

SDR-120-48

120W/2.5A DIN-Rail 48VDC Industrial Power Supply



Features

- -25°C to 70°C operating temperature range
- High efficiency 90.5% and low power dissipation
- Short circuit/over load/over voltage/over temperature protections
- Can be installed on DIN-rail TS-35/7.5 or 15
- UL508 (industrial control equipment) approved



Hardware Specifications

Power

Power Input

- Voltage Range: full load 88 to 264VAC, 124 to 370VDC
- Frequency Range: 47 to 63Hz
- Efficiency: 90.5%
- AC Current (Typ.): 1.4A/115VAC, 0.7A/230VAC
- Inrush Current (Typ.): 35A/115VAC, 70A/230VAC
- Leakage Current: <1mA / 240VAC

Power Output

- DC Voltage: 48V
- Rated Current: 2.5A
- Current Range: 0 to 2.5A
- Rated Power: 120W
- Peak Current: 3.75A
- Ripple & Noise (max.): 120mVp-p
- Voltage Adj. Range: 48 to 55V
- Voltage Tolerance: $\pm 1.0\%$
- Line Regulation: $\pm 0.5\%$
- Load Regulation: $\pm 1.0\%$
- Setup, Rise Time: 1500ms, 60ms/230VAC, 3000ms, 60ms/115VAC at full load
- Hold up Time: 20ms/230VAC, 20ms/115VAC at full load

Over Temperature Protection

- 95°C $\pm 5^\circ\text{C}$ (TSW: detected on heatsink of power switch)
- Protection type: Shut down o/p voltage, recovers automatically after temperature goes down

Environment

Operating Temperature

- -25°C to 70°C (-13°F to 158°F)
- Refers to output load derating curve

Storage Temperature

- -40°C to 85°C (-40°F to 185°F), 10 to 95% RH

Working Humidity

- 20% to 95% RH non-condensing

Storage Humidity

- 10% to 95% RH

Regulatory Approvals

Safety

- UL508, TUV EN60950-1 approved

EMI

- Compliance to EN55022 (CISPR22) Class B

EMC

- Withstand Voltage:
 - I/P-O/P: 3KVAC
 - I/P-FG: 1.5KVAC
 - O/P-FG: 0.5KVAC
 - O/P-DC OK: 0.5KVAC
- Isolation Resistance:
 - I/P-O/P
 - I/P-FG
 - O/P-FG: >100M Ohms / 500VDC / 25°C / 70% RH
- Harmonic Current: Compliance to EN61000-3-2, -3

EMS

- Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A, SEMI F47, GL approved

Environmental Test Compliance

- Vibration
 - Component: 10 to 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; mounting: Compliance to IEC60068-2-6

Mechanical

Casing

- Aluminum case

Dimensions

- 40mm (W) x 113.5mm (D) x 125.2mm (H)
(1.6" (W) x 4.46" (D) x 4.93" (H))

Weight

- 0.67kg

Installation

- DIN-Rail

Protection

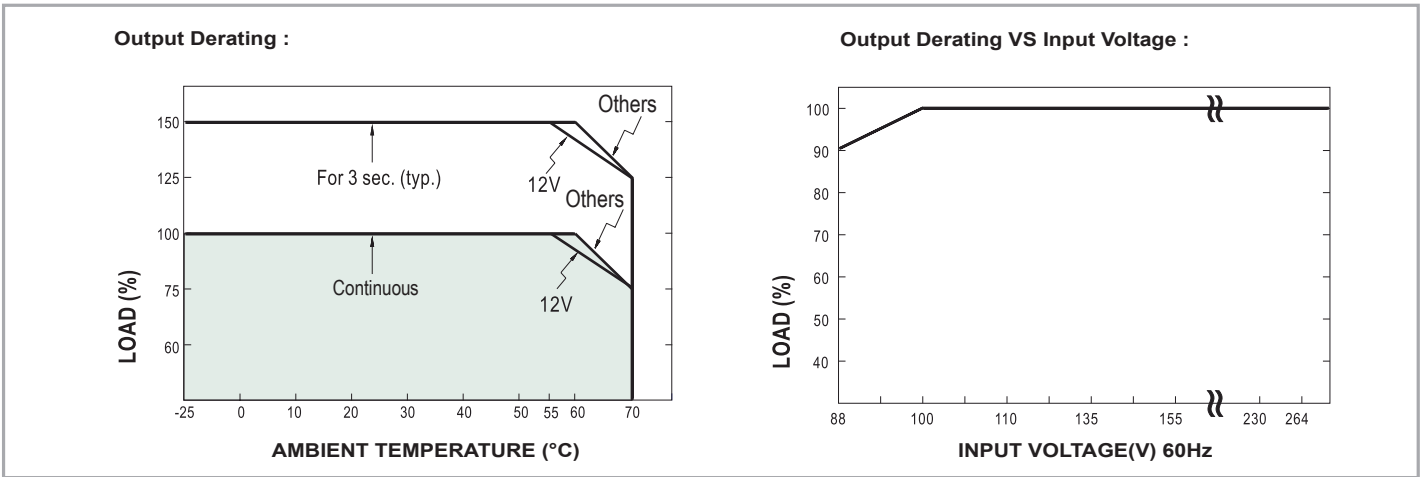
Over Voltage Protection

- 56 to 65V
- Protection type : Shut down o/p voltage, re-power on to recover

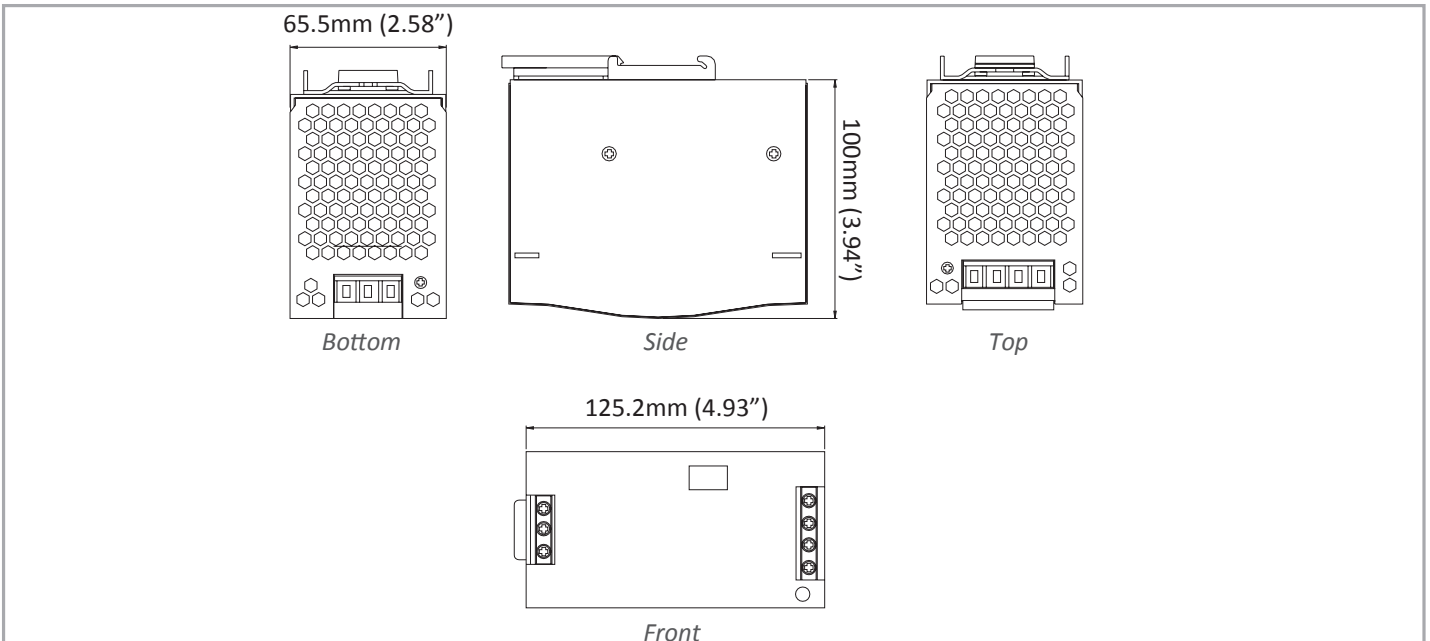
Over Load Protection

- Normally works within 110 to 150% rated output power for more than 3 seconds and then shut down o/p voltage
- >150% rated power, constant current limiting with auto-recovery within 3 seconds and shut down o/p voltage after 3 seconds

Derating Curves



Dimensions



Ordering Information

Model

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