

Grid Tied Solar String Inverters

HIVERTER-Si Series

1.1 kW to 3.3 kW – Single Phase (1000 VDC)

Key Features

- Wide DC input range
- Transformer less topology
- Low sensitivity to the grid disturbance to avoid unnecessary disconnection from the grid
- 1 independent MPPT to ensure optimal energy harvest
- MPPT accuracy is more than 99.9%
- Wide operating temperature range from -30°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
- Type III SPD (Surge Protection Device)
- 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
6	Electromagnet Compatibility & Electro Magnet Interference	IEC 61000-6-2 IEC 61000-6-4

Technical Specifications

Solar String Inverter – 1.1 kW To 3.3 KW (1Ph.)

HIVERTER-Si Series Single Phase with Single MPPT		Si-1.1K-H3	Si-1.6K-H3	Si-2.2K-H3	Si-2.7K-H3	Si-3K-H3	Si-3.3K-H3
Input (DC)	Recommended PV input power	1500 W	2200 W	3000 W	3700 W	4100 W	4500 W
	Max. input voltage	500 V	500 V	500 V	550 V	550 V	550 V
	Start-up input voltage	70 V					
	Rated input voltage	360 V					
	MPPT voltage range	50 - 500 V			50 - 550 V		
	Full load DC voltage range	110 - 450 V	150 - 450 V	200 - 450 V	250 - 500 V	275 - 500 V	300 - 500 V
	Max. input MPPT current	12 A					
	Max. DC input short circuit current per MPPT	15 A					
	Number of MPPT/String per MPPT	1 / 1					
	Input terminal type	MC 4					
Output (AC)	Rated power	1.1 kW	1.6 kW	2.2 kW	2.7 kW	3 kW	3.3 kW
	Max. AC power	1.1 kVA	1.6 kVA	2.2 kVA	2.7 kVA	3 kVA	3.3 kVA
	Max. output current	5.3 A	7.7 A	10.6 A	13 A	14.5 A	16 A
	Nominal grid volatge	L / N / PE, 230 Vac					
	Grid voltage range	180 Vac-276 Vac (According to local standard)					
	Nominal frequency	50 / 60 Hz					
	Grid frequency range	45~55 Hz / 55~66 Hz (According to local standard)					
	THDi	<3%					
Efficiency up to	Power factor	1 default (adjustable ±0.8)					
	Max. Efficiency up to	97.43%	97.50%	97.47%	97.38%	97.20%	97.20%
Protection	European weighted efficiency	96.9%			97.2%		
	Anti-Islanding protection	Yes					
	DC reverse polarity protection	Yes					
	Over temp protection	Yes					
	Leakage current protection	Yes					
	Over voltage protection	Yes					
	Over current protection	Yes					
	Earth fault protection	Yes					
	SPD	MOV: Type III standard					
Communication	Standard Communication mode	Rs 485, USB (Optional: Wi-Fi / Ethernet)					
General Data	Topology	Transformer less					
	Ambient temperature range	-30°C ~ +60°C					
	Allowable relative humidity range	0~100%					
	Noise	<25 dB					
	DC switch	Optional					
	Cooling	Natural convection					
	Max. operating altitude	2000 m					
	Dimension	303 x 260.5 x 118 mm			321 x 260.5 x 131.5 mm		
	Support bracket	Wall - mounted					
	Weight	5.5 kg			6.3 kg		
	Display	LCD + LED					
	Degree of protection	IP 65					
Standard	EMC	EN 61000 - 6 - 1, EN 61000 - 6 - 2, EN 61000 - 6 - 3, EN 61000 -6 - 4,					
	Safety standard	IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109 - 1/2					
	Grid standards	AS 4777, VDE V 0124 - 100, VDE V 0126 - 1 - 1, VDE -AR -N 4105, EN 50438, G83 / 2, C10 / 11, RD 1699					

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Grid Tied Solar String Inverters

HIVERTER-Si-N Series
3 kW & 6 kW - Single Phase

NEW
GENERATION

Key Features

- Wide DC input range
- 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
- 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
- Type III SPD (Surge Protection Device)



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 & Electro Magnet Interference	IEC 61000-6-2 IEC 61000-6-4

Technical Specifications

Solar String Inverter – 3 kW to 6 kW (1Ph.)

HIVERTER-Si-N Series Single Phase with Dual MPPT		Si-3K-N		Si-3.6K-N		Si-4K-N		Si-4.6K-N		Si-5K-N		Si-6K-N	
Input (DC)	Recommended PV input power	4.5 kWp		5.4 kWp		6 kWp		7 kWp		7.5 kWp		9 kWp	
	Max DC power for single MPPT	3.5 kW		3.5 kW		3.5 kW		3.5 kW		3.75 kW		4.5 kW	
	Number for independent MPPT	2											
	Number for DC inputs	1 for each MPPT											
	Max. input voltage	600 V											
	Start-up input voltage	90 V											
	Rated input voltage	380 V											
	MPPT voltage range	80 V - 550 V											
	Full load DC voltage range	200 V - 500 V		200 V - 500 V		200 V - 500 V		200 V - 500 V		210 V - 500 V		260 V - 500 V	
	Max. input MPPT current	15 A / 15 A											
Max. DC input short circuit current per MPPT	22.5 A / 22.5 A												
Output (AC)	Rated power	3 kW		3.68 kW		4 kW		4.6 kW		5 kW		6 kW	
	Max. AC power	3.3 kVA		3.68 kVA		4.4 kVA		4.6 kVA		5.5 kVA		6 kVA	
	Max. output current	15 A		16 A		20 A		23 A		25 A		29 A	
	Nominal grid voltage	L / N / PE, 230 Vac											
	Grid voltage range	180 Vac - 276 Vac (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	98.11%		97.82%		98.11%		97.78%		97.85%		97.84%	
	European weighted efficiency up to	97.3%						97.5%					
	Self-consumption at night	<1W											
Protection	DC reverse polarity protection	Yes											
	DC switch	Optional											
	Protection class/Overvoltage category	I / III											
	Safety protection	Anti - islanding, RCMU, Ground fault monitoring											
	Input / Output SPD	MOV: type III standard											
Communication	Standard Communication mode	Rs485/ USB/ Bluetooth (Optional: Wi-Fi)											
General Data	Ambient temperature range	-30℃~-+60℃											
	Topology	Transformer - less											
	Degree of protection	IP 65											
	Allowable relative humidity range	0~100%											
	Max. operating altitude	4000 m											
	Noise	<25 dB											
	Weight	9.2 kg						10 kg					
	Cooling	Natural											
	Dimension (mm)	349*344*164 mm											
	Display	LCD & Bluetooth + APP											
	Standard Warranty	5 Years (Optional: 7 & 10 Years)											
Standard	EMC	EN 61000 - 6 - 2, EN 61000 - 6 - 3, EN 61000 - 3 - 2, EN 61000 - 3 - 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)											
	Grid standards	VDE - AR - N 4105, DE V 0126 - 1 - 1, V 0124 - 100, AS / NZS 4777, CEI 0 - 21, G98 / G99, C10 / 11, EN 50549, RD 1699											

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Grid Tied Solar String Inverters

HIVERTER-Si-N Series

3.3 kW to 12 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
- 2 independent MPPT to ensure optimal energy harvest
- MPPT accuracy is more than 99.9%
- Wide operating temperature range from -30°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
- Type II SPD (Surge Protection Device)



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 & Electro Magnet Interference	IEC 61000-6-2 IEC 61000-6-4

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 of independent MPPT	2						
	Number of 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 power MPPT 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
Maximum 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 volatge	3 / N / P E, 230 Vac / 240 Vac						
	Grid voltage range	310 Vac - 480 Vac (according to local standard)						
	Nominal frequency	50 / 60 Hz						
	Grid frequency range	45~55 Hz / 55~65 Hz (according to local standard)						
	Active power adjustable range	0~100%						
Performance	THDi	<3%						
	Power factor	1 default (adjustable ±0.8)						
	Max. Efficiency up to	98.18%	98.26%	98.23%	98.23%	98.33%	98.34%	98.30%
	European weighted efficiency	97.50%				98.00%		
Protection	Self-consumption at night	<1 W						
	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: Wi-Fi)						
General Data	Ambient temperature range	-30°C ~ +60°C						
	Topology	Transformer less						
	Degree of protection	IP 65						
	Allowable relative humidity range	0~100%						
	Max. operating altitude	4000 m						
	Noise	<40 dB						
	Weight	17 kg			18 kg			
	Cooling	Natural						
	Dimension	430*385*182 mm						
	Display	LCD & Bluetooth + APP						
	Standard warranty	5 years (Optional: 7 & 10 years)						
Standard	EMC	EN 61000 - 3 - 2, EN 61000 - 3 - 3, EN 61000 - 3 -11, EN 61000-3-12, EN 61000 -6 -1, EN 61000 - 6 - 3						
	Safety standard	IEC 62109 -1 / 2, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30)						
	Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, UNE 206 007-1, EN50549, G98/G99, EN50530, NB/T32004						

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