HYUNDAI

220V

UPS

Product Catalogue

GENUINE PRODUCT OF
HYUNDAI CORPORATION

HYUNDAI CORPORATION GROUP

Creating new values as a Global Business Partners

Company Introduction Overview

Established in 1976, Hyundai Corporation is a representative general trading company in Korea that has grown for the last 48 years with excellent results in international trade, overseas investment, energy & resource development fields and brand business.

We, utilizing own trademark (HYUNDAI), produce high-quality Portable Generator, Power tools, Air tools and gardening products and so on in cooperation with worldly renowned OEM manufacturers and distribute them into over 90 countries throughout the world through main distributors/dealers.

Recently, in order to jump up to Premium Brand which competes with world-wide global brands, we put emphasis on qualitative growth and competitiveness enhancement of our business. And along with this idea, we secure sustainability and growth potential of our business through OEM business development.

Overseas Networks

Actively engaged in the global market, Hyundai Corporation has worked on various business fields through its 43 global business networks established all over the world.

Company : 11(Including investment corporate)
Branch : 26
JV Company : 6

LINE INTERACTIVE UPS

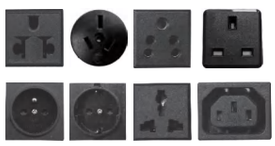
HD200
400 VA ~ 2000 VA

Features

- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection
- Unattended safety shutdown: system alarm and auto Power-On / Off by RS232 or USB interface communicating with PC

Rear Panel

1. Output Outlets (selectable)
2. TEL/Modem/Fax surge protection (optional)
3. USB (optional)
4. AC Input
5. Fuse



Optional outlets

400 VA ~ 800 VA

1200 VA ~ 1500 VA

1500 VA ~ 2000 VA

Specifications

MODEL		HD260	HD280	HD2120	HD2150	HD2200
Capacity		600 VA 360 W	800 VA 480 W	1200 VA 720 W	1500 VA 900 W	2000 VA 1200 W
INPUT						
Voltage		100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional)				
Frequency		50 / 60 Hz ± 10% (auto-sensing)				
OUTPUT						
Voltage		100 / 110 / 120 Vac ± 10% or 220 / 230 / 240 Vac ± 10%				
Frequency		50 / 60 Hz ± 1% (auto-sensing)				
Waveform		Mains mode: pure sine wave; Battery mode: simulated sine wave				
Transfer time		Typical 2 ~ 7 ms, 10 ms max.				
BATTERIES						
DC voltage		12 V		24 V		
Configuration		12 V / 7.0 Ah×1	12 V / 8.0 Ah×1	12 V / 7.0 Ah×2	12 V / 8.0 Ah×2	12 V / 9.0 Ah×2
Recharge time		6 ~ 8 h				
OTHERS						
Protections		Short circuit - battery overcharge – overdischarge – overload - surge				
Communications		USB / RS232 / SNMP (optional)				
Humidity		20 ~ 90% RH @ 0 ~ 40℃ (non-condensing)				
Noise level		≤ 45 dB (1 m)				
Plastic case	Net / Gross weight (kg)	4.3 / 4.6	5.2 / 5.5	8.6 / 9.0	10.1 / 10.5	/
	Dimension s (W× D × H) (mm)	100 × 290 × 140		140 × 345 × 170		/
	Packaged dimensions (W × D × H) (mm)	139 × 335 × 210		198 × 406 × 245		/
	Quantity / 20 ft	2300 pcs		1000 pcs		/
Metal case	Net / Gross weight (kg)	5.1 / 5.4	6.3 / 6.6	9.6 / 10.1	11.3 / 11.7	12.9 / 13.3
	Dimensions (W × D × H) (mm)	95 × 320 × 160		125 × 320 × 225		125 × 380 × 225
	Packaged dimensions (W × D × H) (mm)	145 × 375 × 230		180 × 390 × 295		180 × 450 × 295
	Quantity / 20 ft	2000 pcs		1000 pcs		

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

ONLINE UPS

HD900Pro
1 kVA ~ 3 kVA
PF 0.9

Features

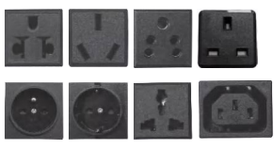
- High frequency on-line double conversion technology
- DSP (Digital signal processors) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 4 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

Available Options

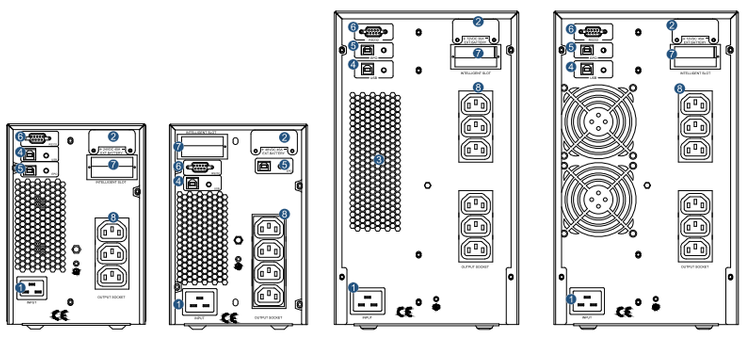
- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, and 12 A charger (2/3 kVA only)

Rear Panel

1. AC Input socket
2. Battery connector (Optional)
3. Fan
4. USB (optional)
5. EPO (optional)
6. RS232
7. Intelligent slot (optional)
8. Output sockets



Optional outlets



1kVAS 2kVAS (48V) 2kVAS (72V) 3kVAS

Specifications

MODEL	HD901P			HD902P			HD903P		
Capacity	1 kVA / 900 W			2 kVA / 1800 W			3 kVA / 2700 W		
INPUT									
Rated voltage	208 / 220 / 230 / 240 Vac								
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)								
Frequency	40 ~ 70 Hz (auto-sensing)								
Power factor	≥ 0.99								
Bypass voltage range	- 25% ~ +15% (settable)								
Total harmonic distortion (THDi)	≤ 6%								
OUTPUT									
Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)								
Voltage regulation	±1%								
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz±0.1 Hz (battery mode)								
Waveform	Sinusoidal								
Power factor	0.9								
Total harmonic distortion (THDv)	≤ 2% (linear load), ≤ 5% (non-linear load)								
Crest factor	3:1								
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms								
BATTERIES									
DC voltage	24 V (S)	36 V (S)	36 V (H)	48 V (S)	72 V (S)	72 V (H)	72 V (S)	96 V (S)	96 V (H)
Inbuilt battery	2×9 Ah	3×7 Ah	/	4×9 Ah	6×7 Ah	/	6×9 Ah	8×7 Ah	/
Charging current (max.)	1 A		6 A	1 A		6 A	1 A		6 A
Recharge time	Standard model: 90% capacity restored in 3 hours; Long time model: depend on the capacity of battery								
SYSTEM									
Efficiency	≥ 90% (Mains mode)			≥ 91% (Mains mode)			≥ 92% (Mains mode)		
	≥ 85% (Battery mode)			≥ 86% (Battery mode)			≥ 87% (Battery mode)		
	≥ 95% (ECO mode)			≥ 96% (ECO mode)			≥ 97% (ECO mode)		
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)								
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection								
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)								
Display	LCD + LED								
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1, IEC 62040-3								
OTHERS									
Operating temperature	0℃ ~ 40℃								
Storage temperature	-25℃ ~ 55℃ (without batteries)								
Relative Humidity	0 ~ 95% (non-condensing)								
Altitude	≤ 1000 m, derating 1% for each additional 100 m								
IP rating	IP 20								
Noise level at 1m	≤ 50 dB								
Dimensions (W×D×H) (mm)	144×312 ×216	144×317 × 216	144×336 ×216	144×417 ×216	191×419 ×335	191×418 ×335	191 × 419 × 335		191×418 ×335
Packaged dimensions (W×D×H) (mm)	230×402 ×315	230×460 ×315	232×417 ×318	230×506 ×315	277×500 ×435	318×533 ×471	277 × 500 × 435		277×500 ×435
Net weight (kg)	11	12.8	6	16.4	23.1	10.5	24.3	29.4	11
Gross weight (kg)	11.3	14	7	17.8	24.7	12	25.9	31.1	12.5

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- S means standard model, H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

HD900Pro RT

1 kVA ~ 3 kVA
PF 0.9

Features

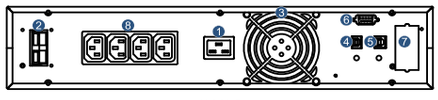
- High frequency on-line double conversion technology
- DSP (Digital signal processors) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 4 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Hot-swappable battery
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

Available Options

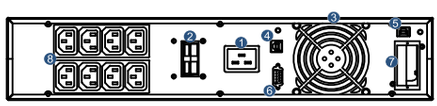
- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, MBS (External maintenance bypass switch)

Rear Panel

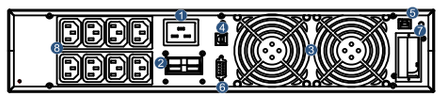
1. AC Input socket
2. Battery connector (Optional)
3. Fan
4. USB (optional)
5. EPO (optional)
6. RS232
7. Intelligent slot (optional)
8. Output sockets



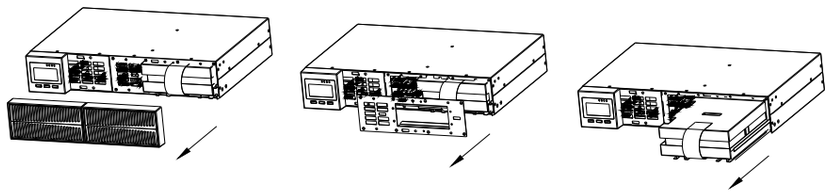
1kVAS



2kVAS



3kVAS



Easy for maintenance, hot-swappable battery

Specifications

MODEL	HD901PRT			HD902PRT			HD903PRT	
Capacity	1 kVA / 900 W			2 kVA / 1800 W			3 kVA / 2700 W	
INPUT								
Rated voltage	208 / 220 / 230 / 240 Vac							
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)							
Frequency	40 ~ 70 Hz (auto-sensing)							
Power factor	≥ 0.99							
Bypass voltage range	-25% ~ +15% (settable)							
Total harmonic distortion (THDi)	≤ 6%							
OUTPUT								
Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)							
Voltage regulation	± 1%							
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)							
Waveform	Sinusoidal							
Power factor	0.9							
Total harmonic distortion (THDv)	≤ 2% (linear load); ≤ 5% (non-linear load)							
Crest factor	3:1							
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms							
BATTERIES								
DC voltage	24 V (S)	36 V (S)	36 V (H)	48V (S)	72 V (S)	72 V (H)	72 V (S)	96 V (H)
Inbuilt battery	2×9 Ah	3×7 Ah	/	4×9 Ah	6×7 Ah	/	6×9 Ah	/
Charging current (max.)	1 A		6 A	1 A		6 A	1 A	6 A
Recharger time	Standard model: 90% capacity restored in 3 hours; Long time model: depend on the capacity of battery							
SYSTEM								
Efficiency	≥ 90% (Mains mode)			≥ 91% (Mains mode)			≥ 92% (Mains mode)	
	≥ 85% (Battery mode)			≥ 86% (Battery mode)			≥ 87% (Battery mode)	
	≥ 95% (ECO mode)			≥ 96% (ECO mode)			≥ 97% (ECO mode)	
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)							
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection							
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)							
Display	LCD + LED							
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1							
OTHERS								
Operating temperature	0℃ ~ 40℃							
Storage temperature	-25℃ ~ 55℃ (without batteries)							
Relative humidity	0~95% (non-condensing)							
Altitude	≤ 1000 m, derating 1% for each additional 100 m							
IP rating	IP 20							
Noise level at 1m	≤ 50 dB							
Dimensions (W × D × H) (mm)	440 × 338 x 88	440 × 430 x 88	440 × 468 x 88	440 × 430 x 88	440 × 560 x 88	440 × 468 × 88	440 × 560 × 88	440 × 468 × 88
Packaged dimensions (W×D×H) (mm)	545 × 428 x 194	545 × 560 x 201	545 × 592 x 201	545 × 560 x 201	545 × 690 x 201	545 × 592 × 201	545 × 690 × 201	545 × 592 × 201
Net weight(kg)	10.6	15.5	7.6	18.7	25.6	9.7	26.8	10.1
Gross weight(kg)	11.3	18.6	11.1	21.8	25.8	13.2	29.7	13.6

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- S means standard model, H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

HD900 G4
6 kVA ~ 10 kVA
PF 1.0

Features

- Advanced DSP and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110 ~ 288 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 12 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check

Available Options

- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

Rear Panel

1. RS232
2. EPO
3. Parallel Port (optional)
4. USB (optional)
5. Temperature Detection (optional)
6. Intelligent Slot
7. Reserved: for manual bypass or battery breaker or outlets ect.
8. Fans
9. Bypass Breaker
10. Input Breaker
11. GND
12. Terminals and Cover

6/10 kVA (H)

6/10 kVA (S)

Specifications

MODEL	HD906 G4	HD9010 G4
Capacity	6 kVA / 6 kW	10 kVA / 10 kW
INPUT		
Input wiring	Single-phase three-wire (1Φ + N + PE)	
Rated voltage	208 / 220 / 230 / 240 Vac	
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)	
Rated frequency	50 / 60 Hz (auto-sensing)	
Frequency range	40 ~ 70 Hz	
Power factor	≥ 0.99	
Bypass voltage range	- 40% ~ +15% (settable)	
Total harmonic distortion (THDi)	≤ 5%	
OUTPUT		
Output wiring	Single-phase three-wire (1Φ + N + PE)	
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac	
Voltage regulation	± 1%	
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz±0.1% Hz in battery mode	
Waveform	Sinusoidal	
Power factor	1	
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)	
Crest factor	3:1	
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min, 126% ~ 150% for 30 s	
BATTERIES		
DC voltage	192 Vdc (192 ~ 240 Vdc settable)	
Number of battery	16 pcs (16 ~ 20 settable)	
Inbuilt battery (standard model)	12 V / 7 Ah × 16	12 V / 9 Ah×16
Charging current	Standard model: 1 A; Long time model: 5 A (default),1 ~ 5 A settable, 12 A (optional; PF 0.9)	
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery	
SYSTEM		
Efficiency	≥ 94% at 100% load, max. 95% at 60% load, ≥ 98% in ECO mode	
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure	
Max. number of parallel connections	4	
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)	
Display	LCD + LED	
OTHERS		
Operating temperature	0℃ ~ 40℃	
Storage temperature	-25℃ ~ 55℃ (without battery)	
Relative humidity	0 ~ 95% (non-condensing)	
Altitude	≤ 1000 m, derating 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1 m	≤ 55 dB	≤ 58 dB
Dimensions (W × D × H) (mm)	191 × 465 × 711 (S) , 191 × 465 × 350 (H)	191 × 495 × 711 (S), 191 × 495 × 350 (H)
Packaged dimensions (W × D × H) (mm)	310 × 654 × 941 (S), 318 × 595 × 475 (H)	310 × 685 × 941 (S), 318 × 617 × 475 (H)
Net weight (kg)	53 (S) , 14.5 (H)	62 (S), 16.5 (H)
Gross weight (kg)	61 (S), 16 (H)	70 (S), 18 (H)

- S means standard model; H means long time model.
- All specifications are subject to change without notice.

HD900RT G4

6 kVA ~ 10 kVA
PF 1.0

Features

- Advanced DSP and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110 ~ 288 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Hot-swappable battery
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 12 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check

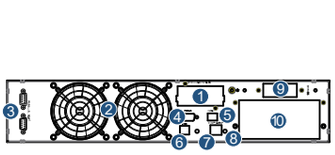
Available Options

- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

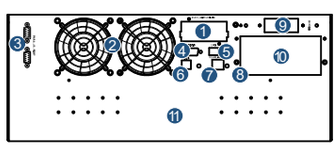
Rear Panel

1. Intelligent Slot
2. Fans
3. Parallel Port (optional)
4. RS232
5. EPO
6. USB (optional)
7. Temperature Detection (optional)
8. GND
9. Bypass Breaker
10. Terminal and Cover
11. Battery Pack

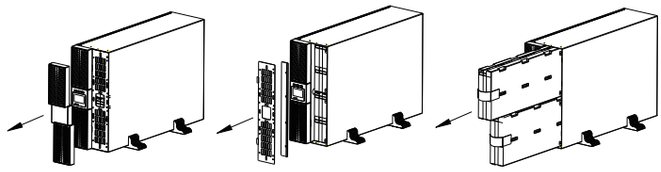
Display panel can be rotated



6/10 kVA (H)



6/10 kVA (S)



Easy for maintenance, hot-swappable battery

Specifications

MODEL	HD906RT G4	HD9010RT G4
Capacity	6 kVA / 6 kW	10 kVA / 10 kW
INPUT		
Input wiring	Single-phase three-wire (1Φ + N + PE)	
Rated voltage	208 / 220 / 230 / 240 Vac	
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)	
Rated frequency	50 / 60 Hz (auto-sensing)	
Frequency range	40 ~ 70 Hz	
Power factor	≥ 0.99	
Bypass voltage range	- 40% ~ +15% (settable)	
Total harmonic distortion (THDi)	≤ 5%	
OUTPUT		
Output wiring	Single-phase (L-N)	
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac	
Voltage regulation	± 1%	
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode	
Waveform	Sinusoidal	
Power factor	1	
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)	
Crest factor	3:1	
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min,126% ~ 150% for 30 s	
BATTERIES		
DC voltage	192 Vdc (192~240 Vdc settable)	
Number of battery	16 pcs (16 ~ 20 settable)	
Inbuilt battery (standard model)	12 V / 7 Ah × 16	12 V / 9 Ah × 16
Charging current	Standard model: 1 A; Long time model: 5 A (default),1 ~ 5 A settable, 12 A (optional; PF 0.9)	
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery	
SYSTEM		
Efficiency	≥ 94% at 100% load, max. 94.5% at 60% load, ≥ 98% in ECO mode	
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure	
Max. number of parallel connections	4	
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)	
Display	LCD + LED	
OTHERS		
Operating temperature	0℃ ~ 40℃	
Storage temperature	-25℃ ~ 55℃ (without battery)	
Relative humidity	0 ~ 95% (non-condensing)	
Altitude	≤ 1000 m, derating 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1 m	≤ 55 dB	≤ 58 dB
Dimensions (W × D × H) (mm)	440 × 580 × 88 (H) 440 × 660 × 176 (S)	
Packaged dimensions (W × D × H) (mm)	514 × 696 × 168 (H) 554 × 792 × 418 (S)	
Net weight (kg)	12 (H), 58 (S)	14 (H), 63 (S)
Gross weight (kg)	14 (H), 68 (S)	16 (H), 73 (S)

- S means standard model; H means long time model.
- All specifications are subject to change without notice.

HD900 G4

10 kVA ~ 20 kVA
(3:1 / 1:1)
PF1.0

Features

- Advanced DSP and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- 3:1 to 1:1 model settable
- Wide input voltage range (190 ~ 499 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 10 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check

Available Options

- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

Rear Panel

1. RS232
2. EPO
3. Parallel Port (optional)
4. USB (optional)
5. Temperature Detection (optional)
6. Intelligent Slot
7. Reserved: for manual bypass or battery breaker or outlets ect.
8. Fans
9. Bypass Breaker
10. Input Breaker
11. GND
12. Terminals and Cover

10 kVA (H) 15/20 kVA (H) 10 kVA (S)

Specifications

MODEL	HD9010 (3:1) G4	HD9015 (3:1) G4	HD9020 (3:1) G4
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW
INPUT			
Input wiring	Three-phase five-wire (3Φ + N + PE)		
Rated voltage	380 / 400 / 415 Vac		
Voltage range	190 ~ 305 Vac (linear derating between 50% and 100% load); 305 ~ 499 Vac (no derating)		
Rated frequency	50 / 60 Hz (auto-sensing)		
Frequency range	40 ~ 70 Hz		
Power factor	≥ 0.99		
Bypass voltage range	- 40% ~ +15% (settable)		
Total harmonic distortion (THDi)	≤ 5%		
OUTPUT			
Output wiring	Single-phase three-wire (1Φ + N + PE)		
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac		
Voltage regulation	± 1%		
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode		
Waveform	Sinusoidal		
Power factor	1		
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 3% (non-linear load)		
Crest factor	3:1		
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min,126% ~ 150% for 30 s		
BATTERIES			
DC voltage	192 Vdc (192 ~ 240 Vdc settable)		
Number of battery	16 pcs (16 ~ 20 settable)		
Inbuilt battery (standard model)	12 V / 9 Ah×16	/	/
Charging current	Standard model: 1 A; Long time model: 5 A (default),1 ~ 5 A settable; 10 A (optional, PF0.9)		
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery		
SYSTEM			
Efficiency	≥ 94% at 100% load, max. 95% at 60% load, ≥ 98% in ECO mode		
Transfer time	0 ms		
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure		
Max. number of parallel connections	4		
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)		
Display	LCD + LED		
OTHERS			
Operating temperature	0℃ ~ 40℃		
Storage temperature	-25℃ ~ 55℃ (without battery)		
Relative humidity	0 ~ 95% (non-condensing)		
Altitude	≤ 1000 m, derating 1% for each additional 100 m		
IP rating	IP 20		
Noise level at 1 m	≤ 58 dB		
Dimensions (W × D × H) (mm)	191 × 495 × 711 (S) 191 × 495 × 350 (H)	191 × 495 × 515 (H)	
Packaged dimensions (W × D × H) (mm)	310 × 685 × 941 (S) 318 × 617 × 475 (H)	285 × 593 × 618 (H)	
Net weight (kg)	64 (S), 18.5 (H)	26.5 (H)	
Gross weight (kg)	72 (S), 20 (H)	28 (H)	

- S means standard model; H means long time model.
- All specifications are subject to change without notice.

HD900RT G4

10 kVA ~ 20 kVA
(3:1 / 1:1)
PF1.0

Features

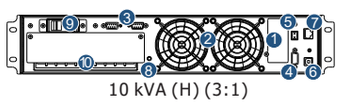
- Advanced DSP and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- 3:1 to 1:1 model settable
- Wide input voltage range (190 ~ 478 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass
- Hot-swappable battery (10 kVA)
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 10 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check

Available Options

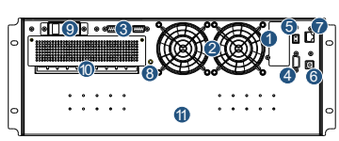
- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

Rear Panel

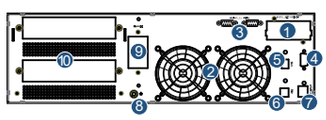
1. Intelligent Slot
2. Fans
3. Parallel Port (optional)
4. RS232
5. EPO
6. USB (optional)
7. Temperature Detection (optional)
8. GND
9. Bypass Breaker
10. Terminal and Cover
11. Battery Pack



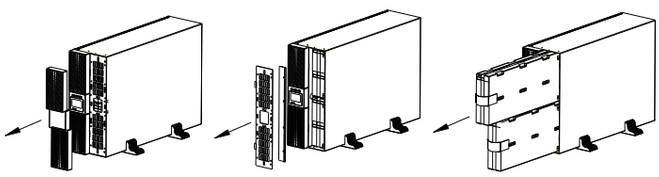
10 kVA (H) (3:1)



10 kVA (S) (3:1)



15/20 kVA (H) (3:1)



Specifications

MODEL	HD9010RT (3:1) G4	HD9015RT (3:1) G4	HD9020RT (3:1) G4
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW
INPUT			
Input wiring	Three-phase five-wire (3Φ + N + PE)		
Rated voltage	380 / 400 / 415 Vac		
Voltage range	190 ~ 304 Vac (linear derating between 50% and 100% load); 304 ~ 478 Vac (no derating)		
Rated frequency	50 / 60 Hz (auto-sensing)		
Frequency range	40 ~ 70 Hz		
Power factor	≥ 0.99		
Bypass voltage range	- 40% ~ +15% (settable)		
Total harmonic distortion (THDi)	≤ 5%		
OUTPUT			
Output wiring	Single-phase (L-N)		
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac		
Voltage regulation	± 1%		
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode		
Waveform	Sinusoidal		
Power factor	1		
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 3% (non-linear load)		
Crest factor	3:1		
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min,126% ~ 150% for 30 s		
BATTERIES			
DC voltage	192 Vdc (192 ~ 240 Vdc settable)		
Number of battery	16 pcs (16 ~ 20 settable)		
Inbuilt battery (standard model)	12 V / 9 Ah × 16	/	/
Charging current	Standard model: 1 A; Long time model: 5 A (default),1 ~ 5 A settable; 10 A (optional)		
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery		
SYSTEM			
Efficiency	≥ 94% at 100% load, max. 95% at 60% load, ≥ 98% in ECO mode		
Transfer time	0 ms		
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure		
Max. number of parallel connections	4		
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)		
Display	LCD + LED		
OTHERS			
Operating temperature	0℃ ~ 40℃		
Storage temperature	-25℃ ~ 55℃ (without battery)		
Relative humidity	0 ~ 95% (non-condensing)		
Altitude	≤ 1000 m, derating 1% for each additional 100 m		
IP rating	IP 20		
Noise level at 1 m	≤ 58 dB		
Dimensions (W × D × H) (mm)	440 × 650 × 88 (H) 440 × 660 × 176 (S)	440× 780 ×132 (H)	
Packaged dimensions (W × D × H) (mm)	514 x 696 x 168 (H) 554 x 792 x 418 (S)	554× 792 ×400 (H)	
Net weight (kg)	17 (H), 67 (S)	25.5 (H)	
Gross weight (kg)	19 (H), 77 (S)	28 (H)	

- S means standard model; H means long time model.
- All specifications are subject to change without notice.

HD990 G5

10 kVA ~ 30 kVA
(3:3)
PF 1.0

Features

- Advanced dual-core DSP control technology and 3-level technology
- Active power factor correction (APFC), input power factor up to 0.99
- System efficiency is improved to 95%, energy saving rate is doubled
- Output power factor 1.0
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range
- 50 / 60 Hz auto-sensing frequency
- 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Fan speed varies intelligently with load, reducing noise and extending its service life
- Conformal coating technology to make UPS operate in harsh environment for a long time
- Flexible battery configuration setting, selectable battery numbers: 32~ 40 pcs
- Digitally controlled charger (Max.10 A)
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Zero switching time for UPS power supply mode when the mains power is unstable, ensuring the output is uninterrupted
- Compact internal layout, small footprint
- 5 inches LCD colorful touch screen, friendly human & machine interface
- Powerful background software for parameters configuration and online upgrade
- Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, dry contacts, SNMP card, Wi-Fi card and GPRS card
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
- Effective hardware and software protection, robust self-diagnosis function, abundant event log for future check
- Standard RS232, USB, RS485, EPO, Dry contacts, Parallel port
- Optional SNMP card, WI-FI card, GPRS card, SMS alarms

Specifications

MODEL	HD9910 (3:3)G5	HD9915 (3:3)G5	HD9920 (3:3)G5	HD9930 (3:3)G5
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW	30 kVA / 30 kW
INPUT				
Rated voltage	380 / 400 / 400 / 415 Vac			
Voltage range	304~478Vac (L-L), full load 228 V ~ 304 Vac (L-L), load decrease linearly according to the min phase voltage			
Rated frequency	50 / 60 Hz (auto-sense)			
Frequency range	40 ~ 70 Hz			
Power factor	≥ 0.99			
Bypass voltage range	Selectable, default -20%～+15% Up limited: +10%, +15%, +20%, +25%; Down limited: -10%, -15%, -20%, -30%, -40%			
Total harmonic distortion (THDi)	<3% (full Linear Load)			
Bypass overload	125%: Long term operation; 125%~130% : 10min; 130%~150% : 1min; 150%~400%: 1s; >400%, less than 200ms			
OUTPUT				
Rated Voltage	380 / 400 / 415 Vac (L-L)			
Voltage regulation	±1% (full Linear Load)			
Frequency	Synchronized with utility in mains mode, 50 / 60 Hz ± 0.1% in battery mode			
Waveform	Sinusoidal			
Power Factor	1			
Total harmonic distortion (THDv)	<1% (full Linear Load); <3% (full non-linear load according to IEC/EN62040-3)			
Crest factor	3:1			
Overload	<110%, 60min; 110%~125%, 10min; 125%~150%, 1min; >150%, 200ms			
BATTERIES				
DC voltage	Long time model: ±240VDC(Selectable, 32 - 40pcs)			
Inbuilt battery (standard model)	(10 + 10) x 9 AH, ±120VDC	(20 + 20) x 7 AH, ±240VDC	(20 + 20) x 9 AH, ±240VDC	(15 + 15) x 9 Ah x 2 strings, ±180VDC
Charging current	10 A Max.			
Charger voltage precision	1%			
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	95% Max			
Transfer time	0 ms			
Max. number of parallel connections	4			
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Communications	Sandard: RS232, USB, RS485, EPO, Dry contacts, Parallel port Optional: SNMP card, WI-FI card, GPRS card, SMS alarms			
Display	LED + 5 inches LCD touch screen			
OTHERS				
Operating temperature	0℃ ~ 40℃			
Storage temperature	-40℃~70 ℃			
Relative humidity	0 ~ 95% (Non-condensing)			
Altitude	<1000m, Load derated 1% per 100m From 1000~2000m			
IP rating	IP 20			
Noise level at 1 m	55dB @ 100% load, 52dB @ 50% load		58dB @ 100% load, 55dB @ 50% load	
Dimensions (W × D × H) (mm)	250 × 720 × 560 (S) 250 × 720 × 560 (H)	250 × 800 × 700 (S) 250 × 720 × 560 (H)		250 × 840 × 930 (S) 250 × 840 × 650 (H)
Packaged dimensions (W × D × H) (mm)	350 × 800 × 722 (S) 350 × 800 × 718 (H)	350 × 900 × 862 (S) 350 × 800 × 718 (H)		350 × 950 × 1102 (S) 350 × 980 × 810 (H)
Net weight (kg)	31 (H), 82 (S)	33 (H), 131 (S)	33 (H), 145 (S)	42 (H), 215 (S)
Gross weight (kg)	40 (H), 93 (S)	42 (H), 142 (S)	42 (H), 156 (S)	52 (H), 227 (S)

- S means standard model, H means long time model.
- Custom-made specifications are acceptable.
- All specifications are subject to change without notice.

HD990RT G5

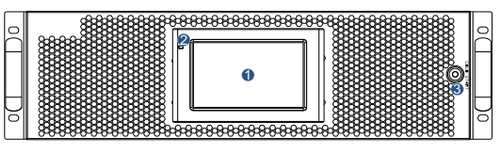
10 kVA ~ 30 kVA
(3:3)
PF 1.0

Features

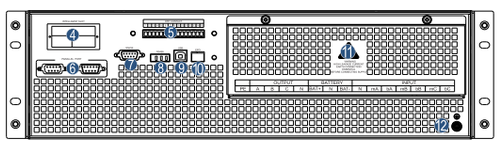
- Advanced dual-core DSP control technology and 3-level technology
- Active power factor correction (APFC), input power factor up to 0.99
- System efficiency is improved to 95%, energy saving rate is doubled
- Output power factor 1.0
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range
- 50 / 60 Hz auto-sensing frequency
- 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Fan speed varies intelligently with load, reducing noise and extending its service life
- Conformal coating technology to make UPS operate in harsh environment for a long time
- Flexible battery configuration setting, selectable battery numbers: 32~ 40 pcs
- Digitally controlled charger (Max.10 A)
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Zero switching time for UPS power supply mode when the mains power is unstable, ensuring the output is uninterrupted
- Compact internal layout, small footprint
- 5 inches LCD colorful touch screen, friendly human & machine interface
- Powerful background software for parameters configuration and online upgrade
- Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, dry contacts, SNMP card, Wi-Fi card and GPRS card
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
- Effective hardware and software protection, robust self-diagnosis function, abundant event logs for future check
- Standard RS232, USB, RS485, EPO, Dry contacts, Parallel port
- Optional SNMP card, WI-FI card, GPRS card, SMS alarms

Rear Panel

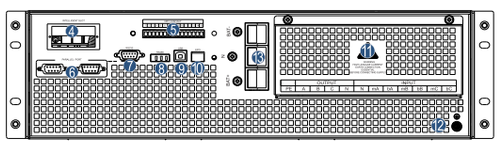
1. The touch screen LCD
2. LED
3. Battery start button
4. SNMP card (optional)
5. Dry contacts
6. Parallel port
7. RS232
8. RS485
9. USB
10. EPO
11. Terminal block
12. GND
13. Battery connectors for 30kVA



10-30kVA front appearance



10-20kVA back appearance



30kVA back appearance

Specifications

MODEL	HD9910RT	HD9915RT	HD9920RT	HD9930RT
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW	30 kVA / 30 kW
INPUT				
Rated voltage	380 / 400 / 415 Vac (L-L)			
Voltage range	304~478 Vac (L-L), full load 228V~304 Vac (L-L), load decrease linearly according to the min phase voltage			
Rated frequency	50 / 60 Hz (auto-sensing)			
Frequency range	40 ~ 70 Hz			
Power factor	> 0.99			
Bypass voltage range	Selectable, default ~ 20% ~ +15% Up limited: +10%, +15%, +20%, +25%; Down limited: -10%, -15%, -20%, -30%, -40%			
Bypass frequency range	Selectable, ±1Hz, ±3Hz, ±5Hz			
Total harmonic distortion (THDi)	<3% (full linear load)			
Bypass overload	125%: long term operation; 125%~130%: 10min; 130%~150%: 1min; 150%~400%: 1s; >400%, less than 200ms			
OUTPUT				
Rated voltage	380 / 400 / 415 Vac (L-L)			
Voltage regulation	±1% (full linear load)			
Frequency	Synchronized with utility in mains mode, 50/60 Hz ±0.1% in battery mode			
Waveform	Sinusoidal			
Power factor	1			
Total harmonic distortion (THDv)	<1% (full linear load), <3% (full non-linear load according to IEC / EN62040-3)			
Crest factor	3:1			
Overload	<110%, 60min; 110%~125%,10min; 125%~150%,1min; >150%, 200ms			
BATTERIES				
DC voltage	±240VDC (selectable, 32 - 40pcs)			
Charging current	10A Max.			
Charger voltage precision	1%			
Recharge time	Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	95% Max.			
Transfer time	0 ms			
Max. number of parallel connections	4			
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Communications	RS232, USB, RS485, EPO, Dry contacts, Parallel port (Standard) SNMP card, WI-FI card, GPRS card, SMS alarms (Optional)			
Display	LED + 5 inches LCD touch screen			
OTHERS				
Operating temperature	0℃ ~ 40℃			
Storage temperature	-40℃ ~ 70℃			
Relative humidity	0 ~ 95% (Non-condensing)			
Altitude	<1000m, load derated 1% per 100m from 1000 ~ 2000m			
IP rating	IP 20			
Noise level at 1 m	55dB @ 100% load, 52dB @ 50% load		58dB @ 100% load, 55dB @ 50% load	
Dimensions (W × D × H) (mm)	440 x 660 x 130			440 x 750 x 130
Packaged dimensions (W × D × H) (mm)	532 x 800 x 204			532 x 890 x 204
Net weight (kg)	22	24		29
Gross weight (kg)	24	26		31

- S means standard model, H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

HD990 G4

40 kVA ~ 60 kVA
(3 : 3)
PF1.0

Features

- Advanced dual-core DSP control technology and 3-level technology
- Output power factor 1.0
- Active Power Factor Correction Technology, input power factor up to 0.99
- System efficiency improved to 96%, energy saving rate is doubled
- Working efficiency up to 99% in ECO mode
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range, 50 / 60 Hz auto-sensing frequency
- 50 Hz / 60 Hz frequency conversion mode
- Compact internal layout, small footprint
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Features strong fault tolerance, one fan damaged takes 50% of the load, two fans damaged take 30% of the load
- Conformal coating technology to make UPS operate in harsh environment for a long time
- Effective hardware and software protection, robust self-diagnosis function, abundant event log for future check
- Linear downgrading in low voltage input reducing battery discharging times
- Flexible battery configuration setting, selectable battery numbers: 30 ~ 44 pcs
- Digitally controlled charger (Max. 36 A)
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Zero switching time for UPS power supply mode when the mains power is unstable, ensuring the output is uninterrupted
- Settable delayed start time when mains power is restored
- 5 inches LCD colorful touch screen, friendly human & machine interface
- Powerful background software for parameters configuration and online upgrade
- Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, NET, dry contacts, SNMP card, Wi-Fi card and GPRS card
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
- Options and accessories: RS232, USB, RS485, NET, parallel, LBS, dry contacts, EPO and battery temperature compensation interfaces supplied; optional SNMP card, Wi-Fi card, GPRS card, battery temperature sensor, EMD detector and SMS alarms

Specifications

MODEL	HD9940 G4	HD9960 G4
Capacity	40 kVA / 40 kW	60 kVA / 60 kW
INPUT		
Input wiring	Three-phase five-wire (3Φ + N + PE)	
Rated voltage	380 / 400 / 415 Vac	
Voltage range	304 ~ 485 Vac (no downgrading), 138 ~ 304 Vac (linear downgrading between 40% ~ 100% load)	
Rated frequency	50 / 60 Hz (auto-sensing)	
Frequency range	40 ~ 70 Hz	
Power factor	≥ 0.99	
Bypass voltage range	-60% ~ +20% (settable)	
Total harmonic distortion (THDi)	≤3%	
OUTPUT		
Output wiring	Three-phase five-wire (3Φ + N + PE)	
Rated voltage	380 / 400 / 415 Vac	
Voltage regulation	±1%	
Frequency	Synchronized with utility in mains mode,50 / 60 Hz ±0.1% in battery mode	
Waveform	Sinusoidal	
Power factor	1	
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)	
Crest factor	3:1	
Overload	105% ~110% for 60 min, 110% ~ 125% for 10 min, 125% ~ 150% for 1 min, >150% for 0.2 s	
BATTERIES		
DC voltage	± 192 Vdc (± 180 ~ ± 264 Vdc settable)	
Number of battery	32 pcs (30 ~ 44 pcs settable)	
Inbuilt battery(standard model)	12 V / 9 Ah × 80	/
Charging current (max.)	12 A	24 A
Recharge time	Depend on the capacity of battery	
SYSTEM		
Efficiency	Max. 96% in online mode, 99% in ECO mode	
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, excessive low battery, overvoltage, undervoltage, fans failure	
Max. number of parallel connections	4	
Communications	Standard configuration: RS232, USB, RS485, NET, dry contacts; Optional configuration: SNMP card, Wi-Fi card, GPRS card	
Display	5 inches colorful LCD touch screen	
OTHERS		
Operating temperature	0℃ ~ 40℃	
Storage temperature	-25℃ ~ 55℃ (without battery)	
Relative humidity	0% ~ 95% (non-condensing)	
Altitude	≤ 1000 m; above 1000 m, downgrading 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1 m	≤ 65 dB	
Dimensions (W × D × H) (mm)	360 × 850 × 885 (H/S)	360 × 850 × 950 (H)
Packaged dimensions (W × D × H) (mm)	450 × 940 × 1055 (H/S)	450 × 940 × 1120 (H)
Net weight (kg)	95 (H), 295 (S)	130.5 (H)
Gross weight (kg)	106 (H), 310 (S)	145 (H)

- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.
- Derate capacity to 90% when the number of batteries is set to 30 pcs.

HD890

10 kVA ~ 60 kVA (3 : 3)
PF 0.9

Features

- Online double-conversion with full DSP control
- IGBT inverter with output isolation transformer
- 100% unbalance load capability
- Output power factor 0.9
- Generator compatible
- Support battery cold start and auto-restart when mains power is restored
- ECO mode operation for energy saving
- Superior protection
- 5.7 inches LCD touch screen, friendly human & machine interface
- Front access makes maintenance and replacement simplified (60 ~ 120 kVA)
- Intelligent self-diagnosing function, all kinds of failure protection, large capability of history records storage
- High MTBF (> 200,000 h)
- Low MTTR (< 0.5 h)
- Standard emergency power off (EPO)
- Standard RS232,RS485,dry contacts communication port
- Optional SNMP communication port
- Optional N+X redundancy parallel up to 6 units
- Optional input filter to improve input power factor

Specifications

MODEL	HD8910	HD8915	HD8920	HD8930	HD8940	HD8960
Capacity	10 kVA / 9 kW	15 kVA / 13.5 kW	20 kVA / 18 kW	30 kVA / 27 kW	40 kVA / 36 kW	60 kVA / 54 kW
INPUT						
Input wiring	Three-phase five-wire (3Φ + N + PE)					
Rated voltage	380 / 400 / 415 Vac					
Voltage range	±25%					
Rated frequency	50 / 60 Hz					
Frequency range	50 / 60 Hz ±5 Hz					
Power factor	≥ 0.95 (with filter)					
Bypass voltage range	±20% (settable)					
Delayed start of rectifier	1 ~ 300 s (settable via display panel)					
ECO voltage range	±10% (settable)					
OUTPUT						
Output wiring	Three-phase five-wire (3Φ + N + PE)					
Rated voltage	380 / 400 / 415 Vac					
Output voltage regulation	± 1%					
Output frequency regulation	50 / 60 Hz ± 0.1% in battery mode					
Waveform	Sinusoidal					
Power factor	0.9					
Voltage distortion (THDv)	≤ 1% (linear load), ≤ 5% (non-linear load)					
Transfer time	3:1					
Overload	AC mode to battery mode: 0 ms Inverter mode to bypass mode: 0 ms Inverter mode to ECO mode: 5 ~ 10 ms					
Crest factor	105%: long time running, 105% ~ 110% for 1h, 110% ~ 125% for 10 min, 125% ~ 150% for 1 min, 150% ~ 200% for 200 ms, > 200% for 100 ms					
BATTERIES						
DC Voltage	12 V × configured battery number (settable via display panel)					
Number of batteries	28 ~ 32 pcs (settable)					
Charging current	10 A default / settable					
Charging	Three-stage charging, auto switch floating / equalizing charge					
Battery self-test	Settable periodic self-test; manually configurable test time and voltage					
SYSTEM						
Efficiency	In line mode: Max. 93%; ECO mode: ≥ 98%					
Max. number of parallel connections	6					
Protections	Short-circuit, overload, overvoltage, undervoltage. low battery, overtemperature, fan failure					
Communications	RS232 / RS485 / dry contacts (standard), SNMP (optional)					
EMI	EN62040-2					
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (surge)					
OTHERS						
Operating temperature	0 ~ 40℃					
Storage temperature	-25℃ ~ 55℃ (without batteries)					
Relative humidity	0 ~ 95% (non-condensing)					
Altitude	≤ 1000 m (derating 1% for each additional 100 m)					
IP rating	IP 20					
Noise level at 1 m	65 dB					65 dB
Dimensions (W × D × H) (mm)	400 × 800 × 1100 (H)					600 × 700 × 1500 (H)
Packaged dimensions (W × D × H) (mm)	490 × 920 × 1300 (H)					700 × 800 × 1650 (H)
Net weight (kg)	158 (H)	165 (H)	175 (H)	210 (H)	260 (H)	460 (H)
Gross weight (kg)	200 (H)	207 (H)	217 (H)	252 (H)	302 (H)	480 (H)

- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.
- This product is applicable to industrial, commercial, financial, rail transit and other industries applications, but not available for life support systems.
- For critical systems related to public safety or significant economic benefits, dual power system is required to power the load.

HD600

1000 VA ~ 3000 VA
PF 0.8

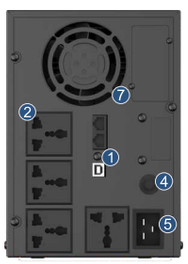
Features

- Pure sine wave output
- DSP digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Adjustable charging current and battery shutdown point
- Settable ECO mode and no-load shutdown
- Humanized alarm system
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Intelligent battery management
- Short circuit and overload protection
- Automatic charging in OFF mode
- USB & RJ45, AS400 / SNMP (optional) communication port

Rear Panel

1. USB / RJ45
2. Output Outlets
3. EXT Battery (optional)
4. AC Breaker
5. Input
6. SNMP (optional)
7. Fan

3 kVA (H)



3 kVA (S)

Optional outlets

RT

Specifications

MODEL		HD610	HD615	HD620	HD630
Capacity		1000 VA / 800 W	1500 VA / 1200 W	2000 VA / 1600 W	3000 VA / 2400 W
DC INPUT					
Rated voltage		24 V		36 V (S) 48 V (H)	48 V
DC input range (default)		20 ~ 30 V		30 ~ 45 V (S) 40 ~ 60 V (H)	40 ~ 60 V
AC INPUT					
AC input range (bypass mode)		0 ~ 121 / 132 / 138 / 144 Vac for 100 / 110 / 115 / 120 Vac ± 10 Vac 0 ~ 242 / 264 / 276 / 288 Vac for 200 / 220 / 230 / 240 Vac ± 10 Vac			
AC input range (mains mode)		100 V: 70 ~ 130 Vac 110 V: 80 ~ 140 Vac 115 V: 85 ~ 145 Vac 120 V: 90 ~ 150 Vac 200 V: 145 ~ 260 Vac 220 V: 165 ~ 280 Vac 230 V: 175 ~ 290 Vac 240 V: 185 ~ 300 Vac			
Frequency input range		50 / 60 Hz (auto-sensing), 50 / 60 Hz ± 5% ~ 15%			
Generator connection		Available (generator input power is settable)			
OUTPUT					
Inverter output range		100 / 110 / 115 / 120 / 200 / 220 / 230 / 240 Vac ± 5% (settable)			
AC output range (bypass mode)		0 ~ 121 / 132 / 138 / 144 Vac for 100 / 110 / 115 / 120 Vac ± 10 Vac 0 ~ 242 / 264 / 276 / 288 Vac for 200 / 220 / 230 V / 240 Vac ± 10 Vac			
AC output range (mains mode)		100 V: 90 ~ 110 Vac 110 V: 99 ~ 121 Vac 115 V: 103 ~ 126 Vac 120 V: 108 ~ 132 Vac 200 V: 166 ~ 226 Vac 220 V: 188 ~ 245 Vac 230 V: 199 ~ 254 Vac 240 V: 210 ~ 264 Vac			
Output frequency		50 / 60 Hz ± 0.3 Hz (settable)			
Waveform		Pure sine wave			
Inverter efficiency		Max. 80%		Max. 85%	
Energy saving mode		Settable (< 3% load), enter in 80 s			
No-load shutdown		Settable (< 3% load), shut down in 80 s			
Transfer time		≤ 10 ms			
THDV (resistive load)		≤ 5%			
Protections		Overload, short circuit (inverter), battery low voltage, battery overcharge, overtemperature			
Overload (mains mode)		110% for 120 s, 125% for 60 s, 150% for 10 s (transfer to bypass mode)			
Overload (inverter mode)		110% for 60 s, 125% for 10 s, 150% for 5 s (shut down directly)			
Mute		Automatic mute in 60 s or by manual			
BATTERIES					
Inbuilt battery (standard model)		12 V / 7 Ah x 2	12 V / 9 Ah x 2	12 V / 9 Ah x 3	12 V / 9 Ah x 4
Charging current		Standard model (S): 1 A (default)			
		Long time model (H): 10 A (default); < 10 A, set step 1 A; ≥ 10 A, set step 5 A			
		Max. 15 A (H)	/	Max. 20 A (H)	Max. 25 A (H)
Equalizing charge voltage		Single battery 14.1 Vdc (default), 13.6 ~ 15 Vdc adjustable			
Floating charge voltage		Single battery 13.5 Vdc (default), 13.2 ~ 14.6 Vdc adjustable			
Low voltage alarm point		Single battery 10.8 Vdc (default), 9.6 ~ 13 Vdc adjustable			
Low voltage shutdown point		Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable			
OTHERS					
Communications		USB & RJ45 (standard), dry contacts / SNMP (optional)			
Operating temperature		5℃ ~ 40℃			
Operating humidity		Relative humidity ≤ 93%			
Noise level		≤ 50 dB (1 m)			
Tower	Dimensions (W × D × H) (mm)	144 × 345 × 215 (S / H)		144 × 410 × 215 (S) 144 × 345 × 215 (H)	157.5 x 460x 221.5 (S) 190 x 467 x 335.5 (H)
	Packaged dimensions (W × D × H) (mm)	236 × 427 × 316 (S / H)		236 × 492 × 316 (S) 236 × 427 × 316 (H)	238 x 550 x 305 (S) 320 x 592 x 462(H)
	Net weight (kg)	12.2 (S) 11.6 (H)	14.2 (S)	18.5 (S) 17.8 (H)	23.6 (S) 28.0 (H)
	Gross weight (kg)	13.2 (S) 12.6 (H)	15.2 (S)	19.8 (S) 18.8 (H)	25 (S) 30.0 (H)
Rack-mount	Dimensions (W × D × H) (mm)	440 × 338 × 88 (S)	440 × 410 × 132 (S)		
	Packaged dimensions (W × D × H) (mm)	611 × 448 × 208 (S)	611 × 505 × 235 (S)		
	Net weight (kg)	14.6 (S)	17.2 (S)	21.3 (S)	26.7 (S)
	Gross weight (kg)	16.8 (S)	20.4 (S)	24.5 (S)	30.5 (S)

- S means standard model, H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

HD800

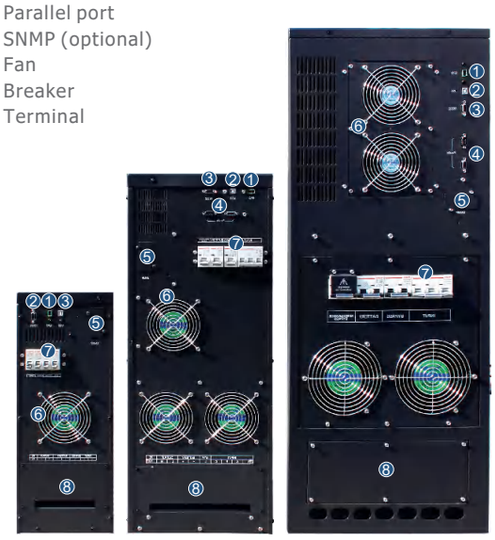
6 kVA ~ 10 kVA (1:1)
10 kVA ~ 30 kVA (3:1)

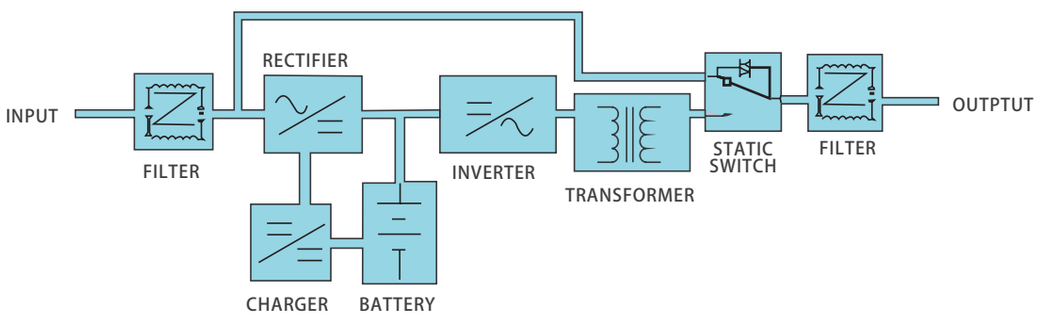
Features

- Single / single-phase, three / single-phase models with on-line double conversion technology
- DSP (Digital Signal Processors) technology
- Suitable for all kinds of loads (resistive, inductive and non-linear loads etc)
- High overload capability (up to 150%)
- Bypass dual DSP control design to enhance more reliability
- Supports dual input, hot standby in series
- Redundant & parallelable with advanced parallel current-sharing control technology
- Cold start and mains start function
- High charging capability: 2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable (standard), 14 A / 16 A / 18 A / 20 A / 22 A / 24 A selectable (options)
- Standard configuration with output isolation transformer
- Superior protection (surgers, short-circuit, overvoltages, undervoltages, overcharge, reverse connection protection etc)
- Advanced communications (RS232 and USB ports (standard), SNMP, dry contacts and RS485 (options)
- Other options (parallel kits, input isolation transformer, bypass isolation transformer and harmonic suppressor)

Control Panel

1. EPO
2. USB
3. RS232
4. Parallel port
5. SNMP (optional)
6. Fan
7. Breaker
8. Terminal





Specifications

MODEL	HD806 (1:1)	HD8010 (1:1)	HD8010 (3:1)	HD8015 (3:1)	HD8020 (3:1)	HD8030 (3:1)
Capacity	6 kVA 4800 W	10 kVA 8 kW	10 kVA 8 kW	15 kVA 12 kW	20 kVA 16 kW	30 kVA 24 kW
INPUT						
Rated voltage	220 / 230 / 240 Vac (1φ+ N + PE)		380 / 400 / 415 Vac (3φ+ N + PE)			
Voltage range	165 ~ 275 Vac		285 ~ 475 Vac			
Rated frequency	50 Hz / 60 Hz					
Frequency range	40 ~ 70 Hz					
Frequency tracking range	± 5% Hz					
BYPASS						
Rated voltage	220 / 230 / 240 Vac (1φ+ N + PE)					
Overload	Load current < 150% rated current: long time running, 150% ≤ load current < 200% for 1 min, 200% rated current ≤ load current for 200 ms					
BATTERIES						
Battery voltage	192 Vdc					
Battery type	VRLA AGM maintenance-free lead based					
Number of battery	12 V × 16 pcs					
Inbuilt battery (standard model)	12V / 9Ah × 16	12V / 9Ah × 32	/	/	/	/
Charging voltage	216 Vdc					
EOD	168 Vdc					
Charging current	Standard model:Default 2A(2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable) Long time model:Default 8 A (2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable)					
OUTPUT						
Rated voltage	220 / 230 / 240 (1φ+ N + PE)					
Power factor	0.8					
Waveform	Sinusoidal					
Rated frequency	50 Hz / 60 Hz (settable)					
Frequency precision	Mains mode: track bypass input in the state of synchronization Battery mode: 50 / 60 ± 0.1 Hz					
Voltage precision	± 1%					
Recovery time of transient voltage	< 20 ms					
Crest factor	3:1					
THDV	≤ 3% (linear load); ≤ 6% (non-linear load)					
Overload	Load ≤ 105%: long time running, 105% < load ≤ 125% for 10 min, 125% < load ≤ 150% for 1 min, 150% < load ≤ 200% for 200 ms, 200% < load for 100 ms					
OTHERS						
Transfer time	0 ms					
Protections	Short-circuit - overload - overvoltage - undervoltage - low battery - overtemperature					
Communications	RS232 / USB (standard); RS485 / SNMP / dry contacts (optional)					
Operating temperature	0 ~ 40°C					
Storage temperature	-25°C ~ 55°C (without batteries);					
Relative humidity	0 ~ 95% (non-condensing)					
Operating altitude	≤ 1000 m (derating 1% for each additional 100 m)					
Noise level	< 60 dB (at 1 m)					
MTBF	MTBF > 200000 h					
MTTR	MTTR < 0.5 h					
IP rating	IP20					
Dimensions (W×D×H) (mm)	210 × 585 × 590(H) 580 × 260 × 820(S)	310 × 600 × 880(H) 595 × 535 × 895(S)	310 × 600 × 880(H)	400 × 815 × 1100(H)		
Packaged dimensions (W×D×H) (mm)	328 × 716 × 805(H) 750 × 430 × 990(S)	430 × 710 × 1080(H) 720 × 650 × 1020(S)	430×710 ×1080(H)	525×925×1305(H)		
Net weight (kg)	54 (H), 112.1 (S)	96 (H), 230 (S)	130(H)	201(H)	230(H)	277(H)
Gross weight (kg)	64 (H), 125.1 (S)	108 (H), 255 (S)	142(H)	216(H)	245(H)	292(H)

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

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