

TECHNICAL DESCRIPTION
CRANEFRIGOR™ TB

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Figure

CRANEFRIGOR™ TB

The CRANEFRIGOR™ TB 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

Scope of delivery	Your benefits!
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 Speed-controlled EC axial fan in industrial construction for high ambient temperatures	- Powerful - Long runtimes - Energy-efficient
Evaporator - Cathodic dip coating - Cleaning opening / Inspection opening	- High corrosion resistance - 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 Speed-controlled EC radial fan, industrial construction	- Powerful - Long runtimes - Energy-efficient and quiet
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 made of stainless steel - 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 - Climate control box FTC01 - 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 3004 - Other colors or stainless-steel version optional	- Long service life - Attractive color 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!
807 468	Options packages “Comfort” Comfort controller FTC-K (installed in cabin) incl. regulation of cooling performance by hot-gas bypass	• Digital actual and setpoint display at the regulator • Mode selector switch On / Off / Ventilation • Air volume can be set in 3 stages • Minimal temperature fluctuations in the cabin • Digital actual and setpoint display at the regulator • Mode selector switch On / Off / Ventilation • Reduction structure-borne noise
807 474	Comfort controller FTC-E (installed in electronics room)	
807 479	Vibration dampers	
807 484	Option package “Heater” Air heater with temperature monitor and safety temperature limiter	• Comfortable room temperature • Frost protection even at standstill or during maintenance work
807 499	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
807 504	Corrosion protection package 2	
807 509	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
807 514	Options packages “Accessories” Assembly accessories according to specification	• Air duct, holding devices, refrigerating accessories • Spare part package
807 519	Spare parts according to specification	

Plant packages:

Material order no.	Scope of delivery	Your benefits!
807 557	Plant packages “Overpressure / Fresh air” Fresh air supply on the device	• Filtered fresh air supply, air volume not adjustable
807 562	Filter/Overpressure unit FT15	• Filtered fresh air supply, adjustable air volume • Creation of overpressure in the room to be cooled; less dust comes in
807 563	Self-cleaning filter / overpressure unit FS10	• Long filter service life due to fully automatic shaking function • Filtered fresh air supply, adjustable air volume • Creation of overpressure in the room to be cooled; less dust comes in
807 579	Plant package “Condensation evaporator” Condensation evaporator KV1	• 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 TB:

Performance data

Cooling performance is included customized in the offer

Nominal cooling performance:

7 kW | 23,885 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:

6,3 kW | 21,500 btu/h

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

Heating capacity

3,5 kW | 11,943 btu/h

Wide heating power on request

Air flow volume:

1,200 m³/h | 705 cfm

Cooling mode

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

Temperature range R134a

-5 °C to +70 °C | +25 °F to +160 °F

Temperature range R513A

-5 °C to +70 °C | +25 °F to +160 °F

Temperature range R450A

-5 °C to +85 °C | +25 °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. 290 kg | 640 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.