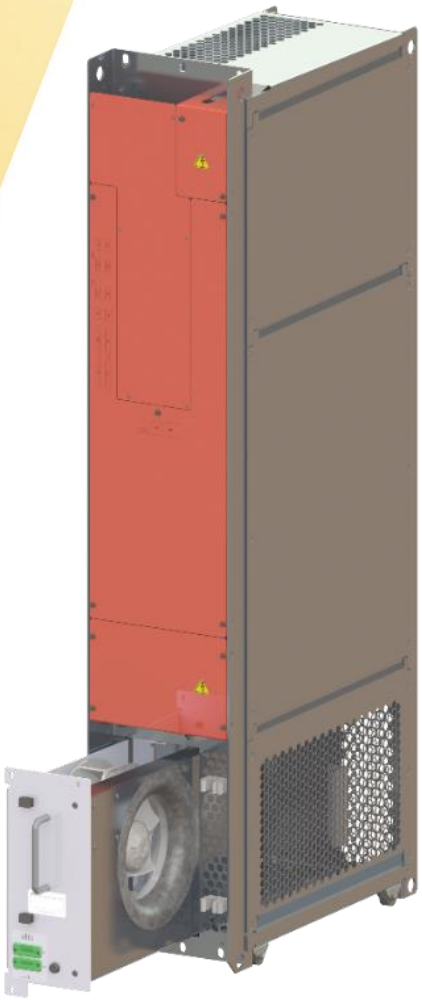
Hybrid Power

Isolated DC/DC converter

- Innovative in energy storage & Power Electronics
- Custom-made solutions
- Complete solution: storage & Power Electronics
- Design and system integration



Features

- 100 kW converter, continuous
- 120 kW peak
- Galvanic isolation
- Wide input voltage range (480V – 1100V)
- High current density
- Low switching losses
- High efficiency
- Switching frequency inaudible by humans
- User interfaces: CAN-bus, Ethernet, Binary in- and outputs, Analog inputs
- Well suited for mounting in an electrical cabinet

Mechanical Data

Length x Width x Height
515,5 x 230,8 x 1280 mm
Approx. 125 kg

Applications

- DC/DC converter for a battery-charging station for buses or cars
- Step up or step down converter

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Technical Characteristics

Symbol	Parameter	Description	Value	Unit
	General			
V_{in}	Input DC Voltage		480…1100	VDC
$I_{in, max}$	Maximum DC input current		175	A
P_{out}	Output power	Continuous, @ Vout > 900V	100	kW
$P_{out, max}$	Maximum power	Temporary, @ Vout > 900V	120	kW
V_{out}	Output DC voltage		≤ 900	V
$I_{out, max}$	Maximum DC output current		133	A
η	Efficiency	@ Vin = 600V, Vout=750V, Iout = 100A	≥97	%
	Communication connections			
	Auxiliary voltage		24	VDC
	Auxiliary current		<1	A
	Data	CAN bus Ethernet	2x 1x	
	Extra	Binary I/O Analog input	12x IN 16x OUT 2x	
	Environment			
T_{op}	Operating temperature		-20 till +40	°C
$T_{storage}$	Storage temperature		-40 till +60	°C
	Operational altitude		≤ 2000	m above sea level
	Operating humidity	Non condensing	0…85	%
	Degree of protection		IP20	
	Mechanical data			
	Weight		~ 125	kg
	Width		230,8	mm
	Height		1280	mm
	Length		515,5	mm
	Cooling			
T_{m_max}	Coolant	Forced air cooling		
	Fan voltage	Optional: 24VDC or 48VDC	230	VAC

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Dimensions [mm]

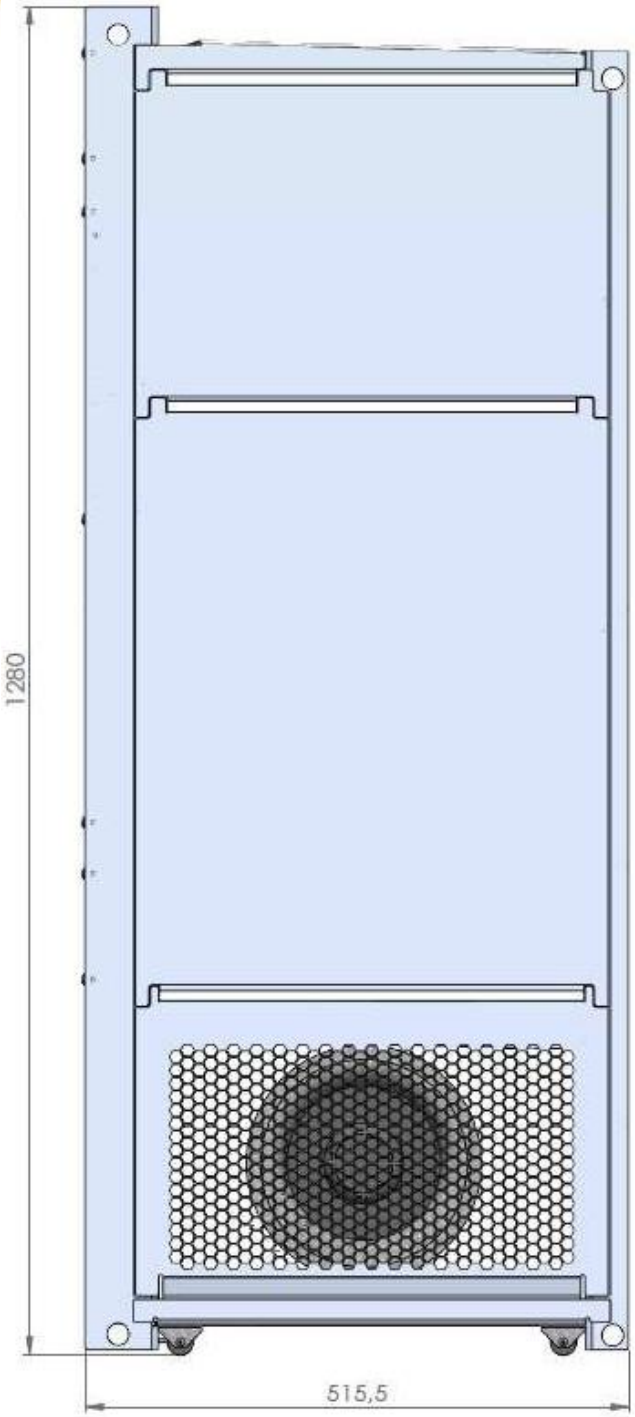

Figure 1, Side view

Figure 2, Front view

Operation

Continuous operating range

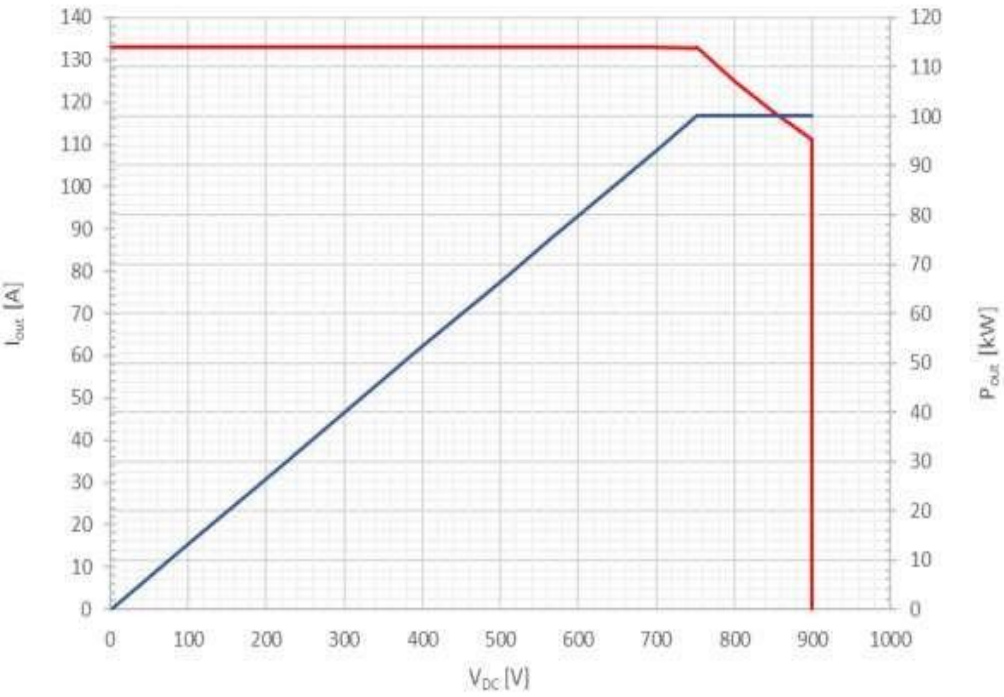

Figure 3 operating range of the isolated DC/DC converter (Power: blue, Current: red)

Figure 4: Typical installation in cabinet

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Accessories