

Grid Tied Solar String Inverters

HIVERTER-Si-N Series

15 kW & 20 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)
- 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 – 15 kW & 20 KW (3Ph.)

HIVERTER-Si-N Series Three Phase with Dual MPPT		Si-15K-N	Si-20K-N
Input (DC)	Recommended PV input power	22.5 kWp	30 kWp
	Number for independent MPPT	2	
	Number for DC inputs	2 / 2	
	Max. input voltage	1100 V	
	Start-up input voltage	160 V	
	Rated input voltage	650 V	
	MPPT voltage range	140 - 1000 V	
	Full load DC voltage range	420 V - 850 V	480 V - 850 V
	Max. input MPPT current	26 A / 26 A	26 A / 26 A
	Max. DC input short circuit current per MPPT	36 A / 36 A	36 A / 36 A
Output (AC)	Rated power	15 kW	20 kW
	Max. AC power	16.5 kVA	22 kVA
	Max. output current	23.9 A	31.9 A
	Nominal grid voltage	3 / N / PE, 230 V / 400 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	98.60%	
	European weighted efficiency up to	98.20%	
	Self-consumption at night	<1W	
	MPPT efficiency	>99.9%	
Protection	DC reverse polarity protection	Yes	
	Anti-islanding Protection	Yes	
	Leakage Current protection	Yes	
	Ground Fault monitoring	Yes	
	PV-array string fault monitoring	Yes	
	Anti-reverse power function	Optional	
	DC Switch	Yes	
	Input / Output SPD	PV: type II standard, AC: type II standard	
Communication	Standard Communication mode	RS 485 / USB / Bluetooth (Optional: WIFI / Ethernet)	
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	20 kg	22 kg
	Cooling	Fan	
	Dimension	520*430*189mm	
	Display	LCD & Bluetooth + APP	
	Standard Warranty	5 Years (Optional: 7 & 10 Years)	
Standard	EMC	EN 61000 - 6 - 1, EN 61000 - 6 - 3, EN 61000 - 6 - 3 - 11, EN 61000 - 6 - 3 - 12	
	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, EN 50549, G 98/ G 99, EN 50530, NB / T 32004	

Hitachi Hi-Rel Power Electronics Private Limited

Registered Office: B-52, Corporate House, Near Judges Bunglow, Bodakdev, Ahmedabad-380054, Gujarat, India.

Tel: +91-79-6604 6200, Fax: +91-79-6604 6243

Manufacturing Works: Plot No. SM 3 & 4, Sanand GIDC II, Industrial Estate, Bol Village, Sanand-382 110, Gujarat, India.

Tel: +91-2717-678 777, Fax: +91-2717-678 700

Gandhinagar Facility: B-14/1 & 171, GIDC Electronics Zone, Sector - 25, Gandhinagar - 382 028, Gujarat, India.

Tel: +91-79-6170 0500

 **Helpline No.:** (080) 6112 0800 (For Sales & Service Support)
  **contact@hitachi-hirel.com**
 **www.hitachi-hirel.com**

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Grid Tied Solar String Inverters

HIVERTER-Si-N Series

25 kW to 50 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
- 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
- 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 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 – 25 kW to 50 kW (3Ph.)

HIVERTER-Si-N Series Three Phase with Three / Four MPPT		Si-25K-N	Si-30K-N	Si-33K-N	Si-36K-N	Si-40K-N	Si-45K-N	Si-50K-N
Input (DC)	Recommended PV input power	37.5 kWp	45 kWp	49.5 kWp	54 kWp	60 kWp	67.5 kWp	75 kWp
	Max DC power for single MPPT	25 kWp						
	Number of independent MPPT	3	3	3	3	4	4	4
	Number of DC inputs	6	6	6	6	8	8	8
	Max. input voltage	1100 V						
	Start-up input voltage	200 V						
	Rated input voltage	620 V						
	MPPT operating voltage range	180 - 1000 V						
	Full power MPPT voltage range	480 V - 850 V	480 V - 850 V	510 V - 850 V	540 V - 850 V	480 V - 850 V	510 V - 850 V	540 V - 850 V
	Max. input current per MPPT	3 x 40					4 x 40	
	Maximum DC input short circuit current per MPPT	3 x 50					4 x 50	
Output (AC)	Rated power	25 kW	30 kW	33 kW	36 kW	40 kW	45 kW	50 kW
	Max. AC power	28 kVA	34 kVA	37 kVA	40 kVA	44 kVA	49.5 kVA	55 kVA
	Max. output current	42.4 A	51.5 A	56 A	60.6 A	66.7 A	75 A	83.3 A
	Nominal grid volatge	3 / N / PE , 230 / 400 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%						
	THDi	<3%						
	Power factor	1 default (adjustable ±0.8)						
Performance	Max. Efficiency up to	98.60%				98.80%		
	European weighted efficiency up to	98.20%						
	Self-consumption at night	<3W						
Protection	DC reverse polarity protection	Yes						
	Anti-Islanding protection	Yes						
	Leakage current 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	<60 dB						
	Weight	36 kg				37 kg		
	Cooling	Fan						
	Dimension	585*480*220 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 - 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	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, EN 50530, NB / T32004						

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HIVERTER-Si-60K

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 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 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-60K
Recommended PV input power		66000W
Max DC power for single MPPT		22000W/22000W/22000W
Number for independent MPPT		3
Number for DC inputs		4/4/4
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/40A/40A
Max. input current per string		12A
Max. DC input short circuit current per MPPT		48A
Output (AC)		
Rated power		60000W
Max. AC power		60000VA
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		98.6%
European weighted efficiency up to		98.4%
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		70kg
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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Manufacturing Works:

Survey # 3 & 4, Sanand GIDC II, Industrial Estate, Nr. Bol Village, Chharodi, Sanand-382110, Gujarat, India. Tel: +91-2717-678777, Fax: +91-2717-678700

Helpline Number: (080) 6112 0800 (For Sales & Service Support) **contact@hitachi-hirel.com** **www.hitachi-hirel.com**

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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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