

BCD301 Series DC Battery Equalizer



A product of:



Benefits

- Ultra-Quiet
- Convection cooled, no noisy fan
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Applications

- Marine
- Heavy Equipment
- Trucking
- RV
- Military
- Equalize any 24V Battery System

Battery Equalizers

BCD301 Series

Description

The BCD301-24-12 is a Battery Equalizer that safely permits 12 Volts to be drawn of a 24V Battery bank. The unit is connected across the 24V battery bank, and its output is connected to the 12V midpoint of the battery bank. 12 Volt loads may now be connected to the lower battery, and providing the average load is less than the output capacity of the Battery Equalizer, both batteries will be maintained at the correct voltage. The BCD301-24-12 has a capacity of 25 amps. Units can be connected in parallel for even greater capacity.

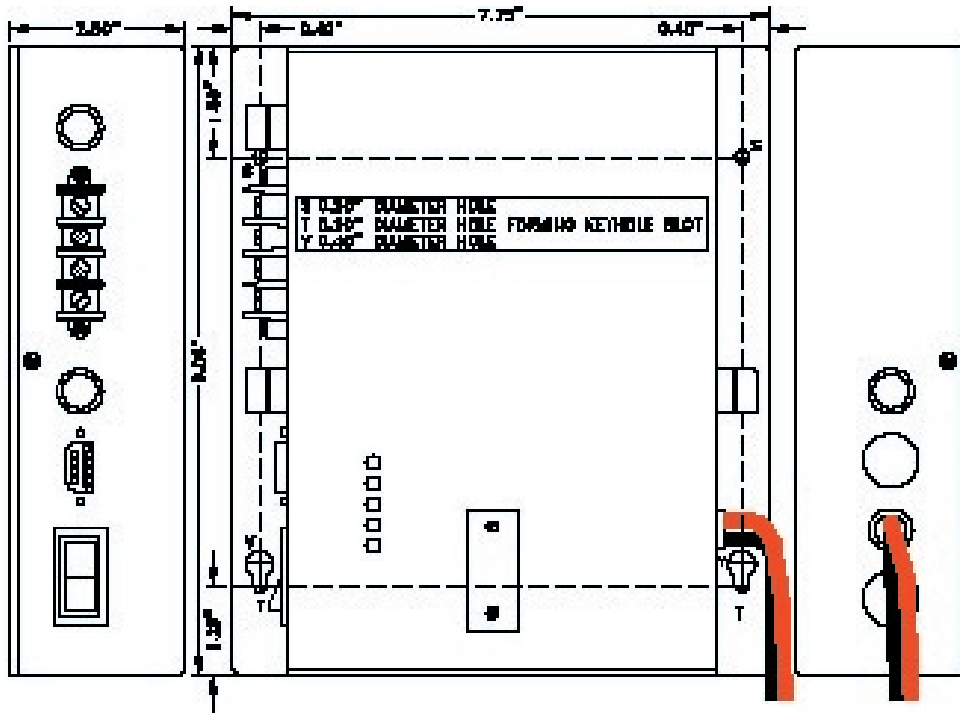
The way that these units work is that the output is set to exactly $\frac{1}{2}$ of the input voltage. Then as the load on the lower battery is applied, the unit takes current from the upper battery and feeds it to the lower battery to keep each at exactly $\frac{1}{2}$ of the total voltage. The units are compatible with all 24V battery chargers and alternators.

Available options include a remote control and/or extra-wide temperature. We are confident that you will get many years of reliable service from this Battery Equalizer.

Features

- Maintains voltage across both 12V batteries in a 24 volt bank and permits 12V loads to be applied to the lower battery.
- Audible & visual indicators for constant current, low input voltage, low output voltage & over-temperature
- Ultra-quiet low EMI operation
- Reverse input protection
- Current limiting
- Short circuit protection
- Output overvoltage crowbar
- Over-temperature shutdown
- Can be left permanently connected
- Dry contact output fail relay
- Remote control option
- Spark-free connection
- Wide-Temperature operation Available
- Conformal coating and/or harsh environment ruggedization available
- 2 years parts and labour warranty

Mechanical Diagram



Specifications (Specifications Subject to Change Without Notice)

Electrical (Input)

Model Number	BCD301-24-12
Input Volts (DC)	20 – 30
Input Amps (max)	15
Input Fuse (AGC)	20A
Noise on Input	< 10 mV
Low Input Voltage Alarm	21.0 V

Environmental Specifications

Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C extra wide-temp. operation avail.)
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Any Input or Output to Case 500 VDC Input to Output – Common Negative

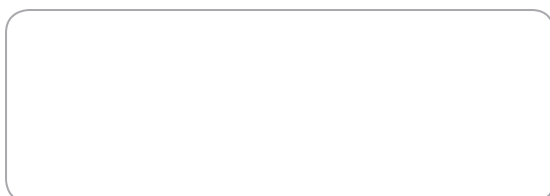
Electrical (Output)

Output Nominal (op)	12
Output Volts (DC)	Input Volts / 2 ± 0.05 V
Charging Amps	25
Output Crowbar	16.0 ± 0.5V
Output Fuse (AGC)	30A x 2
Output Ripple & Noise	< 10 mV
Battery Banks	1
Stages	2
Regulation (Line & Load)	< +/- 0.5%
Duty Cycle	Continuous 100% for 24 hours per day
Efficiency	> 85% @ Maximum Output

Mechanical Specifications

Length	9.1 in / 23.1 cm
Width	7.8 in / 19.8 cm
Height	2.5 in / 6.4 cm
Material	Marine Grade Aluminium
Finish	Black Anodize / Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	4.0 lb / 1.8 kg
Connections	#10 AWG Input Wires (Positive & Negative) Four contact output terminal
Warranty	2 years

Available from:



RIPEnergy

The power conversion company

RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

Ph +41-(0)43-818 53 85
Fax +41-(0)43-818 53 87
www.ripenergy.ch