

TECHNICAL DESCRIPTION
CRANEFRIGOR™ CK16

Date: 22.09.2023
QVO 0454-US
Rev. 03

Technical support: **e-mail:** sales@frigortecamericas.com / **phone:** +1 / (832) 730 - 1894



Figure

CRANEFRIGOR™ CK16

The CRANEFRIGOR™ CK16 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

<i>Scope of delivery</i>	<i>Your benefits!</i>
Refrigerant - Ecological refrigerant - Low greenhouse warming potential	Sustainable operation
Compressor (made by Bizer) - Semi-hermetically sealed construction - Suction-gas-cooled motor - Self-regulating oil sump heater	- Low maintenance - No risk of overheating - Ensures lubrication during the start - Very good availability of spare parts worldwide
Liquefier Cathodic dip coating	- High corrosion resistance - Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load - Shorter maintenance intervals due to smooth surface
Liquefier fan Norm motors in industrial construction with coupled fan wheel	- Powerful - Long runtimes - Very good availability of spare parts worldwide
Evaporator - Zinc-plated steel housing with epoxy-coated aluminum blades - Cleaning opening / Inspection opening	- Excellent heat transfer - Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load - Shorter maintenance interval due to smooth surface. Soiling is easily recognized and simple to clean through the opening
Circulating air fan AC radial fan, industrial construction	- Powerful - Long runtimes
Air filter - Large-area frame filter - Filter class COARSE 90%	- Effective filter with long service life - Easy to replace and clean
Condensation water separation - Drip tray primed and powder-coated in RAL 7035 - Hose connection for condensation - Siphon in condensate line	- No corrosion of the tray - Defined condensation drainage - Avoids the drawing in of contaminated ambient air
Control and power cabinet - Completely wired, according to VDE - Temperature control by thermostat - Operational and fault signal outputs - Powder-coated RAL 7035 - Optional stainless-steel version	- The CRANEFRIGOR™ is ready for connection; at the site, you only have to connect the power supply - Color scheme with high corrosion protection
Casing - Robust, welded construction - Primed and powder-coated in RAL 7035 - Other colors or stainless-steel version optional	- Long service life - Attractive colour scheme with high corrosion protection
Quality assurance - Leakage test - Function test in our plant's test facility	- Operational reliability - Easy commissioning on site

Options packages:

Material order no.	Scope of delivery	Your benefits!
807 611	Option package “Heater” Air heater with temperature monitor and safety temperature limiter	- Comfortable room temperature - Frost protection even at standstill or during maintenance work
807 615	Options packages “Corrosion protection” Corrosion protection package 1	- Multiple-coated pipes - Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti - Multiple-coated pipes
807 619	Corrosion protection package 2	
807 782	Option package “Air duct” Air duct primed and powder coated RAL7035 incl. filter, filter class COARSE 80%	Simple and fast connection to the cooling room
807 623	Option package “Custom” Customer-specific version	Special requirements of a company can be realized, such as: - Custom voltages / Network configurations - Heat exchanger version (fully copper, blade spacing and thickness) - Conductor identification - Special coatings - Protection class
807 628	Options packages “Accessories” Assembly accessories according to specification	- Air duct, holding devices, refrigerating accessories - Spare part package
807 633	Spare parts according to specification	

Plant packages:

Material order no.	Scope of delivery	Your benefits!
807 636	Plant package “Overpressure / Fresh air” Filter/Overpressure unit FT30	- Filtered fresh air supply, adjustable air volume - Creation of overpressure in the room to be cooled; less dust comes in
807 565	Plant package “Condensation evaporator” Condensation evaporator KVV	- No damage due to dripping condensation - No additional power supply necessary - Overload protection
807 566	Plant package “SMART Control” Superordinate controller FrigorTec Smart Control FSC	- Cyclic switching over for redundant systems - Digital display of pressures and temperatures - Optional regulation of the room pressure by filter/overpressure unit - Optional display of the relative room humidity

Technical specifications CK16:

Performance data

Cooling performance is included customized in the offer

Nominal cooling performance: 26.6 kW | 90,765 btu/h

- At 80 °F (27 °C) room temperature, 52 % rel. room air humidity
95 °F (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:

4.300 m³/h | 2,530 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. 610 kg | 1,345 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.