

AKASYSTEM

3 AKM 100 CYC



**33 kW (cont) • 33 kWh •
331 V (nom) • 210 kg***

Typical product configuration.
Appearance and interfaces may vary.

PLANNED
2024

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

CERTIFIED ACCORDING TO AUTOMOTIVE STANDARDS.

- › Tested safety (e.g. ECE R10, UN 38.3, ECE R100) and "real world" experience
- › Serial production, IATF 16949 compliant
- › Development according to ISO 26262
- › Protection classes IP67, IP6K9K
- › 21700 standard battery cells
- › Robust and proven control unit (BMU) with redundant safety system (SCU)
- › Multi-level short circuit protection on system level
- › Voltage and temperature monitoring
- › SOC / SOH analysis

SCALABLE. VALIDATED. DURABLE.

- › Freely scalable system with any number of AKASYSTEMs
- › Excellent price-performance ratio
- › High energy density
- › High cycle life
- › Maintenance-free operation
- › Robust stainless steel battery case
- › Active and passive thermal management
- › Liquid cooling
- › Suitable for multi-string systems with monitoring on single-string and full system level
- › Designed especially for long-distance application

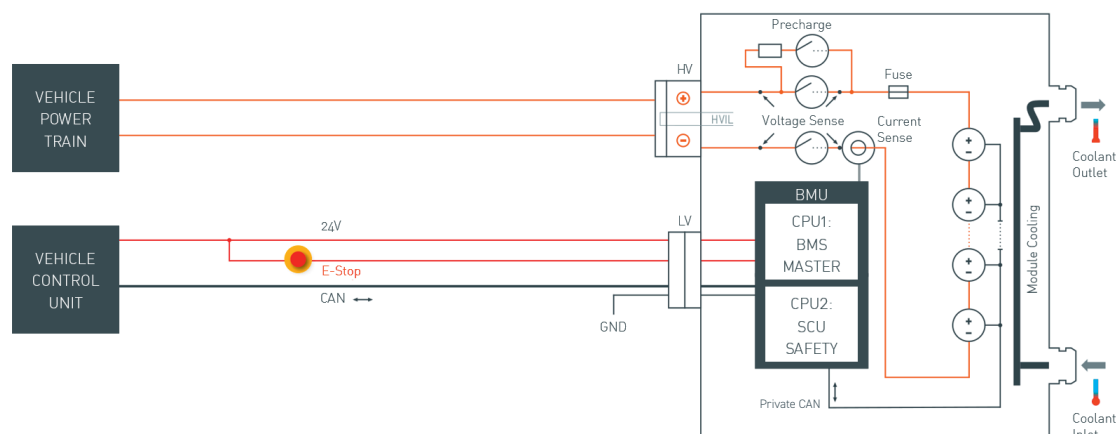
ELECTRICAL DATA	AKASYSTEM 3 AKM 100 CYC	2P AKASYSTEM 3 AKM 100 CYC	3P AKASYSTEM 3 AKM 100 CYC	nP AKASYSTEM 3 AKM 100 CYC
Cell connection in module	30s20p	30s20p	30s20p	30s20p
Capacity	98 Ah	196 Ah	294 Ah	n*98 Ah
Energy	33 kWh	66 kWh	99 kWh	n*33 kWh
Technology	Li-Ion NMC	Li-Ion NMC	Li-Ion NMC	Li-Ion NMC
Nominal voltage	331 V	331 V	331 V	331 V
Voltage (max.)	378 V	378 V	378 V	378 V
Voltage (min.)	270 V	270 V	270 V	270 V
Discharging power ^A	33 kW	66 kW	99 kW	n*33 kW
Charging power ^A	26 kW	52 kW	78 kW	n*26 kW
Power consumption in standby mode	10 W	20 W	30 W	n*10 W
Cycle life (depending on DoD, T, power) ^B	4,000 cycles	4,000 cycles	4,000 cycles	4,000 cycles

^A Peak rating depending on cable, connector, SOC, temperature and internal fuse type
^B Depending on SOH and individual use profile, especially DoD, temperature and power

MECHANICAL DATA	AKASYSTEM 3 AKM 100 CYC	2P AKASYSTEM 3 AKM 100 CYC	3P AKASYSTEM 3 AKM 100 CYC	nP AKASYSTEM 3 AKM 100 CYC
Coolant pressure max.	1.5 bar	1.5 bar	1.5 bar	1.5 bar
Coolant pressure drop (water/glycol=50/50)	400 mbar @ 600 l/h nom. 25 °C	400 mbar @ 1,200 l/h nom. 25 °C	400 mbar @ 1,800 l/h nom. 25 °C	400 mbar @ n*600 l/h nom. 25 °C
Operating temperature range	-25 to 55 °C	-25 to 55 °C	-25 to 55 °C	-25 to 55 °C
Recommended operating temperature	15 to 35 °C	15 to 35 °C	15 to 35 °C	15 to 35 °C
Protection classes	IP67, IP6K9K	IP67, IP6K9K	IP67, IP6K9K	IP67, IP6K9K
Weight (incl. contactor box)	210 kg	420 kg	630 kg	n*210 kg
Dimension (L x W x H) in mm (nominal)	665 x 700 x 300	2* (665 x 700 x 300)	3* (665 x 700 x 300)	n* (665 x 700 x 300)

AKASYSTEM 3 AKM 100 CYC: freely scalable according to your application.

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.