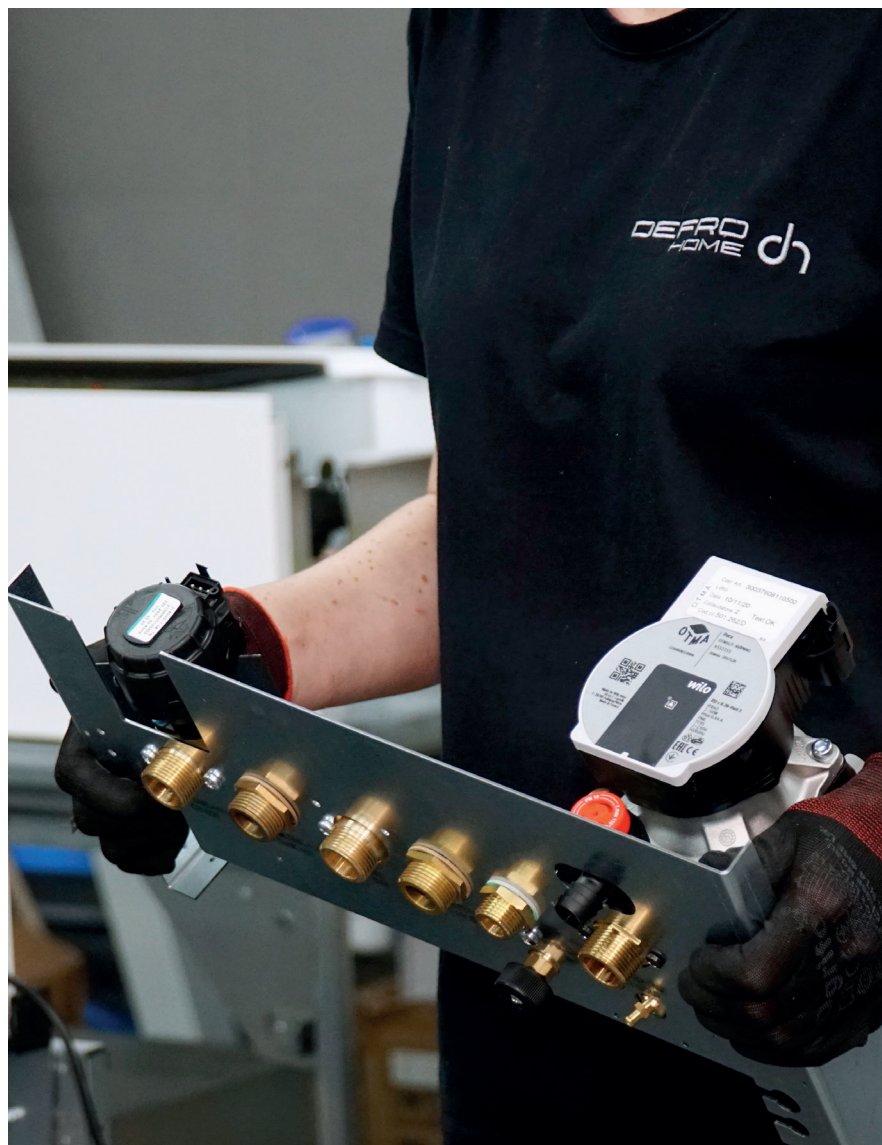




Gas condensing
boiler
DCG-25

Brochure 2021

DEFRO
heat





“

We ensure high quality and precision of workmanship. We take care to ensure that our products are environmentally friendly. Modern design and long experience in production of heating equipment is a warranty of satisfaction for years to come.

Two handwritten signatures in black ink, one on the left and one on the right, positioned above the names of the signatories.

Robert and Hubert Dziubeła
Defro management board

Comfort
first!



Up to five 5 warranty for gas condensing boiler

We are confident in our products therefore each condensing boiler manufactured by DEFRO is offered with up to five (5) years of warranty. To benefit from such long protection you should register the equipment and have the obligatory annual inspections performed by the authorized service. List of service points is available on our website.

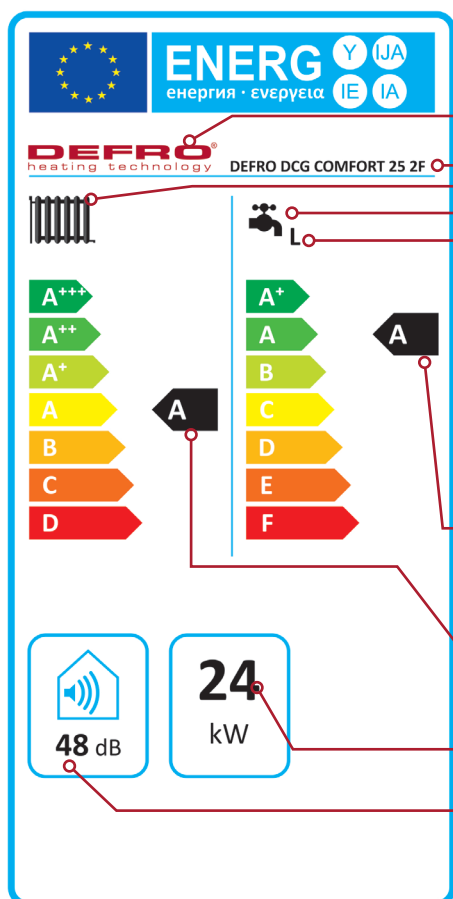
Benefits of boiler registration:

- obtaining dedicated assistance of regional service technician,
- support of DEFRO technical support,
- current information on new products,
- reminders about upcoming inspections,
- up to five (5) years of warranty (provided that the warranty terms and conditions are observed).

Energy efficiency

The sellers and fitters should inform the customer about the energy efficiency from 26 September 2015. This concept specifies quality of the equipment considering its efficiency and power consumption. For combination boilers energy efficiencies for central heating and domestic hot water are given.

Boiler energy efficiency rating for central heating purposes is specified by calculation of obtained average annual efficiency considering variable conditions of operation of boiler during the heating season. Load profile for equipment operating for the purposes of domestic heating water is specified with letter symbol (e.g. XL, L).



- Manufacturer name
- Model designation
- Heating function
- Hot water preparation
- Declared load profile
- Energy efficiency class during operation for the dhw purposes
- Energy efficiency class during operation for the heating purposes
- Thermal output in heating mode
- Sound level in heating function

We work only with the best

DEFRO gas condensing boilers are available only in the authorized retail outlets. Our distributors ensure professional services, professional knowledge and quality of provided services.

Authorized retail outlets cooperate with the fitters who undergo professional training in our DEFRO headquarters. The best of them obtains our accreditation and become authorized fitters having reliable knowledge about our products. By selecting authorized fitter you can be sure that you will be able to enjoy correctly executed system for many years.



Purchase the product from the authorized distributor and enjoy 5-year warranty.

You are entitled to our 5-year warranty for gas boiler after fulfilment of the warranty terms and conditions.

Take care about clean air

The governmental Clean Air programme has been launched to efficiently fight against the smog by decrease of the dust and pollution emission to the atmosphere and improvement of the energy efficiency and increase the proportion of use of the renewable energy sources in the single-family buildings. The programme is planned to 2029 and it has a budget of 103 billion PLN.

The programme is aimed at the owners of the already existing buildings. The funding covers replacement of heat source and building energy retrofit

Projects covered by funding:

- replacement of old, ineffective heat source purchase and installation of new heat sources
- assembly and upgrade of central heating and domestic hot water systems
- installation of mechanical ventilation with heat recovery
- installation of renewable energy sources
- replacement of window and door joinery.

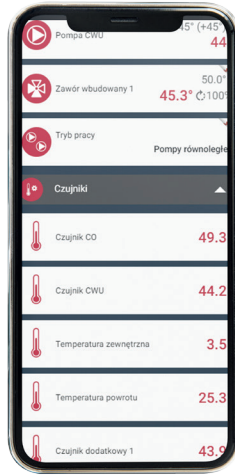
Applications in electronic form can be submitted to the voivodeship funds for environmental protection and water management. More information about the programme is you may find on:
<https://czystepowietrze.gov.pl/>



Control your boiler
how and when you
want



eModul application



The eModul application is an ideal solution for people living intensively, who often work during different hours and do not have time for household chores. It has been known for some time that edition of parameters the heating equipment operation depending on your activities has a significant influence on decrease of the heating bills. Using this application you may perform that same operations both at home and in the office and all that is being done to achieve maximum comfort and efficiency of operation with the lowest possible energy consumption. Using the schedules of equipment operation you may change the temperature during the day in various time periods using your laptop, tablet or smart phone from anywhere in the world. Using eModul application you may decrease the temperature if you forgot to do this before leaving to the work or going on holidays.

Controllers for the system



i-2 Plus

Functions:

- control of two mixing valves.
- control of DHW pump.
- option to control parameters of the heating equipment thanks to OpenTherm + communication in 4.0 version.
- weather compensated control and weekly control.
- two configurable voltage-free outputs.
- two configurable voltage outputs.
- cooperation with two two-state room controllers.
- cooperation with room controller with RS transmission.
- option to connect ST-505 or WIFI module.
- possibility of a software update via the USB port.



i-3 Plus

Functions:

- control of three mixing valves.
- control of DHW pump.
- two configurable outputs 0-10V.
- option to control parameters of the heating equipment thanks to OpenTherm + communication in 4.0 version.
- weather compensated control and weekly control.
- two configurable voltage-free outputs.
- two configurable voltage outputs.
- cooperation with three two-state room controllers.
- cooperation with room controller with RS transmission.
- option to connect ST-505 or WIFI module.
- possibility of a software update via the USB port.



Wifi-OT

Functions:

- smart maintaining of room temperature
- control of set temperature of central heating boiler
- control of DHW temperature
- change of set boiler temperature based on the outdoor temperature
- weather compensated control
- burner power modulation
- preview of outdoor temperature
- weekly programme for room heating and hot water cylinder
- option of two-state control
- WiFi module built-in - option of remote control via the eModule app
- controller operates in the OpenTherm + standard in version 4.0.



ST-292 v3

Functions:

- two-state regulator.
- room temperature control.
- weekly heating plan.
- day/night programme.
- manual programme.
- OptimumStart function - selection of optimum time for boiler start-up to achieve thermal comfort to heat the room up to the set temperature for a previously set time.
- heating/cooling function.
- momentary display backlight.
- built-in room sensor.



ST-292 v2

Functions:

- two-state regulator;
- wireless communication;
- room temperature control;
- weekly heating plan;
- day/night programme;
- manual programme;
- OptimumStart function - selection of optimum time for boiler start-up to achieve thermal comfort to heat the room up to the set temperature for a previously set time;
- heating/cooling function;
- momentary display backlight;
- built-in room sensor;



ST-294 v2

Functions:

- two-state regulator;
- control of room temperature +/- with 0.1 C deg. accuracy
- hysteresis
- wireless communication

Advantages

DCG COMFORT

Safety

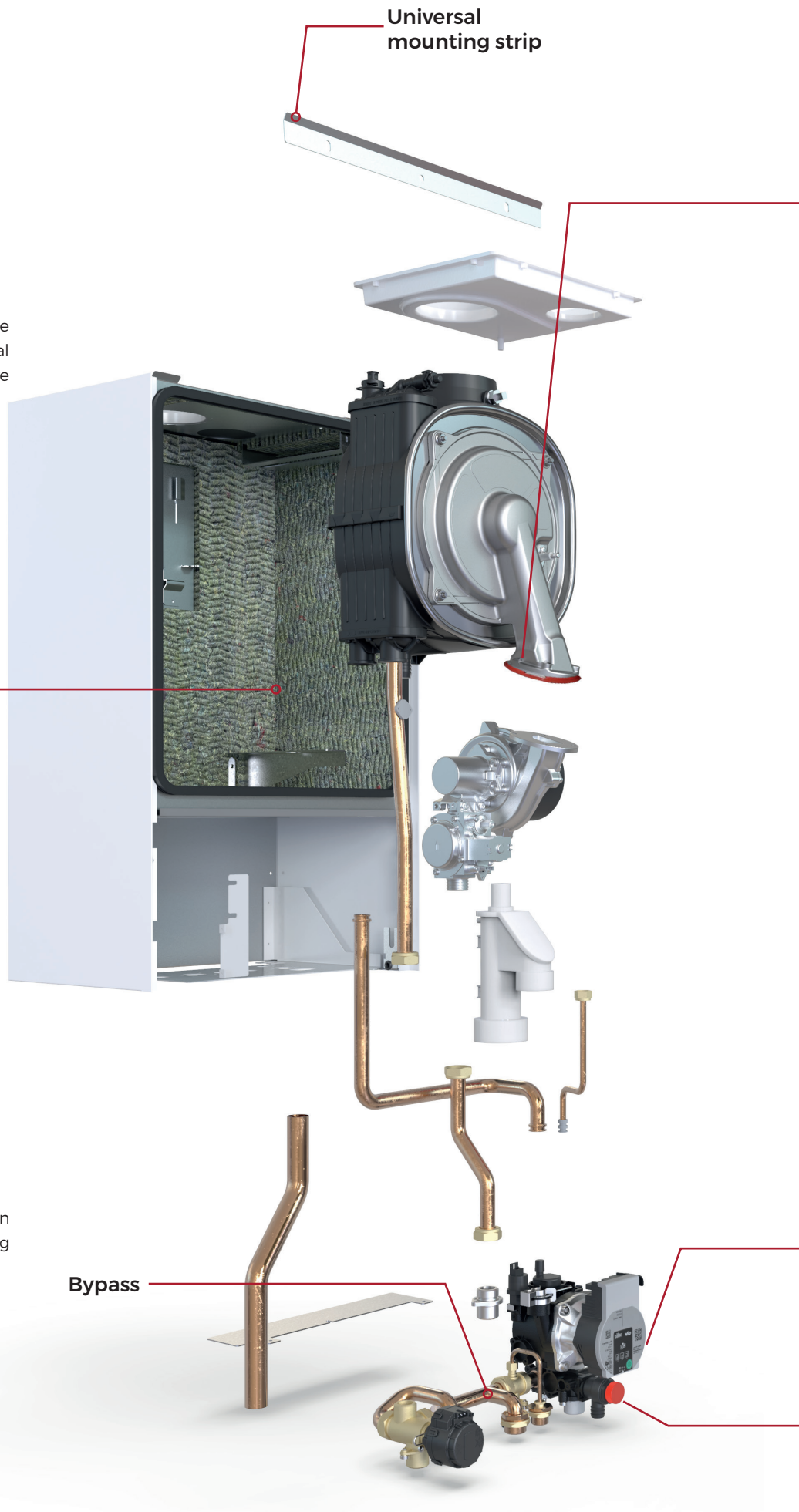
Boiler's heat exchanger with double protection against overheating (thermal overload relay and flue gas temperature sensor)

Insulation

It has insulation and acoustic properties on the level of 48 dB.

Fixture trap

Built-in condensate trap with non-return valve equipped with clean-out opening facilitating service operations.



Anti Back Flow

Non-return flap allowing connection of several boilers to one shaft.



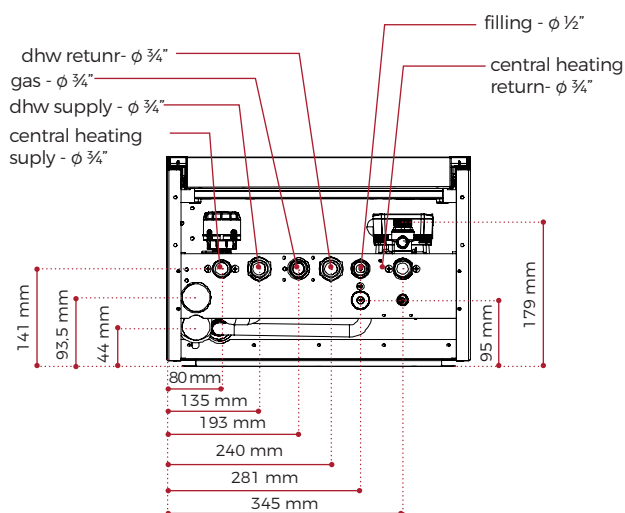
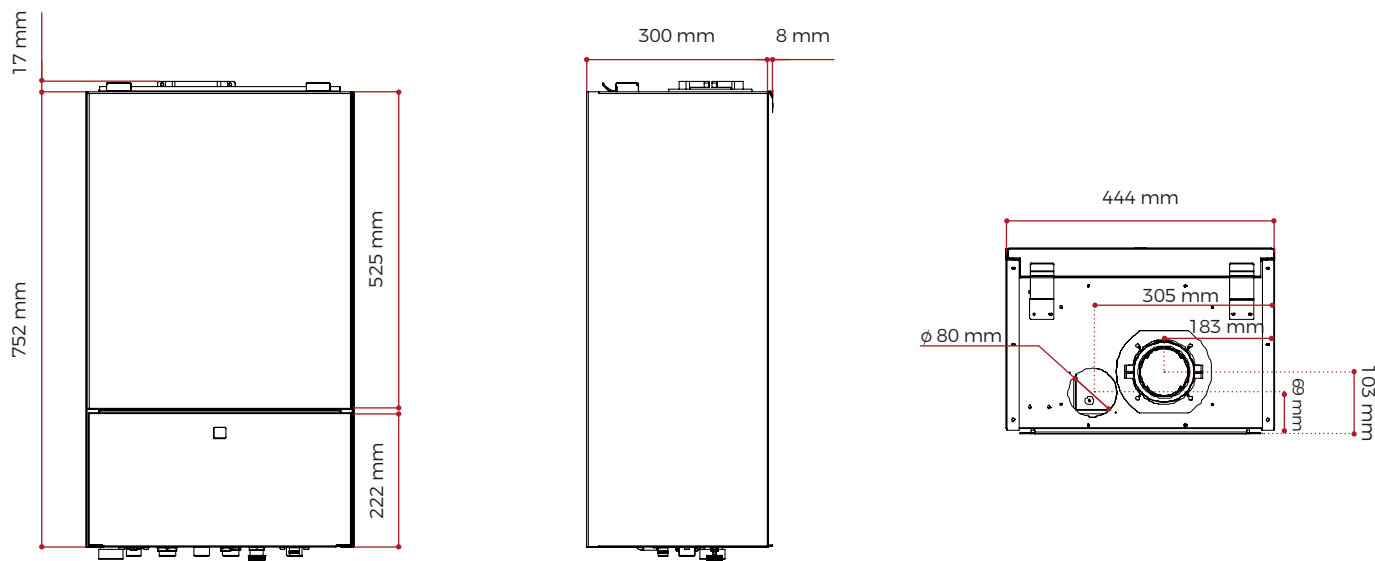
Functions implemented by the controller:

- central heating mode
- dhw heating/summer mode
- dhw priority
- function of dhw pre-heating for combination boiler
- weather compensated control
- room control
- OpenTherm communication
- possibility to control via the internet
- clear display
- intuitive operation

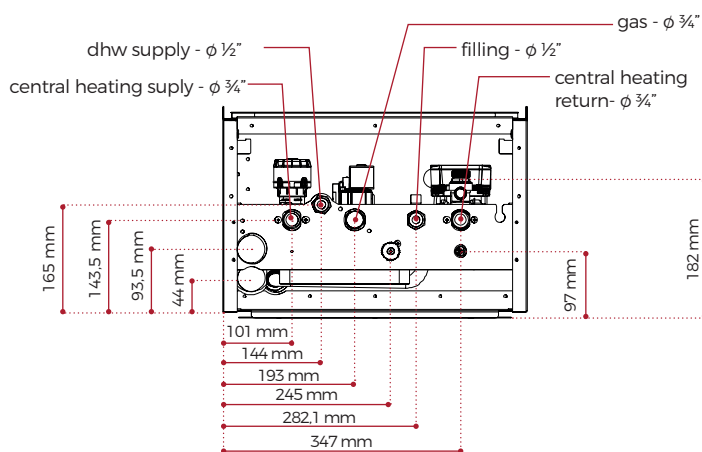


Pressure gauge

Technical data



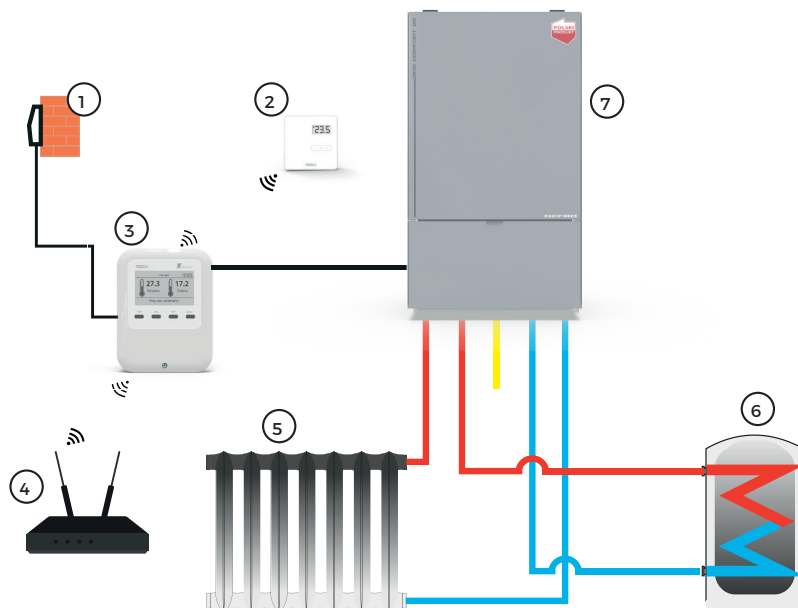
heat-only boiler
DEFRO DCG COMFORT 1F



combination boiler
DEFRO DCG COMFORT 2F

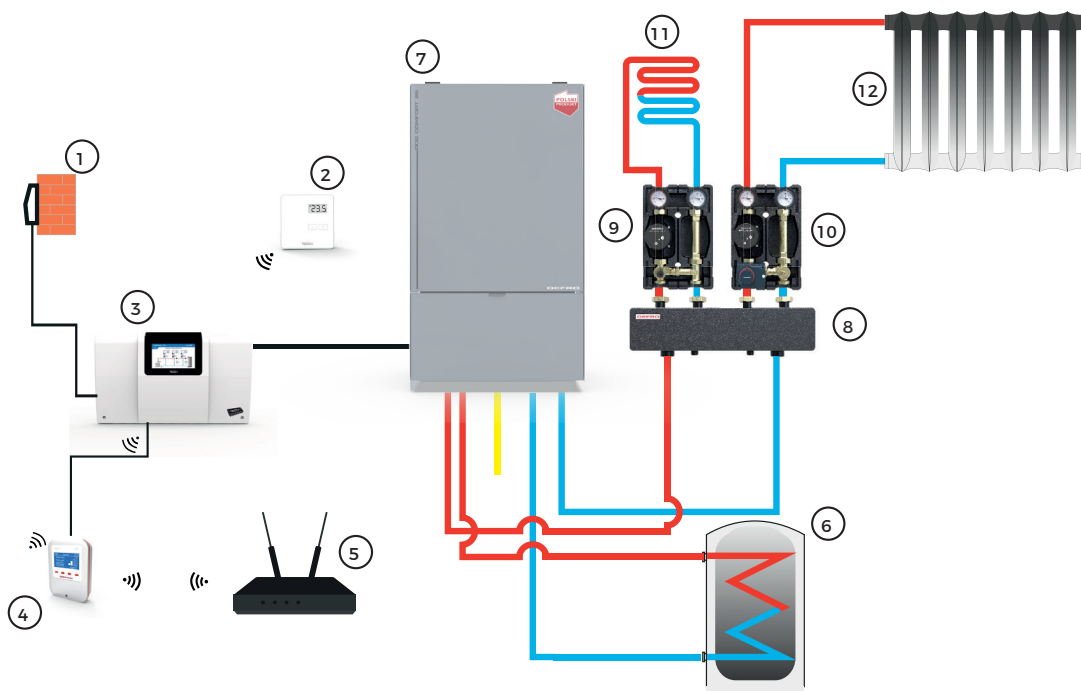
Parameter	unit of measure	value
Boiler power	kW	2,5 - 24
Maximum boiler efficiency (50/30°C)	%	107,4
Maximum operating temperature for central heating	°C	80
Range of central heating temperature adjustment	°C	30 - 80
Range of dhw temperature adjustment	°C	30 - 65
Dhw efficiency for continuous operation ($\Delta T=30^{\circ}C$) - for DCG 2 F boiler	l / min	11
Weight of empty / filled boiler	kg	35,5 / 38
Supply	V / Hz	230 / 50
Rated electric power	W	100
Electric protection rating	-	IPX4D
Seasonal efficiency for space heating	-	A
Boiler sound level	dB	48
Capacity of diaphragm vessel	l	10

Exemplary diagrams of the system



The diagram presents gas-fired boiler DCG COMFORT 25 1F

„1- outdoor temperature sensor, 2, 3- WIFI OT, 4 - wireless router, 5- central heating system, 6 - dhw tank, 7 - boiler DCG COMFORT 1 F”



The diagram presents gas-fired boiler DCG COMFORT 25 1F

1- outdoor temperature sensor, 2- controller ST 294 v2, 3 - module I3 Plus, 4 - module WIFI, 5- central heating system, 6 - DHW tank, 7 - boiler DCG COMFORT 1 F, 8 - Coupling manifold DEFRO DSR 2, 9, 10 - Pump group DEFRO, 11 - underfloor heating, 12 - radiator heating

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