

48-56V adjustable

**PULS**

# 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



CB  
Scheme  
IEC60950

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

UL  
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 above/below 25mm recommended
- ventilation 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 5N 29500  
(48V/5A, AC 230V, 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 DC 48-56V, adjustable by (covered) front panel  
potentiometer; preset: 48 V ±0.5%  
Adj. range guaranteed

Ambient temperature range T<sub>amb</sub> Operation: 0°C...+70°C (>60°C: Derating)  
Storage: -25°C...+85°C

Rated continuous loading with convection cooling

- T<sub>amb</sub>=0°C - 60°C 48V/5A (240W) resp. 56V/4.3A (240W)
- T<sub>amb</sub>=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<sub>amb</sub> = +60°C...+70°C)

Voltage regulation better than 2% V<sub>out</sub> overall

Ripple / Noise <50mV<sub>pp</sub>, (20MHz bandw., 50Ω measur.)

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
  - high overload current (up to 1.6 I<sub>Nom</sub>), V<sub>out</sub> 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 more reliably

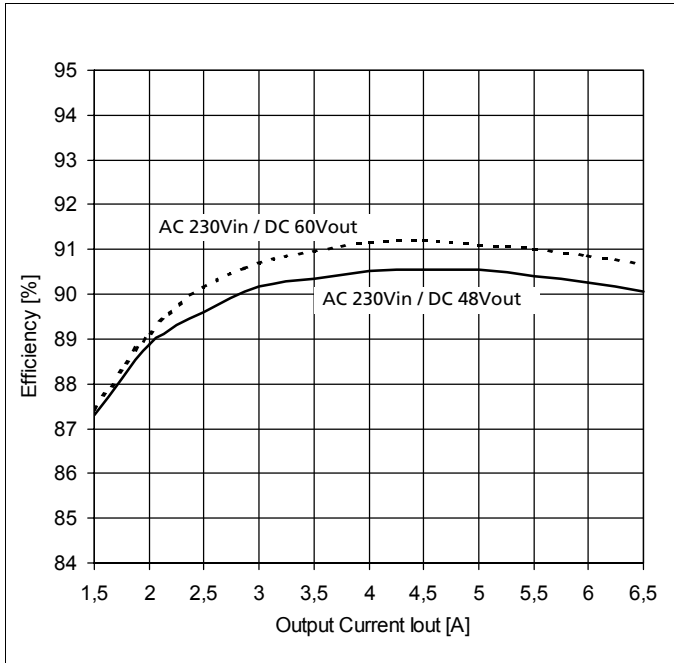
\* For further information see data sheets „The SilverLine“, „SilverLine Family Branches“ and mechanics data sheet

## Order information

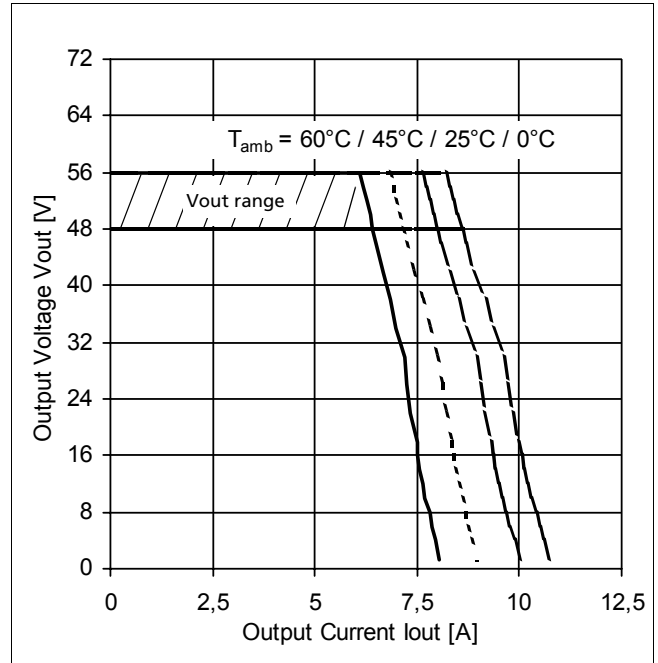
Order number	Description
SL10.101	
SLZ02	Screw mounting set, two needed per unit

Functional diagrams

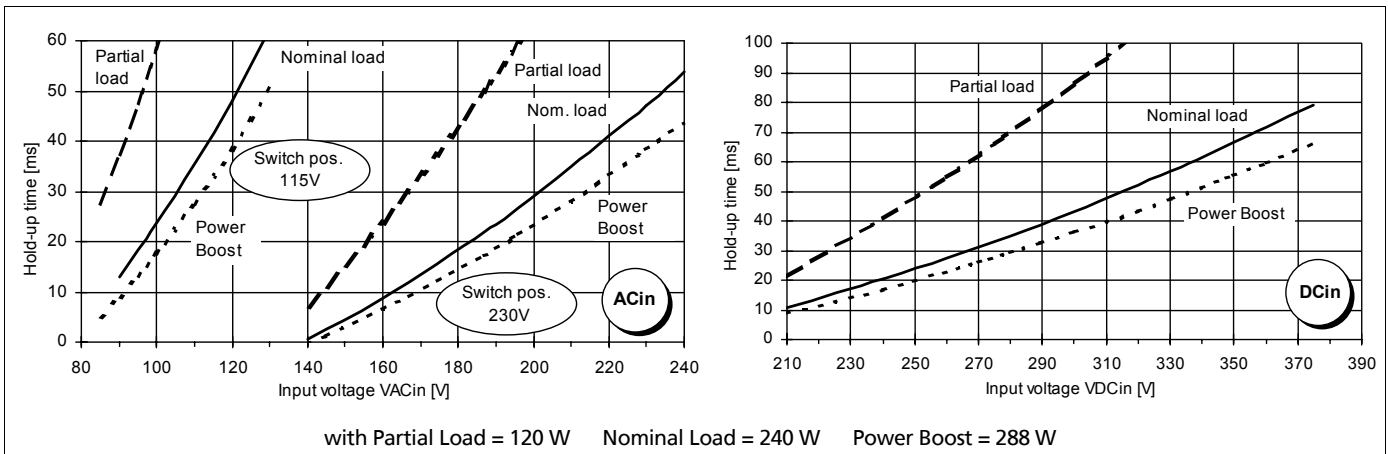
Efficiency (typ.)



Output characteristic (min.)



Hold-up time (typ., at Vout=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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