

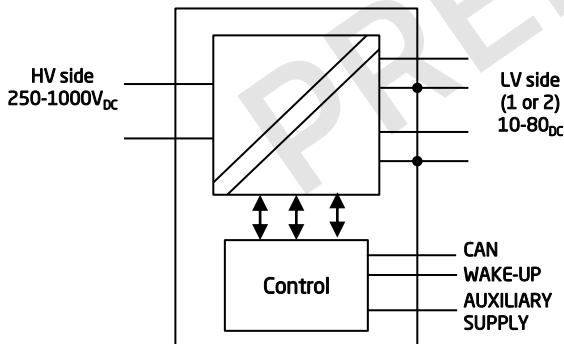
DCDC LO

Commercial & Off-Highway applications
 400V and 800V battery compliant
 Battery charger / LV network supply
 Total output power 12kW/600A



KEY FEATURES

- > **Wide HV range: 250 V to 1000V_{DC}**
- > **Wide LV range: 10 to 80V_{DC} (CLASS B1 ISO6469-3)**
- > **Single or Dual LV connections**
- > **CAN Bootloader & remote communication**
- > **HV to LV capability for HV bus pre-charge**
- > **Best-in-class power density**
- > **Weight: <5kg**



TECHNICAL SPECIFICATION

High Voltage connection

High Voltage range	0-1000V _{DC}
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Output current limit	0A to 42A
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Low Voltage connection(s)

LV configuration	Single or dual
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LV range	10 to 80V _{DC} (set by CAN)
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Static precision	0.3%
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Output current limit	0 to 600A
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Current limit accuracy	< 3%
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Short circuit protection	Yes (current regulation at setpoint value)
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Continuous output power	12 000 W max
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Line + load regulation	10% for 0-100% step load in 100μs (without battery)
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Logic inputs

Wake-up	Logic input ON/OFF
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Auxiliary Supply	10V to 75 VDC
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IDLE mode consumption	< 100μA
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Efficiency

Global efficiency	> 94%
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Environment

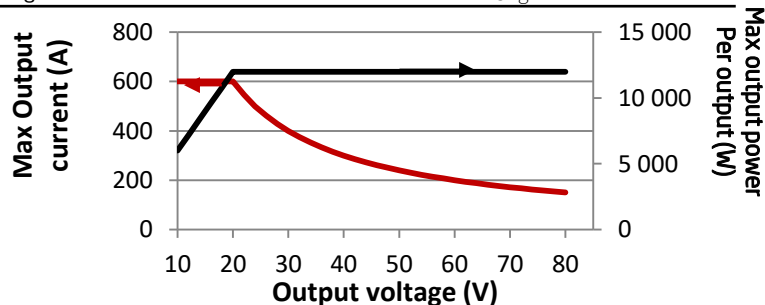
Environmental protection	IP68 IP6K9K
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Altitude	< 4 000 m (< 12 000 ft)
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Cooling	Liquid temperature 65°C max
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Operating temperature range	-40°C / +85°C ambient
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Weight	< 5kg
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BrightLoop Converters

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OPTIMUM PRODUCT LINE

CAN Interface

Bus speed	1000 (default) / 500 / 250 / 125 Kbps
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 per LV connection
Conversion mode	HV to LV
	LV to HV
	LV to LV (in dual LV configuration)
Monitoring	DC/DC Status and errors
	Voltages, currents, temperatures measurements
Identification	Software & Hardware revision
	CAN Bootloader
Parallelization	Communication with other DCDC

Conformity & approval

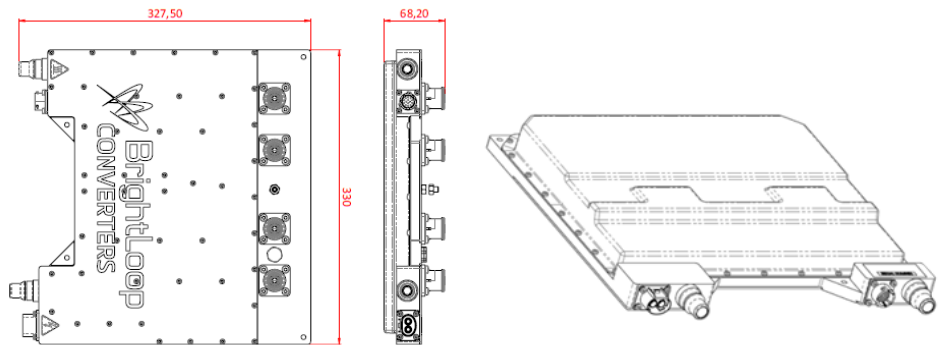
Input/output insulation	4000V _{DC} (tested 60 sec.)
Safety	EN 62368-1
	ECE R100
	ISO26262 (ASIL B)
	DO178 (DAL B/C)
Approvals	ECE R10
	LV124
	DO 254
EMC	CISPR25 with EMC option

Mechanical

Dimensions	327,5 x 330 x 68,2mm
Housing	Aluminum with conductive anti-corrosion treatment
HV Connector	Amphenol PLO82X-61-2.5 (with security loop)
Output Connectors	Amphenol SurLok Plus 10mm (SLPIRC)
Signals Connector	Souriau UTS 6JC 12E 14S
Cooling Connector	Normaquick PS3 VDA NW 12 - M18x1,5

OUTLINE DRAWING

Dimensions in mm
May vary depending on number of outputs



V22.00

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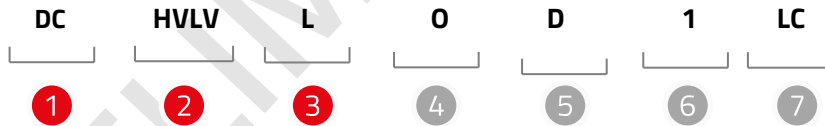
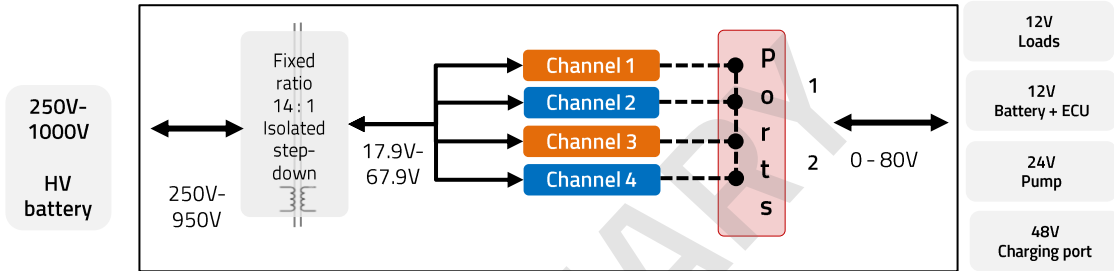
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Ordering code logic

EXAMPLE

Port examples
Individually CAN settable



1 - Product family	2 - Voltage
DC Isolated DCDC converter	HVLV 950V _{DCmax} - 80V _{DCmax}
2 - Package size	3 - Product line
L Large	0 Optimum
5 - Number of ports	6 - Configuration number
S Single	Please choose the configuration number in the table below.
D Dual	
7 - Cooling option	
LC Liquid cooling	

Configuration number	Number of ports	Channels connect to LV1	Channels connect to LV2	LV1 capacity	LV2 capacity
0	S	1 & 2	3 & 4	300 A/ 6 000 W	300 A/ 6 000 W
1	D	1 & 2	3 & 4	300 A/ 6 000 W	300 A/ 6 000 W
2	D	1, 2 & 3	4	480 A/ 9 600W	120 A/ 2 400W
3	D	1, 2 & 4	3	420 A/ 8 400 W	180 A/ 3 600 W
4	D	1 & 3	2 & 4	360 A/ 7 200 W	240 A/ 4 800 W

V22.03

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