48-56V adjustable

**SL10.101**

- Input: AC 230/115V, DC 240...375V
- Output: 48-56V/240W
- Power boost up to 288W
- High overload current, no switch-off
- Robust mechanics and EMC

**Input**

- **Input voltage**: AC 100-120/220-240V (switchable), 47-63Hz (AC 85...132/176...264V, DC 240...375V)
- **Input current**: <6A (switch in 115V position) <2.8A (switch in 230V position)
- **DCin at open output**: 8mA (preserves battery sources)
- **Inrush current**: typ. <30A at AC 264V and cold start
- **Unit is internally fused (fuse not accessible). For external fusing of unit and for input line protection, use circuit breaker with B-characteristic 10A or slower action, or alternatively T10A HBC fuse.**
- **Transient handling**: Transient resistance acc. to VDE 0160 / W2 (750V/1.3ms), for all load conditions.
- **Hold up time**: >25ms at AC 196V, 48V/5A (see diagram overleaf)

**Efficiency, Construction / Mechanics***

- **Housing dimensions and Weight**: 120mm x 124mm x 102mm (+ DIN rail)
- **Free space for ventilation**: above/below 25mm recommended left/right 15mm recommended 980g
- **Design advantages**: All connection blocks are easy to reach as mounted at the front panel.

**Reliability etc.*

- **Efficiency**: typ. >90% (AC 230V, 48V/5A)
- **Losses**: typ. 26.7W (AC 230V, 48V/5A)
- **MTBF**: 425.000h acc. to Siemensnorm SN 29500 (48V/5A, AC 230V, \(T_{amb} = +40^\circ C\))
- **Life cycle (electrolytics)**: The unit exclusively uses longlife electrolytics, specified for +105°C (cf. ‘The SilverLine’, p.2).

**Output**

- **Output voltage**: DC 48-56V, adjustable by (covered) front panel potentiometer; preset: 48 V ±0.5% Adj. range guaranteed
- **Ambient temperature range \(T_{amb}\)**: Operation: 0°C...+70°C (>60°C: Derating) Storage: -25°C...+85°C
- **Rated continuous loading with convection cooling**:
  - \(T_{amb}=0^\circ C\) - 60°C: 48V/5A (240W) resp. 56V/4.3A (240W)
  - \(T_{amb}=0^\circ C\) - 45°C: 48V/6A (288W) resp. 56V/5.1A (288W)
  - short-term also at 60°C
- **Output is protected against short-circuit, open circuit and overload**
- **Derating**: typ. 6W/K (at \(T_{amb} = +60^\circ C\)...+70°C)
- **Voltage regulation**: better than 2% Vout overall
- **Ripple / Noise**: <50mVpp, (20MHz bandw., 50Ω measurement.)
- **Overvolt. protection**: typ. 59V
- **Parallel operation**: yes, load sharing available on request
- **Power back immunity**: 60V
- **Front panel indicator**: Green LED on front panel

**Start / Overload Behaviour**

- **Startup delay**: typ. 0.1s
- **Rise time**: ca. 5-20ms, depending on load
- **Overload Behaviour**:
  - Special PULS Overload Design (see diagram overleaf)
  - 20% power boost
  - no disconnection, no hiccup if overloaded
  - high overload current (up to 1.6 \(I_{Nom}\))
  - Vout is gradually reduced with increasing current.
  - 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 more reliably

* “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>
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<tbody>
<tr>
<td>SL10.101</td>
<td>Screw mounting set, two needed per unit</td>
</tr>
<tr>
<td>SL202</td>
<td></td>
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</tbody>
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*Order information*
Functional diagrams

Efficiency (typ.)

Output characteristic (min.)

Hold-up time (typ., at V_out=48V)

For further information, especially about, EMC, Connections, Safety, Approvals, Mechanics und Mounting, see page 2 of the „The SilverLine“ data sheet.

For detailed dimensions
see SilverLine mechanics data sheet SL2.5/ SLS/ SL10

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**

**SL2.5/ SL5/ SL10**

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

**Data sheet**

**Construction / Mechanics**

<table>
<thead>
<tr>
<th>Order number</th>
<th>Description</th>
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<tbody>
<tr>
<td>SL2.100</td>
<td>24V/2.5A</td>
</tr>
<tr>
<td>SL2.103</td>
<td>12-15V/40W</td>
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<tr>
<td>SL5.100</td>
<td>24V/5A</td>
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<tr>
<td>SL5.102</td>
<td>24-28V/120W</td>
</tr>
<tr>
<td>SL5.105</td>
<td>24-28V/120W, 3AC400-500V input</td>
</tr>
<tr>
<td>SL5.300</td>
<td>24-28V/240W</td>
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<tr>
<td>SL10.100</td>
<td>48-56V/240W</td>
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<td>Screw mounting set, two needed per unit</td>
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<tr>
<td>SLZ01</td>
<td>24V/2.5A, 120W</td>
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</table>

**Order information**
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 SL2.5, SL5 and SL10 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:

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