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Stock code : 002334

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INVT Power System

Power Solution Specialist



INVT POWER SYSTEM (SHENZHEN) CO.,LTD





About us

INVT Power, a key high-tech company, subsidiary company of INVT Group (Stock code: 002334), is the leading total power solution provider in China.

Over the past years, we are being dedicated to providing high quality products and service to global customers. So far, we have gained more than 1300 patents and our customers and partners are from more than 80 countries and areas in government, finance, internet, communication, traffic, electric and industry. With the high quality and top-class services, we are adding values to all our customers.

We aim at offering fast customized solutions to our customers and continuous innovation for more competitive products and services.

Warmly welcome to be our distributor and partner. Meanwhile, we can provide OEM and ODM production and service for the clients all around the world.



Shenzhen Industrial park



Suzhou Industrial park



Fuyong production base



How we make difference

Research and Innovation

- 12 Research centers
- 13% Sales revenue for research and innovation
- IPD Integrated products development system
- TUV Witness Qualification LAB in Power Industry
- 900 Intellectual Property Right, 30% more than average level



• TUV Witness Qualification LAB

• UL Witness Qualifications LAB



Safety Lab



Climate Environment Lab



Performance Test Lab



Components Test Lab



Mechanical Environment Lab



Dust-proof and Water-proof Lab



EMC Lab



Equipment Development Lab



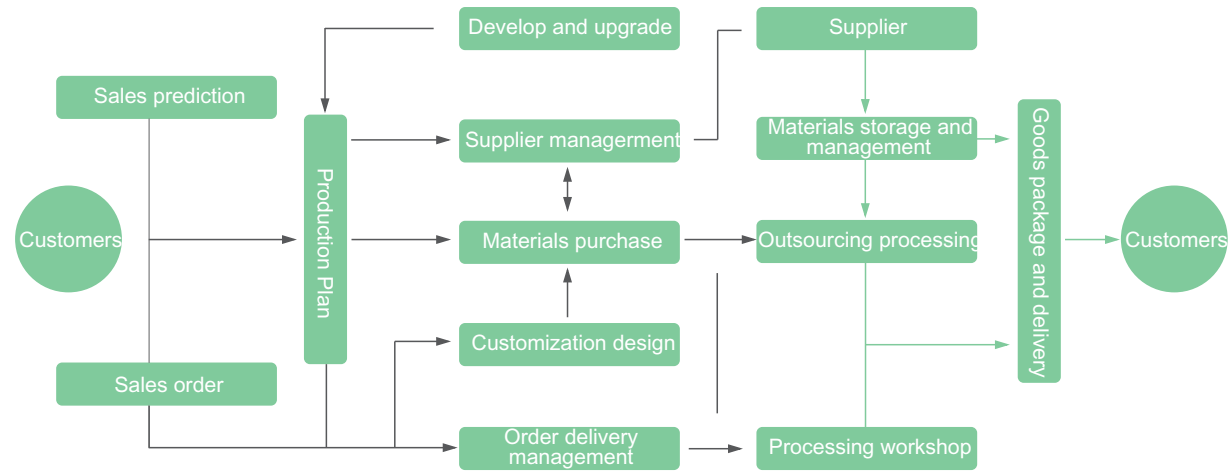
UPS R&D Lab



Production Management System

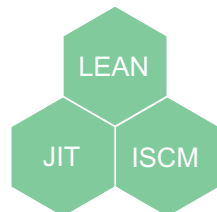
INVT Power ensures high quality products and fast response to our customers by applying advanced Supply Chain Management System based on Quality Control Management, Delivery Management, Service and Strategic Control System.

INVT applies Standardized Operational System. We standardizes the operational process for production, ensuring effectiveness, quality and cost control.



High Efficiency Supply

INVT Power adopts the most advanced international production mode as ISCM, JIT and LEAN, ensuring high efficiency and fast supply.



Honor

A state-level Hi-tech enterprise
National outstanding energy-saving enterprise
Famous brand of Guangdong province

Top 100 Independent innovation enterprise
Top 10 China customer satisfaction brand
Procurement finalists brand by central governments



Quality Assurance

We apply comprehensive quality assurance to ensure the quality control of the whole product life circle



- R&D and production management system certificated by TUV and ISO9001:2008
- Environmental Management System: ISO14001:2004
- Occupational Health and Safety Management OHSAS 18001:2007



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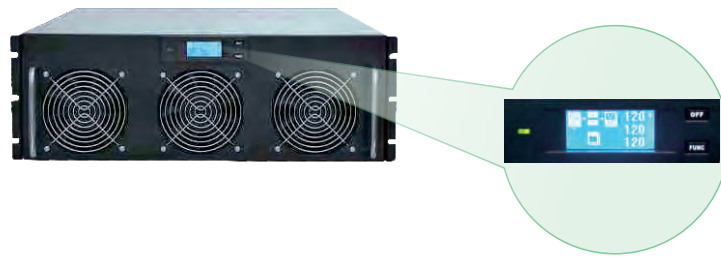
DM Series Modular Online UPS 30-300kVA (200V/208V/220V)

The DM series modular UPS provides the compact footprint of less than 4.5m² with maximum capacity of 900kVA in parallel, designed to protect any critical load for medium and larger data center achieving maximum availability. The DM series feature the latest technology of 3-level technology and PFC input control, which guarantees high efficiency of 94% and ultra-reliability, making it an excellent choice for medium and larger facilities.



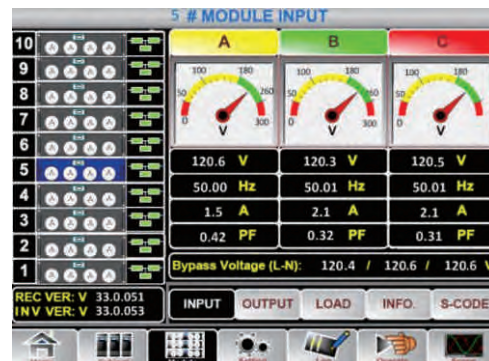
Independent LCD for Each Power Module

Each power module has an independent LCD, gives users' direct overview of status data and alarms in real time.



Friendly Interface

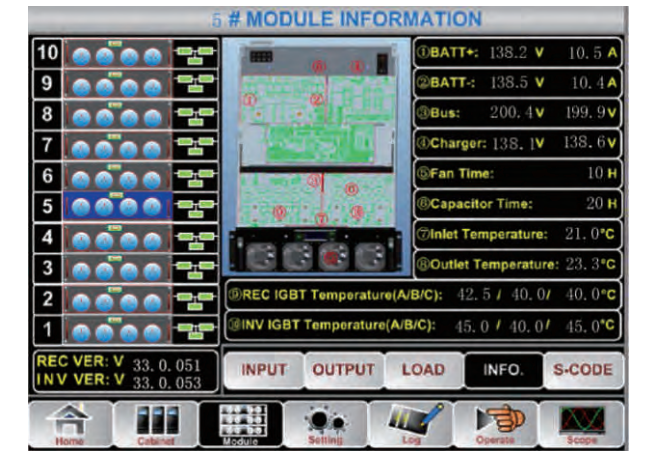
10.4" touch color LCD with comprehensive graphical information of operation, easier for customer to maintenance.



Comprehensive Monitoring Management

In each power module, information of critical components is monitored and displayed in real time, giving customers a view of inner status of the system and providing reminder information for maintenance.

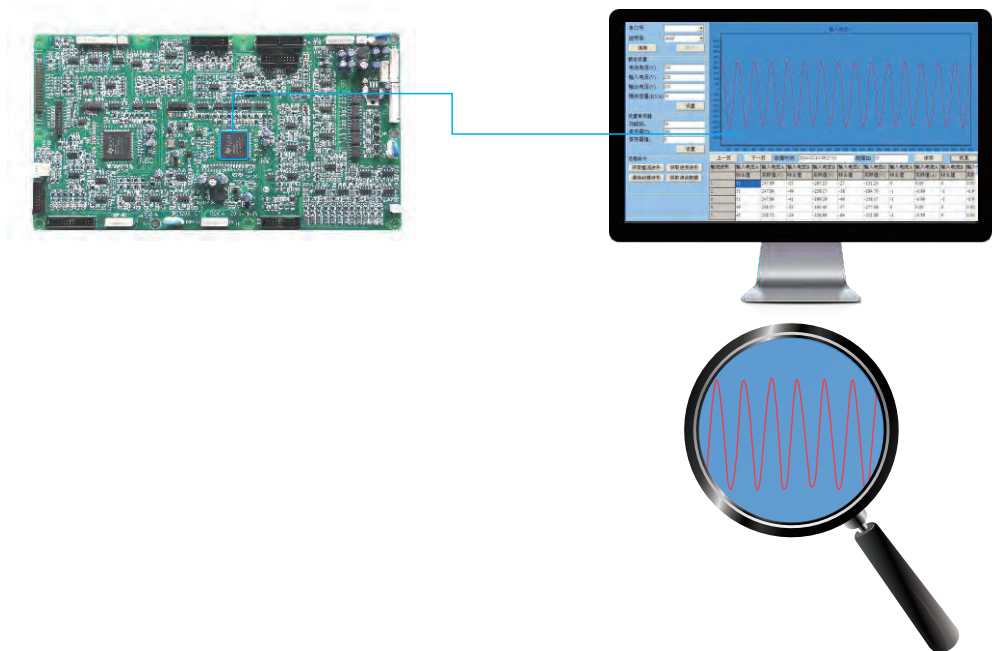
- Maintenance reminder, running time of capacitors and fans displayed and recorded
- Comprehensive temperature monitoring for thermal abnormal detection
- Intelligent battery charger for long battery life



Critical Waveform Recording

UPS can record and save the data of the main parameters automatically when faults happen for further analysis.

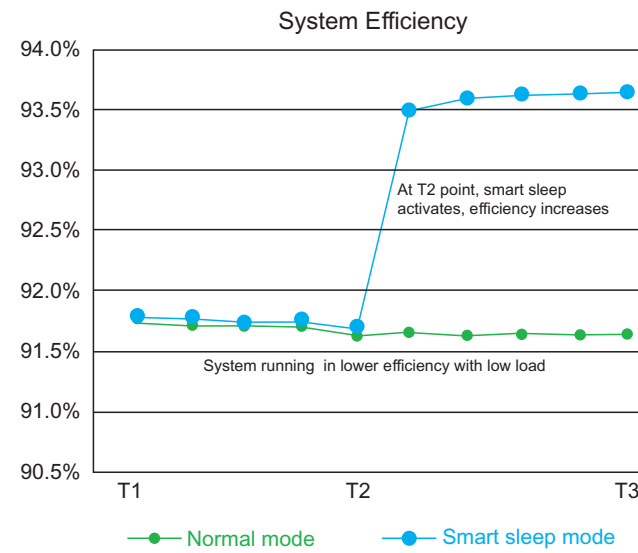
- Can record data information and present as waveform for further analysis
- Can easily spot the causes of the failures, avoid future similar faults



Smart Sleep

Smart Sleep function can intelligently make some power modules go to sleep when load is relatively low, improving the efficiency of the remaining power modules and saving customers on power and cooling costs.

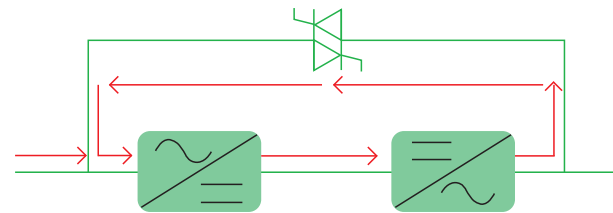
- Improving efficiency, reducing power and cooling costs
- Easy setting with just two steps. Customers can select sleep mode and rotation period
- Power modules working in rotation, prolong the life time



Self-aging

Self-aging is an advanced function applied in all three phase UPS, Self-aging function can test UPS under different load situation without real load, saving more than 90% of energy.

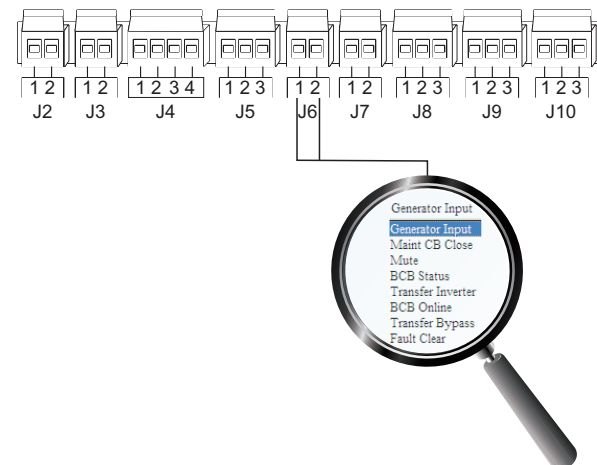
- Simulate different load conditions without connecting to any real load, saving more than 90% of energy
- On site setting supported, easy for factory testing



Programmable Dry Contacts

Programmable dry contacts are available in all DM, RML and DT33 series UPS. Customers can easily expand or modify the definition of each port.

- Abundant options with three inputs and four outputs, all programmable
- Easy setting, just pull the drop-down menu and set
- Compatible with all the DM, RML and DT33 series



Specification

| MODEL | DM060/30X | DM120/30X | DM180/30X | DM300/30X | |
|------------------------|--|------------------|-----------------------------------|------------------|--------------------|
| Capacity | 60kVA | 120kVA | 180kVA | 300kVA | |
| Power module | PD30X(30kVA/27kW) | | | | |
| INPUT | | | | | |
| Phase | 3 Phase + Neutral + Ground, 208V/220V (line to line) | | | | |
| Voltage range | 166-261Vac (line-line), full load; 166-125Vac (line-line), load derated linearly | | | | |
| Frequency range | 40Hz-70Hz | | | | |
| THDi | <3% (full linear load) | | | | |
| Power factor | >0.99 | | | | |
| OUTPUT | | | | | |
| Voltage | 208V/220V (line to line) | | | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | | | | |
| THDu | <1.5% (linear load), <6% (none-linear load) | | | | |
| Power factor | 0.9 | | | | |
| Frequency range | 50/60Hz | | | | |
| Overload capability | 110% for 60 min; 125% for 10 min; 150% for 1 min; >150% for 200ms | | | | |
| BATTERY | | | | | |
| Voltage | ±20VDC | | | | |
| Charge power | 20%*System Power | | | | |
| Voltage precision | 1% | | | | |
| SYSTEM | | | | | |
| Efficiency | Normal | 94% | | | |
| | Battery | 93% | | | |
| Display | Color LCD touch screen+ LED+ Keyboard | | | | |
| IP class | IP20 | | | | |
| Interface | Standard: RS232, RS485, USB, Dry contacts(programmable) Option: SNMP, AS400, Parallel kit, Battery cold start(standard for 180kVA and 300kVA), Lightning protection components, Dust Filter, LBS | | | | |
| Operation/storage | 0-40°C/-40-70°C | | | | |
| Relative humidity | 0-95% (non-condensing) | | | | |
| Noise | 68dB @ 100% load, 65dB @ 45% load | | 72dB @ 100% load, 69dB @ 45% load | | |
| PHYSICAL | | | | | |
| Weight (kg) | Cabinet | 210 | 350 | 490 | 900 |
| | Power Module | 45 | | | |
| Dimension (W*D*H) (mm) | Cabinet | 600*980 *1150 | 650*960 *1600 | 650*970 *2000 | 1300*1100 *2000 |
| | Power Module | 510*700*178 | | | |

DM Series Modular Online UPS 10-50kVA (200V/208V/220V)

The rack modular, scalable, hot-swappable, online double conversion UPS ranging from 10 to 50kVA, with its compact structure, is the ideal choice for small and medium data center.



Features

Rack modular design

Modular design, compatible with 19" standard rack cabinet, convenient to be integrated into server cabinet

High power density

10kVA power module in 2U height, saving great amount of space, easy for capacity expansion

Integrated solution for data center

UPS can be integrated with battery cabinet, PDU and external maintenance bypass, offering excellent choice for data center

Smart sleep function

System can intelligently shut down some power modules to increase total load rate, achieving higher efficiency

Self-aging mode

Energy internal circle technology, system can run with full load, saving more than 90% energy

Friendly interface

7" touch color LCD with graphic display, more information displayed and easier for customer to operate

Intelligent charging management

The system intelligently control the whole process of the charging and discharging, effectively improving the life time of the battery

Specification

| MODEL | DM050/10X | DM030/10X | DM020/10X | |
|-------------------------------|--|-----------------|-------------------|------------------|
| Capacity | 50kVA/50kW | 30kVA/30kW | 20kVA/20kW | |
| Power module | PD10X(10kVA/10kW) | | | |
| INPUT | | | | |
| Phase | 3 Phase + Neutral + Ground (208V/220V) | | | |
| Voltage range | 187~260Vac (Line-Line),full load; 125V~187Vac (Line-Line),load derated linearly | | | |
| Frequency range | 40Hz-70Hz | | | |
| Power factor | >0.99 | | | |
| THDi | THDi<4% @ 100% linear load | | | |
| OUTPUT | | | | |
| Voltage | 208V/220V | | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | | | |
| Power factor | 1 | | | |
| THDu | THD<1% (linear load), THD<5.5% (non-linear load) | | | |
| Crest factor | 3:1 | | | |
| Overload capability | 110% for 10 min; 125% for 1 min; 150% for 30 s; >150% for 200ms | | | |
| BATTERY | | | | |
| Voltage | ±20VDC | | | |
| Charge power | 20%*System Power | | | |
| Charge voltage precision | ±1% | | | |
| SYSTEM | | | | |
| System efficiency | Normal mode:93%; ECO mode:98%; Battery mode:92.5% | | | |
| Display | 7.0" color touch screen LCD + LED + Keyboard | | | |
| IP class | IP20 | | | |
| Interface | Standard: RS232, RS485, Dry contacts; Optional: SNMP | | | |
| Operation/Storage temperature | 0-40°C/-40-70°C | | | |
| Relative humidity | 0-95% (non-condensing) | | | |
| Noise | 58dB @ full load, 52dB @ 45% load (1 meter away) | | | |
| PHYSICAL | | | | |
| Weight (kg) | Cabinet | 85 | 52 | 42 |
| | Power Module | 16 | | |
| Dimension (W*D*H) (mm) | Cabinet | 485*751*1033 | 485*751*575 (11U) | 485*697*398 (7U) |
| | Power Module | 436*590*85 (2U) | | |

RML Series Modular Online UPS 15-400kVA (200V/208V/220V)

The RML series modular UPS provides the most compact footprint of less than 2m² with maximum capacity of 600kVA in parallel. With best reliability and high performance, it has been leading the domestic market for years.

The RML series is considered to be the best power protection solution for large data centers, as well as for sensitive electronics.



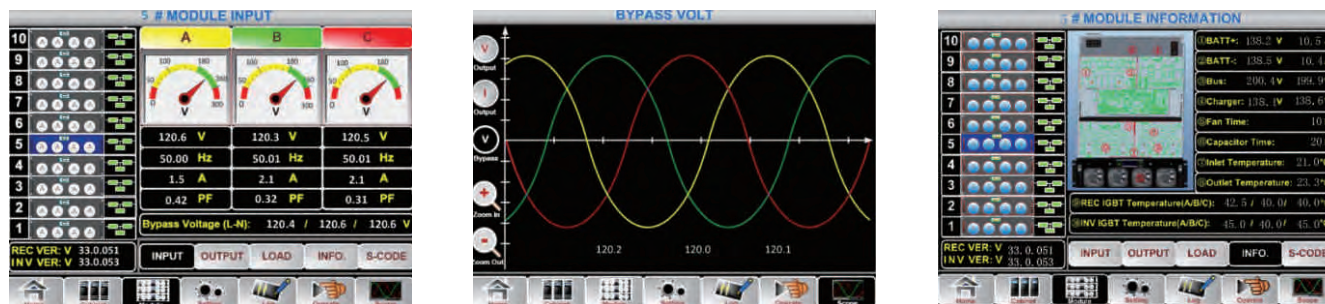
Independent LCD for Each Power Module

Each power module has an independent LCD, gives users' direct overview of status data and alarms in real time.



Friendly Interface

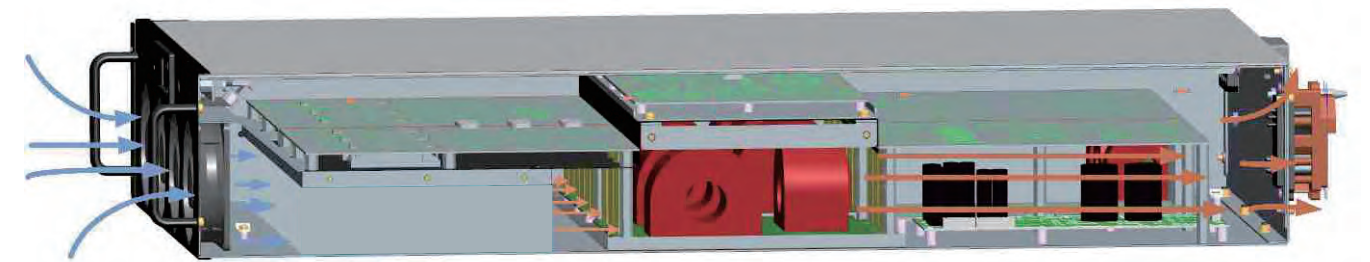
Provide graphical and text based information of alarms, status data, instructions that users can have more friendly and safer operation.



Isolated Air Flow

The dedicated and redundant hot-swappable power modules take the most unique structure design. In this design, the PCB boards and heat-sinkers are in two completely different layers, which allows the UPS run in dusty environments, significantly improving its stability and environmental adaptability.

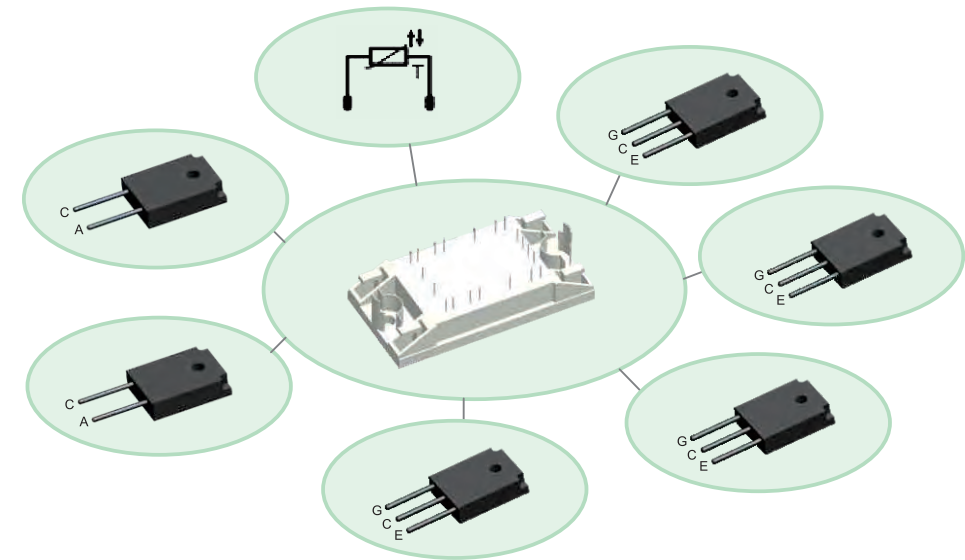
- Cooling air flows in the lower layer, keeping the upper PCB free of dust
- One air flow channel ensures fans redundancy, even one fan fails, power module can run normally



Unique Design for High Reliability

Instead of discrete IGBT and SCR components, RML series UPS uses modular IGBT and SCR in Rectifier and Inverter, bringing in extremely high reliability.

- All components in one module, less fault points, higher reliability
- All components integrated as one modular design, smaller disparity
- Less space needed, UPS with compact design and higher power design
- Integrated inner thermal sensors, display IGBT inner temperature directly



High Density ,Modular, Scalable

- High power density, footprint for 200kVA is 0.66m², power density 240kW/m², saving valuable data center space
- Scalable from 20kVA to 600kVA, max 30 power modules in parallel



- Inherently N+X redundant
- Hot-swappable power module and bypass & monitoring module
- Additional charging module, extra charging current 50A × N for long time back up application



Bypass & Monitoring module



Power module



Specification

| MODEL | RML400/20X | RML200/20X | RML120/20X | RML300/15X | RML150/15X | RM090/15X | |
|-------------------------------|--|--|--|--|----------------|---------------|---------------|
| Capacity | 400kVA/320kW | 200kVA/160kW | 120kVA/96kW | 300kVA/300kW | 150kVA/150kW | 90kVA/90kW | |
| Power module | PML20X (20kVA/16kW) | | | PML15X (15kVA/15kW) | | | |
| INPUT | | | | | | | |
| Phase | 3 Phase + Neutral + Ground, 200V/208V/220V (line-line) | | | | | | |
| Voltage range | 166-261Vac (line-line), full load; 166-125Vac (line-line), load derated linearly | | | | | | |
| Frequency range | 40Hz-70Hz | | | | | | |
| Power factor | >0.99 | | | | | | |
| THDi | THDi<3% @ 100% linear load | | | | | | |
| OUTPUT | | | | | | | |
| Voltage | 200V/208V/220V | | | | | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | | | | | | |
| Power factor | 0.8 | | | 1.0 | | | |
| THDu | THD<1% (linear load), THD<6% (non-linear load) | | | | | | |
| Crest factor | 3:1 | | | | | | |
| Overload capability | 110% for 1 hour; 125% for 10 min; 150% for 1 min; >150% for 200ms | | | | | | |
| BATTERY | | | | | | | |
| Voltage | ±20VDC | | | | | | |
| Charge power precision | ±1% | | | | | | |
| Charge power | 20%*System Power | | | | | | |
| SYSTEM | | | | | | | |
| System efficiency | Normal mode:>93%; ECO mode:>98%; Battery mode:>93% | | | | | | |
| Display | 10.4" color touch screen LCD + LED + Keyboard | | | | | | |
| IP class | IP20 | | | | | | |
| Interface | Standard: RS232, RS485, Dry contacts, USB; Optional: SNMP, Expansion dry contact card | | | | | | |
| Operation/Storage temperature | 0-40°C/-40-70°C | | | | | | |
| Relative humidity | 0-95% (non-condensing) | | | | | | |
| Noise | 72dB @ 100% load, 68dB @ 45% load (1 meter away) | 65dB @ 100% load, 62dB @ 45% load (1 meter away) | 72dB @ 100% load, 68dB @ 45% load (1 meter away) | 65dB @ 100% load, 62dB @ 45% load (1 meter away) | | | |
| PHYSICAL | | | | | | | |
| Weight(kg) | Cabinet | 660 | 220 | 165 | 660 | 220 | 165 |
| | Power Module | PML20X: 34 | | | PML15X: 32 | | |
| Dimension (W*D*H) (mm) | Cabinet | 200*1050*2000 | 600*1100*2000 | 600*1100*1600 | 2000*1050*2000 | 600*1100*2000 | 600*1100*1600 |
| | Power Module | PML20X/ PML15X: 460*790*134 | | | | | |

RML Series Modular Online UPS 12-120kVA (200V/208V/220V)

RML series is modular online UPS for sensitive equipments. The single cabinet power rating covers from 12kVA to 120kVA. With the latest IGBT three-level and full DSP control technology, the RML series delivers the best of combination of reliability, flexibility and hot-swappable.



Features

Modular design

Up to 20 power modules in parallel, online hot-swappable, N+X redundancy

Independent charger

Independent charger for each module and intelligently control the whole charging process, prolong the life time of the battery

Battery cold start

UPS can be powered on from the battery without utility

Easy connection access

Top and bottom cable entry connection are supported, more convenient for site installation

High power density

120kVA with footprints of about 0.5m², saving valuable data center space

Integrated IGBT design

Integrated IGBT in one module, less failure points with higher performance and reliability

Friendly interface

Touch LCD display with abundant information

Independent air channel

Cooling air run in isolated channel, keeping PCB free of dust



Specification

| MODEL | RML120/12 | RML072/12 | RML036/12 | |
|-------------------------------|---|--------------|--------------|--------------|
| Power module | PML12 (12kVA) | | | |
| INPUT | | | | |
| Phase | 3 Phase + Neutral + Ground, 200V/208V/220V (line to line) | | | |
| Voltage range | 166-261Vac (line-line), full load; 166-125Vac (line-line), load derated linearly | | | |
| Frequency range | 40Hz-70Hz | | | |
| Power factor | >0.99 | | | |
| THDi | THDi<3% @ 100% linear load | | | |
| OUTPUT | | | | |
| Voltage | 200V/208V/220V | | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | | | |
| Power factor | 0.8 | | | |
| THDu | THD<1% (linear load), THD<5.5% (non-linear load) | | | |
| Crest factor | 3:1 | | | |
| Overload capability | 110% for 1 hour; 125% for 10 min; 150% for 1 min; >150% for 200ms | | | |
| BATTERY | | | | |
| Voltage | ±20VDC | | | |
| Charge power | 20%*System Power | | | |
| Charge voltage precision | ±1% | | | |
| SYSTEM | | | | |
| System efficiency | Normal mode:>92%; ECO mode:>98%; Battery mode:>92% | | | |
| Display | LCD+LED, Touch Screen +Keyboard | | | |
| IP class | IP20 | | | |
| Interface | Standard: RS232, RS485, Dry contacts; Optional: SNMP | | | |
| Operation/Storage temperature | 0-40°C/-40-70°C | | | |
| Relative humidity | 0-95% (non-condensing) | | | |
| Noise | 55dB @ (1 meter away) | | | |
| PHYSICAL | | | | |
| Weight (kg) | Cabinet | 179 | 145 | 105 |
| | Power Module | 22 | | |
| Dimension (W*D*H) (mm) | Cabinet | 600*900*2000 | 600*900*1600 | 600*900*1100 |
| | Power Module | 440*590*134 | | |

RML Series In-built Battery Modular Online UPS 12-36kVA (200V/208V/220V)

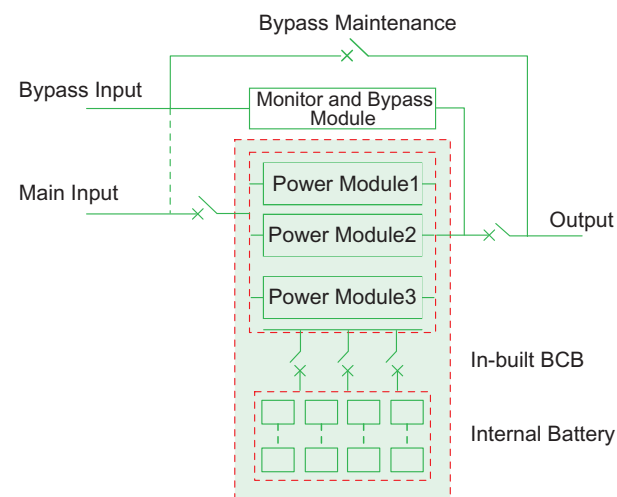
RML036/12B series is modular online UPS with hot-swappable battery. The single cabinet power rating covers from 12kVA to 36kVA which delivers the best of combination of reliability, hot-swappable and flexibility.

With intelligent battery protection and management technology, RML036/12B realises a compact total power solution which is easy for installation, maintenance and power expansion.



Features

- Modular design with hot-swappable battery package
- Monitoring system for battery
- Integrated IGBT module with improved performance and reduced size
- Easy for installation and maintenance
- Easy for power expansion and backup time expansion
- Intelligent protection technology for safe and reliable hot-swappable battery package of the system
- Smart charging management system, intelligently control the whole process of the charging and discharging, effectively improving the life time of the battery
- Battery cold start
- Friendly human machine interface with touch screen



Specification

| | | |
|--------------------------------|---|----------------------|
| MODEL | RML036/12B (In-built Battery) | |
| Capacity | 36kVA | |
| Power module | PML12 (12kVA) | |
| INPUT | | |
| Phase | 3 Phase + Neutral + Ground, 200V/208V/220V (line to line) | |
| Voltage range | -40%-25% | |
| Frequency range | 40Hz-70Hz | |
| Power factor | >0.99 | |
| THDi | THDi<3% @100% linear load | |
| OUTPUT | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | |
| THDu | THD<1% (linear load), THD<5.5% (non-linear load) | |
| Power factor | 0.8 | |
| Crest factor | 3:1 | |
| Overload capability | 110% for 1 hour; 125% for 10 min; 150% for 1 min; >150% for 200ms | |
| BATTERY | | |
| Voltage | ±20VDC | |
| Charge power | 20%*System Power | |
| Charge power precision | ±1% | |
| SYSTEM | | |
| System efficiency | Normal mode:>92%; ECO mode:>98%; Battery mode:>92% | |
| Display | LCD+LED, Touch Screen +Keyboard | |
| IP class | IP20 | |
| Interface (Communication port) | Standard: RS232, RS485, Dry contacts; Optional: SNMP | |
| Installation/Connection | Top or bottom cable connection | |
| Operation/Storage temperature | 0-40°C/-40-70°C | |
| Relative humidity | 0-95% (non-condensing) | |
| Noise | 55dB (1 meter away) | |
| PHYSICAL | | |
| Weight (kg) | Cabinet | 205 |
| | Power Module | 22 |
| | Battery package | 10 (without battery) |
| Dimension (W*D*H) (mm) | Cabinet | 600*1020*2000 |
| | Power Module | 440*590*134 |
| | Battery package | 120*824*177 |

HTL33 Series Tower Online UPS 40-80kVA (200V/208V/220V)

HTL33 series three phase UPS offers advanced technology that increase performance and reliability: three high speed DSPs with completed digital control fully ensure high quality of power supply, high input power factor and low input current distortion. It also offers humanization design : full front access of serviceability and user friendly interface .



Application

IDC (Internet DataCenter), ISP, IT, Room, Service Center

Features

- High efficiency, up to 93%
- High input PF >0.99; Input current THDi <3%
- Multi-protection,over-temperature protection with 8 sensors, over-load,battery under voltage,fan failures,short-circuit
- Battery cold start
- Battery management with smart charging control, greatly extend the battery life
- High power density
- Parallel up to 560kVA
- Modular design of subsystem, convenient for field maintenance
- Friendly operation interface, color touch LCD screen

Specification

| MODEL | HTL33040X | HTL33060X | HTL33080X |
|-----------------------|---|--------------|--------------|
| Capacity | 40kVA | 60kVA | 80kVA |
| INPUT | 3Phase+Neutral+Ground,200/208/220VAC(Line-Line) | | |
| Phase | 166 ~ 261VAC (Line-Line) ,full load | | |
| Voltage range | 125 ~ 166VAC(Line-Line),load decrease linearly according to the min phase voltage | | |
| Frequency range | 40 ~ 70Hz | | |
| THDi | <3%(full Linear Load) | | |
| Power Factor | >0.99 | | |
| OUTPUT | | | |
| Voltage | 200/208/220VAC(Line-Line) | | |
| Voltage regulation | ±1.5% (0-100% linear load) | | |
| THDu | <1%(linear load); <6%(non-linear load)according to IEC/EN62040-3 | | |
| Power Factor | 0.8 | | |
| Frequency range | 50/60Hz | | |
| Frequency precision | ±0.1% | | |
| Overload capability | 110%,60min;125%10min;150%,1min;>150%,200ms | | |
| BATTERY | | | |
| Voltage | ±120VDC | | |
| Charger Power | max=20% System Power | | |
| Voltage precision | 1% | | |
| SYSTEM | | | |
| System efficiency | Normal | >93% | |
| | Battery | >93% | |
| | ECO | >98% | |
| Display | 7" touch colour LCD+LED+Keyboard | | |
| Interface | Standard:RS232,RS485,USB,Dry Contact; Option:SNMP,AS/400 | | |
| Operation Temperature | 0 ~ 40°C | | |
| Relative Humidity | 0 ~ 95%(Non condensing) | | |
| Noise | 65dB @100% load, 62dB @45% load(1meter) | | |
| PHYSICAL | | | |
| Weight(kg) | 170 | 231 | 266 |
| Dimension(W*D*H,mm) | 600*980*950 | 600*980*1400 | 600*980*1400 |

DT33 Series Tower Online UPS 60-180kVA (200V/208V/220V)

DT33 series three phase UPS offers advanced technology that increase performance and reliability: three high speed DSPs with completed digital control fully ensure high quality of power supply, high input power factor and low input current distortion. It also offers humanization design : full front access of serviceability and user friendly interface .



Application

IDC (Internet DataCenter), ISP, IT, Room, Service Center

Features

- High efficiency, up to 93%
- High input PF >0.99; Input current THDi <3%
- Multi-protection,over-temperature protection with 8 sensors, over-load,battery under voltage,fan failures,short-circuit
- Battery cold start
- Battery management with smart charging control, greatly extend the battery life
- High power density
- Parallel up to 900kVA
- Modular design of subsystem, convenient for field maintenance
- Friendly operation interface, color touch LCD screen

Specification

| MODEL | DT33060X | DT33090X | DT33120X | DT33150X | DT33180X |
|-----------------------|---|--------------|--------------|--------------|--------------|
| Capacity | 60kVA/54kW | 90kVA/81kW | 120kVA/108kW | 120kVA/135kW | 180kVA/162kW |
| INPUT | | | | | |
| Phase | 3 Phases + Neutral + Ground,200/208/220VAC (Line-Line) | | | | |
| Voltage range | 166~261Vac (Line-Line),full load 125V~166Vac (Line-Line),load decrease linearly according to the min phase voltage | | | | |
| Frequency range | 40Hz~70Hz | | | | |
| THDi | <3% (full Linear Load) | | | | |
| Power factor | >0.99 | | | | |
| OUTPUT | | | | | |
| Voltage | 200/208/220VAC (Line-Line) | | | | |
| Voltage regulation | Balance load: ±1%; Unbalance load: ±1.5% | | | | |
| THDu | <1.5% from 0% to 100% linear load <6% full non-linear load according to IEC/EN62040-3 | | | | |
| Power factor | 0.9 | | | | |
| Frequency range | 50/60Hz | | | | |
| Frequency precision | ±0.01% | | | | |
| Overload capability | <110%, 60min;110%~125%,10min; 125%~150%,1min;>150%,200ms | | | | |
| BATTERY | | | | | |
| Voltage | ±120VDC | | | | |
| Charge power | 20% *Output power | | | | |
| Voltage precision | 1% | | | | |
| SYSTEM | | | | | |
| System efficiency | Normal | >93% | | | |
| | Battery | >93% | | | |
| Display | LED + LCD + touch screen | | | | |
| Interface | Standard:RS232, RS485, USB,Dry contact(Programmable) | | | | |
| | Optional:Battery Cold Start(Standard above 150kVA) SNMP,AS400,parallel kit,Lightning protection components | | | | |
| Operation Temperature | 0 ~ 40 °C | | | | |
| Relative Humidity | 0 ~ 95% Non condensing | | | | |
| Noise | 65dB @ 100% load, 62dB @ 45% load(1 meter away) | | | | |
| PHYSICAL | | | | | |
| Weigh (kg) | 210 | 305 | 350 | 445 | 490 |
| Dimension(W*D*H)(mm) | 600*980*1150 | 650*960*1600 | 650*960*1600 | 650*960*2000 | 650*960*2000 |

DT33 Series Tower Online UPS 10-30kVA (200V/208V/220V)

DT33 series UPS applies advanced technology that increases performance and reliability: two high speed DSPs with completed digital control to ensure high quality of power supply, high input power factor and low input current distortion.



Application

- IDC (Internet Data center), ISP, Computer Room, Service Center
- Precision instruments, Intelligent equipments

Features

- High efficiency, up to 94%
- High input PF > 0.99; Input current THDi < 4%
- Multi-protection, over-temperature protection with 8 sensors, over-load, battery under voltage, fan failures, short-circuit
- Four circuit breakers, providing full protection when fault happens
- Battery cold start
- Battery management with smart charging control, greatly extend the battery life
- Parallel up to 8 units
- Friendly operation interface, high-resolution LCD screen

Specification

| MODEL | DT33010XS | DT33020XS | DT33030XS |
|-----------------------|---|---|--------------|
| | DT33010XL | DT33020XL | DT33030XL |
| Capacity | 10kVA | 20kVA | 30kVA |
| INPUT | | | |
| Phase | 3 Phase + Neutral + Ground, 208V/220V (line-line) | | |
| Voltage range | 187-261Vac (line-line), full load; 187-125Vac (line-line), load derated linearly | 166-261Vac (line-line), full load; 166-125Vac (line-line), load derated linearly | |
| Frequency range | 40Hz-70Hz | | |
| THDi | <5% (linear load) | <4% (linear load) | |
| Power factor | >0.99 | | |
| OUTPUT | | | |
| Voltage | 208V/220V (line-line) | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | | |
| THDu | <1.5% (linear load), <6% (non-linear load) | | |
| Power factor | 1 | 0.9 | |
| Frequency range | 50/60Hz | | |
| Frequency precision | 0.1% | | |
| Overload capability | 110% for 10 min; 125% for 1 min; 150% for 30 s; >150% for 200ms | 110% for 60 min; 125% for 10 min; 150% for 1 min; >150% for 200ms | |
| BATTERY | | | |
| Voltage | ±20VDC | | |
| Charge power | 20%*System Power | | |
| Voltage precision | 1% | | |
| SYSTEM | | | |
| System efficiency | Normal | 93% | 94% |
| | Battery | 92.5% | 93% |
| Display | LCD + LED + Keyboard | | |
| IP class | IP20 | | |
| Interface | Standard: RS232, RS485, Dual input kit; Option: SNMP, Dry contacts, Parallel kit, Battery cold start | | |
| Operation temperature | 0-40°C | | |
| Relative humidity | 0-95% (non-condensing) | | |
| Noise | 58dB @ 100% load, 52dB @ 45% load (1 meter away) | 70dB @ 100% load, 62dB @ 45% load (1 meter away) | |
| PHYSICAL | | | |
| Weight (kg) | 51.5 | 140 | 140 |
| | 31 | 64 | 64 |
| Dimension(W*D*H)(mm) | 250*840*715 | 500*840*1400 | 500*840*1400 |
| | 250*660*530 | 250*950*770 | 250*950*770 |

DTC33 Series Tower Online UPS 15-40kVA (208V/220V)

The DTC33 series tower UPS is designed for the overseas 208V market, it has a high output power factor, high system efficiency and small floor space which is easy to deploy. Its compact structure and quick-installation battery pack make it become an ideal choice for data centers.



Application

- IDC (Internet Data center), ISP, Server Room, Data Center, Critical devices

Features

- High efficiency, up to 94%
- More capacity, up to 40kva
- Input current THDi < 4%
- Battery management with smart charging control
- Battery cold start
- Output power factor =1
- Friendly operation interface, high-resolution LCD screen
- Four circuit breakers, easier to operation, less human fault

Specification

| MODEL | DTC33015S | DTC33020S | DTC33030S | DTC33040S |
|------------------------|---|--------------|---------------|-----------|
| System Capacity | 15kVA | 20kVA | 30kVA | 40kVA |
| INPUT | | | | |
| Phase | 3 phases + Neutral + Ground, 208V/220V (line-line) | | | |
| Nominal Input Voltage | 208/220VAC | | | |
| Input voltage Range | 177~239Vac (line-line), full load; 187~253 (line-line), full load; 125~177/132~187Vac (line-line), load decrease linearly from 100% to 40% according to the min phase voltage | | | |
| Input Frequency Range | 40Hz ~ 70Hz | | | |
| Input PF | 0.98 > 25% load, 0.99 > 50% load | | | |
| Input THDi | <4% (100% liner load) | | | |
| BYPASS | | | | |
| Rate Voltage | 208/220Vac (line-line) | | | |
| Rate Frequency | 50/60Hz | | | |
| Bypass Voltage Range | -10~40%; +10~25% (settable) | | | |
| Frequency Range | +/-1Hz, +/-3Hz, +/-5Hz (settable) | | | |
| Bypass Overload | 110% for long ter operation; 125% for 10 mins; 150% for 1 min; 1000% for 10ms | | | |
| OUTPUT | | | | |
| Nominal Output Voltage | 208/220 | | | |
| Voltage Regulation | +/-1% (100% balance load) | | | |
| Output THDu | <2% Linear load; <6% Non-linear load | | | |
| Frequency Regulation | 50/60 Hz +/-0.1% | | | |
| Crest Factor | 2.5:1 | | | |
| Output PF | 1 | | | |
| Inverter Overload | 110% for 1 hour; 125% for 10 mins; 150% for 1 min; | | | |
| BATTERY | | | | |
| Battery Overload | 125% for 10 mins; 150% for 1 min | | | |
| Charging Power | up to 15% output active power | | | |
| Battery Number | 20pcs | | | |
| SYSTEM | | | | |
| Efficiency | Normal | 94% | | |
| | Battery | 94% | | |
| | ECO | 98% | | |
| IP Class | IP20 | | | |
| Interface | RS485, Programmable Dry Contact, USB (optional) | | | |
| Temperature | Operation: 0 to 40°C Storage: -25 to 55 °C | | | |
| Relative Humidity | 0-95% Non-condensing | | | |
| Altitude | <1000 m. 1% power derating for every 100m rise | | | |
| Noise (1 meter) | 68dB @ 100% load; 65dB @ 45% load | | | |
| PHYSICAL | | | | |
| Dimension W×D×H (mm) | 380*840*1400 | 380*940*1400 | 500*1000*1400 | |
| Cabinet Weight (mm) | 118 | 142 | 176 | |

HRL33 Series Rack Online UPS 10-20kVA (208V/220V)

The HRL33 Series Rack is double conversion online UPS with fully DSP controlled technology. With its high efficiency up to 94% and easy front maintenance of dust filter as well as fans, it's the ideal choice for modern data center.



Application

IDC(Internet Data Center), network servers and workstation, control system, communication system, office, PC etc

Features

- Rack Design
Rack design, compatible with 19" standard rack cabinet, convenient to be integrated with servers
- Friendly Interface
5.5" touch color LCD with graphic display, more information displayed and easier for customer to operate
- Intelligent charging management
The system intelligently control the whole process of the charging and discharging, effectively improving the life time of the battery

Specification

| MODEL | HRL33010CL | HRL33015CL | HRL33020CL | |
|-----------------------|--|-------------------|-------------|-------|
| Capacity | 10KVA | 15KVA | 20KVA | |
| INPUT | | | | |
| Phase | 3 Phase + Neutral + Ground, 208V/220V (line-line) | | | |
| Voltage Range | 166-261Vac (line-line), full load; 166-125Vac (line-line), load derated linearly | | | |
| Frequency Range | 40Hz ~ 70Hz | | | |
| Power factor | >0.99 | | | |
| THDi | <4% (Linear Load) | <3% (linear load) | | |
| OUTPUT | | | | |
| Voltage | 208V/220V (line-line) | | | |
| Voltage regulation | ±1% for balance load; ±1.5% for unbalance load | | | |
| Frequency range | 50/60Hz | | | |
| Frequency precision | ±0.1 | | | |
| Power factor | 0.9 | | | |
| THDu | <1.5% (linear load), <6% (non-linear load) | | | |
| Overload capability | 110% for 1 hour;125% for 10 min; 150% for 1min;>150% for 200ms | | | |
| BATTERY | | | | |
| Voltage | ±120VDC | | | |
| Voltage precision | ±1 | | | |
| Charge power | up to 20% *Output power | | | |
| SYSTEM | | | | |
| System efficiency | Normal | 93% | 93.5% | 94% |
| | Battery | 92.5% | 93% | 93.5% |
| Display | LED + LCD+Keyboard | | | |
| IP class | IP20 | | | |
| Interface | Standard: RS232(only 10-25K), USB(only 40K), RS485, Programmable dry contact Option: SNMP,parallel kit | | | |
| Operation Temperature | 0 ~ 40 °C | | | |
| Relative Humidity | 0 ~ 95% (non condensing) | | | |
| Noise (1 meter) | 65dB @ 100% load, 62dB @ 45% load | | | |
| PHYSICAL | | | | |
| Dimension W*D*H (mm) | 438*780*130 | 438*780*130 | 438*700*174 | |
| Weigh (kg) | 25 | 30 | 41 | |

HRL31 Series Tower Online UPS 10-12kVA (110V/120V/127V)

HRL33 Series is online double conversion UPS with fully DSP controlled technology. With its high input and output power factor self-adjusting output frequency and network management, HRL31 is a perfect choice for computers, telecommunication equipments and other sensitive devices.



Application

IDC(Internet Data Center), network servers and workstation, office, etc

Features

- Full protection of over voltage, circuit short and over temperature
- Auto fan speed adjustment
- High efficiency, up to 96%
- Parallel up to 4
- Output PF=0.9
- Digital Charger, adjustment from 1A to 5A
- 12A charger for option, charging for large capacity batteries
- Self-aging mode, system can simulate full load test without connecting real load, saving more than 90% energy

Specification

| MODEL | HRL3110XL | HRL3112XL |
|--------------------------------|--|-----------|
| Capacity | 10kVA | 12kVA |
| INPUT | | |
| Phase | 3 Phase + Neutral + Ground, 208V/220V (line-line) | |
| Voltage range | 166-261Vac (line-line), full load; 166-125Vac (line-line), load derated linearly | |
| Frequency range | 40Hz-70Hz | |
| THDi | <4% (linear load) | |
| Power factor | >0.99 | |
| OUTPUT | | |
| Voltage | 110V/120V/127V | |
| Voltage regulation | 1% | |
| THDu | <1% (linear load), <3% (non-linear load) | |
| Power factor | 0.9 | |
| Frequency range | 50/60Hz | |
| Overload capability (inverter) | 110% for 10 min; 125% for 1 min; 150% for 30 s; shut down the bypass after 1 min | |
| Overload capability (bypass) | <125%: long time operation; 130% for 5 min; 150% for 1 min; >150% shut down after 200 ms | |
| Crest factor | 3:1 | |
| BATTERY | | |
| Voltage | 192VDC | |
| Type/ number | External | |
| SYSTEM | | |
| System efficiency | Normal | 93% |
| | ECO | 96% |
| Display | LCD + LED | |
| IP class | IP20 | |
| Interface | Standard: RS232, EPO Option: RS485, SNMP, Dry contacts, USB | |
| Operation temperature | 0-40°C | |
| Relative humidity | 0-95% (non-condensing) | |
| Noise | <62dB (1 meter away) | |
| PHYSICAL | | |
| Weight (kg) | 33 | |
| Dimension(W*D*H)(mm) | 438*744*173 | |

HTL11 Series Tower Online UPS 4-12kVA (110V/120V/127V)

HTL11 series, ranging from 4kVA to 12kVA, is double conversion online UPS with fully DSP controlled technology. The single phase UPS applies the advanced 3-level technology, achieving a efficiency up to 95%. With its compact design of high power density, HTL11 series make it ideal choice for computers, telecommunication equipment and other sensitive devices.



Application

IDC (Internet Data Center), network, servers and workstations, office etc

Features

- High efficiency, up to 95%
- Intelligent charging management, effectively improving the life time of battery
- 3 level of technology, compatible with complicated load
- Smaller size with higher power density
- Battery number can be set on LCD
- Parallel up to 4 units

Specification

| MODEL | HTL1104XS | HTL1106XS | HTL1110XL | HTL1112XL |
|-------------------------------------|--|-------------|-------------------------------------|-------------|
| | HTL1104XL | HTL1106XL | | |
| Capacity | 4kVA | 6kVA | 10kVA | 12kVA |
| Phase | Single phase in , Single phase out | | | |
| Input voltage range | 50%-125% (110V/120V/127V) | | | |
| | 100% load@80%-125%; 90% load@70%-80% 80% load@60%-70%; 65% load@50%-60% | | | |
| Input PF | ≥0.99 | | | |
| Input frequency range | 40Hz-70Hz | | | |
| Output PF | 0.9 | | | |
| Output voltage | 110V/120V/127V | | | |
| Voltage regulation | ±1% | | | |
| THDu | ≤2% (linear) ; ≤5% (non-linear) | | | |
| Battery voltage | 192VDC | | | |
| Battery type/number | 12V,7Ah*16 | 12V,9Ah*16 | External | External |
| | External | External | | |
| System efficiency | Normal mode:95%; ECO mode:98%; Battery mode:95% | | | |
| Noise (1 meter away) | <48dB@<70% load; <58dB@>70% load | | <50dB@<70% load; <58dB@>70% load | |
| Overload capability (Inverter mode) | 110%: for 10 min; 125%: for 1 min; 150%: for 30 s | | | |
| Overload capability (Battery mode) | 110%: shutdown after 1 min; 125%: shutdown after 10 s; >125%: shutdown after 1 s | | | |
| Crest factor | 3:1 | | | |
| Display | LED+LCD | | | |
| Interface | Standard: RS232 Optional: SNMP, USB, RS485,Dry contacts, parallel kit | | | |
| W*D*H (mm) | 190*426*705 | 190*485*705 | 190*485*480 | 190*485*480 |
| | 190*426*336 | 190*485*336 | | |
| Weight (kg) | 56 | 60 | 33 | 33 |
| | 14 | 16 | | |

HRL11 Series Rack Online UPS 4-6kVA (110V/120V/127V)

HRL11 series is online double-conversion UPS with fully DSP controlled technology. With 19" standard rack design, self-adjusting output frequency and network management, HRL11 is a perfect choice for computers, IT equipments and other sensitive devices.



Application

IDC (Internet Data Center), network, servers and workstations, control system, communication system, office, PC etc

Features

- Wide range of input voltage while input PF≥0.99
- Output PF of 0.9
- Full protection of overvoltage, short-circuit and over temperature
- LCD/LED display, monitoring all the operation status
- 19" standard cabinet and battery cabinet
- Automatic fan speed adjustment
- Abundant interface : RS232, USB, SNMP, Intelligent Card

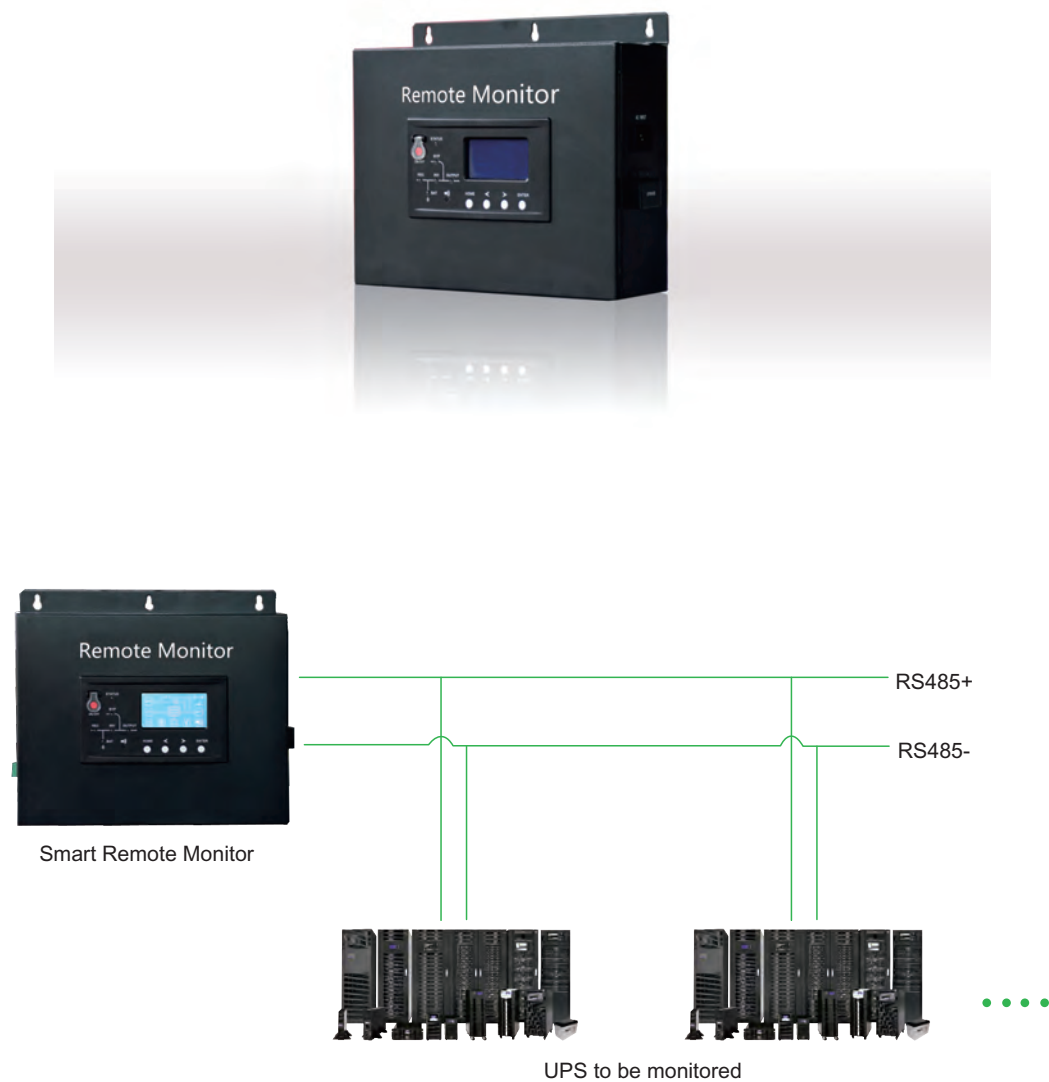
Specification

| MODEL | HRL114000XS | HRL116000XS |
|-------------------------------------|--|-------------|
| | HRL114000XL | HRL116000XL |
| Capacity | 4000VA | 6000VA |
| Input voltage range | 55VAC-155VAC | |
| | 100% load@>96VAC; 80% load@>85VAC 70% load@>70VAC; 50% load@>55VAC | |
| Input frequency | 40-70Hz | |
| Input PF | ≥0.99 | |
| Voltage regulation | ± 1 % | |
| Output frequency | 50/60Hz | |
| Output PF | 0.9 | |
| Overload capability (Inverter mode) | 110%: to bypass after 10 min; 130%: to bypass after 1 min; 150%: to bypass after 30 s, shutdown after 1 min | |
| Overload capability (Battery mode) | 110%: shutdown after 1 min; 125%: shutdown after 10 s; >125%: shutdown after 1 s | |
| Crest factor | 3:1 | |
| Efficiency | 95% | |
| Display | LED+LCD | |
| Battery voltage | 192VDC | |
| Battery type/number | 12V,7Ah*16 | 12V,9Ah*16 |
| | External | |
| Interface | Standard: RS232, EPO | |
| | Optional: USB, SNMP, Dry contacts, Battery cabinet | |
| Operation temperature | 0-40°C | |
| Relative humidity | 0-95% (non-condensing) | |
| W*D*H (mm) | 440*660*173 | |
| | 440*550*86 | |
| Weight (kg) | 59 | 67 |
| | 17.5 | 20.5 |

Smart Remote Monitor

Smart Remote Monitor has been specifically designed to provide detailed information of the running UPS over a long distance, which is suitable to be used in data center, IDC, monitor and control room and other applications. The Smart Remote Monitor displays and monitors the parameters and status of the UPS in real time, ensuring the safe running of the UPS system.

Solution



Smart Charging Module

Smart Charging Module is designed for large current charging application where long back up time is required. The charging module is compatible with 20kVA/15kVA power module based RML series and can provide additional maximum current of $50A \times N$.

Features

Modular and hot-swappable design

Modular and hot-swappable design, the same size and outlook as 20kVA/15kVA power module based RML series

Compatibility

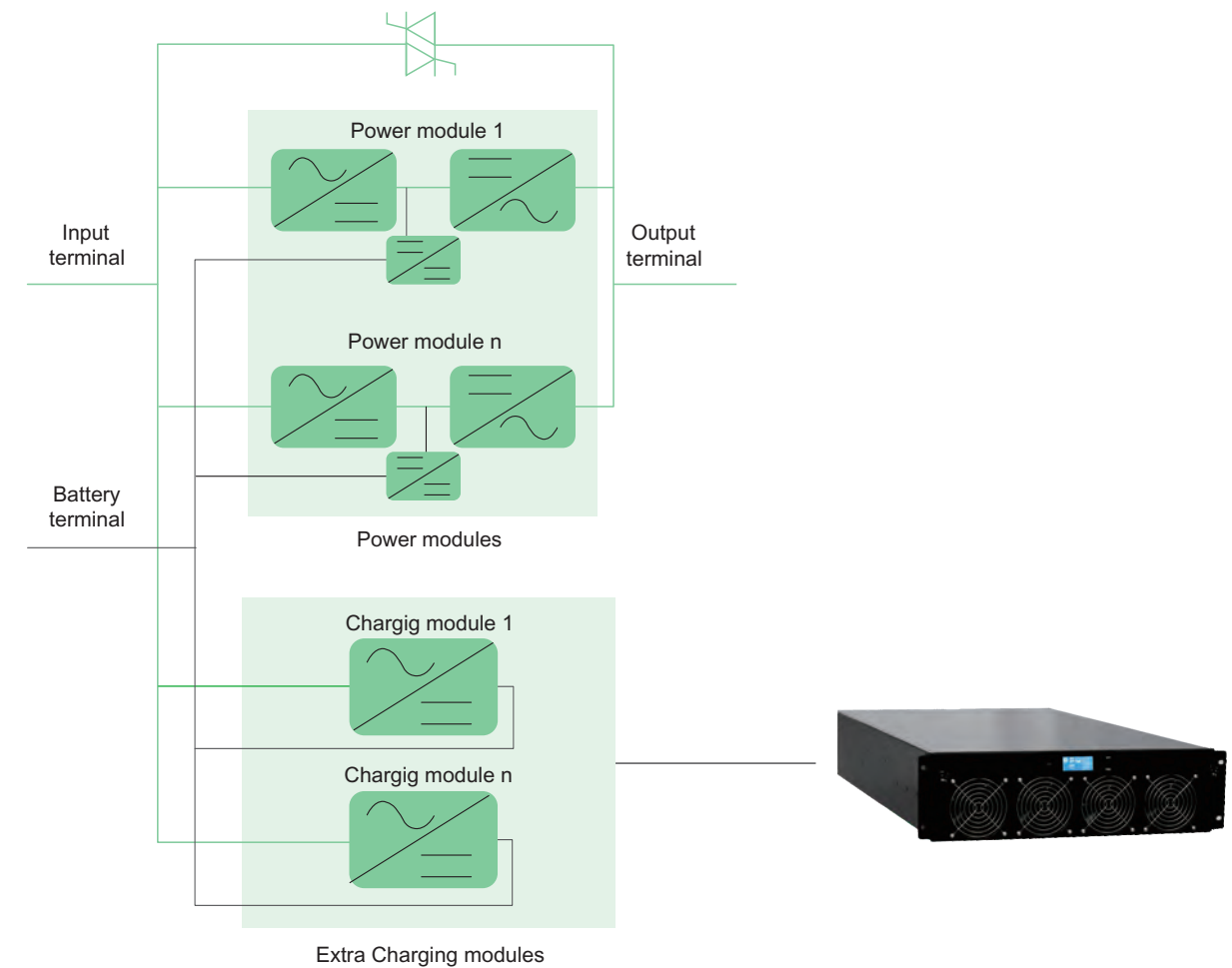
Compatible with 20kVA/15kVA power module based RML series, easy for the UPS to expand charging capacity

Large charging current

Each power module can provide a maximum current of 50A and charging current can be set from 0-50A

Display

A high resolution LCD is placed in front of the panel. User can conveniently view the charging parameter in real time



Battery Cabinet

The battery cabinet is made of cold rolled steel or galvanization plates of high mechanical performance and bearing capacity. The compact structure with electrostatic spraying makes the cabinet more wear-resistant, corrosion-resistant and fireproofing.

The cabinet is designed as assembly type which is convenient for transportation. All these guarantee the reliability and safety for the UPS.



Specification

| Model | Colour | Materials | Weight | Layer | Size(mm) | QTY of Battery |
|---------|-------------------------|-----------------------------------|--------|-------|----------------|---|
| C1A | Computer grey and black | Steel plates or galvanized plates | 4.5kg | 1 | 540*210*230 | 17AH, 6PCS;24AH, 4PCS; 38AH 3PCS; |
| C3 | Computer grey or black | Steel plates or galvanized plates | 9kg | 1 | 585*470*320 | 17AH,14PCS;24AH,6PCS; 38AH ,6PCS; 65AH, 3PCS; 100AH 3PCS; |
| C6 | Computer grey or black | Steel plates or galvanized plates | 18kg | 2 | 585*470*615 | 17AH ,28PCS;24AH, 12PCS; 38AH, 12PCS; 65AH, 6PCS; 100AH 6PCS; |
| C8 | Computer grey or black | Steel plates or galvanized plates | 21kg | 2 | 780*470*615 | 17AH 36PCS;24AH, 16PCS; 38AH, 16PCS;65AH ,8PCS; 100AH, 8PCS; |
| C12 | Computer grey or black | Battery terminal | 45kg | 4 | 780*470*910 | 24AH,24PCS;38AH,24PCS; 65AH,12PCS;100AH,12PCS |
| C16 | Computer grey or black | Steel plates or galvanized plates | 45kg | 4 | 780*470*1190 | 24AH,32PCS;38AH,32PCS; 65AH,16PCS;100AH,16PCS; |
| C20 | Computer grey or black | Steel plates or galvanized plates | 58kg | 4 | 950*470*1190 | 24AH,40PCS;38AH,40PCS; 65AH,20PCS;100AH,20PCS; |
| C40-100 | Computer grey or black | Steel plates or galvanized plates | 110kg | 4*2 | 950*880*1190 | 65AH,40PCS; 100AH,40PCS; |
| C40-120 | Computer grey or black | Steel plates or galvanized plates | 120kg | 4*2 | 950*880*1475 | 120AH,40PCS; |
| G40-150 | Computer grey or black | Steel plates or galvanized plates | 150kg | 4*2 | 1100*1070*1480 | 150AH,40PCS; |
| G40-200 | Computer grey or black | Steel plates or galvanized plates | 200kg | 4*2 | 1900*1230*1260 | 200AH,40PCS; |

MF Series Sealed Lead Acid Battery

2V/6V/12V (4AH-3000AH)

- Long life expectancy
- Maintenance free
- Low self discharging
- High reliability



Specification

| Model | RatedVoltage(V) | Capacity(Ah) | Dimension(±1mm) | | | | Weight±5% kg |
|----------|-----------------|--------------|-----------------|-------------|--------------|--------------------|-----------------|
| | | | Length mm | Width mm | Height mm | Total Height mm | |
| MF4-12 | 12 | 4 | 91 | 71 | 102 | 108 | 1.4 |
| MF7-12 | 12 | 7 | 151 | 65 | 94 | 100 | 2.15 |
| MF9-12 | 12 | 9 | 151 | 65 | 96 | 100 | 2.5 |
| MF12-12 | 12 | 12 | 151 | 98 | 95 | 101 | 3.4 |
| MF17-12 | 12 | 17 | 181 | 77 | 167 | 171 | 5.2 |
| MF24-12 | 12 | 24 | 166 | 175 | 125 | 129 | 7.6 |
| MF38-12 | 12 | 38 | 197 | 165 | 170 | 170 | 12.4 |
| MF65-12 | 12 | 65 | 350 | 167 | 179 | 179 | 19.6 |
| MF100-12 | 12 | 100 | 328 | 171 | 214 | 220 | 30.5 |
| MF120-12 | 12 | 120 | 410 | 176 | 227 | 227 | 33.5 |
| MF150-12 | 12 | 150 | 482 | 170 | 242 | 242 | 44.5 |
| MF200-12 | 12 | 200 | 522 | 238 | 218 | 222 | 60 |
| MF250-12 | 12 | 250 | 520 | 269 | 220 | 224 | 69.5 |
| MF4-6 | 6 | 4 | 70 | 47 | 101 | 107 | 0.65 |
| MF7-6 | 6 | 7 | 151 | 34 | 94 | 100 | 1.08 |
| MF9-6 | 6 | 9 | 98 | 56 | 117 | 117 | 1.35 |
| MF12-6 | 6 | 12 | 151 | 50 | 94 | 100 | 1.7 |
| MF100-6 | 6 | 100 | 195 | 170 | 207 | 213 | 16.5 |
| MF150-6 | 6 | 150 | 260 | 180 | 247 | 251 | 23.5 |
| MF200-6 | 6 | 200 | 250 | 125 | 362 | 366 | 31 |
| MF300-6 | 6 | 300 | 295 | 178 | 345 | 350 | 47 |
| MF100-2 | 2 | 100 | 171 | 72 | 206 | 211 | 6.3 |
| MF150-2 | 2 | 150 | 172 | 102 | 205 | 227 | 8.1 |
| MF200-2 | 2 | 200 | 173 | 111 | 330 | 364 | 13.5 |
| MF250-2 | 2 | 250 | 173 | 111 | 330 | 364 | 15.5 |
| MF300-2 | 2 | 300 | 171 | 151 | 330 | 364 | 18.5 |
| MF350-2 | 2 | 350 | 171 | 151 | 330 | 364 | 21 |
| MF400-2 | 2 | 400 | 210 | 176 | 330 | 367 | 25.5 |
| MF450-2 | 2 | 450 | 210 | 176 | 330 | 367 | 28 |
| MF500-2 | 2 | 500 | 241 | 175 | 330 | 365 | 32 |
| MF600-2 | 2 | 600 | 302 | 175 | 330 | 367 | 37 |
| MF800-2 | 2 | 800 | 410 | 175 | 330 | 367 | 52 |
| MF1000-2 | 2 | 1000 | 475 | 175 | 330 | 367 | 61 |
| MF1200-2 | 2 | 1200 | 475 | 175 | 330 | 367 | 71 |
| MF1500-2 | 2 | 1500 | 400 | 350 | 345 | 382 | 92 |
| MF2000-2 | 2 | 2000 | 490 | 350 | 345 | 382 | 119 |
| MF2500-2 | 2 | 2500 | 490 | 350 | 345 | 382 | 140 |
| MF3000-2 | 2 | 3000 | 710 | 350 | 345 | 382 | 184 |