

SINGLE PHASE HYBRID INVERTER

HR 3600 HBD HR 4600/5000/6000 HBD

Application: Residential Use



EXCELLENT PERFORMANCE

- Maximum efficiency of 97.3% and battery efficiency of 94.3%
- Maximum 9kW PV input power
- Maximum battery charge/discharge current of 120A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



HIGH RELIABILITY

- Key components from international renowned brands
- IP65 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections



INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings
- Optional generator and smart load functions

| Model | HR 3600 HBD | HR 4600 HBD | HR 5000 HBD | HR 6000 HBD |
|-------------------------------------|--|---------------|---------------|---------------|
| Efficiency | | | | |
| Max. Efficiency (PV to AC) | | | 97.3% | |
| Eur. Efficiency (PV to AC) | | | 96.8% | |
| Max. Efficiency (BAT to AC) | | | 94.3% | |
| Input (PV) | | | | |
| Max. PV Input Power | 6,300W | | 9,000W | |
| Max. PV Voltage | | | 550V | |
| Start-up Voltage | | | 90V | |
| MPPT Operating Voltage Range | | | 70V-540V | |
| Max. Input Current per MPPT | | | 15A/15A | |
| Max. Short Circuit Current per MPPT | | | 20A/20A | |
| String per MPPT | | | 1/1 | |
| Nos. of MPPT | | | 2 | |
| Input/Output (BAT) | | | | |
| Battery Type | Lithium-ion/Lead-acid | | | |
| Nominal Battery Voltage | 48V | | | |
| Battery Voltage Range | 40V-65V | | | |
| Max. Charge/Discharge Current | 60A/60A | 120A/120A | 120A/120A | 120A/120A |
| Max. Charge/Discharge Power | 3,000W/3,000W | 6,000W/6,000W | 6,000W/6,000W | 6,000W/6,000W |
| Output (Grid) | | | | |
| Nominal AC Output Power | 3,600W | 4,600W | 5,000W | 6,000W |
| Max. AC Output Apparent Power | 3,960VA | 4,600VA | 5,500VA | 6,000VA |
| Max.AC Output Power (PF=1) | 3,960W | 4,600W | 5,500W | 6,000W |
| Max. AC Output Current | 18A | 22A | 25A | 27.2A |
| Nominal Grid Voltage | 220V/230V/240V, L+N+PE | | | |
| Grid Voltage Range | 150V-300V (Adjustable) | | | |
| Nominal Grid Frequency | 50Hz/60Hz | | | |
| Grid Frequency Range | 45Hz-55Hz/55Hz-65Hz (Adjustable) | | | |
| Power Factor | > 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG) | | | |
| THDI | <3% (Rated Power) | | | |
| Output (Back up) | | | | |
| Nominal Output Power | 3,000W | 4,600W | 5,000W | 6,000W |
| Nominal Output Current | 13.1A | 20A | 21.7A | 26.1A |
| Peak Output Apparent Power (>1s) | 4,500VA | 6,900VA | 7,500VA | 9,000VA |
| Nominal Output Voltage | 220V/230V/240V, L+N+PE | | | |
| Nominal Output Frequency | 50Hz/60Hz | | | |
| Transfer Time | <10ms (typical) | | | |
| THDV | <3% @100% R Load | | | |
| Protection | | | | |
| Protection Category | Class I | | | |
| DC Switch | Yes | | | |
| Anti-islanding Protection | Yes | | | |
| AC Overcurrent Protection | Yes | | | |
| DC/AC Overvoltage Protection | DC Type II, AC Type III | | | |
| AC Short Circuit Protection | Yes | | | |
| DC Reverse Protection | Yes | | | |
| Surge Arrester | DC Type III, AC Type III | | | |
| Insulation Resistance Detection | Yes | | | |
| Leakage Current Protection | Yes | | | |
| Generator | Optional | | | |
| General | | | | |
| Max. Operating Altitude | 4000m (>2000m derating) | | | |
| Ingress Protection Rating | IP65 | | | |
| Operating Temperature Range | -25°C~60°C (>45°C derating) | | | |
| Relative Humidity | 0~100% | | | |
| Cooling Method | Natural Cooling | | | |
| Mounting | Wall bracket | | | |
| Dimensions (W*H*D) | 515mm*487mm*175mm | | | |
| Weight | 16Kg | | 25Kg | |
| PV Connection Way | MC4/H4 | | | |
| Battery Connection Way | Dedicated DC connector | | | |
| AC Connection Way (Grid & Back up) | Dedicated AC connector | | | |
| HMI & COM | | | | |
| Display | Bluetooth & APP + LED, LCD (Optional) | | | |
| Communication Interface | RS485/CAN (for BMS), RS485, Ethernet, DRM/RS485 (for Meter), Optional: Wi-Fi/LAN | | | |
| Certification | | | | |
| Safety | IEC 62109-1&2, IEC62040-1, IEC 62477-1 | | | |
| Grid | VDE 4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G98/G99/G100, CEI 0-21, NRS 097-2-1, RD 1699/661/647/413, UNE 217002 | | | |
| Warranty | | | | |
| | 5 Years | | | |

Remarks: · The range of output voltage and frequency may vary depending on different grid codes.
· Specifications are subject to change without advanced notice.

