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 / UKCA
- 2 years warranty

User's Manual

Video

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

(for GC120Axx-AD1 only)

BS EN/EN62368-1 TPTC004 IEC62368-1

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

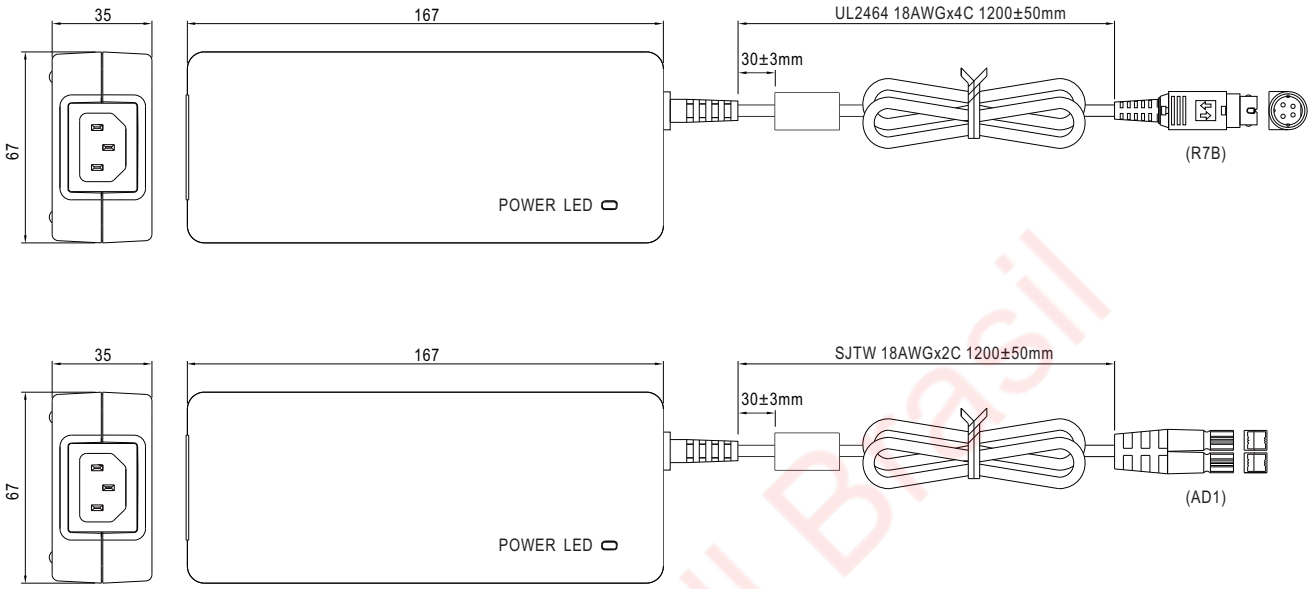
SPECIFICATION

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
	CONTINUOS 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
		Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERATURE	100℃ ± 10℃ (RTH2) detect on inside ambient temperature		
		Protection type : Shut down o/p voltage, re-power on to recover		
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")		
	WORKING HUMIDITY	20% ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03% / ℃ (0~50℃)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC (Note. 6)	SAFETY STANDARDS	UL1012 (FOR GC120AXX-AD1 Only), TUV BS EN/EN62368-1, 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℃/ 70% RH		
	EMC EMISSION	Compliance to BS EN/EN55032 class B, FCC PART 15 / CISPR22 class B, CAN ICES-3(B)/NMB-3(B), BS EN/EN61000-3-2,3, EAC TP TC 020		
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020		
OTHERS	MTBF	2707.9K hrs min. Telcordia SR-332 (Bellcore) ; 400.5K hrs min. MIL-HDBK-217F (25℃)		
	DIMENSION	167*67*35mm (L*W*H)		
	PACKING	0.62Kg; 20pcs/13.4Kg/0.95CUFT		
CONNECTOR	PLUG	See page 2 ; Other type available by customer requested		
	CABLE	See page 2 ; Other type available by customer requested		
NOTE	1. Modification for charger specification may be required for different battery specification. Please contact battery vendor and MEAN WELL for details. 2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 3. This is MeanWell's suggested range, please consult your battery manufacturer for their suggestions about maximum charging current limitation. 4. Derating may be needed under low input voltage. Please check the derating curve for more details. 5. Constant current operation region is within 50~100% rated output voltage. 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.(as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx			

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

■ Mechanical Specification

Case No.947A Unit:mm



■ Plug Assignment

DC output connector

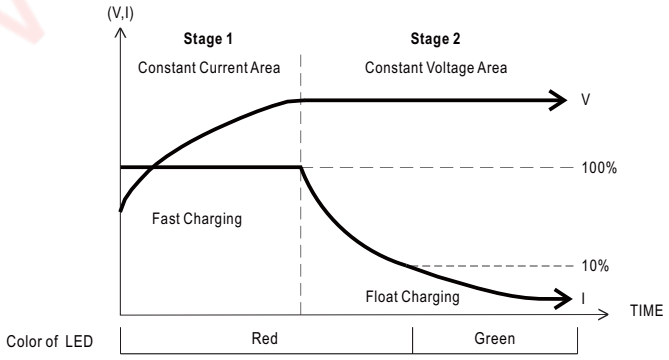
R7B (KYCON KPP-4S or equivalent)		
	PIN NO.	OUTPUT
2 1 3 4	1,4	+V
	2,3	-V

AC FG

-V connected to AC FG

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

■ Charging Curve

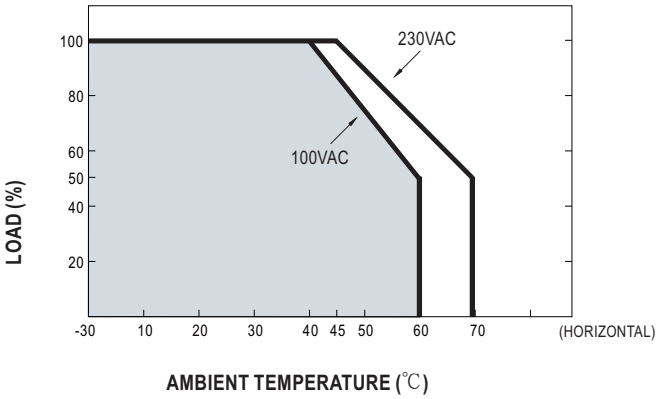


Model	Suggested Battery capacity
GC120A12	40-100Ah
GC120A24	20-65Ah
GC120A48	10-35Ah

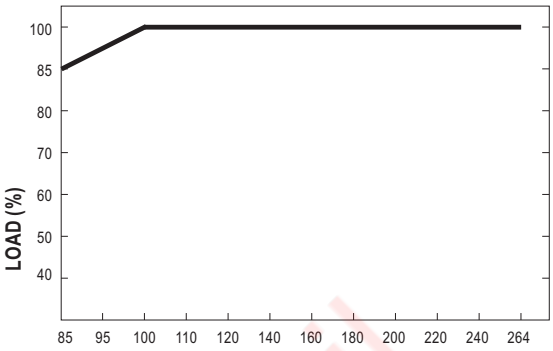
Suitable for lead-acid batteries (flooded,Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese)

Mean Well Brasil

■ Derating Curve



■ Static Characteristics



Mean Well Brasil