The Ideal Power IBC-30 utilizes our proprietary Power Packet Switching Architecture (PPSA) to efficiently transfer energy between its AC and DC power ports. PPSA provides port-to-port electrical isolation, eliminating the need for an external isolation transformer.

**Supports North American Grid Standards**

The IBC-30 is typically used in grid-interactive Battery Energy Storage System (BESS) applications. The 3-phase AC power port is compatible with 60 Hz/480 VAC connections utilized in commercial and industrial buildings. For voltages other than 480 VAC, an external step-down autotransformer is required.

**Integration and Control**

The converter utilizes an RS-485 Modbus control and monitoring interface. This serial interface and its associated register structure have been certified by the SunSpec Alliance for its support of the published SunSpec Inverter Monitoring Model.

**High Efficiency**

As certified by the California Energy Commission (CEC), our converter's 96.5% overall weighted efficiency is best in class, offering superior round-trip performance, due to its high efficiency at low battery charge rates.

**Lightest Weight and Smallest Footprint on the Market**

The converter delivers industry-leading power-to-weight and power-to-size ratios, reducing both materials and manufacturing costs, while also lowering end-customer costs, including shipping, site prep, installation and maintenance. The 97 pound NEMA 3R-rated enclosure is easily wall mounted, eliminating the need for special materials handling equipment.

**Quiet Operation**

The acoustical and RF signatures of the IBC-30kW-480 are minimal, relative to conventional converter technologies: minimizing potential electrical interference, and allowing greater flexibility when planning equipment location.
# 30 kW Battery Converter

## Specifications

### Bidirectional AC Power Port
- **Maximum AC Power**: 30 kW at 480 VAC
- **Maximum AC Current**: 39 Amps
- **Voltage Range**: 480 VAC nominal
- **Frequency Range**: 60 Hz
- **Power Factor**: > 0.97 at rated output power
- **CEC Efficiency**: 96.5% — *Best in Class!*
- **Peak Efficiency**: 97%
- **Tare Losses**: < 25 W
- **Current Harmonics**: IEEE 1547 Compliant, < 4% THD
- **Transient Protection**: IEEE C62.41 Class B: external AC surge suppression also required

### Bidirectional DC Power Port
- **Maximum DC Power**: 30 kW
- **Maximum DC Current**: 60 Amps
- **Operating Voltage Range**: ±100 to ±500 VDC (200 to 1000 VDC)
- **Full Power Voltage Range**: ± 250 to ±500 VDC (500 to 1000 VDC)
- **Available Control Methods**: Constant Power, Constant Current, MPPT (PV)
- **Wiring Configuration**: 4 Wire Bipolar with Integral GFDI Circuit
- **Maximum GFDI Current**: 1A: fused; trip point is programmable
- **Transient Overvoltage**: Yes, MOV voltage clamps

### Environmental
- **Ambient Operating Temp**: -25 to 50°C full power, reduced power > 50°C
- **Ambient Storage Temp**: -40 to 85°C (non-operating)
- **Humidity**: 0 to 100% relative humidity
- **Cooling**: Forced convection with redundant variable speed fans
- **Enclosure / Rating / Material**: NEMA-3R / Powder-coated aluminum
- **Certifications**: UL1741, IEEE1547.1

### General
- **Enclosure Size**: 15" W x 36.5" H x 10.75" D
- **Weight**: 97 lbs
- **Mounting**: Wall Mount
- **Isolation Transformer**: Not Required
- **Control Interface**: RS-485 / Modbus
- **Warranty**: 10 years