

Off-Grid Microinverter with or without Batteries for Light or Heavy AC Loads



- Pure Sinewave AC Output
- For Lights, Fans, TV, PC, Battery Chargers, Refrigerators, Food Processors, Small Appliances, etc.

Cýbølnverter

- Total of 8 DC Input Channels
- MPPT for Each Solar Panel
- Over Discharge Protection for 48V Lead-Acid Batteries
- Solar or Battery Auto-Detection
- High Efficiency and Long Life

A Master (N1) and Slave (N2) off-grid CyboInverter can daisy-chain and work in harsh environments. The system can produce up to 2500W, 120V, 60Hz AC to power AC loads. All input channels can connect to solar panels or batteries. Each 48V battery can connect to 1, 2, 3, or 4 channels in parallel.

Key Benefits: When there is sufficient solar power to run the loads, the CyboInverters will not pull power from the battery. This ensures a much longer battery life.



Part No: CIM-2500N with Daisy-Chained CyboInverter N1 and N2.

Made in U.S.A.

CybeEnergy



Technical Data of CIM-2500N (N1, N2) [Rev 6.6 – Jan 2024]

| DC Input (per Channel) | 60/66 Cell Panel | 72 Cell Panel | | Battery* |
|---|---|--------------------------|----------|---------------|
| Supported Input Power | 250W - 400W | 300W - 450W | | 48V, 50-300AH |
| Operating Input DC Voltage Range | 18V - 60V | 18V - 60V | | 47V - 60V |
| Peak Power Performance Range | 30V - 60V | 30V - 6 | 50V | 48V - 60V |
| Maximum Input DC Voltage / Current | 60V / 11.5A | 60V / 11.5A | | 60V / 11.5A |
| Maximum Input Power | 330W | 330W | | 330W |
| Minimum Starting Voltage | 20V | 20V | | 47V |
| Compatible Batteries | 48V Lead-Acid Deep-Cycle AGM or Lithium-Ion Pack | | | |
| AC Output (per Inverter) | Data | | | |
| Rated Output Power / Peak Output Power | 960W / 1250W | | | |
| Startup Surge Power for 12 Seconds | 1500W (Max Surge DC Power = 400W per Channel) | | | |
| Nominal Output Current (RMS) | 8A (RMS – Root Mean Square) | | | |
| Nominal Output Voltage / Range | 120V (108V – 132V, Single-Phase) | | | |
| Nominal Frequency / Range | 60Hz (59.5Hz – 60.5Hz) | | | |
| Power Factor | >0.95 | | | |
| Efficiency | Data | | | |
| Peak Efficiency / MPPT Tracking | 96% (99%) | | | |
| Mechanical Data | SI | SI | | U.S. |
| Ambient Temperature Range | -40°C to +65°C -40°F t | | o +149°F | |
| Internal Operating Temperature Range | -40°C to +88°C -40°F to | | | o +190°F |
| Dimensions w/o mounting bracket (L x H x W) | 32cm x 24cm x 5.8cm 12.5" | | 12.5" x | 9.5" x 2.3" |
| Weight | 6.5 kg | 14.25 lb | | 08 |
| Cooling / Enclosure | Natural Convection | vection, No Fan / Potted | | |
| DC Wire / AC Wire | 1-2 Feet DC Wires / 12 Feet AC Wires (THHN), Copper | | | |
| Features and Compliance | Data | | | |
| Safety and EMC Compliance | UL1741 and IEEE1547 (E113426), CSA 107.1, FCC Part 15 Class A | | | |
| Rapid Shutdown | Complies with NEC 2014/2017 690.12. | | | |
| DC Ground Fault Detector Interrupter (GFDI) | Built-In (MET) | | | |
| Standard Warranty | 3 Years (Extended Warranty Available) | | | |
| Enclosure Environmental Rating / Safety | Outdoor – NEMA 6 / Transformer Isolated Circuits | | | |
| Built-in Battery Over Discharge Protection | Low Voltage Disconnect (LVD) on Battery Channels. | | | |

* Use a Solar Charge Controller with solar panels to charge the battery. CyboInverters do not charge batteries.