

Applicable to Household Energy Storage Scenarios

# 15-25kW Three-phase Hybrid Inverter

## Product Models

- ◆ KY-EST15KH
- ◆ KY-EST20KH
- ◆ KY-EST17KH
- ◆ KY-EST25KH



## Three-phase Five-wire Four-bridge



Support **100%**  
three-phase imbalance

## Overload capacity



**1.1** times for long-term  
operation; **1.2** times/**60S**,  
**1.5** times/**10S**

## Fault recording remote recovery



Real-time fault recording,  
remote analysis and  
recovery

## Fast grid forming seamless switching



Self forming frequency phase  
within **20ms**  
Single machine on-grid and  
off-grid switching within **10ms**

| Model                                            | KY-EST15KH                                                                                                                               | KY-EST17KH  | KY-EST20KH  | KY-EST25KH  |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
| PV Input Data                                    |                                                                                                                                          |             |             |             |
| Max. Input Power(W)                              | 25500                                                                                                                                    | 28900       | 34000       | 42500       |
| Max. Input Voltage(V)                            | 1000                                                                                                                                     |             |             |             |
| Operating Voltage Range/Nominal Input Voltage(V) | 180~900/610                                                                                                                              |             |             |             |
| Max. Input Current(A)                            | 36/36                                                                                                                                    |             |             |             |
| Max. Short Circuit Current(A)                    | 40/40                                                                                                                                    |             |             |             |
| Number of MPPT Trackers                          | 2                                                                                                                                        |             |             |             |
| Number of Strings per MPPT                       | 2/2                                                                                                                                      |             |             |             |
| Battery Input Data                               |                                                                                                                                          |             |             |             |
| Battery Voltage Range(V)                         | 180~700                                                                                                                                  |             |             |             |
| Input Number                                     | 2                                                                                                                                        |             |             |             |
| Max.Charge/Discharge Current(A)                  | Simplex Max. 25/25                                                                                                                       |             |             |             |
| Max.Charge/Discharge Power(W)                    | 15000/15000                                                                                                                              | 17000/17000 | 20000/20000 | 25000/25000 |
| Battery Type                                     | Li-ion/Lead-acid                                                                                                                         |             |             |             |
| AC Output Data(GRID)                             |                                                                                                                                          |             |             |             |
| Nominal Output Power(W)                          | 15000                                                                                                                                    | 17000       | 20000       | 25000       |
| Max. Apparent Power (VA)                         | 16500                                                                                                                                    | 18700       | 22000       | 27500       |
| Max Input Power(W)                               | 30000                                                                                                                                    |             |             |             |
| Nominal Output Voltage(Vac)                      | 380/400V,3L/N/PE                                                                                                                         |             |             |             |
| Nominal Output Frequency(Hz)                     | 50/60                                                                                                                                    |             |             |             |
| Max. Output Current(A)                           | 24                                                                                                                                       | 27          | 32          | 40          |
| Max. Three-phase Unbalanced Output Current(A)    | 33                                                                                                                                       | 37          | 43          | 43          |
| Grid Bypass Current(A)                           | 50                                                                                                                                       |             |             |             |
| Power Factor                                     | ~1 (0.8 lead to 0.8 lag can be set)                                                                                                      |             |             |             |
| Total Harmonic Distortion(%)                     | <3                                                                                                                                       |             |             |             |
| AC Output Data(EPS)                              |                                                                                                                                          |             |             |             |
| Nominal Output Power(W)                          | 15000                                                                                                                                    | 17000       | 20000       | 25000       |
| Max. Apparent Power (VA)                         | 16500                                                                                                                                    | 18700       | 22000       | 27500       |
| Nominal Output Voltage(Vac)                      | 380/400V,3L/N/PE                                                                                                                         |             |             |             |
| Nominal Output Frequency(Hz)                     | 50/60                                                                                                                                    |             |             |             |
| Max. Three-phase Unbalanced Output Current(A)    | 33                                                                                                                                       | 37          | 43          | 43          |
| Max. Output Single-phase Apparent Power(A)       | 7500                                                                                                                                     | 8500        | 10000       | 10000       |
| Peak Output Apparent Power(VA)(60s)              | 18000                                                                                                                                    | 20400       | 24000       | /           |
| Peak Output Apparent Power(VA)(10s)              | 22500                                                                                                                                    | 25500       | 30000       | 30000       |
| On/off Grid switching time (ms)                  | <10                                                                                                                                      |             |             |             |
| AC Output Data(GEN)                              |                                                                                                                                          |             |             |             |
| Nominal Voltage(Vac)                             | 380/400V,3L/N/PE                                                                                                                         |             |             |             |
| Nominal Frequency(Hz)                            | 50/60                                                                                                                                    |             |             |             |
| Nominal Input Apparent Power(VA)                 | 15000                                                                                                                                    | 17000       | 20000       | 25000       |
| Efficiency                                       |                                                                                                                                          |             |             |             |
| Max. Efficiency(%)                               | 98.2                                                                                                                                     |             |             |             |
| European Efficiency(%)                           | 97.1                                                                                                                                     |             |             |             |
| Protection                                       |                                                                                                                                          |             |             |             |
| PV Reverse Polarity Protection                   | Integrated                                                                                                                               |             |             |             |
| Overcurrent Protection                           | Integrated                                                                                                                               |             |             |             |
| Anti-islanding Protection                        | Integrated                                                                                                                               |             |             |             |
| Short Circuit Protection                         | Integrated                                                                                                                               |             |             |             |
| Leakage Current Protection                       | Integrated                                                                                                                               |             |             |             |
| Insulation Protection                            | Integrated                                                                                                                               |             |             |             |
| Surge Protection                                 | DC Type II /AC Type III                                                                                                                  |             |             |             |
| General Data                                     |                                                                                                                                          |             |             |             |
| Operating Temperature Range (□)                  | -25~60 (>45 derating )                                                                                                                   |             |             |             |
| Altitude(m)                                      | <4000                                                                                                                                    |             |             |             |
| Noise Emission (dB)                              | <40                                                                                                                                      |             |             |             |
| Topology                                         | Transformerless isolation                                                                                                                |             |             |             |
| Cooling Method                                   | Natural convection                                                                                                                       |             |             |             |
| Ingress Protection Rating                        | IP65                                                                                                                                     |             |             |             |
| Relative Humidity(%)                             | 0-95, No condensation                                                                                                                    |             |             |             |
| DC Connector                                     | MC/Amphenol/Phoenix                                                                                                                      |             |             |             |
| AC Connector                                     | Plug in Connector                                                                                                                        |             |             |             |
| Interaction                                      | LCD,RS485                                                                                                                                |             |             |             |
| Cloud Communication                              | RS485(WIFI/4G optional)                                                                                                                  |             |             |             |
| BMS Communication                                | CAN                                                                                                                                      |             |             |             |
| Meter Communication                              | RS485                                                                                                                                    |             |             |             |
| Installation                                     | Wall-mounted                                                                                                                             |             |             |             |
| Dimension(W*H*D)(mm)                             | 505*572*235                                                                                                                              |             |             |             |
| Weight(kg)                                       | 40                                                                                                                                       |             |             |             |
| Certification                                    |                                                                                                                                          |             |             |             |
| Safety Standards                                 | IEC62109-1/-2                                                                                                                            |             |             |             |
| EMC Standards                                    | EN61000-6-1/-2/-3,IEC61000                                                                                                               |             |             |             |
| On-grid Standard                                 | AS4777.2:2020,NRS097-2-1:2017,EN 50549-1 for Czech,VDE-AR-N 4105:2018, EN50549-1:2019+AC:2,G98 G99,OVE-R25,EN50549-1:2019 for Poland A&B |             |             |             |