

Sustainable & modular  
lithium batteries



IP54



# PowerCase Moduloo Ex

## Datasheet



### DESCRIPTION

The **PowerCase** Moduloo Ex is a compact, silent and ergonomic portable power station solution. It is a robust and waterproof system which is easy to carry thanks to its two embedded carrying handles as well as its small format.

Available in **PowerCase E2** version with 2 kWh, it is fitted with the Moduloo Ax technology.

The **PowerCase** ideally responds to applications that require an external clean energy source without any fuel for specific sectors: **cinema, construction, events, offgrid, etc.**

### SPECIFICATIONS

- Compatible with **TPP** fire protection
- Battery monitoring thanks to **TYVA Smart Dashboard** app with a Bluetooth connection
- 1.25 kW nominal output power
- Noise level below 60 dB at 1 meter
- Weight lower than 20 Kg
- Impacts and vibrations robustness
- Compatible with **TYVA Refill** batteries reconditioning solution
- 300 W charger included

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## ELECTRICAL SPECIFICATIONS

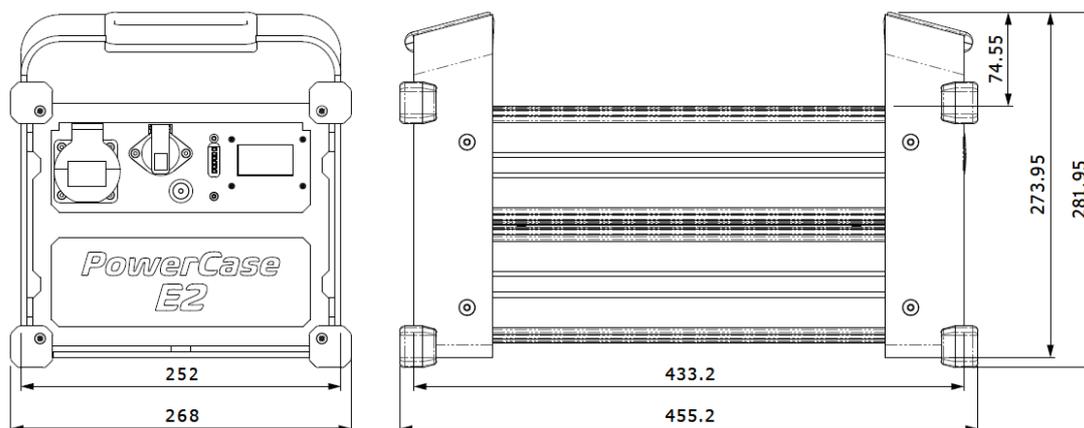
Item	PowerCase E2
Available energy /kWh	2
Output power /VAC	220
Frequency /Hz	50
<b>16 A output</b>	1
Peak discharge power /kW	3
<b>DC charger input /W</b>	300 to 1000
Recommended charge time /hours	5
Handle	2
<b>Power outlet</b>	<b>PowerCase E2</b>
Input power /VAC	220
Maximum continuous charge power /kW	1
Maximum continuous charge current /A	20

## MECHANICAL SPECIFICATIONS



Item	Description
Dimensions /mm	455 x 268 x 282
Weight /Kg	19.8
Sealing	IP54
Outer case	Aluminium
Operating temperature /°C	- 20 to +40
Charge temperature /°C	0 to + 40

## MECHANICAL ASSEMBLY



## PERFORMANCE

The PowerCase has a 60 °C temperature limit. The higher the current is, the higher the temperature of the power station will increase. Thus, it will impact its autonomy and performance. With a PowerCase with a 25 °C initial temperature, its nominal power will be 1.25 kW PowerCase. Performances of the PowerCase depending on its use temperature are available in the table right below:

PowerBox E2	25 °C	35 °C
Nominal power	1.25 kW 1 hour and a half	750 W 3 hours
Peak power	3 kW 15 minutes	3 kW 10 minutes

## TYVA SMART DASHBOARD

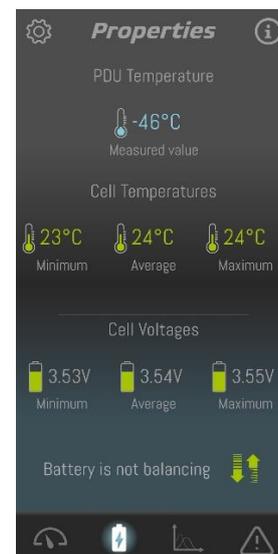
Portable energy stations from the Moduloo Ex range are compatible with the supervision app for lithium batteries **TYVA Smart Dashboard**:

### Real time monitoring

- Instantaneous charge and discharge power
- States of health (SOH), charge (SOC) and power (SOP) indicators
- Values: current (A), power (W), voltage (V)
- Temperature, voltage and cells balancing
- Alerts and errors in real time

### Accessibility

- Available for Android and iOS devices
- Software compatible with the BMS PRO in Bluetooth (BLE)



## ABOUT TYVA ENERGIE



*We are living in a world of contradictions. Ecology is one of the major challenges of the XXI<sup>st</sup> century, such as technological innovation, the need for mobility and power of applications.*

*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.

