

## Model MECH OBCS

Online Battery Charger for solar panel input

### Applications

- Systems requiring Uninterruptable DC power, using an alternate energy source, typically solar
- Electronic equipment requiring isolated DC power not subject to disturbances or disruptions
- Supervisory Control & Data Acquisition (SCADA) RTUs and communication equipment
- Battery charger for 12V SMF batteries from 1-80 Ah with on-line load
- Redundant charging option using a solar panel to back up long term AC power outages
- Process metering and billing equipment requiring continuous power for measurement integration

### Features

- MECH OBCS delivers 8 A of output current at 12VDC
- Versatile charger input ranges 12-20 VDC.
- Charge level monitor provides an indication of the battery charge, battery low on LED.
- Power failure indication on LED with potential free contact.
- Reverse polarity indication for output.
- Output over load protection.
- Over voltage protection for Input and Output.



### Description

The model MECH OBCS is designed to deliver power line isolated uninterruptable power for precision instrumentation systems using an alternate energy source, such as solar panel. Alternate power sources are ideal for low power instrumentation systems at remote monitoring sites where commercial power lines are not available. Most of the alternate energy sources can be directly connected to the charger input. The MECH OBCS will operate in harsh environments, and has unique capabilities for remote power system monitoring, a cost saving feature for remote system installations.

The primary function of the MECH OBCS is to maintain a SMF battery in a temperature compensated floating fully charged state. When maintained in this state, SMF batteries can have a useful life of many years. Battery life decreases with repeated discharge cycles and increasing depth of discharge. The most common alternate energy source, the photovoltaic panel, provides durinal charging. Therefore, the objective is to size the battery and load so that only a minor portion of the battery capacity is consumed overnight, avoiding deep discharges. The MECH OBCS charges the battery as efficiently as possible while the charge input is active, without overcharging the battery. Overcharging will drastically reduce battery life.

When the alternate power source is not producing power, the external equipment draws energy from the battery. When input power is restored, the battery charges at the appropriate rate until it is completely charged, at which time the charger switches to the float mode.



**Specifications**

Input Power:	Charger input	12-20 VDC Solar
Battery:	Type	SMF (Not included)
	Support Cap.	20-80 A-h.
	Protections	Reverse polarity
connection	Battery U/V	Automatic
load Disconnect	Connection	Screw clamp
wire terminal	Wirw size	28-14 AWG
Charging Rate:	20-80 A-h cap.	Regulated to 4A.
Outputs:	12 Vdc .	
terminal	Connections	Screw clamp wire
	Wire size	28-14 AWG
voltage	Protection	Over
Ground Conn.	Earth	Through M- 6 screw
Indicators:	LEDs	Battery charging Battery low
Mechanical:	Material	CRCA / Alluminium
	finish(Paint)	RAL 7032
	Dimensions	438X280X132mm.
	Weight	0.5Kg. (9 Lbs)
Environmental:	Temperature	-20° to 60° C
	Relative Humidity	0 to 90 %.

**Ordering Information**

**Basic Model**

Model No.	Description
OBCS_1210	Online Battery Charger, Solar input

**Available Accessories**

Part code	Description
RB_12-65	Sealed Maintenance free 12 v Rechargeable Battery W/ Cable.



**MECHATRONICS**  
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