

Press Release

Annonay, October 12th, 2022



TYVA Energie reveals its latest innovations during its first-ever participation at Euronaval

The French designer and manufacturer of lithium batteries since 2013 TYVA Energie exhibits for the first time ever during the Euronaval exhibition taking place in 2022. On this occasion, the company coming from Annonay (Ardèche, France) is showcasing its latest innovations developed for marine and defence fields.

Moduloo Ax Xtreme IP67: the brand-new waterproof and heavy-duty lithium battery



Specific applications fields such as the military sector require foolproof components. TYVA Energie has developed the **strengthened version of its Moduloo Ax battery combining lightness and solidity against impacts and vibrations** in addition to being compact, ergonomic and IP67 waterproof. It is suitable for critical and extreme environments thanks to its robust casing and it is also easy to carry. It represents the ideal lithium battery to be integrated in any kind of new or existing system that requires energy and autonomy: marine, land or aerial vehicle, drones, etc.

Last generation Gateway for your batteries' parallelization



TYVA Energie's Engineers recently designed the latest generation CAN Gateway allowing **simultaneous monitoring of 2 to 10 lithium batteries in parallel**. It is a battery telecontrol tool shaped in a IP54 waterproof housing compliant with the whole TYVA Energie batteries' range. The Gateway has 4 operating modes as well as many personalized functionalities according to need.

Our energy case provides you power wherever and whenever you need it

In order to provide you TYVA Energie's lithium batteries power as you wish and to answer your applications requiring an **external energy source**, we have developed an **energy case** featured with 4 Moduloo Ax A5 batteries. This case is a **powerful and ergonomic portable energy storage system** characterized by a robust and waterproof solution which is easy to carry.



Our batteries integrated inside marine and defence applications

TYVA Energie's lithium batteries inside MOBILIS' smart gigantic buoys

The French company **MOBILIS** manufactures **smart gigantic marine signalling buoys, mooring buoys and data buoys**. They are fitted with TYVA Energie's lithium batteries providing them **lightness, power and autonomy**. Come and discover the buoys on the booth right next to ours during the exhibition!



ALSEAMAR's subsea light vehicle powered by TYVA Energie's batteries

We present you **MURENE**, the **subsea vehicle developed by the French company ALSEAMAR** to provide the best protection and performance capacity for **2 divers!** This propulsion device was developed for the defence sector and is fitted with a TYVA Energie fully custom Moduloo Ax battery to obtain an **exceptional amount of energy inside a high security system**.



TYVA Energie reveals its fire protection

To offer safer lithium batteries, TYVA Energie has elaborated the **TYVA Pyro Protection solution (TPP) that protects the battery against thermal runaway and fire propagation between cells**. This innovation can be included in any battery that is part of TYVA Energie's range to protect it against internal or external risks.

Find TYVA Energie at Euronaval: **Hall 2B booth C14**

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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 production thanks to the ingenuity of our sustainable and modular solutions. »



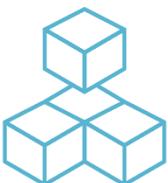
French manufacturing

From R&D to production, through coding and more, **our lithium batteries are designed and made in France** on our **ISO 9001 certified** automated production site of Annonay, Ardèche. This full management of the design and production chain allow us to offer you **the safest and top-quality lithium batteries**. Moreover, we are mostly working with local partners that are closed to Annonay: **up to 80% of our component's suppliers are located less than 90 minutes from our factory.**



Eco-designed lithium batteries

Since TYVA Energie's creation in 2013, our entire range of batteries includes the **TYVA Refill cell replacement patented technology**. Thereby, every single battery component can be reused to guarantee products with a constant energy level as well as **infinite life batteries**. We focus on cells conversion and recycling, mostly by using NMC chemistry, **to promote the circular economy and thus reduce our carbon footprint to its maximum.**



Innovative, compact and modular solutions

Our modular batteries can be incorporated **in any new or existing complex system**. Our Moduloo 3D range offers flexibility with a **quick and economic construction of lithium batteries in 3 dimensions**. You can also piece together **series or parallel assemblies with our Moduloo Ax range thanks to its compact modules** available in different standard and custom sizes and finishes.



Budget and planning control

We provide series or parallel assemblies **in a short timeframe without any development costs nor certificates** thanks to our standard modular systems. Our TYVA Refill solution guarantees you to save money in the long run since you only pay for new cells or components when they reach their end. Furthermore, TYVA Energie offers **the lightest and most compact lithium batteries on the market with an outstanding energy density of 245 Wh/kg only**. It allows you to gain autonomy while saving energy.

