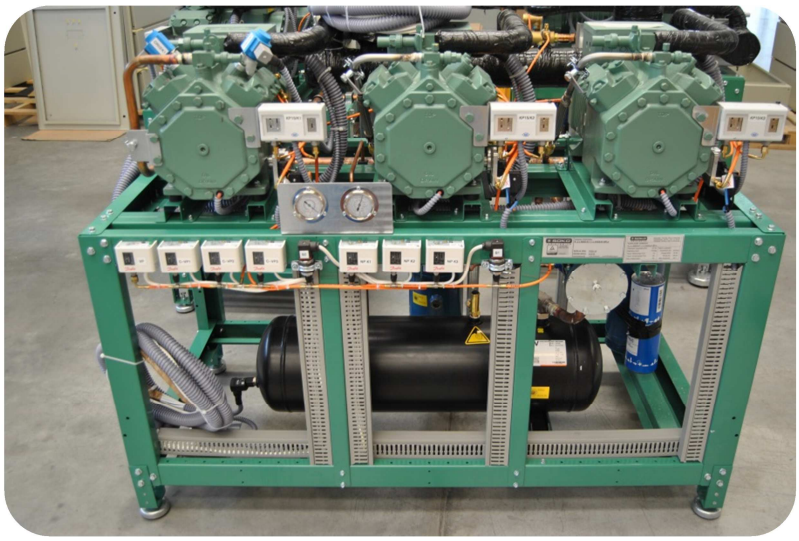
MULTICOMPRESSOR COOLING RACKS

SOKO®
INŽINJERING

MULTICOMPRESSOR COOLING RACKS



- Mechanical oil level regulator or

- Electronic oil level regulator,

- Dual pressure controls for high and low pressure,

- Cooling fan for compressor head and capacity control valve.

ABOUT MULTICOMPRESSOR COOLING RACKS

- The series of multicompressor cooling racks, manufactured by SOKO INŽINJERING, is intended for centralized cooling for medium temperature mode (RAMT) and low temperature mode (RALT). Multicompressor cooling racks consists of two, three or four semi-hermetic compressors operating in a parallel system, manufactured by BITZER.
- Combination of several compressors of different capacities allows for manufacturing of a sufficient number of cooling unit sizes that can meet all needs.
- The cooling unit is equipped with all the necessary regulation, protection and safety elements with high quality guarantee. This type of cooling unit has the following advantages: energy consumption saving, reducing the time for outdoor installation and easier maintenance.

General Technical Characteristics

- Each compressor has Rotalock valves, oil heater, safety pressure switch for high and low pressure, oil pressure switch (if there is an oil pump), capacity control solenoid valves.
- Receiver with its Rotalock valve, safety valve, sight glass and liquid level sensor.
- Pressure collector with high pressure probe, for condensation control and additional protection of compressors from high pressure.
- Suction collector with low pressure probe, connection for oil return from oil tank, with suction filters, structurally designed to guarantee good return of oil to the compressors.
- Oil control system within the system consists of oil separator, oil tank with differential valve, oil level controller on each compressor, oil filters, oil collector.
- Other elements of the piping are: non-return valves on the pressure side of each compressor, flexible hoses, gas drier on the liquid line, sight glass on the liquid line, handling valves, stop valves.
- Cooling fans for each compressor head on RALT cooling units.
- Liquid collector for distribution to consumers.
- Manometers.

- The casing is made of painted galvanized sheet metal of sufficient strength. The cooling units rest on appropriate rubber shock absorbers.
- The cooling units are placed in machine rooms whose dimensions must comply with the standards and regulations due to the space necessary for handling and servicing. Machine rooms should be equipped with ventilation system.

ELECTRIC CABINET

- Each multicompressor cooling racks has its own electric control cabinet with a controller that provides for reliable operation of the cooling unit, meeting all design parameters and having the possibility of connection to the central monitoring and control system.

Electric control cabinet includes all necessary protection, control and signaling elements.

Maintaining a constant suction pressure (by turning on or off individual compressors or control valves on the compressors) allows for fine tuning of the capacity.

The types of controllers used for the control are manufactured by:
"CAREL" type –pRack Pr300 or
"Danfoss" type –AKPC 551.

Standard sizes of multicompressor cooling racks

	Multicompressor cooling racks RAMT			Multicompressor cooling racks RALT	
No.	Cooling unit mark	Cooling capacity - 10/45°C*		Cooling unit mark	Cooling capacity - 35/45°C*
		[KW]			[KW]
1	RAMT7	7.11		RALT5	4.91
2	RAMT11	11.36		RALT7	6.84
3	RAMT17	16.88		RALT10	9.60
4	RAMT23	23.10		RALT14	14.40
5	RAMT28	27.70		RALT17	17.05
6	RAMT34	34.65		RALT23	23.10
7	RAMT40	39.90			
8	RAMT45	45			
9	RAMT50	50.20			
10	RAMT63	63			

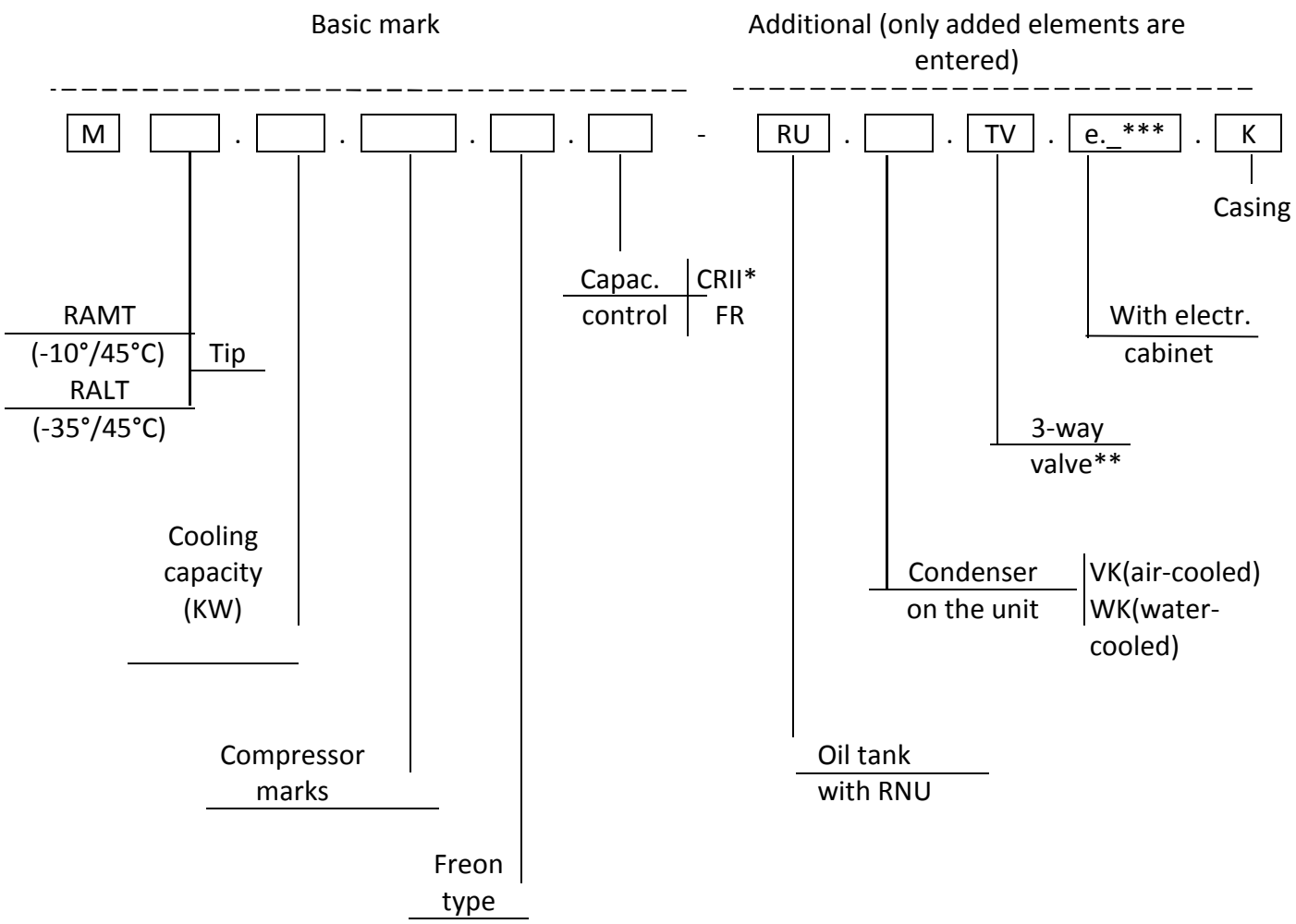
* Necessary information is given in the technical data sheets on the following pages

RAMT – Data for cooling capacity given for the conditions Freon R404A; t_i=-10°C/t_c=45°C according to the standard EN12900

RALT - Data for cooling capacity given for the conditions Freon R404A; t_i=-35°C/t_c=45°C

Each of these cooling units also runs with both R448A and R449A freon.

MULTICOMPRESSOR COOLING RACKS MARKING SYSTEM



*Example of capacity control

2CRII – This means that there are 2 capacity control valves on one compressor
1+1CRII – This means that there is 1 capacity control valve on two compressors

**3-way movable valve is installed if condensation heat is utilized
***Controller type C - CAREL or D – Danfoss is entered

Example:

M RALT.9,6. 2x4CES-6Y. 404A.2CRII- RU.TV.e.C

Explanation:

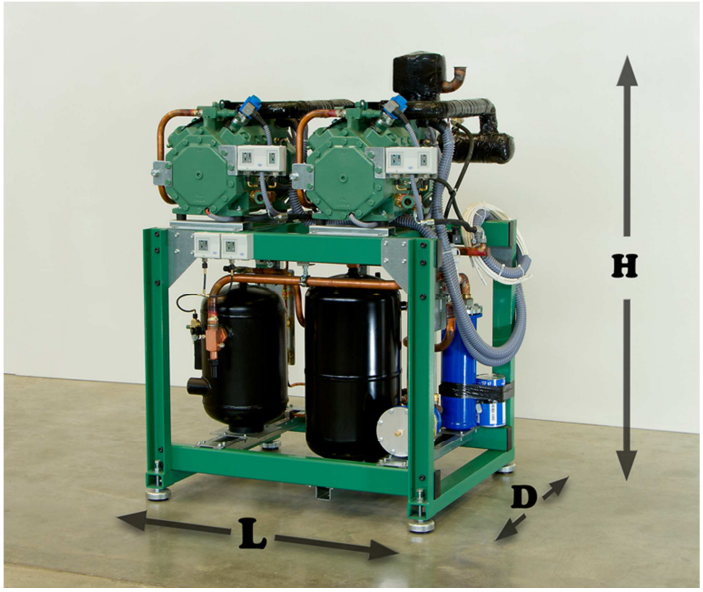
Multicompressor cooling racks for low-temperature mode, capacity of 9.6KW (-35°/45°C) with two BITZER compressors 4CES-6Y, capacity control, oil level control, 3-way energy saving valve and associated electric cabinet and CAREL controller.

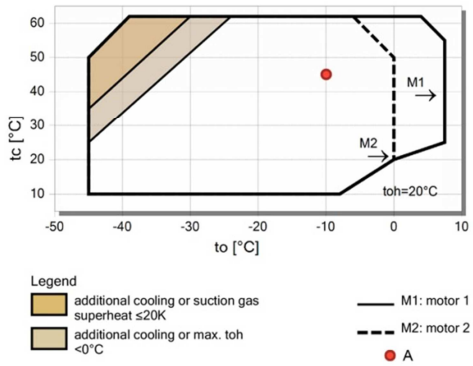
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT7	**213**	**MEDIUM**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
2GES-2Y	**2**	**15L**	**1**	**16**	**28**	**12**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**13,82**	**11,56**	**9,58**	**7,87**	**6,38**	**5,09**
45	**12,55**	**10,48**	**8,68**	**7,11**	**5,74**	**4,56**
50	**11,29**	**9,42**	**7,79**	**6,36**	**5,11**	**4,04**
Absorption [KW] EN12900						
40	**4,01**	**3,86**	**3,66**	**3,44**	**3,18**	**2,90**
45	**4,33**	**4,13**	**3,89**	**3,62**	**3,32**	**2,99**
50	**4,66**	**4,40**	**4,11**	**3,79**	**3,45**	**3,09**
Absorption [A] EN12900						
40	**7,60**	**7,42**	**7,20**	**6,94**	**6,64**	**6,34**
45	**7,98**	**7,74**	**7,46**	**7,14**	**6,80**	**6,44**
50	**8,38**	**8,06**	**7,72**	**7,34**	**6,94**	**6,54**

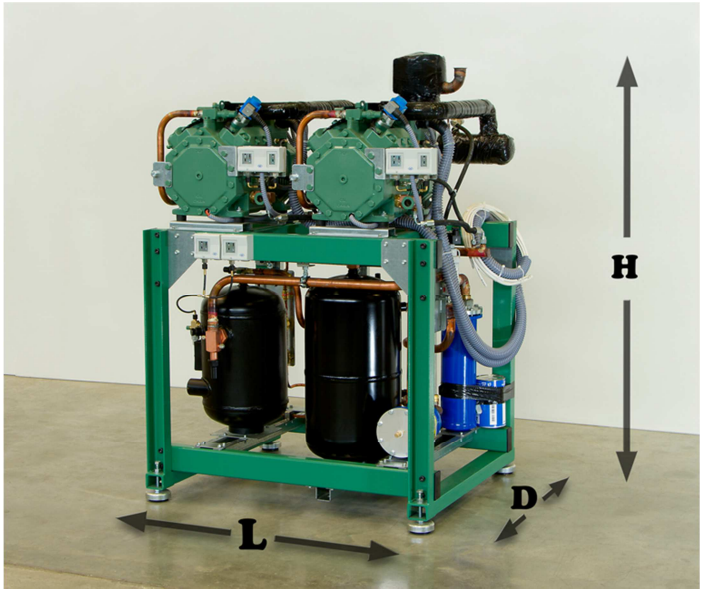
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**10 A**	**R404A**	**Anex I pg.**

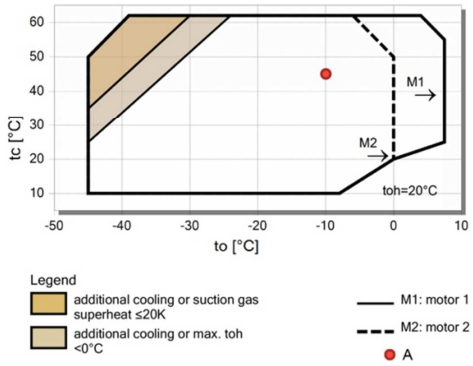
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT11	**340**	**MEDIUM**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
2EES-2Y	**2**	**25L**	**1**	**18**	**35**	**16**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**18,51**	**15,35**	**12,59**	**10,20**	**8,13**
45	**-**	**16,77**	**13,88**	**11,36**	**9,17**	**7,27**
50	**-**	**14,98**	**12,37**	**10,09**	**8,10**	**6,38**
Absorption [KW] EN12900						
40	**-**	**5,61**	**5,28**	**4,89**	**4,47**	**4,01**
45	**-**	**5,99**	**5,57**	**5,12**	**4,63**	**4,11**
50	**-**	**6,31**	**5,82**	**5,30**	**4,74**	**4,18**
Absorption [A] EN12900						
40	**-**	**9,76**	**9,30**	**8,76**	**8,18**	**7,58**
45	**-**	**10,30**	**9,70**	**9,06**	**8,40**	**7,72**
50	**-**	**10,76**	**10,06**	**9,32**	**8,56**	**7,80**

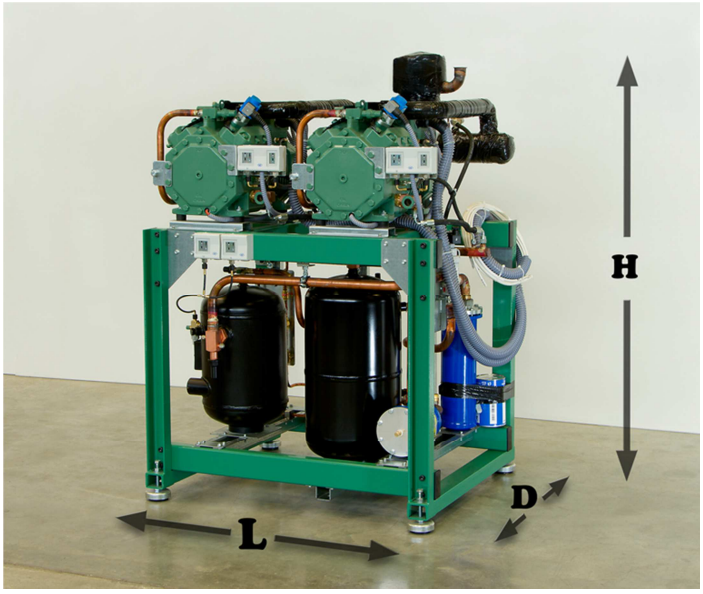
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**12 A**	**R404A**	**Anex I pg.**

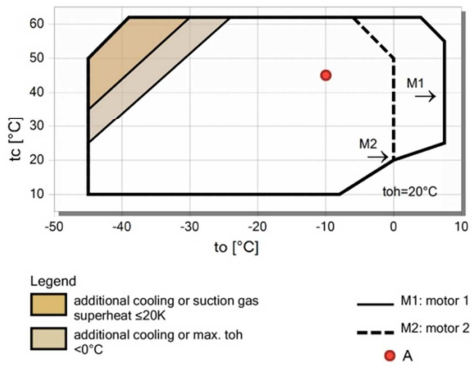
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT17	**506**	**MEDIUM**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
2CES-3Y	**2**	**35L**	**1**	**22**	**35**	**16**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**27,1**	**22,6**	**18,62**	**15,19**	**12,21**
45	**-**	**24,6**	**20,5**	**16,88**	**13,73**	**11**
50	**-**	**22,1**	**18,36**	**15,09**	**12,23**	**9,75**
Absorption [KW] EN12900						
40	**-**	**8,31**	**7,84**	**7,30**	**6,70**	**6,06**
45	**-**	**8,91**	**8,33**	**7,68**	**6,99**	**6,27**
50	**-**	**9,45**	**8,76**	**8,02**	**7,23**	**6,43**
Absorption [A] EN12900						
40	**-**	**14,62**	**13,96**	**13,18**	**12,36**	**11,50**
45	**-**	**15,52**	**14,66**	**13,74**	**12,76**	**11,78**
50	**-**	**16,32**	**15,30**	**14,20**	**13,10**	**12**

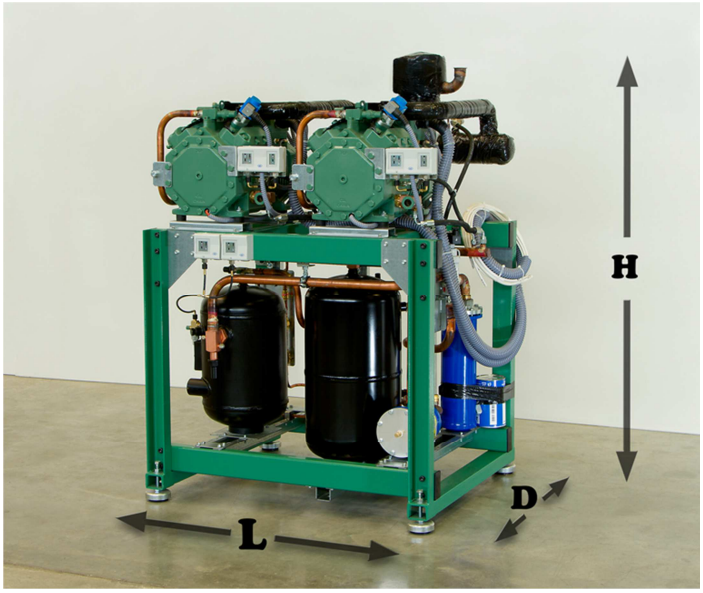
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**18,2 A**	**R404A**	**Anex I pg.**

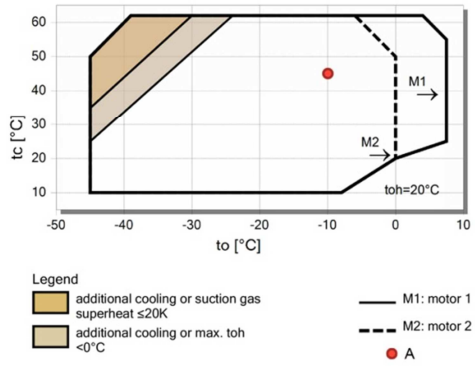
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT23	**694**	**MEDIUM**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4EES-4Y	**2**	**55L**	**1**	**22**	**42**	**18**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	-	**37,60**	**31,10**	**25,50**	**20,70**	**16,54**
45	-	**34,20**	**28,30**	**23,10**	**18,74**	**14,97**
50	-	**30,70**	**25,40**	**20,80**	**16,78**	**13,37**
Absorption [KW] EN12900						
40	-	**11,42**	**10,83**	**10,11**	**9,30**	**8,41**
45	-	**12,27**	**11,53**	**10,67**	**9,73**	**8,73**
50	-	**13,04**	**12,15**	**11,16**	**10,10**	**8,98**
Absorption [A] EN12900						
40	-	**19,06**	**18,18**	**17,12**	**15,92**	**14,62**
45	-	**20,34**	**19,22**	**17,94**	**16,56**	**15,08**
50	-	**21,50**	**20,16**	**18,68**	**17,10**	**15,46**

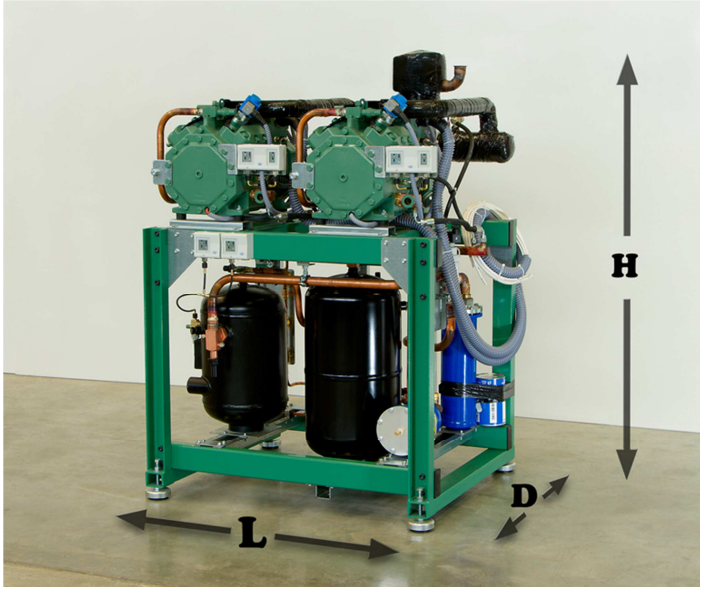
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**24,4 A**	**R404A**	**Anex I pg.**

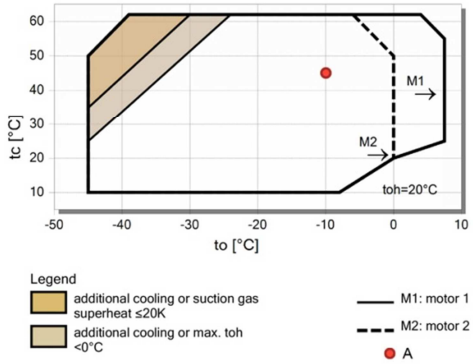
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow	Temperature regime	Refrigerant
RAMT28	**818**	**MEDIUM**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4DES-7Y	**2**	**55L**	**1**	**28**	**42**	**22**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**53,70**	**44,80**	**37,10**	**30,40**	**24,60**	**19,74**
45	**49,10**	**40,90**	**33,80**	**27,70**	**22,40**	**17,88**
50	**44,30**	**36,90**	**30,40**	**24,90**	**20,10**	**15,99**
Absorption [KW] EN12900						
40	**13,61**	**13,14**	**12,50**	**11,71**	**10,81**	**9,82**
45	**14,68**	**14,04**	**13,24**	**12,31**	**11,28**	**10,17**
50	**15,66**	**14,86**	**13,91**	**12,84**	**11,68**	**10,46**
Absorption [A] EN12900						
40	**23,88**	**23,22**	**22,32**	**21,26**	**20,08**	**18,82**
45	**25,40**	**25,50**	**23,36**	**22,08**	**20,70**	**19,26**
50	**26,84**	**25,66**	**24,30**	**22,80**	**21,22**	**19,64**

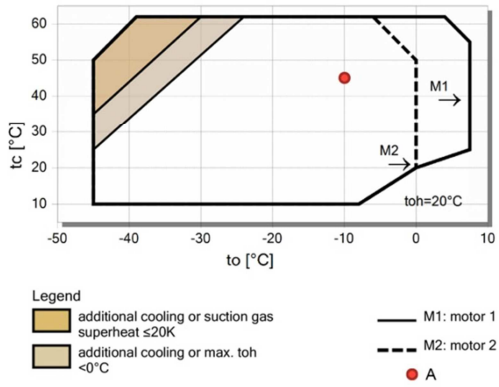
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**33 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT34	**1041**	**MEDIUM**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1400	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4EES-4Y	**3**	**73L**	**1**	**28**	**54**	**22**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**56,40**	**46,65**	**38,25**	**31,05**	**24,81**
45	**-**	**51,30**	**42,45**	**34,65**	**28,11**	**22,46**
50	**-**	**46,05**	**38,10**	**31,20**	**25,17**	**20,06**
Absorption [KW] EN12900						
40	**-**	**17,13**	**16,25**	**15,17**	**13,95**	**12,62**
45	**-**	**18,41**	**17,30**	**16,01**	**14,60**	**13,10**
50	**-**	**19,56**	**18,23**	**16,74**	**15,15**	**13,47**
Absorption [A] EN12900						
40	**-**	**28,59**	**27,70**	**25,68**	**23,88**	**21,93**
45	**-**	**30,60**	**28,83**	**26,91**	**24,84**	**22,62**
50	**-**	**32,25**	**30,24**	**28,02**	**25,65**	**23,19**

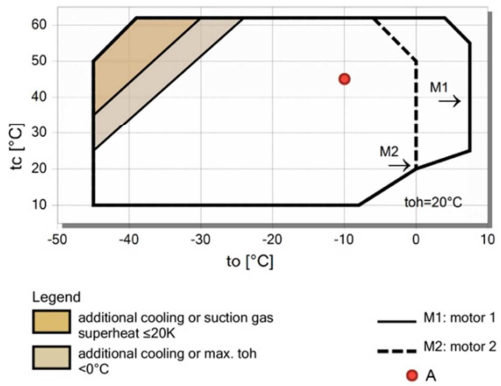
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**36,6 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT40	**1195**	**MEDIUM**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1400	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4EES-4Y	**2**	**73L**	**1**	**28**	**54**	**22**
4CES-6Y	**1**					

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**64,80**	**53,50**	**43,80**	**35,50**	**28,40**
45	**-**	**59**	**48,80**	**39,90**	**32,20**	**25,70**
50	**-**	**53,20**	**43,90**	**35,80**	**28,90**	**23**
Absorption [KW] EN12900						
40	**-**	**19,52**	**18,49**	**17,25**	**15,84**	**14,31**
45	**-**	**20,90**	**19,65**	**18,18**	**16,55**	**14,83**
50	**-**	**22,20**	**20,70**	**18,99**	**17,16**	**15,25**
Absorption [A] EN12900						
40	**-**	**32,87**	**31,35**	**29,54**	**27,49**	**25,31**
45	**-**	**35**	**33,07**	**30,88**	**28,53**	**26,05**
50	**-**	**36,94**	**34,64**	**32,10**	**29,41**	**26,66**

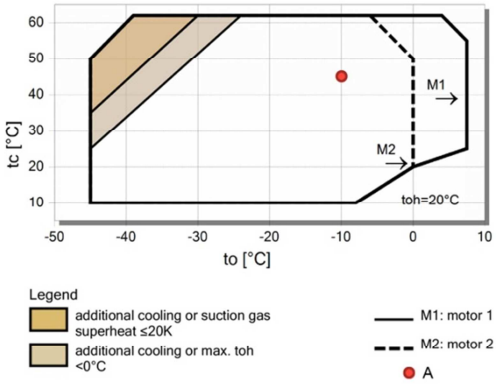
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**42,1 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT45	**1349**	**MEDIUM**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1400	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4EES-4Y	**1**	**73L**	**1**	**35**	**54**	**22**
4CES-6Y	**2**					

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**73,10**	**60,40**	**49,40**	**40**	**32**
45	**-**	**66,80**	**55,10**	**45**	**36,30**	**28,90**
50	**-**	**60,40**	**49,70**	**40,50**	**32,60**	**25,90**
Absorption [KW] EN12900						
40	**-**	**21,90**	**20,70**	**19,33**	**17,74**	**16**
45	**-**	**23,50**	**22**	**20,30**	**18,51**	**16,57**
50	**-**	**24,90**	**23,20**	**21,20**	**19,18**	**17,04**
Absorption [A] EN12900						
40	**-**	**37,15**	**35,43**	**33,40**	**31,10**	**28,69**
45	**-**	**39,49**	**37,31**	**34,85**	**32,22**	**29,48**
50	**-**	**41,63**	**39,04**	**36,18**	**33,17**	**30,13**

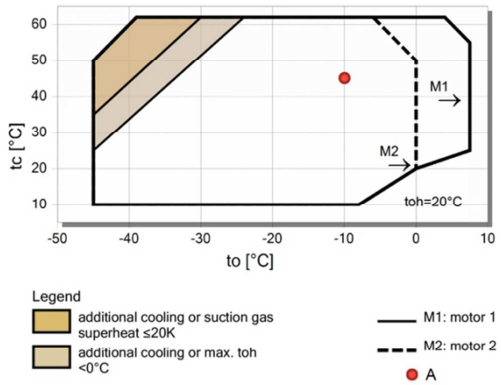
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**47,6 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT50	**1503**	**MEDIUM**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1400	**800**	**1400**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4CES-6Y	**3**	**90L**	**1**	**35**	**54**	**28**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**81,40**	**67,30**	**55,10**	**44,50**	**35,60**
45	**-**	**74,50**	**61,40**	**50,20**	**40,50**	**32,20**
50	**-**	**67,50**	**55,60**	**45,20**	**36,40**	**28,80**
Absorption [KW] EN12900						
40	**-**	**24,30**	**23**	**21,40**	**19,63**	**17,70**
45	**-**	**26**	**24,40**	**22,50**	**20,50**	**18,31**
50	**-**	**27,60**	**25,60**	**23,50**	**21,20**	**18,82**
Absorption [A] EN12900						
40	**-**	**41,43**	**39,51**	**37,26**	**34,71**	**32,07**
45	**-**	**43,98**	**41,55**	**38,82**	**35,91**	**32,91**
50	**-**	**46,32**	**43,44**	**47,26**	**36,93**	**33,60**

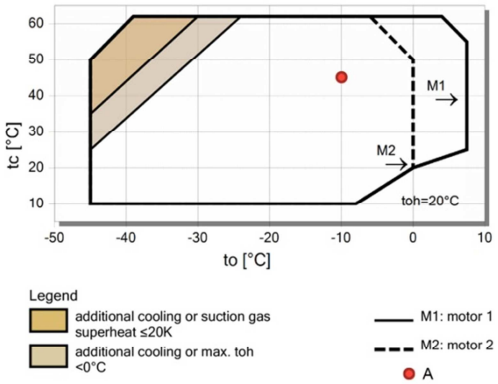
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**53,1 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RAMT

Model	Mass flow -10/45°C [Kg/h]	Temperature regime	Refrigerant
RAMT63	**1887**	**MEDIUM**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1670	**900**	**1500**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4TES-9Y	**3**	**105L**	**1**	**35**	**54**	**28**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	5	0	-5	-10	-15	-20
40	**-**	**103,80**	**85,40**	**69,50**	**55,90**	**44,30**
45	**-**	**94,95**	**77,60**	**63**	**50,50**	**39,80**
50	**-**	**85,10**	**69,70**	**56,50**	**45,10**	**35,40**
Absorption [KW] EN12900						
40	**-**	**30,80**	**28,80**	**26,50**	**24**	**21,30**
45	**-**	**33**	**30,50**	**27,80**	**25**	**22**
50	**-**	**35,10**	**32,22**	**29,10**	**25,90**	**22,60**
Absorption [A] EN12900						
40	**-**	**51,96**	**48,84**	**45,30**	**41,43**	**37,41**
45	**-**	**55,38**	**51,51**	**47,34**	**42,96**	**38,46**
50	**-**	**58,62**	**54,03**	**49,26**	**44,34**	**39,42**

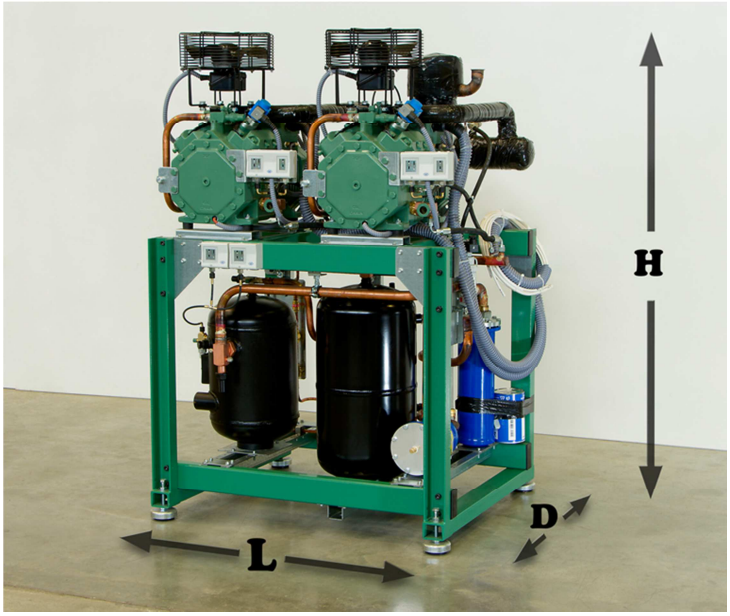
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**59,7 A**	**R404A**	**Anex I pg.**

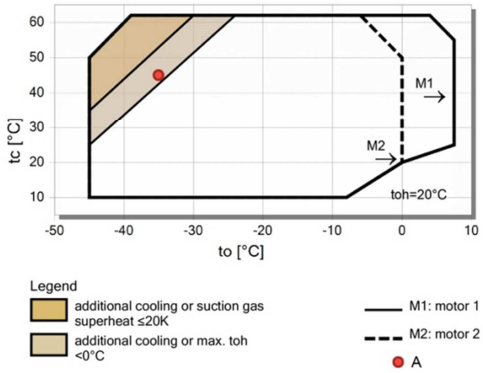
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RALT

Model	Mass flow -35/45°C [Kg/h]	Temperature regime	Refrigerant
RALT5	**142**	**LOW**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1450**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
2CES-3Y	**2**	**20L**	**1**	**16**	**35**	**12**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	-15	-20	-25	-30	-35	-40
40	**15,19**	**12,21**	**9,65**	**7,46**	**5,58**	**4**
45	**13,73**	**11**	**8,65**	**6,63**	**4,91**	**3,45**
50	**12,23**	**9,75**	**7,62**	**5,78**	**4,22**	**2,90**
Absorption [KW] EN12900						
40	**6,70**	**6,06**	**5,39**	**4,71**	**4,03**	**3,37**
45	**6,99**	**6,27**	**5,53**	**4,78**	**4,05**	**3,34**
50	**7,23**	**6,43**	**5,62**	**4,81**	**4,03**	**3,28**
Absorption [A] EN12900						
40	**12,36**	**11,50**	**10,64**	**9,78**	**9**	**8,32**
45	**12,76**	**11,78**	**10,80**	**9,88**	**9,02**	**8,3**
50	**13,10**	**12**	**10,92**	**9,92**	**9**	**8,24**

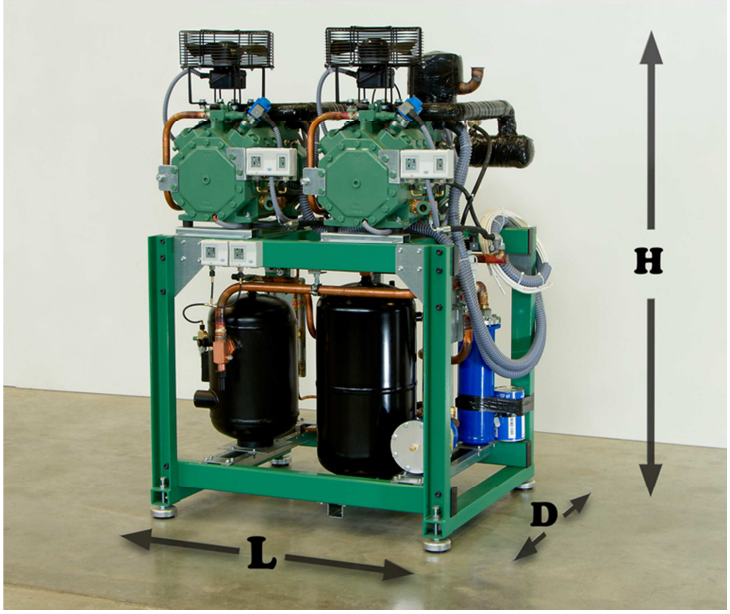
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**18,2 A**	**R404A**	**Anex I pg.**

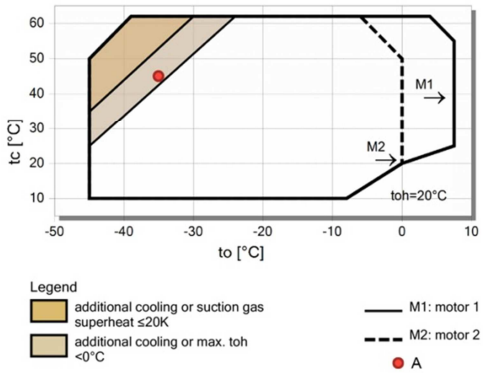
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RALT

Model	Mass flow -35/45°C [Kg/h]	Temperature regime	Refrigerant
RALT7	**198**	**LOW**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1450**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4EES-4Y	**2**	**25L**	**1**	**16**	**35**	**16**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	-15	-20	-25	-30	-35	-40
40	**20,70**	**16,54**	**13,05**	**10,11**	**7,67**	**5,65**
45	**18,74**	**14,97**	**11,77**	**9,08**	**6,84**	**5**
50	**16,78**	**13,37**	**10,48**	**8,04**	**6,01**	**4,34**
Absorption [KW] EN12900						
40	**9,3**	**8,41**	**7,47**	**6,50**	**5,54**	**4,53**
45	**9,73**	**8,73**	**7,68**	**6,63**	**5,59**	**4,60**
50	**10,10**	**8,98**	**7,84**	**6,70**	**5,59**	**4,61**
Absorption [A] EN12900						
40	**15,92**	**14,62**	**13,26**	**11,90**	**10,62**	**9,38**
45	**16,56**	**15,08**	**13,56**	**12,08**	**10,68**	**9,44**
50	**17,10**	**15,46**	**13,80**	**12,18**	**10,68**	**9,46**

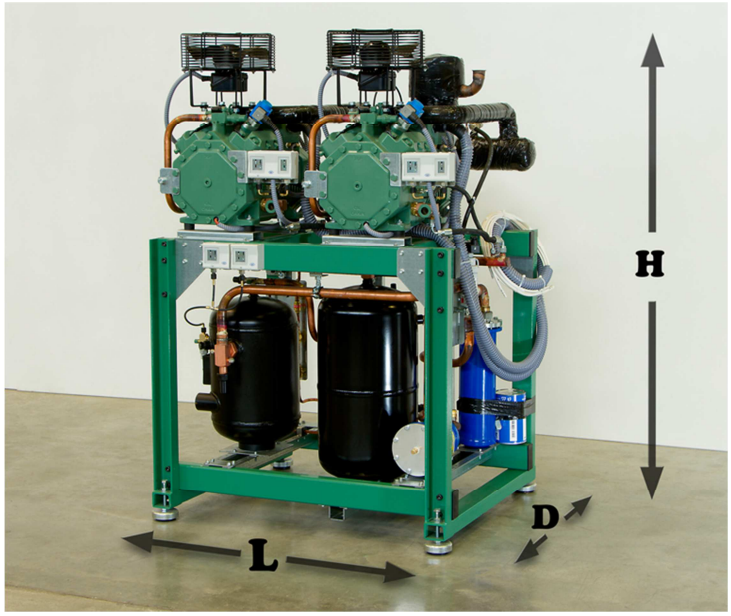
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**24,4 A**	**R404A**	**Anex I pg.**

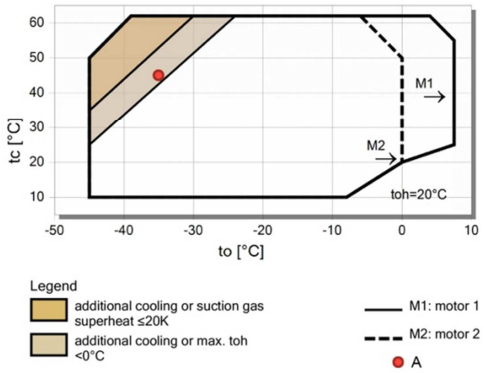
TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RALT

Model	Mass flow -35/45°C [Kg/h]	Temperature regime	Refrigerant
RALT10	**277**	**LOW**	**404A**





Dimensions

L [mm]	D [mm]	H [mm]
950	**800**	**1450**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4CES-6Y	**2**	**30L**	**1**	**18**	**42**	**16**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	-15	-20	-25	-30	-35	-40
40	**29,70**	**23,70**	**18,63**	**14,36**	**10,80**	**7,87**
45	**27**	**21,50**	**16,78**	**12,86**	**9,60**	**6,93**
50	**24,20**	**19,21**	**14,95**	**11,39**	**8,44**	**6,03**
Absorption [KW] EN12900						
40	**13,09**	**11,80**	**10,45**	**9,07**	**7,72**	**6,41**
45	**13,65**	**12,20**	**10,72**	**9,23**	**7,77**	**6,39**
50	**14,14**	**12,55**	**10,93**	**9,33**	**7,79**	**6,34**
Absorption [A] EN12900						
40	**23,14**	**21,38**	**19,62**	**17,92**	**16,38**	**15,06**
45	**23,94**	**21,94**	**19,96**	**18,10**	**16,44**	**15,04**
50	**24,62**	**22,40**	**20,24**	**18,24**	**16,46**	**14,98**

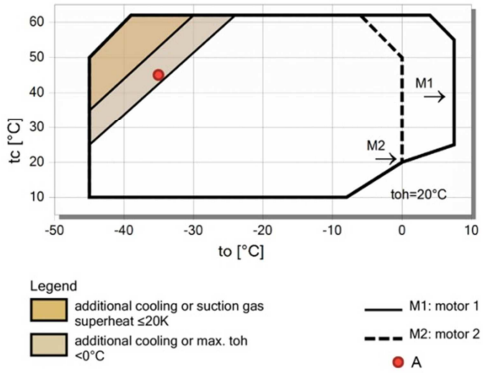
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**35,4 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RALT

Model	Mass flow -35/45°C [Kg/h]	Temperature regime	Refrigerant
RALT14	**416**	**LOW**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1400	**800**	**1450**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4CES-6Y	**3**	**56L**	**1**	**22**	**54**	**16**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	-15	-20	-25	-30	-35	-40
40	**44,50**	**35,60**	**27,90**	**21,50**	**16,20**	**11,80**
45	**40,50**	**32,20**	**25,20**	**19,28**	**14,40**	**10,40**
50	**36,40**	**28,80**	**22,40**	**17,08**	**12,65**	**9,04**
Absorption [KW] EN12900						
40	**19,63**	**17,70**	**15,67**	**13,60**	**11,58**	**9,62**
45	**20,50**	**18,31**	**16,08**	**13,84**	**11,66**	**9,59**
50	**21,20**	**18,82**	**16,40**	**14**	**11,69**	**9,51**
Absorption [A] EN12900						
40	**34,71**	**32,07**	**29,43**	**26,88**	**24,57**	**22,59**
45	**35,91**	**32,91**	**29,94**	**27,15**	**24,66**	**22,56**
50	**36,93**	**33,60**	**30,36**	**27,36**	**24,69**	**22,47**

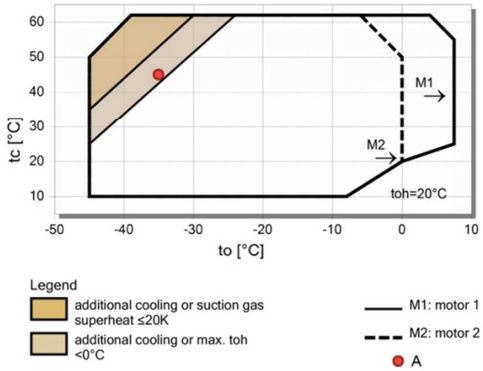
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**53,1 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RALT

Model	Mass flow -35/45°C [Kg/h]	Temperature regime	Refrigerant
RALT17	**493**	**LOW**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1670	**900**	**1550**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4TES-9Y	**3**	**56L**	**1**	**22**	**54**	**18**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	-15	-20	-25	-30	-35	-40
40	**55,90**	**44,30**	**34,50**	**26,30**	**19,44**	**13,84**
45	**50,50**	**39,80**	**30,80**	**23,30**	**17,05**	**11,96**
50	**45,10**	**35,40**	**27,20**	**20,40**	**14,71**	**10,13**
Absorption [KW] EN12900						
40	**24**	**21,30**	**18,59**	**15,90**	**13,31**	**10,89**
45	**25**	**22**	**19,04**	**16,14**	**13,38**	**10,82**
50	**25,90**	**22,60**	**19,43**	**16,33**	**13,40**	**10,70**
Absorption [A] EN12900						
40	**41,43**	**37,41**	**33,39**	**29,52**	**25,98**	**22,92**
45	**42,96**	**38,46**	**34,05**	**29,85**	**26,07**	**22,83**
50	**44,34**	**39,42**	**34,62**	**30,12**	**26,10**	**22,68**

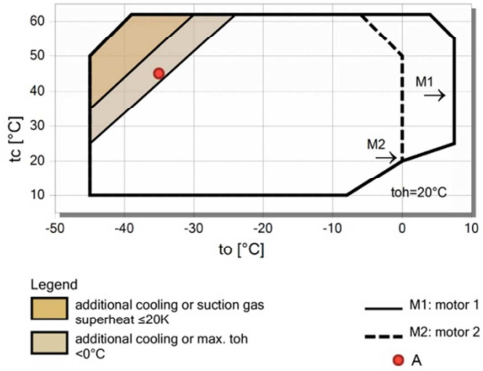
Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**59,7 A**	**R404A**	**Anex I pg.**

TEHCHNICAL DATA SHEETS

MULTICOMPRESSOR COOLING RACKS

RALT

Model	Mass flow -35/45°C [Kg/h]	Temperature regime	Refrigerant
RALT23	**665**	**LOW**	**404A**



Dimensions

L [mm]	D [mm]	H [mm]
1670	**900**	**1550**

Compressor Model	No. of pcs.	Receiver volume [l]	No. of pcs.	Tube diameters [mm]		
				Discharge	Suction	Liquid
4NES-14Y	**3**	**73L**	**1**	**28**	**64**	**22**

R404A	Refrigaration Capacity [KW] EN12900					
	Te [°C]					
Tcond [°C]	-15	-20	-25	-30	-35	-40
40	**76,10**	**60,30**	**46,90**	**35,70**	**26,50**	**18,87**
45	**68,60**	**54,10**	**41,80**	**31,60**	**23,10**	**16,18**
50	**61,10**	**47,90**	**36,70**	**27,40**	**19,75**	**13,52**
Absorption [KW] EN12900						
40	**32,50**	**29**	**25,40**	**21,70**	**18,08**	**14,64**
45	**33,70**	**29,80**	**25,70**	**21,70**	**17,83**	**14,16**
50	**34,60**	**30,20**	**25,80**	**21,50**	**17,36**	**13,48**
Absorption [A] EN12900						
40	**55,56**	**50,25**	**44,94**	**39,81**	**35,13**	**31,02**
45	**57,36**	**51,39**	**45,48**	**39,87**	**34,80**	**30,48**
50	**58,71**	**52,08**	**45,63**	**39,60**	**34,23**	**29,73**

Voltage	Max tot. current absorbed	Refrigerant	Tech. sheme/ diagram
400V/3/50Hz	**79,8 A**	**R404A**	**Anex I pg.**

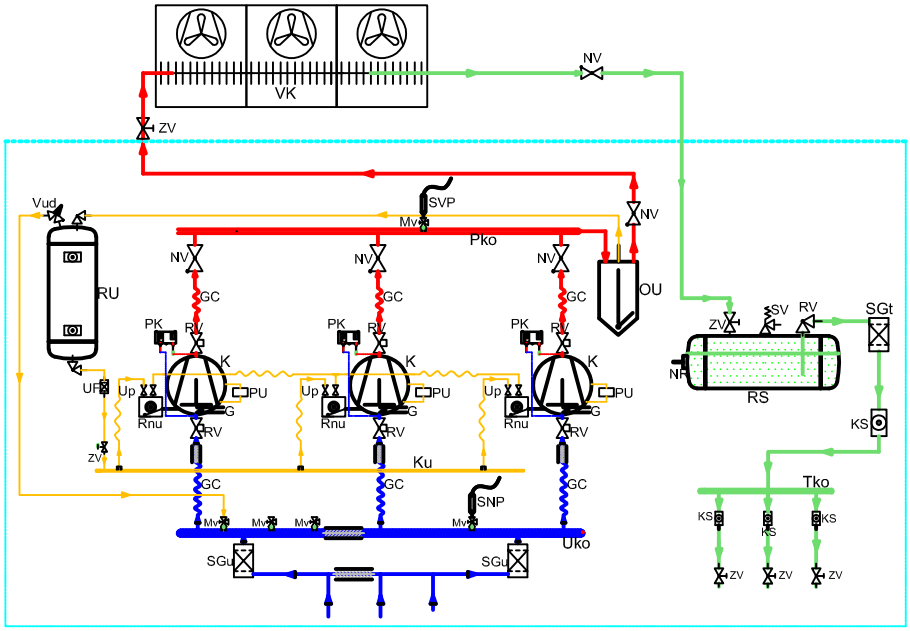
STANDARD TEHNICAL DIAGRAM

LEGEND

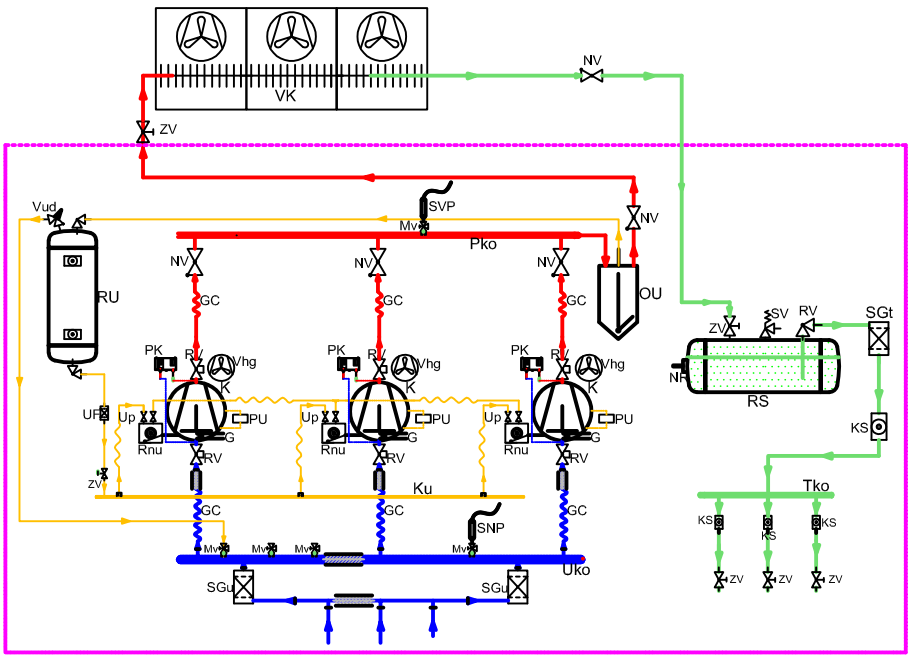
K - Compressor
G - Heater
RV - Rotalock valve
PK - Combined pressure switch
PVP - High-pressure switch
PU - Oil pressure switch
Rnu - Oil level controller
Up - Oil connection
OU - Oil separator
RU - Oil tank
Vud - Differential valve for oil
UF - Oil filter
Ku - Oil collector
GC - Flexible hose
NV - Non-return valve
Pko - Pressure collector
Uko - Suction collector
Tko - Liquid collector
ZV - Stop valve
RS - Receiver
NR - Receiver"s liquid level sensor
SV - Safety valve
SGt - Gas drier on liquid line
SGu -Gas drier on suction side
KS - Sight glass
Mv - Handling valve
SVP - High pressure probe
SNP - low pressure probe
Vhg - Head cooling fan
VK - Air-cooled condenser

- Armaflex insulation
- Pressure lines
- Suction lines
- Liquid lines
- Oil distribution

MULTICOMPRESSOR COOLING RACKS FOR MEDIUM TEMPERATURE * RAMT *



MULTICOMPRESSOR COOLING RACKS FOR LOW TEMPERATURE * RALT *



TECHNICAL DIAGRAM WITH ENERGY SAVING

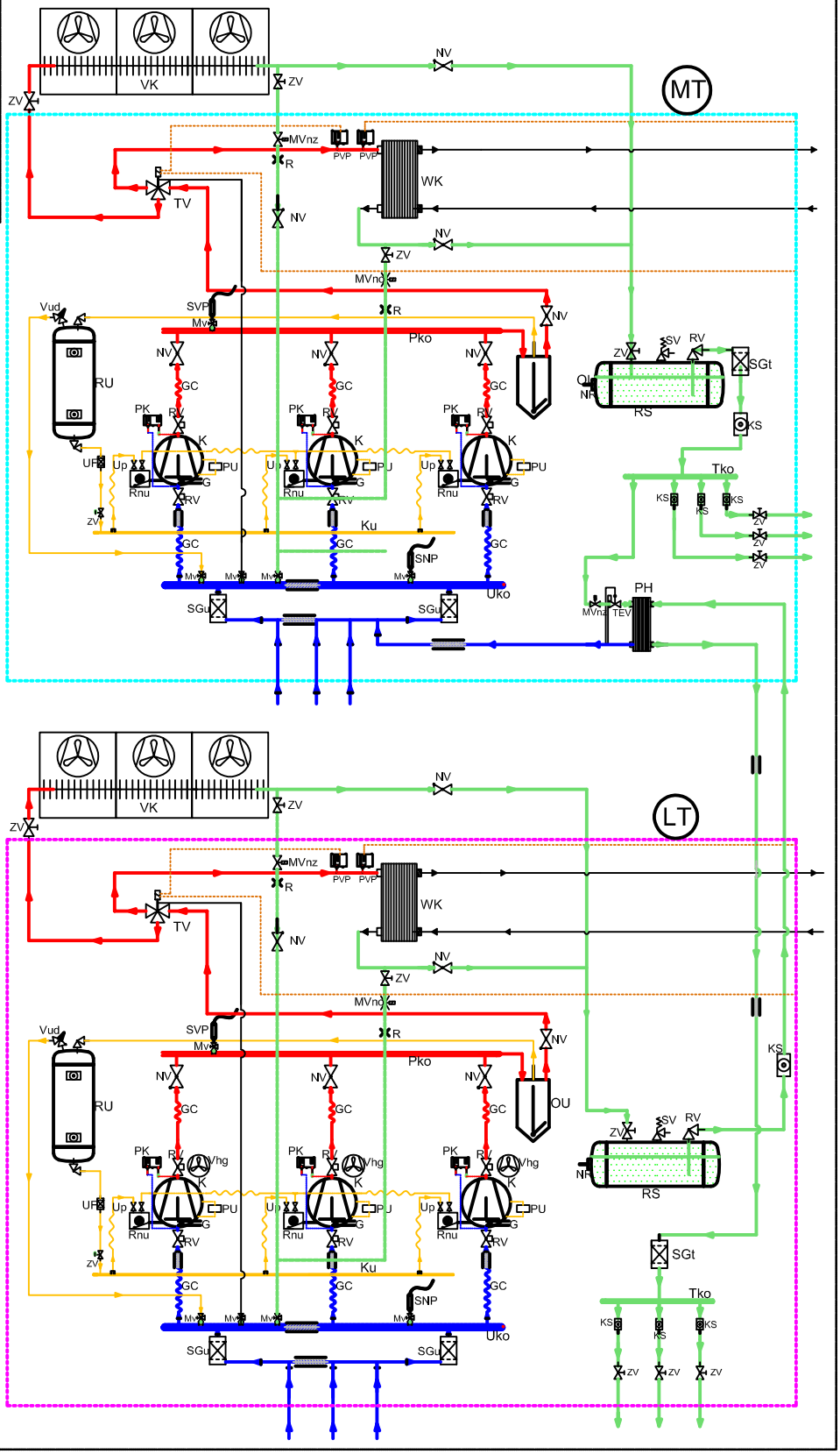
ENERGY SAVING ; | " SUBCOOLING " | * WASTE CONDENSATION HEAT UTILIZATION *

**Schematic diagram of energy saving when RAMT racks and RALT racks work simultaneously in one facility (supermarket) ;

- By subcooling
- By utilization of waste condensation heat

LEGEND

K - Compressor
G - Heater
RV - Rotalock valve
PK - Combined pressure switch
PVP - High-pressure switch.
PU -Oil pressure switch
Rnu - Oil level controller
Up - Oil connection
OU - Oil separator
RU - Oil tank
Vud - Differential valve for oil
UF - Oil filter
Ku - Oil collector
GC - Flexible hose
NV - Non-return valve
Pko - Pressure collector
Uko - Suction collector
Tko - Liquid collector
ZV - Stop valve
MVnz - Magnetni ventil norm.zatv.
R - Restrictor
MVno - Solenoid valve norm.open
RS - Receiver
NR - Receiver"s liquid level sensor
SV - Safety valve
SGt - Gas drier on liquid line
SGu -Gas drier on suction side
KS - Sight glass
Mv - Handling valve
SVP - High pressure probe
SNP - low pressure probe
Vhg - Head cooling fan
PH - Subcooling
TEV - Thermal expansion valve
VK - Air-cooled condenser
WK - Water-cooled condenser
TV - 3-way valve
- Armaflex insulation
- Pressure lines
- Suction linesi
- Liquid lines
- Oil distribution



Soko Inžinjering

Due to the continuous work on development and improvement of products, Soko Engineering reserves the right to make a changes without any previous notification.

SOKO INŽINJERING
Directorate
Bulevar Arsenija Čarnojevića 125
11070 Novi Beograd
Srbija
+381 11 635 19 20
office@sokoing.rs

Factory
Partizanski put bb (Industrijska zona),
22314 Krnjesevci
Srbija
+ 381 22 215 07 19
proizvodnja@sokoing.rs

Service
Partizanski put bb (Industrijska zona),
22314 Krnjesevci
Srbija
+ 381 22 215 07 41
servis@sokoing.rs

SOKO INŽINJERING