

TYVA ENERGIE Group has developed a new generation of batteries, TYVA MODULOO's modular solutions breaks new ground in the way Li-ion batteries are assembled with its ready-to-use 3D modules.

This new, innovative process makes it easier to make and implement Li-ion batteries.

### 3D Modular

TYVA MODULOO's products represent a new generation of batteries. They make it possible to quickly and economically build Li-ion batteries in the three dimensions. This flexibility allows for serial and parallel assemblies without any development or certification costs.



### Power and Energy range

In the same module, TYVA MODULOO offers high-density batteries (180 Wh/Kg) as well as power batteries with permanently high discharge rates (up to 15 C). Thanks to our multi-chemistry internal modular platform, we can integrate all the chemistries on the market: LFP, NMC, LMO, Ni-Rich and NCA.

### Eco-friendly

TYVA MODULOO breaks new ground by offering Li-ion batteries with interchangeable electro-chemical elements, ensuring that the other battery components can be reused several times. TYVA MODULOO therefore reduces the carbon footprint of Li-ion batteries. Furthermore, our customers make the most of the technological developments in electro-chemical cells (increased capacity and life-span).

### Made in France

Our batteries are made in France on 2 production sites located in the Drôme/Ardèche area, about 70 kilometers south of Lyon .

80% of TYVA MODULOO's components are supplied less than 60 minutes from the production sites.

By producing in France and using modular design, we guarantee our customers delivery times of no more than a week at a competitive price.

### Main features

Nominal voltage	3.2 to 28.8 V
Nominal capacity	8.8 to 28 Ah
Energie	28 to 100 Wh
Weight	490 to 560 g
Dimensions	75 x 75 x 106 mm
Working Temperature	-30° to + 70 °C
Box material	Blend ABS UL



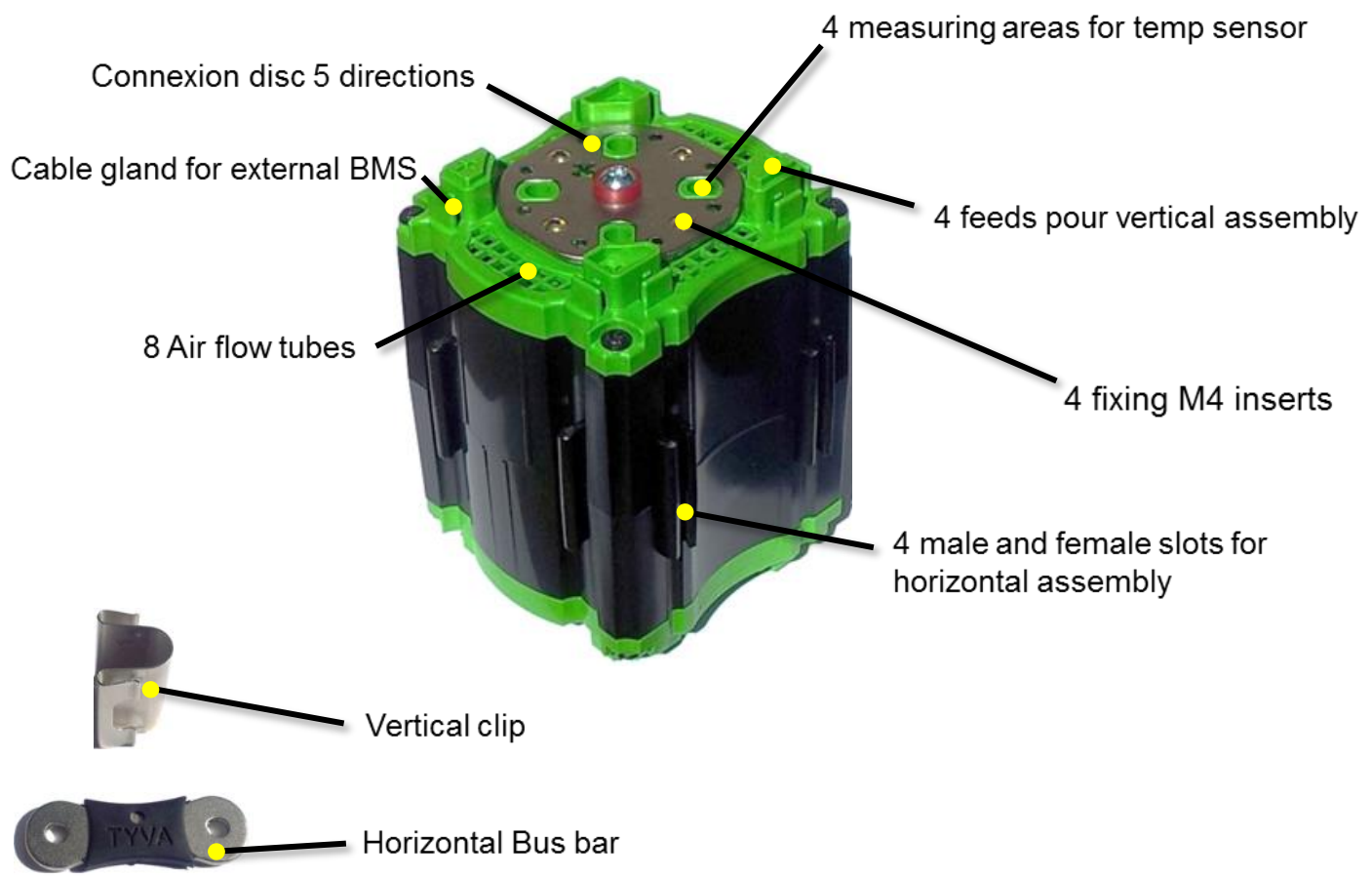
#### TYVA Modulo

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## TYVA MODULOO advantages

- ✓ 3D Modular Li-ion battery
- ✓ Multi-chemistry Platform: LFP, NMC, NCA, LMO, LTO
- ✓ Power and energy products range
- ✓ Safe construction
- ✓ OEM et ODM applications
- ✓ Fast and affordable construction
- ✓ No development and certifications fees
- ✓ Easy mechanical assembly with Bus bar
- ✓ Air flow management built-in
- ✓ Eco-friendly battery
- ✓ 18650 cells integration
- ✓ Cells replacement capability
- ✓ Made in France



## TYVA MODULOO applications



Robots



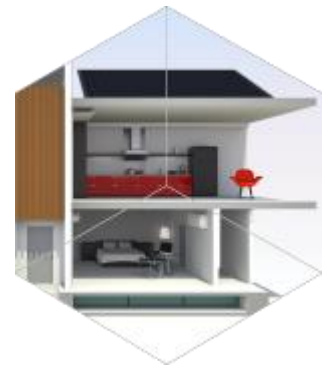
Mobile Equipments



Outdoor lighting



Electric mobility



Home storage

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**TYVA Moduloo PRODUCTS**

TYVA Part Number	Nominal voltage	Nominal capacity	Max Weight	Discharge current max	Charging Current max	AC Impedance AC mΩ	Chemistry	Cycles Nbr
								
<b>ENERGIE RANGE</b>								
FE0313HE	3.3 V	13 Ah	500	30 A	24 A	6.5	LFP	>2000
ME0323PC	3.7 V	23.2 Ah	540	30 A	10 A	3.5	NCA	>700
ME0328PC	3.6 V	28 Ah	560	60 A	28 A	59	LMO	>500
FE1203HE	13.2 V	3.2 Ah	500	6 A	6 A	88	LFP	>2000
FE2401LN	26.4 V	1.6 Ah	500	3 A	1.6 A	180	LFP	>2000
<b>POWER RANGE</b>								
MP0317LM	3.6 V	17 Ah	540	35 A	17 A	4.5	NMC	>1000
FP1202LN	13.2 V	2.2 Ah	510	25 / 50 A <sup>1</sup>	10 A	50	LFP	>3000
<b>HIGH POWER RANGE</b>								
FP0380LN	3.3 V	8.8 Ah	500	90 / 240 A <sup>2</sup>	40 A	2.7	LFP	>3000
MP0320LM	3.6 V	20 Ah	560	50 / 240 A <sup>2</sup>	32 A	2.7	Ni-Rich	>700
MP0324LM	3.6 V	24 Ah	560	50 / 240 A <sup>2</sup>	32 A	2.5	Ni-Rich	>700
FP1202LNS	13.2 V	2.2 Ah	510	25 / 90 A <sup>1</sup>	10 A	48	LFP	>3000
FP2401LN	26.4 V	1.1 Ah	500	10 / 50 A <sup>1</sup>	5 A	110	LFP	> 3000
MP2402LM	28.8 V	2.5 Ah	550	10 / 25 A	3 A	130	Ni-Rich	>700

**Nota :**

- 1 : Pulse of 50 A during 1 s maximum  
 2 : Pulse of 240 A during 10 s maximum


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