

PPM Series Modular UPS

20 KVA- 1200 KVA

Modular Uninterrupted Power Supply



About the PPM Series

Perpetual Power proudly presents the PPM Series, a true double-conversion online industrial UPS built on the advanced PPM platform. Drawing upon decades of expertise in power electronics across sectors such as highways, tunneling, manufacturing, and the energy industry, the PPM Series is engineered for demanding environments. Our products are engineered with next-generation technology, designed to support the vision of a greener, more sustainable world. Since our inception, our core values have been centered and customer satisfaction.

Key Features – PPM Series UPS

- High efficiency online double conversion technology, power is applied with online double conversion technology to reach its high performance over 96.54% at 100% load. It significantly reduces overall Total cost of Ownership (TCO).
- High scalability DSP control provides an improved solution with high performance Integrated with modular design and parallel technology. Power simplifies future power expansion.
- Unity Output power factor Power delivers unity output power (KVA=KW) providing the maximum power capacity to mission critical loads. It satisfies the requirements of the latest servers and optimizes IT investment with every penny.
- Modular design lowers MTTR modular design is applied in power module. STS module and battery module. It will simplify maintenance and replacement with low MTTR (Mean Time to Repair/Recovery).
- Ease of installation and maintenance built in maintenance bypass assures continuous power to critical loads during UPS maintenance. Besides to facilitate installation and maintenance, all panel control and connectors are front accessibility.
- Flexible battery configuration adapts different applications. Battery numbers can be adjusted flexibly. It will adapt different power demands and shorten system down time. Battery voltage can be set from 32 to 40 pieces per string.
- Highly reliable operation with redundant power supply in STS, power provides 2 power supplies in STS, ensuring no risk of shutdown.
- User adjustable charging current power provides maximum 8A or 6A charging current for every power module and its user adjustable based on requirement.
- High over load capability power supports 110% overload for 30 minutes, 125% for 10 minutes and 150% for 1 minute.
- Scalable architecture allows you to optimize cost expense to meet power demands by vertically expanding in a single rack enclosure from 30KVA to 300 KVA and achieve N+1 or N+X redundancy in the same rack + Power also supports horizontal expansion by 1+1 cabinet parallel operation.
- Graphics 5.7" LCD design for easy management designed for easy management the intuitive design of 5.7" graphic LCD display enhances the readability of identified and advance configuration.



Perpetual Power Modular UPS Overview



Power Range: 20-1200 KVA

Rated Voltage: 380VAC/400VAC/415VAC 3P+N+PE

Rated Frequency: 50/60 Hz

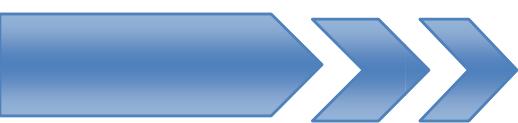
Product description: Double conversion, Modular Design

Application field

- Small, medium and large data centers
- Finance and banking critical infrastructure
- Commercial buildings and industrial complexes
- Healthcare
- Telecommunication bases
- Process Control equipment

Modular UPS Product Family



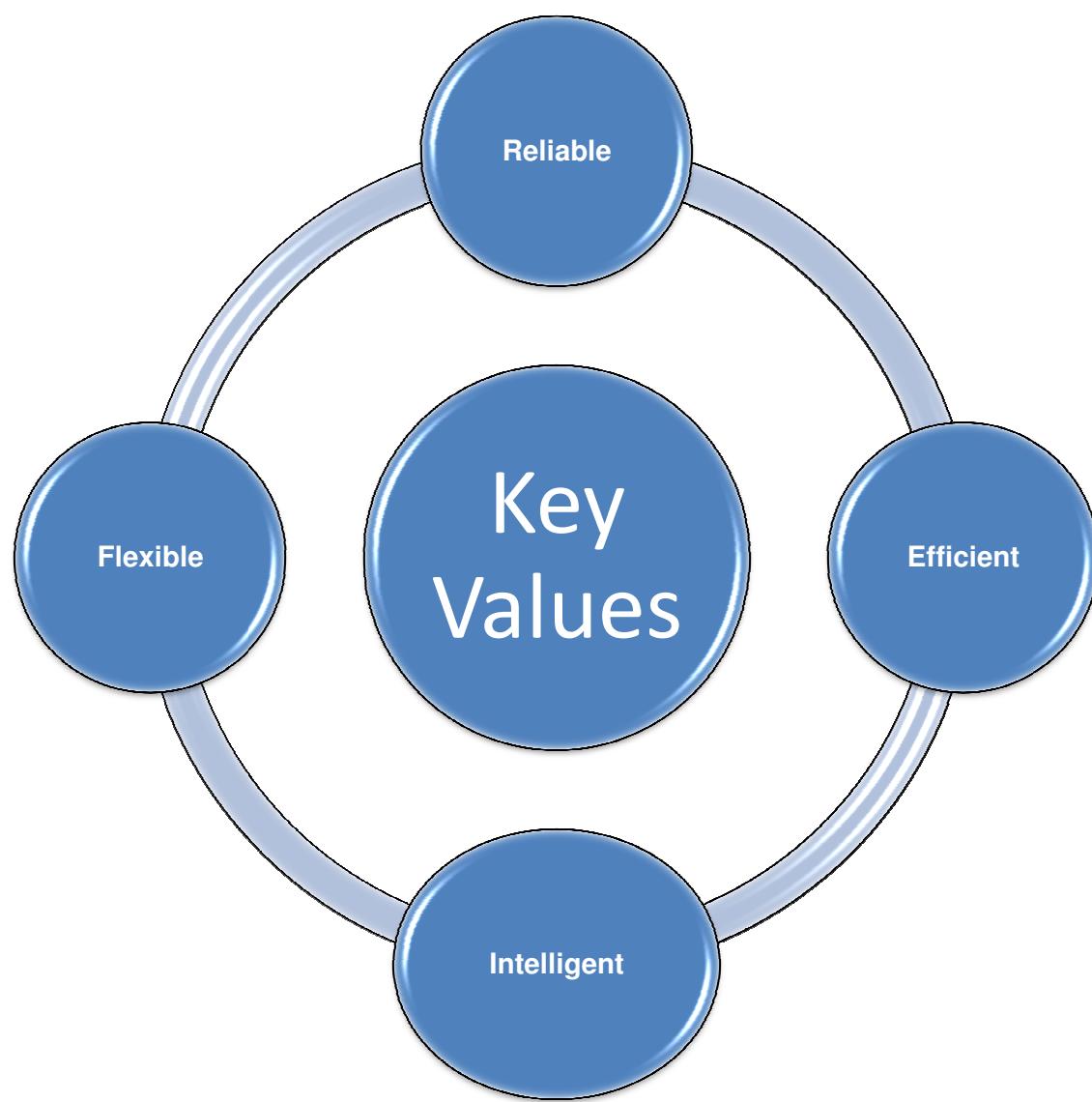


We develop and manufacture excellent modular products to users, which is to create the biggest values to customers.



HQ-M UPS provides multiple robust characteristics to minimize risks and make customers satisfied.

With system efficiency as high as 96.5%, HQ-M UPS brings in customer low operation expense



With 10/20/25/30/50/60 modules for choice, customers can make a flexible configuration with 20 to 1200KVA system capacity.

Equipped with smart human machine interfaces, HQ-M fits for all kinds of application requirements.



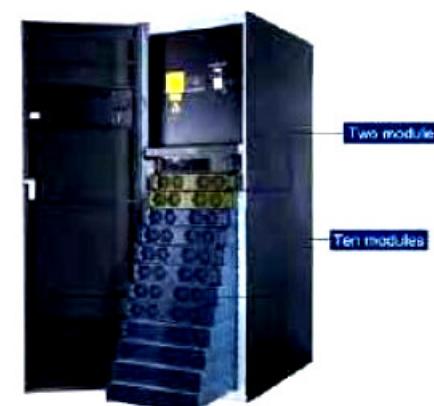
The Embedded Modular UPS



Value decomposition -Reliable

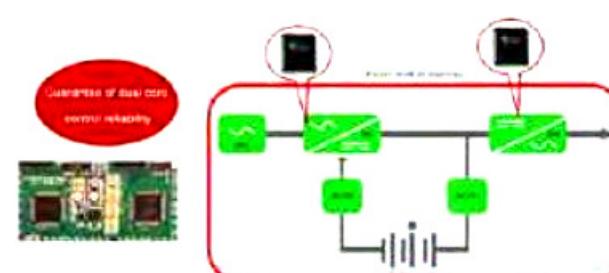
<< 6+1/10+2 Redundancy design

Power module N + X redundancy design, the system can provide up to 20% redundancy capacity under 100% load, reaching the highest level of rack Class B availability.
 $200\text{kva} = (10+2)*20\text{kva}$ modules.
 $500\text{kva} = (10+2)*50\text{kva}$ modules.
 $300\text{kva} = (6+1)*50\text{kva}$ modules.



<< Dual DSP Design

The power module DSP adopts 1 + 1 design to improve the system operation and response speed and reduce the complexity of multi module parallel control.



<< Redundancy design for Fans

The redundancy design of intelligent speed regulating fan will not affect the use of the whole module due to the abnormality of a single fan.



<< Redundant Monitoring

With LCD screen and LED indicator on each 50KVA power module, it allows independently monitoring module data and working status, to realizes 1 + 1 redundant backup with the system display.



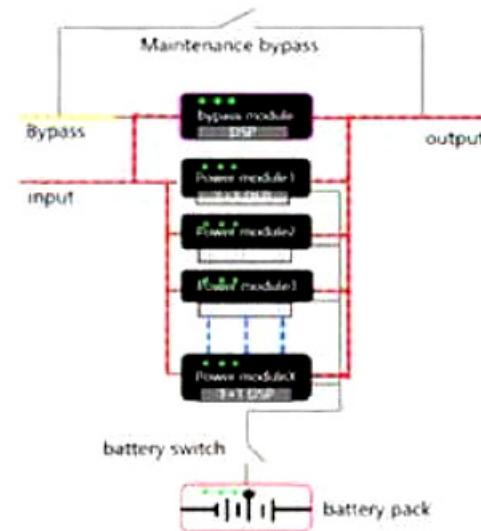
<< High environment adaptability

Power module with three defense design, high efficiency dust-proof, no fear of dust application environment for sensitive components, such as short-circuit, arcing and other fault risks.



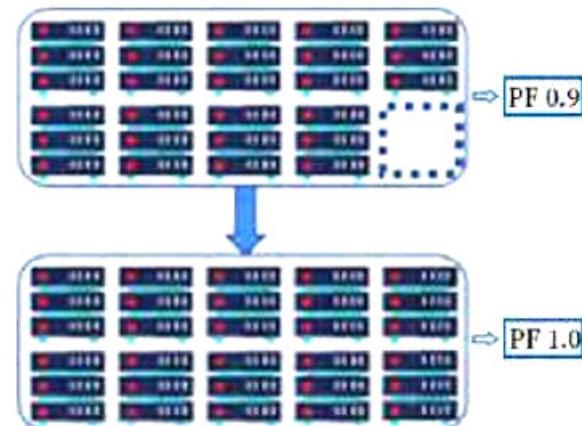
<< Decentralized control design

The system adopts decentralized control logic to avoid the risk of single point of failure caused by centralized control and load down-time. With this design, the power modules won't influence the other modules.



<< High load adaptability

The output power factor is up to 1.0. The loading capacity is increased by more than 10% than traditional UPS to make system more safe and reliable.

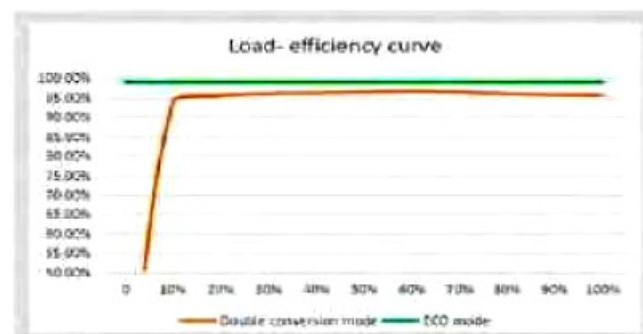




Value decomposition –Efficient

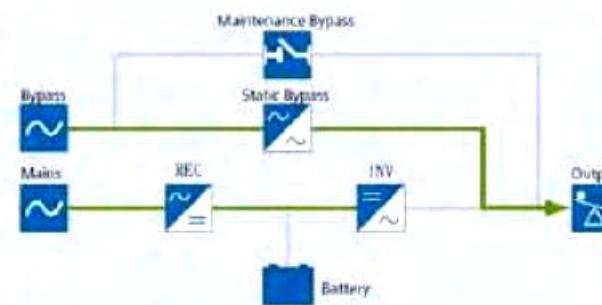
<< High efficiency at double conversion mode

The system efficiency is as high as 96.5%: the energy consumption and operation cost are saved by more than 15% each year. High efficiency significantly lowers operation costs and provides savings in cooling.



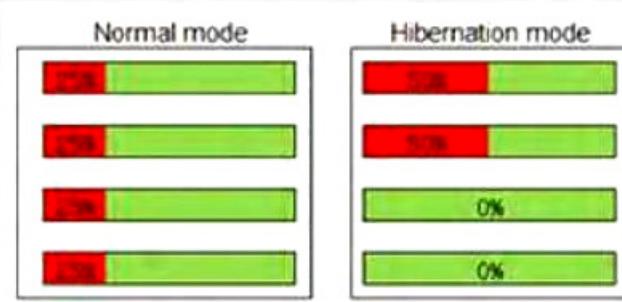
<< High efficiency at ECO mode

- Efficiency is more than 99% to maximize energy-saving.
- The load is powered by static bypass (the input range can be set) and the inverter is in "standby" state.
- If input abnormal, the UPS will transfer to online mode in milliseconds to ensure power continuity and quality.



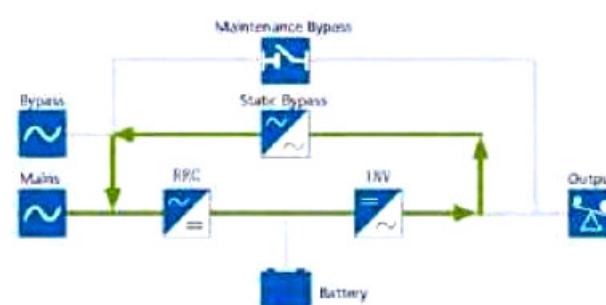
<< Intelligent hibernation function

The power module has hibernation function to improve the efficiency of the system under light load and realize energy saving. And no matter the system is single mode or parallel mode, both modes are available.



<< Self-aging function

Intelligent and convenient self-aging function is to save energy by more than 95% (not necessary to rent fake load), saving operation and installation costs for users.





Value decomposition –Flexible

<< All hot swappable module design

- The system supports phased deployment and capacity expansion on demand to reduce the initial investment cost of customers.
- The bypass module and power module both support online hot plug, the operation is easy and safe , and the MTTR is less than 5minutes.



<< Multiple and flexible configurations

- Three switch built-in configuration solutions are selected on demand to save power distribution system and user investment.
- The top and bottom incoming cables are compatible, seamlessly adapt to the on-site distribution layout and save land occupation.



<< Cold start function

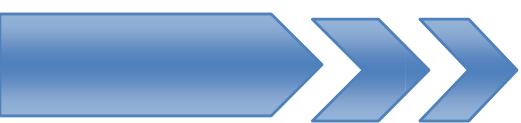
When main power fail, the system supports direct battery startup to meet the requirements of multi scenario applications, easy for pre-check after installation.



<< Adjustable battery configurations

The ultra-wide battery regulation 30-44 pcs range helps to accurately match the battery capacity and flexibly utilize the old battery pack on site, saving customer investment.





Value decomposition –Intelligent

<< Touch screen for visual control

- 10 inch color touch screen: graphical display and rich functions are available.
- Main page can directly view the current working status. All the running information of each part can be checked from display.



<< Intelligent battery management

- UPS can interact with the lithium battery BMS system in real time to realize the intelligent management and linkage of the UPS to the battery and prevent the battery from getting out of control.



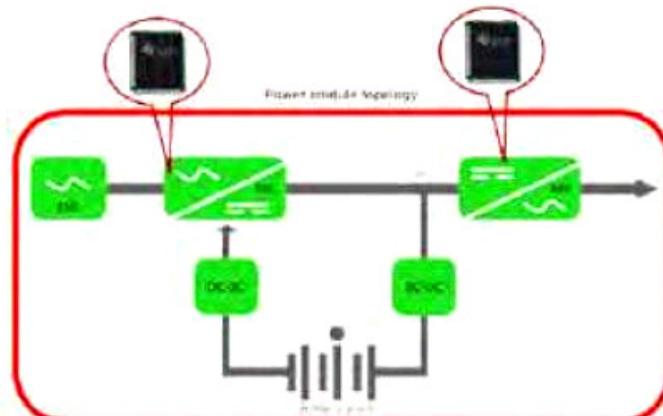
<< Rich communication interfaces

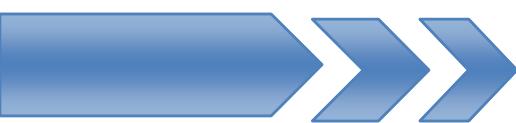
Rich communication interfaces and networking forms help to flexibly monitor the real-time operation status of UPS system:RS232/RS485/Dry contact/SNMP.



<< Full Digital control

- Advanced dual DSP control technology, accurate and fast data processing, optimized circuit design, fast fault self-diagnosis and processing capabilities.
- Digital parallel current sharing technology: ensure the high power quality for IT equipment, and ensure the safe operation of user equipment.



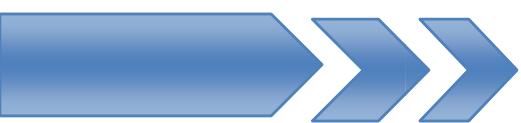


PP-M Series Modular UPS 20 - 150KVA

PPM SEIRES COMPOSITION



① 10 inch touch screen	⑥ Dust-proof net
② Communication interface	⑦ Mains switch
③ Bypass module	⑧ Bypass switch
④ Power module	⑨ Maintenance bypass Switch
⑤ Mechnical frame	⑩ Output switch



PPM SERIES ACCESSORIES

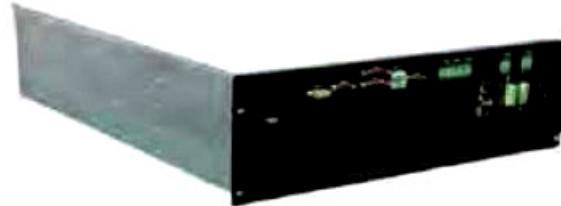
<< Power module

- 2U height for 20/25KVA modules.
- 3U height for 40/50/60KVA modules.



<< Bypass module

The bypass module can provide continuous power supply to load in case the power modules are out of work. The bypass module features concentrated design, also provides rich communication interfaces.



<< SNMP card (Optional)

The SNMP card supports remote monitoring to the UPS, all running status and working parameters can be viewed through the monitoring page. With the SNMP card, the UPS can be remotely controlled by the operators.



<< LBS communication cable

The LBS communication cable is for load bus Synchronization control when the outputs of 2 UPS systems should be synchronous, which can ensure the outputs can be the same frequency and phase.



<< Parallel communication cable

The parallel communication cables are used for parallel connection system, which can ensure the parallel UPS sustain and share the load at the same time, on the other hand, to make sure the system running in a logic way.





PPM Series Modular UPS 50KVA - 150KVA Technical Specifications (Based on 2U Power Module)

MODEL	PPM 50R	PPM 100R	PPM 150R
Rated Capacity	50 KVA	100 KVA	150 KVA
Power Module Rate	20 KVA / 25 KVA / 30 KVA		
Power Module Quantity	2	4	6
MAINS INPUT			
Input Wiring	3P+N+PE		
Rated Voltage	380/400/415 VAC		
Voltage Range	±25% (100% Load)		
Rated Frequency	50Hz/60Hz		
Input Frequency	40Hz-70Hz		
Input Power Factor	≥0.99		
Total Harmonic Distortion THDi	< 1% (Linear Full Load) < 3% (Non Linear Full Load)		
BYPASS INPUT			
Rated Voltage	Rated Voltage 380 /400 /415 VAC Default Voltage Range +15% ~ -20% (-40% ~ +25% Settable)		
Input Frequency	Rated Frequency 50Hz / 60Hz ± 1Hz, ± 3Hz, ± 5Hz Settable		
BATTERY			
Rated Voltage	±192 VDC (30-44 Pcs Settable)		
Battery Type	Tubular , SMF, Lead Acid Battery / Li-ion Battery etc		
OUTPUT			
Rated Voltage	380 /400 / 415 VAC (L-L)		
Rated Frequency	50Hz / 60 Hz		
Output Power Factor	1		
Voltage accuracy	≤ ±1% @ Balanced Load ≤ ±3% @ Unbalanced Load		
Frequency accuracy	50Hz / 60Hz ± 0.01%		
Frequency Trace Range	±0.5 Hz - ±5 Hz Settable ; ± 3 Hz as Default		
THDv	≤ 1% (100% Linear Load) ≤ 3% (100% Non Linear Load)		
Crest Factor	3:1		
Overload Ability	110% ,30 Mins; 125%, 10 Mins; 150%, 1 min		
SYSTEM			
Efficiency	96.54%		
HMI	10 Inch Color Touch Screen		
Cable Entry Route	from the Top or From the Bottom		
Standard	IEC62040-1 ± , IEC62040-2 ± , IEC62040-3		
IP Level	IP20		
Communication	RS232, RS485/SNMP/Dry Contact		
Optional Accessory	SNMP Card / Expand Dry Contact Card/ SPD Module / LBS Cable / Anti Seismic Assembly / Humiture Sensor		
Working Environment	Working Temperature 0~45°C Relative Humidity 0~95°C (No Condensing)		
Maximum Operating Altitude	0-1000m. Above 1000m , De Rating Rate Based on EN / IEC 620403		
Quality/Security	ISO9001:2015, ISO14001:2015, ISO 27001:2013, ISO45001:2018, ROHS		
Noise Level (1 Meter)	<50 dB(A) @ 1 meter		
PHYSICAL			
Cabinet Dimensions (mm) (WxDxH)	482.6 x 800 x 353 (8U)	482.6 x 800 x 531 (12U)	482.6 x 900 x 800 (16U)
Power Module Dimensions (mm) (WxDxH)	440 x 690 x 85 mm (2U)		
Cabinet Weight (Kg)	37	47	72
Power Module Weight (Kg)	25		

*The product is subject to the actual product, subject to change without notice.



PPM Series Modular UPS 60KVA - 300KVA Technical Specifications (Based on 2U Power Module)

MODEL	PPM 60	PPM 120	PPM 200	PPM 300
Rated Power	60 KVA	120 KVA	200 KVA	300 KVA
Power Module Rate	20 KVA / 25 KVA /30 KVA			
Power Module Quantity	3	6/5	10/8	15/12
MAINS INPUT				
Input Wiring	3P+N+PE			
Rated Voltage	380 / 400 / 415 VAC			
Voltage Range	±25% (100% Load)			
Rated Frequency	50Hz / 60Hz			
Input Frequency	40Hz – 70Hz			
Input Power Factor	≥0.99			
Total Harmonic Distortion THDI	< 1% (Linear Full Load) < 3% (Non Linear Full Load)			
BYPASS INPUT				
Rated Voltage	Rated Voltage 380 / 400 / 415 VAC, Default Voltage Range ± 15%~20% (-40% ~± 25% Settable)			
Input Frequency	Rated Frequency 50Hz / 60Hz ± 1Hz , ±3Hz , ±5Hz Settable			
BATTERY				
Rated Voltage	±192 VDC (30-44 Pcs Settable)			
Battery Type	SMF , Tubular Lead Acid Battery , Li-ion Battery etc.			
OUTPUT				
Rated Voltage	380V / 400V / 415 VAC (L-L)			
Rated Frequency	50Hz / 60Hz			
Power Factor	1			
Voltage Accuracy	≤ ±1% @ Balanced Load ; ≤ ±5% @ Unbalanced Load			
Frequency Accuracy	50Hz / 60Hz ± 0.01%			
Frequency Trace Range	± 0.5Hz- ± 5Hz Settable, ± 3Hz as Default			
THDv	THDV ≤ 1% (100% Linear Load) ; THDV ≤ 3% (100% Non Linear Load)			
Crest Factor	3:1			
Overload Ability	110% 30 Mins , 125% 10 Mins, 150% 1 Min			
SYSTEM				
Efficiency	96.54%			
HMI	10 inch color touch screen			
Cable Entry	Support top in /Bottom in			
Standard	IEC62040-1 ± , IEC62040-2 ±, IEC62040-3			
IP Level	IP20			
Communication	RS232, RS485/SNMP/Dry Contact			
Optional Accessory	SNMP Card/ Expand Dry Contact Card/ SPD Module / LBS Cable / Anti Seismic Assembly / Humiture Sensor			
Working Environment	Working Temperature 0~45°C ; Relative Humidity 0~95°C (No Condensing)			
Quality/Security	ISO9001:2015, ISO14001:2015, ISO 27001:2013, ISO45001:2018, ROHS			
Altitude	0-1000m. Above 1000m , De Rating Rate Based on EN / IEC 620403			
Noise Level (1 Meter)	<50 dB (A) @ 1 meter			
PHYSICAL				
Cabinet Dimensions (mm) (WxDxH)	600 x 890 x 2000	600 x 960 x 1600		600 x 1010 x 2000
Power Module Dimensions (mm) (WxDxH)	440 x 690 x 86 (2U)			
Cabinet Weight (Kg)	140	185	250	270
Power Module Weight (Kg)	25			

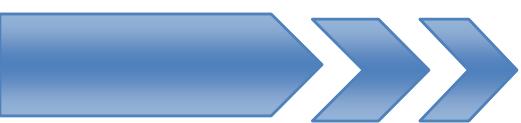
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PPM Series Modular UPS 300KVA - 1200KVA Technical Specifications (Based on 3U Power Module)

MODEL	PPM 300	PPM 400	PPM 500	PPM 600	PPM 800	PPM 1200
Rated Power	300 KVA	400 KVA	500 KVA	600 KVA	800 KVA	1200 KVA
Power Module Rate			40 KVA / 50 KVA / 60 KVA			
Power Module Quantity	6+1	8	10+2	12	14	24
MAINS INPUT						
Input Wiring	3P+N+PE					
Rated Voltage	380 / 400 / 415 VAC					
Voltage Range	± 25% (100% Load)					
Rated Frequency	50Hz / 60Hz					
Input Frequency	40Hz - 70Hz					
Input Power Factor	≥0.99					
Total Harmonic Distortion	< 1% (Linear Full Load) < 3% (Non Linear Full Load)					
BYPASS INPUT						
Rated Voltage	Rated Voltage 380 / 400 / 415 VAC, Default Voltage Range ± 15%~20% (- 40% ~ ± 25% Settable)					
Input Frequency	Rated Frequency 50Hz / 60Hz ± 1Hz, ± 3Hz, ± 5Hz Settable					
BATTERY						
Rated Voltage	± 240 VDC (32 - 44 Pcs Settable)					
Battery Type	SMF, Tubular Lead Acid Battery, Li-ion Battery etc.					
OUTPUT						
Rated Voltage	380V / 400V / 415 VAC (L-L)					
Rated Frequency	50Hz / 60Hz					
Power Factor	1					
Voltage Accuracy	≤ ± 1% @ Balanced Load ≤ ± 5% @ Unbalanced Load					
Frequency Accuracy	50Hz / 60Hz ± 0.01%					
Frequency Trace Range	0.5Hz - ± 5Hz Settable, ± 3Hz as Default					
THDv	≤ 1% (100% Linear Load) ≤ 3% (100% Non Linear Load)					
Crest Factor	3:1					
Overload Ability	110% 30 Mins, 125% 10 Mins, 150% 1 Min					
SYSTEM						
Efficiency	96.54%					
HMI	7.0 Inch - 10.4 Inch Color Touch Screen					
Cable Entry	Support Top in/ Bottom in					
Standard	IEC62040-1 ±, IEC62040-2 ±, IEC62040-3					
IP Level	IP20					
Communication	RS232, RS485 / SNMP/ Dry Contact					
Optional Accessory	SNMP Card/ Expand Dry Contact Card/ SPD Module / LBS Cable / Anti Seismic Assembly / Humiture Sensor					
Working Environment	Working Temperature 0~45°C Relative Humidity 0~95°C (No Condensing)					
Quality/Security	ISO9001:2015, ISO14001:2015, ISO 27001:2013, ISO45001:2018, ROHS					
Altitude	0-1000m. Above 1000m, de rating rate based on EN/IEC 620403					
Noise Level (1 Meter)	<65 dB (A) @ 1 Meter					
PHYSICAL						
Cabinet Dimensions (mm) (WxDxH)	600 x 1100 x 2000		1000 x 1100 x 2000		1600 x 1100 x 2000	2000 x 1100 x 2000
Power Module Dimensions (mm) (WxDxH)			440 x 720 x 130 (3U)			
Cabinet Weight (Kg)	250	500	530	980	1050	
Power Module Weight (Kg)	36		38			

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Our Clients



CENTRAL POLYTECHNIC COLLEGE



CUSAT



Government Engineering
College



DTE Energy

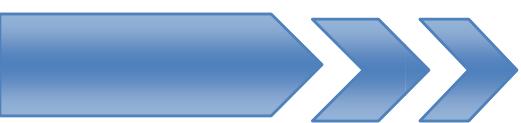


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Kerala State Backward Classes Development Corporation
(A Government of Kerala undertaking)



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