

# **SAVE** Air Handling Units

Crisp, fresh, and clean air for every home.





Find more details in our online catalogue

# Unlock even greater efficiency

SAVE AHUs come with different heating and cooling recovery methods. Allowing you to further boost the energy efficiency of your units, wherever they're installed.

# For buildings big and small

Whether you're building a new home or renovating an apartment block, SAVE air handling units are a perfect match for any indoor spaces up to 550m².

## Full control, from anywhere

All SAVE units come with SAVE Control – multiple, easy-to-use interfaces that let you communicate with your AHUs wherever you are.

### Performance you can rely on

Our heat exchanger systems automatically regulates the heat/cool recovery and has automatic defrosting functions. Your SAVE AHUs will keep you comfortable inside, no matter the weather on the outside.

# Health and safety first

SAVE air handling units are Eurovent certified and ErP compliant, easy to service and maintain. So you can relax – knowing the air you breathe is clean and pure.



# **Technical parameters**

Unit		
Frequency	50	Hz
Voltage (nominal)	230	V
Phases	1~	
Recommended fuse	10 A	
Enclosure class	IP24	
Speed regulation	Stepless	
Product type	Heat recovery unit	
Temperature	-15 to 40	°C
Preheater / Reheater		
Voltage (nominal)	400	V
Phases	3~	
Supply fan		
Input power (P1), supply fan	170	W
Supply air filter		
Filter class, supply air	ePM1 60%	
Extract air filter		
Filter class, extract air	ePM10 50%	
Exchanger		
Heat exchanger	Counter flow	
Heater		
Phases	3~	
Return fan / Extract fan		
Input power (P1), extract fan	170	W
Others		
	Stepless voltage control	
Fan control	Stepless voltage control	
Fan control Installation type	Vertical	

Item Number: #488845 Variant: Pleated Filters Standard kit

Color casing		
Color casing	White	
Color casing, RAL	RAL 9010	
Dimensions and weights		
Weight	151	kg
ErP		
Energy class, Basic unit	A	
Energy class, Local demand	A+	
ErP ready	ErP 2018; ErP 2016	

# **Ecodesign**

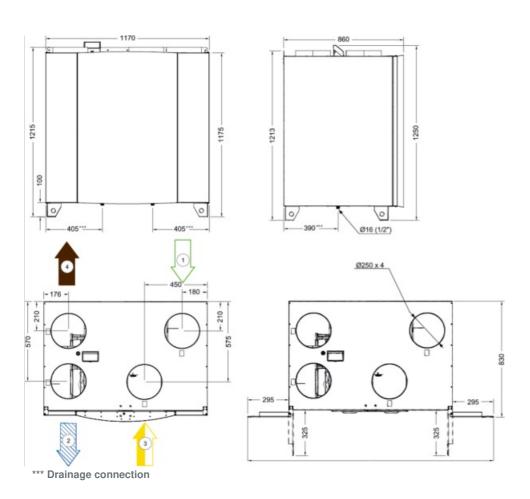
Product	
Trade name	Systemair
Product name	SAVE VTC 700 L



SEC Average         40.1         White           SEC Cold         48.6         White           SEC Class         A         White           Unit toategory         RPU         Drive           Unit type         BVU         Drive           Heat recovery type         Recuperative           Temperature ratio         87         %           qv max         866         m²h²h           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.16         m²h²h           Ps ref         50         Pa           SPI         0.219         W/m²h           CTRL         0.85         W/m²h           MISC         1.1         *           External Leakage         2         %           Internal Leakage         1         %           AEC average         243         W/m²h           AEC average         243         W/m²h           AEC cold         781         W/m²h           AEC average         4,548         W/m²h           AEC average         4,548         W/m²h           AEC average         4,548         W/m²	Basic unit	
SEC Cold         -83.6         Whydest           SEC Warm         -15.2         Whydest           SEC Class         A	ErP compliance 2018	
SEC Warm         -15.2         WM/M           SEC Class         A         -           Unit category         RVU         -           Unit type         BVU         -           Drive         Integrated VSD         -           Heat recovery type         Recuperative         -           Temperature ratio         87         %           qv max         856         m½           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.166         m½           Ps ref         50         Pa           SPI         0.219         W/m²           CTRL         0.85         -           MISC         1.1         -           External Leakage         2         %           Internal Leakage         2         %           Internal Leakage         2         %           AEC everage         243         kWh           AEC old         781         kWh           AEC warm         198         kWh           AHS Werrage         4.548         kWh	SEC Average -40.1	kWh/(m².a)
SEC Class         A         Hount category         RVU           Unit type         BVU         PUTUP         Unit type         BVU         PUTUP         PUTUP         Integrated VSD         PUTUP         Integrated VSD         PUTUP         PUTUP         RECUperative VSD         PUTUP         PUTUP <td>SEC Cold -83.6</td> <td>kWh/(m².a)</td>	SEC Cold -83.6	kWh/(m².a)
Unit category         RVU           Unit type         BVU           Drive         Integrated VSD           Heat recovery type         Recuperative           Temperature ratio         87         %           qv max         856         m³/s           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.166         m³/s           Ps ref         50         Pa           SPI         0.219         W/m           CTRL         0.85         W/m           MISC         1.1         x-value         2           External Leakage         1.2         x-value         2         x-value           External Leakage         1.2         x-value         x-value         x-value         2         x-value         x-valu	SEC Warm -15.2	kWh/(m².a)
Unit type         BVU           Drive         Integrated VSD           Heat recovery type         Recuperative           Temperature ratio         87         %           qv max         856         m³/h           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.16e         m³/s           SPI         0.219         W/m           CTRL         0.85         W/m           MISC         1.1         x-value         2           External Leakage         1         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         AEC average         4         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh	SEC Class A	
Drive         Integrated VSD           Heat recovery type         Recuperative           Temperature ratio         87         %           sq max         856         m³h           P max         318         W           Sound power (LWA)         42         dB(A)           qu ref         0.166         m³s           Ps ref         50         Pa           SPI         0.219         W/m²           CTRL         0.85         W/m²           MISC         1.1         x-value         2         %           Internal Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         AEC average         4         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh	Unit category RVU	
Heat recovery type         Recuperative           Temperature ratio         87         %           qv max         856         m³/h           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.166         m³/s           Ps ref         50         Pa           SPI         0.219         W/m²           CTRL         0.85         W/m²           MISC         1.1         x-value         2           External Leakage         2         %           Internal Leakage         1         %           Type of product         RAHUAAHE         AEC average         243         kWh           AEC average         243         kWh         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh	Unit type BVU	
Temperature ratio         87         %           qv max         856         m³/h           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.166         m³/s           Ps ref         50         Pa           SPI         0.219         W/m²           CTRL         0.85         W/m²           MISC         1.1         x-value         2           External Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         AEC average         243         kWh           AEC oxid         781         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh	Drive Integrated VSD	
qv max         856         m³/h           P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.166         m³/s           Ps ref         50         Pa           SPI         0.219         W/m²           CTRL         0.85         W/m²           MISC         1.1         x-value         2           External Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         AEC average         43         kWh           AEC oxid         781         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh	Heat recovery type Recuperative	
P max         318         W           Sound power (LWA)         42         dB(A)           qv ref         0.166         m²/s           Ps ref         50         Pa           SPI         0.219         W/(m²           CTRL         0.85         W/(m²           MISC         1.1         Transport           x-value         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         XWh           AEC average         243         kWh           AEC cold         781         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh/x	Temperature ratio 87	%
Sound power (LWA)         42 dB(A)           qv ref         0.166 m³/s           Ps ref         50 Pa           SPI         0.219 W/(m²)           CTRL         0.85           MISC         1.1           x-value         2           External Leakage         2 %           Internal Leakage         1 %           Type of product         RAHU/AAHE           AEC average         243 kWh           AEC cold         781 kWh           AEC warm         198 kWh           AHS Average         4,548 kWh	qv max 856	m³/h
qv ref         0.166         m³/s           Ps ref         50         Pa           SPI         0.219         W/(m²)           CTRL         0.85         MISC           MISC         1.1         x-value         2           External Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         XWh           AEC average         243         kWh           AEC cold         781         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh/k	P max 318	W
Ps ref         50         Pa           SPI         0.219         W/m²           CTRL         0.85         W/m²           MISC         1.1         x-value           x-value         2         %           Internal Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         XWh           AEC average         243         kWh           AEC cold         781         kWh           AEC warm         198         kWh           AHS Average         4,548         kWh	Sound power (LWA) 42	dB(A)
SPI         0.219         W/min           CTRL         0.85            MISC         1.1            x-value         2            External Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE            AEC average         243         kWh           AEC cold         781         kWh           AEC warm         4,548         kWh	qv ref 0.166	m³/s
CTRL         0.85           MISC         1.1           x-value         2           External Leakage         2         %           Internal Leakage         1         %           Type of product         RAHU/AAHE         XWh           AEC average         243         kWh           AEC cold         781         kWh           AEC warm         4,548         kWh	Ps ref 50	Pa
MISC         1.1           x-value         2           External Leakage         2 %           Internal Leakage         1 %           Type of product         RAHU/AAHE           AEC average         243 kWh           AEC cold         781 kWh           AEC warm         198 kWh           AHS Average         4,548 kWh/a	SPI 0.219	W/(m³/h)
x-value       2         External Leakage       2       %         Internal Leakage       1       %         Type of product       RAHU/AAHE       *         AEC average       243       kWh         AEC cold       781       kWh         AEC warm       198       kWh         AHS Average       4,548       kWh/a	CTRL 0.85	
External Leakage         2 %           Internal Leakage         1 %           Type of product         RAHU/AAHE           AEC average         243 kWh           AEC cold         781 kWh           AEC warm         198 kWh           AHS Average         4,548 kWh/a	MISC 1.1	
Internal Leakage 1 %  Type of product RAHU/AAHE  AEC average 243 kWh  AEC cold 781 kWh  AEC warm 198 kWh  AHS Average 4,548 kWh/a	x-value 2	
Type of product         RAHU/AAHE           AEC average         243 kWh           AEC cold         781 kWh           AEC warm         198 kWh           AHS Average         4,548 kWh/a	External Leakage 2	%
AEC average         243 kWh           AEC cold         781 kWh           AEC warm         198 kWh           AHS Average         4,548 kWh/s	Internal Leakage 1	%
AEC cold 781 kWh AEC warm 198 kWh AHS Average 4,548 kWh/a	Type of product RAHU/AAHE	
AEC warm 198 kWh  AHS Average 4,548 kWh/8	AEC average 243	kWh
AHS Average 4,548 kWh/s	AEC cold 781	kWh
	AEC warm 198	kWh
AHS Cold 8,898 kWh/a	AHS Average 4,548	kWh/a
	AHS Cold 8,898	kWh/a
AHS Warm 2,057 kWh/a	AHS Warm 2,057	kWh/a



Units with local demand control		
ErP compliance	2018	
SEC Average	-43	kWh/(m².a)
SEC Cold	-87.2	kWh/(m².a)
SEC Warm	-17.6	kWh/(m².a)
SEC Class	A+	
Unit category	RVU	
Unit type	BVU	
Drive	Integrated VSD	
Heat recovery type	Recuperative	
Temperature ratio	87	%
qv max	856	m³/h
P max	318	W
Sound power (LWA)	42	dB(A)
qv ref	0.166	m³/s
Ps ref	50	Pa
SPI	0.219	W/(m³/h)
CTRL	0.65	
MISC	1.1	
x-value	2	
External Leakage	2	%
Internal Leakage	1	%
Type of product	RAHU/AAHE	
AEC average	161	kWh
AEC cold	699	kWh
AEC warm	116	kWh
AHS Average	4,631	kWh/a
AHS Cold	9,060	kWh/a
AHS Warm	2,094	kWh/a

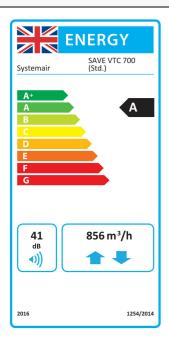


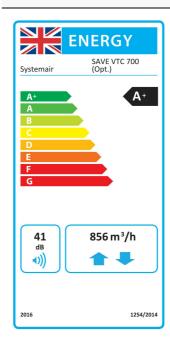
- Outdoor air
- 2 Supply air
- Extract air 3
- Exhaust air

# **Energy class label**

Energy class, Basic unit

### Energy class, Local demand





#### Item Number: #488845 Variant: Pleated Filters Standard kit

#### **Accessories**

- SAVE LIGHT Black (319119)
- SAVE TOUCH Black (138078)
- CB 250-6,0 400V/2 Duct heater (5372)
- CB heater connection kit 2/3 ~ (151612)
- PSS20 Transformer 24V (202692)
- SAVE Wall Mounted Kit (140736)
- VAV/CAV conversion kit (140777)
- CB 250-9,0 400V/3 Duct heater (5373)
- CEC Cable w/plug 15m (306594)
- CWK 250-3-2,5 Duct cooler,circ (30024)
- LDC 250-900 Silencer (5196)
- VBC 250-3 Water heating batt (9843)
- RVAZ4 24A Actuator 0-10V (9862)
- SPI-250 C Iris damper (6755)
- TUNE-R-250-3-M2 (311951)
- TUNE-R-250-3-M5 (311981)
- ZTV 15-1,6 2-way valve (9824)

- SAVE LIGHT White (319118)
- SAVE TOUCH White (138077)
- CB heater connection kit 1 ~ (142852)
- Presence detector/IR24-P (6995)
- Reheater VTC 700 L (137746)
- Systemair-E CO2 sensor (14904)
- CB 250-3,0 230V/1 Duct heater (5385)
- CEC Cable w/plug 12m (24782)
- CEC Cable w/plug 6m (24783)
- FK 250 Fast clamp (1612)
- VBC 250-2 Water heating batt (5460)
- CVVX 250 Combi grille, black (8498)
- SCD 250 silencer 25mm insulat. (2561)
- TUNE-R-250-3-M1 (311941)
- TUNE-R-250-3-M4 (311971)
- ZTR 15-1,6 valve 3-way (9673)

# **Documents**

- Control panel installation quick guide
- · Disassembly guide
- · Energy label placement quick guide
- · Installation manual
- Modbus variable list
- Service and Accessories installation manual
- User manual
- Certificate Passive House Institute SAVE VTC 700
- Eurovent Certification Diploma
- · Commissioning record
- Technical fiche
- Schematic layout and description of components
- UK\_declaration\_of\_conformity
- Electrical diagrams for accessories
- · Wiring diagram

#### Item Number: #488845 Variant: Pleated Filters Standard kit

# **Specification**

Filter kits:

145849 PF STD kit (F7/ePM1 60% supply and M5/ePM10 50% extract)
145924 PF OPT kit 1 (accessory) (F8/ePM1 70% supply and M5/ePM10 50% extract)
317703 BF OPT kit 2 (accessory) (F7/ePM1 60% supply and M5/ePM10 50% extract)

SAVE VTC 700 is designed for ventilated areas up to 550 m2.

#### MAIN FEATURES

- · High energy-efficiency counter flow heat exchanger and EC technology fans
- · Demand control regulation with the built-in humidity sensor
- · Automatic defrosting
- · Multiple control options to choose from
- Connection board for easy access and connection of accessories
- Modbus communication RS-485 as standard
- · Eurovent Certification

#### THE UNIT CAN BE OPERATED IN 3 WAYS

- SAVE LIGHT control panel for basic functions such as airflow control, general alarm and filter change indication.
- SAVE TOUCH control panel with touch screen and full access to all functions and settings. The home screen displays information such as airflow, temperature, air quality and active functions. You can select between MANUAL and AUTO mode or select preferred settings from the pre-configured user modes and much more
- SAVE CONNECT Home solutions by Systemair mobile application and Internet Access Module for wireless control of the SAVE unit. The mobile application mirrors functionality of SAVE TOUCH control panel and allows you to access all control functions on your smartphone.

Each control method is optional and have to be ordered separately as an accessory. 6 meter cable for the control panel is included with the unit.

#### INSTALLATION

The unit can be installed on the floor and preferably in a storeroom or laundry room. Left and right-handed models are available.

External connection board that has prewired inputs and outputs allows easy installation and setup of external sensors as well as external heaters / coolers and other accessories.

#### COMPONENTS

SAVE VTC 700 has white painted double skinned panels. The unit is equipped with a high efficiency counter flow heat exchanger. Energy efficient fans with EC motors as well as low-pressure filters reduce the energy consumptions and ensures low SFP factor (Specific Fan Power) and sound level. The built-in humidity sensor in extract air can be used for demand control.

SAVE VTC 700 can be supplemented with a built in electrical re-heater which is available as an accessory (4,5 kW, 400 V 3~ power supply is required).

### **DEFROSTING**

The product has an automatic defrost function with 3 different modes for different indoor environments as well as the outdoor conditions.

The pre-heater is always recommended for frost protection when the outside air temperature is below -15 °C. The pre-heater increases the intake air temperature and reduces the need for the defrost function. During the defrosting process the supply air fan may be stopped periodically to remove frost from the heat exchanger.

When the unbalanced airflow is not desired, for example in tight or passive houses, the pre-heater is always required when the outside air temperature is -5 °C to prevent supply air fan from stopping during defrost mode.

The pre-heater and a CB Preheater Connection kit can be ordered as accessories.