

Three-phase  
Hybrid Inverter  
HI-29~60K-TH



-  Supports 7 intelligent working modes and automatically switch within 10ms.
-  Supports 100% 3-phase unbalanced output on both ports (BACKUP & GRID).
-  Sustain 200% rated power overload for 10 seconds.
-  Peak shaving and valley filling to enhances grid stability.
-  Low startup voltage threshold, wide operating voltage range.
-  Supports 20A maximum PV string current, compatible with 700W+ high-power modules.

| Technical Data                              | HI-29K-TH                                                                                                                  | HI-30K-TH   | HI-40K-TH | HI-50K-TH   | HI-60K-TH |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------|-----------|-------------|-----------|
| Input DC (PV side)                          |                                                                                                                            |             |           |             |           |
| Max. PV access power                        | 60kW                                                                                                                       | 60kW        | 80kW      | 100kW       | 120kW     |
| Max. PV input power                         | 48kW                                                                                                                       | 48kW        | 64kW      | 80kW        | 96kW      |
| Max. PV input voltage                       | 1000V                                                                                                                      |             |           |             |           |
| Nominal input voltage                       | 600V                                                                                                                       |             |           |             |           |
| MPPT working voltage range                  | 180V-850V                                                                                                                  |             |           |             |           |
| Number of independent MPPT/strings per MPPT | 3/3                                                                                                                        | 3/3         | 4/3       | 4/3         | 4/3       |
| MPPT max. current                           | 3*45A                                                                                                                      | 3*45A       | 4*45A     | 4*45A       | 4*45A     |
| Start-up voltage                            | 200V                                                                                                                       |             |           |             |           |
| Output/Input AC (Grid side)                 |                                                                                                                            |             |           |             |           |
| Nominal apparent power                      | 29kW                                                                                                                       | 30kW        | 40kW      | 50kW        | 60kW      |
| Max. apparent power                         | 29kVA                                                                                                                      | 33kVA       | 44kVA     | 55kVA       | 66kVA     |
| Nominal voltage                             | 380V/400V                                                                                                                  |             |           |             |           |
| Nominal frequency                           | 50Hz/60Hz                                                                                                                  |             |           |             |           |
| Rated current                               | 44A/42A                                                                                                                    | 45.4A/43.4A | 60A/58A   | 75.7A/72.4A | 90A/87A   |
| Max. current                                | 48.4A                                                                                                                      | 50A         | 66A       | 84A         | 99A       |
| Power factor                                | -0.8~+0.8(adjustable)                                                                                                      |             |           |             |           |
| THDi                                        | <3%(Nominal Output)                                                                                                        |             |           |             |           |
| Grid system pattern                         | 3L+N+PE                                                                                                                    |             |           |             |           |
| Max. AC current from utility grid           | 200A                                                                                                                       |             |           |             |           |
| Output AC (Back-up)                         |                                                                                                                            |             |           |             |           |
| Nominal output power                        | 29kW                                                                                                                       | 30kW        | 40kW      | 50kW        | 60kW      |
| Max. output apparent power                  | 29kVA                                                                                                                      | 33kVA       | 44kVA     | 55kVA       | 66kVA     |
| Nominal output voltage                      | 380V/400V                                                                                                                  |             |           |             |           |
| Nominal ouput frequency                     | 50Hz/60Hz                                                                                                                  |             |           |             |           |
| Output THDV                                 | <3%                                                                                                                        |             |           |             |           |
| Automatic switch time                       | <10ms                                                                                                                      |             |           |             |           |
| Battery                                     |                                                                                                                            |             |           |             |           |
| Battery type                                | Li-ion                                                                                                                     |             |           |             |           |
| Battery voltage range                       | 200V-800V                                                                                                                  |             |           |             |           |
| Max. charging/discharging current           | 2*50A/2*50A                                                                                                                |             |           |             |           |
| Charging strategy for Li-ion battery        | Self-adaption to BMS                                                                                                       |             |           |             |           |
| Efficiency                                  |                                                                                                                            |             |           |             |           |
| Max. MPPT efficiency                        | 99.9%                                                                                                                      |             |           |             |           |
| Europe efficiency                           | 97.5%                                                                                                                      |             |           |             |           |
| Max. battery to load efficiency             | 98%                                                                                                                        |             |           |             |           |
| Protection                                  |                                                                                                                            |             |           |             |           |
| Anti islanding protection                   | Yes                                                                                                                        |             |           |             |           |
| Insulation impedance protection             | Yes                                                                                                                        |             |           |             |           |
| RCD detection                               | Yes                                                                                                                        |             |           |             |           |
| PV reverse polarity protection              | Yes                                                                                                                        |             |           |             |           |
| Output over voltage protection              | Yes                                                                                                                        |             |           |             |           |
| Output over current protection              | Yes                                                                                                                        |             |           |             |           |
| General Data                                |                                                                                                                            |             |           |             |           |
| Dimensions(L/W/H)in mm                      | 680/342/708                                                                                                                |             |           |             |           |
| Weight                                      | 73kg                                                                                                                       |             |           |             |           |
| Operation temperature range                 | -30°C~+60°C                                                                                                                |             |           |             |           |
| Heat dissipation mode                       | Smart cooling                                                                                                              |             |           |             |           |
| IP Class                                    | IP 66                                                                                                                      |             |           |             |           |
| Maximum altitude                            | 4000m                                                                                                                      |             |           |             |           |
| Self-Consumption night                      | <5w                                                                                                                        |             |           |             |           |
| Topology                                    | Transformerless                                                                                                            |             |           |             |           |
| Features                                    |                                                                                                                            |             |           |             |           |
| LCD display                                 | Yes                                                                                                                        |             |           |             |           |
| Communication interface                     | WiFi/GPRS/RS485                                                                                                            |             |           |             |           |
| Standards                                   | IEC 62109-1/IEC 62109-2/EN IEC 61000-6-1/EN IEC 61000-6-3/VDE AR 4105/VDE V 0124-100/NC RfG/PSE/PTPiREE/EN 50549-1/NRS 097 |             |           |             |           |