



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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■ 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

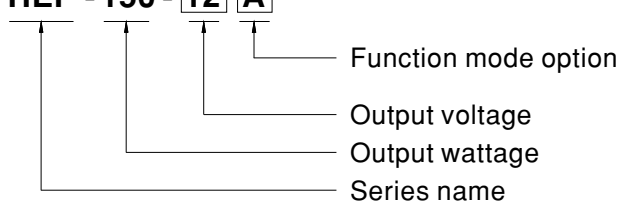
- Outdoor telecommunication equipment
- Outdoor electronic signage and billboard
- Petroleum plant or mine shaft facility

■ 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 -55°C and +70°C under free air convection.

■ Model Encoding

HEP - 150 - 12 A



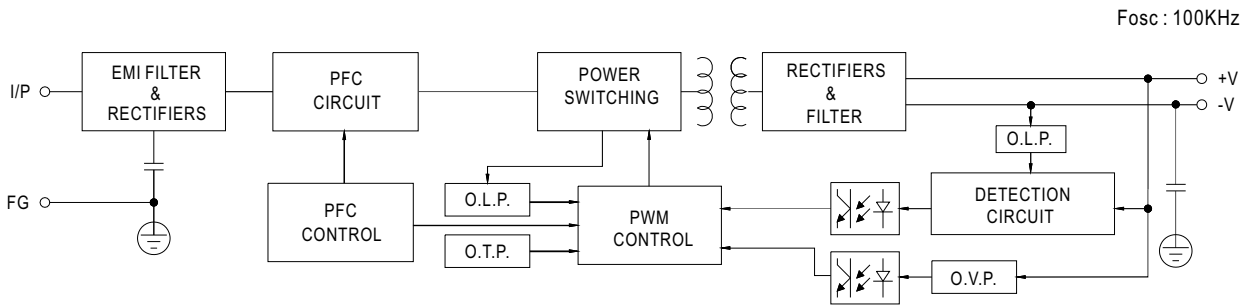
{ A : Standard model, IP65, Vo and Io level can be adjusted through internal potentiometer.
 Blank : Optional model, IP68, with fixed Vo and Io level.



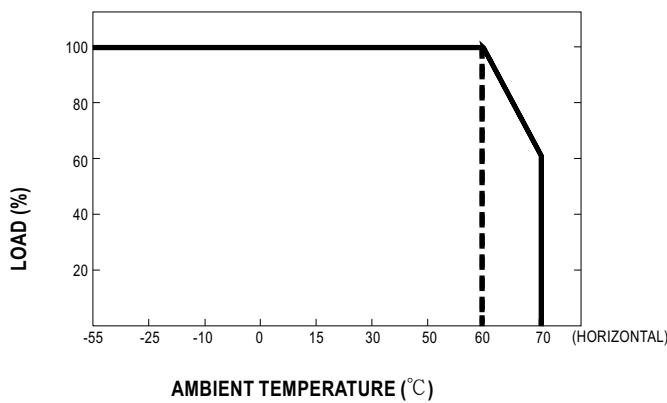
SPECIFICATION

MODEL		HEP-150-12□	HEP-150-15□	HEP-150-24□	HEP-150-36□	HEP-150-48□	HEP-150-54□
OUTPUT	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	150mVp-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						
INPUT	VOLTAGE RANGE Note.4	90 ~ 305VAC 127 ~ 431VDC					
	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					
PROTECTION	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 ~ 17V	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 recovery					
OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down						
ENVIRONMENT	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 & EMC	SAFETY STANDARDS Note.6.9	UL60950-1, IP65 (or IP68 for HEP-150 Blank type), EAC TP TC 004 approved ; design refer to TUV EN60950-1					
	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 EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level (surge 6KV), criteria A, EAC TP TC 020					
OTHERS	MTBF	164.1K hrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	228*68*38.8mm (L*W*H)					
	PACKING	1.15Kg; 12pcs/14.8Kg/0.8CUFT					
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltages. Please check the static characteristics for more details. A type only. Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1, FCC part18. 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. 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-qualify EMC Directive on the complete installation again. The water protection level test for the IP68 rating is performed 1000mm below the surface of the water for 1 month. 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). 						

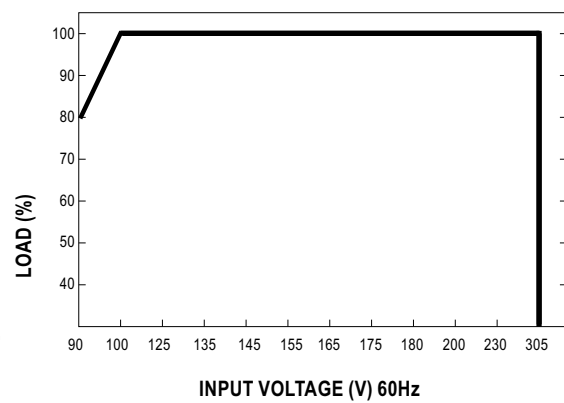
■ **Block Diagram**



■ **Derating Curve**



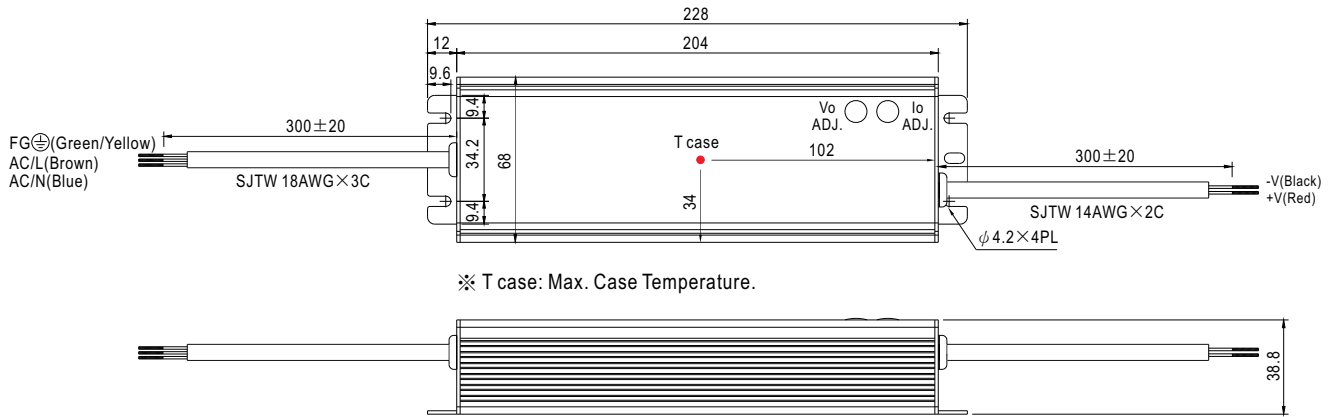
■ **Static Characteristics**



Mechanical Specification

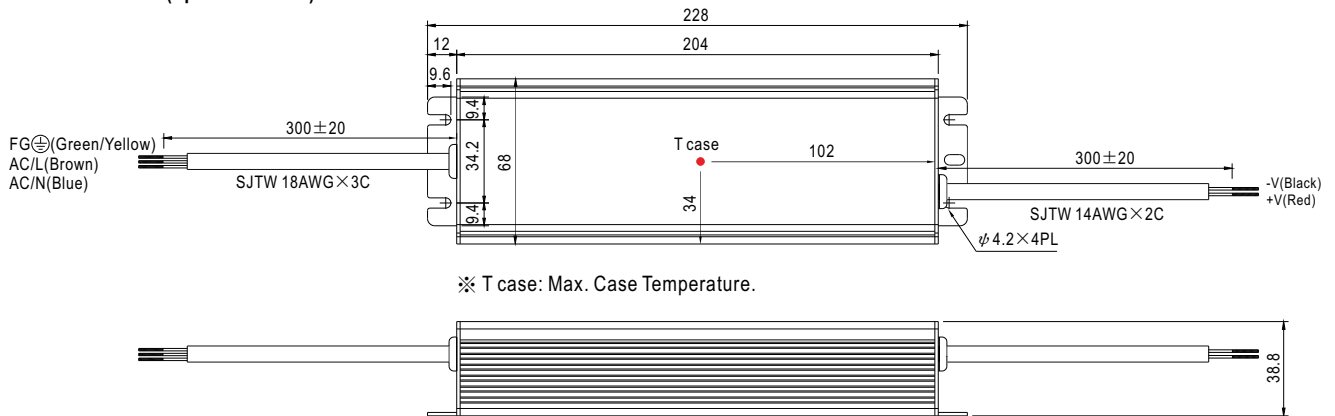
Case No.994D Unit:mm

A Type: HEP-150- _A(standard model)



※ 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>