



SVL THREE-PHASE SERIES

The SolaHD SVL Series power supplies are perfect for high volume, controlled environment applications where essential features are the only requirement. The DIN rail mounting capability provides quicker and easier installation while allowing for design flexibility. Three-phase input versions are available with 24 Vdc output, from 5 A (120 W) to 40 A (960 W). Many of these models have Class I Div 2 certification for hazardous location environments. These three-phase units expand on the full SVL product line, which includes single-phase power supplies ranging from 15 to 960 Watts in 5, 12, 24 and 48 Volt combinations.

APPLICATIONS


- Industrial Manufacturing
- Food and Beverage
- Petroleum Refining ①
- Chemical Processing ①
- Oil and Gas Production ①

FEATURES

- Universal Three-Phase Input ②
- Protection
 - Short Circuit Protection (SCP)
 - Over Voltage Protection (OVP)
 - Over Current Protection (OCP)
 - Over Temperature Protection (OTP)
- Power Factor Correction
- Convection Cooling
- LED Diagnostic Indicator for DC OK, SCP, OVP, OCP, and OTP
- Two year limited warranty

CERTIFICATIONS AND COMPLIANCES

All Models

-  Listed, Ind. Control Equipment, E61379
 - UL 508, CSA C22.2 No. 107.1

-  Recognized Component, ITE, E137632

— UL 62368-1/CSA C22.2 No. 62368-1


— UL 60950-1/CSA C22.2 No. 60950-1

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— IEC/EN62368-1

- CB Certificate: IEC/EN 62368-1, IEC/EN 60950-1

SVL 5-24-480, SVL 10-24-480, SVL 20-24-480

-  Hazardous Locations, 602023
ANSI/ISA-12.12.01/CSA 213, Class I, Div 2 Groups A, B, C, D

RELATED PRODUCTS

- SDN-D High Performance Series, with optional Communications
- SDN-C Performance Series

① Especially models with Class I Div 2 certifications.

② Single-phase SVL models are covered under a different Datasheet.

SOLAHD

For product information:
www.solahd.com
1.800.377.4384



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SVL THREE-PHASE SPECIFICATIONS

Description	Catalog Number			
	SVL 5-24-480 (5 A)	SVL 10-24-480 (10 A)	SVL 20-24-480 (20 A)	SVL 40-24-480 (40 A)
Input				
Input Voltage, Nominal	3 x 400-500 Vac, 50/60 Hz			
Input Voltage, Min/Max Range	3 x 320-575 Vac 2 x 360-575 Vac			
Input Current	< 0.50 A @ 3 x 400 Vac, < 0.40 A @ 3 x 500 Vac	< 0.75 A @ 3 x 400 Vac, < 0.65 A @ 3 x 500 Vac	< 1.00 A @ 3 x 400 Vac, < 0.75 A @ 3 x 500 Vac	< 1.70 A @ 3 x 400 Vac, < 1.40 A @ 3 x 500 Vac
- Inrush Current	< 30 A @ 3 x 400 Vac & 3 x 500 Vac	< 40 A @ 3 x 400 Vac & 3 x 500 Vac	< 50 A @ 3 x 400 Vac & 3 x 500 Vac	< 60 A @ 3 x 400 Vac & 3 x 500 Vac
Efficiency	> 86%	> 90%	> 91%	> 92%
Power Factor Correction	EN 61000-3-2, Class A		> 0.95 @ 3 x 400 Vac, > 0.94 @ 3 x 500 Vac	
Output				
Nominal Voltage	24 V (24-28 Vdc Adjustable), +/-2%			
Ripple and PARD (25°C)	< 150 mVpp			< 240 mVpp
Nominal Current	5 A	10 A	20 A	40 A
Max. Power	120 W	240 W	480 W	960 W
Hold-up Time (100 % load)	> 20 ms @ 3 x 400 Vac, > 40 ms @ 3 x 500 Vac		> 20 ms @ 3 x 400 Vac and 3 x 500 Vac	
Regulation	< 0.5 % Line and < 1.0% Load			
Environmental Data				
Operating Temperature	-25 °C to +80 °C (-13 °F to +176 °F)			
Relative Humidity	5 to 95% RH (Non-Condensing)			
Storage temp	-40 °C to +85 °C (-40 °F to +185 °F)			
Power Derating	See derating tables.			
Shock	Non-Operating: IEC 60068-2-27, 30 G (300 m/S²) for a duration of 18 ms, 1 times per direction, 2 times in total			
Vibration	Non-Operating: IEC 60068-2-6, 10 Hz to 500 Hz @ 30 m/S² (3G peak); 60 min per axis for all X, Y, Z direction			
Protections				
Overvoltage Protection	32 V ±10%, Hiccup Mode			
Overload Protection	Hiccup			
Over Temperature Protection	< 80 °C¹ (< 176 °F)			< 65 °C¹ (< 149 °F)
Short Circuit	Hiccup mode, non-latching (auto-recovery when the fault is removed)			
Reliability				
MTBF	> 800 khrs²	> 500 khrs²	> 500 khrs²	> 300 khrs²
EMC				
Galvanic Isolation	Input to Output: 4.0 KVac. Input to Ground: 2.0 KVac. Output to Ground: 1.5 KVac.			
Emissions	CISPR 32, EN 55032, CISPR 11, EN 55011, FCC Title 47: Class B			
Immunity	EN 55024, EN 61000-6-2 (EN 61000-4-2, 3, 4, 5, 6, 8, 11, 12)			
General				
Housing	Metal			
H x W x D - in (mm)	4.76 x 1.97 x 4.62 (121 x 50 x 117.3)	4.76 x 2.76 x 4.62 (121 x 70 x 117.3)	4.76 x 5.51 x 4.62 (121 x 140 x 117.3)	4.76 x 10 x 4.62 (121 x 255 x 117.3)
Unit Weight - lbs (g)	1.46 (660)	1.96 (890)	2.98 (1350)	5.73 (2600)
LED Signals	GREEN Light = DC OK, OCP = Blinking, OVP = Blinking @ Max load, OTP = LED OFF, SCP = LED OFF			
Warranty	2 years			

1. Surrounding Air Temperature @ 100% load, Non-Latching (Auto-Recovery).
2. According to Telcordia SR-332, I/P: 3 x 400 Vac, O/P: 100% load, Ta: 25 °C.

Mouser Electronics

Authorized Distributor

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[SVL 20-24-480](#)