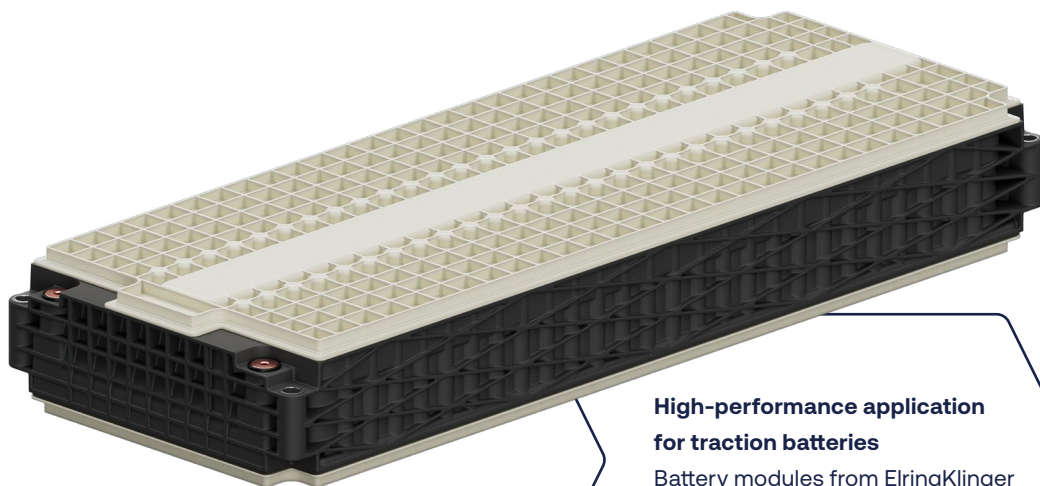


FACT SHEET

Performance – Battery module

The cylindrical cell lithium-ion battery module from ElringKlinger AG represents a high-performance application for traction batteries. Due to the immersion cooling concept the module achieves a high electrical performance under constant temperature without derating. This power module can be connected in series up to an integrated pack voltage of up to 1000 V.



High-performance application for traction batteries

Battery modules from ElringKlinger
based on cylindrical cells

Technology

- » Laser welded plastic module frame and cover
- » Due to the inherent rigidity structure,
no support frame is required
- » Wireless cell monitoring board (wCMB) integrated
(wired optional)
- » Assembly of components with production ready
technology

**ELRINGKLINGER – YOUR PARTNER
FOR E-MOBILITY SOLUTIONS WITH
BATTERY TECHNOLOGY**

Cell Expertise – Module and Pack Design –
Installation Space Optimization – Simulation and
Testing – Certification – Prototyping – Process
Engineering – Industrialization – Integrated Solutions
and Components – Recycling

Parameters

- » Connection in series possible up to an integrated systemvoltage of 1000 V
- » Battery pack power up to 1 MW proven
- » Nominal energy content of battery pack > 100 kWh feasible
- » Connection in parallel possible to increase the capacity

Benefits

- » High performance immersion cooling concept
- » Nürburgring (Nordschleife) under race conditions
- » Individual modules allow flexible pack configuration
- » Very low overall height enables a low seating position

Specifications

12s27p POWER-MODULE

CELL TECHNOLOGY	Lithium-ion (NMC)
CELL TYPE	21700 cylindrical cells
MODULE SET UP	12s 27p
DIMENSIONS (MM)	682 x 260 x 98
WEIGHT (KG)	29.8 (dry)
MECHANICAL INTERFACE	4 x M8
NOMINAL VOLTAGE MODULE / PACK (V)	43.2 / up to 1000
NOMINAL CAPACITY (AH)	121.5
NOMINAL ENERGY (KWH)	5.25
NOMINAL SPECIFIC ENERGY (WH/L)	304
NOMINAL GRAVIMETRIC ENERGY (WH/KG)	176
MAX. CONTINUOUS CHARGE (A / C-RATE / KW)	500 / 4.1 / 21.6
MAX. CONTINUOUS DISCHARGE (A / C-RATE / KW)	600 / 4.9 / 25.9
MAX. PULSE DISCHARGE (180S) (A / C-RATE / KW)	800 / 6.6 / 34.6
MAX. PULSE DISCHARGE (30S) (A / C-RATE / KW)	1.2 / 10 / 52.5
MAX. PULSE DISCHARGE (10S) (A / C-RATE / KW)	1.8 / 15 / 78.7
OPERATING TEMPERATURE (°C)	Operating temperature cells: -40 to +60
THERMAL MANAGEMENT	Immersion cooling (dielectric fluid)
THERMAL INTERFACE	Quick connector Ø15
COMMUNICATION INTERFACE	Wireless cell monitoring board (wCMB) integrated
ELECTRICAL INTERFACE	M6 (DC+/-)
SAFETY FEATURES	Temperature Sensor + Dielectric Fluid
LIFE-TIME (UNTIL 80% CAPACITY)	> 1,000 cycles / Depending on operating Strategy & DoD

YOUR CONTACT

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02/26

▶ **SHAPE**³⁰

The strategic direction of the ElringKlinger Group

