

## AKARACK

# 50 PRC

**48 V • 150 Ah • 6.6 kWh • 56 kg\***

Typical product configuration. Appearance and interfaces may vary.

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



AVAILABLE  
**2021**

### CERTIFIED ACCORDING TO AUTOMOTIVE STANDARDS.

- > Automotive NMC li-ion technology
- > Excellent 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

### 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
- › Excellent price-performance ratio as a result of the development for mass production
- › Optional liquid cooling for high performance applications
- › Long service life due to active and passive thermal management
- › Exceptionally robust, maintenance-free operation
- › EMI (Electro Magnetic Interference) compliant for many applications
- › 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
- › Voltage and temperature monitoring
- › Multiple 48 V racks can be connected in parallel

## CONFIGURATION

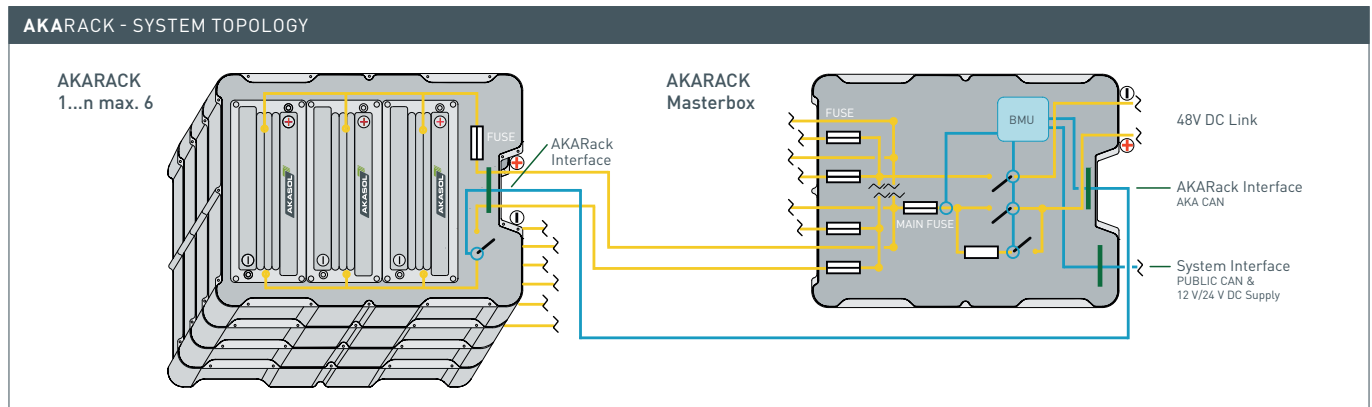
- › Freely scalable system with up to 6 AKARACKs per masterrack
- › Flexible packaging (conversion design, purpose design)
- › Easy system connectivity / ready-to-install (aligned connection points, standardized CAN bus)
- › High availability in redundant parallel string configuration (optional)
- › Suitable for multi-string systems with full monitoring on single-string and full system level

ELECTRICAL DATA	AKARACK 48 V	nP AKARACK 48 V
Capacity*	150 Ah	n*150 Ah
Energy*	6.6 kWh	n*6.6 kWh
Technology	Li-Ion NMC	Li-Ion NMC
Nominal voltage*	44 V	44 V
Voltage (max.)	50.4 V	50.4 V
Voltage (min.)	36 V	36 V
Discharging power max. (10 s)**	9 kW	up to 50 kW
Charging power max. (10 s)**	9 kW	up to 50 kW
Continuous power (RMS) > 15 min**	5.5 kW	up to 25 kW
Power consumption in standby mode	8 W	n*8 W + 25 W
Cycle life***	> 3,000 cycles	> 3,000 cycles

\* 0,33C reference discharge cycle \*\*Depending on SOC and temperature \*\*\*Depending on individual use profile, especially DoD, temperature and power

MECHANICAL DATA	AKARACK 48 V	nP AKARACK 48 V
Coolant pressure max.	2.5 bar	2.5 bar
Coolant pressure drop per rack (water/glycol=50/50)	typ. 400 mbar @ 150 l/h nom. 25 °C	typ. 400 mbar @ 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****	IP67 (IP6K9K possible)	IP67 (IP6K9K possible)
Weight (excl. masterbox)**** typical	56 kg	n*56 kg
Dimension (L x W x H)**** in mm (nominal, excl. masterbox)	590 x 446 x 133	590 x 446 x 133

\*\*\*\* Masterbox specification: similar dimensions, weight typically 30 kg



**AKASOL AG**  
NEW HEADQUARTERS & GIGAFACTORY 1

Kleyerstr. 20  
64295 Darmstadt | Germany  
T +49 6151 800500 | info@akasol.com

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