



The competent brand for energy saving systems

Conventional gas fired boilers open vented / sealed unvented

CGU-2 / CGU-2K
CGG-2 / CGG-2K



NEW

The next generation
of conventional boilers
Greater efficiency
Standard
utilisation rate
> 94% (Hi)



Conventional gas fired boilers - open vented and sealed unvented

The advantages of the WOLF conventional gas fired boilers



* BM as accessory

- Tested according to the applicable EC directives
- Electronic ignition and monitoring
- Water-cooled, atmospheric premix burner for natural gas E, LL and LPG
- Energy efficiency in accordance with Efficiency Directive
☆☆☆ (3 stars according to 92/42/EEC for CGG-2(K))
- Wolf low NOx unit with Hydro Tec System designed for lowest emissions
- Control unit with eBUS capability for connection to Wolf digital control accessories
- Modulating controlled output in heating and DHW mode
- Equipped as standard with three-stage heating circuit pump, three-way diverter valve and 10 l expansion vessel.
- Easy installation and operation
- Electronic output matching; no adjustment necessary at the gas combination valve
- High standard utilisation rate up to >94% (Hi) / 85% (Hs) for the best possible energy utilisation
- Emissions according to NOx class 5
- Powder-coated white RAL 9016 casing
- High energy efficiency and compact design
- Two-year warranty

CGU-2-18, -24 conventional gas fired boiler for central heating



Conventional, open flue gas fired boiler for low temperature heating with DHW cylinder connection facility, e.g. CSW-120; electronic flue gas monitoring; tested in accordance with EC directives for connection to a chimney

CSW-120



Conventional gas fired boilers - open vented and sealed unvented

CGU-2K-18, -24 conventional gas fired combi boiler for central heating and DHW



Conventional, open flue, gas fired combi boiler for low temperature heating and DHW preparation with integral DHW heat exchanger and electronic flue gas monitoring; tested in accordance with EC directives for connection to a chimney.

CGU-2-18, -24 conventional gas fired boiler for central heating

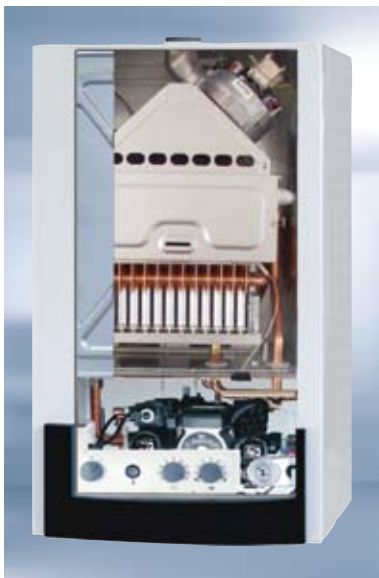


Conventional, balanced flue, gas fired boiler for low temperature heating with option to connect a DHW cylinder, e.g. CSW-120; "ERA" electronic pipe length adjustment; variable fan speed; tested in accordance with EC directives for connection to a balanced flue chimney or balanced flue routing to the outside.

CSW-120

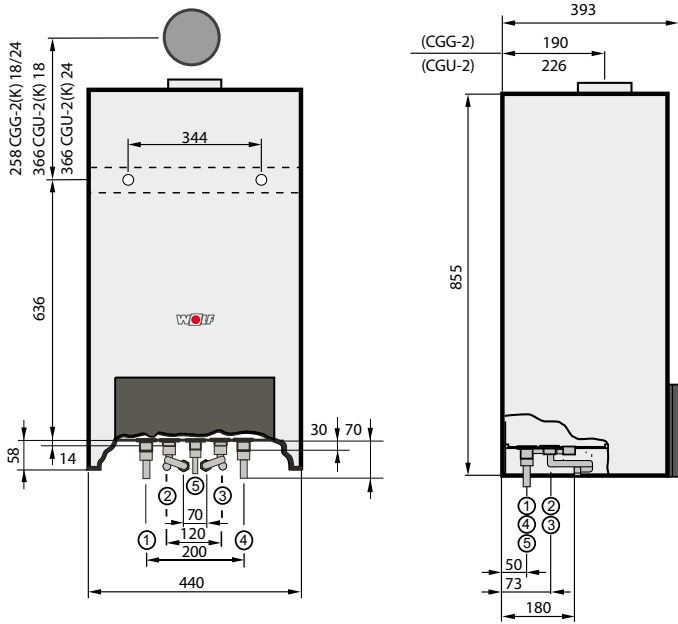


CGU-2K-18, -24 conventional gas fired combi boiler for central heating and DHW



Conventional, balanced flue, gas fired combi boiler for low temperature heating and DHW preparation with integral DHW heat exchanger; "ERA" electronic pipe length adjustment; fan with variable speed control; tested in accordance with EC directives for connection to a balanced flue chimney or balanced flue routing to the outside.

Dimensions



	Conventional gas fired combi boiler	Conventional gas fired combi boiler for central heating
1	Heating flow	Heating flow
2	DHW	Cylinder flow
3	Cold water	Cylinder return
4	Heating return	Heating return
5	Gas connection	Gas connection

With the new accessories acc. to the price list for installation on finished and unfinished walls, you are equally well equipped for new build or renovation.

DHW cylinder CSW-120 made from steel with enamel coating



- Connections R 3/4" for flow, return, cold water, hot water and DHW circulation above the cylinder as well as the cleaning aperture at the top of the cylinder for easy connection and cleaning
- Powder-coated white RAL 9016 casing
- CFC-free thermal insulation, all around the cylinder, applied directly to the cylinder surface, highly effective and low heat losses
- Corrosion protection through enamelled cylinder interior and indirect internal coil to DIN 4753 part 3. Additional corrosion protection through protective magnesium anode integrated into the inspection and cleaning aperture
- Indirect internal coil with large heat exchanger surface area for short heat-up times
- High constant DHW output
- Drain R 1/2" at the front, incl. drain valve and hose connection
- Adjustable feet
- Five-year warranty

DHW cylinder	Type	CSW-120
Cylinder capacity	l	115
Constant cylinder output (80/60 - 10/45 °C)	kW - l/h	29-710
Standby heat loss	kWh/24 h	1.5
Output factor	N _L	1.0
Max. operating pressure – DHW	bar	10
Max. operating pressure – heating water	bar	12
Max. permissible DHW cylinder temperature	°C	95
Max. permissible heating water temperature	°C	110
Weight (dry)	kg	65

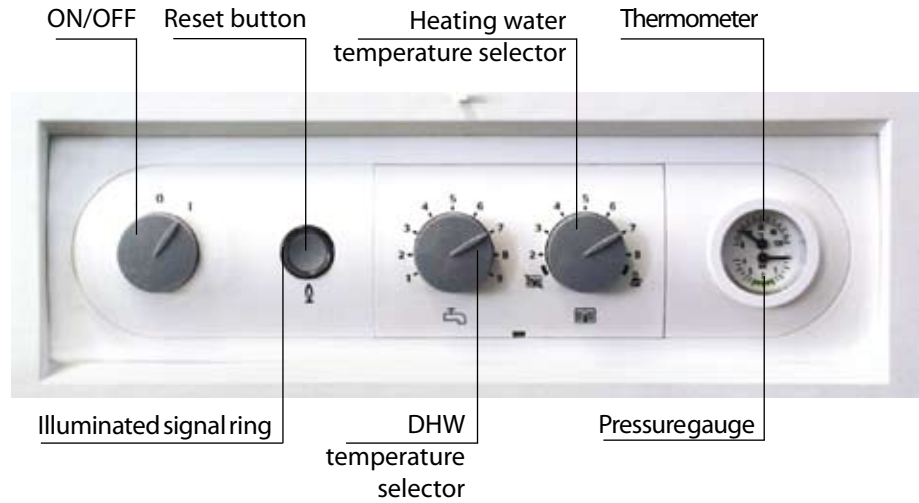
Specification

Type		CGU-2-18	CGU-2-24	CGU-2K-18	CGU-2K-24	CGG-2-18	CGG-2-24	CGG-2K-18	CGG-2K-24
Output range	kW	8-18	10.9-24	8-18	10.9-24	8-18	10.9-24	8-18	10.9-24
Load range	kW	8.8-20.2	12.0-26.5	8.8-20.2	12.0-26.5	8.5-19.7	11.7-26.5	8.5-19.7	11.7-26.5
Standard utilisation rate at 75/60 °C (Hi/Hs) %		93/85	94/85	93/85	94/85	>94/85	>94/85	>94/85	>94/85
Width	mm	440				440			
Height	mm	855				855			
Depth	mm	393				393			
Flue/wall clearance	mm	226				190			
Flue connection Ø	mm	110	130	110	130	-	-	-	-
Balanced flue connection Ø	mm	-	-	-	-	60/100	60/100	60/100	60/100
Type of connection for balanced flue	type	B _{11BS}				B32, C12x, C32x, C42x			
Gas category		II _{2ELL3P} (Germany) / II _{2H3P} (Austria)							
Gas connection, outside Ø	G	¾"				¾"			
Heating flow, outside Ø	G	¾"				¾"			
Heating return, outside Ø	G	¾"				¾"			
Cold water connection	G	-	-	¾"	¾"	-	-	¾"	¾"
DHW connection	G	-	-	¾"	¾"	-	-	¾"	¾"
Cylinder flow	G	¾"	¾"	-	-	¾"	¾"	-	-
Cylinder return	G	¾"	¾"	-	-	¾"	¾"	-	-
Residual pump head: Stage 1/2/3									
430 l/h pump rate (10kW at Δt = 20K)	mbar	250/250/250	250/250/250	250/250/250	250/250/250	250/250/250	250/250/250	250/250/250	250/250/250
770 l/h pump rate (18kW at Δt = 20K)	mbar	180/250/250	160/250/250	180/250/250	160/250/250	180/250/250	160/250/250	180/250/250	160/250/250
1030 l/h pump rate (24kW at Δt = 20K)	mbar	-/-/-	-/210/250	-/-/-	-/210/250	-/-/-	-/210/250	-/-/-	-/210/250
Expansion vessel capacity	l	10				10			
Expansion vessel inlet pressure	bar	0.75				0.75			
Maximum draw-off temperature ²⁾	°C	-	-	55	55	-	-	55	55
At a drawing rate of	l/min	-	-	2.7-5.8	2.7-7.7	-	-	2.7-5.8	2.7-7.7
Gas supply details:									
Natural gas E/H (H _i =95kWh/m ³ =34.0MJ/m ³) m ³ /h		2.1	2.8	2.1	2.8	2.1	2.8	2.1	2.8
Natural gas LL (H _i =8.1kWh/m ³ =29.2MJ/m ³) m ³ /h		2.3	3.1	2.3	3.1	2.3	3.1	2.3	3.1
LPG P (H _i =12.9kWh/m ³ =46.3MJ/kg) kg/h		1.5	2.1	1.5	2.1	1.5	2.1	1.5	2.1
Gas supply pressure:									
Natural gas	mbar	20				20			
LPG P	mbar	50				50			
Max. overall pressure, heating	bar	3				3			
Required draught for the heat source	Pa	1.5				-			
Flue gas temperature ¹⁾	°C	80/123	80/125	80/123	80/125	100/160	100/165	100/160	100/165
Flue gas flow rate	g/s	12.8/13.9	15.0/19.0	12.8/13.9	15.0/19.0	6.8/8.5	10.0/13.2	6.8/8.5	10.0/13.2
Flue gas category	g/s	-	-	-	-	G01 (previously II _i)			
Total weight	kg	39	41	39	41	42	43.5	42	43.5
Fitted fuse (medium slow)	A	3.15				3.15			
Protection		IPX4D							
Power supply		230V/50 Hz							
Power consumption / standby	W	83/6				120/6			
CE ID		CE-0085BS0516				CE-0085BT0420			

¹⁾ Observe when connecting to a balanced flue chimney.

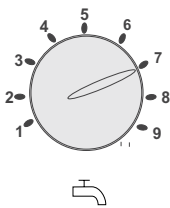
²⁾ Relative to a cold water temperature of 10 °C.

Standard control unit



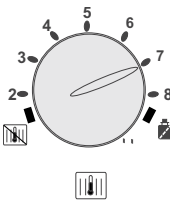
Illuminated signal ring as status display

Display	Explanation
Flashing green	Standby (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



DHW temperature selector

Settings 1-9 correspond to a DHW temperature of 40-65 °C for gas combi boilers, or 15-65 °C for gas boilers with a cylinder. Combined with a temperature controller for wall mounted gas fired boilers, the adjustment at the DHW temperature selector is disabled; instead the temperature is selected at the boiler temperature controller.



Heating water temperature selector

Settings 2-8 correspond to a heating water temperature of 20-75 °C. Combined with a temperature controller for wall mounted gas fired boilers, the adjustment at the heating water thermostat is disabled; instead the temperature is selected at the boiler temperature controller.

Setting




Winter mode (settings 2 to 8)

The circulation pump operates in heating mode.




Summer mode

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



Emissions test mode

Turning the switch to position  lets the boiler operate at maximum output. The illuminated signal ring flashes yellow for 15 minutes or until the maximum flow temperature has been exceeded.



Thermometer/pressure gauge

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

Control accessories

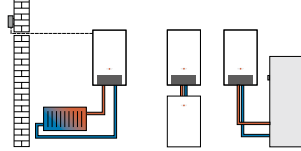


Standard control unit part of the standard delivery of the conventional gas fired boiler

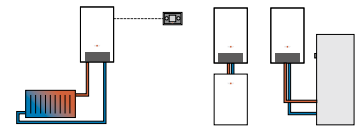
Two-wire eBUS connection



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



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

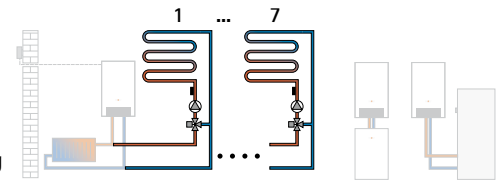


- Room temperature-dependent/weather-compensated temperature control
- Time programs for central and DHW heating
- LCD with background illumination
- Easy plain text guide through the menus
- Control by rotary selector with key function
- Four function keys for frequently used functions (heating, DHW, setback, help)
- 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 mixer circuits)
- Fault diagnosis



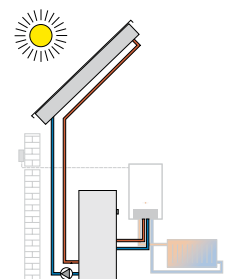
MM mixer module

- Extension module for regulating one mixer circuit
- Weather-compensated flow temperature control
- Easy controller configuration by selecting one of the preset system versions
- BM programming module 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 solar module

- Extension module for regulating one solar circuit
- In conjunction with Wolf boilers, greater energy savings through intelligent cylinder reheating, i.e. blocking cylinder reheating when there is sufficient solar yield
- Temperature differential control for one heat consumer
- Maximum cylinder temperature limit
- Display of the set and actual values on the BM programming module
- Integral hours run meter
- Optional connection of heat meters
- Rast-5 connection technology
- Incl. collector sensor and cylinder sensor, each with sensor well



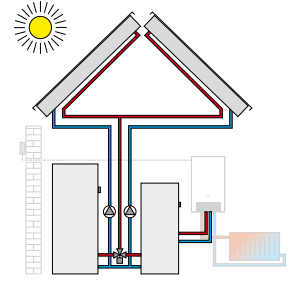
Control accessories

Two-wire eBUS connection



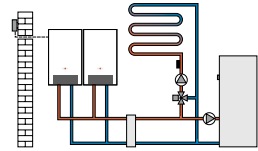
SM2 solar module

- Extension module to control a 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 boilers, greater energy savings through intelligent cylinder reheating, i.e. blocking cylinder reheating when there is sufficient solar yield
- Capturing the heat volume
- Display of the set and actual values on the BM programming module
- eBUS interface with automatic energy management
- Rast-5 connection technology



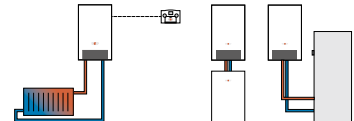
KM cascade module

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



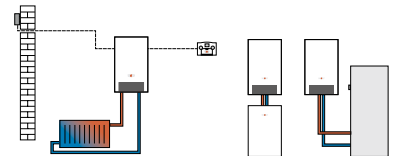
ART

- Analogue room temperature controller with day program for central and DHW heating
- Room temperature-dependent flow temperature
- Display for showing the room temperature, time and fault messages
- Room temperature-dependent frost protection



AWT

- Analogue weather-compensated temperature controller with day program for central and DHW heating
- Weather-compensated flow temperature
- Display for showing the room temperature, outside temperature, time and fault messages
- Room temperature hook-up
- Frost protection
- Automatic energy-saving appliance



Control accessories

Two-wire eBUS connection



Radio clock (DCF77 signal) with outside temperature sensor for automatic time adjustment.



Radio clock (DCF77 signal) for automatic time adjustment.



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



Wireless outside temperature sensor (only in conjunction with a receiver for wireless outside temperature sensor and remote control, part no. 27 44 209)



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

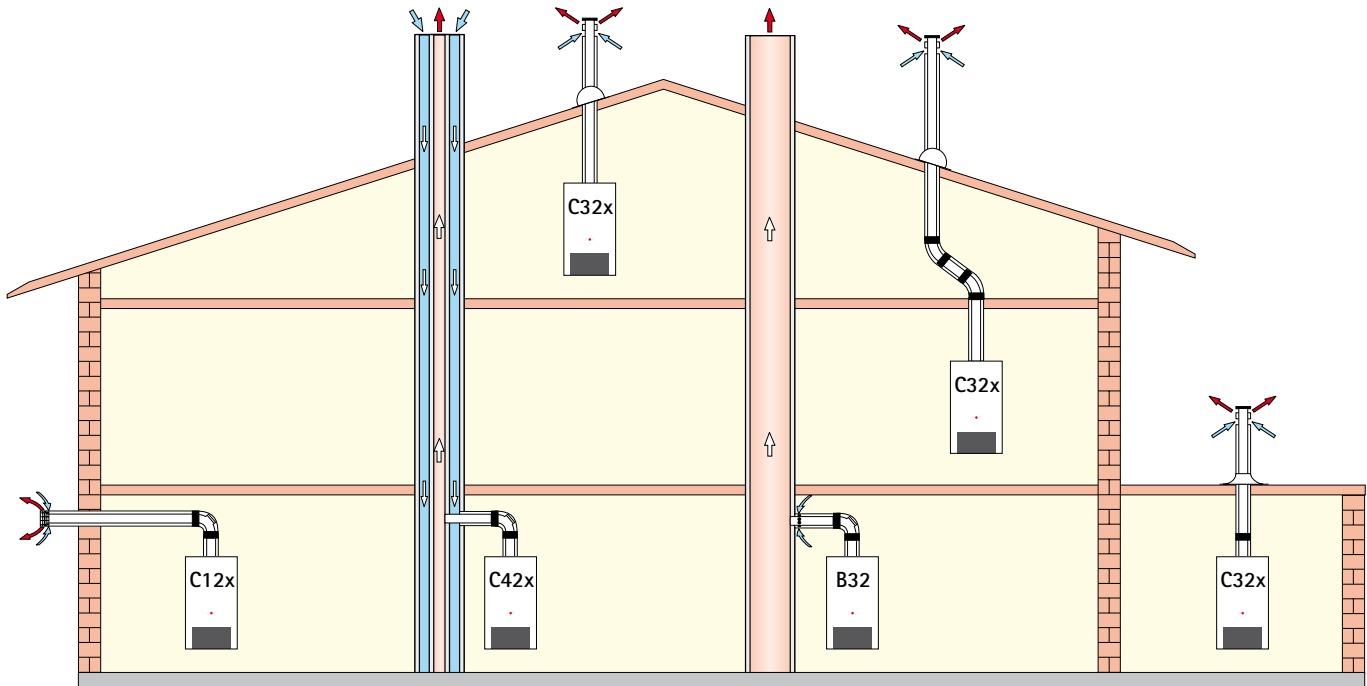


WRS – remote service system
For direct or remote access via PC to the control unit and fault message transfer as SMS.
Comprising: Interface module ISM1 and remote monitoring software “WRS-Soft”

Balanced flue routing

Versions

CGG-2/CGG-2 K



Versions		Maximum length ¹⁾ [m] System Ø 60/100
C12x	Outside wall connection (balanced flue)	4
C42x	Connection to a balanced flue chimney (LAS), maximum pipe length from centre of boiler bend to connection 2 m (balanced flue)	Calculation according to EN 13384 (balanced flue manufacturer)
B32	Connection to a moisture-resistant balanced flue chimney, maximum pipe length from centre of boiler bend to connection 2 m (open flue)	Calculation according to EN 13384 (duct manufacturer)
C32x	Vertical roof outlet through a pitched or flat roof, and horizontal roof outlet through a pitched roof (balanced flue)	4


Note: Systems C12x, C32x and C42x are also suitable for installation in garages.

¹⁾ If necessary, adapt the installation examples to the building regulations and requirements of your country/region. Discuss any questions relating to installation, particularly as regards fitting inspection covers and ventilation apertures, with your local heating engineer/flue gas inspector.

Balanced flue routing

The calculated length of the balanced flue must not exceed 4 m when installing the boiler on an external wall or when the balanced flue is routed through the roof.

The calculated length of the balanced flue routing comprises the straight pipe length and the length of the pipe bends. In this calculation, a 90° bend is calculated as being 1 m and a 45° bend as being 0.5 m.

Example:  $L = \text{straight length} + \text{bend length}$
 Length of straight balanced flue 1.5 m $L = 1.5 \text{ m} + 1 \times 1 \text{ m} + 2 \times 0.5 \text{ m}$
 1 x 90° bend = 1 m $L = 3.5 \text{ m}$
 2 x 45° bends = 2 x 0.5 m

Connection to a balanced flue chimney or flue gas chimney

The straight balanced flue routing must not be more than 2 m long when installing in a balanced flue chimney (LAS) or a flue chimney. In addition to the boiler connection bend, a maximum of two 90° diverters may be installed.

Conventional gas fired boilers

- CGU-2 Conventional gas fired boiler for central heating with option to connect a DHW cylinder.
 CGU-2K Conventional gas fired boiler for central and DHW heating.
 CGG-2 Conventional gas fired boiler for central heating with option to connect a DHW cylinder.
 CGG-2K Conventional gas fired boiler for central and DHW heating.

Tested in accordance with EC directives and DIN EN 297, 483 and 625, and for heating systems according to DIN EN 1282 with flow temperatures up to 95 °C and 3 bar permissible operating pressure. Suitable for modulating operation down to room temperature; modulating output control; automatic matching of the air factor to the balanced flue system with CGG-2. Flue gas monitoring with CGU-2. Premix burner equipped and adjusted at the factory for natural gas E and LL. When ordering for LPG a conversion set is enclosed loose. CGU-2... for chimney connection, CGG-2... with closed combustion chamber for open flue and balanced flue operation.

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

Powder-coated white RAL 9016 casing.

	CGU-2	CGU-2K	CGG-2	CGG-2K
Control accessories				
BM programming module	•	•	•	•
Wall mounting base	•	•	•	•
MM mixer module	•	•	•	•
SM1 solar module	•	•	•	•
SM2 solar module	•	•	•	•
KM cascade module	•	•	•	•
Analogue room temperature-dependent controller with day program ART	•	•	•	•
Analogue weather-compensated controller AWT	•	•	•	•
Radio clock with outside temperature sensor	•	•	•	•
Radio clock for automatic time adjustment	•	•	•	•
Wireless receiver - required for wireless outside temperature sensor and wireless remote control	•	•	•	•
WRS - remote service system	•	•	•	•
Hydraulic accessories and gas supply accessories				
Gas ball valve (angle or straight-through version), chrome plated, with or without thermally activated shut-off valve	•	•	•	•
Safety valve Rp ½" up to 3 bar, chrome plated				
Drain set, safety valve with hose, hose retainer, siphon and rosette, transparent plastic	•	•	•	•
Plug set for DHW and cold water connection	•		•	
Accessories for installation on unfinished walls				
Panel for installation on unfinished walls	•	•	•	•
Connection set for installation on unfinished walls				
Angle maintenance valve G ¾", chrome plated	•	•	•	•
Angle maintenance valve G ¾" with connection R ½" for safety valve, chrome plated	•	•	•	•
DHW connector G ½", chrome plated		•		•
Cold water connector G ½", chrome plated		•		•
Accessories for installation on finished walls				
Connection set for installation on finished walls	•	•	•	•
Straight-through maintenance valve Rp ¾", chrome plated	•	•	•	•
Straight-through maintenance valve Rp ¾" with connection R ½" for safety valve, chrome plated	•	•	•	•
DHW connector R ½", chrome plated		•		•
Cold water connector R ½" with shut-off valve, chrome plated		•		•
Connection panel for installation on finished walls	•	•	•	•
DHW cylinder CSW-120				
Connection set CSW for installation on unfinished walls	•		•	
Connection set CSW for installation on finished walls	•		•	
Connection set for third party installation	•		•	
Balanced flue accessories				
Concentric balanced flue routing Ø 60/100 mm			•	•
Aluminium balanced flue routing Ø 110 mm	•	•		
Aluminium balanced flue routing Ø 130 mm	•	•		
Adaptor Ø 60/100 mm to Ø 63/96 mm			•	•

Everything from a single source: From the system professionals for heating, air handling, ventilation and solar!

WOLF

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