Redundancy in square

**SLR10.100**

- Input: AC 230V/115V, DC 240-375 V
- Output: 24 V/10 A
- High overload current, no switch-off
- N+1 redundancy, RDY relay contact
- Robust mechanics and EMC

## Input

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage</td>
<td>AC100-120/220-240 V (switchable), 47-63 Hz</td>
</tr>
<tr>
<td></td>
<td>(85-132 VAC / 176-264 VAC, 240-375 VDC)</td>
</tr>
</tbody>
</table>

Note: At DC input, always leave the switch in the 230V position.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input current</td>
<td>&lt; 6 A (switch in 115V position)</td>
</tr>
<tr>
<td></td>
<td>&lt; 2.8 A (switch in 230V position)</td>
</tr>
<tr>
<td>DCin at open output</td>
<td>8 mA (preserves battery sources)</td>
</tr>
<tr>
<td>Inrush current</td>
<td>typ. &lt; 30 A at 264 V AC and cold start</td>
</tr>
</tbody>
</table>

Unit is internally fused (fuse not accessible). External fuse not necessary, but recommended (common 10A, B-type 'circuit-breaker' switch used anyway to fuse the input lines).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transient handling</td>
<td>Transient resistance acc. to VDE 0160 / W2 (750 V / 1.3 ms), for all load conditions.</td>
</tr>
<tr>
<td>Hold-up time</td>
<td>&gt; 25 ms at 196 VAC, 24 V / 10 A (see diagram overhead)</td>
</tr>
</tbody>
</table>

## Efficiency, Reliability etc.*

- Efficiency: typ. 89 % (230 VAC, 24 V / 10 A)
- Losses: typ. 26.7 W (230 VAC, 24 V / 10 A)
- MTBF: 390,000 h acc. to Siemensnorm SN 29500 (24 V/10 A, 230 VAC, $T_{amb} = +40 \, ^\circ C$)
- Life cycle (electrolytics): The unit exclusively uses longlife electrolytics specified for +105°C (cf. „The SilverLine“, p.2).

## Start / Overload Behaviour

- Start-up delay: typ. 0.1 s
- Rise time: ca. 5-20 ms, depending on load

**Overload Behaviour**
- Special PULS Overload Design (see diagram overhead):
  - no disconnection, no hiccup if overloaded
  - high overload current (up to 1.6 $I_{nom}$), $V_{out}$ is gradually reduced with increasing current.
  - 12A short-term, at 45°C or forced cooling even continuous

**Advantages:**
- High short-circuit current, giving large ‘start-up window’: unit starts reliably even with awkward loads (DC-DC converters, motors).
- No ‘sticking’ such as can occur with fold-back characteristics
- Secondary fuses operate reliably

## Derating

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage regulation</td>
<td>better than 2% $V_{out}$ overall</td>
</tr>
<tr>
<td>Ripple / Noise</td>
<td>&lt; 30 mVpp, (20 MHz bandw., 50 Ω measurem.)</td>
</tr>
<tr>
<td>Overvolt. protection</td>
<td>typ. 35 V</td>
</tr>
<tr>
<td>Parallel operation</td>
<td>yes, current sharing via soft characteristic (see diagram)</td>
</tr>
</tbody>
</table>

**Front panel indicator**
- Green LED

**RDY relay contact**
- Type: normally open contact
- **Type:** closes when output voltage > 22.1V ±4%
- opens when output voltage < 19.8V ±4%
- Electrical isolation: 500V DC to output voltage
- Contact rating: 1A at 28V DC

* For further information see data sheets „The SilverLine“, „SilverLine Family Branches“ and mechanics data sheet

## Order information

<table>
<thead>
<tr>
<th>Order number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLR10.100</td>
<td>N+1 redundancy*</td>
</tr>
<tr>
<td>SL10.100</td>
<td>Basic version without redundancy*</td>
</tr>
<tr>
<td>SLS10.100</td>
<td>Safety Cover*</td>
</tr>
<tr>
<td>SLZ01</td>
<td>Screw mounting set, two needed per unit</td>
</tr>
</tbody>
</table>
**Construction / Mechanics**

**Housing dimensions and Weight**
- W x H x D: 120 mm x 124 mm x 102 mm (+ DIN Rail)
- Free space for ventilation: above/below 25 mm recommended, left/right 15 mm recommended
- Weight: 980 g

**Design advantages:**
- Input and output pluggable by means of Combicon® plug connector
- Ensure strain relief of the plug connectors when installing the unit.

**Further information**

Further information, especially about
- EMC
- Connections
- Safety, Approvals
- Mechanics and Mounting
see page 2 of „The SilverLine“ data sheet.

**For detailed dimensions**
see SilverLine mechanics data sheet SLR2.5/5/10

**Power wiring**

**Output characteristic (min.)**

**Efficiency (typ.)**

**Hold-up time (typ.)**

Unless otherwise stated, specifications are valid for AC 230V input voltage, +25°C ambient temperature, and 5 min. run-in time. They are subject to change without prior notice.

**Your partner in power supply:**

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D-81925 München
Tel.: +49 89 9278-0
Fax: +49 89 9278-199
www.puls-power.com
Mechanics

SLR2.5 / SLR5 / SLR10

- Innovative DIN-Rail mount, unit holds even at vibration or lateral pressure
- Clearly arranged and user oriented
- Large, robust plug connectors
- Sealed metal housing
- Fine ventilating grid

Construction / Mechanics

<table>
<thead>
<tr>
<th>Housing dimensions and Weight</th>
<th>Free space for ventilation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>Weight</td>
</tr>
<tr>
<td>SLR2.5</td>
<td>49 x 124 x 102</td>
</tr>
<tr>
<td>SLR5.100</td>
<td>64 x 124 x 102</td>
</tr>
<tr>
<td>SLR10.10</td>
<td>120 x 124 x 102</td>
</tr>
</tbody>
</table>

Overall depth = depth value as mentioned + DIN rail depth

Robust metal housing with fine ventilat. grid (Ø 3.5 mm, IP20), to keep out small parts (e.g. screws)

- Mounting on DIN-Rail (TS35/7.5 or TS35/15, 1...1.5 mm thick), thus
- Simple snap-on system
- Sits safely and firmly on the DIN-Rail
- No tools required to remove
- or backplane-mounted

Connections

- Stable plug connectors, connector size range: 0.2 – 2.5 mm² 0.2 – 2.5 mm², SLR10: 0.2 – 4 mm²
- 12 A each (SLR10: 20 A each)
- 7.62 mm (input) / 5.08 mm (output) distance between adjacent connectors
- SLR10: 7.62 mm (output)

Design advantages:

- All connection blocks are easy to reach as mounted at the the front panel.
- Input and output are strictly apart from each other and so cannot be mixed up

Order information

<table>
<thead>
<tr>
<th>Order number</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SLR2.5: 24V/2.5A</td>
<td>Screw mounting set, two needed per unit</td>
</tr>
<tr>
<td>SLR5.100: 24V/5A</td>
<td></td>
</tr>
<tr>
<td>SLR10.100: 24V/10A</td>
<td></td>
</tr>
<tr>
<td>SLZ01</td>
<td></td>
</tr>
</tbody>
</table>
his 'mechanics data sheet' exclusively deals with the mechanical properties of the product. For further information (especially concerning electrical properties), please refer to the generic data sheet of the SLR2.5, SLR5.100 and SLR10.100 and to the basic data sheet „The SilverLine“ dealing with common features of all SilverLine units. This data sheet is subject to change without prior notice.

Your partner in power supply: