

## SVL Essential DIN Rail Series

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
- Convection cooling
- DC OK LED
- DC OK Relay for >120 Watts models
- Two year 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
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  - 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 2 outputs.
- RoHS Compliant

## SVL Specifications &lt;120W

Description	Catalog Number		
	SVL 3-5-100	SVL 1-24-100	SVL 6-5-100
<b>Input</b>			
Input Voltage Range	85-264 Vac		
- AC Range	100-240 Vac		
- DC Range <sup>1</sup>	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		
<b>Output</b>			
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		
PAR (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		
<b>Environmental Data</b>			
Operating Temperature	-20 °C to +70 °C		
Relative Humidity	5 to 95% RH Non-condensing		
Storage temp	-40 °C to +85 °C		
Power De-rating <sup>2</sup>	>55 °C de-rate power by 3.33% / °C <-10 °C de-rate power by 2% / °C de-rate to 80% load for operation at -20°C		
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		
<b>Protections</b>			
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)		
Power Factor Correction	Meets EN61000-3-2 Class A		
<b>Reliability</b>			
MTBF	>350 khrs (115 Vac/230 Vac @ 25 °C) as per Telcordia SR-332 issue 3 Jan 2011.		
<b>EMC</b>			
Galvanic Isolation	I/P to O/P: 3 kVac; I/P to GND: 1.5 kVac; O/P to GND: 0.5 kVac		
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		
<b>General</b>			
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	0.242 lb (110 g)		0.352 lb (160 g)
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.

2. &gt;120 Watts models measured at 230 VAC input and 25 °C ambient temperature. See manual for further details.

**SVL Specifications <120W**

Description	Catalog Number		
	SVL 4-12-100	SVL 2-24-100	SVL 4-24-100
<b>Input</b>			
<b>Input Voltage Range</b>	85-264 Vac		
– AC Range	100-240 Vac		
– DC Range <sup>1</sup>	120-375 Vdc		
– Frequency	50/60 Hz		
<b>Nominal Current</b>	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		
<b>Efficiency</b>	88% typ		89% typ
<b>Leakage Current</b>	<1 mA @ 240 Vac		
<b>Output</b>			
<b>Nominal Voltage</b>	12 V	24 V	24 V
– Tolerance	+/-2%		
<b>Voltage Adjustable Range</b>	12-15 V	24-28 V	
– Ripple (25 °C)	<75 mVp-p		
<b>PARD (25 °C)</b>	<75 mVp-p		
<b>Nominal Current</b>	4 A	2.1 A	4 A
<b>Max. Power</b>	48 W	50 W	96 W
<b>Holdup Time at full load (25 °C)</b>	20 ms typ. @ 115 Vac 90 ms typ. @ 230 Vac		25 ms typ. @ 115 Vac 50 ms typ. @ 230 Vac
<b>Rise Time at full load (25 °C)</b>	<100 ms		
<b>Start Up at full load (25 °C)</b>	<3000 ms @ 115 Vac, <1500 ms @ 230 Vac		
<b>Regulation</b>	<0.5% Line and <1% Load		
<b>Environmental Data</b>			
<b>Operating Temperature</b>	-20 °C to +70 °C		
<b>Relative Humidity</b>	5 to 95% RH Non-condensing		
<b>Storage temp</b>	-40 °C to +85 °C		
<b>Power De-rating<sup>2</sup></b>	>55 °C de-rate power by 3.33% / °C <-10 °C de-rate power by 2% / °C de-rate to 80% load for operation at -20°C		
<b>Shock</b>	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		
<b>Vibration</b>	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		
<b>Protections</b>			
<b>Overvoltage Protection</b>	16-18.7 V, Latching	30-34.8 V, Latching	
<b>Overload Protection</b>	Current foldforward and then hiccup		
<b>Over Temperature Protection</b>	No Component Damage, Latch Mode		
<b>Short Circuit</b>	Hiccup Mode, Non-Latching (Auto-Recovery when the fault is removed)		
<b>Power Factor Correction</b>	Meets EN61000-3-2 Class A		
<b>Reliability</b>			
<b>MTBF</b>	>350 khrs (115 Vac/230 Vac @ 25 °C) as per Telcordia SR-332 issue 3 Jan 2011.		
<b>EMC</b>			
<b>Galvanic Isolation</b>	I/P to O/P: 3 KVac; I/P to GND: 1.5 KVac; O/P to GND: 0.5 KVac		
<b>Emissions</b>	EN55022 (CISPR22) Class B, EN55011 Class B, EN61000-6-3, EN61000-6-4, EN61000-3-3, EN61204-3, EN61000-3-2 Class A		
<b>Immunity</b>	EN55024, EN61000-6-1, EN61000-6-2 (EN61000-4-2, 3, 4, 5, 6, 8, 11, 12) Level 3, Performance Criteria A		
<b>General</b>			
<b>H x W x D in (mm)</b>	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)
<b>Unit Weight</b>	0.397 lb (180 g)		0.716 lb (325 g)
<b>LED Signals</b>	GREEN light = DC OK , OCP = blinking		
<b>DC OK Relay Contact</b>	No		
<b>Warranty</b>	2 year		

1. DC input range is not listed in safety file it is only to confirm product functional performance.  
2. >120 Watts models measured at 230 VAC input and 25 °C ambient temperature. See manual for further details.

## SVL Specifications &gt;120W

Description	Catalog Number			
	SVL 2-48-100	SVL 5-24-100	SVL 10-24-100	SVL 20-24-100
<b>Input</b>				
<b>Input Voltage Range</b>	85-264 Vac			
– AC Range	100-240 Vac			
– DC Range <sup>1</sup>	120-375 Vdc			
– Frequency	50/60 Hz			
<b>Nominal Current</b>	2.20 A @ 115 Vac 1.20 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
<b>Efficiency</b>	88% typ			
<b>Leakage Current</b>	<1 mA @ 240 Vac			
<b>Output</b>				
<b>Nominal Voltage</b>	48V	24V		
– Tolerance	+/-2%			
<b>Voltage Adjustable Range</b>	44-56 V	22-28 V		
– Ripple (25 °C)	<120 mVp-p	<100 mVp-p		
<b>PARD (25 °C)</b>	<150 mVp-p	<120 mVp-p		
<b>Nominal Current</b>	2.5 A	5 A	10 A	20 A
<b>Max. Power</b>	120 W	120 W	240 W	480 W
<b>Holdup Time at full load (25 °C)</b>	10 ms typ.@ 115 Vac 16 ms typ @ 230 Vac			
<b>Rise Time at full load (25 °C)</b>	<100 ms			
<b>Start Up at full load (25 °C)</b>	<1000 ms @ 115 Vac & 230 Vac			
<b>Regulation</b>	<0.5% Line and <1% Load			
<b>Environmental Data</b>				
<b>Operating Temperature</b>	-20 °C to +70 °C			
<b>Relative Humidity</b>	5 to 95% RH Non-condensing			
<b>Storage temp</b>	-40 °C to +85 °C			
<b>Power De-rating<sup>2</sup></b>	>50 °C de-rate power by 2.5% / °C <-10 °C de-rate power by 2% / °C <100 Vac de-rate power by 1% / Vac			
<b>Shock</b>	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			
<b>Vibration</b>	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			
<b>Protections</b>				
<b>Overvoltage Protection</b>	56-67.2 V, Latching	28.8-35.2 V, Latching		
<b>Overload Protection</b>	105-150% of rated load; constant current at >20 V output and hiccup at <20 V output. <b>SVL 2-48-100:</b> constant current at >40 V output and hiccup at <40 V output.			
<b>Over Temperature Protection</b>	No Component Damage, Latch Mode			
<b>Short Circuit</b>	Hiccup Mode, Non-Latching (Auto-Recovery when the fault is removed)			
<b>Power Factor Correction</b>	Meets EN61000-3-2 Class A			
<b>Reliability</b>				
<b>MTBF</b>	>700 khrs (115 Vac & 230 Vac @ 25 °C) as per Telcordia SR-332 issue 3 Jan 2011.			
<b>EMC</b>				
<b>Galvanic Isolation</b>	I/P to O/P: 3 kVac; I/P to GND: 2 kVac; O/P to GND: 0.5 kVac			
<b>Emissions</b>	EN55022 (CISPR22) Class B, EN55011 Class B, EN61000-6-3, EN61000-6-4, EN61000-3-3, EN61204-3, EN61000-3-2 Class A			
<b>Immunity</b>	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			
<b>General</b>				
<b>H x W x D in (mm)</b>	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)
<b>Unit Weight</b>	540 g (1.19 lb)		660 g (1.45 lb)	1150 g (2.53 lb)
<b>LED Signals</b>	GREEN light = DC OK , OCP = blinking			
<b>DC OK Relay Contact</b>	Yes			
<b>Warranty</b>	2 year			

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

2. &gt;120 Watts models measured at 230V AC input and 25°C ambient temperature. See manual for further details.

SVL Series Dimensions



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