



## Compact heat recovery air handling units

# KOMFORT Ultra S250

Air capacity – up to 250 m<sup>3</sup>/h

Heat recovery efficiency – up to 78 %

### Application

- ❑ Air handling units for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- ❑ Heat recovery minimises ventilation heat losses.
- ❑ Control of air exchange for creating comfortable indoor microclimate.
- ❑ Compatible with round Ø125 mm air ducts.

### Design

- ❑ **The casing of KOMFORT Ultra S250 S12** is made of double-skinned aluzinc panels, internally filled with 20 mm mineral wool layer for heat- and sound-insulation.
- ❑ **The casing of KOMFORT Ultra S250 S12 white** is made of double-skinned white painted metal panels, internally filled with 20 mm mineral wool layer for heat and sound insulation.
- ❑ The spigots are located at the top of the unit and are rubber sealed for airtight connection to the air ducts.
- ❑ The hinged panel of the casing ensures easy access to the unit internals for service works including cleaning, filter replacement, etc.

### Fans

- ❑ Asynchronous external rotor motors and centrifugal impellers with backward curved blades are used for air supply and exhaust.
- ❑ Integrated motor overheating protection with automatic restart.
- ❑ Dynamically balanced impellers.
- ❑ Equipped with ball bearings for longer service life.
- ❑ Reliable and quiet operation.

### Heat recovery

- ❑ **The KOMFORT Ultra S250-H S12** unit is equipped with a plate cross-flow aluminium heat exchanger that recovers heat.
- ❑ The drain pan under the heat exchanger block of the **KOMFORT Ultra S250-H S12** is used for condensate collection and drainage.
- ❑ **The KOMFORT Ultra S250-E S12** unit is equipped with a plate enthalpy cross-flow heat exchanger made of polymerized cellulose that recovers heat and humidity.
- ❑ Due to humidity recovery the enthalpy heat exchanger produces no condensate.
- ❑ The air flows are fully separated within the heat exchangers. Odours and contaminants contained in the extract air are not transferred to the supply air flow.
- ❑ Heat recovery is based on heat and/or humidity transfer through the plates of the heat exchanger. In the cold season supply air is heated in

the heat exchanger by transferring the heat energy of warm and humid extract air to the cold fresh air. Heat recovery minimizes heat losses, which reduces the cost of space heating.

- ❑ In summer the heat exchanger performs reverse and intake air is cooled in the heat exchanger by the cool extract air. This reduces load on air conditioners and saves electricity.
- ❑ The electronic frost protection system is used to prevent the heat exchanger freezing in cold seasons. In case of freezing danger communicated by the temperature sensor the supply fan is stopped to let warm extract air warm up the heat exchanger. After that the supply fan is turned on and the unit reverts to the normal operation mode.
- ❑ In summer, when the indoor and outdoor temperature difference is small heat recovery is not reasonable. In this case the heat exchanger can be temporarily replaced with a summer block for warm seasons (available separately).

### Air filtration

- ❑ Two built-in cassette filters with filtration class G4 provide efficient supply and extract air filtration.
- ❑ Optionally, a cassette F8 filter can be installed to provide efficient supply air filtration.

### Control and automation

- ❑ Smooth motor speed control from 0 up to 100 % by means of the thyristor speed controller SGS E1 (included in the delivery).

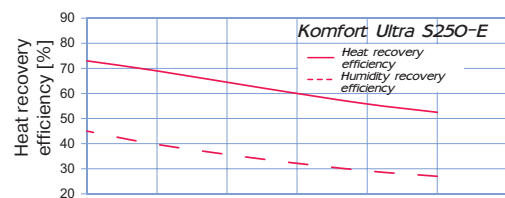
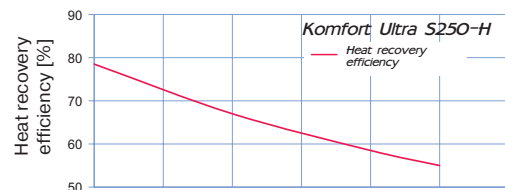
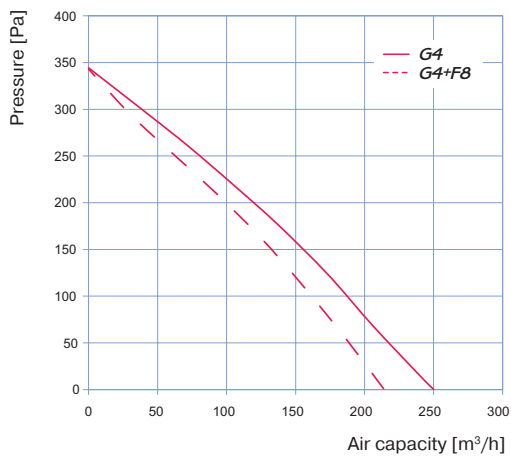
### Mounting

- ❑ Mounting to floor, ceiling or wall with fixing brackets.
- ❑ While mounting provide free access to the service panel for filter replacement and servicing.
- ❑ **The KOMFORT Ultra S250-H S12** unit mounting position must provide condensate collection and drainage.

## Technical data

Parameters	KOMFORT Ultra S250-H	KOMFORT Ultra S250-E
Unit voltage [V / 50-60 Hz]	1 ~ 230	
Power [W]	148	
Current [A]	0.78	
Maximum air capacity [m <sup>3</sup> /h]	250	
RPM	2700	
Sound pressure level at 3 m [dBA]	28-47	
Transported air temperature [°C]	from -25 up to +40	
Insulation	20 mm mineral wool	
Extract / supply filter	G4	
Replaceable filter*	G4 (F8 PM2.5 81 %)*	
Connected air duct diameter [mm]	125	
Heat recovery efficiency [%]	from 55 up to 78	from 52 up to 73
Humidity recovery efficiency [%]	-	from 27 up to 45
Heat exchanger type	cross-flow	
SEC class	B	
Heat exchanger material	aluminium	polymerized cellulose

\*Replaceable filter kits are ordered separately.



## Overall dimensions, mm

