



Water-air packaged units

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72

Астана +7(7172)727-132

Белгород (4722)40-23-64

Брянск (4832)59-03-52

Владивосток (423)249-28-31

Волгоград (844)278-03-48

Вологда (8172)26-41-59

Воронеж (473)204-51-73

Екатеринбург (343)384-55-89

Иваново (4932)77-34-06

Ижевск (3412)26-03-58

Казань (843)206-01-48

Калининград (4012)72-03-81

Калуга (4842)92-23-67

Кемерово (3842)65-04-62

Киров (8332)68-02-04

Краснодар (861)203-40-90

Красноярск (391)204-63-61

Курск (4712)77-13-04

Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13

Москва (495)268-04-70

Мурманск (8152)59-64-93

Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12

Новокузнецк (3843)20-46-81

Новосибирск (383)227-86-73

Орел (4862)44-53-42

Оренбург (3532)37-68-04

Пенза (8412)22-31-16

Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15

Рязань (4912)46-61-64

Самара (846)206-03-16

Санкт-Петербург (812)309-46-40

Саратов (845)249-38-78

Смоленск (4812)29-41-54

Сочи (862)225-72-31

Ставрополь (8652)20-65-13

Тверь (4822)63-31-35

Томск (3822)98-41-53

Тула (4872)74-02-29

Тюмень (3452)66-21-18

Ульяновск (8422)24-23-59

Уфа (347)229-48-12

Челябинск (351)202-03-61

Череповец (8202)49-02-64

Ярославль (4852)69-52-93

сайт: www.ciat.nt-rt.ru | эл. почта: cta@nt-rt.ru



Cooling capacity: 6,9 a 41,3 kW
 Heating capacity: 8,2 a 48,4 kW

Personalized comfort for offices and shopping malls

Discreet solution in centralized facilities with **closed water loop**

Easy installation in false ceiling

DESCRIPTION

Heat Pumps and Cooling Units **RXH and IXH series** are units of compact construction, water-air, designed for the air-conditioning of premises.

SERIES

RXH Series

Water-air horizontal compact cooling unit.

IXH Series

Water-air reversible horizontal compact **heat pump**.

RANGE

RXH - IXH series: 1 cooling circuit, 1 compressor, 10 models: 25 / 30 / 40M / 40 / 50 / 65 / 80 / 95 / 120 / 155.

OPERATING LIMITS

Series	Operating mode	Air		Water	
		Max.	Min.	Max.	Min.
IXH / RXH	Cooling	21°C WB	14°C WB	50°C ①	25°C ①③
IXH	Heat pump	27°C	10°C	25°C ②	10°C ②

① Water outlet

② Water inlet

③ In units with condensing pressure control (optional) operation up to +5 °C.

UNITS COMPOSITION

Standard equipment

- Anticorrosion casing in galvanized metal plate covered with polyester paint dried to the furnace.

External circuit

- Exchanger with stainless steel welded plates.

Internal circuit

- Centrifugal fan driven directly by motor in models 25 to 40. Variation of the fan's speed for tension adjustment by means of potentiometer.
- Centrifugal fans coupling by pulleys and belts by motor in models 50 to 155. Electric motor with tensioner, class F, IP55 and internal thermal protection. One, two or three double-intake turbines, with an impeller of front-curved blades. Greased spherical bearings, with no maintenance required.
- Air coil with aluminium fins and copper tubes.
- Washable air filter.
- Condensate drain pan.

Cooling circuit

- Piston hermetic compressor with gas discharge silencer and acoustic isolation mounted on anti-vibratory supports. Thermal protection.
- Four ways reverse valve, crankcase heater and liquid vessel (IXH models).

Protections

- High and low pressure pressostats.
- Water flow control (IXH series).
- Main door switch (except model 25).
- Magnetothermic protection switches for the compressor.
- Magnetothermic protection switches for fan motor (models 50 to 155).
- Fan thermal protection.
- Control circuit automatic switch.
- Anti-frost safety built-in the control (IXH series).

Electrical panel

- Complete electrical panel, totally wired.
- General ground plug.
- Motor-fan and compressor contactor (models 50 to 155).

AVANT electronic control

This electronic module with a microprocessor comprised of a control board and a TCO user terminal performs the following functions:

- Selection of the operating mode: COOLING, HEATING, AUTOMATIC, FAN and DEHUMIDIFICATION.
- Modification of the setpoint.
- Permanent control of the operating parameters.
- View of the values measured by the probes.
- Timing of the compressors
- Control of the outlet temperature.
- Compressor discharge temperature control by probe.
- Water circulation pump control
- Timer and weekly programming.
- Operating faults diagnosis and main alarm.
- Counters of the number of starts and operating hours of the unit's components.

Optional functions:

- Humidity control.
- Anti-fire safety.
- Management of thermal free-cooling.
- Control of the auxiliary electrical heaters.
- Control of a hot water auxiliary coil.
- Detection of clogged filters.
- Connection to a centralised technical management system (BMS) for supervision.

Optionally, this control can have a terminal for pGD1 maintenance that facilitates the initial scheduling of the unit, the modification of the operating parameters and the description of the alarms produced.



Options

- Coils of copper tubes and copper fins, or aluminium fins with polyurethane coating.
- Options for control and other controls.
- Optional electrical heaters.
- Hot water coils (except in model 25).
- Fouled filter differential pressostat.
- Condensing pressure control.
- Starter kit in monophasic models.
- Rubber anti-vibratory supports.



Water-air packaged units

TECHNICAL CHARACTERISTICS

XH		25	30	40M	40	50	65	80	95	120	155
Cooling capacities	Cooling Capacity ① (kW)	6,9	7,7	10,5	10,5	12,4	16,0	20,9	25,2	32,7	41,3
	Power input ③ (kW)	2,0	2,3	3,3	3,3	3,7	4,8	6,6	7,5	9,9	13,4
	EER performance	3,5	3,3	3,2	3,2	3,3	3,3	3,2	3,4	3,3	3,1
Heating capacities	Heating capacity ② (kW)	8,2	9,0	12,8	12,8	16,0	19,5	24,9	29,1	38,6	48,4
	Power input ③ (kW)	2,0	2,4	3,4	3,4	3,9	5,1	6,7	8,0	10,7	13,8
	COP performance	4,1	3,7	3,8	3,8	4,1	3,8	3,7	3,6	3,6	3,5
Outdoor circuit	Nominal water flow (m³/h)	1,5	1,7	2,3	2,3	2,7	3,5	4,6	5,5	7,2	9,2
	Pressure drop (m.w.c)	4,9	5,3	9,8	9,8	3,5	5,7	4,4	5,7	4,5	7,3
	Water inlet connection	3/4"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"
	Water outlet connection	3/4"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"
Indoor centrifugal fan circuit	Nominal air flow (m³/h)	1.300	1.500	2.000	2.000	2.500	3.100	4.000	4.600	6.000	7.000
	Avail. static pressure (mm.a.c.)	6,0	5,5	5,0	5,0	5,0	8,0	10,0	7,0	9,0	6,5
	Number	1									
	Power input (kW)	0,15	0,42	0,42	0,42	0,37	0,55	1,1	1,1	1,1	1,5
	r.p.m.	900	800	800	800	726	910	1.027	867	640	695
Compressor	Type	Piston hermetic									
	Number compressors	1									
	Number circuits	1									
Maximum absorbed current	230 V / I ph / 50 Hz (+/-5%) (A)	18,6	24,6	34,8	--	--	--	--	--	--	--
	230 V / III ph / 50 Hz (+/-5%) (A)	--	--	--	23,6	19,9	25,8	33,7	39,7	47,7	57,1
	400 V / III ph / 50 Hz (+/-5%) (A)	--	--	--	13,1	16,1	16,6	25,7	24,7	29,7	39,6
Refrigerant	Type	R-407C									
	Global warming potential (GWP) ④	1.774									
	Charge RXH (kg)	1,1	1,1	1,2	1,2	1,2	1,4	2,7	3,0	3,2	3,5
	Charge IXH (kg)	2,3	3,0	3,3	3,3	3,6	4,1	4,6	4,7	5,8	6,5
Dimensions	Length (mm)	1.024	1.162	1.162	1.162	1.408	1.408	1.825	1.825	2.457	2.457
	Width (mm)	866	790	790	790	946	946	1.445	1.445	1.911	1.911
	Height (mm)	431	536	536	536	587	587	701	701	820	820
Weight	RXH (kg)	120	129	146	146	200	205	309	356	431	471
	IXH (kg)	125	134	152	152	209	217	323	371	443	484

① Cooling capacity for inlet/outlet water conditions 30/35 °C and internal temperature 27 °C and 50% of R.H.

② Heating capacity for inlet/outlet water conditions 16/11 °C and internal temperature 21 °C.

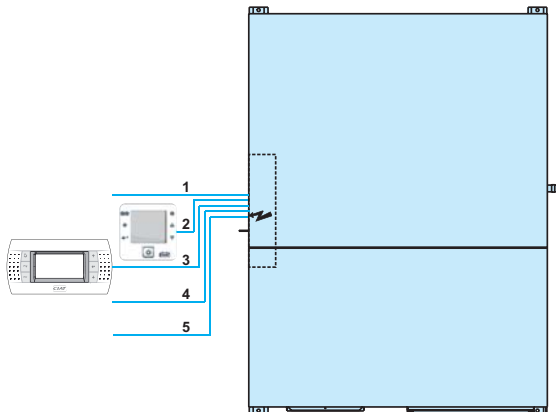
③ Total power input by compressor and motorfans under previous conditions.

④ Climate warming potential of one kg of greenhouse-effect fluored gas relative to one kilogram of carbon dioxide over a period of 100 years.

MAXIMUM CURRENTS (A)

XH		25	30	40M	40	50	65	80	95	120	155
Compressor	230 V / II ph / 50 Hz	17	21	31,2	--	--	--	--	--	--	--
	230 V / III ph / 50 Hz	--	--	--	20	18	23	29	35	43	51
	400 V / III ph / 50 Hz	--	--	--	9,5	15	15	23	22	27	36
Indoor fan	230 V / II ph / 50 Hz	1,6	3,6	3,6	3,6	--	--	--	--	--	--
	230 V / III ph / 50 Hz	--	--	--	--	1,9	2,8	4,7	4,7	4,7	6,1
	400 V / III ph / 50 Hz	--	--	--	--	1,1	1,6	2,7	2,7	2,7	3,6
Total	230 V / II ph / 50 Hz	18,6	24,6	34,8	--	--	--	--	--	--	--
	230 V / III ph / 50 Hz	--	--	--	23,6	19,9	25,8	33,7	39,7	47,7	57,1
	400 V / III ph / 50 Hz	--	--	--	13,1	16,1	16,6	25,7	24,7	29,7	39,6

ELECTRICAL WIRING



Nº	XH	25	30	40M	40	50	65	80	95	120	155
1	Main power supply	230 I	2 + T			--					
		230 III	--			3 + GND					
		400 III	--			3 + N + GND					
2	TCO user terminal connection ①	2 wires for supplying 230V + 1 shielded cable for AGW20/22 communication 1 braided pair + drainwire + shielding)									
3	pGD1 maintenance terminal connection (optional)	telephone cable 6 wires standard (RJ12 connector)									
4	Remote off/on (optional)	2 wires									
5	Main failure signal (opti.)	2 wires									

① The same power supply used for powering the control board must also be used for powering the terminal.

SOUND POWER AND PRESSURE LEVEL

These units have been designed for operating at a low sound level. However, from the conception of the installation, the effect on the external environment of sound waves and vibrations in the building must be considered.

A study by an acoustic expert may be advisable.

A) The **sound power level** in the discharge of **internal fan**, should be taken into account for the silencer calculation:

XH	25	30	40	50	65	80	95	120	155
dB(A)	70,5	75,5	77,0	70,0	75,3	80,3	77,3	73,7	76,6

B) The **sound pressure level** of the unit, with the ducted discharge and return intakes, measured from 5m of distance, on free field, directivity 2 and at 1,5 m from floor is:

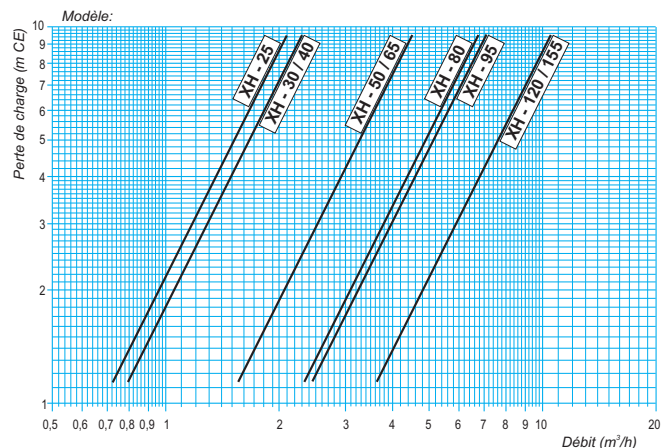
XH	25	30	40	50	65	80	95	120	155
dB(A)	49,9	53,4	55,1	60,0	62,7	65,3	64,2	62,4	64,5

NOTE: The sound pressure level depends on the conditions of the installation and therefore it is indicated for purely orientative purpose.

MAXIMUM SERVICE PRESSURE (BAR)

XH	Cooling circuit	Hydraulic circuit
Water exchanger	29	10
Air coil	29	--

PRESSURE DROPS IN THE EXCHANGER





Water-air packaged units

COOLING CAPACITY (kW)

WATER OUTLET TEMPERATURE 35 °C

RXH IXH	Flow m³/h	Internal air temperature											
		23 °C / 50 % RH			25 °C / 50 % RH			27 °C / 50 % RH			29 °C / 50 % RH		
		Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
25	1.050	5,4	4,3	1,7	6,1	4,4	1,8	6,6	4,5	1,9	7,1	4,6	2,0
	1.300	5,9	4,8	1,8	6,4	5,0	1,9	6,9	5,2	1,9	7,4	5,4	2,0
	1.500	6,0	4,9	1,8	6,5	5,1	1,9	7,0	5,3	2,0	7,5	5,5	2,1
30	1.200	6,2	5,0	1,8	6,8	5,1	1,9	7,3	5,2	2,0	7,9	5,4	2,0
	1.500	6,5	5,5	1,9	7,1	5,8	2,0	7,7	6,0	2,1	8,3	6,2	2,1
	1.650	6,6	5,6	1,9	7,2	6,0	2,0	7,9	6,3	2,1	8,5	6,5	2,1
40	1.600	8,2	6,5	2,8	9,0	6,7	2,9	9,9	6,9	3,0	10,9	7,2	3,1
	2.000	8,6	7,4	2,8	9,5	7,7	3,0	10,5	8,0	3,1	11,4	8,3	3,2
	2.100	8,7	7,6	2,9	9,6	8,1	3,0	10,7	8,4	3,1	11,6	8,6	3,2
50	2.000	10,0	7,8	3,2	10,9	8,3	3,3	11,9	8,5	3,4	13,0	8,7	3,5
	2.500	10,5	8,8	3,3	11,4	9,4	3,4	12,4	9,8	3,4	13,5	10,1	3,5
	2.750	10,8	9,1	3,3	11,7	9,8	3,4	12,7	10,3	3,5	13,8	10,5	3,6
65	2.500	12,9	9,8	4,1	14,2	10,3	4,2	15,5	10,7	4,3	16,7	11,0	4,4
	3.100	13,3	11,1	4,2	14,6	11,7	4,3	16,0	12,3	4,4	17,3	12,7	4,4
	3.250	13,5	11,5	4,3	14,8	12,2	4,4	16,2	12,9	4,4	17,5	13,2	4,5
80	3.200	17,1	12,7	5,6	18,6	13,3	5,7	20,1	13,8	5,8	21,3	14,2	5,9
	4.000	17,7	14,3	5,7	19,2	15,1	5,8	20,9	15,9	5,9	22,3	16,4	6,0
	4.400	18,1	14,7	5,7	19,6	15,8	5,8	21,3	16,7	6,0	22,7	17,0	6,0
95	3.600	20,6	15,1	6,5	22,5	15,8	6,6	24,3	16,4	6,7	26,3	16,9	6,9
	4.600	21,5	17,0	6,6	23,4	18,0	6,7	25,2	18,9	6,8	27,2	19,5	6,9
	4.800	22,0	17,5	6,6	23,9	18,8	6,7	25,6	19,8	6,8	27,7	20,2	7,0
120	4.800	26,8	19,6	8,6	29,1	20,6	8,7	31,6	21,3	8,9	34,0	22,0	9,1
	6.000	27,9	22,1	8,7	30,2	23,4	8,9	32,7	24,6	9,0	35,1	25,4	9,2
	6.600	28,7	22,8	8,7	31,0	24,5	8,9	33,5	25,8	9,1	35,9	26,4	9,3
155	5.800	32,9	23,9	11,4	35,7	25,1	11,6	38,9	26,0	11,9	41,8	26,8	12,0
	7.000	34,3	27,0	11,5	37,1	28,5	11,7	41,3	30,0	12,0	43,2	31,0	12,1
	7.500	34,7	27,8	11,6	37,5	29,8	11,8	41,7	31,4	12,1	43,6	32,1	12,2

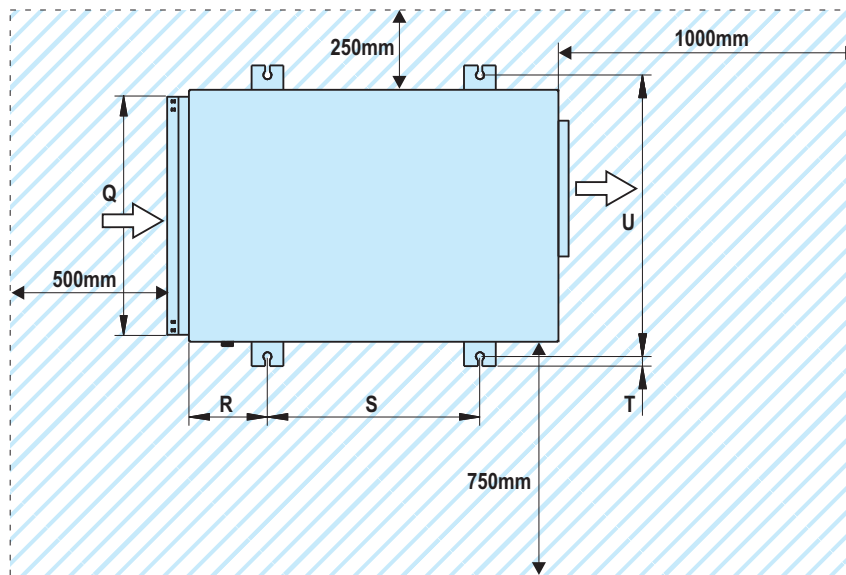
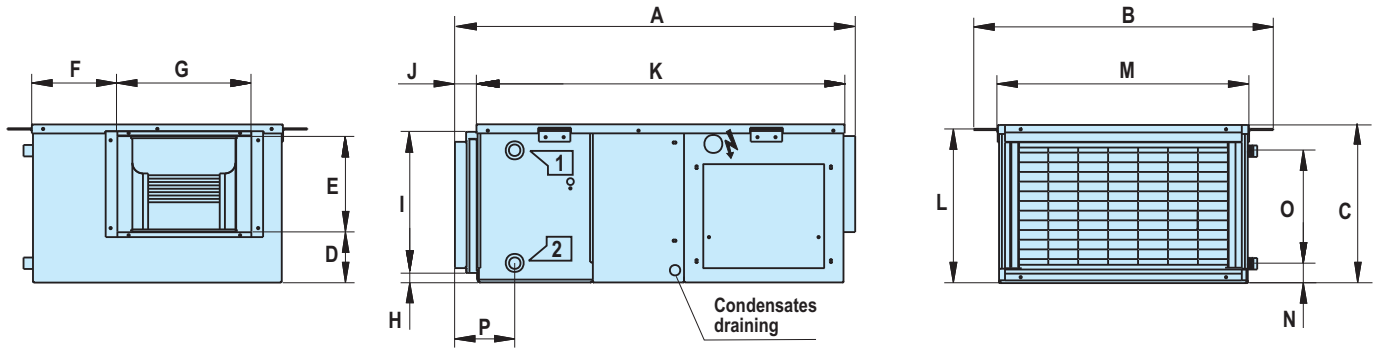
Pft: Total cooling capacity in kW

Pfs: Sensible cooling capacity in kW.

Pa: Compressor power input in kW.

DIMENSIONS SCHEMES

Dimensions RXH / IXH - 25 (mm)



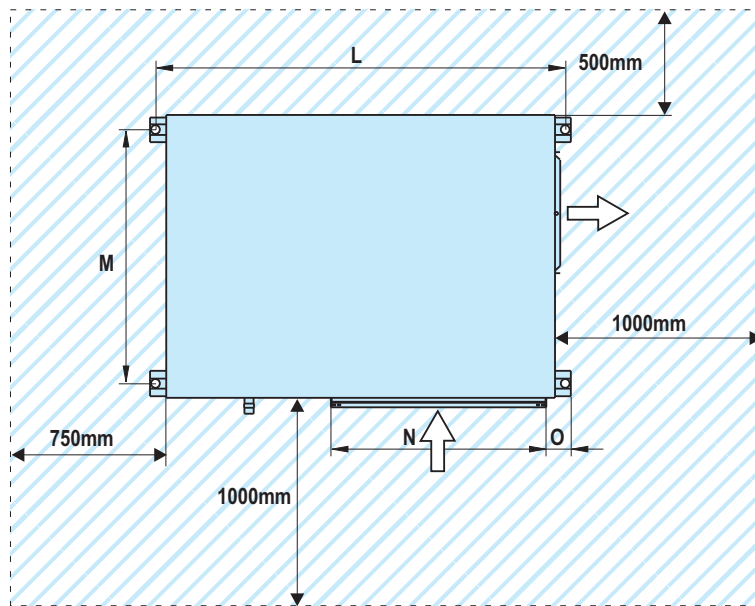
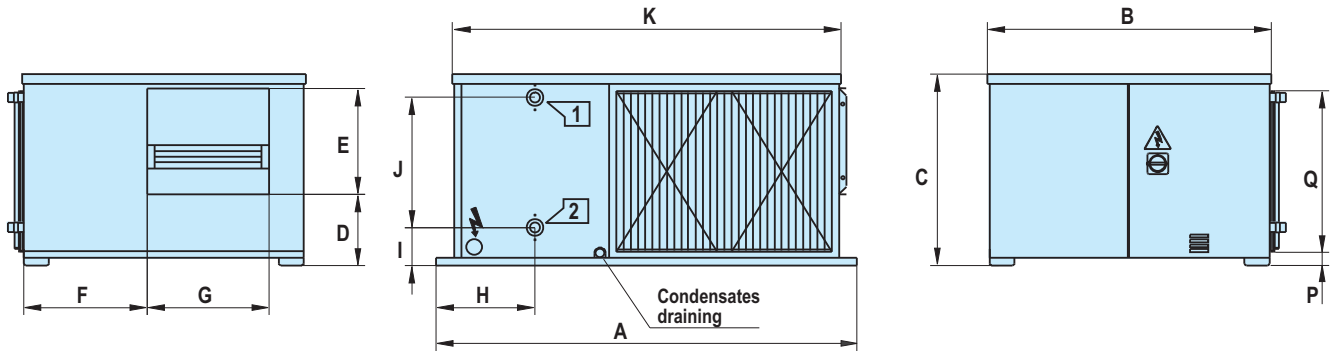
Keep this space free for installation and maintenance

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
XH - 25	1.024	866	431	91	262	189	497,5	21	393,5	48	752,5	422,5	757,5	68,5	250	179	731,5	198,5	516,5	22	822,5

LEGEND

- Water outlet
 - Water inlet
 - Internal air flow
 - Electrical panel and power supply
- Antivibratory anchor diameter: 18mm

Dimensions RXH / IXH - 30 / 40 / 50 / 65 (mm)



Keep this space free for installation and maintenance

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
XH - 30 / 40	1.162	790	522	159	266	357	302	298	95	348	1.082	1.134	710	655	43	30	452
XH - 50 / 65	1.408	946	571	200	295	344	337	363	95	348	1.328	1.380	872	765	43	30	502

LEGEND

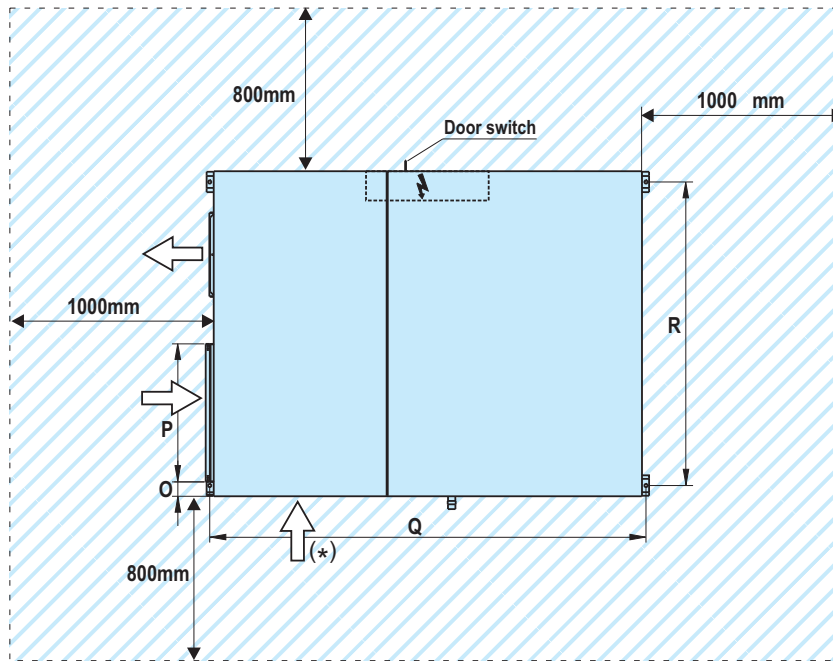
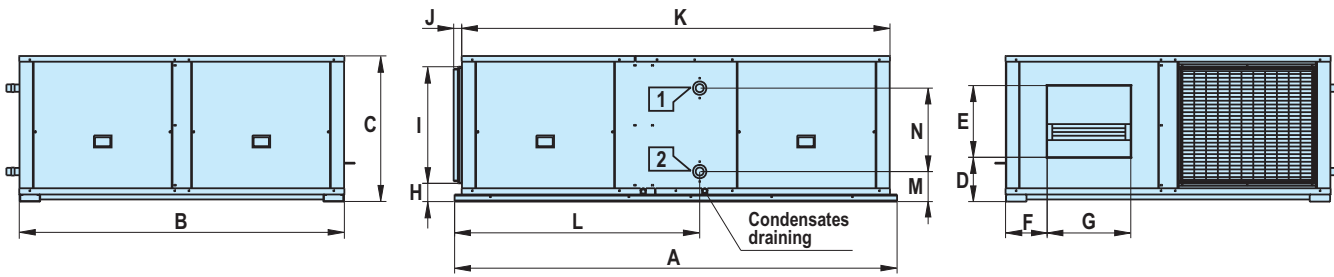
- Water outlet
- Water inlet
- Internal air flow
- Electrical panel and power supply
- Door switch

Antivibratory anchor diameter: 18mm



Water-air packaged units

Dimensions RXH / IXH - 80 / 95 (mm)



Keep this space free for installation and maintenance

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
XH - 80	1.825	1.445	701	171	297	195	339	96	522	45	1.745	973	159	470	39	604	1.797	1.366
XH - 95	1.825	1.445	701	171	349	159	403	96	522	45	1.745	973	159	470	39	604	1.797	1.366

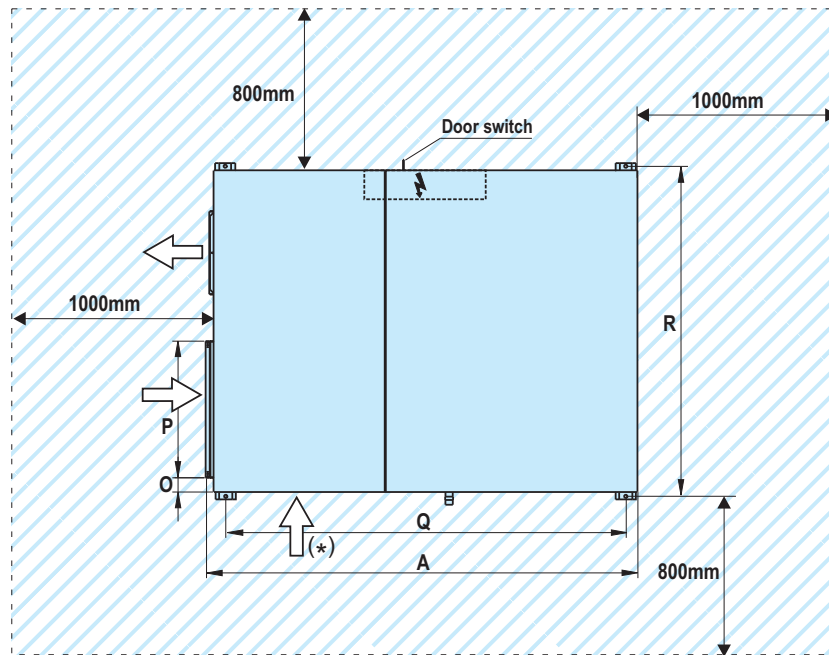
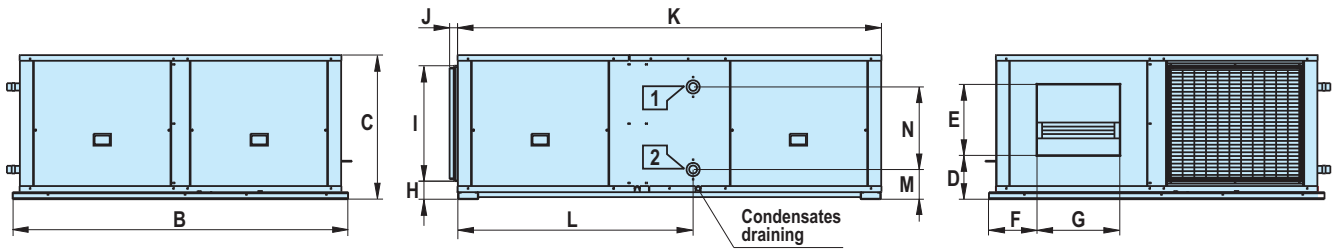
(*) The air circuit return panel can be located in any of the two positions indicated on the previous drawing, since both panels are easily interchangeable, with the purpose of leaving it in the work site at the convenience of each installation.

LEGEND

- 1** Water outlet
- 2** Water inlet
- Internal air flow**
- Electrical panel and power supply**
- Door switch**

Antivibratory anchor diameter: 18mm

Dimensions RXH / IXH - 120 / 155 (mm)



Keep this space free for installation and maintenance

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
XH - 120 / 155	2.457	1.911	820	249,5	404	274,5	471	103	657	45	2.412	1.340	169	470	81	777,5	2.291	1.876

(*) The air circuit return panel can be located in any of the two positions indicated on the previous drawing, since both panels are easily interchangeable, with the purpose of leaving it the work site at the convenience of each installation.

LEGEND

- Water outlet**
- Water inlet**
- Internal air flow**
- Electrical panel and power supply**
- Door switch**

Antivibratory anchor diameter: 18mm



По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72

Астана +7(7172)727-132

Белгород (4722)40-23-64

Брянск (4832)59-03-52

Владивосток (423)249-28-31

Волгоград (844)278-03-48

Вологда (8172)26-41-59

Воронеж (473)204-51-73

Екатеринбург (343)384-55-89

Иваново (4932)77-34-06

Ижевск (3412)26-03-58

Казань (843)206-01-48

Калининград (4012)72-03-81

Калуга (4842)92-23-67

Кемерово (3842)65-04-62

Киров (8332)68-02-04

Краснодар (861)203-40-90

Красноярск (391)204-63-61

Курск (4712)77-13-04

Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13

Москва (495)268-04-70

Мурманск (8152)59-64-93

Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12

Новокузнецк (3843)20-46-81

Новосибирск (383)227-86-73

Орел (4862)44-53-42

Оренбург (3532)37-68-04

Пенза (8412)22-31-16

Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15

Рязань (4912)46-61-64

Самара (846)206-03-16

Санкт-Петербург (812)309-46-40

Саратов (845)249-38-78

Смоленск (4812)29-41-54

Сочи (862)225-72-31

Ставрополь (8652)20-65-13

Тверь (4822)63-31-35

Томск (3822)98-41-53

Тула (4872)74-02-29

Тюмень (3452)66-21-18

Ульяновск (8422)24-23-59

Уфа (347)229-48-12

Челябинск (351)202-03-61

Череповец (8202)49-02-64

Ярославль (4852)69-52-93

сайт: www.ciat.nt-rt.ru | эл. почта: cta@nt-rt.ru