



THE RCV MEDIUM SERIES

PATENTED RESIDENTIAL VENTILATION SOLUTIONS BUILT FOR FAST AND EASY
INSTALLATION - EVEN IN TRICKY SPACES



Ambient
installation
temperature
down to
-12°C

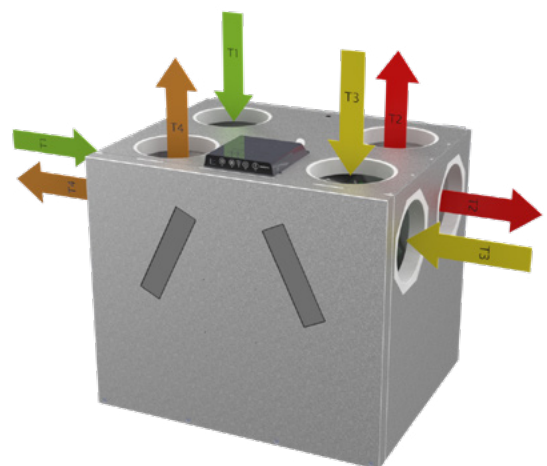
Tricky installation site? Try RCV Medium!

The patented RCV Medium range is a new generation of compact residential ventilation units designed for fast, flexible installation and reliable performance in any climate.

Dantherm's new RCV Medium range is here to simplify residential ventilation. Designed for fast installation and maximum flexibility, these units offer 32 duct connection combinations, mirrored airflow options, and plug-and-play controls — all in a compact, cold-climate-ready design.

Whether you're an installer working in tight spaces or a homeowner looking for energy-efficient comfort, the RCV 480 P1-CF, RCV 480 E2-CF, and RCV 640 P2-CF deliver fresh air, smart control, and peace of mind.

With high heat recovery, efficient ventilation, and a summer bypass mode, the RCV Medium range ensures a healthy indoor climate all year round.



Benefits for installers

- **Reduced stock levels:**
Mirrored ducting and 32 possible configurations means you need fewer models in stock or on the building site
- **Simplified installation work:**
Compact design and multiple ducting options ease your work and save time
- **Quick commissioning:**
Fast calibration using the complimentary Dantherm PC Tool
- **Minimised service workload:**
Easy front access and simple filter replacement ease service calls



RCV 480 P1-CF



RCV 640 P2-CF



RCV 480 E2-CF

Which model is right for you?

Specifications	Units		RCV 480 P1-CF	RCV 640 P2-CF	RCV 480 E2-CF
Maximum achievable flow at 100Pa	V_{100Pa}	m³/h	480	640	480
Maximum declared flow at 100Pa	$V_{max. nom.}$	m³/h	350	450	350
Recommended operating range	V	m³/h	80-350	80-450	80-350
Operating range Passivhaus at 100Pa	V_{PHI}	m³/h	Pending	n/a	n/a
EN 13141-7 reference flow at 50Pa	V_{REF}	m³/h	245	315	245
Constant flow	-	-	Yes	Yes	Yes
Thermal efficiency in accordance with EN13141-7	η_{SUP}	%	91	86	81
Dimensions (without wall bracket)	w x h x d	mm	790 x 713 x 643	790 x 713 x 643	790 x 713 x 643
Weight		kg	45	43.5	47

Ventilation with heat recovery

Highly efficient heat exchangers and fans

The RCV 480 P1-CF and 640 P2-CF units have been fitted with our highly efficient and lightweight counter-flow heat exchangers made from plastic. They deliver up to 91% thermal efficiency at a minimal pressure loss.

The RCV 480 E2-CF uses our enthalpy counter-flow heat exchanger which offers a number of unique advantages compared to other types of counter-flow heat exchangers. By transferring humidity from the extract air to the supply air, the enthalpy exchanger prevents drying out of the indoor climate during the winter. In the summer, it removes humidity from the supply air.

This way, the enthalpy exchanger maintains an optimal indoor air humidity (40-60%) throughout the year, thereby avoiding drying out and humidity issues.

In addition, the enthalpy exchanger significantly reduces energy consumption because it recovers heat and humidity very efficiently.

All three ventilation units come standard with energy-efficient EC fan motors that help reduce energy consumption.



Healthy and comfortable indoor climate

Why choose Dantherm residential ventilation?

- Danish design and quality since 1958
- Vast experience within residential ventilation
- Energy-efficient solutions
- Versatile unit configuration with L/R switch
- Smartphone App available
- Automatic free cooling
- Easy installation and user-friendly operation
- Trained and experienced service team

Dantherm uses two types of counter-flow heat exchangers

RCV 480 P1-CF
RCV 640 P2-CF

Plastic exchangers: Characterised by low pressure loss, good sound reduction, high air output and excellent thermal efficiency.

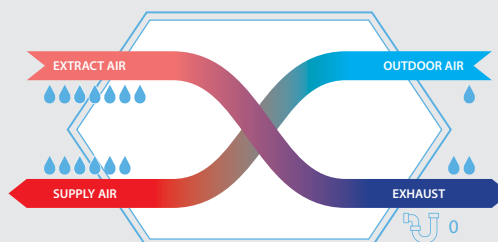
RCV 480 E2-CF

Enthalpy heat exchanger: A special polymer membrane capable of transferring up to 65% of the humidity



Plastic heat exchanger

Sensible energy (heat) is recovered from the extract air and transferred to the fresh supply air.



Enthalpy heat exchanger

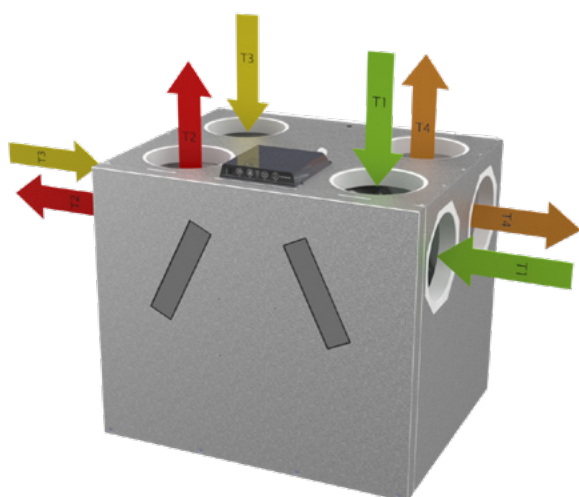
Sensible energy (heat) and latent energy (humidity) is recovered from the extract air and transferred to the fresh supply air.

RCV Medium



Flexible unit

The factory-mounted duct seals on the side of the unit can easily be removed using a side cutter and then used to seal off other ducts not to be used.

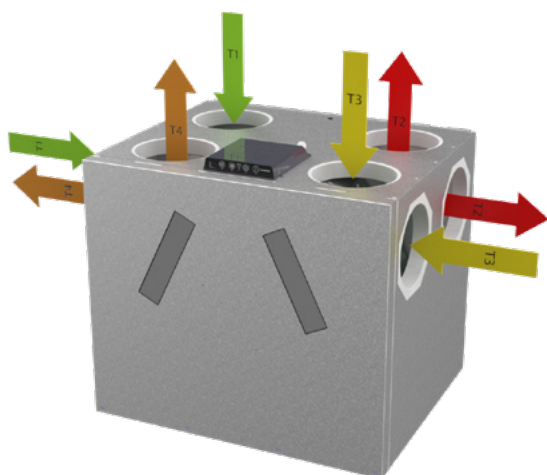


Tired of having to redo ducting to fit ventilation units?

Unlike all other residential ventilation units on the market, the RCV Medium offers a stunning 32 different ways of connecting ducts to the unit. 16 available combinations for left setups (A) and 16 for right setups (B). Simply choose whichever one is more convenient in terms of installation!

With this flexible unit, you'll be able to find a fast and cost-efficient way to finalise installation work, even in the trickiest of installation areas.

(A) LEFT SET-UP



(B) RIGHT SET-UP

- T1 Outdoor air
- T2 Supply air
- T3 Extract air
- T4 Exhaust air



The RCV 480 P1-CF is a highly efficient and very compact residential ventilation unit for houses and villas.

Based on patent technology and an ingenious design, it is delivered as a true plug and play solution with a built-in control panel and all necessary parts for on-site wall installation.

Heat recovery takes place in a highly efficient counter-flow heat exchanger, which is able to achieve optimum efficiency with the least possible loss of pressure in connection with the low air volumes used in housing.

All units come with a galvanised metal surface finish.



- **Built-in humidity sensor** that intelligently reduces energy consumption when the ventilation demand is low
- **Patent-pending *Constant Flow* function** that precisely maintains airflow regardless of variations in static pressure
- **Advanced free cooling logic** that automatically increases airflow and utilises cool night air to lower indoor temperatures
- **Electronic mirroring** of the system, ensuring flexible installation in both left and right configurations
- **Stove/fireplace mode** that temporarily increases the internal pressure to optimise chimney draught during lighting
- **EC fan motors** with very low energy consumption and extremely low SEL value for efficient operation
- **Flexible duct connections** at the top, sides or bottom, providing optimal integration options in various installations
- **Compact design** that minimises space requirements without compromising capacity or service access
- **User-friendly mobile app** for Android and iOS that provides access to control and monitoring
- **Extensive range of internal and external accessories** that support both customisation and extended functionality

Third party testing and certification

Code	Description
PHI	Pending Passivhaus certification
ErP	Compliant with EU regulations for Eco-design
Nordic Swan Ecolabel	Listed in the database for building products that can be used in Nordic Swan Ecolabelled buildings
EPD	Pending: Environmental product declaration for declared product variant is available in the epddanmark.dk database

RCV 640_{P2-CF}



The RCV 640 P2-CF is a highly efficient and very compact residential ventilation unit for houses, and villas.

Based on patent technology and an ingenious design, it is delivered as a true plug and play solution with a built-in control panel and all necessary parts for on-site wall installation.

Heat recovery takes place in a highly efficient counter-flow heat exchanger, which is able to achieve optimum efficiency with the least possible loss of pressure in connection with the low air volumes used in housing.

All units come with a galvanised metal surface finish.



- **Built-in humidity sensor** that intelligently reduces energy consumption when the ventilation demand is low
- **Patent-pending *Constant Flow* function** that precisely maintains airflow regardless of variations in static pressure
- **Advanced free cooling logic** that automatically increases airflow and utilises cool night air to lower indoor temperatures
- **Electronic mirroring** of the system, ensuring flexible installation in both left and right configurations
- **Stove/fireplace mode** that temporarily increases the internal pressure to optimise chimney draught during lighting
- **EC fan motors** with very low energy consumption and extremely low SEL value for efficient operation
- **Flexible duct connections** at the top, sides or bottom, providing optimal integration options in various installations
- **Compact design** that minimises space requirements without compromising capacity or service access
- **User-friendly mobile app** for Android and iOS that provides access to control and monitoring
- **Extensive range of internal and external accessories** that support both customisation and extended functionality

Third party testing and certification

Code	Description
ErP	Compliant with EU regulations for Eco-design
Nordic Swan Ecolabel	Listed in the database for building products that can be used in Nordic Swan Ecolabelled buildings
EPD	Pending: Environmental product declaration for declared product variant is available in the epddanmark.dk database

RCV 480 E2-CF



The RCV 480 E2-CF is a highly efficient and very compact residential ventilation unit for houses, and villas. Based on patented technology and an ingenious design, it is delivered as a true plug-and-play solution with a built-in control panel, drainage hose and all necessary parts for on-site wall installation.

The RCV 480 E2-CF uses our enthalpy counter-flow heat exchanger which transfers humidity from the extract air to the supply air to prevent drying out of the indoor climate during the winter. In the summer, it removes humidity from the supply air. This way, the enthalpy exchanger maintains an optimal indoor air humidity (40-60%) throughout the year, thereby eliminating avoiding drying out and humidity issues. In addition, the enthalpy exchanger significantly reduces energy consumption because it recovers heat and humidity very efficiently.

All units come with a galvanised metal surface finish.



- **Built-in humidity sensor** that intelligently reduces energy consumption when the ventilation demand is low
- **Patent-pending *Constant Flow* function** that precisely maintains airflow regardless of variations in static pressure
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- **Electronic mirroring** of the system, ensuring flexible installation in both left and right configurations
- **Stove/fireplace mode** that temporarily increases the internal pressure to optimise chimney draught during lighting
- **EC fan motors** with very low energy consumption and extremely low SEL value for efficient operation
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Third party testing and certification

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ErP	Compliant with EU regulations for Eco-design
Nordic Swan Ecolabel	Listed in the database for building products that can be used in Nordic Swan Ecolabelled buildings
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TECHNICAL DATA

Specifications	Units		RCV 480 P1-CF	RCV 640 P2-CF	RCV 480 E2-CF
Maximum achievable flow at 100Pa	V_{100Pa}	m ³ /h	480	640	480
Maximum declared flow at 100Pa	$V_{max, nom.}$	m ³ /h	350	450	350
Recommended operating range	V	m ³ /h	80–350	80–450	80–350
Operating range Passivhaus at 100Pa	V_{PHI}	m ³ /h	Pending	n/a	n/a
EN 13141-7 reference flow at 50Pa	V_{REF}	m ³ /h	245	315	245
Constant flow	-	-	Yes	Yes	Yes

Performance

Thermal efficiency in accordance with EN13141-7	η_{SUP}	%	91	86	81
Thermal efficiency in accordance with PHI	η_{SUP}	%	Pending	n/a	n/a
Leakage (external and internal) in accordance with EN 13141-7	-	-	<2% (Class A1)		
Filters in accordance with ISO16890	-	-	ISO Coarse 75% (optional on supply: ePM1>50%)		
Filters in accordance with EN779	-	-	G4 (optional on supply: F7)		
Installation surrounding temperature	t_{SURR}	°C	-12 to +45		
Outdoor temperature without preheater installed	t_{ODA}	°C	-12* to +45		
Outdoor temperature with preheater installed	t_{ODA}	°C	-20 to +45		

Operation ensured by internal preheater (accessory)

At outdoor temp. down to -7 °C and air flow up to	-	m ³ /h	400	380	Pending
At outdoor temp. down to -10 °C and air flow up to	-	m ³ /h	400	335	Pending
At outdoor temp. down to -15 °C and air flow up to	-	m ³ /h	280	250	Pending

Operation ensured by external preheater (accessory)

At outdoor temp. down to -15 °C and air flow up to	-	m ³ /h	480	600	480
Maximum absolute humidity of extract air	-	g/kg	10		

Cabinet

Dimensions (without wall bracket)	w x h x d	mm	790 x 713 x 643**		
Spigots/ducts connections	Ø	mm	200 – female		
Weight	-	kg	45	43.5	47
Heat conductivity – polystyrene insulation	λ	W/mK	0.031		
Heat transfer coefficient – polystyrene insulation	U	W/m²K	U<1		
Fire classification of the polystyrene insulation	-	-	DIN 4102-1 class B2, EN 13501 class E		
Drainage hose	Ø/length	"/m	ø¾" – 1m		
Cabinet colour	-	-	Galvanised metal grey		

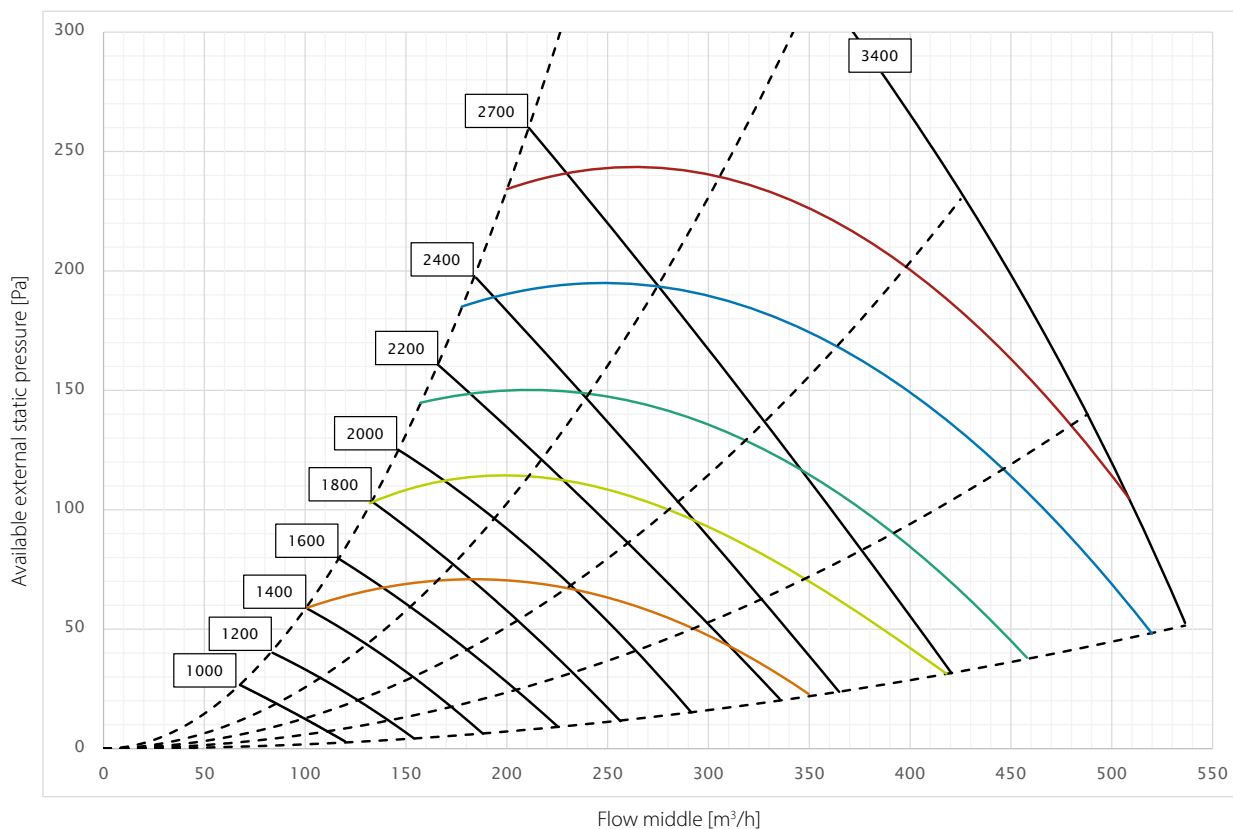
Electrical

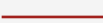
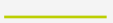
Voltage	U	V	230		
Maximum power consumption (without/with preheater)	P	W	235/2085	345/2195	235/2085
Frequency	f	Hz	50		
Protection class	-	-	IP21		

* The use of preheating coil is recommended at outdoor temperature -3°C to ensure balanced operation.

** +20mm fitting.

CAPACITY AND SPI CURVES WITH G4/G4 FILTERS



					
SFP/SPI/SEL*	0.45 W/m³/h	0.39 W/m³/h	0.33 W/m³/h	0.28 W/m³/h	0.22 W/m³/h
	1620 J/m³	1400 J/m³	1200 J/m³	1000 J/m³	800 J/m³
	1.62 W/l/s	1.40 W/l/s	1.20 W/l/s	1.0 W/l/s	0.80 W/l/s

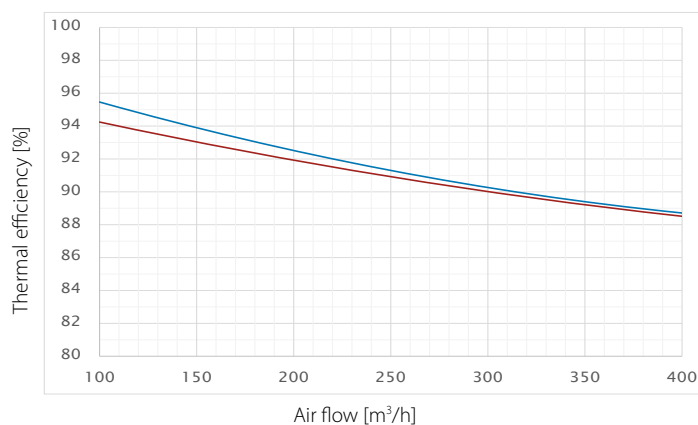
* SFP/SPI/SEL includes power consumption of both fans and the control.

THERMAL EFFICIENCY CURVES

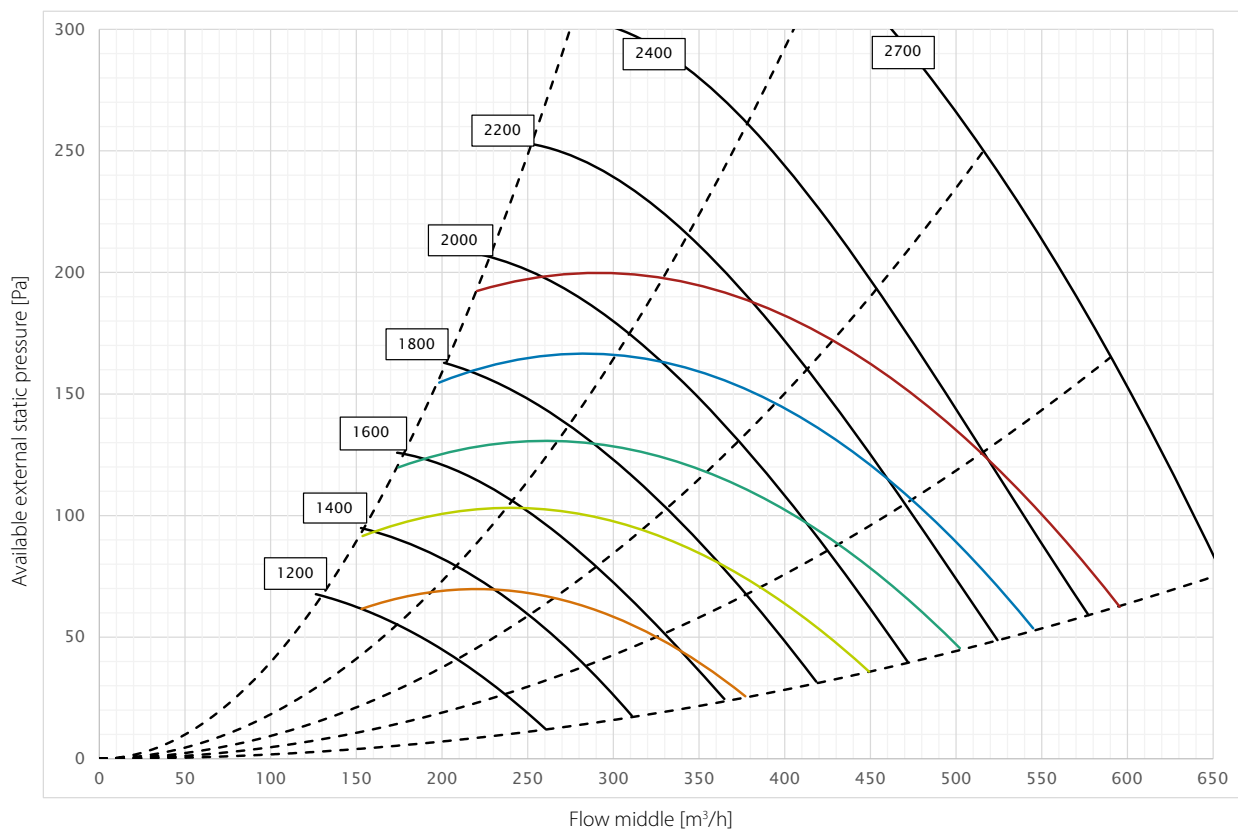
Legend

- Thermal efficiency according to EN 13141-7 (dry)
Operational conditions: outdoor air: 7°C, 85% RH; extract air: 20°C, 37% RH
- Thermal efficiency according to EN 13141-7 (with condensation)
Operational conditions: outdoor air: 2°C, 80% RH; extract air: 20°C, 60% RH

All values at balanced flow



CAPACITY AND SPI CURVES WITH G4/G4 FILTERS



					
SFP/SPI/SEL *	0.45 W/m³/h	0.39 W/m³/h	0.33 W/m³/h	0.28 W/m³/h	0.22 W/m³/h
	1620 J/m³	1400 J/m³	1200 J/m³	1000 J/m³	800 J/m³
	1.62 W/l/s	1.40 W/l/s	1.20 W/l/s	1.0 W/l/s	0.80 W/l/s

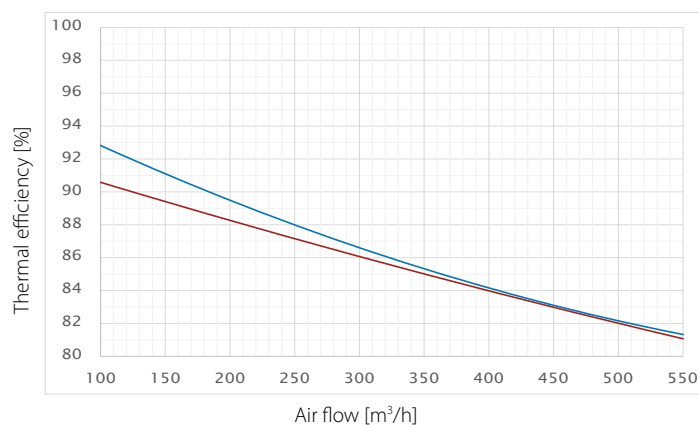
* SFP/SPI/SEL includes power consumption of both fans and the control.

THERMAL EFFICIENCY CURVES

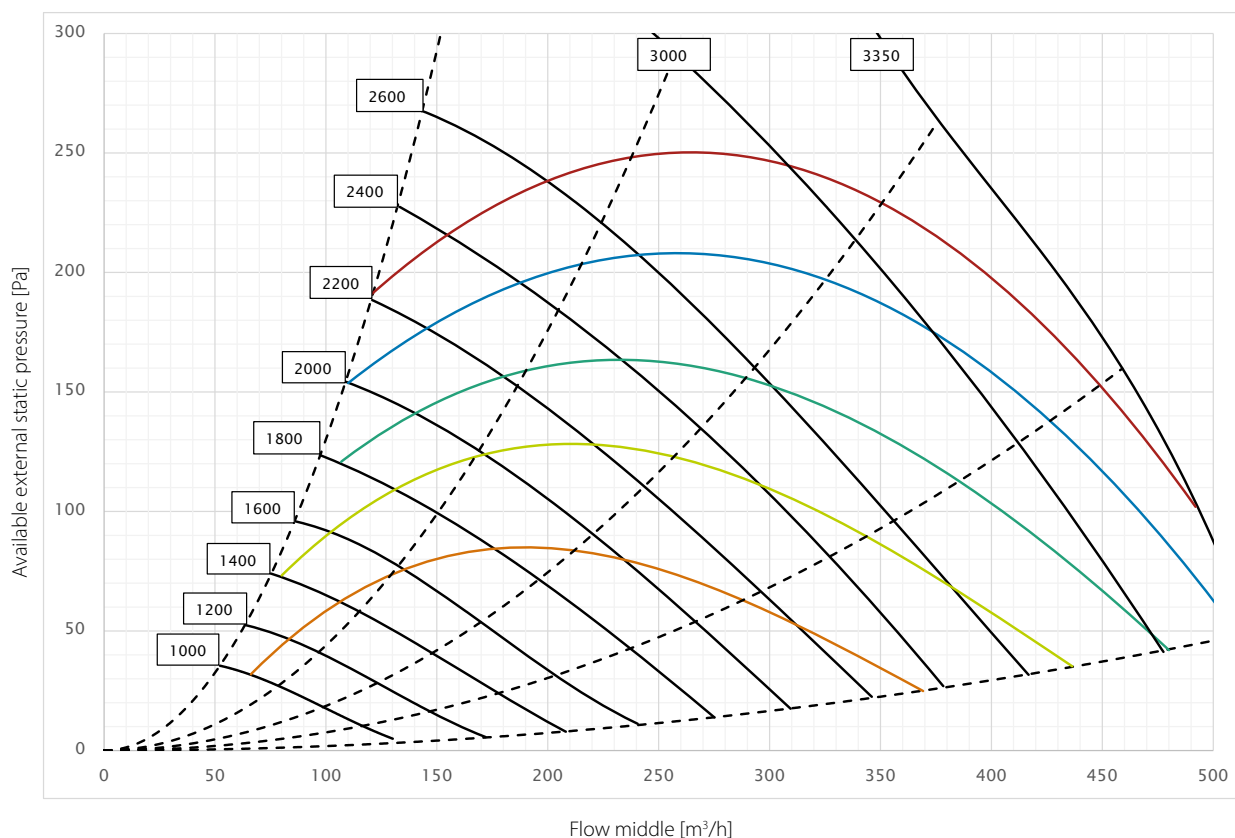
Legend

- Thermal efficiency according to EN 13141-7 (dry)
Operational conditions: outdoor air: 7°C, 85% RH; extract air: 20°C, 37% RH
- Thermal efficiency according to EN 13141-7 (with condensation)
Operational conditions: outdoor air: 2°C, 80% RH; extract air: 20°C, 60% RH

All values at balanced flow



CAPACITY AND SPI CURVES WITH G4/G4 FILTERS



	0.45 W/m³/h	0.39 W/m³/h	0.33 W/m³/h	0.28 W/m³/h	0.22 W/m³/h
SFP/SPI/SEL*	1620 J/m³	1400 J/m³	1200 J/m³	1000 J/m³	800 J/m³
	1.62 W/l/s	1.40 W/l/s	1.20 W/l/s	1.0 W/l/s	0.80 W/l/s

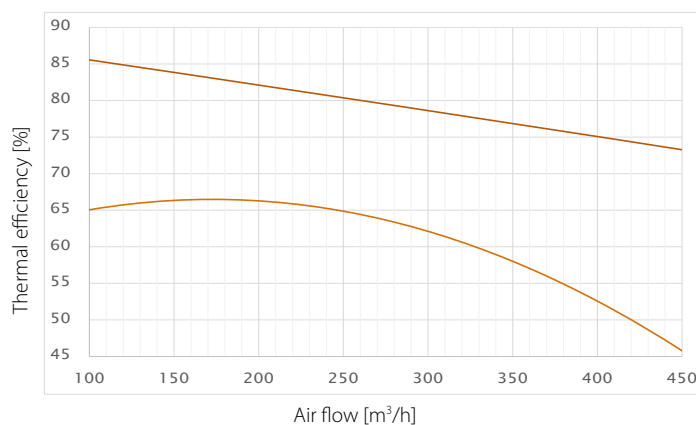
* SFP/SPI/SEL includes power consumption of both fans and the control.

THERMAL EFFICIENCY CURVES

Legend

- Thermal efficiency according to EN 13141-7 (dry)
Operational conditions: outdoor air: 7°C, 85% RH; extract air: 20°C, 37% RH
- Humidity efficiency according to EN 13141-7 (with condensation)
Operational conditions: outdoor air: 2°C, 88% RH; extract air: 20°C, 60% RH

All values at balanced flow



SOUND POWER LEVEL (L_w) – DUCTS

RPM	Duct	[dB(A)]								
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total
1000	supply/exhaust	22.3	34.9	29.9	31.0	24.9	20.7	1.4	13.2	38
	extract/outdoor	13.1	27.7	28.6	23.1	17.6	11.7	4.1	13.5	32
1400	supply/exhaust	27.9	38.7	38.5	39.0	34.8	34.0	20.0	13.3	44
	extract/outdoor	16.9	35.7	36.5	29.0	26.9	23.8	14.2	15.3	40
1800	supply/exhaust	32.6	41.3	47.8	48.2	41.9	42.8	30.8	16.6	52
	extract/outdoor	21.5	35.8	46.7	36.8	33.3	31.0	17.8	15.4	48
2000	supply/exhaust	34.3	42.9	48.8	48.2	45.0	45.8	34.8	19.5	54
	extract/outdoor	23.8	35.9	46.8	36.9	35.9	33.9	21.4	16.6	48
2200	supply/exhaust	36.3	44.9	51.5	50.6	48.0	48.6	38.4	22.9	56
	extract/outdoor	25.8	37.4	49.1	37.8	38.3	36.3	24.3	16.6	50
2700	supply/exhaust	41.0	48.7	52.8	58.9	52.2	53.8	45.3	31.3	62
	extract/outdoor	31.4	40.3	50.0	43.4	43.2	41.5	30.7	16.6	52
3400	supply/exhaust	46.0	53.7	55.2	61.1	59.3	59.6	52.8	39.8	66
	extract/outdoor	36.9	44.2	52.2	50.2	49.3	47.4	37.9	23.1	56

SOUND PRESSURE LEVEL (L_p) – CABINET**1m distance**

RPM	Without background noise weighted [dB(A)]								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total
1000	-	10.8	9.3	-	-	-	-	-	13.1
1400	-	19.9	22.8	18.9	-	-	-	-	25.6
1800	-	20.0	29.0	25.8	25.7	22.7	10.6	-	32.7
2000	-	20.1	28.0	27.7	28.0	25.8	13.9	-	33.7
2200	-	21.5	30.2	30.8	31.8	29.7	20.8	-	36.9
2700	13.2	26.1	35.3	36.8	37.4	35.8	28.7	16.6	42.7
3400	18.2	30.9	37.2	43.0	42.8	41.3	34.8	23.4	47.9

2m distance

RPM	Without background noise weighted [dB(A)]								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total
1000	-	10.8	8.3	-	-	-	-	-	12.7
1400	-	15.9	18.6	18.9	-	-	-	-	22.7
1800	-	18.3	29.0	25.3	25.7	22.7	6.3	-	32.5
2000	-	19.2	26.0	26.8	25.7	23.8	8.2	-	31.9
2200	-	21.1	28.4	29.8	29.7	28.7	19.1	-	35.5
2700	12.9	25.6	31.8	36.6	36.1	34.3	26.5	13.7	41.4
3400	18.2	30.5	35.5	43.0	41.0	39.8	33.1	21.2	46.9

SOUND POWER LEVEL (L_w) – DUCTS

RPM	Duct	[dB(A)]								
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total
1200	supply/exhaust	33.1	50.6	45.6	44.1	40.9	39.8	25.2	16.1	53
	extract/outdoor	21.7	42.2	40.5	38.2	32.8	27.4	12.3	11.6	46
1400	supply/exhaust	36.2	50.7	48.6	48.4	44.8	44.5	30.8	19.9	55
	extract/outdoor	26.2	46.8	44.4	38.3	36.3	31.9	18.2	12.9	49
1600	supply/exhaust	38.7	50.8	55.2	51.9	48.3	48.4	35.5	25.2	59
	extract/outdoor	28.4	46.9	54.9	41.2	40.7	35.6	22.8	14.2	56
1800	supply/exhaust	41.0	50.9	60.4	55.7	51.4	52.0	39.6	30.4	63
	extract/outdoor	31.4	46.9	58.0	46.6	42.7	38.7	26.2	14.9	59
2000	supply/exhaust	44.0	51.2	62.3	57.8	54.3	55.2	43.3	34.7	65
	extract/outdoor	34.6	50.0	58.1	46.7	45.3	41.6	29.5	18.6	59
2200	supply/exhaust	46.1	52.8	66.4	61.2	56.8	57.9	46.4	38.2	68
	extract/outdoor	36.7	50.0	58.2	47.6	48.1	44.0	32.3	20.5	60
2700	supply/exhaust	50.8	57.2	66.4	67.2	62.2	63.5	52.8	44.9	72
	extract/outdoor	42.4	50.0	58.3	53.1	53.1	49.8	38.7	26.1	61

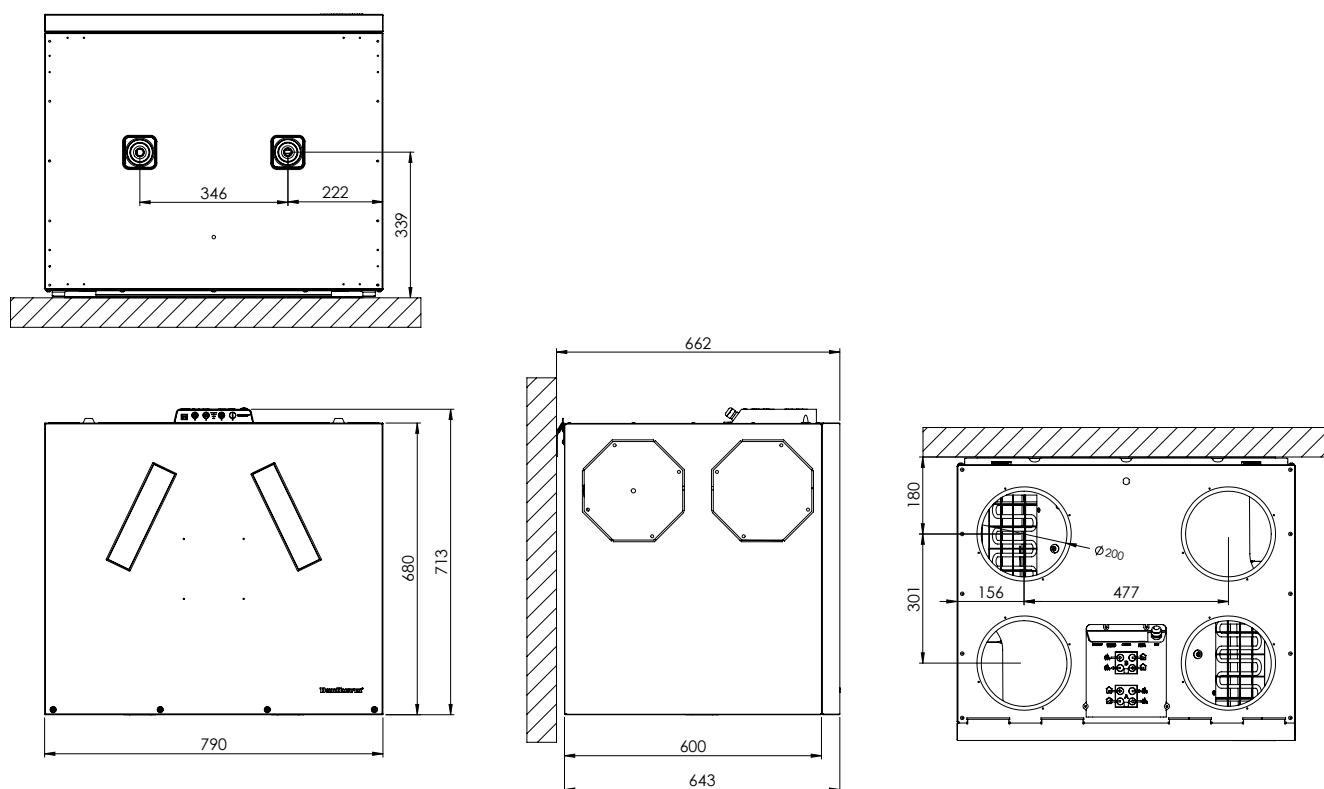
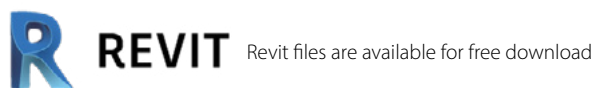
SOUND PRESSURE LEVEL (L_p) – CABINET**1m distance**

RPM	Without background noise weighted [dB(A)]								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total
1000	9.1	23.2	22.7	21.9	-	17.3	-	-	25.9
1400	9.2	28.1	31.0	29.2	25.0	20.5	-	-	34.4
1600	9.2	28.1	31.0	39.6	29.6	32.5	27.7	-	41.6
1800	11.9	28.2	41.5	39.6	34.4	32.5	27.7	-	44.6
2000	14.7	28.8	41.5	39.6	37.9	33.7	27.7	-	45.2
2200	17.2	30.9	41.5	40.2	42.2	36.6	27.7	-	46.8
2700	22.2	35.0	48.2	46.9	46.2	42.5	31.4	20.9	52.5

2m distance

RPM	Without background noise weighted [dB(A)]								
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total
1000	-	22.0	19.3	-	-	-	-	-	23.8
1400	-	26.9	29.5	26.7	-	-	-	-	32.6
1600	-	26.9	34.9	31.0	29.6	27.6	-	-	38.0
1800	12.2	27.4	42.8	32.9	32.0	30.8	-	-	43.9
2000	14.8	27.7	42.8	36.0	35.5	34.0	14.6	-	44.7
2200	17.5	29.3	42.8	38.7	37.9	37.0	21.7	-	45.9
2700	22.7	33.3	43.0	44.2	44.4	42.1	29.8	18.6	49.7

DIMENSIONS



DENMARK

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