Epec Power Distribution Unit (PDU)

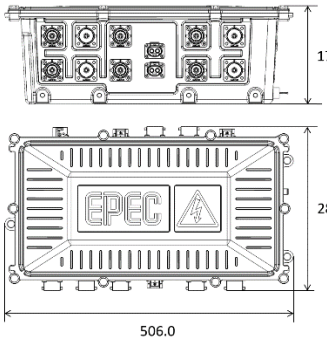
ONE PAGER PDU

Product one pager Passive PDU HN1P.



TRACTION VOLTAGE POWER DISTRIBUTION UNIT FOR ELECTRIC VEHICLES / MACHINES TRACTION AND AUXLIARY HIGH VOLTAGE SYSTEMS:

- Passive unit enables safe connection of the machine high voltage component
- Fuse protection for high and low current component conduits
- Hazardous voltage interlock loop (HVIL) for connectors and cover
- PDU can be equipped optionally with system insulation measurement unit
- Water cooling for reaching high performance.
- Robust unit which is configurable for different high voltage distribution demands



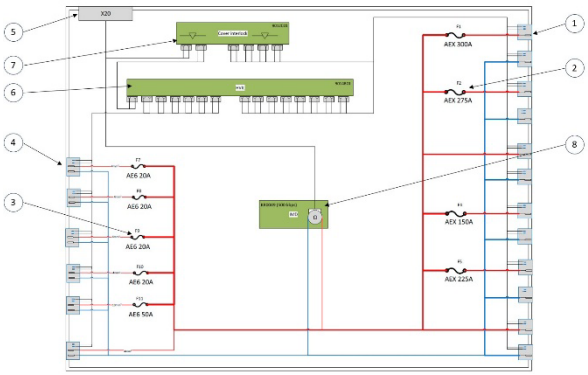
MAIN DIMENSIONS:

- Overall dimensions: 506 x 286 x 172 mm
- Weight: 16 kg
- Mounting to vehicle: all other orientation allowed than cables upside
- Mounting by customer designed brackets

SCHEMATIC DIAGRAM

Example of high voltage circuit control block diagram for passive PDU

1. High current IPxxB compliant connector
2. Main fuses high current (HC)
3. Low current fuses (LC)
4. Low current IPXXB compliant connectors
5. Signal connector
6. HVIL PWB
7. Sensor PWB
8. Insulation monitoring unit (optional)



TECHNICAL DATA

FEATURE	VALUE	NOTE
Thermal management	Liquid cooling option	16 mm Hose barb or VDA NW12 standard quick connection
Operating Voltage	250-800 V	1000 V optional
Operating current	500 A (RMS)	Continuous current
Current peak	600 A	60 s
Connections	6x High current (300 A RMS) 3x Low current (50 A RMS)	Connection types and amount can be varied based on customer need
Safety	All connections IPXXB and with HVIL	Electric safety according to IEC61800-5
HVIL circuit	Covers and connectors included	Safety lid included (min 10 s safety time from cover opening) redundant cover opening circuit.
Insulation monitoring	Full HV-system monitoring	Optional, Alarming limit: min 500 kΩ
Fuses	High current connections up to 600 A/800 Vdc Low current up to 50 A/800 Vdc	Fuse sizing shall be done at integration project with customer
Operating condition	In operation -40 °C to +60 °C IP67 and IP69K Max 2000 m	Designed for harsh environment
Output power	100- 400 kW	Continuous
Size	506 x 286 x 172 mm	Aluminium enclosure

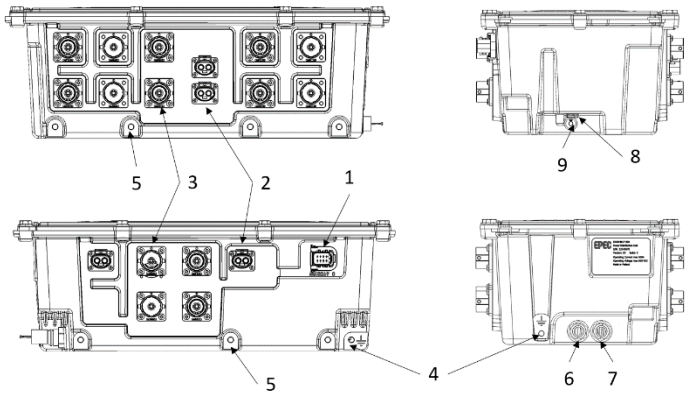
PDU Product Page

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OUTSIDE INTERFACES:

1. Signal connector
2. Low current connection
3. High current connection
4. Grounding point, M8 thread
5. Mounting screw hole, 8x M8
6. Cooling inlet, VDA NW12
7. Cooling outlet, VDA NW12
8. Gore Vent
9. Coolant bleeding plug



CONFIGURABLE OPTIONS

- Insulation measurement unit
- Fuse sizes
- High voltage connections; amount, location and connector type

Preferred connectors

- Amphenol Powerlok 300 gen II
- Amphenol ePower Lite (up to 100A)
- Amphenol HSVLS 600
- Amphenol Powerlok 60
- Hirshmann HPS40-2
- TE HVA 280
- Cable glands as customized version