SAVE VSR 500

Item no. 19441

Version: Filter F7-G3

Document type: **Product card**
Document date: **2017-10-25**
Generated by: **Systemair Online Catalogue**

Description

- High efficient rotary heat exchanger
- Energy efficient RadiCal-fans, with modern EC-technology
- Separate settings of supply and extract air flow
- Start-up wizard for easy commissioning
- Automatic change to summer operation (without heat recovery)
- Demand control regulation as standard by the built-in humidity sensor
- Inspection hatch on both sides
- Modbus communication via RS-485

Heat recovery unit designed for dwellings where ventilated area is up to apx. 400 m2.

The SAVE VSR 500 is double skinned, fully insulated and with complete control functions, high efficiency rotating heat exchanger, thermostat operated re-heater battery 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 is contributing to a low SFP factor (Specific Fan Power) as well as an efficient design of the unit.

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).

Commissioning of the unit will be done from one or more CD panels. A start-up wizard will make the commissioning easier, which can avoid that the unit is running at wrong conditions. Symbols and text in the display will indicate chosen settings; Supply air temperature and fan speed. Commissioning of airflow on supply and extract, will be done at start-up but can be set from the menu settings as well. Timer-function for automatic change between day and night operation is integrated. Setting of filter period is also available. 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 connector (modular plug), on the side of the unit.
The unit is provided with outputs for control of external hot water or cooling battery and comes with built-in humidity sensor in extract air that enables demand control regulation with respect to moisture. It also has functions availably for external demand control that gives effective and economical operation. For instance, CO^2, presence or humidity sensor.
The unit can be installed in upright position on the floor or horizontally on the ceiling.
Ceiling mounting kit is available as accessory.

The unit is delivered with supply air filter F7 and extract air filter G3. Option for G3 supply air filter is available.
CD panel and cable are also supplied with the unit.

Technical parameters

ErP	
ErP ready	ErP 2016/ErP 2018
Energy class, basic unit	A
Energy class, basic unit option	A

Unit		
Voltage	230	V
Frequency	50	Hz
Phase	1	~
Weight	72	kg
Recommended fuse	13	A
Enclosure class	IP24	IP

Heat exchanger		
Exchanger type	Rotating	

Heater		
Heating type	Electric	

Supply fan		
Input power (P1)	169	W

Extract fan		
Input power (P1)	169	W

Supply filter		
Filter, supply air	F7 (Standard)	

Extract filter		
Filter, extract air	G3 (Standard)	

Others		
Mounting type	Horizontal	
Supply side	Right	

Default group		
Input power, electrical heating battery	1,67	kW

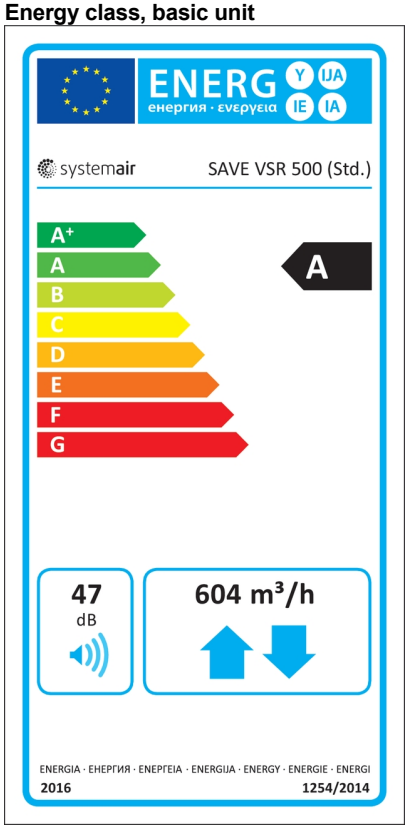
Eco design

Units with local demand control		
Trade name	Systemair	
Product name	SAVE VSR 500	
ErP compliance	2018	
SEC Average	-40,5	kWh/(m².a)
SEC Cold	-84	kWh/(m².a)
SEC Warm	-15,6	kWh/(m².a)
SEC Class	A	
Unit category	RVU	
Unit type	BVU	
Drive	Intergated VSD	
Heat recovery type	Regenerative	
Temperature ratio	83	%
qv max	605	m³/h
P max	341	W
Sound power level LWA	47	dB(A)
qv ref	423	m³/h
Ps ref	50	Pa
SPI	1,35	W/(m³/h)
CTRL	0,65	-
MISC	1,1	-
x-value	2	-
External Leakage	2	%
Internal Leakage	4	%
Type of product	RAHU/AARE	
AEC average	198	kWh
AEC cold	198	kWh
AEC warm	198	kWh
AHS Average	4548	kWh/a
AHS Cold	8898	kWh/a
AHS Warm	2057	kWh/a

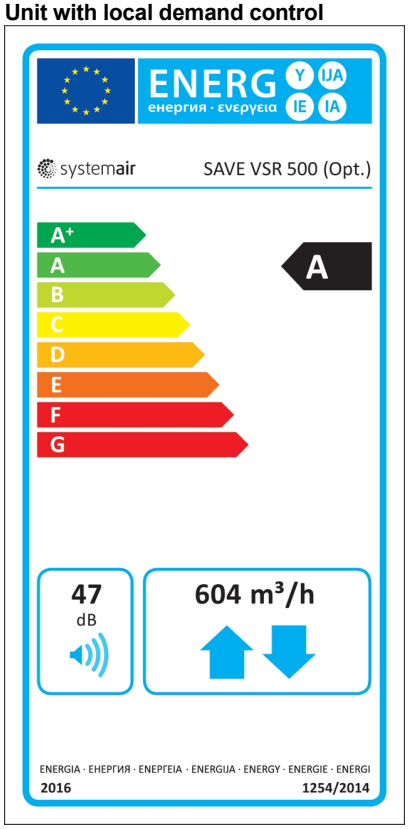
Basic unit		
Trade name	Systemair	
Product name	SAVE VSR 500	
ErP compliance	2018	
SEC Average	-35,9	kWh/(m².a)
SEC Cold	-78,4	kWh/(m².a)
SEC Warm	-11,6	kWh/(m².a)
SEC Class	A	
Unit category	RVU	
Unit type	BVU	
Drive	Intergated VSD	
Heat recovery type	Regenerative	
Temperature ratio	83	%
qv max	605	m³/h
P max	341	W
Sound power level LWA	47	dB(A)
qv ref	423	m³/h
Ps ref	50	Pa
SPI	1,35	W/(m³/h)
CTRL	0,85	-
MISC	1,1	-
x-value	2	-
External Leakage	5	%
Internal Leakage	5	%
Type of product	RAHU/AARE	
AEC average	338	kWh
AEC cold	338	kWh
AEC warm	338	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



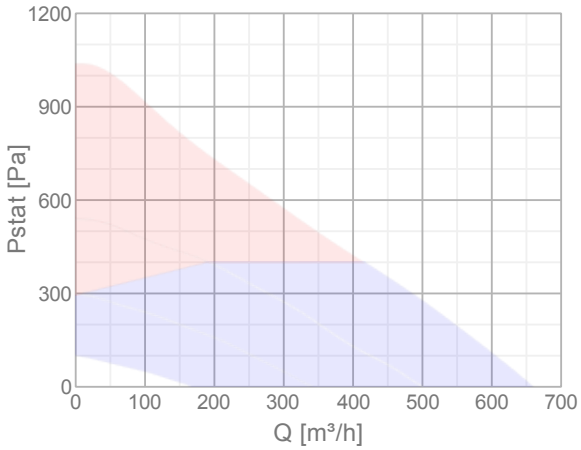
EPS diagrams

Performance

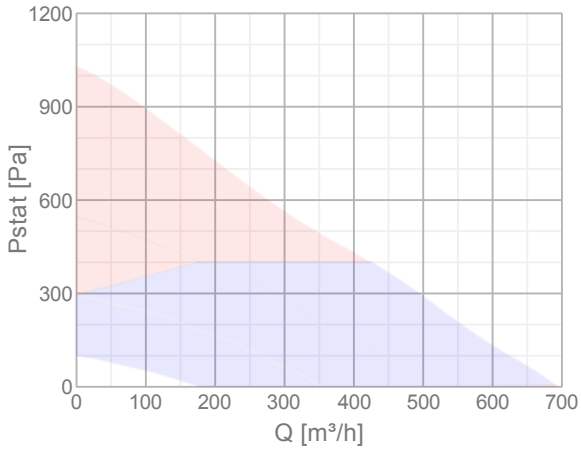
Diagrams

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

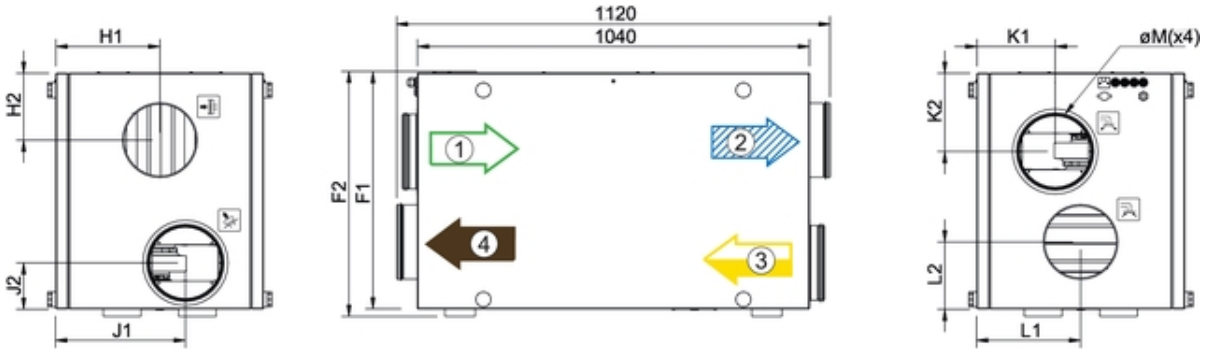
Supply

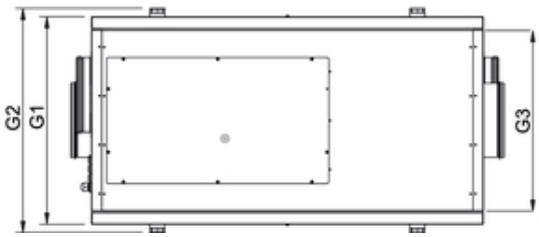


Extract



Dimensions





	F1	F2	G1	G2	H1	H2	J1	J2	K1	K2	L1	L2	M	G3
VSR300	582	602	461	505	231	188	307	112	160	177	281	136	160	392
VSR500	632	652	551	595	276	178	345	123	207	208	276	179	200	482

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

Accessories

Electric accessories

TG-K360 Duct sensor 0-60°C (4846)
F-T120 Timer frame (5137)
TG-A130 Surface sensor 0-30°C (5159)
T 120 Timer (5165)
PSS48 Transformer 24V (204385)
RVAZ4 24A Actuator 0-10V (9862)
CEC Cable w/plug 6m (24783)
CEC Cable w/plug 12m (24782)
RS485 Gateway Wireless (25130)
Input Module Wireless (25128)
CO2 Sensor Wireless (25126)
SmartDial (25129)
Humidity Sensor Wireless (25127)
CE/CD-diverting plug 4pin (37367)
CD Control panel 4 (210396)

Accessories

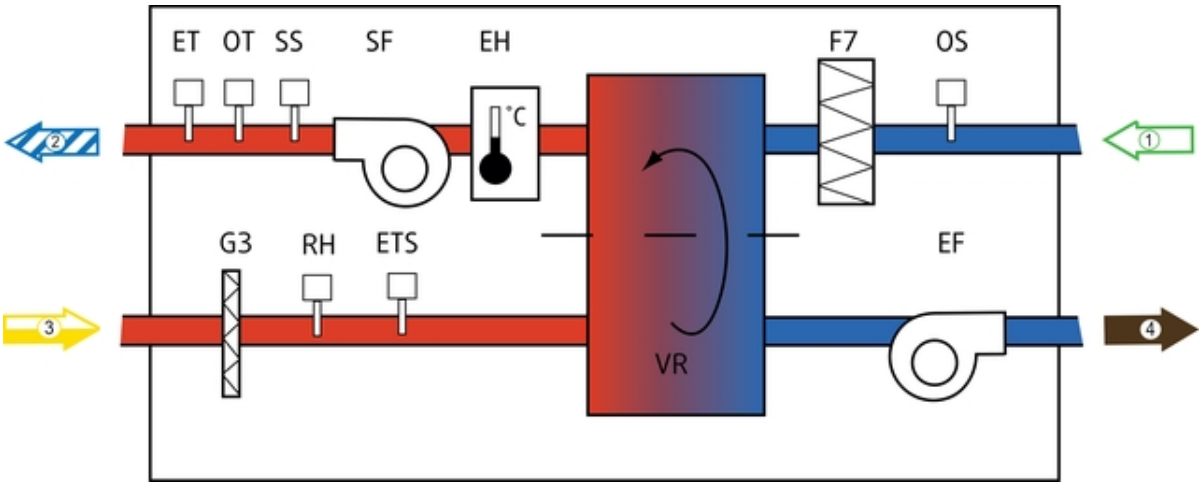
CWK 200-3-2,5 Duct cooler,circ (30023)
VBC 200-2 Water heating batt (5459)
LDC 200-600 Silencer (5194)
LDC 200-900 Silencer (5195)
FK 200 Fast clamp (1611)
EFD 200 Damper + TF230 motor (7162)
ZTV 15-1,0 2-way valve (9823)
VBC 200-3 Water heating batt (9841)
ZTR 15-1,0 valve 3-way (9672)
Connectduct Ø 200/1,0 M/F (2560)
ZTR 15-0,6 valve 3-way (6573)
ZTV 15-0,6 2-way valve (6571)
GEO heat exchanger box (312513)
Drain pipe kit VTR 200/B (207999)
CVVX 200 Combi grille, white (25397)
CVVX 200 Combi grille, black (25395)
RDR-80/15-50m³/h (37293)
Ceiling mounting kit VSR 500 (131620)

Documentation

VSR300_500_User_manual_208116_GB (A005).pdf (1,08MB)
VSR300_500_Installation_service_208115_CE_GB (A006).pdf (1,21MB)
CD panel Instruction for wall mounting 206858 GB_SE.pdf (221,37kB)
Modbus for Residential units_D24810_User_manual (A005).pdf (263,77kB)

Eurovent Certification Diploma 20161231 Systemair SAVE.pdf (1,78MB)

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

VSR150_300_500_WD_208124_GB (A004).pdf (299,14kB)

CAD drawing

VSR500.dxf (332,74kB)