

Airwell

■ *Just feel well*

X 2450 - X 3250

Packaged air conditioners vertical units

- Air cooled models (AC)
- Water cooled models (WC)
- Refrigerant R407C
- Capacities from 19.8 to 32.4 kW

X 2450 - X 3250



CONA 74



Introduction

Within the context of the HCFC fluid replacement, these units have been optimized to operate with the R407c refrigerant which contains no chlorine and has no effect on the ozone layer.

■ PRESENTATION

The **X 2450** and **X 3250** packaged air conditioners are presented:

- Single packaged for the **WATER** cooled models (**WC**).
- With a separate outdoor condensing unit for the **AIR** cooled models (**AC**).

The air intake and discharge is provided:

- Either directly by air intake grilles and a discharge plenum (accessory),
- Or by ducts for intake and/or discharge, to be connected to the connection flanges (accessory).

This well-finished, single packaged unit combines many features such as easy installation, high efficiency, quiet operation and reliability, which make it well suited for air conditioning, dehumidification and air filtering in offices, stores and industrial premises.

These packaged air conditioners can be equipped with:

- Integrated electric heater, (option)
- Hot water coil, (option)
- A 4-stage thermostat to be integrated, (option)
- A 4-stage remote control thermostat, (accessory)
- A double-deflection discharge plenum, (accessory)
- 90% gravimetric air filters. (accessory)

They benefit from 30 years experience and are perfectly suited to working with:

- Wasted water; its consumption being reduced to a minimum by a pressostatic valve (**XWC** on wasted water).
- Recycled water; supplied by a cooling tower or an outdoor heat exchanger (**XWC** on recycled water).
- Outside air; with the possibility of operating at very low temperatures (down to -10°C with the "ALL SEASONS" option on the **AC** models).

■ MAIN FEATURES

- Cabinet with reduced floor dimensions,
- standard ventilation: With motor and drive by adjustable pulley/belt.
- "High ventilation" equipment available as option providing a higher external static pressure.
- Vertical discharge with or without duct or horizontal discharge with plenum (accessory).
- Two air intake possibilities: On the front with grilles or on the rear with ducts, with the rear air intake (accessory).
- M1 filters, mounted on a metal frame with stiffening netting.
- Electrical, hydraulic and refrigerant connections on right or left.
- Cooling by wasted water with pressure controlled valve or by recycled water without valve.
- Three control possibilities:

- Basic integrated type (see section "CONTROLS & REGULATION"),
- Integrated type, as an accessory, with 4 stages and a neutral zone,
- Remote type, as an accessory, with 4 stages and a neutral zone.
- Two heating possibilities: integrated electrical heating or hot water heating coil.
- Two possibilities of refrigerant pipes (**AC** models) up to 25 m maximum with factory precharged pipes (accessory) or with pipes brazed and charged on site (set of female valves supplied as an accessory for pipes up to 45 m).

■ DESCRIPTION

Bodywork:

- Panels and side faces made of profiled sheet steel covered with enamel finish, baked in a high temperature oven.
- Intake grilles made of modular elements in flameproof, shock resistant polystyrene, classified UL-VO according to UL94.

Insulation and protection:

- Thermal and acoustic insulation of the unit.
- Watertight unit base for the possible collection of condensates or abnormal overflowing (e.g. condensate drain tray clogging).

Refrigerant circuit:

- **All models**
- Hermetic type compressor fitted with thermal and electrical protections, linked to a factory sealed and brazed refrigerant circuit.
- Pressure switches and high and low pressure tapping points.
- Evaporator composed of copper tubes with aluminium fins and anti-corrosion protected condensate tray.
- Liquid receiver.
- Thermostatic expansion valve with pressure balancing.
- Sight glass, solenoid valve and filter-drier on liquid line.
- **WC model**
- Coaxial condenser with counter flow circulation, equipped with finned copper tube in a steel cover.
- Pressostatic valve on the water inlet for reducing water consumption to a minimum (wasted water model).
- On request, the unit is supplied without a pressostatic valve but with an additional manometer pressure tapping point for independent control of the water flow (recycled water model).
- **AC model**
- Shut off valves on indoor unit and outdoor condensing unit (CONA) for refrigerant pipes.
- Outdoor condensing unit with coils composed of copper tubes and aluminium fins.

Ventilation/Filters:

- Fan equipped with two belt drive, centrifugal wheels with double inlets.
- Standard fan motor (VS) 3-phase type, mounted on sliding rails.
- Specific “High Speed Ventilation” (FV) motor available as optional.
- Fan-motor assembly mounted on a sliding chassis with anti-vibration seals for easy maintenance.
- M1 flame retardant re-usable filters, made of synthetic fibres, with a metal frame and protective grille. Two efficiency classes are available.
- CONA with single phase 230 V fan motors.
- Propeller fan of CONA with direct drive and low speed of rotation.

Electricity/ Safety:

Manufactured in large series, these air conditioners undergo numerous controls during fabrication and are systematically tested before delivery.

Safety devices effectively protect this equipment:

- Protection of the compressor with fuses, thermal relay and electronic anti-short cycle timer.
- Protection of the integrated electric heater (accessory) with fuses and dual automatic and manual reset overload protection devices.
- Fuses on the control circuit.
- Protection of the fan motors (VS and FV) by fuses, thermal relay and an internal safety device.
- Low pressure pressostats with automatic reset and high pressure pressostats with manual reset.
- Solenoid shut off valve on the liquid line.
- Compressor crankcase heater as standard according to the models.
- Protection of the CONA fan motor with internal thermostat.
- Mains power supply 400V/3N~/50Hz as standard. An option 400V/3~/50Hz and 230V/3N~/50Hz.
- Terminal block for single phase 230V power supply to the control circuit with a 400V/230V transformer (not supplied) if the neutral wire is not available.

Control/Regulation:

- Fascia strip grouping the controls (Main “ON/OFF” switch with control light - Heating “ON/OFF” and Cooling “ON/OFF”) and the regulation (return air thermostat) and fault lights (Fan/Compressor).
- Automatic Cool/Heat 4-step thermostat, integrated type (accessory) or remote type (accessory).
- Location available in the electrical compartment to house Staëfa-Klimo type regulation modules (not pre-wired - not supplied).
- “All SEASONS” system (option) controlling the condensing pressure; allowing cooling on the AC models down to -10 °C outdoor temperature.

■ AFTER SALES SERVICE/MAINTENANCE**CAUTION:**

Procedures for working on the refrigerant circuit, and the technical characteristics, are different from the R22. Consult the corresponding instructions and follow the recommendations when carrying out any work.

Access to the air filters is from the front after removal of the air intake grille.

All the refrigeration, electrical and ventilation devices are easily accessible from the front of the unit after removal of the front panels.

Every accessory is supplied with fitting instructions (and adjustment instructions, if necessary).

The technical data, installation instructions, maintenance and operation instructions, exploded views and spare parts lists are available on request.

TECHNICAL DATA

Models		X 2450		X 3250	
Sizes		AC	WC	AC	WC
REFRIGERANT R407C					
Charge	g	7600	5220	9800	6615
COOLING CAPACITY (1)					
Nominal cooling capacity	W	19800	23000	29000	32400
Nominal cooling capacity	BTU/HR	67600	78500	99000	110550
AIR FLOW					
Nominal treated air	m³/h	4500	4500	5800	5800
Mini./maxi. treated air	m³/h	3600/5400	3600/5400	4600/7000	4600/7000
Nominal fresh air (with accessory)	m³/h	420	420	500	500
AVAILABLE STATIC PRESSURE (2)					
Standard equipment	daPa	0/20	0/20	0/25	0/25
High ventilation equipment	daPa	4/40	4/40	4/40	4/40
POWER INPUT VENTILATION					
Mini./Maxi. standard equipment.	W	500/1100	500/1100	700/1800	700/1800
Mini./Maxi. high ventilation equipment	W	800/1800	800/1800	1100/2200	1100/2200
SOUND PRESSURE INDOOR UNIT (3)					
Normal speed	dBA	59	58	65	64
POWER SUPPLY					
Nominal voltage		400V/3N~/50 Hz			
Voltage range	V	360/440			
Total power input (1)	W	8900	7100	12630	9800
CIRCUIT D'EAU (1)					
Wasted water - Flow	m³/h	-	1	-	1.7
Wasted water - Pressure drop	kPa	-	22	-	35
Recycled water - Flow	m³/h	-	-	-	-
Recycled water - Pressure drop	kPa	-	-	-	-
OUTDOOR CONDENSING UNIT (CONA)					
Type		CONA 74	-	CONA 104	-
Number		1	-	1	-
Air flow	m³/h	8550	-	14000	-
Power input	W	611	-	1222	-
Sound pressure	dB(A)	56	-	56	-
PACKING					
Indoor unit - WxDxH net	mm	1300x600x1840	1300x600x1840	1530x600x1830	1530x600x1830
Indoor unit - WxDxH packed	mm	1600x670x2080	1600x670x2080	1730x700x2060	1730x700x2060
Indoor unit - Weight net/packed	kg	265/310	305/350	350/400	380/430
Discharge plenum - WxDxH net	mm	1300x600x350	1300x600x350	1530x600x350	1530x600x350
Discharge plenum - WxDxH packed	mm	1600x670x445	1600x670x445	1600x670x445	1600x670x445
Discharge plenum - Weight net/packed	kg	20/25	20/25	21/26	21/26
Outdoor condensing unit (CONA) - WxDxH net	mm	1141x885x840	-	1546x885x840	-
Outdoor condensing unit (CONA) - WxDxH packed	mm	1160x950x1000	-	1565x950x1000	-
Outdoor condensing unit (CONA) - Weight net/packed	kg	93/115	-	130/160	-
OPTIONS					
"High Ventilation" equipment		•	•	•	•
Power supply 400V/3~/50 Hz		•	•	•	•
Power supply 230V/3N~/50 Hz (5)		•	•	•	•
Electrical heating integrated	kW	18	18	22.5	22.5
Hot water coil (6)	kW	38.5	38.5	50	50
ACCESSORIES					
Front discharge plenum (1 and 3-way)		•	•	•	•
Rear intake duct connection flange		•	•	•	•
4-stage thermostat		•	•	•	•
Remote fault transfer		•	•	•	•
Set of female pipe valves		•	-	•	-
Refrigerant pipes (25 m maxi.)		•	-	•	-

(1) International standard ISO 51.51 conditions.

Type A: 27°C/19°C wet bulb - Outside air: 35°C/24°C wet bulb.

Wasted water: inlet + 15°C - Recycled water inlet/outlet: 30°C/35°C.

(2) Pressure in air flow range at nominal voltage, without accessories

(3) Total sound pressure dB(A) (4m) under nominal conditions in a room of 1000m³ (reverberation 0.83s).

(4) Total sound pressure dB(A) (4m) under nominal conditions in free field on reflecting surface.

(5) Voltage range: mini = 198V - maxi = 242V (the other electrical values are not changed).

(6) Hot water coil 90/80°C - Treated air 20°C - Nominal air flow.

COOLING PERFORMANCES - XAC 2450 MODEL

Air Flow 4500 m³/h

Air temperature at evaporator inlet (°C)				Air temperature at condenser inlet (°C)						
BH	BS			15	20	25	30	35	40	45
15		PT	W	20469	19726	18984	18241	17499	16757	16014
		PA	W	6563	6961	7358	7756	8154	8551	8949
	21	PS	W	12061	12323	12586	12848	13110	13373	13635
	23			13610	13968	14265	14563	14860	15158	15455
	25			15281	15613	15945	16278	16610	16757	16014
	27			19922	19726	18984	18242	17499	16757	16014
	29			20469	19726	18984	18242	17499	16757	16014
	31			20469	19726	18984	18242	17499	16757	16014
17		PT	W	21733	20961	20189	19417	18645	17872	17100
		PA	W	6611	7017	7423	7829	8235	8641	9047
	21	PS	W	11450	11699	11948	12197	12446	12695	12944
	23			13165	13452	13738	14024	14310	14596	14883
	25			14881	15204	15528	15851	16175	16498	16822
	27			16596	16957	17318	17678	18038	18398	18758
	29			20750	20750	20189	19417	18645	17872	17100
	31			21578	20961	20189	19417	18645	17872	17100
19		PT	W	23008	22206	21404	20602	19800	18998	18196
		PA	W	6696	7115	7533	7952	8370	8789	9207
	21	PS	W	8979	9174	9370	9565	9760	9955	10150
	23			10801	11036	11270	11505	11740	11975	12210
	25			12622	12897	13171	13446	13720	13994	14269
	27			14444	14758	15072	15386	15700	16014	16328
	29			16266	16619	16973	17326	17680	18034	18196
	31			18087	18480	21380	20602	19800	18998	18196
21		PT	W	24363	23522	22680	21839	20997	20156	19314
		PA	W	6994	7425	7856	8287	8718	9149	9580
	23	PS	W	8081	8257	8432	8608	8784	8959	9135
	25			10013	10230	10448	10666	10883	11101	11319
	27			11945	12204	12464	12724	12983	13243	13503
	29			13876	14178	14480	14781	15083	15385	15686
	31			15808	16152	16495	16839	17183	17526	17870
	33			17740	18125	18511	18897	19282	19668	20228
23		PT	W	25729	24848	23967	23086	22205	21324	20443
		PA	W	7346	7789	8233	8676	9120	9564	10007
	25	PS	W	7022	7175	7327	7480	7632	7785	7938
	27			9065	9262	9459	9656	9853	10050	10247
	29			11108	11349	11591	11832	12073	12315	12556
	31			13150	13436	13722	14008	14294	14580	14866
	33			15193	15524	15854	16184	16514	16845	17175

BS: Dry bulb temperature (°C)
 BH: Wet bulb temperature (°C)
 PT: Total cooling capacity (W)
 PA: Power absorbed by the compressor (W) (without fan motor)
 PS: Sensible cooling capacity (W)
 Power absorbed by the indoor fan = 530 W

WORKING RANGE - MINIMUM TEMPERATURE

Indoor temperature		°C	Thi	13
			Tsi	17
Outdoor temperature	Without TTS	°C	Tse	+19
	With TTS*	°C	Tse	-10

WORKING RANGE - MAXIMUM TEMPERATURE

Indoor temperature		°C	Thi	22
			Tsi	32
Outdoor temperature		°C	Tse	47

* With "All seasons kit" option
 Thi: Wet bulb indoor temperature
 Tsi: Dry bulb indoor temperature
 Tse: Dry bulb outdoor temperature

COOLING PERFORMANCES - XAC 3250 MODEL Air Flow 5800 m³/h

Air temperature at evaporator inlet (°C)				Air temperature at condenser inlet (°C)						
BH	BS			15	20	25	30	35	40	45
15		PT	W	29981	28893	27806	26718	25631	24543	23456
		PA	W	9214	9772	10330	10888	11446	12005	12563
	21	PS	W	17332	17709	18085	18462	18839	19216	19592
	23			19690	20118	20546	20974	21402	21830	22258
	25			22048	22527	23006	23486	23965	24543	23456
	27			29180	28893	27806	26718	25631	24543	23456
	29			29981	28893	27806	26718	25631	24543	23456
17		PT	W	31832	30701	29570	28439	27308	26177	25046
		PA	W	9281	9851	10421	10991	11561	12131	12701
	21	PS	W	16382	16738	17094	17450	17806	18162	18519
	23			18894	19305	19716	20126	20537	20948	21359
	25			21406	21872	22337	22803	23268	23733	24199
	27			23919	24439	24959	25479	25999	26519	25046
	29			30392	30392	29570	28439	27308	26177	25046
19		PT	W	33698	32524	31349	30175	29000	27826	26651
		PA	W	9400	9988	10575	11163	11750	12338	12925
	21	PS	W	12751	13028	13306	13583	13860	14137	14414
	23			15419	15754	16090	16425	16760	17095	17430
	25			18087	18480	18874	19267	19660	20053	20446
	27			20755	21206	21658	22109	22560	23011	23462
	29			23423	23932	24442	24951	25460	25969	26478
21		PT	W	35684	34451	33219	31986	30754	29521	28289
		PA	W	9818	10424	11029	11634	12239	12844	13449
	23	PS	W	11425	11673	11921	12170	12418	12667	12915
	25			14254	14564	14874	15184	15494	15803	16113
	27			17083	17455	17826	18197	18569	18940	19312
	29			19913	20346	20778	21211	21644	22077	22510
	31			22742	23236	23731	24225	24720	25214	25708
23		PT	W	37684	36394	35103	33813	32522	31232	29941
		PA	W	10312	10935	11557	12180	12803	13426	14048
	25	PS	W	9864	10078	10293	10507	10721	10936	11150
	27			12856	13135	13415	13694	13974	14253	14533
	29			15848	16192	16537	16881	17226	17570	17915
	31			18840	19249	19659	20068	20478	20888	21297
	33			21832	22306	22781	23256	23730	24205	24679

BS: Dry bulb temperature (°C)
 BH: Wet bulb temperature (°C)
 PT: Total cooling capacity (W)
 PA: Power absorbed by the compressor (W) (without fan motor)
 PS: Sensible cooling capacity (W)
 Power absorbed by the indoor fan = 875 W

WORKING RANGE - MINIMUM TEMPERATURE

Indoor temperature		°C	Thi	13
			Tsi	17
Outdoor temperature	Without TTS	°C	Tse	+19
	With TTS*	°C	Tse	-10

WORKING RANGE - MAXIMUM TEMPERATURE

Indoor temperature		°C	Thi	22
			Tsi	32
Outdoor temperature		°C	Tse	47

* With "All seasons kit" option
 Thi: Wet bulb indoor temperature
 Tsi: Dry bulb indoor temperature
 Tse: Dry bulb outdoor temperature

COOLING PERFORMANCES - WASTED WATER XWC 2450 & XWC 3250 MODELS

Air temperature at evaporator inlet (°C)						Waste water supply			
						Inlet water temperature		°C	X 2450
BH	BS			X 2450	X 3250			15	15
15		PT	W	20285	28598	Water consumption	l/h	901	1257
		PA	W	60246	8113				
	21	PS	W	13493	18141				
	23			15522	21001				
	25			17550	23861				
	27			20285	26721				
	29			20285	28598				
			20285	28598					
17		PT	W	21636	30493	Water consumption	l/h	950	1326
		PA	W	6092	8218				
	21	PS	W	12417	16491				
	23			14581	19540				
	25			16745	22589				
	27			18908	25639				
	29			21636	28688				
			21636	30493					
19		PT	W	23000	32400	Water consumption	l/h	1000	1700
		PA	W	6200	8370				
	21	PS	W	9240	11980				
	23			11540	15220				
	25			13840	18460				
	27			16140	21700				
	29			18440	24940				
			20740	28180					
21		PT	W	24412	34348	Water consumption	l/h	1058	1474
		PA	W	6467	8706				
	23	PS	W	8045	10259				
	25			10486	13694				
	27			12927	17129				
	29			15368	20564				
	31			17810	23999				
			20251	27433					
23		PT	W	25837	36306	Water consumption	l/h	1117	1555
		PA	W	6774	9090				
	25	PS	W	6649	8265				
	27			9233	11895				
	29			11816	15526				
	31			14400	19157				
				16984	22787				

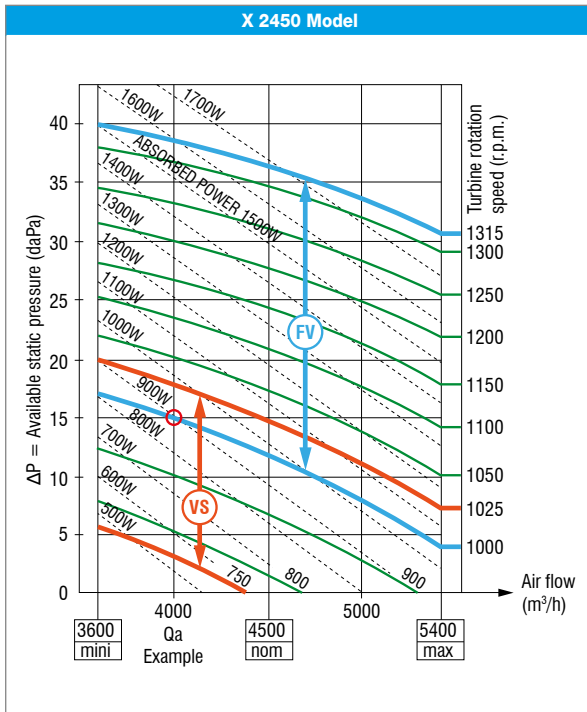
BS: Dry bulb temperature (°C)
 BH: Wet bulb temperature (°C)
 PT: Total cooling capacity (W)
 PA: Power absorbed by the compressor (W) (without fan motor)
 PS: Sensible cooling capacity (W)

WORKING RANGE

Working range	Temperature min.	Temperature max.
	Air temperature at evaporator inlet	
BH (°C)	15	23
BS (°C)	21	32
Water temperature (°C)	10	34

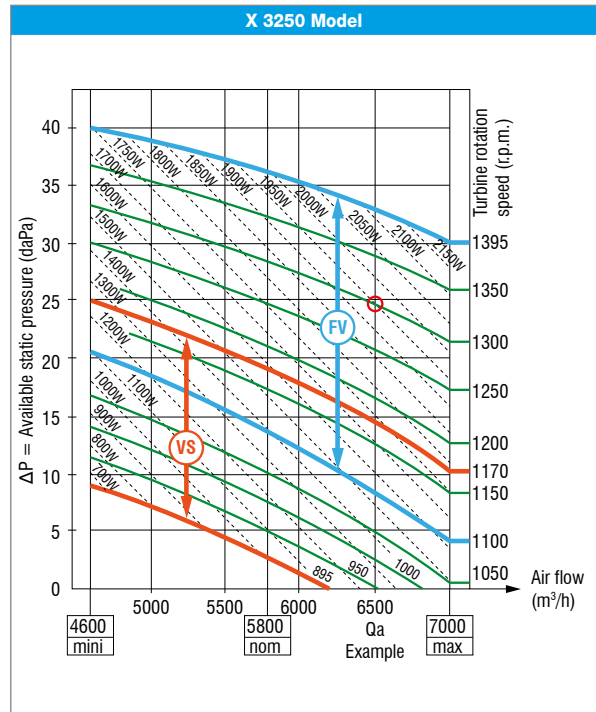
AIR FLOW DATA - AC & WC MODELS

Front and rear air intake with clean air filter



EXAMPLE X 2450 MODEL

Qa = 4000 m³/h
 Standard Ventilation (VS)
 Available static pressure: 15 daPa
 Fan rotation speed: 1000 r.p.m.
 Power input: 890 W



EXAMPLE X 3250 MODEL

Qa = 6500 m³/h
 High Ventilation (FV) as optional
 Available static pressure: 25 daPa
 Fan rotation speed: 1300 r.p.m.
 Power input: 1950 W

Ventilation equipment		Standard Ventilation (VS) Motor 1,1 kW		High Ventilation (FV) Motor 1,5 kW	
		Min.	Max.	Min.	Max.
Fan rotation speed (r.p.m.)		750	1025	1000	1315
Available static pressure (daPa) without accessory	Nominal flow 4500 m ³ /h	0	15	12	37
	Minimal flow 3600 m ³ /h	6	20	17	40

Ventilation equipment		Standard Ventilation (VS) Motor 1,1 kW		High Ventilation (FV) Motor 1,85 kW	
		Min.	Max.	Min.	Max.
Fan rotation speed (r.p.m.)		895	1170	1100	1395
Available static pressure (daPa) without accessory	Nominal flow 5800 m ³ /h	3	19	13	36
	Minimal flow 4600 m ³ /h	9	25	20	40

Accessories pressure drop (Qn=4500 m ³ /h)		
Integrated electric heating	daPa	2
Hot water heating coil	daPa	2
Discharge plenum	daPa	2
Filters 90%	daPa	2

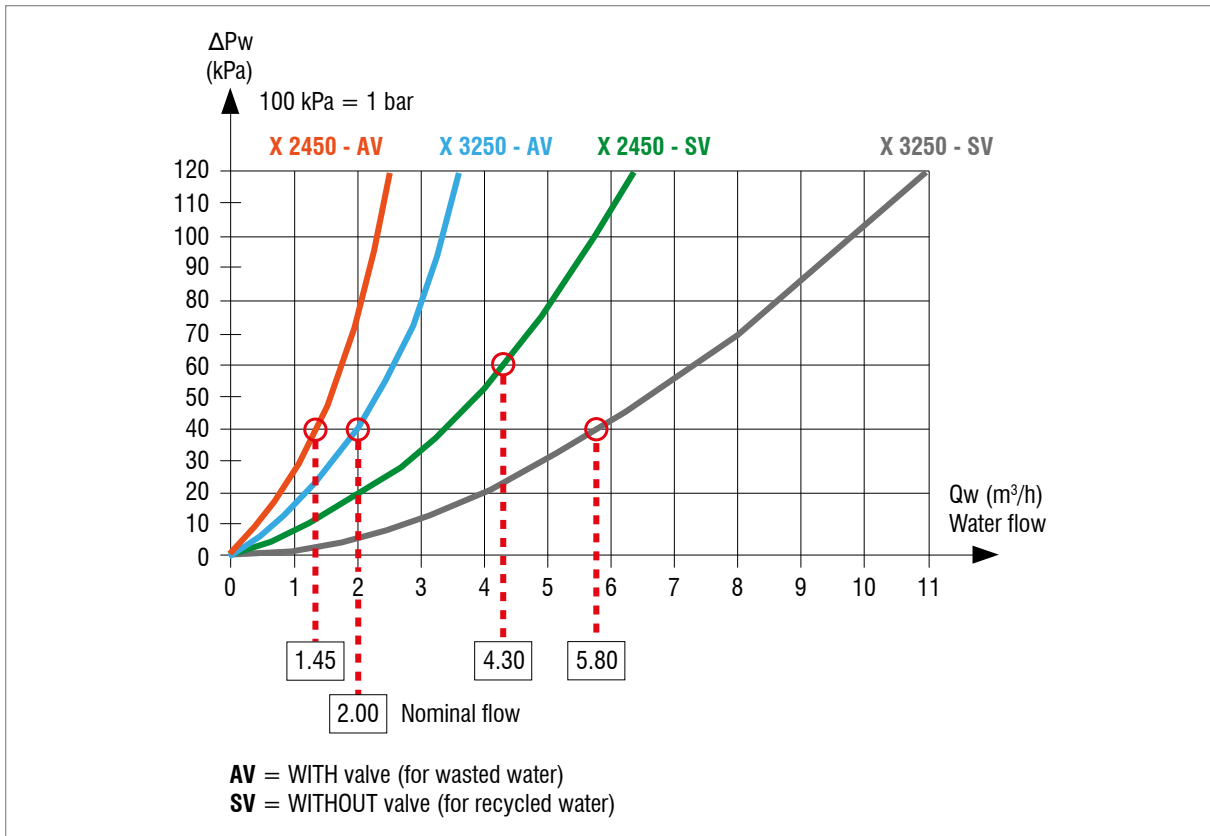
Accessories pressure drop (Qn=5800 m ³ /h)		
Integrated electric heating	daPa	1
Hot water heating coil	daPa	3
Discharge plenum	daPa	3
Filters 90%	daPa	2

Qn airflow correction	0,8xQn	0,9xQn	Qn	1,1xQn	1,2xQn
Total cooling capacity	0.940	0.970	1.000	1.020	1.040
Sensible cooling capacity	0.890	0.950	1.000	1.050	1.100
Power absorbed	0.970	0.990	1.000	1.010	1.010

Qa: Treated air flow
 Qn: Nominal air flow

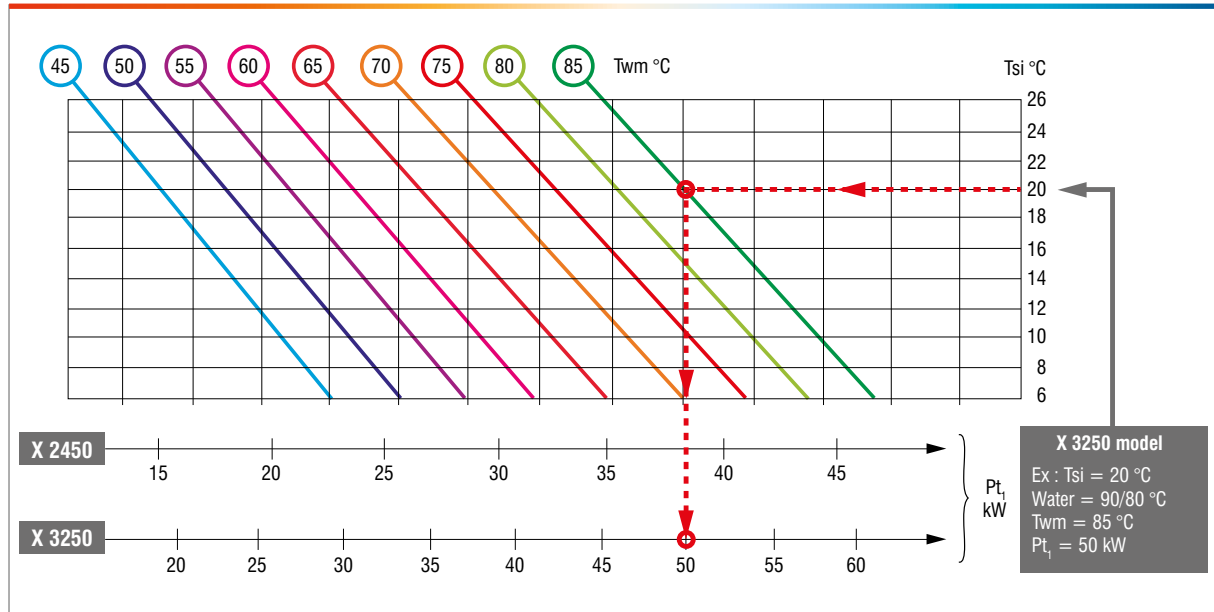
HYDRAULIC CHARACTERISTICS - WC MODEL CONDENSER SUPPLY

Water pressure drop with pressostatic valve (AV) and without pressostatic valve (SV)



Water supply		Wasted water	
Models		X 2450	X 3250
WATER PRESSURE			
Minimum	kPa	50	50
Maximum	kPa	1000	1000
HYDRAULIC CONNECTIONS (LEFT OR RIGHT)			
Ø Inlet/Outlet	mm	Female nut - F Ø 26x34 (1")	
CONDENSATE DRAIN			
Flexible pipe	Ø (mm)	26/32	
SAFETY DRAIN			
Bottom of unit	Ø (mm)	7/8" - 22 mm external	

HEATING PERFORMANCE HOT WATER COIL OPTION OF AC/WC MODELS

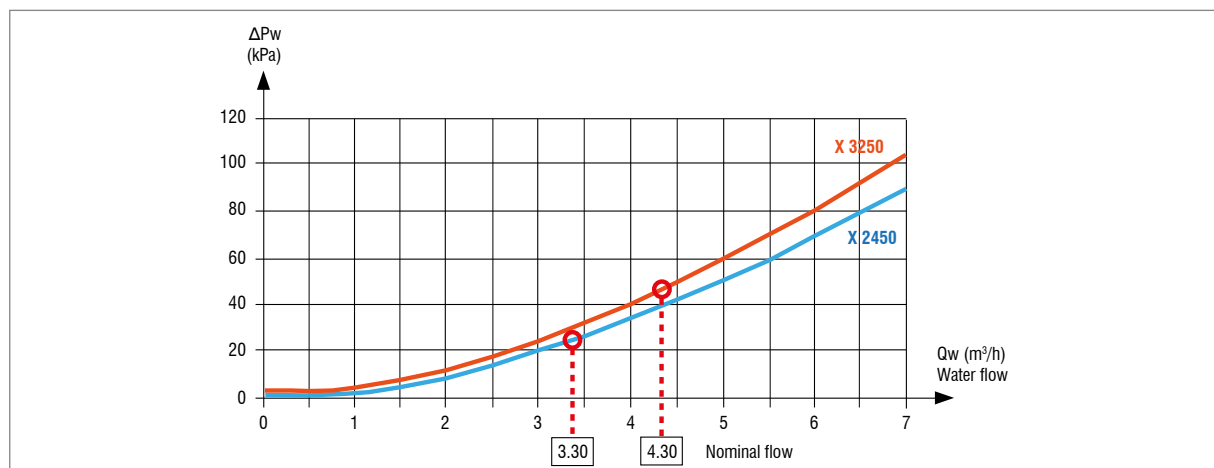


Pt = K1xK2xPt1	
K1 COEFFICIENT AIR FLOW	
Qa/Qn	K1
0.80	0.87
0.90	0.95
1	1
1.1	1.06
1.2	1.13
K2 COEFFICIENT ΔTW	
ΔTw°K	K2
8	1.01
10	1
12	0.98
14	0.96
16	0.95
18	0.94
20	0.92
18	0.94
20	0.92
WATER FLOW	
$Q_w (m^3/h) = \frac{0.86 \times Pt (kW)}{\Delta Tw}$	
ANTI-FREEZE PROTECTION	
Nota: Anti-freeze mandatory in summer and winter	

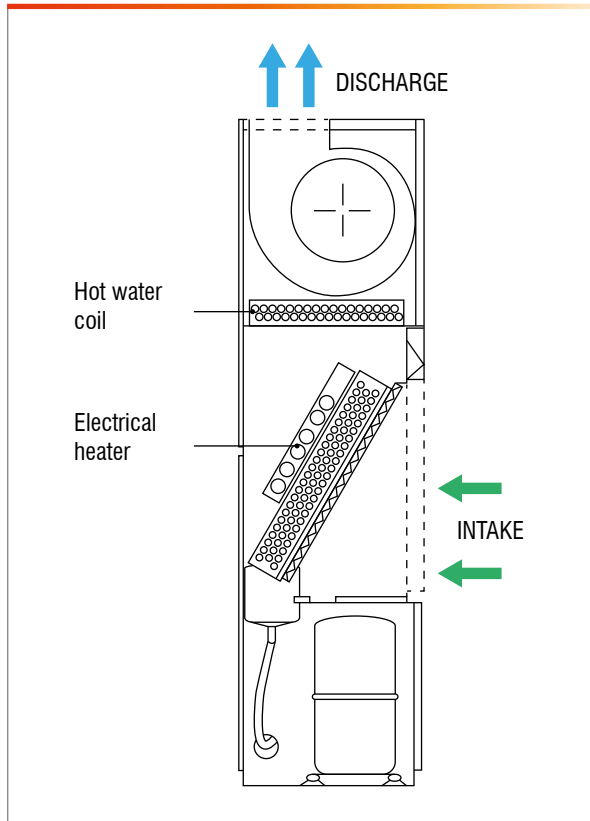
Pt1: Total heating capacity with nominal air flow.
Pt: Total heating capacity.
Tsi: Dry indoor temperature.
Qa: Treated air flow.
Qn: Nominal air flow.
Qw: Water flow.
Tws: Hot water outlet temperature.
Twe: Hot water inlet temperature.
ΔTw: Difference in temperature water inlet/outlet.
Twm: Hot water average temperature.
ΔPw: Hot water pressure drops.

	X 2450	X 3250	
Water content	l	4	5
Nominal water flow	m ³ /h	3.3	4.3
Maxi. water pressure	kPa	1000	1000
Maxi. water inlet temperature (Twe)	°C	90	90
Mini. dry indoor temperature (Tsi)	°C	+6	+6
Ø connection	mm	F33x42 (1"1/4)	

Water pressure drops



ELECTRICAL HEATER/HOT WATER COIL OPTIONS

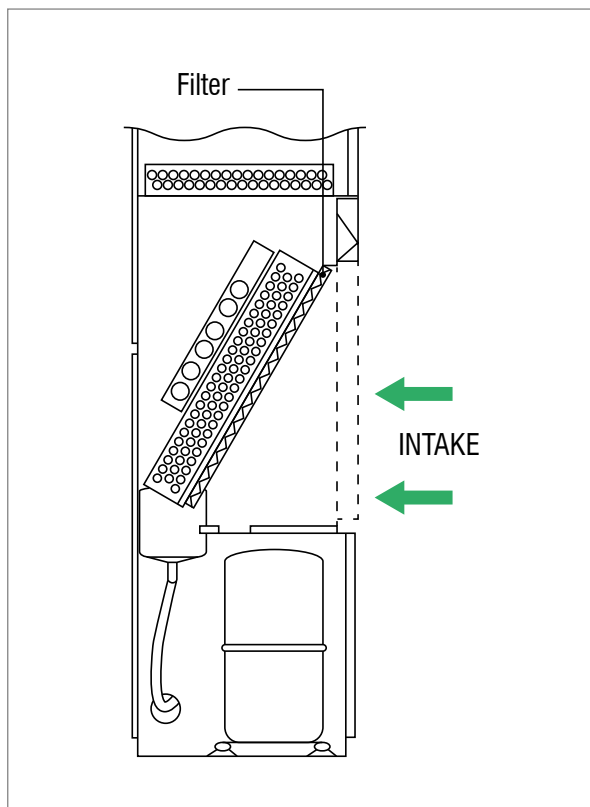


Models		X 2450	X 3250
HOT WATER COIL			
Nominal power input	kW	38.5	50
Nominal water flow	m ³ /h	3.3	4.3
Water pressure drop	kPa	24	44
Ø connections	mm	F33x42 (1"1/4)	
ELECTRICAL HEATER			
Total power input	kW	9+9	13.5+9
Number of stages		2	2
Number of stages		12	12
Power input/element	kW	1.5	1.5

Notes:

The electrical heater and the hot water coil can not be fitted together. Provide for a separate regulation for the hot water coil. The integrated electric heater is supplied with an automatic cooling/heating thermostat with neutral zone and is equipped with 2 temperature limit controls (manual/automatic).

Filter



Furniture - appellation		Basic AC150		Accessory - AC300	
Models		X 2450	X 3250	X 2450	X 3250
Filter type		Flat with metal frame			
Media type		Flame retardant synthetic fibres			
Number of filters		2 - Re-usable			
Dimensions	W	555	670	555	670
	D	15	15	18	18
	H	630	630	630	630
Efficiency (1)	%	83	83	90	90
Eurovent/CSTB classification (2)		EU3/M1	EU3/M1	EU4/M1	EU4/M1
Access		Air intake grilles (front)			

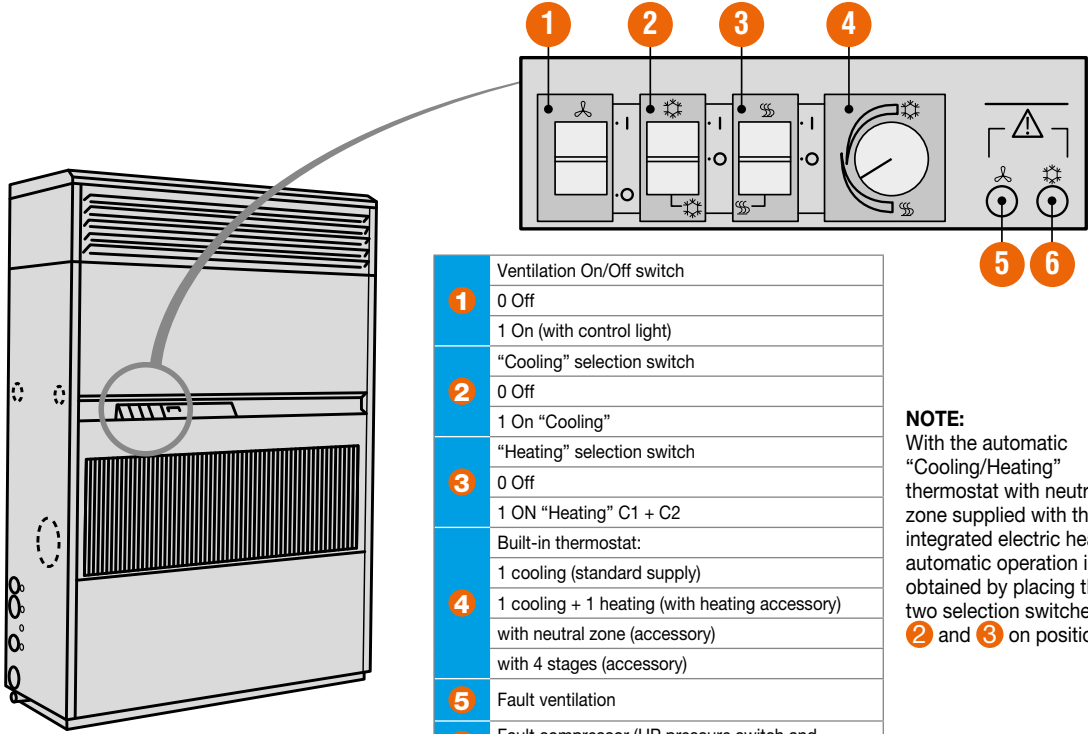
(1) Test report 603 325/3 dated 05.05.76 issued by the L.N.E. (PARIS)
 (2) Test report 82.18176 dated 12.05.82

Notes:

The filters also provide clean air from the fresh air intake (fresh air intake accessory) and the rear air intake.

CONTROLS AND REGULATION

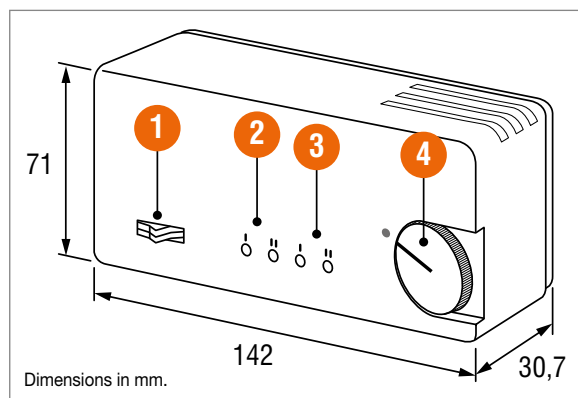
■ Control panel



1	Ventilation On/Off switch 0 Off 1 On (with control light)
2	"Cooling" selection switch 0 Off 1 On "Cooling"
3	"Heating" selection switch 0 Off 1 ON "Heating" C1 + C2
4	Built-in thermostat: 1 cooling (standard supply) 1 cooling + 1 heating (with heating accessory) with neutral zone (accessory) with 4 stages (accessory)
5	Fault ventilation
6	Fault compressor (HP pressure switch and compressor overheat)

NOTE:
With the automatic "Cooling/Heating" thermostat with neutral zone supplied with the integrated electric heater, automatic operation is obtained by placing the two selection switches **2** and **3** on position 1.

■ REMOTE CONTROL (accessory)



1	ON/OFF COOLING/HEATING switch
2	HEATING signal lamps
3	COOLING signal lamps (1 stage available)
4	Adjustment of setpoint temperatures (can be locked on min. and max. positions)

■ HEATING CONTROL

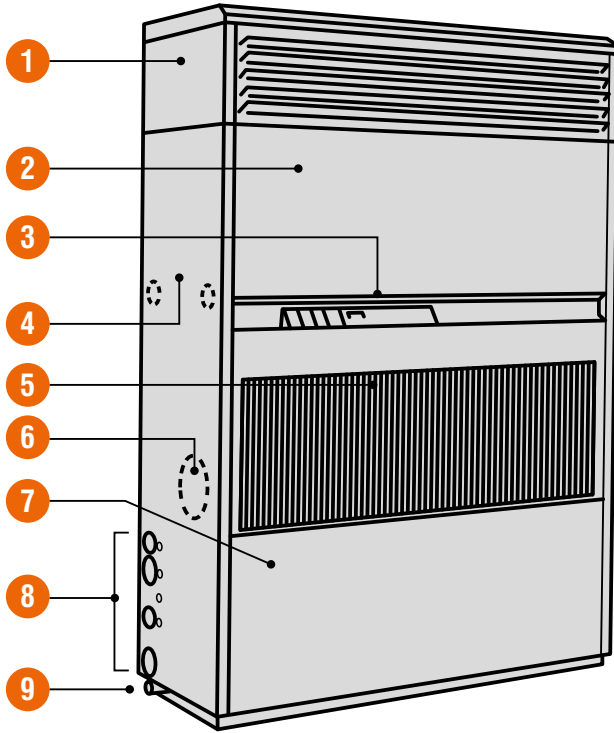
→ In-built electrical heater

This accessory is supplied with an automatic "Cooling/Heating" thermostat with neutral zone which replaces the ambient thermostat **4** supplied with the unit.

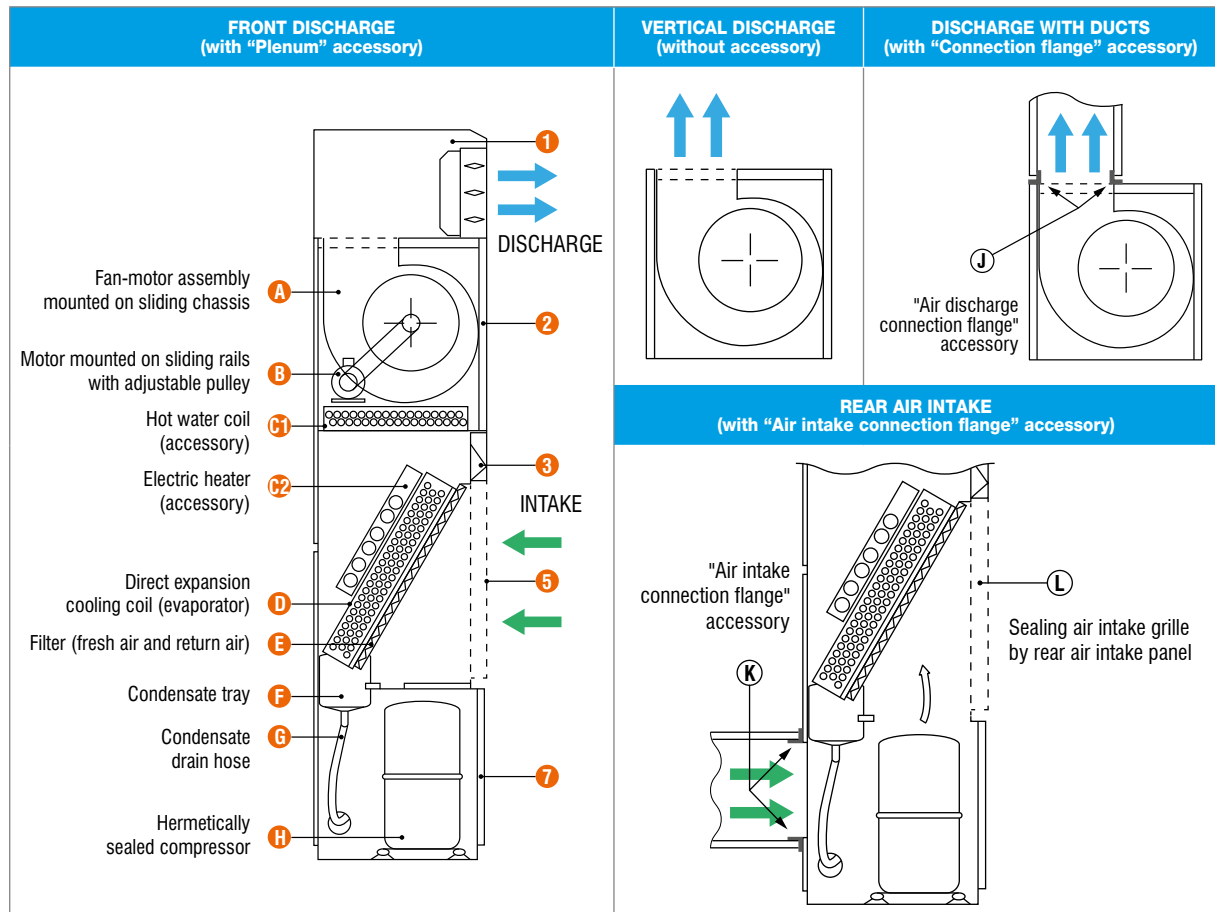
→ Hot water heating

This accessory must be equipped with an anti-freeze safety device and a regulation system (not supplied) compatible with the installation.

DESCRIPTION OF INDOOR UNIT

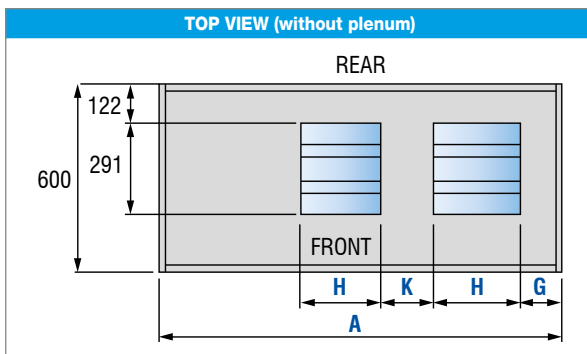
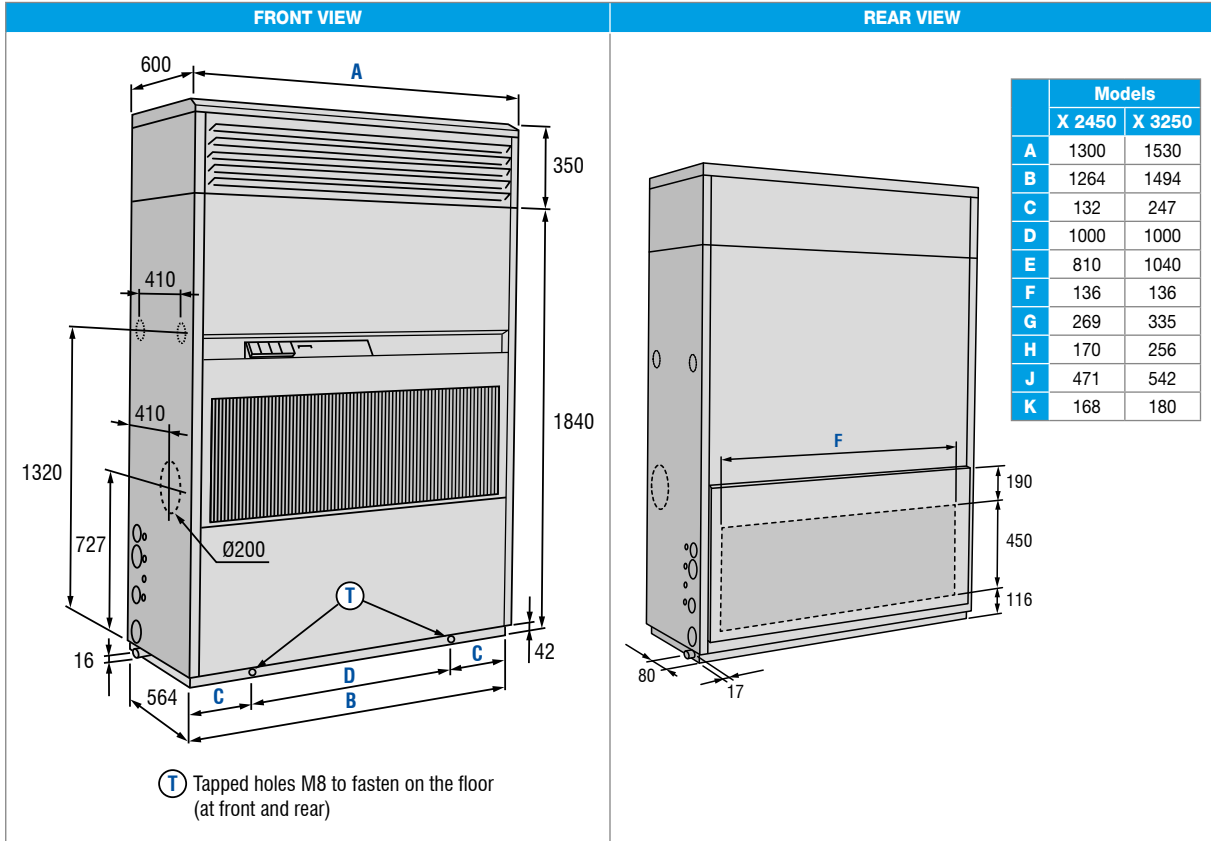


1	Discharge plenum (accessory) with double deflection.
2	Access panel to the fan-motor removable base and the hot water coils (accessory) or to the electric heater (accessory).
3	Control panel for regulation and display.
4	Hydraulic connections of hot water coils. Access to right or left hand side.
5	Air intake grille.
6	Connection for fresh air intake (accessory not supplied), on left or right.
7	Access panel to the electrical and refrigeration compartments.
8	Electric, hydraulic and refrigerant connections (left or right).
9	Safety drain pipes from watertight bottom. Access on left or right side.



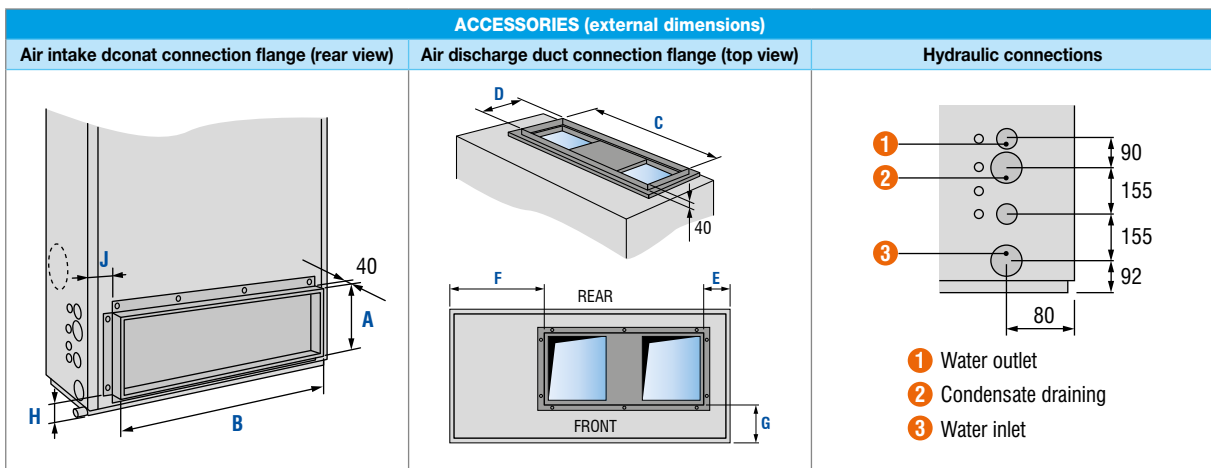
DIMENSIONS (in mm) - INSTALLATION

■ Indoor unit



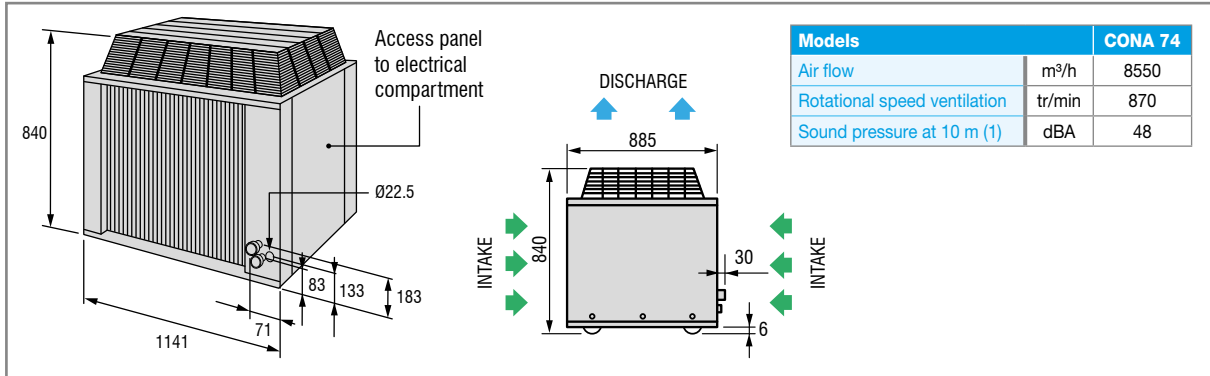
CLEARANCES (mm)			
FRONT		SIDE	
Discharge		Side	
Vertical	Plenum	Connected	Opposite
650	1000	650	-

Models	A	B	C	D	E	F	G	H	J
X 2450	452	812	738	321	121	441	170	115	244
X 3250	452	1042	956	321	121	453	170	115	244

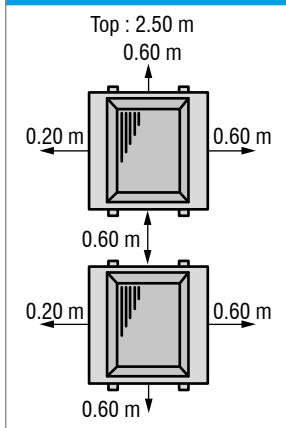


DIMENSIONS (in mm) - INSTALLATION

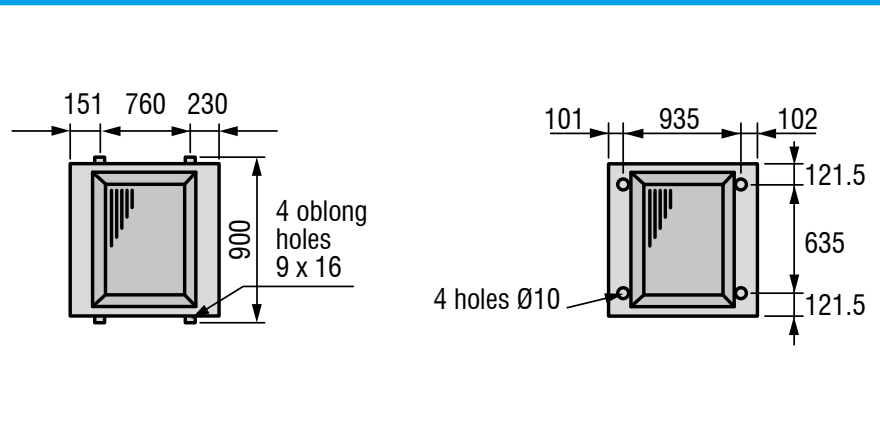
Outdoor condensing unit - Type CONA 74/X 2450 - AC model



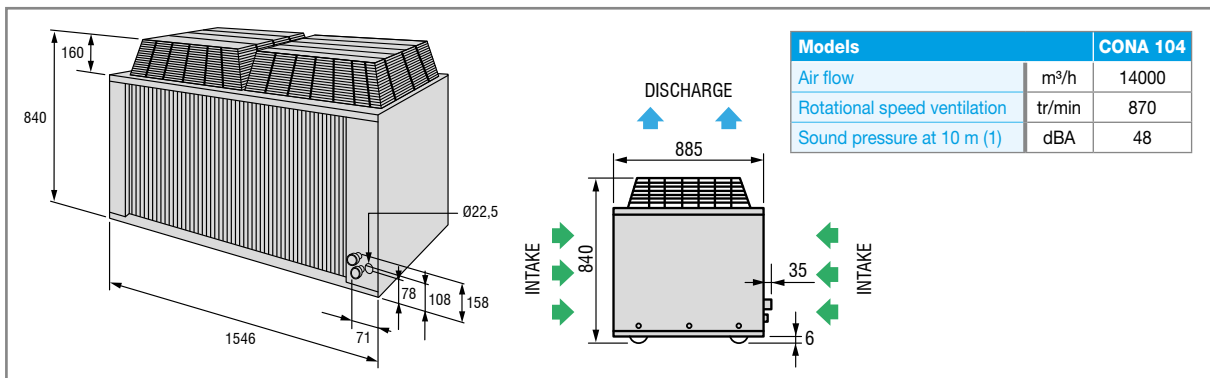
CLEARANCES TO BE PROVIDED



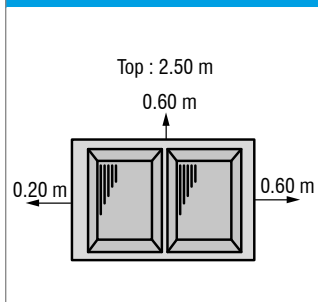
FLOOR MOUNTING AND FIXING - 2 POSSIBILITIES



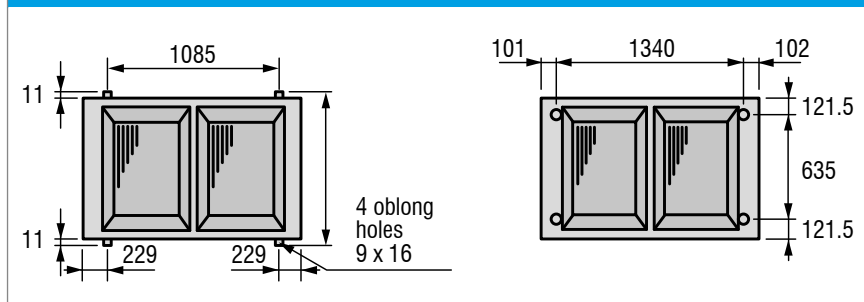
Outdoor condensing unit - Type CONA 104/X 3250 - AC model



CLEARANCES TO BE PROVIDED

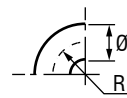
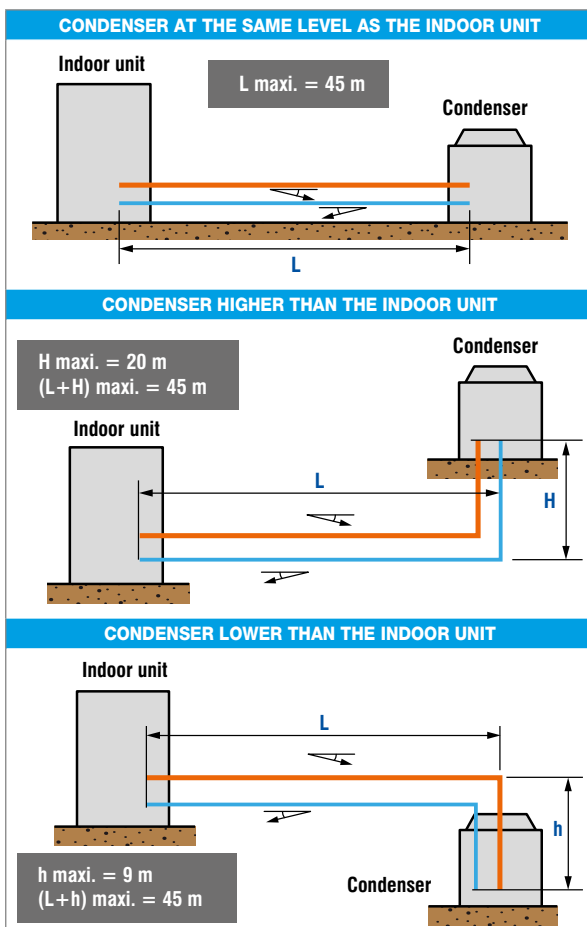
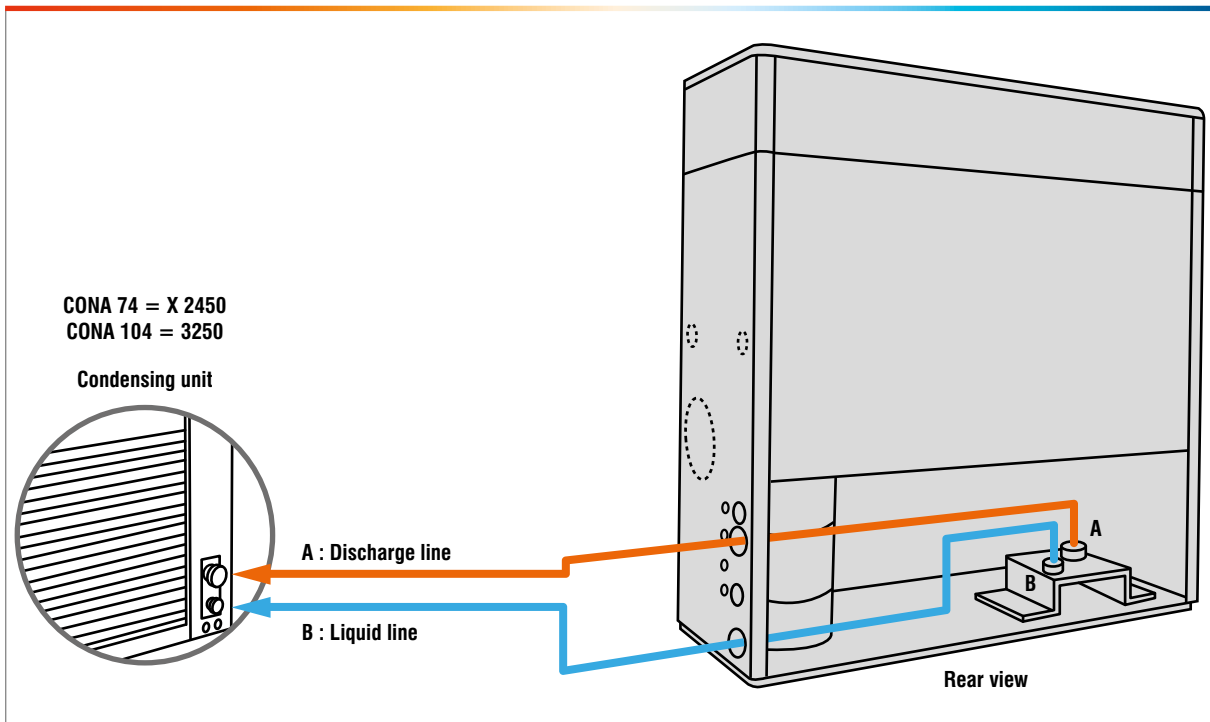


FLOOR MOUNTING AND FIXING - 2 POSSIBILITIES



(1) Sound pressure in free field on reflecting surface

REFRIGERANT CONNECTIONS - AC MODELS



Bending of refrigeration pipes: $R \geq \varnothing 3.5$



Minimum slope downwards: 1 cm/m



Discharge line



Liquid line

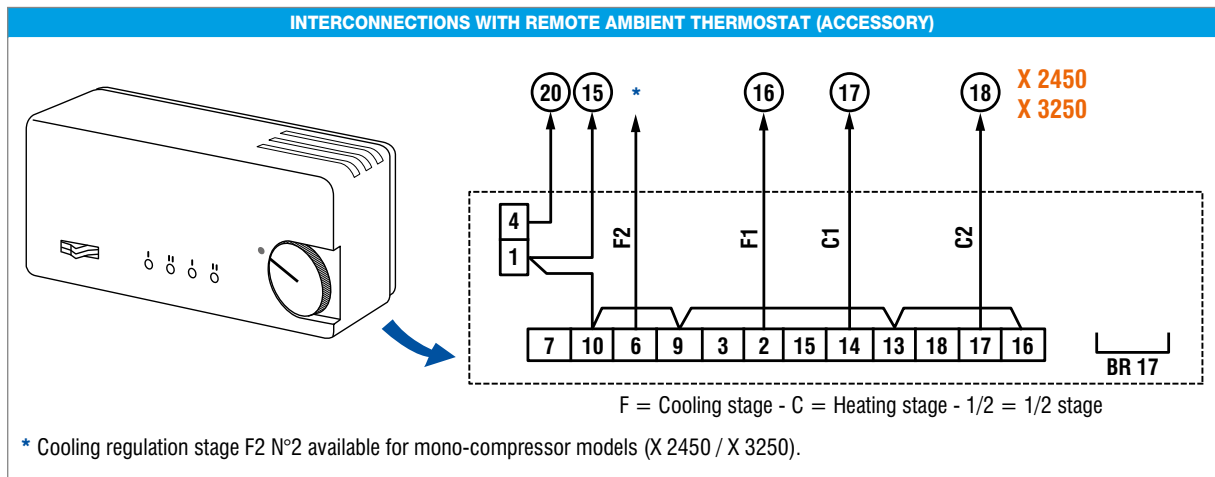
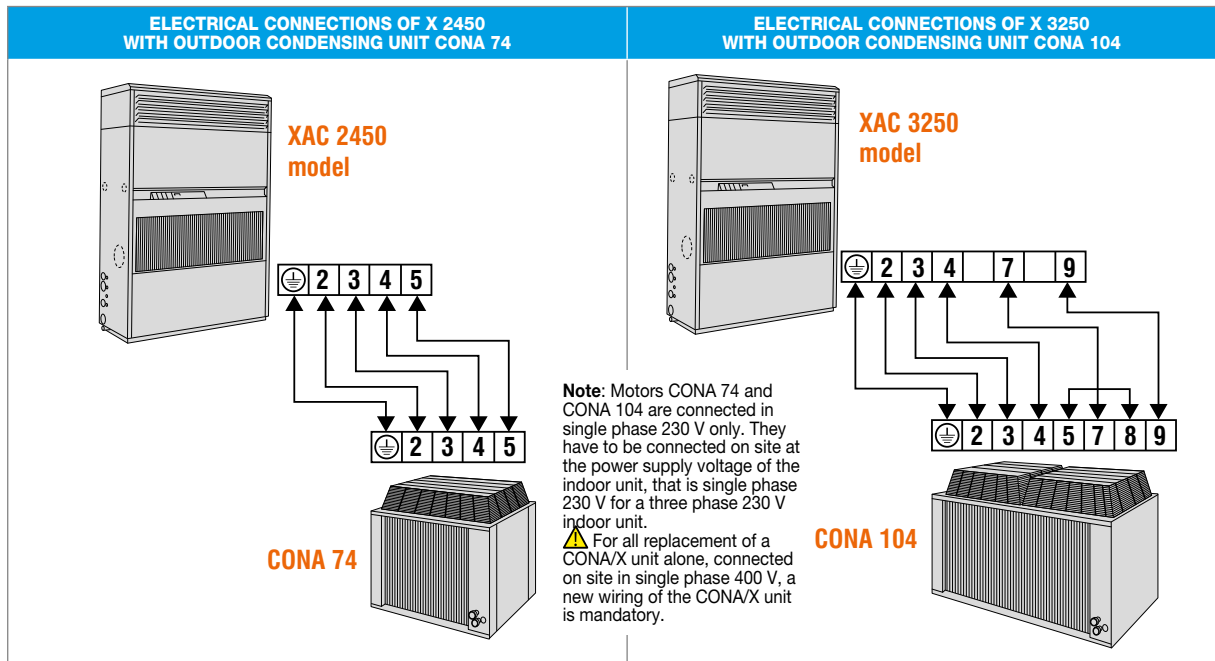
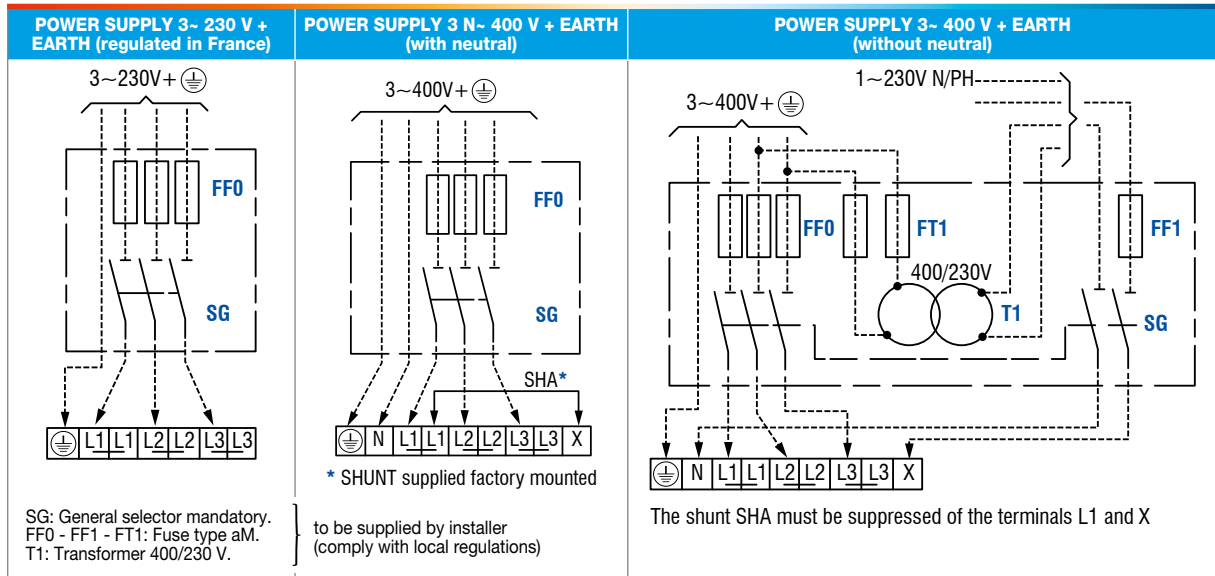
Refrigerant charge R407c	X 2450	X 3250
AIR TREATMENT		
Model AC	g	600 1670
CONDENSING UNITS		
Type CONA 74	g	7000 -
Type CONA 104	g	- 8130
PRECHARGED REFRIGERANT PIPES (maxi. length 25 m)		
Discharge line	Ø	5/8" 3/4"
	charge	Precharged
Liquid line	Ø	1/2" 5/8"
	charge (g/m*)	110 182
MODEL WC (INDOOR UNIT)		
Charge	g	5220 6615

(*) From 2 meters of refrigerant pipe

Notes:

For pipes between 25 and 45 m long (made on the site) the choice of the pipes (diameter) and the installation must be made professionally.

ELECTRICAL CONNECTIONS - MAIN POWER SUPPLY



ELECTRICAL SPECIFICATIONS - MAIN POWER SUPPLY

		2450		3250	
		230V/3-N	400V/3-N	230V/3-N	400V/3-N
NOMINAL POWER INPUT (VS/FV)					
Cooling mode XAC	kW	TBD	7.1/7.5	TBD	10.2/11.3
Cooling mode XWC on wasted water	kW	TBD	6.4/6.8	TBD	9.2/10.3
Cooling mode XWC on recycled water	kW	TBD	5.8/6.2	TBD	8.3/9.4
Electrical heating mode	kW	TBD	19.2/19.6	TBD	23.7/24.8
COOL-ONLY UNIT (VS/FV)					
Maximum intensity	A	TBD	17/18	TBD	22/24
Starting intensity	A	TBD	103/104	TBD	120/123
Fuse rating	A aM	TBD	20	TBD	25
COOL-ONLY UNIT WITH ELECTRICAL HEATING (VS/FV)					
Maximum intensity	A	TBD	34/35	TBD	42/44
Starting intensity	A	TBD	103/104	TBD	120/123
Fuse rating	A aM	TBD	40	TBD	45

VS: Standard ventilation - FV: High ventilation.

■ Interconnections with outdoor unit - AC models

Sizes		X 2450	X 3250
Outdoor unit		CONA 74	CONA 104
Power supply		~230V-50Hz	~230V-50Hz
Nominal power input	W	611	1222
Maximum intensity	A	3,1	6,2
Starting intensity	A	5,5	11

IMPORTANT: These values are for information only, they should be checked and selected to comply with local and/or national codes and regulations. They are also subject to the type of installation and to the type of cables.

■ Interconnections with remote control - Transformer

INTERCONNECTION WITH REMOTE CONTROL			
Sizes		X 2450	X 3250
COOLING + VENTILATION (VS/FV)			
Nominal intensity	A	1	1
Maximum intensity	A	2	2
Starting intensity	A	3	3
Cable size	mm ²	1	1

TRANSFORMER (not supplied) For power supply 3-400V+earth, without neutral			
Models		WC	AC
Nominal power single phase transformer 400 V/230 V in VA	X 2450	100	100
	X 3250	100	100

Airwell

■ *Just feel well*

Dotted lines for writing practice.



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