



USER MANUAL



SALIENT FEATURES

- Less No load current
- Great Power Saving upto 30%
- System efficiency more then 88%*
- Backup time is more than 12 to 15%
- Silent operation and Pure Sine Wave Output
- Battery Charging at very low voltage till 90V
- Compatible with all type of batteries (LA/SMF/ TUB/Li-Ion)
- Changeover time less than 10ms (for UPS application)
- Triple protection (Overload, Short Circuit and Wiring Fault)
- SMPS based battery charger increase Battery Life up to 40%
- Independent charger feature charge that battery when battery is deep discharged



PRODUCT SPECIFICATION

MODEL - 2500 HOME UPS WITH INBUILT LITHIUM BATTERY / 24V

Model Name	Everon 2500
Mains Input mode	
Mains AC low cut UPS mode	175VAC $\pm$ 10VAC
Mains AC low cut recovery UPS mode	185VAC $\pm$ 10VAC
Mains AC high cut UPS mode	265VAC $\pm$ 10VAC
Mains AC high cut recovery UPS mode	255VAC $\pm$ 10VAC
Mains AC low cut WUPS mode	90VAC $\pm$ 10VAC
Mains AC low cut recovery W. UPS mode	110VAC $\pm$ 10VAC
Mains AC high cut WUPS mode	295VAC $\pm$ 10VAC
Mains AC high cut recovery W. UPS mode	285VAC $\pm$ 10VAC
Input Frequency Range	48Hz to 52Hz
Voltage Output in Mains Mode	Same as input
Frequency Output in Mains Mode	Same as input
Battery	
Battery Type	LI-ION
DC input voltage	24V
Battery Quantity 24V 100Ah Li-ION	1
Boost charging voltage for Li-ION Battery	28V $\pm$ 0.2V
Battery deep Discharge Recovery	Yes (Independent Charger to Recover Deep Discharge Battery)
Charging Current at Li-ION Battery	20A $\pm$ 2 AMP
Backup Mode	
Output voltage	220VAC $\pm$ 5% -10% (until battery low alarm)
Output frequency	50Hz $\pm$ 0.2 Hz
Output waveform	Pure Sine Wave $\leq$ 5% THD
Discharging current @ full load	72 $\pm$ 3A
Low Battery Warning	21.6V $\pm$ 0.2V
Low Battery Cut	20.8V $\pm$ 0.2V
Change over time UPS mode	< 10msec
Change over time WUPS mode	< 25msec
Protections	
Overload in backup mode	Yes provided, system will indicate on display at 101% load
Short Circuit in Backup Mode	System will shutdown after 3 - retries in case of output short circuit
Short Circuit in Mains Mode	Mains MCB will trip
Back feed	System will shutdown in case of back feed and there is no retry
Over temperature	Yes provided, if heat sink temperature goes above 100°C System will shut down
Reverse Battery	DC fuse will blown
Phase to Phase protection in mains mode	Yes provided by electronic
Battery High Protection	Yes provided by Firmware
Battery Capacity**	100Ah
Display and Alarms	
LCD Initial Display	Welcome to smarten world, System Capacity, Charging Till 90VAC and Deep Discharge Battery, System Setting, UPS / WUPS mode, I/P range 90-295VAC / 170-265VAC, Battery Type Selected LA / SMF / Tubular/Li-ION, Battery Capacity Selected 100-135Ah / 150-200Ah,
LCD Status Display	Mains ON, Input Voltage, Input Frequency, Battery Voltage, Battery Charging, Battery Charged, Charging Current, Backup Mode, UPS ON, UPS OFF, Battery Voltage, Load %, Output Voltage, Output Frequency, Mains Low Cut, Mains High Cut, Mains Not Available, Mains Frequency Cut
Buzzer	Audible beep for Overload, Short Circuit, Back feed, Low Battery, Over Temperature, Mains Fuse blown / MCB Trip
Safety	
HV Test Input to Earth	Leakage current <5mA when 1.5kV applied for 1 min
HV Test Output to Earth	Leakage current <5mA when 1.5kV applied for 1 min
Weight and Dimensions	
Dimensions in mm	
Weight (Kg)	
Definition	
* This option is enabled only for the LA/SMF/TUB batteries	
** This option is enabled only for the Li-Ion Batteries	

TERMS OF THE PRODUCT WARRANTY

24 Months Smarten products (12V - 48V) and 24 Months on High Capacity products (48V- 180V) is provided in an effort to improve service and peace-of-mind to end users of SMARTEN products. All SMARTEN authorized Dealers and Distributors are required to complete a SMARTEN Warranty Card in the event of a claim, at which point SMARTEN will either (a) replace or repair any products or parts of the product during the Warranty Period or (b) the original cost of the SMARTEN products, proven defective in design or manufacturing, will be refunded. SMARTEN will not be obligated to fulfill on a warranty claim, if all or any of the following is true:

- "Warranty Card" is not returned to Distributor/Dealer of SMARTEN.
- Product is modified, the design is changed or parts are replaced by an unauthorized party not pre-approved by SMARTEN to specifically do so.
- Modifications, changes, or attempted repairs are made or serial numbers/seals/ certification marks are erased by an unauthorized technician not pre-approved by Smarten to specifically do so; warranty is on all parts except LED/LCD, Switches and Body etc.)
- Incorrect installation of commissioning.
- Failure to observe the applicable safety regulations (VDE standards, etc).
- The Product has been improperly stored or was damaged while in possession of the Dealers or end users.
- A claim to cover transportation damage or scratches caused by shipping Company must be filed with insurance company when containers are unload and enough evidence is gathered to support the claim.
- Failure to observe and follow guidelines in the user manual, installation guide, and maintenance regulations.
- Incorrect use or inappropriate operation.
- Insufficient ventilation of the device.
- Substandard maintenance and service procedures.
- Force majeure (e.g., lighting, over voltage, storm, fire).

WARRANTY CARD

Product Barcode / Product Serial No. _____

Customer Name _____

Address _____

Contact No. _____ City _____ Pin _____ State _____

Model _____ Date of Purchase _____

Name of Dealer _____

Address of Dealer _____

Dealer Signature with Stamp



SMARTEN®
FUSION IS THE FUTURE



HOME UPS

SOLAR PCU (MPPT & PWM)

MPPT HYBRID SOLAR PCU

ON-GRID SOLAR INVERTER

LITHIUM & TUBULAR BATTERY

EV CHARGERS

SOLAR PANELS

SOLAR CHARGE CONTROLLER

SOLAR KITS & ACCESSORIES

SMARTEN POWER SYSTEMS LTD.

Plot No. 374, Pace City-II, Sector-37, Gurgaon - 122001, Haryana, India
Email: info@smartenpowersystems.com • www.smartenpowersystems.com