

MN16-12KW-A/O

ALL IN ONE INVERTER SYSTEM



The new MidNite MN15-12KW-AIO All in One inverter is a testament to innovation coming from a company that you have known and trusted for many years as an industry leader. The MidNite All in One (AIO) is a 11,400 watt system that features three powerful MPPT charge controllers and three 120/240VAC programmable outputs that can be utilized for load shedding or opportunity loads. The MidNite AIO employs features not found in other AIO inverters following the MidNite legacy of providing industry shaping products.

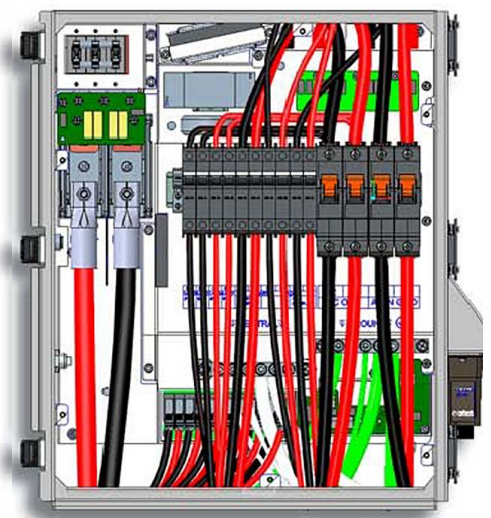
The AIO's 3 integrated 120/240VAC outputs can replace an external programmable distribution box saving you thousands in installation costs. Heavy use loads can be controlled based on user defined parameters. The MidNite AIO provides customizable settings to tailor your system to perfectly meet your electrical needs and flexibility.

The AIO's 3 MPPT inputs are capable of utilizing the full 600VDC allowed by the NEC. Most All in One inverters only have an MPPT window up to 500VDC. The AIO takes advantage of the full allowable 600VDC allowing you more powerful arrays to meet your usage demands.

Real time monitoring and control through our web based app allows you to view your system online in addition to view the inverters performance from the built in display. MidNite is committed to providing innovative reliable products to the solar industry in addition to view based on customer demand.

Standard features:

- 30A, SOA & 60A 120/240VAC branch circuit breakers with programmable relays for load shedding and AC inputs for generator and AC coupling.
- Four 15/20Amp 120VAC load breakers
- UL1741 SB sell to grid, self consumption with CT's or Off grid mode
- Residential and commercial
- Up to 200% oversizing allowed with 3 MPPTs
- Supports up to 30A PV input current
- Supports AC coupling
- Supports self-consumption
- Our standard BatteryTemp Sensor included with every inverter
- Arc Fault, Ground Fault and Rapid shut down included
- 100A AC pass through with Input and output breakers for NEC compliance
- All AC and DC breakers are Magnetic Hydraulic allowing for 100% continuous duty
- 250 Amp CBI Magnetic Hydraulic battery breaker
- Supports 40-64VDC Lithium or Lead-acid battery
- Rated maximum battery charge/discharge current of 21 OA
- Stable Output Power
- Continuous 100% AC power 10.0 KW on battery/ 11.4KW with PV
- Unbalance load surge kicks butt
- Supports 120/240/208VAC connections
- Seamless backup transition (<10ms)
- Stackable up to 9 units
- Standby generator connection for whole-home back up
- Remote configuration and upgrade
- 10 year warranty



MN16-12KW-A/0



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SPECIFICATIONS

Max. Efficiency (PV to AC)	98.0%
Max. Efficiency (BAT to AC)	94.5%
Max. PV Input Power	15,000W Max.
PV Voltage	600V
Start-up Voltage	90V
MPPT Operating Voltage Range	70V-550V
Max. Input Current per MPPT	30A/12A/22A
Suing (per MPPn	6(2/2/2)
Number of MPPrs	3
Battery Type	Lithium-Ion/Lead-acid or other
Nominal battery voltage	48V
Battery voltage range	40V-64V
Max. charge/discharge current	210A/210A
Grid Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)
Power Factor	> 0.99 @rated power (Adjustable 0.8 LG - 0.8 LD)
THDI	<3% (Rated Power)
Continuous Output Power	10.0 KW on battery/ 11.4KW with PV
Nominal Output Current	47.5A/47.5A
Peak Output Apparent Power(1s)	20,000VA (13,000VA per leg)
Nominal Output Voltage	120/240V (Split phase) / 208V (2/3 phase)
Nominal Output Frequency	50 Hz/60Hz
Transfer Time	<10ms
THDV	<3%@100% R Load
DC Switch	YES
AC Overcurrent Protection	YES
DC/AC Overvoltage Protection	DC Type II, AC Type III
AC Short Circuit Protection	YES
DC Reverse connection	YES
Surge Arrester	DC Type II, AC Type II
Insulation Resistance Detection	YES
Leakage Current Protection	YES
AFCI	YES
RSD	Yes (APsystems Sunspec)
Generator	YES
Max. Operation Altitude	6500FT/2000M (>2000M derating)
Ingress Protection Degree	IP65/NEMA 3R
Operating Temperature Range	-25-60°C (>45°C derating)
Relative Humidity	0-100%
Cooling Method	Fan Cooling
Mounting	Wall bracket
Dimensions (W"H"D)	18.5W x 38.3L x 10.27D inch (420mm x 973mm x 281 mm)
Weight	49Kg/108lb
PV Connection Way	Terminals
Display	Wireless & APP + LED + LCD
Communication Interface	RS485/CAN (for BMS), DRM/RS485 (for meter), RS485
Included	Bluetooth/WiFi/LAN
Agency Approvals	UL1741S8, IEEE1547: 2018, HECO SRD 2.0 UL 1741/CSAC22.2/UL 1699B
EMC	FCC Part 15 Class B
Warranty	10Years