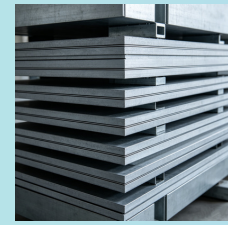


Solar & Cold Storage Type Off-grid Mobile Cold Room

Features high-efficiency solar panels and PCM energy storage system. Ensures 24h stable cooling down to -18°C. Customizable size, ideal for off-grid and remote areas. This one can keep high temperature for a week and low temperature for 3 to 4 days even without sunlight.



High Insulation Efficiency



Fire Resistant B1 Rating



Anti-Corrosion Rust-Proof



Food Grade Hygienic Design



Moisture Resistant Vapor Barrier



Solar Powered PV System



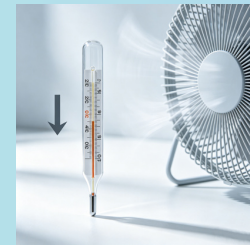
Energy Storage Backup Power



Off-Grid Operation



Precise Temperature Control



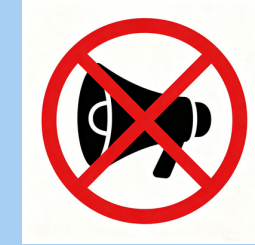
Fast Cooling Rapid Freezing



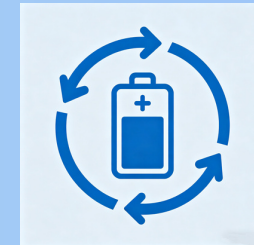
Safety Lock Secure Door



Modular & Easy Installation



Low Noise Operation



Energy Saving Lower Power Consumption



Smart Monitoring Remote Control



Eco-Friendly Zero Emission

BEST SELLING SIZE SPECIFICATIONS (CUSTOMIZABLE)

Temperature range	-18°C-0°C(CUSTOMIZABLE)
Voltage	DC 48V / AC 220V 50Hz
Size	20ft/40ft
COOLING CAPACITY	3.5KW (12000 BTU/h)(20ft)/7KW(24000 BTU/h)(40ft)
INTELLIGENT FEATURES	Remote monitoring, temperature alarm, auto defrost, solar charge control
POWER CONSUMPTION	≤3.0 kWh/day (solar-powered)
CARGO CAPACITY	28 m ³ (20ft)/67m ³ (ft)
COOLING TIME	≤30(20ft) /45(40ft)mins to -18°C (empty load)

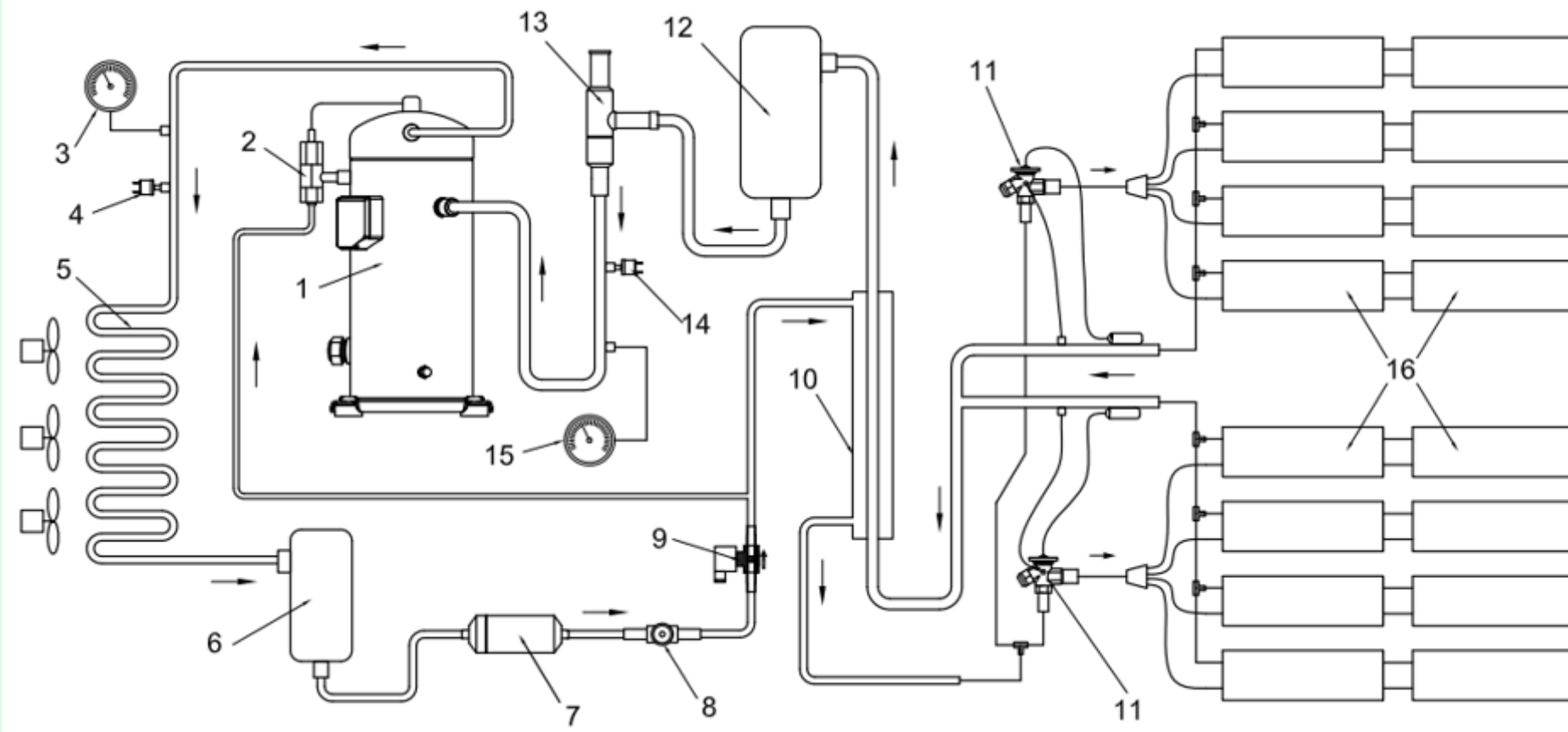
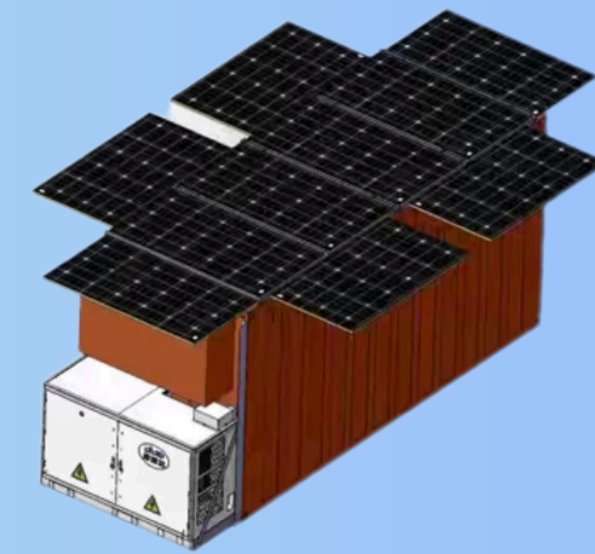
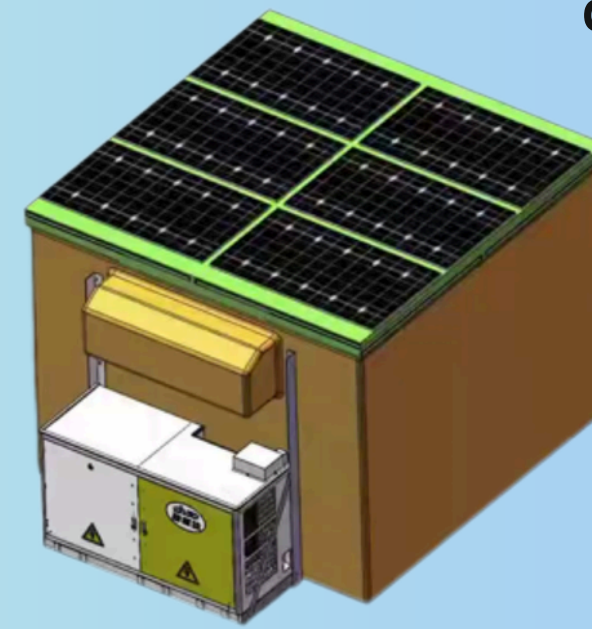


Working Principle of This Product

The refrigeration system cools the copper tubes inside the cold plates, which in turn cool the phase change material (PCM). Once the PCM is cooled down to its optimal crystallization point, the compressor automatically shuts down. The PCM then slowly releases the stored cooling capacity. When the temperature of the cold plates rises back to the set value, the compressor restarts to recharge the cold storage, and the cycle repeats continuously.



The material used in this product is a low-temperature phase change material (PCM) based on salt-water mixtures, which stores and releases thermal energy at an almost constant rate during phase transition.



1	Scroll Compressor	9	Liquid Line Solenoid Valve
2	Discharge Temperature Control Valve	10	Heat Exchanger
3	High Pressure Gauge	11	Expansion Valve
4	High Pressure Switch	12	Accumulator (Gas-Liquid Separator)
5	Condenser	13	Suction Pressure Regulating Valve
6	Liquid Receiver	14	Low Pressure Switch
7	Filter Drier	15	Low Pressure Gauge
8	Sight Glass	16	PCM Cold Plate

Refrigeration System Components