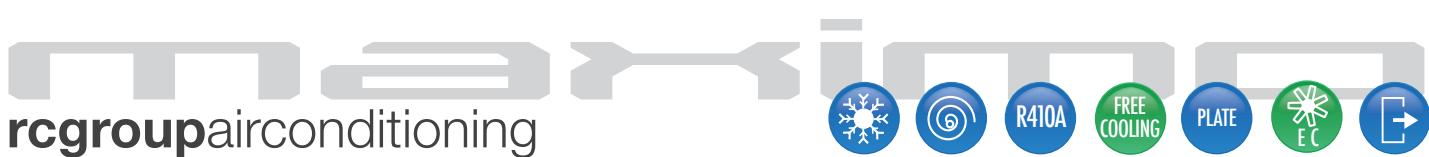


MAXIMO: Packaged air cooled liquid chillers with free-cooling system for outdoor installation, equipped with scroll compressors and axial fans
 Cooling Capacity: 20,6 ÷ 279 kW
 Free-Cooling Capacity: 19,2 ÷ 194 kW



rcgroupairconditioning

MAIN FEATURES

- Air cooled liquid chiller with free-cooling system.
- 29 models available, for a wide selection opportunity.
- Average step of 12,5kW.
- EER up to 3,05.
- ESEER up to 3,80.
- Scroll compressors.
- R410A Refrigerant charge.
- Single or double refrigerant circuit.
- Plate type heat exchangers.
- EC Axial fans.
- Single air circuit.
- Electronic expansion valve.
- Suitable for outdoor installation.

MAIN BENEFITS

- Units equipped with two scroll compressors for refrigerant circuit to reach a high efficiency.
- Units with single and double refrigerant circuits.
- Indirect free cooling system.
- High EER and ESEER.
- EC axial fans for a high efficiency.
- Availability of kit for the reduction and the extreme reduction of the noise.
- Availability of pumping groups.
- Availability of partial heat recovery system.
- Easily of maintenance.
- Complete set of components dedicated to the safety of the unity.
- Eurovent Certification.

INDIRECT FREE COOLING SYSTEM

Complete cooling of the chilled water of the existing cooling system with the outside air. The energy saving will be higher the longer the outside temperature remains below the required temperature for cooling.

FANS WITH BRUSHLESS TYPE EC MOTOR

These electric motors are ensuring high performances, minimum energy consumption and total absence of electromagnetic noise

WORKING LIMITS IN COOLING MODE

Chilled water outlet temperature: 4÷15°C
 Ambient temperature: -10÷45°C

WORKING LIMITS IN FREE-COOLING MODE

Minimum chilled water outlet temperature: -15°C
 Minimum ambient temperature: -20°C



MAIN COMPONENTS

FRAMEWORK

- Base, self supporting frame and panelling in steel plate with protective surfaces treatment in compliance with UNI ISO 9227/ASTMB117 and ISO 7253, and painted with epoxy powders.
- Colour: RAL 9002

COMPRESSORS

- Orbiting spiral (SCROLL) hermetic compressors with spiral profile optimized for R410A refrigerant.
- ON / OFF capacity control (0 / 100% each compressor).
- 2-pole 3-phase electric motor with direct on line starting.
- Phase sequence electronic relay.
- Crankcase heater.
- Electric motor thermal protection via internal winding temperature sensors.
- Rubber supports.

EVAPORATOR

- Copper brazed plate type with cover plates, plates and connections in AISI 316 stainless steel:
 - With single refrigerant circuit for S version machines.
 - With double refrigerant circuit for D version machines.
- Anticondensate insulation made of polyurethane.
- Temperature sensors on water inlet and outlet.
- Differential water pressure switch for water flow control.
- Antifreeze heater.

CONDENSING COIL

- Heat exchanger coil with internally corrugated copper tubes and high efficiency aluminium fins, specifically developed to provide high heat transfer and lower pressure drops. The combination of two factors, special tubes and fins, allow to optimally combine the following aspects:
 - Maximum capacity relative to the size of the exchanger.
 - Minimum charge of refrigerant.
 - Reduction of the air flow required for the heat exchange.
- Sub-cooling circuit to allow a significant increase in cooling capacity.
- Frame in galvanized steel.

FREE-COOLING COIL

- Heat exchanger coil with copper tubes and high efficiency aluminium fins, specifically developed to provide high heat transfer and lower pressure drops. The combination of two factors, special tubes and fins, allow to optimally combine the following aspects:
 - Maximum capacity relative to the size of the exchanger.
 - Reduction of the air flow required for the heat exchange.
- Frame in galvanized steel.
- Motorized valves for free-cooling water circuit control.
- Temperature sensor on ambient air.

FANS SECTION

- Axial fans with sickle-shaped blades, fan guard and optimized for low noise levels.
- Brushless type synchronous EC motor with integrated electronic commutated system and continuous variation of the rotation speed. The motor rotation control is obtained with the EC system (Electronic Commutation) that manage the motor according to the 0÷10V proportional signal coming from the microprocessor control.
- Maintenance-free bearings
- IP54 enclosure class.

REFRIGERANT CIRCUIT

Components for each refrigerant circuit:

- Thermostatic expansion valve up to model 76 P2 C3 D included.
- Electronic expansion valve from model 98 P2 C4 S included. The valve allows high performance and system efficiency thanks to a timely and accurate response to changes in temperature and pressure. The electronic expansion valve exclude the installation of the electromagnetic valve on liquid line.
- Sight glass.
- Liquid receiver.
- Electromagnetic valve on liquid line. The electromagnetic valve is not installed when the electronic expansion valve is present.
- Filter dryer on liquid line.
- Service valves on liquid line and gas discharge.
- Safety valve on low pressure side.
- Safety valve on high pressure side.
- Pressure transducers with indication, control and protection functions, on low and high refrigerant pressure.
- High pressure safety switch with manual reset.
- Refrigerant circuit with copper tubing with anticondensate insulation of the suction line.
- Plastic capillary hoses for pressure sensors connection.
- R410A refrigerant charge.

ELECTRICAL PANEL

In accordance with EN60204-1 norms, suitable for outdoor installation, complete with:

- Main switch with door lock safety.
- Magnetothermic switch or fuses for each compressor.
- Magnetothermic switches for fans or water pumps (if scheduled).
- Contactors for each load.
- Transformer for auxiliary circuit and microprocessor supply.
- Panel with machine controls.
- Power supply: 400/3/50.

CONTROL SYSTEM

- MP.COM microprocessor system with graphic display for control and monitor of operating and alarms status. The system includes:
 - Voltage free contact for remote general alarm.
 - Main components hour-meter.
 - Nonvolatile "Flash" memory for data storage.
 - Menu with protection password.
 - LAN connection.

HYDRAULIC CONNECTIONS OF HEAT EXCHANGERS

- The heat exchangers' threaded hydraulic connections are available up to a diameter of 3" included, and correspond to ISO 228/1 – G M.
- The pipes' threaded hydraulic connections are available up to a diameter of 3" included, and correspond to ISO 7/1 – R.
- The hydraulic connections with flange (FL) are not supplied with counter flange.
- The hydraulic connections with grooved end are not supplied with flexible joint (optional accessory).

OPTIONAL ACCESSORIES

MAXIMO	21 P1 S C1	24 P1 S C1	28 P1 S C1	30 P1 S C1	34 P1 S C2	40 P1 S C2	50 P1 S C2	52 P2 S C2	52 P2 D C2	58 P2 S C3	58 P2 D C3
SIZE											
739 - Pumping group (1 pump)	●	●	●	●	●	●	●	●	●	●	●
740 - Pumping group (2 pumps)	-	-	-	-	-	-	-	-	-	●	●
768 - Chilled water storage tank	●	●	●	●	●	●	●	●	●	●	●
150 - LNO kit (noise reduction)	●	●	●	●	●	●	●	●	●	●	●
151 - ELN kit (extremely noise reduction)	●	●	●	●	●	●	●	●	●	●	●
170 - Spring antivibration holders (kit)	●	●	●	●	●	●	●	●	●	●	●
172 - Rubber support (kit)	●	●	●	●	●	●	●	●	●	●	●
118 - Kit brine A	●	●	●	●	●	●	●	●	●	●	●
119 - Kit brine B	●	●	●	●	●	●	●	●	●	●	●
Evaporator flexible joint with adapter pipe (solder type)	-	-	-	-	-	-	-	-	-	●	●
Evaporator flexible joint with adapter for flange connection	-	-	-	-	-	-	-	-	-	●	●
450 - Desuperheater	●	●	●	●	●	●	●	●	●	●	●
251 - Coils protection nets	●	●	●	●	●	●	●	●	●	●	●
351 - Coils with pre-painted fins	●	●	●	●	●	●	●	●	●	●	●
Condensing coil in special execution	●	●	●	●	●	●	●	●	●	●	●
160 - Discharge air plenum with sound attenuators	●	●	●	●	●	●	●	●	●	●	●
731 - Safety water flow switch	●	●	●	●	●	●	●	●	●	●	●
605 - Compr. power factor capacitor - 0,9	●	●	●	●	●	●	●	●	●	●	●
NNN - Expansion valve energy reserve module	●	●	●	●	●	●	●	●	●	●	●
Ambient temperature sensor	●	●	●	●	●	●	●	●	●	●	●
919 - Clock card	●	●	●	●	●	●	●	●	●	●	●
923 - RC-Com MBUS/JBUS Serial board	●	●	●	●	●	●	●	●	●	●	●
926 - LON Serial board	●	●	●	●	●	●	●	●	●	●	●
931 - BACnet Ethernet - SNMP - TCP/IP Serial board	●	●	●	●	●	●	●	●	●	●	●
932 - BACnet MS/TP Serial board	●	●	●	●	●	●	●	●	●	●	●
942 - Serial card for GSM Modem	●	●	●	●	●	●	●	●	●	●	●
943 - Data Logger	●	●	●	●	●	●	●	●	●	●	●
889 - Master plant SEQUENCER	●	●	●	●	●	●	●	●	●	●	●
962 - Kit modem GSM	●	●	●	●	●	●	●	●	●	●	●
957 - Plantwatch without modem	●	●	●	●	●	●	●	●	●	●	●
930 - Remote graphic terminal kit	●	●	●	●	●	●	●	●	●	●	●

MAXIMO	62 P1 S C3	65 P2 S C3	65 P2 D C3	76 P2 S C3	76 P2 D C3	98 P2 S C4	98 P2 D C4	124 P2 S C4	124 P2 D C4	158 P2 S C4	158 P2 D C4
SIZE											
739 - Pumping group (1 pump)	●	●	●	●	●	●	●	●	●	●	●
740 - Pumping group (2 pumps)	●	●	●	●	●	●	●	●	●	●	●
768 - Chilled water storage tank	●	●	●	●	●	●	●	●	●	●	●
150 - LNO kit (noise reduction)	●	●	●	●	●	●	●	●	●	●	●
151 - ELN kit (extremely noise reduction)	●	●	●	●	●	●	●	●	●	●	●
170 - Spring antivibration holders (kit)	●	●	●	●	●	●	●	●	●	●	●
172 - Rubber support (kit)	●	●	●	●	●	●	●	●	●	●	●
118 - Kit brine A	●	●	●	●	●	●	●	●	●	●	●
119 - Kit brine B	●	●	●	●	●	●	●	●	●	●	●
Evaporator flexible joint with adapter pipe (solder type)	●	●	●	●	●	●	●	●	●	●	●
Evaporator flexible joint with adapter for flange connection	●	●	●	●	●	●	●	●	●	●	●
450 - Desuperheater	●	●	●	●	●	●	●	●	●	●	●
251 - Coils protection nets	●	●	●	●	●	●	●	●	●	●	●
351 - Coils with pre-painted fins	●	●	●	●	●	●	●	●	●	●	●
Condensing coil in special execution	●	●	●	●	●	●	●	●	●	●	●
160 - Discharge air plenum with sound attenuators	●	●	●	●	●	●	●	●	●	●	●
731 - Safety water flow switch	●	●	●	●	●	●	●	●	●	●	●
605 - Compr. power factor capacitor - 0,9	●	●	●	●	●	●	●	●	●	●	●
NNN - Expansion valve energy reserve module	●	●	●	●	●	●	●	●	●	●	●
Ambient temperature sensor	●	●	●	●	●	●	●	●	●	●	●
919 - Clock card	●	●	●	●	●	●	●	●	●	●	●
923 - RC-Com MBUS/JBUS Serial board	●	●	●	●	●	●	●	●	●	●	●
926 - LON Serial board	●	●	●	●	●	●	●	●	●	●	●
931 - BACnet Ethernet - SNMP - TCP/IP Serial board	●	●	●	●	●	●	●	●	●	●	●
932 - BACnet MS/TP Serial board	●	●	●	●	●	●	●	●	●	●	●
942 - Serial card for GSM Modem	●	●	●	●	●	●	●	●	●	●	●
943 - Data Logger	●	●	●	●	●	●	●	●	●	●	●
889 - Master plant SEQUENCER	●	●	●	●	●	●	●	●	●	●	●
962 - Kit modem GSM	●	●	●	●	●	●	●	●	●	●	●
957 - Plantwatch without modem	●	●	●	●	●	●	●	●	●	●	●
930 - Remote graphic terminal kit	●	●	●	●	●	●	●	●	●	●	●

● available accessory; - not available accessory

OPTIONAL ACCESSORIES

MAXIMO	180 P2 S C5	180 P2 D C5	197 P2 S C5	197 P2 D C5	230 P3 S C5	240 P4 D C5H	270 P4 D C5H
SIZE							
739 - Pumping group (1 pump)	●	●	●	●	●	●	●
740 - Pumping group (2 pumps)	●	●	●	●	●	●	●
768 - Chilled water storage tank	●	●	●	●	●	●	●
150 - LNO kit (noise reduction)	●	●	●	●	●	●	●
151 - ELN kit (extremely noise reduction)	●	●	●	●	●	●	●
170 - Spring antivibration holders (kit)	●	●	●	●	●	●	●
172 - Rubber support (kit)	●	●	●	●	●	●	●
118 - Kit brine A	●	●	●	●	●	●	●
119 - Kit brine B	●	●	●	●	●	●	●
Evaporator flexible joint with adapter pipe (solder type)	●	●	●	●	●	●	●
Evaporator flexible joint with adapter for flange connection	●	●	●	●	●	●	●
450 - Desuperheater	●	●	●	●	●	●	●
251 - Coils protection nets	●	●	●	●	●	●	●
351 - Coils with pre-painted fins	●	●	●	●	●	●	●
Condensing coil in special execution	●	●	●	●	●	●	●
160 - Discharge air plenum with sound attenuators	●	●	●	●	●	●	●
731 - Safety water flow switch	●	●	●	●	●	●	●
605 - Compr. power factor capacitor - 0,9	●	●	●	●	●	●	●
NNN - Expansion valve energy reserve module	●	●	●	●	●	●	●
Ambient temperature sensor	●	●	●	●	●	●	●
919 - Clock card	●	●	●	●	●	●	●
923 - RC-Com MBUS/JBUS Serial board	●	●	●	●	●	●	●
926 - LON Serial board	●	●	●	●	●	●	●
931 - BACnet Ethernet - SNMP - TCP/IP Serial board	●	●	●	●	●	●	●
932 - BACnet MS/TP Serial board	●	●	●	●	●	●	●
942 - Serial card for GSM Modem	●	●	●	●	●	●	●
943 - Data Logger	●	●	●	●	●	●	●
889 - Master plant SEQUENCER	●	●	●	●	●	●	●
962 - Kit modem GSM	●	●	●	●	●	●	●
957 - Plantwatch without modem	●	●	●	●	●	●	●
930 - Remote graphic terminal kit	●	●	●	●	●	●	●

● available accessory; - not available accessory

TECHNICAL DATA MAXIMO

		21 P1 S C1	24 P1 S C1	28 P1 S C1	30 P1 S C1	34 P1 S C2	40 P1 S C2	50 P1 S C2	52 P2 S C2
MAXIMO	SIZE								
Cooling capacity (1)	kW	20,6	23,2	27,4	30,1	36,2	40,8	50,1	52,0
Unit power input	kW	7,2	8,4	10,0	11,5	11,9	14,5	19,3	20,2
Free-Cooling capacity (2)	kW	19,2	20,1	24,3	25,1	32,5	36,7	43,8	44,2
Total water flow rate	m³/h	3,8	4,3	5,1	5,6	6,7	7,5	9,2	9,6
Total pressure drop	kPa	73	91	109	105	103	113	109	117
Compressors		scroll							
Quantity	n.	1	1	1	1	1	1	1	2
Capacity steps	n.	1	1	1	1	1	1	1	2
Axial fans EC	n.	1	1	1	1	2	2	2	2
Total air flow	m³/h	7500	7500	9650	9650	12000	14000	17300	17300
Air circuits	n.	1	1	1	1	1	1	1	1
Refrigerant		R410A							
Total refrigerant charge (optional excluded)	kg	11,3	11,3	11,3	11,5	13,7	13,7	15,0	15,3
Gas circuits	n.	1	1	1	1	1	1	1	1
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max unit operating current (FLA)	A	17,5	22,5	23,6	26,6	34,0	37,0	43,2	47,2
Unit starting current (LRA)	A	96,5	112,5	119,6	119,6	143,0	177,0	228,2	143,2
EER (1)	kW/kW	2,88	2,77	2,74	2,61	3,05	2,82	2,59	2,57
ESEER		3,31	3,20	3,18	3,07	3,52	3,22	3,00	3,13
Sound power level [Lw] (3)	dB(A)	80,8	81,2	82,6	81,8	83,6	86,6	89,8	87,2
Average sound pressure level [L _{PM}] (4)	dB(A)	64,2	64,6	66,0	65,2	66,4	69,4	72,5	70,0
Net weight	kg	430	440	440	440	600	600	740	700
Hydraulic connections									
Evaporator IN/OUT - ISO 7/1 - R	Ø	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"
Evaporator IN/OUT - OD (5)	Ø mm	-	-	-	-	-	-	-	-
Partial heat recovery (6)									
Heating capacity	kW	7,1	8,0	9,4	10,4	12,5	14,0	17,2	17,9
Pumping group									
1 pump - 2 poles electric motor	kW	1,1	1,1	1,1	1,1	1,5	1,5	1,5	1,5
2 pump - 2 poles electric motor	kW	-	-	-	-	-	-	-	-
Water tank - volume	l	130	130	130	130	210	210	210	210
Cooling capacity (1)	kW	20,6	23,2	27,4	30,1	36,2	40,8	50,1	52,0
Unit power input	kW	6,8	7,9	9,4	10,9	11,2	13,7	18,5	19,3
Free-Cooling capacity (2)	kW	19,2	20,1	24,3	25,1	32,5	36,7	43,8	44,2
Total air flow	m³/h	7500	7500	9650	9650	12000	14000	17300	17300
EER (1)	kW/kW	2,88	2,77	2,74	2,61	3,05	2,82	2,59	2,57
Sound power level [Lw] (3)	dB(A)	80,3	80,4	82,1	81,1	83,0	86,2	88,4	87,0
Average sound pressure level [L _{PM}] (4)	dB(A)	63,7	63,8	65,5	64,5	65,8	69,0	71,2	69,8
Cooling capacity (1)	kW	20,1	22,6	26,7	29,1	35,3	39,7	48,8	50,4
Unit power input	kW	6,9	8,1	9,4	11,1	11,5	13,8	18,5	19,5
Free-Cooling capacity (2)	kW	19,0	19,9	24,1	24,8	32,2	36,4	43,4	43,9
Total air flow	m³/h	6375	6375	8203	8203	10200	11900	14705	14705
EER (1)	kW/kW	2,79	2,66	2,67	2,49	2,91	2,73	2,52	2,47
Sound power level [Lw] (3)	dB(A)	76,7	76,9	78,5	77,6	79,4	82,5	85,2	83,2
Average sound pressure level [L _{PM}] (4)	dB(A)	60,1	60,3	61,9	61,0	62,2	65,3	68,0	66,0
Cooling capacity (1)	kW	19,4	21,6	25,6	27,7	33,8	38,2	46,9	48,1
Unit power input	kW	7,1	8,4	9,8	11,6	11,9	14,2	19,1	20,3
Free-Cooling capacity (2)	kW	18,7	19,6	23,7	24,4	31,8	35,9	42,9	43,3
Total air flow	m³/h	5250	5250	6755	6755	8400	9800	12110	12110
EER (1)	kW/kW	2,61	2,45	2,49	2,28	2,70	2,56	2,36	2,28
Sound power level [Lw] (3)	dB(A)	72,8	73,3	74,6	73,9	75,7	78,5	82,3	79,0
Average sound pressure level [L _{PM}] (4)	dB(A)	56,2	56,8	58,0	57,3	58,5	61,3	65,1	61,8

1. Referred to chiller water temperature 15/10°C; 20% Ethylene glycol solution; ambient temperature 35°C.

2. Referred to chiller water inlet temperature 15°C; 20% Ethylene glycol solution; ambient temperature 3°C.

3. Sound power level [Lw] according to ISO EN 9614 – 2.

4. Average sound pressure level [L_{PM}] 1m far according to ISO EN 3744.

5. Hydraulic connection with grooved end. The flexible joint is an optional accessory.

6. Referred to chiller water temperature 12/7°C; 35°C ambient temperature and hot water temperature 40/45°C.

TECHNICAL DATA MAXIMO

MAXIMO		52 P2	58 P2	58 P2	62 P1	65 P2	65 P2	76 P2	76 P2
SIZE	C2	D	S	D	S	S	D	S	D
	C2	C3							
Cooling capacity (1)	kW	51,9	60,5	60,7	64,3	68,0	67,8	77,8	77,4
Unit power input	kW	20,2	21,6	21,4	23,4	24,6	24,3	29,8	29,7
Free-Cooling capacity (2)	kW	44,2	55,4	55,5	57,9	60,4	60,3	66,8	66,7
Total water flow rate	m³/h	9,6	11,2	11,2	11,8	12,5	12,5	14,3	14,3
Total pressure drop	kPa	94	107	80	103	118	95	114	94
Compressors	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	n.	2	2	2	1	2	2	2	2
Capacity steps	n.	2	2	2	1	2	2	2	2
Axial fans EC	n.	2	3	3	3	3	3	3	3
Total air flow	m³/h	17300	21000	21000	22000	23000	23000	25750	25750
Air circuits	n.	1	1	1	1	1	1	1	1
Refrigerant		R410A							
Total refrigerant charge (optional excluded)	kg	16,0	21,7	19,3	18,9	22,1	19,6	28,6	25,5
Gas circuits	n.	2	1	2	1	1	2	1	2
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max unit operating current (FLA)	A	47,2	54,5	54,5	53,0	66,5	66,5	72,8	72,8
Unit starting current (LRA)	A	143,2	147,5	147,5	276,5	175,5	175,5	212,8	212,8
EER (1)	kW/kW	2,57	2,80	2,84	2,75	2,76	2,79	2,61	2,61
ESEER		3,55	3,44	3,80	3,16	3,34	3,68	3,09	3,47
Sound power level [Lw] (3)	dB(A)	87,2	88,2	88,2	93,0	88,1	88,1	87,3	87,3
Average sound pressure level [L _{PM}] (4)	dB(A)	70,0	70,3	70,3	75,1	70,2	70,2	69,4	69,4
Net weight	kg	700	930	920	970	940	930	1000	1000
Hydraulic connections									
Evaporator IN/OUT - ISO 7/1 – R	Ø	2"	-	-	-	-	-	-	-
Evaporator IN/OUT - OD (5)	Ø mm	-	76,1	76,1	76,1	76,1	76,1	76,1	76,1
Partial heat recovery (6)									
Heating capacity	kW	17,8	20,8	20,9	22,1	23,4	23,3	26,8	26,6
Pumping group									
1 pump - 2 poles electric motor	kW	1,5	3,0	3,0	3,0	3,0	3,0	3,0	3,0
2 pump - 2 poles electric motor	kW	-	3,0	3,0	3,0	3,0	3,0	3,0	3,0
Water tank - volume	l	210	360	360	360	360	360	360	360
Cooling capacity (1)	kW	51,9	60,5	60,7	64,3	68,0	67,8	77,8	77,4
Unit power input	kW	19,4	20,6	20,6	22,4	23,5	23,4	28,6	28,6
Free-Cooling capacity (2)	kW	44,2	55,4	55,5	57,9	60,4	60,3	66,8	66,7
Total air flow	m³/h	17300	21000	21000	22000	23000	23000	25750	25750
EER (1)	kW/kW	2,57	2,80	2,84	2,75	2,76	2,79	2,61	2,61
Sound power level [Lw] (3)	dB(A)	87,0	87,9	87,9	91,5	87,9	87,9	87,0	87,0
Average sound pressure level [L _{PM}] (4)	dB(A)	69,8	70,0	70,0	73,6	70,0	70,0	69,2	69,2
Cooling capacity (1)	kW	50,2	58,8	58,9	62,6	66,0	65,8	75,6	75,2
Unit power input	kW	19,5	20,9	20,8	22,6	23,6	23,5	28,7	28,6
Free-Cooling capacity (2)	kW	43,8	54,9	55,0	57,5	59,8	59,8	66,2	66,1
Total air flow	m³/h	14705	17850	17850	18700	19550	19550	21888	21888
EER (1)	kW/kW	2,47	2,69	2,73	2,66	2,67	2,69	2,53	2,54
Sound power level [Lw] (3)	dB(A)	83,2	84,2	84,2	88,4	84,1	84,1	83,3	83,3
Average sound pressure level [L _{PM}] (4)	dB(A)	66,0	66,3	66,3	70,5	66,2	66,2	65,4	65,4
Cooling capacity (1)	kW	47,9	56,4	56,5	60,2	63,2	63,0	72,4	72,0
Unit power input	kW	20,3	21,7	21,6	23,3	24,4	24,3	29,4	29,4
Free-Cooling capacity (2)	kW	43,2	54,2	54,2	56,8	59,1	59,0	65,4	65,3
Total air flow		12110	14700	14700	15400	16100	16100	18025	18025
EER (1)	kW/kW	2,28	2,50	2,53	2,49	2,49	2,50	2,37	2,37
Sound power level [Lw] (3)	dB(A)	79,0	79,9	79,9	85,6	79,8	79,8	79,1	79,1
Average sound pressure level [L _{PM}] (4)	dB(A)	61,8	62,0	62,0	67,7	61,9	61,9	61,2	61,2

1. Referred to chiller water temperature 15/10°C; 20% Ethylene glycol solution; ambient temperature 35°C.

2. Referred to chiller water inlet temperature 15°C; 20% Ethylene glycol solution; ambient temperature 3°C.

3. Sound power level [Lw] according to ISO EN 9614 – 2.

4. Average sound pressure level [L_{PM}] 1m far according to ISO EN 3744.

5. Hydraulic connection with grooved end. The flexible joint is an optional accessory.

6. Referred to chiller water temperature 12/7°C; 35°C ambient temperature and hot water temperature 40/45°C.

TECHNICAL DATA MAXIMO

MAXIMO		98 P2 S C4	98 P2 D C4	124 P2 S C4	124 P2 D C4	158 P2 S C4	158 P2 D C4	180 P2 S C5	180 P2 D C5
SIZE									
Cooling capacity (1)	kW	101,0	99,8	124,0	122,0	159,0	161,0	183,0	184,0
Unit power input	kW	37,0	36,6	48,4	48,4	65,2	65,2	70,4	70,8
Free-Cooling capacity (2)	kW	85,7	85,3	101,0	101,0	116,0	116,0	136,0	137,0
Total water flow rate	m³/h	18,6	18,4	22,9	22,5	29,4	29,8	33,7	33,9
Total pressure drop	kPa	94	78	86	75	95	84	77	80
Compressors		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	n.	2	2	2	2	2	2	2	2
Capacity steps	n.	2	2	2	2	2	2	2	2
Axial fans EC	n.	4	4	4	4	4	4	5	5
Total air flow	m³/h	35000	35000	42000	42000	46800	46800	53000	53000
Air circuits	n.	1	1	1	1	1	1	1	1
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Total refrigerant charge (optional excluded)	kg	33,9	31,3	38,6	42,1	50,9	42,9	73,7	65,8
Gas circuits	n.	1	2	1	2	1	2	1	2
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max unit operating current (FLA)	A	86,4	86,4	108,4	108,4	142,2	142,2	161,7	161,7
Unit starting current (LRA)	A	271,4	271,4	331,9	331,9	386,8	386,8	473,7	473,7
EER (1)	kW/kW	2,73	2,73	2,56	2,52	2,44	2,47	2,60	2,60
ESEER		3,25	3,64	3,01	3,41	2,96	3,30	3,12	3,51
Sound power level [Lw] (3)	dB(A)	87,0	87,0	90,9	90,9	93,0	93,0	93,3	93,3
Average sound pressure level [L _{PM}] (4)	dB(A)	68,4	68,4	72,3	72,3	74,4	74,4	74,1	74,1
Net weight	kg	1470	1470	1610	1610	1660	1640	2240	2210
Hydraulic connections									
Evaporator IN/OUT - ISO 7/1 - R	Ø	-	-	-	-	-	-	-	-
Evaporator IN/OUT - OD (5)	Ø mm	88,9	88,9	88,9	88,9	88,9	88,9	88,9	88,9
Partial heat recovery (6)									
Heating capacity	kW	34,8	34,3	42,6	42,0	54,8	55,5	62,9	63,3
Pumping group									
1 pump - 2 poles electric motor	kW	3,0	3,0	3,0	3,0	3,0	3,0	5,5	5,5
2 pump - 2 poles electric motor	kW	4,0	4,0	4,0	4,0	4,0	4,0	7,5	7,5
Water tank - volume	l	520	520	520	520	520	520	720	720
Cooling capacity (1)	kW	101,0	99,8	124,0	122,0	159,0	161,0	183,0	184,0
Unit power input	kW	35,7	35,5	47,2	47,2	63,3	63,6	68,8	69,0
Free-Cooling capacity (2)	kW	85,7	85,3	101,0	101,0	116,0	116,0	136,0	137,0
Total air flow	m³/h	35000	35000	42000	42000	46800	46800	53000	53000
EER (1)	kW/kW	2,73	2,73	2,56	2,52	2,44	2,47	2,60	2,60
Sound power level [Lw] (3)	dB(A)	86,2	86,2	90,6	90,6	92,8	92,8	93,2	93,2
Average sound pressure level [L _{PM}] (4)	dB(A)	67,6	67,6	72,0	72,0	74,2	74,2	73,9	73,9
Cooling capacity (1)	kW	98,4	97,2	120,0	119,0	154,0	156,0	177,0	178,0
Unit power input	kW	36,0	35,8	47,1	47,1	63,1	63,4	69,1	69,3
Free-Cooling capacity (2)	kW	84,9	84,5	100,0	99,6	115,0	115,0	135,0	135,0
Total air flow	m³/h	29750	29750	35700	35700	39780	39780	45050	45050
EER (1)	kW/kW	2,65	2,64	2,48	2,46	2,38	2,40	2,51	2,51
Sound power level [Lw] (3)	dB(A)	82,7	82,7	86,8	86,8	89,0	89,0	89,4	89,4
Average sound pressure level [L _{PM}] (4)	dB(A)	64,1	64,1	68,2	68,2	70,4	70,4	70,1	70,1
Cooling capacity (1)	kW	94,7	93,6	115,0	114,0	146,0	148,0	169,0	170,0
Unit power input	kW	37,2	37,0	48,3	48,2	65,0	65,4	71,6	71,9
Free-Cooling capacity (2)	kW	83,7	83,3	98,7	98,2	113,0	113,0	132,0	132,0
Total air flow	m³/h	24500	24500	29400	29400	32760	32760	37100	37100
EER (1)	kW/kW	2,47	2,46	2,32	2,31	2,19	2,22	2,31	2,32
Sound power level [Lw] (3)	dB(A)	79,2	79,2	82,7	82,7	84,6	84,6	85,0	85,0
Average sound pressure level [L _{PM}] (4)	dB(A)	60,6	60,6	64,1	64,1	66,0	66,0	65,7	65,7

1. Referred to chiller water temperature 15/10°C; 20% Ethylene glycol solution; ambient temperature 35°C.

2. Referred to chiller water inlet temperature 15°C; 20% Ethylene glycol solution; ambient temperature 3°C.

3. Sound power level [Lw] according to ISO EN 9614 – 2.

4. Average sound pressure level [L_{PM}] 1m far according to ISO EN 3744.

5. Hydraulic connection with grooved end. The flexible joint is an optional accessory.

6. Referred to chiller water temperature 12/7°C; 35°C ambient temperature and hot water temperature 40/45°C.

TECHNICAL DATA MAXIMO

		197 P2 S C5	197 P2 D C5	230 P3 S C5	240 P4 D C5H	270 P4 D C5H
SIZE						
Cooling capacity (1)	kW	201,0	198,0	226,0	251,0	279,0
Unit power input	kW	80,4	80,8	99,1	97,3	114,8
Free-Cooling capacity (2)	kW	148,0	148,0	156,0	168,0	194,0
Total water flow rate	m³/h	37,0	36,6	41,8	46,3	51,5
Total pressure drop	kPa	103	95	113	111	117
Compressors		scroll	scroll	scroll	scroll	scroll
Quantity	n.	2	2	3	4	4
Capacity steps	n.	2	2	3	4	4
Axial fans EC	n.	5	5	5	5	5
Total air flow	m³/h	54000	54000	56300	69000	69000
Air circuits	n.	1	1	1	1	1
Refrigerant		R410A	R410A	R410A	R410A	R410A
Total refrigerant charge (optional excluded)	kg	83,1	102,2	83,7	127,0	126,6
Gas circuits	n.	1	2	1	2	2
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Max unit operating current (FLA)	A	178,3	178,3	210,5	208,3	242,1
Unit starting current (LRA)	A	490,3	490,3	455,1	431,8	486,7
EER (1)	kW/kW	2,50	2,45	2,28	2,58	2,43
ESEER		2,96	3,43	3,52	3,66	3,64
Sound power level [Lw] (3)	dB(A)	93,7	93,7	94,7	93,4	93,4
Average sound pressure level [L _{PM}] (4)	dB(A)	74,4	74,4	75,4	74,1	74,1
Net weight	kg	2220	2230	2370	2510	2510
Hydraulic connections						
Evaporator IN/OUT - ISO 7/1 - R	Ø	-	-	-	-	-
Evaporator IN/OUT - OD (5)	Ø mm	88,9	88,9	88,9	88,9	88,9
Partial heat recovery (6)						
Heating capacity	kW	69,0	68,2	77,7	86,4	96,1
Pumping group						
1 pump - 2 poles electric motor	kW	5,5	5,5	5,5	5,5	5,5
2 pump - 2 poles electric motor	kW	7,5	7,5	7,5	7,5	7,5
Water tank - volume	l	720	720	720	720	720
Cooling capacity (1)	kW	201,0	198,0	226,0	251,0	279,0
Unit power input	kW	78,2	78,8	96,5	94,4	111,1
Free-Cooling capacity (2)	kW	148,0	148,0	156,0	168,0	194,0
Total air flow	m³/h	54000	54000	56300	69000	69000
EER (1)	kW/kW	2,50	2,45	2,28	2,58	2,43
Sound power level [Lw] (3)	dB(A)	93,6	93,6	94,5	93,0	93,0
Average sound pressure level [L _{PM}] (4)	dB(A)	74,3	74,3	75,2	73,8	73,8
Cooling capacity (1)	kW	194,0	191,0	217,0	243,0	268,0
Unit power input	kW	79,2	79,8	98,2	94,9	112,6
Free-Cooling capacity (2)	kW	147,0	147,0	155,0	167,0	192,0
Total air flow	m³/h	45900	45900	47855	58650	58650
EER (1)	kW/kW	2,38	2,33	2,15	2,49	2,31
Sound power level [Lw] (3)	dB(A)	89,8	89,8	90,7	89,3	89,3
Average sound pressure level [L _{PM}] (4)	dB(A)	70,5	70,5	71,4	70,0	70,0
Cooling capacity (1)	kW	183,0	181,0	203,0	231,0	252,0
Unit power input	kW	83,2	83,9	102,8	98,3	118,1
Free-Cooling capacity (2)	kW	145,0	144,0	153,0	165,0	190,0
Total air flow	m³/h	37800	37800	39410	48300	48300
EER (1)	kW/kW	2,15	2,11	1,93	2,29	2,08
Sound power level [Lw] (3)	dB(A)	85,4	85,4	86,3	85,2	85,2
Average sound pressure level [L _{PM}] (4)	dB(A)	66,1	66,1	67,1	65,9	65,9

1. Referred to chiller water temperature 15/10°C; 20% Ethylene glycol solution; ambient temperature 35°C.
2. Referred to chiller water inlet temperature 15°C; 20% Ethylene glycol solution; ambient temperature 3°C.
3. Sound power level [Lw] according to ISO EN 9614 – 2.
4. Average sound pressure level [L_{PM}] 1m far according to ISO EN 3744.
5. Hydraulic connection with grooved end. The flexible joint is an optional accessory.
6. Referred to chiller water temperature 12/7°C; 35°C ambient temperature and hot water temperature 40/45°C.

DIMENSIONS (mm)

SIZE C	a	b	c
C1	1250	890	2010
C2	1800	1040	2060
C3	2600	1200	2060
C4	3700	1260	2050
C5	4950	1260	2090
C5H	4950	1260	2090

