



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

PUMP FEATURES

FIELD OF USE

- Maximum temperature of the liquid: 110°C
- Maximum working pressure: 10 bar
- Maximum chlorine content: 500 ppm

MATERIALS

- Pump body, impeller, intermediate body, and seal housing disc and shaft in AISI 304
- Mechanical sealing in Carbon/Ceramic/EPDM
- Support and motor casing in aluminium

TECHNICAL DATA

- Self-ventilated 2 pole asynchronous 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

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 inlet, 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 fuses
- Auxiliary circuit protection fuses
- Protection rating IP 55
- Line main isolating device with door lock
- Aut - 0 - man. switches for each pump
- Reset circuit breaker protection
- Indicator LED:
 - 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.



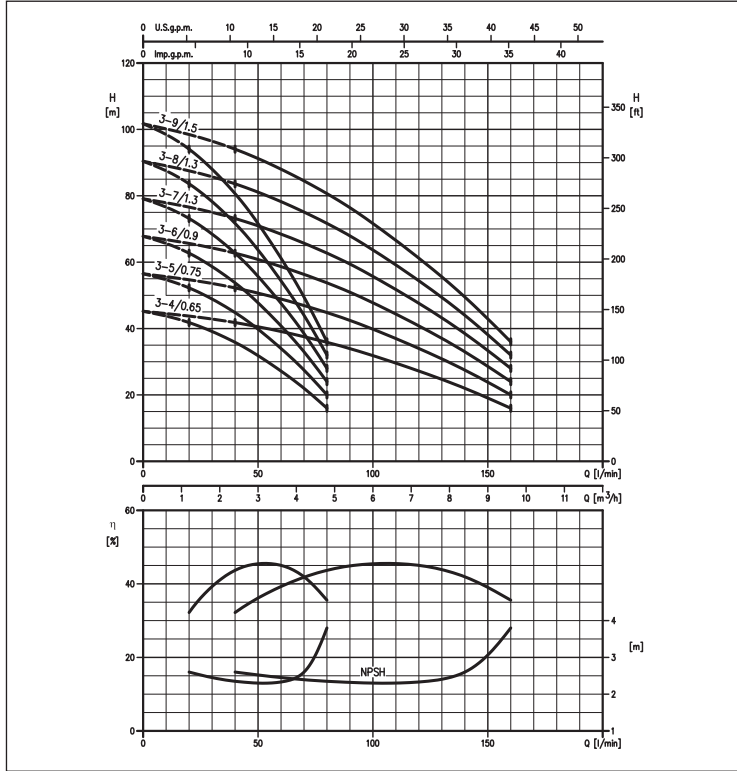


2GP MATRIX

DOMESTIC PRESSURE BOOSTING

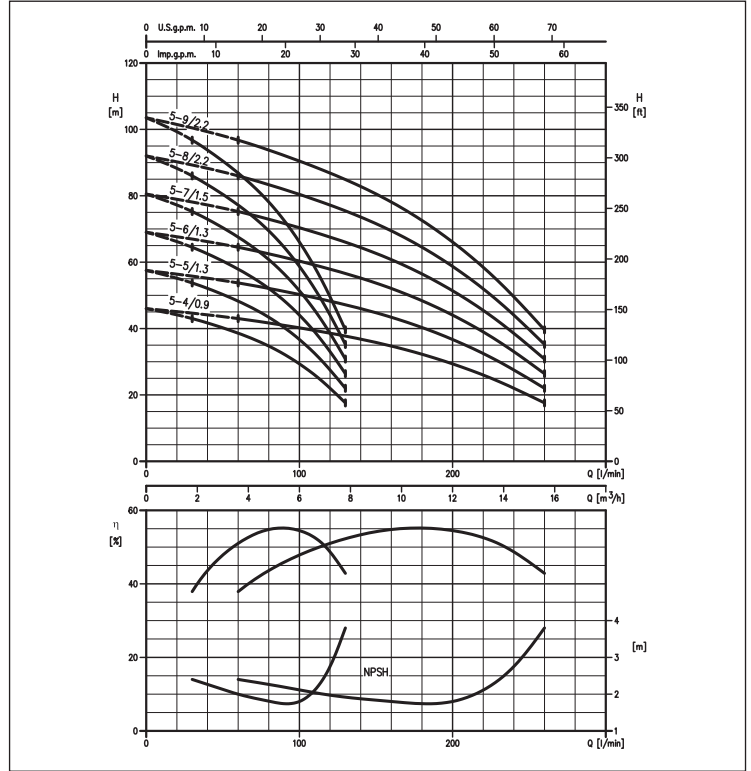
2GP MATRIX 3 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



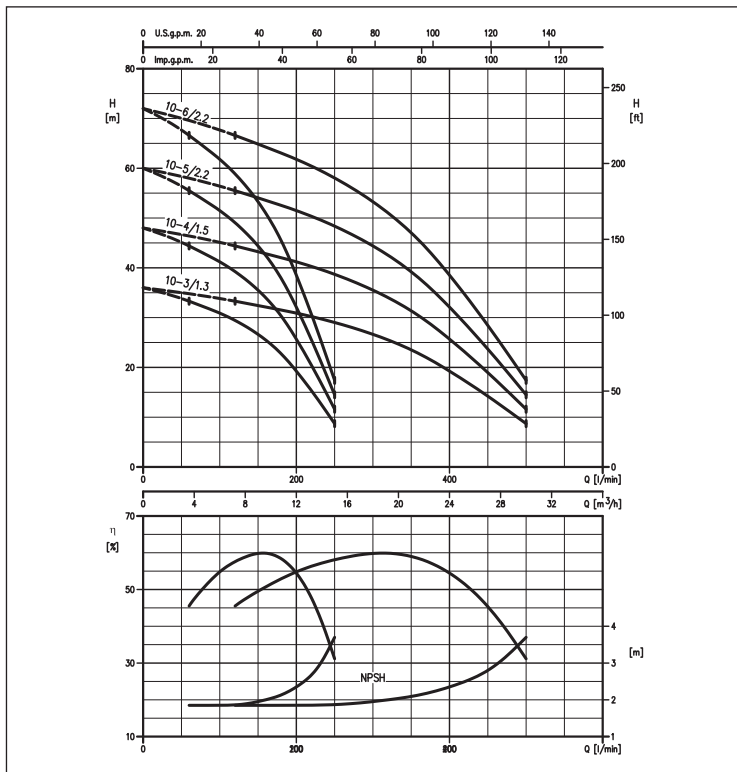
2GP MATRIX 5 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



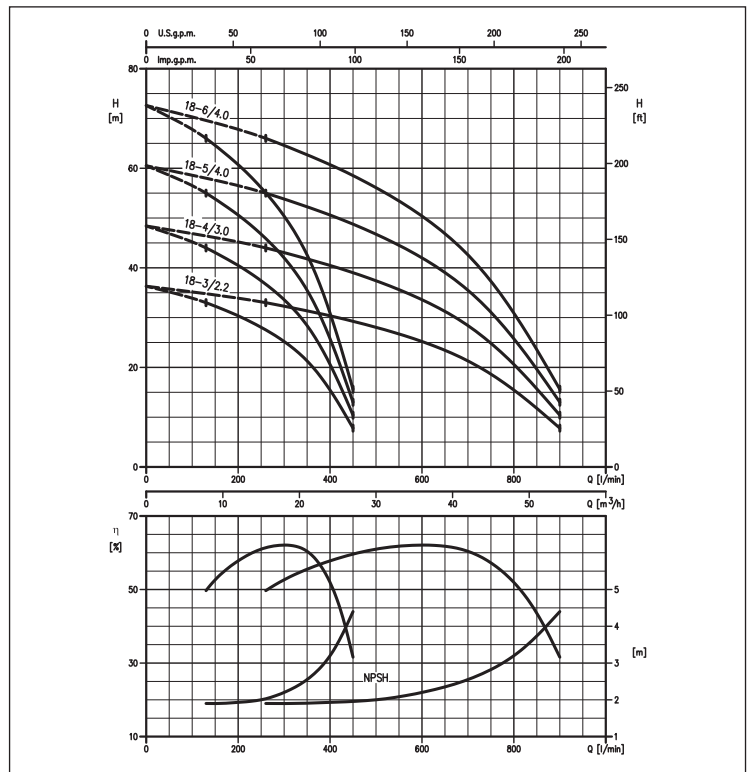
2GP MATRIX 10 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



2GP MATRIX 18 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



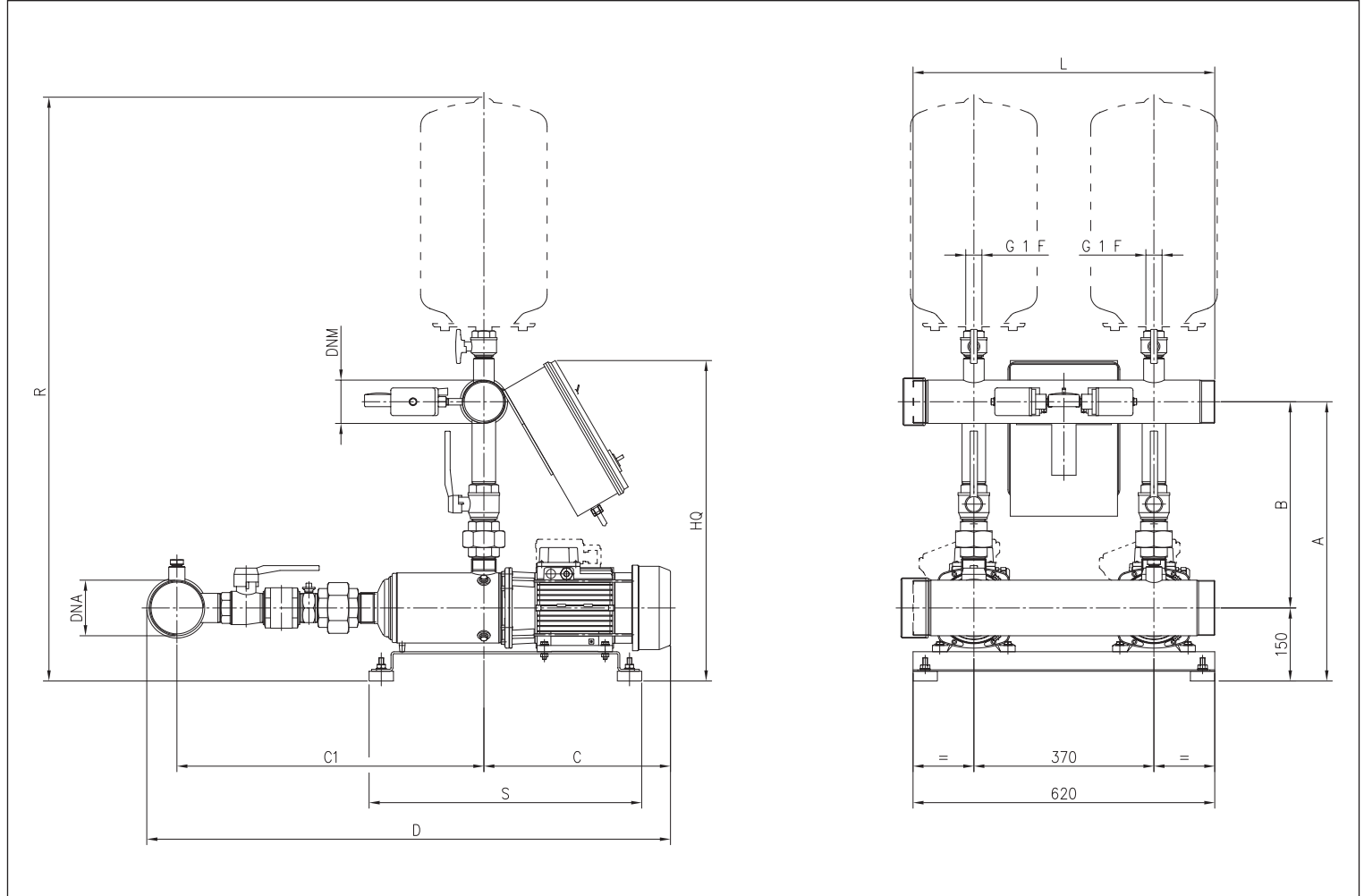
2GP MATRIX

DOMESTIC PRESSURE BOOSTING

PERFORMANCE TABLE AND ELECTRIC DATA OF THE TWO PUMPS FUNCTIONING SIMULTANEOUSLY

| 230V single phase | Model 400V three-phase | [kW] | Max absorption [A] | | Q=Flow rate | | | | | | | | | | | | | | | |
|----------------------|------------------------------|-----------|----------------------|---------------------|---------------|-----------|-----------|------------|------------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| | | | 230V single phase | 400V three-phase | l/min m³/h | 40 2,4 | 60 3,6 | 120 7,2 | 160 9,6 | 200 12 | 260 15,6 | 320 19,2 | 400 24 | 500 30 | 600 36 | 700 42 | 800 48 | 900 54 | | |
| MATRIX 3-4/0.65M | MATRIX 3-4/0.65 | 0,65+0,65 | 9 | 3,2 | 42,0 | 39,1 | 27,2 | 16,0 | - | - | - | - | - | - | - | - | - | - | | |
| MATRIX 3-5/0.75M | MATRIX 3-5/0.75 | 0,75+0,75 | 10,8 | 5 | 52,5 | 49,0 | 34,0 | 20,0 | - | - | - | - | - | - | - | - | - | - | | |
| MATRIX 3-6/0.9M | MATRIX 3-6/0.9 | 0,9+0,9 | 11,4 | 5,2 | 62,5 | 58,5 | 41,0 | 24,0 | - | - | - | - | - | - | - | - | - | - | | |
| MATRIX 3-7/1.3M | MATRIX 3-7/1.3 | 1,3+1,3 | 15,6 | 7 | 73,0 | 68,5 | 47,5 | 28,0 | - | - | - | - | - | - | - | - | - | - | | |
| MATRIX 3-8/1.3M | MATRIX 3-8/1.3 | 1,3+1,3 | 15,6 | 7 | 83,5 | 78,0 | 54,5 | 32,0 | - | - | - | - | - | - | - | - | - | - | | |
| MATRIX 3-9/1.5M | MATRIX 3-9/1.5 | 1,5+1,5 | 17,4 | 6,8 | 94,0 | 88,0 | 61,0 | 36,0 | - | - | - | - | - | - | - | - | - | - | | |
| MATRIX 5-4/0.9M | MATRIX 5-4/0.9 | 0,9+0,9 | 11,4 | 5,2 | - | 43,0 | 38,6 | 34,7 | 29,4 | 17,6 | - | - | - | - | - | - | - | - | | |
| MATRIX 5-5/1.3M | MATRIX 5-5/1.3 | 1,3+1,3 | 15,6 | 7 | - | 54,0 | 48,5 | 43,5 | 36,7 | 22,0 | - | - | - | - | - | - | - | - | | |
| MATRIX 5-6/1.3M | MATRIX 5-6/1.3 | 1,3+1,3 | 15,6 | 7 | - | 64,5 | 58,0 | 52,0 | 44,0 | 26,4 | - | - | - | - | - | - | - | - | | |
| MATRIX 5-7/1.5M | MATRIX 5-7/1.5 | 1,5+1,5 | 17,4 | 6,8 | - | 75,5 | 67,5 | 61,0 | 51,5 | 30,8 | - | - | - | - | - | - | - | - | | |
| MATRIX 5-8/2.2M | MATRIX 5-8/2.2 | 2,2+2,2 | 26 | 9,2 | - | 86,0 | 77,0 | 69,5 | 58,5 | 35,2 | - | - | - | - | - | - | - | - | | |
| MATRIX 5-9/2.2M | MATRIX 5-9/2.2 | 2,2+2,2 | 26 | 9,2 | - | 97,0 | 87,0 | 78,0 | 66,0 | 39,6 | - | - | - | - | - | - | - | - | | |
| MATRIX 10-3/1.3M | MATRIX 10-3/1.3 | 1,3+1,3 | 15,6 | 7 | - | - | 33,3 | 32,1 | 30,9 | 28,6 | 25,5 | 19,3 | 8,7 | - | - | - | - | - | | |
| MATRIX 10-4/1.5M | MATRIX 10-4/1.5 | 1,5+1,5 | 17,4 | 6,8 | - | - | 44,5 | 43,0 | 41,0 | 38,1 | 34,0 | 25,7 | 11,6 | - | - | - | - | - | | |
| MATRIX 10-5/2.2M | MATRIX 10-5/2.2 | 2,2+2,2 | 26 | 9,2 | - | - | 55,5 | 53,5 | 51,5 | 47,5 | 42,5 | 32,1 | 14,5 | - | - | - | - | - | | |
| MATRIX 10-6/2.2M | MATRIX 10-6/2.2 | 2,2+2,2 | 26 | 9,2 | - | - | 66,5 | 64,5 | 62,0 | 57,0 | 51,0 | 38,5 | 17,4 | - | - | - | - | - | | |
| MATRIX 18-3/2.2M | MATRIX 18-3/2.2 | 2,2+2,2 | 26 | 9,2 | - | - | - | - | - | 33,0 | 31,9 | 30,4 | 28,1 | 25,2 | 21,3 | 15,5 | 7,8 | - | | |
| - | MATRIX 18-4/3.0 | 3+3 | - | 12,6 | - | - | - | - | - | 44,0 | 42,5 | 40,5 | 37,4 | 33,6 | 28,4 | 20,6 | 10,4 | - | | |
| - | MATRIX 18-5/4.0 | 4+4 | - | 16,2 | - | - | - | - | - | 55,0 | 53,0 | 50,5 | 47,0 | 42,0 | 35,5 | 25,8 | 13,0 | - | | |
| - | MATRIX 18-6/4.0 | 4+4 | - | 16,2 | - | - | - | - | - | 66,0 | 64,0 | 60,5 | 56,0 | 50,5 | 42,5 | 30,9 | 15,6 | - | | |

DIMENSIONS



2GP MATRIX

DOMESTIC PRESSURE BOOSTING

DIMENSIONS TABLE

| Model | | A | B | C | C1 | D | Dimensions [mm] | | HQ | | L | R | S | Weight [kg] | |
|----------------------|----------------------|-----|-----|-----|-----|------|-----------------|-----|-----|-----|-----|------|-----|-------------|-------|
| | | | | | | | DNA | DNM | [2] | [1] | | | | [2] | [1] |
| 2GP MATRIX 3-4M/0,65 | 2GP MATRIX 3-4T/0,65 | 490 | 340 | 255 | 450 | 740 | 50 | 40 | 550 | 565 | 520 | 1100 | 380 | 54,0 | 54,0 |
| 2GP MATRIX 3-5M/0,75 | 2GP MATRIX 3-5T/0,75 | 490 | 340 | 255 | 475 | 765 | 50 | 40 | 550 | 565 | 520 | 1100 | 380 | 58,0 | 58,0 |
| 2GP MATRIX 3-6M/0,9 | 2GP MATRIX 3-6T/0,9 | 490 | 340 | 255 | 500 | 790 | 50 | 40 | 550 | 565 | 520 | 1100 | 380 | 61,0 | 61,0 |
| 2GP MATRIX 3-7M/1,3 | 2GP MATRIX 3-7T/1,3 | 490 | 340 | 295 | 520 | 850 | 50 | 40 | 550 | 565 | 520 | 1100 | 550 | 68,0 | 68,0 |
| 2GP MATRIX 3-8M/1,3 | 2GP MATRIX 3-8T/1,3 | 490 | 340 | 295 | 545 | 875 | 50 | 40 | 550 | 565 | 520 | 1100 | 550 | 68,0 | 69,0 |
| 2GP MATRIX 3-9M/1,5 | 2GP MATRIX 3-9T/1,5 | 490 | 340 | 295 | 570 | 900 | 50 | 40 | 550 | 565 | 520 | 1100 | 550 | 72,0 | 71,0 |
| 2GP MATRIX 5-4M/0,9 | 2GP MATRIX 5-4T/0,9 | 500 | 350 | 295 | 490 | 825 | 65 | 50 | 560 | 575 | 520 | 1110 | 380 | 62,0 | 62,0 |
| 2GP MATRIX 5-5M/1,3 | 2GP MATRIX 5-5T/1,3 | 500 | 350 | 295 | 515 | 850 | 65 | 50 | 560 | 575 | 520 | 1110 | 380 | 67,0 | 66,0 |
| 2GP MATRIX 5-6M/1,3 | 2GP MATRIX 5-6T/1,3 | 500 | 350 | 295 | 535 | 875 | 65 | 50 | 560 | 575 | 520 | 1110 | 380 | 70,0 | 69,0 |
| 2GP MATRIX 5-7M/1,5 | 2GP MATRIX 5-7T/1,5 | 500 | 350 | 295 | 560 | 895 | 65 | 50 | 560 | 575 | 520 | 1110 | 550 | 75,0 | 74,0 |
| 2GP MATRIX 5-8M/2,2 | 2GP MATRIX 5-8T/2,2 | 500 | 350 | 305 | 585 | 935 | 65 | 50 | 575 | 575 | 520 | 1110 | 550 | 86,0 | 78,0 |
| 2GP MATRIX 5-9M/2,2 | 2GP MATRIX 5-9T/2,2 | 500 | 350 | 305 | 610 | 960 | 65 | 50 | 575 | 575 | 520 | 1110 | 550 | 86,0 | 78,0 |
| 2GP MATRIX 10-3M/1,3 | 2GP MATRIX 10-3T/1,3 | 515 | 365 | 300 | 510 | 855 | 80 | 65 | 585 | 600 | 520 | 1135 | 380 | 72,0 | 70,0 |
| 2GP MATRIX 10-4M/1,5 | 2GP MATRIX 10-4T/1,5 | 515 | 365 | 300 | 540 | 885 | 80 | 65 | 585 | 600 | 520 | 1135 | 380 | 73,0 | 73,0 |
| 2GP MATRIX 10-5M/2,2 | 2GP MATRIX 10-5T/2,2 | 515 | 365 | 310 | 570 | 930 | 80 | 65 | 600 | 600 | 520 | 1135 | 380 | 85,0 | 78,0 |
| 2GP MATRIX 10-6M/2,2 | 2GP MATRIX 10-6T/2,2 | 515 | 365 | 310 | 600 | 960 | 80 | 65 | 600 | 600 | 520 | 1135 | 550 | 89,0 | 81,0 |
| 2GP MATRIX 18-3M/2,2 | 2GP MATRIX 18-3T/2,2 | 575 | 425 | 315 | 520 | 895 | 100 | 80 | 660 | 660 | 620 | 1200 | 380 | 94,0 | 87,0 |
| - | 2GP MATRIX 18-4T/3,0 | 575 | 425 | 350 | 555 | 965 | 100 | 80 | 660 | 660 | 620 | 1200 | 550 | - | 98,0 |
| - | 2GP MATRIX 18-5T/3,8 | 575 | 425 | 385 | 595 | 1000 | 100 | 80 | 660 | 660 | 620 | 1200 | 550 | - | 109,0 |
| - | 2GP MATRIX 18-6T/4,0 | 575 | 425 | 385 | 630 | 1075 | 100 | 80 | 660 | 660 | 620 | 1200 | 550 | - | 111,0 |

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

Booster & Fire-Fighting

