



## ■ Features

- 3 stage charging
- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- No load power consumption <0.5W at remote OFF
- High efficiency up to 95.5%
- Fanless design, cooling by free air convection
- Aluminum case and filling with heat-conducted glue
- Withstand 10G vibration test
- -40 ~ +70°C wide operating range
- Output voltage and output current can be adjusted through internal potentiometer
- Protection: Short circuit / Over voltage / Over temperature
- Charger for lead-acid batteries
- 3 color LED loading indicator
- Operating altitude up to 5000 meters (Note.4)
- 6 years warranty (Note.5)

## ■ Applications

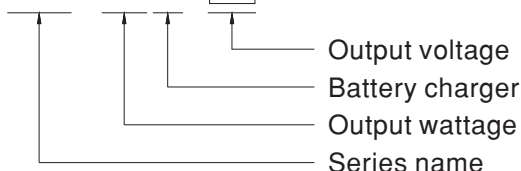
- Suitable for battery charger at harsh environment
- Robotic lawn mower
- Electronic transportation vehicle
- Recreational craft, personal yacht or workboat
- Security network and system
- Telecommunication base station
- Equipments or instruments with back-up battery

## ■ Description

HEP-600C series is an AC-to-DC battery charger providing up to 600W, designed with aluminum case and fully potted by silicone. It features the high efficiency (up to 95.5%), waterproof and low no-load power consumption (<0.5W) at remote OFF. Incorporating state of the art design, the fan-less HEP-600C is capable of working under high-vibration (10G), dusty, humid, and oily environment. Other features include adjustable voltage/current and wide working temperature range (-40~+70°C).

## ■ Model Encoding

HEP - 600C - 12

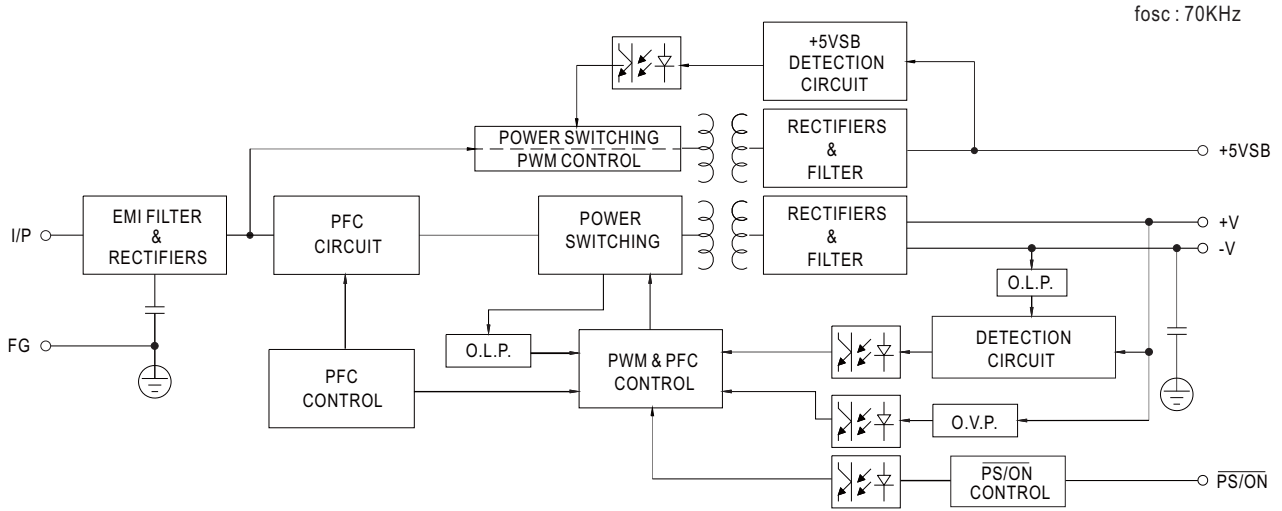




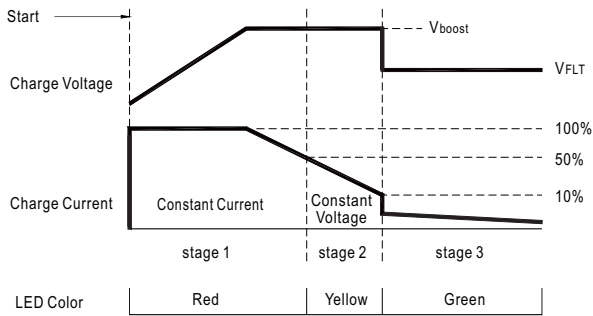
## SPECIFICATION

MODEL	HEP-600C-12	HEP-600C-24	HEP-600C-48	
OUTPUT	BOOST CHARGE VOLTAGE	14.4V	28.8V	57.6V
	FLOAT CHARGE VOLTAGE	13.6V	27.2V	54.4V
	VOLTAGE ADJ. RANGE	11.5 ~ 15.1V	23 ~ 30.2V	46.1 ~ 60.5V
	CURRENT ADJ. RANGE	17.5 ~ 35A	10.5 ~ 21A	5.2 ~ 10.5A
	RECOMMENDED BATTERY CAPACITY(AMP HOURS)(Note 2)	135 ~ 400AH	70 ~ 210AH	35 ~ 105AH
	BATTERY TYPE	Open & Sealed Lead Acid		
	OUTPUT CURRENT	35A	21A	10.5A
INPUT	VOLTAGE RANGE	90 ~ 305VAC 127 ~ 431VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC at full load		
	EFFICIENCY (Typ.)	93.5%	94.5%	95.5%
	AC CURRENT (Typ.)	7A / 115VAC	3.3A / 230VAC	2.9A / 277VAC
	INRUSH CURRENT (Typ.)	COLD START 70A(t <sub>width</sub> =1010μs measured at 50% I <sub>peak</sub> ) at 230VAC		
	LEAKAGE CURRENT	<0.75mA / 277VAC		
PROTECTION	OVER VOLTAGE	16.5 ~ 20.5V	32.5 ~ 36.5V	68 ~ 73V
		Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover		
FUNCTION	REMOTE ON/OFF CONTROL	Power on : "Hi" >2 ~ 5V or Open circuit Power off : "Low" <0 ~ 0.5V or Short circuit		
	5V STANDBY	5V <sub>SB</sub> : 5V@0.5A ; tolerance ±5%, ripple : 100mVp-p(max.)		
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 60°C)		
	VIBRATION	20 ~ 500Hz, 10G 10min./1cycle, 72min. each along X, Y, Z axes		
SAFETY & EMC (Note.3)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved		
	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 EN55022 (CISPR22), radiation class A, conduction class B, EN61000-3-2,-3		
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A		
OTHERS	MTBF	73.1K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	280*144*48.5mm (L*W*H)		
	PACKING	3.9Kg; 4pcs/16.6Kg/0.9CUFT		
NOTE	<ol style="list-style-type: none"><li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li><li>2. This is Mean Well's suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.</li><li>3. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</li><li>4. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft).</li><li>5. Refer to warranty statement.</li></ol>			

### Block Diagram

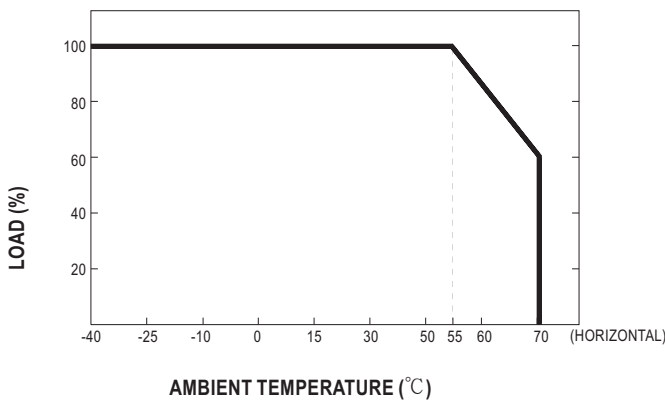


### Charging Curve

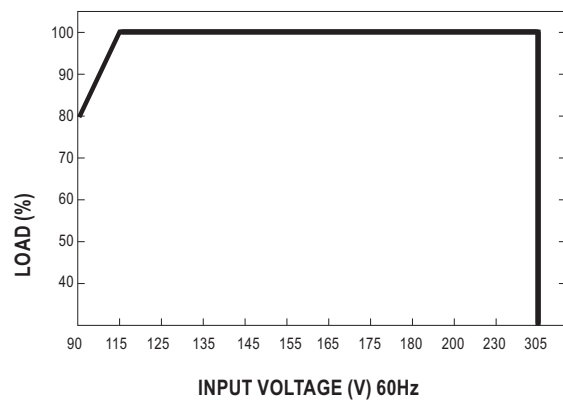


State	HEP-600C-12	HEP-600C-24	HEP-600C-48
Vboost	14.4V	28.8V	57.6V
VFLT	13.6V	27.2V	54.4V

### Derating Curve



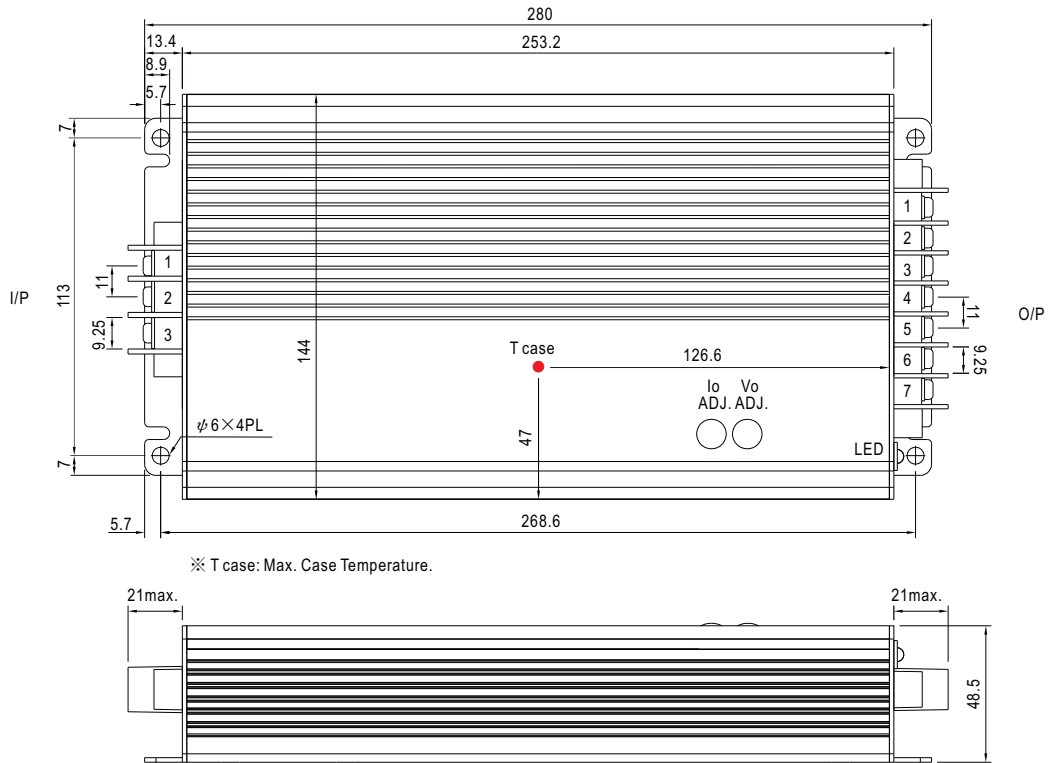
### Static Characteristics



**Mechanical Specification**

Case No.228A

Unit:mm



※ T case: Max. Case Temperature.

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

AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	FG $\oplus$
2	AC/L
3	AC/N

DC Output Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	RC+	4,5	-V
2	RC- & GND	6,7	+V
3	+5V <sub>SB</sub>		

**Installation Manual**

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>