

RACK/TOWER TYPE

1KVA-3KVA

PF0.9



Features

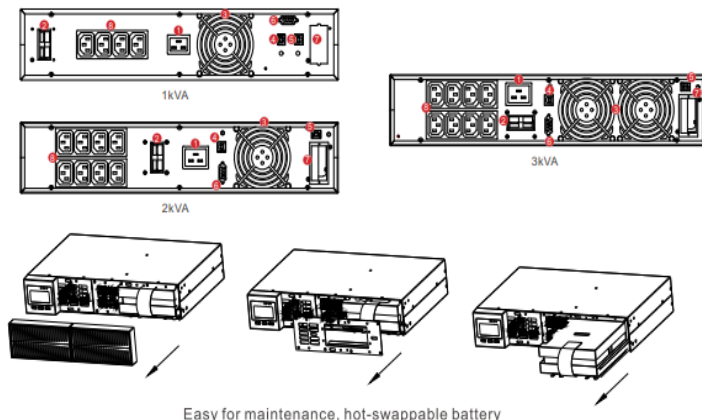
- High frequency True on-line double conversion technology/ Rack&Tower type, rackmount 2U design for network cabinets.
- DSP (Digital signal processor) control technology
- Compact tower design with rack tails and rack legs for stable standing
- Output power factor 0.9
- Wide input voltage range (110V ~ 300Vac) and frequency range (40 ~ 70Hz)
- Auto sensing frequency
- 50/60Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- 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 provides a way to manage network devices by querying for information and issuing commands. It functions by sending requests to network devices, which then respond with the requested data or execute the requested action. The main functions include monitoring, configuration management, and event notifications. Schedule UPS administration. Save historical information, events, UPS status. Automatically send input/output, temperature, load, warning status reports via administrator email

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



2024 @version

Specifications

MODEL	HD-1KRi/KRs		HD-2KRi/KRs		HD-3KRi/KRs	
Rated Capacity	1KVA / 0.9KW		2KVA / 1.8KW		3KVA / 2.7KW	
Operation mode	Normal, BAT, Line,ECO, Bypass, Shutdown, CVCF					
INPUT						
Rated voltage	Single phase 2 wires + PE 208/200/220/230/240 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(100% load)					
Bypass voltage	-25% ~+15%(settable)					
Total harmonic distortion (THDi)	≤ 6%					
Generator compatibility	Support					
OUTPUT						
Voltage	Single phase 208/200/220/230/240Vac (settable via LCD) ±1%					
Frequency	45 ~ 55Hz or 54~66Hz (synchronized range); 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*2		IEC*2/ Universal*2		IEC*3 + Ter/ Universal*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	24V (KRi)	36V (KRs)	48V (KRi)	72V (KRs)	72V (KRi)	96V (KRs)
Inbuilt battery	2*9Ah	/	4*9Ah	/	6*9Ah	/
Backup time at 50% load	≥11 mins	/	≥11 mins	/	≥11 mins	/
Backup time at 100% load	3~5mins	/	3~5mins	/	3~5mins	/
Charging current(max)	1A	6A	1A	6A	1A	6A
Charger output voltage	27.1±0.4	40.6±0.6	54.2±0.8	81.3±1.2		
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 wil flash					
Max connect external battery module quantity	2					
Recharge time	KRi: 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	≥ 90% (Mains mode)		≥ 91% (Mains mode)		≥ 92% (Mains mode)	
	≥ 86% (Battery mode)		≥ 88% (Battery mode)		≥ 88% (Battery mode)	

	≥ 95% (ECO mode)		≥ 96% (ECO 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; SNMP(NMC) card (optional) RS485/USB/Dry contact (optional)					
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, charging, discharging time, 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, bypass mode, 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*338*88 (2U)		440*430*88 (2U)		440*560*88 (2U)	440*468*88 (2U)
Net/Gross weight (kg)	10.6	7.6	18.7	9.7	26.8	10.1

- K Ri means standard model, KR s means long time model / All specifications are subject to change without notice.

