

iMars Series

Grid-tied Solar Inverter Catalog

Powered by Solar



Sales E-mail: solar@invtr.com.cn Service E-mail: solar-service@invtr.com.cn Website: www.invtr-solar.com

INVT Solar Technology (Shenzhen) CO., LTD.

No.4 Building, Gaofa Scientific Industrial Park, Longjing, Nanshan District, Shenzhen, China

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Introduction 2

How We Make the Differences.....3

Product Family 5

PV System Solution 6

Product Catalog 7

Monitoring Solution.....35

Monitoring Modules 39

Applications & Service Network 41

Introduction

PV business is the most important part of INVT electric power products and service, which is committed to provide the most stable solar inverters to the world.

Based on the understanding of development and the requirements of solar grid-tied power generation system and following the stable, high efficient and maintenance-free product design concept, accumulated 14 years of R&D and application experience in the field of core inverter and control technology, INVT is extending its PV business and has launched the iMars series of grid-tied solar inverters successfully.

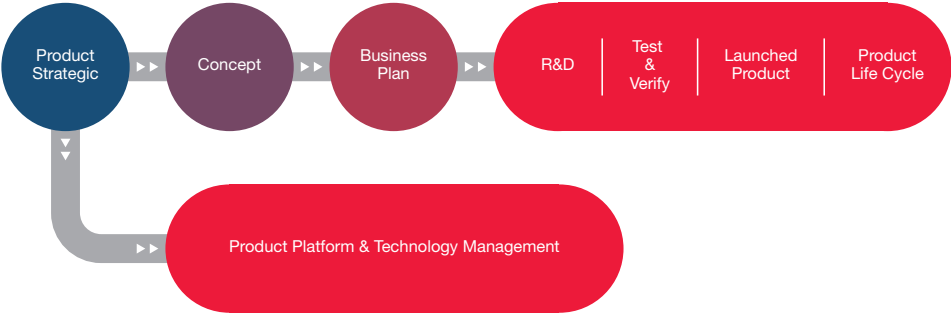
iMars series grid-tied solar inverters have a better performance on the aspect of product stability, efficient power transformation, low harmonics, safe power grid access and so on. They can be widely used in BIPV (house roof, office building roof and factory roof), BAPV (integrated residential buildings), commercial rooftop plants and on ground solar power plants, to provide customers with stable, safe and efficient renewable energy.

Up to now, INVT solar inverters have been widely used by over 200,000 happy customers in more than 60 countries.

How We Make the Differences

Reliable Product Design

- Experienced R&D team
- Professional Products R&D Process



- All components are verified by strict tests and key components supplied by international top brands
- Heat dissipation performance is ensured by system level thermal simulation for long service life
- 6 laboratory validations: device test, safety test, EMC test, functional performance test, environmental test and reliability test

Partners



Strict Product Quality Control

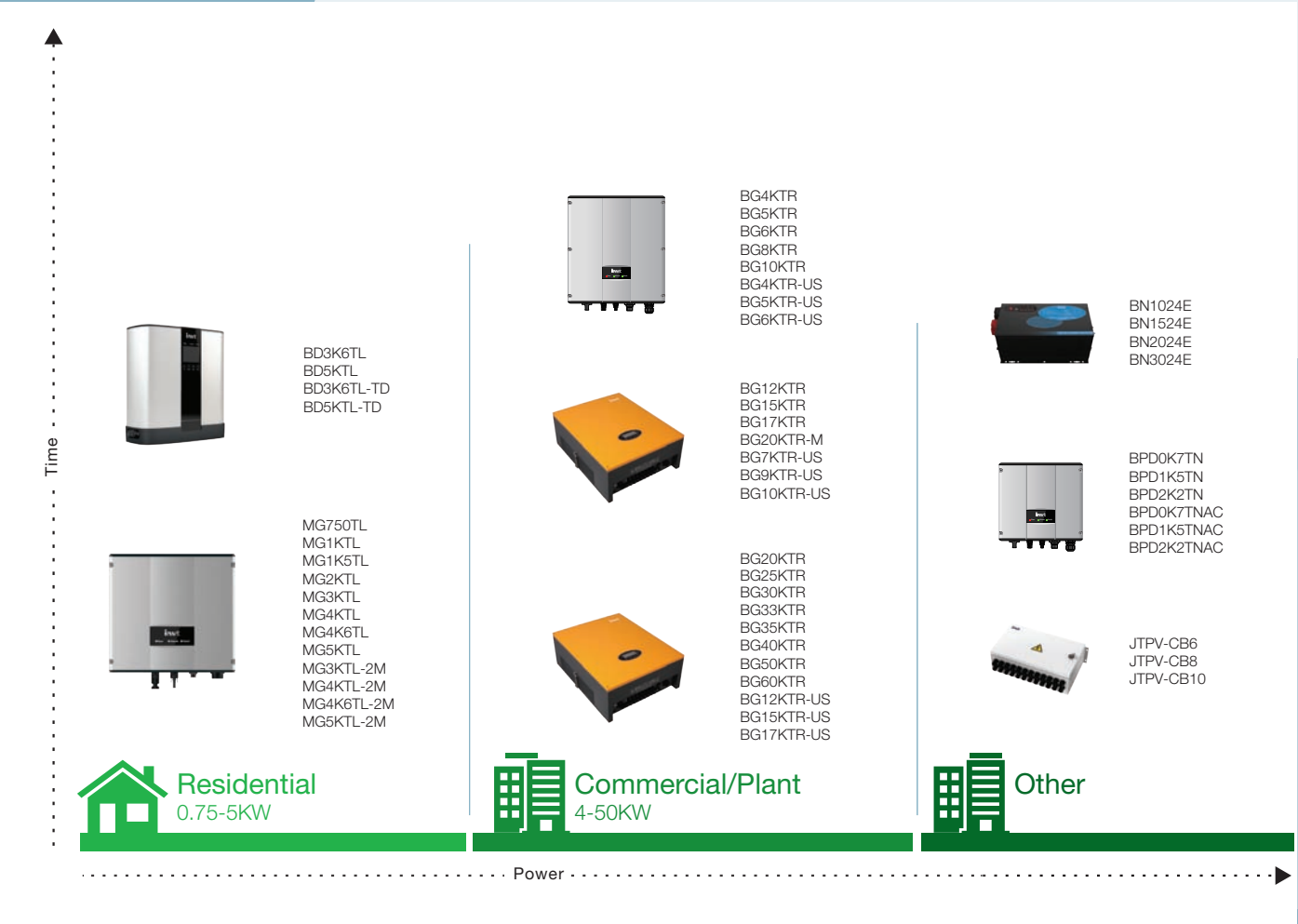
- More than 14 years mature experience of manufacturing processes
- Integrated supply chain, comprehensive quality management system, efficient operation and lean production
- 9 steps of inspections and tests during production process

Guaranteed Usage

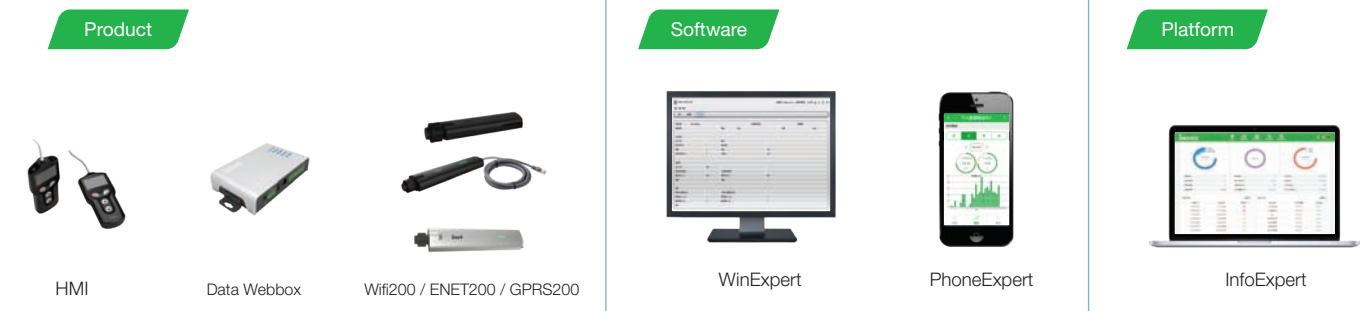
- All solar products have CHUBB products liability and product defects insurance
- 7×24 service
- 24 hours quick response

Product Family

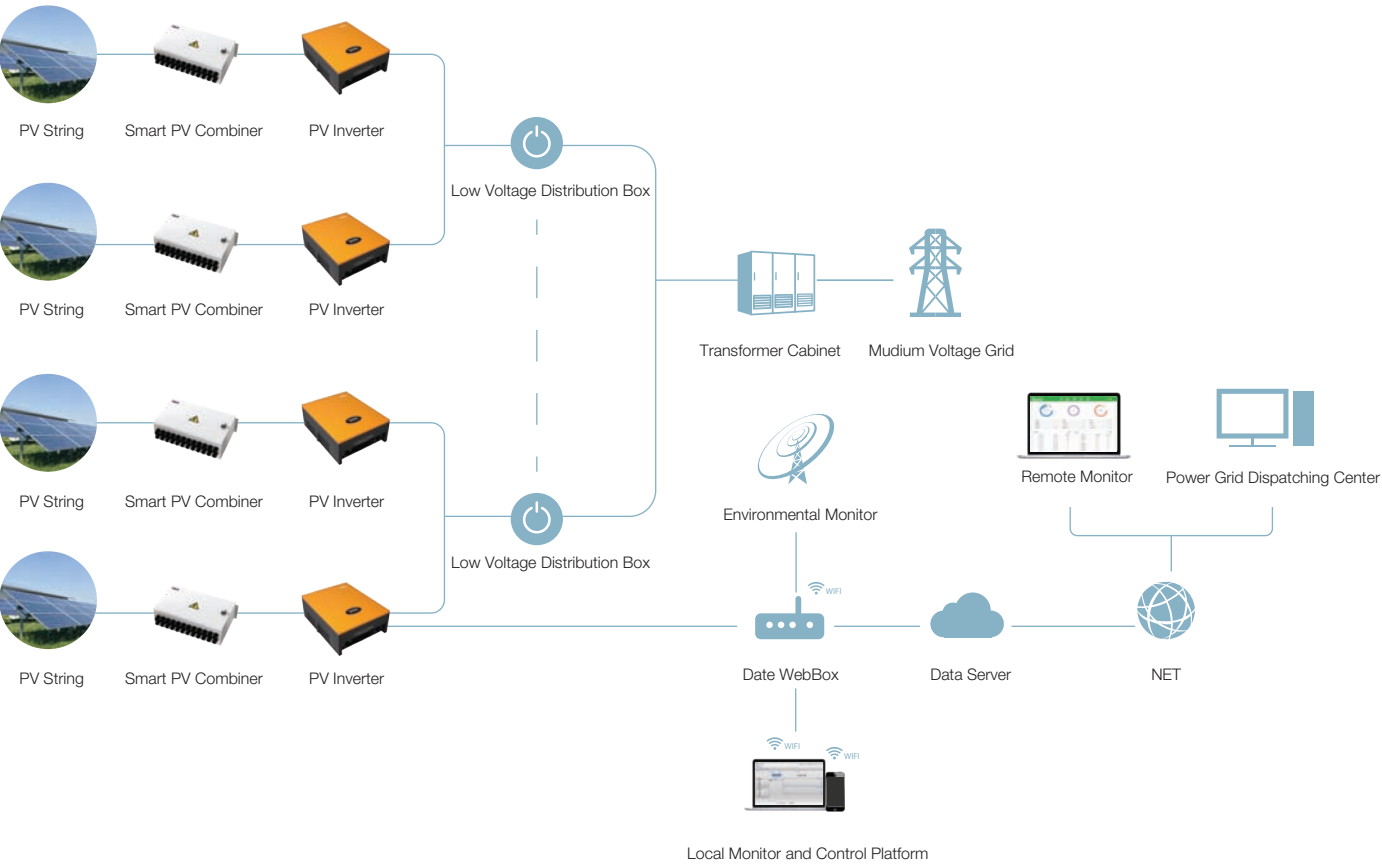
iMars Inverter



Monitoring Products



Solution for PV Plant



Product Catalog

Model	Max. DC Voltage (V)	Max Input Current (A)	Max. DC Input Power (W)	Rated DC Voltage (V)	MPPT
MG750TL	400	10x1	900	300	1
MG1KTL	450	10x1	1200	360	1
MG1K5TL		10x1	1700		1
MG2KTL		13x1	2200		1
MG3KTL	500	15x1	3200	360	1
MG4KTL	600	18x1	4600		2
MG4K6TL		18x1	5000		1
MG5KTL		20x1	5500		1
MG3KTL-2M		10x2	3300		1
MG4KTL-2M		10x2	4600		2
MG4K6TL-2M		11x2	5000		2
MG5KTL-2M		12x2	5500		2
BG4KTR	900	10x2	4200	580	2
BG5KTR		10x2	5200		2
BG6KTR		10x2	6300		2
BG8KTR	1000	14x2	8400	610	2
BG10KTR		19x2	10400		2
BG12KTR		19x2	12500		2
BG15KTR		21x2	15600		2
BG17KTR		23x2	17500		2
BG20KTR-M		25x2	20800		2
BG20KTR		25x2	20800		2
BG25KTR		30x2	26000		2
BG30KTR		33x2	31200		2
BG33KTR		33x2	36000		2
BG35KTR		33x2	38000		2
BG40KTR		33x2	42800		2
BG50KTR	1100	42x2	53400		2
BG60KTR		42x2	66000		2
BD3K6TL	500	16x2	5200	380	2
BD5KTL			6600		2
BD3K6TL-TD			5200		2
BD5KTL-TD			6600		2

iMars MG Series Single Phase Grid-tied Solar Inverters

MG750TL, MG1KTL, MG1K5TL, MG2KTL, MG3KTL, MG3KT-2M.....	9
MG4KTL, MG4K6TL, MG5KTL, MG4KTL-2M, MG4K6TL-2M, MG5KTL-2M	11

iMars BG Series Three Phase Grid-tied Solar Inverters

BG4KTR, BG5KTR, BG6KTR, BG8KTR, BG10KTR.....	13
BG12KTR,BG15KTR,BG17KTR,BG20KTR-M.....	15
BG20KTR,BG25KTR,BG30KTR,BG33KTR,BG35KTR	17
BG40KTR,BG50KTR,BG60KTR,	19

iMars BG Series Three phase Grid-tied Solar inverters for US

BG4KTR-US, BG5KTR-US, BG6KTR-US.....	21
BG7KTR-US, BG9KTR-US, BG10KTR-US.....	23
BG12KTR-US, BG15KTR-US, BG17KTR-US.....	25

Hybrid inverter

BD3K6TL, BD5KTL, BD3K6TL-TD, BD5KTL-TD.....	27
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iMars BN Series

BN1024E, BN1524E, BN2024E, BN3024E.....	29
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Smart PV Combiner

JTPV-CB6, JTPV-CB8, JTPV-CB10	31
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Solar Pumping Inverters

BPD0K7TN, BPD1K2TN, BPD2K2TN, BPD0K7TNAC, BPD1K2TNAC, BPD2K2TNAC	33
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Data Webbox	37
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iMars MG Series

Single Phase Grid-tied Solar Inverter

MG750TL
MG1KTL
MG1K5TL
MG2KTL
MG3KTL
MG3KTL-2M



Description

MG series single phase inverter is a new generation of PV string inverter which has been developed by INVT for residential users. MG series inverters have the advantages of compact size, light weight, easy installation and maintenance, and are above all cost efficient.

Features

- The core technologies are from Germany.
- Software optimization for the power grid with much wider adaptability.
- Global integrated monitoring and management, supporting all kinds of portable mobile devices, HMI is optional.
- Minimum working voltage is 50V.
- Wider voltage range, lower starting voltage, higher conversion efficiency.
- Designed with latest thermal simulation technology for longer service life.

HMI Features

- Small and exquisite appearance.
- LCD display and easy to operate keyboard with multiple functions.
- Plug & play.

Specification

	MG750TL	MG1KTL	MG1K5TL	MG2KTL	MG3KTL	MG3KTL-2M
Input (DC)						
Max. DC input power (W)	900	1200	1700	2200	3200	3300
Max. DC voltage (V)	400	450			500	600
Starting voltage /Min. operation voltage (V)	65/60	80/60	100/80	120/100		
Starting power (W)	30					
MPPT Operating Voltage Range (V)	60–350	80–400	100–410	120-410	120-450	120-550
Number of MPPT/ String Per MPPT	1/1				1/2	2/1
Max. DC current (A) per MPPT x Number of MPPT	10x1	10x1	10x1	13x1	15x1	10x2
DC switch	Optional					
Output (AC)						
Rated power (W)	750	1000	1500	2000	3000	3000
Max. AC output current (A)	3.6	4.5	6.5	9	13	16
AC voltage range	230/180~277Vac					
	According to VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100, CQC					
Grid frequency	50Hz (44~55Hz) / 60Hz (54~65Hz)					
	According to VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100, CQC					
Power factor	≥0.99 (Adjustable)					
THD	< 3% (At Rated Power)					
AC connection	Single-phase (L, N, PE)					
System						
Cooling method	Natural Cooling method					
Max. efficiency	96.80%	96.90%	97.20%	97.20%	97.30%	97.90%
Euro-efficiency	95.95%	96.00%	96.10%	96.10%	96.50%	96.80%
MPPT efficiency	99%					
Degree of protection	IP65					
Self-consumption (at night)	<1W					
Topology	Transformerless					
Operating temperature range	-25℃ ~+60℃ , (derate after 45℃)					
Relative humidity	0~95%, no condensation					
Protection	Over voltage protect ; DC insulation monitoring; DC Over current Protection; Grounding fault monitoring; Grid protection; island protection; Overheating protection; Overvoltage and short circuit protection etc.					
Display and communication						
Display	LED Display (standard) /LCD (Optional)					
System language	English, Chinese,German, Dutch					
Communication interfaces:	RS485 (Standard), WiFi, Ethernet (Optional)					
Mechanical parameters						
Dimension (H x W x D mm)	280x300x138					460x360x160
Weight (kg)	9.5					17
Installation	Wall mounting					
Others						
DC terminal	BC03A, BC03B (PV-CF-S2, 5-6 (+); PV-CM-S2, 5-6 (-)..., Helios H4 2.5mm²)					
Certifications	VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100, CQC, EN61000-6-1:4, EN61000-3-2:3, EN61000-11:12, IEC 62109-1:2010, LVRT					
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)					

iMars MG Series
Single Phase Grid-tied Solar Inverter

MG4KTL
MG4K6TL
MG5KTL
MG4KTL-2M
MG4K6TL-2M
MG5KTL-2M



Description

MG series single phase inverter is a new generation of PV string inverter which has been developed by INVT for residential users. MG series inverters have the advantages of compact size, light weight, easy installation and maintenance, and are above all cost efficient.

Features

- The core technologies are from Germany.
 - Software optimization for the power grid with much wider adaptability.
 - Global integrated monitoring and management, supporting all kinds of portable mobile devices. HMI is optional.
- Wider voltage range, lower starting voltage, higher conversion efficiency.
 - Designed with latest thermal simulation technology for longer service life.

HMI Features

- Small and exquisite appearance.
- LCD display and easy to operate keyboard with multiple functions.
- Plug & play.

Specification

	MG4KTL	MG4K6TL	MG5KTL	MG4KTL-2M	MG4K6TL-2M	MG5KTL-2M
Input (DC)						
Rated DC input power (W)	4000	4600	5000	4000	4600	5000
Max. DC input power (W)	4500	5000	5500	4500	5000	5500
Starting power (W)	50					
Starting voltage /Min. operation voltage (V)	120/100					
MPPT range (V)	120–550					
Number of MPPT / String per MPPT	1/2			2/1		
Max. DC current (A) per MPPT x Number of MPPT	18x1	18x1	20x1	10x2	11x2	12x2
DC switch	Optional					
Output (AC)						
Rated power (W)	3680	4200	4600	3680	4200	4600
Max power (W)	4000	4600	5000	4000	4600	5000
Max. AC output current (A)	19	21	23	19	21	23
AC voltage range	230/180~277Vac					
	According to VDE-AR-N4105, G83/2, G59/3, AS4777/3100, CQC					
Grid frequency	50Hz (44~55Hz) / 60Hz (54~65Hz)					
	According to VDE-AR-N4105, G83/2, G59/3, AS4777/3100, CQC					
Power factor	≥0.99 (Adjustable)					
THD	< 3% (At Rated Power)					
AC connection	Single-phase (L, N, PE)					
System						
Cooling method	Natural Cooling method					
Max. efficiency	97.70%	97.70%	97.80%	97.90%	98.00%	98.00%
Euro-efficiency	96.50%	96.70%	96.80%	96.80%	96.80%	96.80%
MPPT efficiency	99%					
Degree of protection	IP65					
Self-consumption (at night)	<1W					
Topology	Transformerless					
Operating temperature range	-25℃ ~+60℃ , (derate after 45℃)					
Relative humidity	0~95%, no condensation					
Protection	Over voltage protect; DC insulation monitoring; DC over current protection; monitoring; Grounding fault monitoring; island protection; Overheating protection; Electronic protection; Overvoltage and short circuit protection etc.					
Display and communication						
Display	LED Display (standard) / LCD (Optional)					
System language	English, Chinese, German, Dutch					
Communication interfaces:	RS485 (Standard), WiFi, Ethernet (Optional)					
Mechanical parameters						
Dimension (H x W x D mm)	405x360x150			460x360x150		
Weight (kg)	15			17		
Installation	Wall mounting					
Others						
DC terminal	BC03A, BC03B (PV-CF-S2, 5-6 (+); PV-CM-S2, 5-6 (-)...., Helios H4 2.5mm²)					
Certifications	VDE-AR-N4105, G83/2, C10/11, TF3.2.1, AS4777/3100,CQCEN61000-6-1:4, EN61000-3-2:3, EN61000-11:12, IEC 62109-1:2010, LVRT					
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)					

iMars BG Series

Three Phase Grid-tied Solar Inverter

BG4KTR
BG5KTR
BG6KTR
BG8KTR
BG10KTR



Description

BG series three phase inverter is a new generation of PV string inverters which has been developed by INVT for residential and small commercial customers. This series adopts the latest technologies and combination of T Topology three level topology with SVPWM. This series also has many outstanding advantages such as compact size, light weight, easy installation and maintenance, and most of all, competitive prices.

It also provides flexible system configuration and monitoring solutions for household and commercial systems.

Features

- The core technologies are from Germany.
- Software optimization for the power grid with much wider adaptability.
- Global integrated monitoring and management, supporting all kinds of portable mobile devices, HMI is optional.
- Wider voltage range, lower starting voltage and higher conversion efficiency.
- Designed with latest thermal simulation technology for longer service life.

Specification

	BG4KTR	BG5KTR	BG6KTR	BG8KTR	BG10KTR
Input (DC)					
Max. DC voltage (V)	900				
Starting voltage /Min. operation voltage (V)	220/180				
Starting power (W)	150				
MPPT operating voltage range / Rated voltage (V)	200-800/580				
Rated power voltage range (V)	210-800	260-800	300-800	400-800	450 - 800
Number of MPPT / String per MPPT	2/2				
Max. DC Power (W)	4200	5200	6200	8300	10400
Max. DC Current (A) Per MPPT x Number of MPPT	10x2	10x2	10x2	12x2	12x2
DC switch	Integrated				
Output (AC)					
Rated power (W)	4000	5000	6000	8000	10000
Max. AC Current (A)	7	8.5	10	13	15
Rated. AC voltage range	3/PE, 230/400V (320~460V) ;3/PE,220/380V (320~460V). According to VDE0126-1-1, VDE-AR-N4105, CQC, G83/2,C10/11, AS4777/3100.				
Grid frequency	50Hz (47~51.5Hz) / 60Hz (57~61.5Hz) According to VDE0126-1-1, VDE-AR-N4105, CQC, G83/2,C10/11, AS4777/3100.				
Power factor	-0.8~+0.8 (Adjustable)				
THD	< 3% (at rated power)				
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)				
System					
Cooling method	Natural Cooling method				
Max efficiency	98.10%	98.10%	98.20%	98.20%	98.20%
Euro-efficiency	97.50%	97.60%	97.70%	97.70%	97.70%
MPPT efficiency	99.9%				
Degree of protection	IP65				
Self-consumption (at night)	<0.5W				
Topology	Transformerless				
Operating temperature range	-25℃~+60℃ (derate after 45℃)				
Relative humidity	0~95%, no condensation				
Protection	DC isolation monitoring, grounding fault monitoring, island protection, overvoltage and short circuit protection, etc				
Noise	< 30dB			< 50dB	
Display and communication					
Display	2.1 inches LCD display, support backlit display				
System language	English, Chinese, German, Dutch				
Communication interfaces:	RS485 (Standard), WiFi, Ethernet (Optional)				
Mechanical parameters					
Dimension (H x W x D mm)	530x360x150			575x360x150	
Weight (kg)	20			23	
Installation	Wall mounting				
Others					
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)				
Certifications	VDE0126-1-1, VDE-AR-N4105, G59/3, C10/11, AS4777/3100, CQC EN61000-6-1:4, EN61000-11:12, IEC62109-1:2010, PEA, LVRT				
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)				

iMars BG Series

Three Phase Grid-tied Solar Inverter

BG12KTR
BG15KTR
BG17KTR
BG20KTR-M



Description

iMars BG series three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max.DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.3%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	BG12KTR	BG15KTR	BG17KTR	BG20KTR-M
Input (DC)				
Max. DC voltage (V)	1000			
Starting voltage /Min. operation voltage (V)	200/180			300/200
Starting power (W)	150			
MPPT Operating Voltage Range (V) / Rated Voltage	180- 800/610V			280- 800/610V
Rated power voltage range (V)	350 - 800	400 - 800	400 - 800	450-800
Number Of MPPT / String Per MPPT	2/2			
Max. DC Power (W)	12500	15600	17500	20800
Max. DC Current (A) Per MPPT x Number Of MPPT	19x2	21x2	23x2	25x2
DC switch	Integrated			
Output (AC)				
Rated power (W)	12000	15000	17000	20000
Max AC Current (A)	20	24	28	32
Rated AC Voltage And Range/ Rated Grid frequency And Range	3/PE, 230/400V, (320~460V), 3/PE,220/380V, (320~460V)			
	50Hz (47~51.5Hz) / 60Hz (57~61.5Hz)			
	According to VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100.			
Power factor	-0.8~+0.8 (Adjustable)			
THD	< 3% (at rated power)			
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)			
System				
Cooling method	Smart Cooling method			
Max efficiency	98.20%	98.30%	98.30%	98.40%
Euro-efficiency	97.60%	97.80%	97.80%	98.00%
MPPT efficiency	99.90%			
Degree of protection	IP65			
Self-consumption (at night)	<0.5W			
Topology	Transformerless			
Operating temperature range	-25℃ ~+60℃ (derate after 45℃)			
Relative humidity	0~95%, no condensation			
Protection Functions	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc			
Noise	< 50dB			
Display and communication				
Display	3.5 inches LCD display, support backlit display			
System language	English, Chinese, German, Dutch			
Key	Integrated			
Communication interfaces:	RS485 (Standard),WiFi, Ethernet (Optional)			
Mechanical parameters				
Dimension (H x W x D mm)	610x480x204			
Weight (kg)	38			
Installation	Wall mounting			
Others				
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)			
Certifications	VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100. EN61000-6-1:4, EN61000-11:12, IEC62109-1:2010, PEA, LVRT			
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)			

iMars BG Series

Three Phase Grid-tied Solar Inverter

BG20KTR
BG25KTR
BG30KTR
BG33KTR
BG35KTR



Description

iMars BG series three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max. DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.6%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system's flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	BG20KTR	BG25KTR	BG30KTR	BG33KTR	BG35KTR
Input (DC)					
Max. DC voltage (V)	1000				
Starting voltage /Min. operation voltage (V)	300/280				
Starting power (W)	150				
MPPT Operating Voltage Range (V) / Rated Voltage	280 - 800/610V				
Rated power voltage range (V)	450 - 800	480 - 800	480 - 800	500-800	550-800
Number of MPPT / String Per MPPT	2/3			2/4	
Max. DC Power (W)	20800	26000	31200	36000	38000
Max. DC Current (A) Per MPPT x Number Of MPPT	25x2	30x2	33x2	33x2	33x2
DC switch	Integrated				
Output (AC)					
Rated power (W)	20000	25000	30000	33000	35000
Max AC Current (A)	32	40	48	48	48
Rated AC Voltage And Range/ Rated Grid frequency And Range	3/PE, 230/400V (320~460V); 3/PE, 220/380V (320~460V).				3/N/PE,243/400V, (357~483V)
	50Hz (47~51.5Hz) / 60Hz (57~61.5Hz)				
	According to VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100, PEA				
Power factor	-0.8~+0.8 (Adjustable)				
THD	< 3% (at rated power)				
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)				
System					
Cooling method	Smart Cooling method				
Max efficiency	98.40%	98.40%	98.50%	98.50%	98.50%
Euro-efficiency	98.00%	98.00%	98.00%	98.10%	98.10%
MPPT efficiency	99.9%				
Degree of protection	IP65				
Self-consumption (at night)	<0.5W				
Topology	Transformerless				
Operating temperature range	-25℃~~+60℃ (derate after 45℃)				
Relative humidity	0~95%, no condensation				
Protection	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc.				
Noise	< 50dB				
Display and communication					
Display	3.5inches LCD display, support backlit display				
System language	English, Chinese, German, Dutch				
Key	Integrated				
Communication interfaces:	RS485 (Standard), WiFi, Ethernet (Optional)				
Mechanical parameters					
Dimension (H x W x D mm)	660x525x250				
Weight (kg)	52				
Installation	Wall mounting				
Others					
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)				
Certifications	TUV, CE, VDE0126-1-1, VDE-AR-N4105, G59/3,C10/11, TF3.2.1, AS4777/3100,CQC EN61000-6-1:4, EN61000-11:12, IEC62109-1:2010, PEA,ZVRT,LVRT				
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)				

iMars BG Series

Three Phase Grid-tied Solar Inverter

BG40KTR
BG50KTR
BG60KTR



Description

iMars BG series three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max. DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.6%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system's flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	BG40KTR	BG50KTR	BG60KTR
Input (DC)			
Max. DC voltage (V)	1000	1100	
Starting voltage /Min. operation voltage (V)	300/280		
Starting power (W)	150		
MPPT Operating Voltage Range (V) / Rated Voltage	280 - 800/610V		
Rated power voltage range (V)	580 – 800	550-850	
Number of MPPT / String Per MPPT	2/4	2/5	2/6
Max. DC Power (W)	40800	54300	55000
Max. DC Current (A) Per MPPT x Number Of MPPT	33x2	42x2	
DC switch	Integrated		
Output (AC)			
Rated power (W)	40000	48000	58000
Max AC Current (A)	48	52	55.7
Rated AC Voltage And Range	3/PE, 277/480V (384~552V)	3/N/PE,277/540V (432~594V)	3/N/PE,277/680V (545~810V)
Rated Grid frequency And Range	50Hz (47~51.5Hz) / 60Hz (57~61.5Hz) According to VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS/NZS 4777.2:2015, PEA		
Power factor	-0.8~+0.8 (Adjustable)		
THD	< 3% (at rated power)		
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)		
System			
Cooling method	Smart Cooling method		
Max efficiency	98.60%	98.90%	
Euro-efficiency	98.20%	98.60%	
MPPT efficiency	99.9%		
Degree of protection	IP65		
Self-consumption (at night)	<0.5W		
Topology	Transformerless		
Operating temperature range	-25℃~+60℃ (derate after 45℃)		
Relative humidity	0~95%, no condensation		
Protection	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc.		
Noise	< 50dB		
Display and communication			
Display	3.5inches LCD display, support backlit display		
System language	English, Chinese, German, Dutch		
Key	Integrated		
Communication interfaces:	RS485 (Standard), WiFi, Ethernet (Optional)		
Mechanical parameters			
Dimension (H x W x D mm)	700x540x250		
Weight (kg)	52		
Installation	Wall mounting		
Others			
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)		
Certifications	TUV, CE, VDE0126-1-1, VDE-AR-N4105, G59/3,C10/11, TF3.2.1, AS/NZS 4777.2:2015,CQC EN61000-6-1:4, EN61000-11:12, IEC62109-1:2010, PEA,ZVRT,LVRT		
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)		

iMars BG Series

Three phase Grid-tied Solar inverters for US

BG4KTR-US
BG5KTR-US
BG6KTR-US



Description

BG series three phase inverter is a new generation of PV string inverters which has been developed by INVT for residential and commercial customers.This series adopts the latest technologies and combination of T Topology three level topology with SVPWM. This series also has many outstanding advantages such as compact size, light weight, easy installation and maintenance, and most of all, competitive prices.

It also provides flexible system configuration and monitoring solutions for household and commercial systems.

Features

- The core technologies are from Germany.
- Optimized software for the power grid with much wider adaptability.
- Global integrated monitoring and management system, monitoring APP is availalbe for both Android and iPhone iOS system.
- Much wider operating voltage range, lower starting voltage and higher conversion efficiency.
- Designed with latest thermal simulation technology for a longer service life.

Specification

	BG4KTR-US		BG5KTR-US		BG6KTR-US	
Input (DC)						
Max. DC voltage (V)	1000					
Starting Voltage (V)	200					
Min. Operation Voltage (V)	180					
MPPT Operating Voltage Range (V) / Rated Voltage (V)	180 - 800/610V					
Rated power voltage range (V)	220 - 800					
Number of MPPT / String Per MPPT	2/2					
Max. DC Power (W)	4400		5300		6300	
Max. DC Current (A) Per MPPT x Number Of MPPT	10 x 2		14 x 2		19 x 2	
DC switch	Integrated					
Output (AC)						
Rated power (W)	4000		5000		6000	
Max AC Current (A)	12		15		18	
Rated AC Voltage	3/PE, 220V/127V					
Rated Grid frequency	60Hz (57~61.5Hz)					
Power factor	-0.8~+0.8 (Adjustable)					
THD	< 3% (at rated power)					
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)					
System						
Cooling method	Natural Cooling method		Smart Cooling method			
Max efficiency	97.60%		97.80%		98.20%	
Euro-efficiency	97.00%		97.30%		97.60%	
MPPT efficiency	99.9%					
Degree of protection	IP65					
Self-consumption (at night)	<1W					
Topology	Transformerless					
Operating temperature range	-25℃ ~ +60℃ (derate after 45℃)					
Relative humidity	<30dB		<50dB			
Protection	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc.					
Display and communication						
Display	3.5inches LCD display, support backlit display					
System language	English, Chinese, German, Dutch					
Communication interfaces:	RS485 (Standard), Ethernet, WiFi (Optional)					
Mechanical parameters						
Dimension (H x W x D mm)	575x360x150					
Weight (kg)	20		23			
Installation	Wall mounting					
Others						
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)					
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)					

iMars BG Series

Three phase Grid-tied Solar inverters for US

BG7KTR-US
BG9KTR-US
BG10KTR-US



Description

iMars BG series three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max.DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.3%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	BG7KTR-US	BG9KTR-US	BG10KTR-US
Input (DC)			
Max. DC voltage (V)	1000		
Starting Voltage (V)	200		
Min. Operation Voltage (V)	180		
MPPT Operating Voltage Range (V) / Rated Voltage (V)	180 - 800/610V		
Rated power voltage range (V)	220 - 800	240 - 800	
Number of MPPT / String Per MPPT	2/3		
Max. DC Power (W)	7300	9400	10500
Max. DC Current (A) Per MPPT x Number Of MPPT	19 x 2	21 x 2	23 x 2
DC switch	Integrated		
Output (AC)			
Rated power (W)	7000	9000	10000
Max AC Current (A)	20	25	28
Rated AC Voltage	3/PE, 220V/127V		
Rated Grid frequency	60Hz (57~61.5Hz)		
Power factor	-0.8~+0.8 (Adjustable)		
THD	< 3% (at rated power)		
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)		
System			
Cooling method	Smart Cooling method		
Max efficiency	98.20%	98.30%	98.30%
Euro-efficiency	97.60%	97.80%	97.80%
MPPT efficiency	99.9%		
Protection	IP65		
Self-consumption (at night)	<0.5W		
Topology	Transformerless		
Operating temperature range	-25℃ ~ +60℃ (derate after 45℃)		
Relative humidity	<50dB		
Protection	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc.		
Display and communication			
Display	3.5inches LCD display, support backlit display		
System language	English, Chinese, German, Dutch		
Communication interfaces:	RS485 (Standard), Ethernet, WiFi (Optional)		
Mechanical parameters			
Dimension (H x W x D mm)	610x480x204		
Weight (kg)	38		
Installation	Wall mounting		
Others			
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)		
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)		

iMars BG Series

Three phase Grid-tied Solar inverters for US

BG12KTR-US
BG15KTR-US
BG17KTR-US



Description

iMars BG series three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max.DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.6%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system's flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	BG12KTR-US		BG15KTR-US		BG17KTR-US	
Input (DC)						
Max. DC voltage (V)	1000					
Starting Voltage (V)	200					
Min. Operation Voltage (V)	280					
MPPT Operating Voltage Range (V) / Rated Voltage (V)	280 - 800 / 610V					
Rated power voltage range (V)	320 - 800		320 - 800		320 - 800	
Number of MPPT / String Per MPPT	2/4					
Max. DC Power (W)	12400		15400		17400	
Max. DC Current (A) Per MPPT x Number Of MPPT	25 x 2		30 x 2		33 x 2	
DC switch	Integrated					
Output (AC)						
Rated power (W)	12000		15000		17000	
Max AC Current (A)	34		42		48	
Rated AC Voltage	3/PE, 220V/127V					
Rated Grid frequency	60Hz (57~61.5Hz)					
Power factor	-0.8~+0.8 (adjustable)					
THD	< 3% (at rated power)					
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)					
System						
Cooling method	Smart Cooling method					
Max efficiency	98.30%		98.30%		98.40%	
Euro-efficiency	97.80%		97.80%		98.00%	
MPPT efficiency	99.9%					
Degree of protection	IP65					
Self-consumption (at night)	<1W					
Topology	Transformerless					
Operating temperature range	-25℃ ~ +60℃ (derate after 45℃)					
Relative humidity	<50dB					
Protection	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc.					
Display and communication						
Display	3.5 inches LCD display, support backlit display					
System language	English, Chinese, German, Dutch					
Communication interfaces:	RS485 (Standard), Ethernet, WiFi (Optional)					
Mechanical parameters						
Dimension (H x W x D mm)	660x525x220					
Weight (kg)	52					
Installation	Wall mounting					
Others						
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm²)					
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)					

Hybrid Inverter

BD3K6TL
BD5KTL
BD3K6TL-TD
BD5KTL-TD



Description

BD series hybrid inverter Series is a new generation of photovoltaic storage products which were developed by INVT based on the intelligent and free maintenance concept. This series integrates charge, energy storage and photovoltaic inverter inside with multifunctional and integrated BMS (battery management system). It can automatically detect the state of grid and connect to it smoothly. This series is the best solution for the demand of peak shaving and can help consumers to maximize self-consumption of PV system.

Features

- Support moving roller Topology and wall mounting Topology installation, which largely saves the space and can move flexibly, suitable for various occasions;
 - Professional BMS (battery management system), compatible with lead-acid battery and lithium battery;
 - Available for setting the charging current of battery according to various battery Topologies;
 - Combination of on-grid and off-grid function, UPS and backup all-in-one function;
- User-friendly HMI, colorful LCD;
 - Equipped with a variety of communication options: RS485 (standard), USB (standard), Ethernet (standard), Wifi (optional), diesel genset communication interface (optional);
 - With Zero Export Function.

Specification

	BD3K6TL	BD5KTL	BD3K6TL-TD	BD5KTL-TD
DC INPUT (PV)				
Max. DC Input power (W)	5200	6600	5200	6600
Max. DC voltage (V)	5200			
Nominal DC voltage (V)	380			
Start-up voltage / Minimum working voltage (V)	150V/100			
MPP voltage range	120V~450			
Max. Input Current	15A			
Number of MPPT / String per MPPT	2/2			
AC OUTPUT 1 (GRID)				
Rated power (W)	3680	4600	3680	4600
Rated voltage	208/220/230/240V (Single-phase)			
Rated frequency	50Hz/60Hz			
Voltage range	180V~270 VAC			
Frequency range	45~55Hz/55~65Hz			
Rated current	16A	22A	16A	22A
Power factor	≥0.99 (at rated power)			
THDI	≤3% (at rated power)			
Max efficiency	97.20%	97.70%	97.20%	97.70%
Euro- efficiency	96.50%	97.00%	96.50%	97.00%
AC OUTPUT 2 (LOAD)				
Rated power (W)	3000			
Rated voltage (V)	208/220/230/240V (±2%)			
Rated frequency	50Hz/60Hz (±0.2%)			
BATTERY				
Rated voltage	48V		120V	
Voltage range	43-58V		108-138V	
Topology of battery	Lithium battery or Lead-acid battery			
Max. charging current	≤65A		≤20A	
Max. discharging current	≤65A		≤20A	
Max efficiency	94%		95%	
OTHERS				
Operating temperature range	-25℃ to +40℃			
Cooling method topology	Fan			
Degree of protection	IP 20/< 1000m;			
Humidity	0~95%, Non-condensing			
Noise	< 45dB			
Protection	DC insulation monitoring, DC over current protection, Grounding fault monitoring, Overheating protection, Electronic Protection, Overvoltage and short circuit protection etc.			
Display	LCD			
LED / Button	Integrated			
Communication interfaces:	RS485 (standard) Wifi (optional), Ethernet (optional), CAN-BUS (Internal Communication), USB, Genset Port			
Dimension (H x W x D mm)	500x430x190			
Weight (kg)	25			
Installation	Moving roller / Wall-mount			
Certification	VDE-AR-N4105, AS4777/3100, G83/2			
Warranty (Years)	1 (standard) / 3 (optional)			

iMars BN Series
single-phase off-grid inverter

BN1024E
BN1524E
BN2024E
BN3024E



Description

iMars BN series single-phase off-grid inverter adopt the combination technology of integrating traditional isolated UPS function and solar inverter . to provide the flexible and reliable system solution for residential or industrial uninterruptible power requirements.

Features

- Protection class IP20;
 - Isolated internal transformer design to ensure the stability and reliability;
 - Capable of providing the continuous power to linear load or non-linear load of lamp, computer, fridge, air-conditioner and the industrial devices;
 - MPPT solar charging technology;
 - Electricity Quick charging function;
 - Multiple charging voltage grades to adapt to more battery Topologys, to maximize battery performance;
- over-load and short-circuit protection;
 - multiple working mode are optional for different working priority (Grid / battery/saving mode);
 - User-friendly multiple communication module(RS485, RS232, Ethernet, GPRS, WIFI) are optional to be compatible with more monitoring device : mobile ,computer, internet/remote operation;
 - Support 12/24V battery, 120V/230V (50/60Hz) output .

Specification

	1024E	1524E	2024E	3024E
Line Mode Specifications				
AC Input Voltage	220/230 Vac			
AC voltage range	155Vac~272 Vac ±2%			
Frequency	50Hz/ 60Hz (Auto detection)			
Frequency Range	47+0.3Hz ~ 55+0.3Hz for 50Hz; 57+0.3Hz ~ 65+0.3Hz for 60Hz			
Over-Load /Short Protection	Circuit breaker			
Efficiency	>95%			
Transfer Time	10ms (typical)			
Max Bypass Overload Current	30A			

Invert Mode				
Output Voltage Waveform	Sine wave			
Rated Output Power (VA)	1000	1500	2000	3000
Rated Output Power (W)	1000	1500	2000	3000
Power factor	1.0			
Output Voltage (V)	230Vac			
Output Voltage Regulation	±10%			
Output Frequency (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz			
Efficiency	>80%			
Over-Load Protection	(110%<load<125%) ±10%: Fault (shutdown output) after 15 minutes; (125%<load<150%) ±10%: Fault (shutdown output) after 60s; Load>150% ±10%: Fault (shutdown output) after 20s			
Surge Rating (10s)	3000VA	4500VA	6000VA	11000VA
Capable of starting electric motor	1 HP			2HP
Output Short-Circuit Protection	Current limit (Fault after 10s)			
Bypass Breaker Size	10A		30A	
Nominal DC Input Voltage/ Min DC start voltage	24V /22V			
DC voltage range	20.0Vdc~32Vdc , ± 0.6Vdc regulation (Low alarm:21V; Shut-down: 20V; High fault: 32V;High recovery:31V)			
Power saver	Load ≦25W (Enabled on "P/S auto" setting of Remote control)			

AC OUTPUT 2 (LOAD)				
Charge Current	20A	25A	35A	50A
Charge Current Regulation	± 5Adc			
Battery initial voltage	20 ~31.4Vdc			
Charger Short Circuit Protection	Circuit breaker			
Breaker Size	30A			
Over Charge Protection	Bat. V ≥ 31.4Vdc, beeps 0.5s every 1s & fault after 60s			

Charger(solar)	
MPPT Voltage range	15-90V
Max PV open-circuit voltage	90V
Rated Charge Current	50A
efficiency	98%
Overload protection(DC load)	2.0xInom>20s, 1.5xInom temperature controlled
Battery temperature sensor	BTS-optional remote battery temperature sensor for increased charging precision
Standby Power Consumption	5W

General Specifications	
Safety Certification/ EMC Classification	CE(EN62040-1), EN62040-2, C2
Protection class	IP20
Operating temperature range	-15°C to 40°C (-25°C ~ 60°C for storage)
Operation humidity	5% to 95%
Audible Noise	60dB max
Communication	RS-485/RS-232/Remote control
Size	381mm x 217mm x 179mm461mm x 217mm x 179mm

Smart PV Combiner

JTPV-CB6
JTPV-CB8
JTPV-CB10

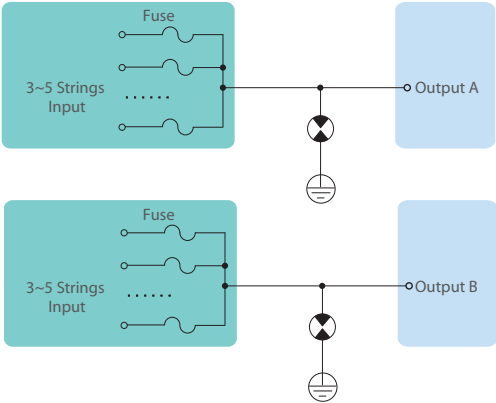


Description

JTPV series smart photovoltaic combiner is designed for multi-string inputs photovoltaic generation system. JTPV integrates functions as string combining, detection, monitoring and protection, and ensures secure, reliable and simple connection between multi-string PV inputs and inverter. This series can be attached to iMars inverter as a unit, or installed separately.

Features

- Two outputs, directly connect to two MPPTs of inverter
- Integrating DC lightning protection module and fuse, upgrade input protection to inverter
- Precise monitoring string current, voltage and operation status
- Extended Analog Input port, supporting to connect environment monitoring instrument
- Intelligent anti feedback function is optional.
- Acting to smart grid dispatching signals
- Setting output power and time interval via WinExpert and PhoneExpert
- An external 12V 100mA auxiliary power connector providing availability to system expansion
- RS485 communication interface, fully compatible with photovoltaic power generation system of internal and external communication

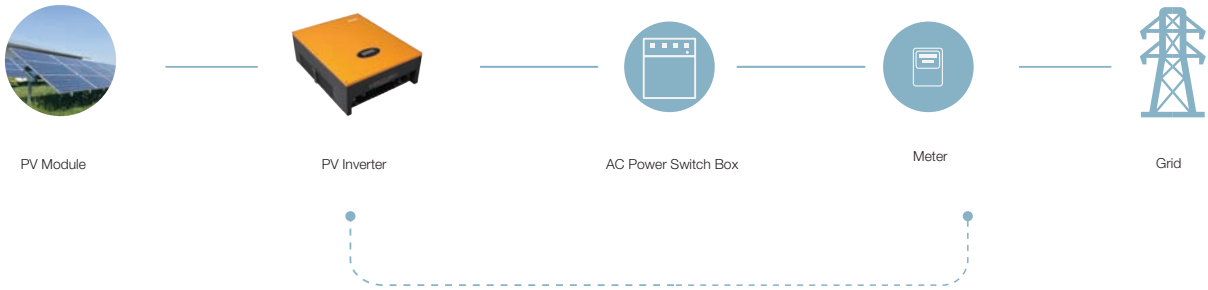


Specification

	JTPV-CB6	JTPV-CB8	JTPV-CB10
Electrical Parameter			
Number of Max. DC Input strings	6	8	10
Max. DC input Voltage (V)	1000		
Max. DC Output Current(A) × Output strings	30x2	40x2	50x2
Model of Input Connection	M16		
Model of Output Connection	M16		
Detection Function	Input String Current; Output Voltage; SPD State		
Communication Interface	RS485		
Communicating Protocol	MODBUS-RTU		
Power Supply	Internal Power Supply		
Measuring Accuracy	2% rated (Rated current Per string 10A)		
Extended Analog Input	5 inputs of 4~20mA current signal		
Environmental Parameter			
Degree of protection	IP65		
Operation Temperature	-25 ℃ ~+70 ℃		
Relative humidity	99%, no condensation		
Operating Altitude	4000m		
Protection Parameter			
Fuse	15A		
Number of Fuse	6	8	10
SPD	Class II		
Lightening Protection for Communication	Integrated		
Lightening Protection for Communication Port of PC Software	None		
Mechanical Parameter			
Dimension (H x W x D mm)	380 x 280 x 140		
Weight (kg)	<10		
Installation	M5 screw		

Intelligent Anti Feedback Solutions

In some applications, Power Grid Corp normally requires the PV system to be equipped with anti feedback function. That means that surplus generated electricity is not allowed to be injected into the grid via a low voltage distribution circuit and must be used for local consumption. With intelligent anti feedback function, the system sends a control signal to the inverter and adjusts the power output of the grid inverter to attain the objective of providing max power to the local load and no feedback to the grid.



Solar Pumping Inverter

BPD0K7TN
BPD1K5TN
BPD2K2TN
BPD0K7TNAC
BPD1K5TNAC
BPD2K2TNAC



Solar Pumping Inverter Introduction:

BPD series solar water-pump inverter adopts the dynamic VI MPPT technology and motor control technology, and is suitable for AC water pumps with prompt response, high efficiency and stable performance.

Features

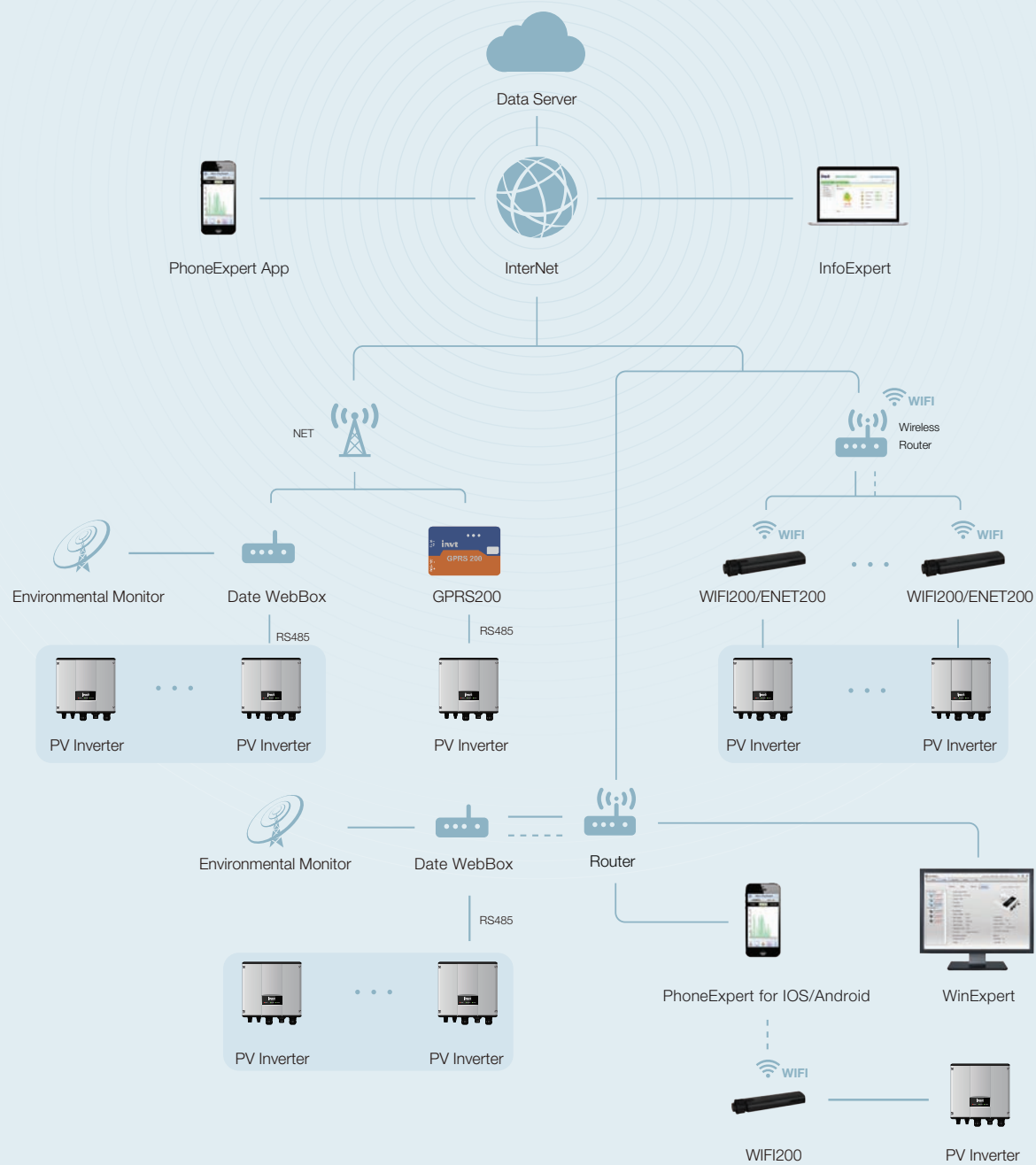
- Support driving single-phase motor and three-phase 220V motor.
- One pump inverter can be connected with multiple pumps, support vector control.
- Protection class IP65 and fanless system design, with convenient installation, maintenance free.
- Bypass function optional, support 220V Utility Power input and diesel engine input; optional water level detection module and diesel engine start/stop module.
- Low startup voltage and wide input voltage range give more possibilities for accepting multi PV strings configuration and different Topology of PV module, save PV module cost.
- Digital intelligent control can flexibly adjust and set the pump speed range. In addition to the soft start function it can also provide lightning protection, overvoltage, over current, overload protection function etc.

Specification

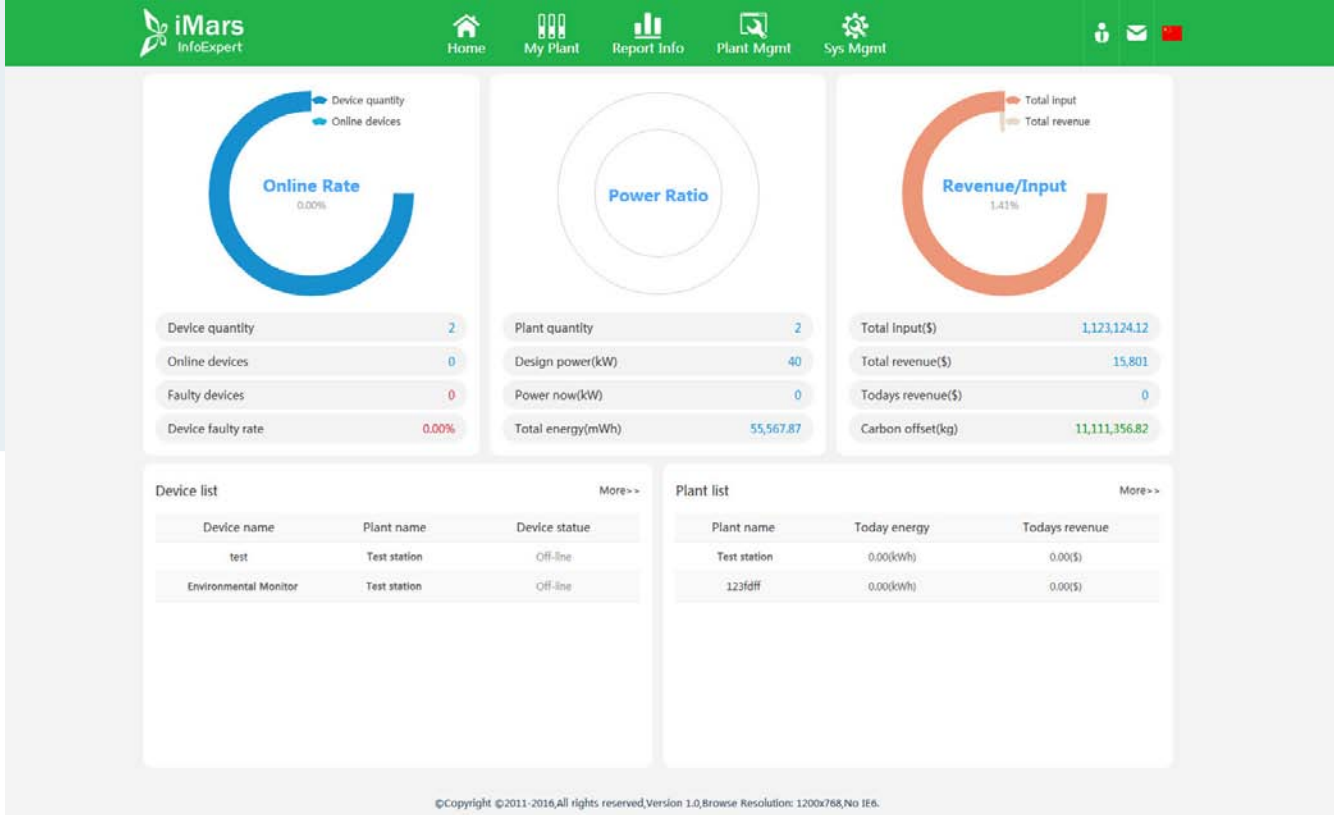
	BPD0K7TN	BPD1K5TN	BPD2K2TN	BPD0K7TNAC	BPD1K5TNAC	BPD2K2TNAC
Input (DC)						
Max. DC voltage (V)	450	450		450	450	
Starting voltage (V)	80	100		80	100	
Minimum working voltage (V)	60	80		60	80	
MPPT Operating Voltage Range (V)	80-400	100-400		80-400	100-400	
Number of MPPT	1					
Max. DC Current (A)	9	12	12	9	12	12
Bypass input (AC)						
Input voltage (VAC)	N/A			220/230/240(1PH)-15%+10%		
Input frequency (Hz)	N/A			47-63		
Input connect method (AC)	N/A			1P2L		
Output (AC)						
Rated power (W)	750	1500	2200	750	1500	2200
Rated current (A)	5.1 (1PH)	10.2 (1PH)	14 (1PH)	5.1 (1PH)	10.2 (1PH)	14 (1PH)
	4.2 (3PH)	7.5 (3PH)	10 (3PH)	4.2 (3PH)	7.5 (3PH)	10 (3PH)
Output connect method	1P2L / 3P3L					
Output frequency (Hz)	1-400					
Performance						
Control mode	Motor control technology					
Topology of motor	asynchronous machine					
Other Parameter						
Dimension (H x W x D mm)	280×300×130					
Weight (kg)	≤10.5					
Degree of protection	IP65					
Cooling method	Natural Cooling method					
HMI	LED screen extend (not support LCD screen)					
communication						
external communication	RS485/3 digital Inputs					
Certifications						
Certification	CE: IEC61800-3 C3					
Working environment						
Ambient temperature	-25℃ ~ 60℃ (derate after 45℃)					
Working altitude	3000m (more than 2000m derating)					
Design life	5 years (warranty 18 months)					
Recommended solar array configuration						
250Wp (Open-circuit voltage 38V±3V)	4*1	8*1	11*1	4*1	8*1	11*1
300Wp (Open-circuit voltage 45V±3V)	3*1	6*1	9*1	3*1	6*1	9*1

Monitoring Solution

We can provide our customers with a flexible internet monitoring solution which is suitable for residential, commercial rooftop systems and PV power plants. System monitoring device is user-friendly and reliable. It can transmit Real-time data to our server via internet. Our customers can login monitoring website or use smart phone Apps to check power plant info



Remote Monitoring Platform iMars InfoExpert



Description

iMars InfoExpert photovoltaic power system remote monitoring platform is a new generation of photovoltaic networking monitoring platform developed by INVT. It includes power monitoring, power management, fault processing equipment, power generating capacity and investment income data analysis functions, provides professional power management and intelligent operation and maintenance scheme for distributors, installers and end users.

Features

- Able to communicate with the WEB browser version of the iMars WinExpert remote monitoring platform server.
- Manage user information and power station equipment
- Able to view the status of the operation of power plants, power plant equipment fault information, realtime power and investment income and other related data; and have the report function.
- Visualizde interface, display the power station and its equipment data, running state in chart.
- Able to query inverter version information, update online, collect user feedback, adjust output power and other functions.
- A neutral version of the login interface is available to our important partners.

Data Webbox



Description

Data Webbox is a data collection equipment which connects multiple solar inverters to server. Users and manufacturers can effectively monitor the power generation and operation status by collect the data of solar inverters and weather station. Meanwhile, it also helps manufacturer maintain the equipments through remote data acquisition.

Features

- Support up to 10 inverters of data acquisition;
- Support USB for data storage;
- Can connect combiner, environment monitor, transformers and other equipment;
- Plug and play, easy to use.
- Can be connected to the cloud platform, and relevant monitoring sites, supporting mobile phone APP

Functions:

- Collect solar inverters operation data and environmental monitoring equipment data, combiner box data, dry Topology transformer equipment data etc.
- Two RS-485 port for data collection, one for inverter data collection, another for weather station data collection;
- Support Ethernet, GPRS and WiFi to upload data to sever;
- Flexibly configure the required monitoring data by Data Collection Web Page or PV Monitoring Site;
- Support remote maintenance and upgration. Users can grasp the dynamic real time operation status of the power plant at any time through the mobile phone APP or monitoring website.

In case there is any fault, It can inform the users by SMS, email, WeChat or App, which reduces the power plant operation and maintenance work. Ethernet communication of the data collector adopts the international universal networking protocol which is an important interface to access the cloud platform.

Specification

Parameter	
Max.Supported Device	10
Inverter Interface	RS-485
Remote Communication interfaces:	GPRS, Ethernet, WiFi
Serial Communication Distance	< 1km
Serial Communication Bord Rate	1200-38400bps
Radio Frequency	800/900/1800/1900MHz
The Data Sampling Interval	5 minutes by default, configurable
Data Storage	RS485
Parameter Setting Method	Web page or site monitoring
The Firmware Update Mode	Serial port, Ethernet
Data Access Mode	Serial port, remote server
Status Display	5 LED

Electrical Features

Input Voltage	DC 5V
Static Power	< 2w
The Maximum Instantaneous Power	< 3w
Storage Temperature	-40 ~ 85℃
Operating temperature range	-10 ~ 65℃
Working Humidity	10%~90% Relative humidity, no condensation
Storage Humidity	< 40%
Degree of protection	IP21

Physical Parameters

Size	150mm x 80mm x 26mm
Weight	1.1KG
Installation	Class II

Monitoring Modules

iMars Wifi200 / ENET200 / GPRS200 Communications Server

Product Description

iMars Wifi200/ENET200 is an external wireless / wired communication device, which connects with solar inverter via RS485 interface to monitor inverter's operation status and history. It is very easy to view the data with monitoring software (iMars WinExpert for PC or iMars PhoneExpert for smart phone).

Specification

- Serial Port: RS485 Waterproof Plug
- WiFi 200 Transmission Distance: 30m (no barrier)
- ENET 200 Transmission Distance: 100m
- Wireless Protocol Standard: 802.11 n/g/b
- Operation Temperature: 0°C~+40°C
- Working Humidity: 10% - 90% RH (no condensation)
- Storage Temperature: -40°C~+70°C
- Store Humidity: 5% - 90% RH (no condensation)
- Size: 139mmx31.7mmx21mm



iMars PhoneExpert (for iOS)



iMars PhoneExpert (for Android)

Monitoring Software



iMars WinExpert (for Windows)

iMars PhoneExpert

Features

Multi-level User Management

- Administrator authority: change software settings and modify system configuration.
- Guest authority: browse software settings and system parameters.

User-friendly Interface

- Simple menu bar and browser window;
- Can be zoomed out to the sticker window;

Powerful Analysis Capabilities

- Power output per day, month, year and total;
- CO₂ emission reduction, power generation profit;

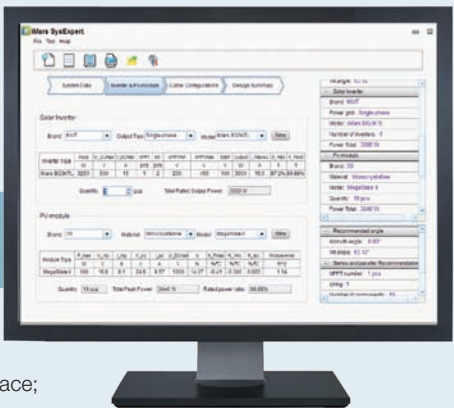
Introduction

WinExpert and PhoneExpert are designed for monitoring grid-tied solar system. The user can use the PC or handheld terminal equipment to connect iMars inverter. iMars WinExpert and PhoneExpert can display and record the real-time parameters, status, historical data and alert information of the overall solar system and the single iMars inverter.

Software Function

iMars WinExpert	iMars PhoneExpert
<ul style="list-style-type: none">• The system generating capacity, economic benefits and environmental benefits• View and print the system information• View the inverters real-time status• Add and remove inverters• Communication management• E-mail system	<ul style="list-style-type: none">• The system generating capacity, economic benefits and environmental benefits• View the inverters real-time status• Add and remove inverters• Communication management

Solar System Design Software



iMars SysExpert

Features

- User-friendly Interface;
- Three-step design process;
- Professional design report;
- Constantly updated database support;
- Powerful system of mathematical analysis model;

Introduction

iMars SysExpert, an easy-to-use professional grid-tied PV system design software, is designed specifically for iMars series grid-tied solar inverters. After three steps of editing system information, component selection and system configuration, a single-phase or three-phase photovoltaic grid-tied power system can be designed to produce a professional design report within a few minutes.

Applications &
Service Network

Acceptance method	Contact	Service Region	Service Time	Remark
Web Declaration	www.invt-solar.com	Global	7*24hour	Recommended
Email	solar-service@invt.com.cn	Global	7*24hour	Recommended

Key informaton needed for maintenance

- Model, product serial No.
- Fault description
- Customer location and contacts

