

Vehicle Interface Box

Battery System & Vehicle Interface



Features:

- Cost-efficient solution for an intelligent gateway power distribution unit
- Tailored to work with the Webasto CV standard battery system and commercial vehicle market requirements
- Enables high level of scalability of the battery system
- Designed and developed to highest safety standards
- Maintenance-free design
- Capable to handle 400 V and 800 V

The Vehicle Interface Box (VIB) enables the battery scalability, acting as an efficient interface between multiple battery packs and the vehicle. This ultimate box comprises the functions of power distribution unit, master BMS and safety fuses in one robust packaging. This creates the comprehensive modular battery system that is tailored for commercial vehicles. The VIB turns plug-and-play into reality.



Technical features

- Specially designed for the Webasto CV standard battery system
- Option of direct connection and integrated fuse protection for further loads
- Designed to enable DC charging
- AC chargable
- Developed for the special requirements of commercial vehicles
- Configuration of up to 10 battery packs possible (2s5p, 1s5p)
- Due to standard components easy to customize
- Controlled limp home mode
- Intelligent switching concept and central battery pack balancing
- Central coordination and monitoring of isolation measurement
- Evaluation of the high voltage interlock
- Cable protection for power trains and auxiliary components
- All components with 800 V capability
- Central communication interface to battery system
- Seperate CAN communication for vehicle (vehicle and battery pack CAN)
- Master BMS function (one central control unit for vehicle implementation)

Technical Specifications

	VIB
Dimensions (L x W x H)	21.6 x 27 x 6.1 in (548 x 686 x 155 mm)
Weight	92.6 lbs. (42kg)
Supply voltages	12 and 24 V
System voltages	400 & 800 V
Extensibility options	direct connection & integrated fuse protection for further loads
Charging	DC
Scalability	Power output of up to 460 kW
Continuous current DCH	380 A
Continuous current CH OBC	67 A
Continuous current CH DC-Fast	200 A
Peak current DCH (30 sec.)	580 A
Peak current recuperation CH	500 A
Operational temperature	-40 to 185°F (-40 to +85°C)

Norms and standards

- Homologation: ECE R10
- Safety: ISO 6469, ISO 26262 (ASIL C), ISO 17409
- Environment: ISO 20653 (IP67/ IP6K9K)
- Vehicle Communication: CAN Bus conform to ISO 11898. Signal mapping to SAE J1939 upon request. Signal securtly requires alignment with Webasto.
- Company Standards: LV 123, LV 124
- EMC: ISO 11452, ISO 7637, CISPR 25

Additional standards & norms*:

ECE R100, UN GTR No.20, ISO 16750, ISO 12405, ISO 19453

* Tests & Requirements partially fulfilled.



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