

## **CN** HYBRID



MOBILE | INNOVATIVE | SAFE



## **CN HYBRID**

The CN Hybrid unit is the result of the cooperation of two market leaders from different industry sectors: innovative infrastructure solutions by Continest (HUN) and power storage and management by Axsol (DEU).

The concept of the unit is to provide the most efficient energy production and storage combination for deployed infrastructure systems regardless of the geographical and environmental conditions.

Due to the smart energy management system integrated in the CN20 unit, the built in batteries, the solar PV array and the generator provide permanent and safe power generation while the fuel consumption of the geretor is decreased with 50%-70% and its maintenance cycles with 80%. The fuel and maintennance savings, the autonomous operation combined with the logistical efficiency of the foldable uwnits creates a unique solution for anyone operating in the field no matter where and when.

The key of the systems performance is the possibility of connecting several power sources with the help of a central inverter - "Victron Energy MultiPlus II 48V/5000/70, generating and storing energy the most efficient way.

Field tested during Brave Warrior 2020 Hungary (10-24 Sept).





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In addition to the main 3-phase 380V power supply, it is possible to provide the necessary power with four "LiFePO4" batteries with a capacity of 2,4 kWh each which were installed under the floor of the container between the forklift pockets in the bottom frame. Based on customer request the battery capacity can be scaled between 20 kWh and 80 kWh.

In addition, it is possible to mount solar panels on the roof and the side of the container, for which a "Victron Energy -" MPPT 150 / 70A MC4 "solar inverter has been used. Solar panels power can be between 1.8 - 5.4 kWp.

The external generator will start generating power automatically when the charge level of the batteries drop bellow a pre-set level. Due to the temporary usage of the generator both its fuel consumption as well maintennance are significantly decreased (50%-80%).

## Four possible Hybrid System configurations:

- 1. 10 kWh battery / 2 kWp solar system / no Genset
- 2. 10 kWh battery / 2 kWp solar system / Genset 3,7 kVA
- 3. 20 kWh battery / 4 kWp solar system / no Genset
- 4. 20 kWh battery / 4 kWp solar system / Genset 3,7 kVA



**AXSOL (D)** – the energy experts who are disrupting the way energy is harvested, stored and managed.





