Sales Service 0086 592-8105999

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EVADA

HQ-M Series Modular UPS 20-1200kVA

Modular Uninterruptible Power System

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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.

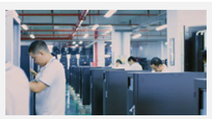
The products were widely used in telecommunication, railways, industry, broadcasting and television, medical, national defense, finance, government, education etc. In addition, EVADA has exported to Southeast Asia, Europe, Middle East, Africa etc.

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, UL, 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

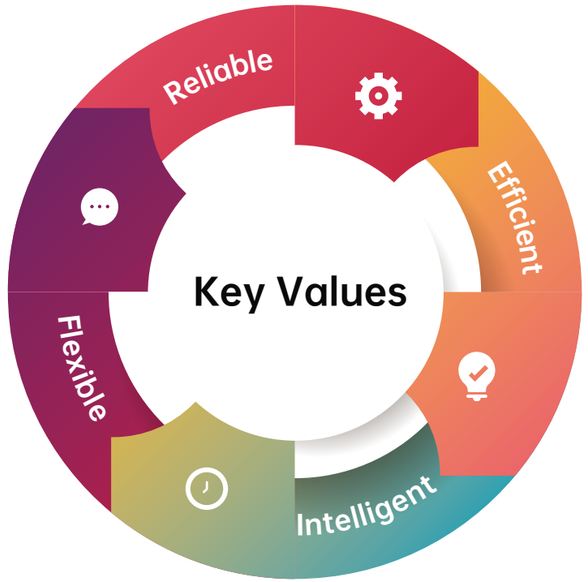
Modular UPS Product Family

Modules (20~30kVA/40~60kVA)	20/25/30kVA/2U	40/50kVA/3U	60kVA/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

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.

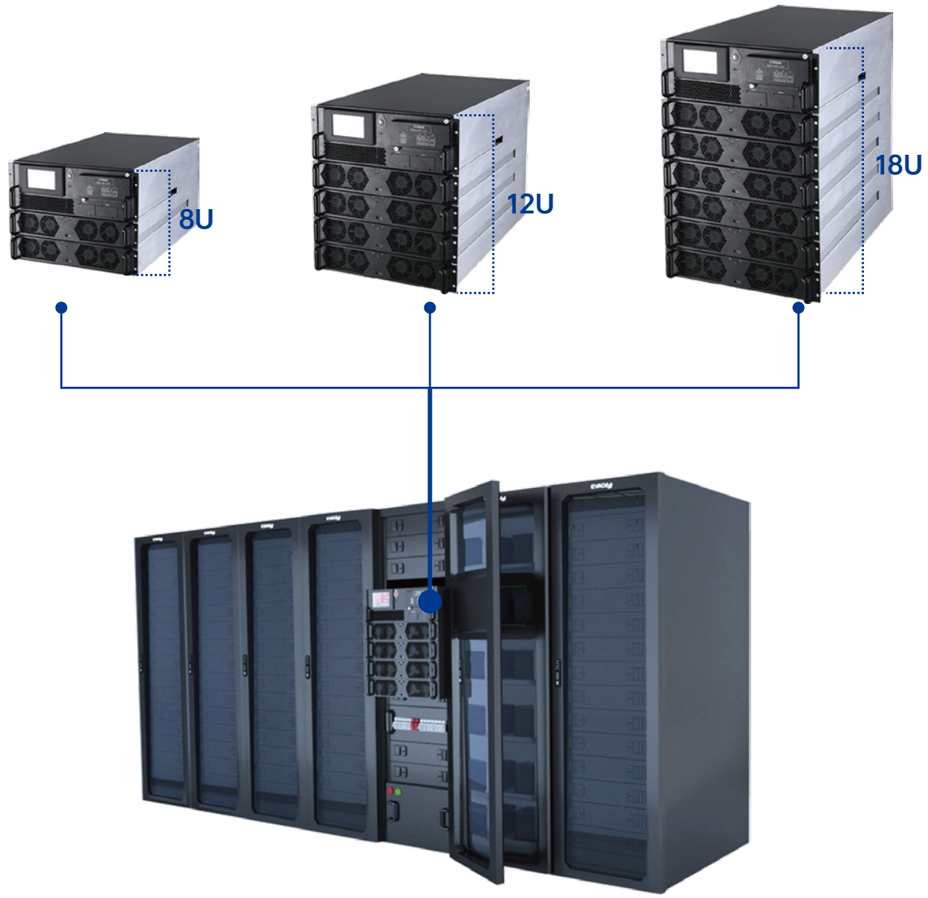
With system efficiency as high as 96.5%, HQ-M UPS brings customer low operation expense.



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

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

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

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

Simple: Embedded installation design for standard 19-inch cabinets; integrated with the power distribution modules, batteries, monitoring in one cabinet from 50kVA to 150kVA.

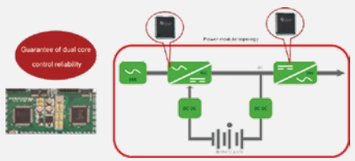
Value decomposition - Reliable

<< 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.

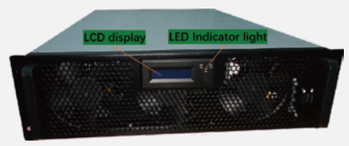


<< Redundancy design for Fans

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

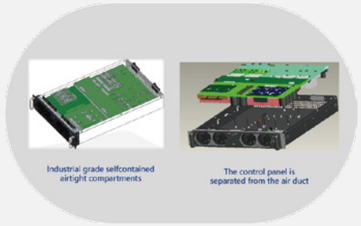
With LCD screen and LED indicator on each 50kVA power module, it allows independently monitoring module data and working status, to realize 1 + 1 redundant backup with the system display.



Value decomposition - Reliable

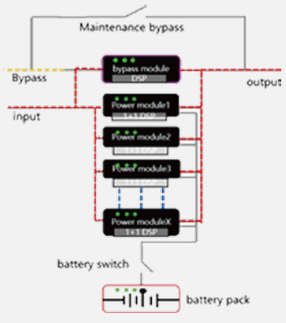
<< High environment adaptability

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.



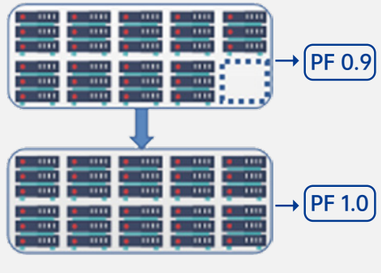
<< Decentralized control design

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

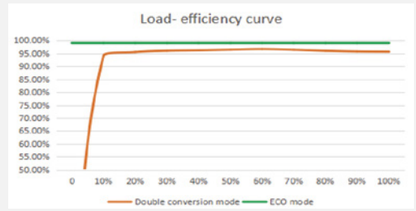
The output power factor is up to 1.0. The loading capacity is increased by more than 10% than traditional UPS to make system more safe and reliable.



Value decomposition - Efficient

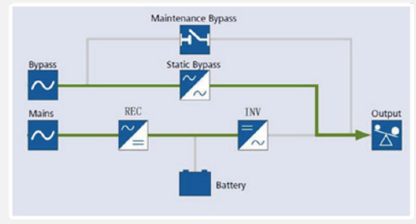
<< High efficiency at double conversion mode

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.



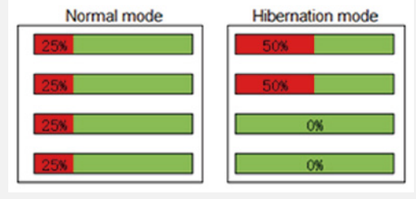
<< High efficiency at ECO mode

- 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.



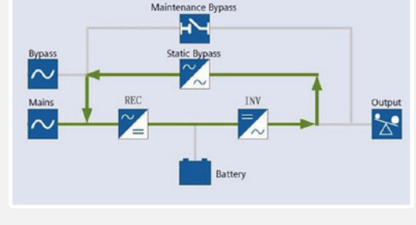
<< Intelligent hibernation function

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

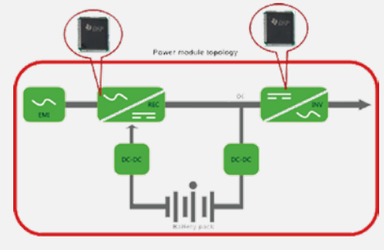
- UPS can interacts with the lithium battery BMS system in real time to realize the intelligent management and linkage of the UPS to the battery and prevent the battery from getting out of control.

<< 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	125kVA	150kVA
Power Module Capacity	20kVA	25kVA	20kVA	25kVA	20kVA	25kVA
Power Module Quantity	2		4		6	
Input						
Wiring Method	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					
Wiring	Bottom in				Back in	
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	40kVA	50kVA	60kVA
Power Module Capacity	120kVA/120kW	150kVA/150kW	180kVA/180kW
Power Module Quantity	3		
Input			
Wiring Method	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(360~528VDC;30~44 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		
Wiring	Back in		
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 Method	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					
Wiring	Bottom in		Top in and bottom in		Top in	
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 Method	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（360 ~ 528VDC；30 ~ 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						
Wiring	support top in and bottom in					Top in	support top in and bottom in
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)						

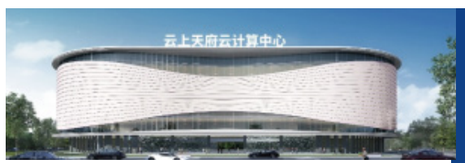
* Specifications are subject to change without prior notice.
* Output derating when battery units are 30/32/34.

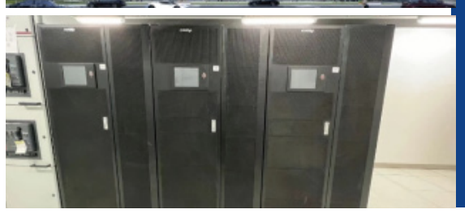
Laos Golden Triangle Special Economic Zone

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
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