



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
- BS EN/EN61000-6-2(BS EN/EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

User's Manual



■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

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 Note.6	180W (3 sec.)				
	RIPPLE & NOISE (max.) Note.2	100mVp-p		100mVp-p		120mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 14V		24 ~ 28V		48 ~ 55V
	VOLTAGE TOLERANCE Note.3	± 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 Note.7	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℃ ± 5℃ (TSW) detect on heatsink of power switch Protection type : Shut down o/p voltage, recovers automatically after temperature goes down				
FUNCTION	DC OK REALY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load				
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH				
	TEMP. COEFFICIENT	± 0.03%/℃ (0 ~ 50℃)				
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6				
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, TUV BS EN/EN62368-1, AS/NZS 62368.1, EAC TP TC 004, BSMI CNS15598-1 approved;(meet BS EN/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℃ / 70% RH				
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020, CNS15936 Class B				
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2), BS EN/EN61204-3, heavy industry level, EAC TP TC 020, SEMI F47 approved				
OTHERS	MTBF	1764.6K hrs min. Telcordia SR-332 (Bellcore) ; 292.1K hrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	40*125.2*113.5mm (W*H*D)				
	PACKING	0.67Kg; 20pcs/14.4Kg/1.02CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F & 47 μ F 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. (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf) 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℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx					



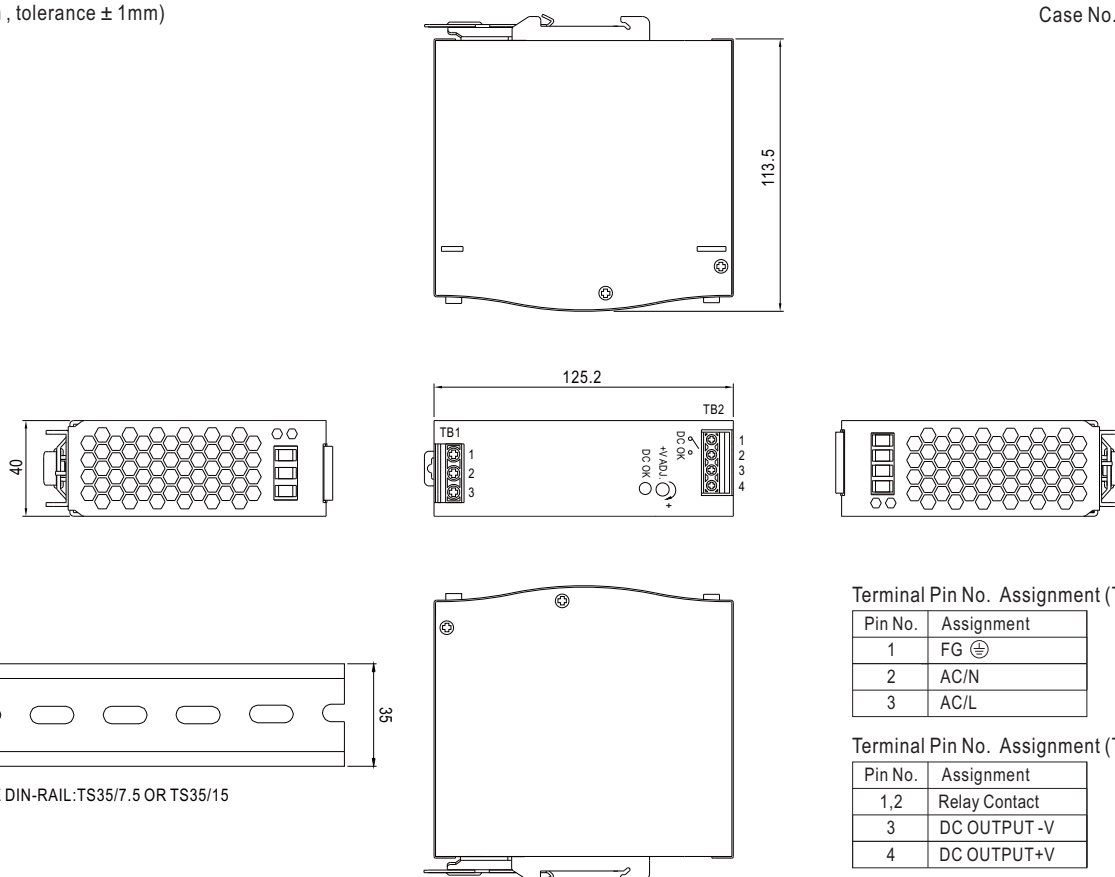
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Mechanical Specification

(Unit: mm , tolerance ± 1 mm)

Case No.992A



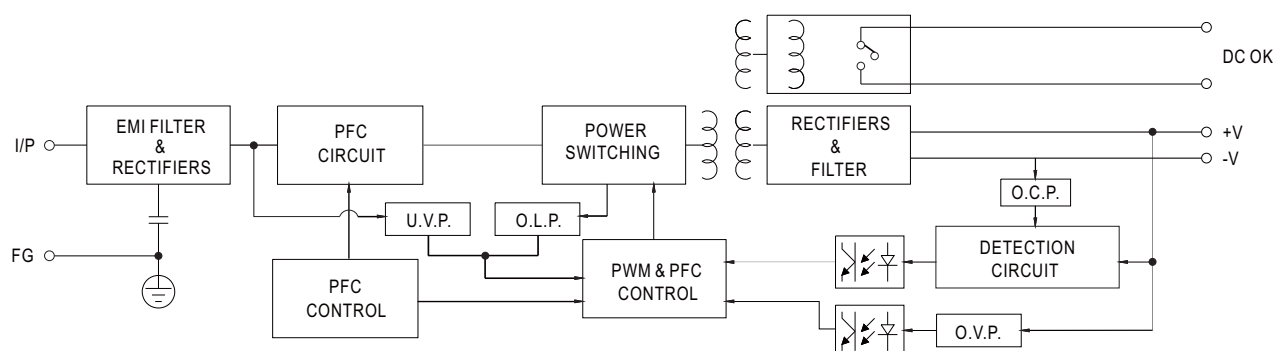
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG $\oplus$
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	Relay Contact
3	DC OUTPUT -V
4	DC OUTPUT +V

Block Diagram



DC OK Relay Contact

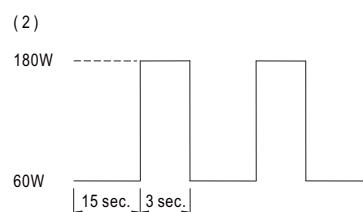
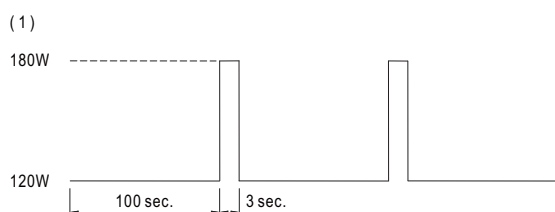
Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.



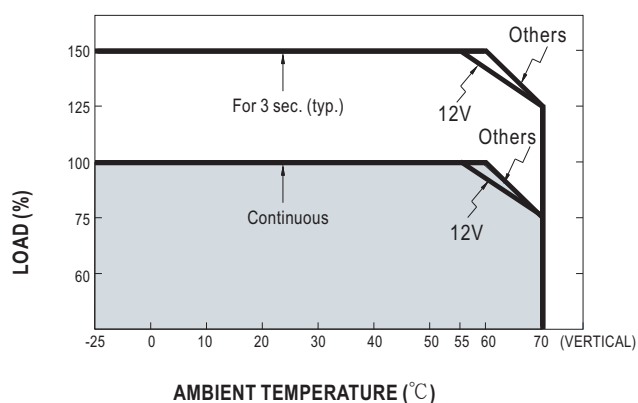
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■ Peak Loading



■ Derating Curve



■ Output derating VS input voltage

