

# OCC-3WI

## 3-Wire Off-Grid Inverter

Connect DC source to Off-Grid AC loads

[www.onecyclecontrol.com](http://www.onecyclecontrol.com)



### BENEFITS

- Hardware enabled control
  - Ultrafast, precise, and stable
- High efficiency
  - Energy saving
- Simple user interface
  - Low maintenance & low service
- Rackmount Design
  - Easy Installation
- Long life design
  - Low logistics & installation cost
- Light weight minimum raw material usage
  - Environmentally friendly
- Small size
  - Space saving

### FEATURES

- ✓ One-cycle Control Technology
- ✓ Power factor > 0.99
- ✓ Current harmonics < 3%
- ✓ Efficiency > 97%
- ✓ Stable zero load operation
- ✓ Leading response speed (100s of microsec)
- ✓ Leading light weight < 29 kg (65 lbs)
- ✓ Leading power density ~20 W/inch<sup>3</sup> to 30 W/inch<sup>3</sup>
- ✓ Single unit 40kW to 60kW, scalable to MW

### OPTIONS

- Adjustable Voltage (enables black start)
- Adjustable Frequency
- 50, 60, or 400Hz output
- Various output voltages
- Extended Temperature Range
- Condensing Environments

### OVERVIEW

OCC-3WI leverages unique patented technology invented at Caltech & University of California Irvine and developed by world leading power-electronic experts under partial sponsorship of U.S. Department of Defense. The OCC-3WI, based on Army-Award-Winning OCC-4WI, is the first hardware-enabled 3-phase 3-Wire Off-Grid Inverter that connects DC sources to Off-Grid AC loads, or used to create an AC micro-grid, with high reliability, ultrafast dynamics, and simple user interface, enabling high-quality output power to diverse 3-Wire and Line-to-Line loads. The OCC-3WI features industry-leading dynamic performance and power density.

### APPLICATIONS

- Remote / Mobile Power
- AC Micro-grid / Island



	3WI3050A6480/8002IR	3WI3050A5380/6352IR	3WI3100A6208/3652IR
	3WI3075A6480/8002IR	3WI3075A5380/8002IR	
<b>Electrical Specification</b>			
AC Phase / Wires	3-Phase 3-Wire		
AC Freq Range (Hz)	57 - 63	47 - 53	57 - 63
AC Voltage Range (V, rms) Line-to-Line	480	380	208
Max AC Current (A, rms)	75 / 50		100
AC Circuit Breaker Voltage Rating (Vrms)	600		> 250
AC Circuit Breaker Current Rating (Arms)	75 / 50		100
AC Circuit Breaker Interrupt Current (Arms)	6000		
DC Voltage Range (Vdc)	725 - 900	600 - 900	330 - 400
Max DC Current (Adc)	75 / 50		100
Efficiency @ Full Power	>98.3% / >96%		
AC Voltage %THD @ Full Power	< 3%		
<b>Mechanical Specifications</b>			
Weight kg (lb)	29 (65)		
Size (L x W x H) cm (inch)	58 x 45 x 13 (23 x 17.5 x 5.25)		
Bench Mount*	✓		
19" Rack Mount*	✓		
Wall Mount*	✓		
NEMA Type	1		
<b>Environment Specifications</b>			
Operating Temp. (°C)	0 to 40		
Operating Relative Humidity w/o Condensation	0 - 95%		
Storage Temp. (°C)	-10 to 55		
Audible Noise (dBA) @ 1m (3ft)	< 80		
<b>Safety</b>			
UL 508C	Designed		

\* Additional accessories may be required for Rack Mount and Wall Mount. Please contact One-Cycle Control, Inc. sales representative for assistance.