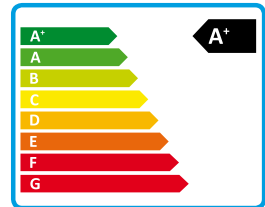


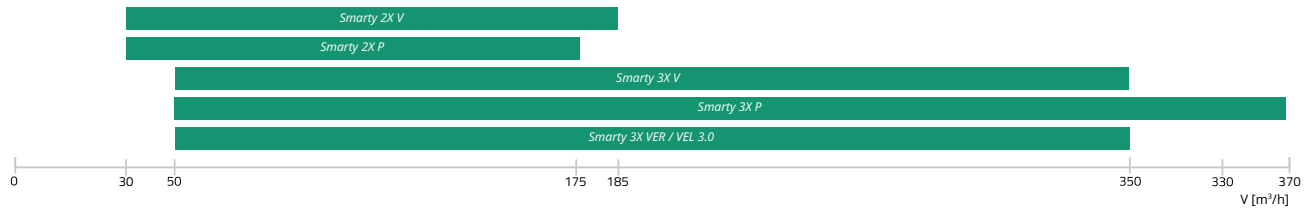
SMARTY X



NEW!



With additional sensors:



AIR HANDLING UNITS

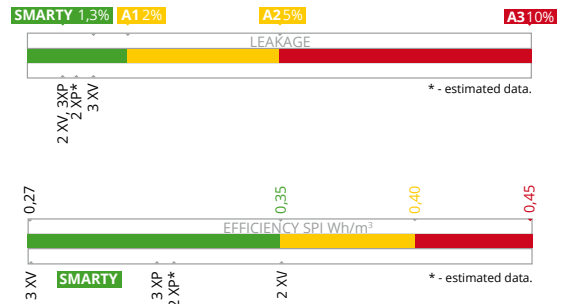
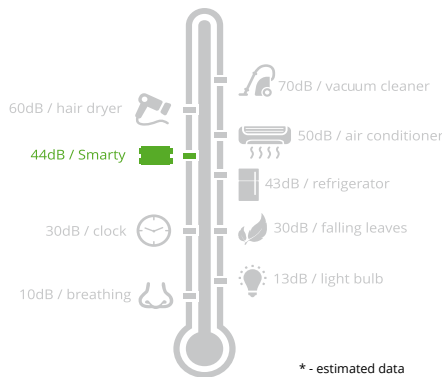
Application Apartments, private houses, villas, passive houses.

Description Smarty is a range of heat recovery units with the highest-efficiency counter-flow heat exchanger available. The units are designed for residential users and reflect the concept of the “Smart way to handle the air”

- › Energy efficient.
- › Ergonomic.
- › User-friendly.

Smarty come in 2 sizes (max. airflow interval 175-370 m³/h) for a total of 5 models. Smarty units have high overall energy savings due to the highly efficient heat recovery (up to 94%), quiet and economical EC fans, effective low-pressure-drop filters, 100% motorized bypass dampers, top-level air tightness and smart control options. All Smarty units are fully equipped with automatic controls. With optional humidity and CO₂ sensors, these units have demand-level controls and an A+ efficiency class. Smarty are service-friendly and are easy to mount. All required service tasks can be performed by a single person. Units are supplied tested and ready to install. Smarty are designed in accordance with hygiene requirements VDI 6022-1.

Ergonomic and energy efficiency



Construction features

- › One layer of galvanized steel with efficient insulation materials.
- › Advanced mineral wool casing insulation or EPP.
- › Hygienic condensate drip tray.
- › High-efficiency panel filters with large filtering area and long service periods (~ 6 months).
- › Easy filter change and order.
- › New-generation EC fans: EBM-papst RadiCal.
- › Fans are expected to work for 10 years (40,000 hours).
- › Heat exchanger: counter-flow from plastic or aluminum.
- › 100% bypass damper (night-cooling).
- › Bypass monitoring sensor for smooth operation.
- › Automatic safety disconnecter activates when doors open.

- Smarty 2X P**
- Residential ceiling mounted air handling unit:
- › Low height;
 - › 6 mounting positions;
 - › **Casing:** 1 layer of galvanized steel and 20 mm EPP insulation.
 - › **Filters:** panel filters G4/G4, optionally F7;
 - › **Heat exchanger:** plastic counterflow.

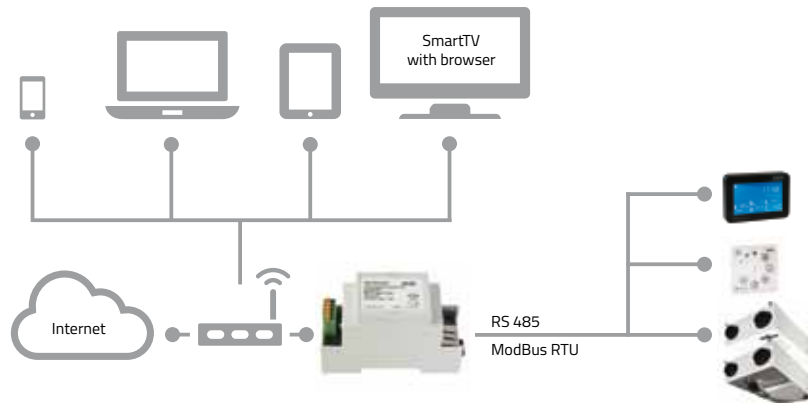
- Smarty 3X P**
- Residential ceiling mounted air handling unit:
- › Low height;
 - › 6 mounting positions;
 - › **Casing:** 1 layer of galvanized steel and 30 mm EPP insulation.
 - › **Filters:** panel filters G4/G4, optionally F7;
 - › **Heat exchanger:** plastic counterflow.

- Smarty 2X V / 3X V**
- Vertical residential air handling unit:
- › **Casing:** 1 layer of galvanized steel and 30 mm EPP insulation.
 - › **Filters:** panel filters G4/G4, optionally F7;
 - › **Heat exchanger:** plastic counterflow.
 - › Integrated preheater in version V1.1

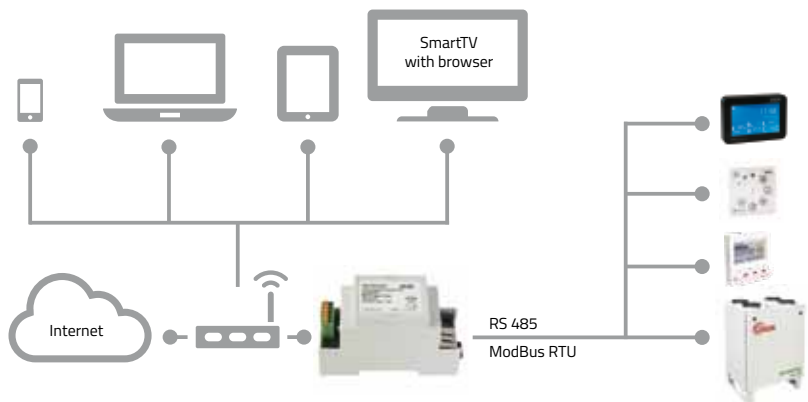
- Smarty 3X VER / VEL 3.0**
- Vertical residential air handling unit:
- › **Casing:** 1 layer of galvanized steel and 30 mm mineral wool insulation.
 - › **Filters:** panel filters M5/F7.
 - › **Heat exchanger:** aluminum counterflow.

Remote control options

**Smarty 2X P / 3X P
2X V / 3X V**



Smarty 3X VER / VEL 3.0



SMARTY X

VERSIONS

Save on equipment: select the unit according to the climate zone and project requirements.

Product name	Smarty 2X V 1.1	Smarty 2X V 1.2	Smarty 2X V 1.3	Smarty 3X V 1.1	Smarty 3X V 1.2	Smarty 3X V 1.3	Smarty 2X P 1.1	Smarty 2X P 1.2	Smarty 3X P 1.1	Smarty 3X P 1.2	Smarty 3X P 1.3	Smarty 3X P 1.4
Control board	Mini MCB	Mini MCB Basic	Mini MCB Basic	Mini MCB	Mini MCB Basic	Mini MCB Basic	Mini MCB	Mini MCB Basic	Mini MCB	Mini MCB Basic	Mini MCB Basic	MCB
Version	Premium	Advanced	Basic	Premium	Advanced	Basic	Premium	Advanced	Premium	Advanced	Basic	Premium*
Heat recovery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temp. control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bypass damper	✓	✓		✓	✓		✓	✓	✓	✓		✓
Pressure sensor (filter pollution monitoring)				✓					✓			✓
Integrated pre-heater	✓			✓								
Optional heating elements												
Duct-based pre-heater		✓*	✓*		✓*	✓*	✓	✓*	✓	✓*	✓*	✓
Duct-based heater	✓	✓*	✓*	✓	✓*	✓*	✓	✓*	✓	✓*	✓*	✓

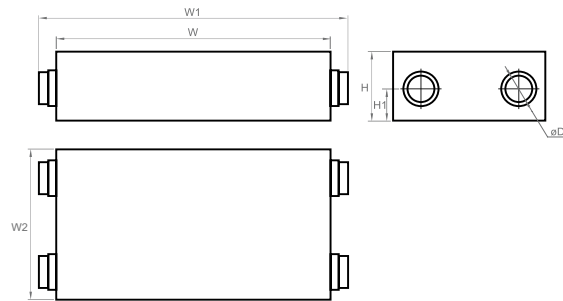
* - only pre-heater or heater.

Accessories

Network Module	Remote controller	Control panel	Remote controller	Electrical duct pre-heater	Electrical duct pre-heater	Electrical heater	Actuator for dampers	
 MB-Gateway p. 178	 Ptouch p. 175	 FLEX p. 177	 Stouch p. 176	 EKA NIS p. 198	 EKA NV PH p. 201	 EKA p. 198	 SP p. 210	
Thermic water valve actuator	Shut-off damper	Mounting clamp	Circular duct silencer	Circular duct water cooler	CO2 sensor	Pressure transmitter	Humidity sensor	
 SSB p. 195	 SKG p. 212	 AP p. 219	 AKS p. 216	 AVA p. 193	 S-RC02-F2 p. 180	 S-1141 p. 179	 S-KFF-U p. 181	
Supply and exhaust air grill	Couplings with sealing rubber	Smarty legs						
 WSG p. 218	 NPU							

CONSTRUCTION

Smarty 2X P - 3X P

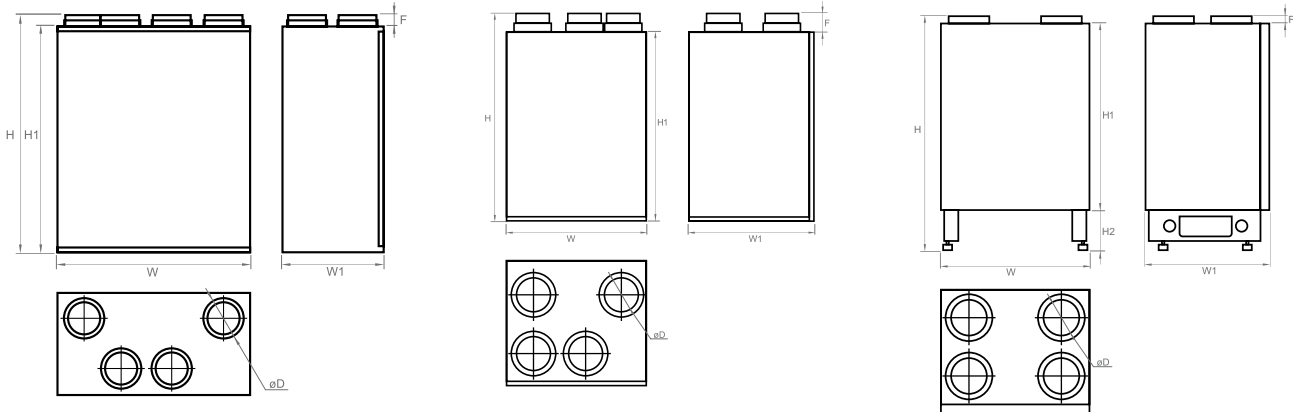


Unit	Dimensions [mm]					
	W	W1	W2	H	H1	øD
Smarty 2X P	1009	1086	590	250	112	125/160
Smarty 3X P	1225	1381,5	685,5	318	150	149/159

Smarty 2X V

Smarty 3X V

Smarty 3X VEL/VER 3.0



Unit	Dimensions [mm]						
	W	W1	H	H1	H2	F	øD
Smarty 2X V	595	316	732	697	-	35	125/100
Smarty 3X V	599	538	890	810	-	80	150/160
Smarty 3X VER/VEL 3.0	598	500	943	750	163	30	160

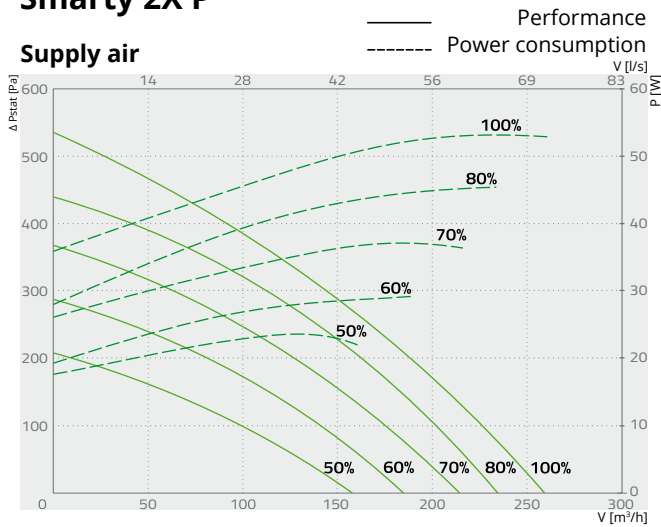
Unit	Optional accessories									
	Stouch Ptouch MB- Gateway	FLEX	EKA NIS	EKA NV PH	EKA	SP Supply	SP Exhaust	SSB	WSG	NPU
Smarty 2X P	+	-	125	-	125	CM230-1-F-L	CM230-1-F-L	-	125	125
Smarty 3X P	+	-	160	-	160	CM230-1-F-L	CM230-1-F-L	-	160	160
Smarty 2X V	+	-	125	-	125	CM230-1-F-L	CM230-1-F-L	-	125	125
Smarty 3X V	+	-	160	-	160	CM230-1-F-L	CM230-1-F-L	-	160	160
Smarty 3X VER/VEL 3.0	+	+	160	160	-	CM230-1-F-L	CM230-1-F-L	81	160	160

Unit	Optional accessories						
	AKS	SKG	AVA	S-RCO2-F2	S-1141	S-KFF-U	Legs
Smarty 2X P	125	125	-	+	-	+	optional
Smarty 3X P	160	160	-	+	-	+	optional
Smarty 2X V	125	125	-	+	-	+	optional
Smarty 3X V	160	160	-	+	-	+	optional
Smarty 3X VER/VEL 3.0	160	160	160	+	+	-	integrated

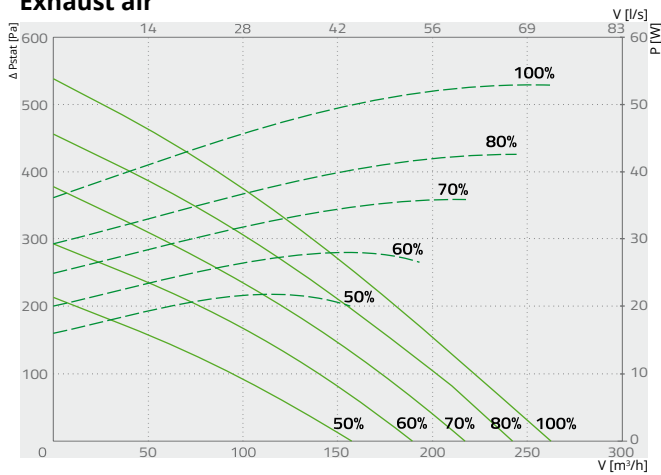
SMARTY X

Smarty 2X P

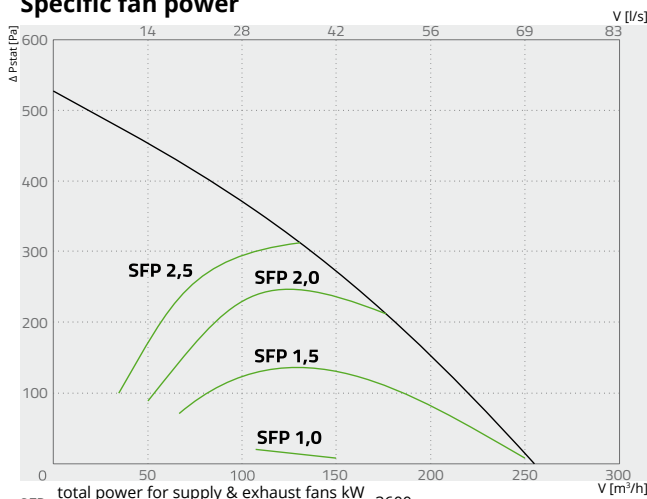
Supply air



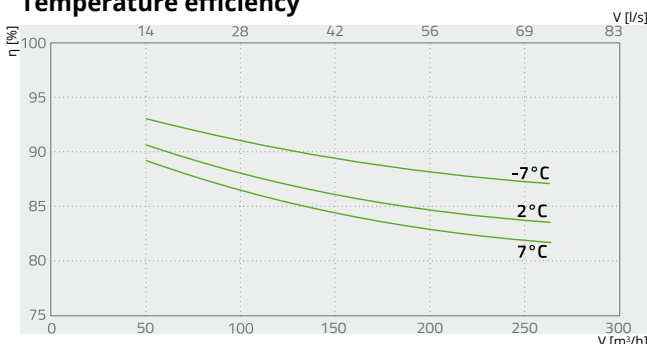
Exhaust air



Specific fan power

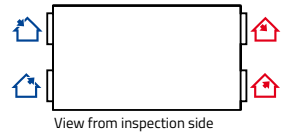


Temperature efficiency



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -7°C / 2°C / 7°C



- Exhaust air
- Extract air
- outdoor air
- Supply air

Smarty 2X P		
EC fans	phase/voltage	[50Hz/VAC] ~1, 230
exhaust	power/current	[kW/A] 0,051/0,4
	fan speed	[min ⁻¹] 4525
supply	power/current	[kW/A] 0,051/0,4
	fan speed	[min ⁻¹] 4525
Thermal efficiency up to*		94%
Max power consumption	[kW/A]	0,11/0,9
Filter class	exhaust/supply	G4/G4 (F7 optional)
Housing insulation, Elastic Polyether Polyurethane	[mm]	20-30
Colour	RAL	white 9016
Weight (net, without packing)	[kg]	40
Comply with ERP		2018
Operation		indoors
Housing protection class	IP	34

*DIBt and EN13141-7

Smarty 2X P	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	58	42	51	50	52	53	49	34
Extract	54	40	47	46	49	47	43	26
Surrounding	48	28	37	43	38	31	24	21

Measured at 153 m³/h, 50 Pa

Certifications
EUROVENT certified
heat exchanger performance

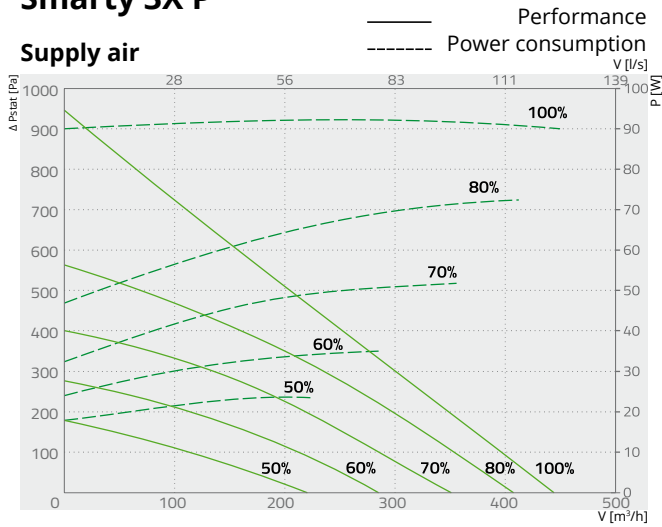


AIR HANDLING UNITS

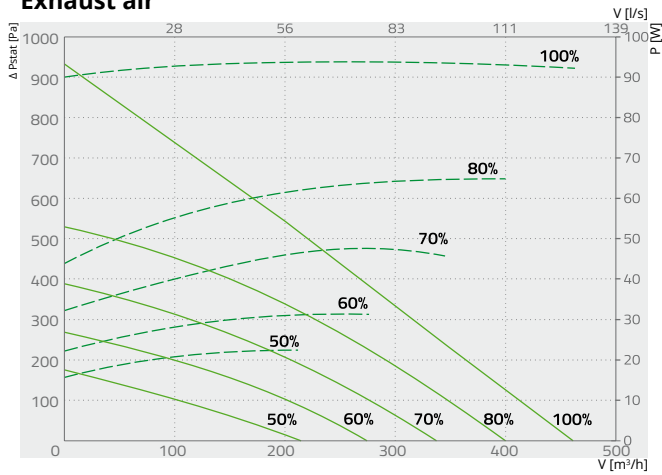
NEW!

Smarty 3X P

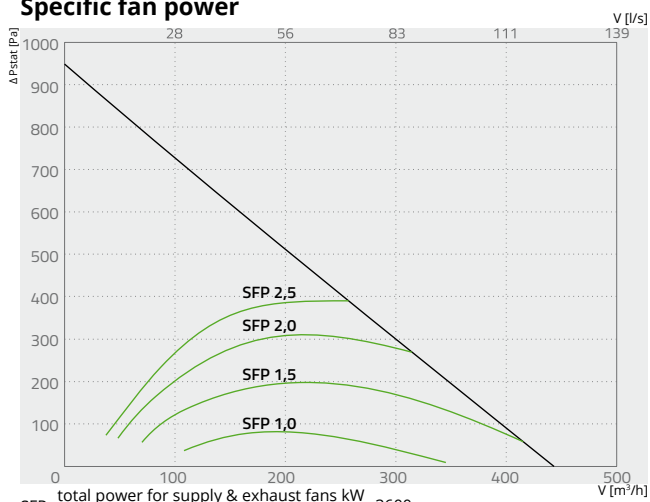
Supply air



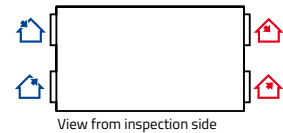
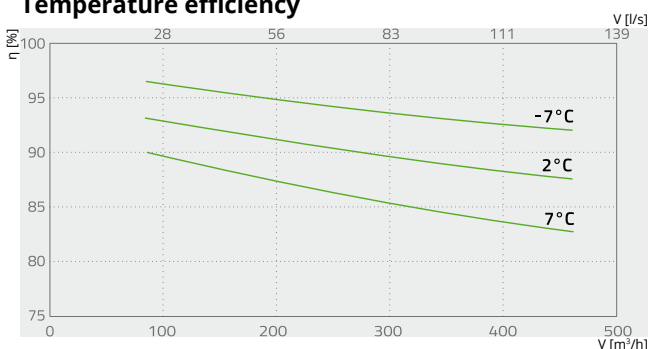
Exhaust air



Specific fan power



Temperature efficiency



View from inspection side

🏠 Exhaust air
 🏠 Extract air
 🏠 outdoor air
 🏠 Supply air

Smarty 3X P

EC fans	phase/voltage	[50Hz/VAC]	~1, 230
exhaust	power/current	[kW/A]	0,084/0,75
	fan speed	[min ⁻¹]	3200
supply	power/current	[kW/A]	0,084/0,75
	fan speed	[min ⁻¹]	3200
Thermal efficiency up to*			94%
Max power consumption		[kW/A]	0,168/1,5
Filter class	exhaust/supply		G4/G4 (F7 optional)
Housing insulation, Elastic Polyether Polyurethane		[mm]	30
Colour	RAL	white	9016
Weight (net, without packing)		[kg]	53
Comply with ERP			2018
Operation			indoors
Housing protection class		IP	34

*DIBt and EN13141-7

Temperature efficiency (balanced mass flow):
 Extract air = 20°C/60%RH
 Outdoor air = -7°C / 2°C / 7°C

Smarty 3X P	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	57	49	50	53	48	47	45	40
Extract	50	41	43	44	42	39	37	34
Surrounding	42	34	35	36	34	32	31	27

Measured at 230 m³/h, 99 Pa

Certifications

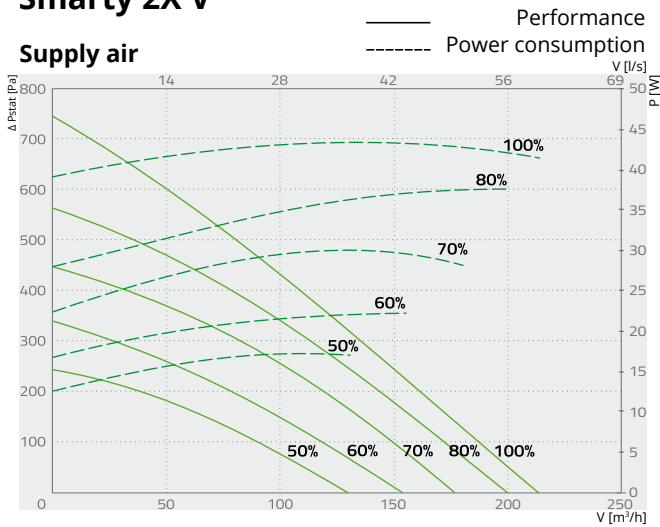
EUROVENT certified
 heat exchanger performance



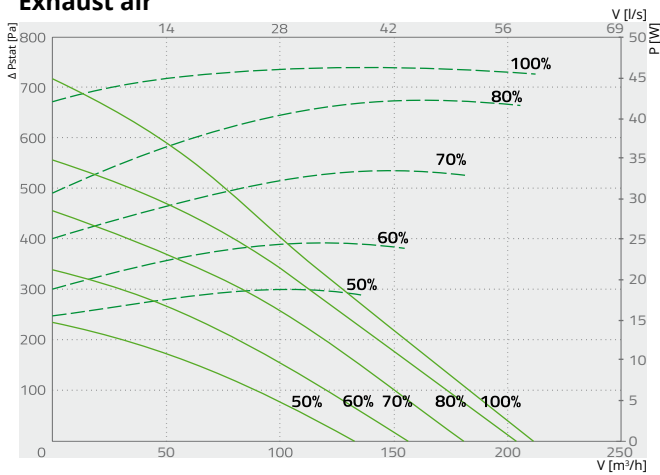
SMARTY X

Smarty 2X V

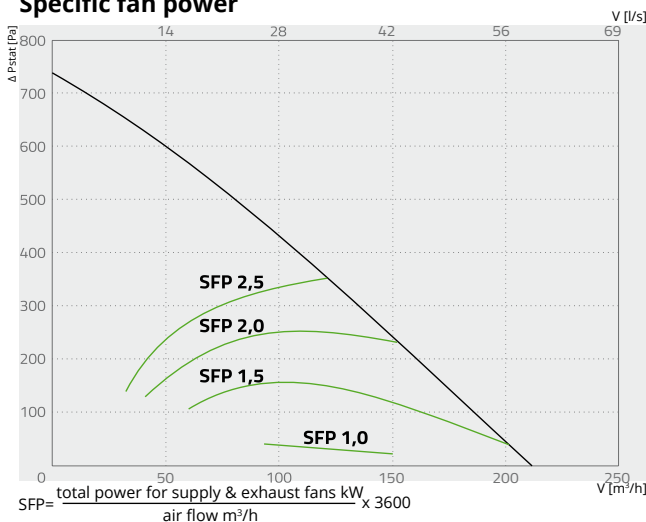
Supply air



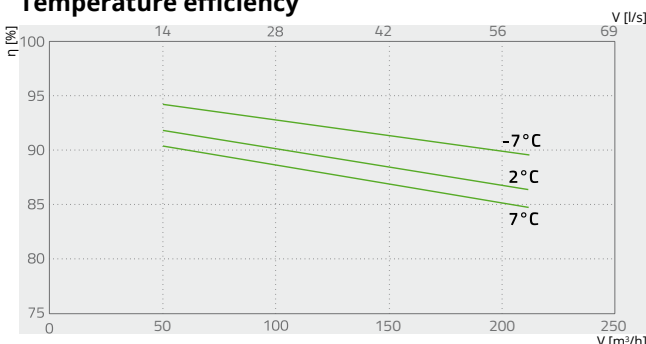
Exhaust air



Specific fan power



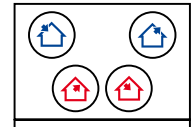
Temperature efficiency



NEW!



Smarty 2X V



View from inspection side

- Exhaust air
- Extract air
- outdoor air
- Supply air

Article No.	Version
GAGSMARTY1933_1035	SMARTY 2XV 1.1 Premium
GAGSMARTY1933_1036	SMARTY 2XV 1.2 Advanced
GGAGSMARTY1933_1037	SMARTY 2XV 1.3 Basic

Smarty 2X V

EC fans	phase/voltage	[50Hz/VAC]	~1, 230
exhaust	power/current	[kW/A]	0,035/0,35
	fan speed	[min ⁻¹]	4060
supply	power/current	[kW/A]	0,035/0,35
	fan speed	[min ⁻¹]	4060
Thermal efficiency up to*			94%
Max power consumption		[kW/A]	0,67/3,30
Filter class	exhaust/supply		G4/G4 (F7 optional)
Housing insulation, Elastic Polyether Polyurethane		[mm]	30
Colour	RAL	white	9016
Weight (net, without packing)		[kg]	25
Comply with ERP			2018
Operation			indoors
Housing protection class		IP	34

*DIBt and EN13141-7

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -7°C / 2°C / 7°C

Smarty 2X V	L _{wa} total, dB(A)	L _{WA} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	51	41	45	46	43	41	37	33
Extract	48	38	42	43	39	37	31	29
Surrounding	46	28	39	43	37	33	18	16

Measured at 177 m³/h, 50 Pa

Certifications

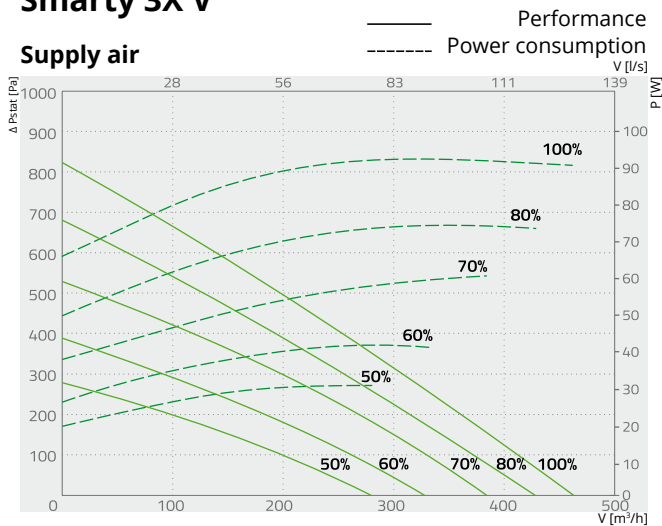
EUROVENT certified
heat exchanger performance



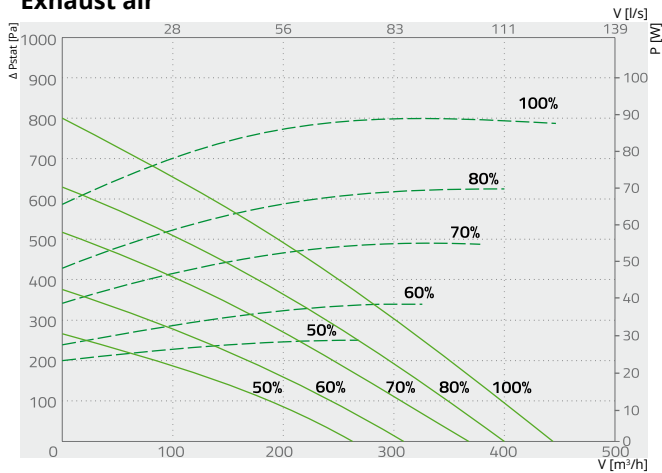
NEW!

Smarty 3X V

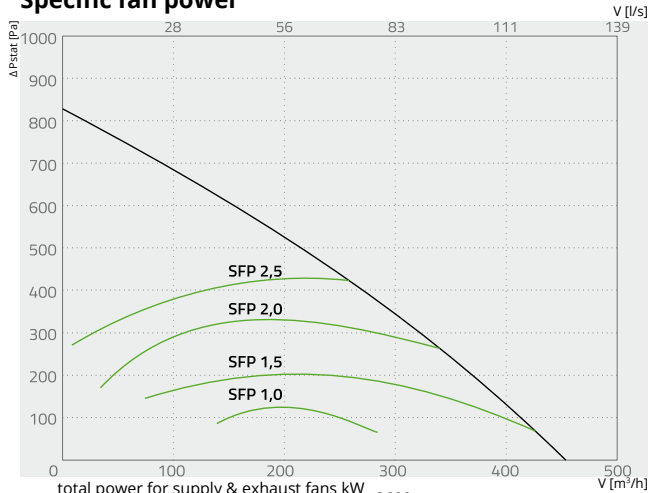
Supply air



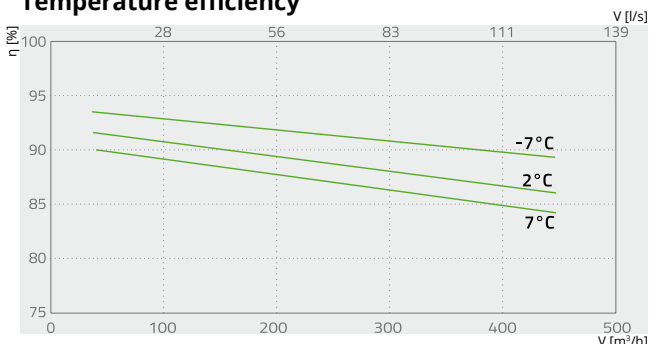
Exhaust air



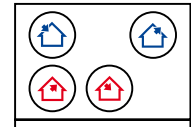
Specific fan power



Temperature efficiency



Smarty 3X V



View from inspection side

- Exhaust air
- Extract air
- outdoor air
- Supply air

Article No.	Version
GAGSMARTY1923_1044	SMARTY 3XV 1.1 Premium
GAGSMARTY1966_1045	SMARTY 3XV 1.2 Advanced
GAGSMARTY1967_1046	SMARTY 3XV 1.3 Basic

Smarty 3X V

EC fans	phase/voltage	[50Hz/VAC]	~1, 230
exhaust	power/current	[kW/A]	0,083/0,75
	fan speed	[min ⁻¹]	3200
supply	power/current	[kW/A]	0,083/0,75
	fan speed	[min ⁻¹]	3200
Thermal efficiency up to*			94%
Max power consumption		[kW/A]	1,37/6,70
Filter class	exhaust/supply		G4/G4 (F7 optional)
Housing insulation, Elastic Polyether Polyurethane		[mm]	50
Colour	RAL	white	9016
Weight (net, without packing)		[kg]	39
Comply with ERP			2018
Operation			indoors
Housing protection class		IP	34

*DIBt and EN13141-7

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -7°C / 2°C / 7°C

Smarty 3X V	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	55	46	48	49	48	46	45	42
Extract	51	43	45	44	42	41	39	35
Surrounding	46	31	41	43	35	30	25	22

Measured at 285 m³/h, 50 Pa

Certifications

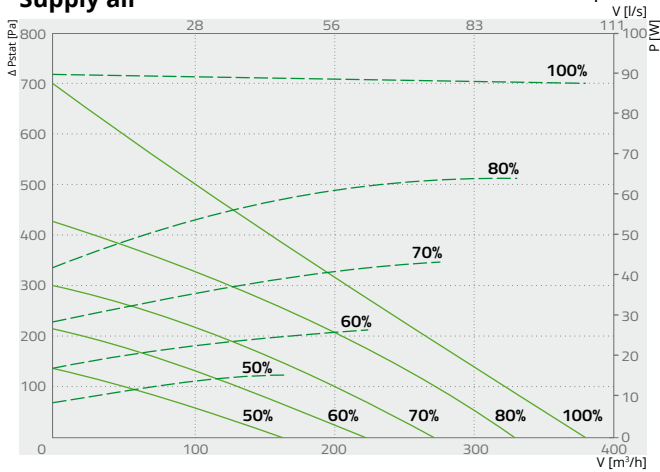
EUROVENT certified
heat exchanger performance



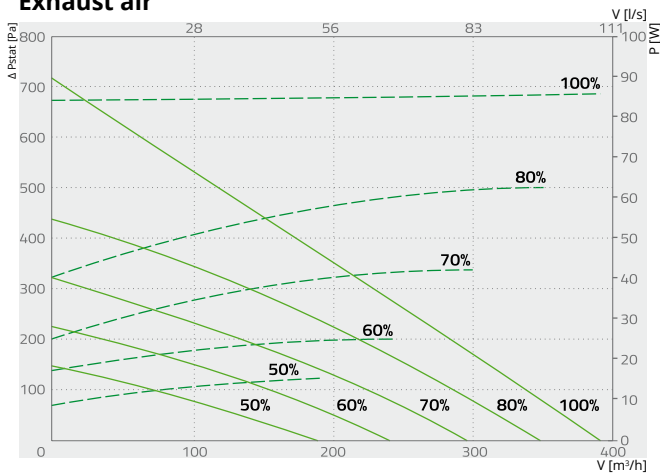
SMARTY X

Smarty 3X VEL/VER 3.0

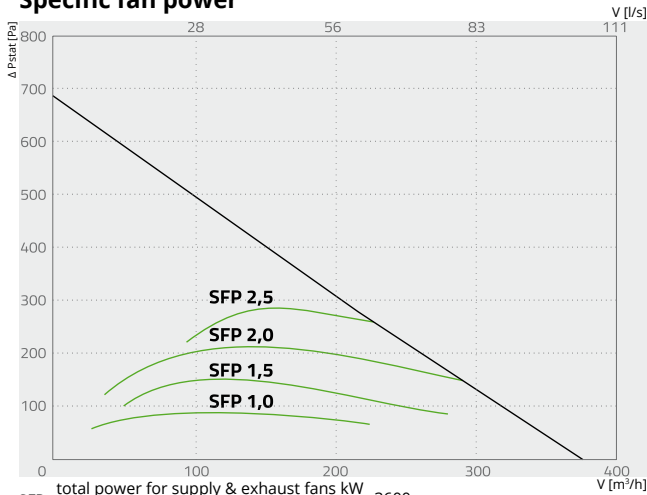
Supply air



Exhaust air

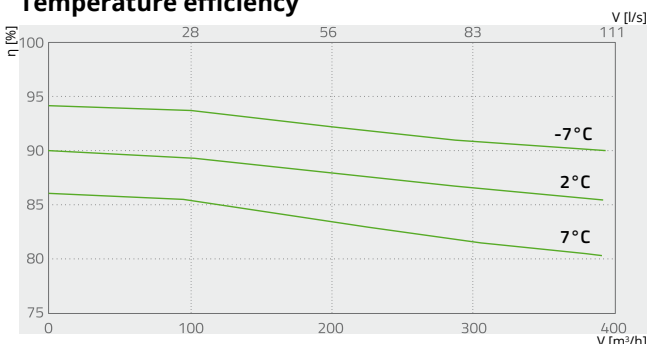


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency



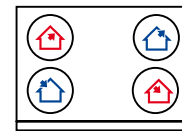
Performance

----- Power consumption

NEW!

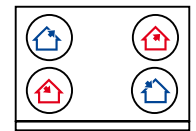


Smarty 3X VEL 3.0



View from inspection side

Smarty 3X VER 3.0



View from inspection side

Exhaust air Extract air outdoor air Supply air

Unit	Version
Smarty 3X VER	Certified DIBt; PRV 2.3 control board
Smarty 3X VEL	Standard; PRV 2.5 control board
Smarty 3X VER 3.0	Standard; PRV 2.5 control board
Smarty 3X VEL 3.0	Standard; PRV 2.5 control board

Smarty 3X VER/VEL/3.0

EC fans	phase/voltage	[50Hz/VAC]	~1, 230
exhaust	power/current	[kW/A]	0,089/0,83
	fan speed	[min ⁻¹]	3200
supply	power/current	[kW/A]	0,086/0,92
	fan speed	[min ⁻¹]	3200
Thermal efficiency up to*			90%
Max power consumption		[kW/A]	0,18/1,77
Filter class	exhaust/supply		M5/F7
Housing insulation, mineral wool		[mm]	30
Colour	RAL	white	9016
Weight (net, without packing)		[kg]	57,0
Comply with ERP			2018
Operation			indoors
Housing protection class		IP	34

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -7°C / 2°C / 7°C

Smarty 3X VEL/ VER/3.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	66	55	58	60	61	59	55	44
Extract	57	52	51	50	48	44	36	32
Surrounding	48	41	42	43	41	38	34	27

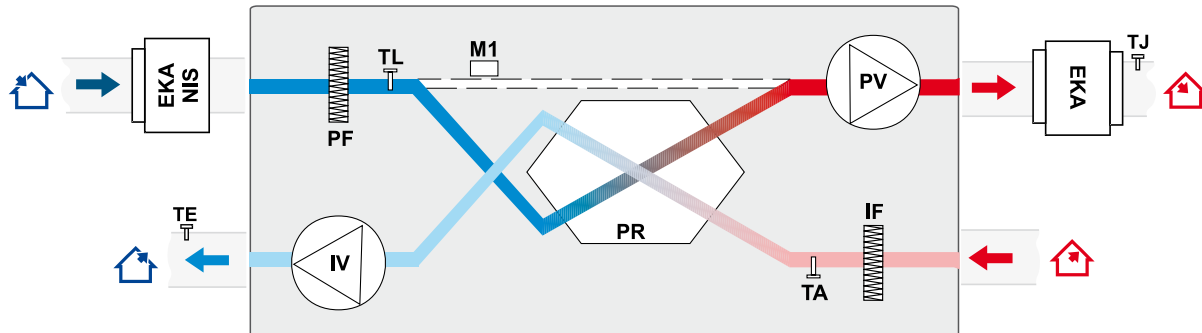
Measured at 300 m³/h, 100 Pa

Certifications

EUROVENT certified
heat exchanger performance



Smarty 2X P / 3X P versions v1.1 with electrical heater *

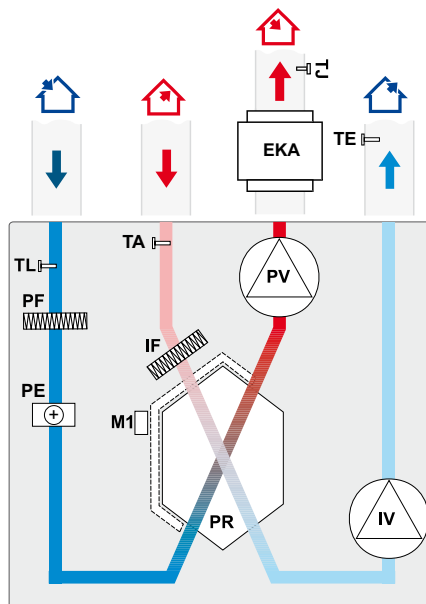


*V.1.2 only electric pre-heater or heater;
 V.1.3 no by-pass, only electric pre-heater or heater;
 V.1.4 same as v1.1 only with other control board (MCB).

- IV - exhaust air fan
- PV - supply air fan
- PR - plate heat exchanger
- PF - filter for supply air
- IF - filter for extract air
- M1 - actuator of by-pass damper

- TA - extract air temperature sensor
- TL - fresh air temperature sensor
- TJ - supply air temperature sensor
- TE - exhaust air temperature sensor
- EKA NIS - electric pre-heater
- EKA - electric heater

Smarty 2X V / 3X V versions v1.1 with electrical heater

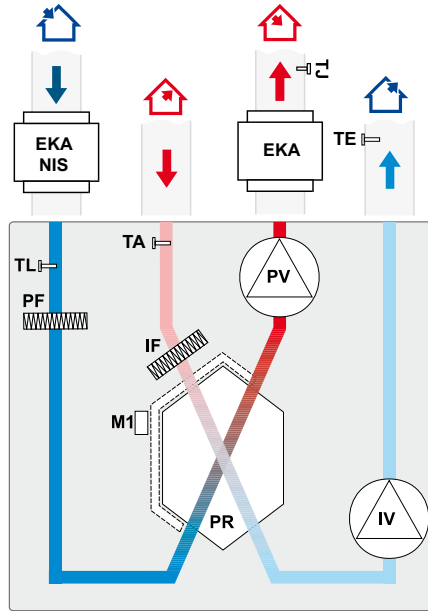


- IV - exhaust air fan
- PV - supply air fan
- PR - plate heat exchanger
- PF - filter for supply air
- IF - filter for extract air
- M1 - actuator of by-pass damper

- TA - extract air temperature sensor
- TL - fresh air temperature sensor
- TJ - supply air temperature sensor
- TE - exhaust air temperature sensor
- EKA - electric heater
- PE - electric pre-heater

SMARTY X

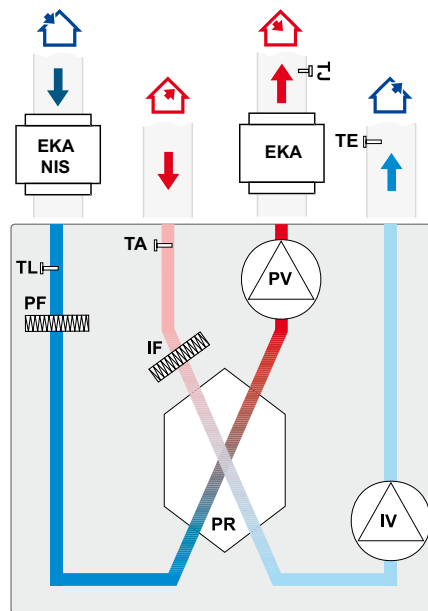
Smarty 2X V / 3X V versions v1.2 with electrical heater



- IV** - exhaust air fan
- PV** - supply air fan
- PR** - plate heat exchanger
- PF** - filter for supply air
- IF** - filter for extract air
- M1** - actuator of by-pass damper

- TA** - extract air temperature sensor
- TL** - fresh air temperature sensor
- TJ** - supply air temperature sensor
- TE** - exhaust air temperature sensor
- EKA** - electric heater
- EKA NIS** - electric pre-heater

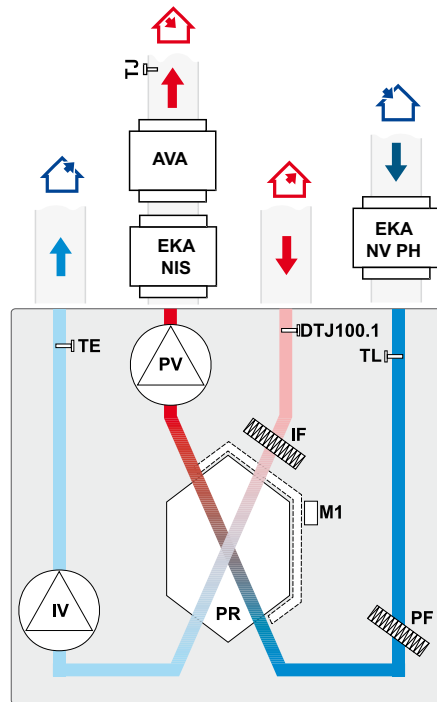
Smarty 2X V / 3X V versions v1.3 with electrical heater



- IV** - exhaust air fan
- PV** - supply air fan
- PR** - plate heat exchanger
- PF** - filter for supply air
- IF** - filter for extract air

- TA** - extract air temperature sensor
- TL** - fresh air temperature sensor
- TJ** - supply air temperature sensor
- TE** - exhaust air temperature sensor
- EKA** - electric heater
- EKA NIS** - electric pre-heater

Smarty 3X VEL / VER 3.0 versions with electrical heater



IV - exhaust air fan
PV - supply air fan
PR - plate heat exchanger
PF - filter for supply air
IF - filter for extract air
M1 - actuator of by-pass damper
AVA - optionally supplied water cooler

TA - extract air temperature sensor
TL - fresh air temperature sensor
TJ - supply air temperature sensor
EKA NIS - electrical heater
EKA NV PH - optional fresh air pre-heater
DTJ 100.1 - humidity + temperature sensor

SMARTY X

FUNCTIONS					
Descriptions of the functions	MCB	MiniMCB	MiniMCB basic	PRV V2.3	PRV V2.5
	Smarty 3X P	Smarty range		SMARTY 3X VEL/VER	SMARTY 3X VEL/VER 3.0
	E	E	E	E	E
Functions					
Date and time settings	✓	✓	✓	✓	✓
System modes for easy and-user friendly control: Stand-by, Building protection, Economy, Comfort. (Specific air flows are used in the system and they are dedicated to each type of mode.)	✓	✓	✓	✓	
4 speeds for easy and-user control ("Stop" – the unit is stopped; "Low", medium", and "High". Service menu allows adjusting each speed individually)					✓
BOOST function (Fans operate at highest speed)	✓	✓	✓	✓	✓
Comfortable air temperature function	✓	✓	✓	✓	✓
Cold/heat recovery	✓	✓	✓	✓	✓
Fire place function	✓	✓	✓	✓	✓
Heating season (from a selected date, 3-day temperature average or manually)	✓	✓	✓	✓	
Dryness protection	✓	✓	✓	✓	✓
Weekly schedule	✓	✓	✓	✓	✓
Holiday schedule	✓	✓	✓	✓	✓
User and service control levels	✓	✓	✓	✓	✓
Automatic air flow balancing (using integrated pressure transducers)	✓	✓			
Manual air flow balancing	✓	✓	✓	✓	✓
CO₂ level indication and reduction function	✓	✓	✓	✓	✓
Night cooling function	✓	✓	✓	✓	✓
Relative humidity (RH) level indication and reduction function	✓ P	✓ P	✓ P		✓
Software and configuration update possibility	✓	✓	✓	✓	✓
Supply air temperature control according to the extract air sensor	✓	✓	✓	✓	✓
Monitoring function (all sensors and I/O)	✓	✓	✓	✓ 5	✓ 5
Mode switch (start/stop)	✓	✓	✓	✓	✓
Extracted air relative humidity converter				✓	✓
Manual components control	✓	✓	✓	✓ 3	✓ 3
Functional units					
Fans					
Soft start and stop	✓	✓	✓	✓	✓
Fan failure protection	✓	✓ 4	✓ 4	✓ 6	✓
Protection by RPM	✓	✓	✓		
Protection by pressure	✓	✓			
Speed synchronous/asynchronous 0-10V control	✓	✓	✓	✓	✓
Electric heater					
On/Off / PWM control	✓	✓	✓ 1	✓	✓
Manual protection	✓	✓	✓ 2	✓	✓
Automatic protection	✓	✓	✓ 2		
Overheat protection (additional protection software)	✓	✓	✓	✓	✓
Electric pre-heater					
On/Off / PWM control	✓	✓	✓ 1		
Pre-heater manual/automatic protection (NC)	✓	✓	✓ 2		
Return water temperature sensor	✓	✓			✓
Water temperature sensor	✓				
DX cooler					
Control On/Off	✓ P			✓	✓
Temperature sensor	✓				
Control with three-positional valve actuator				✓	✓
Bypass damper					
3-position actuator control	✓			✓	✓
Step motor control	✓	✓	✓		
Filter pollution monitoring					
By pressure switch (NC)	✓	✓			✓
By filter timer	✓	✓	✓	✓	✓
Sensors					
Temperature sensor input calibration (Calibration is carried out by standard)	✓	✓	✓		
Temperature sensor failure protection (with emergency mode)	✓	✓	✓		
Supply air temperature sensor	✓	✓	✓	✓	✓
Fresh air temperature sensor	✓	✓	✓	✓	✓
Exhaust air temperature sensor	✓	✓	✓	✓	✓
Extract air temperature sensor	✓	✓	✓	✓	✓

FUNCTIONS					
Descriptions of the functions	MCB	MiniMCB	MiniMCB basic	PRV V2.3	PRV V2.5
	Smarty 3X P	Smarty range		SMARTY 3X VEL/VER	SMARTY 3X VEL/VER 3.0
	E	E	E	E	E
Emergency signals and inputs/outputs					
Fire damper actuator control On/Off	✓				
Fire damper test function	✓				
Fire protection input	✓	✓	✓	✓	✓
Configurable digital inputs	✓	✓	✓		
Working indication output	✓	✓		✓	✓
Alarm indication output	✓	✓		✓	✓
Fireplace protection (NC)	✓	✓			
Remote controllers					
Stouch	✓	✓	✓	✓	✓
Flex				✓	✓
Ptouch	✓	✓	✓		✓
MB Gateway	✓	✓	✓	✓	✓

1	MiniMCB basic can control only pre-heater or heater	5	Only sensors
2	MiniMCB basic have protections only for pre-heater or heater	6	Can be connected in sequential circuit
3	With FLEX TEST remote controller		
4	MiniMCB has RPM or TK input	P	Function will be available in IIQ 2016

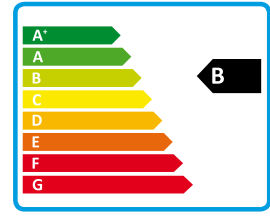
SMARTY R



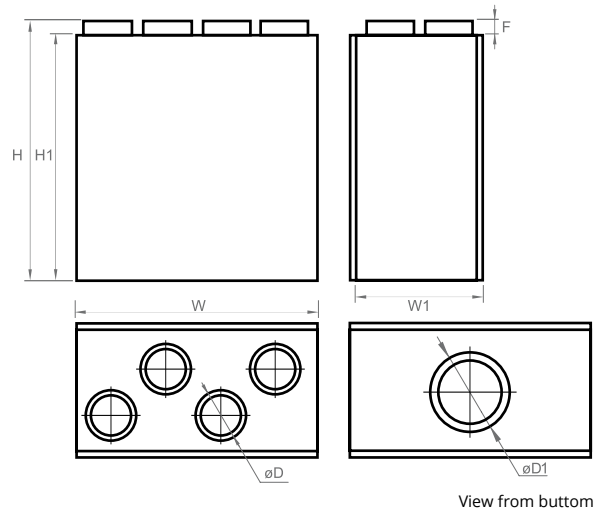
NEW!



B

















Application	Apartments, private houses, villas and other heated premises.
Description	<p>Smarty R V is a heat recovery unit with high-efficiency rotor heat exchanger. Unit is designed for vertical placement in auxiliary heated or non-heated premises.</p> <p>Smarty R V is designed for placement in tight spaces: kitchen cabinets, boiler rooms and etc. Unit has high overall energy savings due to the highly efficient heat recovery (up to 80%), quiet and economical EC fans, effective low-pressure-drop filters, and top-level air tightness.</p> <p>Smarty R V is fully equipped with automatic control. Demand-level control options with CO₂ and humidity sensors and summer mode are available for highest comfort.</p> <p>Smarty is service-friendly and are easy to mount. Rotor fault indicators are included in every AHU. Units are supplied tested and ready to install.</p>
Controls	<p>Three remote control options are available:</p> <ol style="list-style-type: none"> 1. Stouch remote controller. 2. Building management system connections. 3. Remote control via PC MB-Gateway.
Features	<ul style="list-style-type: none"> › Efficient rotor heat exchanger with up to 80% heat recovery. › Electrical heating. › Easy and quick installation. › Controlled airflow. › Fully integrated plug-and-play control system.
Rotor	<ul style="list-style-type: none"> › Eurovent certified. › Plate gap 1,5 mm. › Rotor fault indicator. › Minimal airflow mixing.
Construction	<ul style="list-style-type: none"> › Frameless construction from double-skinned steel, with powder coated paint, panels. › Acoustic wall insulation – 20 mm, › 3 sensors for fresh, supply and extract air temperatures. › Low-pressure-drop filters: F7/M5. › Integrated electrical heater. › Kitchen hood connection d125



Unit	Dimensions [mm]							
	W	W1	L	H	H1	øD	øD1	F
Smarty 2R VE	598	320	320	653	620	125	175	30

Unit	Optional accessories					
	Stouch MB-Gateway	EKA NV PH	WSG	S-RC02-F2 S-KFF-U S-RFF-U-D-F2 S-KCO2	AKS AP SKG	SP
Smarty 2R VE	+	125	125	+	125	CM24-F-L

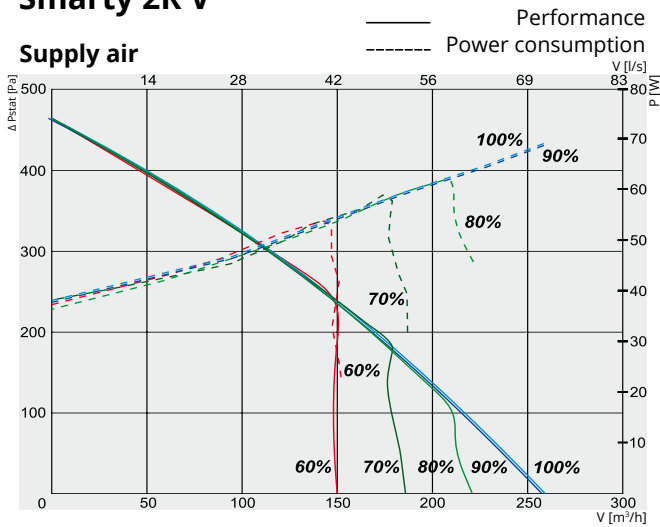
Accessories

<p>Network Module</p>  <p>MB-Gateway p. 178</p>	<p>Remote controller</p>  <p>Stouch p. 176</p>	<p>Electrical duct pre-heater</p>  <p>EKA NV PH p. 201</p>	<p>Actuator for dampers</p>  <p>SP p. 210</p>	<p>Shut-off damper</p>  <p>SKG p. 212</p>	<p>Mounting clamp</p>  <p>AP p. 219</p>	<p>Circular duct silencer</p>  <p>AKS p. 216</p>	<p>Supply and exhaust air grill</p>  <p>WSG p. 218</p>
<p>CO2 sensor</p>  <p>S-RC02-F2 p. 180</p>	<p>CO2 sensor</p>  <p>S-KCO2 p. 180</p>	<p>Humidity sensor</p>  <p>S-RFF-U-D-F2 p. 181</p>	<p>Humidity sensor</p>  <p>S-KFF-U p. 181</p>	<p>Kitchen hood</p> 	<p>Front cover</p> 		

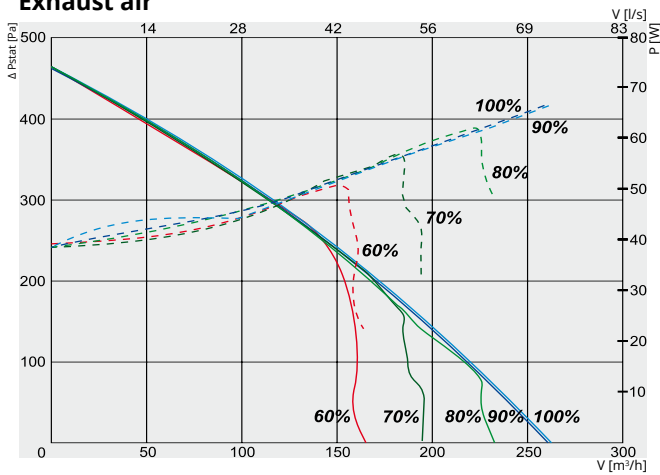
SMARTY R

Smarty 2R V

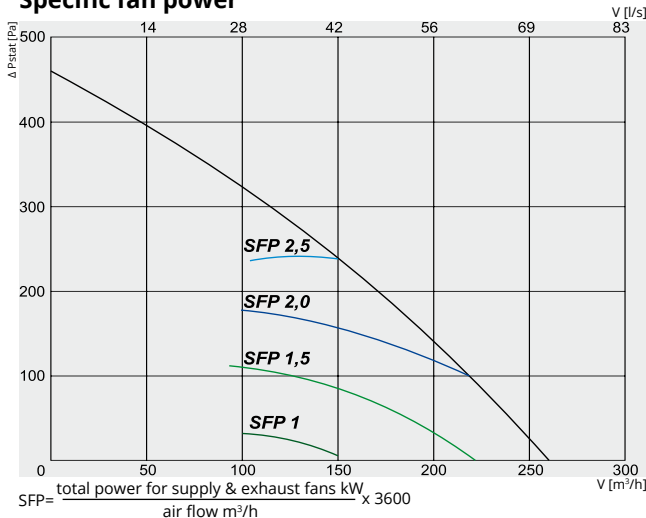
Supply air



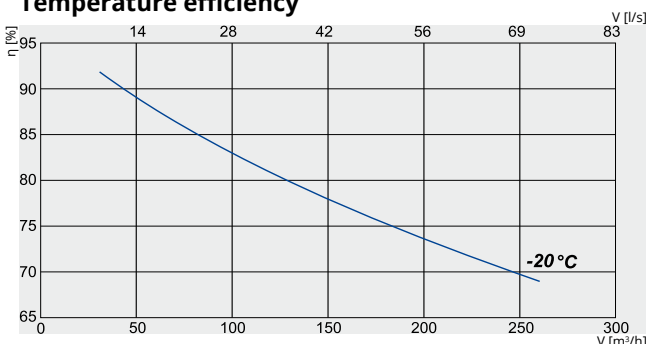
Exhaust air



Specific fan power

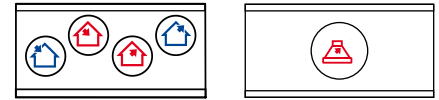


Temperature efficiency



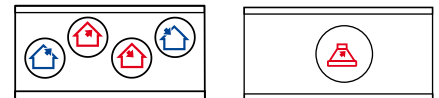
Smarty 2R VEL

Air intake side (L- left convertible)



Smarty 2R VER

Air intake side (D- right convertible)



Exhaust air Extract air outdoor air Supply air Kitchen hood

Article No.	Version
GAGSMARTY1981_0102A	Smarty 2R VEL Left-hand maintenance version with integrated electrical heater.
GAGSMARTY1975_0102A	Smarty 2R VER Right-hand maintenance version with integrated electrical heater.

Smarty 2R V		
Heater	-phase/voltage [50Hz/VAC]	~1, 230
	-power consumption [kW]	0,6
EC Fans	-phase/voltage [50Hz/VAC]	1/230
exhaust	-power/current [kW/A]	0,07/0,6
	-fan speed [min ⁻¹]	1380
supply	-power/current [kW/A]	0,07/0,6
	-fan speed [min ⁻¹]	1380
Motor protection class		IP-44
Thermal efficiency		80%
Max power consumption	[kW/A]	0,75 / 3,91
Automatic control		integrated
Filter class	-exhaust	M5
	-supply	M5
Thermal insulation	[mm]	20
Weight	[kg]	36,0
Comply with ERP		2018

Air flow temperature range from -20°C to +40°C.
Designed for operation indoors only.

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

Smarty 2R V	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	65	50	59	61	59	55	51	40
Extract	60	45	58	53	45	37	28	21
Surrounding	46	37	40	42	38	29	19	16

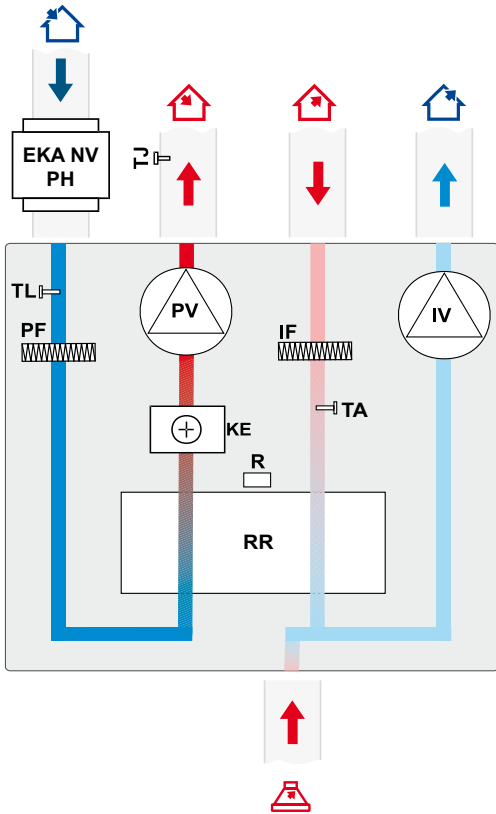
Measured at 214 m³/h, 100 Pa

Certifications

EUROVENT certified
heat exchanger performance



Smarty 2R VE (vertical) with electrical heater



- EKA NV PH** - optional fresh air pre-heater
- TL** - fresh air temperature sensor
- PF** - filter for supply air
- PV** - supply air fan
- KE** - electrical heater
- R** - motor of rotor heat exchanger
- RR** - rotary heat exchanger
- TJ** - supply air temperature sensor
- IF** - filter for extract air
- TA** - extract air temperature sensor
- IV** - exhaust air fan

SMARTY R

FUNCTIONS		MCB
Descriptions of the functions	Functions	Smarty R
		E
	Date and time settings	✓
System modes for easy and-user friendly control: Stand-by, Building protection, Economy, Comfort. (Specific air flows are used in the system and they are dedicated to each type of mode.)		✓
	BOOST function (Fans operate at highest speed)	✓
	Comfortable air temperature function	✓
	Cold/heat recovery	✓
	Fire place function	✓
	Heating season (from a selected date, 3-day temperature average or manually)	✓
	Dryness protection	✓
	Weekly schedule	✓
	Holiday schedule	✓
	User and service control levels	✓
	Automatic air flow balancing (using integrated pressure transducers)	✓
	Manual air flow balancing	✓
	CO₂ level indication and reduction function	✓
	Night cooling function	✓
	Relative humidity (RH) level indication and reduction function	✓ P
	Software and configuration update possibility	✓
	Supply air temperature control according to the extract air sensor	✓
	Monitoring function (all sensors and I/O)	✓
	Mode switch (start/stop)	✓
	Manual components control	✓
Functional units		
Fans		
	Soft start and stop	✓
	Fan failure protection	✓
	Protection by RPM	✓
	Protection by pressure	✓
	Speed synchronous/asynchronous 0-10V control	✓
Electric heater		
	On/Off / PWM control	✓
	Manual protection	✓
	Automatic protection	✓
	Overheat protection (additional protection software)	✓
Electric pre-heater		
	On/Off / PWM control	✓
	Pre-heater manual/automatic protection (NC)	✓
DX cooler		
	Control On/Off	✓ P
	Protection (NC)	✓ P
	Reverse (NO-cooling, NC-heating)	✓ P
	Temperature sensor	✓
Filter pollution monitoring		
	By filter timer	✓
Rotor		
	Pulse-width modulation (PWM) (0-10VDC) motor control	✓
	On/Off motor control	✓
	Motor belt levers protection	✓
	Rotation speed indication	✓
	Service timer	✓
Sensors		
	Temperature sensor input calibration (Calibration is carried out by standard)	✓
	Temperature sensor failure protection (with emergency mode)	✓
	Supply air temperature sensor	✓
	Fresh air temperature sensor	✓
	Extract air temperature sensor	✓

FUNCTIONS		MCB
Descriptions of the functions		Smarty R
		E
Emergency signals and inputs/outputs		
	Fire damper actuator control On/Off	✓
	Fire damper test function	✓
	Fire protection input	✓
	Configurable digital inputs	✓
	Working indication output	✓
	Alarm indication output	✓
	Fireplace protection (NC)	✓
Remote controllers		
	Stouch	✓
	MB Gateway	✓
P	Function will be available in IIQ 2016	