

# BCH300-500 SERIES ( 19in Rack Mount )

Battery Charger / Power Supply: 300 ~ 500 Watts



## Features

- 2U x 19in Rack Mount
- Convection cooled: No fans
- Two power levels: 300 & 500 watts
- Fully isolated input – output
- Over voltage protection
- Overload and short circuit protection
- MTBF > 150,000hrs
- Any output from 12vdc ~ 120vdc possible
- Power Fail / Charger Fail Alarm
- Battery Low Alarm
- Distribution / Battery Circuit Breakers - **Option**
- Digital Meters - **Option**

## Specifications

<b>Input Voltage</b>	230VAC ( 190 ~ 264 )
<b>Input Frequency</b>	47 ~ 63Hz
<b>Input Current</b>	BCH300 @ 2.8A, BCH500 @ 4.7A
<b>Input Protection</b>	Inrush current limiting Transient protection / Varistors Internal safety fuse
<b>Isolation</b>	Input – Output: 4300vdc Input - Chassis 2250vdc Output – Chassis 500vdc
<b>Efficiency</b>	Typically 80%
<b>Output voltage</b>	See table
<b>Output Power</b>	300 ~ 500 watts
<b>Voltage adjustment</b>	12V: 12-14V. 24V: 24-28V 48v: 48-56V 96v: 108-127V 108V: 108-127V
<b>EMC</b>	EN55022 Class A
<b>Immunity</b>	EN 61000-4-2 (ESD) EN 61000-4-3 (RF Immunity) EN 61000-4-4 (Fast Transients) EN 61000-4-6 (Conducted Imm.)
<b>Switching Freq.</b>	Typically 55KHz
<b>Output Diode</b>	Internally fitted output isolation diode
<b>Parallel operation</b>	Yes
<b>Regulation</b>	Line: ±1% Load: ±1.5%
<b>Output Ripple/Noise</b>	Typically <1% of output voltage
<b>Overload Protection</b>	Constant current limiting with short circuit protection. Battery must be externally fused.
<b>Thermal Protection</b>	Thermal shutdown with auto recovery, when unit cools down.
<b>Overvoltage Protection</b>	Yes. Recycle mains input to re-set
<b>Operating Temp.</b>	0°C to +50°C at full load. Derate 2.5% per °C to +70°C.
<b>Temperature Drift</b>	0.03% per °C over operating range

## Description

The **BCH300 & BCH500** series battery charger is a rugged, industrial-grade product, using field- proven design suitable for use in DC battery back-up applications.

It is a mature product providing excellent reliability and performance and delivering 300 / 500 watts of output power with convection/conduction cooling. ...NO Fans.

The two alarms provide external monitoring of Power Fail / Charger Fail and Battery Low via voltage free contacts.

Additional ruggedizing and conformal coating are available for applications requiring higher immunity to shock, vibration, humidity, moisture, dust and insects.

## Options

<b>TBC</b>	Temperature Battery Compensation Charging
<b>TIM</b>	Automatic Battery Testing
<b>Boost</b>	A variety of boost options
<b>CB</b>	Various Circuit Breaker options

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## Specifications Cont.

<b>Cooling</b>	Conduction / convention cooled.
<b>Shock &amp; Vibration</b>	IEC61373 Cat 1 A&B
<b>Humidity</b>	5-95% non-condensing
<b>MTBF</b>	>150,000hrs @ 45°C
<b>Indicator</b>	LED front panel
<b>Alarm Output</b>	<ul style="list-style-type: none"><li>• Power Fail / Charger Fail Alarm</li><li>• Low Battery Alarm</li></ul> Both Alarms are CLOSE FAIL with common return Low battery only operative if power / charger fails.
<b>Connections</b>	AC Input: IEC Socket & Power Cord DC Output: Screw Terminals Alarms: Screw Terminals
<b>Dimensions</b>	2U x 19in x 420mm Rack Mount
<b>Weight</b>	2.5 / 3.5kg

# BCH300-500 SERIES ( 19in Rack Mount )

Battery Chargers: 300 ~ 500 Watts

Model	Output			Power W
	Nom V	Float V	A	
RM-BCH300-14FT	12V	13.8V	20A	300W
RM-BCH300-28FT	24V	27.6V	11A	300W
RM-BCH300-55FT	48V	55.2V	5.5A	300W
RM-BCH300-110FT	96V	108.0V	2.5 A	300W
RM-BCH300-110FT	108V	124.0V	2.5A	300W

Notes:

1. For Digital Meters, change part no to: **RMM-BCH300-xxx**
2. 110V model adjustable for use on 96V or 108V nominal battery systems

Model	Output			Power W
	Nom V	Float V	A	
RM-BCH500-28FT	24V	27.6V	18A	500W
RM-BCH500-55FT	48V	55.2V	9A	500W
RM-BCH500-110FT	96V	108.0V	4.0A	500W
RM-BCH500-110FT	108V	124.0V	4.0A	500W

Notes:

1. For Digital Meters, change part no to: **RMM-BCH500-xxx**
2. 110V model adjustable for use on 96V or 108V nominal battery systems



**Fig 1:** Example of 2U x 19in Rack Mount model, with optional Digital Meters  
Dimensions: 2U x 19in x 420mm depth.

Rear panel Connections:

- IEC socket for mains AC Supply
- Screw terminals for DC Output ( Load & Battery )
- Screw terminals for Alarms