

**■ Features**

- Charger for lead-acid batteries (flooded, Gel and AGM)
- 3 stage charging
- Fanless design, cooling by free air convection
- Universal AC input
- Protection: Short circuit/ Over voltage/ Over temperature

**■ Applications**

- Suitable for batteries charger at harsh environment

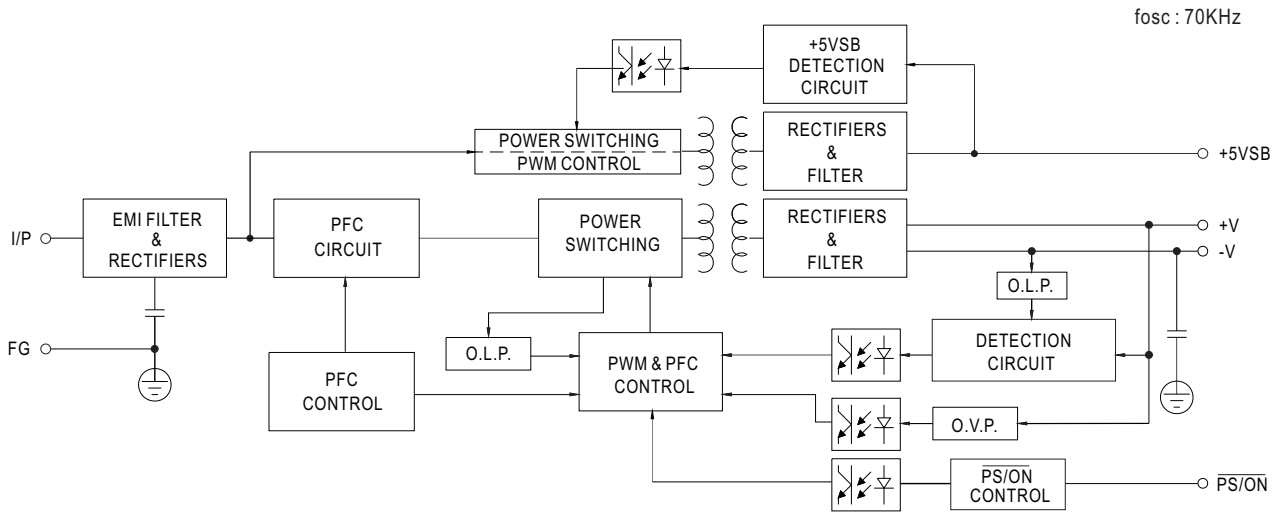
**■ Description**

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

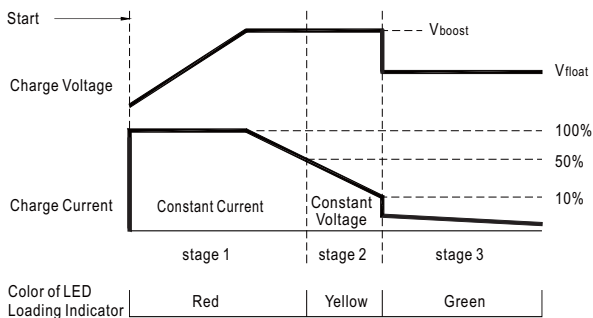
**SPECIFICATION**

MODEL	LAC-12-35	LAC-24-21	LAC-48-10	
OUTPUT	BOOST CHARGE VOLTAGE V <sub>boost</sub>	14.4V	28.8V	57.6V
	FLOAT CHARGE VOLTAGE V <sub>float</sub>	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 3)	135 ~ 400AH	70 ~ 210AH	35 ~ 105AH
	BATTERY TYPE	Open & Sealed Lead Acid		
	OUTPUT CURRENT	35A	21A	10.5A
INPUT	VOLTAGE RANGE	85~264VAC(277VAC operational)    120~370VDC(390VDC operational)		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC 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 non-condensing		
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 60°C)		
	VIBRATION	20 ~ 500Hz, 10G 10min./1cycle, 72min. each along X, Y, Z axes		
SAFETY & EMC (Note.4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EAC TP TC 004 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 EN55032 (CISPR32), radiation class A, conduction 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, EAC TP TC 020		
OTHERS	MTBF	73.1K hrs min.		
	DIMENSION	280*144*48.5mm (L*W*H)		
	PACKING	3.9Kg		
NOTE				

### Block Diagram



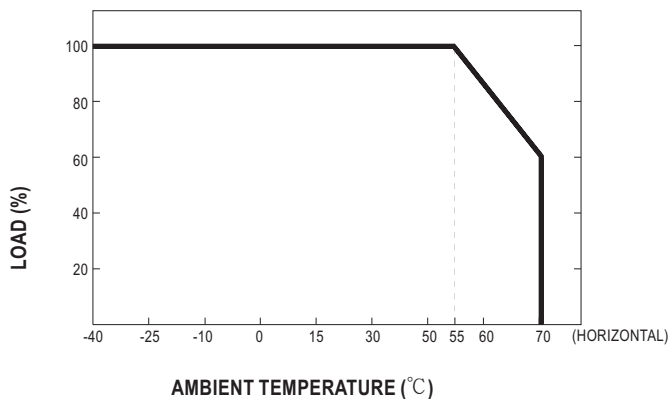
### Charging Curve



Factory default value:

State	BC-12-35	BC-24-21	BC-48-10
Constant Current	35A	21A	10.5A
Vboost	14.4V	28.8V	57.6V
Vfloat	13.6V	27.2V	54.4V

### Derating Curve



### Static Characteristics

