

$C \in$

■ 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
- 1 years warranty

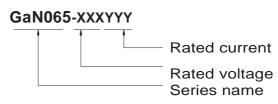
Applications

- •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



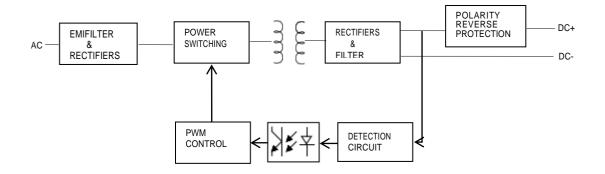




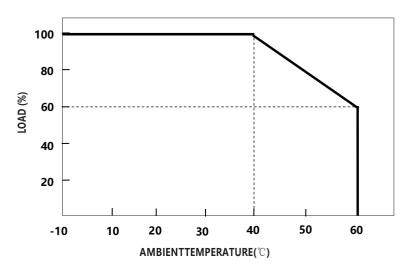
SPECIFICATION(Li-Fe battery charger)

Charge voltage 14.4Vx15 18.0Vx15 28.8Vx15 Charge voltage range 101.44V 12.516V 20.28V Charge voltage range 101.44V 21.516V 20.28V Charge voltage range 101.44V 21.516V 20.28V Charge voltage range 101.44V 21.516V 20.28X 20% 2.04X 20% 2.04X	MODEL		GaN065-144033		GaN065-180028	GaN065-28	88017	
Charge current	ОИТРИТ	Charge voltage	14.4V±1%		18.0V±1%	28.8V±1%		
Charge current		Charge voltage range	10-14.4V		12.5-18V	20-28.8V		
Pre-charge current			3.3A±10%		2.8A±10%	1.7A±10%	1.7A±10%	
OUTPUT Rated power lack to the LED1 in LED2 on: 50% Capacity; LED1 - LED2 on: 50% Capacity; LED2			0.66A±10%		0.56A±10%	0.34A±10%)	
Rated power 47.52W 49.99W Recommended battery capacity 5 -40Ah 3 - 30Ah 2 -20Ah Note.3 3 -30Ah 2 -20Ah Note.3 4 -20Ah Note.3 4 -20Ah Note.3 4 -20Ah Note.3 5 -20Ah Note.3 5 -20Ah LED Indication LED in 25% Capacity: LED -1.ED 40.00% Capac		Charge-end current	≤0.33A ±20%		≤0.28A ±20%	≤0.17A ±2	≤0.17A ±20%	
Recommended battery capacity Lestage current from battery (Typ-) Lestage current from battery (Typ-) LED indication LED in		Rated power	47.52W					
Note.3 Leb Indication LeD Indicati		•						
CHARGE INDICATOR LED I on 25% Capacity: LED1 - LED2 on: 50% Capacity: LED1 - LED3 on: 75% Capacity: LED1 - LED4 on: 100% Capacity: LED1 - LED4 in 100% Capa								
CHARGE NDICATOR LED Indication LED I - LED 2 or. 50% Capacity; LED I - LED 4 or. 75% Capacity; LED I - LED 4 or. 100% Capacity; LED I - LED 100% Capacity; LED I - LED 4 or. 100% Capacity; LED I - LED 4 or. 100% Capacity; LED I - LED 4 or. 100% Capacity; LED I - LED 4 o			≤2mA					
Input current (Typ.) PF>0.55@ACTO0V, full load Input current (Typ.) PF>0.55@ACTO0V, full load Input current (Typ.) 1.2.@@100VAC			LED1 - LED2 on: 50% Capacity; LED1 – LED3 on: 75% Capacity; LED1 – LED4 on: 100% Capacity; LED1 – LED4 flashing: error					
Power factor (Typ.)	INPUT							
INPUT Input current (Typ.)								
Inrush current (Typ.) Cold start 75A @230VAC Standby input power < 0.5W Efficiency (Typ.) 92.5% Short circuit Yes Over voltage Working temperature +0+0°C (Refer to *Derating Curve*) Working temperature +0°C (Refer to *Derating Curve*) Working temperature, humidity		, ,,,	·					
Standby input power <0.5W		1 (717						
PROTECTION PROTECTION Proceed Proceed Procedure Procedu		() ()						
Short circuit PROTECTION Short circuit Over voltage Reverse polarity Yes Over temperature -10 - +40°C (Refer to " Derating Curve") 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 Max. temperature rise +40°C on casing Hi-Pot Insulation Safety standards EC62368-1								
PROTECTION Over voltage Yes Reverse polarity Yes Over temperature -10 - +40° (Refer to "Derating Curve") Working temperature -10 - +40° (Refer to "Derating Curve") 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 Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise -2 40° on casing Hi-Pot Insulation -10 to 50Hz	PROTECTION							
Reverse polarity Over temperature Working temperature 10 - +40°C (Refer to * Derating Curve*) Working temperature Working humidity 0 - 90% RH Storage temperature, humidity 10 - 50% RH Cooling Natural convection Vibration resistance 10 - 50Hz, ZG 10min. 1cycle, 60min. each along X, Y, Z axes Max. temperature rise 40°C on casing Hi-Pot Insulation Vip to oip: 3000V (1 min) Safety standards IEC62368-1 Parameter Standard EMC Emission EMC Emission EMC Emission EMC Emission EMC IMMUNITY EN61000-4-2. EN61000-3-2 Voltage Flicker Voltage Flicker Dimension T5*43*28.5mm (L*W*H) Weight 1 20g 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°C 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.								
Over temperature								
Working temperature			100					
ENVIRONMENT Storage temperature, humidity 40 + 70°C, 0 - 95% RH		-	-10 - +40°C (Pefer to " Denoting Curve")					
Storage temperature,humidity -40 - +70°C, 0 - 95% RH	ENVIRONMENT							
Cooling Natural convection		•						
Vibration resistance 10 - 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes								
Max. temperature rise < 40°C on casing Hi-Pot Insulation 1/p to o/p: 3000V (1 min) Safety standards IEC62368-1 EMC Emission Parameter Standard 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, EN61000-4-8, EN61000-4-11 TBF 30000H Dimension 75*43*28.5mm (L*W*H) Weight 120g 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°C 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.								
SAFETYAEMC (Note.6) Safety standards IEC62368-1			·					
SAFETY&EMC (Note.6) Safety standards EMC Emission Parameter Standard Conducted EN55032 FCC PART15 Class B		·	<u> </u>					
SAFETY&EMC (Note.6) EMC Emission EMC Emission EMC IMMUNITY EN61000-4-2, EN61000-3-3 EMC IMMUNITY EN61000-4-2, EN61000-4-3, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11 MTBF Journal (L*W*H) Weight 120g 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°C 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.		Safety standards						
(Note.6) EMC Emission EMC Emission EMC IMMUNITY EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11 MTBF OTHERS Dimension 75*43*28.5mm (L*W*H) Weight 120g 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°C 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.			Parameter	Standard Test Level I Note				
Radiated EN55032 FCC PART15 Class B Harmonic Current EN61000-3-2			Conducted	EN55032 F0	CC PART15		Class B	
Voltage Flicker EN61000-4-2, EN61000-4-3, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11 MTBF 30000H Dimension 75*43*28.5mm (L*W*H) Weight 120g 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°C 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.			Radiated	EN55032 F0	CC PART15		Class B	
EMC IMMUNITY EN61000-4-2, EN61000-4-3, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11 MTBF 30000H Dimension 75*43*28.5mm (L*W*H) Weight 120g 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°C 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.			Harmonic Current	EN61000-3-2				
OTHERS Dimension 75*43*28.5mm (L*W*H)			Voltage Flicker	EN61000-3-3				
Dimension 75*43*28.5mm (L*W*H) Weight 120g 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°C 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. NOTE NOTE NOTE NOTE NOTE NOTE NOTE NOTE 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.		EMC IMMUNITY	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11					
Note Note Note Note Note Note Note No	OTHERS	MTBF	30000H					
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°C 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.			75*43*28.5mm (L*W*H)					
and Green digital power for details. 2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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. NOTE NOT		Weight	120g					
	NOTE	and Green digital power for details. 2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient 3. This is Green suggested range. Please consult your battery manufacturer for their suggestions about ma charging current limitation. 4. Derating may be needed under low input voltages. Please check the derating curve for more details. NOTE 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 re-confirm that the whole system complies with the EMC directives.						

■ Block Diagram



■ Derating Curve



static Characteristics

