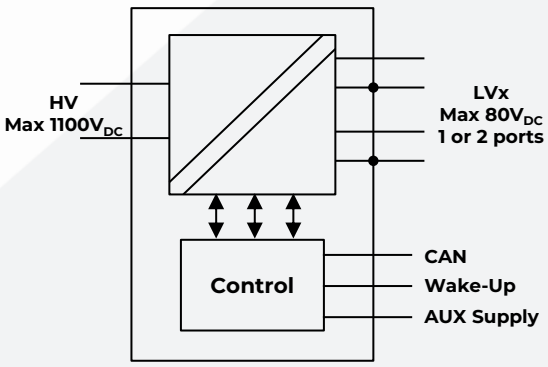
OPTIMUM PRODUCT LINE

DCDC MO

Bidirectional isolated DCDC converter
Commercial & Off-Highway applications
400V and 800V battery compliant
Battery charger / LV network supply
Total output power 6kW/350A

KEY FEATURES

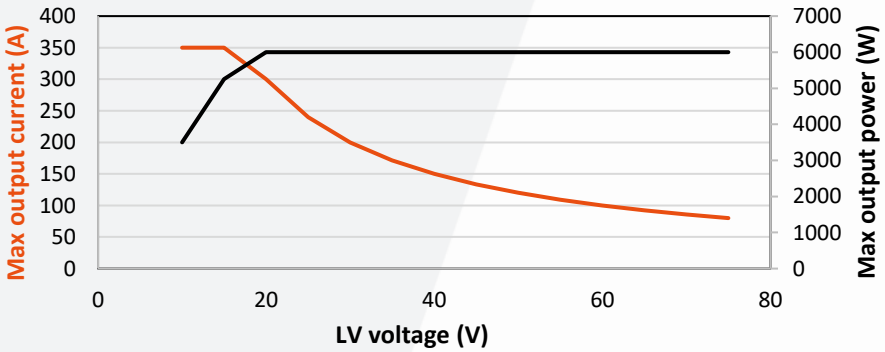
- **Wide HV range: Up to 1100*V_{DC}**
- **Wide LV range: Up to 80V_{DC} (CLASS B1 ISO6469-3)**
- **Single or Dual LV ports configuration**
- **CAN Bootloader & Remote Communication**
- **Liquid-Cooling (LC)**
- **HV bus pre-charge**
- **Best-in-class power density**
- **Weight: <3kg**



TECHNICAL SPECIFICATION

HV side	
Voltage setpoint	Up to 1100*V_{DC} (set by CAN)
LV side	
LV ports configuration	Single or Dual
Voltage setpoint	Up to 75V_{DC} (set by CAN)
Static precision	1%
Current limit	0 to 350A (set by CAN)
Current limit accuracy	<3% at full scale
Short-circuit protection	Current regulation at setpoint value down to 0V
Continuous power	6000W
Line + load regulation	10% for 0-100% step load in 100µs (without battery)
Efficiency	
Global efficiency	> 94%
Environment	
Environmental protection	IP68 IP6K9K
Altitude	Up to 3000m (10000 ft)
Cooling	Liquid temperature 60°C max (inlet)
Operating temperature range	From -40°C to 80°C ambient
Storage temperature range	From -40°C to 100°C
Weight	<3 kg

**For higher voltage, please refer to BrightLoop*



BrightLoop Converters

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www.brightloop.fr

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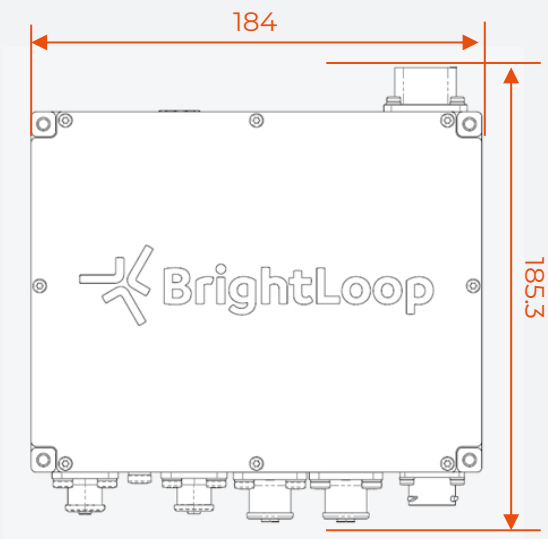
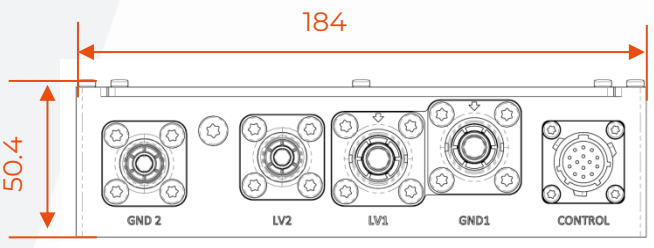
DCDC MO

TECHNICAL SPECIFICATION

CAN Interface	
Bus speed	125Kbps to 1Mbps (set by CAN)
Conversion modes	HV -> LV
	LV -> HV
	LV <-> LV (in dual LV configuration)
Controls	LV current limit (1A resolution) HV current limit (0.1A resolution)
	LV voltage setpoint (0.015V resolution) HV voltage setpoint (1V resolution)
	Power ON/OFF for each LV port
Monitoring	DC/DC Status and errors
	Voltages, currents, temperatures measurements
Identification	Software & Hardware revision
	Bootloader for CAN software update
Conformity & approval	
HV/LV insulation	3000V_{DC} Reinforced isolation
Safety	EN 62368-1
	ECE R100
	ISO26262 (ASIL B)
Approvals	ECE R10
	LV124
Mechanical	
Dimensions	164x205.7x50.3mm **(TBC)**
Housing	Aluminum with conductive anti-corrosion treatment
HV Connector	Amphenol PL082X-61-2.5 (with security loop)
LV Connectors	Amphenol SurLok Plus 5,7mm & 8mm
Signals Connector	Souriau UTS 6JC 12E 14S
Cooling Connector	12mm nominal diameter (customizable)

OUTLINE DRAWING





Dimensions in mm

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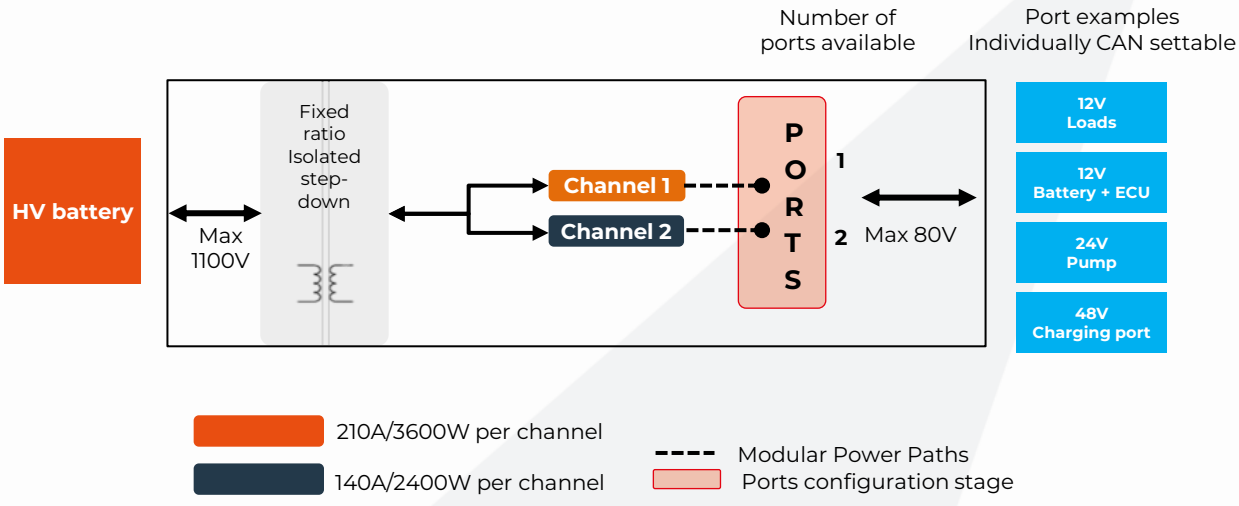
Ordering code logic



1 – Product family		2 – Package size	
DCDC	Isolated DCDC converter	M	Medium
3 – Product line		**4 – Number of ports on LV side**	
O	Optimum	S	Single
		D	Dual
5 – Cooling option			
LC	Liquid-Cooling		

V26.06

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