TECHNICAL DESCRIPTION
CRANEFRIGOR™ VH

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Figure

CRANEFRIGOR™ VH

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

General description

Scope of delivery	*Your benefits!*
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 • 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. • Colour 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!*
	Options packages "Operational reliability"	
807 528	High ambient temperature	• Operational reliability during brief increased ambient temperature
807 533	Low outside temperature	• Cooling during outside temperature < 60 °F (<15 °C)
807 537	Output control	• Increased service life during fluctuating thermal loads
	Options packages "Corrosion protection"	
807 543	Corrosion protection package 1	• Multiple-coated pipes
807 549	Corrosion protection package 2	• Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti • Multiple-coated pipes
	Option package "Custom"	
807 556	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:

Material order no.	*Scope of delivery*	*Your benefits!*
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)	• 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 VH:

Performance data
Cooling performance is included customized in the offer

Nominal cooling performance: 55.5 kW | 189,375 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 | - 20 °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 | - 20 °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 | - 20 °F to +185 °F

- More extreme temperatures upon request

Sizes and weight
Weight	approx. 950 kg | 2,095 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	R134a / R513A / R450A
GWP (global warming potential)	1430 / 631 / 605
Filling quantity / CO2 equivalent	depends on the unit version

Subject to technical change.