

Units with two vertical multistage pumps with stainless steel hydraulic parts.

PUMP FEATURES

FIELD OF USE

- Maximum working pressure: 10 bar
- Maximum temperature of the liquid: 90°C

MATERIALS

- Cast iron pump body
- External casing, impellers, intermediate stage, seal housing disc and shaft in AISI 304
- Mechanical seal in Carbon/Ceramic/NBR

TECHNICAL DATA

- T.E.F.C. 2 pole motor
- Class of insulation F
- IP55 Protection rating
- 230V $\pm 10\%$, 50Hz single phase voltage, 230/400V $\pm 10\%$, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic reset incorporated for the single phase motor
- Circuit breaker protection under user's responsibility for the three phase version

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 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.

Protection and control panel with CE mark

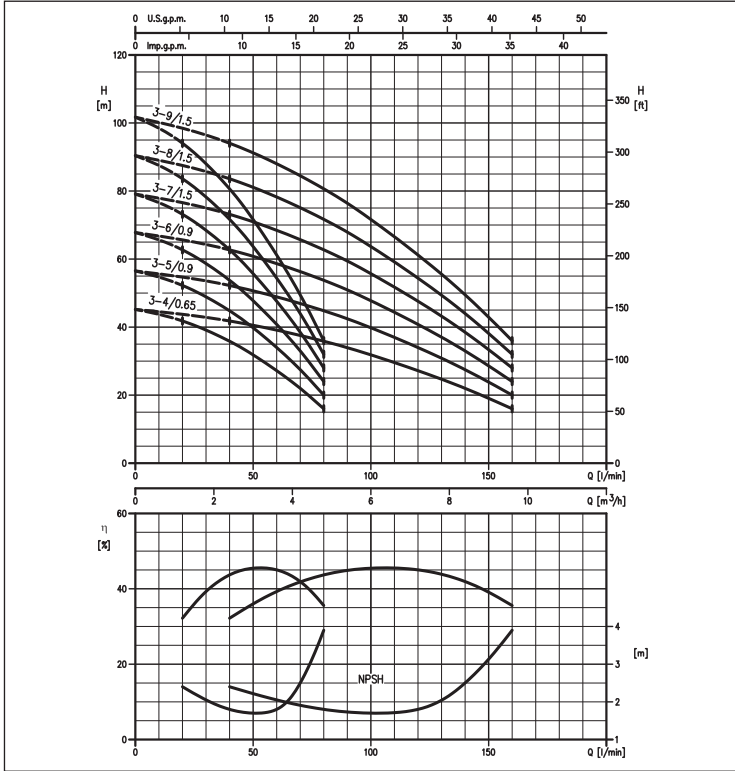
- IMQ and VDE marked components
- Very low voltage auxiliary circuit
- Motor switch-on and switch-off are controlled by two pressure switches
- The connection to a float of minimum pressure pressure switch is possible in order to prevent functioning in conditions when there is no suction water
- A device is present that inverts the insertion order of the pumps at every start-up
- Power supply:
 - 230V, 50Hz single phase
 - 400V, 50 Hz three phase
- Direct start-up
- 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 (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 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.

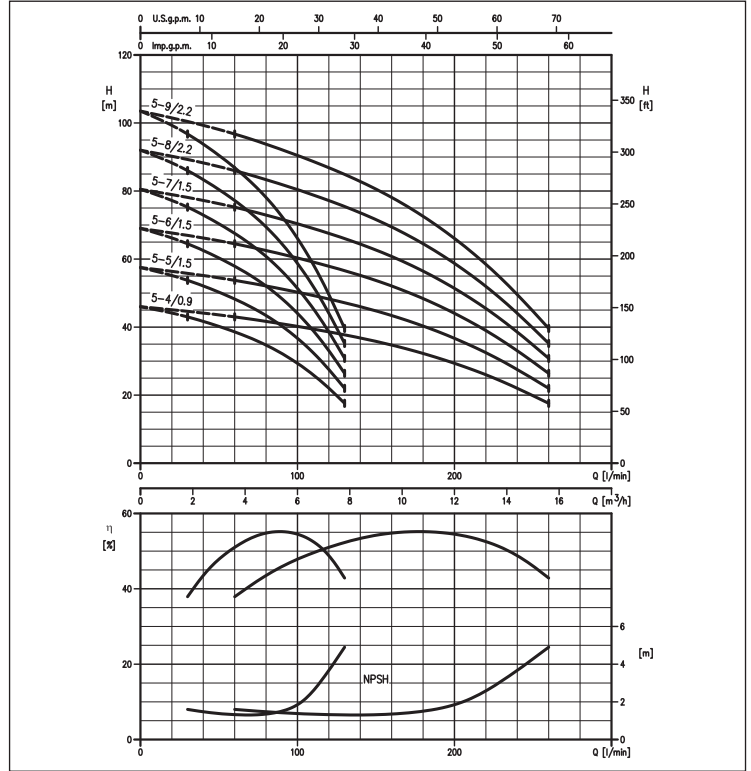
2GP HVM 3 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



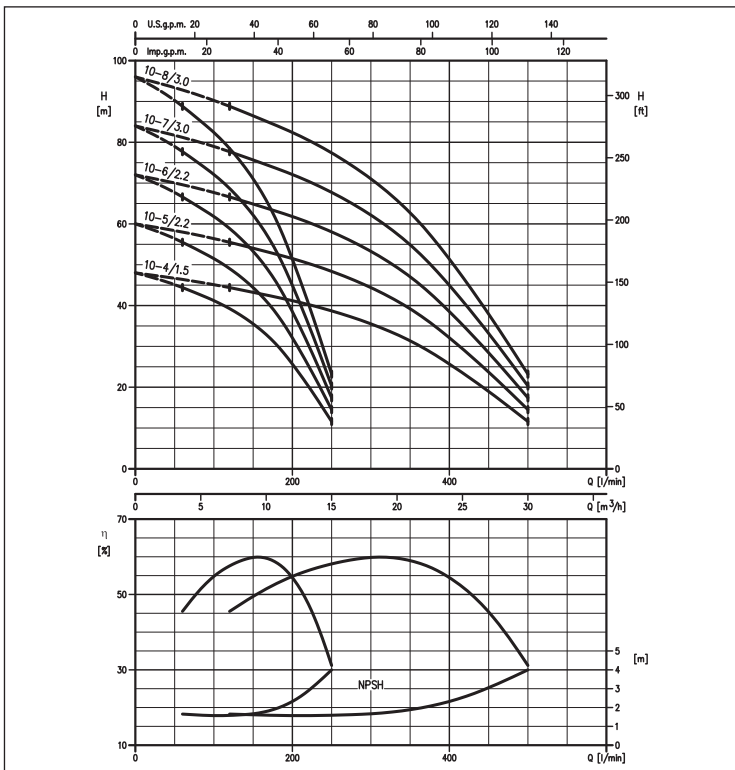
2GP HVM 5 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



2GP HVM A 10 range PERFORMANCE CURVES

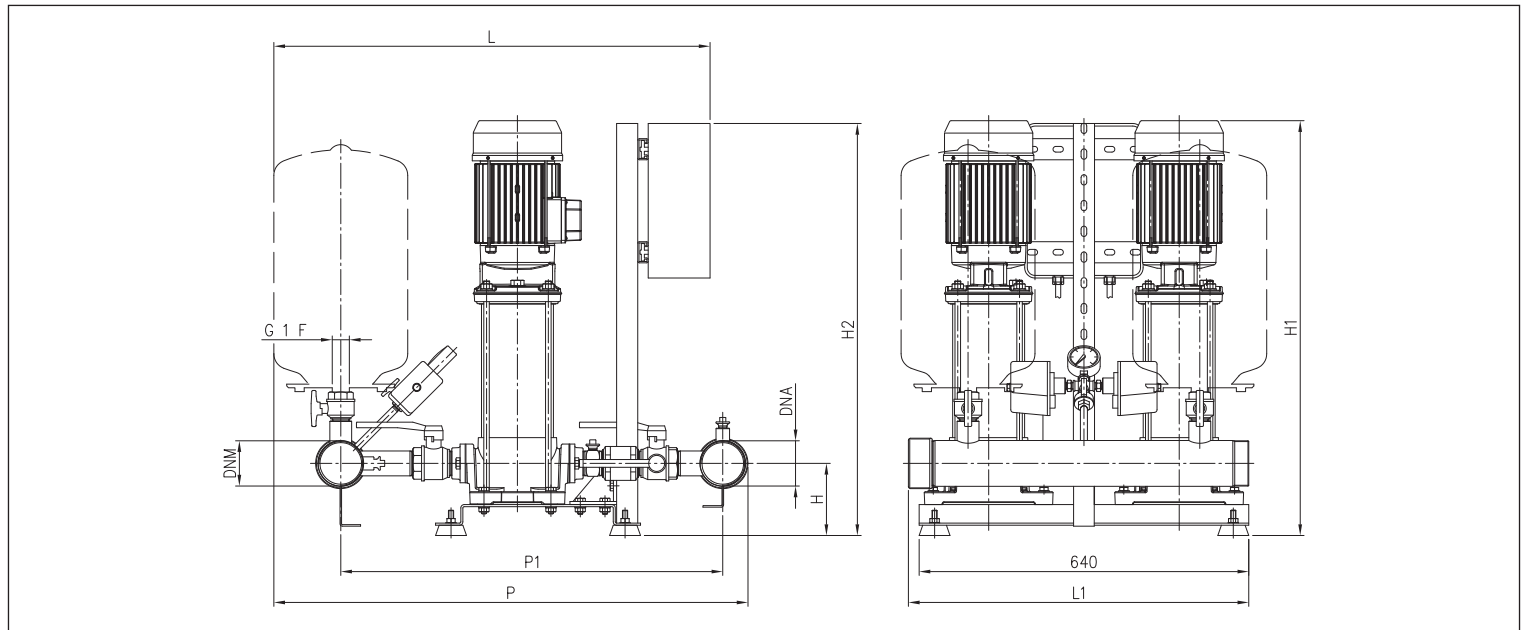
(according to ISO 9906 Attachment A)



PERFORMANCE TABLE AND ELECTRIC DATA OF THE TWO PUMPS FUNCTIONING SIMULTANEOUSLY

Model		[kW]	Max absorption [A]		Q=Flow rate										
230V single phase	400V three-phase		230V single phase	400V three-phase	l/min	40	60	90	120	160	200	260	320	400	500
					m³/h	2,4	3,6	5,4	7,2	9,6	12	15,6	19,2	24	30
					H=Head [m]										
HVM 3-5N/0.9M	HVM 3-5N/0.9	0,9+0,9	11,4	5,2	52,5	49,0	42,5	34,0	20,0	-	-	-	-	-	-
HVM 3-6N/0.9M	HVM 3-6N/0.9	0,9+0,9	11,4	5,2	62,5	58,5	51,0	41,0	24,0	-	-	-	-	-	-
HVM 3-7N/1.5M	HVM 3-7N/1.5	1,5+1,5	17,4	6,8	73,0	68,5	59,5	47,5	28,0	-	-	-	-	-	-
HVM 3-8N/1.5M	HVM 3-8N/1.5	1,5+1,5	17,4	6,8	83,5	78,0	68,0	54,5	32,0	-	-	-	-	-	-
HVM 3-9N/1.5M	HVM 3-9N/1.5	1,5+1,5	17,4	6,8	94,0	88,0	76,5	61,0	36,0	-	-	-	-	-	-
HVM 5-6N/1.5M	HVM 5-6N/1.5	1,5+1,5	17,4	6,8	-	64,5	61,5	58,0	52,0	44,0	26,4	-	-	-	-
HVM 5-7N/1.5M	HVM 5-7N/1.5	1,5+1,5	17,4	6,8	-	75,5	71,5	67,5	61,0	51,5	30,8	-	-	-	-
HVM 5-8N/2.2M	HVM 5-8N/2.2	2,2+2,2	26	9,2	-	86,0	82,0	77,0	69,5	58,5	35,2	-	-	-	-
HVM 5-9N/2.2M	HVM 5-9N/2.2	2,2+2,2	26	9,2	-	97,0	92,0	87,0	78,0	66,0	39,6	-	-	-	-
HVM 10-4N/1.5M	HVM 10-4N/1.5	1,5+1,5	17,4	6,8	-	-	-	44,5	43,0	41,0	38,1	34,0	25,7	11,6	
HVM 10-5N/2.2M	HVM 10-5N/2.2	2,2+2,2	26	9,2	-	-	-	55,5	53,5	51,5	47,5	42,5	32,1	14,5	
HVM 10-6N/2.2M	HVM 10-6N/2.2	2,2+2,2	26	9,2	-	-	-	66,5	64,5	62,0	57,0	51,0	38,5	17,4	
-	HVM 10-7N/3	3+3	-	12,6	-	-	-	77,5	75,0	72,0	66,5	59,5	45,0	20,3	
-	HVM 10-8N/3	3+3	-	12,6	-	-	-	89,0	85,5	82,5	76,0	68,0	51,5	23,2	

DIMENSIONS



DIMENSIONS TABLE

Model	Dimensions [mm]										Weight [kg]					
	[2]	L	[1]	H	[2]	H1	[1]	[2]	H2	[1]	P	P1	L1	DNA-DNM	[2]	[1]
2GP HVM 3-5N/0.9	805	835	835	110	570	570	740	740	800	800	860	695	660	G2	82,0	84,0
2GP HVM 3-6N/0.9	805	835	835	110	595	595	740	740	800	800	860	695	660	G2	84,0	86,0
2GP HVM 3-7N/1.5	805	835	835	110	655	655	740	740	800	800	860	695	660	G2	90,0	92,0
2GP HVM 3-8N/1.5	805	835	835	110	680	680	740	740	800	800	860	695	660	G2	90,0	93,0
2GP HVM 3-9N/1.5	805	835	835	110	705	705	740	740	800	800	860	695	660	G2	94,0	95,0
2GP HVM 5-6N/1.5	775	805	805	110	635	635	740	740	800	800	800	635	660	G2	88,0	91,0
2GP HVM 5-7N/1.5	775	805	805	110	655	655	740	740	800	800	800	635	660	G2	92,0	93,0
2GP HVM 5-8N/2.2	775	805	805	110	730	695	740	740	800	800	800	635	660	G2	103,0	97,0
2GP HVM 5-9N/2.2	775	805	805	110	750	720	740	740	800	800	800	635	660	G2	104,0	97,0
2GP HVM 10-4N/1.5	815	845	845	140	640	640	740	740	800	920	740	670	G3	97,0	99,0	
2GP HVM 10-5N/2.2	845	845	845	140	715	680	800	800	800	920	740	670	G3	109,0	104,0	
2GP HVM 10-6N/2.2	845	845	845	140	745	710	800	800	800	920	740	670	G3	112,0	105,0	
2GP HVM 10-7N/3	-	845	845	140	-	775	-	800	800	920	740	670	G3	-	113,0	
2GP HVM 10-8N/3	-	845	845	140	-	805	-	800	800	920	740	670	G3	-	115,0	

[1]= Three-phase only
[2]= Single phase only