■ Features

- Charger for lithium batteries (Li-ion,LiFePO4and lithium manganese) and Lead-Acid batteries
- Built- in 4 stage charging curve(For Lithium batteries) and 3 stage charging curve(For Lead-Acid batteries)
- Universal AC input / Full range(90-264V~)
- Built- in active PFC function
- Protection: Short circuit / Over voltage /Over temperature /Battery over voltage / Battery reverse polarity protection
- 1years warranty

■ Applications

- Radio system backup solution
- Electric scooter charger
- Surveillance system
- Electric motorcycle\Electric sweeper

■ Description

G600 is a single output 600W AC/DC desktop type charger with 4 and 3 stage charging curve In addition to the embedded pre-defined charging curves, the default curve is programmable and thus able to accommodate different types of batteries, such as Lead- acid batteries (gel, flooded and AGM) and Lithium batteries(Li-ion,LiFePO4 and Lithium manganese).G600 can be set different charging voltage value, charging current value and charging end current value through USB, according to customer's own requirements. The LCD screen of G600 can display the voltage, current capacity, and preset voltage and current.

■ Mode Encoding

G600-XXXYYY

- Rated current
- Rated voltage
- Series name

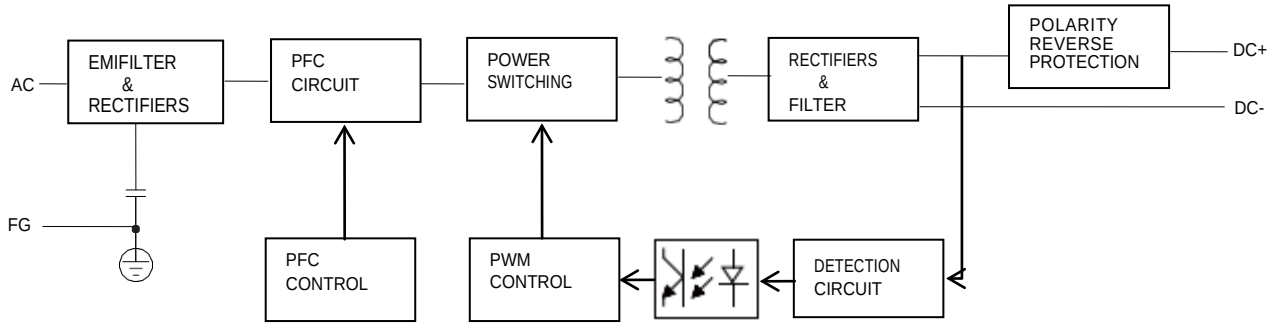
SPECIFICATION(Li-ion battery charger)

MODEL		G600-168300	G600-294200	G600-420142	G600-588102	G600-714084
OUTPUT	Charge voltage	16.8V±1%	29.4V±1%	42.0V±1%	58.8V±1%	71.4V±1%
	Charge voltage range	10-16.8V	17.5-29.4V	25-42.0V	35-58.8V	42.5-71.4V
	Charge current	30A±10%	20.0A±10%	14.2A±10%	10.2A±10%	8.4A±10%
	Pre-charge current	6A±10%	4A±10%	2.8A±10%	2A±10%	1.7A±10%
	Charge-end current	≤3A ±20%	≤2A ±20%	≤1.4A ±20%	≤1A ±20%	≤0.85A ±20%
	Rated power	504W	588W	596.4W	599.76W	599.76W
	Recommended battery capacity Note.3	60 - 200Ah	40- 150Ah	30 - 100Ah	20 - 80Ah	15- 60Ah
	Leakage current from battery (Typ.)	≤1mA				
CHARGE INDICATOR	LCD display	Display voltage, current, capacity				
COMMUNICATION FUNCTION	USB / CAN / 485 Note.1	The battery type (Lead acid, Lithium battery,LiFePO4 battery), charging voltage and charging current can be set by USB interface, Communication with external devices via CAN or RS485.				
INPUT	Rated input voltage	100 - 240VAC 50 / 60Hz				
	Input voltage range Note.4	90 - 264VAC				
	Power factor (Typ.)	PF>0. 98@AC100V, full load				
	Input current (Typ.)	5.8A@115VAC 2.8A@230VAC				
	Inrush current (Typ.)	Cold start 75A @230VAC				
	Standby input power	< 2.5W				
	Efficiency (Typ.)	90%	92%	92%	93%	93%
PROTECTION	Short circuit Note.5	Protection type : Shut down output				
	Over voltage	>4.35V*N				
	Reverse polarity	By internal relay				
	Over temperature	Shut down output, recovers automatically after temperature goes down				
ENVIRONMENT	Working temperature	-10 - +40℃ (Refer to "Derating Curve")				
	Working humidity	0 - 90% RH				
	Storage temperature, humidity	-40 - +70℃, 0- 95% RH				
	Cooling	Fan convection				
	Vibration resistance	10–50Hz,2G10min.1cycle,60min.eachalongX,Y,Zaxes				
SAFETY&EMC Note.6)	Max. temperature rise	< 40℃ on casing				
	Hi-Pot Insulation	i/p to o/p: 3000V (1 min)				
	Safety standards	IEC62368-1				
	EMC Emission	Parameter	standard			Test Level I Note
		Conducted	EN55032FCCPART15			Class B
		Radiated	EN55032FCCPART15			Class B
		Harmonic Current	EN61000-3-2			.....
		Voltage Flicker	EN61000-3-3			.....
	EMC IMMUNITY	EN61000-4-2，EN61000-4-3，EN61000-4-4，EN61000-4-5，EN61000-4-6，EN61000-4-8，EN61000-4-11				
OTHERS	MTBF	30000H				
	Dimension	240*117*66mm (L*W*H)				
	Weight	1500g				

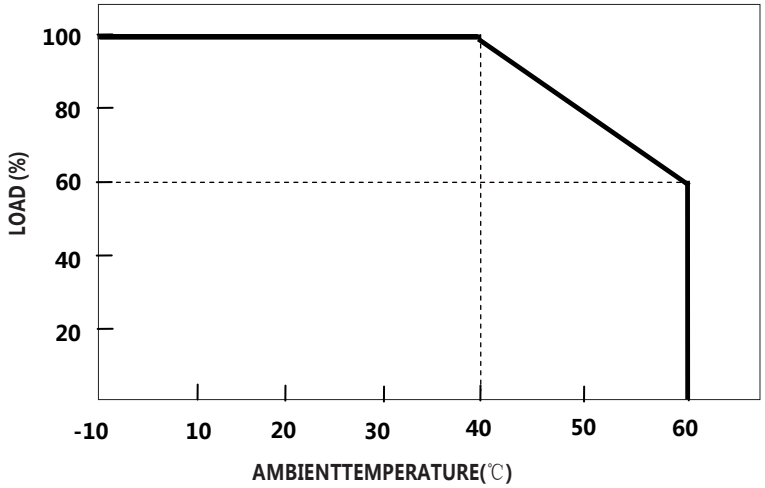
NOTE

1. Modification for charger specification may be required for different battery specification. Please contact battery vendor and Green digital power for details.
2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
3. This is Green suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.
4. Derating may be needed under low input voltages. Please check the derating curve for more details.
5. This protection mechanism is specified for the case the short circuit occurs after the charger is turned on.
6. The battery charger is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EM I testing of component power supplies."

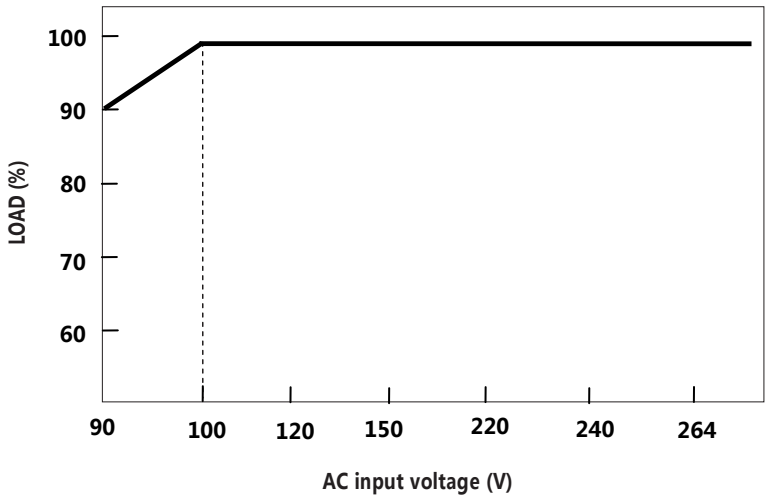
Block Diagram



Derating Curve



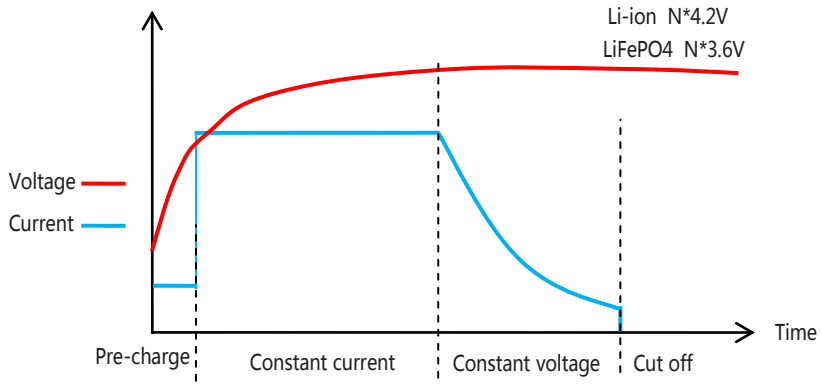
static Characteristics



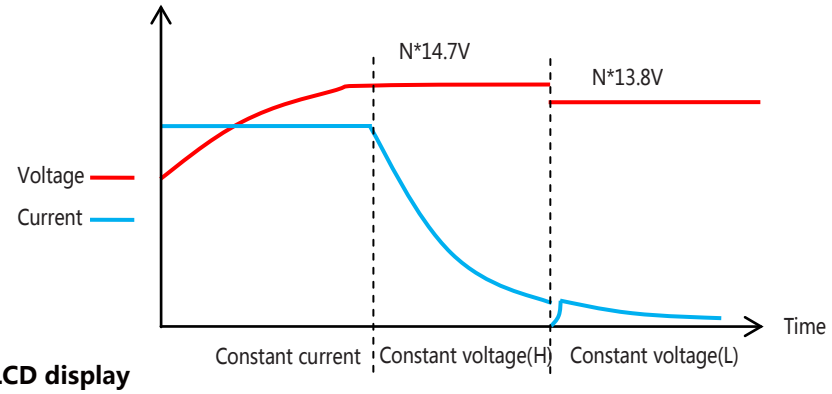
■ Function Manual

1. Charging Curve

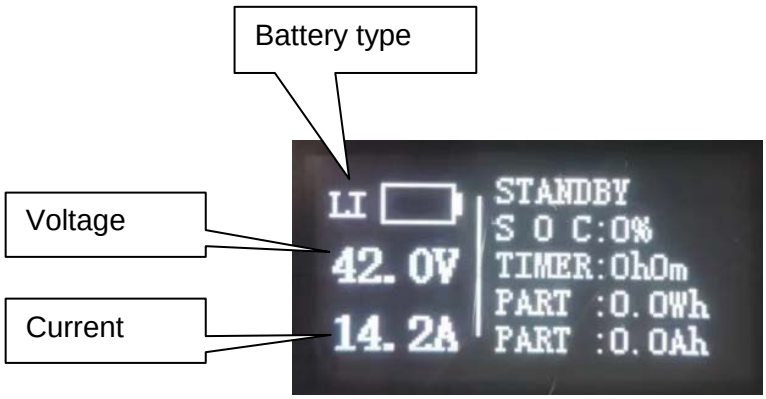
◎ 4stage charging curve(Li-ion battery charger)



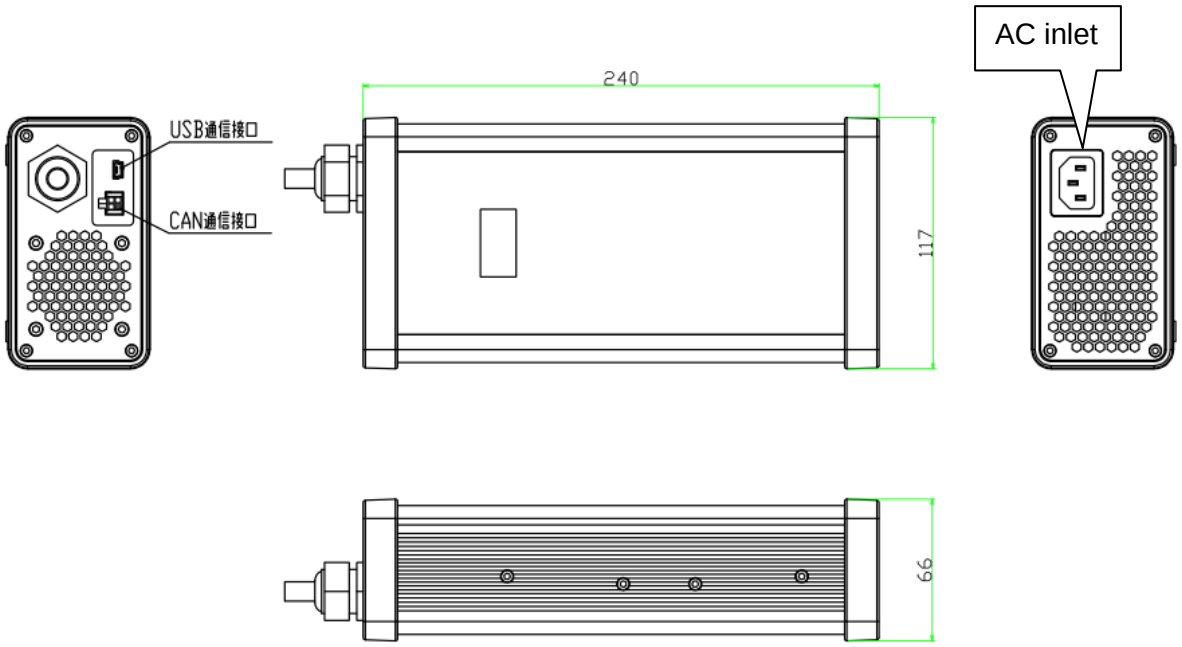
◎ 3stage charging curve(Lead-Acid battery charger)

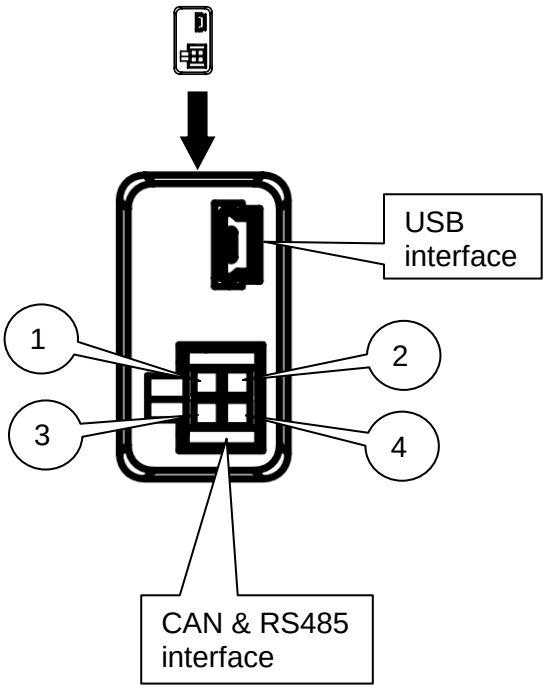


2. LCD display



Mechanical specification





Communication Terminal Pin No. Assignment

- When using CAN communication

Pin No.	Assignment
1	CANH
2	5V+
3	CANL
4	5V-

- When using RS485 communication

Pin No.	Assignment
1	RS485-B
2	5V+
3	RS485-A
4	5V-