# **CPS**

### FREQUENCY CHANGER

CPS energy savings control system keeps constant delivery when pressure variations occur. CPS is a frequency converter integrated into the pump which adjusts motor speed so as to constantly provide users with the same pressure, even when demand for water changes. The main applications for which CPS offers elevated comfort and benefits are: home pressurization, irrigation, greenhouses, light industry, fountains and creative water displays.

¥ EASY INSTALLATION ¥ ENERGY SAVING ¥ SILENT RUNNING ¥ RELIABILITY



# **Operation**

The system consists on an electric pump operated by an electronic control system (speed variator) that enables the delivery of constant pressure by reducing or increasing the flow rate based on water demand. In case of an excessive system pressure decrease, the CPS starts the pump and regulates its speed until the operating pressure is re-established. The pump's speed depends on water demand. If water consumption increases, the control system raises the speed of the pump up to the maximum set value. If water consumption decreases the speed of the pump is reduced up to its minimum. If there is no further water demand the pump stops.

# **Applications**

- Pressure boosting
- Irrigation
- Industrial washing equipment
- Water distribution
- Building

# **Protection devices**

- Dry running
- Overtemperature
- Overcurrent
- Frost protection through ext. device

### **Technical features**

Power input
Output voltage
Max nominal power
Input frequency
1x230 Vac ± 10 %
3x230 Vac ± 10 %
1,5 Kw
50/60 Hz + 3%

- Max output current 6.5 Amp

- Protection IP55 (in case of installation on motors

with a protection ≥ IP55)

- Max ambient temperature +50°C sinusoidal

- Input filter In compliance with EMC directive

- Pressure transmitter- Set point0 - 5 Volt - 0 - 10 Bar2

- Connections RS 485 port

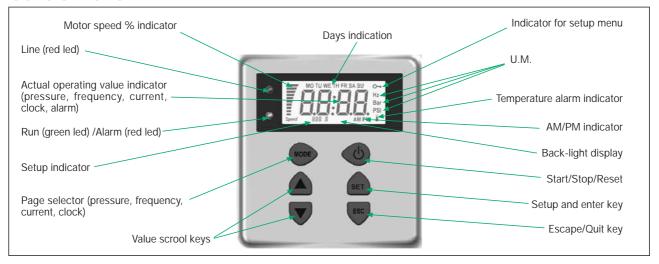
- Free contacts 3 (ext set point, alarm, system inhibition)

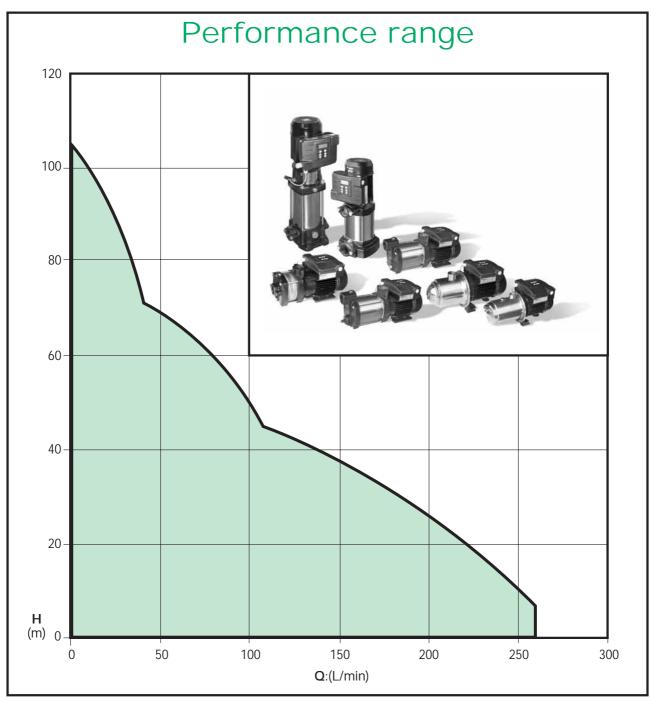
#### **Versions**

| VERTICAL                 | HORIZONTAL            | SELF PRIMING            |
|--------------------------|-----------------------|-------------------------|
| CPS10/VLR 2B-60 A        | CPS10/DHI 45          | CPS10/MAX 120/60        |
| CPS10/VLR 2B-110 A       | CPS10/DHI 27          | CPS10/MAX 80/60         |
| CPS10/VLR 4-80 A         | CPS10/DHR 9-40        | CPS10/MULTINOX-A 200/40 |
| CPS10/VLR 8-40 A         | CPS10/DHR 45          | CPS10/MULTINOX-A 200/65 |
| CPS10/MULTINOX-VE 200/65 | CPS10/MULTINOX 80/48  |                         |
| CPS10/MULTINOX-VE 200/40 | CPS10/MULTINOX 120/60 |                         |



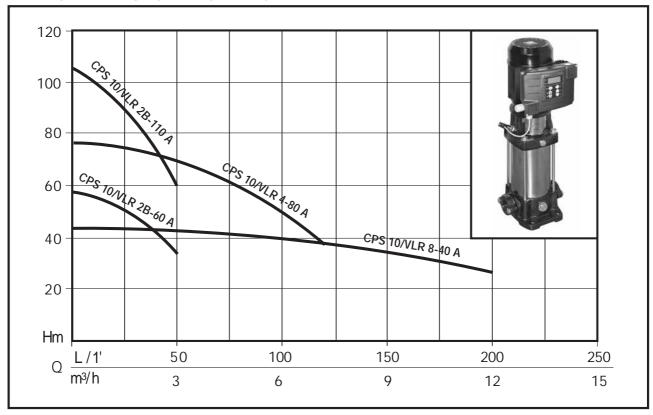
# **Control Panel**





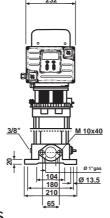


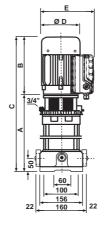
## TABLE OF HYDRAULIC PERFORMANCE



### **PUMP PERFORMANCE**

| CODE     | MODEL              |     | otor<br>wer | VOLTAGE Amp. |        | L/1'              | 0   | 10  | 20  | 30  | 40  | 50 | 60  | 80  | 100 | 120 | 150 | 175  | 200 |
|----------|--------------------|-----|-------------|--------------|--------|-------------------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|------|-----|
|          |                    | HP  | kW          | (V)          | Allip. | m³/h              | 0   | 0,6 | 1,2 | 1,8 | 2,4 | 3  | 3,6 | 4,8 | 6   | 7,2 | 10  | 10,5 | 12  |
| N4700160 | CPS10/VLR 2B-60 A  | 1   | 0,75        | 1 ~ 230      | 6,5    | ead               | 58  | 56  | 51  | 48  | 42  | 33 |     |     |     |     |     |      |     |
| N4700170 | CPS10/VLR 2B-110 A | 1,5 | 1,1         | 1 ~ 230      | 10,5   | arge he<br>meters | 105 | 100 | 93  | 84  | 74  | 60 |     |     |     |     |     |      |     |
| N4700150 | CPS10/VLR 4-80 A   | 2   | 1,5         | 1 ~ 230      | 14,2   |                   | 77  |     |     |     | 71  | 69 | 67  | 59  | 50  | 37  |     |      |     |
| N4700140 | CPS10/VLR 8-40 A   | 2   | 1,5         | 1 ~ 230      | 14,2   | Discl             | 44  |     |     |     |     | 42 | 41  | 41  | 40  | 38  | 35  | 30   | 26  |





### **TABLE OF SIZES AND WEIGHTS**

| Model                 | Dimensions mm. |     |     |     |     |        |        |    |  |  |
|-----------------------|----------------|-----|-----|-----|-----|--------|--------|----|--|--|
|                       | А              | В   | С   | D   | Е   | DNA    | DNM    | kg |  |  |
| CPS 10 / VLR 2B-60 A  | 296            | 237 | 533 | 160 | 135 | 1"     | 1"     | 28 |  |  |
| CPS 10 / VLR 2B-110 A | 386            | 237 | 623 | 160 | 135 | 1"     | 1″     | 38 |  |  |
| CPS 10 / VLR 4-80 A   | 423            | 265 | 688 | 185 | 155 | 1″ 1/4 | 1″ 1/4 | 35 |  |  |
| CPS 10 / VLR 8-40 A   | 420            | 265 | 685 | 185 | 155 | 1″ 1/2 | 1" 1/2 | 42 |  |  |