



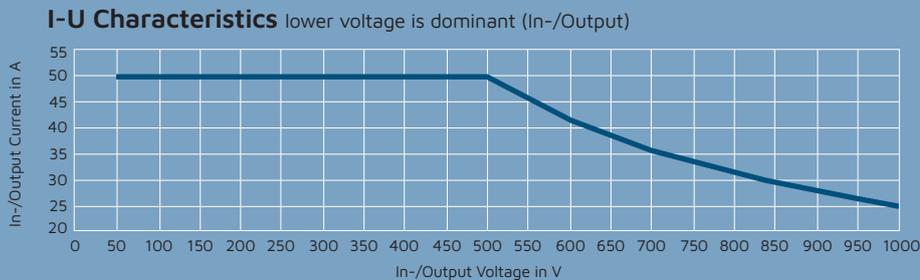
ambiCONVERT DC-DC

The software defined power device



Specifications

Version:	50A	70A
Input power nominal: (@450V DC)	22,2kW	31,5kW
Input power max.:	25kW	70kW
Input voltage range:	48V – 1000V DC	
Starting voltage:	30V DC	
Input Channels:	1	1
Input current max.:	50A	70A
Input power nominal: (@750V DC)	25kW	52,5kW
Output power max.:	25kW	59,5kW
Output voltage range:	48V – 900V DC	
Max. efficiency:	> 98%	
Supply Voltage:	24V DC	
Safety and protection:	Over current monitoring Temperature monitoring Self-test	
Dimensions:	19" / 3U / 700mm	
Weight:	< 20kg	
Operating temperature:	0 – 40°C	
Installation site:	indoor, no direct sunlight	
Humidity:	5% – 95%, non-condensing	
Max. installation altitude:	2000m	
Storage temperature:	-20 – 60°C	
Standards:	CE, EN61204-3, EN55011, EN60664-1, EN61140	
Communication:	CAN, other on request	
Cooling:	active, built-in fans	
Topology:	transformer less	
IP class:	IP20	
Degree of contamination:	2	
Protection class:	1	



With the ambiCONVERT DC-DC a digitalized generation of bidirectional DC-DC converters are available. It combines profound knowledge of DC technology with the advantages of the digital age and mindset – and it is called “software defined power”.

The ambiCONVERT DC-DC is a scalable DC-DC converter, suited for commodity applications as well as for multi-industrial applications. It is a buck / boost converter in a single unit. Overlapping voltage areas at the in- and output are possible,

due to the patented DCDC Flow technology. There are no fixed ratios for the voltage levels on in- and output - flexible configuration during operation are possible via software. The ambiCONVERT DC-DC enables the realization of DC

energy systems using for instance batteries for energy storage and different kinds of DC supplies and loads, like electric vehicles or photovoltaic with its unique DCDC Flow technology.

Applications

INDUSTRY

Peak shaving applications
Peak load buffer in the DC links
Connecting DC-busses with different voltage levels

TEST SYSTEMS

Battery test stands
Battery simulation

SMART GRID

ESS (Energy storage systems) with Wind and Solar systems
Fuel cell applications
Redox Flow applications
Control energy to stabilize frequency and voltage of a grid

eMobility

2nd Life battery applications

Features

Software defined power
Bidirectional buck / boost converter as a single unit
High efficiency up to 99%
High switching frequency
Software features:
Voltage Control (even in parallel operation)
parameterizable battery load characteristic
DC link buffering
Variable switching frequency (optimizing efficiency)
Built-in MPP Tracker to allow Photovoltaic field connections
Functionality can be expanded via firmware updates

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All parameters not specially mentioned are measured at 400V DC, rated load and 20°C ambient temperature. Ripple & noise are measured at 20MHz bandwidth by using a standard probe. This product is considered a component which will be installed into the end product. The end product must be re-confirmed that it still meets the EMC directives. This is a preliminary datasheet. Specifications are subjected to change without notice. The contents of this brochure have been prepared with the greatest possible care. However, no guarantee is given for the correctness, completeness and up-to-dateness of the information and illustrations. We reserve the right to make changes and illustrations may differ. All product names are trademarks and registered trademarks of their respective owners.