SECOP

Medical Cooling Solutions

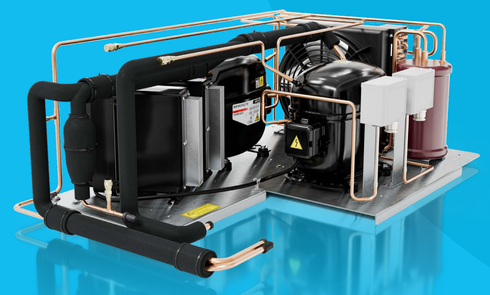
View Features

MN UV, MS UV ULT Compressors

View Features

ULT Active Mobile Cooling

View Features



ULT Stationary Condensing Unit

View Features

Solar Direct Drive System

Medical Cooling Solutions

R170 · R290 · 100 – 240 V | 50 / 60 Hz

MN UV, MS UV ULT Compressors

ULT Medical Cooling Stationary Variable-Speed Compressors

- → Reduction of variants thanks to a wide cooling capacity range
- → Ideal solution for new highly effective mRNA-based vaccines for COVID-19, Ebola, and CGTs which require an ultra-low temperature storage
- → One global reach electronic variant (90–270 V, 50–60 Hz)
- → GFCI compatibility for USA (low touch current level)
- → Variable cooling range for precise cooling and temperature control
- → Electronically controlled variable-speed drive compressors
- → Easy °CCD (Cool Capacity Drive) controller customization via Tool4Cool®
- → Robust compressors for medical use and ULT refrigerant approved
- → Optimized for green refrigerants R290 (propane) and R170 (ethane)

View more Features

Ultra-Low Temperatures

Vaccines Storage

Biomaterial and Medical Storage

Variable-Speed Efficiency

Premium Controllers

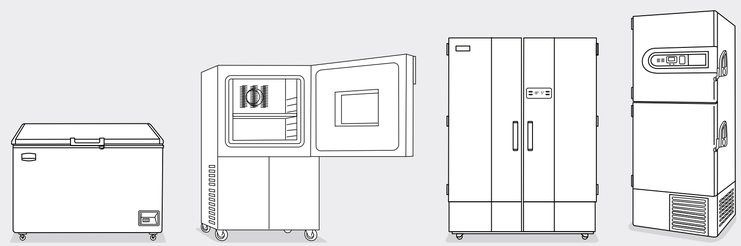
Natural Refrigerants

SECOP

Medical Cooling Solutions

MN UV, MS UV ULT Compressors

New Battery-Driven Solution – Smaller and More Efficient



Series	Applications Evap. Temp Range	Displacement (cm^3)	Cooling Capacity (W)	Test Conditions	Refrigerants
		0 – 35	0 – 1000		
 MN U/UV	Ultra-Low Temperature Freezers -60 to -90 °C	11.15 – 12.55	182 – 397	pe= -90° pc= -35° Tsuc= 20° Tliq= -35° Tamb= 32.2°	R170 R290 HC mixture
 MS U/UV		17.69 – 20.95	234 – 477		

Learn more about the
MN UV, MS UV Compressors

SECOP

Medical Cooling Solutions

R170 · R290 · 12–24 V DC

ULT Mobile Cooling

Active Mobile Medical Cooling Technology

- → **Safe active fully automated mobile solution based on a 2-stage speed controlled compressor cascade system with a flexible temperature range from -20 °C to -86 °C even in tropical ambient conditions (43 °C)**
- → **Ideal solution for mains voltage independent transport and storage of mRNA-based COVID-19 and Ebola vaccines and CGT specimens**
- → **Low energy consumption and fast pull-down time using low GWP green hydrocarbon refrigerants**
- → **Reliable and precise temperature setting and control and reduced risk of wasting temperature sensitive specimens and vaccines**
- → **Reliable long-lasting system with low TCO life cycle**
- → **Designed for AC/DC global voltage range and optimized for low grid areas**
- → **Easy °CCD controller customization via Tool4Cool® software**

View more Features

Ultra-low Temperatures

Vaccine Transport and Storage

Biomaterial and Medical Storage

Variable-Speed Efficiency

Premium Controllers

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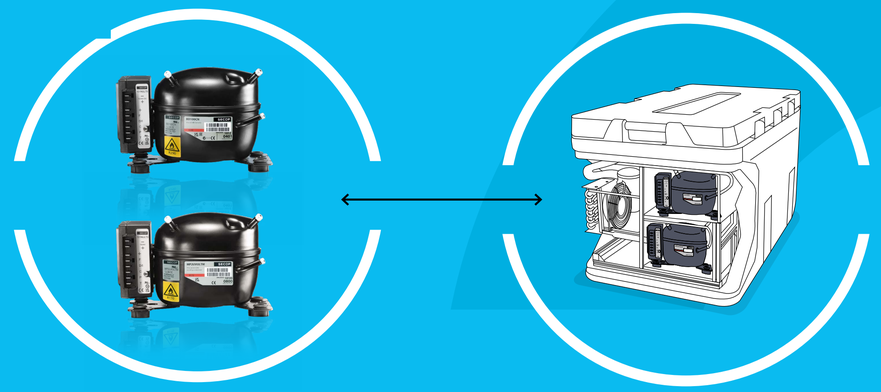
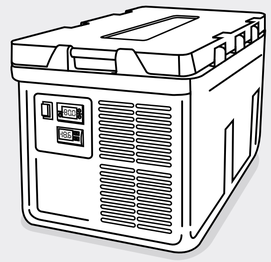
Medical Cooling Solutions



ULT Mobile Cooling

Active Mobile Medical Cooling Technology

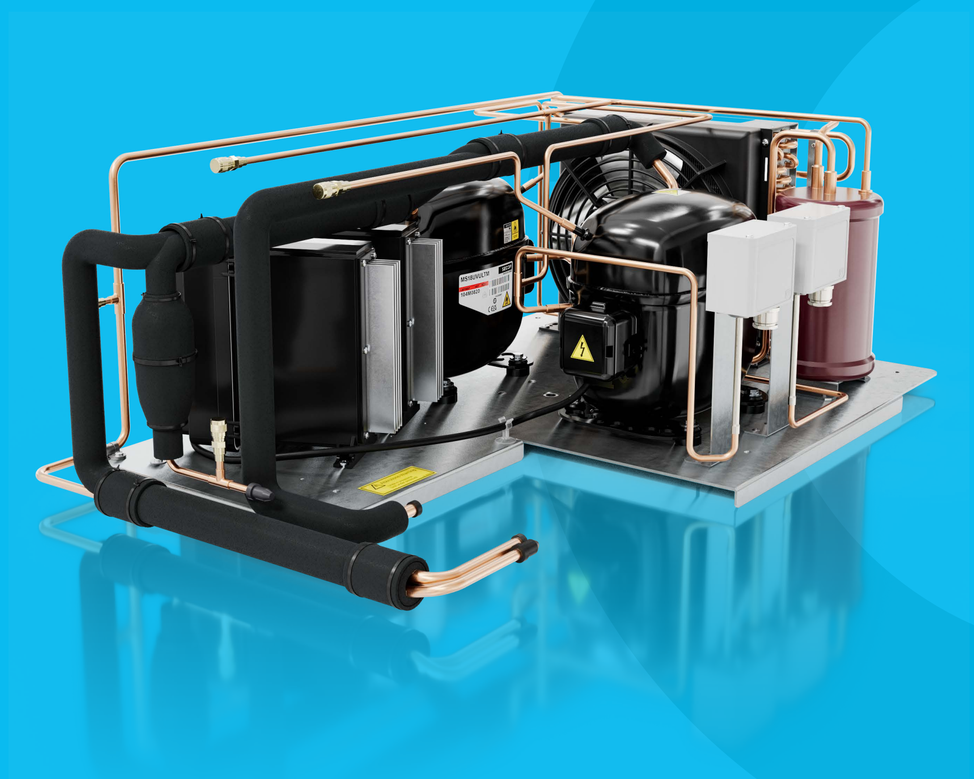


Series	Applications Evap. Temp Range	Displacement (cm³)	Cooling Capacity (W)	Test Conditions	Refrigerants
		0 – 35	0 – 1000		
 Mobile ULT Condensing Units	Ultra-Low Temperature Freezers -60 to -90 °C	2	26.7 – 47	pe= -90° pc= -35° Tsuc= 20° Tliq= -35° Tamb= 32.2°	R170 R290

Learn more about the
ULT Mobile Cooling

SECOP

Medical Cooling Solutions



Ultra-Low Temperature

Biomedical and Vaccine Storage

Variable-Speed Efficiency

Premium Controllers

Natural Refrigerants

R170 · R290 · 100–240 V | 50 / 60 Hz

ULT Stationary Condensing Unit

ULT Medical Cooling Stationary Casacade Condensing Unit

- → **Arrangement of components on the baseplate is optimized for perfectly cooling compressors and controllers to allow high operational load at high ambient temperatures**
- → **High effective oil separator in low-temperature stage to ensure operation without capillary tube problems and perfect heat transfer (= best possible energy efficiency) inside the evaporator**
- → **Internal heat exchangers to keep refrigerant temperatures at non-critical levels in all operating conditions and to offer the best possible overall energy efficiency**
- → **Compact design of the condensing unit and perfect accessibility of tube and electrical connectors for installation in the cabinet**
- → **Highly efficient variable-speed compressors with very a broad power range for managing pull down and high load operation at high ambient temperatures as well as very energy efficient operation at stable temperatures**
- → **Premium multi-voltage controllers, optimized to maximize the compressor efficiency and designed to include various in / out configurations as well as additional control features**

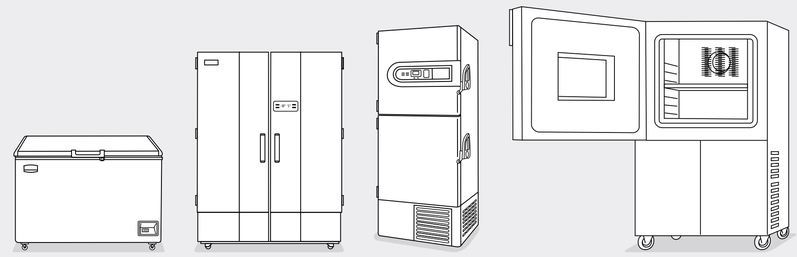
View more Features

SECOP

Medical Cooling Solutions

ULT Stationary Condensing Unit

ULT Medical Cooling Stationary Casacade Condensing Unit



Series	Applications Evap. Temp Range	Displacement (cm³)	Cooling Capacity (W)	Test Conditions	Refrigerants
		0 – 35	0 – 1000		
 Stationary ULT Condensing Units	Ultra-Low Temperature Freezers -60 to -90 °C	17.69	234 – 477	pe= -90° pc= -35° Tsuc= 20° Tliq= -35° Tamb= 32.2°	R170 R290

Learn more about the
ULT Stationary Condensing Unit

Medical Cooling Solutions

Tailored for Vaccine Refrigerators

Solar Direct Drive System

Solar Direct Drive and Weak Grid Power Management System

- → **AC/DC solution optimized for photovoltaic solar panel supply and weak AC grid installations**
- → **Increased maximum PV voltage to 55 V to enable the use of popular PV modules**
- → **Power input management and peak power point tracking to ensure efficient and optimal use of PV energy**
- → **Enhanced communication interface for operation and monitoring**
- → **AC wide working range between 85 V and 264 V**
- → **Additional 24 V DC output suitable for data loggers, monitoring devices, USB chargers, and external auxiliaries**
- → **Designed for premium robustness and reliability: IP60 housing and robust against EMI**
- → **Designed in combination with the new MB3CKV version of the BD Nano premium series compressor: premium cooling performance with the best efficiency**
- → **Tailored to WHO PQS requirements and monitoring systems**

View more Features

Medical Cooling

Vaccine Transport and Storage

Weak Grid Protection up to 510 V

Wide AC Input Range

Solar Maximum Power Point Tracking

Wide Photovoltaic Panel Range Supported

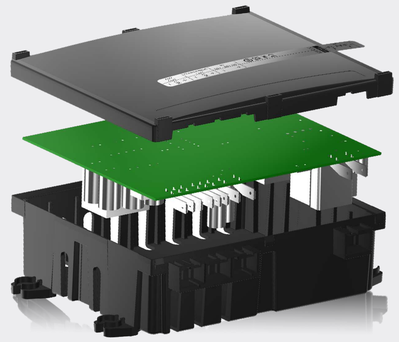
PV Direct Input

SECOP

Medical Cooling Solutions

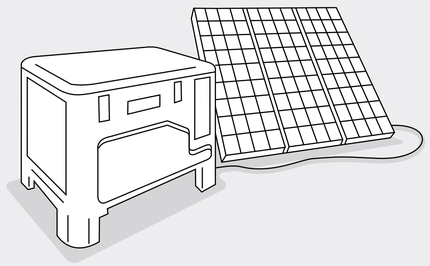
New SDD Power Management Module

View more Features



Solar Direct Drive System

Solar Direct Drive and Weak Grid Power Management System



Series	Applications Evap. Temp Range	Displacement (cm³)	Cooling Capacity (W)	Test Conditions	Refrigerants
		0 – 35	0 – 1000		
 MB CKV	Solar Powered Vaccine Refrigerators -30 to 5° C	2.6	66–133	ASHRAE MBP	R600a

Learn more about the
Solar Direct Drive System

New SDD Power Management Module

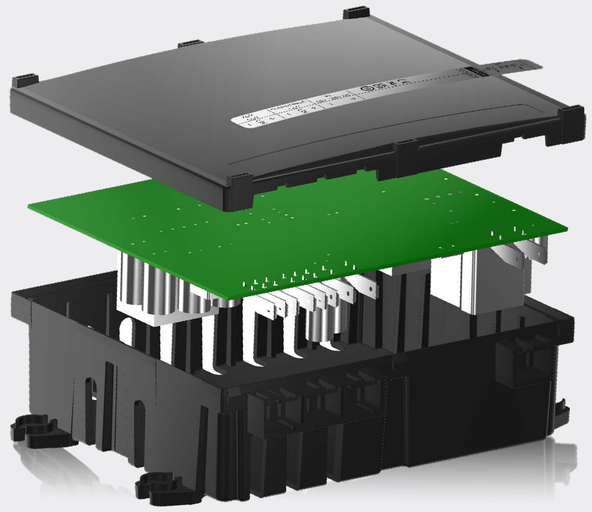
Communication interface for master controller

Cloud data logger

PV panels

AC wide range

24 V DC aux output



Power output and to compressor controller (ECU)

Temperature input (NTC or thermostat)

Fan output