Sales Service 0086 592-8105999

After-Sales Service 0086 592-8105999

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EVADA



# HQ-M Series Modular UPS 20-1200kVA

Modular Uninterruptible Power System


## EVADA (Xiamen) Technology Co., Ltd.

| | |
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EVADA

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# About Evada

## Evada Profile

EVADA (Xiamen) Technology Co., Ltd., founded in 1998,with headquarter in Xiamen, currently has 31 sales and service branches nationwide and 2 branch offices in oversea. The group focuses on the field of power conversion products, energy storage system and data centers. The products cover modular UPS, high frequency UPS, low frequency transformer-based UPS, military-grade UPS, inverters, telecommunication power supplies, data center solutions and other customized products.

The products were widely used in telecommunication, railways, industry, broadcasting and television, medical, national defense, finance, government, education etc. In addition, EVADA has exported to Southeast Asia, Europe, Middle East, Africa etc.

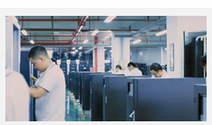
EVADA will continue to implement the core values of self-confidence, efficiency, innovation and transcendence to achieve win-win with customers.

## Globalization, localization



- Top 5 UPS brands in China
- China's famous trademark "EVADA"
- A national high-tech enterprise
- 32+ branch offices in domestic market

- 2 branch offices in oversea countries
- Service for high end customers (State Grid, China Mobile,CRRC, etc..)
- ISO9001, ISO 14001, OHSAS18001, CE, RoHS, TLC, CQC certification


Factory assembly line


Factory assembly line


Xiamen Headquarters


Shenzhen Branch


Shenzhen Branch

## Evada Modular UPS Overview



**Power range:** 20-1200kVA
**Rated voltage:** 380VAC/400VAC/415VAC 3P+N+PE
**Rated frequency:** 50/60Hz
**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
- Telecommunications bases
- Process control equipment

## Modular UPS Product Family

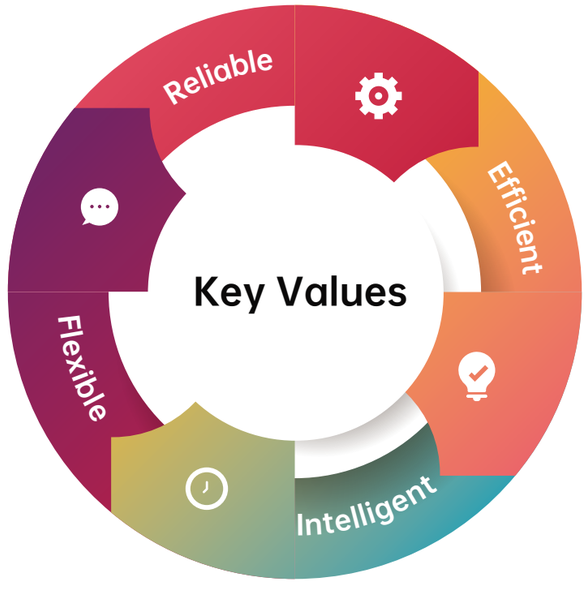
| | | | | |
|---|---|---|---|---|
| **Modules** (20~30kVA/40~60kVA/100kVA~125kVA) |  20/25/30kVA/2U |  40/50kVA/3U |  60kVA/3U |  100/125kVA/3U |
| **Embeded System** (2、3、4、6modules) |  HQ-M50R/25kVA |  HQ-M100R/25kVA |  HQ-M150R/25kVA |  HQ-M180R/60kVA |
| **System Cabinet** (4、7、12modules) |  HQ-M100/25kVA |  HQ-M175/25kVA |  HQ-M300/25kVA | |
| **System Cabinet** (5、7、12、14modules) |  HQ-M200/50kVA |  HQ-M300/50kVA |  HQ-M600/50kVA |  HQ-M800/60kVA |
| **System Cabinet** (6modules) |  HQ-MS625/125kVA |  HQ-M625/125kVA | | |



## We develop and manufacture excellent modular products for users, creating the biggest values for customers.

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

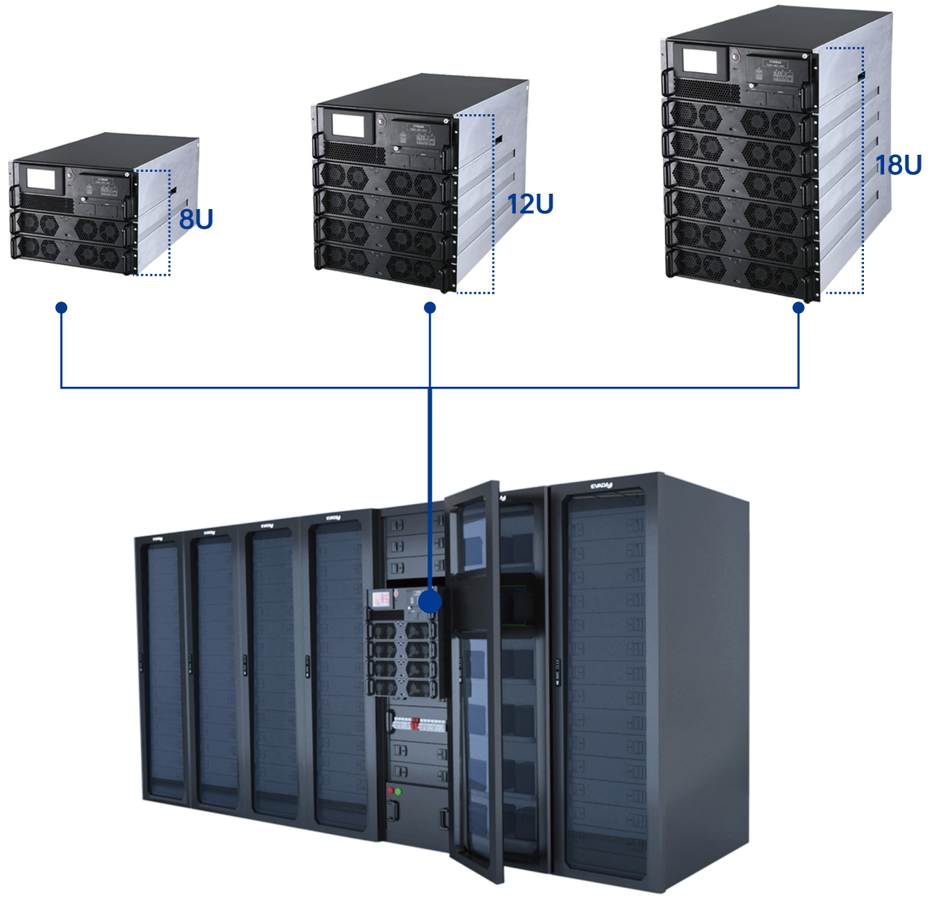
With system efficiency as high as 96.5%, HQ-M UPS brings customer low operation expense.




With the availability of 20/25/30/40/50/60/100/125modules.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




**Features:** adopt 1 + 1 DSP design to improve system operation and response speed.

**Reliable:** The system efficiency is as high as 96%; High power density ratio of 2U height for modules.

**Efficient:** Allowing 2/4/6 modules*20/25kVA modules to achieve different capacity for the system.

**Flexible:** Embedded installation design for standard 19-inch cabinets; integrated with the power

**Simple:** distribution modules, batteries, monitoring in one cabinet from 50kVA to 150kVA.



## Value decomposition - Reliable

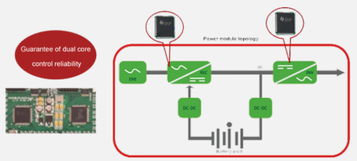
### << 6+1/10+2 Redundancy design

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.
200kVA = (10+2)*20kVA modules.
500kVA = (10+2)*50kVA modules.
300kVA = (6+1)*50kVA 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.



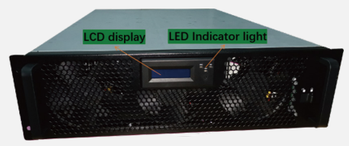

### << Redundancy design for Fans

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

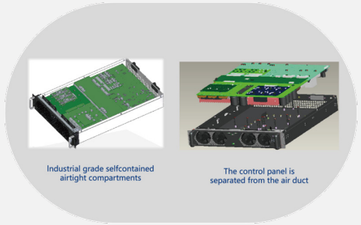
With LCD screen and LED indicator on each 50kVA power module, it allows independently monitoring module data and working status, to realize 1 + 1 redundant backup with the system display.



## Value decomposition - Reliable

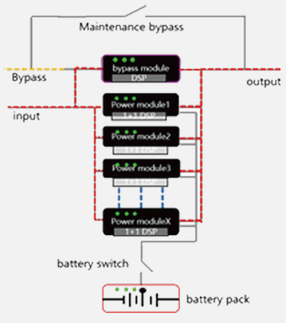
### << High environment adaptability

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.



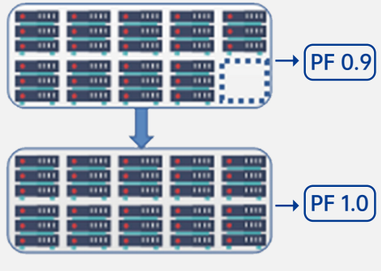

### << Decentralized control design

The system adopts decentralized control logic to avoid the risk of single point of failure caused by centralized control and load downtime. 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.

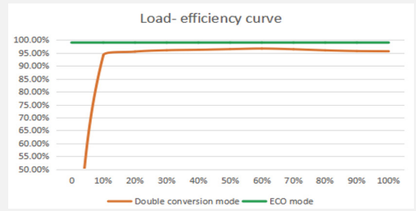





## Value decomposition - Efficient

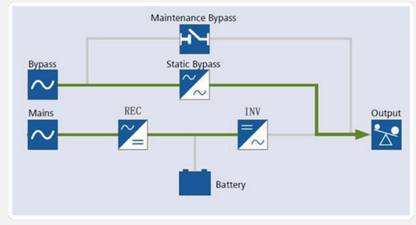
### << High efficiency at double conversion mode

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.



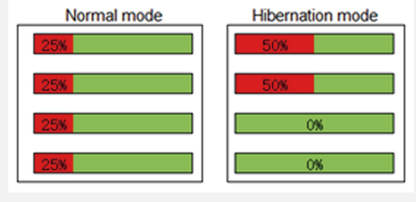

### << High efficiency at ECO mode

- 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 is abnormal, the UPS will transfer to online mode in milliseconds to ensure power continuity and quality.



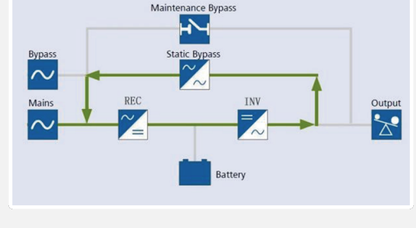

### << Intelligent hibernation function

The hibernation function can improve the efficiency of the system under light load and save energy. And no matter the system is in 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.
- Both bypass module and power module 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 space.




### << 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 units range helps to accurately match the battery capacity and flexibly utilize the old battery pack on site, saving customer investment.

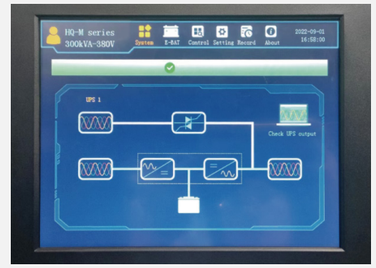




## Value decomposition - Intelligent

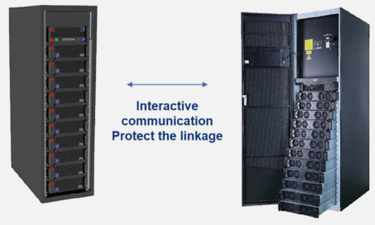
### << Touch screen for visual control

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



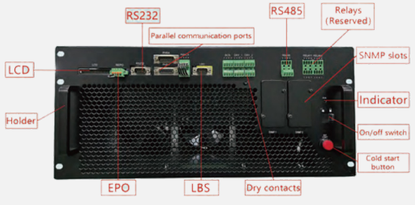

### << Intelligent battery management

UPS can interacts 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.



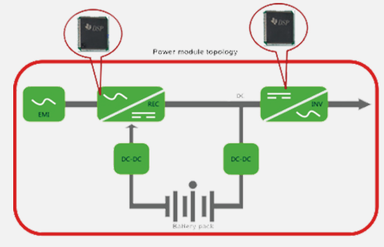

### << Abundant communication interfaces

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




### << Complete 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.



## HQ-M Composition




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



## Value decomposition - Intelligent

### << Power module

- 2U height for 20/25/30kVA modules.
- 3U height for 40/50/60kVA modules.



60kVA



50kVA

### << Bypass module

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



### << SNMP card (Optional)

The SNMP card supports remote monitor for the UPS, all running status and working parameters will be displayed on 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 are with 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, and make sure the system runs in a logic way.



| Model | HQ-M40R | HQ-M50R | HQ-M80R | HQ-M100R | HQ-M120R | HQ-M150R |
|---|---|---|---|---|---|---|
| Rated Capacity | 40kVA | 50kVA | 80kVA | 100kVA | 120kVA | 150kVA |
| Power Module Capacity | 20kVA | 25kVA | 20kVA | 25kVA | 20kVA | 25kVA |
| Power Module Quantity | 2 | | 4 | | 6 | |
| **Input** | | | | | | |
| Wiring Configuration | 3 Phase+N+PE | | | | | |
| Rated Voltage | 380/400/415VAC(line-line) | | | | | |
| Rated Frequency | 50/60Hz | | | | | |
| Voltage Range | 305VAC ~ 477VAC（line-line）full load； 304VAC ~ 228VAC (line-line) load derating linearly from 100% to 80% | | | | | |
| Frequency Range | 40Hz~70Hz | | | | | |
| Power Factor | >0.99 | | | | | |
| THDi | < 3%（linear full load）； < 5%（non-linear full load） | | | | | |
| **Bypass** | | | | | | |
| Rated Voltage | 380/400/415VAC(line voltage) | | | | | |
| Voltage Range | Factory setting -20% ~ +15%； settable, upper limit:+10%,+15%,+20%,+25%； lower limit:-10%,-15%, -20%, -30%,-40% | | | | | |
| Frequency Range | Rated frequency 50/60Hz； frequency range can be set ±0.5Hz,±1Hz,±2Hz,±3Hz,±10%Hz(by default) | | | | | |
| Overload Capacity | 110% for long run ； >150% for 200ms | | | | | |
| **Battery** | | | | | | |
| Battery Voltage | ±192VDC（360 ~ 528VDC； 30 ~ 44 units settable，defaulted by 32 units） | | | | | |
| **Output** | | | | | | |
| Rated Voltage | 380V/400V/415V(line-line) | | | | | |
| Rated Frequency | 50/60Hz | | | | | |
| Power Factor | 1 | | | | | |
| Voltage Accuracy | ≤±1.0%@ balanced load； ≤±5.0%@ unbalanced load | | | | | |
| Frequency Accuracy | 50/60Hz±0.01% | | | | | |
| Frequency Tracking Range | Settable，±0.5Hz~±5Hz ;±3Hz | | | | | |
| THDu | ≤2%(100% linear load) , ≤4%( nonlinear load) | | | | | |
| Three-Phase Phase Accuracy | 120°±1° | | | | | |
| Crest Factor | 3:1 | | | | | |
| Overload | < 105%，long run； < 110%，60mins ； 110 ~ 125%，10mins； > 125 ~ 150%，1mins； > 150%，200ms | | | | | |
| **System** | | | | | | |
| System Efficiency | 96%@ double conversion mode，⩾99%@ECO mode | | | | | |
| Display | 5" LCD touch screen | | | | | |
| Cable Entry | Bottom entry | | | | Rear Entry | |
| Language | Chinese, English; optional: Russian,Italian, Spanish, German, etc. | | | | | |
| Protection Class | IP20 | | | | | |
| Communication | RS232/RS485/SNMP card（optional）/ dry contact (optional) | | | | | |
| Working Condition | Temperature：0~40℃ ； humidity：0~95%( no condensation) | | | | | |
| Noise | <60dB@1 meter | | | | | |
| Altitude | <1000 meters, derating, > 1000 meters, derating 1% if every 100 meters increased | | | | | |
| Cabinet Type | 2 Modules | | 4 Modules | | 6 Modules | |
| **Size** | | | | | | |
| System W x D x H (mm) | 482.6 x 800 x 353.2(8U) | | 482.6 x 800 x 531(12U) | | 482.6 x 900 x 796(18U) | |
| Module W x D x H (mm) | 440 x 690 x 86(2U) | | | | | |
| **Weight** | | | | | | |
| System(kg) | 56 | | 64 | | 80 | |
| Module(kg) | 24(20kVA)、25(25kVA) | | | | | |

* Specifications are subject to change without prior notice.



| Model | HQ-M120R | HQ-M150R | HQ-M180R |
|---|---|---|---|
| Rated Capacity | 120kVA/120kW | 150kVA/150kW | 180kVA/180kW |
| Power Module Capacity | 40kVA | 50kVA | 60kVA |
| Power Module Quantity | 3 | | |
| **Input** | | | |
| Wiring Configuration | 3 Phase+N+PE | | |
| Rated Voltage | 380/400/415VAC(line-line) | | |
| Rated Frequency | 50/60Hz | | |
| Voltage Range | 304 ~ 478Vac* Voltage Range (full load) | | |
| Frequency Range | 40Hz~70Hz | | |
| Power Factor | >0.99 | | |
| THDi | < 3%（linear full load）； < 5%（non-linear full load） | | |
| **Bypass** | | | |
| Rated Voltage | 380/400/415VAC(line voltage) | | |
| Voltage Range | Factory setting -20% ~ +15%； settable, upper limit:+10%,+15%,+20%,+25%； lower limit:-10%,-15%, -20%, -30%,-40% | | |
| Frequency Range | Rated frequency 50/60Hz； frequency range can be set ±0.5Hz,±1Hz,±2Hz,±3Hz,±10%Hz(by default) | | |
| Overload Capacity | 110% for long run ； >150% for 200ms | | |
| **Battery** | | | |
| Battery Voltage | ±240VDC(384~528VDC;32~44 units settable,defaulted by 40 units) | | |
| **Output** | | | |
| Rated Voltage | 380V/400V/415V(line-line) | | |
| Rated Frequency | 50/60Hz | | |
| Power Factor | 1 | | |
| Voltage Accuracy | ≤±1.0%@ balanced load； ≤±5.0%@ unbalanced load | | |
| Frequency Accuracy | 50/60Hz±0.01% | | |
| Frequency Tracking Range | Settable,±0.5Hz~±5Hz;factorysetting±3Hz | | |
| THDu | ≤2%(100% linear load) , ≤4%( nonlinear load) | | |
| Three-Phase Phase Accuracy | 120°±1° | | |
| Crest Factor | 3:1 | | |
| Overload | < 105%，long run； < 110%，60mins ； 110 ~ 125%，10mins； > 125 ~ 150%，1mins； > 150%，200ms | | |
| **System** | | | |
| System Efficiency | 96%@ double conversion mode，⩾99%@ECO mode | | |
| Display | 10" LCD touch screen | | |
| Cable Entry | Rear entry | | |
| Language | Chinese, English; optional: Russian,Italian, Spanish, German, etc. | | |
| Protection Class | IP20 | | |
| Communication | RS232/RS485/SNMP card（optional）/ dry contact (optional) | | |
| Working Condition | Temperature：0~40℃ ； humidity：0~95%( no condensation) | | |
| Noise | <60dB@1 meter | | |
| Altitude | <1000 meters, derating, > 1000 meters, derating 1% if every 100 meters increased | | |
| Cabinet Type | 3 Modules | | |
| **Size** | | | |
| System W x D x H (mm) | 482.6×850×711（16U） | | |
| Module W x D x H (mm) | 440×720×130（3U） | | |
| **Weight** | | | |
| System(kg) | 66 | | |
| Module(kg) | 32.5（40kVA）/ 33.5（50kVA）/ 35（60kVA） | | |

* Specifications are subject to change without prior notice.

| Model | HQ-M80 | HQ-M100 | HQ-M140 | HQ-M175 | HQ-M240 | HQ-M300 |
|---|---|---|---|---|---|---|
| Rated Capacity | 80kVA | 100kVA | 140kVA | 175kVA | 240kVA | 300kVA |
| Power Module Capacity | 20kVA | 25kVA | 20kVA | 25kVA | 20kVA | 25kVA |
| Power Module Quantity | 4 | | 7 | | 12 | |
| **Input** | | | | | | |
| Wiring Configuration | 3 Phase+N+PE | | | | | |
| Rated Voltage | 380/400/415VAC(line-line) | | | | | |
| Rated Frequency | 50/60Hz | | | | | |
| Voltage Range | 304VAC ~ 478VAC（line-line）full load； 304VAC ~ 228VAC (line-line) Load derating linearly from 100% to 80% | | | | | |
| Frequency Range | 40Hz~70Hz | | | | | |
| Power Factor | >0.99 | | | | | |
| THDi | < 3%（linear full load）； < 5%（non-linear full load） | | | | | |
| **Bypass** | | | | | | |
| Rated Voltage | 380/400/415VAC(line voltage) | | | | | |
| Voltage Range | Factory setting -20% ~ +15%；settable, upper limit:+10%,+15%,+20%,+25%；lower limit:-10%,-15%, -20%, -30%,-40% | | | | | |
| Frequency Range | Rated frequency 50/60Hz；frequency range can be set ±0.5Hz,±1Hz,±2Hz,±3Hz,±10%Hz(by default) | | | | | |
| Overload Capacity | 110% for long run ；>150% for 200ms | | | | | |
| **Battery** | | | | | | |
| Battery Voltage | ±192VDC（360 ~ 528VDC；30 ~ 44 units settable，defaulted by 32 units） | | | | | |
| **Output** | | | | | | |
| Rated Voltage | 380V/400V/415V(line-line) | | | | | |
| Rated Frequency | 50/60Hz | | | | | |
| Power Factor | 1 | | | | | |
| Voltage Accuracy | ≤±1.0%@ balanced load；≤±5.0%@ unbalanced load | | | | | |
| Frequency Accuracy | 50/60Hz±0.01% | | | | | |
| Frequency Tracking Range | Settable，±0.5Hz~±5Hz ;±3Hz | | | | | |
| THDu | ≤2%(100% linear load), ≤4%( nonlinear load) | | | | | |
| Three-phase Phase Accuracy | 120°±1° | | | | | |
| Crest Factor | 3:1 | | | | | |
| Overload | < 105%，long run； < 110%，60mins； 110 ~ 125%，10mins； > 125 ~ 150%，1mins； > 150%，200ms | | | | | |
| **System** | | | | | | |
| System Efficiency | ≥96%@ double conversion mode，≥99%@ECO mode | | | | | |
| Display | 7" touch screen + LED | | | | | |
| Cable Entry | Bottom entry | | Top entry and bottom entry | | Top Entry | |
| Standard | IEC62040-1-1; IEC62040-2; IEC62040-3 | | | | | |
| Protection Class | IP20 | | | | | |
| Feeder Protection | Standard: isolating switch, optional: fuse | | | | | |
| Communication | RS232/ RS485/ SNMP（optional）/ Dry contact card (optional) | | | | | |
| Optional | Dust-proof net, lightning protection module, LBS cable, earthquake-proof components, temperature and humidity sensor | | | | | |
| Working Condition | Temperature：0 ~ 40℃； humidity：0~95%( no condensation) | | | | | |
| Noise | <65dB@1 meter | | | | | |
| Altitude | <1000 meters, no derating, > 1000 meters, derating 1% if every 100 meters increased | | | | | |
| Cabinet Type | 4 Modules | | 7 Modules | | 12 Modules | |
| **Size** | | | | | | |
| System W x D x H (mm) | 600 x 850 x 1200 | | 600 x 850x 1600 | | 600 x 1010 x 2000 | |
| Module W x D x H (mm) | 440 x 690 x 86（2U） | | | | | |
| **Weight** | | | | | | |
| System(kg) | 145 | | 210 | | 239 | |
| Module(kg) | 24(20kVA)、25(25kVA) | | | | | |



| Model | HQ-M200 | HQ-M300 | HQ-M400 | HQ-M500 | HQ-M600 | HQ-M800 | HQ-M1200 |
|---|---|---|---|---|---|---|---|
| Rated Capacity | 200kVA | 300kVA | 400kVA | 500kVA | 600kVA | 800kVA | 1200kVA |
| Power Module Capacity | 50/60kVA | | | | | 60kVA | 50/60kVA |
| Power Module Quantity | 4+1 | 6+1/5+2 | 8+4 | 10+2 | 12 | 14 | 24 |
| **Input** | | | | | | | |
| Wiring Configuration | 3 Phase+N+PE | | | | | | |
| Rated Voltage | 380/400/415VAC(line-line) | | | | | | |
| Rated Frequency | 50/60Hz | | | | | | |
| Voltage Range | 304VAC ~ 478VAC（line-line）full load； 304VAC ~ 228VAC(line-line) load derating linearly from 100% to 80% | | | | | | |
| Frequency Range | 40Hz~70Hz | | | | | | |
| Power Factor | >0.99 | | | | | | |
| THDi | < 3%（linear full load）； < 5%（non-linear full load） | | | | | | |
| **Bypass** | | | | | | | |
| Rated Voltage | 380/400/415VAC(line voltage) | | | | | | |
| Voltage Range | Factory setting -20% ~ +15%；settable, upper limit:+10%,+15%,+20%；lower limit:-10%, -20%, -30%,-40% | | | | | | |
| Frequency Range | Rated frequency 50/60Hz；frequency range can be set ±0.5Hz,±1Hz,±2Hz,±3Hz,±10%Hz(by default) | | | | | | |
| Overload Capacity | 110% for long run，> 150% for 200ms | | | | | | |
| **Battery** | | | | | | | |
| Battery Voltage | ±240VDC（384 ~ 528VDC；32 ~ 44 units settable，defaulted by 40 units） | | | | | | |
| **Output** | | | | | | | |
| Rated Voltage | 380V/400V/415V(line-line) | | | | | | |
| Power Factor | 1 | | | | | | |
| Rated Frequency | 50/60Hz | | | | | | |
| Voltage Accuracy | ≤±1.0%@ balanced load；≤±5.0%@ unbalanced load | | | | | | |
| Frequency Accuracy | 50/60Hz±0.01% | | | | | | |
| Frequency Tracking Range | Settable，±0.5Hz~±5Hz ;±3Hz | | | | | | |
| THDu | ≤2%(100% linear load), ≤4%( nonlinear load) | | | | | | |
| Three-phase Phase Accuracy | 120°±1° | | | | | | |
| Crest Factor | 3:1 | | | | | | |
| Overload | < 105%，long run； < 110%，60mins； 110 ~ 125%，10mins； > 125 ~ 150%，1mins； > 150%，200ms | | | | | | |
| **System** | | | | | | | |
| Efficiency | 96.5%@ double conversion mode | | | | | | |
| Display | 10.4" touch screen +LED | | | | | | |
| Cable Entry | Support top entry and bottom entry | | | | | Top entry | Support top entry and bottom entry |
| Standard | IEC62040-1-1; IEC62040-2; IEC62040-3 | | | | | | |
| Protection Class | IP20 | | | | | | |
| Optional | SNMP card、parallel components, lightning protection components, dust-proof net, LBS, dry contact card | | | | | | |
| Working Condition | Temperature：0~40℃； humidity：0~95%( no condensation) | | | | | | |
| Noise | < 70dB @ 1meter | | | | | | |
| Altitude | <1000 meters, no derating, > 1000 meters, derating 1% if every 100 meters increased | | | | | | |
| Cabinet Type | 5 | 7 | 12 | | | 14 | 24 |
| **Size** | | | | | | | |
| System W x D x H (mm) | 600 x 850 x 2000 | 600 x 1100 x 2000 | 1000 x 1100 x 2000 | | | 1800 x 850 x 2000 | 2000 x 1100 x 2000 |
| Module W x D x H (mm) | 440 x 720 x 130 (3U) | | | | | | |
| **Weight** | | | | | | | |
| System(kg) | 190 | 286.5 | 372.5 | | | 610 | 745 |
| Module(kg) | 33.5(50kVA)、35(60kVA) | | | | | | |

* Specifications are subject to change without prior notice.
* Output derating when battery units are 30/32/34.

# HQ-MS625 Energy Storage Modular UPS

## Product Introduction

EVADA HQ-MS Series 125–625 kVA HVDC UPS, equipped with 125 kVA/3U power modules, features a streamlined high-capacity architecture that integrates the functions of a traditional modular UPS and an energy-storage PCS. It is designed for the AIDC sector’ s requirements for high power, high density, high efficiency, and intelligent operation, while supporting smooth migration to future 800 VDC bus applications.

## Power Range

125 ~ 625 kVA

## Application

Suitable for telecom operators, Internet, finance, cloud services, government, education, medical, large enterprises, transportation, energy, and etc. It provides reliable power supply protection for all kinds of IT equipment and power loads, while meeting energy storage applications such as impact load peak shaving, IT dynamic capacity expansion, and energy storage peak-valley arbitrage.

## Features

### Safe & Reliable

- Core components such as power modules, control modules, and communication links are fully redundantly designed, completely eliminating single-point failure risks.
- Adopts a low-thermal-resistance independent dual-air-duct design with no mixed airflow, delivering excellent heat dissipation, effectively reducing core device operating temperature, extending equipment service life, and improving overall operational stability.
- Power modules use an integrated hard-connection design, eliminating traditional complex wiring and fundamentally preventing safety issues such as loose connections and cable aging.
- Supports bus capacitor and fan life prediction, real-time monitoring of busbar connection temperature, dust removal reminders, and active dust removal to avoid potential risks in advance and ensure all-round system stable operation.

### High Efficiency & Energy Saving

- Inverter efficiency reaches up to 99%, with light-load intelligent hibernation to significantly reduce long-term O&M energy consumption.
- Enhanced ECO mode efficiency reaches up to 99.2%, supporting active harmonic management and seamless operating mode switching to optimize power supply quality.
- Adopts a bidirectional inverter architecture to realize bidirectional energy flow, supporting full-power charge/discharge and efficient energy conversion.
- Simplifies front-end input power distribution structure, achieving deep integration of power supply and distribution, greatly reducing equipment footprint; at the same time reducing power distribution and cable procurement costs and shortening on-site construction time.

### Intelligent Management

- Automatically records waveform data for 100 ms before and after a fault (200 ms total), providing accurate evidence for fault analysis and rapid troubleshooting.
- Compatible with lead-acid battery and lithium battery BMS access, integrating external switch detection, smoke detection, and temperature/humidity monitoring to realize single-unit and parallel-system integrated intelligent monitoring.
- Enhanced ECO, battery inverter, and combined power supply modes are all equipped with AI self-diagnosis and adaptive regulation to flexibly match power supply and energy storage needs in different scenarios.

### Simple & Flexible

- Battery circuit adopts a no-neutral-line design, reducing cable usage and on-site installation labor and cost.
- Supports single-unit black start and parallel-system battery sharing, allowing the inverter to start and supply load even without utility power.
- Fully modular design supports on-demand deployment and smooth expansion, compatible with future 800V DC bus system upgrades.
- Power modules, bypass modules, control modules, and monitoring modules all support hot-swapping, enabling 5-minute non-stop online maintenance.
- Integrates energy storage PCS function, supporting utility-battery combined power supply and utility power limiting, suitable for AI impact load peak shaving, IT dynamic capacity expansion, energy storage peak-valley arbitrage, and other diverse scenarios.



| Model | HQ-MS625 |
|---|---|
| Capacity | 625 kVA |
| Max. Modules Supported | 6 |
| Max. Modules Supported | 125kVA/3U(100kVA/3U optional) |
| **Bypass Input** | |
| Wiring Configuration | Three-phase + N + PE |
| Rated Line Voltage | 380/400/415 Vac |
| Rated Frequency | 50/60 Hz |
| Input Voltage Range | Default -10% ~ +10%, adjustable<br>Voltage upper limit: +10%, +15%, +20%<br>Voltage lower limit: -10%, -15%, -20%, -30%, -40% |
| Input Frequency Range | ±6 Hz (adjustable 0.5 ~ 6 Hz, default ±2.5 Hz) |
| Power Factor (full load, EnhancedECO mode) | >0.99 |
| Current Harmonic (THDi, full load, Enhanced ECO mode) | <3% |
| Bypass Overload Capacity | Load ⩽110%: long-term operation<br>110% < Load ⩽125%: 10 minutes<br>125% < Load ⩽150%: 1 minute<br>Load >150%: 200 ms protection |
| **Inverter Output** | |
| Rated line voltage | 380/400/415 Vac |
| Output Power Factor | 1.0 (adjustable -1 ~ +1) |
| Rated Frequency | 50/60 Hz |
| Voltage Accuracy | 380/400/415 Vac ±1% |
| Frequency Accuracy | Track bypass; Internal sync: 50/60 Hz ±0.1 Hz |
| Frequency Tracking Range | ±0.5 Hz ~ ±2 Hz (adjustable, default ±0.5 Hz) |
| Three-phase Voltage Unbalance | <±3% |
| Three-phase Phase Accuracy | 120° ±1° (applicable to balanced / 100% unbalanced load) |
| Voltage Waveform Distortion (THDu) | Linear load ⩽1%; Non-linear load ⩽3% |
| Inverter Overload Capacity | Load ⩽105%: long-term operation<br>105% < Load ⩽110%: 60 minutes then transfer to bypass<br>110% < Load ⩽125%: 10 minutes then transfer to bypass<br>125% < Load ⩽150%: 1 minute then transfer to bypass |



| Model | HQ-MS625 |
|---|---|
| **System** | |
| Bypass Main Supply Efficiency | Max. 99.2% |
| Battery Inverter Efficiency | Max. 99% |
| Bypass-Inverter Transfer Time | ⩽2 ms |
| Interface | 10-inch touch screen + LED indicators |
| Cable Entry | Top entry |
| Protection Level | IP20 |
| Standards | Safety: IEC 62040-1-1<br>EMC: IEC 62040-2<br>Design & Test: IEC 62040-3 |
| Communication Interfaces | RS485, RS232, CAN, SNMP, dry contacts; supports Modbus TCP/RTU, SNMP, CAN, and other protocols |
| Operating Noise | <68 dB at 1 m |
| **Working Environment** | |
| Operating Temperature | 0 ~ 40 °C |
| Relative Humidity | 0 ~ 95% (no condensation) |
| Altitude Requirement | 0 ~ 1500 m; above 1500 m, derate according to EN/IEC 62040-3 |
| **Dimensions** | |
| Frame (W × D × H) | 800 × 1000 × 2000 mm<br>(optional built-in input/output breaker) |
| Power Module (W × D × H) | 580 × 700 × 132 mm (3U) |
| **Weight** | |
| Frame | 490 kg |
| Power Module | 45 kg |

*If the equipment operates beyond the rated conditions, it will automatically derate.
Product specifications are subject to change without notice.

# HQ-M Series Modular UPS 100&125KW

## Power Range

Three-phase input/output, double-conversion online operation: 100-1250kVA

## Application

Telecommunications, internet, government, education, healthcare, enterprise, finance, transportation, energy, etc.

## Features

### Simple & Flexible

- Power modules support phased deployment with on-de-mand expansion, reducing initial investment costs;
- Both bypass and power modules support hot-swap replacement with maintenance time <5 minutes;
- Ultra-wide battery adjustment range (30-50 cells) enables precise capacity configuration and flexible reuse of existing battery banks. Neutral-free design saves custom-er investment;
- System supports direct battery starting for emergency power-on in off-grid scenarios;
- Supports linear loads, non-linear loads, half-wave loads,capacitive/inductive loads, loads without neutral wire,and impact loads (motors, transformers).

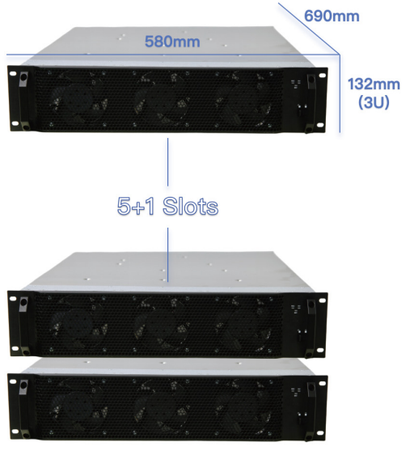
### High Efficiency & Energy Saving

- System efficiency reaches up to 97.5%, reducing energy consumption and operating costs by over 25% year-on-year;
- Intelligent self-aging function achieves over 95% energy savings without requiring dummy load rentals, cutting usage and installation costs;
- In double conversion mode: Input current harmonics <3%, input power factor up to 0.99, protecting the grid from harmonic pollution;
- Enhanced ECO mode efficiency reaches 99% (input current harmonic <5%, input PF >0.99, 0ms switching time), significantly reducing operating costs.



### Intelligent Management

- 10-inch oversized color touchscreen with graphical display and rich functionality for intelligent management of UPS and battery system operation
- data and status;
- Real-time information exchange between UPS and lithium battery BMS enables intelligent battery manage-ment and protective coordination by the host unit,preventing thermal runaway;
- Diverse communication interfaces and networking options provide flexible monitoring of real-time UPS system status;
- Intelligent sleep mode with automatic periodic rotation of power modules extends overall system lifespan;
- Predictive monitoring of bus capacitor and fan lifespans with controllable fault management ensures system reliability;
- Critical busbar temperature sensing at key nodes enables early detection of loose screw risks, simplifying maintenance and reducing potential failure hazards.




### Safe & Reliable

- Redundant design for critical components including power modules, control signals, parallel communica-tion signals, and auxiliary power sources eliminates single points of failure;
- Proprietary parallel connection technology ensures reliable multi-module operation;
- Independent airflow channels and thermal zoning design support 0-55°C operating range. System maintains power supply reliability without shutdown or bypass switching under high temperatures;
- Sensitive components isolated from airflow channels prevent dust-induced short circuits and arcing, deliver-ing strong environmental adaptability.



| Model | HQ-M500 | HQ-M625 |
|---|---|---|
| System Capacity | 500 kVA | 625 kVA |
| Slot Quantity | Up to 6 | |
| Module Power | 125kVA/3U (100kVA/3U optional) | |
| **Main Input** | | |
| Wiring Configuration | 3Ph+N+PE | |
| Rated Voltage | 380/400/415Vac (line voltage) | |
| Rated Frequency | 50/60 Hz | |
| Voltage Range | 138Vac~485Vac* | |
| Frequency Range | 40Hz~70Hz | |
| Power Factor | >0.99 | |
| Current Harmonics | THDi<3% (nonlinear full load) | |
| **Bypass** | | |
| Rated Voltage | 380/400/415Vac (line voltage) | |
| Voltage Range | Default -20%~+15%; settable, upper: +10%,+15%,+20%,+25%; lower: -10%, -15%,-20%,-30%,-40% | |
| **Battery** | | |
| Battery Quantity | 40 pcs rated, 30-50 pcs adjustable, battery without neutral line | |
| Shared Battery Group for Parallel Units | Yes | |
| **Inverter Output** | | |
| Rated Voltage | 380/400/415Vac (line voltage) | |
| Power Factor | 1.0 | |
| Rated Frequency | 50/60Hz | |
| Voltage Accuracy | 380/400/415Vac±1% | |
| Frequency Tracking Range | ±10% | |
| Voltage Waveform Distortion | THDu≤1% (linear load), THDu≤3% (nonlinear load) | |
| Inverter Overload Capacity | Load ≤105%: continuous; 105%<load≤110%: bypass after 60min; 110%<load≤125%: bypass after 10min<br>125%<load≤150%: bypass after 1min; load>150%: immediate bypass | |



| Model | HQ-M500 | HQ-M625 |
|---|---|---|
| **System** | | |
| Efficiency | 97.5(Standard Version) / 98.5(High-Efficiency Version) | |
| Interface | 10-inch Touch Screen + LED | |
| Cable Entry | Top Entry | |
| Compliance Standards | Safety: IEC62040-1-1; EMC: IEC62040-2; Design & test: IEC62040-3 | |
| Protection Rating | IP20 | |
| Communication | RS232, RS485, dry contacts, dual smart slots (SNMP card, dry contact expansion card optional) | |
| Options | Battery breaker active tripping. bottom enty kit top exhaust kit, dust filter,<br>surge protection module. parallel cables, LBS cables, ant-seismic kit | |
| Environment | Operating temp: 0~55°C*; RH: 0~95% (noncondensing) | |
| Altitude | 0~2000m, derating above 2000m per EN/IEC 62040-3 | |
| **Dimensions** | | |
| Frame W x D x H (mm) | 800 x1000 x 2000 | |
| Power Module W x D x H (mm) | 580 x 690 x 132 (3U) | |
| **Weight** | | |
| Frame (kg) | 475 kg | 485 kg |
| Power Module (kg) | 55 kg | |

* Beyond rated operating conditions, the system derates.
* Specifications subject to change without notice.

## Laos Golden Triangle Special Economic Zone

20 units of HQ-M series UPS were used in this project to provide high-quality power supply for five buildings



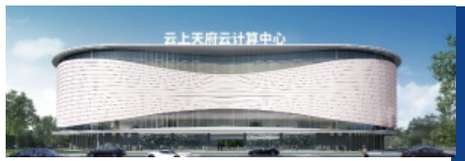


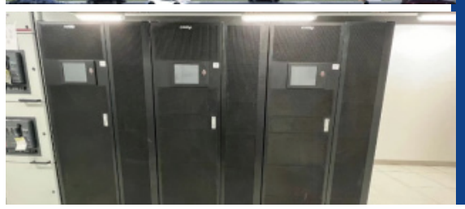
## Xinchuang Cloud Data Center

3 units of 500KVA HQ-M series UPS were used in this project







## Tianfu Cloud Computing Center

Tianfu Cloud Computing Center is the biggest datacenter in Sichuang Province, Evada provides 20 units of HQ-M series 600KVA UPS in this project

## The Big Data Center for IoT

Several sets of 500kVA HQ-M series UPS were used in this project



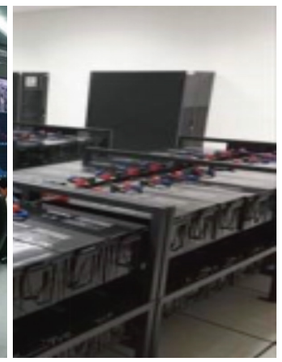





## Fuzhou Metro

There are 9 lines with a total length of 338.12km in Fuzhou urban rail transit network planning. Evada HQ-M Series modular UPS provides reliable power supply guarantee for Fuzhou Metro Hub







## More Cases:

Telecommunication Operator Data Center project in Russia
Affiliated Hospital of Tianjin Armed Police Medical College Data Center
Henan Xinyang Central Hospital
Science and Technology Building of Tsinghua University
ABA Electric Power Co., Ltd. -State Grid Sichuan Project
Yinchuan Telecommunication Control Room Project
Qilu Petrochemical Headquarter Data Center Project
…



## More Cases:

In Domodedovo, the Komus data center launched four HQ-M100 in parallel, everything is working as expected.