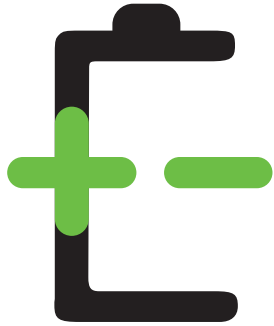


# ALESSO

BATTERY SYSTEM

**fischer**  
Power Solutions  
Germany



## Powerful Battery



**LIQUID COOLED**



**INHERENTLY SAFE**



**HIGH POWER**



**EASY TO SCALE**



## HOMOGENEOUS TEMPERING

The ALESSO battery system provides a highly effective temperature management. The innovative liquid cooling system enables an optimum temperature regulation of the battery cells even at high charging and discharging rates for maximum performance in minimum space.

## LONG SERVICE LIFE

The temperature management of the battery cells has a significant impact on the performance of the overall system. In addition to high power, immersion cooling also ensures a long life cycle and high safety of the battery system.



# Liquid Cooled Battery

**LIQUID COOLING  
FOR LONG LIFE CYCLE**



## HIGHEST SAFETY

The ALESSO battery system meets the highest safety level. Through a self-developed battery management system, system-relevant parameters are monitored, evaluated and communicated by a bus system. Critical system conditions can be identified and managed at an early stage.

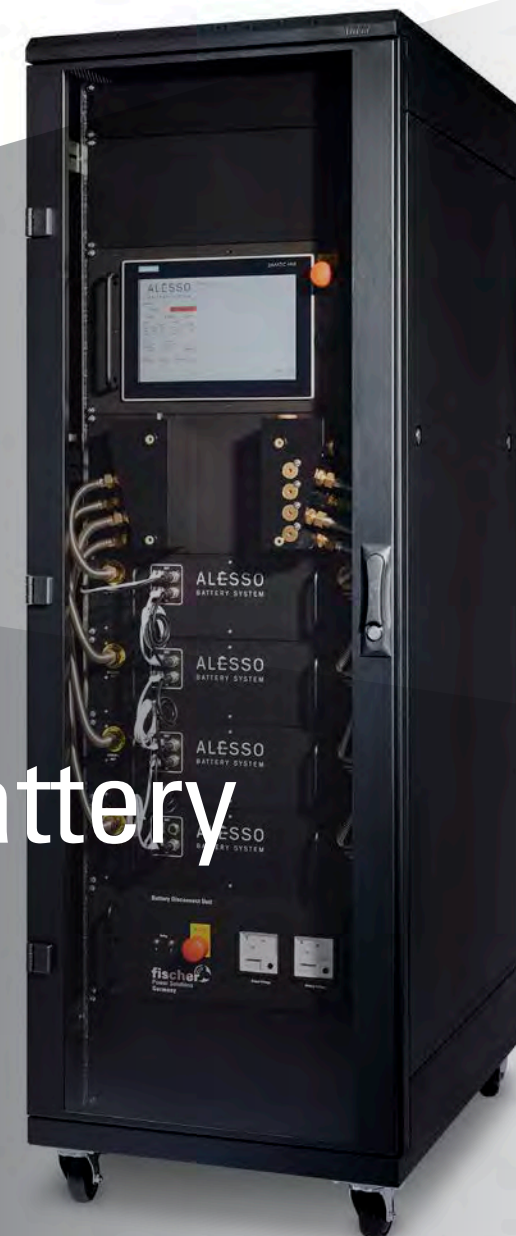


## LIQUID COOLING OF SINGLE CELLS

The cooling technology substantially reduces the risk of „thermal runaway“ of neighboring battery cells by a non-conductive liquid.

# Inherently Safe Battery

## PREVENTION OF THERMAL RUNAWAY



## POWERFUL CHARGING AND DISCHARGING

ALESSO offers a charge rate of 1C and a discharge rate of 4C continuously and reliably at 100% DOD in the reference cycle due to liquid cooling.

Type **Alesso 48PLR**

Cell configuration **NMC**

Capacity **88 Ah (1 C) (100 % DOD)**

Energy **3.65 kWh / 23°C (1 C)**

Nominal voltage **43.2 V DC**

Voltage max. **50.4 V DC**

Voltage min. **30.0 V DC**

Regular charge current **46 – 88 A**

Charge current max. **130 A**

Continuous discharge current **320 A with liquid cooling**

Safety **BMS incl. Bipolar load disconnection and safety fuse**

Dimensions (L x B x H) **803 mm x 483 mm x 133 mm (19" format)**

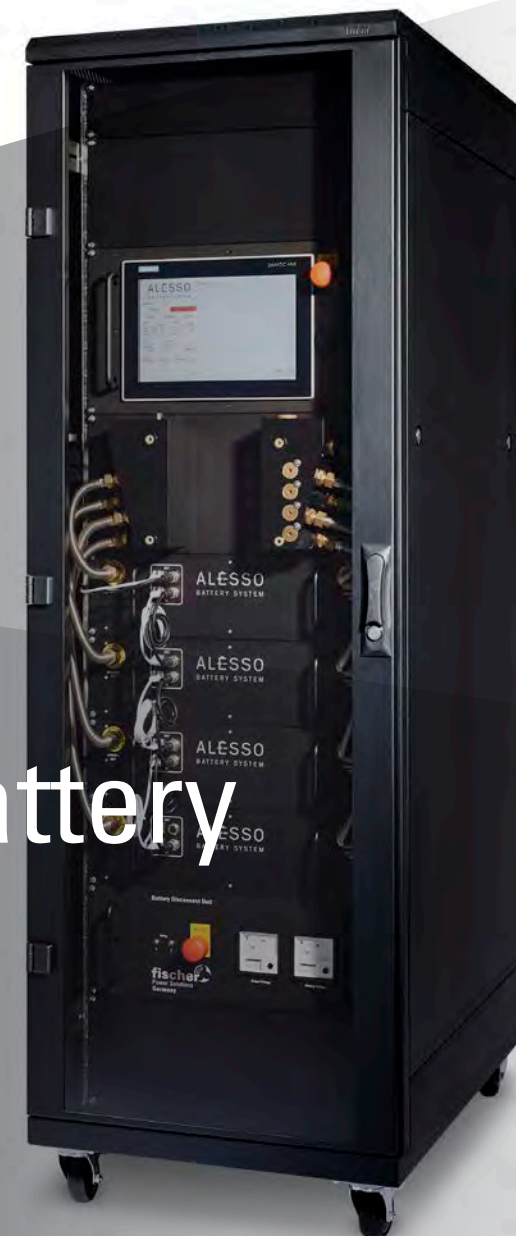
Weight ~ **43 kg (without liquid)**

Communication **CAN-Bus 2.0 B**



# High Power Battery

**HIGH PERFORMANCE AT EVERY  
CHARGE AND DISCHARGE CYCLE**







## FULLY SCALABLE

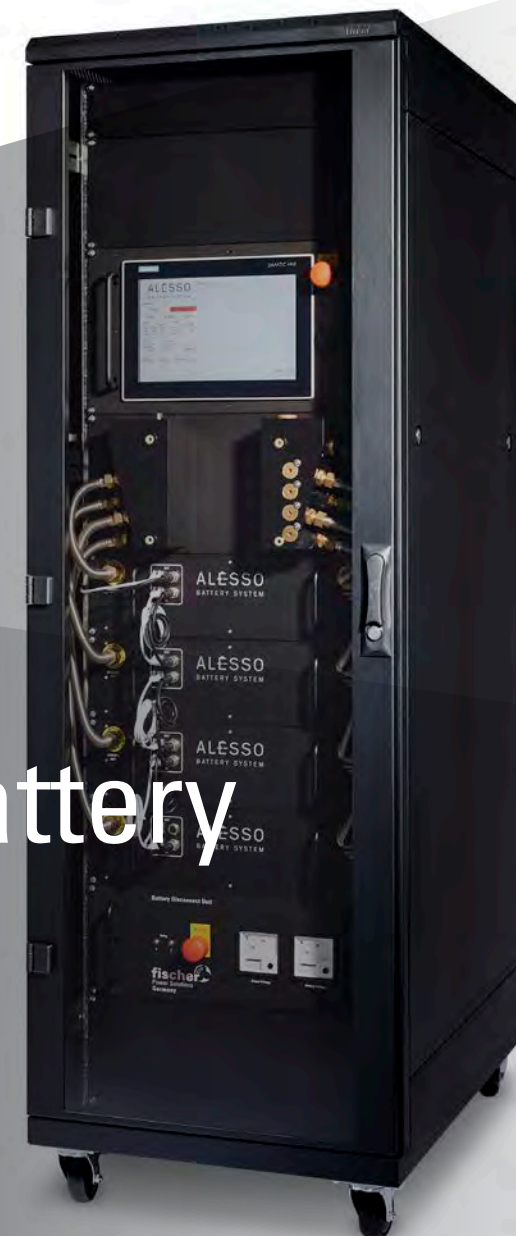
The ALESSO battery system can be easily adapted to different requirements. The series connection of up to 16 battery modules is enabled by the ALESSO master BMS. As such, the battery system is predestined for stationary storage solutions and larger mobile applications such as trains, buses and special vehicles.

## FLEXIBLE INTEGRATION

Whether on-grid, for example for peak shaving in industrial applications, or off-grid as energy storage for renewable energy systems such as photovoltaic or fuel cell systems – our battery system can be integrated into a wide range of infrastructures.

# Easy To Scale Battery

**PLUG-IN CONCEPT FOR  
FLEXIBLE OPTIONS**





fischer Power Solutions is a 100% subsidiary of the fischer group. As an automotive tier 2 supplier, the fischer group is a reliable partner for innovative technologies.

Together with its affiliate SerEnergy, fischer Power Solutions offers sustainable energy supply solutions based on battery and fuel cell technology from one single source.

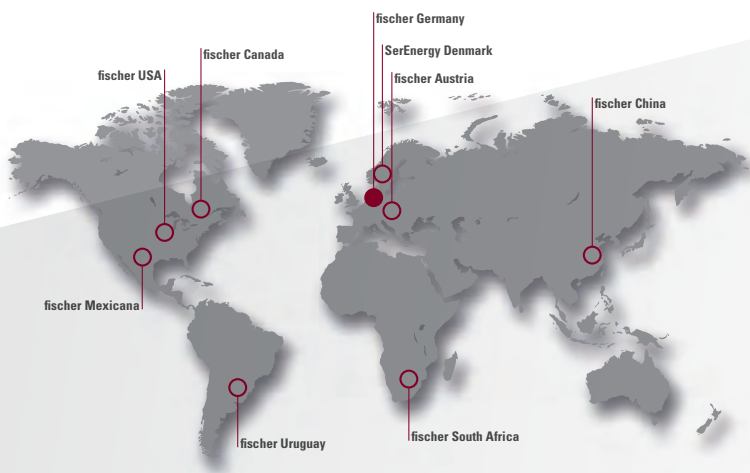
# Meet the Future Battery

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