



invt

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BY SOLAR**

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INVT Solar Technology (Shenzhen) Co., Ltd.

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**SOLAR INVERTER
CATALOG**

COMPANY PROFILE

ABOUT US

INVT (Shenzhen INVT Electric Co.,Ltd) was established in 2002, and is the first A-share listed company (Stock code: SZ 002334) in Shenzhen Stock Exchange in the industry. Business covering industry automation, electric vehicle, network power and rail transit. INVT owns 15 subsidiaries and more than 3800 employees.

INVT Solar (INVT Solar Technology (Shenzhen) Co.,Ltd.), is a professional solar inverters manufacturer and national high-tech enterprise. Founded in 2015, it is a wholly-owned subsidiary of INVT. Main offering PV inverter solutions and energy storage systems for commercial & industrial, and residential applications. Relying on INVT's strong 20-year of operating strength, INVT Solar has great advantages in R&D, production, sales and service, can provide all-round support to customers. Now the company inverters power installations in over 80 countries. Low-Carbon Age, INVT Solar is committed to providing smart products and services to develop clean energy.

CORE INDUSTRY BASE



Shenzhen Guangming Scientific Industrial Park

The headquarter and incubator of new products and business R&D.



Shenzhen Fuyong Industrial Park

Core industry base and manufacturing center in South China.



Suzhou Industrial Park

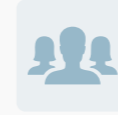
Core industry base and R&D center in East China.

R&D INNOVATION

INVT regards research and development innovation as vitality of the company. In order to make the products and solutions of INVT more and more perfect, INVT builds the core competitiveness of the company and creates value for customers and society through strategic implementation such as independent innovation, operational excellence management and human resource development.



11%+
R&D Investment/
Revenue



35%+
R&D Staff



1300+
Patents



20 Years
Technical
Accumulation

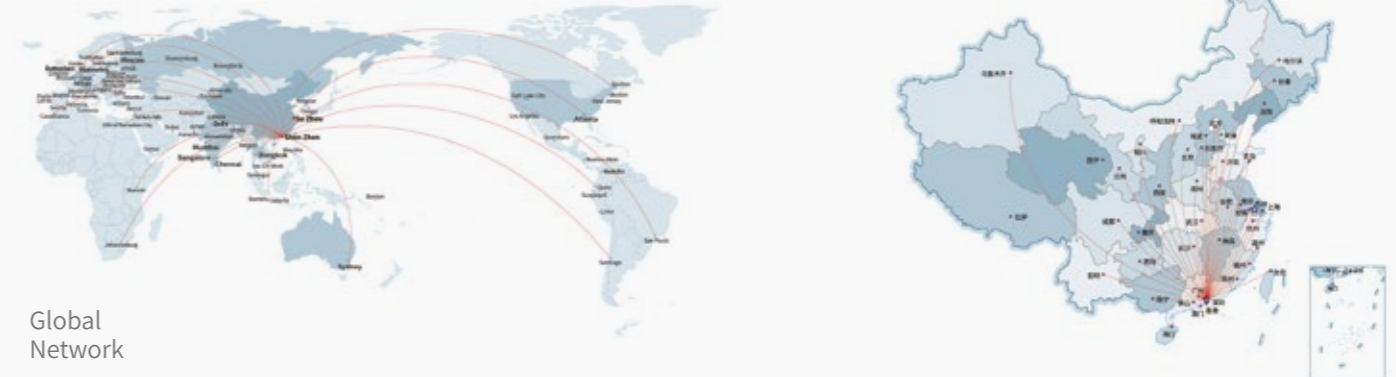


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R&D Centers

MARKETING & SERVICE NETWORK

INVT global sales team provides customers with professional and efficient pre-sale, in sale and after-sale services, and enhances the added value of the brand with high-quality services.

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Global
Network

INVT Milestone

2002

- Founded
- 1st gen. of VFDs launched

2005

- Vector VFDs launched

2006

- Started to explore overseas market

2009

- Awarded as national Key High-tech Enterprise

2010

- Listed on Shenzhen stock market(002334)
- India subsidiary established
- Stepped into UPS and rail transit business

2011

- Annual sales over \$100 million
- Set out to explore the business in servo, PLC and power sectors

2014

- Suzhou Industrial Park Phase I came into service
- Stepped into electric vehicle business

2017

- Won transportation system project for Shenzhen metro
- Won the "Chinese Outstanding Patented Invention" award
- Annual sales over \$300 million

2018

- Guangming headquarter came into service
- No. 1 market share in Vietnam

2020

- Won the "National Science and Technology Major Project of the Ministry of Science and Technology of China award"

2022

- Strategic Planning Process transformation

2021

- IABG Founded;LTC process transformation
- EV Drive subsidiary merged with EV Charging Subsidiary



XG3-6kW-Z

Three Phase On-Grid Solar Inverter



Efficient Higher revenue

- 2 MPPT Trackers, high single circuit tracking accuracy, fast dynamic response
- 160% DC Input Oversizing
- Maximum efficiency of 98.6%. Wide MPPT voltage range: 180V-1000V
- Compatible with high power modules

Intelligent Simple O&M

- Smart I-V Curve Diagnosis Function: locate PV string faults accurately and automatically detect faults
- Intelligent Fault Detection: ac-side voltage and current waveforms real-time recorded, fast fault location
- Support RS485/USB (WiFi/GPRS/Ethernet optional): remote monitoring and operation via PC or mobile phones

Reliable Worry free

- IP66 Protection degree: support outdoor installation
- DC & AC Type II SPD: prevent lightning damage
- AFCI Function (Optional): when an arc-fault is detected the inverter immediately stops operation

	XG3KTR-Z	XG4KTR-Z	XG5KTR-Z	XG6KTR-Z	XG7KTR-Z	XG8KTR-Z	XG9KTR-Z
Input (DC)							
Max. Input Power	4.8KW	6.4KW	8KW	9.6KW	11.2KW	12.8KW	14.4KW
Max. Input Voltage	1100V						
Start Voltage	160V				250V		
Rated Input Voltage	600V						
Full-load MPP Voltage Range	250V~850V	320V~850V	450V~850V	480V~850V	500V~850V	480V~800V	480V~800V
MPPT Voltage Range	180V ~ 1000V					200V~1000V	
Number of MPP Trackers / String per MPPT	2 / 1				2 / 2		
Max. Current per MPPT	13A						
Max. Short Circuit Current per MPPT	16A						
Output (AC)							
Max. Output Current	9.6A	12.8A	15.9A	19.1A	23.9A	27.2A	32.1A
Rated Output Power	3KW	4KW	5KW	6KW	7KW	8KW	9KW
Max Output Power	3.3KVA	4.4KVA	5.5KVA	6.6KVA	7.7KVA	8.8KVA	9.9KVA
Rated Grid Frequency	50Hz / 60Hz						
Rated Grid Voltage	127Vac / 230Vac, 3L / N / PE						
Power Factor	>0.99 (0.8 leading~0.8 lagging)						
THDi	<3% (Rated Power)						
Efficiency							
Max. Efficiency	98.40%				98.70%		
European Efficiency	98.30%				98.50%		
MPPT Efficiency	99.90%						
Protection							
DC reverse polarity protection	Yes						
Anti-islanding protection	Yes						
AC short circuit protection	Yes						
Residual current monitoring unit	Yes						
Insulation resistance monitoring	Yes						
Ground fault monitoring	Yes						
Grid monitoring	Yes						
Surge protection	Type II						
AFCI protection	Optional						
Communication							
Display	LED / LCD (Optional)						
Communication	Standard: RS485 / USB Optional: WiFi / GPRS / Ethernet						
Standard Compliance							
Grid Connection Standards	IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4105:2018, VDE-AR-N 4120:2018, EN 50549, AS/NZS 4777.2:2015, CEI 0-21, VDE 0126-1-1/A1 VFR 2014, UTE C15-712-1:2013, DEWA DRRG, NRS 097-2-1, MEA/PEA, C10/11, G98/G99						
Safety / EMC	IEC 62109-1:2010, IEC 62109-2:2011, EN 61000-6-2:2005, EN 61000-6-3:2007/A1:2011						
General Data							
Dimensions (W x H x D)	430 x 380 x 130 mm	430 x 380 x 150 mm			534 x 440 x 220 mm		
Weight	12kg	13.5kg			24kg		
Operating Temperature Range	-25° C ~ +60° C						
Cooling Method	Natural						
Protection Degree	IP66						
Max. Operating Altitude	4000m						
Relative Humidity	0 ~ 100%						
Topology	Transformerless						
Night Power Consumption	<1W						
Warranty	5 years (Standard) / 10 years (Optional)						

XG10-25kW-Z

Three Phase On-Grid Solar Inverter



- 3-4 MPP Trackers, high single circuit tracking accuracy, fast dynamic response
- 160% DC Input Oversizing
- Maximum efficiency of 98.6%. Wide MPPT voltage range: 200V-1000V
- Compatible with high power modules



**Efficient
Higher revenue**

- Smart I-V Curve Diagnosis Function: locate PV string faults accurately and automatically detect faults
- Intelligent Fault Detection: ac-side voltage and current waveforms real-time recorded, fast fault location
- Support RS485/USB (WiFi/GPRS/Ethernet optional): remote monitoring and operation via PC or mobile phones



**Intelligent
Simple O&M**

- IP66 Protection degree: support outdoor installation
- DC & AC Type II SPD: prevent lightning damage
- AFCI Function (Optional): when an arc-fault is detected the inverter immediately stops operation






**Reliable
Worry free**

	XG10KTR-Z	XG12KTR-Z	XG15KTR-Z	XG17KTR-Z	XG20KTR-Z
Input (DC)					
Max. Input Power	16kW	19.2kW	24kW	28.8kW	32kW
Max. Input Voltage	1100V				
Start Voltage	250V				
Rated Input Voltage	360V				
Full-load MPP Voltage Range	300V ~ 650V				
MPPT Voltage Range	200V ~ 1000V				
Number of MPP Trackers / String per MPPT	2/2		3/2	4/2	
Max. Current per MPPT	26A				
Output (AC)					
Max. Output Current	28.9A	34.6A	43.3A	49.0A	57.7A
Rated Output Power	10kW	12kW	15kW	17kW	20kW
Max. Output Power	11kVA	13.2kVA	16.5kVA	18.7kVA	22kVA
Rated Grid Frequency	50Hz / 60Hz				
Rated Grid Voltage	127Vac / 220Vac, 3L / N / PE				
Power Factor	>0.99 (0.8 leading ~ 0.8 lagging)				
THDi	<3% (rated power)				
Efficiency					
Max. Efficiency	98.4%		98.5%		
European Efficiency	98%				
MPPT Efficiency	99.9%				
Protection					
Protection	DC switch, Anti-islanding protection, AC over current protection, DC reverse polarity protection, PV string monitoring, Surge protection, Ground fault monitoring, RCD protection, PID recovery function, LVRT function, DC arc-fault circuit protection (AFCI), SVG function				
Communication					
Display	LED / LCD / WiFi+App				
Communication	standard: RS485 / USB optional: WiFi / GPRS / Ethernet				
Standard Compliance					
Grid Connection Standards	IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4105:2018, VDE-AR-N 4120:2018, EN 50549, AS/NZS 4777.2:2015, CEI 0-21, VDE 0126-1-1/A1 VFR 2014, UTE C15-712-1:2013, DEWA DRRG, NRS 097-2-1, MEA/PEA, C10/11, G98/G99				
Safety / EMC	IEC 62109-1:2010, IEC 62109-2:2011, EN 61000-6-2:2005, EN 61000-6-3:2007/A1:2011				
General Data					
Dimensions (W x H x D)	534 x 440 x 220 mm		600 x 430 x 230 mm		
Weight	24kg		30kg	32kg	
Operating Temperature Range	-25° C ~ +60° C		-30° C ~ +60° C		
Cooling Method	Smart Cooling				
Protection Degree	IP66				
Max. Operating Altitude	4000m				
Relative Humidity	0 ~ 100%				
Topology	Transformerless				
Night Power Consumption	<1W				

XG25-30kW-Z

Three Phase On-Grid Solar Inverter



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Efficient Higher revenue
 - 4 MPP Trackers, high single circuit tracking accuracy, fast dynamic response and higher power generation
 - 160% DC Input Oversizing
 - Wide MPPT voltage range: 200V-1000V
 - Compatible with high power modules
- 
Intelligent Simple O&M
 - Smart I-V Curve Diagnosis Function: locate PV string faults accurately and automatically detect faults
 - Intelligent Fault Detection: ac-side voltage and current waveforms real-time recorded, fast fault location
 - Support RS485/USB (WiFi/GPRS/Ethernet optional): remote monitoring and operation via PC or mobile phones
- 
Reliable Worry free
 - IP66 Protection degree: support outdoor installation
 - DC & AC Type II SPD: prevent lightning damage
 - AFCI Function (Optional): when an arc-fault is detected the inverter immediately stops operation

	XG25KTR-Z	XG30KTR-Z	XG25KTR-ZS	XG30KTR-ZS
Input (DC)				
Max. Input Power	40kW	48kW	40kW	48kW
Max. Input Voltage	1100V			
Start Voltage	250V			
Rated Input Voltage	600V			
Full-load MPP Voltage Range	520V ~ 850V			
MPPT Voltage Range	200V ~ 1000V			
Number of MPP Trackers	4			
Number of string per MPPT	3 / 2 / 3 / 2	3 / 3 / 3 / 3	2 / 2 / 2 / 2	
Max. Current per MPPT	39A / 26A / 39A / 26A	39A	32A	
Output (AC)				
Max. Output Current	72.7A	87.4A	72.7A	87.4A
Rated Output Power	25kW	30kW	25kW	30kW
Max. Output Power	27.7VA	33.3VA	27.7kVA	33.3kVA
Rated Grid Frequency	50Hz / 60Hz			
Rated Grid Voltage	127Vac / 220Vac, 3L / N / PE, 3L / PE			
Power Factor	>0.99 (0.8 leading ~ 0.8 lagging)			
THDi	<3% (rated power)			
Efficiency				
Max. Efficiency	98.8%			
European Efficiency	98.4%	98.5%	98.4%	98.5%
MPPT Efficiency	99.9%			
Protection				
Protection	DC switch, Anti-islanding protection, AC over current protection, DC reverse polarity protection, PV string monitoring, Surge protection, Ground fault monitoring, RCD protection, PID recovery function, LVRT function, DC arc-fault circuit protection (AFCI), SVG function			
Communication				
Display	LED / LCD / WiFi+App			
Communication	standard: RS485 / USB optional: WiFi / GPRS / Ethernet			
Standard Compliance				
Grid Connection Standards	IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4105:2018, VDE-AR-N 4120:2018, VDE 0126-1-1/A1 VFR 2014, UTE C15-712-1:2013, EN 50549, AS/NZS 4777.2:2015, CEI 0-21, DEWA DRRG, NRS 097-2-1, MEA/PEA, C10/11, G98/G99			
Safety / EMC	IEC 62109-1:2010, IEC 62109-2:2011, EN 61000-6-2:2005, EN 61000-6-3:2007/A1:2011			
General Data				
Dimensions (W x H x D)	650 x 450 x 260 mm			
Weight	≤ 50kg			
Operating Temperature Range	-25° C ~ +60° C			
Cooling Method	Smart Cooling			
Protection Degree	IP66			
Max. Operating Altitude	4000m			
Relative Humidity	0 ~ 100%			
Topology	Transformerless			
Night Power Consumption	<1W			

XG50-60kW-Z

Three Phase On-Grid Solar Inverter



- 9-12 MPP Trackers, high single circuit tracking accuracy, fast dynamic response and higher power generation
- 150% DC Input Oversizing
- Maximum efficiency of 98.7%. Wide MPPT voltage range: 180V-1000V
- Compatible with high power modules

- Smart I-V Curve Diagnosis Function: locate PV string faults accurately and automatically detect faults
- Intelligent Fault Detection: ac-side voltage and current waveforms real-time recorded, fast fault location
- Support RS485/USB (WiFi/DRM/Bluetooth optional): remote monitoring and operation via PC or mobile phones

- IP66 Protection degree: support outdoor installation
- DC & AC Type II SPD: prevent lightning damage
- AFCI Function (Optional): when an arc-fault is detected the inverter immediately stops operation

**Efficient
Higher revenue**

**Intelligent
Simple O&M**

**Reliable
Worry free**

	XG50KTR-Z	XG50KTR-ZF	XG60KTR-Z	XG60KTR-ZF
Input (DC)				
Max. Input Power	80kW		96kW	
Max. Input Voltage	1100V			
Start Voltage	250V			
Rated Input Voltage	550V			
Full-load MPP Voltage Range	530V ~ 1000V			
MPPT Voltage Range	180V ~ 1000V			
Number of MPP Trackers / String per MPPT	9 / 2		10 / 2	
Max. Current per MPPT	26A	30A	26A	30A
Output (AC)				
Max. Output Current	144.3A		173.2A	
Rated Output Power	50kVA		60kVA	
Max. Output Power	50kW		60kW	
Rated Grid Frequency	50Hz / 60Hz			
Rated Grid Voltage	127Vac / 220Vac, 3L / N / PE, 3L / PE			
Power Factor	>0.99 (0.8 leading ~ 0.8 lagging)			
THDi	<3% (rated power)			
Efficiency				
Max. Efficiency	98.7%			
European Efficiency	98.6%			
MPPT Efficiency	99.9%			
Protection				
Protection	DC switch, Anti-islanding protection, AC over current protection, DC reverse polarity protection, PV string monitoring, Surge protection, Ground fault monitoring, RCD protection, PID recovery function, LVRT function, DC arc-fault circuit protection (AFCI), SVG function			
Communication				
Display	LED / LCD / WiFi+App			
Communication	standard: RS485 / USB optional: WiFi / GPRS / Ethernet			
Standard Compliance				
Grid Connection Standards	IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4105:2018, VDE-AR-N 4120:2018, VDE 0126-1-1/A1 VFR 2014, EN 50549, AS/NZS 4777.2:2015, CEI 0-21, UTE C15-712-1:2013, DEWA DRRG, NRS 097-2-1, MEA/PEA, C10/11, G98/G99			
Safety / EMC	IEC 62109-1:2010, IEC 62109-2:2011, EN 61000-6-2:2005, EN 61000-6-3:2007/A1:2011			
General Data				
Dimensions (W x H x D)	1050 x 660 x 330 mm			
Weight	95kg			
Operating Temperature Range	-30° C ~ +60° C			
Cooling Method	Smart Cooling			
Protection Degree	IP66			
Max. Operating Altitude	4000m			
Relative Humidity	0 ~ 100%			
Topology	Transformerless			
Night Power Consumption	<1W			

BD5-10kW-RLN

North American Split-phase Inverter (Battery 48V)



Efficient Higher revenue

- Bypass current capacity up to 100A
- 4 MPP Trackers: Max. Maximum efficiency: 98.8%. CEC efficiency: 97.2%
- Support 100% unbalanced load capacity



Intelligent Simple O&M

- IP65 Protection Degree: support outdoor installation
- Battery reverse connection protection
- Automatic management of battery charge and discharge
- Support RS485/CAN/DRM (WiFi/4G optional): remote monitoring and operation via PC or mobile phones



Flexible Abundant configuration

- Parallel available
- Export control(Zero export)

	BD5KTL-RLN	BD6KTL-RLN	BD8KTL-RLN	BD10KTL-RLN
Input (PV)				
Max. Input Power	7.5kW	9kW	12kW	13kW
Max. DC Voltage	500V			
MPP Voltage Range	120V~ 500V			
Max. PV Input Current	12A			
Number of MPP Trackers	4			
String per MPPT	1			
Output (AC)				
Rated AC Output Power	5kVA	6kVA	8kVA	10kVA
Max Output Current	24A	28.8A	38.3A	47.8A
AC Output Voltage	120Vac / 240Vac (split phase), 208Vac (2/3 phase), 230Vac (single phase)			
Frequency	50Hz / 60Hz			
Power Factor	0.8 leading ~ 0.8 lagging			
THDi	<3%			
Output (EPS)				
Rated Output Power	5kVA	6kVA	8kVA	10kVA
Overload Capacity	125%, 60S / 150%,1S			
Backup AC Output Voltage	120Vac / 240Vac (split phase), 208Vac (2/3 phase), 230Vac (single phase)			
Frequency	50Hz / 60Hz			
THDu	<2%			
Battery				
Battery Voltage Range	40V~58V			
Max. Charge Voltage	58V			
Max. Charge / Discharge Current	120A / 120A	135A / 135A	190A / 190A	210A / 210A
Battery Type	Lithium / Lead-acid			
Communication	CAN / RS485			
Efficiency				
Max. Efficiency	≥ 98.2%			
CEC Efficiency	≥ 97.2%			
Communication				
Display	LCD / Touch Screen			
Communication	RS485 / WiFi / 4G / CAN / DRM			
Standard Compliance				
Safety	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On Grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III, NRS			
General Data				
Dimensions (W x H x D)	430 x 710 x 220 mm			
Weight	41kg			
Operation Temperature	-25 °C ~ +60°C			
Cooling Method	Natural Cooling			
Protection Degree	IP65 / NEMA 3R			
Noise Emission	<25dB	<29dB		
Max. Operating Altitude	2000m			
Relative Humidity	0 ~ 95% (non-condensing)			
Topology	Transformerless			
Self-consumption	<3W			

BD6-12kW-RH1N

North American Split-phase Inverter (Battery > 80V)



- Bypass current capacity up to 100A
- 4 MPP Trackers. Maximum efficiency: 98.2%. CEC efficiency: 97.2%
- Support 100% unbalanced load capacity
- Support full power discharge, automatic management of battery charge and discharge



**Efficient
Higher revenue**



**Intelligent
Simple O&M**

- IP65 Protection: support outdoor installation
- Battery reverse connection protection.
- Support RS485/CAN/DRM (WiFi/4G optional): remote monitoring and operation via PC or mobile phones



**Flexible
Abundant configuration**

- Compatible with lead-acid and lithium-ion batteries and other battery access.
- Export control (Zero export)

	BD6KTL-RH1N	BD8KTL-RH1N	BD10KTL-RH1N	BD12KTL-RH1N
Input (PV)				
Max. Input Power	7.8kW	10.4kW	13kW	15.6kW
Max. DC Voltage	500V			
MPP Voltage Range	125V~500V			
Max. PV Input Current	12A			
Number of MPP Trackers / String per MPPT	4 / 1			
Output (AC)				
Max. Output Current	27.3A	36.4A	45.4A	50A
Rated AC Output Power	6kVA	8kVA	10kVA	11.4kVA
AC Output Voltage	240V, L+N+PE			
Grid Voltage Range	211V~264V			
Frequency	50Hz / 60Hz			
Power Factor	0.8 lagging ~ 0.8 leading			
THDi	< 3%			
Output (EPS)				
Rated Output Power	6kVA	8kVA	10kVA	12kVA
Rated Output Voltage	220V~240V / 110V~120V			
Overload capacity	110%, 30S / 120%, 10S / 150%, 0.02S			
Automatic Switching Time	< 20ms			
Frequency	50Hz / 60Hz			
THDu	< 2%			
Battery				
Battery Voltage Range	85V~400V			
Max. Charging Voltage	400V			
Max. Charge / Discharge Current	80A / 80A			
Battery Type	Lithium / Lead-acid			
Communication	CAN / RS485			
Efficiency				
Max. Efficiency	≥ 98.2%			
CEC Efficiency	≥ 97.2%			
Communication				
Display	LCD			
Communication	Standard: RS485 / CAN / DRM Optional: Wifi / 4G			
Standard Compliance				
Safety	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On Grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III			
General Data				
Dimensions (W x H x D)	530 x 660 x 200 mm			
Weight	32kg			
Operation Temperature	-25°C~ +60°C			
Cooling Method	Natural Cooling			
Protection Degree	IP65 / NEMA 3R			
Noise Emission	< 25dB		< 29dB	
Max. Operating Altitude	2000m			
Relative Humidity	0 ~95% (non-condensing)			
Topology	Transformerless			
Standby Power Consumption	< 2.5W (With the battery < 5W)			