



■ **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**

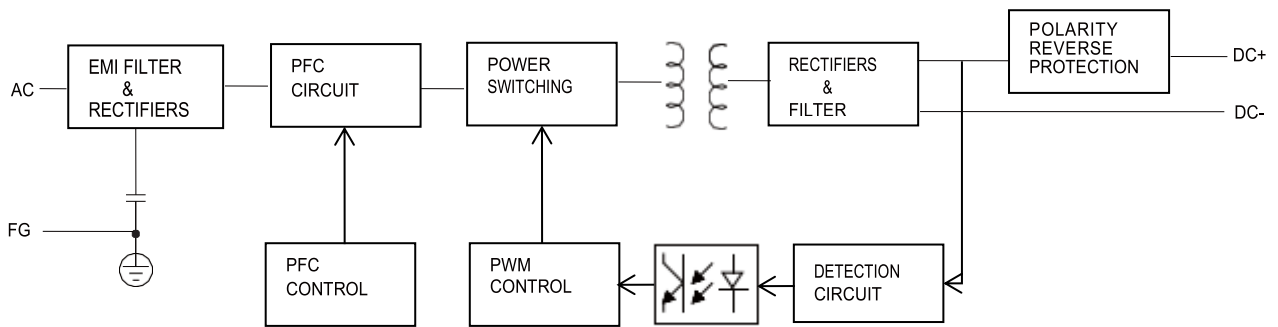
G300-XXXYYY



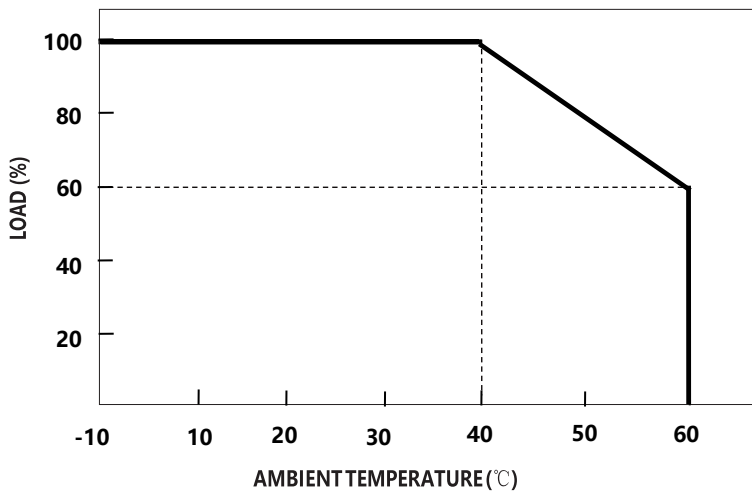
SPECIFICATION(Li-ion battery charger)

MODEL		G300-126180	G300-168170	G300-294100	G300-420070	G300-546050	
OUTPUT	Charge voltage	12.6V±1%	16.8V±1%	29.4V±1%	42.0V±1%	54.6V±1%	
	Charge voltage range	7.5-12.6V	10.0-16.8V	17.5-29.4V	25-42.0V	32.5-54.6V	
	Charge current	18.0A±7%	17.0A±7%	10.0A±7%	7.0A±7%	5.0A±7%	
	Pre-charge current	3.6A±7%	3.4A±7%	2.0A±7%	1.4A±7%	1.0A±7%	
	Charge-end current	≤1.8A ±10%	≤1.7A ±10%	≤1.0A ±10%	≤0.7A ±10%	≤0.5A ±10%	
	Rated power	226.8W	285.6W	294W	294W	273W	
	Recommended battery capacity Note.3	40 - 200Ah	40 - 150Ah	20 - 100Ah	15 - 80Ah	15 - 60Ah	
	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					
PROTECTION	Efficiency (Typ.)	94%	95%	95%	95%	95%	
	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 I 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>						

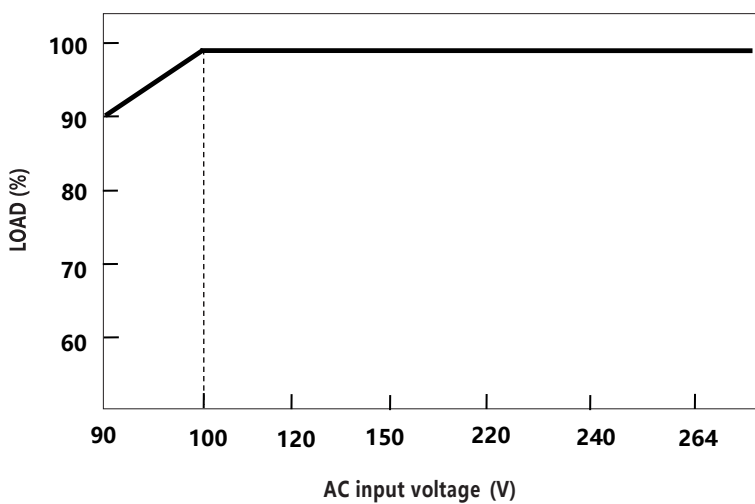
■ **Block Diagram**



■ **Derating Curve**



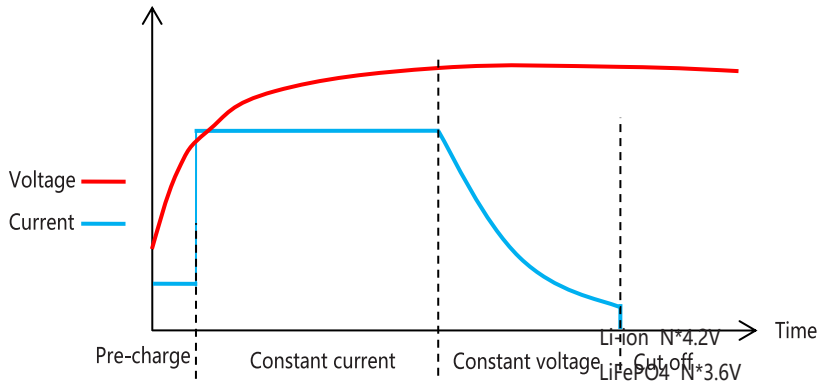
■ **static Characteristics**



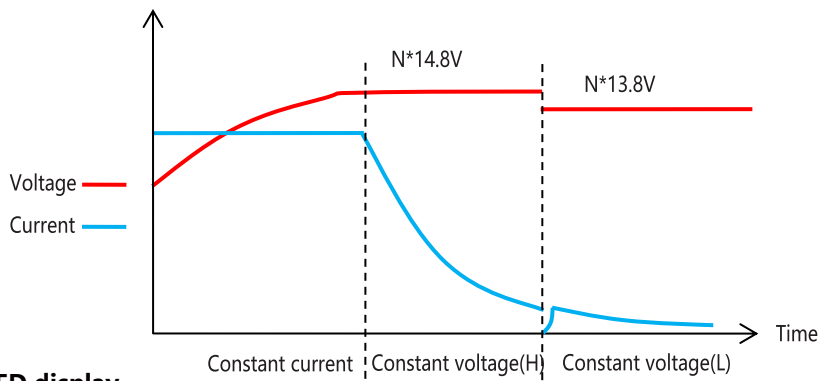
■ **Function Manual**

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

