



500W Single Output DC-DC Converter

SD-500 series



- Features :
 - DC input active surge current limiting
 - Wide 4:1~2:1 DC input range (24V: 19~72VDC, 96V:72~144VDC)
 - Protections: Short circuit / Overload / Over voltage / Over temperature / Input polarity(by fuse)
 - 2000VAC I/O Isolation
 - Forced air cooling by built-in DC fan with fan speed control function
 - Output OK Signal
 - Built-in remote ON-OFF control
 - Built-in remote sense function
 - 3 years warranty



GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>



AS/NZS62368-1 BS EN/EN62368-1 TPTC004 IEC62368-1

SPECIFICATION

MODEL	SD-500L-12	SD-500L-24	SD-500L-48	SD-500H-12	SD-500H-24	SD-500H-48	
OUTPUT	DC VOLTAGE	12V	24V	48V	12V	24V	48V
	RATED CURRENT	40A	21A	10.5A	40A	21A	10.5A
	CURRENT RANGE	0 ~ 40A	0 ~ 21A	0 ~ 10.5A	0 ~ 40A	0 ~ 21A	0 ~ 10.5A
	RATED POWER	480W	504W	504W	480W	504W	504W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	11 ~ 15V	23 ~ 30V	46 ~ 60V	11 ~ 15V	23 ~ 30V	46 ~ 60V
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
SETUP, RISE TIME	500ms, 50ms at full load						
INPUT	VOLTAGE RANGE Note.5	19 ~ 72VDC			72 ~ 144VDC		
	EFFICIENCY (Typ.)	86%	88%	89%	87%	89%	90%
	DC CURRENT (Typ.)	24.2A/19VDC	24.8A/24VDC	12A/48VDC	8A/72VDC	6A/96VDC	
	CURRENT (AT NO LOAD)	Max. 0.2A/48VDC			Max. 0.1A/96VDC		
	INRUSH CURRENT (Typ.)	60A/48VDC			60A/96VDC		
PROTECTION	OVERLOAD	105 ~ 125% rated output power Protection type : Constant current limiting, shut down o/p voltage after about 5 sec., re-power on to recover					
	OVER VOLTAGE	16 ~ 19V	30.8 ~ 35.2V	62 ~ 68V	16 ~ 19V	30.8 ~ 35.2V	62 ~ 68V
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down					
FUNCTION	REMOTE ON/OFF CONTROL	Please refer to function manual					
	OUTPUT OK SIGNAL	Open collector signal low when PSU turns on, max. sink current :10mA					
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.02%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 4)	SAFETY STANDARDS	IEC62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved, design refer to AS/NZS 62368.1					
	WITHSTAND VOLTAGE	I/P-O/P:2KVAC 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 BS EN/EN55032 (CISPR32) Class B, EAC TP TC 020					
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,6,8, light industry level, EAC TP TC 020					
OTHERS	MTBF	1333.7K hrs min. Telcordia SR-332 (Bellcore) ; 196.3K hrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	215*115*50mm (L*W*H)					
	PACKING	1.15Kg; 12pcs/14.8Kg/0.9CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 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. 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." (as available on http://www.meanwell.com) 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 7. 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). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx						