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**Wall-hung gas-fired condensing boiler for heating only**

**EVODENS PRO AMC 115**

Heating production will be provided by a sealed wall-hung gas-fired condensing boiler for heating only. Its exchanger will be a packaged aluminium-silicon alloy model with high corrosion resistance and a large exchange surface, **operating without minimum flow** *(flow T° <75 °C),* and able to manage a **40 K difference** between the flow and the return. The exchanger will have low hydraulic pressure loss and will be accessible via the front of the boiler. The entire flue gas circuit will be accessible. The gas burner will be a total premix model with woven metal fibre surfaces and a silencer on the air intake. Ignition and flame monitoring will take place with an ionisation electrode. The modulation range will be **18 to 100 %**. A condensate collector will be integrated and equipped with a siphon as standard. The boiler will be equipped with heating body flow/return sensors. A flue gas non-return valve will be integrated as standard in the boiler.

The boiler will be controlled via the **Diematic EVOLUTION** panel, which integrates a programmable electronic control system that can control up to 3 circuits with three-way valves, 1 direct circuit and 1 DHW circuit. PWM control of the boiler pump speed based on the burner output and the heating body ∆T°. This control system will communicate using Modbus RTU RS485 via our optional gateway.

The boiler will include a fault reporting output and a 0-10 V input.

The boiler will have the following technical specifications:

* Nominal useful heating output determined at Qnom: **103.90 kW**
* Intermediate useful heating output 30 % Qnom : **34.70 kW**
* Useful heating output 50/30 °C : **109.70 kW**
* Min./max. useful heating output 80/60 °C: **14.10 kW/84.20 kW**
* Efficiency on LHV at 30 % load (return temp. 30 °C): **108.00 %**
* Efficiency on LHV at 100 % load (return temp. 70 °C): **97.10 %**
* Max. temperature: **90 °C**
* Max. operating pressure: **4 bar**
* Seasonal efficiency, product SEE (without control system): **87.50 %**
* Seasonal efficiency, product SEE (with outdoor temperature sensor): **97.30 %**
* Standby losses at ΔT 30 K: **123 W**
* Auxiliary electrical output (excluding circulating pump): **182 W**
* Electrical output of auxiliaries in standby: **6 W**
* Water content: **9.40 litres**
* Flue gas outlet diameter: **80/125 mm**
* Pressure available at boiler outlet: **220 Pa**
* Dimensions: **500 (L) x 750 (H) x 500 (D) mm**
* Net weight: **68 kg**

The boiler will be a **DE DIETRICH EVODENS PRO AMC 115**

***Specific features:***

• Complies with the requirements of European directives

• Gas used: Natural gas L – H, propane

• Certifications: B23, B23P, B33, C13(x), C33(x), C53, C63(x), C93(x)

• NOx < 42 mg/kW (class 6 in accordance with EN 15502)

* Cascades of the boilers

1No. Diematic Evolution control system (Master) according to the outside temperature, enabling management of a direct circuit, DHW production and with an option of up to 2 valve circuits. Including heat energy metering, high temperature zone control and swimming pool functions.

4No. IniControl 2 control (Slaves)

**Cascade kit for 5No. boilers comprising:**

Low-loss header

Boiler connection collector

Injection pumps

Boiler connection hydraulic kits

insulating shells