



## **TP-BCxx-120**

### *Battery Charger User Guide*

- For use with **TP-BC12-120**, **TP-BC24-120** and **TP-BC48-120** Battery Chargers.

***Congratulations!*** on your purchase of the TP-BCxx-120 battery charger. Please take a moment to review this guide before installation.

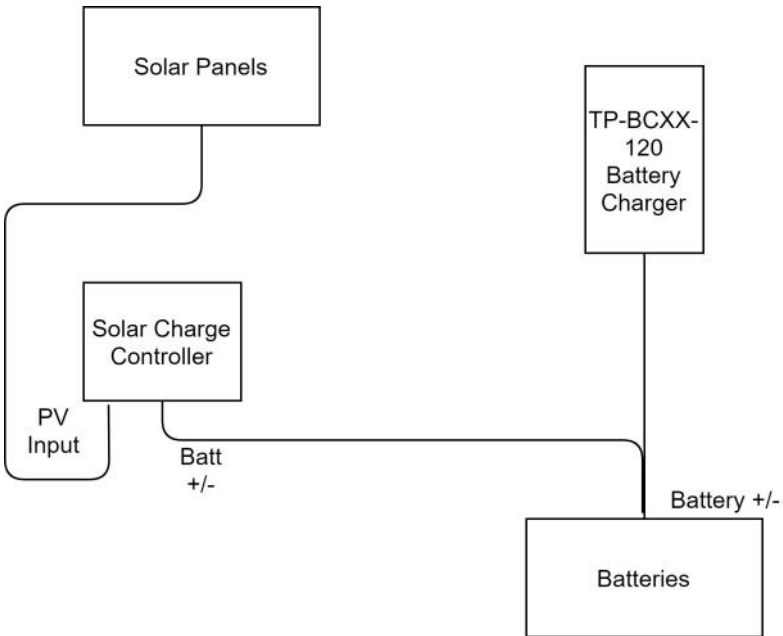


**Safety:** For your own protection, follow these safety rules.

- **Perform as many functions as possible on the ground**
- **Do not attempt to install on a rainy, windy or snowy day or if there is ice or snow accumulation at the install site or if the site is wet.**
- **Make sure there are no people, pets, etc. below when you are working on a roof or ladder.**

1. The TP-BCxx-120 battery chargers are available in 12V, 24V and 48V models.
2. The battery chargers can be connected directly to the battery but we recommend using a solar controller between the battery charger and the solar panel to more closely manage the battery charging.
3. The battery charger can be connected to the solar input of the solar charge controller in parallel with a solar panel to provide a dual power solution.

### Typical Application with Dual charging:



## Specifications:

	TP-BC12 -120	TP-BC24 -120	TP-BC48 -120
<b>Total Power Available (for Load and Battery charging)</b>	120W	120W	120W
<b>Nominal Battery Voltage</b>	12VDC	24VDC	48VDC
<b>Battery Charge Max Current</b>	8.3A	4.35A	2.15A
<b>Battery Charger Voltage</b>	14.4V	28.8V	57.6V
<b>Load Regulation</b>	5%		
<b>Line Regulation</b>	3%		
<b>Efficiency</b>	85% Minimum		
<b>Output Connector</b>	2 Wire ; 914mm (36") long cable		
<b>EMC Standards</b>	FCC Class B , NE55022 Class B		
<b>Safety Standards</b>	UL60950-1, CSA 22.2, TUV EN60950		
<b>AC Power Input (+-10%)</b>	120VAC / 240VAC , 50/60Hz		
<b>AC Input Current</b>	2.5A Max		
<b>HiPot Test</b>	3000VAC		
<b>Insulation Resistance</b>	50 MOhm, 500VDC		
<b>Operating Temperature</b>	-30 to +55C (22 to +131°F)		
<b>Operating Humidity (RH)</b>	Up to 90% (non condensing)		
<b>Storage Temperature</b>	-40 to +85°C (-40 to +185°F)		
<b>Storage Humidity</b>	Up to 90% (non-condensing)		
<b>MTBF (Mean Time Between Failure)</b>	>50,000 hrs		
<b>Dimensions (LxWxH)</b>	172 x 72.5 x 34.5mm ( 6.8 x 2.9 x 1.4")		
<b>Weight</b>	439g (15.5oz)		
<b>Warranty</b>	3 Years		

## **Limited Warranty**

The TyconSolar® products are supplied with a limited 36 month warranty which covers material and workmanship defects. This warranty does not cover the following:

- Parts requiring replacement due to improper installation, misuse, poor site conditions, faulty power, etc.
- Lightning or weather damage.
- Physical damage to the external & internal parts.
- Products that have been opened, altered, or defaced.
- Water damage for units that were not mounted according to user manual.
- Usage other than in accordance with instructions and the normal intended use.

## **NOTES**