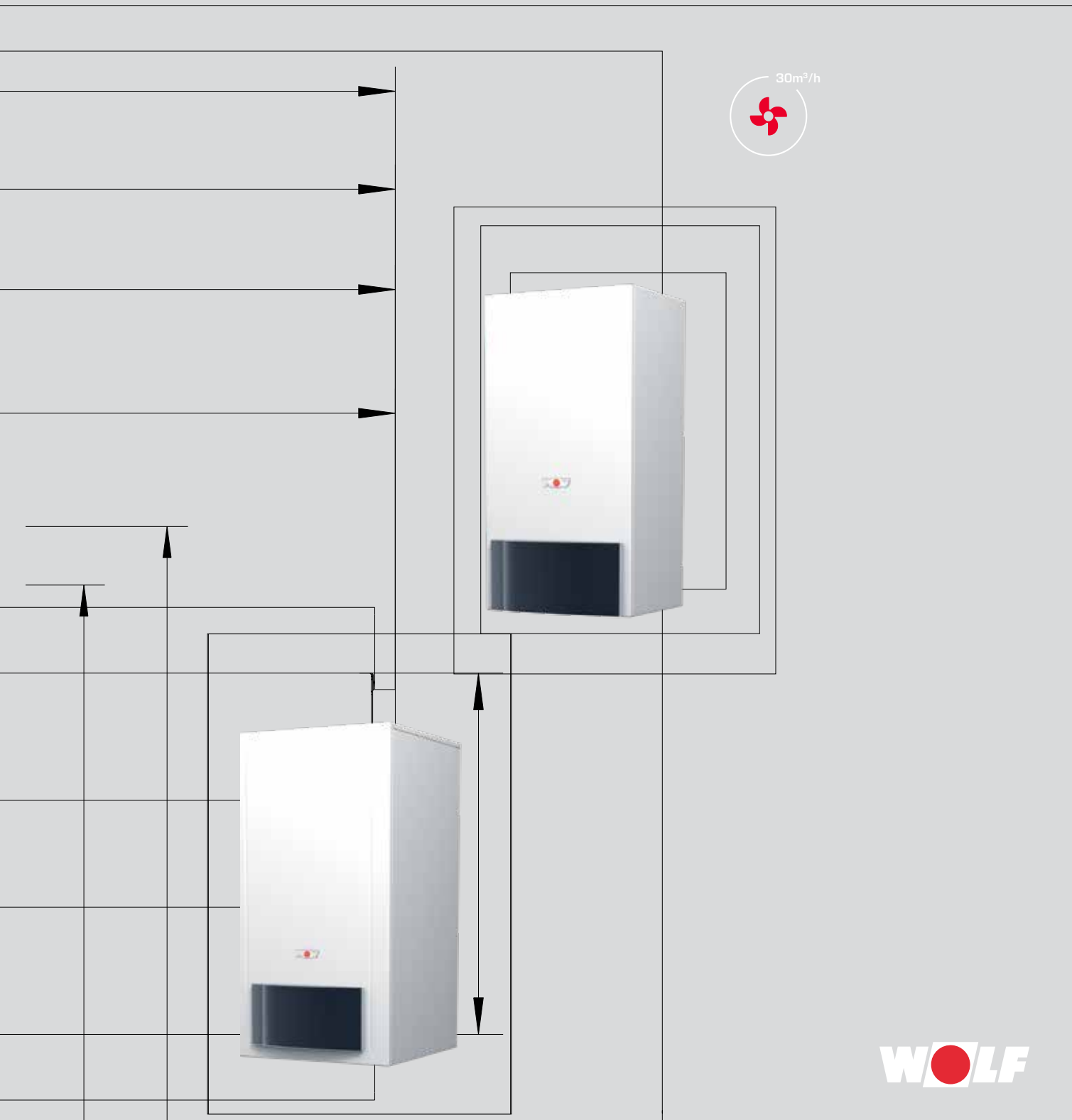
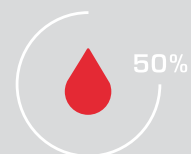
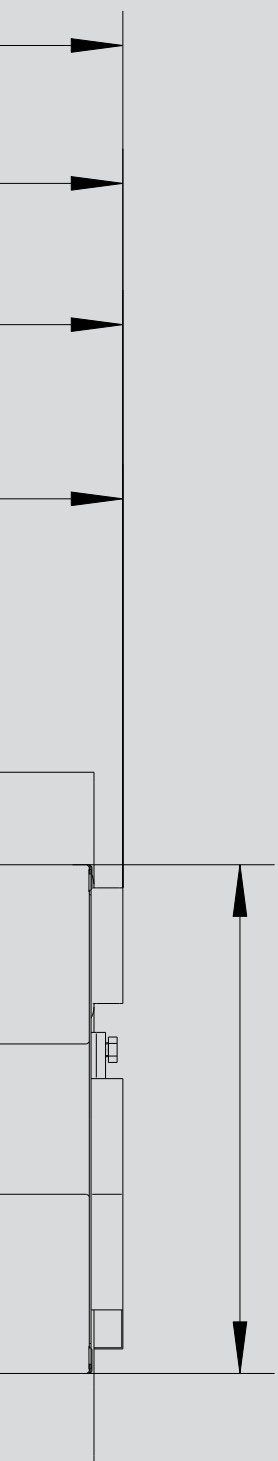


WOLF GAS CONDENSING BOILERS COMFORTLINE

CGB-35/50 / CGB-75/100





THE EXTENSIVE EQUIPMENT RANGE

from system supplier WOLF offers the ideal solution for commercial and industrial buildings, new build and modernisation projects alike.

The range of WOLF control units can meet any requirement for heating convenience.

All equipment is easy to operate, highly energy efficient and reliable.

Solar thermal systems can be swiftly integrated into existing systems.

WOLF equipment is easy and quick to install and maintain.

COMFORTLINE GAS CONDENSING BOILERS	CGB	04-05
	CGB-35-50	06
	CGB-K-40-35	06
	CGB-75-100	06
SPECIFICATION		07-08
STANDARD CONTROL UNIT		09
CONTROL ACCESSORIES		10-11
AIR/FLUE GAS ROUTING		12-13
ACCESSORIES		14-15

Smart home capable
via smartphone, laptop or PC
via WLAN-Modul WOLF Link pro / ISM7e

Wall mounted gas condensing boilers
with sealed combustion chamber,
for room sealed or open flue operation

High standard seasonal efficiency [to DIN]
up to 110 % [net cv] / 99 % [gross cv] for
the best possible energy efficiency

Meets the requirements for the "Blue Angel" eco-label
to RAL-UZ 61 when operated with natural gas

Premix burner for natural gas
E, LL and LPG, variable modulating
heating output from 8 kW

Optimum utilisation of condensing technology
modulating pump control
no return temperature raising required



For maintenance:
heating water heat exchanger can, at CGB35 / 50
be pivoted out under system pressure
without draining the heating water

Easy flue gas emissions testing
from outside without opening the
appliance

WRS control system

can be set and controlled via smartphone or PC

11

**BENEFITS OF WOLF
GAS CONDENSING BOILERS
FROM 35 TO 100 KW**

CGB-35-50 / CGB-K-40-35 / CGB-75-100

Cascadable up to 400 KW

Up to 4 gas condensing boilers can be combined using a KM cascade controller.

Convenient access to all components

for quick installation and straightforward operation and maintenance



CGB-35, CGB-50

WALL MOUNTED GAS CONDENSING BOILER FOR HEATING

with option to connect a DHW cylinder

e.g. SE-2

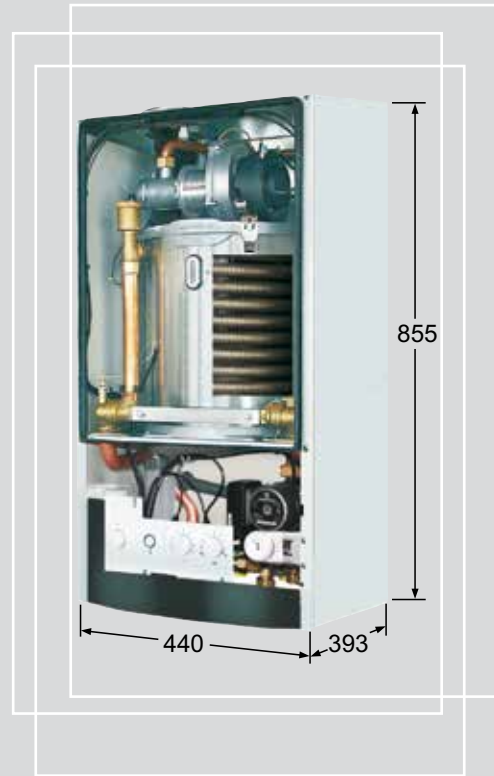
- With modulating high efficiency pump (EE <0.21) as standard; no mechanical switches in the heating water
- Coated heating water heat exchanger WOLF "ALUPro"

MODULATION RANGE

for flow / return 50 / 30 °C

CGB-35	from 9.0 to 35.0 kW
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CGB-50	from 12.2 to 50.0 kW
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CGB-K-40-35

WALL MOUNTED GAS CONDENSING BOILER FOR HEATING AND DHW

- With integral stainless steel DHW heat exchanger
- For demand-dependent, hygienic DHW heating
- Precise flow control ensures consistent draw-off temperature
- With modulating high efficiency pump (EE <0.21) as standard; no mechanical switches in the heating water

MODULATION RANGE

for flow / return 50 / 30 °C

BOOSTER OUTPUT

for DHW heating

CGB-K-40-35	from 9.0 to 35.0 kW	CGB-K-40-35	40.0 kW
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CGB-75, CGB-100

WALL MOUNTED GAS CONDENSING BOILER FOR HEATING

with option to connect a DHW cylinder

e.g. SE-2

- High performance heat exchanger made from a robust aluminium/silicon alloy, with smooth, vertically arranged fins; easy cleaning, high self-cleaning effect, long service life
- Flue gas non-return device as standard; lowest cool-down losses; cascade operation with positive pressure possible for up to four wall mounted gas condensing boilers and an output range up to 400 kW

MODULATION RANGE

for flow / return 50 / 30 °C

CGB-75	from 19.6 to 75.8 kW
--------	----------------------

CGB-100	from 19.6 to 98.8 kW
---------	----------------------



SPECIFICATION	CGB	35	50	75	100	-
		CGB-K	-	-	-	-
Energy efficiency class, central heating ⁴⁾		A	A	A		A
Energy efficiency class, DHW heating						A
Rated heating output at 80/60 °C	kW	32	46	70.1	91.9	32/39 ¹⁾
Rated heating output at 50/30 °C	kW	34.9	49.9	75.8	98.8	34.9
Rated heat input	kW	33	47	71.5	94	33/40 ¹⁾
Lowest heating output (modulating) at 80/60 °C	kW	8/8.5 ³⁾	11/11.7 ³⁾	18.2	18.2	8/8.5 ³⁾
Lowest heating output (modulating) at 50/30 °C	kW	9/9.5 ³⁾	12.2/12.9 ³⁾	19.6	19.6	9/9.5 ³⁾
Lowest heat input (modulating)	kW	8.5/9 ³⁾	11.7/12.4 ³⁾	18.5	18.5	8.5/9 ³⁾
Heating flow outside diameter	G	1¼"	1¼"	1½"	1½"	1¼"
Heating return outside diameter	G	1¼"	1¼"	1½"	1½"	1¼"
DHW connection/DHW circulation	G	-	-	-	-	¾"
Cold water connection	G	-	-	-	-	¾"
Gas connection	R	¾"	¾"	¾"	¾"	¾"
Air/flue pipe connection	mm	80/125	80/125	110/160	110/160	80/125
Gas category		H2ELL3P				
Gas supply details:						
Nat. gas E/H [net cv = 9.5 kWh/m ³ = 34.2 MJ/m ³]	m ³ /h	3.47	4.94	7.77	10.03	3.47/4.34 ¹⁾
Nat. gas LL [net cv = 8.6 kWh/m ³ = 31.0 MJ/m ³] ²⁾	m ³ /h	3.84	5.5	8.6	11.11	3.84/5.10 ¹⁾
LPG [net cv _i = 12.8 kWh/kg = 46.1 MJ/kg]	kg/h	2.57	3.66	5.76	7.44	2.57/3.40 ¹⁾
Supply pressure, natural gas [permissible min./max.]	mbar	20 [18-25]				
Supply pressure, LPG [permissible min./max.]	mbar	50 [43-57]				
Standard seasonal efficiency [to DIN] at 40/30 °C [net cv/gross cv]	%	109/98		110/99		109/98
Standard seasonal efficiency [to DIN] at 75/60 °C [net cv/gross cv]	%	108/97		107/96		106/96
Efficiency at rated load at 80/60 °C [net cv/gross cv]	%		98/88		97/88	98/88
Efficiency at 30 % partial load and TR=30 °C [net cv/gross cv]	%	109/98	109/98	107/96	107/96	107/97
Flow temperature, factory setting	°C	75	75	80	80	75
Flow temperature up to approx.	°C	90				
Max. total pressure	bar	3.0	3.0	6.0	6.0	3.0
Residual head for heating circuit:						
1834 l/hflow rate [32 kW at Δt=20 K]	mbar	250	250	-	-	250
1977 l/hflow rate [46 kW at Δt=20 K]	mbar	-	235	-	-	-
3000 l/hflow rate [70 kW at Δt=20 K]	mbar	-	-	300	-	-
4000 l/hflow rate [92 kW at Δt=20 K]	mbar	-	-	-	80	-
Water capacity of heating water heat exchanger	l	2.5	2.5	10	10	2.5
DHW flow rate	l/min	-	-	-	-	2.0-12.0
Spec. water throughput "D" to EN 625	l/min	-	-	-	-	18
Min. flow pressure/min. flow pressure to EN 625	bar	-	-	-	-	0.2/1.0
Max. perm. total pressure	bar	-	-	-	-	10
DHW temperature range [adjustable] ⁴⁾	°C	-	-	-	-	15-65
Corrosion protection, DHW heat exchanger		-	-	-	-	Stainless steel
Permiss. sensor temperatures	°C	95				
Flue gas mass flow rate at Q _{max}	g/s	15	21.5	33.7	43.5	15/18 ¹⁾
Flue gas mass flow rate at Q _{min}	g/s	3.9	5.3	8.9	8.9	3.9
Flue gas temperature 80/60-50/30 at Q _{max}	°C	65-45	80-50	72-48	78-53	65-45
Flue gas temperature 80/60-50/30 at Q _{min}	°C	66-47	60-38	60-36	60-36	66-47
Available gas fan draught at Q _{max}	Pa	115	145	110	200	115/125 ¹⁾
Available gas fan draught at Q _{min}	Pa	10	10	12	12	10
Flue gas category to DVGW G 635		G52				
NOx class		6				
Amount of condensate at 50/30 °C	l/h	approx. 3.9	approx. 5.5	approx. 7.1	approx. 9.8	3.9/4.4 ¹⁾
Condensate pH value		approx. 4.0				
Electrical connection	V~/Hz	230/50				
Integral fuse (medium time lag)	A	3.15				
Power consumption with heating circuit pump class A	W	110	150	-	-	115
Power consumption with 3-stage heating circuit pump	W	130	175	75	130	135
IP rating		IP X4D				
Total weight (empty)	kg	45	45	92	92	48
CE designation		CE-0085BP5571		CE-0085BR0164		CE-0085BP5571

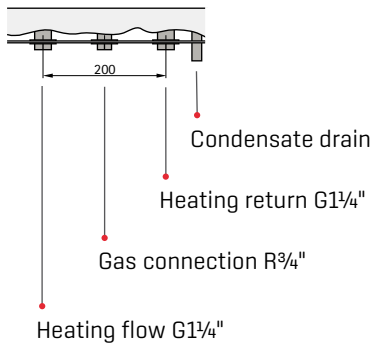
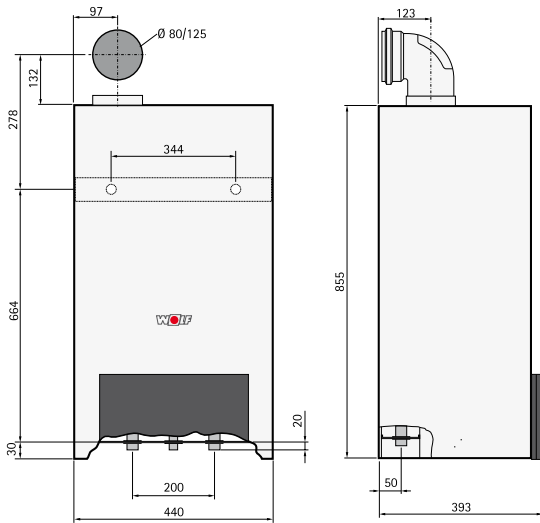
¹⁾ Heating operation/DHW operation ²⁾ Does not apply to Austria/Switzerland ³⁾ LPG

⁴⁾ Energy class according to Ecodesign Directive for central heating with thermal output ≤ 70 kW

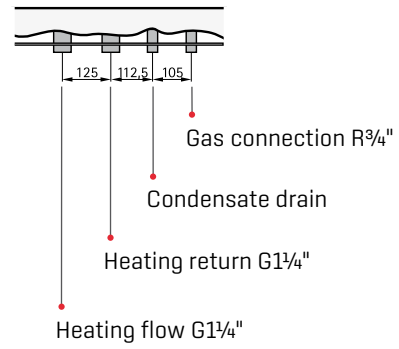
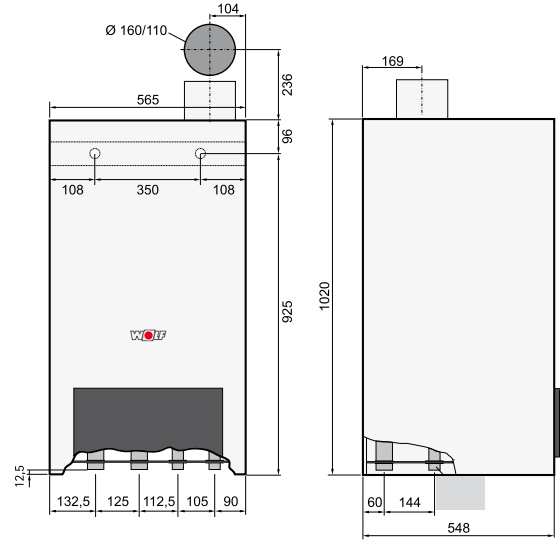


DIMENSIONS AND CONNECTION DIMENSIONS

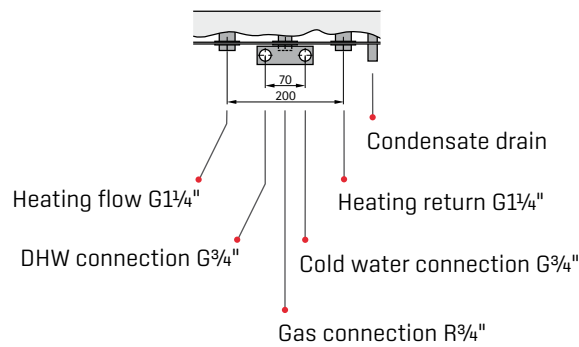
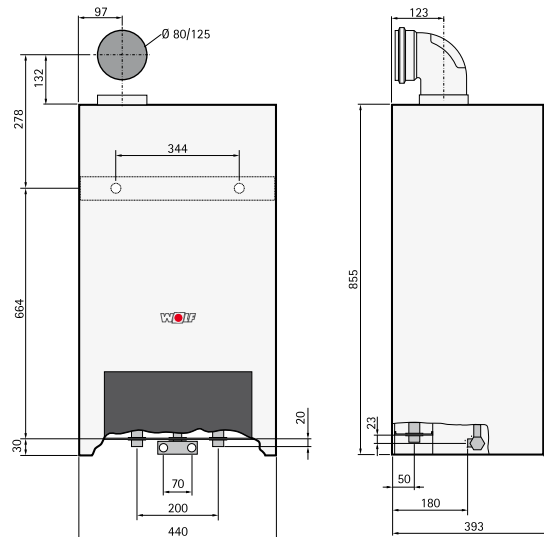
CGB-35, 50



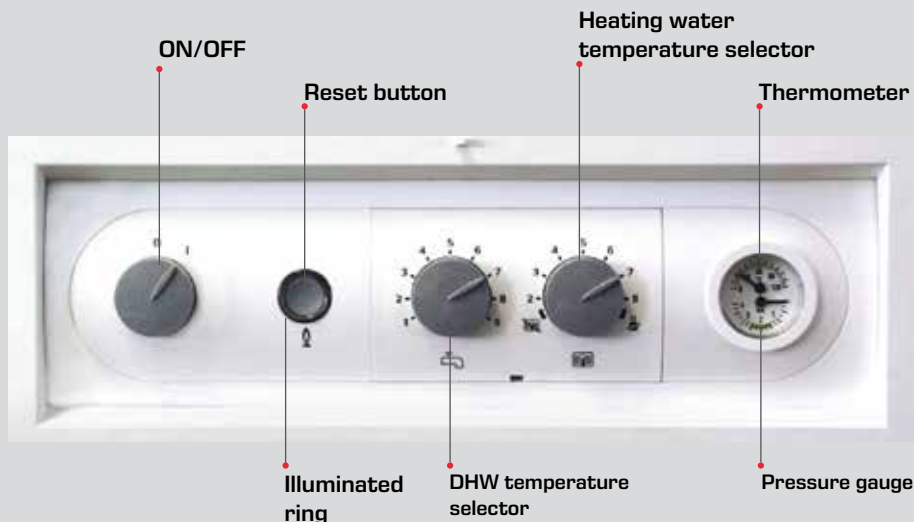
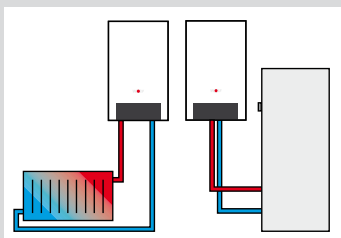
CGB-75, 100



CGB-K-40-35



STANDARD CONTROL UNIT CGB (35/50), (75/100) / CGB-K (40/35)



Illuminated ring for status display

Display	Meaning
Flashing green	Standby (mains power supply ON; no heat demand)
Constant green light	Heat demand: Pump running, burner OFF
Flashing yellow	Emissions test mode
Constant yellow light	Burner ON; flame steady
Flashing red	Fault

Setting



DHW temperature selector

The settings 1-9 correspond to a cylinder temperature of 15-65 °C. In combination with an external temperature controller the adjustment at the DHW temperature selector is without effect, the setting is then made at the external temperature controller.



Heating water temperature selector

The setting range 2-8 corresponds to a heating water temperature of 20-75 °C. In combination with an external temperature controller the adjustment at the heating water temperature selector is without effect, the setting is then made at the external temperature controller.




Winter mode (positions 2 to 8)

The circulation pump operates in heating mode.




Summer mode

Switch is set to  circulation pump OFF (central heating OFF); only DHW heating, frost protection and pump anti-seizing function are enabled, i.e. the circulation pump runs for approx. 30 s every 24 hours.



Emissions test mode

If the switch is turned to the  position, the boiler operates with the maximum heating output. The illuminated ring flashes yellow for 15 minutes or until the maximum flow temperature has been exceeded.



Thermometer/pressure gauge

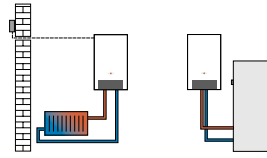
The heating water temperature and the heating system water pressure are displayed.

CONTROL ACCESSORIES CGB (35/50), (75/100) / CGB-K 40(35)

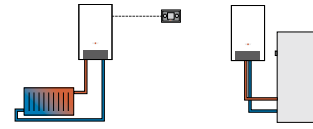
Standard controller; part of the standard delivery of the gas condensing boiler



BM programming unit (incl. outside temp. sensor) as weather-compensated temperature controller



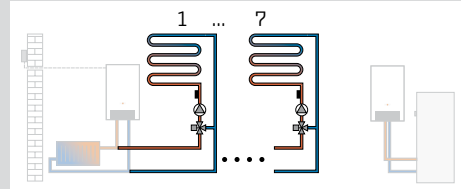
BM programming unit with wall mounting base (accessory) as remote control



- Room temperature-dependent/weather-compensated temperature control
- Time programs for central heating and DHW heating
- LCD with background illumination
- Plain text display with easy user prompts
- Operation via rotary selector with pushbutton function
- Four function keys for frequently used functions (central heating, DHW, setback, info)
- Installation either inside the boiler control unit, or as a remote control in a wall mounting base
- Option for MM mixer module
- Only one programming unit required for multi boiler systems
- Can be extended with MM mixer module (up to 7 heating circuits with mixer)
- Fault diagnosis

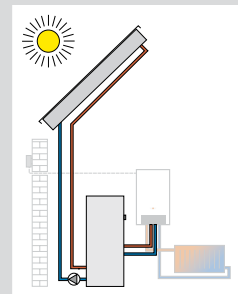
MM mixer module

- Extension module to control one circuit with mixer
- Weather-compensated flow temperature control
- Easy controller configuration by selecting one of the preset system versions
- BM programming unit can be clipped into the boiler or extended as a remote control with wall mounting base
- Rast 5 connection technology
- Incl. flow temperature sensor



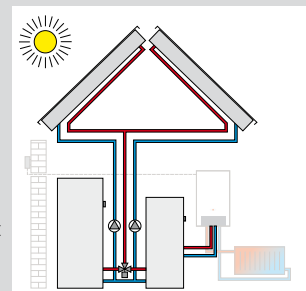
SM1-2 solar module

- Extension module to control one solar circuit incl. collector temperature sensor, cylinder temperature sensor and sensor wells
- In conjunction with WOLF heat generators, greater energy savings through intelligent cylinder reheating, i.e. blocking cylinder reheating when there is sufficient solar energy
- Heat metering with external heat meter
- Function check for flow rate and gravity brake
- Temperature differential control for one heat consumer
- Maximum cylinder temperature limit
- Display of the set and actual values on the BM programming unit
- Integral hours run meter
- eBus interface with automatic energy management
- Rast 5 connection technology



SM2-2 solar module

- Extension module to control one solar thermal system with up to 2 cylinders and 2 collector arrays, incl. 1 collector sensor and 1 cylinder sensor, each with sensor well
- Easy controller configuration by selecting one of the preset system versions
- In conjunction with WOLF heat generators, greater energy savings through intelligent cylinder reheating, i.e. blocking cylinder reheating when there is sufficient solar energy
- Heat metering with external heat meter for all configurations
- Selection of cylinder operating mode
- Display of the set and actual values on the BM programming unit
- eBus interface with automatic energy management
- Rast 5 connection technology



2-wire eBUS connection

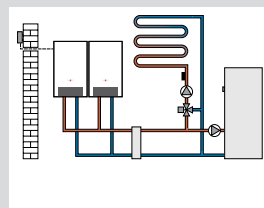


2-wire eBUS connection



KM cascade module

- Extension module to control systems with a low loss header or cascade operation
- Can be used for gas condensing boiler control units (4 appliances)
- Easy controller configuration by selecting one of the preset system versions
- Control of one circuit with mixer
- BM programming unit can be clipped into the boiler or extended as a remote control with wall mounting base
- 0-10 V input for BMS systems; fault message output 230 V
- eBus interface with automatic energy management
- Rast 5 connection technology



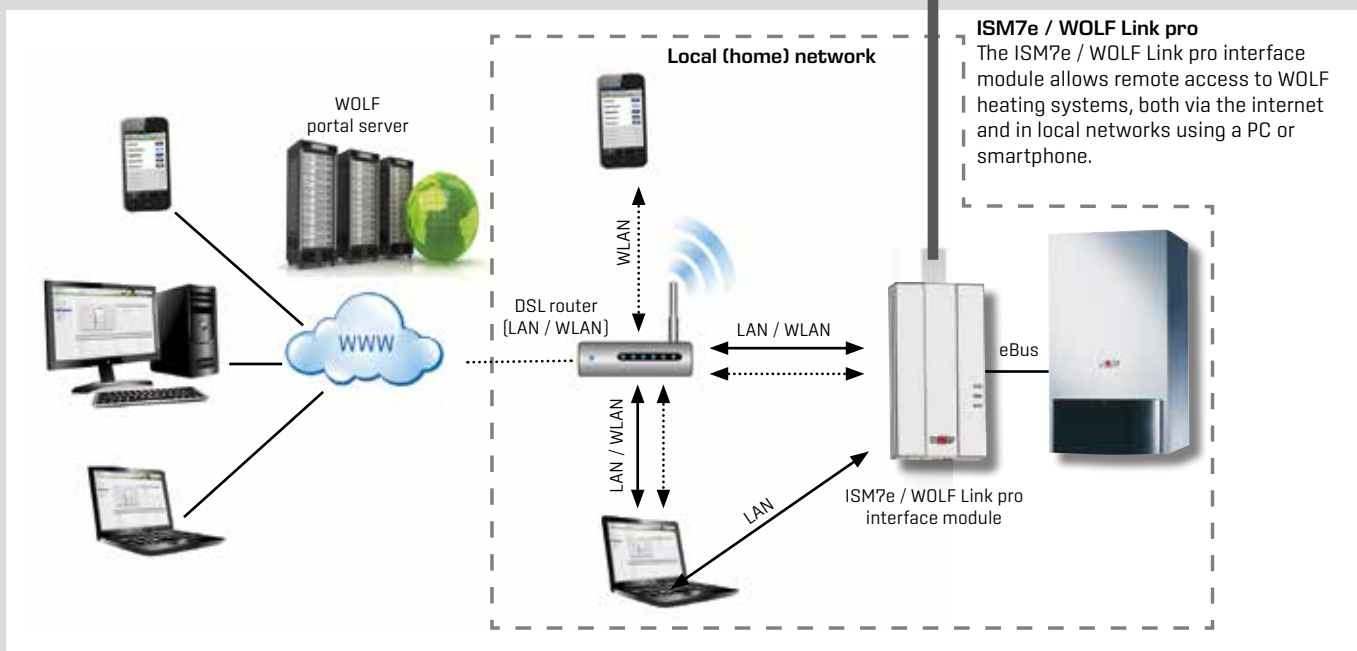
Wireless receiver for external wireless sensor and wireless remote control
incl. radio clock (DCF77 signal)



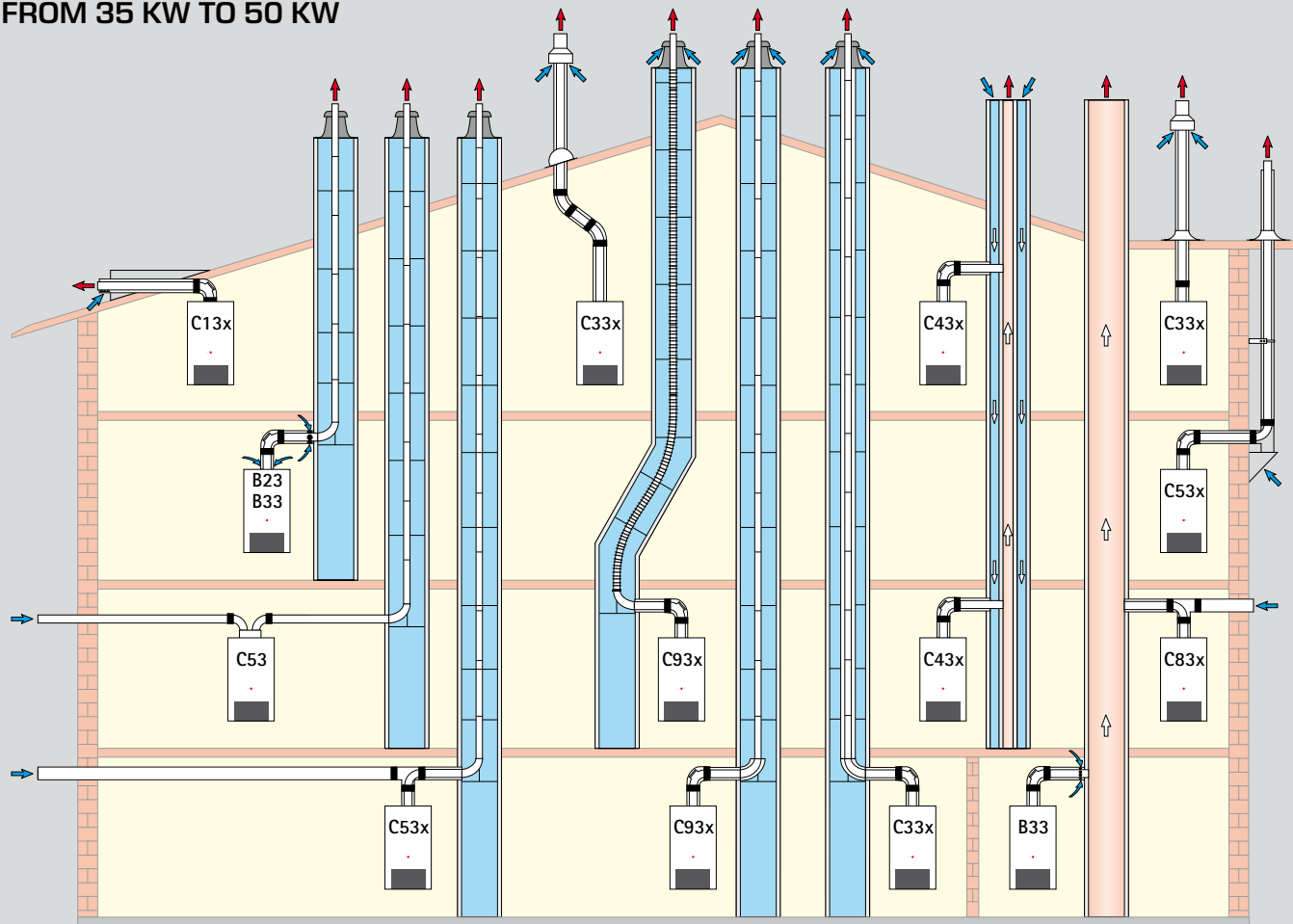
External wireless sensor
(only in conjunction with receiver for external wireless sensor and remote control, part no. 27 44 209)



Wireless remote control
(only in conjunction with receiver for external wireless sensor and remote control)
Max. one wireless remote control per circuit with mixer.



AIR/FLUE GAS ROUTING FOR WALL MOUNTED GAS CONDENSING BOILERS FROM 35 KW TO 50 KW



Design variants

Maximum length¹⁾ [m]

Type		CGB-35	CGB-K-40-35	CGB-50
B23	Flue inside a shaft and combustion air directly via the boiler (open flue)	DN 80	39	23
		DN 110	50	50
B33	Flue inside a shaft with horizontal concentric connection pipe (open flue)	DN 80	35	16
		DN 110	50	50
B33	Connection to a moisture-resistant flue gas chimney with a horizontal concentric connection pipe (open flue)	Calculation to EN 13384 (balanced flue manufacturer)		
C13x	Horizontal roof outlet through a pitched roof (room sealed)	16	16	8
C33x	Vertical concentric roof outlet through pitched or flat roof, vertical concentric balanced flue system for installation in a shaft (room sealed)	DN 80/125	16	8
		DN 110/160	42	37
C43x	Connection to a moisture-resistant balanced flue chimney, maximum pipe length from centre of boiler bend to connection 2 m (room sealed)	Calculation to EN 13384 (balanced flue manufacturer)		
C53	Connection to flue in a shaft and ventilation air supply through external wall (room sealed), incl. 3 m supply air pipe	DN 80	38	19
		DN 110	50	50
C53x	Connection to flue routed over an external wall; combustion air intake via external wall panel (room sealed)	DN 80/125	38	19
		DN 110/160	50	50
C53x	Connection to flue in a shaft and ventilation air through external wall (room sealed)	DN 80	38	19
		DN 110	50	50
C83x	Concentric connection to moisture-resistant flue gas chimney and combustion air through external wall (room sealed)	Calculation to EN 13384 (balanced flue manufacturer)		
C93x	Flue for installation in a shaft; rigid or flexible with horizontal concentric connection line	DN 80	25	15
		DN 110	43	41

¹⁾ The maximum length refers to the total length from the appliance to the flue terminal

Note: System C33x is also suitable for installation in garages.

Where necessary, adapt the installation examples to the relevant building regulations and requirements in your country/region. Any questions relating to the installation of inspection sections and vents should be discussed with the local flue gas inspector.

The specified lengths refer to concentric balanced flues and standard flues, and apply to original WOLF components only.

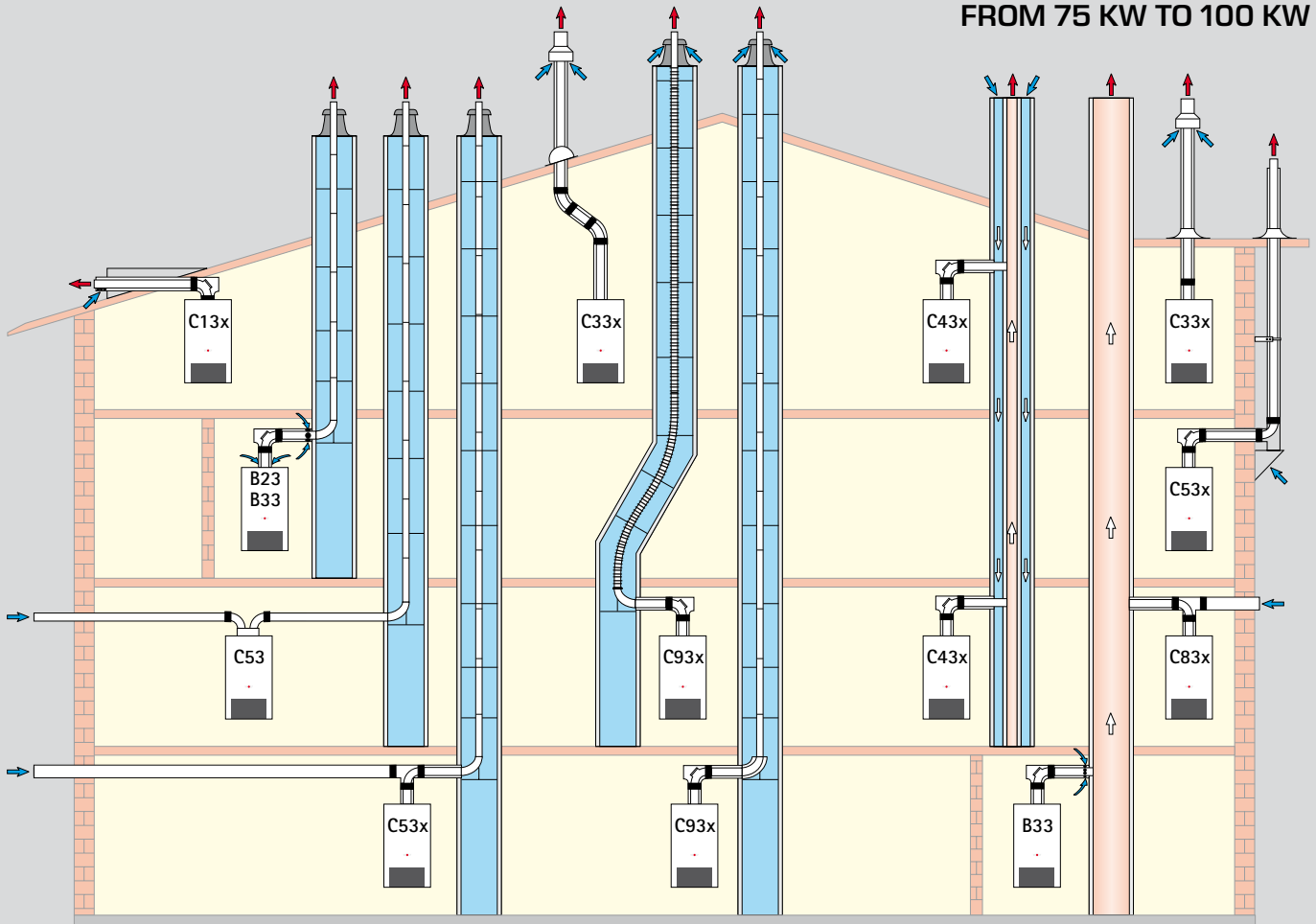
Please observe the maximum length of the horizontal flue in accordance with the boiler installation instructions.

The following balanced flues or standard flues with CE-0036-CPD-9169003 certification may be used:

- Flue DN 80
- Concentric balanced flue DN 80/125
- Flue DN 110
- Concentric balanced flue (on an external wall) DN 80/125
- Flexible flue DN 83
- Flexible flue DN 110

WOLF accessories are supplied with the necessary identification labels. Please also observe the installation information supplied with the accessories.

AIR/FLUE GAS ROUTING FOR WALL MOUNTED GAS CONDENSING BOILERS FROM 75 KW TO 100 KW



Design variants

Type		Maximum length ¹⁾ [m]		
		CGB-75	CGB-100	
B23	Flue inside a shaft and combustion air directly via the boiler (open flue)	DN 110	44	46
B33	Flue inside a shaft with horizontal concentric connection pipe (open flue)	DN 100	35	37
		DN 110 to DN 160	50	50
B33	Connection to a moisture-resistant flue gas chimney with a horizontal concentric connection pipe (open flue)		Calculation to EN 13384 (balanced flue manufacturer)	
C13x	Horizontal roof outlet through pitched roof (room sealed- on-site dormer)	DN 110/160	10	10
C33x	Vertical concentric roof outlet through a pitched or flat roof (room sealed)	DN 110/160	12	14
C43x	Connection to a moisture-resistant balanced flue chimney, maximum pipe length from centre of boiler bend to connection 2 m (room sealed)		Calculation to EN 13384 (balanced flue manufacturer)	
C53	Connection to flue in a shaft and ventilation air supply through external wall (room sealed), incl. 3 m supply air pipe	DN 110	41	44
		DN 110 to DN 160 ²⁾	50	50
C53x	Connection to flue routed over an external wall; combustion air intake via external wall panel (room sealed)	DN 110	39	40
C53x	Connection to flue in a shaft and ventilation air through external wall (room sealed)	DN 110	36	38
		DN 110 to DN 160 ²⁾	50	50
C83x	Concentric connection to moisture-resistant flue gas chimney and combustion air through external wall (room sealed)		Calculation to EN 13384 (balanced flue manufacturer)	
C93x	Vertical flue for installation in a shaft, rigid or flexible, with horizontal concentric connection line	DN 110	19	21
		DN 110 to 160 ²⁾	31	31

¹⁾ The maximum length refers to the total length from the appliance to the flue terminal

²⁾ Enlargement in a shaft from DN 110 to DN 160

Note: Systems C33x and C83x are also suitable for installation in garages.

Where necessary, adapt the installation examples to the relevant building regulations and requirements in your country/region. Any questions relating to installation, particularly regarding inspection sections and vents (ventilation generally required above 50 kW output) should be discussed in advance with the local flue gas inspector.

The specified lengths refer to concentric balanced flues and standard flues, and apply to original WOLF components only.

Please observe the maximum length of the horizontal flue in accordance with the boiler installation instructions.

The following balanced flues or standard flues with CE-0036-CPD-9169003 certification may be used:

- Flue DN 110, 160 and 200
- Concentric balanced flue DN 110/160, DN 160/225 and DN 200/300
- Concentric balanced flue (on an external wall) DN 110/160
- Flexible flue DN 110

WOLF accessories are supplied with the necessary identification labels. Please also observe the installation information supplied with the accessories.

COMFORTLINE WALL MOUNTED GAS CONDENSING BOILERS ACCESSORIES

CGB Wall mounted gas condensing boiler for central heating with option to connect a DHW cylinder

CGB-K Wall mounted gas condensing boiler for DHW and central heating

Tested in accordance with EC Directives and EN 483 for heating systems to EN 12828 with flow temperatures up to 90 °C and 3 bar permissible operating pressure. Suitable for modulating operation down to room temperature; modulating output control; automatic matching of the air ratio to the room sealed flue system; premix burner; equipped and adjusted in the factory for natural gas E, LL or LPG; sealed combustion chamber for open flue and room sealed operation.

Control unit with gas burner control unit, electronic ignition and ionisation flame monitor; variable speed fan.

White RAL 9016 powder-coated casing.

Accessories	CGB- 35/50/75/100	CGB-K- 40-35
Control accessories		
BM programming unit	<input type="radio"/>	<input type="radio"/>
Wall mounting base	<input type="radio"/>	<input type="radio"/>
AFB analogue remote control	<input type="radio"/>	<input type="radio"/>
MM mixer module	<input type="radio"/>	<input type="radio"/>
SM1-2 solar module	<input type="radio"/>	<input type="radio"/>
SM2-2 solar module	<input type="radio"/>	<input type="radio"/>
KM cascade module	<input type="radio"/>	<input type="radio"/>
Heat meter set for capturing solar yield	<input type="radio"/>	<input type="radio"/>
Wireless outside temperature sensor (wireless receiver required)	<input type="radio"/>	<input type="radio"/>
Wireless remote control (wireless receiver required)	<input type="radio"/>	<input type="radio"/>
Wireless receiver incl. radio clock (also required for wireless outside temperature sensor and wireless remote control)	<input type="radio"/>	<input type="radio"/>
ISM7e / WOLF Link Pro interface module	<input type="radio"/>	<input type="radio"/>
Hydraulic accessories and gas supply accessories		
Gas ball valve (angle or straight-through version), chrome plated, with thermally activated shut-off valve	<input type="radio"/>	<input type="radio"/>
Safety valve Rp ½" up to 3 bar, chrome plated	<input type="radio"/>	<input type="radio"/>
Drain outlet kit R1" with trap and bezel, grey plastic	<input type="radio"/>	<input type="radio"/>
Accessories for surface mounting		

● Included in standard delivery

○ Available accessory

COMFORTLINE WALL MOUNTED GAS CONDENSING BOILERS ACCESSORIES

Accessories	CGB- 35/50/75/100	CGB-K- 40-35
Heating circuit connection set	<input type="radio"/>	<input type="radio"/>
Low loss header set with complete pipework and thermal insulation for 1 or 2 appliances	<input type="radio"/> only for CGB-75/100	
DHW circulation accessories		
DHW circulation set to EnEV incl. DHW circulation pump with analogue time switch	<input type="radio"/>	
DHW circulation set to EnEV incl. DHW circulation pump with digital time switch	<input type="radio"/>	
Other accessories		
Pipe cladding	<input type="radio"/>	
Balanced flue accessories		
Concentric balanced flue	<input type="radio"/>	<input type="radio"/>
External wall system	<input type="radio"/>	<input type="radio"/>
Flue system connection set for flues in a shaft	<input type="radio"/>	<input type="radio"/>

● Included in standard delivery

○ Available accessory

Dealer address

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