Redundancy with boost

**SLR5.100**

- Input: AC 230V/115V, DC 210-375V
- Output: 24V/5A
- High overload current, no switch-off
- Quasi-Wide-Range Input
- N+1 redundancy, RDY relay contact

### Input

- **Input voltage**: AC100-120/220-240 V (switchable), 47-63 Hz (85-132 VAC / 176-264 VAC, 210-375 VDC, see also „Output: Continuous Loading“)
- **Quasi-Wide-Range Input**: With the switch in the 230V position the power supply unit operates at low and moderate loads (until 3 A) at any input voltage between 95 and 264 V AC.
- **Note**: At DC input, always leave the switch in the 230V position.
- **Input current**: < 2.6 A (switch in 115V position)
- **Inrush current**: typ. < 15 A at 264 V AC and cold start
- To be fused with a 10A, B-type 'circuit-breaker' switch based on the usual thermomag. overload sensing principle (used anyway to fuse the input lines). In addition, the unit contains an internal fuse (not accessible).
- **Harmonic current emissions**: acc. to EN 61000-3-2
- **Transient handling**:Transient resistance acc. to VDE 0160 / W2 (750 V / 1.3 ms), for all load conditions.
- **Hold-up time**: > 37 ms at 196 VAC, 24 V / 5 A (see diagram overleaf)

### Efficiency, Reliability etc.*

- **Efficiency**: typ. 89 % (230 VAC, 24 V / 5 A)
- **Losses**: typ. 14.8 W (230 VAC, 24 V / 5 A)
- **MTBF**: 480,000 h acc. to Siemensnorm SN 29500 (24 V/5 A, 230 VAC, T_{amb} = +40 °C)
- **Life cycle (electrolytics)**: The unit exclusively uses longlife electrolytics, specified for +105°C (cf. ‘The SilverLine’, p.2).

### Construction / Mechanics*

- **Housing dimensions and Weight**: W x H x D 64 mm x 124 mm x 102 mm (+ DIN rail)
- **Free space for ventilation**: above/below 25 mm recommended
- **Weight**: 620 g
- **Design advantages**:
  - Input and output pluggable by means of Combicon® plug connector.
  - Ensure strain relief of the plug connectors when installing the unit.
  - Input and output are strictly apart from each other and so cannot be mixed up (input below, output above).

### Order information

<table>
<thead>
<tr>
<th>Order number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLR5.100</td>
<td>N+1 redundancy*</td>
</tr>
<tr>
<td>SL5.100</td>
<td>Basic version without redundancy*</td>
</tr>
<tr>
<td>SLS5.100</td>
<td>Safety Cover*</td>
</tr>
<tr>
<td>SLZ01</td>
<td>Screw mounting set, two needed per unit</td>
</tr>
</tbody>
</table>

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

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

Overload Behaviour
- Special PULS Over-load Design (see right diagram)
  - no disconnection, no hiccup if overloaded
  - high overload current (up to 1.9 \( I_{\text{Nom}} \)), Vout is gradually reduced with increasing current.
- 20% power boost  - 6A 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

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.)

Output Current over Input Voltage (min.)

Hold-up time (min.)

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:
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

Order information

<table>
<thead>
<tr>
<th>Order number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLR2.5: 24V/2.5A</td>
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</tr>
<tr>
<td>SLR5: 24V/5A</td>
<td>Screw mounting set, two needed per unit</td>
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<tr>
<td>SLR10: 24V/10A</td>
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</tr>
<tr>
<td>SLZ01</td>
<td>Screw mounting set SL201 required</td>
</tr>
</tbody>
</table>

Connections

- Input: 0.2 – 2.5 mm²
- Output: 0.2 – 2.5 mm², SLR10: 0.2 – 4 mm²
- Current handling capacity:
  - SLR2.5: 12 A each
  - SLR5: 12 A each
  - SLR10: 20 A each
- Grid distance between adjacent connectors:
  - SLR2.5: 7.62 mm
  - SLR5: 7.62 mm
  - SLR10: 5.08 mm

Connections

- Input: 7.62 mm
- Output: 5.08 mm

Design advantages:

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