

Vehicle Interface Box

The interface between battery system and vehicle



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.

Standards & Norms:

- **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 security requires alignment with Webasto.
- **Company Standards:** LV 123, LV 124
- **EMC:** ISO 11452, ISO 7637, CISPR 25

Your benefits

- 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

Additional Standards & Norms*:

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

* Tests & Requirements partially fulfilled.



Car



Truck



Light Vehicles



Bus



Rail



Off-Highway



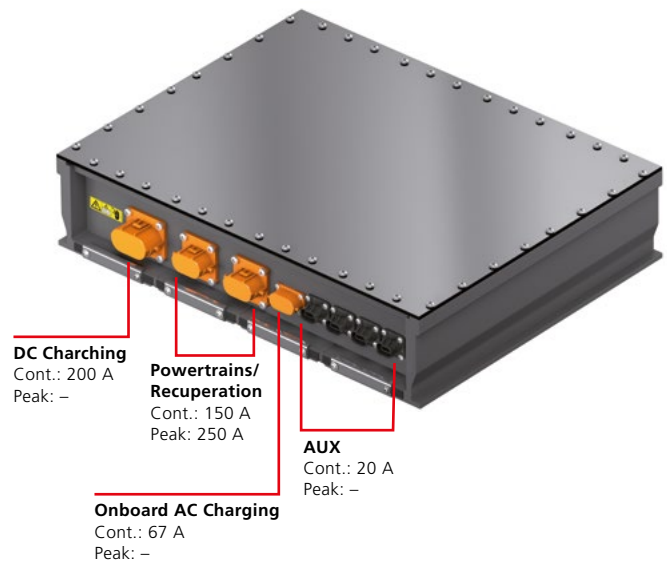
Defense



Special Vehicles

Technical specifications

	VIB
Product dimensions (L x W x H) (mm)	548 x 686 x 155
Weight (kg)	42
LV supply voltages (V)	12 and 24
HV supply voltages (V)	400 & 800 systems
Scalable energy with CV standard batteries (kWh)	35 – 350 (max. 10 packs)
Scalable power (kW)	up to 460
Continuous current DCH (A)	380
Continuous current CH OBC (A)	67
Continuous current CH DC fast charging (A)	200
Peak current DCH (30 sec.) (A)	580
Peak current recuperation (30 sec.) (A)	500
Operational temperature (°C)	-40 to +85



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 chargeable
- 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
- Separate CAN communication for vehicle (vehicle and battery pack CAN)
- Master BMS function (one central control unit for vehicle implementation)