



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 three vertical type membrane reservoirs. Three pressure switches and a pressure gauge are mounted on it. On suction, 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.

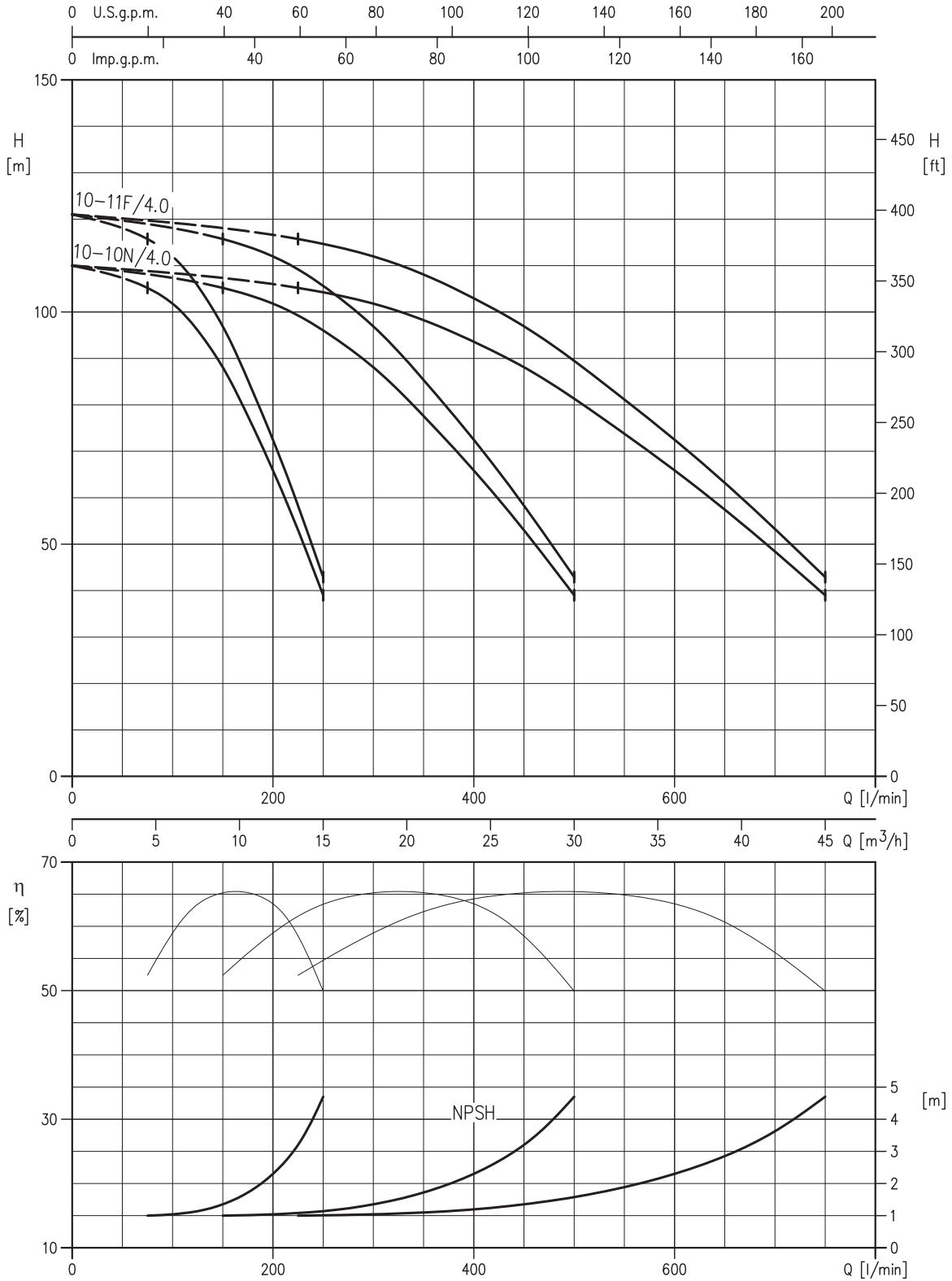
Protection and control panel with CE mark

- IMQ and VDE marked components
- Very low voltage auxiliary circuit
- Motor switch-on and switch-off are controlled by three 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
- 400V, 50 Hz three phase power supply
- Start-up:
 - direct for powers up to 7.5 kW
 - delta/triangle for powers exceeding 7.5 kW
- Power circuit protection fuse
- Auxiliary circuit protection fuse
- Protection rating IP 55
- Line general isolating switch with door lock
- Aut. - 0 - man. switches for each pump
- Circuit breaker protection reset
- LED indicator:
 - network presence
 - motor running
 - level alarm
 - motor in protection mode
- Alarm output set-up
- On request, special version control panels can be used

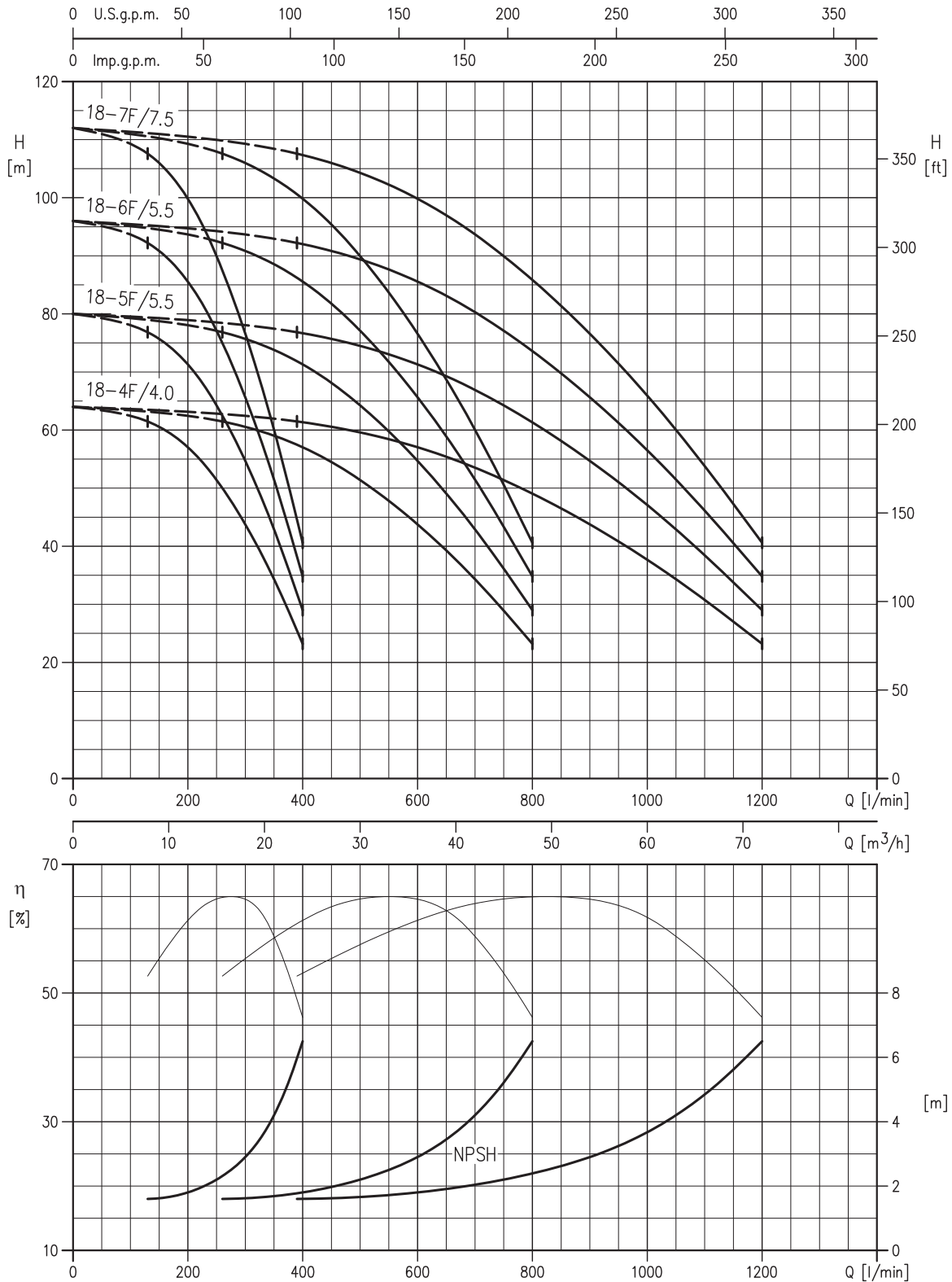
FUNCTIONING PRINCIPLES

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 this pump, the pressure continues to drop until it causes the closure of the contact of the second pressure switch and any third pressure switch and the start-up of another or another two main pumps. 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 motors reduces the number of hourly start-ups of the individual pumps and consequently allows a homogenous 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.

3GP EVMG 10 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



3GP EVMG 18 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)

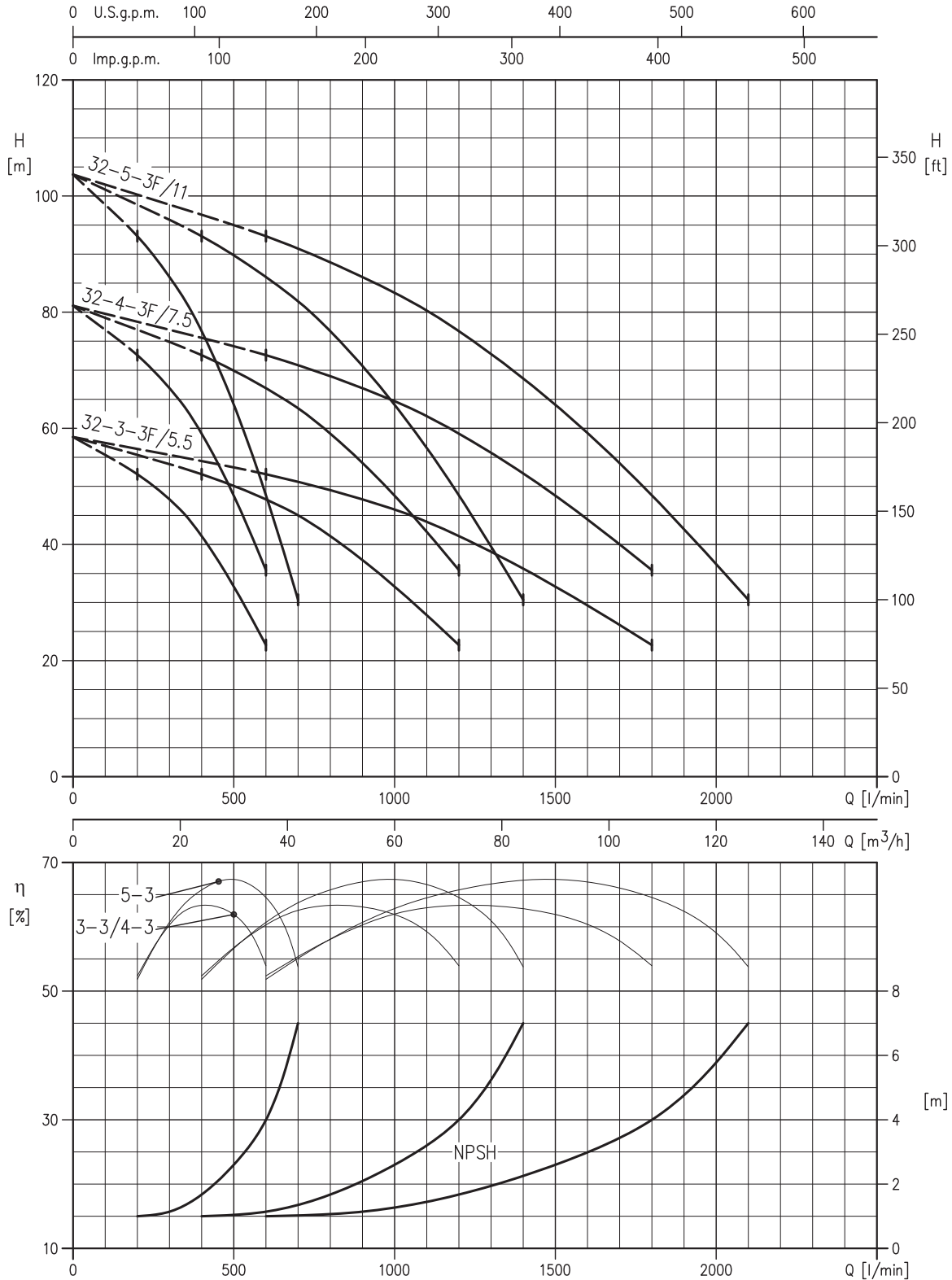




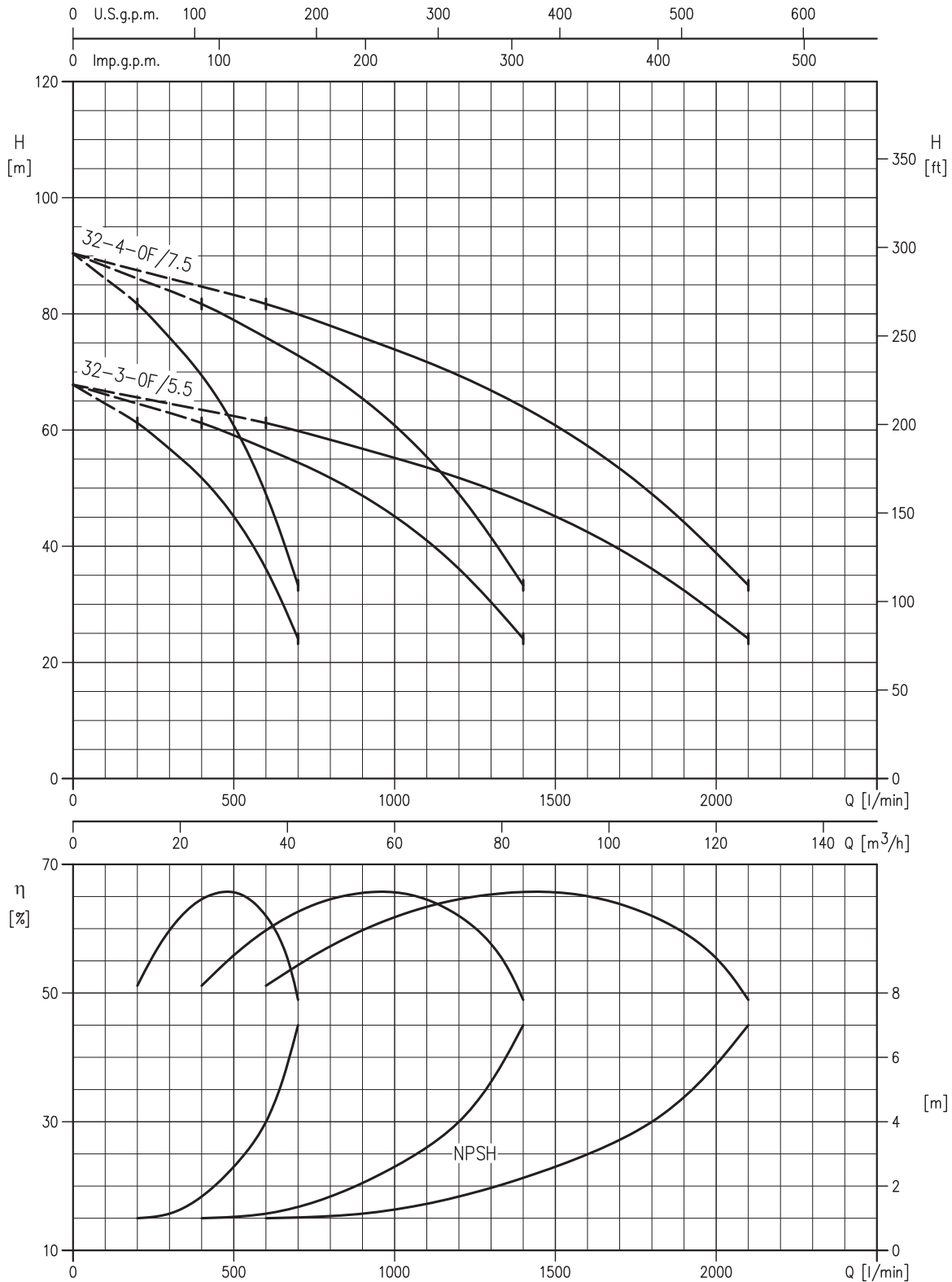
3GP EVMG

INDUSTRIAL PRESSURE BOOSTING

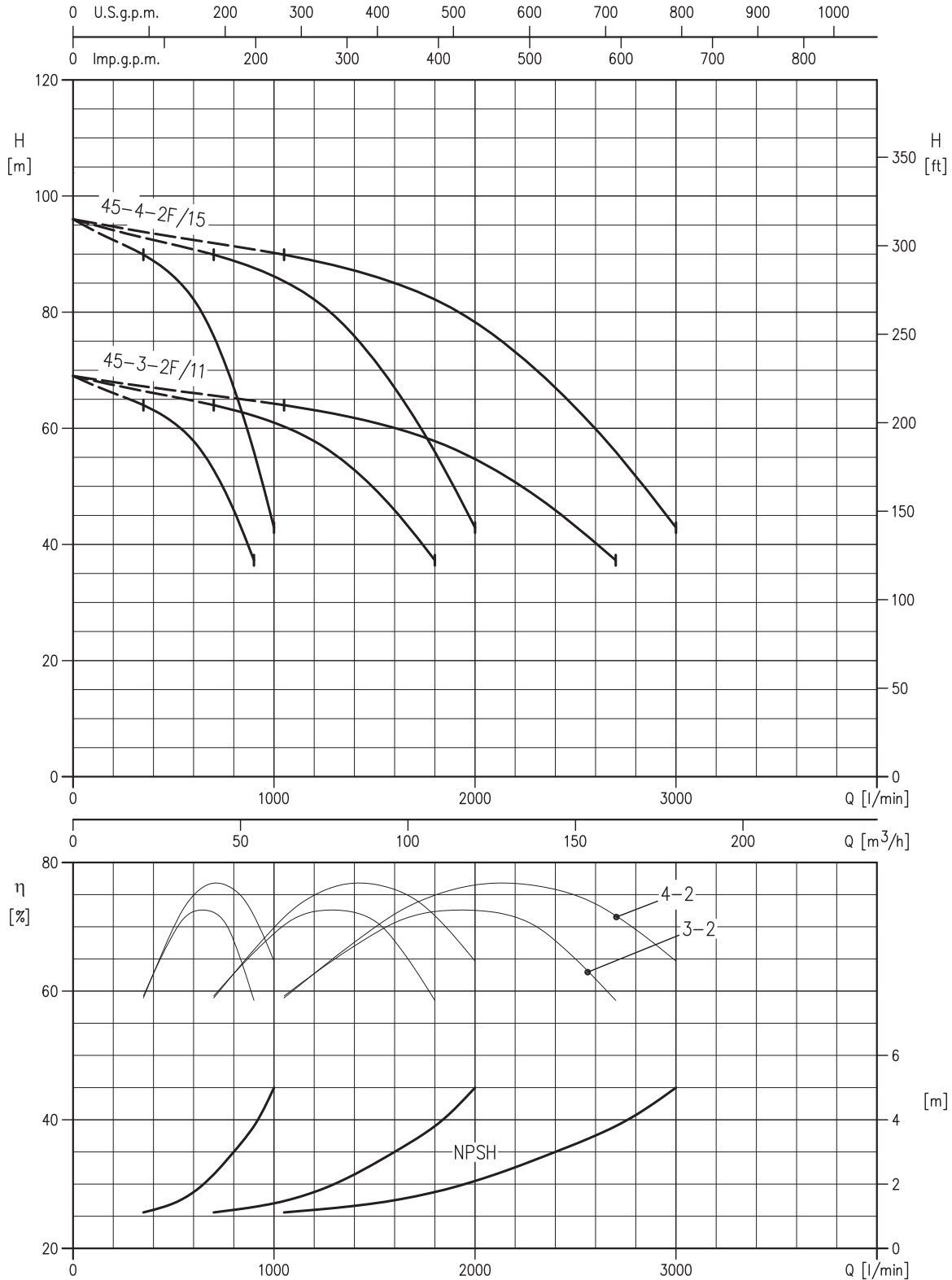
3GP EVMG 32 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



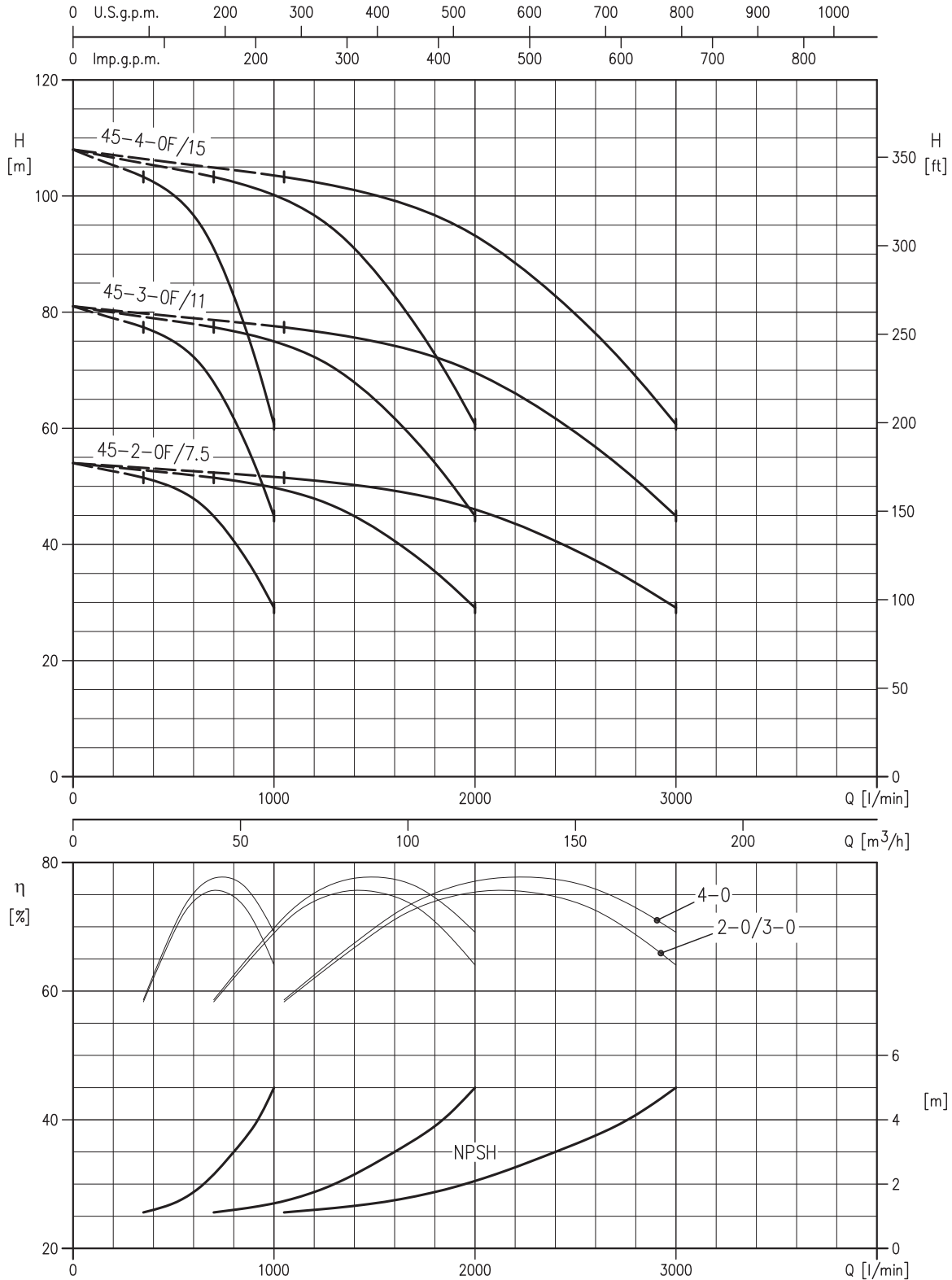
3GP EVMG 32 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



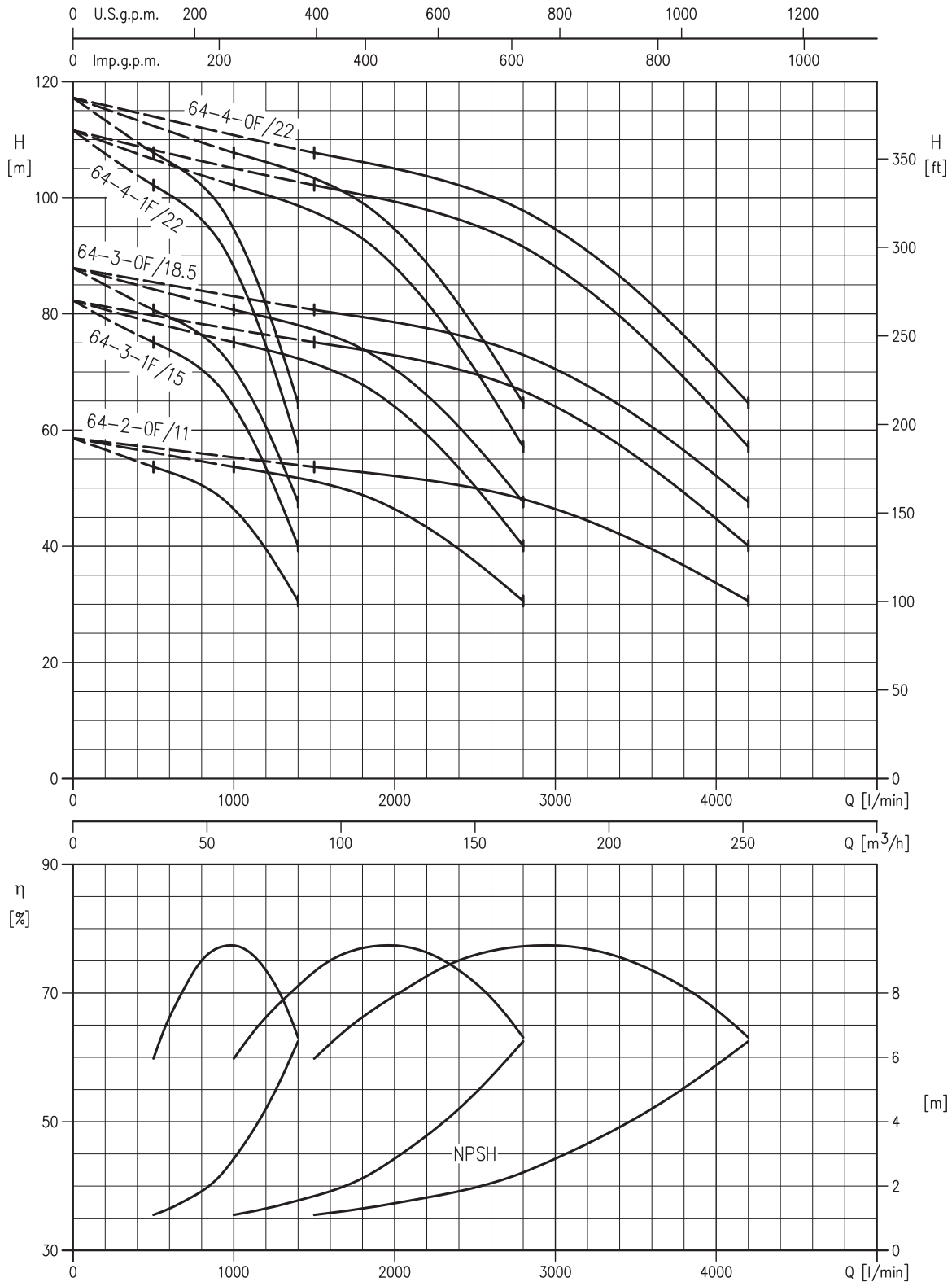
3GP EVMG 45 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



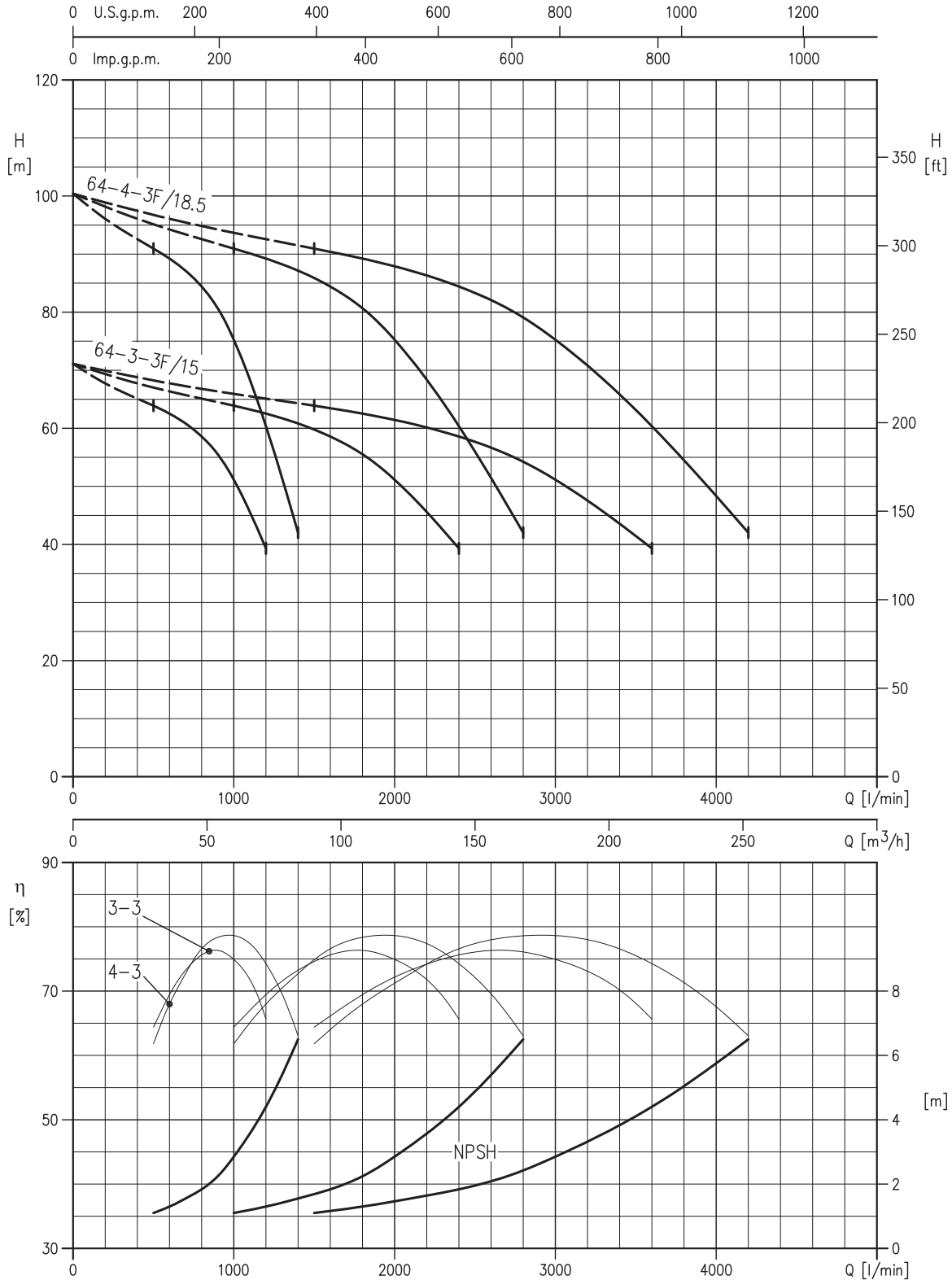
3GP EVMG 45 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



3GP EVMG 64 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)



3GP EVMG 64 RANGE PERFORMANCE CURVE (according to ISO 9906 Attachment A)

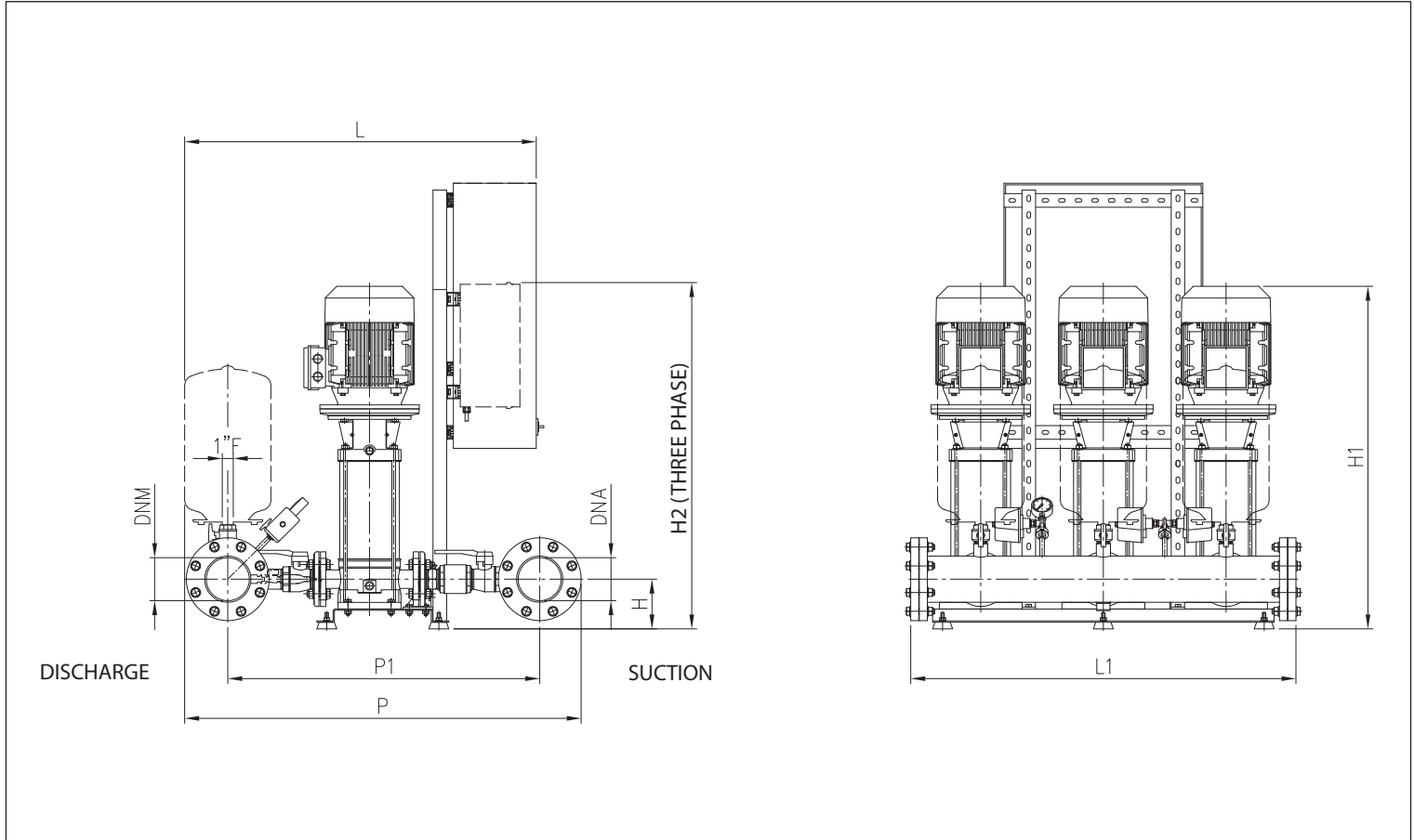


PERFORMANCE TABLE AND ELECTRIC DATA OF THE THREE PUMPS FUNCTIONING SIMULTANEOUSLY

Model Three phase 400V	[kW]	Max abs. [A] 400V Three phase	Q=Flow rate									
			l/min	225	300	390	450	600	750	900	1050	1200
			m ³ /h	13,5	18	23,4	27	36	45	54	63	72
			H=Head [m]									
EVMG 10 10N/4,0	4+4+4	25,5	105,0	102,0	94,5	88,0	66,0	39,0	-	-	-	
EVMG 10 11N/4,0	4+4+4	25,5	116,0	112,0	104,0	97,0	72,5	43,0	-	-	-	
EVMG 18 4F/4,0	4+4+4	25,5	-	-	61,5	60,5	57,0	51,5	44,0	34,3	23,2	
EVMG 18 5F/5,5	5,5+5,5+5,5	32,4	-	-	77,0	75,5	71,5	64,5	54,5	43,0	29,0	
EVMG 18 6F/5,5	5,5+5,5+5,5	32,4	-	-	92,0	91,0	85,5	77,0	65,5	51,5	34,8	
EVMG 18 7F/7,5	7,5+7,5+7,5	42,3	-	-	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	600	1050	1500	1800	2100	2700	3000	3600	4200
			m ³ /h	36	63	90	108	126	162	180	216	252
			H=Head [m]									
EVMG 32 3-3F/5,5	5,5+5,5+5,5	32,4	52,0	45,0	32,8	22,7	-	-	-	-	-	
EVMG 32 3-0F/5,5	5,5+5,5+5,5	32,4	61,0	54,5	45,0	36,1	24,1	-	-	-	-	
EVMG 32 4-3F/7,5	7,5+7,5+7,5	42,3	72,5	63,5	48,5	35,6	-	-	-	-	-	
EVMG 32 4-0F/7,5	7,5+7,5+7,5	42,3	81,5	73,0	61,0	49,0	33,3	-	-	-	-	
EVMG 32 5-3F/11	11+11+11	64,5	93,0	82,0	64,0	48,5	30,5	-	-	-	-	
EVMG 45 2-0F/7,5	7,5+7,5+7,5	42,3	-	51,5	50,0	48,0	45,0	35,4	29,1	-	-	
EVMG 45 3-2F/11	11+11+11	64,5	-	64,0	61,0	58,0	53,0	37,3	-	-	-	
EVMG 45 3-0F/11	11+11+11	64,5	-	77,5	75,0	72,5	68,0	54,0	45,0	-	-	
EVMG 45 4-2F/15	15+15+15	85,5	-	90,0	86,0	82,0	76,0	56,0	43,0	-	-	
EVMG 45 4-0F/15	15+15+15	85,5	-	103,0	100,0	96,5	91,0	73,0	60,5	-	-	
EVMG 64 2-0F/11	11+11+11	64,5	-	-	53,5	53,0	52,0	49,0	46,5	39,5	30,6	
EVMG 64 3-3F/15	15+15+15	85,5	-	-	64,0	62,5	61,0	55,5	51,0	39,3	-	
EVMG 64 3-2F/15	15+15+15	85,5	-	-	69,5	68,0	66,5	61,5	57,5	46,5	32,5	
EVMG 64 3-1F/15	15+15+15	85,5	-	-	75,0	74,0	72,5	68,0	64,0	53,5	40,0	
EVMG 64 4-0F/18,5	18,5+18,5+18,5	103,5	-	-	80,5	79,5	78,0	74,0	70,5	60,5	47,5	
EVMG 64 4-3F/18,5	18,5+18,5+18,5	103,5	-	-	91,0	89,0	87,0	80,5	75,5	60,5	42,0	
EVMG 64 4-1F/22	22+22+22	123	-	-	102,0	101,0	98,5	93,0	88,0	74,5	57,0	
EVMG 64 4-0F/22	22+22+22	123	-	-	108,0	106,0	104,0	99,0	94,5	81,5	64,5	

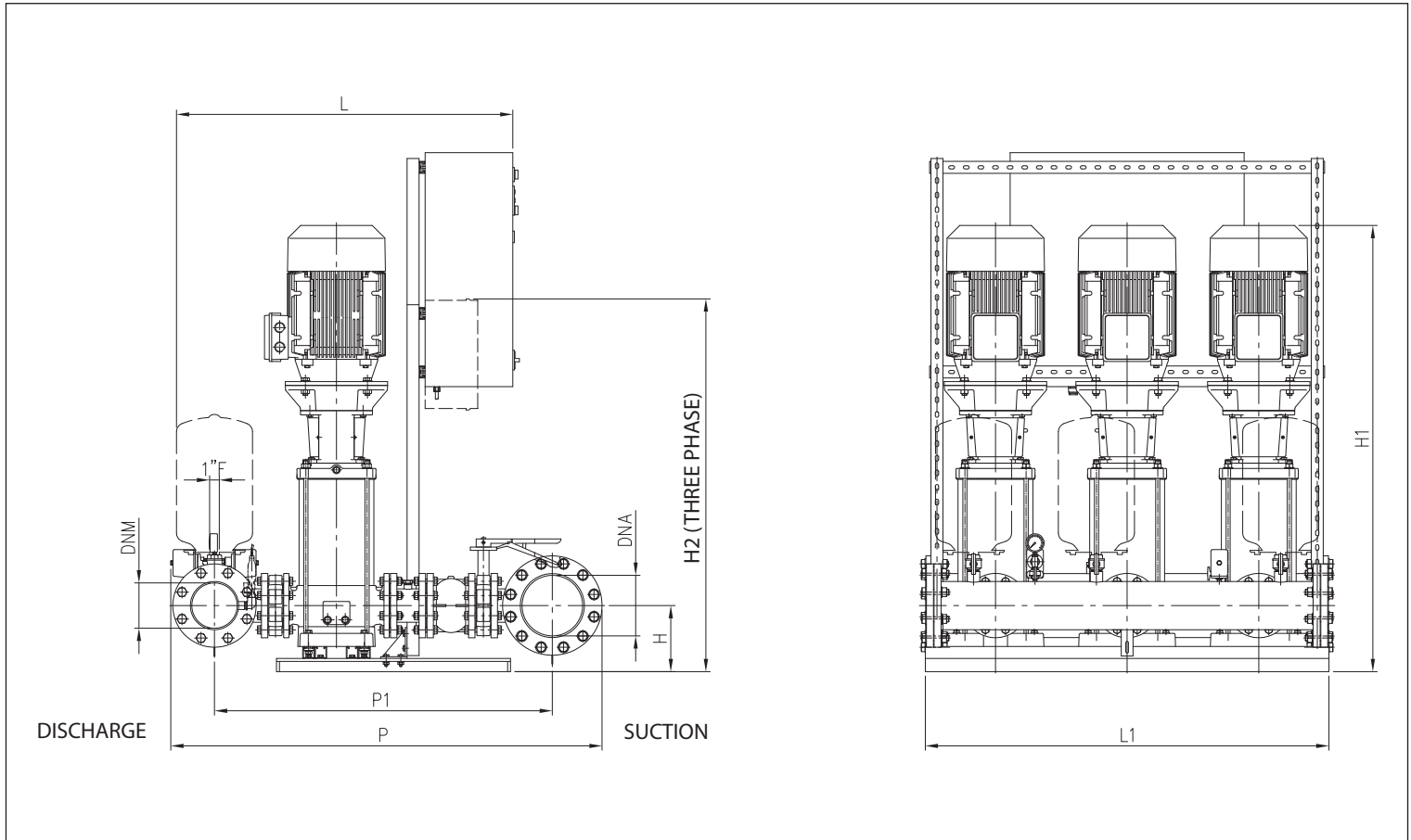
3GP EVMG 10-18 DIMENSIONS



DIMENSIONS TABLE

Model	Dimensions [mm]					P1	L1	DNA-DNM	Weight [kg]
	L	H	H1	H2	P				
3GP EVMG 10 10N/4,0	940	140	970	1045	1005	765	1160	DN100	228,0
3GP EVMG 10 11N/4,0	940	140	1000	1045	1005	765	1160	DN100	234,0
3GP EVMG 18 4F/4,0	1010	150	840	1045	1195	940	1160	DN125	265,0
3GP EVMG 18 5F/5,5	1010	150	955	1045	1195	940	1160	DN125	322,0
3GP EVMG 18 6F/5,5	1010	150	995	1045	1195	940	1160	DN125	331,0
3GP EVMG 18 7F/7,5	1010	150	1035	1045	1195	940	1160	DN125	355,0

3GP EVMG 32-45-64 DIMENSIONS



DIMENSIONS TABLE

Model	Dimensions [mm]									
	L	H	H1	H2	P	P1	L1	DNA	DNM	Weight [kg]
3GP EVMG 32 3-3F/5.5	1085	190	1030	1175	1420	1130	1380	DN150	DN125	529,0
3GP EVMG 32 3-0F/5.5	1085	190	1030	1175	1420	1130	1380	DN150	DN125	529,0
3GP EVMG 32 4-3F/7.5	1085	190	1075	1175	1420	1130	1380	DN150	DN125	553,0
3GP EVMG 32 4-0F/7.5	1085	190	1075	1175	1420	1130	1380	DN150	DN125	553,0
3GP EVMG 32 5-3F/11	1105	190	1390	1475	1420	1130	1380	DN150	DN125	733,0
3GP EVMG 45 2-0F/7.5	1175	225	1075	1275	1550	1235	1380	DN200	DN150	601,0
3GP EVMG 45 3-2F/11	1200	225	1410	1575	1550	1235	1380	DN200	DN150	778,0
3GP EVMG 45 3-0F/11	1200	225	1410	1575	1550	1235	1380	DN200	DN150	778,0
3GP EVMG 45 4-2F/15	1200	225	1480	1575	1550	1235	1380	DN200	DN150	811,0
3GP EVMG 45 4-0F/15	1200	225	1480	1575	1550	1235	1380	DN200	DN150	811,0
3GP EVMG 64 2-0F/11	1050	225	1340	1575	1475	1155	1380	DN200	DN150	763,0
3GP EVMG 64 3-3F/15	1050	225	1410	1575	1475	1155	1380	DN200	DN150	820,0
3GP EVMG 64 3-2F/15	1050	225	1410	1575	1475	1155	1380	DN200	DN150	820,0
3GP EVMG 64 3-1F/15	1050	225	1410	1575	1475	1155	1380	DN200	DN150	820,0
3GP EVMG 64 3-0F/18.5	1050	225	1410	1775	1475	1155	1380	DN200	DN150	844,0
3GP EVMG 64 4-3F/18.5	1050	225	1525	1775	1475	1155	1380	DN200	DN150	871,0
3GP EVMG 64 4-1F/22	1050	225	1580	1900	1475	1155	1380	DN200	DN150	982,0
3GP EVMG 64 4-0F/22	1050	225	1580	1900	1475	1155	1380	DN200	DN150	982,0