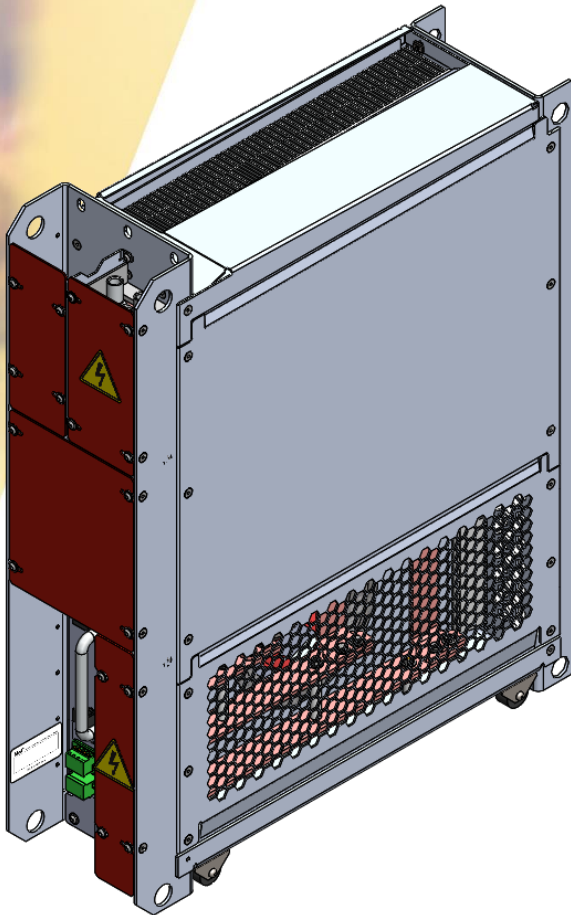




AEP 350 IP20



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

Features

- High current density
- Low switching losses
- High efficiency
- Switching frequency inaudible by humans
- Integrated current and temperature sensors
- Well suited for mounting in an electrical cabinet

Applications

- 3-phase AC/DC converter
- DC/DC converters
- DC/AC converters
- High Frequency Switching application

Mechanical Data

Length x Width x Height
518.7 x 160.8 x 655 mm
Approx. 35 kg

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Technical Characteristics

Symbol	Parameter	Description	Value	Unit
	General			
V_{DC}	DC-Link voltage	@ $I_{ph} \leq 3 \times 150A$ type 1 @ $I_{ph} \leq 3 \times 160A$ type 2 @ $I_{ph} \leq 3 \times 130A$ type 3	≤ 850 ≤ 850 ≤ 1250	V V V
$I_{DC, max}$	Maximum DC input current	Limitation by the busbar	750	A
$I_{ph, max}$	Maximum current per phase	Per phase @ $V_{DC} \leq 400V$ type 1 @ $V_{DC} \leq 50V$ type 2 For other DC link voltage and type 3 see figure 4 below	250	A rms
F_{sw}	Switching frequency	Optional: Higher frequency with power derating	≤ 20	kHz
η	Efficiency	@ $V_{ph} > 600V$, $V_{DC}=850V$, $I_{ph} > 50A$ Apply for Type 1 / Type 2	≥ 99	%
	Communication connections, external control unit			
	Auxiliary voltage		24	VDC
	Optical fiber I/O	PWM, Error, temperature, DC link voltage		
	Analog output	Phase current		
	Communication connections, internal control unit (optional)¹			
	Auxiliary voltage		24	VDC
	Binary I/O			
	CAN Bus or Ethernet			
	Analog input			
	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	

¹ Optional with internal control unit instead of the external control unit. These connections replace "Communication connections, external control unit"

Symbol	Parameter	Description	Value	Unit
	Mechanical data			
	Weight		~ 35	kg
	Width		160.8	mm
	Height		655	mm
	Length		518.7	mm
	Cooling			
T_{m_max}	Coolant	Forced air cooling		
	Fan voltage	Optional: 12V, 48V, 110V or 230V	24	V
	Fan power	24V fan	120	W

Typical Application

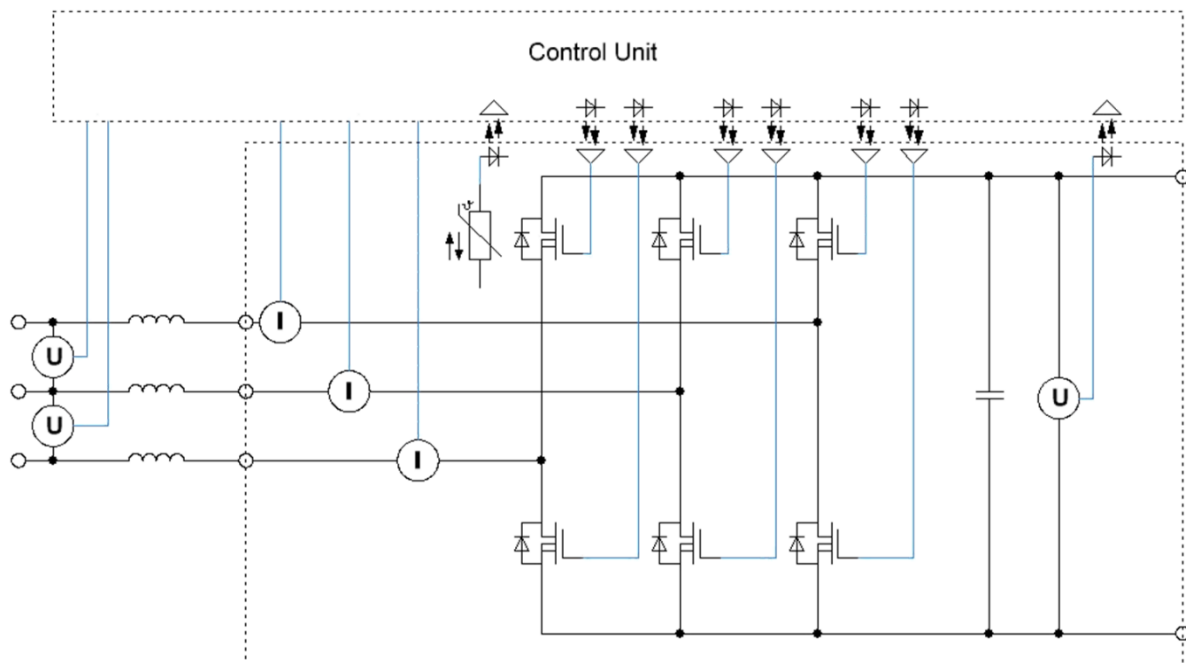


Figure 1, Typical AC/DC application



Dimensions [mm]

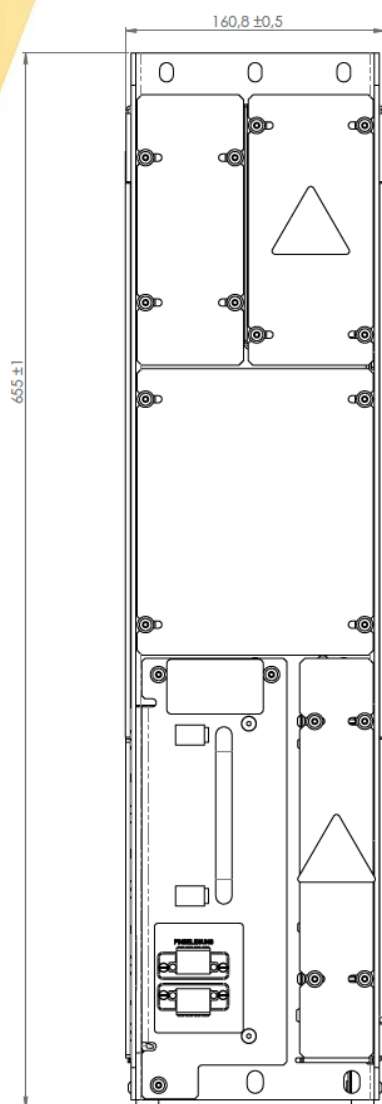


Figure 2, Front view

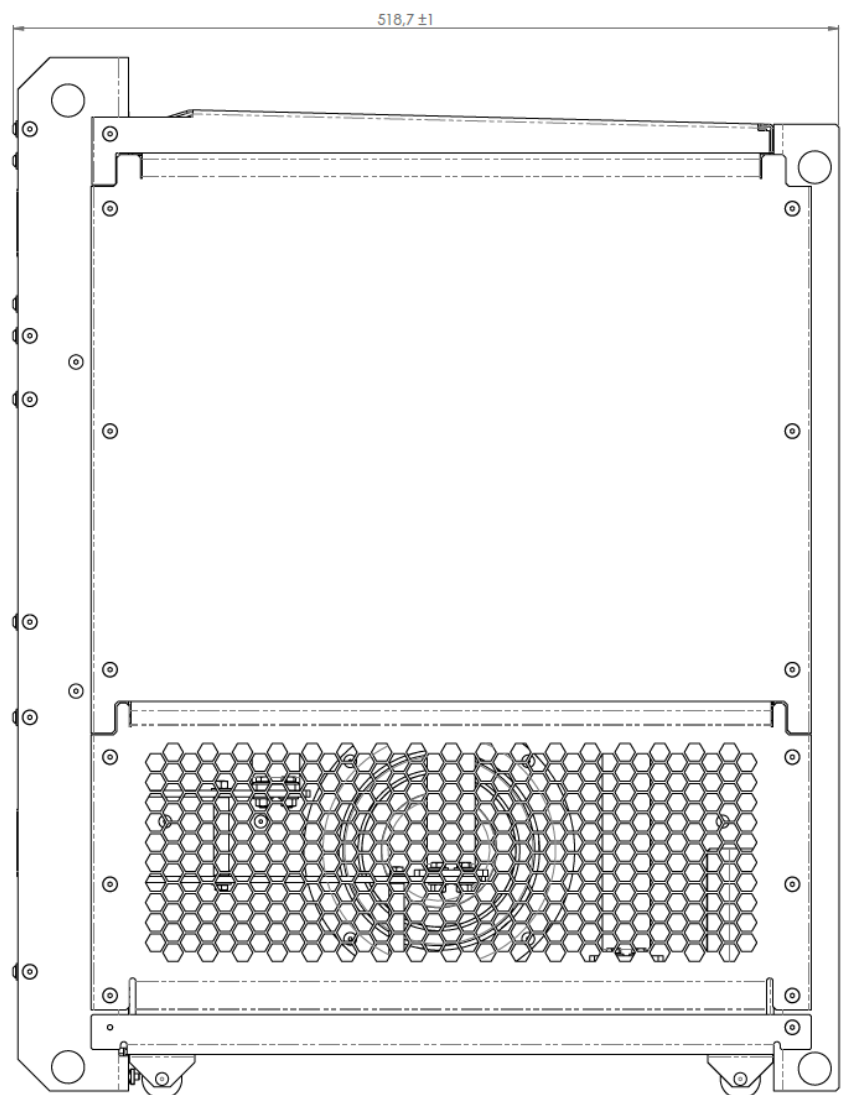


Figure 3, Side view



Operation

Recommended operating range

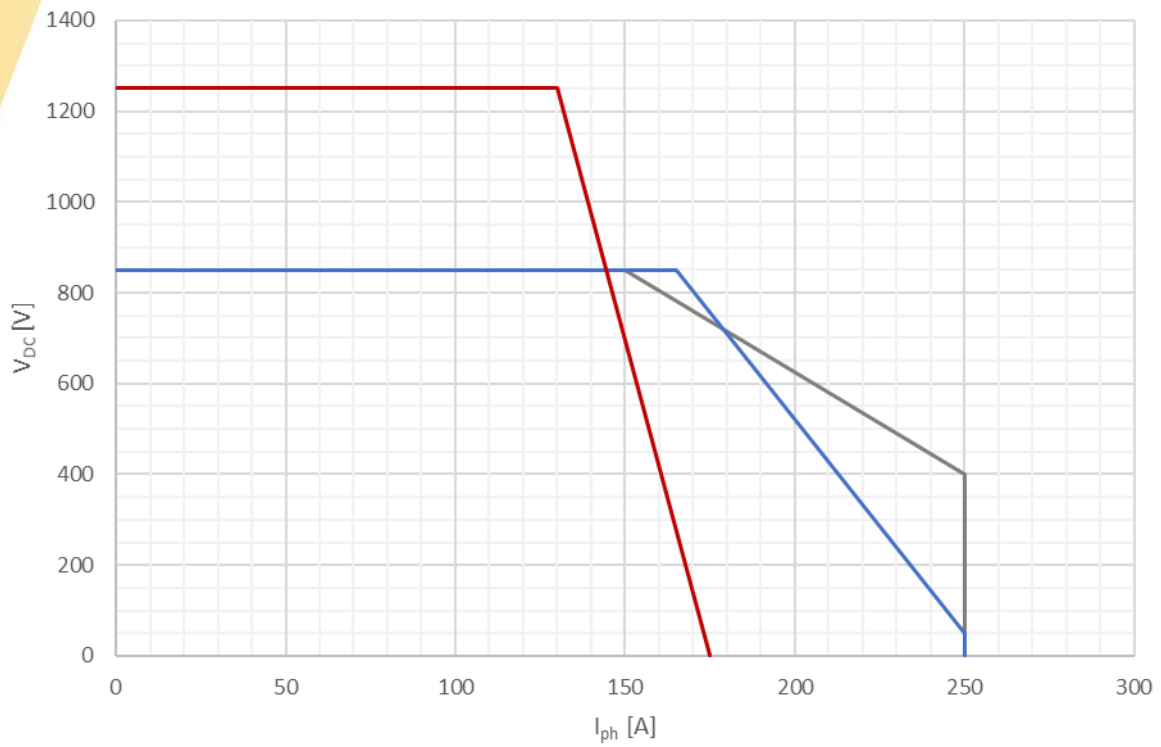


Figure 4, Operating voltage/current range of the AEP350 (Type 1: Grey, Type 2: Blue, Type 3: red) at 20 kHz. More power is possible with a corresponding duty cycle or a switching frequency below 20 kHz.