



# GEU 590 AC

## Description

GEU 590 AC is a heat recovery ventilation unit equipped with counter-current heat exchanger, supply and extract fan, F7 supply filter, G4 extract filter, Optima 250 automatics and control panel.

GEU 590 AC can be delivered with the following:

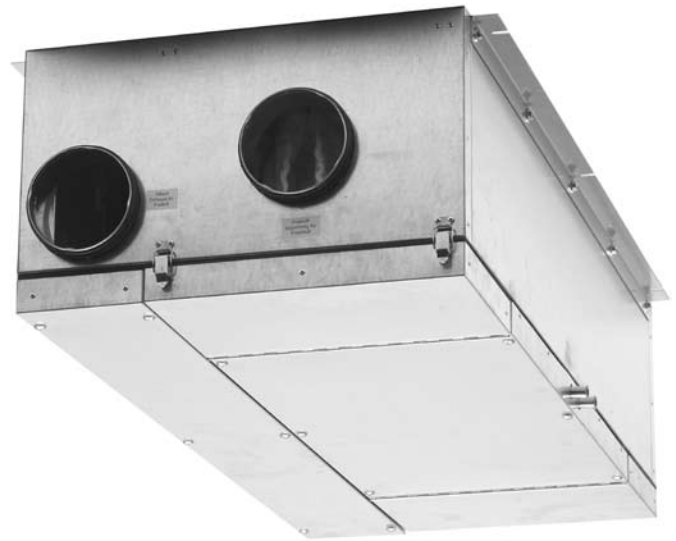
- Water- or electrical heating surface for Ø160 mm duct
- Fresh air damper with spring return motor for Ø160 mm duct
- Fresh air damper with motor for Ø160 mm duct
- Exhaust damper with motor for Ø160 mm duct
- Thermostat valve or motor valve

## Suitability

GEU 590 AC is used for domestic ventilation systems where balanced ventilation and heat recovery is needed.

## Types

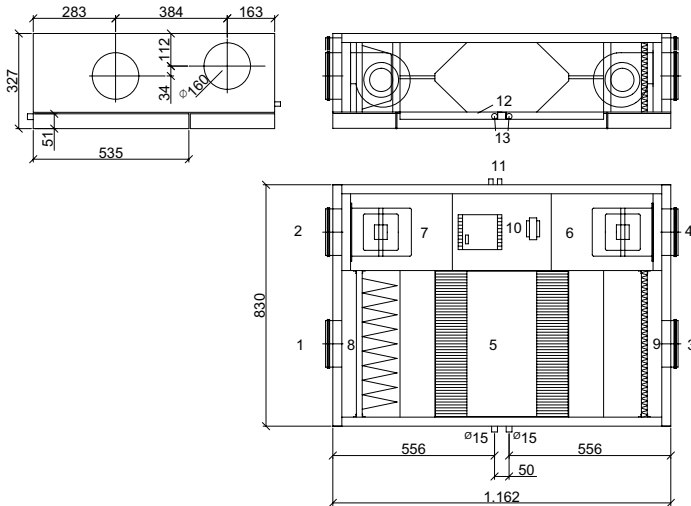
It is possible to obtain the GEU 590 AC in right- hand left-hand version.



## Dimensions

GEU 590 AC

Dimensions in mm

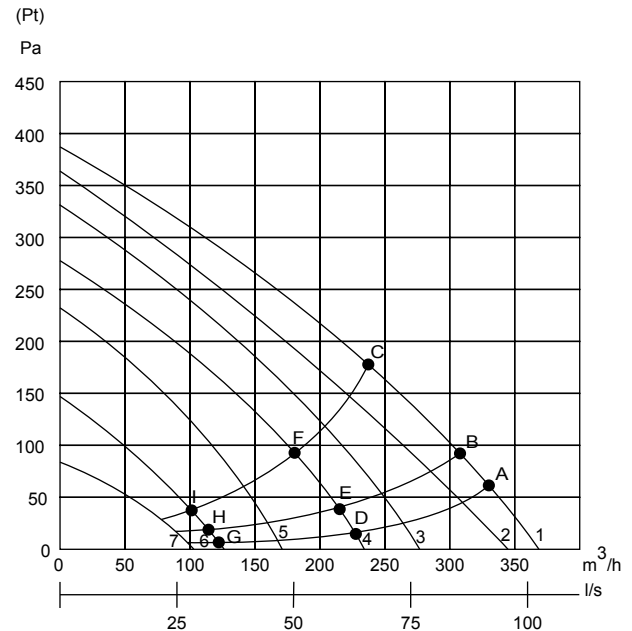


- 1: Fresh air (outdoor air)
- 2: Exhaust
- 3: Extract
- 4: Supply
- 5: Counter current heat exchanger
- 6: Supply fan

- 7: Extract fan
- 8: Fresh air filter F7
- 9: Extract filter G4
- 10: Electrical box
- 11: Wire passage
- 12: Condensation tub
- 13: Condensation drain

## Output

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



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

Power input (per ventilator)

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

# GEU 590 AC



## Technical data

### Power supply

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

### Fans

D2E 133(AC)

### Condenser

4  $\mu$ F

### Isolation class

B

### Protection 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 different speeds.

## Construction

### Main dimensions:

(h x l x d) ex. connecting pieces

327 x 1162 x 830 mm

### Cabinet:

Fully closed hot galvanised plate with 30 mm Isolation.

### Duct connection:

Ø160 mm with rubber ring seal

### Front:

Cover with Ø6 mm screws and snap bolts on the filter cover

### Center current heat exchanger:

Seawater resistant aluminium

### Condensation tub:

Stainless steel

### Condensation drain:

Ø15 mm stainless steel

### Filters:

#### Supply:

F7 filter

#### Extract:

G4 filter

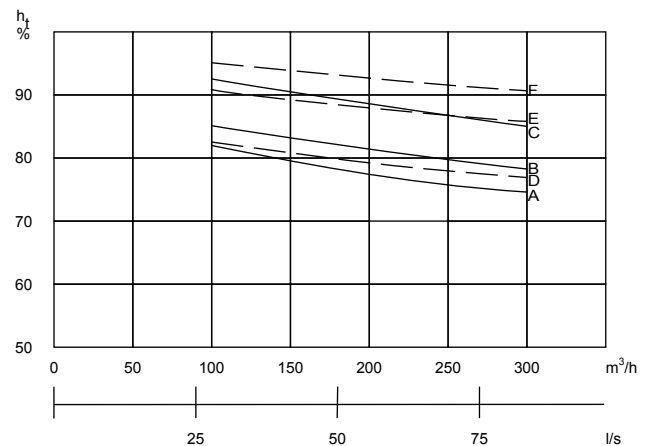
### Weight:

55 kg

## Automatics

GE 590 AC is delivered with Optima 250 DESIGN automatics and display.

## Temperature efficiency



		A	B	C	D	E	F
Exhaust	$^{\circ}$ C	20	20	20	20	20	20
Relative humidity	%	30	50	70	30	50	70
Fresh air	$^{\circ}$ C	4	4	4	-12	-12	-12

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

## Sound data

Measuring point	1 m in front of the unit			Extract duct			Supply duct		
	1	2	3	1	2	3	1	2	3
Airflow	Lo dB			Lwu dB			Lwi dB		
63 Hz	48	55	57	78	84	89	89	92	92
125 Hz	41	46	51	65	75	79	83	90	91
250 Hz	31	34	39	61	71	78	76	85	87
500 Hz	26	28	32	53	61	67	70	78	83
1000 Hz	22	23	25	43	50	56	62	72	75
2000 Hz	21	21	24	34	44	50	59	68	72
4000 Hz	-	-	21	23	37	45	50	63	68
8000 Hz	-	-	-	-	25	34	43	55	63
Average	Lo dB(A)			Lwu dB(A)			Lwi dB(A)		
	30	34	38	56	65	72	72	80	84

1: Measured at 30% and an airflow of 125 m<sup>3</sup>/h

2: Measured at 50% and an airflow of 230 m<sup>3</sup>/h

3: Measured at 100% and an airflow of 370 m<sup>3</sup>/h