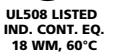


## SL2.100

- Input: AC 230V / 115V
- Output: 24V / 2.5A
- High overload current, no switch-off
- Quasi-Wide-Range Input
- Robust mechanics and EMC
- NEC Class 2 Power Supply



## Data sheet

## Input

Input voltage	AC100-120/220-240 V (switchable), 47-63 Hz (85-132 VAC / 176-264 VAC, 160-375 VDC, see also „Output: Continuous Loading“)
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Quasi-Wide-Range Input: With the switch in the 230V position the power-supply unit operates at low and moderate loads at any input voltage between 95 and 264 V AC (see 'Output' at the right side).

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

Input current	< 1.3 A (switch in 115V position) < 0.7 A (switch in 230V position)
DC input current at open output	typ. 5.3 mA at 110 VDC, 3.9 mA at 300 VDC (preserves battery sources)
Inrush current	typ. 25 A at 264 V AC 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.

EN 61000-3-2 (harmonic current emissions) is fulfilled

Transient handling	Transient resistance acc. to VDE 0160 / W2 (750 V / 1.3 ms), for all load conditions.
Hold up time	> 20 ms at 196 VAC, 24 V / 2.5 A (see Diagram overleaf)

## Efficiency, Reliability etc.\*

Efficiency	typ. 87.5 % (230 VAC, 24 V / 2.5 A)
Losses	typ. 8.6 W (230 VAC, 24 V / 2.5 A)
MTBF	740,000 h acc. to Siemensnorm SN 29500 (24 V/2.5 A, 230 VAC, T <sub>amb</sub> = +40 °C)
Life cycle (electrolytics)	The unit exclusively uses longlife electrolytics, specified for +105°C (cf. 'The SilverLine', p.2).

## Output

Output voltage	24 V DC +5% -1% (12V on request)																					
Output noise suppression	Radiated EMI values below EN 61000-6-3, even when using long, unscreened output cables.																					
Ambient temperature range T <sub>amb</sub>	Operation: -10°C...+70°C (>60°C: Derating) Storage: -25°C...+85°C																					
Continuous loading (at T <sub>amb</sub> = -10°C...+60°C, convection cooling), see also Diagram overleaf. For start at T <sub>amb</sub> <0°C and low input voltage, please contact PULS. * For start with DC input > 95 V DC needed	<table> <thead> <tr> <th>Switch</th> <th>AC/DCin</th> <th>lout</th> </tr> </thead> <tbody> <tr> <td>230V</td> <td>176-264 V</td> <td>ACin 2,5 A</td> </tr> <tr> <td></td> <td>95-176 V</td> <td>ACin 1,5 A</td> </tr> <tr> <td></td> <td>160-375 V</td> <td>DCin 2,5 A</td> </tr> <tr> <td></td> <td>120-160 V</td> <td>DCin 2,0 A</td> </tr> <tr> <td></td> <td>80*-120 V</td> <td>DCin 1,5 A</td> </tr> <tr> <td>115V</td> <td>85-132 V</td> <td>ACin 2,5 A</td> </tr> </tbody> </table>	Switch	AC/DCin	lout	230V	176-264 V	ACin 2,5 A		95-176 V	ACin 1,5 A		160-375 V	DCin 2,5 A		120-160 V	DCin 2,0 A		80*-120 V	DCin 1,5 A	115V	85-132 V	ACin 2,5 A
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Output protected against short circuit, open circuit and overload																						
Derating	typ. 1.5 W/K (at T <sub>amb</sub> =+60°C...+70°C)																					
Voltage regulation	better than 2% V <sub>out</sub> overall																					
Ripple / Noise	< 25 mV <sub>pp</sub> , (20 MHz bandw., 50 Ω measurem.)																					
Overvolt. protection	typ. 32 V																					
Parallel operation	yes; current sharing available on request																					
Power back immunity	26 V																					
Front panel indicator	Green LED, goes out at V <sub>out</sub> < 18V																					

## Start / Overload Behaviour

Startup delay	typ. 0.1 s
Rise time	ca. 5-20 ms, depending on load
Overload Behaviour	<ul style="list-style-type: none"> <li>• Special PULS Overload Design (see diagram overleaf) <ul style="list-style-type: none"> <li>- no disconnection, no hiccup if overloaded</li> <li>- high overload current (up to 1.5 I<sub>Nom</sub>), V<sub>out</sub> is gradually reduced with increasing current.</li> </ul> </li> </ul>

## 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

## Order information

Order number	Description
SL2.100	(Basic version*)
SLR2.100	(N+1 redundancy*)
SLZ02	(Screw mounting set, two needed per unit)

## Construction / Mechanics\*

### Housing dimensions and Weight

- W x H x D 49 mm x 124 mm x 102 mm (+ DIN rail)
- Free space for ventilation above/below 25 mm recommended right 10 mm recommended (front view)
- Weight 460 g

### Design advantages:

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

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

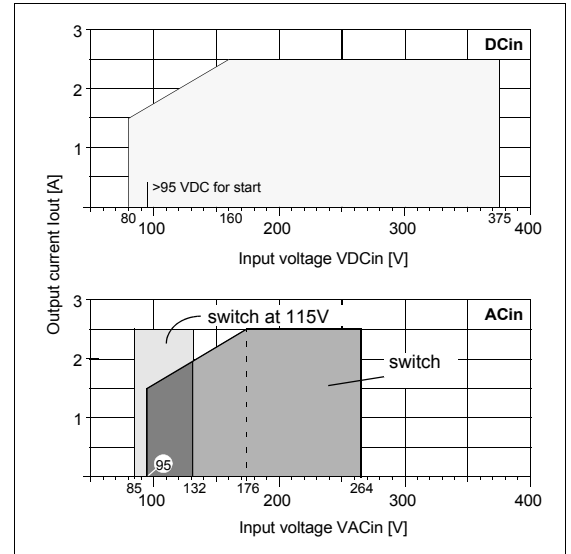
### For further information, especially about

- EMC
  - Connections
  - Safety, Approvals
  - Mechanics und Mounting,
- see page 2 of the „The SilverLine“ data sheet.

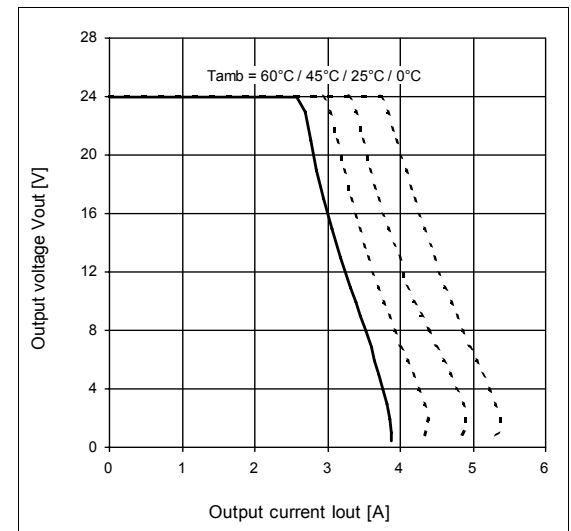
### For detailed dimensions

see SilverLine mechanics data sheet SL2/ SL5/ SL10

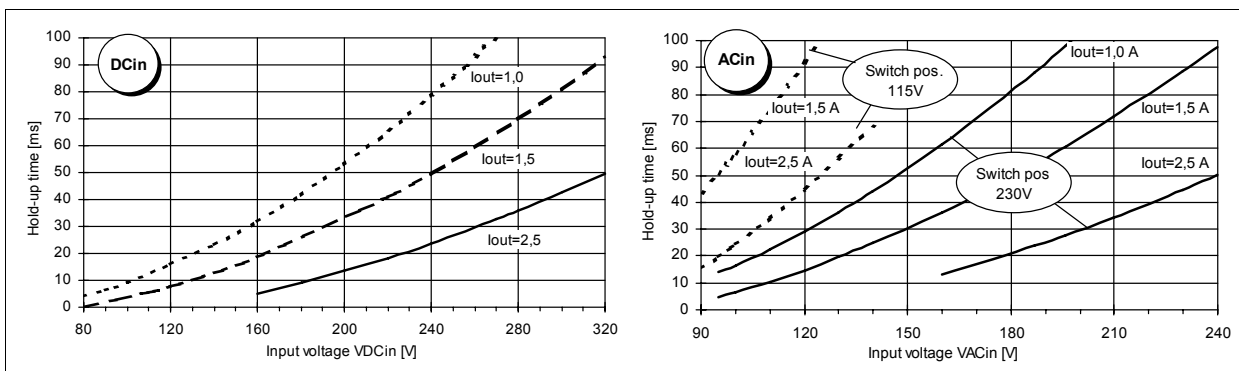
## Output Current over Input Voltage (min.)



## Output characteristic (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:



European Power Supply Manufacturers Association



Bayerns Best 50  
Czech 100 Best  
Europe's 500

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