



Figure

## CRANEFRIGOR™ CK30

The CRANEFRIGOR™ CK30 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>Long-term safe usage in accordance with legal regulations (EU) no. 517/2014</li> <li>Sustainable operation</li> </ul>
<b>Compressor</b> (made by Copeland) <ul style="list-style-type: none"> <li>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 aluminium 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 recognised and simple to clean through the opening</li> </ul>
<b>Circulating air fan</b> <ul style="list-style-type: none"> <li>EC radial fan, industrial construction</li> </ul>	<ul style="list-style-type: none"> <li>Powerful</li> <li>Long runtimes</li> <li>Energy-efficient</li> </ul>
<b>Air filter</b> <ul style="list-style-type: none"> <li>Large-area frame filter</li> <li>Filter class COARSE 80%</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>Colour 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 colours 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>
807 613	<b>Option package "Heater"</b> 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>
807 617 807 621	<b>Options packages "Corrosion protection"</b> Corrosion protection package 1 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>
807 784	<b>Option package "Air duct"</b> 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>
807 625	<b>Option package "Custom"</b> Customer-specific version	Special requirements of a company can be realised, such as: <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>
807 630 807 635	<b>Options packages "Accessories"</b> Assembly accessories according to specification 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> 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> 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> 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 CK30:**

**Performance data**

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

**Nominal cooling performance:**

33.5 kW

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

**Air flow volume:**

7,000 m³/h

**Cooling mode**

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

Temperature range R134a

-25 °C to +70 °C

Temperature range R513A

-25 °C to +70 °C

Temperature range R450A

-25 °C to +85 °C

- More extreme temperatures upon request

**Heating mode**

Temperature range

-25 °C to +30 °C

**Sizes and weight**

Weight

approx. 620 kg

Dimensions

type, see dimension sheet

**Operating voltage**

Further operating voltages upon request

3 ph / 400 V / 50 Hz

3 ph / 460 V / 60 Hz

**Protection category**

IP54

**Network type**

TN-S

**Refrigerant**

GWP (global warming potential)

R134a / R513A / R450A

1430 / 631 / 605

Filling quantity / CO2 equivalent

depends on the unit version

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

Subject to technical change.

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.

<b>Refrigerant</b>	<b>Minimum conditioned space before detector is required</b>	
	Volume collector 9,2L	Volume collector 15,7L
R134a	68,0 m <sup>3</sup>	92,4 m <sup>3</sup>
R513A	53,0 m <sup>3</sup>	72,1 m <sup>3</sup>
R450A	43,2 m <sup>3</sup>	58,8 m <sup>3</sup>

ATEL: Exposure limit value for acute toxicity

ODL: Limit value for oxygen deficiency