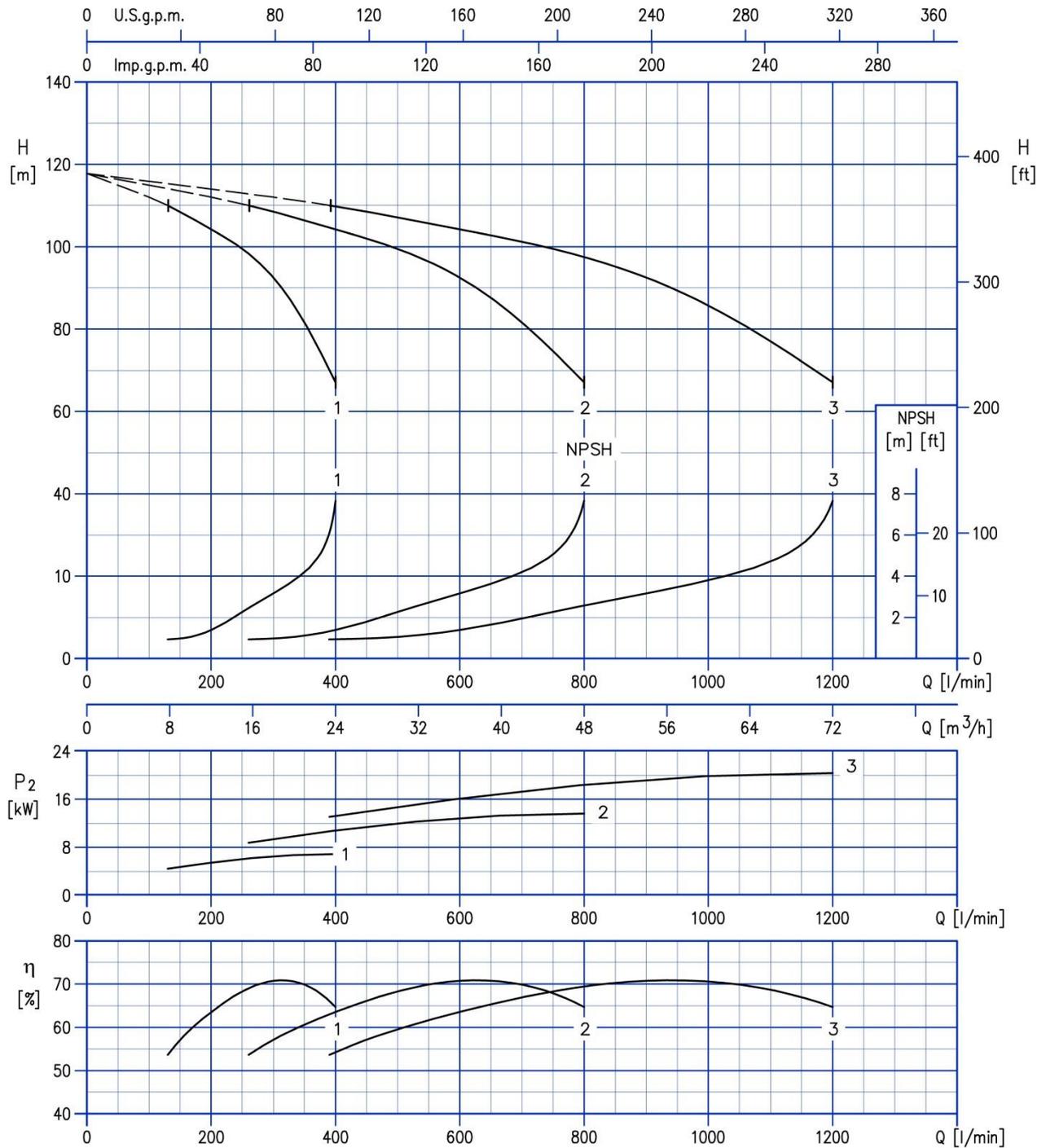
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 15-7/7.5



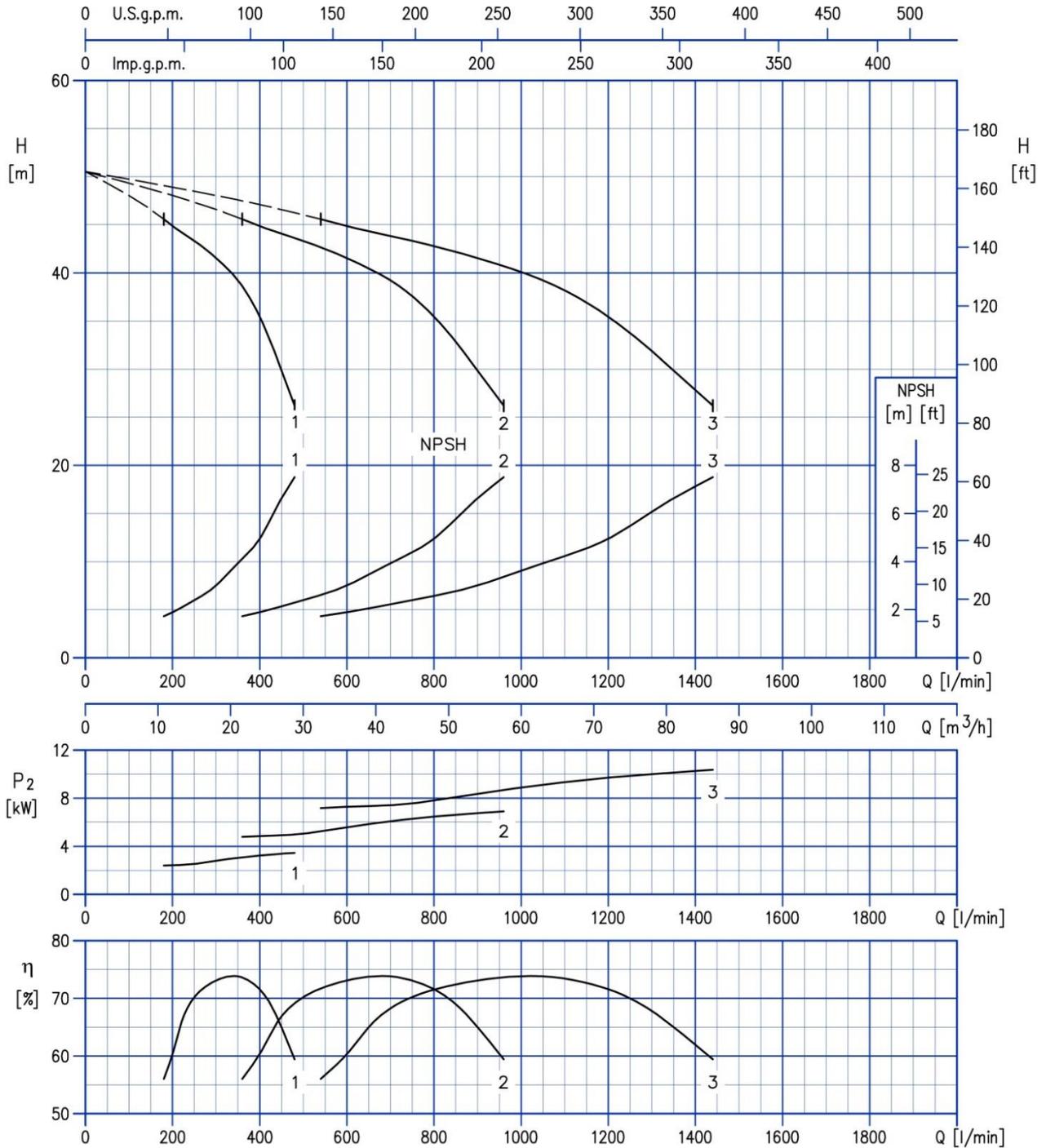
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 15-8/7.5



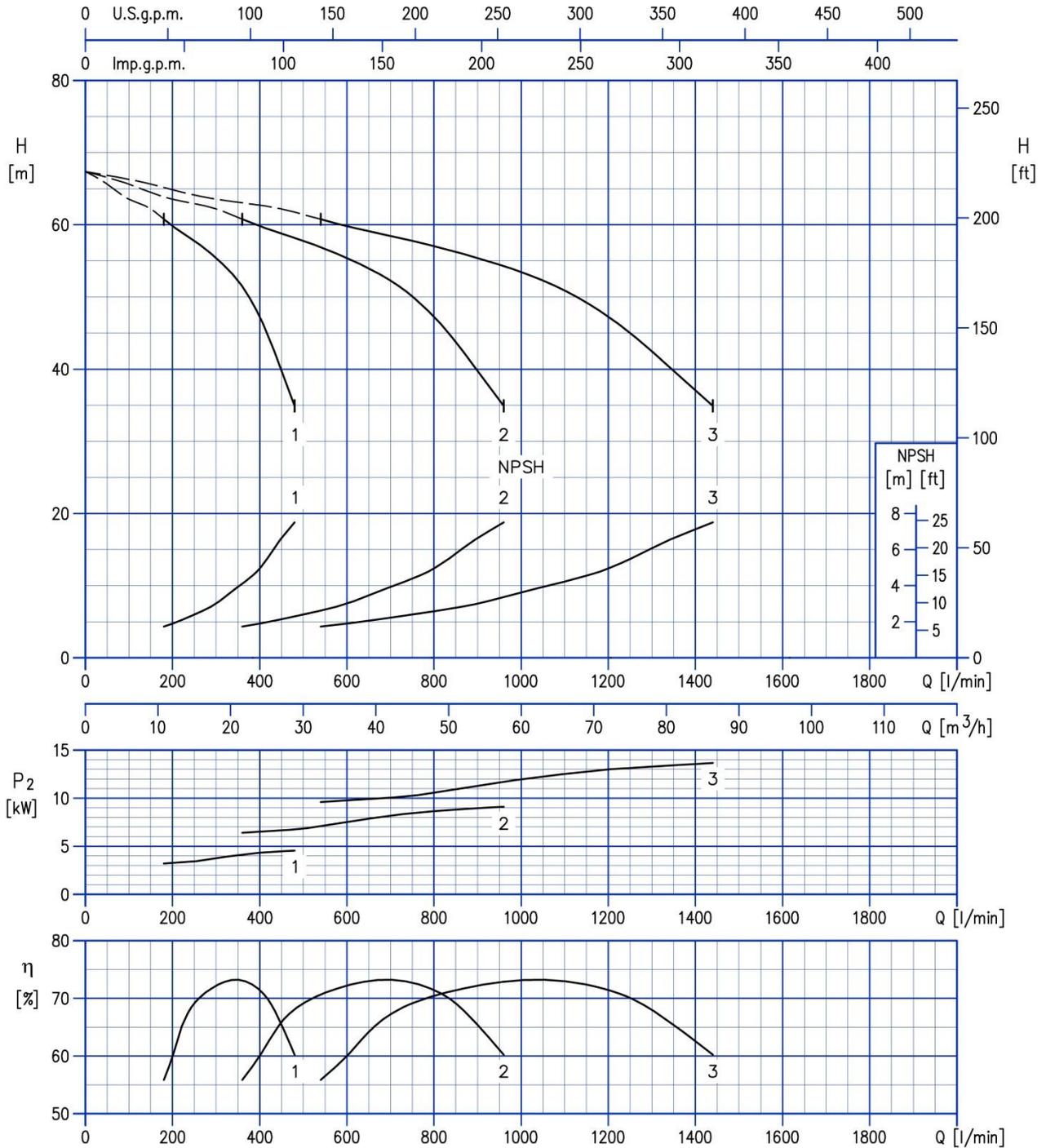
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 20-3/4.0



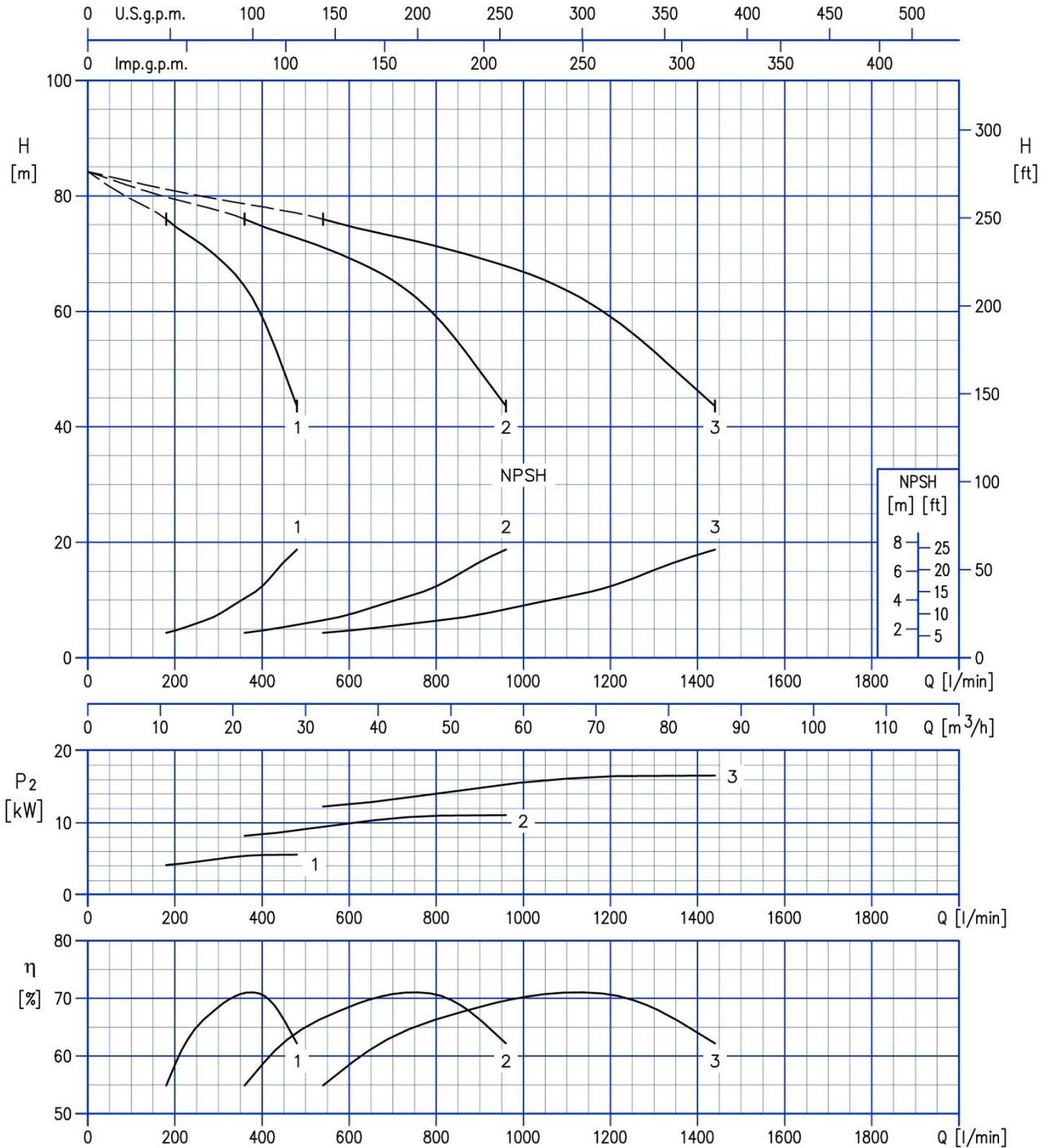
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 20-4/5.5



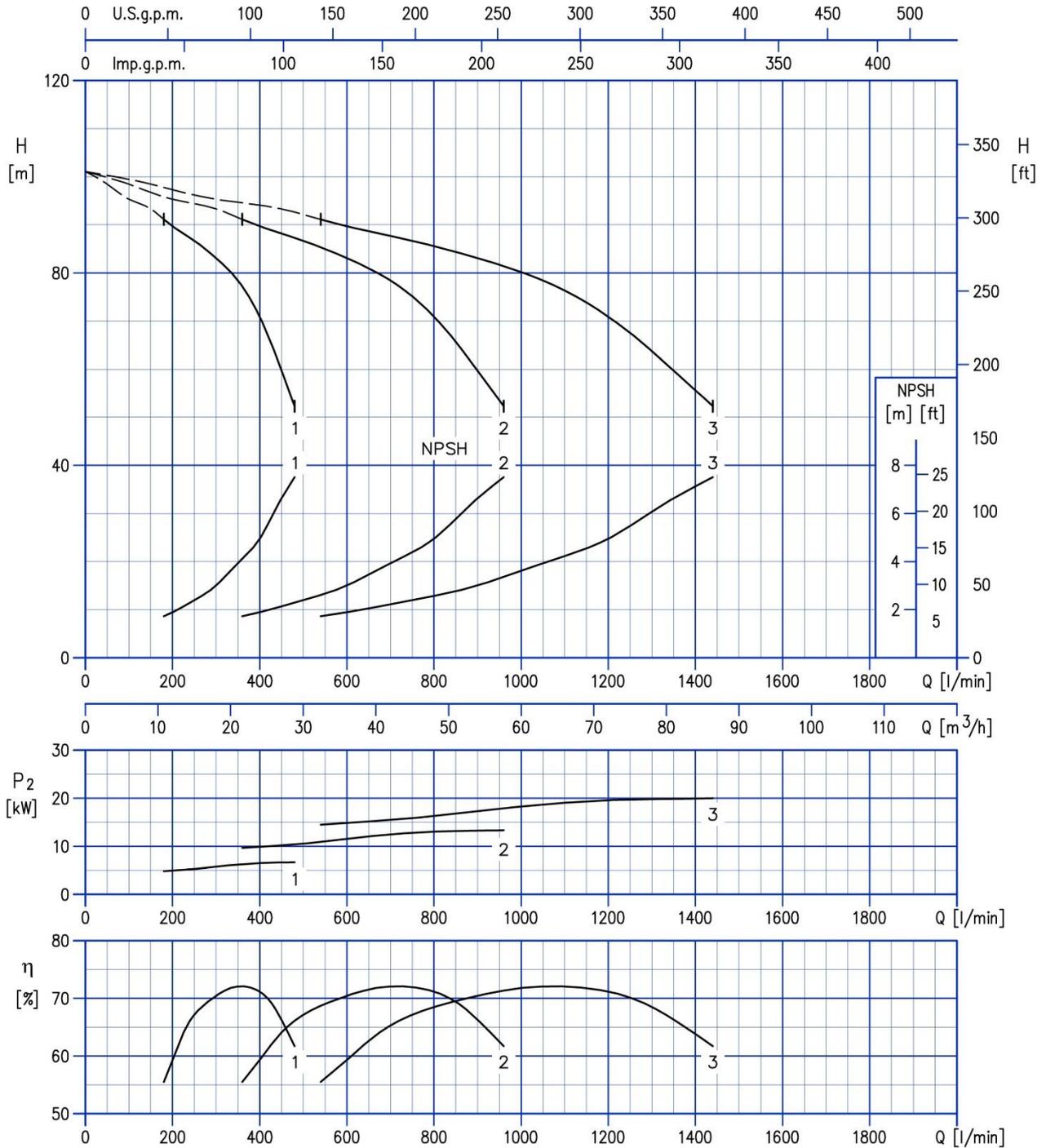
Test standard: ISO 9906: 2012 - Grade 3B

2-3 GPE EVMS 20-5/7.5



Test standard: ISO 9906: 2012 - Grade 3B

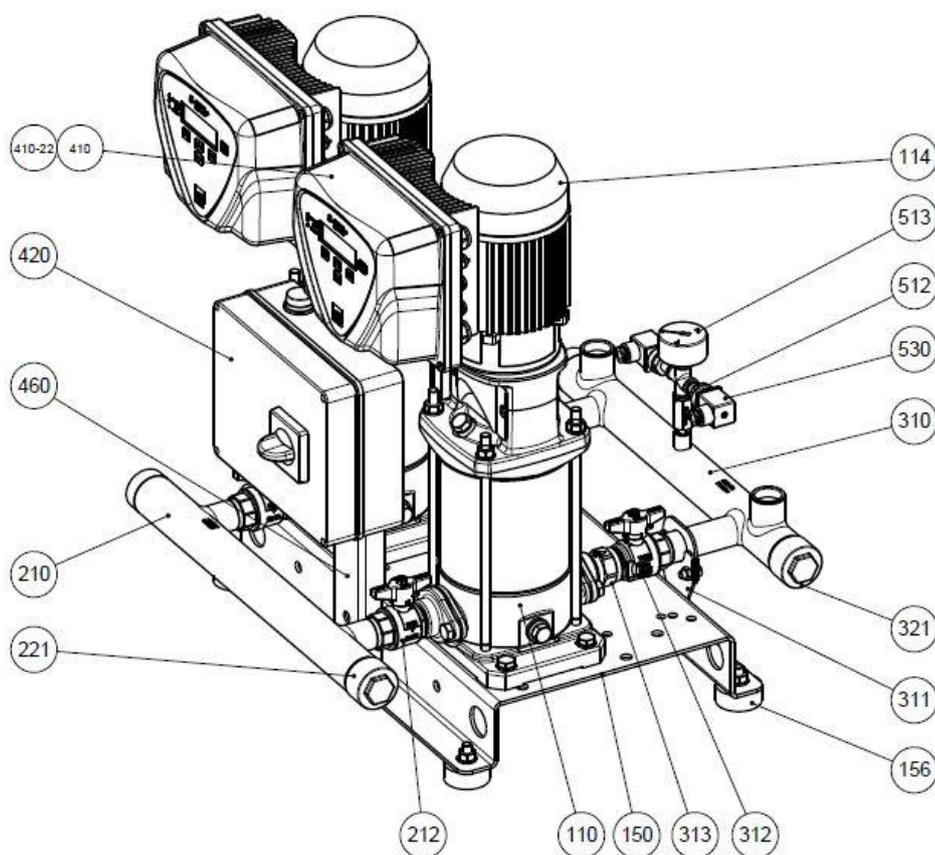
2-3 GPE EVMS 20-6/7.5



Test standard: ISO 9906: 2012 - Grade 3B

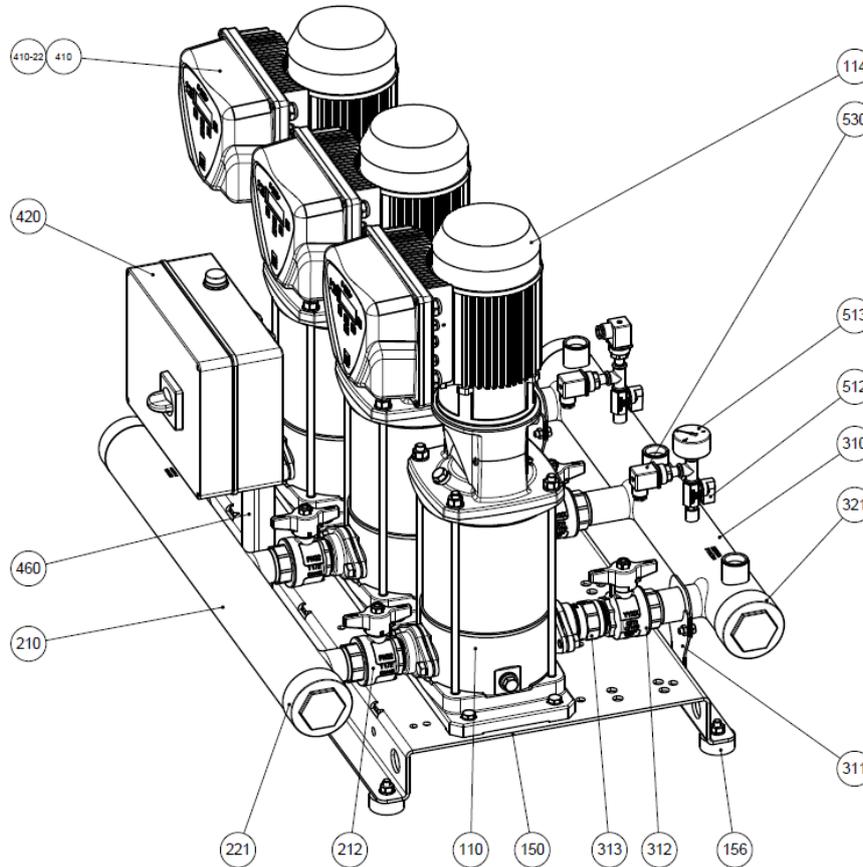
2GPE CONSTRUCTION

EXTERNAL VIEW 2GPE EVMS 3-5-10-15 E-SPD+



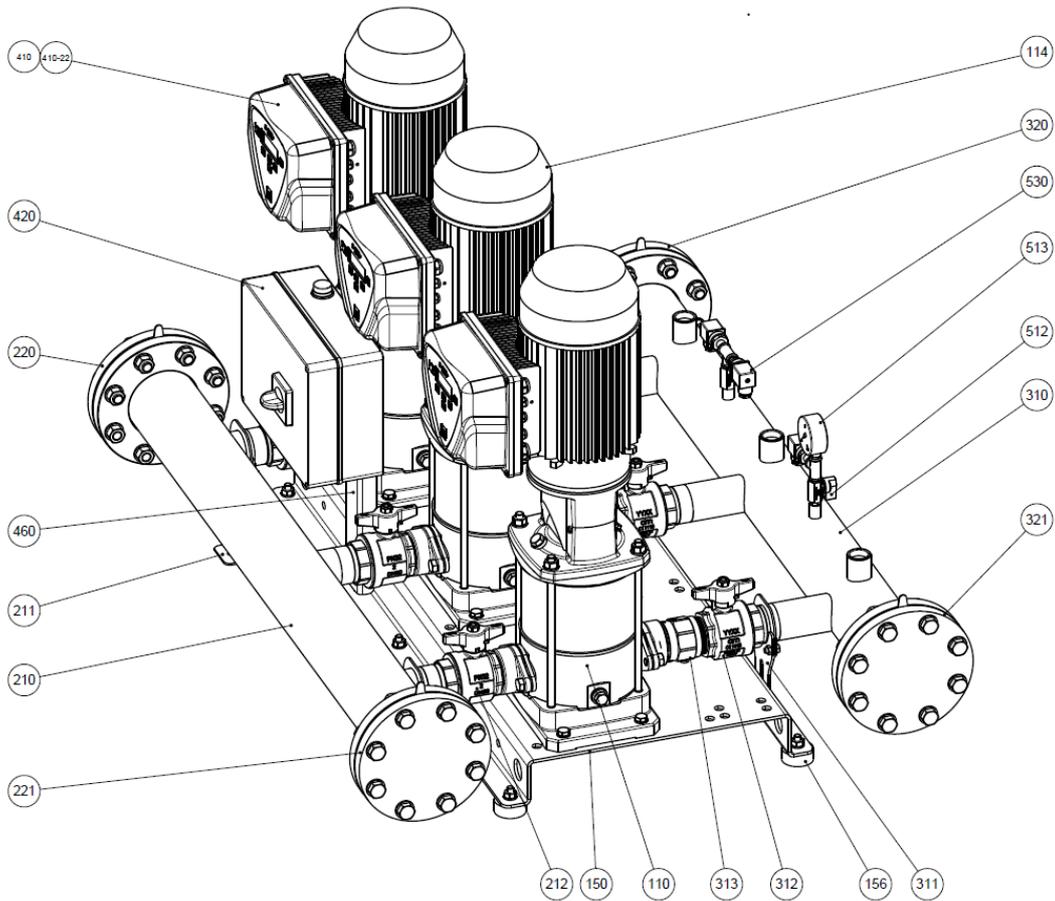
N°	PART NAME	MATERIAL	Quantity
110	Principal pump	-	2
114	Electric motor	-	2
150	Baseplate	Galvanized steel	1
156	Baseplate foot	SBR	4
210	Suction manifold	AISI 304	1
212	Ball valve	Brass / P.T.F.E.	2
221	Threaded female cap	AISI 304	1
310	Discharge manifold	AISI 304	1
311	Manifold bracket	Galvanized steel	2
312	Ball valve	Brass / P.T.F.E.	2
313	Check valve	Brass / NBR	2
321	Threaded female cap	AISI 304	1
410	E-SPD+	-	2
410-22	E-SPD+ adaptor	-	2
420	Protection panel	-	1
460	Protection panel frame	Galvanized steel	1
512	Ball valve	Brass / P.T.F.E.	1
513	Pressure gauge	Copper alloy / plastic	1
530	Pressure transmitter	-	2

3GPE CONSTRUCTION EXTERNAL VIEW 3GPE EVMS 3-5-10 E-SPD+



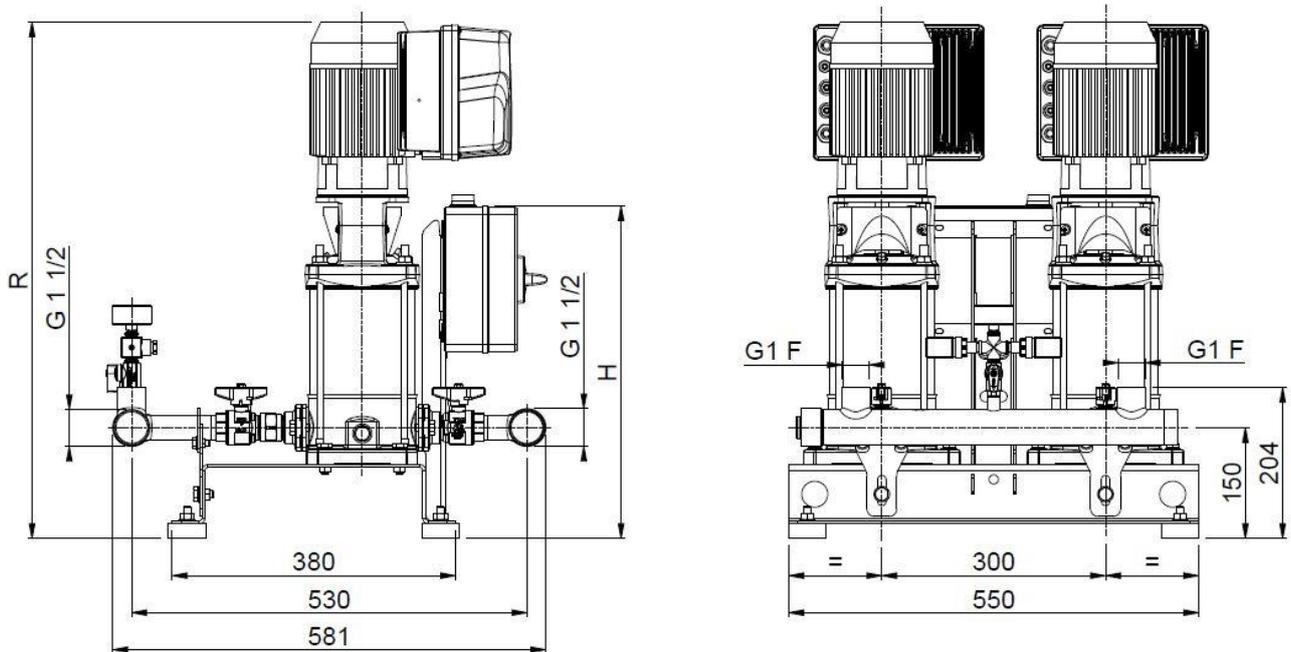
N°	PART NAME	MATERIAL	Quantity
110	Principal pump	-	3
114	Electric motor	-	3
150	Baseplate	Galvanized steel	1
156	Baseplate foot	SBR	6
210	Suction manifold	AISI 304	1
212	Ball valve	Brass / P.T.F.E.	3
221	Threaded female cap	AISI 304	1
310	Discharge manifold	AISI 304	1
311	Manifold bracket	Galvanized steel	2
312	Ball valve	Brass / P.T.F.E.	3
313	Check valve	Brass / NBR	3
321	Threaded female cap	AISI 304	1
410	E-SPD+	-	3
410-22	E-SPD+ adaptor	-	3
420	Protection panel	-	1
460	Protection panel frame	Galvanized steel	1
512	Ball valve	Brass / P.T.F.E.	2
513	Pressure gauge	Copper alloy / plastic	1
530	Pressure transmitter	-	3

EXTERNAL VIEW 3GPE EVMS 15-20 E-SPD+



N°	PART NAME	MATERIAL	Quantity
110	Principal pump	-	3
114	Electric motor	-	3
150	Baseplate	Galvanized steel	1
156	Baseplate foot	SBR	6
210	Suction manifold	AISI 304	1
211	Manifold bracket	Galvanized steel	2
212	Ball valve	Brass / P.T.F.E.	3
220	Counterflange	AISI 304	1
221	Blind counterflange	AISI 304	1
310	Discharge manifold	AISI 304	1
311	Manifold bracket	Galvanized steel	2
312	Ball valve	Brass / P.T.F.E.	3
313	Check valve	Brass / NBR	3
320	Counterflange	AISI 304	1
321	Blind counterflange	AISI 304	1
410	E-SPD+	-	3
410-22	E-SPD+ adaptor	-	3
420	Protection panel	-	1
460	Protection panel frame	Galvanized steel	1
512	Ball valve	Brass / P.T.F.E.	2
513	Pressure gauge	Copper alloy / plastic	1
530	Pressure transmitter	-	3

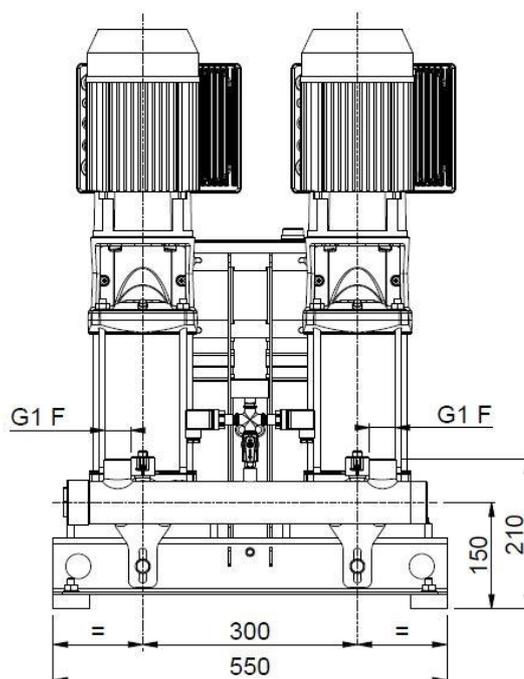
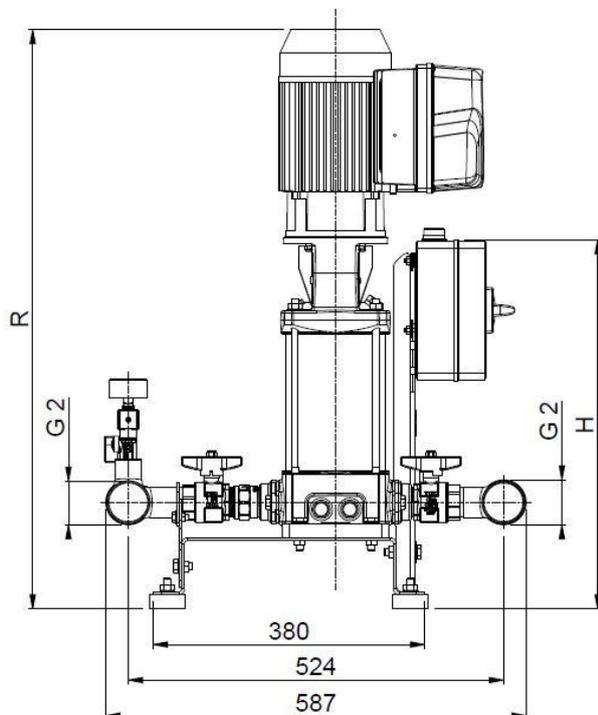
OVERALL DIMENSIONS 2GPE BOOSTER SET 2GPE EVMS 3 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
2GPE EVMS 3 7N5/0.75 ESPM	355	698	73
2GPE EVMS 3 8N5/0.75 ESPT	535	719	74
2GPE EVMS 3 9N5/1.1 ESPT(ESPM)	535	751	78
2GPE EVMS 3 10N5/1.1 ESPM	535	772	79
2GPE EVMS 3 11N5/1.1 ESPT(ESPM)	535	793	80
2GPE EVMS 3 13N5/1.5 ESPT(ESPM)	535	892	89
2GPE EVMS 3 15N5/1.5 ESPT(ESPM)	535	934	91
2GPE EVMS 3 19N5/2.2 ESPT(ESPM)	535	1018	99
2GPE EVMS 3 21N5/2.2 ESPT(ESPM)	535	1060	101

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

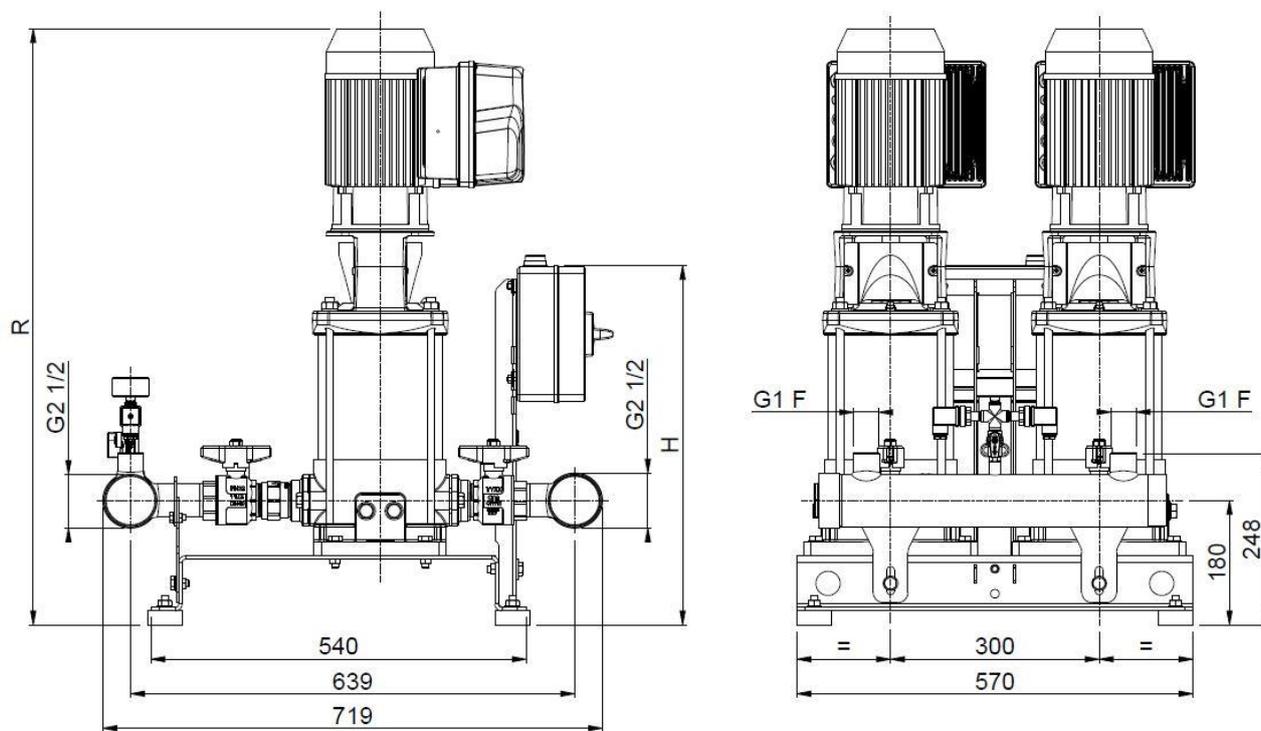
2GPE EVMS 5 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
2GPE EVMS 5 4N5/0.75 ESPT(ESPM)	355	663	74
2GPE EVMS 5 5N5/1.1 ESPT(ESPM)	355	702	76
2GPE EVMS 5 6N5/1.5 ESPT(ESPM)	535	787	87
2GPE EVMS 5 7N5/1.5 ESPT(ESPM)	535	815	87
2GPE EVMS 5 8N5/2.2 ESPT(ESPM)	535	843	91
2GPE EVMS 5 9N5/2.2 ESPM	535	871	92
2GPE EVMS 5 10N5/2.2 ESPT(ESPM)	535	899	93
2GPE EVMS 5 11N5/2.2 ESPT(ESPM)	535	927	95
2GPE EVMS 5 12N5/3.0 ESPT	535	1016	112
2GPE EVMS 5 14N5/3.0 ESPT	535	1072	114
2GPE EVMS 5 15N5/3.0 ESPT	535	1100	116
2GPE EVMS 5 17N5/4.0 ESPT	535	1178	130

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

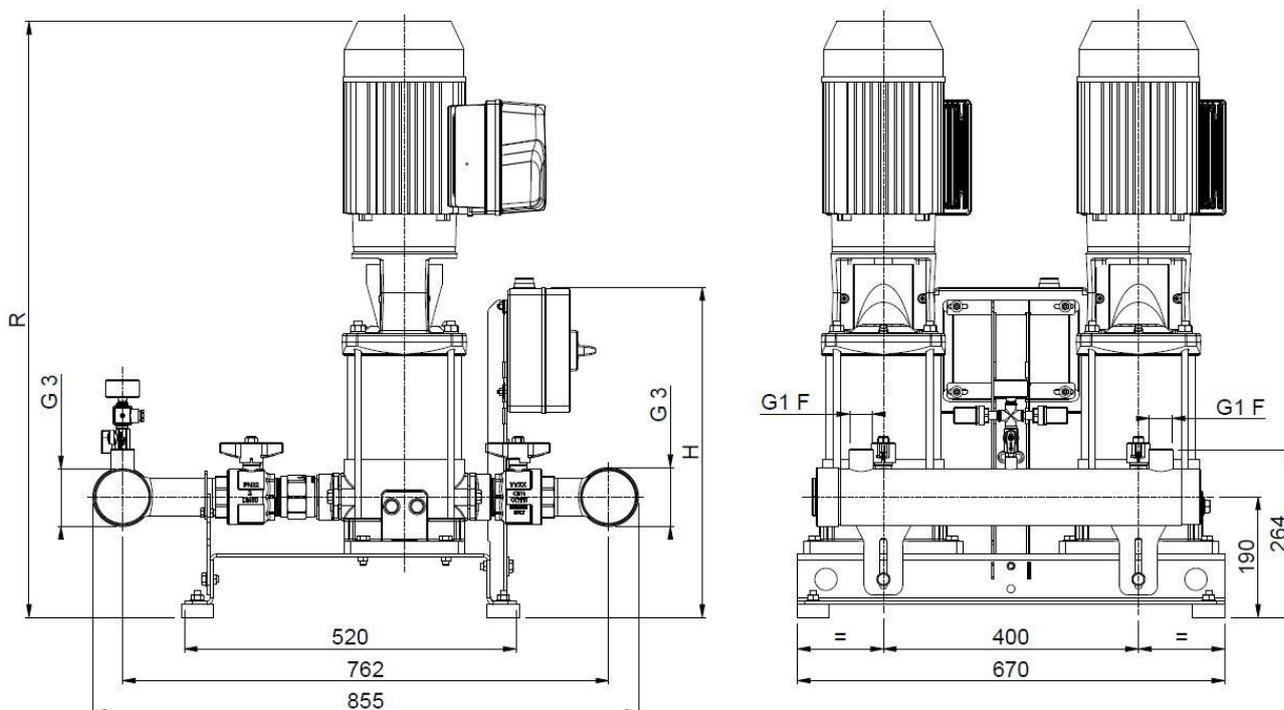
2GPE EVMS 10 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
2GPE EVMS 10 3N5/1.5 ESPT(ESPM)	535	774	109
2GPE EVMS 10 4N5/2.2 ESPT(ESPM)	535	804	114
2GPE EVMS 10 5N5/2.2 ESPT(ESPM)	535	834	115
2GPE EVMS 10 6N5/2.2 ESPT(ESPM)	535	864	117
2GPE EVMS 10 8N5/3 ESPT	535	985	135
2GPE EVMS 10 9N5/4 ESPT	535	1037	149
2GPE EVMS 10 10N5/4 ESPT	535	1067	151
2GPE EVMS 10 11N5/4 ESPT	535	1097	154
2GPE EVMS 10 12N5/5.5 ESPT	655	1260	195
2GPE EVMS 10 14N5/5.5 ESPT	655	1320	199
2GPE EVMS 10 15N5/5.5 ESPT	655	1350	200

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

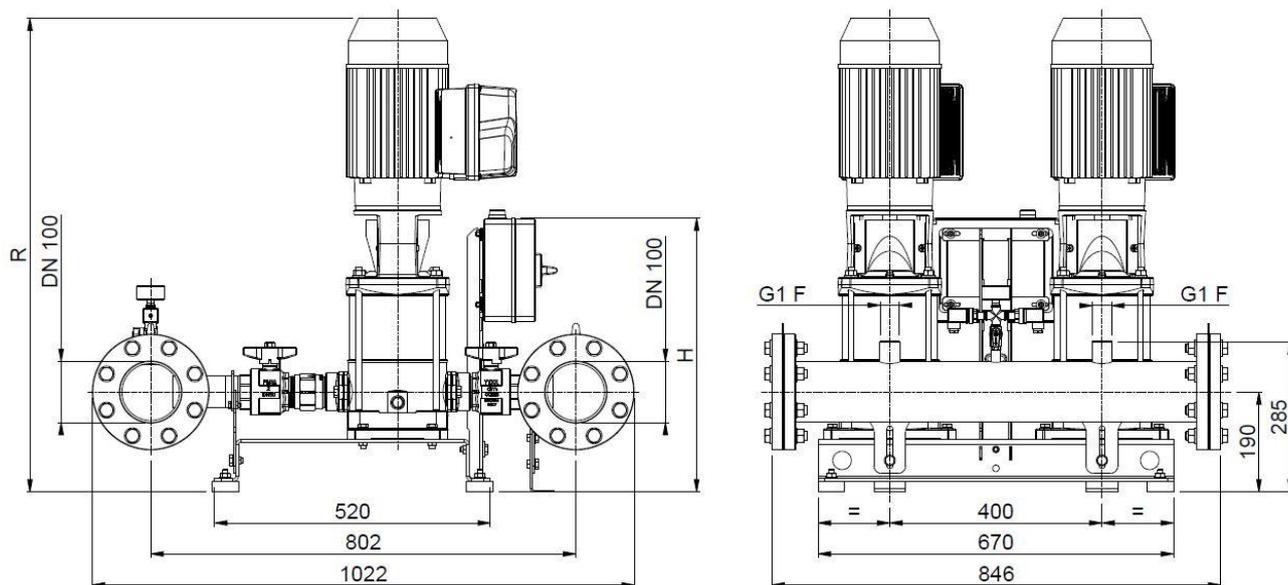
2GPE EVMS 15 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
2GPE EVMS 15 2N5/2.2 ESPT(ESPM)	535	778	122
2GPE EVMS 15 3N5/3.0 ESPT	535	879	139
2GPE EVMS 15 4N5/4 ESPT	535	941	154
2GPE EVMS 15 5N5/5.5 ESPT	655	1113	197
2GPE EVMS 15 6N5/5.5 ESPT	655	1153	199
2GPE EVMS 15 7N5/7.5 ESPT	655	1213	217
2GPE EVMS 15 8N5/7.5 ESPT	655	1253	220

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

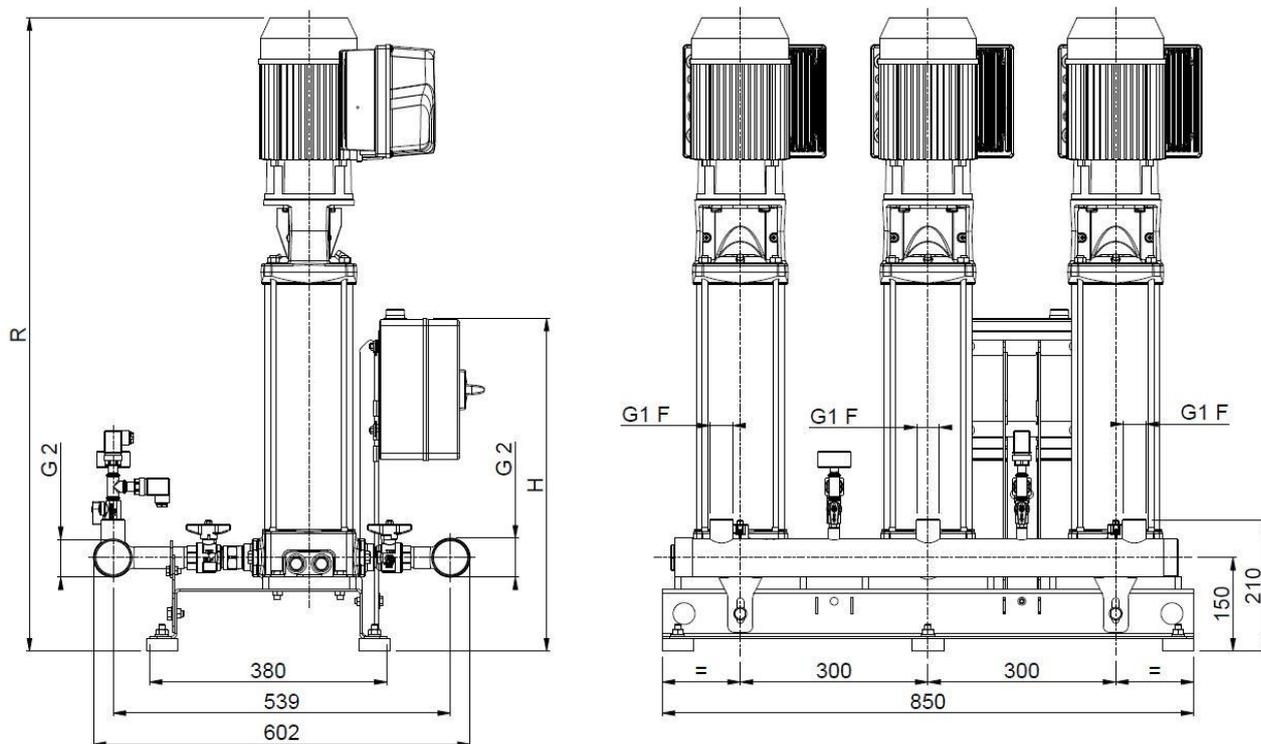
2GPE EVMS 20 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
2GPE EVMS 20 3N5/4,0 ESPT	535	901	218
2GPE EVMS 20 4N5/5,5 ESPT	535	1073	229
2GPE EVMS 20 5N5/7,5 ESPT	535	1133	246
2GPE EVMS 20 6N5/7,5 ESPT	655	1173	248

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

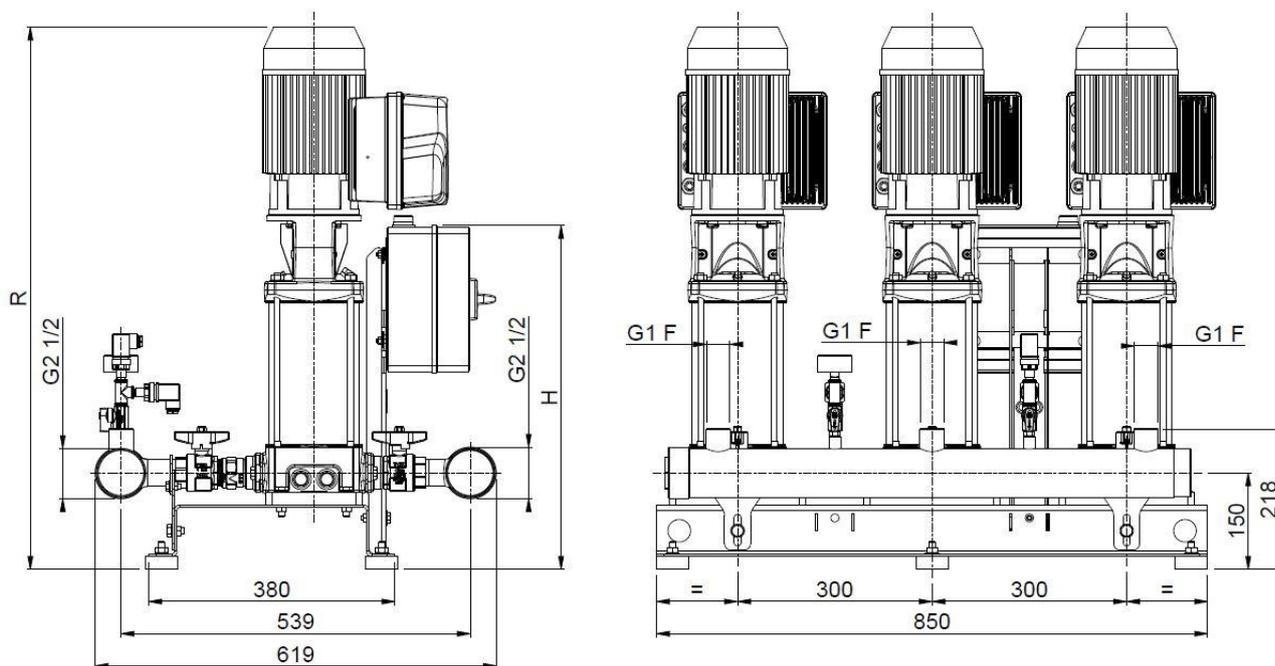
OVERALL DIMENSIONS 3GPE BOOSTER SET 3GPE EVMS 3 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
3GPE EVMS 3 7N5/0.75 ESPM	535	698	110
3GPE EVMS 3 8N5/0.75 ESPT	535	719	111
3GPE EVMS 3 9N5/1.1 ESPT(ESPM)	535	751	117
3GPE EVMS 3 10N5/1.1 ESPM	535	772	119
3GPE EVMS 3 11N5/1.1 ESPT(ESPM)	535	793	119
3GPE EVMS 3 13N5/1.5 ESPT(ESPM)	535	892	134
3GPE EVMS 3 15N5/1.5 ESPT(ESPM)	535	934	136
3GPE EVMS 3 19N5/2.2 ESPT(ESPM)	535	1018	148
3GPE EVMS 3 21N5/2.2 ESPT(ESPM)	535	1060	151

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

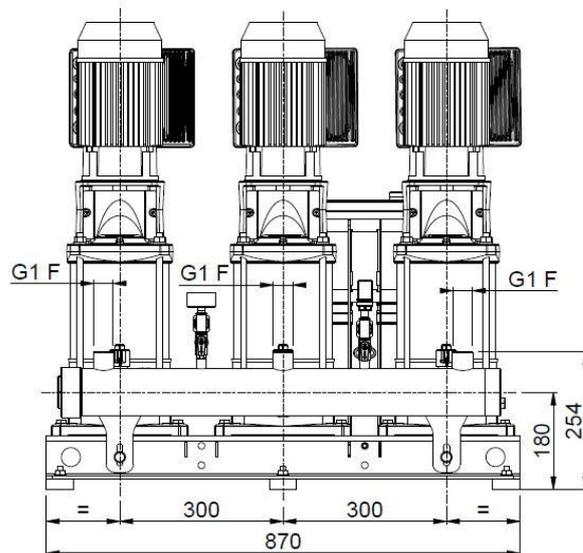
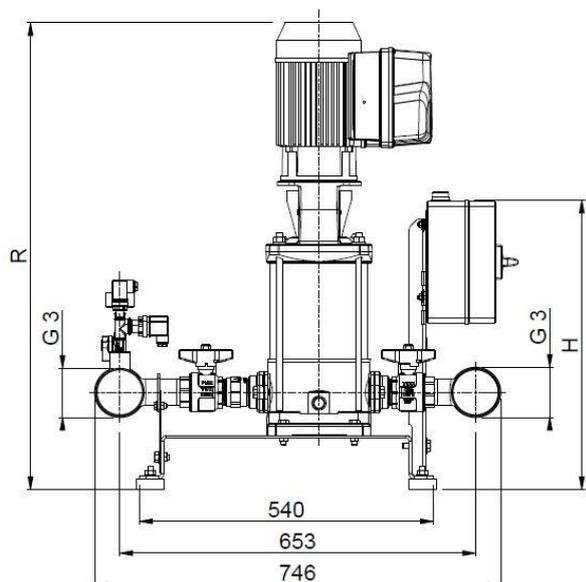
3GPE EVMS 5 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
3GPE EVMS 5 4N5/0.75 ESPT(ESPM)	535	663	111
3GPE EVMS 5 5N5/1.1 ESPT(ESPM)	535	702	118
3GPE EVMS 5 6N5/1.5 ESPT(ESPM)	535	787	130
3GPE EVMS 5 7N5/1.5 ESPT(ESPM)	535	815	131
3GPE EVMS 5 8N5/2.2 ESPT(ESPM)	535	843	137
3GPE EVMS 5 9N5/2.2 ESPM	535	871	138
3GPE EVMS 5 10N5/2.2 ESPT(ESPM)	535	899	140
3GPE EVMS 5 11N5/2.2 ESPT(ESPM)	535	927	142
3GPE EVMS 5 12N5/3.0 ESPT	535	1016	168
3GPE EVMS 5 14N5/3.0 ESPT	535	1072	170
3GPE EVMS 5 15N5/3.0 ESPT	535	1100	173
3GPE EVMS 5 17N5/4.0 ESPT	535	1178	195

Approximate dimensions ± 20mm.
The dimensions may change without notice.

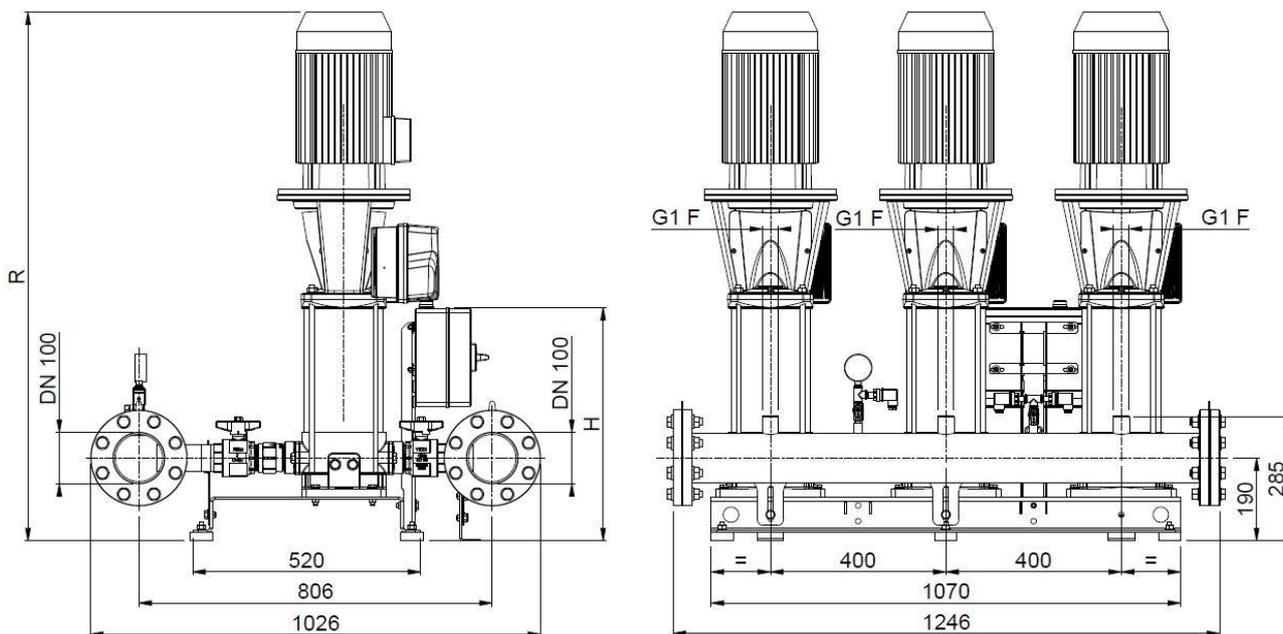
3GPE EVMS 10 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
3GPE EVMS 10 3N5/1.5 ESPT(ESPM)	535	774	164
3GPE EVMS 10 4N5/2.2 ESPT(ESPM)	535	804	170
3GPE EVMS 10 5N5/2.2 ESPT(ESPM)	535	834	173
3GPE EVMS 10 6N5/2.2 ESPT(ESPM)	535	864	177
3GPE EVMS 10 8N5/3 ESPT	535	985	204
3GPE EVMS 10 9N5/4 ESPT	535	1037	225
3GPE EVMS 10 10N5/4 ESPT	535	1067	227
3GPE EVMS 10 11N5/4 ESPT	535	1097	231
3GPE EVMS 10 12N5/5.5 ESPT	655	1260	292
3GPE EVMS 10 14N5/5.5 ESPT	655	1320	298
3GPE EVMS 10 15N5/5.5 ESPT	655	1350	301

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

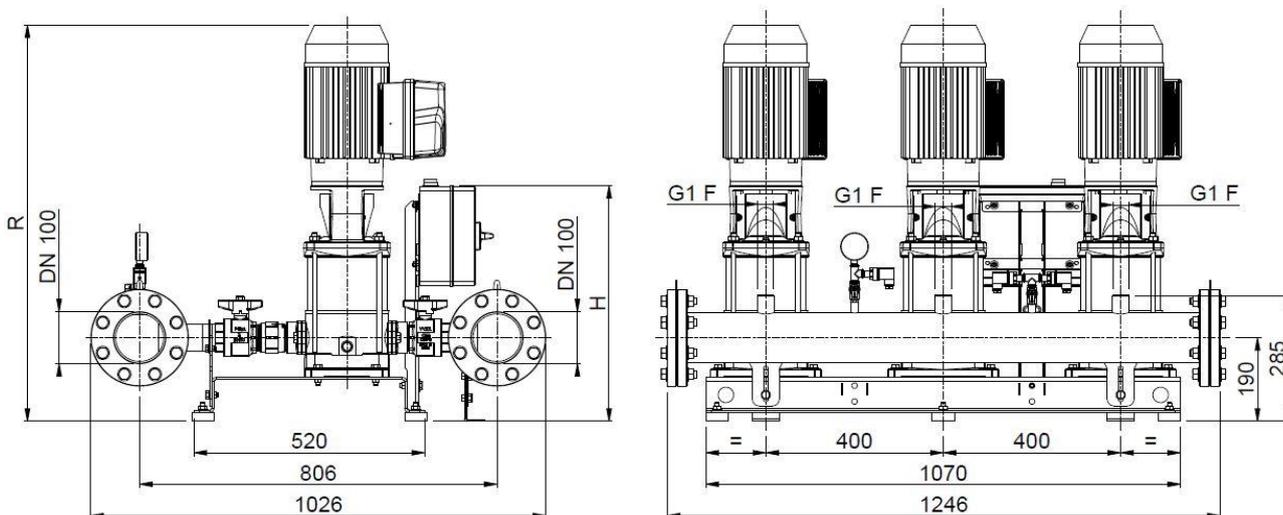
3GPE EVMS 15 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
3GPE EVMS 15 2N5/2.2 ESPT(ESPM)	535	778	220
3GPE EVMS 15 3N5/3.0 ESPT	535	879	250
3GPE EVMS 15 4N5/4 ESPT	535	941	278
3GPE EVMS 15 5N5/5.5 ESPT	535	1113	355
3GPE EVMS 15 6N5/5.5 ESPT	535	1153	342
3GPE EVMS 15 7N5/7.5 ESPT	535	1213	392
3GPE EVMS 15 8N5/7.5 ESPT	535	1253	397

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

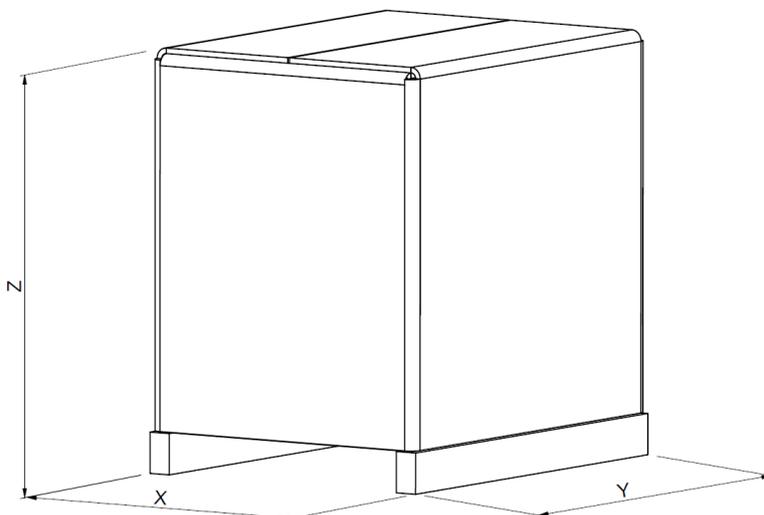
3GPE EVMS 20 E-SPD+



Booster Type	Dimensions [mm]		Weight [kg]
	H	R	
3GPE EVMS 20 3N5/4,0 ESPT	535	901	276
3GPE EVMS 20 4N5/5,5 ESPT	535	1073	324
3GPE EVMS 20 5N5/7,5 ESPT	535	1133	344
3GPE EVMS 20 6N5/7,5 ESPT	535	1173	353

Approximate dimensions ± 20 mm.
The dimensions may change without notice.

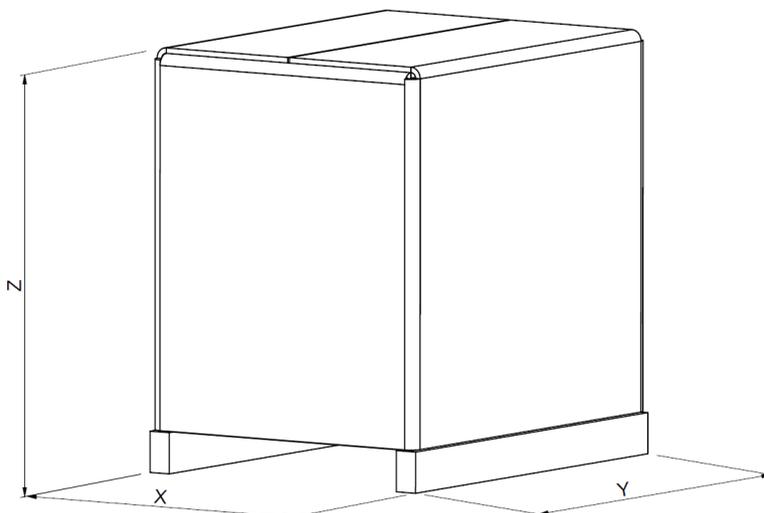
PACKING 2GPE EVMS 3-5 E-SPD+



Booster type	Overall dimensions packing			Booster+packing Weight [kg]
	X	Y	Z	
2GPE EVMS3 7N5/0.75 ESPM	690	890	915	92
2GPE EVMS3 8N5/0.75 ESPT	690	890	915	93
2GPE EVMS3 9N5/1.1 ESPT(ESPM)	690	890	915	97
2GPE EVMS3 10N5/1.1 ESPM	690	890	915	98
2GPE EVMS3 11N5/1.1 ESPT(ESPM)	690	890	915	99
2GPE EVMS3 13N5/1.5 ESPT(ESPM)	690	780	1205	105
2GPE EVMS3 15N5/1.5 ESPT(ESPM)	690	780	1205	107
2GPE EVMS3 19N5/2.2 ESPT(ESPM)	690	780	1205	115
2GPE EVMS3 21N5/2.2 ESPT(ESPM)	690	780	1205	117
2GPE EVMS5 4N5/1.1 ESPT(ESPM)	690	890	915	93
2GPE EVMS5 5N5/1.1 ESPT(ESPM)	690	890	915	95
2GPE EVMS5 6N5/1.5 ESPT(ESPM)	690	890	915	106
2GPE EVMS5 7N5/1.5 ESPT(ESPM)	690	890	915	106
2GPE EVMS5 8N5/2.2 ESPT(ESPM)	690	780	1205	107
2GPE EVMS5 9N5/2.2 ESPM	690	780	1205	108
2GPE EVMS5 10N5/2.2 ESPT(ESPM)	690	780	1205	109
2GPE EVMS5 11N5/2.2 ESPT(ESPM)	690	780	1205	111
2GPE EVMS5 12N5/3.0 ESPT	690	780	1205	128
2GPE EVMS5 14N5/3.0 ESPT	690	780	1205	130
2GPE EVMS5 15N5/3.0 ESPT	690	780	1205	132
2GPE EVMS5 17N5/4.0 ESPT	1230	830	1365	153

The dimensions may change without notice.

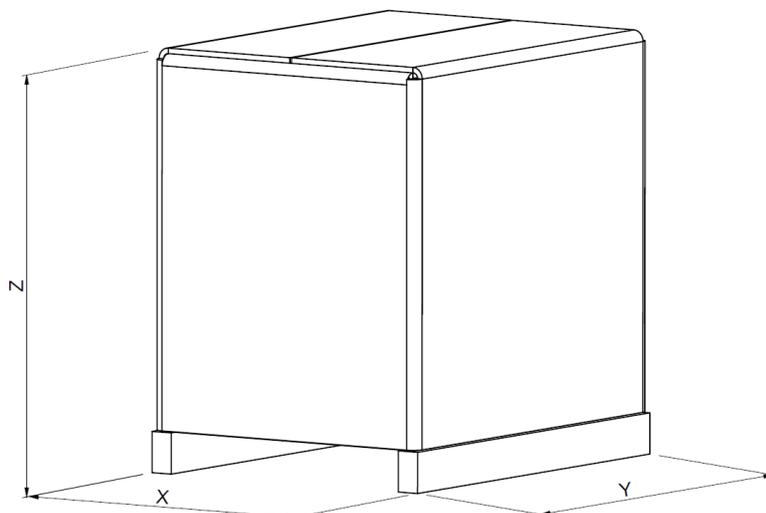
2GPE EVMS 10-15-20 E-SPD+



Booster type	Overall dimensions packing			Booster+packing Weight [kg]
	X	Y	Z	
2GPE EVMS10 3N5/1.5 ESPT(ESPM)	690	890	915	128
2GPE EVMS10 4N5/2.2 ESPT(ESPM)	690	890	915	133
2GPE EVMS10 5N5/2.2 ESPT(ESPM)	690	780	1205	131
2GPE EVMS10 6N5/2.2 ESPT(ESPM)	690	780	1205	133
2GPE EVMS10 8N5/3 ESPT	690	780	1205	151
2GPE EVMS10 9N5/4 ESPT	690	780	1205	165
2GPE EVMS10 10N5/4 ESPT	690	780	1205	167
2GPE EVMS10 11N5/4 ESPT	690	780	1205	170
2GPE EVMS10 12N5/5.5 ESPT	1230	830	1365	218
2GPE EVMS10 14N5/5.5 ESPT	1235	1135	1765	236
2GPE EVMS10 15N5/5.5 ESPT	1235	1135	1765	237
2GPE EVMS15 2N5/2.2 ESPT(ESPM)	1230	830	1365	145
2GPE EVMS15 3N5/3.0 ESPT	1230	830	1365	162
2GPE EVMS15 4N5/4 ESPT	1230	830	1365	177
2GPE EVMS15 5N5/5.5 ESPT	1230	830	1365	220
2GPE EVMS15 6N5/5.5 ESPT	1230	830	1365	222
2GPE EVMS15 7N5/7.5 ESPT	1230	830	1365	240
2GPE EVMS15 8N5/7.5 ESPT	1230	830	1365	243
2GPE EVMS20 3N5/4 ESPT	1230	830	1365	241
2GPE EVMS20 4N5/5,5 ESPT	1230	830	1365	252
2GPE EVMS20 5N5/7,5 ESPT	1230	830	1365	269
2GPE EVMS20 6N5/7,5 ESPT	1230	830	1365	271

The dimensions may change without notice.

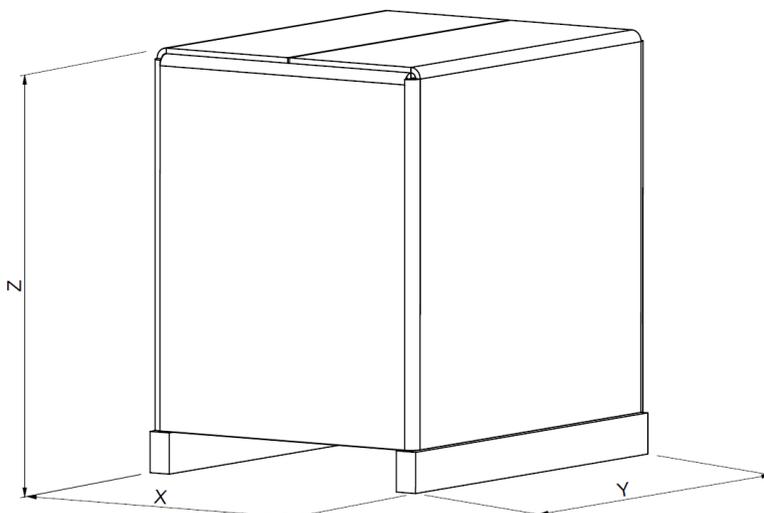
3GPE EVMS 3-5 E-SPD+



Booster type	Overall dimensions packing			Booster+packing Weight [kg]
	X	Y	Z	
3GPE EVMS3 7N5/0.75 ESPM	1230	830	1365	133
3GPE EVMS3 8N5/0.75 ESPT	1230	830	1365	134
3GPE EVMS3 9N5/1.1 ESPT(ESPM)	1230	830	1365	140
3GPE EVMS3 10N5/1.1 ESPM	1230	830	1365	142
3GPE EVMS3 11N5/1.1 ESPT(ESPM)	1230	830	1365	142
3GPE EVMS3 13N5/1.5 ESPT(ESPM)	1230	830	1365	157
3GPE EVMS3 15N5/1.5 ESPT(ESPM)	1230	830	1365	159
3GPE EVMS3 19N5/2.2 ESPT(ESPM)	1230	830	1365	171
3GPE EVMS3 21N5/2.2 ESPT(ESPM)	1230	830	1365	174
3GPE EVMS5 4N5/1.1 ESPT(ESPM)	1230	830	1365	134
3GPE EVMS5 5N5/1.1 ESPT(ESPM)	1230	830	1365	141
3GPE EVMS5 6N5/1.5 ESPT(ESPM)	1230	830	1365	153
3GPE EVMS5 7N5/1.5 ESPT(ESPM)	1230	830	1365	154
3GPE EVMS5 8N5/2.2 ESPT(ESPM)	1230	830	1365	160
3GPE EVMS5 9N5/2.2 ESPM	1230	830	1365	161
3GPE EVMS5 10N5/2.2 ESPT(ESPM)	1230	830	1365	163
3GPE EVMS5 11N5/2.2 ESPT(ESPM)	1230	830	1365	165
3GPE EVMS5 12N5/3.0 ESPT	1230	830	1365	191
3GPE EVMS5 14N5/3.0 ESPT	1230	830	1365	193
3GPE EVMS5 15N5/3.0 ESPT	1230	830	1365	196
3GPE EVMS5 17N5/4.0 ESPT	1230	830	1365	218

The dimensions may change without notice.

3GPE EVMS 10-15-20 E-SPD+



Booster type	Overall dimensions packing			Booster+packing Weight [kg]
	X	Y	Z	
3GPE EVMS10 3N5/1.5 ESPT(ESPM)	1230	830	1365	187
3GPE EVMS10 4N5/2.2 ESPT(ESPM)	1230	830	1365	193
3GPE EVMS10 5N5/2.2 ESPT(ESPM)	1230	830	1365	196
3GPE EVMS10 6N5/2.2 ESPT(ESPM)	1230	830	1365	200
3GPE EVMS10 8N5/3 ESPT	1230	830	1365	227
3GPE EVMS10 9N5/4 ESPT	1230	830	1365	248
3GPE EVMS10 10N5/4 ESPT	1230	830	1365	250
3GPE EVMS10 11N5/4 ESPT	1230	830	1365	254
3GPE EVMS10 12N5/5.5 ESPT	1235	1135	1765	329
3GPE EVMS10 14N5/5.5 ESPT	1235	1135	1765	335
3GPE EVMS10 15N5/5.5 ESPT	1235	1135	1765	338
3GPE EVMS15 2N5/2.2 ESPT(ESPM)	1585	1350	1765	272
3GPE EVMS15 3N5/3.0 ESPT	1585	1350	1765	302
3GPE EVMS15 4N5/4 ESPT	1585	1350	1765	330
3GPE EVMS15 5N5/5.5 ESPT	1585	1350	1765	407
3GPE EVMS15 6N5/5.5 ESPT	1585	1350	1765	394
3GPE EVMS15 7N5/7.5 ESPT	1585	1350	1765	444
3GPE EVMS15 8N5/7.5 ESPT	1585	1350	1765	449
3GPE EVMS20 3N5/4 ESPT	1585	1350	1765	328
3GPE EVMS20 4N5/5.5 ESPT	1585	1350	1765	376
3GPE EVMS20 5N5/7.5 ESPT	1585	1350	1765	396
3GPE EVMS20 6N5/7.5 ESPT	1585	1350	1765	405

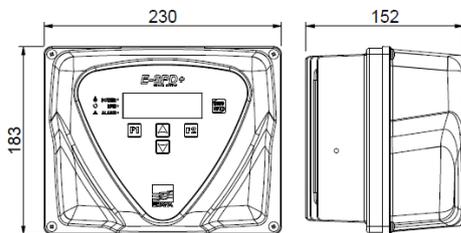
The dimensions may change without notice.

CONTROL PANEL VARIABLE SPEED E-SPD+ SPECIFICATION

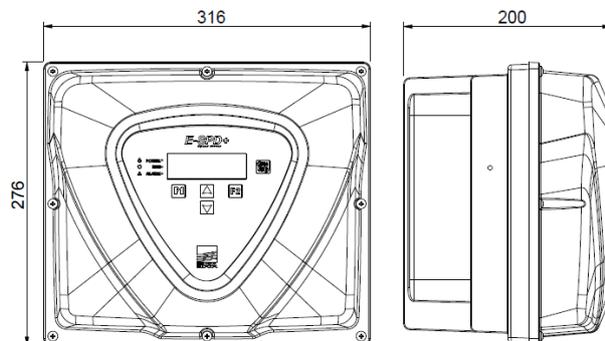
On board electronic device for controlling electropumps, employing inverter technology. Starts and stops the pump and modulates the speed of the motor in relation to the water demand on the system, to maintain the operating pressure setting. Provides excellent comfort for the end user, significant energy savings and increased service life, the typical advantages of inverter controlled autoclave 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		
	Booster sets	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



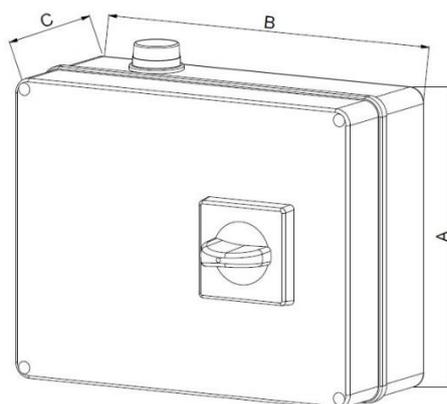
The dimensions may change without notice.

PROTECTION PANEL SPECIFICATION

Connection box for inverter :

- Connects the inverters with the power supply point.
- Equipped with circuit breakers on individual lines

Power source	Frequency	50/60 Hz	
	Phase	Single-phase	Three-phase
	Voltage	230 V ± 10%	400 V ± 10%
	Power	0.37 ÷ 2.2 kW	0.37 ÷ 11 kW
Others	Protection degree	IP 55	
	Ambient Temperature	-5°C + 40°C	
	Booster sets	2 - 3 pumps	
	Relative humidity	50% a 40°C MAX (90% a 20°C)	
	Max altitude	1000 m (a.s.l.)	
Directives	2014/35/EU (LVD), 2014/30/EU (EMC), 2011/65/EU (RoHS II), 2012/19EU (RAEE)		



Model	N° Pumps	Power [kW]	Dimensions A-B-C [mm]	Max Current [A]
PROT. IP55 2P-M 20A 1P+N UK	2	2x2.2	200x250x100	2x20
PROT. IP55 2P-M 16A		2x4	200x250x100	2x16
PROT. IP55 2P-M 20A		2x7.5	200x250x100	2x20
PROT. IP55 3P-M 20A 1P+N UK	3	3x2.2	230x310x130	3x20
PROT. IP55 3P-M 16A		3x4	230x310x130	3x16
PROT. IP55 3P-M 20A		3x7.5	230x310x130	3x20

The dimensions may change without notice.