

HITACHI

Product Portfolio

Grid Tied Solar String Inverters

HIVERTER-Si-N Series - 3.3 kW 12 kW - Three Phase (1100 VDC)

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
- 2 independent MPPT to ensure optimal energy harvest
- MPPT accuracy is more than 99%
- Wide operating temperature range from -30°C to 60°C
- IP65 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
- Type II SPD (Surge Protection Device)



Applicable IEC Standards

No.	IEC Standard Description	IEC Certificate No
1	Environmental Testing	IEC 60068-2-1:2007 IEC 60068-2-2:2007 IEC 60068-2-14:2009 IEC 60068-2-30:2014
2	Efficiency Measurement	IEC 61683: 1999
3	Product Safety Standard	IEC 62109-1:2010 IEC 62109-2:2011
4	Grid Connectivity Standard / Utility Interface	IEC 61727: 2004
5	Test Procedure for Islanding Prevention Measures for Utility Interconnected PV Inverters	IEC 62116: 2014
6	Electromagnet Compatibility & Electro Magnet Interference	IEC 61000-6-2: 2016

Technical Specifications

Solar String Inverter – 3.3 kW to 12 kW (3Ph.)

Hiverter Si-N Series Three Phase with Dual MPPT	Si-3.3K-N	Si-4.4K-N	Si-5.5K-N	Si-6.6K-N	Si-8.8K-N	Si-11K-N	Si-12K-N
Input (DC)							
Recommended PV input power	4.5 kWp	6k Wp	7.5 kWp	9 kWp	12 kWp	15 kWp	18 kWp
Number for independent MPPT	2						
Number for DC inputs	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 2
Max. input voltage	1100 V						
Start-up input voltage	160 V						
Rated input voltage	650 V						
MPPT operating voltage range	140 - 1000 V						
Full load DC voltage range	160 V-850 V	190 V-850 V	240 V-850 V	290 V-850 V	380 V-850 V	420-850 V	460-850 V
Max. input current per MPPT	15 A / 15 A	15 A / 15 A	15 A / 15 A	15 A / 15 A	15 A / 15 A	15 A / 15 A	15 A / 30 A
Max. DC input short circuit current per MPPT	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 22.5 A	22.5 A / 45 A
Output (AC)							
Rated power	3 kW	4 kW	5 kW	6 kW	8 kW	10 kW	12 kW
Max. AC power	3.3 kVA	4.4 kVA	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA	13.2 kVA
Max. output current	5 A	6.7 A	8.3 A	10 A	13.3 A	16.7 A	20 A
Nominal grid voltage	3 / N / PE, 230 V / 240 Vac						
Grid voltage range*	310Vac-480Vac (According to local standard)						
Nominal frequency	50 Hz / 60 Hz						
Grid frequency range	45 Hz - 55 Hz / 55 Hz - 65 Hz (According to local standard)						
Active power adjustable range	0~100%						
THDi	<3%						
Power factor	1 default (adjustable ±0.8)						
Performance							
Max. Efficiency up to	98.18%	98.26%	98.23%	98.23%	98.33%	98.34%	98.30%
European weighted efficiency up to	97.50%				98.00%		
Self-consumption at night	<1W						
Protection							
DC reverse polarity protection	Yes						
Anti-islanding Protection	Yes						
Ground Fault monitoring	Yes						
PV-array string fault monitoring	Yes						
Anti-reverse power function	Yes						
DC Switch	Yes						
Input / Output SPD	PV: type II standard, AC: type II standard						
Communication							
Standard Communication mode	RS 485 / USB / Bluetooth (Optional: WIFI)						
General Data							
Ambient temperature range	-30°C~+60°C						
Topology	Transformer - less						
Degree of protection	IP65						
Allowable relative humidity range	0~100%						
Max. operating altitude	4000m						
Noise	<40dB						
Weight	17 kg			18 kg			
Cooling	Natural						
Dimension	430*385*182 mm						
Display	LCD & Bluetooth + APP						
Standard Warranty	5 Years (Optional: 7 & 10 Years)						

*AC Over Voltage and Under Voltage protection is as per CEA guidlines & set by default as per CEA guideline. Mentioned range is for global level.

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