

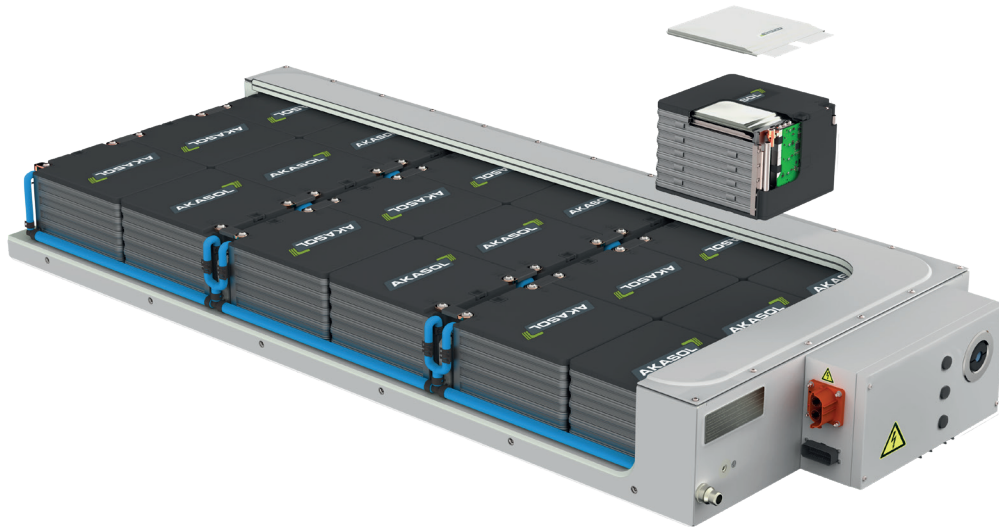
AKASYSTEM

18 AKM 46 POC

334 kW • 36.8 kWh • 799 V • 430 kg*

Typical product configuration. Appearance and interfaces may vary.

*All technical data depending on HV Fuse, connector, DoD / SOC and cooling.



CERTIFIED ACCORDING TO RAILWAY AND AUTOMOTIVE STANDARDS.

- > Development according to ISO 26262 up to ASIL C / EN 61508 SIL 2 possible
- > Tested safety (USABC, IEC, SAE, EN 50657, EN 50129, UN 38.3) and "real world" experience
- > Multi-level short circuit protection on system level
- > Additional operating safety due to redundant battery management system
- > Suitable for multi-string systems with monitoring on single-string and full system level
- > Protection classes IP67 to IP6K9K possible
- > Robust and proven control unit BMS master (SIL2 compatible hardware)
- > SOC / SOH analysis
- > Single cell voltage monitoring and balancing

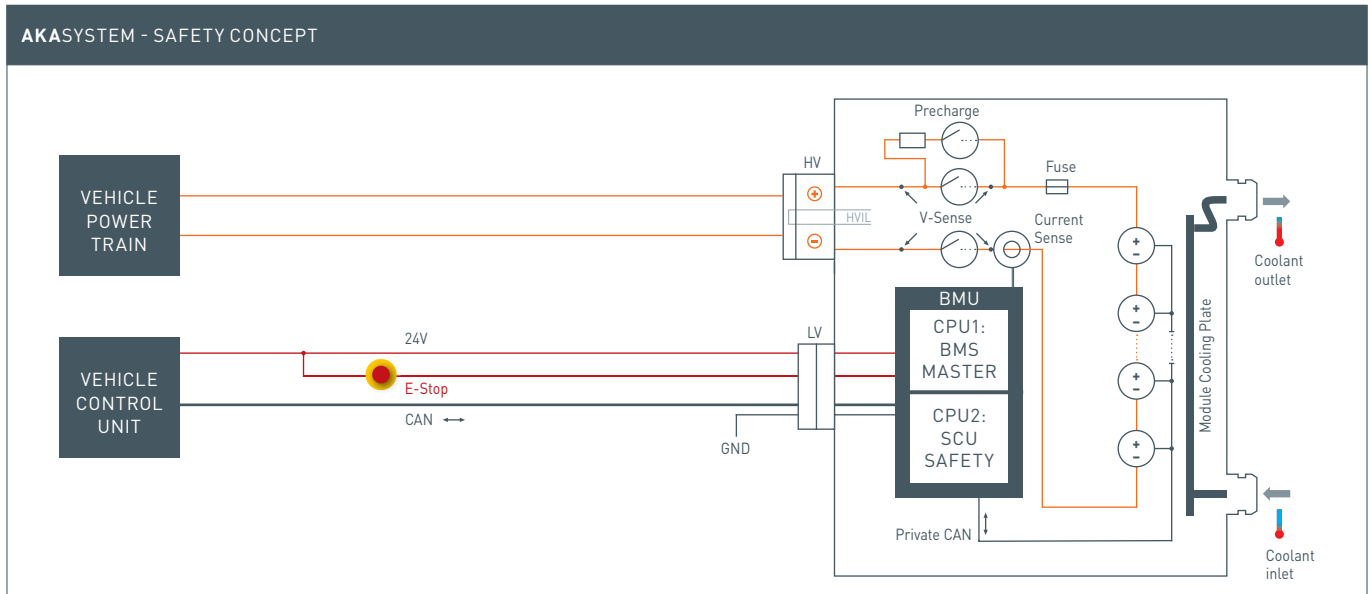
SCALABLE. VALIDATED. DURABLE.

- > High energy and performance density
- > Easy system connectivity / ready-to-install (aligned connection points, standardized CAN bus, optional VDA / SAE cooling connections)
- > Excellent price-performance ratio as a result of the development for serial production
- > Liquid cooling for even temperature distribution
- > Compact and lightweight solution, significant volume reduction due to liquid cooling
- > Long service life due to active and passive thermal management
- > Exceptionally robust, stainless steel battery case
- > Serial production, ISO 9001 compliant
- > Passive cell balancing
- > Maintenance-free operation

ELECTRICAL DATA	AKASYSTEM 18 AKM 46 POC
Cell connection in module	12s1p
Capacity	46 Ah
Energy	36.8 kWh
Technology	Li-Ion NANO nMC
Nominal voltage	799 V
Voltage (max.)	907 V
Voltage (min.)	583 V
Discharging power max. (10s)*	334 kW
Charging power max. (10s)*	184 kW
Continuous power (RMS)	92 kW
Power consumption in standby mode	9.0 W
Cycle life (at 80 % DoD, 25 C°)	> 7,000 cycles

* Peak rating depending on fuse and cable / connector configuration / SOC and temperature

MECHANICAL DATA	AKASYSTEM 18 AKM 46 NANO NMC
Coolant pressure (max.)	1.0 bar
Coolant pressure loss at nominal throughput and Tcoolant = 25 °C (Water/glycol=50/50) @ throughput quantity	520 mbar @ 1.000 l/h
Operating temperature range during discharging	-15 to 55 °C
Operating temperature range during charging	0 to 45 °C
Protection classes	IP67 (IP6K9K possible)
Weight (incl. contactor box) (min)	430 kg
Dimension (L x W x H) in mm	1,844 x 750 x 216



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HIGH-PERFORMANCE BATTERY SYSTEMS.
MADE IN GERMANY WITH 30 YEARS OF EXPERIENCE.

AKASOL is a leading European developer and manufacturer of high-performance and high-energy lithium-ion battery systems for commercial applications as well as a supplier of Turnkey Solutions. With 30 years of prototyping, engineering and testing experience, AKASOL provides safe, durable and market-ready battery systems in serial for major players in the commercial transport sector.