

HOME 360

Residential Rotary Heat Recovery Ventilation Unit



DOGU HVAC: INNOVATING TODAY SUSTAINING TOMORROW



HOME 360

RESIDENTIAL ROTARY HEAT RECOVERY VENTILATION UNIT

GENERAL FEATURES

HOME 360 is a residential rotary heat recovery ventilation unit designed to provide healthy, comfortable, and energy-efficient ventilation for apartments, detached houses, villas, and residential buildings. By continuously supplying fresh outdoor air while extracting stale indoor air, the high-efficiency rotary heat recovery technology recovers thermal energy from the exhaust air and preconditions the incoming fresh air. This significantly reduces ventilation-related energy losses while improving indoor air quality.

Featuring a compact design, quiet EC fans, and high energy efficiency, HOME 360 is developed to meet the ventilation requirements of modern living spaces.

One of the key advantages of HOME 360 is its double-sided service access. Fans, the rotary heat recovery wheel, filters, and the electrical control panel are accessible from both sides of the unit, allowing fast, safe, and convenient maintenance and servicing.



WORKING PRINCIPLE

HOME 360 operates by simultaneously extracting stale indoor air and supplying fresh outdoor air. The supply and exhaust air streams pass through a high-efficiency rotary heat recovery wheel without mixing with each other. As the wheel continuously rotates, it absorbs thermal energy from the exhaust air and transfers it to the incoming fresh air, providing highly efficient heat recovery.

During winter, the incoming outdoor air is preheated before being supplied to the living space. In summer, the relatively cooler exhaust air transfers its energy to the incoming fresh air, reducing the supply air temperature and improving indoor comfort. As a result, the heating and cooling demand of the building is significantly reduced throughout the year.

High-efficiency EC fans provide the required airflow while ensuring low energy consumption and quiet operation. The filtration system removes dust, pollen, and airborne particles from the incoming air, delivering clean and healthy fresh air to the indoor environment.

An optional 2kW electric post-heater supports reliable and efficient operation under low outdoor temperature conditions. An optional Differential Pressure Switch (DPS) monitors the pressure drop across the filters, enabling timely filter maintenance and ensuring optimum system performance.

The advanced control system continuously monitors and manages the operating parameters of the fans and rotary wheel to ensure safe, stable, and energy-efficient operation under all conditions. Thanks to its double-sided service access, fans, the rotary wheel, filters, and the electrical control panel can be easily accessed from either side of the unit, minimizing maintenance time and simplifying servicing.

COMPONENTS

① FILTERS

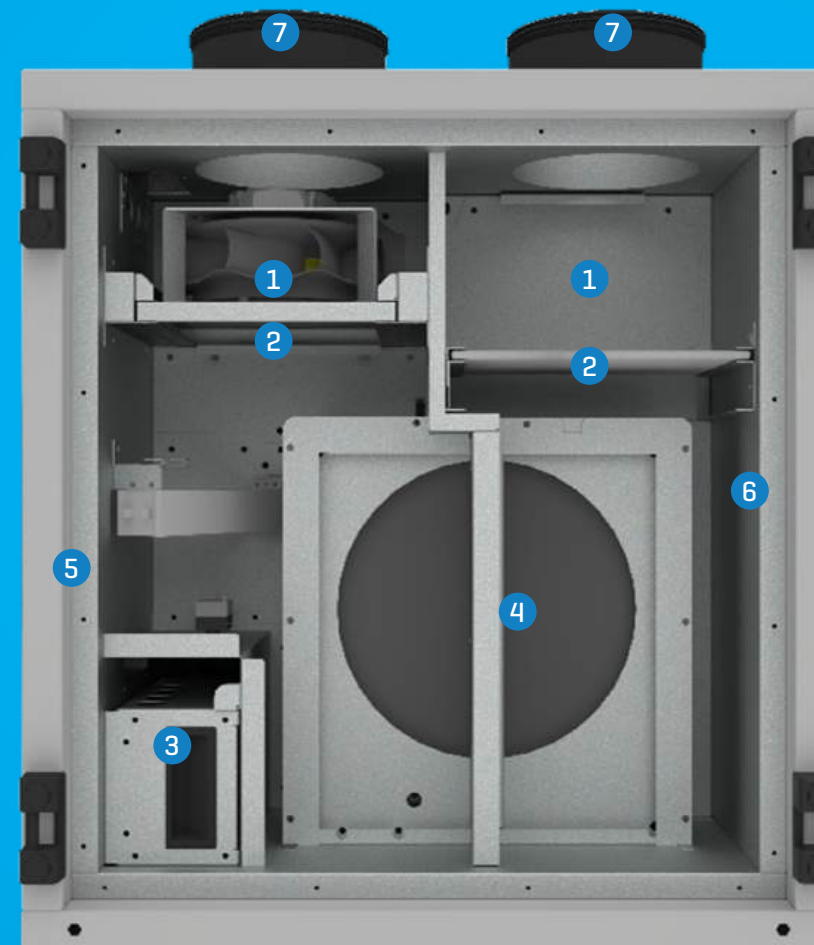
Filters retain dust, dirt, and particulates from the air, ensuring the indoor air is kept clean. They protect the system's equipment, helping it operate more efficiently and extend its service life. Their easily replaceable design makes maintenance procedures simple. The unit is equipped as standard with one stage of G4 [ISO Coarse] filters on both the exhaust air and fresh air intakes. An optional second-stage F7 [ISO ePM1 55%] panel filter can be installed on the supply air side only.

② FANS

Fans ensure efficient air circulation and continuous renewal of indoor air, creating a comfortable and healthy environment. The standard EC fans enhance system performance by providing high energy efficiency and low-noise operation.

③ AUTOMOTION PANEL

The automation panel is the central unit responsible for managing all electrical and operational functions of the device. Based on the data received from the fresh air temperature sensor, the controller automatically activates the optional duct heater when required. Weekly scheduling can be configured via LCD touchscreen or keypad display options. Air quality control can be achieved with the optional CO₂ sensor. The unit can also be supplied with optional fresh air intake and exhaust air dampers. An optional humidity sensor is available. In addition, optional hydronic coil and DX coil [VRF MASTER] control are available. IoT functionality enables remote monitoring and control via a smartphone or tablet application. Monitoring is available via the Modbus communication protocol.



④ HEAT RECOVERY HEAT EXCHANGER

The heat recovery exchanger transfers heat between the stale air expelled from the indoor space and the fresh air drawn from outside, without allowing the two air streams to mix. It transfers the heat contained in the stale air to the incoming fresh air, achieving air exchange. This refreshes the indoor air while saving energy and increasing overall system efficiency. The unit is equipped with a high-efficiency rotary heat recovery wheel.

⑤ CASE

The casing is the structural enclosure that protects all of the unit's mechanical and electrical components from external factors. Its robust construction ensures long-term durability. Its design, suited for thermal and acoustic insulation, contributes to a safe and quiet operating environment. It features a double-skin construction made of 0.8 mm thick sheet steel with a RAL 9016 electrostatic powder coating and is insulated with 50 mm mineral wool.

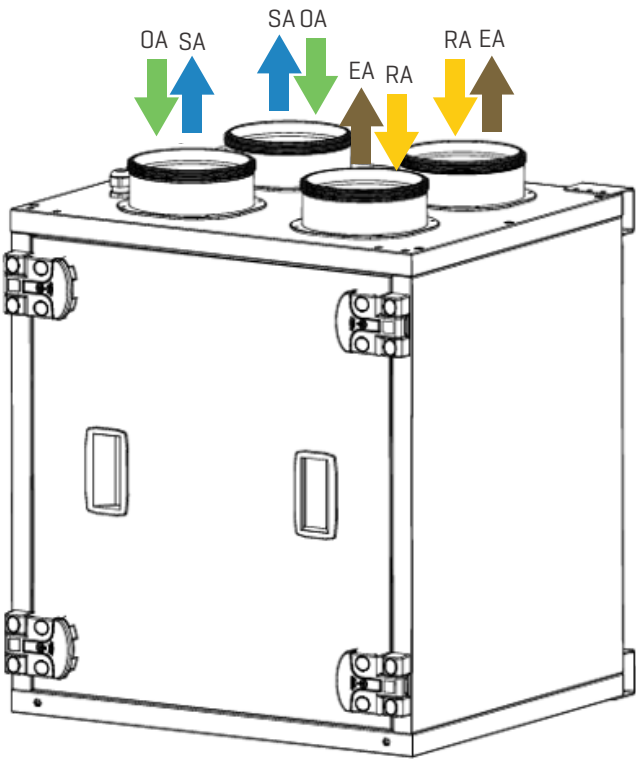
⑥ SERVICE COVERS

The unit is equipped with dedicated service covers providing easy access to the heat exchanger, filters, and fans. Thanks to their removable design, inspection, cleaning, maintenance, and component replacement operations can be carried out quickly and safely. This service-friendly construction reduces maintenance time, simplifies on site interventions, and ensures ease of operation throughout the unit's lifecycle. This design reduces service time and ensures ease of operation.

⑦ SPIGOT

The spigot is a duct connection component designed to provide secure and reliable air duct connections. It is available in either plastic or metal construction. Its lightweight and durable design allows for easy installation while supporting airtightness for efficient system operation. Plastic spigots are supplied as standard, with metal spigots available as an option.

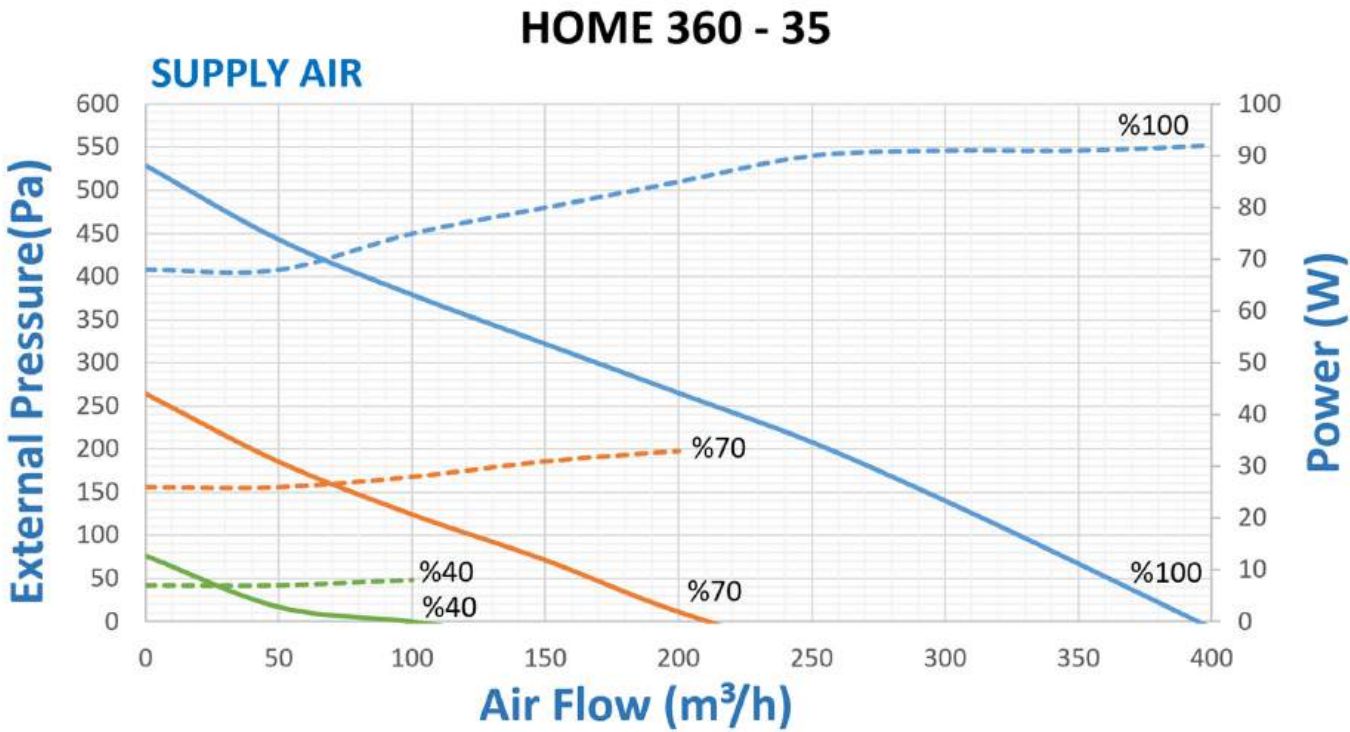
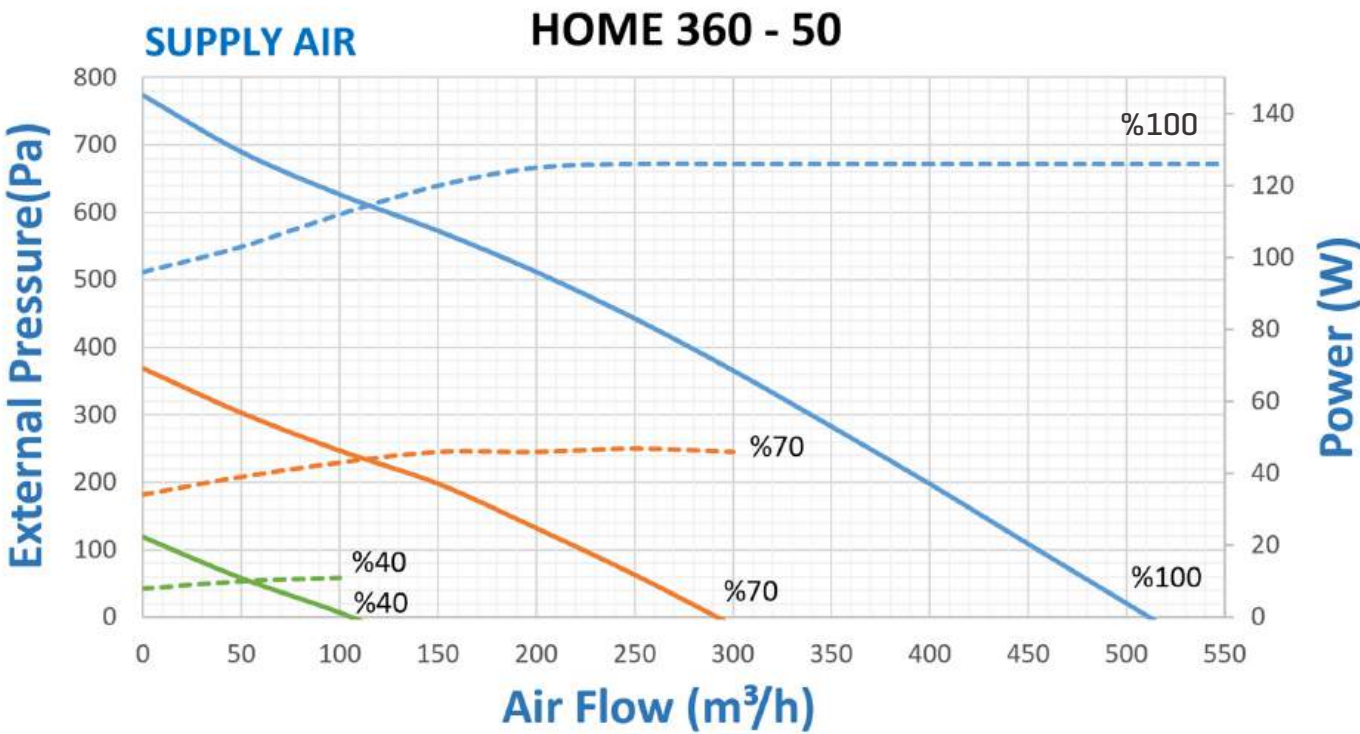
TECHNICAL SPECIFICATIONS



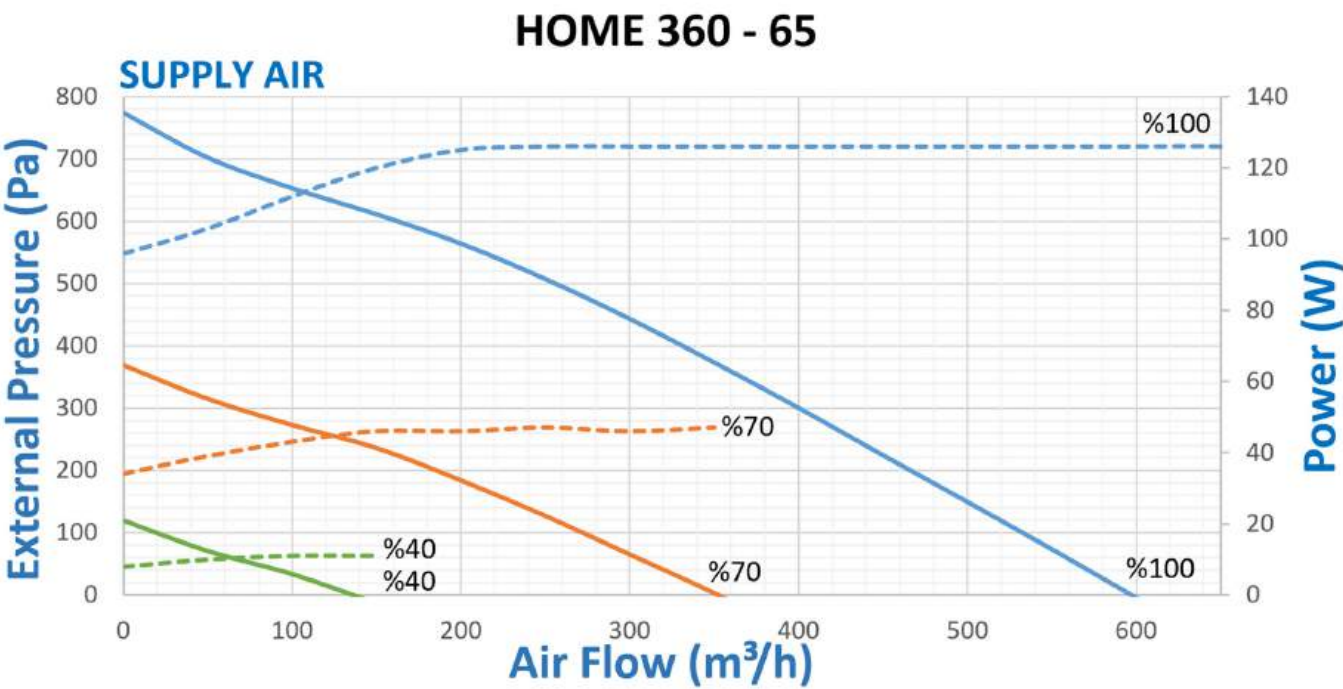
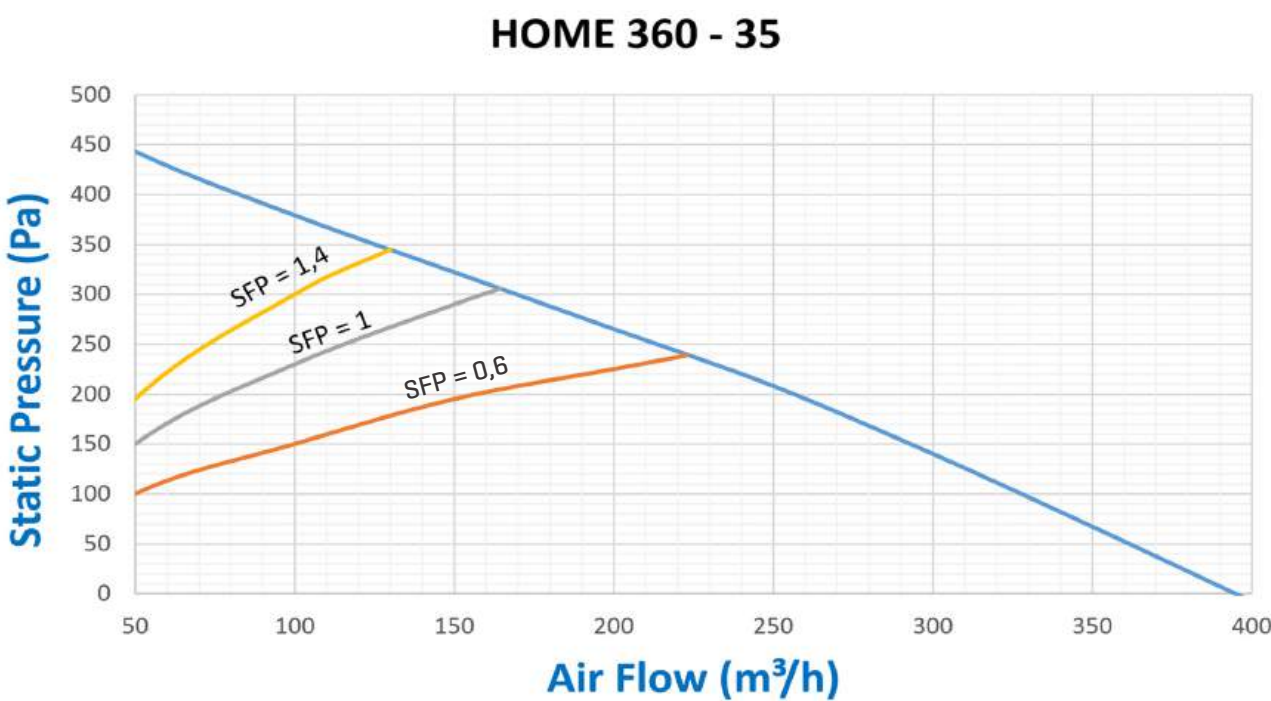
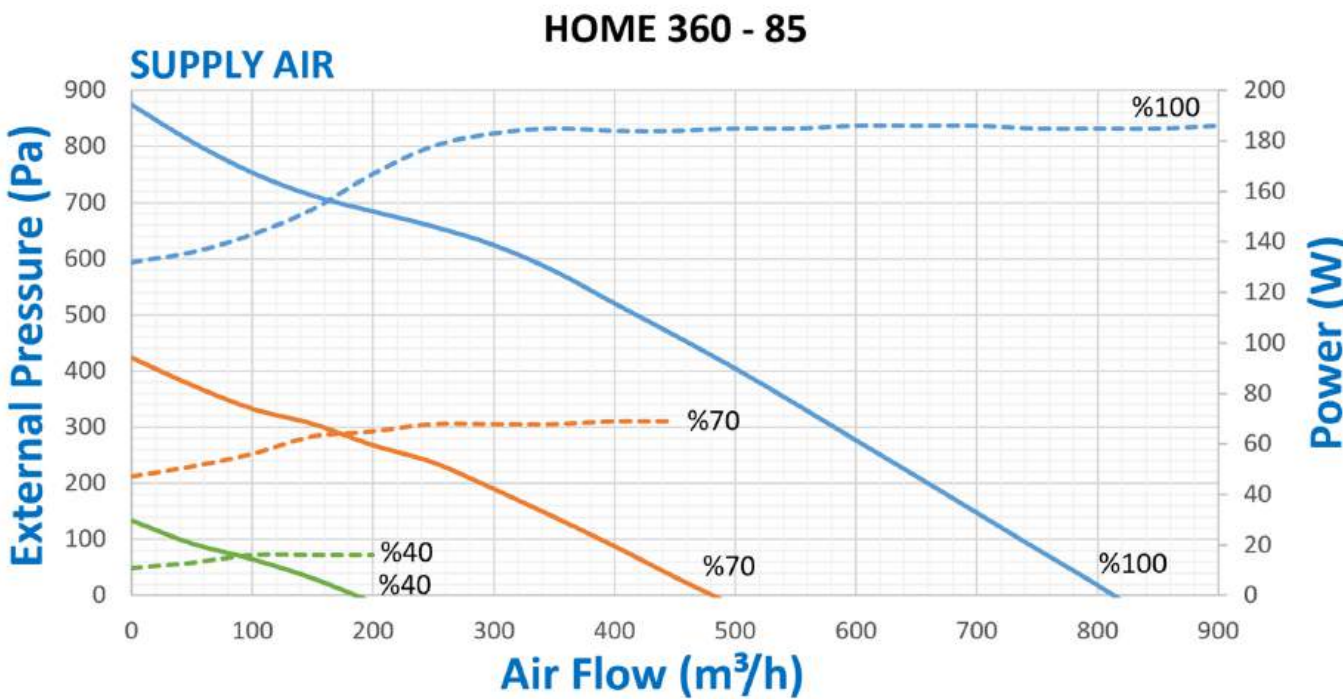
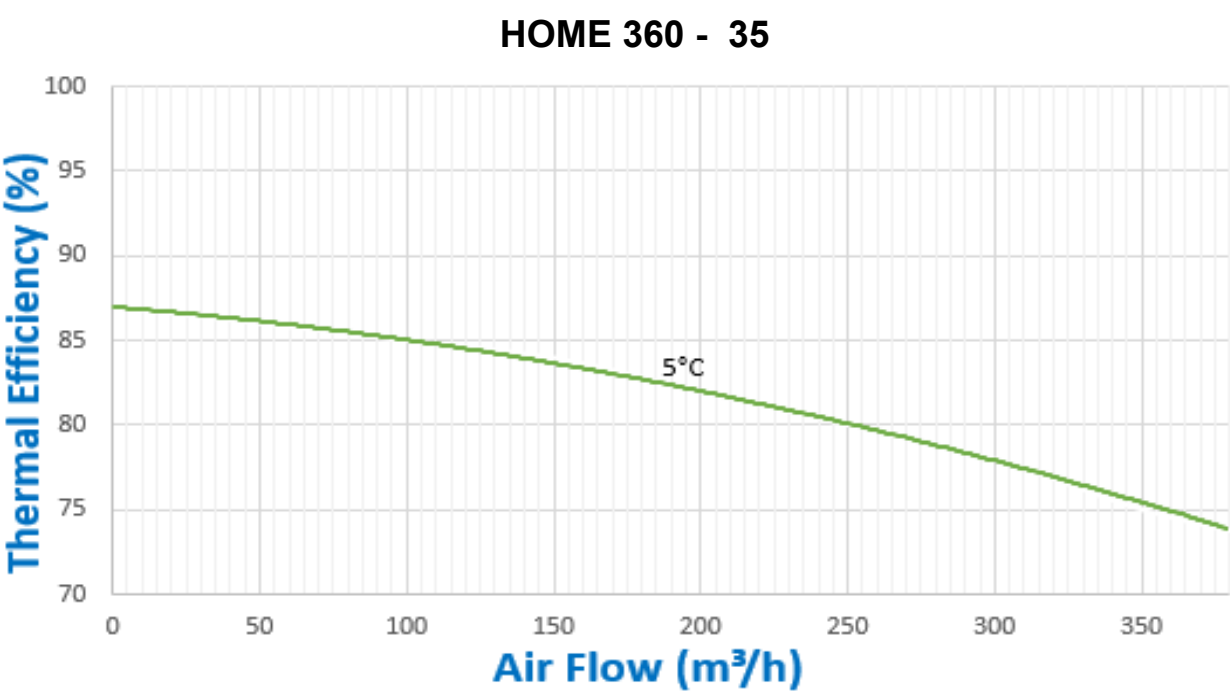
OA: OUTDOOR AIR
SA: SUPPLY AIR
RA: RETURN AIR
EA: EXHAUST AIR

		HOME 360 - 35		HOME 360 - 50		HOME 360 - 65		HOME 360 - 85	
SEC	warm	-14,89	E	-13,45	E	-14,92	E	-14,39	E
	mild	-39,21	A	-37,12	A	-39,05	A	-38,29	A
	cold	-79,3	A+	-75,48	A+	-77,92	A+	-76,85	A+
Heat Recovery System		Regenerative		Regenerative		Regenerative		Regenerative	
SPI	W/[m³/h]	0,41		0,39		0,33		0,35	
Thermal Efficiency	%	81		76		80		78	
Maximum Air Flow [100 Pa]	m³/h	327		455		532		736	
Reference Air Flow [50 Pa]	m³/h	229		319		373		515	
Electrical Power Input	W	94		126		122		179	
Filters		G4		G4		G4		G4	
Control System		Integrated		Integrated		Integrated		Integrated	

*Prepared in accordance with EU Regulations No 1254/2014 and No 1253/2014.

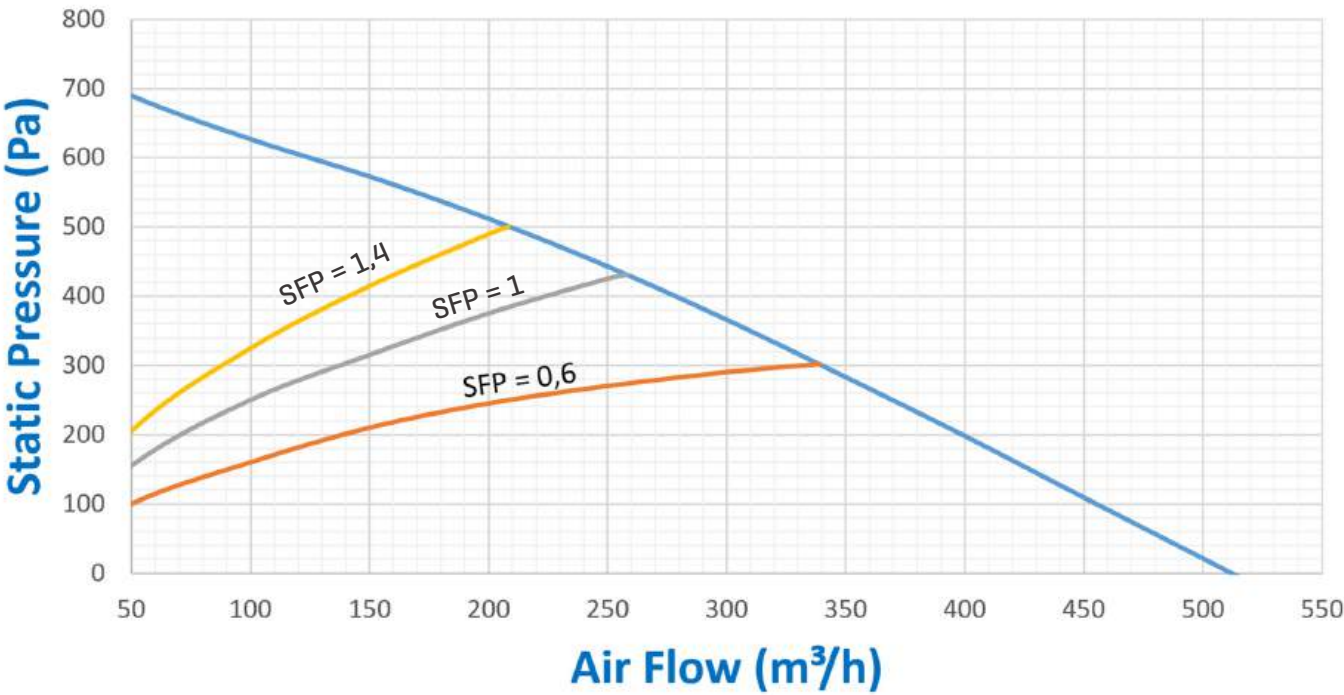


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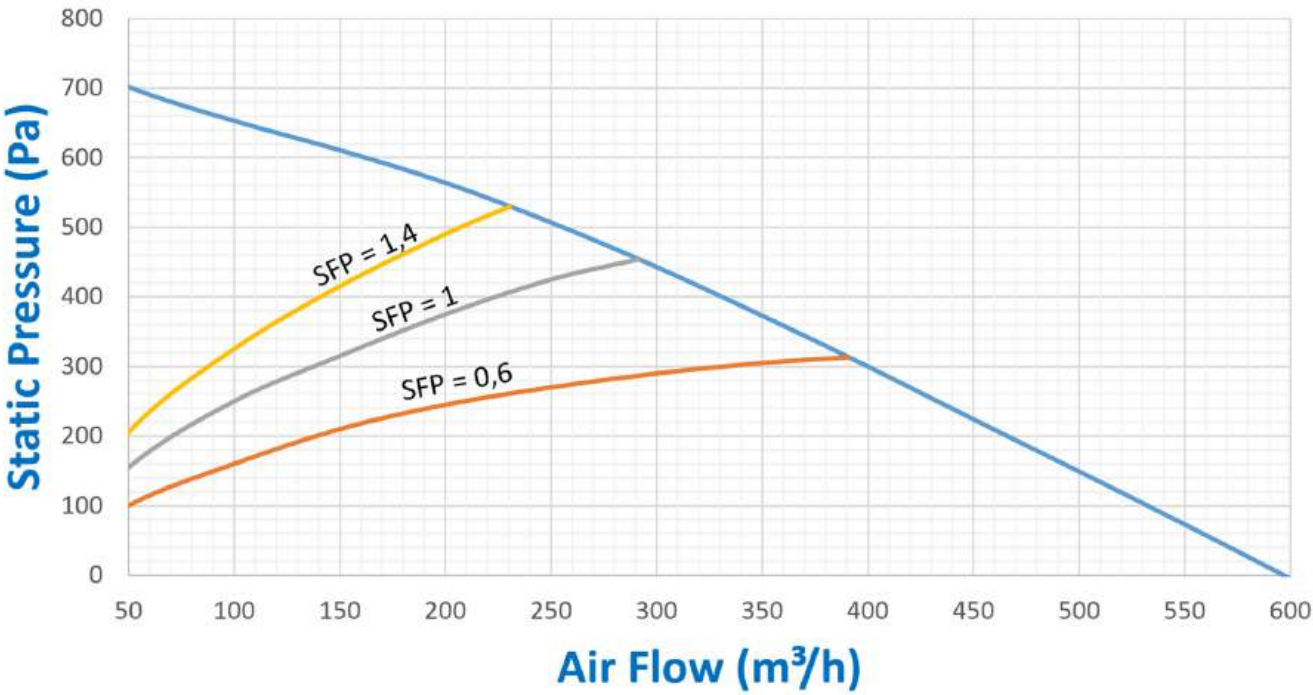


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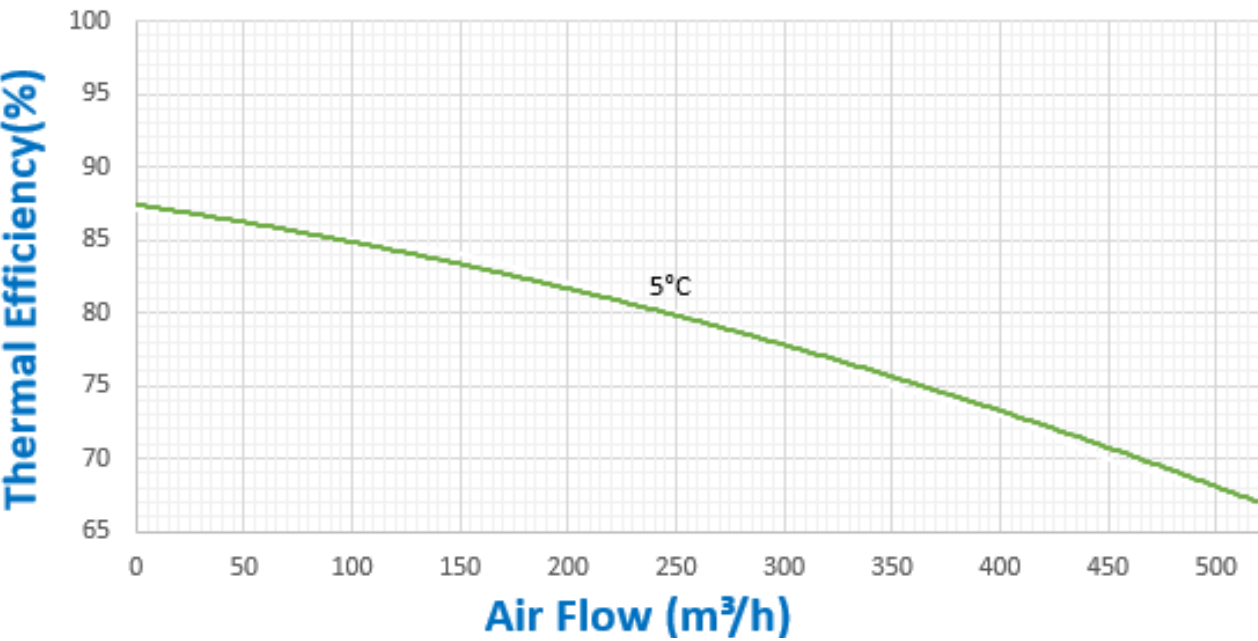
HOME 360 - 50



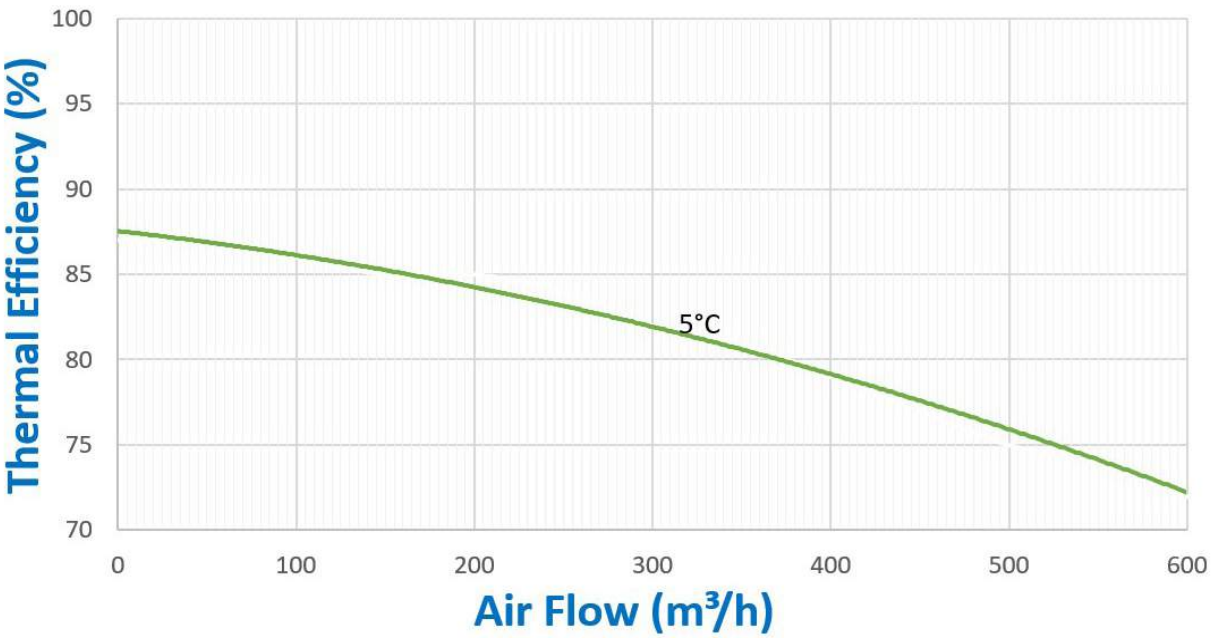
HOME 360 - 65



HOME 360 - 50



HOME 360 - 65

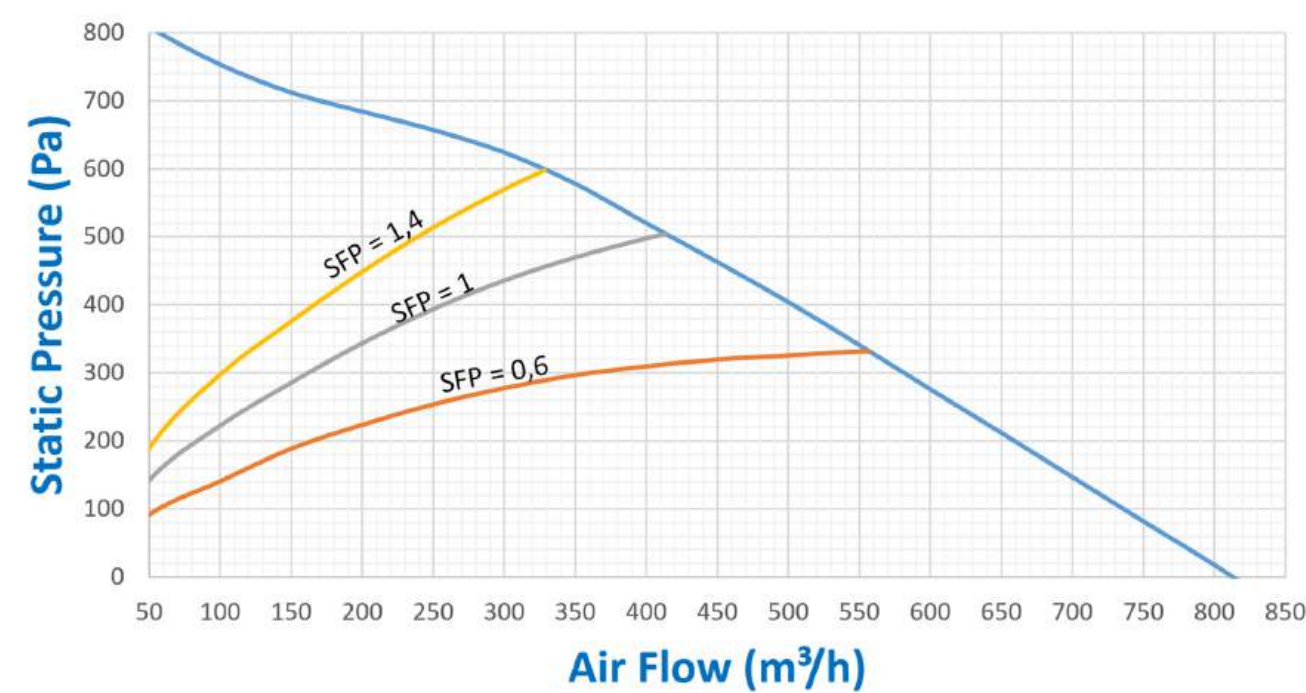


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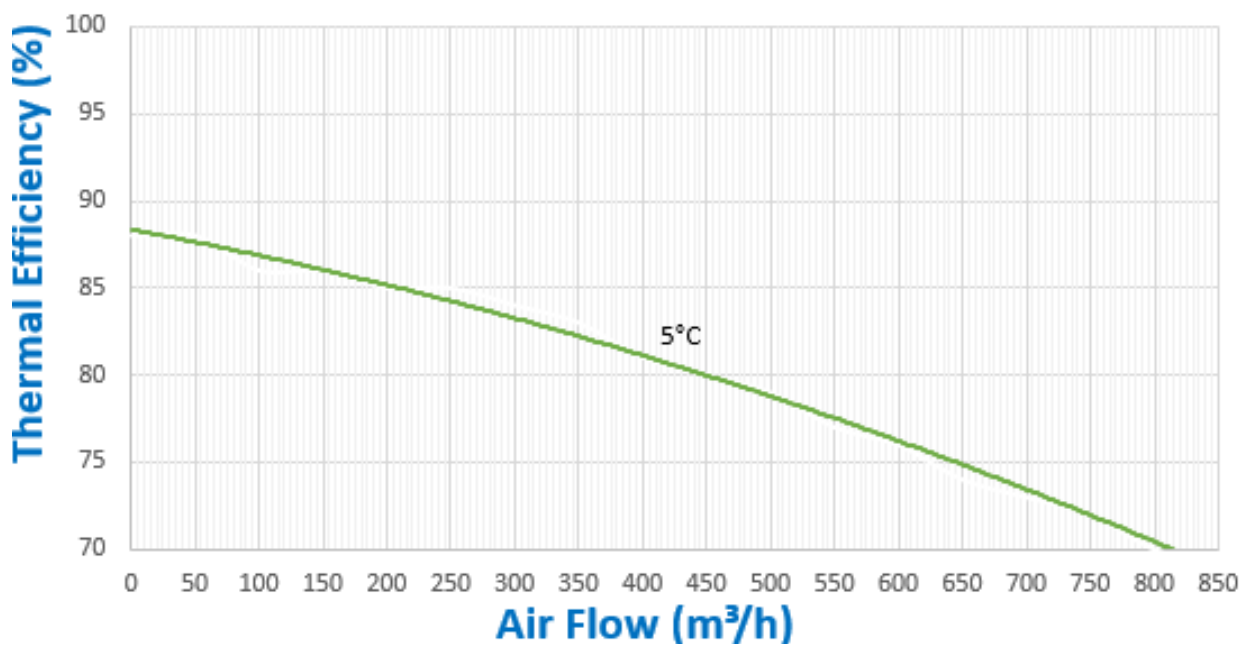
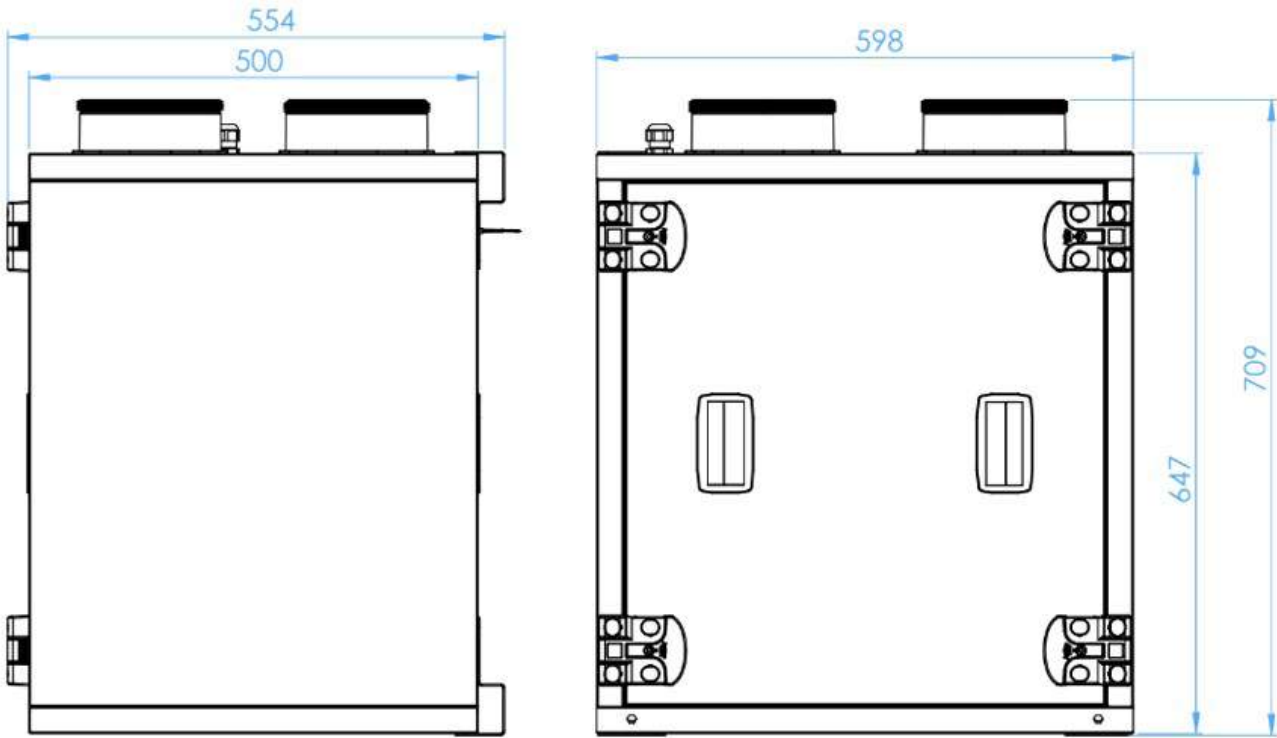
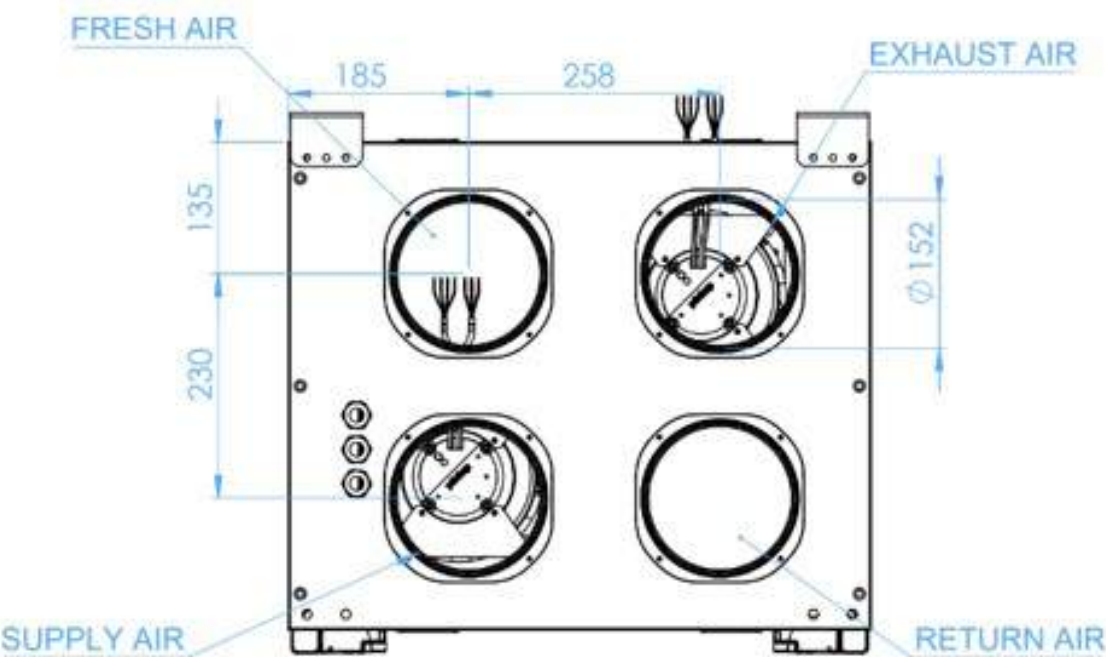
DIMENSIONS

HOME 360 – 35 / 50

HOME 360 - 85



HOME 360 - 85



*The charts have been prepared in accordance with EN 308.

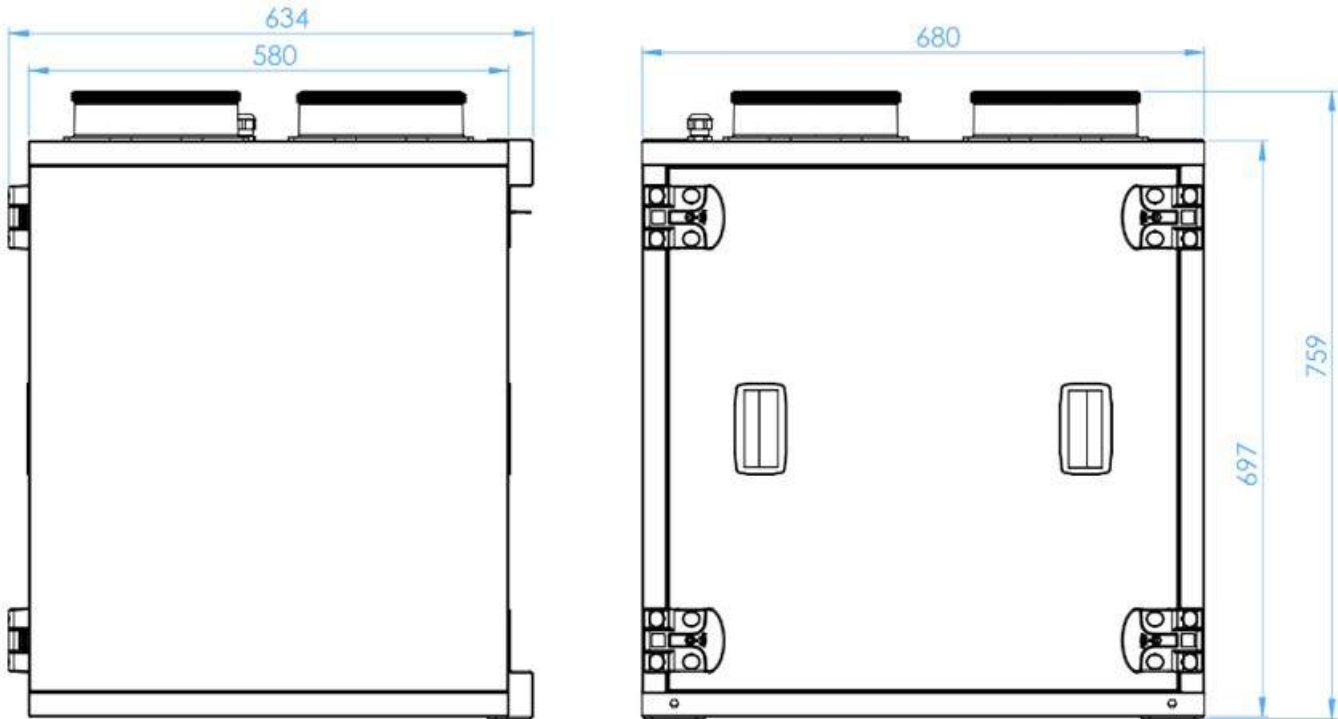
*"DOGU HVAC" reserves the right to introduce changes of parameters and sizes in the process of improvement of the devices.

HOME 360

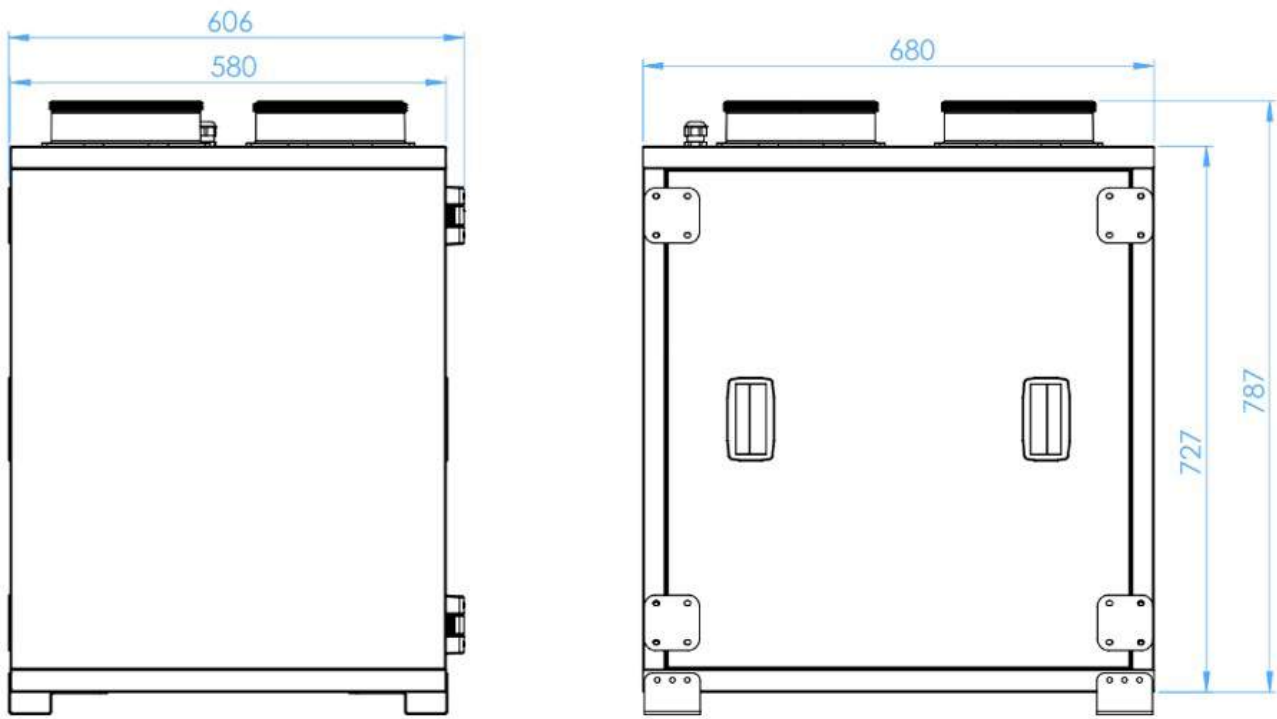
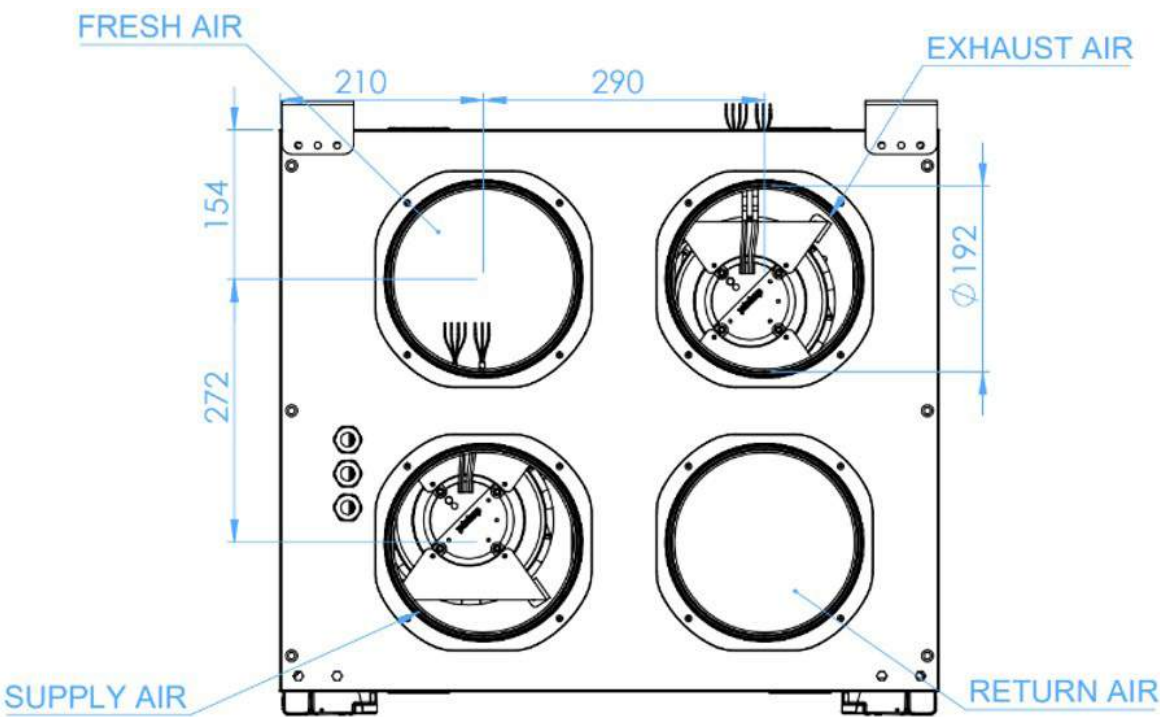
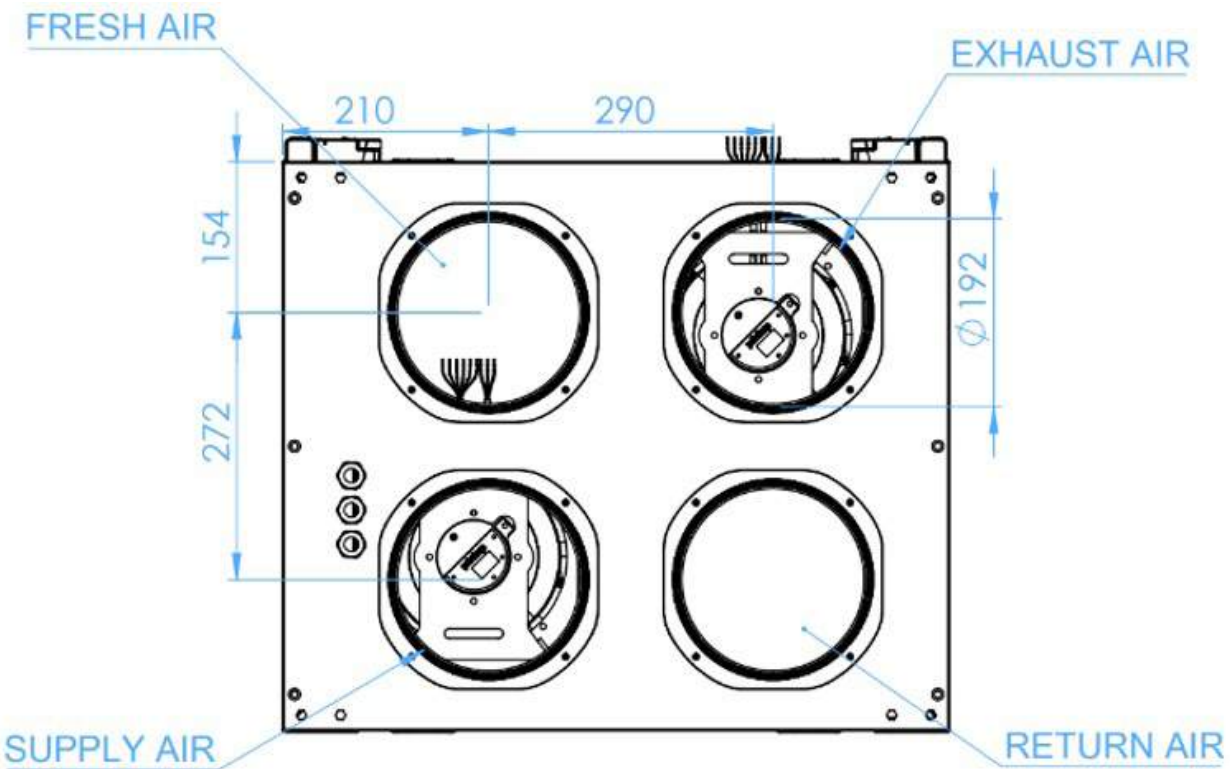
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DIMENSIONS

HOME 360 – 65

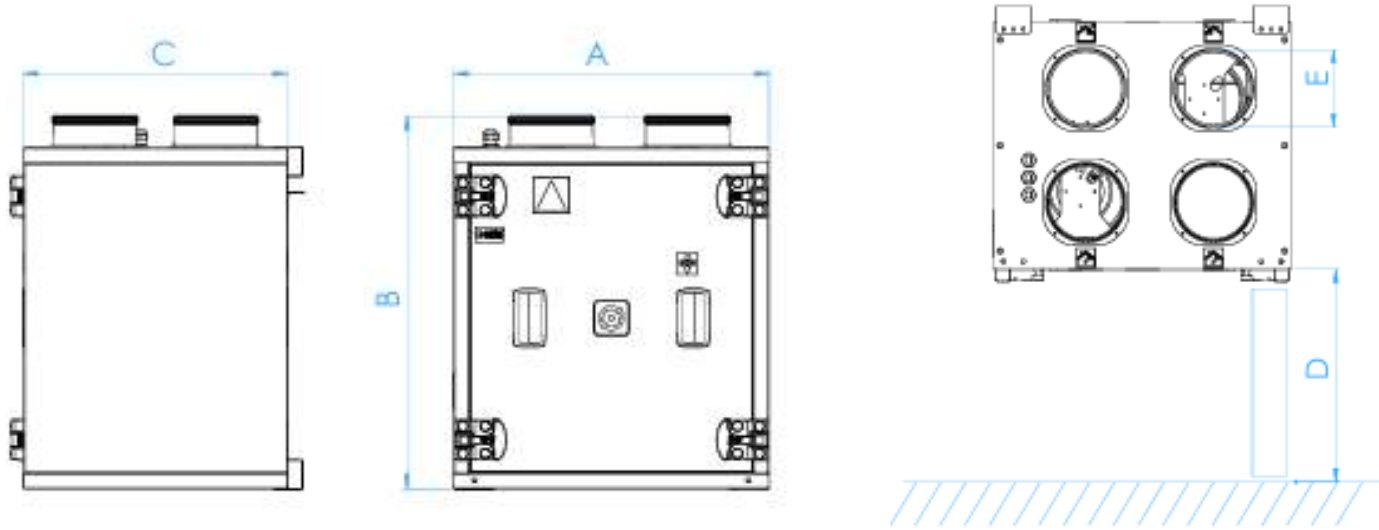


HOME 360 – 85



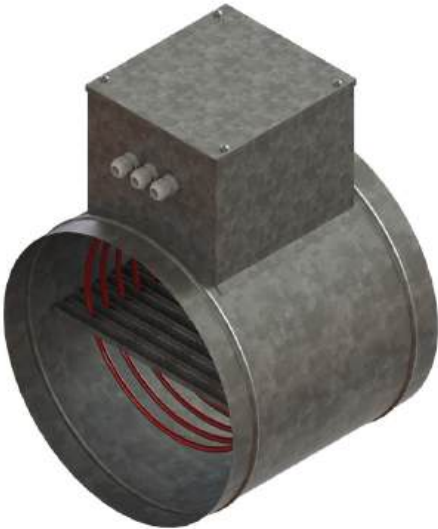
HOME 360

RESIDENTIAL ROTARY HEAT RECOVERY VENTILATION UNIT



MODEL	A	B	C	D	E
HOME 360 - 35	598	709	500	550	152
HOME 360 - 50	598	709	500	550	152
HOME 360 - 65	680	759	580	630	192
HOME 360 - 85	680	787	580	630	192

ACCESSORIES



Electrical Heater: Electrical Heater Circular electric heaters have two thermostats as standard. The first thermostat is set to 70 ° C, the air in the electric heater cuts off the electric current when it reaches 70 ° C, allowing the device to restart automatically when the temperature drops. The second thermostat used for safety purposes is activated at 110 ° C and cuts off the electric current. The thermostat must be reset manually from the red button in order for the appliance to operate again.

			ΔT=5	ΔT=10	ΔT=15
	Air Flow (m³/h)	Diameter (mm)	kW	kW	kW
HOME 360 - 35	327	160	0,5	1	1,5
HOME 360 - 50	455	160	1	1,5	2
HOME 360 - 65	532	200	1	2	3
HOME 360 - 85	736	200	1	2	4

OPERATION	DESCRIPTION	AVAILABILITY
On / Off	Control panel or external start stop function is available.	Standard
Display	Digital control panel is available.	Standard
Display	Wireless controller is available as option.	Optional
Fan Speed Control	3 steps fan speed control of supply and exhaust fan is available.	Standard
Fan Speed Control	Constant air flow is available with pressure sensors.	Optional
Fan Speed Control	Airflow control based on the air quality sensor is available.	Optional
Frost Protection Function	Where outdoor temperature is low, this function will be active by receiving information via humidity and temperature sensors.	Standard
ModBus	It controls all functions of unit via PC or BMS board.	Standard
Filter Function	There are 2 alternatives to control filters: 1: It records run time of the unit and when set time expires, control panel gives an alert for filter change. 2: Filter change time can be controlled with pressure switch mechanically. By this way, control panel gives an alert when filter needs to be changed.	Standard
Boost Function	It is used in order to increase fan speed: Alternative 1: Via boost button on the control panel. Alternative 2: Via dry contact or light power input [230V] on PCB board.	Standard
Safety	It automatically stops operating in case of interfering to the unit while it is working.	Standard
Fire Alarm Function	It will be active in case of fire.	Standard
Control and Sensor	Upon request, wireless CO ₂ , differential pressure, temperature and humidity sensors are available.	Optional

SUSTAINABILITY SOLUTIONS AT DOGU HVAC



We offer supplementary health insurance to our employees to promote healthy living. We also plan health-focused initiatives such as smoking cessation programs.



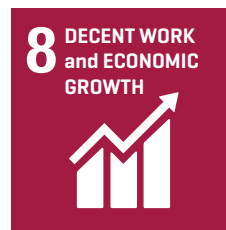
Through the DOGU HVAC CLUB project, we organize technical tours of our factory, participate in career events, and provide sponsorships to support the skill development of university and technical high school students.



In 2024, we increased female employment in our administrative and production departments. This step aims to contribute to gender equality by offering a workplace with equal rights for all employees.



Our R&D center's 2,500 m² solar panels and 0.6 MW annual capacity solar energy systems reduce our carbon footprint. We generate our electricity, ensuring a reliable, sustainable, and accessible clean energy source.



Decent Work and Economic Growth: As an employer brand, our primary goal is to protect our employees' rights and create a workplace founded on equality and justice for all employees.



We enhance indoor air quality with environmentally friendly and energy-efficient products, ensuring adherence to European standards.



We minimize waste through lean production policies and emphasize recycling, simultaneously increasing efficiency in our production processes.



We support environmental protection through our eco-friendly, sustainable, energy-efficient product lines and R&D efforts focused on reducing waste that could contribute to climate change.



We value transparency and accountability, working with associations like ISKAV to prevent corruption and unfair competition, aligning with sectoral ethical values.



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