



■ 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
- 2 years warranty

■ Applications

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

■ Description

G300 is a single output 300W AC/DC desktop type charger with 4 and 3 stage charging curve, suitable for lithium battery (lithium ion, lithium iron phosphate, lithium manganese) and lead-acid battery (colloid battery, liquid battery, AGM battery). When charging, the LED can indicate the battery capacity when charging.

■ Mode Encoding

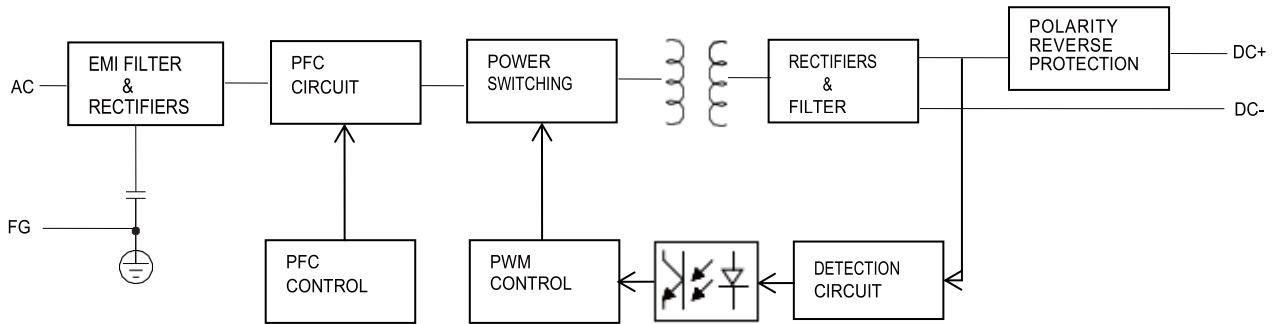
G300-XXXXYY



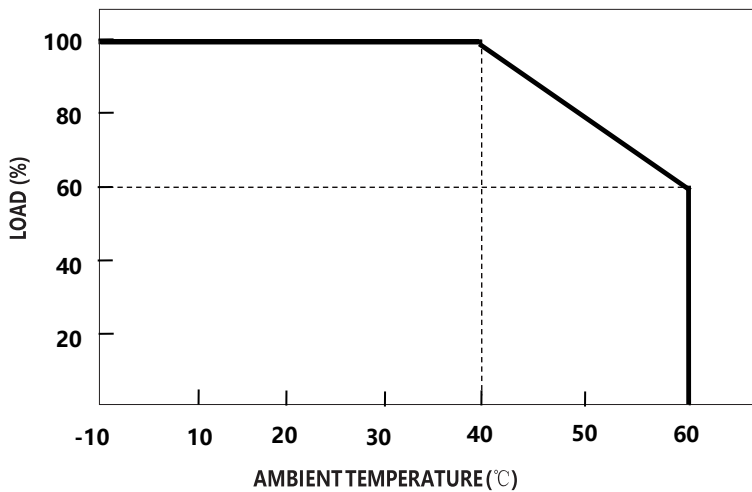
SPECIFICATION (Lead-Acid battery charger)

MODEL	G300-148180	G300-296100	G300-444067	G300-592050	
OUTPUT	Charge voltage (High voltage)	14.8V±1%	29.6V±1%	44.4V±1%	59.2V±1%
	Charge voltage range	10.0-14.8V	20.0-29.6V	30.0-44.4V	40.0-59.2V
	Float charge (Low voltage)	13.8V±1%	27.6V±1%	41.4V±1%	55.2V±1%
	Charge current	18.0A±7%	10.0A±7%	6.7A±7%	5A±7%
	Charge-end current	≤3.6A ±20%	≤2A ±20%	≤1.34A ±20%	≤1A ±20%
	Rated power	266.4W	296W	297.48W	296W
	Recommended battery capacity Note.3	90 - 200Ah	50 - 150Ah	35 - 100Ah	25 - 80Ah
	Leakage current from battery (Typ.)	≤1mA			
Charging LED	Red LED flashing	2Hz Error			
	Green LED flashing	0.45Hz No battery; 0.83Hz <25% Capacity; 1.25Hz ≥25% Capacity; 1.66Hz ≥50% Capacity; 2.5Hz ≥75% Capacity;			
	Green LED on	Full			
INPUT	Rated input voltage	100 - 240VAC 50 / 60Hz			
	Input voltage range Note.4	90 - 264VAC			
	Power factor (Typ.)	PF>0.98 @Full load, Input:115VAC : PF>0.94 @Full load, Input:230VAC			
	Input current (Typ.)	4.5A@100VAC			
	Inrush current (Typ.)	Cold start 75A @230VAC			
	Standby input power	< 1W			
	Efficiency (Typ.)	94%	94%	94%	94%
PROTECTION	Short circuit Note.5	Protection type : Shut down output			
	Over voltage	Protection type : Shut down output			
	Reverse polarity	Protection type : Shut down output			
	Over temperature	-			
ENVIRONMENT	Working temperature	-10 - +40°C (Refer to " Derating Curve")			
	Working humidity	0 - 90% RH			
	Storage temperature, humidity	-40 - +70°C, 0 - 95% RH			
	Cooling	Natural convection			
	Vibration resistance	10 - 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes			
Safety & EMC (Note 6)	Max. temperature rise	< 40°C on casing			
	Hi-Pot Insulation	i/p to o/p: 3000V (1 min)			
	Safety approval	CB/CE/FCC/CCC/cTUVus			
	EMC Emission	Parameter	standard		Test Level Note
		Conducted	EN55032 FCCPART15		Class B
		Radiated	EN55032 FCCPART15		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	220*105*43mm (L*W*H)			
	Weight	1300g			
NOTE	<p>1.Modification for charger specification may be required for different battery specification. Please contact battery vendor and Green digital power for details.</p> <p>2.All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>3.This is Green suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.</p> <p>4.Derating may be needed under low input voltages. Please check the derating curve for more details.</p> <p>5.This protection mechanism is specified for the case the short circuit occurs after the charger is turned on.</p> <p>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.</p>				

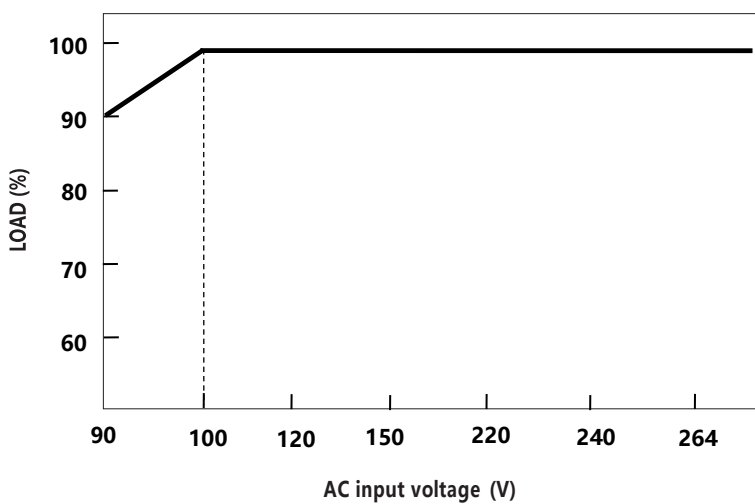
■ Block Diagram



■ Derating Curve



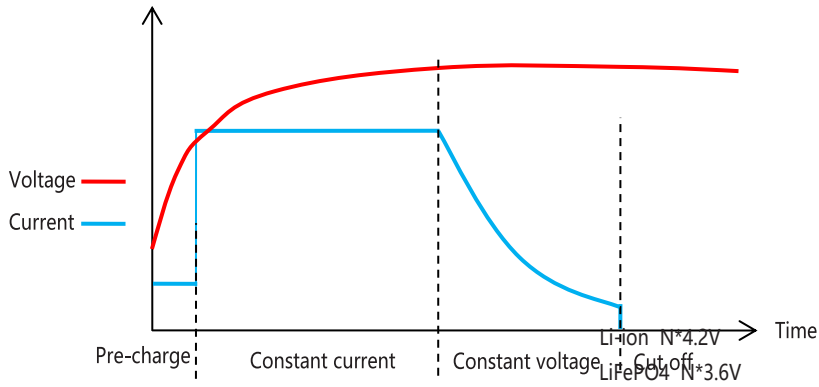
■ static Characteristics



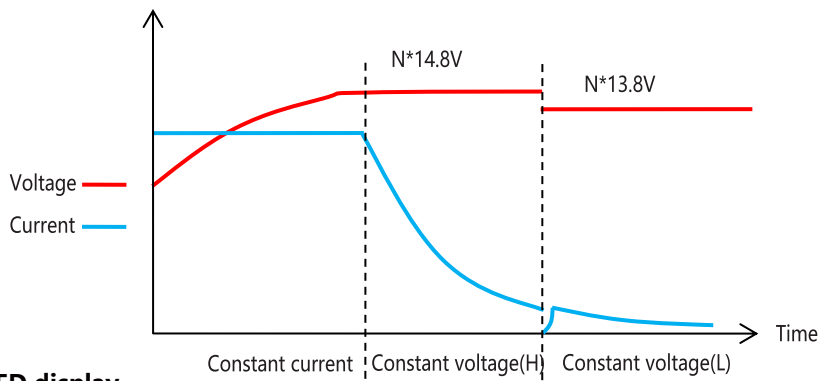
Function Manual

1. Charging Curve

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



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



2. LED display

Green	No battery	25%	50%	75%	100%	Full
	0.45Hz flicker	0.83Hz flicker	1.25Hz flicker	1.66Hz flicker	2.5Hz flicker	Fixed lighting

■ Mechanical specification

