ENERGY RECOVERY

CARMA™
RANGE

Very high efficiency (90%),
high performance, self-regulating
double flow unit.

Econological solutions™
Flow rate 200 to 8000 m³/h

PLUG&PLAY SET&FORGET by CALADAIR

Bluetech™ CALADAIR ECONOLOGIC SOLUTION

Softwair.fr™ CALADAIR MATRIX SOLUTION

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ERP2018 CALADAIR RESPECT Bluetech CALADAIR ECONOLOGIC SOLUTION

DOUBLE FLOW UNIT DESCRIPTION

CARMA™

APPLICATION

▲ Very high efficiency and high-performance ventilation and self-regulating energy recuperation for office and industrial installations.

▲ Performance greater than **90%** (EN308) compliant with **RT2012** and **ErP directive 2009/125/EC**.

● Air filtration, temperature control.

▲ One-piece, compact, smart (EN 15232) and plug and play unit.

RANGE

● Available in 7 sizes and 8 models, the **CARMA™** range covers flow rates from 200 to 8000 m^3/h Each **CARMA™** model has two programmable flow rates as standard to be selected on commissioning.

The **CARMA™** range is available in 5 versions :

SEASON : Central for use in moderate climatic zone, intended for the renewal of air of buildings(ships) with energy recovery,functioningsummer/winterofthebypass,there- gulation of flow spleens by potentiometer.

FIRST : self-regulating unit for use in temperate climate areas.

SMART : Central self regulated with electric drum kit of defrosting for compensation with outside temperature until-20°C.

PREMIUM:self-regulatingunitfittedwithahot watercoilor anelectriccoil forexternal temperatures down to-10°C.

INFINITE : Idem finish PREMIUM with as standard an electric drum kit of defrosting for outside temperatures until-20°C.

CONSTRUCTION

✧ Structure in aluminium profilewith **thermal breaks using**polyamide spacers built into the profile (class TB2 in accordance with EN1886).

● Corners in reinforced polyamide.

● Double skin panels10/10e.

▲ Insulation: 50 mm high density A1 (MO) mineral wool (class T2 and L1 for a tightness of the envelope in accordance with EN1886).

● External face: RAL 7035 pre-lacquered metal sheet with protective film.

● Internal face: galvanized steel.

▲ Circularbranchconnectionswithlipsealstoguaranteethesystemsareairtight (ATEC CSTB n° 13-224-12), square for 9070.

● Brackets crimped into the structure for fixing to the ground (9008 to 9070) or ceiling (9008 to 9035).

● "**EASY**" technical compartment holding the electrical components and regulation system. Access by hinged door with latch incorporating the IP65 control panel with LCD display and local padlockable switch on the front panel, potentiometers (version **SEASON**).

▲ Access to internal components by security latch on removable panels.

● Condensate tray and removal of condensates.

✧ **100% internal bypass**, motorized and self-regulating (**RT2012** air relationship).

MOTOR FANS

● Fans with free impellers.

▲ Direct drive DC motor with high efficiency electronic commutation **(EC)**,

Integral thermal cut-out and speed variation. **EC** technology is an econological™ solution guaranteeing low energy consumption **(RT2012)** for the management, checking and control of the operating point (regulation of flow rates from 10 to 100%). Low sound levels for better acoustic comfort.

HEAT EXCHANGER

● Heat efficiency, counter current static exchanger with an important aluminium plates performance, **Eurovent** certificated program for the AAHE.

▲ Efficiency greater than 90% (EN 308) under operating conditions as follows:

● Fresh air -10°C/90% - Exhaust air 20°C/50%.

● Automaticdefrost byproportionalopening of the bypass(exceptSEASON,Allornothing)and possible modulation of the flow misses Fresh air on versions **FIRST** and **PREMIUM**, and by autoregulated electric drum kit on version **SMART** and **INFINITE.**

FILTERS

▲ The **CARMA™** unit is standard equipped with the **CLEARMOTION™** device ensuring a High Indoor Air Quality and ar **econologic solution™** for optimal efficiency at low consumption.

- Fresh air filtration

The **CARMA™** unit has a double slide with a bead seal to ensure watertightness.

It is equipped as standard with a high efficiency **F7 (ePm1 55%)** with low pressure drop.

As an option, the **CARMA™** can have a double filtration stage:

M5 (ePm10 50%) to obtain a combination of M5 + F7

F9 (ePm1 80%) to obtain a device F7 + F9

- Exhaust air filtration

Standard filter: **M5 (ePm10 50%)**

- The filters are always mounted upstream of the components to ensure their protection.
- Mounted on slides for easy replacement with bead seal (fresh air filter) to ensure the waterproofness.

EQUIPMENT AND FEATURES

● The **CARMA™** central has finishes allowing to assure an optimal climatic comfort (except ***SEASON***).

● ▲Regulation "**EASY**" integrated(joined) withbulletin boardintofacade IP65for insideor outside, communicating installation in **MODBUS**, **BACNET** or **WEB** (choice of on- site actionable language). Possibility of associating or a remote-control LCD (100 mor 1kmwithrepeater)oratactileremotecontrolwithinterfacesandscreensuserforthe main functions(offices) (check(control) temperature, relaunching(reflation), defect) as well as an interface maintenanceallowingtoreachthegeneralparameters(command deportable until 100m).

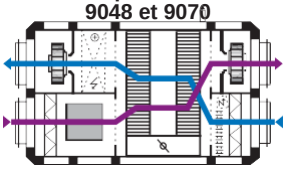
Configurations

HORIZONTAL MOUNTING FLOWS SIDE BY SIDE

(view from above)

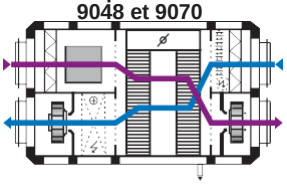
Configuration L

Except CARMA™ 9048 et 9070



Configuration P

Except CARMA™ 9048 et 9070



VERTICAL MOUNTING FLOWS ONE ABOVE THE OTHER

(view from access side)

Configuration W

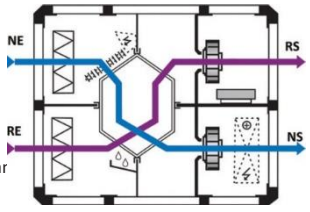
Except CARMA™ 9070

Configuration Y

Except CARMA™ 9070

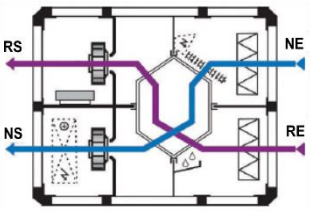
Configuration D

Only CARMA™ 9070



Configuration G

Only CARMA™ 9070



DOUBLE FLOW UNIT
DESCRIPTION

CARMA™

✧ **100% bypass,** internal to the unit, fitted with servomotors automatically controlled by the integrated regulation system providing **FREE-COOLING** and **NIGHT-COOLING** functions (night over-ventilation with adjustable flow rate).
For the **SEASON** version, **100 % Bypass** ensures management summer / winter mode All or Nothing with integrated thermostats.
✧ Large selection of flow rate adjustments to guarantee optimal energy consumption (**RT2012**, **EN 15232**).

- Temperature probes (x4) incorporated into the unit: air supply, extraction, defrosting by bypass, external temperature and a probe for the **SMART-**
versions and the **INFINITY** a probe for the battery of defrosting.
- Integrated antifreeze thermostat (THA) providing protection for the hot water coil for the **PREMIUM/INFINITY BC** version.
- Integrated manually-reset safety thermostat (THS) providing protection electric batteries defrosting and heating for versions **SMART, PREMIUM** and **INFINITY**.
- Internal timers allow operation at two flow rates, programmable on- site at will (except **SEASON**).
- Weekly, holiday and public holiday timer (except **SEASON**).

✧ New air filter fouling pressure switch with fault notification on request *(dry contact for **SEASON**)*.

- Pressure switch controls the flow of air across each fan with fault no- tification on control panel (dry contact for **SEASON**).

✧ Padlockable local circuit breaker mounted on front panel.
✧ **Fire safety** function (except **SEASON**) allowing control supply and return fans following 5 modes in the control parameters (function can be activated on site). An alarm will be displayed on the "Fire Alarm" screen:
"Off": Complete shutdown of the central
"On": Starting or maintaining the plant in GV. Function fire will override all other alarms.
"Auto": Hold the central depending on the setting made on website (Off / LS / HS)
"On blowing" Starting or maintaining in GV fan blowing (taken off)
"On recovery" Starting or maintaining in GV return fan (Blowing off)

In it, the **CARMA™** central has a digital entrance "External Stop" which allows to link on-site a manual control. In this case, the external control is priority on the fire safety possibly activated by one of the 5 modes above.
✧ **Dehumidifying** function (activated depending on the site except **SEASON**). It is possible to associate the central **CARMA™** a module **COMBIBOX CONCEPT™** equipped with a cooling coil (water or DX cooling only) followed by a heating coil (water, electric or DX). In this case the controller automatically manages hot and cold intake necessary dehumidifying while maintaining a temperature optimum operating. During the application period cold, temperature management overrides that of dehumidifying.

INSTALLATION

✧ Vertical or horizontal (except **CARMA™ 9048** and **9070**).

- Indoors or outdoors (roof in standard).
- In false ceiling (9008 to 9035).

✧ New and innovative configurations (E and F) for **CARMA™ 9070** With air supply and extraction from below.

CLIMATIC OPTIONS

- **COMBIBOX CONCEPT™** chilled water module (CBX-BF) on all versions and use of changeover possible **FIRST** and **SMART** version.
- Direct expansion module CBX-DX to R410A.
- Module dehumidifying on versions **FIRST** and **SMART**.

✧ "EASY" regulation built in to the **CARMA™** for managing the heat modules described above.

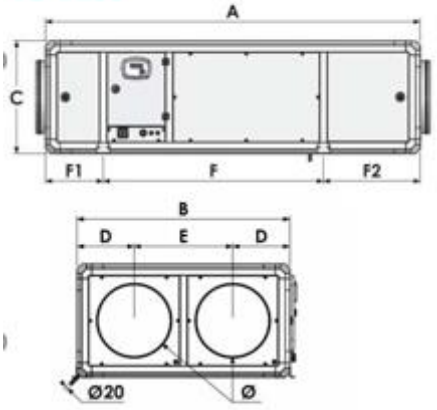
DIMENSIONS CHARACTERISTICS

CARMA®

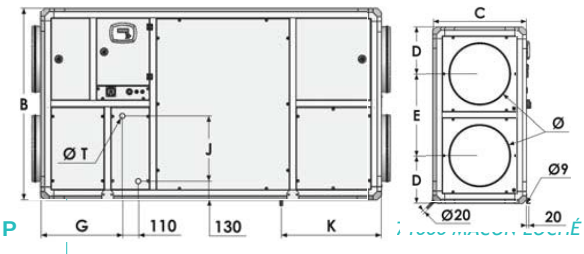
CARMA[1] model	Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	F1 mm	F2 mm	G mm	J mm	K mm	T ø	SEASON kg	FIRST kg	SMART kg	PREMIUM kg	INFINITE kg
9008	315	2010	915	505	255	405	1097	362	517	500	245	540	1/2	210	215	217	218	220
9010	315	2010	915	505	255	405	1097	362	517	500	245	540	1/2	215	220	222	223	225
9016	400	2230	1115	605	305	505	1261	362	607	565	345	690	1/2	295	295	298	300	303
9023	450	2345	1315	705	355	605	1376	362	607	565	445	690	3/4	390	395	400	402	407
9035	500	2625	1515	805	405	705	1520	450	655	640	545	740	3/4	545	550	554	560	564
9048*	630	2970	1715	1030	455	805	1677	535	758	685	645	840	1"	715	720	727	735	742
9070	See coast below												1"	895	900	915	930	945

*Available only in vertical configuration

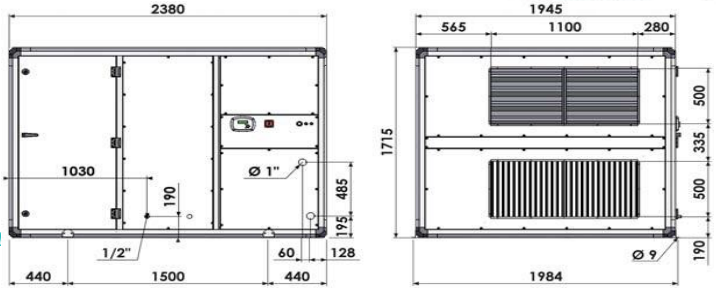
HORIZONTAL MOUNTING 9008 TO 9035



VERTICAL MOUNTING 9008 TO 9048



VERTICAL MOUNTING 9070



ELECTRICAL CHARACTERISTICS

CARMA®

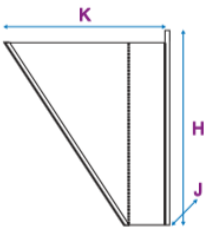
CARMA® model	Electrical power (W)	Usage temp. (°C / °C)	Protection index Classe	Thermal cutout *	FIRST PREMIUM BC & SEASON Power supply voltage (V / Ph / Hz)	FIRST PREMIUM BC & SEASON Protection current (A)	INFINITE BC & SMART Power supply voltage (V / Ph / Hz)	INFINITE BC & SMART Protection current (A)	PREMIUM BE Power supply voltage (V / Ph / Hz)	PREMIUM BE Model	PREMIUM BE Protection current (A)	INFINITE BE Power supply voltage (V / Ph / Hz)	INFINITE BE Model	INFINITE BE Protection current (A)
9008	2x220	-20 / 60	IP44 / B	PTI	230/1/50	3,4	230/1/50	14,3	230/1/50	BE 025	14,3	230/1/50	BE 025	25,2
9010	2x480	-20 / 60	IP54 / B	PTI	230/1/50	4,3	230/1/50	20,6	230/1/50	BE 025	15,2	230/1/50	BE 025	31,5
9016	2x480	-20 / 60	IP54 / B	PTI	230/1/50	4,3	400/3+N/50	11,9	230/1/50 400/3+N/50	BE 037 BE 052	20,6 11,9	400/3+N/50	BE 052	19,5
9023	2x700	-20 / 40	IP54 / B	PTI	230/1/50	6	400/3+N/50	15,7	230/1/50 400/3+N/50	BE 037 BE 067	22,3 15,7	400/3+N/50	BE 067	25,4
9035	2x2500	-20 / 40	IP54 / B	PTI	400/3+N/50	7,7	400/3+N/50	19,6	400/3+N/50	BE 067 BE 137	17,4 27,2	400/3+N/50	BE 067 BE 137	29,3 39,1
9048	2x1950	-20 / 50	IP54 / B	PTI	400/3+N/50	6,3	400/3+N/50	32,3	400/3+N/50	BE 067 BE 137	16 25,8	400/3+N/50	BE 067 BE 137	42 51,8
9070	2x2730	-20 / 60	IP54 / F	PTI	400/3+N/50	8,4	400/3+N/50	44,1	400/3+N/50	BE 105 BE 157	23,6 31,1	400/3+N/50	BE 105 BE 157	59,4 66,9

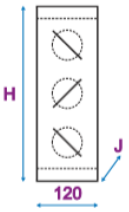
PTI: Integrated thermal cutout

FITTED OPTIONS

CARMA®

CARMA® model	AGC Weight kg	AGC K mm	AGC H mm	RM J mm	RM Weight kg
9008	4	340	362	362	8
9010	4	340	362	362	8
9016	5	440	462	462	10
9023	7	540	562	562	13
9035	10	640	662	662	15
9048	13	740	762	762	17
9070	9	540	562	1162	14



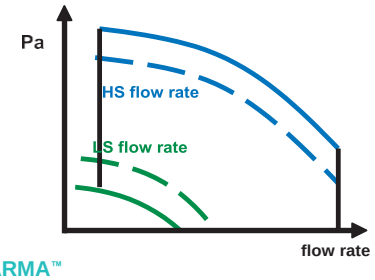


CARMA® horizontal configuration except 11048 and 9070

CARMA® vertical configuration except 9070

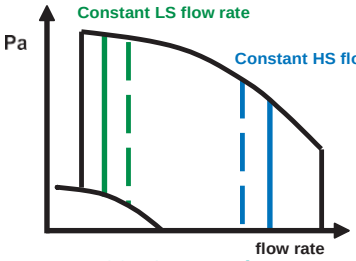
CARMA® 9070

The CARMA™ unit has a factory-programmable regulator as standard used to configure the flow modulations described below:



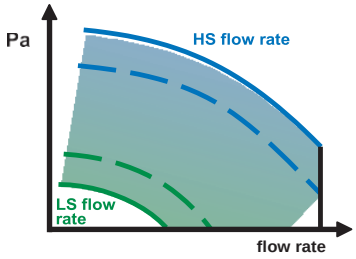
CARMA™ operation

1 or 2 flow rates as required (Low Speed(LS)/High speed(HS)) per fan
Except SEASON, 1 flow adjustable spleen by potentiometer



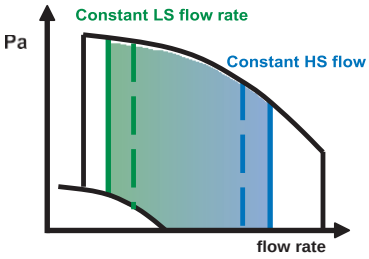
CARMA™ + MAC2 EC™ operation

Optional 1 or 2 CONSTANT flow rates by fan (except CARMA™ 9008)



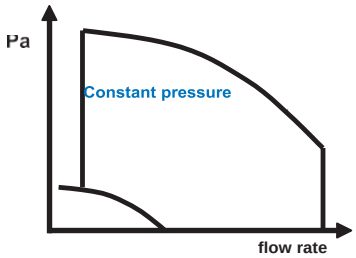
CARMA™ + DIVA EC™ operation

PROPORTIONAL ventilation between two flow rates (LS/HS) by fan



CARMA™ + QUATTRO EC™ operation

PROPORTIONAL ventilation between two CONSTANT flow rates by fan (except CARMA™ 9008)



CARMA™ + LOBBY EC™ operation

CONSTANT PRESSURE ventilation by fan

Internal view of "EASY" technical compartment

Access door to "EASY" technical compartment

Remote control LCD display
(option not compatible with SEASON)
max 100 m or 1000 m with repeater (optional).
Same functionality as the cover display
of the central CARMA™

Touchscreen (option not
compatible SEASON)
with user interfaces and screen
and / or maintenance interface

GENERAL CHARACTERISTICS

CARMA™

EQUIPMENT	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
Low energy consumption, EC fan motors	●	●	●	●	●	●	●
Opacimetric, F7 new air filter	●	●	●	●	●	●	●
Gravimetric, G4 intake filter	●	●	●	●	●	●	●
High efficiency plates (>90%), EUROVENT certified counter-flow exchanger	●	●	●	●	●	●	●
100% internal bypass	●	●	●	●	●	●	●
Inclined condensate trays (exchanger)	●	●	●	●	●	●	●
50 mm, RAL7035 double skin	●	●	●	●	●	●	●
Circular branch connections with lip seals (ATEC CSTB n° 13-224-12)	●	●	●	●	●	●	●
Remote, LCD display control (up to 100m)	-	●	●	●	●	●	●
Regulation MODBUS in RS485 or TCP/IP, BACNET IP, WEB TCP/IP (selected from the menu)	-	●	●	●	●	●	●
Rotation speed regulating potentiometer	●	-	-	-	-	-	-
Discharge temperature sensor	-	●	●	●	●	●	●
Intake temperature sensor	-	●	●	●	●	●	●
Bypass defrost sensor	●	●	●	●	●	●	●
Exterior temperature sensor	●	●	●	●	●	●	●
Defrost battery sensor	-	-	●	-	-	●	●
Anti-freeze thermostat on the water battery	-	-	-	-	●	-	●
Electric safety thermostat defrost battery	-	-	●	-	-	●	●
Electric safety thermostat heating battery	-	-	-	●	-	●	-
Lockable proximity switch	●	●	●	●	●	●	●
Power cord grommet	●	●	●	●	●	●	●

FUNCTIONS	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
Bypass defrost	●	-	-	-	-	-	-
Sequenced defrost: bypass + battery (SMART/INFINITE) + new air flow rate modulation	-	●	●	●	●	●	●
Self-regulating, electric, defrost battery	-	-	●	-	-	●	●
Self-regulating, electric, heating battery	-	-	-	●	-	●	-
Self-regulating water heating unit	-	-	-	-	●	-	●
100% internal bypass, All or Nothing, automatic management summer/winter	●	-	-	-	-	-	-
100% internal bypass, self-regulating and modulating (0-100%)	-	●	●	●	●	●	●
Free-Cooling Management	-	●	●	●	●	●	●
Night-cooling management (night-time over-ventilation)	-	●	●	●	●	●	●
Output air temperature management (air regulation)	-	●	●	●	●	●	●
Ambient temperature management (intake)	-	●	●	●	●	●	●
Weekly timer	-	●	●	●	●	●	●
Holiday and public holiday timer	-	●	●	●	●	●	●
New Air filter pressure switch	●	●	●	●	●	●	●
Flow rate control pressure switch (output and intake)	●	●	●	●	●	●	●
Fire safety in accordance with 5 available modes	-	●	●	●	●	●	●
COMBIBOX CONCEPT™ dehumidification management module	-	●	●	●	●	●	●

FACTORY INSTALLED OPTIONS	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
LOBBY™ EC : air flow modulation at CONSTANT PRESSURE	-	⬭	⬭	⬭	⬭	⬭	⬭
DIVA™ EC : proportional CO_2 flow rate modulation	-	⬭	⬭	⬭	⬭	⬭	⬭
MAC2 EC : air flow modulation at CONSTANT PRESSURE	-	⬭	⬭	⬭	⬭	⬭	⬭
QUATTRO EC: proportional adjustment by CO_2 level between 2 CONSTANT FLOWS	-	⬭	⬭	⬭	⬭	⬭	⬭

OPTIONS	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
COMBIBOX CONCEPT™ cooling module (water or R410A)	-	♦	♦	-	♦	-	♦
COMBIBOX CONCEPT™ dehumidification module	-	♦	♦	-	♦	-	♦
Changeover pad for switching between hot/ cold for CO versions	-	♦	♦	♦	♦	♦	♦
Touch activated remote control (up to 100m)	-	♦	♦	♦	♦	♦	♦
LON networked	-	♦	♦	♦	♦	♦	♦
Ambient temperature management via touch activated remote control	-	♦	♦	♦	♦	♦	♦
1000M LCD repeater for remote control	-	♦	♦	♦	♦	♦	♦
Wonderoom™, networked area regulator Automatically with the CARMA™ -	-	♦	♦	♦	♦	♦	♦

● : Standard equipment or functions. ⬭ : OPTIONAL equipment or functions. Supplied assembled and cabled at the factory

♦ : OPTIONAL equipment or functions. Supplied unassembled

P168

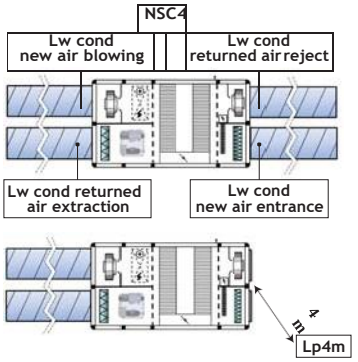
P167

- The Lp4m dB(A) curves correspond to the level of acoustic pressure at 4m in a hemispherical free field on a reflective plain, the "new air inlet" and "discharge intake air" sides not being connected, the "new output air" and "extraction intake air" not being connected. To achieve the overall acoustic pressure Lp dB(A), at a certain distance, add the values below to Lp4m.

Distance (m)	1,5	3	4	5	7	10
Distance weighting dB(A)	9	3	0	-2	-5	-8

- The curves for "Lw output air cond dB(A)" correspond to the overall acoustic power emitted on the "new output air" side or "discharge intake air". To achieve the range of acoustic power Lw cond output dB(A), on the "new output air" or "discharge intake air", add the below values to the acoustic power "Lw cond output" displayed on the curves.

Downstream acoustic spectrum weighting function"Lw cond blower dB(A)" Indicated on the curves								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Weighting CARMA 9008 dB(A)	-30	-18	-12	-7	-5	-6	-12	-18
Weighting CARMA 9010 dB(A)	-27	-16	-8	-8	-5	-7	-13	-20
Weighting CARMA 9016 dB(A)	-31	-19	-11	-8	-5	-6	-12	-19
Weighting CARMA 9023 dB(A)	-28	-26	-15	-9	-6	-4	-11	-14
Weighting CARMA 9035 dB(A)	-32	-20	-12	-7	-4	-7	-11	-19
Weighting CARMA 9048 dB(A)	-35	-20	-13	-7	-4	-7	-11	-18
Weighting CARMA 9070 dB(A)	-39	-29	-12	-7	-4	-7	-11	-16



- The curves for "Lw cond extraction dB(A)" correspond to the overall acoustic power emitted on the duct sides "extraction air intake" and new air inlet". To achieve the range of acoustic power Lw cond extraction dB(A), on the "extraction air intake" and "new air inlet" sides, add the values below to the acoustic power "Lw cond extraction" read on the curves

Upstream acoustic spectrum weighting function "Lw cond extraction dB(A)" Indicated on the curves								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Weighting CARMA 9008 dB(A)	-22	-12	-8	-6 -5	-10	-16	-23	
Weighting CARMA 9010 dB(A)	-18	-11	-6	-6	-8	-10	-15	-23
Weighting CARMA 9016 dB(A)	-21	-13	-7	-6	-6	-8	-14	-21
Weighting CARMA 9023 dB(A)	-19	-20	-9	-6	-6	-8	-12	-15
Weighting CARMA 9035 dB(A)	-21	-13	-7	-5	-8	-9	-15	-21
Weighting CARMA 9048 dB(A)	-24	-12	-8	-5	-8	-8	-13	-21
Weighting CARMA 9070 dB(A)	-32	-23	-6	-6	-8	-8	-13	-17

NOTA: Tolerance = Global Values + / - 3dB(A)
Acoustic spectra +/- 5 dB(A)

- To achieve the acoustic range NSC4 dB(A) (noise level at 4m in a hemispherical free field, with the device placed on the ground on a reflecting plane, with station terminals connected to the intake and discharge by ducts with the same level of sound insulation), deduct 18 dB(A) from the Lp4m value.

CLIMATIC SOLUTIONS

CARMA®

The "EASY" regulation system for the CARMA® unit enables one or more heat coils to be managed as standard (depending on version, FIRST, PREMIUM and INFINITE):

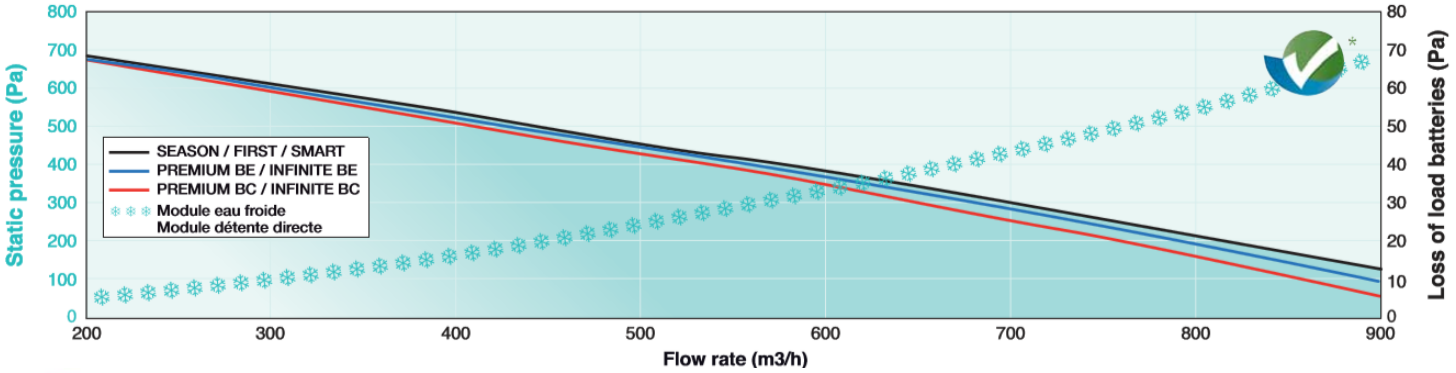
CARMA® Versions	INTEGRATED HEAT COIL(S)			EXTERNAL MODULE					
	DEFROSTING	HEATING		REFRESH		DEHUMIDIFYING (Cold + Warm)			
	Electric	Electric	Water	Water	R410A	Water/Water	Water/Elec	R410A/Water	R410A/ELEC
FIRST	-	-	-	CBX-BF(2)	CBX-DX	CH	CE	DXH	DXE
SMART	✔	-	-	CBX-BF(1)	CBX-DX	CH	CE	DXH	DXE
PREMIUM BC	-	-	✔	CBX-BF	CBX-DX	-	-	-	-
PREMIUM BE	-	✔	-	CBX-BF	CBX-DX	-	-	-	-
INFINITE BC	✔	-	✔	CBX-BF	CBX-DX	-	-	-	-
INFINITE BE	✔	✔	-	CBX-BF	CBX-DX	-	-	-	-

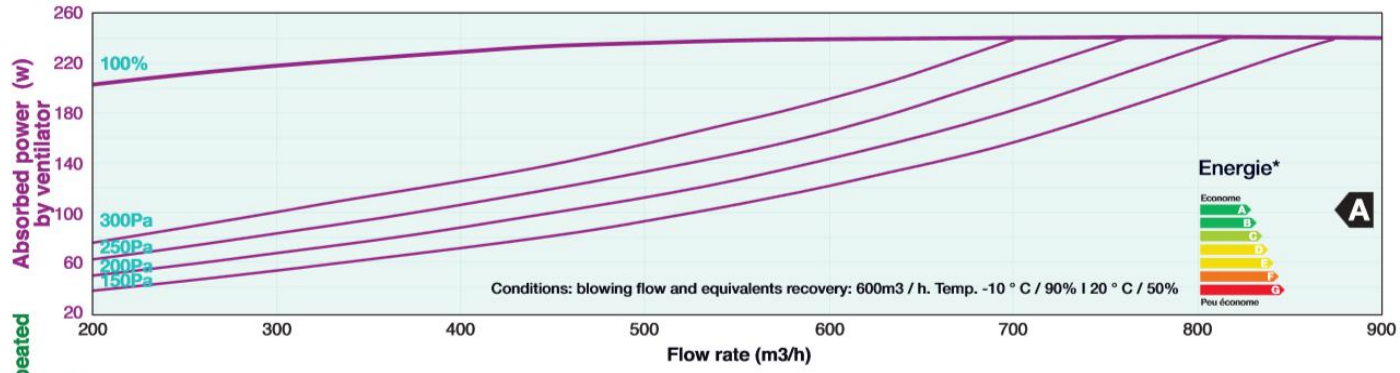
(1) Direct connection to the CARMA® except 9070, or to sheath (option circular connection panels available)
(2) Can be used chnageover. Provide patch (see options)

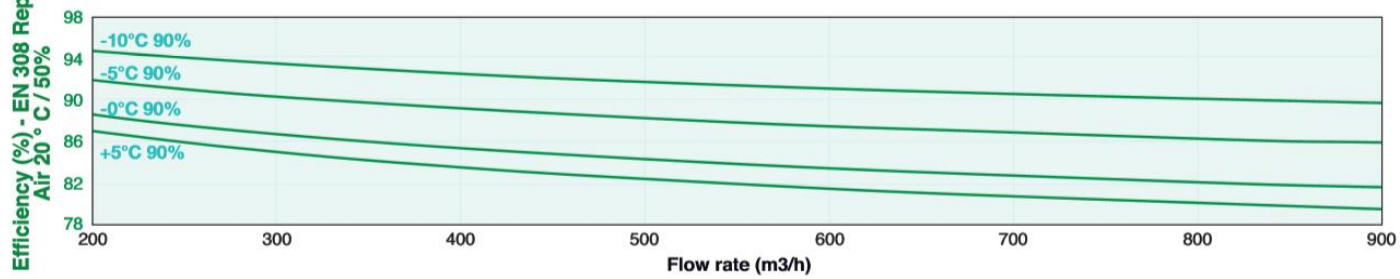
CETIAT
ensemble, innover et valider
Mesures de rendements thermiques effectuées et validées par le CETIAT

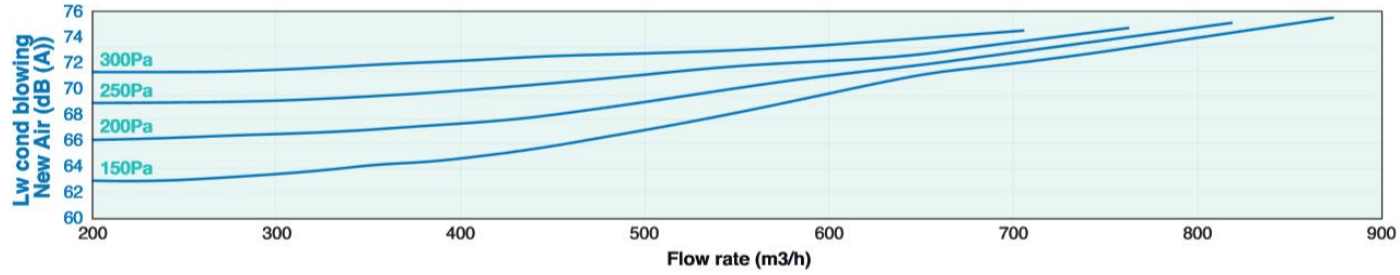
The CARMA® range meets all the requirements of the Bluetech® concept.
Complies with EUROVENT, RT2012, ErP 2009/125/EC and EN 15232.

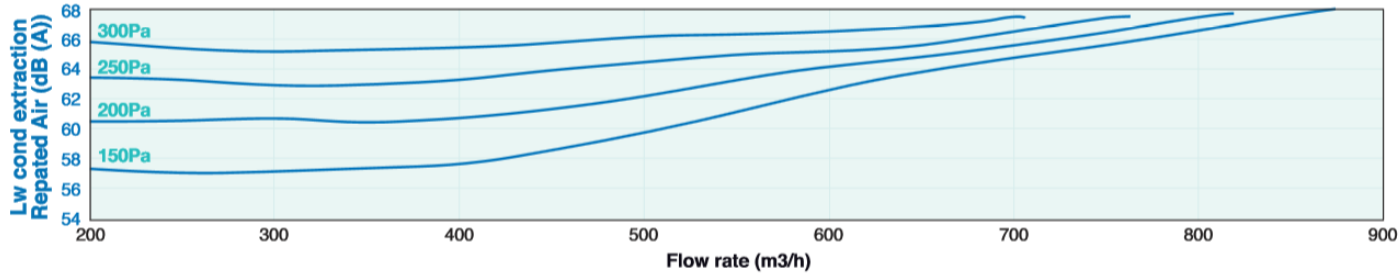
CARMA® 9008

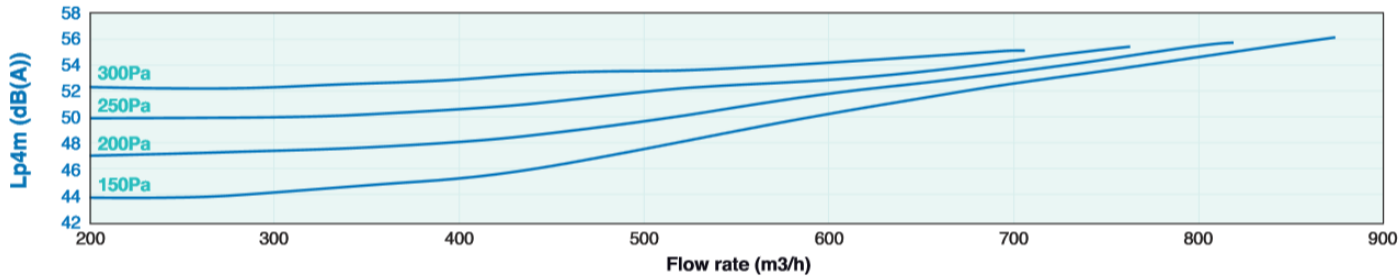

Static pressure (Pa)
Loss of load batteries (Pa)
SEASON / FIRST / SMART
PREMIUM BE / INFINITE BE
PREMIUM BC / INFINITE BC
Module eau froide
Module détente directe
Flow rate (m3/h)


Absorbed power (w) by ventilator
100%
300Pa
250Pa
200Pa
150Pa
Energie*
Econome
Peu économe
A
Conditions: blowing flow and equivalents recovery: 600m3 / h. Temp. -10 ° C / 90% I 20 ° C / 50%
Flow rate (m3/h)


Efficiency (%) - EN 308 Repeated Air 20 ° C / 50%
-10°C 90%
-5°C 90%
-0°C 90%
+5°C 90%
Flow rate (m3/h)


Lw cond blowing New Air (dB (A))
300Pa
250Pa
200Pa
150Pa
Flow rate (m3/h)


Lw cond extraction Repated Air (dB (A))
300Pa
250Pa
200Pa
150Pa
Flow rate (m3/h)


Lp4m (dB(A))
300Pa
250Pa
200Pa
150Pa
Flow rate (m3/h)

BC for PREMIUM and INFINITE versions — Hot water coil

Water temp. (°C/°C)	Air inlet temp. (°C)	Flow rate (m³/h)	300	400	500	600	700	800
90/70	11	Motor (kW)/Air outlet temp (°C)	4,9 / 60	6,0 / 56	7,1 / 53	8,0 / 51	8,8 / 49	9,6 / 47
		Water flow(l/h)/DP water (kPa)	220 / 5	270 / 5	310 / 6	350 / 8	390 / 9	420 / 11
	15	Motor (kW)/Air outlet temp (°C)	4,6 / 61	5,7 / 57	6,6 / 55	7,5 / 52	8,3 / 50	9,0 / 49
		Water flow(l/h)/DP water (kPa)	200 / 5	250 / 4	290 / 5	330 / 7	370 / 8	400 / 10
80/60	11	Motor (kW)/Air outlet temp (°C)	4,1 / 52	5,1 / 49	5,9 / 46	6,7 / 44	7,4 / 43	8,1 / 41
		Water flow(l/h)/DP water (kPa)	180 / 6	220 / 6	260 / 5	290 / 6	330 / 7	350 / 8
	15	Motor (kW)/Air outlet temp (°C)	3,8 / 53	4,7 / 50	5,5 / 48	6,2 / 46	6,9 / 44	7,5 / 43
		Water flow(l/h)/DP water (kPa)	170 / 5	210 / 5	240 / 7	270 / 5	300 / 6	330 / 7
60/50	11	Motor (kW)/Air outlet temp (°C)	3,1 / 42	3,8 / 40	4,5 / 38	5,1 / 36	5,6 / 35	6,1 / 34
		Water flow(l/h)/DP water (kPa)	270 / 5	330 / 8	390 / 10	440 / 13	490 / 13	540 / 15
	15	Motor (kW)/Air outlet temp (°C)	2,8 / 43	3,5 / 41	4,0 / 39	4,6 / 38	5,1 / 37	5,5 / 36
		Water flow(l/h)/DP water (kPa)	240 / 7	300 / 6	350 / 8	400 / 10	440 / 13	480 / 12
45/40	11	Motor (kW)/Air outlet temp (°C)	2,1 / 32	2,6 / 31	3,1 / 29	3,5 / 28	3,8 / 27	4,2 / 27
		Water flow(l/h)/DP water (kPa)	364 / 5	448 / 7	532 / 10	602 / 12	672 / 13	728 / 15
	15	Motor (kW)/Air outlet temp (°C)	1,8 / 33	2,3 / 32	2,6 / 31	3,0 / 30	3,3 / 29	3,6 / 28
		Water flow(l/h)/DP water (kPa)	322 / 6	392 / 6	462 / 8	518 / 9	574 / 11	630 / 13

BE for PREMIUM and INFINITE versions — Electric coil

Fresh air Flow rate (m³/h)	0°C 800	0°C 800	-5°C 800	-10°C 800	-15°C 800	-20°C 800
Version	Season / First	Premium BE025			Infinite BE025	
		Heating coil			Preheating + heating coil	
Total power kW	-	2,5	2,5	2,5	2,5 + 2,5	2,5 + 2,5
Temp. °C on output from the unit	16,8	26,2	25,6	20,8	24,6	19,7

CBX 4 BF — Module cold water and battery changeover

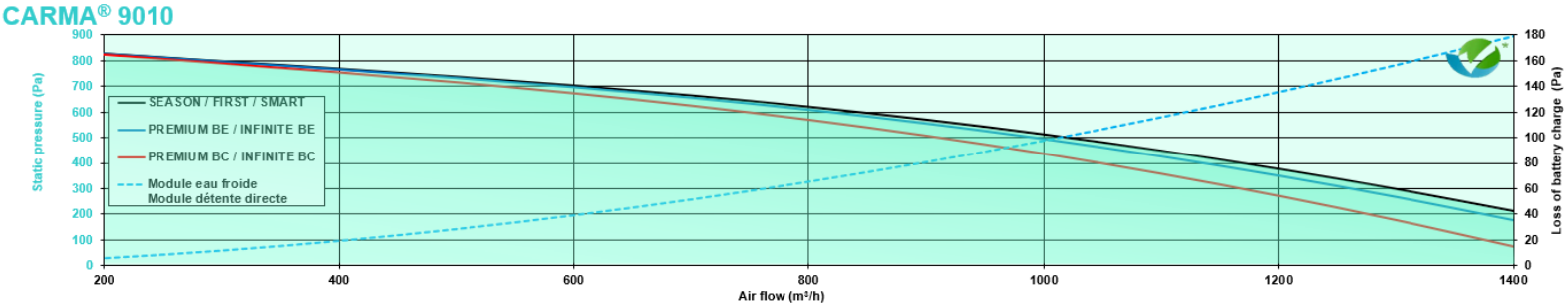
Water temp. (°C/°C)	Air inlet temp. (°C-%HR)	Flow rate (m³/h)	300	400	500	600	700	800
7/12	32-40	Power (kW)/Air outlet temp (°C-%HR)	2,5 / 14,4-88	3,1 / 15,3-86	3,7 / 16,1-84	4,2 / 16,7-82	4,6 / 17,2-81	5,1 / 17,1-80
		Water flow(l/h)/DP water (kPa)	430 / 7	530 / 7	630 / 9	710 / 11	800 / 12	870 / 14
	27-50	Power (kW)/Air outlet temp (°C-%HR)	1,9 / 13,7-91	2,4 / 14,5-89	2,8 / 15,1-88	3,1 / 15,5-87	3,5 / 16-86	3,8 / 16,3-85
		Water flow(l/h)/DP water (kPa)	330 / 4	400 / 6	470 / 5	530 / 7	590 / 8	650 / 10
	25-50	Power (kW)/Air outlet temp (°C-%HR)	1,5 / 13,4-92	1,8 / 14,1-90	2,1 / 14,6-88	2,3 / 15-87	2,3 / 15,1-92	2,6 / 15,5-90
		Water flow(l/h)/DP water (kPa)	250 / 6	300 / 4	350 / 5	400 / 6	400 / 6	440 / 7
6/11	32-40	Power (kW)/Air outlet temp (°C-%HR)	2,7 / 13,6-88	3,4 / 14,6-85	4,0 / 15,4-84	4,5 / 16,1-82	5,0 / 16,6-81	5,5 / 17,1-79
		Water flow(l/h)/DP water (kPa)	460 / 8	580 / 8	680 / 11	770 / 11	860 / 14	940 / 16
	27-50	Power (kW)/Air outlet temp (°C-%HR)	2,1 / 12,9-91	2,6 / 13,7-89	3,1 / 14,3-88	3,5 / 14,9-86	3,9 / 15,3-85	4,2 / 15,7-84
		Water flow(l/h)/DP water (kPa)	360 / 5	450 / 7	520 / 7	590 / 8	660 / 10	720 / 12
	25-50	Power (kW)/Air outlet temp (°C-%HR)	1,7 / 12,6-91	2,0 / 13,3-90	2,4 / 13,9-88	2,7 / 14,3-87	3,0 / 14,7-86	3,3 / 15-85
		Water flow(l/h)/DP water (kPa)	280 / 3	350 / 5	410 / 6	460 / 8	510 / 6	560 / 7
45/40	11	Power (kW)/Air outlet temp (°C-%HR)	2,6 / 37	3,2 / 35	3,9 / 34	4,4 / 33	5,0 / 32	5,5 / 31
		Water flow(l/h)/DP water (kPa)	448 / 3	560 / 5	672 / 5	770 / 6	854 / 8	952 / 9
	15	Power (kW)/Air outlet temp (°C-%HR)	2,2 / 37	2,8 / 36	3,3 / 35	3,8 / 34	4,3 / 33	4,7 / 33
		Water flow(l/h)/DP water (kPa)	392 / 3	490 / 4	574 / 5	658 / 5	742 / 6	812 / 7

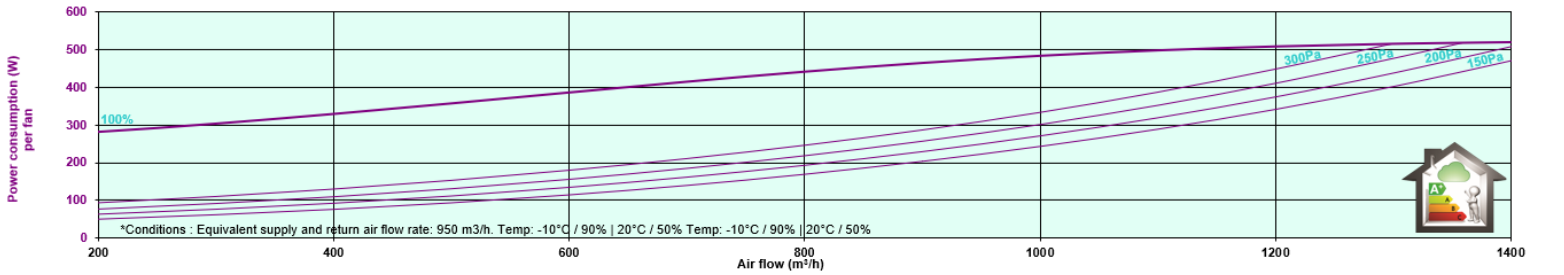
CBX 4 DX — Battery module reversible direct expansion R410A

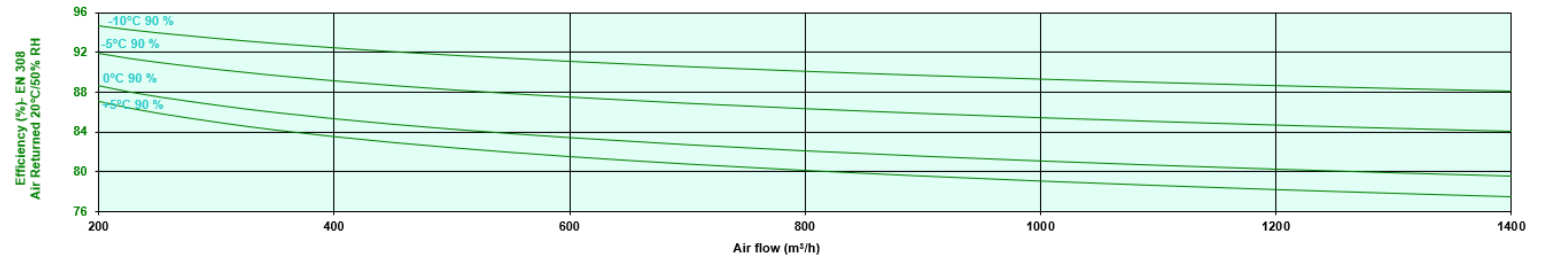
Evap. Temp. (°C)	Air inlet temp. (°C-%HR)	Flow rate (m³/h)	300	400	500	600	700	800
7	32-40	Power (kW)	2,7	3,3	3,8	4,3	4,8	5,2
		Air outlet temp (°C-%HR)	13,8-88	14,9-85	15,7-84	16,5-82	17,1-81	17,6-79
	27-50	Power (kW)	2,1	2,6	3,0	3,4	3,8	4,1
		Air outlet temp (°C-%HR)	12,9-91	13,7-89	14,4-88	15,0-86	15,5-85	15,9-84
	25-50	Power (kW)	1,7	2,1	2,5	2,8	3,0	3,3
		Air outlet temp (°C-%HR)	12,4-91	13,1-89	13,7-88	14,2-87	14,7-86	15,0-85
5	32-40	Power (kW)	3,0	3,7	4,3	4,9	5,4	5,8
		Air outlet temp (°C-%HR)	12,4-87	13,6-85	14,6-83	15,4-81	16,1-80	16,7-79
	27-50	Power (kW)	2,5	3,0	3,6	4,0	4,4	4,8
		Air outlet temp (°C-%HR)	11,4-91	12,4-89	13,2-87	13,9-86	14,5-85	15,0-84
	25-50	Power (kW)	2,1	2,5	3,0	3,3	3,7	4,0
		Air outlet temp (°C-%HR)	10,9-91	11,8-89	12,5-87	13,1-86	13,6-85	14,0-84
40	11	Power (kW)	2,4	3,0	3,6	4,1	4,6	5,1
		Air outlet temp (°C)	34,8	33,5	32,5	31,6	30,7	30
	15	Power (kW)	2,1	2,6	3,1	3,6	4,0	4,4
		Air outlet temp (°C)	35,4	34,4	33,4	32,6	31,9	31,3

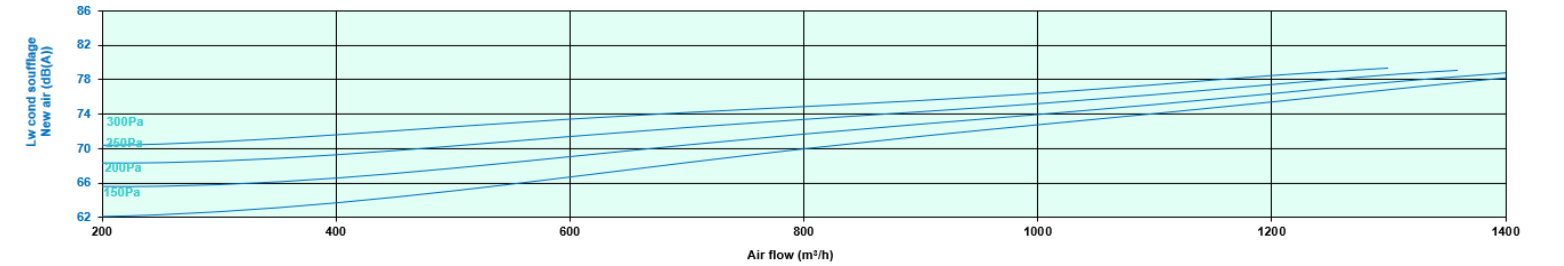
SELECTION CURVES CARMA®

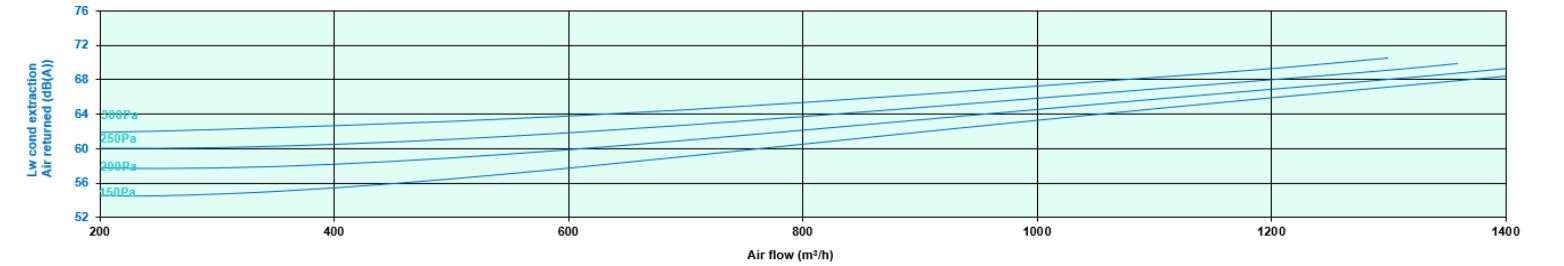
CARMA® 9010

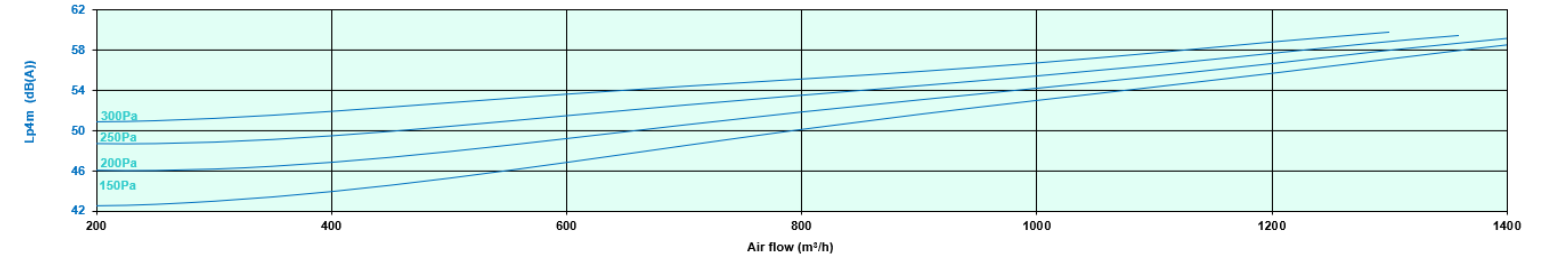












Flow rate (m3/h)

THERMAL COIL 9010 PERFORMANCES

CARMA®

BC for versions PREMIUM and INFINITE

Hot water coil

Water temp° C/°C	Temp. Air entry (°C)	Air flow (m³/h)	400	600	800	1000	1200	1400
90/70	11	Power (kW)/Temp. Exit air (°C)	6,0 / 56	8,0 / 51	9,6 / 47	11,1 / 44	12,4 / 42	13,5 / 40
		Water flow (l/h)/DP water(kPa)	270 / 5	350 / 8	420 / 11	490 / 12	540 / 14	590 / 17
	15	Power (kW)/Temp. Exit air (°C)	5,7 / 57	7,5 / 52	9,0 / 10	10,4 / 46	11,6 / 44	12,6 / 42
		Water flow (l/h)/DP water(kPa)	250 / 4	330 / 7	400 / 10	460 / 12	510 / 13	560 / 15
80/60	11	Power (kW)/Temp. Exit air (°C)	5,1 / 49	6,7 / 44	8,1 / 41	9,3 / 39	10,3 / 37	11,3 / 35
		Water flow (l/h)/DP water(kPa)	220 / 6	290 / 6	350 / 8	410 / 10	450 / 13	490 / 12
	15	Power (kW)/Temp. Exit air (°C)	4,7 / 50	6,2 / 46	7,5 / 43	8,6 / 41	9,5 / 39	10,4 / 37
		Water flow (l/h)/DP water(kPa)	210 / 5	270 / 5	330 / 7	380 / 9	420 / 11	460 / 13
60/50	11	Power (kW)/Temp. Exit air (°C)	3,8 / 40	5,1 / 36	6,1 / 34	7,0 / 32	7,9 / 31	8,6 / 29
		Water flow (l/h)/DP water(kPa)	330 / 8	440 / 13	540 / 15	620 / 19	690 / 24	750 / 28
	15	Power (kW)/Temp. Exit air (°C)	3,5 / 41	4,6 / 38	5,5 / 36	6,4 / 34	7,1 / 33	7,8 / 32
		Water flow (l/h)/DP water(kPa)	300 / 6	400 / 10	480 / 12	560 / 16	620 / 20	680 / 23
45/40	11	Power (kW)/Temp. Exit air (°C)	2,6 / 31	3,5 / 28	4,2 / 27	4,8 / 25	5,4 / 24	5,9 / 24
		Water flow (l/h)/DP water(kPa)	448 / 7	602 / 12	728 / 15	840 / 19	938 / 23	1022 / 27
	15	Power (kW)/Temp. Exit air (°C)	2,3 / 32	3,0 / 30	3,6 / 28	4,1 / 27	4,6 / 26	5,0 / 26
		Water flow (l/h)/DP water(kPa)	392 / 6	518 / 9	630 / 13	714 / 14	798 / 18	868 / 21

BE for versions SMART, PREMIUM and INFINITE

Electric coil

New air Airflow(m³/h)	0°C 980	-5°C 980	-10°C 980	-15°C 980	-15°C* 980	0°C 980	-5°C 980	-10°C 980	-10°C* 980	-10°C 980	-15°C 980	-15°C* 980
Version	FIRST-SEASON		SMART Defrost coil			PREMIUM BE025 Heat coil				INFINITE BE025 Defrost + heat coil		
Power (kW)	-		3,75			2,5				3,75 + 2,5		
ERU exit temp (°C)	16.2	15.6	16.3	15.7	17.6	23.9	23.3	19.5	26.9	24.0	23.4	27.2

CBX 4 BF

Cooling water coil module and changeover

Water temp (°C/°C)	T. air entry (°C-%HR)	Air flow (m³/h)	400	600	800	1000	1200	1400
7/12	32-40	Power (kW)/Temp. Exit air (°C-%HR)	3,1 / 15,3-86	4,2 / 16,7-82	5,1 / 17,7-80	5,9 / 18,5-78	6,6 / 19,1-76	7,2 / 19,7-75
		Water flow (l/h)/DP water(kPa)	530 / 7	710 / 11	870 / 14	1010 / 18	1130 / 21	1240 / 24
	27-50	Power (kW)/Temp. Exit air (°C-%HR)	2,4 / 14,5-89	3,1 / 15,5-87	3,8 / 16,3-85	4,4 / 16,9-83	4,9 / 17,4-82	5,3 / 17,8-81
		Water flow (l/h)/DP water(kPa	400 / 6	530 / 7	650 / 10	750 / 12	840 / 13	920 / 15
	25-50	Power (kW)/Temp. Exit air (°C-%HR)	1,8 / 14,1-90	2,3 / 15-87	2,6 / 15,5-90	3,0 / 16,2-86	3,3 / 16,7-83	3,7 / 17,2-81
		Water flow (l/h)/DP water(kPa)	300 / 4	400 / 6	440 / 7	510 / 6	570 / 8	630 / 9
6/11	32-40	Power (kW)/Temp. Exit air (°C-%HR)	3,4 / 14,6-85	4,5 / 16,1-82	5,5 / 17,1-79	6,4 / 17,9-77	7,2 / 18,6-76	7,9 / 19,2-74
		Water flow (l/h)/DP water(kPa)	580 / 8	770 /11	940 / 16	1100 / 21	1230 / 24	1350 / 29
	27-50	Power (kW)/Temp. Exit air (°C-%HR)	2,6 / 13,7-89	3,5 / 14,9-86	4,2 / 15,7-84	4,9 / 16,4-83	5,5 / 16,9-82	6,0 / 17,3-81
		Water flow (l/h)/DP water(kPa)	450 / 7	590 / 8	720 / 12	830 / 13	930 / 16	1030 / 19
	25-50	Power (kW)/Temp. Exit air (°C-%HR)	2,0 / 13,3-90	2,7 / 14,3-87	3,3 / 15-85	3,2 / 15,6-90	3,6 / 16,1-86	3,9 / 16,6-84
		Water flow (l/h)/DP water(kPa	350 / 5	460 / 8	560 / 7	540 / 7	610 / 9	680 / 10
45/40	11	Power (kW)/Temp. Exit air (°C-%HR	3,2 / 35	4,4 / 33	5,5 / 31	6,4 / 30	7,2 / 29	8,0 / 28
		Water flow (l/h)/DP water(kPa)	560 / 5	770 / 6	952 / 9	1106 / 10	1246 / 13	1386 / 15
	15	Power (kW)/Temp. Exit air (°C-%HR)	2,8 / 36	3,8 / 34	4,7 / 33	5,5 / 31	6,2 / 30	6,9 / 30
		Water flow (l/h)/DP water(kPa	490 / 4	658 / 5	812 / 7	952 / 9	1078 / 10	1190 / 11

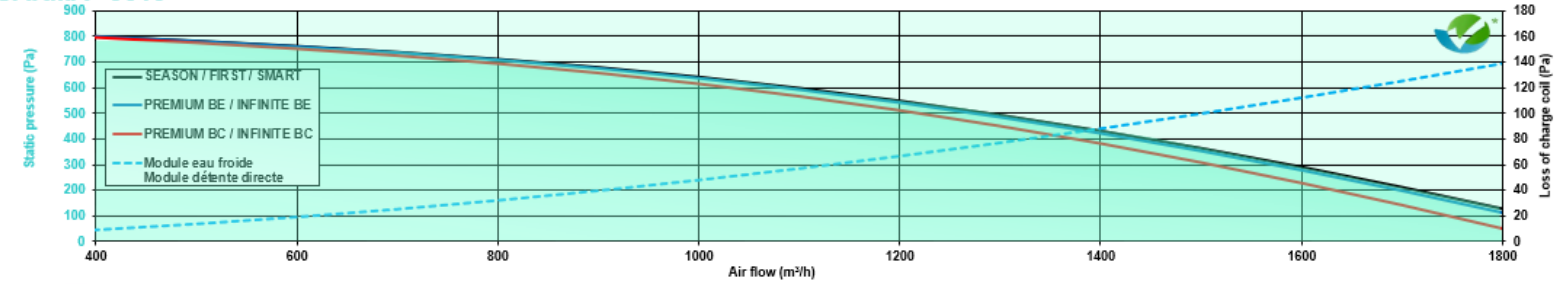
CBX 4 DX

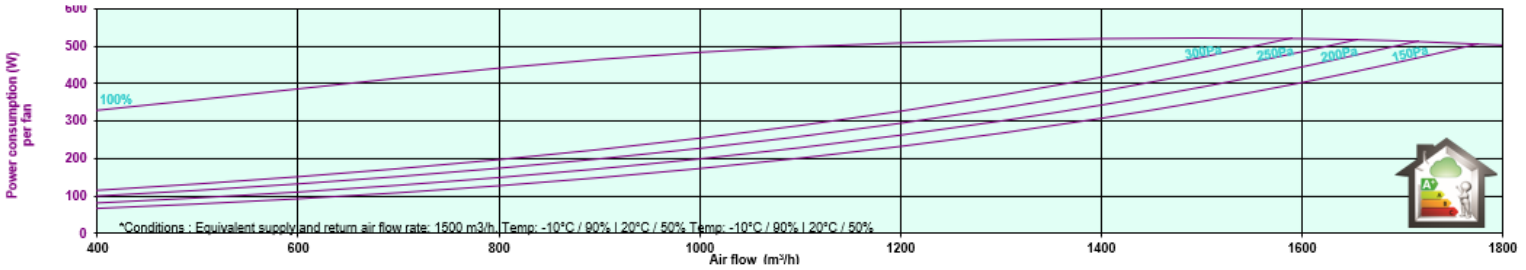
Reversible direct expansion coil module R410A

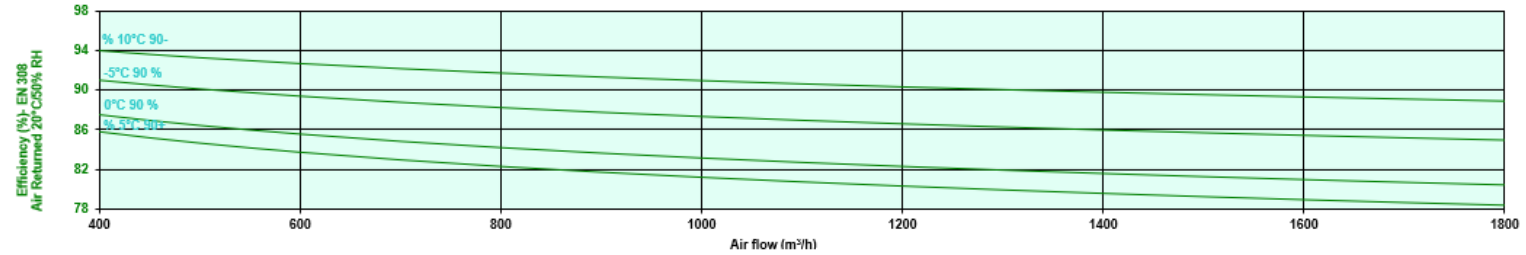
Evap t. (°C)	T. air entry	Air flow (m³/h)	400	600	800	1000	1200	1400
7	32-40	Power (kW)	3,3	4,3	5,2	5,9	6,4	5,7
		T. exit air (°C-%HR)	14,9-85	16,5-82	17,6-79	18,5-78	19,3-76	19,9-82
	27-50	Power (kW)	2,6	3,4	4,1	4,6	5,1	5,5
		T. exit air (°C-%HR)	13,7-89	15,0-86	15,9-84	16,6-83	17,2-82	17,7-81
	25-50	Power (kW)	2,1	2,8	3,3	3,2	3,6	4,0
		T. exit air (°C-%HR)	13,1-89	14,2-87	15,0-85	15,4-91	16,0-87	16,5-84
5	32-40	Power (kW)	3,7	4,9	5,8	6,6	7,3	7,8
		T. exit air (°C-%HR)	13,6-85	15,4-81	16,7-79	17,7-77	18,6-76	19,3-74
	27-50	Power (kW)	3,0	4,0	4,8	5,4	6,0	6,4
		T. exit air (°C-%HR)	12,4-89	13,9-86	15,0-84	15,8-82	16,4-81	17,0-80
	25-50	Power (kW)	2,5	3,3	4,0	4,5	5,0	5,4
		T. exit air (°C-%HR)	11,8-89	13,1-86	14,0-84	14,7-83	15,3-81	15,8-80
40	11	Power (kW)	3,0	4,1	5,1	6,0	6,7	7,5
		T. exit air (°C-%HR)	33,5	31,6	30	28,8	27,8	26,9
	15	Power (kW)	2,6	3,6	4,4	5,1	5,8	6,4
		T. exit air (°C-%HR)	34,4	32,6	31,3	30,3	29,4	28,6

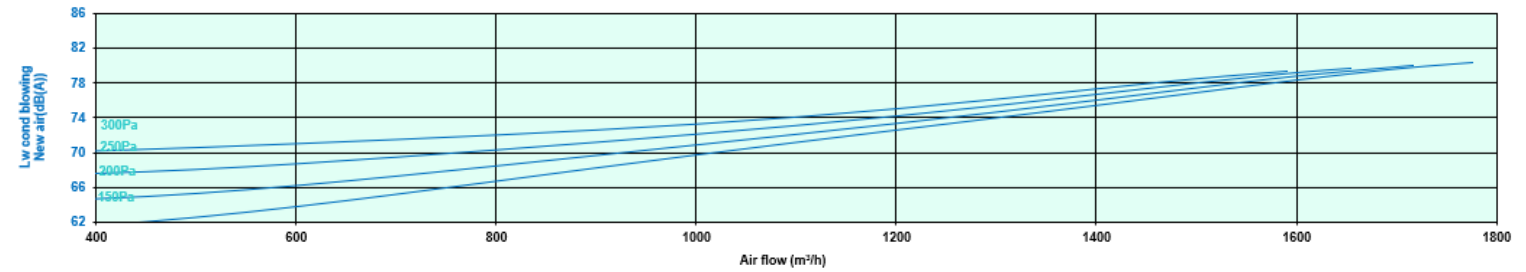
Flow rate (m3/h)

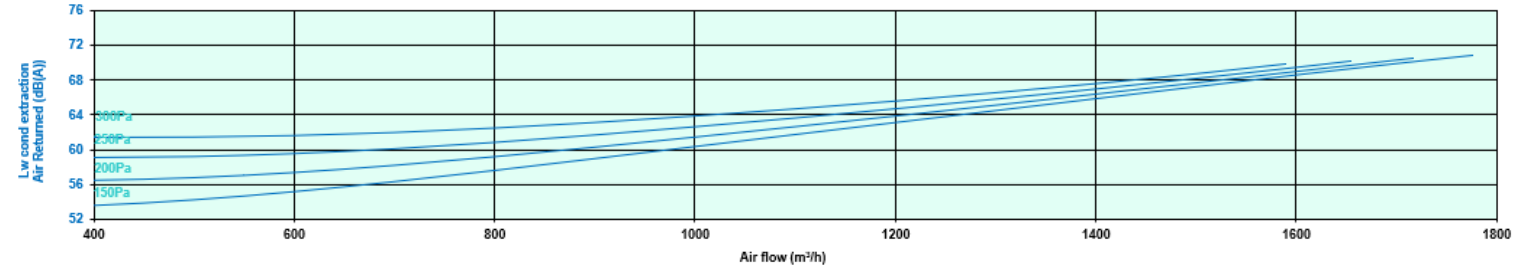
CARMA® 9016

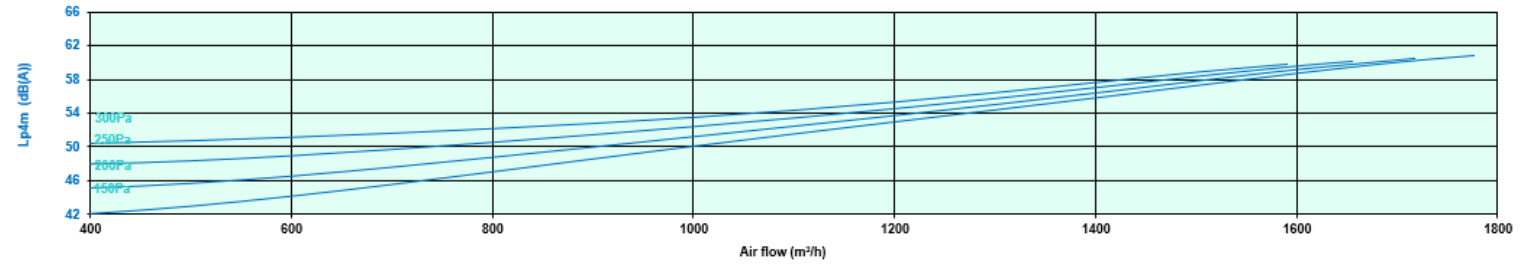

Static pressure (Pa)
Loss of charge coil (Pa)
SEASON / FIRST / SMART
PREMIUM BE / INFINITE BE
PREMIUM BC / INFINITE BC
Module eau froide
Module détente directe
Air flow (m³/h)


Power consumption (W) per fan
100%
300Pa
250Pa
200Pa
150Pa
*Conditions : Equivalent supply and return air flow rate: 1500 m3/h. Temp: -10°C / 90% I 20°C / 50% Temp: -10°C / 90% I 20°C / 50%
Air flow (m³/h)


Efficiency (%)- EN 308
Air Returned 20°C/50% RH
% 10°C 90-
-5°C 90 %
0°C 90 %
% 5°C 90
Air flow (m³/h)


Lw cond blowing
New air(dB(A))
300Pa
250Pa
200Pa
150Pa
Air flow (m³/h)


Lw cond extraction
Air Returned (dB(A))
300Pa
250Pa
200Pa
150Pa
Air flow (m³/h)


Lp4m (dB(A))
300Pa
250Pa
200Pa
150Pa
Air flow (m³/h)

BC for versions PREMIUM and INFINITE — Hot water coil

Water temp.	Temp. entry (°C)	Air flow (m³/h) air	600	900	1200	1500	1800
90/70	11	Power (kW)/Temp. Exit air (°C)	9,6 / 59	12,9 / 54	15,7 / 50	18,1 / 47	20,3 / 45
		Water flow (l/h)/DP water (kPa)	430 / 7	570 / 9	690 / 12	800 / 14	890 / 17
	15	Power (kW)/Temp. Exit air (°C)	9,1 / 60	12,1 / 55	14,7 / 52	17,0 / 49	19,0 / 47
		Water flow (l/h)/DP water (kPa)	400 / 6	530 / 8	650 / 11	750 / 14	840 / 16
80/60	11	Power (kW)/Temp. Exit air (°C)	8,2 / 52	10,9 / 47	13,2 / 44	15,2 / 41	17,0 / 39
		Water flow (l/h)/DP water (kPa)	360 / 5	480 / 6	580 / 9	670 / 12	750 / 15
	15	Power (kW)/Temp. Exit air (°C)	7,6 / 53	10,1 / 48	12,2 / 45	14,1 / 43	15,8 / 41
		Water flow (l/h)/DP water (kPa)	330 / 5	440 / 8	540 / 8	620 / 10	690 / 13
60/50	11	Power (kW)/Temp. Exit air (°C)	6,1 / 41	8,2 / 38	10,0 / 36	11,5 / 34	12,9 / 32
		Water flow (l/h)/DP water (kPa)	530 / 8	710 / 14	870 / 18	1010 / 23	1130 / 27
	15	Power (kW)/Temp. Exit air (°C)	5,5 / 43	7,4 / 40	9,0 / 37	10,4 / 36	11,7 / 34
		Water flow (l/h)/DP water (kPa)	480 / 7	650 / 12	790 / 15	910 / 19	1020 / 24
45/40	11	Power (kW)/Temp. Exit air (°C)	4,2 / 32	5,6 / 30	6,8 / 28	7,9 / 27	8,8 / 26
		Water flow (l/h)/DP water (kPa)	520 / 8	700 / 14	850 / 18	980 / 23	1100 / 28
	15	Power (kW)/Temp. Exit air (°C)	3,6 / 33	4,8 / 31	5,9 / 30	6,8 / 29	7,6 / 28
		Water flow (l/h)/DP water (kPa)	450 / 8	600 / 11	730 / 15	840 / 17	940 / 21

BE for versions SMART, PREMIUM and INFINITE — Electric coil

New air Air flow (m³/h)	0°C 1500	-5°C 1500	-10°C 1500	-15°C 1500	-15°C* 1500	0°C 1500	-5°C 1500	-10°C 1500	-10°C* 1500	-10°C 1500	-15°C 1500	-15°C* 1500
Version	FIRST-SEASON		SMART			PREMIUM BE037		PREMIUM BE052		INFINITE BE052		
			Defrost coil			Heat coil				Defrost and heat coil		
Power (kW)	-		5,25			3,75		5,25		5,25 + 5,25		
Temp. Exit ERU (°C)	16,3	15,7	16,3	15,7	17,6	23,8	23,2	22,3	30,4	26,8	26,2	30,7

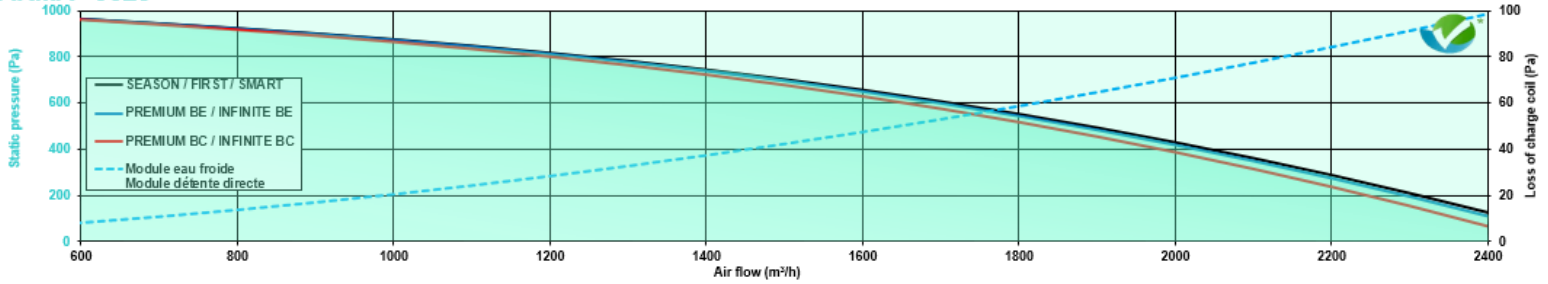
CBX 5 DX — Reversible direct expansion coil module R410A

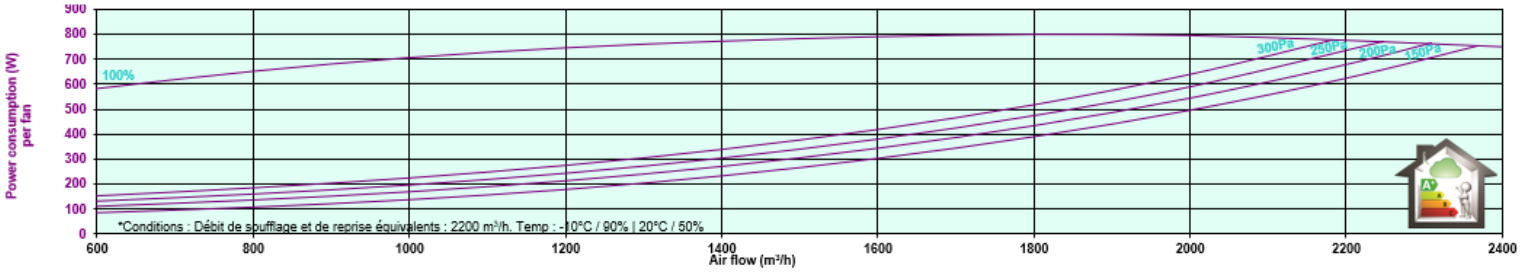
Evap t. (°C)	entry	T. air Air flow (m³/h)	600	900	1200	1500	1800
7	32-40	Power (kW)	5,7	7,7	9,3	10,7	12,0
		T. exit air (°C-%HR)	12,7-92	14,1-89	15,3-87	16,2-85	17,0-83
	27-50	Power (Kw)	4,5	6,1	7,4	8,5	9,5
		T. exit air(°C-%HR)	11,9-94	13,1-92	14,0-90	14,8-89	15,4-87
	25-50	Power (kW)	3,7	4,9	6,0	6,9	7,7
		T. exit air (°C-%HR)	11,6-94	12,6-92	13,4-90	14,0-89	14,5-88
5	32-40	Power (Kw)	6,4	8,7	10,5	12,1	13,5
		T. exit air(°C-%HR)	11,2-91	12,8-88	14,1-86	15,1-84	16,0-83
	27-50	Power (Kw)	5,3	7,1	8,6	9,9	11,1
		T. exit air(°C-%HR)	10,4-94	11,8-91	12,8-90	13,7-88	14,4-87
	25-50	Power (Kw)	4,4	5,9	7,2	8,3	9,3
		T. exit air(°C-%HR)	10,0-94	11,2-92	12,1-90	12,9-88	13,5-87
40	11	Power (Kw)	5,0	7,0	8,8	10,4	11,9
		T. exit air(°C)	36	34.3	32.9	31.7	30.7
	15	Power (Kw)	4,3	6,0	7,6	8,9	10,2
		T. exit air(°C)	36,5	35	33,8	32,8	31,9

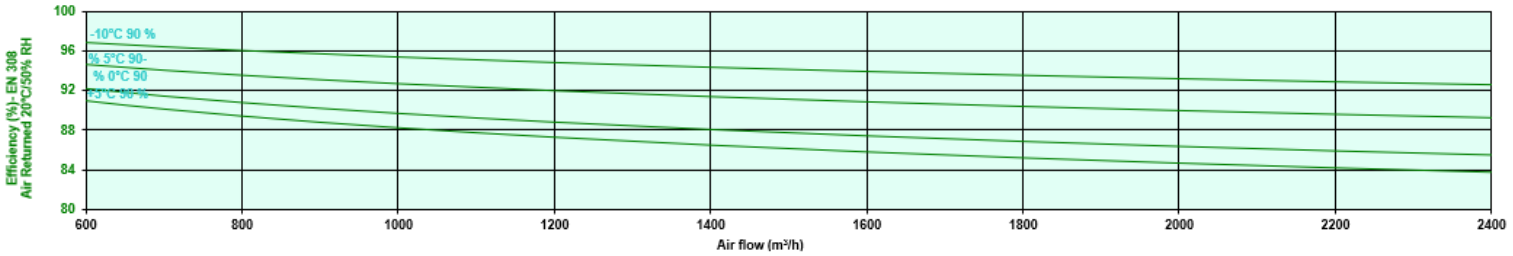
Flow rate (m3/h)

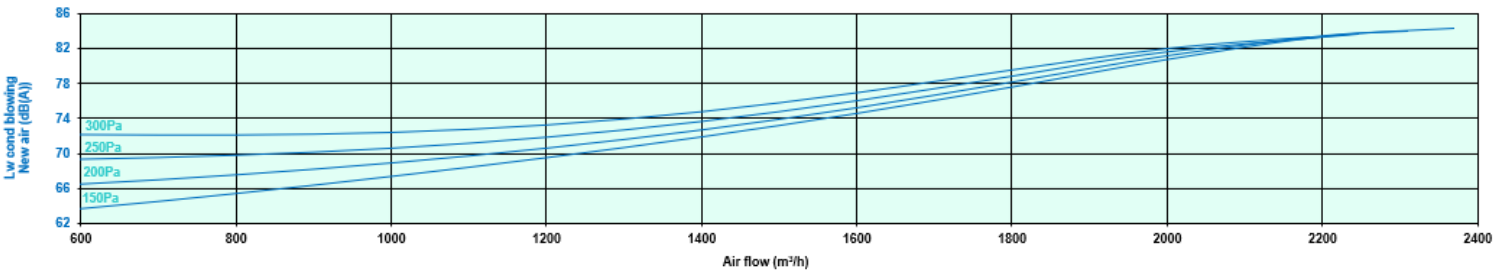
SELECTION CURVES CARMA®

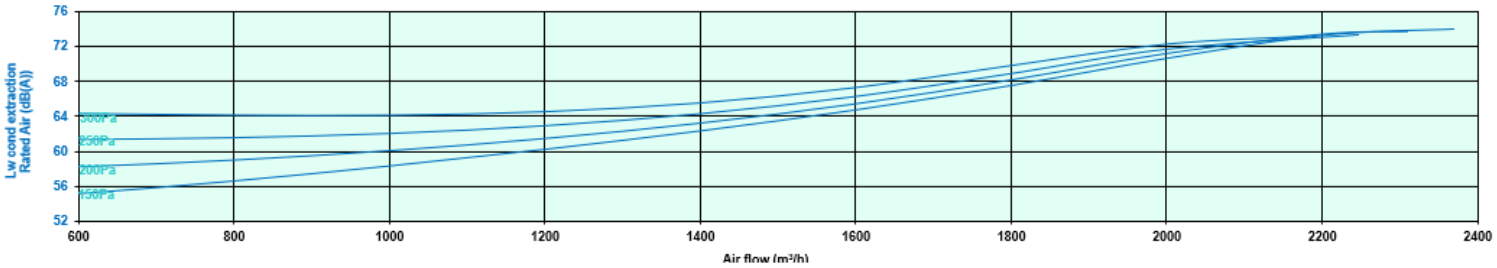
CARMA® 9023

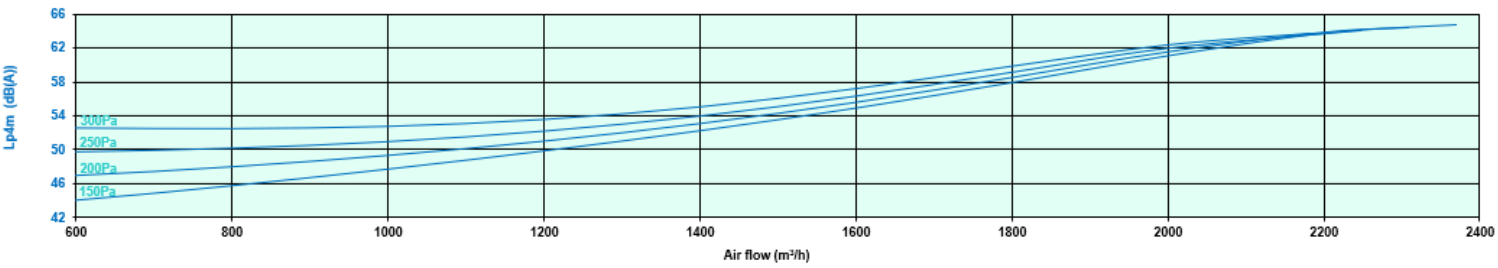












Hot water coil

BC for versions PREMIUM and INFINITE

Water temp. C°	Temp. C°	Air flow (m³/h)	600	1200	1600	2000	2400
90/70	11	Power (Kw)/Temp. Exit air (°C)	13,3 / 61	17,9 / 56	21,8 / 52	25,3 / 49	28,5 / 46
		Water flow (l/h)/DP water (kPa)	590 / 4	790 / 6	960 / 8	1110 / 11	1250 / 12
	15	Power (kW)/Temp. Exit air (°C)	12,5 / 62	16,8 / 57	20,5 / 53	23,8 / 51	26,7 / 48
		Water flow (l/h)/DP water (kPa)	550 / 4	740 / 7	900 / 7	1050 / 10	1180 / 11
80/60	11	Power (kW)/Temp. Exit air (°C)	11,2 / 53	15,1 / 49	18,3 / 45	21,2 / 43	23,8 / 41
		Water flow (l/h)/DP water (kPa)	490 / 3	660 / 6	810 / 6	930 / 8	1050 / 10
	15	Power (kW)/Temp. Exit air (°C)	10,4 / 54	14,0 / 50	17,0 / 47	19,7 / 44	22,1 / 43
		Water flow (l/h)/DP water (kPa)	460 / 5	610 / 5	750 / 7	860 / 7	970 / 9
60/50	11	Power (kW)/Temp. Exit air (°C)	8,4 / 42	11,3 / 39	13,9 / 37	16,1 / 35	18,1 / 34
		Water flow (l/h)/DP water (kPa)	740 / 7	990 / 9	1210 / 12	1400 / 16	1580 / 17
	15	Power (kW)/Temp. Exit air (°C)	7,6 / 44	10,3 / 41	12,5 / 38	14,5 / 37	16,3 / 35
		Water flow (l/h)/DP water (kPa)	670 / 6	900 / 8	1090 / 11	1270 / 13	1430 / 16
45/40	11	Power (kW)/Temp. Exit air (°C)	5,8 / 33	7,8 / 30	9,5 / 29	11,0 / 27	12,4 / 26
		Water flow (l/h)/DP water (kPa)	1008 / 7	1344 / 9	1652 / 12	1918 / 15	2142 / 19
	15	Power (kW)/Temp. Exit air (°C)	5,0 / 34	6,7 / 32	8,2 / 30	9,5 / 29	10,6 / 28
		Water flow (l/h)/DP water (kPa)	868 / 5	1162 / 7	1414 / 10	1638 / 12	1848 / 15

Electric coil

BE for versions SMART, PREMIUM and INFINITE

New air Air flow (m³/h)	0°C 2300	-5°C 2300	-10°C 2300	-15°C 2300	-15°C* 2300	0°C 2300	-5°C 2300	-10°C 2300	-10°C* 2300	-10°C 2300	-15°C 2300	-15°C* 2300
Version	FIRST-SEASON		SMART			PREMIUM BE037		PREMIUM BE067		INFINITE BE067		
			Defrost coil			Heat coil				Defrost and heat coil		
Power (kW)	-		6,75			3,75		6,75		6,75 + 6,75		
Temp. ERU exit (°C)	17,2	16,8	17,2	15,9	18,7	22,1	21,7	20,5	28,4	26,0	24,7	29,7

CBX 6 BF

Cooling water coil module and changeover

Water temp. (°C/°C)	I. entry	Air flow (m³/h)	600	1200	1600	2000	2400
7/12	32-40	Power. (kW)/T. air exit (°C-%HR)	6,7 / 14,4-87	9,1 / 15,8-84	11,2 / 16,8-81	13,0 / 17,6-79	14,7 / 18,3-78
		Water flow (l/h)/DP water (kPa)	1150 / 7	1560 / 10	1910 / 15	2230 / 20	2510 / 24
	27-50	Power (kW)/T. water air (°C-%HR)	5,1 / 13,7-91	6,9 / 14,8-88	8,4 / 15,6-86	9,8 / 16,2-84	11,0 / 16,7-83
		Water flow (l/h)/DP water (kPa)	880 / 5	1180 / 8	1440 / 11	1670 / 12	1880 / 15
	25-50	Power. (kW)/T. air exit (°C-%HR)	3,9 / 13,4-91	5,2 / 14,3-88	6,4 / 15-86	6,5 / 15,4-91	7,3 / 16-87
		Water flow (l/h)/DP water (kPa)	670 / 5	900 / 6	1090 / 8	1110 / 8	1250 / 8
6/11	32-40	Power. (kW)/T. air exit (°C-%HR)	7,2 / 13,7-87	9,8 / 15,1-83	12,1 / 16,2-81	14,1 / 17-79	15,9 / 17,7-77
		Water flow (l/h)/DP water (kPa)	1240 / 8	1680 / 12	2070 / 17	2410 / 23	2720 / 27
	27-50	Power. (kW)/T. air exit (°C-%HR)	5,7 / 12,9-90	7,6 / 14,1-88	9,3 / 14,9-86	10,9 / 15,6-84	12,2 / 16,1-83
		Water flow (l/h)/DP water (kPa)	970 / 7	1310 / 9	1600 / 11	1860 / 14	2090 / 18
	25-50	Power. (kW)/T. air exit (°C-%HR)	4,5 / 12,6-91	6,0 / 13,6-88	7,3 / 14,3-86	8,4 / 14,9-84	9,5 / 15,4-83
		Water flow (l/h)/DP water (kPa)	770 / 4	1030 / 7	1250 / 8	1450 / 11	1630 / 11
45/40	11	Power. (kW)/T. air exit (°C-%HR)	6,8 / 36	9,3 / 34	11,6 / 33	13,6 / 31	15,5 / 30
		Water flow (l/h)/DP water (kPa)	1176 / 4	1624 / 6	2016 / 9	2366 / 10	2688 / 13
	15	Power. (kW)/T. air exit (°C-%HR)	5,9 / 37	8,1 / 35	10,0 / 34	11,8 / 33	13,4 / 32
		Water flow (l/h)/DP water (kPa)	1022 / 5	1400 / 6	1736 / 7	2044 / 10	2324 / 10

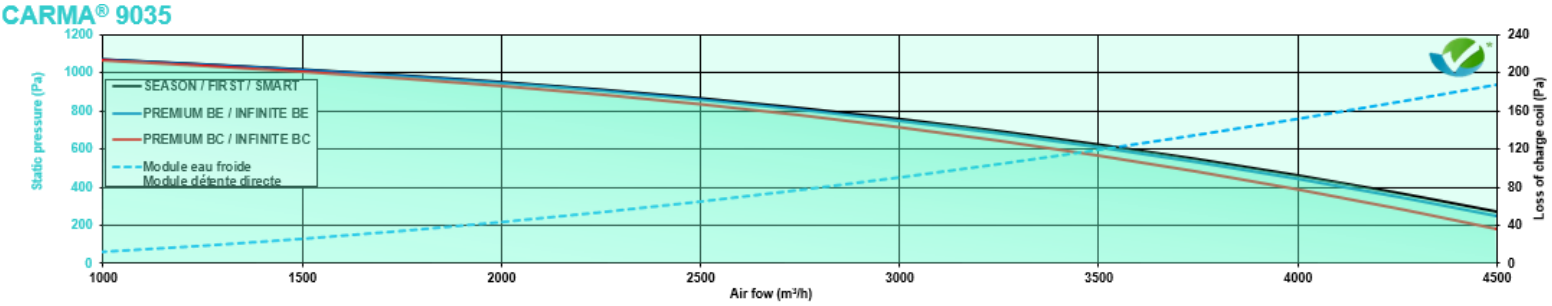
Flow rate (m3/h)

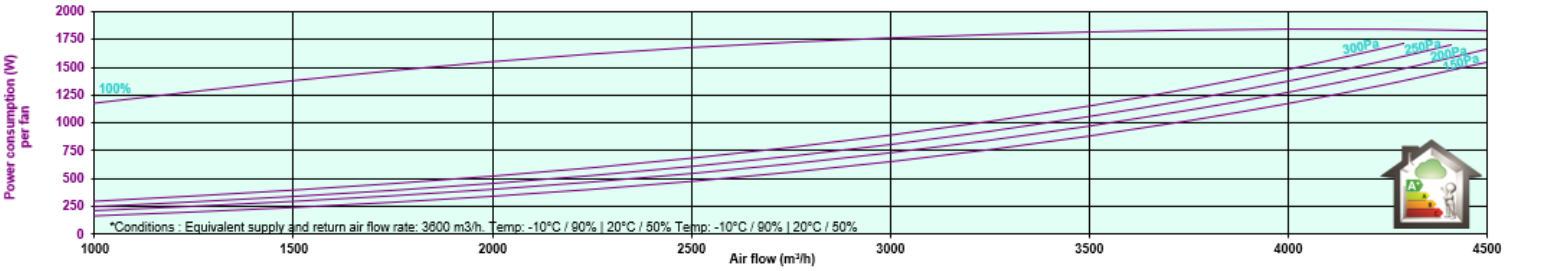
CBX 6 DX

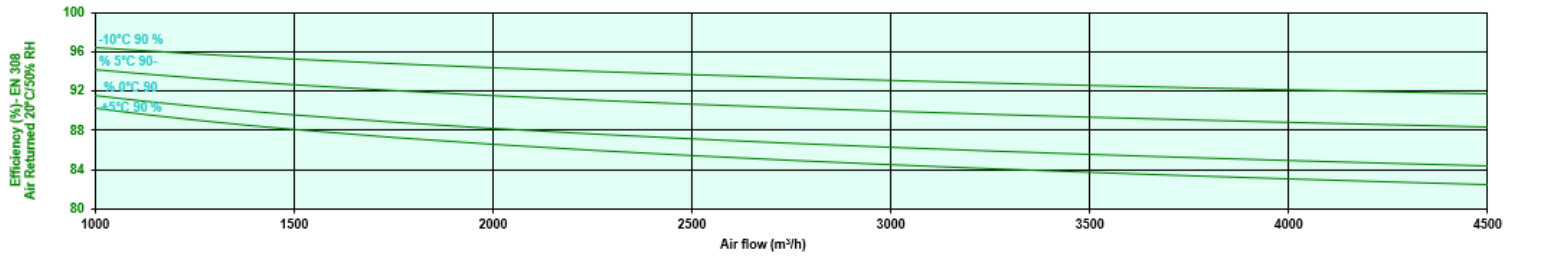
Reversible direct expansion coil module R410A

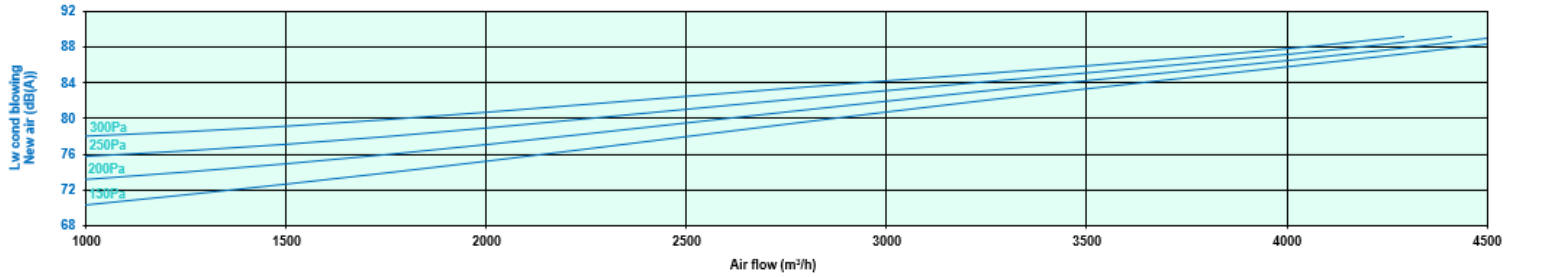
Temp. d'évap. (°C)	T. entry air	Air flow (m³/h)	600	1200	1600	2000	2400
7	32-40	Power (kW)	8,0	10,9	13,3	15,5	17,4
		T. air exit(°C-%HR)	11,9-93	13,3-90	14,4-88	15,4-86	16,1-85
	27-50	Power (kW)	6,4	8,7	10,7	12,3	13,8
		T. air exit(°C-%HR)	11,3-95	12,5-93	13,3-91	14,1-90	14,7-88
	25-50	Power (kW)	5,2	7,1	8,6	10,0	11,2
		T. air exit(°C-%HR)	11,0-95	12,0-93	12,7-91	13,4-90	13,9-89
5	32-40	Power (kW)	9,0	12,2	15,0	17,4	19,5
		T. air exit(°C-%HR)	10,3-93	11,9-90	13,2-88	14,2-86	15,1-84
	27-50	Power (kW)	7,4	10,1	12,3	14,4	16,0
		T. air exit(°C-%HR)	9,7-95	11,0-92	12,1-91	12,9-89	13,6-88
	25-50	Power (kW)	6,2	8,4	10,3	12,0	13,5
		T. air exit(°C-%HR)	9,4-95	10,5-93	11,4-91	12,2-90	12,8-88
40	11	Power (kW)	6,9	9,7	12,2	14,5	16,7
		T. air exit(°C-%HR)	36,6	35,1	33,8	32,7	31,7
	15	Power (kW)	5,9	8,3	10,5	12,5	14,3
		T. air exit(°C-%HR)	37	35,7	34,6	33,6	32,8

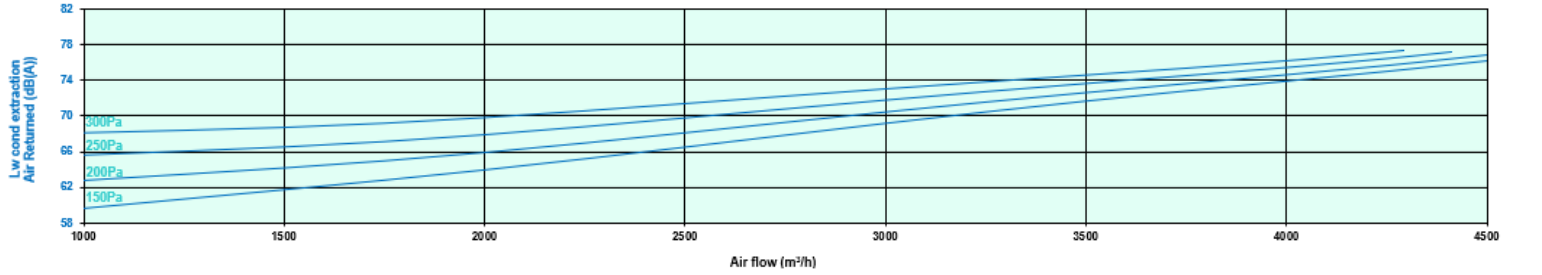
CARMA® 9035

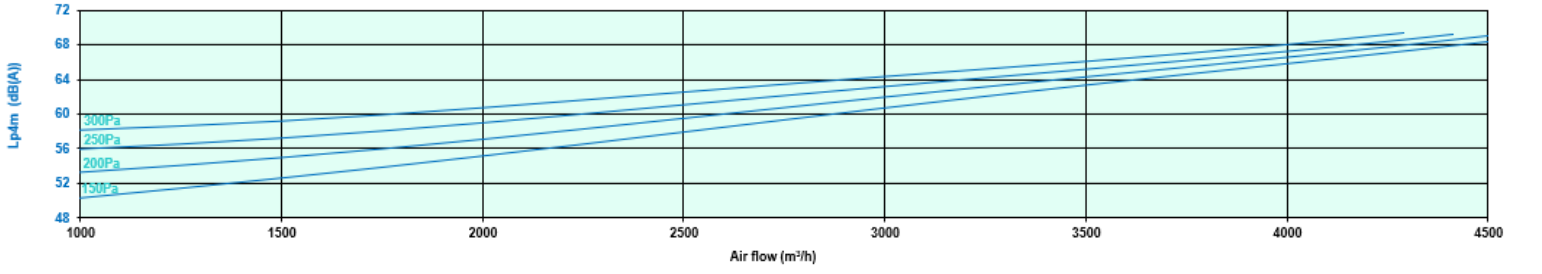












Flow rate (m3/h)

BC for versions PREMIUM and INFINITE

Hot water coil

Water temp °C	Temp. entrée d'air (°C)	Air flow (m³/h)	1500	2100	2700	3300	3900	4500
90/70	11	Power (kW)/T. exit air (°C)	23,2 / 57	29,4 / 53	34,8 / 50	39,6 / 47	44,0 / 45	48,0 / 43
		Water flow (l/h)/DP water (kPa)	1020 / 5	1290 / 6	1530 / 8	1750 / 8	1940 / 10	2110 / 11
	15	Power (kW)/T. exit air (°C)	21,8 / 58	27,6 / 54	32,6 / 51	37,2 / 49	41,2 / 47	45,0 / 45
		Water flow (l/h)/DP water (kPa)	960 / 5	1220 / 5	1440 / 7	1640 / 7	1820 / 9	1980 / 10
80/60	11	Power (kW)/T. exit air (°C)	19,5 / 50	24,7 / 46	29,2 / 43	33,2 / 41	36,8 / 39	40,1 / 38
		Water flow (l/h)/DP water (kPa)	860 / 4	1080 / 6	1280 / 6	1460 / 8	1620 / 7	1760 / 8
	15	Power (kW)/T. exit air (°C)	18,1 / 51	22,9 / 48	27,0 / 45	30,7 / 43	34,0 / 41	37,1 / 40
		Water flow (l/h)/DP water (kPa)	800 / 3	1000 / 5	1190 / 5	1350 / 7	1490 / 8	1630 / 7
60/50	11	Power (kW)/T. exit air (°C)	14,7 / 40	18,6 / 38	22,1 / 35	25,2 / 34	28,0 / 32	30,5 / 31
		Water flow (l/h)/DP water (kPa)	1280 / 6	1630 / 8	1930 / 10	2200 / 13	2440 / 16	2670 / 17
	15	Power (kW)/T. exit air (°C)	13,3 / 41	16,8 / 39	20,0 / 37	22,7 / 36	25,2 / 34	27,5 / 33
		Water flow (l/h)/DP water (kPa)	1160 / 5	1470 / 8	1740 / 9	1990 / 11	2210 / 13	2410 / 15
45/40	11	Power (kW)/T. exit air (°C)	10,1 / 31	12,8 / 29	15,1 / 28	17,2 / 27	19,1 / 26	20,8 / 25
		Water flow (l/h)/DP water (kPa)	1750 / 6	2212 / 7	2618 / 10	2982 / 13	3318 / 16	3626 / 18
	15	Power (kW)/T. exit air (°C)	8,7 / 32	11,0 / 31	13,0 / 29	14,8 / 28	16,4 / 28	17,9 / 27
		Water flow (l/h)/DP water (kPa)	1498 / 6	1904 / 7	2254 / 8	2562 / 10	2842 / 12	3108 / 14

CBX 7 BF

Cooling water coil module and changeover

Temp. Water (°C/°C)	T. entry air (°C-%HR)	Air flow (m³/h)	1500	2100	2700	3300	3900	4500
7/12	32-40	Power (kW)/T. air exit (°C-%HR)	13,8 / 13-92	17,9 / 14,1-89	21,6 / 14,9-87	25,0 / 15,6-86	28,0 / 16,2-84	30,9 / 16,7-83
		Water flow (l/h)/DP water (kPa)	2370 / 9	3070 / 12	3710 / 17	4280 / 20	4810 / 25	5300 / 29
	27-50	Power (kW)/T. air exit (°C-%HR)	10,6 / 12,5-94	13,7 / 13,4-92	16,5 / 14,1-91	18,9 / 14,6-89	21,2 / 15,1-88	23,3 / 15,5-87
		Water flow (l/h)/DP water (kPa)	1820 / 5	2350 / 9	2820 / 10	3250 / 13	3630 / 16	3990 / 18
	25-50	Power (kW)/T. air exit (°C-%HR)	8,2 / 12,4-94	10,5 / 13,1-92	12,6 / 13,7-91	14,4 / 14,2-90	16,1 / 14,6-89	17,6 / 14,9-88
		Water flow (l/h)/DP water (kPa)	1410 / 5	1800 / 5	2150 / 7	2470 / 9	2750 / 10	3010 / 11
6/11	32-40	Power (kW)/T. air exit (°C-%HR)	14,9 / 12,1-91	19,3 / 13,3-89	23,3 / 14,2-87	26,9 / 14,9-85	30,3 / 15,6-84	33,4 / 16,1-83
		Water flow (l/h)/DP water (kPa)	2550 / 10	3310 / 14	3990 / 18	4620 / 23	5190 / 28	5730 / 32
	27-50	Power (kW)/T. air exit (°C-%HR)	11,7 / 11,7-94	15,1 / 12,6-92	18,2 / 13,3-90	20,9 / 13,9-89	23,5 / 14,4-88	25,9 / 14,9-87
		Water flow (l/h)/DP water (kPa)	2000 / 6	2590 / 10	3110 / 12	3590 / 16	4030 / 18	4430 / 21
	25-50	Power (kW)/T. air exit (°C-%HR)	9,3 / 11,5-94	12,0 / 12,3-92	14,3 / 12,9-91	16,4 / 13,5-89	18,4 / 13,9-88	20,2 / 14,3-87
		Water flow (l/h)/DP water (kPa)	1590 / 4	2050 / 7	2450 / 9	2810 / 10	3150 / 12	3460 / 15
45/40	11	Power (kW)/T. air exit (°C-%HR)	13,7 / 38	18,1 / 37	22,1 / 35	25,7 / 34	29,1 / 33	32,2 / 32
		Water flow (l/h)/DP water (kPa)	2394 / 4	3150 / 7	3836 / 8	4466 / 11	5054 / 14	5600 / 15
	15	Power (kW)/T. air exit (°C-%HR)	11,9 / 39	15,7 / 37	19,1 / 36	22,2 / 35	25,1 / 34	27,8 / 34
		Water flow (l/h)/DP water (kPa)	2072 / 5	2730 / 5	3318 / 8	3864 / 8	4368 / 10	4830 / 13

CBX 7 DX

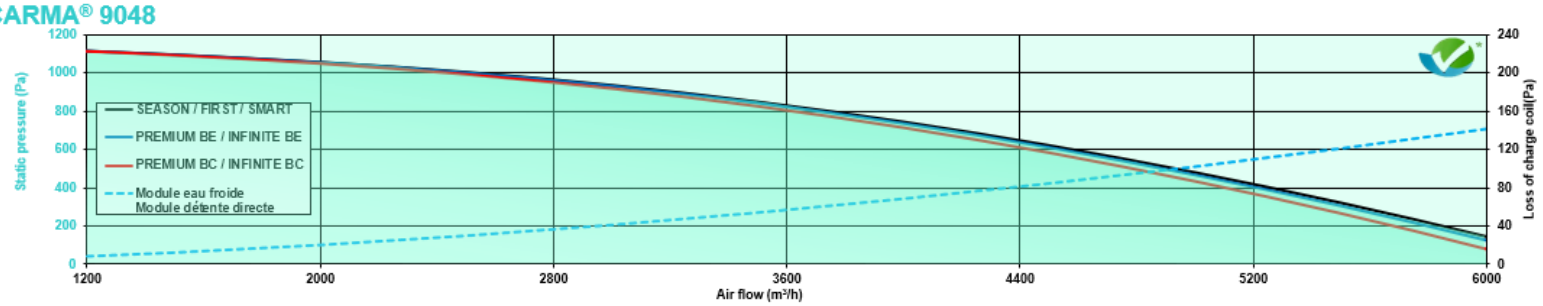
Reversible direct expansion coil module R410A

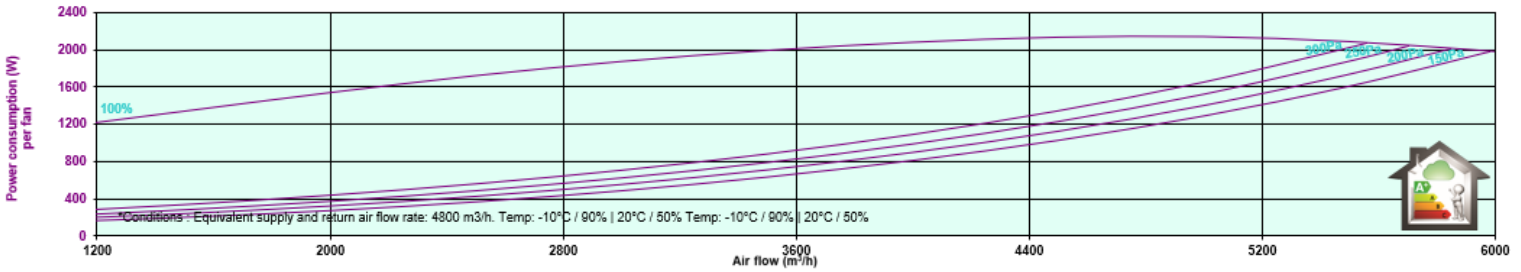
Temp. evap. (°C)	T. entry air	Air flow (m³/h)	1500	2100	2700	3300	3900	4500
7	32-40	Power (kW)	**14,3**	**18,3**	**21,6**	**24,6**	**27,1**	**29,4**
		T. exit air (°C-%HR)	12,6-91	13,9-89	14,9-87	15,8-85	16,5-84	17,1-83
	27-50	Power (kW)	**11,5**	**14,7**	**17,4**	**19,8**	**21,8**	**23,6**
		T. exit air (°C-%HR)	11,8-94	12,9-92	13,7-90	14,4-89	15,0-88	15,5-87
	25-50	Power (kW)	**9,4**	**12,0**	**14,1**	**16,1**	**17,8**	**19,3**
		T. exit air (°C-%HR)	11,4-94	12,3-92	13,0-91	13,6-89	14,1-88	14,5-87
5	32-40	Power (kW)	**16,1**	**20,5**	**24,3**	**27,5**	**30,4**	**32,8**
		T. exit air (°C-%HR)	11,1-91	12,6-89	13,8-87	14,8-85	15,6-84	16,3-82
	27-50	Power (kW)	**13,2**	**16,9**	**20,0**	**22,8**	**25,2**	**27,2**
		T. exit air (°C-%HR)	10,4-93	11,5-91	12,5-90	13,3-89	14,0-88	14,5-87
	25-50	Power (kW)	**11,2**	**14,2**	**16,8**	**19,1**	**21,2**	**23,0**
		T. exit air (°C-%HR)	9,9-94	10,9-92	11,8-90	12,5-89	13,0-88	13,5-87
40	11	Power (kW)	**12,5**	**16,5**	**20,1**	**23,5**	**26,6**	**29,5**
		T. exit air (°C)	35,9	34,5	33,3	32,2	31,4	30,6
	15	Power (kW)	**10,7**	**14,2**	**17,3**	**20,2**	**22,8**	**25,3**
		T. exit air (°C)	36,4	35,2	34,1	33,2	32,5	31,8

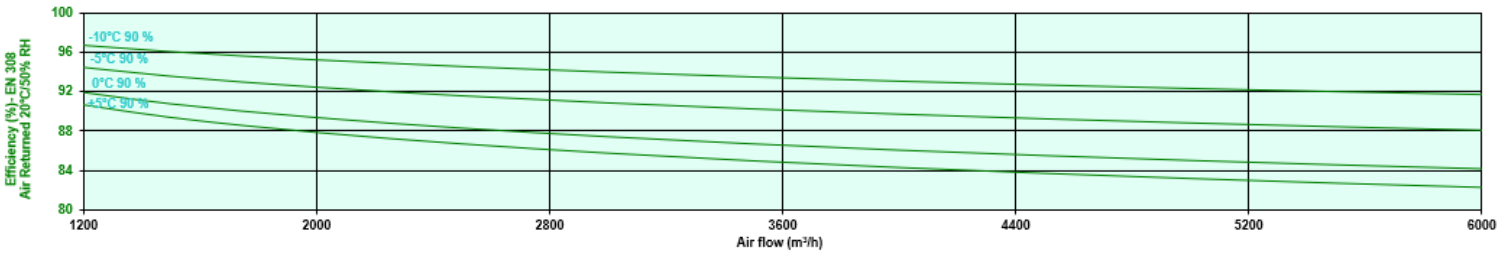
Flow rate (m3/h)

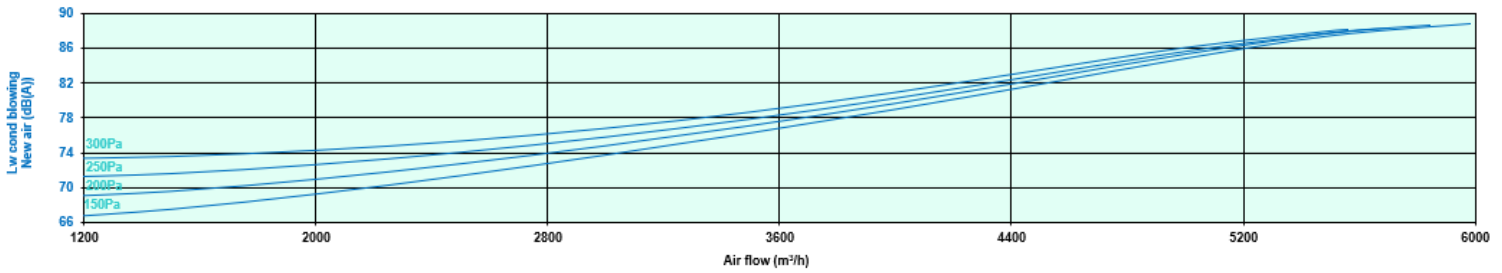
SELECTION CURVES CARMA®

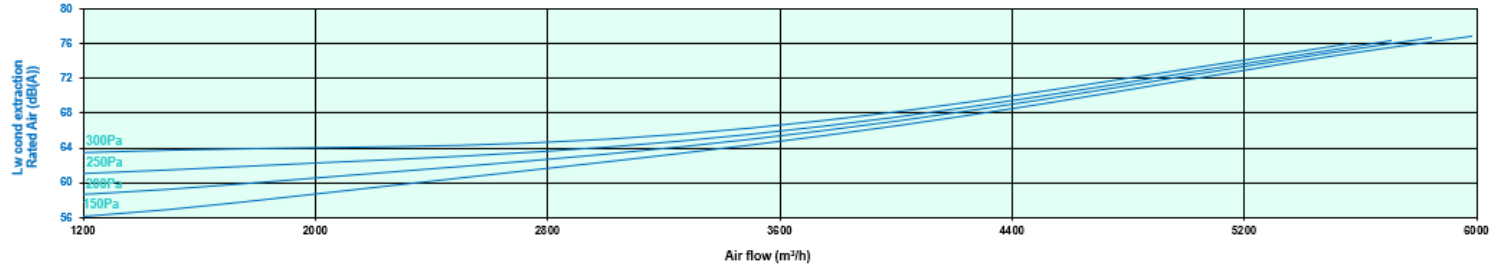
CARMA® 9048

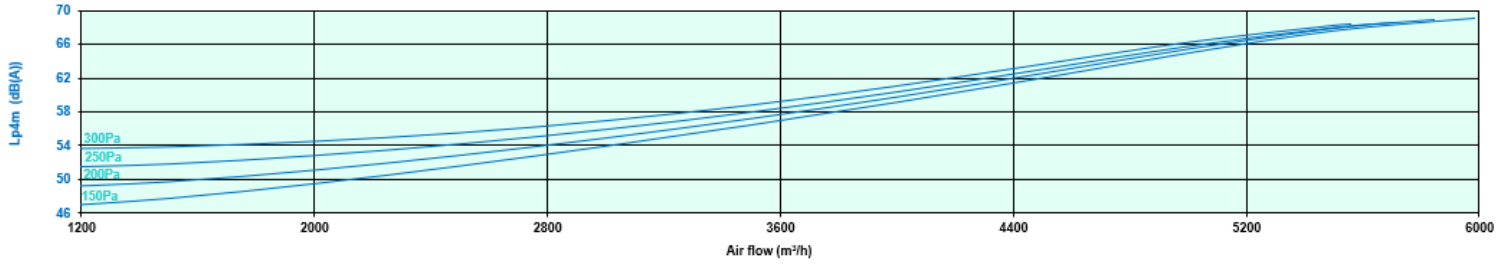












BC for versions PREMIUM et INFINITE — Hot water coil

Temp. Water	Temp. entry air (°C)	Air flow (m³/h)	2000	2800	3600	4400	5200	6000
90/70	11	Power (kW)/Temp. Air exit (°C)	32,3 / 59	41,3 / 55	49,1 / 52	56,2 / 49	62,6 / 47	68,4 / 45
		Water flow (l/h)/DP water(kPa)	1430 / 4	1820 / 4	2160 / 5	2470 / 6	2760 / 6	3020 / 7
	15	Power (kW)/Temp. Air exit (°C)	30,4 / 60	38,7 / 56	46,1 / 53	52,6 / 51	58,7 / 49	64,2 / 47
		Water flow (l/h)/DP water(kPa)	1340 / 4	1710 / 3	2030 / 4	2320 / 6	2590 / 7	2830 / 6
80/60	11	Power (kW)/Temp. Air exit (°C)	27,2 / 52	34,7 / 48	41,2 / 45	47,0 / 43	52,3 / 41	57,1 / 39
		Water flow (l/h)/DP water(kPa)	1200 / 3	1520 / 5	1810 / 4	2060 / 5	2300 / 6	2510 / 7
	15	Power (kW)/Temp. Air exit (°C)	25,3 / 53	32,1 / 49	38,1 / 47	43,5 / 45	48,4 / 43	52,9 / 41
		Water flow (l/h)/DP water(kPa)	1110 / 4	1410 / 4	1670 / 3	1910 / 4	2130 / 5	2320 / 6
60/50	11	Power (kW)/Temp. Air exit (°C)	20,5 / 42	26,2 / 39	31,2 / 37	35,7 / 35	39,8 / 34	43,5 / 33
		Water flow (l/h)/DP water(kPa)	1790 / 4	2290 / 6	2720 / 6	3120 / 8	3470 / 10	3800 / 12
	15	Power (kW)/Temp. Air exit (°C)	18,5 / 43	23,7 / 40	28,2 / 38	32,2 / 37	35,9 / 36	39,3 / 35
		Water flow (l/h)/DP water(kPa)	1620 / 3	2070 / 5	2460 / 7	2810 / 7	3130 / 8	3430 / 10
45/40	11	Power (kW)/Temp. Air exit (°C)	14,0 / 32	17,9 / 30	21,3 / 29	24,4 / 28	27,2 / 27	29,7 / 26
		Water flow (l/h)/DP water(kPa)	2436 / 4	3108 / 6	3696 / 6	4228 / 8	4718 / 10	5166 / 12
	15	Power (kW)/Temp. Air exit (°C)	12,1 / 33	15,4 / 31	18,3 / 30	20,9 / 29	23,3 / 28	25,4 / 28
		Water flow (l/h)/DP water(kPa)	2100 / 5	2674 / 4	3178 / 6	3626 / 8	4046 / 7	4424 / 9

BE for versions SMART, PREMIUM and INFINITE — Electric coil

New air Air flow (m³/h)	0°C 4800	-5°C 4800	-10°C 4800	-15°C 4800	-15°C* 4800	0°C 4800	-5°C 4800	-10°C 4800	-10°C* 4800	-10°C 4800	-15°C 4800	-15°C* 4800
Version	FIRST-SEASON		SMART			PREMIUM BE067		PREMIUM BE135		PREMIUM BE067	PREMIUM BE135	
			Defrost coil			Heat coil				Defrost and heat coil		
Power (kW)	-		18			6,75		13,5		18 + 6,75	18 + 13,5	
Temp. Exit ERU (°C)	17,0	16,4	17,0	16,4	18,4	21,2	20,6	20,3	27,8	21,2	25,6	28,9

CBX 8 BF — Cooling water coil module and changeover

Temp. water (°C/°C)	T. entry air (°C-%HR)	Air flow (m³/h)	2000	2800	3600	4400	5200	6000
7/12	32-40	Power(kW)/T.exit air(°C-%HR)	19,1 / 12,5-93	24,9 / 13,5-90	30,1 / 14,4-89	34,9 / 15-87	39,3 / 15,6-86	43,5 / 16,1-84
		Water flow (l/h)/DP water (kPa)	3270 / 7	4270 / 10	5160 / 13	5980 / 15	6740 / 19	7450 / 23
	27-50	Power(kW)/T.exit air(°C-%HR)	14,7 / 12,1-95	19,1 / 13-93	23,0 / 13,6-92	26,6 / 14,2-90	29,9 / 14,6-89	32,9 / 15,1-88
		Water flow (l/h)/DP water (kPa)	2520 / 6	3270 / 7	3940 / 10	4550 / 11	5120 / 13	5630 / 14
	25-50	Power(kW)/T.exit air(°C-%HR)	11,4 / 12-95	14,7 / 12,7-93	17,6 / 13,3-92	20,3 / 13,8-91	22,7 / 14,2-90	24,9 / 14,5-89
		Water flow (l/h)/DP water (kPa)	1960 / 4	2520 / 6	3020 / 6	3470 / 8	3890 / 9	4280 / 10
6/11	32-40	Power(kW)/T.exit air(°C-%HR)	20,5 / 11,6-93	26,8 / 12,7-90	32,4 / 13,6-88	37,6 / 14,3-87	42,4 / 14,9-85	46,9 / 15,5-84
		Water flow (l/h)/DP water (kPa)	3510 / 8	4590 / 11	5560 / 15	6450 / 18	7280 / 22	8050 / 26
	27-50	Power(kW)/T.exit air(°C-%HR)	16,1 / 11,2-95	21,0 / 12,1-93	25,3 / 12,8-91	29,3 / 13,4-90	33,0 / 13,9-89	36,4 / 14,4-88
		Water flow (l/h)/DP water (kPa)	2770 / 5	3590 / 8	4340 / 10	5020 / 13	5660 / 14	6240 / 17
	25-50	Power(kW)/T.exit air(°C-%HR)	12,9 / 11,1-95	16,7 / 11,9-93	20,0 / 12,5-92	23,1 / 13-90	25,9 / 13,5-89	28,5 / 13,8-88
		Water flow (l/h)/DP water (kPa)	2210 / 5	2850 / 5	3430 / 7	3950 / 10	4440 / 10	4880 / 12
45/40	11	Power(kW)/T.exit air(°C-%HR)	18,8 / 39	24,9 / 38	30,5 / 36	35,6 / 35	40,4 / 34	44,9 / 33
		Water flow (l/h)/DP water (kPa)	3262 / 5	4326 / 5	5292 / 8	6188 / 9	7028 / 11	7798 / 13
	15	Power(kW)/T.exit air(°C-%HR)	16,4 / 39	21,6 / 38	26,4 / 37	30,8 / 36	35,0 / 35	38,8 / 34
		Water flow (l/h)/DP water (kPa)	2842 / 4	3752 / 4	4592 / 6	5362 / 8	6076 / 8	6748 / 10

Flow rate (m3/h)

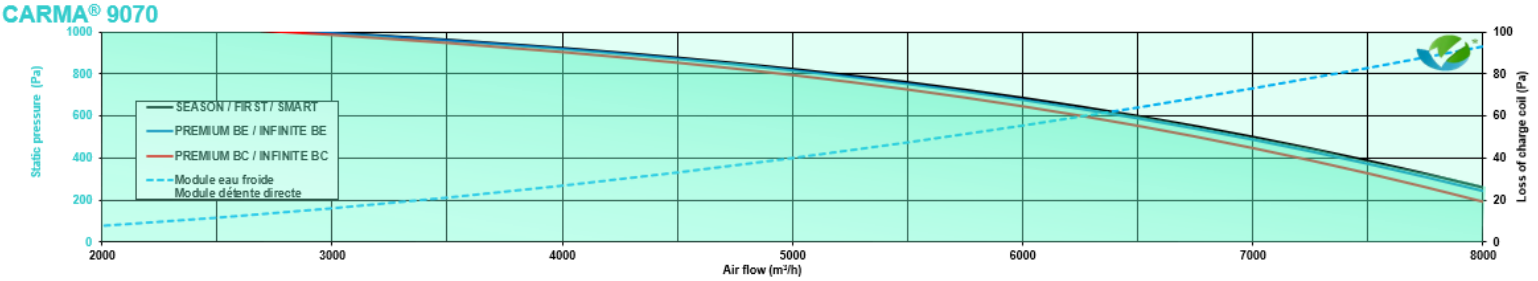
CBX 8 DX

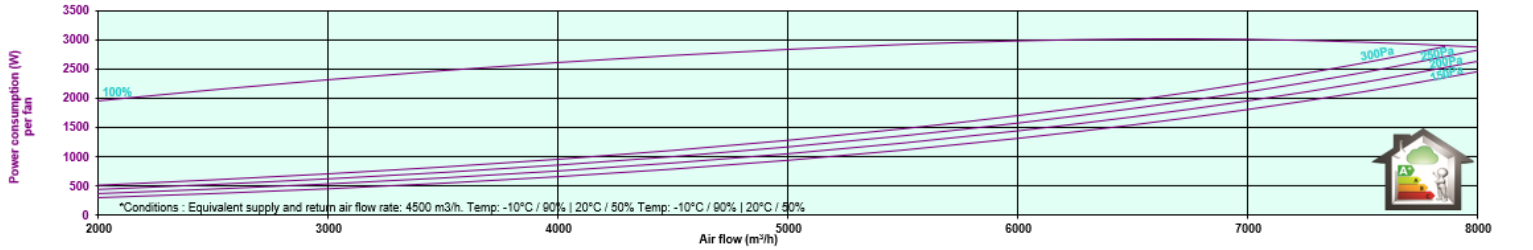
Reversible direct expansion coil module R410A

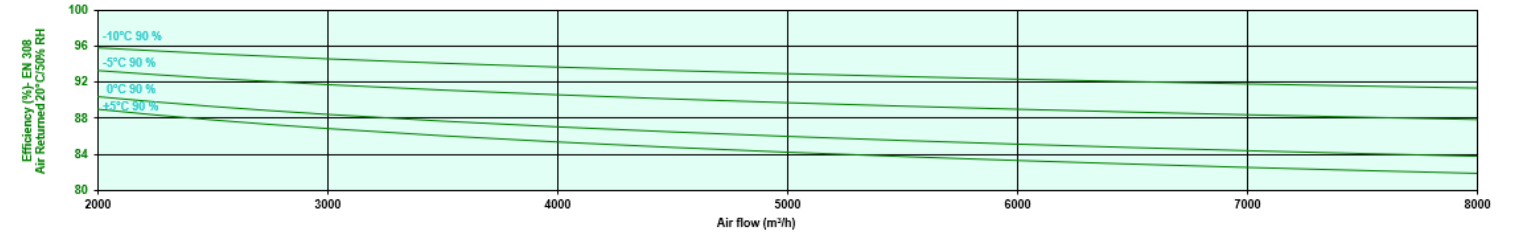
Temp. evap. (°C)	T. entry Air	Air flow (m³/h)	2000	2800	3600	4400	5200	6000
7	32-40	Power (kW)	19,9	25,6	30,4	34,6	38,3	41,5
		T. exit air (°C-%HR)	12,0-92	13,2-90	14,3-88	15,2-87	15,9-85	16,5-84
	27-50	Power (kW)	16,00	20,6	24,6	28,0	31,0	33,7
		T. exit air (°C-%HR)	11,3-94	12,3-93	13,1-91	13,8-90	14,4-89	14,9-88
	25-50	Power (kW)	13,2	16,9	20,2	23,0	25,5	27,8
		T. exit air (°C-%HR)	10,9-95	11,8-93	12,5-91	13,1-90	13,6-89	14,0-88
5	32-40	Power (kW)	22,2	28,5	33,9	38,6	42,7	46,1
		T. exit air (°C-%HR)	10,5-92	12,0-90	13,1-88	14,1-86	14,9-85	15,7-84
	27-50	Power (kW)	18,4	23,6	28,1	32,1	35,5	38,6
		T. air exit (°C-%HR)	9,8-94	10,9-92	11,9-91	12,7-90	13,4-89	14,0-88
	25-50	Power (kW)	15,5	20,0	23,8	27,2	30,2	32,8
		T. exit air (°C-%HR)	9,3-94	10,3-93	11,2-91	11,9-90	12,5-89	13,0-88
40	11	Power (kW)	17,1	22,7	27,8	32,6	37,0	41,2
		T. exit air (°C)	36,5	35,2	34,1	33,1	32,3	31,5
	15	Power (kW)	14,7	19,5	23,9	28,0	31,8	35,4
		T. exit air (°C)	36,9	35,8	34,8	34	33,2	32,6

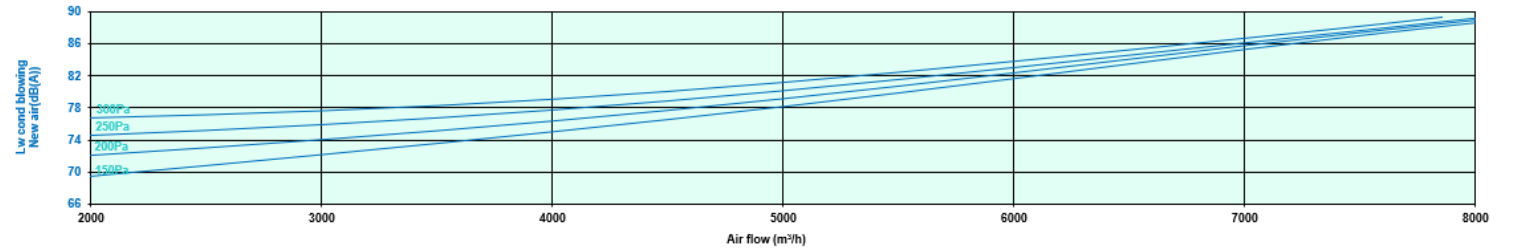
SELECTION CURVES CARMA®

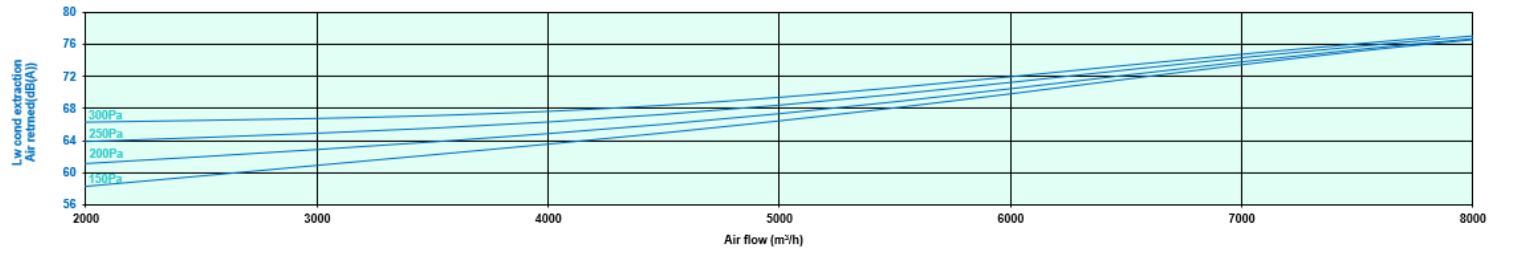
CARMA® 9070

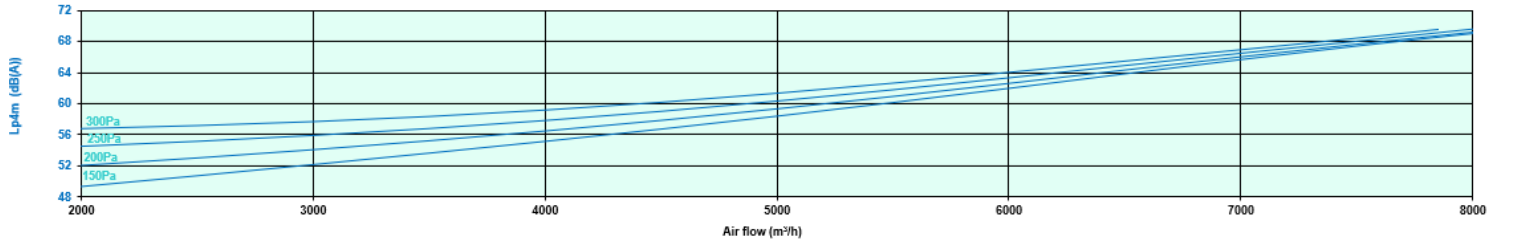












Flow rate (m3/h)

BC for versions PREMIUM and INFINITE

Hot water module

Temp. water (	Temp. entry air(°C)	Air flow (m³/h)	3000	4000	5000	6000	7000	8000
90/70	11	Power (kW)/Temp. Air exit (°C)	43,9 / 55	52,4 / 50	59,6 / 47	65,9 / 44	71,5 / 42	76,5 / 40
		Water flow (l/h)/DP water (kPa)	1940 / 10	2310 / 14	2630 / 18	2900 / 20	3150 / 23	3370 / 26
	15	Power (kW)/Temp. Air exit (°C)	41,3 / 56	49,3 / 52	56,0 / 49	61,9 / 46	67,1 / 44	71,8 / 42
		Water flow (l/h)/DP water (kPa)	1820 / 9	2170 / 13	2470 / 16	2730 / 17	2960 / 20	3160 / 23
80/60	11	Power (kW)/Temp. Air exit (°C)	37,2 / 48	44.3 / 44	50.4 / 41	55.6 / 39	60.3 / 37	64,5 / 35
		Water flow (l/h)/DP water (kPa)	1630 / 8	1950 / 11	2210 / 13	2440 / 16	2650 / 17	2830 / 19
	15	Power (kW)/Temp. Air exit (°C)	34,6 / 49	41,2 / 46	46,8 / 43	51,6 / 41	55,9 / 39	59,8 / 37
		Water flow (l/h)/DP water (kPa)	1520 / 8	1810 / 9	2050 / 12	2270 / 14	2460 / 16	2630 / 18
60/50	11	Power (kW)/Temp. Air exit (°C)	27,8 / 39	33,3 / 36	37,9 / 34	41,9 / 32	45,5 / 30	48,7 / 29
		Water flow (l/h)/DP water (kPa)	2430 / 16	2910 / 21	3310 / 27	3660 / 32	3970 / 37	4260 / 41
	15	Power (kW)/Temp. Air exit (°C)	25,2 / 40	30,1 / 38	34,3 / 36	37,9 / 34	41,2 / 33	44,1 / 31
		Water flow (l/h)/DP water (kPa)	2210 / 14	2630 / 19	3000 / 22	3320 / 27	3600 / 31	3850 / 35
45/40	11	Power (kW)/Temp. Air exit (°C)	19,2 / 30	22,9 / 28	26,0 / 27	28,8 / 25	31,2 / 24	33,4 / 24
		Water flow (l/h)/DP water (kPa)	3332 / 16	3976 / 21	4522 / 26	4998 / 32	5432 / 37	5810 / 40
	15	Power (kW)/Temp. Air exit (°C)	16,6 / 32	19,8 / 30	22,5 / 28	24,8 / 27	26,9 / 27	28,8 / 26
		Water flow (l/h)/DP water (kPa)	2870 / 13	3430 / 17	3906 / 20	4312 / 24	4676 / 28	5012 / 32

BE for versions SMART, PREMIUM and INFINITE

Electric coil

New air	0°C	-5°C	-10°C	-15°C	-15°C*	0°C	-5°C	-10°C	-10°C*	-10°C	-15°C	-15°C*
Air flow (m³/h)	7000	7000	7000	7000	7000	7000	7000	7000	7000	7000	7000	7000
Version	FIRST-SEASON		SMART			PREMIUM BE105		PREMIUM BE157		PREMIUM BE105	PREMIUM BE157	
			Defrost coil			Heat coil				Defrost and heat coil		
Power (kW)	-		24,75			10,5		15,75		24,75 + 10,5	24,75 + 15,75	
Temp. Exit ERU (°C)	16,9	16,3	16,9	16,3	18,3	21,4	20,8	18,8	25,5	21,4	23,8	26,7

CBX 9 BF

Cooling water coil module and changeover

Temp. water (°C/°C)	T. entry air (°C-%HR)	Air flow (m³/h)	3000	4000	5000	6000	7000	8000
7/12	32-40	Power (kW)/T. air exit(°C-%HR)	27,8 / 12,9-93	34,7 / 13,7-91	41,1 / 14,5-89	47,0 / 15,1-88	52,5 / 15,6-86	57,7 / 16,1-85
		Water flow (l/h)/DP water (kPa)	4760 / 5	5950 / 5	7050 / 7	8060 / 9	9000 / 11	9890 / 12
	27-50	Power (kW)/T. air exit(°C-%HR)	21,2 / 12,5-95	26,4 / 13,2-93	31,2 / 13,8-92	35,5 / 14,3-91	39,5 / 14,7-90	43,3 / 15,1-89
		Water flow (l/h)/DP water (kPa)	3640 / 4	4530 / 5	5350 / 6	6080 / 6	6770 / 7	7420 / 8
	25-50	Power (kW)/T. air exit(°C-%HR)	16,3 / 12,4-95	20,2 / 13-93	23,7 / 13,5-92	26,8 / 13,9-91	29,7 / 14,3-90	32,5 / 14,6-89
		Water flow (l/h)/DP water (kPa)	2790 / 3	3460 / 4	4060 / 4	4600 / 5	5100 / 6	5570 / 7
6/11	32-40	Power (kW)/T. air exit(°C-%HR)	29,8 / 12-92	37,5 / 12,9-90	44,4 / 13,7-89	50,8 / 14,3-87	56,8 / 14,9-86	62,4 / 15,4-85
		Water flow (l/h)/DP water (kPa)	5120 / 6	6420 / 6	7610 / 8	8710 / 11	9740 / 13	10700 / 14
	27-50	Power (kW)/T. air exit(°C-%HR)	23,4 / 11,6-95	29,2 / 12,4-93	34,5 / 13-92	39,4 / 13,5-91	43,9 / 14-90	48,1 / 14,4-89
		Water flow (l/h)/DP water (kPa)	4010 / 4	5000 / 5	5910 / 5	6750 / 7	7520 / 8	8250 / 10
	25-50	Power (kW)/T. air exit(°C-%HR)	18,5 / 11,4-95	23,0 / 12,1-93	27,0 / 12,7-92	30,7 / 13,1-91	34,2 / 13,5-90	37,4 / 13,9-89
		Water flow (l/h)/DP water (kPa)	3170 / 3	3930 / 5	4630 / 5	5270 / 6	5860 / 5	6410 / 6
45/40	11	Power (kW)/T. air exit(°C-%HR)	27,9 / 39	35,4 / 37	42,3 / 36	48,9 / 35	55,0 / 34	60,7 / 34
		Water flow (l/h)/DP water (kPa)	4844 / 4	6146 / 4	7364 / 5	8484 / 5	9548 / 6	10556 / 7
	15	Power (kW)/T. air exit(°C-%HR)	24,2 / 39	30,7 / 38	36,7 / 37	42,2 / 36	47,5 / 35	52.4 / 35
		Water flow (l/h)/DP water (kPa)	4200 / 3	5334 / 4	6370 / 4	7336 / 5	8246 / 5	9100 / 5

CBX 9 DX

Reversible direct expansion coil module R410A

Temp. evap. (°C)	T. entry air '	Air flow (m³/h)	3000	4000	5000	6000	7000	8000
7	32-40	Power. (Kw)	29,8	37,1	43,3	49,0	53,9	58,2
		T. exit air (°C-%HR)	12,0-92	13,0-90	14,0-89	14,7-87	15,4-86	16,0-85
	27-50	Power. (Kw)	24,1	30,0	35,1	39,6	43,6	47,4
		T. exit air (°C-%HR)	11,3-94	12,1-93	12,8-92	13,5-90	14,0-90	14,5-89
	25-50	Power. (kW)	19,8	24,6	28,7	32,5	35,9	39,0
		T. exit air (°C-%HR)	10,9-95	11,6-93	12,3-92	12,8-91	13,2-90	13,6-89
5	32-40	Power. (kW)	33,3	41,4	48,3	54,5	60,0	64,9
		T. exit air (°C-%HR)	10,5-92	11,7-90	12,8-88	13,6-87	14,4-86	15,1-85
	27-50	Power. (kW)	27,6	34,3	40,0	45,3	49,8	54,1
		T. exit air (°C-%HR)	9,8-94	10,7-92	11,6-91	12,3-90	13,0-89	13,5-88
	25-50	Power. (kW)	23,3	28,9	33,9	38,3	42,4	45,8
		T. exit air (°C-%HR)	9,3-94	10,2-93	10,9-91	11,6-90	12,1-89	12,6-89
40	11	Power. (kW)	25,5	32,6	39,1	45,2	51,0	56,4
		T. exit air (°C)	36,4	35,3	34,4	33,5	32,7	32,1
	15	Power. (kW)	22,0	28,0	33,6	38,9	43,8	48,4
		T. exit air (°C)	36,9	35,9	35,1	34,3	33,7	33,1

Flow rate (m3/h)

FITTED OPTIONS

CARMA™

• SECURITY AND CONTROL

PRESSOSTAT FOULING ref. DEP
Return air Filter (IP54)

MANOMETER WITH LIQUID J ref. MANO

SMOKS ALARM ref. CDAD
Cabinet (IP54)

• MODULATION FLOW

DEPORTED COMMAND ref. POT VF
Potentiometer only for SEASON (IP54)

COMMANDED OUTSTRIP COMFORT ref. CDC2V2
STOP /PV/GV 2 Ventilators CASE (IP54)

COMMANDED OUTSTRIP COMFORT ref. CDC PVGV2
PV/GV 2 Ventilators CASE (IP54)

PRESENCE DETECTOR ref. 360 TOR SA
ON/OFF or PV/GV(SEASON incompatible version)

BOX RELEASE ref. BD
TBTS 24 or 48Vcc
CASE (IP67)

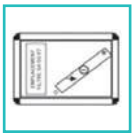
COMMANDED OUTSTRIP COMFORT ref. CDC1V2
ON/OFF
2 Ventilators CASE (IP54)

• CLIMATIC

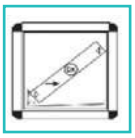
DUCT HUMIDITY SENSOR ref. HR 010 SG
Signal 0-10V (SEASON incompatible version)

THERMOSTAT REVERSER SUMMER/WINTER ref. CHANGEOVER PAD
For PREMIUM/INFINITE BC versions + CBX module cold water

COLD WATER MODULE ref. CBX BF
Version SEASON non compatible
Duct installation (see COMBIBOX CONCEPT™ documentation



COLD WATER MODULE ref. CBX FC
Module coupled to the central (See documentation COMBIBOX CONCEPT™ for descriptions).
SEASON versions not compatible size 9070

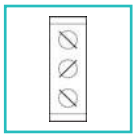


DIRECT EXPANSION MODULE R410A ref. CBX DX
Installation in girdle (see COMBIBOX CONCEPT™ documentation).
SEASON incompatible version

DIRECT EXPANSION MODULE R410A ref. CBX FX
Module coupled to the central (See documentation COMBIBOX CONCEPT™ for descriptions).
SEASON versions not compatible size 9070

DUCT HUMIDITY SENSOR ref. HR 010 SA
Signal 0-10V (SEASON incompatible version)

DEHUMIDIFYING MODULE ref. CBX --
Installation in girdle (see COMBIBOX CONCEPT™ documentation



REGISTER ref. RM
Frost protection.
Waterproof class 4

SERVOMOTOR ALL OR NOTHING ref. STOR 24 FROST
Led by regulation EASY (Except SEASON)

SOLENOID VALVE KIT ref. KEE IP54
PREMIUM versions / INFINITE PC
For outdoor installation.

• REGULATION

WALL CONTROL TOUCH ref. EDTOUCH
SEASON incompatible version.
Max 100 m

WALL CONTROL LCD ref. E3-DSP-CLD
SEASON incompatible version.
Max 100 m

REPEATER réf. REPEATER 1M
SEASON incompatible version.
To deport the standard wall command supplied with the power plant (tactile command not compatible ED-TOUCH) or to pilot with a command until 6 NEOTIME™

MULTIFUNCTION ZONE REGULATOR ref. WONDEROOM
To associate with the versions modulation of flow miss LOBBY™ (Constant pressure). Besides the management of the zone.
Regulator communicates with the power plan CARMA™ In particular

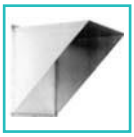
MONOFUNCTION ZONE REGULATOR ref. TOP SYSTEM
Zone regulator All or Nothing to associate with LOBBY™ modulation (constant pressure).

MONOFUNCTION ZONE REGULATOR ref. TOP DIVA
Zone regulator Modulating to associate with LOBBY™ modulation (constant pressure).

• INSTALLATION

FLEXIBLE SLEEVE ref. MTS M0
Circular except CARMA™ 9070 rectangular.
Fire classification: M0
Male diameters (supply) / Female (Central side)

SUPPORT FEET ref. PCB
Set of 4 (100 mm). For floor mounting. Frame included as standard for CARMA™ 9070.



CANOPY WIRE ref. AGC
Steel galvanized 10/10e.
Delivered flat ready to mount

1	2	3	4	5
CARMA®	9008	L - P - W - Y	SEASON	ECO
		D - E - F- G	FIRST	MAC
			SMART	DIVA
			PREMIUM BC / BE**xxx**	QUATTRO
			INFINITE BC / BE**xxx**	LOBBY

1: High efficiency, high performance self-regulating double flow unit

2: Unit size (examples):
9008 = Efficiency 90% at 800 m³/h
9035 : Efficiency 90% at 3500 m³/h

3: Unit configuration
L and P = horizontal installation (except 9048 and 9070),
W -Y = vertical installation (except 9070),
D - E - F - G = vertical installation (9070 only)

4 : Version centrale :
SEASON = Central without regulation, with flow adjustment potentiometer spleen. Bypass 100% summer / winter fashion All Or Nothing
FIRST = Central autoregulated without integrated battery
SMART = Central autoregulated equipped with electric defrost battery
PREMIUM BC = Unit with water-heated coil and associated regulation system
PREMIUM BExxx = Unit with electrically-heated coil and associated regulation system
INFINITE BC = Central with an electric defrost battery **AND** a water heating coil and associated regulation
INFINITE BExxx = Central with an electric defrost battery **AND** an electric heating coil and regulation associated

For BE versions, **xxx** relates to the desired power of the electrically-heated coil in accordance with the table of technical data (page 162):

BE 025 = 2,50 **Single-phase**
BE 037 = 3,75 **Single-phase**
BE 052 = 5,25 Three-phase
BE 067 = 6,75 Three-phase
BE 082 = 8,25 Three-phase
BE 105 = 10,5 Three-phase
BE 135 = 13,5 Three-phase
BE 157 = 15,75 Three-phase

(as the electrical power of the preheating coil is fixed by the size of the unit, this is not stipulated in the description)

5: Flow modulation
ECO = 1 or 2 air flow per fan
MAC = 1 or 2 constant air flow per fan
DIVA = proportional ventilation between 2 air flows per fan
QUATTRO = proportional ventilation between 2 constant air flows per fan
LOBBY = Constant pressure ventilation per fan

WARNING: the version, power and coil type of **CARMA™** units cannot be changed on site.
Example: a FIRST version cannot be changed to a PREMIUM version, etc.
A **CARMA™ 9035 L PREMIUM BE 067** cannot be changed to a **CARMA™ 9035 L PREMIUM BE 137** nor to a **CARMA™ 9035 L PREMIUM BC**.

CARMA™ 9070

AIR CONTROL SOLUTIONS®