

Energy Smart

Recovery Unit



Energy Smart ENY-SP Vertical Units

The Sabiana Energy Smart units are high efficiency ventilation units with heat recovery and are designed for residential ambiances.

The units replace the exhaust air of indoor environments with filtered air coming from the outside thanks to a special high efficiency ePM₁ 55% - F7 class filter. The hexagonal counterflow recovery unit prevents any winter heat drops due to the introduction of fresh air, there by recovering up to 92.5% of the extracted heat and conveying it to the clean air introduced in the occupied environment.

Each unit is also equipped with an average efficiency filter (ePM₁₀ 50% - M5) installed on the inlet of the extraction section to prevent any dust from getting into the equipment.

The integrated T-EP controller can also be used as a wall-mounted controller. It supports such functions as: automatic mode, weekly programming, filter change reminder, free-cooling option, Holiday, Party functions. Controller can be used together with a CO₂ sensor.



T-EP control

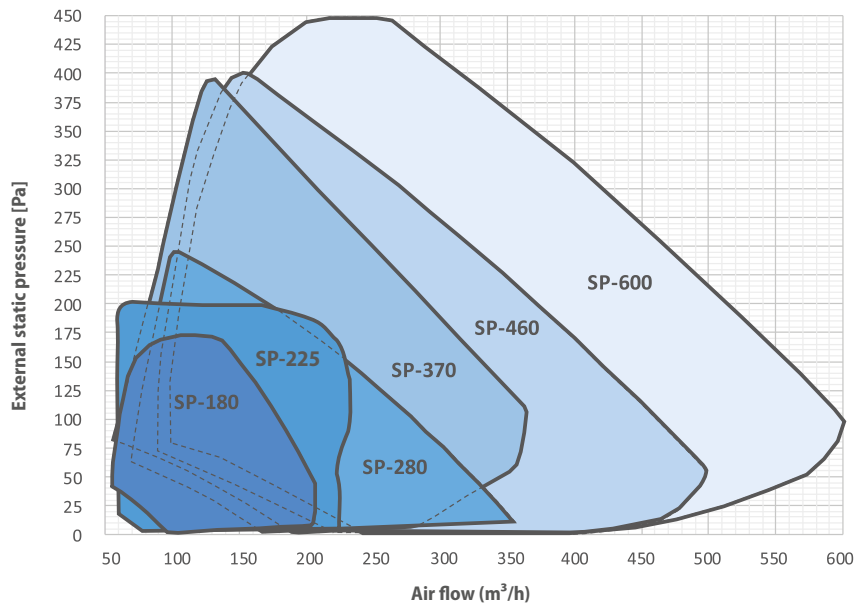
All Energy Smart units comply with the 2018 efficiency limits imposed by Regulation 1253/14.

The Pro versions are equipped with an automatic centralised air flow control system operated by an integrated humidity sensor located in the extracted air duct. If the humidity of the indoor environment exceeds the reference parameters, to prevent the proliferation of mould and pathogenic bacteria, the fresh air flow is increased with the aim of restoring a healthy humidity level. The control also prevents from dropping below excessively low humidity levels, thus preventing excessively dry conditions inside the environments and, as a result, any health hazards. The units are NOT able, by themselves, to lower the level of internal humidity to a value below that of the outdoor. All the units can be controlled by means of a **supervisory system** in accordance with the following protocols:

- **Modbus**, with direct access to the dedicated RS 485 web gateway
- **Konnex**, with KNX interface board (optional)

Energy Smart units are suitable for operation in balanced or slightly unbalanced flow and return conditions. They ensure residential air exchange, recovering the heat from the extracted air and conveying it to the clean air. The chart below shows the recommended operating ranges in terms of volumetric supply air flow rate at standard conditions and available external static pressure.

Pro ENY-SP vertical version



Model	ENY-SP-180	ENY-SP-225*	ENY-SP-280	ENY-SP-370	ENY-SP-460	ENY-SP-600	
Q_{max}	m³/h	180	225	280	370	460	600
Q_{rif}	m³/h	130	158	200	260	320	420
P_{el}	W	23	47,4	35	47	76	105
η^t_{rvu}	%	91,5%	89,0%	91,4%	92,5%	88,6%	88,0%
SPF	W/m³/h	0,174	0,3	0,174	0,179	0,237	0,247
Energy class	-	A+	A	A+	A+	A	A
Filter efficiency	-	ePM ₁ 55% - F7 ePM ₁₀ 50% - M5					
L_{WA}	dB(a)	38,9	43	43,1	46,3	47,9	52,4
Components and materials	-	<ul style="list-style-type: none"> Main structure: polystyrene Outer casing: painted galvanized steel plate Acoustic insulation: polyester fiber Filters: Synthetic, microfilm 		<ul style="list-style-type: none"> T-EP integrated touch controller Mainboard with Modbus Heat exchanger: count% interface Condensate drainage 1"½ 		<ul style="list-style-type: none"> Motorized by-pass valve Temperature sensor PT1000 Humidity sensor for control based on extracted air 	
Options	-	<ul style="list-style-type: none"> Additional external electric heater 		<ul style="list-style-type: none"> Enthalpy plate heat exchanger 		<ul style="list-style-type: none"> Installation legs 	
HEP	W	500	800	900	1250	1600	2000

* = not Passivhaus certified unit

Q_{max} = Maximum flow rate, at max motor speed and external static pressure of 100 Pa

Q_{rif} = Reference flow rate - 70% of Q_{max}

P_{el} = Power supply at Q_{rif} and external static pressure of 50 Pa

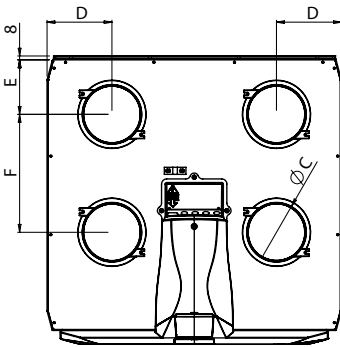
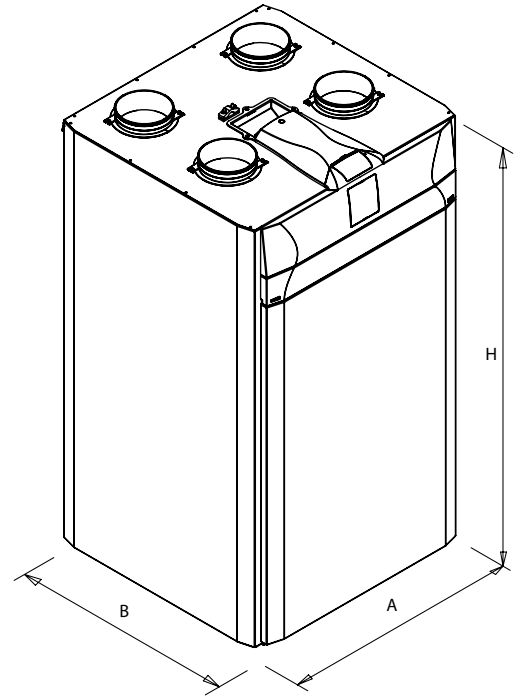
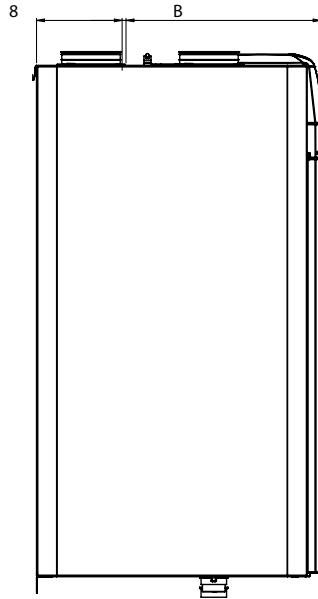
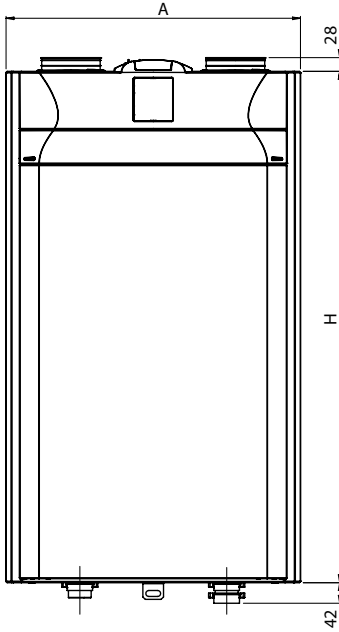
η^t_{rvu} = Thermal efficiency at Q_{rif}

SPF = Specific power input

L_{WA} = Sound power level emitted by structure

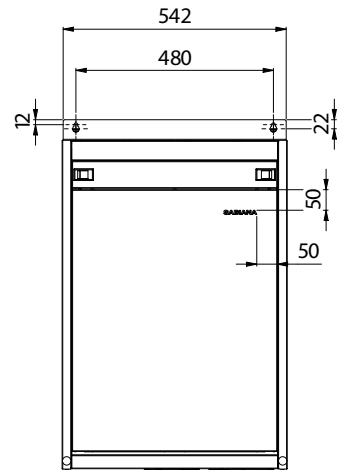
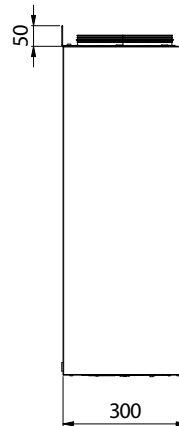
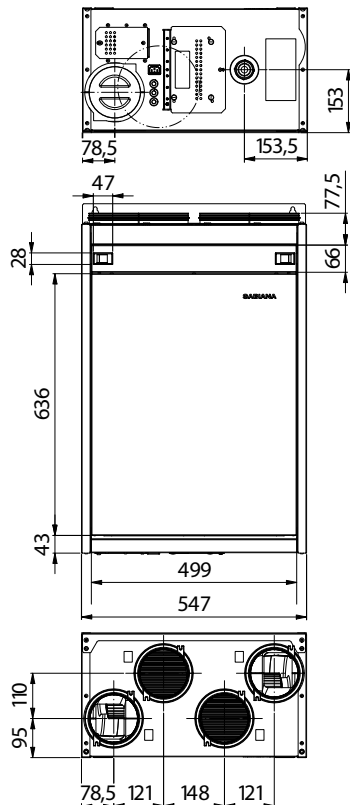
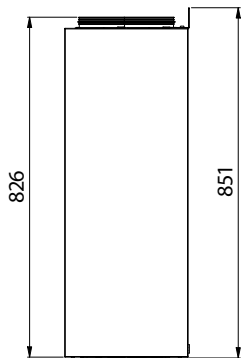
HEP = Pre-heater power

Pro ENY-SP version

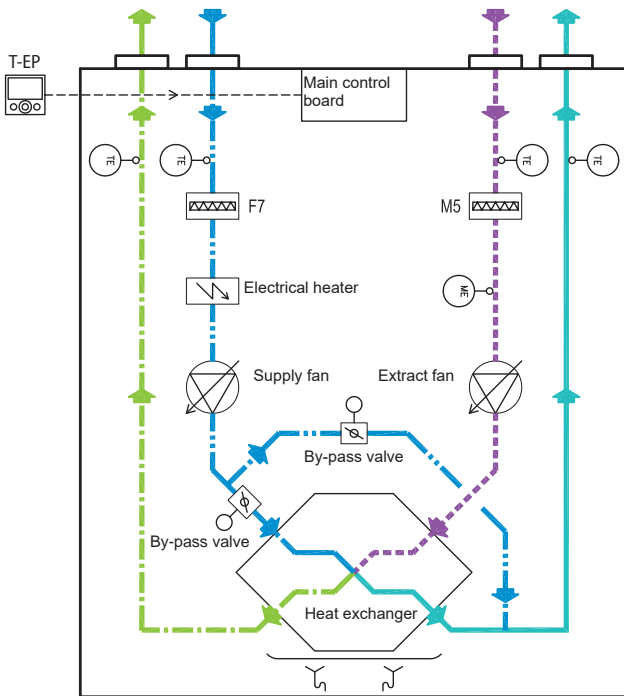


Model	Dimensions (mm)							Weight (kg)	
	A	B	ØC	H	D	E	F	With packaging	Without packaging
ENY-SP-180	600	580	125	1041	132	111	240	63	47
ENY-SP-280	600	630	160	1041	132	111	290	67	51
ENY-SP-370	660	680	160	980	147	126	305	75	56
ENY-SP-460	660	680	180	980	147	126	305	75	59
ENY-SP-600	660	680	180	980	147	126	305	75	60

Pro ENY-SP-225 version

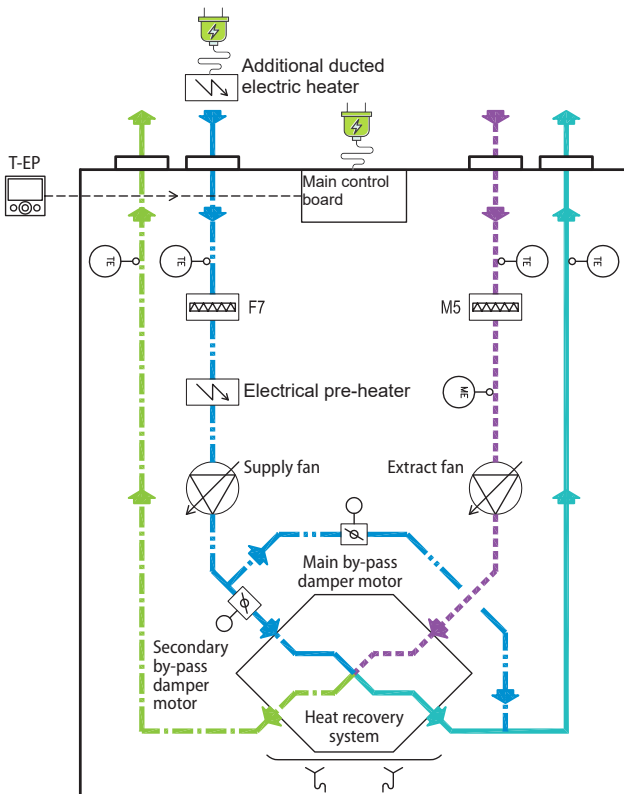


Operating diagram with integrated electric heater, operation down to -20°C
(model ENY-SP-225 down to -10°C)



LEGEND	
	Fresh air
	Air supply
	Extracted air
	Air exhaust
	Panel filter
	Remote or built-in controller
	Electrical heater
	Temperature sensor
	Humidity sensor
	Drainage of condensate

Operating diagram with additional electric heater, operation below -20°C



LEGEND	
	Fresh air
	Air supply
	Extracted air
	Air exhaust
	Panel filter
	Remote or built-in controller
	Electrical heater
	Temperature sensor
	Humidity sensor
	Drainage of condensate

Distributor in Lithuania