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RAYCORE

Q3-S340 V1.1E

Specification of DIN Rail Power
Supply, 20W/DC24V, Plastic
Housing, -20 to +70°C (MDR-20-24)

Part Number: APWD-MPSB-A2024-00

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- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption <0.75W
- 100% full load burn-in test
- 3 years warranty

Specifications

Model		APWD-MPSB-A2024-00 (MDR-20-24)		
Output	DC voltage	24V		
	Rated current	1A		
	Current range	0 ~ 1A		
	Rated power	24W		
	Ripple & noise (max.)	Note.2	150mVp-p	
	Voltage ADJ. Range	21.6 ~ 26.4V		
	Voltage tolerance	Note.3	±1.0%	
	Line regulation	±1.0%		
	Load regulation	±1.0%		
	Setup, Rise Time	Note.5	500ms, 30ms/230VAC	1000ms, 30ms/115VAC at full load
Hold up time (Typ.)		50ms/230VAC	20ms/115VAC at full load	
Input	Voltage range	Note.7	85 ~ 264VAC	120 ~ 370VDC
	Frequency range	47 ~ 63Hz		
	Efficiency (Typ.)	84%		
	AC current (Typ.)	0.55A/115VAC		0.35A/230VAC
	Inrush current (Typ.)	COLD START 20A/115VAC		40A/230VAC
	Leakage current	< 1mA/240VAC		

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Model		APWD-MPSB-A2024-00 (MDR-20-24)
Protection	Overload	105 ~ 160% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed
	Over voltage	27.6 ~ 32.4V Protection type : Shut down o/p voltage, re-power on to recover
Function	DC ok active signal (max.)	18 ~ 27V/20mA
Environment	Working TEMP.	-20 ~ +70°C (Refer to "Derating Curve")
	Working humidity	20 ~ 90% 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 EN62368-1, EAC TP TC 004, BSMI CNS14336-1, AS/NZS 62368.1 approved
	Withstand voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG: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, EN61000-6-1, EN61204-3, light industry level, criteria A, EAC TP TC 020
Others	MTBF	236.9K hrs min. MIL-HDBK-217F (25°C)
	Dimension	22.5*90*100mm (W*H*D)
	Packing	0.17Kg; 72pcs/13.2Kg/0.91CUFT
Note	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : Includes set up tolerance, line regulation and load regulation. 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 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. 956 Unit:mm

■ Block Diagram

■ Application of DC OK Active Signal

(a) 5V signal

Model	R
5V	≥200Ω
12V	≥1.5KΩ
15V	≥2KΩ
24V	≥3.9KΩ

(b) LED

Model	R
5V	≥1KΩ
12V	≥2.4KΩ
15V	≥3KΩ
24V	≥4.7KΩ

(c) Relay

Model	RL
5V	≥120Ω
12V	≥700Ω
15V	≥700Ω
24V	≥1.2KΩ

■ Derating Curve

■ Output Derating VS Input Voltage

Ordering Information

Part Number	Description
APWD-MPSB-A2024-00	DIN Rail Power Supply, 20W/DC24V, Plastic Housing, -20 to +70°C (MDR-20-24)

