

# CRANEFRIGOR™

Industrial Cooling since 1961

Made in Germany

TECHNICAL DESCRIPTION CRANEFRIGOR™ CC05/08

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Figure

# CRANEFRIGOR<sup>™</sup> CC05 / CC08

The CRANEFRIGOR<sup>™</sup> CC05 / CC08 cooling unit was developed for reliable and long-term operation under extreme ambient conditions as in steel works, paper factories and foundries. Thanks to its robust structure, a reliable operation is ensured even with heavy shocks.

The CRANEFRIGOR<sup>™</sup> series of crane air conditioning units ensure a reliable and efficient production process.



### **General description**

Scope of delivery	Your benefits!
Refrigerant	
Ecological refrigerant	Long-term safe usage in accordance with legal regulations (EU) no. 517/2014
Low greenhouse warming potential	Sustainable operation
Compressor (made by Copeland)	
Hermetically sealed construction	Low maintenance
Suction-gas-cooled motor	No risk of overheating
Self-regulating oil sump heater	Ensures lubrication during the start
Liquefier	
Cathodic dip coating	High corrosion resistance
	<ul> <li>Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load</li> <li>Shorter maintenance intervals due to smooth surfaces</li> </ul>
Liquefier fan	
• Speed-controlled EC axial fan in industrial	Powerful
construction for high ambient temperatures	Long runtimes
	Energy-efficient
Evaporator	- Evenilent heat transfer
Zinc-plated steel housing with epoxy-	Excellent heat transfer
<ul><li>coated aluminium blades</li><li>Cleaning opening / Inspection opening</li></ul>	Shorter maintenance intervals due to special adapted     appearing between blodge even with outcome dust lead
Cleaning opening / Inspection opening	spacing between blades even with extreme dust load
	<ul> <li>Shorter maintenance interval due to smooth surface. Soiling is easily recognised and simple to clean through</li> </ul>
	the opening
Circulating air fan	
• EC radial fan, industrial construction	Powerful
(CC05)	Long runtimes
• AC radial fan, industrial construction	Energy-efficient (EC version)
(CC08)	
Air filter	
Large-area frame filter	Effective filter with long service life
Filter class COARSE 80%	Easy to replace and clean
Condensation water separation	
Drip tray primed and powder-coated in RAL	No corrosion of the tray
7035	Defined condensation drainage
Hose connection for condensation     Sinker in condensate line	Avoids the drawing in of contaminated ambient air
Siphon in condensate line Control and power cabinet	
Completely wired, according to VDE	• The CRANEFRIGOR <sup>™</sup> is ready for connection; at the
<ul> <li>Temperature control by thermostat</li> </ul>	site, you only have to connect the power supply
<ul> <li>Operational and fault signal outputs</li> </ul>	<ul> <li>Colour scheme with high corrosion protection</li> </ul>
<ul> <li>Powder-coated RAL 7035</li> </ul>	
Optional stainless steel version	
Casing	
<ul> <li>Robust, welded construction</li> </ul>	Long service life
<ul> <li>Primed and powder-coated in RAL 7035</li> </ul>	Attractive colour scheme with high corrosion protection
Other colours or stainless steel version optional	
Quality assurance	
Leakage test	Operational reliability
<ul> <li>Function test in our plant's test facility</li> </ul>	Easy commissioning on site



#### **Options packages:**

Material	Scope of delivery	Your benefits!
order no.		
CC05: 807 637 CC08: 807 640	Option package "Compressor (made by Bizer)" Semi-hermetically sealed construction Suction-gas-cooled motor Self-regulating oil sump heater	<ul> <li>Secure operation at higher ambient temperatures</li> <li>Low maintenance</li> <li>No risk of overheating</li> <li>Ensures lubrication during the start</li> <li>Very good availability of spare parts worldwide</li> </ul>
CC05: 807 640 CC08: 807 641	<b>Option package "Heater"</b> Air heater with temperature monitor	<ul> <li>Comfortable room temperature</li> <li>Frost protection even at standstill or during maintenance work</li> </ul>
CC05: 807 646 CC08: 807 647	Options packages "Corrosion protection" Corrosion protection package 1	Multiple-coated pipes
CC05: 807 650 CC08: 807 651	Corrosion protection package 2	<ul> <li>Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti</li> <li>Multiple-coated pipes</li> </ul>
CC05: 807 654 CC08: 807 655	Option package "Custom" Customer-specific version	<ul> <li>Special requirements of a company can be realised, such as:</li> <li>Custom voltages / Network configurations</li> <li>Heat exchanger version (fully copper, blade spacing and thickness)</li> <li>Conductor identification</li> <li>Special coatings</li> <li>Protection class</li> </ul>
CC05: 807 658 CC08: 807 659	<b>Options packages "Accessories"</b> Assembly accessories according to specification	<ul> <li>Air duct, holding devices, refrigerating accessories</li> </ul>
CC05: 807 662 CC08: 807 663	Spare parts according to specification	Spare part package

#### Plant packages:

Material order no.	Scope of delivery	Your benefits!
807 562	Plant package "Overpressure / Fresh air" Filter/Overpressure unit FT15	<ul> <li>Filtered fresh air supply, adjustable air volume</li> <li>Creation of overpressure in the room to be cooled; less dust comes in</li> </ul>
807 565	Plant package "Condensation evaporator" Condensation evaporator KVW	<ul> <li>No damage due to dripping condensation</li> <li>No additional power supply necessary</li> <li>Overload protection</li> </ul>

# **Options packages:**

Scope of delivery	Your benefits!	
<ul> <li>1 Option package "Compressor (made by Bizer)"</li> <li>1.1 Semi-hermetically sealed construction <ul> <li>Suction-gas-cooled motor</li> <li>Self-regulating oil sump heater</li> </ul> </li> </ul>	<ul> <li>Secure operation at higher ambient temperatures</li> <li>Low maintenance</li> <li>No risk of overheating</li> <li>Ensures lubrication during the start</li> <li>Very good availability of spare parts worldwide</li> </ul>	
<ul> <li>2 Option package "Heater"</li> <li>2.1 Air heater with temperature monitor and safety temperature limiter</li> </ul>	<ul> <li>Frost protection even at standstill or during maintenance work</li> </ul>	
<ul> <li>3 Options packages "Corrosion protection"</li> <li>3.1 Corrosion protection package 1</li> <li>3.2 Corrosion protection package 2</li> </ul>	<ul> <li>Multiple-coated pipes</li> <li>Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti</li> <li>Multiple-coated pipes</li> </ul>	
<ul><li>4 Option package "Custom"</li><li>4.1 Customer-specific version</li></ul>	<ul> <li>Special requirements of a company can be realised, such as:</li> <li>Custom voltages / Network configurations</li> <li>Heat exchanger version (fully copper, cathodic dip coating, blade spacing and thickness)</li> <li>Conductor identification</li> <li>Special coatings</li> <li>Protection class</li> </ul>	
<ul> <li>5 Options packages "Accessories"</li> <li>5.1 Assembly accessories according to specification</li> <li>5.2 Spare parts according to specification</li> </ul>	<ul><li>Air duct, holding devices, refrigerating accessories</li><li>Spare part package</li></ul>	

# Plant packages:

Scope of delivery	Your benefits!
<b>1 Plant package "Overpressure / Fresh air"</b> 1.1 Filter/Overpressure unit FT15	<ul> <li>Filtered fresh air supply, adjustable air volume</li> <li>Creation of overpressure in the room to be cooled; less dust comes in</li> </ul>
<ul><li><b>2 Plant package "Condensation evaporator"</b></li><li>2.1 Condensation evaporator</li></ul>	<ul> <li>No damage due to dripping condensation</li> <li>No additional power supply necessary</li> <li>Overload protection</li> </ul>

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#### Technical specifications CC05 / CC08:

#### Performance data

Cooling performance is included customised in the offer Heat output is included customised in the offer

<ul> <li>Nominal cooling performance: CC05 CC08</li> <li>At 27 °C room temperature, 52 % rel. room air humidity 35 °C ambient temperature</li> <li>Refrigerant R134a / R513A</li> </ul>	5.8 kW 11.4 kW
Air flow volume: CC05 CC08	1,200 m <sup>3</sup> /h 2,000 m <sup>3</sup> /h
<ul> <li>Cooling mode</li> <li>Depends on the compressor model size and version</li> <li>Depends on the option packages and version of heat exchanger</li> </ul>	
Temperature range R134a	-5 °C to +70 °C
Temperature range R513A	-5 °C to +70 °C
Sizes and weight Weight CC05 Weight CC08 Dimensions	approx. 280 kg approx. 450 kg type, see dimension sheet
<b>Operating voltage</b> Further operating voltages upon request	3 ph / 400 V / 50 Hz 3 ph / 460 V / 60 Hz

	3 ph / 460 V / 60 H
Further operating voltages upon request	

Protection category

Network type

**Refrigerant** GWP (global warming potential)

Filling quantity / CO2 equivalent

depends on the unit version

IP54

TN-S

R134a / R513A

1430 / 631

The performance description is a quality in the sense of sections 434 and/or 633 BGB (German Civil Code). Subject to technical change.

Cooling to the point

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According to (EN) 378-3 "Refrigeration units and Heat pumps – safety and environment regulations – Location and protection for persons" detectors needs to installed if concentration exceeds the practical limits (ATEL/ODL- EN 378-1, Appendix C) in a working and staying area.

The table is showing the minimum space dependent from the used Freon, air-conditioner and options.

Detectors are required if the conditioned space is smaller as mentioned in the table below.

Local restrictions and regulations need to be considered first.

Refrigerant	Minimum conditioned space before detector is required	
	CC05	CC08
R134a	11,2 m³	22,8 m <sup>3</sup>
R513A	8,8 m³	17,9 m <sup>3</sup>

ATEL: Exposure limit value for acute toxicity

ODL: Limit value for oxygen deficiency