



## 120W Single Output Battery Charger

## GC120 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>0.97
- No load power consumption<0.5W
- 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: UL / PSE / TUV / EAC / CB / FCC / CE
- 2 years warranty



( for GC120Axx-AD1 only)



ORDER NO.	OUTPUT CONNECTOR	SAFETY
GC120Axx-R7B (standard model)	4pin power din	TUV / CB / FCC / CE / EAC
GC120Axx-AD1 (optional model)	Anderson connector	UL / TUV / CB / FCC / CE / EAC
GC120Axx-□ xx=12,24,48 ; □=R7B,AD1		

## SPECIFICATION

ORDER NO.	GC120A12-□	GC120A24-□	GC120A48-□	
OUTPUT	SAFETY MODEL NO.	GC120A12	GC120A24	GC120A48
	DC VOLTAGE (Typ.)	13.6V	27.2V	54.4V
	RECOMMENDED BATTERY CAPACITY Note.3	40 ~ 100Ah	20 ~ 65Ah	10 ~ 35Ah
	CONTINUOUS OUTPUT CURRENT (Typ.)	7.5A	4.42A	2.21A
	RATED POWER	102W	120.2W	120.2W
	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>0.97 / 230VAC	PF>0.99 / 115VAC at full load	
	EFFICIENCY (Typ.)	86.5%	90%	91%
	AC CURRENT	1.4A / 115VAC	0.7A / 230VAC	
	INRUSH CURRENT (max.)	70A / 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	14 ~ 16.5V	29 ~ 33V	59 ~ 69V
	OVER TEMPERATURE	100°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)		
SAFETY & EMC (Note. 6)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
	SAFETY STANDARDS	UL1012 (FOR GC120Axx-AD1 Only, TUV EN60950-1, PSE J60950-1, EAC TP TC 004 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 EN55032 class B, FCC PART 15 / CISPR22 class B, CAN ICES-3(B)/NMB-3(B), EN61000-3-2,3, EAC TP TC 020		
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A, EAC TP TC 020		
OTHERS	MTBF	400.7Khrs min. MIL-HDBK-217F(25°C)		
	DIMENSION	167*67*35mm (L*W*H)		
	PACKING	0.62Kg; 20pcs/13.4Kg/0.9CUFT		
CONNECTOR	PLUG	See page 2 ; Other type available by customer requested		
	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> <li>7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</li> </ol>			

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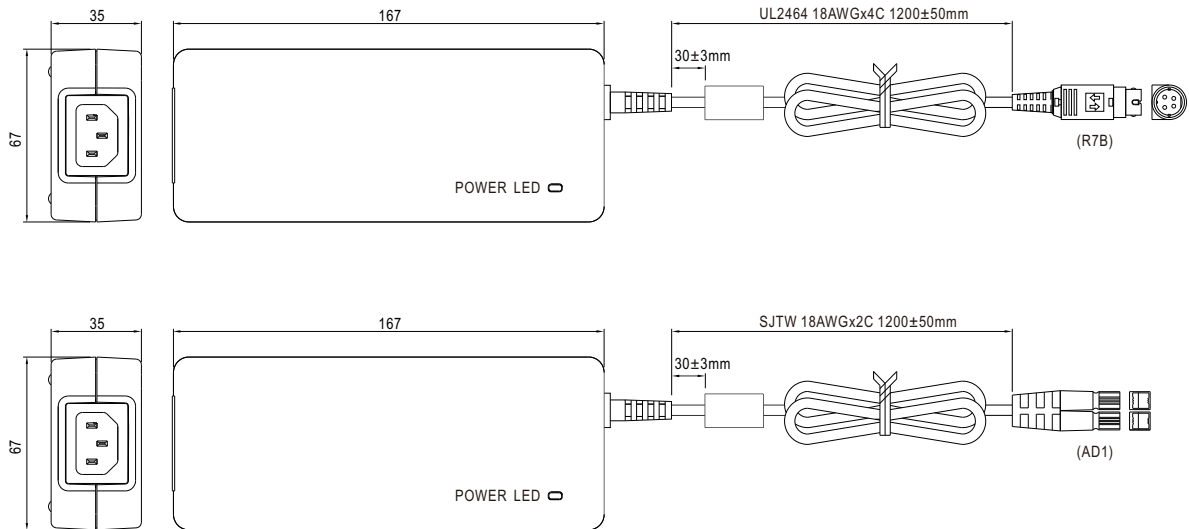


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GC120 series

■ Mechanical Specification

Case No.947A Unit:mm



■ Plug Assignment

DC output connector (standard)

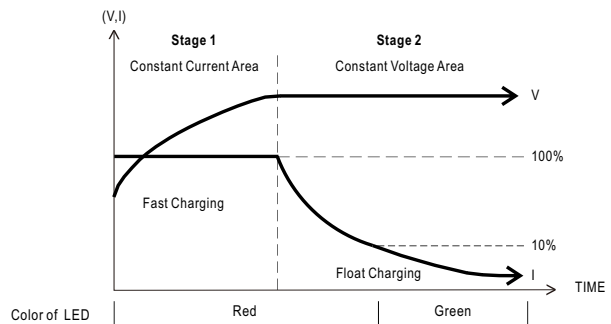
R7B (KYCON KPP-4S or equivalent)		
	PIN NO.	OUTPUT
1,4		+V
2,3		-V

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
GC120A12	40-100Ah
GC120A24	20-65Ah
GC120A48	10-35Ah

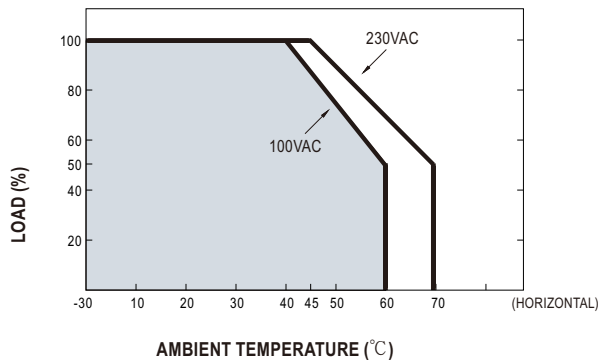
Suitable for lead-acid batteries (flooded, Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese)



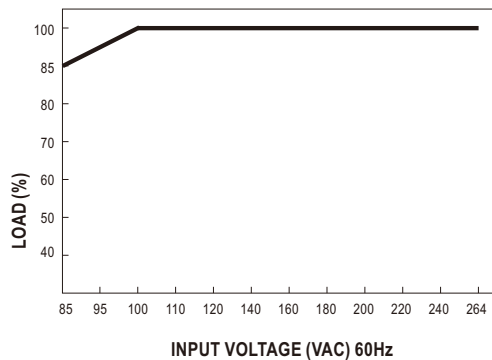
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**GC120 series**

■ Derating Curve



■ Static Characteristics



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