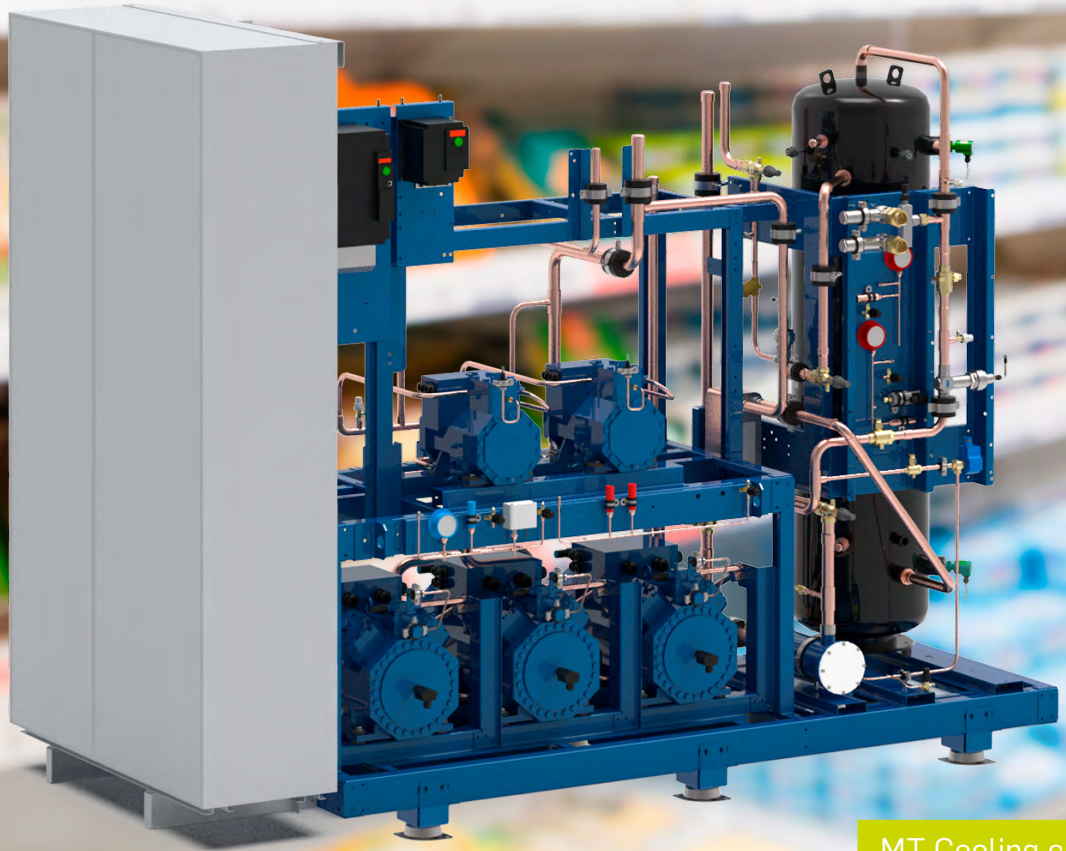
PROFROID

froztec®

MiniCO2OL compact

CO_2 transcritical refrigeration systems for convenience stores and supermarkets



MT Cooling capacity: **45-190 kW**

LT Cooling capacity: **0-57 kW**

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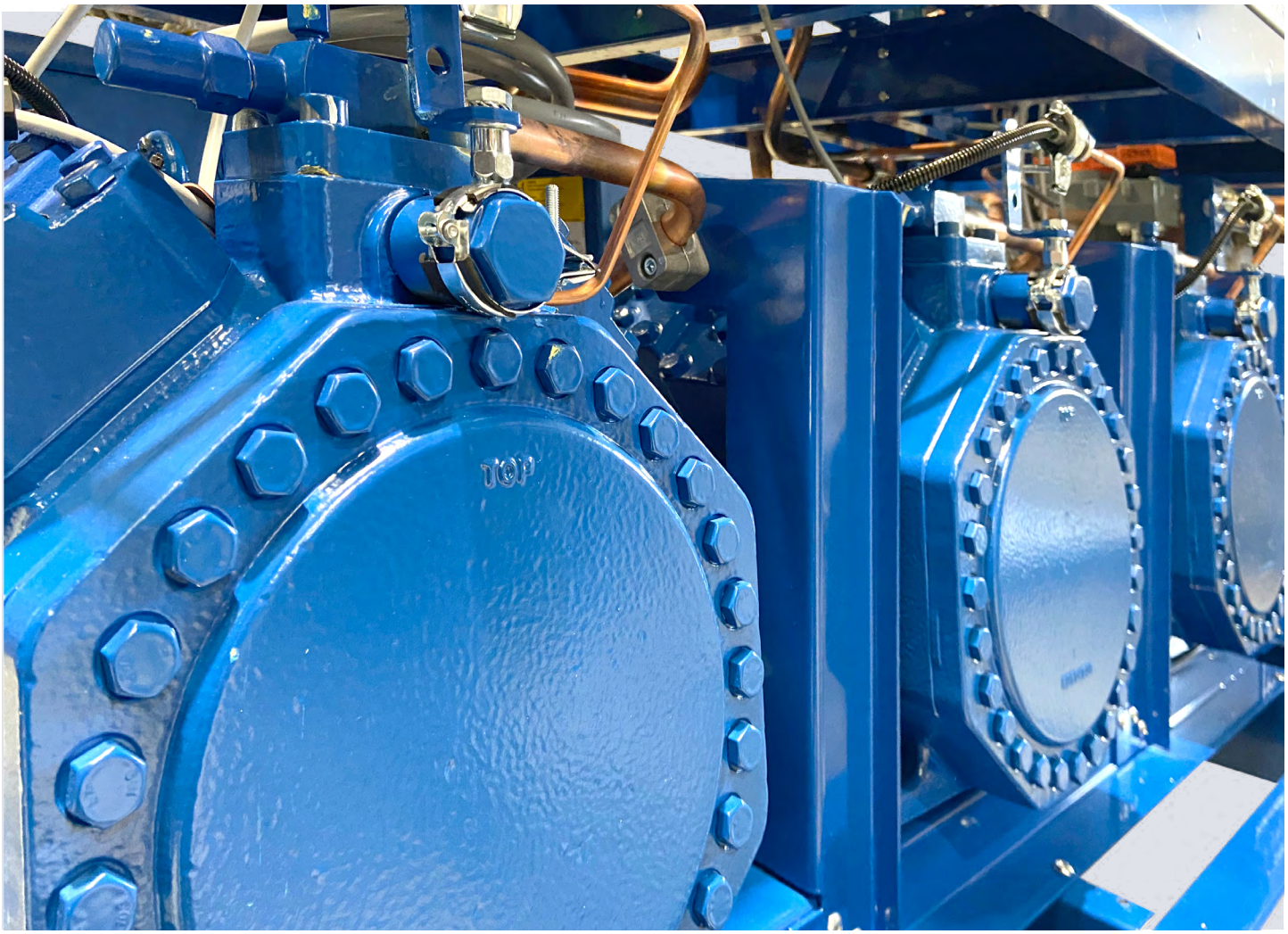


MiniCO$_2$OL® Compact Standard

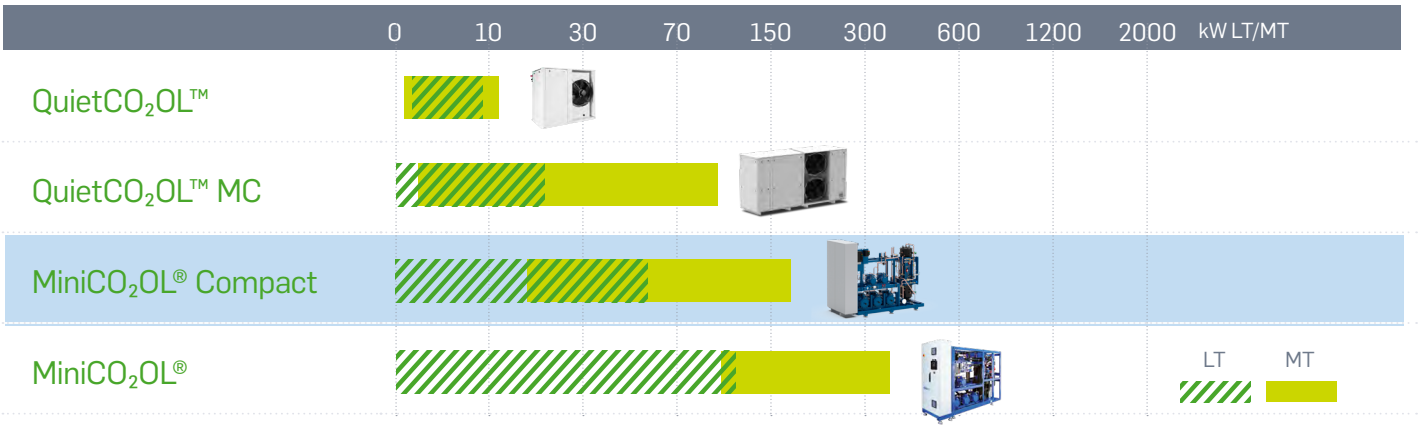
Our new range of MiniCO$_2$OL® Compact S has been designed for small to medium supermarkets as well as for small industrial applications such as cold rooms and bakeries going up to 190kW MT and 56kW LT cooling capacity.

This refrigeration system has been designed and improved based on the track record of the 20.000 CO_2 units installed in Europe and Asia since the beginning of CO_2 refrigeration.

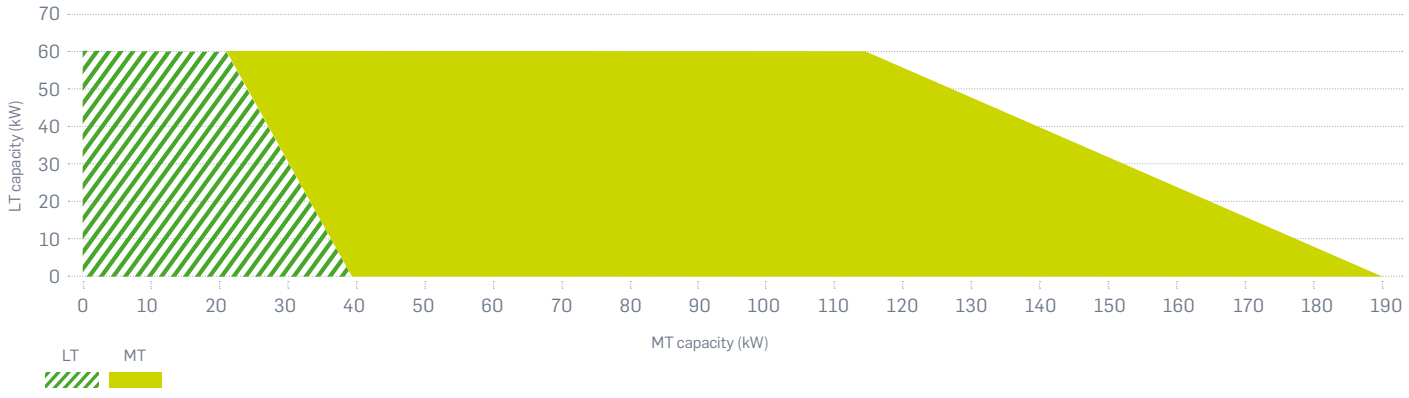
The product range is offering simplicity, easy handling, increased robustness and faster delivery time. It is well adapted for quick installation projects.

Summary

Cooling capacity and applications



Cooling capacity (kW)

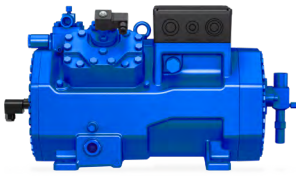


Highlights – efficiency, design and functions

This CO_2 rack for food retail applications has been designed and manufactured in our center of excellence and manufacturing plant located in Aubagne, France. The working conditions and vibration resistance have been tested in our German laboratory located in Mainz. The 60 bar design pressure and increased volume 188L receiver are perfectly adapted to the current and future usages in stores. The simplicity of the standard mini pack controller requires little CO_2 know-how to be run.

Optimized energy efficiency

Heat reclaim for heating and/or tap water available in order to re-use dissipated energy and increase COP



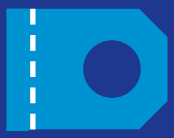
Advanced capacity control CRII for capacity modulation from 10% to 100% on the first MT compressor (option)

Advanced controller available in option with extensive energy management functions: flexible I/O modules add-ons, COP calculation, advanced gas cooler control and pressure optimization

Robust design and increased quality

Standard 60 bar design pressure

Vibration & robustness test performed in our German laboratory



Stable frame convenient to lift, with removable attachment points

Fully standardized production according to Carrier Excellence™ quality process

Simplified control panel and connectivity functions

Little CO_2 know-how required thanks to the simple and intuitive mini pack controller

Get access to the pack data and adjust the parameters in real time through a supervision or a gateway, by using the well known Modbus protocol

Less complexity in the electrical panel for the same protection level

Highlights – selection, delivery & maintenance

The system and the options are fully standardized, which ensures a high quality level, optimized order management and optimized delivery time. A particular attention has been paid to the accessibility and practicality with: an open top frame, the main components labeled (option) and a big size receiver of 300L (option) for more flexibility and safety.

Easier to configure

Cool Systems Select

Find the right configuration thanks to Cool System Select online configurator (release in progress)

Clear list of standard options with their benefits (safety, energy efficiency, modularity, customer support)

Easy selection table for heat reclaim modules

Improved delivery time

Fully standardized and industrialized pack design ensuring reduced manufacturing time

Automated technical configuration and order processing workflow

Better accessibility and maintenance

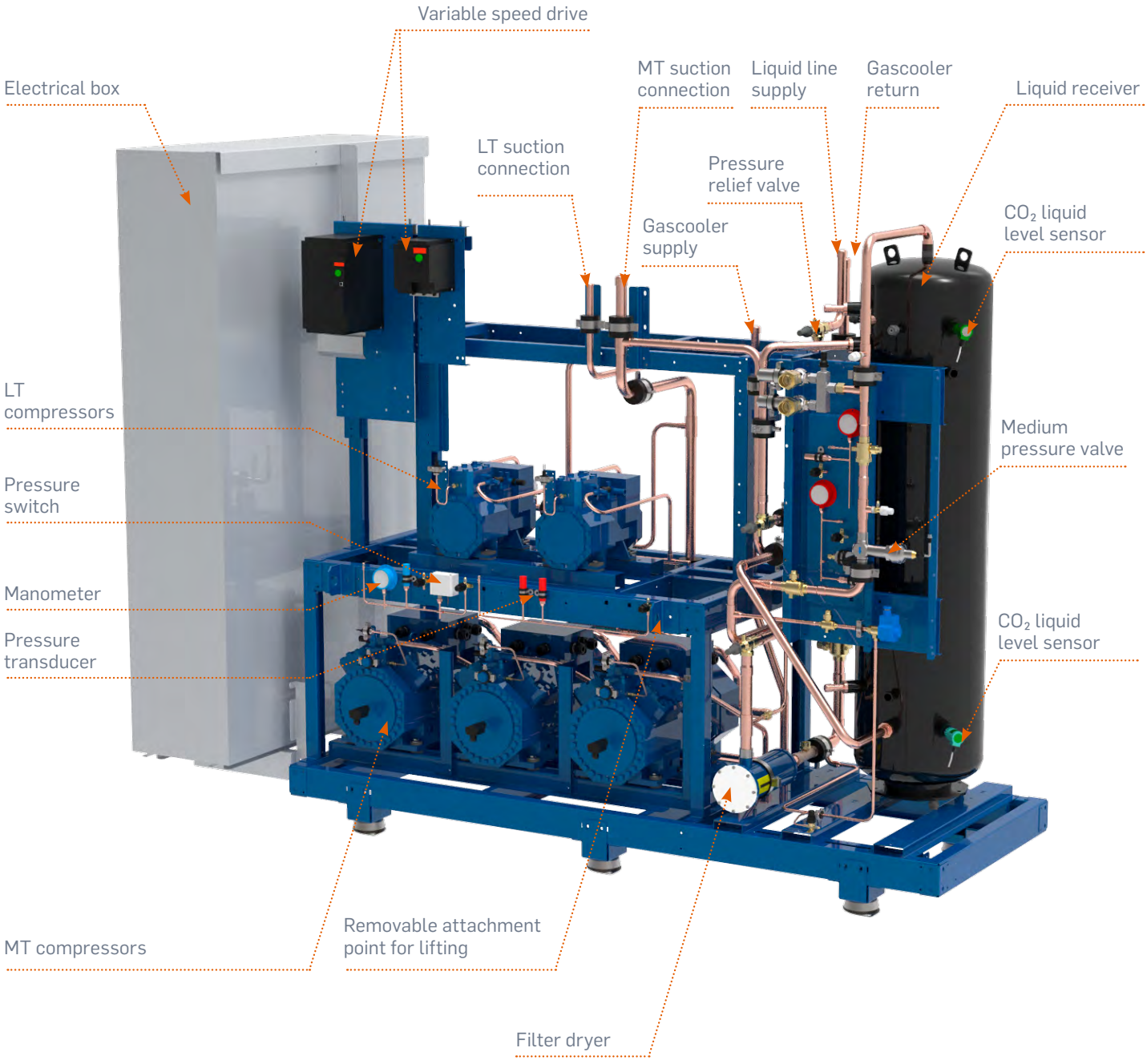
Open frame for better access to components, improved compressor replacement with extra space and clearly identified cable trays

Labeling of all critical component in option

One big size 300L receiver available instead of two receivers for more simplicity

Support for the first commissioning by our own experts in option, and spare parts available across all European countries

Components and connection points



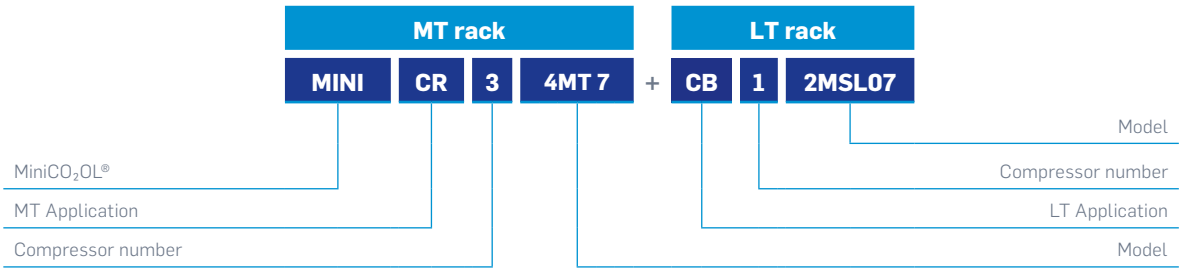
Standard technical features

General information	
Compressor configurations (MTxLT)	3x2 / 3x1 / 3x0
Number of MT compressors	3
Number of LT compressors	0 to 2
Max cooling capacity MT*	190 kW
Max cooling capacity LT*	56 kW
Evaporating range (MT/LT)	-12°C to -5°C / -40°C to -30°C
Power supply voltage (V)	400V / 3 Phases / 50Hz
Weight (kg) (without electrical enclosure)	From 825 kg to 1250 kg
Liquid receiver volume	188L as standard
	300L in option
Frame	
Frame	Steel profiles frame
	RAL5010
	Antivibration pads mounted
Height	1995 mm
Length	2344 mm
Length + e-cabinet	2842 mm
Length + e-cabinet + heat reclaim	3355 mm
Width	850 mm
Design pressure	
High pressure	120 bar
Receiver pressure	60 bar
MT suction pressure	52 bar
LT suction pressure	30 bar
Controller	
Controller brands	Danfoss as standard
	Carel and Eckelmann in option
Heat reclaim (heating + tap water can be combined)	
Heat reclaim range - heating (kW)	Up to 204 kW
Heat reclaim range - tap water (kW)	Up to 50 kW
Electrical cabinet	
Neutral system	TN as standard
Short-circuit current (kA)	10 kA
Other components	
HP & MP valves type	CCMT (HP) / CCM (MP)
Compressors	Semi-hermetic
Frequency inverter	400V, 30Hz to 55Hz (MT compressor)
PED technical documentation	Included

* Conditions: -30°C evap./-5°C 0K subcooling 20K superheating

* Conditions: -5°C evap./38°C gascooler outlet – 94bar / 0K subcooling 15K superheating

Model designation



Compressor configurations

LT/MT cooling capacity			Compressor types				
LT capacity (kW)	MT capacity (kW)	Designation	CP LT1	CP LT2	CP MT1	CP MT2	CP MT3
	44,5	MINI CR3-4MT 7	-	-	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	51,4	MINI CR3-4M-4M-4K S	-	-	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	52,1	MINI CR3-4K-4M-4M S	-	-	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	58,4	MINI CR3-4M-4K-4K S	-	-	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	66	MINI CR3-4KT10 S	-	-	4KTE-10KC	4KTE-10KC	4KTE-10KC
	85,7	MINI CR3-4HT15 S	-	-	4HTE-15KC	4HTE-15KC	4HTE-15KC
0	98,3	MINI CR3-4H-4H-4F S	-	-	4HTE-15KC	4HTE-15KC	4FTE-20KC
	111	MINI CR3-4H-4F-4F S	-	-	4HTE-15KC	4FTE-20KC	4FTE-20KC
	124,9	MINI CR3-4FT20 S	-	-	4FTE-20KC	4FTE-20KC	4FTE-20KC
	146,5	MINI CR3-4F-4D-4D S	-	-	4FTE-20KC	4DTE-25KC	4DTE-25KC
	158,4	MINI CR3-4DT25 S	-	-	4DTE-25KC	4DTE-25KC	4DTE-25KC
	165,5	MINI CR3-4F-4C-4C S	-	-	4FTE-20KC	4CTE-30KC	4CTE-30KC
	187,9	MINI CR3-4CT30 S	-	-	4CTE-30KC	4CTE-30KC	4CTE-30KC
	39,8	MINI CR3-4MT 7+CB1-2MSL07 S	2MSL-.7KB	0	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	46,7	MINI CR3-4M-4M-4K+CB1-2MSL07 S	2MSL-.7KB	0	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	47,4	MINI CR3-4K-4M-4M+CB1-2MSL07 S	2MSL-.7KB	0	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	53,7	MINI CR3-4M-4K-4K+CB1-2MSL07 S	2MSL-.7KB	0	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	61,3	MINI CR3-4KT10+CB1-2MSL07 S	2MSL-.7KB	0	4KTE-10KC	4KTE-10KC	4KTE-10KC
	81	MINI CR3-4HT15+CB1-2MSL07 S	2MSL-.7KB	0	4HTE-15KC	4HTE-15KC	4HTE-15KC
3,8	93,6	MINI CR3-4H-4H-4F+CB1-2MSL07 S	2MSL-.7KB	0	4HTE-15KC	4HTE-15KC	4FTE-20KC
	106,3	MINI CR3-4H-4F-4F+CB1-2MSL07 S	2MSL-.7KB	0	4HTE-15KC	4FTE-20KC	4FTE-20KC
	120,2	MINI CR3-4FT20+CB1-2MSL07 S	2MSL-.7KB	0	4FTE-20KC	4FTE-20KC	4FTE-20KC
	141,8	MINI CR3-4F-4D-4D+CB1-2MSL07 S	2MSL-.7KB	0	4FTE-20KC	4DTE-25KC	4DTE-25KC
	153,7	MINI CR3-4DT25+CB1-2MS071 S	2MSL-.7KB	0	4DTE-25KC	4DTE-25KC	4DTE-25KC
	160,8	MINI CR3-4F-4C-4C+CB1-2MSL07 S	2MSL-.7KB	0	4FTE-20KC	4CTE-30KC	4CTE-30KC
	183,2	MINI CR3-4CT30+CB1-2MSL07 S	2MSL-.7KB	0	4CTE-30KC	4CTE-30KC	4CTE-30KC
	36,8	MINI CR3-4MT 7+CB1-2KSL 1 S	2KSL-1KB	0	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	43,7	MINI CR3-4M-4M-4K+CB1-2KSL 1 S	2KSL-1KB	0	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	44,4	MINI CR3-4K-4M-4M+CB1-2KSL 1 S	2KSL-1KB	0	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	50,7	MINI CR3-4M-4K-4K+CB1-2KSL 1 S	2KSL-1KB	0	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	58,3	MINI CR3-4KT10+CB1-2KSL 1 S	2KSL-1KB	0	4KTE-10KC	4KTE-10KC	4KTE-10KC
	78	MINI CR3-4HT15+CB1-2KSL 1 S	2KSL-1KB	0	4HTE-15KC	4HTE-15KC	4HTE-15KC
6,3	90,6	MINI CR3-4H-4H-4F+CB1-2KSL 1 S	2KSL-1KB	0	4HTE-15KC	4HTE-15KC	4FTE-20KC
	103,3	MINI CR3-4H-4F-4F+CB1-2KSL 1 S	2KSL-1KB	0	4HTE-15KC	4FTE-20KC	4FTE-20KC
	117,2	MINI CR3-4FT20+CB1-2KSL 1 S	2KSL-1KB	0	4FTE-20KC	4FTE-20KC	4FTE-20KC
	138,8	MINI CR3-4F-4D-4D+CB1-2KSL 1 S	2KSL-1KB	0	4FTE-20KC	4DTE-25KC	4DTE-25KC
	150,7	MINI CR3-4DT25+CB1-2KSL 1 S	2KSL-1KB	0	4DTE-25KC	4DTE-25KC	4DTE-25KC
	157,8	MINI CR3-4F-4C-4C+CB1-2KSL 1 S	2KSL-1KB	0	4FTE-20KC	4CTE-30KC	4CTE-30KC
	180,2	MINI CR3-4CT30+CB1-2KSL 1 S	2KSL-1KB	0	4CTE-30KC	4CTE-30KC	4CTE-30KC
	35,9	MINI CR3-4MT 7+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	42,8	MINI CR3-4M-4M-4K+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	43,5	MINI CR3-4K-4M-4M+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	49,8	MINI CR3-4M-4K-4K+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	57,4	MINI CR3-4KT10+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	77,1	MINI CR3-4HT15+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
7	89,7	MINI CR3-4H-4H-4F+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	102,4	MINI CR3-4H-4F-4F+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	116,3	MINI CR3-4FT20+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	137,9	MINI CR3-4F-4D-4D+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	149,8	MINI CR3-4DT25+CB2-2MS071 S	2MSL-.7KB	2MSL-.7KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	156,9	MINI CR3-4F-4C-4C+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	179,3	MINI CR3-4CT30+CB2-2MSL07 S	2MSL-.7KB	2MSL-.7KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	33,4	MINI CR3-4MT 7+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	40,3	MINI CR3-4M-4M-4K+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	41	MINI CR3-4K-4M-4M+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	47,3	MINI CR3-4M-4K-4K+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	54,9	MINI CR3-4KT10+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	74,6	MINI CR3-4HT15+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
9,1	87,2	MINI CR3-4H-4H-4F+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	99,9	MINI CR3-4H-4F-4F+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	113,8	MINI CR3-4FT20+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	135,4	MINI CR3-4F-4D-4D+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	147,3	MINI CR3-4DT25+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	154,4	MINI CR3-4F-4C-4C+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	176,8	MINI CR3-4CT30+CB2-2M/2K S	2MSL-.7KB	2KSL-1KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	31,5	MINI CR3-4MT 7+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	38,4	MINI CR3-4M-4M-4K+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	39,1	MINI CR3-4K-4M-4M+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	45,4	MINI CR3-4M-4K-4K+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	53	MINI CR3-4KT10+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	72,7	MINI CR3-4HT15+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
10,5	85,3	MINI CR3-4H-4H-4F+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	98	MINI CR3-4H-4F-4F+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	111,9	MINI CR3-4FT20+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	133,5	MINI CR3-4F-4D-4D+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	145,4	MINI CR3-4DT25+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	152,5	MINI CR3-4F-4C-4C+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	174,9	MINI CR3-4CT30+CB2-2M/2J S	2MSL-.7KB	2JSL-2KB	4CTE-30KC	4CTE-30KC	4CTE-30KC

* Conditions: -30°C evap./-5°C 0K subcooling 20K superheating

Absorbed / rejected power at 55 Hz			Piping diameter				
Pabs MT - 55 Hz (kW)	Q gas cooler - 55 Hz (kW)*	Pabs LT rack (kW)*	Discharge pipe ø	Gascooler return ø	Liquid line ø	MT suction ø	LT suction ø
24,9	69,4	0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	-
28,6	80	0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	-
29	81,1	0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	-
32,3	90,7	0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	-
36,4	102,4	0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	-
45,4	131,1	0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	-
52,7	151	0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	-
60	171	0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	-
68	192,9	0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	-
81,3	227,8	0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	-
88,7	247,1	0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	-
91	256,5	0	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	-
103,7	291,6	0	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	-
24,9	69,4	0,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
28,6	80	0,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
29	81,1	0,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
32,3	90,7	0,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
36,4	102,4	0,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"5/8
45,4	131,1	0,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"5/8
52,7	151	0,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"5/8
60	171	0,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"5/8
68	192,9	0,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"5/8
81,3	227,8	0,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"5/8
88,7	247,1	0,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"5/8
91	256,5	0,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"5/8
103,7	291,6	0,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"5/8
24,9	69,4	1,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
28,6	80	1,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
29	81,1	1,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
32,3	90,7	1,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"5/8
36,4	102,4	1,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"5/8
45,4	131,1	1,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"5/8
52,7	151	1,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"5/8
60	171	1,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"5/8
68	192,9	1,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"5/8
81,3	227,8	1,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"5/8
88,7	247,1	1,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"5/8
91	256,5	1,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"5/8
103,7	291,6	1,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"5/8
24,9	69,4	1,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	1,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	1,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	1,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	1,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	1,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	1,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	1,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	1,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	1,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	1,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	1,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	1,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	2,0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	2,0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	2,0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	2,0	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	2,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	2,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	2,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	2,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	2,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	2,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	2,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	2,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	2,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	2,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	2,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	2,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	2,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	2,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	2,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	2,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	2,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	2,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	2,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	2,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	2,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	2,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8

* Conditions: -5°C evap./38°C gascooler outlet – 94bar / 0K subcooling 15K superheating

Compressor configurations

LT/MT cooling capacity			Compressor types				
LT capacity (kW)	MT capacity (kW)	Designation	CP LT1	CP LT2	CP MT1	CP MT2	CP MT3
	30,3	MINI CR3-4MT 7+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	37,2	MINI CR3-4M-4M-4K+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	37,9	MINI CR3-4K-4M-4M+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	44,2	MINI CR3-4M-4K-4K+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	51,8	MINI CR3-4KT10+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	71,5	MINI CR3-4HT15+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
11,6	84,1	MINI CR3-4H-4H-4F+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	96,8	MINI CR3-4H-4F-4F+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	110,7	MINI CR3-4FT20+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	132,3	MINI CR3-4F-4D-4D+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	144,2	MINI CR3-4DT25+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	151,3	MINI CR3-4F-4C-4C+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	173,7	MINI CR3-4CT30+CB2-2KSL 1 S	2KSL-1KB	2KSL-1KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	28,4	MINI CR3-4MT 7+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	35,3	MINI CR3-4M-4M-4K+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	36	MINI CR3-4K-4M-4M+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	42,3	MINI CR3-4M-4K-4K+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	49,9	MINI CR3-4KT10+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	69,6	MINI CR3-4HT15+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
13,1	82,2	MINI CR3-4H-4H-4F+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	94,9	MINI CR3-4H-4F-4F+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	108,8	MINI CR3-4FT20+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	130,4	MINI CR3-4F-4D-4D+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	142,3	MINI CR3-4DT25+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	149,4	MINI CR3-4F-4C-4C+CB2-2K/2J S	2KSL-1KB	2JSL-2KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	171,8	MINI CR3-4CT30+CB2-2K/2H S	2KSL-1KB	2JSL-2KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	25,3	MINI CR3-4MT 7+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	32,2	MINI CR3-4M-4M-4K+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	32,9	MINI CR3-4K-4M-4M+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	39,2	MINI CR3-4M-4K-4K+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	46,8	MINI CR3-4KT10+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	66,5	MINI CR3-4HT15+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
15,6	79,1	MINI CR3-4H-4H-4F+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	91,8	MINI CR3-4H-4F-4F+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	105,7	MINI CR3-4FT20+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	127,3	MINI CR3-4F-4D-4D+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	139,2	MINI CR3-4DT25+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	146,3	MINI CR3-4F-4C-4C+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	168,7	MINI CR3-4CT30+CB2-2JSL 2 S	2JSL-2KB	2JSL-2KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	23,1	MINI CR3-4MT 7+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	30	MINI CR3-4M-4M-4K+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	30,7	MINI CR3-4M-4K-4K+CB2-2MSL07 S	2JSL-2KB	2HSL-3KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	37	MINI CR3-4M-4K-4K+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	44,6	MINI CR3-4KT10+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	64,3	MINI CR3-4HT15+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
17,5	76,9	MINI CR3-4H-4H-4F+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	89,6	MINI CR3-4H-4F-4F+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	103,5	MINI CR3-4FT20+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	125,1	MINI CR3-4F-4D-4D+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	137	MINI CR3-4DT25+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	144,1	MINI CR3-4F-4C-4C+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	166,5	MINI CR3-4CT30+CB2-2J/2H S	2JSL-2KB	2HSL-3KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	19,1	MINI CR3-4MT 7+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	26	MINI CR3-4M-4M-4K+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	26,7	MINI CR3-4M-4K-4K+CB2-2M/2K S	2HSL-3KB	2HSL-3KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	33	MINI CR3-4M-4K-4K+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	40,6	MINI CR3-4KT10+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	60,3	MINI CR3-4HT15+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
20,9	72,9	MINI CR3-4H-4H-4F+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	85,6	MINI CR3-4H-4F-4F+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	99,5	MINI CR3-4FT20+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	121,1	MINI CR3-4F-4D-4D+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	133	MINI CR3-4DT25+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	140,1	MINI CR3-4F-4C-4C+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	162,5	MINI CR3-4CT30+CB2-2HSL 3 S	2HSL-3KB	2HSL-3KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	16,9	MINI CR3-4MT 7+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	23,8	MINI CR3-4M-4M-4K+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	24,5	MINI CR3-4M-4K-4K+CB2-2M/2J S	2GSL-3KB	2GSL-3KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	30,8	MINI CR3-4M-4K-4K+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	38,4	MINI CR3-4KT10+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	58,1	MINI CR3-4HT15+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
22,8	70,7	MINI CR3-4H-4H-4F+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	83,4	MINI CR3-4H-4F-4F+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	97,3	MINI CR3-4FT20+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	118,9	MINI CR3-4F-4D-4D+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	130,8	MINI CR3-4DT25+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	137,9	MINI CR3-4F-4C-4C+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	160,3	MINI CR3-4CT30+CB2-2GSL 3 S	2GSL-3KB	2GSL-3KB	4CTE-30KC	4CTE-30KC	4CTE-30KC

Absorbed / rejected power at 55 Hz			Piping diameter				
Pabs MT - 55 Hz (kW)	Q gas cooler - 55 Hz (kW)*	Pabs LT rack (kW)*	Discharge pipe ø	Gascooler return ø	Liquid line ø	MT suction ø	LT suction ø
24,9	69,4	2,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	2,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	2,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	2,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	2,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	2,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	2,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	2,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	2,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	2,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	2,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	2,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	2,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	3	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	3	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	3	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	3	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	3	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	3	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	3	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	3	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	3	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	3	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	3	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	3	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	3	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	3,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	3,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	3,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	3,6	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	3,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	3,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	3,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	3,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	3,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	3,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	3,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	3,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	3,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	3,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	3,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	3,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	3,9	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	3,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	3,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	3,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	3,9	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	3,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	3,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	3,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	3,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	3,9	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	4,5	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	4,5	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	4,5	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	4,5	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	4,5	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	4,5	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	4,5	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	4,5	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	4,5	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	4,5	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	4,5	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	4,5	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	4,5	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
24,9	69,4	4,8	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
28,6	80	4,8	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
29	81,1	4,8	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
32,3	90,7	4,8	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	"7/8
36,4	102,4	4,8	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	"7/8
45,4	131,1	4,8	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
52,7	151	4,8	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
60	171	4,8	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	"7/8
68	192,9	4,8	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
81,3	227,8	4,8	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
88,7	247,1	4,8	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	"7/8
91	256,5	4,8	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8
103,7	291,6	4,8	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	"7/8

Compressor configurations

LT/MT cooling capacity			Compressor types				
LT capacity (kW)	MT capacity (kW)	Designation	CP LT1	CP LT2	CP MT1	CP MT2	CP MT3
	13,4	MINI CR3-4MT 7+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	20,3	MINI CR3-4M-4M-4K+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	21	MINI CR3-4M-4K-4K+CB2-2KSL 1 S	2GSL-3KB	2FSL-4KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	27,3	MINI CR3-4M-4K-4K+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	34,9	MINI CR3-4KT10+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	54,6	MINI CR3-4HT15+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
25,6	67,2	MINI CR3-4H-4H-4F+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	79,9	MINI CR3-4H-4F-4F+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	93,8	MINI CR3-4FT20+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	115,4	MINI CR3-4F-4D-4D+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	127,3	MINI CR3-4DT25+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	134,4	MINI CR3-4F-4C-4C+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	156,8	MINI CR3-4CT30+CB2-2G/2F S	2GSL-3KB	2FSL-4KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	6,1	MINI CR3-4MT 7+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4MTE- 7KC	4MTE- 7KC	4MTE- 7KC
	13	MINI CR3-4M-4M-4K+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4MTE- 7KC	4MTE- 7KC	4KTE-10KC
	13,7	MINI CR3-4M-4K-4K+CB2-2JSL 2 S	2FSL-4KB	2FSL-4KB	4KTE-10KC	4MTE- 7KC	4MTE- 7KC
	20	MINI CR3-4M-4K-4K+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4MTE- 7KC	4KTE-10KC	4KTE-10KC
	27,6	MINI CR3-4KT10+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	47,3	MINI CR3-4HT15+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
31,7	59,9	MINI CR3-4H-4H-4F+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	72,6	MINI CR3-4H-4F-4F+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
	86,5	MINI CR3-4FT20+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	108,1	MINI CR3-4F-4D-4D+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	120	MINI CR3-4DT25+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	127,1	MINI CR3-4F-4C-4C+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	149,5	MINI CR3-4CT30+CB2-2FSL 4 S	2FSL-4KB	2FSL-4KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	22,8	MINI CR3-4KT10+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	42,5	MINI CR3-4HT15+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
	55,1	MINI CR3-4H-4H-4F+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	67,8	MINI CR3-4H-4F-4F+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
35,8	81,7	MINI CR3-4FT20+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	103,3	MINI CR3-4F-4D-4D+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	115,2	MINI CR3-4DT25+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	122,3	MINI CR3-4F-4C-4C+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	144,7	MINI CR3-4CT30+CB2-2H/2C S	2HSL-3KB	2CSL-6KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	18,5	MINI CR3-4KT10+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	38,2	MINI CR3-4HT15+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
	50,8	MINI CR3-4H-4H-4F+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	63,5	MINI CR3-4H-4F-4F+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
39,5	77,4	MINI CR3-4FT20+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	99	MINI CR3-4F-4D-4D+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	110,9	MINI CR3-4DT25+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	118	MINI CR3-4F-4C-4C+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	140,4	MINI CR3-4CT30+CB2-2ESL 4 S	2ESL-4KB	2ESL-4KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	15,3	MINI CR3-4KT10+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4KTE-10KC	4KTE-10KC	4KTE-10KC
	35	MINI CR3-4HT15+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
	47,6	MINI CR3-4H-4H-4F+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	60,3	MINI CR3-4H-4F-4F+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
42,1	74,2	MINI CR3-4FT20+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	95,8	MINI CR3-4F-4D-4D+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	107,7	MINI CR3-4DT25+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	114,8	MINI CR3-4F-4C-4C+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	137,2	MINI CR3-4CT30+CB2-2F/2C S	2FSL-4KB	2CSL-6KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	29,6	MINI CR3-4HT15+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
	42,2	MINI CR3-4H-4H-4F+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	54,9	MINI CR3-4H-4F-4F+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
46,6	68,8	MINI CR3-4FT20+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	90,4	MINI CR3-4F-4D-4D+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	102,3	MINI CR3-4DT25+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	109,4	MINI CR3-4F-4C-4C+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	131,8	MINI CR3-4CT30+CB2-2DSL 5 S	2DSL-5KB	2DSL-5KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	24,7	MINI CR3-4HT15+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
	37,3	MINI CR3-4H-4H-4F+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	50	MINI CR3-4H-4F-4F+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
50,7	63,9	MINI CR3-4FT20+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	85,5	MINI CR3-4F-4D-4D+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	97,4	MINI CR3-4DT25+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	104,5	MINI CR3-4F-4C-4C+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	126,9	MINI CR3-4CT30+CB2-2D/2C S	2DSL-5KB	2CSL-6KB	4CTE-30KC	4CTE-30KC	4CTE-30KC
	17,7	MINI CR3-4HT15+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4HTE-15KC
	30,3	MINI CR3-4H-4H-4F+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4HTE-15KC	4HTE-15KC	4FTE-20KC
	43	MINI CR3-4H-4F-4F+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4HTE-15KC	4FTE-20KC	4FTE-20KC
56,5	56,9	MINI CR3-4FT20+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4FTE-20KC	4FTE-20KC	4FTE-20KC
	78,5	MINI CR3-4F-4D-4D+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4FTE-20KC	4DTE-25KC	4DTE-25KC
	90,4	MINI CR3-4DT25+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4DTE-25KC	4DTE-25KC	4DTE-25KC
	97,5	MINI CR3-4F-4C-4C+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4FTE-20KC	4CTE-30KC	4CTE-30KC
	119,9	MINI CR3-4CT30+CB2-2CSL 6 S	2CSL-6KB	2CSL-6KB	4CTE-30KC	4CTE-30KC	4CTE-30KC

Absorbed / rejected power at 55 Hz			Piping diameter				
Pabs MT - 55 Hz (kW)	Q gas cooler - 55 Hz (kW)*	Pabs LT rack (kW)*	Discharge pipe ø	Gascooler return ø	Liquid line ø	MT suction ø	LT suction ø
24,9	69,4	5,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
28,6	80	5,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
29	81,1	5,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
32,3	90,7	5,4	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
36,4	102,4	5,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8
45,4	131,1	5,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
52,7	151	5,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
60	171	5,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
68	192,9	5,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
81,3	227,8	5,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
88,7	247,1	5,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
91	256,5	5,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
103,7	291,6	5,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
24,9	69,4	6,7	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
28,6	80	6,7	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
29	81,1	6,7	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
32,3	90,7	6,7	1"1/8 K65	"7/8 K65	"7/8 K65	1"1/8 K65	1"1/8
36,4	102,4	6,7	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8
45,4	131,1	6,7	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
52,7	151	6,7	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
60	171	6,7	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
68	192,9	6,7	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
81,3	227,8	6,7	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
88,7	247,1	6,7	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
91	256,5	6,7	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
103,7	291,6	6,7	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
36,4	102,4	7,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8
45,4	131,1	7,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
52,7	151	7,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
60	171	7,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
68	192,9	7,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
81,3	227,8	7,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
88,7	247,1	7,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
91	256,5	7,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
103,7	291,6	7,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
36,4	102,4	8,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8
45,4	131,1	8,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
52,7	151	8,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
60	171	8,0	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
68	192,9	8,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
81,3	227,8	8,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
88,7	247,1	8,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
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103,7	291,6	8,0	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
36,4	102,4	8,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"1/8
45,4	131,1	8,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
52,7	151	8,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
60	171	8,6	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"1/8
68	192,9	8,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
81,3	227,8	8,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
88,7	247,1	8,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"1/8
91	256,5	8,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
103,7	291,6	8,6	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"1/8
45,4	131,1	9,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"3/8
52,7	151	9,4	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"3/8
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88,7	247,1	9,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	1"5/8 K65	1"3/8
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103,7	291,6	9,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"3/8
45,4	131,1	10,2	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"3/8
52,7	151	10,2	1"1/8 K65	1"1/8 K65	1"1/8 K65	1"3/8 K65	1"3/8
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103,7	291,6	11,4	1"3/8 K65	1"1/8 K65	1"3/8 K65	2"1/8 K65	1"3/8

Available options and functions

Function / option	Description	Main benefit
Mechanical systems		
Active oil management	The active oil management is recommended to ensure optimal compressors lubrication. It includes: the separator, the oil tank, the oil level regulators on the compressors.	
Larger receiver volume (300L)	A larger receiver volume gives you more flexibility and safety, allows longer piping distances	
Heat recovery - heating	Select the heat recovery with the selection table in appendix. Option mounted on the rack with Isolating valve + anti-boiling 3-ways valve + gas Cooler Bypass + Muffler (if no active oil management). Can be combined with heat recovery for sanitary hot water usage.	
Heat recovery – tap water	Select the heat recovery with the selection table in appendix Option mounted on the rack with Isolating valve+ anti-boiling 3-ways valve + gas Cooler Bypass + Muffler (if no active oil management). Can be combined with heat recovery for heating usage.	
Components labeling	The 40 main components are identified with labels, having the same code than on the PID.	
Receiver emergency cooler	Stabilize the pressure inside the liquid receiver in case of power failure. Option mounted on the rack with the shut-off valve.	
LT suction accumulator	Avoid liquid refrigerant to be sucked into the LT compressors. Option mounted on the rack with double safety valve.	
Optical oil level monitoring - OLCK1	Monitors the right oil level inside the compressor	
Connections for LT desuperheater	Allows to connect a heat exchanger in order to reduce the superheat at the MT compressors suction	
Muffler at common MT discharge line	Reduces pulsations in the circuit. Not necessary in case of active oil management. Mandatory in case of passive oil management combined with heat reclaim.	
Instrumentation & valves		
High and low level switch on CO_2 liquid receiver	Indicates if liquid CO_2 reached the low and high level in the receiver	
CO_2 manometers	Indicates pressure of refrigerant at different points of the circuit	
LP safety switch for MT rack	Reinforce MT rack safety (discharge)	
LP safety switch for LT rack	Reinforce LT rack safety (suction)	
HP safety switch for LT rack	Reinforce LT rack safety (discharge)	
CO_2 liquid level measurement (DNI)	Connections only. When used in the dedicated system (not in the delivery) it allows to monitor the exact liquid level in the receiver. (Only available with Danfoss or Carel controller) Informations can be crossed with operational datas in order to give warnings if a refrigerant leak is detected.	
CO_2 liquid level measurement (Ice Smart)		
Suction valve and suction line filter (LT)	Maintain a clean circuit (LT side)	
Suction valve and suction line filter (MT)	Maintain a clean circuit (MT side)	
Electrical devices & Controls		
Plug&play electrical cabinet	Delivery of the electrical cabinet fully assembled, wired and tested with the right protections and neutral system for managing the rack, the gascooler and the heat recovery if needed. More information in the electrical cabinet's section.	
Wiring of the cabinet and rack	Wiring of the power and controls from the electrical cabinet to the rack	
Additional cable length	Allows to position the electrical cabinet at a certain distance from the rack (against a wall for instance). Cable lengths available in 2, 5 and 10 meters.	
Frequency Inverter on LT1 compressor	Variable speed drive for extended capacity control on LT racks	
Frequency Inverter FC301 Danfoss	Danfoss variable speed drive	
Capacity regulation (CRII)	Capacity regulation from 10% to 100% fitted with Bitzer's IQ module. The option includes: CRII solenoid valves on compressors, specific compressor, discharge temperature sensor, control box (CM-RC-01), oil level controller type OLC-K1 / OLC-DP1.	
Advanced Danfoss controller (AKPC782)	This controller provides more control capability, advanced energy management and communication features	
Electrical energy meter	It measures the amount of electrical energy consumed	
Carel controller	Pre-set & mounted Carel rack controller (+probes)	
Eckelmann controller	Pre-set & mounted Eckelmann rack controller (+probes)	
Back-up controller (Danfoss)	Delivered separately non programmed. Allows to quickly replace the controller in case of failure (Parameters need to be adjusted according to the installation)	
Back-up controller (Carel)		

Function / option	Description	Main benefit
Technical support		
Support for commissioning from experts in CO_2	Commissioning support with our CO_2 experts: - Technical commissioning in your presence - Control and backup of main controller parameters - Tests off load: I/O modules, electrical cabinet, actuators, regulation and safety devices - Tests under load: compressors, regulation devices and safety - Commissioning reports	
Warranty extension (1 extra year)	1 year warranty extension to benefit from premium service (maximum 2 years)	

Safety Energy efficiency Monitoring Practicality

Heat reclaim function

Heat can be reclaimed for sanitary hot water (tap water) or/and heating.
Both usages can be combined by using 2 exchangers.

Conditions:

- P CO_2: 85 bar
- T CO_2 inlet: +115°C
- Pressure drop (water side): 30 kPa
- CO_2 flow rate: 60 % of the total
- CO_2 outlet: depending water temperatures

		Heating water temperature*	Heat exchanger model & max capacity**				
			Type 1	**Type 2**	**Type 3**	**Type 4**	**Tap water**
	Sanitary hot water	+25°C/65°C					50 kW max
		+40°C/45°C		63 kW max		88 kW max	
	Heating	+20°C/45°C	113 kW max		204 kW max		
		+25°C/45°C	104 kW max		187 kW max		
		+30°C/50°C	81 kW max		141 kW max		
		+35°C/45°C		74 kW max		130 kW max	
		+50°C/60°C	46 kW max		80 kW max		
		+30°C/45°C	81 kW max		156 kW max		

* Other water temperature can be considered, please contact us for specific demands
** The capacities represent the maximum value of heat recovered. The real value can be lower depending on your rack. Each heat exchanger covers a part of the rack capacity range only. In order to select the right combination of rack + heat exchanger, please consult us.

Electrical cabinet – simplicity and clarity

The design of the electrical cabinet is based on the essentials which are the control of the rack, the gascooler and the heat recovery.

Controllers:

- The standard controller is a mini pack controller
- The outputs are connected directly to the devices to be controlled
- Some information are collected on one single entry in order to reduce the configuration effort of the controller while maintaining all its functionalities
- For programming details, refer to the controller documentation

Heat reclaim:

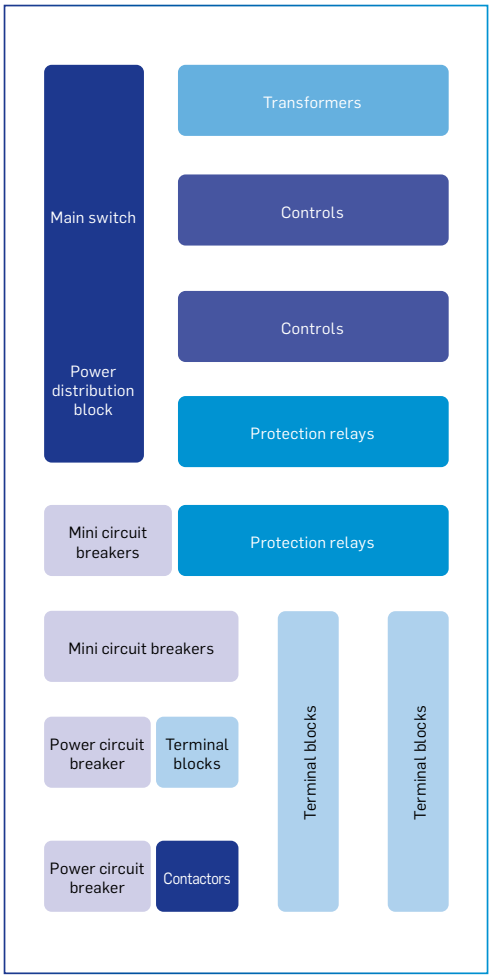
- Valves and pumps are managed by the controller
- For the pumps, a 0-10V setpoint signal and an enable signal are provided on terminal blocks. (The pump power supply is not included)

Electrical cabinet:

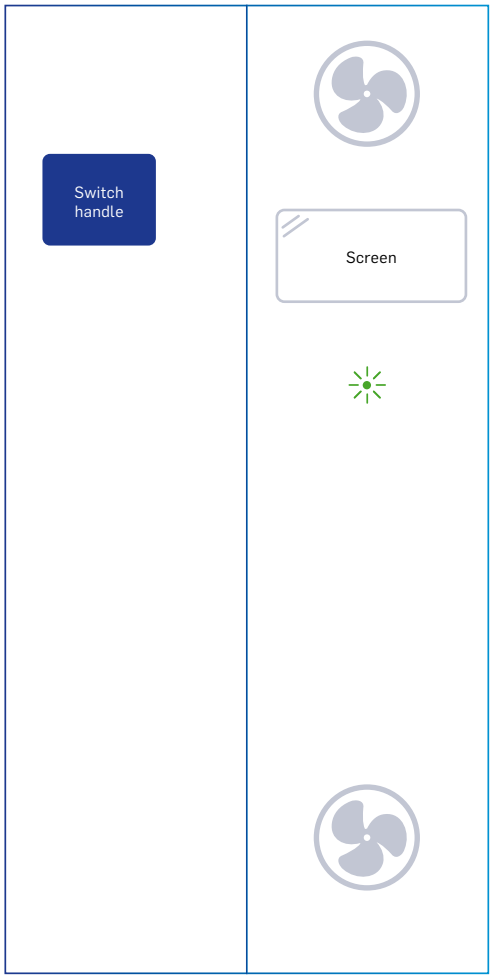
- The standard control cabinet has the following dimensions: H 2000 x W 1000 x D 400, with 2 doors

Example of electrical cabinet layout with mini pack controller and heat reclaim controller

Inside view

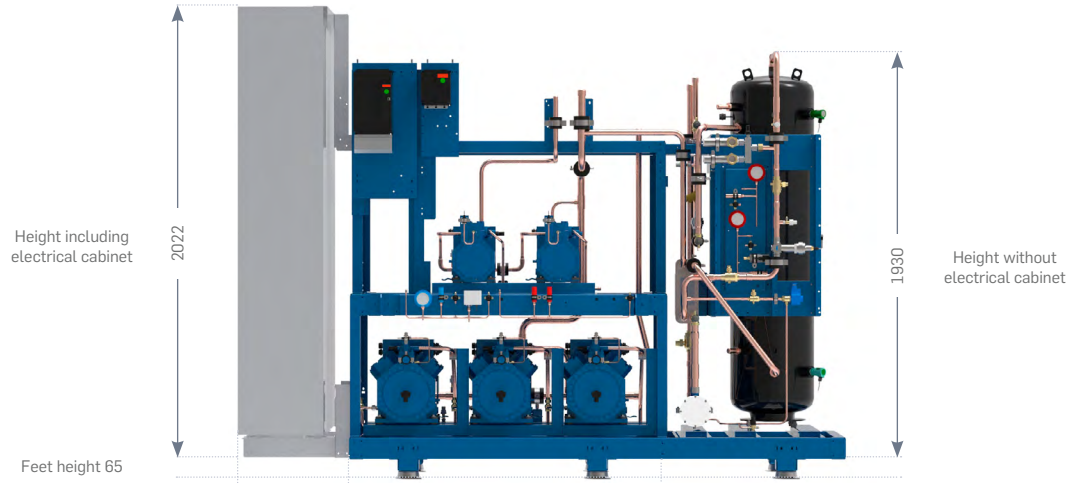


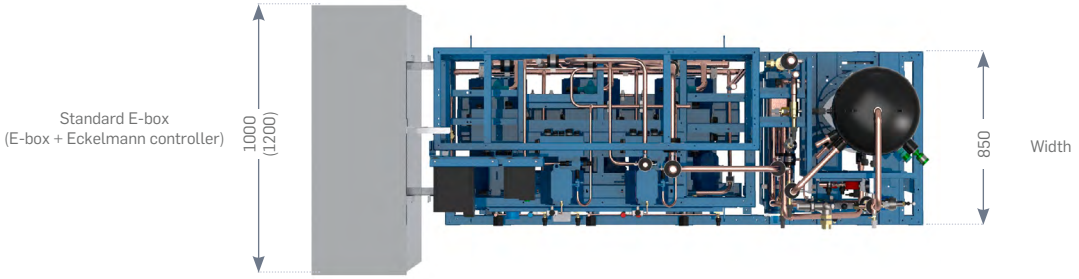
Door view



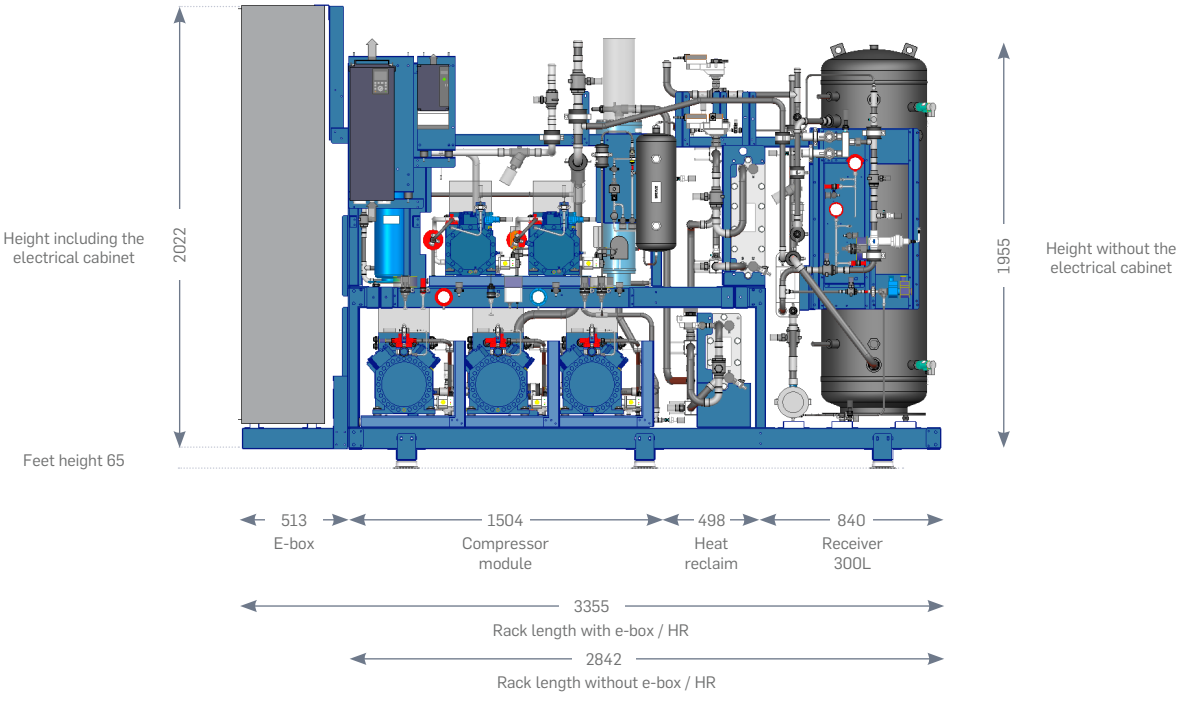
Dimensions (mm)

Simple model without heat reclaim





Model with advanced functions and heat reclaim



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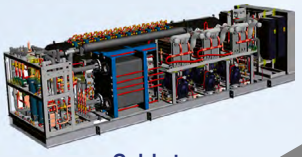
Small cold room

PowerCOOL



Cold storage

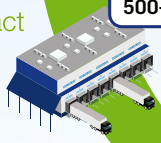
QuietCOOL MC

Convenience store

MiniCOOL compact

Supermarket

MaxiCOOL compact



Distribution
center

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Hypermarché

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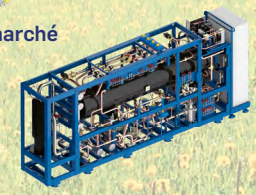

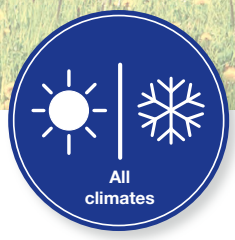

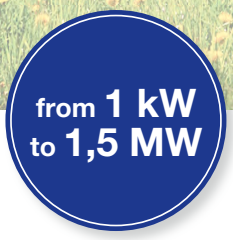

More than

20 000 $_2$ *units produced*

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