

HQ-M Series Modular UPS

With 100&125KW Power Modules

Power Range

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

Application Fields

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

Features

Simple & Flexible

- Power modules support phased deployment with on-demand 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 customer 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 Savings

- 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.

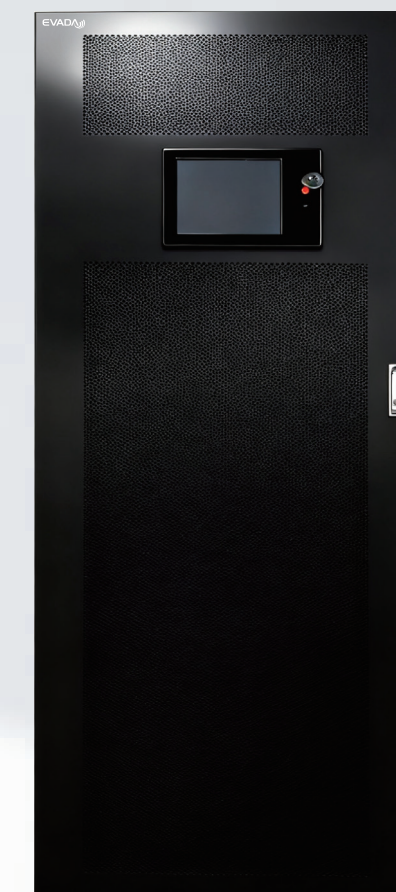


Intelligent Management

- 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 management 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 communication 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, delivering strong environmental adaptability.



Specification



Model	HQ-M300	HQ-M400	HQ-M500	HQ-M600	HQ-M800	HQ-M1000	HQ-M1200	HQ-M1250
Capacity	300kVA	400kVA	500kVA	600kVA	800kVA	1000kVA	1200kVA	1250kVA
Power Module Quantity	3	6		8		10		
Power Module Capacity (Optional)	100kVA/125kVA							
Input								
Wiring Method	3 Phase+N+PE							
Rated voltage	380/400/415Vac (line-line)							
Rated Frequency	50/60Hz							
Voltage Range	138Vac ~ 485Vac (100% full load: 323-485V*)							
Frequency Range	40Hz ~ 70Hz							
Power Factor	>0.99							
THDi	THDi<3% non linear full load							
Bypass								
Rated voltage	380/400/415Vac (line voltage)							
Voltage Range	By default -20% ~ +15%; Settable, upper limit: +10%,+15%,+20%,+25%; lower limit: -10%,-15%, -20%, -30%,-40%							
Battery								
Battery number	by default 40 units, 30~50 units settable, no neutral line							
Battery voltage	by default 480VDC, 360~600VDC settable							
Output								
Rated Voltage	380/400/415Vac (line voltage)							
Power Factor	1							
Rated Frequency	50/60Hz							
Voltage Accuracy	≤±1.0% @ balanced load; ≤±5.0% @ unbalanced load							
Frequency Accuracy	50/60Hz ± 0.05%							
Frequency Tracking Range	settable, ±0.5Hz ~ ±6Hz, by default ±2Hz							
THDu	THDu≤1% linear load, THDu≤3% non-linear load							
Three-Phase Phase Accuracy	120°±1°							
Crest Factor	3: 1							
Overload	< 105%, long run; < 110%, 60mins; 110~125%, 10mins; > 125~150%, 1min;							

Model	HQ-M300	HQ-M400	HQ-M500	HQ-M600	HQ-M800	HQ-M1000	HQ-M1200	HQ-M1250
System								
Efficiency	Up to 97.5%							
Display	Touch screen+LED							
Wiring Method	Top in				Top in/ bottomin		Top in	
Standard	IEC62040-1-1; IEC62040-2; IEC62040-3							
Protection Class	IP20							
Communication	RS232/ RS485/ FE/ SNMP Card (optional)/ Dry contact (optional)							
Optional	Dust-proof net, lightning protection module, LBS cable, earthquake-proof components,temperature and humidity sensor, BCB components, seismic protection component, wiring component, upper air outlet component							
Environment	Temperature: 0-55°C, 0-40°C no derating, 40-55°C derating; humidity: 0~95% no condensation							
Noise	<70dB @ 1 meter							
Altitude	< 2000m, derating > 1500m							
Size								
System W x D x H (mm)	800*1000*2000					1400*1000*2000		
Module W x D x H (mm)	580*759*130(3U)							
Weight								
System(kg)	400	443			630	750		
Module(kg)	48 (100kVA) / 52 (125kVA)							

*Derating when exceeding voltage range.

*New product: Specifications are subject to change.

Please contact us for the latest specification before orders.



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