



Battery monitor and equalizer

Battery Guard Kit

Battery Guard Devices

For the new battery bank of 24Vdc or 48Vdc which is composed by several batteries, minor difference of internal leakage current will cause undercharge or overcharge of parallel or series connected batteries. The frequent encountered Partial Stage of Charge (PSoC) makes this situation even worse, as the result of rare opportunity to fully charge the battery.

Battery Guard equalizes each battery individually and, in the meantime, monitors the real time voltage and temperature of each battery unit. The SoC difference will be ironed out during charging.

Taking an example of 48Vdc battery bank composed of 4 units of 12V battery in series connection, when voltage of one unit is higher than the others and meantime the average voltage of each unit is higher than 13V, the BGK module connected to this unit will be triggered. The BGK will draw a current of up to 200mA from the battery (or parallel connected batteries) with the higher voltage. This will help all batteries in series/parallel connection to have the same stage of charge.

Working with TBB inverter or system monitor, BGK can improve battery life span, with alarm for over voltage and under voltage of individual battery. It will send real time data to TBB inverter or central monitor. There is a LCD display on each module as well showing voltage and temperature.

Model No.	BGK-12	BGK-02
Voltage range (V)	11.5~17	1.9~3
Maximum equalization current (mA)	200	1000
Alarm trigger high level (mV)	250	50
Alarm trigger low level (mV)	100	20
Maximum module number (pcs)	4	24
Over voltage alarm	Yes	
Over temperature alarm	Yes	

Others

Display	Digital tube+LED
Communication port	RS485
Dimension (mm)	85*85*35
Operating temperature	-25°C ~ +60°C
Humidity (non condensing)	95%
Weigh (kg)	0.2
Protection category	IP22
Cooling	Natural Cooling

Standards

Safety regulation	EN60950
Emission, Immunity	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN55014-1, EN55014-2