

TECHNICAL DESCRIPTION
CRANEFRIGOR™ CK__._v

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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 <ul style="list-style-type: none"> Ecological refrigerant Low greenhouse warming potential 	<ul style="list-style-type: none"> Sustainable operation
Compressor (made by Bizer) <ul style="list-style-type: none"> Semi-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"> Norm motors in industrial construction with coupled fan wheel 	<ul style="list-style-type: none"> Powerful Long runtimes Very good availability of spare parts worldwide
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 recognised and simple to clean through the opening
Circulating air fan <ul style="list-style-type: none"> AC radial fan, industrial construction 	<ul style="list-style-type: none"> Powerful Long runtimes
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 7035 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 7035 Other colours 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!
CK12: 807 588 CK18: 807 589 CK24: 807 590 CK30: 807 791	Option package “Heater” Air heater with temperature monitor and safety temperature limiter	<ul style="list-style-type: none"> • Comfortable room temperature • Frost protection even at standstill or during maintenance work
CK12: 807 591 CK18: 807 592 CK24: 807 593 CK30: 807 792 CK12: 807 594 CK18: 807 595 CK24: 807 596 CK30: 807 793	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
CK12: 807 597 CK18: 807 598 CK24: 807 599 CK30: 807 794	Option package “Custom” Customer-specific version	<p>Special requirements of a company can be realized, 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
CK12: 807 600 CK18: 807 601 CK24: 807 602 CK30: 807 795 CK12: 807 603 CK18: 807 604 CK24: 807 605 CK30: 807 796	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!
807 562	Plant packages “Overpressure / Fresh air” Filter/Overpressure unit FT15	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 KVW	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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		82,5745btu/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 m ³ /h		1,470 cfm
CK18._v	3,500 m ³ /h		2,060 cfm
CK24._v	4,000 m ³ /h		2,355 cfm
CK30._v	7,000 m ³ /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 lbs
Weight CK18._v	approx. 480 kg		1,060 lbs
Weight CK24._v	approx. 510 kg		1,125 lbs
Weight CK30._v	approx. 630 kg		1,390 lbs
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.