



MAKE YOUR INVERTER
A SMART SOLAR PCU



SOLAR MANAGEMENT UNIT (SMU)

FEATURES

- High speed and high performance micro-controller.
- High reliability with longer operational life.
- Inbuilt protection to avoid battery undercharge and over-charge.
- Inbuilt PWM Technology Charge Controller.
- Automatic Voltage selection for 12V or 24V.
- Solar Prioritization. Compact design with Wall Mounting.
- Eco friendly.
- Transient and Surge Protection.

General	
Model	SMU401224
Operating temperature	0°C to 60°C
Storage temperature	-20°C to 60°C
Battery Type	Tubular/SMF, Battery 12V/24V
Battery (Ah)	100Ah - 180Ah
Battery charging regulation method	4 Stage PWM (Bulk/Absorption/Float/Equalize)
Solar Module size (Max)	12V, 20A : Upto 300 W
	24V, 20A : Upto 500 W
	12V, 40A : Upto 500 W
	24V, 40A : Upto 1000 W
Electrical	
Nominal system Voltage	12/24V DC
Charging current (Solar)	40A/20A
Charge controller efficiency	>95%
Idle consumption	<20mA
Operating Solar input Voltage(Voc)	22.5V/45V
Max. Solar input Voltage(Voc) +2V	25V/45V
Min. Solar input Voltage(Voc) @ start-up	15V/30V ± 2%
Solar panel recovery Voltage	17V/32V ± 2%
Max. Solar Current	40A By Default
Efficiency	> 95%
Battery set points @ 25°C	
Absorption voltage Tubular Battery	14.2V/28.4V ± 2%
Absorption voltage SMF Battery	13.7V/27.4V ± 2%
Absorption Duration	3hr
Float Voltage Tubular Battery	14V/28V ± 2%
Float Voltage SMF Battery	13.5V/27.0V ± 2%
Bulk Voltage Tubular Battery	14.6V/29.2V ± 2%
Equalize Voltage	14.9V/29.8V ± 2%
Equalize Duration	3hr
Equalize calendar	28 days
Mains connect when Solar not present	At any Batt. Voltage
Mains disconnect when sufficient Solar Power For Tubular	≥ 13.8V/27.6V ± 2%
Mains disconnect when sufficient Solar Power For SMF	13.7V/27.4V ± 2%
Mains reconnect when insufficient Solar Power	≤ 11.8V/23.6V ± 2%
Display Parameters	
1. Batt. Voltage, Batt. Current, Batt. Type	1. Battery Reverse Polarity
2. Solar Voltage, Solar Current	2. Batt. Reverse Current
3. Mode Selection	3. Over Current of SPV
4. Solar Status: High, Low, Overload, Overheat	4. Solar High Voltage
5. Saving- kWh	5. SPV Reverse Polarity
6. Mains Present, low, High, Absent	6. Load Short Circuit through AC Fuse
7. Max. PV Current	7. Solar Low Voltage
	8. Over Temperature
Physical	
Ingress Protection	IP-20
Fixing	Wall Mounted

*Specification are subject to change without prior notice due to constant improvement in design & technology.