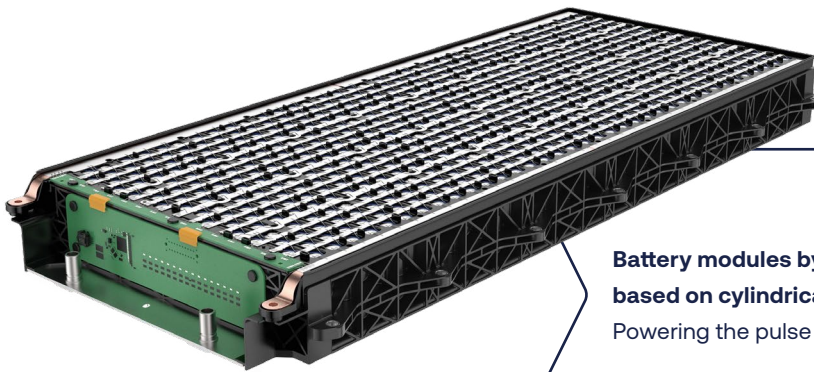


FACT SHEET

48 V Battery module



Battery modules by ElringKlinger based on cylindrical cells:
Powering the pulse of e-mobility.

The cylindrical cell lithium-ion battery module from ElringKlinger represents a 48 V standard for traction batteries.

This battery module can be connected in series up to an integrated pack voltage of 500 V. In addition, the module can be adjusted for the customer needs.

Technology

- » Module assembly of the 21700-cell format
- » Assembly of components with production ready technology
- » IsoSPI communication
- » Integrated voltage and temperature measurement via isoSPI
- » Integrated passive cell balancing via isoSPI
- » Wire bonding (single cell fuse)
- » Hot spot redundance cell temperature measurement
- » Module mounting (stackable, underbody mounting)
- » Plastic module frame
- » Active cooling integrated

Parameters

- » 48 V standard module comprised of 576 cylindrical lithium-ion cells (21700)
- » Connection in series possible up to an integrated pack voltage of 500 V
- » Depiction of various module voltage levels (48 V, 60 V and 120 V)
- » High module part variation (optional without integrated cooling, cell contacting system 48 V, 60 V or 120 V, cover optional)

Benefits

- » Maximum reliability due to function integration
- » High energy density
- » Flexible module variants

Specifications

12s48p BATTERY MODULE

CELL TECHNOLOGY	Lithium-ion (NMC)
CELL TYPE	21700 cylindrical cells
MODULE SET UP	12s 48p
DIMENSIONS (MM)	886 x 407 x 81
WEIGHT (KG)	50.6
MECHANICAL INTERFACE	14 x M6
NOMINAL VOLTAGE MODULE / PACK (V)	44.3 / up to 500
NOMINAL CAPACITY (AH)	237
NOMINAL ENERGY (KWH)	10.5
NOMINAL SPECIFIC ENERGY (WH/L)	358
NOMINAL GRAVIMETRIC ENERGY (WH/KG)	207.5
MAX. CONTINUOUS CHARGE (A / C-RATE / KW)	166 / 0.7 / 7.3
MAX. CONTINUOUS DISCHARGE (A / C-RATE / KW)	258 / 1.1 / 11.4
MAX. PULSE DISCHARGE CURRENT (10S) (A / C-RATE / KW)	807 / 3.4 / 35.7
OPERATING TEMPERATURE (°C)	Operating temperature cells: -20 to +55
THERMAL MANAGEMENT	Cooling plate (water/glycol)
THERMAL INTERFACE	Quick connector Ø14
COMMUNICATION INTERFACE	IsoSPI interface
ELECTRICAL INTERFACE	M6 (DC +/-)
SAFETY FEATURES	Temperature Sensor + Bond wire fuse
LIFE-TIME (UNTIL 80% CAPACITY)	> 1,000 cycles / depending on operating Strategy & DoD
CONFORMITY	UN 38.3

**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

YOUR CONTACT

ElringKlinger AG
E-mail: info@elringklinger.com

ElringKlinger AG | Daimlerstr. 6-8 | 72639 Neuffen | Germany
www.elringklinger.com

The information provided in this document is the result of technological analyses and may be subject to changes depending on the design of the system. We reserve the right to make technical changes and improvements. The information is not binding and does not represent warranted characteristics. We do not recognize any claims for compensation based on this information. We accept no liability for printing errors.



02/26

▶ SHAPE³⁰

The strategic direction of
the ElringKlinger Group

