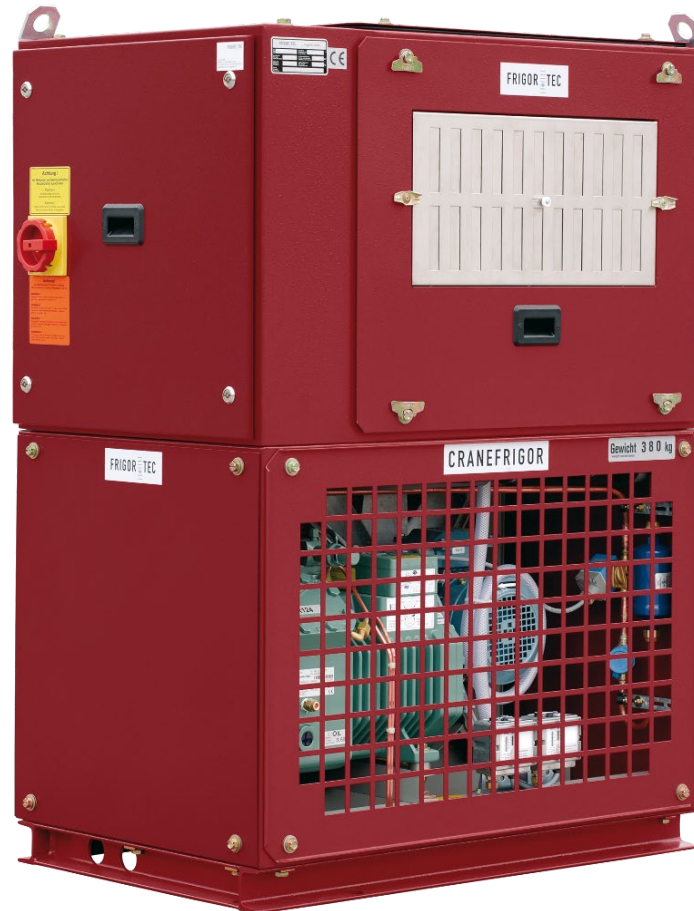


**TECHNICAL DESCRIPTION**  
**CRANEFRIGOR™ TF**

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Rev. 05

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



**Figure**

**CRANEFRIGOR™ TF**

The CRANEFRIGOR™ TF 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>• Cathodic dip coating</li> <li>• Cleaning opening / Inspection opening</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 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 made of stainless steel</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 CRANFRIGOR™ 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 3004</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>
807 474	<b>Options packages “Comfort”</b> Comfort controller FTC-E (installed in electronics room)	<ul style="list-style-type: none"> <li>• Digital actual and setpoint display at the regulator</li> <li>• Mode selector switch On / Off / Ventilation</li> </ul>
807 482	Vibration dampers	<ul style="list-style-type: none"> <li>• Reduction structure-borne noise</li> </ul>
807 487	<b>Option package “Heater”</b> Air heater with temperature monitor	<ul style="list-style-type: none"> <li>• Comfortable room temperature</li> <li>• Frost protection even at standstill or during maintenance work</li> </ul>
807 491	<b>Options packages “Operational reliability”</b> High ambient temperature	<ul style="list-style-type: none"> <li>• Operational reliability during brief increased ambient temperature</li> </ul>
807 495	Low outside temperature	<ul style="list-style-type: none"> <li>• Cooling during outside temperature &lt;+60 °F (&lt;15 °C)</li> </ul>
807 497	Output control	<ul style="list-style-type: none"> <li>• Increased service life during fluctuating thermal loads</li> </ul>
807 502	<b>Options packages “Corrosion protection”</b> Corrosion protection package 1	<ul style="list-style-type: none"> <li>• Multiple-coated pipes</li> </ul>
807 507	Corrosion protection package 2	<ul style="list-style-type: none"> <li>• Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti</li> <li>• Multiple-coated pipes</li> </ul>
807 512	<b>Option package “Custom”</b> Customer-specific version	<p>Special requirements of a company can be realized, 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>• Control cabinet heater, conductor identification</li> <li>• Special coatings</li> <li>• UL-/CSA-conforming unit version</li> <li>• Protection class</li> </ul>
807 517	<b>Options packages “Accessories”</b> Assembly accessories according to specification	<ul style="list-style-type: none"> <li>• Air duct, holding devices, refrigerating accessories</li> </ul>
807 523	Spare parts according to specification	<ul style="list-style-type: none"> <li>• Spare part package</li> </ul>

**Plant packages:**

<i><b>Material order no.</b></i>	<i><b>Scope of delivery</b></i>	<i><b>Your benefits!</b></i>
8807 560	<b>Plant packages “Overpressure / Fresh air”</b> Fresh air supply on the device	<ul style="list-style-type: none"> <li>• Filtered fresh air supply, air volume not adjustable</li> <li>• Filtered fresh air supply, adjustable air volume</li> <li>• Creation of overpressure in the room to be cooled; less dust comes in</li> <li>• Long filter service life due to fully automatic shaking function</li> <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>
807 562	Filter/Overpressure unit FT15	
807 563	Self-cleaning filter/overpressure unit FS10	
807 565	<b>Plant package “Condensation evaporator”</b> Condensation evaporator KVW	<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 TF:

### Performance data

Cooling performance is included customized in the offer

**Nominal cooling performance:** 36.5 kW | 124,545 btu/h

- At 80 °F (27 °C) room temperature, 52 % rel. room air humidity  
95 °F (35 °C) ambient temperature
- Refrigerant R134a / R513A

**Nominal cooling performance:** 32.9 kW | 112,260 btu/h

- At 80 °F (27 °C) room temperature, 52 % rel. room air humidity  
95 °F (35 °C) ambient temperature
- Refrigerant R450A

**Heating capacity** 3.0 to 9.0 kW | 10,235 btu/h to 30,710 btu/h

Wide heating power on request

**Air flow volume:** 4,800 m<sup>3</sup>/h | 2,825 cfm

### Cooling mode

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

Temperature range R134a +15 °C to +70 °C | +60 °F to +160 °F

With option package "low outside temperature" -25 °C to +70 °C | -15 °F to +160 °F

Temperature range R513A +15 °C to +70 °C | +60 °F to +160 °F

With option package "low outside temperature" -25 °C to +70 °C | -15 °F to +160 °F

Temperature range R450A +15 °C to +70 °C | +60 °F to +160 °F

With option package "low outside temperature" -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. 1,260 kg | 2,780 lbs

Dimensions type, see dimension sheet

**Operating voltage** 3 ph / 400 V / 50 Hz

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

**Refrigerant** R134a / R513A / R450A

GWP (global warming potential) 1430 / 631 / 605

Filling quantity / CO2 equivalent depends on the unit version

Subject to technical change.