Energy Smart | FAST UNIT SELECTION



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ENY-SHP Pro Version



		ENY-SHP-150	ENY-SHP-170	ENY-SHP-270			
Q _{max}	[m ³ /h]	150	170	270			
Q _{rif}	[m ³ /h]	105	120	190			
P _{el}	[W]	56	23	47,8			
ηt_ _{rvu}	[%]	87%	92,1%	84,4%			
SPI	[W/m ³ /h]	0,227	0,193	0,24			
CTRL	-	0,85	0,85	0,85			
SEC	[kWh/m²a]	-39,90	-42,05	-38,9			
Energy class	-	А	A+	A			
Filter efficiency		ePM ₁ 55% - F7					
	-	ePM ₁₀ 50% - M5					
L _{WA}	[dBa]	38,0	44,9	41,3			
LKI	[%]	1,8%	0,5%	0,4%			
LK _E	[%]	0,8%	2,3%	1,1%			
HEP	[W]	-	600	900			

LEGEND | all terms must be considered in compliance with Standard EU 1253/2014 Q_{max} : Maximum flow rate, at max. motor speed and external static pressure of 100 Pa

 Q_{max} : Maximum now rate, at max, motor speed and external Q_{rfr} : Reference flow rate - 70% di Q_{max} P_{el} : Power supply at Q_{rff} and external static pressure of 50 Pa nt r_{rut} : Thermal efficiency at Q_{rff} SPI: Specific power input CTRL: Control factor - Centralised automatic control SEC: Specific energy consumption L_{WL} : Sound power level emitted by structure M_{VL} intermediate locations of 100 Pa consumed to Q

 $LK_{\rm c}$ Internal leakage at 100 Pa compared to $Q_{\rm rif}$ $LK_{\rm E}$: External leakage at 250 Pa compared to $Q_{\rm rif}$ HEP: Pre-heater power (only mod. SHPEL and SHPER)

DIMENSIONS AND WEIGHT | Energy Smart | versione orizzontale

ENY-SHP-170 Pro Version



	Weight with packaging	Weight without packaging
ENY-SHP-170	35 kg	31 kg

Installation

The ENY-SHP-170 unit can easily be installed both horizontally and vertically.

Special support brackets are provided to install the unit horizontally on the ceiling and to install the unit vertically (especially in gaps between plasterboard walls and load-bearing walls).

The instruction manual indicates the appropriate maintenance clearance for each type of installation.

Horizontal installation

Spacer bars can be used to adjust the distance from the ceiling. It is recommended to install the unit tilted towards the side where the ePM_1 55% - F7 filter and the condensate drain pipe are placed, in order to facilitate condensate drainage (provide a slope of 2% towards the F7 filter and of 1% towards the condensate drain pipe).



Vertical installation

Place the side ePM_1 55% - F7 downwards the unit.



Energy Smart | versione orizzontale | TECHNICAL DATA

Pro ENY-SHP-170 Version with advanced air flow control



BA

Model		ENY-SHP-170		
Depth	mm	1098		
Width	mm	568		
Height	mm	327		
Duct connection	-	DN125		
Weight ¹	kg	31		
Maximum flow rate	m³/h	170		
External static pressure at maximum flow rate	Pa	100		
Reference flow rate	m³/h	120		
External static pressure at reference flow rate	Pa 50			
Minimum flow rate	m³/h	60		
Maximum supply external static pressure	Pa	230		
Thermal efficiency at reference flow rate EN 13141-7	%	92%		
Filtering efficiency ISO 16890	-	ePM ₁ 55% - F7 supply / ePM ₁₀ 50% - M5 extraction		
Fan type	-	Centrifugal fan with EC brushless motor and backward-curved blades		
Maximum power absorbed by controls and fans 3	W	50		
Maximum current absorbed by controls and fans	A	0,6		
Power supply	-	Single phase - 230 V – 50 Hz via 1.5 m cable with Schuko CEE 7/7 connection		
Standby power		<1W		
Cafatu faaturac		IP protection rating: IP21		
		CE compliance ²		
	-	T-EP capacitive touch pad integrated control.		
		Main power board with Modbus interface.		
		Maximum defrost pre-heater power: hot filament electric heater with reinforced metal lining, controlled by PWM signal (optional).		
		Main structure: Polystyrene.		
		External covering: Painted galvanized steel plate.		
Components and general materials		Recovery unit: Counterflow plate heat recovery unit - PET.		
Components and general materials		Fan blades and housings: PA6 in plastic, reinforced fibreglass.		
		Filters: Micro-pleated type - Synthetic		
		Bypass damper with two louvers made of POM and steel.		
		Temperature sensors PT1000.		
		Humidity Sensor Central Demand Control for Extract Air.		
		Condensate drain pipe L=800 mm.		
Accorsorios		Internal hot filament Defrost Electric Pre-Heater with reinforced metal lining, controlled by PWM signal.		
ACCESSOILES		External Electric Heater.		
Maximum Defrost Pre-Heater power	Defrost Pre-Heater power W 600			
Maximum electric heater current	A	3		

¹ Without packaging ² 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)

Energy Smart | versione orizzontale | EFFICIENCY CURVES



ENY-SHP-170

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

- Nominal flow rate range $V_{max} = 8,9 \text{ V}$; $V_{min} = 3,0 \text{ V}$.
- Maximum current input $I_{max} = 0,6$ A a 10 V.





100

125

150

В

175

200

225

0

50

75

SFP includes the consumption of the fans and controls. The curves apply in the event of balanced flow rates.

The minimum voltage indicated only refers to a minimum value that can be configured during the nominal flow rate calibration procedure.

In fact, during normal operation the motors can operate at lower voltages.

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

Supplier name or brand	Sabiana SpA									
Supplier model identification	ENY-SHP-150		ENY-SHP-170			ENY-SHP-270				
Specific energy consumption SEC in [kWh/(m ² a)] for each applicable climate zone (temperate, hot, cold, climate)	-39,90	-15,4	-78,0	-42,05	-16,8	-81,5	-38,90	-14,8	-76,4	
SEC class - temperate climatic zone	A				A+			A		
Type declared according to EU 1253/14	BVU			BVU			BVU			
Type of drive installed	Continuous speed variator									
Type of heat recovery system	Static sensitive heat recovery unit									
Thermal efficiency	87,0%			92,1%			84,4%			
Max. flow rate [m ³ /h]		150		170			270			
Power absorbed by the fan drive, including all motor control devices, at maximum flow rate [W]	59			50			105			
Sound power level (LWA) in [dB(A)]	38,0			44,9			41,3			
Reference flow rate [m ³ /h]	105			120			190			
Reference pressure difference [Pa]	50			50			50			
SPI [W/(m³/h)]	0,227			0,193			0,240			
	0,85			0,85			0,85			
Control factor and type of control	Centralised ambient control with humidity			Centralised ambient control with humidity			Centralised ambient control with humidity			
	sensor			sensor			sensor			
Maximum percentages declared [%] of internal and external leakage	Internal leakage: 1,8%			Internal leakage: 0,5%			Internal leakage: 0,4%			
	External leakage: 0,8%			External leakage: 2,3%			External leakage: 1,1%			
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.	Please refer to the following parts of the brochure: - T-EP control description; - 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. 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. Filters replacement period can be modified by maintainer with a precision of days (min 30, max 360).									
Internet address with the disassembly instructions	https://www.sabiana.it/en									
AEC (Annual Energy Consumption) [kWh/a]	250	205	787	220	175	757	262	217	799	
AHS - (Annual Heating Energy Savings) [kWh/a]	4548	2057	8898	4690	2120	9170	4478	2025	8760	