



120W Single Output Industrial DIN RAIL with PFC Function

SDR-120 series



■ Features :

- High efficiency 91% and low power dissipation
- 150% peak load capability
- Built-in active PFC function, PF>0.93
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty



SPECIFICATION

MODEL	SDR-120-12		SDR-120-24		SDR-120-48	
OUTPUT	DC VOLTAGE	12V		24V		48V
	RATED CURRENT	10A		5A		2.5A
	CURRENT RANGE	0 ~ 10A		0 ~ 5A		0 ~ 2.5A
	RATED POWER	120W		120W		120W
	PEAK CURRENT	15A		7.5A		3.75A
	PEAK POWER <small>Note.6</small>	180W (3 sec.)				
	RIPPLE & NOISE (max.) <small>Note.2</small>	100mVp-p		100mVp-p		120mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 14V		24 ~ 28V		48 ~ 55V
	VOLTAGE TOLERANCE <small>Note.3</small>	± 1.0%		± 1.0%		± 1.0%
	LINE REGULATION	± 0.5%		± 0.5%		± 0.5%
	LOAD REGULATION	± 1.0%		± 1.0%		± 1.0%
	SETUP, RISE TIME	1500ms, 60ms/230VAC 3000ms, 60ms/115VAC at full load				
HOLD UP TIME (Typ.)	20ms/230VAC 20ms/115VAC at full load					
INPUT	VOLTAGE RANGE <small>Note.7</small>	88 ~ 264VAC 124 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	0.93/230VAC 0.96/115VAC at full load				
	EFFICIENCY (Typ.)	89%		91%		90.5%
	AC CURRENT (Typ.)	1.4A/115VAC 0.7A/230VAC				
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC				
	LEAKAGE CURRENT	<1mA / 240VAC				
PROTECTION	OVERLOAD	Normally works within 110 ~ 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				
	OVER VOLTAGE	14 ~ 17V		29 ~ 33V		56 ~ 65V
		Protection type : Shut down o/p voltage, re-power on to recover				
	OVER TEMPERATURE	95°C ± 5°C (TSW) detect on heatsink of power switch				
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down				
FUNCTION	DC OK RELAY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load				
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)				
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6				
SAFETY & EMC <small>(Note 4)</small>	SAFETY STANDARDS	UL508, TUV EN62368-1, EAC TP TC 004, BSMI CNS14336-1 approved;(meet EN60204-1)				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC 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				
	EMC EMISSION	Compliance to EN55032 (CISPR32), EN61204-3 Class B, EN61000-3-2,-3, EAC TP TC 020, CNS13438 Class B				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A, EAC TP TC 020, SEMI F47 approved				
OTHERS	MTBF	289.9K hrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	40*125.2*113.5mm (W*H*D)				
	PACKING	0.67Kg; 20pcs/14.4Kg/1.16CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended. 6. 3 seconds max., please refer to peak loading curves. 7. Derating may be needed under low input voltage. Please check the derating curve for more details. 8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).					

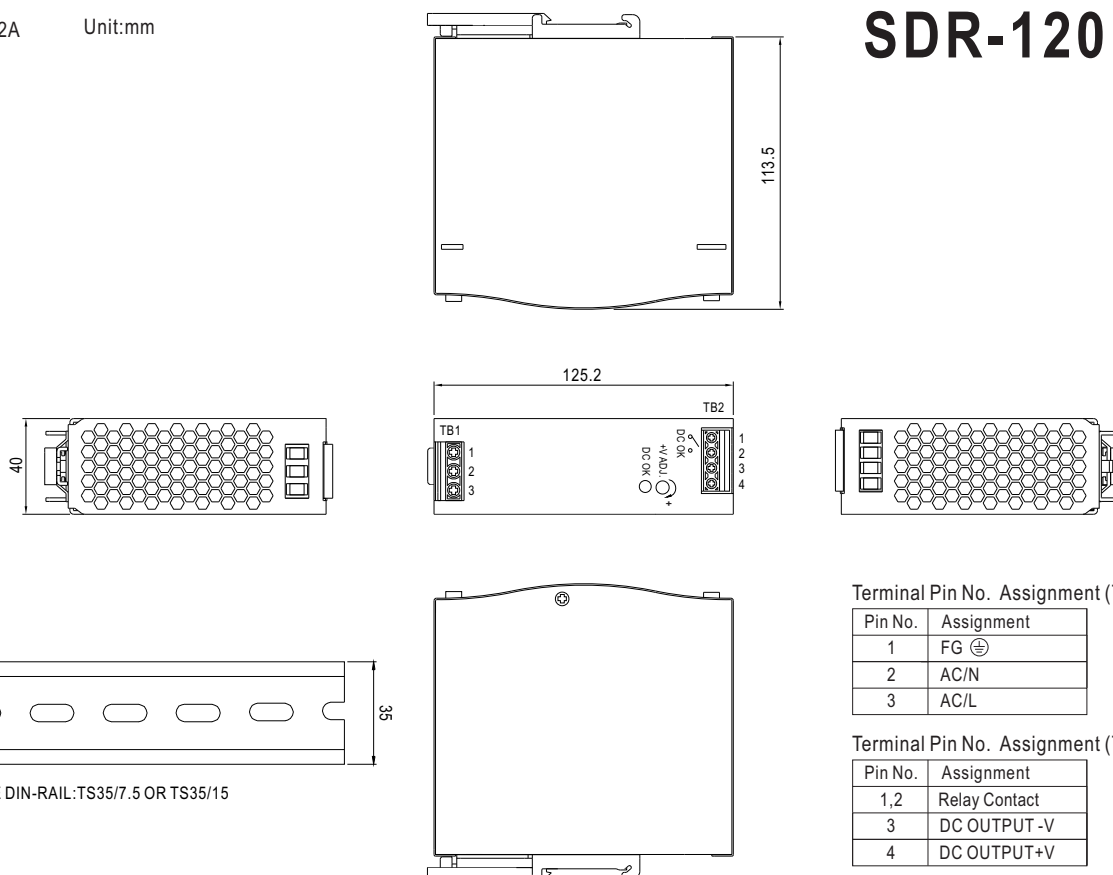
■ Mechanical Specification

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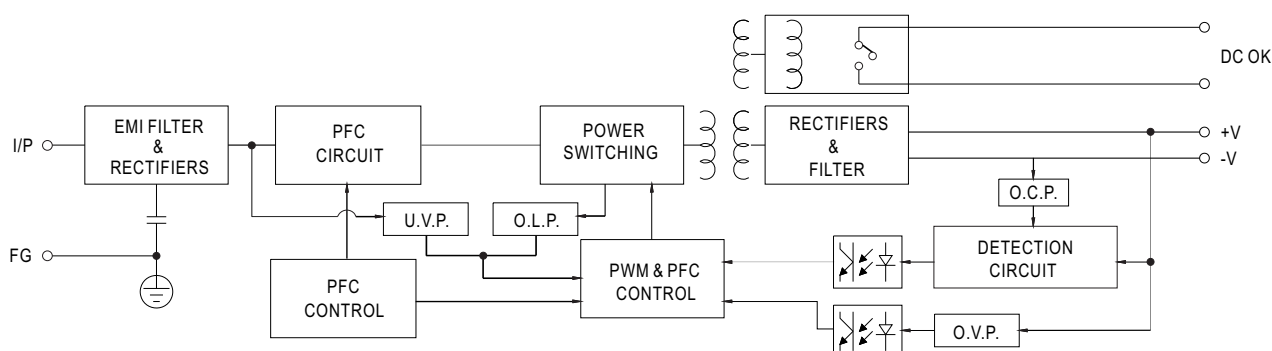
Case No.992A

Unit:mm

SDR-120 series



■ Block Diagram

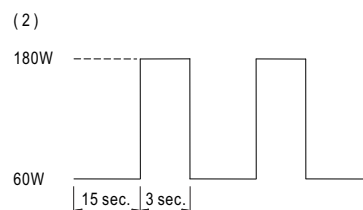
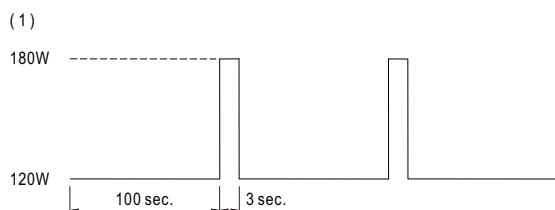


■ DC OK Relay Contact

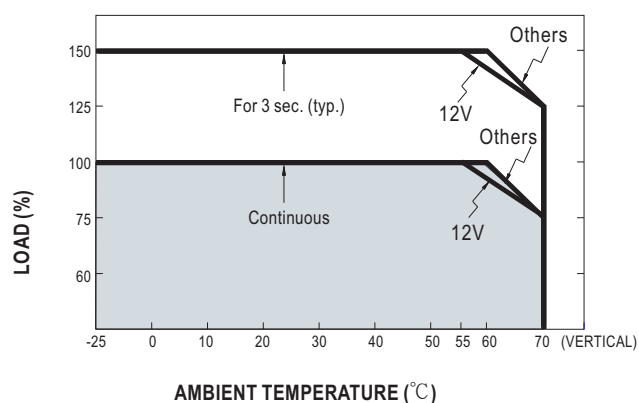
Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.

■ **Peak Loading** 120W Single Output Industrial DIN RAIL with PFC Function

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■ **Derating Curve**



■ **Output derating VS input voltage**

