

50W Single Output DC-DC Converter

SD-50 series



- Features :
- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 83KHz
- Low cost
- High reliability
- 2 years warranty

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SPECIFICATION

MODEL		SD-50A-5	SD-50B-5	SD-50C-5	SD-50A-12	SD-50B-12	SD-50C-12	SD-50A-24	SD-50B-24	SD-50C-24	
OUTPUT	DC VOLTAGE	5V			12V			24V			
	RATED CURRENT	10A			4.2A			2.1A			
	CURRENT RANGE	0~10A			0~4.2A			0~2.1A			
	RATED POWER	50W			50.4W			50.4W			
	RIPPLE & NOISE (max.) Note.2	100mVp-p			120mVp-p	120mVp-p			150mVp-p		
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5VDC			11 ~ 16VDC			23 ~ 30VDC			
	VOLTAGE TOLERANCE Note.3	±2.0%			±1.0%			±1.0%			
	LINE REGULATION	±0.5%			±0.3%			±0.2%			
	LOAD REGULATION	±0.5%			±0.3%			±0.2%			
	SETUP, RISE, HOLD UP TIME	2.5s, 50ms, at full load									
	VOLTAGE RANGE	A:9.2 ~ 18VD	C B:19~	36VDC	C:36 ~ 72VDC						
INPUT	EFFICIENCY (Typ.)	70%	73%	76%	72%	75%	78%	74%	80%	83%	
	DC CURRENT	7A/12V	3A/24V	1.5A/48V	7A/12V	3A/24V	1.5A/48V	7A/12V	3A/24V	1.5A/48V	
PROTECTION		105 ~ 150% rated output power									
	OVERLOAD	Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	5.75 ~ 6.75V/10% load			16.8 ~ 20V/10% load			31.5 ~ 37.5V/10% load			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed									
ENVIRONMENT	WORKING TEMP.	$-10 \sim +60^{\circ}$ (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes									
	SAFETY STANDARDS	Design refer to LVD									
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:2.0KVAC O/P-FG:0.5KVAC									
EMC (Note 4)	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B									
	EMC IMMUNITY	Compliance t	Compliance to EN61000-4-2,3,4,6,8, EN55024, heavy industry level, criteria A								
OTHERS	MTBF	365.6K hrs min.(SD-50A) 357.5K hrs min.(SD-50B) 368.5K Hrs min.(SD-50C) MIL-HDBK-217F (25°C)									
	DIMENSION	159*97*38mm (L*W*H)									
	PACKING	0.48Kg; 24pcs/12.7Kg/0.75CUFT									
NOTE	 Ripple & noise are measure Tolerance : includes set up The power supply is consid 	Ily mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. ered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets ince on how to perform these EMC tests, please refer to "EMI testing of component power supplies."									



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