ComX-VCF

HIGH-CAPACITY HEAT RECOVERY VENTILATION



VEHUM

www.vehum.com.au

1300 137 115

VEHUM

About Us

VEHUM is the commercial ventilation brand of DEHUM, created to meet the practical demands of modern commercial and industrial buildings. It builds on DEHUM's long experience in ventilation and humidity control and focuses solely on reliable ventilation systems.

Our systems are manufactured for us in Europe and built to high standards of performance and durability. This gives us confidence in the quality, consistency, and compliance of every unit we supply, even in demanding operating environments.

With over 17 years of direct experience in heat recovery ventilation, we understand how these systems perform in the real world and what the Australian market actually needs. That experience shapes the way VEHUM systems are designed — from component choice and layout to efficiency, access, and long-term serviceability.

VEHUM systems are designed to deliver steady airflow, effective heat recovery, and solid construction, providing practical solutions that installers, consultants, and end users can trust.

COMX-VCF UNIT

The VEHUM ComX-VCF range has been developed for high-capacity commercial heat recovery ventilation applications requiring reliable performance, energy efficiency, and installation flexibility.

Designed for commercial and industrial projects, ComX-VCF units deliver balanced fresh air ventilation while recovering thermal energy from exhaust air streams to reduce heating and cooling energy losses.

The ComX-VCF range includes standard models from 2000 m^3/h to 11,000 m^3/h, with custom-built configurations available upon request.

Custom-built configurations are also available for specialised project requirements.

VEHUM ComX-VCF Vertival Heat Recovery Unit

High-efficiency commercial ventilation engineered for performance and flexibility.

What the ComX-VCF Delivers

The ComX-VCF commercial heat recovery unit is designed to deliver balanced, filtered fresh air while recovering thermal energy from exhaust air streams to improve energy efficiency and reduce operating costs.

- Continuous supply of **filtered fresh air**
- Controlled **exhaust air removal**
- **High-efficiency heat recovery** from exhaust air to incoming air
- Balanced ventilation for residential, commercial, and light industrial applications

Engineered Advantages

Every detail of the ComX-VCF is designed to simplify installation, improve performance, and reduce lifetime maintenance.

- **Galvanised steel casing** for long-term durability
- **Removable plate heat exchanger** for easy servicing
- Optional **electric heater or water coil** integration
- **Eurovent-certified, high-efficiency plate heat exchangers**
- **Low noise operation** with high-efficiency backward-curved plug fans
- Full **service access for simplified maintenance** and long-term servicing
- **High-performance thermal and acoustic insulation** with flame-retardant construction
- Integrated **user-friendly control interface**

Why Choose VEHUM Heat Recovery Ventilators

VEHUM systems are built for projects where efficiency, reliability, and flexibility matter.

- **Lower energy consumption** through high-efficiency plug fans
- **Eurovent-certified aluminum heat recuperator** for superior thermal performance
- **Exceptionally low noise levels**, ideal for occupied spaces
- **G-class filtration** for cleaner indoor air
- Optional **smart automation and control solutions**
- **Proportional speed control** for precise airflow management
- Simple integration of **electric heaters**
- Optional **water coil** for heating or cooling applications

The VEHUM Difference

Flexible installation. Proven efficiency. Quiet operation.
The ComX-VCF is engineered to adapt to your project.

UNIT SPECIFICATIONS

ComX-VCF units utilise direct-driven EC plug fans with backward-curved impellers for high operating efficiency and low noise performance.

The aerodynamic impeller design provides stable airflow delivery while minimising energy consumption and sound levels.

All major components are designed for simplified maintenance access and can be serviced or removed without dismantling the entire unit.

The flexible casing design also allows multiple duct connection arrangements for simplified installation.

ComX-VCF units utilise high-efficiency Eurovent-certified heat exchangers that are laboratory tested and performance verified.

Optimised airflow geometry minimises pressure drop while maximising thermal recovery efficiency.



ComX-VCF units utilise flame-retardant polyurethane insulation to provide excellent thermal and acoustic performance while minimising unwanted heat transfer.

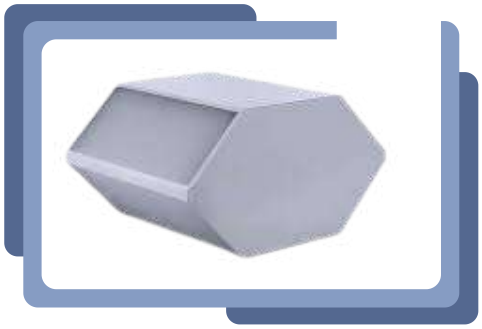
Fans, filters, and heat recovery exchangers are accessible through service panels designed for simplified maintenance access.

UNIT SPECIFICATIONS



Casing

- Double-skin galvanised steel construction
- Powder-coated external panels
- 50 mm mineral wool thermal and acoustic insulation
- Corrosion-resistant construction
- Designed for low-noise operation



Exchanger

ComX-VCF units utilise Eurovent-certified aluminium counterflow heat exchangers tested in accordance with EN308 standards.

The counterflow design provides high thermal recovery efficiency while maintaining low pressure drop characteristics.



Fans

ComX-VCF units utilise high-efficiency EC plug fans with backward-curved impellers.
Benefits include:

- lower energy consumption;
- quiet operation;
- low specific fan power (SFP);
- variable speed airflow control; and
- improved operating efficiency.

Compared with conventional AC motors, EC technology significantly reduces operating costs while improving airflow performance.



Filters

- High-efficiency supply air filtration
- Low pressure drop filter design
- Easy maintenance access
- Replaceable filter construction
- Filter monitoring through integrated controls

COMX-VCF UNIT



Technicial Specifications		
Nominal Air Flow (m^3/h)	2000	4000
Efficiency (EN 308)	80%	79%
Fans	EC	EC
Heat exchanger type	Counter-Flow	Counter-Flow
Supply Air Filter	ePM10 60% (G4) ePM1 90% (F9)	ePM10 60% (G4) ePM1 90% (F9)
Extract Air Filter	ePM10 70% (M5)	ePM10 70% (M5)
Operating Temperature (°C)	-20/60	-20/60
Protection Class	IP 31	IP 31
Nominal Voltage (VAC)	220	380
Current (A)	2,2x2	1,89x2
Fan Power Input (W)	500x2	1234x2

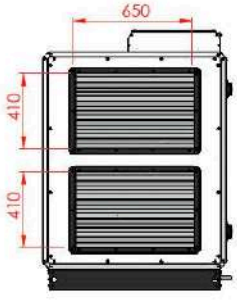
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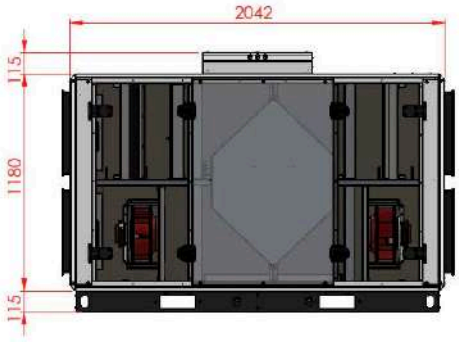
COMX-VCF 2000

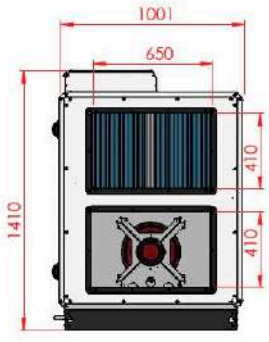


Technical Specifications	
Nominal Air Flow (m^3/h)	2000
External Pressure (Pa)	200
Efficiency (EN 308)	80
Supply Air Filter	ePM10 80% (M6) ePM1 70% (F8)
Extract Air Filter	ePM10 70% (M5)
Operating Temperature (°C)	-20/60
Protection Class	IP 31
Nominal Voltage (VAC)	220
Current (A)	2,2x2
Fan Power Input (W)	500x2
Weigth (kg)	550

ComX-VCF 2000	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level dB(A)	**39**	**38**	**35**	**33**	**31**	**27**	**23**	**43**
Air Outlet Sound Power Level dB(A)	59	62	58	56	55	54	50	67
Air Inlet Sound Power Level dB(A)	50	52	49	47	44	42	39	55







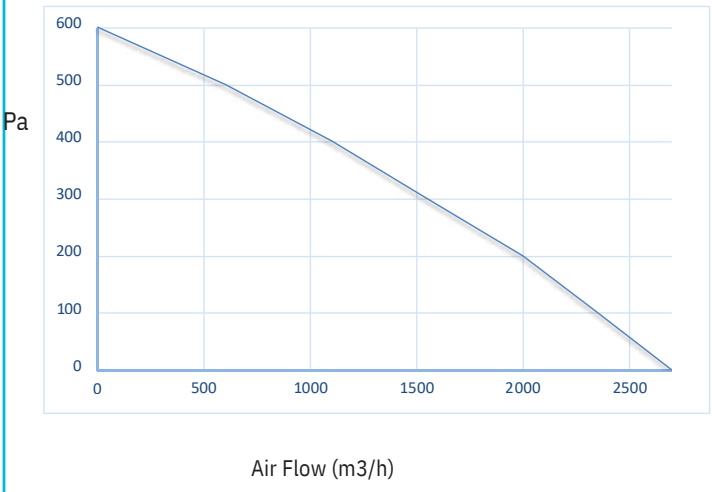
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COMX-VCF 2000

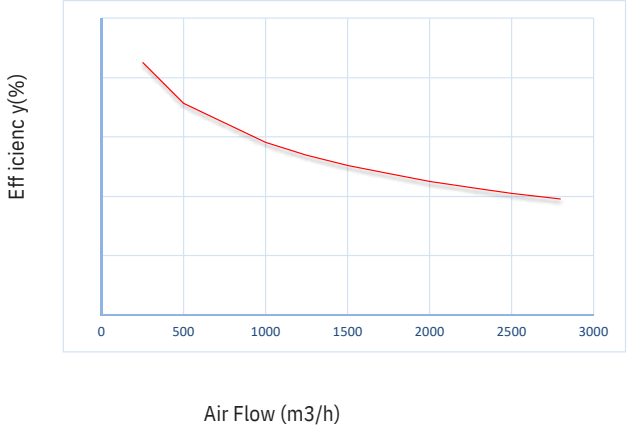


FEATURES	
Casing	Painted steel
Insulation	50 mm mineral wool
Fans	EC
Heat exchanger type	Rotor
Filter: extract	M6-F8
Filter: supply	M5
Preheatering	Optional
Reheating	Optional
Wired remote control panel	Standard
BMS	MODBUS
Freeze protection	Standard
Weekly schedule ope-ration	Standard
Alarm indication	Standard
Filter maintenance warning	According to filter timer
Boost mode	Standard
CO2 sensor	Option
Constant Flow Control	Option
Duct	800x200 mm

Performance Values



Efficiency



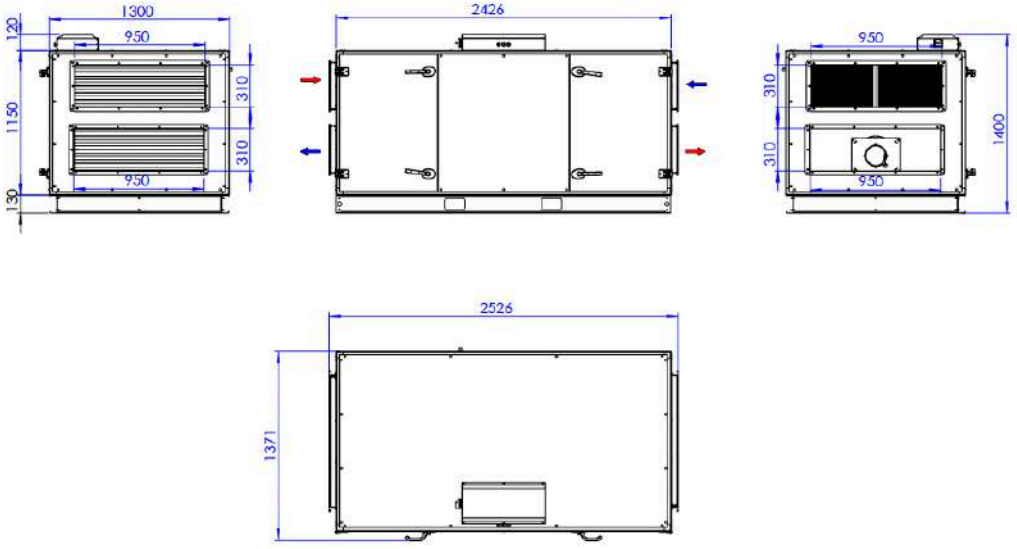
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COMX-VCF 4000



Technical Specifications	
Nominal Air Flow (m^3/h)	4000
External Pressure (Pa)	200
Weigth (kg)	650
Supply Air Filter	G4-F7
Extract Air Filter	G4-F7
Operating Temperature (°C)	-20/60
Protection Class	IP 31
Nominal Voltage (VAC)	220
Current (A)	1,65x2
Fan Power Input (W)	1072x2

ComX-VCF 4000	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level (dBA)	**42**	**41**	**38**	**36**	**34**	**30**	**26**	**46**
Air Outlet Sound Power Level (dBA)	62	65	61	59	57	55	52	69
Air Inlet Sound Power Level	54	56	53	50	47	45	41	58



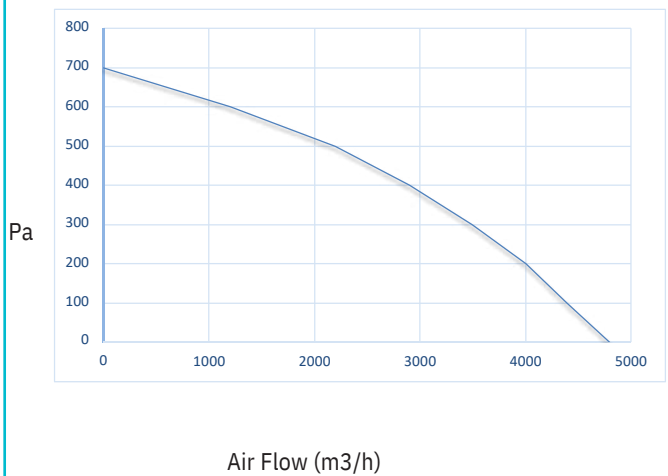
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COMX-VCF 4000

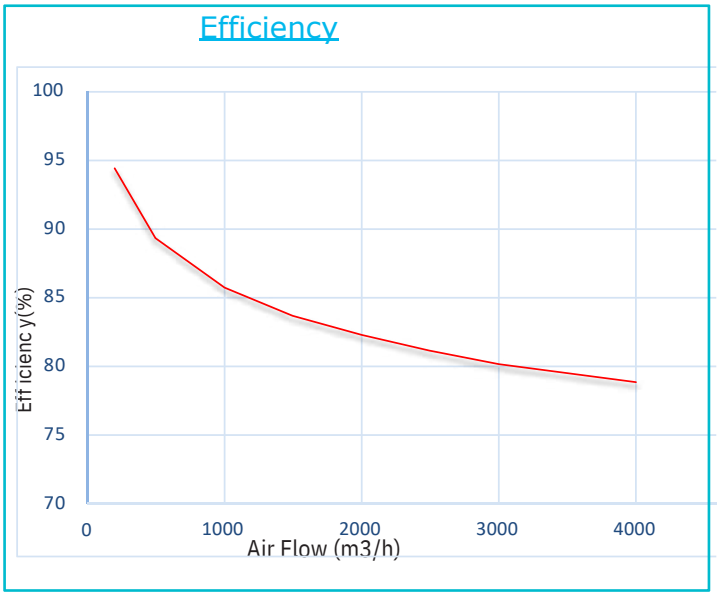


FEATURES	
Casing	Painted steel
Insulation	50 mm mineral wool
Fans	EC
Heat exchanger type	Counterflow
Filter: extract	G4-F7
Filter: supply	G4-F7
Preheatering	Optional
Reheating	Optional
Wired remote control panel	Standard
BMS	MODBUS
Freeze protection	Standard
Weekly schedule operation	Standard
Alarm indication	Standard
Filter maintenance warning	According to filter timer
Boost mode	Standard
CO2 sensor	Option
Constant Flow Control	Option
Duct	1100x300 mm

Performance Values



Efficiency



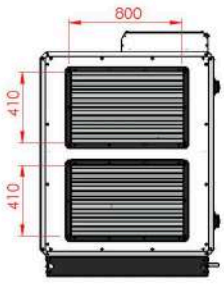
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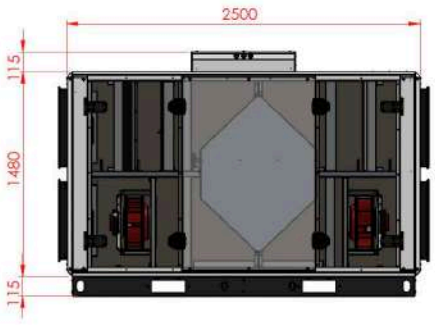
COMX-VCF 5000

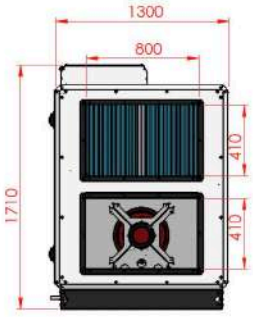


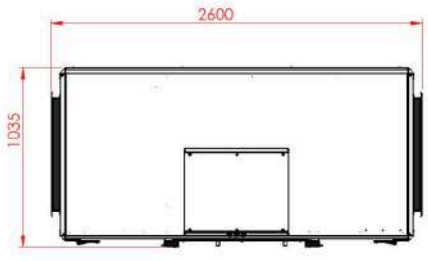
Technical Specifications	
Model	ComX VCF 5000
Nominal Air Flow (m^3/h)	5500
External Pressure (Pa)	200
Efficiency (EN 308)	80
Supply Air Filter	ePM10 80% (M5) ePM1 70% (F9)
Extract Air Filter	ePM10 70% (M5)
Operating Temperature (°C)	-20/60
Protection Class	IP 31
Nominal Voltage (VAC)	380
Current (A)	1,80x2

ComX-VCF 5000	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level (dBA)	**39**	**38**	**35**	**33**	**31**	**27**	**23**	**43**
Air Outlet Sound Power Level (dBA)	59	62	58	56	55	54	50	67
Air Inlet Sound Power Level (dBA)	50	52	49	47	44	42	39	55







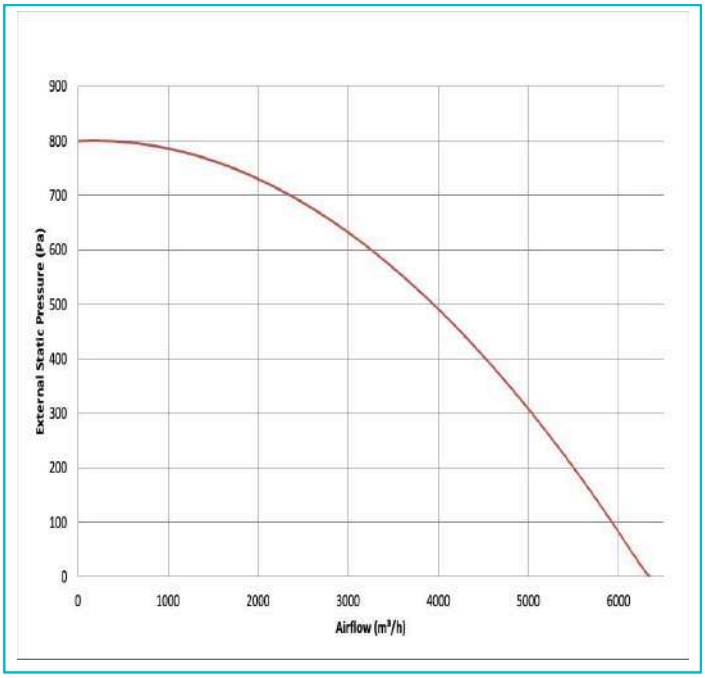


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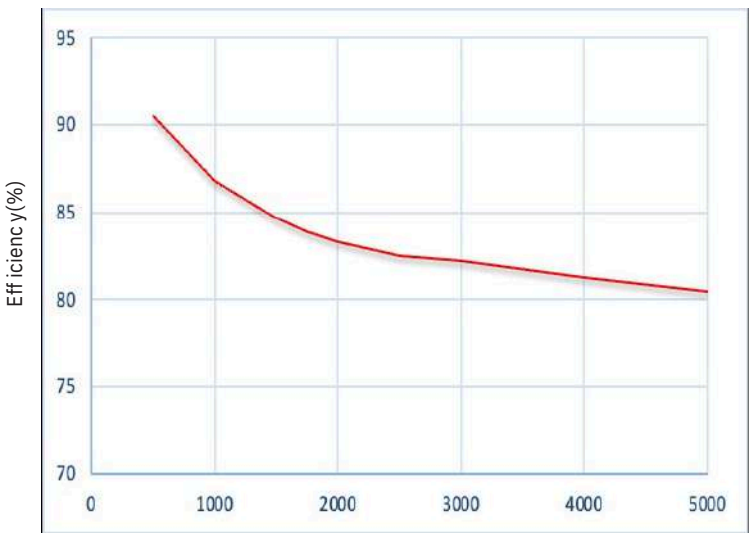
COMX-VCF 5000



FEATURES	
Casing	Painted steel
Insulation	50 mm mineral wool
Fans	EC
Heat exchanger type	Rotor
Filter: extract	M5-F9
Filter: supply	M5
Preheatering	Optional
Reheating	Optional
Wired remote control panel	Standard
BMS	MODBUS
Freeze protection	Standard
Weekly schedule operation	Standard
Alarm indication	Standard
Filter maintenance warning	According to filter timer
Boost mode	Standard
CO2 sensor	Option
Constant Flow Control	Option



Efficiency

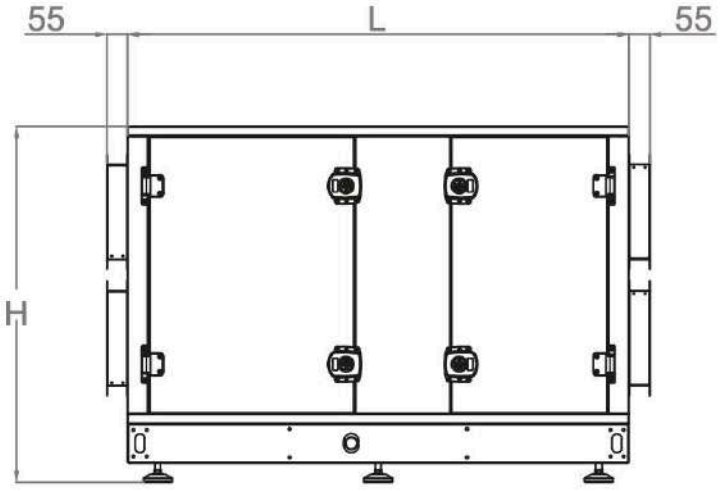


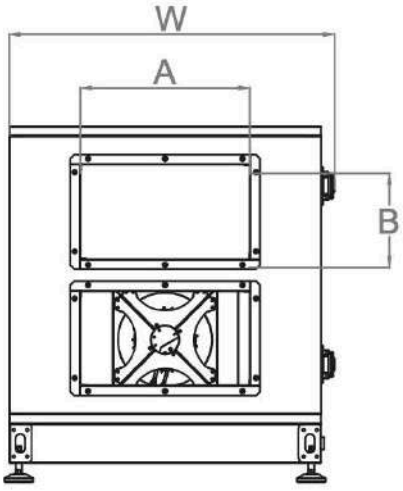
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COMX-VCF 7000



Technical Specifications	
Nominal Air Flow (m_3/h)	7000
External Pressure (Pa)	200
Weigth (kg)	1900
Supply Air Filter	G4-F7
Extract Air Filter	G4-F7
Operating Temperature (°C)	-20/60
Protection Class	IP 31
Nominal Voltage (VAC)	380
Current (A)	4,2x2
Fan Power Input (W) Sound	2730x
Power Level (LWA)	253





ComX-VCF 7000	A	B	L	W	H
Dimensions (mm)	1200	500	3165	1800	1550

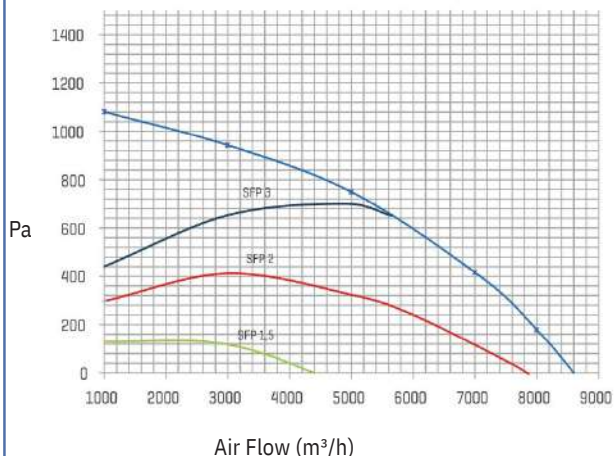
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COMX-VCF 7000

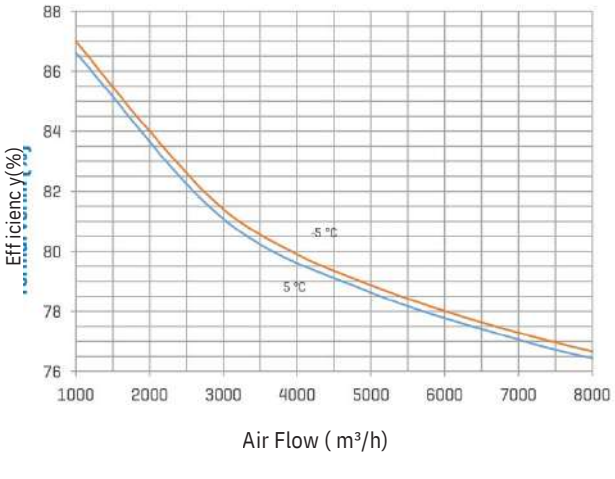


FEATURES	
Casing	Painted Steel
Insulation	50 mm mineral wool
Fans	EC
Heat exchange type	Counterflow
Filter: extract	G4-F7
Filter: supply	G4-F7
Preheatering	Optional
Reheating	Optional
Wired remote control panel	Standard
BMS	MODBUS
Freeze Protection	Standard
Weekly schedule operation	Standard
Alarm indication	Standard
Filter maintenance warning	According to filter timer
Boost mode	Standard
CO2 sensor	Option
Constant Flow Control	Option
Duct	1200x500 mm

Performance Values



Efficiency

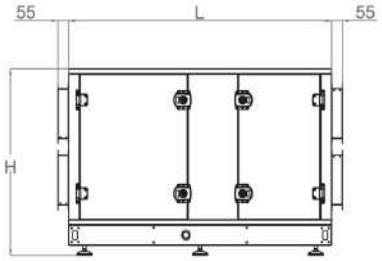


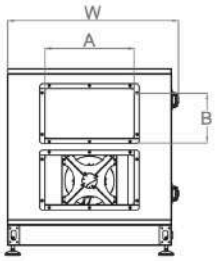
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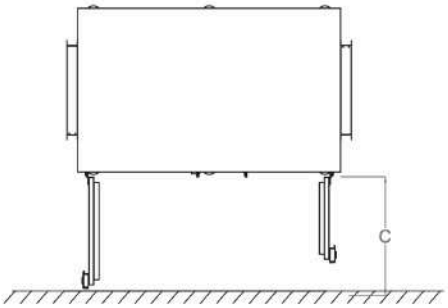
COMX-VCF 11000



Technical Specifications	
Nominal Air Flow (m^3/h)	11000
External Pressure (Pa)	250
Supply Air Filter	(G4) (F7)
Extract Air Filter	(G4)
Operating Temperature (^0C)	-20/60
Protection Class	IP 31
Nominal Voltage (VAC)	380
Current (A)	5,4
Fan Power Input (W)	3510
Weigth (kg)	2520







ComX-VCF 11000	L	W	H	A	B	C	Weight (KG)
Airborne Sound Power Level (dBA)	3165	2075	1655	1450	600	1300	250

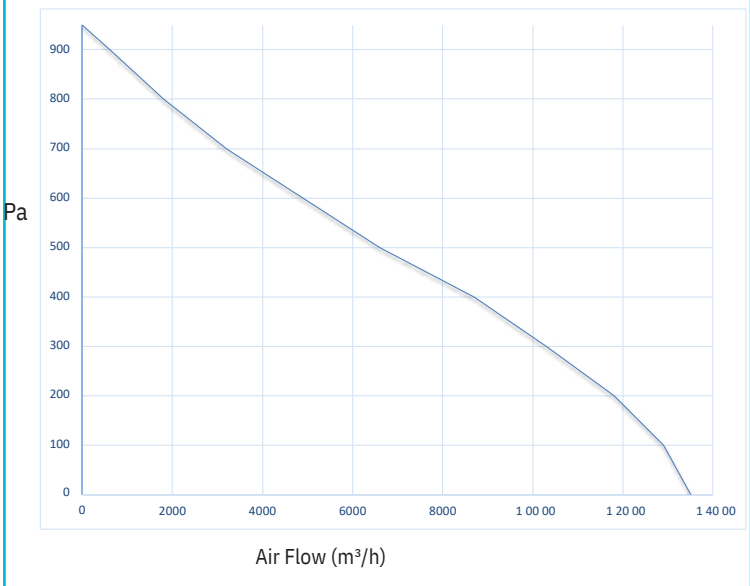
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COMX-VCF I5000

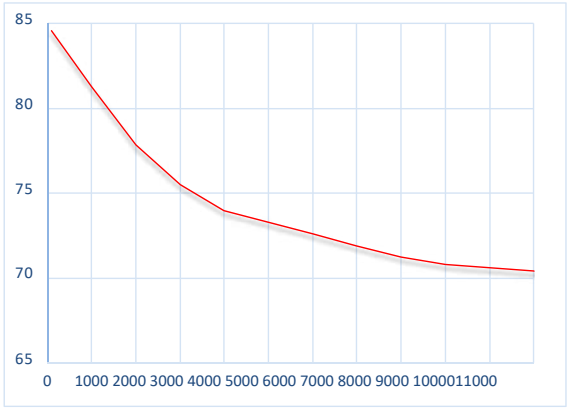


FEATURES	
Casing	Painted steel
Insulation	50 mm mineral wool
Fans	EC
Heat exchanger type	Counter Flow
Filter: extract	G4-F7
Filter: supply	G4
Preheatering	Optional
Reheating	Optional
Wired remote control panel	Standard
BMS	MODBUS
Freeze protection	Standard
Weekly schedule operation	Standard
Alarm indication	Standard
Filter maintenance warning	According to filter timer
Boost mode	Standard
CO2 sensor	Option
Constant Flow Control	Option
Duct	800x200 mm

Performance Values



Efficiency



ACCESSORIES

Digital Room Controller

ComX-VCF units are supplied with a digital wall-mounted controller for airflow and operating mode adjustment.

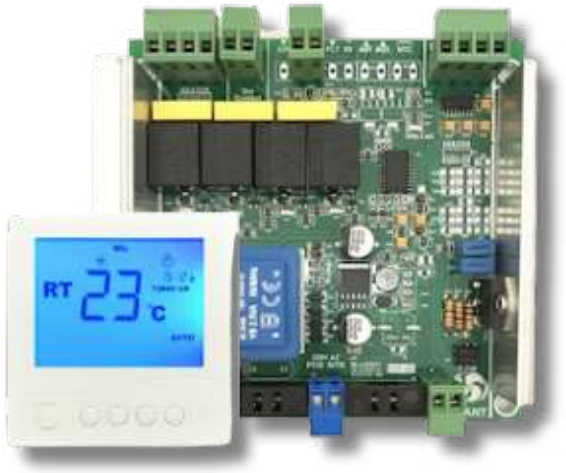
The controller allows independent adjustment of supply and exhaust airflow rates across multiple speed settings.

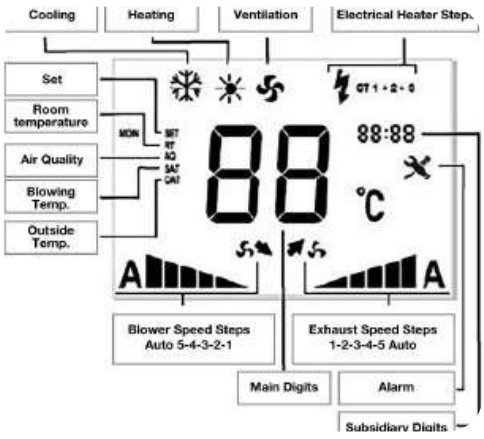
The LCD interface displays operating status, temperature settings, and system modes.

Summer mode allows ventilation-only operation, while winter mode enables integrated heater operation where fitted.

Optional integration with Building Management Systems (BMS) is available via Modbus RS485 communication.

Optional CO_2 and air quality sensors can also be integrated to provide demand-controlled ventilation operation.





Advanced Panel Specifications

1. Independent supply and exhaust airflow control
2. Filter service timer and maintenance alarm
3. Motor thermal protection
4. Electric heater integration
5. Water coil integration
6. Heater over-temperature protection
7. Boost mode operation
8. CO_2 sensor compatibility
9. Damper motor control
10. BMS integration
11. Heating and cooling valve control
12. Fire alarm interface
13. Weekly scheduling functionality
14. Supply air temperature monitoring

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