



SOLAR INVERTER

- PORTABLE ENERGY BANK
- ENERGY STORAGE SYSTEM
- OFF-GRID (HYBRID) INVERTER
- ON-GRID INVERTER WITH ENERGY STORAGE
- LITHIUM ION BATTERIES
- CHARGE CONTROLLERS
- WATER PUMP SOLAR INVERTER
- REMOTE MONITORING & MANAGEMENT

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About Us

OUR STORY

Looking back...

Fida International (S) Pte Ltd has been a provider of technologically innovative and user-friendly products manufactured under the brand name "Prolink" since 1991. With more than two decades of professional experience in the information communications sector, Prolink is now renowned as a specialist in its field, especially in the area of Back-up UPS products.

Over the years, Prolink has built its presence through a strong foundation of technological leadership within the South Asian, South-east Asian and Middle Eastern regions and is continuing to build its presence worldwide. With its current network of sales offices in more than 20 countries, customers can be assured that Prolink is able to provide the right solutions to meet the needs of both home and business users within each geographical location both efficiently and effectively.

The company's quest for continuous improvement and quality assurance to its customers has earned us the ISO9001 quality certification since 1999. With its consistently strong commitment to quality, customers can be assured that they are getting true value - superior quality products at affordable prices.

OUR MISSION

ACCENTUATE THE BEST FOR THE E-GENERATION

Prolink aspires to accentuate the best for the e-generation. With technology becoming an essential aspect of modern living, the e-generation concept has gradually become ingrained in our lives and digital literacy is becoming more and more commonplace.

Prolink products are designed to make technology work for the e-generation. Created with the end-user in mind, our products are crafted to enhance performance whether you are at work or play - our products work harder, while you work smarter to achieve your desired results with less effort and better efficiency.



Providing value to our consumers - whether home or business users, remains a firm commitment of Prolink. With its wide range of quality products, Prolink makes it easy for home users to find user-friendly yet affordable solutions for their technological needs, while business users are assured of reliable and secure solutions for their network infrastructure.

OUR VISION

IDEAS, INNOVATION AND INFORMATION

Prolink aims to be the key driving force behind technological changes and improvements in both developing and developed countries. With its strong focus on technology, our team sets high standards for itself in the areas of innovation, change and improvement so as to provide the next generation of users with products that are suitable for their technology advanced environments.

The small "i" in Prolink represents ideas, innovation and information - three key pillars of growth that drive us towards achieving excellence in our field of expertise and challenges us to think beyond our usual boundaries.



About Us



CORE VALUES

SECURED INFORMATION MANAGEMENT

With more than two decades of professional experience in providing backup power solutions to our customers, we are able to support our customers with superior technological know-how and expertise, as well as advice on market trends. At the same time, we are also fully committed to protecting the privacy of our customers and to manage confidential information discreetly.

INNOVATIVE DESIGN

Our products are carefully thought out to ensure that each item is designed to meet the needs of our customers. With the team's solid experience in the UPS market, customers can be certain that our designs are innovative yet functional, and suitable for each dynamic market that we have a presence in.

SUPERIOR SERVICE STANDARDS

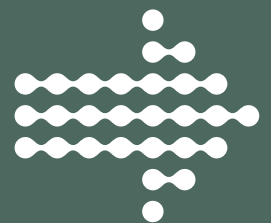
Strict and rigorous testing makes up a huge part of our quality control procedures. We ensure that every item meets our strict standards – from the individual components to the actual finished product.

TOTAL QUALITY ASSURANCE SYSTEM

Our products go through careful planning and checks at every stage of the production cycle – from the beginning stages of product design to the manufacturing and finally the actual delivery of the goods. This guarantees that our customers receive only the best quality goods – of high reliability and durability. Our total quality system has been audited and approved by globally recognized bodies.



PORTABLE ENERGY BANK



Portacell Series

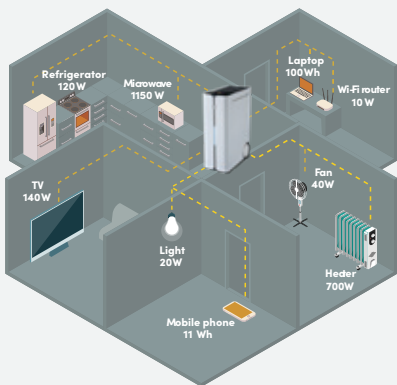
- Equipped with A grade LiFePO4 Lithium-ion cell supporting more than 3000 cycles.
- Built-in AC charger and Solar charge for ultra fast fully charging in one hour
- Dual inputs (grid and solar)
- Expandable to 18KW output power for 3KW model
- Expandable battery capacity to 7.5KWh for 3KW model
- Built-in battery management system (BMS)
- Wi-Fi + App, remote control & monitor daily power consumption
- Inbuilt Type A 18Wx2 and Type C PD 3.0 65Wx2 charging ports to support mobile or tablet charging
- Supports OTA firmware upgrade only for PEB 3KW
- Wireless charging (15W) only available for 1.2KW and 2.5KW models
- Optional feed-in grid function only available for 1.2KW and 2.5KW models



System Diagram

Power 99% of home appliances during long blackout

Power 9 devices at the same time for one hour and more



Power most essential appliance over 24 hours



Backup time or charge times

Heater 700 W 3 Hrs	Refrigerator 120 W 17-35 Hrs	Microwave 1150 W 1.75 Hrs	TV 140 W 20 Hrs	Light 20 W 77 Hrs
Wi-Fi router 10 W 77 Hrs	Fan 40 W 40 Hrs	Mobile phone 11 Wh 222 Charges	Laptop 100 Wh 40 Charges	

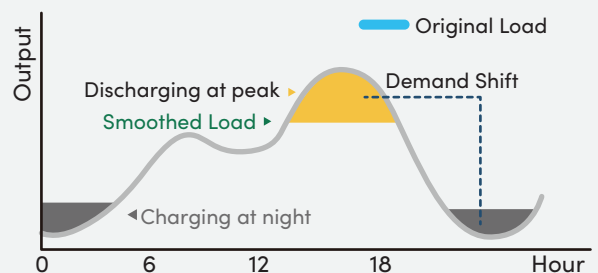
Highly mobility and Plug & Use

If you need to relocate the energy bank, simply unplug it and move it anywhere.



Peak cut

Store the power at night when the utility is generally cheaper and more available and discharge power when needed.





3000W solar input, fully charging in one hour without compromise



Wi-Fi & App



0 - 90% in one hour
Built-in 100A big charger, fully charged in one hour



Portacell

1 hour 7X



Other portable power station

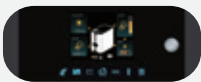
5-9 hours

Easy export event logs through USB



Outlook

Operation Panel



1.2KW/2.5KW

Wireless charging pad (only for 1.2kW and 2.5kW)

USB type A port
USB type C port

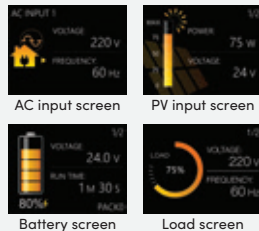


Output socket
Power switch

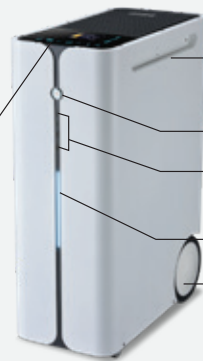
1.2KW/2.5KW



LCD Display



AC input screen
PV input screen
Battery screen
Load screen



Handle
Power switch
USB ports
RGB operation status indicator
Wheels

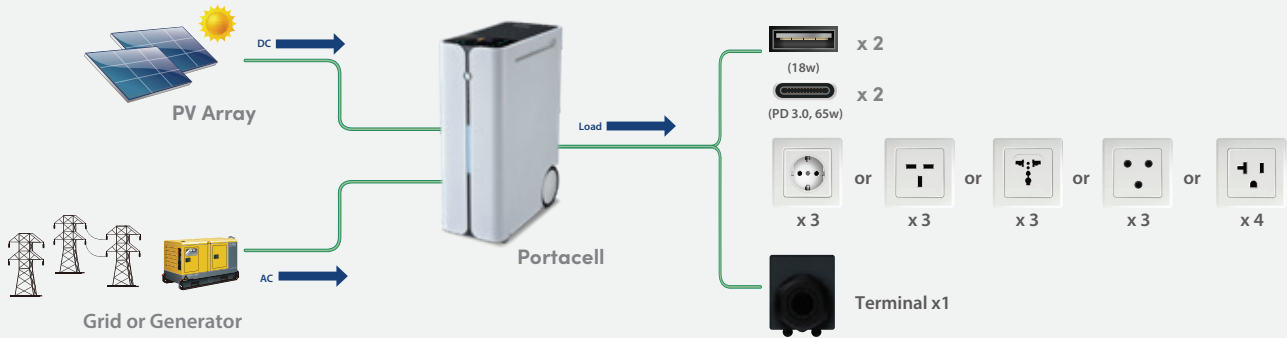


1.2KW, 2.5KW Rear Panel



3KW Rear Panel

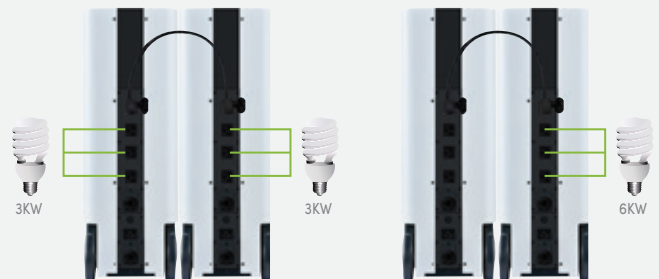
System Diagram



Expandable capacity from 2.5KWh to 7.5KWh



Easy on expanding the power through single cable inbuilt both power lines and parallel cables

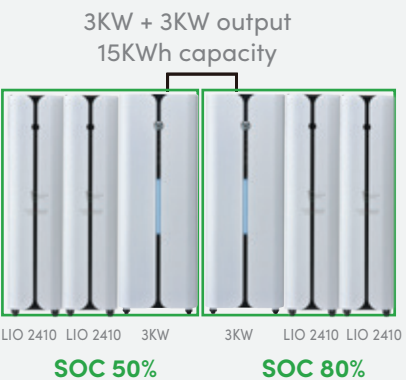


Output power expansion from 3KW to 18KW

Support parallel system at maximum 18KW inverter & 15KWh capacity



3KW in multiple units parallel, each battery is independent management, prolong maximum battery cycle life



All of cells (include the external LIO-2410) status displayed on the LCD and App





Specifications

INVERTER MODEL	Portacell 1.2KM-24	Portacell 2.5KM-48	Portacell 3KM-24
Rated Inverter Power	1200VA/1200W	2500VA/2500W	3000VA/3000W
INPUT			
Voltage	230VAC		220VAC/230 VAC/240VAC
Selectable Voltage Range	170-280 VAC (For Computers); 90-280 VAC (For Home Appliances)		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%		220VAC/230VAC/240VAC ± 5%
Surge Power	2400VA	5000VA	6000VA
Efficiency (Peak)	90% ~ 93%		93%
Transfer Time	10 ms (For Personal Computers), 20 ms (For Home Appliances)		
Waveform	Pure Sine Wave		
Output Connectors	Outlets	UK x 4 or Schuko x 4 or Universal x 4 or South Africa x 4 or Brazil x 4	UK x 3 or Schuko x 3 or Universal x 3 or South Africa x 3 or NEMA x 4
	USB Ports	Type A x 2 (18w x 2) Type C x 2 (PD 3.0, 65W x 2)	
SOLAR CHARGER & AC CHARGER			
Solar Charger type	MPPT		
Maximum PV Array Power	2000W	3000W	3000W
MPPT Range @ Operating Voltage	60-300 VDC	60-400 VDC	60~ 400 VDC
Maximum PV Array Open Circuit Voltage	350 VDC	450 VDC	450 VDC
Maximum Solar Charge Current	30A	30A	100A
Maximum AC Charge Current	30A	30A	100A
Maximum Charge Current	30A	30A	100A
BATTERY			
Energy	768Wh	1536Wh	2500Wh
Nominal Voltage	25.6 VDC	51.2 VDC	25.6VDC
Full Charge Voltage (FC)	29.2V	58.4V	29.2V
Full Discharge Voltage (FD)	20V	40V	20V
Typical Capacity	30 Ah	30 Ah	100Ah
Max Continuous Discharging Current	60A	60A	120A
Max Discharging Current	65A	65A	200A
Protection	BMS	BMS	BMS, Breaker
Maximum Charge Current	30A (1C)	30A (1C)	100A (1C)
Inner Resistance	≤0.6m ohm		
Lifecycle	≥2500 cycles , 0.5C charging/discharging ≥80% @EOL 100% DoD		≥3500 cycles, 0.5C charging/ discharging ≥80% @EOL 100% DoD
PHYSICAL			
Dimension, D X W X H (mm)	450 x 280 x 330		450 x 222 x 622
Net Weight (kgs)	20	25	40
STANDARD			
Compliance Safety	IEC/EN 62109-1/-2, EN 61000-6-4, EN-61000-6-2, IEC 62619, EN 61000-6-3, EN 61000-6-1, UN38.3		

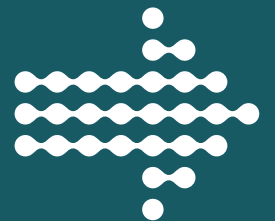
LIO 2410, expandable battery module for Portacell 3KM-24

BATTERY MODULE	LIO 2410
Energy	2500Wh
PARAMETERS	
Nominal Voltage	25.6VDC
Typical Capacity	100Ah
Rated Discharging Current	120A
PHYSICAL	
Battery Module Dimension, DxWxH (mm)	450 x 150 x 622
Net Weight (kgs)	33
STANDARD	
Compliance Safety	IEC 62619, UN38.3

*Product specifications are subject to change without further notice.

** 100/110/120VAC input/output option for Portacell 3KM-24 model.

**ENERGY
STORAGE SYSTEM
WITH LiFePO_4 BATTERY**



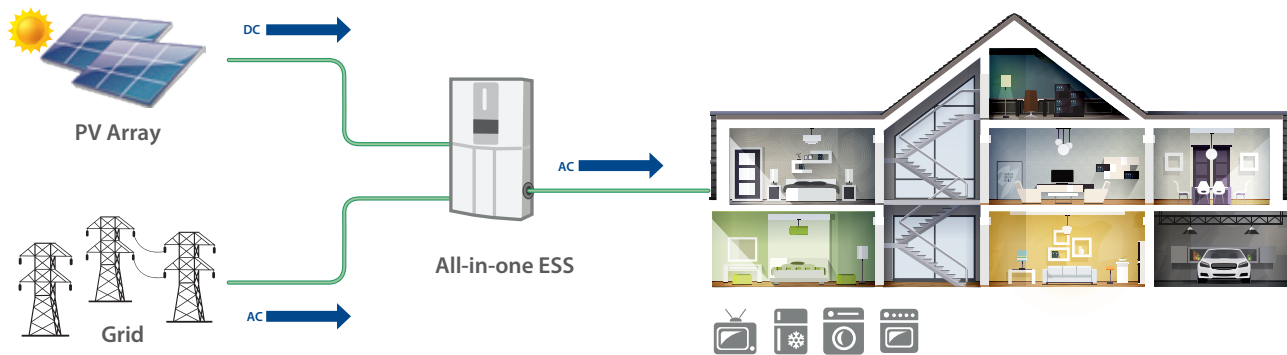


Lumenion 510A

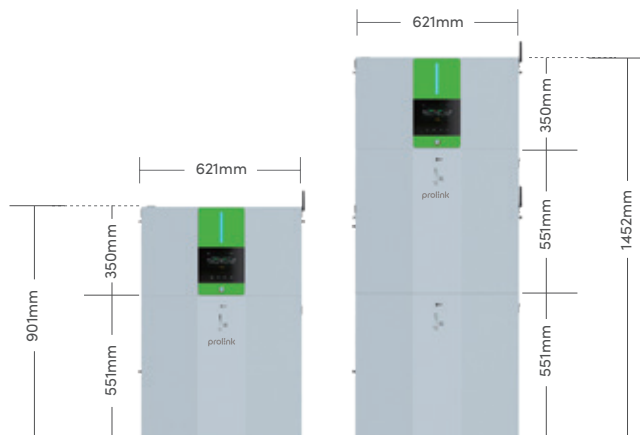
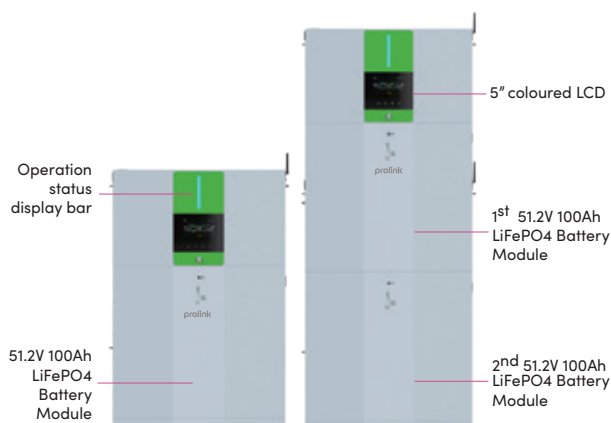
- 5KW Off-grid (Hybrid) inverter with 5KWh Lithium-ion battery
- Pure sine wave output
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- Built-in BMS communication
- Built-in communication ports (USB/RS232/Dry-contact)
- Generator compatible
- Configurable AC/PV output usage timer and prioritization
- Selectable input voltage range for personal computers and home appliances
- Selectable high power charging current

- Built-in anti-dust kit
- Lithium Iron Phosphate (LFP) cell
- Battery cycle life 8000 at 25 °C
- Scalable battery expansion up to 10 modules
- Support wall mounted and standalone installation

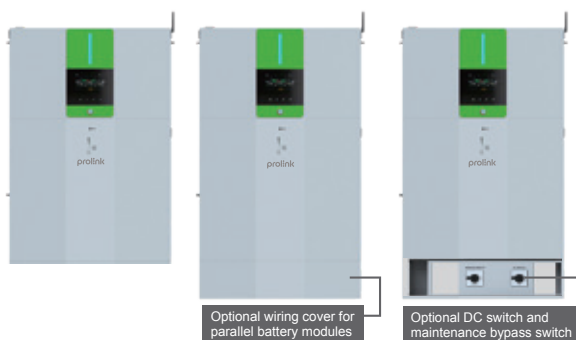
System Diagram



Overview



Accessory



Maximum 10 pcs of battery modules



Specifications

INVERTER MODEL	Lumenion 510A
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 ± 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, IEC/EN IEC 61000-6-4, IEC/EN IEC 61000-6-2, IEC/EN IEC 61000-3-11, IEC/EN 61000-3-12, IEC/EN 61683

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.

Lumenion 810A

- 8KW Off-grid (Hybrid) inverter with 5KWh Lithium-ion battery
- Pure sine wave output
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- Built-in BMS communication
- Built-in communication ports (USB/RS232/Dry-contact)
- Generator compatible
- Configurable AC/PV output usage timer and prioritization
- Selectable input voltage range for personal computers and home appliances
- Selectable high power charging current



- Built-in anti-dust kit
- Lithium Iron Phosphate (LFP) cell
- Battery cycle life 8000 at 25 °C
- Scalable battery expansion up to 10 modules
- Support wall mounted and standalone installation

System Diagram

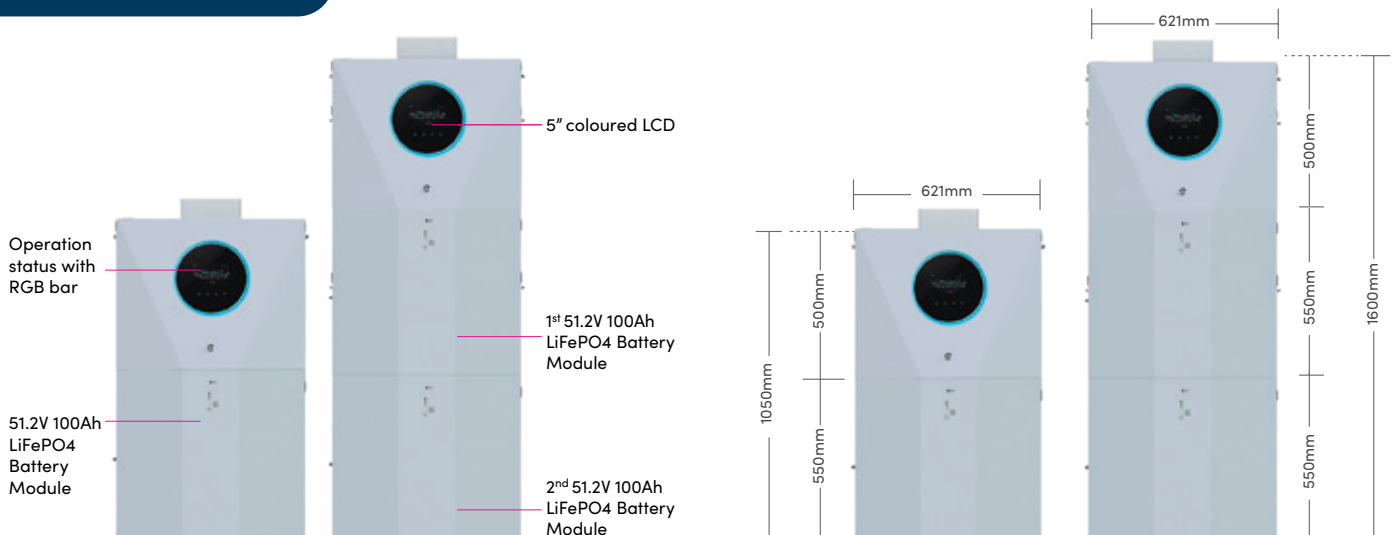
Only one ESS



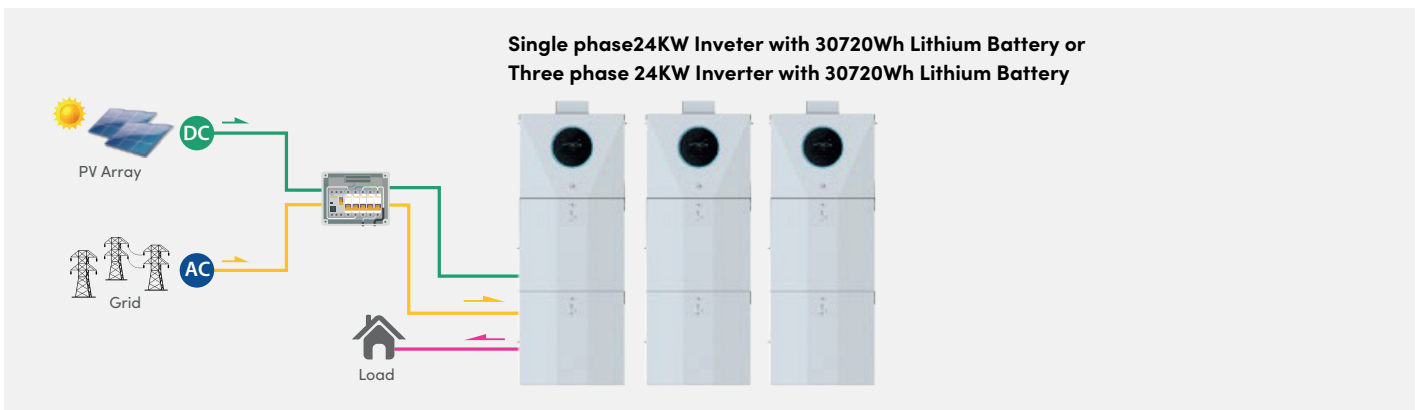
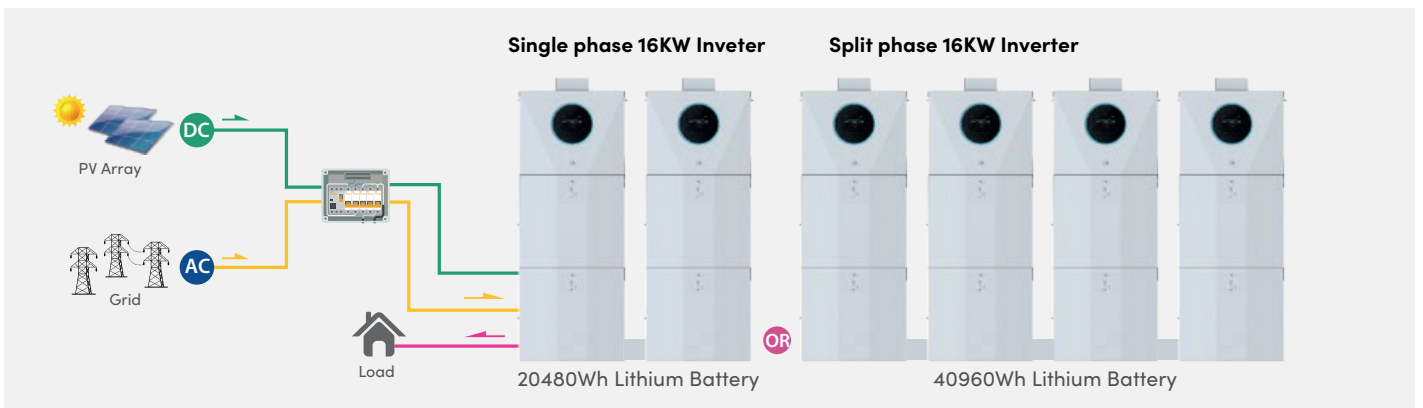
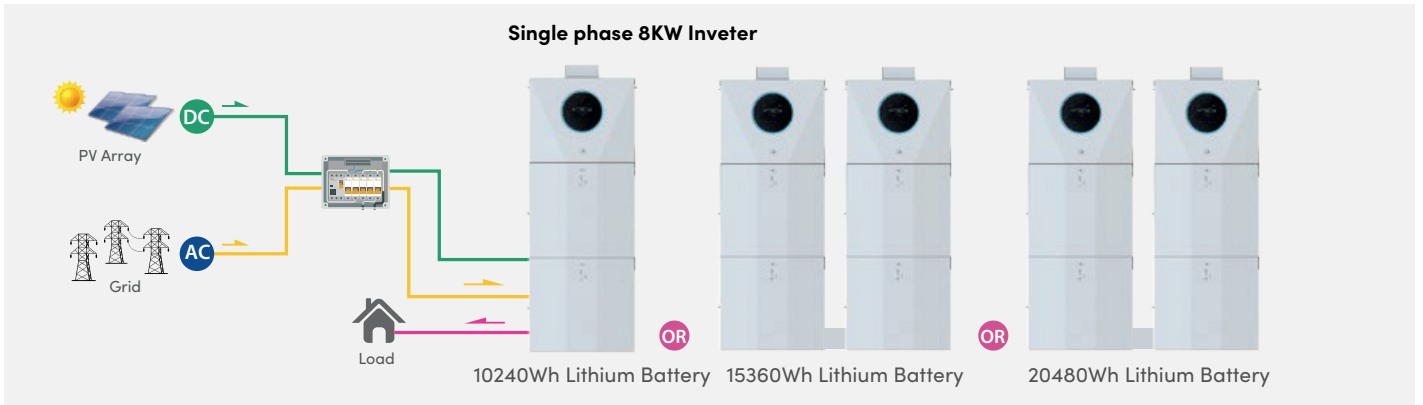
Two ESS parallel operation



Overview



Configuration



Accessory

Maximum 10 pcs of battery modules



Specifications

INVERTER MODEL	Lumenion 810A
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 ± 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/EN 61683
BATTERY MODULE	
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

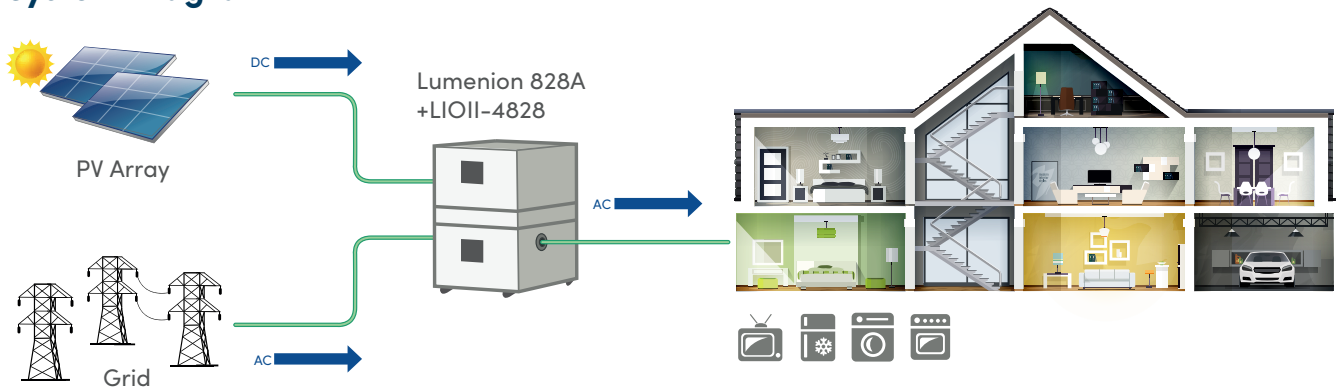


Lumenion 828A

- 8KW Off-Grid solar inverter with scalable 14.3KWh Lithium-ion battery
- Pure Sine wave output (Dual outputs)
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- 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



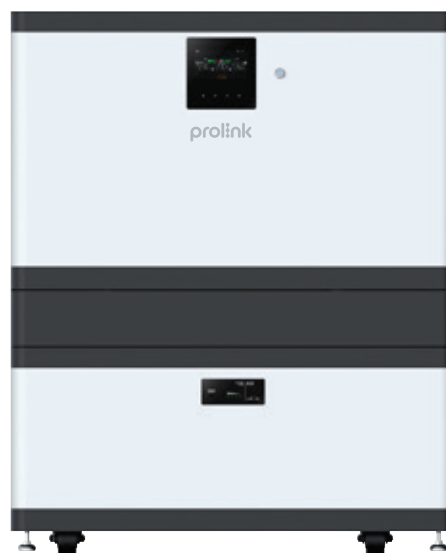
Lumenion 828A

8KW off-grid inverter with 14.3KWh battery capacity



Lumenion 828A + LIO II-4828

8KW off-grid inverter with 28.6KWh battery capacity



Specifications

INVERTER MODEL		Lumenion 828A
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 ± 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	56VDC	
Charge Current	120A (0.42C)	
Maximum Charge Current	168A (0.6C)	
Lifecycle	≥ 6000 cycles, 0.6C charging/0.6C discharging;Remain capacity ≥ 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)
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	≥ 6000 cycles, 0.6C charging/0.6C discharging; Remain capacity ≥ 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	

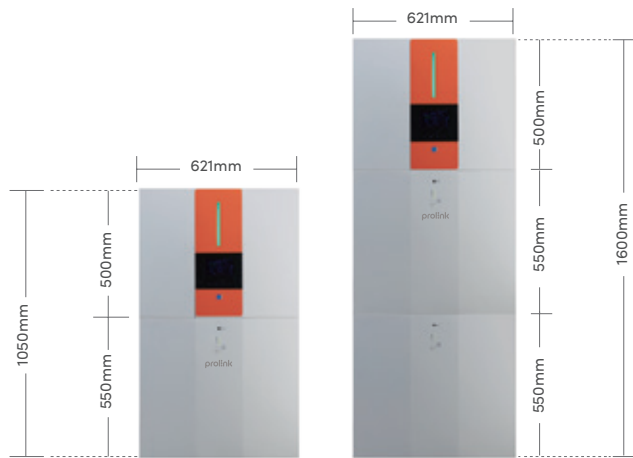
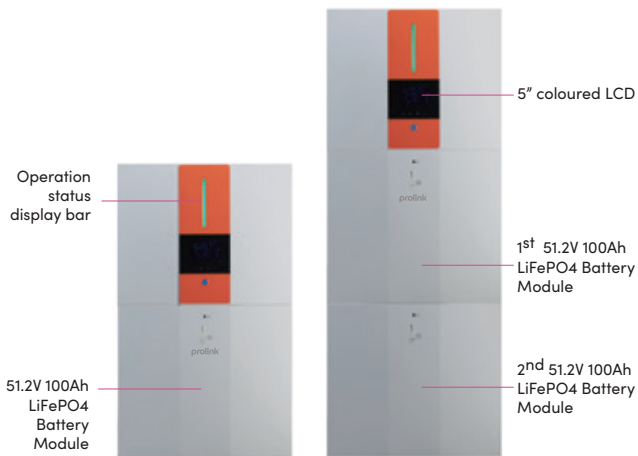
Product specifications are subject to change without further notice.

Lumenion 510

- 5.5KW On-grid inverter with 5KWh Lithium-ion battery
- Pure sine wave output
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- Built-in BMS communication
- Built-in communication ports (USB/RS232/Dry-contact)
- Programmable multiple operation modes (Grid-tie, Off-grid and Grid-tie with backup)
- Built-in timer for various modes of operation
- Selectable high power charging current
- Built-in anti-dust kit
- Lithium Iron Phosphate (LFP) cell
- Battery cycle life 8000 at 25°C
- Scalable battery expansion up to 10 modules
- Support wall mounted and standalone installation



Overview



Accessory

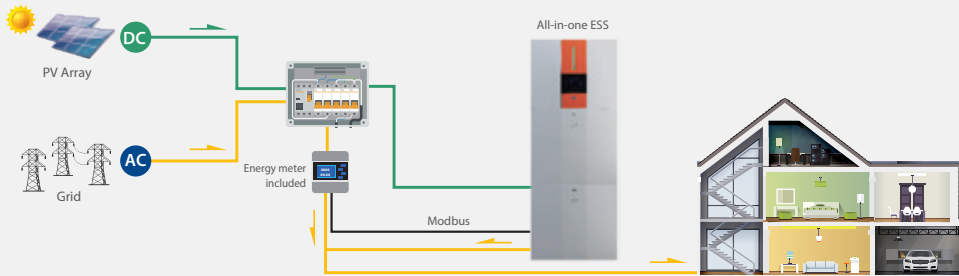


Maximum 10 pcs of battery modules



System Diagram

Add ESS into existing home utility system



Supply independent power to specific area, no power shutdown even Grid is not available



Supply independent power to whole house



Separate two ESS systems to supply whole house



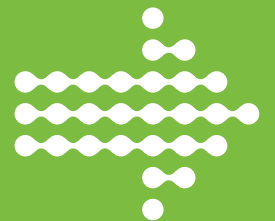
Specifications

INVERTER MODEL	Lumenion 510
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, 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, IEC/EN 61727, IEC/EN 62116, IEC/EN 50549-1

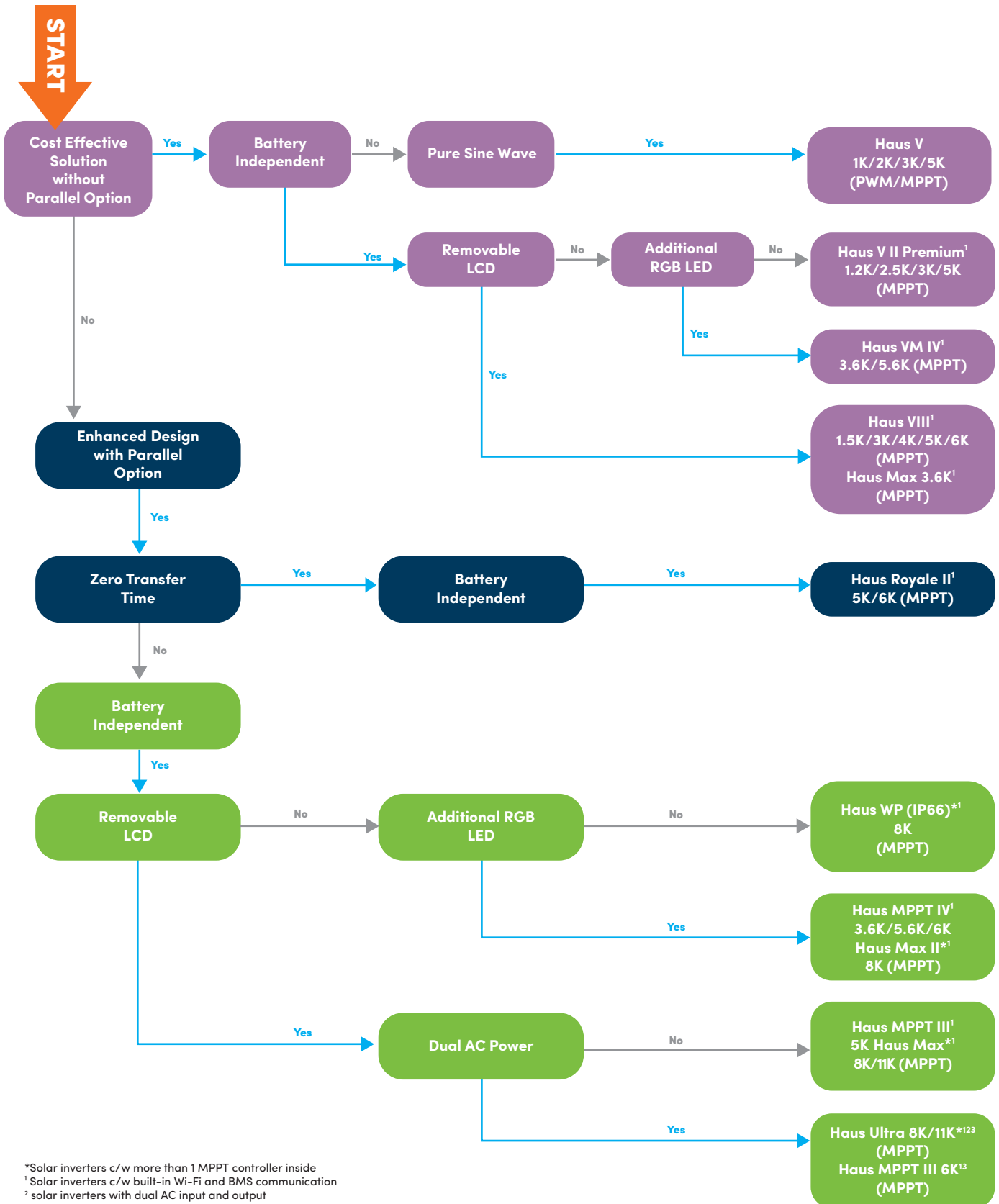
BATTERY MODULE	ESS II-4810
CAPACITY	5000Wh
PARAMETERS	
Nominal Voltage	51.2VDC
Full Charge Voltage (FC)	56V
Full Discharge Voltage (FD)	42V
Typical Capacity	100Ah
Max Continuous Discharging Current	150A
Max Discharging Current	192A at 1min
Protection	BMS, breaker
Charge Voltage	56V
Charge Current	20A (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.

OFF-GRID (HYBRID) INVERTER



Off-Grid (Hybrid) Inverter



*Solar inverters c/w more than 1 MPPT controller inside
¹ Solar inverters c/w built-in Wi-Fi and BMS communication
² solar inverters with dual AC input and output
³ solar inverters with dual AC output

Haus V Series

- Pure sine wave solar inverter
- Output power factor 1.0
- Selectable high power charging current
- Wide DC input range
- Selectable input voltage range for home appliances and personal computers
- Configurable AC/Solar input priority via LCD setting
- Compatible with mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function



Specifications

MODEL	Haus V 1K-12	Haus V 1KM-12	Haus V 2K-24	Haus V 2KM-24	Haus V 3K-24	Haus V 3KM-24	Haus Plus V 3KM-24	Haus V 5K-48	Haus V 5KM-48	
Rated Power	1000VA/1000W		2000VA/2000W		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	2000VA		4000VA		6000VA			10000VA		
Efficiency (Peak)	90% ~ 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			
Max. Charge Voltage	15 VDC		30 VDC		31 VDC			61 A		
Overcharge Protection	16 VDC		32 VDC				63 VDC			
SOLAR CHARGER & AC CHARGER										
Solar Charger type	PWM	MPPT	PWM	MPPT	PWM	MPPT		PWM	MPPT	
Maximum PV Array Open Circuit Voltage	55 VDC	102 VDC	80 VDC	102 VDC	80 VDC	102 VDC	145 VDC	105 VDC	145 VDC	
Maximum PV Array Power	600 W	500 W	1200 W	1000 W	1200 W	1000 W	1500 W	2400 W	3000 W	
MPPT Range @ Operating Voltage	N/A	17 ~ 80 VDC	N/A	30~80 VDC	N/A	30~80 VDC	30~115 VDC	N/A	60~115 VDC	
Maximum Solar Charge Current	50 A	40 A	50 A	40 A	50 A	40 A	60 A	50 A	60 A	
Maximum AC Charge Current	20 A	20 A	20 A	25A	25A	25A	60 A	60 A	60 A	
Maximum Charge Current	50 A	60 A	50 A	60 A	70 A	60 A	120 A	110 A	120 A	
PHYSICAL										
Dimension, D x W x H (mm)	88 x 225 x 320				100 x 285 x 334		100 x 300 x 440		100 x 300 x 440	
Net Weight (kgs)	5.0		5.5		6.4	6.6	9.5	8.5	9.7	
Communication Interface	USB/RS232									
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.

Haus V II Premium Series

- Output power factor 1.0
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Pure sine wave solar inverter
- Built-in BMS communication for Lithium-ion Batteries
- Wide PV input range, starts from 30VDC for 1.2K/2.5K/3K-24V models
- Battery independent design
- Selectable high power charging current
- Battery equalization function to optimize battery performance and extend lifecycle
- Built-in anti-dust kit



Specifications

MODEL	Haus V II Premium 1.2KM-12	Haus V II Premium 2.5KM-24	Haus V II Premium 3KM-24	Haus V II Premium 3KM-48	Haus V II Premium 5KM-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		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 (30 ~ 60VDC with battery connected)		30 ~ 400 VDC (30 ~ 60VDC with battery connected)		60 ~ 400 VDC
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				
ENVIRONMENT					
Humidity	5% to 95% Relative Humidity (Non-condensing)				
Operating Temperature	-10°C to 50°C				
Storage Temperature	-15°C to 60°C				

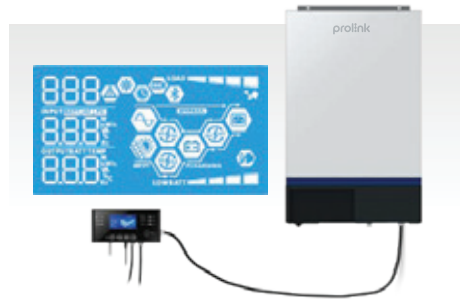
Product specifications are subject to change without further notice.

Haus V III Series

- Pure sine wave solar Inverter
- Output power factor 1.0
- Removable LCD control module
- Built-in BMS communication for Lithium-ion Batteries
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android app)
- Configurable AC/PV Output usage timer and prioritization
- Selectable high power charging current
- Compatible to Utility Mains or generator input
- Auto restart while AC is recovering
- Cold start function
- Supply load from Grid or PV, even when battery is not available
- Replaceable modular fans
- Build-in dust filters
- Battery independent design



Turn your removable LCD Control Module into a fully featured remote panel at a distance up to 20 meters.



Specifications

MODEL	Haus VIII 1.5KM-24	Haus V III 3KM-24	Haus V III 4KM-24	Haus V III 5KM-48	Haus V III 6KM-48
Rated Power	1500VA/1500W	3000VA/3000W	4000VA/4000W	5000VA/5000W	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	3000VA	6000VA	6000VA	10000VA	12000VA
Efficiency (Peak)	90% ~ 93%				
Transfer Time	15 ms (For Personal Computers) 20 ms (For Home Appliances)				
Waveform	Pure sine wave				
BATTERY					
Battery Voltage		24 VDC		48 VDC	48 VDC
Floating Charge Voltage		27 VDC		54 VDC	54 VDC
Max. Charge Voltage		31.5 VDC		61 VDC	61 VDC
Overcharge Protection		33 VDC		63 VDC	63 VDC
SOLAR CHARGER & AC CHARGER					
Solar Charger type	MPPT				
Maximum PV Array Power	2000W	4000W	5000W	5000W	6000W
MPPT Range @ Operating Voltage	120 ~ 380 VDC	120 ~ 450 VDC	120 ~ 450 VDC	120 ~ 450 VDC	120 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	400 VDC	500 VDC	500 VDC	500 VDC	500 VDC
Maximum Solar Charge Current	60A	100A	120A	100A	120A
Maximum AC Charge Current	40A	100A	100A	100A	100A
Maximum Charge Current	60A	100A	120A	100A	120A
PHYSICAL					
Dimension, D x W x H (mm)	100 x 280 x 390	115 x 300 x 400			
Net Weight (kgs)	8.5	9	9	10	10
Communication Interface	USB/RS232/RS485/Wi-Fi/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.

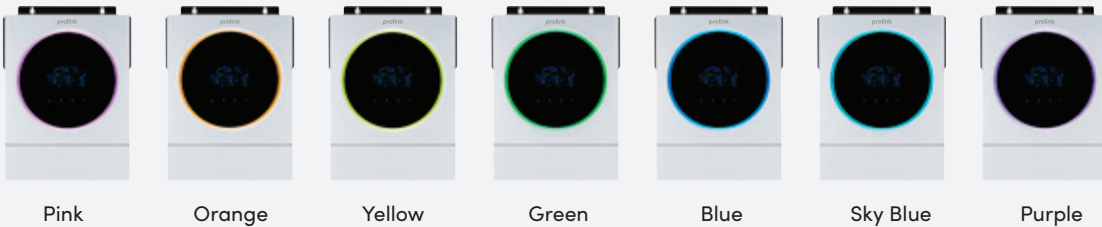
Haus VM IV Series

- Pure sine wave solar Inverter
- Output power factor 1.0
- Customizable status LED ring with RGB lights
- Touchable button with 4.3" coloured LCD
- Built-in Wifi for mobile monitoring (Available in iOS/ Android app)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Built-in BMS communication for Lithium-ion Batteries
- Battery independent design
- Battery equalization extends lifecycle
- User-friendly LCD operation
- Enhanced charging power
- Built-in anti-dust kit



Key Features

User-programmable RGB lighting for different operation mode



Pink

Orange

Yellow

Green

Blue

Sky Blue

Purple

Three lighting effects



Cycling
Quickly scrolling with a color of your choice in a continuous circular motion



Wheel
Illuminates with twinkling lights in a color of your choice



Chasing
Radiates your selected color upward from the bottom of the ring

Specifications

MODEL	Haus VM IV 3.6KM-24	Haus VM IV 5.6KM-48
Rated Power	3600VA/3600W	5600VA/5600W
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%	
Surge Power	7200VA	11200VA
Efficiency (Peak)	90% ~ 93%	
Transfer Time	15 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
Max Charge Voltage	31.5VDC	62VDC
Overcharge Protection	33 VDC	63 VDC
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	MPPT
Maximum PV Array Power	4000 W	6000 W
MPPT Range @ Operating Voltage	120 ~ 450 VDC	
Maximum PV Array Open Circuit Voltage	500 VDC	
Maximum Solar Charge Current	120 A	120 A
Maximum AC Charge Current	100 A	100 A
Maximum Charge Current	120 A	120 A
PHYSICAL		
Dimension, D x W x H (mm)	115 x 300 x 400	
Net Weight (kgs)	9.0	10.0
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.

Haus Ultra Series

- Pure sine wave solar Inverter
- Output power factor 1.0
- Dual outputs for smart load management
- Two independent AC power sources connected and switched automatically
- Built-in current transformer sensor to meet self-consumption application
- Support external BTS (Battery Temperature Sensor) detection
- Built-in power status lighting indicators
- Built-in 2.8" coloured LCD with slide operation
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- Built-in BMS communication for Lithium-ion Batteries
- Support optional GFCI, Rapid shutdown, AFCI detections
- Parallel operation up to 6 units



Specifications

MODEL	Haus Ultra 8KM-48	Haus Ultra 11KM-48
Rated Power	8000VA/8000W	11000VA/11000W
Parallel Capability	YES, up to 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	10000W (5000W x 2)	12000W (6000W 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	

Product specifications are subject to change without further notice.

Haus MAX Series

- Pure sine wave solar Inverter
- Output power factor 1.0
- Customizable status LED bar with RGB lights
- Built-in wifi for mobile monitoring (Available in iOS/ Android app)
- Supports USB On-the-Go function
- Built-in BMS communication for Lithium-ion Batteries
- 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
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Optional DC output for DC fan, LED bulb, router and so on
- Parallel operation up to 6 units only available for 8kVA and 11kVA



Specifications



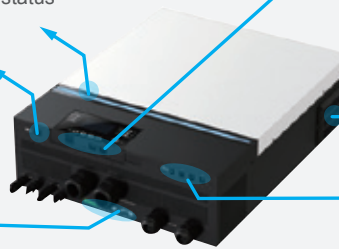
RGB light:
Different colour to present output source from PV, Grid or battery and battery charge/discharge status



Communication for Remote panel



Parallel connectors:
Maximum 6 units in parallel (only for Haus Max 8kVA and 11kVA)



Diverse communications:
USB On-the-Go function, Dry contact and BMS communication



Anti-dust filter:
Increase product reliability in harsh environment



DC output connectors:
Connect to DC fan, LED bulb or router



Specifications

MODEL	Haus Max 3.6KM-24	Haus Max 8KM-48	Haus Max 11KM-48
Rated Power	3600VA/3600W	8000VA/8000W	11000VA/11000W
PARALLEL CAPABILITY	NO	Yes, up to 6 units	Yes, 6 units
INPUT			
Voltage	230 VAC	230 VAC	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%	230VAC ± 5%
Surge Power	7500VA	16000VA	22000VA
Efficiency (Peak)	90% ~ 93%		93%
Transfer Time	15 ms (For Personal Computers) ; 20 ms (For Home Appliances)		10 ms (For Personal Computers) ; 20 ms (For Home Appliances)
Waveform	Pure sine wave		
No Load Power Consumption	< 45W	< 70W	< 70W
DC Voltage (Optional)	12VDC ± 5%, 100W	12VDC ± 5%, 100W	12VDC ± 5%, 100W
Dual Outputs	Optional	Optional	Yes
BATTERY			
Battery Voltage	24 VDC	48 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC	54 VDC
Max Charge Voltage	31.5VDC	62VDC	62VDC
Overcharge Protection	33 VDC	66 VDC	66 VDC
SOLAR CHARGER & AC CHARGER			
Solar Charger Type	MPPT		
Maximum PV Array Power	4000 W	8000W (4000W x 2)	11000W (5500W x 2)
MPPT Range @ Operating Voltage	120 ~ 450 VDC	90 ~ 450 VDC	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC	500 VDC
Maximum Solar Charge Current	80 A	120 A	150 A
Maximum AC Charge Current	80 A	120 A	150 A
Maximum Charge Current	80 A	120 A	150 A
PHYSICAL			
Dimension, D x W x H (mm)	147.4 x 432.5 x 553.6		
Net Weight (kgs)	14.1	18.4	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		

Product specifications are subject to change without further notice.

Haus MAX II

- Pure sine wave solar Inverter
- Output power factor 1.0
- Customizable status LED bar with RGB lights
- Touchable button with large 5" coloured LCD
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android app)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Built-in BMS communication for Lithium-ion Batteries
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Built-in DC output for DC fan, LED bulb, router and so on
- Parallel operation with 6 units



Specifications

User-programmable RGB lighting for different operation mode



Three lighting effects



Cycling

Quickly scrolling with a color of your choice in a continuous circular motion



Wheel

Illuminates with twinkling lights in a color of your choice



Chasing

Radiates your selected color upward from the bottom of the ring

Specifications

MODEL	Haus MAX II 8KM-48
Rated Power	8000VA/8000W
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	16000VA
Efficiency (Peak)	93%
Transfer Time	15 ms (For Personal Computers) ; 20 ms (For Home Appliances)
Waveform	Pure sine wave
No Load Power Consumption	< 70W
DC Voltage	12 VDC \pm 5%, 100W
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Max Charge Voltage	62 VDC
Overcharge Protection	66 VDC
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	150A
Maximum AC Charge Current	120A
Maximum Charge Current	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

Product specifications are subject to change without further notice.

Haus Royale II Series

- Pure sine wave solar Inverter
- Output power factor 1.0
- Zero transfer time to protect mission-critical loads such as ATM and servers
- Detachable LCD control module with multiple communications
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- User friendly LCD operation
- Built-in BMS communication for Lithium-ion Batteries
- Configuration AC/PV output usage timer and prioritization
- Selectable high power charging current
- Battery independent design
- Data log events stored in the inverter
- Parallel operation up to 9 units



Specifications

MODEL	Haus Royale II 5KM-48	Haus Royale II 6KM-48
Rated Power	5000VA/5000W	6000VA/6000W
Parallel Operation	Optional up to 9 units	
INPUT		
Voltage	230 VAC	
Voltage Range	176-280 VAC at 100% load / 110-280 VAC at 50% load	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation	220/230/240VAC ± 3%	
Output THDv	<3% for linear load, <5% for non-linear load	
Surge Power	10000VA for 5 sec	12000VA for 5 sec
Efficiency (Peak)	Line mode: >93%; Bat. mode: >90%	
Transfer Time	0 ms (For Line mode to Battery mode) 4 ms (For Inverter mode to Bypass mode)	
Waveform	Pure sine wave	
BATTERY		
Battery Voltage	48 VDC	
Floating Charge Voltage	54 VDC	
Max. Charge Voltage	64 VDC	
Overcharge Protection	66 VDC	
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	
Maximum PV Array Open Circuit Voltage	500 VDC	
Maximum PV Array Power	6000 W	
MPPT Range @ Operating Voltage	120~430 VDC	
Maximum Solar Charge Current	100 A	120 A
Maximum AC Charge Current	100 A	120 A
Maximum Charge Current	100 A	120 A
PHYSICAL		
Dimension, D x W x H (mm)	140 x 295 x 468	
Net Weight (kgs)	12	
Communication Interface	USB/RS232/RS485/Wi-Fi/Dry-contact	
ENVIRONMENT		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operating Temperature	0°C to 55°C	
Storage Temperature	-15°C to 60°C	

Product specifications are subject to change without further notice.

Haus MPPT III (5KW)

- Pure sine wave solar inverter
- Output power factor 1.0
- Detachable LCD control module with multiple communications
- Battery independent design
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Built-in BMS communication for Lithium-ion Batteries
- Smart battery charger design for optimized battery performance
- Selectable high power charging current
- Parallel operation up to 9 units



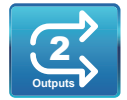
Specifications

MODEL	Haus III 5KM-48
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)	230 VAC ± 5%
Surge Power	10000VA
Overload Capacity	5s@≥150% load; 10s@110%~150% load; 100ms@≥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
Max Charge Voltage	64VDC
Overcharge Protection	66 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Maximum PV Array Power	5000 W
MPPT Range @ Operating Voltage	120 ~ 430 VDC
Maximum PV Array Open Circuit Voltage	450 VDC
Maximum Solar Charge Current	100 A
Maximum AC Charge Current	100 A
Maximum Charge Current	100 A
PHYSICAL	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kgs)	12.0
Communication Interface	USB, RS232, 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.

Haus MPPT III Twin (6KW)

- Pure sine wave solar inverter
- Output power factor 1.0
- Programmable dual outputs for smart load management
- Detachable LCD control module with multiple communications
- Battery independent design
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Built-in BMS communication for Lithium-ion Batteries
- Smart battery charger design for optimized battery performance
- Selectable high power charging current
- Parallel operation up to 9 units



Specifications

MODEL	Haus III Twin 6KM-48
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% (Dual Output)
Surge Power	12000VA
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
Max Charge Voltage	64VDC
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 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
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.

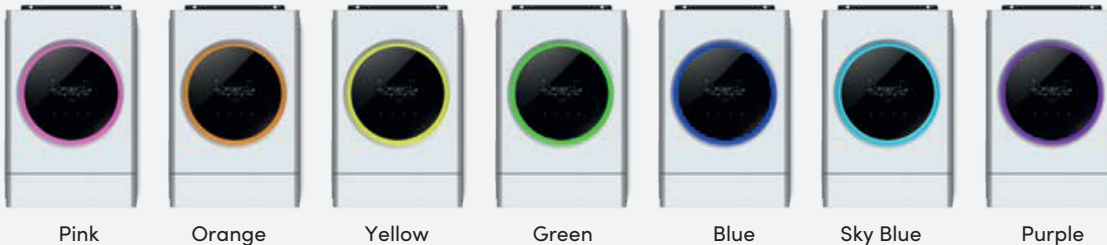
Haus MPPT IV Series

- Pure sine wave solar inverter
- Output power factor 1.0
- Customizable status LED ring with RGB lights
- Touchable button with 4.3" coloured LCD
- Battery independent design
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Built-in Wi-Fi for mobile monitoring
(Available in iOS/ Android app)
- Built-in BMS communication for Lithium-ion Batteries
- Selectable high power charging current
- Parallel operation with up to 9 units



Specifications

User-programmable RGB lighting for different operation mode



Pink

Orange

Yellow

Green

Blue

Sky Blue

Purple

Three lighting effects



Cycling

Quickly scrolling with a colour of your choice in a continuous circular motion



Wheel

Illuminates with twinkling lights in a colour of your choice



Chasing

Radiates your selected colour upward from the bottom of the ring

Specifications

MODEL	Haus IV 3.6KM-48	Haus IV 5.6KM-48	Haus IV 6KM-48
Rated Power	3600VA/3600W	5600VA/5600W	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 ± 5%		
Surge Power	7200VA	10000VA	12000VA
Overload capacity	5s@≥150% load; 10s@110%~150% load; 100ms @ ≥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	48 VDC	48 VDC
Floating Charge Voltage	54 VDC	54 VDC	54 VDC
Overcharge Protection	66 VDC	66 VDC	66 VDC
SOLAR CHARGER & AC CHARGER			
Solar Charger Type	MPPT	MPPT	MPPT
Maximum PV Array Power	5000 W	6000 W	6000 W
MPPT Range @ Operating Voltage	120 ~ 430 VDC		
Maximum PV Array Open Circuit Voltage	500 VDC	450 VDC	500 VDC
Maximum Solar Charge Current	100 A	120 A	120 A
Maximum AC Charge Current	100 A	120 A	120 A
PHYSICAL			
Dimension, D x W x H (mm)	140 x 295 x 468		
Net Weight (kgs)	11.0	12.0	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.

Haus WP

- Pure sine wave solar inverter
- Output power factor 1.0
- IP65 waterproof and dustproof makes the inverter suitable for various working conditions
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android app)
- Built-in BMS communication for Lithium-ion Batteries
- 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
- Compatible to Utility Mains or generator input
- Parallel operation up to 6 units

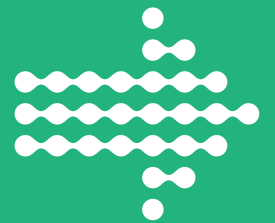


Specifications

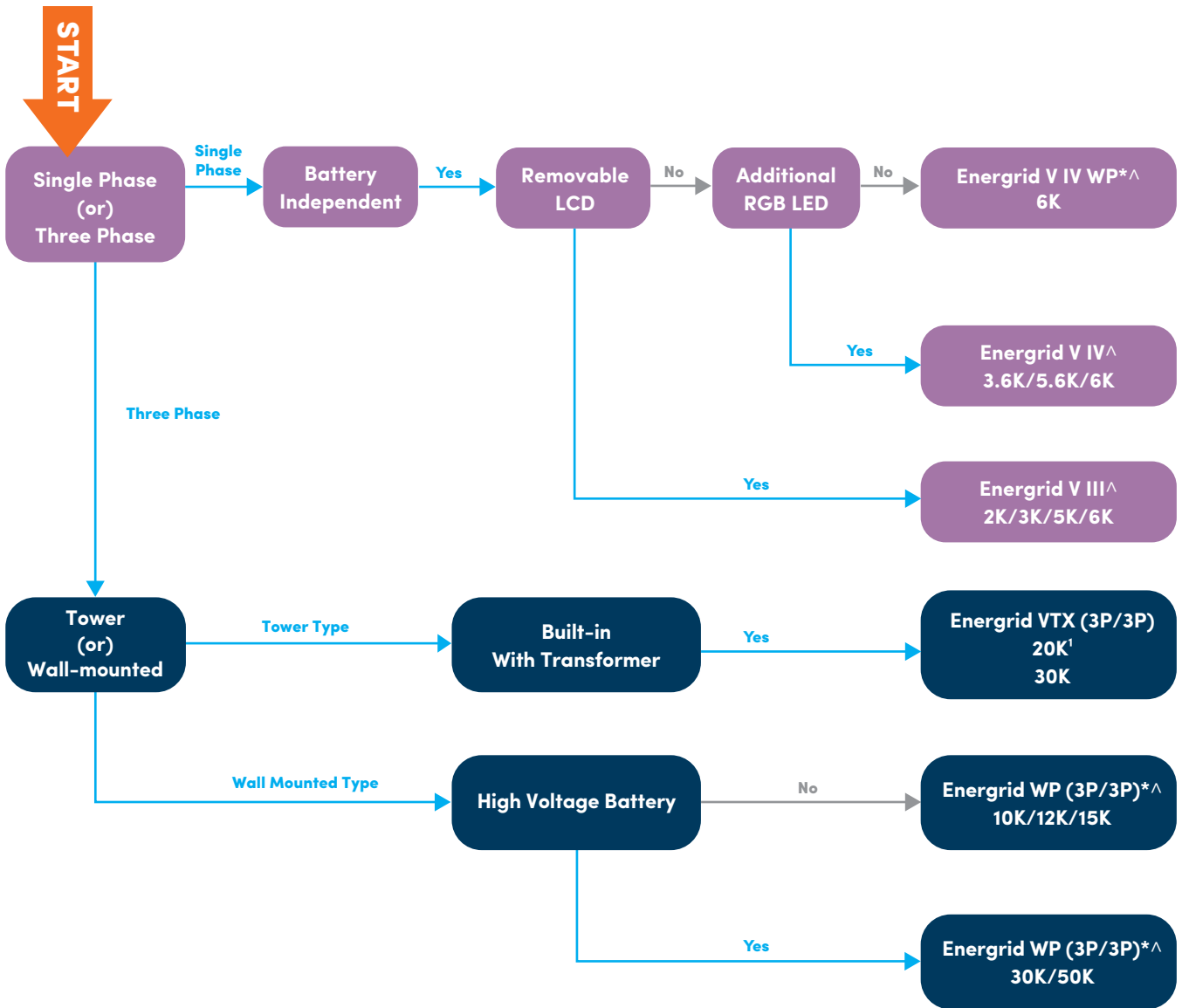
MODEL	Haus WP 8KM-48
Rated Power	8000VA/8000W
Parallel Capability	Yes, up to 6 units
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%
Surge Power	16000VA
Efficiency (Peak)	90% ~ 93%
Transfer Time	15 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 (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	120 A
PHYSICAL	
Dimension, D x W x H (mm)	200 x 435 x 665
Net Weight (kgs)	33
Communication Interface	USB / RS232 / RS485 / Dry-contact / 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.

ON-GRID INVERTER WITH ENERGY STORAGE OPTION



On-Grid inverter with energy storage option



Notes

*Solar inverters c/w IP65 weather proof and dust proof enclosure design.

^Solar inverters c/w built-in Wi-Fi and BMS communication.

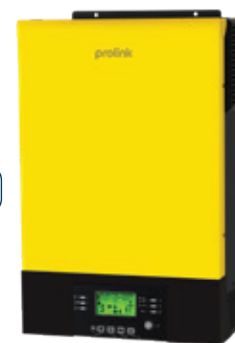
¹Inverters do not support parallel option.



Energrid V III Series

- Output power factor 1.0
- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Built-in MPPT solar charger
- 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
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- Built-in BMS communication for Lithium-ion Batteries
- Parallel operation up to 9 units
- Battery independent design



Specifications

MODEL	Energrid V III 2KM-48	Energrid V III 3KM-48	Energrid V III 5KM-48
Phase	1-phase in / 1-phase out		
Maximum PV Input Power	3000W	4500W	6000W
Rated Output Power	2000W	3000W	5000W
Maximum Charging Power	3000W	3000W	5000W
GRID-TIE OPERATION			
PV INPUT (DC)			
Nominal DC Voltage / Maximum DC Voltage	240 VDC / 500 VDC	360 VDC / 500 VDC	360 VDC / 450 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC	120VDC / 150 VDC	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 13 A	1 / 13A	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	8.7A	13A	21.7A
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	30 A	40 A	40 A
PV INPUT (DC)			
Maximum DC Voltage	500 VDC	500 VDC	450 VDC
MPP Voltage Range	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 13 A	1 / 13A	1 / 27A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	220/230/240 VAC		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	93%	93%	93%
HYBRID OPERATION			
PV INPUT (DC)			
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC	360 VDC / 500 VDC	360 VDC / 450 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC	120VDC / 150 VDC	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 13 A	1 / 13A	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	8.7A	13A	21.7A
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	30 A	40 A	40 A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	220/230/240 VAC		
Efficiency (DC to AC)	93%	93%	93%
BATTERY & CHARGER			
Nominal DC Voltage	48 VDC		
Maximum Solar Charging Current	60 A	60 A	100 A
Maximum AC Charging Current	60 A	60 A	100 A
Maximum Charging Current	60 A	60 A	100 A
GENERAL			
PHYSICAL			
Dimension, D x W x H (mm)	140 x 295 x 468		
Net Weight (kgs)	11	11	12
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.



Energrid V III Twin (6KW)

- Output power factor 1.0
- Programmable dual output for smart load management
- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Built-in MPPT solar charger
- Programmable supply priority for PV, Battery or Grid
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- User-adjustable charging current and voltage
- Detachable LCD panel
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Supports USB On-the-Go function
- Built-in BMS communication for Lithium-ion Batteries
- Parallel operation up to 9 units
- Battery Independent design



Specifications

MODEL	Energrid V III Twin 6KM-48
Phase	1-phase in / 1-phase out
Maximum PV Input Power	7000W
Rated Output Power	6000W
Maximum Charging Power	6000W
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	26.1A
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 365 x 468
Net Weight (kgs)	14
INTERACE	
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.



Energrid V IV Series

- Pure sine wave inverter
- Output power factor 1.0
- Customizable status LED ring with RGB lights
- Touchable button with 4.3" coloured LCD
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Self-consumption and Feed-in to the grid
- 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
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Built-in BMS communication for Lithium-ion Batteries
- Parallel operation up to 9 units
- Battery independent design



Specifications

MODEL	Energrid V IV 3.6KM-48	Energrid V IV 5.6KM-48
Phase	1-phase in / 1-phase out	
Maximum PV Input Power	5000W	6000W
Rated Output Power	3600W	5600W
Maximum Charging Power	5000W	6000W
GRID-TIE OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC	360 VDC / 450 VDC
Start-up Voltage / Initial Feeding Voltage	110VDC / 120 VDC	110VDC / 120 VDC
MPP Voltage Range	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 18 A	1 / 27 A
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	15.6A	24.3A
Power Factor	> 0.9	
EFFICIENCY		
Maximum Conversion Efficiency (DC/AC)	96%	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	40 A
PV INPUT (DC)		
Maximum DC Voltage	500 VDC	450 VDC
MPP Voltage Range	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 18 A	1 / 27 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	220/230/240 VAC	
Output Waveform	Pure sinewave	
Efficiency (DC to AC)	93%	93%
HYBRID OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC	360 VDC / 450 VDC
Start-up Voltage / Initial Feeding Voltage	110VDC / 120 VDC	110VDC / 120 VDC
MPP Voltage Range	120 VDC ~ 430 VDC	120 VDC ~ 430 VDC
Number of MPP Trackers / Maximum Input Current	1 / 18 A	1 / 27 A
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	15.6A	24.3A
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	40A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	220/230/240 VAC	
Efficiency (DC to AC)	93%	93%
BATTERY & CHARGER		
Nominal DC Voltage	48 VDC	48 VDC
Maximum Solar Charging Current	100A	120A
Maximum AC Charging Current	100A	120A
Maximum Charging Current	100A	120A
GENERAL		
PHYSICAL		
Dimension, D x W x H (mm)	140 x 295 x 468	
Net Weight (kgs)	11	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.



Energrid V IV Twin (6KW)

- Pure sine wave inverter
- Output power factor 1.0
- Programmable dual output for smart load management
- Customizable status LED ring with RGB lights
- Touchable button with 4.3" coloured LCD
- Supports USB On-the-Go function
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid

- Data log events stored in the inverter
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- Built-in BMS communication for Lithium-ion Batteries
- Parallel operation up to 9 units
- Battery independent design



Specifications

MODEL	Energrid V IV Twin 6KM-48
Phase	1-phase in / 1-phase out
Maximum PV Input Power	7000W
Rated Output Power	6000W
Maximum Charging Power	6000W
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	26.1A
Power Factor	> 0.9
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
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	26.1A
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.



Energrid V IV WP Plus (6KW)

- Pure sine wave output
- Output power factor 1.0
- IP65 waterproof and dustproof makes the inverter suitable for various working conditions
- Built-in 2 MPP trackers
- Dual outputs for smart load management
- 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 9 units
- Battery independent design



Specifications

MODEL	Energrid V IV WP Plus 6KM-48
Phase	1-phase in / 1-phase out
Maximum Pv Input Power	9100W
Rated Output Power	6000VA/6000W
Maximum Charging Power	6000 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Maximum DC Voltage	550 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	2 / 17.5A
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	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	550 VDC
MPP Voltage Range	120VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	2 / 17.5A
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)	
Maximum DC Voltage	550 VDC
Start-up Voltage / Initial Feeding Voltage	120 VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	2 / 17.5A
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	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)	192 x 385 x 665
Net Weight (kgs)	28
INTERFACE	
Parallel Function	Yes, 9 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

Product specifications are subject to change without further notice.



Energrid WP

- Pure sine wave output
- Output power factor 1.0
- IP65 waterproof and dustproof makes the inverter suitable for various working conditions
- Built-in Wi-Fi for mobile monitoring (Available in iOS/ Android App)
- 150% unbalanced load support
- Built-in AC coupled function

- Dual outputs selected as either programmable output or generator input
- User-adjustable charging current and voltage
- Built-in BMS communication for Lithium-ion Batteries
- Parallel operation up to 6 units



Specifications

MODEL	Energrid WP 10KM-48	Energrid WP 12KM-48	Energrid WP 15KM-48
Maximum Pv Input Power	14500W	16000W	22500W
Rated Output Power	10000 W	12000 W	15000 W
Maximum Charging Power	10000 W	12000 W	15000 W
GRID-TIE OPERATION			
PV INPUT (DC)			
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 1000 VDC	720 VDC / 1000 VDC	720 VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage		320 VDC / 350 VDC	
MPP Voltage Range	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 13A	2 / A: 26A, B: 26A	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 1	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	14.5 A per phase	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	40 A
PV INPUT (DC)			
Maximum DC Power	14500W	16000W	22500W
Maximum DC Voltage	1000 VDC	1000 VDC	1000 VDC
MPP Voltage Range	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 13A	2 / A: 26A, B: 26A	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 1	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%	91%
HYBRID OPERATION			
PV INPUT (DC)			
Maximum DC Voltage	1000 VDC	1000 VDC	1000 VDC
Start-up Voltage / Initial Feeding Voltage		320 VDC / 350 VDC	
MPP Voltage Range	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 13A	2 / A: 26A, B: 26A	2 / A: 26A, B: 26A
Number of Strings Per MPP Tracker	A: 2, B: 1	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	14.5 A per phase	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	40 A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage		230 VAC (P-N) / 400 VAC (P-P)	
Efficiency (DC to AC)	91%	91%	91%
BATTERY & CHARGER			
Battery Voltage Range	40 ~ 62 VDC	40 ~ 62 VDC	40 ~ 62 VDC
Maximum Charging Current	220 A	250 A	300 A
GENERAL			
PHYSICAL			
Dimension, D x W x H (mm)	247 x 500 x 650	255 x 660 x 750	
Net Weight (kgs)	42	70	73
INTERACE			
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.



Energrid WP (30KW)

- Pure sine wave output
- Output power factor 1.0
- IP65 waterproof and dustproof makes the inverter suitable for various working conditions
- 150% unbalanced load support
- Dual outputs for smart load management
- Accept dual AC inputs, utility power and generator power
- Built-in Wi-Fi 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 for smart load management



Specifications

MODEL	Energrid WP 30KM-HV
Maximum PV Input Power	40000 W
Rated Output Power	30000 W
Maximum Charging Power	18000 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)	96%
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

Specifications

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)	96%
BATTERY & CHARGER	
Battery Voltage Range	500-900VDC
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, MODBUS and GPRS
ENVIRONMENT	
Humidity	0 ~ 100% RH
Operating Temperature	-25°C to 60°C (>45°C De-rating)
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.



Energrid WP 30KM-HV with EnergyCube 605

- Pure sine wave output
- Output power factor 1.0
- IP65 enclosure for hybrid inverter
- User-adjustable charging current up to 50A
- Parallel operation up to 4 units
- 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

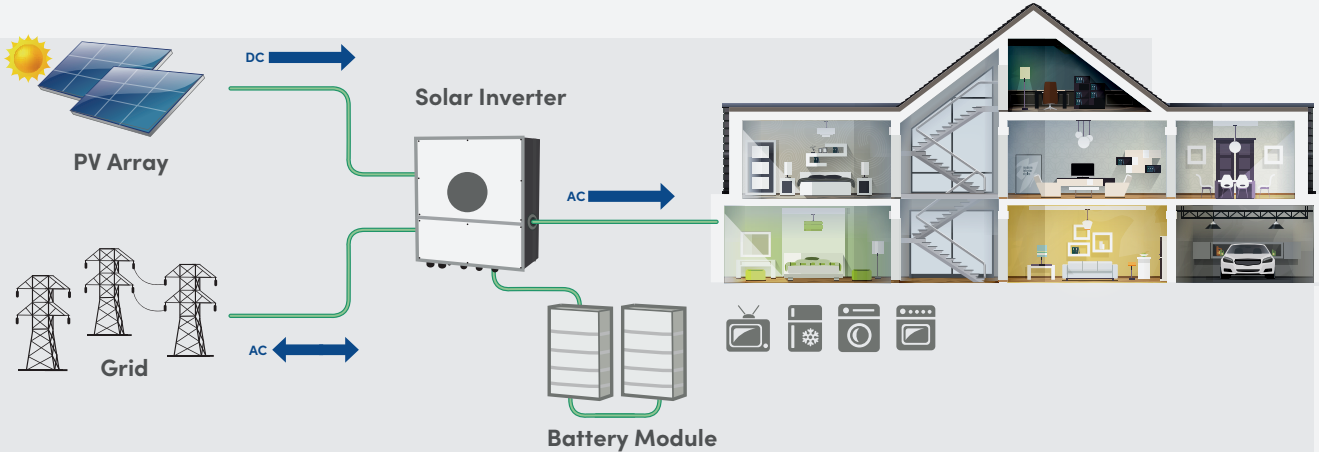


Lithium Iron Phosphate (LFP) Battery Pack



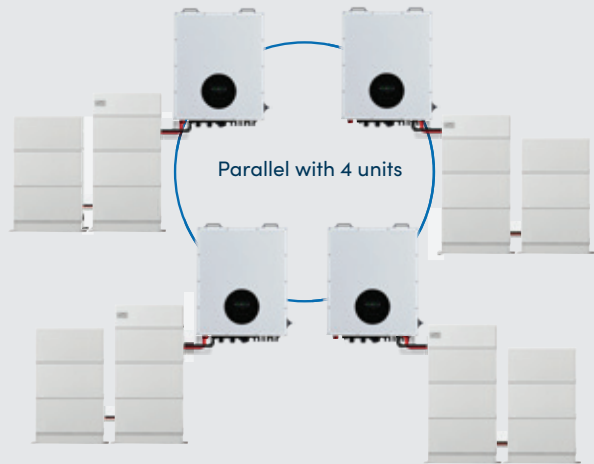
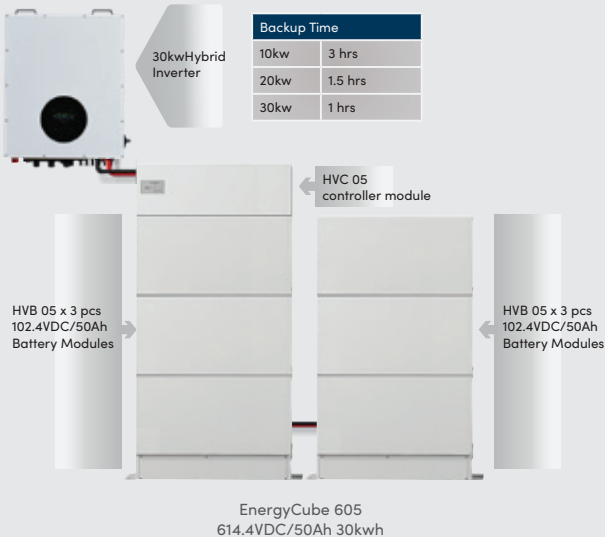
EnergyCube 605 (30kWh)

System Diagram



30kW hybrid inverter with EnergyCube 605

Parallel operation





Specifications

INVERTER MODEL		Energrid WP 30KM-HV
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.



Energrid WP (50KW)

- Pure sine wave output
- Output power factor 1.0
- IP65 waterproof and dustproof makes the inverter suitable for various working conditions
- Built-in Wi-Fi for mobile monitoring (App is available)
- 150% unbalanced load support
- Generator input compatible
- User-adjustable charging current up to 65A
- Wide battery input range
- Built-in communication port for BMS (RS485)
- 5 years warranty
- Parallel operation up to 4 units



Specifications

MODEL	Energrid WP 50KM-HV
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%
BATTERY & CHARGER	
Battery Voltage Range	500~800VDC
Maximum Charging Current	65A
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

Specifications

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)	100
INTERFACE	
Communication Port	RS-232, USB, DRY CONTACT, RS-485, Wi-Fi
Intelligent Slot	Optional SNMP, MODBUS and GPRS
ENVIRONMENT	
Humidity	0 ~ 100% RH
Operating Temperature	-25°C to 60°C (>45°C De-rating)
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.



Energrid VTX (3P/3P)

- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- True galvanic isolation transformer design
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- User-adjustable charging current
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control
- Parallel operation up to 4 units (only for 30KW)



Specifications

MODEL	Energrid VTX 20KM-384	Energrid VTX 30KM-384
Maximum PV Input Power	30KW	45KW
Rated Output Power	20KW	30KW
Maximum Charging Power	20KW	30KW
GRID-TIE OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 950 VDC	
Start-up Voltage / Initial Feeding Voltage	500 VDC / 550 VDC	
MPP Voltage Range	460 VDC~900VDC	460 VDC~900VDC
Full power MPP Voltage Range	625 VDC ~ 900 VDC	
Number of MPP Trackers / Maximum Input Current	1 / 48A	1 / 72A
GRID OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Output Voltage Range	195~253 VAC per phase	
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz	
Nominal Output Current	29 A per phase	43.5 A per phase
Power Factor	1	
EFFICIENCY		
Maximum Conversion Efficiency (DC/AC)	93%	95%
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase for 20KW model 150 - 170 VAC per phase / 180 VAC per phase for 30KW model	
Acceptable Input Voltage Range	170 - 280 VAC per phase	
Maximum AC Input Current	40 A per phase	43.5 A per phase
PV INPUT (DC)		
Maximum DC Voltage / Maximum DC Voltage	30KW / 950 VDC	45KW / 950 VDC
MPP Voltage Range	550 VDC~900VDC	460 VDC~900VDC
Number of MPP Trackers / Maximum Input Current	1 / 48 A	1 / 72 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Output Waveform	Pure Sinewave	
Efficiency (DC to AC)	>91%	
HYBRID OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 950 VDC	
Start-up Voltage / Initial Feeding Voltage	500 VDC / 550 VDC	
MPP Voltage Range	550 VDC~900VDC	460 VDC~900VDC
Number of MPP Trackers / Maximum Input Current	1 / 48 A	1 / 72 A
GRID OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Output Voltage Range	184 - 265 VAC per phase for 20KW model 195 - 253 VAC per phase for 30KW model	
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz	
Nominal Output Current	29.0 A per phase	43.5 A per phase
Power Factor	1	
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase for 20KW model 150 - 170 VAC per phase / 180 VAC per phase for 30KW model	
Acceptable Input Voltage Range	170 - 280 VAC per phase	
Maximum AC Input Current	29.0 A per phase	43.5 A per phase
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)	
Efficiency (DC to AC)	>91%	
BATTERY & CHARGER		
Nominal DC Voltage	384 VDC	384VDC/384~480VDC
Maximum Charging Current	50A	80A
GENERAL		
PHYSICAL		
Dimension, D x W x H (mm)	559 x 320 x 909	430 x 715 x 1021
Net Weight (kgs)	120	223
INTERFACE		
Communication Port	RS-232/USB	
Intelligent Slot	Optional SNMP, GRPS, WIFI, Modbus cards available	
ENVIRONMENT		
Humidity	0 ~ 90% RH (Non-Condensing)	
Operating Temperature	-10 to 55°C	
Altitude	0 ~ 1000 m**	

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

Product specifications are subject to change without further notice.

LITHIUM ION BATTERIES



LIO II-2410E/4810E

- Built-in Active Cell Balancing, ensuring optimal performance and longevity of the battery pack
- Wall-mounted scalable Lithium-ion battery module
- Scalable design up to 15 units
- IP65 design for robust applications



LIO II-2410E



LIO II-4810E

Key Features



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.



Maximum Lifecycle

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

Specifications

MODEL	LIO II-2410E	LIO II-4810E
Battery Cell Technology	Lithium Iron Phosphate	
Nominal Voltage	25.6V	51.2V
Battery Capacity	100Ah	
Max Continuous Charging / Discharging Current	50A/100A @ 0.2C, 25°C	100A @ 0.2C, 25°C
Max Charging Voltage	29.2V	57.6V
Max Discharging Voltage	20V	43.2V
Max Parallel Unit	16	
PHYSICAL		
Dimension, D x W x H (mm)	165 x 375 x 400	140 x 450 x 500
Net Weight (kgs)	26	43
ENVIRONMENT		
Operating Environment	Charge : 0°C~45 °C	
	Discharge: -20°C~60 °C (>45 °C derating)	
Operating Humidity	5% ~ 95% RH (non-condensing)	
MANAGEMENT		
IP Protection	IP65	
BMS Communication	RS485, RS232, CAN	
Safety Standard	EN IEC 61000-6-3, EN IEC 61000-6-1, EN IEC61000-3-2, IEC61000-3-3, UN38.3	

Product specifications are subject to change without further notice.

LIO II-4810

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



Key Features



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

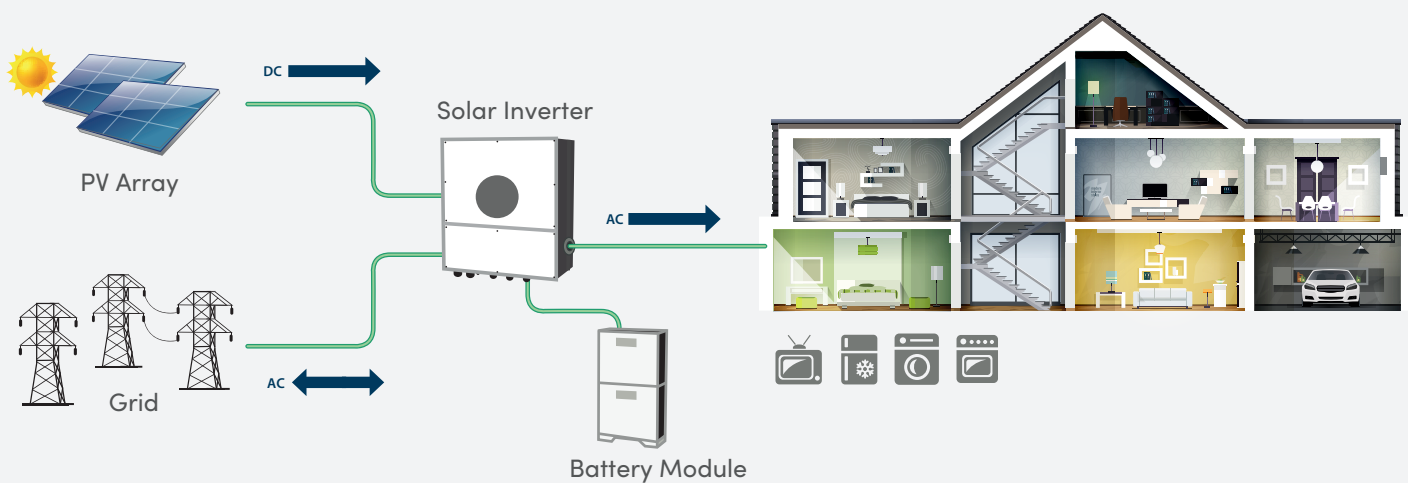
Battery module can be easily stacked and added for energy expansion.



Maximum Lifecycle

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

System Diagram



Specifications


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.

EnergyCube 205-605

- High voltage type Lithium-ion 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

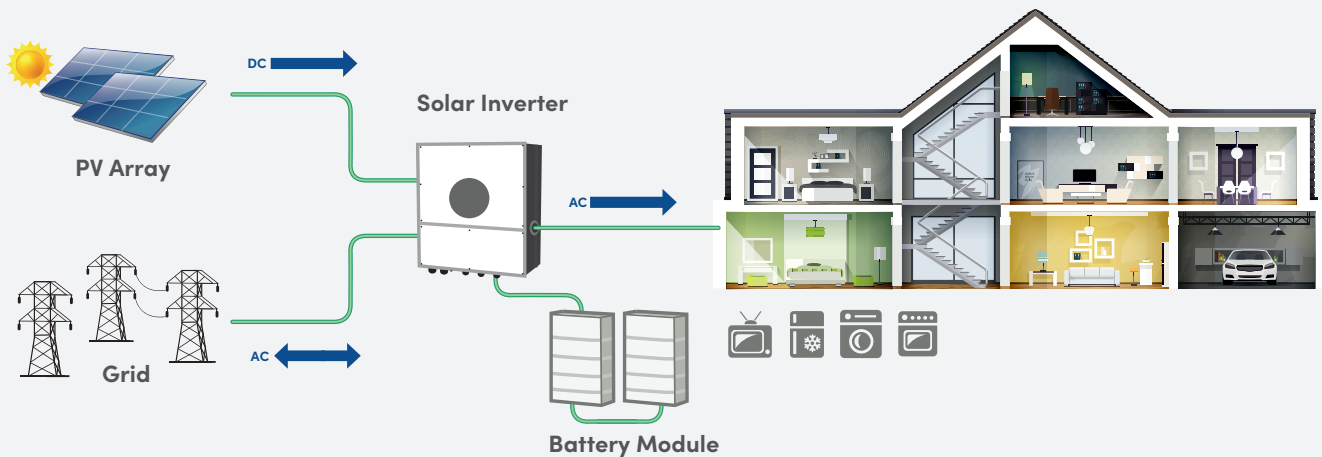
Battery module can be easily stacked and added for energy expansion.



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

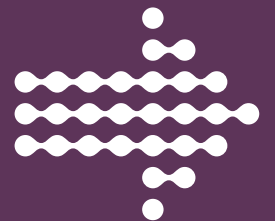


Specifications


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 fill 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.

CHARGE CONTROLLERS



PWM Series

- 12VDC or 24VDC available
- Multi-stage charging method
- Lightweight design



Specifications

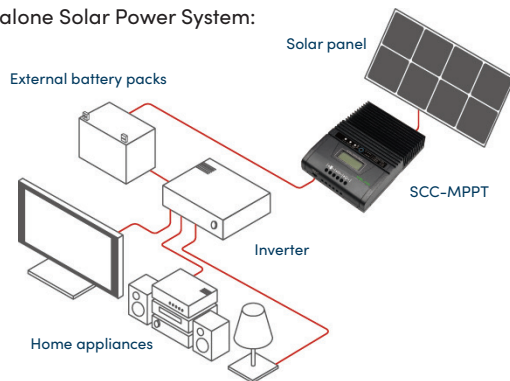
MODEL	PWM120	PWM240	PWM360	PWM600	PWM720	PWM1200
INPUT						
Maximum PV Array Open Circuit Voltage	25 VDC	50 VDC	75 VDC	75 VDC	75 VDC	75 VDC
Maximum PV Array Power	120 W	240 W	360 W	600 W	720 W	1200 W
Maximum Current	10 A		30 A	50 A	30 A	50 A
OUTPUT						
Nominal Battery Voltage	12 VDC	24 VDC	12 VDC	12 VDC	24 VDC	24 VDC
Connected Battery Type	Sealed lead acid battery					
Maximum Charging Current	10 A		30 A	50 A	30 A	50 A
Ripple Voltage	< ± 1 V					
Charging Method	Two stages: bulk and floating 1/ floating 2			Three stages: bulk, abs cv, floating		
INDICATORS						
LED Display	Green LED indicating charging status					
PHYSICAL						
Dimension, D X W X H (mm)	92.6 x 60.7 x 30.8		107.6 x 75 x 30.8	131 x 85 x 40.5	107.6 x 75 x 30.8	131 x 85 x 40.5
Net Weight	210 g		340 g	490 g	340 g	490 g
Connector	PV/Battery terminal block			PV/Battery/Load terminal block		
IP Protection	IP 31					
ENVIRONMENT						
Operating Temperature	-20°C to 55°C					
Storage Temperature	-40°C to 75°C					
Altitude	0 ~ 3000 m					

Product specifications are subject to change without further notice.

MPPT Series

- Intelligent Maximum Power Point Tracking technology
- Built-in DSP controller with high performance
- Automatic battery voltage detection (Only for 600W and 3KW)
- Battery temperature sensor (BTS) automatically provides temperature compensation (Only for 3KW)
- Three-stage charging optimizes battery performance
- Automatic load-detection
- Multifunctional LCD displays detailed information
- Reverse polarity protection for solar panel and battery
- Overcharge and overload protection
- Suitable for different battery types

Standalone Solar Power System:



Specifications

MODEL	MPPT300	MPPT600	MPPT850	MPPT3000
INPUT				
MPPT Range @ Operating Voltage	15 VDC ~ 37 VDC	15 VDC ~ 33 VDC	30 VDC ~ 66 VDC	45 VDC ~ 88 VDC
Maximum PV Array Open Circuit Voltage	50 VDC	50 VDC	75 VDC	98VDC
Maximum PV Array Power	300 W	300 W	600 W	850 W
Maximum Current		18 A	17A	50 A
OUTPUT				
Nominal Battery Voltage	12 VDC	12 VDC	24 VDC	36 VDC
Connected Battery Type	Sealed lead acid, vented, Gel, NiCd battery			Sealed lead acid, AGM or Gel
Maximum Charging Current		25 A	20A	60 A
Maximum Efficiency	98%			
Charging Method	Three stages: bulk, absorption, and floating			
PROTECTION				
Overload Protection	> 110% : audible alarm			
Overcharge Protection	Yes			
Polarity Reversal Protection @ Solar Cell & Battery	Yes			
INDICATORS				
LCD Panel	LCD panel indicating solar power, load level, battery voltage/capacity, charging current, and fault conditions			
LED Display	Three indicators for solar, charging, and load status			
PHYSICAL				
Dimension, D x W x H (mm)	135 x 170 x 57.5	220 x 170 x 57.5		315 x 165 x 128
Net Weight (Kgs)	0.92	1.85		4.5
IP Protection	IP 43			IP 31
ENVIRONMENT				
Humidity	0 ~ 100% RH (Non-condensing)			5 ~ 95% RH (Non-condensing)
Operating Temperature	-20°C to 55°C			0°C to 55°C
Storage Temperature	-40°C to 75°C			-15°C to 60°C
Altitude	0 ~ 3000 m			

Product specifications are subject to change without further notice.

WATER PUMP SOLAR INVERTER



Venture Series

- Built-in MPPT solar charger
- Supports single phase or three-phase asynchronous motor depending on models
- Supports single phase AC input when PV energy is not sufficient (only for Aspire 2.2KW LS model)
- Built-in full protection and self-diagnosis
- Soft start function prevents water hammer effect and extends system lifecycle
- Comprehensive LEDs and display screen for real-time system status
- Optional remote panel available
- Remote monitoring software via RS-485 communication

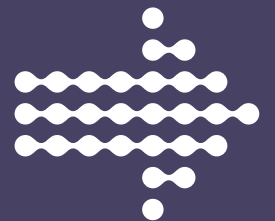


Specifications

MODEL	Venture 2.2KM (LS)	Venture 2.2KM	Venture 7.5KM	Venture 11KM	Venture 15KM
Rated Output Power	2200 W(3HP) (supports 0.75~3HP water pump)	2200 W(3HP) (supports 0.75~3HP water pump)	7500 W(10HP) (supports 3~10HP water pump)	11000 W(15HP) (supports 10~15HP water pump)	15000 W(20HP) (supports 10~20HP water pump)
PV INPUT (DC)					
Nominal DC Voltage / Maximum DC Voltage	330 VDC / 450 VDC		540 VDC / 800 VDC		540 VDC / 800 VDC
Start-up Voltage	120 VDC		250 VDC		
MPPT Voltage Range	120 VDC ~ 420 VDC		250 VDC ~ 780VDC		500 VDC ~ 600VDC
Number of MPP Trackers	1				
AC INPUT					
Input Voltage	220/230/240 VAC (-15% ~ +10%)		N/A		
Input Frequency	47 Hz ~ 63 Hz				
OUTPUT					
Nominal Voltage	220/230/240 VAC	3 x 220/230/240 VAC	3 x 380/400/415/440 VAC		
Efficiency	> 97%		> 97%		
Nominal Output Current	14 A	10 A	5.0 A	15 A	22 A
Motor Type	Single-phase (default)	Three-phase	Three-phase asynchronous motor		
Frequency Precision	±0.2%				
PROTECTION					
Full Protection	Phase lost, dry pumping, motor locked, weak sunlight, over-voltage, under-voltage, over-current, surge, over-temperature and short circuit protection				
PHYSICAL					
Dimension, D X W X H (mm)	110 x 230 x 342				205 x 218 x 320
Net Weight (kgs)	5	5.5	6	6.5	6
IP Protection	IP20				
INTERACE					
Communication Port	RS-232/RJ45 (RS-485 communication)				
ENVIRONMENT					
Humidity	< 95% RH (Non-condensing)				
Operating Temperature	-20°C~45°C at 100% full load, 46°C~60°C power derating				

Product specifications are subject to change without further notice.

REMOTE MONITORING & MANAGEMENT





SNMP Web Pro

SNMP Web Pro

- Built-in web server to control and monitoring of multiple inverters through LAN or Internet
- Built-in 32MB flash memory to save more than 2 million threads
- Set with real-time clock to record log by date and keep running up to 7 days even without power connection.
- Support EMD monitoring and SMS service



Modbus Card

Modbus Card

- Real-time control and monitoring of multiple inverters via RS-485 communication port
- Supports Modbus RTU protocol
- Provide MODBUS functions including read Holding Registers and write Registers
- Provide surge protection



Modbus Box

Modbus Box

- Support to monitor off-grid inverter through modbus interface
- Implement MODBUS RTU protocol
- Integrated with WatchPower software
- Support Haus series inverter



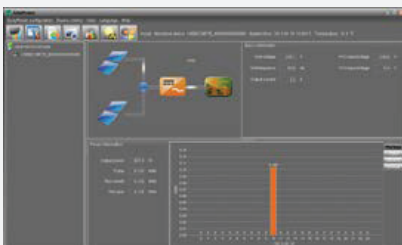
Modbus Duo

Modbus Duo

- Provides more communication capability for the inverter without intelligent slot
- Supports dual communication ports for BMS management/ Smart energy meter monitoring or BMS management/Modbus monitoring

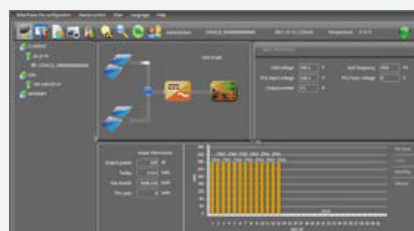
Monitoring Software

SolarPower



SolarPower is a solar inverter monitoring software. It can monitor multiple devices via USB and Serial port at the same time. The major functions of SolarPower monitoring software include data log for devices, power generation statistics, alarm messages, fault messages and parameter setting for devices.

SolarPower Pro



SolarPower Pro is a solar inverter monitoring software to monitor up to 247 devices via modbus or SNMP interface. It allows web browsing in a networking environment. The major functions of SolarPower Pro monitoring software include data log for devices, power generation statistics, alarm messages, fault messages, and parameter setting for devices.

WatchPower

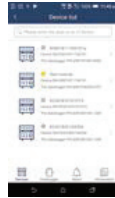


WatchPower is an off-grid inverter monitoring software which can monitor multiple devices via serial port at the same time. The major functions include data log for devices, alarm and fault recording. Besides, it also can configure advanced parameters such as charger source priority, output source priority, AC input range and battery type based on diverse applications.



Wi-Fi Module

- 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.)



WatchPower WiFi



GPRS/3G Card

Wi-Fi Card

GPRS/3G Card & Box

- Allow to access historic data in centralized data center
- Built-in SIM card slot
- Data transmission to data center via the Internet
- Warning notifications via mobile messenger
- Historic data log stored in centralized PC databas or Email
- Remotely monitoring inverter(s) data through the data server at any time

Wi-Fi Card & Box

- Upload information to data server via wireless network
- Remotely monitoring inverter(s) data through the data server at any time
- Event Notification via Email
- Built-in web server
- Automatic firmware upgrade



Wi-Fi Module/GPRS/3G/Wi-Fi Card Selection Guide

MODEL	Wi-Fi Module	GPRS Card	3G Card	Wi-Fi Card
Network Support	802.11 b/g/n, AP/STA	GPRS /GSM 850/900/1800/1900 • Multislot Class 12 • Full PBCCCH support • Mobile Station Class B"	GSM/GPRS/EDGE: Dual band GSM 900/1800MHz UMTS/HSPA+: Dual band UMTS 900/2100MHz	802.11 b/g/n STA, AP, P2P
Network Protocol		TCP/IP, UDP, HTTP, HTTPS, IPv4, SSL		
SIM Card	N/A	Micro card 12 x 15 mm	Micro card 12 x 15 mm	N/A
Communication Interface	RS232	Golden finger		
Power Input	5V-12V	12 V		
Power Consumption	2 watt (max.)	2 watt (max.)		
Firmware Upgrade		Via network		
Operating Temperature	-20°C ~ 75°C	-10°C to 75°C		
Operating Humidity	0 ~ 95%	0 ~ 95%		
Storage Temperature	-30°C to 80°C	-15°C to 85°C		
Dimension, D x W x H (mm)	28 x 46 x 172	23 x 47 x 15		

Product specifications are subject to change without further notice.



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