

2 STAGE 40A SOLAR CHARGE REGULATOR

BEFBR2/40

The Benbro BEFBR2/40 is a 2 array stage solar charge regulator which is suitable for 12V, 24V and 48V systems.

It provides a temperature compensated multi mode charge regime and is complete with Low Voltage load disconnect capability and alarm output contacts.

The display provides visual indication of the system status including system Voltage, current, temperature, AH logging and alarm status.

The regulator is housed in a compact IP54 plastic enclosure and is suitable for cable of up to 16mm². The system Voltage is user configurable and is suitable for positive or negative earth systems.

The regulator is also equipped with a genset start/stop relay output and indicator.

The Battery Voltage is measured using separate sense cables with reverse polarity protection and all inputs are fitted with transient protection.



SPECIFICATIONS

Nominal System Voltage (Link Select)	12, 24, 36 & 48Volts Positive or Negative earth
Ambient Temperature and Humidity Range	0-50°C Temperature 0-95% Relative Humidity
Maximum Array Current	40 Amps DC @ 12, 24V 30 Amps DC @ 35, 48V
Max Load Current (Through LVD Relay)	15 Amps DC @ 12, 24V 10 Amps DC @ 36, 48V
Form of Regulation	Boost, Equalise & Float charge modes
Earthing	Suitable for Positive or Negative Earth
Load disconnect alarm	Red LED
High Voltage alarm	Red LED
Low Voltage Alarm	Yellow LED and N/O contact, (can start/stop a Genset)
Regulation Status indication	ON Indicates Float Mode
(Green LED in the Battery symbol)	Flashing Indicates Equalisation Mode
	OFF Indicates Boost Mode
Boost Charge Regulation Point @20°C	2.5V/cell returns to float after 30 minutes (2.40V)
Float Charge Regulation Point @20°C	2.4V/cell (2.3V) returns to boost at 2.2V (2.10V)
Equalisation Period	30 Minutes (then returns to float mode)
Battery Temp sensor (external optional)	Minus 4mV per °C per Cell (internal standard)
Four Terminal Voltage Sense	Included as standard using separate battery sense cables

Metering (Press button on Panel)	Battery Voltage
	Array Current
	Array AH (since last reset)
	Load Current
	Load AH (since last reset)
	Net Battery Current
	Net Battery AH (since last reset)
	Battery Temperature
Current Shunt inputs	Load 50mV 100A or 50A Solar 50mV 50A
Reverse polarity protection	Included
Quiescent current consumption	240mA @12V, 140mA@24V, 120mA@36V, 80mA@48V
Dimensions	155mm(H) x 140mm(W) x 83mm(D)
Weight	600g