**GENERAL DESCRIPTION**

- Revo M has been specifically designed to be an Universal Unit.
- Frontal Key Pad to configure the unit and to read V,I and Power.
- Configurability via RS485, USB Port and frontal Key Pad.
- Microprocessor based electronic circuit fully isolated from power.
- Universal input signal: RS485, Pot, Analog and SSR.
- Configurable Control Mode: V, I, V², and VxI.
- Heater Break alarm to diagnose partial or total load failure and Thyristor Short circuit.
- Digital input configurable.
- Fixed Fuses Standard.
- Current transformer integrated in the unit.
- Comply with EMC, cUL pending.
- IP20 Protection.
- Panel mounting.

**TECHNICAL SPECIFICATION**

**Voltage power supply**
- From 24V to 480V Max (Std) 600V option available on all sizes. 690V available from 400A to 700A.

**Voltage Frequency**
- 50 or 60 Hz no setting needed from 47 to 70 Hz.

**Nominal Current**
- 280A, 400A, 500A, 600A, 700A.

**Input Signal**
- SSR (logic) 4:30Vdc 5mA Max (On ≥ 4Vdc Off < 1Vdc);
- Voltage input 0:10Vdc impedance 15 K ohm;
- Current input 0:20mA / 4:20mA impedance 100 Ohm;

**Digital input**
- 4:30V dc 5 mA Max (On > 4Vdc Off < 1Vdc).

**Firing**
- Soft Start + Phase Angle, Delay Triggering + Burst Firing, Soft Start + Burst Firing, Single Cycle, Selectable from frontal Key Pad or via RS485.

**Control Mode**
- Voltage, Current, Square Voltage and Power selectable via frontal Key Pad, and RS485 or via Digital input to transfer from one control mode to another one to establish a control strategy.

**Auxiliary Voltage Supply**
- 90:130Vac 8VA Max
- 170:265Vac 8VA Max (Standard)
- 230:345Vac 8VA Max
- 300:530Vac 8VA Max (Standard)
- 510:690Vac 8VA Max
- 600:760Vac 8VA Max (Available on unit ≥ 400A).

**Fan Voltage Supply**
- 230V Std and 110V on request.

**Heater Break Alarm**
- HB alarm setting on front unit or RS485 with possibility to set sensitivity. Relay output 0,5A at 110V.

**Mounting**
- Panel Mounting.

**Operating Temperature**
- 40 °C without derating. Over this temperature see below derating curve.

**Storage temperature**
- -25 °C to 70 °C Max.

**Altitude**
- Over 1000 m of altitude reduce the nominal current of 2% for each 100m.

**Humidity**
- From 5 to 95% without condense and ice.

---

**DERATING CURVE**

![Derating curve graph]

\[
I_{nom} = I_{nom} \times K
\]

Derating curve

---

**Panel mounting**
PHASE ANGLE PA

- Power Scaling

BURST FIRING BF

- Burst Firing

FIELD BUS MODULE

- Field Bus Module

APPLICATIONS AND FOCUS ON:

- Infrared lamp
- Autoclaves
- Furnaces
- Heating Treatment
- Extrusion line
- Dryers
- Climatic chambers
- Glass Industry
- Pharmaceutical
## Wiring Connection Revo M 1PH from 280A to 700A

### Revo M 1PH 280A

**Dimensions and Fixing Holes**

<table>
<thead>
<tr>
<th>Model</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>S9</td>
<td>120 mm</td>
<td>350 mm</td>
<td>230 mm</td>
<td>5.5 kg</td>
</tr>
</tbody>
</table>

### Revo M 1PH from 400 to 700A

**Dimensions and Fixing Holes**

<table>
<thead>
<tr>
<th>Model</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>S12</td>
<td>137 mm</td>
<td>520 mm</td>
<td>270 mm</td>
<td>15 kg</td>
</tr>
</tbody>
</table>

### Load Type

- Resistance and Infrared Lamps
- Long and medium waves

### Delayed Triggering

- Delayed triggering can be used with transformers coupled with normal resistance.

### Note

1. The user installation must be protected by electromagnetic circuit breaker or fuse isolator. The semiconductor I<sub>t</sub> should be 20% less than power controller I<sub>t</sub>. Semiconductor fuses are classified for UL as supplementary protection for semiconductor. They are not approved for branch circuit protection.

2. The auxiliary voltage supply of the Revo M unit must be synchronized with load voltage power supply. If the Auxiliary Voltage (written on the identification label) is different from Supply Voltage (to the load), use an external transformer connected as above.
### OUTPUT FEATURES (POWER DEVICE)

<table>
<thead>
<tr>
<th>Current A</th>
<th>Voltage range (V)</th>
<th>Ripetitive peak reverse voltage (480V)</th>
<th>Latching current (eff)</th>
<th>Max peak one cycle (10msec)</th>
<th>Leakage current (mAeff)</th>
<th>12T value for fusing tp=10msec</th>
<th>Frequency range (Hz)</th>
<th>Power loss I=Inom W</th>
<th>Isolation Voltage Vac</th>
</tr>
</thead>
<tbody>
<tr>
<td>280A</td>
<td>24÷600V</td>
<td>1200</td>
<td>1600</td>
<td>1600</td>
<td>200</td>
<td>7000</td>
<td>15</td>
<td>236000</td>
<td>47÷70</td>
</tr>
<tr>
<td>400A</td>
<td>24÷600V</td>
<td>1200</td>
<td>1600</td>
<td>1600</td>
<td>200</td>
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<tr>
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<td>1600</td>
<td>1600</td>
<td>200</td>
<td>8000</td>
<td>15</td>
<td>306000</td>
<td>47÷70</td>
</tr>
<tr>
<td>600A</td>
<td>24÷600V</td>
<td>1200</td>
<td>1600</td>
<td>1600</td>
<td>1000</td>
<td>17800</td>
<td>15</td>
<td>1027000</td>
<td>47÷70</td>
</tr>
<tr>
<td>700A</td>
<td>24÷600V</td>
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<td>1600</td>
<td>1600</td>
<td>1000</td>
<td>17800</td>
<td>15</td>
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<td>47÷70</td>
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### Fan Specification

<table>
<thead>
<tr>
<th>Description code</th>
<th>Numeric code</th>
</tr>
</thead>
<tbody>
<tr>
<td>280A</td>
<td>2 8 0</td>
</tr>
<tr>
<td>400A</td>
<td>4 0 0</td>
</tr>
<tr>
<td>500A</td>
<td>5 0 0</td>
</tr>
<tr>
<td>600A</td>
<td>6 0 0</td>
</tr>
<tr>
<td>700A</td>
<td>7 0 0</td>
</tr>
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</table>

### ORDERING CODES REVOS M 1PH

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<tr>
<th>Description code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Supply: 230V Standard</td>
<td>Input Power 17W</td>
</tr>
<tr>
<td>Supply: 115V Option</td>
<td>Input Power 14W</td>
</tr>
</tbody>
</table>