

**HYUNDAI UPS**  
**80-200KVA (3:3)**  
**PF 1.0**  
**TOWER CASE**



### Features

- Advanced dual-core DSP control technology and 3-level technology
- Output power factor 1.0
- Operation
- 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-80KTH                                                                                                                                                                                                                                 | HD-100KTH    | HD-120KTH    | HD-200KTH    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|
| Capacity                            | 80KVA/80KW                                                                                                                                                                                                                               | 100KVA/100KW | 120KVA/120KW | 200KVA/200KW |
| 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 (3 $\phi$ + N + PE)                                                                                                                                                                                                |              |              |              |
| 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                                                                                                                                                                                                                                   |              |              |              |
| Bypass voltage range                | -20% ~ +15%                                                                                                                                                                                                                              |              |              |              |
| Bypass frequency range              | $\pm$ 1Hz; $\pm$ 3Hz; $\pm$ 5Hz (selectable)                                                                                                                                                                                             |              |              |              |
| Bypass Overload                     | $\leq$ 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 (3 $\phi$ + N + PE)                                                                                                                                                                                                |              |              |              |
| Rated voltage                       | 380/400/415Vac (Settable)                                                                                                                                                                                                                |              |              |              |
| Voltage regulation                  | $\pm$ 1%                                                                                                                                                                                                                                 |              |              |              |
| Frequency                           | Synchronized with utility in mains mode, 50/60 Hz $\pm$ 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                                                                                                                                                                                                                                      |              |              |              |
| Overload (inverter mode)            | <110% for 60min; 110%~125% for 10min; 125%~150% for 1min; >150% for 0.2s                                                                                                                                                                 |              |              |              |
| BATTERIES                           |                                                                                                                                                                                                                                          |              |              |              |
| DC voltage                          | $\pm$ 192Vdc default ( $\pm$ 180 ~ $\pm$ 264 Vdc Settable)                                                                                                                                                                               |              |              |              |
| Number of battery                   | 32pcs 12V                                                                                                                                                                                                                                |              |              |              |
| Charging current (max.)             | 24A                                                                                                                                                                                                                                      | 36A          | 48A          |              |
| Cold start                          | Yes, UPS can start without AC power                                                                                                                                                                                                      |              |              |              |
| Recharge time                       | Depend on the capacity of battery                                                                                                                                                                                                        |              |              |              |
| SYSTEM                              |                                                                                                                                                                                                                                          |              |              |              |
| Efficiency                          | 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 with UPS monitoring management software, USB, RS485, Dry contacts<br>Optional configuration: SNMP card for UPS activity monitoring via Ethernet&Internet protocol - Web browser, Wi-Fi card, GPRS 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       | ≤ 65dB                                                        | ≤ 65dB       | ≤ 65dB       |
| Dimensions (W*D*H) (mm) | 360*850*1200                                                  | 440*850*1200 | 600*850*1200 |
| Net weight (kg)         | 156                                                           | 158          | 198          |
|                         |                                                               | 198          | 300          |

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

The menu structure of the monitoring display interface

