■ 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

- YYY — Rated current
- XXX — Rated voltage
- G168 — Series name

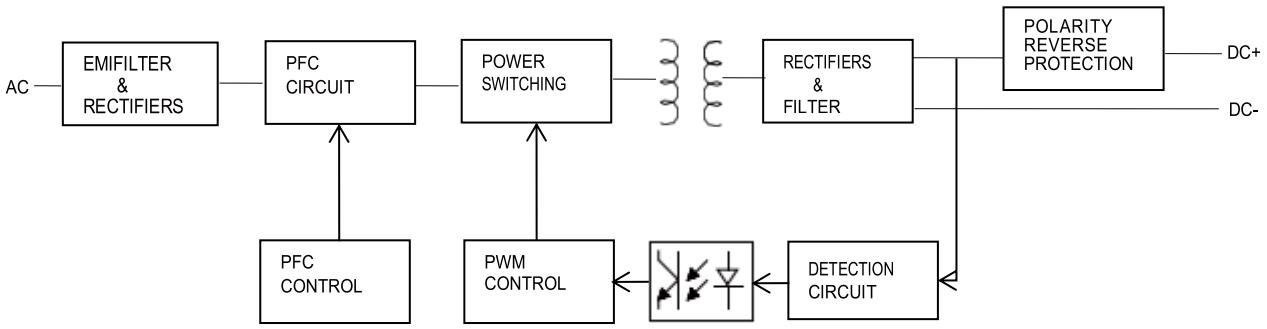
SPECIFICATION(Li-Fe battery charger)

MODEL		G168-144110	G168-288057	G168-360045	G168-432038	G168-576029
OUTPUT	Charge voltage	14.4V±1%	28.8V±1%	36.0V±1%	43.2V±1%	57.6V±1%
	Charge voltage range	10.0-14.4V	20.0-28.8V	25-36.0V	30-43.2V	40-57.6V
	Charge current	11.0A±7%	5.7A±7%	4.5A±7%	3.8A±7%	2.9A±7%
	Pre-charge current	2.2A±7%	1.14A±7%	0.9A±7%	0.76A±7%	0.58A±7%
	Charge-end current	≤1.1A ±10%	≤0.57A ±10%	≤0.45A ±10%	≤0.38A ±10%	≤0.29A ±10%
	Rated power	158.4W	164.16W	162W	164.16W	167.04W
	Recommended battery capacity Note.3	30 - 100Ah	20 - 100Ah	10 - 50Ah	8 - 40Ah	6 - 30Ah
	Leakage current from battery (Typ.)	≤1mA				
CHARGING LED	Red LED flashing	2Hz Error				
	Green LED flashing	Idle				
	Red LED on	Charging				
	Green LED on	Full charged				
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 start 75A @230VAC				
	Standby input power	< 1W				
	Efficiency (Typ.)	94%	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℃ (Refer to " Derating Curve")				
	Working humidity	0 - 90% RH				
	Storage temperature, humidity	-40 - +70℃, 0- 95% RH				
	Cooling	Natural convection				
	Vibration resistance	10–50Hz,2G10min.1cycle,60min.eachalongX,Y,Zaxes				
SAFETY&EMC (Note.6)	Max. temperature rise	< 40℃ 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 I 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				

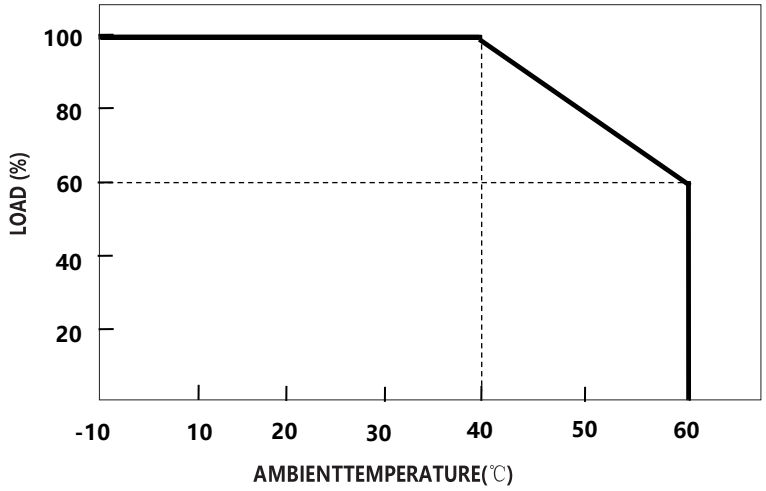
NOTE

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.

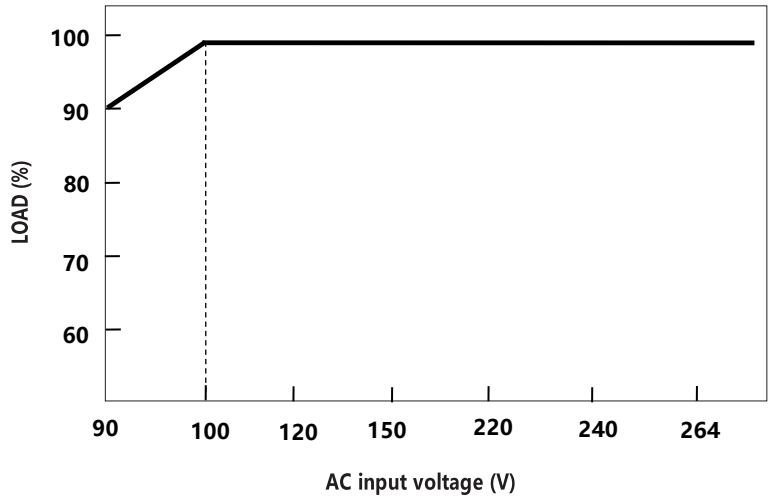
■ Block Diagram



■ Derating Curve

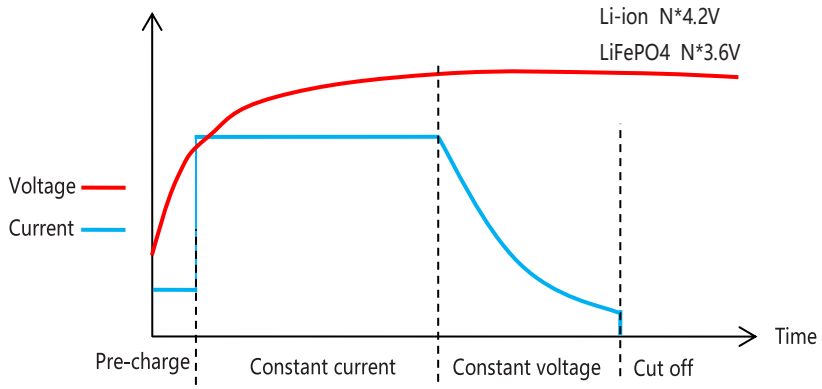


■ Static Characteristics

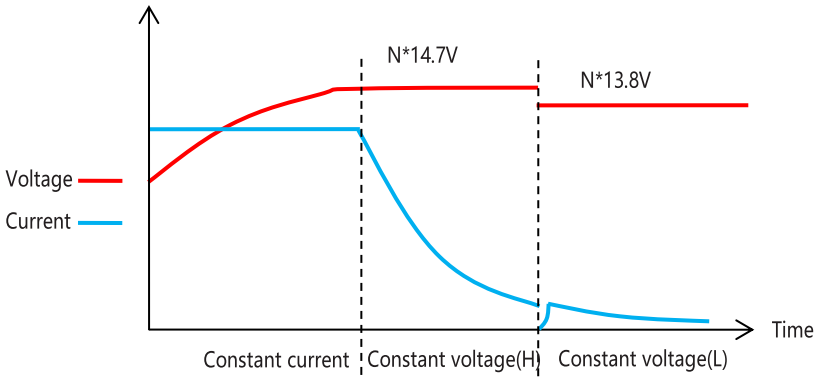


■ Charging Curve

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



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



■ Mechanical specification