r Conversion Solutions Power Conversion Solutions

Two or three stage charging profiles

Adjustable float voltage



BCD315 DC SOURCE BATTERY CHARGER

Isolated BCD series chargers feature precision charging voltages for 1, 2 or 3 banks of batteries at 12, 24, 32, 36, 48 or 72(rail) volts DC. Models are available to operate from input voltages as low as 10 VDC and up to 400 VDC at power levels from 300 to 1500 watts.

All models feature user selectable 2-stage or 3-stage charging profiles, temperature compensation and user initiated battery equalization for optimum charging and maximum battery life. Full isolation allows different ground levels to be accommodated (i.e. Charging a positive ground battery from a negative ground source or vice-versa).

Available models

Input

12V 24V 32V 48V 72V (rail)

Output

12V 24V 32V 48V

Applications













BCD315 | DC SOURCE BATTERY CHARGER

INPUT

Nominal (ip)	12	24	36	48	72 (rail)
Actual (Vac)	11-16	20-35	30-45	40-60	65-90
Input Amps (max)	30	18.7	12.5	9.4	5.7
Input Fuse (MDA)	20 x 2	25	20	15	10
Noise on Input	< 25 mV				

OUTPUT

Output Nominal (op)	12	24	36	48
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	40.8	54.4 ± 0.05
Absorption Voltage (Vdc)	14.4	28.8	43.2	57.6
Charging Amps	20	10	6.7	5
Absorption to Float	3.0 Amps	1.5 Amps	1.0 Amps	0.75 Amps
Output Adjustment (Vdc)		± 1.0 V		
Output Fuses (AGC)	25	15	10	7
Battery Banks		One or two		
Battery Size (Amp Hrs)	80 - 120	40 - 60	50 - 80	20 - 30
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	48.0 ± 2.0V	64.0 ± 2.0V
Output Ripple & Noise		< 25 mV		
Regulation (Line & Load)		< +/- 0.5%		
Temperature Compensation Coefficient	-30 mV/°C	-45 mV/°C	-60 mV/°C	-120 mV/°C
Duty Cycle	Continuous 100% for 24 hours per day			
Efficiency	> 75% @ Maximum Output			
Stages	2 or 3 (user selectable)			

MECHANICAL

Dimensions	9.6 in / 24.4 cm Long x 8.2 in / 20.8 cm Wide x 3.5 in / 8.9 cm High
Clearance	1.0 in / 2.5 cm all around
Weight	7.5 lb / 3.4 kg
Material and Finish	Marine Grade Black Anodized Aluminum
Mounting	Wall or Shelf Mount
Connections	Four contact output terminal

OPTIONS

COTS - MIL-STD-461F and MIL-STD-810G In-house test & report

MIL-STD-461F Stand alone test & report

MIL-STD-810G Stand alone test & report

European ROHS compliant (Lead Free Manufactured)

Electric Fork Lift (Filtering and surge suppression)

Military Rugged Package with MIL Connectors

Open frame (No chassis, just heat sink bars)

Portable (Carrying handle, rubber feet)

Safety Special Inspection (CSA/UL)

Integrated Digital Volt/Ammeter

IP66 or IP67 Water Resistant Chassis

Heavy duty ruggedization with wide temperature range

Custom input/output available

ENVIRONMENTAL AND SAFETY

Operating Temperature Range	-25°C to +40°C @ maximum output. Derate Linearly 2.5% per °C from 40°C (Optional -40°C wide temperature range available)
Humidity	0 - 95% Relative Humidity (non-condensing) with standard conformal coating
Audible Noise	NONE 0db @ 3ft
Typical Service Life	> 10 years (87,600 hrs)
Isolation	Input-Case, Input-Output and Output-Case 1500 VDC
Warranty	Three years parts and labor









