

# SAVE VTC 700 R

Item no. 2173

Version: Filter F7 GF-G4

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## Description

- High efficiency heat recovery unit
- Energy efficient fan motors with modern EC technology
- Operation from user friendly control panel(s), type CD with LCD-display
- Separate setting of supply and extract airflow
- Changes automatically to summer operation with no heat recovery
- Automatic defrosting (built-in humidity sensor)
- Demand control regulation as standard by the built-in humidity sensor
- Modbus communication via RS-485

White painted model with EC fans, flexible control functions and modern control panel, designed for installation on the floor in dwellings with ventilated area up to apx. 600 m2.

The SAVE VTC 700 is designed for installation on floor, in laundry room, storeroom. The unit is double skinned, fully insulated and with complete control functions, high efficiency counterflow heat exchanger and filters. Energy efficient fans with EC motors will reduce energy consumption for transportation of ventilation air by apx. 50 % compared to traditional AC motors. Modern technology gives low SFP factor (Specific Fan Power).

The unit will automatically alternate between normal operation with heat recovery and summer operation without heat recovery. This solution will also automatically recover chilled indoor air (from cooling).

Airflow and supply air temperature can be set from one or more CD control panels. Symbol and text in the display will indicate chosen settings; re-heater operating, summer operation and need for filter change. Commissioning of airflow on supply and extract, on each step, is set from the control panel. Timer-function for automatic change between day and night operation (installations in commercial buildings) is integrated. Alarm signal will indicate possible malfunctions.

The CD panel also has a user level for authorized installers and service personnel. The CD panel is connected to the unit by means of cable with quick connectors (modular plugs), alternatively via 4-pole terminal block.

The unit is equipped with outputs to control an external hot water battery and inputs prepared for demand controlled ventilation from external sensors, e.g. CO2, presence or humidity sensor (potential free contact). Unit is delivered with a built-in moisture sensor that not only provides you demand controlled ventilation as standard but also is used for detecting and control defrosting in colder climate.

The unit has an automatic defrost function with the built in moisture sensor that can be chosen in 3 different modes depending on the indoor environment as well as the outdoor conditions. Without preheater in tight houses / passive houses where unbalanced airflow is not allowed the unit works down to -5°C. Without preheater when unbalance is allowed the unit works down to -15°C. Below -15°C a preheater is needed.

The VTC 700 can be supplemented with a re-heater battery

G4 filters are delivered as standard. F7 and M5 are available as accessories.



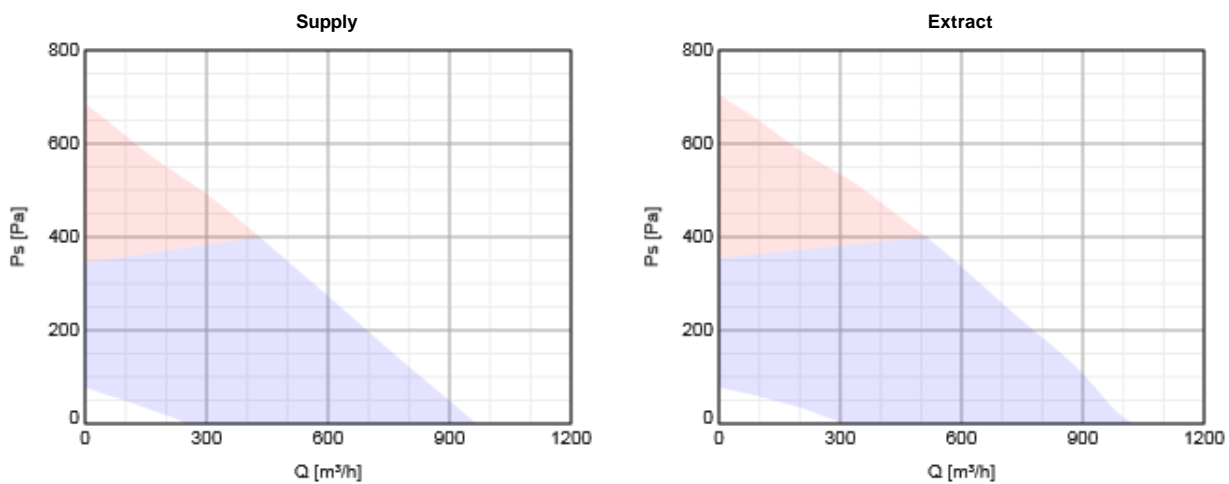
## Technical parameters

Unit		
Frequency	50	Hz
Weight	162	kg
Recommended fuse	10	A
Enclosure class	IP24	IP
Voltage	230	V
Phase	1	~
Heat exchanger		
Exchanger type	Counter flow	
Heater		

Heating type	None
<b>Supply fan</b>	
Input power (P1)	168 W
<b>Supply filter</b>	
Filter, supply air	G4 (Standard)
<b>Extract filter</b>	
Filter, extract air	G4 (Standard)
<b>Others</b>	
Mounting type	Vertical
Supply side	Right
<b>ErP</b>	
Energy class, basic unit	A
Energy class, basic unit option	A+
ErP ready	ErP 2016/ErP 2018
<b>Extract fan</b>	
Input power (P1)	168 W

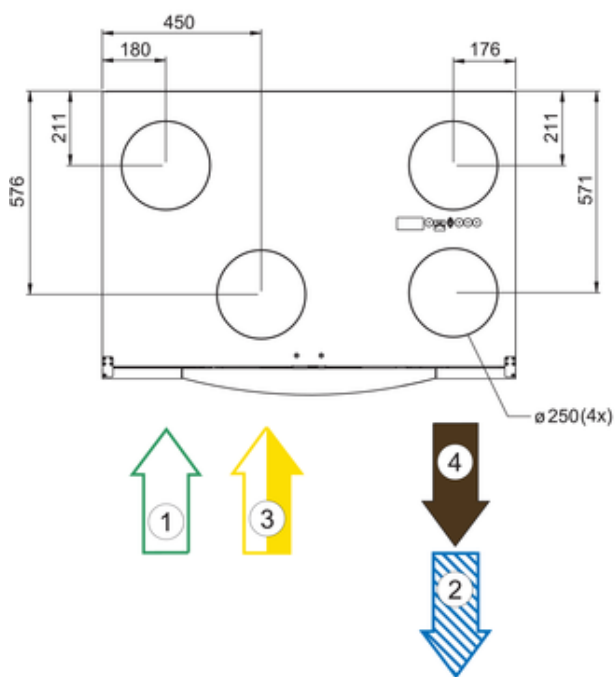
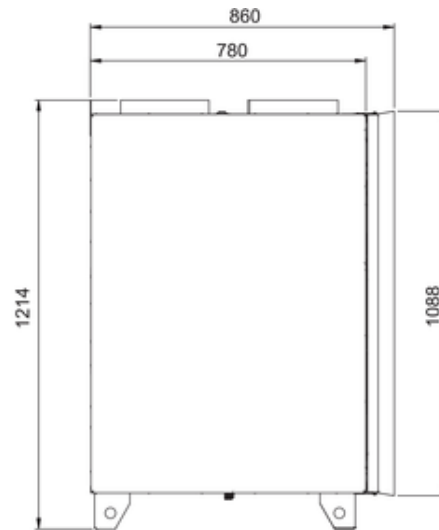
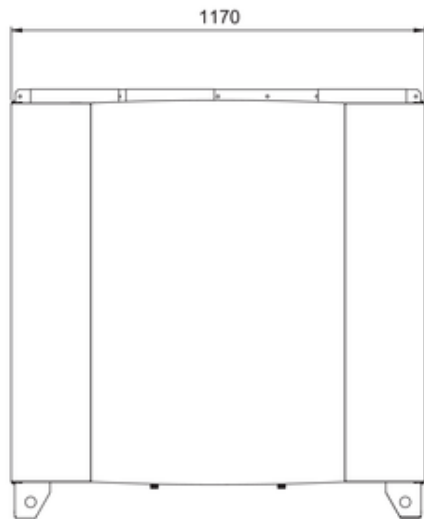
## Performance

### Diagrams



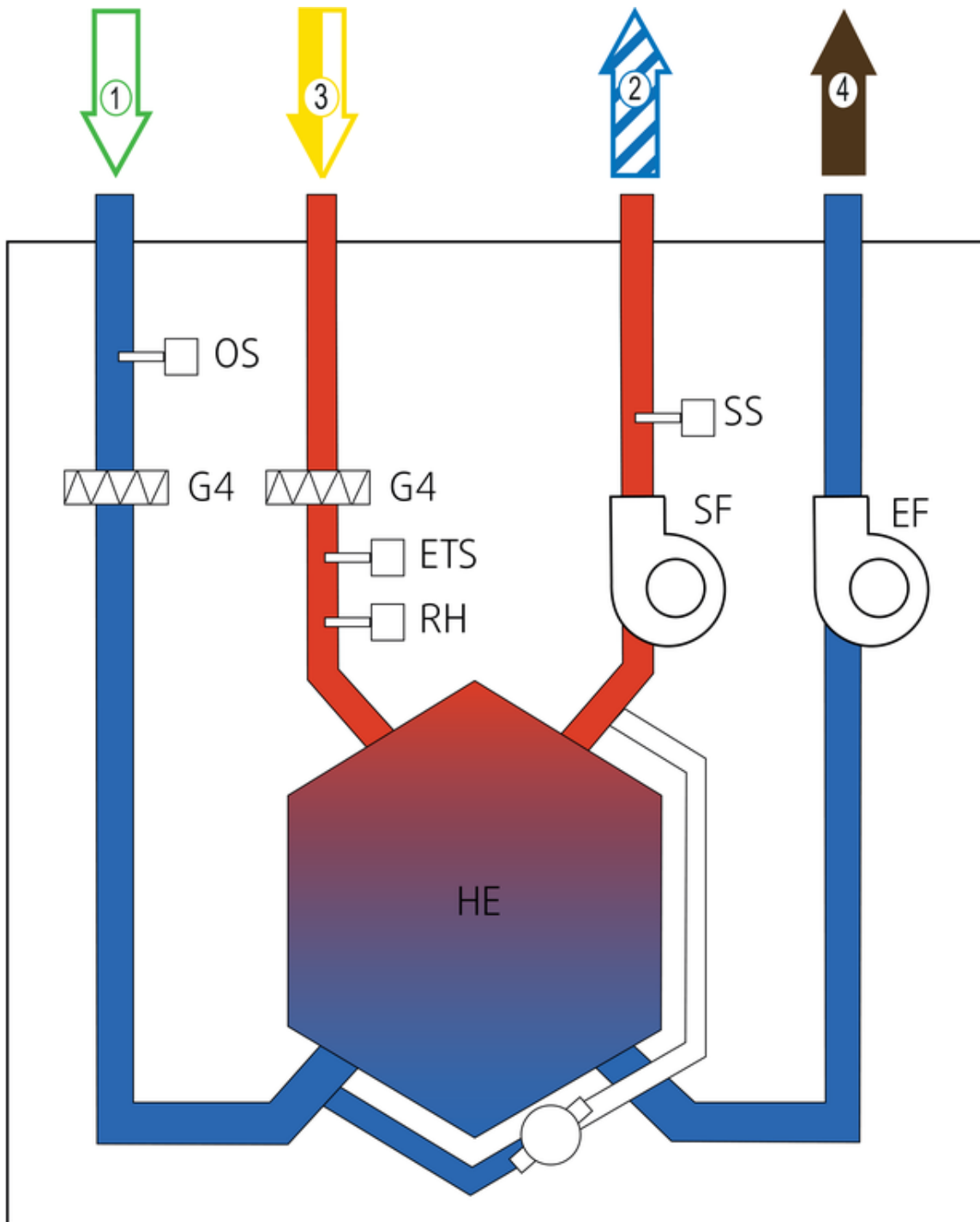
Diagrams and calculations are made for the performance with clean filters.

### Dimensions




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

## Wiring



- F7 = Filter outdoor air
- VR = Rotary heat recovery unit
- EF = Extract fan
- G3 = Filter extract air
- G4 = Extract/Supply filter (only for VTC unit)
- ETS = Extract air temp. sensor
- SF = Supply fan
- EH = Electric heater
- SS = Supply air temp. sensor
- OT = Overheating thermostat
- ET = Emergency thermostat
- EHS = Exhaust air sensor
- OS = Outdoor air sensor
- BP = Bypass cooker hood
- BD = Bypass integrated cooker hood
- DB = Bypass damper
- RH = Relative humidity sensor
- 1 = Outdoor air
- 2 = Supply air
- 3 = Extract air
- 4 = Exhaust air

## Wiring diagram

 [VTC\\_700\\_WD\\_207582 \(A006\).pdf \(453,97kB\)](#)

## Accessories







### Electric accessories

EFD 250 Damper + LF230 motor (6748)  
TG-A130 Surface sensor 0-30°C (5159)  
F-T120 Timer frame (5137)  
T 120 Timer (5165)  
TG-K360 Duct sensor 0-60°C (4846)  
RVAZ4 24A Actuator 0-10V (9862)  
PSS48 Transformer 24V (204385)  
Reheater VTC 700 R (2738)  
CEC Cable w/plug 12m (24782)  
CEC Cable w/plug 6m (24783)  
CO2 Sensor Wireless (25126)  
Humidity Sensor Wireless (25127)  
Input Module Wireless (25128)  
SmartDial (25129)  
RS485 Gateway Wireless (25130)  
CE/CD-diverting plug 4pin (37367)

### Accessories

ZTR 15-1,6 valve 3-way (9673)  
VBC 250-2 Water heating batt (5460)  
ZTV 15-1,6 2-way valve (9824)  
VBC 250-3 Water heating batt (9843)  
LDC 250-900 Silencer (5196)  
CWK 250-3-2,5 Duct cooler,circ (30024)  
Connectduct Ø 250/1,0 M/F (2561)  
FK 250 Fast clamp (1612)  
CVVX 250 Combi grille, black (8498)  
MPVTC 700 F7 (207472)  
MPVTC 700 G4 (207469)  
BFVTC 700 F7 (207470)  
MPVTC 700 M5 (207471)  
RDR-80/15-50m³/h (37293)

## Documentation

-  [VTC\\_700\\_Installation\\_and\\_service\\_207580\\_CE\\_en-GB \(A006\).pdf \(4,40MB\)](#)
-  [VTC\\_700\\_User\\_manual\\_207581\\_en-GB \(A003\).pdf \(574,89kB\)](#)
-  [Modbus for Residential units\\_D24810\\_User\\_manual \(A005\).pdf \(263,77kB\)](#)
-  [Quick\\_Guide 205821.pdf \(80,62kB\)](#)
-  [SAVE\\_VTC\\_700\\_Changing\\_the\\_bypass\\_damper\\_209246-en\\_GB \(A002\).pdf \(8,23MB\)](#)
-  [CD panel Instruction for wall mounting 206858\\_GB\\_SE.pdf \(221,37kB\)](#)
-  [Eurovent Certification Diploma 20160125095348,227.pdf \(1,78MB\)](#)
-  [PHI certificate SAVE VTC 700 - EN.pdf \(166,06kB\)](#)
-  [VTC 700 R.dxf \(837,33kB\)](#)

## Eco design

### Units with local demand control

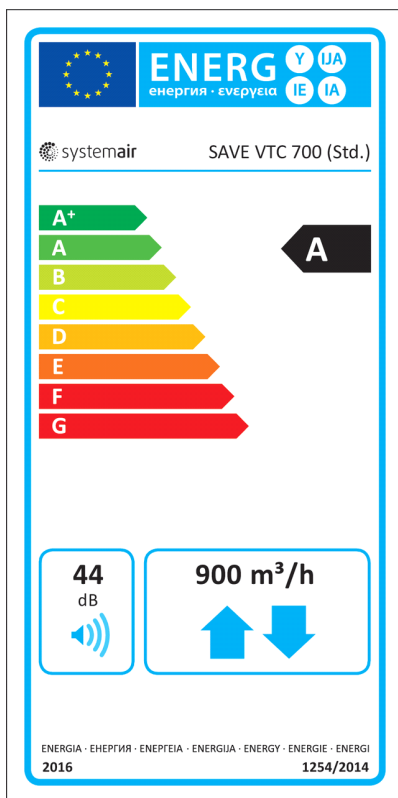
Trade name	Systemair
Product name	SAVE VTC 700 R
ErP compliance	2018
SEC Average	-42,2 kWh/ (m².a)

SEC Cold	-80,3	kWh/ (m <sup>2</sup> .a)
SEC Warm	-17,7	kWh/ (m <sup>2</sup> .a)
SEC Class	A	
Unit category	RVU	
Unit type	BVU	
Drive	Intergated VSD	
Heat recovery type	Recuperative	
Temperature ratio	83	%
qv max	0,25	m <sup>3</sup> /s
P max	347	W
Sound power	44	dB(A)
qv ref	0,175	m <sup>3</sup> /s
Ps ref	50	Pa
SPI	2,8	kW/ (m <sup>3</sup> /s)
CTRL	0,65	-
MISC	1,1	-
x-value	2	-
External Leakage	1	%
Internal Leakage	1	%
Type of product	RAHU/AAHE	
AEC average	159	kWh
AEC cold	696	kWh
AEC warm	114	kWh
AHS Average	4548	kWh/a
AHS Cold	8898	kWh/a
AHS Warm	2057	kWh/a
<b>Basic unit</b>		
Trade name	Systemair	
Product name	SAVE VTC 700 R	
ErP compliance	2018	
SEC Average	-39,1	kWh/ (m <sup>2</sup> .a)
SEC Cold	-76,2	kWh/ (m <sup>2</sup> .a)
SEC Warm	-15,2	kWh/ (m <sup>2</sup> .a)
SEC Class	A	
Unit category	RVU	
Unit type	BVU	
Drive	Intergated VSD	
Heat recovery type	Recuperative	
Temperature ratio	83	%
qv max	0,25	m <sup>3</sup> /s
P max	347	W

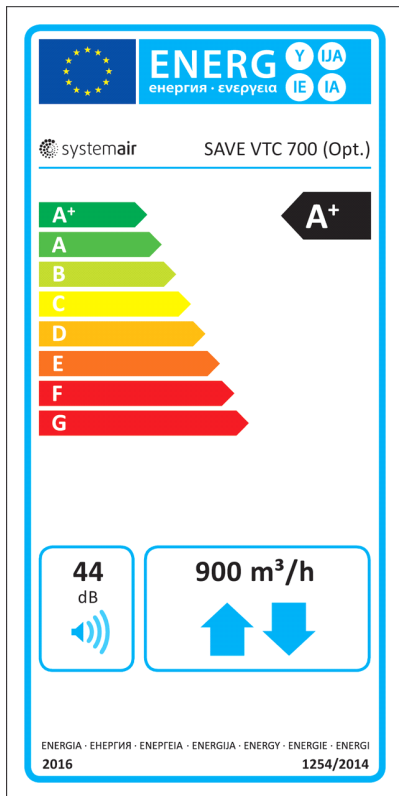
Sound power	44	dB(A)
qv ref	0,175	m³/s
Ps ref	50	Pa
SPI	2,8	kW/ (m³/s)
CTRL	0,85	-
MISC	1,1	-
x-value	2	-
External Leakage	1	%
Internal Leakage	1	%
Type of product	RAHU/AAHE	
AEC average	240	kWh
AEC cold	777	kWh
AEC warm	195	kWh
AHS Average	4440	kWh/a
AHS Cold	8686	kWh/a
AHS Warm	2008	kWh/a

## Energy class label

### Energy class, basic unit



## Unit with local demand control



## EPS diagrams

## Specification text