15W Single Output DC-DC Converter

SD-15 series

User's Manual

■ Features :

- 2:1 wide input range
- Protections:Short circuit/Over load /voltage
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost
- High reliability
- 2 years warranty

■ GTIN CODE

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

AS/NZS62368-1 TPTC004

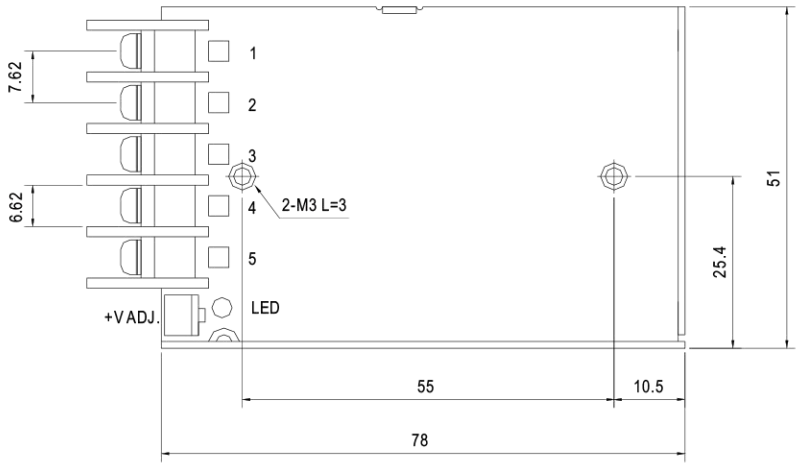
SPECIFICATION

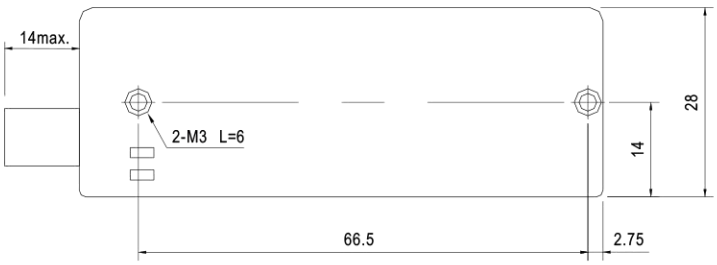
MODEL		SD-15A-05	SD-15B-05	SD-15C-05	SD-15A-12	SD-15B-12	SD-15C-12	SD-15A-24	SD-15B-24	SD-15C-24
OUTPUT	DC VOLTAGE	5V			12V			24V		
	RATED CURRENT	3A			1.25A			0.625A		
	CURRENT RANGE	0 ~ 3A			0 ~ 1.25A			0 ~ 0.625A		
	RATED POWER	15W			15W			15W		
	RIPPLE & NOISE (max.) Note.2	100mVp-p			120mVp-p			150mVp-p		
	VOLTAGE ADJ.RANGE	4.75~5.5VDC			10.8~13.2VDC			21.6~26.4VDC		
	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, 25ms,--- 12VDC/24VDC/48VDC at full load								
INPUT	VOLTAGE RANGE	A: 9.2 ~18VDC	B:18 ~ 36VDC	C:36~72VDC						
	EFFICIENCY(Typ.)	68%	76%	75%	72%	76%	79%	70%	77%	78%
	DC CURRENT(Typ.)	1.9A/12VDC	0.9A/24VDC	0.45A/48VDC						
PROTECTION	OVER LOAD	105 ~160% rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	5.75 ~ 6.75V			13.8~ 16.2V			27.6 ~ 32.4V		
		Protection type : Shut off o/p voltage, clamping by zener diode								
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to "Derating Curve")								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min.each along X, Y, Z axes								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	EAC TP TC 004 approved, design refer to AS/NZS 62368.1								
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:1KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P,I/P-FG,O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH								
	EMC EMISSION	Compliance to BS EN/EN55032(CISPR32), EAC TP TC 020								
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,6,8, BS EN/EN55035, light industry level, EAC TP TC 020								
OTHERS	MTBF	3861.2K hrs min. Telcordia SR-332 (Bellcore) ; 644.2K hrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	78*51*28mm (L*W*H)								
	PACKING	0.18Kg,60 PCS/11.8Kg								
NOTE	1. All parameters NOT specially mentioned are measured at normal input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) 5. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/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									

■ Mechanical Specification

Case No. 931A

(Unit: mm , tolerance ± 1mm)



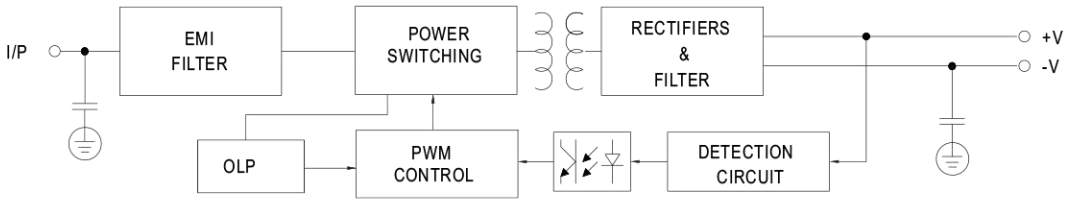
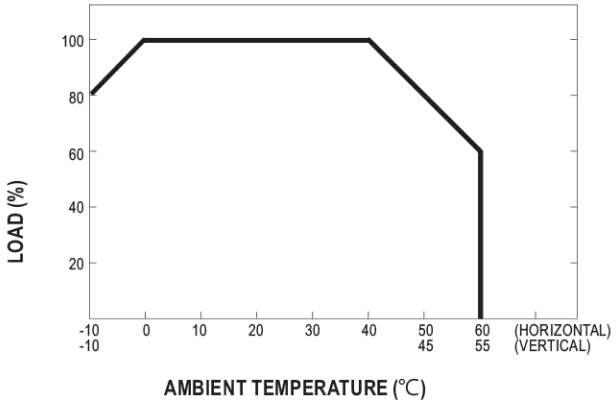


Terminal Pin No. Assignment

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

■ Block Diagram

fosc : 96KHz



■ Derating Curve