

MEAN WELL EPS-65 Series 65W Single Output Switching Power Supply Owner's Manual

Home » MEAN WELL » MEAN WELL EPS-65 Series 65W Single Output Switching Power Supply Owner's Manual ™

MEAN WELL EPS-65 Series 65W Single Output Switching Power Supply



Contents

- 1 Features
- **2 SPECIFICATION**
- 3 Mechanical
- **Specification**
- 4 Block Diagram
- **5 Output Derating**
- **6 Static Characteristics**
- 7 Documents / Resources
 - 7.1 References
- **8 Related Posts**

Features

- Universal AC input / Full range
- Optional L-Bracket and cover
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 4" x 2" compact size
- · LED indicator for power on
- No load power consumption<0.3W
- Operating altitude up to 4000 meters
- 3 years warranty

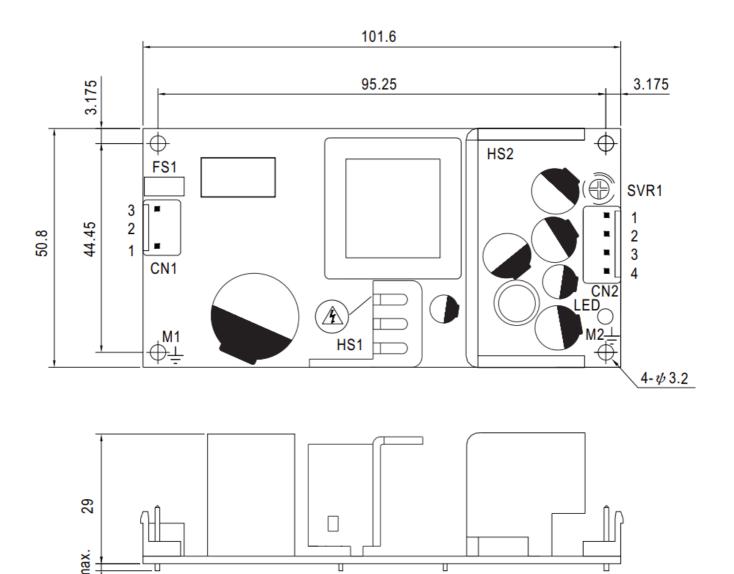
SPECIFICATION

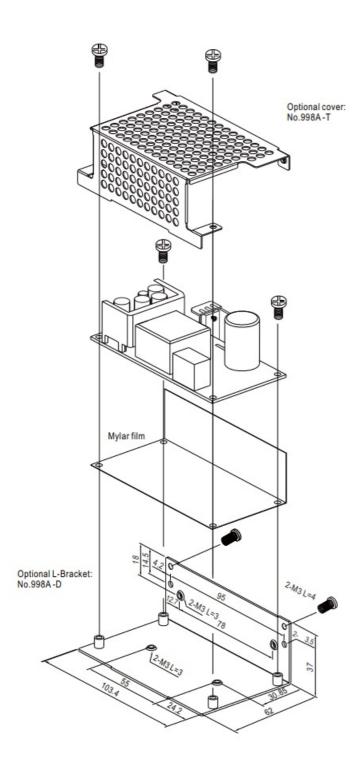
MODEL		EPS-6 5-3.3	EPS-6 5-5	EPS-65 -7.5	EPS-65 -12	EPS-65 -15	EPS-65 -24	EPS-65 -36	EPS-65 -48
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRE NT	11A	11A	8A	5.42A	4.34A	2.71A	1.81A	1.36A
	CURRENT RAN GE	0 ~ 12 A	0 ~ 12A	0 ~ 8.8 A	0 ~ 6A	0 ~ 4.8A	0 ~ 3A	0 ~ 2A	0 ~ 1.5A
	RATED POWER	36.3W	55W	60W	65.04W	65.1W	65.04W	65.16W	65.28W
	PEAK LOAD(10 sec.) Note	39.6W	60W	66W	72W	72W	72W	72W	72W
OUTPU	RIPPLE & NOIS E (max.) Note.2	80mVp -p	80mVp-	100mVp -p	120mVp -p	150mVp -p	240mVp -p	280mVp -p	300mVp -p
T	VOLTAGE ADJ. RANGE	3.1 ~ 3. 6V	4.75 ~ 5.5V	7.13 ~ 8 .25V	10.8 ~ 1 3.5V	13.5 ~ 1 6.5V	21.6 ~ 2 7V	32.4 ~ 3 9.6V	43.2 ~ 5 2.8V
	VOLTAGE TOLE RANCE Note.3	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%

	LINE REGULATI ON	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULA TION	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RISE TI ME	1000ms, 50ms/230VAC 2000ms, 50ms/115VAC at full load								
	HOLD UP TIME (Typ.)	50ms/23	50ms/230VAC 12ms/115VAC at full load							
	VOLTAGE RAN GE Note.5	90 ~ 264VAC								
	FREQUENCY R ANGE									
INPUT	EFFICIENCY (Ty p.)	80%	82%	84%	86%	87%	88%	89%	90%	
	AC CURRENT (Typ.) 1.8A/115VAC 1 A/230VAC									
	INRUSH CURRE NT (Typ.)	COLD START 60A/230VAC								
	LEAKAGE CUR RENT	<2mA/240VAC								
		115 ~ 180% rated output power								
PROTE	OVER LOAD	Protection type: Hiccup mode, recovers automatically after fault condition is removed								
CTION	OVER VOLTAGE	3.7 ~ 4. 45V	5.6 ~ 6. 75V	8.63 ~ 1 0.1V	13.8 ~ 1 6.2V	17.25 ~ 20.25V	27.6 ~ 3 2.4V	39.7 ~ 4 6.8V	53.3 ~ 6 4.8V	
		Protection type : Shut down o/p voltage, re-power on to recover								
WORKING TEM P30 ~ +70°C (Refer to output load derating curve)										
	WORKING HUM IDITY	20 ~ 90% RH non-condensing								
ENVIR ONMEN	STORAGE TEM P., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH								
Т	TEMP. COEFFIC IENT	±0.03%/°C(0 ~ 50°C)								
	OPERATING AL TITUDE Note.7	4000 meters								
	VIBRATION	10 ~ 500)Hz, 2G 10	0min./1cyc	ele, period f	or 60min.	each along	X, Y, Z axe	es	
	SAFETY STAND ARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved								
		1								

EMC EMISSION C TP TC 020 EMC IMMUNITY Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, heav ry level, EAC TP TC 020 MTBF 3077.6K hrs min. Telcordia SR-332 (Bellcore); 563.0K hrs min. MI -217F (25°C)	2,-3, EA					
PCB: 0.15Kg; 96pcs/ 15.4 Kg/1.39CUFT; with optional CASE: 0.3Kg; 45g 14.5Kg/0.63CUFT I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-C TP TC 020 EMC IMMUNITY Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, heav ry level, EAC TP TC 020 MTBF 3077.6K hrs min. Telcordia SR-332 (Bellcore); 563.0K hrs min. MI -217F (25°C) DIMENSION PCB:101.6*50.8*29mm (L*W*H); with optional CASE:103.4*62*37mm (L PCB: 0.15Kg; 96pcs/ 15.4 Kg/1.39CUFT; with optional CASE: 0.3Kg; 45g 14.5Kg/0.63CUFT 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 29 mbient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire term with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation.	2,-3, EA					
EMC IMMUNITY Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, heav ry level, EAC TP TC 020 MTBF 3077.6K hrs min. Telcordia SR-332 (Bellcore); 563.0K hrs min. MI -217F (25°C) DIMENSION PCB:101.6*50.8*29mm (L*W*H); with optional CASE:103.4*62*37mm (L PACKING PCB: 0.15Kg; 96pcs/ 15.4 Kg/1.39CUFT; with optional CASE: 0.3Kg; 45g 14.5Kg/0.63CUFT 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 29 mbient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire term with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation.	2,-3, EA					
Ty level, EAC TP TC 020 MTBF 3077.6K hrs min. Telcordia SR-332 (Bellcore); 563.0K hrs min. MI -217F (25°C) DIMENSION PCB:101.6*50.8*29mm (L*W*H); with optional CASE:103.4*62*37mm (L PCB: 0.15Kg; 96pcs/ 15.4 Kg/1.39CUFT; with optional CASE: 0.3Kg; 45g 14.5Kg/0.63CUFT 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 mbient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire term with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation.	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EA C TP TC 020					
OTHER S DIMENSION PCB:101.6*50.8*29mm (L*W*H); with optional CASE:103.4*62*37mm (L*W*H) PACKING PCB: 0.15Kg; 96pcs/ 15.4 Kg/1.39CUFT; with optional CASE: 0.3Kg; 45g 14.5Kg/0.63CUFT 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 28 mbient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire term with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation.	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, heavy indust ry level, EAC TP TC 020					
PCB:101.6*50.8*29mm (L*W*H); with optional CASE:103.4*62*37mm (L*W*H); w	HDBK					
 14.5Kg/0.63CUFT All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 mbient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire term with a 0.1uf & 47uf parallel capacitor. Tolerance: includes set up tolerance, line regulation and load regulation. 	PCB:101.6*50.8*29mm (L*W*H); with optional CASE:103.4*62*37mm (L*W*H)					
 mbient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire term with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 	ocs/					
NOTE NOTE 8. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed ated power. 8. The power supply is considered a component which will be installed into a final equipment EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with hickness. The final equipment must be re-confirmed that it still meets EMC directives. For e on how to perform these EMC tests, please refer to "EMI testing of component power sure as available on http://www.meanwell.com) 7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m n models for operating altitude higher than 2000m(6500ft). * Product Liability Disclaimer For detailed information, please refer to https://www.meanwell.com)	nated or more ed the mm of guidanc oplies."					

Mechanical Specification







HS1 ,HS2 cannot be shorted.

2. $\mbox{HS1}$ must have safety isolation distance with system case.

AC Input Connector (CN1): JST 83P-VH or equivalent

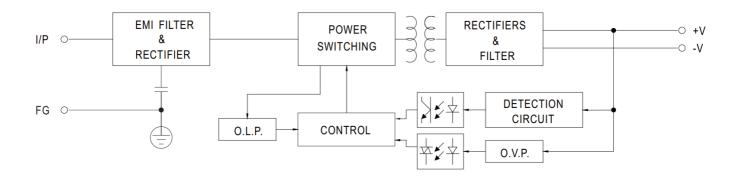
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N		
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L		

DC Output Connector (CN2): JST B4P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2	+V	JST VHR	JST SVH-21T-P1.1
3,4	-V	or equivalent	or equivalent

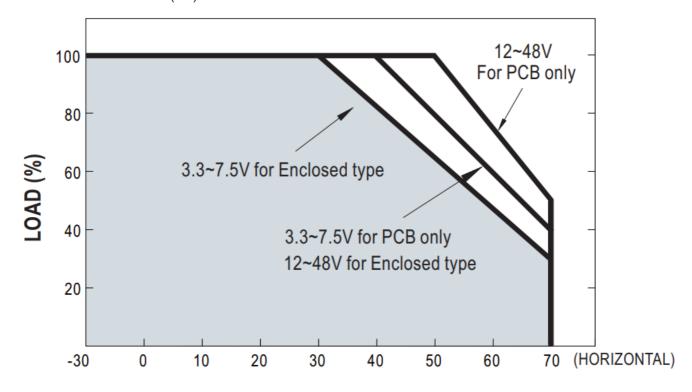
Grounding Required; M1 and M2 are Safety ground and should all be grounded

Block Diagram



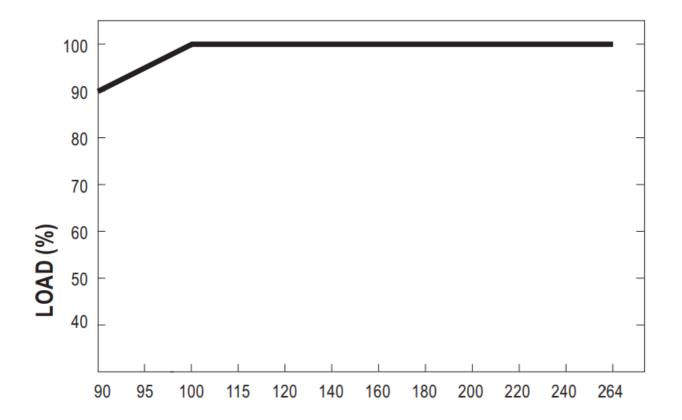
Output Derating

AMBIENT TEMPERATURE (°C)



Static Characteristics

INPUT VOLTAGE (V) 60Hz















Documents / Resources



MEAN WELL EPS-65 Series 65W Single Output Switching Power Supply [pdf] Owner's Manual

EPS-65-20230313, EPS-65 Series, EPS-65 Series 65W Single Output Switching Power Supply, 65W Single Output Switching Power Supply, Single Output Switching Power Supply, Switching Power Supply, Power Supply

References

- <u>△ TÜV Rheinland Home | US | TÜV Rheinland</u>
- MEAN WELL Switching Power Supply Manufacturer
- Product Liability Disclaimer-MEAN WELL Switching Power Supply Manufacturer
- Global Trade Item Number (GTIN)-MEAN WELL Switching Power Supply Manufacturer

Manuals+,