# Battery Equalizer User Manual

## MODEL: VE-BE24



#### APPLICATION

The VE-BE24 battery equalizer is used for multiple 12V batteries which are connected in series to equalize the battery voltage. The equalizer is suitable for LiFePO4, Gel and AGM Lead Acid batteries.

When two or more series-connected batteries are in charging, discharging or free status, voltage differences may occur. This means that one battery voltage is high and the other low. The battery equalizer will equalize/balance the battery voltage when it detects a difference of 20mV between the two batteries. It will shunt current from the high voltage battery to the low voltage battery until the voltage is almost balanced. This process will improve the performance and extend the life time of the batteries.

The VE-BE24 battery equalizer can be used for 24V, 36V, 48V and any other N\*12V battery system.

- I Battery Equalizer for 24V system;
- 2 Battery Equalizers for 36V system;
- ✓ 3 Battery Equalizers or I VE-BE48 Battery Equalizer for 48V system;

#### TECHNICAL DATA

Battery nominal voltage	2 * I2V	
Optimizing current	0-5A	
Quiescent current	< 3mA	
Dimensions	70 * 70 * 27 mm	
Protection	Reverse polarity protection	
Low Voltage Disconnect	10V	

#### LED INDICATOR

	LED A	LED B
U(A) = U(B)	Off	Off
U(A) > U(B)	Flash	Off
$U(A) \leq U(B)$	Off	Flash
U(A) < 10V	On	Off
U(B) < 10V	Off	On
U(A/B) < 10V	On	On

✓ Etc.

#### INSTALLATION

Please connect the battery equalizer to battery as follows; (please check the pictures)

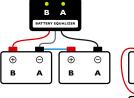
- ∼ Red cable: Battery B positive /+ pole
- ➤ Black cable: Battery A negative /- pole
- White cable: Battery B negative pole or Battery A positive pole. (The pole which connected Battery A and Battery B in series)
- → Blue cable:

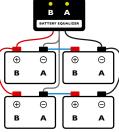
#### CONNECTION

- ↓ Figure I
  - 24V battery bank of 2 batteries

### ↓ Figure 2

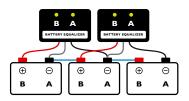
24V battery bank of 4 batteries





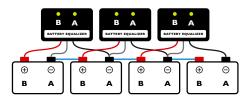
#### ↓ Figure 3

36V battery bank



↓ Figure 4

48V battery bank



#### **Voltium Energy**

Zaagmolen 4 4751 VL Oud-Gastel Nederland

www.voltiumenergy.com

