

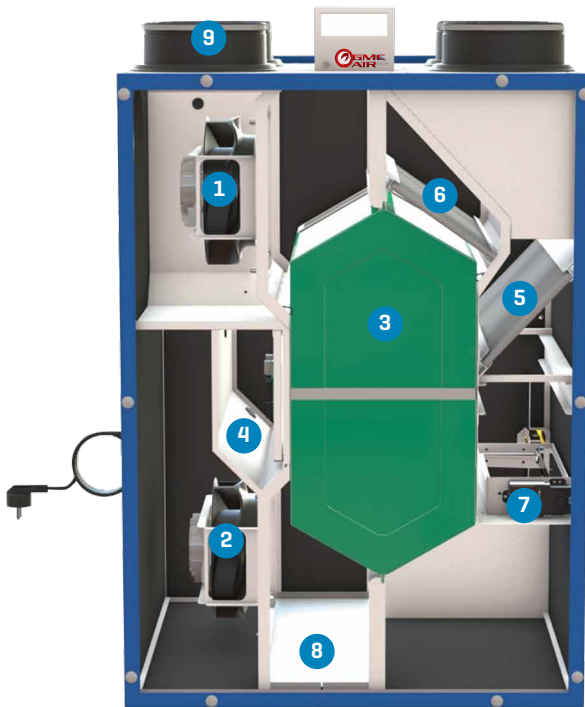


HOME

Residential Type
Heat Recovery Unit

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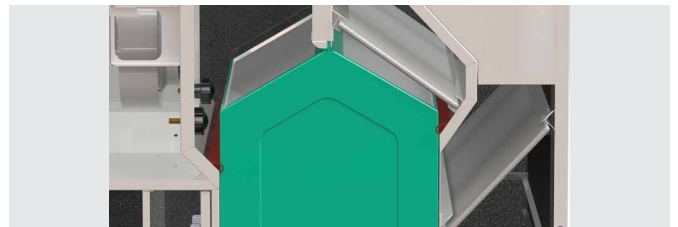
Residential Type Heat Recovery Uni



1. Supply Fan(EC Plug)
2. Extract Fan(EC Plug)
3. Counter Flow Heat Recovery Exchanger
4. Control Box
5. Supply Filter
6. Extract Filter
7. By-pass Damper Motor
8. Galvanized, Painted Isolated Condensation Drip Tray
9. Plastic Spigot TOP or SIDE Switchable Direction

Filters

- ☞ Large filtering area for energy efficiency and long service period. (up to 6 months)
- ☞ G4 panel filters or optional high efficiency F7 filter on supply air side.



HOME

- ☞ Low sound level high efficient EC fans.
- ☞ Recuperator efficiency up to 96%.
- ☞ Optional electrical heater or DX / heating / cooling coil. 3 stage air flow speed control.
- ☞ [All stages can be set between 0-100%]
- ☞ Sensitive supply air temperature control.
- ☞ 25 mm acoustics insulation of the walls.
- ☞ Easy mounting.
- ☞ Galvanized, painted-isolated drip pan.
- ☞ Bypass damper (Night cooling, free cooling and anti-freeze protection of the heat exchanger.)
- ☞ Full integrated plug & play control system.
- ☞ Optional CO₂ or pressure sensor.
- ☞ Optional wireless temperature sensor, wireless CO₂ sensor, wireless differential pressure sensor, wireless control panel-display available.

Fans

- ☞ Preferred EC – plug fans for low power consumption and low sound level.
- ☞ 10 years life time. (40,000 hours)
- ☞ SPI (Specific Power Input): 0,277W m³/h [class SPI 2] @275 m³/h – 150 Pa Static Pressure [According to EN 13142]

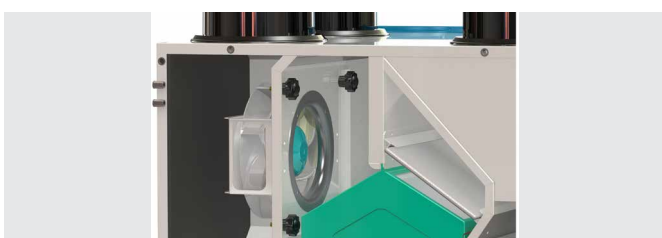
$$SPI = \frac{P_E [W]}{q_v \left[\frac{m^3}{h} \right]}$$

- ☞ SFP (Specific Fan Power): 1,558 m³/s [class SFP 4] @275 m³/h – 150 Pa Static Pressure [According to EN 13779]

$$SFP = \frac{P_{sfm} + P_{efm} [kW]}{q_{max} \left[\frac{m^3}{s} \right]}$$

Heat Exchanger

- ☞ Polypropylene counter flow heat exchanger.
- ☞ Efficiency up to 96% [calculated for balanced air flows]
- ☞ Special application for the anti-freeze protection.



PE: the calculated electricity power of fan motor

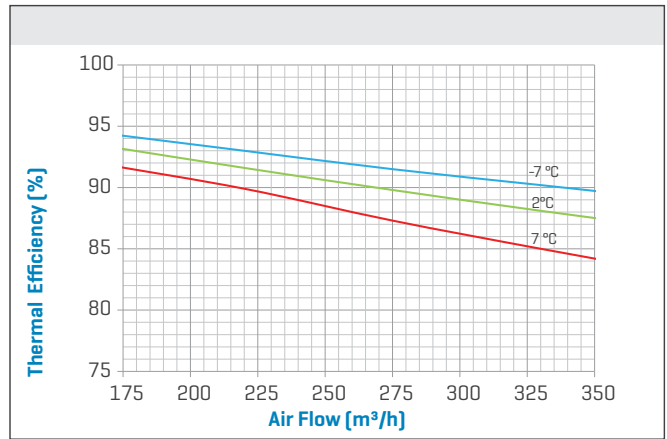
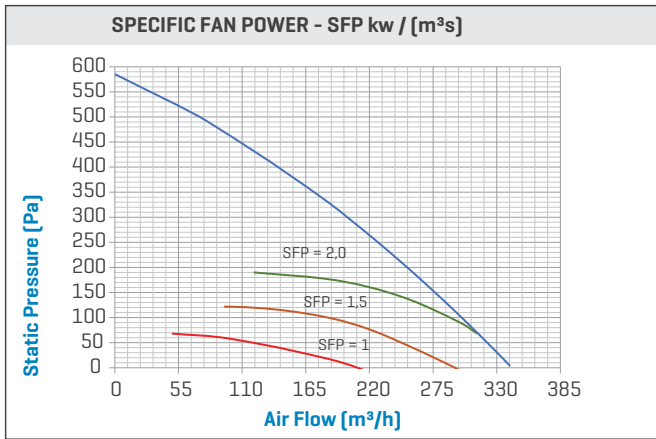
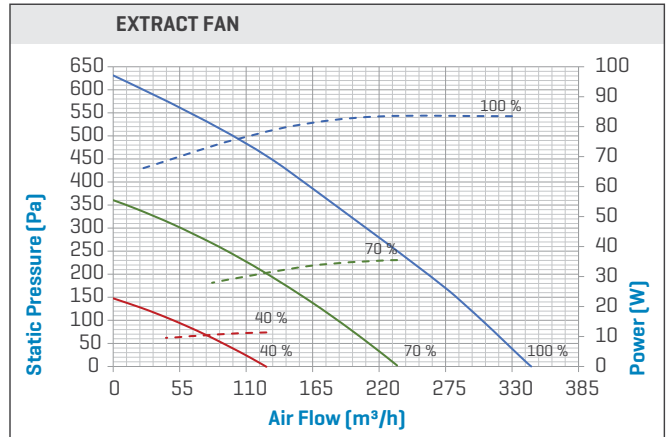
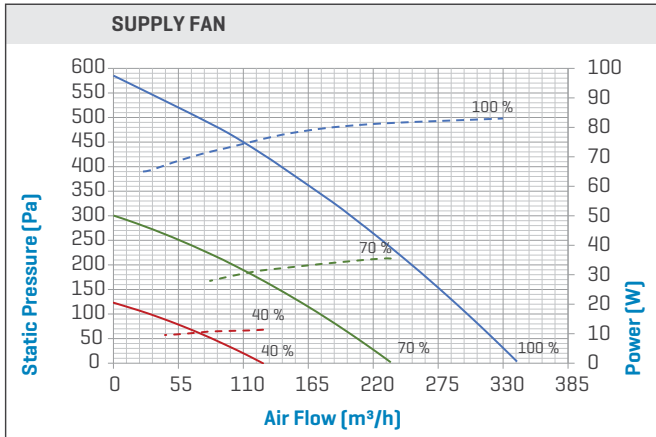
qv: the maximum ventilation air flow rate through the AHU (m³/h)

Psfm: the total fan power of the supply air fans at the design air flow rate in [kW]

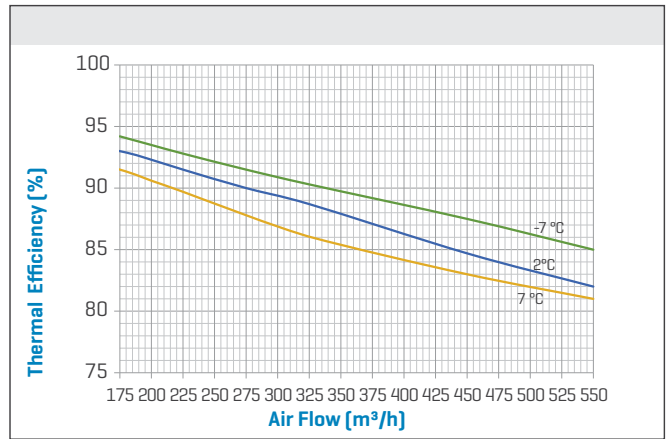
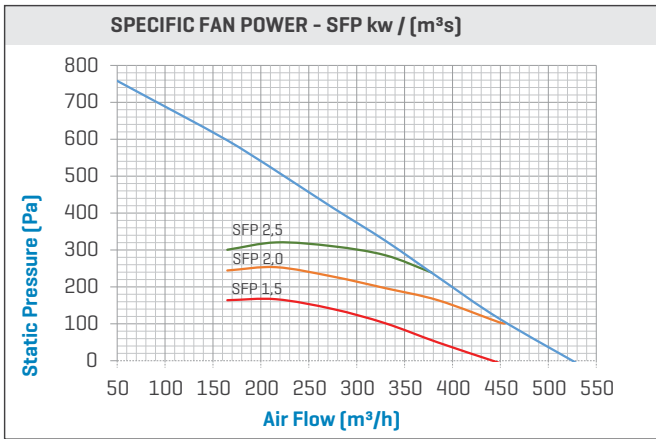
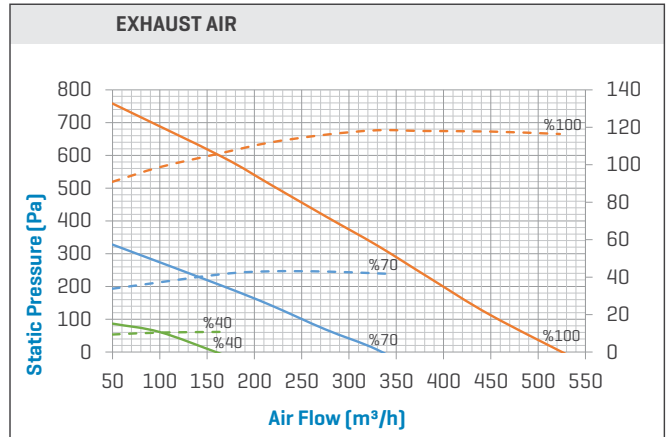
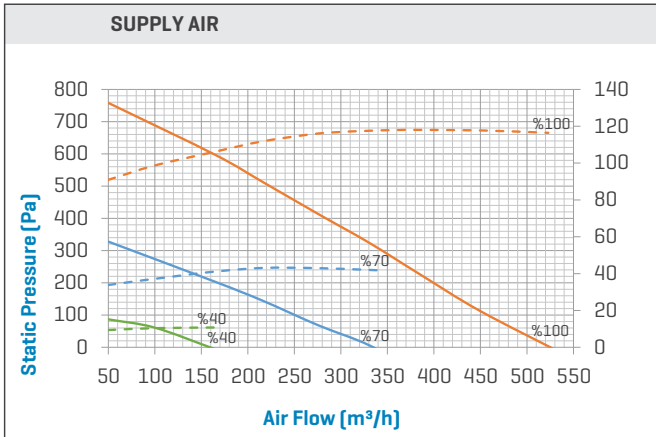
Pefm: the total fan power of the extract air fans at the design air flow rate in [kW]

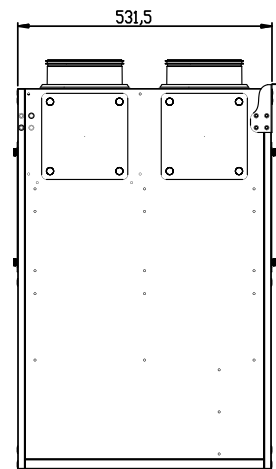
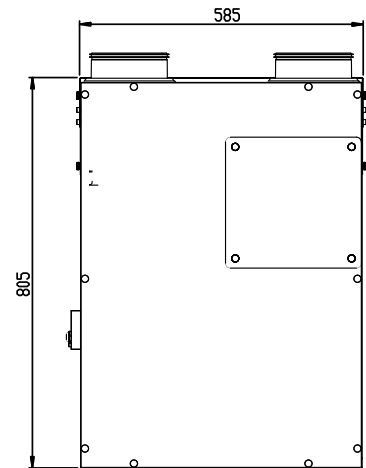
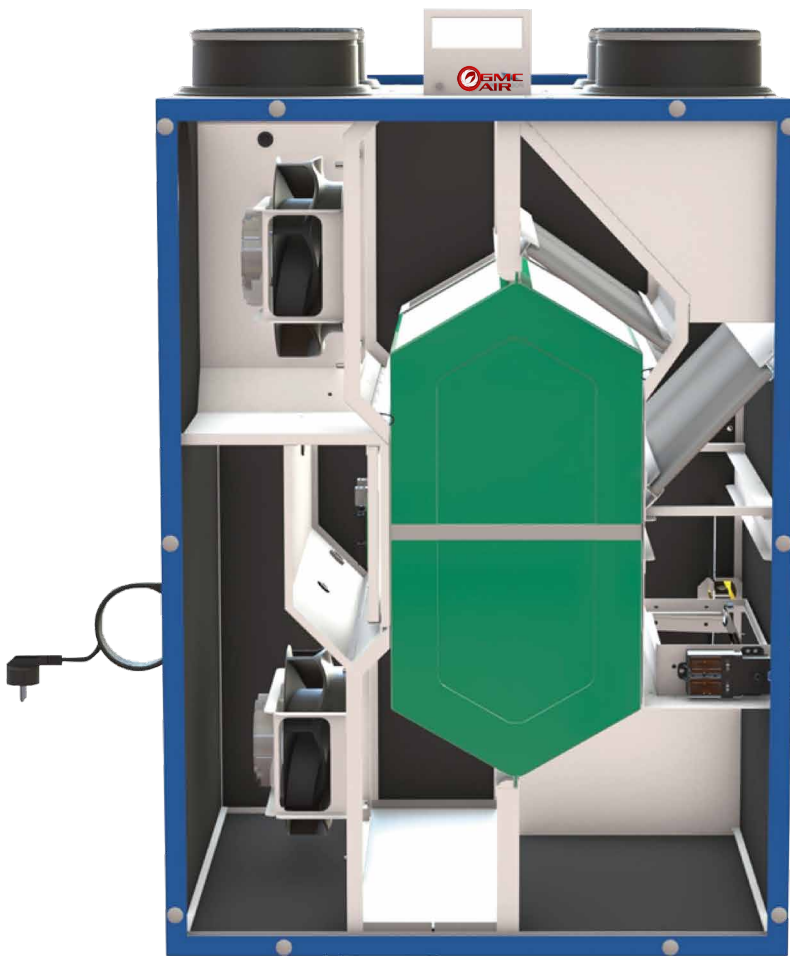
qmax: the design air flow rate through the AHU [largest of supply or extract air flow rate] in (m³/s)

HOME 30



HOME 40





		HOME 30		HOME 40	
SEC [1]	Warm	-16,37	E	-16,9	E
	Mild	-41	A	-41,7	A
	Cold	-79,39	A+	-80,39	A+
Heat Recovery System		Recuperative		Recuperative	
SPI	W/[m ³ /h]	0,277		0,2975	
Thermal Efficiency	%	84,4		85,9	
Referenced Flow Rate [150 Pa]	m ³ /h	275		400	
Electrical Power Input	W	166		238	
Sound Power Level At Flow Rate	Lwa	39		41	
Filters		G4		G4	
Control System		Integrated		Integrated	
Insulation	mm	25		25	

[1] Specific Energy Consumption [kWh/(m².a)]



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
Bypass Damper Function	Free cooling is available, by controlling the indoor and outdoor air conditions.	Standard
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 central control system board.	Standard
Filter Function	<p>There are 2 alternatives to control filters:</p> <p>Alternative 1: It records run time of the unit and when set time expires, control panel gives an alert for filter change.</p> <p>Alternative 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.</p>	Standard
Boost Function	<p>It is used in order to increase fan speed:</p> <p>Alternative 1: Via boost button on the control panel.</p> <p>Alternative 2: Via dry contact or light power input [230V] on PCB board.</p>	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
Wireless Sensors	Upon request, wireless CO ₂ , differential pressure, temperature and humidity sensors are available.	Optional

NOTES





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