

## NOCCHI VARIO 1-20

### PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

The new series of variable speed pressurization booster set VARIO 1-20 represents a reliable solution which is easy to use, for residential and industrial applications. The system involves the installation in parallel of two inverters integrated directly on the motor of each pump installed. The two frequency converters communicate and alternate the starting order of each work cycle, always keeping the pressure constant in the distribution system.

#### APPLICATIONS

- Lifting and distribution of water in domestic systems
- Pressurization systems
- Irrigation
- Industry
- Washes

#### BASE

- in galvanized metal complete with rubber isolated pads

#### SUCTION MANIFOLD

in galvanized steel with:

- N.2 brass ball valves

#### TECHNICAL CHARACTERISTICS

- Supply voltage: inverter 1x230 Vac  $\pm$  10%.
- Inverter output voltage: 3x230 Vac  $\pm$  10 %
- Maximum rated power: 2x2.4 kW
- Input frequency: 50/60 Hz + 3%
- Output maximum rated power: 8 Amp
- Degree of protection: IP55 MULTINOX VE+ / PVM
- Maximum temperature + 50°C
- Input filter complying with EMC directive
- Pressure transducer 0 - 5 Volt - 0 - 10 Bar
- Serial interface connectivity RS 485
- Optional contacts 3 (external set-point, alarm, system inhibition)



#### DELIVERY MANIFOLD

in galvanized steel with:

- N.2 brass ball valves
- N.1 pressure gauge
- N.2 pressure sensors

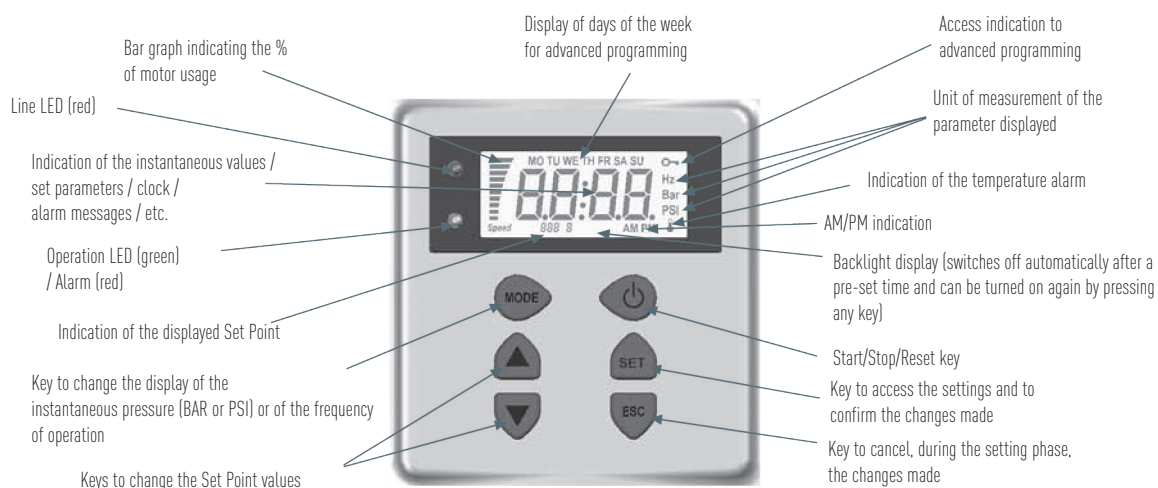
Protection electrical panel with circuit breakers

USAGE DATA	MULTINOX-VE+	PVM 1	PVM 3	PVM 5	PVM 10
Maximum capacity (m³/h)	25.2	4.8	9	17	26
Maximum head (m.c.a.)	80	160	160	110	60
Maximum operating pressure	14 bar	16 bar			
Power supply VOLT.:	1~230 V				
Ambient temperature	50° C				
Degree of protection of pump	IP44	IP55			
Degree of protection of electrical panel	IP54				

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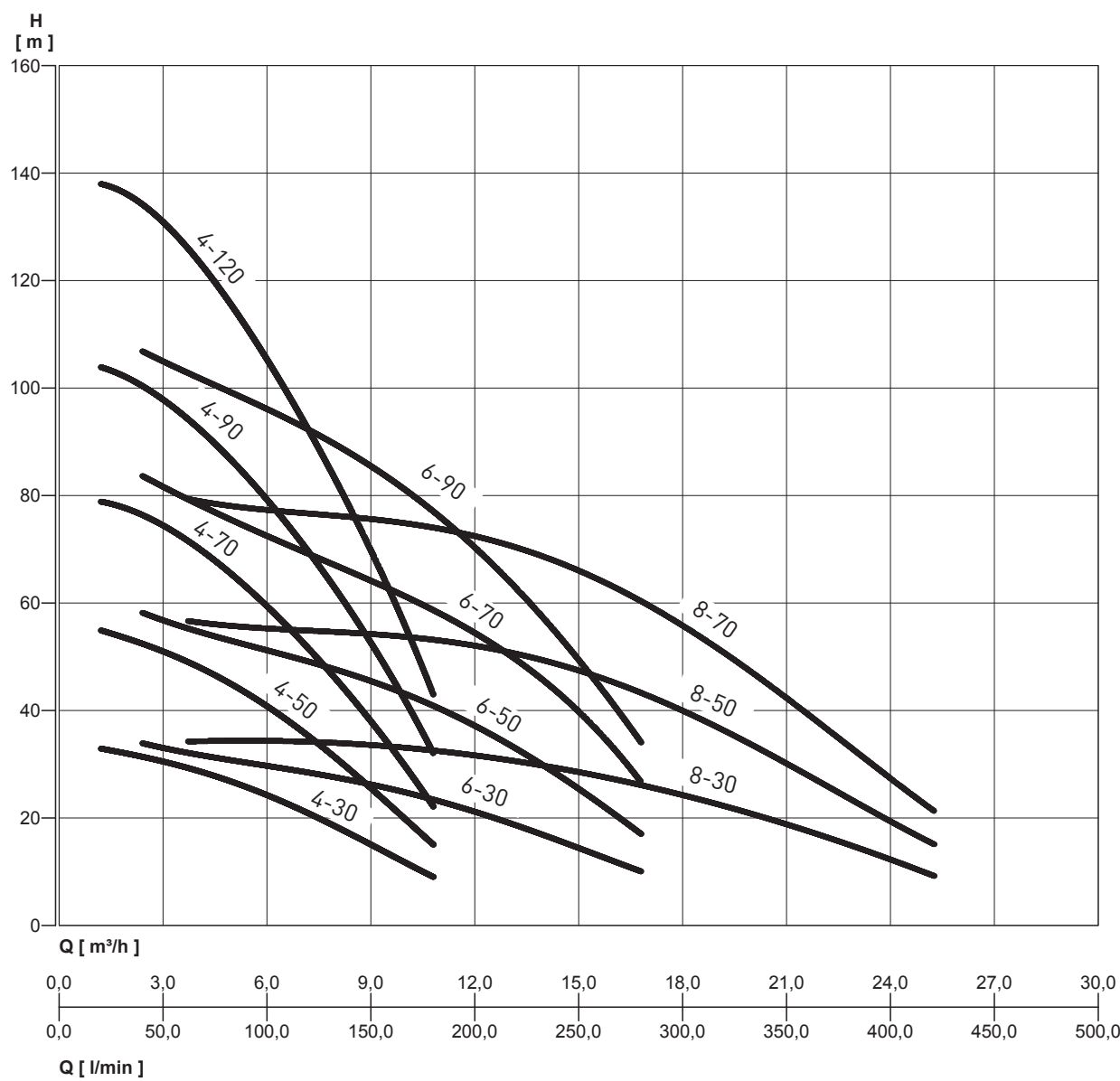
### CONTROL PANEL



- Backlight display (switches off automatically after a pre-set time and can be turned on again by pressing any key)
- Bar graph indicating the percentage of motor usage
- Display of days of the week
- Indication of the instantaneous values / set parameters / clock / alarm messages / etc.
- Access indication to programming
- Unit of measurement of the parameter displayed

# NOCCHI VARIO 1-20 MULTINOX VE + PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

## HYDRAULIC PERFORMANCE

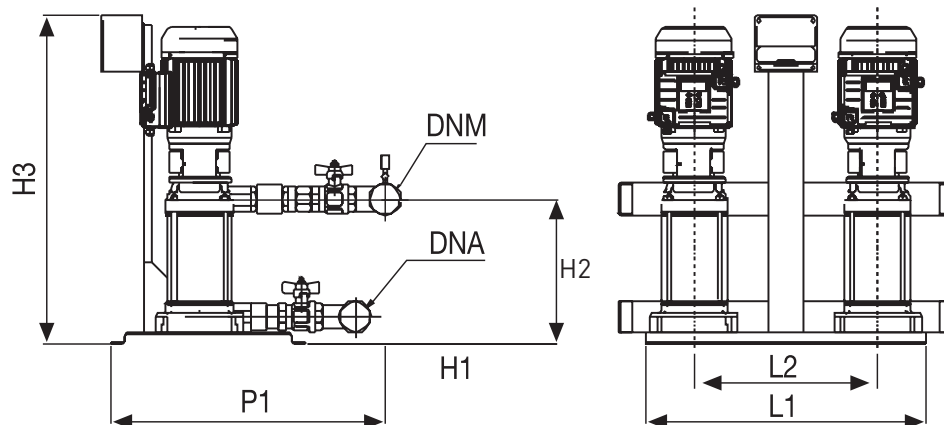


# NOCCHI VARIO 1-20 MULTINOX VE + PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

MODEL	P2	VOLT. (V)	In (A)	Q	l/min m³/h	20	40	60	80	100	120	140	160	180	200	240	280	300	360	420
	kW					1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8	12	14.4	16.8	18	21.6	25.2
VARIO 1-20 MULTINOX VE+ 4-30	2x0.5	1 ~ 230	2x4.4	m.c.a./m.c.w.	33	31	30	27	24	21	17	13	9							
VARIO 1-20 MULTINOX VE+ 4-50	2x0.84	1 ~ 230	2x6.71		55	52	50	45	41	35	29	22	15							
VARIO 1-20 MULTINOX VE+ 4-70	2x1.17	1 ~ 230	2x9.39		79	76	72	67	59	51	43	33	22							
VARIO 1-20 MULTINOX VE+ 4-90	2x1.5	1 ~ 230	2x12.08		104	100	95	88	79	69	59	46	32							
VARIO 1-20 MULTINOX VE+ 4-120	2x2	1 ~ 230	2x16.3		138	134	127	117	105	92	78	61	43							
VARIO 1-20 MULTINOX VE+ 6-30	2x0.67	1 ~ 230	2x5.95			34	32	31	30	28	27	26	23	21	16	10				
VARIO 1-20 MULTINOX VE+ 6-50	2x1.1	1 ~ 230	2x9.02			58	56	53	51	49	47	44	41	37	28	17				
VARIO 1-20 MULTINOX VE+ 6-70	2x1.5	1 ~ 230	2x13.82			83	80	77	76	61	68	64	59	55	42	27				
VARIO 1-20 MULTINOX VE+ 6-90	2x2	1 ~ 230	2x15.75			107	103	99	97	92	88	83	76	71	54	34				
VARIO 1-20 MULTINOX VE+ 8-30	2x1	1 ~ 230	2x8.7					35	35	35	35	34	33	32	30	27	25	18	10	
VARIO 1-20 MULTINOX VE+ 8-50	2x1.5	1 ~ 230	2x14.4					57	57	56	56	54	53	52	50	45	40	28	16	
VARIO 1-20 MULTINOX VE+ 8-70	2x1.9	1 ~ 230	2x15.5					80	79	78	77	75	74	73	70	60	56	40	22	

## MULTINOX - VE



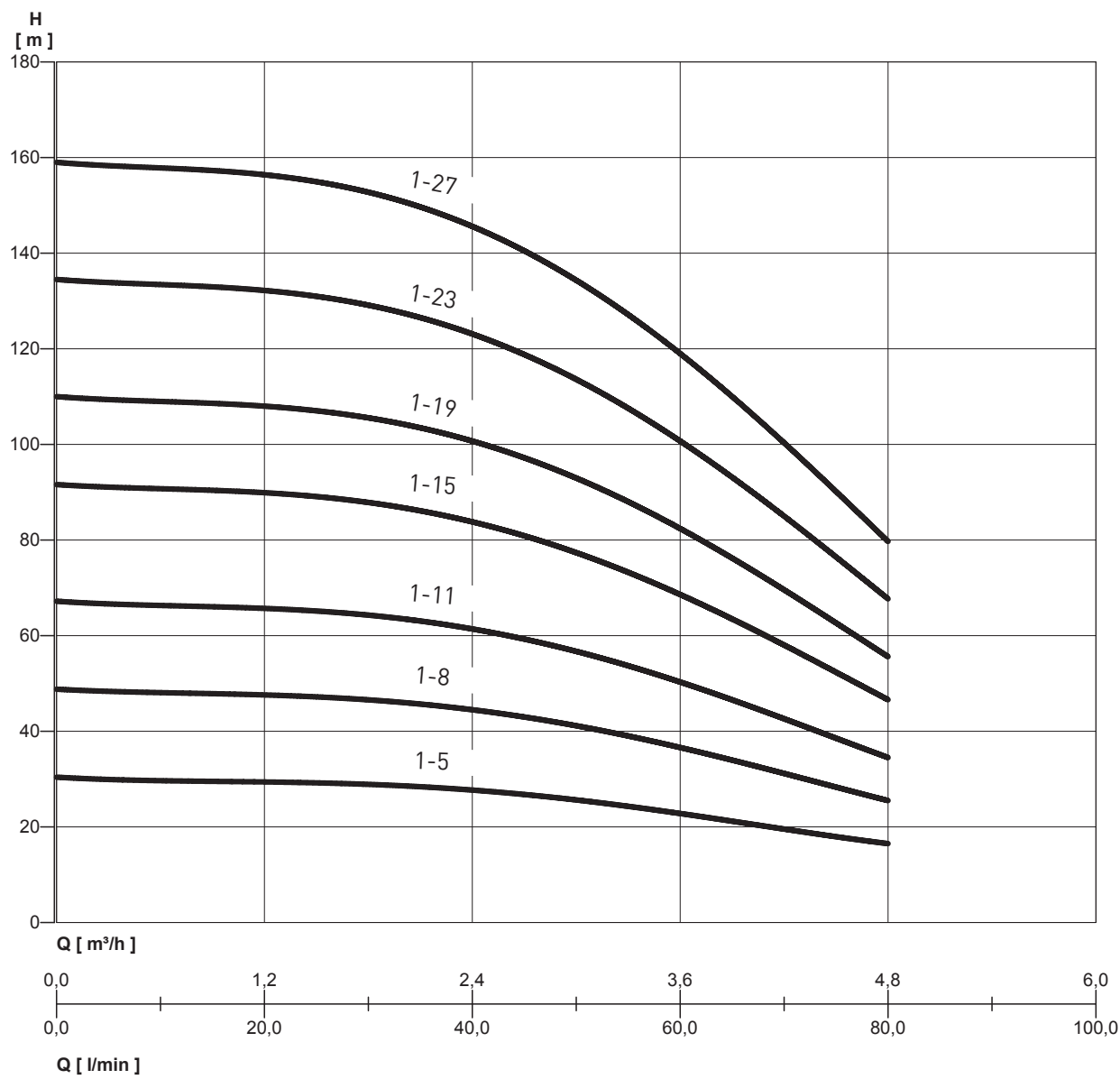
OVERALL DIMENSIONS AND WEIGHTS

MODEL	Dimensions mm.								WEIGHTS Kg
	L1	L2	H1	H2	H3	P1	DNA	DNM	
VARIO 1-20 MULTINOX VE+ 4-30	460	320	38	195	450	740	2"	2"	60
VARIO 1-20 MULTINOX VE+ 4-50	460	320	38	222	450	740	2"	2"	70
VARIO 1-20 MULTINOX VE+ 4-70	460	320	38	303	450	740	2"	2"	90
VARIO 1-20 MULTINOX VE+ 4-90	460	320	38	357	450	740	2"	2"	92
VARIO 1-20 MULTINOX VE+ 4-120	460	320	38	438	450	740	2"	2"	96
VARIO 1-20 MULTINOX VE+ 6-30	460	320	38	195	450	740	2"	2"	60
VARIO 1-20 MULTINOX VE+ 6-50	460	320	38	249	450	740	2"	2"	70
VARIO 1-20 MULTINOX VE+ 6-70	460	320	38	303	450	740	2"	2"	78
VARIO 1-20 MULTINOX VE+ 6-90	460	320	38	357	450	740	2"	2"	80
VARIO 1-20 MULTINOX VE+ 8-30	460	320	38	195	450	740	2"	2"	60
VARIO 1-20 MULTINOX VE+ 8-50	460	320	38	259	450	740	2"	2"	70
VARIO 1-20 MULTINOX VE+ 8-70	460	320	38	303	450	740	2"	2"	78

# NOCCHI VARIO 1-20 PVM

PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE

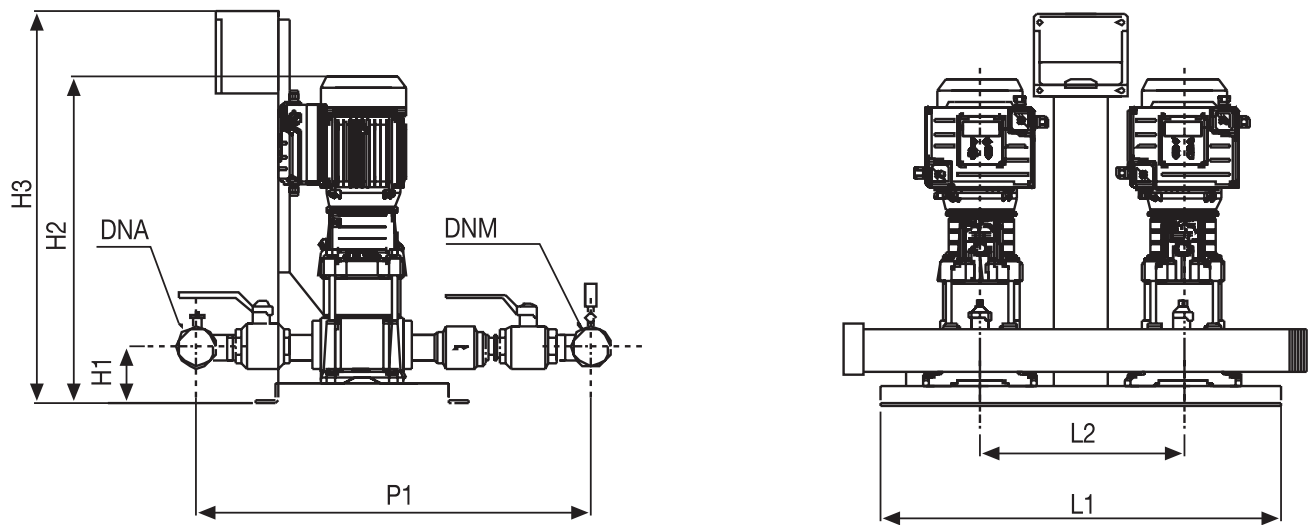


# NOCCHI VARIO 1-20 PVM

## PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

MODEL	P2	VOLT. (V)	In (A)	Q	l/min m³/h	0	20	40	60	80
	kW					0	1.2	2.4	3.6	4.8
VARIO1-20 PVM 1-5 F	2x0.37	1 ~ 230	2x2.7	m.c.a./m.c.w.		30.4	29.4	27.7	22.8	16.5
VARIO1-20 PVM 1-8 F	2x0.55	1 ~ 230	2x4.1			48.8	47.6	44.5	36.6	25.5
VARIO1-20 PVM 1-11 F	2x0.55	1 ~ 230	2x4.4			67.2	65.7	61.4	50.3	34.5
VARIO1-20 PVM 1-15 F	2x0.75	1 ~ 230	2x5.8			91.6	89.9	83.8	68.6	46.6
VARIO1-20 PVM 1-19 F	2x1.1	1 ~ 230	2x7.4			110	108	100.7	82.4	55.6
VARIO1-20 PVM 1-23 F	2x1.1	1 ~ 230	2x8.3			134.5	132.2	123.1	100.7	67.7
VARIO1-20 PVM 1-27 F	2x1.5	1 ~ 230	2x9.9			159	156.4	145.6	119	79.7



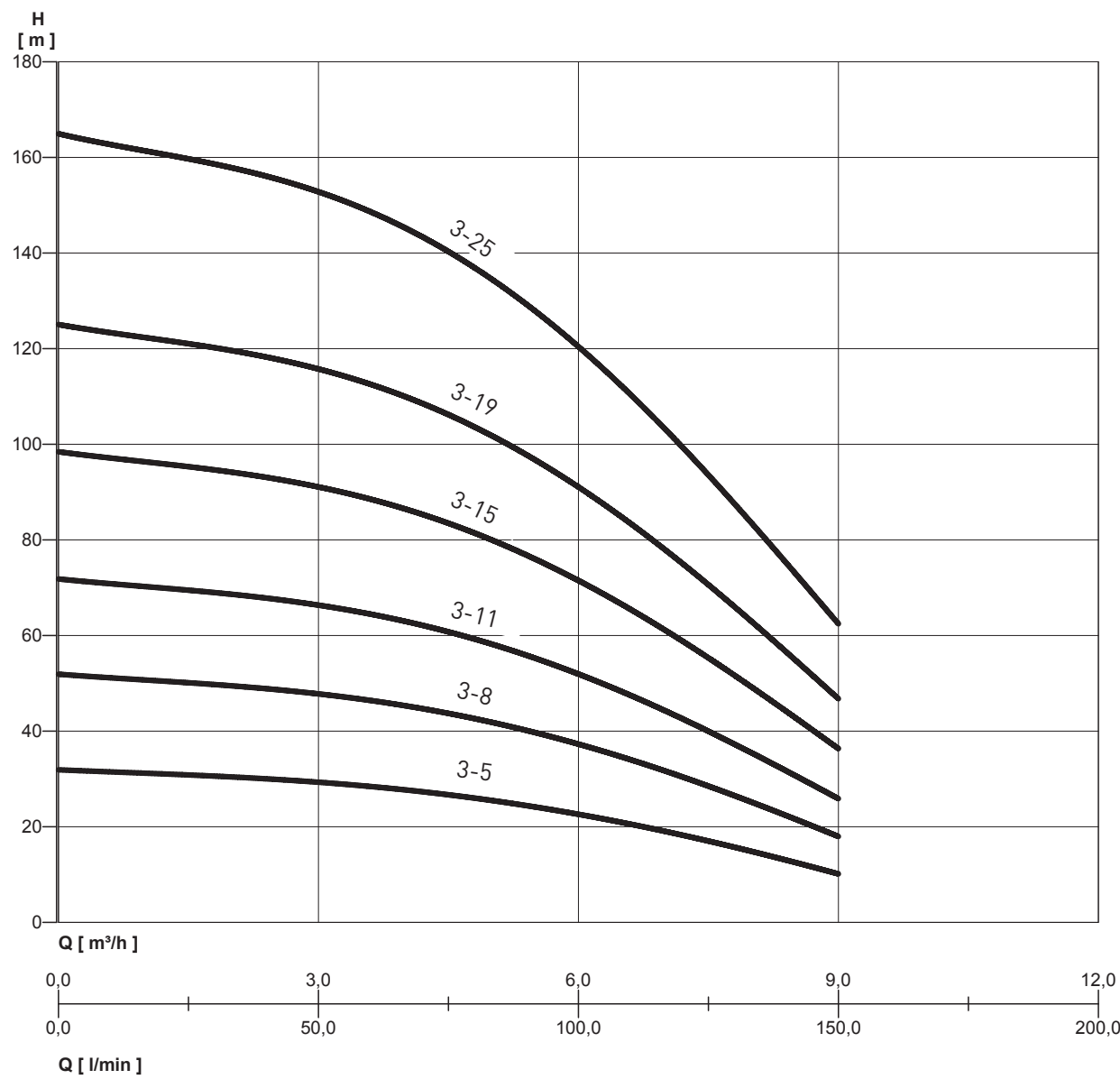
OVERALL DIMENSIONS AND WEIGHTS

MODEL	Dimensions mm.								WEIGHTS Kg
	L1	L2	H1	H2	H3	P1	DNA	DNM	
VARIO1-20 PVM 1-5 F	600	370	105	580	700	620	2"	2"	60
VARIO1-20 PVM 1-8 F	600	370	105	594	700	620	2"	2"	62
VARIO1-20 PVM 1-11 F	600	370	105	648	700	620	2"	2"	67
VARIO1-20 PVM 1-15 F	600	370	105	766	700	620	2"	2"	73
VARIO1-20 PVM 1-19 F	600	370	105	838	700	620	2"	2"	80
VARIO1-20 PVM 1-23 F	600	370	105	910	700	620	2"	2"	90
VARIO1-20 PVM 1-27 F	600	370	105	1030	700	620	2"	2"	94

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HYDRAULIC PERFORMANCE

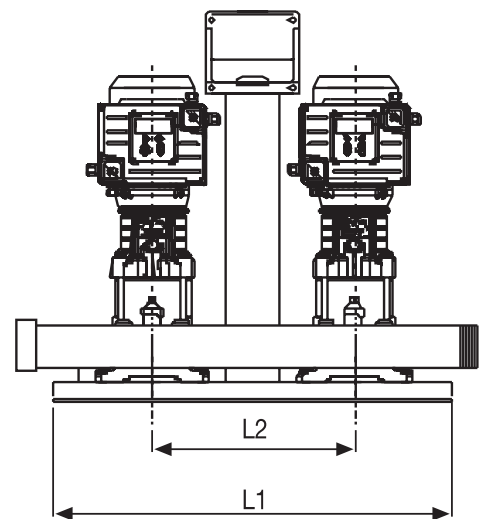
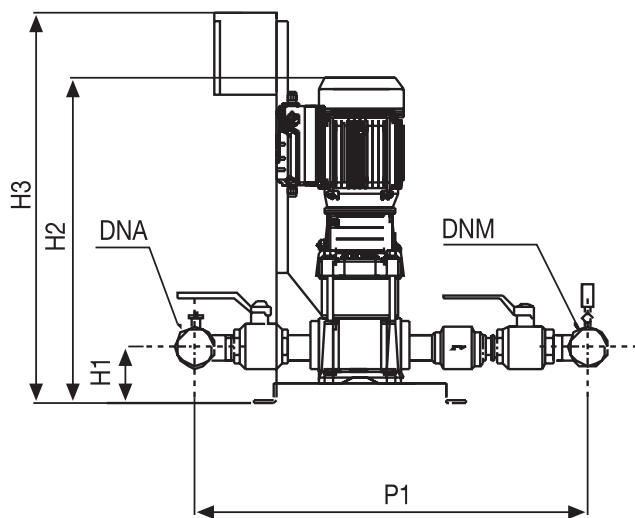


# NOCCHI VARIO 1-20 PVM

## PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

MODEL	P2	VOLT. (V)	In (A)	Q	l/min	0	20	40	60	80	100	120	140	150
	kW				m³/h	0	1.2	2.4	3.6	4.8	6	7.2	8.4	9
VARIO1-20 PVM 3-5 F	2x0.37	1 ~ 230	2x3	m.c.a./m.c.w.		31.9	31.1	30	28.3	26.2	22.6	18	13.3	10
VARIO1-20 PVM 3-8 F	2x0.75	1 ~ 230	2x4.8			51.9	50.5	48.9	46.2	42.9	37.3	30.1	22.7	17.8
VARIO1-20 PVM 3-11 F	2x1.1	1 ~ 230	2x6.6			71.8	70	67.9	64.1	59.6	52.1	42.1	32.1	25.7
VARIO1-20 PVM 3-15 F	2x1.1	1 ~ 230	2x9			98.4	96	93.2	88	81.9	71.7	58.2	44.7	36.1
VARIO1-20 PVM 3-19 F	2x1.5	1 ~ 230	2x11			125	121.9	118.4	111.9	104.2	91.3	74.3	57.2	46.5
VARIO1-20 PVM 3-25 F	2x2.2	1 ~ 230	2x15			164.9	160.8	156.3	147.8	137.6	120.8	98.4	76	62.1



OVERALL DIMENSIONS AND WEIGHTS

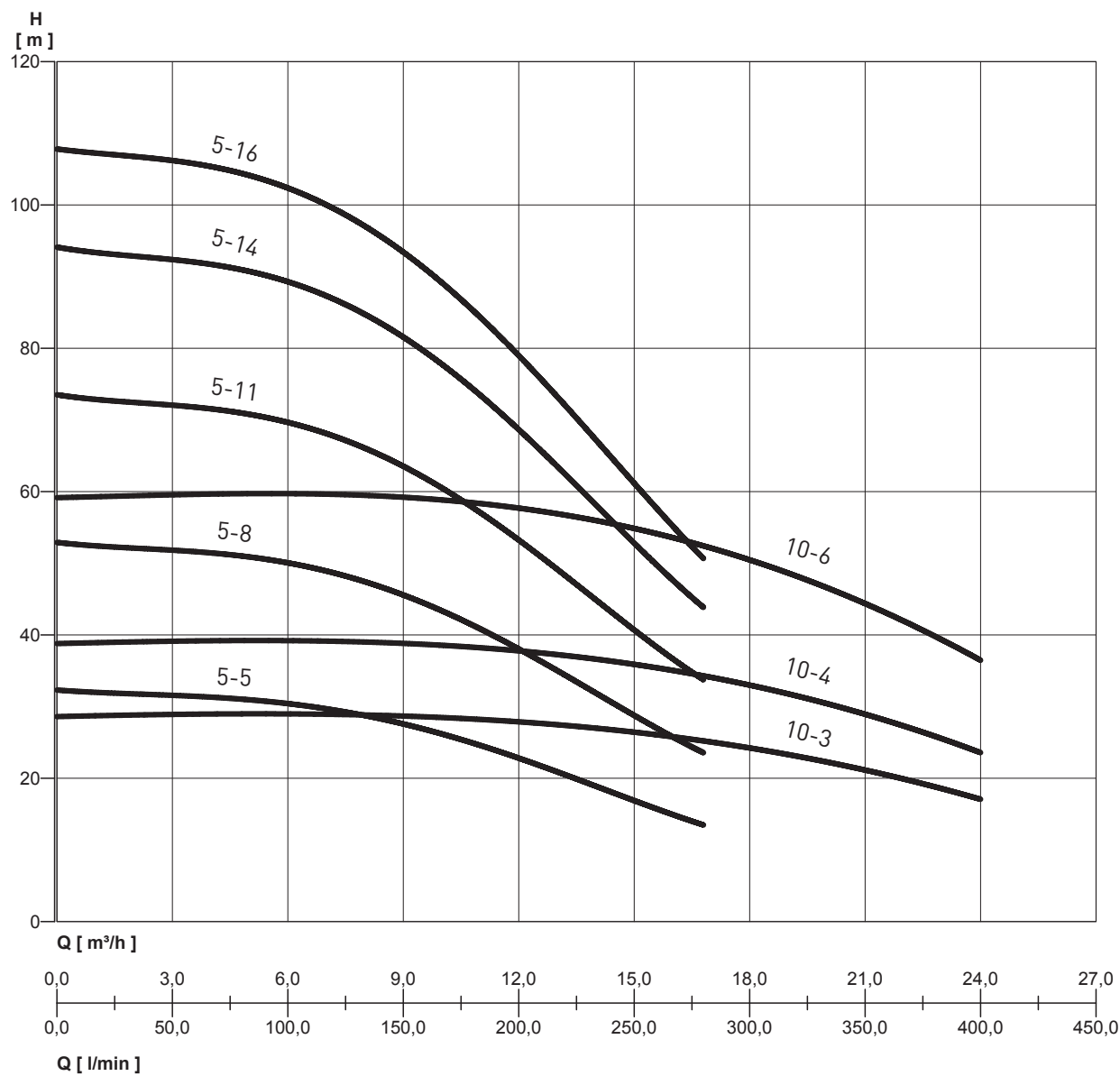
MODEL	Dimensions mm.								WEIGHTS Kg
	L1	L2	H1	H2	H3	P1	DNA	DNM	
VARIO1-20 PVM 3-5 F	600	370	105	540	700	620	2"	2"	62
VARIO1-20 PVM 3-8 F	600	370	105	640	700	620	2"	2"	65
VARIO1-20 PVM 3-11 F	600	370	105	694	700	620	2"	2"	73
VARIO1-20 PVM 3-15 F	600	370	105	766	700	620	2"	2"	75
VARIO1-20 PVM 3-19 F	600	370	105	886	700	620	2"	2"	80
VARIO1-20 PVM 3-25 F	600	370	105	994	700	620	2"	2"	90



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HYDRAULIC PERFORMANCE



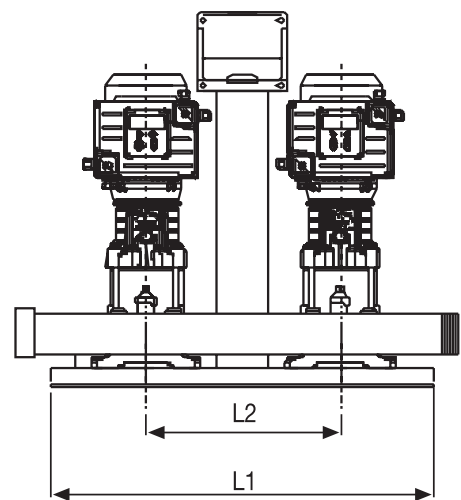
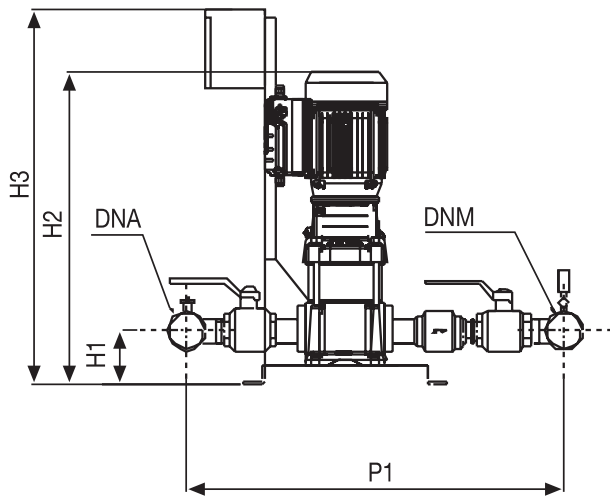
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## PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

MODEL	P2	VOLT. (V)	In (A)	Q	l/min	0	80	120	160	200	240	280
	kW				m³/h	0	4.8	7.2	9.6	12	14.4	16.8
VARIO1-20 PVM 5-5 F	2x0.75	1 ~ 230	2x5.4	m.c.a./m.c.w.		32.3	31.1	29.4	26.8	22.9	18	13.5
VARIO1-20 PVM 5-8 F	2x1.1	1 ~ 230	2x8.7			52.9	51.1	48.5	44.3	38.2	30.5	23.6
VARIO1-20 PVM 5-11 F	2x2.2	1 ~ 230	2x12			73.5	71.1	67.5	61.8	53.5	43	33.8
VARIO1-20 PVM 5-14 F	2x2.2	1 ~ 230	2x15.2			94.1	91.1	86.6	79.4	68.9	55.8	43.9
VARIO1-20 PVM 5-16 F	2x2.2	1 ~ 230	2x17.4			107.8	104.5	99.3	91	79.1	64.7	50.7

MODEL	P2	VOLT. (V)	In (A)	Q	l/min	0	50	100	150	200	250	300	350	400
	kW				m³/h	0	3	6	9	12	15	18	21	24
VARIO1-20 PVM 10-3 F	2x1.1	1 ~ 230	2x2.4	m.c.a./m.c.w.		28.6	28.9	29	28.7	27.8	26.4	24.4	21	17.1
VARIO1-20 PVM 10-4 F	2x1.5	1 ~ 230	2x3.2			38.8	39.1	39.2	38.9	37.7	35.8	33.2	28.8	23.6
VARIO1-20 PVM 10-6 F	2x2.2	1 ~ 230	2x4.8			59.2	59.4	59.8	59.4	57.5	54.7	50.8	44.2	36.5



OVERALL DIMENSIONS AND WEIGHTS

MODEL	Dimensions mm.								WEIGHTS Kg
	L1	L2	H1	H2	H3	P1	DNA	DNM	
VARIO1-20 PVM 5-5 F	600	370	105	631	810	660	2"	2"	76
VARIO1-20 PVM 5-8 F	600	370	105	712	810	660	2"	2"	80
VARIO1-20 PVM 5-11 F	600	370	105	841	810	660	2"	2"	92
VARIO1-20 PVM 5-14 F	600	370	105	922	810	660	2"	2"	98
VARIO1-20 PVM 5-16 F	600	370	105	976	810	660	2"	2"	100
VARIO1-20 PVM 10-3 F	620	370	100	612	820	700	2" 1/2	2" 1/2	100
VARIO1-20 PVM 10-4 F	620	370	100	714	820	700	2" 1/2	2" 1/2	110
VARIO1-20 PVM 10-6 F	620	370	100	714	820	700	2" 1/2	2" 1/2	120