



MADE IN ITALY

ENGLISH



EPIC 1

RANGE 0,37÷15 kW

Installation
ad use
manual

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1.1 PRESENTATION

The purpose of this manual is to provide the necessary information for the proper installation, use and maintenance of EPIC 1.

The user should read this manual before operating the unit. Improper use may cause damage to the machine and lead to the forfeiture of the warranty coverage. Always specify the model identification code and the construction number when requesting technical information or spare parts from our Sales and Service department. The instruction and warnings given below concern the standard version; refer to the sale

contract documentation for modifications and special version characteristics. For instructions, situations and events not considered in this manual or in the sale documents, please contact our customer service.

Our units must be installed in sheltered, well-ventilated, non-hazardous environments and must be used at a maximum temperature of +40°C and minimum of -5°C.

1.2 DESCRIPTION

These control panels are designed for controlling 1 motor or electric pump used in pressurization systems or in applications for emptying wells or water tanks.

Atlantic S.r.l.s shall not be liable for any damage caused or suffered by the unit as a result of its unauthorised or improper use.

TECHNICAL FEATURES

Self learning of the motor data; min-max amperage protection (A); dry running protection made by $\cos\phi$ and min Amperage; min and max voltage protection (V); phase failure protection;

start and stop delay; delay network restore, protection delay, frequency 50-60Hz.

OUTPUT ALARMS AND PROTECTIONS

Acoustic alarm; light alarm, alarm output Relais 220V CA, alarm output Relais 12 V CC, alarm output with Buzzer 12 V; min-max water level; min-max Voltage; phase failure; frequency failure alarm; min-max motor Amperage; min $\cos\phi$; motor klixon alarm; water in oil chamber alarm.

1.3 HANDLING

The panel must be handled with care, as falls and knocks can cause damage without any visible external signs.

PRELIMINARY INSPECTION

After you have removed the external packaging, visually inspect the control panel to make sure it has suffered no damage during shipping.

If any damage is visible, inform an Atlantic dealer as soon as possible, no later than five days from the delivery date.

STORED

If for any reason the unit is not installed and starter immediately after it has reached its destination it must be stored properly. The external packaging and the separately packed accessories must remain intact, and the whole must be protected from the weather, especially from freezing temperatures, and from any knocks or falls.

2.1 SAFETY INFORMATION



RISK OF ELECTRIC SHOCK

Failure to follow the instructions in this manual, carries a risk of electric shock.



RISK FOR PEOPLE AND PROPERTY

Failure to follow the prescriptions in this manual, carries a risk of damage to persons and/or property.



WARNING

Failure to observe the prescriptions in this manual, cause damage to the pump, the unit or the system.

2.2 CAUTION



ATTENTION: PUMP

- Make sure the pump is fully primed before you start it.
 - Make sure the pump is running with the correct rotation.
 - The electric pump or the motor can start up automatically.
-



ATTENTION: ELECTRICAL CONNECTION

- The control panel must be connected by a qualified electrician in compliance with the electrical regulations in force.
 - The electric pump or the motor and the panel must be connected to an efficient grounding system in compliance with the electrical regulations locally in force.
 - Ground the unit before carrying out any other operation.
-



ATTENTION: SERVICE

As a general rule, always disconnect the power supply before proceeding to carry out any operation on the electrical or mechanical components of the unit or system.

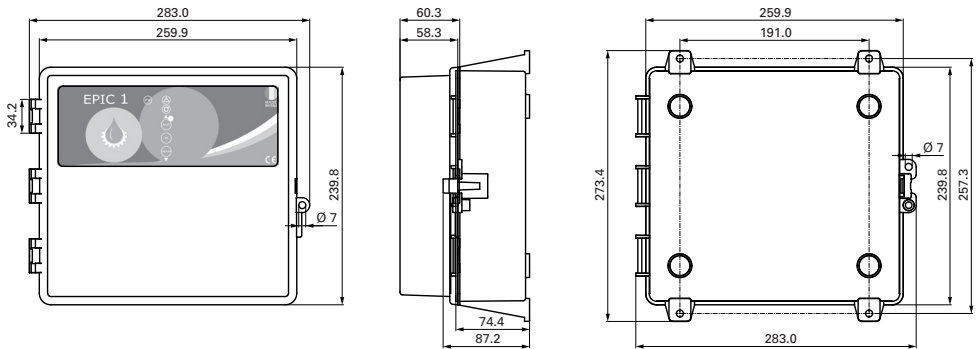
3.1 ASSEMBLING

Fix the control panel for a stable support with screws and screw anchor using the holes arranged in the box (pic. 1) or the fixing bracket if present.

To fix the cables in their terminals use a tool of the proper size to avoid the damaging of the screws or of their seat.

If use an electric screwdriver pay attention not to spoil the thread or the screws.

After the fixing, remove every plastic or metallic surplus (ex. Pieces of copper of the cables or plastic shavings of the box) inside the box before supplying power.



pic. 1

LINE OF SUPPLY CURRENT

Connect the unit at ground before carrying out any other operation.

The voltage input corresponds to the data written on the panel and on the pump:

- (400V ± 10% 50/60Hz x il EPIC 1 -400/...)
- (230V ± 10% 50/60Hz x il EPIC 1 -230)

Make sure that the power-supply-cable can bear the nominal current and connect it to the terminals of the general switch of the control panel.

If the cables are exposed, they must be appropriately protected.

The line must be protected with an Earth leakage and magnetic switch measured in accordance with the regulations locally in force.

LINE OF MOTOR POWER SUPPLY

Connect the unit at ground before carrying out any other operation.

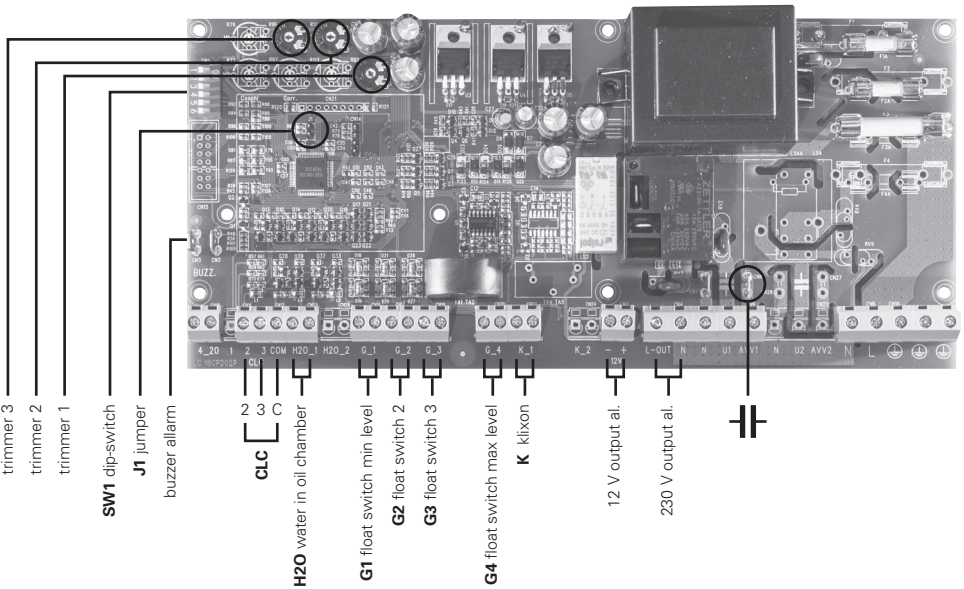
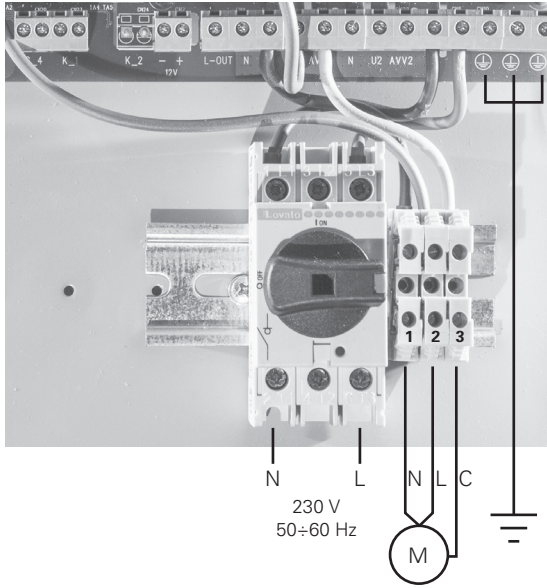
The voltage input corresponds to the data written on the motor:

- (400V±10% 50/60Hz three-phase)
- (230V±10% 50/60Hz single-phase)

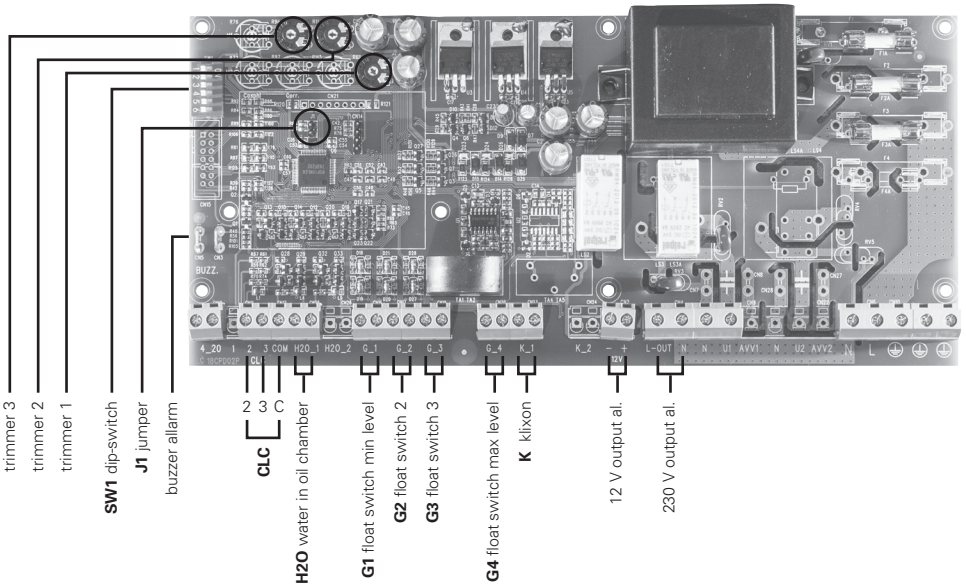
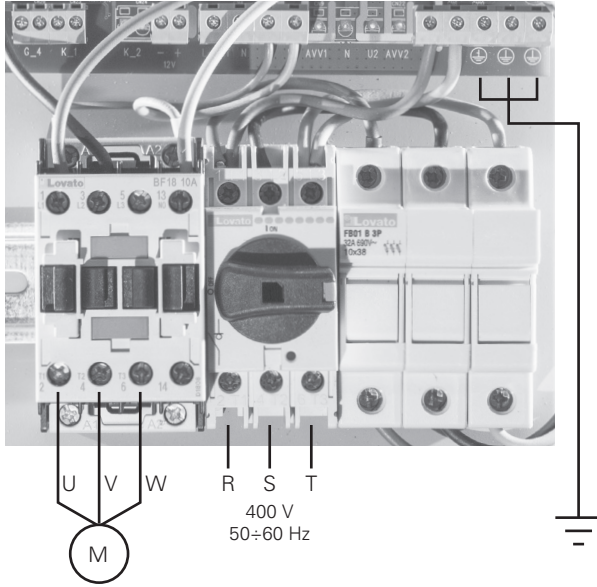
Doing some starting make sure that the motor respects the right direction of rotation usually indicated by an arrow printed on the motor.

3.2 ELECTRICAL CONNECTIONS

EPIC 1 230

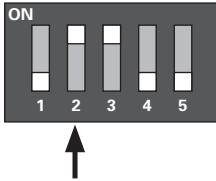


EPIC 1 400



3.3 DIP-SWITCH SETTINGS

DIP-SWITCH SW1 SETTINGS

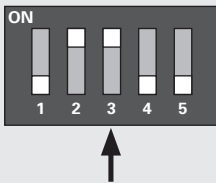


DIP-SWITCH 2 - AUTO-SETTING

The default setting of the control panel is on self learning of the motor/pump data (dip-switch 2 is in "ON" position).

REMIND!

once you did the data self learning put the dip-switch 2 in "OFF" position, if you do not do that the keypad is disable.

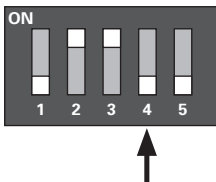


DIP-SWITCH 3 - CLEAR/WASTE WATER

The default setting of the control panel is on potable water mode (dip-switch 3 is in "ON" position).

REMIND!

for waste water pumps/float switches application set the dip-switch 3 in "OFF" position.



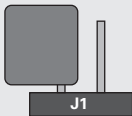
DIP-SWITCH 4 - BMS SETTING

The default setting of the control panel is with BMS disabled (dip-switch 4 is in "OFF" position).

REMIND!

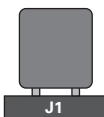
with the dip-switch 4 in "ON", the G4 input can be connected to a remote switch or to an emergency mushroom pushbutton to stop the control panel and turn the motor off.

JUMPER J1 SETTING



EMPTYING MODE (DEFAULT)







The default setting of the control panel is on emptying mode (J1 jumper is disconnected).



FILLING MODE

To set the control panel in filling mode connect the jumper in the following way (J1 jumper is connected).

3.4 AUTO-SETTINGS

| BUTTON | AUTO-SETTING PROCEDURE | GREEN LIGHT |
|--|---|---|
|  <p>x 5 sec.</p> | <p>PUSH THE "AUT" BUTTON FOR 5 SECONDS Pump starts and the control panel reads the parameters (HZ, KW; V; A; cosφ) and automatically set the protections.</p> |  <p>flashing</p> |
|  | <p>WAIT UNTIL THE PUMP HAS BEEN STOPPED Once the auto setting has been made, the control panel stop the pump and the green light turn off.</p> <p>REMIND! once you did the data self learning put the dip-switch 2 in "OFF" position, if you do not do that the keypad is disable.</p> |  <p>off</p> |
|  | <p>AUTOMATIC STARTING OF THE PUMP To set the pump for automatic starting push the "AUT" button once.</p> |  <p>on</p> |

At this stage, the control panel has been automatically setted and it will work in automatic mode with standard factory protections and setting.

The control panel is ready to works with float switches, pressure switches and probes/sondes.

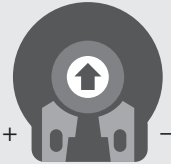
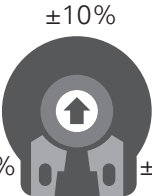
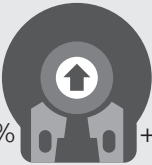
3.5 TRIMMER SETTINGS

To change manually the threshold protections, **interrupting the power supply to the panel** and work on the trimmers following the below instructions:



PROTECTION DELAY

The motor protection switching delay has been set at **5 sec.**

| TRIMMER SETTING | |
|---|--|
|  | <p>TRIMMER 1: PROBE SENSITIVITY CHANGE</p> <p>Probe sensitivity (CLC) and water in oil chamber sensor trimmer regulation.</p> <p>It is possible to change the sensitivity of the CLC probes and the water sensor in the oil chamber, interrupting the power supply to the panel and acting on trimmer 1 (clockwise to increase and counterclockwise to decrease sensitivity).</p> |
|  | <p>TRIMMER 2: SET THE VOLTMETRIC THRESHOLD</p> <p>The autosetting standard configuration is $\pm 10\%$ of the nominal voltage.</p> <p>It is possible to modify the minimum and maximum voltage thresholds, interrupting the power supply of the panel and acting on trimmer 2 (clockwise to increase and anticlockwise to decrease the threshold).</p> |
|  | <p>TRIMMER 3: SET THE AMPERAGE THRESHOLD</p> <p>The autosetting standard configuration is:</p> <ul style="list-style-type: none">• max amperage +20% of the self-learned value• min amperage -20% of the self-learned value <p>It is possible to modify the minimum and maximum current thresholds, interrupting the power supply to the panel and acting on trimmer 3 (clockwise to increase and anticlockwise to decrease the threshold).</p> |

4.1 KEYPAD AND LIGHTS INDICATIONS



CONTROL PANEL



PW

blue light indicating power network presence and powered panel.



ALARM

red light to indicate a general alarm and pump stop. (min e max Amp, min e max V, min e max level, motor klixon, water in oil chamber, phase failure).



START

green light to indicate pump start; fixed on to indicate pump running, flashing to indicate auto-setting mode.



AUT

the button activates the auto-setting mode and automatic pump (if the green light is on, the automatic mode is active).



0




pump stop button and reset alarms, sound alarm turn-off.



MAN

activation of manual pump; holding it down, the engine is operated in by-pass mode, bypassing all the protections.

4.2 ALARMS

| RED LED | DISABLE |
|--|---|
|  <p>All the alarms are displayed on the keypad (red light is flashing) and activated the outputs:</p> <ul style="list-style-type: none"> • Output Relais 220 V CA • Output Relais 12 V CC • Output Buzzer 12 V |  <p>If the panel is in alarm and you want to deactivate it, <u>press the "0" button once</u> on the control panel.</p> |
| |  <p>twice</p> <p>If the panel is in alarm mode and you want to deactivate the function automatically, <u>press the "0" button twice</u> on the control panel.</p> |

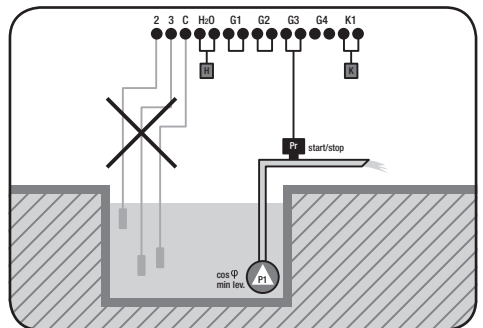
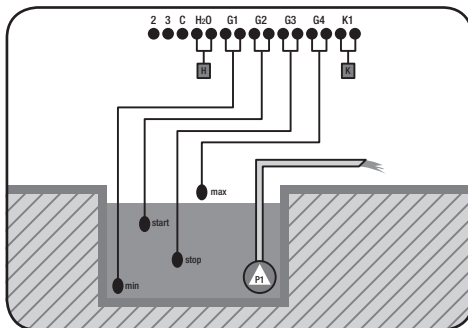
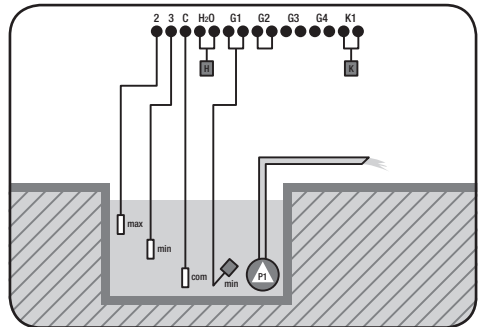
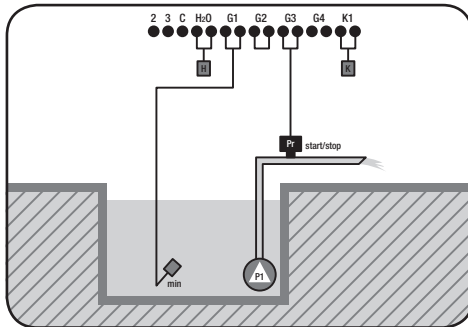
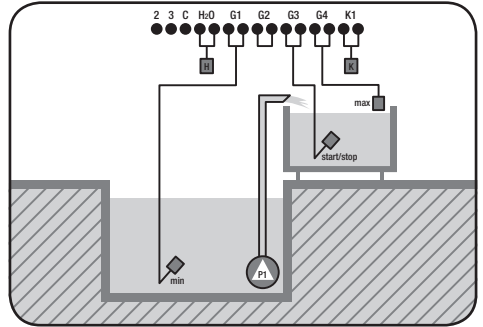
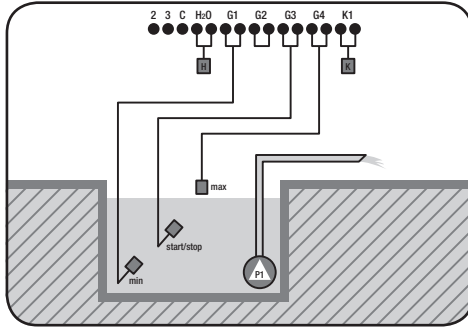
ALARMS WHICH STOP THE MOTOR

| ALARM | RESTART |
|---|---|
| <p>G1 minimum level float switch</p> | <ul style="list-style-type: none"> • have a reset function once the pump has been restored |
| <p>K1 motor klicson alarm</p> | |
| <p>A amperometric alarm min e max amperage</p> | <ul style="list-style-type: none"> • Once the motor has been stopped for an ammetric or voltmetric issue, after 5 minutes the control panel try to restart it. • In case the alarm condition is still active the control panel wait 30 minutes before restarting the motor. • In case the issue is still active the control panel try 3 times, every 60 minutes, to restart the motor. • After the last reattempt is unsuccessful, the control panel stop the pump and keeps the alarm on. • The alarm remain ON till the operator intervention. |
| <p>V voltmetric alarm min e max voltage V</p> | |

ALARM WHICH DOES NOT STOP THE MOTOR

| ALARM | OPERATION |
|---|--|
| <p>G4 maximum level probe alarm</p> | <ul style="list-style-type: none"> • In both cases the pump does not stop and the alarm stay ON |
| <p>H201 water in oil chamber alarm</p> | |

4.3 TYPICAL INSTALLATION



2/3/C input for level probes

H input for water in oil chamber sensor/water leakage

K input for motor klixon

P pump

Pr pressure switch




T pressure transducer

G float switch for clear water

● float switch for waste water

□ level probes

5.1 PUMP STOP

| MODE | BUTTON | STOP |
|-----------|---|--|
| MANUAL |  | The motor stops when the "MANUAL" button is released or once you digit the 0 button. |
| AUTOMATIC |  | When the input commands are disable/non active once you digit the 0 button. |
| OFF |  | Turning the main switch interlocking door in "OFF" position. |

5.2 SERVICE

EPIC 1 does not require any routine maintenance provided that their working limits are observed. Any maintenance operations must be performed by qualified and experienced personnel, in compliance with the safety regulations in force.



DANGER!

Make sure that EPIC 1 is disconnected from the power supply before performing any maintenance operations.

5.3 SPARE PARTS

Always state the exact model identification number and construction number when requesting technical information or spare parts from our sales and service centre.

Use only original spare parts when replacing any faulty components. The use of unsuitable spare parts can cause malfunctions, personal injury and damage to property.

5.4 WASTE DISPOSAL

After the control panel has been installed and started, the customer must provide for the appropriate elimination/disposal of the waste materials according to the legislation locally in force. If the control panel or parts of it must be taken out of service and dismantled, follow local regulations regarding sorted waste disposal. Refer to the appropriate recycling centres.



CAUTION!

Contamination of the environment with hazardous substances such as battery acid, fuel, oil, plastic, copper, etc., may cause serious damage to the environment and endanger people's health.

6.1 CERTIFICATE OF CONFORMITY

The Manufacturer:

Atlantic Power Control S.r.l.s

Via E. Fermi, 10 - 35020 Polverara (PD) - ITALIA

**DECLARES UNDER IS OWN RESPONSIBILITY
THAT THE FOLLOWINGS CONTROL PANELS:**

EPIC 1 -230 e EPIC 1 -400

**ARE IN CONFORMITY
WITH COMMUNITY DIRECTIVES REGARDING:**

- European directive 2006/95/CE
- Electromagnetic compatibility directive 2004/108/CE



AND AS APPLICABLE TO HARMONIZED STANDARDS:

- EN 61439-1
- EN 61439-2
- EN 60204-1
- EN 55014-1
- EN 55014-2
- EN 61000-3-2
- EN 61000-3-3

Moreover Mr. Giuseppe Franchin, as the legal representative of the company, is the person authorized to compile the technical documentation file.

Polverara - Italy, 10/01/2018

A handwritten signature in black ink that reads 'Franchin Giuseppe'. The signature is written in a cursive style.

Technical Manager
(Giuseppe Franchin)



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