# Gas Condensing Technology





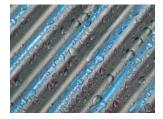




# Gas Condensing Technology

Vitocrossal 300, CU3A 19-199 MBH

The Vitocrossal 300 gas-condensing boiler is the right solution for residential and light commercial applications – including high temperature heating, cast-iron boiler replacements, and multi-zone systems.



Stainless steel Inox-Crossal heat exchanger.





Featuring a folding Vitotronic 200 control with a graphic user interface.

## The right choice for new construction or retrofits.

With its combination of high temperature capability, high mass (water volume), floor standing design, condensing stainless steel construction and modulating gas burner, the Vitocrossal 300, CU3A is the ideal choice for boiler retrofits or new construction. From homes equipped with high mass cast iron radiators, to homes with multi-zone high temperature fin tube radiators, and new installations with high DHW requirements the Vitocrossal 300, CU3A is the best choice on the market today.

### Advanced condensing technology

The vertical stainless steel Inox-Crossal heat exchanger offers ideal conditions for intensive utilization of hot gases, resulting in efficiencies of up to 98%. The smooth stainless steel surfaces allow the condensate created by the condensing process to simply run off downwards. This creates a permanent self-cleaning effect, ensuring high efficiency, long service life and reduced maintenance.

#### Wide water passage ways

Large water content is contained within the pocket design of the heat exchanger. This allows for simplified system piping with full system flow, eliminating the need for a dedicated boiler pump or primary/secondary piping and prevents sediment from collecting around the hot burner surfaces.

# Powerful Vitotronic 200 KW6B and **System Controller**

The intuitive Viessmann-made Vitotronic 200, KW6B control manages the entire heating system and ensures economical performance and maximum comfort at all times. Features such as control of up to 3 heating circuits, intelligent DHW control, a variable speed pump output (0-10V), and multiple setback timers all give the user complete control of their system. Plus, with system control for multiple zone space and DHW heating, the Vitotronic 200, HO1B can control 3 zone circuits, 2 mixed heating circuits and 1 unmixed heating circuit.

The outdoor reset function automatically adjusts the boiler operating temperature to the changing outdoor temperature. This reduces fuel consumption up to 15%, giving you excellent returns year after year. Plus, with integrated system control for multiple zone space and DHW heating, the Vitotronic 200, KW6B offers even greater heating flexibility without the need for additional external controls.

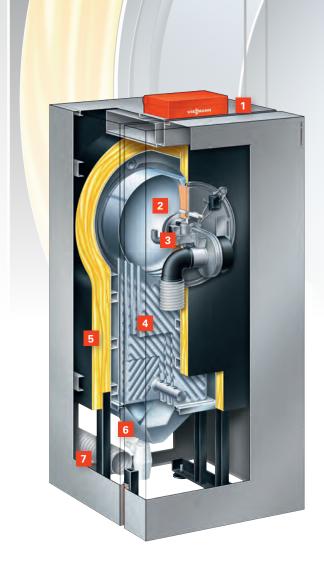
#### Intelligent combustion control

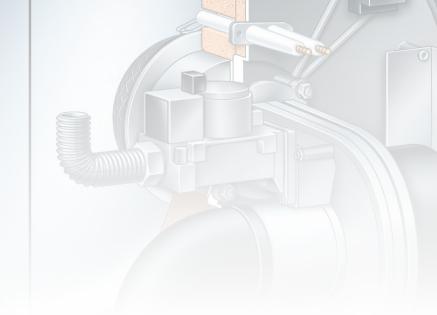
The proven MatriX dome gas burner with Lambda Pro combustion control automatically adjusts to fluctuating gas qualities and ensures a constantly high combustion efficiency for both natural gas and propane gas.

## Connectivity

You're always in control with the Vitotrol App. It allows you to remotely operate your Viessmann heating system anytime, anywhere from your smartphone or tablet.







## Vitocrossal 300, CU3A

- 1 Vitotronic 200 control KW6B with graphic user interface
- 2 Water-cooled stainless steel combustion chamber
- 3 Modulating MatriX dome gas burner
- 4 Stainless steel Inox-Crossal heat exchanger
- 5 Highly effective thermal insulation
- 6 Flue gas collector with condensate drain pipe
- 7 Combustion air inlet connection



The MatriX dome gas burner for exceptionally low-emission combustion, making it a milestone in heating technology.

## Take advantage of these benefits

- Compact, floor-standing gas condensing boiler from 19-199 MBH.
- High efficiency of 95% AFUE on all models.
- High temperature operation of up to 90°C (194°F).
- Inox-Crossal heat transfer surface stainless steel heat exchanger for efficient utilization of condensing technology – self-cleaning effect via smooth stainless steel surfaces.
- Vitocrossal Pocket Design with wide water passage ways allow for system/ full flow applications. No dedicated boiler pump required and eliminates primary/secondary piping.
- High water volume extends burner run time and reduces short cycling.
- MatriX dome gas burner with 5:1 turndown ratio to ensure high efficiency and extremely clean combustion.
- A self-calibrating Lambda Pro combustion management system ensures optimum combustion efficiency at all times regardless of gas/air quality.
   Simple commissioning with no field adjustments and adjusts to all fuel types (natural gas and propane gas).
- Durable, reliable, and long service life with Inox-Crossal stainless steel heat exchanger and high mass design.
- Multi-venting options and configurations with vent lengths up to 198'.
- Multi-boiler installation with 8 boilers up to 1592 MBH.



# **Technical Data**



## Vitocrossal 300, CU3A gas-fired condensing boiler

Model		26,94	35,125	45,160	57,199
AFUE	%	95	95	95	95
Minimum Input (NG)	MBH	19	25	43	43
Maximum Input (NG)	MBH	94	125	160	199
Net AHRI Rating	MBH	76	101	129	161
Overall Dimension <sup>†</sup>					
Width	Inches	26	26	26	26
Height	Inches	67	67	67	67
Depth (Length)	Inches	27	27	31.5	31.5
Weight	lbs	269	275	352	352
Boiler Water Content	USG	13.5	13	18.8	18.8
Heat Exchanger Surface	ft.²	16.7	20.7	34.1	34.1
Maximum Operating Pressure	psig	30	30	30	30
Boiler water temperature - Adjustable high limit (AHL) range space heating (steady state) - DHW production - Fixed high limit (FHL)	°F °C °F(°C) °F(°C)	68 -194 (20 - 90) 194 (90) 210 (99)			
Boiler connections Boiler heating supply and return Pressure relief valve Boiler drain Gas valve connection	NPTM NPTF NPTM NPTF	1 <sup>1/4"</sup> 34" 1" 3/4"	1 <sup>1/4</sup> " 34" 1" 3/4"	1 <sup>1/4"</sup> 3/4" 1"	1 <sup>1/4</sup> " 3/4" 1"

<sup>\*</sup>Technical information subject to change without notice.













