SOLAR ONLINE UPS

Atlas Series
Rating: 5kVA ~ 600kVA
Phase: 1-1, 3-1 & 3-3 Ph

Answering All Power Needs

www.enertechups.com

EnerTech
Answering All Power Needs

30 Years Experience In Manufacturing And Development In Cutting Edge Inverter And Converter Technology.

ABOUT ENERTECH

Enertech® UPS Pvt. Ltd. is a leading fast moving Indian multinational manufacturing company, providing the next generation technology products solutions for the Renewable and Power sectors.

We provide a comprehensive wide range of power management solutions including Solar hybrid Inverter, Solar UPS, Online UPS, Industrial UPS, Industrial Battery Charger, Static Frequency Converter.

With the in-house R&D setup Enertech strive for constant success in leveraging technological innovation with next generation patented technology solutions.

Enertech® with its head quarter at Pune was established in the year 1989. All operations are at Sigma Level 4.87. The company has purposefully expanded by providing power solutions for IT, Industrial, Healthcare, Banking, and Infrastructure over the period and expanded footprints in Africa, Tanzania, Zambia, Cameroon, Nigeria, Niger, Yemen, Sudan, Zimbabwe, USA.

Leading Power Solution Provider

35+ Partners Across India

30000+ Esteemed Customers

OUR GOAL

VISION

- ❑ To be the most trusted and preferred brand.
- ❑ Best in class customer focused approach.
- ❑ To provide safe, cost effective, quality products.

VALUES

- ❑ Integrity
- ❑ Commitment
- ❑ Team Work

5kVA - 600kVA Performing, Reliable & Efficient Solar Power Solution for Mission Critical Applications

DESIGN

- Patented Technology.
- Modular & Flexibility in Design.
- Grid Utilization.

DESIGN

- In House Engineering Workmanship.
- Every Unit Shipped Fully Tested.
- Utilization of Long Lasting Component.

SERVICES

- Over 50+ Factory Trained Engineers.
- Pan India Parts Available.
- Industrial Leading Warranty Terms.

VALUE

- Lowest TCO
- Functionality & Performance Design for 10+ Years Lifetime

Banking

3000+ System Installed

Defence

2000+ System Installed

Governments

2000+ System Installed

Power Plants

1000+ System Installed

Industry

5000+ System Installed

Institutions

1000+ System Installed

ENERTECH ATLAS SOLAR ONLINE UPS SERIES

Enertech® Atlas Solar UPS Series is suitable for a wide range of applications including IT, security, telecommunications, electro-medical systems, and the most demanding industrial environments.

The transformer-based design of Enertech® Solar Online UPS Atlas series provides protection from the massive range of power irregularities including unmatched efficiency, usability and space savings.

Enertech® Solar UPS is a complete power protection solution that helps to achieve maximum optimization of the infrastructure around design, operating and management proficiencies while maintaining or improving availability.

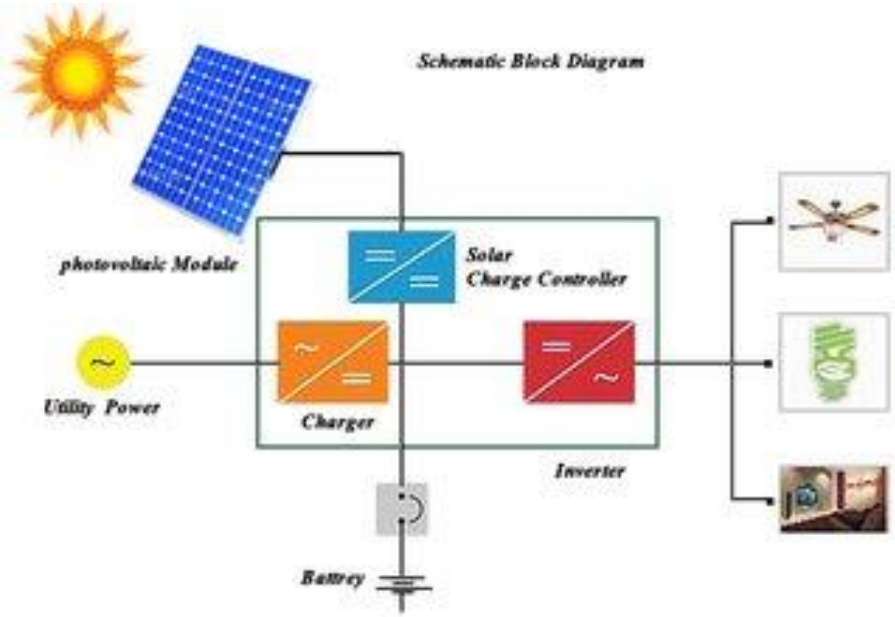
Benefits to the customer include excellent output voltage control, dynamic inverter response, and minimal voltage distortion during full load steps without the DC source. These characteristics maximize the performance of the UPS and increase the overall reliability of components and the system.

PERFORMANCE

Utilizing a combination of high sampling rates and Direct Digital Control (DDC) with Analog fast comparator, the Enertech® Atlas solar Online UPS is able to provide superior performance under all load conditions.

RELIABILITY

If downtime in your business equals disaster, Enertech® Atlas Series Solar UPS delivers the highest reliability among backup power equipment suppliers through robust technology designed to deliver continuous power in the most demanding environments.



Solar Online UPS Block Diagram

Power cuts can last from a few minutes to several hours. It makes power continuity important for every sector. It prevents business loss, medical devices shut down, etc. Unlike standby generators, solar UPS provides instant electricity without affecting the power supply. The Online UPS help during blackouts and major power failures.

Solar online UPS by EnerTech is a perfect solution for energy-related problems. It is equipped with advanced mechanisms that allow easy as well as proper functioning even from a distance using Ethernet / MODBUS / RS232 / GSM. The solar UPS inverter has a custom made MPPT design (Maximum Power Point Tracking design) and a front display.

The solar UPS caters to all the needs of various sectors and also works with maximum efficiency. In case of an error, it changes the source and keeps the output stable. The EnerTech solar UPS is the first choice of many mega industries, because of its reliability, efficiency and high-grade functioning.

ATLAS 1PH-1PH

Rating: 5KVA to 30KVA

ATLAS 3PH-1PH

Rating: 5KVA to 60KVA

ATLAS 3PH-3PH

Rating: 5KVA to 300KVA

ENERTECH DESIGN ALTAS SERIES SOLAR ONLINE UPS

EnerTech **solar online UPS** are equipped with an inbuilt galvanic isolation transformer for smooth functioning even in extreme conditions. It can work on different phases like 1-1, 3-1, 3-3, along with a selectable priority of SGB and DGB.

WHY ENERTECH SOLAR ONLINE UPS?

The Solar Online UPS by Enertech is approved by MNRE and is one of the leading solar inverter suppliers of not only in India but also in other countries like South Africa, UAE, etc. EnerTech provides customizable options and other user-friendly benefits to its customers. It is one of the most advanced and suitable Solar UPS, which can be used in all sectors as well as for household purposes. The inverter provides multiple functions at the best price.

The EnerTech Solar Online UPS has a self-consumption rate of less than 4% and, the chargers peak frequency is more than 90%. It has a double inverter capacity which depends on the battery charging current.

The Solar UPS has various remarkable features which act as an added benefit when compared with other UPS. The charging efficiency is near 94% which increases up to 98% and also, supports LMLA, VRLA, SMF, Ni-Cd. The charging Profile can be configured, according to the battery's requirement.

OPERATIONAL SEQUENCE FOR SOLAR ONLINE UPS

A) PRIORITY- (SOLAR-GRID-BATTERY) (ZERO CHANGE OVER)

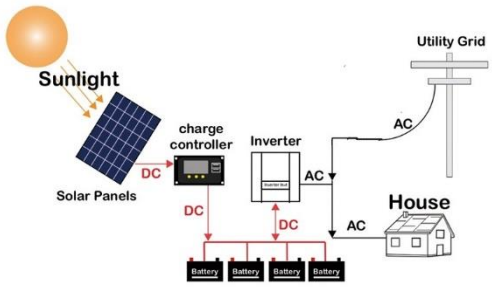
• When solar energy is sufficient then total o/p load will operate on solar through MPPT & Inverter. Excess solar power will charge batteries.

• When solar energy is weak then inverter is taking DC source from solar & balance from grid.

• When solar energy is absent then the entire load is working on grid via grid charger.

• When grid is absent then the load will be shifted onto batteries and moment the grid energy resumes load will be shifted back to grid. During this sequence any discharge of batteries will be refurbished via grid & available solar.

• All the operational logic will work with a zero transfer time for sensitive loads.



B) PRIORITY- (SOLAR-BATTERY-GRID) (ZERO CHANGE OVER)

• When solar energy is weak then inverter is taking DC source from solar & balance from batteries.

• When batteries reach 75% discharge level (25% kept as a buffer) the o/p load is shifted to grid without any change over time.

• After shifting load to grid the batteries are charged from solar energy and if solar energy not sufficient to charge the batteries, then remaining DC power is taken from grid charger. Once the batteries are fully charged then load is shifted back onto battery backup from grid.

• During changeover of load from battery backup to grid supply (i.e 75% battery discharged) and if grid supply is absent then load is shifted to inverter to use buffer battery backup.

ADVANCED FEATURES FOR MAXIMUM PERFORMANCE

Enertech Atlas Series designed to meet a wide array of mission critical application power continuity needs. It is designed with the latest technology to provide your business with maximum power condition.

BENEFITS

- Built-in MPPT Charge Controller
- DSP based technology
- PFC based IGBT grid charger up to 100AMP capacity & parallel configuration is possible for higher ratings grid charger & MPPT controller
- Pure sine wave output with low THD
- Pulse by pulse current limiting with auto reset resulting in efficient overload & short circuit protection
- DC reverse polarity & battery deep discharge protection
- Inbuilt galvanic isolation transformer
- Advanced remote monitoring software (optional)
- LCD Metering- PV voltage, current, KW, KWH, Grid voltage, current, frequency, battery voltage, status %
- Buffer for battery backup in emergency
- Power quality Audit / Scheduled shutdown / digital & graphical representation of parameter (optional)
- Solar **UPS** remotely operate using the Ethernet/ MODBUS/ RS232/ GSM

VFI-SS-111
EN 62040-3
Classification

APPLICATIONS

Manufacturing: Pharmaceutical, Retails, Textile

Power Generation

Oil & Gas

Transportation

Cement Plant

Steel Plant

IT Company

Chemicals and Fertilizer

Healthcare Centre

Gov. Offices

Technical Specifications for Online UPS

Standard Specification	Atlas Series - 5kva To 600kva		
UPS Type	1ph-1ph	3ph-1ph	3ph-3ph
Inverter	5.0 - 30 Kva	5.0 - 60 Kva	5.0 - 600 Kva
DC Nominal Voltage	96 /120 / 180 / 192 V	240 / 360 / 480 V	240 / 360 / 480 / 600 V
Topology	Online Double Conversion - VFI - SS- III		
Technology	32 Bits DSP Using IGBT Based Advanced Multi-level Conversion With Inbuilt Isolation Transformer Technology		
Input			
Input Voltage Range	170 - 260 V	350 - 460 V	350 - 460 V
Nominal Frequency	50 Hz (± 10%)		
Input Power Factor With Filter	Up To 0.99		
Input Fault Level	10 Ka		
Input THD With Mains THDV <1%	< 3% With 100% Load, <4% At 75% Load, < 5% At 50% Load(no Input Filter Required) <10% At 25% Load		
Power Walk - In Period	30 Secs-configurable With 1 Sec Increment		
DG Compatibility	Yes		
Cold / Soft Start Capability	Yes		
Charger			
Charger Type	IGBT Based		
Charge Controller	MPPT Based Charge Controller		
Nominal Voltage Regulation	± 1%		
Ripple (With Battery)	< 1%		
Ripple (Without Battery)	< 2%		
Charging Method	Constant Voltage Constant Current (CVCC) Auto & Manual With 0 To 24 Hr. Programmable Timer		
Battery			
Type & No. Of Cells	Lead Acid / VRLA / Ni-cd / Lithium		
Battery Test Feature	Inbuilt In UPS		
Output			
Load Power Factor	0.8 Lag Kva & Kw Rating		
Output Nominal Voltage	230 V ± 1%	230 V ± 1%	380 / 400 /415 V ± 1%
Output Voltage Adjustment Range	± 5 %		
Output Frequency	50 Hz ± 0.5%		
Output Waveform	Pure Sine Wave		
Total Harmonic Distortion	< 3% Max. For 100% Linear Load < 5% Max. For 100 % Non-linear Load (Ref : IEC 62040-3)		
Overload Capacity	125% For 60 Sec., 150% For 5 Sec		
Short Circuit Capacity	200% For 10msec		
Changeover Time (Full Load)	0 Msec		
Galvanic Isolation	Transformer At Output Side		
Inverter	IGBT Based PWM With INSTANTANEOUS SINEWAVE CONTROL		
Dynamic Response	For 0 To 100% Step Load Change The Output Shall Remain Within ± 5% & Recover To 98% Within One Cycle		
Crest Factor	3 : 1		
Duty	Continuous		
Static Switch			
Frequency Synchronization Band	± 3hz/Sec(settable In Step Of 0.5hz From Operator Control)		
Slew Rate	0.2 Hz / Sec		
Transfer (Inverter To Bypass)	In Sync. Mode - Less Than 5msec, In Async. Mode - < 10 Ms		
Retransfer (Bypass To Inverter)	In Sync. Mode - Less Than 5msec, In Async. Mode - Not Applicable		
Overload Capacity	1000 % For 100 Ms		
Manual Bypass	Make Before Break Operation		
System Configuration	Standalone		
AC-AC Efficiency (%)	Up To 94%		
Environmental			
Acoustic Noise Level	≤ 65 Db(from 1 M Distance(Ref : ISO 3746))		
Operating Temperature	0 To 40 Deg C		
Storage Temperature	0 To 55 Deg C		
Relative Humidity	Up To 95 % (Non Condensing)		
Altitude	< 1000 Meter Above Sea Level		
Basic Seismic Qualification	0.5g (The Test Inspection Shall Be With Extra Cost)		
Physical			
Enclosure Protection Grade	IP20/21 (IP41 , IP 55 Optional)		
Enclosure Mounting	Floor Mounted		

Base Frame	100mm
Enclosure Thickness	Frame 2.0 mm thick , Front door 1.6 mm thick , All covers 1.6 mm thick
Cooling	Forced Air
Color	RAL 7035 / RAL 7016 (Structure Finish)
Cable Entry	Front side / Back side Bottom
Testing Standard	IEC 62040 – 3
Design Standards (EMC And Low Voltage Directives)	IEC - EN 62040-1: 2008: General and safety Requirements for UPS, IEC - EN 62040-2:2006: Uninterruptible power systems (UPS). Electromagnetic compatibility (EMC) requirements
Saftey Factor	2 for electronic devices, 1.1 for electrical
Earthing Connection	5- 20 kVA : 3 x 25 mm CU (Earth bus bar running along the panel)
(Ref. Is 3043)	30 - 150 kVA : 6 x 25 mm CU (Earth bus bar running along the panel)
	200-300KVA : 6 x 30 mm CU (Earth bus bar running along the panel)
Illumination Lamp	11 W CFL
Gland Plate	3 mm MS C.R.C.A.
Utility Socket	5 A / 230 VAC
Connectivity Options	
UPS Monitoring	RS 232 based / GSM Connectivity
Snmp Rj45	Ethernet based
Serial To Ethernet Card	SNMP RJ45
Maximum Connectivity Combinations Possible	1) RS232 + RS485 2) RS232 + RS485 + SNMP RJ45
LCD Metering	
Date And Time	Total Up Time, Total Down Time, Current Up Time, Current Down Time, Current Status
Faults	Recent 9 fault since last reset
Input Group	Voltages, Currents, Frequency, Power W, Power VA, Import KWH, Export KWH
DG Group	Voltages, Currents, Frequency, Power W, Power VA, Total KWH, Run Hours
Output Group	Voltages, Currents, Frequency, Power W, Power VA, Load%, Energy
Power Group	Total I/P KW, KVA, Total O/P KW KVA, Input PF, Output PF
Inverter Group	Voltages, Currents, Frequency, Power KW, Power VA
Solar Group	PV Voltages, PV Current, PV Power PV, PV Energy, Panel Temp, PV Radiation
Battery Group	Voltages, Current, Batt. I/P KWH, Batt. O/P KWH, Batt Temp, Batt %
Protections	
	MCB at Grid, MCB at Array, MCB at Battery, MCB at O/P
	Fuses at Inverter I/P, Fuses at Array I/P
	AC Over, AC Under, DC Over, DC Under
	Over Temperature, Overload Short Circuit

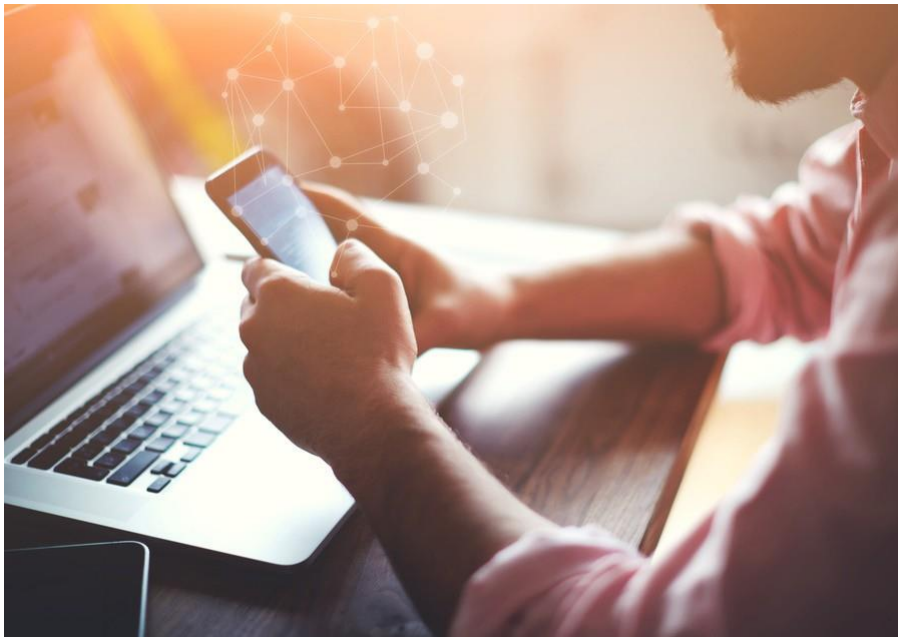
Remote Monitoring Solution

MONITORING ON THE GO & AT YOUR DESK !!!

Suitable Protocol: RS-232/MODBUS/RS-485

IOT based monitoring system- to enable customer to monitor critical HTXI Online UPS systems at their desk or phone. By using remote monitoring equipment at your sites, you'll now have the visibility you need to monitor and control your Systems.

- All HTXI Online UPS systems in a facility is connected to Enertech® RMS Interface to collect data and transfer to network system / cloud to process data.
- Remote PC , mobile is configured with RMS Software for HTXI Online UPS monitoring on the GO and always at your desk.



BENEFITS

- ❑ Continuous HTXI Online UPS monitoring and access to data.
- ❑ Load trend and graphs in your mobile.
- ❑ Data on power failures in a day / week / month.
- ❑ HTXI Online UPS Alerts on email /SMS.
- ❑ Daily/weekly/monthly reports
- ❑ 24x7 remote monitoring – Peace of mind.
- ❑ Connectivity Via GSM / WiFi.
- ❑ Report with pop-up alarms.

Enertech® Highly Reliable And Efficient Products are Backed by A Highly Responsive and Dependable Field and Factory Services

Your business runs around the clock, and so does Enertech. With 24x7 technical support coverage, including weekends and holidays, The Technical Support team at Enertech is dedicated to protecting your investments.

With factory trained engineers positioned throughout the India, rapid response times can significantly reduce downtime and loss of revenue.

Highly skilled Technical Support representatives are available to troubleshoot by phone and, If necessary, Can dispatch the expert Service engineer to your site.

50+ Service Personnel Pan-India

Pan-India Spare Parts Operations

Wide Repair Network

SERVICES

- Start-up / Installation
- Factory and On-site Testing
- Preventive Maintenance
- Extended Warranty

Please call for Technical Support

+91 9372623418

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7 x 24 x 365 Customer Service Support

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EnerTech
Answering All Power Needs

Our Offering

Online UPS, Static Frequency Converter,
Solar UPS, Industrial Battery Charger

MAKE IN INDIA

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