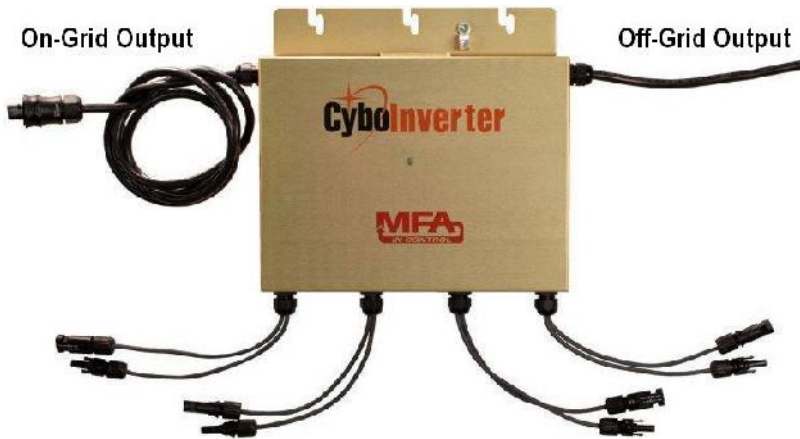


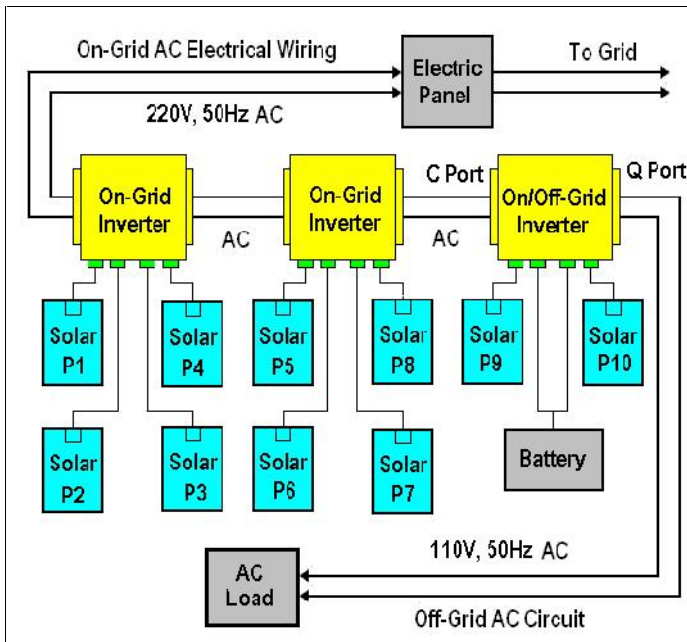


## The World's First On/Off-Grid Solar Power Mini-Inverter



- On-Grid or Off-Grid Mode
- Specially Designed to Provide Backup Power When the Grid is Down
- Four DC Input Channels for Solar or Battery Input
- Over Discharge Protection for 48V Lead-Acid Batteries
- Pure Sinewave AC Output
- MPPT for Each Solar Panel
- Outdoor or Indoor Mounting

Each CyboInverter (CIM-1200C/Q) can connect to 4 solar or battery DC sources and produce 1250W, 220V, 50Hz AC to the grid when grid is on, or 110V AC to an off-grid circuit to run AC loads.



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 & Battery**

**Part No: CIM-1200C/Q Maximum CyboInverters per 20A Branch Circuit: 3-4**

## Technical Data of CIM-1200C/Q (Rev 6.0 – July 2019)

<b>DC Input (per Channel)</b>	60 / 72 Cell Panel	Battery
Supported Input Power	250W – 380W	48V, 50AH – 300AH
Operating Input DC Voltage Range	15V – 58V	47V – 58V
Peak Power Performance Range	30V – 58V	48V – 58V
Maximum Input DC Voltage / Current	58V / 10.5A	58V / 10.5A
Maximum Input Power	330W	330W
Minimum Starting Voltage	20V	47V
Compatible Batteries	48V Lead-Acid Deep-Cycle AGM or Lithium-Ion Pack	
<b>AC Output</b>	On-Grid, C Port	Off-Grid, Q Port
Rated Output Power / Peak Output Power	960W / 1250W	960W / 1250W
Nominal Output Current (RMS)	4.36A	8.7A
Nominal Output Voltage / Range	220V (193.6V – 242V)	110V (99V – 121V)
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 Wire / AC Wire	1-2 Feet DC Wires / 10 Feet AC Wires (THHN), Copper	
<b>Compliance and Features</b>	Data	
Safety and EMC Compliance	UL1741 and IEEE1547 (E113426), FCC Part 15 Class A (Amendment Pending)	
Rapid Shutdown	Complies with NEC 2014/2017 690.12.	
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	
Built-in Battery Over Discharge Protection	Low Voltage Disconnect (LVD) on Battery Channels.	

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