



**■ 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
- 1 years warranty

**■ Applications**

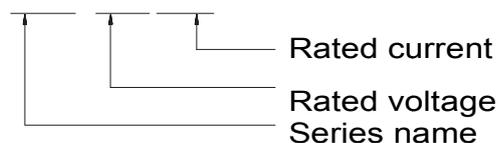
- Radio system backup solution
- Electric scooter charger
- Surveillance system
- Electric motorcycle\Electric sweeper

**■ Description**

G168 is a single output 168W 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**

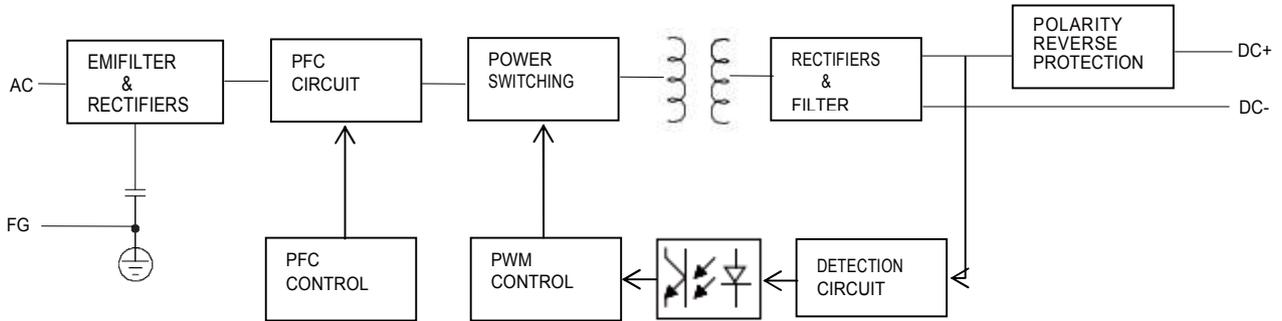
**G168-XXXYYY**



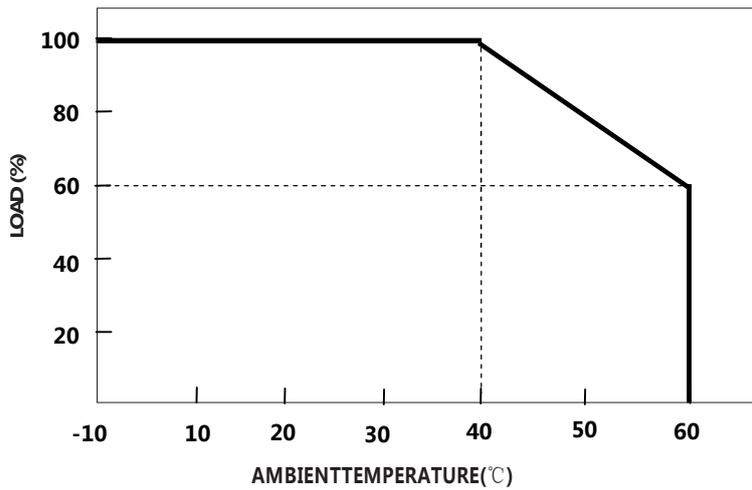
## SPECIFICATION (Lead-Acid battery charger)

MODEL		G168-148110	G168-296056	G168-444037	G168-592028	
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	11.0A±7%	5.6A±7%	3.7A±7%	2.8A±7%	
	Charge-end current	≤2.2A ±10%	≤1.12A ±10%	≤0.74A ±10%	≤0.56A ±10%	
	Rated power	162.8W	165.76W	164.28W	165.76W	
	Recommended battery capacity Note.3	60 - 100Ah	30- 60Ah	20 - 40Ah	15 - 30Ah	
	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.)	2.2A@100VAC				
	Inrush current (Typ.)	Cold start75A @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,2G10min.1cycle,60min.eachalongX,Y,Zaxes				
SAFETY & EMC (Note.6)	Max. temperature rise	< 40°C on casing				
	Hi-Pot Insulation	i/p to o/p: 3000V (1 min)				
	Safety approval	CE/PSE/SAA/FCC/CCC/cTUVus/CB/BS				
	EMC Emission	Parameter	Standard		Test Level   Note	
		Conducted	EN55032 FCC PART15		Class B	
		Radiated	EN55032 FCC PART15		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	175*72*40mm (L*W*H)				
	Weight	680g				
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>					

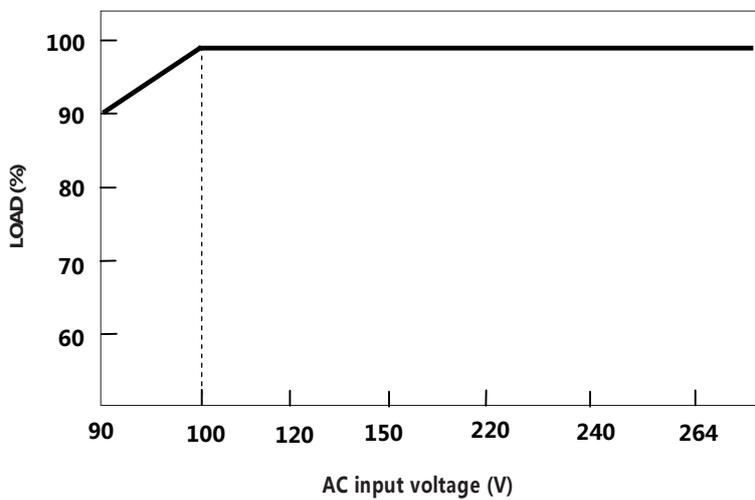
■ Block Diagram



■ Derating Curve



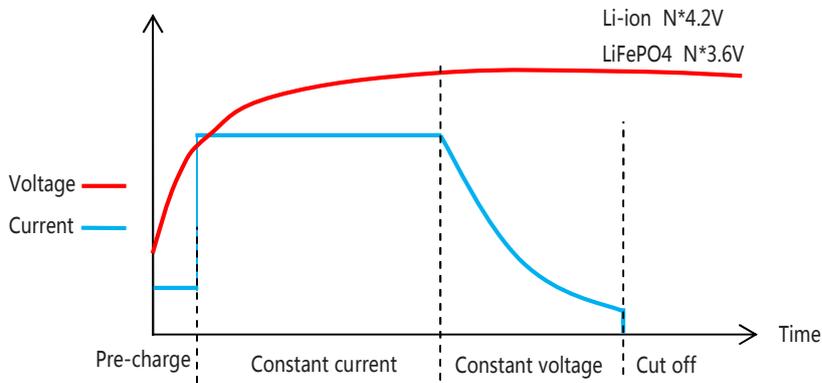
■ static Characteristics



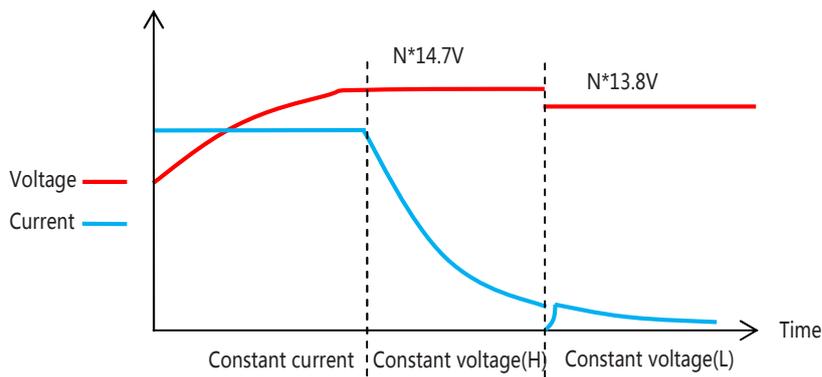
**Function Manual**

**1. Charging Curve**

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



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



**2. LCD display**

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

■ Mechanical specification

