

50W Single Output DC-DC Converter

SD-50 series



Features :

- 2:1 wide input range
- Protections:Short circuit/Over load/Over voltage
- 1500VDC 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
- 1 year 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			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 TIME	2.5s, 50ms, -	at full loa	d						
INPUT	VOLTAGE RANGE	A:9.2 ~ 18VDC B:19 ~ 36VDC C:36 ~ 72VDC								
	EFFICIENCY (Typ.)	70%	73%	76%	72%	75%	78%	74%	80%	83%
	DC CURRENT	7A/12V			3A/24V			1.5A/48V		
PROTECTION	OVER LOAD	105 ~ 150% rated output power								
		Protection type : Fold back current limiting, 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 SAFETY & EMC (Note 4)	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)								
		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								
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; ENV50204, 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	0.53Kg; 24pcs/12.7Kg/0.75CUFT								
NOTE	 Ripple & noise are measure Tolerance : includes set up 	Ily mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature. Ily additional and the second seco								



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