



■ Features

- Charger for lithium batteries (Li-ion, LiFePO4 and 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
- 1 years warranty

■ Applications

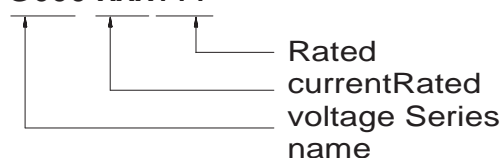
- Radio system backup solution
- Electric scooter charger
- Surveillance system
- Electric motorcycle / Electric sweeper

■ 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

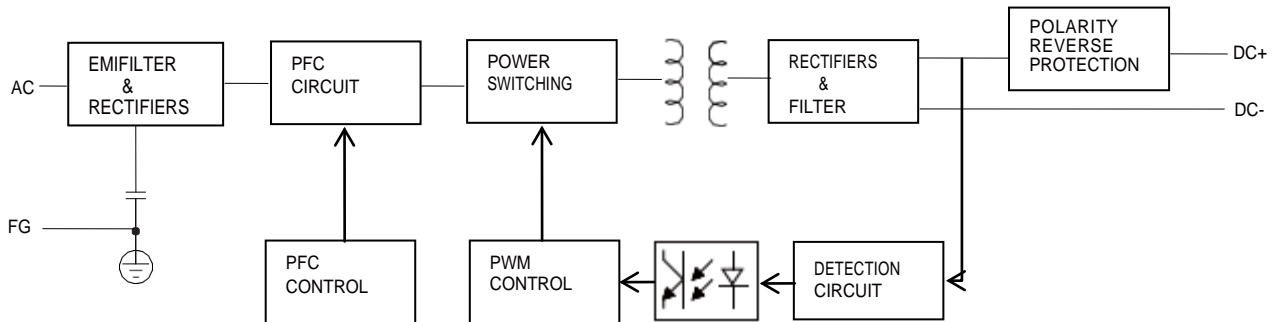
G600-XXXXYY



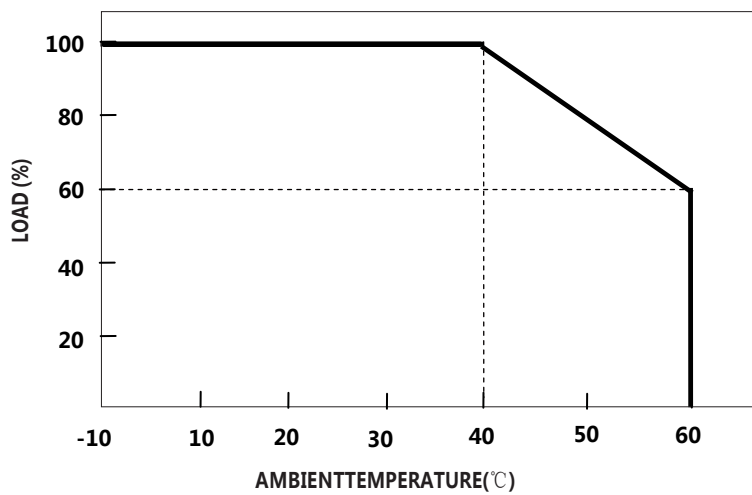
SPECIFICATION (Lead-Acid battery charger)

| MODEL | | G600-147340 | G600-294200 | G600-441136 | G600-588102 | G600-735081 |
|------------------------|---|---|------------------|-------------|-------------|-------------------|
| OUTPUT | Charge voltag (High voltage) | 14.7V±1% | 29.4V±1% | 44.1V ± 1% | 58.8V ± 1% | 73.5V±1% |
| | Charge voltage range | 10-14.7V | 17.5-29.4V | 25-44.1V | 35-58.8V | 42.5-73.5V |
| | Float charge (Low voltage) | 13.8V±1% | 27.6V±1% | 41.4V ± 1% | 55.2V ± 1% | 69V±1% |
| | Charge current | 34.0A±10% | 20.0A±10% | 13.6A ± 10% | 10.2A ± 10% | 8.1A ± 10% |
| | Charge-end current | ≤7A ± 20% | ≤4A ± 20% | ≤2.7A ± 20% | ≤1A ± 20% | ≤1.6A ± 20% |
| | Rated power | 499.8W | 588W | 599.76 | 599.76W | 595.35W |
| | 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 start75A @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 | >15.5V*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 cas ing | | | | |
| | 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." | | | | | |

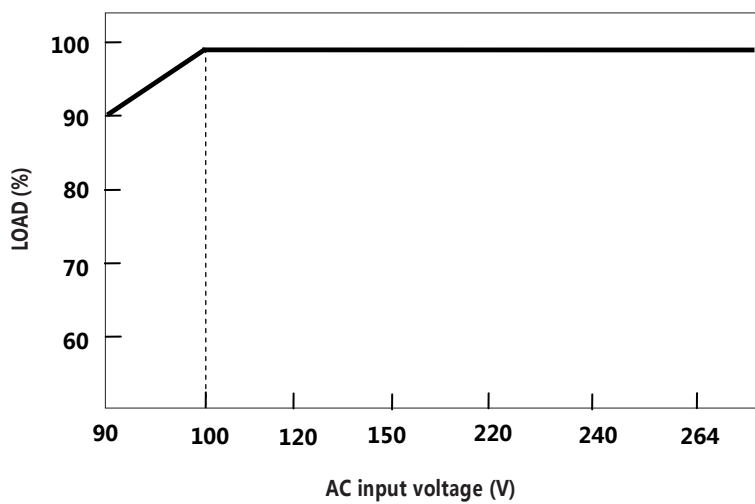
■ Block Diagram



■ Derating Curve



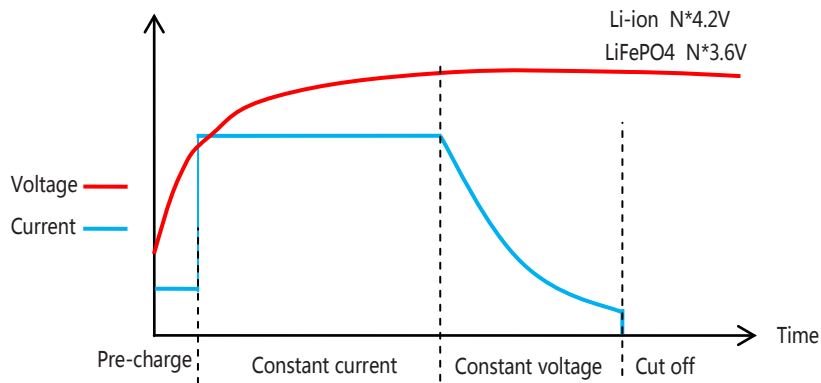
■ static Characteristics



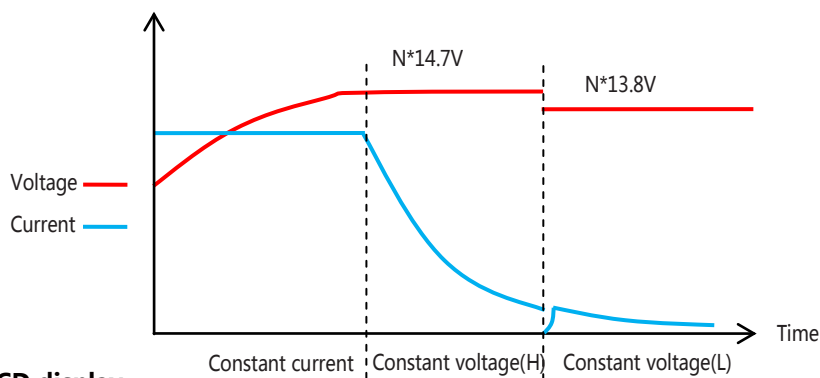
■ **Function Manual**

1. Charging Curve

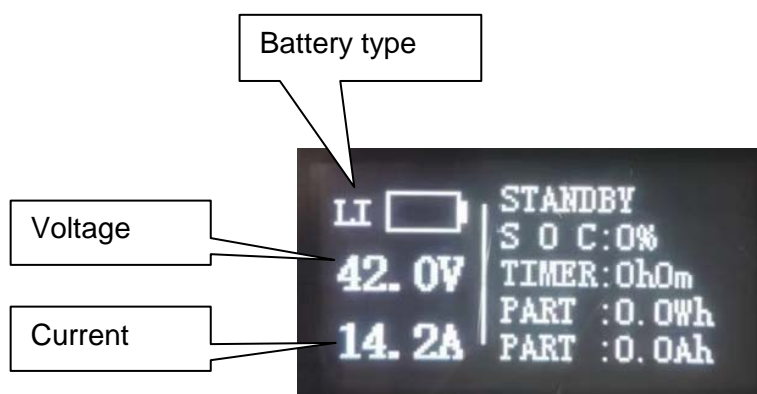
◎ 4stage charging curve(Li-ion battery charger)



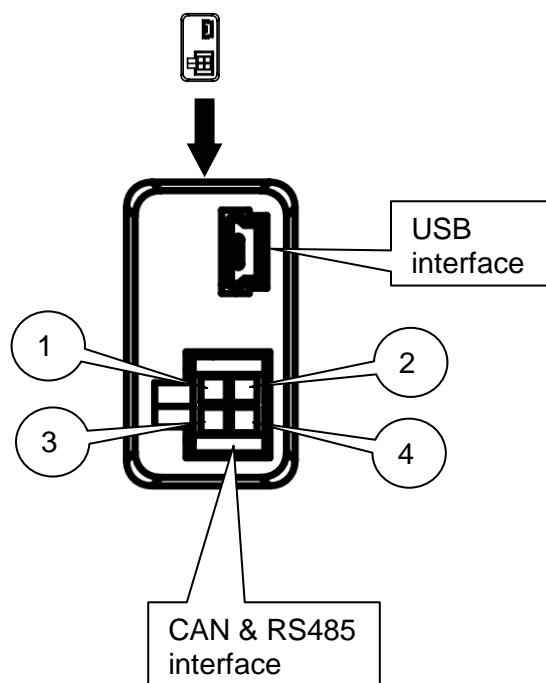
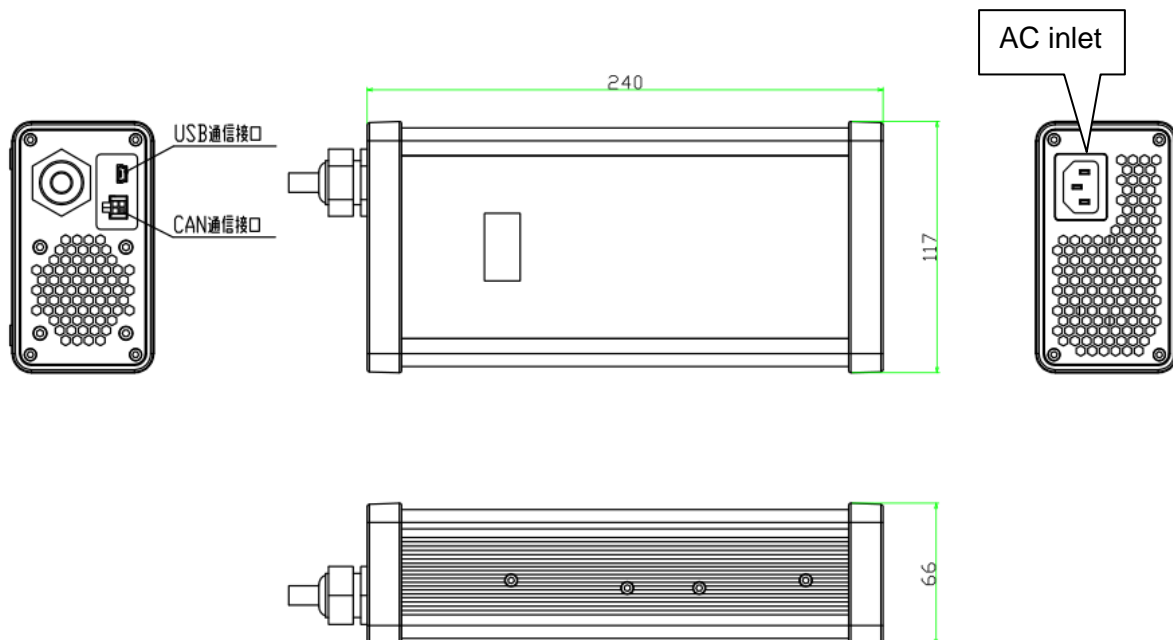
◎ 3stage charging curve(Lead-Acid battery charger)



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- |