

Heat Recovery Ventilation NIBE™ GV-HR110

NEW



Features of NIBE™ GV-HR110

NIBE GV-HR110-250 is normally used in homes with an area up to 180 square metres

NIBE GV-HR110-400 is normally used in homes with an area up to 380 square metres

Counter flow heat exchanger with a temperature efficiency of up to 96%

Fans with energy saving EC motors

Complete control system with user friendly control panel

NIBE GV-HR110

NIBE GV-HR110 -250 & -400 is a heat recovery ventilation unit equipped with a counter flow heat exchanger with a temperature efficiency of up to 96%. The ventilation unit is equipped with supply and extract fans with energy saving EC motors and forward curved fanblades.

NIBE GV-HR110 is delivered with the following:

- Counter current heat exchanger
- Energy saving fans with forward curved fan blades
- EC motors
- F7 filter on supply air side and G4 filter on exhaust air side
- Complete control system with user friendly control panel

NIBE GV-HR110 can be delivered with the following options:

- Electrical pre-heater (recommended)

NIBE™ GV-HR110

Suitability

NIBE GV-HR110 is suitable for domestic ventilation systems, where high temperature efficiency and low energy consumption are requested. This means that new demands for low energy consumption can be met.

NIBE GV-HR110-250 is normally used in homes with an area up to 180 square metres (at an average room height at 2.4 m and an air exchange rate of 0.3 1/h).






NIBE GV-HR110-400 is normally used in homes with an area up to 380 square metres, with an air exchange rate of 0.3 1/h per m² of the gross area and an externally loss of pressure of 150 Pa.

Automatics

NIBE GV-HR110-400 is delivered with factory setting which means that the unit can be started without setting up the menu. The factory settings are standard settings that can be changed to specific needs and demands of your living area.

Control panel



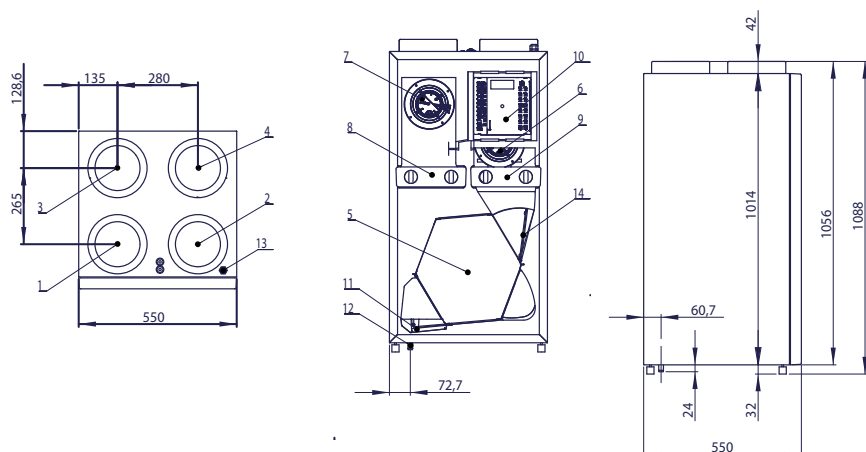
-  **Speed (1)**
Use this function to set the fan speed to levels 0-1-2-3-4.
-  **Extended operation (2)**
Use this function to set the timer to forced operation from 0 to 9 hours.
-  **Main menu (4)**
Use this function to enter the main menu and access the submenus.
-  **Filter (5)**
Use this function to reset the filter alarm.
-  **Information (6)**
Use this function to get a good overview of the device's current operating conditions.

Measurement

Dimensions

NIBE GV-HR110
Dimensions in mm.

- 01. Fresh air
- 02. Extract air
- 03. Exhaust air
- 04. Supply air
- 05. Counter current heat exchanger
- 06. Supply air fan
- 07. Extract air fan
- 08. Fresh air filter
- 09. Extract air filter
- 10. Electrical box
- 11. Condensate tray
- 12. Condensate drain/outlet
- 13. 230V/50Hz
- 14. Bypass





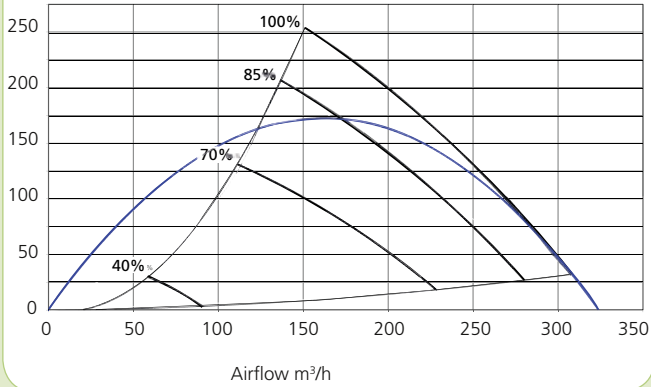
Capacity

Flow:

The capacity (performance) lines are based on an average of the supply and extract air volume.
The diagram shows the available ventilation capacity.

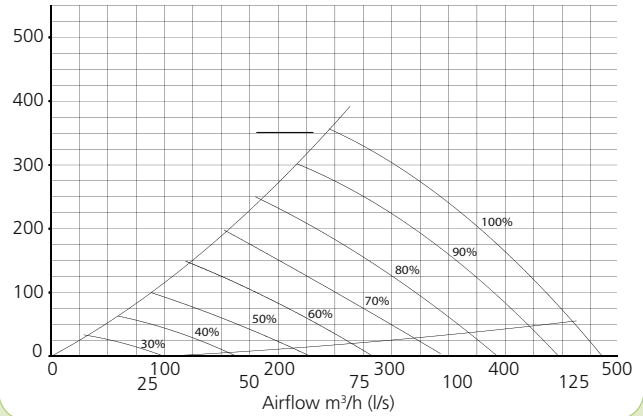
NIBE GV-HR100-250

External pressure (Pa)



NIBE GV-HR100-400

External pressure (Pa)



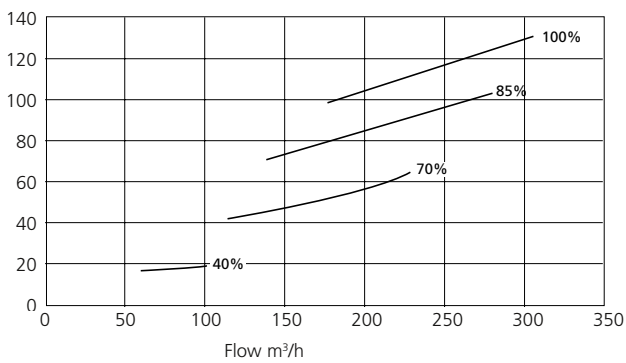
Total power consumption

NIBE GV-HR100-250

For both fans and control

- 1 = 100%
- 2 = 85%
- 3 = 70%
- 4 = 40%

Power consumption(W)

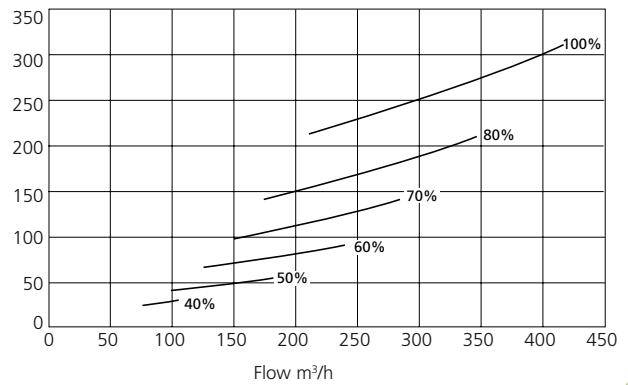


NIBE GV-HR100-400

For both fans and control

- 1 = 100%
- 2 = 80%
- 3 = 70%
- 4 = 60%
- 5 = 50%
- 6 = 40%

Power consumption(W)



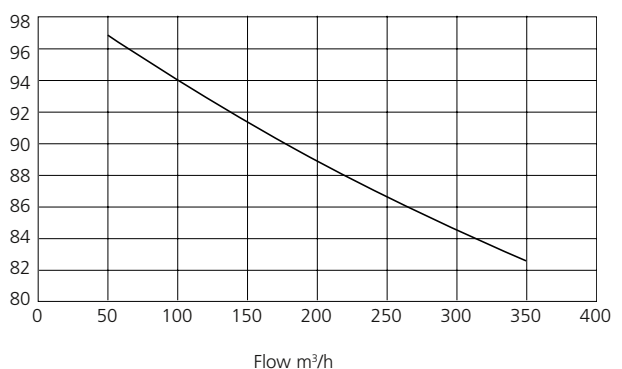
Heat recovery rate

Heat recovery rate, Volume Flow min = mout There has not been taken any consideration regarding icing of the heat exchanger at low outdoor temperatures.

"Dry" heat recovery rate according EN 308 and at the equal flow on the fresh air and the extract air side.

- T_Fresh air = 5°C
- T_Extract air = 25°C
- RH_Extract air < 27.7%

Heat recovery rate (%)



Technical specifications

NIBE™ GV-HR110

NIBE™	GV-HR110-250	GV-HR110-400
Electrical connection	1 x 230 V + N + PE, 10 A, 50 Hz	1 x 230 V + N + PE, 10 A, 50 Hz
Fans	Forward curved fan blades	Forward curved fan blades
Motor	EC motor with integrated electronics	EC motor with integrated electronics
Insulation class	B	B
Protection class	IP 21	IP 21
Fan speed (Max. per motor)	1970 Rpm	2320 Rpm
Fan power input (Max. per motor)	83 W	170 W
Fan current (Max. per motor)	0,68 A	2,1 A
Size (l x d x h) excl. connections	1014 x 550 x 550 mm	1014 x 550 x 550 mm
Cabinet	Galvanized steel plate 0,7 mm with powder coating	Galvanized steel plate 0,7 mm with powder coating
Duct connection	Ø160 mm	Ø160 mm
Front	Made of ABS with insert in EPS and removable filter drawers	Made of ABS with insert in EPS and removable filter drawers
Wall mounting	With Ø8 mm holes for wall mounting	With Ø8 mm holes for wall mounting
Counter current heat exchanger	Made of PS (polystyren) and operates in the temperature	Made of PS (polystyren) and operates in the temperature
Interval heat exchanger	-20°C to +50°C	-20°C to +50°C
Condensation drain	PA tube Ø15 mm (outside)	PA tube Ø15 mm (outside)
Filters	F7 filter (fresh air), G4 filter (extract air)	F7 filter (fresh air), G4 filter (extract air)
Weight	32 kg	32 kg

Sound data NIBE™ GV-HR110-250

Measuring point	1 m in front of the unit			Extract air duct			Supply air duct			
	(%)	1	2	3	1	2	3	1	2	3
		L dB			Lw dB			Lw dB		
63 Hz	-	-	-	45	62	68	50	65	70	
125 Hz	-	-	-	39	56	64	49	66	74	
250 Hz	-	-	-	31	45	52	44	60	68	
500 Hz	-	-	-	28	39	44	41	55	61	
1000 Hz	-	-	-	23	33	40	42	56	63	
2000 Hz	-	-	-	16	24	31	29	47	55	
4000 Hz	-	-	-	17	19	24	22	40	48	
8000 Hz	-	-	-	19	19	20	19	28	36	
Average (A-weighted)		L dB(A)			Lw dB(A)			Lw dB(A)		
	-	-	40	31	44	51	45	59	67	

Sound data NIBE™ GV-HR110-400

Measuring point	1 m in front of the unit			Extract air duct			Supply air duct			
	(%)	1	2	3	1	2	3	1	2	3
		L dB			Lw dB			Lw dB		
63 Hz	-	-	-	33	44	49	56	61	62	
125 Hz	-	-	-	37	56	61	62	68	70	
250 Hz	-	-	-	45	59	66	61	72	75	
500 Hz	-	-	-	46	59	64	63	73	78	
1000 Hz	-	-	-	49	59	63	72	76	78	
2000 Hz	-	-	-	43	57	62	67	76	79	
4000 Hz	-	-	-	36	50	56	61	71	76	
8000 Hz	-	-	-	28	48	53	55	68	72	
Average (A-weighted)		L dB(A)			Lw dB(A)			Lw dB(A)		
	33	40	45	53	65	71	75	82	85	

- 01. Measured at fan speed 40 %.
- 02. Measured at fan speed 70 %.
- 03. Measured at fan speed 100 %.