

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

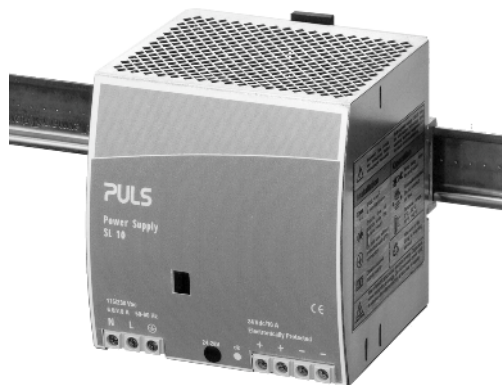
PULS

CB
scheme
IEC60950

UL
US
UL508 LISTED
IND. CONT. EQ.
18 WM, 60°C

UL
US
UL60950 E137006
CUL/CSA-C22.2
No 60950

CE
EMC and
Low Volt.
Directive



Data sheet

Input

Input voltage	AC 100-120/220-240V (switchable), 47-63Hz (AC 85...132/176...264V, DC 240...375V)
Note: At DC input, always leave the switch in the 230V position	
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	
• W x H x D	120mm x 124mm x 102mm (+ DIN rail)
• Free space for ventilation	above/below 25mm recommended left/right 15mm recommended
• Weight	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°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°C - 60°C	48V/5A (240W) resp. 56V/4.3A (240W)
• T _{amb} =0°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°C...+70°C)
Voltage regulation	better than 2% V _{out} overall
Ripple / Noise	<50mV _{pp} , (20MHz bandw., 50Ω measurem.)
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)	– no disconnection, no hiccup if overloaded
• 20% power boost	– high overload current (up to 1.6 I _{Nom}), V _{out} 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	

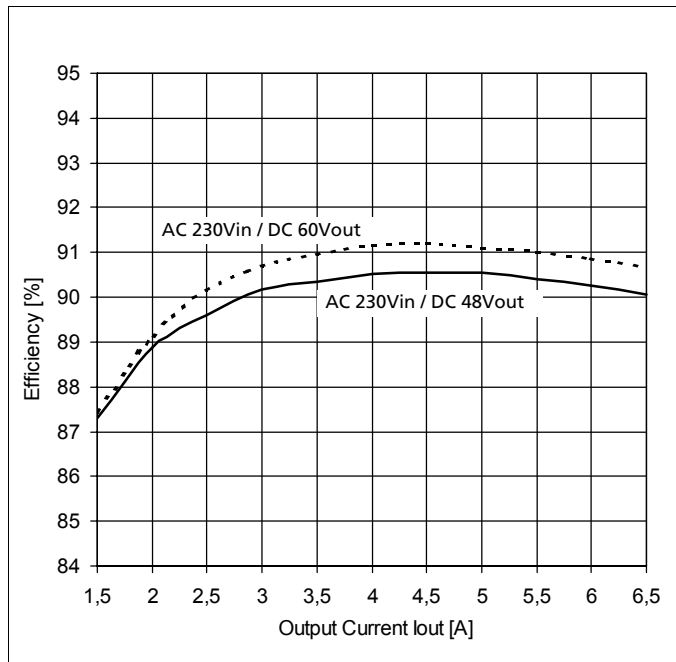
* For further information see data sheets „The SilverLine“, „SilverLine Family Branches“ and mechanics data sheet

Order information

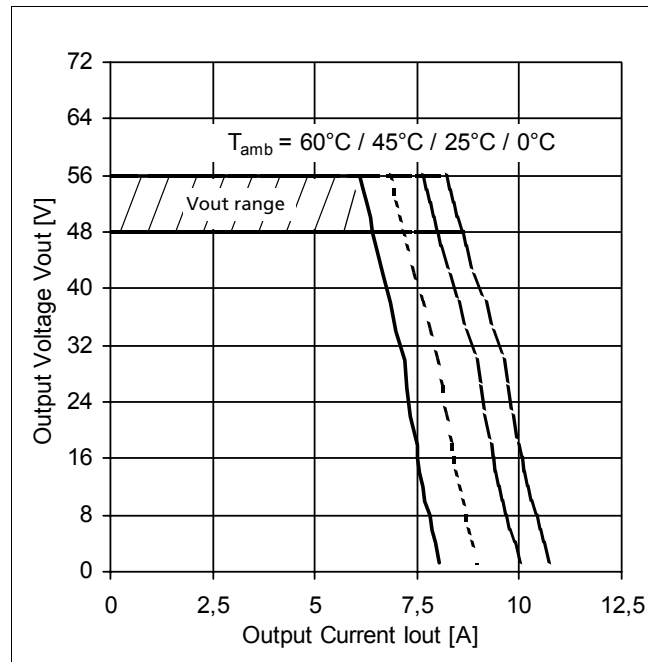
Order number	Description
SL10.101	
SLZ02	Screw mounting set, two needed per unit

Functional diagrams

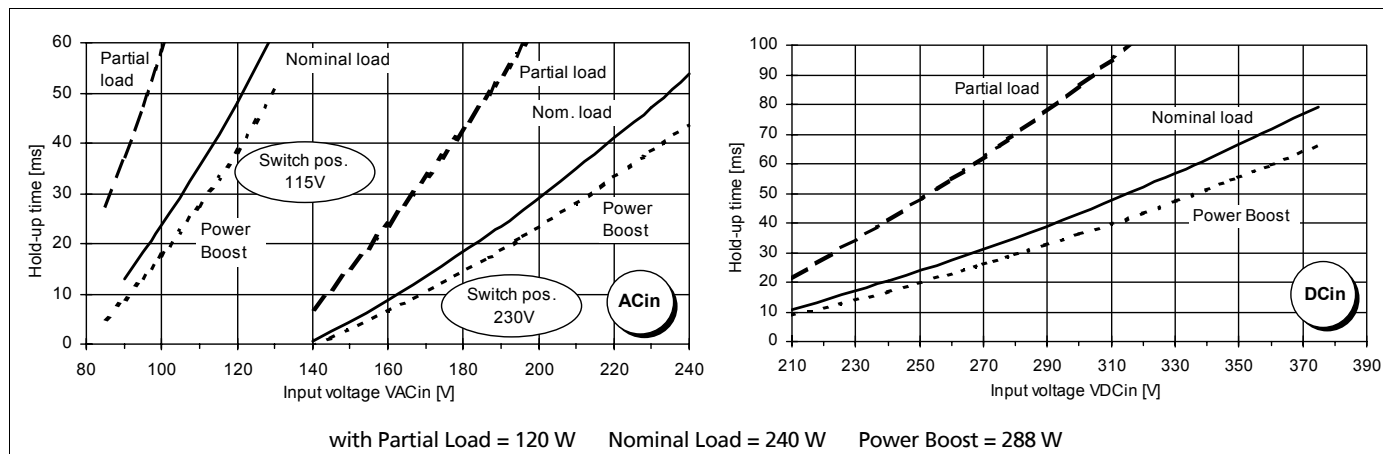
Efficiency (typ.)



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/ SL5/ 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:



European
Power Supply
Manufacturers
Association



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Czech 100 Best
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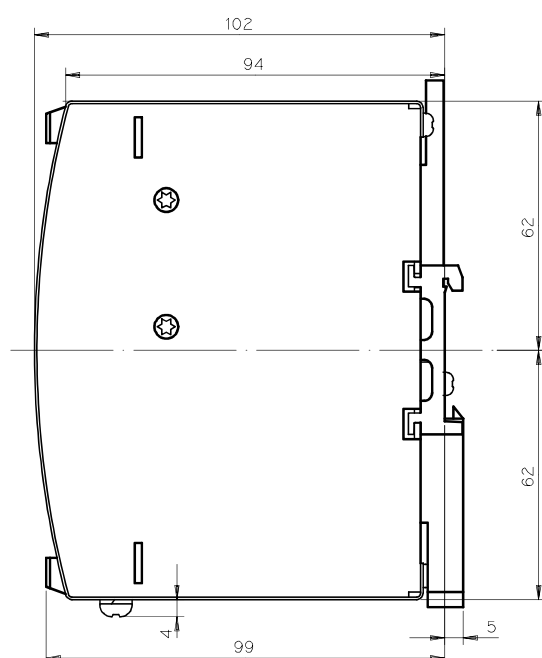
SL2.5/ SL5/ SL10

- 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

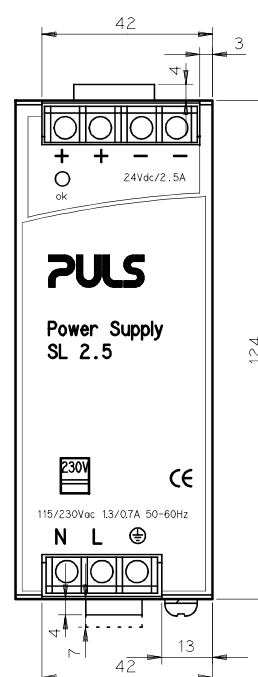


Data sheet

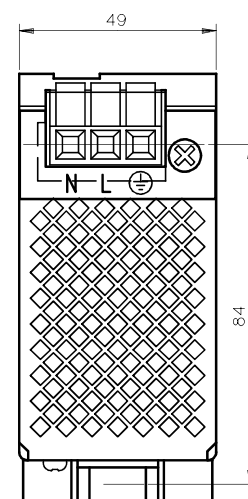
Side view SL2.5



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	
• SL2.5	49 x 124 x 102	460 g	0 mm	25 mm each	10 mm
• SL5.10x	64 x 124 x 102	620 g	15 mm	25 mm each	15 mm
• SL5.300	73 x 124 x 117	730 g	15 mm	50 mm each	15 mm
• SL10	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)

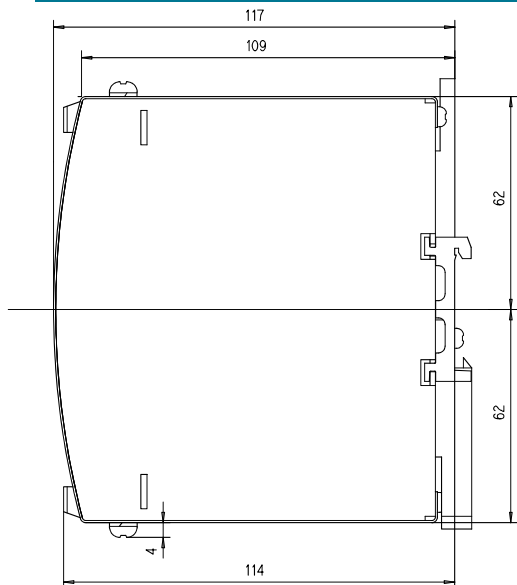
Mounting	on DIN-Rail (TS35/7.5 or TS35/15, 1...1.5 mm thick), thus
	• Simple snap-on system • Sits safely and firmly on the DIN-Rail • No tools required to remove
or backplane-mounted	
	(two optional screw mounting sets SLZ01 required)

Connections

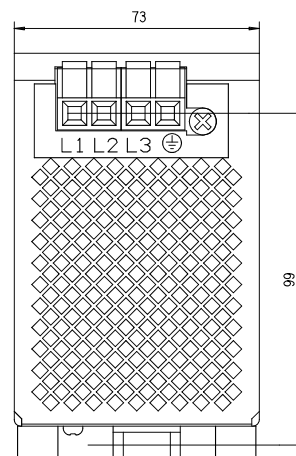
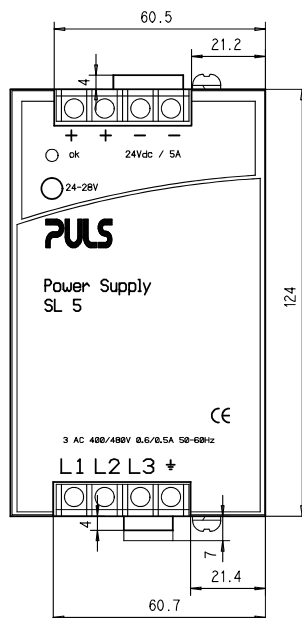
Connections	
• Input/Output	Screw terminals, connector size range: solid 0.5- 6 mm ² / flexible 0.5- 4 mm ²
• Current handling capacity	30 A per output
• Grid	Two connectors per output, 9 mm distance between adjacent connectors
Design advantages:	
• All connection blocks are easy to reach as mounted at the the front panel. • Input and output are strictly apart from each other and so cannot be mixed up	

Order information

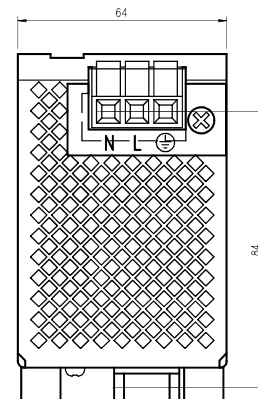
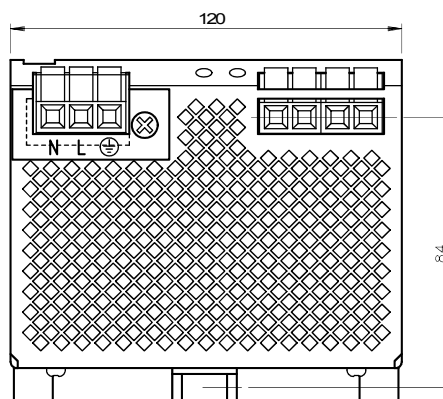
Order number	Description
SL2.100	24V/2.5A
SL2.103	12-15V/40W
SL5.100	24V/5A
SL5.102	24-28V/120W
SL5.105	24-28V/120W
SL5.300	24-28V/120W, 3AC400-500V input
SL10.100 and SL10.105	24-28V/240W
SL10.101	48-56V/240W
SLZ01	Screw mounting set, two needed per unit



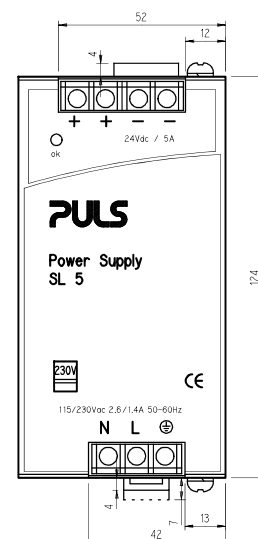
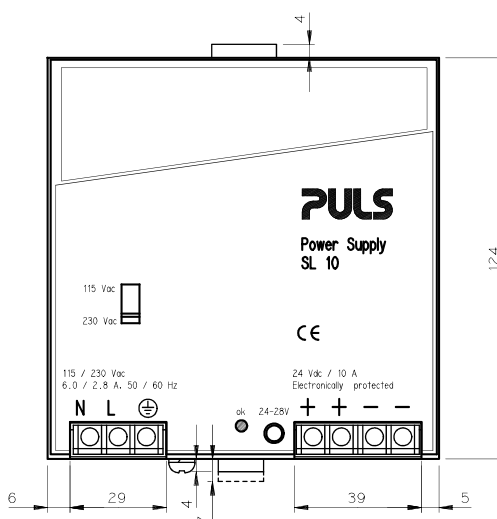
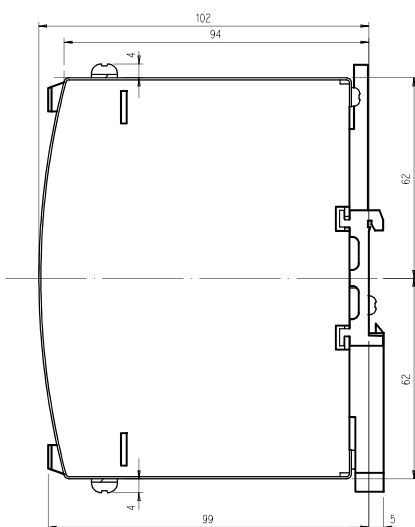
All views SL5.300



**Bottom view
SL10 SL5.10x**



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



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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