3-phase 5 A

SL5.300

Input: 3 AC 400-500 V Output: 24...28V / 120 W Power boost up to 144 W

High overload current, no switch-off

3 phase wide range input

Robust mechanics and EMC





PULS







Input

Data sheet

Input voltage	3 AC 400–500 V, ± 15 %		
	47-63 Hz, suitable for IT power systems		
Rated tolerances	(at 24V/5A)		
 Continuous operat. 	340576 V AC resp. 450820 V DC		
• Short term (1 min)	300620 V AC resp. 420890 V DC		

Even if one phase fails, the unit's operation with nominal current can be continued (limitations: EN 61000-3-2 (harmonic current emissions) is then not fulfilled, the unit has noise suppression level A instead of level B and the hold-up time is shorter). Continued operat. with two phases is also permissible; however, it reduces the unit's reliability and lifetime.

Input current 3 x 0.5 A Inrush current typ. <25A at 575 V AC and cold-start

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).

emissions (PFC)	acc. to EN 61000-3-2
Hold-up time	>16 ms (3 phase op. at 400 VAC, 24 V / 5 A) >10 ms (2 phase op. at 400 VAC, 24 V / 5 A)

Efficiency, Reliability etc.*

Efficiency	typ. 89% (3 AC 400V, 24 V / 5 A)
Losses	typ. 15 W (3 AC 400V, 24 V / 5 A)
MTBF	410.000 h acc. to Siemensnorm 29500 (24 V/5 A, 3 AC 400V, T _U = 40 °C)
Life cycle (electrolytics)	The unit exclusively uses longlife electrolytics, specified for +105°C (cf. 'The SilverLine', p.2).

For further information see data sheets "The SilverLine", "SilverLine Family Branches" and mechanics data sheet (mechanical design equals that of the SL20.100).

Start / Overload Behaviour

Startup delay	typ. 0.1 s
Rise time	ca. 5-20 ms, depending on load
Overload Behaviour	

Special PULS Over- no disconnection, no hiccup if overloaded high overload current (up to typ. $2 \cdot I_{Nom}$), Vout load Design (see diagram overleaf) is reduced with increasing current. 6 A short-term, at 45°C or forced cooling even 20% power boost continuous

Advantages:

- High short-circuit current, giving large 'start-up window': unit starts reliably even with awkward loads such as DC-DC converters.
- Secondary fuses operate more reliably

Output

2428 V DC, adjustable by (covered) front panel potentiometer, preset: 24.5 V ± 0.5% Adjusting range guaranteed			
EN 61000-6-3 (class B) is fulfilled even when using long, unscreened output cabels			
Operation: -10°C+70°C (>60°C: Derating) Storage: -25°C+85°C			
Input	T _{amb}	I _{out} @ 24V	I _{out} @ 28V
3-phase	-10°C+60°C		4,3 A
	-10°C+45°C	6 A*	5,1 A*
2-phase	-10+60	5 A	4,3 A
DC in	-10+60	5 A	4,3 A
		-	5,1 A*
- -10°C+45°C 6 A* 5,1 A* * * short-term (< 1 min) or with forced air-coolin also at 60°C admissible			d air-cooling
typ. 6W/l	< (at T _{amb} =+	60°C+70°C	2)
better than 2% Vout overall < 25 mV _{PP} , (20 MHz bandw., 50 Ω measurem.)			
		typ. 33 V	
not allowed			
yes; current sharing available on request			
34 V; inapplicable for inductive loads			
green LE	D off, at V _{out} <	<20V	
	panel po Adjusting EN 61000 using lon Operatio Storage: Input 3-phase 2-phase DC in * *shoralso at typ. 6W/I better th < 25 mV _F typ. 33 V not allow yes; curre 34 V; ina	panel potentiometer, padjusting range guara EN 61000-6-3 (class B) i using long, unscreened operation: -10°C+70° Storage: -25°C+85°C Input Tamb 3-phase -10°C+60°C -10°C+45°C 2-phase -10+60 DC in -10+60 * * short-term (< 1 min) also at 60°C admissible of the operation of the o	panel potentiometer, preset: 24.5° Adjusting range guaranteed EN 61000-6-3 (class B) is fulfilled evusing long, unscreened output cabout cabo

Construction / Mechanics

Housing dimensions and Weight

WxHxD 73 mm x 124 mm x 117 mm (+ DIN rail) Free space for above/below 50 mm recommended ventilation left/right 15 mm recommended Weight

Design advantages:

- All connection blocks are easy to reach as mounted at the front pan-
- Input and output are strictly apart from each other and so cannot be mixed up (Input below, output above).
- For further information see data sheets "the SilverLine", "SilverLine Family Branches" and mechanics data sheet

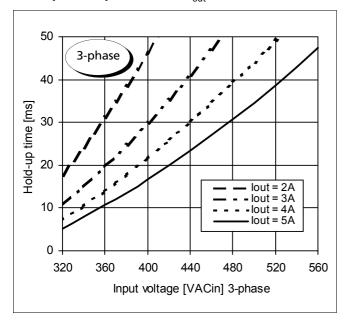
Order information

Order number	Description		
SL5.300 SLZ01	Screw mounting set, two needed per unit		

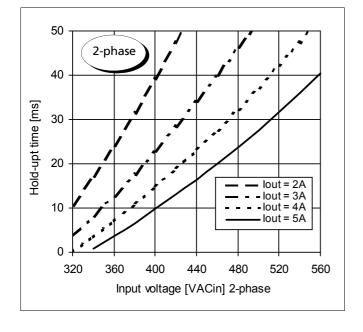
sl5e300 / 050318 1/2

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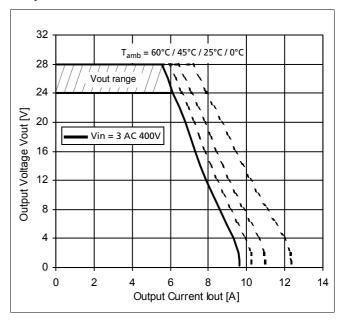
Hold-up time, 3-phase (min., at V_{out}=24V)



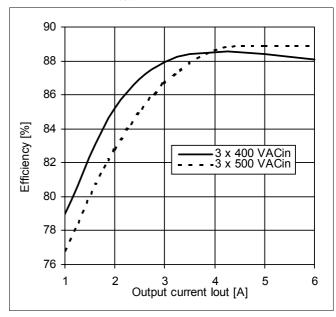
Hold-up time, 2-phase (min., at V_{out}=24V)



Output characteristic (min.)



Efficiency (typ., at V_{out}=24V)



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

Specifications valid for 3AC 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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