

**IDEAL POWER CONVERTERS** patented current-modulation inverter topology establishes a new industry standard for reducing installation costs, maximizing harvesting, and improving reliability for commercial-scale PV arrays.



**36.5 x 15 x 10.75 inches  
94 lbs, wall-mount**



### **Lower weight reduces shipping and installation costs**

- >90% weight reduction compared to competing 30kW 480V AC inverters
- Ships UPS ground without expensive freight charges
- Simple 2 person wall-mount installation
- Flexible mounting options including interior utility rooms
  - Reduced wire runs & losses
  - Reduced risk of theft & vandalism

### **Improved Energy Harvesting**

- Highest CEC efficiency in its class
- Widest DC Voltage Operating Range
  - No low voltage drop out

### **Improved reliability and lifespan**

- No electrolytic capacitors
- 100% soft switching reduces component stress and provides extended component lifetimes
- Sealed electronics protects from dust and contaminants
- High overvoltage line transient withstand capability

### **U.S. Commercial standard output power**

- 480V AC 3 phase grounded neutral
- Operates with grounded array without requiring a transformer

Electrolytic capacitors are used in almost all other inverters and are the principle cause of inverter failure. **IPC inverters use no electrolytic capacitors**, resulting in **longer operating life**.

**IPC** inverters have **100% soft switching** for both turn-on and turn-off. This reduces switching losses, electrical stresses, and operating temperatures on the switches and other components leading to longer operating life.

The **IPC** inverter is **more robust to voltage surges** than conventional voltage source inverters providing **increased**

**protection from lightning and DC overvoltage.**

Electronics and **all sensitive components are sealed and separated from the external environment**. This eliminates the potential of dust or contamination affecting reliability. No air filters are needed, eliminating this maintenance item.

The **IPC** inverter **supports** unipolar arrays with either positive or negative ground, as well as bipolar arrays. The **bipolar array configuration offers the most cost effective system design** due to higher maximum power and increased efficiency.

## SPECIFICATIONS

Input			
Array Configuration	bipolar	monopole	monopole
Grounding	center	negative	positive
Max Operating Voltage	± 500V (1000V)	+600V	-600V
Min Operating Voltage	± 50V (100V)	+50V	-50V
Max MPPT Voltage	± 450V (900V)	+540V	-540V
Min MPPT Voltage	± 250V (500V)	+250V	-250V
Max Input Current	50 Amps	50 Amps	50 Amps
Output			
Continuous AC Power	30kW	25kW	25kW
CEC Efficiency	97.0%*	96.5%*	96.5%*
Max Current (per phase)	36 Amps	32 Amps	32 Amps
Output Voltage	480V AC ± 10%		
Output Frequency	60 Hz ± 1%		
Harmonics	<3% THD		
Power Factor	>0.99		
Transient Protection	IEEE C62.41 Class B*		
Protection			
	AC over/under voltage		
	AC/DC over current		
	AC over/under frequency		
	DC ground fault (GFDI)		
Environmental			
Ambient Temperature	-13 to 122 °F / -25 to 50 °C (full power)		
Cooling	forced convection using redundant variable speed fans		
Enclosure	NEMA 3R		
Certifications	UL 1741, IEEE 1547, FCC Part 15 Class A*		
General			
Weight	94 lbs / 42 kg		
Enclosure Size	36.5 × 15 × 10.75 inches / 97.2 × 38.1 × 27.3 cm		
Communications	RS-485, Ethernet 3rd party compatible monitoring		
System Requirements	external DC and AC disconnects required		
Warranty	10 year commercial warranty		

\*Certifications and efficiency tests pending.

 **IDEAL POWER CONVERTERS** develops  
and manufactures its products in the U.S.A.

