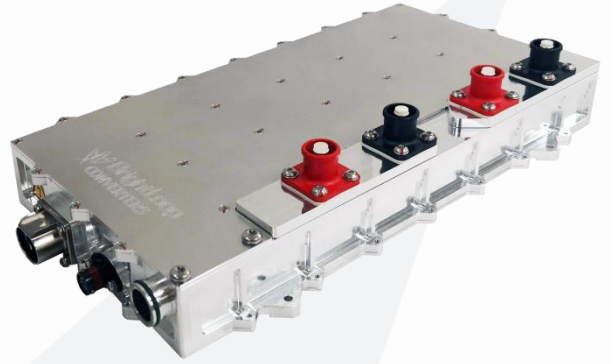


# DCDC LP

Motorsport & extreme vehicle applications  
 800V battery compliant  
 Battery charger / LV network supply  
 Total continuous power 9.6kW/480A



## KEY FEATURES

- > Isolated HV voltage: 200V to 950V<sub>DC</sub>
- > LV side voltage range: 0 to 56V<sub>DC</sub> (CAN settable)
- > Single or multiple LV side configuration
- > CAN bootloader & remote communication
- > Liquid (LC) or air cooled (FA)
- > Harsh environment
- > High efficiency >94%
- > Weight: 3500g

## TECHNICAL SPECIFICATION

### HV side

Voltage	200V to 950V <sub>DC</sub>
ON/OFF	Internal pull-up, pull to GND for start-up
HV X capacitance	200nF (no built-in precharge)
HV parallel resistance	600kΩ
IDLE mode consumption	4.4W

### LV side

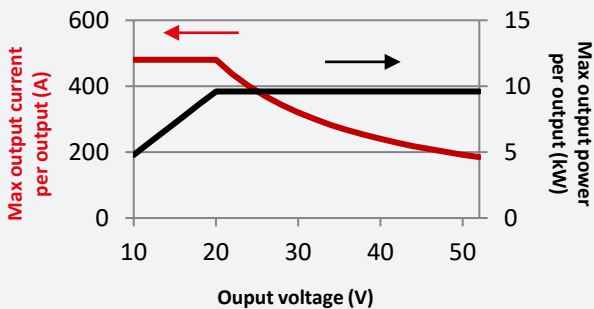
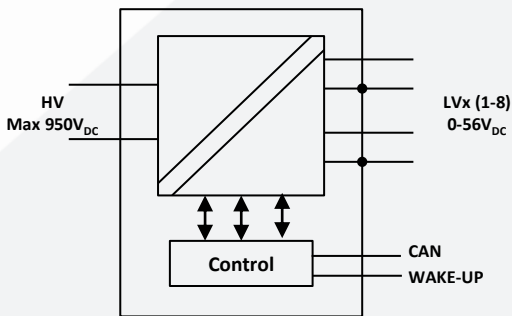
Voltage setpoint	0 to 56V (set by CAN)
Overvoltage protection	58V
Absolute maximum rating	60V
Static precision	1%
Current limit	0 to 480A (set by CAN) 60A per channel
Current limit accuracy	<3%
Short circuit protection	Yes (current regulation at setpoint value)
Continuous power	9600W 1200W per channel
Line + load regulation	15% for 0-100% step load without battery

### Efficiency

Global efficiency	> 94%
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### Environment

Environmental protection	IP67
Altitude	< 4 000 m
Cooling	Liquid temperature 65°C max
Operating temperature range	-40°C / +85°C ambient
Storage temperature range	From -40°C to 100°C
Weight	3500g



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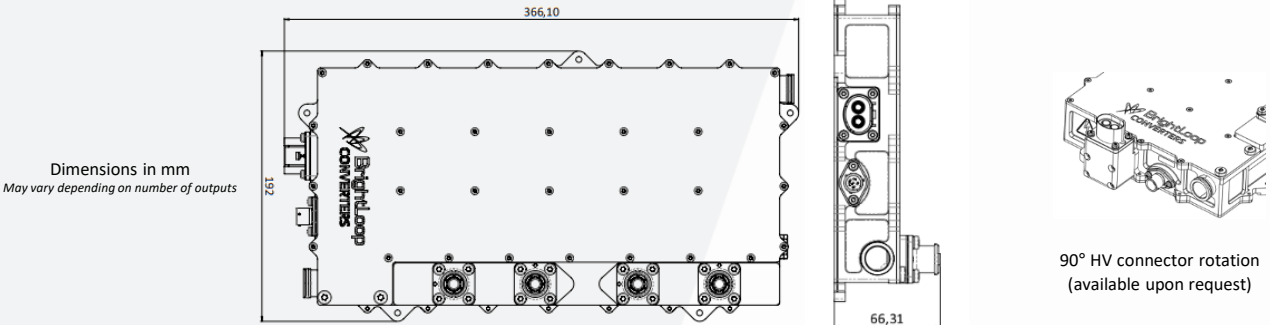


# DCDC LP

TECHNICAL SPECIFICATION

<b>CAN Interface</b>	
Bus speed	125Kbps to 1Mbps (set by CAN)
Control modes	HV -> LV
	LV -> HV
	LV <-> LV
	HV -> LV @10sec (Discharge mode)
LV management	LV side current limit 0A to 480A, 0.5A resolution
	Voltage LV side setpoint 0V to 56V, 0.015V resolution
	Power ON/OFF for each LV port
Power limitation / Remaining	Minimum between 480A and 9.6kW depending on selected LV voltage
LV side power configuration	LV ports defined by 8 internal channels of 60A/1200W each Configurable from 1 to 8 LV ports
Monitoring	DC/DC status and errors
	Voltages, currents, temperatures measurements
Identification	Software & Hardware revision
	CAN Bootloader
<b>Safety</b>	
HV/LV isolation	3000V <sub>DC</sub> (tested 60 sec.)
Capacitance to chassis	<180nF
	EN 62368-1 compliant
<b>Water cooling</b>	
Power loss	600W at full power
Pressure loss	10 L/min : 70 mbar
	15 L/min : 150 mbar
	20 L/min : 250 mbar
Maximum recommended operating pressure	1.6bar
Cooling liquid volume	263cm <sup>3</sup>
Cooling connectors	Tube size 5/8" - Wiggins W994-10D
<b>Mechanical</b>	
Dimensions	366.10x192x66.31mm
Housing	Aluminum with conductive SurTec
HV connector	IP67/ with security loop (Amphenol PL082X-61-2.5) Option available to rotate HV connector at 90°
LV connectors	IP67 (Amphenol SurLok Plus 5,7 or 8mm)
Signals connector	IP67 (Souriau 8TA 008 35 SN)
	Supplied with electrical mating connectors

## OUTLINE DRAWING EXAMPLE



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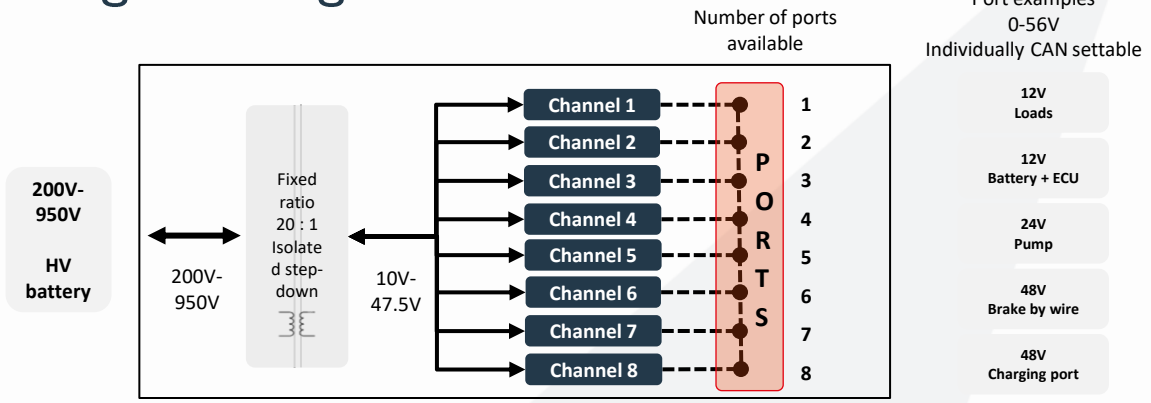
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# Ordering code logic

EXAMPLE



**DCDC LP – 9.6kW** 60A/1200W per channel ----- Modular PowerPaths  
 Ports configuration stage



1 - Product family		2 - Package size	
DCDC	Isolated DCDC converter	L	Large
3 - Product line		4 - Number of ports on LV side	
P	Performance	S	Single
		D	Dual
		T	Triple
		Q	Quadruple
		P	Penta
		H	Six
		He	Hepta (seven)
		O	Octo (eight)
5 - Number of channels per PowerPath		6 - Cooling option	
Separated by -		LC	Liquid cooling
Refer to scheme for number of channels available to build PowerPath		FA	Forced air ( Information on demanded)

V22.03

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