

**Application**

The Zehnder ComfoAir 160 comfort ventilation unit was specially developed for use in demanding residential and commercial buildings. It combines maximum comfort, simple operation and a high level of efficiency with flexible integration in building services. The fans in the Zehnder ComfoAir 160 ventilation unit are also more powerful in comparison with the Zehnder ComfoAir 140 and move 150 m<sup>3</sup>/h of air at an external pressure of 100 Pa.

**Efficiency**

The integrated cross-counterflow heat exchanger achieves a level of efficiency up to 95%. For the convenience of the user this means: no unpleasant draft effects, because the supply air is heated almost to room temperature even with temperatures around freezing.

**Fans**

The two supply and exhaust fans are driven by efficient DC motors. Differential pressures in the supply and extract air distribution systems can be compensated thanks to direct control. The air volumes of the three selectable levels can be set between 32 m<sup>3</sup>/h and 160 m<sup>3</sup>/h on the Zehnder ComfoAir 160.

**Filters**

The Zehnder ComfoAir 160 ventilation unit is equipped with Class G4 filters as standard. An optional F7 pollen filter is available for outside air.

**Installation**

The Zehnder ComfoAir 160 ventilation unit is characterised by its compact design. It is ideally suited to ceiling installation or integration in cabinets. The Zehnder ComfoAir 160 is supplied as a right-hand version as standard and can be converted to left-hand on site.

**Operation**

The ventilation unit is controlled using a control unit commonly installed in living areas. The Zehnder ComfoAir 160 is controlled by the Ease control unit as standard.

**Maintenance**

For the user, maintenance of the Zehnder ComfoAir 160 ventilation unit is limited to regular replacement and cleaning of the filter integrated in the front of the unit. The heat exchanger should be cleaned every two years depending on how contaminated the outside air is. This can be done by simply removing the heat exchanger from the unit and cleaning it with soapy water. Please refer to the unit manual for additional maintenance tasks.



**Frost protection**

If the ventilation unit is operated without a geothermal heat exchanger, the condensate in the extract air may freeze. The frost protection setting prevents this by variably throttling the supply air volume. In order to ensure reliable operation even at extreme outside temperatures an integrated electrical pre-heater is optionally available.

---

**Bypass**

During summer nights and during periods of strong sunlight when the seasons change, the house often becomes too warm, while the outside air remains pleasantly cool. In this case, the cooler outside air is diverted to the air distribution system, bypassing the heat recovery system.

The Zehnder ComfoAir 160 ventilation unit is equipped with an automatic bypass for just this purpose. The bypass is a standard component and diverts 100% of the extract air past the heat exchanger.

---

**Options**

- **Humidity recovery with enthalpy exchanger**  
The Zehnder enthalpy plate exchanger provides a hygienically ideal solution for excessively dry air in winter. Not only heat, but also up to 76% of the moisture contained in the extract air is transferred from the extract air to the supply air. Supply and extract air flows are kept completely separate: no transfer of odours or germs.
- **Pollen filter**  
A large pollen filter installed in the supply air line keeps the inside of the house pollen-free and reduces the particulate matter, spore and germ load: breathe freely even in times of increasing allergies.
- **Wireless remote control**  
More installation freedom. With the Zehnder wireless remote control the ventilation unit supports wireless control from several switches distributed throughout the house or apartment.
- **Electric pre-heater**  
The electric pre-heater guarantees a defined supply air temperature, even under extreme climatic conditions and in systems that do not include a geothermal heat exchanger.

**Benefits**

- Comfort ventilation up to 160 m<sup>3</sup>/h
- Heat recovery up to 95%
- Low energy consumption thanks to EC fans
- Automatic summer bypass
- Infinitely variable frost protection function: Efficient even at low temperatures
- Quick and safe installation and maintenance
- Simple operation
- Filter soiling indicator
- Suitable for ceiling or wall installation
- Small minimum air volume, specially designed for residential buildings

**Article numbers**

Description	Article number
ComfoAir 160	471 218 210
ComfoAir 160 V	471 218 215
ComfoAir 160 enthalpy	471 218 230
ComfoAir 160 V enthalpy	471 218 235

**Accessories**

Zehnder ComfoControl Ease control unit / cream white	655 010 100
Housing for surface mounting of Ease control unit / cream white	659 000 250
Zehnder ComfoControl Ease control unit / RAL 9016	655 010 101
Housing for surface mounting of Ease control unit / RAL 9016	659 000 251
Condensate drain for ceiling installation	990 202 050

**Filters**

Filter set for ComfoAir 160 G4 (2 pieces)	400 100 023
Filter set for ComfoAir 160 G4/F7 (2 pieces)	400 100 024

**Description**
**Zehnder ComfoAir 160 comfort ventilation unit**

The Zehnder ComfoAir 160 is a centralised, compact ventilation unit with heat recovery and integrated summer bypass. This ventilation unit is ideal for new builds as well as for renovation projects. The housing, made of galvanised and painted sheet steel, is acoustically and thermally insulated. Direct current fans guarantee power-saving operation and provide high electrical efficiency. Supply and extract fans can be controlled separately and precisely adjusted to correspond perfectly to the air volume. The core of Zehnder ComfoAir 160 is the cross-counterflow heat exchanger made of plastic with a heat recovery up to 95%.

It is controlled by the cabled control unit (ComfoControl Ease or ComfoControl Luxe - not included in the scope of delivery), which is connected to the ventilation unit by the on-site cable (YSTY 2 x 2 x 0.6).

All working conditions and error messages can be read from the control unit display. The Zehnder ComfoAir 160 is delivered ready to plug in. The user can replace the filters easily from the front without opening the unit.

The Zehnder ComfoAir 160 can be mounted on the wall or at the ceiling. It is connected via 4 x DN 125 connections.

- Automatic frost protection controller
- Time-controlled filter replacement indicator
- G4 filter (optionally available in filter class F7)
- Automatic and temperature-controlled summer bypass
- Supply and extract fans can be activated separately
- Connection options for external intermittent ventilation sensor with switch on and off delay
- Control and regulating functions with external 0-10V transducer (2x)
- Comfort temperature controller

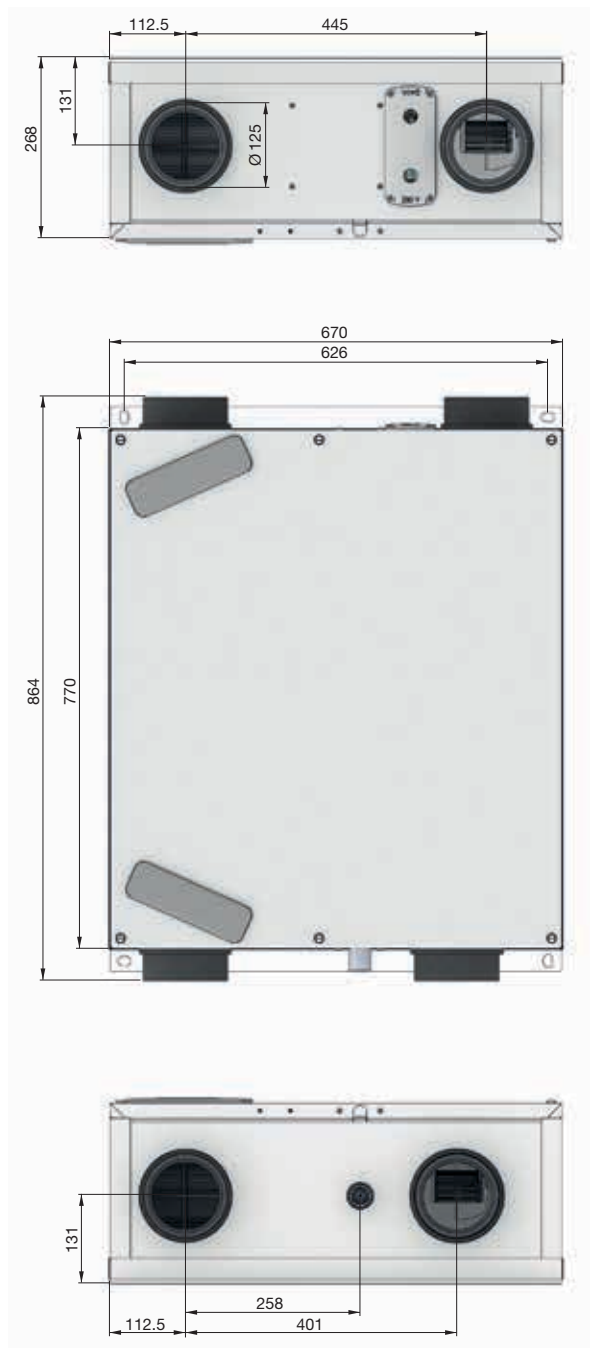
**General specifications**

HR exchanger material	Polystyrene
Interior lining material	(E)PP / PA / PA
Weight	30 kg
Width	670 mm
Height	770 mm
Depth	268 mm

Ventilation unit

**Zehnder ComfoAir 160**

Dimensional drawing



Equipment

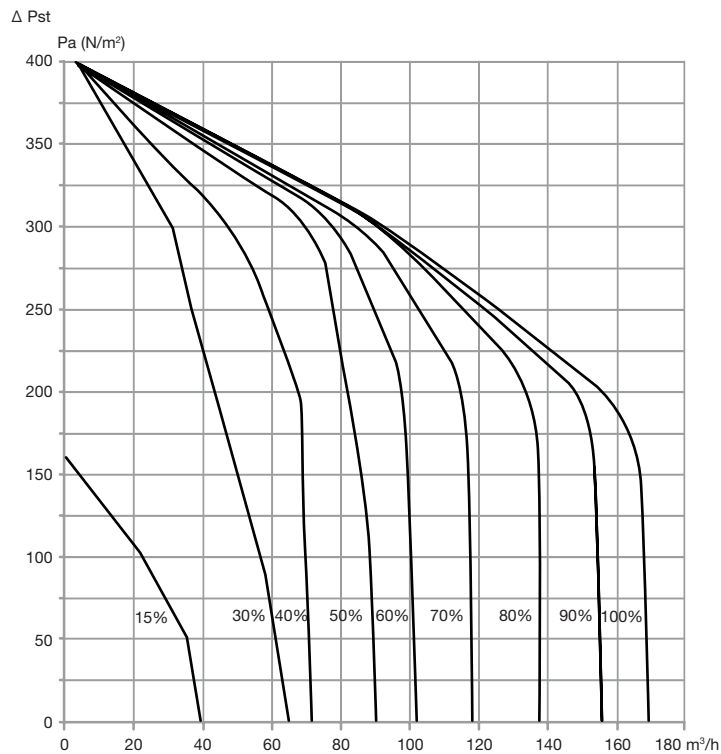
Equipment	ComfoAir 160	ComfoAir 160 V	ComfoAir 160 ERV	ComfoAir 160 V ERV
Bypass	x	x	x	x
Preheater		x		x
Enthalpy exchanger			x	x

## Ventilation unit

# Zehnder ComfoAir 160

### Technical specifications

Switch setting	Air volume	Pressure	Power consumption	COS
Factory setting	Qv	$\Delta P_{st}$		$\phi$
Speed %	m <sup>3</sup> /h	Pa	W	(-)
Zehnder ComfoAir 160				
15	32	5	10	0.53
20	38	8	11	0.53
30	52	13	13	0.53
35	58	16	14	0.54
40	65	20	16	0.54
50	81	30	19	0.55
60	94	42	24	0.54
70	122	60	32	0.55
80	126	75	41	0.55
90	146	96	56	0.55
100	160	116	67	0.56



## Ventilation unit

## Zehnder ComfoAir 160

### Sound, supply air

Sound power at the supply air connection at a distance of 0 m

Zehnder ComfoAir 160									
Speed level	63 Hz	125 Hz	250 Hz	500 Hz	1.000 Hz	2.000 Hz	4.000 Hz	8.000 Hz	dB(A)
15%	65.7	49.4	40.3	32.9	27.6	13.8	14.3	20.3	42
30%	69.3	54.9	48.2	41.7	38.1	26.3	19.5	21	47
40%	72	59.1	53.1	46	43.7	33.5	26.8	22.4	51
50%	74.1	63.2	57	49.2	48.6	39.3	33.5	25.3	55
60%	75.9	66.5	60.5	52.1	52.6	43.7	39.1	31.8	58
70%	79.3	69.7	65	55.9	57.1	48.1	44.7	38.6	62
80%	82.2	71.7	67.6	57.7	58.9	50.7	47.7	42.5	65
90%	84.1	74.8	70.3	62	61.4	54.6	51.8	47.8	68
100%	86.2	75.8	72	63.3	62.8	57.1	54.1	50.8	69

### Sound, extract air

Sound power at the extract air connection at a distance of 0 m

Zehnder ComfoAir 160									
Speed level	63 Hz	125 Hz	250 Hz	500 Hz	1.000 Hz	2.000 Hz	4.000 Hz	8.000 Hz	dB(A)
15%	52	34.3	25.2	14.9	3.3	4.6	4.2	3.6	27
30%	55.6	39.9	33	23.8	13.8	10.8	8.3	6.7	32
40%	58.3	44.1	37.9	28.1	19.4	14.4	11.9	8.3	36
50%	60.4	48.1	41.8	31.3	24.3	17.3	15.3	9.8	39
60%	62.3	51.4	45.3	34.2	28.2	19.5	18.1	13.1	42
70%	65.6	54.6	49.8	38	32.8	21.7	10.9	16.5	42
80%	68.5	56.7	52.4	39.8	34.6	23	22.4	18.4	48
90%	70.5	59.7	55.1	44.1	37	25	24.4	21.1	51
100%	72.5	60.8	56.9	45.3	38.5	26.2	25.6	22.6	52

### Sound, unit emission

Sound power at unit at a distance of 0 m

Zehnder ComfoAir 160									
Speed level	63 Hz	125 Hz	250 Hz	500 Hz	1.000 Hz	2.000 Hz	4.000 Hz	8.000 Hz	dB(A)
15%	37.9	30.0	24.7	19.5	11.0	9.2	15.9	23.7	25.8
30%	40.0	32.9	30.7	26.9	18.1	13.4	16.2	23.7	29.0
40%	42.5	35.7	32.6	28.2	22.8	18.3	17.4	23.7	30.9
50%	42.1	38.7	34.2	30.8	27.5	23.0	20.2	23.9	33.6
60%	42.0	40.1	38.1	33.8	32.0	27.2	24.2	24.6	37.1
70%	44.6	42.2	42.6	36.3	35.8	31.4	25.6	26.7	40.8
80%	44.8	46.5	43.3	40.7	38.2	34.8	31.9	28.2	43.6
90%	47.3	45.5	46.9	45.7	39.6	37.8	35.3	32.7	46.8
100%	47.7	46.7	47.2	47.2	41.3	40.1	37.6	35.2	48.5

Z\_ZGIS\_V0812\_CSY\_FLYER\_TS123, en\_us, subject to changes