### R170 · R290 · 12-24 V DC

# ULT ACTIVE MOBILE MEDICAL COOLING TECHNOLOGY

## SECOP



- → 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
- $\rightarrow$  Designed for AC/DC global voltage range and optimized for low grid areas
- → Easy °CCD<sup>®</sup> controller customization via Tool4Cool<sup>®</sup> software

Secop has developed the technology for an ultra-low temperature cooling system. This system is optimized for the last mile of distribution for the new generations of vaccines and offers mobile operation even in high ambient conditions such as in tropical regions.

This dedicated condensing unit features a compressor cascade solution with a **MP2UVULTM** (low stage) and a **BD100CN** (high stage) compressor and takes advantage of Secop's experience in medical applications, vaccine solar freezers, and mobile solutions and combines all of these applications.

Battery-driven active cooling systems for mRNA-based vaccines provide many advantages compared to existing passive cooling (dry ice) transport boxes. Active systems offer temperature control, do not need huge quantities of dry ice, are re-usable, do not waste tons of  $CO_2$ , and prevent vaccine wastage.

They are suitable for any distribution point, including in remote areas where the availability of  $\rm CO_2$  cannot be guaranteed or ambient conditions are too severe.

High Stage		BD100CN
Compressor		101Z0401
Electronic unit		101NULT5
Refrigerant		R290
Low Stage		MP2UVULTM
Compressor		101M0800
Electronic unit		101NULT3
Refrigerant		R170
Application		
Compressor	°C	+10 to 43
Possible freezer compartment size	at -86°C	up to 40 liters
Possible freezer compartment temp.	°C	-20 to -86
Evaporating temperature	°C	-90 to -60
Voltage range	V DC	9.6–17 / 21.3–31.5
Weight	kg	13.9

#### Dimensions

Height | width | depth

370.6 | 404 | 189.1



### Ultra-Low Temperature Systems

Secop recommends using 2-stage cascade systems for the temperature range from -60 °C to -90 °C. These have been developed for highest reliability and product safety at ultra-low temperatures.



Learn more about Ultra-Low Temperature (ULT) Freezers www.secop.com/ult

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