GLOWA

CONDENSING COMBI BOILERS
USER MANUAL

warmhaus

GLOWA



Our company are constantly striving to improve our products and reserve the right to modify the details given in this documentation at any time without notice.

These instructions are only meant to provide customers with user information regarding the appliance.

This boiler is not designed to be used by persons (including children) with limited mental and sensory capabilities or by persons who do not have enough experience and/or knowledge, unless they are supervised by a person who is responsible for their safety or they have been instructed by him/her about how to use the boiler. Children must be supervised to ensure that they do not play with the boiler.

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1. INTRODUCTION

We congratulate you for preferring the Warmhaus boiler to maintain your heating and hot use water comfort for many years and thank for your trust. Warmhaus boilers, manufactured in accordance with European Union standards and advanced technology, are also being imported to many countries. You can benefit from our Authorised Technical Service network having occupational competency certificate for all kinds of ordinary maintenance requirements for this product manufactured with rigorous studies. Our Authorised Services guarantee protection of your devices performance as they always provide original spare parts service. Carefully read this guide in order to use the boiler in an economic, comfortable and efficient way and keep as a source of application.

In order to ensure efficient use, we initially recommend you to have the installation performed by a certified installer experienced and competent in installation by the local gas authority.

1.1. GENERAL WARNINGS

Guide Book is an inseparable and integral part of the product and should be delivered to the new user when the device is transferred. The aforementioned book should be carefully protected and used as well as be applicable when required as it contains important information regarding installation.



Radiator and DHW installations should be engineered and produced by a competent and certified engineering company in accordance with measurements defined based on laws by considering legal regulations in force.



Installation and Maintenance operations should be performed by expert personnel, having adequate technical knowledge in the installations sector and occupational competency certificate in accordance with legal regulations in force. As the result of a false installation, dangers may occur which the manufacturer company cannot be held responsible for and may damage people, other live beings (animals, plants) or commodities.



Natural Gas Installation Project; One of the installers authorised by a gas company located in your city should be preferred for performing project and etude studies.



In order to enable use of the boiler with LPG tubes or LPG tanks, conversation of the boiler should be performed by our authorised Warmhaus service. Project design and application for LPG use should be performed by the company supplying the tank in accordance with local and legal rules.

1.2. GENERAL WARRANTY CONDITIONS

The Manufacturer company shall not have any responsibilities within or out of the agreement scope due to failures arising from failing to follow legal regulations in force and standards and information given in this guide book (and information and instructions provided by the manufacturer under any circumstances) during installation, use or maintenance operations and device warranty shall also be void.

Only the authorised Warmhaus Service is authorised to make the electrical connection of boiler and supplying electricity to the boiler.

The maintenance and repairs as the result of failure of the product within the warranty period due to material, production and installation errors shall be performed as free of charge without claiming any workmanship costs and spare part payments.

(Also See: 3.5. ISSUES REQUIRED TO BE TAKEN INTO CONSIDERATION BY USERS FOR WARRANTY CONDITIONS)

This device should only be used for its designed intended purposes (to be used in closed-circuit heater installation and production of open circuit domestic hot water production). All kinds of other uses are not suitable as well as may create a potential danger.

Manufacturer shall not be responsible for damages occurring due to interventions, false installation and initial starting performed by unauthorised persons and warranty scope shall be void. As the Combi is a device having heating system, domestic hot water, natural gas/LPG and electrical connections, do not make and have any interventions made without the authorised service.

Forbid any interference with a sealed component.

Device maintenance operations should be performed by the authorised and expert technical expert technical personnel.

It is strictly forbidden to try to detect the gas leakage with the help of flame.

This device has been manufactured to be installed in the country given on the technical registry label. Performing the installation in countries other than the country written on the table may damage individuals, animals and commodities.

Combi boiler bear CE mark in accordance with below given directives:

- GAR Regulation (EU) 2016/426
- Boiler Efficiency Directive 92/42/EEC
- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU

Manufacturer: WARMHAUS Isıtma ve Soğutma Sistemleri Tic. A.Ş. Taşpınar Mahallesi, TEKNOSAB 1. Cadde No: 12, 16700 Karacabey / Bursa / Türkiye

WARMHAUS

Warmhaus Authorised Technical Service Centres maintain an assurance regarding quality and professionalism on that issue. Warmhaus is not responsible for damages arising from repairs, part replacements and maintenances performed by third persons and companies and combi remains out of the warranty scope under such conditions.

20 kW 24 kW 28 kW 33 kW

CE 1015

WARMHAUS A.Ş. reserves the right to make all kinds of technical and commercial amendments without giving information and rejects all responsibilities depending on misspelling.

1.3. GAS LEAKAGES

HOW TO MOVE WHEN NATURAL GAS ODOUR IS DETECTED..



Do not use lighter-matches



Do not turn on, off or unplug the lamps or other electrical appliances.



Ventilate the environment by opening doors and windows.



Close valves of appliances operating with natural gas and your gas meter



Do not use/let anyo-ne use the doorbell.



Do not use phones in case of a natural gas leakage. It may create sparks.



Immediately evacuate the place with gas odoor.



Call the Natural Gas Emergency Line from your neighboor or another suitable place.



Do not intervene the installation Wait for Gas Authorities Team to arrive.



Never close culverts ensuring discharge of the gas from the environment in case of a natural gas leakage.



INFORMATION: You can visit web sites of local gas authorities and **NATURAL GAS EMERGENCY** sections.

Advice: Please take note local emergency phone numbers.

2. USER'S SECTION

2.1. GENERAL WARNINGS FOR USER

2.1.1. Use of Combi boiler

If a gas odour is available in the environment, close home entrance line and gas valves of your boiler or close the LPG tank valve or tube valve if bulk gas is used. Do not shut on-off electricity buttons and do not do anything those may create sparks. Call the gas company or Authorised Service. (See 1.3 GAS LEAKAGES)

First start should be performed by the Warmhaus Authorised Service for your safety and preventing void warranty scope. Our Authorised Service will give you required information about use of boiler after performing initial controls of your boiler and starting for the first time.

Perform below given controls prior to starting to use:

- Ensure that radiator/heating system, tap water and gas valves located under your boiler are open, the radiator installation pressure is between 1 - 1,5 bar on the manometer located under the boiler and system air is discharged,
- Gas is available in your gas line (you can control by igniting one of your gas ovens),
- Boiler electrical fuse is open,
- No flammable materials and products are available near to the boiler
- Exhaust gas flue set output is not blocked,
- If a room thermostat or control device is connected, ensure that it is at ON position.

If you will shut-off the boiler for a long period, perform below written operations:

- Discharge the radiator installation water not containing anti-freeze,
- Close boiler electrical fuse, gas valve, radiator and tap water valves!

If you will shut-off the boiler for a short period, perform below written operations:

- Do not close boiler electrical fuse, gas valve, radiator and tap water valves!
- Leave the Combi at Summer position and activate its Frost Protection function,

Shut-off the combi during maintenance and repair operations to be performed around exhaust gas discharge flues. After operations are completed, have the boiler controlled by Warmhaus Authorised Service prior to starting the combi.

Follow below given main rules:

- Do not clean external frame of boiler while boiler is functioning and do not use easily flammable materials.
- Do not hold the boiler with wet hands or feet; also without shoes and with bare feet.
- Do not pick electricity cables.
- In case cables are damaged, shut-off the boiler and fuse switches and do not use the boiler
- Electrical cables of boiler and its accessories should have replaced by the Authorised Service.
- Do not expose the hung boiler to direct vapour those may arise from cooking places.
- Prevent use of boiler by children and inexperienced persons.

2.2. CONTROL PANEL OF GLOWA MODEL COMBI BOILER DEVICES



Figure 1 Control panel of Glowa boiler

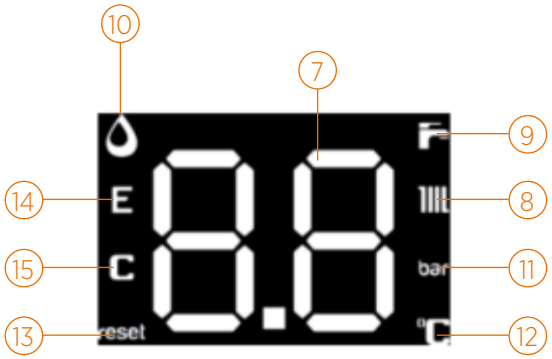


Figure 2 Glowa boiler control panel screen



BUTTONS and PUSHBUTTONS

1. **MODE** position adjustment button
2. **RESET** button
3. Radiator **(CH)** temperature adjustment
4. **DHW** temperature adjustment button
5. **On/Off** button
6. Digital display screen
7. Temperature, data and failure codes display
8. **Radiator** symbol is flashing when combi boiler is functioning in (CH) position. Symbol seen at heating steps or when radiator temperature adjustment is made.
9. **DHW tap** symbol is seen at summer and/or winter position of the combi boiler. Symbol flashes on DHW request or when DHW adjustment is made.
10. **Drops** symbol is only seen when boiler is active (burning in combi boiler); when system detects availability of flame.
11. **Bar** symbol seen at standby mode as right bar value.
12. **°C** symbol seen at winter/summer position of the combi boiler.
13. Failure status **RESET** requirement
14. **ECO** mode symbol
15. **COMFORT** mode symbol

The temperature value displayed on the combi boiler screen has a ± 3°C tolerance depending on environmental conditions not arising from the combi boiler.

Glowa boiler screens consist of navy blue coloured digit LCD screen, 2 buttons, Radiator (3) and Hot Tap Water (4) and 2 pcs, RESET (2) and MODE (1) pushbuttons.

RESET: It is used for re-starting the combi boiler and eliminating the failure in case of combi boiler failure.

MODE: Winter/Summer/OFF mode is used for position adjustment.

CH: (System) Central Heating **DHW:** Domestic Hot Water

Operating positions and related notifications:

POSITION EXPLANATIONS:

- **CLOSED** or **OFF** (3 digits LCD screen)
- **WINTER»** Radiator temperature + °C + tap + radiator is displayed.
- **SUMMER»** Radiator temperature + °C + tap is displayed.
- **CH ON»** Radiator Temperature + °C + tap + flashing radiator (symbol) is displayed.
- **DHW ON»** DHW temperature + °C + flashing tap (symbol) is displayed.
- **CH FROST PROTECTION»** Radiator temperature
- °C + flashing radiator (symbol) + when boiler is ignited flame (symbol) is displayed.
- **DHW FROST PROTECTION»** CH temperature + °C flashing radiator and tap (symbol) + when boiler ignited flame (symbol)
- **CH/DHW SETTING CHANGE»** CH adjustment change will be activated when radiator symbol rapidly flashes. DHW adjustment change will be activated when tap symbol rapidly flashes.
- Service technician function radiator + tap displayed. (Only for authorised service, wait for the function to end without pressing any button or rotating the button in such case!)

CH: (System) Central Heating **DHW:** Domestic Hot Water

2.2.1. Selection of On/Off/Standby and Summer/Winter Modes

Use V automat switch for interrupting the electrical connection of boiler The temperature value when electricity is supplied to the device is the temperature value of water in the installation.

2.2.2. On/Off/Standby Positions

Use V automat (fuse) switch for shutting ON/OFF the electrical connection of boiler..



When the combi is started for the first time, screen displays all led active and then written bar value standby **OFF** mode.



Device is **OFF** mode / standby position. (If combi boiler use to water pressure sensor version)



Press to **ON/OFF** button. **WINTER** mode is water tap and radiator symbols are active. Press to MODE button change between **WINTER** to **SUMMER** mode.



If device operating press to **ON/OFF** button, boiler is **OFF** mode standby position.

2.2.3. Operation at Winter Position

At that position, combi operates both for heating the environment and providing hot tap water.



This is **WINTER** mode screen display active water tap and radiator symbols.



In the **WINTER** mode **CH** operation screen water drops symbol active and flashing radiator symbol. **DHW** operation screen water drops symbol active and flashing water tap symbol.

2.2.4. Operation at Summer Position

Combi only operates for heating the Domestic Hot Water at that position. In order to switch to DHW position;



This is **SUMMER** mode screen display



Combi boiler operation **DHW** cycle in the **SUMMER** mode. **DHW** operation screen water drops symbol active and flashing water tap symbol.

2.2.5. Resetting the Combi (Re-Starting)





If screen written error code (flashing Er and error code value), press to RESET button 3 second.

2.2.6. Parameter Menu Entrance

When radiator (CH) and water tap (DHW) temperature adjustment button minimum position, press to MODE and RESET 5 second.

Parameter value RESET button increase and MODE button decrease. ON/OFF button entrance parameter and parameter value saving.

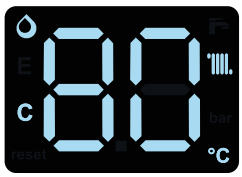


2.2.7. Selection ECO/COMFORT Mode



Entrance parameter 14 (P14) at parameter menu.

If ECO Mode is parameter value (P14=0) select, screen written E.



If COMFORT Mode is parameter value (P14=1) select, screen written C.

2.2.8. INFO Menu Enterance

When radiator (CH) temperature adjustment button maximum position and water tap (DHW) temperature adjustment button minimum position, press to MODE and RESET 5 second.

Info value RESET button increase and MODE button decrease.



2.2.9. Room Thermostat Connection;



If room thermostat connection boiler, screen display written room control (rc).

2.2.10. Use with Room Thermostat (Optional)

Combi has initial preparation for remote control connection via environment thermostats being sold as optional sets. All Warmhaus thermostats can be connected with dual-wired cables. Carefully read user's and installation instructions given in the Accessory set. Thanks to control units with room thermostat having program clock, you can control your combi at installation place, operating based on room temperature and also adjust different uses depending on each day of the week.

Important: It is compulsory to have two different lines according to legal regulations being in force regarding electrical installations in case of using a thermostat On/Off on the Remote Control. It is not allowed to use any pipe or hose of the combi as electricity or phone earthing line. That must be ensured prior to making electrical connections of the combi.

General Utilisation Type

- Please consult our authorised services for room thermostats compatible with Warmhaus boiler
- Do not remove device components during operation.
- Do not place at a position allowing direct sunlight exposure or near heat sources.
- Manufacturer company shall not be responsible for below given situations:

  a) Faulty installation

  b) Making intervention on the device by unauthorised persons

  c) Failing to follow instructions given in this book and room thermostat booklets

Maintenance and Service Life: Warmhaus room thermostat should not come into contact with water or excessive humidity. Unless external damage occurs, the room thermostat does not require any maintenance.

2.2.11. Use of Outside Temperature Sensor (Optional)

Outside Weather Temperature Sensor (optional) can be installed in your boiler by our Authorised Service (see: Installation Section; Accessory Connection Scheme), and you can enable automatic temperature adjustment for the radiator with immediate responses to outside weather temperature changes via smart and comfort operation. Therefore, it maintains an efficient and economic operation by reducing the radiator water temperature when outside weather temperature increases and gradually increasing the radiator water temperature when outside weather temperature decreases and sets you free from making radiator temperature adjustments. This sensor is activated when connected independently from the typology or availability of used thermostat, the relation between output temperature and outside temperature is defined according to curves given in the graphic below based on position of button located on the boiler panel.

After connecting the Outside Sensor, adjustment is made according to average external weather temperature of your province with P04 parameter. Our authorised service will make this adjustment during installation.

2.2.12. Customizing Combi Features

As your combi has an advanced electronic card, operation conditions and certain parameters related with your preferences may be changed by our Authorised Service. Please consult our authorised service when any changes requested in below given parameters. .

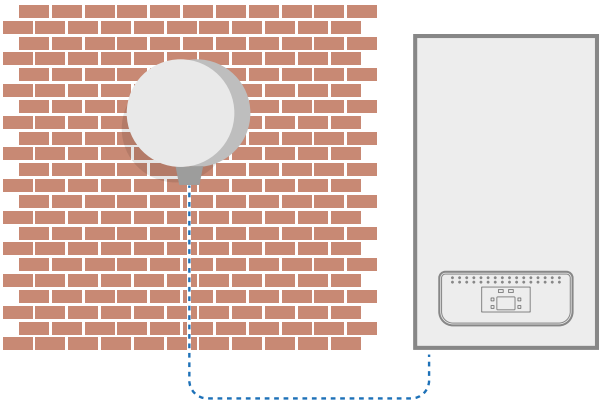


Figure 3 Boiler controlled by Outside Sensor

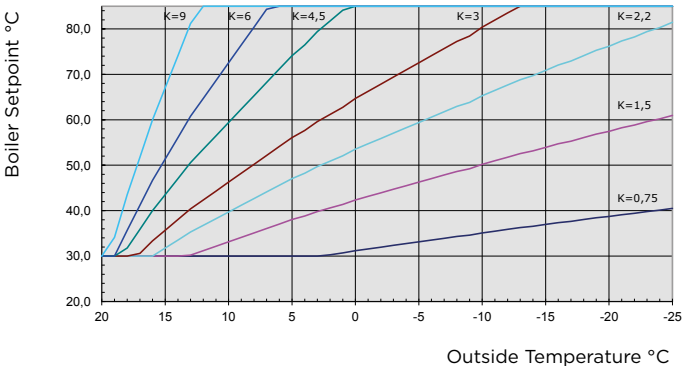


Figure 4 Outside weather temperature sensor operation curves

2.3. GLOWA TROUBLESHOOTING

2.3.1. Failure Codes Table

FAILURE CODE	FAILURE TYPE	DESCRIPTION	TYPE
Er 02	Low Water Pressure	"""Water pressure sensor configuration (P09 = 1 or 2) If water pressure is <= 0.4bar this error is given. If water pressure is >= 1.0bar error is cleared automatically. Water pressure switch configuration If water pressure switch contacts are opened for 3 seconds; this failure is given. Failure is cleared automatically if the contacts are closed."""	Failure
Er 03	High Water Pressure	"""Available only in water Pressure Sensor configuration (P09 = 1 or 2) If water pressure is >=3.5bar this error is given. If water pressure is <=3.0bar error is cleared automatically."""	Failure
Er 04	DHW NTC probe error	"If DHW NTC probe is open or short circuit, or it is damaged this warning is given. Normal operation is started when error has disappeared. This warning is given but the device works with CH NTC probe temperature during DHW operation."	Warning
Er 05	CH flow NTC probe error	If CH flow NTC probe is open or short circuit, or it is damaged this error is given. Both DHW and CH demand is stopped during this error. Normal operation is restarted when error has disappeared.	Failure
Er 06	Ionization error	If there are 3 consecutive flame errors when Gas Type is selected as NG or 1 flame error when Gas Type is selected as LPG, this lockout is given. RESET action is required in order to reset the failure.	Lockout
Er 07	"Safety thermostat open"	If safety thermostat is opened for 3 sec this lockout is given. Safety thermostat should be closed and RESET action is required in order to reset the failure.	Lockout
Er 08	Ionization Component Error	If the flame detection signal is out of range for 15 seconds this error is given. If the flame detection signal is in normal range for 2 seconds, normal operation restarts.	Failure
Er 09	Pump Encoder Signal Missing or out of range	This error is given for only A23 is selected as “PWM pump”. If the encoder signal is missing or out of range for 10 seconds, this failure is given. If signal is in range for 5 seconds normal operation restarts automatically.	Failure
Er 10	CH Return NTC probe error	If there is a problem in CH Return NTC probe (open/short circuit) this error is given. Normal operation is started when error has disappeared.	Failure
Er 13	Flue Gas NTC High Temperature	This error is given for only A53 is selected as “Flue gas sensor available”. If flue gas ntc probe is above 95°C for 3 seconds, this lockout is given. RESET is required to reset the lockout.	Lockout
Er 14	Flue Gas NTC probe error	If there is a problem in Flue Gas NTC probe (open/short circuit) this error is given. Both DHW and CH demand is stopped during this error. Normal operation is restarted when error has disappeared. This error is given only if A53 is selected as flue gas temperature sensor available.	Failure
Er 15	Fan Encoder Signal Missing Lockout	If the fan is ON and no signal is received from fan encoder for 5 seconds, this lockout is given. RESET is required to reset the lockout.	Lockout
Er 18	Freeze Failure	If CH temperature probe measures below 1°C for 10 seconds, this error is given. Burner is stopped. Pump is not activated. If the temperature increases to 3°C, normal operation is started automatically.	Failure
Er 020	CH Flow NTC over temperature	If temperature of CH Flow NTC probe is higher than 95°C this error is given, when temperature decreases to 85°C, normal operation is started automatically.	Failure
Er 22	False Flame Error	If a false flame is detected at least for 10 seconds while the burner is OFF, this error is given. In these 10 second times, the operation does not go on, operation waits for the flame signal being off to continue burner switching on. If the flame signal is off at least for 1 sec, normal operation restarts.	Failure
Er 41	"Flame loss occurred too many times recently failure"	If flame loss occurred in less than 30 seconds after flame occurrence and at least 6 successive times, this error is given. RESET action is required in order to reset the failure.	Lockout
Er 80	Gas Valve Feedback	In case of an error related with Gas Valve drive and feedback check circuitry, this failure is given. RESET is required in order to reset the failure.	Lockout
Er 91	Recuperator Error	This error is given for only A63 is selected as “Recuperator available”. If water is detected in recuperator for 4 seconds this error given. If water is cleared normal operation restarts automatically.	Failure
Er 96	Fan Encoder Signal Out of Range Lockout	"""If measured RPM is different from target RPM by a defined range (defined range is target ±10% with a minimum of 600rpm) for 60 seconds, this lockout is given. If fan PWM duty cycle is lower than the calculated duty cycle by A62 parameter for 20 seconds, this lockout is given. RESET is required to reset the lockout."""	Lockout

(1) Call the Authorised Service if failure continues.

2.4. RECOMMENDATIONS FOR ECONOMICAL USE OF

Your boiler at ECO mode for economic use, we recommend not to change it

Correct Capacity Selection

Heat loss calculation of the boiler location should be made correctly and boiler capacity should be selected accordingly. Devices not having adequate capacity shall give late responses to heating requests, devices with higher capacity may cause discomfort and more fuel consumption as they turn ON and OFF more frequently. Therefore, boiler capacities should be selected according to the place used.

Insulation

Insulation of your building is the most important item reducing the heat loss and gas consumption. However, as your boiler has the highest thickness insulation of its class, heat loss is minimized.

Radiators

Ensure balancing the rest pump head of the appliance by making reduction adjustments from radiator valves. Placing furnitures in front of radiators prevents air circulation and causes discomfort and more fuel consumption. Reducing radiator valves of rooms not used for a long period or if thermostatic radiator valve is used, bringing to the lowest position then, closing room doors will provide saving.

Domestic Hot Water

Always adjust the domestic hot water temperature as (38-42 °C) for a considerable power saving. In addition, high domestic hot water temperatures cause strong calcification and that negatively affects operation of the device (for instance, longer heating periods, less flow rate).

Thermostatic Radiator Valves

You can both acquire savings and comfort by balancing the heat distribution among the house by using Thermostatic Radiator Valves.

Room Thermostats

Your boiler will operate more economically as you will have the chance to adjust requested room temperature according to comfort via room thermostats. Thus, you can adjust temperature of your room as you wish, and also you can acquire approximately 6% power saving with every degree of temperature decrease.

Ventilation

Do not leave windows slightly open for ventilating room/rooms. In such case, continuous heat loss will occur and not having any certain improvement in the room air.

Fully opening windows for a short period provides a better result. Bring thermostatic radiator valves to lowest position when ventilating rooms.

Cleaning And Maintenance

Attention: to preserve the boiler's integrity and keep the safety features, performance and reliability, you must at least execute maintenance operations on a yearly basis in compliance with national, regional, or local standards in force.

We recommend a yearly cleaning and maintenance contract with an authorised local firm.

2.5. ISSUES REQUIRED TO BE TAKEN INTO CONSIDERATION FOR WARRANTY CONDITIONS

Under below given conditions, warrnaty of the product will be void :

1. Damages and failures occurring in devices which are not commissioned Authorised Services,
2. Damages and failures arising from use of the product contrary to items given in User's Manual and using out of its intended purpose.
3. Damages and failures arising from wrong type selection,
4. Damages and failures arising from maintenance and repairs performed by persons other than Authorised Services,
5. Damages and failures occurring due to transportation, unloading, loading, storing, external physical (Crushing, scratches, fractures) and chemical factors following delivery of the Product,
6. Damages and failures arising from fire and lightning,
7. Damages and failures arising from false fuel use and fuel characteristics,
8. Low or excessive voltage, unearthed socket usage;
9. Damages and failures arising from faulty electricity installations,
10. Damages and failures arising from failing to perform timely annual maintenance and cleaning,
11. Damages and failures arising from frost/icing or occurring due to using in the outdoor places (open balcony, etc.).
12. Damages and failures arising from using water out of the water values defined in device user's guide,

3. TECHNICAL DATAS

TECHNICAL DATA	UNIT	GLOWA 2025 C 25kW			
Gas Circuit/Type		G20	G25	G30	G31
Gas Supply Pressure	mbar	20	25	30	37
Gas Consumption at Maximum	m^3/h	2,12	2,58	0,71	0,81
Gas Consumption at Minimum	m^3/h	0,56	0,62	0,33	0,34
Premix System Operating Method		Pneumatic			
Modulation Range		1:4			
Primary / Combustion Heat Exchanger Material		Stainless Steel			
Efficiency					
Efficiency at Maximum Heat Output (80/60 °C)	%	98,03	97,84	97,48	97,76
Efficiency at Maximum Heat Output (50/30 °C)	%	105,11	105,34	101,95	103,63
Efficiency at 30% load at (36/30 °C)	%	108,29	108,38	104,28	108,29
Seasonal Space Heating Energy Efficiency (ηs) (Class)	%	92 (Class A)			
Useful Efficiency at 30% of Rated Heat Output And Low Temperature Regime (1) (η1)	%	97,5	97,5	97,7	97,7
Useful Efficiency at Rated Heat Output And High Temperature Regime (2) (η4)	%	87,6	87,6	87,7	87,7
Radiator Circuit					
Maximum Heat Input (Qn)	kW	24,25	24,25	24,25	24,25
Minimum Heat Input (Qn)	kW	6	6	6	6
Maximum Heat Output Pn (80/60 °C)	kW	23,7	23,7	23,7	23,7
Minimum Heat Output Pn (80/60 °C)	kW	5,8	5,8	5,8	5,8
Maximum Heat Output Pn (50/30 °C)	kW	25	25	24,7	25
Minimum Heat Output Pn (50/30 °C)	kW	6,2	6,2	6,2	6,2
Temperature Selection Range (min/max) high temperature	°C	25:80			
Temperature Selection Range (min/max) low temperature	°C	25:47			
Operating Pressure (Maximum)	bar	3			
Operating Pressure (Minimum)	bar	0,5			
Expansion Vessel Volume	bar	8			
Pump Pressure (at 500 l/h - 1000 l/h flow rate)	m H2O	7,5/6,0			
Max. Pump Flow Rate	l/h	2350-2400			
Pump Energy Efficiency Index (EEI)	EEI	≤0,20			
Domestic Hot Water Circuit					
Maximum DHW Heat Input	kW	25			
Minimum DHW Heat Input	kW	5,5			
Max. Domestic Hot Water Flow Rate (ΔT: 35°C)	l/min	10,2			
Max. Domestic Hot Water Flow Rate (ΔT: 30°C)	l/min	12			
Max. Domestic Hot Water Flow Rate (ΔT: 25°C)	l/min	14,3			
Min. Domestic Hot Water Flow Rate (for the DHW function activation)	l/min	1,5			
Maximum Water Pressure	bar	10			
Minimum Water Pressure	bar	0,5			
Temperature Adjustment Range (Max / Min)	°C	35-60			
Electricity Circuit					
Electricity Supply (Frequency: 50Hz)	V AC	230 V +%10; - %15			
Electricity Consumption (Max / Min)	Watt	86/57			
Protection Index	IP	IPX5D			
Exhaust Gas Circuit					
Exhaust Gas Temperature (Min / Max) (80/60°C)	°C	55/78	55/78	54/78	54/78
Exhaust Gas Temperature (Min / Max) (50/30°C)	°C	37/57	37/57	41/55	41/55
Maximum Exhaust Gas Temperature (Maximum DHW Mode)	°C	78			
NOx	Class	6			
Weighted Value of NOx (GCV)	mg/kWh	33	33	38	38
Flue Mass Flow Rate (Nominal/Minimum) (80/60°C-Qn)	g/s	10,32/1,6	10,78/1,62	10,58/1,26	9,91/1,18
Flue Mass Flow Rate (Maximum DHW Mode) (80/60°C-Qn)	g/s	11,88	11,92	11,28	10,56
Fan Head Loss	Pa	35-140			
General					
Dimensions (Height x Width x Depth)	mm	725 x 420 x 288			
Sound Level	dB (A)	52			
Hydraulic Group Material		Brass / Composite (Only Glowa Smart)			
Net / Packed Device Weight	kg	32,5 / 34,7			
Type					
Category					

GLOWA 2530 C 30kW				GLOWA 3035 C 35kW				GLOWA 3540 C 40kW			
G20	G25	G30	G31	G20	G25	G30	G31	G20	G25	G30	G31
20	25	30	37	20	25	30	37	20	25	30	37
2,38	2,85	0,728	0,92	3,05	3,47	0,857	1,18	3,402	4,127	0,992	1,302
0,77	0,83	0,507	0,505	0,797	0,856	0,509	0,544	0,834	0,924	0,533	0,568
Pneumatic				Pneumatic				Pneumatic			
1:5				1:5				1:5			
Stainless Steel				Stainless Steel				Stainless Steel			
98,03	97,84	97,48	97,76	97,88	98,15	97,57	98,59	98,00	98,23	97,61	98,04
105,11	105,34	101,95	103,63	105,00	104,26	102,89	104,67	105,4	105,53	103,06	105,43
108,29	108,38	104,28	108,29	107,54	107,83	105,37	107,36	107,2	107,06	104,62	106,98
92 (Class A)				92 (Class A)				92 (Class A)			
97,5	97,5	97,7	97,7	96,8	96,8	96,9	96,9	96,9	96,9	96,6	96,6
87,6	87,6	87,7	87,7	88,0	88,0	88,6	88,6	88,2	88,2	88,0	88,0
24,25	24,25	24,25	24,25	28,7	28,7	28,7	28,7	33,7	33,7	33,7	33,7
6	6	6	6	7,5	7,5	7,5	7,5	8,35	8,35	8,35	8,35
23,7	23,7	23,7	23,7	28	28	28	28	33	33	32,8	33
5,8	5,8	5,8	5,8	7,5	7,5	7,25	7,45	8,1	8,1	8,1	8,1
25	25	24,7	25	30	30	29,5	30	35,5	35,5	34,7	35,5
6,2	6,2	6,2	6,2	7,9	7,9	7,74	7,59	8,6	8,6	8,6	8,6
25:80				25:80				25:80			
25:47				25:47				25:47			
3				3				3			
0,5				0,5				0,5			
8				10				10			
7,5/6,0				7,5/6,0				7,5/6,0			
2350-2400				2350-2400				2350-2400			
≤0,20				≤0,20				≤0,20			
31,15				35				38,8			
5,8				7,5				8,1			
12,76				14,33				15,89			
14,89				16,80				19,00			
17, 86				20,07				22,25			
1,5				1,5				1,5			
10				10				10			
0,5				0,5				0,5			
35-60				35-60				35-60			
230 V +%10; - %15				230 V +%10; - %15				230 V +%10; - %15			
98/87				106/87				115/90			
IPX5D				IPX5D				IPX5D			
69,3/70,5	64,6/70,2	57,1/70,0	59,9/69,7	60,8/66,1	55,1/64,6	56,6/67,2	57,6/65,0	56,8/62,3	56,9/62,2	54,4/66,7	58,2/67,4
48,5/50,5	47,7/49,5	42,8/57,0	47,0/50,5	44,5/44,5	44,0/44,1	42,2/49,8	43,4/44,9	46,8/44,2	46,7/44,50	40,6/48,4	48,7/48,9
70				70				70			
6				6				6			
20	19	42	31	41	31	43	49	34	32	43	53
10,32/1,6	10,78/1,62	10,58/1,26	9,91/1,18	13,23/1,72	13,13/1,73	12,29/1,56	12,71/1,62	14,76/1,88	15,54/1,97	14,28/1,97	14,03/1,81
14,01	14,04	13,58	12,71	15,53	15,82	14,91	14,56	18,36	18,54	17,00	16,65
35-140				35-140				35-140			
725 x 420 x 288				725 x 420 x 288				725 x 420 x 288			
52				54				50			
Brass / Composite (Only Glowa Smart)				Brass / Composite (Only Glowa Smart)				Brass / Composite (Only Glowa Smart)			
32,5 / 34,7				33,7 / 35,9				34,5 / 36,7			
B23, B23P, B33, B33P, B53, B53P, C13, C33, C43, C53, C63, C83, C93 and C(10)3											
I2H, I2E, I2E(S) - (G20=20 mbar), I2E+, I2L, I2ELL - (G25=25 mbar), I3P - (G31=37 mbar), II2ELL3B/P, II2H3B/P - (G30=30 mbar)											

3.1. PRODUCT FICHE

All information in the ERP Data Sheet & Product Data Sheet is based on the test results of the SZU Test / BRNO laboratories.					
Product Data Sheet (according to EU regulation No 811/2013 and 814/2013)					
Boiler Models		**GLOWA 2025C 25kW**	**GLOWA 2530C 30kW**	**GLOWA 3035C 35kW**	**GLOWA 3540C 40kW**
Space heating - Temperature application		High / Medium / Low	High / Medium / Low	High / Medium / Low	High / Medium / Low
Water heating - Declared load profile		XL	XL	XL	XL
Seasonal space heating energy efficiency class		A	A	A	A
Water heating energy efficiency class		A	A	A	A
Rated heat output (Prated or Psup)	kW	24	24	28	33
Space heating - annual energy consumption	GJ	42	42	49	55
Water heating - Annual energy consumption	kWh (*)	-	37	34	39
	GJ (**)	-	18	18	18
Seasonal space heating energy efficiency	%	92	92	92	92
Water heating energy efficiency	%		84	83	84
Sound power level LWA indoors	dB	52	52	54	50
Option to only operate during low demand periods					
Specific precautions for assembly, installation and maintenance		Before any assembly, installation or maintenance the user and installation manual has to be read attentively and to be followed			
All the data that is included in the product information was determined by applying the specifications of the relevant European directives. Differences to product information listed elsewhere may result in different test conditions. Only the data that is contained in this product information is applicable and valid.					
(*) Electricity (**) Fuel					

HANDING OVER

After completing the installation and commissioning of the system the installer should hand over to the householder by the following actions:

1. Make the householder aware that the user instructions are located in the pocket in the drop down door and explain his/her responsibilities under the relevant national regulations.
2. Explain and demonstrate the lighting and shutting down procedures.
3. The operation of the boiler and the use and adjustment of all system controls should be fully explained to the householder, to ensure the greatest possible fuel economy consistent with the household requirements of both heating and hot water consumption. Advise the User of the precautions necessary to prevent damage to the system and to the building, in the event of the system remaining inoperative during frosty conditions.
4. Explain the function and the use of the boiler heating and domestic hot water controls.

Explain that due to system variations and seasonal temperature fluctuations DHW flow rates/temperature rise will vary, requiring adjustment at the draw off tap. It is therefore necessary to draw the users attention to the section in the Users Instructions titled “Control of Water Temperature” and the following statement: “Additionally, the temperature can be controlled by the user via the draw-off tap: the lower the rate the higher the temperature, and vice versa”.

ErP DATA (according to EU regulation No 813/2013 and 814/2013)						
Boiler Models			GLOWA 2025C 25kW	GLOWA 2530C 30kW	GLOWA 3035C 35kW	GLOWA 3540C 40kW
Water heating - Declared load profile			L	XL	XL	XL
Reated Heat Output	Prated	kW	24	24	28	33
Useful heat output at rated heat output and high temperature regime (2)	P4	kW	23,7	23,7	28,0	33
Useful heat output at 30% of rated heat output and low temperature regime (1)	P1	kW	7,63	7,63	8,23	8,73
Seasonal Space Heating Energy Efficiency	ηs	%	92	92	92	92
Useful efficiency at rated heat output and high temperature regime (2)	η4	%	87,57	87,57	88,02	88,21
Useful efficiency at 30% of rated heat output and low temperature regime (1)	η1	%	97,48	97,48	96,82	96,87
Auxiliary Electricity Consumption						
Full load	elmax	kW	0,04	0,43	0,46	0,54
Part load	elmin	kW	0,01	0,11	0,12	0,13
Standby mode	PSB	kW	0,004	0,005	0,005	0,005
Other Items						
Standby heat loss	Psıby	kW	0,044	0,057	0,057	0,057
Ignition burner power consumption	Pign	kW		0,000	0,000	0,000
Space heating - annual energy consumption	QHE	GJ		42	49	55
Sound power level, indoors	LWA	dB	52	52	54	50
Emissions of nitrogen oxides	NOx	mg/kWh	33	20	41	34
Domestic Hot Water Parameters						
Declared Load Profile				XL	XL	XL
Daily electricity consumption	Qelec	kWh	0,167	0,169	0,157	0,177
Annual electricity consumption*	AEC	kWh	37	37	34	39
Water Heating Energy Efficiency	hwh	%	85	84	83	84
Daily fuel consumption	Ofuel	kWh	22,9	23.152	23.615	23.078
Annual fuel consumption	AFC	GJ	17	18	18	18
Condensing boiler			Yes	Yes	Yes	Yes
Low temperature boiler			Yes	Yes	Yes	Yes
Combination boiler			Yes	Yes	Yes	Yes
B1 Boiler			No	No	No	No
Room boiler with combined heat and power			Yes	Yes	Yes	Yes
Auxiliary boiler			No	No	No	No
Brand Name	WARMHAUS					
Manufacturer address	Warmhaus ısıtma ve Sogutma Sistemleri San. Tic. A.Ş. Taşpınar Mahallesi, TEKNOSAB 1. Cadde No: 12, 16700, Karacabey / Bursa / Türkiye					
Warnings	All specific precautions for assembly, installation and maintanance are described in the operating and installation manual. Read and follow the operating and installation manual.					
	Read and follow the operating and installation manual regarding assembly, installation, maintenance, removal, recycling and/or disposal.					

* for avarage climatic conditions
(1) Low temperature means for condensing boilers 30 oC, for low temperature boilers 37 oC and for other heaters 50 oC return temperature (at heater inlet).
(2) High temperature regime means 60 oC return temperature at heater inlet and 80 oC feed temperature at heater outlet.
All information in the ErP data sheet and the SZU Test/ BRNO Laboratories product data sheet is based on test results.

GLOWA

NOTES FOR THE USER & INSTALLER

NATIONAL GRID UK EMERGENCY NUMBERS

Enquiries about assets

If you have any questions about our power cables, gas lines, or other assets, please contact Cadent's Plant Protection team. Cadent provide first-line support for our assets.

- **0800 688 588**
- **plantprotection@cadentgas.com**
- **https://www.nationalgrid.com/uk/contact-us**

Gas Emergencies
If you smell gas or have accidentally hit the NTS pipeline please call us urgently: **0800 111 999**

Electricity Emergencies
If you spot a potential hazard on or near an overhead electricity line please call us urgently:
0800 40 40 90

FOR ANY TECHNICAL QUERIES PLEASE RING THE WARMHAUS CONSUMER/INSTALLER/TECHNICAL HELPLINE:
0207 1646233

CONDENSING COMBI BOILERS
USER MANUAL

150116060000266
GLOWA USER MANUAL UK R2 10.2026

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