

## HIVERTER-Si-20K

Three Phase, Multi-MPPT  
Grid Tied Solar String Inverter

### Key Features

- Wide DC input range
- True three phase bridge, transformerless 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-20K
Recommended PV input power		26000W
Max DC power for single MPPT		13000W
Number for independent MPPT		2
Number for DC inputs		2 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		480V-850V
Max. input MPPT current		24A/24A
Max. DC input short circuit current per MPPT		30A
Output (AC)		
Rated power		20000W
Max. AC power		22000VA
Max. output current		32A
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		98.2%
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
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		$\leq 30$ dB
Weight		37kg
Cooling		Natural
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

### Hitachi Hi-Rel Power Electronics Private Limited

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In the spirit of innovation, specifications and features are subject to change without notice.



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