

"All in 1" mobile solar refrigeration container Including solar plant, battery storage and energy management



The autonomous mobile refrigeration unit

Modularly designed to meet the requirements of the various agro-food sectors, housed in a 20" or 40" container, the cold room with a capacity of 15 to 41m3 adapts to the storage conditions of crops or fish in optimum conditions.

Between 200 kg and 1000 kg of foodstuffs or catches can be cooled daily, with storage batteries allowing a full autonomy of 30 hours to more than 60 hours.

The container is shipped with its cold room installed and connected to the electrical energy management and electrical safety cabinet.

All tools are provided, no drilling, no soldering required for easy installation in hours.

Heat losses are reduced with the rooftop solar power plant serving as a shade, reinforced 100mm insulation and a door fitted with a strip curtain to limit heat ingress.

A guarantee of compliance with the strictest health and safety rules.

A smart and secure energy management

Coupled to photovoltaic modules, the FREECOLD hybrid box guarantees a high-quality power supply and prioritizes renewable energy before the use of a second potential source, grid or generator.

Solar batteries, with a capacity from 15 to 60 kWh, make it possible to smooth out peaks and troughs as well as intermittent energy from the photovoltaic power source.

The installation is secured by disconnectors, lightening arrester devices and AC differential switch. The whole installation, including the photovoltaic field is grounded.

The solar plant

10 to 36 photovoltaic panels made in Europe come with their supports delivered as a kit, and preinstalled wiring for easy and rapid commissioning.

The solar plant from 2.5 to $12~kW_p$, powers directly the cold room and simultaneously recharges the battery to ensure the autonomy of the installation.





20 cbm solar cold room in 20' container Including $4kW_0$ solar plant, batteries and energy management

- ✓ 20' SOC container (shippers' own containers), new, 1st travel, with CSC certificate
- ✓ Cooling capacity: 500 kg/day
- ✓ Minimum autonomy : 30 hours with 35°C outside temperature
- ✓ Positive cold room with 100 mm insulation Interior dimensions: 4.80 x 2.00 x H 2.10 m
- ✓ High-performance insulation swing door 0.90 x 2.00 m with strip curtain
- ✓ Monoblock, straddle-mounted refrigeration unit 230V single-phase 50Hz Cooling power: 2.200W
- ✓ As standard, a tough non-slip and easy-to-clean floor As an option, shelving 120kg/rack, 4 levels
- \checkmark 4 kW_p solar plant including 12 photovoltaic modules (330 Wp, 72 polycristallin 6" cells, 25-years performance warranty, European origin)
- ✓ Supports of photovoltaic modules delivered in complete kit; 15° angle of inclination
- ✓ Electrical security box including DC/AC surge protectors, disconnectors and AC 30mA differential switch
- ✓ Sealed AGM solar batteries (maintenance-free): 20,5 kWh (425Ah-48V), European origin
- Energy management and power sources coupling optimized in relation with power in entry (PV, batteries, AC input if available) and loads (refrigeration, recharge of batteries)
- ✓ Battery recharge possible by 2nd power source (grid or generator)







40 cbm solar cold room in 40' container Including $8kW_p$ solar plant, batteries and energy management

- √ 40' SOC container (shippers' own containers), new, 1st travel, with CSC certificate
- ✓ Cooling capacity: 1,000 kg/day
- ✓ Positive cold room with 100 mm insulation Interior dimensions : 9.60 x 2.00 x H 2.10 m
- ✓ Monoblock, straddle-mounted refrigeration unit 400V 3-phases Cooling power: 4,500W
- ✓ As an option, reinforced floor and shelving 120kg/rack, 4 levels
- √ 12 kW_p solar plant including 24 modules (330 W_p, EU origin)
- Supports of photovoltaic modules delivered in complete kit
- ✓ Electrical security box including DC/AC surge protectors, disconnectors and AC 30mA differential switch
- ✓ Energy storage by sealed AGM solar batteries (maintenance-free) 51kWh (850Ah-48V), EU origin
- ✓ Energy management and power sources coupling optimized in relation with power in entry (PV, batteries, AC input if available) and loads (refrigeration, recharge of batteries)
- ✓ Battery recharge possible by 2nd power source (grid or generator)

FREECOLD 34 chemin de l'Echut - 31770 Colomiers - France
Tel : +33 (0)5 34 35 03 49 E.mail : info@freecold.com Web : www.freecold.com