



## LX (IT) Series Single Phase UPS 1KVA-3KVA PF - 0.9/1.0



### About the LX (IT) Series

Perpetual Power LX (IT) Series is a high-efficiency, single-phase UPS solution designed specifically for critical power applications across diverse sectors. Delivering up to 90% active power output and achieving efficiency as high as 96.54%, the LX (IT) Series offers reliable, cost-effective performance with minimal energy loss. Built with a focus on advanced architecture, the LX (IT) Series combines Active Battery Management (ABM) technology and a user-friendly design to ensure superior reliability, easy operation, and extended backup performance. Whether used in IT infrastructure, medical systems, telecom, or other mission-critical environments, the LX (IT) Series stands out for its exceptional quality, smart energy management, and long-lasting power delivery.

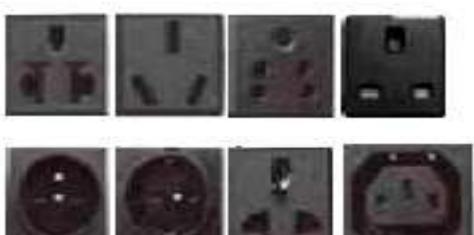
### Key Features – LX (IT) Series Online UPS

- High-Frequency Online Double Conversion Technology Provides true isolation and uninterrupted, clean power delivery.
- DSP (Digital Signal Processor) Control Technology Enables real-time system control with enhanced accuracy and performance.
- Active Power Factor Correction
- Output Power Factor 0.9 – 1.0 delivers more usable power for connected equipment.
- Wide Input Voltage Range: 110–300VAC Operates effectively under varying utility conditions.
- Input Frequency Range: 40–70 Hz Suitable for fluctuating frequency environments.
- Auto Frequency Sensing Automatically detects and adjusts to 50/60 Hz power sources.
- Frequency Conversion Function Supports 50Hz/60Hz conversion as needed.
- Cold Start Capability Allows the UPS to start directly on battery without utility power.
- Rear Ventilation Design & Variable Speed Fan Enhances cooling efficiency and reduces noise.
- Advanced Battery Management (ABM) Prolongs battery life and improves backup performance.
- Quick & Stable Charging Restores up to 90% battery capacity in 4 hours (standard models).
- Linear Derated at Low Input Voltage Minimizes unnecessary battery discharges and extends battery service life.
- Settable Delayed Start on Mains Recovery Reduces load impact on the generator or grid upon power restoration.
- LCD Control Panel with Multi-Function Settings Easily configures output voltage, EOD (End of Discharge), auto-start, bypass mode, ECO mode, and frequency conversion mode.
- Multiple Communication Interfaces Standard: RS232 Optional: USB, RS485, SNMP, AS400 dry contacts, EPO function, SMS alarms
- Optional 12A High Current Charger (Available for 1–3 KVA models)

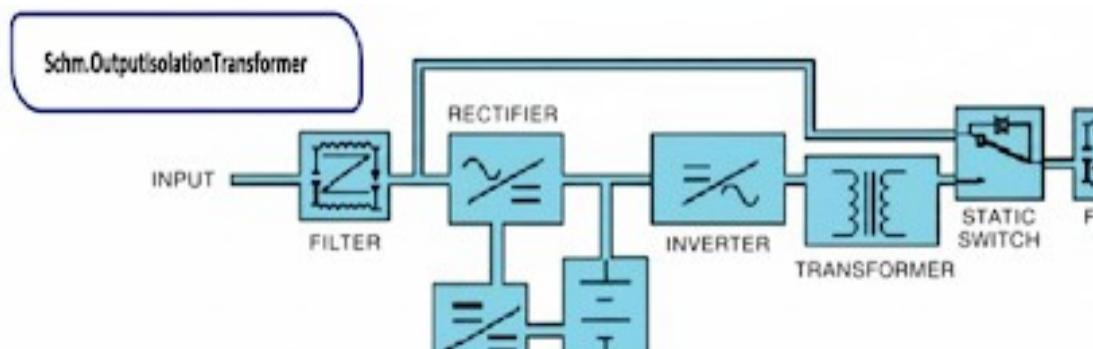
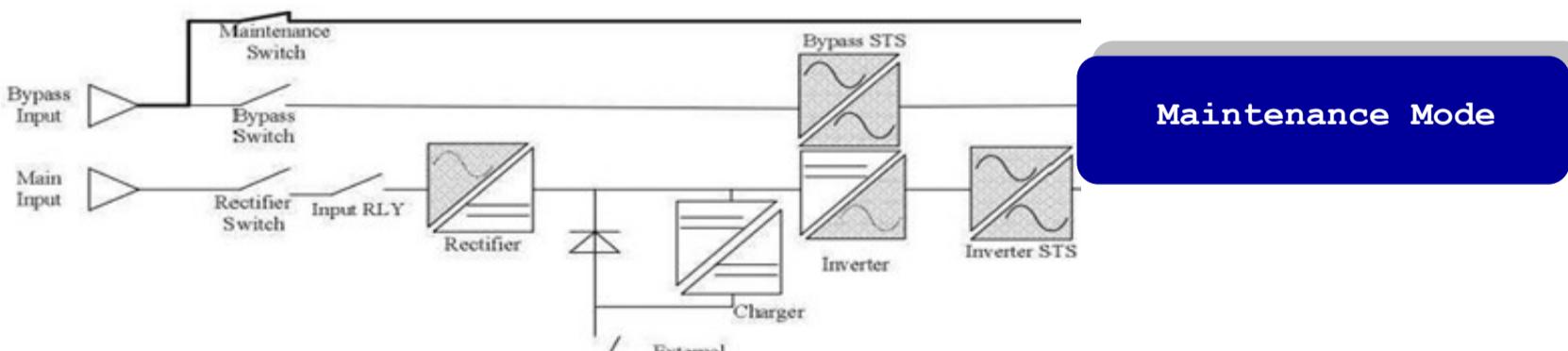
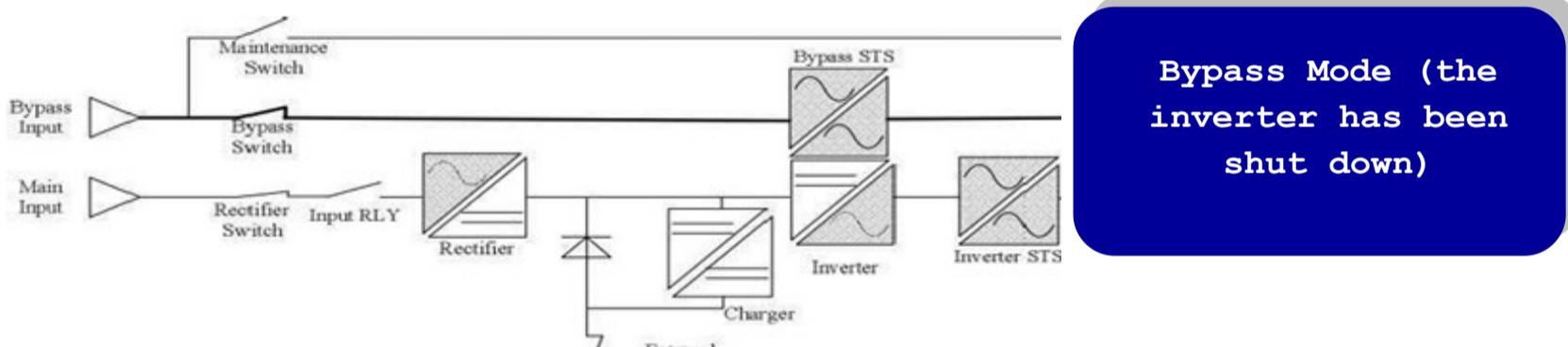
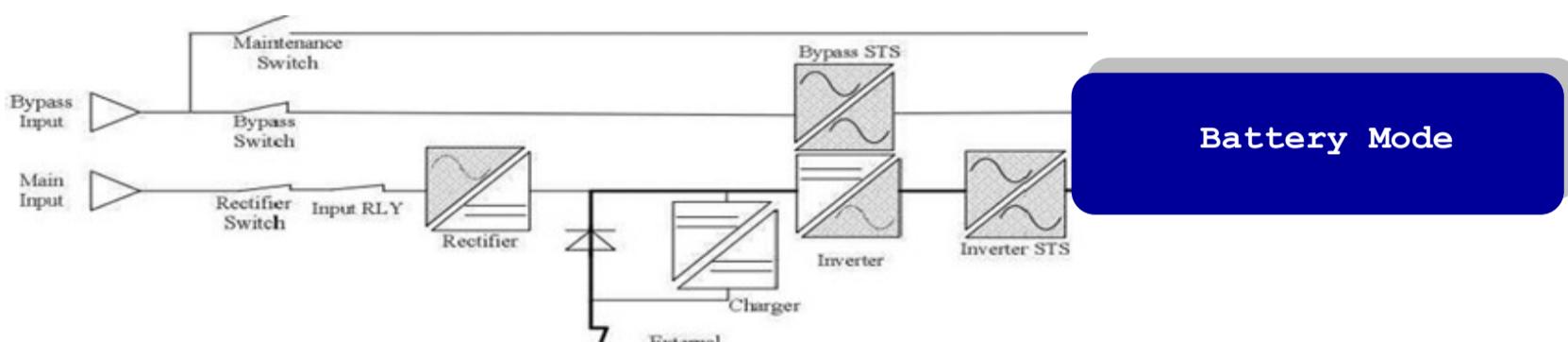
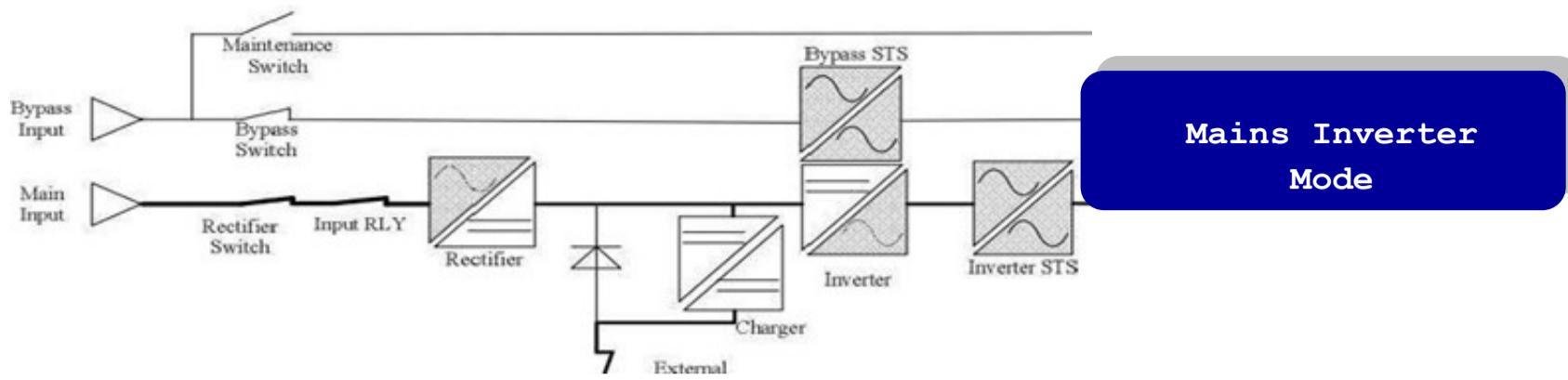
### Rear Panel

- Ac input socket
- Battery Connector (Optional)
- Fan (Optional)
- USB (Optional)
- EPO (Optional)
- RS232
- Intelligent Slot
- Output Sockets

### Optional Outlets



## LX(IT) Series-Operation Mode feature- Schematic Diagram





## Technical Specifications

MODEL	LXIT11E	LXIT12E	LXIT13E
CAPACITY-Load	1 KVA (900 W)	2 KVA (1800 W)	3 KVA (2700 W)
<b>INPUT</b>			
Phase		Single Phase with Ground	
Rated Voltage		208 / 220 / 230 / 240 VAC	
Voltage Range	110~176 VAC (Linear Deratings Between 50% and 100% Load)	176~280 (No Deratings)	280~300 VAC (Deratings 50%)
Frequency		40Hz~70 Hz (Auto-Sensing)	
Power Factor		≥0.99 @ Nominal Voltage (100% Load)	
Bypass Voltage Range		-25% ~ +15% (Settable)	
<b>OUTPUT</b>			
Voltage Range		208 / 220 / 230 / 240 VAC (Settable LCD)	
Voltage Regulation		±1%	
Frequency-Synchronized Range		45Hz~55Hz or 55Hz~65Hz	
Frequency-Online Mode		50/60 Hz ± 0.1Hz	
Waveform		Sinusoidal	
Power Factor		0.9 / 1.0 (Optional)	
Total harmonic Distortion (THDv)		≤ 1% (Linear Load) ≤ 3% (Non-Liner Load)	
Crest factor		3:1	
Overload	105%~125% for 1 min, 125%~150% for 30s, >150% for 300 ms		
<b>BATTERIES</b>			
Features	External	External	External
Type	Sealed Lead Acid Maintenance Free Battery		
DC Voltage	12 V x 3 (36 VDC)	12 x 6 / 8 (72 / 96 VDC)	12 x 6 / 8 (72 / 96 VDC)
Charging Current	6A ( 12A Optional)	6A ( 12A Optional)	6A ( 12A Optional)
Charging Output VDC	40.7 ± 0.6	81.3 / 108.4 ± 1.6	81.3 / 108.4 ± 1.6
Typical Recharge Time	Standard Model 90% Capacity Restored in 3 Hours ; Long Run Model ; Depend on the Capacity of Battery		
<b>SYSTEM</b>			
Efficiency	≥ 90% (Online Mode)	≥ 90% (Online Mode)	≥ 90% (Online Mode)
Transfer time	Mains Mode to Battery Mode : 0 ms Inverter Mode to Bypass < 2 ms ( Typical )		
Isolation transformer	Galvanized Isolation Transformer-inbuilt		
EMC/Safety/Performance	EN62040-1,EN62040-2,EN61000-3-2,EN61000-3-3,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8,IEC61000-4-11,IEC61000-2-2,IEC62040-2,IEC62040-1,IEC62040-3		
Quality/Security	ISO9001:2015, ISO14001:2015, ISO 27001:2013, ISO45001:2018, ROHS		
<b>DISPLAY CONTROL</b>			
Display	LCD		
Settable Via LCD	Output Voltage, EOD, Auto-Start, Bypass Mode, ECO Mode and Frequency Conversion Mode		
Control Technology	DSP (Digital Signal Processors)		
<b>MANAGEMENT-CONTROL AND COMMUNICATION</b>			
Charger Add.	12A Charger		
Output Terminal	Indian Standard Type D (3pin) Grounded and (Type G.M.N.O. for International Market Standard)		
Protections	Short-Circuit, Overload, Over Temperature, Battery Discharge Protection and Fan Testing Protection, Surge Protection ( For Network / Fax / Modem )		
SMART RS-232 USB/RS-485	Supports Windows 2000 / 2003 / XP / Vista / 2008 , Windows 7 / 8 / 10, Linux and MAC		
Optional SNMP	Power Management from SNMP manager and Web Browser		
Interface	Bitrates 2400bps / Byte 8bit / Completion Code :1bit		
<b>ENVIRONMENT</b>			
Operating Humidity	0~95% RH @ 0~45°C (Non-Condensing)		
Storage Temperature	-25°C~55°C (Exclude Batteries)		
Operating Altitude	≤1000m, Above 1000m.Derate 1% for Each Rising 100m		
Ingress Protection Rating	IP20 / IP21		
Noise Level at 1m	≤50dB A (at 1M)		
<b>PHYSICAL</b>			
Dimensions (mm) (WxDxH)	200 x 342 x 216	192 x 458 x 534	192 x 458 x 534
Packaged Dimensions (mm) (WxDxH)	232 x 417 x 318	277 x 530 x 600	277 x 530 x 600
Net Weight (Kg)	17.3	27.5	28.5
Gross Weight (Kg)	25	36	38

\*\*Accuracy weight ± 200gm

\*\*Accuracy Dimension ± 20mm

- Specifications are subject to change without notice.
- Due to regular upgrade on picture and actual product may vary
- Custom-made specifications are acceptable.



## Our Clients



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National Institute of Animal Biotechnology



Airports Authority of India



AIRPORTS AUTHORITY OF INDIA



AirForce Station Bidar (India)



Acharya N.G Ranga Agricultural University



CENTRAL POLYTECHNIC COLLEGE



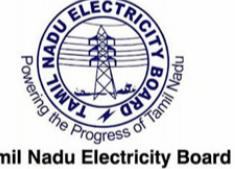
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