Data sheet

Redundancy in square

SLR10.100

- Input: AC 230V/115V, DC 240-375 V
- Output: 24 V/10 A
- High overload current, no switch-off
- N+1 redundancy, RDY relay contact
- Robust mechanics and EMC

The Redundant Variant

CB Scheme IEC60950

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

UL60950 E137006 CUL/CSA-C22.2 No 950-M90

EMC and Low Volt. Directive

Input

Input voltage	AC 100-120/220-240 V (switchable), 47-63 Hz (85-132 VAC / 176-264 VAC, 240-375 VDC)

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

Input current	< 6 A (switch in 115V position) < 2.8 A (switch in 230V position)
DCin at open output	8 mA (preserves battery sources)
Inrush current	typ. < 30 A at 264 V AC and cold start

Unit is internally fused (fuse not acce ssible). External fuse not necessary, but recommended (common 10A, B-type 'circuit-breaker' switch used anyway to fuse the input lines).

Transient handling	Transient resistance acc. to VDE 0160 / W2 (750 V / 1.3 ms), for all load conditions.
Hold-up time	> 25 ms at 196 VAC, 24 V / 10 A (see diagram overleaf)

Efficiency, Reliability etc.*

Efficiency	typ. 89 % (230 VAC, 24 V / 10 A)
Losses	typ. 26.7 W (230 VAC, 24 V / 10 A)
MTBF	390.000 h acc. to Siemensnorm SN 29500 (24 V/10 A, 230 VAC, T_{amb} = +40 °C)
Life cycle (electrolytics)	The unit exclusively uses longlife electrolytics specified for +105°C (cf. 'The SilverLine', p.2).

Start / Overload Behaviour

Start-up delay	typ. 0.1 s
Rise time	ca. 5-20 ms, depending on load

Overload Behaviour

- Special PULS Over-load Design (see diagram overleaf)
  - no disconnection, no hiccup if overloaded
  - high overload current (up to 1.6 I_{Nom}), Vout is gradually reduced with increasing current.
- 20% power boost
  - 12A 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 lo ads (DC-DC converters, motors).
- No 'sticking' such as can occu r with fold-back characteristics
- Secondary fuses operate reliably

Output

Rated output voltage	24 V DC

For balanced current sharing during parallel operation:
Soft characteristic (25.2 V DC ±2% at no-load, 24 V DC ±0.5% at nominal load, almost linear characteristic curve)

Output noise suppression	Radiated EMI values below EN50081-1, even when using long, unscreened output cables.
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 24 V / 10 A
- T_{amb} =0°C - 45°C 12 A
  short-term also at 60 °C

Output is protected against short circuit, open circuit and overload

Derating	typ. 12 W/K (at T_{amb} =+60°C...+70°C)
Voltage regulation	better than 2% Vout overall
Ripple / Noise	< 30 mV $_{pp}$, (20 MHz bandw., 50 Ω measurem.)
Overvolt. protection	typ. 35 V
Parallel operation	yes, current sharing via soft characteristic (see diagram)
Front panel indicator	Green LED

RDY relay contact

- Type normally open contact
- closes when output voltage > 22.1V ±4%
- opens when output voltage < 19.8V ±4%
- Electrical isolation 500V DC to output voltage
- Contact rating 1A at 28V DC

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

Order information

Order number	Description
SLR10.100	N+1 redundancy*
SL10.100	Basic version without redundancy*
SLS10.100	Safety Cover*
SLZ01	Screw mounting set, two needed per unit

Construction / Mechanics*

Housing dimensions and Weight

- W x H x D 120 mm x 124 mm x 102 mm (+ DIN Rail)
- Free space for ventilation above/below 25 mm recommended left/right 15 mm recommended
- Weight 980 g

Design advantages:

- Input and output pluggable by means of Combicon® plug connector
- Ensure strain relief of the plug connectors when installing the unit.

Further information

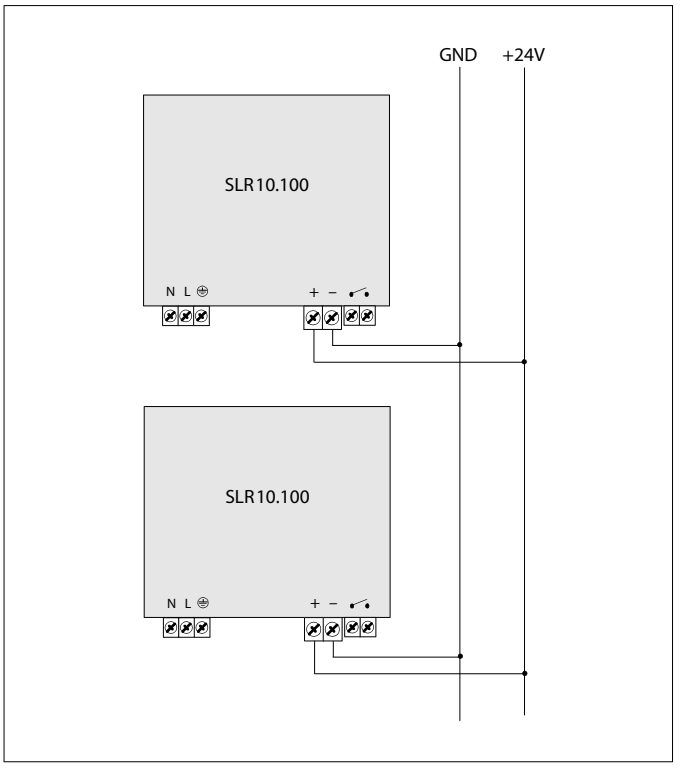
Further information, especially about

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

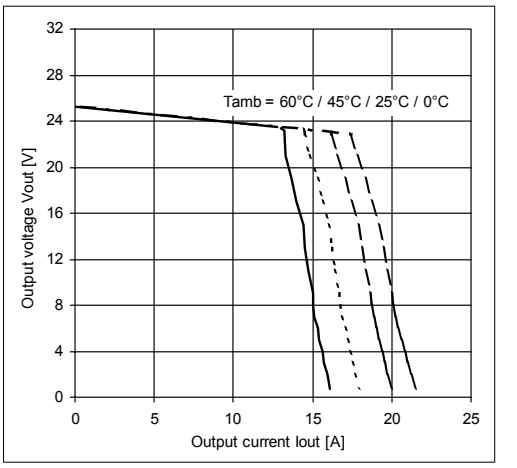
see page 2 of „The SilverLine“ data sheet.

For detailed dimensions
see SilverLine mechanics data sheet SLR2.5/ 5/ 10

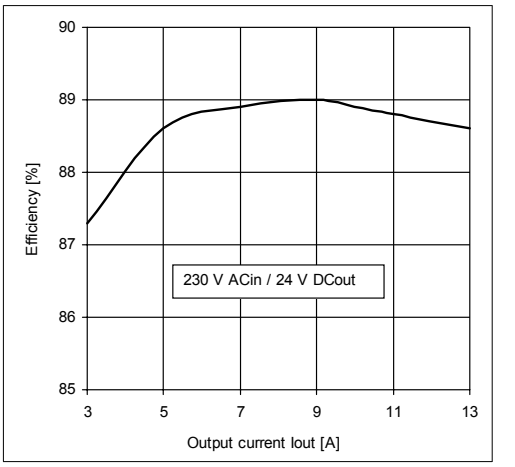
Power wiring



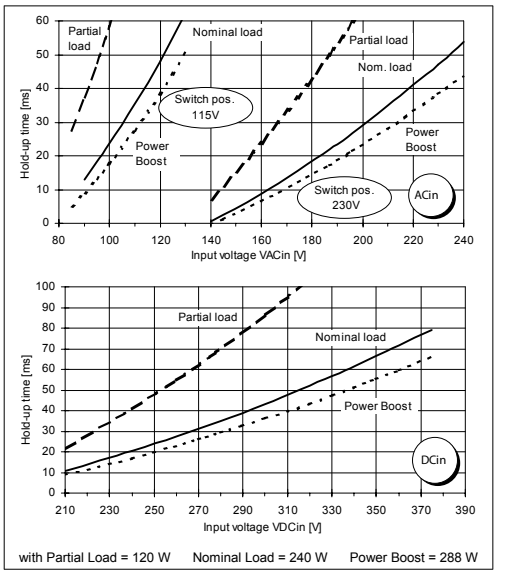
Output characteristic (min.)



Efficiency (typ.)



Hold-up time (typ.)



with Partial Load = 120 W Nominal Load = 240 W Power Boost = 288 W

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:

ISO 9000:2001 certified

EPSMA European Power Supply Manufacturers Association

AWARDED Bayerns Best 50 Czech 100 Best EuropeÖs 500