CALADAIR

CARMA™ J

The best in compact heat recovery unit with ultra-high energy recovery efficiency and side-by-side airflows.

+ Energy savings
+ Thermal comfort
+ Indoor air quality



BENEFITS

- Self-supporting frame paired with an **EUROVENT-certified L1-D1-T2-TB2-F9** casing (60 mm double skin) for outstanding thermal break performance and unmatched structural rigidity.
- Single, centralized access to controls and **100% removable components**, ensuring fast servicing and simplified hygiene.
- New set of **seals, handles, and ergonomic** hinges for perfect compression, extended durability, and a modern look.
- Full flexibility with a **protective roof kit** and the option to integrate high-efficiency **pocket filters.**
- A solution certified **EUROVENT AHU N° 21.03.072 BLUETECH** and compatible with the hygiene requirements of **VDI 6022 and VDI 3803.**






APPLICATIONS

Shops and retail: Enhances the customer experience with clean, refreshed air in a compact, side-by-side airflow design—ideal for maximizing sales floor space while stayinglow-profile.

Healthcare and sensitive settings (nursing homes, medical offices): Impeccable hygiene and a calm, comfortable atmosphere thanks to a design aligned with VDI 6022 and VDI 3803 standards, paired with high-performance energy recovery for resident comfort.

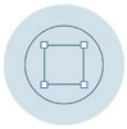
Schools and educational facilities: Better focus thanks to ventilation that's clean and quiet, meeting Indoor Air Quality (IAQ) requirements to support the well-being of students and teachers.

Offices, open-plan workspaces, and meeting rooms: Consistently clean air and optimal thermal comfort—even at peak occupancy—thanks to built-in smart controls that adjust to real-time needsbased on how many people are present.

DESCRIPTION

The CARMA J is a high-efficiency, energy-recovery, dual flow air handling unit with side-by-side horizontal airflows, designed for space-constrained installations. Its monoblock design (up to size 32) makes it easy to fit into tight mechanical rooms while ensuring excellent airtightness. It features a circular duct connection up to size 32; beyond that, it uses a rectangular connection for simpler ductwork hookup. A high-performance plate heat exchanger and low-energy EC motor fans made from composite materials help reduce energy costs. For hygiene, it includes a double-slope stainless-steel condensate pan compliant with VDI 6022 and VDI 3803, supporting healthy indoor air quality and easier maintenance.

CONSTRUCTION



Structure

- Self-supporting frame with thermal break
- Double-skin galvanized steel panels with pre-painted finish, RAL 7035
- High-airtightness assembly (L1) and rigid structure (D1)
- Compact monobloc casing (up to size 32) for easier installation



Insulation

- Thermal and acoustic rock wool insulation, 60 mm thick – density 30 kg/m^3
- High-performance T2 thermal insulation with TB2-certified thermal break
- Maximum reduction of heat loss and sound transmission



Fan motors

- Ultra-low-energy EC motors with high efficiency
- Reaction impellers for quieter operation and lower power draw
- Precise airflow control for optimal energy performance



Heat Exchanger

- Static counterflow aluminum plate heat exchanger
- High heat-recovery efficiency: up to 92% for maximum energy recovery

Controls



- Latest-generation built-in controller – Plug & Play solution
- 5 control modes available (ECO, DIVA, MAC2, QUATTRO, LOBBY) – see section “Airflow modulation”
- Smart control of the bypass, temperatures, and safety protections, including free cooling, free heating, and night cooling functions



Filtration

- Standard: ePM10 50% (M5) flat filter on return air / ePM1 55% (F7) filter on outdoor air
- Optional: Additional ePM1 55% (F7) or ePM1 80% (F9) filters—flat or bag style—for two-stage CLEARDUST™ filtration



Roof

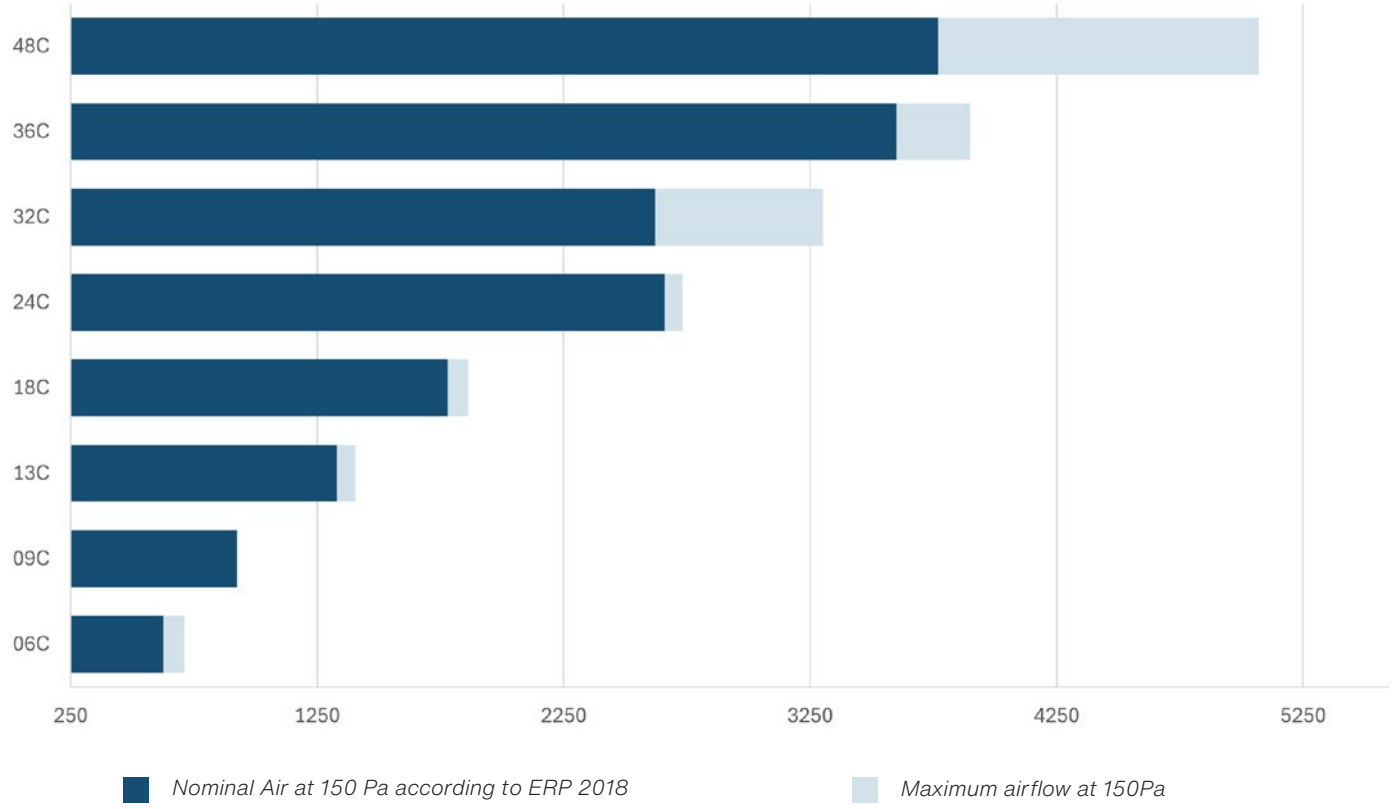
- Dedicated technical roof for outdoor installation
- Enhanced weatherproofing with integrated rainwater drainage
- Optional roof supplied as a kit to be installed on site
- Minimum 3% slope for efficient rainwater runoff
- Sleek design for seamless integration

PRODUCT DESIGNATION

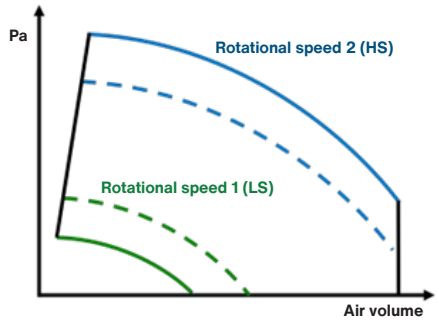
CARMA J 06C L SMART LOB

Range	Airflow	Size	Fan material	Configuration	Climate version	Airflow control
CARMA	J	06	Composite	Left	SMART	LOBBY
		09	Metal	Right	SEASON	QUATTRO
		13			FIRST	MAC2
		18			PREMIUMBE	DIVA
		24			PREMIUMCO	ECO
		32			INFINITEBE	
		36			INFINITECO	
		48				

AIRFLOW RANGES

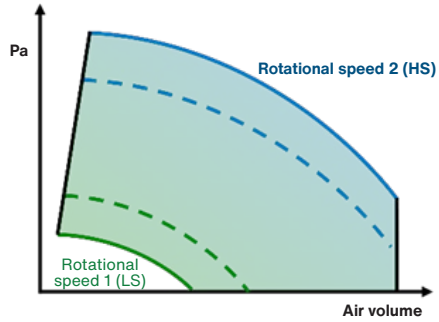


AIRFLOW MODULATION



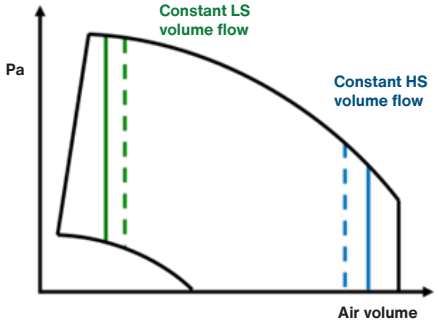
- **Zoning:** Single zone
- **Control:** 2 speeds HS/LS
- **Monitoring:** Timer/Manual

ECO™



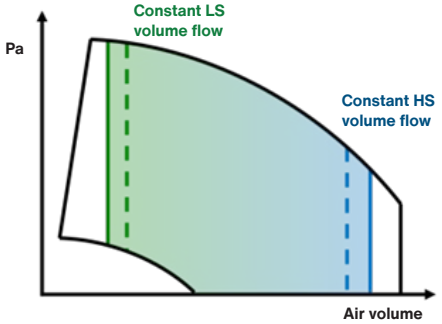
- **Zoning:** Single zone
- **Control:** Air volume modulation
- **Monitoring:** CO_2

DIVA™



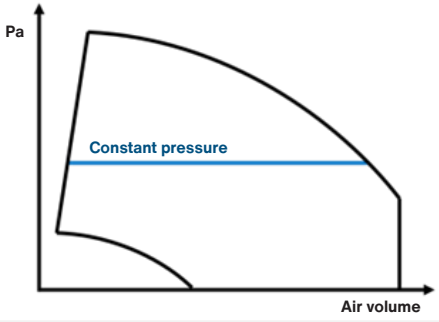
- **Zoning:** Single zone
- **Control:** Constant volume flow
- **Monitoring:** Pressure transmitter

MAC2™



- **Zoning:** Single zone
- **Control:** Variable between 2 constant volume flow
- **Monitoring:** Pressure transmitter + CO_2

QUATTRO™

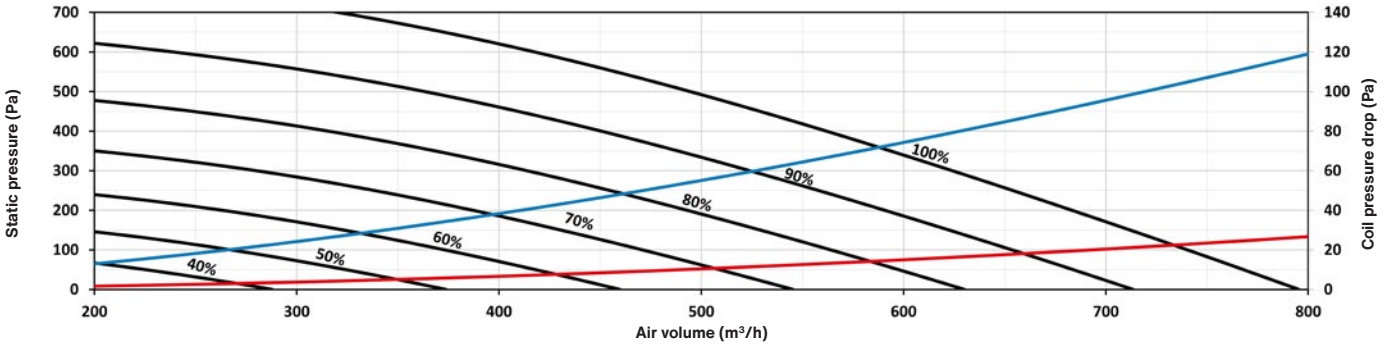


- **Zoning:** Multi-zone
- **Control:** Constant pressure
- **Contrôle:** Pressure transmitter

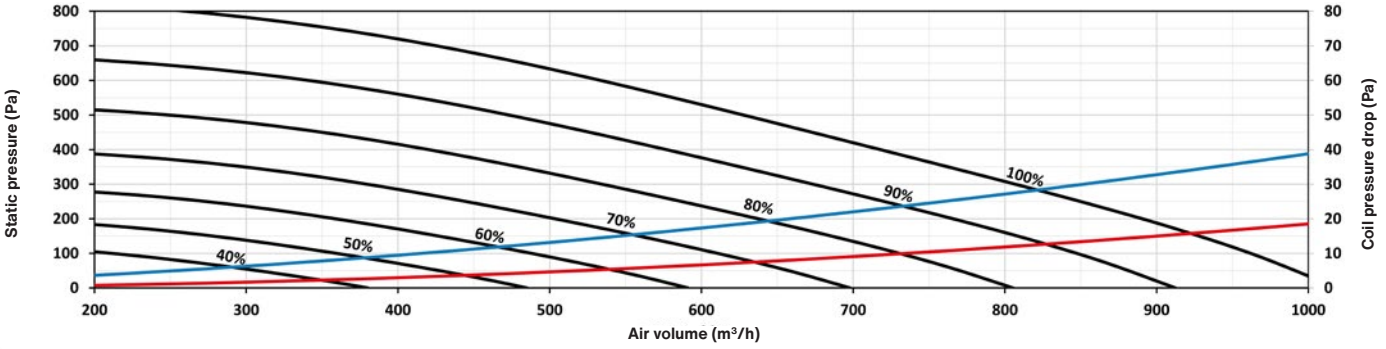
LOBBY™

AIR PERFORMANCE CURVES

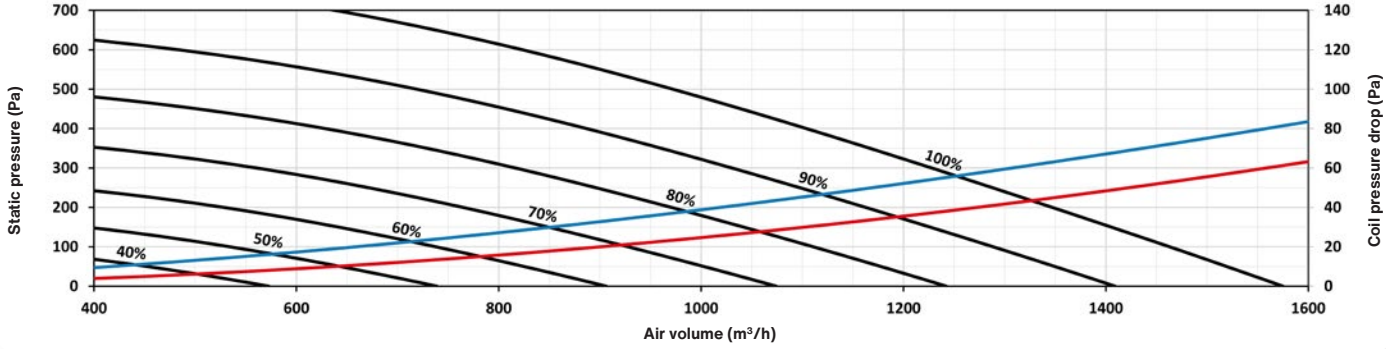
CARMA J 06C



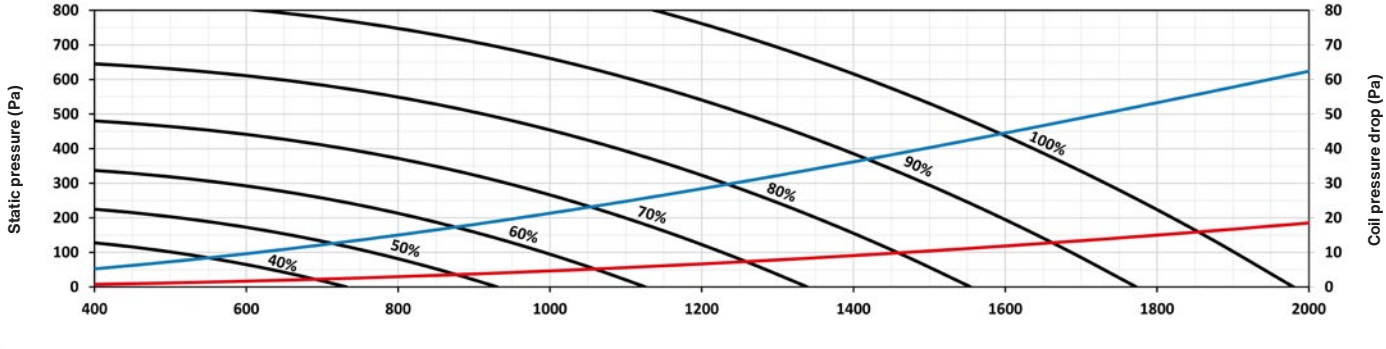
CARMA J 09C



CARMA J 13C

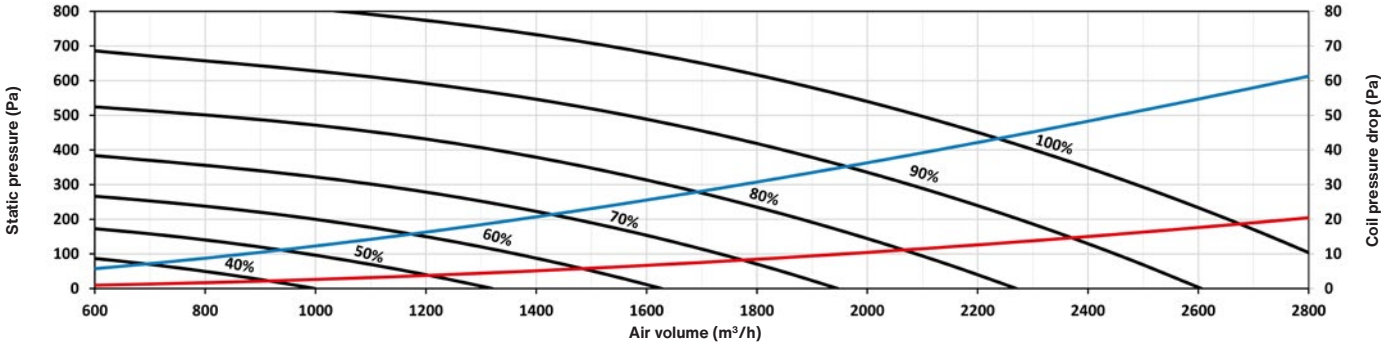


CARMA J 18C

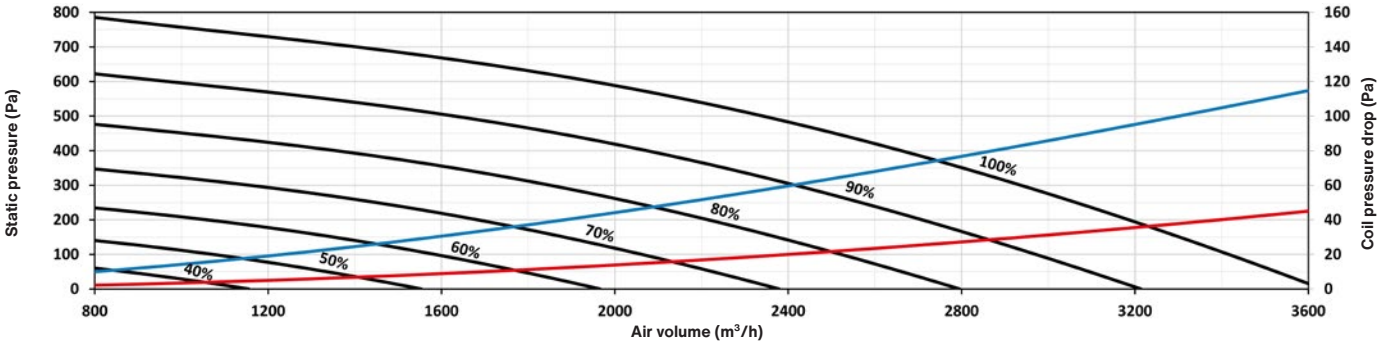


FIRST BE/DBE Electric coil CO Changeover coil

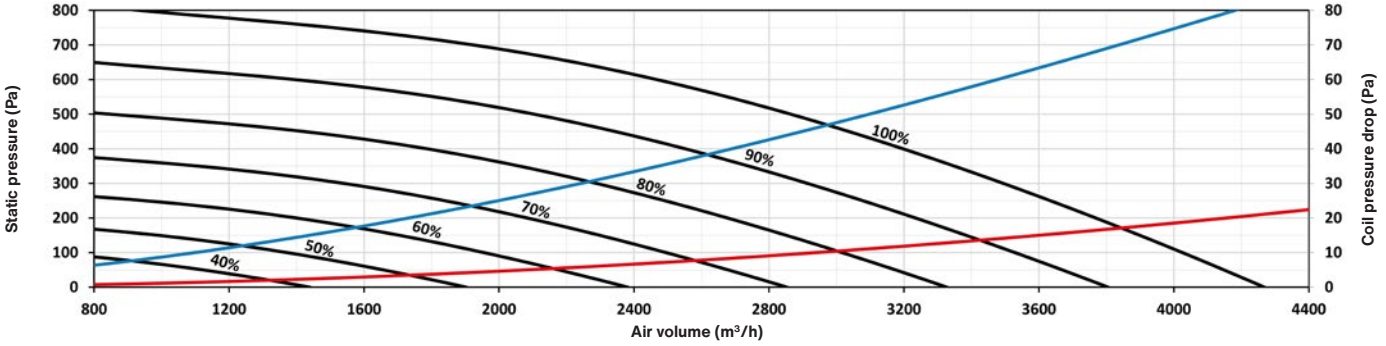
CARMA J 24C



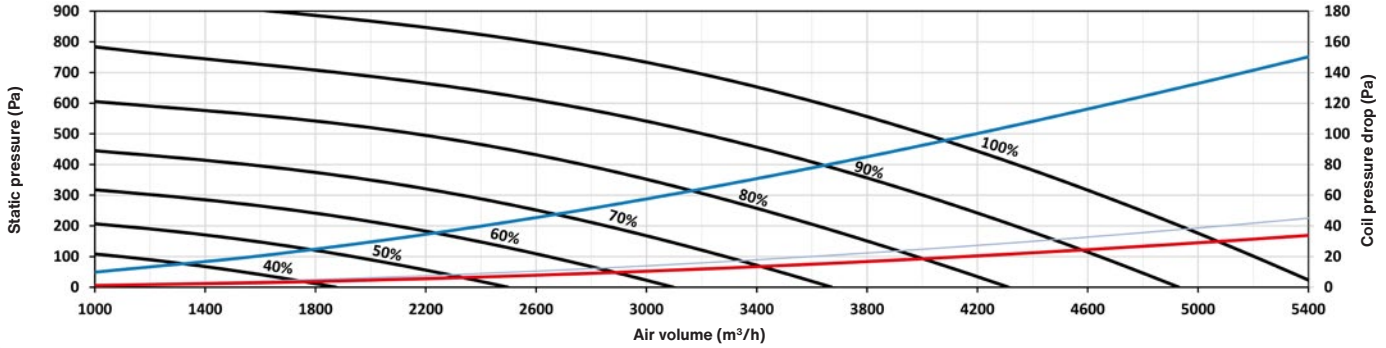
CARMA J 32C



CARMA J 36C



CARMA J 48C



FIRST BE/DBE Electric coil CO Changeover coil

CLIMATE VERSION

For hot and temperate climates (no preheating)

		Heating			
		No	Electric	Water	Refrigerant
Cooling	No	SEASON FIRST	PREMIUM BE	PREMIUM CO*	FIRST + CBX-DX
	Water	PREMIUM CO*	PREMIUM BE + CBX-BF	PREMIUM CO* PREMIUM CO* + CBX-BF**	
	Refrigerant	FIRST + CBX-DX	PREMIUM BE+ CBX-DX	PREMIUM CO* + CBX-DX	FIRST + CBX-DX

*Sizes 06 to 32: integrated / sizes 36 to 48: external module not factory-installed
**When the hot-water coil must be different from the chilled-water coil

For cold climates (with preheating)

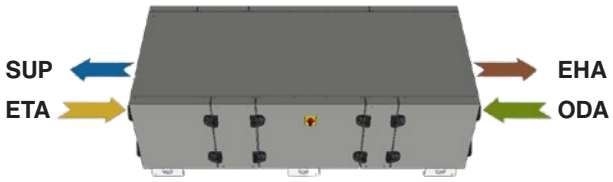
		Heating			
		No	Electric	Water	Refrigerant
Cooling	No	SMART	INIFINITE BE	INIFINITE CO*	SMART+ CBX-DX
	Water	INIFINITE CO*	INIFINITE BE + CBX-BF	INIFINITE CO* INIFINITE CO* + CBX-BF**	
	Refrigerant	SMART+ CBX-DX	INIFINITE BE+ CBX-DX	INIFINITE CO* + CBX-DX	SMART+ CBX-DX

*Sizes 06 to 32: integrated / sizes 36 to 48: external module not factory-installed
**When the hot-water coil must be different from the chilled-water coil

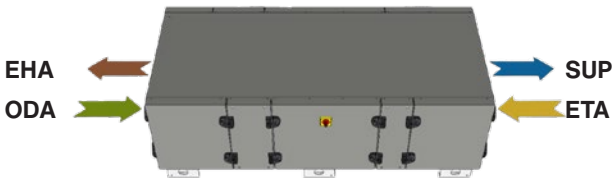
CONFIGURATION

CARMA J 06 to 32

Left version (L)



Right version (R)

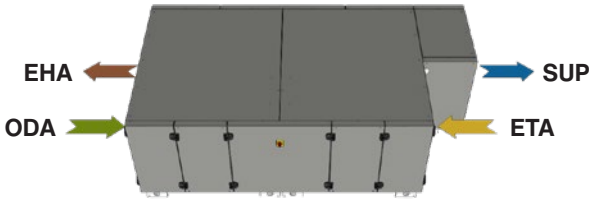


CARMA J 36 and 48

Left version (L)



Right version (R)



Additional module on the supply-air side only for **Premium CO and Infinite CO.**

ELECTRICAL SPECIFICATIONS

Model	Operating temperature	Protection type	Fan material	Smoke detector	Thermal protection class	Motor power
	°C					
CARMA J 06	-25°C / 60°C	IP54 / B	Composite		ITP	2x170 W
CARMA J 09	-25°C / 60°C	IP54 / B	Composite		ITP	2x170 W
CARMA J 13	-25°C / 60°C	IP54 / B	Composite	Option	ITP	4x170 W
CARMA J 18	-25°C / 45°C	IP54 / B	Composite	Option	ITP	2x500 W
CARMA J 24	-25°C / 60°C	IP55 / F	Composite	Option	ITP	2x700 W
CARMA J 32	-25°C / 40°C	IP55 / F	Composite	Option	ITP	2x1000 W
CARMA J 36	-25°C / 40°C	IP55 / F	Composite	Option	ITP	2x1000 W
CARMA J 48	-25°C / 50°C	IP55 / F	Composite	Option	ITP	2x1500 W

*ITP: Integrated thermal protection

	SEASON / FIRST / PREMIUM CO		SMART / INFINITE CO			PREMIUM BE			INFINITE BE			
Model	Electrical power	Voltage	Electrical power	Preheater power	Voltage	Electrical power	Reheater power	Voltage	Electrical power	Preheater power	Reheater power	Voltage
	A	V/Ph/Hz	A	kW	V/Ph/Hz	A	kW	V/Ph/Hz	A	kW	kW	V/Ph/Hz
CARMA J 06	3,0	230 / 1 / 50	11,7	2,0	230 / 1 / 50	11,7	2,0	230 / 1 / 50	20,4	2,0	2,0	230 / 1 / 50
CARMA J 09	3,0	230 / 1 / 50	13,9	2,5	230 / 1 / 50	13,9	2,5	230 / 1 / 50	24,7	2,5	2,5	230 / 1 / 50
CARMA J 13	5,8	230 / 1 / 50	6,8	3,75	400 / 3 + N / 50	9,0	5,25	400 / 3 + N / 50	14,4	3,75	5,25	400 / 3 + N / 50
CARMA J 18	4,6	230 / 1 / 50	9,8	5,25	400 / 3 + N / 50	9,8	5,25	400 / 3 + N / 50	17,4	5,25	5,25	400 / 3 + N / 50
CARMA J 24	6,4	230 / 1 / 50	15	8,25	400 / 3 + N / 50	12,8	6,75	400 / 3 + N / 50	24,8	8,25	6,75	400 / 3 + N / 50
CARMA J 32	3,4	400 / 3 + N / 50	15,3	8,25	400 / 3 + N / 50	13,1	6,75	400 / 3 + N / 50	25,1	8,25	6,75	400 / 3 + N / 50
CARMA J 36	3,4	400 / 3 + N / 50	16,4	9,0	400 / 3 + N / 50	20,7	12	400 / 3 + N / 50	33,7	9,0	12	400 / 3 + N / 50
CARMA J 48	4,8	400 / 3 + N / 50	30,8	18	400 / 3 + N / 50	22,1	12	400 / 3 + N / 50	48,1	18	12	400 / 3 + N / 50

WEIGHT

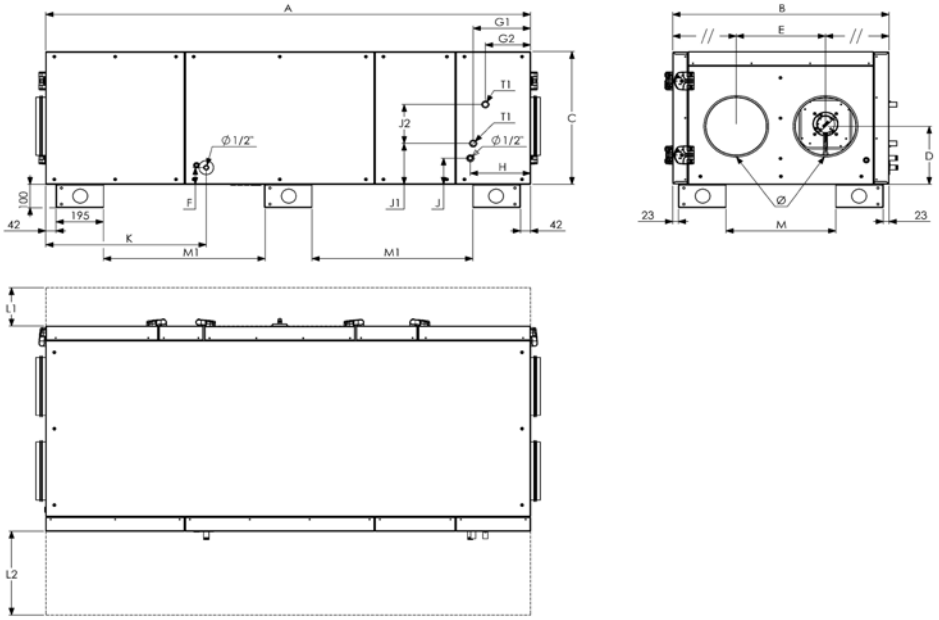
Model	FIRST	SMART	PREMIUM BE	PREMIUM CO	INFINITE BE	INFINITE CO
	kg	kg	kg	kg	kg	kg
CARMA J 06	184	186	186	188	188	190
CARMA J 09	270	273	271	277	274	280
CARMA J 13	274	277	275	281	278	284
CARMA J 18	322	325	327	331	330	334
CARMA J 24	408	412	414	420	418	424
CARMA J 32	416	420	422	428	426	432
CARMA J 36	546	552	560	622	566	628
CARMA J 48	554	562	566	628	574	636

DIMENSIONS

Model	A	A1	B	C	D	D1	D2	E	E1	F	H/H1*	G1	G2	J	J1	J2	K/K1*	L/L1*	M	M1	M2	T1	Ø
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	inch	mm
CARMA J 06	1985		885	575	250			365		75	250/105	235	185	115	180	170	660/835	700/550	450	660		1/2"	250
CARMA J 09	2090		1325	630	285			710		70	250/105	235	185	70	135	250	690/900	700/950	890	720		1/2"	355
CARMA J 13	2090		1325	630	285			710		70	250/105	235	185	70	135	250	690/900	700/950	890	720		1/2"	355
CARMA J 18	2465		1325	715	325			595		70	345/80	315	250	70	135	470	760/980	700/950	890	900		3/4"	400
CARMA J 24	2605		1475	790	360			655		70	345/105	315	250	70	140	680	760/1015	800/1050	1040	970		3/4"	450
CARMA J 32	2605		1475	790	360			655		70	345/105	315	250	70	140	680	760/1015	800/1050	1040	970		3/4"	450
CARMA J 36	2660	515	1670	935	600	205	130	600	170	75	345/105	315	250	75	140	685	850/1210	950/1200	890	620	415	1"	
CARMA J 48	2660	515	1670	935	600	205	130	600	170	75	345/105	315	250	75	140	685	850/1210	950/1200	890	620	415	1"	

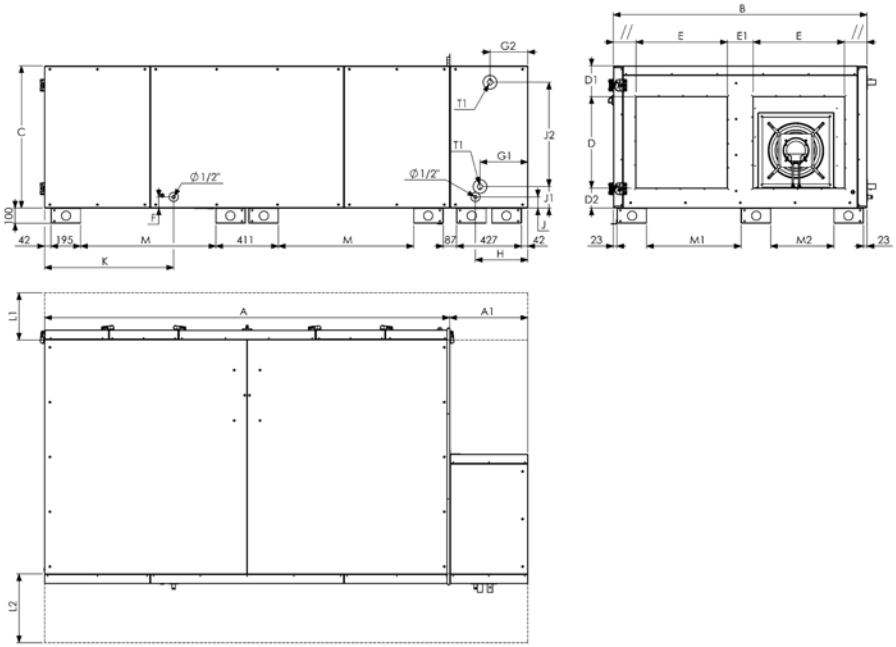
*H dimension for L configuration, H1 for R configuration - K dimension for L configuration, K1 for R configuration - L dimension for L configuration, L1 for R configuration

CARMA J 06 to 32



Air duct connection: Circular

CARMA J 36 and 48



Air duct connection: Rectangular

ACCESSIBILITY & MAINTENANCE

1 Roof with a rain barrier

Essential equipment for any outdoor installation.

- **Supplied as a kit:** Option delivered ready to assemble for flexible on-site installation.
- **Weatherproofing:** Complete protection from rain and snow.
- **Protection:** A full-perimeter hood shielding the electrical cabinet and seals.
- **Durability:** UV- and weather-resistant pre-coated galvanized steel.

2 Ergonomic hinges

- **Weatherproofing:** Compression closure for an airtight seal.
- **Two opening options:** Full access and maximum clearance for service, plus quick door removal for tight spaces.
- **Rugged:** Reinforced design for smooth, long-lasting operation.
- **Lockable:** Secures access to internal components with a 6-sided key lock.

3 Electrical cabinet & Controls

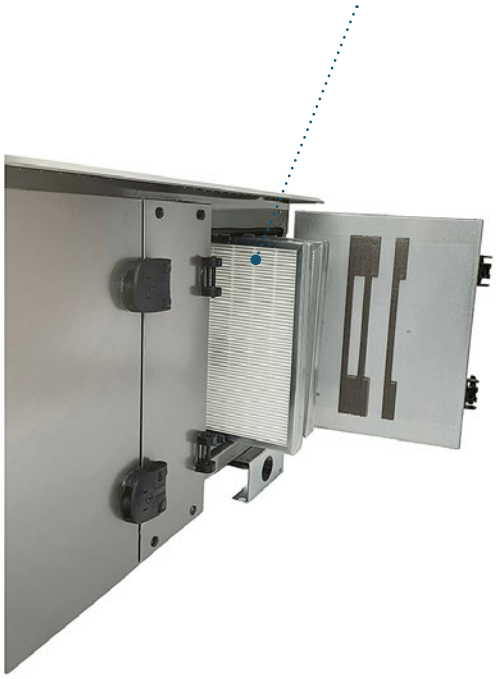
- **Centralization:** Power and control components grouped in a single integrated enclosure.
- **Direct access:** Central access panel for quick, straightforward entry.
- **Plug & Play :** EASY 5.0 controls configured and factory-tested for immediate commissioning.
- **Safety:** Automatic bypass management and built-in freeze protection.

4 Panel finish

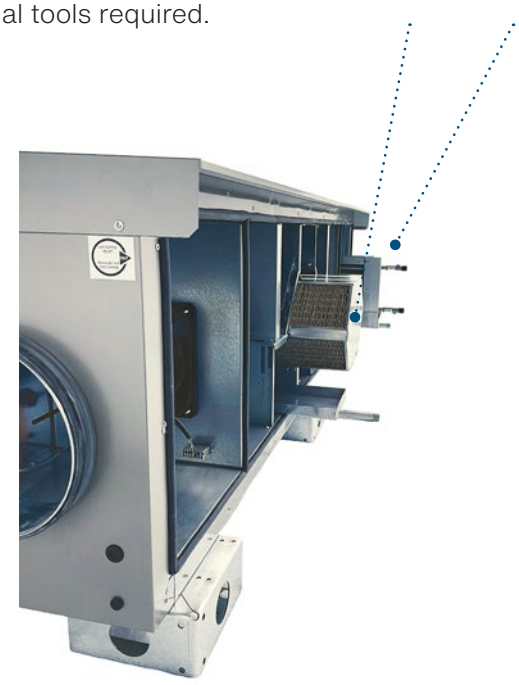
- Reduced thermal bridging for optimized thermal performance.



Filters: Quick, easy access for filter replacement.



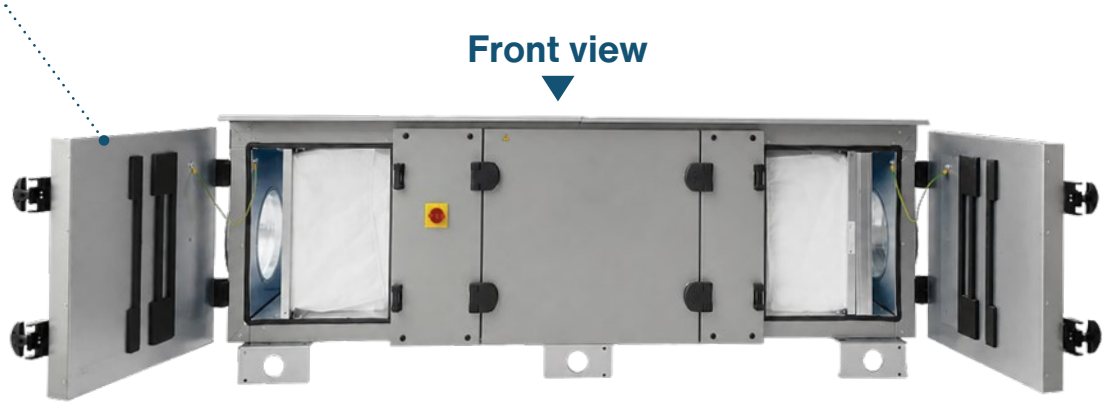
Slide-out components: The heat exchanger and coil glide on rails, so they can be removed effortlessly—no special tools required.



Direct access: Every component is designed for easy, direct access, helping cut down service time.

Full access: The front doors swing wide on their hinges and can be fully removed to open up the entire work area. The rear panels are completely removable by unscrewing them.

Front view



Easy cleaning: The stainless-steel condensate trays clean up quickly and easily to ensure perfect hygiene.

Rear view



EQUIPEMENTS & FEATURES

EASY 5.0 integrated controls

- PG 5.0 color touchscreen interface (IP54)
- Native MODBUS communication via RS485 serial port or IP, plus BACnet and Web
- Full scheduling: daily, weekly, vacation, and holidays
- “Boost” mode available via scheduling or an external command



Commands and control

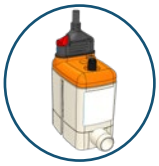
- Remote control up to 100 m: standard in the control cabinet
- 5 m cable included
- Filter clogging pressure switches and fan monitoring

Smart Comfort Management

- 100% proportional modulating bypass with frost protection, including:
  - ▶ *FREE COOLING: using outdoor air during warm weather*
  - ▶ *FREE HEATING: free heat recovery during shoulder seasons*
  - ▶ *NIGHT COOLING: automatic nighttime cooling based on weather conditions*

Condensate pump

- Optional, supplied unassembled. To be connected on site.
  Mechanical drainage of condensate from the heat recovery unit.



Safety & Operation

- Fire function, 5 modes available: off, continuous, normal, supply air only, return air only
- Digital “External Stop” input has priority for fire safety and main shutdown

External Controls

- Alarm relay output
- Forced-run input: reduced speed or max speed
- External stop input
- Fire protection input
- Firefighter remote shutdown

SUSTAINABILITY

Designed for disassembly and recycling: The unit is designed to be completely disassembled, making it easier to separate and sort each component at end of life.

Removable panels: Our design makes it easy to separate the sheet metal from the insulation. This step is essential for isolating metals and improving material recycling.

Resource recovery: By simplifying disassembly, we support a circular economy and reduce the overall carbon footprint of our machines.

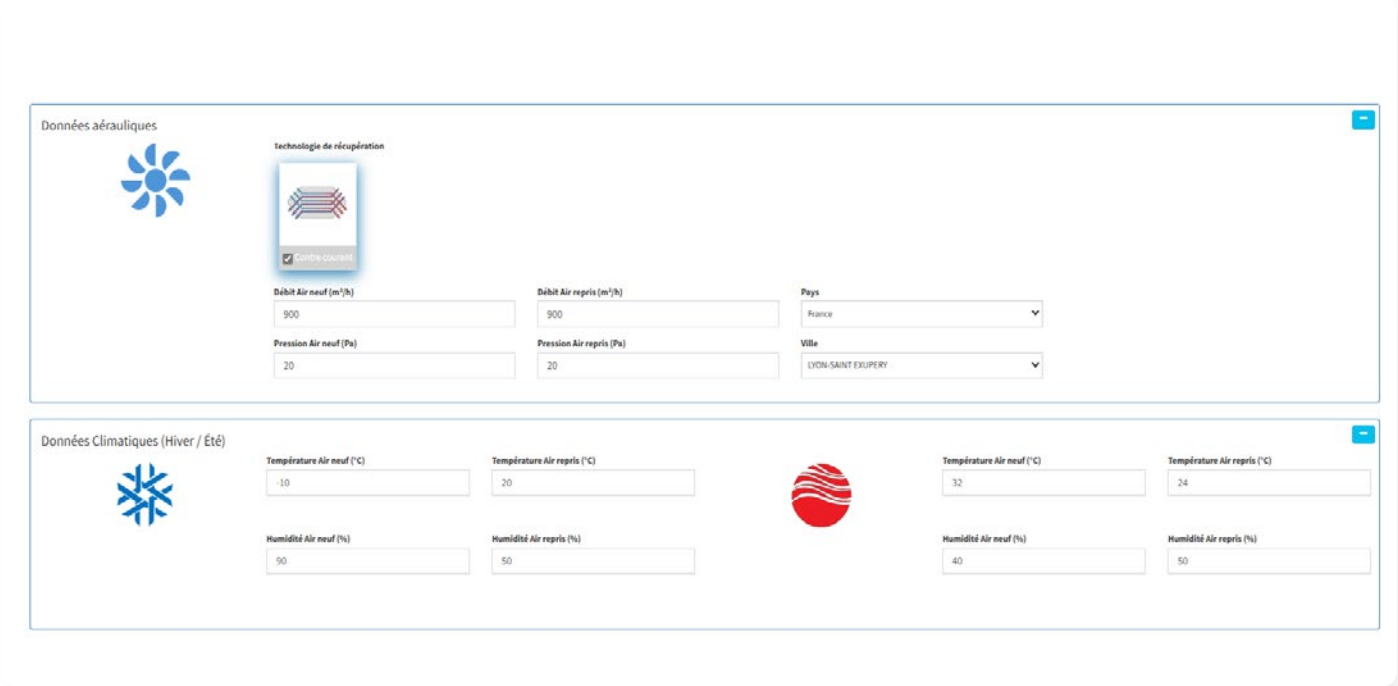
OUR ONLINE PLATFORMS

Save time and ensure accurate selections with Softwair™, Caladair's selection tool designed to support your ventilation and air-treatment projects.

In just a few clicks, you can access the solution that best fits your technical, energy, and regulatory requirements.

Fast & reliable selection

Set your criteria (airflow, pressure, efficiency, acoustics...) and instantly get the best-performing Caladair solution.



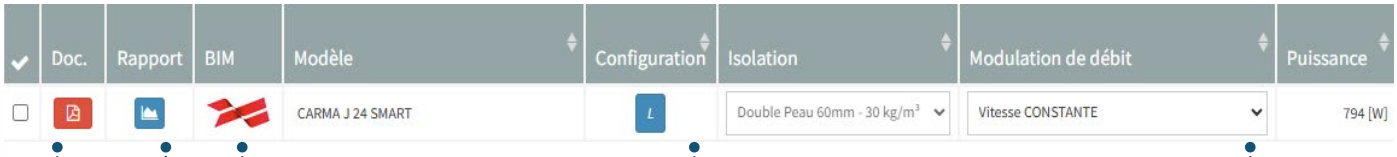
Softwair.fr™

Intuitive & user-friendly interface

Designed for professionals, the platform guides you step by step—without wasting time.

Instant Technical Documents

Download your reports, curves, and sales documentation in a single click.



Access to documentation

With BimGo™, seamlessly integrate Caladair products into your digital models! Find our BIM catalog—available in REVIT and IFC formats—at www.bimobject.com (free access with registration).

Bimgo™

Select configuration (right or left)

Create a detailed selection for the desired operating point

Select airflow control mode (Constant speed, constant airflow, CO2-based constant airflow, CO2-based variable airflow, constant pressure) ECO/MAC2/DIVA/QUATTRO/LOBBY

Continuous automatic updates

Softwair™ continuously incorporates the latest Caladair innovations and product lines. Updates are applied automatically.

Secure space

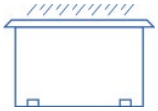
Completely digital, safe entry.

Eurovent Certified

Technical data certified by Eurovent.

ACCESSORIES & OPTIONS

Trigger box	
Buse biseautée grillagée	
Smoke detection	
Comfort remote control 1V	
Comfort remote control 2V	
Wall-mounted touch screen USER EDT2 **Not installed**	
F7 pocket filter ePM1 55% or F7 filter ePM1 55%	
F9 FILTER ePM1 80%	
M5 FILTER ePM10 50%	
CH36 compliance kit	
3-way valve kit 24V IP54	
Flexible sleeve	

Liquid manometer J	
Anti-vibration mount	
Potentiometer 0-10V	
Air pressure switch **Not installed**	
24 V anti-frost circular damper	
Motorized damper	
24V actuator	
24V room humidity sensor	
24V duct humidity sensor	
24V occupancy sensor	
Summer/winter changeover thermostat	
Roof **Not installed**	

CALADAIR

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