



# MPOWER+ SERIES: 10 - 120KVA (3Ph-3Ph)

## THREE PHASE – THREE PHASE ONLINE UPS



LOCAL AREA NETWORKS (LAN)



SERVERS



DATA CENTRES



CASH REGISTERS



TELECOMMUNICATIONS DEVICES



INDUSTRIAL PLCS



ELECTRO-MEDICAL DEVICES



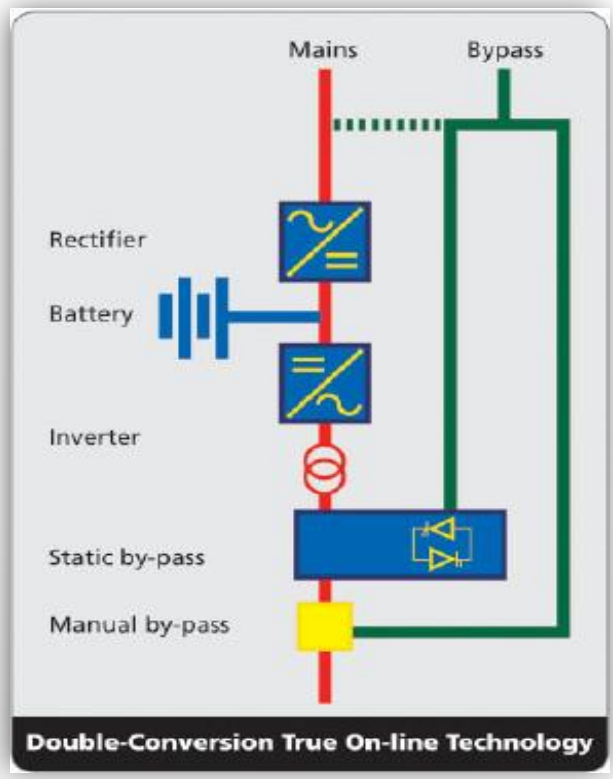
EMERGENCY DEVICES (Lights/Alarms)



### MPOWER+ SERIES

**Mpower+ series** is online double conversion **Three phase / Three phase UPS** ideal for Datacenters, Electric systems, Telecom industry, Manufacturing plants & critical equipment.

**Mpower+ series** includes 10-15-20-30-40-60-80-100-120kVA three phase models, designed and built using state of the art technology and components, and controlled by DSP (Digital Signal Processor) microprocessors with an isolation transformer on the Inverter output



### FEATURES

- True Online, double conversion, PWM, IGBT-2 technology.
- DSP technology Fully digitized microprocessor control design
- 0.9 output power factor
- True Galvanic Isolation transformer design
- High frequency, pure sine wave output
- Suitable for leading power factor loads
- N+X parallel redundancy
- LCD display
- Back feed protection
- Wide input voltage and frequency window
- Zero transfer time
- Superior overload capability
- High battery reliability (battery test, manual and automatic)
- Smart battery management system monitors the battery charging and discharging status
- RS232 interface standard, dry contacts, USB, RS485 and SNMP as option

### QUALITY STANDARD AND ENVIRONMENTAL SUSTAINABILITY

Mpower+ Series is designed and manufactured in accordance with the following standards.

- IEC/EN 62040-1-1 (General & Safety Requirements)
- IEC/EN 62040-2, IEC/EN 62040-3, (EMC Requirement)



**Maximum Protection for vital "Mission -Critical" networks, Security & Industrial applications**

## N+X POWER SCALABLE PARALLEL REDUNDANCY

The UPS can be paralleled for power capacity or for redundancy up to 8 units to increase the power capacity or configuring a parallel redundant UPS system.



Connect up to 8 units in redundant (N+1) or parallel configuration. The UPS continues to operate in parallel even in the event of an interruption in the connection cable (closed loop)..

## CONTROL PANEL

The front display panel provides all major systems parameters and operational status of the UPS that include full diagnostics for simple, easy servicing. The Mpower+ series UPS with DSP control, systematically checks each component and displays the result using on LCD display. This feature allows service technicians the ability to pinpoint and repair the UPS very quickly.



## SIMPLIFIED MAINTENANCE

Access for the maintenance is from the front of the unit. Power and electronics components are easily accessible from the front for maintenance and repair work. This particular feature means MTTR ( Mean time to Repair) is typically very lesser time.

## HIGH OUTPUT

The state of the art inverters are used to achieve an operating efficiency up to 94.5%. It's exceptional performance makes it possible to recover the capital investment cost in less than three years.

## COMMUNICATION FEATURES

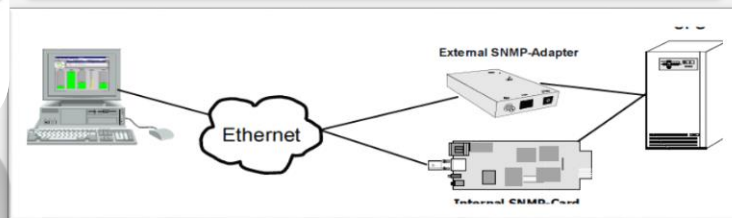
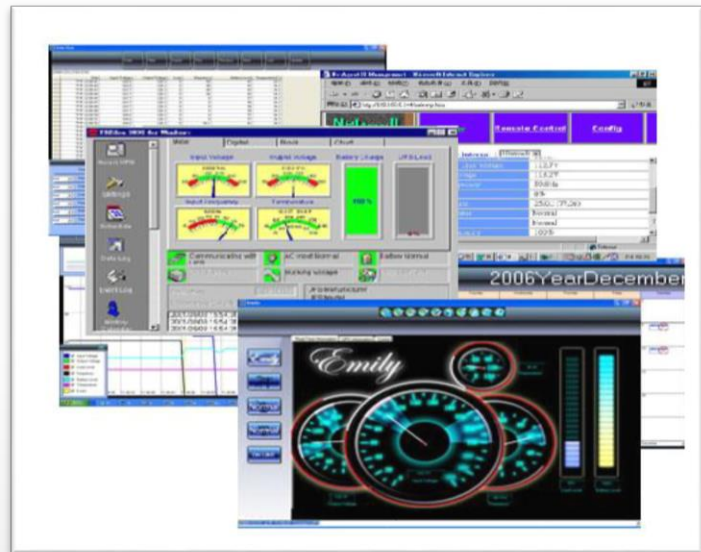
### STANDARD SERIAL RS 232

The smart port is an intelligent RS232 serial port. The connector is a standard D-Type, 9 pin, female. The software optionally allows the computer to monitor the mains voltage and the UPS status continuously.



RS485 and USB port for remote signaling and automatic computer shutdown.

SNMP card for monitoring and integration in network management. The Simple Network Management Protocol (SNMP) is a worldwide-standardized communication-protocol. It is used to monitor any device in the network via simple control language.



The Mpower+ series UPS is provided on request with monitoring and shutdown software. The monitoring software provides real-time UPS status display via easy-to-read Meter and Gauges, Digital Table, Block Diagram and Graph Chart as well as remote monitoring of the UPS through Intranet or Internet.

The software is compatible with many operating systems such as Windows 98, 2000, XP, Vista and Windows 7 For other applications like Novell, NetWare, Unix, Linux.

Model	MPS-MPower+3310	MPS-MPower+3315	MPS-MPower+3320	MPS-MPower+3330	MPS-MPower+3340	MPS-MPower+3360	MPS-MPower+3380	MPS-MPower+33100	MPS-MPower+33120
Capacity (KVA/KW)	10/9	15/12	20/18	30/27	40/36	60/54	80/72	100/90	120/108

### Optional 0.9 & Unity Factor

INPUT	
Nominal Voltage	380 /400 /415VAC (3Ph +N+PE, 4 wire )
Operating Voltage Range	285-480V AC @ 100% load
Operating Frequency Range	50 /60Hz +/- 10%
Power Factor	> 0.97 (with Filters)

OUTPUT	
Output Voltage / Power factor	380 /400 /415V /VAC +/- 1% , 0.9pf
Permissible Powerfactor	0.7~1 (inductive or Capacitive)
Voltage stability	Steady state : +/-1% Transient state : +/- 5%
Output Frequency	50/60 Hz synchronized $\pm 1\%$ With mains absent $\pm 0.1$ Hz
Harmonic Distortion (THDi)	< 2% (Linear load), < 5% (Non Linear load)
Crest Factor	3:1
Efficiency	Up to 94.5% / <b>96.8 % Transformer Less</b>

BATTERY	
DC Voltage	384VDC
Charge Current	10A-40A max
Typical Recharge Time	8Hrs ( 90% of full capacity)

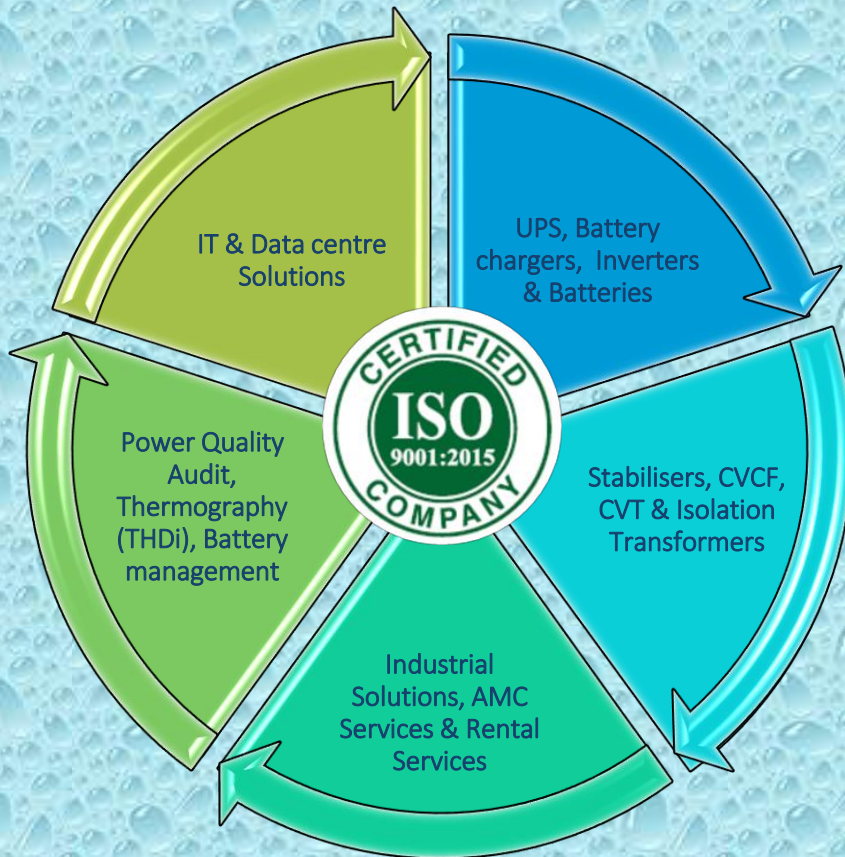
SYSTEM FEATURES	
LCD Indication	Input voltage /Frequency, Output voltage /Frequency, Battery voltage, Load Watt /VA &%, Inverter temperature, Operation mode such as "ONLINE", "ON Batt" or "ON Bypass", Fault codes, Battery & "Error code"
LED Indication	Normal operation, Bypass, Abnormal, Fault & battery mode
Audible Alarm	Battery mode, Low battery, Overload and Fault
Overload Capability	110% 60min, 125% 10min, 150% 1min, 200% <200msecs
Transfer Time	AC to Battery: 0msec, Inverter to Bypass: 4msec (Typical)

ENVIRONMENTAL	
Temperature	Operating : 0-45°C. Storage: -10°C~55°C
Humidity/Altitude	0-95% RH Non-condensing / 0-3000M
Noise	< 40dBA @ 1mtrs      < 45dBA @ 1mtrs      < 60dBA @ 1mtrs

PHYSICAL	
Dimension WxDxH (mm)	656 x 405 x 817      656 x 405 x 941      821 x 432 x 1159      975 x 554 x 1286      975 x 635 x 1326
Weight (kg)	118      120      145      193      278      365      471      573      650

STANDARDS	
Quality	ISO 9000, ISO 14001, OHSAS 18001, ISO 27001, BIS, RoHS
Safety	IEC/EN62040-1
EMC/Performance	IEC/EN62040-2, IEC/EN62040-3, complying to CE

COMMUNICATION INTERFACE	
Standard	RS 232
Optional	SNMP/ModBus/Dry contact / USB / RS 485
Monitoring Software	Net agent utility v5.8 / View Power / UP Silon 2000 / Muser 4000



**Corporate office & Unit 1:** No: 300, 22<sup>nd</sup> cross, 12<sup>th</sup> Main, HSR Layout, 7<sup>th</sup> Sector, Bengaluru -560 102.  
Karnataka, India.

Tel: +91 80 2572 4126 / +91 80 409 19 594. **Email:** [info@meenakshipower.com](mailto:info@meenakshipower.com)

**Web :** [www.meenakshipower.com](http://www.meenakshipower.com)

**Branch Office:** Hyderabad | Chennai | Coimbatore | Vijayawada | Delhi | Noida | Kolkata | Bhubaneswar | Mumbai | Ahmedabad