



Utility

SOLAR POWER

Line Interactive UPS

APPLICATIONS

- Workstations / Servers
- Networking Equipment
 - Telecom
 - Color Labs
- ATM Machines / POS Systems
- Gold Analyser Machines
 - Security Systems
 - Textile Industry

SAVES APPROXIMATELY
35% - 40%
 of electricity bills using Intelligent
 Electronic Grid Compensation technique

Works like an Online UPS,
without Double
Conversion Losses



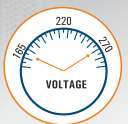
Utility Series
5KVA - 10KVA



Rugged transformer



Solar Compatible



Wide Input Voltage Window



Reduction in Electricity Bill



Zero Switch Over Time



What is Line-Interactive Topology ?

The line-interactive topology, the inverter is always connected to the output of the UPS. Operating the inverter in reverse during times when the AC power is normal provides battery charging. When the input power fails, the transfer switch opens and power flows from the battery to the UPS output. With the inverter always on and connected to the output, this design provides additional filtering for incoming power compared to the standby topology.

In addition, the line-interactive topology also incorporates a multi-tap transformer to buck (reduce) or boost (increase) the voltage, thereby providing some degree of voltage regulation (also known as "Automatic Voltage Regulation") as the input voltage varies. Voltage regulation is an important feature when low voltage conditions exist, otherwise the UPS would transfer to battery power and frequent battery usage can cause premature battery failure. The buck or boost range is typically limited to 10% and while some models will provide both buck and boost, other less expensive models will just provide boost capability.

The inverter in this topology can also be designed such that its failure will still permit power flow from the AC input to the output, thereby eliminating the potential of single point failure by providing two independent power paths.

High efficiency (typically 90%- 96%), small size, economic price point coupled with the ability to correct low or high line voltage conditions make this the dominant type of UPS.



UTILITY SERIES

The Utility Series is Line - interactive UPS, which is affordable & protects critical application from downtime, data loss and corruption caused by power fluctuations and long term outages.

It has a built-in transformer and mains voltage conditioning, ensuring safety of load and reducing the electricity bill.

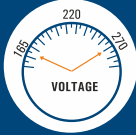
Equipped for running all types of load at the same time, thus, reducing the maintenance cost.

Salient Features



Rugged Transformer

Advantage of rugged transformers is that they reduce power surges. Electrical equipment can run smoothly without the risk of power surges because the DC signals from a power source are isolated. This means that equipment can function at a high level even if there is a power malfunction.



Wide Input Voltage Window

By adapting to wide range of input voltages, the Utility series avoid battery usage during minor power fluctuation, saving its capacity for times when utility power is completely lost.



Solar Compatible

Being solar compatible, reduces electricity usages as well as increases battery life by running on solar in day time.



Reduction in Electricity Bill

Due to working on mains conditioning mode and absence of double conversion.



Zero Switch Over Time

Offers zero switch-over time to switch from mains supply to battery derived supply and vice-versa, by monitoring mains power supply failure.

Advantages of Line-Interactive UPS

The main advantage of a Line-Interactive UPS is its ability to provide an "electrical firewall" between the incoming utility power and sensitive electronic equipment.

Among other advantages, the cost is relatively low, and it offers an energy efficiency of 96-98%. Line-interactive UPS also offers high reliability because they have fewer components.

S.No.	Features	Odin Utility UPS	Normal Inverter
1	In built AVR 5KVA to 7KVA & 10KVA and above optional	✓	✗
2	Zero Transfer time	✓	✗
3	Solar Compatibility	✓	✗
4	Reduce Electricity bill	✓	✗
5	Rugged Transformer	✓	✓
6	Wide Voltage Window	✓	✓
7	Reduce Maintenance cost	✓	✗
8	Transformer Over Temperature Control	✓	✗
9	Compact Footprint	✓	✗

Technical Specification

1Ø Input - 1Ø Output

CAPACITY		5KVA	6KVA	7KVA	10KVA
DC BUS		48 / 72 / 96 / 120V	72 / 96 / 120V	120 / 192V	120 / 192 / 240V
INPUT					
Input Voltage		230V			
Input Voltage Window		160-270V			
Input Frequency		50Hz ± 10%			
OUTPUT					
Transfer time	Mains to Inverter	Zero msec			
	Inverter to Mains	Zero msec			
Voltage on Mains		220V ± 10%			
Voltage on Inverter		230V Single Ø ± 1%			
Power Factor		0.8 Lag			
Frequency on Inverter mode		50Hz ± 1 Hz			
Waveform on Inverter mode		Pure Sinewave			
Over Load Capacity		100% - Continuous and 125% - 1 Minute			
Transient Response		Remains within +/- 5% & recover to normal within 20 msec			
Nominal output current		17.4A	20.84A	24.34A	34.8A
Mode of Operation		Designed for Continuous operation			
EFFICIENCY					
Efficiency - On Inverter Mode		>85%			
Charger Type		CVCC			
Charging Current Standard		1A-20A			
Higher charging current		Provided on request			
Acoustic Noise level		<60db @ 1.5 meter			
Operating ambient Temperature		0 to 40°C			
Humidity		Up to 95% RH Non condensing			
Altitude		<3000 Feet above sea level (without derating)			
PHYSICAL					
Enclosure Protection		IP-20			
Cooling		Forced Air			
Cable Entry		Back side bottom			
Dimensions in mm - D H W & Weight (Approximate)		510 x 540 x 200 45Kg	510 x 540 x 200 45Kg	510 x 540 x 200 50Kg	
LED Indications		• Mains on • Charger on • Inverter on • Battery Low • Trip			
LCD Indications		• Input Voltage • Output Voltage • Battery voltage • Load Current			
Protections		• Advanced Electronic Protection for device safety, backed up with MCB's & fast acting fuses, high speed pulse by pulse electronic device protection • Over voltage/under voltage protection • Over Temperature Protection • Battery deep discharge • Mains high & low cut • Short circuit & over load trip • High voltage transient protection & ESD protection			
Feature		Sinewave UPS with AVR for computer & Lighting load			
TESTING STANDARD		As per IEC 62040-3			

*Specifications are indicative to our standard models subject to change without notice.

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