



200W Single Output DC-DC Converter

SD-200 series



■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 1500VDC I/O isolation
- Cooling by free air convection
- 100% full load burn-in test
- 24V and 48V input voltage design refer to LVD
- 2 years warranty

SPECIFICATION

cULus (for SD-200C-24 type only) CB (for D type only) CE

MODEL	SD-200B				SD-200C				
OUTPUT	DC VOLTAGE	5V	12V	24V	48V	5V	12V	24V	48V
	RATED CURRENT	34A	16.7A	8.4A	4.2A	40A	16.7A	8.4A	4.2A
	CURRENT RANGE	0 ~ 34A	0 ~ 16.7A	0 ~ 8.4A	0 ~ 4.2A	0 ~ 40A	0 ~ 16.7A	0 ~ 8.4A	0 ~ 4.2A
	RATED POWER	170W	200.4W	201.6W	201.6W	200W	200.4W	201.6W	201.6W
	ripple & noise (max.) Note.2	100mVp-p	120mVp-p	150mVp-p	200mVp-p	100mVp-p	120mVp-p	150mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5VDC	11 ~ 16VDC	23 ~ 30VDC	43 ~ 53VDC	4.5 ~ 5.5VDC	11 ~ 16VDC	23 ~ 30VDC	43 ~ 53VDC
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
INPUT	SETUP, RISE TIME	300ms, 50ms at full load							
	VOLTAGE RANGE	B:19 ~ 36VDC	C:36 ~ 72VDC	D:72 ~ 144VDC					
	EFFICIENCY (Typ.)	79%	82%	85%	86%	81%	84%	86%	86%
	DC CURRENT (Typ.)	10.8A/24V	10.6A/24V	10.4A/24V	10.4A/24V	5.4A/48V	5.2A/48V	6.7A/48V	5A/48V
PROTECTION	INRUSH CURRENT (Typ.)	C:45A/48VDC D:45A/96VDC							
	OVERLOAD	105 ~ 135% rated output power Protection type : Shut down o/p voltage, re-power on to recover							
	OVER VOLTAGE	5.75 ~ 6.75V	16.8 ~ 20V	31.5 ~ 37.5V	53 ~ 65V	5.75 ~ 6.75V	16.8 ~ 20V	31.5 ~ 37.5V	53 ~ 65V
	OVER TEMPERATURE	95°C ±5°C (100°C ±5°C for SD-200B-12 only) TSW1 detect on main power transistor Protection type : Shut down o/p voltage, re-power on to recover							
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°C (Refer to output load 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	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1 approved (for SD-200C-24 type only), IEC60950-1 CB approved by TUV (for D type only)							
	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							
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; ENV50204, light industry level, criteria A							
	MTBF	218.2K hrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	215*115*50mm (L*W*H)							
NOTE	PACKING	1.1Kg; 12pcs/14.4Kg/0.92CUFT							
1. All parameters NOT specially mentioned are measured at 24,48,96VDC 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.									



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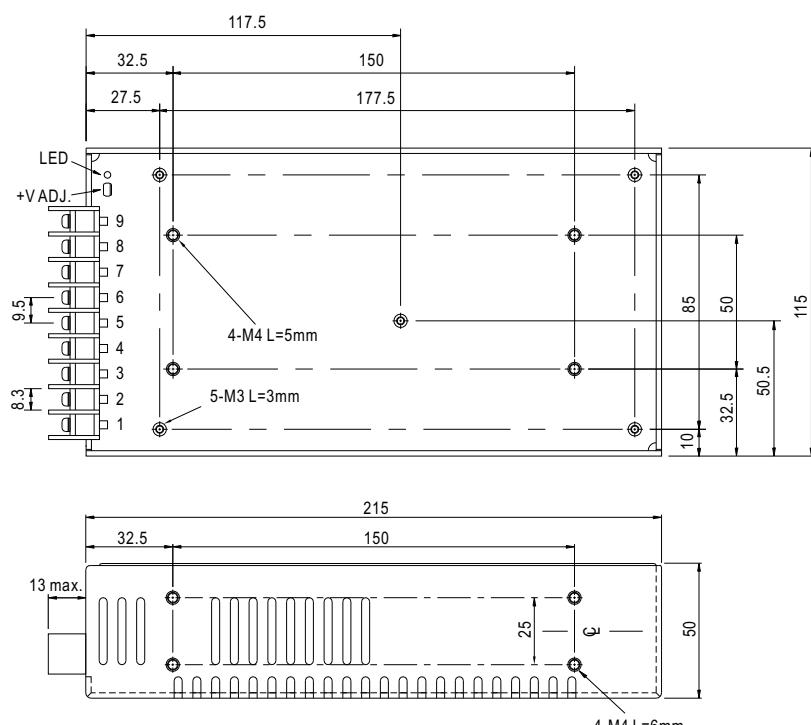
SPECIFICATION

MODEL	SD-200D			
OUTPUT	DC VOLTAGE	5V	12V	24V
	RATED CURRENT	40A	16.7A	8.4A
	CURRENT RANGE	0 ~ 40A	0 ~ 16.7A	0 ~ 8.4A
	RATED POWER	200W	200.4W	201.6W
	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%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%
SETUP, RISE TIME				
300ms, 50ms at full load				
INPUT	VOLTAGE RANGE	B:19 ~ 36VDC	C:36 ~ 72VDC	D:72 ~ 144VDC
	EFFICIENCY (Typ.)	82%	82%	84%
	DC CURRENT (Typ.)	3.5A/96V	3.5A/96V	3.5A/96V
	INRUSH CURRENT (Typ.)	C:45A/48VDC	D:45A/96VDC	
PROTECTION	OVERLOAD	105 ~ 135% rated output power		
		Protection type : Shut down o/p voltage, re-power on to recover		
	OVER VOLTAGE	5.75 ~ 6.75V	16.8 ~ 20V	31.5 ~ 37.5V
		Protection type : Shut down o/p voltage, re-power on to recover		
ENVIRONMENT	OVER TEMPERATURE	85°C ±5°C (TSW1) detect on main power transistor		
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		
	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH		
SAFETY & EMC (Note 4)	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		
	SAFETY STANDARDS	IEC60950-1 CB approved by TUV (for D type only)		
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC	I/P-FG:1.5KVAC	O/P-FG:0.5KVAC
OTHERS	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, light industry level, criteria A		
NOTE	MTBF	218.2K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	215*115*50mm (L*W*H)		
	PACKING	1.1Kg; 12pcs/14.4Kg/0.92CUFT		

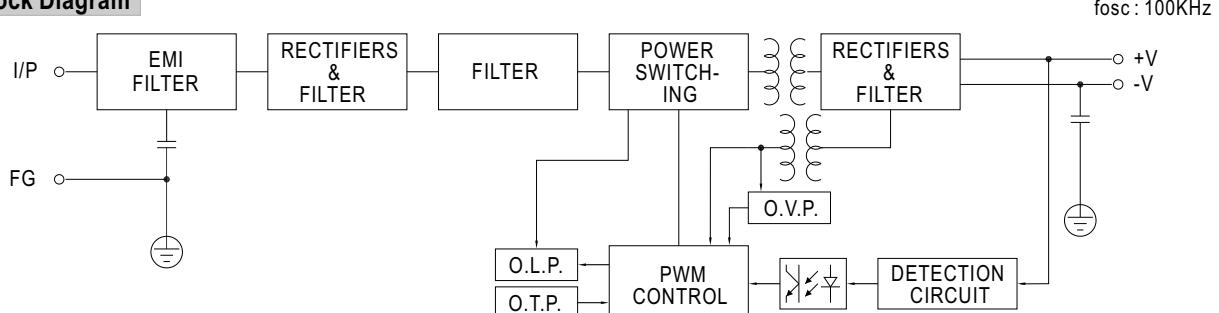
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■ Mechanical Specification

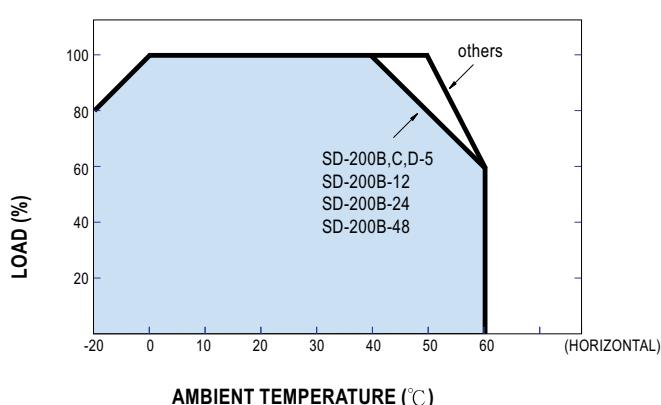
Case No. 912B Unit:mm



■ Block Diagram



■ Derating Curve



■ Static Characteristics

