

## RACK/TOWER TYPE

3kVA/2.7kW



## Features

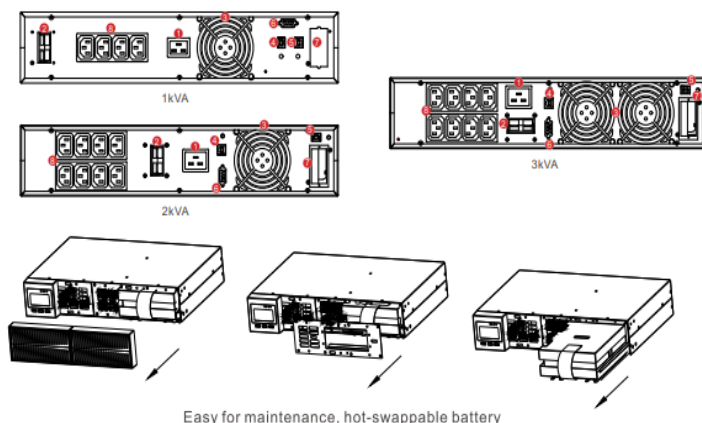
- High frequency True on-line double conversion technology/ Rack&Tower type, rackmount 2U design for network cabinets.
- DSP (Digital signal processor) control technology
- Compact tower design with rack tails and rack legs for stable standing
- Output power factor 0.9
- Wide input voltage range (110V ~ 300Vac) and frequency range (40 ~ 70Hz)
- 50/60Hz frequency conversion
- Cold start
- Effective software and hardware protection
- 20 levels fan run, automatically adjusts according to load, reducing noise. Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Advanced/Smart battery management: Prioritize slow charging to preserve battery life, Digitally controlled charger, automatic floating, equalizing charge control, charger dormancy control, increasing battery life.
- Linear derating in low voltage input reducing battery discharging time.
- Settable delayed start when power is restored
- Hot-swappable battery/ Display panel can be rotated 90°C
- Multi-platform communications: RS232 (standard), USB/RS485/SNMP/Dry contacts (optional).
- SNMP (NMC) -Network Management Protocol

## Available options

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function

## Rear Panel

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



## Specifications

MODEL	HD-3KRH/HD-3KRS	
Rated Capacity	3KVA / 2.7KW	
Operation mode	Normal, BAT, Line,ECO, Bypass, Shutdown, CVCF	
INPUT		
Rated voltage	Single phase 208/220/230/240 Vac (Selectable)±10%	
Voltage range	110 ~ 300Vac 110 ~ 176Vac (linear derating 50% and 100% load); 176 ~ 280Vac(no derating); 280 ~ 300Vac (linear derating 50%)	
Frequency	50/60Hz (auto-sensing)	
Frequency range	40 ~ 70Hz (45 ~ 55Hz or 54~66Hz)	
Power factor	≥0.99	
Bypass voltage	-25% ~+15%( settable)	
Total harmonic distortion (THDi)	≤ 6%	
Generator compatibility	Support	
OUTPUT		
Voltage	1 phase 208/220/230/240Vac ±1%	
Frequency	50/60Hz ± 0.1 Hz (battery mode)	
Waveform	Pure sine wave	
Power factor	0.9	
Total harmonic distortion (THDv)	≤ 2% (linear load), ≤ 5% (non-linear load)	
Crest factor	3:1	
Output socket	IEC C13*8/ Universal*1+IEC C13*3	
Load information	0-25%, 26-50%, 51-75%, 76-100%	
Overload	≤105% continuous working; 105% ~ 125% for 1 min; 125% ~ 150% for 30s; >150% for 300ms. Transfer to bypass when overload and fault then shutdown.	
BATTERIES		
Type	VRLA 12V(Sealed lead-acid maintenance free battery)	
DC voltage	72V (KRH)	96V (KRS)
Inbuilt battery	6*9Ah	/
Backup time at 50% load	12-15mins	/
Charging current(max)	1A	6A
Battery capacity level	0-25%, 26-50%, 51-75%, 76-100%; When the capacity of battery get low or battery disconnected, the battery status icon will flash	
Max connect external battery module quantity	2	
Recharge time	KRH: restored in ≥5 hours; KRS: depend on the capacity of battery	
	Advanced battery management (auto transfer to continuous charging). Prioritize slow charging to preserve battery life.	
SYSTEMS		
Efficiency	≥ 92% (Mains mode)	
	≥ 87% (Battery mode)	
	≥ 97% (ECO mode)	
Transfer time	Mains mode to battery mode: 0ms, Inverter mode to bypass mode: <4ms (typical)	

Protections with warning	Short-circuit (crucial for preventing equipment damage, fires, and other hazards. Devices like fuses, circuit breakers, and eFuse ICs are used to quickly interrupt the circuit when a short circuit is detected). Overtemperature (Safety system that prevents a device or system from overheating by shutting down the power supply or reducing the output when the temperature exceeds a safe threshold). Surge (preventing damage, extending lifespan, ensuring reliable operation). Overload, Battery discharge protection and fan testing protection.	
Communications	RS232 (standard), UPS monitoring software via RS232 connection-auto shutdown or control PC-server before UPS stop working; Build-in surge protection; USB/dry contacts/EPO (optional); SNMP(NMC) card (optional) RS485/ USB/Dry contact (optioanl)	
LCD+LED Display control	Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode Ups operating status via LCD color: Load, battery, input, output, bypass, mute, fan, fault...; Load status: Load capacity 0-25%, 26-50%, 51-75%, 76-100%. When UPS is overload, the load icon will flash;	
	LED warning with sound and flashing light when ups is wrong shutdown, battery mode, overload, low battery, UPS fault with warning continuously	
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2(-3-4-5-6), IEC 61000-4-8	
OTHERS		
Operating/Storage temperature	0°C ~ 45°C/ -25°C ~ 55°C (without batteries)	
Relative humidity	0 ~ 95% (non-condensing)	
IP rating	IP20	
Noise level at 1m	<50dB	
Dimension (W*D*H) (mm) 2U	440*560*88 (2U)	440*468*88 (2U)
Net/Gross weight (kg)	26.8/29.7	10.1/13.6

- KRH means standard model, KRS means long time model / All specifications are subject to change without notice.

