

SVL Essential DIN Rail Series

The SolaHD SVL Series power supplies are perfect for high volume, controlled environment applications where essential features are the only requirement. When space inside an enclosure is at a premium, their small footprint makes these power supplies an excellent alternative to embedded open frame switchers. The DIN rail mounting capability provides quicker and easier installation while allowing for design flexibility. These power supplies range from 15 to 480 Watts in 5, 12, 24 and 48 Volt combinations.



Applications

- Test and Measure Equipment
- Scanners
- Instrumentation
- Printers Peripheral
- ATM Machines
- Semiconductor Fabrication Equipment
- Vending Machines

Features

- Universal Input
- Protection
 - Short Circuit
 - Over Voltage
 - Overload
 - Over Temperature
- Power Factor Correction
- Convection Cooling
- Blinking OCP Diagnostic
- DC OK LED
- DC OK Relay for >120 Watts models
- 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 60950-1/CSA C22.2 No. 60950-1, 2nd Edition
- - IEC/EN60950-1, 2nd Edition
 - Model SVL 1-24-100, SVL 3-5-100, SVL 4-12-100, SVL 2-24-100 were evaluated for NEC Class II outputs
- RoHS Compliant

Related Products

- SDN-C Series
- SDN-P™ Series
- SDP™ Series

SVL Specifications <120W

Description	Catalog Number		
	SVL 3–5–100	SVL 1–24–100	SVL 6–5–100
Input			
Input Voltage Range	85-264 Vac		
– AC Range	100–240 Vac		
– DC Range ¹	120-375 Vdc		
– Frequency	50/60 Hz		
Nominal Current	0.5 A @ 115 Vac 0.3 A @ 230 Vac	0.8 A @ 115 Vac 0.4 A @ 230 Vac	0.9 A @ 115 Vac 0.5 A @ 230 Vac
– Inrush Current max,	35 A @ 115 Vac 65 A @ 230 Vac	35 A @ 115 Vac 60 A @ 230 Vac	
Efficiency	79% typ	88% typ	80% typ
Leakage Current	<1 mA @ 240 Vac		
Power Factor Correction	Meets EN61000-3-2 Class A		
Output			
Nominal Voltage	5 V	24 V	5 V
– Tolerance	+/-2%		
Voltage Adjustable Range	5-5.5 V	24-28 V	5-5.5 V
– Ripple (25°C)	<75 mVp-p		
PARD (25°C)	<75 mVp-p		
Nominal Current	3 A	1.25 A	6 A
Max. Power	15 W	30 W	
Holdup Time at full load (25°C)	20 ms typ. @ 115 Vac 100 ms typ. @ 230 Vac		
Rise Time at full load (25°C)	<100 ms		
Start Up at full load (25°C)	<3000 ms @ 115 Vac, <1500 ms @ 230 Vac		
Regulation	<0.5% Line and <1% Load		
Environmental Data			
Operating Temperature	-20°C to +70°C		
Relative Humidity	5 to 95% RH Non-condensing		
Storage temp	-40°C to +85°C		
Power Derating ²	See derating tables.		
Shock	IEC60068-2-27: half sine wave 10 G, single axis for a duration of 11 ms operational and 50 G three axes for duration of 11 ms each non-operational		
Vibration	IEC60068-2-6: sine wave; 10 Hz to 500 Hz at 2 g, 0.35 mm displacement, three axes for 60 min each operational and 5 Hz to 500 Hz at 2.09 grms, three axes for 20 min each non-operational		
Protections			
Overvoltage Protection	6.3-7.4 V, Latching	30-34.8 V, Latching	6.3-7.4 V, Latching
Overload Protection	Hiccup		
Over Temperature Protection	No component damage, latch mode		
Short Circuit	Hiccup mode, non-latching (auto-recovery when the fault is removed)		
Reliability			
MTBF	>350 khrs (115 Vac/230 Vac @ 25°C) acc. to Telcordia SR-332 issue 3		
EMC			
Galvanic Isolation	I/P to O/P: 3 K Vac; I/P to GND: 1.5 K Vac; O/P to GND: 0.5 K Vac		
Emissions	EN55022 (CISPR22) Class B, EN55011 Class B, EN61000-6-3, EN61000-6-4, EN61000-3-3, EN61204-3, EN61000-3-2 Class A		
Immunity	EN55024, EN61000-6-1, EN61000-6-2 (EN61000-4-2, 3, 4, 5, 6, 8, 11, 12) Level 3, Performance Criteria A		
General			
Housing	Plastic		
H x W x D – in (mm)	2.95 x 0.82 x 3.52 (75.0 x 21.0 x 89.5)		2.95 x 1.18 x 3.52 (75.0 x 30.0 x 89.5)
Unit Weight – lbs (g)	0.242 (110)		0.368 (167)
Shipping Weight – lbs (g)	0.309 (140)		0.419 (190)
LED Signals	GREEN light = DC OK , OCP = blinking		
DC OK Relay Contact	No		
Warranty	2 year		

1. DC input range is not listed in safety file it is only to confirm product functional performance.

SVL Specifications 120W and Above

Description	Catalog Number		
	SVL 4–12–100	SVL 2–24–100	SVL 4–24–100
Input			
Input Voltage Range	85-264 Vac		
– AC Range	100–240 Vac		
– DC Range¹	120-375 Vdc		
– Frequency	50/60 Hz		
Nominal Current	1.0 A @ 115 Vac 0.6 A @ 230 Vac	1.0 A @ 115 Vac 0.6 A @ 230 Vac	1.2 A @ 115 Vac 0.6 A @ 230 Vac
– Inrush Current max.	35 A @ 115 Vac 60 A @ 230 Vac		
Efficiency	88% typ		89% typ
Leakage Current	<1 mA @ 240 Vac		
Power Factor Correction	Meets EN61000-3-2 Class A		Active PFC >0.9
Output			
Nominal Voltage	12 V	24 V	
– Tolerance	+/-2%		
Voltage Adjustable Range	12-15 V	24-28 V	
– Ripple (25°C)	<75 mVp-p		
PARD (25°C)	<75 mVp-p		
Nominal Current	4 A	2.1 A	4 A
Max. Power	48 W	50 W	96 W
Holdup Time at full load (25°C)	20 ms typ. @ 115 Vac 90 ms typ. @ 230 Vac		25 ms typ. @ 115 Vac 50 ms typ. @ 230 Vac
Rise Time at full load (25°C)	<100 ms		
Start Up at full load (25°C)	<3000 ms @ 115 Vac, <1500 ms @ 230 Vac		
Regulation	<0.5% Line and <1% Load		
Environmental Data			
Operating Temperature	-20°C to +70°C		
Relative Humidity	5 to 95% RH Non-condensing		
Storage temp	-40°C to +85°C		
Power Derating²	See SVL derating tables.		
Shock	IEC60068-2-27: half sine wave 10 G, single axis for a duration of 11 ms operational and 50 G three axes for duration of 11 ms each non-operational		
Vibration	IEC60068-2-6: 10 Hz to 500 Hz at 2 g, 0.35mm displacement, three axes for 60 min each operational and 5 Hz to 500 Hz at 2.09 grms, three axes for 20 min each non-operational		
Protections			
Overvoltage Protection	16-18.7 V, Latching	30-34.8 V, Latching	
Overload Protection	Current foldforward and then hiccup		
Over Temperature Protection	No component damage, latch mode		
Short Circuit	Hiccup mode, non-latching (auto-recovery when the fault is removed)		
Reliability			
MTBF	>350 khrs (115 Vac/230 Vac @ 25°C) as per Telcordia SR-332 issue 3 Jan 2011.		
EMC			
Galvanic Isolation	I/P to O/P: 3 K Vac; I/P to GND: 1.5 K Vac; O/P to GND: 0.5 K Vac		
Emissions	EN55022 (CISPR22) Class B, EN55011 Class B, EN61000-6-3, EN61000-6-4, EN61000-3-3, EN61204-3, EN61000-3-2 Class A		
Immunity	EN55024, EN61000-6-1, EN61000-6-2 (EN61000-4-2, 3, 4, 5, 6, 8, 11, 12) Level 3, Performance Criteria A		
General			
Housing	Metal Encased		
H x W x D – in (mm)	2.95 x 1.18 x 3.52 (75.0 x 30.0 x 89.5)		2.95 x 1.77 x 3.93 (75.0 x 45.0 x 100.0)
Unit Weight – lbs (g)	0.390 (177)		0.698 (317)
Shipping Weight – lbs (g)	0.478 (217)		0.816 (370)
LED Signals	GREEN light = DC OK , OCP = blinking		
DC OK Relay Contact	No		
Warranty	2 year		

1. DC input range is not listed in safety file it is only to confirm product functional performance.

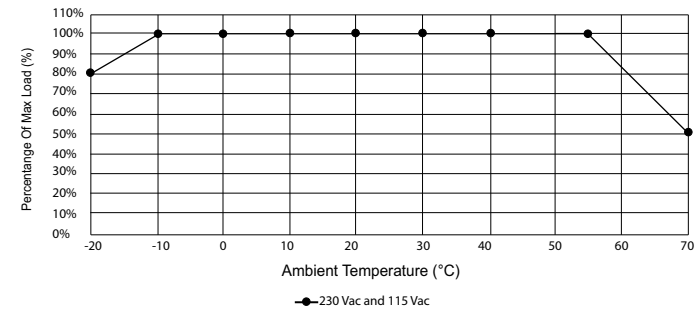
SVL Specifications <120W

Description	Catalog Number			
	SVL 2-48-100	SVL 5-24-100	SVL 10-24-100	SVL 20-24-100
Input				
Input Voltage Range	85-264 Vac			
– AC Range	100-240 Vac			
– DC Range ¹	120-375 Vdc			
– Frequency	50/60 Hz			
Nominal Current	2.20 A @ 115 Vac 1.40 A @ 230 Vac		2.8 A @ 115 Vac 1.4 A @ 230 Vac	5.4 A @ 115 Vac 2.7 A @ 230 Vac
– Inrush Current max.	20 A typ.@ 115 Vac 40 A typ.@ 230 Vac			40A typ.@ 115 Vac 80A typ.@ 230 Vac
Efficiency	88% typ			
Leakage Current	<1 mA @ 240 Vac			
Power Factor Correction	Meets EN61000-3-2 Class A		Active PFC >0.95	
Output				
Nominal Voltage	48V	24 V		
– Tolerance	+/-2%			
Voltage Adjustable Range	44-56 V	22-28 V		
– Ripple (25°C)	<120 mVp-p	<100 mVp-p		
PARD (25°C)	<150 mVp-p	<120 mVp-p		
Nominal Current	2.5 A	5 A	10 A	20 A
Max. Power	120 W		240 W	480 W
Holdup Time at full load (25°C)	10 ms typ.@ 115 Vac 16 ms typ @ 230 Vac			
Rise Time at full load (25°C)	<100 ms			
Start Up at full load (25°C)	<1000 ms @ 115 Vac & 230 Vac			
Regulation	<0.5% Line and <1% Load			
Environmental Data				
Operating Temperature	-20°C to +70°C			
Relative Humidity	5 to 95% RH Non-condensing			
Storage temp	-40°C to +85°C			
Power Derating ²	See derating tables.			
Shock	IEC60068-2-27: half sine wave 10 G, single axis for a duration of 11 ms operational and 50 G three axes for duration of 11 ms each non-operational			
Vibration	IEC60068-2-6: sine wave; 10 Hz to 500 Hz at 2 g, 0.35 mm displacement, three axes for 60 min each operational and 5 Hz to 500 Hz at 2.09 grms, three axes for 20 min each non-operational			
Protections				
Overvoltage Protection	56-67.2 V, Latching, re-power to recover	28.8-35.2 V, latching, re-power to recover		
Overload Protection	105- 50% of rated load; constant current at >20 V output and hiccup at <20 V output. SVL 2-48-100: constant current at >40 V output and hiccup at <40 V output, auto-recovery			
Over Temperature Protection	No component damage, latch mode, re-power to recover			
Short Circuit	Hiccup mode, non-latching (auto-recovery when the fault is removed)			
Reliability				
MTBF	>700 khrs (115 Vac & 230 Vac @ 25°C) as per Telcordia SR-332 issue 3 Jan 2011.			
EMC				
Galvanic Isolation	I/P to O/P: 3 K Vac; I/P to GND: 2 K Vac; O/P to GND: 0.5 K Vac			
Emissions	EN55022 (CISPR22) Class B, EN55011 Class B, EN61000-6-3, EN61000-6-4, EN61000-3-3, EN61204-3, EN61000-3-2 Class A			
Immunity	EN55024, EN61000-6-1, EN61000-6-2 (EN61000-4-2, 3, 4, 5, 6, 8, 11, 12) Level 3, Performance Criteria A, SEMI F47 @ 200 Vac			
General				
Housing	Plastic			
H x W x D – in (mm)	4.84 x 1.57 x 4.63 (123.6 x 40.0 x 117.6)		4.87 x 2.36 x 4.63 (123.6 x 60.0 x 117.6)	4.87 x 3.37 x 5.06 (123.6 x 85.5 x 128.5)
Unit Weight – lbs (g)	1.19 (540)		1.76 (800)	2.87 (1300)
Shipping Weight – lbs (g)	1.46 (660)		2.09 (950)	3.20 (1452)
LED Signals	GREEN light = DC OK , OCP = blinking			
DC OK Relay Contact	Yes			
Warranty	2 year			

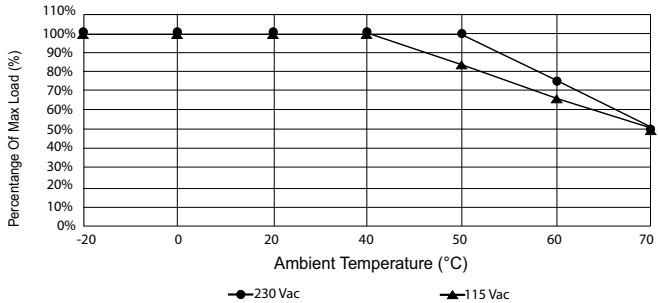
1. DC input range is not listed in safety file it is only to confirm product functional performance.

SVL Derating Tables

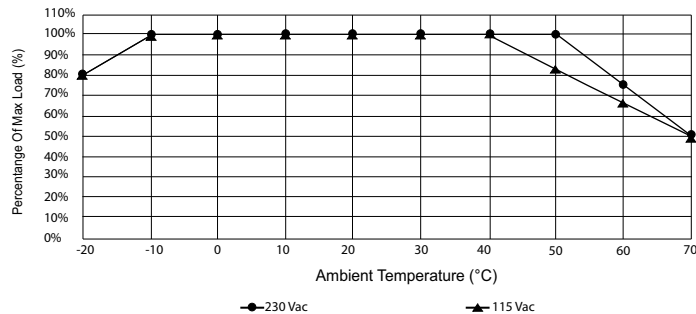
15 Watt – 96 Watt Models



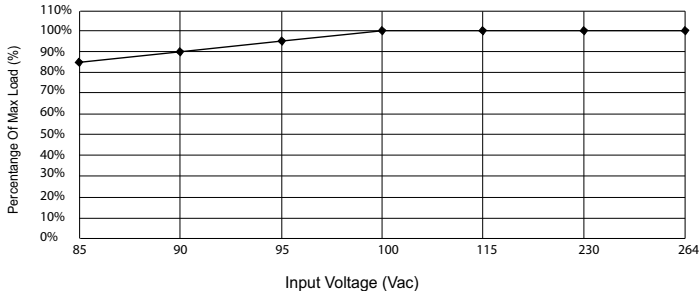
240 Watt Models



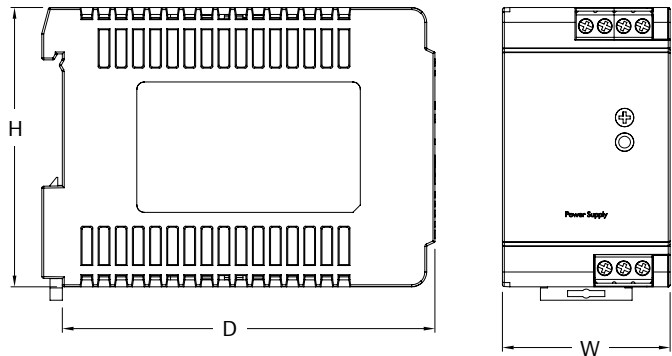
120 Watt and 480 Watt Models



120 Watt – 480 Watt Models



SVL Series Dimensions



Catalog Number	Dimensions – inches (mm)		
	H	W	D
SVL 3–5–100	2.95 (75.0)	0.82 (21.0)	3.52 (89.5)
SVL 1–24–100	2.95 (75.0)	0.82 (21.0)	3.52 (89.5)
SVL 6–5–100	2.95 (75.0)	1.18 (30.0)	3.52 (89.5)
SVL 4–12–100	2.95 (75.0)	1.18 (30.0)	3.52 (89.5)
SVL 2–24–100	2.95 (75.0)	1.18 (30.0)	3.52 (89.5)
SVL 4–24–100	2.95 (75.0)	1.77 (45.0)	3.93 (100.0)
SVL 2–48–100	4.84 (123.6)	1.57 (40.0)	4.63 (117.6)
SVL 5–24–100	4.84 (123.6)	1.57 (40.0)	4.63 (117.6)
SVL 10–24–100	4.87 (123.6)	2.36 (60.0)	4.63 (117.6)
SVL 20–24–100	4.87 (123.6)	3.37 (85.5)	5.06 (128.5)