



50W Enclosed Type DC to DC Power Supply < SD-50



- 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



SPECIFICATION

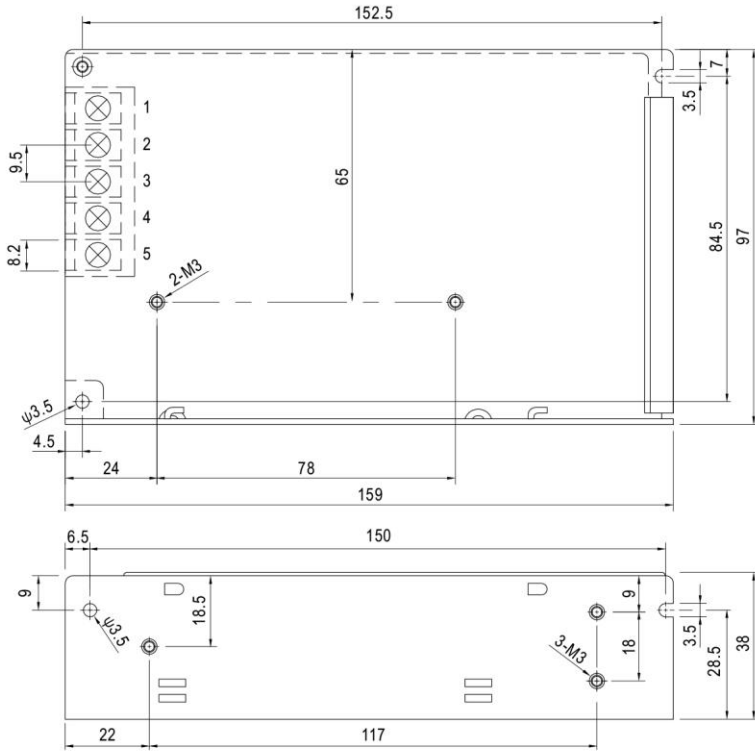
MODEL	SD-50A-5	SD-50B-5	SD-50C-5	SD-50A-12	SD-50B-12	SD-50C-12	SD-50A-24	SD-50B-24	SD-50C-24	
OUTPUT	DC VOLTAGE	5V		12V		24V				
	RATED CURRENT	10A		4.2A		2.1A				
	CURRENT RANGE	0 ~ 10A		0 ~ 4.2A		0 ~ 2.1A				
	RATED POWER	50W		50.4W		50.4W				
	RIPPLE & NOISE (max.) Note.2	100mVp-p		120mVp-p		150mVp-p				
	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 UP TIME	2.5s, 50ms, ----- at full load									
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	7A/12V	3A/24V	1.5A/48V	7A/12V	3A/24V	1.5A/48V
PROTECTION	OVERLOAD	105 ~ 150% rated output power 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		
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (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 & EMC (Note 4)	SAFETY STANDARDS	Design refer to LVD, EAC TP TC 004, AS/NZS 62368.1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC 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 EN55032 (CISPR32) Class B, EAC TP TC 020								
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, EN55024, heavy industry level, criteria A, EAC TP TC 020								
	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	0.43Kg; 24pcs/11.35Kg/0.83CUFT								
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 12,24,48VDC 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. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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." 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

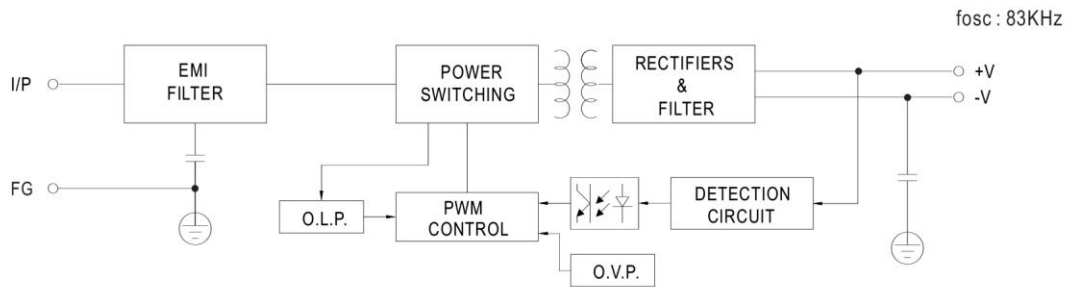
Case No. 901 Unit:mm



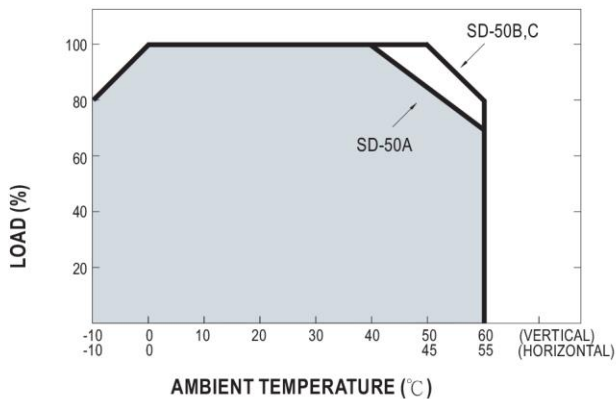
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	DC INPUT V+	4	DC OUTPUT -V
2	DC INPUT V-	5	DC OUTPUT +V
3	FG \perp		

Block Diagram



Derating Curve



Static Characteristics(SD-50C-24V)

