

HIVERTER-Si-50K

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/ 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-50K
Recommended PV input power		55000W
Max DC power for single MPPT		22000W/16000W/16000W
Number for independent MPPT		3
Number for DC inputs		4/3/3
Max. input voltage		1000V
Start-up input voltage		350V
Rated input voltage		600V
MPPT voltage range		250V-950V
Full load DC voltage range		530V-800V
Max. input MPPT current		40A/30A/30A
Max. input current per string		12A
Max. DC input short circuit current per MPPT		48A/36A/36A
Output (AC)		
Rated power		50000W
Max. AC power		50000VA
Max. output current		80A
Nominal grid voltage		3/N/PE, 220V/380Vac, 230V/400Vac, 240/415Vac
Grid voltage range		310Vac-220Vac (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)
Performance		
Max. Efficiency up to		98.5%
European weighted efficiency up to		98.3%
Self-consumption at night		<1W
MPPT efficiency		>99.9%
Protection		
DC reverse polarity protection		Yes
DC switch		Yes
Protection class/Overvoltage category		I/III
Input/ output SPD		PV: type II standard, AC: type II
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, Wifi / Ethernet / GPRS(optional), SD card, Multi-function relay
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		4000m
Noise		≤60dB
Weight		68kg
Cooling		Fan
Dimension (mm)		713 x 737 x 297
Display		LCD display
Standard		
EMC		EN 61000-6-2, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12
Safety standard		IEC62109-1/2, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)
Grid standards		AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, BDEW, CEI 0-21/CEI 0-16, UNE 206 007-1, EN50438/EN50549, G59, EN50530, NB/T32004

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