IDEAL POWER

idealpower.com

Ordering Part Number: IBC-30kW-480

30 kW

30 kW Battery Converter

- *Transformerless Isolation*
- *Lightest Weight and Smallest Footprint on the Market*
- *Quietest Operation On The Market*
- *Supports N.A. 60 Hz standards*
- *Designed and Manufactured in the USA*

TRANSFORMERLESS ISOLATION

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 V_{AC} connections utilized in commercial and industrial buildings. For voltages other than 480 V_{AC}, 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.

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Specifications

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Bidirectional AC Power Port	
Maximum AC Power	30 kW at 480 V_{AC}
Maximum AC Current	39 Amps
Voltage Range	480 V_{AC} 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	< 10 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 V_{DC} (200 to 1000 V_{DC})
Full Power Voltage Range	± 250 to ± 500 V_{DC} (500 to 1000 V_{DC})
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

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