



AEP5-ISO



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

Features

- Topology: 3-level half bridge, synchronous rectifier
- High efficiency

Applications

- Board net stabilization for heavy duty vehicle (bus & truck)
- Battery charging

Mechanical Data

Length x Width x Height
465 x 355 x 290mm
Approx. 22 kg

aephybridpower.com
sales@aephybridpower.com
+31 (0)78 692 2100



Technical Characteristics

Symbol	Parameter	Description	Value	Unit
General				
P_r	Rated power	@ $U_{N,s}$	5	kW
f_r	Switching frequency		20	kHz
η_r	Efficiency	@ P_r	>95	%
Primary side				
$U_{N,p}$	Nominal voltage		750	VDC
$U_{b,p}$	Operating voltage range		500 -800	VDC
I_{IN}	Max. input current		13	A
Secondary side				
$U_{N,s}$	Nominal voltage		12, 24	VDC
$U_{b,s}$	Operating voltage range		8 – 32	VDC
I_{OUT}	Max. output current		200	A
Energy demand				
	Control voltage @x101	Rated value	24 17 till 30	VDC VDC
	Control current @X101		<1	A
Environment				
	Operating temperature		-40 till 50	°C
	Storage temperature		-40 till 85	°C
	Protection degree		IP20	
Mechanical data				
	Weight		22	kg
	Dimensions	Length x Width x Height	465 x 355 x 290	mm
Communication				
	Data	CAN / RS232 / Ethernet potential-isolated		
	6x binary inputs (X21)	Electrically isolated High Low	17 till 30 0 till 2	V V
	6x binary outputs (X22)	Potential-isolated transistor switch I_{output} High Low	10 16 till 29 0 till 2	mA V V
Cooling				
T		Passive through heat sinks PWM controlled internal Fan	<40 >40	°C °C



Mechanical Data

Length x Width x Height: 465 x 355 x 290 mm

Weight: Approx. 22 kg

Enclosure: IP20

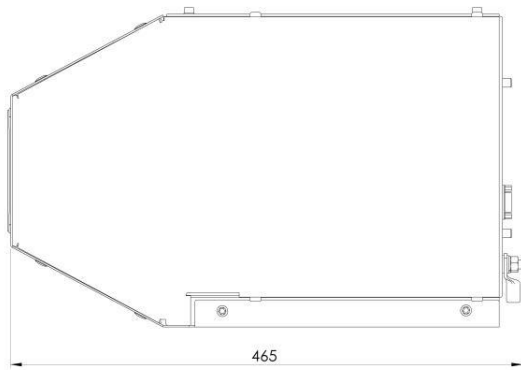


Figure 1: Side view

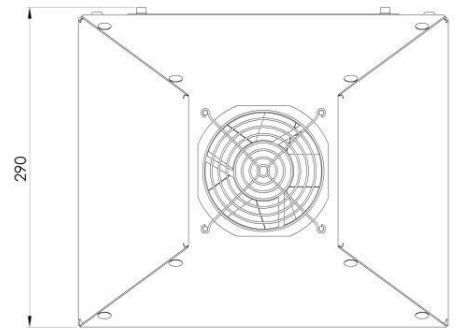


Figure 2: Back view

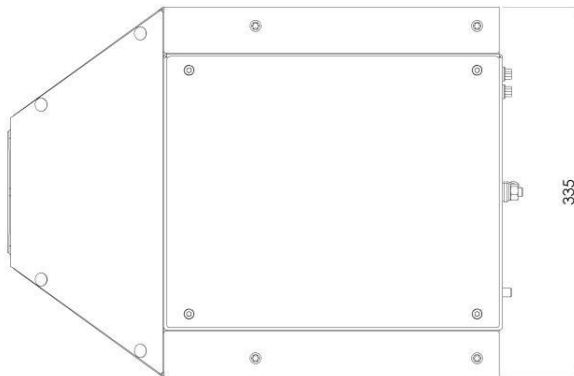
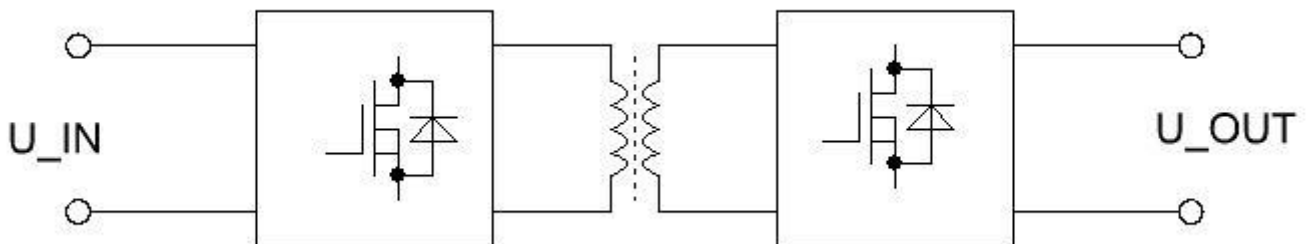


Figure 3: Top view

Block diagram



Connections

X102: CAN - Interface

X103: Ethernet - Interface

X104: RS232 - Interface

X21:

Pin	Signal	Description
1	+24V _{IO}	Supply for binary outputs
2	GND _{IO}	Ground external
3	B _{in} 1*	Binary input
4	B _{in} 2*	Binary input
5	B _{in} 3*	Binary input
6	B _{in} 4*	Binary input
7	B _{in} 5*	Binary input
8	B _{in} 6*	Binary input

Let op: Maximum input voltage 30V!

X22:

Pin	Signal	Description
1	+24V _{IO}	Supply for binary outputs
2	GND _{IO}	Ground external
3	B _{in} 1*	Binary output
4	B _{in} 2*	Binary output
5	B _{in} 3*	Binary output
6	B _{in} 4*	Binary output
7	B _{in} 5*	Binary output
8	B _{in} 6*	Binary output

Let op: Maximum output current 10mA!

X101:

Pin	Signal	Description
1	+U _B	24V control voltage
2	+U _B	24V control voltage
3	GND	Ground
4	GND	Ground

Pin	Signal	Power rail	Description
	DC Out		Output voltage

Pin	Signal	Description
1	DC_IN	Input voltage (+)
2	DC_IN	Input voltage (-)