

# 4 A with power limitation

**PULS**

## SL4.100

- Input: AC 230V / 115V, DC 210-375V
- Output: 24V / 4A
- 100 VA Limited Power Source
- No switch-off at overload
- 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, 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 (up to 2 A) at any input voltage between 95 and 264 VAC. Note: At DC input, always leave the switch in the 230V position	
Input current	< 2.0 A (switch in 115V position) < 1.1 A (switch in 230V position)
DCin at open output	typ. 5 mA (preserves battery sources)
Inrush current	typ. < 15 A at 264 V AC and cold start
Unit is internally fused (fuse not accessible). External fuse not necessary, but recommended (common thermomagnetic 10A, B-type 'circuit-breaker' switch used anyway to fuse the input lines).	
Transient handling	Transient resistant acc. to VDE 0160 / W2 (750 V / 1.3 ms), for all load conditions.
Hold-up time	> 20 ms at 196 VAC, 24 V / 4 A (see diagram overleaf)

### Efficiency, Reliability etc.\*

Efficiency	typ. 88 % (230 VAC, 24 V / 4 A)
Losses	typ. 13.6 W (230 VAC, 24 V / 4 A)
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	65 mm x 124 mm x 102 mm (+ DIN rail)
• Free space for ventilation	above/below 25 mm recommended left/right 15 mm recommended
• Weight	620 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“

### Order information

Order number	Description
SL4.100	
SLZ01	Screw mounting set, two needed per unit

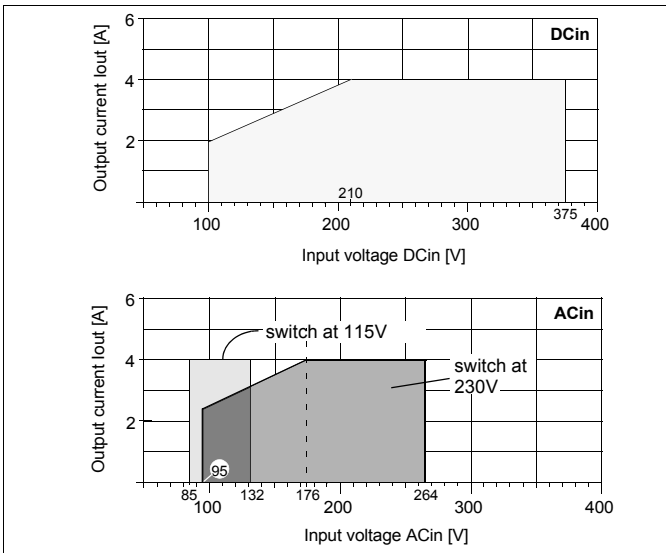
### Output

Output voltage	24 V DC +5% -1%																	
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 (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.	<table border="1"> <thead> <tr> <th>Switch</th> <th>AC/DCin</th> <th>I<sub>out</sub></th> </tr> </thead> <tbody> <tr> <td rowspan="4">230V</td> <td>176-264 V</td> <td>ACin 4 A</td> </tr> <tr> <td>95-176 V</td> <td>ACin 3 A</td> </tr> <tr> <td>210-375 V</td> <td>DCin 4 A</td> </tr> <tr> <td>150-210 V</td> <td>DCin 3 A</td> </tr> <tr> <td rowspan="2">115V</td> <td>100-150 V</td> <td>DCin 2 A</td> </tr> <tr> <td>85-132 V</td> <td>ACin 4 A</td> </tr> </tbody> </table>	Switch	AC/DCin	I <sub>out</sub>	230V	176-264 V	ACin 4 A	95-176 V	ACin 3 A	210-375 V	DCin 4 A	150-210 V	DCin 3 A	115V	100-150 V	DCin 2 A	85-132 V	ACin 4 A
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115V	100-150 V	DCin 2 A																
	85-132 V	ACin 4 A																
Output is protected against short circuit, open circuit and overload.																		
Derating	typ. 3 W/K (at T <sub>amb</sub> =+60°C...+70°C)																	
Voltage regulation	better 2% V <sub>out</sub> over all																	
Ripple / Noise	< 25 mV <sub>pp</sub> (20 MHz bandw., 50 Ω measurem.)																	
Overvolt. protection	typ. 29 V																	
Parallel operation	yes																	
Power back immunity	26 V																	
Front panel indicator	Green LED on front panel, goes out at V <sub>out</sub> < 12 V																	

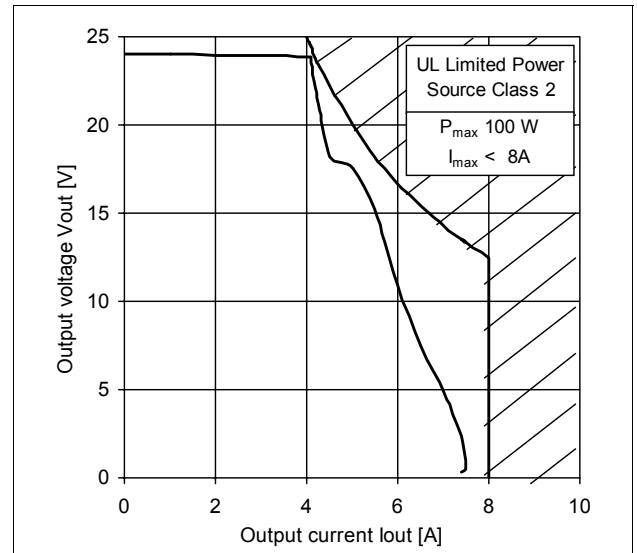
### Start / Overload Behaviour

Start-up delay	typ. 0.1 s
Rise time	appr. 5-30 ms, depending on load
Overload behaviour	Unit fulfills the requirements under Ltd. Power Source acc. to EN60950, para. 2.11, as follows: <ul style="list-style-type: none"> <li>• P<sub>out</sub> &lt; 100 VA at all load conditions</li> <li>• I<sub>out</sub> &lt; 8 A at all load conditions</li> </ul>

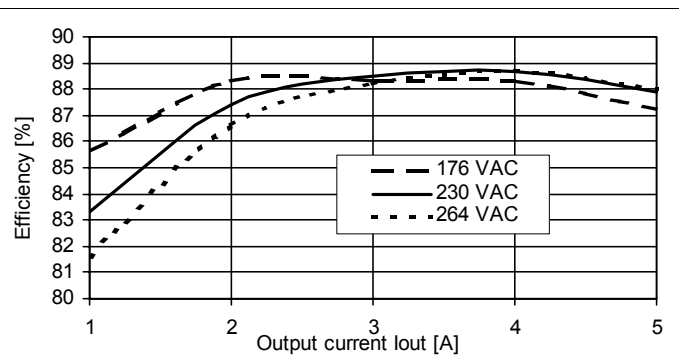
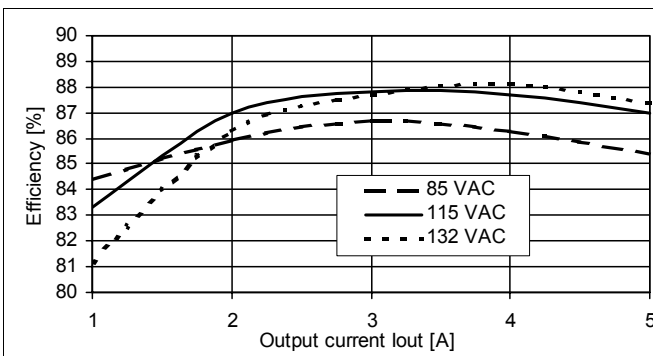
**Output Current over Input Voltage (min.)**



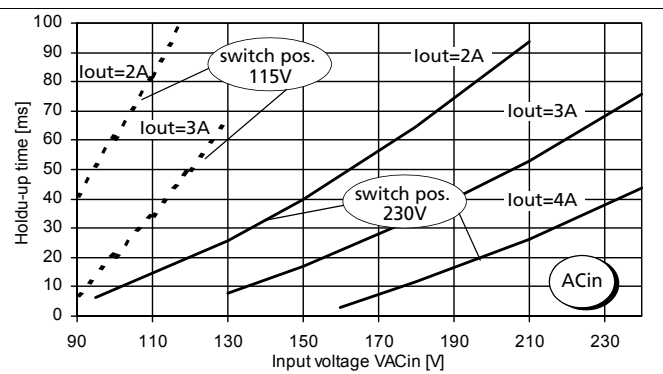
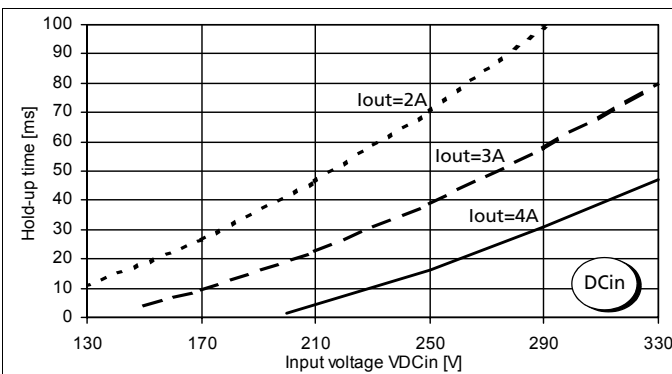
**Output characteristic (typ.)**



**Efficiency (min.)**



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



For further information, especially about

- EMC
- Connections
- Safety, Approvals
- Mechanics and Mounting,

see page 2 of the „The SilverLine“ data sheet.

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:**



Bayerns Best 50  
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EuropeOs 500

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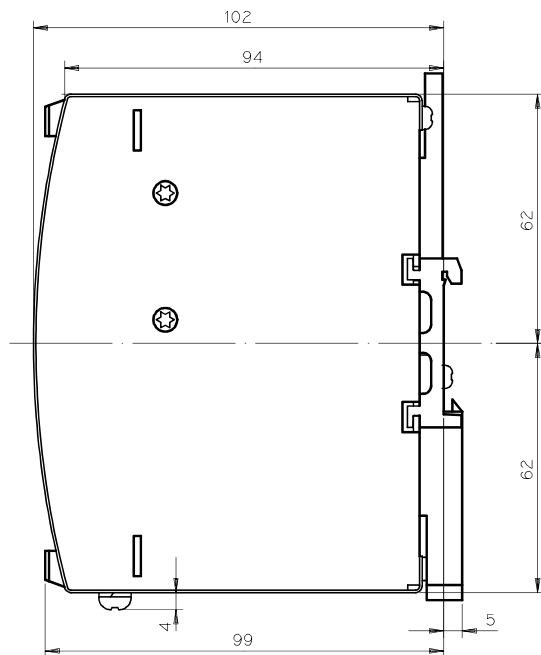
## SL2.5/ SL5/ SL10

- 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

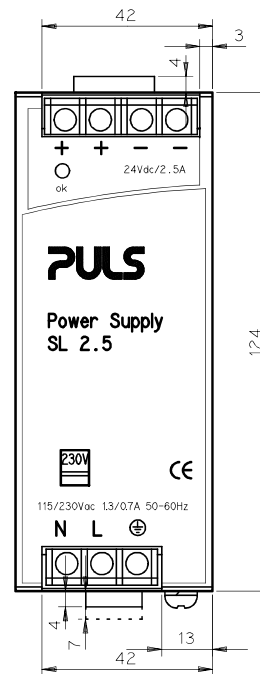


Data sheet

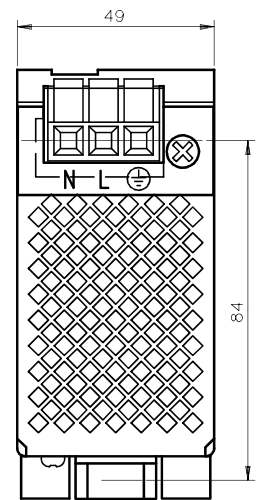
**Side view SL2.5**



**Front view SL2.5**



**Bottom view SL2.5**



### Construction / Mechanics

Housing dimensions and Weight		Free space for ventilation	
Unit	W x H x D [mm] weight	left	above/below right
• <b>SL2.5</b>	49 x 124 x 102 460 g	0 mm	25 mm each 10 mm
• <b>SL5.10x</b>	64 x 124 x 102 620 g	15 mm	25 mm each 15 mm
• <b>SL5.300</b>	73 x 124 x 117 730 g	15 mm	50 mm each 15 mm
• <b>SL10</b>	120 x 124 x 102 980 g	15 mm	25 mm each 15 mm

Overall depth = depth value as mentioned + DIN rail depth

Robust metal housing with fine ventilat. grid (◇ 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 (two optional screw mounting sets SLZ01 required)

### Connections

Connections

- Input/Output
- Current handling capacity
- Grid

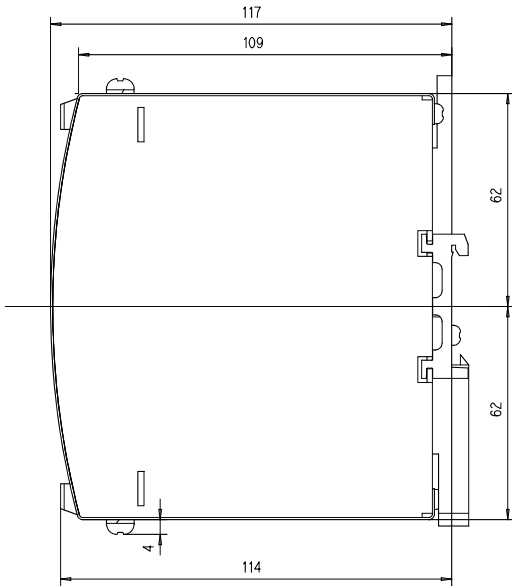
Screw terminals, connector size range: solid 0.5- 6 mm<sup>2</sup> / flexible 0.5- 4 mm<sup>2</sup>  
30 A per output  
Two connectors per output, 9 mm distance between adjacent connectors

Design advantages:

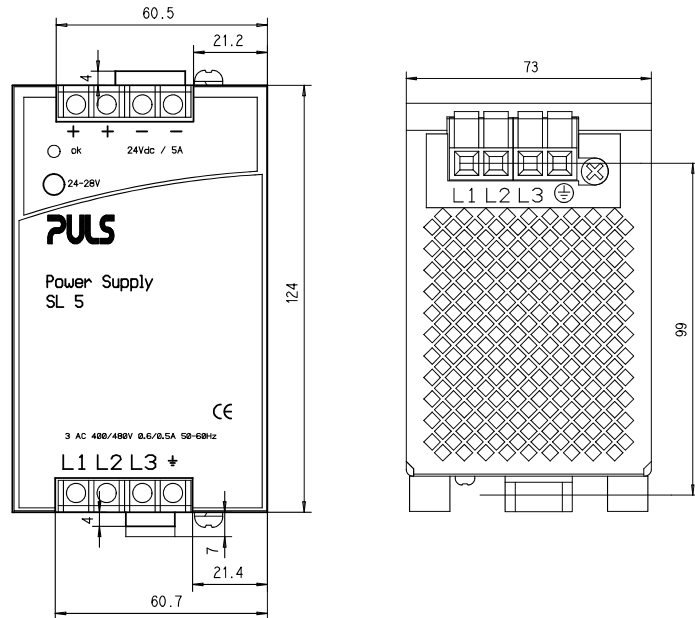
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### Order information

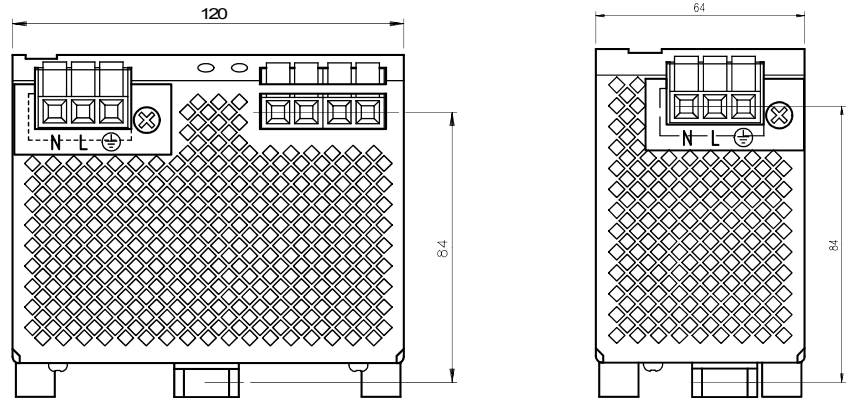
Order number	Description
SL2.100	24V/2.5A
SL2.103	12-15V/40W
SL5.100	24V/5A
SL5.102	24-28V/120W
SL5.105	24-28V/120W
SL5.300	24-28V/120W, 3AC400-500V input
SL10.100 and SL10.105	24-28V/240W
SL10.101	48-56V/240W
SLZ01	Screw mounting set, two needed per unit



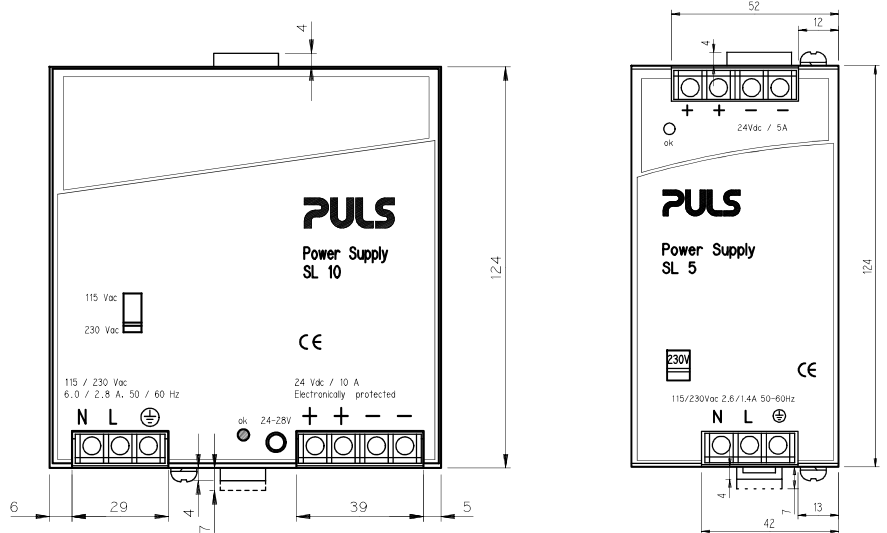
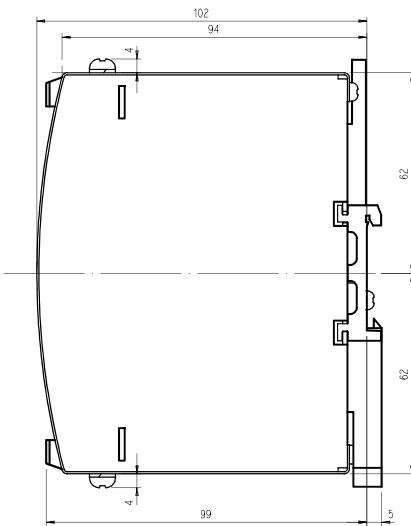
**All views SL5.300**



**Bottom view  
SL10 SL5.10x**



**Side view and front view  
SL10, SL5.10x**



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 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.

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