



## 160W Single Output Battery Charger

## GC160 series



## ■ Features :

- Charger for lead-acid batteries (flooded, Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese) (Note.1)
- 2 stage charging characteristic
- Universal AC input / Full range
- Built-in active PFC function, PF>0.94
- No load power consumption<1W
- 3 pole AC inlet IEC320-C14
- Class I power ( with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- Approvals: TUV / UL / CB / FCC / CE
- 2 years warranty



(for GC160Axx-AD1 only)



ORDER NO.	OUTPUT CONNECTOR	SAFETY
GC160Axx-R7B (standard model)	4pin power din	TUV / CB / FCC / CE
GC160Axx-AD1 (optional model)	Anderson connector	UL / TUV / CB / FCC / CE
GC160Axx-□ xx=12,24,48 ; □=R7B,AD1		

## SPECIFICATION

ORDER NO.	GC160A12-□	GC160A24-□	GC160A48-□	
OUTPUT	SAFETY MODEL NO.	GC160A12	GC160A24	GC160A48
	DC VOLTAGE (Typ.)	13.6V	27.2V	54.4V
	RECOMMENDED BATTERY CAPACITY Note.3	60 ~160Ah	30 ~ 90Ah	15 ~ 45Ah
	CONTINUOUS OUTPUT CURRENT (Typ.)	10A	5.89A	2.95A
	RATED POWER	136W	160.2W	160.5W
LED INDICATOR	Charging(CC) : RED Floating charging(CV) : GREEN			
INPUT	VOLTAGE RANGE Note.4	85 ~ 264VAC 120 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.94 / 230VAC PF>0.98 / 115VAC at full load		
	EFFICIENCY (Typ.)	89%	92.5%	94%
	AC CURRENT	1.85A / 115VAC 1A / 230VAC		
	INRUSH CURRENT (max.)	120A / 230VAC		
LEAKAGE CURRENT(max.)	0.75mA / 240VAC			
PROTECTION	OVERLOAD Note.5	90 ~ 110% rated output power Protection type : Constant current limiting recovers automatically after fault condition is removed		
	SHORT CIRCUIT	Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	OVER VOLTAGE	105 ~ 135% rated output voltage Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERATURE	90°C ± 10°C (RTH2) detect on inside ambient temperature Protection type : Shut down o/p voltage, re-power on to recover		
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")		
	WORKING HUMIDITY	20% ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03% / °C (0~50°C)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC (Note. 6)	SAFETY STANDARDS	UL1012 (for GC160Axx-AD1 only), TUV EN60950-1 approved		
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC		
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH		
	EMC EMISSION	Compliance to EN55022 class B, FCC PART 15 class B / CISPR22 class B, EN61000-3-2,3		
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A		
	MTBF	274.1Khrs min. MIL-HDBK-217F(25°C)		
	DIMENSION	175*72*35mm (L*W*H)		
CONNECTOR	PACKING	0.7Kg; 20pcs/15Kg/0.85CUFT(GC160Axx-R7B) 0.77Kg; 20pcs/16.4Kg/1.15CUFT(GC160Axx-AD1)		
	PLUG	See page 2 ; Other type available by customer requested		
CABLE	CABLE	See page 2 ; Other type available by customer requested		
	NOTE	<ol style="list-style-type: none"> <li>1. Modification for charger specification may be required for different battery specification. Please contact battery vendor and MEAN WELL for details.</li> <li>2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>3. This is MeanWell's suggested range, please consult your battery manufacturer for their suggestions about maximum charging current limitation.</li> <li>4. Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>5. Constant current operation region is within 50~100% rated output voltage.</li> <li>6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</li> </ol>		

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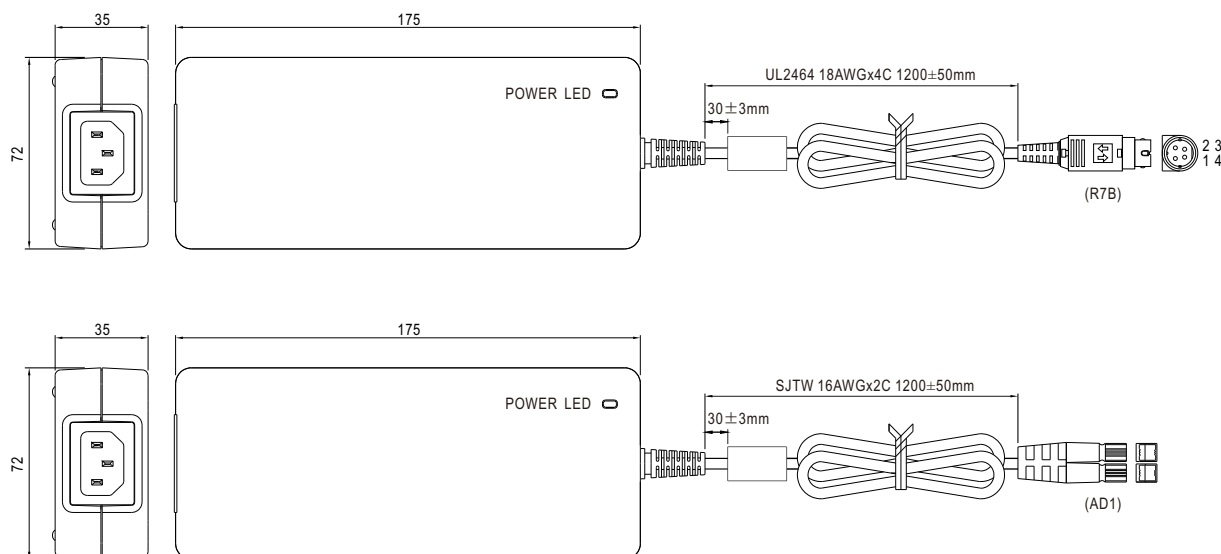


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**GC160** series

### ■ Mechanical Specification

Case No.997A Unit:mm



### ■ Plug Assignment

DC output connector (standard)

R7B (KYCON KPP-4S or equivalent)	
PIN NO.	OUTPUT
1,4	+V
2,3	-V

AC FG

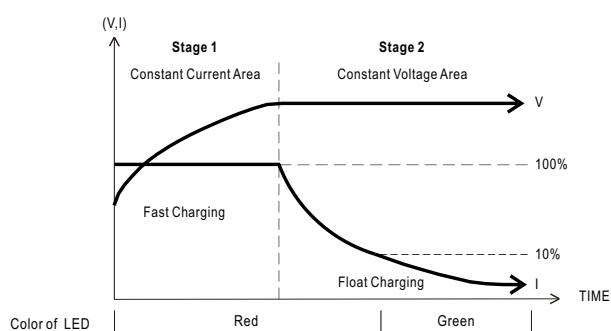
-V connected to AC FG

DC output connector (optional)

AD1  
[ housing: Anderson 1327FP(red), 1327G6FP(black)  
contacts: Anderson 261G2 (45A) or equivalent ]

Red(+V)  Black(-V) 

### ■ Charging Curve



Model	Suggested Battery capacity
GC160A12	60-160Ah
GC160A24	30-90Ah
GC160A48	15-45Ah

Suitable for lead-acid batteries (flooded, Gel and AGM)  
and Li-ion batteries (lithium iron and lithium manganese)

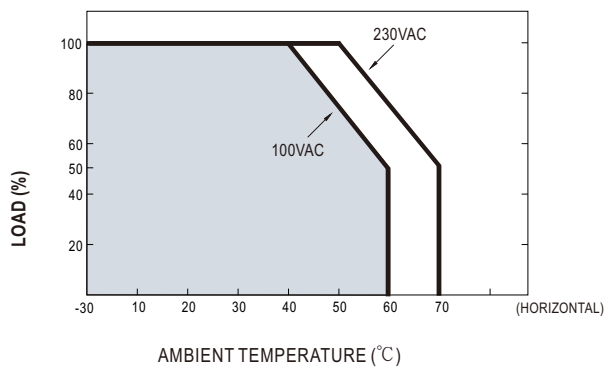
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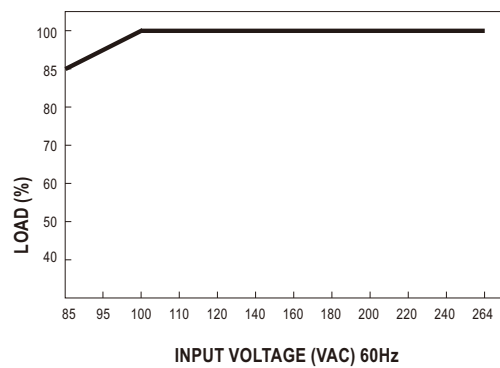
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#### Derating Curve



#### Static Characteristics



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