

The background of the upper two-thirds of the page is a white space filled with a complex, abstract pattern of thin, light green lines. These lines are mostly curved and overlapping, creating a sense of movement and depth. The lines vary in thickness and density, with some areas appearing more concentrated than others. The overall effect is a modern, organic, and somewhat chaotic visual texture.

klimatix

RLAC-S

Chilled Water Plants

Scroll Chiller
Air Condensation



Who are we?

We were born with the purpose of bringing innovative solutions to the HVAC market that go beyond the conventional.

Our heritage includes the tradition and expertise of the Mecalor Group, founded in 1960.

The technical experience accumulated over decades gives us solidity in the development of competitive, high-quality products.

Individualized service, from the quotation to after-sales service, is another consolidated differential of the new brand.

The pursuit of international excellence is a determining factor in the motivation of the team, which is eager to exceed your expectations. Be amazed by our dedication.

Welcome to Klimatix, where your project is a priority.

klimatix

Schedule a visit to our plant.
contato@klimatix.com

RLAC | Klimatix

Chilled Water Plants

Scroll Chiller for Air Conditioning



RLAC-S

Capacity 25 to 220 TR

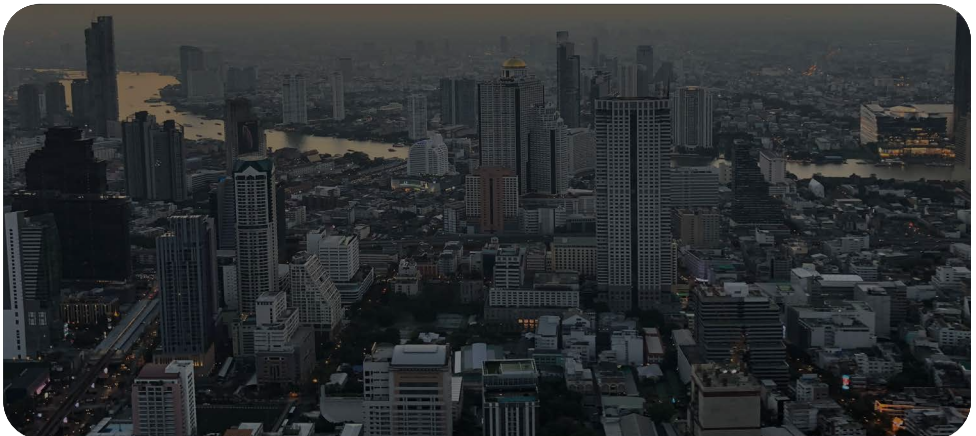
EC Fan (optional)

Scroll compressor

R410a Coolant

Air condensation

Inverter (optional)



Benefits

- Low noise
- Robust build
- Adaptable footprint
- Operational flexibility
- Maximum power efficiency
- High-reliability components
- Easy installation and maintenance
- High availability rates (uptime)

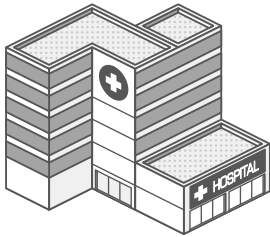


Application

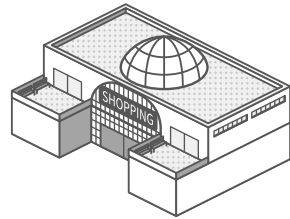
Air conditioning for thermal comfort, air treatment and air conditioning for industrial processes.

Air conditioning solutions

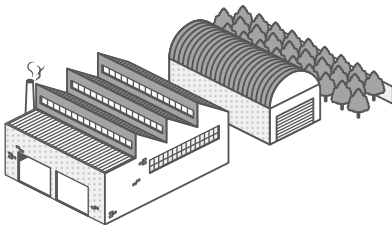
Hospitals



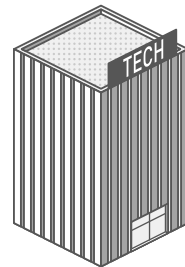
Shopping malls



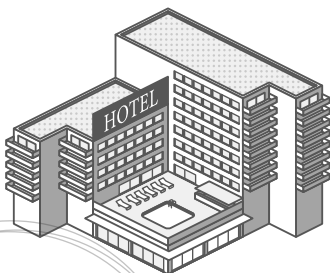
Industrial factories



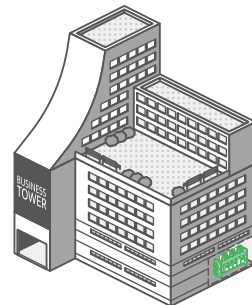
Data Centers



Hotels



Commercial buildings



Nomenclature -RLAC-S

RLAC – S – 115 – CA – 380*

RLAC → Chiller for
Air Conditioning

Compressor:
S → Scroll

Capacity:
25 → 25 TR
30 → 30 TR
40 → 40 TR
50 → 50 TR
60 → 60 TR
80 → 80 TR
100 → 100 TR
115 → 115 TR
150 → 150 TR
175 → 175 TR
220 → 220 TR

Configurations
/C → Special construction
/F → Hydraulic filter

Tensões disponíveis:
220 → 3F, 220V, 60 Hz
380 → 3F, 380V, 60 Hz
440 → 3F, 440V, 60 Hz

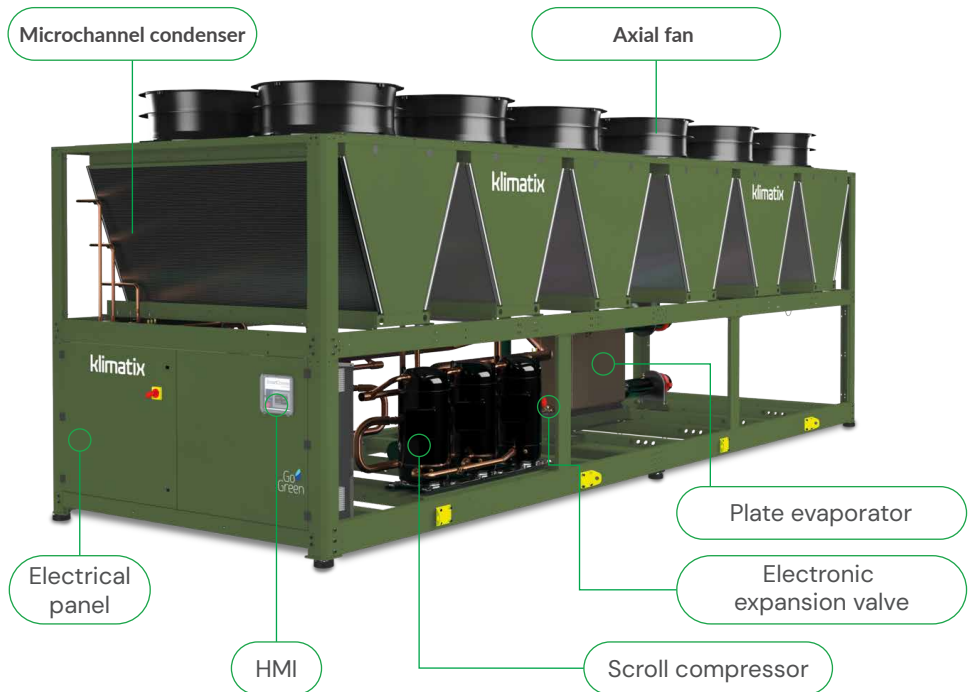
Hydraulic:
CA → Open circuit (without tank)



Technical Description

The liquid chillers in the RLAC-S range are designed for use in central air-conditioning systems for comfort and processes. Designed for continuous operation, they are manufactured with high-quality components and mounted on a robust frame. Components are sized and optimized to guarantee high performance with low energy

consumption. Two independent refrigeration circuits with multiple compressors provide high efficiency at partial loads.



Characteristics

The RLAC-S line of air-condensed, direct-expansion liquid chillers is made up of 11 models

Nominal capacities:

- 25, 30, 40, 50, 60, 80, 100, 115, 150, 175 and 220 TR

Operating conditions:

- Ambient temperature from 10 to 42°C
- Chilled water temperature from 5 to 15°C

Efficiency according to AHRI 551/591:

- IPLV from 3.53 to 4.19 kW/kW
- COP of 2.84 to 2.98 to scale

Cooling

Expansion with air condensation and R410A refrigerant.

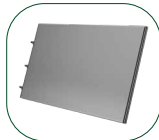
Two independent refrigeration circuits.

A scroll compressor with high compression efficiency and a high-efficiency electric motor provide the refrigeration system with high energy efficiency.



Multiple compressors per circuit adjust the capacity of the equipment in cases of partial thermal load, guaranteeing high energy efficiency values.

Microchannel condenser (MCHE) fully manufactured in aluminum, ensuring greater protection against galvanic corrosion.



Multiple compressors per circuit adjust the capacity of the equipment in cases of partial thermal load, guaranteeing high energy efficiency values.

Flat tubes with multiple holes and louvered brazed fins result in high heat transmission rates and reduced refrigerant charge

Refrigeration circuit with piping manufactured using copper or AISI 304 stainless steel tubes, electronic or thermostatic expansion valve, liquid display and filter drier.

Brazed plate evaporator (BPHE) manufactured in AISI316 stainless steel with double refrigeration circuit, temperature measuring well and Victaulic connection.



Temperature sensors, pressure transducers, pressure switches and water flow sensors protect the cooling system in the event of operation outside the operating limits, guaranteeing the safety of the equipment and users

Axial fan and electric motor with external rotor are mounted on an air diffuser which guarantees high efficiency with low noise levels.



Cooling

Electrical components for switching off, protection, and activation of motors mounted according to NBR5410 on a galvanized carbon steel plate.

Communication using Modbus TCP/IP and Modbus RTU protocols that allows remote access to operating conditions, activation, parameterization, and operating log verification.

Primary pumping system activation, protection, and control functions integrated into the PLC

Three-position rotary switch to turn the equipment on, off, and enable remote activation

Light signal for fault indication

Cabinet manufactured in galvanized carbon steel and electrostatic paint finish in RAL 6005 green.

Stainless steel fastening elements.

Inversion and phase failure relay

Control panel with 4.3" touch HMI that allows visualization of operating conditions and parameterization of control variables.



Monitoring of operating conditions and parameterization via the web

Communication and management of the operation of up to 5 pieces of equipment in a network

Pressure transducer on the chilled water line at the inlet of the equipment with indication on the HMI.

Water inlet and outlet pipes made from AISI 304 stainless steel with BSPT threaded pipe connections for the 25 and 30 TR models and victaulic connections for the other models

Design and manufacture in compliance with NR-10 and NR-12 standards.



Optional Configurations

INVERTER COMPRESSOR

Inverter compressor with variable capacity between 30 and 100% and permanent magnet electric motor

VARIABLE COMPRESSOR

Fixed scroll compressor with frequency inverter and proportional capacity control from 50 to 100%

PRIMARY CIRCUIT PUMP

Centrifugal pump integrated into the equipment

HYDRAULIC CIRCUIT FILTER

Filter with polypropylene grooved disk filter element or stainless-steel mesh

EC CONDENSER FAN

Variable speed fans with EC type electric motor

CAPACITY CONTROL

Hot Gas capacity control.

CONDENSER PROTECTION

Surface treatment with e-coating paint for marine environments

COMMUNICATION

SNMP, BACNET MS/TP, BACNET IP Protocols, others on request.

Technical Support

Our goal is to simplify your everyday life

We serve
all of
Latin America!

Free lifetime support in the
service channels

Stock and supply of
original parts

Workshop car with high
quality tools

Punctuality in
scheduled visits

90% of calls resolved
over the phone

Own team

Monitoring of the visits
in real time

80% of calls resolved on the
first visit

Qualified technicians with more
than 15 years of experience

Customer satisfaction

We monitor the satisfaction of our customers from sale to the end of the equipment's useful life and take action whenever necessary, through our Active Listening Program.

We only rest when we deliver the best!

RLAC | Klimatix

Gilmar Moreira
Technician since 1983
Weverton Santos
Technician since 2012



Technical Data

	Description	Unit	Model					
	RLCA-S Line		25-CA	30-CA	40-CA	50-CA	60-CA	80-CA
Basic Data	Capacity (1)	kW	83	98	123	163	205	269
		TR	24	28	35	46	58	76
	Total power consumed (1)	kW	29.3	33.7	41.2	51.9	72.3	95.1
	COP (1)	kW/kW	2.842	2.920	2.984	3.142	2.839	2.828
	IPLV (1)	kW/kW	3.546	3.532	3.773	3.638	3.509	4.095
Cooling	Condensation	-	Air					
	Cooling circuits	-	2					
	Cooling fluid	-	R410a					
	Compressors	-	Scroll					
	Number of compressors	-	2	2	2	2	2	4
	Condensers	-	Microchannel					
	Fans	-	Axial					
	Evaporator	-	Brazed Plates					
	Expansion valve (2)	-	VET		VEE			
Hydraulic circuit	Flow rate (1)	m ³ /h	14.3	16.9	21.1	28.0	35.3	46.2
	Load loss	kPa	22	30	27	30	33	42
	Connection type (3)	-	Thread	Victaulic				
	Inlet connections	inch	2	3	3	3	3	4
	Outlet connections	inch	2	3	3	3	3	4
Electrical	Power supply (4)	-	3Ph/220V/60Hz - 3Ph/380V/60Hz - 3Ph/440V/60Hz					
	HMI	-	Graphic 4.3-inch touchscreen					
	Communication	-	Modbus RTU or TCP/IP					
	Key Switch	-	Yes					
	Activation	-	Three-position button (on, off, and remote activation)					
	Light signal	-	Fault summary					
	Sequence and phase failure	-	Yes					
	Audible signal	-	Yes					
		Water outlet	-	Yes				
Temperature Sensor	Water inlet	-	Yes					
	Evaporator anti-freeze	-	Yes					
	Room air	-	Yes					
	Evaporator refrigerant outlet	-	No		Yes			
	Condenser refrigerant outlet	-	No		Yes			
Sensors	Low pressure (5)	-	No		Yes			
	High pressure (5)	-	No		Yes			
	Water pressure (6)	-	Yes					
	Water flow	-	Yes					
Construction details	Width	mm	825	825	1125	1760	1760	2395
	Length	mm	2225	2505	2605	2505	2505	2575
	Height	mm	1945	2235	2620	2280	2280	2760
	Operating weight	kg	400	500	850	1350	1350	1300

(1) Operating conditions according to AHRI 551/591; Ambient temperature 35°C; Water inlet temperature 12°C; Water outlet temperature 7°C; Atmospheric pressure 101 kpa

(2) TEV thermostatic expansion valve and VEE electronic expansion valve

(3) BSP internal thread and victaulic grooved connection included in the equipment

(4) Check the availability of power supply per product model

(5) Pressure transducers installed in the refrigeration circuits at the suction and discharge of the compressors

(6) Chilled water pipe inlet

Technical Data

	Description	Unit					
	RLCA-S Line		100-CA	115-CA	150-CA	175-CA	220-CA
Basic Data	Capacity (1)	kW	359	394	491	605	751
		TR	102	112	140	172	214
	Total power consumed (1)	kW	126.3	144.9	178.0	213.2	274.8
	COP (1)	kW/kW	2.845	2.720	2.758	2.837	2.734
	IPLV (1)	kW/kW	4.068	4.110	4.022	4.193	4.136
Cooling	Condensation	-	Air				
	Cooling circuits	-	2				
	Cooling fluid	-	R410a				
	Compressors	-	Scroll				
	Number of compressors	-	4	4	4	6	6
	Condensers	-	Microchannel				
	Fans	-	Axial				
	Evaporator	-	Brazed Plates				
	Expansion valve (2)	-	VEE				
Hydraulic circuit	Flow rate (1)	m ³ /h	61.7	67.7	84.3	103.8	129.0
	Load loss	kPa	52	38	47	47	36
	Connection type (3)	-	Victaulic				
	Inlet connections	inch	4	4	6	6	6
	Outlet connections	inch	4	4	6	6	6
Electrical	Power supply (4)	-	3Ph/220V/60Hz - 3Ph/380V/60Hz - 3Ph/440V/60Hz				
	HMI	-	Graphic 4.3-inch touchscreen				
	Communication	-	Modbus RTU or TCP/IP				
	Key Switch	-	Yes				
	Activation	-	Three-position button (on, off, and remote activation)				
	Light signal	-	Fault summary				
	Sequence and phase failure	-	Yes				
	Audible signal	-	Yes				
Temperature Sensor	Water outlet	-	Yes				
	Water inlet	-	Yes				
	Evaporator anti-freeze	-	Yes				
	Room air	-	Yes				
	Evaporator refrigerant outlet	-	Yes				
	Condenser refrigerant outlet	-	Yes				
Sensors	Low pressure (5)	-	Yes				
	High pressure (5)	-	Yes				
	Water pressure (6)	-	Yes				
	Water flow	-	Yes				
Construction details	Width	mm	2395	2395	2395	2395	2395
	Length	mm	3740	3740	5070	6235	7420
	Height	mm	2760	2760	2760	2760	2760
	Operating weight	kg	1650	1750	1950	2600	3750

(1) Operating conditions according to AHRI 551/591; Ambient temperature 35°C; Inlet water temperature 12°C Water outlet temperature 7°C; Atmospheric pressure 101 kpa

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(6) Chilled water pipe inlet.

The information in this catalog is subject to change
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klimatix
Grupo Mecalor

+55 11. 2188.1700
www.klimatix.com