

AKARACK

150 PRC



48 V • 150 Ah • 6.6 kWh • 52 kg*

Typical product configuration.
Appearance and interfaces may vary.

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

CERTIFIED ACCORDING TO AUTOMOTIVE STANDARDS.

- > Automotive NMC li-ion technology
- > Excellent cycle life, high level of intrinsic safety
- > Up to 25 kW continuous power with one master rack
- > Up to 50 kW peak power with one master rack
- > Automotive BMS technology for reliability and safety
- > Developed to meet stringent safety standards
- > Environmental rating up to IP67 / IP6K9K
- > Several hundred systems are already in use for various applications

SCALABLE. VALIDATED. DURABLE.

- > Modular and flexible energy storage system for mobile applications
- > Multiple strings can be connected in parallel for large energy storage systems
- > Compact, easy to handle base unit (manual handling)
- > Designed to fit 19" racks (3U, 600 mm depth)
- > Integrated contactor, cell monitoring and fuse
- > Liquid or air cooling within the same package envelope

FEATURES

- > High energy and power density
- > Exceptionally robust, maintenance-free operation
- > Long service life due to active and passive thermal management
- > EMI (Electro Magnetic Interference) compliant for many applications acc. to DIN EN ISO 13766-1:2018, DIN EN ISO 13766-2:2018, ECE-R10 Rev.6
- > Passive cell balancing (low loss)
- > Multi-level short circuit protection on module and rack level
- > Robust and proven control unit (BMS master)
- > Redundant safety control unit in addition to BMS master

CONFIGURATION

- > Freely scalable system with up to 6 AKARACKs in parallel per master rack
- > Easy system connectivity / ready-to-install
- > High availability in redundant parallel string configuration (optional)
- > Suitable for multi-string systems with full monitoring on single-string and full system level
- > Optional liquid cooling for high performance applications

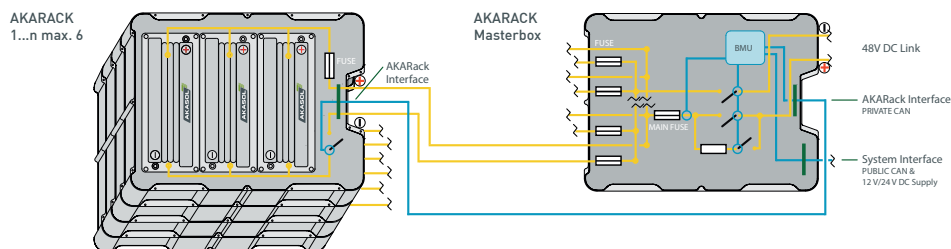
ELECTRICAL DATA	AKARACK 150 PRC Systems					
	Type 1P	Type 2P	Type 3P	Type 4P	Type 5P	Type 6P
Capacity ^A	150 Ah	300 Ah	450 Ah	600 Ah	750 Ah	900 Ah
Energy ^A	6.6 kWh	13.2 kWh	19.8 kWh	26.4 kWh	33.0 kWh	39.6 kWh
Nominal voltage ^A	44.2 V	44.2 V	44.2 V	44.2 V	44.2 V	44.2 V
Voltage (max.)	50.4 V	50.4 V	50.4 V	50.4 V	50.4 V	50.4 V
Voltage (min.)	36.0 V	36.0 V	36.0 V	36.0 V	36.0 V	36.0 V
Discharging power max. (10s) ^B	8.4 kW	16.6 kW	25.0 kW	33.3 kW	41.6 kW	50.0 kW
Charging power max. (10s) ^B	8.4 kW	16.6 kW	25.0 kW	33.3 kW	41.6 kW	50.0 kW
Discharging current max. (10s) ^B	189 A	378 A	567 A	756 A	945 A	1134 A
Charging current max. (10s) ^B	189 A	378 A	567 A	756 A	945 A	1134 A
Continuous power (RMS) ^B	5.5 kW	11.0 kW	16.5 kW	22.0 kW	25.0 kW	25.0 kW
Cycle life ^C	> 3,000	> 3,000	> 3,000	> 3,000	> 3,000	> 3,000

A 0.33C reference discharge cycle B Depending on SOC and temperature C Depending on individual use profile, especially DoD, temperature and power

MECHANICAL DATA	AKARACK 48 V	nP AKARACK 48 V ^H
Coolant options	Air / Liquid ^G	Air / Liquid ^G
Coolant pressure max.	2.5 bar	2.5 bar
Liquid coolant pressure drop per rack (water/glycol=50/50)	typ. 400 mbar @ 150 l/h nom. 25 °C	typ. 400 mbar @ n*150 l/h nom. 25° C
Operating temperature range	- 30 to 60 °C	- 30 to 60 °C
Recommended operating temperature	15 to 35° C	15 to 35° C
Protection classes ^D	IP67 (IP6K9K) ^E	IP67 (IP6K9K) ^E
Weight (excl. masterbox) ^D typical	52 kg	n*52 kg
Dimension (L x W x H) ^D in mm (nominal, excl. masterbox)	590 x 446 x 133 ^F	590 x 446 x 133 ^F

D Masterbox specification: similar dimensions, weight typically 28 kg without cables E Tested in horizontal rack orientation F Height of 135 mm including cooling device G Optional configuration H n equals the number of AKARACKs

AKARACK – SYSTEM TOPOLOGY



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by BorgWarner

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