

# OCC-DCDC DCDC Converter

Connect DC source to DC loads or DC grids



[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
- Modular plug & play architecture
  - Scalable
- Long life design
  - Low logistics & installation cost
- Light weight minimum raw material usage
  - Environmentally friendly
- Small size
  - Space saving

## FEATURES

- One-Cycle Control Technology
- Voltage Ripple < 3%
- Efficiency > 97%
- Stable zero load operation
- 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

- Various voltages
- Current Control
- Voltage Control
- Extended Temperature Range
- Condensing environments

## OVERVIEW

OCC-DCDC leverages unique patented technology invented at Caltech & University of California Irvine and developed by the world leading power electronic experts under partial sponsorship of U.S. Department of Energy. The OCC-DCDC is the first hardware-enabled Bidirectional DC/DC converter that connects DC sources to DC loads or DC grids with high reliability, ultrafast dynamics, and simple user interface, enabling convenient interconnection of differing DC voltages. The OCC-DCDC features industry-leading dynamic performance and power density

## APPLICATIONS

- DC Micro-Grid
- Hybrid Power
- Fuel Cells
- PV to Battery
- Low Voltage Battery to/from HVDC
- Mobile Power



	DCDC400100354LVIR	DCDC900075604HVIR
<b>Electrical Specification</b>		
LVDC Range (Vdc)	120 - 330	270 - 720
Max LVDC Current (Arms)	200	200
HVDC Range (Vdc)	150 - 400	460 - 900
Max HVDC Current (Adc)	100	75
Boost Ratio	~3x	
Max Power (kW)	35	60
Efficiency	> 96%	
DC Voltage Ripple @ Nominal HVDC	< 3%	
BiDirectional	✓ (as needed)	
<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.