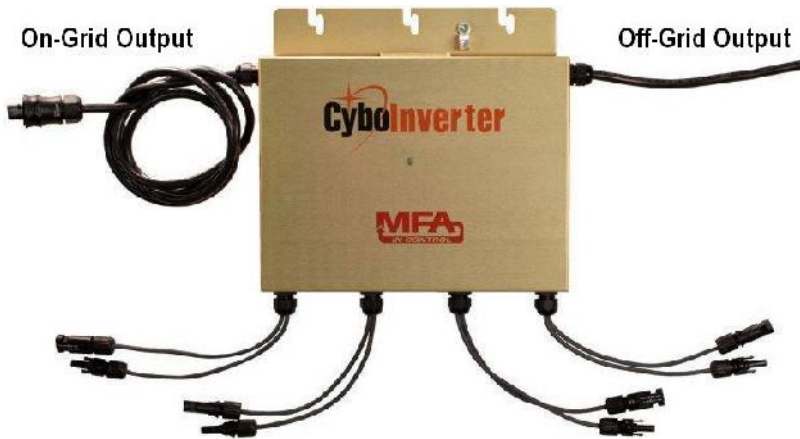


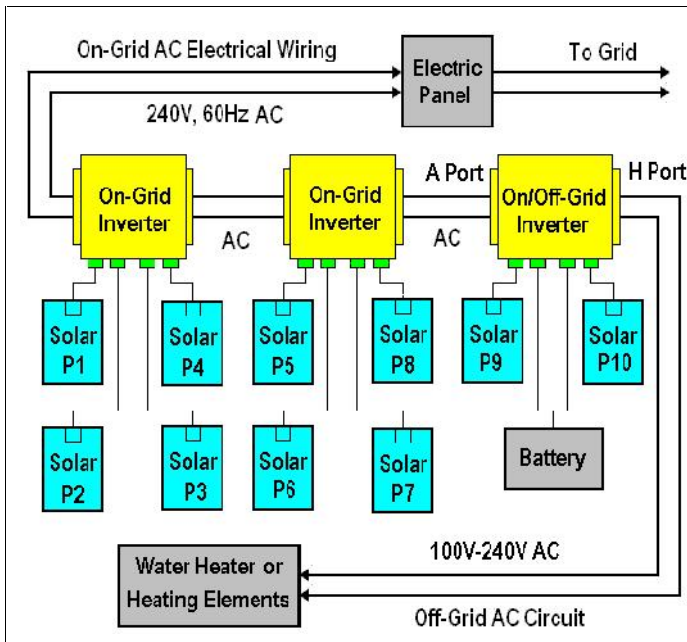


On/Off-Grid Mini-Inverter for Grid AC or Solar PV Water Heating



- On-Grid or Off-Grid Mode
- Specially Designed for Powering Electric Water Heaters in Off-Grid Mode
- Solar or Battery Input for each Channel
- MPPT for Each Solar Panel
- Outdoor or Indoor Mounting
- High Efficiency and Long Life
- Much Easier to Install than Thermal Solar Water Heaters

Each CyboInverter (CIM-1200A/H) can connect to 4 solar panels and produce 1150W, 240V, 60Hz to the grid in on-grid mode, or power an electric water heater through its H Output Port in off-grid mode.



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 Grid or PV Heating.

Part No: CIM-1200A/H H Port runs electric water heater/heating elements only.

Technical Data of CIM-1200A/H (Rev 5.0 - April 2017)

DC Input (per Channel)	60/72 Cell Panel	Battery*
Recommended Input Power	250W – 330W	48V, 100AH
Operating Input DC Voltage Range	15V – 58V	47V – 58V
Peak Power Performance Range	30V – 58V	48V – 58V
Maximum Input DC Voltage / Current	58V / 9A	58V / 9A
Maximum Input Power	300W	300W
Minimum Starting Voltage	20V	47V
Compatible Solar Panels	Most 60-Cell and 72-Cell PV Solar Panels	
Compatible Batteries	48V Lead-Acid Deep-Cycle AGM or Lithium-Ion Pack	
AC Output	On-Grid, A Port	Off-Grid, H Port
Rated Output Power / Peak Output Power	960W / 1150W	960W / 1150W
Nominal Output Current (RMS)	4A	4A – 8A
Nominal Output Voltage / Range	240V (211V – 264V)	100V – 240V / (10V – 264V)
Nominal Frequency / Range	60Hz (59.3 – 60.5) Hz	60Hz (59.5 – 60.5) Hz
Power Factor / Harmonic Distortion	>0.95 (THD < 4%, 2 nd Harmonic < 1%)	
Compatible Water Heaters or Heating Elements	1KW to 3KW, 240V Heating Elements	
Efficiency	Data	
Peak Efficiency / Solar MPPT Tracking	96% / 99%	
Mechanical Data	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	
Compliance and Features	Data	
Safety and EMC Compliance	UL1741 and IEEE1547 (E113426), CSA 107.1, FCC Part 15 Class A	
DC Ground Fault Detector Interrupter (GFDI)	Built-In	
Standard Warranty	3 Years (Extended Warranty Available)	
Enclosure Environmental Rating / Safety	Outdoor, NEMA 6 (IP67) / Transformer Isolated Circuits	

Made in U.S.A.