

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

$\boldsymbol{CB}_{(\text{for D type only})}\;\boldsymbol{C}\,\boldsymbol{\varepsilon}$

SPECIFICATION

MODEL		SD-200B				SD-200C						
	DC VOLTAGE	5V	12V	24V	48V	5V	12V	24V	48V			
OUTPUT	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 ~ 53VD0			
	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%			
	SETUP, RISE TIME	300ms, 50ms at full load										
INPUT	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	5A/48V	5A/48V			
	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			
PROTECTION		Protection type : Shut down o/p voltage, re-power on to recover										
	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, recovers automatically after temperature goes down										
	WORKING TEMP.	-20 ~ +60 $^{\circ}$ C (Refer to output load derating curve)										
	WORKING HUMIDITY	20 ~ 90% RH non-condensing										
ENVIRONMENT	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 STANDARDS	IEC60950-1 CB approved by TUV (for D type only)										
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC										
EMC												
(Note 4)	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										
OTHERS	MTBF	218.2K hrs min. MIL-HDBK-217F (25°C)										
	DIMENSION	215*115*50mm (L*W*H)										
	PACKING	1.1Kg; 12pcs/1	4.4Kg/0.92CUF	Г								
NOTE	 Ripple & noise are measure Tolerance : includes set up 	IIy mentioned are measured at 24,48,96VDC 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. lered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets										



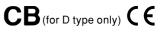
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- 24V and 48V input voltage design refer to LVD



SPECIFICATION

MODEL		SD-200D							
OUTPUT	DC VOLTAGE	5V	12V	24V	48V				
	RATED CURRENT	40A	16.7A	8.4A	4.2A				
	CURRENT RANGE	0~40A	0~16.7A	0~8.4A	0~4.2A				
	RATED POWER	200W	200.4W	201.6W	201.6W				
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	150mVp-p	200mVp-p				
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5VDC	11 ~ 16VDC	23 ~ 30VDC	43 ~ 53VDC				
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%				
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%				
	LOAD REGULATION	±1.0%	±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%	90%				
	DC CURRENT (Typ.)	3.5A/96V	3.5A/96V	3.5A/96V	3.5A/96V				
	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				
PROTECTION		Protection type : Shut down o/p voltage, re-power on to recover							
	OVER TEMPERATURE	85℃±5℃(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							
ENVIRONMENT	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 STANDARDS	IEC60950-1 CB approved by TUV (for D type only)							
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC							
EMC	ISOLATION RESISTANCE I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC								
(Note 4)	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							
OTHERS	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							
NOTE	 Ripple & noise are measure Tolerance : includes set up 	pecially mentioned are measured at 24,48,96VDC input, rated load and 25°C of ambient temperature. assured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. set up tolerance, line regulation and load regulation. considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meet							



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