

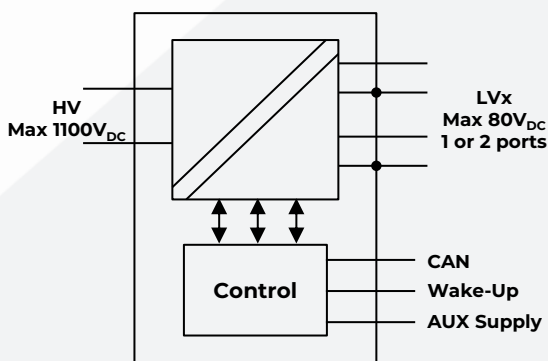
DCDC MO

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

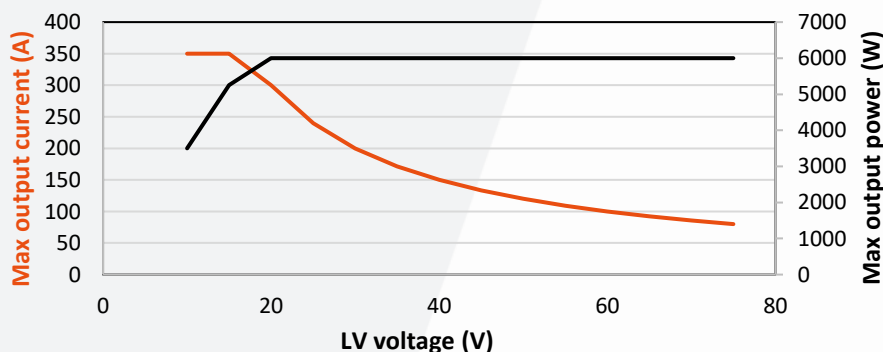
- > **Wide HV range: Up to $1100 \times V_{DC}$**
- > **Wide LV range: Up to $80V_{DC}$ (CLASS B1 ISO6469-3)**
- > **Single or Dual LV ports configuration**
- > **CAN Bootloader & Remote Communication**
- > **Liquid-Cooling (LC)**
- > **HV bus pre-charge**
- > **Best-in-class power density**
- > **Weight: <2.5kg**



TECHNICAL SPECIFICATION

HV side	
Voltage setpoint	Up to $1100 \times V_{DC}$ (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	<2.5kg

**For higher voltage, please refer to BrightLoop*



BrightLoop Converters

221 Boulevard Davout
75020 Paris – France
Tel +33 1 83 62 63 59

www.brightloop.fr

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

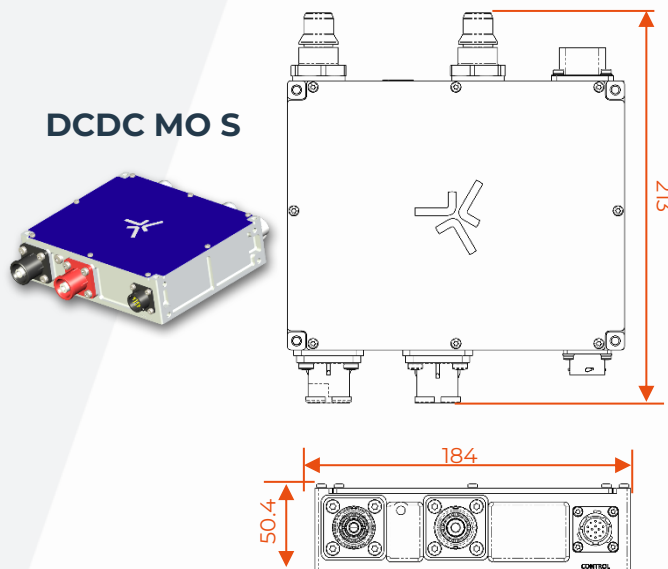
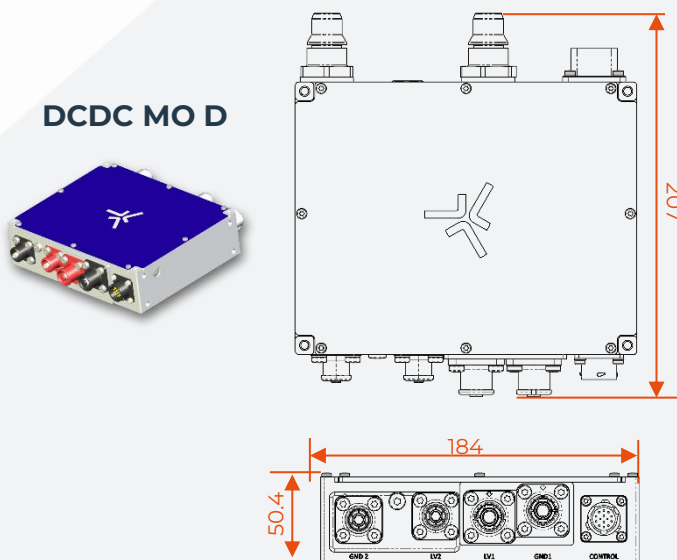
Conformity & approval

HV/LV insulation	3000V _{DC} Reinforced isolation EN 62368-1
Safety	ECE R100 ISO26262 (ASIL B)
Approvals	ECE R10 LV124

Mechanical

Dimensions	184x207x50.4mm (MO D) / 184x213x50.4mm (MO S)
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 or Busbar type
Signals Connector	Souriau UTS 6JC 12E 14S
Cooling Connector	12mm nominal diameter (customizable)

OUTLINE DRAWING



Dimensions in mm

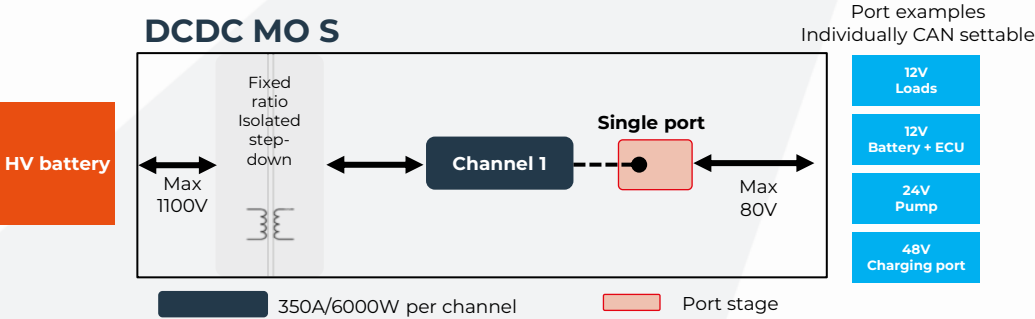
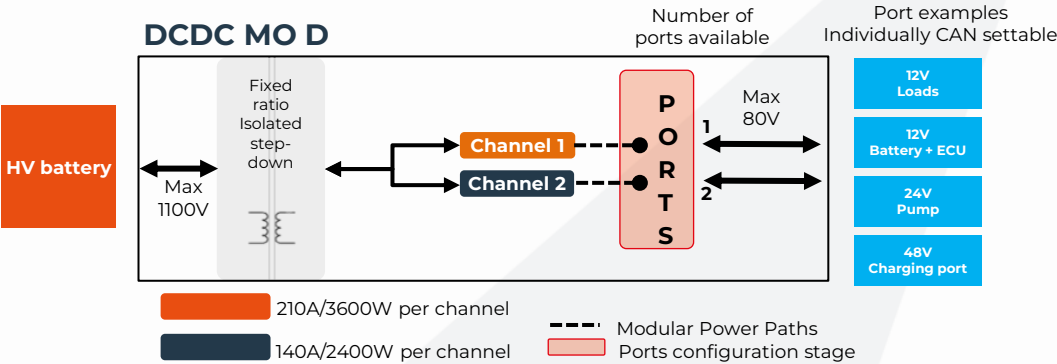
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 **BrightLoop**
A member of the ABB Group

Ordering code logic



DCDC

M

O

D

LC

1

2

3

4

5

1 – Product family

DCDC Isolated DCDC converter

2 – Package size

M Medium

3 – Product line

O Optimum

4 – Number of ports on LV side

S Single

D Dual

5 – Cooling option

LC Liquid-Cooling

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