

# ALKON 28 C - 35 C



## A pondered investment

The ALKON 28 C and 35 C boilers have been designed to comply to the most recent severe standards and are able to satisfy everyday needs for efficient, controllable and reliable heating and hot water.

The ALKON C provide you with the highest performances in terms of energy exploitation:

- Reduced fuel consumption, thanks to condensation and to the excellent modulation ratio more than 1:5, which reduces the fuel consumption by 30% compared to a conventional boiler.
- Flexible system design: permits the management of 2 heating zones via modulating thermostats.
- High DHW production via a hot water pre-heating function: thanks to the oversized stainless steel plate heat exchanger it is equipped with.

MODEL ALKON			28 C	35 C
Nominal min-max output	Condensing	kW	5,9÷28,6	5,9÷35,1
	Conventional	kW	5,2÷27,3	5,2÷33,3
Nominal input		kW	28	34,5
$\eta$ in Condensation at min load			108,6	107,2
Efficiency class (CEE directive 92/42)			★★★★	★★★★



ALKON 28 C



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## Premixing burner

The ALKON C boiler are equipped with a combustion system which incorporates a total pre-mixing burner. A special modulating fan, controlled by the on board electronic controls, on the basis of the required heat output, requests the exact quantity of gas, thereby avoiding unnecessary wastes and ensuring very reduced emissions.

## Aluminium, silicon, magnesium for the motor ...

In order to resist corrosion caused by the acid condensate and guarantee a high thermal efficiency the boiler body has been constructed in aluminium/silicon/magnesium alloy.



The element is formed by two half shells which have a dense finned/studded structure on the flue side, which increase in density in a downwards direction where the flue condensation takes place. In brief:

- "4 star" efficiency on all the modulating range
- 12 cm in depth
- Dense studded heat transfer structure
- Low water content
- Low thermal inertia
- Fast heat transfer
- Absence of overheating phenomenon in every operating condition
- 5 year guarantee

Al/Si/Mg heat exchanger

## Making the most of seasonal efficiencies

The electronic control incorporated in this boiler is suitable for supporting modulating programmable room thermostats and outdoor sensors. The reduction of the burner on-off and the immediate response to the variation in the weather conditions, maximises comfort and reduces the CO<sub>2</sub> emissions, thanks to the continuous research made in obtaining the maximum efficiency at the lowest possible temperature.

## Hot showers – shorter waiting time

Thanks to the innovative microprocessor combined with the rapid pre-heating function, the ALKON boiler replies rapidly to hot water requests: undoubtedly an extra **plus** for the end user. This function is activated via a simple button which speeds up the hot water delivery from the boiler, maintaining the aluminium body at the “correct” temperature. At the same time, thanks to its thermal inertia, it is able to offer a constant and greater hot water delivery rate.

## Complementary features

- Flue ducts over 30 metres long (twin pipe 80/80)
- Approved 60 mm diameter flue ducts available
- Management of 2 heating zones at different temperatures
- Sliding temperature boiler operation
- Boiler frost protection
- Anti-jam pump and diverting valve
- Overrun function
- Chimney-sweeper function
- Programmable room thermostat (optional)
- Outdoor sensor (optional)
- Dedicated flue ducts (optional)

## Technical data and dimensions

ALKON		28 C *	35 C
<b>Output</b>			
OUTPUT RANGE IN CONDENSING MODE	kW	5,9÷28,6	5,9÷35,1
OUTPUT RANGE IN CONVENTIONAL MODE	kW	5,2÷27,3	5,2÷33,3
NOMINAL INPUT	kW	28	34,5
<b>Efficiency</b>			
EFFICIENCY CATEGORY (Directive CEE 92/42)		★★★★	★★★★
EFFICIENCY AT FULL LOAD (100%) IN CONDENSING MODE	%	102,3	101,7
EFFICIENCY AT MIN. LOAD IN CONDENSING MODE	%	108,6	107,2
EFFICIENCY AT NOMINAL LOAD (100%)	%	97,5	96,5
EFFICIENCY AT MIN. LOAD	%	96,8	96,8
<b>Combustion</b>			
CO <sub>2</sub> (min/max output)	%	9 - 9,2	9 - 9,2
NO <sub>x</sub> (value according to EN 297/A3 and EN 483)	mg/kWh	38,2	38,2
MAX CONDENSATE PRODUCTION	kg/h	4,8	5,9
NO <sub>x</sub> Class		5	5
<b>Central Heating</b>			
MIN/MAX OPERATING TEMP. IN CH MODE	°C	30 / 80	30 / 80
DHW ADJUSTABLE TEMPERATURE RANGE	°C	35-57	35-57
DHW production with Δt 25 K	l/min	15,6	19,4
CH EXPANSION VESSEL CAPACITY	l	7	7
<b>Electrical supply</b>			
ELECTRICAL SUPPLY - VOLTAGE / FREQUENCY	V/Hz	230/50	230/50
MAXIMUM ABSORBED POWER	W	130	130
<b>Weight And Technical Data</b>			
NET WEIGHT	kg	39	39
ELECTRICAL PROTECTION	IP	X4D	X4D
APPLIANCE GAS CATEGORY		II 2H3P	II 2H3P

\* This model is obtained unloading the model 35 C.

## The control panel

Simple to use thanks to 2 large selection knobs which permit boiler ignition, central heating adjustment 30-80°C and domestic hot water adjustment 35-60°C. The temperature-pressure gauge controls the boiler temperature and pressure. As well as the various system power on, CH mode, burner on indicator leds, over 14 different led indicators highlight system problems at a glance, from no water to a NTC sensor fault, providing a diagnostic facility for both, the user and the installer.



Detailed view of control panel

