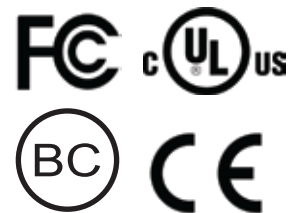


# 24V, 3.5A Lead Acid Battery Charger



## **Features**

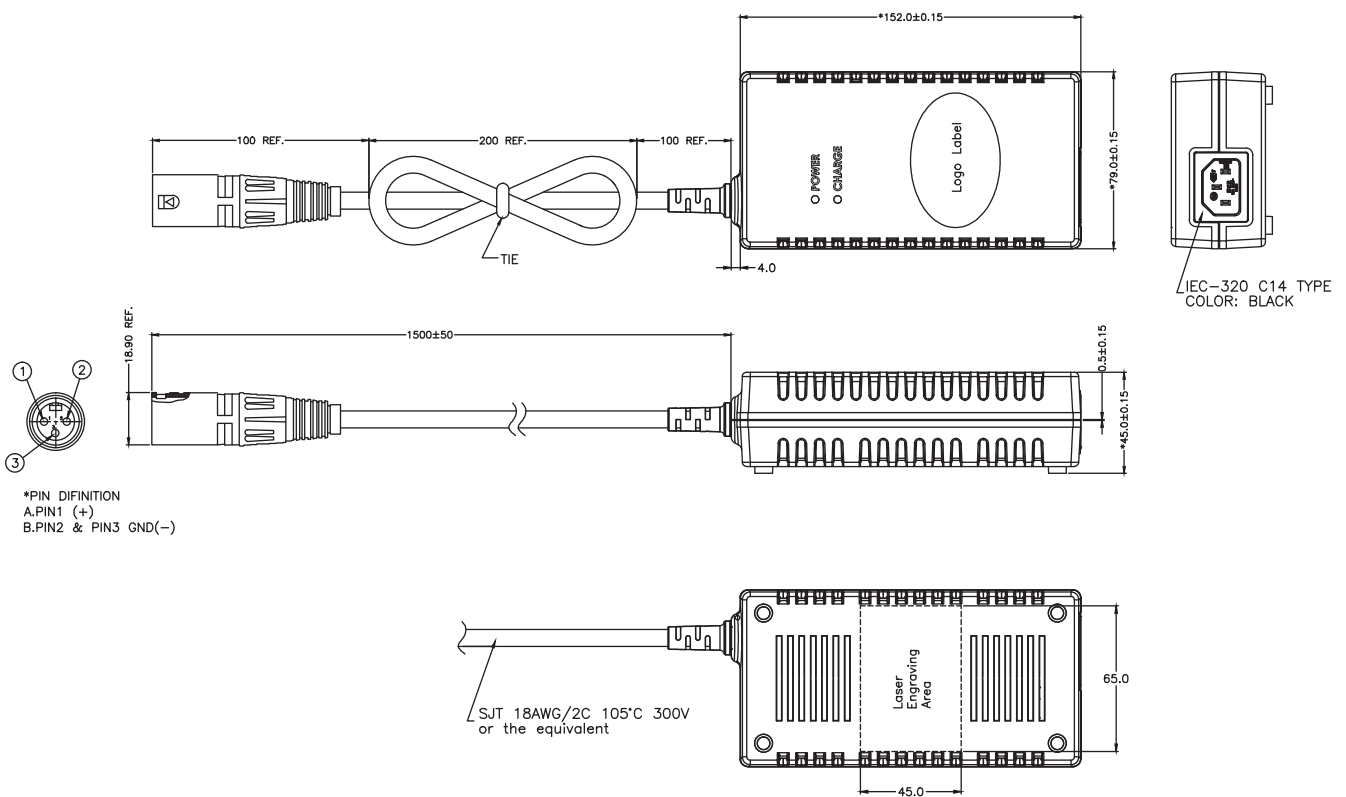
- *RESNA compliant*
- *CEC compliant*
- *LED indicators charge state*
- *OVP, OTP, SCP*
- *Charges AGM batteries*
- *Max 12hrs Charging Time*

## **Applications**

- *Power Wheelchairs*
- *Electric Motorcycle*
- *Mobility Scooters*

| Model name                         |  | DA84U-240A-R   |
|------------------------------------|--|--|
| Input                              | Input Rating   | 100 to 240VAC  |
|                                    | Input Current  | 2A(RMS)max for 115VAC; 1A(RMS)max for 230VAC                             |
|                                    | Frequency  | 47-63 Hz   |
|                                    | No Load Input Power                                  | ≤.21W at 230VAC  |
|                                    | Leakage Current                                      | <0.1mA max at 264VAC   |
|                                    | Inrush Current                                       | <150A max at 230VAC; <75A max at 115VAC(cold start at ambient 25°C)      |
|                                    | Hold-up Time   | 16mS at input voltage of 230VAC/60Hz, output load 84W max                |
| Output                             | DC Output Voltage                                    | 24V  |
|                                    | Bulk Mode Voltage                                    | 29.6V  |
|                                    | Float Mode Voltage                                   | 27.3V  |
|                                    | Charge Current                                       | 3.5A   |
|                                    | Ripple   | 240mV pk-pk @25°C <sup>(1)</sup>   |
|                                    | Efficiency   | 24V/3.5A efficiency ≥85% @25°C min. at 115Vac/60Hz and 230Vac/50Hz input |
|                                    | Over-Voltage Protection                              | 32V trip point. Output will remain off until power is recycled           |
|                                    | Over-Temp. Protection                                | Non-latching   |
|                                    | Short-Circuit Protection                             | The output can be shorted without damage                                 |
|                                    | Reverse Polarity Protection                          | Shall produce no more than 100mA of current or any damage                |
|                                    | Battery Over-Charge Protection                       | Charger time-out. No greater than 12hrs, for bulk/absorption charging    |
|                                    | Environmental  | Temperature  |
| Non-Operating -25°C to 70°C        |  |  |
| Humidity: 20% to 90% non-condensed |  |  |
| Emissions                          |  | Complies with FCC Part 15 Class B  |
|                                    |  | Complies with EN55014-1 and EN55014-2 Class B                            |
|                                    |  | Complies with EN61000-3-2 Class A  |
| Immunity                           |  | Complies with EN61000-3-3:2013   |
|                                    |  | EN61000-4-2:2008   |
|                                    |  | EN61000-4-3:2006+A1:2007+A2:2010   |
|                                    |  | EN61000-4-4:2012   |
|                                    | EN61000-4-5:2014+A1:2017                             |  |
|                                    | EN61000-4-6:2013                                     |  |
| Compliance                         | EN61000-4-8:2009                                     |  |
|                                    | EN61000-4-11:2004+A1:2017                            |  |
|                                    | ISO7176-21(RESNA)   CISPR 11: 2015<br>IEC 60529-IPX1 |  |
| General                            | Insulation Resistance                                | >100M Ohm minimum, 500VDC  |
|                                    | Hi-Pot Test  | Primary to Secondary:>3000VAC for 1min, 10mA                             |
|                                    | AC Input Connector                                   | IEC C14 inlet  |
|                                    | DC Output Cable                                      | SJT 18AWG Black; 1500mm±50mm   |
|                                    | DC Plug  | +24VDC(XLR connector):White, Pin1(connected to battery +)                |
|                                    | DC Plug Pin Assignment                               | RTN(XLR connector):Black, Pin 2, 3(connected to battery -)               |

|            |               |   |
|------------|---------------|---|
| Model name |               | DA84U-240A-R  |
| General    | LED Indicator | Blue LED: bulk mode or float charge(state of charge)  |
|            |               | Bulk mode ● <b>Blinking 2Hz</b> ● Green LED: Indicates charge on<br>Float mode ● ● Green LED: Indicates charge on |
| Outline    | L x W x H     | 152mm(5.98in) x 79mm(3.11in) x 45mm(1.77in)   |
|            | Weight        | 700g(1.54lbs)   |



Notes:

(1)This is performed by applying a 0.1μF ceramic capacitor and a 47μF low-ESR Electrolytic capacitor across the test point and oscillo- scope is setting 20MHz

**USA**  
+1-510-360-0100  
chargersales@phihongusa.com

**Taiwan**  
+886-3-327-7288  
phsales@phihong.com.tw

**Europe**  
+31-(0)-252-225910  
sales@phihongeu.com

**Japan**  
+81-3-5677-1678  
phsales@phihong.com.tw

**Supplier's Declaration of Conformity**  
**47 CFR § 2.1077 Compliance Information**

Phihong USA Corporation  
47800 Fremont Boulevard  
Fremont, CA 94538  
Telephone: (510) 445-0100  
[www.phihong.com](http://www.phihong.com)

NOTE: This model has/The models in this product series have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to equipment not expressly approved by PHIHONG could void the user's authority to operate the equipment.