24 Volts 30 Amp Solar Management Unit - Technical Specifications

iDB Power SMU2430 is a complete unit used for adding Solar charge capability to existing domestic UPS installation along with configurable energy saver mode. If Energy saver mode is ON in that case when battery is fully charged and surplus solar power is available, the SMU transfers the load from mains grid to solar energy. If solar energy supplied from the PV panels is not sufficient to support the complete load, the balance energy will be drawn from battery storage. If battery reaches a preset threshold due to higher discharge, the SMU will transfer the load back to grid. If Energy saver mode is OFF then SMU will not transfer load on solar. It kept the battery charged as well as Solar and Grid is available. Energy saver function can be selected as ON or OFF mode.

Product Features

- High Efficiency PWM Type Solar charge controller.
- LCD Display for Battery Voltage, PV Current, Total Solar Energy supplied in kWh.
- Menu Selection of various parameters.
- Configurable Energy Saver Mode.
- Automatic selection of 12 V or 24 V battery bus at the time of installation.
- 3 Stage intelligent Charge Profile (Bulk, Absorption, Float) to enhance Battery Life.
- Adaptive charge control linked to battery Depth of Discharge to ensure good recharge.
- PV Reverse Polarity Electronic Protection with LED Indication.
- Battery Reverse Polarity Electronic Protection with LED Indication.
- Battery High and Low voltage Protection.
- PV Over-Current and Reverse-Current Protection.
- Lightning Surge Protected Solar Input.
- High rated Relay and MOSFETS for good long term reliability and efficiency.
- Auto fault bypass for user convenience

PV Panel Max Current	30A
PV Rating Max (Recommended)	500W / 1000W
PV OCV Max	25V / 50V
Efficiency	>96%
Idle Current	<20mA
Battery Absorption Charge Voltage	28.4V ± 0.2V(Default), User Configurable(13.9-15.9V)
Battery Float Charge Voltage	27.2V ± 0.2V(Default), User Configurable(13.1 V – 14.3V)
Battery Low Indication Voltage	20.6V ± 0.2V
Absorption Time	Variable, based on Depth of Discharge
Grid disconnect from Inverter	After Battery goes to Float Charge mode and PV Energy available
Grid Reconnect to Inverter	12.7V / 25.4V (default), User Configurable(11.0V-13.1V)