



MEAN WELL HEP-150 Switching Power Supply for Harsh Environment User Guide

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MEAN WELL HEP-150 Switching Power Supply for Harsh Environment



Features

- Universal AC input/ Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 94%
- Fanless design, cooling by free air convection
- -55+70 C wide operating range
- Aluminum case and filling with heat-conducted silicone
- IP65 design, optional IP68 rated model available
- Meet 6KV surge immunity level
- Withstand 10G vibration test
- Protections: Short circuit/Overload/ Over voltage /Over temperature
- Operating altitude up to 5000 meters (Note.9)
- 6 years warranty

Applications

Outdoor telecommunication equipment
Outdoor electronic signage and billboard
Petroleum plant or mine shaft facility

GTIN CODE

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

Description

HEP-150 is a 150W industrial AC/DC power supply featuring the outstanding capability to operate under highly humid, dusty, oily, and high-vibration harsh environment. The entire series is housed with the aluminum case and fully potted with heat-conducted silicone. Thanks to state-of-the-art design, the working efficiency is up to 94%, enabling HEP-150 perfectly work between -55C and +70C under free air convection.

Model Encoding

HEP - 150 - 12 A

Function mode option

Output voltage

Output wattage

Series name

A : Standard model, IP65, Vo and Io level can be adjusted through internal potentiometer.

Blank : Optional model, IP68, with fixed Vo and Io level.

Specification

MODEL		HEP-150-12		HEP-150-15		HEP-150-24		HEP-150-36		HEP-150-48		HEP-150-54	
DC VOLTAGE	12V	15V		24V		36V		48V		54V			
RATED CURRENT	12.5A	10A		6.3A		4.2A		3.2A		2.8A			
RATED POWER	150W	150W		151.2W		151.2W		153.6W		151.2W			
RIPPLE & NOISE (max.) Note.2	150mV p-p	150mVp-p		150mVp-p		200mVp-p		200mVp-p		200mVp-p			
VOLTAGE ADJ. RANGE Note.5	10.8 ~ 13.5V	13.5 ~ 17V		22 ~ 27V		33 ~ 40V		43 ~ 53V		49 ~ 58V			
CURRENT ADJ. RANGE	Can be adjusted by internal potentiometer for A type only												
	7.5 ~ 12.5A	6 ~ 10A		3.8 ~ 6.3A		2.5 ~ 4.2A		1.92 ~ 3.2A		1.68 ~ 2.8A			
VOLTAGE TOLERANCE Note.3	±2.5%	±2.0%		±1.0%		±1.0%		±1.0%		±1.0%			
LINE REGULATION	±0.5%	±0.5%		±0.5%		±0.5%		±0.5%		±0.5%			
LOAD REGULATION	±2.0%	±1.5%		±0.5%		±0.5%		±0.5%		±0.5%			
SETUP, RISE TIME Note.7	1000ms,50ms/115VAC 500ms,50ms/230VAC at full load												
HOLD UP TIME (Typ.)	16ms at full load 230VAC /115VAC												
VOLTAGE RANGE Note.4	85~264VAC (277VAC operational) 120~370VDC(390VDC operational)												
FREQUENCY RANGE	47 ~ 63Hz												
POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load												
EFFICIENCY (Typ.)	91.5%	92%		93%		93.5%		94%		94%			
AC CURRENT (Typ.)	1.7A / 115VAC 0.75A / 230VAC 0.7A / 277VAC												

INRUSH CURRENT(Typ.)	COLD START 65A at 230VAC						
LEAKAGE CURRENT	<0.75mA / 277VAC						
OVERLOAD	105 ~ 125%						
	Protection type : Constant current limiting, recovers automatically after fault condition is removed						
SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed						
OVER VOLTAGE	14 ~ 17 V	18 ~ 21V	28 ~ 34V	41 ~ 46V	54 ~ 63V	59 ~ 65V	
	Protection type : Shut down o/p voltage with auto-recovery or re-power on to recover						
OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down						
WORKING TEMP.	-55 ~ +70°C (Refer to “Derating Curve”)						
WORKING HUMIDITY	20 ~ 95% RH non-condensing						
STORAGE TEMP., HUMIDITY	-60 ~ +80°C, 10 ~ 95% RH non-condensing						
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)						
VIBRATION	20 ~ 500Hz, 10G 12min./1cycle, period for 72min. each along X, Y, Z axes						
SAFETY STANDARDS Note.6,9	UL62368-1, IEC62368-1, IP65 (or IP68 for HEP-150 Blank type), EAC TP TC 004 approved ; Design refer to BS EN/EN62368-1						
WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC						
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, BS EN/EN61000-3-2,-3, EAC TP TC 020						
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level (surge 6KV), EAC TP TC 020						
MTBF	1967.4K hrs min. Telcordia SR-332 (Bellcore) ; 164.2Khrs min. MIL-HD BK-217F (25°C)						
DIMENSION	228*68*38.8mm (L*W*H)						
PACKING	1.15Kg; 12pcs/14.8Kg/0.8CUFT						

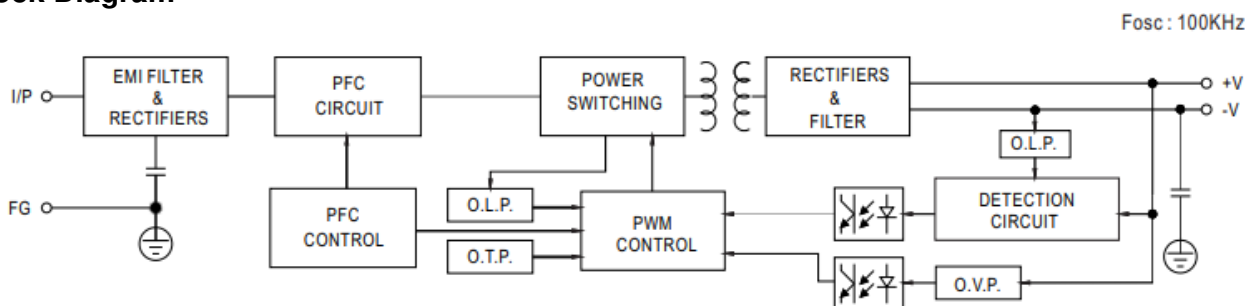
Note:

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25C 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. Derating may be needed under low input voltages. Please check the static characteristics for more details.
5. A type only.
6. Safety and EMC design refer to BS ENEN60598-1, CNS15233, GB7000.1, FCC part18.
7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
8. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-quality EMC Directive on the complete installation again.
9. The water protection level test for the IP68 rating is performed 1000mm below the surface of the water for 1 month.
10. The ambient temperature derating of 3.5 C /1000m with fanless models and of 5C/1000m with fan models for operating altitude higher than 2000m(6500ft).

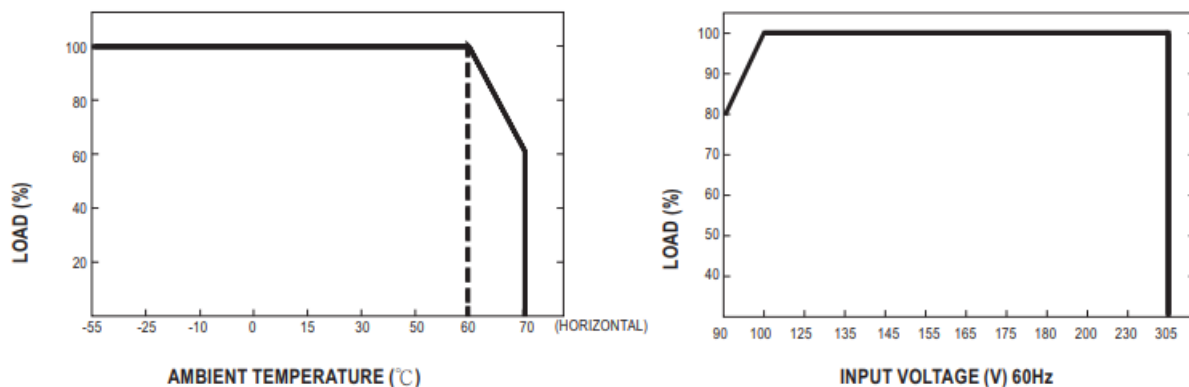
X Product Liability Disclaimer: For detailed information, please refer to

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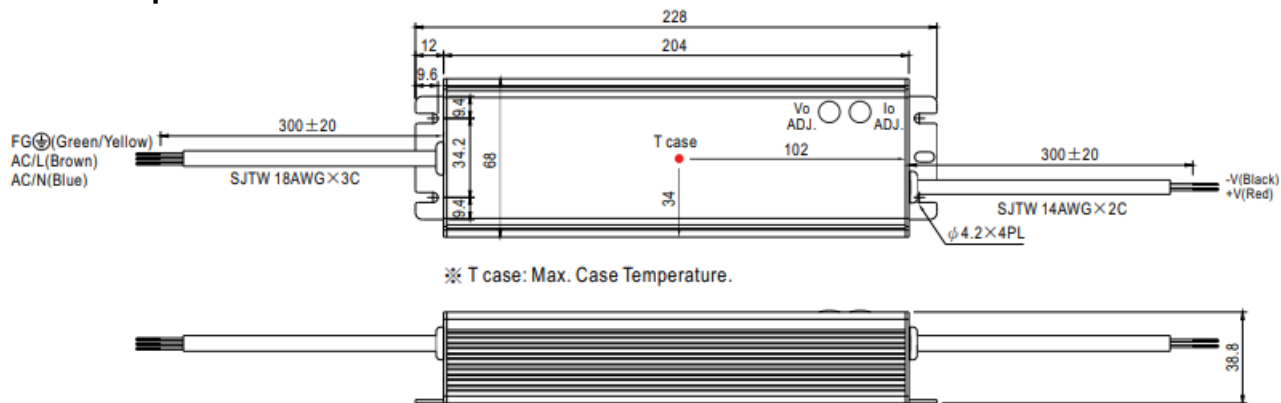
Block Diagram



Derative Curve

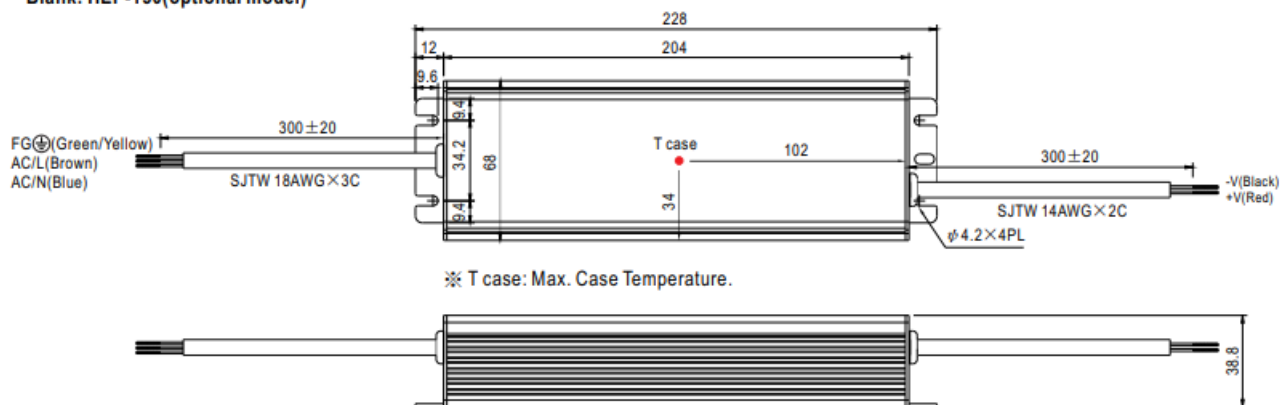


Mechanical Specification



※ IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.
(Can access by removing the rubber stopper on the case.)

Blank: HEP-150(optional model)




※IP68 rated. Cable for I/O connection.

Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>

Documents / Resources

	MEAN WELL HEP-150 Switching Power Supply for Harsh Environment [pdf] User Guide HEP-150 Switching Power Supply Harsh Environment, HEP-150, Switching Power Supply Harsh Environment, Power Supply Harsh Environment, Harsh Environment, Environment
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References

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