ADDING LIFE TO YOUR POWER ®

TPHRM SERIES: 5 - 40KW (3Ph -1Ph / 3Ph -3Ph)

THREE PHASE ONLINE SCALABLE UPS

Data Center | Telecom | Industry | Network | Security | Labs | Medical | Metro

TPHRM SERIES

Rack / Tower Mount : 5,6,10KW

Modular : 10,20,30,40KW

ADDING LIFE TO YOUR POWER ®

TPHRM series is a new range of high density double conversion on-line UPS, suitable for powering a wide range of devices including servers, storage systems, telephony equipment - VoIP, network, medical and industrial systems. meets today's industry standards.

The **TPHRM** series is designed with latest techniques. The newly-designed inverter is one of the best energy conversion systems on the market with a unity output power factor and 97% operating efficiency

TPHRM series is available from 5-40KVA in Rack / Tower design and 19'' Rack mounted type and modular UPS, which can be configured N + X for the most demanding applications.

FEATURES

- High Frequency, True Online, double conversion, PWM –IGBT 2 technology.
- Fully digitized microprocessor control design
- Input power factor > 0.99
- LCD display
- Modular and Hot swappable (N +X)
- Selectable battery quantity : 16//20/32
- Wide input voltage and frequency window
- Zero transfer time
- Automatic battery charging in OFF mode
- Lighting & Surge protection
- Short circuit & overload protection
- Battery extension facility (Optional)
- IGBT based charger for smart battery management & improved input power factor
- EMI /RFI noise filter
- Cold start
- EPO function (Optional)
- Input reverse polarity alarm function
- RS232 interface standard, dry contacts, USB, RS485 and SNMP as option

QUALITY STANDARD AND ENVIRONMENTAL SUSTAINABILITY

TPHRM 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)

RoHS CE ISO 9001 ISO 14001 OHSAS18001 ISO 27001

MPS is proud to introduce **TPHM**, 19'' rack mount type and Modular UPS which can be configured in N+X for the most demanding applications. The SPRM Version can be simply interconnected up to 4 modules of 10KVA, so making the maximum capacity to 40KVA in a single cabinet.

The systems are designed to deliver clean, safe and regulated power supply for protecting critical mission equipment and important data from any form of abnormal power disturbances, such as spike, surges, Lighting strokes and blackouts.

MPS –TPHM Modular is a scalable double conversion online UPS System, which is specially designed to meet the current demands.

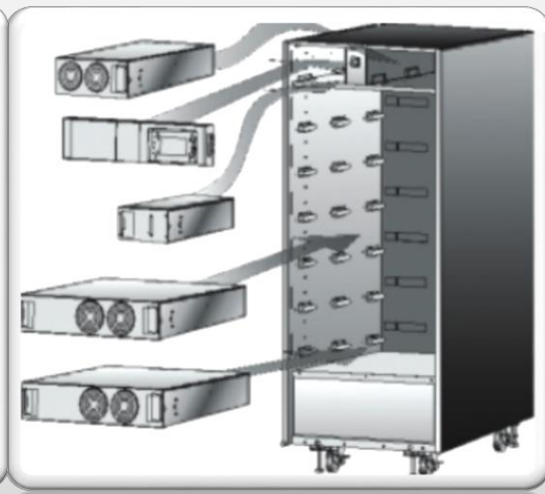
It can be configured to parallel redundancy which delivers power output up to 40KVA with four 10KVA power modules, operating independently. If one of the power module fails, the load is instantaneously transferred among the remaining modules, and defective module is automatically taken off line from the system.

This feature gives customers increased flexibility and reliability to maximize the power and is a cost effective to upgrade the system without a large investments.

MODULAR DESIGN

Modular design with Hot swappable modules & 19'' Rack mount design with 4 modules is a feature of flexibility and ideal way to provide the highest quality of online power protection to the critical equipment's.

The modules can be Hot swappable and true continuity of power to the load without any interruption of services.

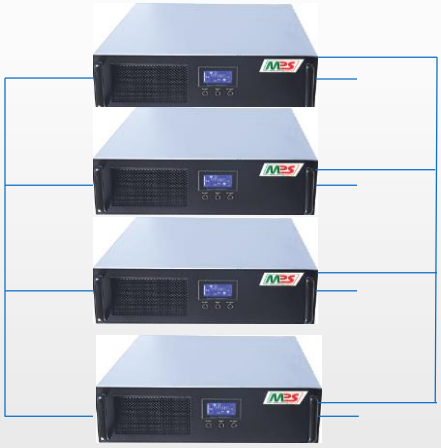


CONVERTIBLE TYPE

SPRM series 5-10KVA systems are convertible type and these UPS Systems can be used in both Tower and Rack configurations as per client requirements

N+X POWER SCALABLE PARALLEL REDUNDANCY -5kVA -10kVA

The SPRM UPS can be paralleled for power capacity or for redundancy up to 4 units to increase the power capacity or configuring a parallel redundant UPS system.



ACCESSORIES

1.Additional battery cabinets are available to increase the battery backup time.
2. A charger can be added inside the battery cabinets for fast, safe charging.
3. Rail kit to support UPS in rack 19'' cabinet

CONTROL PANEL

LCD display : The LCD front display provides user friendly menu control and provides features to manage, configure, control and diagnose the UPS faults. And it connects with LCD modules for monitoring various parameters, such as input and output voltages, current, Frequency, power factor etc.

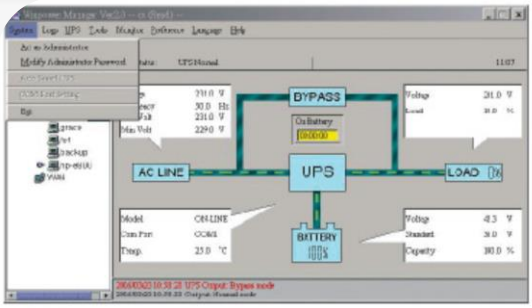
Touch screen LCD front display's also available as a option.

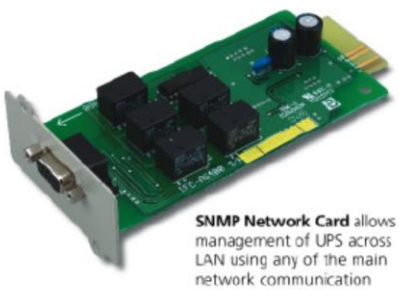
REAR PANEL:

1. RS 232 slot
2. Fan
3. Input Breaker
4. Terminal Block
5. SNMP slot
6. Parallel port
7. Battery socket

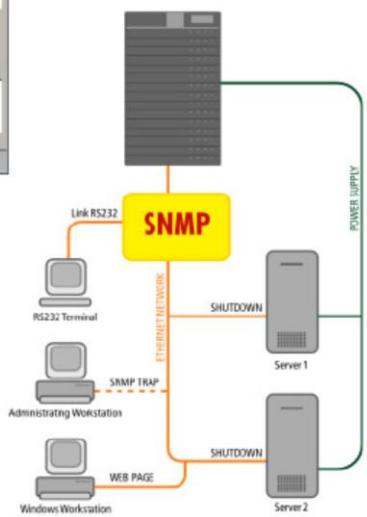
RS485 and USB port for remote signaling and automatic computer shutdown.

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.





SNMP Network Card allows management of UPS across LAN using any of the main network communication protocols – TCP/IP and network interface via SNMP.



DIRECT CONNECTION WITH ETHERNET NETWORK

Model	MPS-TPHRM 05	MPS-TPHRM 06	MPS-TPHRM 10
Capacity (KVA/KW)	5000	6000	10000
INPUT			
Nominal Voltage	380 /400 /415VAC (3Ph +N+PE, 3 wire)		
Opearting Voltage Range	305-478V AC @ 100% load		
Operating Frequency Range	40 -70 Hz (Auto sensing)		
Power Factor	> 0.99		
OUTPUT			
Outpu Volatge / Power factor	208 /220 /230V / 240V AC +/- 1% , Unity pf	380 /400 / 415V AC +/- 1% Unity pf	
Output Frequency	Mains mode : 50 / 60Hz +/- 3Hz (Sync to Mains); Battery mode : 50 / 60Hz +/- 0.1Hz		
Harmonic Distortion (THDi)	< 2% (Linear load), < 5% (Non Linear load)		
Crest Factor	3:1		
Efficiency	Online mode : 97%	Eco mode : 99%	
BATTERY			
DC Voltage	192VDC/216VDC/240VDC/384VDC		
Charge Current	Up to 15A		
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		
Audiable Alarm	Battery mode, Low battery, Overload and Fault		
Overload Capability	< 125% 5min, < 150% 1min, > 150% 200ms turns to Bypass		
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 / 0-1500M		
Noise	< 50dBA @ 1mtrs		
PHYSICAL			
Dimension WxDxH (mm)	438 x 668 x 266 (6U)		
Weight (kg)	25	25	50
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		

*Specifications are subject to change without prior notice. * Custom built systems on request

Model	MPS-TPHM 10	MPS-TPHM 20	MPS-TPHM 30	MPS-TPHM 40
Capacity (KVA/KW)	10000	20000	30000	40000
INPUT				
Nominal Voltage	380 /400 /415VAC (3Ph +N+PE, 3 wire)			
Opearting Voltage Range	305-478V AC @ 100% load			
Operating Frequency Range	40 -70 Hz (Auto sensing)			
Power Factor	> 0.99			
OUTPUT				
Outpu Volatge / Power factor	208 /220 /230V / 240V AC +/- 1% , Unity pf		380 / 400 / 415V AC +/- 1% Unity pf	
Output Frequency	Mains mode : 50 / 60Hz +/- 3Hz (Sync to Mains); Battery mode : 50 / 60Hz +/- 0.1Hz			
Harmonic Distortion (THDi)	< 2% (Linear load), < 5% (Non Linear load)			
Crest Factor	3:1			
Efficiency	Online mode : 97%		Eco mode : 99%	
BATTERY				
DC Voltage	192VDC/216VDC/240VDC/384VDC			
Charge Current	Up to 15A			
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			
Audiable Alarm	Battery mode, Low battery, Overload and Fault			
Overload Capability	< 125% 5min, < 150% 1min, > 150% 200ms turns to Bypass			
Transfer Time	AC to Battery: 0msec, Inverter to Bypass:4msec (Typical)			
ENVIRONMENTAL				
Temperature	Opertaing : 0-45°C. Storage: -10°C~55°C			
Humidity/Altitude	0-95% RH Non-condensing / 0-1500M			
Noise	< 50dBA @ 1mtrs			
PHYSICAL				
Dimension WxDxH (mm)	Cabinet : 840 x 600 x 1400		Power Module : 443 x 580 x 131 (3U)	
Weight (kg) -Module / Cabinet	25 / 120	50/120	75 / 120	100 /120
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			

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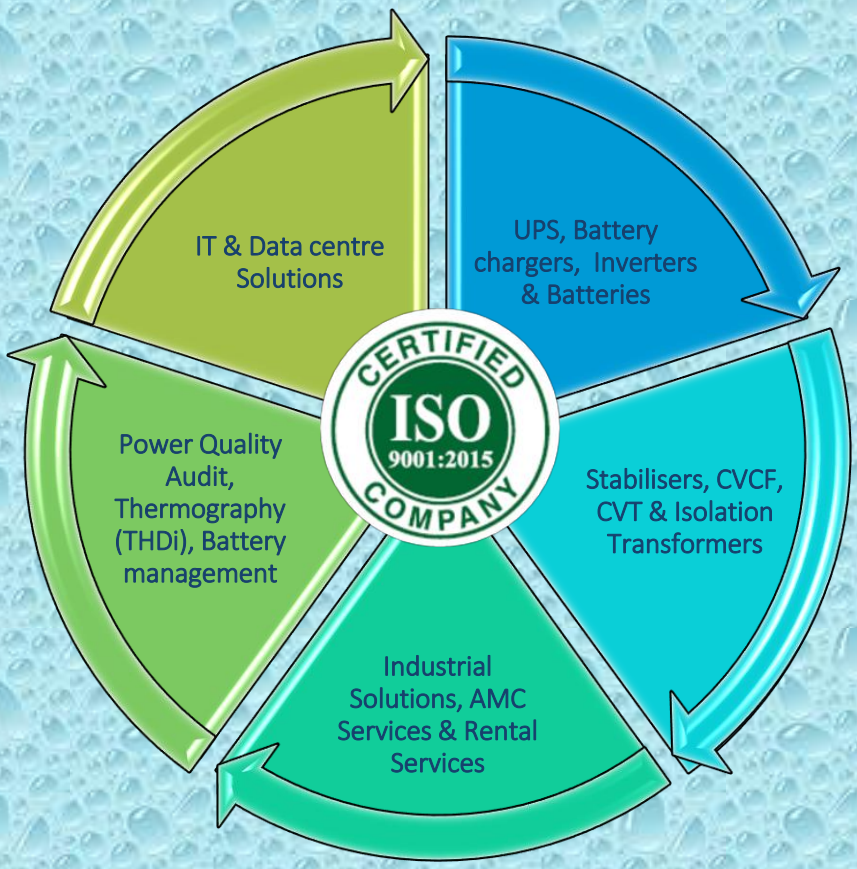

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Meenakshi Power Solutions

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