



6-Bay Battery Charger for Li-Poly Batteries

Product Specifications

PBT-6BAY-01

Overview

This 6-Bay Battery Charger for Li-Poly Batteries is a customized charging station for Pliant rechargeable Li-Poly batteries. When ordering, reference Part Number PBT-6BAY-01.

Key Features

- Charge up to six PBT-LIP-01 batteries simultaneously
- Recharge batteries from empty in approximately 2.5 hours
- LED indicators provide real-time charge status
- Charger bottom designed for cable management
- Region-specific power cable (included)
- Non-Reflective, textured matte finish
- Full One-Year Parts and Labor Warranty

What's in the Box?

- PBT-6BAY-01 6-Bay Battery Charger
- PPS-RPC66-12V Power Supply
- PC-PWR-XX (Region Specific) AC Power Cord
- D0000148 Operating Guide

Tempest® TMA-BAT-02 (white label) batteries are not compatible with the PBT-6BAY-01 charger.

Specifications*

Input	
Voltage Range	90–264 VAC
Frequency Range	47–63 Hz
Input Current	0.3 A max
Standby Power	1.6 W max
Input Fuse	N/A

Output	
	Per Battery Bay
Voltage	0–4.2 V
Current	0–1 A
Power	4.2 W Maximum
Voltage Tolerance	± 0.5%
Current Tolerance	± 10%
Leakage Current	<1 mA
Ripple & Noise (3)	<120 mV pk-pk
Protection	Over current, Over temperature, Reverse polarity



PBT-6BAY-01 Battery Charger
(Batteries Not Included)

Environmental	
Cooling	Convection cooled
Operating Temperature	Supply: -30°C to 70°C (-22°F to 158°F); Battery Charging: 0°C to 60°C (32°F to 140°F)
Non-Operating Temperature	-40°C to 70°C (-40°F to 158°F)
Altitude	-382 m to 2000 m (-1,253 ft. to 6,562 ft.)

Mechanical Details	
Dimensions (Charger) (L×W×H)	168 × 81 × 53 mm (6.6 × 3.2 × 2.1 in.)
Weight (Charger)	270 g (.6 lb)
Dimensions (power supply) (L×W×H)	145 × 60 × 32 mm (5.7 × 2.4 × 1.2 in.)
Weight (power supply)	450 g (1 lb)

General	
AC Input Connector	IEC60320 C14 (3-in)
DC Input Connector	L712
DC Cable Length	1 m (3.3 ft.)
Efficiency (Level VI)	>89% at full load
Green Procurement	WEEE2002/96/EC
Indicator	Red-green bicolor LED per bay
Battery Temp Monitoring	Read TEMP register (0x07 – 0x06) of BQ27000 in battery pack
Charge Time from Empty	approx. 2.5 hours
PCB Visibility	< 0.5 mm (0.020 in.) around perimeter of battery-mating connector
RoHS COMPLIANCE	In compliance with the European Directive 2011/65/EC on the Restriction of Hazardous Substances (RoHS)

Specifications* Continued

Charge Phases and Indicators		
Current Phase	Description	LED Color
Pre-Charging	Reduced charge rate (temperature outside optimal range of 10°C – 45°C)	Blinking Amber
Charging	Normal (constant current constant voltage or "CCCV") charge mode	Solid Amber
Charge Complete	Battery is fully charged	Solid Green
Fault	No battery communication	Solid Red
Extreme Temperature	Over 60°C or under 0°C	Blink Red
Standby	No battery inserted	None (LEDs off)
Power On	Charger verification of power at power up	All device LEDs flash once Red , Amber , and Green in sequence
Waiting for Update	Device has successfully connected to CrewWare, but awaiting user action to proceed with firmware update	Blink Green
Firmware Update Failure	Device has successfully connected to CrewWare, but previous device update failed. Device recovery required via instructions in CrewWare.	None (LEDs off)
Update in Progress	Device firmware update in progress	Solid Amber

Charge Termination Methods	
Cutoff	Charge is terminated when the charge current is less than 63 mA at a charging voltage of 4.2 V
Temperature	Charge will not occur if below 0°C (32°F) or above 60°C (140°F)

Compliance	
Safety & EMC	
UL 62368-1:2019 Ed.3+R:22Oct2021	Safety
Emissions	
CISPR 32 / EN 55032	CB Scheme - Radiated and Conducted Emissions
AS/NZS CISPR 32, EN 55035:2017/A11:2020	Australia - Radiated and Conducted Emissions
VCCI CISPR 32:2016 EN 55032:2015	Japan - Radiated and Conducted Emissions
KS C 9832:2019	South Korea - Radiated and Conducted Emissions
IEC 61000-3-2:2018 Ed.5+A1	South Korea - Harmonics
IEC 61000-3-3:2013 Ed.3	South Korea - Flicker
FCC	
FCC47 CFR Part 15 Subpart B: Unintentional Radiators 2025	Nonintentional Radiated & Conducted Emissions, Class A limits
Supply Immunity	
EN 55035:2017/A11:2020/KS C 9835	South Korea - Immunity
IEC 61000-4-2:2008	Electrostatic discharge (ESD)
IEC 61000-4-3:2006/AMD2:2010	Radio-frequency electromagnetic field
IEC 61000-4-4:2012	Electrical fast transients/burst
IEC 61000-4-5:2014/AMD1:2017	Surges
IEC 61000-4-6:2013	Conducted high frequency disturbances
IEC 61000-4-8:2009	Power-frequency magnetic fields
IEC 61000-4-11:2020	Voltage variations, dips and interruptions

Notes

1. Ambient temperature $T_a = 20^\circ\text{C}$ unless otherwise indicated.
2. Load regulation is measured at the battery connector.
3. Measured with a 0.1µF ceramic capacitor and a 47µF Tantalum capacitor across the output terminals.
4. Total regulation tolerance includes initial set accuracy, line and load regulation.
5. Power losses of input and output cables are not considered here.
6. The rms method is used for leakage current measurements.

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* **Notice About Specifications:** While Pliant makes every attempt to maintain the accuracy of the information contained in this document, this information is subject to change without notice. Please check our website for the latest system specifications and certifications.

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