



# The World's First Off-Grid Solar Mini-Inverter for Water Heaters



- Specially Designed for Powering Dual-Element Electric Water Heaters and Heating Elements.
- Reduces Electricity Bills, Avoids High Tier Rates, and Quick ROI .
- Four DC Input Channels with Maximum Power Point Tracking.
- Easy Installation and Great Price.
- High Efficiency and Long Life.
- Much Easier to Install than Thermal Solar Water Heaters.

Each CyboInverter (CI-Mini-1200H) can connect to 4 solar panels and produce up to 1150W AC to power the lower heating element of a dual-element electric water heater with easy wiring to the heater.


|  |  |   |  |
|--|--|---|--|
|  |  | <p>Solar Heating for Single Element Water Heaters, Air Heaters.</p>       |  |
|  |  | <p>Solar Cooking with Hot Plates, Cookware, etc.</p>                      |  |
|  |  | <p>Solar Heating for Base Board Heaters, Area Heaters, etc.</p>           |  |
|  |  | <p>Solar Heating for Electric Floor Heating Cables, Mats, and Carpet.</p> |  |

**Product: 4 Channel 1.2KW Off-Grid CyboInverter for Electric Water Heaters**  
**Part No: CI-Mini-1200H Standalone Off-Grid Model, 100V-240V, 50/60Hz AC**

**Never connect the Off-Grid CyboInverter to the AC grid. Doing so will damage the unit and void the warranty. Use this inverter for electric heating elements ONLY.**

**Made in U.S.A.**

## Technical Data of CI-Mini-1200H [Rev 5.0 – April 2017]

| DC Input (per Channel)                      | 60 Cell Panel   | 72 Cell Panel   |
|---|---|---|
| Recommended Input Power                     | 220W – 300W   | 250W – 330W   |
| Operating Input DC Voltage Range            | 15V – 58V   | 20V – 58V   |
| Peak Power Performance Range                | 30V – 58V   | 30V – 58V   |
| Maximum Input DC Voltage / Current          | 58V / 9A  | 58V / 9A  |
| Maximum Input Power                         | 300W  | 300W  |
| Minimum Starting Voltage                    | 20V   | 20V   |
| <b>AC Output</b>                            | Data  |   |
| Maximum Output Power / Rated Output Power   | 1150W / 960W  |   |
| Maximum Output Current (RMS)                | 9.5A (RMS – Root Mean Square)                                 |   |
| Nominal Operating AC Output Voltage / Range | 100V – 240V (10V – 264V, Single-Phase)                        |   |
| Nominal Frequency / Range                   | 50Hz / 60Hz (49.5Hz – 60.5Hz)                                 |   |
| <b>Efficiency</b>                           | Data  |   |
| Peak Efficiency / MPPT Tracking             | 96% (99%)   |   |
| <b>Mechanical Data</b>                      | SI  | U.S.  |
| Ambient Temperature Range                   | -40°C to +65°C  | -40°F to +149°F   |
| Internal Operating Temperature Range        | -40°C to +88°C  | -40°F to +190°F   |
| Dimensions w/o mounting bracket (L x H x W) | 32cm x 24cm x 5.8cm   | 12.5" x 9.5" x 2.3"   |
| Weight                                      | 6.5 kg  | 14.25 lbs   |
| Cooling / Enclosure                         | Natural Convection, No Fan / Potted                           |   |
| DC / AC Wire and Connectors                 | 1 and 2 Feet DC Wire, MC-4 Connectors / 4 Feet AC wire        |   |
| <b>Features and Compliance</b>              | Data  |   |
| Safety and EMC Compliance                   | UL1741 and IEEE1547 (E113426), CSA 107.1, FCC Part 15 Class A |   |
| Compatibility                               | Most 60-Cell and 72-Cell PV Solar Panels                      |  |
| DC Ground Fault Detector Interrupter (GFDI) | Built-In  |   |
| Standard Warranty                           | 3 Years (Extended Warranty Available)                         |   |
| Enclosure Environmental Rating / Safety     | Outdoor – NEMA 6 / Transformer Isolated Circuits              |   |

The CyboInverter H Model should be used for 750W-1500W heating elements of dual- or single-element electric water heaters, area heaters, hot plates, etc. To power lights, fans, TV, PC, battery chargers, food processors, refrigerators, small appliances, etc., please use regular off-grid CyboInverters.

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