



# The World's First Grid-Interactive Solar & Hybrid Power Mini-Inverter



- Smart and Scalable
- Four DC Input Channels
- Solar, Battery, or Wind Input for each Channel
- MPPT for Each Solar Panel
- Ideal for Battery Backup and Peak-Power Shaving
- Outdoor or Indoor Mounting
- High Efficiency and Long Life
- Powerline Communication


Each CyboInverter (Mini-1000E) can connect to 4 solar panels or other DC sources and produce 1150W, 230V, 50Hz AC to the grid. Multiple CyboInverters can daisy chain. Installation is super easy.

Item	Central Inverter	Microinverter	Mini-Inverter
Arc and Fire Risks	<b>High Voltage DC is Risky</b>	<b>Intrinsically Safe</b>	<b>Intrinsically Safe</b>
Scalable Inverter	<i>Possibly</i>	<b>No</b>	<b>Yes</b>
Inverter vs. Solar Panel	One inverter for all solar panels	One inverter for each solar panel	One inverter for multiple solar panels or wind gen.
Partial Shading	<b>A big problem</b>	<b>No problem</b>	<b>No problem</b>
MPPT	<b>System level</b>	<b>For each panel</b>	<b>For each panel</b>
Design & Installation	<b>Labor intensive</b>	<i>Easy</i>	<b>Easiest</b>
Inverter Per Watt Cost	<b>Lowest</b>	<b>Highest</b>	<i>In between</i>
Installed System Cost	<b>Highest</b>	<i>In between</i>	<b>Lowest</b>
Suitable Application	Large solar system	Small solar system	Small to large systems

**CyboInverter: 4 Channel 1.2KW On-Grid Solar and Hybrid Power Mini-Inverter**  
**Part No: CI-Mini-1000E Maximum CyboInverters per 20A Branch Circuit: 3-4**

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

## Technical Data of CI-Mini-1000E (Rev 5.0 - April 2017)

DC Input (per Channel)	60/72 Cell Panel	Battery	DC Wind Gen
Recommended Input Power	250W – 330W	48V, 100AH	200W – 300W
Operating Input DC Voltage Range	15V – 58V	47V – 58V	20V – 45V
Peak Power Performance Range	30V – 58V	48V – 58V	20V – 40V
Maximum Input DC Voltage / Current	58V / 9A	58V / 9A	48V / 9A
Maximum Input Power	300W	300W	300W
Minimum Starting Voltage	20V	47V	20V
Compatible Solar Panels	Most 60-Cell and 72-Cell PV Solar Panels		
Compatible Batteries	48V Lead-Acid Deep-Cycle AGM or Lithium-Ion Pack		
Compatible Wind Generators	WindStream Tech: SolarMill		
<b>AC Output</b>	Data		
Rated Output Power / Peak Output Power	960W / 1150W		
Nominal Output Current (RMS)	4.17A (RMS – Root Mean Square)		
Nominal Output Voltage / Range	230V (202.4V – 253V, Single Phase)		
Nominal Frequency / Range	50Hz (49.3 – 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	3 Years (Extended Warranty Available)		
Enclosure Environmental Rating / Safety	Outdoor, NEMA 6 (IP67) / Transformer Isolated Circuits		

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