



E-Star Power Development Co., Ltd. (E-STAR)
 1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City
 22069, Taiwan (R.O.C.)
 Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

220W Battery Charger Power supply > GC220



■ 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>0.90
- No load power consumption<1W
- 3 pole AC inlet IEC320-C14
- Class 1 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 / TUV / EAC / CB / FCC / CE
- 2 years warranty



(for GC220Axx-AD1 only)



TPTC004 IEC62368-1



ORDER NO.	OUTPUT CONNECTOR	SAFETY
GC220Axx-R7B (standard model)	4pin power din	TUV / CB / FCC / CE / EAC
GC220Axx-AD1 (optional model)	Anderson connector	UL / TUV / CB / FCC / CE / EAC
GC220Axx-□ xx=12,24,48 ; □=R7B,AD1		

SPECIFICATION

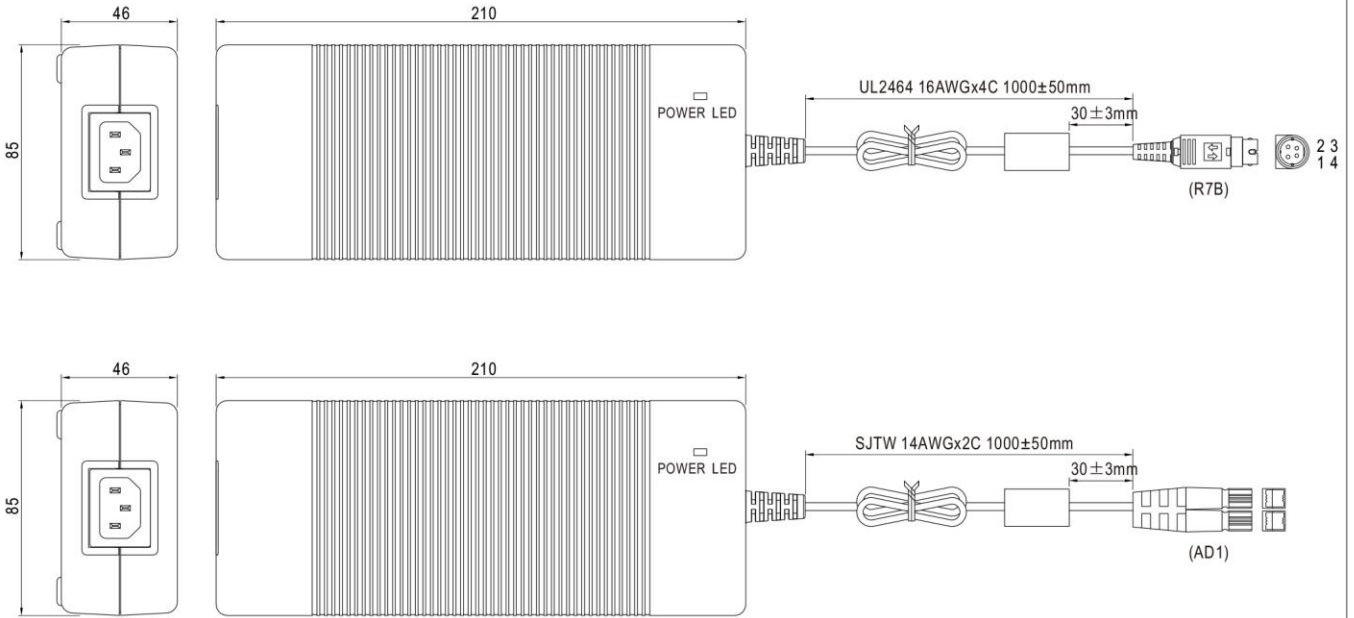
ORDER NO.	GC220A12-□	GC220A24-□	GC220A48-□	
OUTPUT	SAFETY MODEL NO.	GC220A12	GC220A24	GC220A48
	DC VOLTAGE (Typ.)	13.6V	27.2V	54.4V
	RECOMMENDED BATTERY CAPACITY <small>Note.3</small>	80 ~ 200Ah	40 ~ 125Ah	20 ~ 65Ah
	CONTINUOUS OUTPUT CURRENT (Typ.)	13.5A	8A	4A
	RATED POWER	183.6W	217.6W	217.6W
LED INDICATOR Charging(CC) : RED Floating charging(CV) : GREEN				
INPUT	VOLTAGE RANGE <small>Note.4</small>	90 ~ 264VAC 127 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.90 / 230VAC PF>0.98 / 115VAC at full load		
	EFFICIENCY (Typ.)	89%	92.5%	93%
	AC CURRENT	4A / 115VAC 2A / 230VAC		
	INRUSH CURRENT (max.)	120A / 230VAC		
	LEAKAGE CURRENT(max.)	1.5mA / 240VAC		
PROTECTION	OVERLOAD <small>Note.5</small>	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	95°C ± 10°C (TSW1) detect on heatsink of power transistor Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		
	ENVIRONMENT	WORKING TEMP.	-30 ~ +60°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 <small>(Note. 6)</small>	SAFETY STANDARDS	UL1012 (for GC220Axx-AD1 only), TUV EN62368-1, 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, EN61000-3-2,3, FCC PART 15 / CISPR22 class B, CAN ICES-3(B)-NMB-(B), EAC TP TC 020		
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A, EAC TP TC 020		
	MTBF	190Khrs min. MIL-HDBK-217F(25°C)		
	DIMENSION	210*85*46mm (L*W*H)		
CONNECTOR	PACKING	1.1Kg; 12pcs/14.2Kg/0.73CUFT(GC220Axx-R7B) 1.2Kg; 12pcs/15.4Kg/1CUFT(GC220Axx-AD1)		
	PLUG	See page 2 ; Other type available by customer requested		
NOTE	CABLE	See page 2 ; Other type available by customer requested		
	1. Modification for charger specification may be required for different battery specification. 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 as an independent unit, but the final equipment still need to re-confirm that whole system complies with the EMC directives. 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).			



220W Battery Charger Power supply > GC220

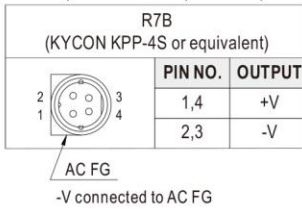
Mechanical Specification

Case No.961A Unit:mm

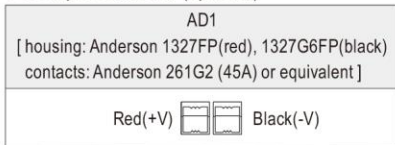


Plug Assignment

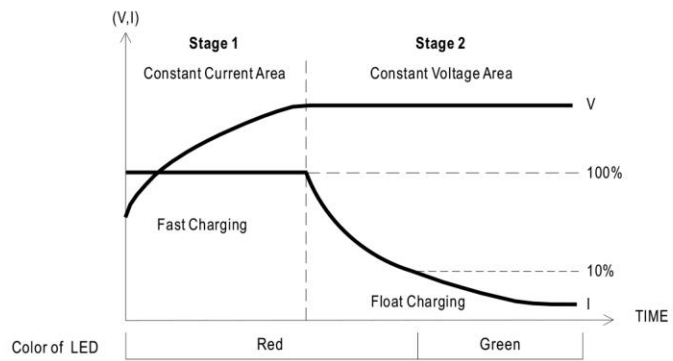
DC output connector (standard)



DC output connector (optional)



Charging Curve



Model	Suggested Battery capacity
GC220A12	80-200Ah
GC220A24	40-125Ah
GC220A48	20-65Ah

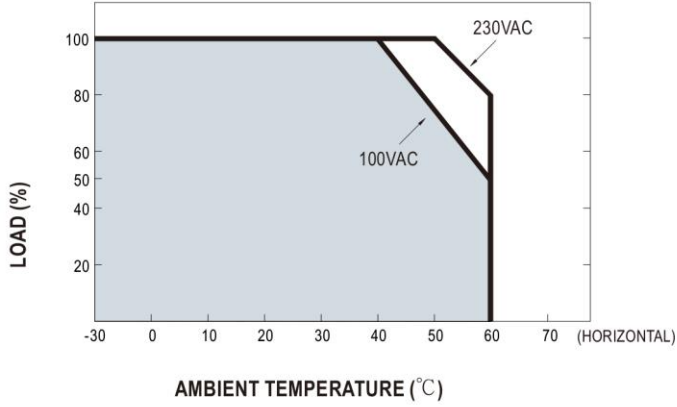
Suitable for lead-acid batteries (flooded, Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese)



E-Star Power Development Co., Ltd. (E-STAR)
1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City
22069, Taiwan (R.O.C.)
Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

220W Battery Charger Power supply > GC220

■ Derating Curve



■ Static Characteristics

