

12-20kW Hybrid Inverter / Three-phase

Suitable for medium and big-sized commercial and household systems; intelligent switching on/off



Easy Installation



Ultra-silent



IP65 protection



► PV & storage system

Integrate PV and storage system modern, support multiple batteries, integrate with EMS Smart energy management systems;

► Smart switching

UPS function, support three-phase imbalance, on/off grid switch within 10ms;

► Wide voltage input range

Wide PV voltage input range 180V-950V, wide batteries voltage range 180V-700V;

► Safe and reliable

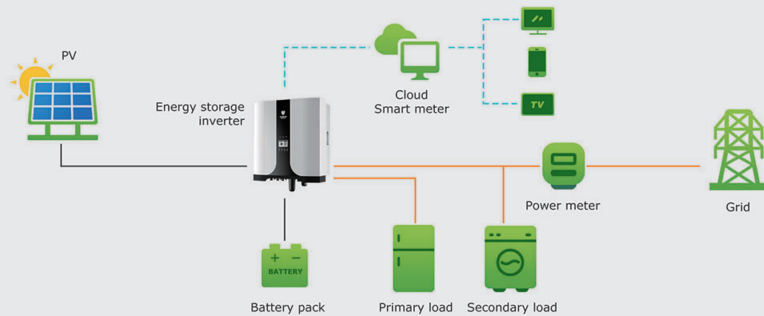
IP65 protection, aluminum housing Built-in lightning protection, high-precision leakage protection;

► Smart and simple

Ultra silent, flexible communications, support remote/local USB upgrade;

► High-efficiency

support bifacial panels, max DC current 12.5A, max PV input power up to 1.3 X rated power.



| Model | | Y-EST12KH | Y-EST15KH | Y-EST17KH | Y-EST20KH |
|--------------------------------|--|---|------------------|------------------|------------------|
| Efficiency | Max. Efficiency | >98.2% | >98.2% | >98.2% | >98.2% |
| | Max. PV input power(W) | 15600 | 19500 | 22100 | 26000 |
| PV Input | Max. PV input voltage(V) | 1000 | 1000 | 1000 | 1000 |
| | MPPT Operation Voltage Range(V) | 180-950 | 180-950 | 180-950 | 180-950 |
| | Number of MPPT/PV Strings | 2/1 | 2/2 | 2/2 | 2/2 |
| | Max. PV input current(A) | 12.5/12.5 | 12.5/23 | 23/23 | 23/23 |
| | Short-circuit current of PV input(A) | 15/15 | 15/30 | 30/30 | 30/30 |
| Battery | Max Input/Output Voltage(V) | 700 | 700 | 700 | 700 |
| | Operating Voltage Range(V) | 180-700 | 180-700 | 180-700 | 180-700 |
| | Max Charge/Discharge Current(A) | 50/50 | 50/50 | 50/50 | 50/50 |
| | Max Input/Output Power(W) | 12000/12000 | 15000/15000 | 17000/17000 | 20000/20000 |
| AC Input and Output | Battery Type | Li-ion/Lead-acid | Li-ion/Lead-acid | Li-ion/Lead-acid | Li-ion/Lead-acid |
| | Rated Power(W) | 12000 | 15000 | 17000 | 20000 |
| | Max. Apparent AC Power(VA) | 12000 | 15000 | 17000 | 20000 |
| | Nominal AC Voltage(Vac) | 380,3L/N/PE | 380,3L/N/PE | 380,3L/N/PE | 380,3L/N/PE |
| | AC Power Frequency(Hz) | 50/60 | 50/60 | 50/60 | 50/60 |
| | Max. AC Output Current(A) | 18 | 22 | 25 | 31 |
| | Power Factor Range | ~1 (Adjustable from 0.8 leading to 0.8 lagging) | | | |
| | OutputTHDI@Nominal Output | <3% | <3% | <3% | <3% |
| | Rated Output Power(W) | 12000 | 15000 | 17000 | 20000 |
| | Off-Grid AC Output (Back-up AC Output) | Max. Apparent AC Output Power(VA) | 12000 | 15000 | 17000 |
| Nominal AC Output Voltage(Vac) | | 380,3L/N/PE | 380,3L/N/PE | 380,3L/N/PE | 380,3L/N/PE |
| AC Power Frequency(Hz) | | 50/60 | 50/60 | 50/60 | 50/60 |
| Max. AC Output Current(A) | | 18 | 22 | 25 | 31 |
| General Data | Operating Temperature Range | -25°C ... +60°C (>45°C derating) | | | |
| | Operating Altitude(m) | <4000 | | | |
| | Noise(dB) | <45 | | | |
| | Topology | Transformerless | | | |
| | Cooling Method | Intelligent Fan | | | |
| | Ingress Protection Rating | IP65 | | | |
| | Relative Humidity | 0-100%, no condensation | | | |
| | DC Connection Type | MC/Amphenol/Phoenix | | | |
| | AC Connection Type | Plug-in Connector | | | |
| | Display | LCD | | | |
| | Communication With Portal | RS485 (WiFi/GPRS Optional) | | | |
| | Communication With BMS | CAN | | | |
| | Communication With Meter | RS485 | | | |
| | Mounting Method | Wall-mounting bracket | | | |
| | Dimensions (W*D*H)(mm) | 505*630*220 | | | |
| Weight(Kg) | 22 | 23 | 24 | 24 | |
| Certification | Safety | IEC62109-1/-2 | | | |
| | EMC | EN61000-6-1/-2/-3, IEC61000 | | | |
| | On-Grid standard | AS4777.2, NRS097-2-1:2017 | | | |