MiniCOOL

Compact CO₂ refrigeration system for small to medium sized installations

LT Cooling Capacity 3 – 58 kW
MT Cooling Capacity 21 - 189 kW
Compact, cost-effective CO₂ systems for small to medium installations

Efficient, natural refrigeration
The new Carrier range of compact MiniCO₂OL® refrigeration racks utilise natural refrigerant carbon dioxide (CO₂) to provide sustainable, energy efficient refrigeration solutions across a wide range of cooling capacities.

The compact MiniCO₂OL system is part of Carrier’s CO₂OLtec range of CO₂ refrigeration plants. CO₂OLtec® systems demonstrate average energy savings of approximately 10 percent as compared to traditional HFC refrigeration systems in mild to cold climates, resulting in attractive life cycle costs and low return on investment periods.

CO₂ is a climate neutral refrigerant; it has a Global Warming Potential (GWP) of just one, an Ozone Depletion Potential (ODP) of zero and is not subject to F-Gas regulations.

Product features
- Economical, value-engineered product range
- Dual temperature, transcritical booster CO₂ rack incorporating medium temperature (MT) and low temperature (LT) refrigeration within a single frame
- Compact design for indoor installation, with external option available
- 2 to 3 MT compressors
- 0 to 2 LT compressors
- Variable Speed Drive (VSD) for primary MT compressors
- Maximum allowable pressure levels as detailed below (alternatives available):
  - LT suction = 25 bar
  - MT suction/common liquid = 45 bar
  - Discharge/gas cooler return = 120 bar
- Integrated, detachable electrical panel included, serving rack, gas cooler, and electrical consumers
- Eckelmann controls as standard, with option for Danfoss
- Standardised, factory produced units

Optional features
- Configurable heat recovery module
- Flexible integration of electrical consumers into e-box
- Attenuated indoor or outdoor housing
- Mounted, close-coupled gas cooler
- Danfoss or Wurm controls
- Factory mounted condensing unit
- Modular receivers in order to achieve PED Cat III
- Increased maximum allowable pressure levels
- Active oil management
- Eco compressor
- Integrated discharge muffler

Compact CO₂ refrigeration system

<table>
<thead>
<tr>
<th>Low temperature</th>
<th>Medium temperature</th>
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<tbody>
<tr>
<td>Designation</td>
<td>Cooling Capacity (kW)*</td>
</tr>
<tr>
<td>BCM100-3710</td>
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<tr>
<td>BCM100-3720</td>
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<td>BCM250-3FJ0</td>
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</tbody>
</table>

* Evaporating temp. at rack = -35°C
** Evaporating temp. at rack = -8°C

Without optional LT VSD

Ambient temperature = 32°C

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