



Inverters | Lithium Batteries

PRODUCTS

CATALOGUE

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

10N is providing solar energy solution with an innovative range of solar inverters and lithium batteries designed for a greener today and tomorrow



Inverters | Lithium Batteries





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.

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

Worldwide Employees

400+

Service Centers

30+

Successful Setups

100000+

SWITCH TO THE BRIGHT SIDE OF LIFE

1

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SWITCH TO THE BRIGHT SIDE OF LIFE

PRODUCTION LINE

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

MD Solar New Energy Co., Ltd.

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www.unergypower.com

705, 7th Floor, No. 4, Chuangye road, xiabai community, Luocun Town,
Nanhai District, Foshan City, Guangdong Province, China

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 ION 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 ION 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
(ION Inverters)

LIVE LIFE CLEANER BY MAKING EARTH GREENER!

ENJOY BETTER LIFE



HYBRID INVERTER

ROCKS
PHOTON PRO
PHOTON



ON-GRID INVERTER

ROCKS



OFF-GRID INVERTER

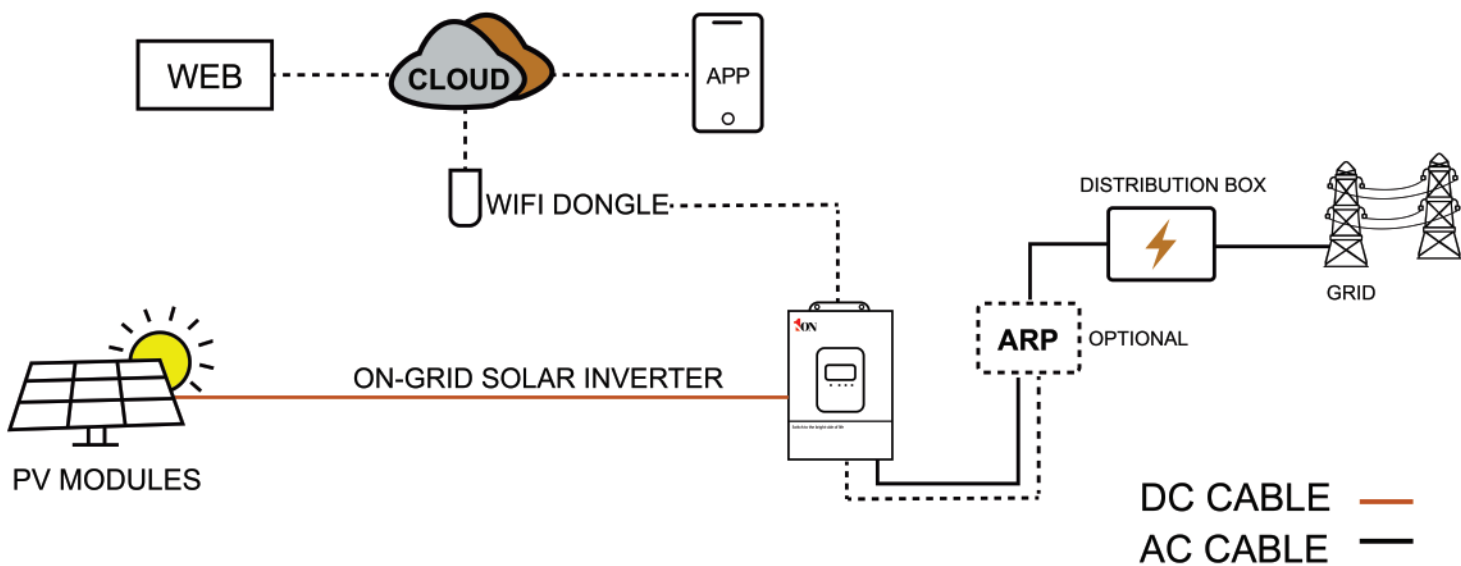
PHOTON



BATTERIES

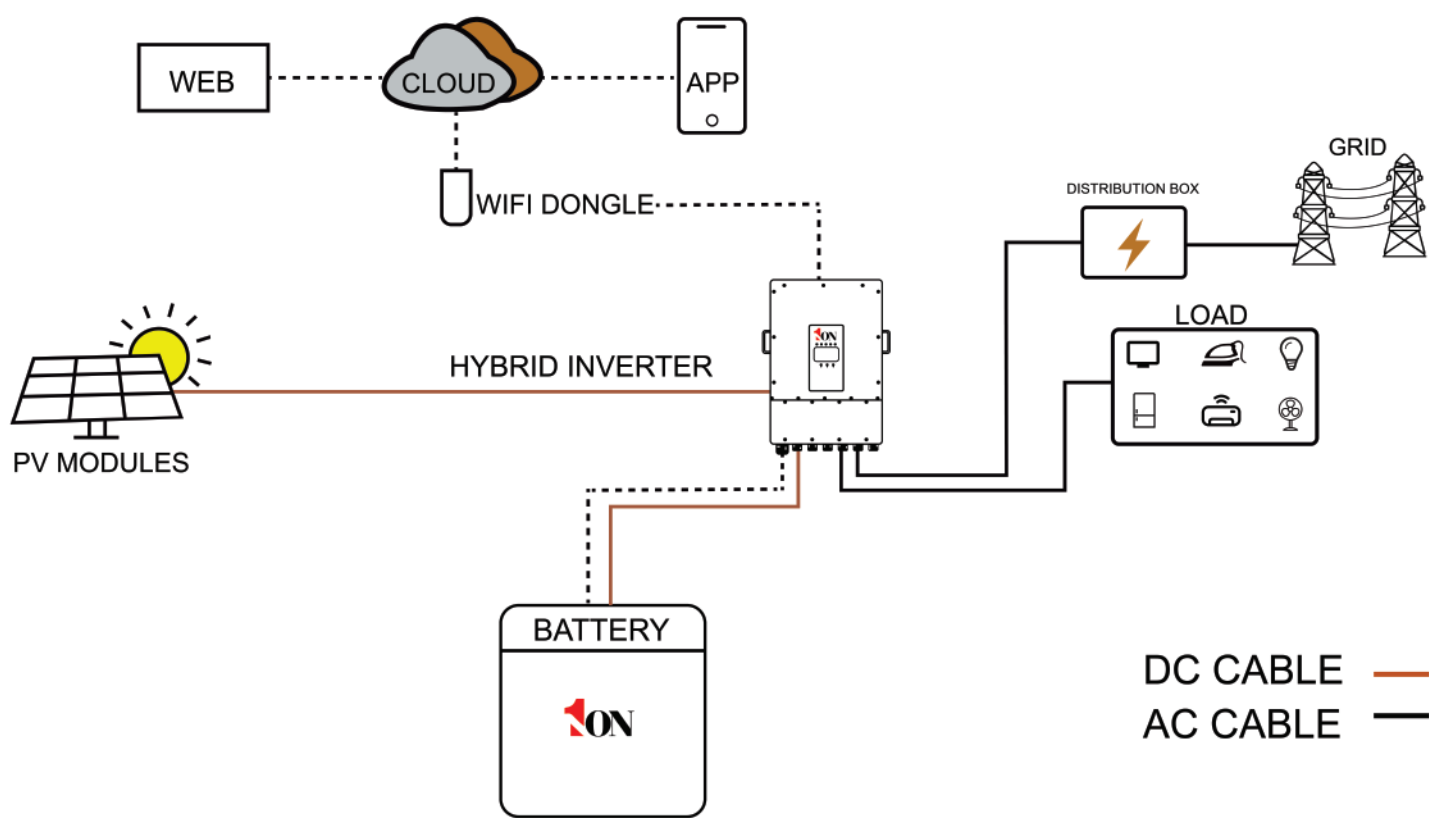
NEXUS PRO

PV ON-GRID SOLUTION



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.

ENERGY STORAGE SYSTEM



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

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

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 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 |

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

TECHNICAL SPECIFICATION

| ROCKS-10K-LV | |
|--|---|
| 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
- Transfer 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

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 |
| PHYSICCAL | |
| 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 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

SWITCH TO THE BRIGHT SIDE OF LIFE

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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 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

PHOTON SERIES

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 |

PHOTON PV5500-24



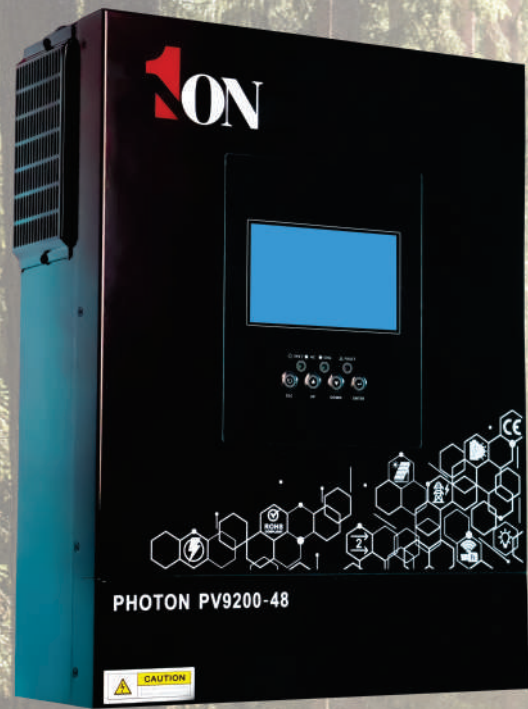
Efficient, versatile and practical, the PV5500-24 is built to run with or without a battery. With smart dual AC output and wide MPPT range, it keeps energy flowing seamlessly for residential and small commercial setups.

- 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 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 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

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 |

LITHIUM BATTERIES

NEXUS PRO 2.56KW

NEXUX PRO 5.12KW

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 Continuos 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 | | |

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-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 Continuos 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)

THANKS

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