

**TECHNICAL DESCRIPTION**  
**CRANEFRIGOR™ CK10**

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QVO 0453-US  
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**Figure**

**CRANEFRIGOR™ CK10**

The CRANEFRIGOR™ CK10 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™ series of crane air conditioning units ensure a reliable and efficient production process.

## General description

| <b>Scope of delivery</b>                                                                                                                                                                                                                                                                 | <b>Your benefits!</b>                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Refrigerant</b> <ul style="list-style-type: none"> <li>Ecological refrigerant</li> <li>Low greenhouse warming potential</li> </ul>                                                                                                                                                    | <ul style="list-style-type: none"> <li>Sustainable operation</li> </ul>                                                                                                                                                                                                                                                      |
| <b>Compressor</b> (made by Bizer) <ul style="list-style-type: none"> <li>Semi-hermetically sealed construction</li> <li>Suction-gas-cooled motor</li> <li>Self-regulating oil sump heater</li> </ul>                                                                                     | <ul style="list-style-type: none"> <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>                                                                                                                     |
| <b>Liquefier</b> <ul style="list-style-type: none"> <li>Cathodic dip coating</li> </ul>                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>High corrosion resistance</li> <li>Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load</li> <li>Shorter maintenance intervals due to smooth surface</li> </ul>                                                                    |
| <b>Liquefier fan</b> <ul style="list-style-type: none"> <li>Norm motors in industrial construction with coupled fan wheel</li> </ul>                                                                                                                                                     | <ul style="list-style-type: none"> <li>Powerful</li> <li>Long runtimes</li> <li>Very good availability of spare parts worldwide</li> </ul>                                                                                                                                                                                   |
| <b>Evaporator</b> <ul style="list-style-type: none"> <li>Zinc-plated steel housing with epoxy-coated aluminum blades</li> <li>Cleaning opening / Inspection opening</li> </ul>                                                                                                           | <ul style="list-style-type: none"> <li>Excellent heat transfer</li> <li>Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load</li> <li>Shorter maintenance interval due to smooth surface. Soiling is easily recognized and simple to clean through the opening</li> </ul> |
| <b>Circulating air fan</b> <ul style="list-style-type: none"> <li>AC radial fan, industrial construction</li> </ul>                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Powerful</li> <li>Long runtimes</li> </ul>                                                                                                                                                                                                                                            |
| <b>Air filter</b> <ul style="list-style-type: none"> <li>Large-area frame filter</li> <li>Filter class COARSE 90%</li> </ul>                                                                                                                                                             | <ul style="list-style-type: none"> <li>Effective filter with long service life</li> <li>Easy to replace and clean</li> </ul>                                                                                                                                                                                                 |
| <b>Condensation water separation</b> <ul style="list-style-type: none"> <li>Drip tray primed and powder-coated in RAL 7035</li> <li>Hose connection for condensation</li> <li>Siphon in condensate line</li> </ul>                                                                       | <ul style="list-style-type: none"> <li>No corrosion of the tray</li> <li>Defined condensation drainage</li> <li>Avoids the drawing in of contaminated ambient air</li> </ul>                                                                                                                                                 |
| <b>Control and power cabinet</b> <ul style="list-style-type: none"> <li>Completely wired, according to VDE</li> <li>Temperature control by thermostat</li> <li>Operational and fault signal outputs</li> <li>Powder-coated RAL 7035</li> <li>Optional stainless-steel version</li> </ul> | <ul style="list-style-type: none"> <li>The CRANEFRIGOR™ is ready for connection; at the site, you only have to connect the power supply</li> <li>Color scheme with high corrosion protection</li> </ul>                                                                                                                      |
| <b>Casing</b> <ul style="list-style-type: none"> <li>Robust, welded construction</li> <li>Primed and powder-coated in RAL 7035</li> <li>Other colors or stainless-steel version optional</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>Long service life</li> <li>Attractive colour scheme with high corrosion protection</li> </ul>                                                                                                                                                                                         |
| <b>Quality assurance</b> <ul style="list-style-type: none"> <li>Leakage test</li> <li>Function test in our plant's test facility</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>Operational reliability</li> <li>Easy commissioning on site</li> </ul>                                                                                                                                                                                                                |

### Options packages:

| <b>Material order no.</b> | <b>Scope of delivery</b>                                                                                                           | <b>Your benefits!</b>                                                                                                                                                                                                                                                                                                                     |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 807 610                   | <b>Option package “Heater”</b><br>Air heater with temperature monitor and safety temperature limiter                               | <ul style="list-style-type: none"> <li>• Comfortable room temperature</li> <li>• Frost protection even at standstill or during maintenance work</li> </ul>                                                                                                                                                                                |
| 807 614<br>807 618        | <b>Options packages “Corrosion protection”</b><br>Corrosion protection package 1<br>Corrosion protection package 2                 | <ul style="list-style-type: none"> <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>                                                                                                                                      |
| 807 781                   | <b>Option package “Air duct”</b><br>Air duct primed and powder coated RAL7035 incl. filter, filter class COARSE 80%                | <ul style="list-style-type: none"> <li>• Simple and fast connection to the cooling room</li> </ul>                                                                                                                                                                                                                                        |
| 807 622                   | <b>Option package “Custom”</b><br>Customer-specific version                                                                        | <p>Special requirements of a company can be realised, such as:</p> <ul style="list-style-type: none"> <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> |
| 807 626<br>807 631        | <b>Options packages “Accessories”</b><br>Assembly accessories according to specification<br>Spare parts according to specification | <ul style="list-style-type: none"> <li>• Air duct, holding devices, refrigerating accessories</li> <li>• Spare part package</li> </ul>                                                                                                                                                                                                    |

### Plant packages:

| <b>Material order no.</b> | <b>Scope of delivery</b>                                                                     | <b>Your benefits!</b>                                                                                                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 807 636                   | <b>Plant package “Overpressure / Fresh air”</b><br>Filter/Overpressure unit FT30             | <ul style="list-style-type: none"> <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                   | <b>Plant package “Condensation evaporator”</b><br>Condensation evaporator KVV                | <ul style="list-style-type: none"> <li>• No damage due to dripping condensation</li> <li>• No additional power supply necessary</li> <li>• Overload protection</li> </ul>                                                                                                                          |
| 807 566                   | <b>Plant package “SMART Control”</b><br>Superordinate controller FrigorTec Smart Control FSC | <ul style="list-style-type: none"> <li>• Cyclic switching over for redundant systems</li> <li>• Digital display of pressures and temperatures</li> <li>• Optional regulation of the room pressure by filter/overpressure unit</li> <li>• Optional display of the relative room humidity</li> </ul> |

## Technical specifications CK10:

### Performance data

Cooling performance is included customized in the offer

#### Nominal cooling performance:

17.9 kW | 61,080 btu/h

- At 27 °C room temperature, 52 % rel. room air humidity  
35 °C ambient temperature
- Refrigerant R134a / R513A

#### Heating power

6.2 to 12.3 kW | 21,155 btu/h to 41,970 btu/h

Wide heating capacity on request

#### Air flow volume:

3,500 m³/h | 2,060 cfm

### Cooling mode

- Depending on compressor size
- Depends on the option packages and version of heat exchanger

Temperature range R134a

-25 °C to +70 °C | -15 °F to +160 °F

Temperature range R513A

-25 °C to +70 °C | -15 °F to +160 °F

Temperature range R450A

-25 °C to +85 °C | -15 °F to +185 °F

More extreme temperatures upon request

### Heating mode

Temperature range

-25 °C to +30 °C | -15 °F to + 85°F

### Sizes and weight

Weight

approx. 590 kg | 1,300 lb

Dimensions

type, see dimension sheet

### Operating voltage

Further operating voltages upon request

3 ph / 400 V / 50 Hz

3 ph / 460 V / 60 Hz

### Refrigerant

GWP (global warming potential)

R134a / R513A / R450A

1430 / 631 / 605

Filling quantity / CO2 equivalent

depends on the unit version

Subject to technical change.