



VIESSMANN

GAS CONDENSING BOILER

A practical approach to innovation

VITOCROSSAL 300, CA3B



Gas condensing boiler
with fully-modulating
pre-mix cylinder burner
for commercial, multi-
family, and light industrial
applications.

2500 to 6000 MBH

▲ The Vitocrossal 300, CA3B takes a bold step forward while retaining the superior Viessmann quality you know and trust. ▲



The Vitocrossal 300, CA3B offers gas-fired condensing technology with fully-modulating pre-mix cylinder burner.

A versatile solution

The Vitocrossal 300, CA3B offers a solution for almost every application, such as multiple venting options and seamless integration into building management systems (BMS). The CA3B comes fully assembled, making it easy to install, even in older buildings with narrow entrances or small mechanical rooms. Suitable for high altitude operation of up to 10,000 feet, the sky's the limit for the Vitocrossal 300, CA3B.

Viessmann technology from top to bottom

Our fully-modulating pre-mix cylinder burners feature a wide modulation and combined burner turndown ratio of up to 16:1. This matches the load to provide clean, quiet and environmentally friendly operation. The burners come fully assembled and installed for ease of commissioning.

The SA240 stainless steel surface of the nox-Lamellar heat exchanger provides maximum heat extraction while maintaining a compact size. Its smooth, corrosion resistant surfaces allow condensate to simply run off, creating a "self-cleaning" process that ensures continuous condensing efficiency, reduced maintenance costs, and longevity. The 160 psi pressure rating allows for this unit to be installed in almost any building.

With the Vitocrossal 300, CA3B, Viessmann offers outstanding thermal efficiencies over 96% and delivers exceptional performance and reliability at an attractive price.

Progressive design features

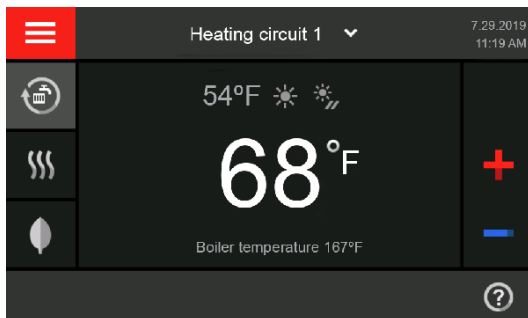
The Vitocrossal 300, CA3B can operate with a low inlet gas pressure of only 4 inches of water column (NG), eliminating the need for gas boosters. With low water pressure drop, the heat exchangers are ideal for variable primary systems and eliminate the need for a dedicated boiler pump. The boiler's large water content reduces wasteful burner cycling, thereby increasing system efficiency and overall durability.

Multiple-boiler systems

The built-in Vitotronic 300, GW6C cascade control system is simple to use, as it automatically stages burners and rotates boilers to match heating loads up to 16,000 MBH. For larger systems, Viessmann also offers custom boiler controls with virtually unlimited capacities and additional options such as real time system loading, VFD pump outputs, BTU metering, and efficiency trending.

User-friendly control system

The Vitotronic 300, GW6C control system is an advanced digital boiler and system control with outdoor reset function that ensures reliable, efficient performance of the entire heating system. The Vitotronic 300, GW6C will modulate input and rotate burners to meet the heating system's load. The standard control package will regulate supply water temperature for one high temperature circuit, two mixing valve circuits, and one DHW circuit.

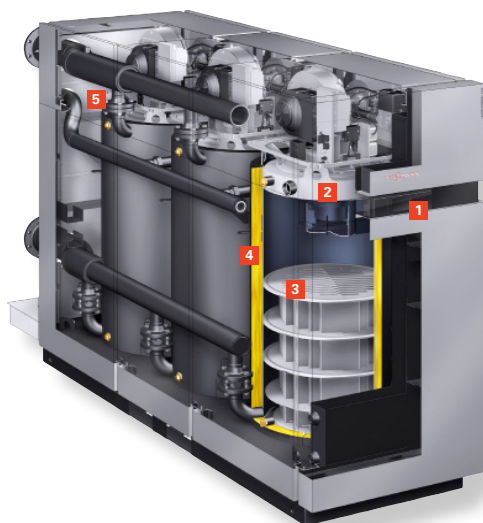


Vitotronic 300, GW6C control system

SPECIFICATIONS

- + Certified thermal efficiency >96%*
- + Single inputs from 250 up to 6,000 MBH
- + Cascade system inputs of >90,000 MBH with external Vitocontrol-S
- + ASME CSD-1 compliant

VITOCROSSAL 300



- 1 Vitotronic 300, GW6C control system
- 2 Fully-modulating pre-mix cylinder burner
- 3 Inox-Lamellar heat exchanger surfaces
- 4 Highly effective thermal insulation
- 5 Wide water passageways with low pressure drop

Dual fuel: Switch from Natural Gas (NG) to Liquid Propane (LP)

Dual fuel is a feature that maintains normal operation in critical care applications, such as nursing homes, hospitals, educational institutions, industrial operations, and more. The Vitocrossal 300, CA3B provides the ability to easily switch from natural gas (NG) to Liquid Propane (LP) at the simple turn of a key (must be pre-ordered) allowing operation to continue without interruption.



Low-emission fully-modulating pre-mix cylinder burner

BENEFITS AT A GLANCE

- + Low emissions and quiet operation from fully-modulating Viessmann pre-mix cylinder burners (up to 3)
- + Total burner modulation turndown ratio of up to 16:1 precisely matches load per boiler
- + The fully assembled boiler simplifies installation and commissioning
- + Flexibility for venting through the sidewall or chimney applications up to 198 ft. (equivalent length) and combustion air options of sealed combustion or room dependent
- + Common venting up to four boilers
- + Easy changeover from NP to LP with simple turn of a key (Dual Fuel models)
- + Low inlet gas pressure capability as low as 4" W.C. (NG) for compatibility with a range of supply pressures
- + Large water content extends burner run time and reduces cycling
- + No dedicated boiler pump required due to low water pressure drop through heat exchanger
- + Vitotronic 300 GW6C can be used as a single boiler control or as a cascade primary/secondary control system
- + Seamless integration with building management systems
- + 0-10 VDC temperature setpoint input

Technical Information

VITOCROSSAL 300, CA3B

Viessmann Manufacturing
Company Inc.
Waterloo, ON Canada
(800) 387-7373
viessmann.ca

Viessmann Sales Office
Langley, BC Canada
(877) 853-3288

Model		2.5	3.0	3.5	4.0	5.0	6.0
Maximum Input	MBH	2,500	3,000	3,500	4,000	5,000	6,000
Output (thermal efficiency)	MBH	2402	2883	3363	3844	4805	5766
Combustion Efficiency *	%	94.1	94.1	94.1	94.1	94.1	94.1
Thermal Efficiency *	%	96.1	96.1	96.1	96.1	96.1	96.1
Maximum Operating Pressure	psig	160	160	160	160	160	160
Power Requirements	Voltage	120	120	120	120	208†	208†
	Phase	1	1	1	1	3	3
	Hz	60	60	60	60	60	60
CA3B Single Fuel (SF)							
Minimum Input (NG)	MBH	250	300	300	400	300	400
Minimum Input (LPG)	MBH	495	495	495	660	495	660
Overall Dimensions Assembled							
Width	in.	34	34	39 ½	39 ½	39 ½	39 ½
Height	in.	78 ¾	78 ¾	84	84	84	84
Length	in.	88 ¾	88 ¾	99 ½	99 ½	136	136
Dry Weight (burner, control, insulation, and jacketing)	lbs	4233	4233	4696	4806	6261	6894
Boiler Water Content	USG	108	108	151	143	227	218
Heat Exchanger Surface ft. ²	ft. ²	142.7	142.7	170.2	192.5	244.1	288.8
Flue Outlet Size	dia	10	10	12	12	16	16
CA3B Dual Fuel (DF)							
Minimum Input (NG/LPG)	MBH	495	495	495	660	495	660
Overall Dimensions Assembled							
Width	in.	39 ¾	39 ¾	39 ¾	39 ¾	39 ¾	39 ¾
Height	in.	84	84	84	84	84	84
Length	in.	99 ½	99 ½	99 ½	99 ½	136	136
Dry Weight (burner, control, insulation, and jacketing)	lbs	4641	4641	4751	4861	6325	6958
Boiler Water Content	USG	158	158	151	143	227	218
Heat Exchanger Surface ft. ²	ft. ²	147.9	147.9	170.2	192.5	244.1	288.8
Flue Outlet Size	dia	12	12	12	12	16	16

* Tested to ANSI/AHRI standard 1500 Performance Rating of Commercial Space Heating Boilers / DOE Test Procedure 81 FR 89276 / U.S. Standards ANSI Z21.13/CSA 4.9

† Requires 208Y/120VAC- 3 phase- 60 Hz- 4 wire (L1, L2, L3, N, G) power supply.

