

VARIO 3-20

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

Easy to install, Low power consumption, Versatile operation

The new series of variable speed pressurization booster set VARIO3-20 represents a reliable solution which is easy to use, for residential and industrial applications. The systems involves the installation of two pumps in parallel featuring electronic control. VARIO3 is an electronic device capable of changing the frequency of an pump. Integrated directly on the motor, it allows to adjust its speed so as to supply the same pressure at all times, even when the water demand changes.

When the system pressure drops below the set threshold, the module starts the first pump of the unit to restore to set-point pressure; the speed of rotation of the pump varies according to the water demand so, a greater demand will correspond to a higher speed, until the

maximum speed set has been reached, after which, if the system requires greater performance, the module will activate the second pump to keep the pressure stable. As the water demand decreases, the speed of the last pump started is reduced, until it turns off. The module will keep the first pump on until the minimum set speed has been reached, after which, if there are no further pressure drops, the pump will be stopped. VARIO3-20 features five operating modes to meet the operating needs.



TECHNICAL FEATURES

- Inverter supply voltage: 3x380-500 Vac
- Inverter output voltage: 3x380-500 Vac
- Maximum output power: up to 2x11 kW
- Input frequency: 50/60 Hz
- Output maximum rated power: up to 20 Amp
- Degree of protection: IP55
- Max. ambient temperature: + 50°C
- Input filter complying with EMC directive
- Pressure transducer: 0-5 Volt 0-10 bar
- Connectivity: Serial interface RS 485
- Optional contacts: 3 (external set-point, alarm, system inhibition)

BASE

- in galvanized metal complete with rubber isolated pads

SUCTION MANIFOLD

- in stainless steel AISI 304 with 2 ball valves

DELIVERY MANIFOLD

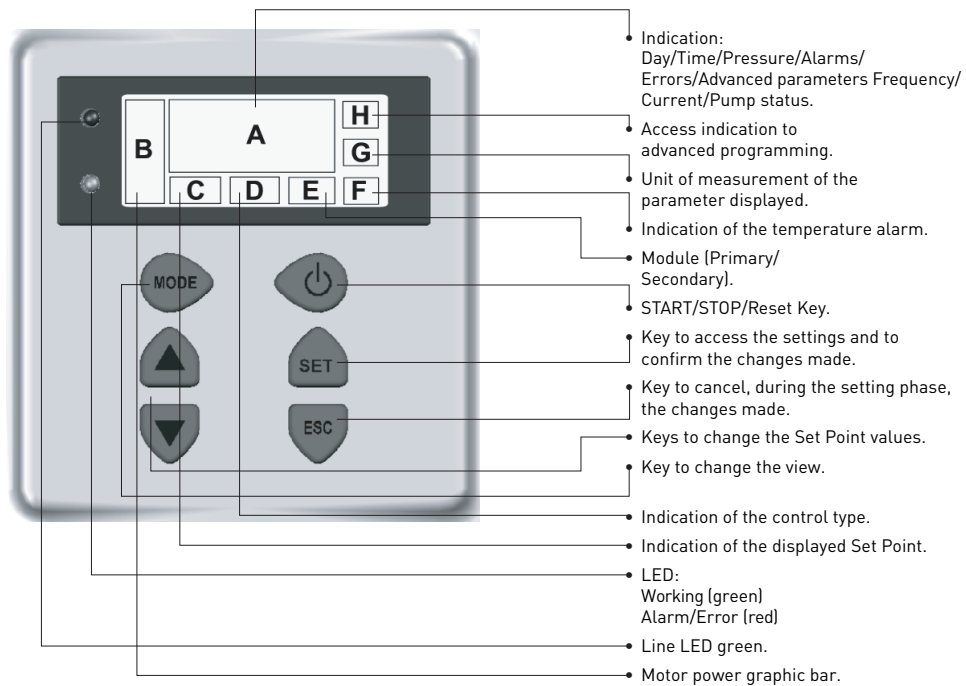
- In stainless steel AISI 304 with:
- n. 2 ball valves
- n. 2 check valves
- n. 1 pressure gauge
- n. 2 pressure sensors

| USAGE DATA | MULTINOX VE+ | | | PVM | | | | | | |
|--|--------------|--------|--------|--------|----|---------|-----|-----|-----|-----|
| | 4 | 6 | 8 | 1 | 3 | 5 | 10 | 15 | 20 | 32 |
| Maximum capacity (m ³ /h) | 10,8 | 16,8 | 25,2 | 4,8 | 9 | 17 | 26 | 47 | 58 | 80 |
| Maximum head (m.c.a.) | 140 | 110 | 140 | 16 | 16 | 160 | 160 | 165 | 145 | 120 |
| Maximum operating pressure | 12 bar | 16 bar | 16 bar | 16 bar | | | | | | |
| Power supply VOLT | | | | | | 3-400 V | | | | |
| Ambient temperature | | | | | | 50° C | | | | |
| Degree of protection of pump | | | | | | IP55 | | | | |
| Degree of protection of electrical panel | | | | | | IP54 | | | | |

VARIO 3-20

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CONTROL PANEL

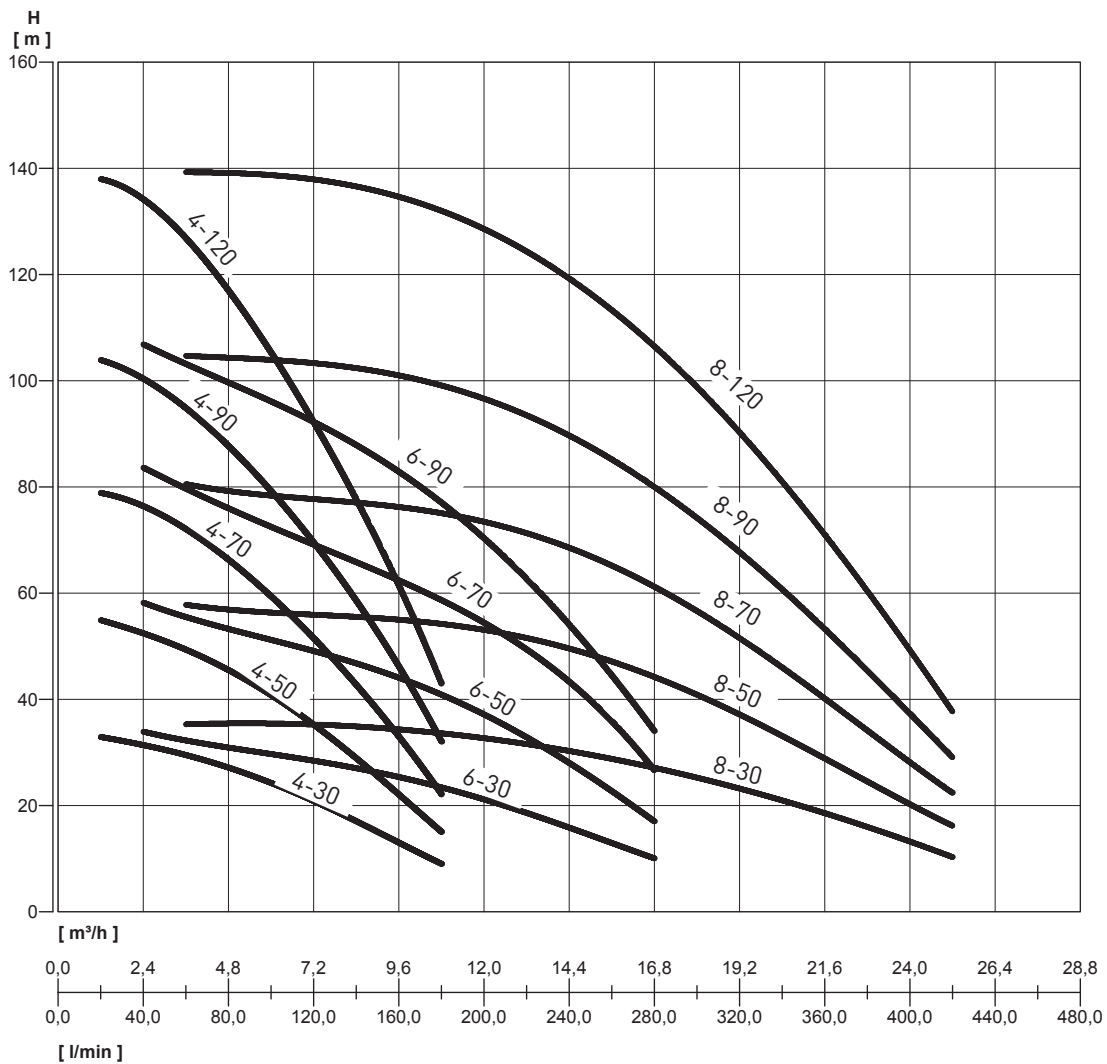


- Backlight display (switches off automatically after a reset time and can be turned on again by pressing any key)

VARIO 3-20 MULTINOX VE+

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 kW | VOLT. (V) | In (A) | Q | m.c.w. | | | | | | | | | | | | | | | | |
|------------------------------|----------|--------------|--------|---|--------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|------|-----|------|------|--|
| | | | | | l/min | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 240 | 280 | 300 | 360 | 420 | |
| | | | | | m³/h | 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 | |
| VARIO3-20 MULTINOX VE+ 4-30 | 2x0,5 | 3 ~ 400 | 2x2,54 | | 33 | 31 | 30 | 27 | 24 | 21 | 17 | 13 | 9 | | | | | | | | |
| VARIO3-20 MULTINOX VE+ 4-50 | 2x0,84 | 3 ~ 400 | 2x3,90 | | 55 | 52 | 50 | 45 | 41 | 35 | 29 | 22 | 15 | | | | | | | | |
| VARIO3-20 MULTINOX VE+ 4-70 | 2x1,17 | 3 ~ 400 | 2x5,46 | | 79 | 76 | 72 | 67 | 59 | 51 | 43 | 33 | 22 | | | | | | | | |
| VARIO3-20 MULTINOX VE+ 4-90 | 2x1,5 | 3 ~ 400 | 2x7,22 | | 104 | 100 | 95 | 88 | 79 | 69 | 59 | 46 | 32 | | | | | | | | |
| VARIO3-20 MULTINOX VE+ 4-120 | 2x2 | 3 ~ 400 | 2x9,42 | | 138 | 134 | 127 | 117 | 105 | 92 | 78 | 61 | 43 | | | | | | | | |
| VARIO3-20 MULTINOX VE+ 6-30 | 2x0,67 | 3 ~ 400 | 2x3,58 | | | 34 | 32 | 31 | 30 | 28 | 27 | 26 | 23 | 21 | 16 | 10 | | | | | |
| VARIO3-20 MULTINOX VE+ 6-50 | 2x1,1 | 3 ~ 400 | 2x5,26 | | | 58 | 56 | 53 | 51 | 49 | 47 | 44 | 41 | 37 | 28 | 17 | | | | | |
| VARIO3-20 MULTINOX VE+ 6-70 | 2x1,5 | 3 ~ 400 | 2x8,21 | | | 83 | 80 | 77 | 76 | 61 | 68 | 64 | 59 | 55 | 42 | 27 | | | | | |
| VARIO3-20 MULTINOX VE+ 6-90 | 2x2 | 3 ~ 400 | 2x9,13 | | | 107 | 103 | 99 | 97 | 92 | 88 | 83 | 76 | 71 | 54 | 34 | | | | | |
| VARIO3-20 MULTINOX VE+ 8-30 | 2x1 | 3 ~ 400 | 2x2,60 | | | | 35 | 35 | 35 | 35 | 35 | 34 | 33 | 32 | 30 | 27 | 25 | 18 | 10 | | |
| VARIO3-20 MULTINOX VE+ 8-50 | 2x1,5 | 3 ~ 400 | 2x4,33 | | | | 57 | 57 | 56 | 56 | 56 | 54 | 53 | 52 | 50 | 45 | 40 | 28 | 16 | | |
| VARIO3-20 MULTINOX VE+ 8-70 | 2x1,9 | 3 ~ 400 | 2x6,13 | | | | 80 | 79 | 78 | 78 | 77 | 75 | 74 | 73 | 70 | 60 | 56 | 40 | 22 | | |
| VARIO3-20 MULTINOX VE+ 8-90 | 2x3 | 3 ~ 400 | 2x9,7 | | | | 104 | 104 | 104 | 103 | 103 | 101 | 98 | 94 | 90 | 82 | 73 | 52 | 29 | | |
| VARIO3-20 MULTINOX VE+ 8-120 | 2x4 | 3 ~ 400 | 2x12,3 | | | | 139 | 139 | 139 | 138 | 138 | 135 | 131 | 126 | 120 | 109 | 98 | 70 | 38 | | |

VARIO 3-20 MULTINOX VE+

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

OVERALL DIMENSIONS AND WEIGHTS

FIG. 1

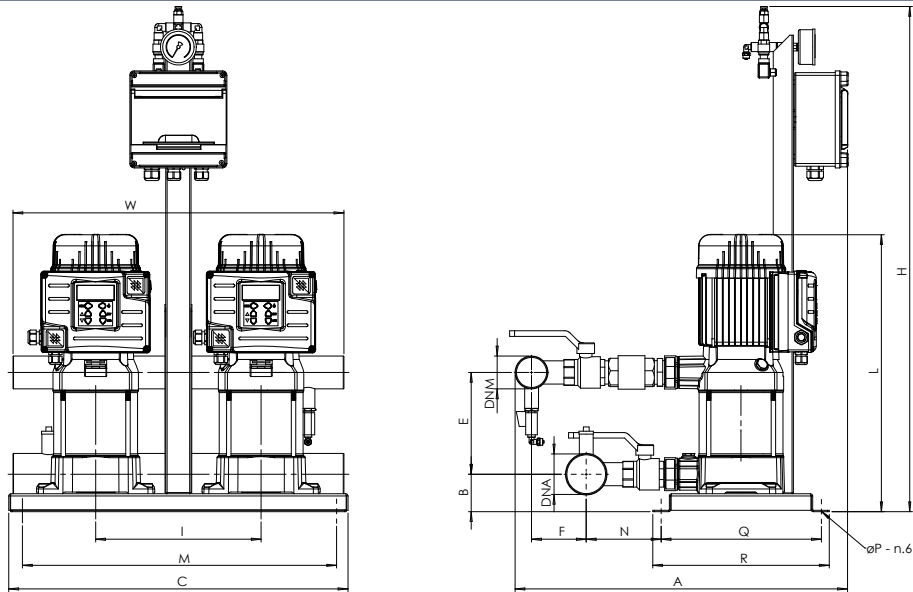
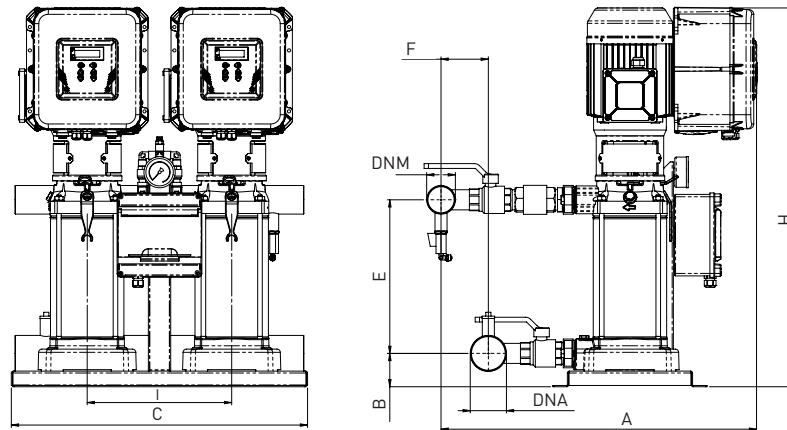


FIG. 2



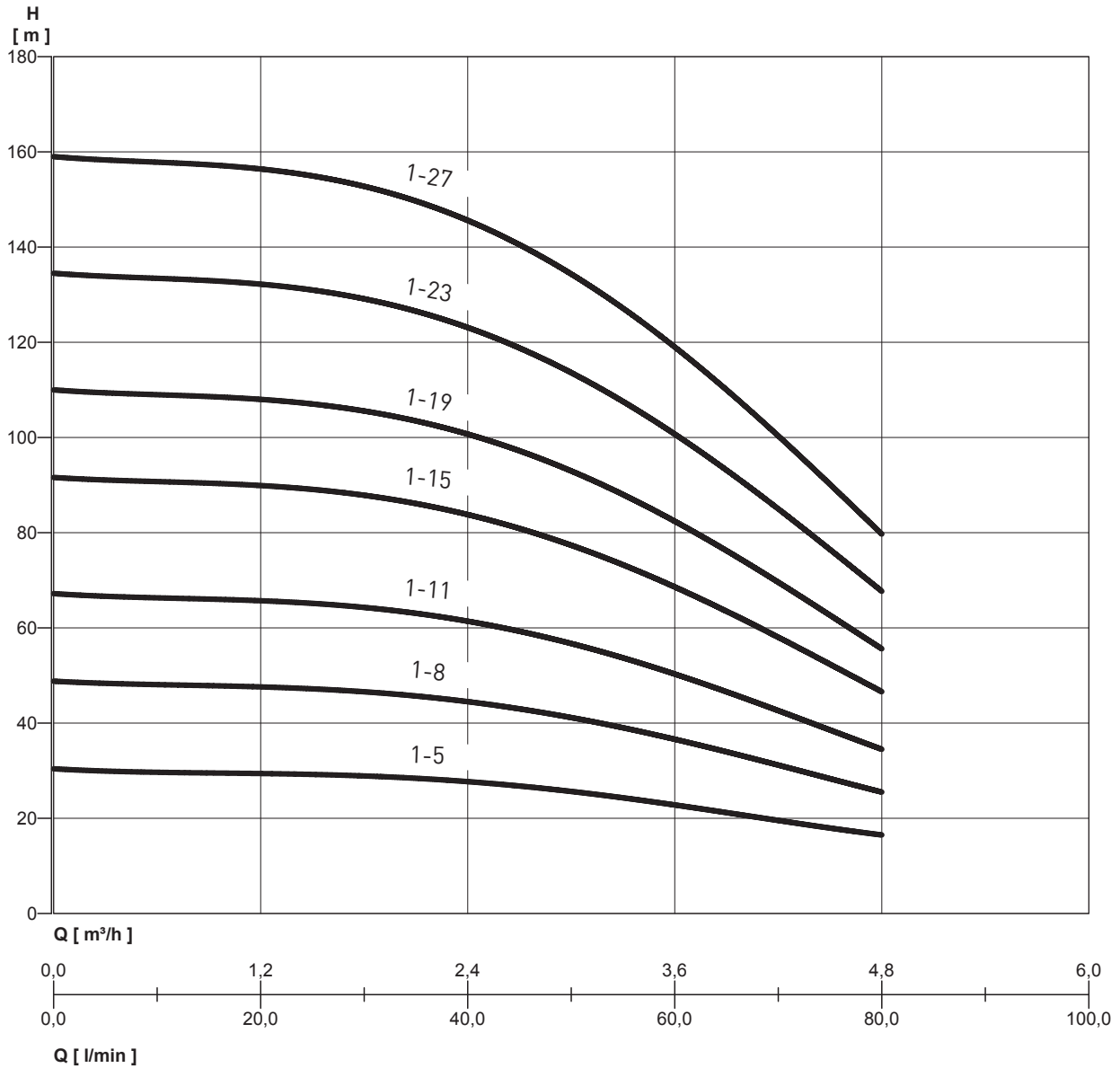
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Fig. | Dimensions mm. | | | | | | | | | | | | | | | WEIGHT Kg | |
|------------------------------|------|----------------|----|-------|-----|----|-----|-----|-----|-------|-----|------|-----|-----|-----|--------|-----------|-----|
| | | A | B | C | E | F | H | I | L | M | N | P | Q | R | W | DNA | | DNM |
| VARIO3-20 MULTINOX VE+ 4-30 | 1 | 615 | 68 | 608,5 | 130 | 96 | 910 | 300 | 449 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 69 |
| VARIO3-20 MULTINOX VE+ 4-50 | 1 | 615 | 68 | 608,5 | 184 | 96 | 910 | 300 | 503 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 77 |
| VARIO3-20 MULTINOX VE+ 4-70 | 1 | 615 | 68 | 608,5 | 238 | 96 | 910 | 300 | 557 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 85 |
| VARIO3-20 MULTINOX VE+ 4-90 | 1 | 615 | 68 | 608,5 | 292 | 96 | 910 | 300 | 611 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 87 |
| VARIO3-20 MULTINOX VE+ 4-120 | 1 | 615 | 68 | 608,5 | 373 | 96 | 910 | 300 | 693 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 91 |
| VARIO3-20 MULTINOX VE+ 6-30 | 1 | 615 | 68 | 608,5 | 130 | 96 | 910 | 300 | 449 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 69 |
| VARIO3-20 MULTINOX VE+ 6-50 | 1 | 615 | 68 | 608,5 | 184 | 96 | 910 | 300 | 503 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 77 |
| VARIO3-20 MULTINOX VE+ 6-70 | 1 | 615 | 68 | 608,5 | 238 | 96 | 910 | 300 | 557 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 85 |
| VARIO3-20 MULTINOX VE+ 6-90 | 1 | 615 | 68 | 608,5 | 292 | 96 | 910 | 300 | 611 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 87 |
| VARIO3-20 MULTINOX VE+ 8-30 | 1 | 615 | 68 | 608,5 | 130 | 96 | 910 | 300 | 449 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 69 |
| VARIO3-20 MULTINOX VE+ 8-50 | 1 | 615 | 68 | 608,5 | 184 | 96 | 910 | 300 | 503 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 77 |
| VARIO3-20 MULTINOX VE+ 8-70 | 1 | 615 | 68 | 608,5 | 238 | 96 | 910 | 300 | 557 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 85 |
| VARIO3-20 MULTINOX VE+ 8-90 | 2 | 780 | 68 | 608,5 | 292 | 96 | 765 | 300 | 765 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 110 |
| VARIO3-20 MULTINOX VE+ 8-120 | 2 | 780 | 68 | 608,5 | 373 | 96 | 890 | 300 | 890 | 578,5 | 145 | 10,5 | 290 | 320 | 600 | 2-1/2" | 2" | 116 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | Q | l/min | 0 | 20 | 40 | 60 | 80 |
|----------------------|--------|-----------|--------|--------|-------|-------|-------|-------|------|-----|
| | kW | | | | m³/h | 0 | 1,2 | 2,4 | 3,6 | 4,8 |
| VARIO3-20 PVM 1-5 F | 2x0,37 | 3 ~ 400 | 2x1,5 | m.c.w. | 30,4 | 29,4 | 27,7 | 22,8 | 16,5 | |
| VARIO3-20 PVM 1-8 F | 2x0,55 | 3 ~ 400 | 2x2,3 | | 48,8 | 47,6 | 44,5 | 36,6 | 25,5 | |
| VARIO3-20 PVM 1-11 F | 2x0,55 | 3 ~ 400 | 2x3,2 | | 67,2 | 65,7 | 61,4 | 50,3 | 34,5 | |
| VARIO3-20 PVM 1-15 F | 2x0,75 | 3 ~ 400 | 2x4,4 | | 91,6 | 89,9 | 83,8 | 68,6 | 46,6 | |
| VARIO3-20 PVM 1-19 F | 2x1,1 | 3 ~ 400 | 2x5,5 | | 110 | 108 | 100,7 | 82,4 | 55,6 | |
| VARIO3-20 PVM 1-23 F | 2x1,1 | 3 ~ 400 | 2x6,7 | | 134,5 | 132,2 | 123,1 | 100,7 | 67,7 | |
| VARIO3-20 PVM 1-27 F | 2x1,5 | 3 ~ 400 | 2x7,8 | | 159 | 156,4 | 145,6 | 119 | 79,7 | |

VARIO 3-20 PVM

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OVERALL DIMENSIONS AND WEIGHTS

FIG. 1

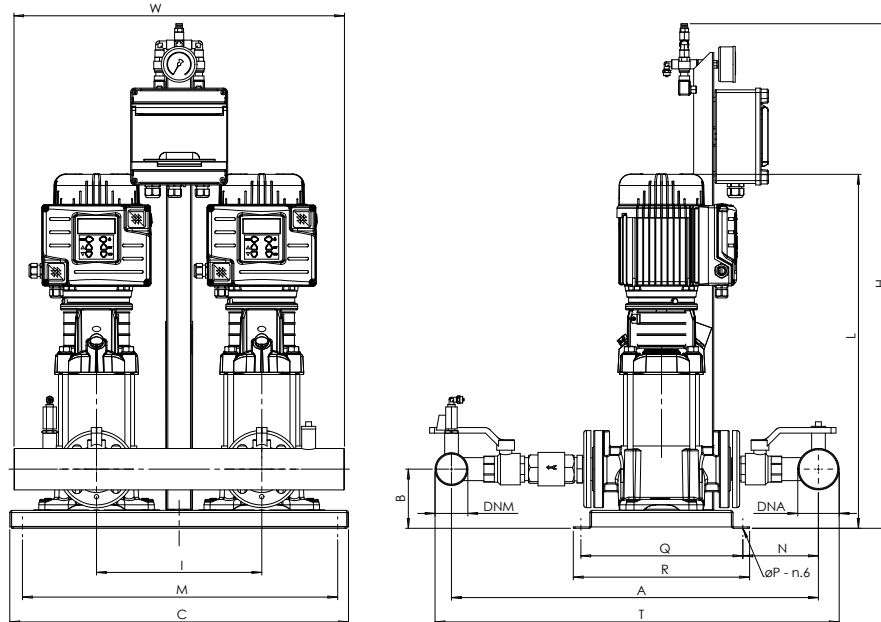
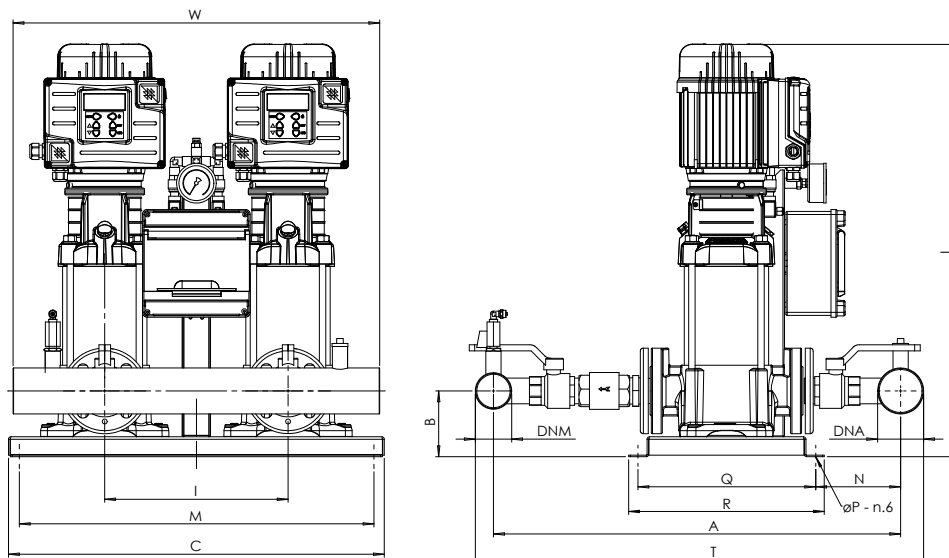


FIG. 2



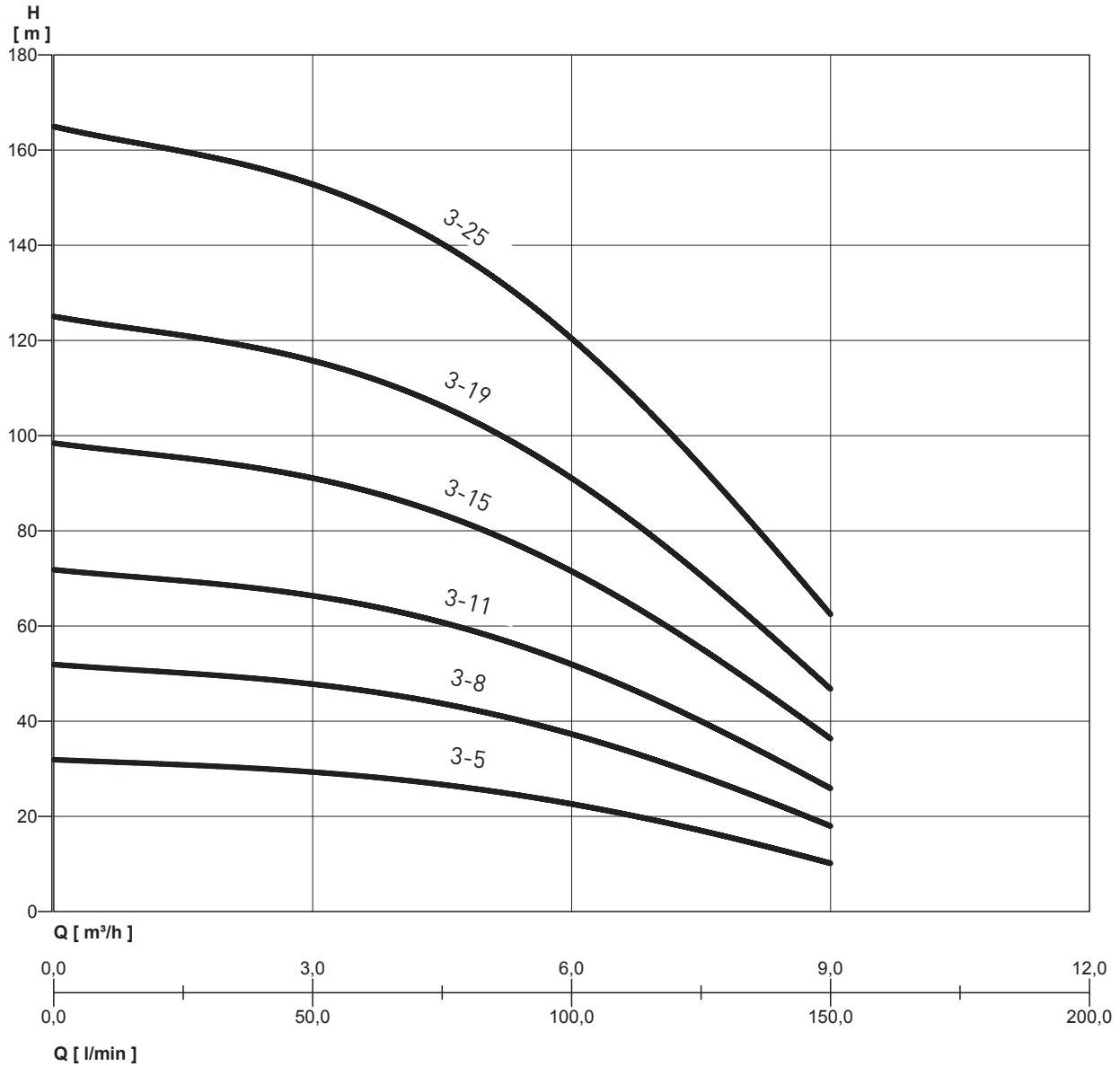
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Fig. | Dimensions mm. | | | | | | | | | | | | | | | WEIGHT Kg |
|----------------------|------|----------------|-----|-----|-----|-----|------|-------|-----|------|-----|-----|-----|-----|-----|-----|-----------|
| | | A | B | C | H | I | L | M | N | P | Q | R | T | W | DNA | DNM | |
| VARIO3-20 PVM 1-5 F | 1 | 690 | 108 | 615 | 910 | 300 | 543 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 60 |
| VARIO3-20 PVM 1-8 F | 1 | 690 | 108 | 615 | 910 | 300 | 597 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 62 |
| VARIO3-20 PVM 1-11 F | 2 | 690 | 108 | 615 | - | 300 | 651 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 67 |
| VARIO3-20 PVM 1-15 F | 2 | 690 | 108 | 615 | - | 300 | 769 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 73 |
| VARIO3-20 PVM 1-19 F | 2 | 690 | 108 | 615 | - | 300 | 841 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 80 |
| VARIO3-20 PVM 1-23 F | 2 | 690 | 108 | 615 | - | 300 | 913 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 90 |
| VARIO3-20 PVM 1-27 F | 2 | 690 | 108 | 615 | - | 300 | 1033 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 94 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | Q | m.c.w. | | | | | | | | | |
|----------------------|--------|-----------|--------|--------|--------|-------|-------|-------|-------|-------|-------|------|------|------|
| | kW | | | | 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 150 | |
| | | | | | l/min | 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 150 |
| | | | | | m³/h | 0 | 1,2 | 2,4 | 3,6 | 4,8 | 6 | 7,2 | 8,4 | 9 |
| VARIO3-20 PVM 3-5 F | 2x0,37 | 3 ~ 400 | 2x0,9 | m.c.w. | | 31,9 | 31,1 | 30 | 28,3 | 26,2 | 22,6 | 18 | 13,3 | 10 |
| VARIO3-20 PVM 3-8 F | 2x0,75 | 3 ~ 400 | 2x1,45 | | | 51,9 | 50,5 | 48,9 | 46,2 | 42,9 | 37,3 | 30,1 | 22,7 | 17,8 |
| VARIO3-20 PVM 3-11 F | 2x1,1 | 3 ~ 400 | 2x2 | | | 71,8 | 70 | 67,9 | 64,1 | 59,6 | 52,1 | 42,1 | 32,1 | 25,7 |
| VARIO3-20 PVM 3-15 F | 2x1,1 | 3 ~ 400 | 2x2,7 | | | 98,4 | 96 | 93,2 | 88 | 81,9 | 71,7 | 58,2 | 44,7 | 36,1 |
| VARIO3-20 PVM 3-19 F | 2x1,5 | 3 ~ 400 | 2x3,4 | | | 125 | 121,9 | 118,4 | 111,9 | 104,2 | 91,3 | 74,3 | 57,2 | 46,5 |
| VARIO3-20 PVM 3-25 F | 2x2,2 | 3 ~ 400 | 2x4,5 | | | 164,9 | 160,8 | 156,3 | 147,8 | 137,6 | 120,8 | 98,4 | 76 | 62,1 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

OVERALL DIMENSIONS AND WEIGHTS

FIG. 1

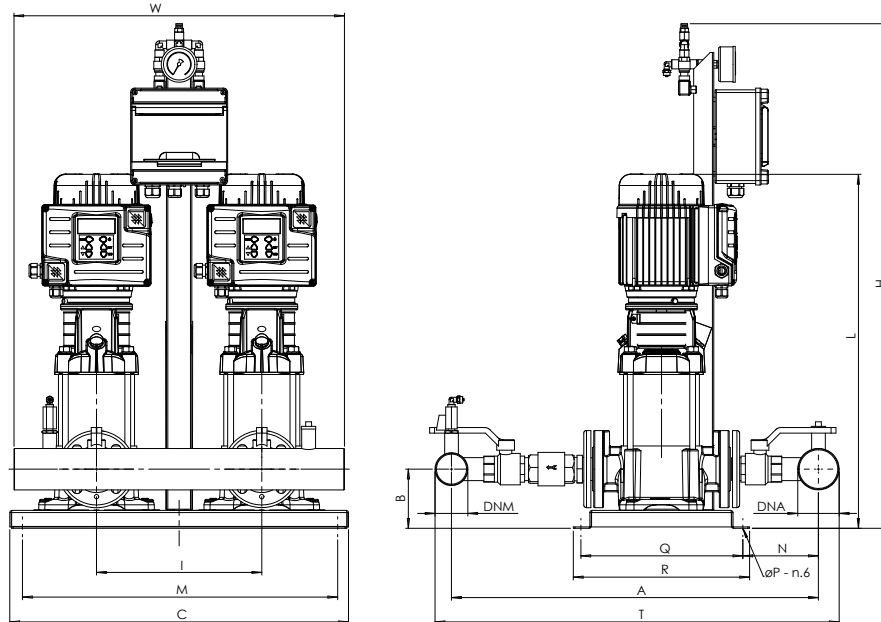
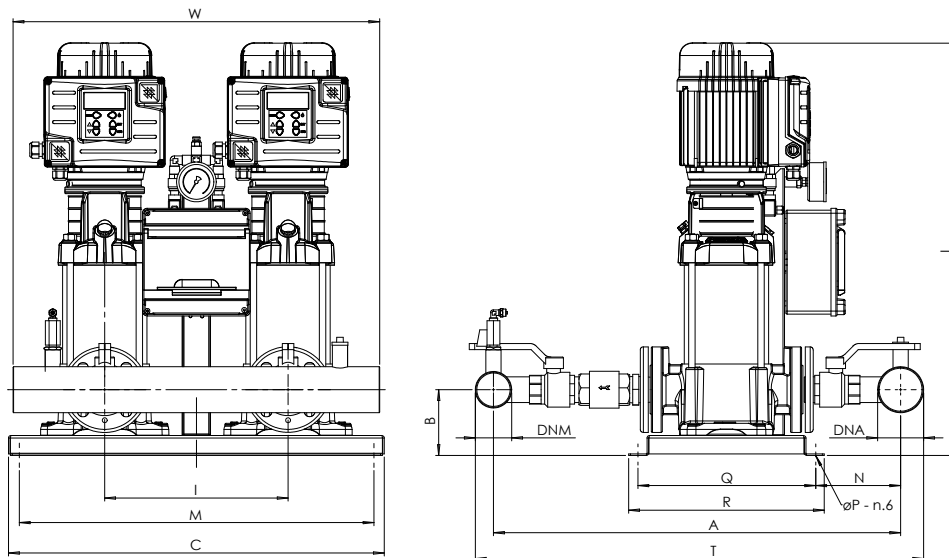


FIG. 2



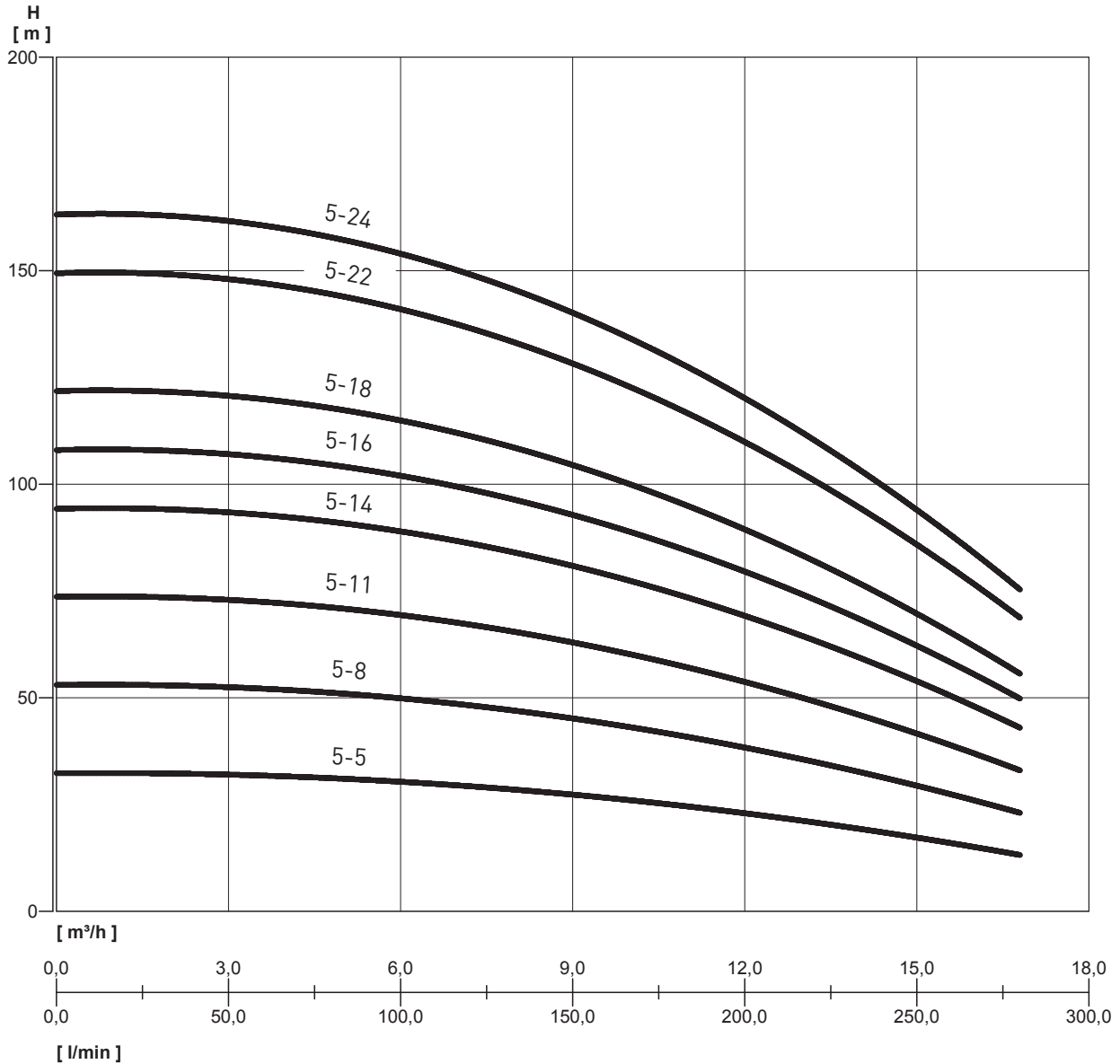
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Fig. | Dimensions mm. | | | | | | | | | | | | | | | WEIGHT Kg |
|----------------------|------|----------------|-----|-----|-----|-----|-----|-------|-----|------|-----|-----|-----|-----|-----|-----|-----------|
| | | A | B | C | H | I | L | M | N | P | Q | R | T | W | DNA | DNM | |
| VARIO3-20 PVM 3-5 F | 1 | 690 | 108 | 615 | 910 | 300 | 543 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 62 |
| VARIO3-20 PVM 3-8 F | 1 | 690 | 108 | 615 | 910 | 300 | 643 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 65 |
| VARIO3-20 PVM 3-11 F | 2 | 690 | 108 | 615 | - | 300 | 697 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 73 |
| VARIO3-20 PVM 3-15 F | 2 | 690 | 108 | 615 | - | 300 | 769 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 75 |
| VARIO3-20 PVM 3-19 F | 2 | 690 | 108 | 615 | - | 300 | 889 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 80 |
| VARIO3-20 PVM 3-25 F | 2 | 690 | 108 | 615 | - | 300 | 997 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 90 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | Q | m.c.w. | | | | | | |
|----------------------|--------|-----------|--------|---|--------|-------|-------|-------|-------|------|------|
| | kW | | | | l/min | 0 | 80 | 120 | 160 | 200 | 240 |
| | | | | | 0 | 80 | 120 | 160 | 200 | 240 | 280 |
| VARIO3-20 PVM 5-5 F | 2x0,75 | 3 ~ 400 | 2x1,7 | | 32,3 | 31,1 | 29,4 | 26,8 | 22,9 | 18 | 13,5 |
| VARIO3-20 PVM 5-8 F | 2x1,1 | 3 ~ 400 | 2x2,7 | | 52,9 | 51,1 | 48,5 | 44,3 | 38,2 | 30,5 | 23,6 |
| VARIO3-20 PVM 5-11 F | 2x2,2 | 3 ~ 400 | 2x3,7 | | 73,5 | 71,1 | 67,5 | 61,8 | 53,5 | 43 | 33,8 |
| VARIO3-20 PVM 5-14 F | 2x2,2 | 3 ~ 400 | 2x4,8 | | 94,1 | 91,1 | 86,6 | 79,4 | 68,9 | 55,8 | 43,9 |
| VARIO3-20 PVM 5-16 F | 2x2,2 | 3 ~ 400 | 2x5,4 | | 107,8 | 104,5 | 99,3 | 91 | 79,1 | 64,7 | 50,7 |
| VARIO3-20 PVM 5-18 F | 2x3 | 3 ~ 400 | 2x6,1 | | 121,5 | 117,8 | 112 | 102,7 | 89,3 | 71,1 | 57,4 |
| VARIO3-20 PVM 5-22 F | 2x4 | 3 ~ 400 | 2x7,5 | | 149 | 144,5 | 137,4 | 126,1 | 109,7 | 87,6 | 70,9 |
| VARIO3-20 PVM 5-24 F | 2x4 | 3 ~ 400 | 2x8,2 | | 162,7 | 157,8 | 150,1 | 137,8 | 119,9 | 95,9 | 77,7 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

OVERALL DIMENSIONS AND WEIGHTS

FIG. 1

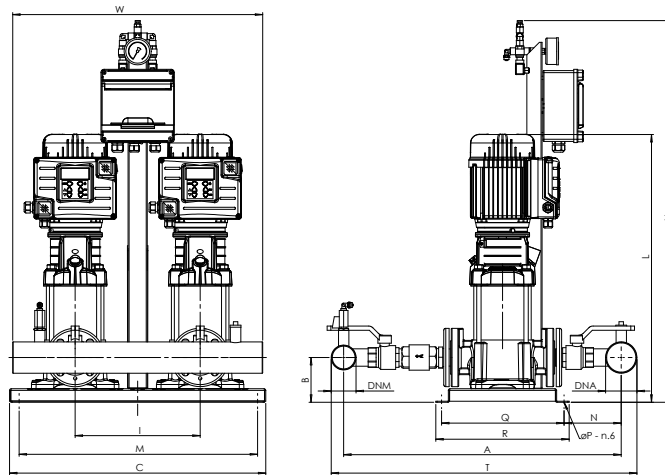


FIG. 2

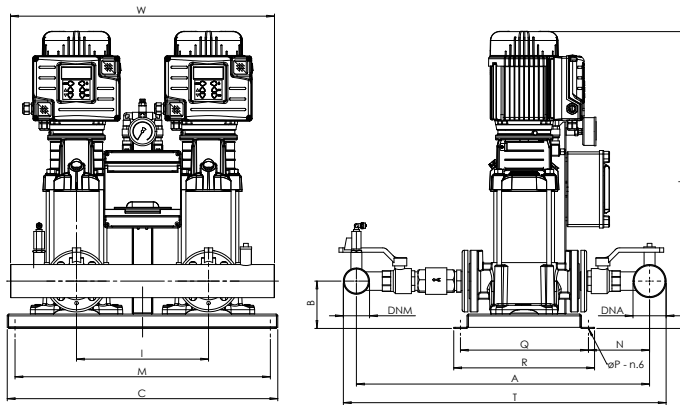
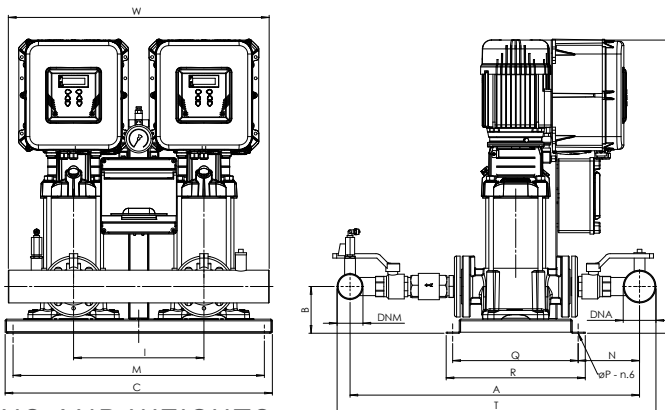


FIG. 3



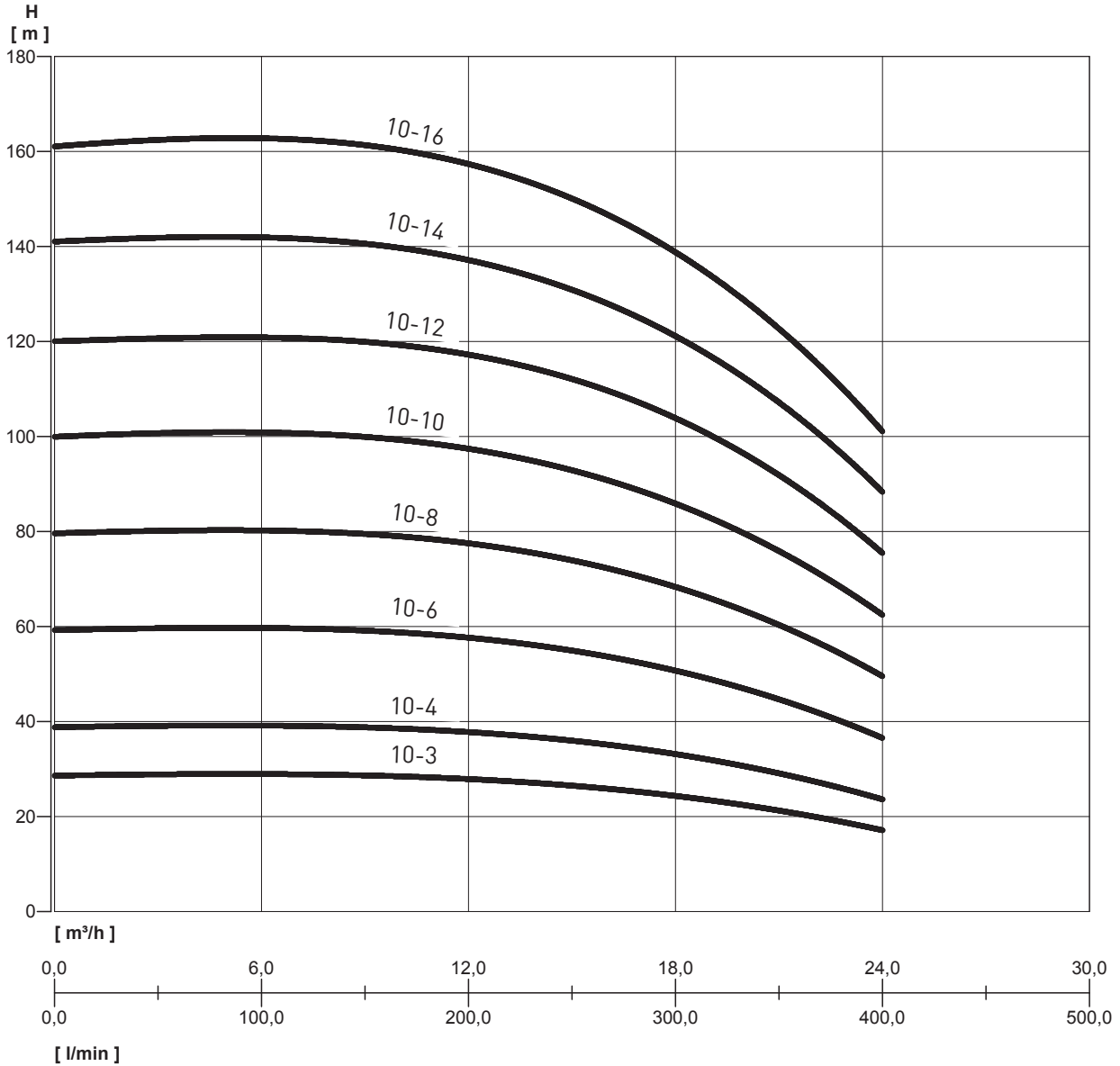
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Fig. | Dimensions mm. | | | | | | | | | | | | | | | WEIGHT Kg |
|----------------------|------|----------------|-----|-----|------|-----|-----|-------|-----|------|-----|-----|-----|-----|-----|-----|-----------|
| | | A | B | C | H | I | L | M | N | P | Q | R | T | W | DNA | DNM | |
| VARIO3-20 PVM 5-5 F | 1 | 690 | 108 | 615 | 910 | 300 | 634 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 76 |
| VARIO3-20 PVM 5-8 F | 2 | 690 | 108 | 615 | - | 300 | 715 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 80 |
| VARIO3-20 PVM 5-11 F | 2 | 690 | 108 | 615 | - | 300 | 844 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 92 |
| VARIO3-20 PVM 5-14 F | 2 | 690 | 108 | 615 | - | 300 | 925 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 98 |
| VARIO3-20 PVM 5-16 F | 2 | 690 | 108 | 615 | - | 300 | 979 | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 100 |
| VARIO3-20 PVM 5-18 F | 3 | 690 | 108 | 615 | 1091 | 300 | - | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 142 |
| VARIO3-20 PVM 5-22 F | 3 | 690 | 108 | 615 | 1206 | 300 | - | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 153 |
| VARIO3-20 PVM 5-24 F | 3 | 690 | 108 | 615 | 1260 | 300 | - | 578,5 | 145 | 10,5 | 290 | 320 | 757 | 600 | 2" | 2" | 155 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | 0 | l/min | 0 | 100 | 200 | 300 | 400 |
|-----------------------|-------|-----------|--------|--------|-------|------|------|-------|------|-----|
| | kW | | | | m³/h | 0 | 6 | 12 | 18 | 24 |
| VARIO3-20 PVM 10-3 F | 2x1,1 | 3 ~ 400 | 2x2,4 | m.c.w. | 28,6 | 29 | 27,8 | 24,4 | 17,1 | |
| VARIO3-20 PVM 10-4 F | 2x1,5 | 3 ~ 400 | 2x3,2 | | 38,8 | 39,2 | 37,7 | 33,2 | 23,6 | |
| VARIO3-20 PVM 10-6 F | 2x2,2 | 3 ~ 400 | 2x4,8 | | 59,2 | 59,8 | 57,5 | 50,8 | 36,5 | |
| VARIO3-20 PVM 10-8 F | 2x3 | 3 ~ 400 | 2x6,4 | | 79,6 | 80,3 | 77,4 | 68,4 | 49,5 | |
| VARIO3-20 PVM 10-10 F | 2x4 | 3 ~ 400 | 2x8 | | 99,9 | 101 | 97,2 | 86 | 62,4 | |
| VARIO3-20 PVM 10-12 F | 2x4 | 3 ~ 400 | 2x9,6 | | 120 | 121 | 117 | 104 | 75,4 | |
| VARIO3-20 PVM 10-14 F | 2x5,5 | 3 ~ 400 | 2x11 | | 141 | 142 | 137 | 121,2 | 88,3 | |
| VARIO3-20 PVM 10-16 F | 2x5,5 | 3 ~ 400 | 2x13 | | 161 | 163 | 157 | 139 | 101 | |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

OVERALL DIMENSIONS AND WEIGHTS

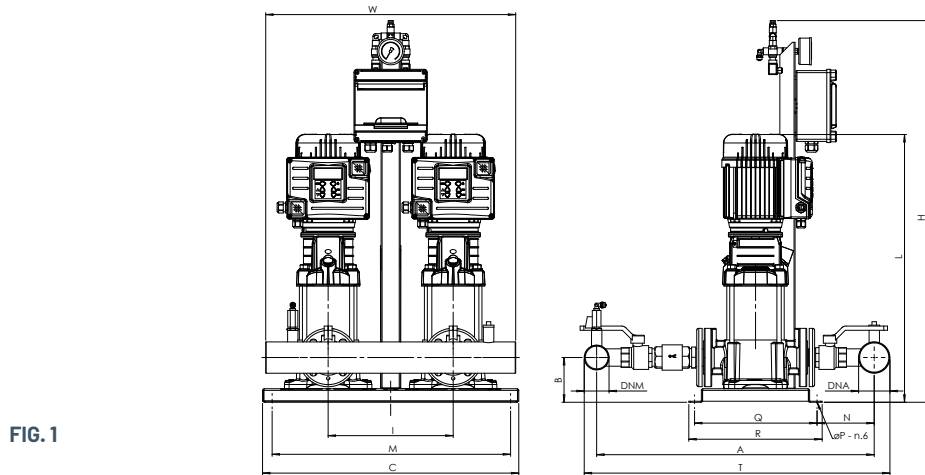


FIG. 1

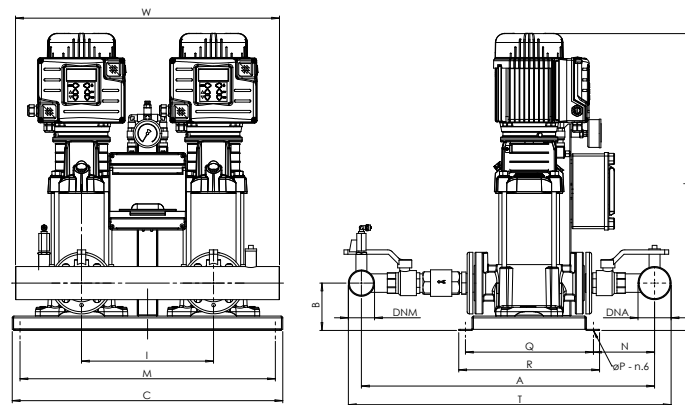


FIG. 2

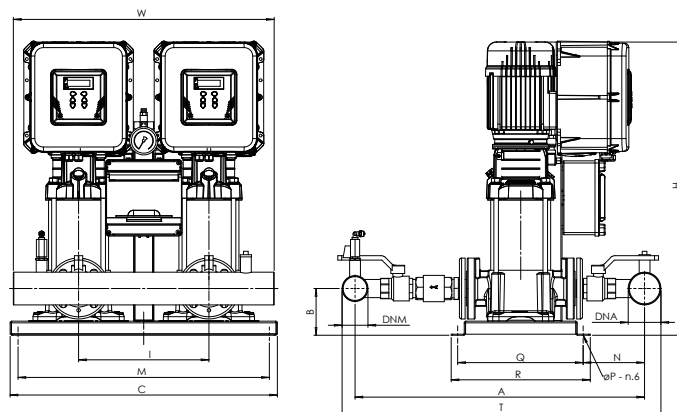


FIG. 3

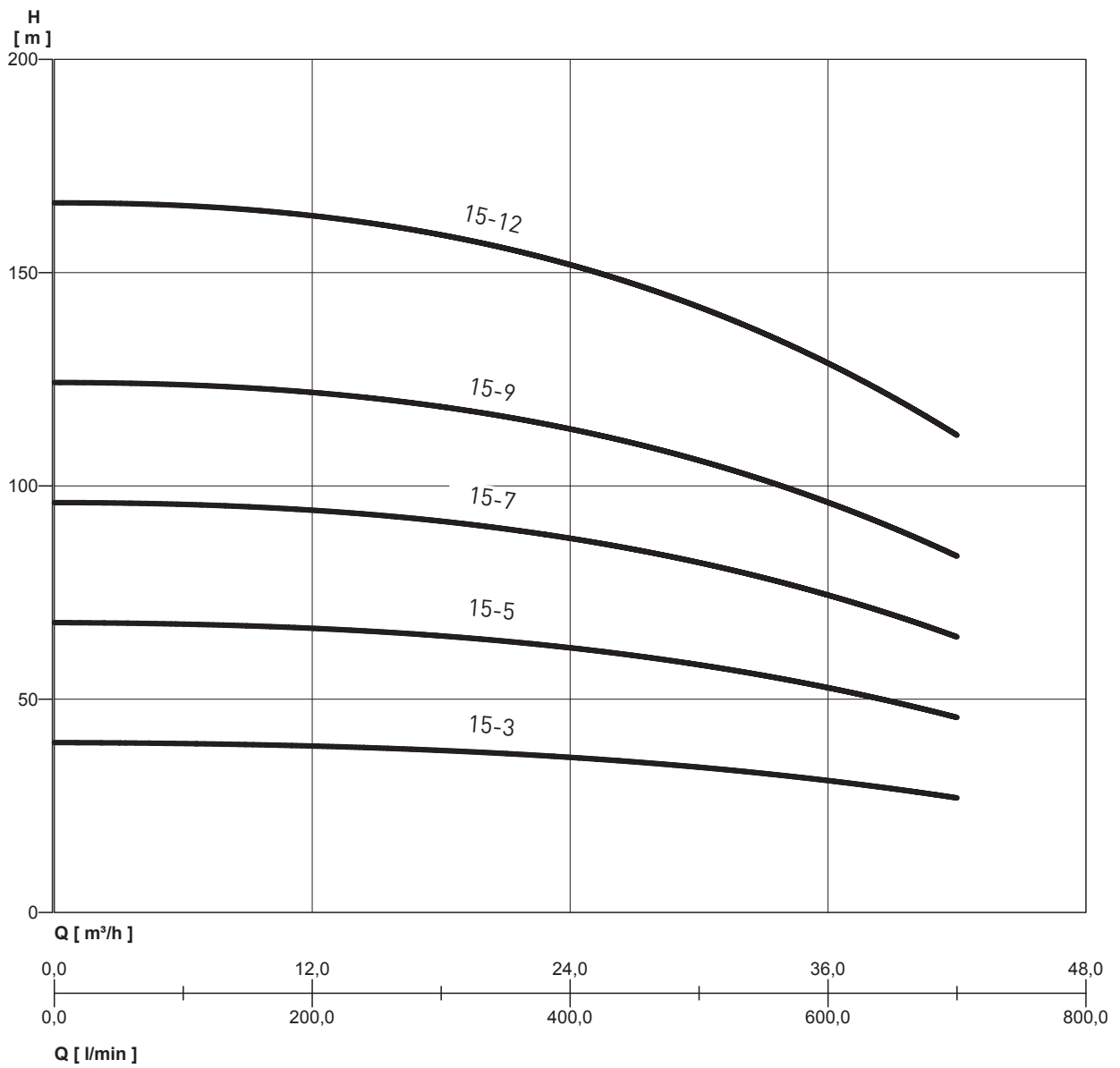
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Fig. | Dimensions mm. | | | | | | | | | | | | | | WEIGHT Kg | |
|-----------------------|------|----------------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|--------|-----------|-----|
| | | A | B | C | H | I | L | M | N | P | Q | R | T | W | DNA | | DNM |
| VARIO3-20 PVM 10-3 F | 1 | 720 | 113 | 620 | 910 | 370 | 645 | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 85 |
| VARIO3-20 PVM 10-4 F | 2 | 720 | 113 | 620 | - | 370 | 723 | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 105 |
| VARIO3-20 PVM 10-6 F | 2 | 720 | 113 | 620 | - | 370 | 783 | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 115 |
| VARIO3-20 PVM 10-8 F | 3 | 720 | 113 | 620 | 902 | 370 | - | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 135 |
| VARIO3-20 PVM 10-10 F | 3 | 720 | 113 | 620 | 969 | 370 | - | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 140 |
| VARIO3-20 PVM 10-12 F | 3 | 720 | 113 | 620 | 1029 | 370 | - | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 145 |
| VARIO3-20 PVM 10-14 F | 3 | 720 | 113 | 620 | 1158 | 370 | - | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 150 |
| VARIO3-20 PVM 10-16 F | 3 | 720 | 113 | 620 | 1218 | 370 | - | 590 | 158 | 10,5 | 290 | 320 | 795 | 670 | 2-1/2" | 2-1/2" | 155 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE

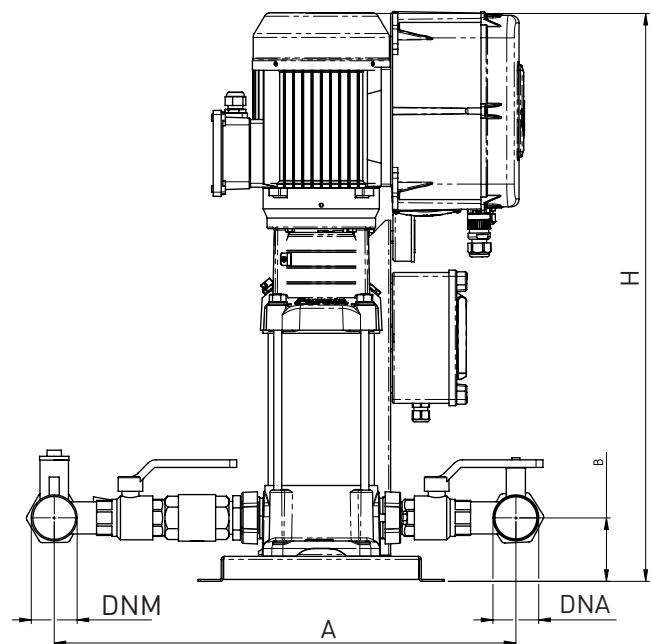
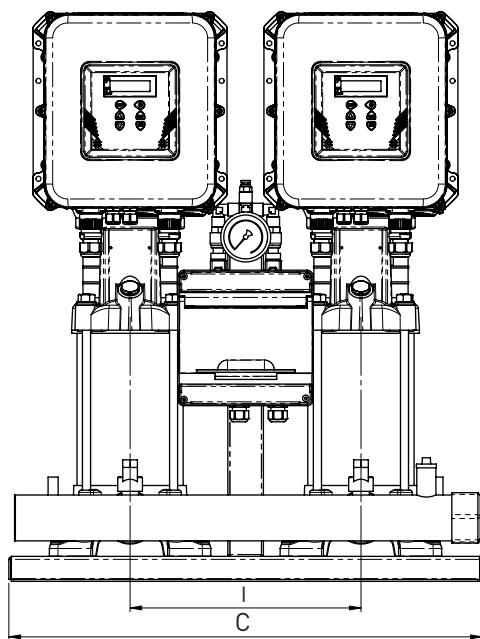


VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | Q | m.c.w. | | | | | | | |
|-----------------------|-------|-----------|--------|---|--------|-------|-------|-------|-------|-------|-------|------|
| | kW | | | | l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 |
| | | | | | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 |
| VARIO3-20 PVM 15-3 F | 2x3 | 3 ~ 400 | 2x5,1 | | 39,8 | 39,6 | 39,2 | 37,8 | 36,3 | 34,1 | 31 | 26,8 |
| VARIO3-20 PVM 15-5 F | 2x4 | 3 ~ 400 | 2x8,5 | | 68 | 67,4 | 66,9 | 64,7 | 62 | 58,1 | 52,7 | 45,7 |
| VARIO3-20 PVM 15-7 F | 2x5,5 | 3 ~ 400 | 2x12 | | 96,2 | 95,3 | 94,7 | 91,6 | 87,7 | 82 | 74,4 | 64,6 |
| VARIO3-20 PVM 15-9 F | 2x7,5 | 3 ~ 400 | 2x15 | | 124,4 | 123,2 | 122,4 | 118,4 | 113,4 | 106 | 96 | 83,6 |
| VARIO3-20 PVM 15-12 F | 2x11 | 3 ~ 400 | 2x20 | | 166,6 | 165 | 163,9 | 158,8 | 151,9 | 141,9 | 128,6 | 112 |



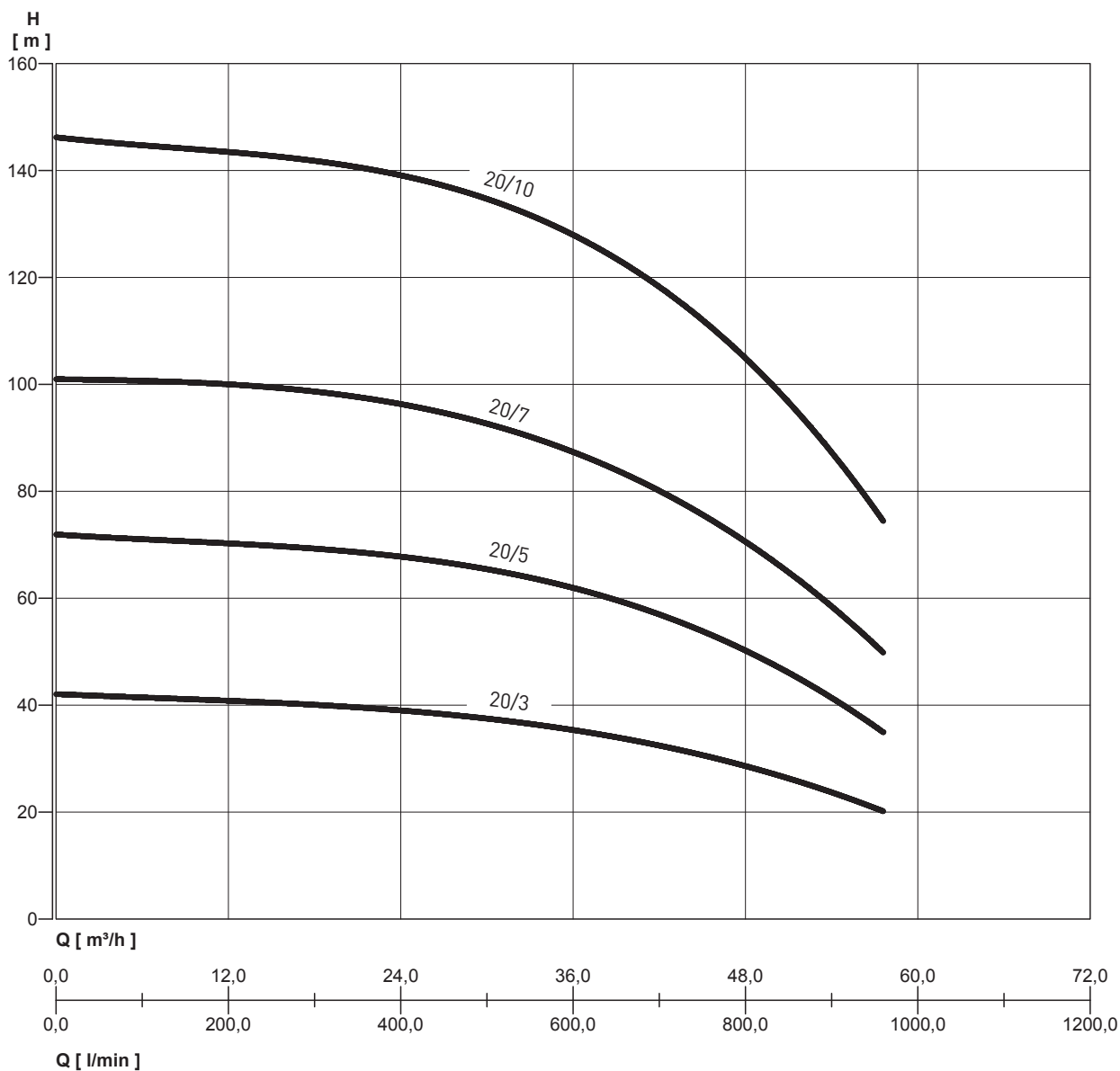
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions mm. | | | | | | | WEIGHT Kg |
|-----------------------|----------------|-----|-----|------|-----|-----|-----|-----------|
| | A | B | C | H | I | DNA | DNM | |
| VARIO3-20 PVM 15-3 F | 850 | 125 | 710 | 816 | 360 | 3" | 3" | 140 |
| VARIO3-20 PVM 15-5 F | 850 | 125 | 710 | 913 | 360 | 3" | 3" | 160 |
| VARIO3-20 PVM 15-7 F | 850 | 125 | 710 | 1072 | 360 | 3" | 3" | 210 |
| VARIO3-20 PVM 15-9 F | 850 | 125 | 710 | 1182 | 360 | 3" | 3" | 226 |
| VARIO3-20 PVM 15-12 F | 850 | 125 | 710 | 1507 | 360 | 3" | 3" | 250 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE

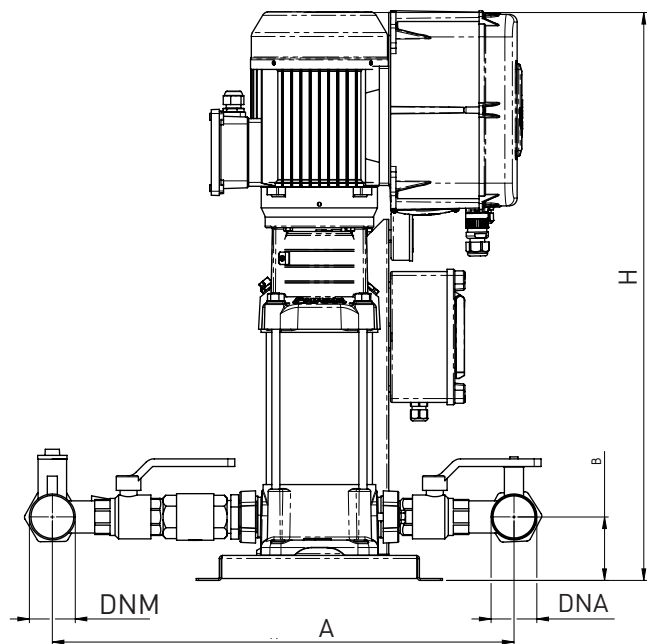
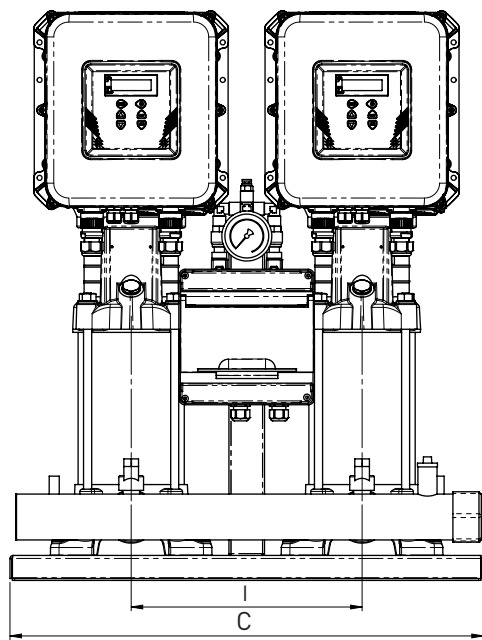


VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | Q | l/min | 0 | 200 | 400 | 600 | 800 | 960 |
|-----------------------|-------|-----------|--------|---|--------|-----|-----|-----|-----|-----|------|
| | kW | | | | | 0 | 12 | 24 | 36 | 48 | 57,6 |
| VARIO3-20 PVM 20-3 F | 2x4 | 3 ~ 400 | 2x8,5 | 0 | m.c.w. | 42 | 41 | 39 | 35 | 29 | 20 |
| VARIO3-20 PVM 20-5 F | 2x5,5 | 3 ~ 400 | 2x11,9 | | | 72 | 70 | 68 | 62 | 50 | 35 |
| VARIO3-20 PVM 20-7 F | 2x7,5 | 3 ~ 400 | 2x15,3 | | | 101 | 100 | 96 | 88 | 70 | 50 |
| VARIO3-20 PVM 20-10 F | 2x11 | 3 ~ 400 | 2x20,4 | | | 146 | 144 | 139 | 127 | 106 | 74 |



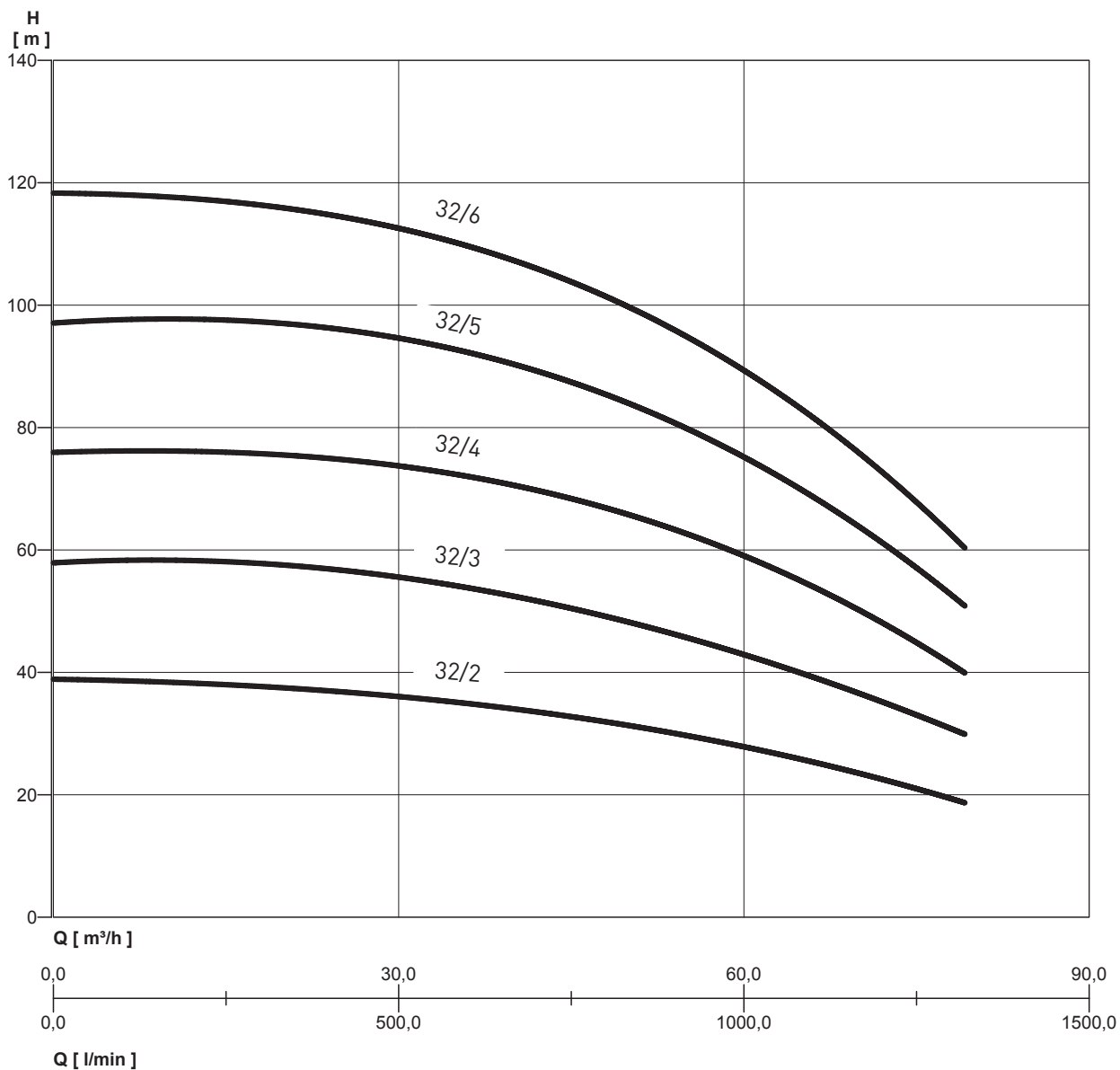
PERFORMANCE TABLE

| MODEL | Dimensions mm. | | | | | | | WEIGHT Kg |
|-----------------------|----------------|-----|-----|------|-----|-----|-----|-----------|
| | A | B | C | H | I | DNA | DNM | |
| VARIO3-20 PVM 20-3 F | 850 | 125 | 710 | 690 | 360 | 3" | 3" | 140 |
| VARIO3-20 PVM 20-5 F | 850 | 125 | 710 | 845 | 360 | 3" | 3" | 160 |
| VARIO3-20 PVM 20-7 F | 850 | 125 | 710 | 992 | 360 | 3" | 3" | 180 |
| VARIO3-20 PVM 20-10 F | 850 | 125 | 710 | 1122 | 360 | 3" | 3" | 210 |

VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

HYDRAULIC PERFORMANCE

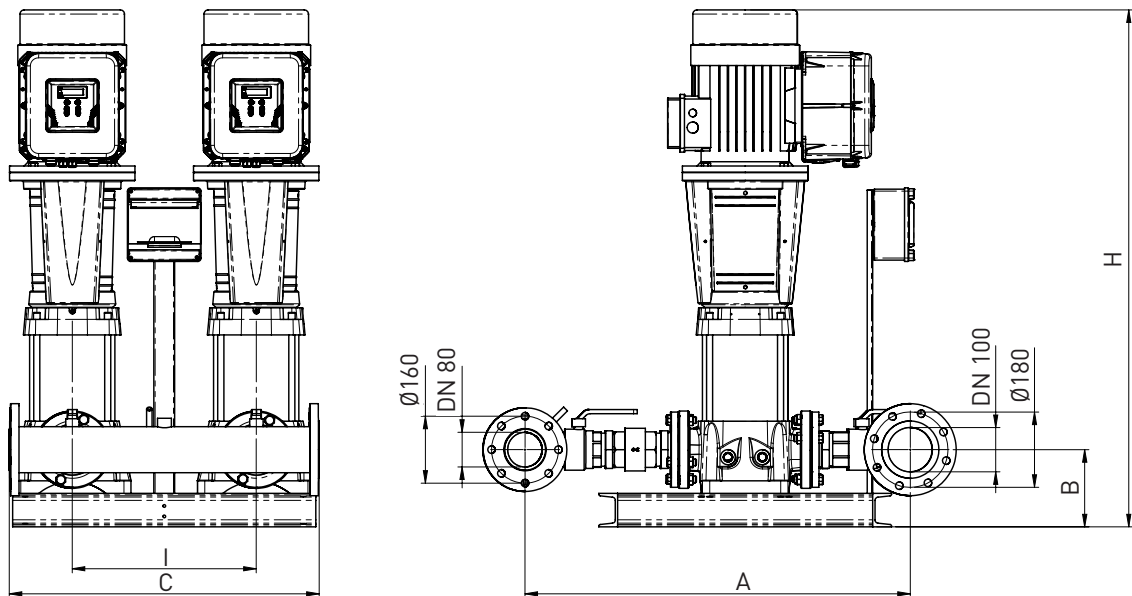


VARIO 3-20 PVM

THREE-PHASE PRESSURE BOOSTER SET WITH TWO VARIABLE SPEED PUMPS

PERFORMANCE TABLE

| MODEL | P2 | VOLT. (V) | In (A) | Q | l/min | 0 | 12 | 24 | 36 | 48 | 60 | 72 | 79,2 |
|----------------------|-------|-----------|--------|--------|-------------------|-----|-----|-----|-----|-----|------|------|------|
| | kW | | | | m ³ /h | 0 | 200 | 400 | 600 | 800 | 1000 | 1200 | 1320 |
| VARIO3-20 PVM 32-2 F | 2x4 | 3 ~ 400 | 2x7,1 | m.c.w. | 39 | 38 | 37 | 35 | 32 | 28 | 22 | 19 | |
| VARIO3-20 PVM 32-3 F | 2x5,5 | 3 ~ 400 | 2x10,7 | | 58 | 58 | 57 | 54 | 49 | 43 | 35 | 30 | |
| VARIO3-20 PVM 32-4 F | 2x7,5 | 3 ~ 400 | 2x14,3 | | 76 | 76 | 75 | 72 | 67 | 59 | 48 | 40 | |
| VARIO3-20 PVM 32-5 F | 2x11 | 3 ~ 400 | 2x17,8 | | 97 | 98 | 96 | 92 | 86 | 75 | 61 | 51 | |
| VARIO3-20 PVM 32-6 F | 2x11 | 3 ~ 400 | 2x21,4 | | 118 | 118 | 115 | 109 | 101 | 90 | 73 | 60 | |



OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions mm. | | | | | | | WEIGHT Kg |
|----------------------|----------------|-----|-----|------|-----|-----|-----|-----------|
| | A | B | C | H | I | DNA | DNM | |
| VARIO3-20 PVM 32-2 F | 950 | 185 | 750 | 982 | 440 | 4" | 3" | 300 |
| VARIO3-20 PVM 32-3 F | 950 | 185 | 750 | 1089 | 440 | 4" | 3" | 320 |
| VARIO3-20 PVM 32-4 F | 950 | 185 | 750 | 1179 | 440 | 4" | 3" | 360 |
| VARIO3-20 PVM 32-5 F | 950 | 185 | 750 | 1472 | 440 | 4" | 3" | 380 |
| VARIO3-20 PVM 32-6 F | 950 | 185 | 750 | 1542 | 440 | 4" | 3" | 420 |