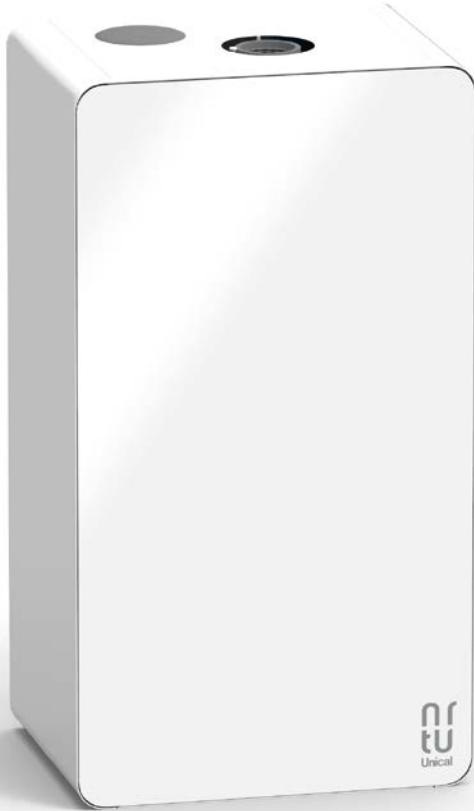




Unical

KON1





KON1 is the newest addition in the line of “décor” boilers produced by Unical in synergy with ArtÛ Design Studio. Soft lines, with an elegant front panel available in different colours, enclosing a state-of-the-art condensing boiler that produces instantaneous hot water.

The range includes 3 heat outputs: **24, 28 and 35 kW**.

The front panel in polymethylmethacrylate is available in the following versions:



EASY[®]

No control in sight on the boiler, but wireless EASY[®] performs the double function of chrono-thermostat and remote control inside your home.

- Two-way radio frequency communications
- Control of operating parameters
- Weekly programming
- Antifreeze ambient function
- Can be combined with an outdoor sensor

- Exceptional actual **modulation ratio up to 1:8**
- **Efficiency >107%** (ex dir. CE 92/42)
- **Energy class A**
- Ultrathin **primary heat exchanger in Al/Si/Mg**
- Electronic PCB with HWS function “**Hot Water Speed**”
- **Low NO_x** (UNI EN 15502)
thanks to the premix modulating burner
- Domestic Hot Water production up to 18.3 l/
min, with Δt 25 K, with special stainless steel heat
exchanger
- “Pit stop” service
- Internal control board for after sales service
- **EASY[®]: remote control (standard)** with **chrono-thermostat** functions, can be fitted **wireless** to the wall or placed on a stand.
- Set up for future applications in systems and suitable to meet the requirements provided in the new installation Standards
- **High efficiency modulating pump**
(according to ErP Directive 2015)
- **Completely disappearing connections.**

HWS “Hot Water Speed”

The new **KON1 electronics** switch from heating to D.H.W. function with burner and pump always in operation, thus greatly improving the user’s comfort who does not have to “wait” for the hot water.

Secondary heat exchanger

In stainless steel AISI 316L:

- with 12 plates for model 24
- with 16 plates for models 28-35

Especially efficient since it is suitable for condensing boilers designed to use low temperature.

Thanks to the new “ecological” design of the plates, it allows more heat to be transferred while making the most of its stainless steel features.



mod. KON1 24C

Modulating premix burner

Electro-pneumatic control with constant combustion ratio. The "Flat" burner ensures:

- **long duration** thanks to the low thermal and mechanical stresses and to the physical inalterability of the fibre in FeCr alloy
- **ideal propagation** of the radiation heat thanks to its chemical-physical structure able to develop a particularly soft and bright flame
- **Low NO_x** (UNI EN 15502)
- **"Quick Release"** unlocking of the complete plate. The release allows the complete removal of the combustion system.

Blocco a sgancio rapido "Quick release"



Exclusive Heat Exchanger in Al/Si/Mg Alloy

It is made of a special Al/Si/Mg alloy which ensures such a high level of **efficiency and resistance**. Thanks to the internal heat exchange configuration, efficiency levels exceeding 107% in condensation can be reached, which means that the user has increased cost savings and there is a lower impact on the environment. Versions 28-35 are adequately increased.

Filling valve

Fan and gas valve

- compact and silent
- wide modulation range 1:8
- absolute safety operation due to the absence of turbulence

The valve is designed to compensate for the gas pressure fluctuations in the mains and to stabilise the supply pressure, regardless of the suction pressure generated by the premix fan. Versions 28 and 35 are fitted with silenced air intake to improve the acoustic performance and also with increased air suction manifold.

User friendly adjustable features and easy to maintain, it ensures an accurate mixture of air/gas combustion to guarantee high levels of CO₂ and help condensation with extremely low levels of CO and NO_x.



Modulating pump with air vent

High efficiency, in line with the 2015 ErP Directive, it automatically sets the boiler output to the system's requirements. Particularly **silent and compact**, it is integrated with safety valve, by-pass and drain valve.

Bridge boiler connection/remote control

Manometer



Accessories (optional)



Light oak front panel



CHRONOTHERMOSTAT
**REGOLAFACILE
ON-OFF**



CHRONOTHERMOSTAT
GA 240





OT AREAS CONTROL MODULE



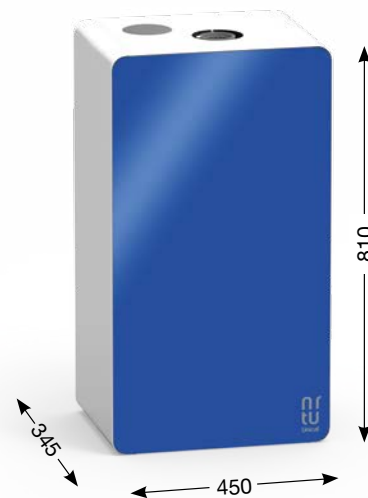
**OUTER TEMPERATURE
SENSOR**

A wide range of accessories to complete the system (hydraulic connections, flue ducts, etc.) is available at www.unical.eu

Data according to ErP directive		C24	C28	C35
Nominal Heat Output	kW	3,2 ÷ 23,6	4,7 ÷ 28,9	4,7 ÷ 33,8
Seasonal space heating energy efficiency	η _s %	92	93	93
Seasonal EFFICIENCY CLASS in heating mode		A	A	A
Useful Heat Output in high-temp. regime (Tr 60°C/Tm 80°C)	P4 kW	12,7	15,8	18,2
Useful efficiency at nom. heat output in high-temp. regime (Tr 60°C/Tm 80°C)	η ₄ %	87,0	88,0	87,5
Useful heat output at 30% of nom. heat output in low-temp. regime (Tr 30 °C)	P1 kW	4,2	5,3	6,1
Useful efficiency at 30% of nom. heat output in low-temp. regime (Tr 30 °C)	η ₁ %	96,7	97,9	97,5
Emissions of nitrogen oxides (NO _x)	mg/kWh	50	55	43
Declared load profile		XL	XL	XL
Energy efficiency in D.H.W. produc. mode	η _{WH} %	86	85	85
Daily fuel consumption ¹	Q _{fuel} kWh	22,07	23,05	23,13
Inside sound power level	L _{wa} db(A)	51	55,2	55,2
Seasonal efficiency class in D.H.W. production mode		A	A	A
Production of D.H.W. in continuous operation with Δt 25 K (mixed)	l/min	13,2	15,5	18,3
Expansion vessel total capacity	l	7	10	10
Maximum production of condensate	kg/h	3,7	4,5	5,3
Heating circuit pressure. (min/max)	bar	0,5 / 3,0	0,5 / 3,0	0,5 / 3,0
Pressione del circuito sanitario (min/max)	bar	0,5 / 6,0	0,5 / 6,0	0,5 / 6,0
Protection degree	IP	X5D	X5D	X5D
NO _x Class		5	5	5
Net weight	kg	40	41	41



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