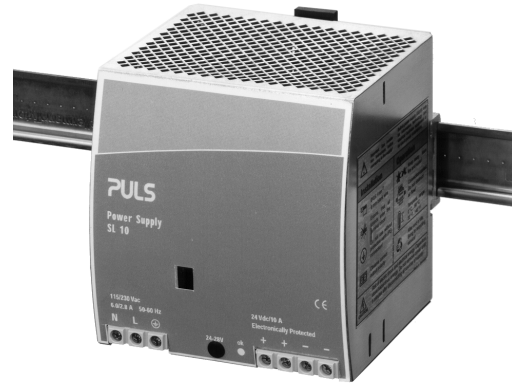


# Power in square, PFC

# PULS

## SL10.105

- Input: AC 230/115V, DC 240...375V
- Output: 24-28V/240W
- Power boost up to 288W
- High overload current, no switch-off
- Robust mechanics and EMC
- Very low leakage current



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.	
Harmonic current emissions (PFC)	acc. EN 61000-3-2 Power factor: better than 0.68 at nominal load
Transient handling	Transient resistance acc. to VDE 0160 / W2 (750V/1.3ms), for all load conditions.
Hold up time	>20ms (at AC 196V, 24V/10A) (see diagram overleaf)

### Efficiency, Reliability etc.\*

Efficiency	typ. 89% (AC 230V, 24V/10A)
Losses	typ. 29W (AC 230V, 24V/10A)
MTBF	225.000h acc. to Siemensnorm SN 29500 (24V/10A, 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).

### Start / Overload Behaviour

Startup delay	typ. 0.1s
Rise time	ca. 5-20ms, 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 1.6 I<sub>Nom</sub>), Vout is gradually reduced with increasing current.</li> </ul> </li> <li>• 20% power boost <ul style="list-style-type: none"> <li>– 12A short-term, at 45°C or forced cooling even continuous</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 more reliably

### Output

Output voltage	DC 24-28V, adjustable by (covered) front panel potentiometer; preset: 24.5V ±0.5% Adj. range guaranteed
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: 0°C...+70°C (>60°C: Derating) Storage: -25°C...+85°C
Rated continuous loading with convection cooling	<ul style="list-style-type: none"> <li>• T<sub>amb</sub>=0°C - 60°C 24V/10A (240W) resp. 28V/8.6A (240W)</li> <li>• T<sub>amb</sub>=0°C - 45°C 24V/12A (288W) resp. 28V/10.3A (288W) short-term also at 60°C</li> </ul>
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% Vout overall
Ripple / Noise	<30mV <sub>pp</sub> , (20MHz bandw., 50Ω measurement)
Overvolt. protection	typ. 35V
Parallel operation	yes, current sharing available on request
Power back immunity	34V
Front panel indicator	Green LED on front panel

### 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 1195g

#### Design advantages:

- All connection blocks are easy to reach as mounted at the front panel.
- Very low leakage current >0,5mA, suitable for medical applications.

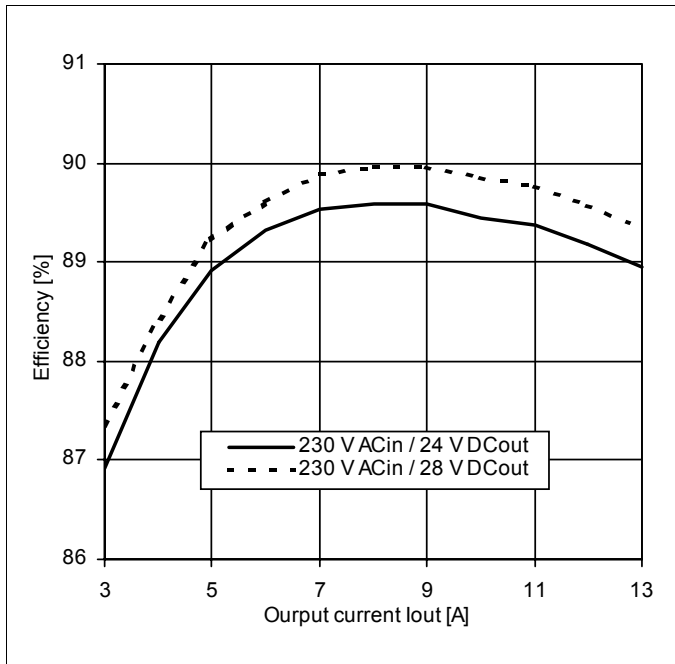
\* For further information see data sheets „The SilverLine“, „SilverLine Family Branches“ and mechanics data sheet

### Order information

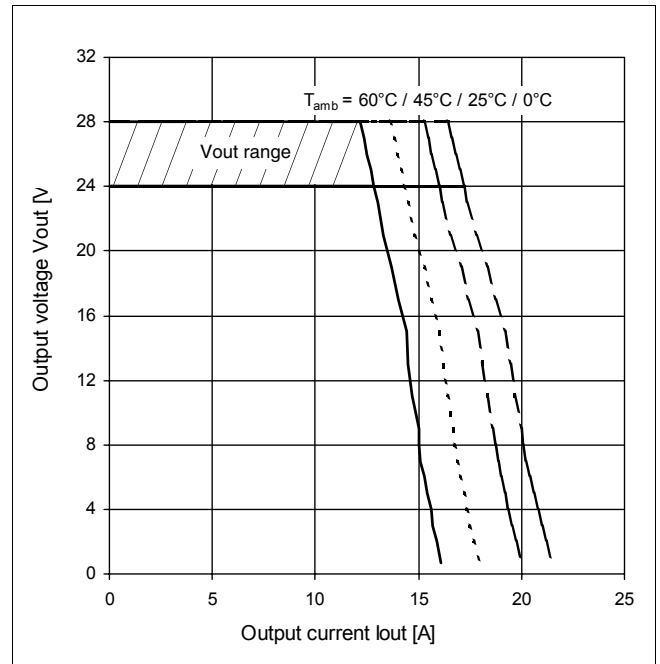
Order number	Description
SL10.105	
SLZ02	Screw mounting set, two needed per unit

Functional diagrams

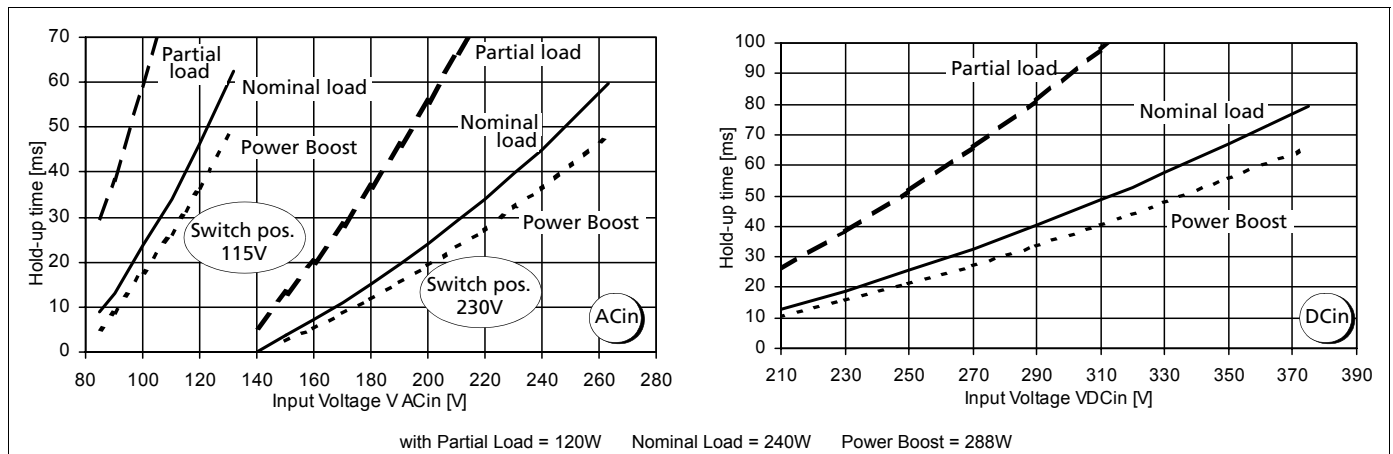
Efficiency (typ.)



Output characteristic (min.)



Hold-up time (typ., at  $V_{out}=24V$ )



For further information, especially about

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



**PULS GmbH**  
 Arabellastraße 15  
 D-81925 München  
 Tel.: +49 89 9278-0  
 Fax: +49 89 9278-199  
 www.puls-power.com