

Product description

GEU 590 AC is a ventilation unit, equipped with counter current heat exchanger, supply and extraction fan, EU4 extraction plan filter, EU7 supply bag filter, complete automatic functions and control panel.

GEU 590 AC may be delivered with the following accessories:

- Water- or electric-post-heating surface for $\varnothing 160\text{mm}$ duct
- Fresh air damper, with a spring return motor for $\varnothing 160\text{mm}$ duct
- Fresh air damper with a motor for $\varnothing 160\text{mm}$ duct
- Exhaust damper with a motor for $\varnothing 160\text{mm}$ duct
- Thermostatic valve with an air sensor
- Two way valve with a motor 24 V



Utilization

GEU 590 AC is used in ventilation units wanting extraction and supply, while gaining the energy from the extract air in order to heat the supply air. GEU 590 AC is normally used in homes with an area of app. 140 to 200 square metres.

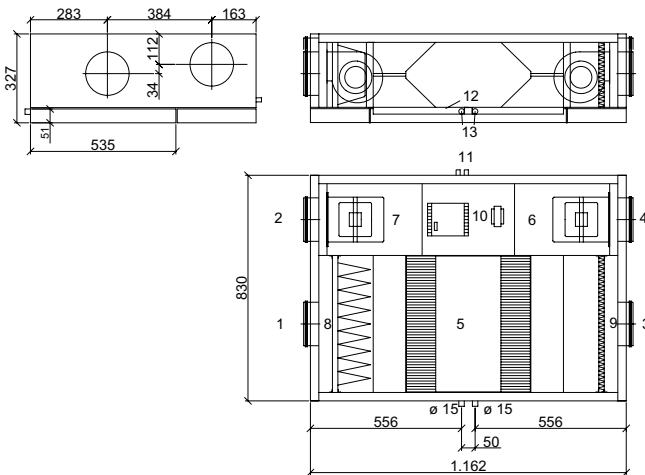
Types

By interchanging the filters, the GEU 590 AC may be laterally reversed provided that an expert interchanges the wires controlling the ventilators.

Dimension sketch

GEU 590 AC

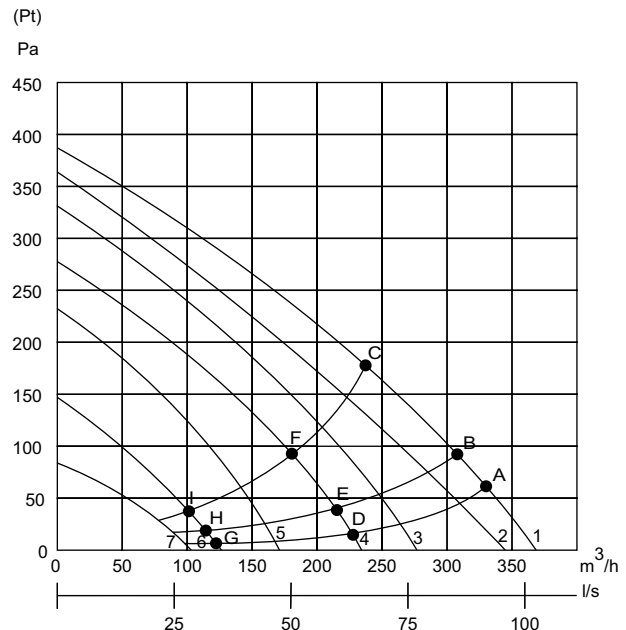
Dimensions in mm



- | | |
|-----------------------------------|--------------------------|
| 1: Fresh air (outdoor air) | 8: Fresh air filter EU 7 |
| 2: Exhaust | 9: Extract filter EU 4 |
| 3: Extract | 10: Electric control |
| 4: Supply | 11: Wire passage |
| 5: Counter current heat exchanger | 12: Condensate tray |
| 6: Supply fan | 13: Condensate drain |
| 7: Extract fan | |

Performance

The performance diagram shows the pressure (P_t) available for the duct system on both extract and supply. Pressure loss in unit has been deducted.



Curves: 1: 100% 2: 75% 3: 60% 4: 50%
5: 40% 6: 30% 7: 20%

Power input (per fan)

	A	B	C	D	E	F	G	H	I
Watt	117	116	111	68	68	66	38	38	37

Technical data

Power supply

1 x 230 V + N + PE, 10 A, 50 Hz

Fans with direct-driven motors

D2E 133

Condenser

4,0 µF

Motors 230 V AC:

Normmotors

IEC 38

Insulation class

B

Density class

IP 44

Motor capacity (Max. per motor)

Rpm

1700

Current input (Max. per motor)

175W

Power consumption (Max. per motor)

0,77A

Individually, the fans may be set to 3 various speeds.

Sound data

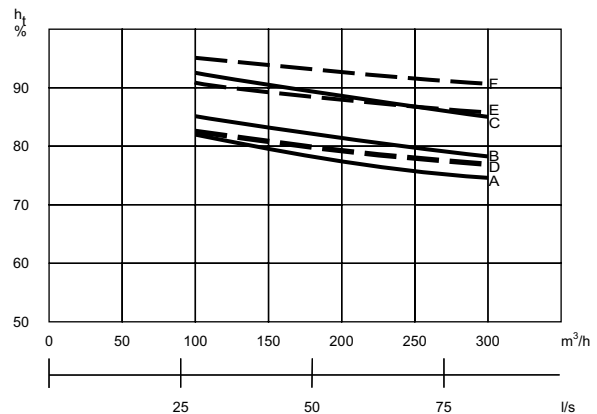
Measurement point	1 m in front of unit			Exhaust duct			Injection duct		
	1	2	3	1	2	3	1	2	3
Air supply									
	Lo dB			Lwu dB			Lwi dB		
63 Hz	51	58	60	81	87	92	92	95	95
125 Hz	44	49	54	68	78	82	86	93	94
250 Hz	34	37	42	64	74	81	79	88	90
500 Hz	29	31	35	56	64	70	73	81	86
1000 Hz	25	26	28	46	53	59	65	75	78
2000 Hz	24	24	27	37	47	53	62	71	75
4000 Hz	18	21	24	26	40	48	53	66	71
8000 Hz	-	-	19	-	28	37	46	58	66
Average	Lo dB(A)			Lwu dB(A)			Lwi dB(A)		
	33	37	41	59	68	75	75	83	87

- 1: was measured at 30% and an air supply of 120 m³/h
 2: was measured at 50% and an air supply of 230 m³/h
 3: was measured at 100% and an air supply of 330 m³/h

Automatic

GEU 590 AC is delivered with complete automatic functions.

Temperature efficiency



	°C	A	B	C	D	E	F
Exhaust	°C	20	20	20	20	20	20
Relative humidity	%	30	50	70	30	50	70
Outdoor air	°C	4	4	4	-12	-12	-12

Possible icing up of the heat exchanger at low outdoor temperatures has not been taken into account.

Construction

Main dimensions:

(h x l x d) ex. connecting pieces

327 x 1162 x 830 mm

Cabinet construction:

Fully closed hot galvanised plate with 30 mm insulation.

(Powder coating is possible).

Duct connection:

ø160 mm (nipple size) with rubber ring seal

Cover:

Cover with 6 mm screws and snap bolts on the filter cover

Counter current heat exchanger

Pure aluminium, seawater resistant

Condensation tray

Stainless steel

Condensation drain

Stainless connecting pieces ø15 mm

Filters:

Supply

EU7 bag filter

Extraction

EU4 plan filter

Weight

55 kg

Accessories

Water and electric post heating surfaces and damper.