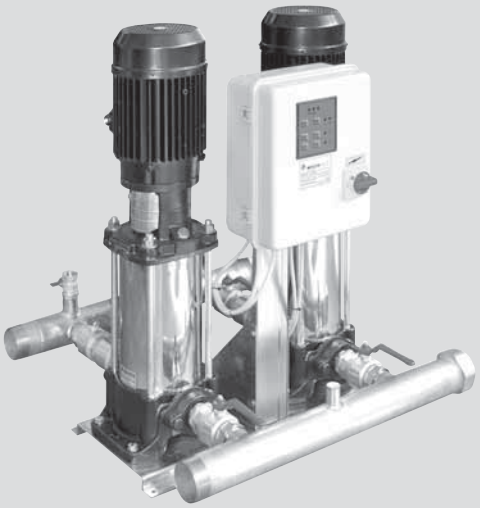


Pressomat *for industrial use*
Pressure booster units controlled by pressure switch

These are automatic pressure units for distribution networks with a single phase or three phase electrical power supply.

The pums are controlled by two differential pressure switches with adjustable calibration, by means of an electric control panel supplied with an analogical SM electronic card for:

sequential starting of the pumps

inversion of starting order

adjustable timing from 0 to 180", for the three phase version only

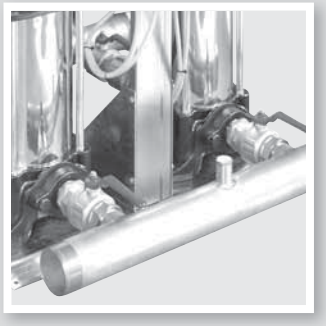
protection against dry running

When the system pressure reaches the closing value of the electric contact of pressure switch n°1, the first pump starts.

If the pressure continues to drop, when the maximum pressure value of the second pressure switch is reached, the other pump starts. When the pressure value of the network increases, the pressure switches open their contacts, causing the relative pump to be switched off.

At the end of each cycle, the automatic inverter changes the starting order of the pumps (at the first cycle pressure switch n. 1 will be associated to pump n. 1; at the subsequent cycle to pump n. 2). In the event that both pressure switches are closed simultaneously, the electronic card delays the starting of the second pump, thus avoiding sharp pressure jolts and overload of the electric power supply.

High hydraulic performance
Sturdy construction
Pipes in stainless steel AISI 304



NUMBER OF PUMPS		MAXIMUM FLOW RATE	
Main pumps	Pilots	L/min	m³/h
2	-	1400	84

MATERIALS

USAGE LIMITATIONS	VLR 2B	VLR 4	VLR 8	VLR 16	VLR 32
Maximum flow rate (m³/h)	6	14,4	24	42	84
Maximum head (m.c.a.)	125	109	103	93	90
Max. operating pressure	16 bar				
Supply voltage	1~230V / 3~400V		3~400V		
Ambient temperature	+50° C				
Protection clas electric pumps	IP55				
Protection class electric control panel	IP54				

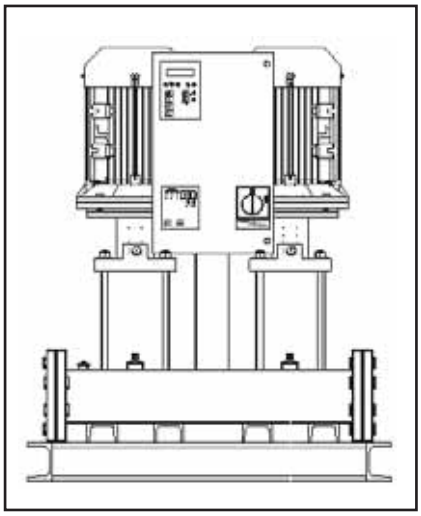
PRESSURE BOOSTER UNITS CONTROLLED BY PRESSURE SWITCH

ELECTRIC PUMPS

- n. 2 VLR
- Centrifugal, multicellular vertical axis

BASEMENT

- In galvanised sheet metal for versions with VLR2B - VLR4 - VLR8 - VLR16/50
- Edging in galvanised steel for versions with VLR32



SUCTION MANIFOLD

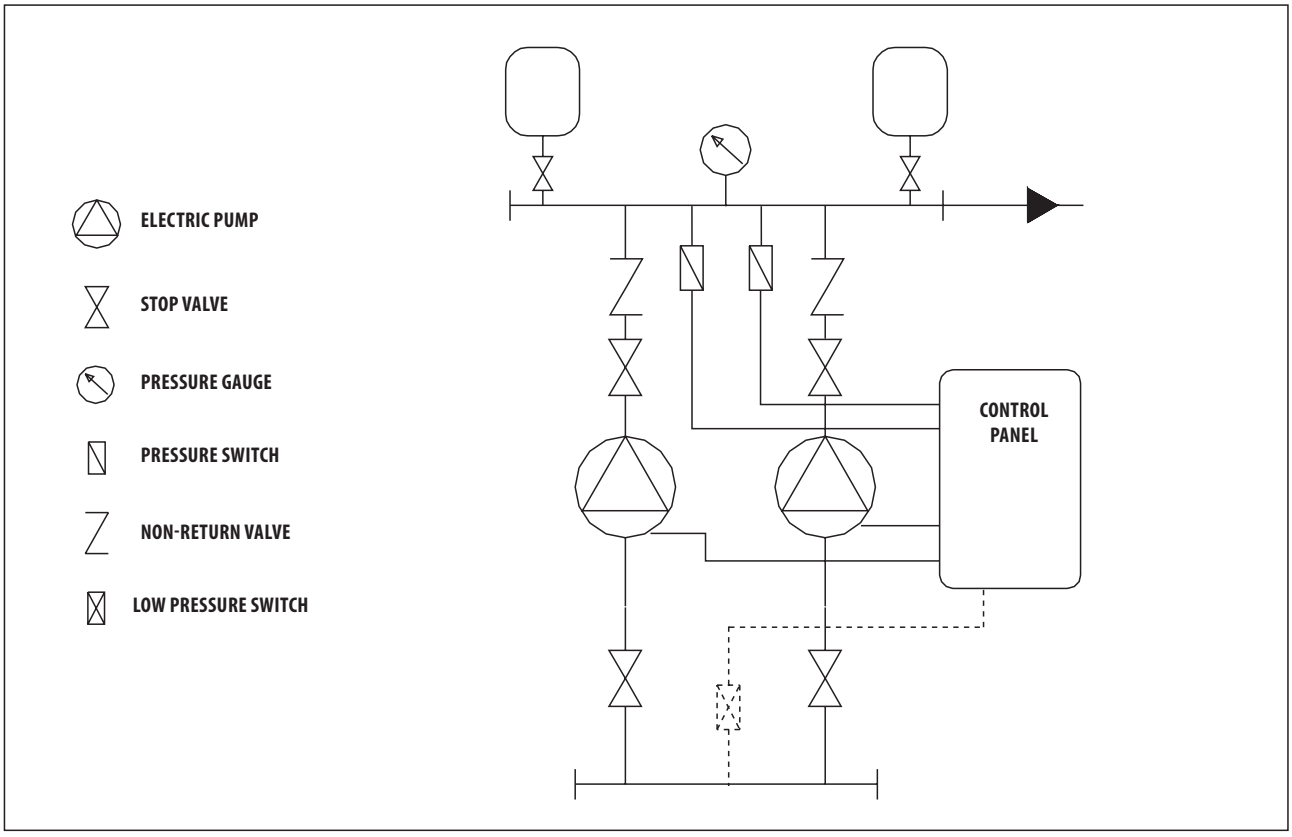
In stainless steel AISI 304 with:

- n. 2 ball bearings in brass
- n. 2 check valves
- n. 1 sleeve for loading water

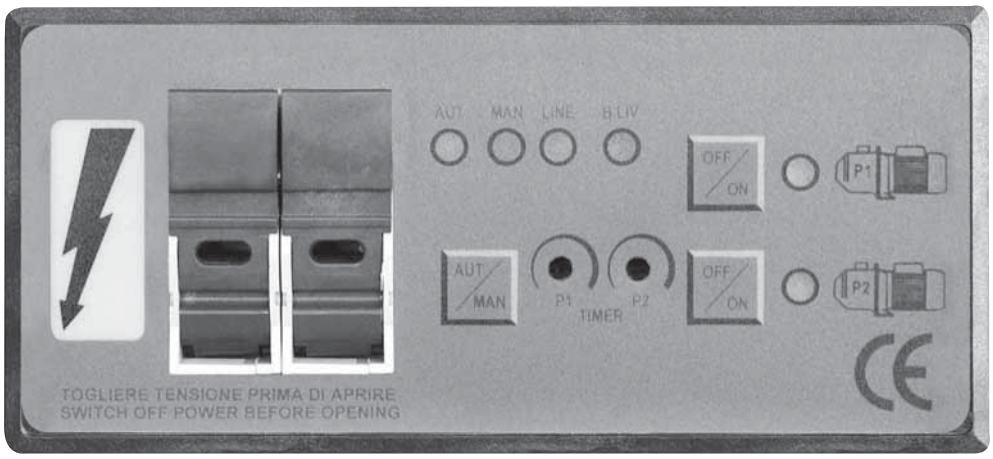
DISCHARGE MANIFOLD

In stainless steel AISI 304 with:

- n. 2 ball bearings in brass
- n. 1 pressure gauge
- n. 2 differential pressure switches



SINGLE PHASE ELECTRIC CONTROL PANEL



ELECTRIC CONTROL PANEL

- IP55 Plastic casing
- Main magneto thermic switch
- Electric control panel with manual - automatic buttons for each pump
- SML electronic card
- Pump starter relay

MAIN FUNCTION

- Cyclic inversion of the starting order of the pumps after the end of every operation cycle.
- ON/OFF control of the level of the first collection tank or of the pressure in the supply pipe through a float switch or an inverse differential pressure switch.

SIGNALING AND COMMANDS

- Led indicator to signal the presence of electrical power.
- Led indicator to signal low level of water in the first collection tank or insufficient pressure in the water supply pipe.
- Led indicator to signal that each pump is working correctly

EXTERNAL COMMAND DEVICES

- Two ON/OFF adjustable differential pressure switches

EXTERNAL CONTROL DEVICES

- Float ON/OFF switch situated in the water collection tank, or
- Inverse pressure switch inserted in the water supply pipe (mains)

THREE PHASE ELECTRIC CONTROL PANEL

ELECTRIC CONTROL PANEL

- IP54 metallic casing
- General switch
- Keyboard with SA electronic card
- Fuses, contactor and thermal relay for each pump
- Transformer with fuses for the auxiliary circuit
- M-O-T selector for each pump
- Star/triangle start level control for motors of over 7.5 kW

MAIN FUNCTION

- Cyclic inversion of the starting order of the pumps after the end of every operation cycle.
- ON/OFF control of the level of the first gathering tank or of the pressure in the supply pipe through a float switch or an inverse differential pressure switch.
- Pump timing adjustable from 0 to 180 sec, after the pressure switch contact has been opened.

SIGNALING AND COMMANDS

- Led indicator to signal the presence of electrical power.
- Led indicator to signal low level of water in the first collection tank or insufficient pressure in the water supply pipe.
- Led indicator to signal that each pump is working correctly
- Led indicator to signal the overload of one of the two thermal relays.
- Led indicator to signal manual or automatic operation.
- Buttons for selecting manual or automatic operation.
- -Buttons to start or stop each pump (manual operation).

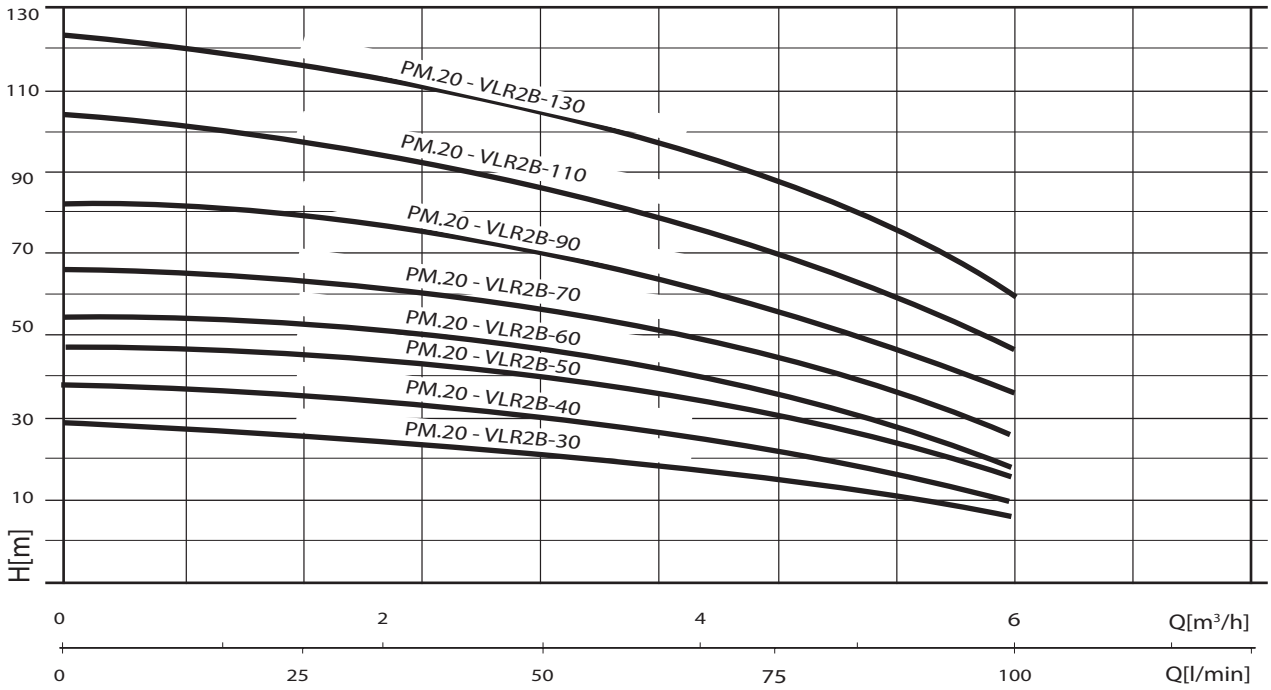
EXTERNAL COMMAND DEVICES

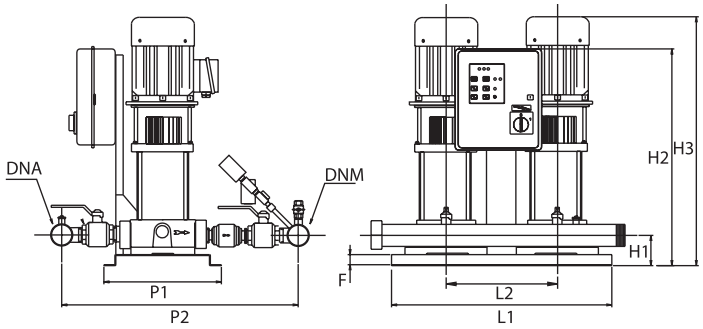
- Two ON/OFF adjustable differential pressure switches

EXTERNAL CONTROL DEVICES

- Float ON/OFF switch situated in the water collection tank, or
- N. 3 electrodes for electronic control of the water level in the first collection tank or
- Inverse pressure switch inserted in the water supply pipe (mains)

HYDRAULIC PERFORMANCE





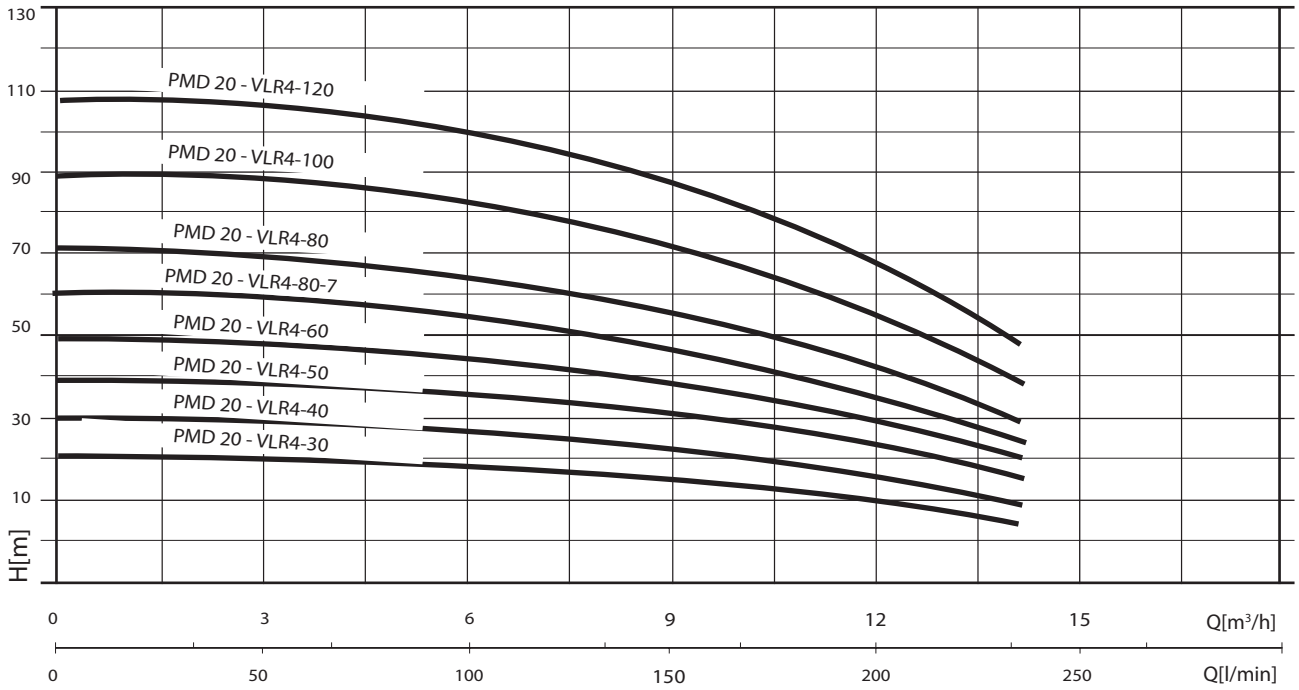
PUMP PERFORMANCE

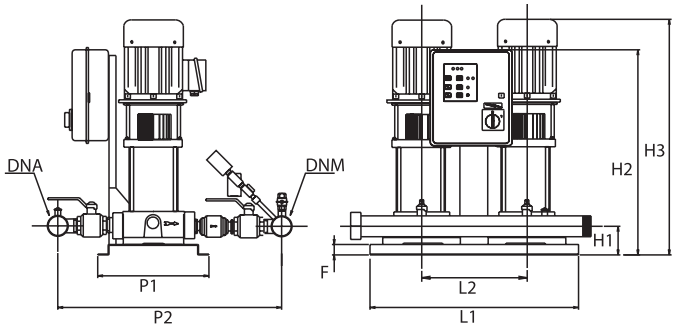
MODEL	kW	Q L/1′	20	40	60	80	100
		m³/h	1,2	2,4	3,6	4,8	6
PM.20-VLR 2B-30	2x0,37	m.c.a. / m.c.w.	27	26	23	20	15
PM.20-VLR 2B-40	2x0,55		36	34	31	26	20
PM.20-VLR 2B-50	2x0,55		45	43	39	33	25
PM.20-VLR 2B-60	2x0,75		54	51	46	39	30
PM.20-VLR 2B-70	2x0,75		64	60	54	46	35
PM.20-VLR 2B-90	2x1,1		82	77	70	59	45
PM.20-VLR 2B-110	2x1,1		100	94	85	72	55
PM.20-VLR 2B-130	2x1,1		118	111	101	85	65

TABLE OF SIZES AND WEIGHTS

MODEL	Dimensions in mm.										Net Weight (Kg)	
	L1	P1	P2	H1	H2	H3	DNA	DNM	F	L2	230 V	400V
PM.20-VLR 2B-30	600	320	620	80	775	481	2″	2″	30	370	64	70
PM.20-VLR 2B-40	600	320	620	80	775	499	2″	2″	30	370	68	74
PM.20-VLR 2B-50	600	320	620	80	775	517	2″	2″	30	370	72	78
PM.20-VLR 2B-60	600	320	620	80	775	563	2″	2″	30	370	74	80
PM.20-VLR 2B-70	600	320	620	80	775	581	2″	2″	30	370	88	94
PM.20-VLR 2B-90	600	320	620	80	775	617	2″	2″	30	370	90	96
PM.20-VLR 2B-110	600	320	620	80	775	653	2″	2″	30	370	94	100
PM.20-VLR 2B-130	600	320	620	80	775	763	2″	2″	30	370	96	102

HYDRAULIC PERFORMANCE





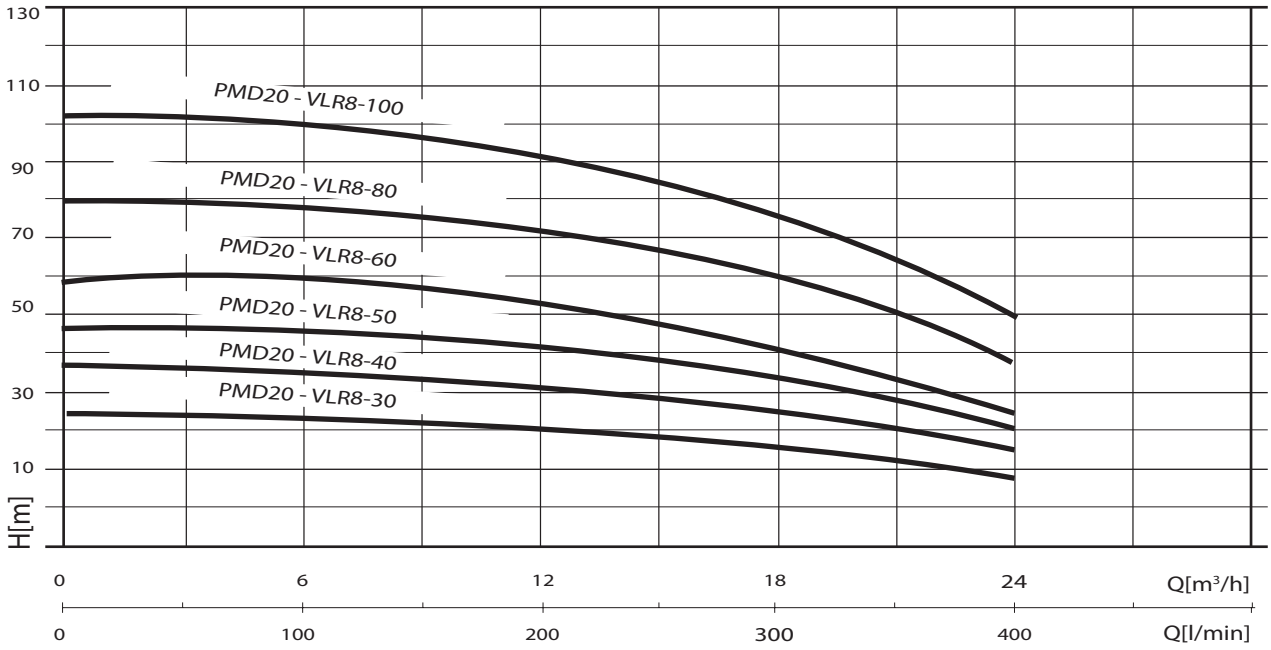
PUMP PERFORMANCE

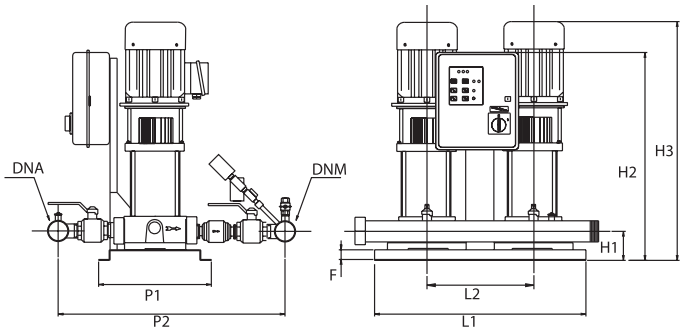
MODEL	kW	Q	L/1'	80	120	160	200	240
			m³/h	4,8	7,2	9,6	12,0	14,4
PM.20-VLR4/30	2x0,55	m.c.a. / m.c.w.		27	25	22	18	13
PM.20-VLR4/40	2x0,75			35	33	29	24	18
PM.20-VLR4/50	2x0,55			44	41	36	30	22
PM.20-VLR4/60	2x1,1			53	49	44	36	27
PM.20-VLR4/80	2x1,1			62	58	21	43	31
PM.20-VLR4/80-7	2x1,5			71	66	58	49	35
PMD20-VLR4/100	2x2,2			89	82	73	61	44
PMD20-VLR4/120	2x2,2			106	99	87	73	53

TABLE OF SIZES AND WEIGHTS

MODEL	Dimensions mm.										Weight (Kg)	
	L1	P1	P2	H1	H2	H3	DNA	DNM	F	L2	230 V	400 V
PM.20-VLR4/30	600	320	620	80	775	508	2"	2"	30	370	60	70
PM.20-VLR4/40	600	320	620	80	775	563	2"	2"	30	370	68	74
PM.20-VLR4/50	600	320	620	80	775	590	2"	2"	30	370	72	78
PM.20-VLR4/60	600	320	620	80	775	617	2"	2"	30	370	74	80
PM.20-VLR4/80	600	320	620	80	775	718	2"	2"	30	370	88	94
PM.20-VLR4/80-7	600	320	620	80	775	718	2"	2"	30	370	88	94
PMD20-VLR4/100	600	320	620	80	775	772	2"	2"	30	370		100
PMD20-VLR4/120	600	320	620	80	775	826	2"	2"	30	370		102

HYDRAULIC PERFORMANCE





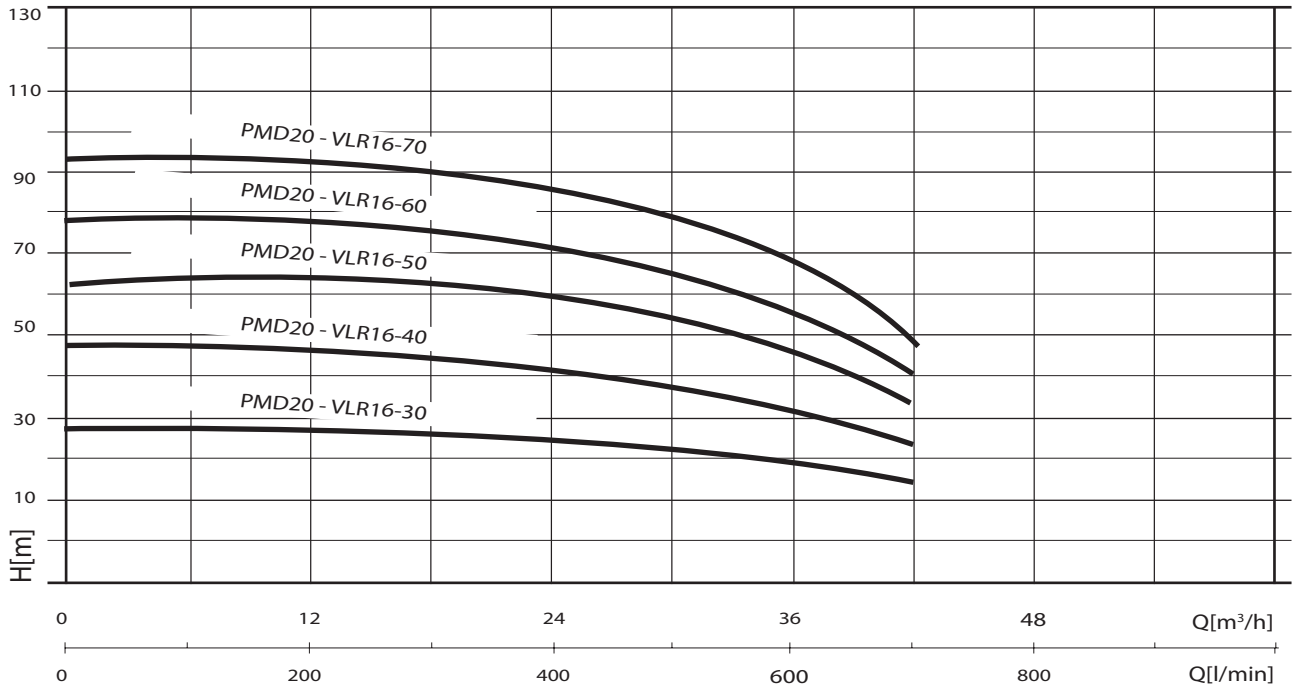
PUMP PERFORMANCE

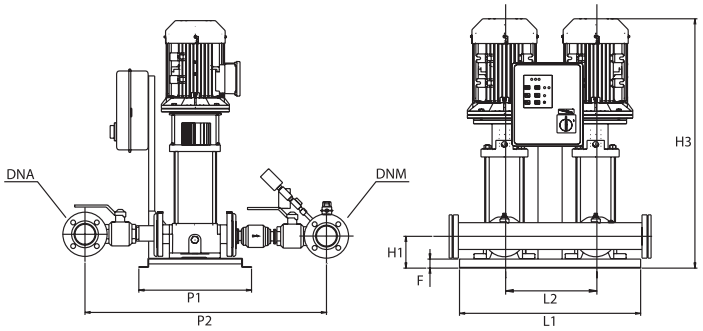
MODEL	kW	Q	L/1'	100	200	300	350	400
			m³/h	6	12	18	21	24
PM.20-VLR8/30	2x1,1	m.c.a. / m.c.w.		31	29	24	21	16
PM.20-VLR8/40	2x1,5			41	38	32	27	22
PMD20-VLR8/50	2x2,2			52	48	40	34	27
PMD20-VLR8/60	2x2,2			62	58	48	41	33
PMD20-VLR8/80	2x3			82	77	64	55	44
PMD20-VLR8/100	2x4			103	96	80	69	55

TABLE OF SIZES AND WEIGHTS

MODEL	Dimensions mm.										Weight (Kg)	
	L1	P1	P2	H1	H2	H3	DNA	DNM	F	L2	230 V	400 V
PM.20-VLR8/30	620	320	720	120	775	642	2"1/2	2"1/2	30	370	92	98
PM.20-VLR8/40	620	320	720	120	775	715	2"1/2	2"1/2	30	370	108	114
PMD20-VLR8/50	620	320	720	120	775	745	2"1/2	2"1/2	30	370		118
PMD20-VLR8/60	620	320	720	120	775	775	2"1/2	2"1/2	30	370		120
PMD20-VLR8/80	680	320	720	120	775	890	2"1/2	2"1/2	30	370		136
PMD20-VLR8/100	680	320	720	120	775	970	2"1/2	2"1/2	30	370		146

HYDRAULIC PERFORMANCE





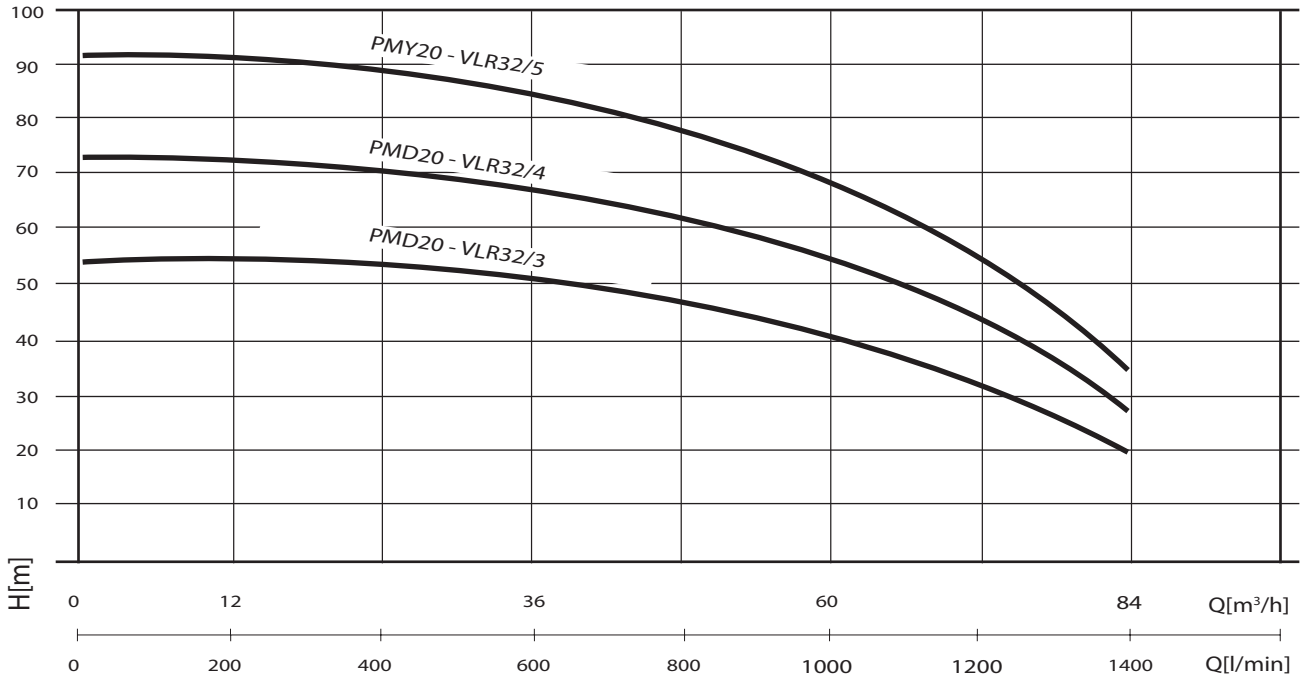
PUMP PERFORMANCE

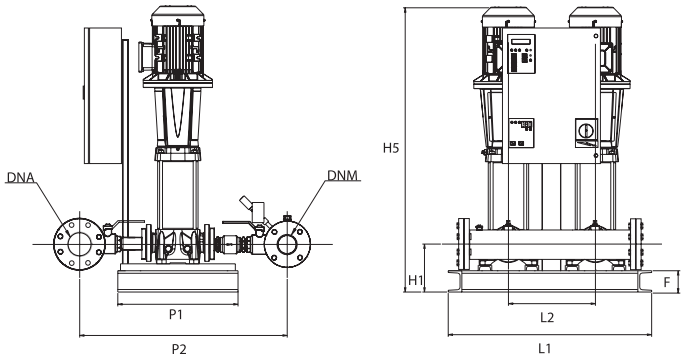
MODEL	kW	Q	L/1′	200	400	500	600	700
			m³/h	12	24	30	36	42
PMD20-VLR16/30	2x3	m.c.a. / m.c.w.		39	37	34	30	24
PMD20-VLR16/40	2x4			52	49	46	40	32
PMD20-VLR16/50	2x5,5			65	62	57	51	40
PMD20-VLR16/60	2x5,5			78	74	69	61	47
PMD20-VLR 16/70	2X7,5			101	95	90	80	67

TABLE OF SIZES AND WEIGHTS

MODEL	Dimensions mm.									Weight (Kg)
	L1	P1	P2	H1	H3	DNA	DNM	F	L2	
PMD20-VLR16/30	620	380	860	120	809	3″	2″1/2	30	370	171
PMD20-VLR16/40	620	380	860	120	874	3″	2″1/2	30	370	177
PMD20-VLR16/50	620	380	860	120	990	3″	2″1/2	30	370	223
PMD20-VLR16/60	620	380	860	120	1035	3″	2″1/2	30	370	227
PMD20-VLR 16/70	620	380	860	180	1230	3″	2″1/2	45	370	256

HYDRAULIC PERFORMANCE



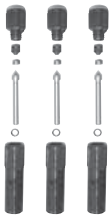


PUMP PERFORMANCE

MODEL	kW	Q	L/1'	400	800	1000	1200	1400
			m³/h	24	48	60	72	84
PMD20-VLR32-3	2x5,5	m.c.a. / m.c.w.		53	47	41	33	20
PMD20-VLR32-4	2x7,5			71	63	55	44	27
PMY20-VLR32-5	2x11			89	79	69	55	34

TABLE OF SIZES AND WEIGHTS

MODEL	Dimensions mm.									Weight (Kg)
	L1	P1	P2	H1	H5	DNA	DNM	F	L2	
PMD20-VLR32-3	860	700	1060	230	1400	4″	3″	80	440	348
PMD20-VLR32-4	860	700	1060	230	1400	4″	3″	80	440	364
PMY20-VLR32-5	860	700	1060	230	1400	4″	3″	80	440	432

ACCESSORIES	DESCRIPTION	Residential		Industrial
		230 V	400 V	400 V
	Float switch for protection against dry running	X	X	X
	Inverse differential pressure switch for exluding in case of no pressure in the network	X	X	X
	Electrodes for electronic level control		X	X
	Diaphragm autoclaves	X	X	X
	Kit of connectors for expansion tanks	X	X	Included