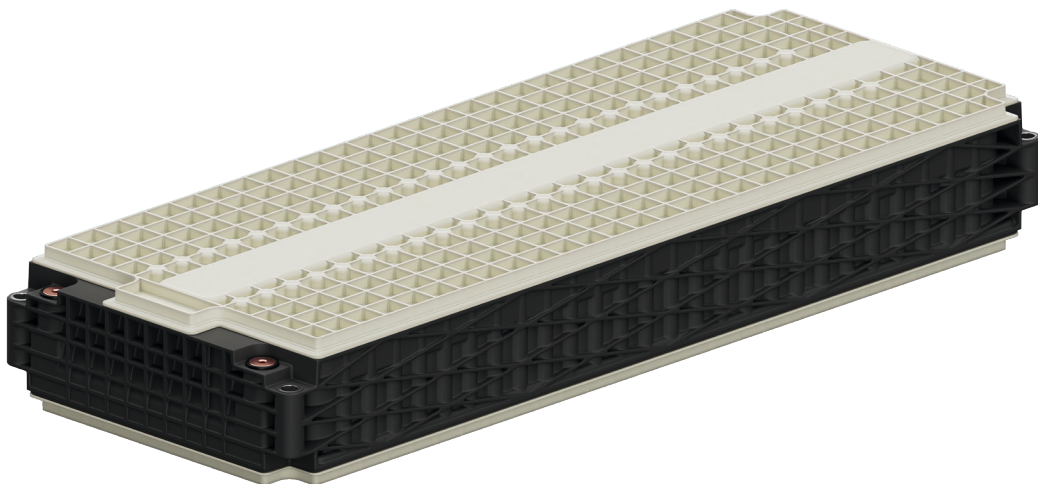


FACT SHEET

Performance – Battery module

The cylindrical cell lithium-ion battery module from ElringKlinger AG in cooperation with Piëch Automotive 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 system voltage of up to 1,000 V. The module meets the most demanding safety requirements that apply in the automotive industry.



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 (cabled optional)
- + Integrated conductivity sensor
- + Assembly of components with production ready technology



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

Cell Expertise – Module and System 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 system voltage of 1,000 V
- + Battery system power > 1 MW possible
- + Nominal energy content of battery pack > 100 kWh feasible
- + Connection in parallel possible to increase the capacity

Benefits

- + High performance immersion cooling concept
- + Nürburgring under race conditions without thermal derating
- + Wireless Battery Management System
- + Individual modules allow flexible system configuration
- + Very low overall height enables a low seating position

Specifications

12s27p POWER-MODULE

| | |
|--|---|
| CELL TECHNOLOGY | Lithium Ion (NCA), cylindrical cells 21700 |
| MODULE SET UP | 12s27p |
| NOMINAL VOLTAGE (V) | 43.2 |
| 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 CURRENT (A) | 500 / 4.1 C |
| MAX. CONTINUOUS DISCHARGE CURRENT (A) | 600 / 4.9 C |
| MAX. PULSE DISCHARGE CURRENT (180S) (A) | 800 / 6.6 C |
| MAX. PULSE DISCHARGE CURRENT (30S) (A) | 1,215 A / 10 C |
| MAX. PULSE DISCHARGE CURRENT (10S) (A) | 1,823 A / 15 C |
| DIMENSIONS (MM) | 682 x 260 x 98 |
| WEIGHT (FILLED WITH OIL) (KG) | 29.8 |
| LIFE TIME (UNTIL 80 % CAPACITY) | 1,000 cycles / depending on operating strategy & DOD |
| THERMAL MANAGEMENT | Immersion cooling (dielectric fluid) |
| THERMAL INTERFACE | Small quick connectors on one face side |
| CONFORMITY | According to: UN 38.3, ECE R100, LV123, LV124, IP6K9K, IPx7 |

YOUR CONTACT

ElringKlinger AG
E-mail powermodule@elringklinger.com

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

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