

09/2016



water passion



### Construction

Vertical multi-stage close coupled pumps in **chrome-nickel stainless steel, with motor shields in brass.**

Suction connection on the lower casing and delivery connection on the top casing. Motor cooled by the pumped water passing between the motor jacket and the external jacket.

Double mechanical shaft seal with interposed oil chamber.

### Applications

For clean water without abrasives or additives aggressive for the materials of the pump.

For domestic, civil and industrial applications.

For installation in confined space with minimum ventilation.

For installation in locations subject to risk of temporary flooding.

For installation in areas exposed to water jetting.

When low-noise operation is required.

### Operating conditions

Water temperature up to 35 °C.

Maximum permissible pressure in the pump casing: 10 bar.

Continuous duty.

### Motor

2-pole induction motor, 50 Hz ( $n \approx 2900$  rpm).

**MXSU** : three-phase 230 V  $\pm 10\%$ ;

three-phase 400 V  $\pm 10\%$ .

**MXSUM** : single-phase 230 V  $\pm 10\%$ , with thermal protector.

**Control box with capacitor, on request.**

Cable: H07RN8-F, 4 G 1 mm<sup>2</sup>, length 2 m.

Insulation class F.

Protection IP 68.

Triple impregnation humidity-proof dry winding.

Constructed in accordance with: EN 60034-1;

EN 60335-1, EN 60335-2-41.

### Materials

| Component             | Material                                          |
|-----------------------|---------------------------------------------------|
| External jacket       | Chrome-nickel steel<br>1.4301 EN 10088 (AISI 304) |
| Suction casing        |                                                   |
| Stage casing          |                                                   |
| Impeller              |                                                   |
| Oil chamber cover     |                                                   |
| Spacer sleeve         |                                                   |
| Motor jacket          |                                                   |
| Shaft                 | Chrome-nickel steel 1.4305 EN 10088 (AISI 303)    |
| Motor shield          | Brass P- Cu Zn 40 Pb 2 UNI 5705                   |
| Elbow                 |                                                   |
|                       | Brass P- Cu Zn 40 Pb 2 UNI 5705 nickel-plated     |
| Upper mechanical seal | Steatite, carbon, NBR                             |
| Lower mechanical seal | Ceramic alumina, silicon carbide, NBR             |
| Seal lubrication oil  | Oil for food machinery and pharmaceutic use       |

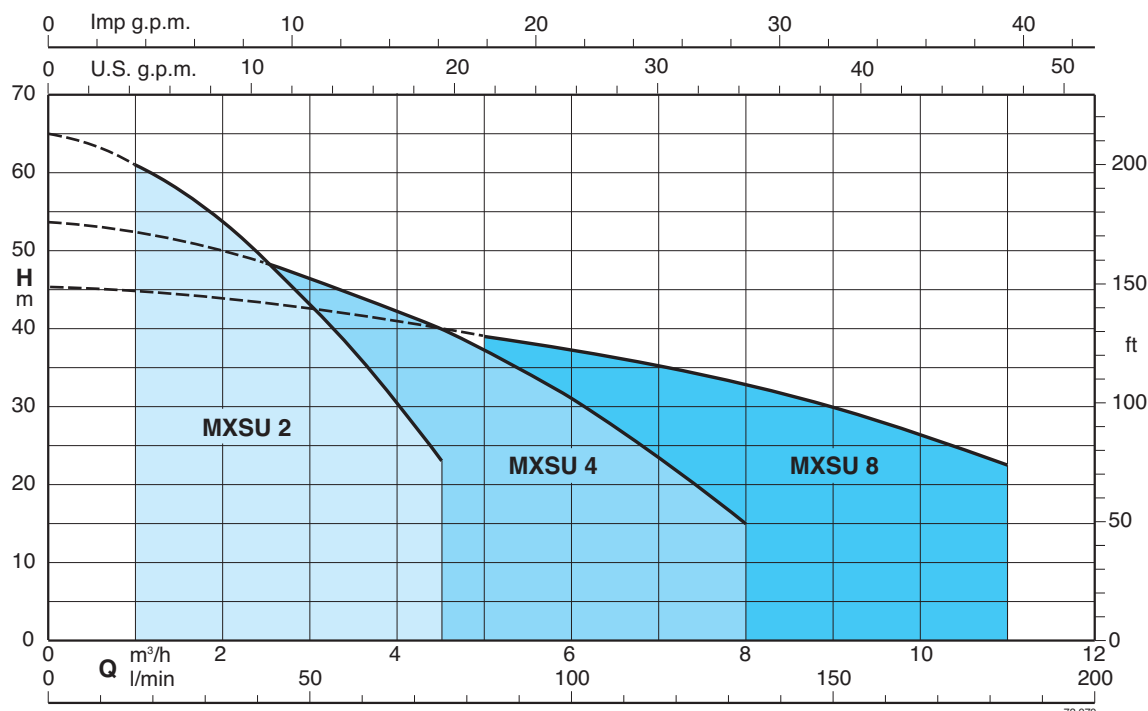
### Special features on request

- Other voltages.

- Frequency 60 Hz (as per 60 Hz data sheet).

- Motor suitable for operation with frequency converter.

### Coverage chart $n \approx 2900$ rpm



### Performance $n \approx 2900$ rpm

| 3 ~ 230 V 400 V |     |     | 1 ~ 230 V Capacitor P <sub>1</sub> |     |    |     |      | P <sub>2</sub> |      | Q   | m³/h<br>l/min | 0    | 1    | 1,5  | 2    | 2,5  | 3    | 3,5  | 4    | 4,5 |  |
|-----------------|-----|-----|------------------------------------|-----|----|-----|------|----------------|------|-----|---------------|------|------|------|------|------|------|------|------|-----|--|
|                 | A   | A   |                                    | A   | µF | V   | kW   | kW             | HP   |     |               | 0    | 16,6 | 25   | 33,3 | 41,6 | 50   | 58,3 | 66,6 | 75  |  |
| MXSU 203/A      | 2,4 | 1,4 | MXSUM 203/A                        | 3,5 | 20 | 450 | 0,8  | 0,55           | 0,75 | H m | 33            | 31   | 29,5 | 27,5 | 25   | 22   | 19   | 16   | 12   |     |  |
| MXSU 204/A      | 2,7 | 1,6 | MXSUM 204/A                        | 4,1 | 20 | 450 | 0,85 | 0,55           | 0,75 |     | 44            | 41,5 | 39,5 | 36,5 | 33,5 | 29,5 | 25,5 | 21   | 16   |     |  |
| MXSU 205/A      | 3,3 | 1,9 | MXSUM 205/A                        | 5   | 20 | 450 | 1,1  | 0,75           | 1    |     | 53            | 49,5 | 47   | 44   | 40   | 35   | 30   | 25   | 19   |     |  |
| MXSU 206/A      | 3,8 | 2,2 | MXSUM 206/A                        | 6   | 25 | 450 | 1,3  | 0,9            | 1,2  |     | 65            | 61   | 58   | 54   | 49   | 43   | 37   | 30,5 | 23   |     |  |

| 3 ~ 230 V 400 V |     |     | 1 ~ 230 V Capacitor P <sub>1</sub> |    |    |     | P <sub>2</sub> |     | Q   | m³/h<br>l/min | 0   | 2,5  | 3    | 3,5  | 4    | 4,5  | 5    | 6    | 7    | 8    |
|-----------------|-----|-----|------------------------------------|----|----|-----|----------------|-----|-----|---------------|-----|------|------|------|------|------|------|------|------|------|
| A               | A   |     | A                                  | µF | V  | kW  | kW             | HP  |     |               | 0   | 41,6 | 50   | 58,3 | 66,6 | 75   | 83,3 | 100  | 116  | 133  |
| MXSU 404/A      | 3,8 | 2,2 | MXSUM 404/A                        | 6  | 25 | 450 | 1,3            | 0,9 |     | 1,2           | H m | 43   | 39   | 38   | 36,5 | 34,5 | 33   | 30,5 | 25,5 | 19,5 |
| MXSU 405/A      | 4.5 | 2,6 | MXSUM 405/A                        | 7  | 25 | 450 | 1,55           | 1,1 | 1,5 |               | 53  | 48   | 46,5 | 45   | 42,5 | 40   | 37,5 | 31   | 24   | 15   |

| 3 ~ 230 V 400 V |     |     | 1 ~ 230 V Capacitor P <sub>1</sub> |   |    |     | P <sub>2</sub> |     | Q   | m <sup>3</sup> /h | 0     | 5    | 6    | 7    | 8    | 9    | 10   | 11   |     |  |
|-----------------|-----|-----|------------------------------------|---|----|-----|----------------|-----|-----|-------------------|-------|------|------|------|------|------|------|------|-----|--|
|                 | A   | A   |                                    | A | μF | V   | kW             | kW  |     | HP                | l/min | 0    | 83,3 | 100  | 116  | 133  | 150  | 166  | 183 |  |
| MXSU 803/A      | 4,5 | 2,6 | MXSUM 803/A                        | 7 | 25 | 450 | 1,55           | 1,1 | 1,5 | H m               | 34,5  | 29,5 | 28   | 26,5 | 24,5 | 22,5 | 20   | 16,5 |     |  |
| MXSU 804/A      | 6,6 | 3,8 |                                    |   |    |     |                | 1,5 | 2   |                   | 45,5  | 39   | 37   | 35   | 32,5 | 30   | 26,5 | 22,5 |     |  |

P<sub>1</sub> Max. power input.

Test results with clean cold water, without gas content.

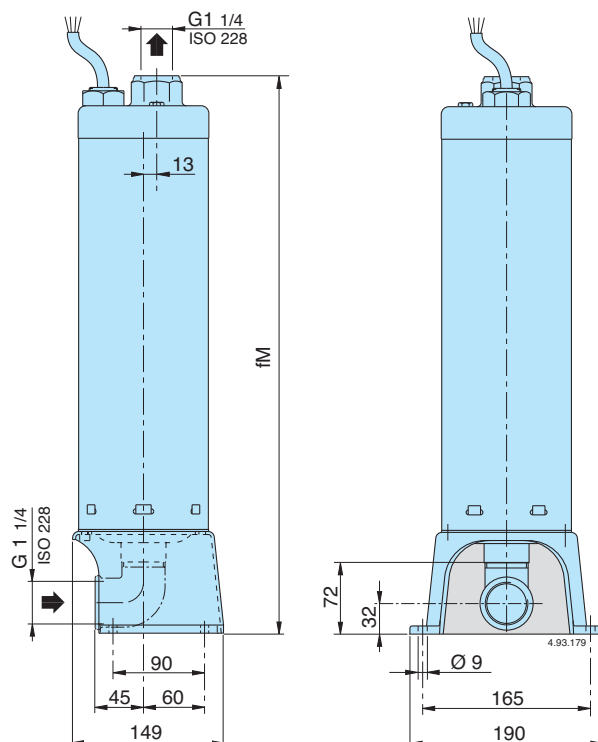
P<sub>2</sub> Rated motor power output.

Tolerances according to UNI EN ISO 9906:2012

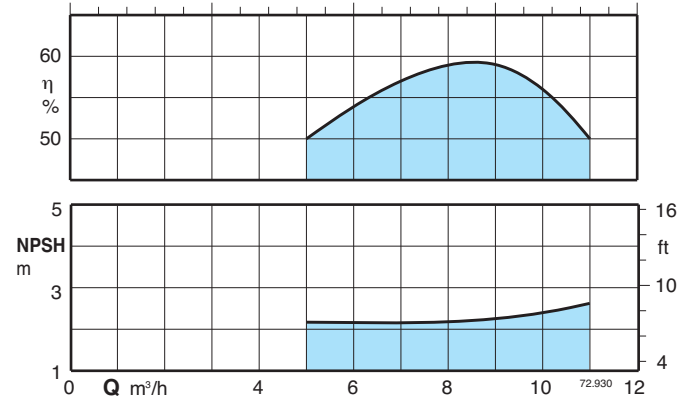
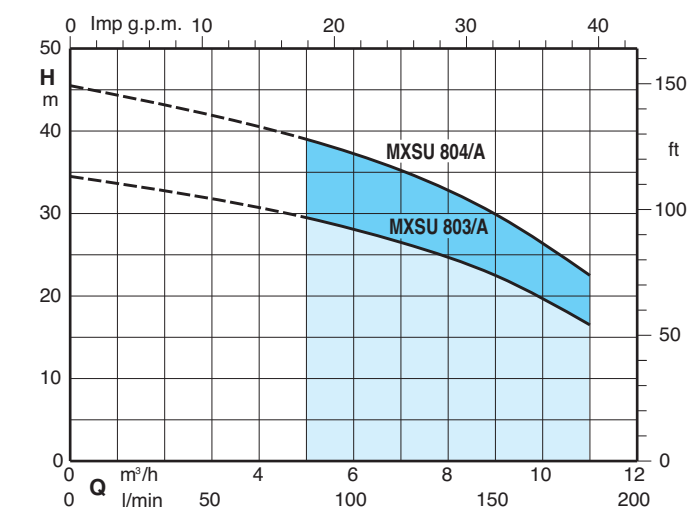
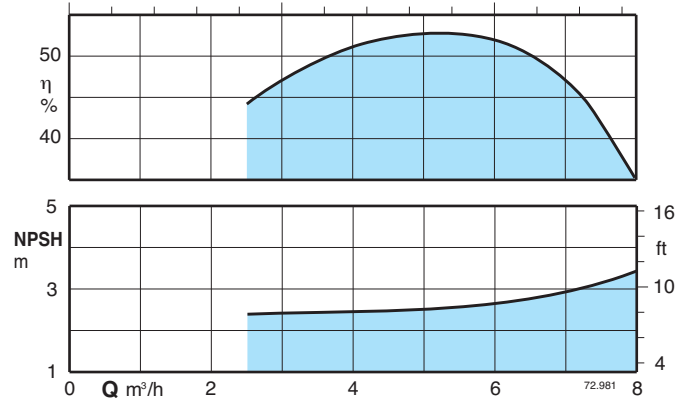
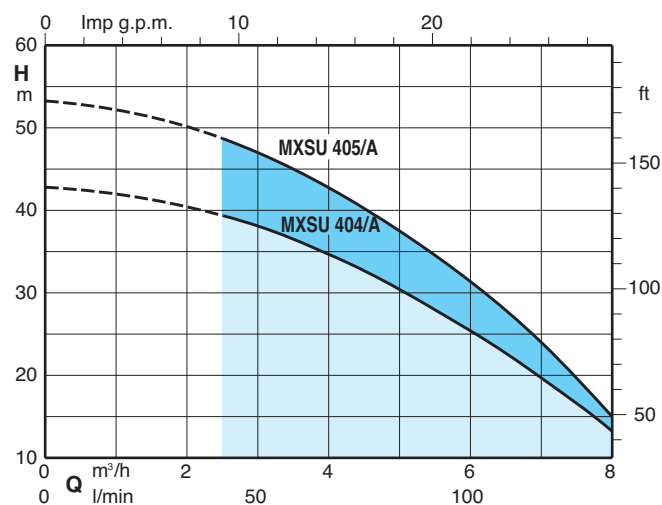
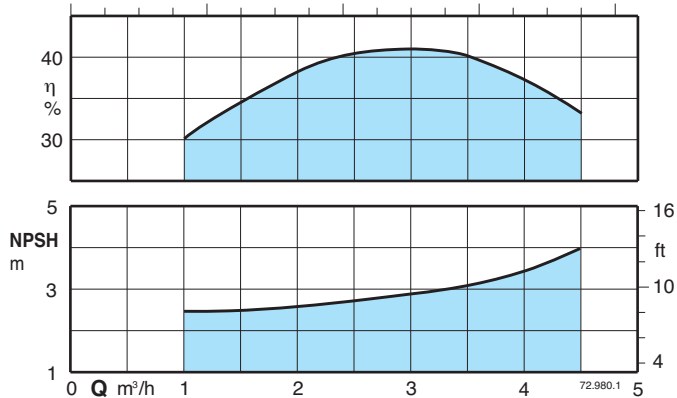
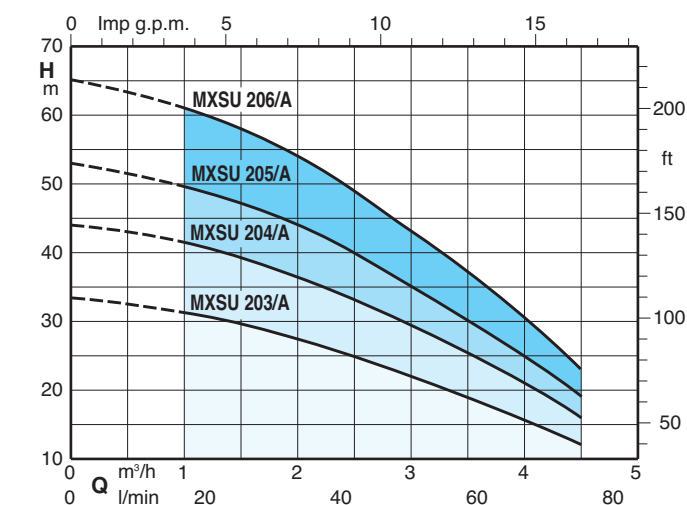
### Dimensions and weights

| PUMP       | fM  | kg   |
|------------|-----|------|
| mm         |     |      |
| MXSU 203/A | 524 | 11,3 |
| MXSU 204/A | 524 | 11,5 |
| MXSU 205/A | 548 | 12   |
| MXSU 206/A | 572 | 13,3 |
| MXSU 404/A | 524 | 12,4 |
| MXSU 405/A | 548 | 12,9 |
| MXSU 803/A | 548 | 12,5 |
| MXSU 804/A | 548 | 14,7 |

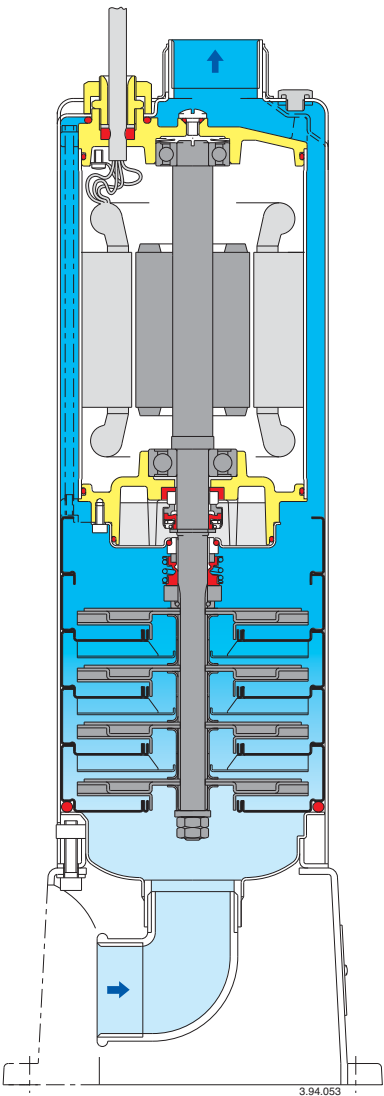
| PUMP        | fM  | kg   |
|-------------|-----|------|
| mm          |     |      |
| MXSUM 203/A | 524 | 12,3 |
| MXSUM 204/A | 524 | 12,5 |
| MXSUM 205/A | 548 | 13,6 |
| MXSUM 206/A | 572 | 14,8 |
| MXSUM 404/A | 524 | 14   |
| MXSUM 405/A | 548 | 14,4 |
| MXSUM 803/A | 548 | 14,1 |
|             |     |      |



### Characteristic curves $n \approx 2900$ rpm



Features



Control box for single-phase pumps (on request)

| Pump        | Control box | Capacitor |       |
|-------------|-------------|-----------|-------|
| MXSUM 203/A | QM 11       | 20 µF     | 450 V |
| MXSUM 204/A |             |           |       |
| MXSUM 205/A |             |           |       |
| MXSUM 206/A | QM 12       | 25 µF     | 450 V |
| MXSUM 404/A |             |           |       |
| MXSUM 405/A |             |           |       |
| MXSUM 803/A |             |           |       |

