

ALKON 18-35 R



MODEL ALKON			18 R	35 R
Nominal min-max output	Condensing	kW	3,6÷17,5	5,9÷35,1
	Conventional	kW	3,2÷16,5	5,2÷33,3
Nominal input		kW	17	34,5
η in Condensation min. load		%	106,1	107,2
Efficiency class (CEE directive 92/42)			★★★★	★★★★

A pondered investment

The ALKON 18 R and 35 R boilers, for heating only, represent the most particular model available in this prestigious range of boilers.

Designed to satisfy the problems met by current building regulations, ALKON 18 R and 35 R adapt themselves with only 3 or 5 kW of minimum output, to system designs where the thermal insulations and the heating system (for example underfloor heating) require low outputs.

Premixing burner

The ALKON 18 R and 35 R boilers 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 boiler 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

DSP 110 stainless steel

Moreover, the ALKON 18 R and 35 R combined with the Unical DSP 110 stainless steel cylinder with a 110 litres storage capacity, becomes an unbeatable combined boiler which can satisfy all the most demanding requirements for domestic hot water.



Features:

- AISI 316L stainless steel 110 litres DSP storage cylinder incorporating a helicoidal shaped heat exchanger.
- Insulated in high density polyurethane to ensure greater insulation.
- 3-way motorized diverting valve
- 4 litre DHW expansion vessel

Optional accessories:

- Storage cylinder recirculation pump kit
- Pipework connections covering kit

The DSP 110 is built to absorb an output from 3 to over 35 kW and guarantees an impressive constant delivery rate of > 20 litres per minute of hot water.

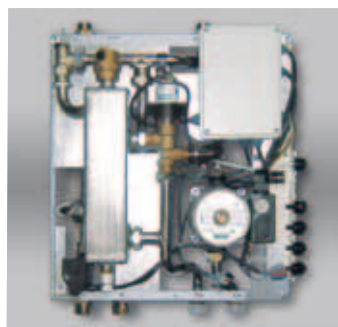


Making the most of seasonal efficiencies

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 CO₂ emissions, thanks to the continuous research made in obtaining the maximum efficiency at the lowest possible temperature.

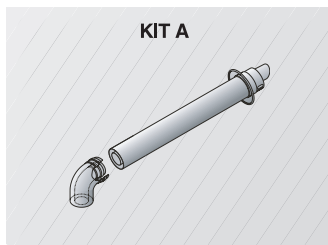
Accessory

All ALKON models are suitable for the installation of M 3000 S, an electrohydraulic device, which is able to manage at the same time both a zone with radiators and a floor heating one. The wide choice of accessories at catalogue (optional) allow to solve each installing and control situation that may occur.



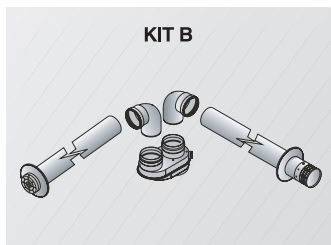
Optional

KIT A



CONCENTRIC KIT Ø 100/60
Code 00361730

KIT B



SEPARATE DUCTS KIT Ø 80
Code 00361731

Technical data and dimensions

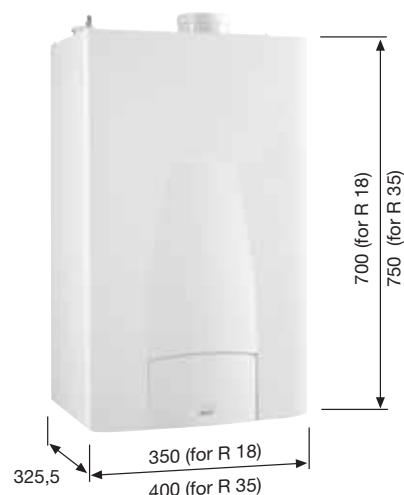
ALKON		18 R	35 R
Output			
OUTPUT RANGE IN CONDENSING MODE	kW	3,6-17,5	5,9-35,1
OUTPUT RANGE IN CONVENTIONAL MODE	kW	3,2-16,5	5,2-33,3
NOMINAL INPUT	kW	17	34,5
Efficiency			
EFFICIENCY CATEGORY (Directive CEE 92/42)		★★★★	★★★★
EFFICIENCY AT FULL LOAD (100%) IN CONDENSING MODE	%	102,7	101,7
EFFICIENCY AT min LOAD IN CONDENSING MODE	%	106,1	107,2
EFFICIENCY AT NOMINAL LOAD (100%)	%	97,3	96,5
EFFICIENCY AT min. LOAD	%	94	96,8
Combustion			
CO ₂ (min/max output)	%	9,2-9,2	9,3-9,2
NO _x (value according to EN 297/A3 and EN 483)	mg/kWh	46,13	38,2
MAX CONDENSATE PRODUCTION	kg/h	3,05	5,9
NO _x Class		5	5
Central Heating			
MIN/MAX OPERATING TEMP. IN CH MODE	°C	30 / 80	30 / 80
DHW ADJUSTABLE TEMPERATURE RANGE	°C	-	-
DHW production with Δt 25 K	l/min	-	-
CH EXPANSION VESSEL CAPACITY	l	6	8
Electrical supply			
ELECTRICAL SUPPLY - VOLTAGE / FREQUENCY	V/Hz	230/50	230/50
MAXIMUM ABSORBED POWER	W	130	130
Weight And Technical Data			
NET WEIGHT	kg	32,5	39
ELECTRICAL PROTECTION	IP	X4D	X4D
APPLIANCE GAS CATEGORY		II 2H3P	II 2H3P

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 (for the tank). 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



5 year
guarantee

Thanks to its particular technical configuration, synonymous of quality and safety, the ALKON R 18 and R 35 boiler body is supplied with a 5 year guarantee.

ALKON 24 - 28 - 35 C



A pondered investment

The ALKON 24C, 28C and 35C 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			24 C	28 C	35 C	
Nominal min-max output	Condensing	kW	4,6÷24,1	6,1÷28,7	5,9÷35,1	
	Conventional	kW	4,1÷23	5,4÷27,3	5,2÷33,3	
Nominal input			kW	23,8	28	34,5
η in Condensation at min load			107,8	108,6	107,2	
Efficiency class (CEE directive 92/42)			★★★★	★★★★	★★★★	



ALKON 24 C



ALKON 24-28-35 C

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 CO₂ 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 24 C 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
- No-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		24 C	28 C	35 C
Output				
OUTPUT RANGE IN CONDENSING MODE	kW	4,6+24,1	6,1+28,7	5,9+35,1
OUTPUT RANGE IN CONVENTIONAL MODE	kW	4,1+23	5,4+27,3	5,2+33,3
NOMINAL INPUT	kW	23,8	28	34,5
Efficiency				
EFFICIENCY CATEGORY (Directive CEE 92/42)		★★★★	★★★★	★★★★
EFFICIENCY AT FULL LOAD (100%) IN CONDENSING MODE	%	101,1	102,3	101,7
EFFICIENCY AT MIN. LOAD IN CONDENSING MODE	%	107,8	108,6	107,2
EFFICIENCY AT NOMINAL LOAD (100%)	%	96,6	97,5	96,5
EFFICIENCY AT MIN. LOAD	%	94,7	96,8	96,8
Combustion				
CO ₂ (min/max output)	%	9 - 9	9,3 - 9,2	9 - 9
NO _x (value according to EN 297/A3 and EN 483)	mg/kWh	57,62	49,65	38,2
MAX CONDENSATE PRODUCTION	kg/h	4,0	4,7	5,9
NO _x Class		5	5	5
Central Heating				
MIN/MAX OPERATING TEMP. IN CH MODE	°C	30 / 80	30 / 80	30 / 80
DHW ADJUSTABLE TEMPERATURE RANGE	°C	35-60	35-60	35-60
DHW production with Δt 25 K	l/min	12,9	15,6	19,4
CH EXPANSION VESSEL CAPACITY	l	8	8	8
Electrical supply				
ELECTRICAL SUPPLY - VOLTAGE / FREQUENCY	V/Hz	230/50	230/50	230/50
MAXIMUM ABSORBED POWER	W	150	143	130
Weight And Technical Data				
NET WEIGHT	kg	36	37	39
ELECTRICAL PROTECTION	IP	X4D	X4D	X4D
APPLIANCE GAS CATEGORY		II 2H3P	II 2H3P	II 2H3P

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



5 year guarantee

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