

TECHNICAL DESCRIPTION
CRANEFRIGOR™ TY

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Figure

CRANEFRIGOR™ TY

The CRANEFRIGOR™ TY 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 <ul style="list-style-type: none"> • Ecological refrigerant • Low greenhouse warming potential 	<ul style="list-style-type: none"> • Sustainable operation
Compressor (made by Copeland) <ul style="list-style-type: none"> • Hermetically sealed construction • Suction-gas-cooled motor • Self-regulating oil sump heater 	<ul style="list-style-type: none"> • Low maintenance • No risk of overheating • Ensures lubrication during the start • Very good availability of spare parts worldwide
Liquefier <ul style="list-style-type: none"> • Cathodic dip coating 	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Speed-controlled EC axial fan in industrial construction for high ambient temperatures 	<ul style="list-style-type: none"> • Powerful • Long runtimes • Energy-efficient
Evaporator <ul style="list-style-type: none"> • Zinc-plated steel housing with epoxy-coated aluminum blades • Cleaning opening / Inspection opening 	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Speed-controlled EC radial fan, industrial construction 	<ul style="list-style-type: none"> • Powerful • Long runtimes • Energy-efficient and quiet
Air filter <ul style="list-style-type: none"> • Large-area frame filter • Filter class COARSE 90% 	<ul style="list-style-type: none"> • Effective filter with long service life • Easy to replace and clean
Condensation water separation <ul style="list-style-type: none"> • Drip tray primed and powder-coated in RAL 3004 • Hose connection for condensation • Siphon in condensate line 	<ul style="list-style-type: none"> • No corrosion of the tray • Defined condensation drainage • Avoids the drawing in of contaminated ambient air
Control and power cabinet <ul style="list-style-type: none"> • Completely wired, according to VDE • Temperature control by thermostat • Operational and fault signal outputs • Powder-coated RAL 7035 • Optional stainless-steel version 	<ul style="list-style-type: none"> • The CRANEFRIGOR™ is ready for connection; at the site, you only have to connect the power supply • Color scheme with high corrosion protection
Casing <ul style="list-style-type: none"> • Robust, welded construction • Primed and powder-coated in RAL 3004 • Other colors or stainless-steel version optional 	<ul style="list-style-type: none"> • Long service life • Attractive colour scheme with high corrosion protection
Quality assurance <ul style="list-style-type: none"> • Leakage test • Function test in our plant's test facility 	<ul style="list-style-type: none"> • Operational reliability • Easy commissioning on site

Options packages:

Material order no.	Scope of delivery	Your benefits!
807 639	Option package “Compressor (made by Bizer)” Semi-hermetically sealed construction Suction-gas-cooled motor Self-regulating oil sump heater	<ul style="list-style-type: none"> • Secure operation at higher ambient temperatures • Low maintenance • No risk of overheating • Ensures lubrication during the start • Very good availability of spare parts worldwide
807 642	Option package “Heater” Air heater with temperature monitor	<ul style="list-style-type: none"> • Comfortable room temperature • Frost protection even at standstill or during maintenance work
807 643	Option package “Operational reliability” Low outside temperature	<ul style="list-style-type: none"> • Cooling during outside temperature <60 °F (<15 °C)
807 648 807 652	Options packages “Corrosion protection” Corrosion protection package 1 Corrosion protection package 2	<ul style="list-style-type: none"> • Multiple-coated pipes • Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti • Multiple-coated pipes
807 778	Option package “Air duct” 90° bend incl. filter Filter class COARSE 80%	<ul style="list-style-type: none"> • Simple and fast connection to the cooling room
807 656	Option package “Custom” Customer-specific version	<p>Special requirements of a company can be realised, such as:</p> <ul style="list-style-type: none"> • Custom voltages / Network configurations • Heat exchanger version (fully copper, blade spacing and thickness) • Conductor identification • Special coatings • Protection class
807 660 807 664	Options packages “Accessories” Assembly accessories according to specification Spare parts according to specification	<ul style="list-style-type: none"> • Air duct, holding devices, refrigerating accessories • Spare part package

Plant packages:

Material order no.	Scope of delivery	Your benefits!
807 665 807 562	Plant packages “Overpressure / Fresh air” Fresh air supply on the device Filter/Overpressure unit FT15	<ul style="list-style-type: none"> • Filtered fresh air supply, air volume not adjustable • 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	<ul style="list-style-type: none"> • No damage due to dripping condensation • No additional power supply necessary • Overload protection

Technical specifications TY:

Performance data

Cooling performance is included customized in the offer

Nominal cooling performance:

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

6.4 kW | 21,840 btu/h

Heating capacity

Wide heating power on request

3.5 kW | 11,945 btu/h

Air flow volume:

1,000 m³/h | 590 cfm

Cooling mode

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

Temperature range R134a

With option package "low outside temperature"

-5 °C to +70 °C | +25 °F to +160 °F

-25 °C to +70 °C | -15 °F to +160 °F

Temperature range R513A

With option package "low outside temperature"

-5 °C to +70 °C | +25 °F to +160 °F

-25 °C to +70 °C | -15 °F to +160 °F

Temperature range R450A

With option package "low outside temperature"

-5 °C to +80 °C | +25 °F to +175 °F

-25 °C to +80 °C | -15 °F to +175 °F

Heating mode

Temperature range

-25 °C to +30 °C | -15 °F to +90 °F

Sizes and weight

Weight

Dimensions

approx. 180 kg | 400 lbs

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.