

# ONLINE UPS



## ETXi Series

10 kVA ~ 80 kVA (3:1 Phase)

10 kVA ~ 300 kVA (3:3 Phase)



— ENERGY THAT  
DRIVES FUTURE

*Answering All Power Needs*



[www.EnerTechups.com](http://www.EnerTechups.com)

# 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



20000+ 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

# 10kVA - 600kVA Performing, Reliable & Efficient Power Solution for Mission Critical Applications

## DESIGN

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

## QUALITY

- ◆ 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

## APPLICATIONS

- Banking
- Commercial ITeS
- Government Offices
- Pharma Industry
- Textile and Power Industry
- Cement & Steel Plant

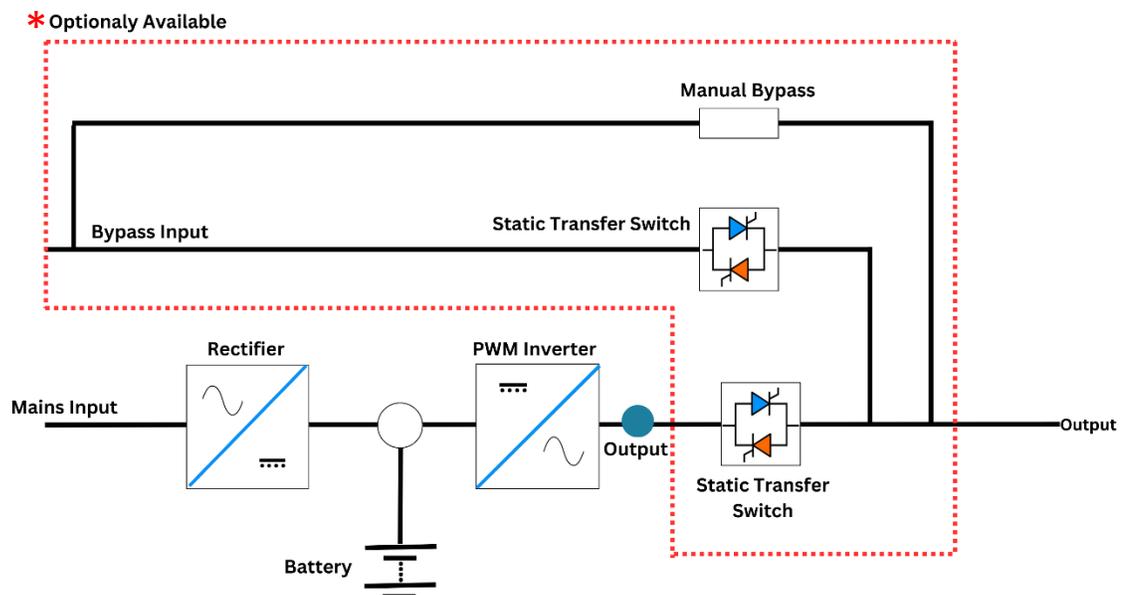


# FEATURES

- On-line Double Conversion Technology.
- Fully Digital Ups Solution For Industrial Applications. Zero Transfer Time.
- Full IGBT Technology And Electronic PFC, Ensuring 0.99 Input PF And Low ThDi For Maximum Upstream Sources Compatibility(in Selected Model).\*
- Wide Input Voltage Range.
- Galvanic Isolation Features.
- Robust Design Ensure High Reliability Features.
- State Of Art Mechanical Assembly Design For Ease Of Maintenance.
- Parallel-redundant UPS, To Increase System Redundancy.
- Fully Customizable.
- Innovative Design Allows For Fast Installation.
- Comprehensive Set Of Communication Options For Total Remote Monitoring Of Equipment Operation.
- Fully Compliant With UPS IEC Standard For Maximum Quality Guarantee.
- IGBT Based Design For Reduced Power Consumption.
- Hot Standby UPS And Load Sharing Mode For Continuous Power Supply.
- Customized Designs To Suit IP Protection Requirements.



Standard Block Diagram



Note: \* Optional Features

### A fully digital Industrial UPS system

- Easy System configuration
- Better voltage regulation
- Low total harmonic distortion
- (THD) Easy navigation
- Event log for analysis of fault occurrence and easier maintenance
- Push button system control

### Parallel Redundant Configuration

- \*N+1 Units can be paralleled
- Immediate communication between the paralleled systems after connection
- No single point of failure
- Active load sharing

### Robust Mechanical Design For Easy Maintenance

- State of art front access for a more efficient maintenance
- Easy access to Thyristors, IGBTs & PCBs

### High Reliability Features

- 10 to 12 years product lifespan, supported by recommend preventive maintenance

### Design & Temperature

- Suitable for operation at higher ambient temperature

### Customization Capability

- Customized UPS configurations
- Fully custom built options meet required output power, voltage levels as well as available input power and voltage quality levels
- Customer requirements like color, protection, PFC etc.

### Connectivity Options

- MODBUS (RS 485)\*

### Transfer Time

- Safe transfer to bypass, without a break for the connected load
- 0 s when synchronized on reserve
- <10 ms transfer time in Async mode

### Galvanic Isolation Features

- Any mains disturbance will not be transferred to the DC circuit or to the output
- Load remains safe all the time irrespective of switching/transient in the Mains and sudden other output load changes in the O/P ACDB
- Double conversion topology provides clean and reliable power

## EnerTech Online UPS Has Multi Model Capabilities

### Standalone UPS

- EnerTech Standalone UPS consists of a single UPS unit that provides power protection to your critical equipment.
- In the event of a power outage, the UPS battery kicks in to supply clean and consistent power to your devices.
- Standalone UPS systems are ideal for protecting individual devices or small networks where downtime is inconvenient but not mission-critical.

### Hot Standby UPS

- EnerTech hot standby UPS system consists of two UPS units, one of which is online and actively powering your equipment.
- The other unit is in standby mode, fully operational and ready to take over seamlessly in case the primary UPS fails.
- This configuration provides a higher level of redundancy than a standalone UPS system, ensuring minimal downtime for your critical applications.

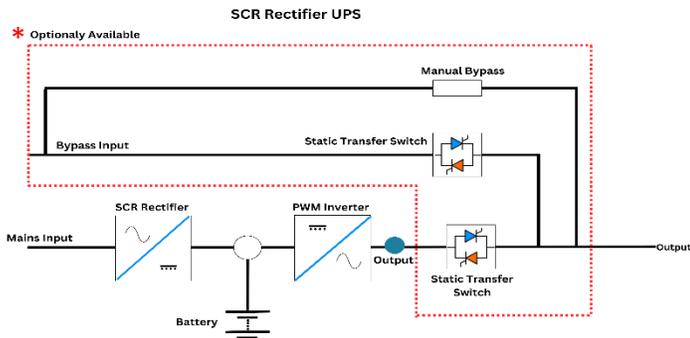
### Parallel Redundant UPS

- EnerTech parallel redundant UPS system consists of multiple UPS units operating together to provide power to your equipment.
- The units share the load equally, and if one unit fails, the remaining units can automatically take over the load, ensuring continuous power supply.
- This configuration offers the highest level of redundancy and fault tolerance, making it ideal for mission-critical applications that cannot afford any downtime.

Note: \* Optional Features

## ETXi S SCR Based UPS

SCR-based EnerTech Online UPS systems utilize Silicon Controlled Rectifiers (SCRs) as the main components for power conversion.



### Features:

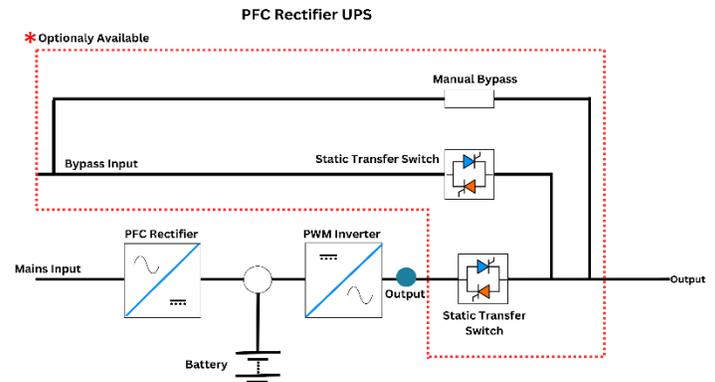
- Improved Power Factor Upto 0.95
- Online Double Conversion Technology
- High Efficiency
- Wide Input Voltage Range
- Advanced Monitoring and Management
- Scalability and Redundancy
- Robust Protection Mechanisms

### Features:

- Online Double Conversion Technology
- Better Efficiency
- Wide Input Voltage Range
- High Input Power Factor
- Advanced Monitoring and Management
- Scalability and Redundancy
- Robust Protection Mechanisms

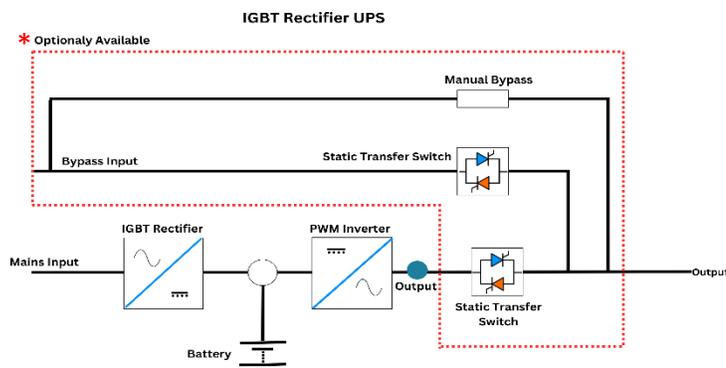
## ETXi P PFC Based UPS

A Power Factor Correction (PFC) based EnerTech Online UPS utilizes Power Factor Correction technology to improve the power factor and the input current distortion.



## ETXi F IGBT Front End Rectifier Based UPS

An IGBT (Insulated Gate Bipolar Transistor) front end rectifier-based EnerTech Online UPS employs IGBT technology for rectification and power conversion.



### Features:

- Input Power Factor Near To Unity
- Lowest Input Current Distortion Upto  $ThDi < 3\%$
- High Efficiency
- Online Double Conversion Technology
- Fast Response Time
- Wide Input Voltage Range
- Advanced Digital Control
- Remote Monitoring And Management

STANDARD SPECIFICATION	ETXi Series - 10kVA to 80kVA 3P-1P		
UPS Type	ETXi S SCR	ETXi P PFC	ETXi F IGBT Rectifier
Inverter	10kVA - 80kVA	10kVA - 80kVA	10kVA - 80kVA
DC Nominal Voltage	10-125 kVA For 360/384 VDC   150-300kVA For 408 VDC	10kVA For 240VDC   20-60kVA For 240/360 VDC   80-100kVA For 360 VDC	720 VDC
Topology	Online Double Conversion		
Technology	32 bits DSP using IGBTbased advanced Multi-level Conversion with Inbuilt Isolation Transformer Technology		
<b>INPUT</b>			
Input Voltage Range*	415V (± 10%) or 450V		
Nominal Frequency	50 Hz (± 10%)		
Input Power Factor	Upto 0.8	Upto 0.95	Upto 0.99
Input Fault Level	10 kA		
Power walk - in period	10 secs-Configurable		
DG Compatibility	Yes		
Cold / Soft Start Capability	Yes		
<b>CHARGER</b>			
Charger Type	SCR Pulse	IGBT Based Buck Converter	IGBT Front End Rectifier
Nominal Voltage Regulation	± 1%		
Ripple Voltage (With Battery)	< 1%		
Charging Method	Constant Voltage Constant Current (CVCC)	Float Cum Boost Charger (FCBC)	
<b>BATTERY</b>			
Type & No. of Cells	Lead Acid / VRLA / Ni-Cd / Lithium*		
Battery Test feature	Inbuilt in UPS		
<b>OUTPUT</b>			
Power Factor	0.8 PF		
Output Nominal Voltage	230 V ± 1%		
Output Frequency	50 Hz ± 0.5%		
Output Waveform	Pure Sine wave		
Total Harmonic Distortion	Upto 3% Max. for 100% Linear Load   < 5% Max. for 100 % Non-Linear Load		
Overload Capacity	125% for 60 sec., 150% for 5 sec.		
Changeover Time	Mains to Battery & Battery to Mains 0 msec.		
Short Circuit Protection	Available		
Galvonic 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	03:1		
Duty	Continuous		
Output Protection	Output High, Output Low, Temperature, Over Load, Short Cuircuit		
<b>STATIC SWITCH</b>			
Transfer (Inverter to Bypass)	In sync. Mode –Inverter to Bypass 0msec		
Retransfer (Bypass to Inverter)	In sync. Mode –Bypass to Inverte 0msec		
Transfer (Inverter to Bypass)	In Async. Mode –<10 msec(Optional)		
Retransfer (Bypass to Inverter)	In Async. Mode –<10 msec (Optional)		
Manual Bypass	Built In (Optional)*		
System Configuration	Stand Alone		
AC-AC Efficiency (%)	Up to 90%		
<b>ENVIRONMENTAL</b>			
Operating Condition	Dust free, Cool & Dry Environment		
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	Upto 1000 & ( 1000 to 3000) **		
Basic seismic qualification	0.5g (The test inspection shall be with extra cost)		
<b>PHYSICAL</b>			
Enclosure Protection Grade	IP20 ( IP 21 to IP 55 Optional)		
Enclosure Mounting	Floor Mounted		
Enclosure Thickness	As per Industrial Standard		
Cooling	Forced Air		
Colour	RAL 7016 / RAL 9016		
Cable Entry	Front side / Bottom side		
Utility Socket	5 A / 230 VAC (Optional)		
Testing Standards	IEC - EN 62040-1: 2008: General and safety Requirements for UPS , IEC - EN 62040-2:2006: Uninterruptible power systems (UPS). Electromagnetic compatibility (EMC) requirements IEC 62040 – 3		
Illumination Lamp	11 W CFL		
Earthing Connection	5- 20 kVA : Earth Terminal		
(Ref. IS 3043)	30 - 150 kVA : 5 x 25 mm CU (Earth bus bar)		
	200-300kVA : 5 x 30 mm CU (Earth bus bar)		
Note: *, ** Optional Features or Value should be Changes			

CONNECTIVITY OPTIONS	
UPS Monitoring	RS 485 Connectivity (Optional)
MESSAGE ON MIMIC	
Message	Grid ON, Charger ON, Inverter ON, Fault, Output over Voltage, Output under Voltage, Overheat
FAULT LOG	
System Fault Log	All kinds fault with date and time
MECHANICAL PROTECTION	
Protection	Circuit Breaker, Fuse
ELECTRONIC PROTECTION	
Alarm Group	Grid fault, Rectifier fault, Bypass fault, Inverter fault, Battery fault, Monitor fault
Parallel Group	Bypass Mode, Sync, ILock, COMe, CMAS, UPS Mode
Battery Group	Battery Type, Communication, Compensation Temperature, Battery Voltage, Battery Temperature, Battery Charging Current, Battery status, State of charging
DC Group	Terminal voltage, Inverter DC voltage, Heatsink inverter temperature, Ambient temperature, Heat sink rectifier temperature, Total current, Last grid fail, Date & Time
Inverter Group	Output Voltage, Output current, Frequency, Power factor, Output power, Self derating
Bypass Group	Voltage, Current, Frequency, Total power in KVA and KW, Power factor
Input Group	Input Voltage, Input Current, Input Frequency, Demand Control, Power in KVA, Power in KW, Total power, Regen Export, Power Factor
System Status	Date, Time, Mode, Inverterrun time, Bypass run time, Grid fail, Last backup
DIMENSIONS(IN MM) (APPROX.)	
KVA Rating	10      15      20      25      30      40      50      60      80
Width (W)	450      450      450      450      450      600      800      800      1100
Depth (D)	800      800      800      950      950      1000      950      950      800
Height (H)	800      800      800      800      800      1300      1700      1700      1900
Weight (Kg) APPROX.	150      150      300      350      350      650      650      700      850
To be confirmed in Engineering Approval	

Last Modify: 28/03/2024

EnerTech® is trademark of EnerTech UPS Pvt. Ltd.,

All specifications in this document are subject to change without notice.

EnerTech® does not accept, not imply, the acceptance of any liability with regard to the use of the information provided.

The information is provided solely as a general reference to the potential benefits that may be attributable to the technology discussed. If you have any questions regarding your project requirements, please contact EnerTech UPS Pvt. Ltd.,

All Rights Reserved.

COPYRIGHTS EnerTech® (EnerTech UPS Pvt. Ltd.,)



STANDARD SPECIFICATION	ETXi Series - 5kVA to 300kVA 3P-3P		
UPS Type	ETXi S SCR	ETXi P PFC	ETXi F IGBT Rectifier
Inverter	10kVA - 300kVA	10kVA - 100kVA	10kVA - 300kVA
DC Nominal Voltage	10-125 kVA For 360/384 VDC   150-300kVA For 408 VDC	10kVA For 240VDC   20-60kVA For 240/360 VDC   80-100kVA For 360 VDC	720 VDC
Topology	Online Double Conversion		
Technology	32 bits DSP using IGBTbased advanced Multi-level Conversion with Inbuilt Isolation Transformer Technology		
<b>INPUT</b>			
Input Voltage Range *	415V (± 10%) or 450V		
Nominal Frequency	50 Hz (± 10%)		
Input Power Factor	Upto 0.8	Upto 0.95	Upto 0.99
Input Fault Level	10 kA		
Power walk - in period	10 secs-Configurable		
DG Compatibility	Yes		
Cold / Soft Start Capability	Yes		
<b>CHARGER</b>			
Charger Type	SCR Pulse	IGBT Based Buck Converter	IGBT Front End Rectifier
Nominal Voltage Regulation	± 1%		
Ripple Voltage (With Battery)	< 1%		
Charging Method	Constant Voltage Constant Current (CVCC)	Float Cum Boost Charger (FCBC)	
<b>BATTERY</b>			
Type & No. of Cells	Lead Acid / VRLA / Ni-Cd / Lithium*		
Battery Test feature	Inbuilt in UPS		
<b>OUTPUT</b>			
Power Factor	0.8 PF		
Output Nominal Voltage	415 V ± 1%		
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		
Overload Capacity	125% for 60 sec., 150% for 5 sec		
Changeover Time	Mains to Battery & Battery to Mains 0 msec		
Short Circuit Protection	Available		
Galvonic 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	03:1		
Duty	Continuous		
Output Protection	Output High, Output Low, Temperature, Over Load, Short Cuircuit		
<b>STATIC SWITCH</b>			
Transfer (Inverter to Bypass)	In sync. Mode –Inverter to Bypass 0msec		
Retransfer (Bypass to Inverter)	In sync. Mode –Bypass to Inverte 0msec		
Transfer (Inverter to Bypass)	In Async. Mode <10 msec(Optional)		
Retransfer (Bypass to Inverter)	In Async. Mode <10 msec (Optional)		
Manual Bypass	Built In (Optional)*		
System Configuration	Stand Alone		
AC-AC Efficiency (%)	Up to 90%		
<b>ENVIRONMENTAL</b>			
Operating Condition	Dust free, Cool & Dry Environment		
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	Upto 1000 & ( 1000 to 3000) **		
Basic seismic qualification	0.5g (The test inspection shall be with extra cost)		
<b>PHYSICAL</b>			
Enclosure Protection Grade	IP20 ( IP 21 to IP 55 Optional)		
Enclosure Mounting	Floor Mounted		
Enclosure Thickness	As per Industrial Standard		
Cooling	Forced Air		
Colour	RAL 7016 / RAL 9016		
Cable Entry	Front side / Bottom side		
Utility Socket	5 A / 230 VAC (Optional)		
Testing Standards	IEC - EN 62040-1: 2008: General and safety Requirements for UPS , IEC - EN 62040-2:2006: Uninterruptible power systems (UPS). Electromagnetic compatibility (EMC) requirements IEC 62040 – 3		
Illumination Lamp	11 W CFL		
Earthing Connection	5- 20 kVA : Earth Terminal		
(Ref. IS 3043)	30 - 150 kVA : 5 x 25 mm CU (Earth bus bar)		
	200-300KVA : 5 x 30 mm CU (Earth bus bar)		
Note: *, ** Optional Features or Value should be Changes			

CONNECTIVITY OPTIONS															
UPS Monitoring	RS 485 Connectivity (Optional)														
MESSAGE ON MIMIC															
Message	Grid ON, Charger ON, Inverter ON, Fault, Output over Voltage, Output under Voltage, Overheat														
FAULT LOG															
System Fault Log	All kinds fault with date and time														
MECHANICAL PROTECTION															
Protection	Circuit Breaker, Fuse														
ELECTRONIC PROTECTION															
Alarm Group	Grid fault, Rectifier fault, Bypass fault, Inverter fault, Battery fault, Monitor fault														
Parallel Group	Bypass Mode, Sync, ILock, COME, CMAS, UPS Mode														
Battery Group	Battery Type, Communication, Compensation Temperature, Battery Voltage, Battery Temperature, Battery Charging Current, Battery status, State of charging														
DC Group	Terminal voltage, Inverter DC voltage, Heatsink inverter temperature, Ambient temperature, Heat sink rectifier temperature, Total current, Last grid fail, Date & Time														
Inverter Group	Output Voltage, Output current, Frequency, Power factor, Output power, Self derating														
Bypass Group	Voltage, Current, Frequency, Total power in KVA and KW, Power factor														
Input Group	Input Voltage, Input Current, Input Frequency, Demand Control, Power in KVA, Power in KW, Total power, Regen Export, Power Factor														
System Status	Date, Time, Mode, Inverterrun time, Bypass run time, Grid fail, Last backup														
DIMENSIONS(IN MM)(APPROX.)															
KVA Rating	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300
Width (W)	450	450	450	450	450	600	800	800	1100	1100	1100	1565	1570	2900	2900
Depth (D)	800	800	800	950	950	1000	950	950	800	800	800	850	850	850	850
Height (H)	800	800	800	800	800	1300	1700	1700	1900	1900	1900	1900	1900	1900	1900
Weight (Kg) APPROX.	150	150	300	350	350	650	650	700	850	900	1000	1200	1400	1500	1600
To be confirmed in Engineering Approval															

EnerTech® is trademark of EnerTech UPS Pvt. Ltd.,

All specifications in this document are subject to change without notice.

EnerTech® does not accept, not imply, the acceptance of any liability with regard to the use of the information provided.

The information is provided solely as a general reference to the potential benefits that may be attributable to the technology discussed. If you have any questions regarding your project requirements, please contact EnerTech UPS Pvt. Ltd.,

All Rights Reserved.

COPYRIGHTS EnerTech® (EnerTech UPS Pvt. Ltd.,)

## 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

Call For Technical Support  
**+91 9372623418**



## EnerTech UPS PVT. LTD.

S. No. 399/1-2, Bhare, P. O. Ghotawade,  
Near Pirangut, Taluka- Mulshi  
Dist.- Pune - 412115

**7 x 24 x 365 Customer  
Service Support**

### Contact

Mob. : +91 9370659050, +91 9372623423

Web. : [www.EnerTechups.com](http://www.EnerTechups.com)

Mail : [sales@EnerTechups.com](mailto:sales@EnerTechups.com)



### Our Offering

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