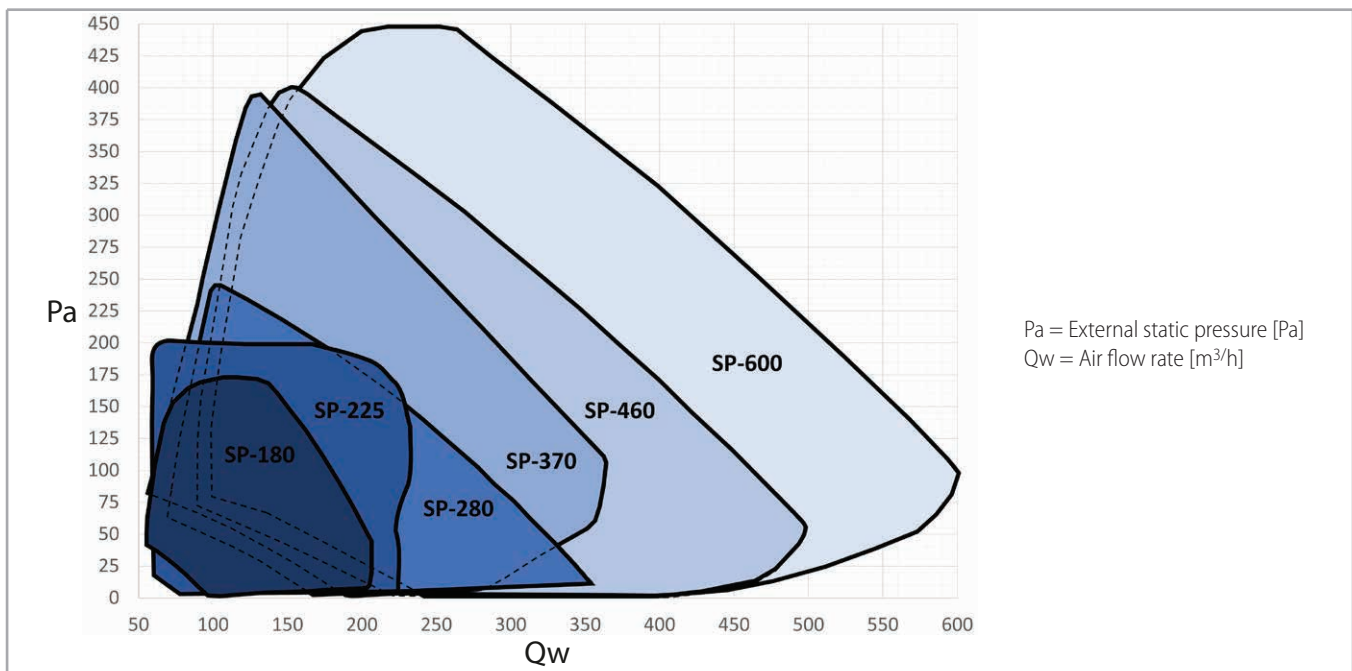


## FAST UNIT SELECTION

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



		ENY-SP-180	ENY-SP-225	ENY-SP-280	ENY-SP-370	ENY-SP-460	ENY-SP-600
Q <sub>max</sub>	[m <sup>3</sup> /h]	180	225	280	370	460	600
Q <sub>ref</sub>	[m <sup>3</sup> /h]	130	158	200	260	320	420
P <sub>el</sub>	[W]	23	47,4	35	47	76	105
η <sub>t_rvu</sub>	[%]	91,5%	89,0%	91,4%	92,5%	88,6%	88,0%
SPI	[W/m <sup>3</sup> /h]	0,174	0,300	0,174	0,179	0,237	0,247
CTRL	-	0,85	0,85	0,85	0,85	0,85	0,85
SEC	[KWh/m <sup>2</sup> a]	-42,32	-38,60	-42,29	-42,47	-40,10	-39,71
Energy class	-	A+	A	A+	A+	A	A
Filter efficiency	-	ePM <sub>1</sub> 55% - F7					
		ePM <sub>10</sub> 50% - M5					
L <sub>WA</sub>	[dBa]	38,9	43,0	43,1	46,3	47,9	52,4
LK <sub>i</sub>	[%]	1,2%	1,7%	0,7%	0,5%	0,3%	0,60%
LK <sub>e</sub>	[%]	1,7%	1,8%	1,0%	0,8%	0,7%	1,84%
HEP	[W]	500	800	900	1250	1600	2000

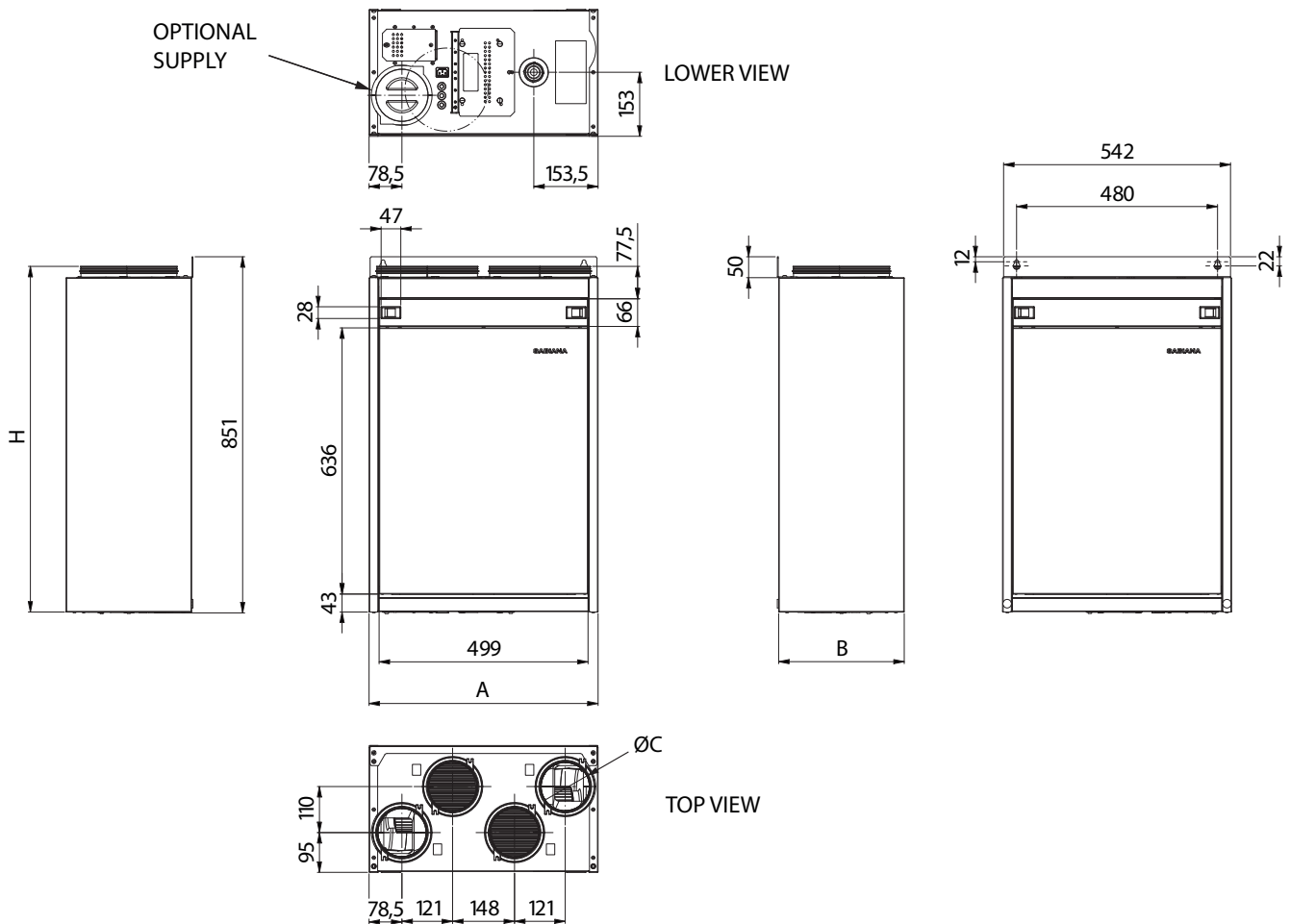
LEGEND | all terms must be considered in compliance with Standard EU 1253/2014  
 Q<sub>max</sub>: Maximum flow rate, at max. motor speed and external static pressure of 100 Pa  
 Q<sub>ref</sub>: Reference flow rate - 70% di Q<sub>max</sub>  
 P<sub>el</sub>: Power supply at Q<sub>ref</sub> and external static pressure of 50 Pa  
 η<sub>t\_rvu</sub>: Thermal efficiency at Q<sub>ref</sub>  
 SPI: Specific power input  
 CTRL: Control factor - Centralised automatic control  
 SEC: Specific energy consumption  
 L<sub>WA</sub>: Sound power level emitted by structure  
 LK<sub>i</sub>: Internal leakage at 100 Pa compared to Q<sub>ref</sub>  
 LK<sub>e</sub>: External leakage at 250 Pa compared to Q<sub>ref</sub>  
 HEP: Pre-heater power (only mod. SPEL, SPER)



# DIMENSIONS AND WEIGHT | Energy Smart | versione verticale

## ENY-SP-225 version

All Pro Versions are equipped with a humidity sensor and automatic flow rate calibration system.



A	B	$\varnothing C$	H	Weight with packaging	Weight without packaging
547	300	125	826	33 kg	29 kg

## TECHNICAL DATA

### Pro ENY-SP version with advanced air flow control



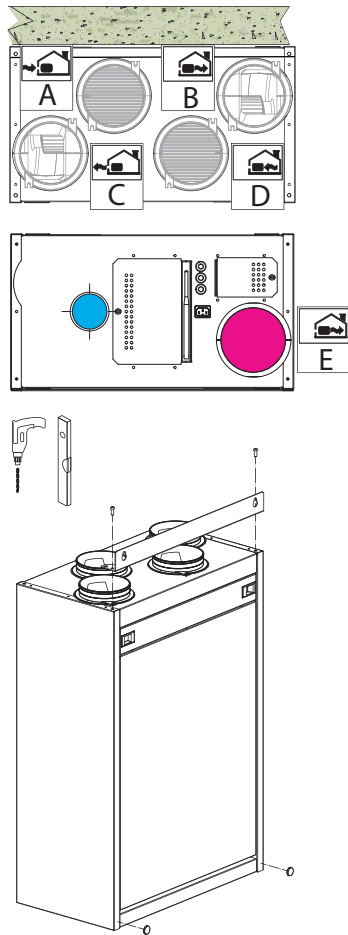
Model		ENY-SP-180	ENY-SP-225	ENY-SP-280	ENY-SP-370	ENY-SP-460	ENY-SP-600
Depth	mm	580	300	630	680	680	680
Width	mm	600	547	600	660	660	660
Height	mm	1041	799	1041	980	980	980
Duct connection	-	DN125	DN125	DN160	DN160	DN180	DN180
Weight <sup>1</sup>	kg	47	29	51	56	59	60
Maximum flow rate	m <sup>3</sup> /h	180	225	280	370	460	600
External static pressure at maximum flow rate	Pa	100	100	100	100	100	100
Reference flow rate	m <sup>3</sup> /h	130	158	200	260	320	420
External static pressure at reference flow rate	Pa	50	50	50	50	50	50
Minimum flow rate	m <sup>3</sup> /h	50	60	70	50	90	100
Maximum supply external static pressure	Pa	160	200	240	390	400	450
Thermal efficiency at reference flow rate (EN 13141-7)	%	91%	89%	91%	92%	89%	88%
Filtering efficiency (ISO 16980)	-	ePM <sub>1</sub> 55% - F7 supply / ePM <sub>10</sub> 50% - M5 extraction					
Fan type	-	Centrifugal fan with EC brushless motor and backward-curved blades (forward-blades for SP-225)					
Maximum power absorbed by controls and fans	W	50	132	70	120	215	300
Maximum current absorbed by controls and fans	A	0,6	1,09	1,0	1,0	2,0	2,2
Power supply	-	Single phase – 230 V – 50 Hz via 1.5 m cable with Schuko CEE 7/7 connection					
Standby power		< 1 W					
Safety features		IP protection rating: IP21 CE compliance <sup>2</sup>					
Components and general materials	-	T-EP capacitive touch pad integrated control Main power board with Modbus interface Main structure: Polystyrene or polyurethane External covering: Painted galvanized steel plate Plastic components: ABS Acoustic insulation: Polyester fibre where present Recovery unit: Counterflow plate heat recovery unit - PET Fan blades and housings: PA6 in plastic, reinforced fibreglass or ABS Filters: Micro-pleated type - Synthetic Motorised bypass dampers: 1) ON/OFF - ABS; 2) ON/OFF - Steel plate Temperature sensors PT1000 or NTC10k (ENY-SP-225) Humidity Sensor Central Demand Control for Extract Air Condensate Drainage 1"½ gas thread Male					
Accessories	-	Feet External Electric Heater					
Maximum Defrost Pre-Heater power	W	500	800	900	1250	1600	2000
Maximum electric heater current	A	3,0	10,0	5,0	7,0	9,2	10,0

<sup>1</sup> Without packaging

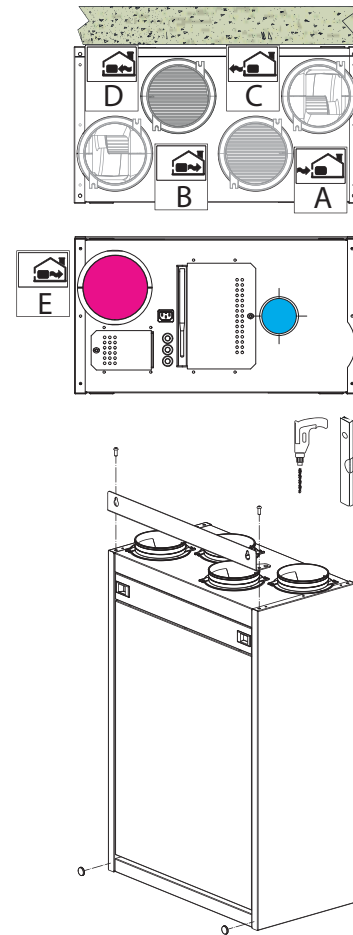
<sup>2</sup> EN 60335-1, EN 60335-2-80, EN 62233, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3, EN 50581, Reg. 1253/14, Reg. 1254/14 (EU Directives: 2014/35/EU, 2014/30/EU, 2006/42/EU, 2011/65/EU)

## ENY-SP-225 version

### Left side configuration

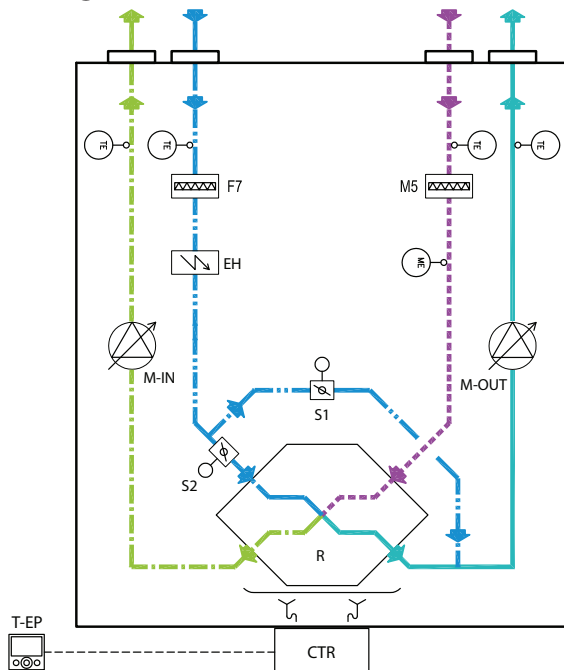


### Right side configuration



A = Fresh air / B = Supply air / C = Exhaust air / D = Extract air / E = Optional supply

### Basic diagram



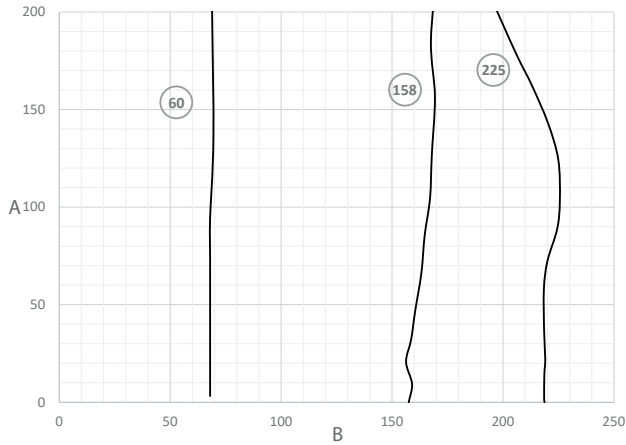
- CTR = Main power board
- EH = Electric pre-heater
- M-IN = Supply fan
- M-OUT = Extract fan
- S1 = Main by-pass damper motor
- S2 = Secondary by-pass damper motor
- R = Heat recovery system
- = fresh air
- = supply air
- = extract air
- = exhaust air
- = micro pleat filter
- = remote or on board control
- = electric pre-heater optional only required for cold climates
- = temperature sensor
- = humidity sensor central demand control
- = condensate drainage

## ENY-SP-225

All mechanical efficiency curves are measured in standard air conditions (1 atm, 20 °C)

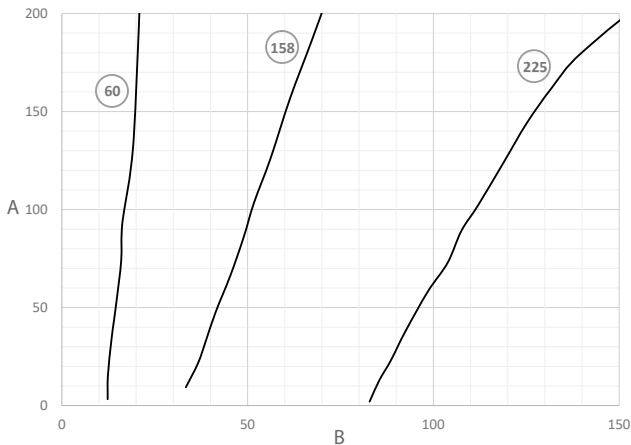
- Air flow: min. 60 m<sup>3</sup>/h, max. 225 m<sup>3</sup>/h.
- Curves with nominal flow rate 60, 158, 225 m<sup>3</sup>/h.

### Supply air / Extract air



⊗ = Nominal flow rate  
 A = Available static pressure [Pa]  
 B = Air flow [m<sup>3</sup>/h]

### Electrical power input



⊗ = Nominal flow rate  
 A = Available static pressure [Pa]  
 B = Power absorbed [W]

The curves apply in the event of balanced flow rates.



In Compliance with EU 1254/14 - Annex IV

Table of compliance with Regulations EU 1254/14 Annex IV - Energy Smart

Supplier name or brand	Sabiana SpA																	
Supplier model identification	ENY-SP-180			ENY-SP-225			ENY-SP-280			ENY-SP-370			ENY-SP-460			ENY-SP-600		
Specific energy consumption SEC in [kWh/(m <sup>2</sup> a)] for each applicable climate zone (temperate, hot, cold, climate)	-42,32	-17,2	-81,6	-38,6	-13,9	-77,2	-42,29	-17,2	-81,6	-42,47	-17,2	-82,0	-40,10	-15,4	-78,6	-39,71	-15,1	-78,1
SEC class - temperate climatic zone	A+			A			A+			A+			A			A		
Type declared according to EU 1253/14	BVU			BVU			BVU			BVU			BVU			BVU		
Type of drive installed	Continuous speed variator																	
Type of heat recovery system	Static sensitive heat recovery unit																	
Thermal efficiency	91,5%			88,6%			91,4%			92,5%			88,6%			88,0%		
Max. flow rate [m <sup>3</sup> /h]	180			225			280			370			460			600		
Power absorbed by the fan drive, including all motor control devices, at maximum flow rate [W]	50			112			70			120			215			300		
Sound power level (LWA) in [dB(A)]	38,9			43			43,1			46,3			47,9			52,4		
Reference flow rate [m <sup>3</sup> /h]	130			158			200			260			320			420		
Reference pressure difference [Pa]	50			50			50			50			50			50		
SPI [W/(m <sup>3</sup> /h)]	0,174			0,300			0,174			0,179			0,237			0,247		
Control factor and type of control	0,85 Centralised ambient control with humidity sensor			0,85 Central need control			0,85 Centralised ambient control with humidity sensor			0,85 Centralised ambient control with humidity sensor			0,85 Centralised ambient control with humidity sensor			0,85 Centralised ambient control with humidity sensor		
Maximum percentages declared [%] of internal and external leakage	Internal leakage: 1,2% External leakage: 1,7%			Internal leakage: 1,7% External leakage: 1,8%			Internal leakage: 0,7% External leakage: 1,0%			Internal leakage: 0,5% External leakage: 0,8%			Internal leakage: 0,3% External leakage: 0,7%			Internal leakage: 0,6% External leakage: 1,84%		
Position and description of the visual warning signal relating to the filter for RVUs intended for use with filters, including a text that emphasizes the importance of replacing the filter at regular intervals in order to safeguard unit performance and energy efficiency.	<p>Please refer to the following parts of the brochure:</p> <ul style="list-style-type: none"> <li>- T-EP control description;</li> <li>- recommendations for filter replacement: filters clogging could result into relevant flow rate reduction, which implies the need of frequent windows opening and consequent thermal demand increase. Proper replacement period depends on background air quality, which can broadly vary between city centers and countryside.</li> </ul> <p>In order to prevent filters clogging, optimum average period for filters replacement is 3 month. However, due to normal dust collection and spring pollens, maximum suggested period should not exceed 6 months.</p> <p>Filters replacement period can be modified by maintainer with a precision of days (min 30, max 360).</p>																	
Internet address with the disassembly instructions	<a href="https://www.sabiana.it/en">https://www.sabiana.it/en</a>																	
AEC (Annual Energy Consumption) [kWh/a]	203	158	740	317	272	854	203	158	740	207	162	744	260	215	797	269	224	806
AHS - (Annual Heating Energy Savings) [kWh/a]	4670	2111	9136	4592	2076	8983	4667	2110	9131	4697	2124	9189	4591	2076	8982	4576	2069	8951