



PRODUCTS CATALOGUE

- PHOTON SERIES
- PHOTON PRO SERIES
- ROCKS SERIES
- LITHIUM BATTERIES

1ON is providing solar energy solution with an innovative range of solar inverters and lithium batteries designed for a greener today and tomorrow





COMPANY PROFILE

Founded in 2009, MD Electrical and Solar is a leading solar energy provider in Pakistan and the World. We specialize in the trading and distribution of high-quality solar products, backed by a nationwide dealer network and exceptional after-sales support.

- Industry: Renewable Energy / Solar Power
- Legal Status: International Company
- Core Business: Inverters lithium batteries and related accessories
- Market Presence: Dealers across all major cities in Pakistan and the World

MISSION VISION



OUR MISSION

Deliver smart, reliable and affordable technology that empowers people and communities with clean and sustainable energy. We provide high quality solar inverters and complete energy solutions that help reduce costs, lower carbon emissions and create true energy independence. By directly importing trusted products and ensuring their quality before distributing them to our dealers, we guarantee accessibility and long-term value in every market we serve. With innovation, transparency and exceptional services we are committed to building strong partnerships that drive progress, support a greener planet and create lasting impact for businesses and individuals alike.

OUR VISION

Make clean, reliable and affordable energy solutions accessible to everyone. We are also dedicated to reducing costs, lowering carbon footprints and empowering communities and businesses with energy independence through high quality solar inverters and lithium batteries and upcoming products. With innovation, trust and responsibility at the core of our work, we continue to evolve by introducing new solutions that bring greater value to our customers and partners. Together, we aim to build a cleaner, brighter and more sustainable future, while strengthening our dealer network and creating long term growth opportunities for all the stakeholders.

Worldwide Employees

400+

Service Centers

30+

Successful Setups

100000+

PRODUCTION LINE



MD Solar New Energy Co., Ltd.
+86 13580371224
www.unergypower.com
705, 7th Floor, No. 4, Chuangye road, xiabai community, Luocun Town,
Nanhai District, Foshan City, Guangdong Province, China

CURRENT PRODUCTION STATISTICS

Manufacturing Facility: China

Monthly Production Capacity: 4,000+ pieces

Total Production to Date: 20,000+ pieces

Imported & Delivered to Pakistan: 3,000+ pieces

We are proud to have our manufacturing facility in China, where we have the capacity to produce high volumes with strict quality control. Over the year, we have expanded our production and made our products accessible over the Globe. Looking ahead, our next focus is to set up a state-of-the-art production line in Saudi Arabia, strengthening our global presence and catering to the increasing demand in the Middle East market.



Message FROM CEO

At 1ON Inverters, we presume energy is more than just power — it is the foundation for a brighter and sustainable future. Since our beginning, our mission has been to deliver reliable, efficient and innovative solar solutions that empower homes, businesses and communities to espouse clean energy with confidence. Every product we design manifest our commitment to quality, durability and customer satisfaction. But beyond technology, our true focus is people — helping families reduce electricity costs, subsidize businesses with uninterrupted power and contributing to a greener planet for the next generation. We are proud of how far we have come, yet we know the journey of renewable energy is just beginning. With every inverter, battery and other product we provide, we always move one step closer to a cleaner tomorrow. Thank you for trusting 1ON as your partner in energy independence. Together, let's lead the way toward a sustainable future.

Abdul Wahid Khan
Chief Executive Officer
MD Solar Solution
(1ON Inverters)

LIVE LIFE CLEANER BY MAKING EARTH GREENER!



ENJOY BETTER LIFE



HYBRID INVERTER

ROCKS
PHOTON PRO
PHOTON



ON-GRID INVERTER

ROCKS



OFF-GRID INVERTER

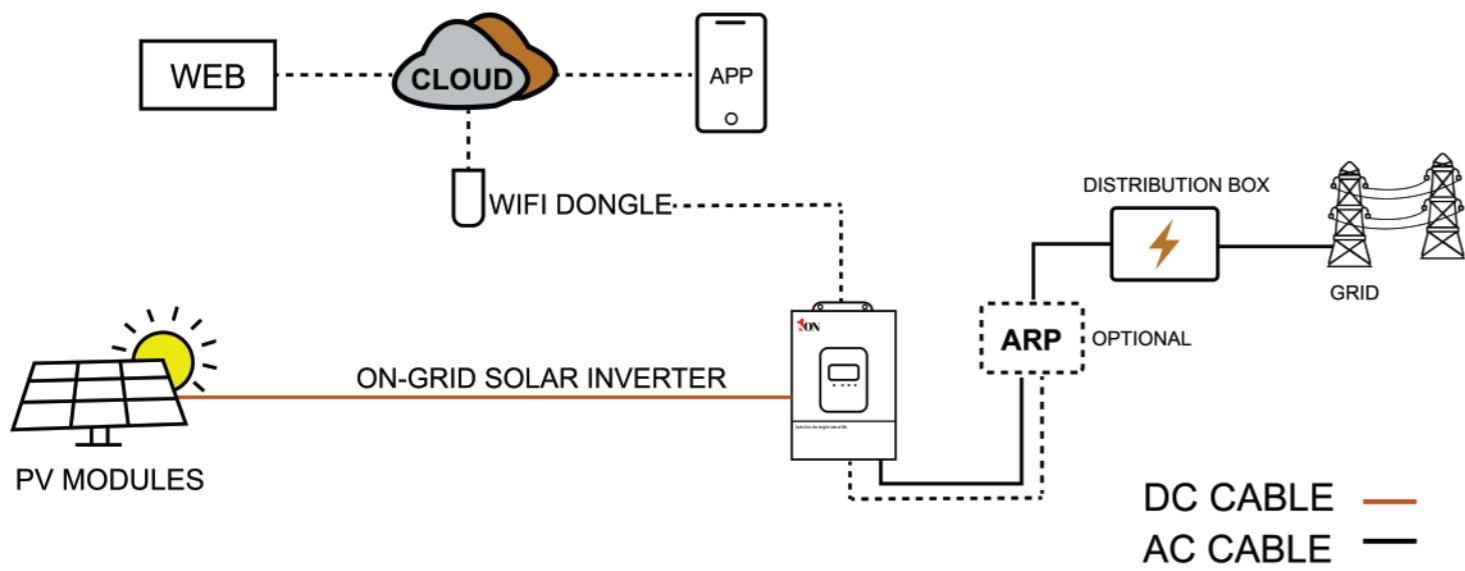
PHOTON



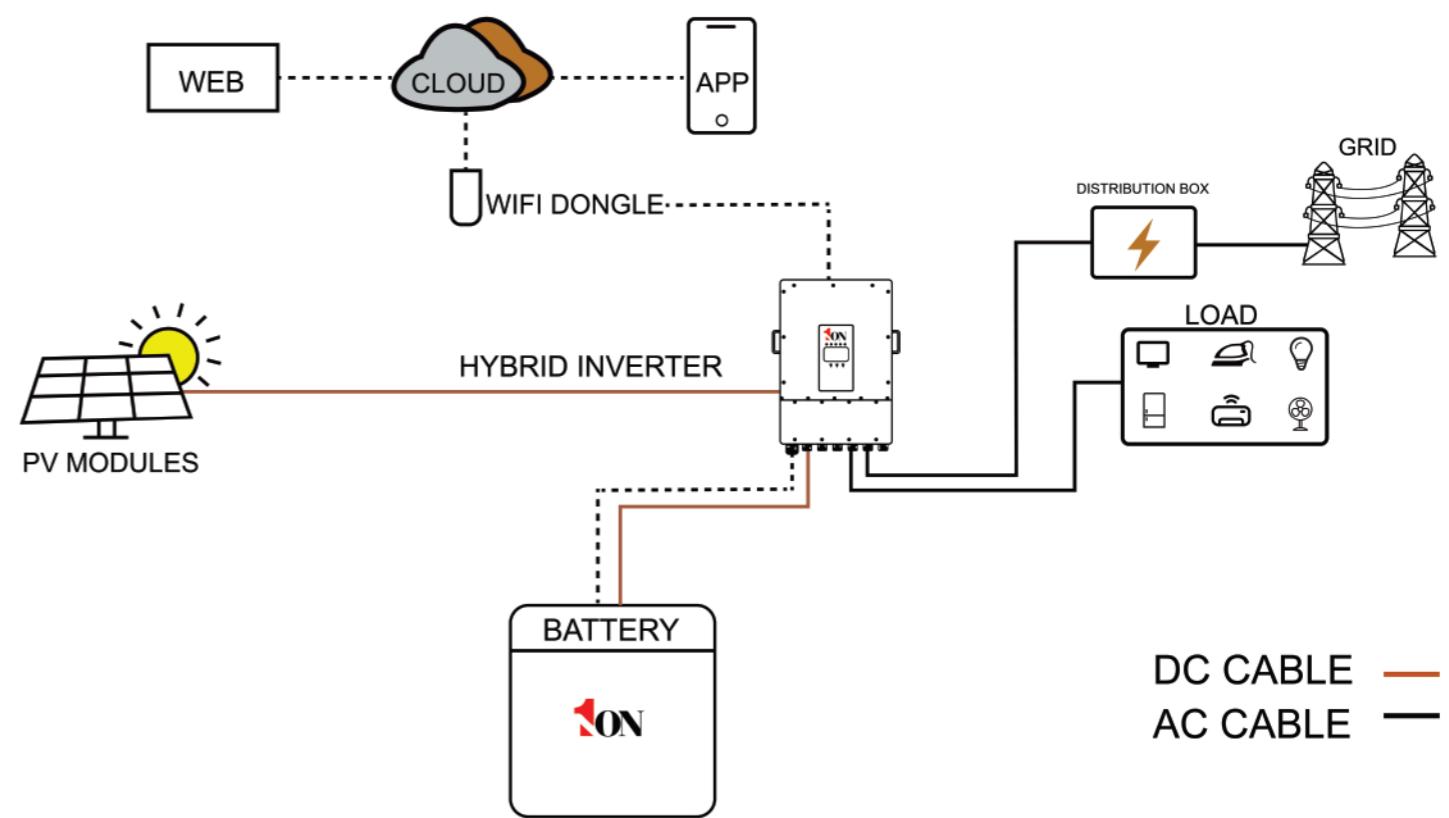
BATTERIES

NEXUS PRO

PV ON-GRID SOLUTION



ENERGY STORAGE SYSTEM



Our PV On-Grid Solution leverages state of the art inverter technology to live up efficient power generation and seamless grid integration. Equipped with intelligent monitoring and remote management features, it ensures reliable and round-the-clock performance. Designed for both residential and utility-scale applications, this versatile solution keep up a smooth transition toward a sustainable and green energy future.

Our Energy Storage System Solution provides a comprehensive approach to modern energy management, ensuring stability, efficiency and reliability. Utilizing advanced storage technology with customizable configurations and intelligent dispatch capabilities, it optimizes peak load management, strengthens backup power supply and maximizes self-consumption efficiency. By integrating our storage solution you secure acquire a more resilient and future ready energy infrastructure.



ROCKS SERIES

ROCKS 6KW

ROCKS 8KW

ROCK 10KW

ROCK 12KW

TECHNICAL SPECIFICATION

ROCKS-6K-LV	
PV STRING INPUT	
Max. PV Access Power (W)	12000
Max. PV Input Power (W)	9600
Max. PV Input Voltage (V)	510
Start-up Voltage (V)	80
MPPT Voltage Range (V)	90 ~ 425
Rated PV Input Voltage (V)	360
Max. Input Current per MPPT (A)	28 + 28
Max. Short Circuit Current per MPPT (A)	42 + 42
No. of MPPT Trackers / No. of Strings MPPT Tracker	2/2+2
AC INPUT OUTPUT	
Rated AC Input/Output Active Power (W)	6000
Rated AC Input/Output Apparent Power (VA)	6600
Rated AC Input Current (A)	27.3
Rated AC Output Current (A)	26.1
Max. AC Input Current (A)	30
Max. AC Output Current (A)	28.7
Max. Continuous AC Passthrough (grid to load) (A)	60
Peak Power (Grid+PV)	200% rated power @60sec
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
Rated Input/Output Voltage/Range (V)	220/230, 0.85Un~1.1Un
Rated Input/Output Grid Frequency/Range (Hz)	50/45~55, 60/55~65
Grid Connection Form	L+N+PE
THDi	< 3%
BATTERY DATA	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40 ~ 60
Max. Charging Current (A)	135
Max. Discharging Current (A)	135
Charging Strategy for Lead-acid Battery	3 stages curve
Charging Strategy for Li-ion Battery	Self-adaption to BMS
Number of Battery Input	1
Communication	CAN / RS485
EFFICIENCY	
Max. Efficiency	97.6%
Euro Efficiency	96.5%
MPPT Efficiency	≥99%
EQUIPMENT PROTECTION	
Surge Protection Level	TYPE II (DC), TYPE II (AC)
INTERFACE	
Communication Interface	RS485 / CAN / Temperature
Monitor Mode	WiFi / 4G-LAN (optional)
GENERAL	
Operating Temperature Range (°C)	-25 to +60°C, >45°C Derating
Permissible Ambient Humidity	5 to 95% (non-condensing)
Permissible Altitude	≤3000m
Ingress Protection	IP65
Noise (dB)	< 45
Inverter Topology	Transformerless for PV side / HF for battery side
Over Voltage Category	OVC II (DC), OVC II (AC)
Chassis Size (W*H*D mm)	411*331*236
Weight (kg)	28.5
Cooling Method	Smart Fan Cooling
Warranty (Years)	5
Safety	IEC / EN 62109-1/-2
Grid Connection Standard	EC62127, EC62116, EN50549
EMC Standard	IEC / EN 61000-6-1, IEC / EN 61000-6-3

ROCKS 6K-LV

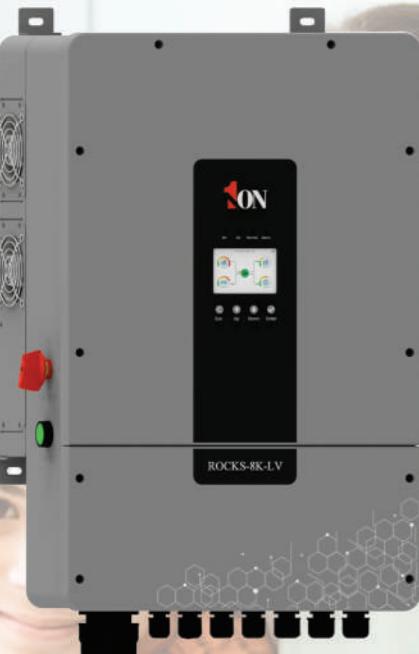


Smart, compact and reliable, the ROCK 6K-LV is designed for commercial rooftops where efficiency matters. With intelligent load handling and robust IP65 protection, it delivers consistent performance even in tough conditions.

- PV access power 200%
- PV rated power 12000W
- 2 MPPT design
- MPPT rated current 2/28A
- Short circuit current 2/42A
- 10% increased (s) Apparent power
- IP65 rating
- Optional AFCI protection
- Type II SPD on AC/DC side
- Smart load output
- Transfer time 4ms
- Parallel capability upto 10Units
- Generator port
- Maximum charging current 190A
- Power factor +0.8~0.8
- Works on single source
- Grid feeding option
- BMS
- WIFI



ROCKS 8K-LV



Power meets flexibility, the ROCK 8K-LV combines advanced monitoring, parallel expansion and generator compatibility. Making it the ideal solution for Homes/Businesses that demand uninterrupted and scalable solar energy.

- PV Access Power 200%
- PV Rated Power 16000w
- 2MPPT Design
- MPPT rated current 2/28 A
- Short circuit current 2/42 A
- 10% Increased (s) Apparent Power
- IP65 Rating
- Optional AFCI Protection
- Type II SPD on AC/DC Side
- Smart load output
- Transfer time 4ms
- Parallel capability upto 10 units
- Generator port
- Maximum Charging Current 190A
- Power Factor +0.8~0.8.
- Works on Single Source
- Grid feeding option
- BMS
- WIFI



TECHNICAL SPECIFICATION

ROCKS-8K-LV

PV STRING INPUT	
Max. PV Access Power (W)	16000
Max. PV Input Power (W)	12800
Max. PV Input Voltage (V)	510
Start-up Voltage (V)	80
MPPT Voltage Range (V)	90~425
Rated PV Input Voltage (V)	360
Max. Input Current per MPPT (A)	28+28
Max. Short Circuit Current per MPPT (A)	42+42
No. of MPPT Trackers / No. of Strings per MPPT Tracker	2/2+2
AC INPUT/OUTPUT	
Rated AC Input/Output Active Power (W)	8000
Max AC Input/Output Apparent Power (VA)	8800
Rated AC Input Current (A)	36.4
Rated AC Output Current (A)	34.8
Max. AC Input Current (A)	40
Max. AC Output Current (A)	38.3
Max. Continuous AC Passthrough (grid to load) (A)	80
Peak Power (grid+inverter) (W)	200% rated power @60sec
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
Rated Input/Output Voltage/Range (V)	220/230, 0.85Un~1.1Un
Rated Input/Output Grid Frequency/Range (Hz)	50/45~55, 60/55~65
Grid Connection Form	L+N+PE
THDi	< 3%
BATTERY INPUT	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	190
Max. Discharging Current (A)	190
Charging Strategy for Lead-Acid battery	3 stages curve
Charging Strategy for Li-ion Battery	Self-adaption to BMS
Number of Battery Input	1
Communication	CAN / RS485
EFFICIENCY	
Max. Efficiency	97.6%
Euro Efficiency	96.5%
MPPT Efficiency	>99%
Equipment Protection	S
Surge Protection Level	TYPE II (DC), TYPE I (AC)
INTERFACE	
Communication Interface	RS485 / CAN / Temperature
Monitor Mode	WiFi / 4G+LAN (optional)
GENERAL	
Operating Temperature Range (°C)	-25 to +60°C, >45°C Derating
Permissible Ambient Humidity	5 to 95% (condensing)
Permissible Altitude	< 3000m
Ingress Protection	IP65
Noise (dB)	< 45
Inverter Topology	Transformerless for PV side / HF for battery side
Over Voltage Category	OVC I (DC), OVC II (AC)
Cabinet Size (W×H×D mm)	411×631×236
Weight (kg)	28.5
Cooling Method	Smart Fan Cooling
Warranty (Years)	5
Standards	S
Safety	IEC / EN 62109-1-2
Grid Monitoring	IEC61727, IEC62116, EN50549
EMC Standard	IEC / EN 61000-6-1, IEC / EN 61000-6-3

TECHNICAL SPECIFICATION

ROCKS-10K-LV

ROCKS 10K-LV



Power meets flexibility, the ROCK 10K-LV combines advanced monitoring, parallel expansion and generator compatibility. Making it the ideal solution for Homes/Businesses that demand uninterrupted and scalable solar energy.

- PV Access Power 200%
- PV Rated Power 20000w
- 2MPPT Design
- MPPT rated current 2/28 A
- Short circuit current 2/42 A
- 10% Increased (s) Apparent Power
- IP65 Rating
- Optional AFCI Protection
- Type II SPD on AC/DC Side
- Smart load output
- Transfer time 4ms
- Parallel capability upto 10 units
- Generator port
- Maximum Charging Current 210A
- Power Factor +0.8~0.8.
- Works on Single Source
- Grid feeding option
- BMS
- WIFI

PV STRING INPUT	
Max. PV Access Power (W)	20000
Max. PV Input Power (W)	16000
Max. PV Input Voltage (V)	510
Start-up Voltage (V)	80
MPPT Voltage Range (V)	90~425
Rated PV Input Voltage (V)	360
Max. Input Current per MPPT (A)	28+28
Max. Short Circuit Current per MPPT (A)	42+42
No. of MPPT Trackers / No. of Strings per MPPT Tracker	2/2+2
AC INPUT/OUTPUT	
Rated AC Input/Output Active Power (W)	10000
Max AC Input/Output Apparent Power (VA)	11000
Rated AC Input Current (A)	45.5
Rated AC Output Current (A)	43.5
Max. AC Input Current (A)	50
Max. AC Output Current (A)	47.9
Max. Continuous AC Passthrough (grid to load) (A)	80
Peak Power (grid+inverter) (W)	200% rated power @60sec
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
Rated Input/Output Voltage/Range (V)	220/230, 0.85Un~1.1Un
Rated Input/Output Grid Frequency/Range (Hz)	50/45~55, 60/55~65
Grid Connection Form	L+N+PE
THDi	< 3%
BATTERY INPUT	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	210
Max. Discharging Current (A)	210
Charging Strategy for Lead-Acid battery	3 stages curve
Charging Strategy for Li-ion Battery	Self-adaption to BMS
Number of Battery Input	1
Communication	CAN / RS485
EFFICIENCY	
Max. Efficiency	97.6%
Euro Efficiency	96.5%
MPPT Efficiency	>99%
Equipment Protection	S
Surge Protection Level	TYPE II (DC), TYPE I (AC)
INTERFACE	
Communication Interface	RS485 / CAN / Temperature
Monitor Mode	WiFi / 4G+LAN (optional)
GENERAL	
Operating Temperature Range (°C)	-25 to +60°C, >45°C Derating
Permissible Ambient Humidity	5 to 95% (condensing)
Permissible Altitude	< 3000m
Ingress Protection	IP65
Noise (dB)	< 45
Inverter Topology	Transformerless for PV side / HF for battery side
Over Voltage Category	OVC I (DC), OVC II (AC)
Cabinet Size (W×H×D mm)	411×631×236
Weight (kg)	28.5
Cooling Method	Smart Fan Cooling
Warranty (Years)	5
Standards	S
Safety	IEC / EN 62109-1-2
Grid Monitoring	IEC61727, IEC62116, EN50549
EMC Standard	IEC / EN 61000-6-1, IEC / EN 61000-6-3

ROCKS 12K-LV



Built for bigger projects, The ROCK 12K-LV ensures stability and continuous energy flow. With lightning-fast transfer time, intelligent BMS and long-term reliability. It's the trusted choice for large-scale rooftop installations.

- PV Access Power 200%
- PV Rated Power 24000W
- 2MPPT Design
- MPPT rated current 2/28 A
- Shorts Circuit Current 2/42 A
- 10% Increased (s) Apparent Power
- Ip65 Rating
- Optional AFCI protection
- Type II SPD on AC/DC side
- Parallel Capability Upto 10 Units
- Smart load output
- Tranfer time 4ms
- Generator Port
- Maximum Charging Current 190A
- Power Factor +0.8~0.8.
- Works on Single Source
- Grid feeding option
- BMS
- WIFI



TECHNICAL SPECIFICATION

ROCKS-12K-LV

PV STRING INPUT	
Max. PV Access Power (W)	24000
Max. PV Input Power (W)	18000
Max. PV Input Voltage (V)	510
Start-up Voltage (V)	80
MPPT Voltage Range (V)	90 ~ 425
Rated PV Input Voltage (V)	360
Max. Input Current per MPPT (A)	28 / 28
Max. Short Circuit Current per MPPT (A)	42 / 42
No. of MPPT Trackers / No. of Strings per MPPT Tracker	2 / 2 + 2
AC INPUT/OUTPUT	
Rated AC Input/Output Active Power (W)	12000
Max AC Input/Output Apparent Power (VA)	13200
Rated AC Input Current (A)	36.4
Rated AC Output Current (A)	34.8
Max. AC Input Current (A)	40
Max. AC Output Current (A)	38.3
Max. Continuous AC Passthrough (grid to load) (A)	80
Peak Power (grid+inverter) (W)	200% rated power @60sec
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
Rated Input/Output Voltage/Range (V)	220/230, 0.85Un~1.1Un
Rated Input/Output Grid Frequency/Range (Hz)	50/45~55, 60/55~65
Grid Connection Form	L+N+PE
THDi	< 3%
BATTERY INPUT	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40 ~ 60
Max. Charging Current (A)	190
Max. Discharging Current (A)	190
Charging Strategy for Lead-Acid battery	3 stages curve
Charging Strategy for Li-ion Battery	Self-adaption to BMS
Number of Battery Input	1
Communication	CAN / RS485
EFFICIENCY	
Max. Efficiency	97.6%
Euro Efficiency	96.5%
MPPT Efficiency	>99%
Equipment Protection	S
Surge Protection Level	TYPE II (DC), TYPE I (AC)
INTERFACE	
Communication Interface	RS485 / CAN / Temperature
Monitor Mode	WiFi / 4G+LAN (optional)
GENERAL	
Operating Temperature Range (°C)	-25 to +60°C, >45°C Derating
Permissible Ambient Humidity	5 to 95% (condensing)
Permissible Altitude	< 3000m
Ingress Protection	IP65
Noise (dB)	< 45
Inverter Topology	Transformerless for PV side / HF for battery side
Over Voltage Category	OVC I (DC), OVC II (AC)
Cabinet Size (W×H×D mm)	411×631×236
Weight (kg)	28.5
Cooling Method	Smart Fan Cooling
Warranty (Years)	5
Standards	S
Safety	IEC / EN 62109-1/-2
Grid Monitoring	IEC61727, IEC62116, EN50549
EMC Standard	IEC / EN 61000-6-1, IEC / EN 61000-6-3

PHOTON PRO SERIES

A photograph of a wind farm with many white turbines on a grassy hill under a clear sky. In the foreground, a man wearing a white hard hat, a light-colored shirt, and a yellow safety vest stands in a field of tall grass, holding a black tablet device.

PHOTON PRO 5KW

PHOTON PRO 6.5KW

TECHNICAL SPECIFICATION

PHOTON PRO PV9500-48	
Rated Capacity	8120 VA / 6500 W
PV INPUT	
PV Maximum Input Power	9500 W
Max. PV Open Circuit Voltage	500 VDC
MPPT Range Operating Voltage	60 – 450 VDC
Max. Solar Input Current	28 A
BATTERY SPECIFICATION	
Battery Type	Lithium and Lead-acid
Nominal Battery Voltage	48 V (4*12 V)
AC OUTPUT	
Nominal Voltage (AC Input)	208 / 220 / 230 / 240 V; L + N + PE
Voltage Range (AC Input)	90 – 280 ±3 (normal mode); 170 – 280 ±3 (UPS mode)
Frequency (AC Input)	50 / 60 Hz (Auto Adaptive)
AC OUTPUT	
Rated Capacity (AC Output)	8120 VA / 6500 W
Second Output Capacity	4150 VA / 4150 W
Surge Power	16500 VA
Waveform	Pure Sine Wave
Nominal Voltage (AC Output)	208 / 220 / 230 / 240 VAC
Feed-in Grid Voltage Range	195 – 253 VAC
Nominal Frequency	50 / 60 Hz
Feed-in Grid Frequency Range	49 ~ 51 Hz ±0.7%; 59 ~ 61 ±0.1%
Transfer Time	10 ms UPS mode / 10 ms Appliance mode
Peak Efficiency (PV to INV)	97.00%
Peak Efficiency (Battery to INV)	94.50%
Overload Protection	10min@102%<Load<120% 1min@120%<Load<150% 10s@150%<Load<200%
Admissible Power Factor	-0.8 ~ +0.8
CHARGER SPECIFICATION (SOLAR CHARGER & AC CHARGER)	
Charging Voltage	PV MODE: 54 V, settable: 52~56.5 V; CV MODE: 56.4 V, settable: 56~58 V
Battery Over Voltage	61 V
Charging Current	2 ~ 120 A
Max. AC Charge Current	120 A
Max. PV Charge Current	120 A
Max. Charge Current (PV+AC)	120 A
PHYSICAL	
Built-in Transfer	Yes
Built-in Power Booster	Yes
Dimensions (D x W x H mm)	119 x 338 x 539.1
Net Weight (kg)	13.56
Communication Interface	RS485 / RS232 / USB / Dry Contact
ENVIRONMENT	
Ingress Protection	IP21
Operating Temperature Range	-10 °C ~ 50 °C
Storage Temperature	-15 °C ~ 60 °C
Humidity	5% ~ 95% (Non-condensing)

PHOTON PRO PV9500-48



Power-Packed and intelligent, the PV9500-48 delivers dependable hybrid energy for homes and businesses. Dual smart load management, WiFi monitoring and built-in safety features make it a modern solution for energy independence.

- 24% increased Apparent power (s)
- 46% Increased MPPT rated power
- Supports 300% surge power
- Enhanced safety with built in transformer
- 3 fan design
- Admissible power factor -0.8 ~ +0.8
- Dual output for smart load management
- Built in BMS (Battery Management System)
- WiFi for remote monitoring
- Grid feeding option
- Soft start function



PHOTON PRO PV9000-24



Compact yet powerful, the PV9000-24 offers advanced hybrid energy with surge protection, smart load distribution and built-in BMS. A complete energy solution with a sleek design for reliable day-to-day use.

- System Voltage 24V DC
- 80% increased MPPT rated Power
- 25% increased Apparent power (s)
- Supports 300% Surge power
- 120A DC Maximum Charging current
- Enhanced safety with built in transformer
- Admissible power factor -0.8 ~ +0.8
- Built in BMS (Battery Management System)
- Online monitoring through WIFI
- Dual outputs for Smart load Management
- Colored LCD Design
- Grid feeding option
- Soft start function

SWITCH TO THE BRIGHT SIDE OF LIFE

TECHNICAL SPECIFICATION

PHOTON PRO PV9000-24	
Rated Capacity	6250 VA / 5000 W
PV INPUT	
PV Maximum Input Power	9000 W
Max. PV Open Circuit Voltage	500 VDC
MPPT Range Operating Voltage	60 – 450 VDC
Max. Solar Input Current	28 A
BATTERY SPECIFICATION	
Battery Type	Lithium and Lead-acid
Nominal Battery Voltage	24 V (4*6 V)
AC OUTPUT	
Nominal Voltage (AC Input)	208 / 220 / 230 / 240 V; L + N + PE
Voltage Range (AC Input)	90 – 280 ±3 (normal mode); 170 – 280 ±3 (UPS mode)
Frequency (AC Input)	50 / 60 Hz (Auto Adaptive)
AC OUTPUT	
Rated Capacity (AC Output)	6250 VA / 5000 W
Second Output Capacity	4150 VA / 4150 W
Surge Power	15000 VA
Waveform	Pure Sine Wave
Nominal Voltage (AC Output)	208 / 220 / 230 / 240 VAC
Feed-in Grid Voltage Range	195 – 253 VAC
Nominal Frequency	50 / 60 Hz
Feed-in Grid Frequency Range	49 ~ 51 Hz ±0.7%; 59 ~ 61 ±0.1%
Transfer Time	10 ms UPS mode / 10 ms Appliance mode
Peak Efficiency (PV to INV)	97.00%
Peak Efficiency (Battery to INV)	94.50%
Overload Protection	10min@102%<Load<120% 1min@120%<Load<150% 10s@150%<Load<200%
Admissible Power Factor	-0.8 ~ +0.8
CHARGER SPECIFICATION (SOLAR CHARGER & AC CHARGER)	
Charging Voltage	PV MODE: 54 V, settable: 52~56.5 V; CV MODE: 56.4 V, settable: 56~58 V
Battery Over Voltage	61 V
Charging Current	2 ~ 120 A
Max. AC Charge Current	120 A
Max. PV Charge Current	120 A
Max. Charge Current (PV+AC)	120 A
PHYSICAL	
Built-in Transfer	Yes
Built-in Power Booster	Yes
Dimensions (D × W × H mm)	119 × 338 × 539.1
Net Weight (kg)	13.56
Communication Interface	RS485 / RS232 / USB / Dry Contact
ENVIRONMENT	
Ingress Protection	IP21
Operating Temperature Range	-10 °C ~ 50 °C
Storage Temperature	-15 °C ~ 60 °C
Humidity	5% ~ 95% (Non-condensing)

PHOTON SERIES

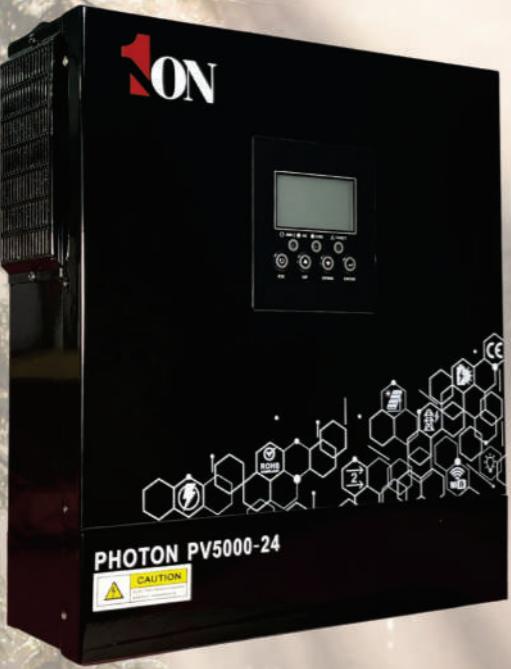
A landscape photograph of a wind farm at sunset. The sky is a warm orange and yellow. In the foreground, there's a field of tall grass. In the middle ground, several wind turbines are silhouetted against the setting sun. The text 'PHOTON SERIES' is overlaid on the left side of the image, with a large, semi-transparent black-to-white gradient effect.

PHOTON PV5000

PHOTON PV5500

PHOTON PV9200

PHOTON PV5000-24



Compact design, powerful output. The 3.6KW PV5000-24 is perfect for households seeking dependable green energy. With WiFi monitoring, dual AC output and pure sine wave stability, it's a smart choice for everyday efficiency.

- Built in 100A solar charger
- Work without battery
- Dual AC Output
- Support lithium/Lead-acid battery
- Wide MPPT range 30-450VDC
- Detachable dust cover
- Grid feeding option
- WIFI monitoring

TECHNICAL SPECIFICATION

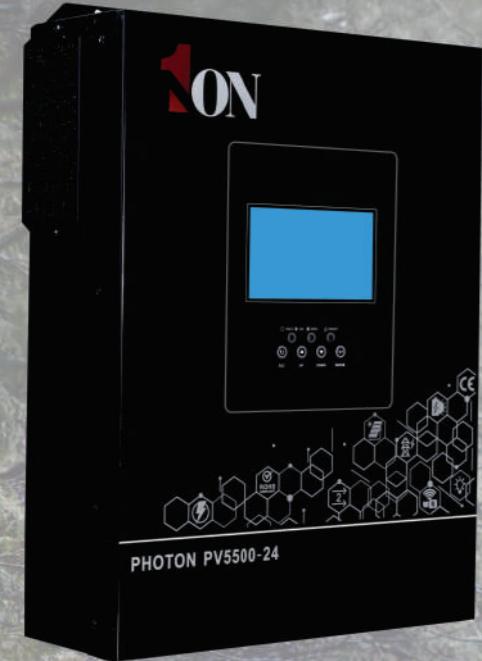
PHOTON 3.6KW-PV5000-24

Rated Power	3600VA / 3500W
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	7000VA
Efficiency (Peak)	90% ~ 93%
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)
Waveform	Pure sine wave
No Load Power Consumption	< 70W
BATTERY	
Battery Voltage	24 VDC
Floating Charge Voltage	27 VDC
Overcharge Protection	33 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Max. PV Array Open Circuit Voltage	500 VDC
MPP Range @ Operating Voltage	30 ~ 450 VDC
Max. PV Array Power	5000W
Max. Solar Charge Current	100A
Max. AC Charge Current	80A
Max. Charge Current	100A
PHYSICAL	
Dimension (DxWxH) (mm)	358 × 295 × 100
Net Weight (kgs)	8.2
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

TECHNICAL SPECIFICATION

PHOTON PV 5500-24	
Rated Power	4200VA / 4200W
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170–280 VAC (For Personal Computers) 90–280 VAC (For Home)
Frequency Range	50 Hz / 60 Hz (Auto sensing)
OUTPUT	
AC Voltage Regulation (Batt. Mode)	230 VAC ±5%
Surge Power	8400VA
Efficiency (Peak)	90% ~ 93%
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)
Waveform	Pure sine wave
No Load Power Consumption	< 70W
BATTERY	
Battery Voltage	24 VDC
Floating Charge Voltage	27 VDC
Overcharge Protection	33 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Max. PV Array Open Circuit Voltage	500 VDC
MPP Range @ Operating Voltage	30 ~ 450 VDC
Max. PV Array Power	5500W
Max. Solar Charge Current	120A
Max. AC Charge Current	80A
Max. Charge Current	120A
PHYSICAL	
Dimension (DxWxH) (mm)	438 × 295 × 105
Net Weight (kgs)	8.7
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

PHOTON PV5500-24



Efficient, versatile and practical, the PV5500-24 is built to run with or without a battery. With smart dual AC output and wide MPPT range, it keeps energy flowing seamlessly for residential and small commercial setups.

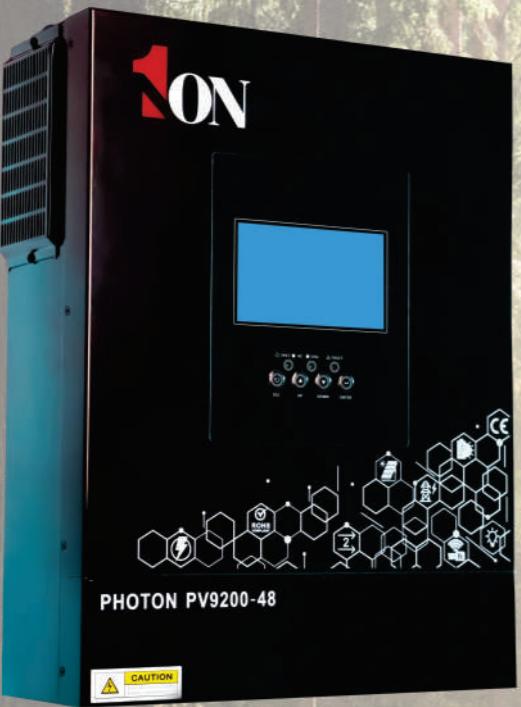
- Built in 100A solar charger
- Work without battery
- Dual AC Output
- Support lithium/Lead-acid battery
- Wide MPPT range 30–450VDC
- Detachable dust cover
- Grid feeding option
- WIFI monitoring



TECHNICAL SPECIFICATION

PHOTON PV 9200-48	
Rated Power	6200VA / 6200W
INPUT	
Voltage	230 VAC
Selectable Voltage Range	170–280 VAC (For Personal Computers) 90–280 VAC (For Home Appliances)
Frequency Range	50Hz/60Hz (Auto Sensing)
OUTPUT	
AC Voltage Regulation (Battery Mode)	230 VAC ±5%
Surge Power	12400VA
Efficiency (Peak)	90% ~ 93%
Transfer Time	10ms (For Personal Computers) 20ms (For Home Appliances)
Waveform	Pure Sine Wave
No Load Power Consumption	< 70W
BATTERY	
Battery Voltage	48 VDC
Floating Charge Voltage	54 VDC
Overcharge Protection	63 VDC
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Max. PV Array Open Circuit Voltage	500 VDC
MPP Range @ Operating Voltage	60–450 VDC
Max. PV Array Power	9200W
Max. Solar Charge Current	120A
Max. AC Charge Current	80A
Max. Charge Current	120A
PHYSICAL	
Dimensions (D x W x H)	450 x 300 x 130 mm
Net Weight	12 kg
Communication Interface	RS232 / RS485 / 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

PHOTON PV9200-48



A higher capacity solution for demanding applications, the PV9200-48 supports strong solar input, dual outputs and WiFi monitoring. Reliable, user-friendly and built for those who want more from their solar power.

- Built in 100A solar charger
- Work without battery
- Dual AC Output
- 28A MPPT
- Support lithium/Lead-acid battery
- Wide MPPT range 30–450VDC
- Detachable dust cover
- Grid feeding option
- WIFI monitoring

LITHIUM BATTERIES



NEXUS PRO 2.56KW

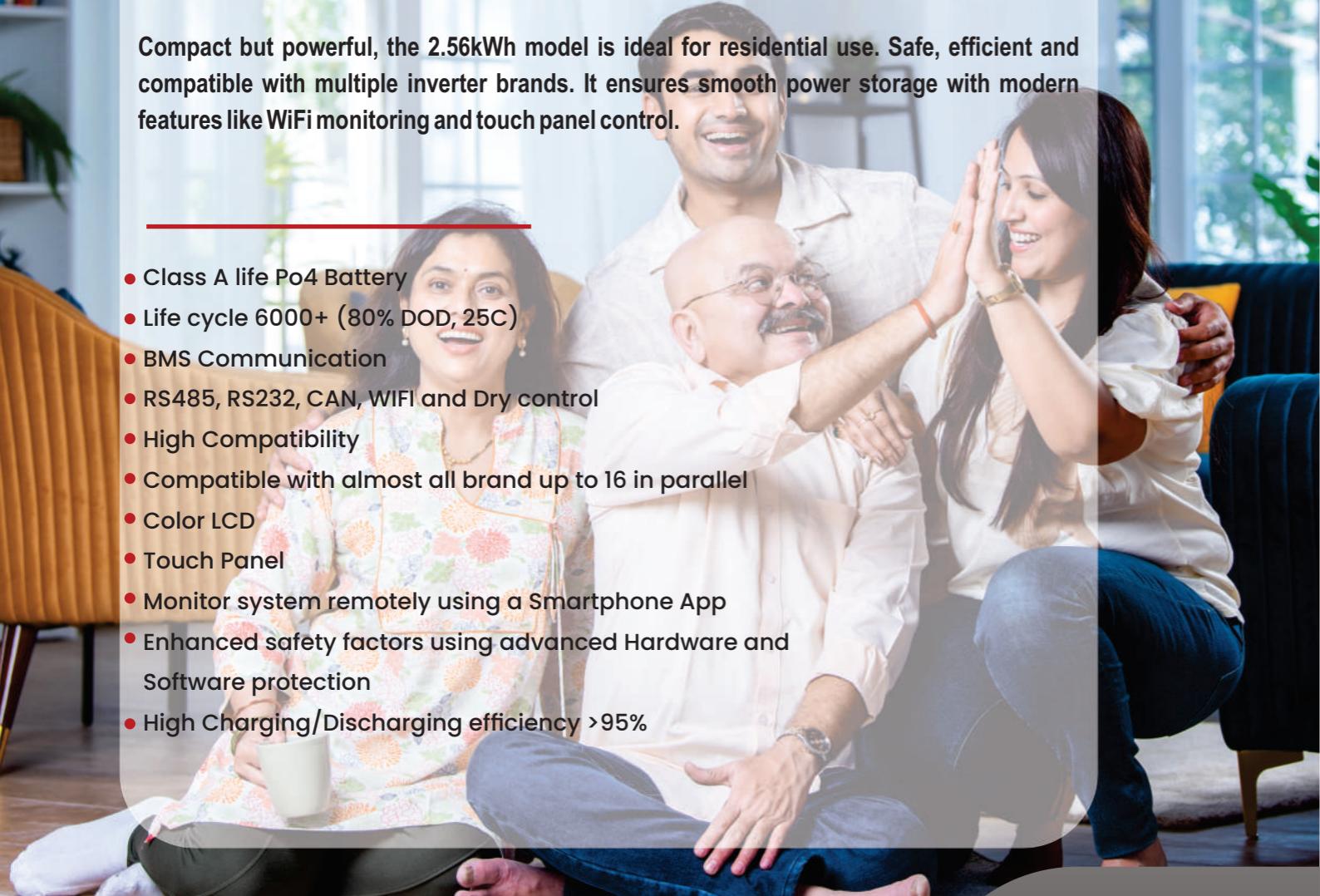
NEXUS PRO 5.12KW

NEXUS PRO 2.56KWH



Compact but powerful, the 2.56kWh model is ideal for residential use. Safe, efficient and compatible with multiple inverter brands. It ensures smooth power storage with modern features like WiFi monitoring and touch panel control.

- Class A life Po4 Battery
- Life cycle 6000+ (80% DOD, 25C)
- BMS Communication
- RS485, RS232, CAN, WIFI and Dry control
- High Compatibility
- Compatible with almost all brand up to 16 in parallel
- Color LCD
- Touch Panel
- Monitor system remotely using a Smartphone App
- Enhanced safety factors using advanced Hardware and Software protection
- High Charging/Discharging efficiency >95%



TECHNICAL SPECIFICATION

MODEL	NEXUS PRO 100AH-25.6V	NEXUS PRO 200AH-25.6V	NEXUS PRO 300AH-25.6V
ProductPack	Lithium Ion Battery		
Installation Mode	Wall Mounted / Floor Standing		
Rated Voltage	25.6V		
Rated Capacity	100 Ah	200 Ah	300 Ah
Energy	2.56 kWh	5.12 kWh	7.68 kWh
Cell Brand	SUNWODA 100Ah	SUNWODA 200Ah	SUNWODA 300Ah
Cell Unit	3.2V/100Ah	3.2V/200Ah	3.2V/300Ah
BMS Brand	Daren		
BMS Communication	RS485, RS232, CAN, WIFI		
Configuration	8S1P		
Charge cutoff voltage	29.2V		
Discharge cutoff voltage	22V		
Life time (25°C)	15 years		
Life cycles (80% DOD, 25°C)	6000 cycles		
Nominal Charge/ Discharge Current	50A	100A	100A
Maximum Continous Charge/Discharge Current	100A	150A	200A
Charging efficiency	>95%		
Electricity charged in the shipped	30%~50% SOC		
Operating temperature	Charging: 0~55°C / Discharge: -10~55°C		
Storage temperature	-20~45°C		
Working humidity	10~85%		
Storage humidity	10~85%		
Dimensions (L x W x H)	410*370*155MM	610*410*155MM	450*246*844MM
Weight	About 25.3kg	About 51.5kg	About 63kg
Modules Connection	Maximum 16 in Parallel		
Ingress Protection	IP 20		

TECHNICAL SPECIFICATION

MODEL	NEXUS PRO 100AH-51.2V	NEXUS PRO 200AH-51.2V	NEXUS PRO 300AH-51.2V
ProductPack	Lithium Ion Battery		
Installation Mode	Wall Mounted / Floor Standing		
Rated Voltage	51.2V		
Rated Capacity	100 Ah	200 Ah	300 Ah
Energy	5.12 kWh	10.24 kWh	15.36 kWh
Cell Brand	SUNWODA 100Ah	SUNWODA 200Ah	SUNWODA 300Ah
Cell Unit	3.2V/100Ah	3.2V/200Ah	3.2V/300Ah
BMS Brand	Daren		
BMS Communication	RS485, RS232, CAN, WIFI		
Configuration	16S1P		
Charge cutoff voltage	58.4V		
Discharge cutoff voltage	44.8V		
Life time (25°C)	15 years		
Life cycles (80% DOD, 25°C)	6000 cycles		
Nominal Charge/ Discharge Current	50A	100A	100A
Maximum Continous Charge/Discharge Current	100A	150A	200A
Charging efficiency	>95%		
Electricity charged in the shipped	30%~50% SOC		
Operating temperature	Charging: 0~55°C / Discharge: -10~55°C		
Storage temperature	-20~45°C		
Working humidity	10~85%		
Storage humidity	10~85%		
Dimensions (L x W x H)	480*152*465*MM	450*246.5*700MM	450*246*844MM
Weight	About 48kg	About 92kg	About 120kg
Modules Connection	Maximum 16 in Parallel		
Ingress Protection	IP 20		

NEXUS PRO 5.12KWH



High-performance lithium-ion battery designed for reliability and longevity. With 6000+ life cycles, smart BMS communication and app-based remote monitoring, it delivers unmatched efficiency and peace of mind.

- Class A life Po4 Battery
- Life cycle 6000+ (80% DOD, 25C)
- BMS Communication
- RS485, RS232, CAN, WIFI and Dry control
- High Compatibility
- Compatible with almost all brand up to 16 in parallel
- Color LCD
- Touch Panel
- Monitor system remotely using a Smartphone app
- Enhanced safety factors using advanced hardware and software protection
- High Charging/Discharging efficiency >95%
- Built in 5A Active balancer

GLOBAL PRESENCE

- **PAKISTAN**
(KPK)
- **CHINA**
(Guangzhou)
- **AFGHANISTAN**
(Jalalabad)
- **SAUDI ARABIA**
(Riyadh)



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