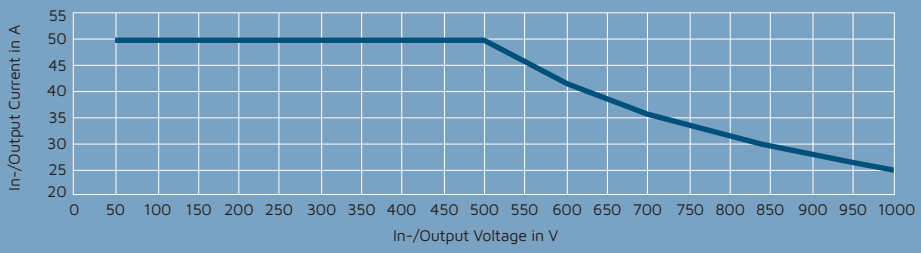
ambiCONVERT DC-DC

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	

I-U Characteristics lower voltage is dominant (In-/Output)



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

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.

ambibox

Ambibox GmbH
An der Ochsenwiese 3, 55124 Mainz
info@ambibox.de, www.ambibox.de
+49 6131 6339020