

ABOUT TYVA ENERGIE



« We are living in a world of contradictions. Ecology is one of the major challenges of the XXIst century, but technological innovation, the need for mobility and power of applications are also crucial.

At TYVA Energie, we truly believe that ecology can go hand in hand with energy storage, thanks to the ingenuity of our modular and custom solutions. »



French eco-friendly production

- ✓ Creation in 2013,
- ✓ Design to production in our HQ,
- ✓ Circular economy with local partners.



Modular, compact & innovative solutions

- ✓ Lithium batteries in 3D,
- ✓ Quick & economic construction,
- ✓ Fit in any most complex existing or new system.



Eco-designed lithium batteries

- ✓ Cell replacement TYVA Refill,
- ✓ Increase your battery lifetime,
- ✓ Focus on cell conversion & recycling - use of NMC.



Budget & planning control

- ✓ Lightest & most compact batteries,
- ✓ Energy density of 245Wh/kg,
- ✓ Competitive price & short timeframe.

OUR PRODUCT RANGE

TYVA Energie designs and develops a whole range of lithium batteries. From ready-to-use to custom modular solutions, we can fit our lithium batteries in any existing or new system.



Modulo 3D

- ✓ Multi-chemistry modular battery for 18650 cells,
- ✓ 75 x 75 x 106 mm,
- ✓ Max energy density: 180 Wh/kg,
- ✓ Voltage: from 3,6 to 810 V,
- ✓ Capacity: 7 Ah to 28 Ah.



Modulo Ax

- ✓ IP65 leak-tight aluminium case & connectors,
- ✓ A4, A5, A5+, A4+ formats or custom with low NRE,
- ✓ Max energy density: 245 Wh/kg,
- ✓ Voltage: up to 48 V (standard versions),
- ✓ Capacity: 15 Ah to 490 Ah.



Flat & Kube

- ✓ Lifetime: 700 to 1500 cycles,
- ✓ IP65 leak-tight aluminium case & connectors,
- ✓ Max energy density: 223 Wh/kg,
- ✓ Voltage: up to 414 V,
- ✓ Capacity: 6,6 to 26 kWh.

POWERING ALL YOUR APPLICATIONS

TYVA Energie's lithium batteries are thought to answer all your needs: EV & LEV, robotics, nautical, industrial, off-road applications, we power them all!

EV & LEV

- ✓ Medium runs EVs,
- ✓ Racing vehicles & karting,
- ✓ Light utility & maintenance vehicles,
- ✓ Last mile vehicles, etc.

Marine

- ✓ Electric boats,
- ✓ Autonomous underwater (AUV) & Remotely Operated Vehicles (ROV),
- ✓ Passenger ships, etc.

Construction & industry

- ✓ Rail construction & maintenance,
- ✓ Agricultural vehicles,
- ✓ Construction & off-road,
- ✓ Industrial & speciality vehicles, etc.

Robotics

- ✓ AGV & AMR,
- ✓ UAV & drones,
- ✓ Logistics & handling robots,
- ✓ Service & safety robots,
- ✓ Multi-purpose robots, etc.

Street furniture

- ✓ Display panels,
- ✓ Interactive terminals,
- ✓ Street lighting,
- ✓ Bus & bike shelters, etc.



CASE STUDIES

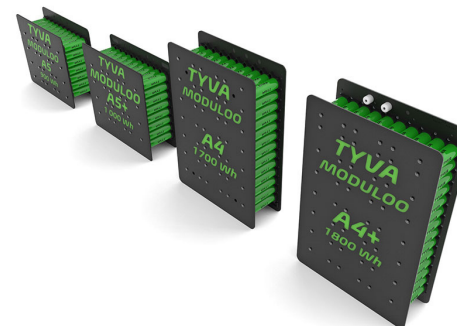
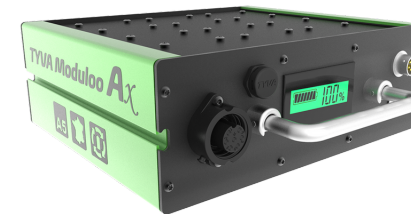
Discover how TYVA Energie helped **AKKA Research** exceed the performances of a thermic kart with an electrical one thanks to its lithium batteries and all in record time!



AKKA, global leader in engineering consulting and R&D services partnered with TYVA Energie on an electric karting project.

The project

- ✓ 400 V high-voltage battery system,
- ✓ Standard A5 batteries with custom assembly,
- ✓ Lightest batteries on the market to gain performance,
- ✓ BMS PRO - security and communication of the battery,
- ✓ Swappable batteries to change them easily in a race.



Pierre Lion, AKKA Research Director

"What we liked about working with TYVA Energie is their reactivity. We were able to assemble several batteries in a few months. They helped us also on the mechanical integration of the whole system. The results? On a racetrack the e-kart had better performances than the thermic one!"