Operative Display for REVO PC Series
Avvertenze Importanti per la sicurezza

The unit are integral part of industrial equipments. When it is supply, the unit is subject to dangerous tensions. Don't remove the plastic cover. Don't use this unit in aerospace and nuclear application.

**Electric Shock Hazard (Rischi di scosse elettriche, Risque de choque électrique)**

When thyristor unit has been connected to main supply voltage and is switched off, before to touch it be secure that the unit is isolated and wait at least one minute to allow discharging internal capacitors. Thus be secure that:

- access to thyristor unit is only permitted to specialised personnel;
- the authorised personnel must read this manual before to have access to the unit;
- the access to the unit must be denied to unauthorised personnel.

**Important warnings (Avvertenze importanti, attention)**

During the operations with units under tension, local regulations regarding electrical installation should be rigidly observed:

- Respect the internal safety rules.
- Don't bend components to maintain insulation distances.
- Protect the units from high temperature humidity and vibrations.
- Don't touch components to prevent electrostatic discharges on them.
- Verify that the size is in line with real needs.
- To measure voltage current etc. on unit, remove rings and other jewels from fingers and hands.
- Authorized personnel that work on thyristor unit under power supply voltage must be on insulated board.

This listing does not represent a complete enumeration of all necessary safety cautions

**Protection (Protezione, Protection)**

The unit have IP20 protection rating as defined by the specific international. Is necessary consider the place of installation.

**Earth (Messa a terra, Terre)**

For safety, the Thyristor unit with isolated heat-sink must be connected to earth. Earth impedance should be correspondent to local earth regulation. Periodically the earth efficiency should be inspected.

**Electromagnetic compatibility (Compatibilità elettromagnetica, Compatibilité électromag.)**

Our thyristor units have an excellent immunity to electromagnetic interferences if all suggestions contained in this manual are respected. In respect to a good Engineering practice, all inductive loads like solenoids contactor coils should have a filter in parallel.

**Emissions (Emissioni, Emission)**

All solid-state power controllers emit a certain amount of radio-frequency energy because of the fast switching of the power devices. The Thyristor unit are in accord with the EMC norms, CE mark. In most installations, near by electronic systems will experience no difficulty with interference. If very sensitive electronic measuring equipment or low-frequency radio receivers are to be used near the unit, some special precautions may be required. These may include the installation of a line supply filter and the use of screened (shielded) output cable to the load.
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</tbody>
</table>
1 Wiring and dimensions

1.1 REVO-KP 7.0”

Pin Serial Port

<table>
<thead>
<tr>
<th>CN1 (D-sub 9pin, male)</th>
<th>Pin</th>
<th>Signal Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tx/Rx -</td>
<td>Data -</td>
<td>(Blue)</td>
</tr>
<tr>
<td>2</td>
<td>Tx/Rx +</td>
<td>Data +</td>
<td>(Brown)</td>
</tr>
</tbody>
</table>

1.1.1 Fixing holes

Cutout dimensions:
192mm [7.559”] W x 138mm [5.433”] H

Front View

Bottom View
1.2 Wiring

D-sub 9pin

1. Blu / Blue
2. Marrone / Brown

1. Blu / Blue
2. Marrone / Brown

1. REVO PC
2. REVO PC
3. REVO PC
2 Installation

Before installation, make sure that the product has not been damaged during transport. In case of damage, notify the carrier immediately. Verify that the product is indeed the one ordered.

For mounting use the supplied brackets.

To connect the 24Vdc power supply using the supplied clamp
## 2.1 Serial Setting

Is possible connect 3 type of system

<table>
<thead>
<tr>
<th>Connection Type</th>
<th>3 Revo PC every REVO PC drive 8 zones of 1 phase load for each REVO PC (RPC18)</th>
<th>1 Revo PC the REVO PC drive 8 zones of 3 phase of 2 phase zone (RPC28 or RPC 38)</th>
<th>1 Revo PC the REVO PC drive 24 zones of 1 phase load (8 zones on phase L1, 8 zones on phase L2, 8 zones on phase L3) (RPC48)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Revo PC 1: Address :1 Baudrate: 19200 Parity : none</td>
<td>Revo PC 1: Address :1 Baudrate: 19200 Parity : none</td>
<td>Revo PC 1: Address :1 Baudrate: 19200 Parity : none</td>
</tr>
<tr>
<td></td>
<td>Revo PC 2: Address :1 Address :2 Baudrate: 19200 Parity : none</td>
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<td></td>
<td>Revo PC 3: Address :1 Address :3 Baudrate: 19200 Parity : none</td>
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</tbody>
</table>
3 Operation
The panel is configured to communicate with the REVO-PC System.

3.1 Functional Description

3.1.1 Numeric fields

123
The BLUE values, if enabled, are read/write

123
The BLACK values are read-only

3.1.2 Virtual Keyboard

<table>
<thead>
<tr>
<th>Numeric</th>
<th>Alphanumeric</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX: 100.0</td>
<td>1 2 3 4 5 6 7 8 9 0 BS</td>
</tr>
<tr>
<td>MIN: 0.0</td>
<td>\ Q W E R T Y U I O P</td>
</tr>
<tr>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>7 8 9</td>
<td>Esc A S D F G H J K L Enter</td>
</tr>
<tr>
<td>4 5 6</td>
<td>Caps Z X C V B N M</td>
</tr>
<tr>
<td>BS Del</td>
<td></td>
</tr>
<tr>
<td>1 2 3</td>
<td>Clear SPACE</td>
</tr>
<tr>
<td>0 -</td>
<td>+ - x</td>
</tr>
</tbody>
</table>

BS = Back Sapce
Clr = Delete all
ESC = close the window without doing anything
'-' = minus sign
ENTER = Confirm and submit data
MAX = Maximum possible value
MIN = Minimum possible value

3.1.3 Message
Making your login using the button on the menu
### 3.2 Menu

By pressing key `MENU` will appear on the navigation menu. The menu are different and depending of Access Level.

#### Level 0

<table>
<thead>
<tr>
<th>Info</th>
<th>Login</th>
<th>MENU</th>
</tr>
</thead>
</table>

#### Level 1/2

<table>
<thead>
<tr>
<th>Info</th>
<th>Conf</th>
<th>Logout</th>
<th>MENU</th>
</tr>
</thead>
</table>

**Function keys**

- **Logout**: Log out the user level
- **Log in**: Calls page to log on to a different level
- **Info**: Calls page of the version information
- **Conf**: Enter in **REVO-KP** configuration
3.3 First Power on

At first power on, select the right application type.

The application type can be:

- 3 Revo PC
  every REVO PC drive 8 zones of 1 phase load for each REVO PC

- 1 Revo PC
  the REVO PC drive 8 zones of 3 phase of 2 phase zone

- 1 Revo PC
  the REVO PC drive 24 zones (8 zones on phase L1, 8 zones on phase L2, 8 zones on phase L3) of 1 phase load
3.4 Home page

The home page change following the application type

3.4.1 Application with 3 REVO-PC of 8 ZONE

The page are divided in three groups.
Every group represent a phase connected to a different REVO PC-1PH (RPC08)
The group name can be personalized in configuration
Can be set max 8 zone for group

3.4.2 Application with 1 REVO-PC 3PH of 8 ZONE

Every line is a zone in a 3phase system
Can be used max 8 zone
3.4.3 Application with 1 REVO-PC of 24 ZONE in 3 phase

The page are divided in three groups.
Every group represent the phase connected at the same REVO PC 1PH (RPC48)
The group name can be personalized in configuration
Can be set max 8 zone for group

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</table>

Pw Limit: 0.0 kW
Tot: 0.00 kW
Voltage: 0 V

MENU
3.4.4 Function description

The pages are divided into columns
The first column is the zone name

The first column is the zone name
SP% = Value of the percentage of control
A = Live Current
kW = Live Power (kW)
AL = Alarm Status
Voltage = Line Voltage
Pw Limit = Power Limit

3.4.5 ACTION on the main page

3.4.5.1 Reference Set

Taping on the number will appear a virtual keypad to insert the Setpoint Value

3.4.5.2 Power Limit

Taping on the number will appear a virtual keypad to insert the Power Limit Value of single phase
If the access level is not enough will appear an error message
3.5 Log in

To access this page press

Select the user, insert the password and click on button

If the password is right the level will change to the selected ones otherwise it will go to 0 value.

3.5.1 Access levels

Level 0 (generic user)
Is possible to (No password)
- Navigate on allowed pages
- Set the % reference

Level 1 (advanced user)
Is possible to (Standard Password 1111)
- As level 0
- Chance Pw Limit

Level 2 (installer user)
Is possible to (Standard Password 2222)
- As level 1
- Set the \textit{REVO-KP2-PC}
3.6 Configuration Page

In this page is possible set the system
3.6.1.1 Label/Zones (Level2)

By Taping the “Grpup Name” field is possible to customize the text of 10 characters with an alphanumeric keypad.

By Taping the “Name” fields is possible to customize the text with 2 characters for each zone.

By Taping the “Number” field is possible to write the number of zones.

By Taping the “Load kW” field is possible to write the kW of each zone.
3.6.1.2 Password (Level2)
In this page is possible change user1 and user2 password

![Password Settings](image)

3.6.1.3 Language (Level1/2)
By pressing "Language" is possible to select Language

![Language Selection](image)

3.6.1.4 Options (Level2)
In this page is possible
- See CPU usage
- Enable/disable buzzer
- Show/hide toolbar
- Modify Backlight intensity

![Options Configuration](image)
4 Features

- **Costruzione**: Housing plastic molding
- **Display**: 7/10” TFT LCD 65.536 color
- **CPU and Core Logic**: 32bit RISC Cortex A8 - 600 MHz
- **USB**: 1 x 1 USB 2.0
- **Ethernet**: 1 x 10/100 Base-T
- **DRAM**: 128 MB DDR2 on board
- **Internal memory**: 128 MB memory flash on board, Recipe memory stored in memory flash, RW 64Kword,RW_A 64Kword.
- **Supply**: 24 ± 20% V, 350 mA a 24 V cc

4.1 Environment feature

- **Operating Temperature**: 0 ° ~ 50 ° C (32 ° ~ 122 ° F)
- **Storage Temperature**: -20 ° ~ 60 ° C (-4 ° to 140 ° F)
- **Relative humidity**: 10% ~ 90% @ 40 ° C, no condensation
- **CE / FCC**: Complies with EN 55022:2006, Class A
  - EN 61000-3-2:2006
- **Front panel meets NEMA 4 / IP65**

5 Order Code

<table>
<thead>
<tr>
<th>CODICE</th>
<th>R</th>
<th>K</th>
<th>P</th>
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<td>For 3 RPC08 1PH 8 Loop each )CE + UL</td>
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<td>For 1 RPC48 3PH 24 Loop )CE + UL</td>
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<td>EL 0 0</td>
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</tbody>
</table>

6 Warranty condition

Producer gives a 12 months warranty to its products. The warranty is limited to repairing and parts substitution in our factory and does exclude products not properly used and fuses. Warranty does not include products with serial numbers deleted. The faulty product should be shipped to Producer at customer’s cost and our Service will evaluate if product is under warranty terms. Substituted parts remain of Producer property.