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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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More Power: 30 A

**PULS**

# SL30.300

- Input: 3 AC 400...500V
- Output: 24...28V / 720W
- 92.5% efficiency
- Ideal for parallel operation
- Simple fusing



CE  
EMC and  
Low Volt.  
Directive

UL US  
UL60950 E137006  
CUL/CSA-C22.2  
No. 60950

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

CB  
scheme  
IEC60950

Data sheet

## Input

Input voltage	3 AC 400...500 V, $\pm 15\%$ 47-63 Hz, Suitable for IT power systems
Rated Tolerances	<ul style="list-style-type: none"> <li>• Continuous operation 340-576 V AC resp. 450-820 V DC</li> <li>• Short term (1 min) at 24 V/30 A 300-620 V AC resp. 420-890 V DC</li> </ul>
Input current	3 x 2.0 A
Inrush current	< 17 A bei 576 V AC
Inrush current limiting done with a fixed 47R resistor (not a thermistor) which is bridged after the unit is running, so losses are minimised. That means no reset time even at a warm-start.	
Fuse loading	< 2 A <sup>2</sup> s
To be fused with a 3 x 10A, B-type 'circuit-breaker' switch based on the usual thermomagnetic overload sensing principle (used anyway to fuse the input lines; unit has no internal fuses).	
Harmonic current emissions (PFC)	acc. EN 61000-3-2
Transient handling	Active transient filter incorporated, so transient resistance acc.to VDE 0160 / W2 (1560 V / 1.3 ms), for all load conditions.
Hold up time	> 10 ms at 400 V AC, 24 V / 30 A

## Efficiency, Reliability etc. \*

Efficiency	typ. 92.5 % (400 VAC, 24 V / 30 A)
Losses	typ. 60 W (400 VAC, 24 V / 30 A)
MTBF	425,000 h @ 400 VAC, 360,000 h @ 480 VAC (Siemensnorm SN 29500 (Release 07.97), 24 V/30 A, T <sub>amb</sub> = +40 °C)
Life cycle (electrolytics)	The unit exclusively uses longlife electrolytics, specified for +105°C (cf. 'The SilverLine', p.2). High reliability and lifetime, as <ul style="list-style-type: none"> <li>• only four aluminium electrolytics and</li> <li>• no small aluminium electrolytics are used.</li> </ul>

## Order information

Order number	Description
SL30.300	
SLZ01	Screw mounting set, two needed per unit

sl30e300 / 050318

## Output

Output voltage	24...28 V DC, adjustable by (covered) front panel potentiometer. Adj. range guaranteed
Output noise suppression	EN 61000-6-3 (class B) is fulfilled 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 at T <sub>amb</sub> =0°C - 60°C	24 V / 30 A (720 W) resp. 28 V / 26 A (728 W)
Derating	typ. 18 W/K (at T <sub>amb</sub> =+60°C...+70°C)
Voltage regulation	better than 2% over all
Ripple	(incl. spikes (20 MHz bandw.), 50 Ω measur.) <ul style="list-style-type: none"> <li>• Output charact. S &lt; 20 mV<sub>pp</sub> (&lt; 0.1 %)</li> <li>• Output charact. P &lt; 40 mV<sub>pp</sub> (In: 230VAC, Out: 24V/30A)</li> </ul> (S/P Single/Parallel Mode) < 100 mV <sub>pp</sub> (In: 184VAC, Out: 24V/30A)
Over-voltage protection At 32 V $\pm 10\%$ : switch to hiccup mode	
Front panel indicators:	<ul style="list-style-type: none"> <li>• Green LED on, when V<sub>out</sub> &gt; U<sub>T</sub>, where U<sub>T</sub> is ca. 2 V below V<sub>out</sub> adjusted (24V...28V)</li> <li>• Red LED on, when 10 V &lt; V<sub>out</sub> &lt; U<sub>T</sub></li> <li>• Red LED flashes, when 0 V &lt; V<sub>out</sub> &lt; 10 V</li> </ul>
Parallel operation	Yes, up to ten SL30 units
To achieve current sharing the output V/I characteristic can be altered to be 'softer' (25V at 0.4A, 24V at 30A). This is done by repositioning a bridge connection (without opening the unit).	
Power Back Immunity	35 V

## Construction / Mechanics \*

Housing dimensions and Weight	<ul style="list-style-type: none"> <li>• W x H x D 240 mm x 124 mm x 112 mm (+ DIN rail)</li> <li>• Free space for ventilation above/below 70 mm recommended left/right 25 mm recommended</li> <li>• Weight 2.0 kg</li> </ul>
Design advantages:	<ul style="list-style-type: none"> <li>• All connection blocks are easy to reach as mounted at the front panel.</li> <li>• PVC insulated cable can be used for all connections, as the connection blocks are mounted in the cooler area on the underside of the unit.</li> </ul>

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

**Start / Overload Behaviour**

Startup delay	typ. 0.2 s
Rise time	ca. 20-80 ms, depending on load
Duration of switch-on attempts at	
• Initial application on mains	ca. 1.4 s
• Subsequent attempts	ca. 0.5 s
Hiccup operation at	$V_{out} < \text{ca. } 10 \text{ V}$
Duration between switch-on attempts	ca. 1 s

Electronic current limiting, protects against overload and short circuit:

- $V_{out} < \text{ca. } 10 \text{ V}$ : Periodical switch-on attempts (hiccup-mode).
- $V_{out} > \text{ca. } 10 \text{ V}$ : The output current is continuous.

The V/I characteristic of the supply is straight.

- Advantages of the switch-on/overload behaviour:
- Safer switch-on into highly non-linear loads with large starting currents
  - Short-term overloads result in current limiting and not in an immediate shut-down.
  - Parallel operation of several units possible. Proper switch-on performance is obtained.

**Further Information**

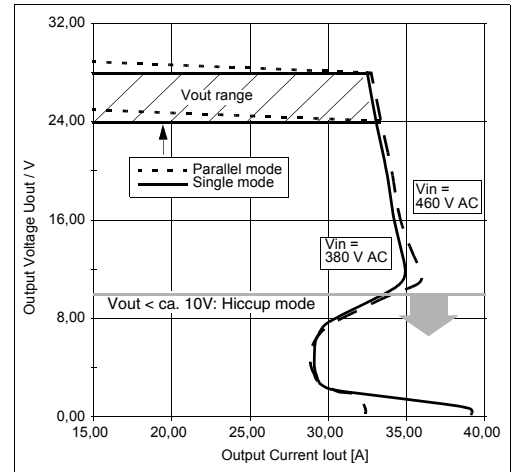
For further information, especially about

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

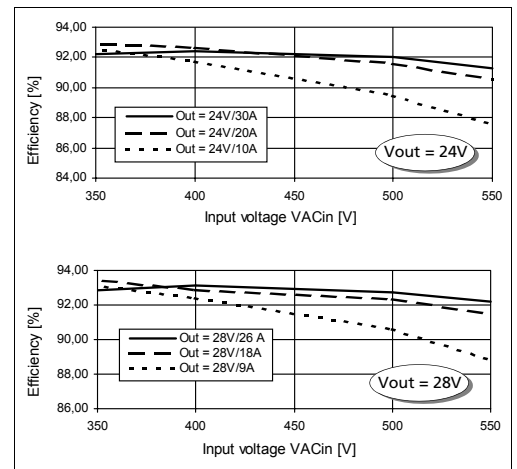
see page 2 of the „The SilverLine“ data sheet.

**For detailed dimensions**  
see SilverLine mechanics data sheet SL30

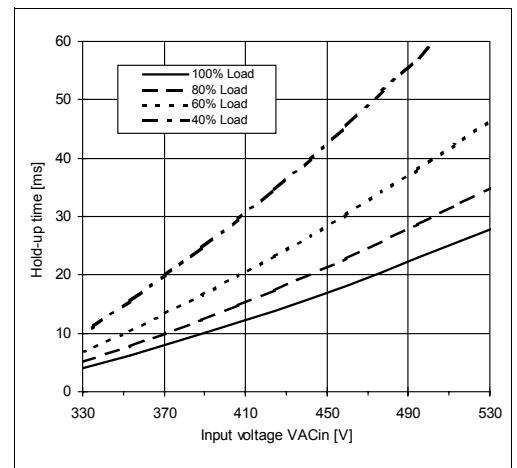
**Output V/I characteristic (typ.)**



**Efficiency (typ.)**



**Hold-up time (min., at  $V_{out}=24\text{V}$ )**



Specifications valid for 3 x AC 400V input voltage, +25°C ambient temperature, and 5 min run-in time, unless otherwise stated. They are subject to change without prior notice.

**Your partner in power supply:**



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