



Hashem Power Solutions

Diesel , Petrol , Solar and Wind Generators



Solar refrigerators and freezers are suitable for many kinds of applications: Home, Business (Catering, hotel and resort, tourism industry, alimentary retailing and selling including street markets and medical preservations.)

Technical Data	Refrigerator 150 L	Freezer 150 L	Refrigerator 270 L	Freezer 270 L	Refrigerator 410 L	Freezer 410 L
Power supply	Direct Solar Photovoltaic					
	130Wc/12Volt	180Wc/18Volt	210Wc / 18Volt			
Voltage	10 - 24 VDC	10 - 31.5 VDC				
Energy class	A++					
Refrigerant	R134a (without CFC)					
Wall insulation thickness	90mm Polyurethan (80mm in the lid)					
Net capacity	4.4 cu.ft (125 liters)		8.1 cu.ft (230 liters)		13 cu.ft (370 liters)	
Maximum cooling capacity	90 W	70W	170 W	100 W	170 W	100 W
Evaporating temperature	-15°C	-30°C	-15°C	-30°C	-15°C	-30°C
Inside temperature range	36°F / 54°F +2°C / 12°C	-4°F / 14°F -20°C / -10°C	36°F / 54°F +2°C / 12°C	-4°F / 14°F -20°C / -10°C	36°F / 54°F +2°C / 12°C	-4°F / 14°F -20°C / -10°C
Outside temperature range	50°F / 110°F (10°C / 43°C)					
Outside dimensions HxLxD	2.8 X 2.7 X 2.2 ' (85 x 82 x 67cm)		2.8 X 3.9 X 2.2 ' (85 x 120 x 67cm)		2.8 X 5.3 X 2.2 ' (85 x 160 x 67cm)	
Weight	54 kg		90.5 kg		96.5 kg	
Supplied standard cable	Solar AWG 12 (4mm ²) 13,1' length + Tyco couplers					
20' containers loadability	40		24		22	
40' containers loadability	88		50		46	



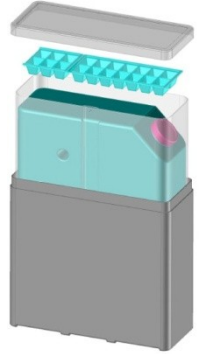
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ECONTAINER: a great self-sufficiency

Cold is produced during the day to freeze a composite eutectic mass held in the evaporator. To mitigate the period of sunshine, the Ecotainer diffuse heart of the the night or no-sunny days and ensures a complete autonomy over 3 the cold during to 5 days depending on outside conditions. With a regular period of sunshine, the system thus allows permanent autonomous refrigeration.

The eutectic tank, the evaporator box and its insulating careenage have been developed and patented range to optimize the sharing of cold between the interior aluminum tank and eutectic by confining the cold around the eutectic container.



The A++ performance:

- A90mm thickness of polyurethane expanded foam without gas CFC in the side walls to limit the losses of cold.
- A very precise electronics management to start the compressor at low speed, to accelerate gradually and to sparingly use the available energy for a minimal consumption of energy.
- As soon as the sun appears, even for a few minutes, the system is producing cold.

An optimum security :

- Over potential protection by fuse and against polarity inversion.
- Thermal cut-out of compressor and fan over-current cut-out.
- LVD protection if additional energy supply with batteries.

The energy flexibility:

- Crystalline or amorphous silicon photovoltaic solar power supply.
- Direct wind power supply.
- Battery 12-24 VDC power supply, or dual voltage device (100-240 VAC grid & battery 12-24 VDC) with automatic selection of tension.

A vast range of appliances:

150L, 270L, 410L refrigerators and freezers

New applications:

- Cooled milk tank powered by renewable energy (solar or wind).
- Cold storage built with local traditional materials.
- Cooling of spaces of life.



Made In France
Brand : FREECOLD®