

48-56V adjustable, PFC

SL10.106

- Input: AC 230/115V, DC 240...375V
- Output: 48-56V/240W
- PULS Overload Design™: Power boost up to 288W; high overload current, no switch-off
- Robust mechanics and EMC

CB
scheme
IEC60950UL
USUL508 LISTED
IND. CONT. EQ.
18 WM, 60°CC
UL
US
UL60950 E137006
CULICSA-C22.2
No 60950CE
EMC and
Low Volt.
Directive

Input

Input voltage	AC100-120/220-240V (switchable), 47-63 Hz (AC 85...132/176...264V, DC 240...375V)
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Note: At DC input, always leave the switch in the 230V position

Input current I_n	<6A (switch in 115V position) <2.8A (switch in 230V position)
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Inrush current I_{pk}	<37A at AC 264V ($T_{amb} = +25^\circ\text{C}$, cold start) <62A at AC 264V ($T_{amb} = +50^\circ\text{C}$, cold start)
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Fuse loading I^2t	<2.5A ² s ($T_{amb} = +25^\circ\text{C}$, cold start) <6A ² s ($T_{amb} = +50^\circ\text{C}$, cold start)
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DCin at open output	8mA (preserves battery sources)
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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)	according to EN 61000-3-2 Power factor: better than 0.68 at nominal load
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Transient handling	Transient resistance acc. to VDE 0160 / W2 (750V/1.3ms), for all load conditions.
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Hold up time	>25ms at AC 196V, 48V/5A (see Diagram overleaf)
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Efficiency, Reliability etc.*

Efficiency	>90% (AC 230V, 48V/5A)
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Losses	<26.7W (AC 230V, 48V/5A)
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MTBF	425.000h acc. to Siemensnorm SN 29500 (48V/5A, AC 230V, $T_{amb} = +40^\circ\text{C}$)
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Life cycle (electrolytics)	The unit uses longlife electrolytics, specified for +105°C (cf. 'The SilverLine', p.2).
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* For further information see data sheets „The SilverLine“, „SilverLine Family Branches“ and mechanics data sheet

Output

Output voltage	DC 48-56V, adjustable by (covered) front panel potentiometer; preset: 48 V $\pm 0.5\%$ Adj. range guaranteed
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Ambient temperature range T_{amb}	Operation: $0^\circ\text{C} \dots +70^\circ\text{C}$ (> 60°C : Derating) Storage: $-25^\circ\text{C} \dots +85^\circ\text{C}$
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Rated continuous loading with convection cooling

- $T_{amb} = 0^\circ\text{C} - 60^\circ\text{C}$ 48V/5A (240W) resp. 56V/4.3A (240W)
- $T_{amb} = 0^\circ\text{C} - 45^\circ\text{C}$ 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 $T_{amb} = +60^\circ\text{C} \dots +70^\circ\text{C}$)
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Voltage regulation	better than 2% V_{out} overall
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Ripple / Noise	<50mV _{pp} , (20MHz bandw., 50Ω measurement)
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Parallel operation	possible; however, no equal load sharing
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Overvolt. protection	typ. 59V
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Power back immunity	60V
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Front panel indicator	Green LED on front panel
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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.

Ordering information

Order number

SL10.106
SLZ14
SLZ02

Description

SilverLine switched-mode power supply
Adapter for S7-300 rail
Wall mounting set

Start / Overload Behaviour

Startup delay	typ. 0.1s
Rise time	ca. 5-20ms, depending on load
Overload Behaviour	
<ul style="list-style-type: none"> Special PULS Overload Design (see diagram overleaf) 20% power boost 	<ul style="list-style-type: none"> no disconnection, no hiccup if overloaded 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 heavy loads (DC-DC converters, motors).
- No 'sticking' such as can occur with fold-back characteristics
- Secondary fuses operate more reliably

Further information

For further information, especially about

- EMC
 - Connections
 - Safety, Approvals
 - Mechanics und Mounting,
- see page 2 of the „The SilverLine“ data sheet.

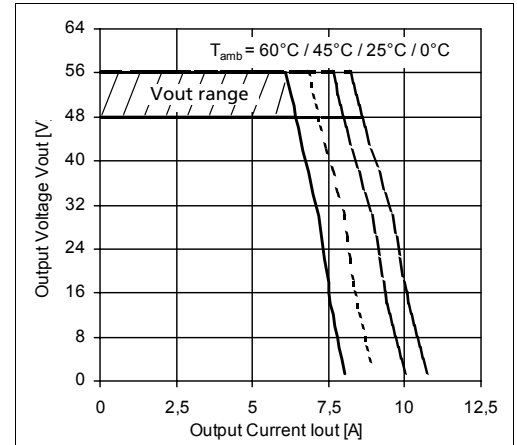
For detailed dimensions

see SilverLine mechanics data sheet SL2.5/ SL5/ SL10

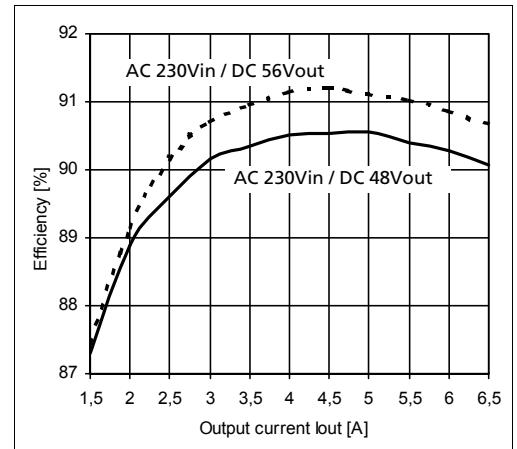
Alle Angaben gelten, sofern nicht anders angegeben, für AC 230V, +25°C Umgebungstemp. und 5 min. Einlaufzeit. Sie dienen ausschließlich der Produktbeschreibung und sind nicht als zugesicherte Eigenschaften im Rechtssinne aufzufassen. Änderungen vorbehalten.

Your partner in power supply:

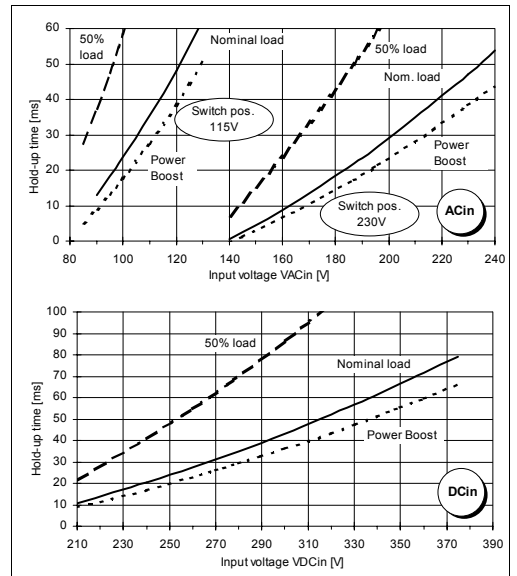
Output characteristic (min.)



Efficiency



Hold-up time (typ., at $V_{out}=48\text{V}$)



with 50% Load = 120W /



European Power Supply Manufacturers Association



Bayerns Best 50
Czech 100 Best
Europe's 500

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