

MN15-12KW-AIO

ALL IN ONE INVERTER SYSTEM



An 11.4kW inverter featuring three MPPT inputs plus three 120/240vac programmable outputs. The Sol-max AIO inverter employs features not found in other AIO inverters but requested by real world installers. Powerful enough for off-grid use, but also smart enough for modern grid interactive systems.

The AIO's 3 integrated 120/240VAC smartload outputs can be utilized for load shedding, EV charging, or other opportunity loads, and can replace an external programmable distribution box saving you thousands in installation costs.

The AIO's 3 MPPT inputs are capable of utilizing from 90 VDC to the full 600VDC allowed by the NEC. Most All in One inverters only have an MPPT window up to 500VDC.

Dedicated generator and AC coupled PV inputs for maximum flexibility.

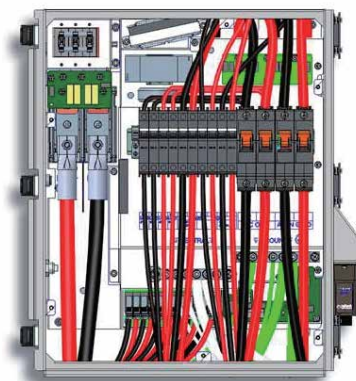
Real time monitoring and control through our app via web or bluetooth allows you to program the inverter and view your systems performance remotely.

Advanced grid interactive ability for simple backup power with net metering, zero export or limited export, or using batteries to deal with time of use/peak rates.



▼ STANDARD FEATURES

- Continuous AC power 10.0 KW on battery, 11.4KW with PV
- UL1741SB sell to grid, self consumption with CT's, or Off-grid mode
- Residential and commercial
- Supports 120/240 split phase or 208VAC three phase (with three inverters)
- Stackable up to 9 units in split phase, 3 units in three phase.
- 100A AC pass through with input and output breakers for NEC compliance
- 30A, 50A & 60A 120/240VAC branch circuit breakers with programmable relays for load shedding or AC inputs for generator and AC coupling.
- Four 15/20Amp 120V AC load breakers
- All AC and DC breakers are Magnetic Hydraulic allowing for 100% continuous duty
- Up to 200% array oversizing allowed with 3 MPPTs
- PV Arc Fault, Ground Fault and Rapid Shut Down included
- Supports up to 30A PV input current
- Supports AC coupling
- Seamless backup transition (<10ms)
- Standby generator connection for additional backup.
- 250 Amp CBI Magnetic Hydraulic battery breaker
- Supports 40-64VDC Lithium or Lead-acid battery
- Seamless operation with MNP Power LFP batteries
- Rated maximum battery charge/discharge current of 210A
- Supports self-consumption, zero export, and time of use grid profiles
- Remote configuration and upgrade
- 10 year warranty



▼ SPECIFICATIONS



Max. Efficiency (PV to AC)	98.0%
Max. Efficiency (BAT to AC)	94.5%
Max. PV Input Power	15,000W Max.
Maximum PV Input Voltage	600V
Start-up Voltage	90V
MPPT Operating Voltage Range	70v-550v
Max. useable PV current per MPPT	30A/22A/22A
Max current (Isc x 1.25) per MPPT	40A/30A/30A
Number of MPPT's	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)
THD Current	<3% (Rated Power)
Continuous Output Power	10.0KW on battery/11.4KW with PV
Continuous Output Current	42A on battery/47.5A with PV
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	50Hz /60Hz
Transfer Time	<10ms
THD Voltage	<3% @100% Resistive Load
DC PV 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
PV Insulation Resistance Detection	YES
PV Array Leakage Current Protection	YES
PV Array AFCI	YES
PV Array RSD	YES (APsystems Sunspec)
Generator input	60A
Max. Operation Altitude	9843FT/3000M (>2000M, 10% derate per 1000M)
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)	16.5W x 38.3L x 10.27D inch (420mm x 973mm x 261mm)
Weight	49Kg/108lb
PV Connection Terminals	Two inputs per MPPT, 8AWG max wire size
Display	APP + LED+ LCD
Communication Interface	RS485/CAN (for BMS), DRM/RS485 (for meter), RS485
Monitoring/programming	Bluetooth/WiFi/LAN
Agency Approvals	UL1741SB, IEEE1547:2018, HECO SRD 2.0/UL 1741/CSA C22.2/UL 1699B
EMC	FCC Part 15 Class B
Warranty	10 Years