



Units with two vertical multistage pumps with stainless steel hydraulic parts and standardised motor.

### PUMP FEATURES

#### FIELD OF USE

- Maximum working pressure:
  - 16 bar
  - 25 bar
  - 30 bar (for EVMG32 - EVMG45 only)
- Temperature of the liquid:  $-15^{\circ}\text{C} \div +120^{\circ}\text{C}$

#### MATERIALS

- Lower pump body in cast iron
  - External casing, seal housing disc, impellers, nozzles, shaft casing, joint cover and small elements in contact with the liquid in AISI 304
  - Tie-rods and small elements not in contact with the liquid in galvanised steel
  - Shaft in AISI 316
  - Bearings in contact with the liquid in tungsten carbide
  - Motor support and base in cast iron
  - Mechanical sealing in SiC/Carbon/FPM (EVMG10-EVMG18)
  - Mechanical sealing with cartridge as per standard (EVMG32-EVMG45-EVMG64)
- (F= round flanges; N= oval flanges)

#### TECHNICAL DATA

- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 Protection rating
- Single phase voltage  $230\text{V} \pm 10\%$  50Hz (up to 2.2 kW), three phase voltage  $230/400\text{V} \pm 10\%$  50Hz (up to 4 kW included), three phase voltage  $400/690\text{V} \pm 10\%$  (5.5 kW and above)

### TYPICAL APPLICATIONS

The base of the group is in galvanised steel as are the manifolds. The discharge manifold is set-up to gather any two vertical type membrane reservoirs; two pressure switches, the electric control panel and a pressure gauge are mounted on it. On inlet, each electric pump has an isolating valve and a non-return valve, with the possibility of connection to an air supply unit and has another isolating valve in discharge mode. The electric control panel is sustained by a relative support fixed to the base.

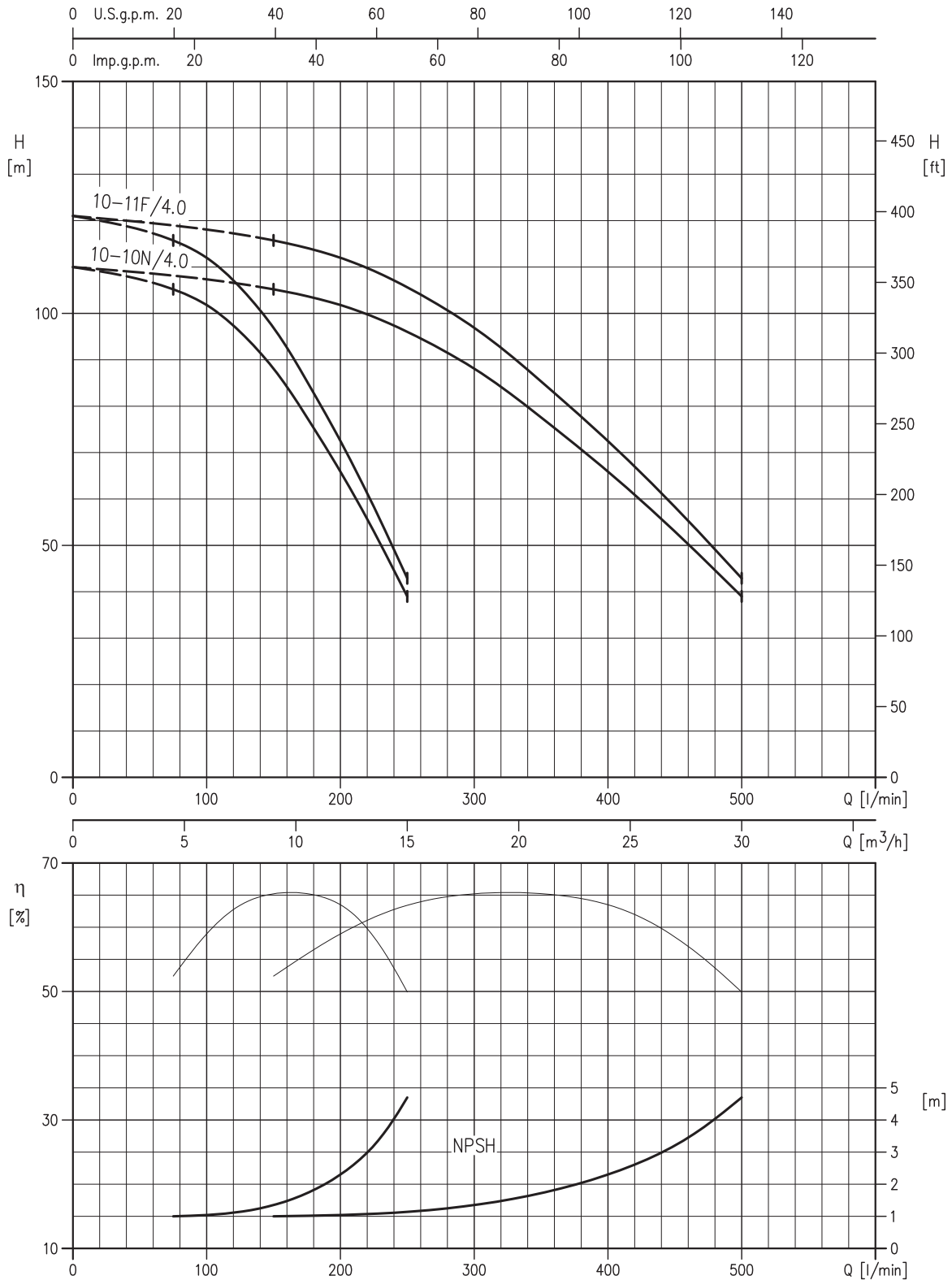
### Protection and control panel with CE mark

- IMQ and VDE marked components
- Very low voltage auxiliary circuit
- Motor switch-on and switch-off are controlled by two pressure switches
- The connection to a float of minimum pressure pressure switch is possible in order to prevent functioning in conditions when there is no suction water
- A device is present that inverts the insertion order of the pumps at every start-up
- 230V, 50Hz single phase power supply  
400V, 50Hz three phase
- Start-up:
  - direct for powers up to 7.5 kW
  - delta/triangle for powers exceeding 7.5 kW
- Power circuit protection fuses
- Auxiliary circuit protection fuses
- Protection rating IP 55
- Line main isolating device with door lock
- Aut - 0 - man. switches for each pump
- Reset circuit breaker protection
- Indicator LED:
  - network presence
  - motor running
  - level alarm
  - motor in protection mode (for three phase version only)
- Alarm output set-up
- On request, special version control panels can be used

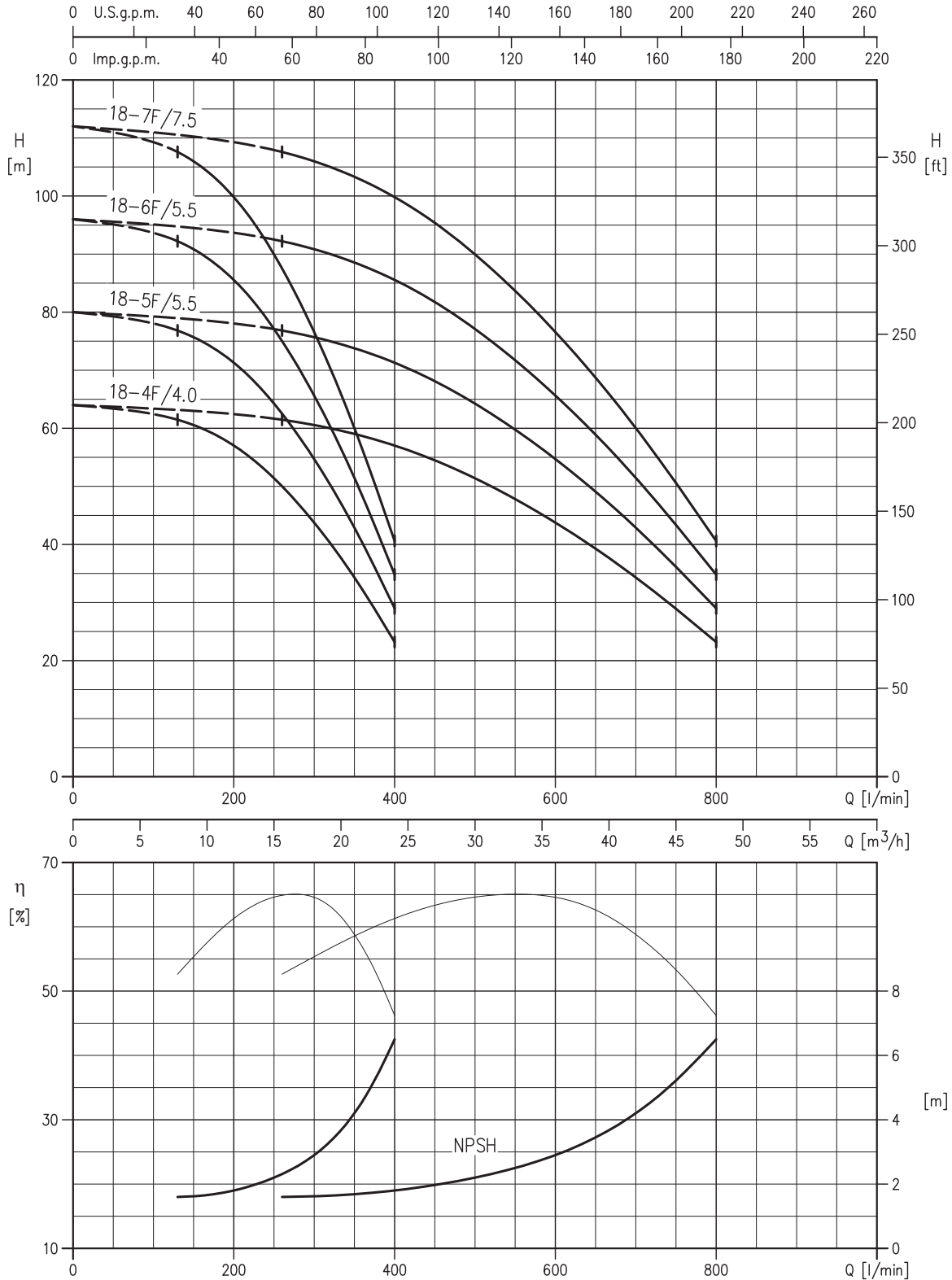
### FUNCTIONING PRINCIPLES

The withdrawal or however the escape of water from the system with the pumps at a standstill, causes the pressure to drop and the consequent closure of the pressure switch contact with highest calibration, which determines start-up of the first electric pump. If the outlet discharge exceeds the flow rate of a pump, the pressure continues to drop until it causes the closure of the contact of the second pressure switch and the start-up of the second pump. The end of the distribution of the reduction of the outlet discharge leads to the pressure in the system rising, with opening of the pressure switch contacts and staggered pumps stops. The inversion of the ignition order of the two motors reduces the number of hourly start-ups of the individual pumps and consequently allows use of the same. By connecting a float or minimum pressure pressure switch to the control panel (whether for withdrawal from the primary collection reservoir or from the hydraulic circuit), the most frequent cause of electric pump breakdown is prevented: the lack of water at suction.

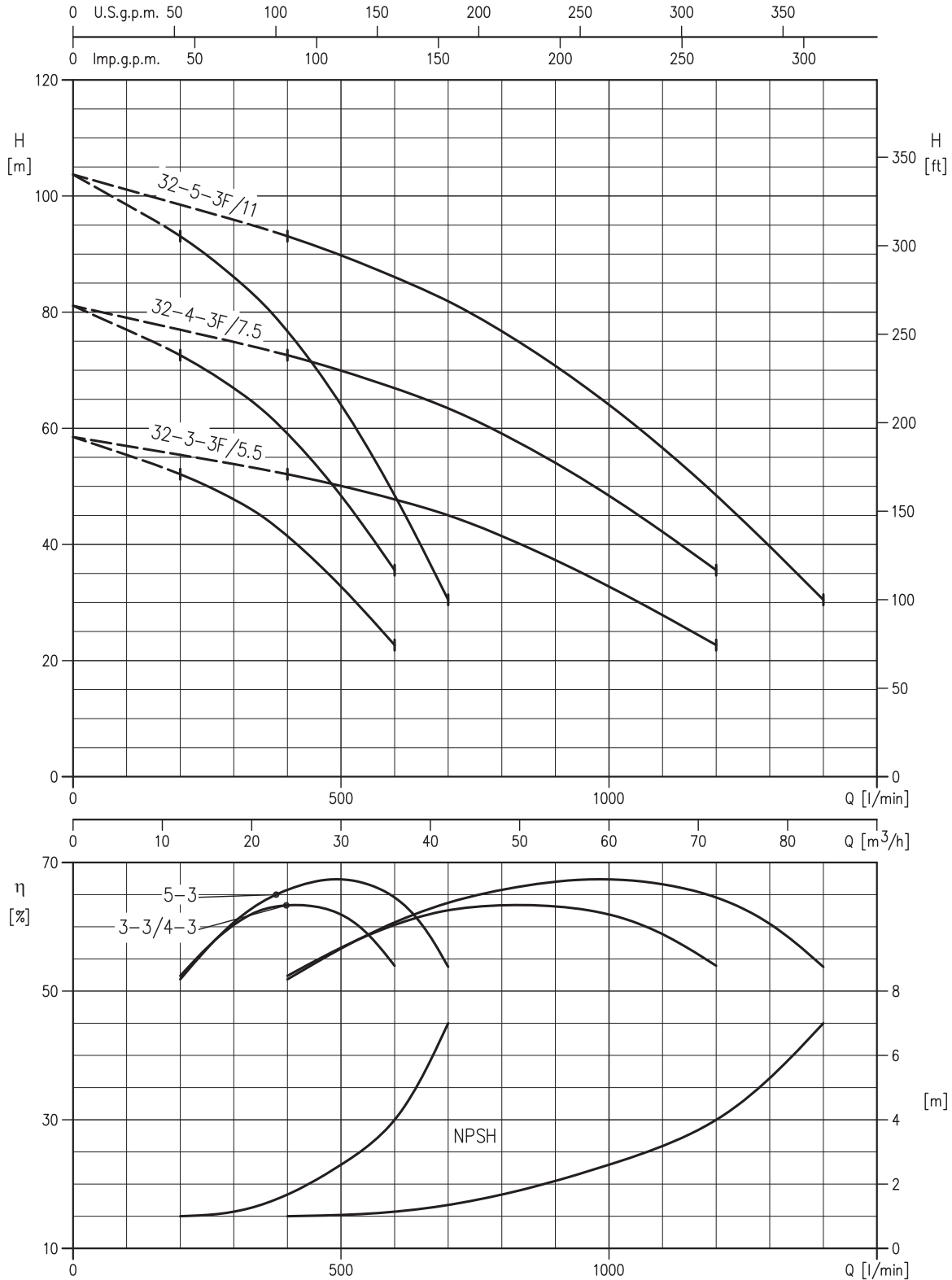
2GP EVMG 10 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



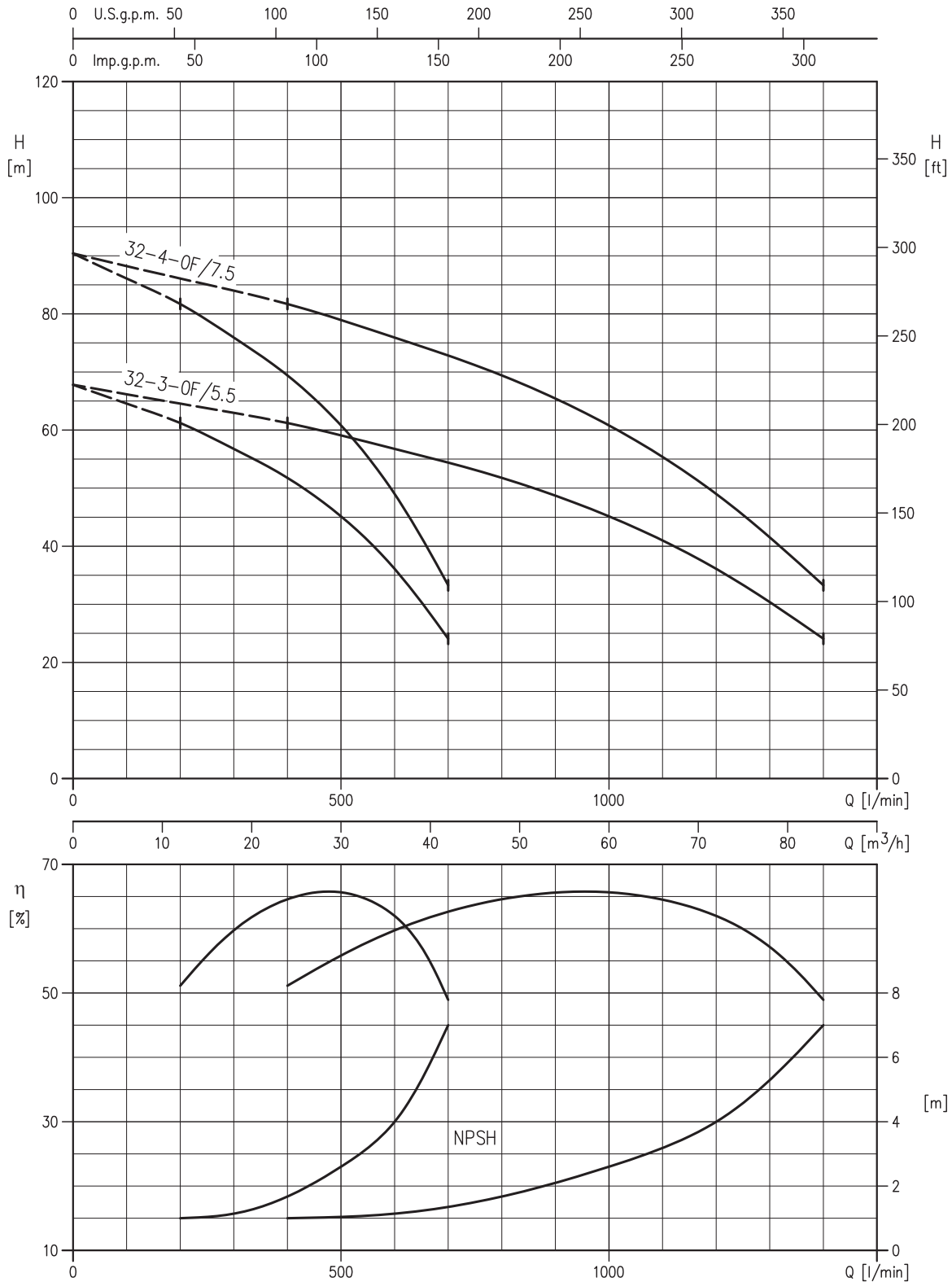
2GP EVMG 18 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



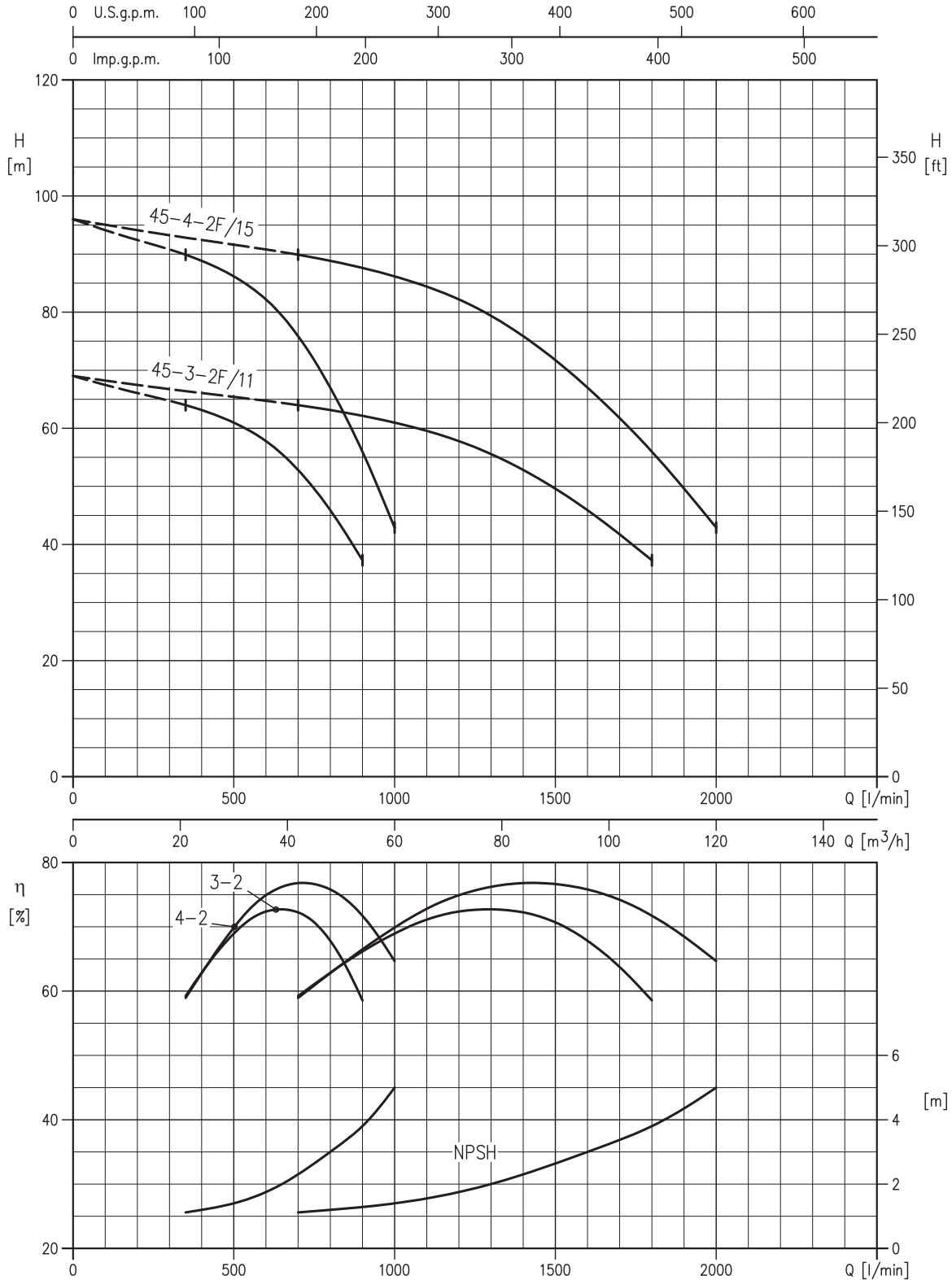
2GP EVMG 32 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



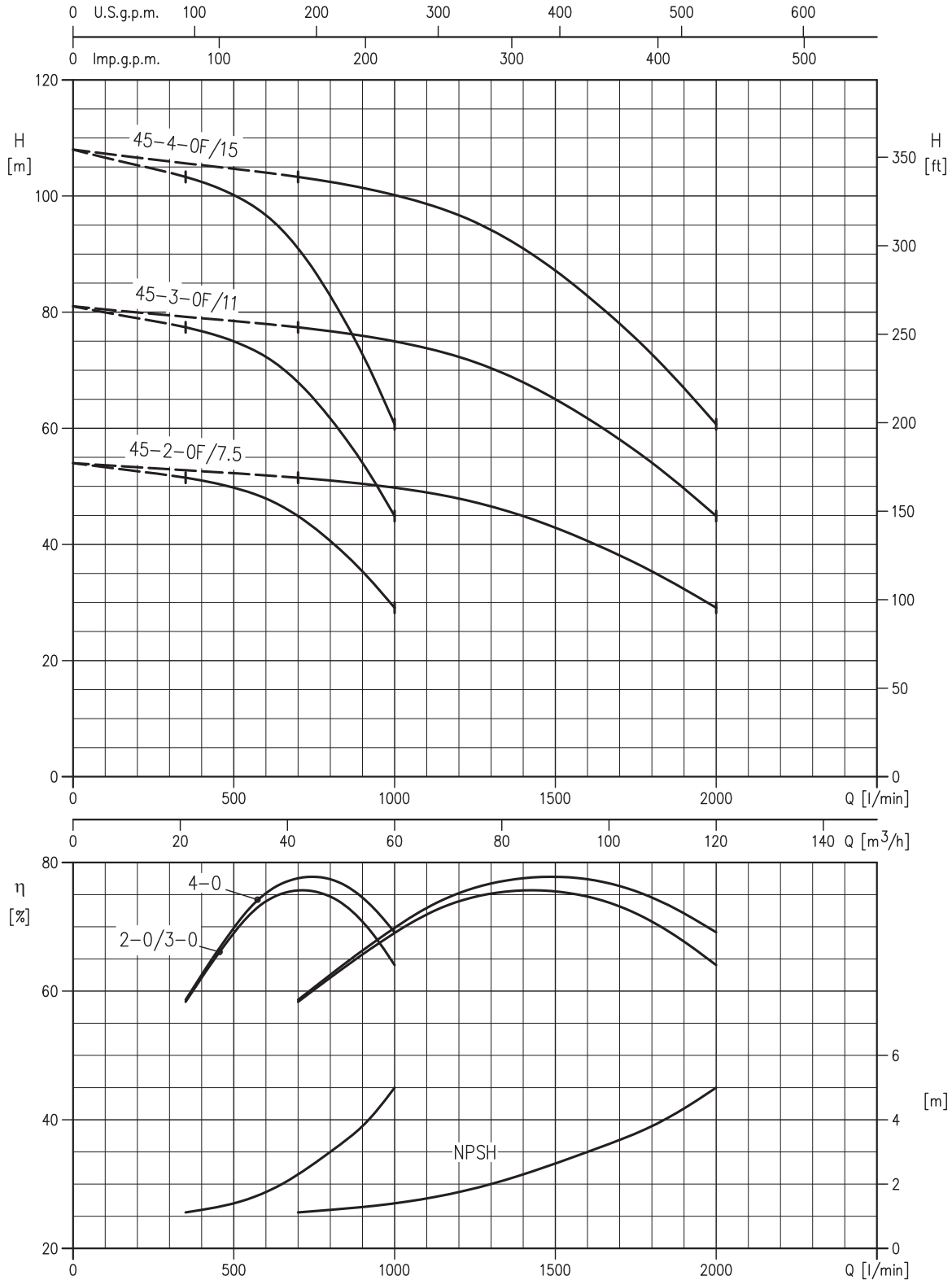
2GP EVMG 32 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



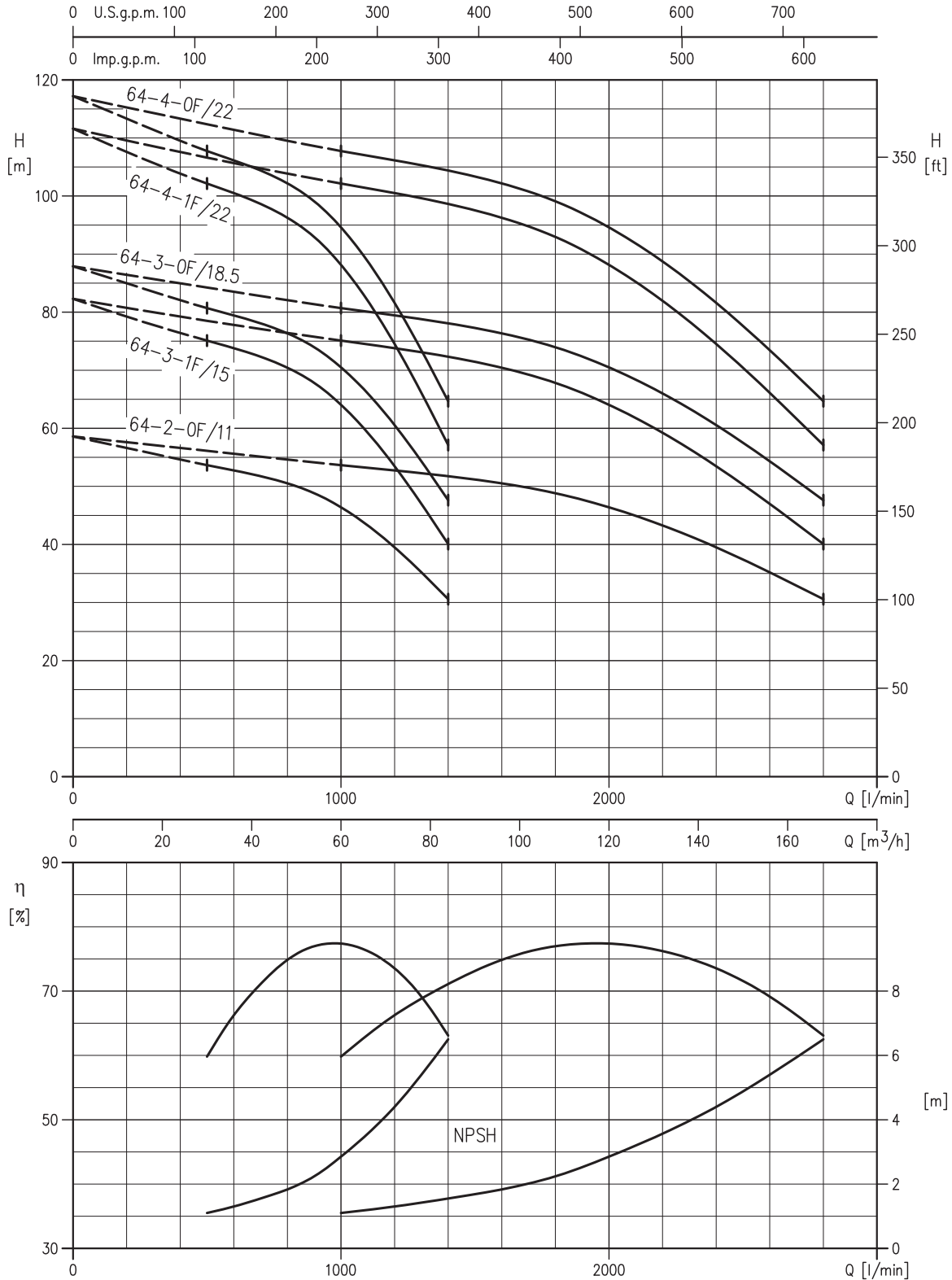
2GP EVMG 45 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



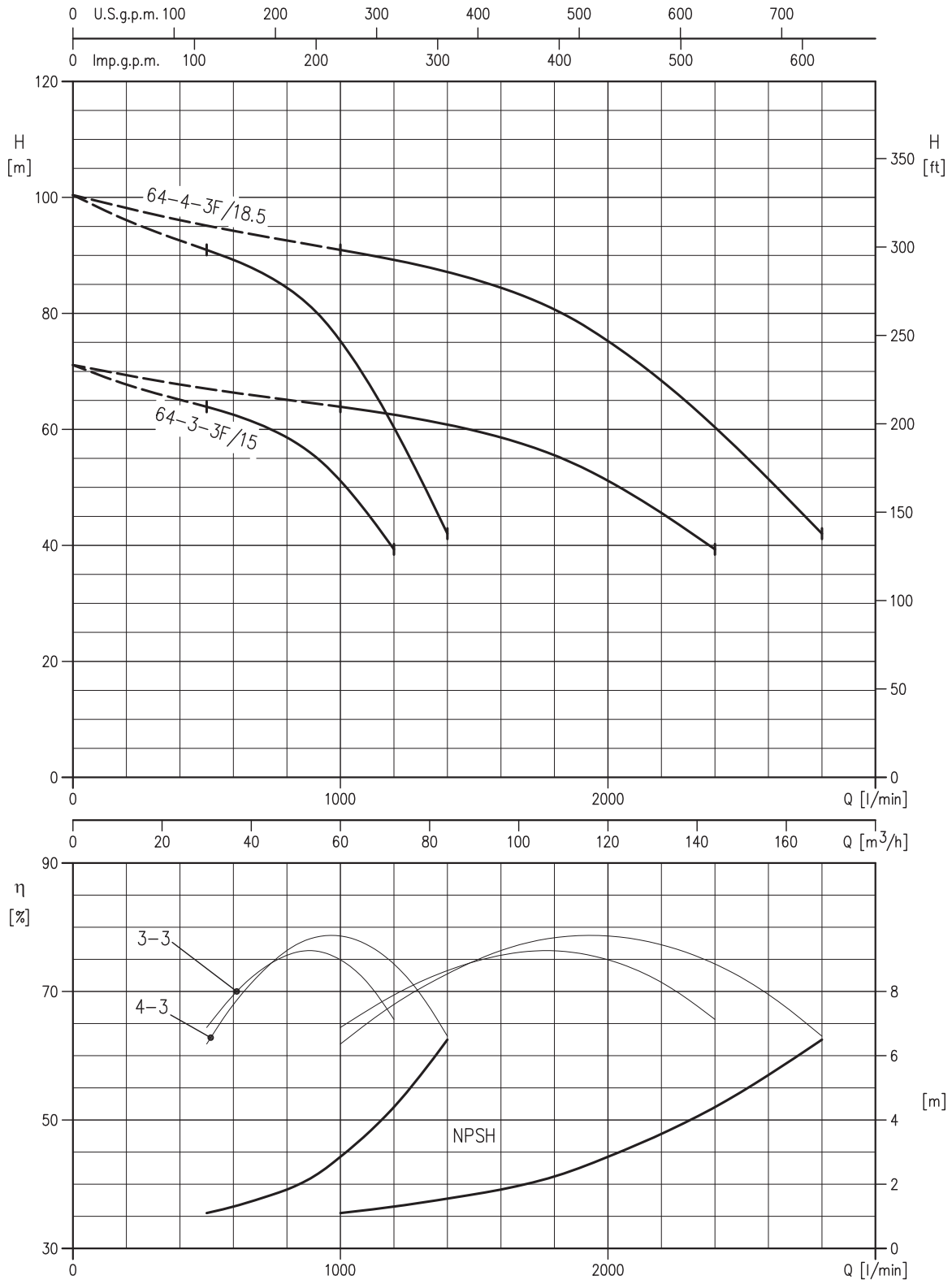
2GP EVMG 45 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



2GP EVMG 64 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



2GP EVMG 64 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)

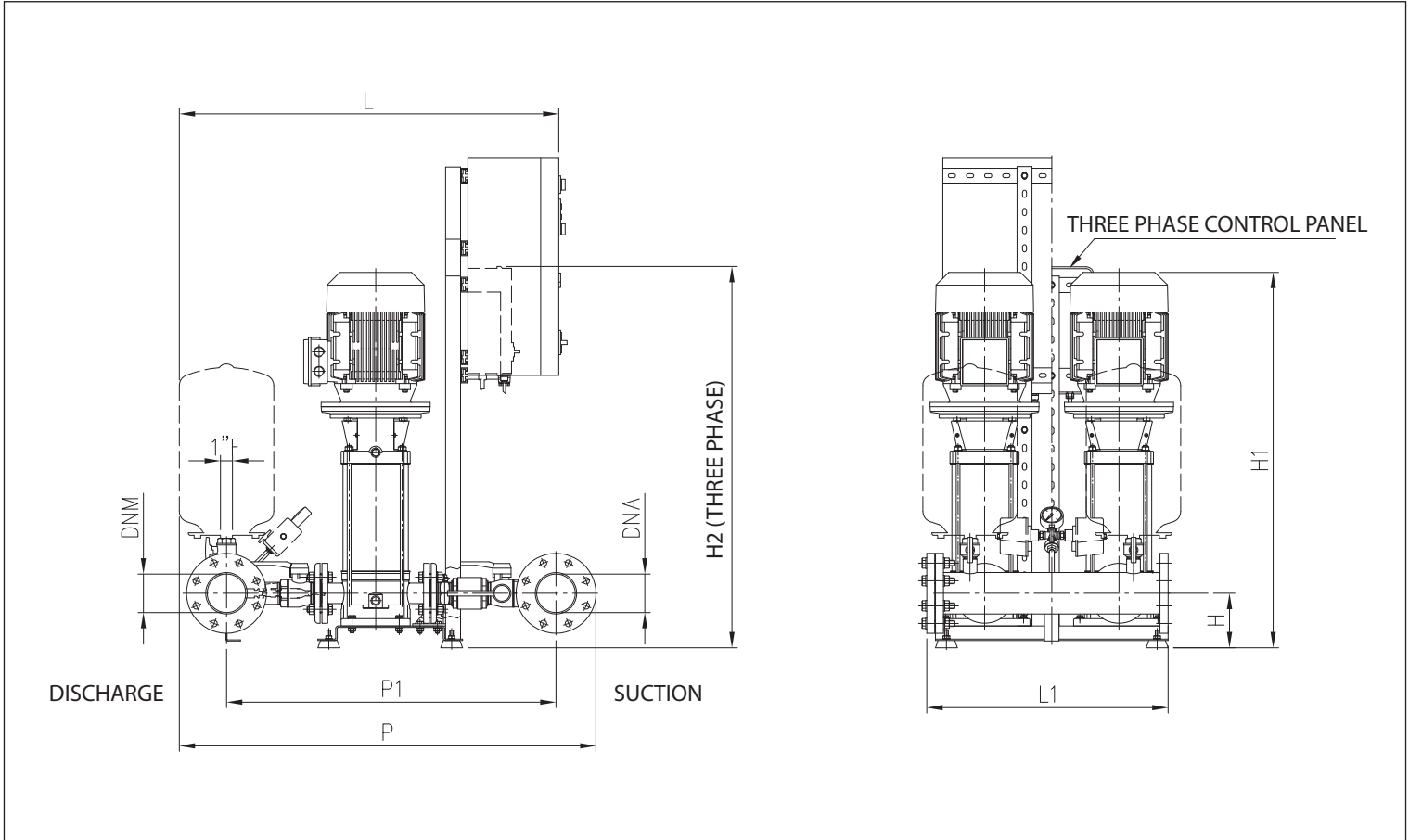


### PERFORMANCE TABLE AND ELECTRIC DATA OF THE TWO PUMPS FUNCTIONING SIMULTANEOUSLY

Model Three phase 400V	[kW]	Max abs. [A] 400V Three phase	Q=Flow rate								
			l/min m <sup>3</sup> /h	150	200	260	300	400	500	600	700
			H=Head [m]								
EVMG 10 10N/4,0	4+4	17	105,0	102,0	94,5	88,0	66,0	39,0	-	-	-
EVMG 10 11N/4,0	4+4	17	116,0	112,0	104,0	97,0	72,5	43,0	-	-	-
EVMG 18 4F/4,0	4+4	17	-	-	61,5	60,5	57,0	51,5	44,0	34,3	23,2
EVMG 18 5F/5,5	5,5+5,5	21,6	-	-	77,0	75,5	71,5	64,5	54,5	43,0	29,0
EVMG 18 6F/5,5	5,5+5,5	21,6	-	-	92,0	91,0	85,5	77,0	65,5	51,5	34,8
EVMG 18 7F/7,5	7,5+7,5	28,2	-	-	108,0	106,0	100,0	90,0	76,5	60,0	40,5

Model Three phase 400V	[kW]	Max abs. [A] 400V Three phase	Q=Flow rate								
			l/min m <sup>3</sup> /h	400	700	1000	1200	1400	1800	2000	2400
			H=Head [m]								
EVMG 32 3-3F/5,5	5,5+5,5	21,6	52,0	45,0	32,8	22,7	-	-	-	-	-
EVMG 32 3-0F/5,5	5,5+5,5	21,6	61,0	54,5	45,0	36,1	24,1	-	-	-	-
EVMG 32 4-3F/7,5	7,5+7,5	28,2	72,5	63,5	48,5	35,6	-	-	-	-	-
EVMG 32 4-0F/7,5	7,5+7,5	28,2	81,5	73,0	61,0	49,0	33,3	-	-	-	-
EVMG 32 5-3F/11	11+11	43	93,0	82,0	64,0	48,5	30,5	-	-	-	-
EVMG 45 2-0F/7,5	7,5+7,5	28,2	-	51,5	50,0	48,0	45,0	35,4	29,1	-	-
EVMG 45 3-2F/11	11+11	43	-	64,0	61,0	58,0	53,0	37,3	-	-	-
EVMG 45 3-0F/11	11+11	43	-	77,5	75,0	72,5	68,0	54,0	45,0	-	-
EVMG 45 4-2F/15	15+15	57	-	90,0	86,0	82,0	76,0	56,0	43,0	-	-
EVMG 45 4-0F/15	15+15	57	-	103,0	100,0	96,5	91,0	73,0	60,5	-	-
EVMG 64 2-0F/11	11+11	43	-	-	53,5	53,0	52,0	49,0	46,5	39,5	30,6
EVMG 64 3-3F/15	15+15	57	-	-	64,0	62,5	61,0	55,5	51,0	39,3	-
EVMG 64 3-2F/15	15+15	57	-	-	69,5	68,0	66,5	61,5	57,5	46,5	32,5
EVMG 64 3-1F/15	15+15	57	-	-	75,0	74,0	72,5	68,0	64,0	53,5	40,0
EVMG 64 3-0F/18,5	18,5+18,5	57	-	-	80,5	79,5	78,0	74,0	70,5	60,5	47,5
EVMG 64 4-3F/18,5	18,5+18,5	69	-	-	91,0	89,0	87,0	80,5	75,5	60,5	42,0
EVMG 64 4-1F/22	22+22	82	-	-	102,0	101,0	98,5	93,0	88,0	74,5	57,0
EVMG 64 4-0F/22	22+22	82	-	-	108,0	106,0	104,0	99,0	94,5	81,5	64,5

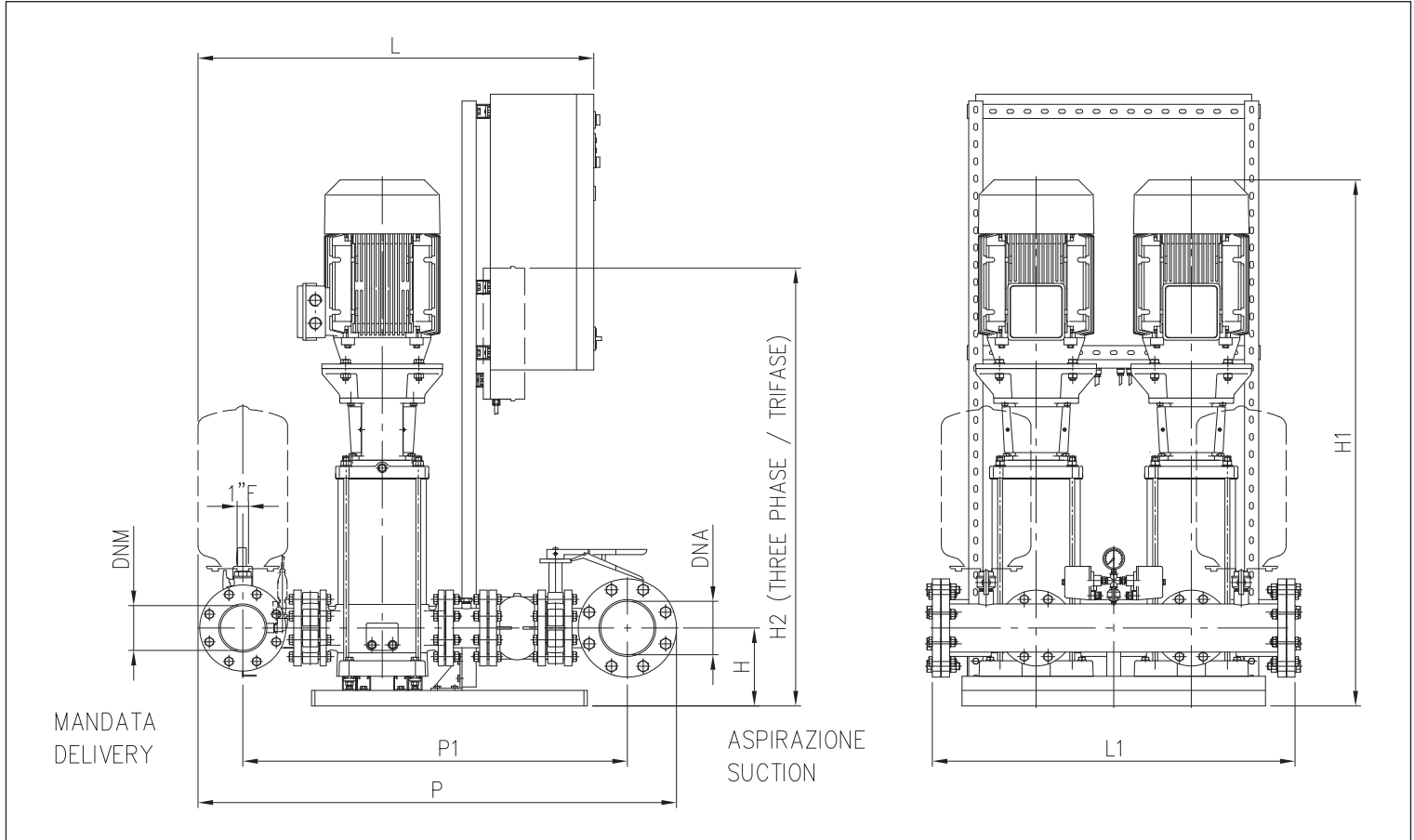
### DIMENSIONS 2GP EVMG 10-18



### DIMENSIONS TABLE

Model	Dimensions [mm]								Weight [kg]
	L	H	H1	H2	P	P1	L1	DNA-DNM	
2GP EVMG 10 10N/4,0	845	140	970	1000	925	735	670	G3	163,0
2GP EVMG 10 11N/4,0	845	140	1000	1000	925	735	670	G3	167,0
2GP EVMG 18 4F/4,0	915	150	840	1050	1145	905	690	DN100	200,0
2GP EVMG 18 5F/5,5	915	150	955	1050	1145	905	690	DN100	238,0
2GP EVMG 18 6F/5,5	915	150	995	1050	1145	905	690	DN100	244,0
2GP EVMG 18 7F/7,5	915	150	1035	1050	1145	905	690	DN100	260,0

### 2GP EVMG 32-45-64 DIMENSIONS



### DIMENSIONS TABLE

Model	Dimensions [mm]										Weight [kg]
	L	H	H1	H2	P	P1	L1	DNA	DNM		
2GP EVMG 32 3-3F/5.5	1015	190	1030	1025	1360	1105	1050	DN125	DN100	409,0	
2GP EVMG 32 3-0F/5.5	1015	190	1030	1025	1360	1105	1050	DN125	DN100	409,0	
2GP EVMG 32 4-3F/7.5	1015	190	1075	1025	1360	1105	1050	DN125	DN100	425,0	
2GP EVMG 32 4-0F/7.5	1015	190	1075	1025	1360	1105	1050	DN125	DN100	425,0	
2GP EVMG 32 5-3F/11	1095	190	1390	1325	1360	1105	1050	DN125	DN100	544,0	
2GP EVMG 45 2-0F/7.5	1085	225	1075	1175	1470	1195	1050	DN150	DN125	469,0	
2GP EVMG 45 3-2F/11	1145	225	1410	1375	1470	1195	1050	DN150	DN125	585,0	
2GP EVMG 45 3-0F/11	1145	225	1410	1375	1470	1195	1050	DN150	DN125	585,0	
2GP EVMG 45 4-2F/15	1145	225	1480	1475	1470	1195	1050	DN150	DN125	602,0	
2GP EVMG 45 4-0F/15	1145	225	1480	1475	1470	1195	1050	DN150	DN125	602,0	
2GP EVMG 64 2-0F/11	1005	225	1340	1375	1390	1115	1050	DN150	DN125	574,0	
2GP EVMG 64 3-3F/15	1005	225	1410	1475	1390	1115	1050	DN150	DN125	608,0	
2GP EVMG 64 3-2F/15	1005	225	1410	1475	1390	1115	1050	DN150	DN125	608,0	
2GP EVMG 64 3-1F/15	1005	225	1410	1475	1390	1115	1050	DN150	DN125	608,0	
2GP EVMG 64 3-0F/18.5	1005	225	1410	1625	1390	1115	1050	DN150	DN125	624,0	
2GP EVMG 64 4-3F/18.5	1005	225	1525	1625	1390	1115	1050	DN150	DN125	642,0	
2GP EVMG 64 4-1F/22	1005	225	1580	1665	1390	1115	1050	DN150	DN125	716,0	
2GP EVMG 64 4-0F/22	1005	225	1580	1665	1390	1115	1050	DN150	DN125	716,0	