



LHT-HV-30/35/40/50K F1

Three Phase Hybrid Inverter

- 100% unbalanced output, each phase;
Max. output up to 50% rated power
- DC couple and AC couple to retrofit existing solar system
- Max. 10pcs parallel for on-grid and off-grid operation:
Support multiple batteries parallel
- Max. charging/discharging current of 37A
- High voltage battery, higher efficiency
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

| MODEL | LHT-HV-30K F1 | LHT-HV-35K F1 | LHT-HV-40K F1 | LHT-HV-50K F1 |
|-------|---------------|---------------|---------------|---------------|
|-------|---------------|---------------|---------------|---------------|

| Battery Input Data | | | | |
|--|--------------------------------------|---------------|---------------|---------------|
| Battery Type | Li-Ion | | | |
| Battery Voltage Range (V) | 160~800 | | | |
| Max. Charging Current (A) | 50+50 | 50+50 | 50+50 | 50+50 |
| Max. Discharging Current (A) | 50+50 | 50+50 | 50+50 | 50+50 |
| Number of battery input | 2 | | | |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS | | | |
| PV String Input Data | | | | |
| Max. DC Input Power (W) | 39000 | 45500 | 52000 | 65000 |
| Max. DC Input Voltage (V) | 1000 | | | |
| Start-up Voltage (V) | 180 | | | |
| MPPT Range (V) | 150-850 | | | |
| Full Load DC Voltage Range (V) | 360-850 | 360-850 | 360-850 | 450-850 |
| Rated DC Input Voltage (V) | 600 | | | |
| PV Input Current (A) | 36+36+36 | 36+36+36 | 36+36+36+36 | 36+36+36+36 |
| Max. PV Isc (A) | 55+55+55 | 55+55+55 | 55+55+55+55 | 55+55+55+55 |
| No. of MPP Trackers | 3 | 3 | 4 | 4 |
| No. of Strings per MPP Tracker | 2+2+2 | 2+2+2 | 2+2+2+2 | 2+2+2+2 |
| AC Output Data | | | | |
| Rated AC Output and UPS Power (W) | 30000 | 35000 | 40000 | 50000 |
| Max. AC Output Power (W) | 33000 | 38500 | 44000 | 55000 |
| AC Output Rated Current (A) | 45.5/43.5 | 53.1/50.8 | 60.7/58 | 75.8/72.5 |
| Max. AC Output Rated Current (A) | 50/47.8 | 58.4/55.8 | 66.7/63.8 | 83.4/79.7 |
| Max. AC Current (A) | 60 | 60 | 70 | 83.3 |
| Peak Power (off-grid) | 1.5 time of rated power, 10 S | | | |
| Power Factor | 0.8 leading to 0.8 lagging | | | |
| Output Frequency and Voltage | 50/60Hz; 3L/N/PE 220/380, 230/400Vac | | | |
| Grid Type | Three Phase | | | |
| Total Harmonic Distortion (THD) | <3% (of nominal power) | | | |
| Generator input / Smart load / AC couple current (A) | 45.5/200/45.5 | 53.1/200/53.1 | 60.7/200/60.7 | 75.8/200/75.8 |

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| Efficiency | |
|----------------------------------|---|
| Max. Efficiency | 97.6% |
| Euro Efficiency | 97.0% |
| MPPT Efficiency | 99.9% |
| Protection | |
| Integrated | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |
| Output Over Voltage Protection | DC Type II/AC Type III |
| General Data | |
| Size (mm), w/h/d | 527x894x294 |
| Weight (kg) | 75 |
| Installation Style | Wall-mounted |
| Cooling | Smart cooling |
| Protection Degree | IP65 |
| Noise Emission | <65 dB |
| Communication with BMS | RS485; CAN |
| Warranty | 10 years |
| Operating Temperature Range (°C) | -40~60°C, >45°C derating |
| Safety EMC / Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 |
| Grid Regulation | VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150 |