











600W Battery Charger for Harsh Environment



- · Charger for lead-acid batteries (flooded, Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese) (Note.1)
- 3 stage charging
- Universal AC input / Full range
- · Built-in active PFC function
- No load power consumption <0.5W at remote OFF</li>
- · 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
- 3 color LED loading indicator
- Operating altitude up to 5000 meters (Note.5)
- 6 years warranty











# 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

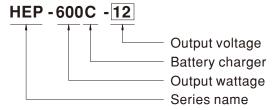
## **GTIN CODE**

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

# 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 (- $40 \sim +70^{\circ}$ C).

### Model Encoding

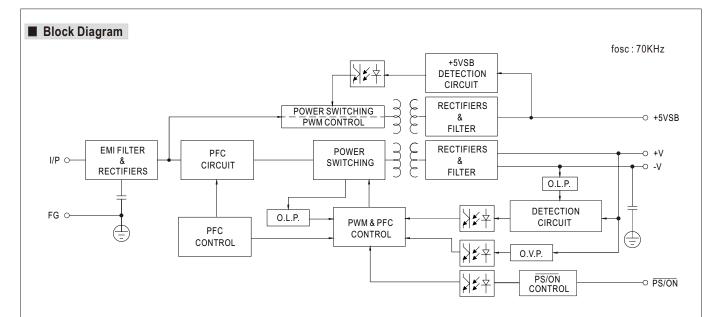




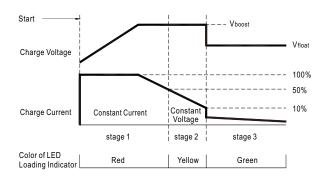
#### **SPECIFICATION**

MODEL		HEP-600C-12	HEP-600C-24	HEP-600C-48		
OUTPUT	BOOST CHARGE VOLTAGE Vboost	14.4V	28.8V	57.6V		
	FLOAT CHARGE VOLTAGE Vfloat	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	125 100 111	70 240411	25 405411		
	CAPACITY(AMP HOURS)(Note 3)	135 ~ 400AH	70 ~ 210AH	35 ~ 105AH		
	BATTERY TYPE	Open & Sealed Lead Acid				
	OUTPUT CURRENT	35A	21A	10.5A		
	VOLTAGE RANGE	90~264VAC(277VAC operational) 128~370VDC(390VDC operational)				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC at full load				
INPUT	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(twidth=1010µs measured at 50% Ipeak) at 230VAC				
	LEAKAGE CURRENT	<0.75mA / 277VAC	<0.75mA / 277VAC			
	OVER VOLTAGE	16.5 ~ 20.5V	32.5 ~ 36.5 V	68 ~ 73V		
PROTECTION		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				
FUNCTION	5V STANDBY	5VsB: 5V@0.5A; tolerance $\pm$ 5%, ripple: 100mVp-p(max.)				
	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 $\sim$ +85 $^{\circ}$ C, 10 $\sim$ 95% RH non-condensing				
	TEMP. COEFFICIENT	±0.05%/°C (0~60°C)				
	VIBRATION	20 ~ 500Hz, 10G 10min./1cycle, 72min. each along X, Y, Z axes				
	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved				
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC				
EMC	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH				
(Note.4)	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32), radiation class A, conduction 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/EN55024, light industry level, EAC TP TC 020				
	MTBF	857.2K hrs min. Telcordia SR-332 (Bellcore) ; 73.1K hrs min. MIL-HDBK-217F (25°C)				
OTHERS						
	<b>PACKING</b> 3.9Kg; 4pcs/16Kg/0.9CUFT					
NOTE	<ol> <li>Modification for charger specification may be required for different battery specification. Please contact battery vendor and MEAN WELL for details.</li> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>This is Mean Well's suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.</li> <li>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."         <ul> <li>(as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)</li> </ul> </li> <li>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).</li> </ol>					
	※ Product Liability Disclaimer	※ Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx				



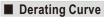


### ■ Charging Curve



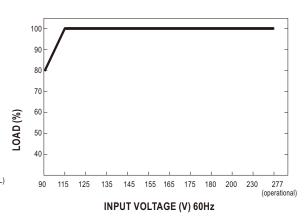
#### Factory default value:

State	HEP-600C-12	HEP-600C-24 HEP-600C-48	
Constant Current	35A	21A	10.5A
Vboost	14.4V	28.8V	57.6V
Vfloat	13.6V	27.2V	54.4V

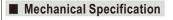


# 100 80 60 40 -40 -25 -10 0 15 30 50 55 60 70 (HORIZONTAL) AMBIENT TEMPERATURE (°C)

#### ■ Static Characteristics



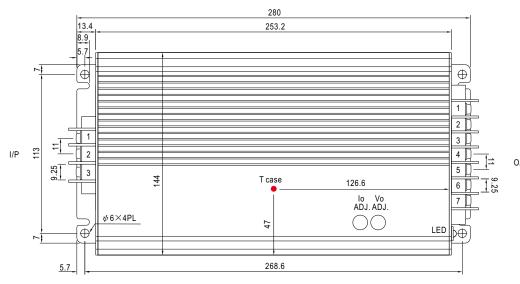




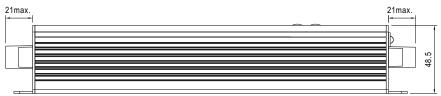
Case No.228A

Unit:mm

Tolerance:±1



 $\frak{\%}$  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 🖶	
2	AC/L	
3	AC/N	

DC Output Terminal Pin No. Assignment

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Pin No.	Assignment	Pin No.	Assignment	
1	RC+	4,5	-V	
2	RC- & GND	6,7	+V	
3	+5VsB			