

Topvex Specification Data






Energy efficient AHU's





View from Skinnskatteberg HQ

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Topvex



Topvex is a series of efficient ventilation units designed for offices, shops, schools, daycare centres or similar premises. The units are especially designed to meet the coming energy requirements and have therefore a very low energy use. To simplify the installation and commissioning the units are included with control system and pre-configured.

It could not be easier!

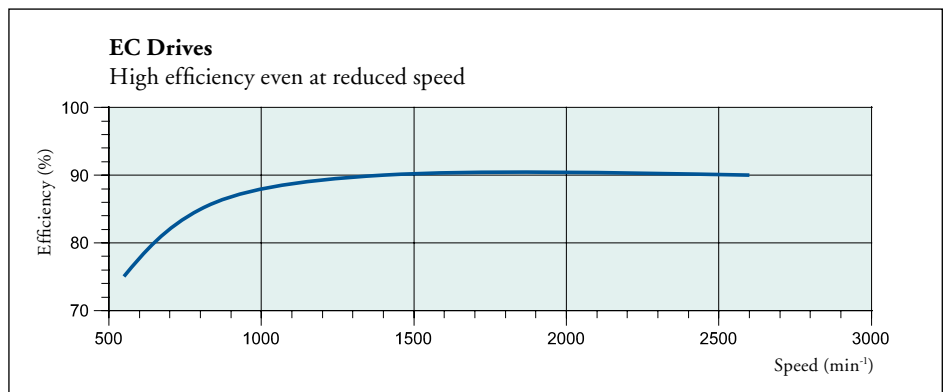
Topvex are delivered pre-programmed, tested and ready for installation. Connect the Topvex unit to the duct system, connect any external components, connect the main supply, set the time and date, adjust the week scheduler, temperatures, airflows and the unit is installed. It could not be easier!

EC fan motors – low energy use and low noise

Unlike AC motors with frequency converters, the EC motors operate with high efficiency even at low RPM (see the diagram). This contributes to good energy saving performance. The EC motors are also very quiet at both high and low RPM.

Easy inspection

To facilitate inspection and maintenance, both fans and the rotating/crossflow heat exchanger are removable. SR07, 09 and 11 have a fixed heat exchanger. All power cables have quick release couplings – the fans and heat exchanger can be released easily.



Easy electrical connections and service

All electrical connections are done at the same terminal block, with clear markings.

General

Topvex units are delivered enclosed in plastic and mounted on pallets. The units are fully connected internally. The automatic control system is preset and has been test-run at the factory.

Any cables to external components should be connected to terminals in the connection space. The same applies to valve actuators for heating coils.

Measurement at Systemair's Development Centre

Topvex are measured and tested at Systemair's Development Centre. The air volume is measured in accordance with AMCA 210-99 "Laboratory methods of testing fans for rating". Sound is measured in accordance with AMCA 300-96 "Test Code for Sound Rating".

Unit housing

The unit's casing is made up from double-skinned aluzinc sheet metal, AZ 185, with internal mineral insulation. Topvex TR, TX, SR and SX stands on fixed sections that raise the units about 100-130 mm above the floor. Topvex FR assemblies lying horizontal on the floor, suspended in the ceiling, standing horizontal on the units long side or mounted horizontal or vertically (supply air pointing upwards) on the wall. Topvex has large inspection doors that have lockable handles and removable hinges. Topvex FR has slide doors as an accessory. A separate safety switch is included. The control panel is connected with 10 m cable (included).

Components

Fans

Topvex has effective plug-fans with maintenance-free external rotormotors. The fans have been selected to provide optimal operation in respect of air volume,

sound level and efficiency. The units have electronically commutated motors, so called EC-motors with very high efficiency. The EC motors are controlled via the control unit. To facilitate main-

tenance and servicing the fans have quick release connections for the electrical cables.



Heat exchanger – Rotating

The rotating heat exchanger is non-hygroscopic and belt driven. A spare belt is mounted on the rotor wheel on delivery (TR, SR).

The rotor belt is a round plastic belt of the elastic type with high friction. A rotor guard will give an alarm if the rotating heat exchanger stops. The rotor construction with pleated aluminium is optimised in respect of high efficiency and low pressure

Topvex TR09-15 EL



Topvex SR04-06 EL



Topvex FR08 HW



drop. The rotor have a robust construction which makes it stable and reliable also after a very long time of operating. At balanced airflows the efficiency is up to 85%. The heat exchanger is removable with quick release connections for



the power cables. SR07, 09 and 11 have a fixed heat exchanger.

Heat exchanger – Crossflow

The crossflow heat exchanger is non-hygroscopic. The construction with pleated aluminium is optimised in respect of high efficiency and low pressure drop. At balanced airflow the efficiency is up to 60%. The heat exchanger is removable.

By-pass damper

Topvex TX/SX is equipped with a stepless by-pass damper as standard. The damper is used to by-pass the supply air during warm season (no need of heat recovering) and to de-ice the heat exchanger during cold season (selectable).

De-icing function – TX/SX

Ice accretion of the heat exchanger is depending on the outdoor temperature and the humidity in the extract air. The humidity in the extract air is varying a lot depending on the activities in the building e.g. an industry premises is normally producing much less humidity than a day-care centre. Therefore has the aggressiveness of the de-icing function been made settable (1-5) so that it can be optimized to different applications.

Heating coil – water

Accessory for the Topvex TR/SR 03-06 CAV/VAV and FR03-11 CAV/VAV units. Delivered separate and to be mounted on site, plug-in.

N.B. Fits to units without heater, not units with El heater.

The hot water coil is located after the supply air fan and the water pipes connect throughout the gable of the unit. The material is copper piping with a frame of galvanized sheet steel and aluminum fins. The coil has venting nipples and an immersion sensor as frost guard. If there is a risk of freezing in the hot water coil, the control valve is forced open to prevent freezing. If there is still a risk of freezing, the unit is stopped and the outdoor air damper (accessory) is closed. After a freezing situation, the unit will re-start when the return water temperature is above 7°C and the alarm has been acknowledged.

The hot water coils are available in:

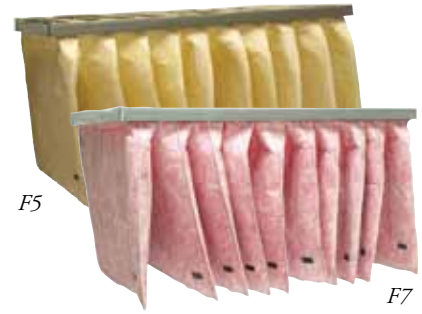
- Low power HWL
- High power HWH

Heating coil – electric

The heating coil is located after the supply air fan. It has elements of stainless steel. The electric heating coil has two overheating protection one with automatic reset and one with manual reset.

When the unit is switched off, through the overheating protections, the built-in clock or the hand/auto switch, the electrical heater is immediately stopped while the fans are kept running during 3 minutes for cooling down the heater. After an overheating situation, the unit will re-start when the overheating protection has been reset and the alarm has been acknowledged.

Filters



The units are delivered with bag filters as standard. Both of the filters are placed before the heat exchanger, to keep the exchanger clean. The filters are mounted in guide rails that facilitate insertion and removal for inspection and service. Topvex are fitted with sealing strips to provide optimal sealing against the filters. Filter class F7 on supply air and F5 on extract air are used as standard. Filter monitoring is done via the built-in timer (Standard controller) or via built in pressure transmitters measuring the filter pressure drop (Advanced controller). See page 8 for more info about controller.

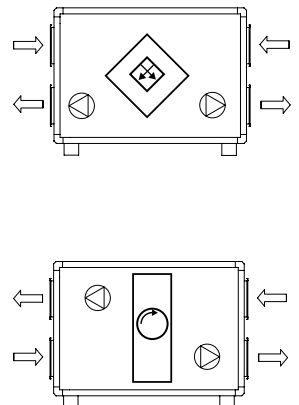
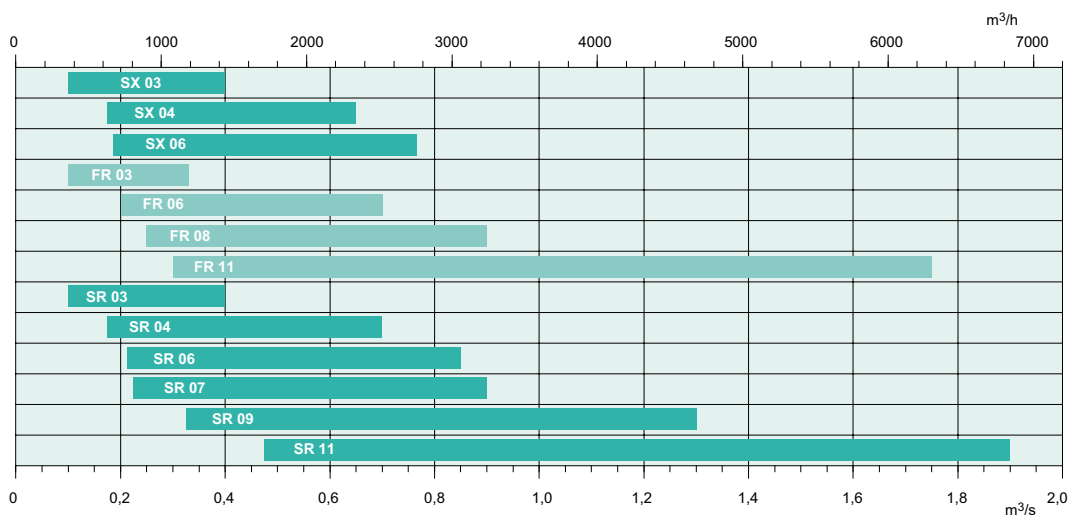
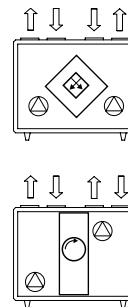
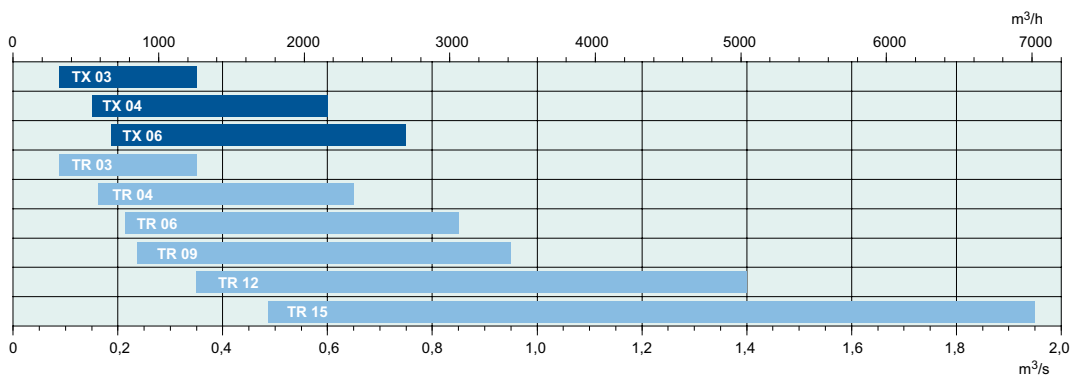
Duct connection

Circular connections with rubber sealing, rectangular have flanged connections.

Topvex	Rectangular	Circular
TR03		ø250
TR04		ø315
TR06	250x500	
TR09	300x700	
TR12	350x800	
TR15	350x1000	
SR03		ø315
SR04	500x250	
SR06	600x300	
SR07	600x300	
SR09	600x400	
SR11	800x400	
FR03		ø315
FR06		ø400
FR08		ø500
FR11		ø630
TX03		ø250
TX04		ø315
TX06	300x500	
SX03		ø315
SX04	500x250	
SX06	600x300	

Overview

Min/max airflow



Dimensions

Top connection

	Width	Height	Depth	Divisible
TX 03	1180	1373	750	–
TX 04	1480	1423	850	–
TX 06	1780	1452	800	–
TR 03	1180	1373	750	–
TR 04	1480	1423	850	–
TR 06	1700	1452	1000	–
TR 09	1790	1825	1120	1790/2= 895
TR 12	1930	1935	1230	1930/2= 965
TR 15	1930	2175	1470	1930/2= 965

Side connection


	Width	Height	Depth	Divisible
SX 03	1686	1060	750	–
SX 04	1807	1141	800	–
SX 06	2060	1227	800	–
SR 03	1686	1060	750	–
SR 04	1660	1141	850	–
SR 06	1660	1228	1000	–
SR 07	1838	1100	1000	1838/2-29= 890
SR 09	1838	1220	1120	1838/2-29= 890
SR 11	1838	1330	1230	1838/2-29= 890
FR 03	1600	540	1120	–
FR 06	2000	640	1320	–
FR 08	2100	740	1520	–
FR 11	2300	840	1720	–

Controls

Display

The illuminated display has 4 rows of 20 characters each and 20 different languages are available. Arrows are used to simplify the usage. The background illumination is normally switched off, and is activated by pushing one of the buttons. The illumination is then switched off again after a period of inactivity.

LEDs

The alarm LED is marked with a  symbol.

The "write enable" LED is marked with a  symbol.

Push-Buttons

All functions can be set (configured) by using the information in the display and the push-buttons on the controller.

Standard & Advanced control

Systemair are using two different controls depending on Air Handling Unit. To facilitate the use of the controllers both controllers have the same menu structure and using the same technical terms. For further information, see page 60-61.

Standard, E17S

TX03-06
SX03-06

Advanced, E28

TR09-15
TR03-06 CAV/VAV
SR07-11
SR03-06 CAV/VAV
FR03-11 CAV/VAV

Standard is a controller equipped with the most common functions used in smaller AHU's. This controller is very easy to handle.

Advanced is a fully equipped controller designed to cover the most of the market needs. The menu system adapts to what functions that is activated, this together with a start up wizard makes the controller easy to handle.



SCP control panel
Width = 115 mm
Height = 94 mm
Depth = 26 mm

Main difference between Standard and Advanced control:

	Standard, E17S	Advanced, E28
Using of E-tool, a PC-based commissioning software.	No	Yes
Temperature control	3 control modes	6 control modes
Time controlled airflow	Week timer	Week timer + Holidays + Digital timer channels for e.g. door locks
Fan control	Settable between 0-100% control signal.	CAV, constant air volume or VAV, variable air volume. Outdoor temp. dependent airflow.
Demand control	Possible to use external equipment with relay output for increasing airflow one step.	Possible to use external equipment with analogue output for step-less increasing of air flow or relay output.
DX cooling control, (External DX cooler)	Step controller for converting the analogue controls signal to a digital 2-step, binary control necessary (accessory).	Up to 3-step, binary control is standard.
HW/CW Pump control	No	Yes
Filter supervising	Time controlled	Pressure drop controlled

Regulations

Control system

S=standard settings P=possible settings C=choose when ordering O=option

		Topvex	
		TX/SX 03, 04, 06	TR 09, 12, 15 SR 07, 09, 11 TR/SR 03, 04, 06 CAV/VAV FR 03, 06, 08, 11 CAV/VAV
Controller		Standard, E17S	Advanced, E28
Control Panel	Remote with 10 meter cable	S	S
Repeater	When more than 10 meter between unit and control panel	O	O
Commissioning software	E-tool	-	O
Temperature control	Extract air	P	S
	Supply air	S	P
	Outdoor temperature compensated Supply air	P	P
	Cascaded Room control	-	P
	Outdoor temp. dependent switching between Supply / Extract air or Supply / Room control	-	P
Airflow control	Week timer, two separate running periods	S	S
Fan control	Stepless voltage control	S	-
	Airflow control, CAV	-	C
	Pressure control, VAV	-	C
	Outdoor compensated airflow	-	S
Heat exchanger	By-pass damper, stepless	S	-
Cooler	Cold water coil. 0...10VDC output signal.	P	P
	DX cooling. 24VAC (1, 2 or 3-stage binary) output.	* P	P
Night cooling	Using the cold night air to cool down the building	P	-
Night, Free cooling	Using the cold outdoor air, day and/or night, to cool down the building	-	P
Cool recovering		P	P
Demand ventilation, CO2	2-step, CO2 sensor with a potential free switch.	P	-
	Stepless, CO2 sensor with 0...10VDC output signal.	-	P
Pump control	Heating/Cooling, 24VAC output signal	-	P
Exchanger efficiency	Exhaust temp. sensor necessary	-	P
Extended running		S	S
Week schedule	Changing between Normal run, Reduced run or Off.	S	S
Damper control	Outdoor/Exhaust air	S	S
Alarm	Alarm messages	S	S
	High and low priority	-	S
	Sum alarm, 24VAC output signal	S	S
	Filter alarm on time (month)	S	-
	Filter alarm on pressure difference (Pa)	-	S
Communication	Exoline, Modbus via RS 485	S	S
	Exoline via TCP/IP. WEB	O	C***
	LON	O	C****

* Step controller SC2/D is necessary. Converts 0..10V signal to relay output

** 0-25% differentiation of fans possible

*** Standard in TR/SR03-06 CAV/VAV and FR 03-11 CAV/VAV

**** Option to TR/SR03-06 CAV/VAV and FR 03-11 CAV/VAV

Topvex TR



Topvex TX



T – Top connection
R – Rotating heat exchanger
X – Cross flow heat exchanger

Topvex TR/TX is a “Plug and play” air handling unit with a modern design intended for ventilating offices, day-care centres or used as zone ventilation in larger buildings e.g. schools. Top-connection of the air-ducts minimise the “Footprint” of the unit. To meet the new restricted energy requirements with low SFP (Specific Fan Power) Topvex is equipped with EC fan motors. EC-motors consume an average of 30% less energy than AC motors. In some applications, the saving can be 50% or more.

Topvex TR is equipped with a high efficiency rotating heat exchanger with an efficiency of up to 85%. Rotating heat exchangers do not need condense water drainage and is therefore very flexible to install.

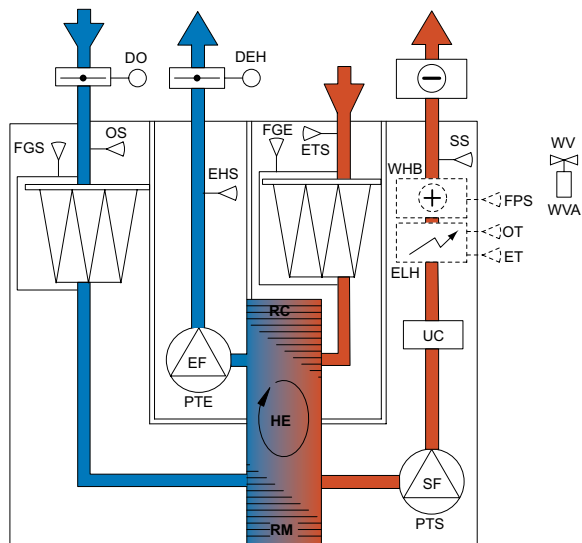
Topvex TX with its crossflow heat exchanger is normally used where it is a requirement that the supply and exhaust air must be kept separated. The units have an efficient de-icing function.

Topvex TR/TX units have energy saving functions like:

- Week schedule.
- Cool recovering to recover the chilliness in the extract air during warm season. If using an external cooling unit.
- Demand controlled airflow by using a CO₂/humidity sensor, movement detector etc.
- Sum alarm output for central supervision of many units. Central supervision secures that incorrect operating, like dirty filters, detects early.

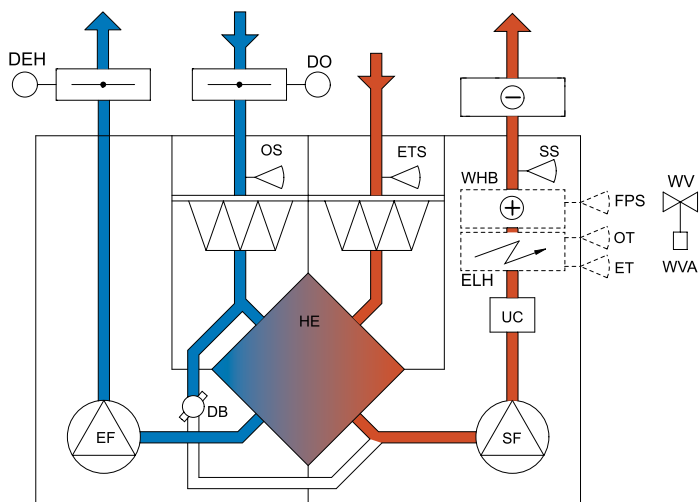
Explanatory sketch TR/TX

Topvex TR09-15, TR03-06 CAV/VAV



- UC Unit control
 - FPS Frost protection temp. sensor
 - SF Supply fan
 - WHB* Heating coil, water
 - WVA* Water valve actuator
 - EF Extract fan
 - WV* Water valve
 - PTS Pressure transmitter supply air fan
 - HE Heat exchanger
 - PTE Pressure transmitter extract air fan
 - RC Rotor control
 - SS Supply air temp. sensor
 - RM Rotor motor
 - ETS Extract air temp. sensor
 - FGS Filter pressure guard supply air
 - OS Outdoor air temp. sensor
 - FGE Filter pressure guard extract air
 - EHS Exhaust air temp. sensor
 - DO* Damper outdoor air
 - ELH Heater, electrical
 - OT Overheating thermostat
 - DEH* Damper exhaust air
 - ET Emergency thermostat
- * accessory

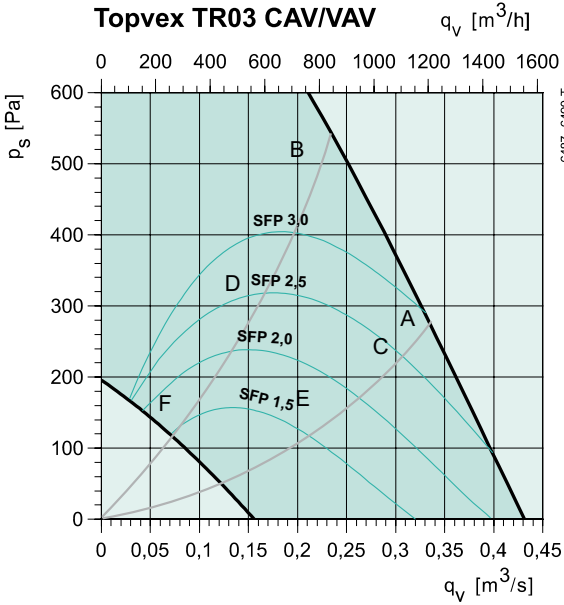
Topvex TX03-06



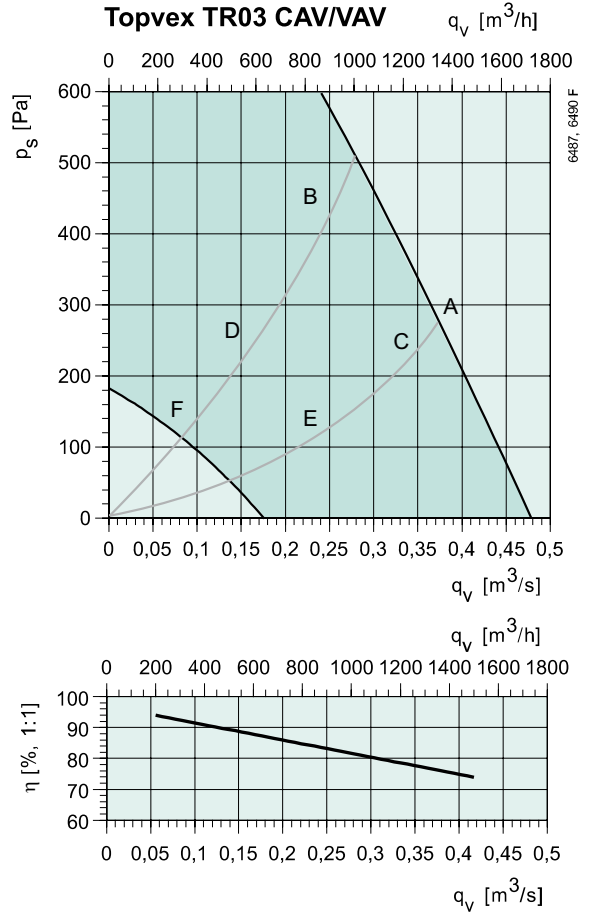
- EF Extract fan
 - SF Supply fan
 - HE Heat exchanger
 - SS Supply air temp. sensor
 - OS Outdoor air temp. sensor
 - ETS Extract air temp. sensor
 - ELH Heater, electrical
 - ET Emergency thermostat
 - OT Overheating thermostat
 - WHB Heating coil, water
 - FPS Frost protection temp. sensor
 - DB Damper by-pass
 - UC Unit control
 - DO* Damper outdoor air
 - DEH* Damper exhaust air
 - WVA* Water valve actuator
 - WV* Water valve
- *accessory

Performance TR03 CAV/VAV

Supply



Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	81	56	68	77	71	75	72	66	54
B	8V	82	61	72	80	71	75	71	64	52
C	8V	84	61	72	82	71	75	71	65	53
D	6V	74	63	68	69	65	68	63	56	43
E	6V	73	55	67	66	63	68	63	56	43
F	4V	64	57	57	59	54	56	51	41	29

Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	71	51	64	70	61	55	50	43	33
B	8V	75	51	69	73	59	55	51	43	36
C	8V	72	50	65	70	58	53	48	41	32
D	6V	65	49	64	59	53	49	43	35	27
E	6V	65	45	64	57	52	48	42	34	22
F	4V	58	48	56	50	43	38	31	21	18

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	61	39	54	60	49	47	47	43	34
B	8V	65	44	58	64	48	47	47	42	34
C	8V	66	44	58	65	47	47	46	42	33
D	6V	56	47	54	50	42	41	39	33	25
E	6V	55	37	53	48	41	40	39	33	23
F	4V	46	39	43	41	32	30	27	19	13

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

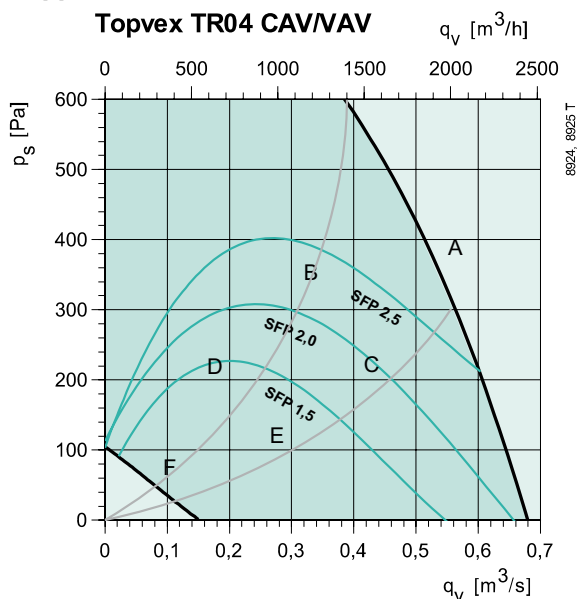
With air ratio 1:1 and air humidity at 50%.

Sound data

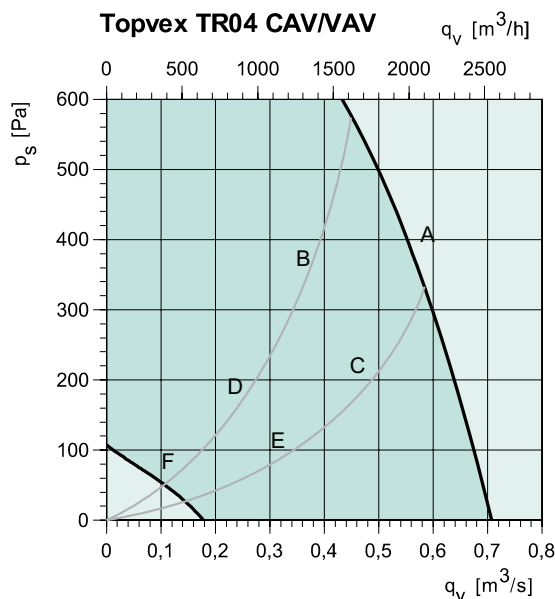
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Performance TR04 CAV/VAV

Supply

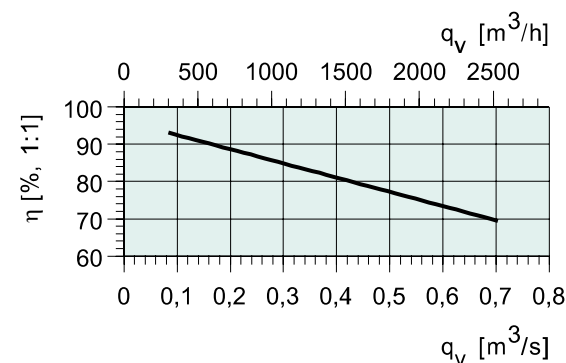


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	88	57	62	57	75	77	77	74	66
B	6,5V	88	57	65	74	68	70	69	63	55
C	6,5V	78	50	59	74	68	72	72	67	58
D	4,4V	69	52	63	61	59	63	61	52	43
E	4,4V	70	47	61	59	61	65	64	56	47
F	2,5V	56	47	47	46	47	52	44	32	23



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	71	57	60	67	63	61	61	61	49
B	6,5V	69	52	59	67	58	55	56	55	40
C	6,5V	68	49	56	66	59	55	56	55	41
D	4,4V	65	47	62	61	50	47	48	43	28
E	4,4V	63	45	57	60	52	48	49	45	29
F	2,5V	51	43	48	42	39	36	31	23	19

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

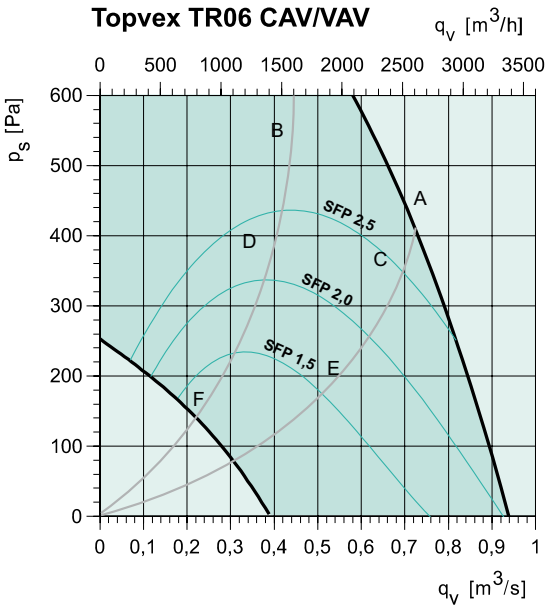
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Surrounding

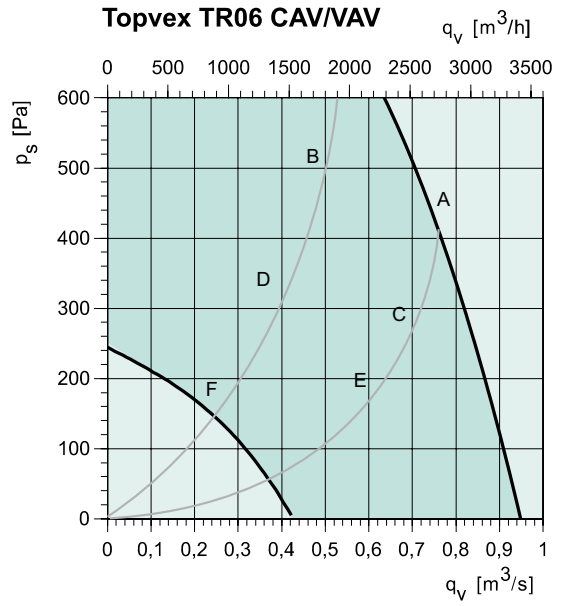
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	67	46	49	66	53	53	55	53	45
B	6,5V	60	42	50	58	46	47	49	45	35
C	6,5V	59	37	46	58	46	48	50	47	37
D	4,4V	53	38	51	47	39	39	41	34	23
E	4,4V	51	34	47	46	40	41	43	36	26
E	2,5V	39	33	36	30	27	28	24	14	12

Performance TR06 CAV/VAV

Supply

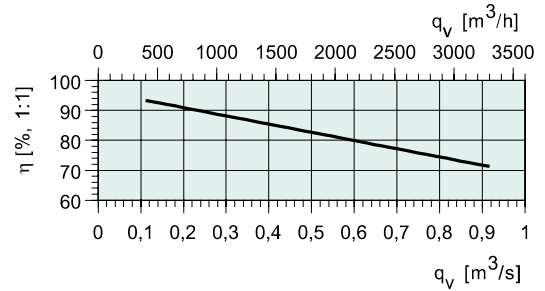


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	90	62	66	88	81	79	79	74	68
B	7,5V	84	65	70	79	76	76	76	71	65
C	7,5V	83	59	64	79	76	76	75	71	65
D	6V	79	61	71	74	71	71	71	65	59
E	6V	78	56	62	72	73	71	70	65	59
F	4V	68	53	62	60	59	62	59	52	46



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	71	56	63	64	65	63	60	56	48
B	7,5V	72	55	63	70	61	60	60	57	51
C	7,5V	68	53	59	63	61	60	57	53	45
D	6V	70	51	64	67	56	55	55	52	44
E	6V	66	47	56	64	57	55	51	44	35
F	4V	62	46	61	49	45	47	45	39	29

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

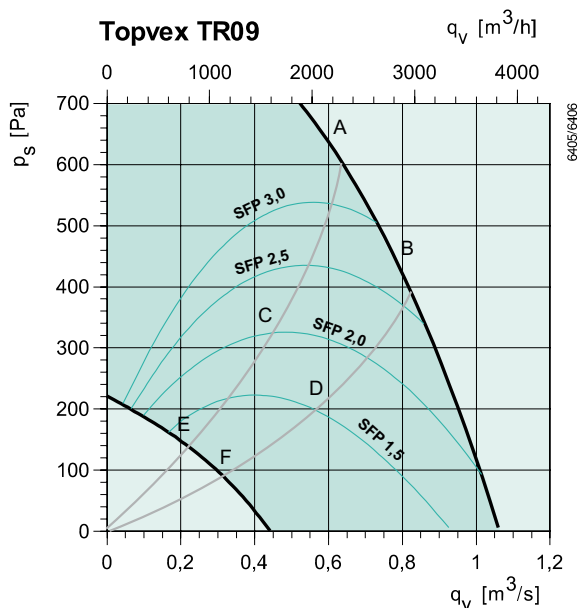
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Surrounding

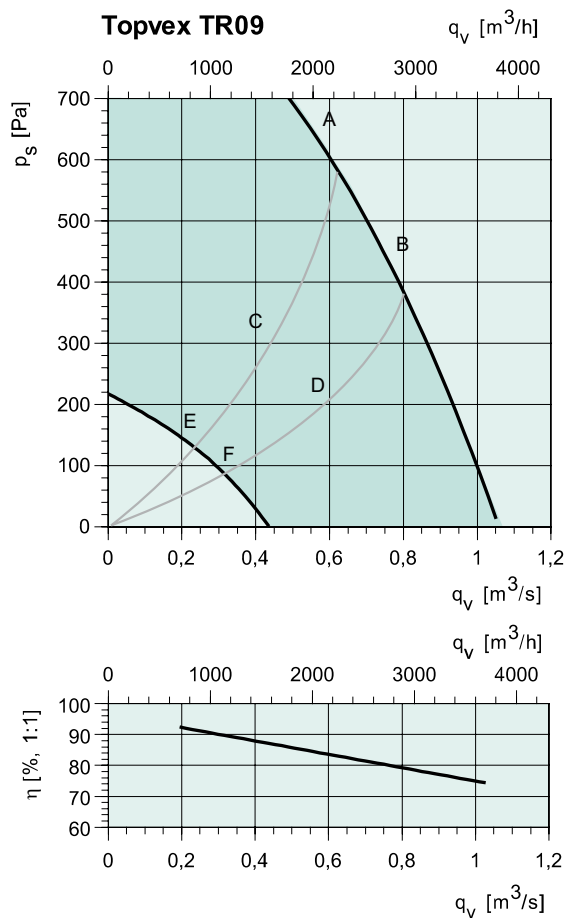
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	67	44	53	63	59	59	57	52	45
B	7,5V	65	48	56	62	55	56	55	51	43
C	7,5V	63	42	51	60	55	56	54	49	42
D	6V	61	43	57	57	51	50	50	46	37
E	6V	59	37	48	54	53	50	48	43	35
F	4V	51	34	49	40	39	42	40	32	24

Performance TR09

Supply



Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	84	50	65	77	77	79	76	73	66
B	10V	85	50	63	77	79	80	78	75	68
C	6V	75	43	66	65	69	70	69	64	56
D	6V	76	43	60	67	70	71	70	67	56
E	4V	67	39	59	54	56	65	57	51	41
F	4V	66	34	58	55	57	61	60	51	42

Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	71	49	65	68	62	61	59	54	54
B	10V	71	49	63	67	64	63	61	53	50
C	6V	68	39	64	65	54	52	51	45	43
D	6V	67	39	60	65	54	53	51	42	38
E	4V	60	34	59	50	42	42	39	33	30
F	4V	60	32	60	49	43	42	39	30	28

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	69	47	60	63	62	61	59	55	53
B	10V	69	48	59	63	64	63	61	55	51
C	6V	63	37	59	57	53	52	51	46	42
D	6V	62	36	54	58	54	53	52	46	39
E	4V	57	33	56	41	41	44	39	34	29
F	4V	55	28	54	41	42	43	40	32	28

SFP = Specific Fan Power ($kW/m^3/s$)

The SFP value stated applies to the complete unit.

Thermal efficiency

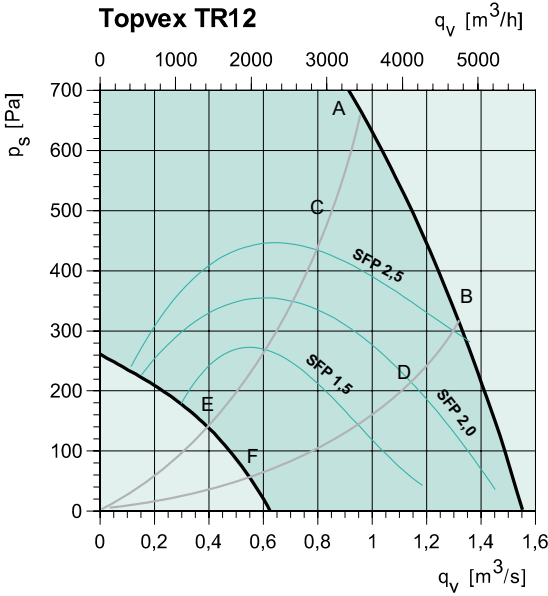
With air ratio 1:1 and air humidity at 50%.

Sound data

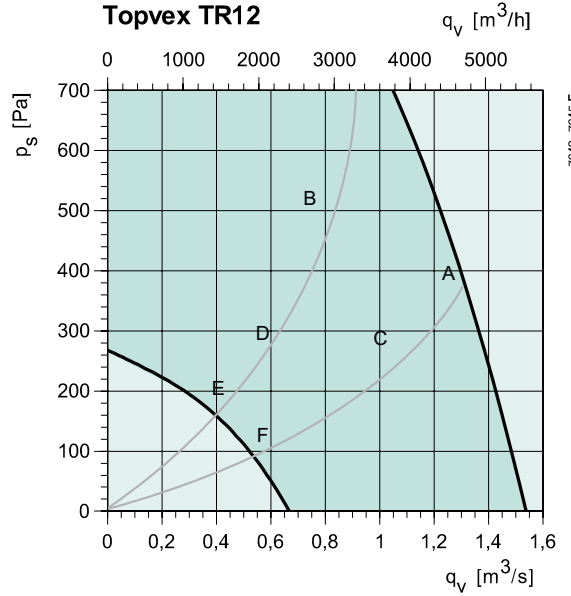
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Performance TRI2

Supply

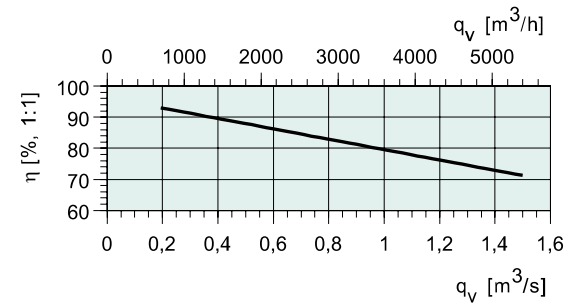


Extract



Supply

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	93	62	69	91	83	82	81	76	68
B	10V	94	62	69	92	85	84	79	71	59
C	7V	86	58	65	83	78	77	77	71	62
D	7V	88	60	65	86	81	78	74	66	54
E	4V	71	49	66	61	64	64	61	53	45
F	4V	71	47	67	62	65	64	59	50	33



Extract

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	76	58	70	73	67	66	62	55	53
B	7V	72	52	66	70	60	60	58	54	54
C	7V	72	53	66	69	63	61	57	49	48
D	5,5V	68	47	65	63	54	53	52	46	46
E	4V	65	40	65	49	46	45	43	35	30
F	4V	66	40	65	51	48	46	41	30	23

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

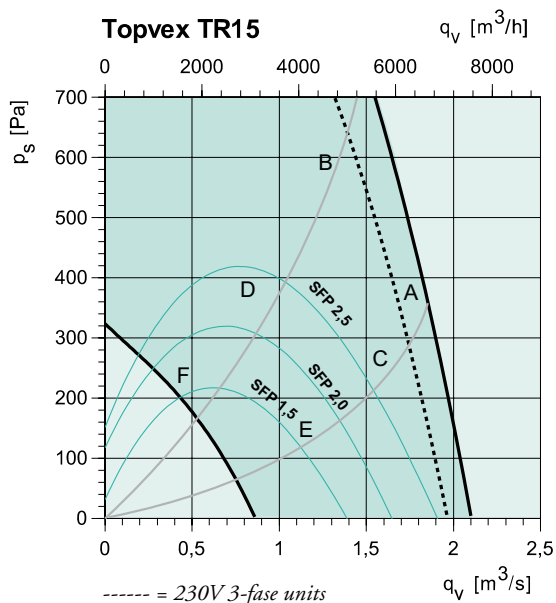
The sound data tables indicate the sound power level L_{wA}, which should not be confused with the sound pressure level.

Surrounding

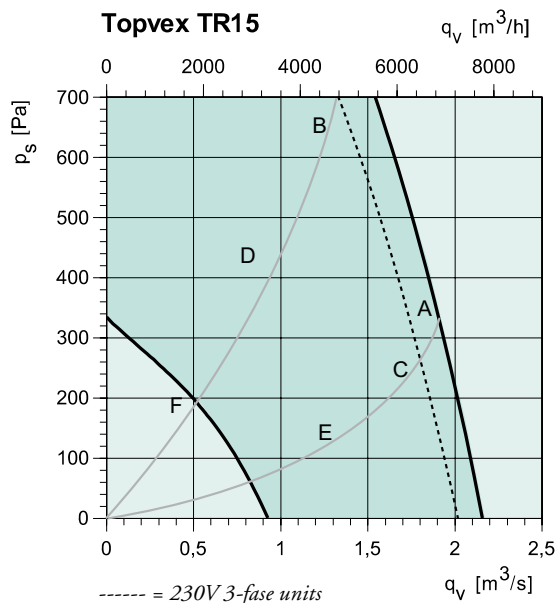
Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	77	50	60	76	64	63	62	58	56
B	10V	78	51	60	77	66	65	61	54	50
C	7V	68	47	56	65	60	59	58	53	51
D	7V	69	48	56	66	62	60	57	49	44
E	4V	57	38	56	45	45	45	43	35	29
F	4V	58	36	57	46	47	45	41	31	20

Performance TRI5

Supply

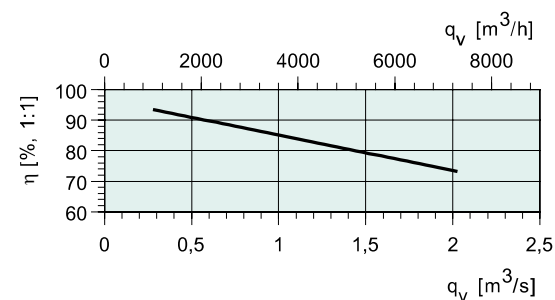


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	100	63	73	98	87	92	88	85	76
B	8V	93	61	72	85	83	89	86	80	71
C	8V	94	62	71	87	84	90	87	82	73
D	6V	84	55	69	78	75	80	76	72	62
E	6V	85	56	67	78	77	81	77	73	62
F	4V	77	55	76	64	64	67	63	58	49



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	85	59	73	82	76	76	74	61	52
B	8V	82	57	74	80	71	73	69	60	56
C	8V	86	58	72	85	73	73	69	56	48
D	6V	77	53	76	70	63	63	59	53	48
E	6V	77	53	68	75	65	64	61	49	40
F	4V	69	52	68	56	52	50	48	40	35

SFP = Specific Fan Power ($\text{kW}/\text{m}^3/\text{s}$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	81	52	64	75	73	75	74	61	51
B	8V	77	50	63	70	68	73	69	60	54
C	8V	78	51	63	74	70	72	69	56	47
D	6V	68	45	62	61	60	62	59	52	46
E	6V	69	45	58	62	62	63	61	49	38
F	4V	66	45	65	46	49	49	48	40	32

Hot water coil TR03-06 CAV/VAV

Accessories to TR03-06 CAV/VAV

Delivered separate and to be mounted on site, plug-in.

N.B! Fits to units without heater, not units with electrical heater.

An extract air temperature of 21°C and a heat exchanger efficiency of 70% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the below tables.

Water temp.	°C	HWL coil to size 03				HWL coil to size 04				HWL coil to size 06			
		60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Air flow	m ³ /h	1000	1000	1000	1000	1500	1500	1500	1500	2000	2000	2000	2000
Outdoor air temp. 0°C													
Supply air temp.	°C	24.2	27.5			24.1	27.5			23.6	26.8		
Water flow	l/s	0.03	0.05			0.05	0.07			0.07	0.09		
Pressure drop	kPa	3.4	5.64			2.27	3.83			3.58	6.02		
Capacity	kW	3.22	4.35			4.78	6.53			6.04	8.21		
Outdoor air temp. -10°C													
Supply air temp.	°C	22.1	25.5	28.8		22.1	25.5	28.9		21.5	24.7	27.9	
Water flow	l/s	0.04	0.05	0.06		0.06	0.08	0.1		0.07	0.1	0.13	
Pressure drop	kPa	4.04	6.42	9.18		2.71	4.37	6.31		4.27	6.85	9.83	
Capacity	kW	3.54	4.67	5.8		5.28	7.03	8.77		6.66	8.83	10.99	
Outdoor air temp. -20°C													
Supply air temp.	°C	20.1	23.4	26.8		20.1	23.5	26.9		19.4	22.6	25.8	29
Water flow	l/s	0.04	0.05	0.07		0.06	0.08	0.11		0.08	0.11	0.13	0.16
Pressure drop	kPa	4.73	7.24	10.1		3.18	4.95	6.96		5.01	7.74	10.84	14.28
Capacity	kW	3.87	5	6.12		5.78	7.53	9.27		7.28	9.45	11.61	13.76
Outdoor air temp. -30°C													
Supply air temp.	°C	18.1	21.4	24.7	28	18	21.5	24.9	28.3	17.3	20.5	23.7	26.9
Water flow	l/s	0.05	0.06	0.07	0.09	0.07	0.09	0.11	0.13	0.09	0.12	0.14	0.17
Pressure drop	kPa	5.46	8.12	11.1	14.35	3.69	5.55	7.66	9.95	5.8	8.69	11.92	15.48
Capacity	kW	4.19	5.32	6.45	7.57	6.27	8.02	9.77	11.5	7.9	10.07	12.23	14.38
Outdoor air temp. -40°C													
Supply air temp.	°C	16	19.4	22.7	26	16	19.5	22.9	26.3	15.3	18.5	21.6	24.8
Water flow	l/s	0.05	0.06	0.08	0.09	0.08	0.1	0.12	0.14	0.1	0.12	0.15	0.17
Pressure drop	kPa	6.25	9.02	12.11	15.48	4.24	6.19	8.37	10.76	6.66	9.66	13.03	16.7
Capacity	kW	4.51	5.65	6.77	7.89	6.77	8.52	10.26	12	8.52	10.69	12.85	15

Water temp.	°C	HWH coil to size 03				HWH coil to size 04				HWH coil to size 06			
		60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Airflow	m ³ /h	540	1080	540	1080	720	1440	720	1440	1260	2160	1260	2160
Outdoor air temp. 0°C													
Supply air temp.	°C	25.3	24.9	34.6	30.58	30.63	27.69	36.97	32.72	28.1	25.6	34.6	30.5
Water flow	l/s	0.02	0.03	0.04	0.07	0.03	0.05	0.07	0.11	0.04	0.06	0.09	0.14
Pressure drop	kPa	0.28	0.86	1.62	3.69	1.32	3.08	4.68	10.94	0.76	1.78	3.06	6.93
Capacity	kW	1.96	3.29	3.69	5.89	3.94	6.43	5.51	8.92	5	8.1	7.4	11.7
Outdoor air temp. -10°C													
Supply air temp.	°C	26.02	23.8	33.61	29.17	29.98	26.53	36.06	31.4	27.4	24.3	33.6	29
Water flow	l/s	0.02	0.04	0.05	0.08	0.04	0.06	0.07	0.12	0.05	0.08	0.1	0.16
Pressure drop	kPa	0.47	1.17	1.96	4.45	1.7	3.95	5.58	13.06	1.02	2.33	3.67	8.32
Capacity	kW	2.68	4.53	4.11	6.55	4.57	7.41	6.09	9.85	5.9	9.4	8.2	13
Outdoor air temp. -20°C													
Supply air temp.	°C	25.6	22.53	32.59	27.73	29.24	25.31	35.14	30.07	26.5	22.9	32.5	27.5
Water flow	l/s	0.03	0.04	0.05	0.09	0.04	0.07	0.08	0.13	0.05	0.09	0.11	0.17
Pressure drop	kPa	0.64	1.5	2.32	5.27	2.12	4.9	6.56	15.36	1.3	2.94	4.34	9.83
Capacity	kW	3.2	5.24	4.52	7.21	5.19	8.39	6.68	10.79	6.7	10.7	9	14.3
Outdoor air temp. -30°C													
Supply air temp.	°C	24.88	21.21	31.54	26.27	28.43	24.05	34.18	28.71	25.6	21.5	31.4	26
Water flow	l/s	0.03	0.05	0.06	0.1	0.05	0.08	0.09	0.14	0.06	0.1	0.12	0.19
Pressure drop	kPa	0.81	1.87	2.71	6.16	2.58	5.94	7.62	17.85	1.61	3.61	5.06	11.47
Capacity	kW	3.67	5.93	4.94	7.87	5.8	9.36	7.27	11.74	7.6	12.1	9.8	15.6
Outdoor air temp. -40°C													
Supply air temp.	°C	24	19.83	30.47	24.79	27.57	22.74	33.2	27.32	24.6	20	30.3	24.5
Water flow	l/s	0.03	0.05	0.07	0.1	0.05	0.08	0.1	0.15	0.07	0.11	0.13	0.2
Pressure drop	kPa	0.99	2.27	3.13	7.12	3.07	7.07	8.77	20.53	1.94	4.34	5.84	13.24
Capacity	kW	4.13	6.62	5.37	8.54	6.41	10.33	7.87	12.7	8.5	13.4	10.7	16.8

Hot water coil TR09-15

An extract air temperature of 21°C and a heat exchanger efficiency of 70% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the below tables.

		Topvex TR09 HWL				Topvex TRI2 HWL				Topvex TRI5 HWL			
		60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Water temp.	°C												
Airflow	m ³ /h	3240	3240	3240	3240	4320	4320	4320	4320	5400	5400	5400	5400
Outdoor air temp. 0°C													
Supply air temp.	°C	28.1	32.6	37	41.4	26.9	31.1	35.2	39.4	26.7	30.9	35	39.2
Water flow	l/s	0.17	0.23	0.29	0.34	0.21	0.28	0.35	0.43	0.26	0.35	0.44	0.53
Pressure drop	kPa	5.2	8.44	12.18	16.31	4.47	7.31	10.58	14.2	3.13	5.16	7.51	10.16
Capacity	kW	14.7	19.6	24.5	29.3	17.9	24	30.1	36.1	22	29.7	37.2	44.8
Outdoor air temp. -10°C													
Supply air temp.	°C	26.4	30.8	35.3	39.7	25.1	29.3	33.4	37.5	24.9	29.1	33.2	37.3
Water flow	l/s	0.19	0.25	0.3	0.36	0.23	0.3	0.38	0.45	0.28	0.38	0.47	0.56
Pressure drop	kPa	6.15	9.55	13.44	17.77	5.29	8.29	11.74	15.52	3.71	5.87	8.33	11.05
Capacity	kW	16.1	21	25.9	30.7	19.7	25.8	31.8	37.9	24.2	31.9	39.4	47
Outdoor air temp. -20°C													
Supply air temp.	°C	24.7	29.1	33.6	37.9	23.4	27.5	31.6	35.7	23.1	27.3	31.4	35.5
Water flow	l/s	0.2	0.26	0.32	0.38	0.25	0.32	0.4	0.47	0.31	0.4	0.49	0.58
Pressure drop	kPa	7.15	10.75	14.82	19.26	6.17	9.34	12.91	16.82	4.34	6.61	9.17	12
Capacity	kW	17.6	22.4	27.3	32.1	21.5	27.5	33.6	39.6	26.4	34	41.6	49.1
Outdoor air temp. -30°C													
Supply air temp.	°C	23	27.4	31.8	36.2	21.5	25.7	29.8	33.9	21.3	25.5	29.6	33.7
Water flow	l/s	0.22	0.28	0.34	0.4	0.27	0.34	0.42	0.49	0.34	0.43	0.52	0.61
Pressure drop	kPa	8.22	11.99	16.21	20.78	7.09	10.42	14.15	18.19	5	7.39	10.05	12.98
Capacity	kW	19	23.9	28.7	33.5	23.2	29.3	35.3	41.4	28.6	36.2	43.8	51.3
Outdoor air temp. -40°C													
Supply air temp.	°C	21.3	25.7	30.1	34.5	19.7	23.9	28	32.1	19.5	23.7	27.8	31.9
Water flow	l/s	0.24	0.3	0.35	0.41	0.29	0.37	0.44	0.51	0.36	0.45	0.54	0.63
Pressure drop	kPa	9.37	13.32	17.68	22.41	8.09	11.57	15.44	19.62	5.71	8.21	10.99	13.97
Capacity	kW	20.4	25.3	30.1	34.9	25	31	37.1	43.1	30.8	38.4	46	53.5

		Topvex TR09 HWH				Topvex TRI2 HWH				Topvex TRI5 HWH			
		60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Water temp.	°C												
Air flow	m ³ /h	1620	3240	1620	3240	2160	4320	2160	4320	2700	5400	2700	5400
Outdoor air temp. 0°C													
Supply air temp.	°C	28.8	25.7	37.2	33.9	29.4	24.9	33.5	30.0	29.8	24.3	33.1	29.0
Water flow	l/s	0.06	0.10	0.15	0.25	0.09	0.12	0.16	0.27	0.11	0.14	0.20	0.31
Pressure drop	kPa	1.10	2.40	5.10	13.20	1.30	2.40	4.20	10.00	0.90	1.40	2.50	5.60
Capacity	kW	7.7	12.0	12.2	20.9	10.7	14.7	13.6	22.2	13.7	17.4	16.6	26.0
Outdoor air temp. -10°C													
Supply air temp.	°C	27.7	24.5	33.7	29.8	33.1	23.8	33.3	27.8	25.7	24.0	32.1	27.5
Water flow	l/s	0.07	0.11	0.14	0.24	0.12	0.14	0.19	0.28	0.10	0.18	0.22	0.35
Pressure drop	kPa	1.40	3.10	4.90	11.90	2.60	3.20	5.40	11.00	0.80	2.10	3.00	6.70
Capacity	kW	8.7	13.9	11.9	19.7	15.5	17.5	15.7	23.4	12.7	22.3	18.5	28.7
Outdoor air temp. -20°C													
Supply air temp.	°C	29.7	23.2	33.2	27.8	26.7	21.9	34.4	26.3	25.2	21.8	31.8	26.0
Water flow	l/s	0.09	0.13	0.16	0.25	0.11	0.15	0.23	0.31	0.12	0.19	0.25	0.38
Pressure drop	kPa	2.20	3.90	5.90	13.10	1.90	3.80	7.30	12.90	1.00	2.30	3.80	7.80
Capacity	kW	11.4	15.8	13.3	20.8	13.1	19.1	18.6	25.5	14.9	23.7	20.9	31.3
Outdoor air temp. -30°C													
Supply air temp.	°C	27.2	22.2	32.5	26.8	25.6	20.7	31.3	24.8	32.1	21.9	35.2	24.5
Water flow	l/s	0.09	0.14	0.18	0.28	0.12	0.18	0.22	0.34	0.19	0.24	0.32	0.41
Pressure drop	kPa	2.30	5.00	6.90	15.70	2.30	4.70	7.30	15.00	2.40	3.40	5.90	9.10
Capacity	kW	11.7	17.9	14.6	23.0	14.4	21.7	18.6	27.7	23.9	29.3	26.7	34.0
Outdoor air temp. -40°C													
Supply air temp.	°C	25.9	21.7	30.6	24.8	23.4	20.9	29.1	23.8	23.8	18.5	28.6	22.9
Water flow	l/s	0.10	0.17	0.18	0.29	0.12	0.21	0.23	0.37	0.15	0.23	0.28	0.44
Pressure drop	kPa	2.70	6.40	7.40	17.00	2.50	6.70	7.70	18.00	1.60	3.30	4.60	10.40
Capacity	kW	12.6	20.6	15.2	24.0	15.0	26.4	19.1	30.6	19.1	28.6	28.6	36.6

Heater battery, electric TR

Topvex TR03 CAV/VAV					Topvex TR04 CAV/VAV				Topvex TR06 CAV/VAV						
Capacity, kW	3	3	3	3	4	4	4	4	6.3	6.3	6.3	6.3			
Airflow, m ³ /h	720	900	1080	1440	1080	1440	1800	2160	1800	2160	2520	2880			
	Supply air temp. °C				Supply air temp. °C				Supply air temp. °C						
Outdoor	0°C	29	27	25	23	0°C	28	25	23	22	0°C	27	25	24	23
	-10°C	27	24	22	20	-10°C	25	22	21	20	-10°C	25	23	22	21
	-20°C	24	22	20	18	-20°C	23	20	18	17	-20°C	22	20	19	18
	-30°C	22	19	17		-30°C	20	17	16		-30°C	20	18	17	16
	-40°C	19	17			-40°C	18				-40°C	17			

Topvex TR09					Topvex TR09					
Capacity kW	6	6	6	6	15	15	15	15		
Airflow m ³ /h	2000	2400	2800	3200	2000	2400	2800	3200		
	Supply air temp. °C				Supply air temp. °C					
Outdoor	0°C	24	22	21	20	0°C	37	33	31	29
	-10°C	21	19	18	17	-10°C	34	30	28	26
	-20°C	18				-20°C	31	27	25	23
	-30°C					-30°C	28	24	22	20
	-40°C					-40°C	25	21	19	17

Topvex TR12					Topvex TR12				Topvex TR15						
Capacity kW	9	9	9	9	21	21	21	21	15	15	15	15			
Airflow m ³ /h	2500	3100	3700	4300	2500	3100	3700	4300	3000	3800	4600	5400			
	Supply air temp. °C				Supply air temp. °C				Supply air temp. °C						
Outdoor	0°C	26	23	22	21	0°C	40	35	32	29	0°C	30	27	24	23
	-10°C	23	20	19	18	-10°C	37	32	29	26	-10°C	27	24	21	20
	-20°C	20	17			-20°C	34	29	26	23	-20°C	24	21	18	17
	-30°C	17				-30°C	31	26	23	20	-30°C				
	-40°C					-40°C	28	23	20	17	-40°C				

Accessories TR03-06 CAV/VAV

	Topvex TR03 CAV/VAV	Topvex TR04 CAV/VAV	Topvex TR06 CAV/VAV
Repeater, 230V main supply*	E0-R230K	E0-R230K	E0-R230K
Repeater, 24V main supply*	E0-R	E0-R	E0-R
E-Tool cable	ETC	ETC	ETC
Shut-off damper	EFD 250	EFD 315	EFD 50-25
Water heater HWL, low power. Only for units without heater	HWL TR03	HWL TR04	HWL TR06
Water heater HWH, high power. Only for units without heater	HWH TR03	HWH TR04	HWH TR06
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way. Fits to HWL/HWH coils.	ZTV 15-0,6	ZTV 15-1,0	ZTV 15-1,0
Valve, 3-way. Fits to HWL/HWH coils.	ZTR 15-1,0	ZTR 15-1,6	ZTR 15-1,6
Cooling coil, water (<i>info on page 64</i>)	PGK 50-25	PGK 60-30	PGK 60-35
Cooling coil, DX coil (<i>info on page 66-67</i>)	DXRE 50-25	DXRE 60-30	DXRE 60-35
Duct sensor	TG-KH/PT1000	TG-KH/PT1000	TG-KH/PT1000
Room temperature sensor	TG-R5/PT1000	TG-R5/PT1000	TG-R5/PT1000
Combi grille	CVVX 250	CVVX 315	CVVX 400
Silencer **	LDC-B 250	LDC-B 315	LDR-B 50-25
Timer	T 120	T 120	T 120
Presence detector	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO2RT-DR	CO2RT-DR	CO2RT-DR
CO ₂ Room sensor (analog 0...10V DC)	CO2RT	CO2RT	CO2RT
U-tube manometer, filter guard	MFRO	MFRO	MFRO
Filter F5 (extract air)	BFT 1000/TR03 F5	BFT 1500/TR04 F5	BFT 2000/TR06 F5
Filter F7 (supply air)	BFT 1000/TR03 F7	BFT 1500/TR04 F7	BFT TR06 F7
Converter EXOline to BACnet	E-Bacnet-V	E-Bacnet-V	E-Bacnet-V

* Used when distance between the unit and control panel is more than 10 meters.

** See the catalogue "Ventilation products EIII" or www.systemair.com

Accessories TR09-15

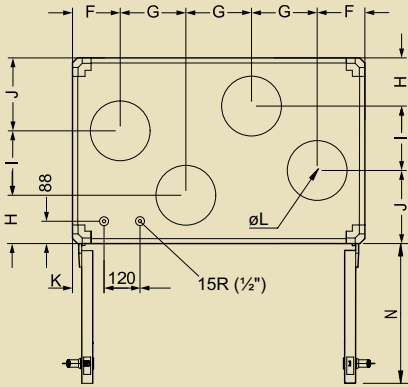
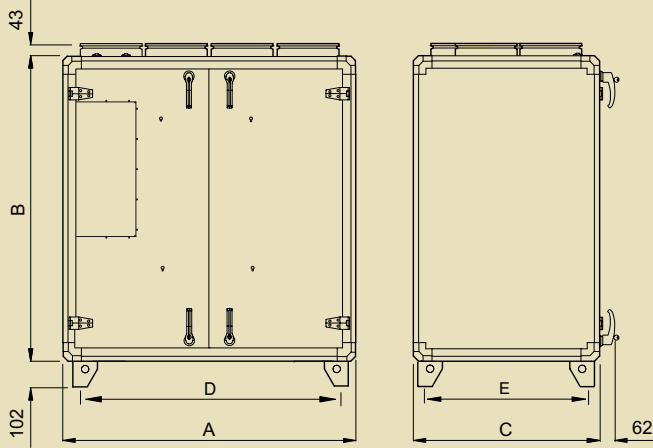
	Topvex TR09	Topvex TR12	Topvex TR15
Repeater*	E0-R230K	E0-R230K	E0-R230K
E-Tool cable	ETC	ETC	ETC
Shut-off damper	EFD 70-30	EFD 80-35	EFD 100-35
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way	ZTV 20-2.0	ZTV 20-2.5	ZTV 20-4.0
Valve, 3-way	ZTR 20-2.5	ZTR 20-4.0	ZTR 20-6.0
Cooling coil, water (<i>info on page 64</i>)	PGK	PGK	PGK
Cooling coil, DX (<i>info on page 66-67</i>)	DXRE	DXRE	DXRE
Silencer**	LDR-B 70-40	LDR-B 80-50	LDR-B 100-50
Timer	T 120	T 120	T 120
Room temperature sensor	TG-R5/PT1000	TG-R5/PT1000	TG-R5/PT1000
Duct sensor	TG-KH/PT1000	TG-KH/PT1000	TG-KH/PT1000
Presence detector	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO2RT-DR	CO2RT-DR	CO2RT-DR
CO ₂ Room sensor (analog 0...10V DC)	CO2RT	CO2RT	CO2RT
U-tube manometer, filter guard	MFRO	MFRO	MFRO
Filter F5, bag filter (2 per unit)	BFT TR09 F5	BFT TR12 F5	BFT TR15 F5
Filter F7, bag filter (2 per unit)	BFT TR09 F7	BFT TR12 F7	BFT TR15 F7

* Used when distance between the unit and control panel is more than 10 meters

** See catalogue "Ventilation products EIII" or www.systemair.com

Dimensions TR

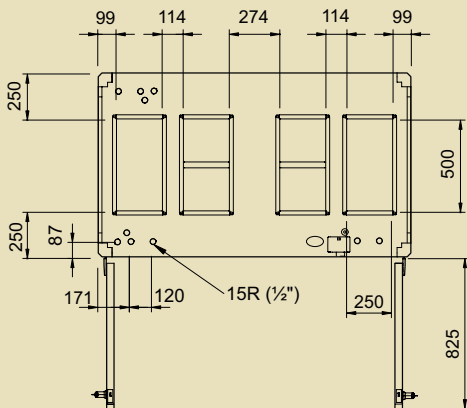
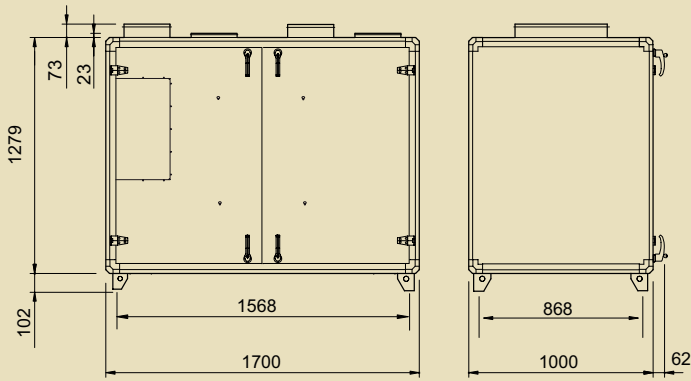
TR03-04 CAV/VAV



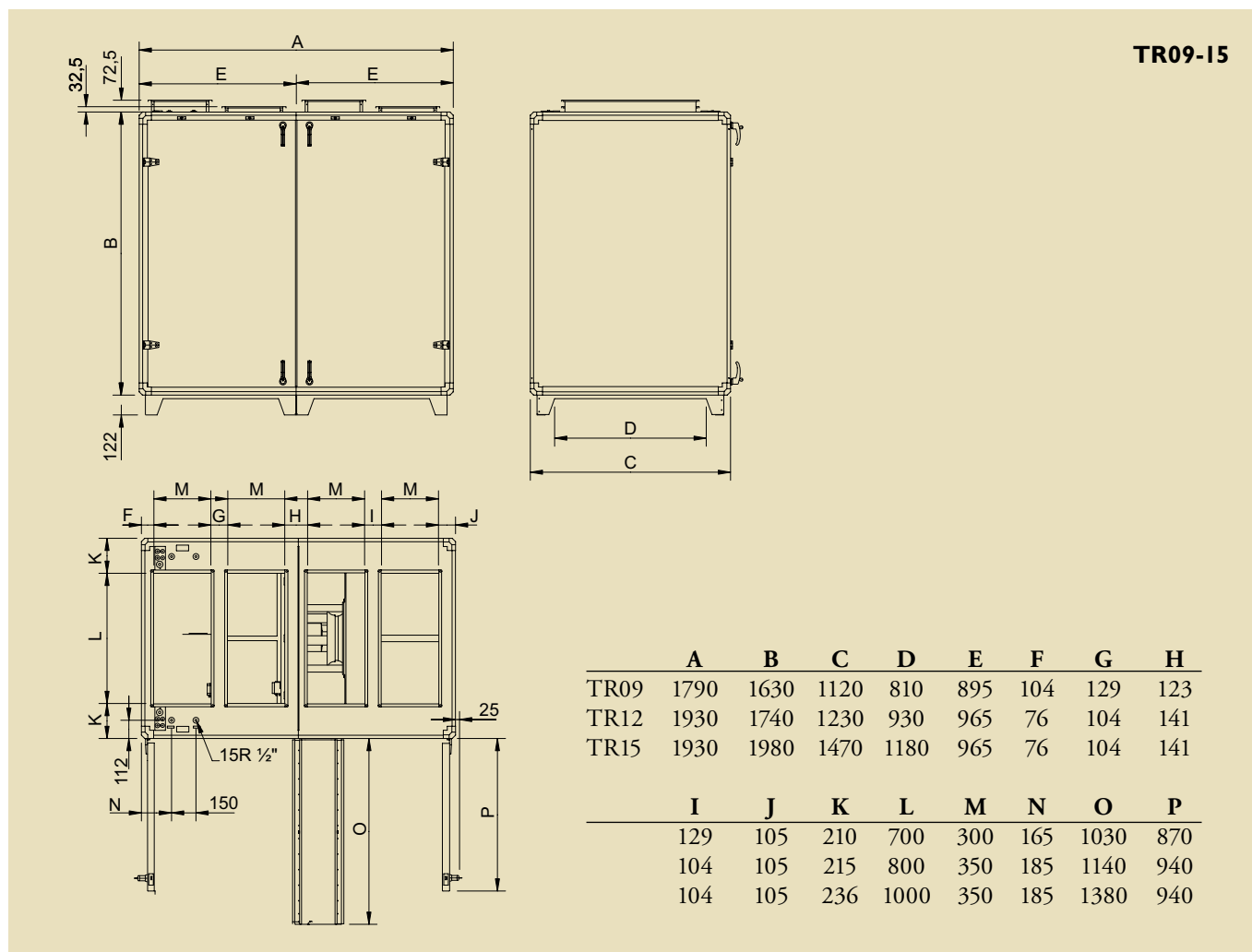
	A	B	C	D	E	F	G
TR03 CAV/VAV	1180	1230	750	1048	618	193	265
TR04 CAV/VAV	1480	1280	850	1348	718	209	354

	H	I	J	K	øL	N
	195	260	295	127	250	570
	315	220	315	163	315	715

TR06 CAV/VAV



Dimensions TR



Technical data TR

		TR03 EL	TR03	TR04 EL	TR04	TR06 EL	TR06
Voltage	V	400	230	400	230	400	400
Frequency	Hz	50	50	50	50	50	50
Phase	-	3N	1	3N	1	3N	3N
Input power, fan motors	W	2 x 505	2 x 505	2 x 769	2 x 769	2 x 1005	2 x 1005
Input power, electrical heating battery	kW	3.0	-	3.99	-	6.3	-
Fuse	A	3x13	13	3x16	13	3x16	3x10
Weight	kg	220	220	280	280	350	350
Filter, supply air		F7	F7	F7	F7	F7	F7
Filter, extract air		F5	F5	F5	F5	F5	F5

HW coil is accessory for the Topvex TR03-06 CAV/VAV units. Delivered separate and to be mounted on site, plug-in.

NB! Fits to units without heater.

		TR09 EL	TR09 HW	TR12 EL	TR12 HW	TR15 EL	TR15 HW
Voltage	V	400	400	400	400	400	400
Frequency	Hz	50	50	50	50	50	50
Phase	-	3N	3N	3N	3N	3N	3N
Input power, fan motors	W	2 x 1060	2 x 1060	2 x 1787	2 x 1787	2 x 3380	2 x 3380
Input power, electrical heating battery	kW	6/15	-	9/21	-	15	-
Fuse	A	3x16/3x35	3x10	3x25/3x50	3x16	3x35	3x16
Weight	kg	505	505	580	580	710	710
Filter, supply air		F7	F7	F7	F7	F7	F7
Filter, extract air		F5	F5	F5	F5	F5	F5

Ordering code TR

TR 03-06 CAV/VAV

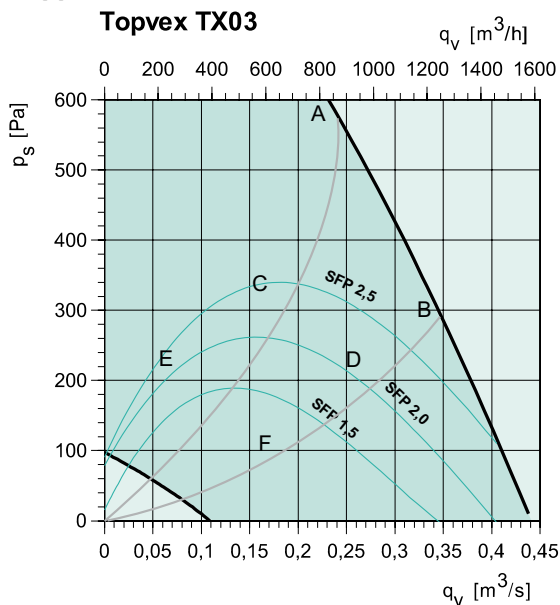
- Model: **TR03**, **TR04** and **TR06**.
- Heating coil: **EL** (*electric*), **No heater** (*E.g. Unit name: Topvex TR06-L-CAV.*)
Water coil **HWL** (low power), **HWH** (high power) are accessory to units without heater and the coil is delivered separately.
- Right or Left model: **R** (*Right*), **L** (*Left*). The sides were the supply air is located when viewed from access side.
- Airflow control: **CAV** (*Constant air volume*), **VAV** (*Variable air volume = constant duct pressure control*)

TR 09-15

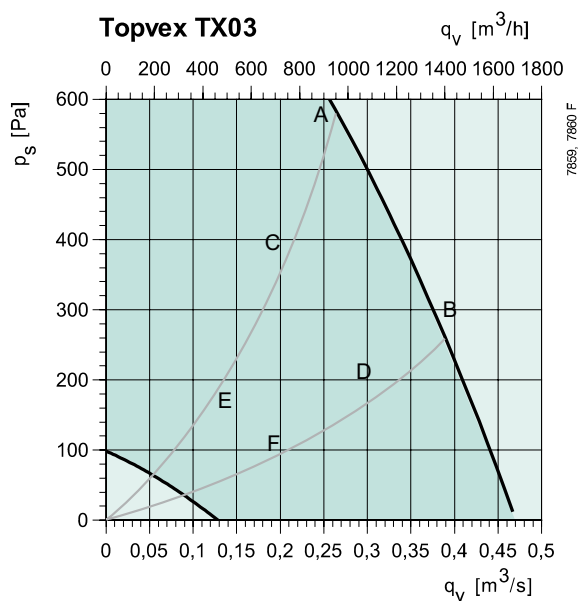
- Model: **TR09**, **TR12**, **TR15**
- Heating coil: electric = **EL**, water = **HW**
Available power:
TR09 EL: 6kW alt. 15kW TR09 HW: HWL - low power, HWH - high power
TR12 EL: 9kW alt. 21kW TR12 HW: HWL - low power, HWH - high power
TR15 EL: 15kW TR15 HW: HWL - low power, HWH - high power
- Right or left model (The side were the supply air is located when viewed from access side)
- CAV or VAV airflow controlling
(CAV= Constant Air Volume, VAV= Variable Air Volume)
- Communication to BMS systems
Exoline, Modbus
LON
Exoline/Built-in Web via TCP/IP

Performance TX03

Supply

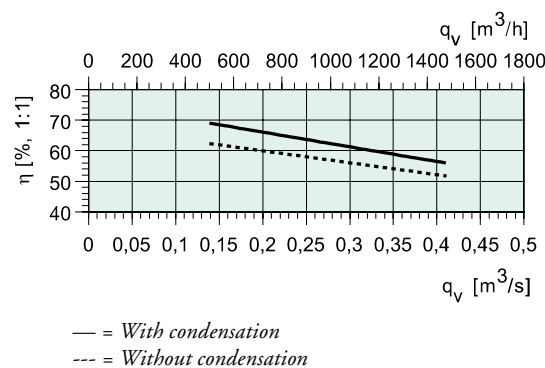


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	79	60	70	72	71	74	70	65	56
B	10V	81	60	69	76	73	75	72	66	57
C	6,6V	79	58	69	76	67	70	66	60	50
D	6,6V	78	56	68	75	67	69	65	59	49
E	4,6V	70	55	68	57	59	61	56	49	38
F	4,6V	66	52	62	55	57	60	55	47	35



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	72	56	64	69	64	61	60	54	47
B	10V	69	54	61	64	63	60	59	52	45
C	6,6V	67	50	63	62	57	55	51	45	38
D	6,6V	68	49	61	66	56	53	50	44	35
E	4,6V	63	48	63	45	48	46	42	34	26
F	4,6V	65	45	65	45	47	46	41	32	25

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	66	43	55	64	54	54	57	50	44
B	10V	63	42	53	60	53	53	57	49	42
C	6,6V	60	40	55	58	47	48	49	42	35
D	6,6V	60	37	53	58	46	46	48	41	33
E	4,6V	55	38	55	40	38	39	40	31	23
F	4,6V	56	34	55	39	37	38	39	29	22

SFP = Specific Fan Power ($kW/m^3/s$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With outside temperature $-15\text{ }^\circ\text{C}$ and extract air temperature $25\text{ }^\circ\text{C}$.

With condensation: 50%Rh.

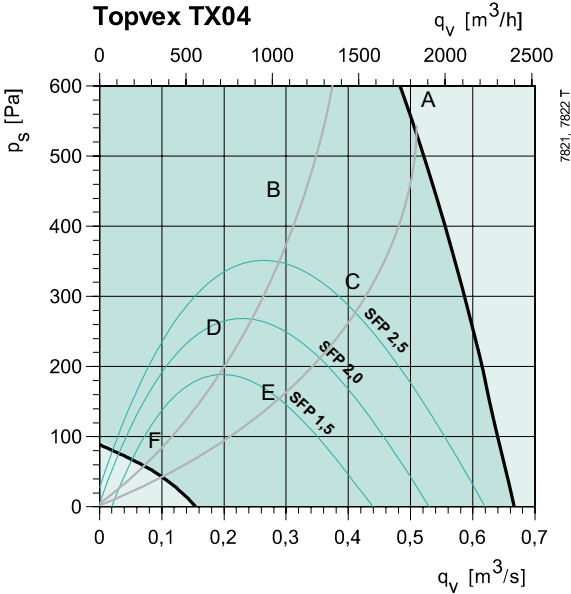
Without condensation: 0%Rh.

Sound data

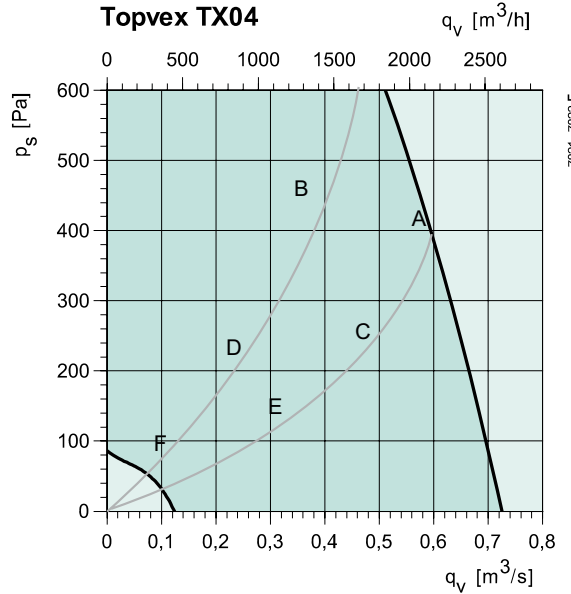
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Performance TX04

Supply

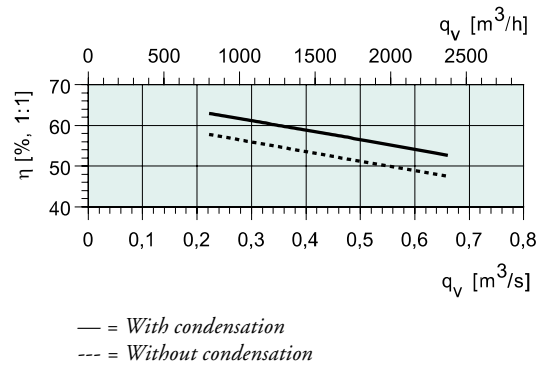


Extract



Supply

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	85	63	71	80	76	78	78	75	67
B	6,6V	82	60	66	80	71	72	72	68	60
C	6,6V	82	60	65	81	70	71	71	68	59
D	4,5V	70	50	65	63	58	62	62	56	47
E	4,5V	69	49	64	62	59	62	62	56	46
F	2,5V	61	41	47	42	43	47	60	36	26



Extract

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	70	60	64	62	61	61	59	59	49
B	6,6V	67	62	62	60	54	53	52	51	44
C	6,6V	67	64	62	59	55	54	52	51	41
D	4,5V	60	54	58	50	44	44	42	39	31
E	4,5V	61	52	58	53	44	45	41	39	28
F	2,5V	46	44	39	29	30	37	25	21	22

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With outside temperature -15 °C and extract air temperature 25 °C.

With condensation: 50%Rh.

Without condensation: 0%Rh.

Sound data

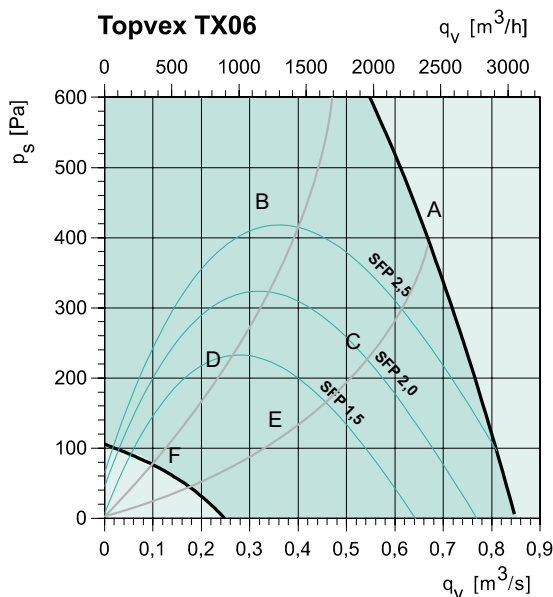
The sound data tables indicate the sound power level L_{wA}, which should not be confused with the sound pressure level.

Surrounding

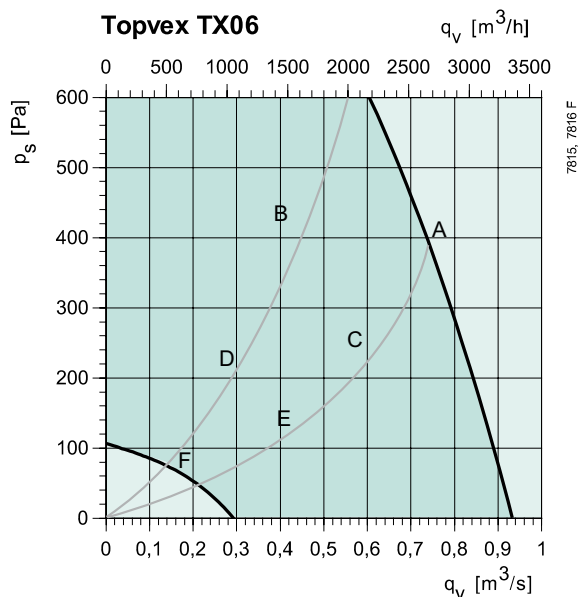
Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	63	52	58	58	52	50	52	45	41
B	6,6V	63	48	53	62	48	45	46	38	34
C	6,6V	64	50	52	64	46	44	45	37	33
D	4,5V	53	41	51	45	35	35	36	26	21
E	4,5V	51	39	49	45	35	35	35	25	20
F	2,5V	38	31	34	24	19	20	34	8	8

Performance TX06

Supply

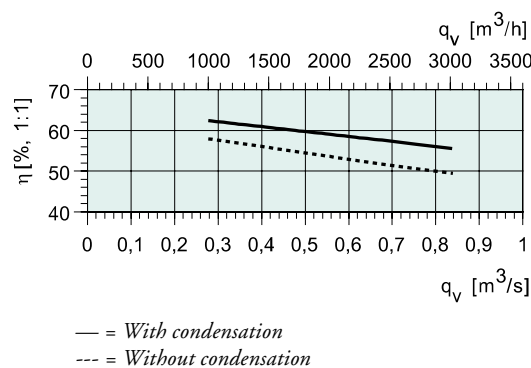


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	85	57	65	83	75	77	76	73	68
B	6V	77	58	70	71	68	70	69	66	59
C	6V	76	51	63	69	69	70	69	66	59
D	4,2V	68	50	65	58	58	61	60	55	48
E	4,2V	68	50	64	59	59	62	60	56	48
F	2,7V	55	44	47	44	47	49	47	35	33



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	74	56	60	72	66	64	62	61	54
B	6V	72	52	65	69	63	61	60	60	53
C	6V	69	49	56	68	60	57	55	53	45
D	4,2V	65	47	63	55	54	53	52	50	43
E	4,2V	62	43	60	50	49	48	46	42	32
F	2,7V	53	44	50	42	42	41	38	34	25

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	70	45	53	68	62	60	61	57	53
B	6V	66	44	57	62	59	57	58	55	47
C	6V	64	39	49	61	56	54	54	50	44
D	4,2V	58	37	54	49	50	49	50	45	36
E	4,2V	54	35	51	45	46	45	45	39	33
F	2,7V	45	33	41	36	38	37	36	29	20

SFP = Specific Fan Power ($\text{kW}/\text{m}^3/\text{s}$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With outside temperature $-15\text{ }^\circ\text{C}$ and extract air temperature $25\text{ }^\circ\text{C}$.

With condensation: 50%Rh.

Without condensation: 0%Rh.

Sound data

The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Hot water coil TX

		Topvex TX03 HWL				Topvex TX04 HWL				Topvex TX06 HWL			
Water temp.	°C	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Air flow	m ³ /h	1080	1080	1080	1080	1440	1440	1440	1440	2160	2160	2160	2160
Outdoor temp. 0°C													
Supply air temp.	°C	27.0	32.1	37.1	42.1	27.1	31.9	36.6	41.3	24.6	28.8	33.0	37.2
Water flow	l/s	0.07	0.09	0.11	0.14	0.09	0.12	0.15	0.18	0.11	0.15	0.19	0.23
Pressure drop	kPa	3.40	5.40	7.89	10.50	8.10	12.60	17.80	23.70	4.90	7.80	11.20	15.10
Capacity	kW	5.6	7.4	9.3	11.1	7.5	9.8	12.1	14.4	9.5	12.5	15.6	18.6
Outdoor temp. -10°C													
Supply air temp.	°C	24.6	29.7	34.7	39.7	24.6	29.4	34.1	38.8	21.9	26.1	30.3	34.4
Water flow	l/s	0.08	0.10	0.12	0.15	0.10	0.13	0.16	0.19	0.13	0.17	0.21	0.24
Pressure drop	kPa	4.20	6.40	8.90	11.80	10.00	14.90	20.40	26.70	6.10	9.30	12.90	17.00
Capacity	kW	6.4	8.2	10.0	11.8	8.5	10.8	13.7	15.4	10.8	13.8	16.8	19.8
Outdoor temp. -10°C open by-pass													
Supply air temp.	°C	21.3	26.4	31.4	36.4	21.2	25.9	30.6	35.3	18.12	22.3	26.5	30.6
Water flow	l/s	0.09	0.11	0.14	0.16	0.12	0.15	0.18	0.20	0.15	0.2	0.2	0.3
Pressure drop	kPa	5.50	8.00	10.7	13.70	13.00	18.30	24.3	30.90	8	11.5	15.4	19.7
Capacity	kW	7.4	9.3	11.06	12.9	9.8	12.1	14.39	16.7	12.51	15.5	18.6	21.6
Outdoor temp. -20°C													
Supply air temp.	°C	22.2	27.3	32.3	37.3	22.1	26.9	31.6	36.3	19.2	23.4	27.5	31.6
Water flow	l/s	0.09	0.11	0.13	0.15	0.11	0.14	0.17	0.20	0.15	0.18	0.22	0.26
Pressure drop	kPa	5.20	7.50	10.20	13.20	12.20	17.30	23.20	29.70	7.50	10.80	14.70	19.00
Capacity	kW	7.1	9.0	10.8	12.6	9.5	11.8	14.0	16.3	12.0	15.1	18.1	21.1
Outdoor temp. -30°C													
Supply air temp.	°C	19.8	24.9	29.9	34.9	19.6	24.4	29.1	33.8	16.4	20.6	24.7	28.9
Water flow	l/s	0.10	0.12	0.14	0.16	0.13	0.15	0.18	0.21	0.16	0.20	0.24	0.27
Pressure drop	kPa	6.20	8.70	11.50	14.60	14.50	19.90	26.10	32.90	8.90	12.50	16.50	21.00
Capacity	kW	7.9	9.7	11.5	13.3	10.4	12.7	15.0	17.3	13.3	16.3	19.3	22.3
Outdoor temp. -40°C													
Supply air temp.	°C	17.4	22.5	27.4	32.4	17.1	21.8	26.5	31.2	13.6	17.8	21.9	26.1
Water flow	l/s	0.10	0.13	0.15	0.17	0.14	0.17	0.19	0.22	0.18	0.21	0.25	0.29
Pressure drop	kPa	7.30	9.90	12.90	16.10	16.90	22.70	29.10	36.30	10.50	14.30	18.50	23.20
Capacity	kW	6.7	10.5	12.3	14.1	11.4	13.7	15.9	18.2	14.6	17.6	20.6	23.6

		Topvex TX03 HWH				Topvex TX04 HWH				Topvex TX06 HWH			
Water temp.	°C	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Air flow	m ³ /h	540	1080	540	1080	720	1440	720	1440	1080	2160	1080	2160
Outdoor temp. 0°C													
Supply air temp.	°C	32.55	27.64	41.41	34.39	29.42	26.92	37.75	33.26	31.67	27.72	38.44	33.04
Water flow	l/s	0.03	0.05	0.07	0.1	0.03	0.06	0.08	0.13	0.06	0.09	0.12	0.19
Pressure drop	kPa	0.9	1.8	3.2	6.7	0.6	1.5	2.2	5.4	1.1	2.5	3.7	8.4
Capacity	kW	3.81	5.83	5.41	8.28	4.32	7.42	6.33	10.49	7.29	11.72	9.75	15.58
Outdoor temp. -10°C													
Supply air temp.	°C	32.68	26.56	41.01	33.08	29.21	25.66	36.86	31.76	31.09	26.25	37.38	31.33
Water flow	l/s	0.04	0.06	0.07	0.11	0.04	0.07	0.09	0.14	0.07	0.11	0.13	0.21
Pressure drop	kPa	1.2	2.5	4	8.5	0.8	0.34	2.8	6.8	1.5	3.4	4.5	10.5
Capacity	kW	4.64	7.07	6.15	9.43	5.35	8.99	7.2	11.94	8.71	13.91	10.99	17.6
Outdoor temp. -10°C open by-pass													
Supply air temp.	°C	32.5	24.9	40.42	31.23	28.4	23.76	35.59	29.65	29.97	24.07	35.85	28.93
Water flow	l/s	0.05	0.07	0.09	0.13	0.05	0.09	0.1	0.17	0.09	0.14	0.15	0.25
Pressure drop	kPa	1.8	3.7	5.2	11.2	1.2	3	3.6	8.9	2.1	4.8	5.8	13.6
Capacity	kW	5.73	8.71	7.17	11.01	6.65	11.07	8.39	13.91	10.55	16.82	12.68	20.35
Outdoor temp. -20°C													
Supply air temp.	°C	32.57	25.37	40.59	31.74	28.65	24.29	35.94	30.23	30.3	24.68	36.28	29.6
Water flow	l/s	0.04	0.07	0.08	0.13	0.05	0.08	0.1	0.16	0.08	0.13	0.15	0.24
Pressure drop	kPa	1.6	3.3	4.9	10.4	1.1	2.7	3.4	8.3	1.9	4.4	5.5	12.7
Capacity	kW	5.44	8.27	6.89	10.58	6.3	10.5	8.07	13.37	10.06	16.03	12.22	19.6
Outdoor temp. -30°C													
Supply air temp.	°C	32.34	24.12	40.14	30.39	27.94	22.86	35	28.69	29.4	23.04	35.15	27.83
Water flow	l/s	0.05	0.08	0.09	0.14	0.06	0.1	0.11	0.18	0.09	0.15	0.16	0.26
Pressure drop	kPa	2	4.2	5.8	12.5	1.4	3.4	4.1	10	2.4	5.4	6.5	15.1
Capacity	kW	6.21	9.44	7.63	11.72	7.22	11.98	8.92	14.8	11.36	18.11	13.44	21.58
Outdoor temp. -40°C													
Supply air temp.	°C	32.03	22.83	39.67	29.02	27.14	21.38	34.03	27.12	28.42	21.36	33.99	26.05
Water flow	l/s	0.06	0.09	0.1	0.16	0.07	0.11	0.12	0.2	0.1	0.16	0.18	0.29
Pressure drop	kPa	2.5	5.2	6.9	14.8	1.7	4.2	4.8	11.8	2.9	6.6	7.6	17.7
Capacity	kW	6.97	10.61	8.36	12.85	8.1	13.44	9.78	16.22	12.63	20.14	14.65	23.55

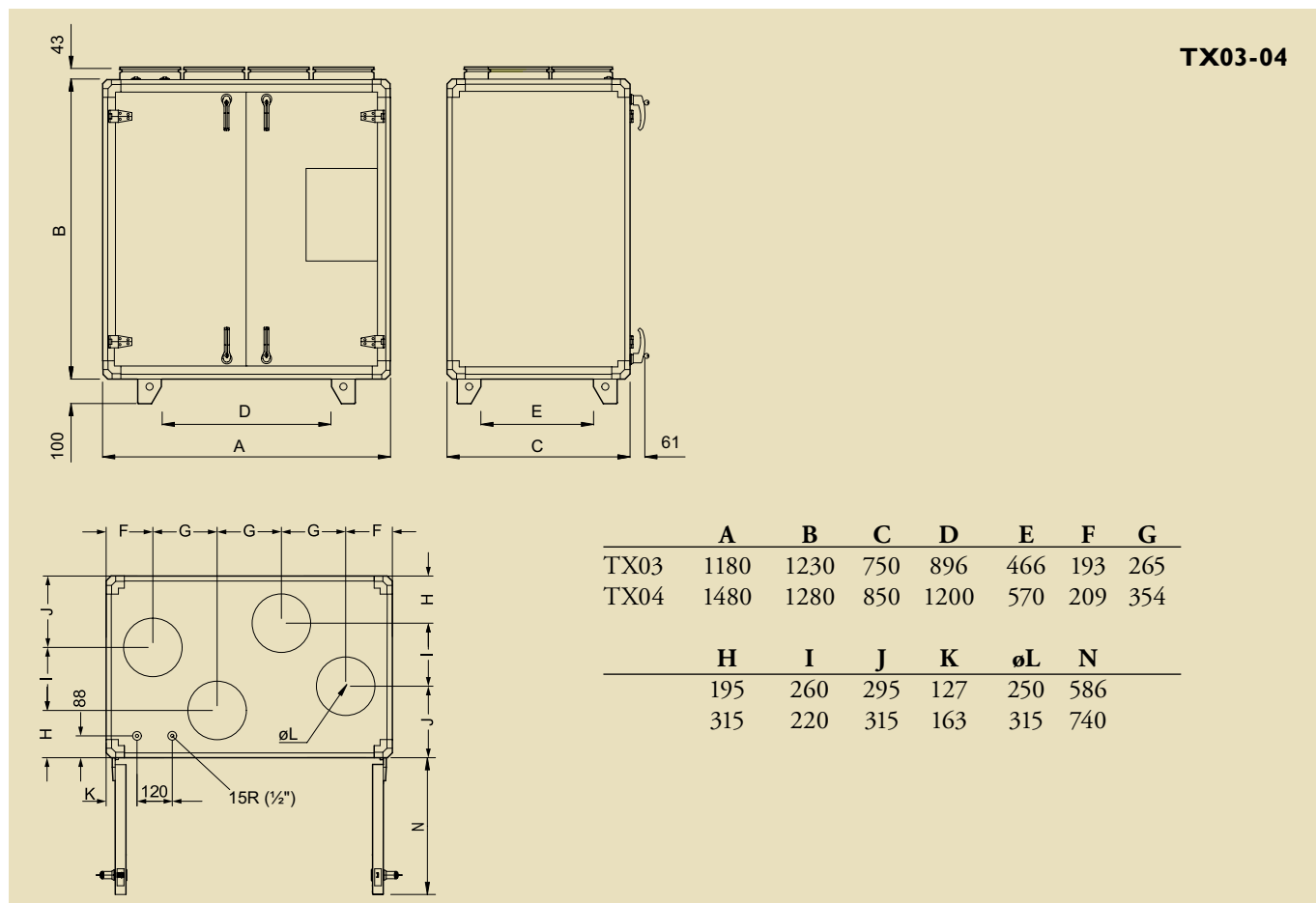
Heater battery, electric TX

Capacity, kW	Topvex TX03				Topvex TX04				Topvex TX06							
	6	6	6	6	12	12	12	12	16	16	16	16				
Air flow, m ³ /h	360	720	1080	1440	1260	1620	1980	2340	1440	1980	2520	3060				
Outdoor	Supply air temp. °C				Supply air temp. °C				Supply air temp. °C							
	0°C	>30	>30	28	24	0°C	>30	>30	29	26	0°C	>30	>30	30	27	
	-10°C	>30	>30	23	19	-10°C	>30	>30	28	25	-10°C	>30	>30	30	25	22
	-10°C	>30		25	17	-10°C			28	22	-10°C			24	19	
	-20°C	>30		27	19	-20°C			30	24	-20°C			26	21	18
	-30°C	>30		22		-30°C			25	19	-30°C			30	21	
-40°C	>30		18		-40°C			21		-40°C			26	17		

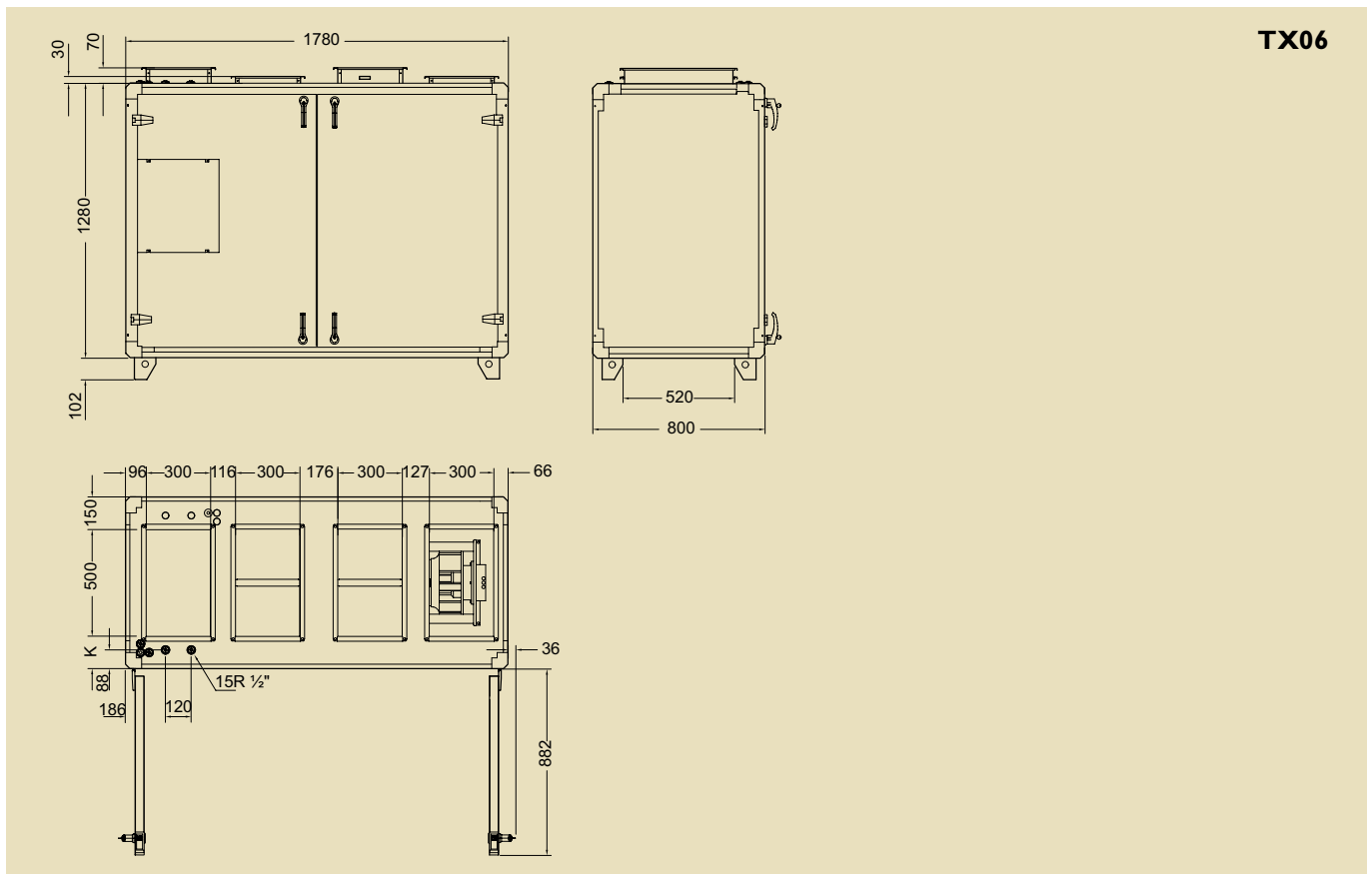
Dotted frame = open by-pass

An extract air temperature of 21°C and a heat exchanger efficiency of 55% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the above tables.

Dimensions TX



Dimensions TX



Technical data TX

		TX03 EL	TX03 HW	TX04 EL	TX04 HW	TX06 EL	TX06 HW
Voltage	V	400V	230	400	400	400	400
Frequency	Hz	50	50	50	50	50	50
Phase	-	3N	1	3N	3N	3N	3N
Input power, fan motors	W	2 x 514	2 x 514	2 x 1066	2 x 1066	2 x 1084	2 x 1084
Input power, electrical heating battery	kW	6	-	12	-	16	-
Fuse	A	3x20	13	3x25	3x10	3x32	3x10
Weight	kg	203	203	270	270	335	335
Filter, supply air		F7	F7	F7	F7	F7	F7
Filter, extract air		F5	F5	F5	F5	F5	F5

Accessories TX03-06

	Topvex TX03	Topvex TX04	Topvex TX06
Repeater*	E0-R230K	E0-R230K	E0-R230K
Shut-off damper	EFD 250	EFD 315	EFD 50-30
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way, HWL/HWH (L = low, H = high)	ZTV 15-1.0/15-0.6	ZTV 15-1.6/15-1.0	ZTV 20-2.0/15-1.6
Valve, 3-way, HWL/HWH (L = low, H = high)	ZTR 15-1.6/15-1.0	ZTR 20-2.0/15-1.6	ZTR 20-2.5/20-2.0
Cooling coil, water (<i>info on page 64</i>)	PGK	PGK	PGK
Cooling coil, DX (<i>info on page 66-67</i>)	DXRE	DXRE	DXRE
Step controller. DX cooling (24V). Converts 0...10V signal to output relay.	SC2/D	SC2/D	SC2/D
Plastic casing, step controller IP54	U-EK	U-EK	U-EK
Transformer 230/24 V	PSS20	PSS20	PSS20
Duct sensor	TG-KH/PT1000	TG-KH/PT1000	TG-KH/PT1000
Combi grille	CVVX 250	CVVX 315	CVVX 400
Silencer**	LDC-B 250	LDC-B 315	LDR-B 50-30
Timer	T 120	T 120	T 120
Presence detector	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO2RT-DR	CO2RT-DR	CO2RT-DR
Water lock. Where there is a risk of condensation on the outdoor/supply air side of the heat exchanger.	Water lock	Water lock	Water lock
Filter F5 (extract air)	BFT 1000/TX03 F5	BFT TX04 F5 Filter	BFT TX06 F5 Filter
Filter F7 (supply air)	BFT TX03 F7 Filter	BFT TX04 F7 Filter	BFT TX06 F7 Filter

*Used when distance between the unit and control panel is more than 10 meters

** See catalogue "Ventilation products EIII" or www.systemair.com

Ordering code TX

- Model: TX03, TX04, TX06
- Heating coil: electric = EL, water = HW
Available power:
 TX03 EL: 6kW TX03 HW: HWL - low power, HWH - high power
 TX04 EL: 12kW TX04 HW: HWL - low power, HWH - high power
 TX06 EL: 16kW TX06 HW: HWL - low power, HWH - high power
- Right or left model (The side where the supply air is located when viewed from access side)



- S – Side connection**
- F – Flat design**
- R – Rotating heat exchanger**
- X – Cross flow heat exchanger**

Topvex SR, SX and FR is a “Plug and play” air handling unit with a modern design intended for ventilating offices, day-care centres or used as zone ventilation in larger buildings e.g. schools. To meet the new restricted energy requirements with low SFP (Specific Fan Power) Topvex is equipped with EC fan motors. EC-motors consume an average of 30% less energy than AC motors. In some applications, the saving can be 50% or more.

SR 07-11 has a non-removable rotating heat exchanger.

Topvex SR/FR is equipped with a high efficiency rotating heat exchanger with an efficiency of up to 85%. Rotating heat exchangers do not need condense water drainage and is therefore very flexible to install.

Topvex FR with the unique design of double rotating heat exchangers makes the unit very flat. Using the enclosed suspension device, the Topvex FR can be installed in a false ceiling. The units are delivered with doors on hinges as standard. A sliding door kit is available as accessory. The kit includes rails and wheels and is to be mounted on the standard unit.

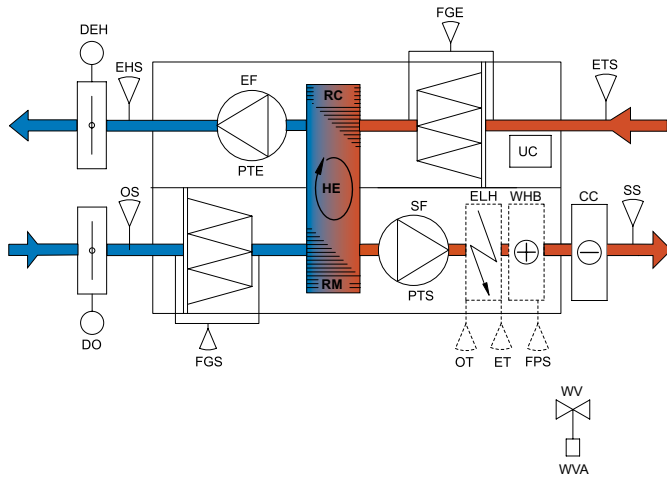
Topvex SX with its crossflow heat exchanger is normally used where it is a requirement that the supply and exhaust air must be kept separated. The unit have an efficient de-icing function.

Topvex SR/SX and FR units have energy saving functions like:

- Week schedule.
- Cool recovering to recover the chilliness in the extract air during warm season. If using an external cooling unit.
- Demand controlled airflow by using a CO₂/humidity sensor, movement detector etc.
- Sum alarm output for central supervision of many units.
Central supervision secures that incorrect operating, like dirty filters, detects early.

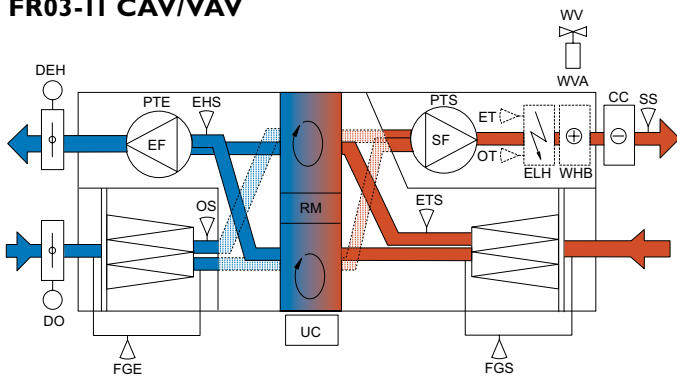
Explanatory sketch SR/SX/FR

SR07-II, SR03-06 CAV/VAV



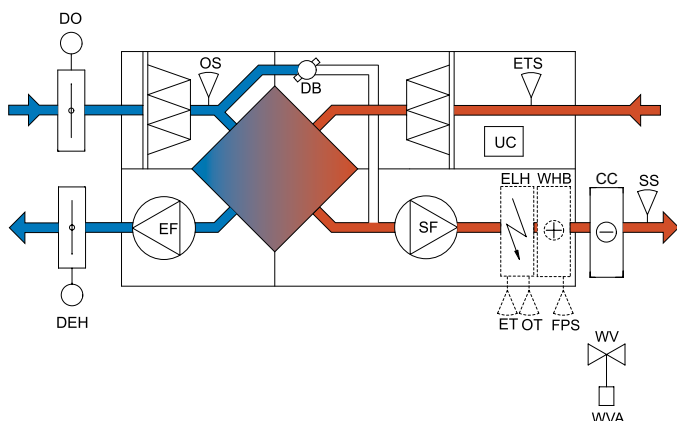
- | | | | |
|------|---|-------|---|
| UC | Unit control | HE | Heat exchanger |
| ELH | Electrical heater | SS | Supply air temp. sensor |
| OT | Overheating thermostat
(electric heater) | RC | Rotor control |
| SF | Supply fan | RM | Rotor motor |
| FPS | Frost protection temp. sensor
(hot water heater) | ETS | Extract air temp. sensor |
| EF | Extract fan | EHS** | Exhaust air temp. sensor |
| PTS | Pressure transmitter supply
air fan | FGS | Filter pressure guard supply air |
| WHB* | Heating coil, water | OS | Outdoor air temp. sensor |
| WV* | Water valve | FGE | Filter pressure guard extract air |
| WVA* | Water valve actuator | HT | Heater |
| PTE | Pressure transmitter extract
air fan | DO* | Damper outdoor air |
| | | ET | Emergency thermostat
(electric heater) |
| | | DEH* | Damper exhaust air |
| | | CC* | Cooling coil |
- * accessory
** Applies to SR03-06 CAV/VAV

FR03-II CAV/VAV



- | | | | |
|-----|---|------|---------------------------------------|
| EF | Exhaust air fan | SS | Supply air temp. sensor |
| PTE | Pressure transmitter extract
air fan | ETS | Extract air temp. sensor |
| OS | Outdoor air temp. sensor | EHS | Exhaust air temp. Sensor |
| RM | Rotor motor | FGS | Filter pressure guard, supply
air |
| UC | Unit control | FGE | Filter pressure guard, extract
air |
| SF | Supply air fan | WV* | Water valve |
| PTS | Pressure transmitter supply
air fan | WHB* | Heating coil, water |
| ELH | Heater electrical | WVA* | Water valve actuator |
| ET | Emergency thermostat
(electric heater) | DEH* | Damper exhaust air |
| OT | Overheating thermostat
(electric heater) | DO* | Damper outdoor air |
| | | CC* | Cooling coil |
- * accessory

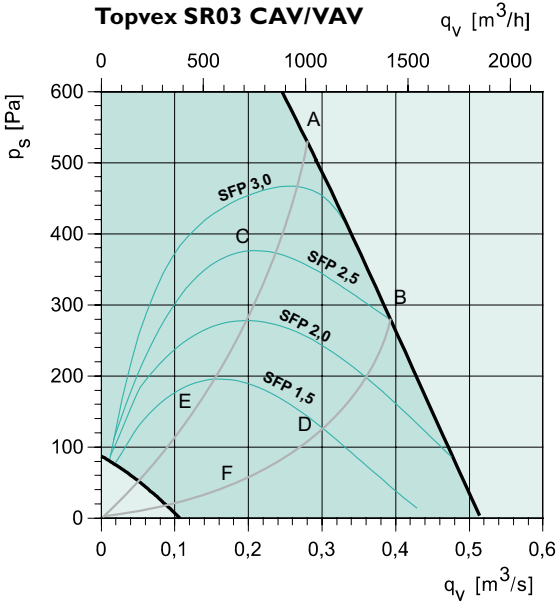
SX03-06



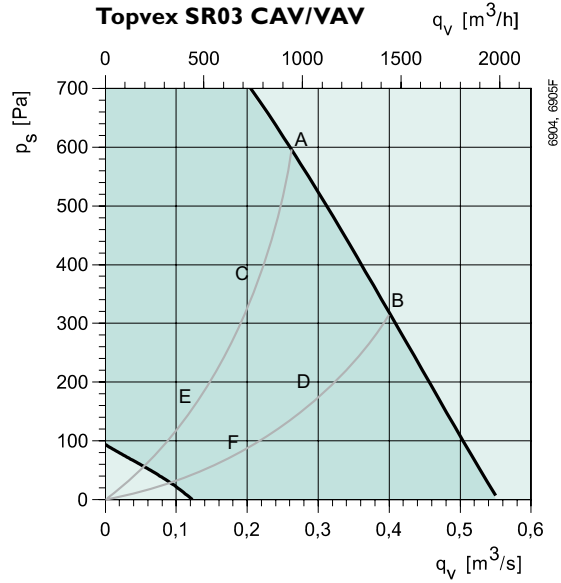
- | | | | |
|-----|--------------------------|------|----------------------------------|
| EF | Extract fan | FPS | Frost protection
temp. sensor |
| SF | Supply fan | DB | Damper by-pass |
| SS | Supply air temp. sensor | UC | Unit control |
| OS | Outdoor air temp. sensor | HE | Heat exchanger |
| ETS | Extract air temp. sensor | DO* | Damper outdoor air |
| ELH | Heater, electrical | DEH* | Damper exhaust air |
| ET | Emergency thermostat | WV* | Water valve |
| OT | Overheating thermostat | WVA* | Water valve actuator |
| WHB | Heating coil, water | CC* | Cooling coil |
- * accessory

Performance SR03 CAV/VAV

Supply

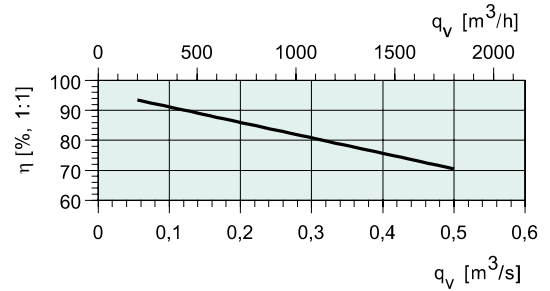


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	78	48	64	76	67	68	67	61	48
B	10V	80	53	64	77	72	72	71	66	55
C	7V	77	52	65	73	68	70	68	62	50
D	7V	76	49	62	73	67	69	67	61	49
E	5V	68	50	62	61	60	62	59	52	39
F	5V	67	47	61	60	59	61	59	51	37



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	74	51	68	71	66	62	56	48	40
B	10V	71	50	64	68	66	60	53	45	34
C	7V	71	50	67	67	60	57	50	43	34
D	7V	69	45	64	66	60	55	48	40	28
E	5V	66	50	65	54	53	49	42	34	25
F	5V	64	45	63	52	52	48	40	31	21

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

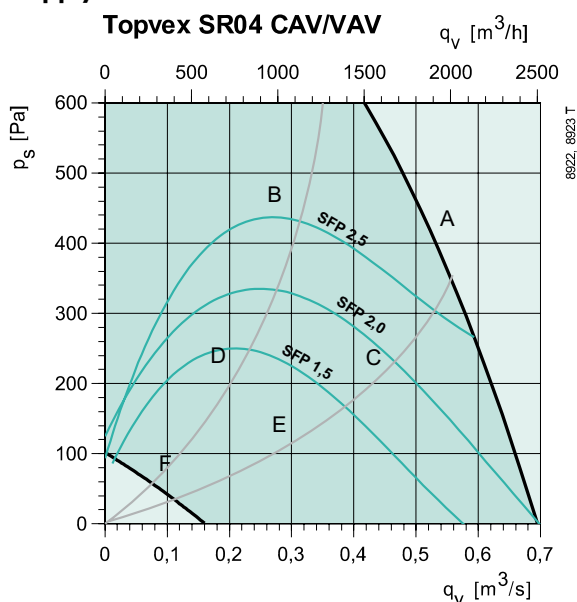
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Surrounding

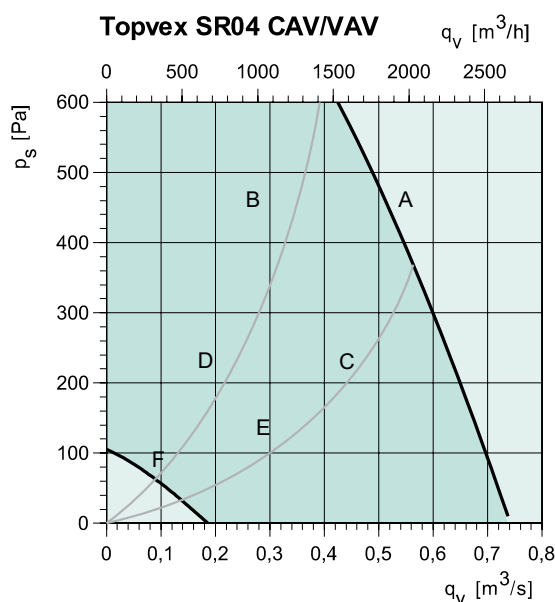
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	60	33	53	58	48	48	47	39	34
B	10V	59	34	49	57	49	47	47	40	35
C	7V	57	33	51	54	45	45	44	37	32
D	7V	56	30	49	53	44	43	42	35	29
E	5V	49	33	48	42	37	38	35	27	21
F	5V	48	29	46	40	36	37	34	25	19

Performance SR04 CAV/VAV

Supply



Extract



Supply

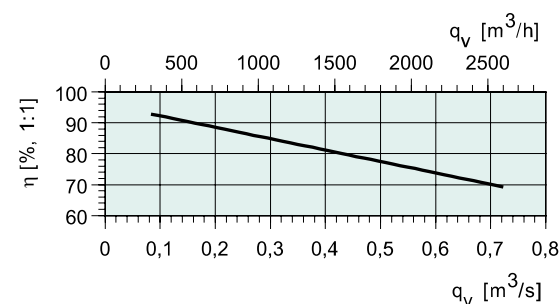
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	84	52	60	75	73	77	79	76	70
B	6.5V	77	52	62	68	67	71	73	68	62
C	6.5V	78	47	55	70	68	72	74	69	62
D	4.4V	69	47	60	61	59	64	63	55	50
E	4.4V	70	41	58	59	60	65	67	59	50
F	2.5V	57	41	42	50	48	54	48	36	27

Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	70	50	58	68	62	59	57	53	44
B	6.5V	69	51	63	67	58	54	52	48	40
C	6.5V	69	44	54	69	57	54	52	48	36
D	4.4V	64	44	63	56	50	47	44	38	29
E	4.4V	61	38	58	57	51	48	45	38	25
F	2.5V	48	43	43	39	38	35	27	18	19

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	66	33	45	62	55	55	59	56	52
B	6.5V	60	33	48	57	50	50	53	49	45
C	6.5V	62	27	40	59	50	50	54	50	44
D	4.4V	53	27	48	48	42	43	44	37	33
E	4.4V	52	21	43	47	43	44	47	40	33
F	2.5V	40	23	28	37	31	32	28	18	17



SFP = Specific Fan Power ($\text{kW}/\text{m}^3/\text{s}$)

The SFP value stated applies to the complete unit.

Thermal efficiency

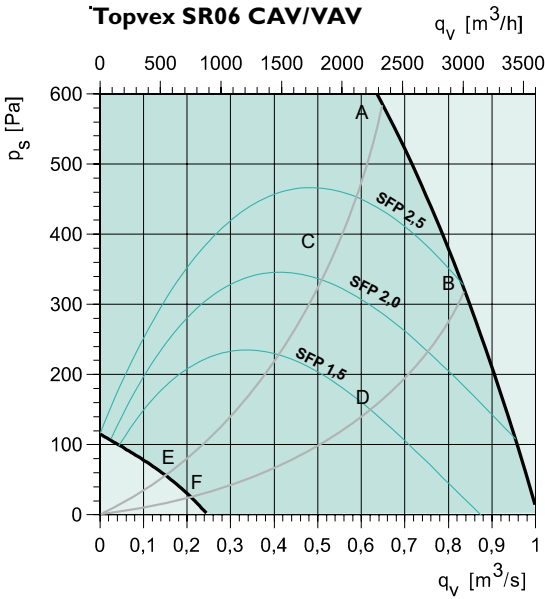
With air ratio 1:1 and air humidity at 50%.

Sound data

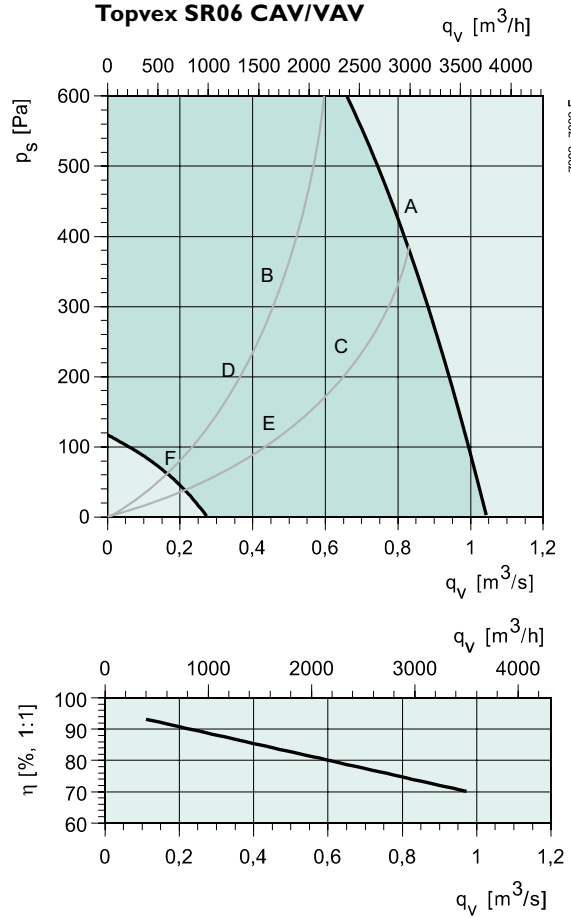
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Performance SR06 CAV/VAV

Supply



Extract



Supply

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	83	54	61	75	75	77	77	73	67
B	10V	83	53	60	74	76	79	77	73	67
C	6,3V	76	49	57	69	67	71	70	66	59
D	6,3V	77	47	56	71	68	72	70	66	60
E	2,8V	56	41	42	43	48	53	48	40	34
F	2,8V	56	39	42	43	48	53	50	41	35

Extract

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	74	50	61	63	72	62	58	52	45
B	6,3V	69	47	62	66	64	54	52	47	41
C	6,3V	69	44	56	60	67	55	52	46	37
D	4,5V	63	39	63	50	51	47	45	37	28
E	4,5V	59	38	56	51	52	47	44	37	27
F	2,8V	48	40	44	41	39	36	31	21	21

Surrounding

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	66	35	49	57	62	58	58	56	55
B	6,3V	61	31	48	57	55	51	52	50	47
C	6,3V	61	28	44	54	58	51	52	49	48
D	4,5V	53	24	49	43	43	44	44	40	37
E	4,5V	52	26	46	45	43	44	44	40	37
F	2,8V	39	23	29	32	31	33	31	23	24

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

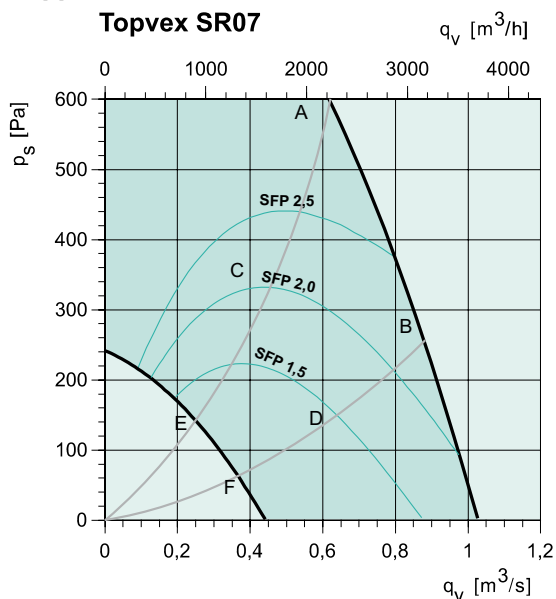
With air ratio 1:1 and air humidity at 50%.

Sound data

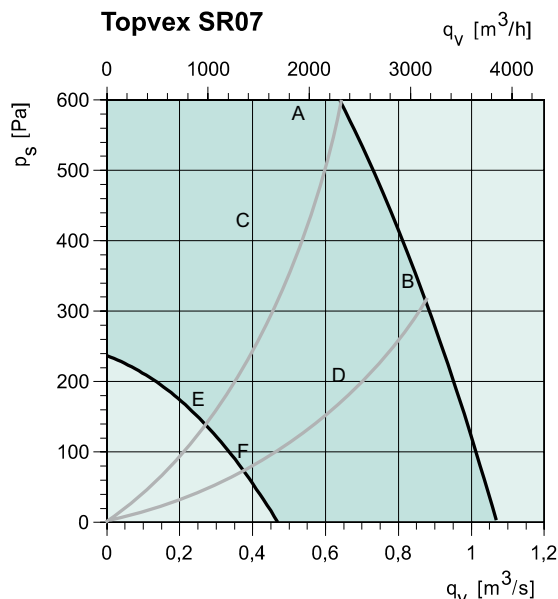
The sound data tables indicate the sound power level L_{wA}, which should not be confused with the sound pressure level.

Performance SR07

Supply

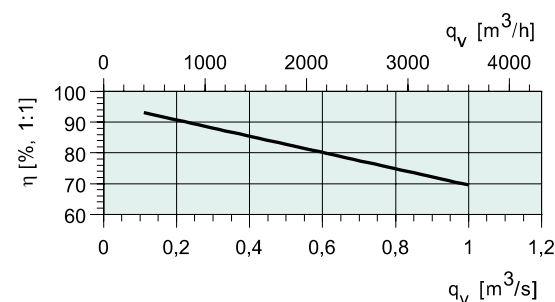


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	81	54	61	76	73	74	74	72	66
B	10V	83	55	60	75	75	77	76	72	68
C	6V	74	50	59	68	66	68	68	65	57
D	6V	75	48	54	67	67	70	68	65	57
E	4V	64	45	58	50	56	59	58	52	44
F	4V	64	40	56	52	57	59	58	53	44



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	74	52	64	72	67	60	60	55	47
B	10V	70	48	59	65	66	60	55	48	40
C	6V	69	49	65	65	59	54	52	45	37
D	6V	65	42	54	62	59	53	48	41	30
E	4V	61	41	60	47	49	44	40	32	21
F	4V	57	37	56	45	49	43	38	29	20

SFP = Specific Fan Power ($\text{kW}/\text{m}^3/\text{s}$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

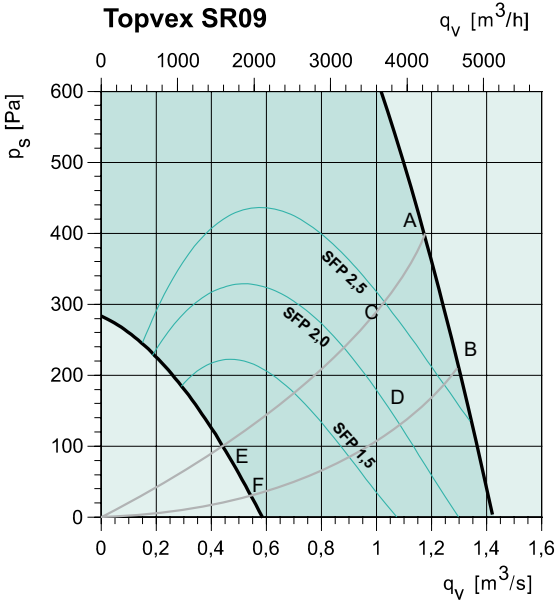
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	67	34	51	64	59	57	59	54	47
B	10V	65	33	49	61	59	58	56	51	46
C	6V	60	30	50	57	52	52	51	46	37
D	6V	59	27	43	55	53	51	48	44	35
E	4V	50	25	47	39	41	42	40	33	23
F	4V	49	21	45	40	42	41	38	32	23

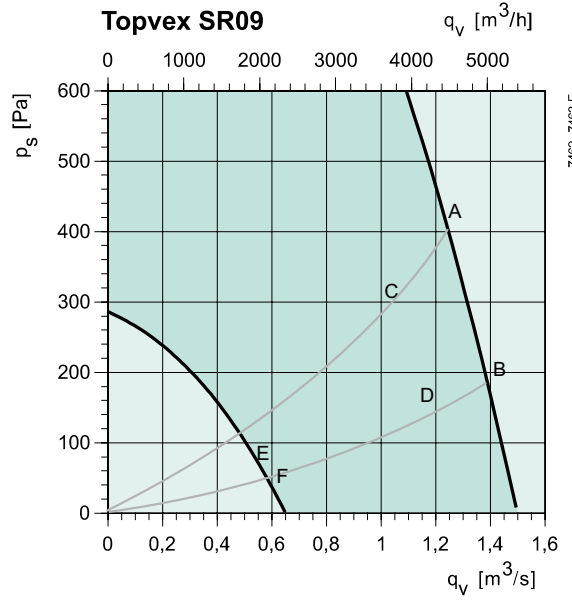
Performance SR09

Supply



7462, 7463 T

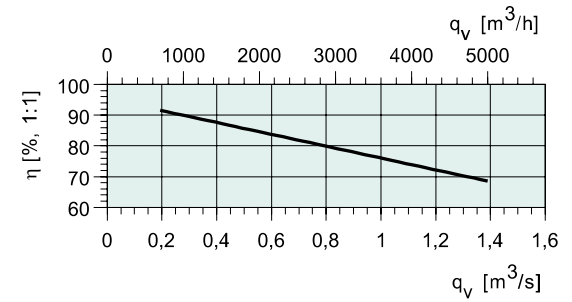
Extract



7462, 7463 F

Supply

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	88	55	63	77	80	83	81	77	72
B	10V	88	56	64	78	81	84	82	77	72
C	7V	83	51	59	70	75	78	78	72	66
D	7V	83	52	60	71	76	78	78	72	67
E	4V	68	40	55	55	61	64	62	56	48
F	4V	68	41	56	55	61	64	62	57	48



Extract

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	75	51	63	70	70	65	61	56	48
B	10V	75	53	64	72	70	66	61	56	46
C	7V	74	49	60	72	66	61	57	52	44
D	7V	76	51	60	75	66	61	57	51	43
E	4V	60	36	59	50	51	48	45	37	25
F	4V	61	36	60	49	52	48	44	37	24

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

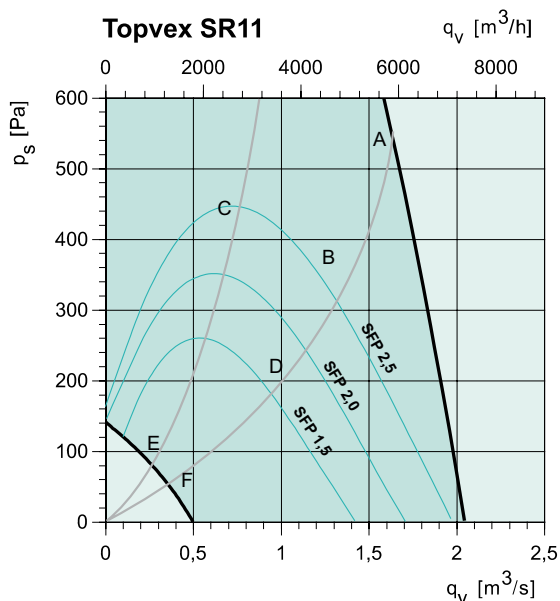
The sound data tables indicate the sound power level L_{wA}, which should not be confused with the sound pressure level.

Surrounding

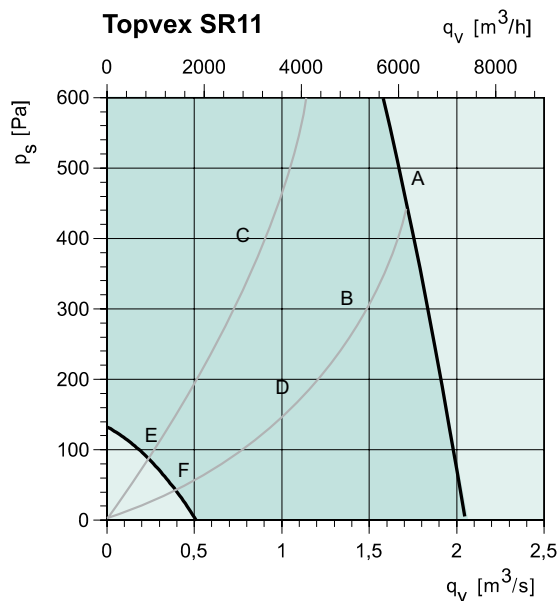
Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	71	37	57	67	63	64	63	60	61
B	10V	72	38	57	68	63	64	63	60	61
C	7V	66	33	53	61	58	59	59	55	55
D	7V	67	35	54	63	58	59	59	55	56
E	4V	54	22	51	45	44	46	45	40	37
F	4V	55	22	52	44	44	46	45	40	37

Performance SR011

Supply

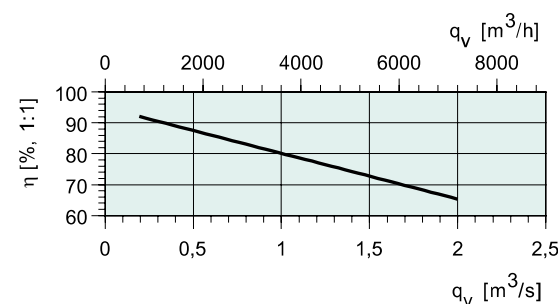


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	93	51	64	87	84	87	85	81	76
B	6,5V	86	46	60	77	78	82	80	76	71
C	5V	78	46	62	64	70	74	72	67	61
D	5V	79	41	57	64	71	75	73	69	62
E	2,5V	61	40	43	46	55	58	54	45	36
F	2,5V	61	35	40	45	54	58	55	45	36



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	77	55	65	74	72	69	66	61	53
B	6,5V	74	52	62	71	69	64	61	56	48
C	5V	73	48	71	65	61	57	56	53	45
D	5V	70	46	63	67	62	57	55	49	39
E	2,5V	52	46	45	40	45	43	38	27	19
F	2,5V	51	41	45	41	45	43	39	25	19

SFP = Specific Fan Power ($\text{kW}/\text{m}^3/\text{s}$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	70	41	57	66	60	62	62	57	50
B	6,5V	65	38	54	61	54	57	56	52	45
C	5V	61	36	59	50	47	49	49	43	35
D	5V	58	32	52	51	47	50	49	44	36
E	2,5V	40	32	36	29	31	33	30	21	11
F	2,5V	39	25	34	28	30	33	31	22	11

Hot water coil SR03-06 CAV/VAV

Accessories to SR03-06 CAV/VAV

Delivered separate and to be mounted on site, plug-in.

N.B! Fits to units without heater, not units with electrical heater.

An extract air temperature of 21°C and a heat exchanger efficiency of 70% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the following tables.

Water temp.	°C	HWL coil to size 03				HWL coil to size 04				HWL coil to size 06			
		60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Air flow	m ³ /h	1080	1080	1080	1080	1440	1440	1440	1440	2160	2160	2160	2160
Outdoor air temp. 0°C													
Supply air temp.	°C	23.7	27.2	30.7	34.05	24.0	27.4	30.7	34.04	23.6	26.9	30.2	33.41
Water flow	l/s	0.04	0.06	0.07	0.09	0.06	0.08	0.10	0.12	0.08	0.11	0.14	0.17
Pressure drop	kPa	1.15	2.00	2.99	4.12	2.37	3.97	5.86	8.01	2.16	3.67	5.45	7.5
Capacity	kW	3.3	4.6	5.9	7.14	4.6	6.2	7.9	9.51	6.6	9.0	11.4	13.8
Outdoor air temp. -10°C													
Supply air temp.	°C	21.7	25.2	28.6	32.01	21.9	25.3	28.7	31.98	21.5	24.9	28.1	31.32
Water flow	l/s	0.04	0.06	0.08	0.09	0.06	0.08	0.10	0.12	0.09	0.12	0.15	0.18
Pressure drop	kPa	1.38	2.27	3.30	4.47	2.80	4.49	6.45	8.68	2.57	4.16	6.01	8.13
Capacity	kW	3.7	5.0	6.2	7.47	5.0	6.7	8.3	9.95	7.2	9.7	12.1	14.43
Outdoor air temp. -20°C													
Supply air temp.	°C	19.6	23.2	26.6	29.96	19.9	23.3	26.6	29.92	19.5	22.8	26.0	29.23
Water flow	l/s	0.05	0.06	0.08	0.1	0.07	0.09	0.11	0.13	0.10	0.13	0.15	0.18
Pressure drop	kPa	1.62	2.55	3.62	4.82	3.27	5.04	7.07	9.37	3.00	4.67	6.60	8.78
Capacity	kW	4.0	5.3	6.6	7.8	5.5	7.1	8.8	10.38	7.9	10.3	12.7	15.06
Outdoor air temp. -30°C													
Supply air temp.	°C	17.6	21.1	24.5	27.91	17.9	21.2	24.5	27.85	17.4	20.7	23.9	27.13
Water flow	l/s	0.05	0.07	0.08	0.1	0.07	0.09	0.11	0.13	0.10	0.13	0.16	0.19
Pressure drop	kPa	1.88	2.85	3.96	5.2	3.76	5.61	7.71	10.08	3.46	5.20	7.20	9.45
Capacity	kW	4.4	5.6	6.9	8.13	5.9	7.6	9.2	10.81	8.6	11.0	13.3	15.69
Outdoor air temp. -40°C													
Supply air temp.	°C	15.6	19.1	22.5	25.84	15.8	19.2	22.5	25.77	15.3	18.6	21.8	25.03
Water flow	l/s	0.06	0.07	0.09	0.1	0.08	0.10	0.12	0.14	0.11	0.14	0.17	0.2
Pressure drop	kPa	2.14	3.16	4.30	5.58	4.27	6.20	8.38	10.81	3.94	5.76	7.83	10.14
Capacity	kW	4.7	6.0	7.2	8.45	6.4	8.0	9.6	11.23	9.2	11.6	14.0	16.31

Water temp.	°C	HWH coil to size 03				HWH coil to size 04				HWH coil to size 06			
		60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Air flow	m ³ /h	540	1080	540	1080	720	1440	720	1440	1080	2160	1080	2160
Outdoor temp. 0°C													
Supply air temp.	°C	32.0	29.2	38.9	34.8	32.9	29.8	39.2	34.9	32.4	29.3	32.4	29.3
Water flow	l/s	0.03	0.04	0.05	0.09	0.04	0.06	0.07	0.12	0.05	0.09	0.05	0.09
Pressure drop	kPa	1.01	2.48	3.58	8.69	2.15	5.15	7.13	17.29	1.90	4.54	1.90	4.54
Capacity	kW	3.2	5.4	4.5	7.5	4.5	7.5	6.1	10.0	6.6	10.8	6.6	10.8
Outdoor temp. -10°C													
Supply air temp.	°C	31.6	28.3	38.2	33.7	32.4	28.8	38.4	33.8	31.8	28.2	31.8	28.2
Water flow	l/s	0.03	0.05	0.06	0.10	0.04	0.07	0.08	0.13	0.06	0.10	0.06	0.10
Pressure drop	kPa	1.31	3.17	4.27	10.36	2.72	6.52	8.47	20.57	2.42	5.76	2.42	5.76
Capacity	kW	3.7	6.2	5.0	8.2	5.2	8.5	6.7	11.0	7.5	12.4	7.5	12.4
Outdoor temp. -20°C													
Supply air temp.	°C	31.1	27.3	37.5	32.5	31.8	27.7	37.6	32.6	31.2	27.1	31.2	27.1
Water flow	l/s	0.03	0.06	0.07	0.11	0.05	0.08	0.09	0.15	0.07	0.11	0.07	0.11
Pressure drop	kPa	1.64	3.94	5.01	12.17	3.35	8.01	9.93	24.12	2.99	7.11	2.99	7.11
Capacity	kW	4.2	7.0	5.5	9.0	5.8	9.6	7.3	12.1	8.5	14.0	8.5	14.0
Outdoor temp. -30°C													
Supply air temp.	°C	30.5	26.2	36.7	31.3	31.1	26.6	36.8	31.4	30.5	26.0	30.5	26.0
Water flow	l/s	0.04	0.06	0.07	0.12	0.05	0.09	0.10	0.16	0.08	0.13	0.08	0.13
Pressure drop	kPa	1.99	4.77	5.82	14.14	4.04	9.64	11.51	27.97	3.61	8.57	3.61	8.57
Capacity	kW	7.7	7.9	5.9	9.8	6.5	10.7	7.9	13.1	9.5	15.5	9.5	15.5
Outdoor temp. -40°C													
Supply air temp.	°C	29.8	25.1	35.9	30.1	30.4	25.5	36.0	30.2	29.7	24.8	29.7	24.8
Water flow	l/s	0.04	0.07	0.08	0.13	0.06	0.09	0.10	0.17	0.08	0.14	0.08	0.14
Pressure drop	kPa	2.37	5.67	6.69	16.25	4.78	11.42	13.21	32.12	4.28	10.16	4.28	10.16
Capacity	kW	5.3	8.7	6.4	10.6	7.1	11.7	8.6	14.2	10.5	17.1	10.5	17.1

Hot water coil SR07-II

An extract air temperature of 21°C and a heat exchanger efficiency of 70% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the following tables.

Water temp.	°C	Topvex SR07 HWL				Topvex SR09 HWL				Topvex SR11 HWL			
		60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Air flow	m ³ /h	2500	2500	2500	2500	3300	3300	3300	3300	4000	4000	4000	4000
Outdoor air temp. 0°C													
Supply air temp.	°C	23.4	26.8	30.1		24.2	27.6			24.3	27.7		
Water flow	l/s	0.09	0.12	0.16		0.13	0.17			0.15	0.21		
Pressure drop	kPa	2.14	3.78	5.75		5.21	8.85			4.68	8.03		
Capacity	kW	7.2	10.1	12.9		10.5	14.3			12.7	17.5		
Outdoor air temp. -10°C													
Supply air temp.	°C	21.3	24.6	27.9		22.1	25.5	28.8		22.2	25.6	29.0	
Water flow	l/s	0.10	0.13	0.17		0.14	0.19	0.23		0.17	0.23	0.29	
Pressure drop	kPa	2.60	4.37	6.46		6.27	10.17	14.76		5.65	9.24	13.50	
Capacity	kW	8.0	10.9	13.8		11.6	15.4	19.2		14.2	18.9	23.6	
Outdoor air temp. -20°C													
Supply air temp.	°C	19.2	22.5	25.7	28.9	20.0	23.4	26.7	30.0	20.1	23.5	26.9	30.2
Water flow	l/s	0.11	0.14	0.18	0.21	0.15	0.20	0.25	0.30	0.19	0.25	0.31	0.36
Pressure drop	kPa	3.11	5.00	7.21	9.73	7.43	11.59	16.44	21.97	6.71	10.54	15.04	20.17
Capacity	kW	8.9	11.8	14.6	17.4	12.8	16.6	20.4	24.2	15.6	20.3	25.0	29.7
Outdoor air temp. -30°C													
Supply air temp.	°C	17.0	20.3	23.5	26.7	17.9	21.2	24.5	27.8	18.0	21.4	24.7	28.0
Water flow	l/s	0.12	0.15	0.19	0.22	0.17	0.22	0.26	0.31	0.21	0.26	0.32	0.38
Pressure drop	kPa	3.66	5.67	8.00	10.64	8.68	13.10	18.21	23.99	7.85	11.93	16.67	22.05
Capacity	kW	9.7	12.6	15.5	18.3	13.9	17.8	21.6	25.4	17.0	21.8	26.5	31.2
Outdoor air temp. -40°C													
Supply air temp.	°C	14.9	18.1	21.3	24.5	15.8	19.1	22.3	25.6	15.9	19.2	22.5	25.8
Water flow	l/s	0.13	0.16	0.20	0.24	0.18	0.23	0.28	0.33	0.22	0.28	0.34	0.40
Pressure drop	kPa	4.26	6.39	8.84	11.60	10.02	14.71	20.07	26.12	9.08	13.41	18.39	24.01
Capacity	kW	10.6	13.5	16.4	19.2	15.1	18.9	22.8	26.6	18.4	23.2	27.9	32.7

Water temp.	°C	Topvex SR07 HWH				Topvex SR09 HWH				Topvex SR11 HWH			
		60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Air flow	m ³ /h	1260	2520	1260	2520	1620	3240	1620	3240	1980	3960	1980	3960
Outdoor air temp. 0°C													
Supply air temp.	°C	28.1	25.3	33.5	29.5	28.6	26.8	34.2	30.0	28.8	25.9	34.7	30.2
Water flow	l/s	0.05	0.07	0.10	0.15	0.06	0.11	0.13	0.20	0.08	0.12	0.16	0.25
Pressure drop	kPa	1.20	2.70	4.40	9.70	1.30	11.70	4.80	10.60	1.40	3.10	5.20	11.30
Capacity	kW	5.7	9.0	8.0	12.5	7.5	26.1	10.6	16.7	9.4	14.9	13.3	20.6
Outdoor air temp. -10°C													
Supply air temp.	°C	27.2	23.8	32.4	27.9	32.2	24.4	33.0	28.5	29.8	24.9	33.7	28.7
Water flow	l/s	0.05	0.08	0.11	0.17	0.09	0.11	0.14	0.22	0.10	0.14	0.18	0.27
Pressure drop	kPa	1.60	3.40	5.20	11.40	2.60	3.80	5.60	12.50	2.20	4.20	6.10	13.40
Capacity	kW	6.5	11.7	8.8	13.7	11.2	13.8	11.6	18.3	12.0	17.5	14.6	22.6
Outdoor air temp. -20°C													
Supply air temp.	°C	27.9	24.7	32.0	26.7	26.7	23.0	33.7	27.7	26.9	23.1	32.1	27.3
Water flow	l/s	0.07	0.11	0.12	0.18	0.08	0.13	0.16	0.25	0.10	0.15	0.19	0.30
Pressure drop	kPa	2.30	5.50	6.40	13.80	2.10	4.70	7.40	15.60	2.20	4.90	6.80	15.70
Capacity	kW	8.1	13.5	9.9	15.2	9.8	15.5	13.6	20.6	12.1	19.1	15.6	24.7
Outdoor air temp. -30°C													
Supply air temp.	°C	29.7	20.8	30.1	24.8	34.69	23.0	30.8	25.7	26.79	21.8	32.2	25.7
Water flow	l/s	0.08	0.10	0.13	0.20	0.13	0.15	0.16	0.26	0.11	0.17	0.21	0.32
Pressure drop	kPa	3.4	5.00	6.90	15.30	4.8	6.50	7.40	17.10	2.8	6.00	8.60	17.80
Capacity	kW	10.15	12.8	10.3	16.1	15.76	18.8	13.6	21.7	14.01	21.4	17.6	26.5
Outdoor air temp. -40°C													
Supply air temp.	°C	30.7	20.2	29.73	23.2	24.7	23.6	32.79	24.7	24.8	20.9	33.72	24.2
Water flow	l/s	0.10	0.12	0.14	0.21	0.10	0.18	0.2	0.29	0.12	0.19	0.25	0.35
Pressure drop	kPa	4.40	6.50	8.3	17.30	2.90	9.10	10.3	20.30	3.10	7.40	11.3	20.30
Capacity	kW	11.8	14.8	11.43	17.3	12.0	22.7	16.35	23.9	14.7	24.2	20.61	28.5

Heater battery, electric SR03-06 CAV/VAV

Topvex SR03 CAV/VAV					
Capacity, kW		3	3	3	3
Air flow, m ³ /h		720	900	1080	1440
		Supply air temp. °C			
Outdoor	0°C	29	27	25	23
	-10°C	27	24	22	20
	-20°C	24	22	20	18
	-30°C	22	19	17	
	-40°C	19	17		

Topvex SR04 CAV/VAV					
Capacity, kW		4	4	4	4
Air flow, m ³ /h		1080	1440	1800	2160
		Supply air temp. °C			
Outdoor	0°C	28	25	23	22
	-10°C	25	22	21	20
	-20°C	23	20	18	17
	-30°C	20	17	16	
	-40°C	18			

Topvex SR06 CAV/VAV					
Capacity, kW		6,3	6,3	6,3	6,3
Air flow, m ³ /h		1800	2160	2520	2880
		Supply air temp. °C			
Outdoor	0°C	27	25	24	23
	-10°C	25	23	22	21
	-20°C	22	20	19	18
	-30°C	20	18	17	16
	-40°C	17			

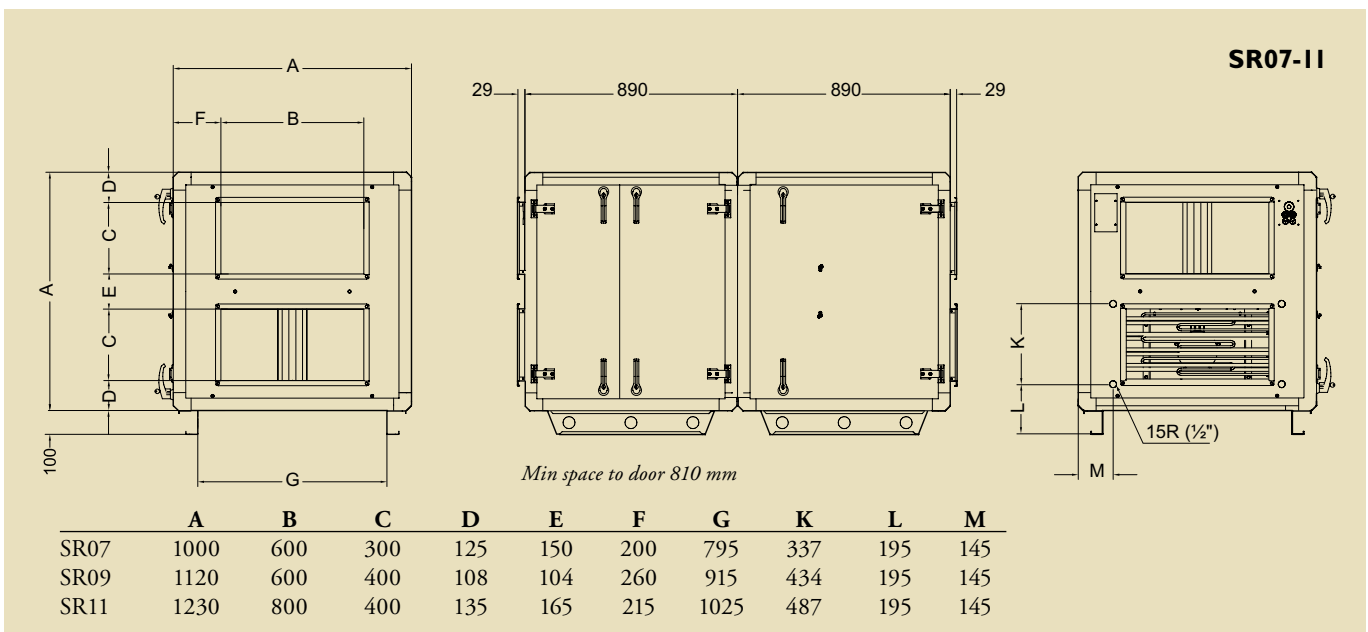
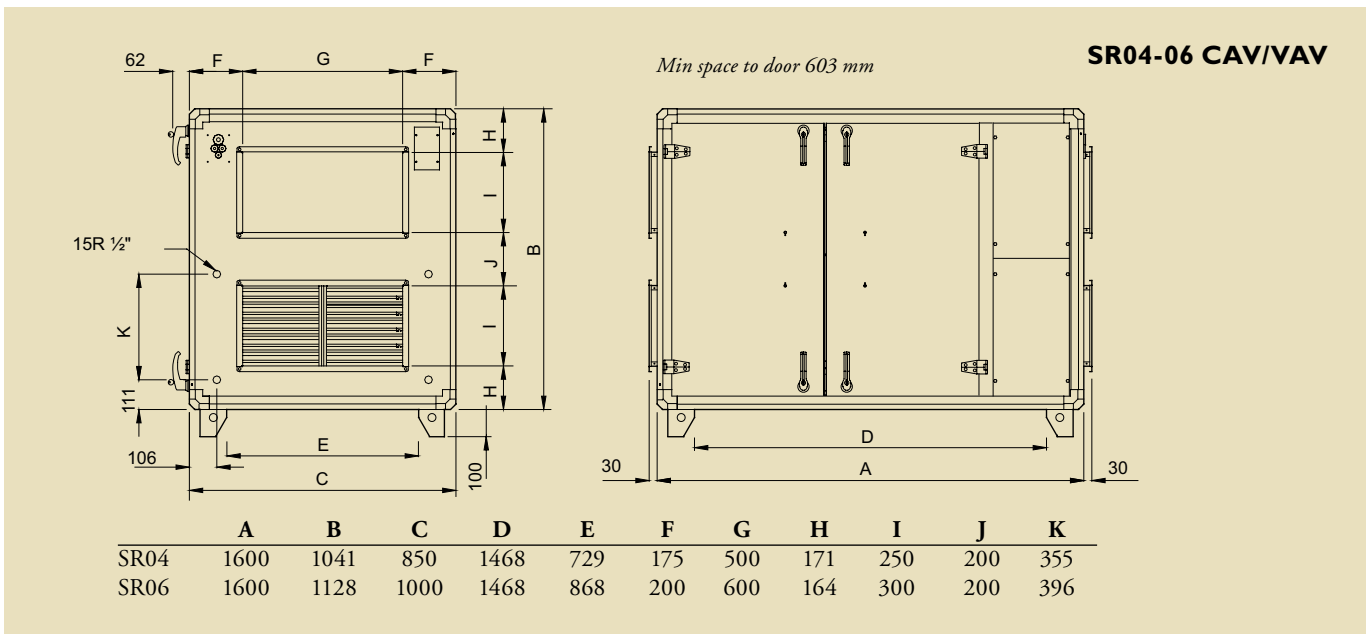
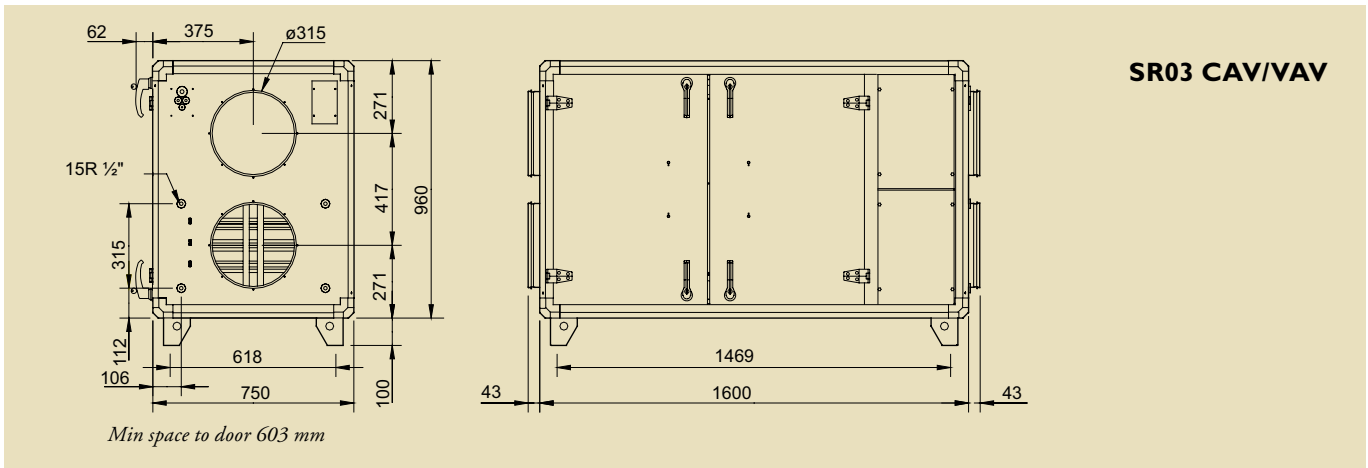
Heater battery, electric SR07-II

Topvex SR07											
Capacity kW		3	3	3	3	12	12	12	12		
Air flow m ³ /h		1200	1600	2000	2400	1200	1600	2000	2400		
		Supply air temp °C				Supply air temp °C					
Outdoor	0°C	22	20	19	18	Outdoor	0°C	45	37	33	30
	-10°C	19	17	16	-10°C		42	34	30	27	
	-20°C	16			-20°C		39	31	27	24	
	-30°C				-30°C		36	28	24	21	
	-40°C				-40°C		33	25	21	18	

Topvex SR09											
Capacity kW		4.5	4.5	4.5	4.5	15	15	15	15		
Air flow m ³ /h		1880	2520	3160	3800	1880	2520	3160	3800		
		Supply air temp °C				Supply air temp °C					
Outdoor	0°C	22	20	19	18	Outdoor	0°C	39	33	29	27
	-10°C	19	17	16	-10°C		36	30	26	24	
	-20°C	16			-20°C		33	27	23	21	
	-30°C				-30°C		30	24	20	18	
	-40°C				-40°C		27	21	1		

Topvex SR11																	
Capacity kW		6	6	6	6	12	12	12	12	24	24	24	24				
Air flow m ³ /h		2400	3200	4000	4800	2400	3200	4000	4800	2400	3200	4000	4800				
		Supply °C				Supply °C				Supply °C							
Outdoor	0°C	22	20	19	18	Outdoor	0°C	30	26	24	22	Outdoor	-0°C	45	37	33	30
	-10°C	19	17	16	-10°C		27	23	21	19	-10°C		42	34	30	27	
	-20°C	16			-20°C		24	20	18	16	-20°C		39	31	27	24	
	-30°C				-30°C		21	17			-30°C		36	28	24	21	
	-40°C				-40°C		18				-40°C		33	25	21	18	

Dimensions SR



Technical data SR

		SR03-EL	SR03	SR04-EL	SR04	SR06-EL	SR06
Voltage/Frequency	V/50 Hz	400	230	400	230	400	400
Phase	-	3N	1	3N	1	3N	3N
Input power, motors	W	2x507	2x507	2x780	2x780	2x1033	2x1033
Input power, el heating battery	kW	3	-	4	-	6.3	-
Fuse	A	3x13	13	3x16	13	3x16	3x10
Weight	kg	215	215	260	260	305	305
Filter	(Supply/extract)	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5

HW coil is accessory for the Topvex SR03-06 CAV/VAV units. Delivered separate and to be mounted on site, plug-in.

NB! Fits to units without heater.

		SR07 EL	SR07 HW	SR09 EL	SR09 HW	SR11 EL	SR11 HW
Voltage/Frequency	V/50Hz	400	400	400	400	400	400
Phase	-	3N	3N	3N	3N	3N	3N
Input power, motors	kW	2x1.03	2x1.03	2x1.90	2x1.90	2x3.07	2x3.07
Input power, heater battery	kW	3/12*	-	4.5/15*	-	6/12*/24*	-
Fuse, unit	A	3x10	3x10	3x16/10	3x10	3x20/16/16	3x20
Fuse, heaters (with separate power supply)	A	-/3x20	-	-/3x25	-	-/3x20/35	-
Weight	kg	320	320	390	390	435	435
Filter	(Supply/extract)	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5

* Electric heater (above 6 kW has separate incoming power supply)

Accessories SR03-06 CAV/VAV

	Topvex SR03	Topvex SR04	Topvex SR06
	CAV/VAV	CAV/VAV	CAV/VAV
Repeater, 230V main supply*	E0-R230K	E0-R230K	E0-R230K
Repeater, 24V main supply*	E0-R	E0-R	E0-R
E-Tool cable	ETC	ETC	ETC
Outdoor set, Outdoor/Exhaust air hood + Roof	-	ODS SR04	ODS SR06
Shut-off damper	EFD 315	EFD 50-25	EFD 60-30
Water heater HWL, low power. Only for units without heater.	HWL SR03	HWL SR04	HWL SR06
Water heater HWH, high power. Only for units without heater.	HWH SR03	HWH SR04	HWH SR06
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way. Fits to HWL/HWH coils.	ZTV 15-0.6	ZTV 15-1.0	ZTV 15-1.0
Valve, 3-way. Fits to HWL/HWH coils.	ZTR 15-1.0	ZTR 15-1.6	ZTR 15-1.6
Cooling coil, water (info on page 64)	PGK 50-25	PGK 60-30	PGK 60-35
Cooling coil, DX coil (info on page 66-67)	DXRE 50-25	DXRE 60-30	DXRE 60-35
Room temperature sensor	TG-R5/PT1000	TG-R5/PT1000	TG-R5/PT1000
Combi grille	CVVX 315	CVVX 400	CVVX 500
Silencer**	LDC-B 315	LDR-B 50-25	LDR-B 60-30
Timer	T 120	T 120	T 120
Presence detector	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO ₂ RT-DR	CO ₂ RT-DR	CO ₂ RT-DR
CO ₂ Room sensor (analog 0...10V DC)	CO ₂ RT	CO ₂ RT	CO ₂ RT
U-tube manometer, filter guard	MFRO	MFRO	MFRO
Filter F5 (exhaust air)	BFRO SR03 F5	BFRO SR04 F5	BFRO SR06 F5
Filter F7 (supply air)	BFRO SR03 F7	BFRO SR04 F7	BFRO SR06 F7
Converter EXOline to BACnet	E-Bacnet-V	E-Bacnet-V	E-Bacnet-V

* Used when the distance between unit and control panel is more than 10 m

** See catalogue "Ventilation products EIII" or www.systemair.com

Accessories SR07-II

	Topvex SR07	Topvex SR09	Topvex SR11
Repeater, 230V main supply *	E0-R230K	E0-R230K	E0-R230K
Repeater, 24V main supply *	E0-R	E0-R	E0-R
E-Tool cable	ETC	ETC	ETC
Outdoor set, hood for outdoor air/extract air duct + roof	ODS SR07 E	ODS SR09 E	ODS SR11 E
Shut-off damper	EFD 60-30	EFD 60-40	EFD 80-40
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way	ZTV 15-1.6	ZTV 15-1.6	ZTV 20-2.0
Valve, 3-way	ZTR 20-2.0	ZTR 20-2.0	ZTR 20-2.5
Cooling coil, water (<i>info on page 64</i>)	PGK 70-40	PGK 80-50	PGK 100-50
Cooling coil, DX (<i>info on page 66-67</i>)	DXRE 70-40	DXRE 80-50	DXRE 100-50
Room temperature sensor	TG-R5/PT1000	TG-R5/PT1000	TG-R5/PT1000
Silencer, supply/exhaust/extract/outdoor **	LDR-B 60-30	LDR-B 70-40	LDR-B 80-50
Timer	T 120	T 120	T 120
Presence detector	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO2RT-DR	CO2RT-DR	CO2RT-DR
CO ₂ Room sensor (analog 0...10V DC)	CO2RT	CO2RT	CO2RT
U-tube manometer, filter guard	MFRO	MFRO	MFRO
Filter F5, Supply or Extract bag filter (2pcs/unit)	BFRO SR07 E F5	BFRO SR09 E F5	BFRO SR11 E F5
Filter F7, Supply or Extract bag filter (2pcs/unit)	BFRO SR07 E F7	BFRO SR09 E F7	BFRO SR11 E F7

* Used when the distance between unit and control panel is more than 10 m

** See catalogue "Ventilation products EIII" or www.systemair.com

Ordering code SR

SR03-06 CAV/VAV

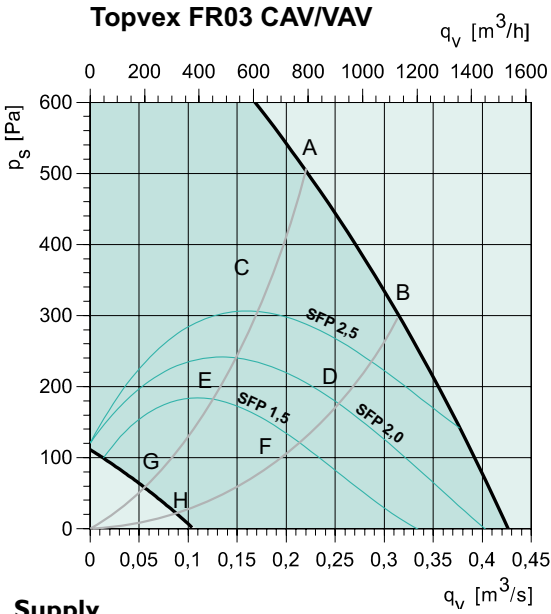
- Model: SR03, SR04 and SR06.
- Heating coil: EL (*electric*), No heater (*E.g. Unit name: Topvex SR06-L-CAV.*)
Water coil HWL (low power), HWH (high power) are accessory to units without heater and the coil is delivered separately.
- Right or Left model: R (*Right*), L (*Left*). The sides where the supply air is located when viewed from access side.
- Airflow control: CAV (*Constant air volume*), VAV (*Variable air volume = constant duct pressure control*)

SR07-II

- Model: SR07, SR09, SR11
- Heating coil: electric = EL, water = HWL
Available power:
SR07 E EL: 3kW alt. 12kW SR07 E HW: HWL - low power, HWH - high power
SR09 E EL: 4,5kW alt. 15kW SR09 E HW: HWL - low power, HWH - high power
SR11 E EL: 6kW alt. 12kW or 24kW SR11 E HW: HWL - low power, HWH - high power
- Right or left model (access side as viewed looking in the direction of the supply air)
- Extract duct, top or side connection
- CAV or VAV airflow controlling
(CAV= Constant Air Volume, VAV= Variable Air Volume)
- Communication to BMS systems
Exoline, Modbus
LON
Exoline/Built-in Web via TCP/IP

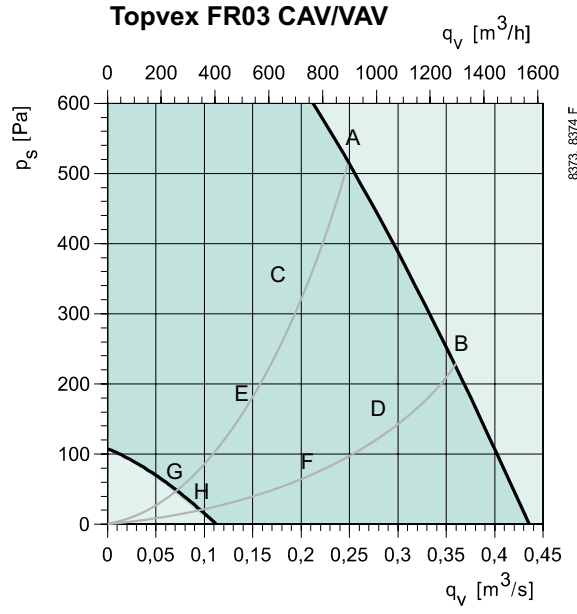
Performance FR03 CAV/VAV

Supply



8373, 8374 T

Extract



8373, 8374 F

Supply

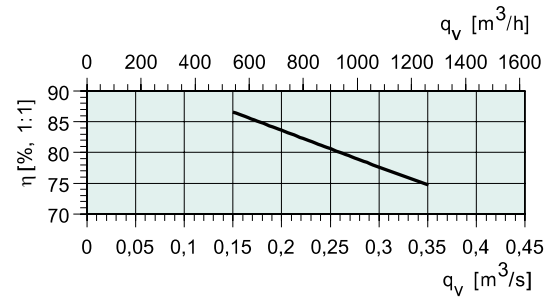
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	85	61	72	83	75	76	75	70	61
B	10V	86	62	71	84	76	77	76	70	61
C	6.8V	79	59	72	74	70	71	69	64	54
D	6.8V	78	58	70	74	70	71	69	63	53
E	5.2V	71	57	65	65	63	65	63	56	45
F	5.2V	71	54	64	64	62	64	62	55	44
G	3.3V	59	50	50	51	50	53	50	40	26
H	3.3V	58	48	49	51	49	52	49	40	26

Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	72	60	68	69	54	56	47	44	42
B	10V	73	62	66	71	56	55	47	39	30
C	6.8V	68	57	65	63	53	48	41	36	32
D	6.8V	68	57	64	65	51	48	41	32	22
E	5.2V	63	54	61	56	41	41	34	27	23
F	5.2V	63	53	62	57	42	41	34	24	20
G	3.3V	51	48	46	41	29	30	22	17	20
H	3.3V	51	48	46	41	29	30	22	17	20

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	64	43	58	62	51	47	42	41	38
B	10V	65	44	56	64	52	46	42	40	31
C	6.8V	58	41	54	55	47	40	36	35	28
D	6.8V	59	40	53	56	46	39	35	33	23
E	5.2V	51	38	48	47	38	33	29	26	19
F	5.2V	52	36	50	48	38	33	28	25	18
G	3.3V	38	32	33	33	25	21	16	13	16
H	3.3V	37	30	32	33	25	21	16	13	16



SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

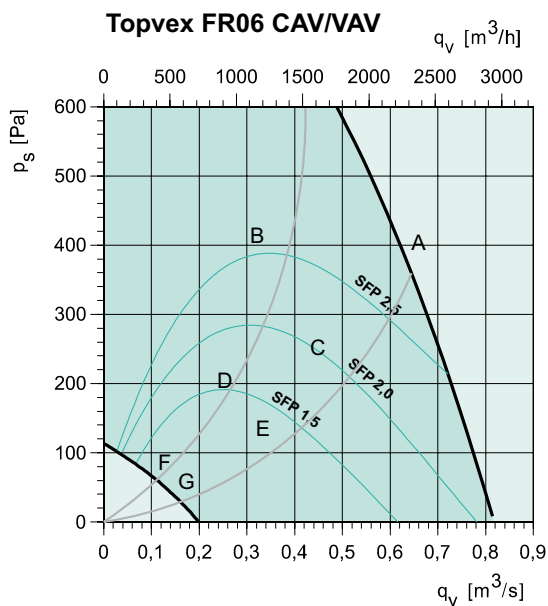
Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

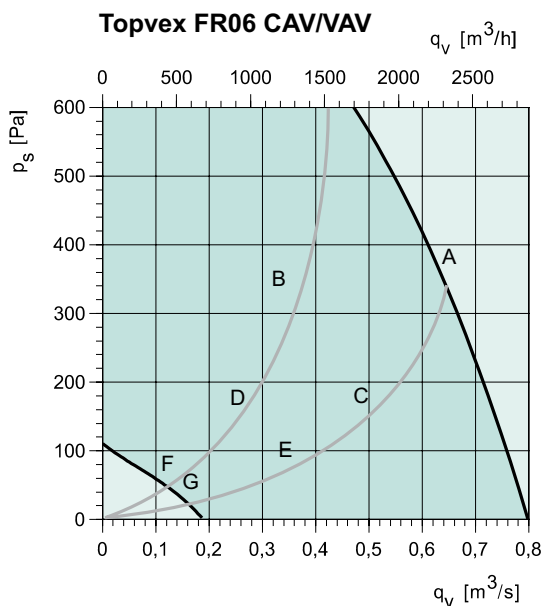
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Supply



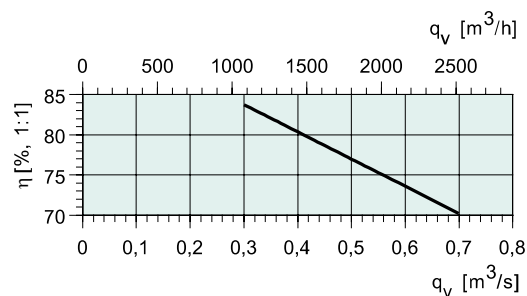
Performance FR06 CAV/VAV

Extract



Supply

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	87	64	67	83	78	81	80	75	68
B	6.3V	81	57	68	78	67	72	71	65	58
C	6.3V	84	57	64	83	70	73	73	67	58
D	4.7V	72	51	67	63	60	66	64	57	49
E	4.7V	73	50	69	64	61	68	65	57	49
F	2.9V	58	49	47	48	47	54	49	39	30
G	2.9V	58	45	50	49	48	55	49	39	31



Extract

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	71	60	64	68	61	57	53	43	35
B	6.3V	65	50	58	64	48	47	45	38	33
C	6.3V	68	54	58	68	52	50	46	36	26
D	4.7V	58	45	56	52	41	41	38	29	22
E	4.7V	60	47	58	55	43	42	39	29	22
F	2.9V	47	40	45	38	30	31	26	19	21
G	2.9V	48	38	46	39	30	31	26	18	21

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

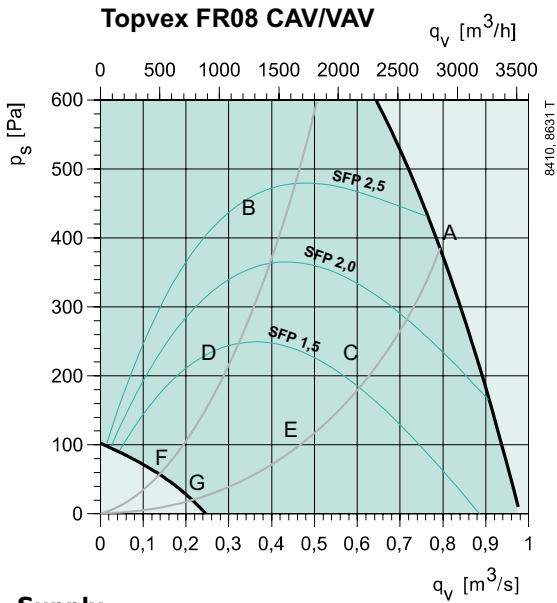
The sound data tables indicate the sound power level L_{wA}, which should not be confused with the sound pressure level.

Surrounding

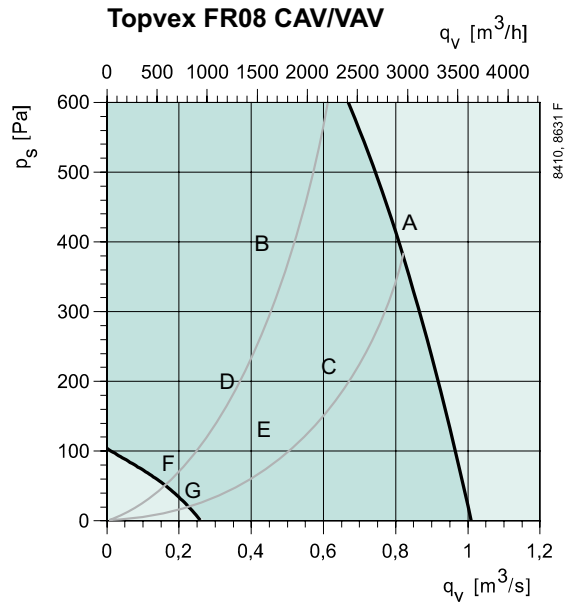
Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	64	44	50	62	57	54	52	46	39
B	6.3V	60	36	51	59	45	45	44	39	33
C	6.3V	63	37	48	63	48	47	45	38	29
D	4.7V	52	31	50	45	38	39	38	30	23
E	4.7V	54	31	52	47	40	40	38	30	23
F	2.9V	36	29	28	30	26	28	25	18	20
G	2.9V	36	24	30	31	26	28	25	18	20

Performance FR08 CAV/VAV

Supply

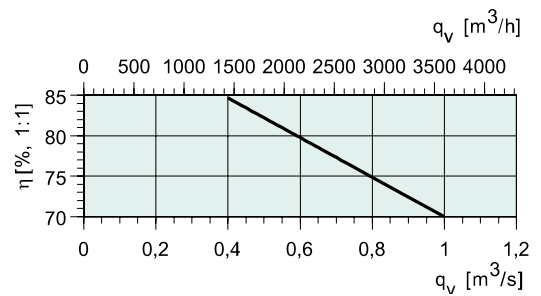


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	87	56	64	83	79	81	80	77	70
B	6.3V	79	52	68	74	69	73	73	68	60
C	6.3V	80	50	60	75	71	74	73	69	60
D	4.6V	71	46	65	59	61	66	64	57	50
E	4.6V	72	43	67	62	62	66	66	59	50
F	2.8V	57	42	46	45	48	54	48	39	30
G	2.8V	58	39	49	46	49	56	50	40	32



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	72	56	60	70	61	62	62	60	42
B	6.3V	65	48	56	64	49	53	55	52	37
C	6.3V	68	49	56	67	51	54	55	53	32
D	4.6V	62	43	62	49	42	46	47	42	27
E	4.6V	64	44	63	51	43	47	48	44	25
F	2.8V	54	43	53	35	30	36	31	25	23
G	2.8V	57	43	57	38	31	37	32	25	23

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

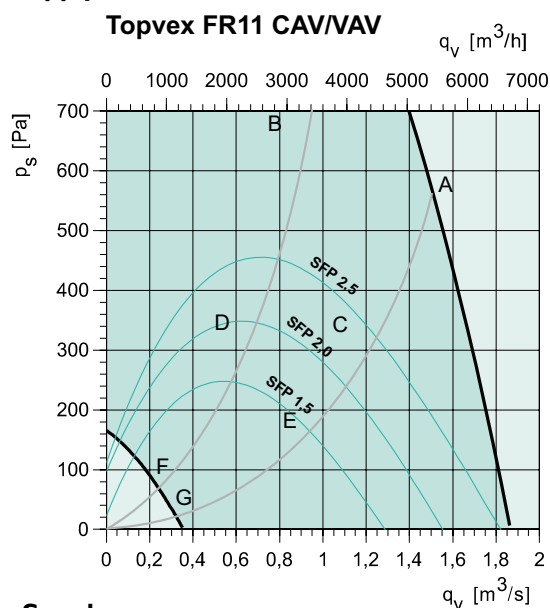
Sound data

The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	70	45	54	69	57	55	58	57	43
B	6.3V	62	39	57	60	47	46	50	49	35
C	6.3V	64	38	50	63	50	48	51	50	33
D	4.6V	57	34	56	46	39	40	43	39	25
E	4.6V	59	32	58	48	41	40	44	40	24
F	2.8V	40	30	38	32	27	29	26	21	19
G	2.8V	43	29	41	34	28	30	27	21	19

Supply



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	95	69	74	88	88	91	88	82	76
B	6.3V	86	62	74	80	78	81	79	74	68
C	6.3V	89	64	70	83	82	84	81	75	69
D	4.5V	78	55	72	67	68	73	71	65	58
E	4.5V	79	57	70	71	71	74	72	67	59
F	2.7V	66	49	54	54	56	62	60	50	40
G	2.7V	66	49	55	55	56	63	60	50	39

Extract

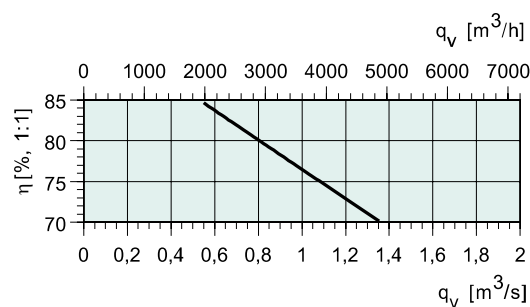
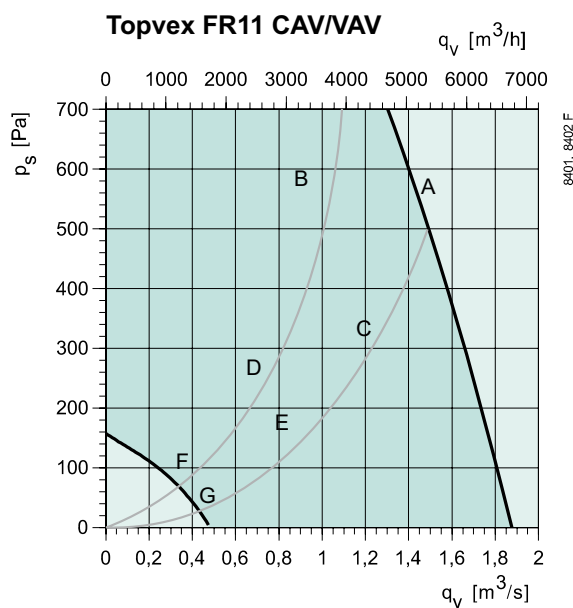
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	80	70	73	73	71	73	73	62	59
B	6.3V	73	62	67	67	61	64	64	60	59
C	6.3V	75	65	69	70	63	66	65	51	39
D	4.5V	66	56	64	56	52	54	54	42	32
E	4.5V	68	57	66	58	54	56	55	41	28
F	2.7V	56	50	54	41	37	41	41	25	23
G	2.7V	58	51	57	42	39	42	42	25	23

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	72	56	62	67	65	65	64	58	47
B	6.3V	66	49	61	62	56	55	56	50	44
C	6.3V	68	51	59	65	60	58	58	50	39
D	4.5V	59	43	57	49	46	46	47	40	28
E	4.5V	61	44	58	53	49	48	49	42	29
F	2.7V	45	37	42	36	33	35	37	25	11
G	2.7V	47	37	44	37	34	36	37	26	10

Performance FRII CAV/VAV

Extract



SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With air ratio 1:1 and air humidity at 50%.

Sound data

The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Hot water coil FR CAV/VAV

Accessories to FR 03-06 CAV/VAV

Delivered separate and to be mounted on site, plug-in.

N.B! Fits to units without heater, not units with electrical heater.

An extract air temperature of 21°C and a heat exchanger efficiency of 70% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the below tables.

		HWL coil to size 03				HWL coil to size 06				HWL coil to size 08				HWL coil to size 11			
Water temp.	°C	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Air flow	m³/h	1080	1080	1080	1080	2160	2160	2160	2160	2880	2880	2880	2880	3960	3960	3960	3960
Outdoor air temp. 0°C																	
Supply air temp.	°C	24.4	27.4	30.4	33.3	22.5	25.2	27.8	30.4	23.4	26.1	28.9	31.6	23.3	26.1	28.9	31.6
Water flow	l/s	0.04	0.05	0.06	0.08	0.06	0.08	0.11	0.13	0.09	0.12	0.15	0.19	0.12	0.17	0.21	0.26
Pressure drop	kPa	4.80	8.10	12.10	16.60	2.60	4.60	6.90	9.60	7.10	11.90	17.60	24.20	5.90	10.00	14.90	20.50
Capacity	kW	2.9	4.0	5.1	6.2	4.9	6.8	8.7	10.6	7.4	10.0	12.7	15.3	10.1	13.8	17.5	21.1
Outdoor air temp. -10°C																	
Supply air temp.	°C	22.8	25.8	28.8	31.7	20.6	23.3	25.9	28.5	21.5	24.3	27.0	29.7	21.5	24.3	27.0	29.8
Water flow	l/s	0.04	0.05	0.06	0.08	0.06	0.09	0.11	0.14	0.10	0.13	0.16	0.20	0.13	0.18	0.22	0.27
Pressure drop	kPa	5.40	8.90	13.00	17.70	3.10	5.10	7.50	10.30	8.20	13.20	19.10	25.90	6.80	11.10	16.20	22.00
Capacity	kW	3.1	4.2	5.3	6.4	5.3	7.3	9.2	11.1	8.0	10.7	13.3	15.9	11.0	14.7	18.3	22.0
Outdoor air temp. -20°C																	
Supply air temp.	°C	21.21	24.2	27.2	30.1	18.73	21.4	24.0	26.6	19.67	22.4	25.1	27.9	19.65	22.4	25.2	27.9
Water flow	l/s	0.04	0.05	0.07	0.08	0.07	0.09	0.12	0.14	0.10	0.14	0.17	0.20	0.14	0.19	0.23	0.28
Pressure drop	kPa	6.10	9.80	14.00	18.80	3.50	5.70	8.20	11.00	9.40	14.60	20.80	27.70	7.80	12.30	17.60	23.50
Capacity	kW	3.4	4.4	5.5	6.6	5.8	7.7	9.6	11.5	8.6	11.3	13.9	16.5	11.8	15.5	19.2	22.8
Outdoor air temp. -30°C																	
Supply air temp.	°C	19.6	22.6	25.6	28.5	16.8	19.5	22.1	24.7	17.8	20.6	23.3	26.0	17.8	20.6	23.3	26.0
Water flow	l/s	0.04	0.06	0.07	0.08	0.08	0.10	0.12	0.15	0.11	0.14	0.18	0.21	0.15	0.20	0.24	0.29
Pressure drop	kPa	6.90	10.70	15.00	19.90	4.00	6.30	8.80	11.80	10.60	16.10	22.40	29.60	8.90	13.60	19.00	25.10
Capacity	kW	3.6	4.7	5.7	6.8	6.2	8.1	10.0	11.9	9.2	11.9	14.5	17.1	12.7	16.4	20.0	23.6
Outdoor air temp. -40°C																	
Supply air temp.	°C	18.1	21.0	24.0	26.9	15.0	17.6	20.2	22.8	16.0	18.7	21.4	24.1	15.9	18.7	21.4	24.2
Water flow	l/s	0.05	0.06	0.07	0.09	0.08	0.10	0.13	0.15	0.12	0.15	0.18	0.22	0.16	0.21	0.25	0.30
Pressure drop	kPa	7.70	11.60	16.10	21.10	4.50	6.90	9.50	12.50	11.90	17.60	24.10	31.50	10.00	14.90	20.50	26.80
Capacity	kW	3.8	4.9	6.0	7.0	6.7	8.6	10.5	12.3	9.9	12.5	15.1	17.7	13.5	17.2	20.8	24.5


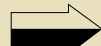


		HWH coil to size 03				HWH coil to size 06				HWH coil to size 08				HWH coil to size 11			
Water temp.	°C	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Air flow	m³/h	540	1080	540	1080	1080	2160	1080	2160	1440	2880	1440	2880	1980	3960	1980	3960
Outdoor air temp. 0°C																	
Supply air temp.	°C	25.8	23.83	31.2	27.9	28.1	25.4	33.2	29.3	28.6	25.9	33.9	29.9	29.6	27.0	36.0	31.9
Water flow	l/s	0.01	0.02	0.03	0.05	0.04	0.06	0.08	0.12	0.05	0.08	0.11	0.17	0.08	0.12	0.16	0.26
Pressure drop	kPa	1.1	2.4	4.4	9.8	2.1	4.5	7.5	16.2	1.8	3.9	6.4	14.1	1.4	3.3	5.6	12.8
Capacity	kW	1.8	2.96	2.8	4.4	4.5	7.1	6.4	9.9	6.3	9.9	8.8	13.8	9.3	15.1	13.6	21.7
Outdoor air temp. -10°C																	
Supply air temp.	°C	24.9	22.5	30.1	26.5	27.2	24.1	32.1	27.9	27.8	24.7	32.9	28.6	29.1	26.0	35.2	30.8
Water flow	l/s	0.02	0.03	0.04	0.06	0.04	0.06	0.08	0.13	0.06	0.09	0.12	0.18	0.09	0.14	0.18	0.28
Pressure drop	kPa	1.4	3.0	5.1	11.3	2.6	5.5	8.6	18.7	2.2	4.8	7.4	16.3	1.8	4.1	6.4	14.8
Capacity	kW	2.1	3.4	3.1	4.8	5.1	8.0	6.9	10.7	7.1	11.1	9.6	15.0	10.6	17.1	14.7	23.5
Outdoor air temp. -20°C																	
Supply air temp.	°C	23.9	21.2	29.0	25.0	26.3	22.8	31.1	26.5	26.9	23.4	31.9	27.3	28.5	25.0	34.4	29.7
Water flow	l/s	0.02	0.03	0.04	0.06	0.05	0.07	0.09	0.14	0.06	0.10	0.12	0.19	0.10	0.15	0.19	0.31
Pressure drop	kPa	1.7	3.7	5.9	13.0	3.1	6.6	9.7	21.2	2.6	5.7	8.4	18.5	2.2	5.0	7.3	16.9
Capacity	kW	2.4	3.8	3.3	5.2	5.7	8.8	7.4	11.5	7.9	12.3	10.3	16.1	11.9	19.0	15.8	25.3
Outdoor air temp. -30°C																	
Supply air temp.	°C	22.9	19.8	27.8	23.6	25.3	21.5	30.0	25.2	26.0	22.2	30.9	26.0	27.8	23.9	33.6	28.5
Water flow	l/s	0.02	0.03	0.04	0.07	0.05	0.08	0.10	0.15	0.07	0.11	0.13	0.21	0.11	0.17	0.21	0.33
Pressure drop	kPa	2.0	4.4	6.6	14.7	3.6	7.8	11.0	24.0	3.1	6.8	9.4	20.9	2.6	5.9	8.3	19.2
Capacity	kW	2.7	4.2	3.6	5.6	6.2	9.7	7.9	12.3	8.6	13.5	11.0	17.2	13.1	20.9	17.0	27.1
Outdoor air temp. -40°C																	
Supply air temp.	°C	21.8	18.4	26.7	22.2	24.3	20.2	29.0	23.8	25.1	20.9	29.9	24.6	27.1	22.8	32.8	27.4
Water flow	l/s	0.02	0.04	0.05	0.07	0.05	0.08	0.10	0.16	0.08	0.12	0.14	0.22	0.12	0.18	0.22	0.35
Pressure drop	kPa	2.4	5.2	7.4	16.5	4.2	9.0	12.3	26.8	3.6	7.8	10.5	23.4	3.0	6.9	9.3	21.5
Capacity	kW	2.9	4.6	3.8	6.0	6.8	10.5	8.5	13.1	9.4	14.7	11.7	18.4	14.3	22.8	18.1	28.9

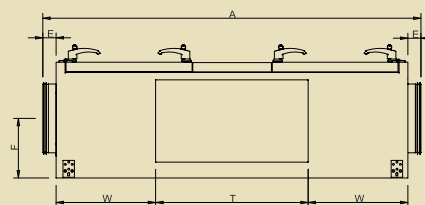
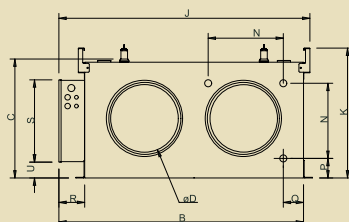
Heater battery, electric FR

		Topvex FR03 CAV/VAV				Topvex FR06 CAV/VAV					
Capacity, kW		5	5	5	5	9.9	9.9	9.9	9.9		
Air flow, m ³ /h		540	810	1080	1300	1080	1620	2160	2700		
		Supply air temp °C				Supply air temp °C					
	Outdoor	0	>30	>30	30	27	0	>30	>30	29	26
		-10	>30	>30	28	25	-10	>30	>30	26	24
		-20	>30	30	25	23	-20	>30	28	24	21
		-30	>30	28	23	21	-30	>30	26	21	19
		-40	>30	25	21	19	-40	>30	23	19	16
		Supply air temp °C				Supply air temp °C					
	Outdoor	0	>30	>30	28	26	0	>30	30	27	22
		-10	>30	29	25	24	-10	>30	28	24	20
		-20	>30	27	23	21	-20	>30	25	22	17
		-30	>30	24	20	19	-30	30	23	19	15
		-40	30	22	18	16	-40	28	20	17	12

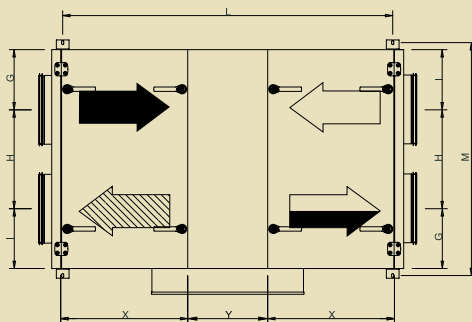
		Topvex FR08 CAV/VAV				Topvex FR11 CAV/VAV					
Capacity, kW		12	12	12	12	15	15	15	15		
Air flow, m ³ /h		1440	2160	2880	3250	1980	2970	3960	6500		
		Supply air temp °C				Supply air temp °C					
	Outdoor	0	>30	>30	28	26	0	>30	30	27	22
		-10	>30	29	25	24	-10	>30	28	24	20
		-20	>30	27	23	21	-20	>30	25	22	17
		-30	>30	24	20	19	-30	30	23	19	15
		-40	30	22	18	16	-40	28	20	17	12

Dimensions FR CAV/VAV

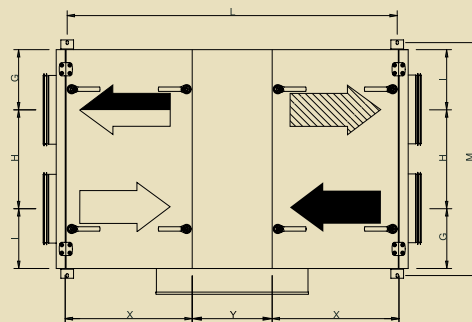
-  = Supply air
-  = Exhaust air
-  = Outdoor air
-  = Extract air



The units are delivered with doors on hinges as standard. A sliding door kit is available as accessory. The kit includes rails and wheels and is to be mounted on the standard unit.



Drawn as left hand unit



Drawn as right hand unit

Topvex FR	A	B	C	ØD	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	W	X	Y
03	1720	1115	540	315	60	270	275	450	275	1145	590	1502	1050	388	64	68	120	375	695	72	456	576	358
06	2160	1315	640	400	80	275	325	550	325	1345	705	1902	1260	414	103	106	120	375	695	158	653	763	384
08	2230	1515	740	500	60	355	350	650	400	1545	790	2004	1450	514	103	106	120	375	695	275	706	807	384
11	2480	1715	840	630	80	405	400	765	432	1745	904	2206	1650	614	103	106	120	375	695	329	801	844	520

Space required when opening doors with hinges = x + 50mm

Technical data FR CAV/VAV

Topvex		FR03EL	FR03	FR06EL	FR06	FR08EL	FR08	FR11EL	FR11
Voltage/Frequency	V/50 Hz	400	230	400	400	400	400	400	400
Phase	~	3N	1	3N	3N	3N	3N	3N	3N
Input power, motors	W	2x477	2x477	2x941	2x941	2x972	2x972	2x2833	2x2833
Input power, el heating battery	kW	5	–	9.9	–	12	–	15	–
Fuse	A	3x16	13	3x20	3x10	3x25	3x16	3x35	3x20
Weight	kg	180	180	256	256	345	345	460	460
Filter	(Supply/extract)	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5

HW coil is accessory for the Topvex FR CAV/VAV units. Delivered separate and to be mounted on site, plug-in.

NB! Fits to units without heater!

Accessories FR CAV/VAV

	Topvex FR03 CAV/VAV	Topvex FR06 CAV/VAV	Topvex FR08 CAV/VAV	Topvex FR11 CAV/VAV
Repeater, 230V main supply *	E0-R230K	E0-R230K	E0-R230K	E0-R230K
Repeater, 24V main supply *	E0-R	E0-R	E0-R	E0-R
E-Tool cable	ETC	ETC	ETC	ETC
Sliding door kit	SDF 03	SDF 04	SDF 08	SDF 11
Shut-off damper	EFD 315	EFD 400	EFD 500	EFD 630
Water heater HWL, low power. **	HWL FR03	HWL FR06	HWL FR08	HWL FR11
Water heater HWH, high power. **	HWH FR03	HWH FR06	HWH FR08	HWH FR11
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way	ZTV 15-1.0	ZTV 15-1.0	ZTV 15-1.6	ZTV 20-2.0
Valve, 3-way	ZTR 15-1.0	ZTR 15-1.6	ZTR 20-2.0	ZTR 20-2.5
Cooling coil, water (<i>info on page 64</i>)	CWK 400	PGK 60-35	PGK 70-40	PGK 80-50
Cooling coil, DX coil (<i>info on page 66-67</i>)	DXRE 50-25	DXRE 60-35	DXRE 70-40	DXRE 80-50
Room temperature sensor	TG-R5/PT1000	TG-R5/PT1000	TG-R5/PT1000	TG-R5/PT1000
Combi grille	CVVX 250	CVVX 400	CVVX 500	–
Baffle silencer***	LDC-B 315	LDC-B 400	LDC-B 500	LDC-B 630
Timer	T 120	T 120	T 120	T 120
Presence detector	IR24-PC	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO2RT-DR	CO2RT-DR	CO2RT-DR	CO2RT-DR
CO ₂ Room sensor (analog 0...10V DC)	CO2RT	CO2RT	CO2RT	CO2RT
U-tube manometer, filter guard	MFRO	MFRO	MFRO	MFRO
Filter F5 (extract air)	BFT FR03 F5	BFT FR06 F5	BFT FR08 F5	BFT FR11 F5
Filter F7 (supply air)	BFT FR03 F7	BFT FR06 F7	BFT FR08 F7	BFT FR11 F7
Converter EXOline to BACnet	E-Bacnet-V	E-Bacnet-V	E-Bacnet-V	E-Bacnet-V

* Used when distance between the unit and control panel is more than 10 meters

** Only for units without heater.

*** For more information see the catalogue "Ventilation products EIII" or www.systemair.com

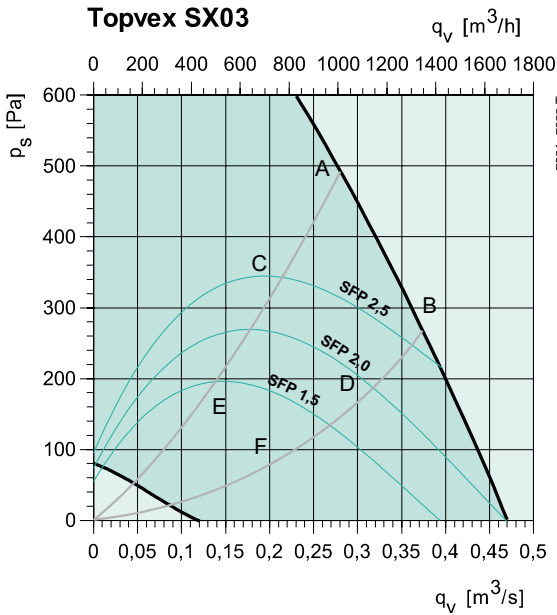
Ordering code FR

FR03-II CAV/VAV

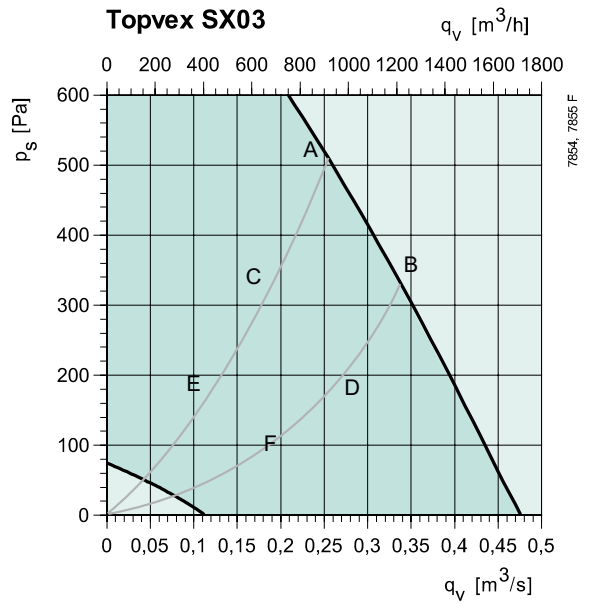
- Model: **FR03**, **FR04**, **FR06** and **FR11**.
- Heating coil: **EL** (*electric*), **No heater** (*E.g. Unit name: Topvex FR06-L-CAV 400V*).
Water coil **HWL** (low power), **HWH** (high power) are accessory to units without heater and the coil is delivered separately.
- Right or Left model: **R** (*Right*), **L** (*Left*). The sides where the supply air is located when viewed from access side, standing on the electrical box side.
- Airflow control: **CAV** (*Constant air volume*), **VAV** (*Variable air volume = constant duct pressure control*)

Performance SX03

Supply

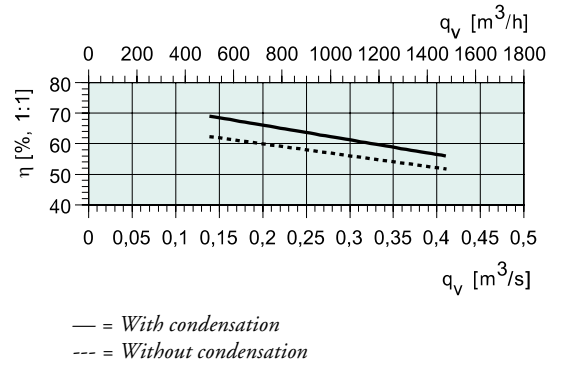


Extract



Supply

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	82	54	66	79	72	74	72	68	57
B	10V	84	54	63	82	72	73	72	67	57
C	6,5V	73	50	65	66	66	68	65	60	49
D	6,5V	72	49	62	64	66	67	64	59	48
E	4,6V	68	46	66	55	57	59	55	48	37
F	4,6V	66	44	63	56	58	59	56	48	37



Extract

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	65	41	58	63	52	54	49	46	41
B	10V	64	47	53	62	51	53	50	45	31
C	6,5V	60	46	55	56	46	48	47	47	30
D	6,5V	57	44	53	52	44	46	44	31	23
E	4,6V	54	46	52	42	38	40	44	28	23
F	4,6V	52	40	51	40	36	39	30	21	22

Surrounding

Sound power (L _w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	64	29	53	63	49	49	50	45	42
B	10V	66	31	50	66	48	48	50	44	38
C	6,5V	56	28	51	51	43	44	46	44	32
D	6,5V	53	27	49	48	41	42	43	33	29
E	4,6V	53	27	52	39	34	35	41	26	23
F	4,6V	50	23	49	40	33	34	32	23	23

SFP = Specific Fan Power (kW/m³/s)

The SFP value stated applies to the complete unit.

Thermal efficiency

With outside temperature -15 °C and extract air temperature 25 °C.

With condensation: 50%Rh.

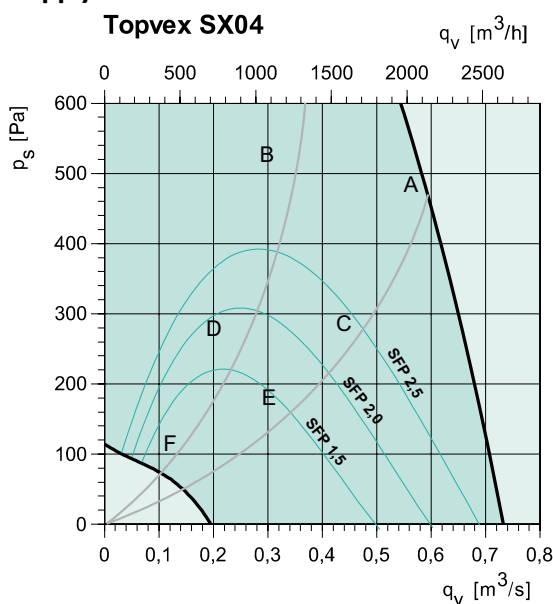
Without condensation: 0%Rh.

Sound data

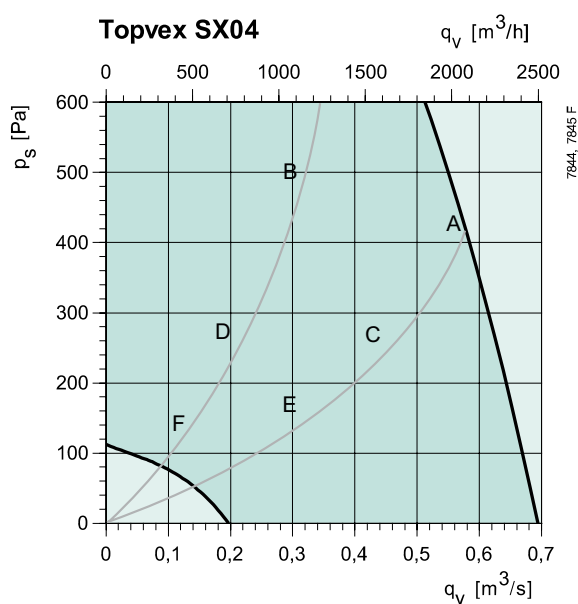
The sound data tables indicate the sound power level L_{wA}, which should not be confused with the sound pressure level.

Performance SX04

Supply

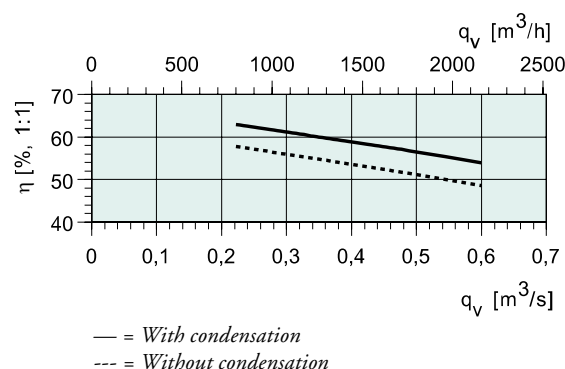


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	86	60	67	77	81	80	79	76	69
B	6,6V	80	57	66	75	75	73	72	69	63
C	6,6V	81	55	65	75	76	74	72	69	62
D	4,5V	75	51	61	63	63	70	71	58	50
E	4,5V	71	49	61	62	64	65	65	58	50
F	2,7V	55	44	47	45	48	48	49	42	31



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	64	52	59	57	59	56	47	45	42
B	6,6V	63	51	59	57	54	50	45	44	42
C	6,6V	61	49	56	57	52	50	41	37	33
D	4,5V	55	43	54	46	43	42	42	32	28
E	4,5V	57	40	54	52	43	42	40	24	22
F	2,7V	44	41	40	30	30	31	20	18	22

SFP = Specific Fan Power ($\text{kW}/\text{m}^3/\text{s}$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With outside temperature $-15\text{ }^\circ\text{C}$ and extract air temperature $25\text{ }^\circ\text{C}$.

With condensation: 50%Rh.

Without condensation: 0%Rh.

Surrounding

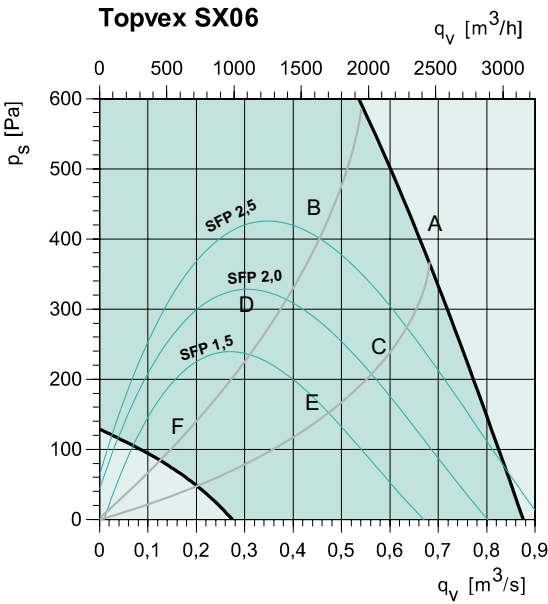
Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	63	38	56	57	57	55	55	51	48
B	6,6V	60	36	55	56	52	49	49	46	45
C	6,6V	60	35	53	56	52	49	48	43	41
D	4,5V	53	30	49	45	40	45	48	35	31
E	4,5V	54	27	51	48	42	41	43	32	29
F	2,7	37	26	33	28	27	28	26	20	22

Sound data

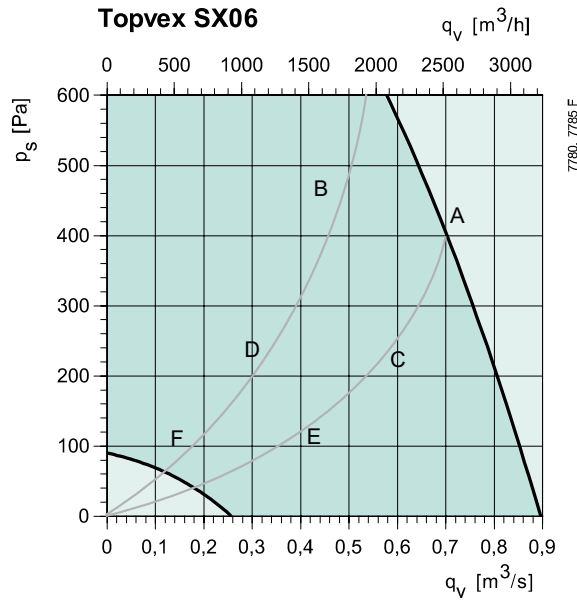
The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Performance SX06

Supply

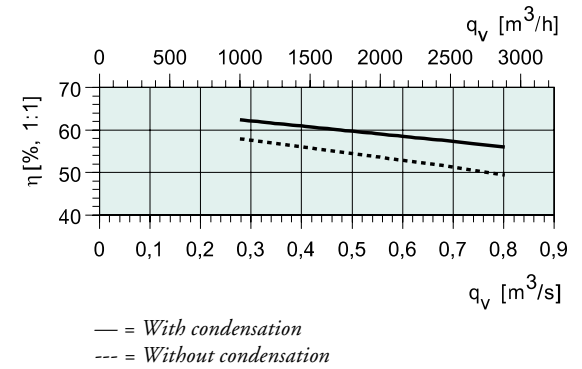


Extract



Supply

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	84	54	60	80	74	77	77	74	68
B	7V	79	53	59	70	73	73	72	69	62
C	7V	80	51	58	72	73	74	73	70	64
D	5V	70	49	57	60	63	66	64	60	52
E	5V	71	49	57	60	63	66	64	60	52
F	3V	57	42	47	47	49	53	51	40	33



Extract

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	64	39	53	60	58	56	50	52	49
B	7V	62	44	54	57	54	53	49	51	50
C	7V	62	39	50	58	56	53	47	47	43
D	5V	57	39	52	52	46	48	43	45	40
E	5V	57	38	51	53	49	49	42	37	30
F	3V	40	33	32	29	30	36	28	19	22

SFP = Specific Fan Power ($kW/m^3/s$)

The SFP value stated applies to the complete unit.

Thermal efficiency

With outside temperature $-15\text{ }^\circ\text{C}$ and extract air temperature $25\text{ }^\circ\text{C}$.

With condensation: 50%Rh.

Without condensation: 0%Rh.

Sound data

The sound data tables indicate the sound power level L_{wA} , which should not be confused with the sound pressure level.

Surrounding

Sound power (L_w), dB(A) – Mid-frequency band, Hz										
	Step	Tot	63	125	250	500	1k	2k	4k	8k
A	10V	64	34	48	60	55	56	56	55	54
B	7V	60	35	48	53	53	52	53	53	51
C	7V	61	32	46	55	54	52	53	51	49
D	5V	54	31	46	46	44	46	45	46	41
E	5V	54	29	45	47	46	47	46	42	39
F	3V	38	24	30	29	29	33	31	22	23

Hot water coil SX

		Topvex SX03 HWL				Topvex SX04 HWL				Topvex SX06 HWL			
Water temp.	°C	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70	60/40	70/50	80/60	90/70
Air flow	m ³ /h	1080	1080	1080	1080	1440	1440	1440	1440	2160	2160	2160	2160
Outdoor temp. 0°C													
Supply air temp.	°C	25.1	29.8	34.5	39.2	25.3	29.9	34.4	38.9	23.1	27.3	31.4	35.4
Water flow	l/s	0.06	0.08	0.10	0.12	0.08	0.11	0.13	0.16	0.10	0.14	0.18	0.21
Pressure drop	kPa	2.20	3.60	5.30	7.20	4.40	7.10	10.20	13.90	2.90	4.80	7.10	9.80
Capacity	kW	4.9	6.6	8.3	10.0	6.6	8.9	11.1	13.2	8.4	11.4	14.4	17.3
Outdoor temp. -10°C													
Supply air temp.	°C	22.5	27.3	32.0	36.6	22.7	27.3	31.8	36.3	20.3	24.5	28.5	32.6
Water flow	l/s	0.07	0.09	0.11	0.13	0.09	0.12	0.15	0.17	0.12	0.15	0.19	0.23
Pressure drop	kPa	2.80	4.30	6.10	8.10	5.50	8.40	11.80	15.60	3.70	5.80	8.20	11.00
Capacity	kW	5.6	7.3	9.0	10.7	7.6	9.8	12.0	14.1	9.6	12.6	15.6	18.5
Outdoor temp. -10°C open by-pass													
Supply air temp.	°C	19.0	23.8	28.41	33.0	19.1	23.7	28.18	32.7	16.45	20.56	24.62	28.65
Water flow	l/s	0.08	0.10	0.12	0.14	0.11	0.13	0.16	0.19	0.14	0.17	0.21	0.25
Pressure drop	kPa	3.70	5.40	7.3	9.50	7.30	10.50	14.1	18.20	4.9	7.2	9.9	12.9
Capacity	kW	6.6	8.3	9.98	11.7	8.8	11.0	13.2	15.4	11.3	14.28	17.22	20.15
Outdoor temp. -20°C													
Supply air temp.	°C	19.99	24.7	29.4	34.0	20.1	24.7	29.2	33.7	17.5	21.6	25.7	29.7
Water flow	l/s	0.08	0.10	0.12	0.14	0.10	0.13	0.16	0.18	0.13	0.17	0.20	0.24
Pressure drop	kPa	3.40	5.10	7.00	9.10	6.80	9.90	13.50	17.50	4.50	6.80	9.40	12.40
Capacity	kW	6.3	8.0	9.7	11.4	8.5	10.7	12.9	15.0	10.8	13.8	16.8	19.7
Outdoor temp. -30°C													
Supply air temp.	°C	17.4	22.1	26.8	31.4	17.5	22.0	26.5	31.0	14.7	18.8	22.9	26.9
Water flow	l/s	0.08	0.11	0.13	0.15	0.11	0.14	0.17	0.20	0.15	0.18	0.22	0.26
Pressure drop	kPa	4.10	5.90	7.90	10.10	8.10	11.50	15.20	19.40	5.50	7.90	10.70	13.80
Capacity	kW	7.0	8.7	10.4	12.1	9.4	11.6	13.8	15.9	12.1	15.0	18.0	20.9
Outdoor temp. -40°C													
Supply air temp.	°C	14.9	19.6	24.2	28.8	14.9	19.4	23.9	28.4	11.9	16.0	20.0	24.0
Water flow	l/s	0.09	0.11	0.14	0.16	0.12	0.15	0.18	0.21	0.16	0.20	0.23	0.27
Pressure drop	kPa	4.90	6.80	8.80	11.20	9.60	13.10	17.10	21.40	6.50	9.10	12.00	15.20
Capacity	kW	7.7	9.4	11.1	12.8	10.3	12.5	14.7	16.8	13.3	16.2	19.2	22.1

		Topvex SX03 HWH				Topvex SX04 HWH				Topvex SX06 HWH			
Water temp.	°C	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40	60/30	60/30	60/40	60/40
Air flow	m ³ /h	540	1080	540	1080	720	1440	720	1440	1080	2160	1080	2160
Outdoor temp. 0°C													
Supply air temp.	°C	31.7	28.4	38.38	33.81	29.58	26.77	36.93	32.4	30.29	26.84	36.75	32.03
Water flow	l/s	0.03	0.05	0.06	0.1	0.04	0.06	0.07	0.12	0.05	0.09	0.11	0.18
Pressure drop	kPa	1.3	3.1	4.1	10	0.7	1.7	2.5	6.1	1.7	4	5.6	13.4
Capacity	kW	3.65	6.11	4.86	8.07	4.36	7.36	6.13	10.07	6.79	11.08	9.13	14.84
Outdoor temp. -10°C													
Supply air temp.	°C	31.05	26.99	37.4	32.23	29.01	25.29	35.85	30.7	29.39	25.21	35.59	30.25
Water flow	l/s	0.03	0.06	0.07	0.11	0.04	0.07	0.08	0.14	0.07	0.11	0.13	0.2
Pressure drop	kPa	1.7	4.1	5.1	12.5	1	2.4	3.2	7.6	2.3	5.4	7	16.7
Capacity	kW	4.34	7.23	5.5	9.12	5.3	8.81	6.96	11.43	8.1	13.16	10.34	16.81
Outdoor temp. -10°C open by-pass													
Supply air temp.	°C	29.89	24.93	35.99	30.02	27.85	23.1	34.31	28.33	27.98	22.86	33.95	27.77
Water flow	l/s	0.04	0.07	0.08	0.13	0.05	0.09	0.1	0.16	0.08	0.13	0.15	0.24
Pressure drop	kPa	2.4	5.7	6.6	16.2	1.4	3.4	4.1	9.9	3.2	7.5	9.1	21.8
Capacity	kW	5.26	8.72	6.37	30.02	6.52	10.75	8.08	13.27	9.83	15.95	11.99	19.51
Outdoor temp. -20°C													
Supply air temp.	°C	30.22	25.51	36.38	30.63	28.2	23.71	34.74	28.98	28.38	23.51	34.3	28.45
Water flow	l/s	0.04	0.07	0.07	0.12	0.05	0.08	0.09	0.15	0.08	0.12	0.14	0.23
Pressure drop	kPa	2.2	5.3	6.2	15.1	1.3	3.1	3.8	9.2	3	6.9	8.5	20.3
Capacity	kW	5.01	8.32	6.13	10.17	6.19	10.22	7.78	12.77	9.36	15.19	11.54	18.77
Outdoor temp. -30°C													
Supply air temp.	°C	29.33	23.97	35.34	29	27.26	22.07	33.6	27.24	27.3	21.78	33.19	26.64
Water flow	l/s	0.05	0.08	0.08	0.14	0.06	0.09	0.1	0.17	0.09	0.14	0.15	0.25
Pressure drop	kPa	2.7	6.5	7.3	18	1.6	3.9	4.6	11	3.7	8.6	10.2	24.3
Capacity	kW	5.67	9.39	6.76	11.21	7.05	11.6	8.59	14.1	10.6	17.19	12.73	20.71
Outdoor temp. -40°C													
Supply air temp.	°C	28.38	22.4	34.29	27.36	26.24	20.39	32.44	25.48	26.16	20	31.97	24.81
Water flow	l/s	0.05	0.08	0.09	0.15	0.06	0.1	0.11	0.19	0.1	0.15	0.17	0.27
Pressure drop	kPa	3.3	7.9	8.6	21	2	4.7	5.4	12.9	4.4	10.4	11.9	28.5
Capacity	kW	6.31	10.45	7.38	12.25	7.89	12.96	9.39	15.42	11.81	19.16	13.92	22.65

Dotted frame = open by-pass

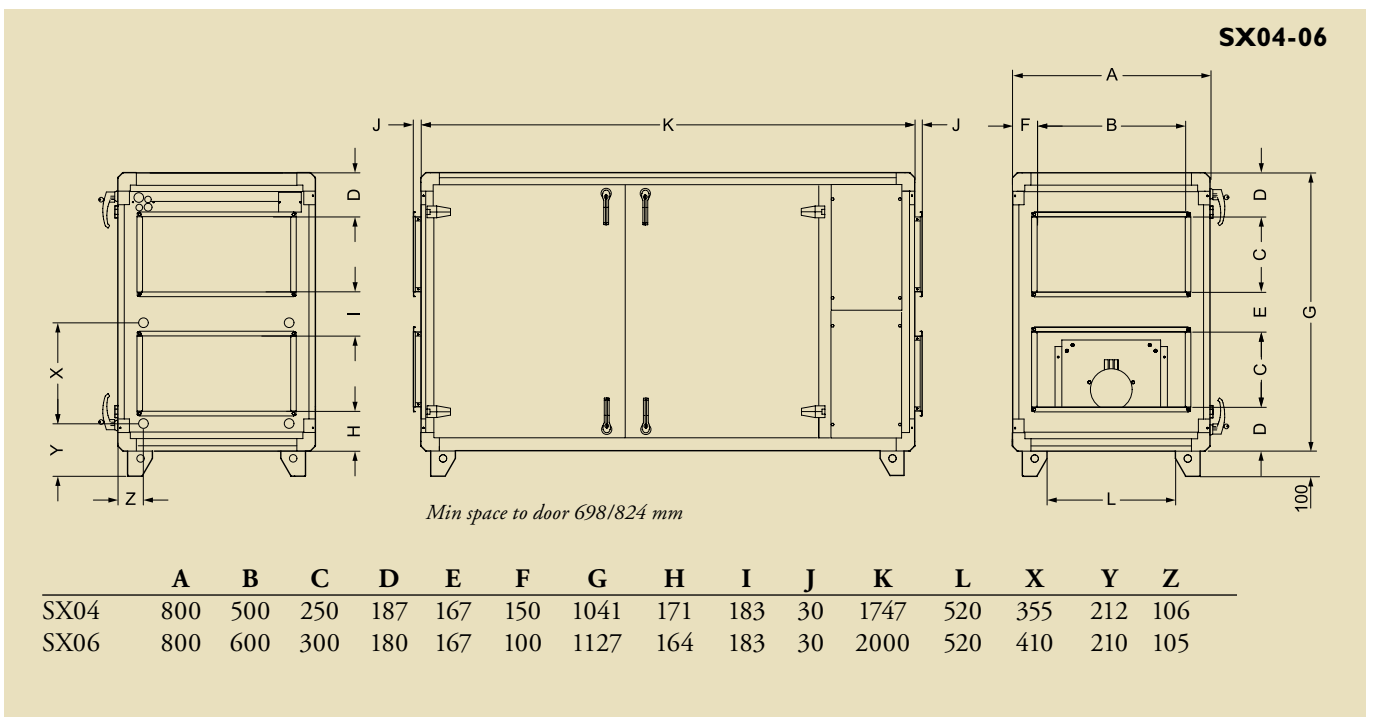
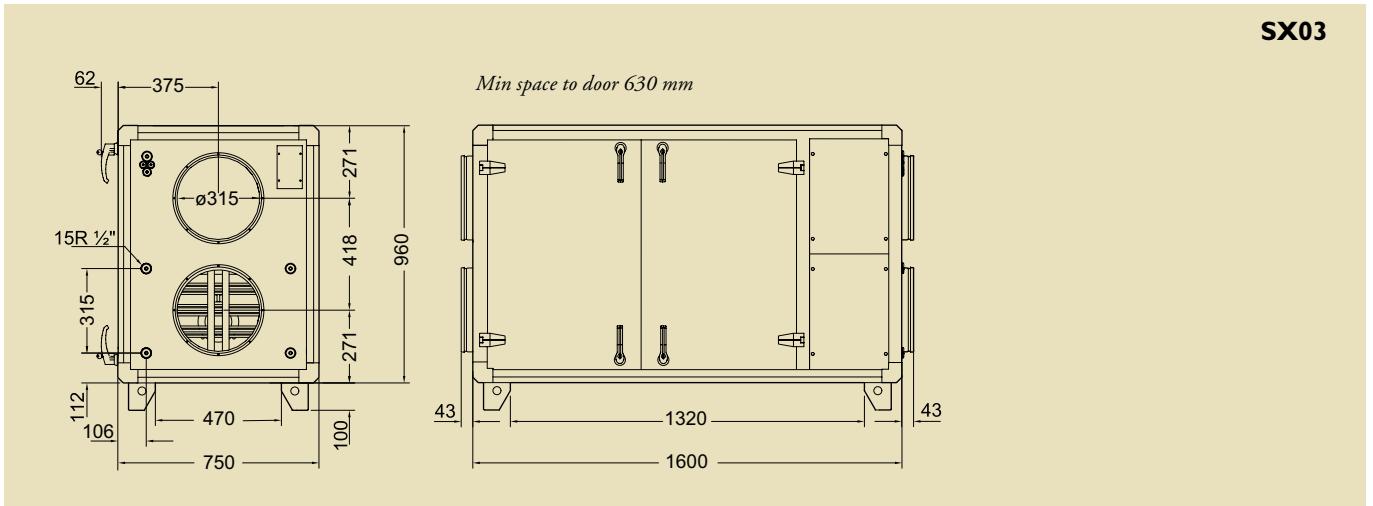
Heater battery, electric SX

Capacity, kW	Topvex SX03				Topvex SX04				Topvex SX06					
	6	6	6	6	12	12	12	12	16	16	16	16		
Air flow, m ³ /h	360	720	1080	1440	1260	1620	1980	2340	1440	1980	2520	3060		
Outdoor	Supply air temp. °C				Supply air temp. °C				Supply air temp. °C					
	0°C	>30	>30	28	24	0°C	>30	>30	29	26	0°C	>30	>30	30
-10°C	>30	>30	23	19	-10°C	>30	>30	28	25	-10°C	>30	>30	30	25
-10°C	>30	25	17		-10°C	28	22	18		-10°C	>30	24	19	
-20°C	>30	27	19		-20°C	30	24	20	17	-20°C	>30	26	21	18
-30°C	>30	22			-30°C	25	19			-30°C	>30	30	21	
-40°C	>30	18			-40°C	21				-40°C	26	17		

Dotted frame = open by-pass

An extract air temperature of 21°C and a heat exchanger efficiency of 55% has been used for the calculations below. In practice the heat exchanger efficiency or extract air temperature may be higher, which may give a few degrees higher supply air temperatures than in the above tables.

Dimensions SX



Technical data SX

		SX03 EL	SX03 HW	SX04 EL	SX04 HW	SX06 EL	SX06 HW
Voltage/Frequency	V/50 Hz	400	230	400	400	400	400
Phase	~	3N	1	3N	3N	3N	3N
Input power, motors	W	2x496	2x496	2x1069	2x1069	2x1052	2x1052
Input power, el heating battery	kW	6	–	12	–	16	–
Fuse	A	3x16	13	3x25	3x10	3x32	3x10
Weight	kg	213	213	260	260	308	308
Filter	(Supply/extract)	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5	F7/F5

Accessories SX

	Topvex SX03	Topvex SX04	Topvex SX06
Repeater*	E0-R230K	E0-R230K	E0-R230K
Shut-off damper	EFD 315	EFD 50-25	EFD 60-30
Valve actuator	RVAZ4 24A	RVAZ4 24A	RVAZ4 24A
Valve, 2-way, HWL/HWH (L = low, H = high)	ZTV 15-1.0/0.6	ZTV 15-1.6 /1.0	ZTV 15-1.6/1.6
Valve, 3-way, HWL/HWH (L = low, H = high)	ZTR 15-1.6/1.0	ZTR 20-2.0/15-1.6	ZTR 20-2.5/2.0
Cooling coil, water (<i>info on page 64</i>)	PGK	PGK	PGK
Cooling coil, DX (<i>info on page 66-67</i>)	DXRE	DXRE	DXRE
Step controller. DX cooling (24V). Converts 0..10V signal to output relay.	SC2/D	SC2/D	SC2/D
Plastic casing, step controller IP54	U-EK	U-EK	U-EK
Transformer 230/24 V	PSS20	PSS20	PSS20
Combi grille	CVVX 315	CVVX 400	CVVX 500
Silencer**	LDC-B 315	LDR-B 50-25	LDR-B 60-30
Timer	T 120	T 120	T 120
Presence detector	IR24-PC	IR24-PC	IR24-PC
CO ₂ Room sensor (digital 1/0)	CO2RT-DR	CO2RT-DR	CO2RT-DR
Water lock. Where there is a risk of condensation on the outdoor/supply air side of the heat exchanger.	Water lock	Water lock	Water lock
Filter F5 (extract air)	BFRO SX03 F5 Filter	BFT SX04 F5 Filter	BFT SX06 F5 Filter
Filter F7 (supply air)	BFRO SX03 F7 Filter	BFT SX04 F7 Filter	BFT SX06 F7 Filter

* Used when distance between the unit and control panel is more than 10 meters

** See catalogue "Ventilation products EIII" or www.systemair.com

Ordering code SX

- Model: SX03, SX04, SX06
- Heating coil: electric = EL, water = HW
Available power:
 SX03: 6kW
 SX04: 12kW
 SX06: 16kW
 SX03 HW: HWL - low power, HWH - high power
 SX04 HW: HWL - low power, HWH - high power
 SX06 HW: HWL - low power, HWH - high power
- Right or left model (The side where the supply air is located when viewed from access side)

Functions included in the Standard, E17S controller:

Menu Languages	More than 20 different languages.
Temperature control	Constant supply air. Constant supply air with outdoor temp. compensation. Extract air (cascade).
Air flow control	Week timer, two separate running periods/twenty-four hours.
Fan control	Stepless settable between 0-100%. Transformer control.
Heat exchanger control	Rotating heat exchanger (on/off). By-pass damper, cross/counter flow exchanger (stepless).
Re-heater control	Hot water coil (0...10V control signal). Electric heating.
Cold water cooler control	External coil (0...10V control signal).
DX cooling control	External coil (Step controller SC2/D is required, accessory).
Cool recovering	Automatically recovers the cold in the indoor air to cool down the warmer outdoor air.
Night cooling	Night cooling is used during the summer to cool the building night-time by using cool outdoor air, thereby reducing the need for cooling during the day and thereby saving energy.
Demand ventilation	The units have one digital input for extended/forced running using an external signal, e.g. an external timer, movement detector, CO ₂ -sensor or similar sensor with a voltage free contact. Extended/forced running is when the unit goes from shut down mode, low or medium fan-speed to the chosen fan speed.
Extended running	The units have a digital input for extended/forced running. The function activates by using an external signal from e.g. a push button or a timer. The function can also be activated by using the control panel. Extended running can be set between 0-240 minutes.
Week schedule	Two separate running periods/week day.
Damper control	24V output to control one or two shut-off dampers.
Alarm	Alarm messages in clear text. Sum alarm output (24V). Fire alarm input (potential free contact). Stop the unit or continuous running.
Communication	When more than 10 meter cable between the unit and control panel is needed a repeater (E0-R accessory) can be used. One E0-R can control up to 6 AHU's. Exoline and Modbus via RS 485.

Functions included in the Advanced, E28 controller:

Menu Languages	More than 20 different languages.
Temperature control	Supply air. Supply air with outdoor temp. compensation. Extract air. Cascaded room temperature control. Outdoor temperature dependent switching between room control and supply air control. Outdoor temperature dependent switching between exhaust air control and supply air control.
Air flow control	Year-based clock function. This means that a week-schedule with holiday periods for a full year can be set. Each day has up to two individual running periods for normal speed and reduced speed.
Fan control	Constant air volume control, CAV. Constant duct pressure control, VAV. Outdoor temperature compensated air volume/duct pressure.
Heat exchanger control	Rotating heat exchanger (stepless). By-pass damper, cross/counter flow exchanger (stepless). Liquid connected exchanger (0...10V control signal or by two digital outputs). Mixing dampers (0...10V control signal).
Re-heater control	Hot water coil (0...10V control signal). Electric heating.
Cold water cooler control	External coil (0...10V control signal).
DX cooling control	External coil (Up to 3-step, binary control).
Cool recovering	Automatically recovers the cold in the indoor air to cool down the warmer outdoor air.
Free cooling	Free cooling is used to save energy by using the cold outdoor air, e.g. during night time, to cool down the building.
Demand ventilation	In applications with varying occupancy the fan speeds or mixing dampers can be controlled by the air quality as measured by a CO ₂ -sensor. It is also possible to use a digital input for extended/forced running using an external signal, e.g. an external timer, movement detector or a similar sensor with a voltage free contact.
Extended running	The units have a digital input for extended/forced running. The function activates by using an external signal from e.g. a push button or a timer. The function can also be activated by using the control panel. Extended running can be set between 0-240 minutes.
Yearly schedule	Year-based clock function. This means that a week-schedule with holiday periods for a full year can be set. Each day has up to two individual running periods for normal speed and reduced speed. Digital timer channels for door locks, lighting etc.
Damper control	24V output to control one or two shut-off dampers.
Alarm	Alarm messages in clear text. Alarm priorities, alarms can be given different priority levels, A-alarm, B-alarm, C-alarm or not active. Sum alarm output (24V). Fire alarm input (potential free contact). Different fan control modes at fire.
Communication	When more than 10 meter cable between the unit and control panel is needed a repeater (E0-R accessory) can be used. One E0-R can control up to 6 AHU's. Standard – Exoline and Modbus via RS 485. Option - Exoline/Built-in Web via TCP/IP. (Standard in TR/SR03-06 CAV/VAV and FR03-11 CAV/VAV). Option – LON.
E-tool software	A PC-based commissioning software.

Accessories

Damper for outdoor air



Shutter damper EFD is a shut-off damper suitable for Topvex. The damper is provided with 24V AC motors with spring-return actuators. EFD are made in leakage performance class 3 according to EN 1751:1998 Annex C.2. Outdoor air dampers are used to prevent the hot water battery from freezing and also prevent cold air to chill down the building if the unit stops. EFD is connected to terminals in the electrical connection box.

Maintenance

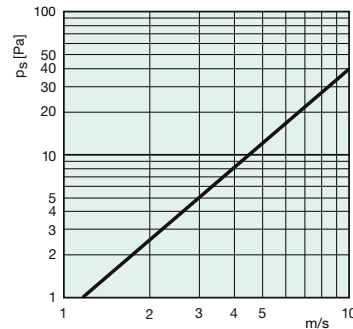
We recommend preventive maintenance of the damper twice per year for optimum performance. If the damper gets dirty, the blade/s should be cleaned. The gasket sealing should be checked and the blade/s axle/s lubricated as necessary.

Circular damper

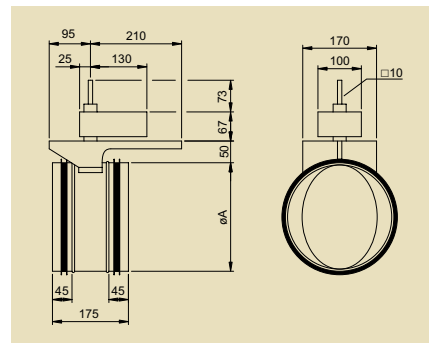
The circular damper consists of a tubular housing equipped with a damper blade pivoting on an axle. The blade fits into the circular duct. The connection ends are equipped with silicon rubber sealing rings. The damper is made

from hot-dip galvanised sheet steel. The shut-off damper is prepared for external insulation and has arrows showing the damper blade position.

Pressure drop circular damper



Dimensions circular damper

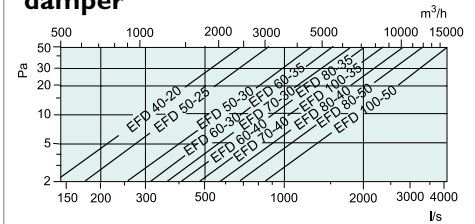


EFD	øA
200	200
250	250
315	315
400	400
500	500
630	630

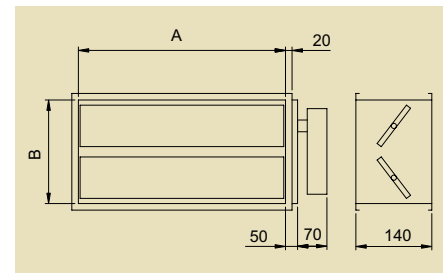
Rectangular damper

The rectangular multi-leaf damper comprises a number of opposed blades, swivelling on nylon bearings in a sheet metal framework. The blades are connected via a system of linkages (protected) on the outside of the frame. The damper is made of hot-dip galvanised sheet steel. The shut-off damper is prepared for external insulation and has arrows showing the damper blade position.

Pressure drop rectangular damper



Dimensions rectangular damper

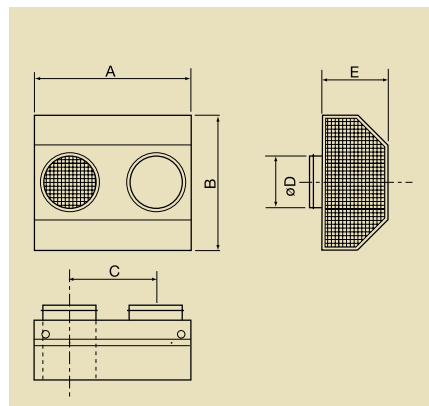


EFD	A	B
40-20	400	200
50-25	500	250
50-30	500	300
60-30	600	300
60-40	600	400
70-30	700	300
70-40	700	400
80-35	800	350
80-40	800	400
100-35	1000	350



Combi grid CVVX

The Combi grid, suitable for mounting on an outside wall is produced from galvanised sheet steel, finished in dark grey enamel. The outside air intake, and exhaust air outlet are separated from each other so that the air cannot "short circuit". Four screws on the front facilitate dismantling for cleaning of the grid. *Mounting:* The back plate is first screwed and fitted to the wall. The grid can be mounted with exhaust-air outlet either on the right or on the left.



CVVX	A	B	C	øD	E
160	420	362	215	160	130
200	500	402	255	200	133
250	680	550	350	250	136
315	810	658	415	315	139
400	1012	694	465	400	193
500	1162	994	565	500	223

Cooling battery – water

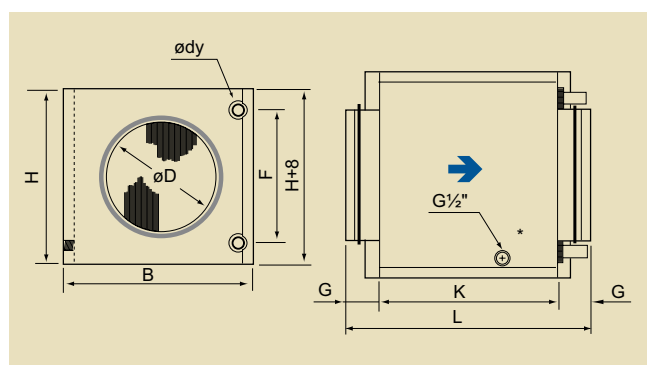


CWK, cold water-cooling battery for circular ducts. Casing of galvanised sheet steel with copper tubes and aluminium fins. Inspection covers for easy cleaning and maintenance.

Connection sleeves with rubber seal.
Max working pressure 1.6 MPa (16 bar).

Technical data CWK

	Air flow (m ³ /h)	Air velocity (m/s)	Air pressure drop (Pa)	Air before (°C)	Air before (% RH)	Air after (°C)	Capacity (kW)	Water flow (l/s)	Water pressure drop (kPa)
100-3-2.5	54	2	7	25	50	14.3	0.2	0.01	< 0.5
	54	2	7	30	45	15.8	0.4	0.01	1
	100	3.5	22	25	50	16.4	0.3	0.01	1
	100	3.5	22	30	45	18.5	0.5	0.02	2
	145	5	58	25	50	17.5	0.4	0.02	1
125-3-2.5	145	5	58	30	45	20	0.6	0.02	3
	85	2	3	25	50	12.6	0.5	0.02	3
	85	2	3	30	45	13.5	0.7	0.03	5
	150	3	9	25	50	14.5	0.7	0.03	5
	150	3	9	30	45	15.7	1.1	0.04	10
160-3-2.5	215	4.5	18	25	50	15.6	0.8	0.03	7
	215	4.5	18	30	45	17.0	1.4	0.05	16
	145	2	9	25	50	14.4	0.7	0.03	4
	145	2	9	30	45	15.6	1.0	0.04	10
	250	3.5	24	25	50	16.1	0.9	0.04	8
200-3-2.5	250	3.5	24	30	45	17.4	1.5	0.06	20
	355	5	45	25	50	17.0	1.1	0.04	11
	355	5	45	30	45	18.4	1.3	0.08	32
	225	2	6	25	50	14.1	1.0	0.05	2
	225	2	6	30	45	15.3	1.6	0.06	5
250-3-2.5	390	3.5	17	25	50	15.9	1.4	0.06	4
	390	3.5	17	30	45	17.3	2.3	0.09	9
	555	5	33	25	50	16.9	1.7	0.07	5
	555	5	33	30	45	18.4	3.1	0.12	15
	360	2	6	25	50	14.2	1.6	0.06	2
315-3-2.5	360	2	6	30	45	15.4	2.5	0.10	5
	630	3.5	18	25	50	16.0	2.2	0.09	4
	630	3.5	18	30	45	17.3	3.8	0.15	10
	900	5	34	25	50	17.0	2.7	0.11	6
	900	5	34	30	45	18.2	5.1	0.20	17
400-3-2.5	560	2	7	25	50	14.5	2.4	0.10	3
	560	2	7	30	45	15.4	3.9	0.16	7
	985	3.5	20	25	50	16.1	3.4	0.13	5
	985	3.5	20	30	45	17.2	6.1	0.24	14
	1410	5	39	25	50	17.0	4.3	0.17	8
400-3-2.5	1410	5	39	30	45	18.1	8.3	0.33	25
	900	2	9	25	50	15.2	3.4	0.14	2
	900	2	9	30	45	16.3	5.8	0.23	5
	1590	3.5	25	25	50	16.8	4.8	0.19	4
	1590	3.5	25	30	45	17.8	9.3	0.37	12
400-3-2.5	2280	5	49	25	50	17.6	6.1	0.24	6
	2280	5	49	30	45	18.6	12.8	0.51	22



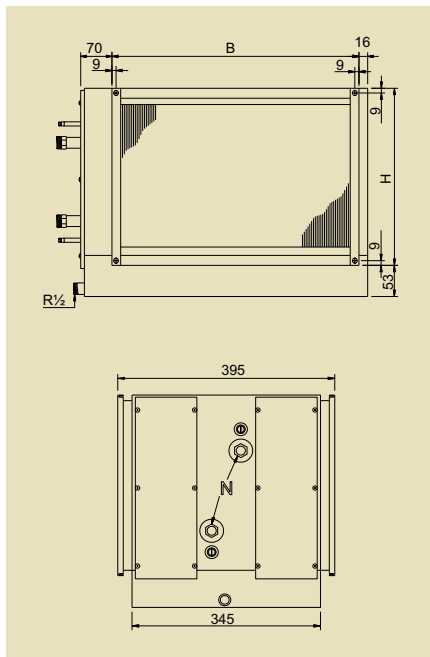
CWK	øD	B	H	ødy	F	G	K	L	Weight
100-3-2.5	100	251	180	10	100	40	276	356	4.4
125-3-2.5	125	326	255	10	175	40	276	356	6.5
160-3-2.5	160	326	255	10	175	40	276	356	6.7
200-3-2.5	200	411	330	22	250	40	276	356	9.4
250-3-2.5	250	486	405	22	325	40	276	356	11
315-3-2.5	315	560	504	22	400	40	276	356	14.3
400-3-2.5	400	710	529	22	425	65	330	460	19.5

PGK



PGK, cold water-cooling battery for rectangular ducts. Casing of galvanised sheet steel with copper tubes and aluminium fins. Air vent and drain valve included. Condensation tray of stainless steel and condensate connection (R $\frac{1}{2}$ "). Max working pressure 1.6 MPa (16 bar). For water connection left or right.

Two inspection covers for cleaning and maintenance. Droplet eliminator DE as an accessory regardless of air direction. Recommended for air velocities from 3 m/s.



PGK	B	H	N	DE
40-20-3-2.0	438	238	R 3/4	DE 40x20
50-25-3-2.0	538	288	R 3/4	DE 50x25
50-30-3-2.0	538	338	R 3/4	DE 50x30*
60-30-3-2.0	638	338	R 3/4	DE 60x30*
60-35-3-2.0	638	388	R 3/4	DE 60x35*
70-40-3-2.0	738	438	R1	DE 70x40*
80-50-3-2.0	838	538	R1	DE 80x50*
100-50-3-2.0	1038	538	R1	DE 100x50*

* use 2 pcs DE

Technical data PGK

PGK	Air flow (m ³ /h)	Air velocity (m/s)	Water temperature 6/12°C				Capacity (kW)	Water flow (l/s)	Water pressure drop (kPa)
			Air pressure drop (Pa)	Air before (0°C)	Air before (%RH)	Air after (0°C)			
400x200-3-2.0	576	2	31	25	50	17.0	1.53	0.06	1
	576	2	49	30	45	19.0	2.50	0.10	3
	864	3	66	25	50	18.4	1.89	0.08	2
	864	3	103	30	45	20.2	3.26	0.13	5
	1152	4	113	25	50	19.2	2.20	0.09	2
	1152	4	175	30	45	20.8	4.15	0.17	7
500x250-3-2.0	900	2	31	25	50	17.0	2.38	0.09	2
	900	2	49	30	45	18.6	4.27	0.17	5
	1350	3	66	25	50	18.2	3.02	0.12	3
	1350	3	103	30	45	19.4	6.16	0.25	9
	1800	4	113	25	50	18.9	3.61	0.14	4
	1800	4	175	30	45	19.8	8.34	0.33	15
500x300-3-2.0	1080	2	31	25	50	17.1	2.83	0.11	1
	1080	2	49	30	45	18.8	4.93	0.20	4
	1620	3	66	25	50	18.4	3.56	0.14	2
	1620	3	103	30	45	19.7	6.94	0.28	7
	2160	4	113	25	50	19.1	4.22	0.17	3
	2160	4	175	30	45	20.1	9.40	0.37	12
600x300-3-2.0	1296	2	31	25	50	17.3	3.3	0.13	1
	1296	2	49	30	45	19.0	5.69	0.23	3
	1944	3	66	25	50	18.6	4.13	0.16	2
	1944	3	103	30	45	19.8	8.12	0.32	6
	2592	4	113	25	50	19.3	4.90	0.20	3
	2592	4	175	30	45	20.1	11.18	0.45	11
600x350-3-2.0	1512	2	31	25	50	17.3	3.86	0.15	1
	1512	2	49	30	45	19.0	6.64	0.26	3
	2268	3	66	25	50	18.6	4.82	0.19	2
	2268	3	103	30	45	19.8	9.48	0.38	6
	3024	4	113	25	50	19.3	5.72	0.23	3
	3024	4	175	30	45	20.1	13.05	0.52	11
700x400-3-2.0	1920	2	47	25	50	17.1	5.02	0.20	1
	1920	2	74	30	45	18.1	8.66	0.35	3
	2880	3	91	25	50	18.5	6.20	0.25	1
	2880	3	142	30	45	18.8	12.94	0.52	4
	3840	4	142	25	50	19.3	7.26	0.29	2
	3840	4	222	30	45	19.0	18.41	0.73	8
800x500-3-2.0	2743	2	47	25	50	17.1	7.20	0.29	1
	2743	2	74	30	45	17.6	13.59	0.54	3
	4115	3	91	25	50	18.4	9.04	0.36	1
	4115	3	142	30	45	18.0	21.61	0.86	6
	5486	4	142	25	50	19.0	10.82	0.43	2
	5486	4	222	30	45	18.6	28.41	1.13	10
1000x500-3-2.0	3429	2	47	25	50	17.5	8.56	0.34	1
	3429	2	74	30	45	17.9	16.13	0.64	2
	5144	3	91	25	50	18.7	10.72	0.43	1
	5144	3	142	30	45	18.0	26.77	1.07	6
	6858	4	142	25	50	19.3	12.85	0.51	2
	6858	4	222	30	45	18.6	35.52	1.41	10
	m³/h	m/s	Pa	0°C	%RH	0°C	kW	l/s	kPa

NB! Droplet eliminator DE must be ordered separately. Pressure drop at page 66.

RVAZ4 – Valve motor, water valve

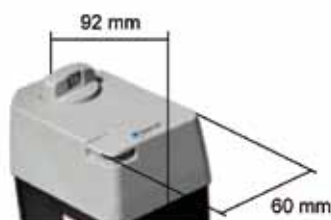
RVAZ4 24A is a valve actuator for control with 0...10V signal. 24 V AC supply voltage. Suitable for controlling ZTV/ZTR valves.



This product conforms with the EMC requirements of European harmonised standards EN60730-1:2000 and EN60730-2-8:2002 and carries the CE mark.

Voltage supply	24 V AC +/- 15%
Power consumption	Max. 6 W
Frequency	50/60 Hz
Max. stroke	5.5 mm
Full stroke time	121 sec
Stem force	400 Nm
Permitted max ambient humidity	95 %RH
Permitted range for ambient temperature	0...50°C
Enclosure class	44 IP

RVAZ4 24A



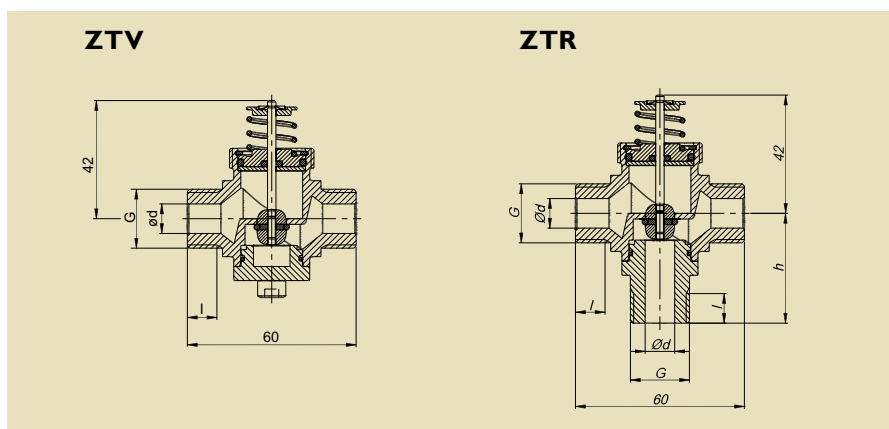
ZTV/ZTR – Water valve/heating water, 2/3-way

ZTV/ZTR is a 2 and 3-way control valve to control the hotwater to the heating battery. They are intended for use together with the RVAZ4 24A actuator.



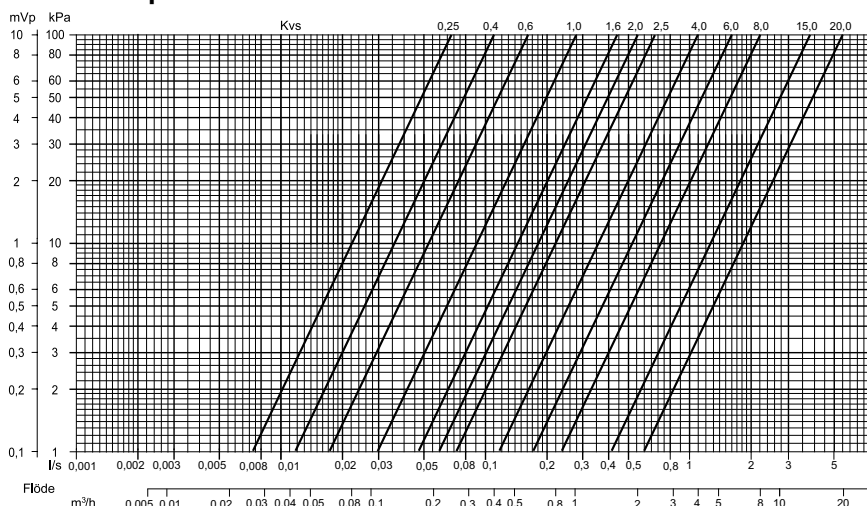
Technical data

Flow charac.	Percental increase
Media temp.	1...+110°C
Media	Hot, cold, glycol mixed (max. 30% glycol)
Stroke	5 mm
Leakage	0% in closed position
Pressure class	PN16 (1.6MPa)
Rangeability	50:1
Mat: Body	Brass
Mat: Spindle	Stainless steel
Mat: Seat	Brass
O-ring	EPDM



	Connection	G	I	h
ZTV/ZTR 15-0.25	DN15	1/2"	9	40
ZTV/ZTR 15-0.4	DN15	1/2"	9	40
ZTV/ZTR 15-0.6	DN15	1/2"	9	40
ZTV/ZTR 15-1.0	DN15	1/2"	9	40
ZTV/ZTR 15-1.6	DN15	1/2"	9	40
ZTV/ZTR 20-2.0	DN20	3/4"	12.5	40
ZTV/ZTR 20-2.5	DN20	3/4"	12.5	40
ZTV/ZTR 20-4.0	DN20	3/4"	11.5	50
ZTV/ZTR 20-6.0	DN20	3/4"	11.5	50
ZTVB/ZTRB 25-8	DN25	1"	-	65
ZTVB/ZTRB 32-15	DN32	1 1/4"	-	66
ZTVB/ZTRB 40-20	DN40	1 1/2"	-	68

Pressure drop



DXRE – Duct coolers with DX Coil



DXRE are used for central cooling of the ventilation air in ventilation systems. The DXRE is also used for individual cooling of the air supplied to individual rooms (zones).

- 8 standard sizes
- Same model for left-hand or right-hand installation (reversible coil).
- Stainless steel condensate drip tray. A droplet eliminator can be fitted regardless of the direction of air flow
- Easily removable drip tray to simplify cleaning and inspection.

Droplet eliminator DE

We recommend that a droplet eliminator should be installed on the outlet side of the coil if the air velocity is in excess of 2.5 m/s. This prevents water droplets being entrained by the air flow out into the duct system. The collected water is discharged through the stainless steel condensate drip tray. The droplet eliminator is easily accessible after the drip tray has been removed.

Operating data

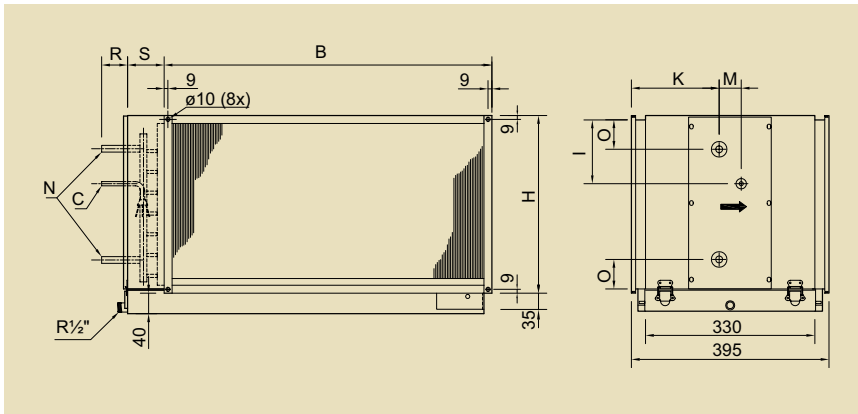
Max. operating press.: 2.8 MPa (28 Bar)
The coils are tested for leakage.

Design

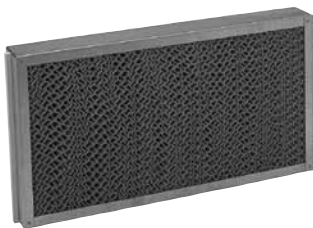
The casing is made of Aluzinc-coated sheet steel. The coil has copper tubes and aluminium fins. Stainless steel drip tray for collecting the condensate, with R½ drain connection. Removable drip tray for inspection and cleaning of the coil.

Installation

The DXRE is intended for installation in a horizontal duct, with the air flow in either direction (reversible coil).

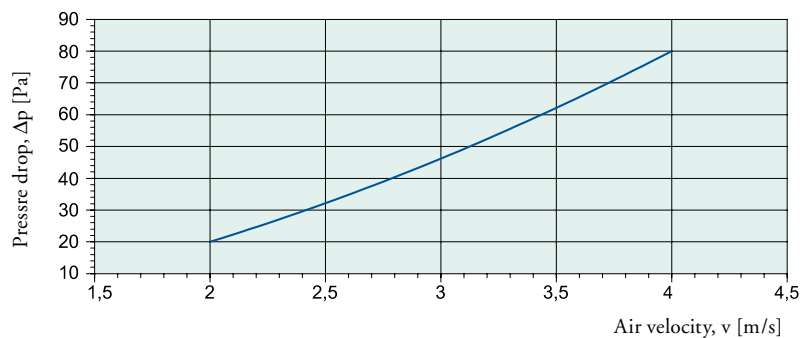


DXRE duct cooler	B mm	H mm	S mm	R mm	I mm	O mm	K mm	M mm	N ø mm	C Connection R	Droplet eliminator Dim
DXRE 400x200-3-2,5	438	238	90	105	45	100	165	60	19	1/2"	DE 40x20
DXRE 500x250-3-2,5	538	288	90	105	70	30	165	60	22	1/2"	DE 50x25
DXRE 500x300-3-2,5	538	338	90	105	95	30	165	60	22	1/2"	DE 50x30
DXRE 600x300-3-2,5	638	338	90	105	95	30	165	60	22	5/8"	DE 60x30
DXRE 600x350-3-2,5	638	388	90	105	120	30	165	60	22	5/8"	DE 60x35
DXRE 700x400-3-2,5	738	438	120	115	135	30	160	75	35	5/8"	DE 70x40
DXRE 800x500-3-2,5	838	538	120	115	180	30	160	75	35	5/8"	DE 80x50
DXRE 1000x500-3-2,5	1038	538	120	115	180	30	160	75	35	5/8"	DE 100x50



NB! Droplet eliminator DE must be ordered seperately.

Pressure drop across droplet eliminator



Capacity, refrigerant R407C, 5 °C

Standard sizes of DXRE

The tables on the following pages give examples of the capacity for each size. If none of these is suitable, we shall be pleased to carry out a computer calculation.

DXRE	Air flow (m ³ /h)	Air pressure drop (Pa)	Air in (°C)	Air in (% RH)	Air out (°C)	Output (kW)	Refrigerant flow (kg/h)	Refrigerant pressure drop (kPa)
400x200-3-2.5	575	32	25	50	15,8	2,2	51	3
	575	36	30	50	18,8	3,2	75	6,1
	865	60	25	50	16,9	2,7	63	4,3
	865	68	30	50	20,4	3,9	90	8,7
	1150	91	25	50	17,5	2,8	65	4,9
	1150	107	30	50	21,2	4,4	104	11,3
500x250-3-2.5	900	32	25	50	15,8	3,4	80	3,2
	900	36	30	50	18,7	5	118	6,6
	1350	60	25	50	16,9	4,2	99	5
	1350	69	30	50	20,1	6,3	147	9,8
	1800	92	25	50	18	4,4	103	5,2
	1800	108	30	50	21,2	7,1	165	12,1
500x300-3-2.5	1080	32	25	50	15,5	4,3	101	6,1
	1080	36	30	50	18,3	6,4	149	11,9
	1620	62	25	50	16,6	5,4	126	8,8
	1620	70	30	50	19,8	7,9	186	17,6
	2160	97	25	50	17,3	6,3	147	11,6
	2160	110	30	50	20,9	8,9	208	21,7
600x300-3-2.5	1300	33	25	50	15,4	5,3	116	8,4
	1300	37	30	50	17,8	8,2	180	18,5
	1950	63	25	50	16,5	6,6	145	12,6
	1950	71	30	50	19,6	9,7	213	25,2
	2600	99	25	50	17,3	7,7	170	16,7
	2600	112	30	50	20,8	11	241	31,5
600x350-3-2.5	1510	32	25	50	15,5	6	131	7,5
	1510	36	30	50	18,4	8,7	192	12,8
	2270	62	25	50	16,7	7,5	164	10,1
	2270	70	30	50	19,8	11	242	18,6
	3025	97	25	50	17,4	8,6	189	12,5
	3025	110	30	50	21	12,4	272	22,6
700x400-3-2.5	2015	40	25	50	14,7	8,6	188	7,6
	2015	44	30	50	17,4	12,5	274	13,3
	3020	72	25	50	16,3	9,6	211	9
	3020	83	30	50	19,3	14,7	323	17,4
	4030	112	25	50	16,5	11,2	246	11,3
	4030	130	30	50	20,2	16,9	370	20
800x500-3-2.5	2880	39	25	50	14,6	12,4	272	8,8
	2880	44	30	50	17,3	18,1	398	15,7
	4320	73	25	50	16,2	14,1	309	10,6
	4320	84	30	50	19,1	21,8	477	21,2
	5760	113	25	50	16,4	16,2	356	13,2
	5760	131	30	50	20,2	24,5	538	25,9
1000x500-3-2.5	3600	40	25	50	14,3	16,3	356	15,1
	3600	45	30	50	16,9	23,6	517	28
	5400	74	25	50	15,9	18,7	411	19
	5400	86	30	50	18,6	29,1	638	40,2
	7200	116	25	50	16,7	21,4	470	23,8
	7200	134	30	50	19,9	31,9	699	47

