

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

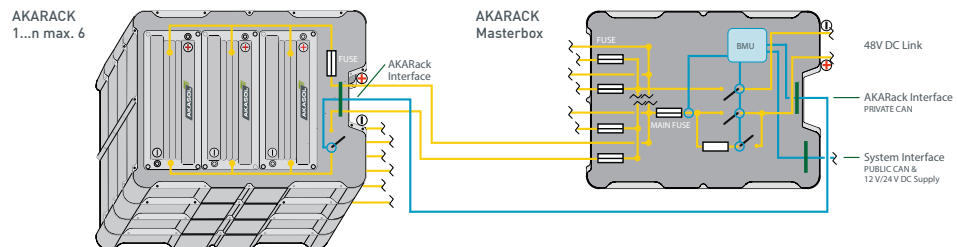
ELECTRICAL DATA	AKARACK 150 PRC Systems					
	Type 1P	Type 2P	Type 3P	Type 4P	Type 5P	Type 6P
Capacity ^A	150 Ah	300 Ah	450 Ah	600 Ah	750 Ah	900 Ah
Energy ^A	6.6 kWh	13.2 kWh	19.8 kWh	26.4 kWh	33.0 kWh	39.6 kWh
Nominal voltage ^A	44.2 V	44.2 V	44.2 V	44.2 V	44.2 V	44.2 V
Voltage (max.)	50.4 V	50.4 V	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
Discharging current 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
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



AKASOL AG
 NEW HEADQUARTERS & GIGAFACTORY 1

Kleyerstrasse 20
 64295 Darmstadt | Germany
 Tel.: +49 6151 800500 | info@akasol.com
 www.akasol.com

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.