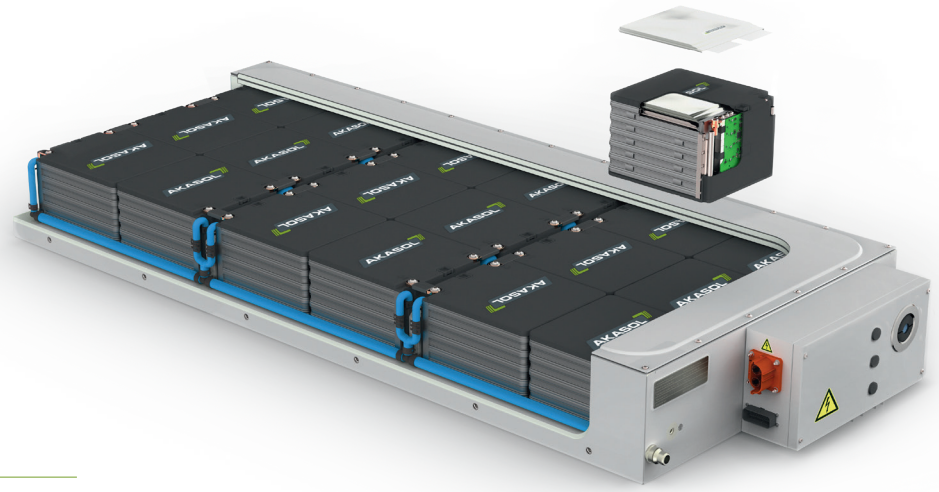
AKA**SYSTEM**

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.

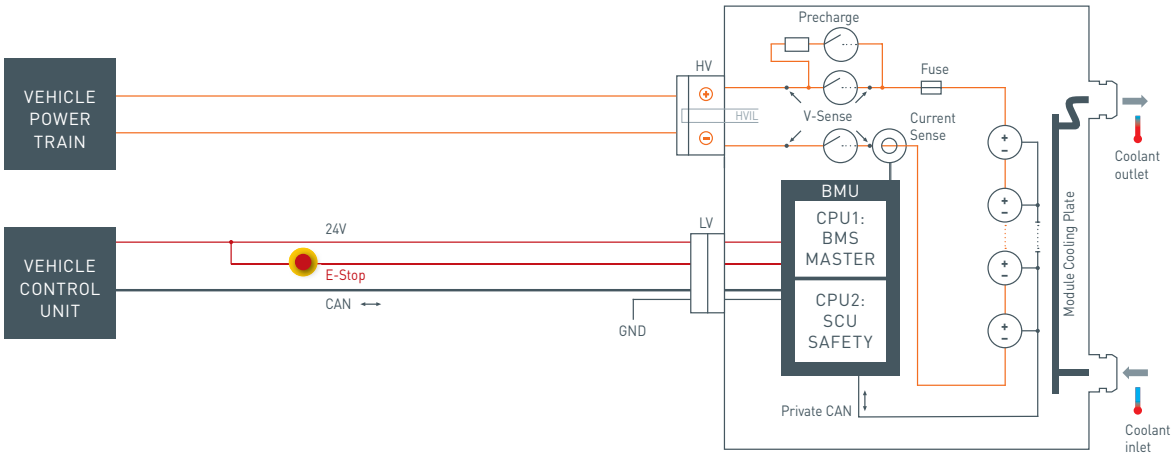
- High energy and performance density
- Easy system connectivity / ready-to-install (aligned connection points, standardized CAN bus, optional VDA / SAE cooling connections)
- Excellent price-performance ratio as a result of the development for serial production
- Liquid cooling for even temperature 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) [A]	334 kW
Charging power max. (10s) [A]	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

A 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 troughput and Tcoolant = 25 °C (water/glycol=50/50) @ throughput quantity	520 mbar @ 1,200 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

AKASYSTEM – SAFETY CONCEPT



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by BorgWarner

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

AKASOL is a leading German developer and manufacturer of high-performance and high-energy lithium-ion battery systems for e-mobility applications as well as turnkey solutions. With more than 30 years of experience AKASOL provides the technically most mature and foremost technologies for traction battery systems in buses, commercial vehicles, rail and industrial vehicles, as well as in ships and boats – from prototype to serial production.