

HIVERTER-Si-12K

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 Standards

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/ Utility Interface	IEC 61727
5	Test Procedure for Islanding Prevention Measures for Utility Interconnected PV Inverters	IEC 62116 IEEE1547 IEEE1547.1
6	Electromagnet Compatibility & Electro Magnet Interference	IEC 61000-6-1 IEC 61000-6-3 IEC 61000-3-2 IEC 61000-3-3

Technical Specifications

Input (DC)		Si-12K
Recommended PV input power		14000W
Max DC power for single MPPT		6850W
Number for independent MPPT		2
Number for DC inputs		1 for each MPPT
Max. input voltage		1000V
Start-up input voltage		180V
Rated input voltage		600V
MPPT voltage range		160V-960V
Full load DC voltage range		575V-850V
Max. input MPPT current		11A/11A
Max. DC input short circuit current per MPPT		14A
Output (AC)		
Normal power		12000W
Max. AC power		13200VA
Max. output current		19.1A
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 ± 0.8)
Power limit export		Zero export or adjustable power limit export
Performance		
Max. Efficiency up to		98.3%
European weighted efficiency up to		98.0%
Self-consumption at night		<1W
MPPT efficiency		>99.9%
Protection		
DC reverse polarity protection		Yes
DC switch		Yes
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		≤29dB
Weight		22kg
Cooling		Natural
Dimension (mm)		457 x 452 x 202
Display		LCD display
Standard		
EMC		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, 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 0-21, EN50438/EN50549, G83/G59, RD1699, UTE C15-712-1, EN50530, NB/T32004

