

## **On/Off-Grid Mini-Inverter** for **Grid AC or Heating – Twin Pack**





- On-Grid or Off-Grid Mode
- Specially Designed for Powering Electric Water Heaters or Heating Elements in Off-Grid Mode
- Total 8 DC Input Channels for 8 Solar Panels with MPPT
- Heat Water or Send Power to the Grid Based on Demand
- Outdoor or Indoor Mounting
- High Efficiency and Long Life
- Much Easier to Install than Thermal Solar Water Heaters

One Master (CIM-1200A/H1) & one Slave (CIM-1200A/H2) On/Off-Grid CyboInverter can daisychain, and produce up to 2500W, 240V, 60Hz AC to the grid through its A Port in on-grid mode, or power 2500W-4500W heating elements or resistive loads through its H Output Port in off-grid mode.



## Product: On/Off-Grid CyboInverter A/H Twin Pack (Total 8 Input Channels) PN: CIM-1200A/H1, A/H2, For On-Grid AC or Off-Grid Electric Water Heaters

## Made in <mark>U.S.A.</mark>





## **Technical Data of CIM-1200A/H1, A/H2** (Rev 6.6 – Jan 2024)

DC Input (per Channel)	60/66 Cell Panel	72 Cell Panel*		Battery	
Supported Input Power	250W - 400W	300W - 450W		48V, 50-300AH	
Operating Input DC Voltage Range	18V - 60V	18V - 60V		47V - 60V	
Peak Power Performance Range	30V - 60V	30V - 60V		48V - 60V	
Maximum Input DC Voltage / Current	60V / 11.5A	60V / 11.5A		60V / 11.5A	
Maximum Input Power	330W	330W		330W	
Minimum Starting Voltage	20V	20V		47V	
AC Output (per Inverter)	On-Grid, A Po	rt Off-		Grid, H Port	
Rated Output Power / Peak Output Power	960W / 1250W		960W /	960W / 1250W	
Nominal Output Current (RMS)	4A		4A - 8A		
Maximum Output Current (RMS)	6A		10.5A		
Nominal Output Voltage / Range	240V (211V - 264	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 <sup>nd</sup> Harmonic < 1%)				
Compatible Water Heaters or Heating Elements	2.5KW – 4.5KW, 240V Heating Element for Twin Pack				
Efficiency	Data				
Peak Efficiency / Solar MPPT Tracking	96% / 99%				
	SI		U.S.		
Mechanical Data	SI			0.5.	
Mechanical Data Ambient Temperature Range	SI -40°C to +65°C		-40°F to +	-149°F	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature Range	SI -40°C to +65°C -40°C to +88°C		-40°F to + -40°F to +	-149°F -190°F	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)	SI -40°C to +65°C -40°C to +88°C 32cm x 24cm x 5.86	cm	-40°F to + -40°F to + 12.5" x 9.	-149°F -190°F 5" x 2.3"	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)Weight	SI -40°C to +65°C -40°C to +88°C 32cm x 24cm x 5.86 6.5 kg	cm	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs	-149°F -190°F 5" x 2.3"	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / Enclosure	SI         -40°C to +65°C         -40°C to +88°C         32cm x 24cm x 5.86         6.5 kg         Natural Convection	cm , No Far	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs	-149°F -190°F 5" x 2.3"	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / EnclosureDC Wire / AC Wire	SI         -40°C to +65°C         -40°C to +88°C         32cm x 24cm x 5.86         6.5 kg         Natural Convection         1-2 Feet DC Wires	cm , No Far / 18 Feet	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs n / Potted t AC Wires (	-149°F -190°F 5" x 2.3"	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / EnclosureDC Wire / AC WireCompliance and Features	SI -40°C to +65°C -40°C to +88°C 32cm x 24cm x 5.86 6.5 kg Natural Convection 1-2 Feet DC Wires	cm , No Far / 18 Feet D	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs n / Potted t AC Wires ( Pata	-149°F -190°F 5" x 2.3" (THHN), Copper	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / EnclosureDC Wire / AC WireCompliance and FeaturesSafety and EMC Compliance	SI -40°C to +65°C -40°C to +88°C 32cm x 24cm x 5.86 6.5 kg Natural Convection 1-2 Feet DC Wires UL1741 and IEEE1 15 Class A.	cm , No Far / 18 Feet D 547 (E1	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs 1 / Potted t AC Wires ( Pata 13426), CS/	-149°F -190°F 5" x 2.3" (THHN), Copper A 107.1, FCC Part	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / EnclosureDC Wire / AC WireCompliance and FeaturesSafety and EMC ComplianceRapid Shutdown	SI         -40°C to +65°C         -40°C to +88°C         32cm x 24cm x 5.86         6.5 kg         Natural Convection         1-2 Feet DC Wires         UL1741 and IEEE1         15 Class A.         Complies with NEC	cm , No Far / 18 Feet D 547 (E1	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs 1 / Potted t AC Wires ( Data 13426), CSA	-149°F -190°F 5" x 2.3" (THHN), Copper A 107.1, FCC Part	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / EnclosureDC Wire / AC WireCompliance and FeaturesSafety and EMC ComplianceRapid ShutdownDC Ground Fault Detector Interrupter (GFDI)	SI         -40°C to +65°C         -40°C to +88°C         32cm x 24cm x 5.86         6.5 kg         Natural Convection         1-2 Feet DC Wires         UL1741 and IEEE1         15 Class A.         Complies with NEC         Built-In	cm , No Far / 18 Feet D 547 (E1 C 2014/2	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs 1 / Potted t AC Wires ( 0ata 13426), CSA	-149°F -190°F 5" x 2.3" (THHN), Copper A 107.1, FCC Part	
Mechanical DataAmbient Temperature RangeInternal Operating Temperature RangeDimensions w/o mounting bracket (L x H x W)WeightCooling / EnclosureDC Wire / AC WireCompliance and FeaturesSafety and EMC ComplianceRapid ShutdownDC Ground Fault Detector Interrupter (GFDI)Standard Warranty	SI -40°C to +65°C -40°C to +88°C 32cm x 24cm x 5.86 6.5 kg Natural Convection 1-2 Feet DC Wires A UL1741 and IEEE1 15 Class A. Complies with NEC Built-In 3 Years (Extended Y	cm , No Far / 18 Feet D 547 (E1 C 2014/2 Warranty	-40°F to + -40°F to + 12.5" x 9. 14.25 lbs n / Potted t AC Wires ( 0ata 13426), CSA 017 690.12.	-149°F -190°F 5" x 2.3" (THHN), Copper A 107.1, FCC Part	

\*Do not use 72-cell solar panels in areas where temperature can get below -10 degrees F (-23 degrees C).