

## PRESSOMAT

### BOOSTER SETS - FIX SPEED

- High hydraulic efficiency
- Sturdy and resistant
- Piping in stainless steel AISI 304
- Compact



#### DESCRIPTION

These are automatic pressure booster set for the pressurization of distribution networks with single phase and three-phase power supply.

The pumps are controlled by two differential pressure switches with adjustable settings, via an electrical panel with an analogue electronic board for:

- the sequential start-up of the pumps
- the inversion of the start-up order
- timer settable from 0 to 180», only for the three-phase version
- protection against dry running

When the network pressure reaches the value for the closing of the electrical contact of pressure switch n.1, a pump starts.

If the pressure continues to fall, when the closing value of the second pressure switch is reached, the second pump is started up.

When the value of the network pressure increases, the pressure switches open their contact causing the relative pump to stop.

At the end of each cycle, the automatic inverter changes the starting order of the pumps (once pressure switch n.1 is associated to pump n.1; in the next cycle to pump n.2).

If the two pressure switches close at the same time, the electronic board will delay the start-up of the second pump avoiding abrupt changes in pressure and the overload of the power supply.

#### MECHANICAL DATA

Operating pressure max.	16 bar	Temperature of the liquid max.	40 °C
Type of liquid	clean water without suspended solids or abrasive material		

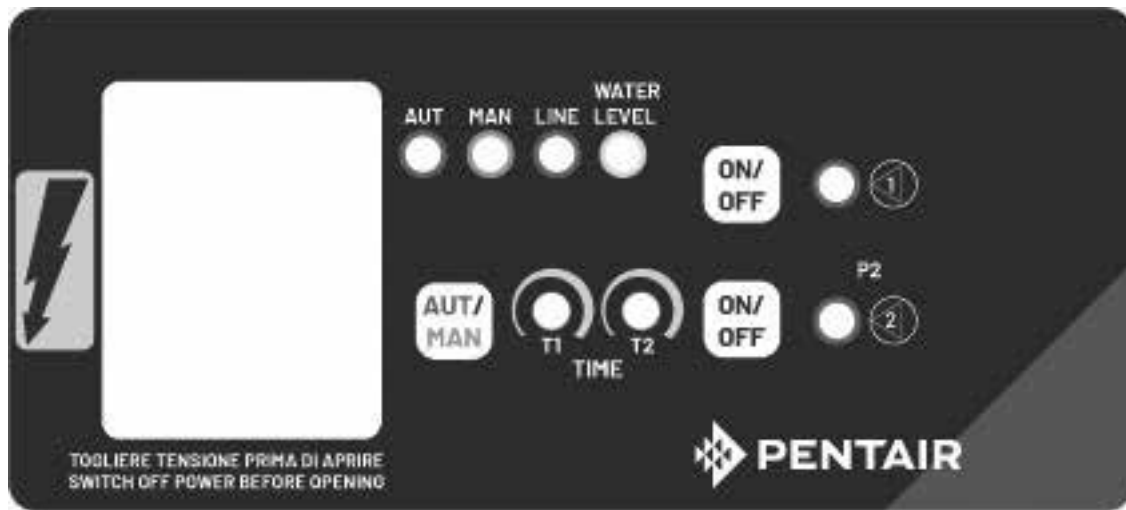
#### ELECTRICAL DATA

Type of enclosure	IP 55	Ambient temperature max.	50 °C
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## SINGLE PHASE ELECTRICAL PANEL



### Electrical panel

- Box in plastic material IP55
- Main circuit breaker
- Electronic control panel with manual - automatic buttons for each pump
- SML electronic board
- Pump start-up relay

### Main functions

- Cyclic inversion of the start-up order of the pumps after each cycle end
- ON/OFF control of the level of the tank or the pressure of the supply duct by means of a float switch or a different differential pressure switch.

### Signals and controls

- LED indicating the presence of power
- LED indicating the low water level in the tank or an insufficient pressure in the supply duct (aqueduct)
- LED indicating the operation of each pump

### External control devices

- Two adjustable differential pressure switches ON/OFF
- ON/OFF float switch, located in the water collection tank, or
- Reverse pressure switch inserted in the water supply duct (aqueduct)

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### THREE PHASE ELECTRICAL PANEL



#### Electrical panel

- Box in metal IP54
- Main switch
- Keyboard with electronic board SA
- Fuses, contactor and thermal relay for each pump
- Transformer with fuses for the auxiliary circuit
- M-0-T switch for each pump
- Star-delta starter for motors above 7.5 kW

#### Main functions

- Cyclic inversion of the start-up order of the pumps after each cycle end
- ON/OFF control of the level of the tank or the pressure of the supply duct by means of a float switch or a different differential pressure switch
- Timer of the pumps settable from 0 to 180 seconds, after the opening of the pressure switch operation contact

#### Signals and controls

- LED indicating the presence of power
- LED indicating the low water level in the tank or an insufficient pressure in the supply duct (aqueduct)
- LED indicating the operation of each pump
- LED indicating that one of the two thermal relays has tripped because of an overload
- LED indicating manual or automatic operation
- Buttons to select manual or automatic control
- Buttons to start or stop each pump (manual operation)

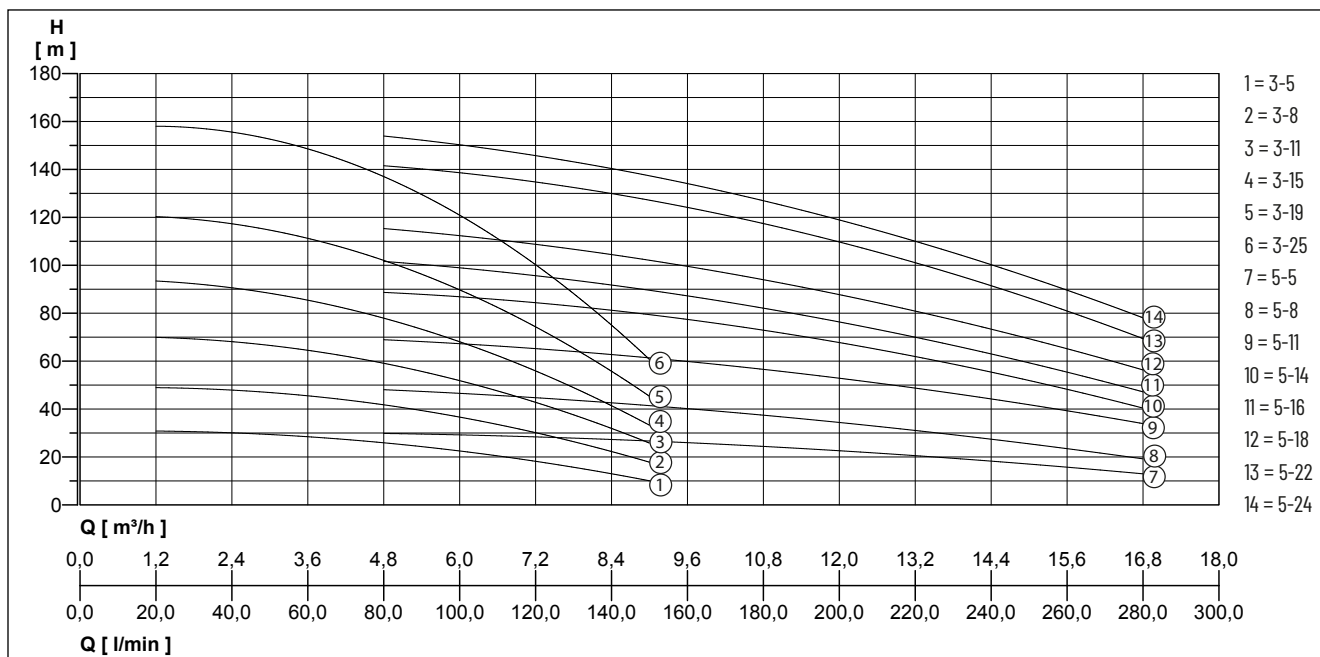
#### External control devices

- Two adjustable differential pressure switches ON/OFF
- ON/OFF float switch, located in the water collection tank, or
- 3 electrodes for the electronic control of the level of the tank, or
- Reverse pressure switch inserted in the water supply duct (aqueduct)

# PRESSOMAT PM 20 PVM 3 - 5

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## PERFORMANCE



We reserve the right to change specifications without notice. Pump performance is subject to ISO 9906 ISO 9906:2012 - Grade 3B tolerances.

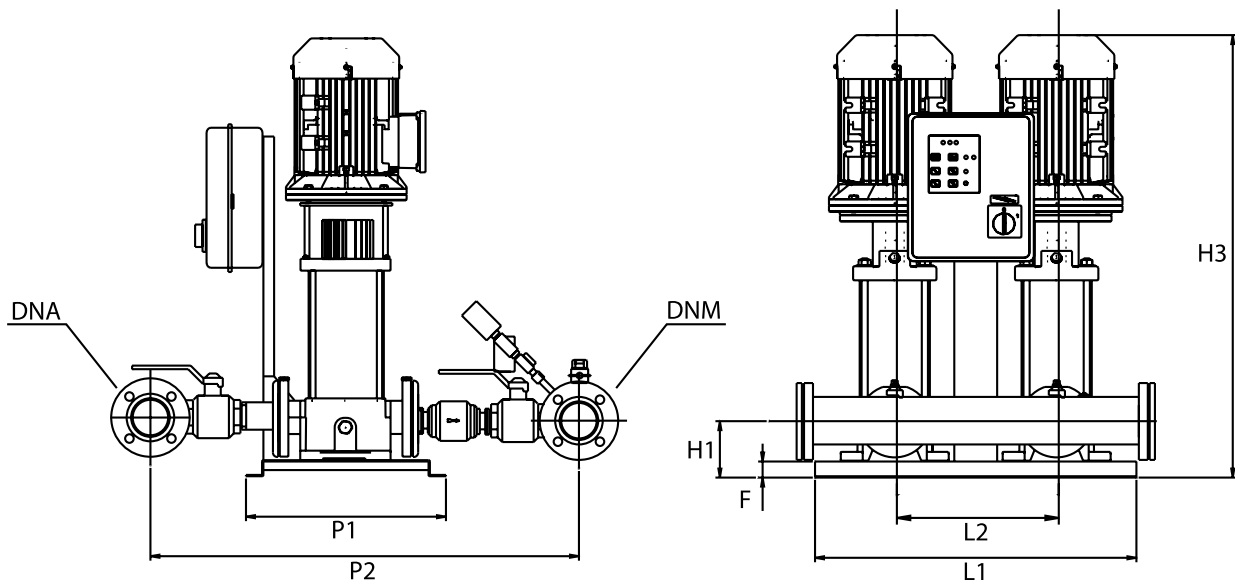
Type	Flow rate $Q$ [ $m^3/h$ ]	0	1	2	4	4.8	5	6	7	7.2	8	9	9.6	12	14.4	16.8
PMD20 PVM 3-5 F	Delivery head $H$ [m]	40	31	30	28		26	23	18		13	10				
PMS20/PMD20 PVM 3-8 F		50	49	48	45		42	37	30		22	18				
PMS20/PMD20 PVM 3-11 F		72	70	68	64		60	52	42		32	26				
PMS20/PMD20 PVM 3-15 F		97	94	90	85		78	68	57		41	33				
PMS20/PMD20 PVM 3-19 F		123	121	117	110		102	90	76		55	45				
PMD20 PVM 3-25 F		165	157	156	150		138	120	98		75	62				
PMS20/PMD20 PVM 5-5 F		32				30				28			26	23	18	13
PMS20/PMD20 PVM 5-8 F		52				48				45			40	34	28	19
PMD20 PVM 5-11 F		74				69				65			60	53	44	34
PMD20 PVM 5-14 F		93				89				84			77	68	56	40
PMD20 PVM 5-16 F		107				102				95			87	77	63	47
PMD20 PVM 5-18 F		120				115				109			100	88	72	57
PMD20 PVM 5-22 F		148				142				134			124	110	92	69
PMD20 PVM 5-24 F		164				154				146			133	120	100	78

# PRESSOMAT PM 20 PVM 3 - 5

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## PRESSOMAT PM 20 PVM 3 - 5

Type	Code No.	Voltage	Motor rating 2xP2	Weight
PMD20 PVM 3-5 F	UP460000	3/N/PE~400 V	0.37 kW	72 kg
PMS20 PVM 3-8 F	UP450010	1/N/PE~230 V	0.75 kW	68 kg
PMD20 PVM 3-8 F	UP460010	3/N/PE~400 V	0.75 kW	74 kg
PMS20 PVM 3-11 F	UP450020	1/N/PE~230 V	1.10 kW	74 kg
PMD20 PVM 3-11 F	UP460020	3/N/PE~400 V	1.10 kW	80 kg
PMS20 PVM 3-15 F	UP450030	1/N/PE~230 V	1.10 kW	89 kg
PMD20 PVM 3-15 F	UP460030	3/N/PE~400 V	1.10 kW	95 kg
PMS20 PVM 3-19 F	UP450040	1/N/PE~230 V	1.50 kW	100 kg
PMD20 PVM 3-19 F	UP460040	3/N/PE~400 V	1.50 kW	106 kg
PMD20 PVM 3-25 F	UP460050	3/N/PE~400 V	2.20 kW	122 kg
PMS20 PVM 5-5 F	UP450060	1/N/PE~230 V	0.75 kW	62 kg
PMD20 PVM 5-5 F	UP460060	3/N/PE~400 V	0.75 kW	72 kg
PMS20 PVM 5-8 F	UP450070	1/N/PE~230 V	1.10 kW	70 kg
PMD20 PVM 5-8 F	UP460070	3/N/PE~400 V	1.10 kW	78 kg
PMD20 PVM 5-11 F	UP460080	3/N/PE~400 V	2.20 kW	83 kg
PMD20 PVM 5-14 F	UP460090	3/N/PE~400 V	2.20 kW	90 kg
PMD20 PVM 5-16 F	UP460100	3/N/PE~400 V	2.20 kW	95 kg
PMD20 PVM 5-18 F	UP460110	3/N/PE~400 V	3.00 kW	100 kg
PMD20 PVM 5-22 F	UP460120	3/N/PE~400 V	4.00 kW	110 kg
PMD20 PVM 5-24 F	UP460130	3/N/PE~400 V	4.00 kW	115 kg



# PRESSOMAT PM 20 PVM 3 - 5

BOOSTER SETS - FIX SPEED

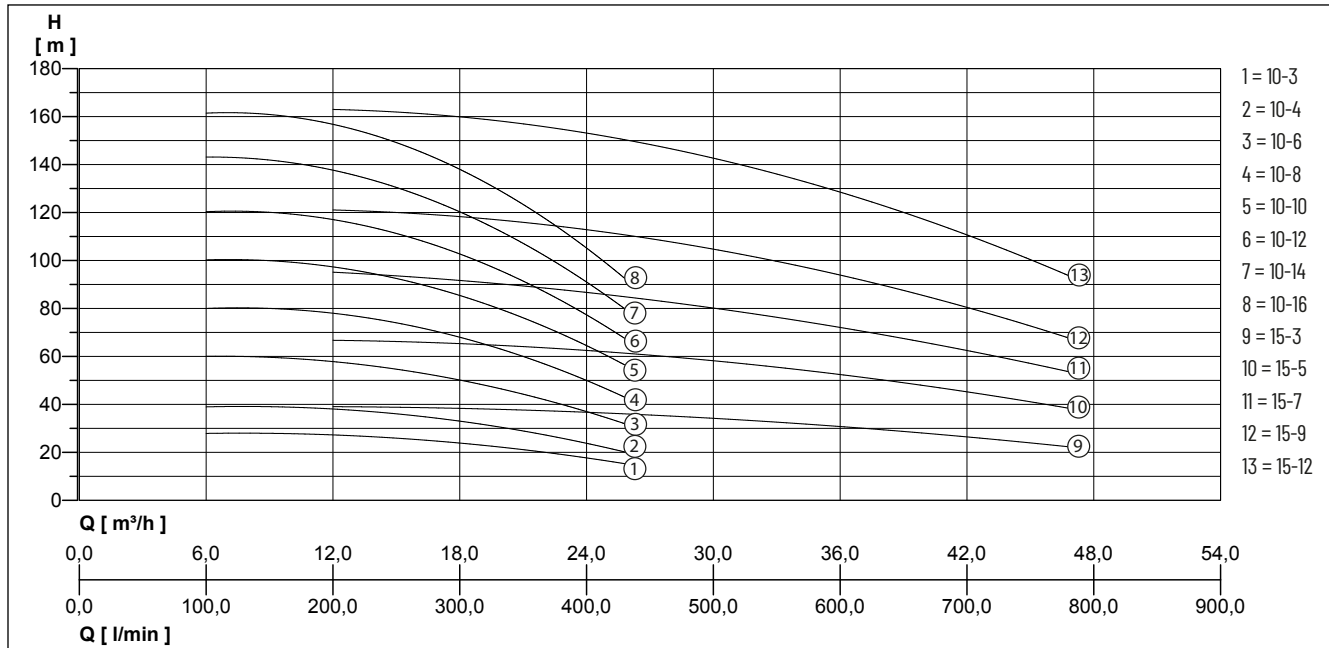
## DIMENSIONS [mm]

Type	F	L1	L2	P1	P2	H1	H2	H3	DNA	DNM
PMD20 PVM 3-5 F	30	600	370	320	620	80	775	510	2"	2"
PMS20/PMD20 PVM 3-8 F	30	600	370	320	620	80	775	610	2"	2"
PMS20/PMD20 PVM 3-11 F	30	600	370	320	620	80	775	664	2"	2"
PMS20/PMD20 PVM 3-15 F	30	600	370	320	620	80	775	736	2"	2"
PMS20/PMD20 PVM 3-19 F	30	600	370	320	620	80	775	880	2"	2"
PMD20 PVM 3-25 F	30	600	370	320	620	80	775	988	2"	2"
PMS20/PMD20 PVM 5-5 F	30	600	370	320	620	80	775	601	2"	2"
PMS20/PMD20 PVM 5-8 F	30	600	370	320	620	80	775	682	2"	2"
PMD20 PVM 5-11 F	30	600	370	320	620	80	775	835	2"	2"
PMD20 PVM 5-14 F	30	600	370	320	620	80	775	916	2"	2"
PMD20 PVM 5-16 F	30	600	370	320	620	80	775	970	2"	2"
PMD20 PVM 5-18 F	30	600	370	320	620	80	775	1053	2"	2"
PMD20 PVM 5-22 F	30	600	370	320	620	80	775	1171	2"	2"
PMD20 PVM 5-24 F	30	600	370	320	620	80	775	1225	2"	2"

# PRESSOMAT PM 20 PVM 10 - 15

## BOOSTER SETS - FIX SPEED

### PERFORMANCE



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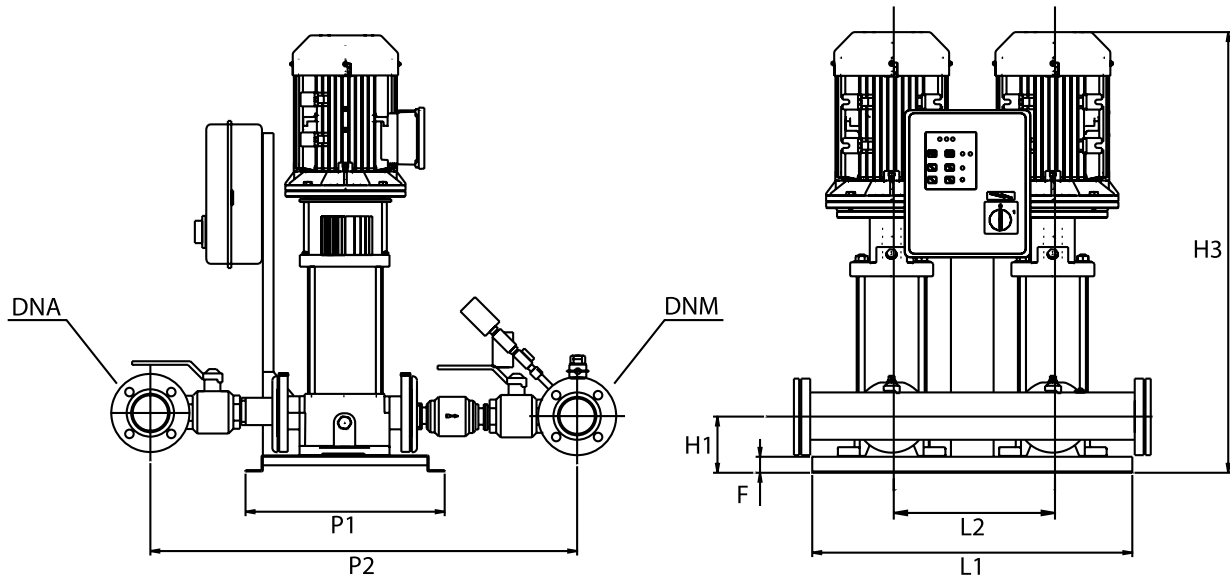
Type	Flow rate $Q$ [ $\text{m}^3/\text{h}$ ]	0	6	12	18	24	26	36	42	47
PMS20/PMD20 PVM 10-3 F	Delivery head $H$ [m]	28.0	28.0	27.0	24.0	18.0	15.0			
PMS20/PMD20 PVM 10-4 F		39.0	39.0	38.0	33.0	24.0	20.0			
PMD20 PVM 10-6 F		60.0	60.0	58.0	50.0	37.0	32.0			
PMD20 PVM 10-8 F		80.0	80.0	78.0	68.0	50.0	43.0			
PMD20 PVM 10-10 F		100.0	100.0	98.0	85.0	64.0	57.0			
PMD20 PVM 10-12 F		120.0	120.0	118.0	102.0	77.0	68.0			
PMD20 PVM 10-14 F		142.0	143.0	138.0	120.0	91.0	80.0			
PMD20 PVM 10-16 F		160.0	161.0	158.0	137.0	105.0	93.0			
PMD20 PVM 15-3 F		39.8		39.2		36.3		31.0	26.8	22.0
PMD20 PVM 15-5 F		68.0		66.9		62.0		52.7	45.7	38.0
PMD20 PVM 15-7 F		97.0		95.0		87.0		72.0	62.0	54.0
PMD20 PVM 15-9 F		124.0		121.0		113.0		94.0	80.0	68.0
PMY20 PVM 15-12 F		166.0		163.0		153.0		129.0	110.0	94.0

### PRESSOMAT PM 20 PVM 10 - 15

Type	Code No.	Voltage	Motor rating 2xP2	Weight
PMS20 PVM 10-3 F	UP450110	1/N/PE~230 V	1.1 kW	116 kg
PMD20 PVM 10-3 F	UP460140	3/N/PE~400 V	1.1 kW	106 kg
PMS20 PVM 10-4 F	UP450120	1/N/PE~230 V	1.5 kW	126 kg
PMD20 PVM 10-4 F	UP460150	3/N/PE~400 V	1.5 kW	114 kg
PMD20 PVM 10-6 F	UP460160	3/N/PE~400 V	2.2 kW	120 kg
PMD20 PVM 10-8 F	UP460170	3/N/PE~400 V	3.0 kW	136 kg
PMD20 PVM 10-10 F	UP460180	3/N/PE~400 V	4.0 kW	146 kg
PMD20 PVM 10-12 F	UP460190	3/N/PE~400 V	4.0 kW	160 kg
PMD20 PVM 10-14 F	UP460200	3/N/PE~400 V	5.5 kW	170 kg
PMD20 PVM 10-16 F	UP460210	3/N/PE~400 V	5.5 kW	180 kg
PMD20 PVM 15-3 F	UP460220	3/N/PE~400 V	3.0 kW	175 kg
PMD20 PVM 15-5 F	UP460230	3/N/PE~400 V	4.0 kW	200 kg
PMD20 PVM 15-7 F	UP460240	3/N/PE~400 V	5.5 kW	220 kg
PMD20 PVM 15-9 F	UP460250	3/N/PE~400 V	7.5 kW	250 kg
PMY20 PVM 15-12 F	UP460260	3/N/PE~400 V	11.0 kW	270 kg

# PRESSOMAT PM 20 PVM 10 - 15

BOOSTER SETS - FIX SPEED



## DIMENSIONS [mm]

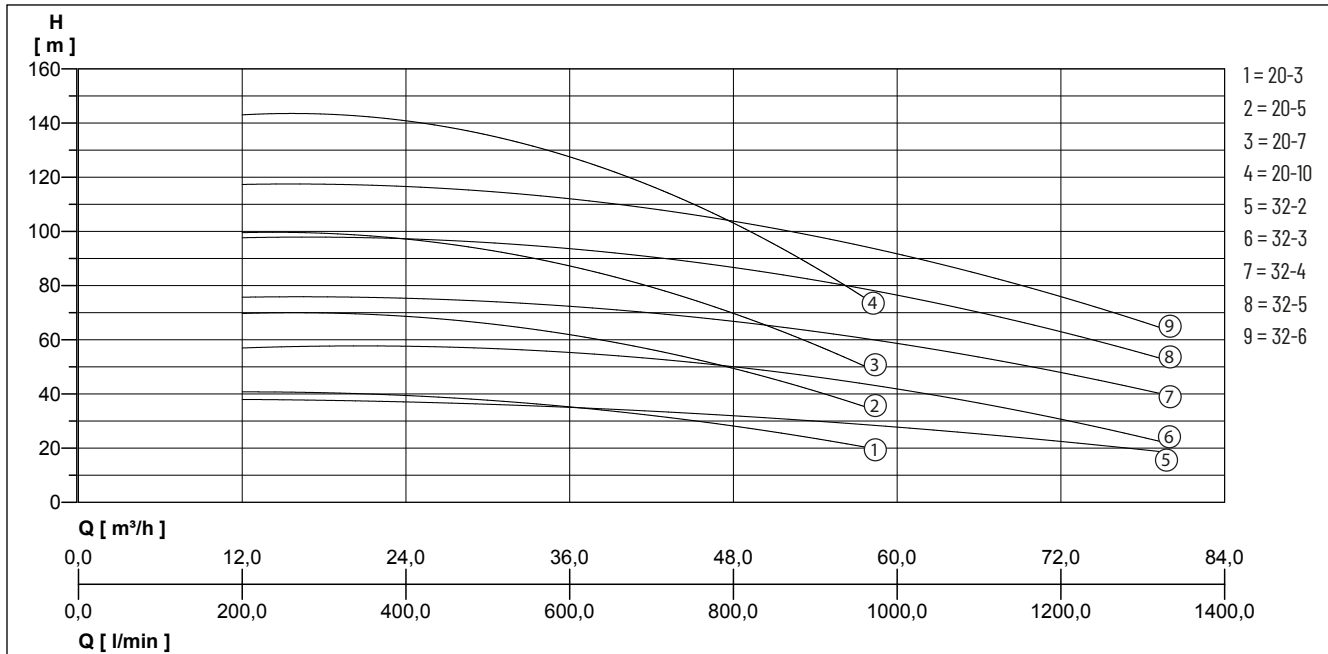
Type	F	L1	L2	P1	P2	H1	H2	H3	DNA	DNM
PMS20/PMD20 PVM 10-3 F	30	620	370	320	720	120	775	612	2 1/2"	2 1/2"
PMS20/PMD20 PVM 10-4 F	30	620	370	320	720	120	775	714	2 1/2"	2 1/2"
PMD20 PVM 10-6 F	30	620	370	320	720	120	775	774	2 1/2"	2 1/2"
PMD20 PVM 10-8 F	30	680	370	320	720	120	775	864	2 1/2"	2 1/2"
PMD20 PVM 10-10 F	30	680	370	320	720	120	775	934	2 1/2"	2 1/2"
PMD20 PVM 10-12 F	30	680	370	320	720	120	775	994	2 1/2"	2 1/2"
PMD20 PVM 10-14 F	30	680	370	320	720	120	775	1122	2 1/2"	2 1/2"
PMD20 PVM 10-16 F	30	680	370	320	720	120	775	1182	2 1/2"	2 1/2"
PMD20 PVM 15-3 F	30	620	370	380	860	120		781	3"	2 1/2"
PMD20 PVM 15-5 F	30	620	370	380	860	120		881	3"	2 1/2"
PMD20 PVM 15-7 F	30	620	370	380	860	120		1039	3"	2 1/2"
PMD20 PVM 15-9 F	30	620	370	380	860	120		1165	3"	2 1/2"
PMY20 PVM 15-12 F	30	620	370	380	860	120		1484	3"	2 1/2"



# PRESSOMAT PM 20 PVM 20 - 32

BOOSTER SETS - FIX SPEED

## PERFORMANCE



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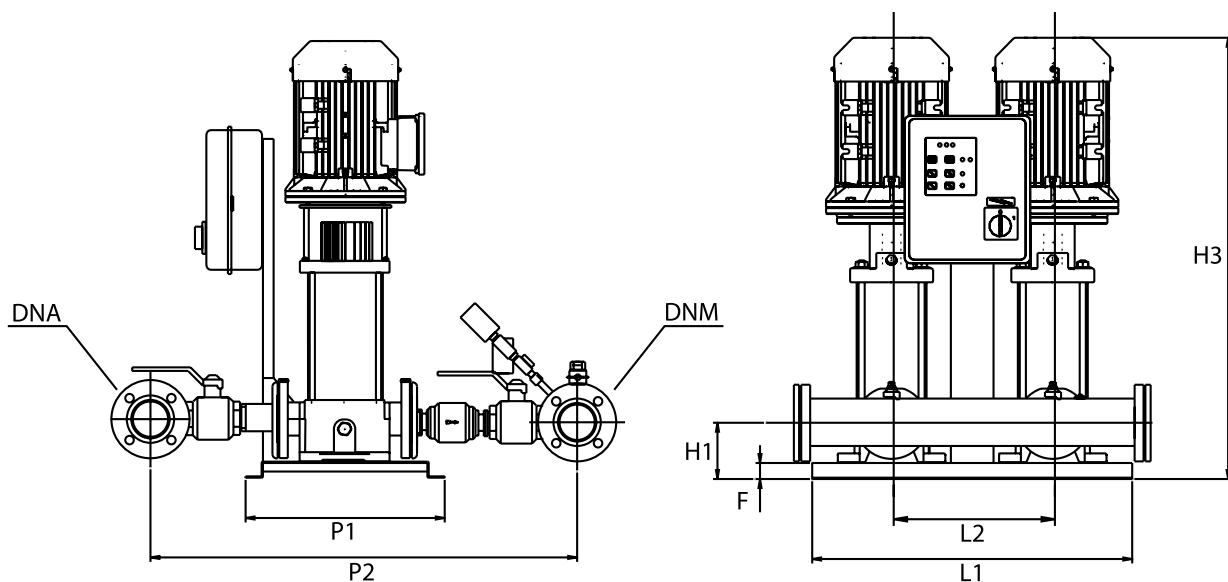
Type	Flow rate $Q$ [ $\text{m}^3/\text{h}$ ]	0	12	24	36	48	57.6	60	72	79.2
PMD20 PVM 20-3 F	Delivery head $H$ [m]	42	41	39	35	29	20			
PMD20 PVM 20-5 F		72	70	68	62	50	35			
PMD20 PVM 20-7 F		101	100	96	88	70	50			
PMY20 PVM 20-10 F		146	144	139	127	106	74			
PMD20 PVM 32-2 F		39	38	37	35	32		28	22	19
PMD20 PVM 32-3 F		58	58	57	54	49		43	35	30
PMD20 PVM 32-4 F		76	76	75	72	67		59	48	40
PMY20 PVM 32-5 F		98	98	97	93	87		77	63	53
PMY20 PVM 32-6 F		117	118	116	111	104		93	76	64

## PRESSOMAT PM 20 PVM 20 - 32

Type	Code No.	Voltage	Motor rating 2xP2	Weight
PMD20 PVM 20-3 F	UP460270	3/N/PE~400 V	4.0 kW	181 kg
PMD20 PVM 20-5 F	UP460280	3/N/PE~400 V	5.5 kW	220 kg
PMD20 PVM 20-7 F	UP460290	3/N/PE~400 V	7.5 kW	232 kg
PMY20 PVM 20-10 F	UP460300	3/N/PE~400 V	11.0 kW	260 kg
PMD20 PVM 32-2 F	UP460310	3/N/PE~400 V	4.0 kW	330 kg
PMD20 PVM 32-3 F	UP460320	3/N/PE~400 V	5.5 kW	350 kg
PMD20 PVM 32-4 F	UP460330	3/N/PE~400 V	7.5 kW	370 kg
PMY20 PVM 32-5 F	UP460340	3/N/PE~400 V	11.0 kW	390 kg
PMY20 PVM 32-6 F	UP460350	3/N/PE~400 V	11.0 kW	410 kg

# PRESSOMAT PM 20 PVM 20 - 32

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## DIMENSIONS [mm]

Type	F	L1	L2	P1	P2	H1	H3	DNA	DNM
PMD20 PVM 20-3 F	30	620	370	380	860	120	795	3"	2 1/2"
PMD20 PVM 20-5 F	30	620	370	380	860	120	955	3"	2 1/2"
PMD20 PVM 20-7 F	30	620	370	380	860	180	1083	3"	2 1/2"
PMY20 PVM 20-10 F	30	620	370	380	860	180	1405	3"	2 1/2"
PMD20 PVM 32-2 F	80	860	440	700	1060	230	900	4"	3"
PMD20 PVM 32-3 F	80	860	440	700	1060	230	1006	4"	3"
PMD20 PVM 32-4 F	80	860	440	700	1060	230	1112	4"	3"
PMY20 PVM 32-5 F	80	860	440	700	1060	230	1399	4"	3"
PMY20 PVM 32-6 F	80	860	440	700	1060	230	1469	4"	3"