



GC+

Condensing high efficiency air heater with centrifugal fan

High efficiency air heater with modulating premix burner included
for duct connection. Output from 15 to 150 kW.



For more information, downloads
and videos, visit the GC+ page on
our website



Custom-made environment friendly heating with standard Mark-equipment

In addition to the High Efficiency air heater, the Mark-range also includes a gas-fired, high performance air heater with a centrifugal fan. The GC+ is particularly suited for connection to duct systems, or systems where high pressure is required. This condensing equipment provides efficiency greater than 106% (lower value). Heat is generated via a modulating (5:1) premix burner which results in very low gas consumption.

An extensive range of additional sections has been developed for the GC+. This ensures the standard GC+ can be simply and affordably adapted to any project specification. The comprehensive capacity range (15-150 kW) also means the area of application for this type of equipment is virtually limitless. The GC+ can additionally be incorporated into an air handling unit.

The GC+ is designed to heat garages, warehouses, workshops, schools and sports halls among other applications, with or without a duct system.

Product features

- Centrifugal fan with forward curved blades
- 3-phase electric motor 1400 min-1
- V-belt transmission
- Shock absorbers
- Low noise level
- Variable air volume
- Variable delta T
- System air pressure up to 300 Pa
- Fan outlet position: front side
- Low maintenance
- Modulation range 5:1

Options:

- Centrifugal fan with backward curved blades
- Insulated fan casing
- Outdoor version available



The GC+ is operated using an Optitherm+ clock thermostat or an Interface+ module that allows a connection with the BMS (building management system) via Modbus or a 0-10V contact. The Optitherm+ also makes it possible to control the GC+ units remotely with an app for mobile phone and tablet. Other operating options are also available.

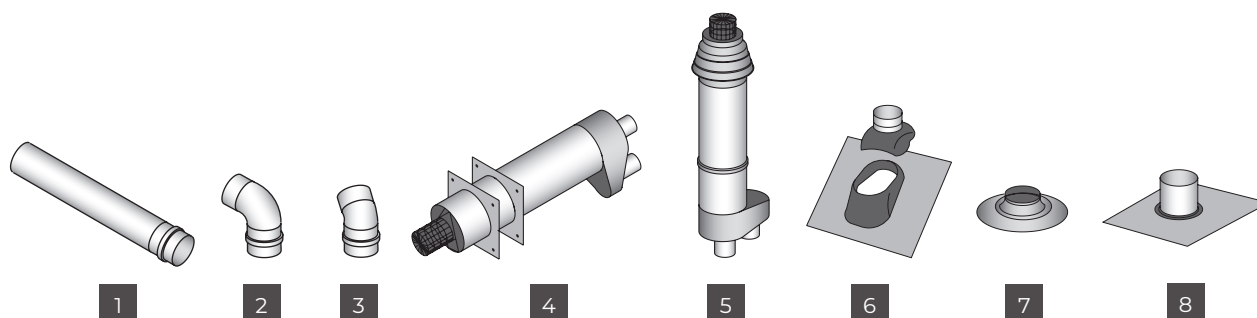
Technical information

TYPE		15	25	35	40	60	80	100	135	150
Nominal load (upper value)	kW	16,1	27,2	38,8	44,4	66,7	88,9	110,6	149,9	166,7
Maximal power	kW	13,6	23,0	33,4	38,4	56,2	75,6	93,3	128,9	141,0
Minimal load (upper value)	kW	4,6	6,8	9,6	9,6	13,9	24,5	10,8	21,1	36,6
Minimal power	kW	4,3	6,6	9,2	9,2	13,5	23,8	10,6	20,6	35,3
Flue efficiency at maximum load (lower value)	%	94,1	93,9	95,1	95,1	93,6	94,0	93,8	95,5	94,0
Flue efficiency at minimum load (lower value)	%	106,7	107,0	106,9	106,9	107,3	107,1	107,4	107,5	107,3
Burner turndown ratio	+/-	3:1	4:1	4:1	5:1	5:1	7:1	6:1	7:1	4:1
Gas consumption G20 (15°C)	m ³ /h	1,56-0,45	2,61-0,66	3,65-0,88	4,18-0,88	6,22-1,34	8,16-2,25	10,30-1,78	14,05-1,98	15,30-3,37
Gas consumption G25 (15°C)	m ³ /h	1,75-0,49	2,95-0,74	4,10-1,02	4,73-1,02	7,03-1,47	9,30-1,40	11,57-1,85	15,98-2,25	17,05-3,75
Gas consumption G31 (15°C)	kg/h	1,13-0,32	1,91-0,48	2,68-0,64	3,17-0,64	4,72-1,04	6,22-0,89	7,76-1,34	10,51-2,23	11,69-2,57
Gas consumption G30 (15°C)	kg/h	1,19-0,33	2,02-0,51	2,92-0,72	3,46-0,72	5,05-1,11	6,70-0,96	8,19-1,48	11,1-1,85	12,35-2,72
Minimum air displacement (20 °C)	m ³ /h	1250	2000	3760	3760	5640	7520	9400	12500	14000
Delta T (ΔT)	K	32,7	34,5	26,6	30,3	30,3	30,3	31,3	30,8	30,5
Nominal air displacement (20 °C)	m ³ /h	1400	2300	5000	5000	6500	10000	12500	18500	18500
Delta T (ΔT)	K	29,2	30,0	20,0	22,8	26,3	22,8	23,5	20,8	23,1
Maximum air displacement (20 °C)	m ³ /h	4100	4100	7200	7200	8640	13680	16200	20880	20880
Delta T (ΔT)	K	10,0	16,8	13,9	15,8	19,8	16,7	18,1	18,4	20,5
Fan		9-7	9-7	12-12	12-12	12-12	twin 12-19	twin 12-12	twin 15-15	twin 15-15
Dimensions fan	max.	-	-	112	112	112	112	112	132	132

External pressure = 0-300 Pa, more on request

G25 = Natural gas, G20 = Natural gas, G31 = Propane, G30 = Butane

Accessories – flue gas exhaust



1 Extension set

2 90° elbow

3 45° elbow

4 Single flue set horizontal

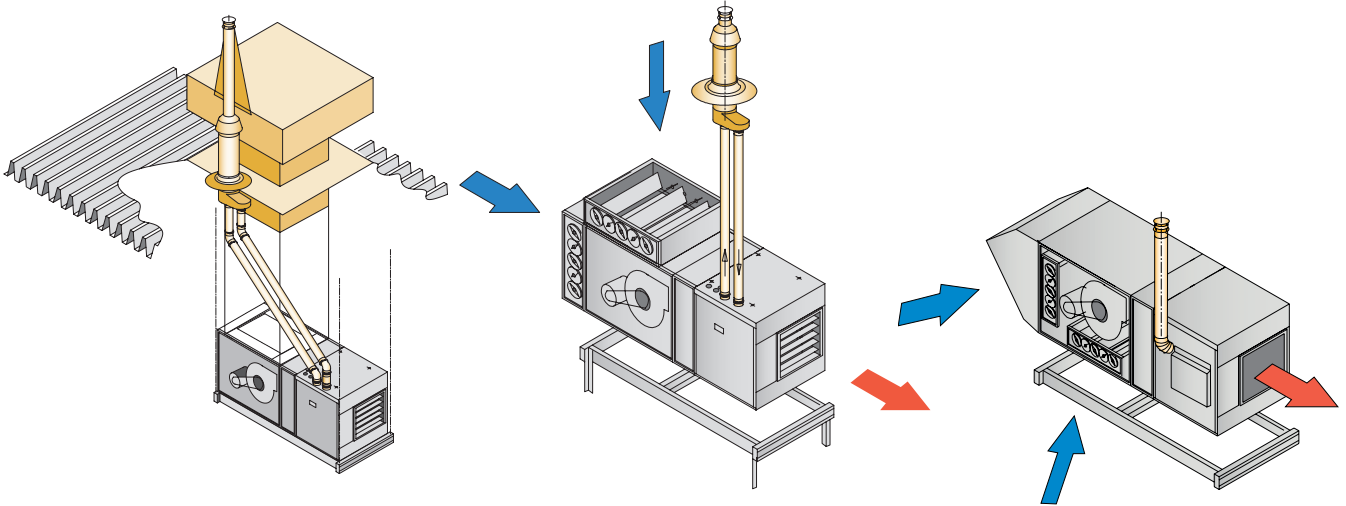
5 Single flue set vertical

6 Roof flashing for pitched roof

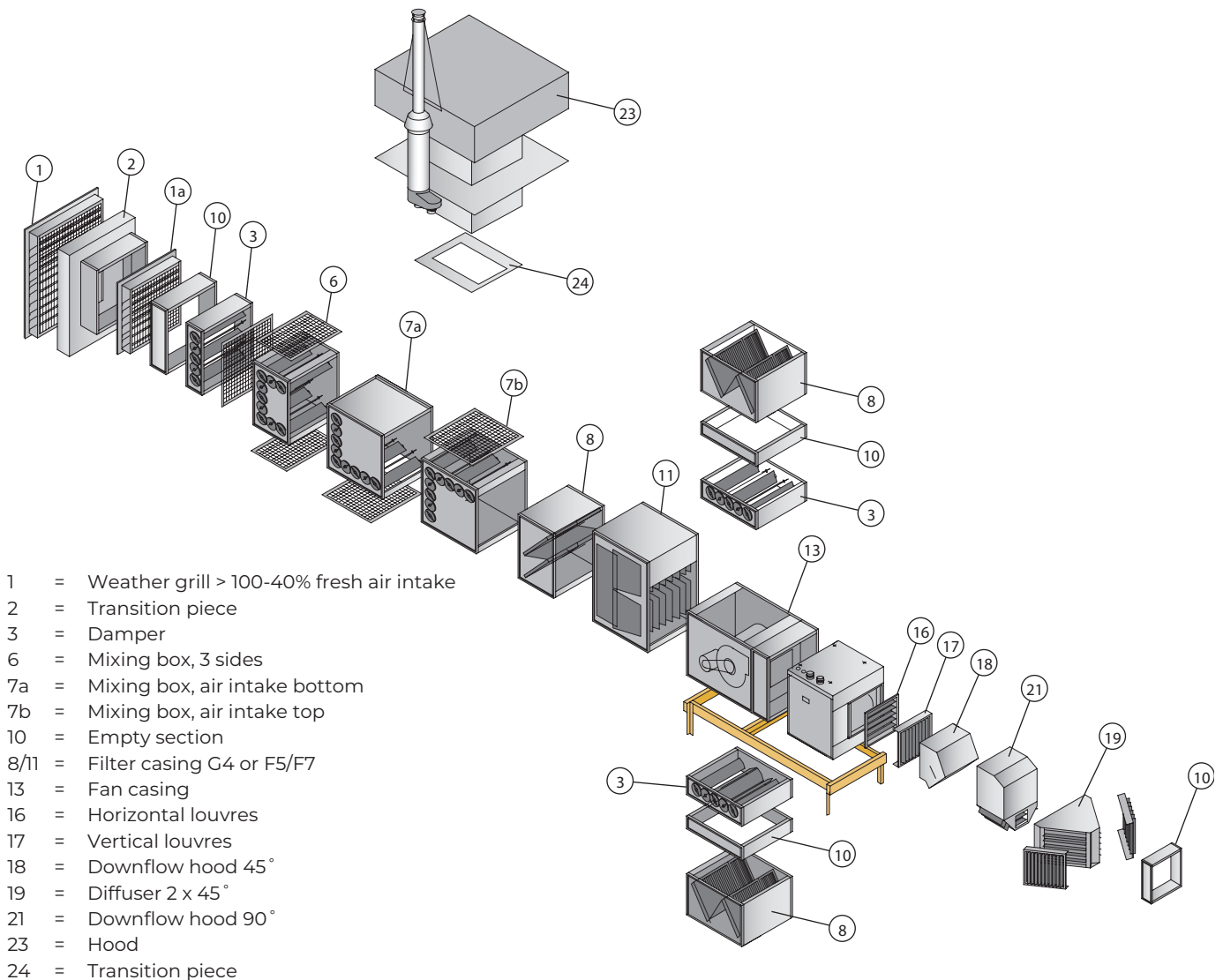
7 Adhesive plate

8 Flexible roof flashing for cladded roof

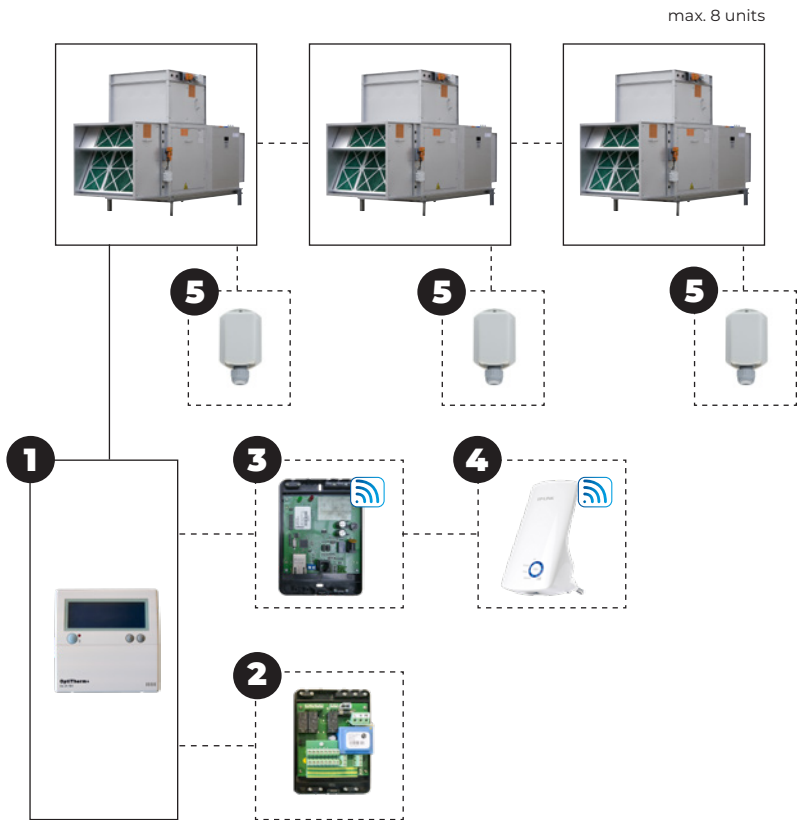
Assembly/location suggestions



Accessoires - aanbouwlementen



Controls



Control combination options

Room temperature control

GC+ + **1**

GC+ + **1** + **5**

Room temperature control in combination with remote control*

A remote connection with the mobile phone app is only possible when using a Web module. A WiFi bridge can be added to create a wireless connection.

GC+ + **1** + **3**

GC+ + **1** + **3** + **4**

GC+ + **1** + **5** + **3**

GC+ + **1** + **5** + **3** + **4**

Room temperature control in combination with Modbus

Allows you to read the status and change the settings of the Optitherm+.

GC+ + **1** + **2** + **5**

GC+ + **1** + **2**

Capacity control with external 0-10V signal or Modbus

Heating / Continuous ventilation / reset contacts / Modbus communication

GC+ + **2**

* You need a separate Optitherm+ and Web module for each unit that you want to read out via the app. When using one Web module, only the fault messages and history of the first unit can be read via the app. It is possible to control multiple unit with one Web module via the app.

See price list GS+ for description and code numbers of the relevant items

