

50-600KVA Modular UPS



Modular UPS is 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 online double conversion power protection. The available UPS power and redundancy level can expand vertically from 50 to 600 kVA / 600 kW in one single power cabinet, and four power cabinets can be connected in parallel, increasing the capacity up to 2.4 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.

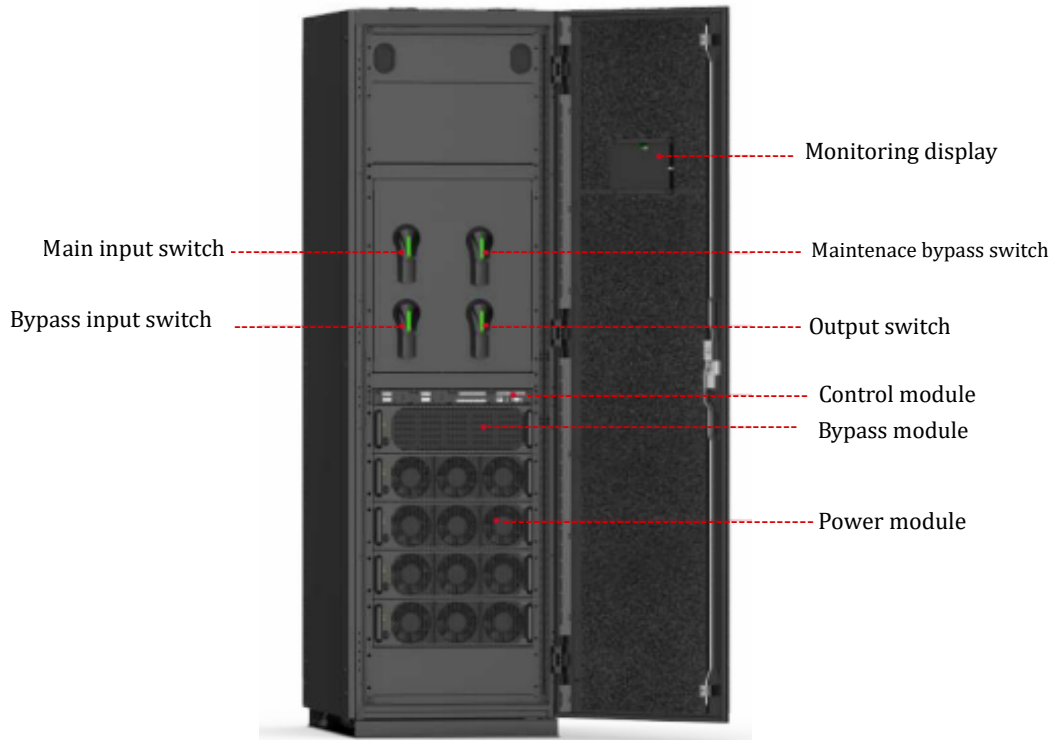
Highlights

- High power factor 1.0
- High efficiency 96.5%
- High adaptability
- Power flexibility from 50 - 600 kW
- Modular hot-swappable & Scalability
- High MTBF and low MTTR

Features

- DSP digital control technology
- Flexible modularity and easy scalability with all hot-swappable module design
- High efficiency at low load rate: 96% at 40% rated load and 95% at 20% rated load
- High power density of 50 kVA / 3U power module
- High grid adaptability, strong load adaptability and strong overload capability
- Small footprint (500 kVA system only 1.02 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 up to 1:1.1
- 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 ~ 46 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





Power Module



Bypass Module



Control Module



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

Spectifications

MODEL	HD66200	HD66300	HD66400	HD66500	HD66600
Rated capacity	200 kVA/200 kW	300 kVA/300 kW	400 kVA/400 kW	500 kVA/500 kW	600 kVA/600 kW
Numbers of power modules	4	6	8	10	12
Rated capacity of power module	50 kVA				
INPUT					
Input wiring	3 Ph + N + PE				
Rated voltage	380 / 400 / 415 Vac				
Voltage range	138 ~ 485 Vac (305 ~ 485 Vac without power downgrading; 138 ~ 305 Vac with linear downgrading 40%)				
Input frequency	40 ~ 70 Hz				
Power factor	≥ 0.99				
Current distortion	< 3%				
BATTERIES					
Battery voltage	± 240 Vdc (±180, ± 192, ± 204, ± 216, ± 228, ± 252, ± 264, ± 276 selectable)				
Number of battery	40 pcs 12V batteries (30 / 32 / 34 / 36 / 38 / 42 / 44 / 46 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				
Voltage distortion	≤ 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; > 150% load for 200 ms				
SYSTEM					
Efficiency (Max)	96.5%				
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.				
Communications	RS485, dry contacts, SNMP				
Display	7 inches LCD touch screen				
OTHERS					
Operating temperature	0 ~ 40°C				
Storage temperature	-25°C ~ +55°C				
Humidity	0 ~ 95% (non-condensing)				
Altitude	≤1000 m. Above 1000 m, derating 1% for each additional 100 m				
Protection level	IP 20				
Noise level at 1 m	< 65 dB		< 68 dB		
Cabinet dimensions (WxDxH)(mm)	600 × 850 × 2000		1200 × 850 × 2000		1400 × 850 × 2000
UPS module dimensions (WxDxH)(mm)	440 × 620 × 130				
Cabinet weight (kg)	233	242	415	465	617
Power module weight (kg)	32				

- All specifications are subject to change without notice
- Custom-made specifications are acceptable