



# AEP 300

## Bidirectional DC/DC converter

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



## Features

- 300 kW converter,  $U_n$  600V
- Step up and step down mode
- Binary and analog I/O
- RS 232 / CAN bus interface
- 24 Vdc Supply
- Air-Cooling

## Applications

A selection of potential applications are:

- Heavy transport
  - Fast energy storage hybrid driveline
  - Combination diesel-electric, fuel cell & batteries
- Maritime & offshore
  - Dynamic energy storage vessels
  - Heavy lifting, cranes etc.
- Industrial & UPS back-up
  - Peak power supply
  - Short term bridge power

## Mechanical Data

Length x Width x Height  
502 x 477 x 203 mm  
Approx. 22 kg

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## Technical Characteristics

Symbol	Parameter	Description	Value	Unit
<b>General</b>				
$P_R$	Rated power		200	kW
$P_{MAX}$	Max. power	@Uout 600V, fr 2kHz 1min/10min	300	kW
$F_r$	Switching frequency		≤16	kHz
$\eta_r$	Efficiency	@ $P_r$	>95	%
<b>Input</b>				
$U_{in}$	DC voltage range		0-800	VDC
$U_{in,max}$	Max. operating voltage		900	VDC
<b>Output</b>				
$U_{out}$	Rated voltage		0 – 750	VDC
$U_{out,max}$	Max. operating voltage		850	VDC
$I_{nom}$	Nominal current		333	A
$I_{max}$	Max. current	1 min / 10 min	500	A
<b>Supply power</b>				
	Control voltage	Rated Value between	24	VDC
			18 till 30	VDC
	Control current		2	A
<b>Environment</b>				
$T_o$	Operating temperature		0 till 50	°C
$T_{m,max}$	Advisable temperature		20 till 40	°C
$T_s$	Storage temperature		-20 till 60	°C
	Protection degree		IP20	
<b>Cooling</b>				
	Kind		Forced air cooling	
	Power losses		≤1500	W
	Airflow		600	m <sup>3</sup> /h
<b>Communication</b>				
	Data	CAN 2.0B / RS232		
	Binary signal	On/Off, Enable, Error, Reset, Emergency stop		
	Additionally	Conventional error, Temperature output		

## Options

- IP20 and IP65
- Water cooling
- Profibus / Profinet
- Main contactor + Pre-charge

## Mechanical Data

Length x Width x Height: 502 x 477 x 203 mm

Weight converter: Approx. 22 kg

Enclosure: IP-20

