

Battery Equalizer

Enhance your battery life

Complete control over the charging process for longer Battery life

When you use multiple batteries in any of the systems, after some time the battery voltage of all the cells varies. This happens due to ageing, temperature and charging through the inverter/UPS. These batteries connected in series and when put on charging may behave differently depending on the charge conditions. This results in batteries with higher charge may get over charge while the battery which is undercharge may never get completely charge.

Our battery equalizer, equalizes battery voltage of all the attached battery. This ensures that all batteries are at the same level which is very important for the life and performance of the batteries.

Why Equalizer ?

- The Equalizer is a direction circuit which balances the voltage between two or more Individual batteries connected in series during charge, discharge and idle periods
- The Equalizer prevents severe under and over voltage so common in series connections Which can compromise the performance reliability and life of battery systems,
- Equalized batteries are able to receive full clean charge increasing battery Pack power, capacity and life therefore supporting your mission much better,

Applications

- Telecom
- Banks
- Aviation Industry
- UPS & Inverter Application
- Marine

SALIENT FEATURES

- Active equalization technique based on flash micro-controller
- Reduces the battery replacement which again greatly reduces the cost
- Easy to install with batteries connected in series
- Suitable for N numbers of batteries by utilizing multiple units together
- Appropriate for Gel, Sealed and AGM Lead Acid batteries
- Works with conventional flooded lead acid batteries and SMF batteries
- Extends battery life and run time
- Prevents over and under charge due to battery imbalance

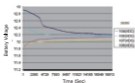


- Series strings of storage batteries are used quite commonly with UPS, Inverter, Telecom SMPS Power Plants etc.
- When this series string is charged as a unit, slight mismatches or temp differences cause charge imbalance in the form of unequal voltages amongst the batteries.
- Once imbalance occurs, it tends to grow with time. Low voltage batteries charge less effectively and high voltage batteries charge relatively faster.
- One needs to ensure that if different batteries are at different voltage/power levels, then balancing is done to get maximum power, better efficiency & life from batteries.
- Battery equalization is to correct this imbalance.
- The Equalizer is a bi-directional circuit which balances the voltage between two or more individual batteries connected in series charge, discharge and idle periods.
- The Equalizer prevents severe under and over voltage, common in series connections, which can compromise the performance, reliability, and life of the battery system.
- Equalized batteries are able to receive a full, clean charge, increasing battery capacity and life, supporting your mission much better.
- Single equalizer can be used for at least 2 numbers of batteries and maximum for 4 numbers of batteries connected in series.
- Two equalizer units can be used for a maximum 7 numbers of batteries connected in series.
- Three equalizer units can be used for a maximum for 10 numbers of batteries connected in series.
- N equalizer units can be used for a maximum $(3N+1)$ numbers of batteries connected in series.

EQUALIZER SPECIFICATIONS

Nominal Battery Voltage	12V
Maximum Equalization Current	4A
Current Limit	< Max Equalization Current
Quiescent Current Draw	< 25mA @ 48V DC (1.2W/v)
Operating Temperature	-5°C ~ +50°C
Storage Temperature	-5°C ~ +65°C
Safety	Reverse Polarity Protection (through fuse)
Dimensions	135mm x 115mm x 60mm
	7.25" x 4.54" x 1.1" (36V, 48V)
Weight	0.46 Kg
Patents	Patents Filed

Graph shows that 4 batteries with unequal voltage levels connected in series are reaching the same voltage level when an equalizer is connected.



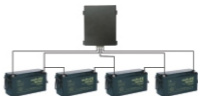
Sector Award 2004-07 for "Hybrid Equalizer" in Consumer Goods, Awarded from Govt. of India



Su-Kam Power Systems for Hybrid Equalizer Award from Ministry Innovation Foundation



Award Award for Quality products 2005



Connection Diagram showing four batteries being equalized by battery equalizer

GLOBAL CERTIFICATIONS:

ISO 9001 : 2000
ISO 14001:2004



Su-Kam