

Webasto Modular Battery System

Scalable battery system for commercial vehicles



Features:

- Modular system with 35-350 kWh storage
- Designed specifically for commercial vans, trucks & buses
- Configurable for 400 V and 800 V
- Available thermal management system for optimum performance
- Advanced electronics with remote monitoring available
- Liquid cooling with connectors outside the pack
- Desiccant cartridges to reduce condensation
- Integrated thermal runaway detection in each system
- State-of-the-art pressure equalization for added safety

Norms and standards

- **Homologation:** ECE R100, ECE R10, UN GTR No. 20
- **Transport:** UN T38.3 (Transport of Dangerous Goods)
- **Safety:** ISO 6469, ISO 12405, ISO 26262 (ASIL C)
- **Environment:** ISO 16750, ISO 19453, ISO 20653 (IP67/IP6K9K)
- **Vehicle communication:** ISO 15031, SAE J1939, SAE J1979
- **Company standards:** LV 123, LV 124
- **EMC:** ISO 11451, ISO 11452

System requirements and the environment

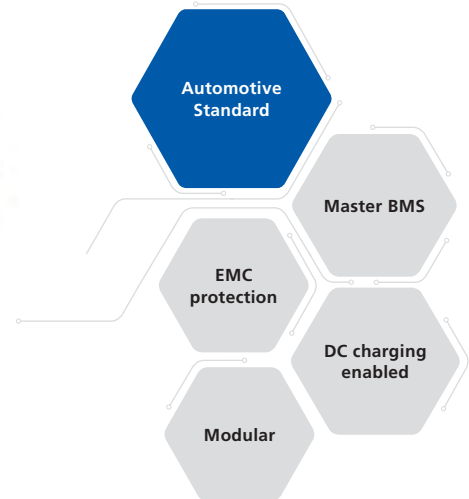
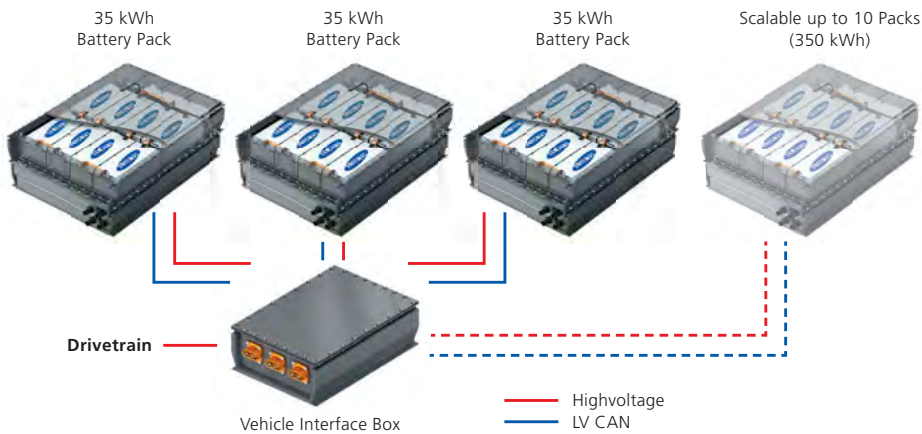
- Optimized for vehicle classes M1, M2, M3, N1, N2 & N3 (EC Directive 2007/46)
- Developed for EU28 as well as Switzerland, Turkey and Norway
- Designed for an ambient temperature of -30°C to 60°C, 3,500 meters above sea level and 0 – 100% humidity

Technical specifications

	Battery pack
Dimensions (L x W x H)	37.8 x 27 x 11.8 in (960 x 687 x 300 mm)
Weight	< 617 lbs. (<280 kg)
Energy content	35 kWh
Voltage range	280 – 400 V (~350 V nominal)
Energy density	~203 Wh/l, ~126 Wh/kg
Continuous use (CH/DCH)	38/52 kW
Maximum performance (CH/DCH) (10 s, @50% SoC, 25°C)	115/150 kW
End-of-life-definition	80% of BOL
Lifetime (@80% DoD, 25°C, 1C/1C)	> 3,000 cycles
Lifetime	8 years
Volume flow per pack	10 l/min.
Pressure loss per pack	<35 mbar
Cell type	prismatic Ni-rich NMC

* CH/DCH: charge/discharge; ** BOL: begin of life

CV Standard Battery System, comprising packs and Webasto Vehicle Interface Box



	400 V/800 V (2 Packs)	400 V (3 Packs)	400 V/800 V (4 Packs)	400 V (5 Packs)	800 V (max. 10 Packs)
Pack topologie in 400 V/800 V system	1s2p/2s1p	1s3p	1s4p/2s2p	1s5p	2snp
Energy content (entire system)	70 kWh	105 kWh	140 kWh	175 kWh	350 kWh
Continuous use (CH/DCH) *	76/104 kW	114/156 kW	152/208 kW	190/260 kW	n * 38/n * 52 kWh
Maximum use (CH/DCH) *	230/300 kW	345/450 kW	460/600 kW	575/750 kW	n * 115/n * 150 kWh

* Energy & Power can be scalable via customized solutions