

HYUNDAI UPS
20KVA – 60KVA (3:3)
PF 1.0
TOWER CASE



Features

- True online double conversion, advanced dual-core DSP control technology and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- System efficiency is improved to 95%, energy saving rate is doubled
- Working efficiency up to 98.5% 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 / 60 Hz frequency conversion mode
- Compact internal layout, small footprint
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- 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
- 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
- 5 inches LCD colorful touch screen on front panel, friendly human & machine interface.
- Powerful background software for parameters configuration and online upgrade
- Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, battery cold start. Dry contacts, SNMP card, EMP card, Wi-Fi card (Optional)
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life

Specifications

MODEL	HD-20KH3	HD-60KH3
Capacity	20KVA/20KW	60KVA/60KW
Operating modes	Online mode/ normal mode; On battery mode; On static bypass mode; Maintenance bypass mode; On ECO/ Economic mode; Auto-restart mode; Frequency converter mode; Self Aging mode.	
INPUT		
Input wiring	Three-phase five-wire (3φ + N + G)	
Rated voltage	380/400/415Vac (Selectable)	
Voltage range	304 ~ 478Vac (no downgrading), 228V ~ 304Vac (linear derating according to minimum phase voltage)	
Rated frequency	50/60Hz (auto-sensing)	
Frequency range	40 ~ 70Hz	
Power factor	> 0.99	
Input current	38A	112A
Bypass current	30A	90A
Bypass voltage range	-20% ~ +15%	
Bypass frequency range	±1Hz; ±3Hz; ±5Hz (selectable)	
Bypass Overload	≤125% keep working; 125%~130%: 10mins; 130%~150%: 1min	
THDi	< 3% (Linear load); <5% (Non-linear full load)	
OUTPUT		
Output wiring	Three-phase five-wire (3φ + N + G)	
Rated voltage	380/400/415Vac (Settable)	
Voltage regulation	± 1%	
Frequency	Synchronized with utility in mains mode, 50/60 Hz ±0.1% in battery mode	
Waveform	Pure sine wave	
Power factor	1.0	
THDv	< 1% (linear full load); < 3% (non-linear full load)	
Crest factor	3:1	
Output current	30A	90A
Overload (inverter mode)	<110% for 60min; 110%~125% for 10min; 125%~150% for 1min; >150% for 0.2s	
BATTERIES		
DC voltage	±240Vdc default (±180 ~ ±360 Vdc Settable)	
Number of battery	40pcs 12V	
Charging current (max.)	10A	20A
Battery input current	50A	150A
Float charge voltage	2.25V/cell	
Cold start	Yes, UPS can start without AC power	
Battery circuit breaker	63A/250VDC	160A/250VDC
Recharge time	Depend on the capacity of battery	
SYSTEM		
Efficiency	Max. 95% in online mode, 98% in ECO mode	Max. 96% in online mode, 98.5% in ECO mode
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, excessive low battery, overvoltage, undervoltage, Failure,...	
Max. number of parallel connections	4	
Communications	Standard configuration: RS232/ USB/ RS485, battery cold start. Optional configuration: dry contact, SNMP card, EMP card, Wi-Fi card	
Display & control	5 inches colorful LCD touch screen and LED display	
	System, alarm, control, setup, password login	
	Main operating status/ Bypass mode: Voltage(V), Current(A), Frequency(Hz), PF	

	Main operating status/ Battery mode: Battery Voltage(V), Battery Current(A), Battery status(idle,discharge,boost charge,floating charge), Backup time (min), Remaining cap(%)	
	Main operating status/ Output mode: Voltage(V), Current(A), Frequency(Hz), Load ratio (%), Capacity(kW), Apparent power per phase(kVA), Phase response power(kVA), PF	
Alarms	Alarms by sound and flash when UPS operation fault and record error	
OTHERS		
Operation temperature	0 ~ 40°C	
Storage temperature	-40°C ~ 70°C (without battery)	
Relative humidity	0 ~ 95% (non-condensing)	
Altitude	≤ 1000m; above 1000m, downgrading 1% for each additional 100m	
IP rating	IP 20	
Noise level at 1m	≤ 58dB	≤ 62dB
Dimensions (W*D*H) (mm)	250*720*560	250*790*560
Net weight (kg)	33	48

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

The menu structure of the monitoring display interface

