PRODUCT OVERVIEW

Naali

ACB54A

High-capacity smart $LiFePO_4$ battery, 48 V nominal, with integrated cell heating, active balancing and connected battery management. Reference specifications for system design, installation planning and integration.

ELECTRICAL SPECIFICATIONS

Nominal voltage	**48.0 V**
Maximum voltage	**54.75 V**
Minimum voltage	**40.0 V**
Nominal capacity	**105 Ah / 5.04 kWh**
Continuous discharge current	**100 A**
Pulse discharge current	**200 A / 30 s**
Maximum charge current	**100 A**
Balancing current	**2 A**
Cell chemistry	**LiFePO4 (LFP), A-grade**

MECHANICAL

Dimensions (W x H x D)	**290 x 255 x 370 mm**
Weight	**38.0 kg**
Enclosure	**3D-printed engineering polycarbonate, UL94-V0 flame-retardant**
Terminals	**M8 brass or ESS Safe Connector**

THERMAL BEHAVIOUR

Discharge temperature range	**-20 C to +55 C**
Charge temperature range	**0 C to +55 C**
Low-temperature charging	**Active heating enables charging down to -40 C ambient once cells reach 0 C**

PERFORMANCE AND INTEGRATION

Cycle life	**>3,500 cycles to 80% remaining capacity**
Communication	**CAN bus (NMEA 2000) and Bluetooth**
Integration	**Victron and compatible energy-management systems**

Charging design note: Below 0 C, active heating must bring cells to 0 C before charge current is accepted. Charging system design should account for this delay in cold-climate deployments.

Product information: Specifications are based on document ACB54A TR-54-48V v1.1 / 2026-10 and confirmed manufacturer listings. Verify the final specification, charging design, protection, certification and installation requirements for the intended application before ordering or installation. Information is subject to change without notice.