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RAYCORE

Q3-S343 V1.1E

Specification of DIN Rail Power
Supply, 120W/DC48V, Metal
Housing, -25 to +70°C (SDR-120-48)

Part Number: APWD-MFSD-A1248-00



- 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

Specifications

Model		APWD-MFSD-AI248-00 (SDR-120-48)	
Output	DC voltage	48V	
	Rated current	2.5A	
	Current range	0 ~ 2.5A	
	Rated power	120W	
	Peak current	3.75A	
	Peak power	Note.6	180W (3sec.)
	Ripple & noise (max.)	Note.2	120mVp-p
	Voltage ADJ. Range	48 ~ 55V	
	Voltage tolerance	Note.3	±1.0%
	Line regulation	±0.5%	
	Load regulation	±1.0%	
	Setup, Rise Time	1500ms, 60ms/230VAC	3000ms, 60ms/115VAC at full load
Input	Hold up time (Typ.)	20ms/230VAC	20ms/115VAC at full load
	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.)	90.5%	
	AC current (Typ.)	1.4A/115VAC	0.7A/230VAC
	Inrush current (Typ.)	35A/115VAC	70A/230VAC
	Leakage current	< 1mA/240VAC	



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Model		APWD-MFSD-A1248-00 (SDR-120-48)
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 2 seconds and shut down o/p voltage after 3 seconds
	Over voltage	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 realy 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 (Note 4)	Safety standards	UL508, TUV EN60950-1, 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 EN55011, 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, GL 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	<ol style="list-style-type: none"> 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). 	

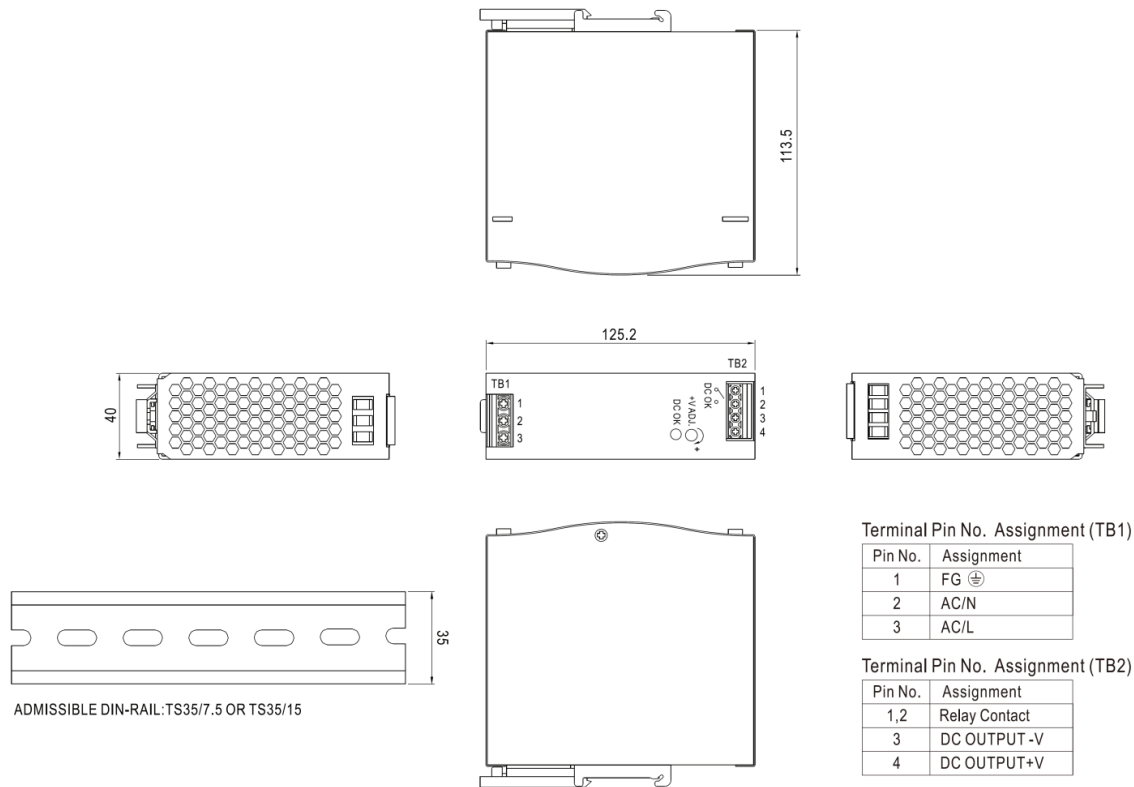


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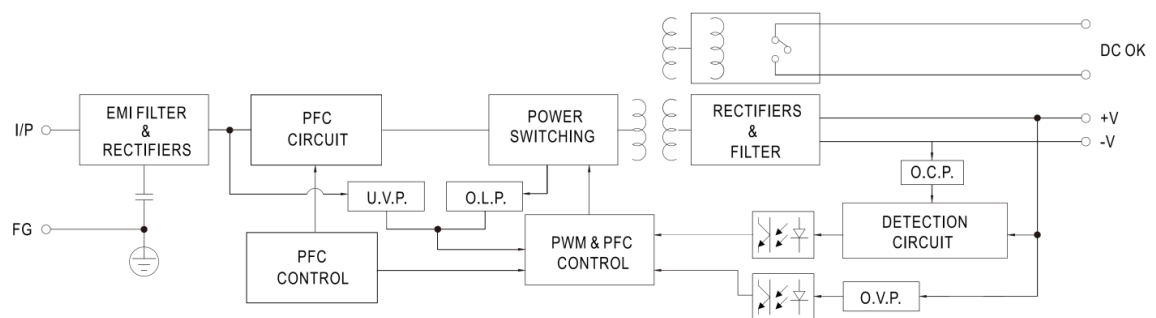


Mechanical Specification

Case No.992A Unit:mm



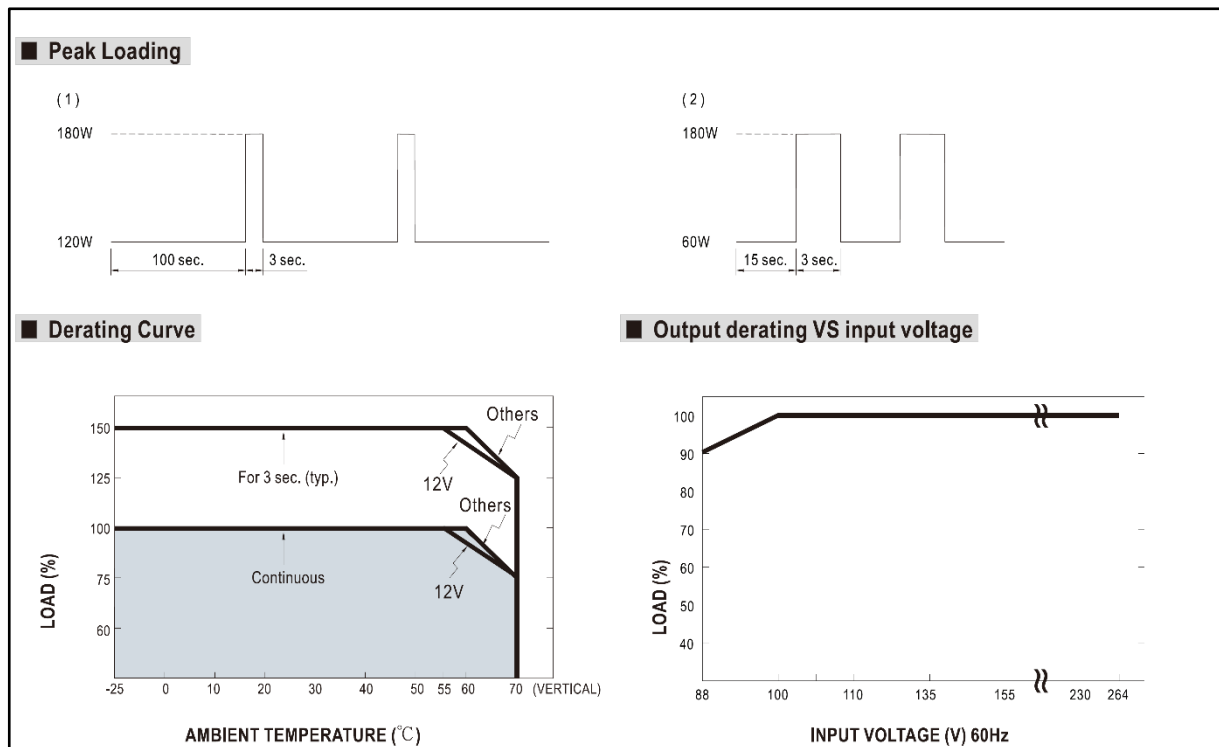
Block Diagram



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.





Ordering Information

Part Number	Description
APWD-MFSD-A1248-00	DIN Rail Power Supply, 120W/DC48V, Metal Housing, -25 to +70°C (SDR-120-48)

