

TECHNICAL DESCRIPTION
CRANEFRIGOR™ VD

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Figure

CRANEFRIGOR™ VD

The CRANEFRIGOR™ VD liquefier 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.

The condensing unit CRANEFRIGOR™ VD is only approved for evaporating temperatures > +15 °F (> -10°C) and is therefore not covered by Ecodesign Directive 2009/125/EC

General description

<i>Scope of delivery</i>	<i>Your benefits!</i>
Compressor (made by Bitzer) - 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
Casing - Robust, welded construction - Primed and powder-coated in RAL 3004 - Other colors or stainless-steel version optional	- Robust, welded construction - Primed and powder-coated in RAL 3004 - Other colors or stainless-steel version optional
Terminal box - Completely wired according to VDE - Powder-coated RAL 7035 - Optional stainless-steel version	- The CRANEFRIGOR™ is wired connection-ready on a terminal strip. - Color scheme with high corrosion protection
Quality assurance - Leakage test - Presetting of the safety devices	- Operational reliability - Easy commissioning on site

Options packages:

Material order no.	Scope of delivery	Your benefits!
807 526 807 531 807 535	Options packages “Operational reliability” High ambient temperature Low outside temperature Output control	• Operational reliability during brief increased ambient temperature • Cooling during outside temperature <60 °F (<15 °C) • Increased service life during fluctuating thermal loads
807 541 807 547	Options packages “Corrosion protection” Corrosion protection package 1 Corrosion protection package 2	• Multiple-coated pipes • Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti • Multiple-coated pipes
807 553	Option package “Custom” Customer-specific version	Special requirements of a company can be realized, such as: • Custom voltages / Network configurations • Liquefier version (fully copper, blade spacing and thickness) • Conductor identification • Special coatings • Protection class

Plant packages:

<i>Material order no.</i>	<i>Scope of delivery</i>	<i>Your benefits!</i>
807 571	Plant packages “Electrical control” Constructed as switchboard or control cabinet • Completely wired, according to VDE • Operational and fault signal outputs • Powder-coated RAL 7035 (control cabinet 600x600x210 mm)	• Adjustable to individual specifications
807 572	Optional stainless steel version (Control cabinet)	• Increased corrosion protection
807 565	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
807 573	Plant packages “Internal unit (Evaporator)” Wall or ceiling version • Operation of several internal units on one liquefier possible • Epoxy-coated blades • Housing primed and powder-coated	• Adjustment options as required for the project • Color scheme with high corrosion protection
805 573	Optional housing in stainless steel version	• Increased corrosion protection
807 562	Plant packages: “Overpressure / Fresh air” 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 • Overload protection
807 575	Plant package “Assembly material” • Refrigerant lines made of copper • Solenoid valves, expansion valves, filter drier, sight glasses • Thermostats • Insulation for suction line • Refrigerant • Plumb-line	• Adjustments and planning as required for the project must be made in advance.

Technical specifications VD:

Performance data

Cooling performance is included customized in the offer

Nominal cooling performance:

24.5 kW | 83,600 btu/h

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

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 +85 °C | +60 °F to +185 °F

With option package "low outside temperature"

-25 °C to +85 °C | -15 °F to +185 °F

- More extreme temperatures upon request

Sizes and weight

Weight

approx. 400 kg | 880 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.