

CP Power & Automation Ltd

BCH Range

**12 & 24 VOLT Switch Mode Battery Charger with
Active Power Factor Correction**



Technical data

Model	BCH1240/4	BCH2420/4
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INPUT

Input voltage	90V AC – 270V AC	
Input frequency	47Hz to 63Hz	
Input current	8 Amps. max	8 Amps. max
Power Factor	>0.98 @ full load	>0.98 @ full load
Efficiency	>80% @ 230V AC	>80% @ 230V AC

OUTPUT

Float voltage	13.8V +/-0.01V DC	27.6V +/-0.02V DC
Boost voltage	14.4V +/- 0.1VDC	28.8V +/-0.2V DC
Boost – float changeover	When charging current drops to	
	8 Amps +/- 2 Amps	4 Amps +/- 1 Amp
Load regulation	< 0.4% (0 to full load)	
Line regulation	< 0.1% (90 – 270V AC)	
Charging current	40 Amps @ 12 Volts O/P	20 Amps @ 24 Volts O/P
100Hz ripple	< 0.6% RMS	
High frequency ripple	< 1% pk – pk (100kHz)	
High frequency noise	< 3% pk – pk (100kHz bandwidth)	

GENERAL

Ambient temperature range	-10°C to +55°C	
Cooling	Internal variable speed fan	Internal variable speed fan
Size : high(h) x wide(w) x deep(d) [mm]	275 x 213 x 86	275 x 213 x 86
Weight	3.8kg	3.8kg
Input connections	Standard IEC Inlet	Standard IEC Inlet
Output connections	2 Pairs of M6 studs	2 Pairs of M6 studs
	Remote voltage sensing of positive output. (Optional use)	
	Remote battery temperature sensing (optional part no PTS1)	
Temperature compensation	If the PTS1 sensor is fitted, the output voltage reduces above 28°C at a rate of -3.7mV / cell / degreeC	

PROTECTION

Reversed Battery	Blows an internal replaceable fuse	
Over-temperature	Unit shuts down if internal heatsink temperature exceeds the normal maximum level. Automatic re-start.	
Over-voltage	Unit shuts down if the output voltage exceeds the normal maximum level. Automatic re-start.	
Under-voltage	If the battery voltage is less than 5 volts, the average current reduces to approx. 10 amps	If the battery voltage is less than 10 volts, the average current reduces to approx. 5 amps
Over-charge	After 4 hrs at boost voltage, the output is switched to the float voltage regardless of charging current	

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