

TECHNICAL DESCRIPTION

CRANEFRIGOR™ CK__._v

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QVO 0452-US

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Figure

CRANEFRIGOR™ CK__._v

The CRANEFRIGOR™ CK__._v 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 Norm motors in industrial construction with coupled fan wheel	- Powerful - Long runtimes - Very good availability of spare parts worldwide
Evaporator - Zinc-plated steel housing with epoxy-coated aluminum blades - Cleaning opening / Inspection opening	- 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 recognised and simple to clean through the opening
Circulating air fan AC radial fan, industrial construction	- Powerful - Long runtimes
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 primed and powder-coated in RAL 7035 - 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 - Temperature control by thermostat - 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 7035 - Other colours or stainless-steel version optional	- Long service life - Attractive colour 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!
CK12: 807 588 CK18: 807 589 CK24: 807 590 CK30: 807 791	Option package “Heater” Air heater with temperature monitor and safety temperature limiter	• Comfortable room temperature • Frost protection even at standstill or during maintenance work
CK12: 807 591 CK18: 807 592 CK24: 807 593 CK30: 807 792	Options packages “Corrosion protection” Corrosion protection package 1	• Multiple-coated pipes
CK12: 807 594 CK18: 807 595 CK24: 807 596 CK30: 807 793	Corrosion protection package 2	• Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti • Multiple-coated pipes
CK12: 807 597 CK18: 807 598 CK24: 807 599 CK30: 807 794	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
CK12: 807 600 CK18: 807 601 CK24: 807 602 CK30: 807 795	Options packages “Accessories” Assembly accessories according to specification	• Air duct, holding devices, refrigerating accessories
CK12: 807 603 CK18: 807 604 CK24: 807 605 CK30: 807 796	Spare parts according to specification	• Spare part package

Plant packages:

Material order no.	Scope of delivery	Your benefits!
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
807 565	Plant package “Condensation evaporator” Condensation evaporator KVV	• 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 CK__._v:

Performance data

Cooling performance is included customized in the offer

Nominal cooling performance:

CK12._v	12.3 kW		41,970 btu/h
CK18._v	19.5 kW		66,535 btu/h
CK24._v	24.2 kW		82,574 btu/h
CK30._v	31.1 kW		106,120 btu/h

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

Heating power

CK12._v	6,9 kW		23,545 btu/h
CK18._v	6,9 kW		23,545 btu/h
CK24._v	6,9 kW		23,545 btu/h
CK30._v	12,3 kW		41,970 btu/h

Air flow volume:

CK12._v	2,500 m³/h		1,470 cfm
CK18._v	3,500 m³/h		2,060 cfm
CK24._v	4,000 m³/h		2,355 cfm
CK30._v	7,000 m³/h		4,120 cfm

Cooling mode

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

Temperature range R134a	-25 °C to +70 °C		-15 °F to +160 °F
Temperature range R513A	-25 °C to +70 °C		-15 °F to +160 °F
Temperature range R450A	-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
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Sizes and weight

Weight CK12._v	approx. 410 kg		905 lb
Weight CK18._v	approx. 480 kg		1,060 lb
Weight CK24._v	approx. 510 kg		1,125 lb
Weight CK30._v	approx. 630 kg		1,390 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
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Subject to technical change.