



## MEAN WELL SD-350 Series 350W Single Output DC DC Converter Owner's Manual

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350W Single Output DC-DC Converter  
SD – 350 series



User's Manual



## ■ GTIN CODE

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## ■ Features:

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 1500VAC I/O isolation
- Forced air cooling by built-in DC Fan
- 100% full load burn-in test
- 24V and 48V input voltage design refer to LVD
- 2 years warranty



## SPECIFICATION

MODEL		SD-350B				SD-350C			
OUT UT	DC VOLTAGE	5V	12V	24V	48V	5V	12V	24V	48V
	RATED CURRENT	57A	27.5A	14.6A	7.3A	60A	27.5A	14.6A	7.3A
	CURRENT RANGE	0 – 5M	0 – 27.5A	0 – 14.6A	0 – 7.3A	0 – 60A	0 – 27.5A	0 – 14.6A	0 – 7.3A
	RATED POWER	285W	330W	350.4W	350.4W	300W	330W	350.4W	350.4W
	RIPPLE & NOISE (max.) Note/	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 Not4.3	±2.0%	31.%	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%	±1.0%

	LINE REGULATION	±0.5%	±0.3%	±0.2%	±0.2%	31.%	±0.3%	±0.2%	±0.2%
	LOAD REGULATION	±1.0%	31.%	31.%	±1.0%	±1.0%	±1.0%	31.%	±1.0%
	SETUP, RISE TIME	300ms, 50ms at full load							
INPUT	VOLTAGE RANGE	8:19 – 36VDC C:36 – 72VDC D:72 -144VDC							
	EFFICIENCY (Typ.)	74%	80%	80%	84%	76%	81%	81%	82%
	DC CURRENT (Typ.)	14.4A/24V	16A/24V	17.6A/24V	17.6A/24V	7.6A/48V	8.8A/48V	9.0A/48V	9.0A/48V
	INRUSH CURRENT (Typ.)	C:45N48VDC 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	116.8 – 20V	131.5 – 37.5V	153 – 65V 15.75 – 6.7W	116.8 – 20V	131.5 – 37.5V	153 – 65V	
		Protection type : Shut down o/p voltage. re-power on to recover							
OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down								
ENVIRONMENTAL	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	±0.03%/t (0 – 50°C)							
	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-01P:1.5KVAC 1/P-Fa2KVAC 0/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-0/P, NP-FG, 0/P-FG:100M Ohms / 500VDC 125°C/ 70% RH							
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, EAC TP TC 020							
	EMC IMMUNITY	Compliance to BS EN/EN55035, light industry level, EAC TP TC 020							

OTHERS	MTBF	1705.6K hrs min. Telcordia SR-332 (Bellcore) ; 263.9K hrs min. MIL-HDBK-217F ( 25t )
	DIMENSION	215'115'50mm (L'W'H)
	PACKING	1.1Kg; 12pcs/14.4Kg10.9CUFT

## NOTE

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. 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. 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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## SPECIFICATION

MODEL		SD-350D			
OUTPUT	DC VOLTAGE	5V	12V	24V	48V
	RATED CURRENT	60A	29.2A	14.6A	7.3A
	CURRENT RANGE	0 – 60A	0 – 29.2A	0 – 14.6A	0 – 7.3A
	RATED POWER	300W	350.4W	350.4W	350.4W
	RIPPLE & NOISE (max.) Note/	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%	±0.3%	±0.2%	±0.2%

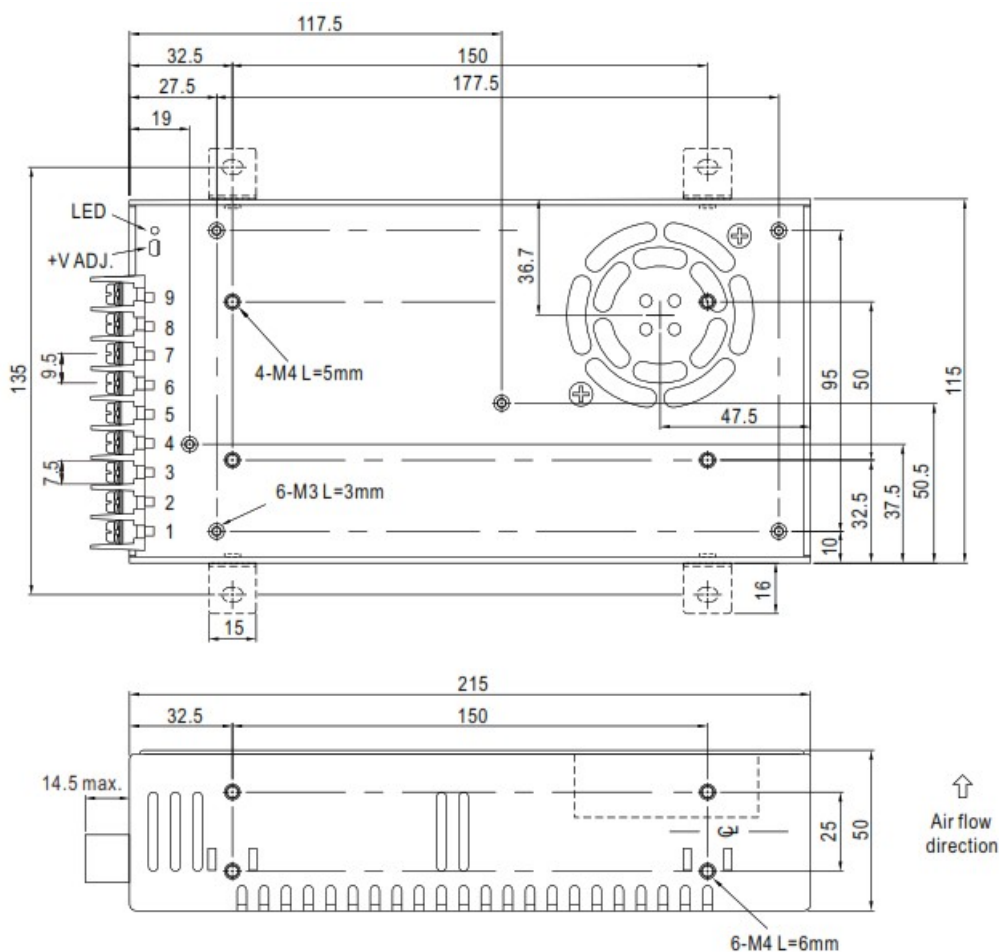
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME	300ms, 50ms at full load			
INPUT	VOLTAGE RANGE	B:19 – 36VDC C:36 – 72VDC D:72 -144VDC			
	EFFICIENCY (Typ.)	78%	83%	87%	89%
	DC CURRENT (Typ.)	6A196V	6N96V	6N96V	6N96V
	INRUSH CURRENT (Typ.)	C:45N4BVDC D:45A/96VDC			
PROTECTION	OVERLOAD	105 -135% rated output power			
		Protection type : Shut down o/p voltage, re-power on to recover			
	OVER VOLTAGE	5.75 – 6.75V	1 16.8 – 20V	31.5 – 37.5V	153 – 65V
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	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down			
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	±0.03%/°C (0 – 50°C)			
	VIBRATION	10 – 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	IECIBS EN/EN 62368-1, EAC TP TC 004 approved, design refer to AS/NZS 6236 8.1			
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC 1/P-Fa2KVAC 0/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, 0/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH			
	EMC EMISSION	Compliance to BS EN/EN55022 (CISPR22) Class B, EAC TP TC 020			
	EMC IMMUNITY	Compliance to BS ENEN61000-4-2,3,4,6,8, BS EN/EN55035, light industry level, EAC TP TC 020			
OTHERS	MTBF	1705.6K hrs min. Tetcordia SR-332 (Bellcore) ; 263.9K hrs min. MIL-HDBK-217F (25-C)			
	DIMENSION	215'115'50mm (L'W'H)			
	PACKING	1.1Kg; 12pcs/14.4Kg/0.9CUFT			

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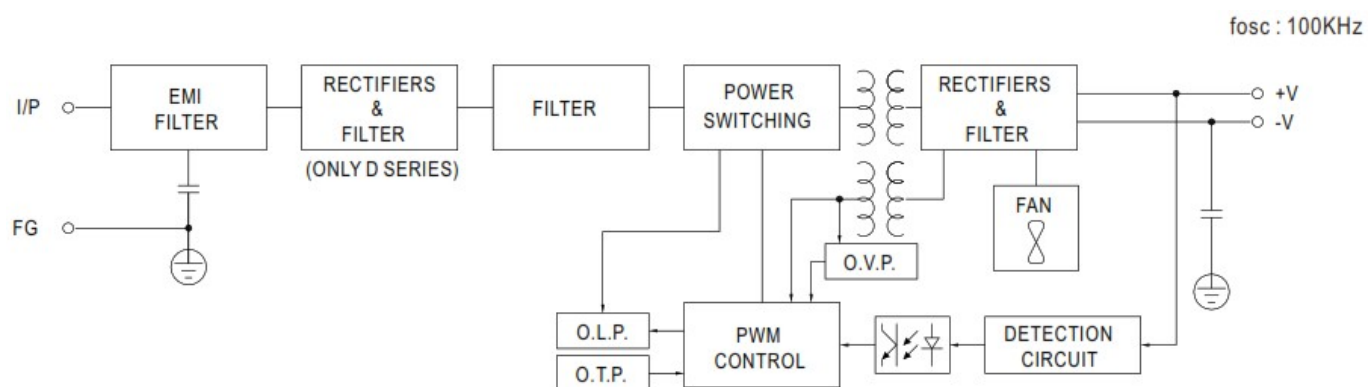
## Mechanical Specification



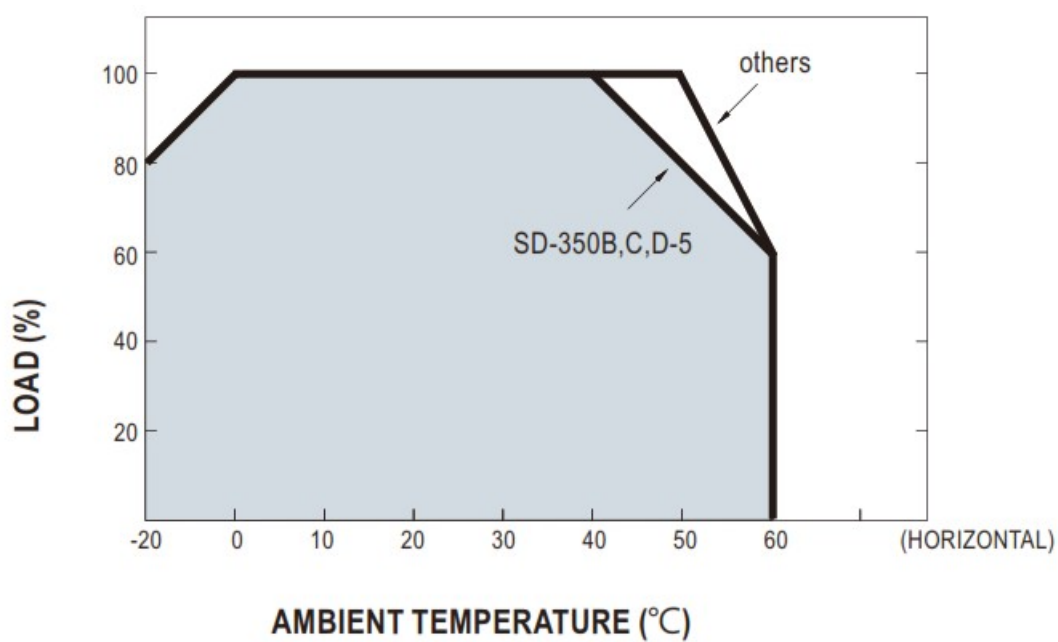
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	DC INPUT V+	4,5,6	DC OUTPUT V-
2	DC INPUT V-	7,8,9	DC OUTPUT V+
3	FG 		

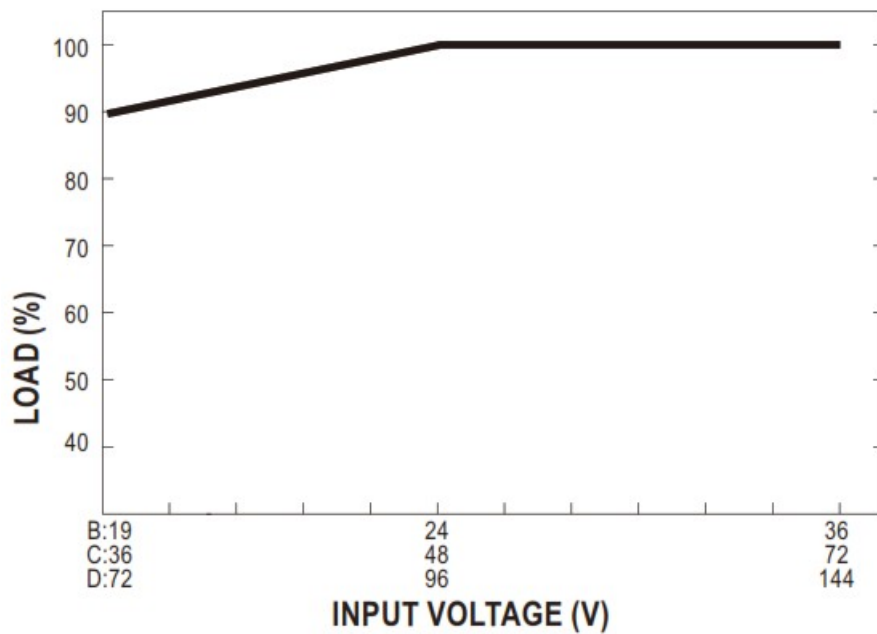
## Block Diagram



## Derating Curve



## Static Characteristics



File Name:SD-350-SPEC 2022-09-20  
Downloaded from [Arrow.com](https://www.arrow.com).

## Documents / Resources



[MEAN WELL SD-350 Series 350W Single Output DC DC Converter](#) [pdf] Owner's Manual  
SD-350 Series 350W Single Output DC DC Converter, SD-350 Series, 350W Single Output DC  
DC Converter, Output DC DC Converter, DC Converter, Converter

## References

- [MEAN WELL Switching Power Supply Manufacturer](#)