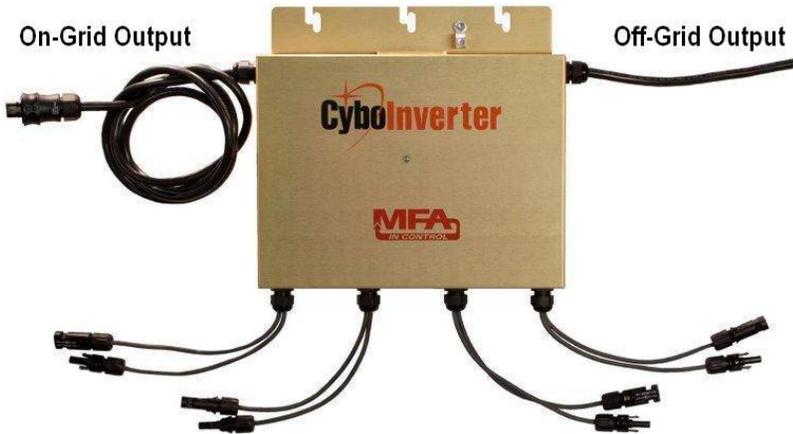


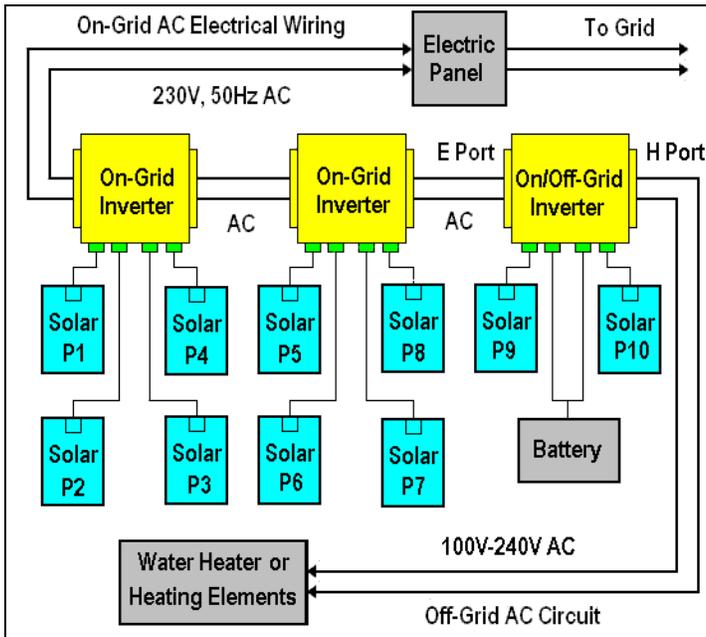


## The World's First On/Off-Grid Solar & Hybrid Power Mini-Inverter



- On-Grid or Off-Grid Mode
- Four DC Input Channels
- Solar, Battery, or Wind Input for each Channel
- Smart and Scalable
- Pure Sinewave AC Output
- MPPT for Each Solar Panel
- Outdoor or Indoor Mounting
- High Efficiency and Long Life
- Powerline Communication

Each CyboInverter (CIM-1200E/H) can connect to 4 solar, battery, or wind DC sources and produce 1150W, 230V, 50Hz AC to the grid when grid is on, or 100V-240V AC to an off-grid circuit.



When the grid is on, the inverter works like a regular on-grid inverter that meets UL1741 and IEEE1547 standards including: over and under voltage shutdown; over and under frequency shutdown; and anti-islanding.

When the grid is down, the inverter will shutdown immediately and then send a test signal from its off-grid output port to check the status of the connected off-grid AC circuit. If there is no AC present and an AC load is detected, it will generate AC to power the load.

In the off-grid mode, when the inverter detects the grid is back on, it will stop powering the load. After a 5-minute UL mandatory wait, the inverter will send AC power to the grid again.

The drawing shows 2 on-grid and 1 on/off-grid CyboInverters daisy-chained as a group.

**Product: 4 Channel 1.2KW On/Off-Grid CyboInverter for Solar, Wind & Battery**  
**Part No: CIM-1200E/H H Port runs electric water heater / heating elements only.**

## Technical Data of CIM-1200E/H (Rev 1.2 - June 2015)

<b>DC Input (per Channel)</b>	60/72 Cell Panel	Battery	DC Wind Gen
Recommended Input Power	220W – 320W	36V, 100AH	200W – 300W
Operating Input DC Voltage Range	15V – 48V	35V – 48V	20V – 45V
Peak Power Performance Range	30V – 48V	36V – 48V	20V – 40V
Maximum Input DC Voltage / Current	48V / 9A	48V / 9A	48V / 9A
Maximum Input Power	300W	300W	300W
Minimum Starting Voltage	20V	35V	20V
Compatible Solar Panels	Most 60-Cell and 72-Cell PV Solar Panels		
Compatible Batteries	36V Lead-Acid Deep-Cycle AGM or Lithium-Ion Pack		
Compatible Wind Generators	WindStream Tech: SolarMill		
<b>AC Output</b>	On-Grid, E Port	Off-Grid, H Port	
Rated Output Power / Peak Output Power	960W / 1150W	960W / 1150W	
Nominal Output Current (RMS)	4.17A	4A – 8A	
Nominal Output Voltage / Range	230V (202.4V – 253V)	100V – 240V / (10V – 264V)	
Nominal Frequency / Range	50Hz (49.3 – 50.5) Hz	50Hz (49.5 – 50.5) Hz	
Power Factor / Harmonic Distortion	>0.95 (THD < 4%, 2 <sup>nd</sup> Harmonic < 1%)		
<b>Efficiency</b>	Data		
Peak Efficiency / Solar 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 Connectors / AC Connectors	MC-4 or Compatible / Wieland RST 3-Conductor		
<b>Compliance and Features</b>	Data		
Safety and EMC Compliance	UL1741 and IEEE1547 (E113426), FCC Part 15 Class A (Amendment Pending)		
DC Ground Fault Detector Interrupter (GFDI)	Built-In		
Standard Warranty	5 Years (Extended Warranty Available)		
Enclosure Environmental Rating / Safety	Outdoor, NEMA 6 (IP67) / Transformer Isolated Circuits		

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