

TOPVEX FR08-L-CAV

Item no. 94556

Document type: **Product card**
Document date: **2018-07-27**
Generated by: **Systemair Online Catalogue**



Description

- **Topvex is delivered with the Access control system**
- **Flat design**
- **Flexible installation**
- **Low energy use**
 - Energy efficient plug fans with EC motors
- **Efficient rotating heat recovery wheel**
 - No need of water drainage
- **Large inspection doors for easy maintenance**
 - All main components are easy removable
 - Separate electrical cabinet facilitates commissioning and service
 - Sliding doors as an accessory
- **Manufactured in Aluzinc plated sheet metal**
 - Corrosive class C4 (Industrial and coastal areas with moderate salinity).
 - AZ185 sheet metal have more than 50 years of technical lifetime.
- **Factory tested**

The unique design with double rotating heat exchangers makes the unit very flat. No need of condense water drainage makes the unit very flexible to install. Topvex FR can be mounted flat on the floor, hanging upside down in a false ceiling or standing on the long side.

Topvex FR is designed for meeting the coming energy demands with high heat recovery efficiency and low energy use. To guarantee the high heat recovery efficiency the exchanger is designed for low air speed and by that also a low pressure drop. The supply and extract air filter are designed to have a low pressure drop, without compromising with the filtration efficiency. A low internal pressure drop is essential to keep the energy use down Topvex FR features Plug fans with EC technology to ensure high efficiency. The EC-motors has when speed-controlled, 15-20% lower energy consumption compared to a standard frequency controlled asynchrony motor.

Constant air volume control is standard and Variable air volume control is available as an accessory.

Topvex is delivered with the new Access control system including the graphical user interface, NaviPad.

The NaviPad* is an ergonomic and robust designed (IP54) navigation tablet, developed specifically for industrial environments – featuring an easy-to-use, intuitive HTML5 user interface.

It is mounted on the Topvex unit or on the wall, easy to detach for handheld use.

Relevant operating data and settings are available in real time and can be changed with a few clicks.

Access control has built-in energy saving features like free cooling, cooling recovery, season related temperatures and airflow control.

Possibility to edit names for the unit, the alarms and control components gives the user options to adapt to different installations needs.

With the system overview dashboard it is possible to monitor several air handling units within a local network.

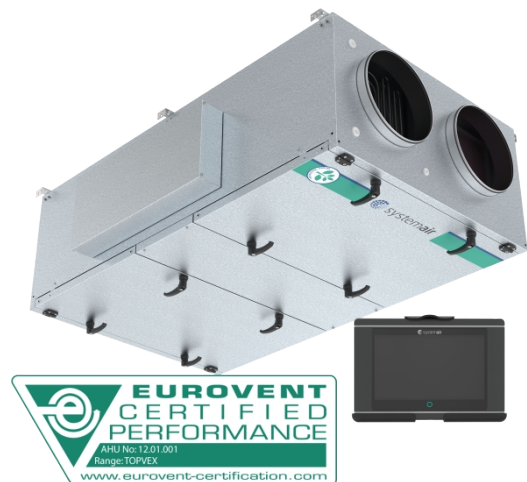
Standard communication possibilities are: BACnet, Modbus and Exoline via RS-485 & TCP/IP. Cloud connection to Systemair Connect.

*The NaviPad is connected via 3 m flat cable

The separate electrical cabinet with all cable connections collected at one place facilitates commissioning and service. The functions and functionality in Topvex FR guarantee that all features are provided to give you the best indoor environment with the highest comfort to the lowest operating costs.

Ordering code.

- **Model:** **FR03, 06, 08 and 11.**
- **Heating coil:** **EL** (Electric).
 - HWL** (Hot water coil-low power).
 - HWH** (Hot water coil-high power).
 - None** (No heater). Example on unit without reheater: Topvex FR -L-CAV.
- **Right or Left model:** **R** (Right), **L** (Left). The side where the supply air is located when viewed from access side.
- **Airflow control:** **CAV** (Constant air volume).
- **Airflow control accessory:** **VAV** (Variable air volume = constant duct pressure control).



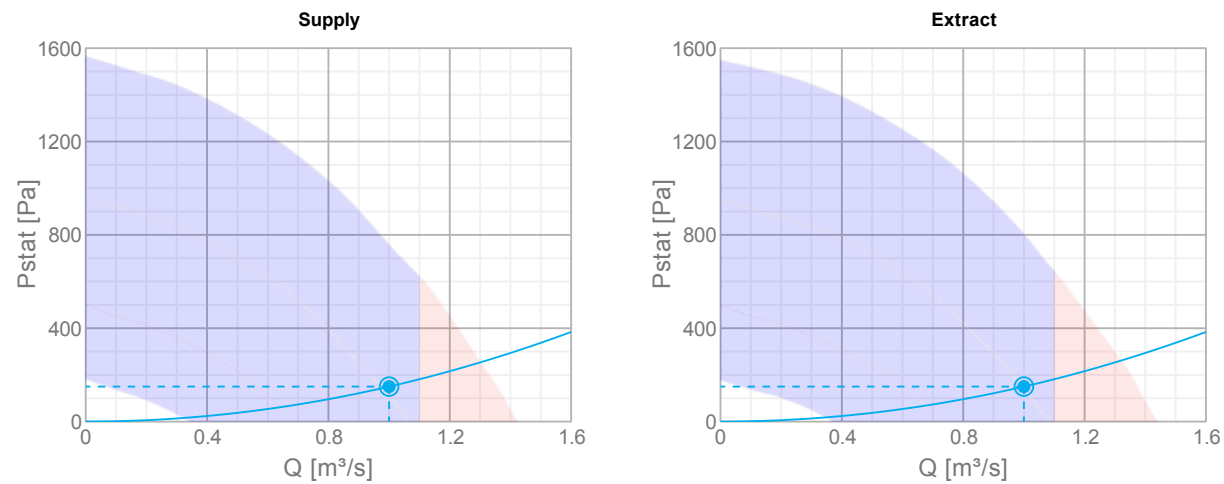
Technical parameters

Unit		
Voltage	400	V
Frequency	50	Hz
Phase	3N	~
Weight	321	kg
Recommended fuse	3 x 10	A
Enclosure class	IP23	
Airflow range	0,4-1,1	m³/s
Heater		
Heating type	None	
Supply fan		
Voltage	400	V
Phase	3	~
Input power (P1)	2423	W
Extract fan		
Voltage	400	V
Phase	3	~
Input power (P1)	2423	W
Supply filter		
Filter, supply air	ePM1 60%	
Extract filter		
Filter, extract air	ePM10 60%	
Heat exchanger		
Exchanger type	Rotating	
Others		
Mounting type	False ceiling	
Supply side	Left	
ErP		
ErP ready	ErP 2018	

Performance

Diagrams

Diagrams and calculations are made for the performance with dimensioning filters.



User

Unit	Supply	Extract
☐ Required air flow	1	1 m³/s
☒ Working air flow	1	1 m³/s
☐ Required external pressure	150	150 Pa
☒ Working air pressure	150	150 Pa
Power	1222	1145 W
Speed	2359	2323 r.p.m.
SFP (dimensioning filters)	2,37 kW/(m³/s)	
Supply air temperature	12 °C	

Sound power level	63	125	250	500	1k	2k	4k	8k	Tot
Supply	85	83	91	81	78	73	68	61 dB	85 dB(A)
Outdoor	82	79	74	62	51	43	34	26 dB	67 dB(A)
Exhaust	87	82	93	83	80	75	68	60 dB	87 dB(A)
Extract	82	78	73	56	50	42	32	24 dB	67 dB(A)
Surrounding	72	71	74	59	49	45	43	34 dB	66 dB(A)

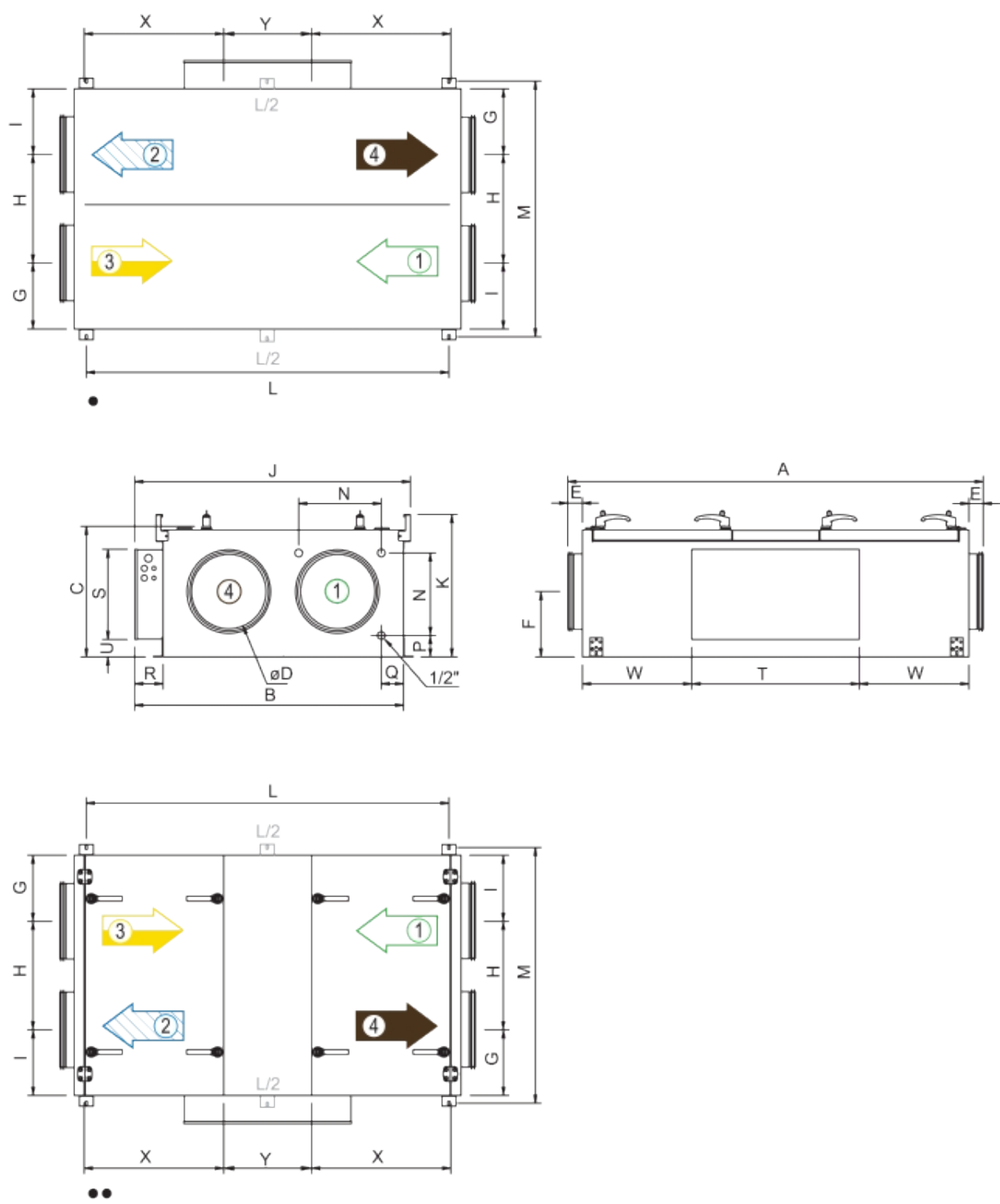
Sound pressure level (reverberant field)								Tot
Surrounding	(-7 dB)	dB					20m² (Sabin)	59

Heat recovery	Supply	Extract
Inlet air temperature	-20	22 °C
Outlet air temperature	12	-10 °C
Inlet air humidity	90	40 %
Outlet air humidity	61	- %
Air pressure drop*	255	255 Pa
Transferred power	39,1	kW
Temperature efficiency*	77	%
Humidity efficiency*	81	%
Exchanger type	Rotary	

*calculated at density 1,2 kg/m³

Filters	Supply	Extract
Initial pressure drop	110	53,6 Pa
Dimensioning pressure drop	208	161 Pa
Terminal pressure drop	307	268 Pa
Air velocity	2,63	2,63 m/s
Class	F7	F5

Dimensions



Topvex	A	B	C	øD	E	F	G	H	I	J	*K	L	M	N	P	Q	R	S	T	U	W	X	Y
FR08	2230	1515	740	500	60	355	350	650	400	1545	790	2004	1450	514	103	106	120	375	695	275	706	807	384

* Height when using the Sliding door kit (accessory).

• Bottom side

•• Operating side

X+Y+X = The total length of the hatches.

- 1 Outdoor air
- 2 Supply air
- 3 Extract air
- 4 Exhaust air

Accessories

Electric accessories

- TG-UH/PT1000 Wall sensor (35203)
- F-T120 Timer frame (5137)
- T 120 Timer (5165)
- TG-R5/PT1000 Room sensor 0-50° (5404)
- CO2RT-R-D Transmitter (6993)
- UG3-A4O Smoke detector (15043)
- CO2RT Wall mounting 0-2000 ppm (13704)
- CO2DT Duct Trans 0-2000 ppm (13765)
- Presence detector/IR24-PC (7288)
- Push button, impulse (9693)
- Systemair-E CO2 sensor (14904)
- Systemair-1M CO2 duct sensor (14908)
- Systemair-1 CO2 duct sensor (14906)
- Systemair-2 CO2 duct sensor (14907)
- Systemair-E-D CO2 sensor (14905)

Accessories

- PGK 70-40-3-2,0 Duct cooler (6616)
- CVVX 500 Combi grille, black (6237)
- DXRE 70-40-3-2,5 Duct cooler (7957)
- BFT FR08 Filter ePM10 60% (206779)
- BFT FR08 Filter ePM1 60% (206780)
- LDC-B 500-1200 Silencer baffle (9087)
- EFD 500 Damper + NF24A motor (4746)
- SDF 08 Sliding door kit-FR08 (111561)
- ASF 500/KB Flex. conn. (311991)
- CTVX 500 Combi-roof hood Black (27243)
- CTVX 500 Combi-roof hood Aluz. (27247)
- CTTG 500 Roof curb (27254)
- TUNE-R-500-3-NF24A (79892)
- CVVX 500 Combi grille white (146263)

Documentation



Topvex_FR03-11_Installation_instruction_151625_CE_EN (A001).pdf (5.27MB)



Topvex_FR03-11_Operating_and_maintenance_151626_(A001)_EN.pdf (3.35MB)



QuickGuide_NaviPad_151671_A002.pdf (2.74MB)



Wiring Diagram + chart Topvex FR08-11 HW_A 400V 3N~_rev.B.pdf (2.34MB)



Access 4x Modbus_BACnet manual.pdf (934.39kB)



Access 4x Configuration manual.pdf (736.65kB)