PRODUCT MANUAL

BALANSER AKU PROTECT 48V

Equalizer/Balanser
for
AGM, GEL, LiFePO4
batteries



VOLT POLSKA

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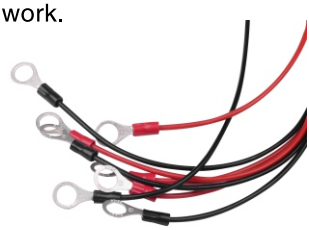
BALANSER AKU PROTECT 48V

Balanser AKU PROTECT 48V is used for the batteries which are connected in series to keep the voltage of batteries are equal when the batteries are charging or discharging. When the batteries work in series connection, the batteries voltage maybe will be not same due to the difference of each cell chemical composition and temperature. And each battery's self-discharge rate also different. So even the batteries not work, their voltage of series batteries will be also different. These differences will cause battery lost balance, this means maybe one battery is overloaded and the other is insufficiently charged. The voltage difference will be increased with the battery repeated charge-discharge process. This will result in premature failure of the batteries.



Balanser Aku Protect 48V energy transfer type equalizer, it can compensate for batteries with two sides. The equalizer starts to work when there are 10mV between two batteries. The current will flow from a higher voltage to low voltage,eventually reach equilibrium. It can connect with batteriy system with 24 hours , to keep the system energy balance automatically, no need manual maintenance.

Balanser Aku Protect 48V is dedicated to AGM, GEL and LiFePO4 batteries.
It starts work when the voltage higher than 2.4V,
it means that this equalier can be used in a single cell battery range from 2.4V to 12V. One equalizer can connect 4 batteries once a time, if battery less than the 4, the extra cable can be vacant (positive and negative terminal should be avoided), does not affect the equilibrium effects. The equalizer is not affected with battery connection way, no matter in series or in parallel, both can work.



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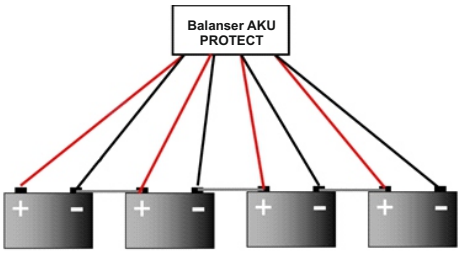
Technical data:

Battery nominal voltage	4*(2.4V/3.6V/6V/9V/12V)
Optimizing current	0-10A
Quiescent current	5mA(12V) 1.2mA(2.4)
Low Voltage Disconnect	1.8V
Protection	Reverse polarity protection
Dimensions	62x124x27mm
Weight	400g

Connect it as the following order:

1.Red cable connect positive/+ pole. Black cable connect negative/- pole
2.Connect the batteries as the pictures (connected in any order)
3.If there are extra cables, avoid short circuits.

*Figure 1: 4*12V battery bank*



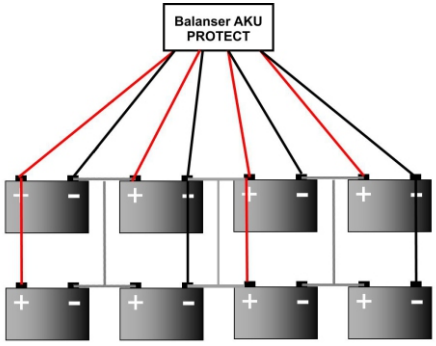


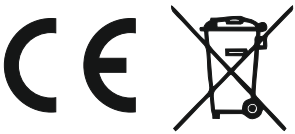
Figure 2: Multiples sets of batteries

WARRANTY CARD

DATE OF PURCHASE	
SHIPPING ADDRESS	
SIGNATURE / STAMP	
DAMAGE DESCRIPTION	
SERVICE COMMENTS	

FILL IN IF NEEDEED
(*) Cross incorrect
I agree to pay the cost of inverter repair due to:
* expiration of the warranty period / * warranty void

Before proceeding with the repair, service will inform by phone about the exact costs of the repair.
Please attach a copy of the purchase document (receipt or invoice) to the complaint.
The full regulations of service repairs can be found on our website www.voltpolska.pl



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