

ANALYTIC SYSTEMS

Power Conversion Solutions

DC BATTERY EQUALIZERS MODEL BCD601 SERIES

Description

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The BCD601–24–12 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 BCD601–24–12 has a capacity of 50 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.

Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Design 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 overload, 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
- 3 year parts and labour warranty

Applications

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

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

DC BATTERY EQUALIZERS

MODEL BCD601 SERIES

Note AmericaBCD001-24-12Input Molts (DC)21-30Input Amer Inval30Input Fase (AGC)2 x 25ANoles on Input2 10 mVLaw Input Vollage Alem21 UVElectrical Output10Output Moninal (Da)12Output Moninal (Da)10 mVDarge Alem20 DS VOutput Moninal (Da)16 D e D SVOutput Moninal (Da)30 A zOutput Moninal (Da)10 M V VOutput Moninal (Da)10 M V VOutput Moninal (Da)10 D SVOutput Moninal (Da)10 D SVOutput Moninal (Da)30 A zOutput Moninal (Da)2 D M V VOutput Moninal (Da)30 A zOutput Moninal (Da)2 D M V VOutput Moninal (Da)2 D M V VBattery Banis1Stages2Regulation (Line & Load)< -/t O SMOutput Moninal (Da)2 S M A M Annum OutputEnvironment Specification-/t O SM A D M Annum OutputEnvironment Specification-/t O SM A D M Annum OutputAudide NoiseNONE GAM & 31 MAudide NoiseNONE GAM & 31 MAudide NoiseNONE GAM & 31 MAudide NoiseNONE GAM & 31 MHoutin Stage S S Relative HumidityMoles I Irin3 J In / 73 t nmAudide NoiseNone Code AluminiumMoles I IrinBiel Annum Power Fipun (CarlMoles I IrinBiel Annum Power Fipun (CarlMoles I IrinBiel Annum Power Fipun (CarlMoles I I	Electrical (Input)	
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Input Fuse (AGC)2 x 25ANoise on Input< 10 mV	Input Volts (DC)	20 – 30
Noise on Input < 10 mV	Input Amps (max)	30
Low Input Voltage Alam 21.0 V Electrical (Output) 12 Output Volta (DC) Input Volta / 2 ± 0.05 V Clarging Amps 50 Output Volta / 2 ± 0.05 V Output Volta / 2 ± 0.05 V Output Crowbar 16.0 ± 0.5 V Output Rise (AGC) 30.4 × 2 Output Rise (AGC) Continuous 100% for 24 hours per day Elficiency > 85% Maximum Output Environment Specification 25% for 40°C @ maximum output Operating Temp. Range -25% for 40°C @ maximum output Operating Temp. Range -25% for 40°C @ maximum output Operating Temp. Range -25% for 40°C @ maximum output Operating Temp. Range -25% for 40°C @ maximum output Output To Specification -25% for 40°C @ maximum output Munditly 0 - 95% Relatime Humiditly (man-econdensing) with optional continual coating Audible Noise NOVE Gale @ 3.1 Natible Noise NOVE Gale @ 3.1 Notaci NOVE Gale @ 3.1 Isolation Any Input o Output to Case 500 VDC Isolation An	Input Fuse (AGC)	2 x 25A
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Output Fuse (AGC) 30A x 2 Output Ripple & Noise < 10 mV	Charging Amps	50
Output Ripple & Noise < 10 mV	Output Crowbar	16.0 ± 0.5V
Battery Banks 1 Stages 2 Regulation (Line & Load) < 4/- 0.5%	Output Fuse (AGC)	30A x 2
Stages 2 Regulation (Line & Load) < 4/- 0.5%	Output Ripple & Noise	< 10 mV
Regulation (Line & Load) <4/- 0.5%	Battery Banks	1
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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.)Humidity0 - 95% Relative Humidity (non-condensing) with optional conformal coatingAudible NoiseNONE Ødb @ 3 ftTypical Service Life> 10 yrs. (87,600 hrs)IsolationAny Input or Output to Case 500 VDC Input to Output - Common NegativeMechanical Specification9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight4.3 in / 10.8 cmMaterialMarine Grade AluminiumFinishBlack Anodize / Powder Epoxy CoatFasteningsAll 18-8 Stainless SteelWeight6.0 lb / 2.7 kgConnectionsFour contact output terminalWarranty3 years	Efficiency	> 85% @ Maximum Output
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FasteningsAll 18-8 Stainless SteelWeight6.0 lb / 2.7 kgConnectionsFour contact output terminalWarranty3 years	Material	Marine Grade Aluminium
Weight6.0 lb / 2.7 kgConnectionsFour contact output terminalWarranty3 years	Finish	Black Anodize / Powder Epoxy Coat
Connections Four contact output terminal Warranty 3 years	Fastenings	All 18-8 Stainless Steel
Warranty 3 years	Weight	6.0 lb / 2.7 kg
	Connections	Four contact output terminal
Safety Designed to meet CSA 22.2.107.1 & UL458	Warranty	3 years
	Safety	Designed to meet CSA 22.2.107.1 & UL458

Note: Specifications are subject to change without notice.



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