

Grid Tied Solar String Inverters

HIVERTER-Si-N Series

110 kW & 125 kW - Three Phase (1100 VDC)

NEW
GENERATION

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
- 10 independent MPPT to ensure optimal energy harvest
- MPPT accuracy is more than 99.9%
- Wide operating temperature range from -30°C to 60°C
- IP66 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 II SPD (Surge Protection Device)
- String current monitoring
- Low Voltage Ride Through (LVRT) compliance
- Remote monitoring using a mobile based application through 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
6	Electromagnet Compatibility	IEC 61000-6-2 IEC 61000-6-3 IEC 61000-3-11 IEC 61000-3-12

Technical Specifications

Solar String Inverter – 110 kW & 125 kW (3Ph.)

HIVERTER-Si-N Series Three Phase, 10 MPPT		Si-110K-N	Si-125K-N
Input (DC)	Recommended PV input power	165 kWp	190 kWp
	Max. input voltage	1100 V	
	Rated input voltage	625 V	
	Start-up voltage	200 V	
	MPPT operating voltage range	180 V - 1000 V	
	Full power MPPT voltage range	500V - 850V	
	Number of MPP trackers	10	
	Number for DC inputs	20	
	Max. current per MPPT	10 x 40A	
	Max. input short circuit current	10 x 50A	
Output (AC)	AC output power	110 kVA	125 kVA
	Max. output current	167.2 A@380 V / 159.5 A@400 V / 153.1 A@415 V	190 A@380 V / 181.2 A@400 V / 174 A@415 V
	Rated grid voltage	3 / N / PE, 380 V / 400 V / 415 V	
	Grid voltage range	310 - 480 Vac	
	Nominal frequency	50 / 60 Hz	
	Grid frequency range	45-55 Hz / 55-65 Hz	
	Active power adjustable range	0-100%	
	TH Di	< 1%(@100% P)	
	Power factor	1 default (adjustable ± 0.8)	
Efficiency	Max. Efficiency	98.60%	
	European weighted efficiency up to	98.30%	
Protection	DC reverse polarity protection	Yes	
	Anti-islanding protection	Yes	
	Leakage current protection	Yes	
	Ground fault monitoring	Yes	
	PV-array string fault monitoring	Yes	
	DC switch	Yes	
	PID recovery	Yes	
	AFCI	Yes	
	SPD protection	PV: type II standard, AC: type II standard	
Communication	Standard Communication Mode	RS 485, WiFi	
General Data	Ambient temperature range	-30°C ~ +60°C	
	Topology	Transformer less	
	Degree of protection	IP 66	
	Allowable relative humidity range	0 - 100%	
	Max. operating altitude	4000 m (> 3000 m derating)	
	Weight	75 kg	
	Cooling	Smart forced air cooling	
	Dimension	970 x 695 x 325 mm	
	Display	LCD & Bluetooth + APP	
Standard	EMC	EN 61000 - 6 - 2, EN 61000 - 6 - 3, EN 61000 - 3 - 11, EN 61000 - 3 - 12	
	Safety standard	IEC 62109 - 1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), IEC 60255	
	Grid standards	VDE V 0124 - 100, V 0126 - 1 - 1, VDE - AR- N 4105, CEI 0 - 21 / CEI 0 - 16, UNE 206 007 - 1, EN 50549, G98 / G99, EN 50530	

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Certificate of Conformity

Applicable for: Photovoltaic Grid Tied String Inverter

Model Number: HIVERTER-Si-N

Company: Hitachi Hi-Rel Power Electronics Private Limited.

We hereby declare that for the 110-125K-N series inverters produced by Hitachi Hi-Rel Power Electronics Private Limited the rated output power is as below.

Model	Hiverter-Si-110K-N	Hiverter-Si-125K-N
Rated Output Power	110kVA@45°C / 110kW@45°C@unity PF 100kVA@50°C / 100kW@50°C@unity PF	125kVA@45°C / 125kW@45°C @unity PF 110kVA@50°C / 110kW@50°C @unity PF

Product Manager Name: Yashpal Patel

Date: 16.10.2023



Hitachi Hi-Rel Power Electronics Private Limited

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