



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: TUV / UL / PSE / 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
GC120Axx-AD1 (optional model)	Anderson connector	UL / TUV / CB / FCC / CE
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)		
	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 EN60950-1, PSE J60950-1 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 EN55032 class B, FCC PART 15 class B / CISPR32 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	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"> 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°C 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. 			

File Name:GC120-SPEC 2017-06-22

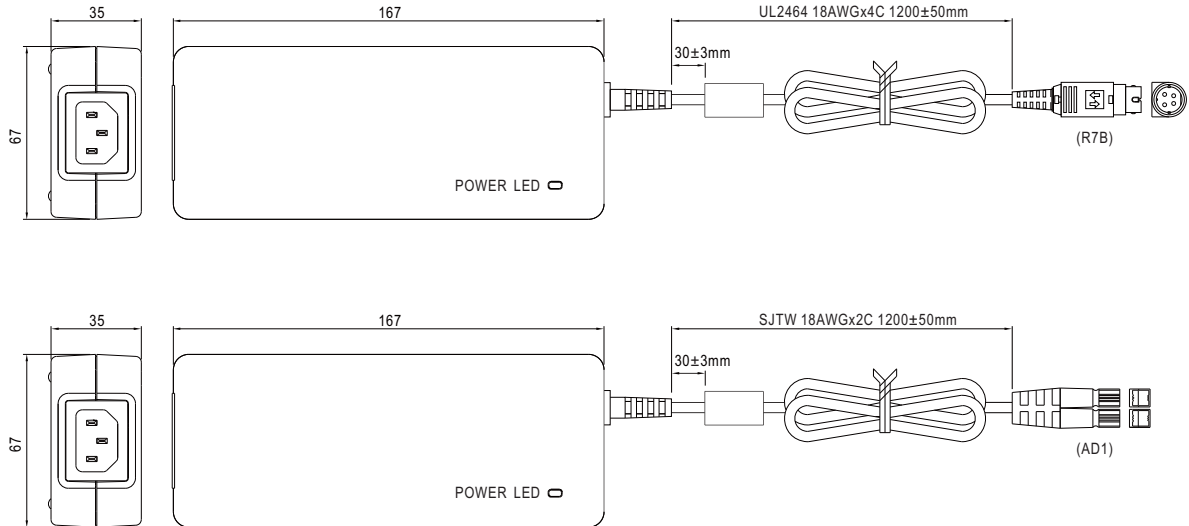


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■ Mechanical Specification

Case No.947A Unit:mm



■ Plug Assignment

DC output connector (standard)

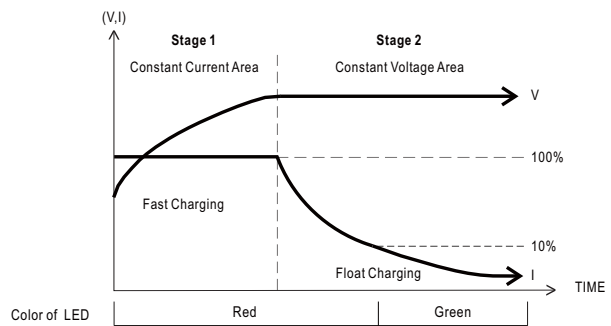
R7B (KYCON KPP-4S or equivalent)	
PIN NO.	OUTPUT
1,4	+V
2,3	-V

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

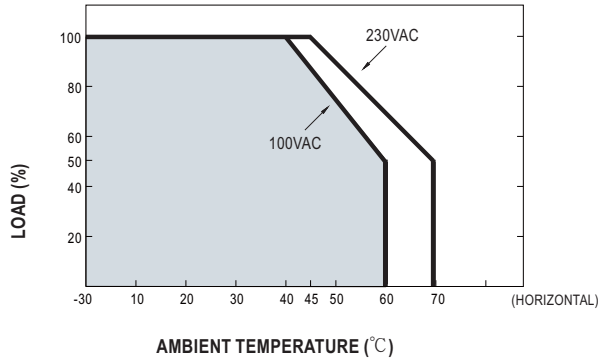
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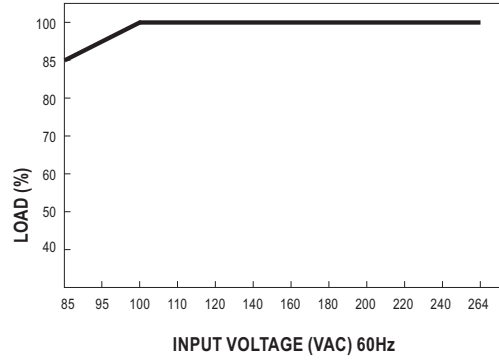
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■ Derating Curve



■ Static Characteristics



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Headquarter Switzerland:
Pewatron AG
Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
info@pewatron.com

Office Germany:
Pewatron Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87-0
info.de@pewatron.com



PEWATRON
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We are here for you. Addresses and Contacts.

Sales Germany & Austria

Postcode 00000 – 31999
Postcode 38000 – 39999
Postcode 80000 – 99999
Austria

Kurt Stritzelberger

Phone +49 89 260 52 80
Mobile +49 171 803 41 35

kurt.stritzelberger@pewatron.com

Postcode 32000 – 37999
Postcode 40000 – 79999

Gerhard Vetter

Phone +49 674 394 75 75
Mobile +49 163 762 74 30

gerhard.vetter@pewatron.com

Geometrical sensors
Sensor elements

Thorsten Ravagni

Phone +49 60 479 53 627

thorsten.ravagni@pewatron.com

Sales Switzerland & Liechtenstein

Postcode 3000 – 9999

Basil Frei

Phone +41 44 877 35 18
Mobile +41 76 279 37 26

basil.frei@pewatron.com

Postcode 1000 – 2999

Christian Mohrenstecher

Mobile +41 76 444 57 93

christian.mohrenstecher@pewatron.com

Sales International Key Accounts

Peter Felder

Phone +41 44 877 35 05
Mobile +41 79 406 49 83

peter.felder@pewatron.com

Sales Other Countries / Product Management

Pressure Sensors

Philipp Kistler
Phone +41 44 877 35 03
philipp.kistler@pewatron.com

Accelerometers / Level Flow sensor elements

Thorsten Ravagni
Phone +49 60 479 53 627
thorsten.ravagni@pewatron.com

Drive technology CH Postcode 5000 – 9999 / DE

Roman Homa
Mobile +41 76 444 00 86
roman.homa@pewatron.com

Gas sensors / Gas sensor modules Load cells

Dr. Thomas Clausen
Phone +41 44 877 35 13
thomas.clausen@pewatron.com

Power supplies

Sebastiano Leggio
Phone +41 44 877 35 06
sebastiano.leggio@pewatron.com

Drive technology CH Postcode 1000 – 4999 / AT / IT / FR

Christian Mohrenstecher
Mobile +41 76 444 57 93
christian.mohrenstecher@pewatron.com

Flow / Level / Medical products

Dr. Adriano Pittarelli
Phone +49 8245 774 95 44
adriano.pittarelli@pewatron.com

Linear position sensors Angle sensors

Eric Letsch
Phone +41 44 877 35 14
eric.letsch@pewatron.com

Current sensors Power solutions

Osman Coban
Phone +49 71 635 363 898
osman.coban@pewatron.com