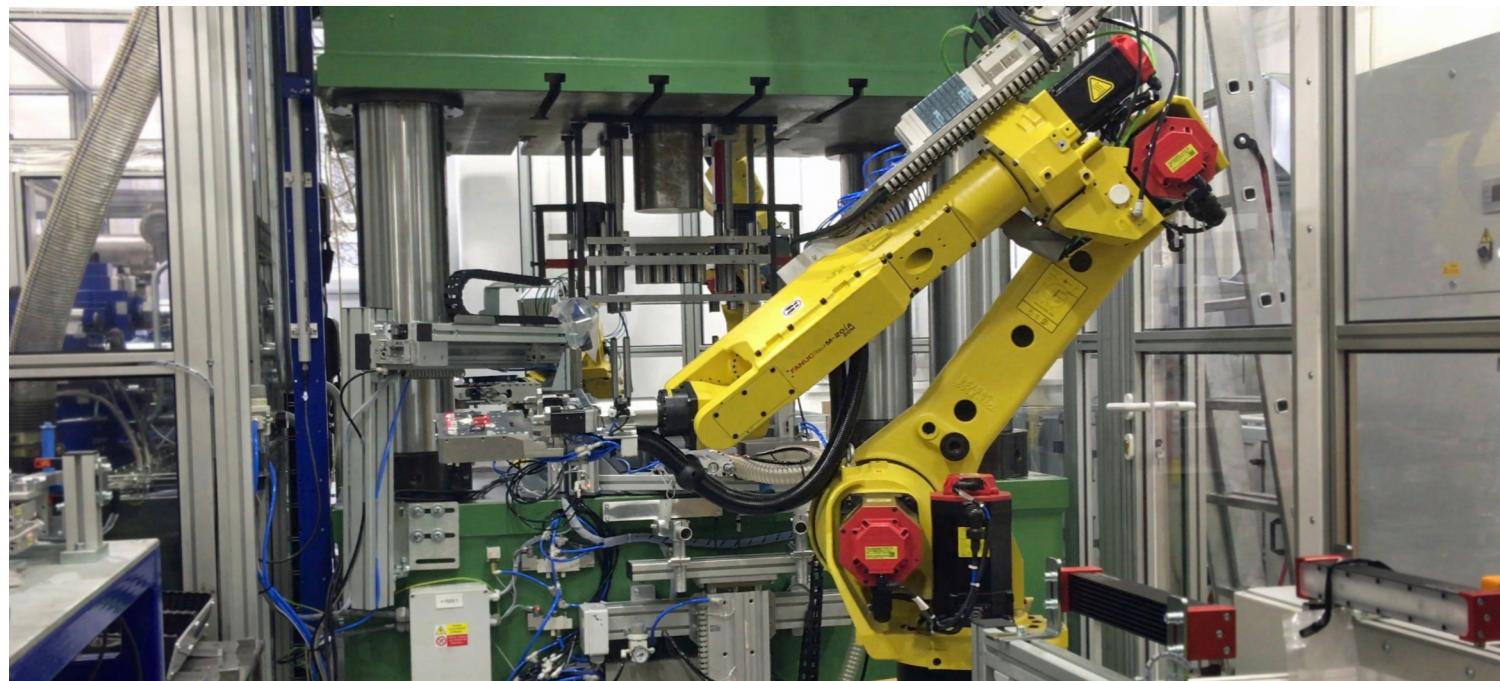


Safety, reliability and functionality

- The safest lithium battery in the world - battery does not burn or explode
 - the battery does not use glue, binders or foils
 - electrolyte circulates freely in the battery while it cools and may be added during operation
- Batteries remain functional when mechanically damaged and manipulation is safe
 - backup cell offset the loss of the capacity of the damaged cells
 - the battery does not contain any organic substances that might soften or melt, and thus cause a short circuit
- Battery is functional despite heating at 90 °C
 - battery is able to function in ambient temperatures exceeding 100 °C



Environment

- 100% recyclable
 - today the recycling cost of a battery is approx. 5% of the battery's value, reflecting the cost of ecological disposal

Customising

- Battery design allows easy adaptation of all parameters
 - technological advantage over competitors

Size, weight

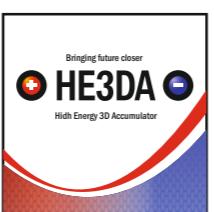
- HE3DA® battery is about half lighter
 - conventional batteries have electronics, cooling etc., HE3DA® batteries do not need this
- Economy of space
 - battery is up to 3 times more efficient compared to existing batteries
 - battery is up to 6 times more economical for large performances

Capacity

- Battery utilization up to 97%
 - losses during charging and discharging will not exceed 4%
- Battery life of up to 10,000 cycles
- High energy density
 - more than 200 Wh / kg (average of conventional batteries is about 150 Wh/kg)

Price

- Production is up to 8 times cheaper than existing batteries on the market



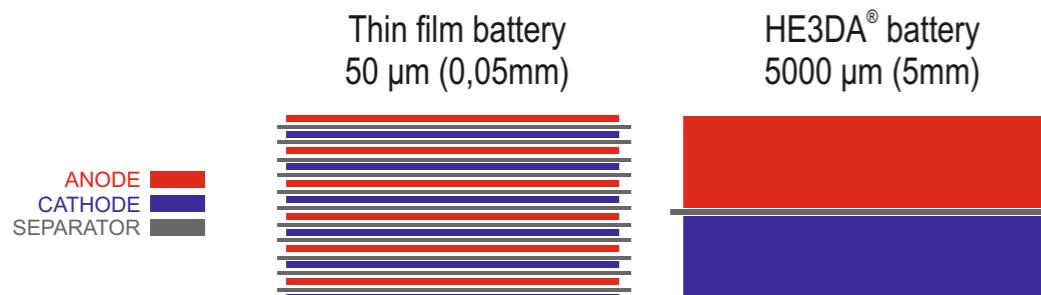
www.he3da.com
info@he3da.cz

WHOLE NEW GENERATION OF HIGH-POWER BATTERIES



TECHNOLOGY

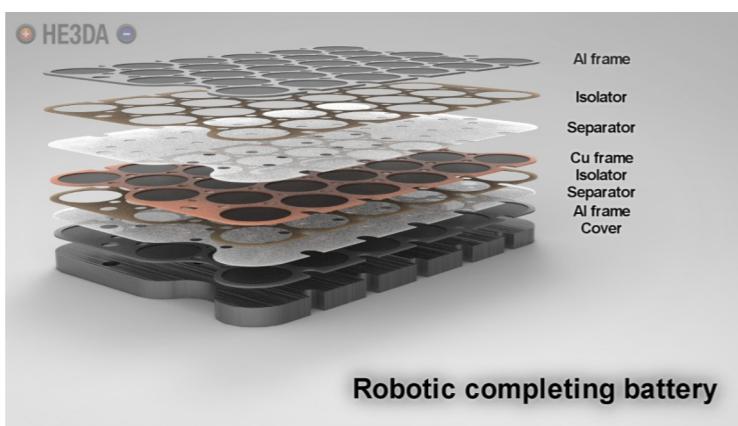
- Whole new generation of high-power batteries
- The company's Li-battery technology and production processes are based on **unique three dimensional (3D) electrodes** using lithium nano-materials



- HE3DA® is a technological platform which meets all requirements for mass market applications:
 - technical and safety parameters
 - customizable accumulators with adjustable parameters for particular industries
 - economical parameters (efficiency, production and operational costs)
- Patented technology
- HE3DA® technology has the potential to become a technology leader and to maintain its position in the long run



TECHNOLOGY



APPLICATION

Energy sector

- Domestic and large-scale power plants, military
 - peak balancing
 - frequency regulation
 - island networks
 - stabilization of renewables
 - power back up
 - volt / VAR control

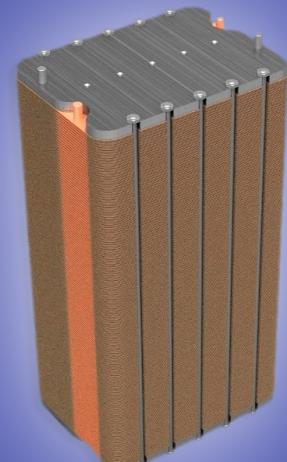
Car industry

- 12V car battery
- 50V car battery
- Accumulators for electric vehicles

Other sectors

- Boats, Aviation and Astronautics
- Micro batteries

POWER
SAFETY
ECONOMY



Bringing future closer

HE3DA

High Energy 3D Accumulator

Whole new generation of high-power batteries
The safest lithium battery in the world
100% recyclable