



# 16.8 ~ 30W AC-DC Power Adaptor with Charger Function

# GC30U series



### ■ Features :

- Charger for lead-acid batteries (flooded, Gel and AGM) and li-ion batteries (lithium iron and lithium manganese) (Note.1)
- Universal AC input / Full range
- With USA type 6FT power cord(2pin)
- Class II power (without earth pin)
- No load power consumption <1.0W
- Constant current and voltage(CC,CV mode)
- Suitable for continue load
- For high surge current equipment
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 2 colors LED indicate for charging status
- Fully enclosed plastic case
- High reliability
- Approvals: UL / CUL / CB / FCC / CE
- 2 years warranty



### SPECIFICATION

| ORDER NO.                 | GC30U-0P1J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | GC30U-1P1J                                                                                                                                                         | GC30U-11P1J | GC30U-2P1J | GC30U-4P1J | GC30U-5P1J   | GC30U-6P1J |              |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|--------------|------------|--------------|
| OUTPUT                    | SAFETY MODEL NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GC30U-0                                                                                                                                                            | GC30U-1     | GC30U-11   | GC30U-2    | GC30U-4      | GC30U-5    | GC30U-6      |
|                           | DC VOLTAGE SET AT <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4.2V                                                                                                                                                               | 5.6V        | 7.2V       | 8.4V       | 14.3V        | 16.8V      | 28.6V        |
|                           | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 4A                                                                                                                                                                 | 3.99A       | 3A         | 3A         | 2.09A        | 1.6A       | 1.04A        |
|                           | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0 ~ 4A                                                                                                                                                             | 0 ~ 3.99A   | 0 ~ 3A     | 0 ~ 3A     | 0 ~ 2.09A    | 0 ~ 1.6A   | 0 ~ 1.04A    |
|                           | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 16.8W                                                                                                                                                              | 22.38W      | 21.6W      | 25.2W      | 30W          | 27W        | 30W          |
|                           | RIPPLE & NOISE (max.) <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 50mVp-p                                                                                                                                                            | 50mVp-p     | 80mVp-p    | 80mVp-p    | 100mVp-p     | 100mVp-p   | 150mVp-p     |
|                           | CHARGING VOLTAGE RANGE <small>Note.5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.6 ~ 4.4V                                                                                                                                                         | 5 ~ 5.8V    | 6.5 ~ 7.5V | 7.7 ~ 8.6V | 13.5 ~ 14.5V | 16 ~ 17V   | 27.1 ~ 28.8V |
|                           | LINE REGULATION <small>Note.6</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ±1.0%                                                                                                                                                              | ±0.5%       | ±0.5%      | ±0.5%      | ±0.5%        | ±0.5%      | ±0.5%        |
|                           | LED INDICATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Green LED ON <150 ~ 200mA < Red LED ON                                                                                                                             |             |            |            |              |            |              |
| SETUP, RISE, HOLD UP TIME | 200ms, 50ms, 16ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                    |             |            |            |              |            |              |
| INPUT                     | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 90 ~ 264VAC 127 ~ 370VDC                                                                                                                                           |             |            |            |              |            |              |
|                           | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 47 ~ 63Hz                                                                                                                                                          |             |            |            |              |            |              |
|                           | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 55%                                                                                                                                                                | 70%         | 74%        | 76%        | 78%          | 78%        | 80%          |
|                           | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1A / 100VAC                                                                                                                                                        |             |            |            |              |            |              |
|                           | INRUSH CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 40A / 230VAC                                                                                                                                                       |             |            |            |              |            |              |
| LEAKAGE CURRENT(max.)     | 0.25mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                    |             |            |            |              |            |              |
| PROTECTION                | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 90 ~ 110% Constant current mode and over 300% pulsing mode<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed |             |            |            |              |            |              |
|                           | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 110 ~ 135% rated output voltage<br>Protection type : Clamp by zener diode                                                                                          |             |            |            |              |            |              |
|                           | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | IC1Tj130°C<br>Protection type : Shut down o/p voltage, recovers automatically after temperature goes down                                                          |             |            |            |              |            |              |
| ENVIRONMENT               | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0 ~ +50°C (Refer to output load derating curve)                                                                                                                    |             |            |            |              |            |              |
|                           | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 20% ~ 90% RH non-condensing                                                                                                                                        |             |            |            |              |            |              |
|                           | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -20 ~ +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              | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UL60950-1, CSA22.2 approved                                                                                                                                        |             |            |            |              |            |              |
|                           | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I/P-O/P:3KVAC                                                                                                                                                      |             |            |            |              |            |              |
|                           | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH                                                                                                                         |             |            |            |              |            |              |
|                           | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance to EN55014-1 class B, FCC part 15 Class B                                                                                                               |             |            |            |              |            |              |
|                           | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Compliance to EN61000-3-2,3                                                                                                                                        |             |            |            |              |            |              |
| OTHERS                    | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Compliance to EN61000-4-2,3,4,5,6,11, light industry level, criteria A                                                                                             |             |            |            |              |            |              |
|                           | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 108*67*36mm (L*W*H)                                                                                                                                                |             |            |            |              |            |              |
| CONNECTOR                 | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 405g; 36pcs / 16.5kg / CARTON                                                                                                                                      |             |            |            |              |            |              |
|                           | PLUG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type center positive for stock ; Other type available by customer requested                                     |             |            |            |              |            |              |
|                           | CABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Standard type 18Awg UL1185 6ft and 4ft for 4.2V~8.4V output only for stock ; 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.<br>2.All parameters are specified at 115VAC input, rated load, 25°C 70% RH ambient.<br>3.DC voltage: The output voltage set at point measure by plug terminal & 0% load.<br>4.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.<br>5.Output charging voltage range is measured from 0% to 100% rated load.<br>6.Line regulation is measured from low line to high line at rated load. |                                                                                                                                                                    |             |            |            |              |            |              |

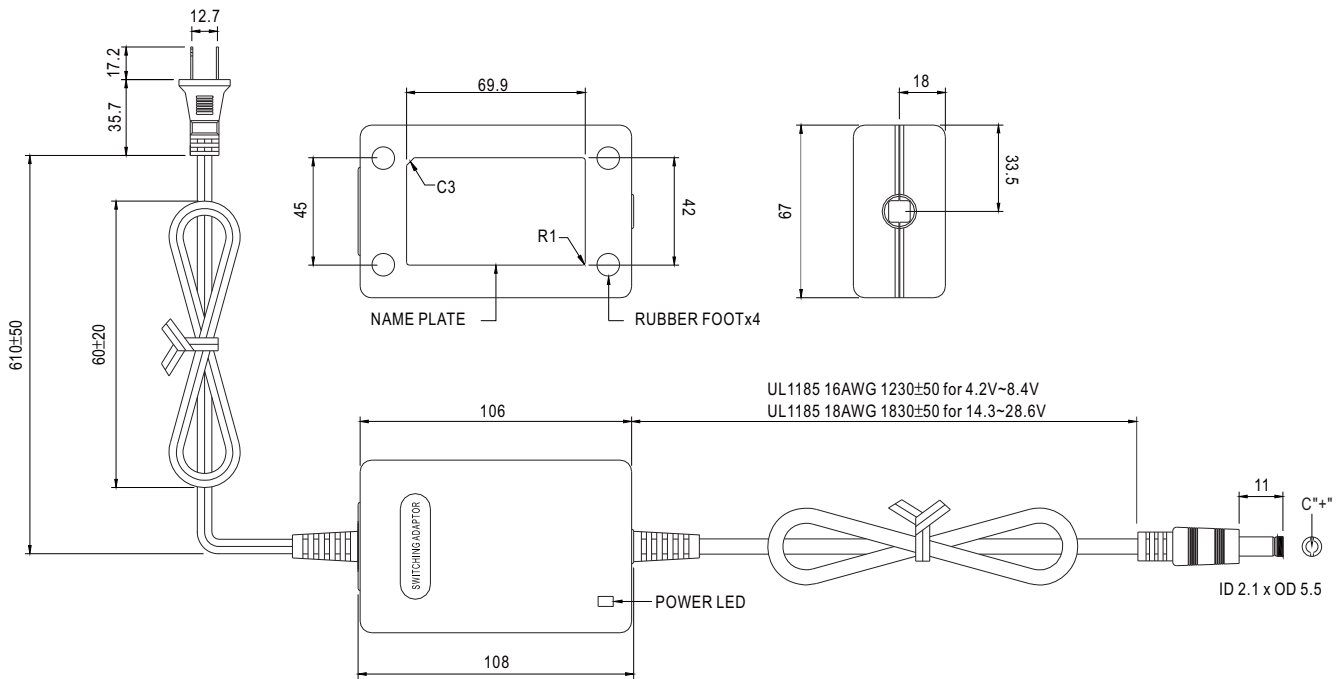
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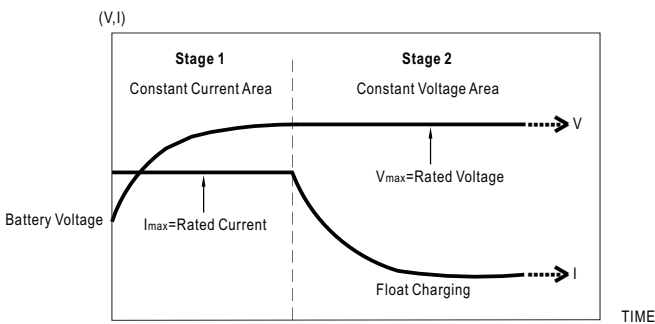
Note: all features are subject to change without notice.

**Mechanical Specification**

Unit:mm



**Charging Curve**



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

**LED Display**

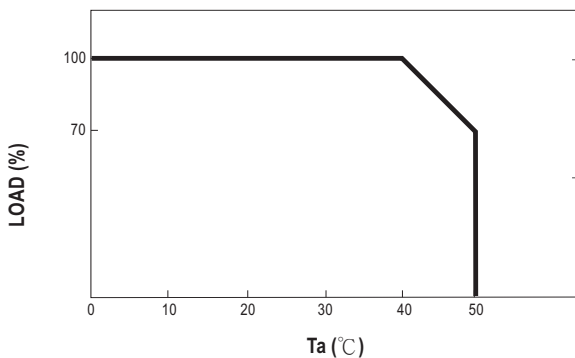
| LED Status | Load Condition |
|------------|----------------|
| Red        | Charging       |
| Green      | Float Charging |

**Plug Assignment**

Standard plug: P1J (option)

| P1J    |        |
|--------|--------|
| P/N    | OUTPUT |
| CENTER | +      |

**Derating Curve**



**Static Characteristics**

