



# AEP 300

## Bidirectional DC/AC converter

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



## Features

- 76 kW converter,  $U_n$  400VAC
- Bidirectional half bridge 3-phase topology
- Load-dependent PWM fan control
- Low output current ripple for DC/DC application
- Short-circuit-proved output
- Integrated current and temperature sensors
- CAN-Bus communication

## Applications

- Drive of AC- or DC-motors (including regenerative energy)
- Active filter
- Active Front End

## Mechanical Data

Width x Depth 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	@Uout 400VAC, $\cos(\phi)=1$	76	kW
$P_{MAX}$	Max. power	@Uout 400VAC, fr 2kHz 1min/10min	118	kW
$F_r$	Switching frequency		$\leq 16$	kHz
$\eta_r$	Efficiency	@ $P_r$	$>95$	%
<b>Input</b>				
$U_{in}$	Input voltage range		500-1100	VDC
$U_{in,max}$	Max. operating voltage		1200	VDC
<b>Output</b>				
$U_{out}$	Output voltage		400 - 690	VDC
$f_N$	Max. operating voltage		50/60	Hz
$I_{nom}$	Nominal phase current		110	A
$I_{max}$	Max. phase current	1 min / 10 min	170	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	$^{\circ}C$
$T_{m,max}$	Advisable temperature		20 till 40	$^{\circ}C$
$T_s$	Storage temperature		-20 till 60	$^{\circ}C$
	Protection degree		IP20	
<b>Cooling</b>				
	Kind		Forced air cooling	
	Power losses		$\leq 1500$	W
	Airflow		600	$m^3/h$
<b>Communication</b>				
	Data	CAN (CAN open) / RS232		
	Binary signal	On/Off, Enable, Error, Reset, Emergency stop		
	Additionally	Conventional error, Temperature output		



## Options

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

## Mechanical Data

Width x Depth x Height: 502 x 477 x 203 mm  
Weight converter: Approx. 22 kg  
Enclosure: IP-20

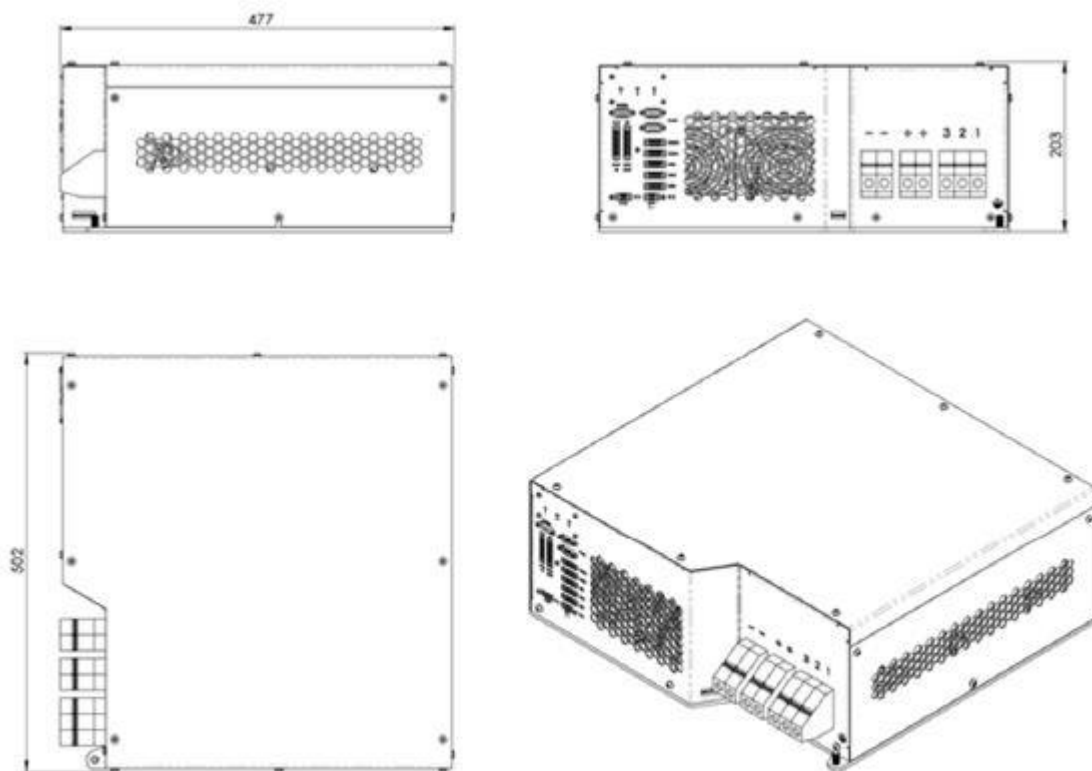


Figure 1: Dimensions



## Accessories

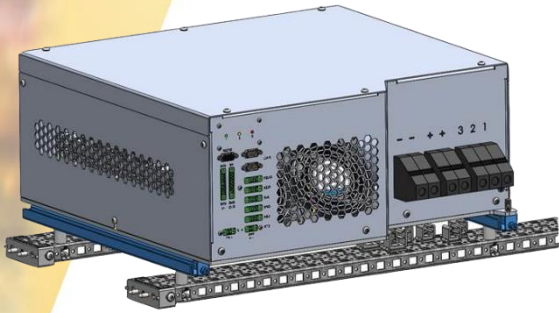


Figure 2: Mounting rails



Figure 3: Pre-charge



Figure 4: EMC filter



Figure 5: Voltage measurement

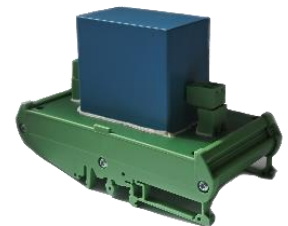


Figure 6: Output cap