

# INTELLIGENT SOLAR MANAGEMENT UNIT



SPEARHEADING

## SOLAR TECHNOLOGY REVOLUTION

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**AFFORDABLE**

**CREDIBLE**

**RELIABLE**

**ENVIRONMENT FRIENDLY**

Intelligent Solar Management (I-SMU) can convert your simple inverter into solar inverter. I-SMU ensures priority usage of solar power to reduce grid consumption. It continuously monitors the solar energy availability and battery charging status. If solar current is higher than the load requirement, the extra current is drawn from SPV and fed into the batteries for charging. If the solar power is less than the load requirement, extra balance current is drawn from the batteries. The batteries will discharge slowly in the case, when battery reaches to about 80% of its value, the I-SMU will connect mains to the inverter.

### FEATURES

- I-SMU is based on advanced microprocessor design to optimize operation processes.
- Inbuilt PWM Technology Charge Controller with zero drop High efficiency and automatic operation.
- Helps in reducing AC grid electricity units consumed by the customer.
- Increase the battery lifetime.
- Solar prioritization over grid power with intelligent shadow management.
- Easy to install/maintain system that work with existing domestic inverter.
- It gives preference to Solar PV charging.

### PROTECTIONS

- Battery undercharge/over charge
- Battery reverse polarity
- Battery reverse current
- SPV reverse polarity
- Solar low voltage
- Solar high voltage



### i-SMU TECHNICAL SPECIFICATIONS\*

#### General

Model	SMU12/24/36/48/72/96/120/180/192
Operating Temperature	0°C to 60°C
Storage Temperature	-20°C to 60°C
Battery Type	Tubular
Battery (Ah)	100Ah-220Ah
Battery Charging Regulation Method	4 Stage PWM (Bulk/Absorption/Float/Equalize)

#### Electrical

Nominal System Voltage	12V-180V DC
Charger Controller Capacity	40A/50A/60A
Charger Controller Efficiency	>90%
Idle Consumption	<20mA
Max. Solar Current	40A/50A/60A By Default
Efficiency	>90%

#### Battery set point 25°C

Absorption Voltage Tubular Battery	14.2V ± 2% Each Battery
Absorption Duration	3hrs
Float Voltage Tubular Battery	14V ± 2% Each Battery
Bulk Voltage Tubular Battery	14.6V ± 2% Each Battery
Equalize Voltage	14.9V ± 2% Each Battery
Mains Connect When Solar Not Present	At Any Battery Voltage
Mains Disconnect When Sufficient Solar Power For Tubular	>13.8 ± 2% Each Battery
Mains Reconnect When Insufficient Solar Power	<11.8 ± 2% Each Battery

\* Specifications may change due to continuous R&D

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