

## HIVERTER-Si-30K

Three Phase, Multi-MPPT  
Grid Tied Solar String Inverter

### Key Features

- Wide DC input range
- True three phase bridge, transformer-less topology
- Low sensitivity to the grid disturbance to avoid unnecessary disconnection from the grid
- Up to 3 independent MPPT to ensure optimal energy harvest
- MPPT accuracy is more than 99.9%
- Wide operating temperature range from 20°C to 60°C
- IP 65 protection for Indoor & outdoor application
- Easy to install & maintain
- DC power overloading
- User friendly interface like RS 485/Wi-Fi
- Easy to read LCD display with all operational status & necessary data as per requirement
- Reactive power controller
- Type III SPD (Surge Protection Device)
- String current monitoring
- Low Voltage Ride Through (LVRT) compliance
- Remote monitoring using a mobile based application through GPRS/Wi-Fi



### Technical Specifications

| No. | IEC Standard                                                                                      | IEC Certificate                                                  |
|-----|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1   | Environmental Testing                                                                             | IEC 60068-2 (1,2,14,30)                                          |
| 2   | Efficiency Measurement                                                                            | IEC 61683                                                        |
| 3   | Product Safety Standard                                                                           | IEC 62109-1, 2                                                   |
| 4   | Grid Connectivity Standard/<br>Utility Interface                                                  | IEC 61727                                                        |
| 5   | Test Procedure for Islanding<br>Prevention Measures for<br>Utility Interconnected<br>PV Inverters | IEC 62116<br>IEEE1547<br>IEEE1547.1                              |
| 6   | Electromagnet Compatibility<br>& Electro Magnet Interference                                      | IEC 61000-6-1<br>IEC 61000-6-3<br>IEC 61000-3-2<br>IEC 61000-3-3 |

## Technical Specifications

| Input (DC)                                   |  | Si-30K                                                                                                                                               |
|----------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recommended PV input power                   |  | 39000W                                                                                                                                               |
| Max DC power for single MPPT                 |  | 18000W                                                                                                                                               |
| Number for independent MPPT                  |  | 2                                                                                                                                                    |
| Number for DC inputs                         |  | 3 for each MPPT                                                                                                                                      |
| Max. input voltage                           |  | 1100V                                                                                                                                                |
| Start-up input voltage                       |  | 250V                                                                                                                                                 |
| Rated input voltage                          |  | 620V                                                                                                                                                 |
| MPPT voltage range                           |  | 230V-960V                                                                                                                                            |
| Full load DC voltage range                   |  | 520V-850V                                                                                                                                            |
| Max. input MPPT current                      |  | 30A/30A                                                                                                                                              |
| Max. DC input short circuit current per MPPT |  | 37.5A                                                                                                                                                |
| Output (AC)                                  |  |                                                                                                                                                      |
| Rated power                                  |  | 30000W                                                                                                                                               |
| Max. AC power                                |  | 33000VA                                                                                                                                              |
| Max. output current                          |  | 48A                                                                                                                                                  |
| Nominal grid voltage                         |  | 3/N/PE, 220V/380Vac, 230V/400Vac, 240/415Vac                                                                                                         |
| Grid voltage range                           |  | 310Vac-480Vac (According to local standard)                                                                                                          |
| Nominal frequency                            |  | 50/60Hz                                                                                                                                              |
| Grid frequency range                         |  | 45Hz-55Hz/54Hz-66Hz (According to local standard)                                                                                                    |
| Active power adjustable range                |  | 0-100%                                                                                                                                               |
| THDi                                         |  | <3%                                                                                                                                                  |
| Power factor                                 |  | 1 default (adjustable $\pm 0.8$ )                                                                                                                    |
| Performance                                  |  |                                                                                                                                                      |
| Max. Efficiency up to                        |  | 98.4%                                                                                                                                                |
| European weighted efficiency up to           |  | 98.2%                                                                                                                                                |
| Self-consumption at night                    |  | <1W                                                                                                                                                  |
| MPPT efficiency                              |  | >99.9%                                                                                                                                               |
| Protection                                   |  |                                                                                                                                                      |
| DC reverse polarity protection               |  | Yes                                                                                                                                                  |
| DC switch                                    |  | Yes                                                                                                                                                  |
| Protection class/Overvoltage category        |  | I/III                                                                                                                                                |
| Safety protection                            |  | Anti islanding, RCMU, Ground fault monitoring                                                                                                        |
| ARPC                                         |  | Anti reverse power controller (optional)                                                                                                             |
| Communication                                |  |                                                                                                                                                      |
| Power management unit                        |  | According to certification and request                                                                                                               |
| Standard Communication mode                  |  | Rs485, Wi-Fi / Ethernet / GPRS (optional) / SD card                                                                                                  |
| Operation data storage                       |  | 25 years                                                                                                                                             |
| General Data                                 |  |                                                                                                                                                      |
| Ambient temperature range                    |  | -25°C ~ +60°C                                                                                                                                        |
| Topology                                     |  | Transformer less                                                                                                                                     |
| Degree of protection                         |  | IP65                                                                                                                                                 |
| Allowable relative humidity range            |  | 0-100%                                                                                                                                               |
| Max. operating altitude                      |  | 2000m                                                                                                                                                |
| Noise                                        |  | ≤45dB                                                                                                                                                |
| Weight                                       |  | 37kg                                                                                                                                                 |
| Cooling                                      |  | Fan                                                                                                                                                  |
| Dimension (mm)                               |  | 666 x 512 x 254                                                                                                                                      |
| Display                                      |  | LCD display                                                                                                                                          |
| Standard                                     |  |                                                                                                                                                      |
| EMC                                          |  | EN 61000-6-2, EN 61000-6-3, EN 61000-3-12, EN 61000-3-11                                                                                             |
| Safety standard                              |  | IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30), IEC60255                                                                           |
| Grid standards                               |  | AS/NZS 4417, VDE V 0124-100, V 0126-1-1 VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN50438/EN50549, G59, P.O. 12.3, RD1699, UTE C15-712-1, EN50530, NB/T32004 |

