



■ **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**

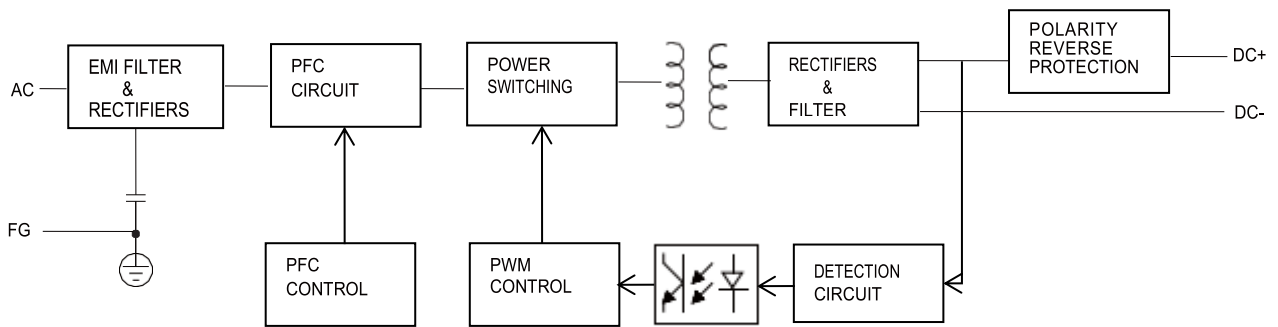
**G300-XXXYYY**



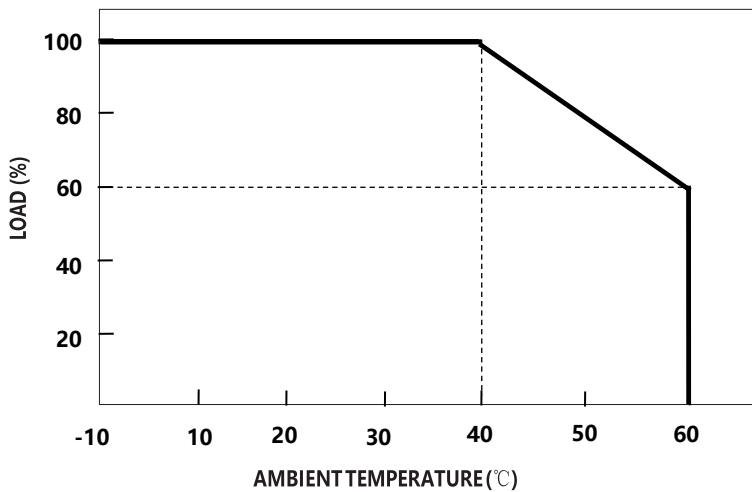
**SPECIFICATION(Li-Fe battery charger)**

MODEL		G300-144180	G300-216138	G300-360080	G300-432069	G300-576050	
OUTPUT	Charge voltage	14.4V±1%	21.6V±1%	36.0V±1%	43.2V±1%	57.6V±1%	
	Charge voltage range	10-14.4V	15-21.6V	25-36.0V	30-43.2V	40-57.6V	
	Charge current	18.0A±7%	13.8A±7%	8.0A±7%	6.9A±7%	5.0A±7%	
	Pre-charge current	3.6A±7%	2.76A±7%	1.6A±7%	1.38A±7%	1.0A±7%	
	Charge-end current	≤1.8A ±10%	≤1.38A ±10%	≤0.8A ±10%	≤0.69A ±10%	≤0.5A ±10%	
	Rated power	259.2W	298.08W	288W	298.08W	288W	
	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					
	Efficiency (Typ.)	94%	95%	95%	95%	95%	
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>7. Modification for charger specification may be required for different battery specification. Please contact battery vendor and Green digital power for details.</p> <p>8. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>9. This is Green suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.</p> <p>10. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> <p>11. This protection mechanism is specified for the case the short circuit occurs after the charger is turned on.</p> <p>12. 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> <p>13.</p>						

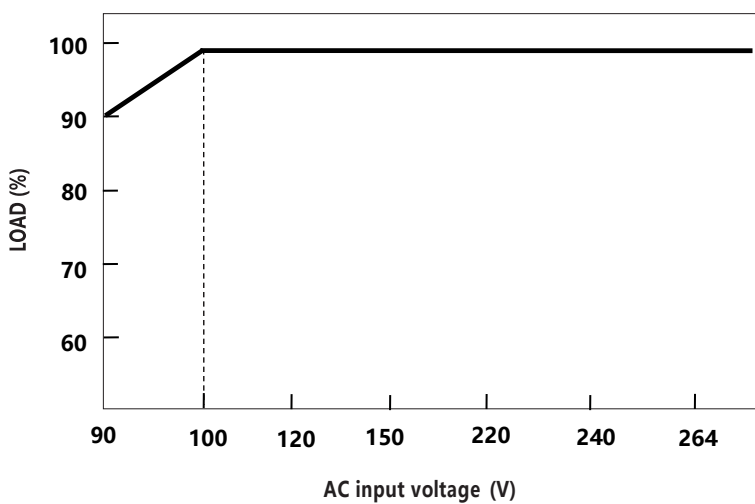
■ **Block Diagram**



■ **Derating Curve**



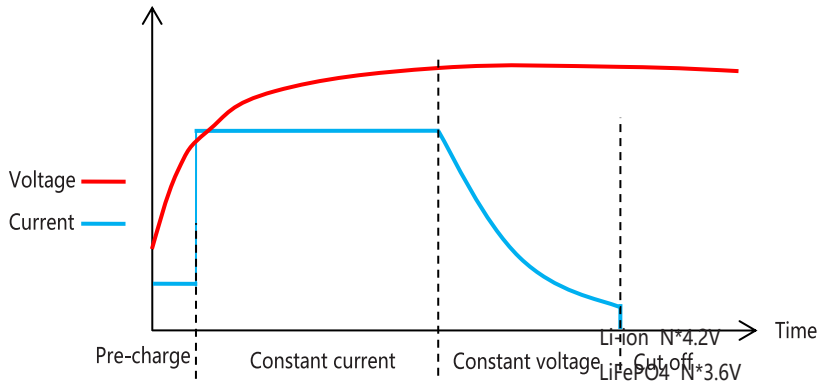
■ **static Characteristics**



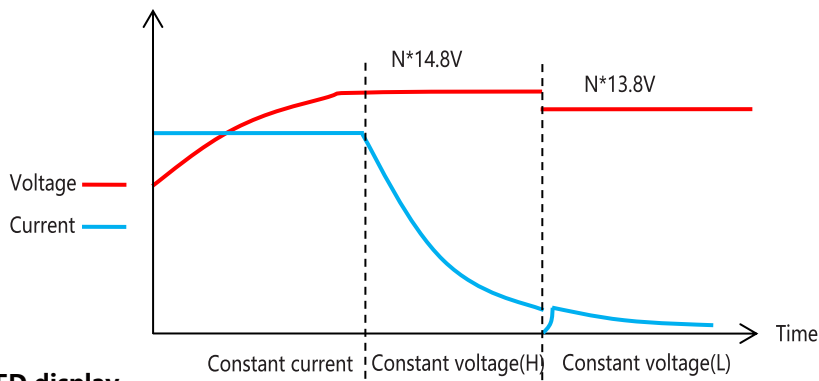
**Function Manual**

**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

