

## 20-200KVA 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 series (20 kVA ~ 200 kVA) UPS is a high-end modular UPS with latest dual-core DSP control technology. It adopts a highly intelligent modular design which mainly contains power modules, bypass module and control module, all modules support "plug & play" to simplify UPS servicing and maintenance. The available UPS power and redundancy level can expand vertically from 20kVA/20kW to 200kVA/200kW in one single power cabinet with flexible configuration for meeting different needs. Based on superior electrical performance, perfect hardware and software protection function, this series UPS can adapt to different grid environment and provides maximum protection and high quality power for critical loads in data centers or other important applications.

### Highlights

- High power factor 1.0
- High efficiency 96%
- High power density
- 3-level technology
- 2 U power module
- Power flexibility from 20-200 kW
- Scalability & Modular hot-swappable
- Low total cost of ownership

## Features

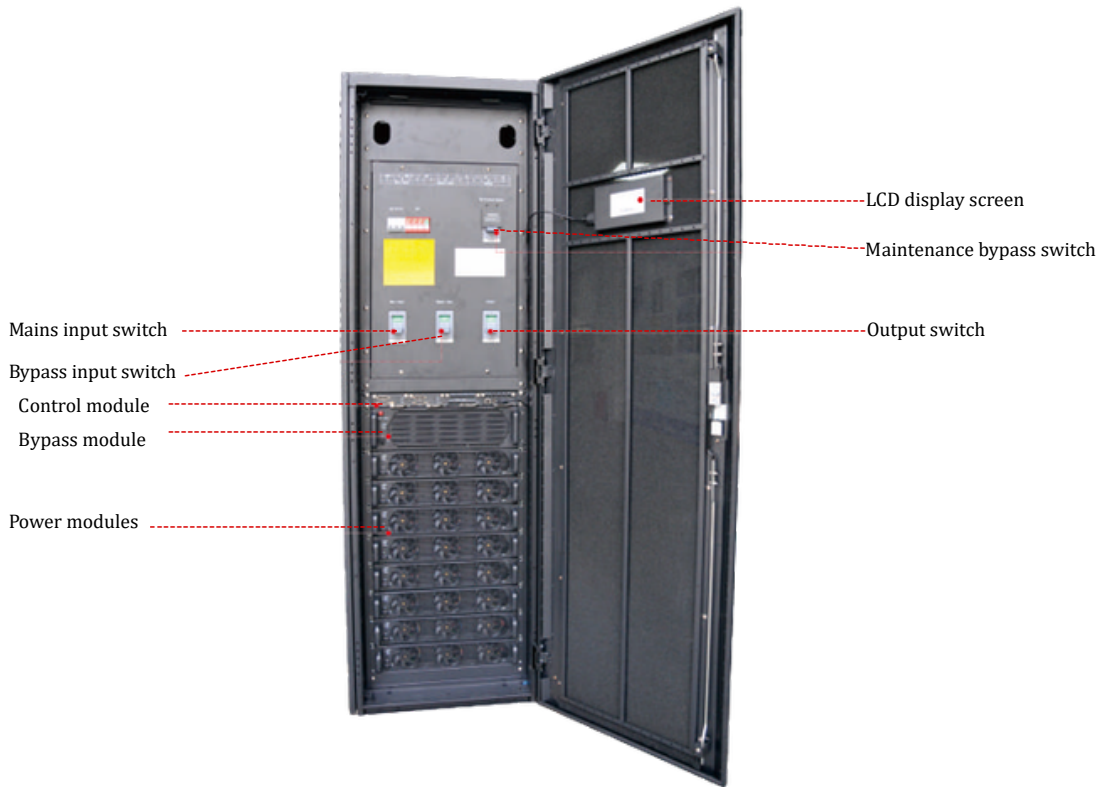
- Advanced dual-core DSP control technology
- True Online double conversion power protection, and with strong load capacity
- Compact footprint, modular Hot-swappable design simplifying maintenance and scalability
- High efficiency up to 96% in online mode, 99% efficiency in ECO mode
- Dual input design, independent bypass available, improving bypass availability
- Output power factor 1.0, input power factor  $\geq 0.99$ , input THDi  $\leq 3\%$ , output THDv  $\leq 1\%$
- 138 ~ 485 Vac wide input voltage range, 50 Hz / 60 Hz grid self-adaptive
- Frequency conversion available: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Advanced digital parallel technology, improving redundancy and reliability in system
- Flexible charger parameter and battery configuration settings, battery number 30 ~ 46 pcs selectable
- Compatible with lead-acid battery and lithium battery, suitable for different types of battery configuration requirements
- Support cold start with battery and auto restart with mains power
- Settable delay time for startup when the mains power is restored, reducing the impact on the grid or generators
- Fan speed varies intelligently with temperature, reducing noise and extending the service life of the fan
- Fault-tolerant design for fan system, taking 35% loads when any one of fans fails
- Superior hardware and software protection function, robust self-diagnostic function, and abundant event log
- Hibernation function to improve the system efficiency at light loads and extend the service life of UPS
- Powerful background software for parameters configuration and online updating
- 7 inches LCD touch screen, friendly human-machine interface
- Multi-platform communications: RS485, CAN, NET, dry contacts, SNMP, Wifi communication interfaces; Real-time monitoring UPS available through the mobile App after installing Wifi card
- Intelligent battery management, automatic floating/equalizing charge control, battery self-diagnosis control, SOC detection, SOH detection and charger hibernation control, extending battery lifespan



## Available Options

Parallel cables, LBS cables, Battery temperature sensor, Wifi card, EMD





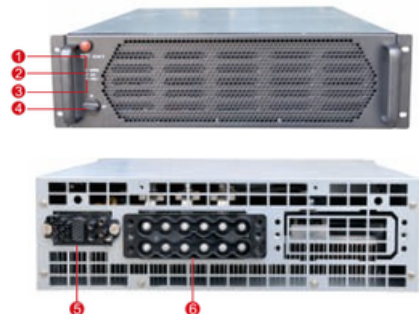
### Power module



- 1. Run indicator
- 2. Alarm indicator
- 3. Fault indicator
- 4. Ready switch
- 5. Output port
- 6. Input port

Dimensions (W x D x H) (mm)	442x620x86
Weight	21 kg
Charging current	10A
Capacity	20/25/30kVA
Power density	20.9W/inch <sup>3</sup> (Max)

### Bypass module



- 1. Run indicator
- 2. Alarm indicator
- 3. Fault indicator
- 4. Ready switch
- 5. Signal terminal.
- 6. Power terminal

Dimensions (W x D x H) (mm)	442x500x130
Weight	18 kg
Capacity	200kVA / 200kW

### Control module



- 1. LBS connection port/rack parallel port
- 2. LED indicator
- 3. Input dry contacts
- 4. Output dry contacts
- 5. Battery ground fault (BTG) interface/generator (GEN) interface
- 6. Generator (GEN) port
- 7. Battery circuit breaker (BCB) port
- 8. EPO port
- 9. Switch state port of distribution cabinet
- 10. SPD port
- 11. Ambient temp 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 port
- 19. Plug-in switch of system control board
- 20. Plug-in switch of dry contacts board
- 21. Plug-in switch of monitoring board

## Specifications

MODEL	HD6680	HD66120	HD66160
Rated capacity	80kVA / 80kW	120kVA / 120kW	160kVA / 160kW
Number of power module	4	6	8
Rated capacity of power module	20kVA / 20kW		
MODEL	HD66100	HD66150	HD66200
Rated capacity	100kVA / 100kW	150kVA / 150kW	200kVA / 200kW
Number of power module	4	6	8
Rated capacity of power module	25kVA / 25kW		
MODEL	HD66120	HD66150	HD66180
Rated capacity	120kVA / 120kW	150kVA / 150kW	180kVA / 180kW
Number of power module	4	5	6
Rated capacity of power module	30kVA / 30kW		
INPUT			
Input wiring	Three-phase five-wire (3Φ + N + PE)		
Rated voltage	380Vac / 400Vac / 415Vac		
Voltage range	138 ~ 305Vac (linear derating at 40% ~ 100% load), 305 ~ 485Vac (no derating)		
Frequency range	40 ~ 70Hz		
Input power factor	≥0.99		
THDi	≤3%		
Bypass input voltage range	-60% ~ +25% (settable)		
Battery voltage	± 240Vdc (±180 ~ ± 276Vdc settable)		
Number of battery	40 pcs 12V batteries (30, 32, 34, 36, 38, 40, 42, 44, 46 pcs settable)		
OUTPUT			
Output wiring	Three-phase five-wire (3Φ + N + PE)		
Rated voltage	380Vac / 400Vac / 415Vac		
Output voltage regulation accuracy	± 1%		
Output frequency accuracy	Synchronized with utility in mains power mode; 50Hz / 60Hz ±0.1% in battery mode		
Output power factor	1		
Output waveform distortion (THDv)	≤1% (linear load); ≤3% (non-linear load)		
Crest factor	3:1		
Overload capacity	105% < load ≤ 110% for 60min, 110% < load ≤ 125% for 10min, 125% < load ≤ 150% for 1min, load > 150% for 0.2s		
SYSTEM			
Max. efficiency	96% in on-line mode, 99% in ECO mode		
Transfer time	0 ms		
Max. number of parallel connections	2		
Protections	Short-circuit, overload, over-temperature, battery low voltage, undervoltage, overvoltage, fan failure protection		
Communications	Standard configurations: RS485, CAN, NET, SNMP, dry contacts port, and EPO Optional configurations: Wi-Fi card, parallel port, LBS port, Battery temperature sensor, EMD		
Display	7 inches LCD touch screen		
ENVIRONMENTAL			
Operating temperature	0°C ~ 40°C		
Storage temperature	-25°C ~ +55°C (without battery)		
Relative humidity	0% ~ 95% (non-condensing)		
Altitude	≤ 1000m, above 1000m, derating 1% for each additional 100m		
Protection level	IP 20		
Noise	≤ 65 dB (at 1m)		
OTHERS			
Cabinet dimensions (W x D x H) (mm)	600x850x1200	600x850x1800	600x850x2000
Cabinet net weight (kg)	180	250	280
Module dimensions (W x D x H) (mm)	442x620x86		
Power module weight (kg)	21		
Color	Black		

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