

DATASHEET TECHNICAL SPECIFICATIONS

<https://www.kon-tec.eu/batteries/>

LITHIUM NICKEL MANGANESE COBALT OXIDE LiNiMnCoO₂ BATTERY

46,4 V 130 Ah



1. BATTERY PARAMETERS

VOLTAGE AND CAPACITY

Nominal voltage	46,4V
Nominal capacity	130Ah
Energy	6253Wh

CHARGE AND DISCHARGE

Recommended charge voltage	54,6V
Maximum charge current	1C
Recommended charge current	0,1-0,3C
BMS Charge voltage cut off	54,6V (4,2V per cell)
Balancing voltage	52V (4V per cell)
Charge method	CC/CV
Charge time	10A - 13h, 20A - 6,5h
Maximum continuous discharge current	200A
Peak discharge current	200A
BMS Discharge current cut-off	300A
Recommended low voltage disconnect	38V
BMS Discharge voltage cut-off	36V
Reconnect voltage	38V
Short circuit protection	400µs

OPERATING CONDITIONS

Operating temperature	-20°C-50°C
Charging temperature	0°C-45°C
Storage temperature	-20°C-30°C
BMS High temperature cut-off	80°C
Reconnect temperature	50°C

OTHER

Lifetime	80% DoD (1000 cycles)
Dimensions	500x410x190 mm
Weight	42 kg
Terminal type	Anderson plug
Cell amount	13
Cell configuration	13S2P
Enclosure protection	IP 56
Efficiency	99%
Self-discharge	<3% per month

COMPLIANCE

Certification	CE
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The battery contains built in battery management system BMS.

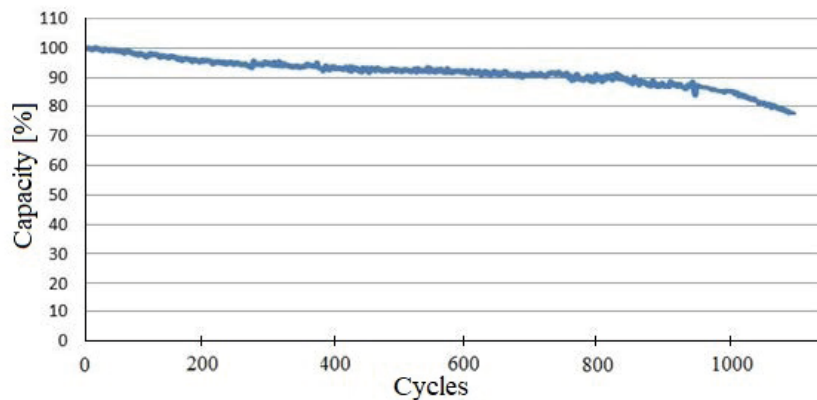
PROTECTION TYPE

- Overcharge,
- Over discharge,
- Short circuit,
- High temperatures,
- Charging in low temperatures,
- Passive balancing of cells.

APPLICATION

- Electric vehicles,
- Outboard motors,
- Toys,
- 12V devices,
- Power source for inverters 12V-/230V~.

1. PERFORMANCE CHARACTERISTICS



RESTRICTIONS

- Read operating manual before use,
- Never short circuit positive (+) and negative pole (-) of battery,
- Do not: cut, unscrew, throw, disassemble battery,
- Do not store the battery with metal objects or other conductive objects,
- Do not expose the battery to high temperatures, sunlight, water and fire,
- The battery is not suitable for use in vehicles as primary power source (start),
- It is forbidden to connect different types of batteries,
- Use only dedicated charger for NMC batteries,
- It is not allowed to charge the battery at temperatures below 0 C.

STORAGE

- Store in dry place with a temperature range -20 to 30 C,
 - Store the battery in the state of 50 % charge (longer lifetime),
- The cycle amount depends on the state of discharge. It is no less than 1,000 while maintaining 80% DoD (depth of discharge). The lower discharge cycles, the longer lifetime of battery. After 1,000 cycles the battery is still efficient, although its capacity decreases over time. The estimated battery life is assumed to be 12 years.

TERMS OF WARRANTY

Kon-TEC will provide the following warranty to the original purchaser subject 48,1V NMC battery, to the terms and conditions stated herein. The customer is guaranteed that this product will be free from defects in materials and production for a period of 2 years. If during the warranty period there are symptoms that may indicate a product defect, the client is obligated to contact the technical support department for further action. Under this warranty, a defective product will be replaced or put back into service.

THIS WARRANTY DOES NOT APPLY

- In case of modifying, opening, changing or damage of the product due to improper use,
- In case of non-compliance with the following operating manual,
- If the product is sold at a public auction,
- In case of damage to the device during an accident or natural disaster,
- In case of damage to the connection terminals,
- In case of improper connection, use or charging the device,
- In case of damage to the device by fire, freezing or high temperature,
- In case of flooding/crushing by pressure,
- In case of user interference in the device,
- In case of damage to the case.