Zehnder Carma™

Technical specification

always the best climate

Application

Self-regulating heat recovery unit, high efficiency and high performance for tertiary and industrial applications such as: offices, schools, day-care centers, shopping centers, catering facilities, multi-family housing, etc.

Monobloc communicating unit for outdoor, technical room or false ceiling mounting.

All internal components are factory mounted and programmed according to the chosen configuration. It's our PLUG&PLAY - SET& FORGET™ concept !

Aluminium counterflow heat exchanger with over 90% efficiency (EN308), compliant ErP Directive 2009/125/EC and with French regulation RE2020.

Air filtration and temperature management for optimal comfort and IAQ.

EUROVENT CERTIFIED PERFORMANCE
BLUETECH - N°21.03.72
www.eurovent-certification.com

Benefit for the user

- 7 different sizes with airflows ranging from 200 m³/h to 8 000 m³/h, so you can always choose the optimum unit size.
- 6 different mounting options, the Carma™ can then be configured for vertical or horizontal mounting, as well as false ceiling mounting.
- Optimal inside air quality thanks to possible dual filtration on fresh air (ePM1 55% [F7] + ePM10 50% [M5] or ePM1 80%[F9]). Included ePM10 50% [M5] filter for exhausted air.
- Silent operation is ensured by double-skinned panels with high-density thermal insulation (50 mm mineral wool). Thermal class T3 and airtightness class L1(M) in accordance with EN 1886.
- User interfaces installed as standard with remoting possibility. Flexible and easy connection to BMS with on-board communication protocols (Modbus, BACnet and Web)
- Eurovent (N°21.03.72) certified solution, compliant with the requirements of the ErP 2018 directive
- Structure in aluminium profile with thermal breaks using polyamide spacers built into the profile (class TB2 in accordance with EN1886).

Range

The Carma™ range is available in 7 sizes which cover airflows from 200 m³/h to 8 000 m³/h and in 5 versions :

FIRST : unit used for temperate climatic zones, with dynamic temperature management to optimize energy consumption and comfort.
SMART : unit equipped with an electric preheater for outdoor temperature compensation down to -10°C.
PREMIUM : unit equipped with a heating coil, either electric (BE) or hot water (BC).
INFINITE : unit equipped as standard with an electric preheater and a heater for outdoor temperatures down to -20°C.
SEASON : unit used for temperate climatic zones, designed for air renewal in buildings with energy recovery, summer/winter bypass function, airflow adjustment by potentiometer.

Airflow modulation

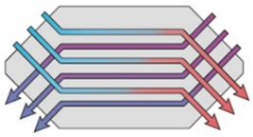
5 airflow modulation solutions with EASY 5.0 control ensure optimum energy consumption (RE 2020, EN 15232).

ECO : 2 speed settings (LS/HS) per fan.
MAC 2 : 2 constant airflows.
DIVA : proportional fan speed modulation on CO_2 levels.
QUATTRO : proportional airflow modulation on CO_2 levels.
LOBBY : constant pressure airflow modulation on each fan.

Counterflow heat exchanger

High efficiency counterflow aluminum plate heat exchanger.

Eurovent-certified in accordance with the AAHE program, efficiency over 90% (EN 308).



Automatic frost prevention via 100% self-regulating and modulating internal bypass (except SEASON, On/Off), via self-regulating electric preheater for SMART and INFINITE versions, and possible fresh airflow modulation (included controller option).

Constitution

The Carma™ range features the aluminium profile Eurovent certified AIRMUST™ model boxes (L1(M)/D1/T3/TB2/F9) in accordance with EN1886.

- 10/10th double-skin panels and 50 mm of M0 (A2-S1) high-density 60 kg/m3 mineral wool insulation.
- Exterior panels in RAL 9007 coated steel with protective film and interior in galvanized steel.
- Unit fitted as standard with dual seal round spigot on intake and outlet panels to guarantee network sealing. Complaint with French CSTB ATEx n°13-224-V2).
- Crimped feet integrated into the structure for floor mounting (9008 to 9070) or false ceiling mounting (9008 to 9035).
- EASY 5.0 technical cabinet (electrical components and control components), accessible via a hinged lockable door with front panel fitted with IP65 LCD display, lockable main power cut-off switch, power cable pass-through and potentiometer.
- 100% internal bypass, self-regulating and modulating, except SEASON which is equipped with thermostat for summer/winter by-pass management and with on/off switch.

Filters

As standard, the Carma™ unit features factory-mounted filters that ensure an optimal indoor air quality.

Fresh Air

ePM1 filter 55% [F7] + optional double filtration stage (ePM10 50% [M5] or ePM1 80% [F9])

Extracted Air

ePM10 filter 50% [M5]

Filters are always mounted on slides for easy replacement, and ahead for components protection.

Fan motor

DC motor with high-efficiency electronic commutation (EC), thermal protection and integrated speed control. EC technology is an eco-friendly™ solution which brings low energy consumption and allows operating point monitoring, managing and controlling (airflow modulation from 10 to 100%). Low noise level for greater acoustic comfort.

Equipment and functions

The FIRST SMART, PREMIUM and INFINITE versions are supplied as standard with an EASY 5.0 control system, communicating via MODBUS, BACNET or WEB (choice of language can be activated on site). It includes a PG 5.0 touchscreen control (IP54 protection class) for simple and direct access to parameters and functions.

EASY 5.0 can be optionally fitted with an USER room remote touch control EDT2, featuring a user interface and display for the main functions (temperature control, restart, fault...) (remote control up to 100 m).

- Internal timers for scheduled operation with 2 different airflows, programmable as required on site.
- Weekly and vacation schedule.
- Fresh air filter pressure switch with error feedback on the touchscreen control (dry contact relay for SEASON).
- Airflow pressure switch for each fan, with error feedback on the touchscreen control (dry contact relay for SEASON).
- Lockable main power cut-off switch and power cable pass-through integrated near the extracted air duct.

100% internal bypass, equipped with automatically controlled servomotors by the integrated control system, providing FREE-COOLING, FREE-HEATING and NIGHT-COOLING functions. For the SEASON version, the 100% bypass provides summer/winter management in On/Off mode via integrated thermostats.

- **FREE COOLING** : in summer, when the outdoor temperature is lower than the set indoor temperature, the bypass opens progressively until it is fully open. In this way, fresh air is supplied to the building, bypassing the heat exchanger. If this function is not sufficient to reach the set temperature, the optional cooling coil is activated.
- **FREE HEATING** : mainly in the off-season, when the outdoor temperature is higher than the set inside temperature, the bypass opens gradually until it is fully open and warm fresh air can be supplied to the building. If this function is not sufficient to reach the set temperature, the optional heating coil is activated.
- **NIGHT COOLING** : the Night Cooling function lowers the building's indoor temperature according to the weather conditions of the last 24 hours. For example, between midnight and 7 a.m. (adjustable time range), the Night Cooling function is activated if the outdoor temperature has exceeded 22°C (adjustable value) during the day (between 6 a.m. and 10 p.m.). The Night Cooling function is activated if the outdoor temperature is between 10 and 18°C (adjustable value) and the extract air temperature is above 18°C (adjustable value).

4 temperature control modes to guarantee optimal energy consumption (RT2012, EN15232).

- **Constant supply air temperature** : Keeps the supply temperature at the setpoint.
- **Supply air temperature adjustable according to outdoor temperatures** : Outdoor conditions considered.
- **Constant extract air temperature** : Extract temperature management acting in cascade on the supply temperature.
- **Extracted air temperature adjustable according to outdoor temperatures** : Outdoor conditions considered.

Fire safety function (except SEASON) to control supply and extract fans according to 5 available modes in the control parameters (function can be activated on site). A pictogram of a fire alarm is displayed on the screen:

- **Stop** : Complete unit shutdown.
- **Continue** : Continuous start-up or operation of the unit without taking time schedules into account.
- **Under normal start/stop conditions** : Maintains the unit according to the schedule and parameters set on site.
- **Supply only** : Start or maintain supply air fan (extract at stop).
- **Extract only :** Start or maintain extract air fan (supply at stop).

Moreover, the Carma™ features an "External Stop" digital input that enables a manually operated control (to be connected on site). In this case, the external control takes priority over any fire safety activated by one of the 5 modes above.

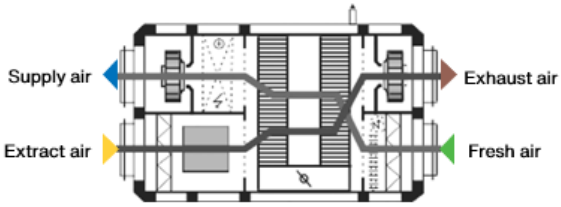
Various configuration and installation

HORIZONTAL MOUNTING SIDE BY SIDE FLOWS

View from above

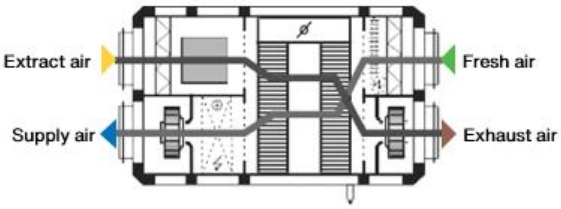
Configuration L

Carma 9008-9035



Configuration P

Carma 9008-9035

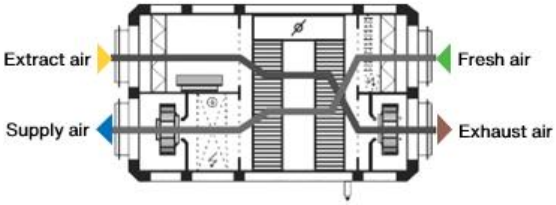


VERTICAL MOUNTING SUPERPOSED FLOWS

View from access side

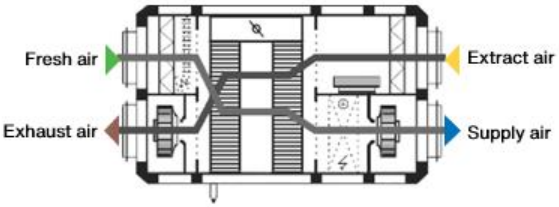
Configuration W

Carma 9008-9048



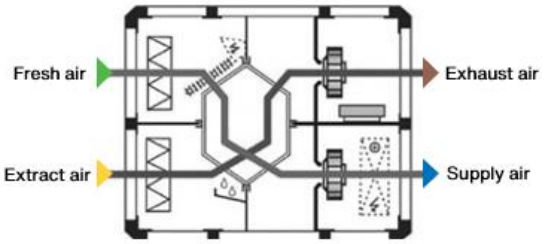
Configuration Y

Carma 9008-9048



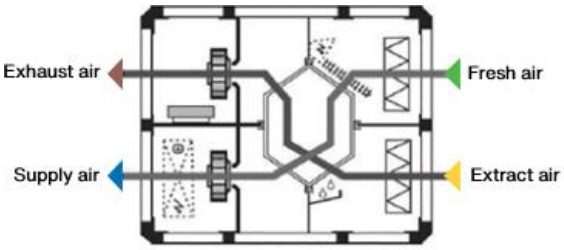
Configuration G

Carma 9070



Configuration D

Carma 9070



Configuration W-Y

Configuration G-D

Configuration L-P

The Carma™ is available in vertical or horizontal configuration except for sizes 9048 and 9070. The Carma™ can be installed inside or outside thanks to a rainproof roof fitted as standard, and even in false ceilings (9008 to 9035).

Climatic version

The Carma™ features finishes to ensure optimal climatic comfort (except SEASON). These features are managed automatically by the "EASY 5.0" control system. The sensors needed to regulate the coils and fans built into the unit are factory-mounted, wired and tested to make the Carma™ a true PLUG&PLAY - SET& FORGET™ unit:

- Temperature sensors (x4) integrated into the unit: supply, extract, frost prevention by bypass, outdoor temperature and, for SMART and INFINITE versions, a sensor for the electric preheater.
- Integrated anti-frost thermostat (THA) to protect the hot coil on PREMIUM/INFINITE CO. versions.
- Integrated overheating safety thermostat (THS) with manual reset to protect preheater and heating coils on SMART, PREMIUM BE, INFINITE BE and INFINITE CO versions.

The "EASY 5.0" control can manage the CBX-BF and CBX-DX external modules:

- Cold water module (CBX-BF) on all versions and changeover possible on FIRST and SMART versions.
- CBX-DX R410A direct expansion module.

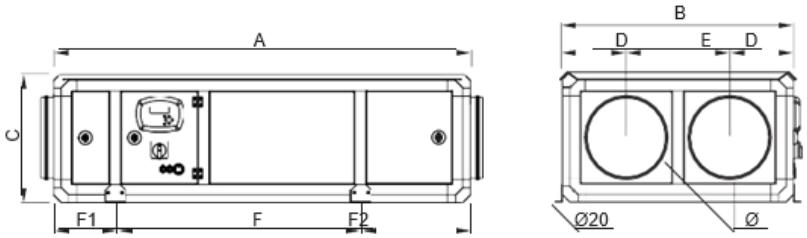
Unit versions with different coils

Zehnder Carma	Integrated coil (S)			External module	
	Preheating	Heating		Cooling	
	Electric	Electric	Water	Water	R410A
FIRST	-	-	-	CBX-BF	CBX-DX
SMART	■	-	-	CBX-BF	CBX-DX
PREMIUM BC	-	-	■	CBX-BF	CBX-DX
PREMIUM BE	-	■	-	CBX-BF	CBX-DX
INFINITE BC	■	-	■	CBX-BF	CBX-DX
INFINITE BE	■	■	-	CBX-BF	CBX-DX

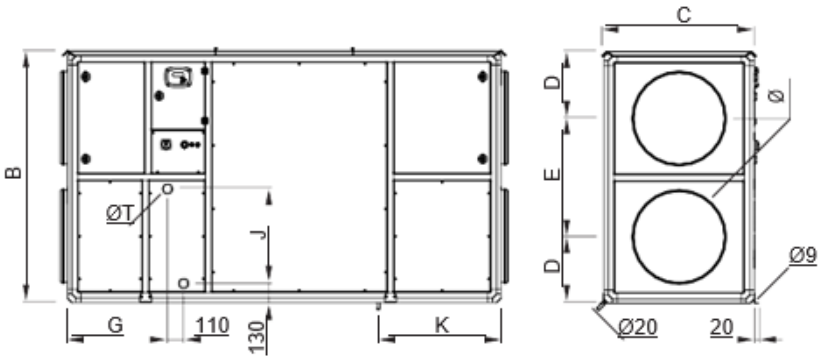
Dimensions characteristics

Zehnder Carma	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	Dimensions on drawing (see below)												1"	895	900	915	930	945

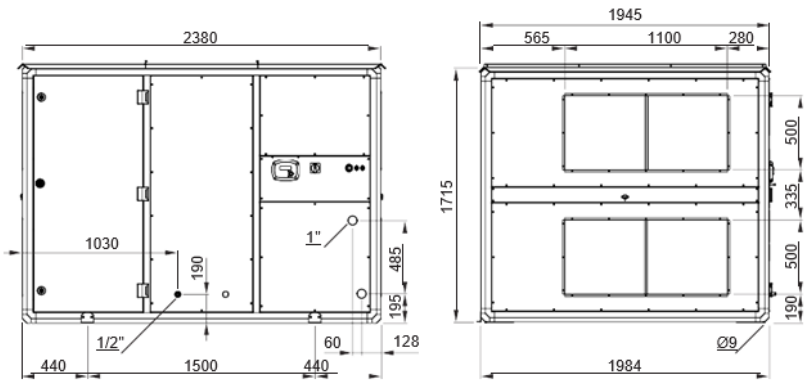
Configuration L-P



Configuration W-Y



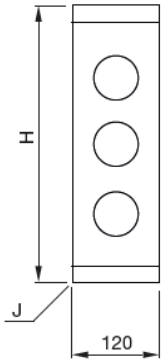
Configuration G-D



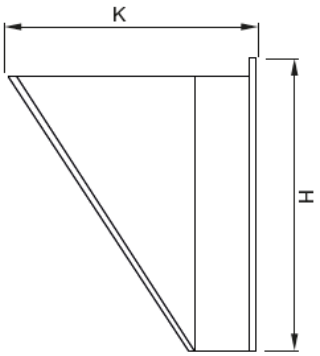
Connection accessories

Zehnder Carma	Weather protection hood Weight kg	K mm	H mm	J mm	Multi-leaf dampers 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

Multi-leaf dampers



Weather protection hood



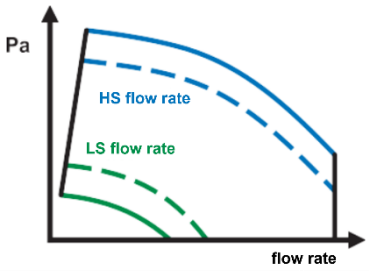
Electrical characteristics

					FIRST, PREMIUM BC, SEASON		INFINITE BC, SMART		PREMIUM BE			INFINITE BE		
Zehnder Carma	Motor fan Power (W)	Operation temp. (°C / °C)	IP Motor fan /Class	Thermal protection *	Voltage (V/Ph/Hz)	Protection intensity (A)	Voltage (V/Ph/Hz)	Protection intensity (A)	Voltage (V/Ph/Hz)	Version (POH el.)	Protection intensity (A)	Voltage (V/Ph/Hz)	Version (POH el.)	Protection intensity (A)
9008	2 x 220	-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	2 x 480	-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	2 x 480	-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	2 x 700	-20 / 40	IP54/B	PTI	230/1/50	6,0	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	2 x 2500	-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	2 x 1950	-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	16,0 25,8	400/3+N/50	BE 067 BE 137	42,0 51,8
9070	2 x 2730	-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

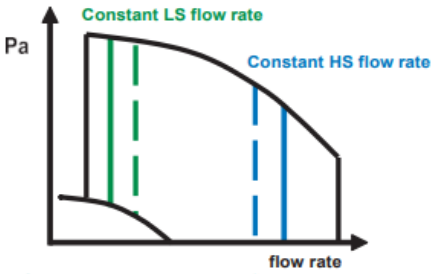
Airflow modulation

The Zehnder Carma™ unit is equipped as standard with a factory-programmable control, which allows you to configure the following operating modes:

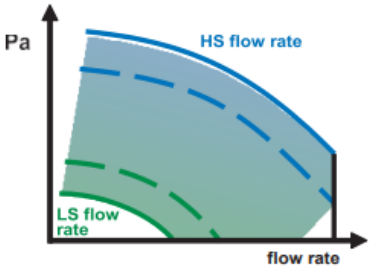
ECO : 2 speed settings (LS/HS) per fan.



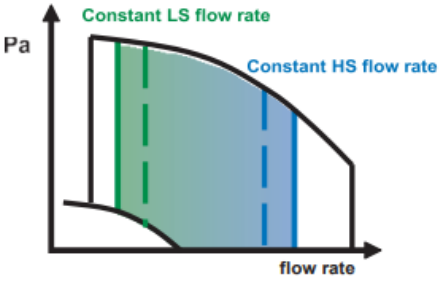
MAC 2 : 2 constant airflows.



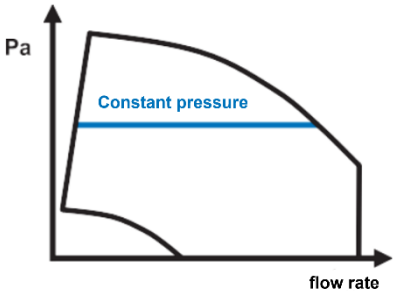
DIVA : proportional fan speed modulation on CO2 levels.



QUATTRO : proportional airflow modulation on CO2 levels.



LOBBY : constant pressure airflow modulation on each fan.



EASY 5.0 : MASTER touchscreen control close to the Carma™ power switch, which can be remote-controlled on the wall (second screen optional) to set clocks, airflows, setpoint temperatures, self-regulating internal bypass, night-cooling, fault(s) control and reading...

EDT2 : USER room remote touch control, temperature setpoint offset, 120 min restart, or information display (fan speed and status, operating mode, external forcing, temperature setpoint, and alarms).

General characteristics

Equipment	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
Low energy consumption EC motor fans	●	●	●	●	●	●	●
Fresh air filter, ePM1 55 % (F7)	●	●	●	●	●	●	●
Extract air filter, ePM10 50 % (M5)	●	●	●	●	●	●	●
High-efficiency (>90%) counterflow plate heat exchanger, EUROVENT-certified	●	●	●	●	●	●	●
100% internal by-pass	●	●	●	●	●	●	●
50 mm double skin, RAL9007	●	●	●	●	●	●	●
Dual seal round spigot (ATEC CSTB number 13-224-V2).	●	●	●	●	●	●	●
Communicative control via Modbus in RS485 or TCP/IP, BACnet IP, WEB TCP/IP (selectable)	-	●	●	●	●	●	●
Speed regulation potentiometer	●	-	-	-	-	-	-
Supply air temperature sensor	-	●	●	●	●	●	●
Extract air temperature sensor	-	●	●	●	●	●	●
By-pass frost prevention temperature sensor	●	●	●	●	●	●	●
Outdoor temperature sensor	●	●	●	●	●	●	●
Preheater temperature sensor	-	-	●	-	-	●	●
Water coil anti-frost thermostat (THA)	-	-	-	-	●	-	●
Electric preheater over-heating thermostat	-	-	●	-	-	●	●
Electric heater over-heating thermostat	-	-	-	●	-	●	-
Lockable main power cut-off switch	●	●	●	●	●	●	●
Power cable pass-through	●	●	●	●	●	●	●

● : Equipment or function as standard
■ : Equipment or function as an option. Supplied mounted and wired at the factory
◆ : Equipment or function as an option. Supplied unmounted

General characteristics

Functions	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
By-pass frost prevention	●	-	-	-	-	-	-
Frost prevention sequence : by-pass + coils (SMART/INFINITE) + fresh air modulation	-	●	●	●	●	●	●
Self-regulating electric preheater	-	-	●	-	-	●	●
Self-regulating electric heater	-	-	-	●	-	●	-
Self-regulating hot water coil	-	-	-	-	●	-	●
100% internal bypass, "all or nothing", automatic summer/winter mode management	●	-	-	-	-	-	-
100% internal bypass, self-regulating and modulating (0-100%)	-	●	●	●	●	●	●
Free Cooling management	-	●	●	●	●	●	●
Night Cooling management	-	●	●	●	●	●	●
Fan overheating prevention	●	●	●	●	●	●	●
Supply air temperature management	-	●	●	●	●	●	●
Extract air temperature management	-	●	●	●	●	●	●
Weekly schedule	-	●	●	●	●	●	●
Holidays and vacation schedule	●	●	●	●	●	●	●
Fresh air filter pressure switch	●	●	●	●	●	●	●
Airflow pressure switch (supply + extract)	-	●	●	●	●	●	●

● : Equipment or function as standard
■ : Equipment or function as an option. Supplied mounted and wired at the factory
◆ : Equipment or function as an option. Supplied unmounted

General characteristics

Airflow modulation options	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
ECO : 2 speed settings (LS/HS) per fan	-	■	■	■	■	■	■
MAC 2 : 2 constant airflow per fan. Integrated pressure sensor	-	■	■	■	■	■	■
DIVA : proportional modulation for each fan speeds	-	■	■	■	■	■	■
QUATTRO : proportional airflow modulation on CO2 levels	-	■	■	■	■	■	■
LOBBY : constant-pressure airflow modulation for each fan	-	■	■	■	■	■	■

Further options	SEASON	FIRST	SMART	PREMIUM BE	PREMIUM BC	INFINITE BE	INFINITE BC
Summer / Winter thermostat	-	◆	◆	◆	◆	◆	◆
USER room remote touch control (EDT2)	-	◆	◆	◆	◆	◆	◆
Room temperature management via touchscreen room controller	-	◆	◆	◆	◆	◆	◆

● : Equipment or function as standard
■ : Equipment or function as an option. Supplied mounted and wired at the factory
◆ : Equipment or function as an option. Supplied unmounted

Softwair.fr™
CALADAIR MATRIX SOLUTION

The information provided in this documentation are general information for the Carma™ range. All technical performances refer to the nominal airflow of each size. Therefore, it is recommended for your projects to dimension your units using the Softwair selection software, with Eurovent EN1886 certified results.

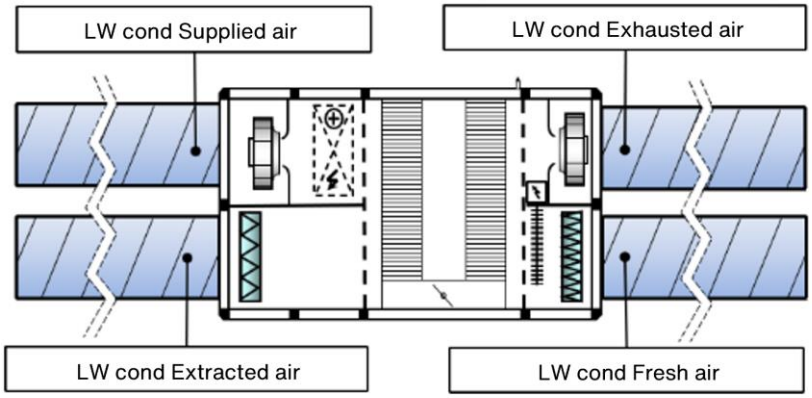
Acoustic characteristics

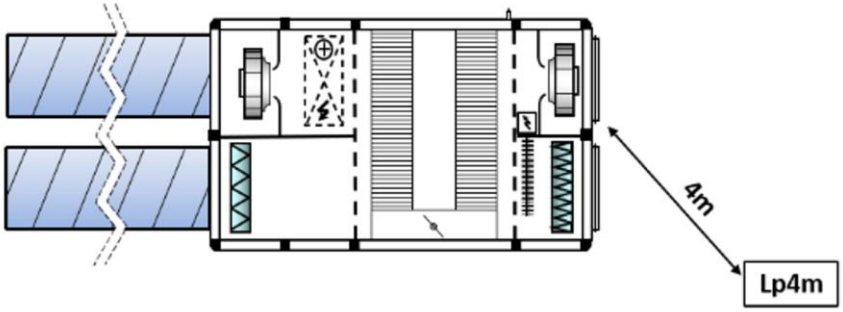
The Lp4m dB(A) curves correspond to the sound pressure level at 4m in a hemispherical open field on a reflecting plan, with the "fresh air" and "exhaust air" sides unconnected, and the "supply air" and " extract air" sides connected.

To obtain the global sound pressure level Lp dB(A), at a certain distance, add the values below to Lp4m.

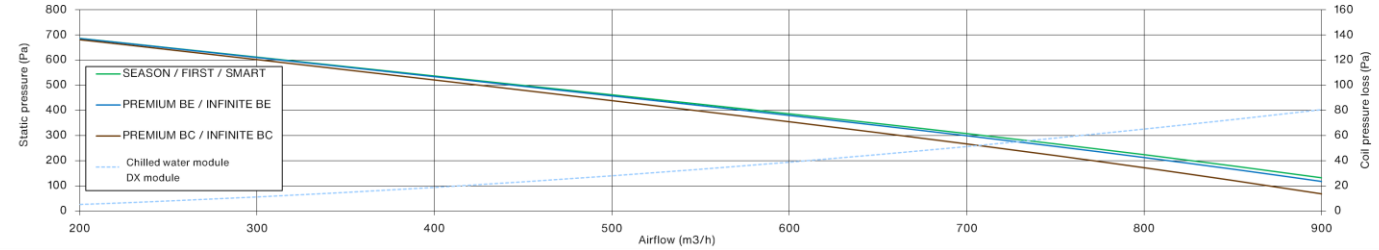
Distance (m)	1,5	3	4	5	7	10
Weighting dB(A)	9	3	0	-2	-5	-8

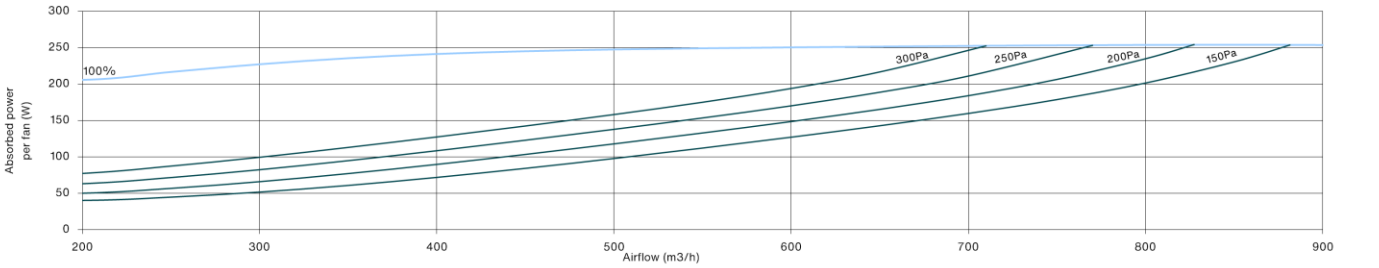
Tolerance : global value +/- 3 dB(A)
acoustic spectrum +/- 5 dB(A)

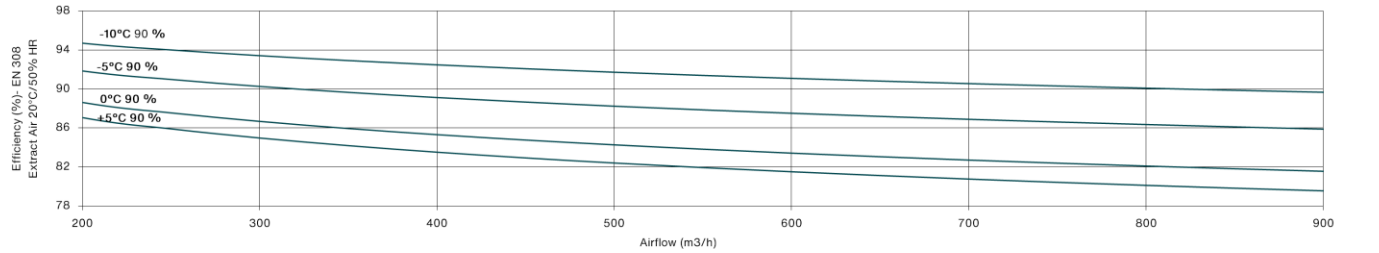


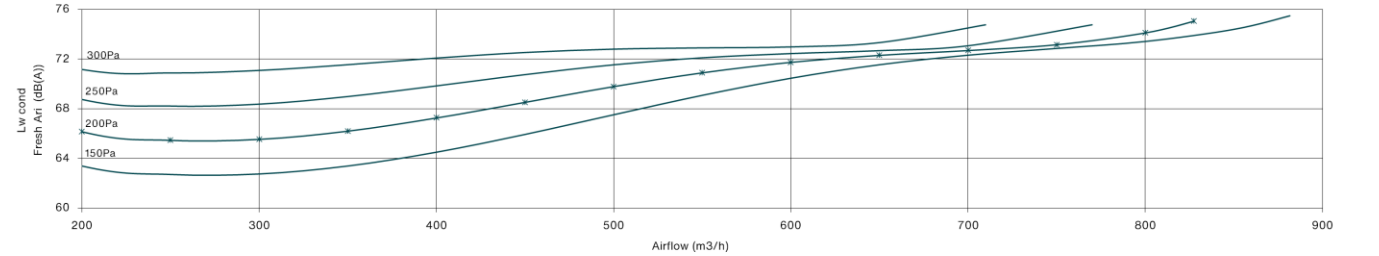


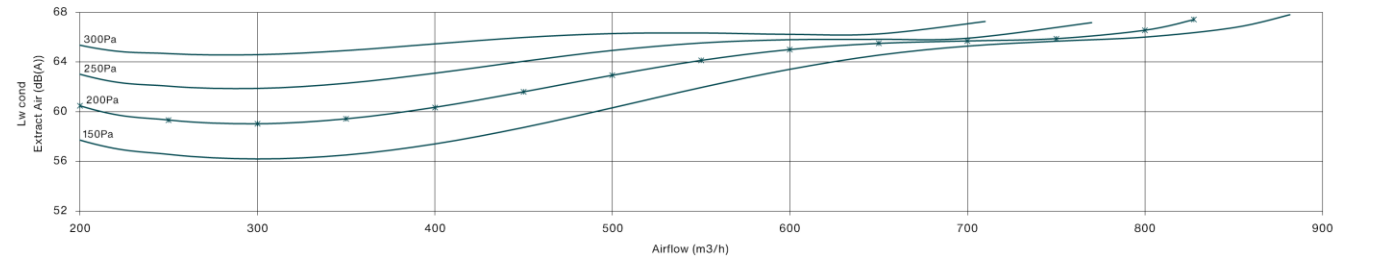
Selection curves Zehnder Carma™ 9008

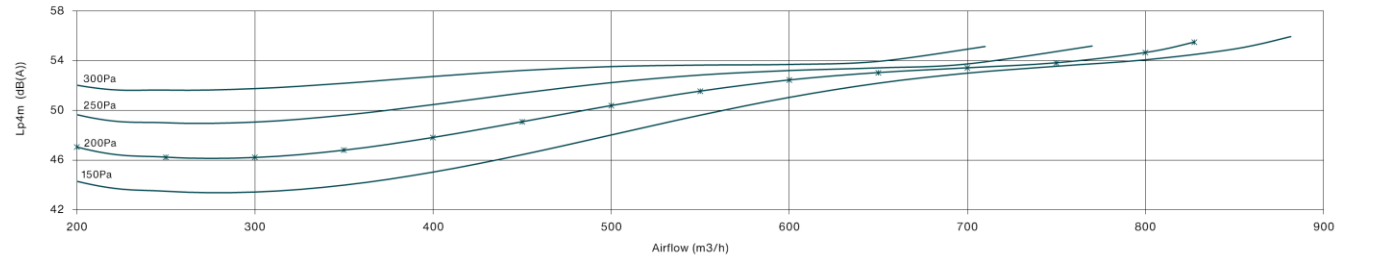












Hot water coil performance characteristics Zehnder Carma™ 9008

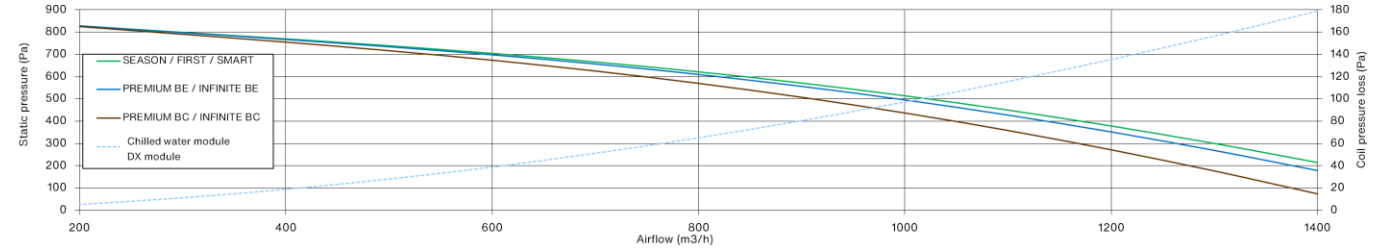
BC for PREMIUM and INFINITE version								Hot water coil
Water Temp. °C / °C	Air entry Temp. °C	Airflow m3/h	300	400	500	600	700	800
90/70	11	Power (kW) / Supply air (°C)	4,9 / 60	6,0 / 56	7,1 / 53	8,0 / 51	8,8 / 49	9,6 / 47
		Waterflow (l/h) / Water DP (kPa)	220 / 5	270 / 5	310 / 6	350 / 8	390 / 9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

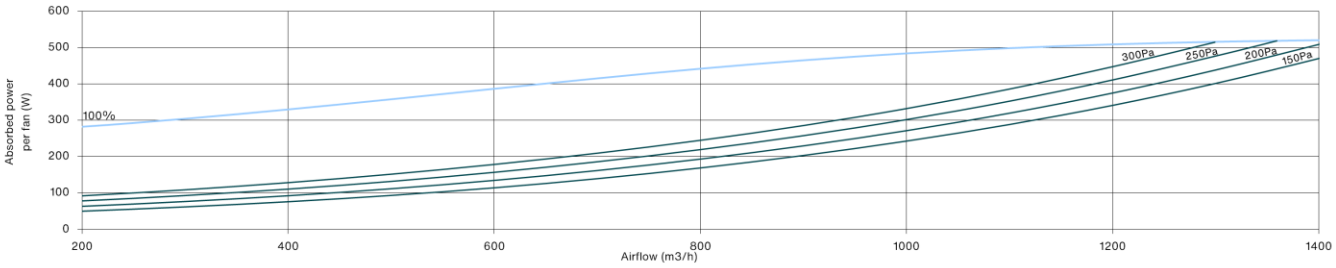
Electric coil performance characteristics Zehnder Carma™ 9008

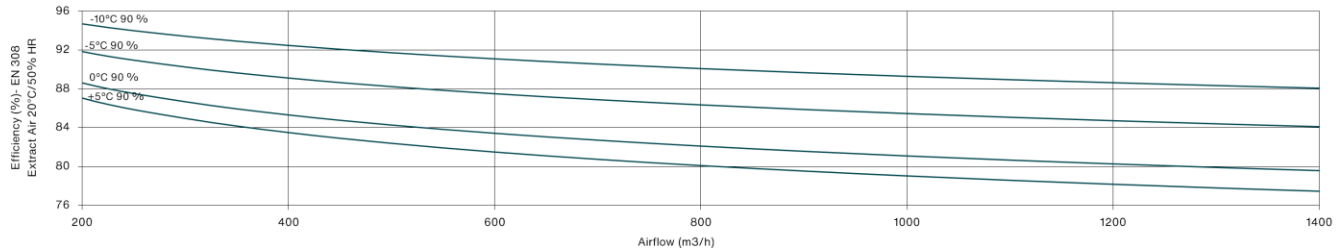
BE for unit version												Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*
(m^3/h)	800		800			800				800		
Version	FIRST, SEASON		SMART Preheater coil			PREMIUM BE Heater coil				INFINITE BE Preheater + heater coil		
Power (kW)	-		2,5			2,5				2,5 + 2,5		
Outlet temperature (°C)	16,4	15,8	16,4	15,8	17,9	25,8	25,2	26,4	29,2	25,8	25,2	29,6

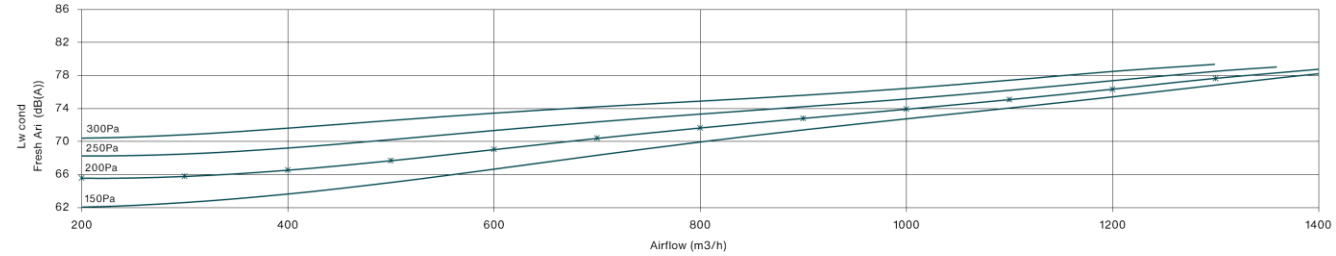
These data are provided for optimal control configuration according to the outdoor temperatures in question. Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

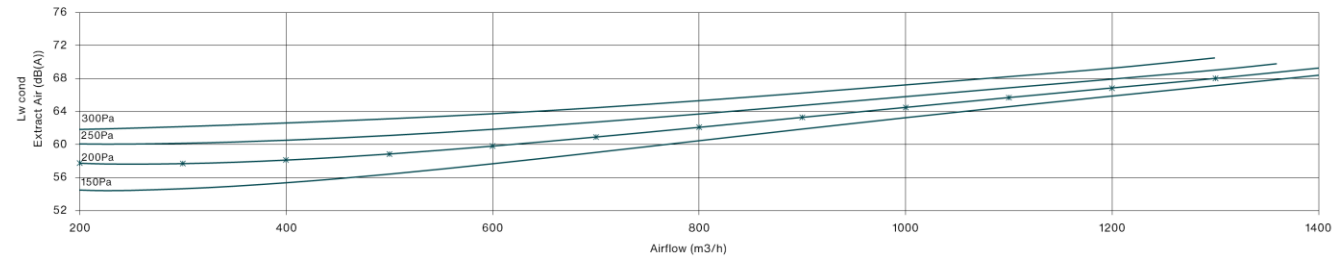
Selection curves Zehnder Carma™ 9010

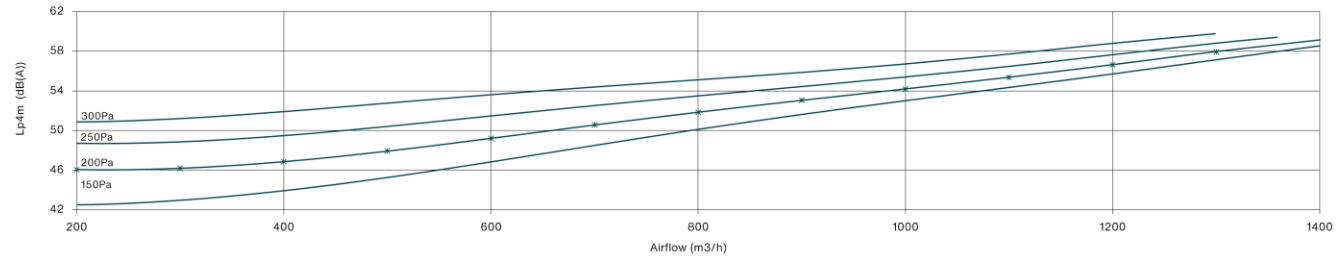












Hot water coil performance characteristics Zehnder Carma™ 9010

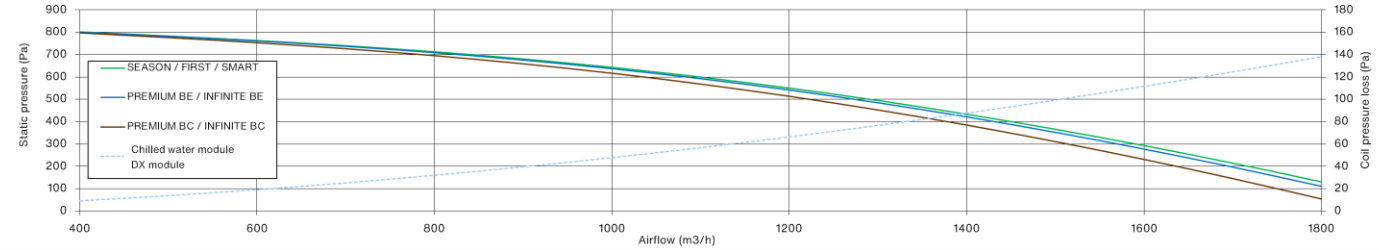
BC for PREMIUM and INFINITE version								Hot water coil
Water Temp. °C / °C	Air entry Temp. °C	Airflow m3/h	400	600	800	1000	1200	1400
90/70	11	Power (kW) / Supply air (°C)	6,0 / 56	8,0 / 51	9,6 / 47	11,1 / 44	12,4 / 42	13,5 / 40
		Waterflow (l/h) / Water DP (kPa)	270 / 5	350 / 8	420 / 11	490 / 12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

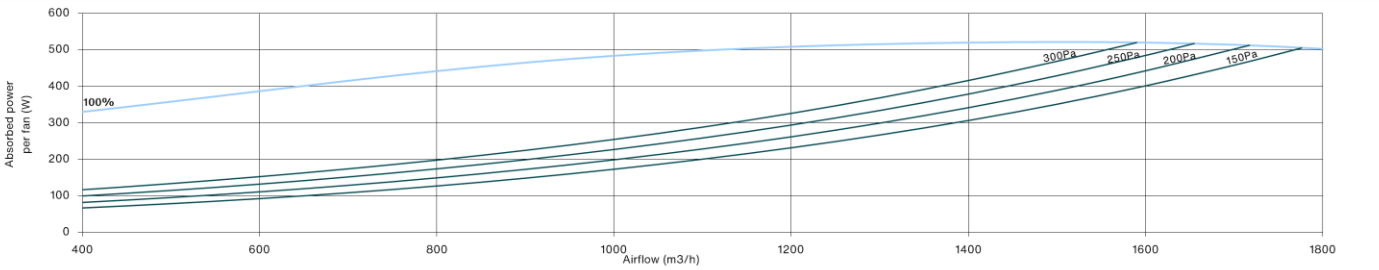
Electric coil performance characteristics Zehnder Carma™ 9010

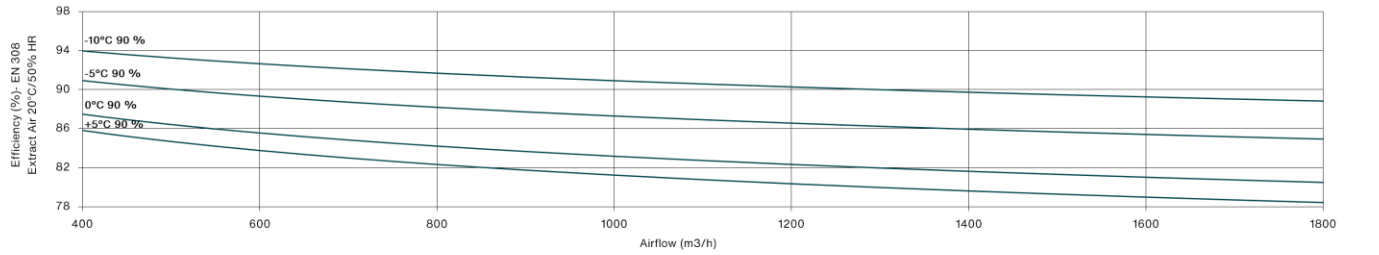
BE for unit version												Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*
(m^3/h)	980		980			980				980		
Version	FIRST, SEASON		SMART Preheater coil			PREMIUM BE Heater coil				INFINITE BE Preheater + heater coil		
Power (kW)	-		3,75			2,5				3,75 + 2,5		
Outlet temperature (°C)	16,2	15,6	16,3	15,7	17,6	23,9	23,3	19,5	26,9	24	23,4	27,2

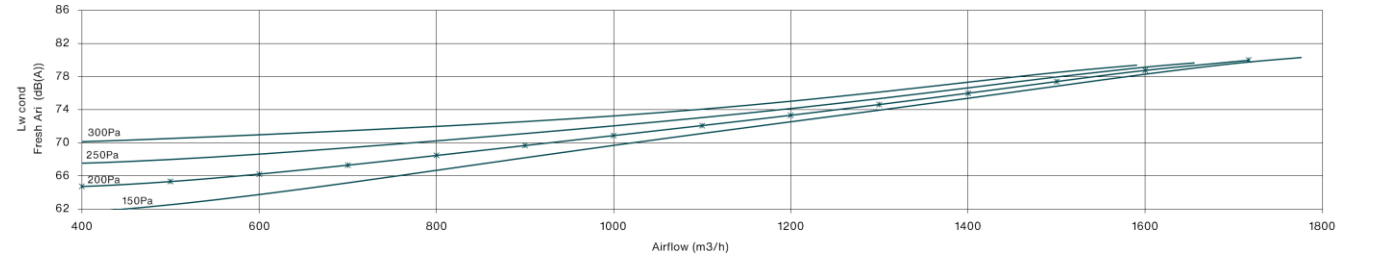
These data are provided for optimal control configuration according to the outdoor temperatures in question.
Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

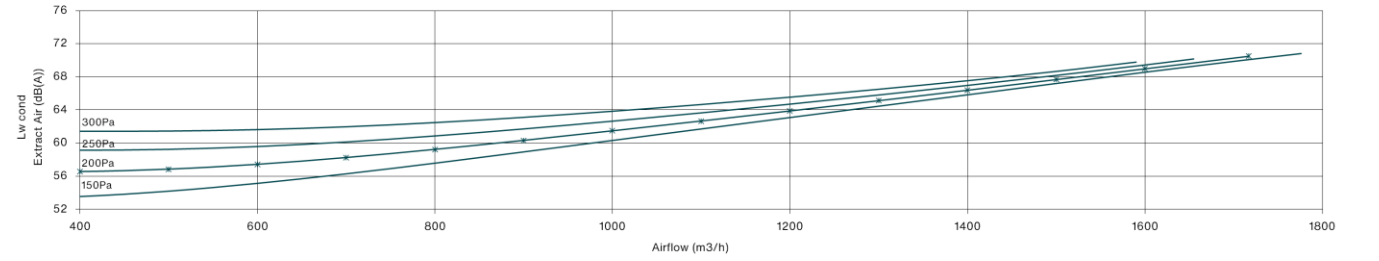
Selection curves Zehnder Carma™ 9016

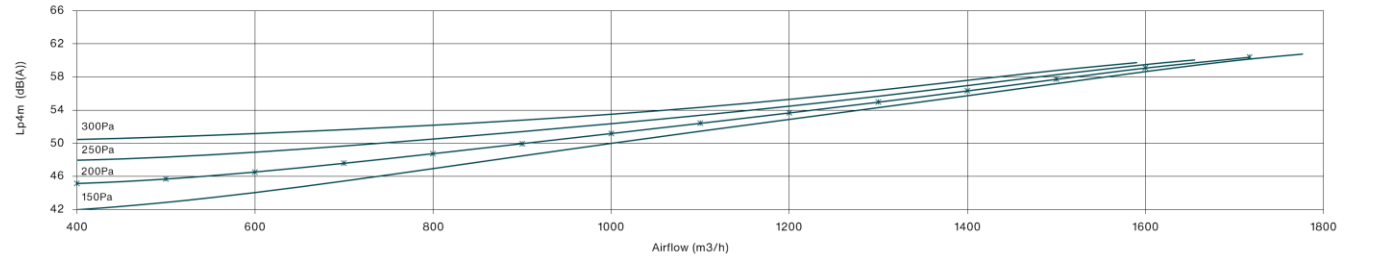












Hot water coil performance characteristics Zehnder Carma™ 9016

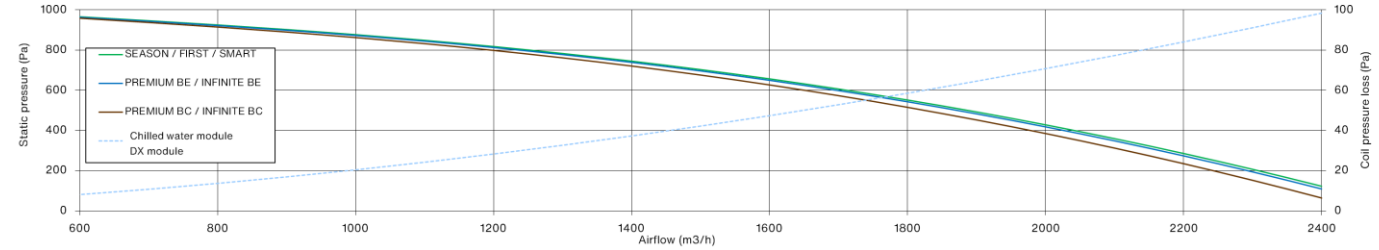
BC for PREMIUM and INFINITE version							Hot water coil
Water Temp. °C / °C	Air entry Temp. °C	Airflow m3/h	600	900	1200	1500	1800
90/70	11	Power (kW) / Supply air (°C)	9,6 / 59	12,9 / 54	15,7 / 50	18,1 / 47	20,3 / 45
		Waterflow (l/h) / Water DP (kPa)	430 / 7	570 / 9	690 / 12	800 / 14	890 / 17
	15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

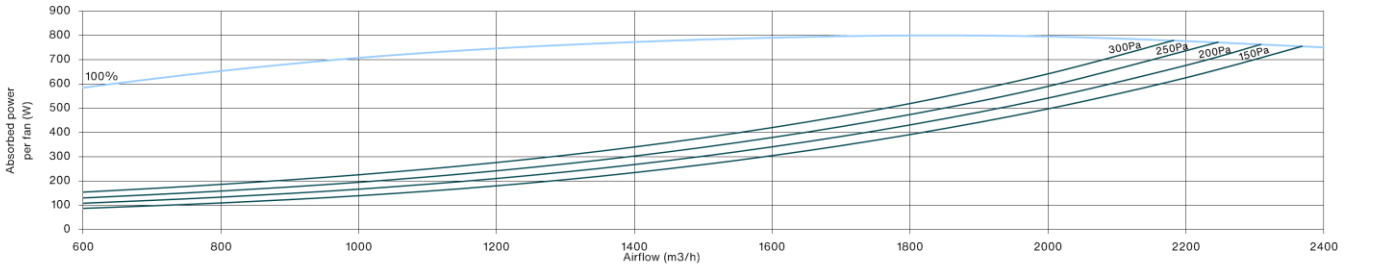
Electric coil performance characteristics Zehnder Carma™ 9016

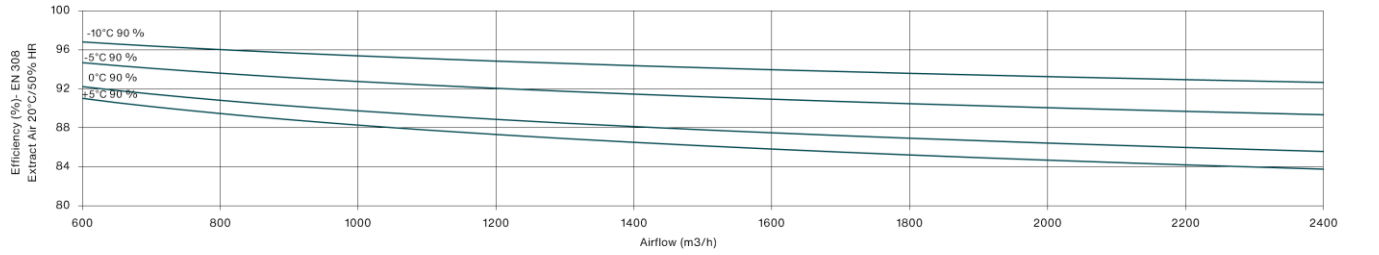
BE for unit version												Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*
(m^3/h)	1500		1500			1500				1500		
Version	FIRST, SEASON		SMART Preheater coil			PREMIUM BE037 Heater coil		PREMIUM BE052 Heater coil		INFINITE BE Preheater + heater coil		
Power (kW)	-		5,25			3,75		5,25		5,25 + 5,25		
Outlet temperature (°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

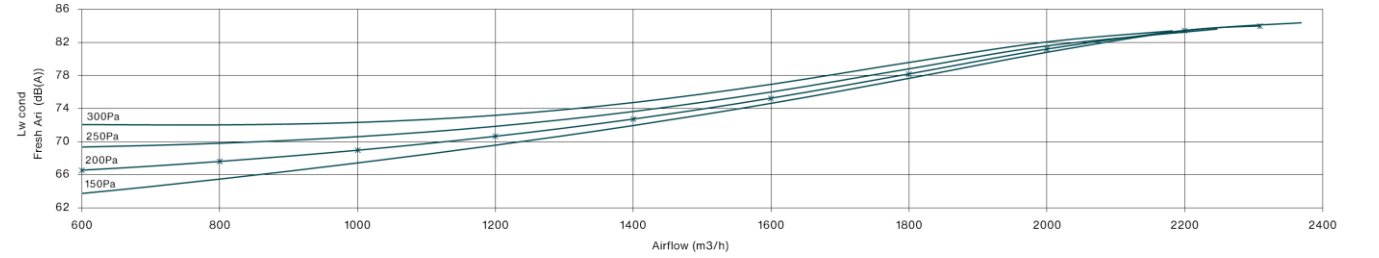
These data are provided for optimal control configuration according to the outdoor temperatures in question.
Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

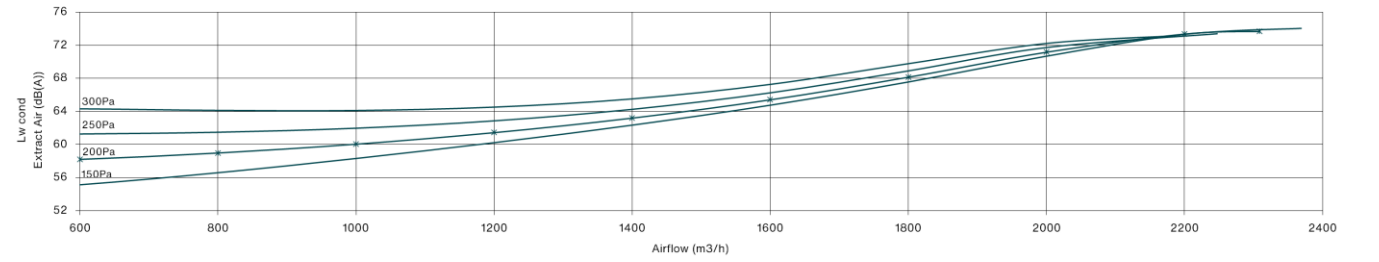
Selection curves Zehnder Carma™ 9023

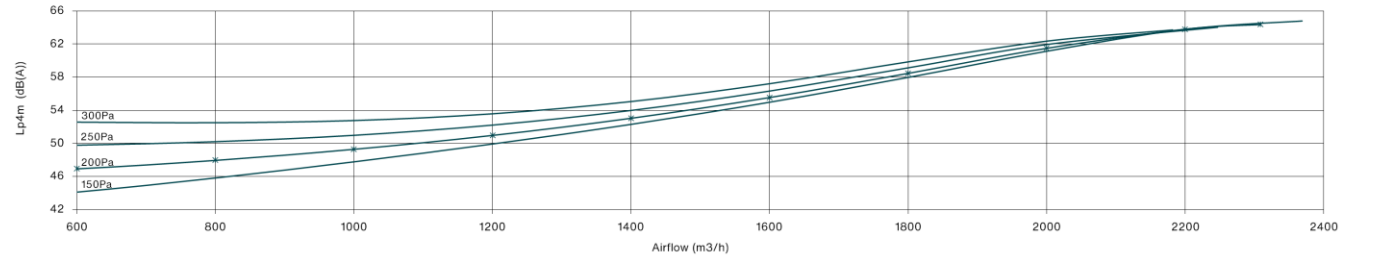












Hot water coil performance characteristics Zehnder Carma™ 9023

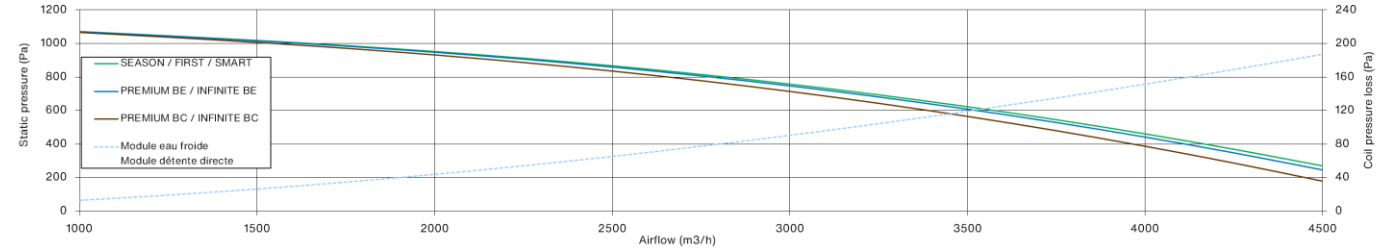
BC for PREMIUM and INFINITE version							Hot water coil
Water Temp. °C / °C	Air entry Temp. °C	Airflow m3/h	600	1200	1600	2000	2400
90/70	11	Power (kW) / Supply air (°C)	13,3 / 61	17,9 / 56	21,8 / 52	25,3 / 49	28,5 / 46
		Waterflow (l/h) / Water DP (kPa)	590 / 4	790 / 6	960 / 8	1110 / 11	1250 / 12
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

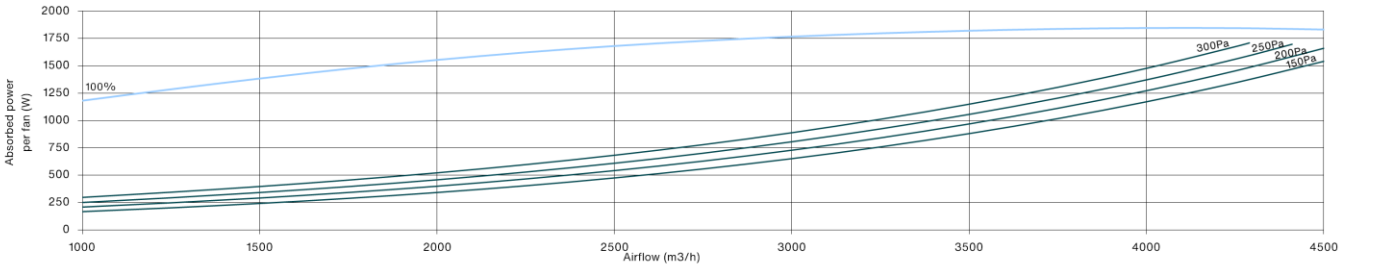
Electric coil performance characteristics Zehnder Carma™ 9023

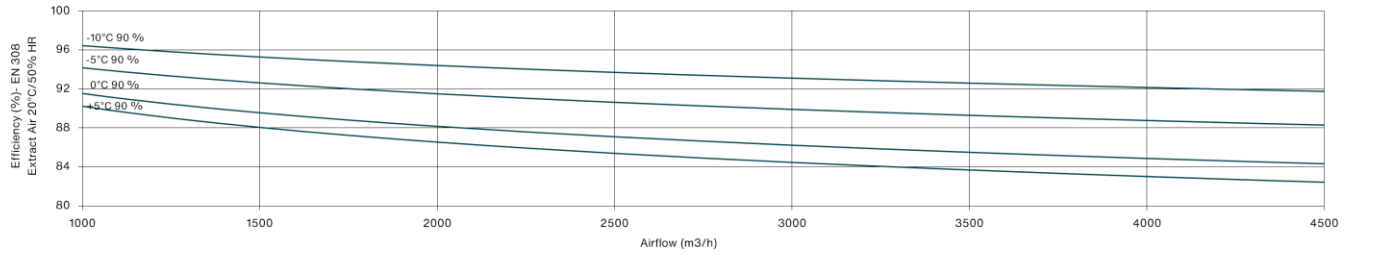
BE for unit version													Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*	
(m^3/h)	2300		2300			2300				2300			
Version	FIRST, SEASON		SMART Preheater coil			PREMIUM BE037 Heater coil		PREMIUM BE067 Heater coil		INFINITE BE Preheater + heater coil			
Power (kW)	-		6,75			3,75		6,75		6,75 + 6,75			
Outlet temperature (°C)	17,2	16,8	17,2	15,9	18,7	22,1	21,7	20,5	28,4	26	24,7	29,7	

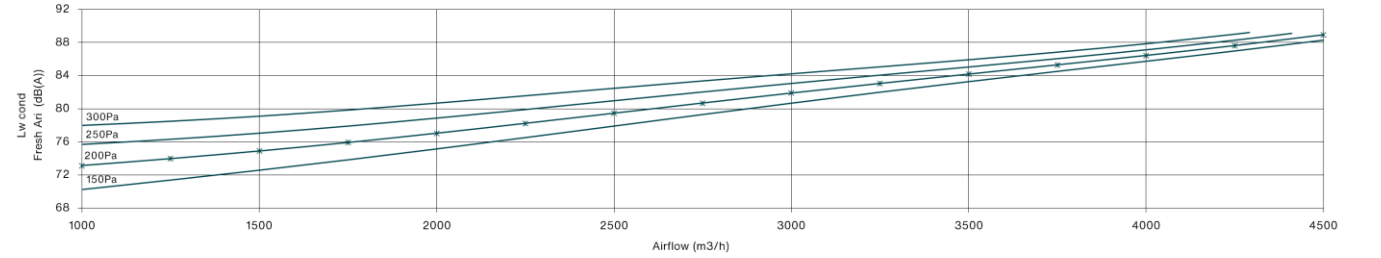
These data are provided for optimal control configuration according to the outdoor temperatures in question. Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

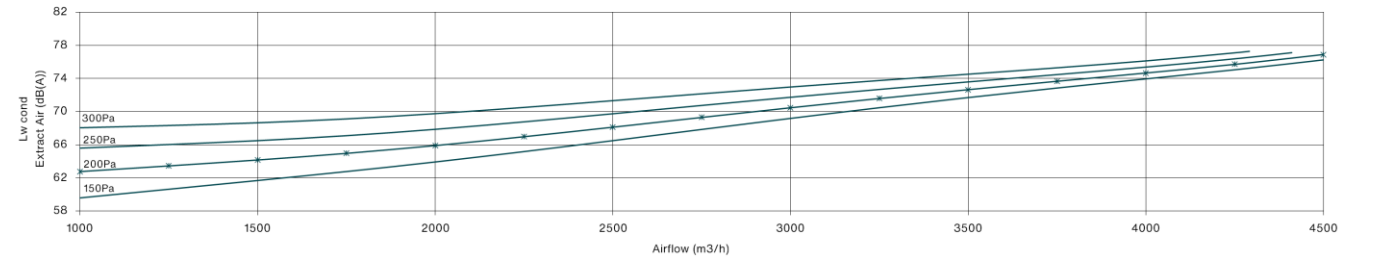
Selection curves Zehnder Carma™ 9035

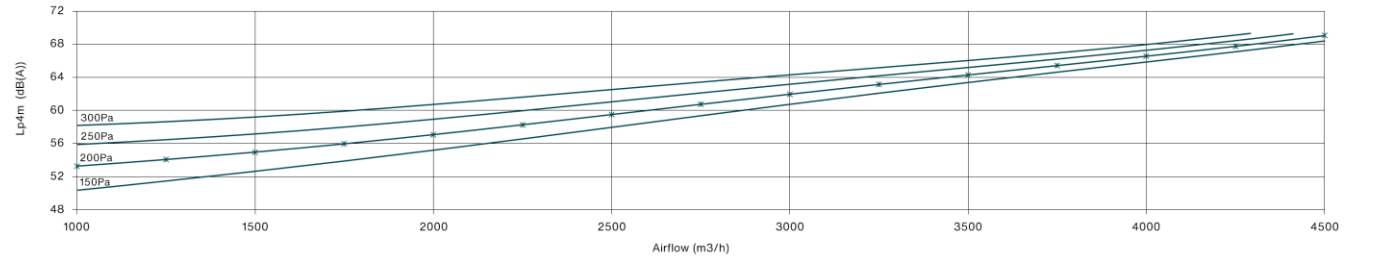












Hot water coil performance characteristics Zehnder Carma™ 9035

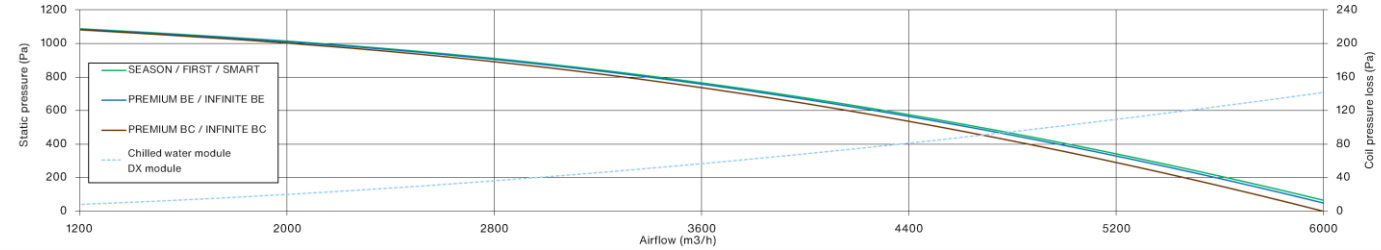
BC for PREMIUM and INFINITE version									Hot water coil
Water Temp. °C / °C	Air entry Temp. °C	Airflow m3/h	1500	2100	2700	3300	3900	4500	
90/70	11	Power (kW) / Supply air (°C)	23,2 / 57	29,4 / 53	34,8 / 50	39,6 / 47	44,0 / 45	48,0 / 43	
		Waterflow (l/h) / Water DP (kPa)	1020 / 5	1290 / 6	1530 / 8	1750 / 8	1940 / 10	2110 / 11	
	15	Power (kW) / Supply air (°C)	21,8 / 58	27,6 / 54	32,6 / 51	37,2 / 49	41,2 / 47	45,0 / 45	
		Waterflow (l/h) / Water DP (kPa)	960 / 5	1220 / 5	1440 / 7	1640 / 7	1820 / 9	1980 / 10	
80/60	11	Power (kW) / Supply air (°C)	19,5 / 50	24,7 / 46	29,2 / 43	33,2 / 41	36,8 / 39	40,1 / 38	
		Waterflow (l/h) / Water DP (kPa)	860 / 4	1080 / 6	1280 / 6	1460 / 8	1620 / 7	1760 / 8	
	15	Power (kW) / Supply air (°C)	18,1 / 51	22,9 / 48	27,0 / 45	30,7 / 43	34,0 / 41	37,1 / 40	
		Waterflow (l/h) / Water DP (kPa)	800 / 3	1000 / 5	1190 / 5	1350 / 7	1490 / 8	1630 / 7	
60/50	11	Power (kW) / Supply air (°C)	14,7 / 40	18,6 / 38	22,1 / 35	25,2 / 34	28,0 / 32	30,5 / 31	
		Waterflow (l/h) / Water DP (kPa)	1280 / 6	1630 / 8	1930 / 10	2200 / 13	2440 / 16	2670 / 17	
	15	Power (kW) / Supply air (°C)	13,3 / 41	16,8 / 39	20,0 / 37	22,7 / 36	25,2 / 34	27,5 / 33	
		Waterflow (l/h) / Water DP (kPa)	1160 / 5	1470 / 8	1740 / 9	1990 / 11	2210 / 13	2410 / 15	
45/40	11	Power (kW) / Supply air (°C)	10,1 / 31	12,8 / 29	15,1 / 28	17,2 / 27	19,1 / 26	20,8 / 25	
		Waterflow (l/h) / Water DP (kPa)	1750 / 6	2212 / 7	2618 / 10	2982 / 13	3318 / 16	3626 / 18	
	15	Power (kW) / Supply air (°C)	8,7 / 32	11,0 / 31	13,0 / 29	14,8 / 28	16,4 / 28	17,9 / 27	
		Waterflow (l/h) / Water DP (kPa)	1498 / 6	1904 / 7	2254 / 8	2562 / 10	2842 / 12	3108 / 14	

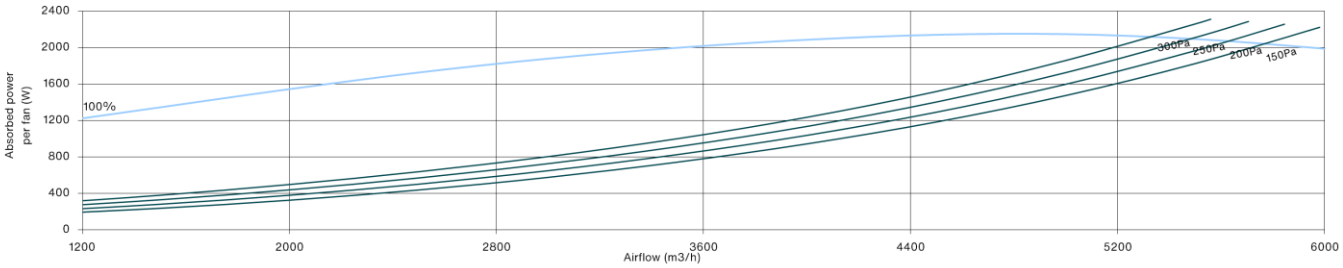
Electric coil performance characteristics Zehnder Carma™ 9035

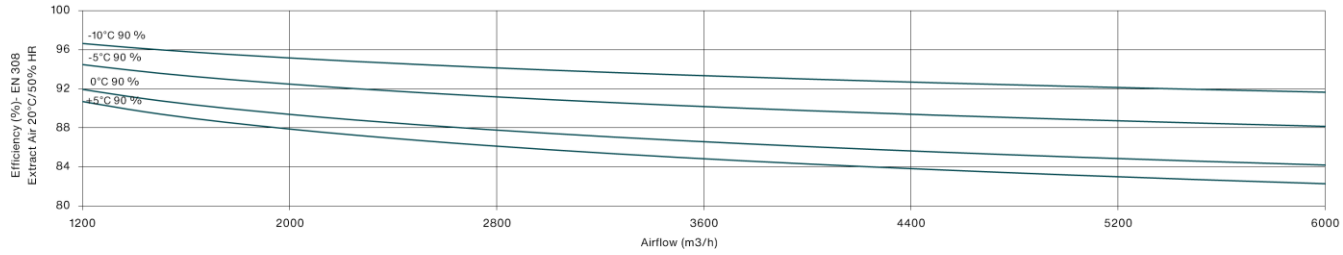
BE for unit version												Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*
(m^3/h)	3500		3500			3500				3500		
Version	FIRST, SEASON		SMART Preheater coil			PREMIUM BE067 Heater coil		PREMIUM BE135 Heater coil		INFINITE BE Preheater + heater coil		
Power (kW)	-		8,25			6,75		13,5		8,25 + 6,75/13,5		
Outlet temperature (°C)	17,1	16,5	13,9	18,8	22,9	22,3	23,4	31,7	23	23	25,5	33,3

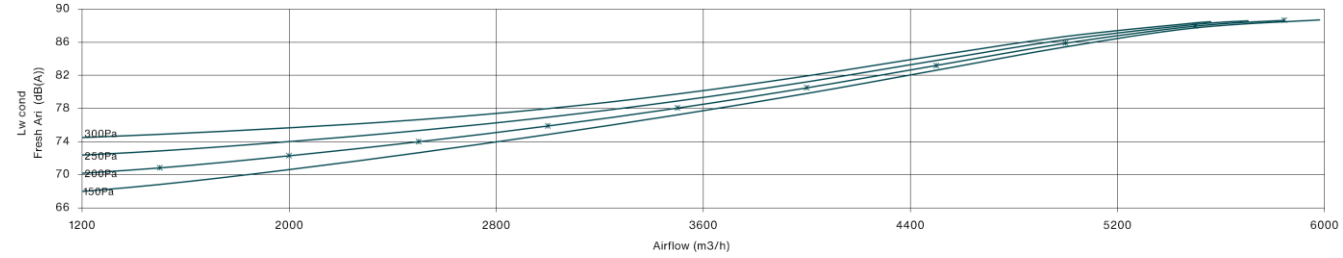
These data are provided for optimal control configuration according to the outdoor temperatures in question.
Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

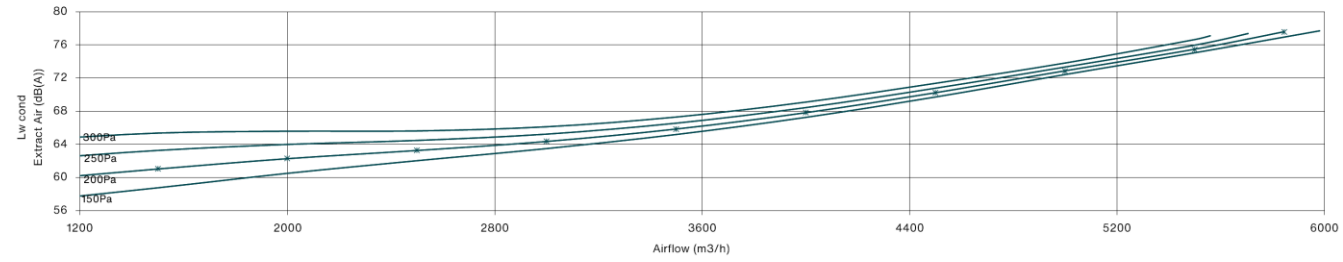
Selection curves Zehnder Carma™ 9048

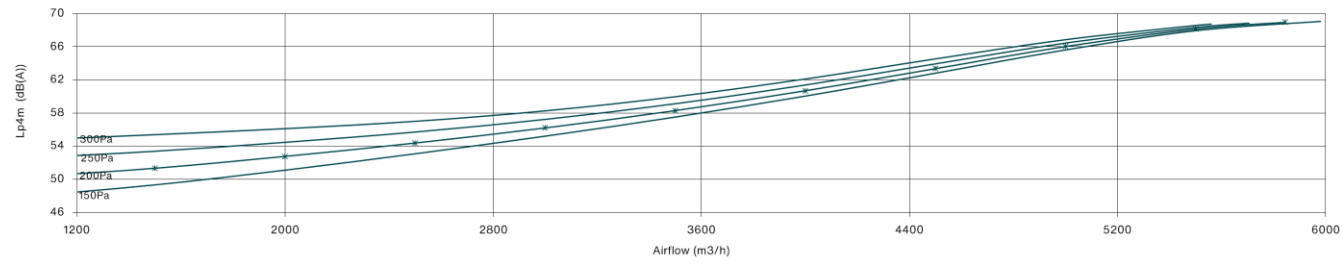












Hot water coil performance characteristics Zehnder Carma™ 9048

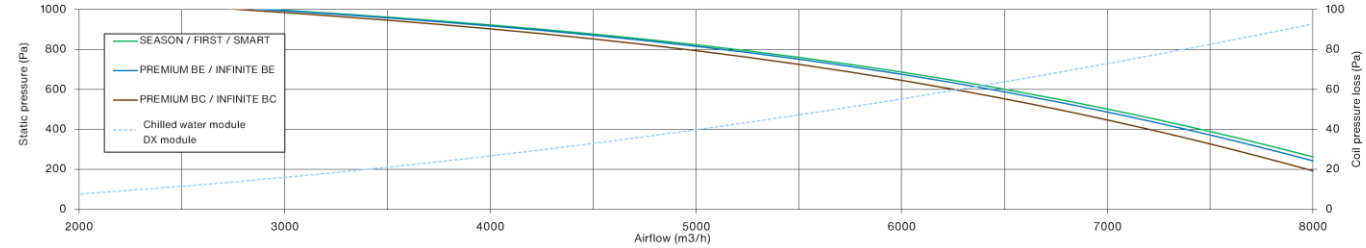
BC for PREMIUM and INFINITE version								Hot water coil
Water Temp. °C / °C	Air entry Temp. °C	Airflow m3/h	2000	2800	3600	4400	5200	6000
90/70	11	Power (kW) / Supply air (°C)	32,3 / 59	41,3 / 55	49,1 / 52	56,2 / 49	62,6 / 47	68,4 / 45
		Waterflow (l/h) / Water DP (kPa)	1430 / 4	1820 / 4	2160 / 5	2470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

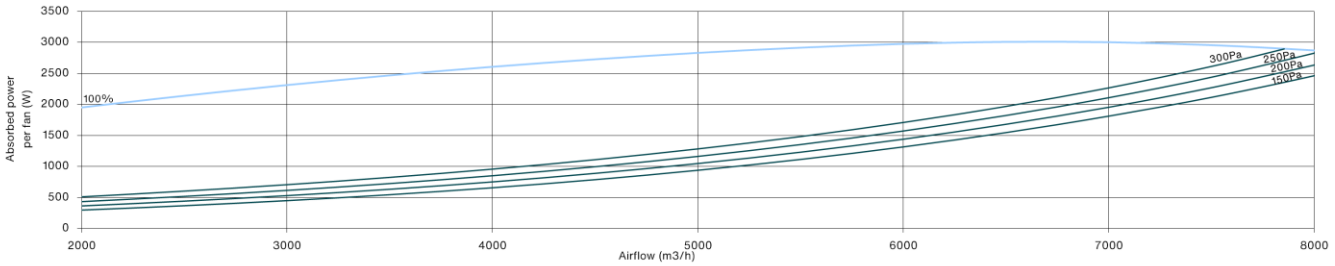
Electric coil performance characteristics Zehnder Carma™ 9048

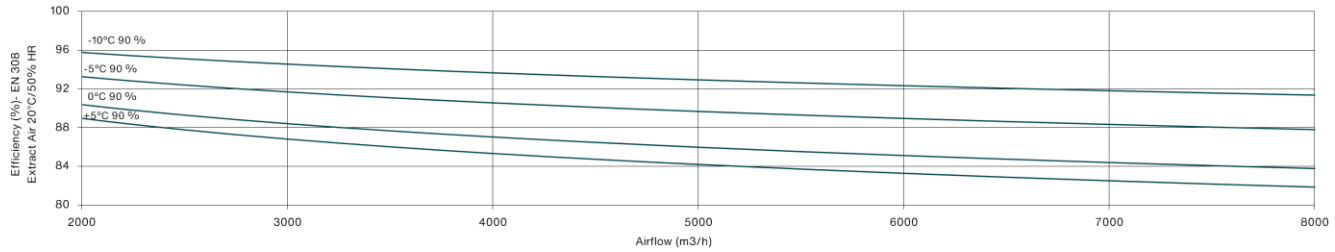
BE for unit version												Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*
(m^3/h)	4800		4800			4800				4800		
Version	FIRST, SEASON		SMART Preheater coil			PREMIUM BE067 Heater coil		PREMIUM BE135 Heater coil		INFINITE BE Preheater + heater coil		
Power (kW)	-		18			6,75		13,5		18 + 6,75/13,5		
Outlet temperature (°C)	17	16,4	17	16,4	18,4	21,2	20,6	20,3	27,8	21,2	25,6	28,9

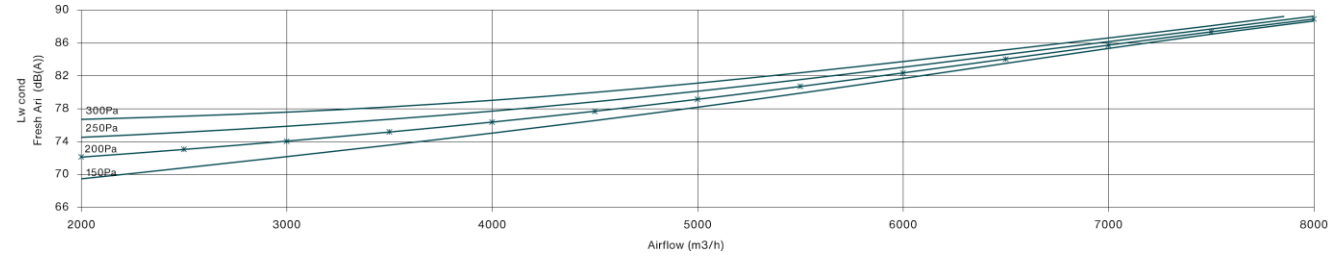
These data are provided for optimal control configuration according to the outdoor temperatures in question.
Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

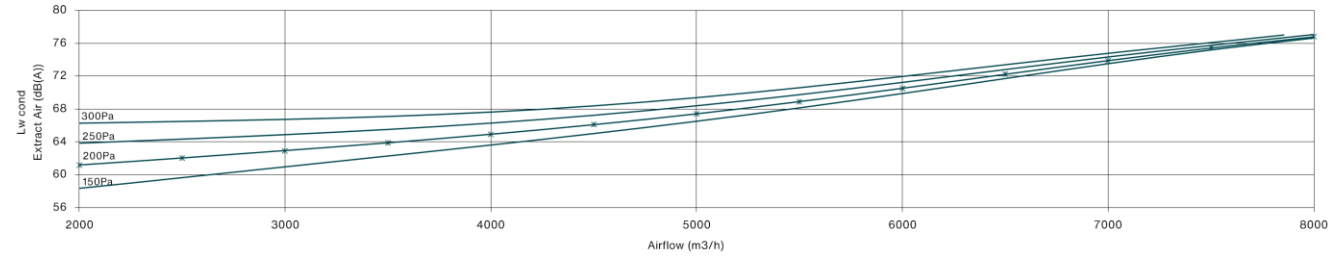
Selection curves Zehnder Carma™ 9070

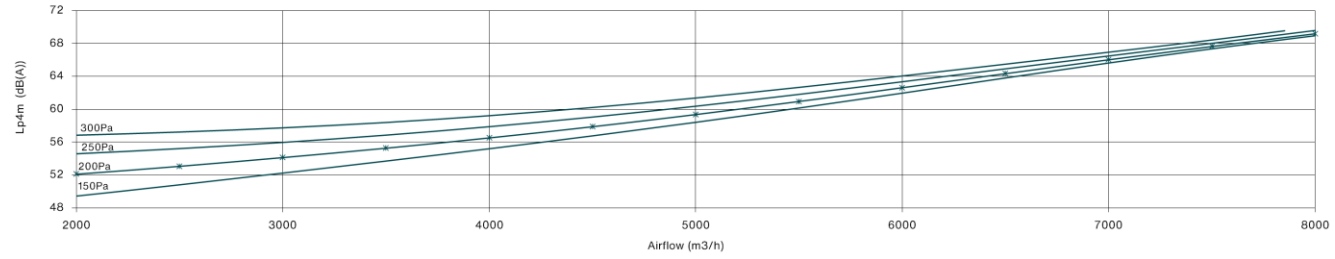












Hot water coil performance characteristics Zehnder Carma™ 9070

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

Electric coil performance characteristics Zehnder Carma™ 9070

BE for unit version												Electric coil
Fresh airflow	0 °C	-5 °C	-10 °C	-15 °C	-15 °C*	0 °C	-5 °C	-10 °C	-10 °C*	-10 °C	-15 °C	-15 °C*
(m^3/h)	700		7000			7000				7000		
FIRST, SEASON	FIRST, SEASON		SMART Preheater coil			PREMIUM BE105 Heater coil		PREMIUM BE157 Heater coil		INFINITE BE Preheater + heater coil		
Power (kW)	-		24,75			10,5		15,75		24 + 10,5/15,75		
Outlet temperature (°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

These data are provided for optimal control configuration according to the outdoor temperatures in question. Continuous supply temperature of the unit, considering the opening of the self-regulating and modulating bypass to prevent frost on the heat exchanger.
* In the event of a 20% reduction in volumetric airflow.

Options

Climatic

Summer / Winter thermostat ref. PASTILLE CHANGEOVER
For FIRST and SMART versions combined with an external Combibox Concept module

Servomotor ON/OFF 24V ref. STOR RM

Kit 3 way valve 24V IP54 ref. DN15
PREMIUM CO /INFINITE CO versions

Motorisable damper CARMA ref. RM KIT MONTÉ OU NON MONTÉ
Frost prevention. Airtight class 4

Chilled water module Combibox ref. CBX BF
Duct installation (see COMBIBOX CONCEPT™ documentation for descriptions). SEASON version not compatible

DX module Combibox R410A ref. CBX DX
Duct installation (see COMBIBOX CONCEPT™ documentation for descriptions). SEASON version not compatible

Filter F9 ePM1 80%

Filter M5 ePM10 50%

Controller

Wall touch screen MASTER ref. EASY 5.0
SEASON version not compatible.

Wall-mounted touch screen USER ref. EDT2 100ML
SEASON version not compatible.

Monofunction zone controller ref. SYSTEM TOP
2 airflow ventilation systems

Monofunction zone controller ref. SYSTEM DIVA
Proportional airflow

Security and control

Air pressure switch ref. DEP
Extract air filter (IP54)

Liquid manometer J ref. 0-1000 Pa VDI6022 DISPOSITIF

Smoke detection ref. CDAD
(IP54)

Trigger box ref. BD TBTS 24/48 Vcc
24 or 48 Vdc low-voltage box (IP67)

Airflow modulation

Potentiometer 0-10 V ref. POT 230
Potentiometer only for SEASON (IP54)

2 speed comfort remote control ref. CDC 2V2
OFF/LS/HS, 2 fans, box (IP54)

2 speed comfort remote control ref. CDC PVGV2
LS/HS, 2 fans, box (IP54)

Présence sensor ref. 360 TOR SA
ON/OFF or LS/HS
(SEASON version not compatible)

2 speed comfort remote control ref. CDC 1V2
ON/OFF, 2 fans, box (IP54)

Installation

Flexible sleeve ref. MTS M0
Circular except CARMA™ 9070 rectangular
Fire class : M0
Diameters Male (network side) / Female (unit side)

Supporting feet ref. PCB JEU DE 4 MONTÉ OU NON MONTÉ

Anti-vibration plot ref. PAV 40-60
Set of 4 (100 mm high). For floor mounting

RAIN VISOR COMBIBOX ref. AGC4

ZEHNDER CALADAIR INTERNATIONAL

61 rue de Saint Veran – 71000 MACON LOCHE – France

https://www.caladair.com/

Z-EN-V0923-CSY-TES-Zehnder Carma, en, subject to change without notice