

NILFISK LIBERTY SC50 WITH LITHIUM-ION BATTERY

# Power that empowers



Our customers have made it clear: today's cleaning solutions need a new standard of power. Power that maximizes runtime and recharges more quickly. Power that optimizes productivity for cleaning programs of any scale. Power that can take a machine's performance in a smarter direction.

The Nilfisk Liberty SC50 with Lithium-ion Battery delivers that kind of power in a modular, high-efficiency alternative to traditional lead-acid batteries. Cost-effective and easy to service, it represents our commitment to delivering unbeatable cleaning uptime and efficiency.

### **Power that's fast, and that lasts**

The days of wasting precious time waiting for a full charge – or wondering whether that charge will be enough – are over. The Nilfisk Lithium-ion Battery offers fast-chargable, scalable, maintenance-free battery power to help you make the most of every minute spent cleaning.

- Fast-charging capability: Go from 0 to 90% in just 2 hours – or 0 to 25% in a single lunch break.
- Modular design: Extend runtime with with fast charger option up to 10 hours of runtime – without needing to be changed.
- Optimal uptime: Minimize downtime risk with redundant battery modules that service technicians can easily swap – and reduce service costs along the way.
- Unbeatable longevity: Lower TCO and increase ROI with superior battery lifespan, backed by a 5 year warranty.
- Smarter connectivity: Battery Management System (BMS) monitors and captures battery and performance data\*\* to help optimize your machine operation.

*\*Based on number of battery modules installed*

*\*\*Requires installation on an IoT-enabled machine*

# NILFISK

# Technical data

## General

(Battery with safety circuit and plastic / metal combination)

Size (L x H x W) in mm: 330 x 230 x 80  
General: Lithium-Nickel-Manganese- Cobalt-Oxide with BMS  
Communications: CAN Bus (CANopen)  
Weight: Approx. 10 kg



## Electro/Mechanical specification

Power connection: Negative terminal: M6 screw type, rated female terminal  
Positive terminal: M8 screw type, rated female terminal  
CAN BUS connection: Type: 2 x M12-5, Plug, Female sockets, Screw thread, Coding A

## Electrical specification

Description	24-Volt version
Item number	56125037
Nominal voltage	25.9-Volt
Nominal capacity, according to DIN/IEC standard (0.5C Charge to 4.2-volt/0.2C Discharge to 2.5-volt)	64 Ah
Useable capacity, according to Nilfisk standard (0.5C Charge to 4.15-volt/0.5C Discharge to 2.95-volt)	60 Ah
Nominal Energy, according to DIN/IEC standard	1658 Wh
Useable Energy, according to Nilfisk standard	1554 Wh
Max. continuous discharge current	60 Ampere
Expected cycle life at 100% depth of discharge (0.5 C charge/ 0.5 C discharge), 22 °C	≥ 80% of initial capacity at 1500 cycles

## Cell and Battery protection

Safety function: Over/under temperature,  
Over/under voltage, Over current  
Fuse: 100 Ampere

## Environmental condition

Charge: 0 to +50 °C  
(Fast charging: +10 to +40 °C)  
Discharge: -20 to +55 °C  
Storage: 1 to 3 month at -20 °C to +45 °C  
1 year at -20 °C to +24 °C  
Humidity: 25 to 85 RH %  
IP rating: IP30 (Not water resistant)

## Safety certifications

Europe: IEC 60335-1, ed6, 2020  
(Incl. Annex B and R)  
Europe: IEC 62133-2  
North America: UL 2595, ed2 / CSA 0.23  
Transportation: UN38.3  
Cells: UL1642

## Features

- Active cooling for improved lifetime
- Easily connected up to 6 modules in parallel for higher capacity
- Zero maintenance and zero emission