



Unical®

K+A

K+A

A+ efficiency
with “A+ KIT”

Class VI **+4%**
seasonal energy performance



EASY^r
Wireless modulating
room thermostat



**OUTDOOR
SENSOR
COMPENSATION**



K+A is a room sealed condensing boiler which stands out both for the particular care taken in the **soundproofing** (front and side panels with double high density plastic coating) and for the **extremely high thermal performance**, which ensure high comfort and a D.H.W. production comparable to that of a boiler with storage tank.

- **Seasonal efficiency $\eta_s > 94\%$ on G.C.V. (class A)**
- **Energy class A+ System ($\eta_s > 98\%$) with optional “A+ KIT”**
composed by wireless modulating room thermostat
+ outdoor sensor compensation (Class VI +4%)
- **Domestic hot water production up to 18.3 l/min,**
with Δt 25 K, thanks to the 33 kW supplied in D.H.W. to the special
increased surface heat exchanger which reduces thermal shocks in
case of multiple and simultaneous drawing requests
- **Supersilent (only 39 dB)**
Sound pressure level at 1 meter distance
- Nominal output in heating mode: **20 kW**
- Exceptional actual **modulation ratio up to 1:8**
- Ultrathin **primary heat exchanger in Al/Si/Mg alloy**
- **Low NOx class 6** (according to EN 15502-1)
thanks to the premix modulating burner
- **Management of 2 differentiated priority zones**
(high/low temperature) by applying a second on/off thermostat
- **High head modulating pump**
- Available in natural gas or LPG version (conversion KIT included).

■ HWS “Hot Water Speed”

is the special **K+A electronic function** that switches from heating to domestic hot water mode keeping the burner and pump always active, improving the comfort of the user who doesn't have to wait for warm water

■ Sliding temperature

Programmed to operate with the lowest possible flow temperature to promote energy saving

■ Anti-overheating post-circulation

Automatically, after switching off the burner, the boiler keeps the pump running for 5 minutes, preserving the components

■ Anti-jaming function

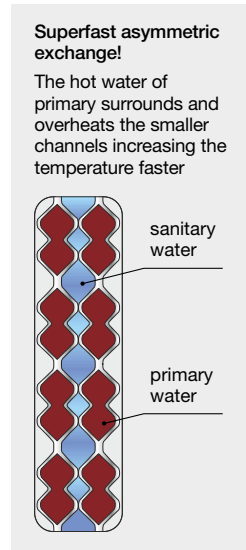
The pump is prevented from locking after long pauses, thanks to the electronics that launches at the motor, every 24 hours of rest, an automatic pulse of 5 seconds

■ “Pit stop” maintenance

for technical assistance intervention

Premix modulating burner

- **Multifunctional control gas valve** with two automatic shut-off valves, servo-assisted pressure regulator and pneumatic device for proportional control of the gas flow rate with 1:1 air-gas ratio, depending on the supply of combustion air.
- **Innovative fan** that optimizes the performance and the silence of the air-gas mixer. It is equipped with an integrated electronic PCB for control and a patented firmware for the management and mapping of the fan motor revolutions.



Secondary heat exchanger

Enhanced for greater temperature stability of domestic hot water and rapid set-up speed.

In stainless steel AISI 316L with 18 plates with “optimized thermal length”, especially efficient because equipped of “all active plates”, ideal for condensing boilers, of which it exploits the low temperature.

Its project is characterized by a new asymmetric technology which guarantees:

- size reduction
- increased efficiency
- scale reduction

Fan

Low NOx premix burner

Aluminium exchanger



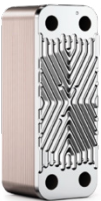
- Additional thermo-acoustic insulating coating
- High efficiency
- Extra flat
- Fully wetted
- Inspectable for easier maintenance

Outer casing with double insulating layer in high-density material

Gas valve

Expansion tank of 10 liters

Condensate drain siphon



Secondary heat exchanger



High efficiency modulating pump with deaerator

Control panel


satin silver with backlit display

in line with the ErP Directive it automatically doses the boiler power to the needs of the system. Particularly quiet and compact, it integrates with the safety valve, the by-pass and the drain cock.



Accessories (optional)

In addition to the “A+ KIT” (wireless modulating room thermostat **EASY^r** and **OUTDOOR SENSOR COMPENSATION**), a wide range of optional accessories is available to complete the system (hydraulic connections, smoke evacuation ducts, etc.), which can also be viewed on the website www.unical.eu.



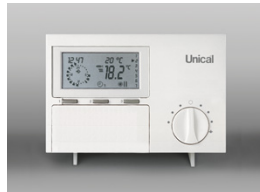
Class VI **+4%** seasonal energy performance

A+ KIT

- **EASY^r**
Wireless modulating room thermostat
No control in sight on the boiler, but wireless EASY^r performs the double function of chrono-thermostat and remote control inside your home.
 - Two-way radio frequency communications
 - Control of operating parameters
 - Weekly programming
- **OUTDOOR SENSOR COMPENSATION**



GWAY WI-FI module
for thermostat control, both locally and from remote; via App on smartphones and tablets



Class IV **+2%**
seasonal energy performance

REGOLAFACILE ON-OFF
Weekly digital
chronothermostat ON /OFF






CONNECTIONS COVER KIT



OT MODULE
For multi-zone heating system management



PROTECTION TOP
For outdoor installation

Technical data according to ErP directive		C 20/33
Nominal output heating / D.H.W.	kW	20 / 33
Seasonal space heating energy efficiency (on G.C.V.)	(η_s) %	94
Seasonal heating energy efficiency class		A
Seasonal space heating energy efficiency of package (on G.C.V.) (*)	(η_s) %	98
Seasonal heating energy efficiency class of package (*)		A+
Useful heat output in high temp. regime (Tr 60°C / Tf 80°C)	(P4) kW	19.6
Water efficiency at Nom. Input in high temp. regime (Tr 60°C / Tf 80°C)	(η_4) %	88.3
Useful heat output at part load (30%) in low temp. regime (Tr 30°C)	(P1) kW	6.6
Water efficiency at part load (30%) in low temp. regime (Tr 30°C)	(η_1) %	98.9
Emissions of nitrogen oxides rif. G.C.V.	(NO _x) mg/kWh	44
NO _x Class		6
Declared load profile		XL
Energy efficiency in D.H.W. production mode	(η_{WH}) %	85
Daily fuel consumption	(Q _{fuel}) kWh	23.13
Sound pressure level LpA at nominal output (**)	(L _{wa}) db(A)	39
Seasonal EFFICIENCY CLASS in D.H.W. production mode		A
Domestic hot water specific flow rate (Δt 30 K)	l/min	16.5
Production of D.H.W. in cont. operation with Δt 25 K (mixed)	l/min	18.3
Expansion vessel total capacity	l	10
Maximum production of condensate	kg/h	3.2
Heating circuit pressure. (min./max.)	bar	0.5 / 3.0
D.H.W. circuit pressure (min./max.)	bar	0.5 / 6.0
Protection degree	IP	X5D
Net weight	kg	41

(*) with "A+ KIT" composed by wireless modulating room thermostat + outdoor sensor compensation (optional)

(**) measured in free field at 1 m distance from the appliance



find out more



The K+A product complies with:

- Regulation 426/2016 (GAR) - CE marking
- Directive 2014/30 / EU (electromagnetic compatibility)
- Directive 2014/35 / EU (low voltage)

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