

- Solar DC EV Charger with Energy Storage
- Energy Storage System
- Lithium-ion Battery
- Hybrid Solar Inverter
- Off-Grid Inverter



In our world, everything is built to last.



VOLTRONIC POWER TECHNOLOGY CORP.

Taiwan: No. 406, Xinhui 1st Road, Neihu District, Taipei, Taiwan TEL: 886-2-27918296 FAX: 886-2-87918216
China: No.8, Shichong Road, Zhongshan Torch Hi-Tech Industrial Development Zone, Zhongshan, Guangdong, China.

TEL: 86-755-86016601 FAX: 86-755-86016603

www.voltronicpower.com

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UPS · SOLAR INVERTER · EV CHARGER

Voltronic Power Overview

Voltronic Power Technology Corp. established by Alex Hsieh has over 20 years of experience in DMS (Design and Manufacturing Service) of power products. Headquartered in Taiwan, Voltronic Power is committed to providing high quality products and services to meet diverse customers' requirements. With the same diligent customer-oriented spirit, Voltronic Power is dedicated to continuously designing, manufacturing, marketing, and introducing a complete line of UPSs, inverters, and solar power products to the demanding power market.

To meet customers' demand, we have expanded our manufacturing factory to 4 for sufficient capacity of production. Our R&D center is co-located with manufacturing to offer efficient operation. We have solid and richly-experienced engineering teams dedicated to product development. Voltronic Power guarantees reliable product development and consistent manufacturing quality, from raw materials to finished products to punctually fulfill its delivery deadlines.

Voltronic Power is a truly remarkable company, with a strong history of service, innovation and growth. Voltronic Power's professional team is ready to start a new chapter in the global power market.

❖ Mission Statement & Corporate Vision



Production Line



SMD/AI



R&D

To become a worldwide leading DMS provider by developing both customized products and exclusive marketing intelligence for customers :

We focus 100% on creating customers' brands and dedicate ourselves to developing innovative power products and marketing intelligence for customers.

To develop a reputation in the power industry as a trusted and reliable partner :

We understand that "Good Products" are the core competence for company development. Therefore, we are dedicated to developing innovative and reliable products to customers through the continuous development and investment in our R&D center.

Build strong relationships with customers to strengthen customers' brands and market growth :

We help customers to develop their own brands and enlarge their market share because we strongly believe that customers are the key growth engine for Voltronic Power.

Continue developing the latest innovations, including eco-friendly and green products :

As global citizens, Voltronic Power is committed to reducing the environmental impact of our operations and products.

❖ Key Values to Customers

- **Secured Information Management:** With over 20 years of professional experience in the power market, we've managed power knowledge, market trends, and know-how with our customers. In the meanwhile, our customers' privacy has already been the most valued core for us to earn trusted relationships.
- **Innovative Design:** Leveraging 20 years of our professional experience in the power market, we've been highly aware of the market change and helped our customers attune to the dynamics of the industry. We've been dedicated to developing new technology and implementing innovative ideas in our products, but not always me-too outcome.
- **Quality Manufacturing:** Conforming with ISO-9001 and ISO-14001 certification, we have built up unmatched quality control systems from incoming components to finished products.
- **Satisfied Service:** We provide exclusive assistance and swift customer service, from product design and marketing packages to technical support.
- **Total Quality Assurance System:** From design, and manufacture, to service, we offer a Total Quality Assurance System to guarantee high-quality and reliable products and services. Our total quality system has been audited and approved by globally respected companies.

EnerSys 123

with 10kw solar inverter, 20kwh battery backup and 30kw DC EV charger



EnergyCube 405

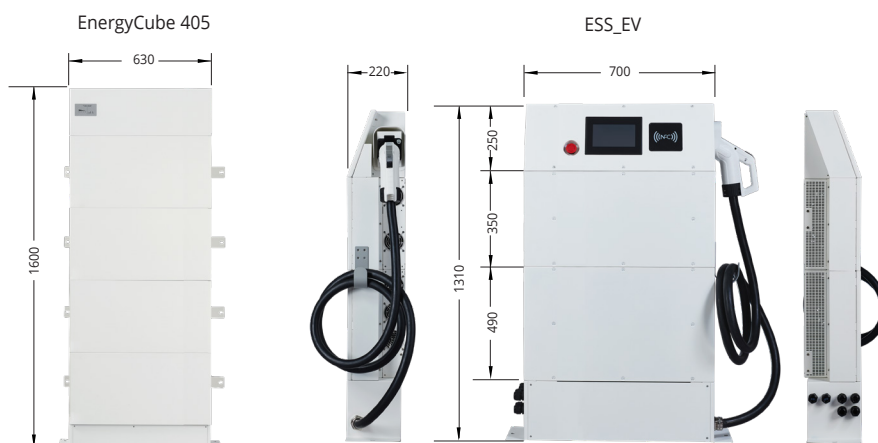
ESS_EV

- DC couple and AC couple to integrate existing solar system
- Lithium-Iron phosphate battery for long life and stable operation
- Support multiple EV protocol including GBT/CCS1/CCS2/CHAdeMO
- Integrate OCPP and RF reader for remote payment & control
- IP65 protection level for main unit to extend the life time under critical environment
- Optional energy meter to establish self-consumption system

System Diagram



Dimensions



ESS_EV Specification

MODEL	ESS_EV_EU
PV INPUT PARAMETERS	
Maximum PV Input Power	14500 W
Maximum PV Input Voltage	1000 VDC
MPPT Voltage Range	350~900 VDC
MPPT Voltage Range @ full load	500~900 VDC
Start-up Voltage	320 VDC
Nominal Input Voltage	720 VDC
Maximum Input Current	A: 18 A ; B: 18 A
Max. Short-circuit Current	25 A
Number of MPPT Trackers	2
Number of Input Strings per MPPT Tracker	1
AC INPUT PARAMETERS	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	20 A
GRID-TIE OUTPUT PARAMETERS	
Nominal Output Power	10000VA/10000W
Max. Output Power	10000W
Nominal Output Voltage	230 VAC (Phase to N), L1/L2/L3/N/PE
Output Frequency	50/60 Hz
Max. Grid-tie Output Current	18 A per phase
Power Factor	0.8 lead to 0.8 lag
Maximum Input Current Distortion (THDi)	<5%
BACK UP OUTPUT PARAMETERS	
Rated Output Power	10000VA/10000W
Nominal Output Voltage	230 VAC (Phase to N), L1/L2/L3/N/PE
Nominal Output Frequency	50/60 Hz
Maximum Conversion Efficiency (SOLAR TO GRID)	96%
Maximum Conversion Efficiency (SOLAR TO BATTERY)	97%
Maximum Conversion Efficiency (BATTERY TO LOAD)	96%
EV CHARGER OUTPUT PARAMETERS	
Charging Type	DC Fast Charging
Outlet Options	C:CCS2; A:CCS1; J:CHAdemo; G: GBT
Number of EV Served	Up to 1
DC Output Voltage	250~1000 VDC
DC Output Power Rating (Max.)	30KW
DC Output Current (Max)	80 A
Charging Cable Length	5M (3.5M Optional)
Rated Output Power	30 KW
Voltage Regulation Precision	± 0.5%
Current Regulation Precision	≤ ±1%
Short Circuit Current	≤ 10KA
Inrush Current	≤ 100 A
Leakage Current	≤ 0.8mA
Efficiency (DC-DC)	97% Peak
Energy Metering	Metering for DC outlets
Protection	OC, OVP, UVL, Surge, DC Leakage
INTERFACE AND CONTROL	
Supported Charging Protocol	GB/CCS1/CCS2/CHAdemo
User Interface	7" LCD high-contrast touchscreen
BMS Communication	RS485
Communication	OCPP 1.6 Core and Smart Charging Profiles
RFID System	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode
Emergency Button	Yes
Protective Class	IP65 with external smart fan
GENERAL	
Operating Temperature Range (°C)	0~55°C
Storage Temperature Range (°C)	-20~70°C
Relative Humidity Range	0~95%
Max. Altitude	Up to 2000m
Mounting	Free-standing cabinet
Dimension, D x W x H (mm)	220 x 700 x 1310
Net Weight (kgs)	80

Battery Module Specifcaton

MODEL	EnergyCube 405
BATTERY MODULE PARAMETERS	
Battery Type	Lithium-Iron Phosphate Battery
Nominal Voltage	409.6 VDC
Full Charge Voltage(FC)	460.8 VDC
Discharge Cut-off Voltage	384 VDC
Typical Capacity	50 Ah
Typical Energy	20KWH
Max Continuous Discharging Current	60 A
Max Discharging Current	75 A
Charge Current	10 A
Max. Charge Power	10KW/25 A
Protection	BMS
Protective Class	IP20
Dimension, D x W x H (mm)	220 x 630 1600
Net Weight (kgs)	221

Product specifications are subject to change without further notice

ESS_EV Specification

MODEL	ESS_EV_US
PV INPUT PARAMETERS	
Maximum PV Input Power	14500 W
Maximum PV Input Voltage	600 VDC
MPPT Voltage Range	120~550 VDC
MPPT Voltage Range @ full load	300~550 VDC
Start-up Voltage	120 VDC
Nominal Input Voltage	360 VDC
Maximum Input Current	A: 18 A ; B: 18 A
Max. Short-circuit Current	25 A
Number of MPPT Trackers	2
Number of Input Strings per MPPT Tracker	1
AC INPUT PARAMETERS	
AC Start-up Voltage / Auto Restart Voltage	85VAC(P-N), 170VAC(P-P) / 90VAC(P-N), 180VAC(P-P)
Acceptable Input Voltage Range	85 - 140 VAC (P-N)/ 170 - 280 VAC (P-P)
Maximum AC Input Current	40 A
GRID-TIE OUTPUT PARAMETERS	
Nominal Output Power	10000VA/10000W
Max. Output Power	10000W
Nominal Output Voltage	110/120 VAC (Phase to N), L1/L2/N/PE
Output Frequency	50/60 Hz
Max. Grid-tie Output Current	41.5 A per phase
Power Factor	0.8 lead to 0.8 lag
Maximum Input Current Distortion (THDi)	<5%
BACK UP OUTPUT PARAMETERS	
Rated Output Power	10000VA/10000W
Nominal Output Voltage	110/120V(Phase to N), L1/L2/N/PE * 100Vac Optional & derating to 8500W
Nominal Output Frequency	50/60 Hz
Maximum Conversion Efficiency (SOLAR TO GRID)	96%
Maximum Conversion Efficiency (SOLAR TO BATTERY)	97%
Maximum Conversion Efficiency (BATTERY TO LOAD)	96%
EV CHARGER OUTPUT PARAMETERS	
Charging Type	DC Fast Charging
Outlet Options	C: CCS2; A: CCS1; J: CHAdeMO; G: GBT
Number of EV Served	Up to 1
DC Output Voltage	250~1000 VDC
DC Output Power Rating (Max.)	30KW
DC Output Current (Max)	80 A
Charging Cable Length	5M (3.5M Optional)
Rated Output Power	30KW
Voltage Regulation Precision	± 0.5%
Current Regulation Precision	≤ ±1%
Short Circuit Current	≤ 10KA
Inrush Current	≤ 100 A
Leakage Current	≤ 0.8mA
Efficiency (DC-DC)	97% Peak
Energy Metering	Metering for DC outlets
Protection	OC, OVP, UVL, Surge, DC Leakage
INTERFACE AND CONTROL	
Supported Charging Protocol	GB/CCS1/CCS2/CHAdeMO
User Interface	7" LCD high-contrast touchscreen
BMS Communication	RS485
Communication	OCPP 1.6 Core and Smart Charging Profiles
RFID System	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode
Emergency Button	Yes
Protective Class	IP65 with external smart fan
GENERAL	
Operating Temperature Range (°C)	0~55°C
Storage Temperature Range (°C)	-20~70°C
Relative Humidity Range	0~95%
Max. Altitude	Up to 2000m
Mounting	Free-standing cabinet
Dimension, D x W x H (mm)	220 x 700 x 1310
Net Weight (kgs)	80

Battery Module Specification

MODEL	EnergyCube 405
BATTERY MODULE PARAMETERS	
Battery Type	Lithium-Iron Phosphate Battery
Nominal Voltage	409.6 VDC
Full Charge Voltage(FC)	460.8 VDC
Discharge Cut-off Voltage	384 VDC
Typical Capacity	50 Ah
Typical Energy	20KWH
Max Continuous Discharging Current	60 A
Max Discharging Current	75 A
Charge Current	10 A
Max. Charge Power	10KW/25 A
Protection	BMS
Protective Class	IP20
Dimension, D x W x H (mm)	220 x 630 1600
Net Weight (kgs)	221

Product specifications are subject to change without further notice

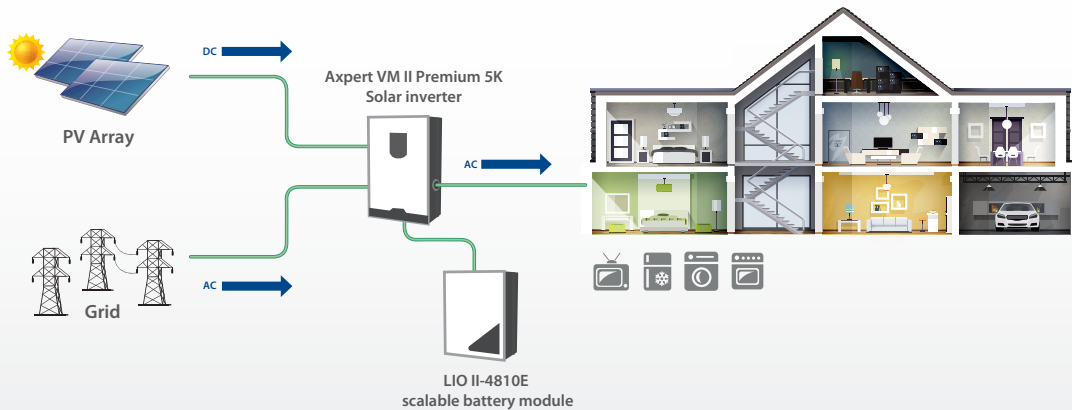
Energy Storage System

5kW Off-Grid Solar Inverter with Scalable 5kWh Lithium-ion Battery

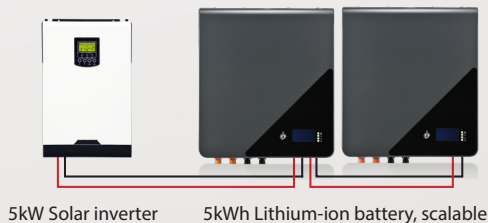


- Built-in Active Cell Balancing, ensuring optimal performance and longevity of the battery pack
- Equipped with BMS communication port for battery monitoring
- Built-in powerful solar & AC charger 100A shortens charging time
- Wall-mounted scalable Lithium-ion battery module guarantees safety and reliability
- Scalable battery module design up to 15 units
- Built-in anti-dust kit guarantees inverter operation in robust applications

System Diagram



5kW Off-grid Inverter with Scalable 15 pcs of Battery Modules



Energy Storage System Specification

MODEL	Axpert VM II Premium 5K
Rated Power	5000VA/5000W
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 5%
Surge Power	10000VA
Efficiency (Peak)	93%
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)
Waveform	Pure sine wave
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	63 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum PV Array Power	5000W
Maximum PV Input Current	18A
MPP Range @ Operating Voltage	120 ~ 450VDC
Maximum Solar Charge Current	100A
Maximum AC Charge Current	100A
Maximum Charge Current	100A
PHYSICAL	
Dimension, D x W x H (mm)	120 x 300 x 440
Net Weight (kg)	10
Communication Interface	RS232/RS485, optional WiFi
ENVIRONMENT	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

LIO II-4810E Lithium-ion Battery Specification

MODEL	LIO II-4810E
Battery Cell Technology	Lithium Iron Phosphate
Nominal Voltage	51.2 V
Battery Capacity	100Ah
Max. Continuous Charging / Discharging Current	50A/100A @ 25°C
Max. Charging Voltage	57.6 V
Max. Discharging Voltage	43.2 V
Max. Parallel Unit	15
Dimension, D X W X H (mm)	140 x 450 x 500
Net Weight (kg)	43
ENVIRONMENT	
Operation Temperature	0°C~45 °C
Charge Discharge	-20°C~60 °C (>45 °C derating)
Operation Humidity	5% ~ 95% RH (non-condensing)
Operation Air Pressure	6 1 kPa~ 1 1 3kPa
Lifecycle	4000 cycles @ 80% DOD
MANAGEMENT	
IP Protection	IP65
BMS Communication	RS485, RS232, CAN
Safety Standard	EN IEC 61000-6-3, EN IEC 61000-6-1, EN IEC 61000-3-2, IEC 61000-3-3, UN38.3

*Product specifications are subject to change without further notice

ESSA510 Energy Storage System

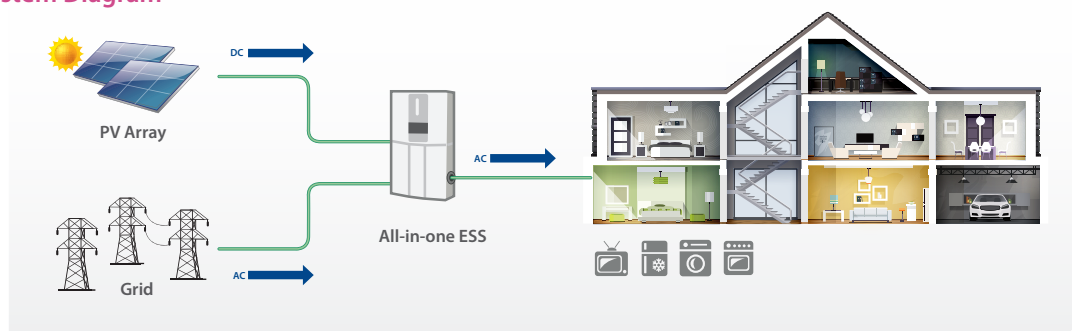
5kw Off-grid inverter with 5KWh Lithium-ion battery

CE UN 38.3 UK CA

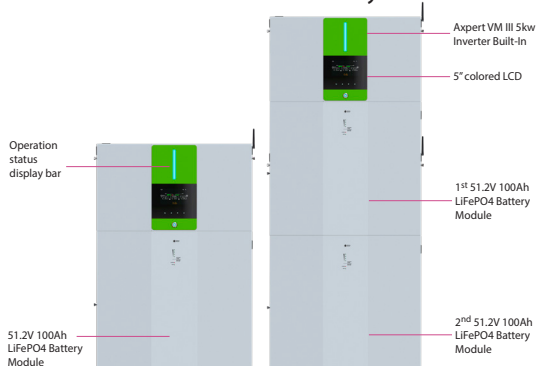


- Pure Sine wave output
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (USB/RS232/RS485/WiFi/Dry-contact)
- Congurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Lithium Iron Phosphate (LFP) cell
- Scalable Li-Ion battery expansion
- Supports wall mounted and standalone installation

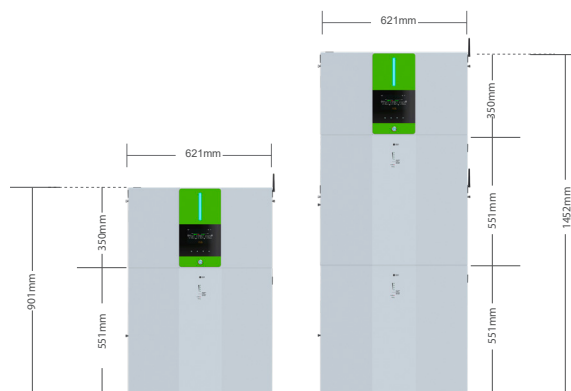
System Diagram



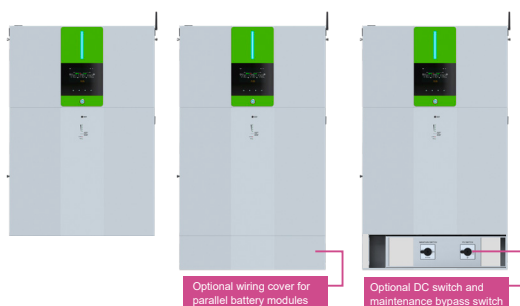
ESSA510, 5kw off-grid inverter with 5kwh lithium-ion scalable battery module



DIMENSION



Accessory



Maximum 10 pcs of battery modules



ESS Energy Storage System Specification

INVERTER MODEL	ESS-A510
Rated Output Power	5000VA/5000W
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Computers); 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 5%
Surge Power	10000VA
Efficiency (Peak)	93%
Transfer Time	15 ms (For Personal Computers), 20 ms (For Home Appliances)
Waveform	Pure Sine Wave
SOLAR CHARGER & AC CHARGER	
Solar Charger type	MPPT
Maximum PV Array Power	5000W
MPPT Range @ Operating Voltage	120~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum Solar Charge Current	100A
Maximum AC Charge Current	100A
Maximum Charge Current	100A
PHYSICAL	
Dimension, D x W x H (mm)	210 x 621 x 350
Net Weight (kgs)	15
STANDARD	
Compliance Safety	IEC/EN 62109-1/-2, EN 61000-6-4, EN 61000-6-2

BATTERY MODULE	ESS II-4810
CAPACITY	5120Wh
PARAMETERS	
Nominal Voltage	51.2VDC
Full Charge Voltage (FC)	56V
Full Discharge Voltage (FD)	42V
Typical Capacity	100Ah
Max Continuous Discharging Current	150A
Max Discharging Current	192A at 1min
Protection	BMS, breaker
Charge Voltage	56V
Charge Current	20A (0.2C)
Maximum Charge Current	50A (0.5C)
Standard Charge Method	0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Inner Resistance	<20m ohm
PARAMETERS	
Dimension, D X W X H (mm)	210 x 621 x 551
Net Weight (kgs)	55
STANDARD	
Compliance Safety	IEC 62619, EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3

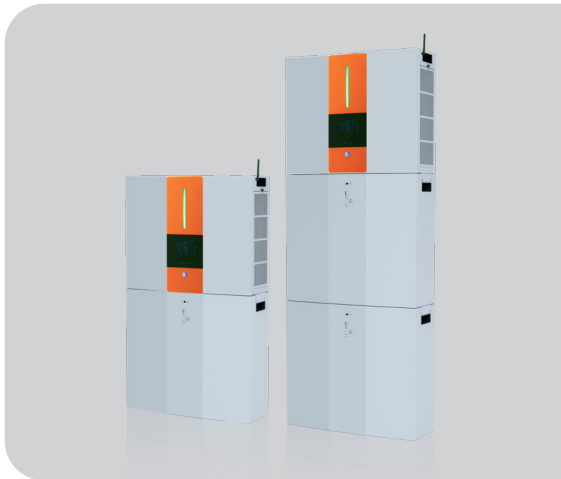
Product specifications are subject to change without further notice.

ESS510 Energy Storage System

5.5kw hybrid solar inverter with 5kwh Lithium-ion battery

CE UK
UN 38.3 CA
NRS 097-2-1
G99

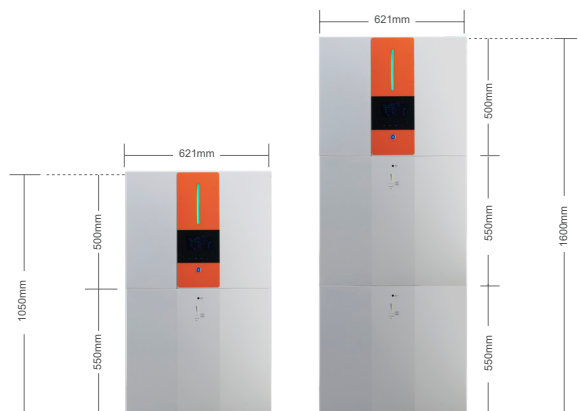
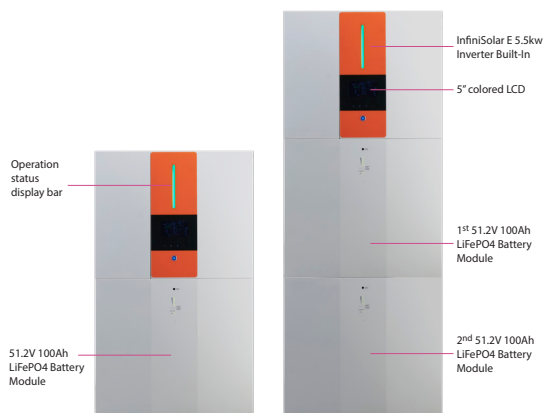
SOLAR ENERGY STORAGE SYSTEM



- Integrated 5.5kw hybrid solar inverter and lithium-ion battery module
- Self-consumption and Feed-back to the Grid
- Programmable supply priority for PV, battery or Grid
- User-adjustable battery charging current
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS232, Modbus, SNMP, GPRS and Wi-Fi
- Monitoring software for real-time status display and control
- Enhance AC/Solar charger to 100A
- Scalable Li-Ion battery expansion
- Li-Ion battery life cycle: 8000 cycles at 25 °C
- High surge discharging current up to 3C
- IP 20

ESS510, 5.5kw hybrid inverter with 5kwh lithium-ion scalable battery module

DIMENSION



Accessory

Maximum 10 pcs of battery modules



ESS Energy Storage System Specification

INVERTER MODEL		ESS 5.5kw
Maximum PV Input Power		6500W
Rated Output Power		5500W
Maximum Charging Power		2880W
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage		360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage		116 VDC / 150 VDC
MPP Voltage Range		120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current		2 / 2 x 13 A
GRID OUTPUT		
Nominal Output Voltage		208/220/230/240 VAC
Output Voltage Range		184 - 264.5 VAC*
Max. Output Current		23.9A*
Maximum Conversion Efficiency (DC/AC)		96%
European Efficiency @ Vnominal		95%
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage		120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range		170 -280 VAC
Maximum AC Input Current		40 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage		208/220/230/240 VAC
Efficiency (DC to AC)		93%
BATTERY CHARGER		
Nominal DC Voltage		48 VDC
Maximum Charging Current		100 A
PHYSICAL		
Dimension, D x W x H (mm)		214 x 621 x 500
Net Weight (kgs)		25
STANDARD		
Compliance Safety	IEC/EN 62109-1/-2, IEC 62040-1, EN 61000-6-4, EN IEC 61000-6-2, EN IEC 61000-3-11, EN 61000-3-12, IEC 61727, IEC 62116, G99, NRS 097-2-1, EN 50549-1	

BATTERY MODULE		ESS II-4810
CAPACITY		5000Wh
PARAMETERS		
Nominal Voltage		51.2VDC
Full Charge Voltage (FC)		56V
Full Discharge Voltage (FD)		42V
Typical Capacity		100Ah
Max Continuous Discharging Current		150A
Max Discharging Current		192A at 1min
Protection		BMS, breaker
Charge Voltage		56V
Charge Current		20A (0.2C)
Maximum Charge Current		50A (0.5C)
Standard Charge Method	0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C	
Inner Resistance		<20m ohm
Dimension, D X W X H (mm)		214 x 621 x 550
Net Weight (kgs)		55
STANDARD		
Compliance Safety	IEC 62619, EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3	

*These figures may vary depending on different AC voltage and contry regulation.
Product specifications are subject to change without further notice.

ESS610 Energy Storage System

6.5kw Off-grid inverter with 5kwh Lithium-ion battery

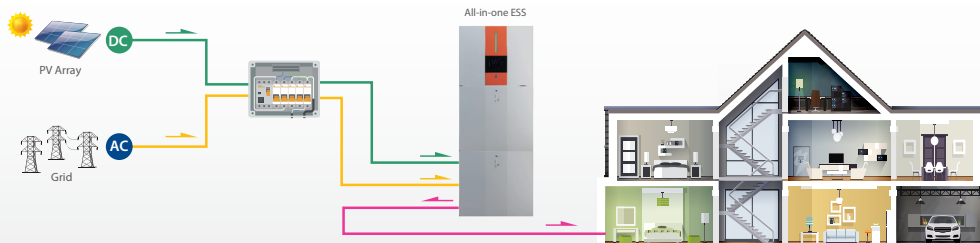
UN 38.3



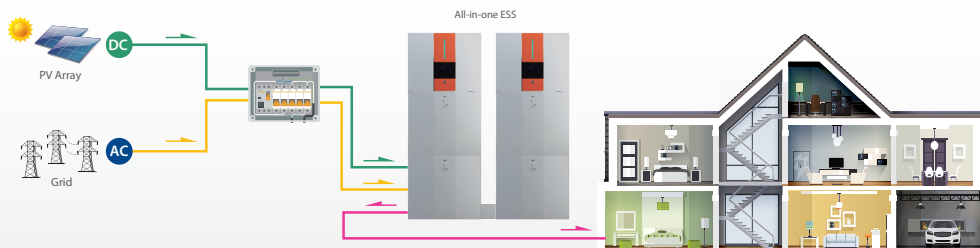
- Integrated 6.5kw off-grid inverter and lithium-ion battery module
- Built-in 2 MPP trackers
- Enhanced AC/solar charger to 120A
- Programmable supply priority for PV, battery or Grid
- User-adjustable battery charging current
- Battery independent design
- Multiple communication for USB, RS232, Modbus, SNMP, GPRS and Wi-Fi
- Monitoring APP (Andriod and iOS) for real-time status display and parameter control
- Compatible to utility and generator
- Lithium Iron Phosphate (LFP) cell
- Scalable Li-Ion battery expansion

System Diagram

Only one ESS

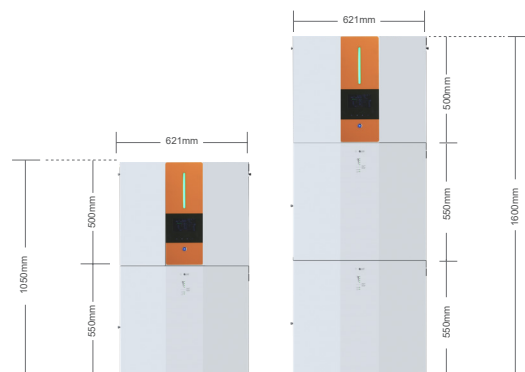
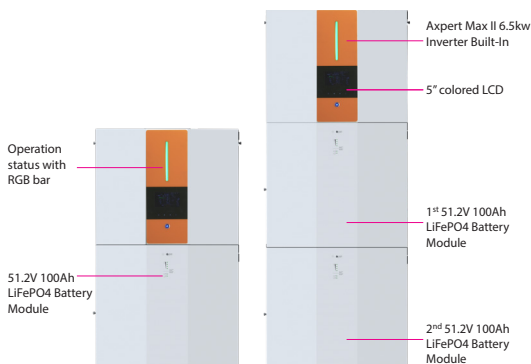


Two ESS systems parallel operation



ESS610, 6.5kw off-grid inverter with 5kwh scalable lithium-ion battery module

DIMENSION



ESS Energy Storage System Specification

INVERTER MODEL		ESS 6.5kw
Maximum PV Input Power		8000W
Rated Output Power		6500W
Maximum Charging Power		6500W
PV INPUT (DC)		
MPPT Range @ Operating Voltage		90 ~ 230 VDC
Maximum PV Array Open Circuit Voltage		250 VDC
Maximum Solar Charge Current		120A
Number of MPP Trackers / Maximum Input Current		2 / 2 x 18 A
AC INPUT		
Acceptable Input Voltage Range		90-140 VAC (For Computers) 80-140 VAC (For Home Appliances)
Maximum AC Input Current		60A
BATTERY MODE OUTPUT		
Nominal Output Voltage		120 VAC
Maximum Conversion Efficiency (DC/AC)		93%
BATTERY CHARGER		
Nominal DC Voltage		48 VDC
Maximum Charging Current		120 A
PHYSICAL		
Dimension, D x W x H (mm)		214 x 621 x 500
Net Weight (kgs)		25
STANDARD		
Compliance Safety		UL 1741, CSA C22.2 No.107.1-16 ,FCC PART 15B

BATTERY MODULE		ESS II-4810
CAPACITY		5120Wh
PARAMETERS		
Nominal Voltage		51.2VDC
Full Charge Voltage (FC)		56V
Full Discharge Voltage (FD)		42V
Typical Capacity		100Ah
Max Continuous Discharging Current		120A
Max Discharging Current		192A at 1min
Protection		BMS, Breaker
Charge Voltage		52.5V
Charge Current		20A (0.2C)
Maximum Charge Current		50A (0.5C)
Standard Charge Method		0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Inner Resistance		<20m ohm
PHYSICAL		
Battery Module Dimension, D X W X H (mm)		210 x 621 x 551
Net Weight (kgs)		55
System Dimension, D X W X H (mm)		500 x 660 x 1250
Net Weight (kgs)		130
STANDARD		
Compliance Safety		IEC 62619, EN 61000-6-3, EN 61000-6-1, UN38.3

Product specifications are subject to change without further notice.

ESS810 Energy Storage System

8kw Off-grid inverter with 5kwh Lithium-ion battery

CE UK
UN 38.3 CA



- Integrated 8kw off-grid inverter and lithium-ion battery module
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Scalable Li-Ion battery expansion
- IP20

System Diagram

Only one ESS

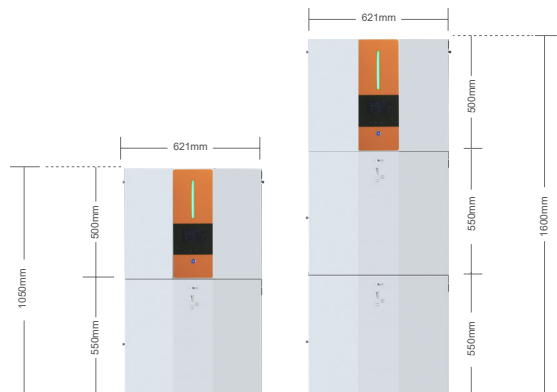
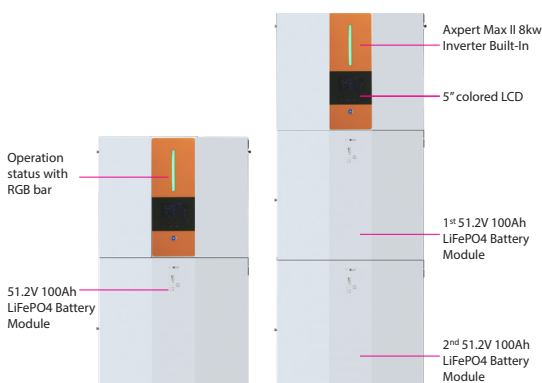


Two ESS parallel operation



ESS810, 8kw off-grid inverter with 5kwh scalable lithium-ion battery module

DIMENSION



ESS Energy Storage System Specification

INVERTER MODEL		ESS 8kw
Rated Inverter Power		8000VA/8000W
INPUT		
Voltage		230 VAC
Selectable Voltage Range		170-280 VAC (For Computers); 90-280 VAC (For Home Appliances)
Frequency Range		50 Hz/60 Hz (Auto sensing)
OUTPUT		
AC Voltage Regulation (Batt. Mode)		230VAC $\pm$ 5%
Surge Power		16000VA
Efficiency (Peak)		93%
Transfer Time		15 ms (For Personal Computers), 20 ms (For Home Appliances)
Waveform		Pure Sine Wave
No Load Power Consumption		<75W
SOLAR CHARGER & AC CHARGER		
Solar Charger type		MPPT
Maximum PV Array Power		8000W (4000W x 2)
MPPT Range @ Operating Voltage		90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage		500 VDC
Maximum Solar Charge Current		150 A
Maximum AC Charge Current		120 A
Maximum Charge Current		150 A
PHYSICAL		
Dimension, D x W x H (mm)		214 x 621 x 500
Net Weight (kgs)		25
STANDARD		
Compliance Safety		IEC/EN 62109-1/-2, IEC/EN IEC 61000-6-4, IEC/EN IEC 61000-6-2, IEC/EN IEC 61000-3-11, IEC/EN 61000-3-12, IEC 61683

BATTERY MODULE		ESS II-4810
CAPACITY		5000Wh
PARAMETERS		
Nominal Voltage		51.2VDC
Full Charge Voltage (FC)		56V
Full Discharge Voltage (FD)		42V
Typical Capacity		100Ah
Max Continuous Discharging Current		150A
Max Discharging Current		192A at 1min
Protection		BMS, breaker
Charge Voltage		56V
Charge Current		20A (0.2C)
Maximum Charge Current		50A (0.5C)
Standard Charge Method		0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Inner Resistance		<20m ohm
Dimension, D X W X H (mm)		214 x 621 x 550
Net Weight (kgs)		55
STANDARD		
Compliance Safety		IEC 62619, EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3

Product specifications are subject to change without further notice.

ESS-A828 Energy Storage System

8kw Off-Grid solar inverter with scalable 14.3kwh Lithium-ion battery

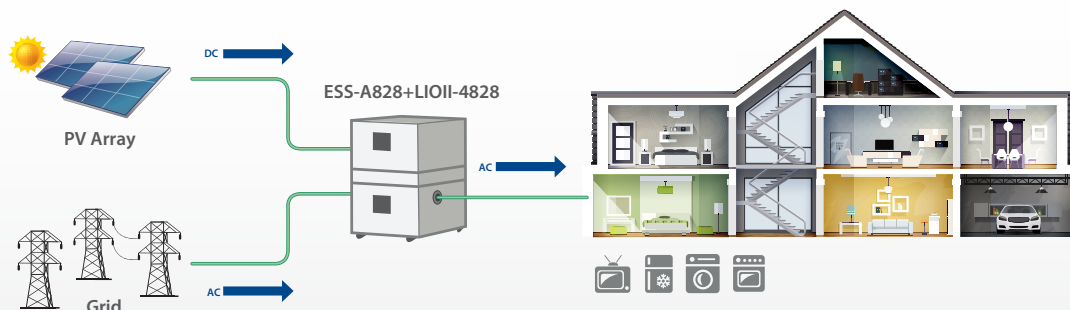


ESS-A828
Built-in 8kw off-grid inverter with
14.3kwh lithium-ion battery

ESS-A828 with one expandable battery pack
Built-in 8kw off-grid inverter with
28.6kwh lithium-ion battery

- Pure Sine wave output (Dual outputs)
- Built-in Wi-Fi for mobile monitoring (App is available)
- Expandable one battery module with up to 28.6kwh capacity
- Reserved communication port for RS232
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- With wheel, support movable and stand off installation

System Diagram



ESS-A828

8kw off-grid inverter with 14.3kwh battery capacity

ESS-A828 + LIO II-4828

8kw off-grid inverter with 28.6kwh battery capacity



ESS-A828 Energy Storage System Specification

INVERTER MODEL		ESS-A828
Rated Inverter Power		8000VA/8000W
INPUT		
Voltage		230 VAC
Selectable Voltage Range		170-280 VAC (For Computers); 90-280 VAC (For Home Appliances)
Frequency Range		50 Hz/60 Hz (Auto sensing)
OUTPUT		
AC Voltage Regulation (Batt. Mode)		230VAC $\pm$ 5%
Surge Power		16000VA
Efficiency (Peak)		93%
Transfer Time		15 ms (For Personal Computers), 20 ms (For Home Appliances)
Waveform		Pure Sine Wave
SOLAR CHARGER & AC CHARGER		
Solar Charger type		MPPT
Maximum PV Array Power		8000W (4000W x 2)
MPPT Range @ Operating Voltage		90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage		500 VDC
Maximum Solar Charge Current		120 A
Maximum AC Charge Current		120 A
Maximum Charge Current		120 A
BATTERY MODULE		
CAPACITY		14.336kWh
PARAMETERS		
Nominal Voltage		51.2VDC
Full Charge Voltage (FC)		57.6V(58.4 max)
Full Discharge Voltage (FD)		44.8V(40 min)
Typical Capacity		280 Ah
Max Continuous Discharging Current		185A
Max Discharging Current		200A Peak
Protection		BMS
Charge Voltage		56V
Charge Current		120A (0.42C)
Maximum Charge Current		168A (0.6C)
Lifecycle		$\geq$ 6000 cycles, 0.6C charging/0.6C discharging; Remain capacity $\geq$ 80%
STANDARD		
Compliance Safety		EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3
PHYSICAL		
Dimension, D X W X H (mm)		600 x 950 x 650
Net Weight (kgs)		207.4

LIO II-4828 Technical specification

BATTERY MODULE		LIO II-4828 (14.336kWh, 51.2V)
PDU Module		1
Usable Energy		14.336kWh
Rated Discharging Current		185 A
Peak Discharging Current		200 A
Nominal Voltage		51.2 V
Full Charge Voltage(FC)		57.6 V (58.4 max)
Full Discharge Voltage(FD)		44.8 V (40 min)
Charge Current		120 A (0.42C)
Maximum Charge current		168A (0.6C)
Lifecycle		$\geq$ 6000 cycles, 0.6C charging/0.6C discharging; Remain capacity $\geq$ 80%
Dimension, D x W x H (mm) with wheel		600 x 950 x 450
Net Weight (kgs)		130
Operation Temperature		0°C~50 °C
IP Protection		IP20
Communication		RS485 port (RJ45)
Certifications		UN38.3, IEC 62619

Product specifications are subject to change without further notice.

LIO II-4810 is Lithium-ion battery module specially designed for energy storage system with 48V system

- Lithium Iron Phosphate (LFP) cell guarantees safety and reliability
- Easy to install on the floor
- Suitable for wide range of inverters with 48V system



UN 38.3 **UK
CA**



Compact size and Lightweight

Built-in Lithium Iron Phosphate (LFP) cell with less space and weight.



Fast charging

Battery module can be fully charged in shorter time.



Modular design for easy scalable

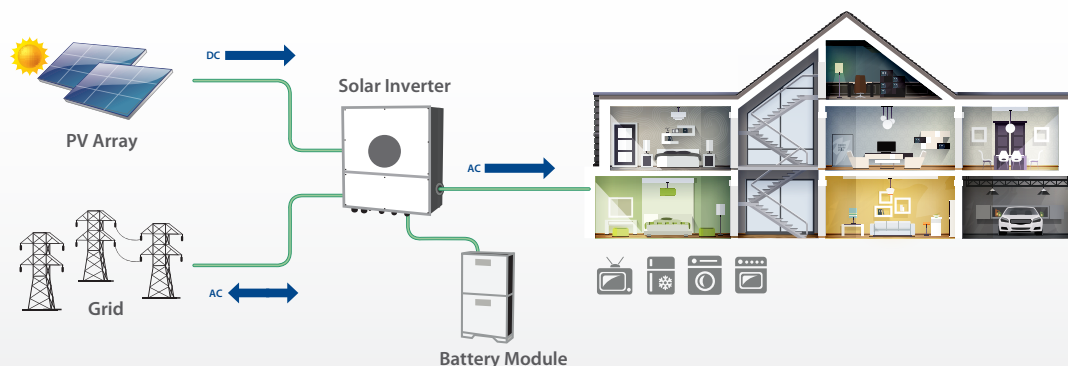
Battery module can be easily stacked and added for energy expansion.



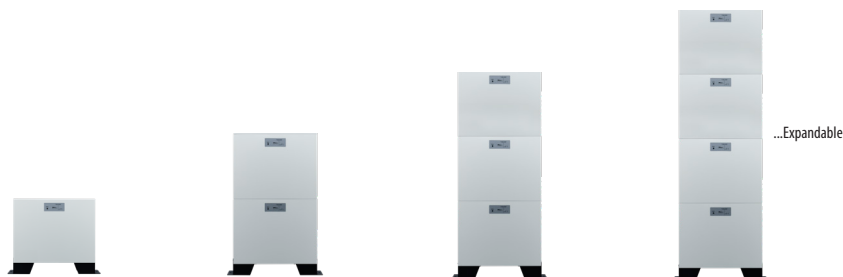
Maximum Lifecycle

8000 cycles is for 60% DOD with >50% capacity
4000 cycles is for 90% DOD with >80% capacity

System Diagram



Technical Selection Guide



Battery Module	LIO II-4810 (5 kwh, 51.2V)			
Battery Cell Technology	Lithium Iron Phosphate			
Applicable Inverter Rating	≤ 5.6 kw			
Number of Module	1	2	3	4
Usable Energy	5 kwh	10 kwh	15 kwh	20 kwh
Rated Discharging Current	150 A	150 A	150 A	150 A
Peak Discharging Current	192 A, 1 min	192 A, 1 min	192 A, 1 min	192 A, 1 min
Nominal Voltage	51.2 V	51.2 V	51.2 V	51.2 V
Operating Voltage	40 -56 VDC	40 -56 VDC	40 -56 VDC	40 -56 VDC
Charging Current	100A Max, 30A Default	100A Max, 30A Default	100A Max, 30A Default	100A Max, 30A Default
Dimension, D x W x H (mm) without feet	185 x 540 x 420	185 x 540 x 840	185 x 540 x 1260	185 x 540 x 1680
Net Weight (kg)	48	96	144	192



Battery Module	LIO II-4810 (5 kwh, 51.2V)		
Battery Cell Technology	Lithium Iron Phosphate		
Applicable Inverter Rating	6 kw ~ 12 kw		
Number of Module	2	3	4
Number of PDU Module	1	1	1
Usable Energy	10 kwh	15 kwh	20 kwh
Rated Discharging Current	300 A	300 A	300 A
Peak Discharging Current	384 A, 1 min	384 A, 1 min	384 A, 1 min
Nominal Voltage	51.2 V	51.2 V	51.2 V
Operating Voltage	40 - 56 VDC	40 - 56 VDC	40 - 56 VDC
Dimension, D x W x H (mm) without feet	185 x 540 x 1040	185 x 540 x 1460	185 x 540 x 1880
Net Weight (kg)	102	150	198

General Specification

Operation Temperature	Charge	0°C~50 °C
	Discharge	0°C~50 °C
Storage Temperature (At 50% SOC and specified temp, recoverable capacity in % vs time / 50%)		< 18 months: -20°C~25 °C
		< 3 months: 25°C~45 °C
		< 1 months: 45°C~60 °C
		20°C ± 5 °C is the recommended storage temperature
IP Protection		IP20
Communication		RS485 port (RJ45), CAN
Certifications		IEC 62619, EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3

Product specifications are subject to change without further notice.

- Built-in Active Cell Balancing, ensuring optimal performance and longevity of the battery pack
- Scalable design up to 15 units

Technical Selection Guide



MODEL		LIO II-4810K	LIO II-4810R	LIO II-2410E	LIO II-4810E
ENVIRONMENT					
Battery Cell Technology		Lithium Iron Phosphate			
Nominal Voltage		51.2 V	51.2 V	25.6 V	51.2 V
Battery Capacity		100Ah	100Ah	100Ah	100Ah
Max. Continuous Charging / Discharging Current		50A/100A @ 25°C	50A/100A @ 25°C	50A/100A+ @ 25°C	50A/100A+ @ 25°C
Max. Charging Voltage		57.6 V	57.6 V	29.2 V	57.6 V
Max. Discharging Voltage		43.2 V	43.2 V	20 V	43.2 V
Max. Parallel Unit		15	15	15	15
Dimension,D X W X H (mm)		140 x 450 x 500	480 x 442 x 133	140 x 450 x 350	140 x 450 x 500
Net Weight (kg)		43	43	30	43
ENVIRONMENT					
Operation Temperature	Charge	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C
	Discharge	-20°C~60°C (>45°C derating)		-20°C~60°C (>45°C derating)	
Operation Humidity		5% ~ 95% RH (non-condensing)			
Operation Air Pressure		61 kPa~ 113 kPa			
Lifecycle		4000 cycles @ 80% DOD			
MANAGEMENT					
IP Protection		IP20	IP20	IP65	
BMS Communication		RS485, RS232, CAN			
Safety Standard		EN IEC 61000-6-3, EN IEC 61000-6-1, EN IEC 61000-3-2, IEC 61000-3-3, IEC 62619, UN38.3		EN IEC 61000-6-3, EN IEC 61000-6-1, EN IEC 61000-3-2, IEC 61000-3-3, IEC 62619, UN38.3	

*Product specifications are subject to change without further notice

High Voltage Lithium-iron Battery Modules

- Lithium Iron Phosphate (LFP) cell guarantees safety and reliability
- Parallel operation up to 5 units for energy expansion
- Suitable for wide range of solar inverters with high-voltage



Compact size and Lightweight

Built-in Lithium Iron Phosphate (LFP) cell with less space and weight.



Fast charging

Battery module can be fully charged in shorter time.



Modular design for easy scalable

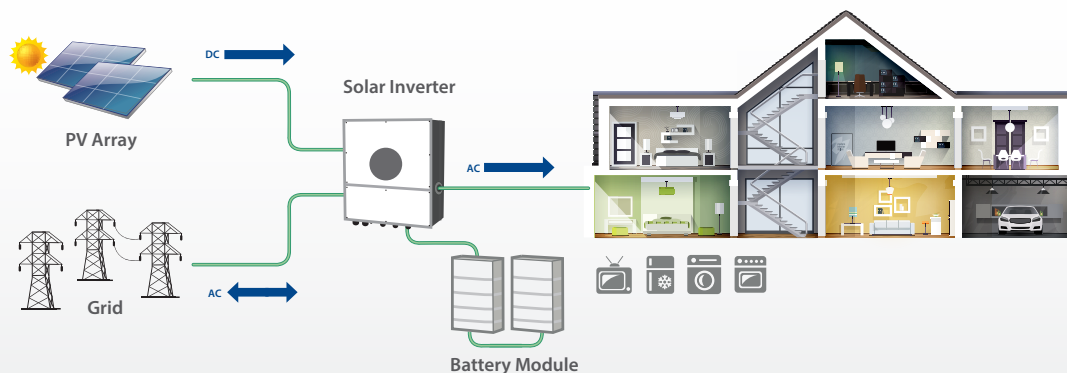
Battery module can be easily stacked and added for energy expansion.



Maximum Lifecycle

8000 cycles is for 60% DOD with >50% capacity
6000 cycles is for 80% DOD with >80% capacity
4000 cycles is for 90% DOD with >80% capacity

System Diagram



Technical Specification



BATTERY MODEL		EnergyCube 205	EnergyCube 305	EnergyCube 405	EnergyCube 605
CONTROLLER BOX MODULE		HVC 05	HVC 05	HVC 05	HVC 05
SINGLE BATTERY MODULE		HVB 05 (102.4V/50AH, 5120Wh)	HVB 05 (102.4V/50AH, 5120Wh)	HVB 05 (102.4V/50AH, 5120Wh)	HVB 05 (102.4V/50AH, 5120Wh)
NUMBERS OF MODULES		2	3	4	6
PARAMETERS					
Nominal Voltage		204.8VDC	307.2VDC	409.6VDC	614.4VDC
Full Charge Voltage (FC)		224VDC	336VDC	448VDC	672VDC
Full Discharge Voltage (FD)		179.2VDC	268.8VDC	358.4VDC	537.6VDC
Typical Capacity		50Ah			
Typical Energy		10KWH	15KWH	20KWH	30KWh
Max Continuous Discharging Current		60A			
Max Peak Discharging Current		75A			
Protection		BMS & Circuit Breaker			
Charge Current		10A	10A	10A	10A
Maximum Charge current		25A	25A	25A	25A
Standard Charge Method		0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C			
Cycle Life		6000 Cycles @>80% capacity			
Inner Resistance		≤20m ohm			
Operating Temperature	Charge	0°C~55 °C			
	Discharge	0°C~55 °C			
Compliance Safety		IEC 62619, UN38.3			
PHYSICAL					
Single Battery Module	Dimension, D x W x H (mm)	220 x 630 x 320	220 x 630 x 320	220 x 630 x 320	220 x 630 x 320
	Net Weight(Kg)	51.3	51.3	51.3	51.3
Controller Box	Dimension, D x W x H (mm)	220 x 630 x 210	220 x 630 x 210	220 x 630 x 210	220 x 630 x 210
	Net Weight(Kg)	9.95	9.95	9.95	9.95
Complete Set	Dimension, D x W x H (mm)	220 x 630 x 960	220 x 630 x 1280	220 x 630 x 1600	220 x 630 x 1280 & 220 x 630 x 1070
	Net Weight(Kg)	118	169	221	328

Product specifications are subject to change without further notice.

Energy Storage System for Residential

30kw hybrid solar inverter with High-Voltage 30kWh Lithium-ion battery modules



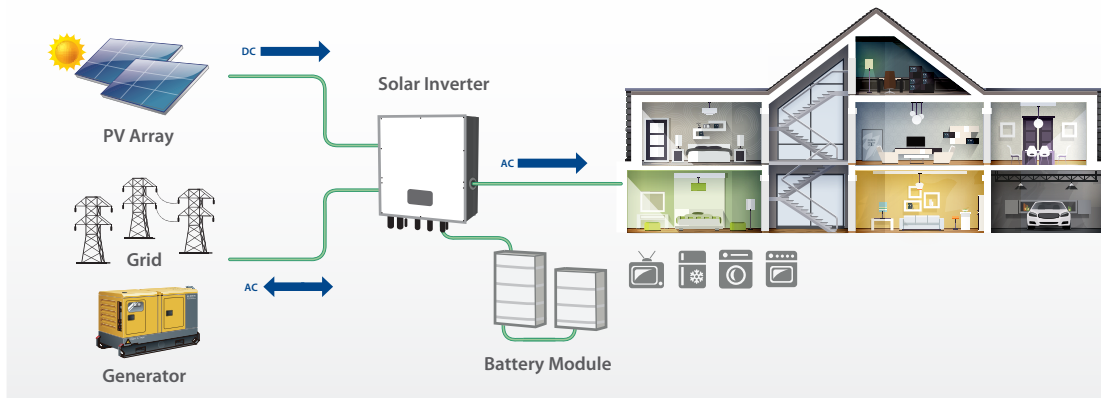
Lithium Iron Phosphate (LFP)
Battery Pack



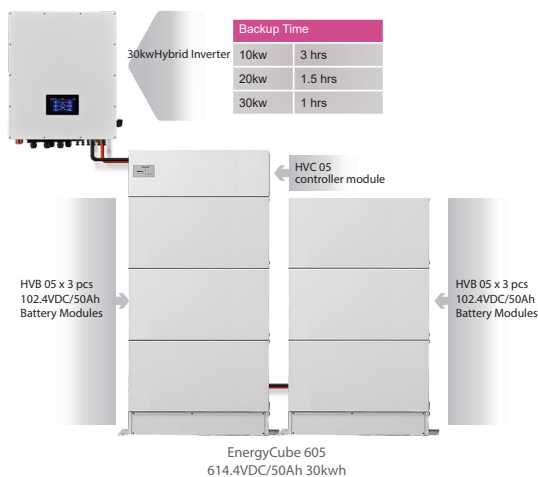
EnergyCube 605
(30kWh)

- Accept dual AC inputs, utility power and generator power
- 150% unbalanced load support
- Built-in WiFi for mobile monitoring (App is available)
- Wide battery input range
- Built-in communication port for BMS (RS485)
- Self-consumption and feed-back to the grid
- Programmable supply priority for PV, battery or Grid
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various mode of on/off operation
- Lithium Iron Phosphate (LFP) cell
- Scalable Li-Ion battery expansion up to 3 units

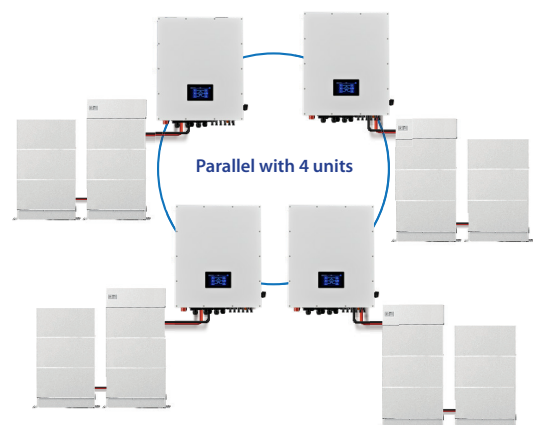
System Diagram



30kW hybrid inverter with EnergyCube 605



Parallel operation



Energy Storage System Specification

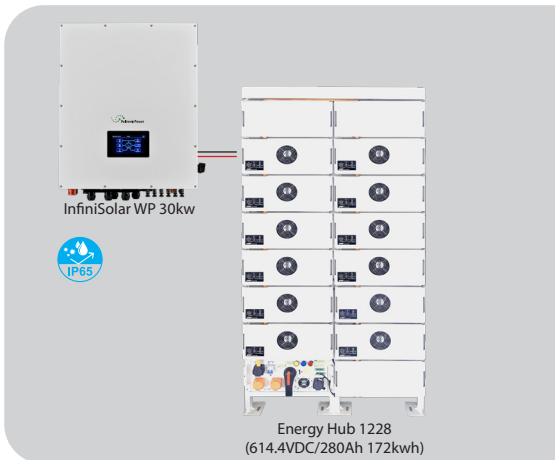
INVERTER MODEL		InfiniSolar WP 30kw
Maximum PV Input Power		40,000 W
Rated Output Power		30,000 W
Maximum Charging Power		30,000 W
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage		720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage		320 VDC / 350 VDC
MPP Voltage Range		350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current		3 / A: 26A, B: 26A, C: 26A
GRID OUTPUT		
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range		184 - 265 VAC per phase
Max. Output Current		43.5 A per phase
Maximum Conversion Efficiency (DC/AC)		96.5%
European Efficiency @ Vnominal		96%
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage		120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range		170 -280 VAC per phase
Maximum AC Input Current		50 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)
Maximum Conversion Efficiency (DC/AC)		97%
BATTERY & CHARGER		
Nominal DC Voltage		500 ~ 900 VDC
Maximum Charging Current		50 A
PHYSICAL		
Dimension, D x W x H (mm)		255 x 660 x 750
Net Weight (kgs)		73

BATTERY MODEL		EnergyCube 605
CONTROLLER BOX MODULE		HVC 05
SINGLE BATTERY MODULE		HVB 05 (102.4V/50Ah, 5120Wh)
NUMBERS OF MODULES		6
PARAMETERS		
Nominal Voltage		614.4VDC
Full Charge Voltage (FC)		691.2VDC
Full Discharge Voltage (FD)		537.6VDC
Typical Capacity		50Ah
Typical Energy		30kwh
Max Continuous Discharging Current		60A
Max Peak Discharging Current		75A
Protection		BMS & Circuit Breaker
Charge Voltage		672VDC
Charge Current		10A
Maximum Charge current		25A
Standard Charge Method		0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Cycle Life		6000 Cycles @>80% capacity
Inner Resistance		≤20m ohm
Operating Temperature	Charge	0°C~55 °C
	Discharge	0°C~55 °C
Compliance Safety		IEC 62619, UN38.3
PHYSICAL		
Single Battery Module	Dimension, D x W x H (mm)	220 x 630 x 320
	Net Weight(Kg)	51.3
Controller Box	Dimension, D x W x H (mm)	220 x 630 x 210
	Net Weight(Kg)	9.95
Complete Set	Dimension, D x W x H (mm)	220 x 630 x 1280 & 220 x 630 x 1070
	Net Weight(Kg)	328

Product specifications are subject to change without further notice.

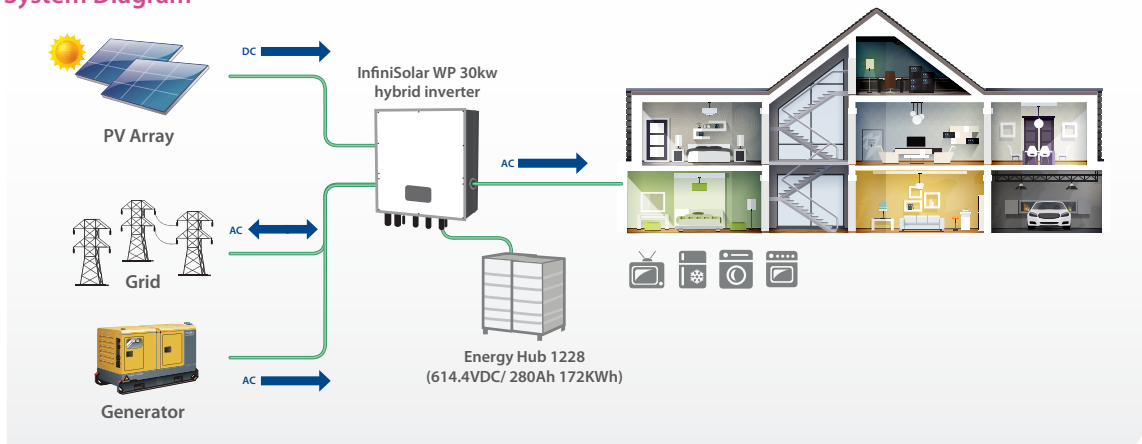
Energy Storage System for Commercial

30kw hybrid solar inverter with High-Voltage 172kwh Lithium-ion battery modules

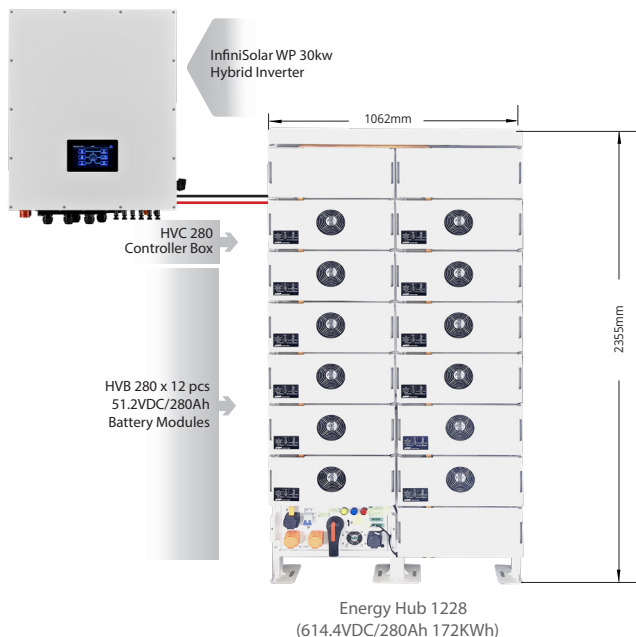


- IP65 enclosure for hybrid inverter
- Accept dual AC inputs, utility power and generator power
- 150% unbalanced load support
- Built-in WiFi for mobile monitoring (App is available)
- Enhance AC/Solar charger to 50A
- Wide battery input range
- Built-in communication port for BMS (RS485)
- Self-consumption and feed-back to the grid
- Programmable supply priority for PV, battery or Grid
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Lithium Iron Phosphate (LFP) cell
- Scalable Li-Ion battery expansion

System Diagram



InfiniSolar WP 30kw hybrid inverter with Energy Hub 1228



Energy Storage System Specification

INVERTER MODEL		InfiniSolar WP 30kw
Maximum PV Input Power		40,000 W
Rated Output Power		30,000 W
Maximum Charging Power		30,000 W
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage		720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage		320 VDC / 350 VDC
MPP Voltage Range		350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current		3 / A: 26A, B: 26A, C: 26A
GRID OUTPUT		
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range		184 - 265 VAC per phase
Max. Output Current		43.5 A per phase
Maximum Conversion Efficiency (DC/AC)		96.5%
European Efficiency @ Vnominal		96%
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage		120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range		170 -280 VAC per phase
Maximum AC Input Current		50 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)
Maximum Conversion Efficiency (DC/AC)		97%
BATTERY & CHARGER		
Nominal DC Voltage		500 ~ 900 VDC
Maximum Charging Current		50 A
PHYSICAL		
Dimension, D x W x H (mm)		255 x 660 x 750
Net Weight (kgs)		73

BATTERY MODEL		Eenergy Hub 1228
CONTROLLER BOX MODULE		HVC 280
SINGLE BATTERY MODULE		HVB 280 (51.2V/280AH, 14.3KWh)
NUMBERS OF MODULES		12
PARAMETERS		
Nominal Voltage		614.4VDC
Full Charge Voltage (FC)		691VDC
Full Discharge Voltage (FD)		576VDC
Typical Capacity		280 Ah
Typical Energy		172KWh
Max Continuous Discharging Current		170A (0.6C)
Max Peak Discharging Current		200A
Protection		BMS
Charge Voltage		691VDC (3.6VDC/Cell)
Charge Current		20A
Maximum Charge current		50A
Communication Protocol		CAN
Standard Charge Method		0.2C~0.6C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Inner Resistance		≤20m ohm
Cycle Life		>6000Cycle @ 0.6C/0.6C Charge & Discharge with 90% DoD with 80% Remain capacity
PHYSICAL		
Single Battery Module	Dimension, D x W x H (mm)	805 x 523 x 231
	Net Weight(Kg)	120
Controller Box	Dimension, D x W x H (mm)	799 x 523 x 234
	Net Weight(Kg)	30
Complete Set	Dimension, D x W x H (mm)	820 x 1062 x 2355
	Net Weight(Kg)	1745

Product specifications are subject to change without further notice.

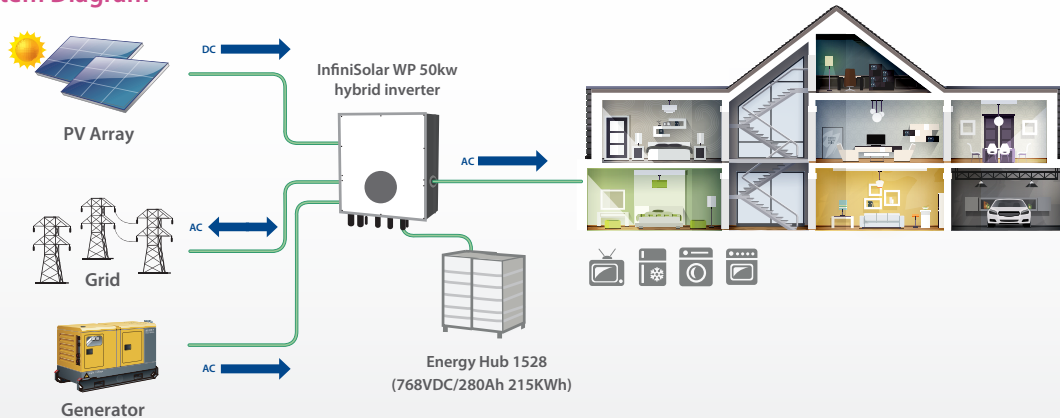
Energy Storage System

50kw hybrid solar inverter with High-Voltage 215kWh Lithium-ion battery modules

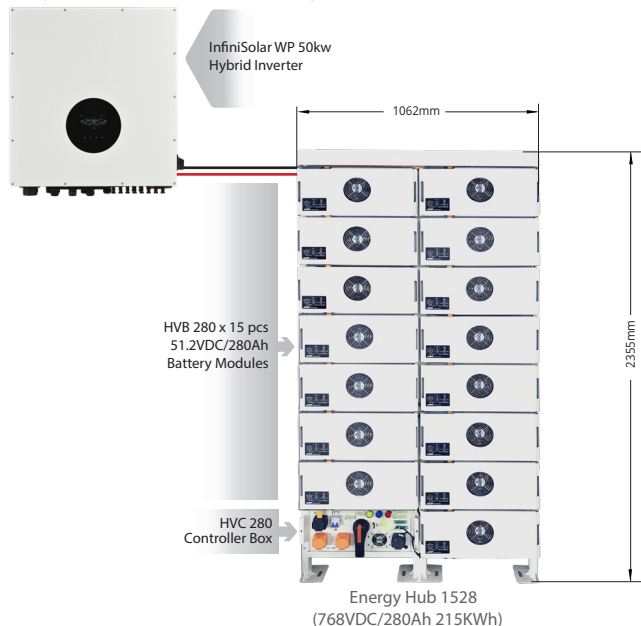


- IP65 enclosure for hybrid inverter
- Accept dual AC inputs, utility power and generator power
- 150% unbalanced load support
- Built-in WiFi for mobile monitoring (App is available)
- Enhance AC/Solar charger to 65A
- Wide battery input range
- Built-in communication port for BMS (RS485/CAN)
- Self-consumption and feed-back to the grid
- Programmable supply priority for PV, battery or Grid
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Lithium Iron Phosphate (LFP) cell
- Scalable Li-Ion battery expansion

System Diagram



InfiniSolar WP 50kw hybrid inverter with Energy Hub 1528



Energy Storage System Specification

INVERTER MODEL		InfiniSolar WP 50kw
Maximum PV Input Power		65,000 W
Rated Output Power		50,000 W
Maximum Charging Power		50,000 W
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage		720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage		320 VDC / 350 VDC
MPP Voltage Range		350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current		4 / A: 32A, B: 32A, C: 32A, D:32A
Number of Stings Per MPP Tracker		2
GRID OUTPUT		
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range		184 - 265 VAC per phase
Max. Output Current		73 A per phase
Maximum Conversion Efficiency (DC/AC)		96.5%
European Efficiency @ Vnominal		96%
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage		120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range		170 -280 VAC per phase
Maximum AC Input Current		83 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)
Maximum Conversion Efficiency (DC/AC)		97%
BATTERY & CHARGER		
Nominal DC Voltage		500 ~ 900 VDC
Maximum Charging Current		65 A
PHYSICAL		
Dimension, D x W x H (mm)		268 x 700 x 750
Net Weight (kgs)		110

BATTERY MODEL		Energy Hub 1528
CONTROLLER BOX MODULE		HVC 280
SINGLE BATTERY MODULE		HVB 280 (51.2V/280AH, 14.3KWh)
NUMBERS OF MODULES		15
PARAMETERS		
Nominal Voltage		768VDC
Full Charge Voltage (FC)		840VDC(3.5VDC/CELL)
Full Discharge Voltage (FD)		720VDC
Typical Capacity		280 Ah
Typical Energy		215KWh
Max Continuous Discharging Current		170A (0.6C)
Max Peak Discharging Current		200A
Protection		BMS
Charge Voltage		840VDC(3.5VDC/CELL)
Charge Current		170A (0.6C)
Maximum Charge current		200A
Communication Protocol		CAN
Standard Charge Method		0.2C~0.6C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Inner Resistance		≤20m ohm
Cycle Life		>4500Cycle @ 0.6C/0.6C Charge & Discharge with 90% DoD with 80% Remain capacity
PHYSICAL		
Single Battery Module	Dimension, D x W x H (mm)	805 x 523 x 231
	Net Weight(Kg)	120
Controller Box	Dimension, D x W x H (mm)	799 x 523 x 234
	Net Weight(Kg)	30
Complete Set	Dimension, D x W x H (mm)	820 x 1062 x 2355
	Net Weight(Kg)	2105

Product specifications are subject to change without further notice.

InfiniSolar V II TWIN

Operation without battery



- Maximum PV input current 27A
- Dual outputs for smart load management
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel operation up to 9 units
- Built-in anti-dust kit

InfiniSolar V II TWIN Hybrid Inverter Specification

MODEL	InfiniSolar V II TWIN 6.2KW
PHASE	1-phase in / 1-phase out
MAXIMUM PV INPUT POWER	8000W
RATED OUTPUT POWER	6200W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	130VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Frequency Range	50 Hz/60 Hz (Auto sensing)
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Waveform	Pure sine wave
Efficiency (DC to AC)	93%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	130VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Solar Charging Current	120 A
Maximum AC Charging Current	120 A
Maximum Charging Current	120 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	120 x 295 x 468
Net Weight (kgs)	12
INTERACE	
Parallel Function	Yes, 9 units
Communication Port	USB or RS-232/Dry Contact
ENVIRONMENT	
Humidity	0 ~ 90% RH (No condensing)
Operating Temperature	-10°C to 50°C

Product specifications are subject to change without further notice.

InfiniSolar V III TWIN



- Maximum PV input current 27A
- Dual outputs for smart load management
- Built-in WiFi with APP for remote monitoring and OTA firmware upgrade
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Detachable LCD panel
- Supports USB on-the-go function
- Reserve BMS communication
- Parallel operation up to 9 units

InfiniSolar V III TWIN Hybrid Inverter Specification

MODEL	InfiniSolar V III TWIN 6.2KW
PHASE	1-phase in / 1-phase out
MAXIMUM PV INPUT POWER	8000W
RATED OUTPUT POWER	6200W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Frequency Range	50 Hz/60 Hz (Auto sensing)
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Waveform	Pure sine wave
Efficiency (DC to AC)	93%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Solar Charging Current	120 A
Maximum AC Charging Current	120 A
Maximum Charging Current	120 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kgs)	14
INTERFACE	
Parallel Function	Yes, 9 units
Communication Port	USB, RS-232, Dry Contact and WiFi
ENVIRONMENT	
Humidity	0 ~ 90% RH (No condensing)
Operating Temperature	-10°C to 50°C

Product specifications are subject to change without further notice.

InfiniSolar V 4 TWIN



- Maximum PV input current 27A
- Dual outputs for smart load management
- Touchable button with 4.3" colored LCD
- Built-in Wi-Fi with APP for remote monitoring and OTA firmware upgrade
- Programmable supply priority for PV, Battery or Grid
- Self-consumption first and sell excess energy back to grid
- Reserved communication port for BMS
- Parallel operation up to 9 units

InfiniSolar V 4 TWIN Hybrid Inverter Specification

MODEL	InfiniSolar V 4 TWIN 6.2KW
PHASE	1-phase in / 1-phase out
MAXIMUM PV INPUT POWER	8000W
RATED OUTPUT POWER	6200W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	96%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Waveform	Pure sinewave
Efficiency (DC to AC)	93%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Solar Charging Current	120A
Maximum AC Charging Current	120A
Maximum Charging Current	120A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kgs)	12
INTERFACE	
Parallel Function	Yes, 9 units
Communication Port	USB/RS232/RS485/WiFi/Dry-contact
ENVIRONMENT	
Humidity	0 ~ 90% RH (Non-condensing)
Operating Temperature	-10 to 50°C

Product specifications are subject to change without further notice.

InfiniSolar V 5



- Built-in 2 MPPT strings
- Dual outputs for smart load management
- 4.3" colored touch screen with user-friendly LCD operation
- Built-in WiFi with APP for remote monitoring and OTA firmware upgrade
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- External CT sensor to guarantee 100% self-consumption
- Reserved communication port for BMS
- Parallel operation up to 9 units

InfiniSolar V 5 Hybrid Inverter Specification

MODEL	InfiniSolar V 5 6KW
PHASE	1-phase in / 1-phase out
MAXIMUM PV INPUT POWER	8000W
RATED OUTPUT POWER	7000W with PV & battery 6000W with battery only
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 450 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	2 / 18 A+18A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	96%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	450 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	2 / 18 A+18A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Waveform	Pure sinewave
Efficiency (DC to AC)	93%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 450 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	2 / 18 A+18A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)
Nominal Output Current	26A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Solar Charging Current	120A
Maximum AC Charging Current	120A
Maximum Charging Current	120A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	142.5 x 308 x 468
Net Weight (kgs)	12
INTERFACE	
Parallel Function	Yes, 9 units
Communication Port	USB/RS232/RS485/Wifi/Dry-contact
ENVIRONMENT	
Humidity	0 ~ 90% RH (Non-condensing)
Operating Temperature	-10 to 50°C

Product specifications are subject to change without further notice.

InfiniSolar Premium



- User-friendly HMI LCD design and easy configuration
- Dual output for smart load control
- Two independent AC power sources connected and switched automatically
- Built-in WiFi for mobile monitoring (App is available)
- User-adjustable charging current
- Reserved communication port for BMS (RS485)
- Parallel operation up to 6 units

InfiniSolar Premium Three Phase Hybrid Inverter Selection Guide

MODEL	InfiniSolar Premium 10KW	InfiniSolar Premium 12KW	InfiniSolar Premium 15KW
MAXIMUM PV INPUT POWER	15000W	18000W	18000W
RATED OUTPUT POWER	10000W	12000W	15000W with PV& Battery 12000W with battery only
MAXIMUM CHARGING POWER	10000W	12000W	12000W
GRID-TIE OPERATION			
PV INPUT (DC)			
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 900 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC	150 VDC / 150 VDC	150 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC
Full MPP Voltage Range	400 VDC ~ 850 VDC	400 VDC ~ 850 VDC	400 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 27A, B: 18A	2 / A: 27A, B: 18A
Number of Strings Per MPP Tracker	A: 2, B: 2	A: 2, B: 2	A: 2, B: 2
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC* per phase	184 - 265 VAC* per phase	184 - 265 VAC* per phase
Nominal Output Current	14.5 A per phase	17.4A per phase	17.4A per phase
Power Factor range	0.9 lag ~ 0.9 lead	0.9 lag ~ 0.9 lead	0.9 lag ~ 0.9 lead
EFFICIENCY			
Maximum Conversion Efficiency (DC/AC)	>96%	>96%	>96%
European Efficiency@ Vnominal	>95%	>95%	>95%
OFF-GRID OPERATION			
AC INPUT			
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase		
Acceptable Input Voltage Range	170 - 290 VAC per phase		
Maximum AC Input Current	50 A		
PV INPUT (DC)			
Maximum DC Voltage	900 VDC		
MPP Voltage Range	150 VDC ~ 850 VDC		
Full MPP Voltage Range	400 VDC ~ 850 VDC	420 VDC ~ 850 VDC	400 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 18A, B: 18A	2 / A: 27A, B: 18A	2 / A: 18A, B: 18A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	>93%		
HYBRID OPERATION			
PV INPUT (DC)			
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 900 VDC		
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC	150 VDC / 150 VDC	150 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC
Full MPP Voltage Range	420 VDC ~ 850 VDC	400 VDC ~ 850 VDC	420 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 18A, B: 18A	2 / A: 27A, B: 18A	2 / A: 27A, B: 18A
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Voltage Range	184 - 265 VAC* per phase		
Nominal Output Current	14.5 A per phase	17.4A per phase	21.7A per phase
AC INPUT			
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase		
Acceptable Input Voltage Range	170 - 290 VAC per phase		
Maximum AC Input Current	50 A		
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Efficiency (DC to AC)	>93%		
BATTERY & CHARGER			
Battery Voltage Range	40 ~ 60 VDC		
Maximum Charging Current	200 A	240 A	300 A
GENERAL			
PHYSICAL			
Dimension, D x W x H (mm)	248 x 500 x 735		
Net Weight (kgs)	45	45	45
INTERFACE			
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi		
Intelligent Slot	Optional for SNMP and Modbus cards		
ENVIRONMENT			
Humidity	0 ~ 100% RH (Non-condensing)		
Operating Temperature	-25 to 60°C, > 45°C power derating		
Altitude	0 ~ 1000 m**		
PROTECTION & CERTIFICATE			
Safety	IEC 62116, IEC 62727, IEC 61683, IEC 62109, IEC 61000-6-2:2019, IEC 61000-6-4:2019, IEC 61000-3-11:2019, EN 61000-3-12: 2011		
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105		

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m

Product specifications are subject to change without further notice

Infini V4 WP Plus

2x2
IN OUTMPPT TRACKERS
x2

Wi-Fi

IP66

- IP66 certified enclosure
- Built-in 2 MPP trackers
- Maximum PV input current increases to 21A
- Dual outputs for smart load control
- Two independent AC power sources connected and switched automatically
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- Built-in communication port for BMS (RS485), Wi-Fi
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Parallel operation up to 6 units

Infini V4 WP Plus Plus Hybrid Inverter Specification

MODEL	Infini V4 WP 6KW Plus
PHASE	1-phase in / 1-phase out
MAXIMUM PV INPUT POWER	9000 W
RATED OUTPUT POWER	6000VA/6000W
MAXIMUM CHARGING POWER	6000 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 400 VDC
Number of MPP Trackers / Maximum Input Current	2 / 21A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC or 184 - 264.4 VAC (Selectable)
Nominal Output Current	26A
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	60 - 80 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Frequency Range	50 Hz/60 Hz (Auto sensing)
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
MPP Voltage Range	120 VDC ~ 400 VDC
Number of MPP Trackers / Maximum Input Current	2 / 21A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Waveform	Pure sine wave
Efficiency (DC to AC)	90% - 93%
HYBRID OPERATION	
PV INPUT (DC)	
Maximum DC Voltage	500 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 400 VDC
Number of MPP Trackers / Maximum Input Current	2 / 21A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC or 184 - 264.4 VAC (Selectable)
Nominal Output Current	26A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	60 - 80 VAC / 180 VAC
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC
Maximum AC Input Current	40 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Solar Charging Current	120 A
Maximum AC Charging Current	120 A
Maximum Charging Current	120 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	192 x 385 x 665
Net Weight (kgs)	28
INTERFACE	
Parallel Function	Yes, 6 units
Communication Port	USB or RS-232/Dry Contact/RS485/Wi-Fi
ENVIRONMENT	
Humidity	0 ~ 100% RH (No condensing)
Operating Temperature	-10°C to 50°C
PROTECTION & CERTIFICATE	
Safety	IEC 62109, IEC 62116, IEC 61727, IEC 61683
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105, G99, TOR Erzeuger Typ A

Product specifications are subject to change without further notice.

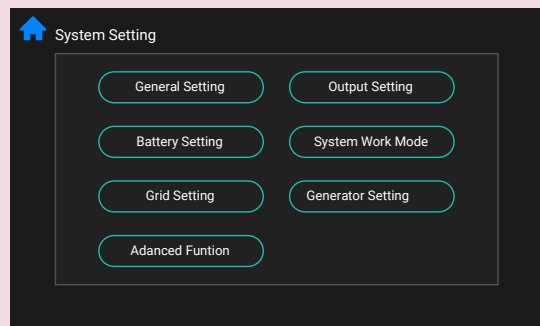
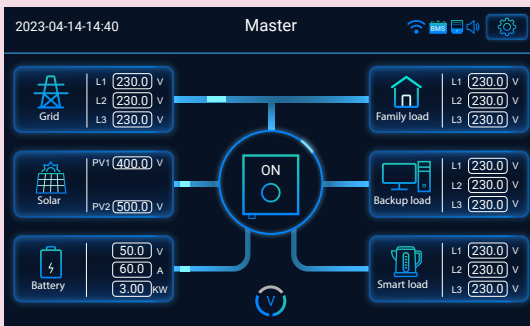
InfiniSolar WP Elite



- IP66 certified enclosure
- User-friendly HMI LCD design and easy configuration
- Dual output for smart load control
- Two independent AC power sources connected and switched automatically
- Built-in WiFi for mobile monitoring (App is available)
- 150% unbalanced load support
- User-adjustable charging current and voltage
- Reserved communication port for BMS (RS485)
- 5 years warranty
- Parallel operation up to 6 units

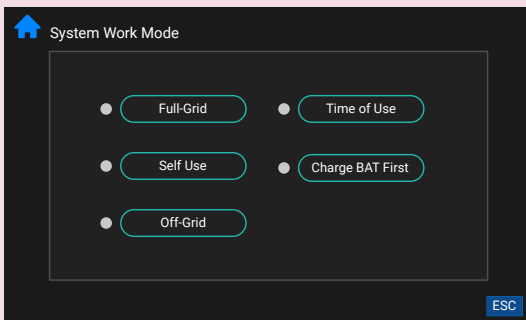
User-friendly HMI LCD simplify the initial setup

Important information presented on main screen and parameter settings are grouped by function



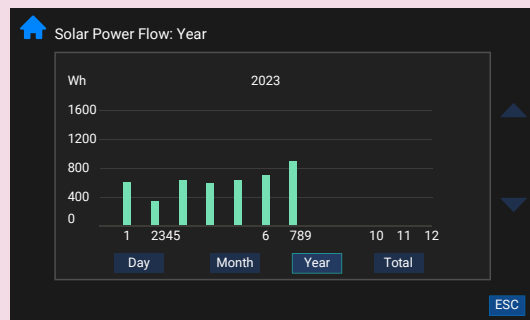
Password protected calibration menu for easy maintenance.

Five preset scenarios to simplify setup



Set the priority to power the load, AC charging time, and feed in to the grid based on selected operation mode.

Statistical graphs for Grid Power, Solar Power, Family Power and Backup Power



Visualize daily, monthly, annual and total power generation.

InfiniSolar WP Elite Three Phase Hybrid Inverter Selection Guide

MODEL	InfiniSolar WP Elite 8KW	InfiniSolar WP Elite 10KW	InfiniSolar WP Elite 12KW
MAXIMUM PV INPUT POWER	12000W	15000W	18000W
RATED OUTPUT POWER	8000W	10000W	12000W
MAXIMUM CHARGING POWER	8000W	10000W	12000W
GRID-TIE OPERATION			
PV INPUT (DC)			
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 900 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC	150 VDC / 150 VDC	150 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC
Full MPP Voltage Range	400 VDC ~ 850 VDC	420 VDC ~ 850 VDC	400 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 18A, B: 18A	2 / A: 27A, B: 18A
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC* per phase	184 - 265 VAC* per phase	184 - 265 VAC* per phase
Nominal Output Current	11.6 A per phase	14.5 A per phase	17.4A per phase
Power Factor range	0.9 lag ~ 0.9 lead	0.9 lag ~ 0.9 lead	0.9 lag ~ 0.9 lead
EFFICIENCY			
Maximum Conversion Efficiency (DC/AC)	>96%	>96%	>96%
European Efficiency@ Vnominal	>95%	>95%	>95%
OFF-GRID OPERATION			
AC INPUT			
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase		
Acceptable Input Voltage Range	170 - 290 VAC per phase		
Maximum AC Input Current	40 A		
PV INPUT (DC)			
Maximum DC Voltage	900 VDC		
MPP Voltage Range	150 VDC ~ 850 VDC		
Full MPP Voltage Range	400 VDC ~ 850 VDC	420 VDC ~ 850 VDC	400 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 18A, B: 18A	2 / A: 18A, B: 18A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	>93%		
HYBRID OPERATION			
PV INPUT (DC)			
Maximum DC Voltage	900 VDC		
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC	150 VDC / 150 VDC	150 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC	150 VDC ~ 850 VDC
Full MPP Voltage Range	400 VDC ~ 850 VDC	420 VDC ~ 850 VDC	400 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 18A, B: 18A	2 / A: 18A, B: 18A
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Voltage Range	184 - 265 VAC* per phase		
Nominal Output Current	11.6 A per phase	14.5 A per phase	17.4A per phase
AC INPUT			
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase		
Acceptable Input Voltage Range	170 - 290 VAC per phase		
Maximum AC Input Current	40 A		
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Efficiency (DC to AC)	>93%		
BATTERY & CHARGER			
Battery Voltage Range	40 ~ 60 VDC		
Maximum Discharging Current	200 A	220 A	250 A
Maximum Charging Current	160 A	200 A	240 A
GENERAL			
PHYSICAL			
Dimension, D x W x H (mm)	247 x 500 x 650		
Net Weight (kgs)	50		54
INTERFACE			
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi		
Intelligent Slot	Optional for SNMP and Modbus cards		
ENVIRONMENT			
Humidity	0 ~ 100% RH (Non-condensing)		
Operating Temperature	-25 to 60°C, > 45°C power derating		
Altitude	0 ~ 1000 m**		
PROTECTION & CERTIFICATE			
Safety	IEC 62116, IEC 62727, IEC 61683, IEC 62109, IEC 61000-6-2:2019, IEC 61000-6-4:2019, IEC 61000-3-11:2019, EN 61000-3-12: 2011		
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105		

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m
Product specifications are subject to change without further notice

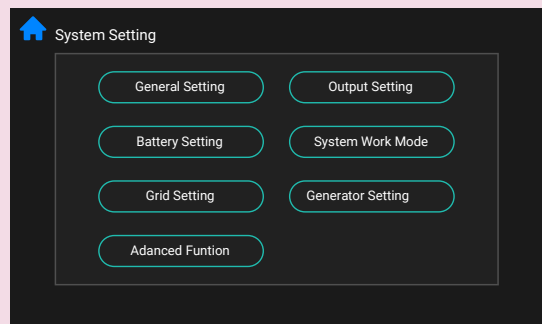
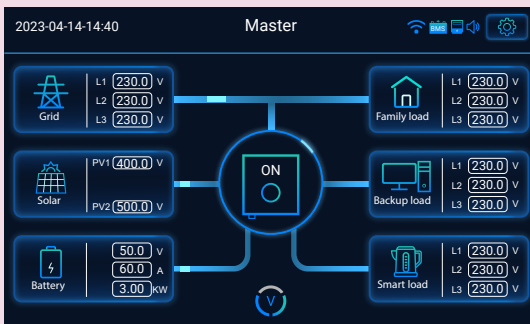
InfiniSolar WP TWIN HMI 12kw, 15kw



- IP66 certified enclosure
- User-friendly HMI LCD design for easy configuration
- Built-in WiFi for mobile monitoring (App is available)
- 150% unbalanced load support
- 26A maximum PV input current
- Dual outputs for smart load management
- User-adjustable charging current
- Reserved communication port for BMS (RS485)
- Parallel operation up to 6 units

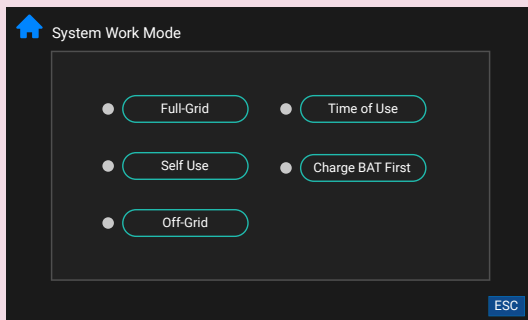
User-friendly HMI LCD simplify the initial setup

Important information presented on main screen and parameter settings are grouped by function



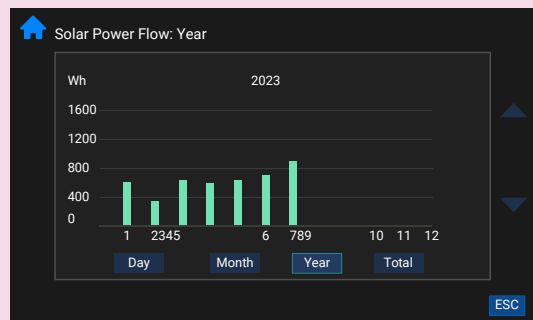
Password protected calibration menu for easy maintenance.

Five preset scenarios to simplify setup



Set the priority to power the load, AC charging time, and feed in to the grid based on selected operation mode.

Statistical graphs for Grid Power, Solar Power, Family Power and Backup Power



Visualize daily, monthly, annual and total power generation.

InfiniSolar WP TWIN HMI Three Phase Hybrid Inverter Selection Guide

MODEL	InfiniSolar WP TWIN HMI 12kw	InfiniSolar WP TWIN HMI 15kw
MAXIMUM PV INPUT POWER	16000 W	22500 W
RATED OUTPUT POWER	12000 W	15000 W
MAXIMUM CHARGING POWER	12000 W	15000 W
GRID-TIE OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 1000 VDC	720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC	
MPP Voltage Range	350 VDC ~ 950 VDC	350 VDC ~ 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 2	A: 2, B: 2
GRID OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Output Voltage Range	184 - 265 VAC per phase	
Nominal Output Current	17.4 A per phase	21.7 A per phase
Power Factor range	0.9 lag ~ 0.9 lead	
EFFICIENCY		
Maximum Conversion Efficiency (DC/AC)	>96%	
European Efficiency@ Vnominal	>95%	
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC	
Acceptable Input Voltage Range	170 - 290 VAC per phase	
Maximum AC Input Current	40 A	40 A
PV INPUT (DC)		
Maximum DC Power	16000 W	22500 W
Maximum DC Voltage	1000 VDC	1000 VDC
MPP Voltage Range	350 VDC ~ 950 VDC	350 VDC ~ 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 2	A: 2, B: 2
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Output Waveform	Pure sine wave	
Efficiency (DC to AC)	91%	91%
HYBRID OPERATION		
PV INPUT (DC)		
Maximum DC Voltage	1000 VDC	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC	
MPP Voltage Range	350 VDC ~ 950 VDC	350 VDC ~ 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 2	A: 2, B: 2
GRID OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Output Voltage Range	184 - 265 VAC per phase	
Nominal Output Current	17.4 A per phase	21.7 A per phase
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC	
Acceptable Input Voltage Range	170 - 290 VAC per phase	
Maximum AC Input Current	40 A	40 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Efficiency (DC to AC)	91%	91%
BATTERY & CHARGER		
Battery Voltage Range	40 ~ 62 VDC	40 ~ 62 VDC
Maximum Charging Current	250 A	300 A
GENERAL		
PHYSICAL		
Dimension, D x W x H (mm)	255 x 660 x 750	
Net Weight (kgs)	75	78
INTERFACE		
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi	
Intelligent Slot	Optional for SNMP and Modbus cards	
ENVIRONMENT		
Humidity	0 ~ 100% RH (Non-condensing)	
Operating Temperature	-25 to 60°C, > 45°C power derating	
Altitude	0 ~ 1000 m**	
PROTECTION & CERTIFICATE		
Safety	IEC 62109, IEC 62116, IEC 61727, IEC 61683	
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105, G99	

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m.
Product specifications are subject to change without further notice.

InfiniSolar WP 30kw



- IP65 waterproof and dustproof design
- User-friendly HMI LCD design for easy configuration
- Built-in third generation SIC MOSEFET improves efficiency
- Accept dual AC inputs, utility power and generator power
- Built-in WiFi for mobile monitoring (App is available)
- User-adjustable charging current up to 50A
- Wide battery input range
- Built-in communication port for BMS (RS485)
- Parallel operation up to 4 units

InfiniSolar WP Three Phase Hybrid Inverter Specification

MODEL	InfiniSolar WP 30kw
MAXIMUM PV INPUT POWER	40000 W
RATED OUTPUT POWER	30000 W
MAXIMUM CHARGING POWER	30000 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	3 / A: 26A, B: 26A, C: 26A
Number of Strings Per MPP Tracker	A: 2, B: 2, C: 2
GRID/UTILITY OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	43.5 A per phase
Power Factor	0.9 lag to 0.9 lead
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	96.5%
European Efficiency@ Vnominal	96%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	50 A
PV INPUT (DC)	
Maximum DC Voltage	1000 VDC
MPP Voltage Range	350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	3 / A: 26A, B: 26A, C: 26A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	97%
HYBRID OPERATION	
PV INPUT (DC)	
Maximum DC Voltage	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	3 / A: 26A, B: 26A, C: 26A
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	43.5 A per phase
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	50 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	97%
BATTERY & CHARGER	
Battery Voltage Range	500 ~ 900 VDC
Maximum Charging Current	50 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	255 x 660 x 750
Net Weight (kgs)	73
INTERFACE	
Communication Port	RS-232, USB, DRY CONTACT, RS-485 and Wi-Fi
Intelligent Slot	Optional SNMP and MODBUS
ENVIRONMENT	
Humidity	0 ~ 100% RH
Operating Temperature	-25°C to 60°C (>45°C De-rating)
Altitude	0 ~ 1000 m**
PROTECTION & CERTIFICATE	
EMI/Safety	IEC/EN 61000, IEC/EN 62920, EN 62477
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105, G99, IEC 61683, IEC 61727, IEC 62116

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m

Product specifications are subject to change without further notice.



Voltronic Power

Advancing Power

InfiniSolar WP 50kw



- IP65 waterproof and dustproof design
- Built-in WiFi for mobile monitoring (App is available)
- Generator input compatible
- User-adjustable charging current up to 65A
- Wide battery input range
- Built-in communication port for BMS (RS-485 and CAN)
- 5 years warranty
- Parallel operation up to 4 units

InfiniSolar WP Three Phase Hybrid Inverter Specification

MODEL	InfiniSolar WP 50kw
MAXIMUM PV INPUT POWER	65000 W
RATED OUTPUT POWER	50000 W
MAXIMUM CHARGING POWER	50000 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	4/ A: 32A, B: 32A, C: 32A, D:32A
Number of Strings Per MPP Tracker	A: 2, B: 2, C: 2, D:2
GRID/UTILITY OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz
Power Factor	0.9 lag to 0.9 lead
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	96.5%
European Efficiency@ Vnominal	96%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	83 A
PV INPUT (DC)	
Maximum DC Voltage	1000 VDC
MPP Voltage Range	350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	4/ A: 32A, B: 32A, C: 32A, D:32A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	97%
HYBRID OPERATION	
PV INPUT (DC)	
Maximum DC Voltage	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	4/ A: 32A, B: 32A, C: 32A, D:32A
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	73 A per phase
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	83 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	97%
BATTERY & CHARGER	
Battery Voltage Range	500 ~ 800 VDC
Maximum Charging Current	65 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	268 x 660 x 750
Net Weight (kgs)	110
INTERFACE	
Communication Port	RS-232, USB, dry contact, RS-485, CAN, Wi-Fi, Bluetooth
Intelligent Slot	Optional SNMP and MODBUS
ENVIRONMENT	
Humidity	0 ~ 100% RH
Operating Temperature	-25°C to 60°C (>45°C De-rating)
Altitude	0 ~ 1000 m**
PROTECTION & CERTIFICATE	
EMI/Safety	IEC/EN 61000, IEC/EN 62920, EN 62477
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105, G99, IEC 61683, IEC 61727, IEC 62116

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m
Product specifications are subject to change without further notice.

InfiniSolar WP HB 3ph



- User-friendly HMI LCD design for easy configuration
- IP65 waterproof and dustproof design
- High battery voltage range 320 ~ 448 VDC
- Built-in WiFi for mobile monitoring (App is available)
- 150% unbalanced load support
- Maximum PV input current 18A
- User-adjustable charging current
- Communication port for BMS (RS485)
- Parallel operation up to 6 units

InfiniSolar WP HB Hybrid Inverter Specification

MODEL	InfiniSolar WP HB 10kw
MAXIMUM PV INPUT POWER	14500W
RATED OUTPUT POWER	10000 W
MAXIMUM CHARGING POWER	10000 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	200 VDC / 350 VDC
MPP Voltage Range	150 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 18A, B: 18A
Number of Strings Per MPP Tracker	A: 2, B: 2
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	14.5 A per phase
Power Factor range	0.9 lag ~ 0.9 lead
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	>96%
European Efficiency@ Vnominal	>95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 - 290 VAC per phase
Maximum AC Input Current	20 A
PV INPUT (DC)	
Maximum DC Power	14500 W
Maximum DC Voltage	900 VDC
MPP Voltage Range	150 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 18A, B: 18A
Number of Strings Per MPP Tracker	A: 2, B: 2
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	94%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage/Maximum DC Voltage	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	200 VDC / 350 VDC
MPP Voltage Range	150 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 18A, B: 18A
Number of Strings Per MPP Tracker	A: 2, B: 2
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	14.5 A per phase
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 - 290 VAC per phase
Maximum AC Input Current	20 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	94%
BATTERY & CHARGER	
Battery Voltage Range	320 ~ 448 VDC
Maximum Charging Current	30 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	250 x 410 x 630
Net Weight (kgs)	35
IP protection	IP65
INTERFACE	
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi
Intelligent Slot	Optional for SNMP and Modbus cards
ENVIRONMENT	
Humidity	0 ~ 100% RH (Non-condensing)
Operating Temperature	-25 to 60°C, > 45°C power derating
Altitude	0 ~ 1000 m**

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m.
Product specifications are subject to change without further notice.



Voltronic Power

Advancing Power

Axpert VM II Off-Grid Inverter

Operation without battery



Axpert VM II 1200-12,
Axpert VM II 2500-24

Axpert VM II Plus 3000-24

Axpert VM II 3000-24,
Axpert VM II 5000-48

- Pure sine wave solar inverter
- Output power factor 1
- High PV input voltage range
- Battery independent design
- Built-in 80A and 100A MPPT solar charger for 1.2K/2.5K/3K Plus and 3K/5K respectively
- Battery equalization function to optimize battery performance and extend lifecycle
- Built-in anti-dust kit for harsh environment (only for 3K/5K models)

Axpert VM II Off-Grid Inverter Selection Guide

MODEL	Axpert VM II 1200-12	Axpert VM II 2500-24	Axpert VM II Plus 3000-24	Axpert VM II 3000-24	Axpert VM II 5000-48
RATED POWER	1200VA/1200W	2500VA/2500W	3000VA/3000W	3000VA / 3000W	5000VA / 5000W
INPUT					
Voltage	230 VAC				
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)				
Frequency Range	50 Hz/60 Hz (Auto sensing)				
OUTPUT					
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%				
Surge Power	2400VA	5000VA	6000VA	6000VA	10000VA
Efficiency (Peak)	93%				
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)				
Waveform	Pure sine wave				
BATTERY					
Battery Voltage	12 VDC	24 VDC	24 VDC	24 VDC	48 VDC
Floating Charge Voltage	13.5 VDC	27 VDC	27 VDC	27 VDC	54 VDC
Overcharge Protection	16 VDC	32 VDC	32 VDC	33 VDC	63 VDC
SOLAR CHARGER & AC CHARGER					
Maximum PV Array Open Circuit Voltage	350 VDC	450 VDC	450 VDC	500 VDC	500 VDC
Maximum PV Array Power	2000W	3000W	3000W	4000 W	5000 W
MPP Range @ Operating Voltage	60-300 VDC	60-400 VDC	60-400 VDC	120~450 VDC	120~450 VDC
Maximum Solar Charge Current	80 A		80A	100 A	100 A
Maximum AC Charge Current	80 A		80A	100 A	100 A
Maximum Charge Current	80 A		80A	100 A	100 A
PHYSICAL					
Dimension, D x W x H (mm)	90 x 288 x 357		100 x 288 x 390	100 x 300 x 440	
Net Weight (kgs)	6.5	7.1	7.5	9	10
Communication Interface	RS232		RS232	USB/RS232 (optional USB/Dry contact)	
ENVIRONMENT					
Humidity	5% to 95% Relative Humidity (Non-condensing)				
Operating Temperature	-10°C to 50°C				
Storage Temperature	-15°C to 60°C				

Product specifications are subject to change without further notice.

Axpert VM II Premium Off-Grid Inverter



- Pure sine wave solar inverter
- Reserved communication port for BMS
- Wide PV input range, starts from 30VDC for 1.2K/2.5K/3K-24V models
- Battery independent design
- Maximum charging current 100A
- Battery equalization function to optimize battery performance and extend lifecycle
- Built-in anti-dust kit

Axpert VM II Premium Off-Grid Inverter Selection Guide

MODEL	Axpert VM II Premium 1.2K	Axpert VM II Premium 2.5K	Axpert VM II Premium 3K-24V	Axpert VM II Premium 3K-48V	Axpert VM II Premium 5K
Rated Power	1200VA/1200W	2500VA/2500W	3000VA/3000W	3000VA/3000W	5000VA/5000W
INPUT					
Voltage	230 VAC				
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)				
Frequency Range	50 Hz/60 Hz (Auto sensing)				
OUTPUT					
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%				
Surge Power	2400VA	5000VA	6000VA	6000VA	10000VA
Efficiency (Peak)	93%				
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)				
Waveform	Pure sine wave				
BATTERY					
Battery Voltage	12 VDC	24 VDC		48 VDC	
Floating Charge Voltage	13.5 VDC	27 VDC		54 VDC	
Overcharge Protection	16 VDC	32 VDC		63 VDC	
SOLAR CHARGER & AC CHARGER					
Solar Charger Type	MPPT				
Maximum PV Array Open Circuit Voltage	350 VDC	450 VDC			500 VDC
Maximum PV Array Power	2000W	3000W			5000W
Maximum PV Input Current	13A				18A
MPP Range @ Operating Voltage	30 ~ 300 VDC (Min. 60VDC without battery connected)	30 ~ 400 VDC (Min. 60VDC without battery connected)		60 ~ 400 VDC	120 ~ 450VDC
Maximum Solar Charge Current	100 A				100A
Maximum AC Charge Current	80A			60A	100A
Maximum Charge Current	100A				100A
PHYSICAL					
Dimension, D x W x H (mm)	90 x 288 x 357		110 x 288 x 390	90 x 288 x 357	120 x 300 x 440
Net Weight (kgs)	6.5	7.0	7.2	7.0	10
Communication Interface	RS232/RS485, optional WiFi				
ENVIRONMENT					
Humidity	5% to 95% Relative Humidity (Non-condensing)				
Operating Temperature	-10°C to 50°C				
Storage Temperature	-15°C to 60°C				

Product specifications are subject to change without further notice.

Axpert VM II Premium+ Hybrid Inverter



Axpert VM II Premium+ 1.5K/
Axpert VM II Premium+ 3K

Axpert VM II Premium+ 4.2K/
Axpert VM II Premium+ 6.2K



- Wide PV input range, starts from 30VDC for 1.5K/3K/4.2K models
- Built-in communication port for BMS
- Built-in feed-in grid function
- Built-in WiFi with APP for remote monitoring and OTA firmware upgrad
- Dual AC outputs only for 4.2K/6.2K models
- Maximum charging current 100A/120A based on models
- Battery independent design
- Battery equalization function to optimize battery performance and extend lifecycle
- Built-in anti-dust kit

Axpert VM II Premium+ Hybrid Inverter Selection Guide

MODEL	Axpert VM II Premium+ 1.5K	Axpert VM II Premium+ 3K	Axpert VM II Premium+ 4.2K	Axpert VM II Premium+ 6.2K
Rated Power	1500VA/1500W	3000VA/3000W	4200VA/4200W	6200VA/6200W
INPUT				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Output Power	1500W with PV & battery 1200W with battery only	3000W with PV & battery 2500W with battery only	4200W with PV & battery 4000W with battery only	6200W with PV & battery 5000W with battery only
AC Output No.	Single	Single	Dual Outputs	Dual Outputs
Surge Power	3000VA	6000VA	8400VA	12400VA
Efficiency (Peak)	93%			
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
BATTERY				
Battery Voltage	12 VDC	24 VDC		48 VDC
Floating Charge Voltage	13.5 VDC	27 VDC		54 VDC
Overcharge Protection	16 VDC	32 VDC		63 VDC
SOLAR CHARGER & AC CHARGER				
Solar Charger Type	MPPT			
Maximum PV Array Open Circuit Voltage	350 VDC	450 VDC		500 VDC
Maximum PV Array Power	2000W	3000W	5000W	6500W
Maximum PV Input Current	13 A	13 A	18 A	18 A
MPP Range @ Operating Voltage	30 ~ 300 VDC (Min. 60VDC without battery connected)	30 ~ 400 VDC (Min. 60VDC without battery connected)	30 ~ 450 VDC (Min. 60VDC without battery connected)	120~450 VDC
Maximum Solar Charge Current	100 A	100 A	120 A	120 A
Maximum AC Charge Current	80A	80A	100A	100A
Maximum Charge Current	100A	100A	120A	120A
PHYSICAL				
Dimension, D x W x H (mm)	90 x 288 x 357		120 x 300 x 440	120 x 300 x 440
Net Weight (kgs)	6.5	7.0	9	10
Communication Interface	RS232/RS485(BMS)/WiFi			
ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Product specifications are subject to change without further notice.

Axpert VM II TWIN Off-Grid Inverter



- Increased PV power to 5600W and 8000W
- Dual outputs, for smart load management
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Maximum PV input current increases to 27A
- Built-in WiFi with APP for remote monitoring
- OTA firmware update
- Built-in BMS communication port
- Battery independent design
- Built-in anti-dust kit

Axpert VM II TWIN Off-Grid Inverter

Axpert VM II TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert VM II TWIN 4K		Axpert VM II TWIN 6K	
RATED POWER	4000VA/4000W		6000VA/6000W	
INPUT				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Surge Power	8000VA	12000VA		
Efficiency (Peak)	93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
Dual Outputs	Yes			
BATTERY				
Battery Voltage	24 VDC	48 VDC		
Floating Charge Voltage	27 VDC	54 VDC		
Overcharge Protection	33 VDC	63 VDC		
SOLAR CHARGER & AC CHARGER				
Solar Charger type	MPPT			
Maximum PV Array Open Circuit Voltage	500 VDC			
Maximum PV Array Power	5600W	8000W		
Maximum PV Input Current	27A	27A		
MPP Range @ Operating Voltage	60-450 VDC	60-450 VDC		
Maximum Solar Charge Current	120A	120A		
Maximum AC Charge Current	100A	100A		
Maximum Charge Current	120A	120A		
PHYSICAL				
Dimension, D x W x H (mm)	107 x 322.6 x 420.3			
Net Weight (kgs)	9.5	10.5		
Communication Interface	RS232/RS485/CAN/WiFi			
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity(Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Product specifications are subject to change without further notice

Axpert VM II Elite 6K

- Increased PV power to 8000W
- Dual inputs and dual outputs for smart energy management
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Maximum PV input current increases to 27A
- Built-in WiFi with APP for remote monitoring
- OTA firmware update
- Built-in BMS communication port
- Battery independent design

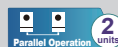


2x2
IN OUT



Axpert VM II Elite 6KP

- Dual outputs and dual inputs for smart energy management
- Maximum PV input current increases to 27A and power up to 10000W
- Wide PV input voltage range 60VDC~450VDC
- Built-in communication port for BMS
- Built-in WiFi with APP for remote monitoring and OTA firmware upgrade
- Built-in Pre-charge circuit to reduce inrush current
- True battery reverse polarity protection
- Low noise and no load consumption
- Built-in PV DC switch
- 2 strings of PV input
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Parallel operation up to 2 units
- Metered 2nd output



2x2
IN OUT

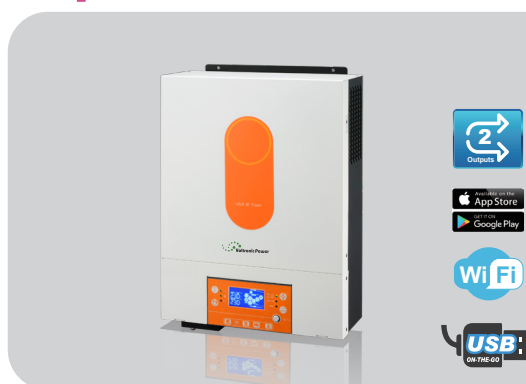


Axpert VM II Elite Off-Grid Inverter Selection Guide

MODEL	Axpert VM II Elite 6K		Axpert VM II Elite 6KP
RATED POWER	6000VA/6000W		6000VA/6000W
INPUT			
Voltage	230 VAC		
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)		
Frequency Range	50 Hz/60 Hz (Auto sensing)		
OUTPUT			
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 5%		
Surge Power	12000VA		
Efficiency (Peak)	93%		
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)		
Waveform	Pure sine wave		
BATTERY			
Battery Voltage	48 VDC		
Floating Charge Voltage	54 VDC		
Overcharge Protection	63 VDC		
SOLAR CHARGER & AC CHARGER			
Solar Charger type	MPPT		
Maximum PV Array Open Circuit Voltage	500 VDC		
Maximum PV Array Power	8000W		10000W
Maximum PV Input Current	27A		
MPP Range @ Operating Voltage	60-450 VDC		
Maximum Solar Charge Current	120A		
Maximum AC Charge Current	100A		
Maximum Charge Current	120A		
PHYSICAL			
Dimension, D x W x H (mm)	136 x 323.6 x 449.3		144 x 348 x 446
Net Weight (kgs)	10.3		12.5
Communication Interface	RS232/RS485/CAN/WiFi		
OPERATING ENVIRONMENT			
Humidity	5% to 95% Relative Humidity(Non-condensing)		
Operating Temperature	-10°C to 50°C		
Storage Temperature	-15°C to 60°C		

Product specifications are subject to change without further notice.

Axpert VM III TWIN Off-Grid Inverter



- Increased PV power
- Detachable LCD control module with various communications
- Maximum PV input current 27A
- Dual output for smart load management
- Built-in WiFi with APP for mobile monitoring and OTA firmware upgrade
- Supports USB On-the-Go function
- Built-in BMS communication port
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Battery independent design
- Built-in anti-dust kit

Axpert VM III TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert VM III TWIN 4K		Axpert VM III TWIN 6K	
RATED POWER	4000VA/4000W		6000VA/6000W	
INPUT				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 10%			
Surge Power	8000VA	12000VA		
Efficiency (Peak)	90% ~ 93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
BATTERY				
Battery Voltage	24 VDC	48 VDC		
Floating Charge Voltage	27 VDC	54 VDC		
Overcharge Protection	33 VDC	63 VDC		
SOLAR CHARGER & AC CHARGER				
Solar Charger type	MPPT			
Maximum PV Array Power	5600W	8000W		
MPP Range @ Operating Voltage	60 ~ 450 VDC	60 ~ 450 VDC		
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC		
Maximum PV Input Current	27A			
Maximum Solar Charge Current	120A	120A		
Maximum AC Charge Current	100A	100A		
Maximum Charge Current	120A	120A		
PHYSICAL				
Dimension, D x W x H (mm)	115 x 300 x 435			
Net Weight (kgs)	9	10		
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact			
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Product specifications are subject to change without further notice.

Axpert VM 4 TWIN Off-Grid Inverter



- Increased PV power
- Dual output for smart load management
- Maximum PV input current 27A
- Customizable status LED ring with RGB lights
- 4.3" touchscreen HMI LCD
- Built-in Wifi with APP for mobile monitoring and OTA firmware upgrade
- Supports USB On-the-Go function
- Built-in BMS communication port
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Battery independent design
- Built-in anti-dust kit

Axpert VM 4 TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert VM 4 TWIN 4K		Axpert VM 4 TWIN 6K	
RATED POWER	4000VA/4000W		6000VA/6000W	
INPUT				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 10%			
Surge Power	8000VA		12000VA	
Efficiency (Peak)	90% ~ 93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
BATTERY				
Battery Voltage	24 VDC		48 VDC	
Floating Charge Voltage	27 VDC		54 VDC	
Overcharge Protection	33 VDC		63 VDC	
SOLAR CHARGER & AC CHARGER				
Solar Charger type	MPPT			
Maximum PV Array Power	5600W		8000W	
MPP Range @ Operating Voltage	60 ~ 450 VDC		60 ~ 450 VDC	
Maximum PV Array Open Circuit Voltage	500 VDC		500 VDC	
Maximum PV Input Current	27A			
Maximum Solar Charge Current	120A		120A	
Maximum AC Charge Current	100A		100A	
Maximum Charge Current	120A		120A	
PHYSICAL				
Dimension, D x W x H (mm)	119 x 313.6 x 457.5			
Net Weight (kgs)	10		12	
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact			
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Product specifications are subject to change without further notice.

Axpert King II TWIN Off-Grid Inverter



- Dual outputs, for smart load management
- Maximum PV input current increases to 27A
- Zero (0ms) transfer time to protect mission-critical loads such as servers and ATMs
- High PV input voltage range
- Detachable LCD control module with multiple communications
- Selectable high power charging current
- Built-in Wi-Fi for mobile monitoring (App is available)
- Configurable AC/Solar input priority via LCD setting
- Reserved communication port for BMS (RS485 or CAN-BUS)
- USB On-the-Go function
- Parallel operation up to 9 units

OFF-GRID INVERTER

Axpert King II TWIN Off-Grid Inverter Selection Guide

MODEL		Axpert King II TWIN 6K	Axpert King II TWIN 6.2K
RATED POWER		6000VA/6000W	6200VA/6200W
PARALLEL CAPABILITY		Up to 9 units	
GRID INPUT			
Voltage		230 VAC	
Voltage Range		110-280 VAC	
Frequency Range		50 Hz/60 Hz (Auto sensing) ± 4Hz	
Power Factor		≥ 0.98 @ Nominal Voltage (100% Load)	
THDi		≤ 10%	
LOAD OUTPUT			
AC Voltage Regulation (Line&Batt. Mode)		230VAC ± 5%	
Frequency Range (Synchronized Range)		46~54 Hz or 56~64 Hz	
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60Hz ± 0.1 Hz	
Harmonic Distortion		≤ 3 % THD (Linear Load); ≤ 5 % THD (Non-linear Load)	
Transfer Time	AC Mode to Batt. Mode	0 ms	
	Inverter to Bypass	4 ms (Typical)	
Waveform		Pure sine wave	
EFFICIENCY			
Line Mode		94%	
ECO Mode		98%	
Battery Mode		92%	
BATTERY			
Battery Voltage		40~66 VDC	
Floating Charge Voltage		54 VDC	
Overcharge Protection		66 VDC	
SOLAR INPUT			
Solar Charger type		MPPT	
Maximum PV Array Power		6000 W	
MPPT Range @ Operating Voltage		120 ~ 430 VDC	
Maximum PV Array Open Circuit Voltage		500 VDC	
Maxmum Solar Charge Current		120A	120A
Maximum AC Charge Current		120A	120A
PHYSICAL			
Dimension, D x W x H (mm)		140 x 295 x 468	
Net Weight (kgs)		12	
Communication Interface		RS232, USB, Dry contact, WI-FI, RS485	
ENVIRONMENT			
Humidity		5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature		-10°C to 50°C	
Storage Temperature		-15°C to 60°C	

Product specifications are subject to change without further notice.

Axpert MAX TWIN Off-Grid Inverter

OFF-GRID INVERTER



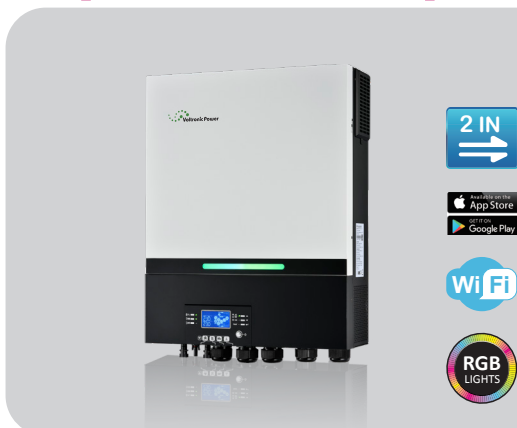
- Increased PV power
- Status indication with RGB lights
- 7" touchscreen HMI LCD
- Dual outputs and dual inputs for smart energy management
- Maximum PV input current 27A
- Built-in WiFi with APP for mobile monitoring and OTA firmware upgrade
- Supports USB On-the-Go function
- Built-in BMS communication port
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Battery independent design
- Built-in anti-dust kit
- Optional DC output for DC fan, LED bulb, router and so on
- Parallel operation with 6 units

Axpert MAX TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert MAX TWIN 8K	Axpert MAX E TWIN 11K
RATED POWER	8000VA/8000W	11000VA/11000W
PARALLEL CAPABILITY	YES, 6 units	
INPUT		
Voltage	230 VAC	
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%	230VAC ± 5%
Surge Power	16000VA	22000VA
Efficiency (Peak)	93%	
Transfer Time	10 ms (For Personal Computers), 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
Optional DC Voltage	12 VDC ± 5%, 100W	N/A
BATTERY		
Battery Voltage	48 VDC	48 VDC
Floating Charge Voltage	54 VDC	54 VDC
Overcharge Protection	66 VDC	63 VDC
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	
Maximum PV Array Power	11000W (5500W x 2)	13000W (6500W x 2)
MPPT Range @ Operating Voltage	90 ~ 450 VDC	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC
Maximum PV Input Current	27A x 2(MAX 40A)	
Maximum Solar Charge Current	120A	150A
Maximum AC Charge Current	120A	150A
Maximum Charge Current	120A	150A
PHYSICAL		
Dimension, D x W x H (mm)	147.4 x 432.5 x 553.6	
Net Weight (kgs)	18.4	
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact	
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	
STANDARD		
Compliance Safety	CE	CE

Product specifications are subject to change without further notice.

Axpert Max Duplex S Hybrid Inverter



- Integrated with PV insulation resistance detection
- Integrated with GFCI detection
- Comply with Grid-interconnection regulation
- Two independent AC power sources connected and switched automatically
- Status indication with RGB lights
- Maximum PV input current 27A
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Replaceable fan design for ease of maintenance
- Battery independent design
- Built-in anti-dust kit
- Parallel operation with 6 units

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Axpert Max Duplex S Hybrid Inverter Specification

MODEL	Axpert Max Duplex S 11K
RATED POWER	11000VA/11000W
PARALLEL CAPABILITY	YES, 6 units
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 5%
Surge Power	22000VA
Efficiency (Peak)	93%
Transfer Time	10 ms (For Personal Computers), 20 ms (For Home Appliances)
Waveform	Pure sine wave
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	63 VDC
SOLAR CHARGER & AC CHARGER	
Maximum PV Array Power	11000W (5500W x 2)
MPPT Range @ Operating Voltage	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum PV Input Current	27A x 2 (MAX 40A)
Maximum Solar Charge Current	150A
Maximum AC Charge Current	150A
Maximum Charge Current	150A
PHYSICAL	
Dimension, D x W x H (mm)	147.4 x 432.5 x 553.6
Net Weight (kgs)	18.4
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact
OPERATING ENVIRONMENT	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C
STANDARD	
Compliance Safety	EN/IEC 62109-1, 62109-2, EN/IEC 61000-6-2, 61000-6-4, 61000-3-11, 61000-3-12, NRS 097-2-1:2017

Product specifications are subject to change without further notice.

Axpert MAX II TWIN Off-Grid Inverter



- Increased PV power
- 7" touchscreen HMI LCD
- Status indication with RGB lights
- Dual outputs and dual inputs for smart energy management
- Maximum PV input current 27A
- Built-in WiFi with APP for mobile monitoring and OTA firmware upgrade
- Supports USB On-the-Go function
- Built-in BMS communication port
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Battery independent design
- Built-in anti-dust kit
- Built-in DC output for DC fan, LED bulb, router and so on
- Parallel operation with 6 units

Axpert MAX II TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert MAX II TWIN 8K	Axpert MAX II TWIN 11K
RATED POWER	8000VA/8000W	11000VA/11000W
PARALLEL CAPABILITY	YES, 6 units	
INPUT		
Voltage	230 VAC	
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%	230VAC ± 5%
Surge Power	16000VA	22000VA
Efficiency (Peak)	93%	
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
DC Voltage	12 VDC ± 5%, 100W	
BATTERY		
Battery Voltage	48 VDC	48 VDC
Floating Charge Voltage	54 VDC	54 VDC
Overcharge Protection	66 VDC	63 VDC
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	
Maximum PV Array Power	11000W (5500W x 2)	13000W (6500W x 2)
MPPT Range @ Operating Voltage	90 ~ 450 VDC	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC
Maximum PV Input Current	27A x 2 (MAX 40A)	
Maximum Solar Charge Current	150A	150A
Maximum AC Charge Current	120A	150A
Maximum Charge Current	150A	150A
PHYSICAL		
Dimension, D x W x H (mm)	158.4 x 503.6 x 530.8	
Net Weight (kgs)	20	
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact	
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	
STANDARD		
Compliance Safety	CE	CE

Product specifications are subject to change without further notice.

Axpert MAX II Duplex Off-Grid Inverter



- Status indication with RGB lights
- Maximum PV input current 27A
- Two independent AC power sources connected and switched automatically
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Built-in anti-dust kit
- Built-in DC output for DC fan, LED bulb, router and so on
- Parallel operation with 6 units

2 IN

App Store

Google Play

Wi-Fi

RGB LIGHTS

5" LCD

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Axpert MAX II Duplex Off-Grid Inverter Specification

MODEL	Axpert MAX II Duplex 11K
RATED POWER	11000VA/11000W
PARALLEL CAPABILITY	YES, 6 units
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 5%
Surge Power	22000VA
Efficiency (Peak)	93%
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)
Waveform	Pure sine wave
DC Voltage	12 VDC $\pm$ 5%, 100W
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	63 V DC
SOLAR CHARGER & AC CHARGER	
Maximum PV Array Power	11000W (5500W x 2)
MPPT Range @ Operating Voltage	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum PV Input Current	27A x 2 (MAX 40A)
Maximum Solar Charge Current	150A
Maximum AC Charge Current	150A
Maximum Charge Current	150A
PHYSICAL	
Dimension, D x W x H (mm)	158.4 x 503.6 x 530.8
Net Weight (kgs)	18.4
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact
OPERATING ENVIRONMENT	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C
STANDARD	
Compliance Safety	CE

Product specifications are subject to change without further notice.

Axpert MAX III Hybrid & Off-Grid Inverter



Control Panel



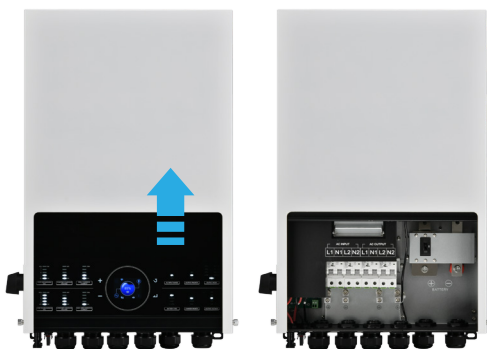
• User-friendly LCD setting and intuitive LED design

The MAX III includes 12 important LCD settings with indicators on the front panel that lights up to display the current parameter settings.



• Easy access cable design with sliding door

The MAX III is designed with a sliding door on the LCD panel to facilitate installation. The installer can simply slide the control panel up and lock it with the holder to easily access cable wirings.



• Dual inputs and Dual outputs for smart energy management

The MAX III is designed to allow two independent AC power sources that would switch automatically to prevent power interruption. It is also equipped with dual outputs to allow output power to be arranged as desired.

• Grid support and built-in CT sensor

The MAX III has the grid-support function that allows large output power without changing the utility infrastructure and a built-in CT sensor that meets self-consumption application.

• Built-in DC, AC breaker, PV DC switch

MAX III contains a built-in DC breaker, AC breaker and PV DC switch to provide safety and reliability.



• New wall mount bracket design

The MAX III has a new wall mount bracket, which eliminates the need for installers to carry a heavy measurement machine. Installers simply need to install the new wall mount bracket and the machine is placed directly on it to complete installation.

• Upgrade maximum PV power to 12000W

The whole series is upgraded with 12000W PV power.

• Parallel operation with 6 units

For increased power and capacity, the MAX III allows parallel operation to up to 6 units by connecting additional inverters and batteries. This supports the wider applications of households and small businesses.

• User Selectable Hybrid or Off-Grid mode inverter operation

Axpert MAX III Hybrid & Off-Grid Inverter Selection Guide

MODEL	Axpert MAX III 11KW		Axpert MAX III 12KW	
RATED INVERTER POWER	11000VA/11000W		12000VA/12000W	
PARALLEL CAPABILITY	YES, 6 units		YES, 6 units	
INPUT				
Voltage	230 VAC			
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)			
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Surge Power	22000VA	24000VA		
Efficiency (Peak)	93%			
Transfer Time	15 ms (For Personal Computers), 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
No Load Power Consumption	<75W			
DC Voltage	12 VDC ± 5%, 100W			
BATTERY				
Battery Voltage	48 VDC	48 VDC		
Floating Charge Voltage	54 VDC	54 VDC		
Overcharge Protection	66 VDC	66 VDC		
SOLAR CHARGER & AC CHARGER				
Solar Charger type	MPPT			
Maximum PV Array Power	12000W (6000W x 2)	15000W (7500W x 2)		
MPP Range @ Operating Voltage	90 ~ 450 VDC	90 ~ 450 VDC		
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC		
Maximum PV Input Current	27A x 2 (MAX. 40A)	27A x 2 (MAX. 45A)		
Maximum Solar Charge Current	150A	200A		
Maximum AC Charge Current	150A	200A		
Maximum Charge Current	150A	200A		
PHYSICAL				
Dimension, D x W x H (mm)	173.2 x 432.4 x 651.5			
Net Weight (kgs)	20	20		
Communication Interface	USB/RS232/RS485/Wifi/Dry-contact			
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			
STANDARD				
Compliance Safety	IEC 62109, IEC 61683, EN/IEC 61000-6-2, 61000-6-4, 61000-3-11, 61000-3-12			

Product specifications are subject to change without further notice.

Axpert Ultra Off-Grid Inverter



- Dual inputs and dual outputs for smart energy management
- Built-in 2.8" colored LCD with power lighting indicators
- Built-in WiFi with APP for mobile monitoring and OTA firmware upgrade
- Supports USB On-the-Go function
- Built-in BMS communication port
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Support external BTS (Battery Temperature Sensor) detection
- Support optional GFCI, Rapid shutdown, AFCI detections
- Built-in anti-dust kit
- Parallel operation with 6 units

Axpert Ultra Off-Grid Inverter Selection Guide

MODEL	Axpert Ultra 8K		Axpert Ultra 11K
RATED POWER	8000VA/8000W		11000VA/11000W
PARALLEL CAPABILITY	YES, 6 units		
INPUT			
Voltage	230 VAC		
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)		
Frequency Range	50 Hz/60 Hz (Auto sensing)		
OUTPUT			
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%		
Surge Power	16000VA	22000VA	
Efficiency (Peak)	93%		
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)		
Waveform	Pure sine wave		
BATTERY			
Battery Voltage	48 VDC		
Floating Charge Voltage	54 VDC		
Overcharge Protection	63 VDC		
SOLAR CHARGER & AC CHARGER			
Solar Charger Type	MPPT		
Maximum PV Array Power	12000W (6000W x 2)	13000W (6500W x 2)	
MPPT Range @ Operating Voltage	90 ~ 450 VDC		
Maximum PV Array Open Circuit Voltage	500 VDC		
Maximum PV Input Current	27A x 2 (MAX 40A)		
Maximum Solar Charge Current	150A	150A	
Maximum AC Charge Current	120A	150A	
Maximum Charge Current	150A	150A	
PHYSICAL			
Dimension, D x W x H (mm)	145 x 438 x 553.6		
Net Weight (kgs)	18.4		
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact/BTS Support optional GFCI, Rapid shutdown, AFCI detection		
External Current Sensor Port	Yes, built-in current transformer sensor		
OPERATING ENVIRONMENT			
Humidity	5% to 95% Relative Humidity(Non-condensing)		
Operating Temperature	-10°C to 50°C		
Storage Temperature	-15°C to 60°C		
STANDARD			
Compliance Safety	CE		

Product specifications are subject to change without further notice.

Axpert WP TWIN Off-Grid Inverter



- IP66 certified enclosure
- Dual outputs, for smart load management
- Built-in 2 MPP trackers, maximum PV input current 22A
- Built-in Wifi with APP for mobile monitoring and OTA firmware upgrade
- Reserved BMS communication port (RS485, CAN-BUS or RS232)
- External CT sensor to guarantee 100% self-consumption
- Built-in meter calibration for optimized system operation
- Battery independent design
- Parallel operation with 6 units

Axpert WP TWIN 10K-330

Axpert WP TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert WP TWIN 6K	Axpert WP TWIN 8K	Axpert WP TWIN 10K
RATED POWER	6000VA/6000W	8000VA/8000W	10000VA/10000W
PARALLEL CAPABILITY	YES, 6 units		
INPUT			
Voltage	230 VAC		
Selectable Voltage Range	170-280 VAC (For Computers) ; 90-280 VAC (For Home Appliances)		
Frequency Range	50 Hz/60 Hz (Auto sensing)		
OUTPUT			
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%		
Surge Power	12000VA	16000VA	20000VA
Efficiency (Peak)	93%		
Transfer Time	10 ms (For Personal Computers), 20 ms (For Home Appliances)		
Waveform	Pure sine wave		
No Load Power Consumption	< 70W		
BATTERY			
Battery Voltage	48 VDC		
Floating Charge Voltage	54 VDC		
Overcharge Protection	66 VDC		
SOLAR CHARGER & AC CHARGER			
Solar Charger Type	MPPT		
Maximum PV Array Power	8000W	10000W	12000W
MPPT Range @ Operating Voltage	90 ~ 450 VDC		
Maximum PV Array Open Circuit Voltage	500 VDC		
Maximum PV Input Current	22 A x 2		
Maximum Solar Charge Current	120 A	150 A	150 A
Maximum AC Charge Current	120 A	120 A	120 A
Maximum Charge Current	120 A	150 A	150 A
PHYSICAL			
Dimension, D x W x H (mm)	210 x 435 x 665		
Net Weight (kgs)	32		
Communication Interface	USB/RS-232/Dry Contact/RS485/WiFi/BMS		
OPERATING ENVIRONMENT			
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Operating Temperature	-10°C to 50°C		
Storage Temperature	-15°C to 60°C		
STANDARD			
Compliance Safety	CE		

Product specifications are subject to change without further notice.

Axpert MKS III TWIN Off-Grid Inverter

OFF-GRID INVERTER



- Maximum PV input current 27A
- Dual outputs for smart load management
- Detachable LCD control module with multiple communications
- Wide DC input range
- Built-in WiFi for mobile monitoring (App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485)
- Smart battery charger design for optimized battery performance
- Battery independent function
- Parallel operation up to 9 units

Axpert MKS III TWIN Off-Grid Inverter Specification

MODEL	Axpert MKS III TWIN 6K
RATED POWER	6000VA/6000W
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230 VAC $\pm$ 5%
Overload Capacity	5s@ $\geq$ 150% load; 10s@110%~150% load
Efficiency (Peak)	90%
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)
Waveform	Pure sine wave
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	66 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Maximum PV Array Power	6000W
MPPT Range @ Operating Voltage	120 ~ 430 VDC
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum PV Input Current	27A
Maximum Solar Charge Current	120 A
Maximum AC Charge Current	120 A
Maximum Charge Current	120 A
PHYSICAL	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kgs)	12.0
Communication Interface	USB, RS232, RS485, WiFi
ENVIRONMENT	
Humidity	5% to 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

Product specifications are subject to change without further notice.

Axpert MKS 4 TWIN Off-Grid Inverter



- Maximum PV input current 27A
- Dual outputs for smart load management
- Customizable status LED ring with RGB lights
- Touchable button with 4.3" colored LCD
- Wide DC input range
- Built-in Wi-Fi for mobile monitoring (App is available)
- Reserved communication port for BMS
- Battery independent function
- Parallel operation with up to 9 units

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Axpert MKS 4 TWIN Off-Grid Inverter Specification

MODEL	Axpert MKS 4 TWIN 6K
RATED POWER	6000VA/6000W
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	55 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230 VAC $\pm$ 5%
Overload capacity	5s@ $\geq$ 150% load; 10s@110%~150% load; 100ms @ $\geq$ 200% load
Efficiency (Peak)	93 %
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)
Waveform	Pure sine wave
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	66 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Maximum PV Array Power	6000 W
MPPT Range @ Operating Voltage	120 ~ 430 VDC
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum PV Input Current	27A
Maximum Solar Charge Current	120 A
Maximum AC Charge Current	120 A
PHYSICAL	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kgs)	12.0
Communication Interface	USB/RS232/RS485/Wifi/Dry-contact
ENVIRONMENT	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

Product specifications are subject to change without further notice.

Wi-Fi Module/Wi-Fi Card & Box



Wi-Fi Module



Wi-Fi Card



Wi-Fi Box

- Real-time dynamic graphs of inverter data
- Cloud storage for history data and event log
- Remote monitoring and control of multiple inverters via mobile APP* (iOS and Android)
- Parameter settings available (output setting, output priority setting, AC input range, battery setting and etc.)



* Applicable APP depends on different inverter models.

Wi-Fi Module/Wi-Fi Card Selection Guide

MODEL	Wi-Fi Module	Wi-Fi Card
Wifi Communication Protocol	802.11 b/g/n	802.11 b/g/n
Hardware Encryption	WEP, WPA/WPA2	
Wifi Operation Frequency	2.4G	
Wifi Wireless Gain	2.5dBi	
Wifi Communication Distance	100 meters (open environment)	
Maximum transmit rate of Wifi	72Mbps	
Maximum Transmit Power of Wifi	18.5dbm (70mW)	
Software WatchDog	Yes	
Local Communication Interface	RS232	Golden finger
Network Layer Communication Protocol	Modbus-TCP	
Working Mode	AP/STA	
Parameter Setting Way	Mobile APP	
External Power Input	5V-12V	12V
Power Consumption	2 watt (max.)	
Operating Temperature	-20°C ~ 75°C	
Operating Humidity	0 ~ 95%	
Storage Temperature	-30°C ~ 80°C	
Dimension, D X W X H (mm)	28 x 46 x 172	23 x 47 x 15 (Antenna is not included)

Product specifications are subject to change without further notice.

