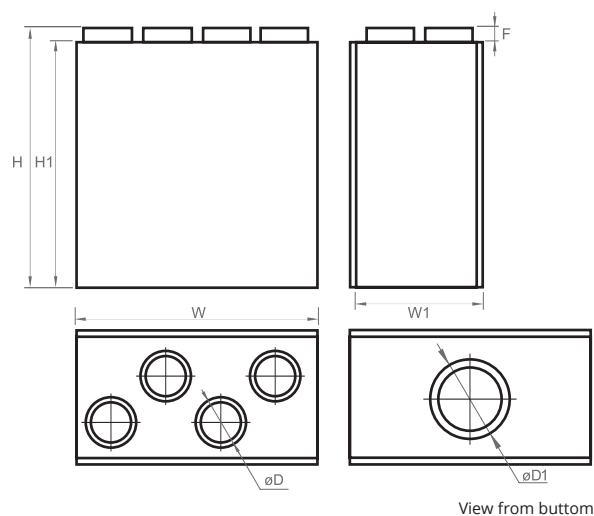


SMARTY R



AIR HANDLING UNITS

Application	Apartments, private houses, villas and ither heated premises.
Description	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. 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. 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. 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.
Controls	Three remote control options are available: 1. Stouch remote controller. 2. Building management system connections. 3. Remote control via PC MB-Gateway.
Features	› 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	› Eurovent certified. › Plate gap 1,5 mm. › Rotor fault indicator. › Minimal airflow mixing.
Construction	› 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

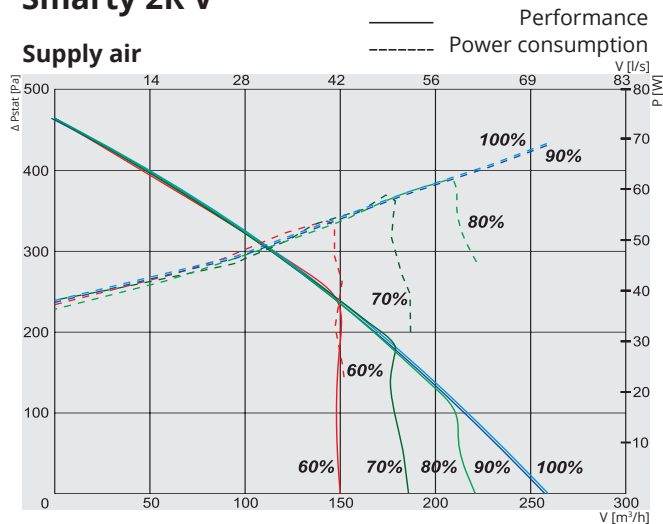
Accessories

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

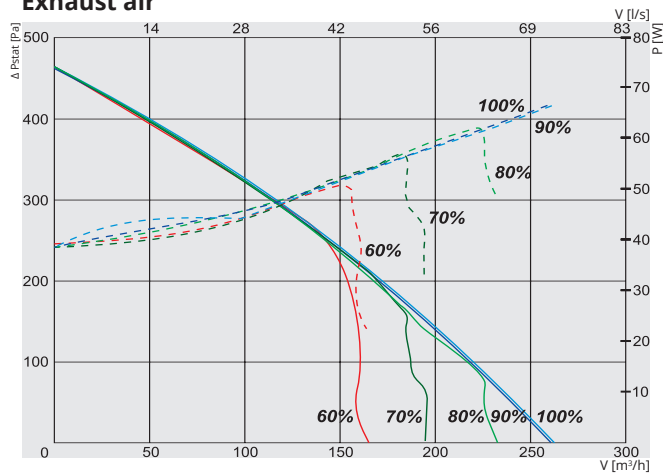
SMARTY R

Smarty 2R V

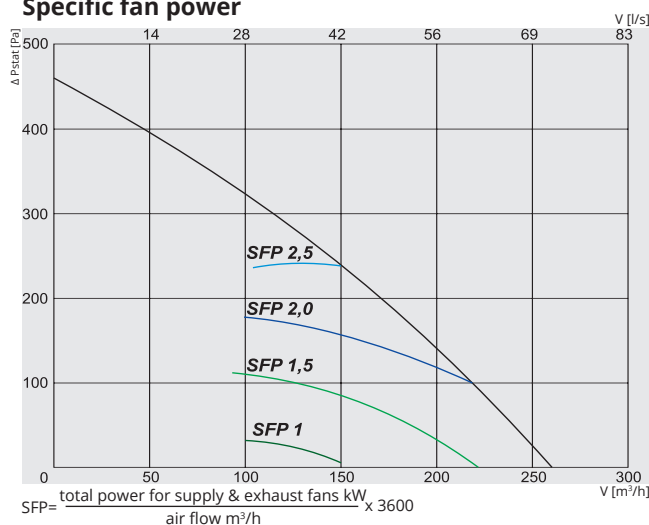
Supply air



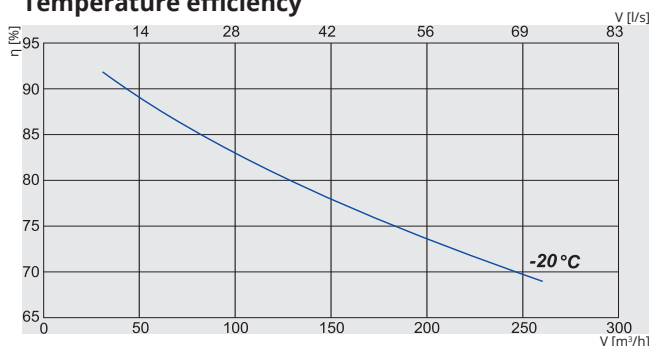
Exhaust air



Specific fan power



Temperature efficiency



NEW!



Smarty 2R VEL

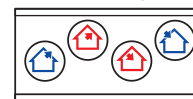
Air intake side (L- left convertible)



View from inspection side

Smarty 2R VER

Air intake side (D- right convertible)



View from inspection side

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

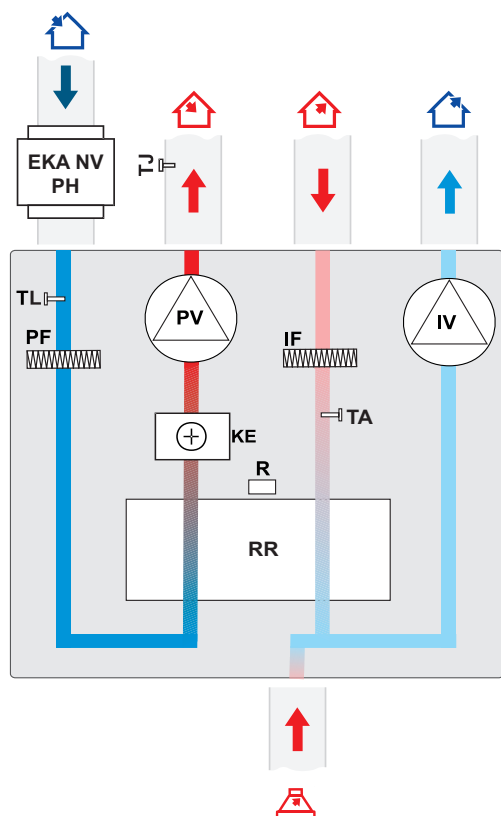
Measured at 214 m³/h, 100 Pa

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

FUNCTIONS	
Descriptions of the functions	MCB
	Smarty R
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.)	✓
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	✓
CO ₂ 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		
Descriptions of the functions	MCB	
	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	