



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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	Description
SL10.106	SilverLine switched-mode power supply
SLZ14	Adapter for S7-300 rail
SLZ02	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

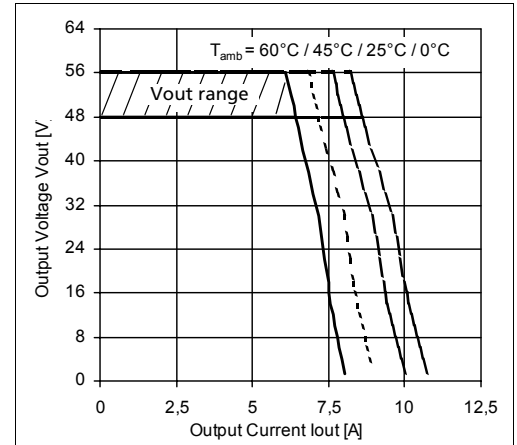
- EMC
- Connections
- Safety, Approvals
- Mechanics und Mounting,

see page 2 of the „The SilverLine“ data sheet.

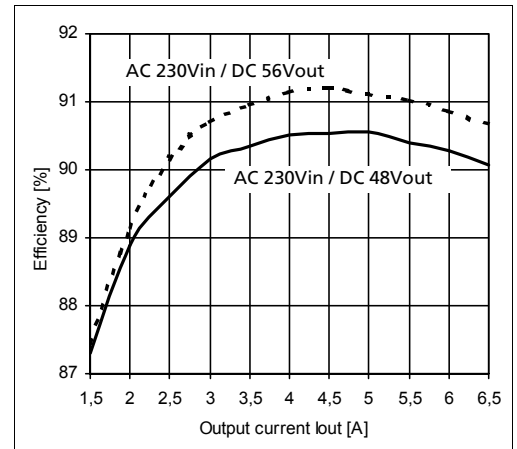
For detailed dimensions

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

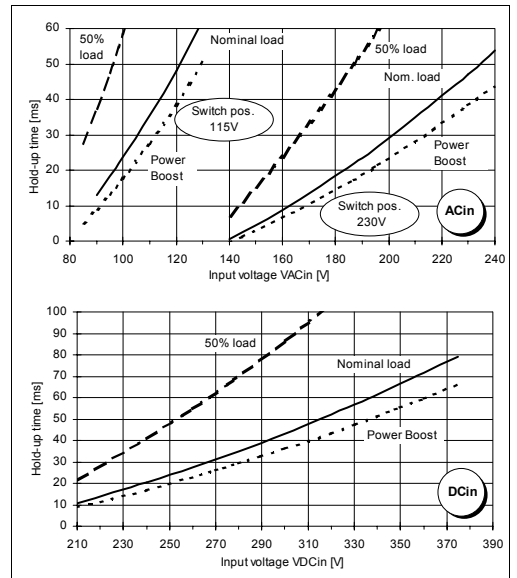
Output characteristic (min.)



Efficiency

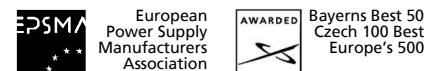


Hold-up time (typ., at V_{out}=48V)



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:



with 50% Load = 120W /

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