SMARTY R

Smarty 2R VE plus	
Smarty 2R V	

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0        50   60                                        214      254  260
                                                              V [m³/h]
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|	
Application	Apartments, private houses, villas and other heated premises.
Description	Smarty RV is a heat recovery unit with a high-efficiency rotary heat exchanger designed for placement in tight spaces: kitchen cabinets, boiler rooms, etc. The unit is characteristic of high overall energy savings due to the highly efficient heat recovery (up to 77%), silent and eco-nomical EC fans, and effective low-pressure-drop filters. Several versions of cooker hoods are available as an accessory for the kitchen extraction. An integrated electrical heater helps maintaining comfortable air temperature on the premises. Smarty RV is fully equipped with demand-control ready control board. CO2 or RH, and presence sensors can be connected for automatic climate control. Rotor fault indicators are included in every AHU. The supplied units have been tested and prepared for installation.
Features	› Designed for placement in a space fit for a kitchen cabinet; › Cooker hood connection; › EC fans and rotary heat exchanger; › Easy maintenance: most of the components can be removed without using tools; › 2 versions: standard and more powerful "Plus"; › MCB tool for multiple installations.
Construction	**Top class casing:** › Frameless structure consisting of double-skinned steel, with powder-coated paint (corrosion resistant class – C3), panels; › Thermal and acoustic insulation: Mineral wool 20 mm. **Heat exchanger:** › Rotary, aluminium; › Rotor gap size: 1.5 mm; › Rotor fault indicator; › Efficiency up to 77% (EU 1253/2014). **Fans:** › EC type; › Specific fan input (SPI) from 0.47 W/(m³/h); › Long lifetime – fans last for more than 10 years[1]. [1] ~40000 working hours. **Integrated electrical heater.** **Filters:** › Smarty 2R VE: panel filters; ePM10 55%/ePM10 55% (M5/M5); › Smarty 2R Ve Plus: pocket filters ePM10 65%/ePM10 65% (M5/M5); › Effective filtration of dust, pollens, moulds, spores. **Integrated control board:** › Control of external components : dampers etc. › Connection for demand control sensors (CO2 or RH, presence); › Smart el. heater control on/off; › Extensive control options: 3 manual modes, boost, calendar, night cooling, etc. **Air temperature sensors:** › Extract, Supply, Outdoor. **Cooker hood connection:** › d125.

Control options

BACnet/IP (BMS)

Modbus (BMS)

CONSTRUCTION

View from buttom
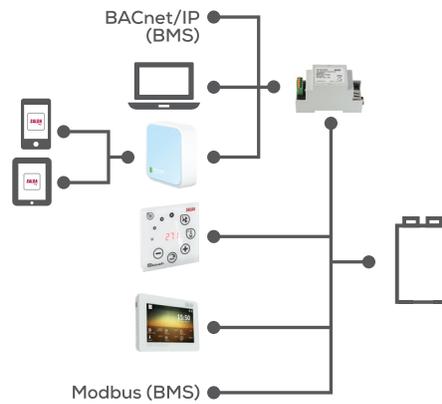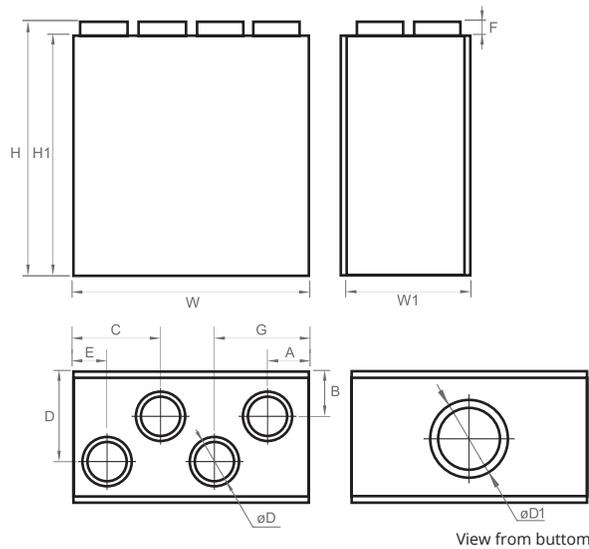
Dimensions [mm]													
Unit	A	B	C	D	E	G	W	W1	H	H1	øD	øD1	F
Smarty 2R VE	100	98	224	214	84	237	598	320	653	620	125	175	30
Smarty 2R VE plus	100	98	224	214	84	237	598	320	653	620	125	175	30

Optional accessories						
Unit	Stouch SA-Control MB-Gateway TL-WR802N	EKA NV PH	AP NP	ALU	S-RC02-F2 S-KFF-U S-RFF-U-D-F2 S-KCO2	RSK SKG-A	MUTE
Smarty 2R VE	+	125	125	125	+	125	125
Smarty 2R VE plus	+	125	125	125	+	125	125

ACCESSORIES

Network Module	Nano Router	Remote controller	Control panel	Humidity sensor	CO2 sensor	Presence detectors	Motion detector
MB-Gateway PRGPU082	**TL-WR802N** PRGPU105	**Stouch** PRGPU051	**SA-Control** PRGPU126	**S-KFF-U** ZAKKT0051 **S-KFF-U-D-F2** ZAKKT0050	**S-RC02-F2** ZAKKT0048 **S-RC02** ZAKKT0049	**IR24-P** ZAKJT019 **IR24-PC** ZAKJT020	**PATROL_701** ZAKJT021

Cooker hood	Front cover	Silencers	Back draft shutter
White ZPGKT0041 **Stainless steel** ZPGKT0042 **Slimline** ZPGKT0049	**Stainless steel** GNGGAUBTSS1 **White** GNGGAUBT022	**MUTE 125x300** GSOMUTE005 **MUTE 125x600** GSOMUTE006 **MUTE 125x900** GSOMUTE007 **MUTE 125x1200** GSOMUTE008	**RSK** GSKRSK002

Front coover mounting bracket	Panel filter	Panel filter	Pocket filters	Electrict pre-heater	Actuator for air dampers	Damper	Mounting clamp	Coupling	Outdoor grille
Mounting bracket GNGKRON17	**MPL (2xePM10 55%)** GKOFIL0015 (Smarty 2R VE) NEW filter www.newfilter.lt	**MPL (2xePM1 70%)** GKOFIL0016 (Smarty 2R VE) NEW filter www.newfilter.lt	**FMK (2xCoarse 65%)** GFIRIRS3002 (Smarty 2R VE plus) NEW filter www.newfilter.lt	**EKA NV 125-0,6-1f PH** PSIEKANVPH1250.6_1 (Smarty 2R VE) **EKA NV 125-0,9-1f PH** PSIEKANVPH1250.9_1 (Smarty 2R VE plus)	**CM230-F-L** ZAKP0076	**SKG-A** GSKSKG028	**AP** GAPAP002	**NP** GFDNPC002	**ALU** GGRALU002

The company reserves the right to make changes of technical data without prior notice

Smarty 2R VE

A
B

49 dB

201 m³/h ⬆️⬇️

		VER	VEL
Ordering code		GAGSMARTY 1975_0102A	GAGSMARTY 1981_0102A
Electrical data			
Fans	[p/VAC/Hz]	~1/230/50	
exhaust	[kW/A]	0.07/0.6	
supply	[kW/A]	0.07/0.6	
Electrical preheater integrated	[kW]	Optional on duct	
Electrical heater	[kW/A]	0.6/2,61	
Max.power consumption	[kW/A]	0.75 /3.91	
Power connection	[p/VAC/Hz]	~1/230/50	
Control board		MCB basic	
Ecodesign data			
Energy efficiency class	Time control	B	B
	Local demand control	A	A
Thermal efficiency of heat recovery	[%]	76,6	
Sound power level (Lwa)	[dB(A)]	49	
SPI	[W/(m³/h)]	0.47	
Maximum internal/external leakage rates	[%]	3.0/2.0	
ErP compliance		2018	
Other data			
Filters	Supply/Extract	ePM10 55%/ePM10 55% (M5/M5)	
Housing insulation, mineral wool	[mm]	20	
Colour	white	RAL 9016	
Weight (net, without packing)	[kg]	36	
Housing protection class		IP 34	
Operation		Indoors only (heated premises)	

* - ePM1 70% (F7) filter is available as an option

Without frost protection	With optional preheater on duct	Extract air
-23⁰C+40⁰C/ 90%	-40⁰C/+40⁰C/90%	+15⁰C/+40⁰C/60%

Smarty 2R VEL
Air intake side (L- left convertible)

View from inspection side

Smarty 2R VER
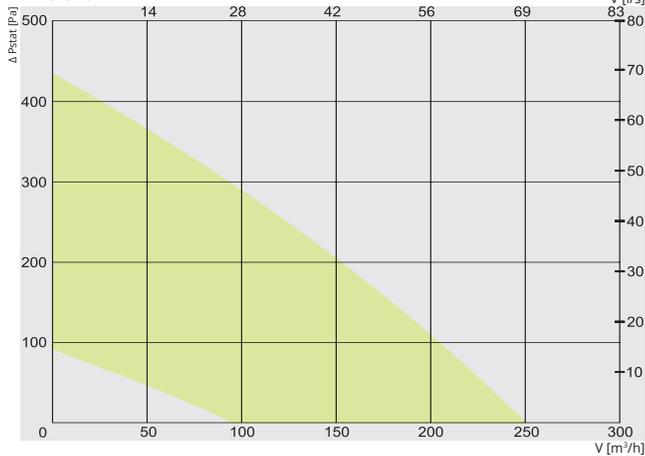Air intake side (D- right convertible)
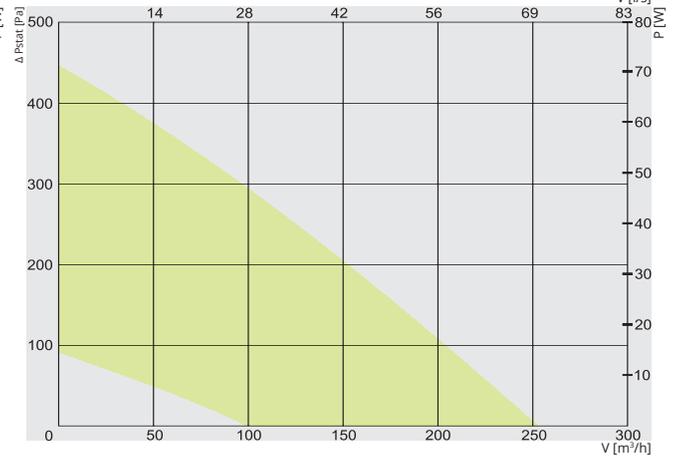
View from inspection side

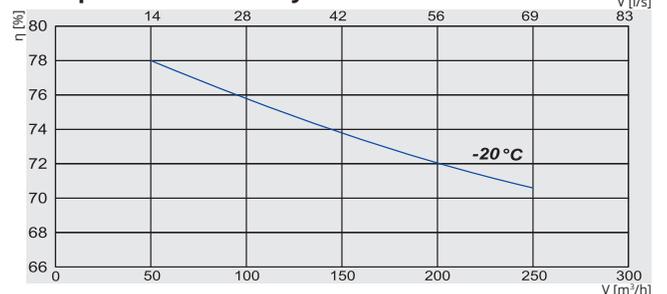🏠 Exhaust air 🏠 Extract air 🏠 Outdoor air 🏠 Supply air 🔺 Kitchen hood

─────── Performance
─ ─ ─ ─ Power consumption

Supply air

Exhaust air

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

Temperature efficiency

-20 °C

Smarty 2R VE	Lwa total, dB(A)	LWA, dB(A)							
		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Outdoor	62	22	54	61	48	41	27	20	14
Supply	70	29	61	68	59	60	55	49	43
Extract	62	22	54	61	49	36	28	19	14
Exhaust	69	28	60	67	58	58	52	48	41
Surround	49	10	40	48	36	31	30	30	29

Measured at 140 m³/h, 50 Pa

AIR HANDLING UNITS

Smarty 2R VE plus

48 dB

256 m³/h

		VER	VEL
Ordering code		GAGSMARTY 1985_0106A	GAGSMARTY 1984_0106A
Electrical data			
Fans	[p/VAC/Hz]	~1/230/50	
exhaust	[kW/A]	0.084/ 0.75	
supply	[kW/A]	0.084/ 0.75	
Electrical preheater integrated	[kW/A]	Optional on duct	
Electrical heater	[kW/A]	0.6/2,61	
Max.power consumption	[kW/A]	0.78 /4.13	
Power connection	[p/VAC/Hz]	~1/230/50	
Control board		MCB basic	
Ecodesign data			
Energy efficiency class	Time control	B	B
	Local demand control	A	A
Thermal efficiency of heat recovery	[%]	75.9	
Sound power level (Lwa)	[dB(A)]	48	
SPI	[W/(m³/h)]	0.5	
Maximum internal/external leakage rates	[%]	3.0/2.0	
ErP compliance		2018	
Other data			
Filters	Supply/Extract	ePM10 65%/ePM10 65% (M5/M5)	
Housing insulation, mineral wool	[mm]	20	
Colour		white	RAL 9016
Weight (net, without packing)	[kg]	36	
Housing protection class		IP 34	
Operation		Indoors only (heated premises)	

Without frost protection	With optional preheater on duct	Extract air
-23⁰C+40⁰C/ 90%	-40⁰C/+40⁰C/90%	+15⁰C/+40⁰C/60%

Smarty 2R VEL plus
Air intake side (L- left convertible)

View from inspection side

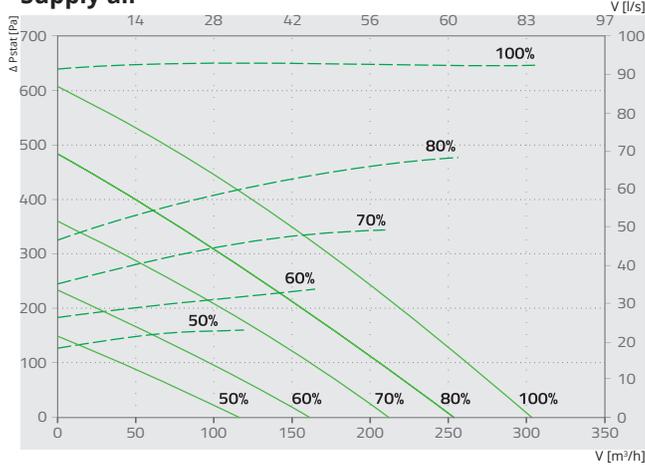**Smarty 2R VER plus**
Air intake side (D- right convertible)
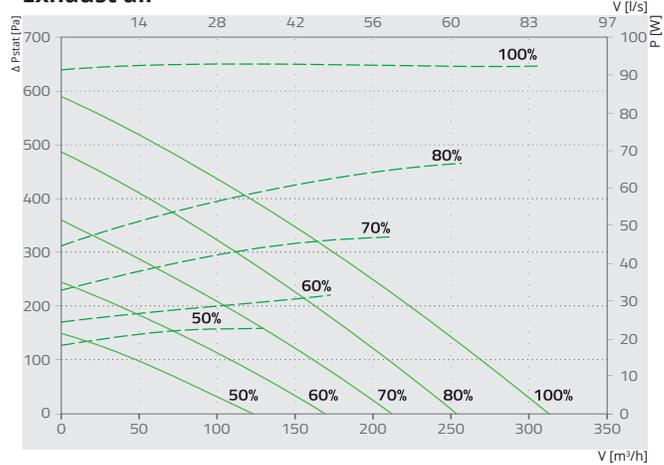
View from inspection side

🏠 Exhaust air 🏠 Extract air 🏠 Outdoor air 🏠 Supply air △ Kitchen hood

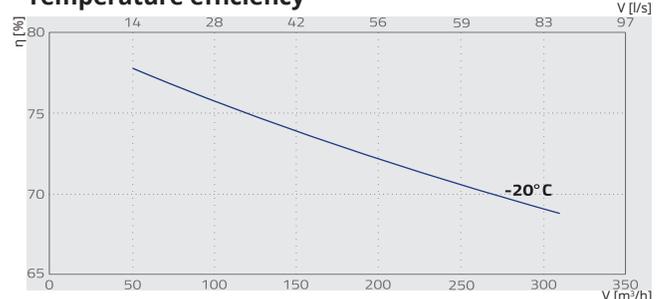—— Performance
------- Power consumption

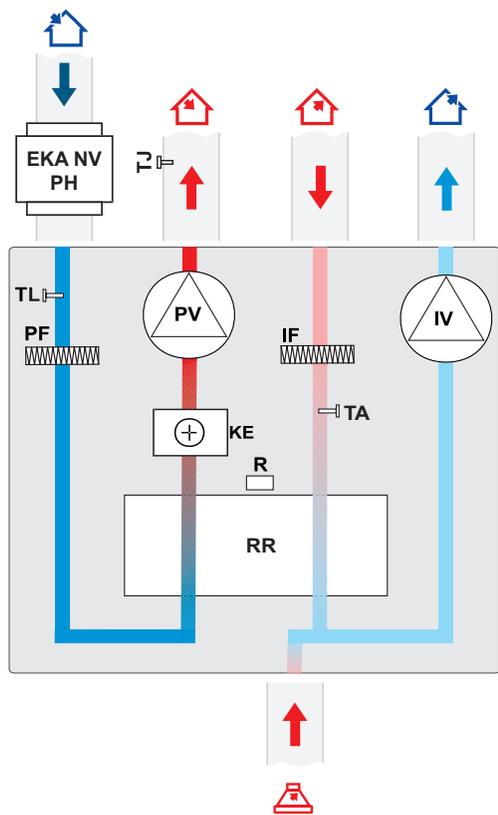### Supply air

Exhaust air

Temperature efficiency

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

Smarty 2R VE plus	L_wa total, dB(A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Outdoor	60	18	50	58	55	44	28	16	12
Supply	66	23	55	63	61	56	55	48	40
Extract	60	19	50	58	54	40	35	24	17
Exhaust	66	23	55	62	60	56	53	46	36
Surround	48	3	34	44	45	32	31	30	29
Measured at 180 m³/h, 50 Pa									

The company reserves the right to make changes of technical data without prior notice

SMARTY R

Smarty 2R VE / 2R VE plus (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	
	MCB basic
Descriptions of the functions	**Smarty range**
Functions	
Date and time settings	+
System modes for easy and-user friedly 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)	+
Cold/heat recovery	+
Fire place function	+
Winter/summer mode	+
System monitoring	o
Digital input confguration	+
Event register (storing up to 50 entries)	+
Dryness protection	o
Manual components control	o
Weekly schedule	+
Holiday schedule	+
CO_2 level indication and reduction function	o
Night cooling function	+
Relative humidity (RH) level indication and reduction function	o
Supply air temperature control according to the extract air sensor	+
Manual components control	o
Reset to factory defaults	+
Functional units	
Fans	
Speed synchronous/asynchronous 0-10V control	+
Protection by RPM	+
Electric heater	
On/off control	+
Air dampers	
Outdoor air dampers control	+
Filters clogging monitoring	
Air filters timer	+
Sensors	
Supply air temperature sensor	+
Outdoor air temperature sensor	+
Extract air temperature sensor	+
Remote controllers	
S-Touch	x
Flex MCB	x
SA Control	x
MB Gateway	x
Building management system	
Modbus	+
BACnet/IP	o

o	**Required additional components: CO2 and RH sensors, switches, etc.**
+	**Standard feature (the number of features depends on the ventilation unit in which the automatics are used); to be confgured through BMS network or remote control panel**
x	**Remote control panels**

AIR HANDLING UNITS