

# BATTERY CHARGING BALANCER

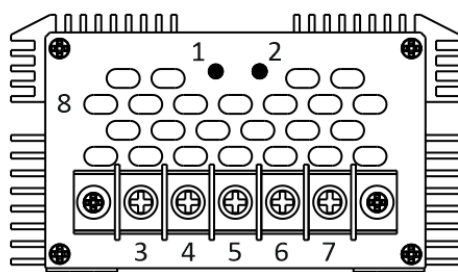
## BL-10 24VDC



supply voltage:	15 ÷ 30VDC
balanced voltage range:	18 ÷ 30VDC
maximum balancing current:	10A
overload protection:	11A
fuse:	15A
thermal protection:	70°C
current consumption without load:	13mA
output interference:	< 50mV
input interference:	< 50mV
operating temperature range:	-25 to 50°C
load capacity of the alarm connector:	2A
efficiency:	92%
cooling:	activ
pinouts:	5x M4 screw terminal
case:	aluminum
IP level:	IP21
dimensions (length x width x height):	150 x 95 x 55 [mm]
weight:	0.5 kg
EAN:	5903699340035

A charging balancer, also commonly called a voltage equalizer, is a device used to maintain the same voltage level of 12V batteries connected in series. Thanks to this, individual batteries in the system are protected against overcharging, which may lead to excessive gassing, as well as against uneven discharge, which may lead to sulphation, which in both cases may result in permanent damage to the batteries. The principle of operation is to independently measure the voltages of two 12V batteries connected to a 24V bank, determine the midpoint of such a series of batteries and transfer energy from the higher voltage battery to the lower voltage battery. Thanks to the high current efficiency of the BL series balancers, they are suitable for use with both small batteries (40Ah) and large capacity ones (200Ah). If there is a need to build a power bank with a voltage higher than 24 V from 12V batteries, a larger number of batteries and balancers should be connected in series in the following system:

- 36V - 3 batteries 2 balancers
- 48V - 4 batteries 3 balancers



- 1 - LED indicator
- 2 - LED indicator
- 3 - 24V (of the battery)
- 4 - 12V (of the battery)
- 5 - GND (of the battery)
- 6 - „Alarm” pin
- 7 - „Alarm” pin
- 8 - ventilation holes