ComX-CF

High Efficiency

Heat Recovery Units



VEHUM

www.vehum.com.au

1300 137 115

VEHUM

About Us

VEHUM is the commercial ventilation division of DEHUM, developed to provide high-performance ventilation solutions for modern commercial and industrial buildings.

Built on more than 17 years of industry experience in ventilation and humidity control, VEHUM focuses on reliable, energy-efficient air movement systems designed for Australian conditions.

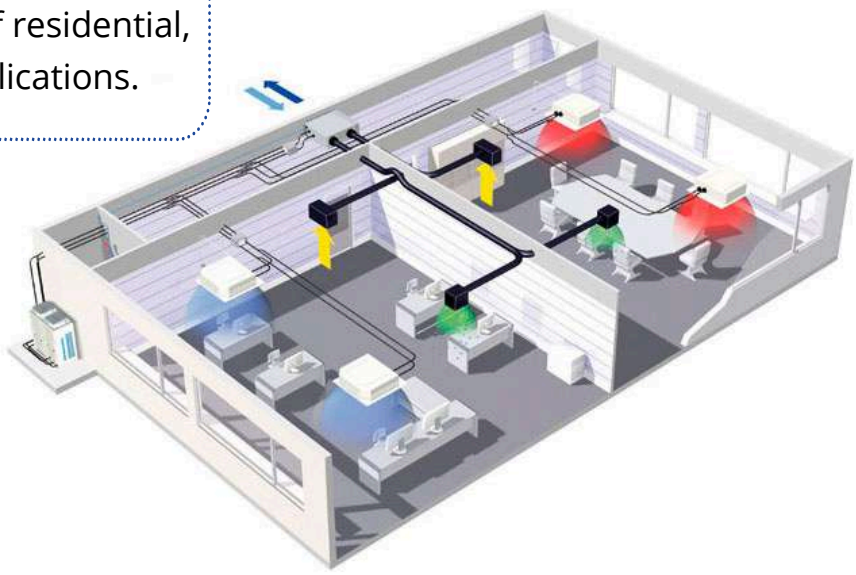
Our systems are manufactured in Europe to high standards of quality, efficiency, and durability, ensuring dependable long-term performance even in demanding operating environments.

With extensive real-world experience in heat recovery ventilation, we understand the practical requirements of consultants, installers, builders, and end users. This experience influences every aspect of the ComX-CF range — from component selection and serviceability to airflow performance and energy recovery efficiency.

VEHUM systems are designed to deliver reliable airflow, effective heat recovery, and long-term operational efficiency for a wide range of commercial applications.

COMX-CF

ComX-CF heat recovery units are designed to improve indoor air quality and energy efficiency across a wide range of residential, commercial, and mixed-use applications.







COMX-CF UNIT

The VEHUM ComX-CF series has been developed to deliver high-efficiency heat recovery ventilation for a wide range of commercial and residential applications.

Designed for ceiling-mounted installation, the ComX-CF range combines energy-efficient EC fan technology with high-performance counterflow heat exchangers to provide reliable fresh air ventilation and exceptional heat recovery performance.

The standard ComX-CF range includes six models with airflow capacities ranging from 500 m³/h to 4000 m³/h.

Custom-built configurations are also available to suit specialised project requirements.

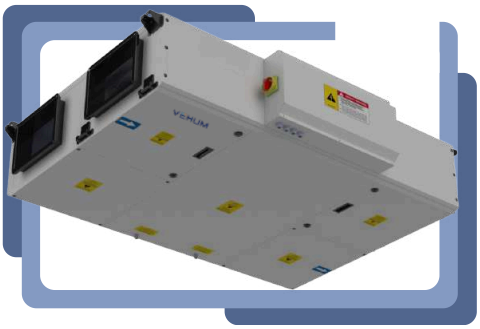


- Airflow capacities from 500m³/h to 4000m³/h
- High efficiency EC plug ins
- Eurovent-certified counterflow heat exchanger
- Automatic summer bypass operation
- Automatic winter defrost protection
- Easy maintenance
- Optional CO_2 demand control
- Compact ceiling-mounted design
- Easy maintenance access
- Modbus BMS compatibility

		ComX-CF range					
		500	1000	1500	2300	3000	4000
Electrical Connections		1~230 V 50 Hz					3~400 V 50 Hz
Performance Data							
Air Flow (1)	m3/h	550	1050	1400	2300	3150	4000
Electrical Requirements							
Fan/motor Power (3)	W	174	260	540	640	756	1234
Current	(A)	1,4	1,74	2,4	2,9	5,6	1,89

1. Air flow data refer to 0 Pa & 20°C.
2. Sound levels are measured at 2.5mΩ and 1.5m distance.
3. Power consumption.

UNIT SPECIFICATIONS

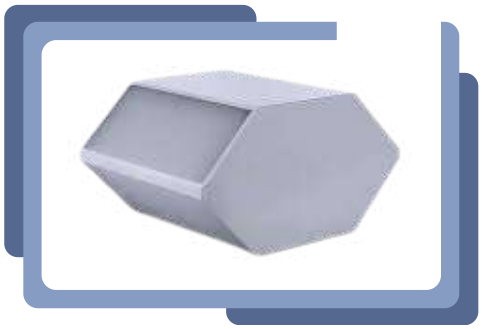


Casing

The unit casing is constructed from double-skin insulated panels for high structural rigidity and acoustic performance.

Internal panels are manufactured from 0.8 mm galvanised steel, while external panels are finished in 0.8 mm powder-coated steel.

Side panels are insulated with 50 mm high-density rock wool insulation (70 kg/m³). Top, bottom, and access panels utilise 30 mm insulated construction for reduced weight while maintaining thermal and acoustic performance.



Exchanger

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

The counterflow design provides excellent temperature recovery efficiency while maintaining low pressure drop characteristics.



Fans

ComX-CF units utilise high-efficiency EC plug fans with backward-curved impellers for low energy consumption and precise airflow control.

EC motor technology provides:

- High operating efficiency
- Low Specific Fan Power (SFP)
- Quiet operation
- Fully variable speed control



Filters

ComX-CF units are fitted with high-efficiency supply and return air filtration as standard.

Supply air filtration options include:

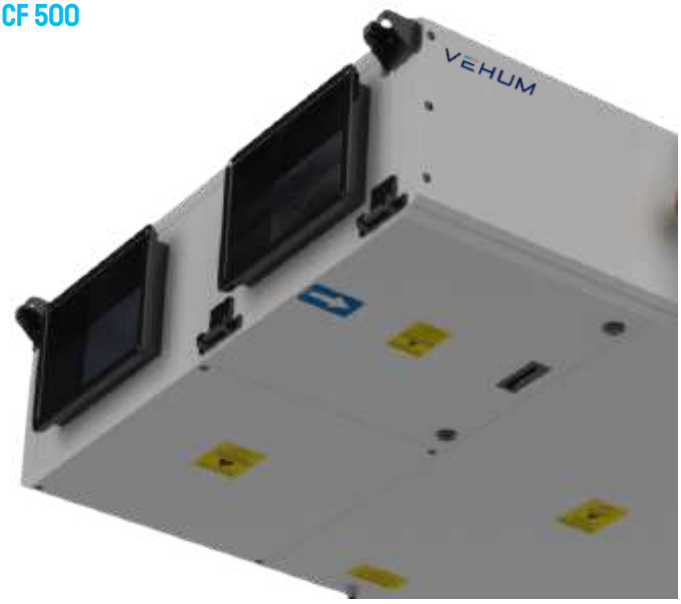
- G4 + F9; or
- M6 + F8.

Return air filtration is provided with M5 or M6 class filters. Integrated filter monitoring assists with maintenance scheduling and service intervals.

Access panels are designed for simple filter replacement and maintenance access.

DATA

COMX-CF 500

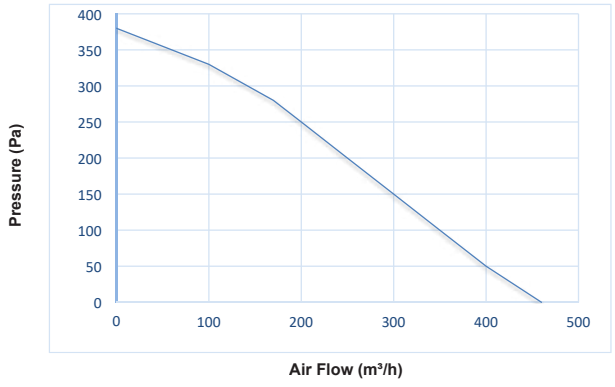


Technical Specifications	
Min. Air Flow (m^3/h)	130
Nominal Air Flow (m^3/h)	460
Efficiency (EN 308)	78,5
Weigth (kg)	110
Supply Air Filter	ePM1 50% (F8) ePM10 60% (M6)
Extract Air Filter	ePM10 50% (M5)
Operating Temperature (°C)	-20/50
Protection Class	IP 31
Nominal Voltage (VAC)	230
Current (A)	0,7x2
Power Input (kW)	87x2

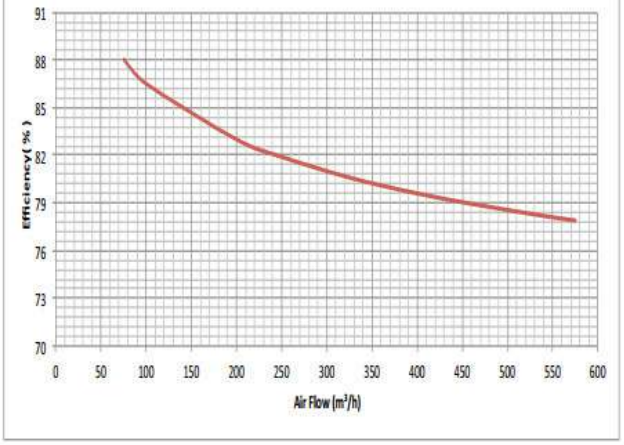
ComX-CF 500	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level dB(A)	**33**	**32**	**29,5**	**28,5**	**27,5**	**24**	**21**	**38,5**
Air Outlet Sound Power Level dB(A)	48	52	49,5	50	51,5	52,5	48	59,5
Air Inlet Sound Power Level dB(A)	41,5	47	44	42,5	45	45	41,5	48

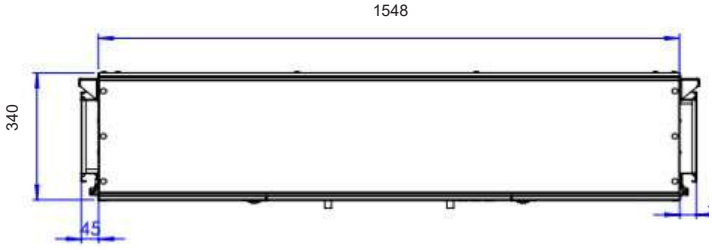
Sound levels are measured at 1,5m distance.

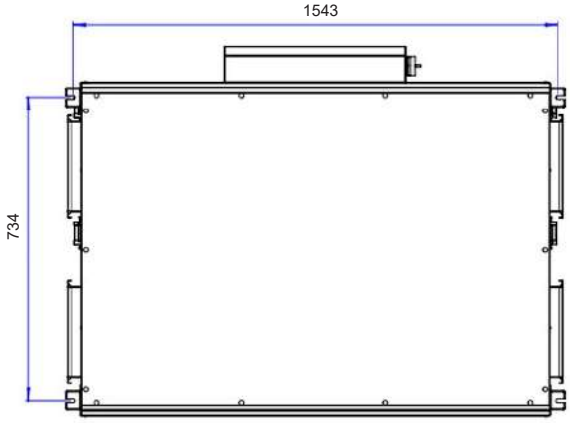
Performance Values



Efficiency

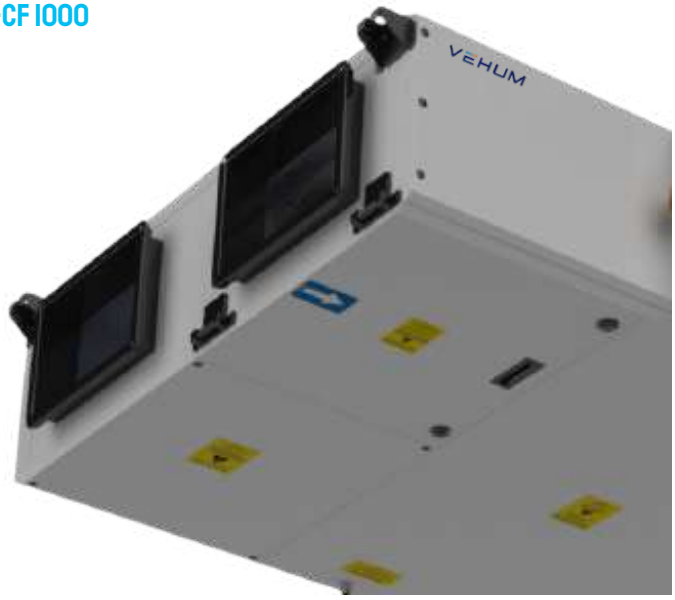






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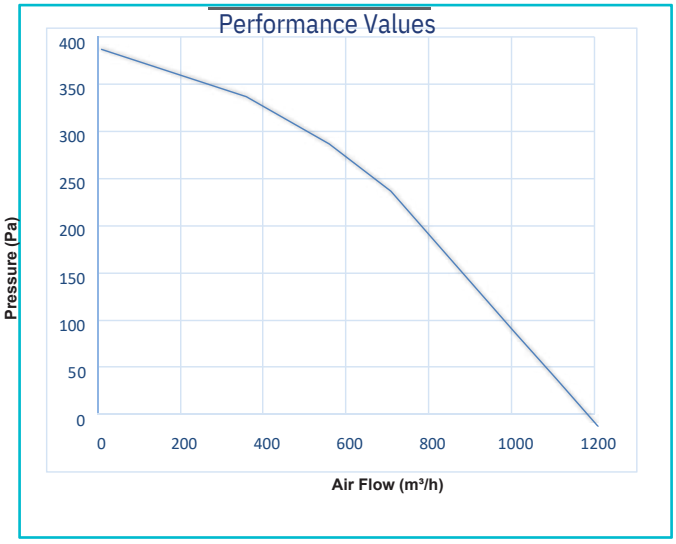
COMX-CF 1000



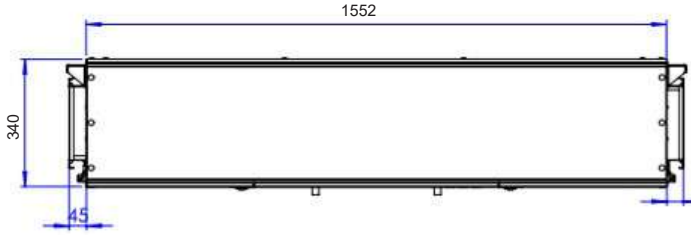
Technical Specifications	
Min. Air Flow (m^3/h)	160
Nominal Air Flow (m^3/h)	1000
Efficiency (EN 308)	79
Weigth (kg)	160
Supply Air Filter	ePM1 50% (F8) ePM10 60% (M6)
Extract Air Filter	ePM10 50% (M5)
Operating Temperature (°C)	-20/50
Protection Class	IP 31
Nominal Voltage (VAC)	230
Current (A)	0,87x2
Power Input (kW)	130x2

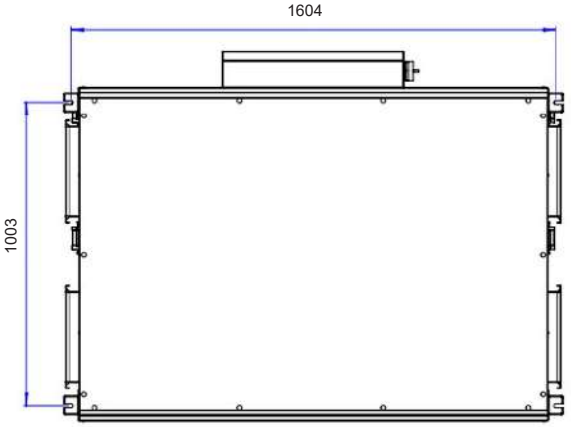
ComX-CF 1000	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level dB(A)	**37**	**36**	**32**	**31**	**30**	**26,5**	**23**	**41,5**
Air Outlet Sound Power Level dB(A)	51	55,5	52,5	53	54,5	55,5	51	62
Air Inlet Sound Power Level dB(A)	46	52	49	47,5	50	50	46	51

Sound levels are measured at 1,5m distance.



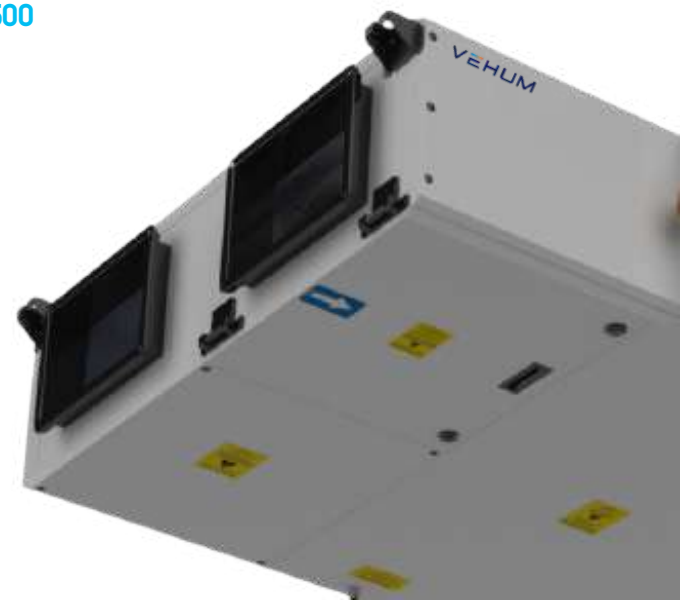






DATA

COMX-CF 1500

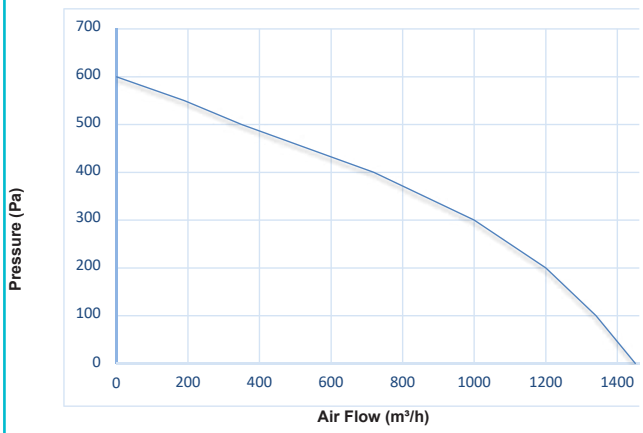


Technical Specifications	
Min. Air Flow (m^3/h)	175
Nominal Air Flow (m^3/h)	1450
Efficiency (EN 308)	79,1
Weigth (kg)	210
Supply Air Filter Extract Air	ePM1 50% (F8) ePM10 60% (M6)
Filter	ePM10 50% (M5)
Operating Temperature (°C)	-20/50
Protection Class	IP 31
Nominal Voltage (VAC)	230
Current (A)	1,2x2
Power Input (kW)	270x2

ComX-CF 1500	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level dB(A)	**42**	**40,5**	**36**	**35**	**33,5**	**29,5**	**25,5**	**46,5**
Air Outlet Sound Power Level dB(A)	58	62,5	59	59,5	61	62,5	57	67
Air Inlet Sound Power Level dB(A)	51	57	53	51,5	54,5	54,5	50,5	56,5

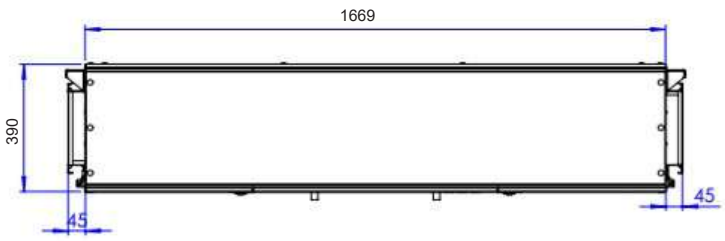
Sound levels are measured at 1,5m distance.

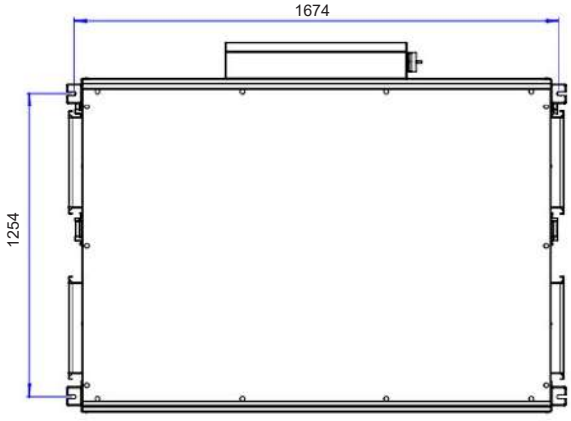
Performance Values



Efficiency







DATA

COMX-CF 2300

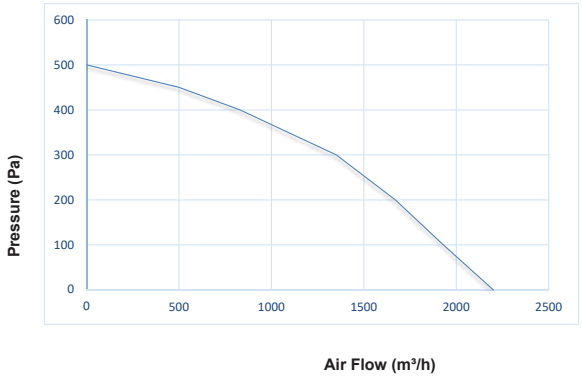


Technical Specifications	
Min. Air Flow (m^3/h)	250
Nominal Air Flow (m^3/h)	2200
Efficiency (EN 308)	79,7
Weigth (kg)	280
Supply Air Filter Extract Air	ePM1 50% (F8) ePM10 60% (M6)
Filter	ePM10 50% (M5)
Operating Temperature (°C)	-20/50
Protection Class	IP 31
Nominal Voltage (VAC)	230
Current (A)	1,45x2
Power Input (kW)	320x2

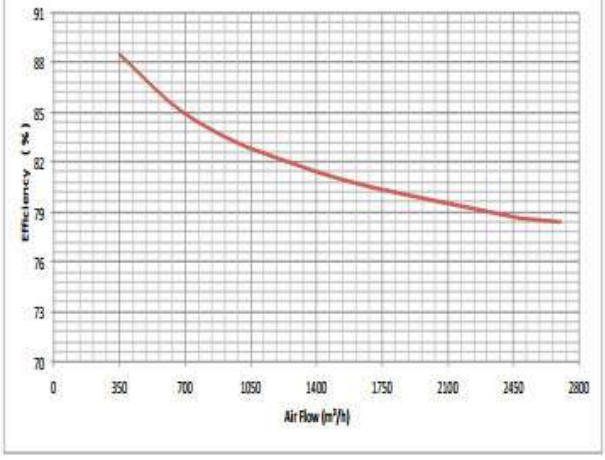
ComX-CF 2300	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level dB(A)	**43,5**	**42,5**	**37,5**	**36,5**	**34,5**	**30,5**	**26**	**47**
Air Outlet Sound Power Level dB(A)	60	65	61	62	63,5	65	60	70
Air Inlet Sound Power Level dB(A)	52,5	60	55	53,5	56,5	56,5	52,5	59

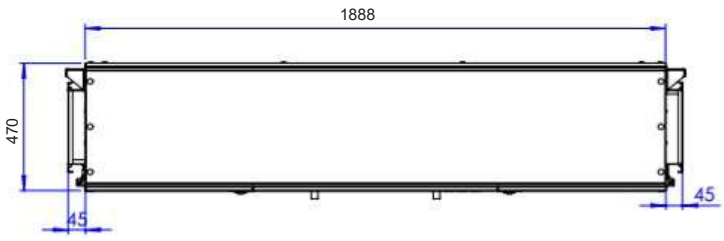
Sound levels are measured at 1,5m distance.

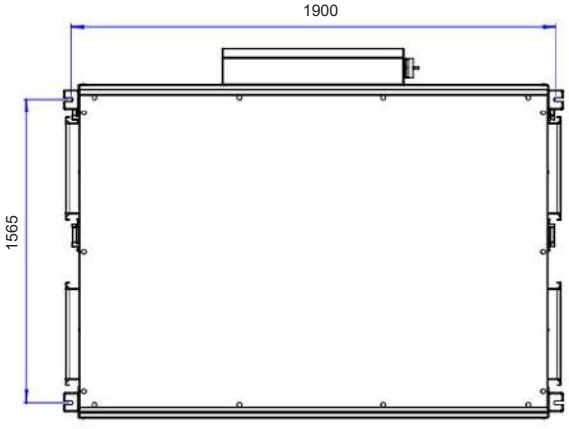
Performance Values



Efficiency







DATA

COMX-CF 3000



Technical Specifications	
Min. Air Flow (m^3/h)	310
Nominal Air Flow (m^3/h)	3000
Efficiency (EN 308)	79,1
Weigth (kg)	320
Supply Air Filter Extract Air	ePM1 50% (F8) ePM10 60% (M6)
Filter	ePM10 50% (M5)
Operating Temperature (°C)	-20/50
Protection Class	IP 31
Nominal Voltage (VAC)	230
Current (A)	2,8x2
Power Input (kW)	378x2

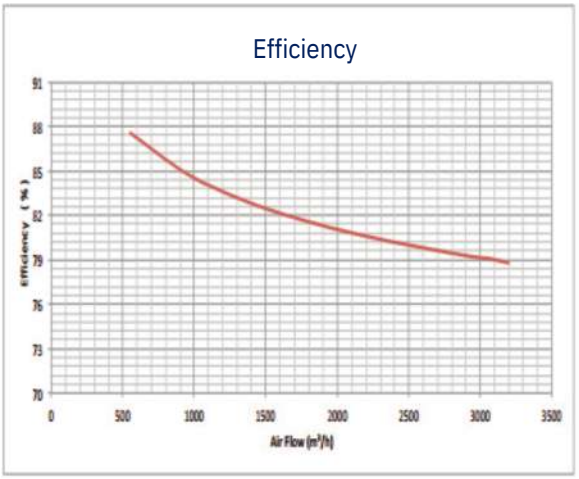
ComX-CF 2300	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LwA-tot
Airborne Sound Power Level dB(A)	**40**	**38,5**	**34,5**	**33,5**	**31,5**	**27,5**	**24**	**44**
Air Outlet Sound Power Level dB(A)	56	61	58	58,5	60	61,5	56,5	68
Air Inlet Sound Power Level dB(A)	49	55,5	52	50,5	53,5	53,5	49,5	57,5

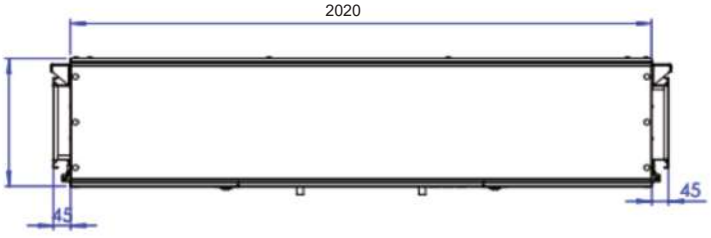
Sound levels are measured at 1,5m distance.

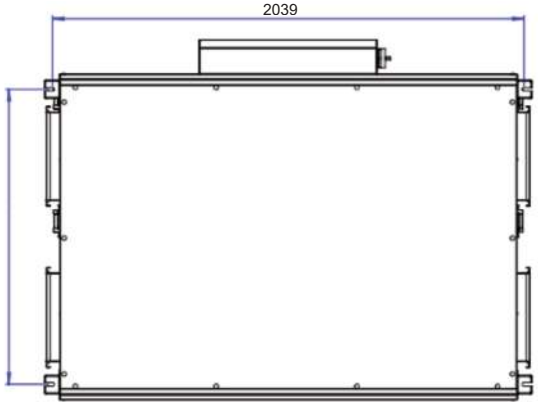
Performance Values



Efficiency







2024

COMX-CF 4000

Technical Data Sheet

VEHUM
HVAC Systems

Unit Information	
Unit Type	Counterflow Heat Recovery Unit
Model	COMX-CF 4000
Description	Counterflow plate HX, EC fans, electric post-heater
Airflow Capacity	4000 m³/h
Heat Exchanger	Holmak GS62-1500 Counterflow
Fan Type	ebm-papst EC Centrifugal
Post-Heater	4.0 kW Electric
Voltage	400V 3~ 50/60 Hz



COMX-CF 4000

Technical Data Sheet

VEHUM HVAC Systems

Features

Casing	Painted steel
Insulation	50 mm (sides) / 30 mm (top & bottom)
Fans	EC
Heat Exchanger Type	Counter-Flow
Filter: Supply	G4 + F9
Filter: Return	M5
Air Dampers	Bypass (Standard)
Pre-Heating	Optional
Re-Heating	4.0 kW Electric (Standard)
Wired Remote Control Panel	Standard
BMS	MODBUS
Weekly Schedule Operation	Standard
Alarm Indication	Standard
Filter Maintenance Warning	According to filter timer
Boost Mode	Standard
CO2 Sensor	Option
Constant Flow Control	Option

Operating Conditions

	Supply	**Extract**	
Air Flow	4000	4000	m³/h
External Static Pressure	0	0	Pa

	Outdoor	**Extract**	
Winter			
Temperature	5.0	25.0	°C
Relative Humidity	72	28	%
Summer			
Temperature	35.0	25.0	°C
Relative Humidity	40	50	%

COMX-CF 4000

Technical Data Sheet

VEHUM
HVAC Systems

Supply Filter (Two-Stage)

Stage 1	G4 Panel Pre-Filter
Class EN / ISO 16890	G4 / Coarse ≥50%
Filter Frame Dimensions	545 × 965 × 48 mm
Initial / Design / Final PD	30 / 65 / 130 Pa
Stage 2	F9 Mini-Pleated Main Filter
Class EN / ISO 16890	F9 / ePM1 ≥80%
Filter Frame Dimensions	545 × 965 × 48 mm
Initial / Design / Final PD	75 / 160 / 265 Pa

Return Filter

Definition	M5 Mini-Pleated Filter
Class EN / ISO 16890	M5 / ePM10 ≥50%
Type	Mini-Pleated
Filter Frame Dimensions	545 × 965 × 48 mm
Initial / Design / Final PD	30 / 75 / 160 Pa

Pressure Drop Summary

Component	Supply (Pa)	Extract (Pa)
Heat Recovery	194	214
Supply Filter G4 (design)	65	—
Supply Filter F9 (design)	160	—
Return Filter M5 (design)	—	75
Post-Heater	~35	—
Total Internal	**~454**	**~289**

COMX-CF 4000

Technical Data Sheet

VEHUM
HVAC Systems

Counterflow Heat Exchanger

Manufacturer	Holmak HeatX
Type	GS62-1500 Counterflow
Material	Aluminium

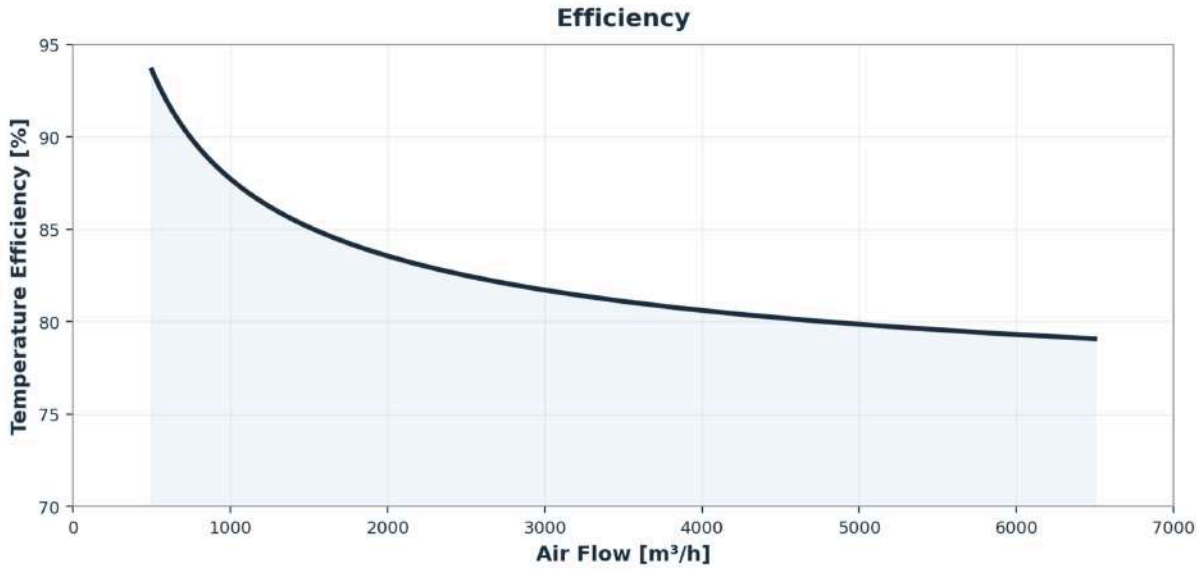
Winter Performance

Parameter	Supply	Exhaust	Unit
Pressure Drop	194	214	Pa
Temp. Efficiency	80.62	—	%
Heat Recovery Capacity	21.70	-21.70	kW
Condensation	—	0	kg/h

NEN-EN 308 Certified Performance

Capacity [Qhrs]	22.13 kW
Energy Efficiency [ηe]	82.22 %

Temperature Efficiency Curve



COMX-CF 4000

Technical Data Sheet

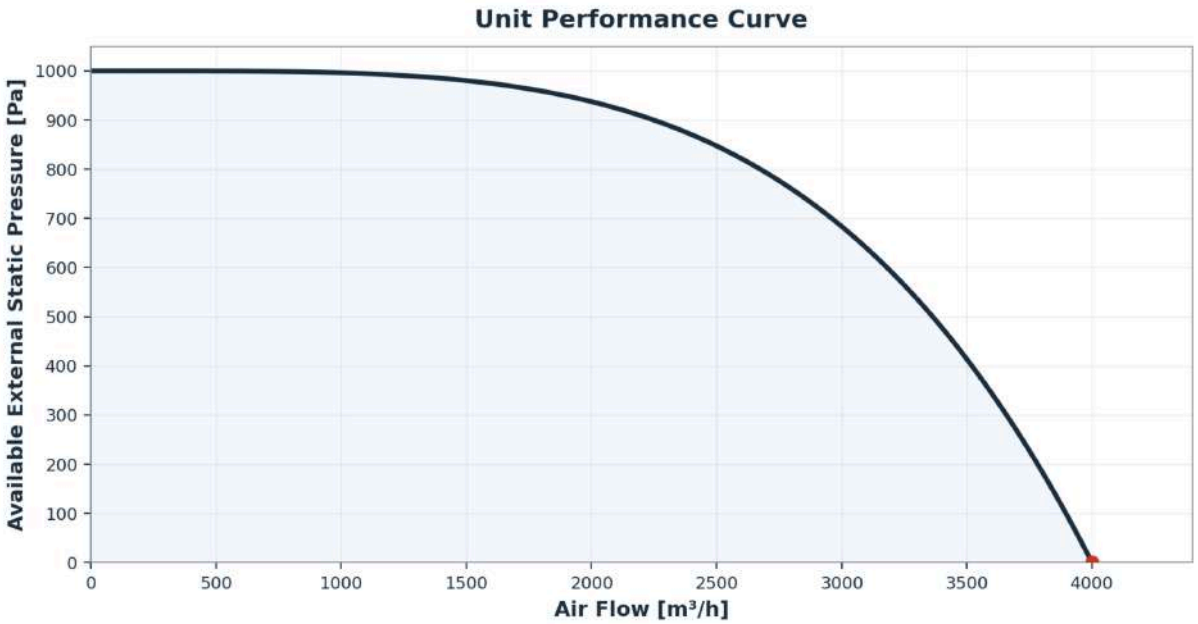
VEHUM
HVAC Systems

Supply Fan

Manufacturer	ebm-papst
Definition	R3G310PT10W1 (VBS0310PTPMS)
Type	Backward curved, single inlet
Inlet	epM inlet nozzle
Blades	5

Parameter	Value		Unit
Air Flow	4000		m³/h
Static Pressure (Fan)	455		Pa
Total Pressure	668.1		Pa
Fan Speed	2980		rpm
Power Consumption	1234		W
SFP	1.11		kW/(m³/s)
Overall Eff. (ηed / ηes)	60.1 / 54.0		%
Motor Efficiency (ηm)	85.9		%
Current Draw	1.89		A
Voltage-Frequency	400V 3~	50/60	Hz
Nominal Power / Current	1470 kW	2.3	A
FEIs	1.44		

Unit Performance Curve



COMX-CF 4000

Technical Data Sheet

VEHUM HVAC Systems

Return Fan

Manufacturer	ebm-papst
Definition	R3G310PT10W1 (VBS0310PTPMS)
Type	Backward curved, single inlet

Parameter	Value		Unit
Air Flow	4000		m³/h
Static Pressure (Fan)	455		Pa
Power Consumption	1234		W
SFP	1.11		kW/(m³/s)
Overall Static Eff. (ηes)	54.0		%
Current Draw	1.89		A
Voltage-Frequency	400V 3~	50/60	Hz

Electric Post-Heater

Definition	4.0 kW Electric Heater
Installation	Integrated
Electrical Supply	380-415V 3ph 50Hz
Max Capacity	4.0 kW
Stages	1

Acoustic Performance

Sound power levels L^{wA} [dB]perISO13347atnominalairflow4000m³/h.
Casing: 70kg/m³rockwool (50 mm sides, 30 mm top/bottom) with internal acoustic absorbers.

dB / dB(A)	63	125	250	500	1k	2k	4k	8k	Total
Supply	68	70	73	72	72	70	68	65	**79**
Outdoor	65	66	69	68	68	66	64	61	**75**
Exhaust	68	70	73	72	72	70	68	65	**79**
Extract	65	66	69	68	68	66	64	61	**75**
Casing Rad. LW	56	56	52	49	46	43	39	34	**60**

Casing Radiated Sound Pressure Level L^{pA}:

@ 1 m	56 dB(A)
@ 1.5 m	53 dB(A)
@ 3 m	47 dB(A)

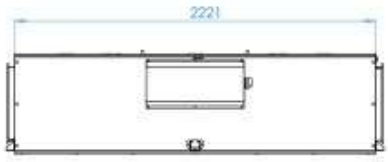
COMX-CF 4000

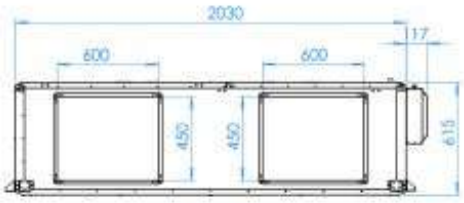
Technical Data Sheet

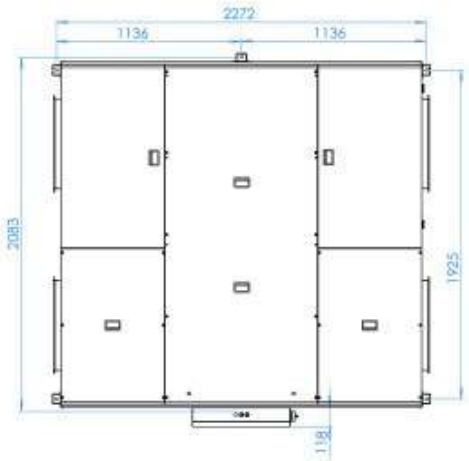
VEHUM
HVAC Systems

Dimensions	
Overall Length	2272 mm
Overall Width	2083 mm
Overall Height	615 mm
Casing Length	2221 mm
Duct Connection	4 × 600 × 450 mm (rectangular)

Technical Drawing









FEATURES





Basic Line Control System

- Compatible with M6 + F8 or G4 + F9 supply filtration
- M5 return air filtration monitoring
- 5-stage EC fan speed control
- Filter service timer and maintenance warning
- Automatic bypass damper operation for free cooling
- Remote on/off control input
- Fault output signal
- Modbus RTU communication compatibility



Professional Line Control System

- Compatible with M6 + F8 or G4 + F9 supply filtration
- M5 return air filtration monitoring
- 5-stage EC fan speed control
- Integrated electric reheater control
- Constant airflow control
- CO_2-based demand ventilation control
- Automatic bypass damper operation for free cooling
- Dual differential pressure monitoring
- Remote on/off control input
- Fault output signal
- Modbus RTU communication compatibility

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