



MODULAR UPS

400kVA-1200kVA

PF 1.0

Highlights

High power factor 1.0

High efficiency 97% at online mode

High adaptability

Power flexibility from 400 kW - 1200 kW

Modular hot-swappable & Scalability

High MTBF and low MTTR

This modular UPS series is an ideal for reliable, saving, intelligent and easy solutions. It ensures that a scalable, secure, high quality power supply is available for any critical high-density computer and IT environment applications, such as data centers and other critical loads.

This modular UPS is a scalable three-phase / three-phase uninterruptible power supply system with DSP technology and provides true on-line double conversion power protection. The available UPS power and redundancy level can expand vertically from 400 to 1200 kVA / 1200 kW in one single power cabinet, and four power cabinets can be connected in parallel, increasing the capacity up to 4800 M kW. It features modular hot-swappable design, all modules support "plug & play", including power modules, bypass module, and control module, simplifies UPS servicing and maintenance.

Features

- Dual DSP digital control technology
- Flexible modularity and easy scalability with all hot-swappable module design
- High efficiency: Upto 97% (online mode), 99% (ECO mode)
- High power density of 100 kVA / 3U power module
- Wide input voltage range, high grid adaptability, strong load adaptability and strong overload capability
- Small footprint (600 kVA system only 1.00 m2 footprint)
- Inbuilt integrated PDU system, easy installation and saving investment
- Input power factor ≥ 0.99 , THDi $< 3\%$, environment friendly and high-efficiency and energy-saving
- Soft-start technology improves generator matching
- Support two modes of frequency conversion: 50 Hz input / 60 Hz output and 60 Hz input / 50 Hz output
- Intelligent hibernation design enables UPS to operate efficiently at low load rate to prolong service life and improve the system efficiency
- Advanced parallel expansion technology, support 4 units in parallel
- Share battery pack in parallel operation, saving user's battery cost
- Flexible charger parameter and battery configuration setting, numbers of battery 30 ~ 50 pcs selectable
- Intelligent battery management (Intelligent charge/discharge management and float charging voltage temperature compensation), extending battery lifespan
- Support battery cold start and utility self boot
- Self-aging function, easy debugging and test on site
- Fault-tolerant design for fan system: 30% load can be driven when 2 fans fail and 50% load when 1 fan fails
- Front accessible maintenance, top/bottom cable entry compatible
- Complete hardware and software protection function, robust self-diagnostic function, and abundant event log for check
- 7 inches LCD touch screen, friendly human-machine interface
- Monitoring unit with built-in SNMP, supports RS485 and dry contacts



400-600KVA



800-1200KVA



Power Module



Bypass Module



Control Module



- | | | | | | |
|------------------------|------------------|--|-------------------|----------------------------------|---|
| 1. Parallel port | 2. LED indicator | 3. DRY_IN | 4. DRY_OUT | 5. BTG port | 6. BCB port |
| 7. BCB tripping signal | 8. EPO port | 9. Switch state port of power distribution cabinet | 10. SPD port | 11. Environment temperature port | 12. Battery temperature compensation port |
| 13. CAN port | 14. RS485 port 1 | 15. RS485 port 2 | 16. Ethernet port | 17. USB port | 18. LCD screen port |

Specifications

MODEL	HD-100RM4	HD-100RM5	HD-100RM6	HD-100RM8	HD-100RM10	HD-100RM12
Rated capacity	400kVA/400kW	500kVA/500kW	600kVA/600kW	800kVA/800kW	1000kVA/1000kW	1200kVA/1200kW
Numbers of power module	4	5	6	8	10	12
Rated capacity of power module	100kVA / 100kW					
INPUT						
Input wiring	3 PH + N + PE					
Rated voltage	380 / 400 / 415 Vac					
Voltage range	138 – 485 Vac (325-485 Vac without power downgrading; 139-324 Vac with linear downgrading 35%)					
Input frequency	40 – 70 Hz					
Power factor	≥ 0.99					
THDi	< 3%					
BATTERIES						
Battery voltage	480 Vdc as default (360 – 600Vdc selectable)					
Number of battery	40 pcs 12V batteries (30 – 50 pcs selectable)					
OUTPUT						
Output wiring	3 PH + N + PE					
Rated voltage	380 / 400 / 415 Vac ±1%					
Frequency	Synchronized with utility in mains power mode: 50 Hz / 60 Hz ± 0.25% in battery mode					
Power factor	1					
THDv	≤ 1% with linear load, ≤ 3 % with non-linear load					
Crest factor	3:1					
Inverter overload capacity	105% < load ≤ 110%: transfer to bypass in 60 min, 110% < load ≤ 125%: transfer to bypass in 10 min 125% < load ≤ 150%: transfer to bypass in 1 min, Load > 150%: transfer to bypass in 200 ms					
Bypass overload capacity	Load ≤125% for long term; >200% load for 100 ms					
SYSTEM						
Efficiency	Max 97% (online mode), 99% (ECO mode)					
Max. number of parallel connections	4 units					
Transfer time	0 ms					
Protections	Short circuit protection, overload protection, over-temperature protection, battery low voltage protection, output over/low voltage protection, fans failure protection etc.					
Max short circuit current allowed	100kA					
Communications	RS485, dry contacts, SNMP					
Display	7 inches LCD touch screen					
OTHERS						
Operating temperature	0 – 55°C					
Storage temperature	-40 - +70°C					
Humidity	0 – 95% (non-condensing)					
Altitude	≤1000 m. Above 1000 m, derating 1% for each additional 100 m					
Protection level	IP20					
Cabinet Dim (W x D x H) (mm)	1000*1000*2000			2000*1000*2000		
UPS module Dim (W x D x H) (mm)	440*750*130					
Cabinet weight (kg)	525			920		
Power module weight (kg)	50					

* All specifications are subject to change without notice.