■ Features

•Charger for lithium batteries (Li-ion,LiFePO4and lithium manganese), Lead-Acid batteries and NIMH

•Built- in 4 stage charging curve(For Lithium batteries) and 3 stage charging curve(For Lead-Acid batteries)

•Universal AC input, wide range cover 90-264V

•Small size , only 75*43*28mm

•High efficiency, >91% at AC 90V input

•Protection: Short circuit, OCP, OVP & reverse polarity

• 1years warranty

■ Applications

•Power tools & Drones

•Electric scooter

•Surveillance system

•Consumer electronic devices

■ Description

GaN065 is a single output 65W AC/DC desktop type charger with 4 and 3 stage charging curve,The different curves are suitable for different batteries,such as Lead- acid batteries (gel,flooded and AGM) and Lithium batteries(Li-ion, LiFePO4 and Lithium manganese).

■ Mode Encoding

GaN065-XXXYYY

Rated current

Rated voltage

Series name

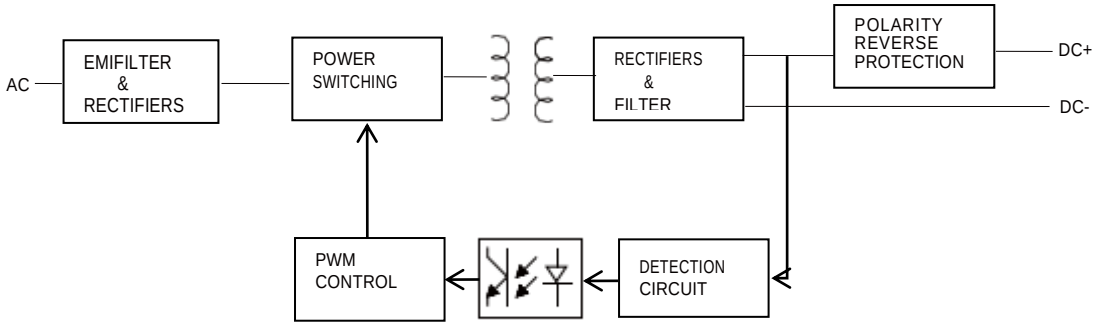
SPECIFICATION(Li-ion battery charger)

MODEL		GaN065-084050	GaN065-126040	GaN065-168030	GaN065-210024	GaN065-294017
OUTPUT	Charge voltage	8.4V±1%	12.6V±1%	16.8V±1%	21.0V±1%	29.4V±1%
	Charge voltage range	5-8.4V	7.5-12.6V	10-16.8V	12.5-21.0V	17.5-29.4V
	Charge current	5A±10%	4A±10%	3.0A±10%	2.4A±10%	1.7A±10%
	Pre-charge current	1A±10%	0.8A±10%	0.6A±10%	0.48A±10%	0.34A±10%
	Charge-end current	≤0.5A ±20%	≤0.4A ±20%	≤0.3A ±20%	≤0.24A ±20%	≤0.17A ±20%
	Rated power	42W	50.4W	50.4W	50.4W	49.98W
	Recommended battery capacity Note.3	5 - 40Ah	4 - 30Ah	3.5 - 30Ah	3 - 30Ah	2 -20Ah
	Leakage current from battery (Typ.)	≤2mA				
CHARGE INDICATOR	LED indication	LED1 on:25% Capacity; LED1 - LED2 on: 50% Capacity; LED1 – LED3 on: 75% Capacity; LED1 – LED4 on: 100% Capacity; LED1 – LED4 flashing : error				
INPUT	Rated input voltage	100 - 240VAC 50 / 60Hz				
	Input voltage range Note.4	90 - 264VAC				
	Power factor (Typ.)	PF>0. 55@AC100V, full load				
	Input current (Typ.)	1.2A@100VAC				
	Inrush current (Typ.)	Cold start 75A @230VAC				
	Standby input power	<0.5W				
	Efficiency (Typ.)	91%	92.5%	92.5%	92.5%	92.5%
PROTECTION	Short circuit	Yes				
	Over voltage	Yes				
	Reverse polarity	Yes				
	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, 2G 10min. 1cycle, 60min. each along X, Y, Z axes				
SAFETY&EMC(Note.6)	Max. temperature rise	< 40℃ on casing				
	Hi-Pot Insulation	i/p to o/p: 3000V (1 min)				
	Safety standards	IEC62368-1				
	EMC Emission	Parameter	Standard			Test Level I Note
		Conducted	EN55032FCCPART15			Class B
		Radiated	EN55032FCCPART15			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	75*43*28.5mm (L*W*H)				
	Weight	120g				

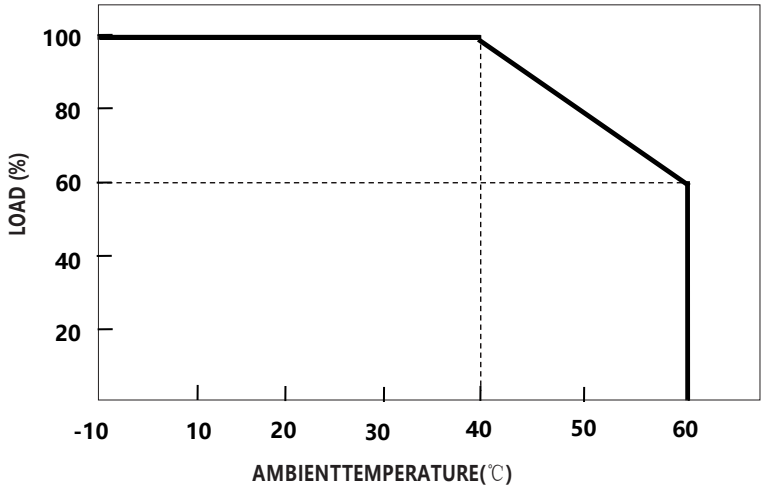
NOTE

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.
7. AC Inlet is ICE320-C8, DC cord is 1.5m 2*18AWG wires, DC terminal is defined when order.

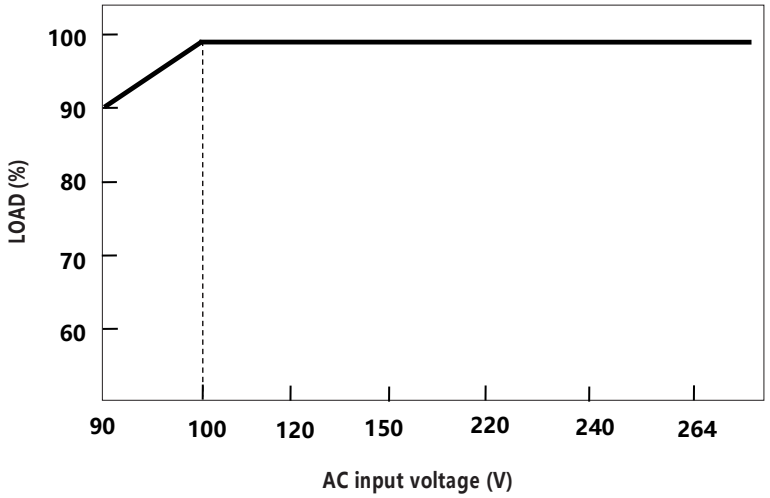
Block Diagram



Derating Curve

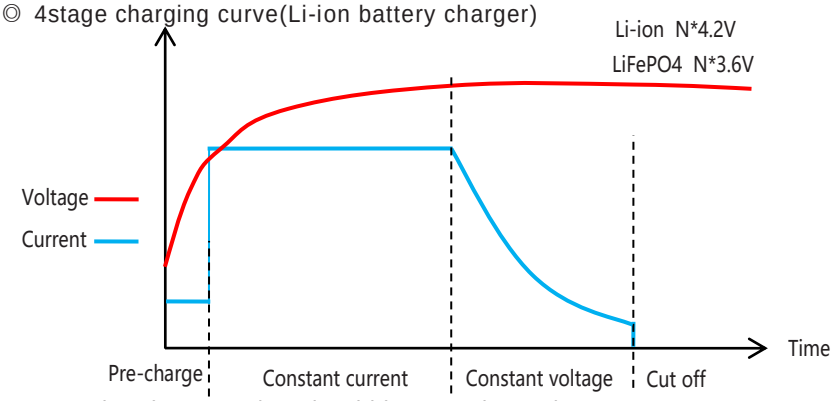


static Characteristics

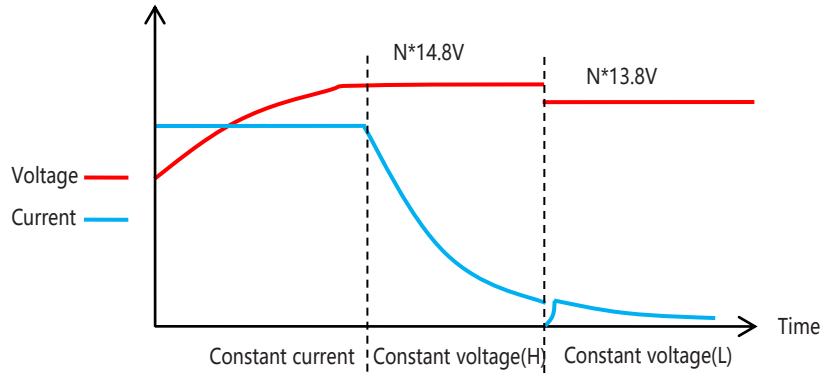


Charging Curve

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



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



Mecanical specification