**GENERAL DESCRIPTION**

The ML100.200 is a simple and cost effective approach to convert the AC voltage of a typical three phase system into a regulated DC voltage. It only requires two phases and thereby saves terminal space, terminal cost, wires, fuses and installation time.

The ML100.200 is very compact, high efficient and easy to use. The input is internally protected, which makes external fuses unnecessary in many cases.

Weighing only 360g, it is a lightweight compared to the 50/60Hz control transformers, which are commonly used for low-power control voltages where a neutral wire is not available.

High immunity to transients and power surges as well as low electromagnetic emission makes usage in nearly every environment possible.

**SHORT-FORM DATA**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage DC</td>
<td>24V</td>
</tr>
<tr>
<td>Adjustment range</td>
<td>24-28V guaranteed</td>
</tr>
<tr>
<td>Output current</td>
<td>4.2-3.6A</td>
</tr>
<tr>
<td>Output power</td>
<td>100W</td>
</tr>
<tr>
<td>Output ripple</td>
<td>&lt; 50mVpp 20Hz to 20MHz</td>
</tr>
<tr>
<td>Input voltage</td>
<td>2AC 380-480V ±15%</td>
</tr>
<tr>
<td>Mains frequency</td>
<td>50-60Hz ±6%</td>
</tr>
<tr>
<td>AC Input current</td>
<td>typ. 0.46 / 0.4A at 400 / 480Vac</td>
</tr>
<tr>
<td>Power factor</td>
<td>typ. 0.6 / 0.55 at 400 / 480Vac</td>
</tr>
<tr>
<td>AC Inrush current</td>
<td>typ. 36 / 45A at 400 / 480Vac</td>
</tr>
<tr>
<td>Hold-up time</td>
<td>typ. 48 / 85ms at 400 / 480Vac</td>
</tr>
<tr>
<td>DC Input</td>
<td>consult PULS</td>
</tr>
<tr>
<td>Efficiency</td>
<td>89.5 / 89.0% at 400 / 480Vac</td>
</tr>
<tr>
<td>Losses</td>
<td>11.7 / 12.3W at 400 / 480Vac</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-10°C to +70°C operational</td>
</tr>
<tr>
<td></td>
<td>-40°C to +85°C storage, transport</td>
</tr>
<tr>
<td>Derating</td>
<td>2.5 W/°C +60 to +70°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>&lt; 95% r.H.</td>
</tr>
<tr>
<td></td>
<td>IEC 60068-2-30 Do not energize while condensation is present</td>
</tr>
<tr>
<td>Vibration</td>
<td>2g (2 hours/axis) IEC 60068-2-6</td>
</tr>
<tr>
<td>Shock</td>
<td>30g 6ms, 20g 11ms</td>
</tr>
<tr>
<td></td>
<td>IEC 60068-2-27</td>
</tr>
<tr>
<td>Dimensions</td>
<td>72.5x75x103mm WxHxD</td>
</tr>
</tbody>
</table>

**ORDER NUMBERS**

- Power Supply: ML100.200
- Accessory: MLY02.100
- 24-28V Power Supply: Decoupling Module

**MARKINGS**

UL 508
UL 60950-1, EMC, LVD

ML100.200 Rev 1.0-EN / All parameters are specified at 24V, 4.2A, 400Vac and 25°C ambient unless otherwise noted.

www.pulspower.com Phone +49 89 9278 0 Germany
**OUTPUT**

- **Output voltage** nom DC 24V
- **Adjustment range** min 24V-28V
- **Factory set** typ 24.5V
- **Output current** nom 4.2A at 24V, 3.6A at 28V
- **Line regulation** max 20mV 323…552Vac
- **Load regulation** max 240mV static regulation
- **Serial use** allowed
- **Parallel use** allowed
- **Return voltage** max 35V
- **OVP** typ 34V max 39V

**Output voltage vs. output current, typ.**

**Output current vs. ambient temperature**

**SAFETY AND PROTECTION**

- **Input / output insulation** SELV IEC/EN 60950-1
- **Degree of pollution** 2 EN 50178
- **Degree of protection** IP 20 EN/IEC 60529
- **Class of protection** III PE required
- **Over-voltage category** III EN 50178
- **Internal input fuse** T3A15 in L1, not accessible

**TERMINALS AND WIRING**

- **Type** Bi-stable, quick-connect spring clamp terminals. Shipped in open position.
- **Solid wire** 0.3-2.5mm²
- **Stranded wire** 0.3-2.5mm²
- **AWG** AWG 26-12
- **Stripping length** 6mm / 0.25inch
- **Ferrules** allowed, but not required

**EMC**

- **EMC Immunity** EN 61000-6-1, EN 61000-6-2
- **EMC Emission** EN61000-6-3, EN 61000-6-4 EN 55011, EN 55022, FCC-15
- **Harmonic input current** EN61000-3-2 (PFC)
- **Flicker** EN61000-3-3

**APPROVALS**

- **UL 508** Industrial Control Equipment
- **UL 60950-1** Information Technology Equipment

**FULFILLED STANDARDS**

- **EN 61558-2-17** Safety of Power Transformers
- **EN/IEC 60204-1** Safety of Electrical Equip. of Machines
- **EN/IEC 60950-1** Information Technology Equipment
- **EN/IEC 61131-2** Programmable Controllers
- **EN 50178** Electronic Equip. Power Installations

**DIMENSIONS AND WEIGHT**

- **Use 35mm DIN-rails according to EN 60715 or EN 50022 with a height of 7.5 or 15mm. The DIN-rail height must be added to the depth (103mm) to calculate the total required installation depth.**
- **Weight** max 360g 0.79lb

The power supply shall only be installed and put into operation by qualified personnel. This power supply is designed for installation in an enclosure and is intended for the general use, such as in industrial control, office, communication, and instrumentation equipment. Do not use this device in aircraft, trains and nuclear equipment, where malfunctioning of the power supply may cause severe personal injury or threaten human life. The information presented in this document is believed to be accurate and reliable and may change without notice.