

Bosch Singular 4000/5200 Combi Boilers

Engineering
Submittal
Sheet



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Overview



Bosch Singular 4000 Combi Boiler
Bosch Singular 5200 Combi Boiler



Engineering specification

Gas-fired, combination, condensing, wall-mounted boiler(s) shall be direct vent Singular Series models as certified by CSA Group to the latest edition of ANSI standard Z21.13/CSA 4.9. Combination boilers(s) shall have a 10-year heat exchanger warranty and 5-year limited parts warranty*. Unit(s) shall be designed to burn natural gas and can be used with propane when a field conversion kit is installed. Combination boilers(s) shall have a nominal flow rate capacity of _____ GPM/GPH at _____ °F rise with rated input of _____ BTU/hr. Combination boilers(s) shall be vented with 2" PP/PVC/CPVC vent pipe or 3" PP/PVC/CPVC vent pipe. Combination boiler(s) is rated for 150 PSI working water pressure for DHW (30 PSI Heating). Gas supply pressure shall be 3.5" to 10.5" WC for natural gas and 8.0" to 13.0" WC for propane. Unit(s) shall have a steel case, dual stainless-steel heat exchangers, stainless-steel flat plate heat exchanger, eco premixed burner, negative pressure gas valve, TDR damper, 3/4" inlet gas

connection, 3/4" DHW brass inlet/outlet water connection, and 1" brass inlet/outlet heating connections. The Singular Series models weigh 80 lbs. Unit(s) shall include features to allow adjustment for different vent lengths, & temperature lockout. All Singular Series models shall include an internal heating circulation pump and flat plate heat exchanger. The combination boilers(s) shall be controlled by an internal circuit board that monitors the Heating/DHW inlet and outlet temperatures with installed thermistors. Unit(s) shall include safety features compatible to flame sensor system, high limit sensors, overheat prevention device, freeze protection mode, and fan motor rotation detector. The Combination boilers(s) exceeds the energy efficiency requirements of ASHRAE 90.1.2019.

*For full warranty details: www.bosch-thermotechnology.us/us/en/residential/service/product-warranty-library/residential-boiler-warranty-documents/

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Product Details

- ▶ Certified design according to latest or current edition of ANSI Z21.13 - CSA 4.9 standards for indoor residential applications
 - ▶ Dual primary and secondary stainless steel heat exchangers for optimum efficiency and durability
 - ▶ Stainless steel flat plate heat exchanger for DHW
 - ▶ Domestic hot water priority
 - ▶ Compatible with 2" vent up to 60ft** and 3" vent up to 150 ft**
 - ▶ Built-in control panel allows adjustment of temperature and boiler functions
 - ▶ Grundfos model 15-78 internal primary circulation pump and air vent for added value and convenience.
 - ▶ Temperature options - hydronic heating temperature setting range from 82°F up to 180°F and DHW heating temperature setting range from 86°F to 140°F.
 - ▶ Outdoor reset sensor - when installed with a Singular model, the unit controls will sense outdoor ambient temperatures and adjust the boiler operation for maximum comfort and efficiency
 - ▶ Compatible with Natural Gas(NG) and Propane (LPG)***
 - ▶ Certified by CSA, ASME, NSF/ANSI 372 for Low Lead (DHW only)
 - ▶ 10-year heat exchanger & 5-year parts warranty(residential)*
- * For full warranty details:
www.bosch-thermotechnology.us/us/en/residential/service/product-warranty-library/residential-boiler-warranty-documents/
- ** With no elbows
- *** Requires installation of included LPG conversion kit by a qualified service agency

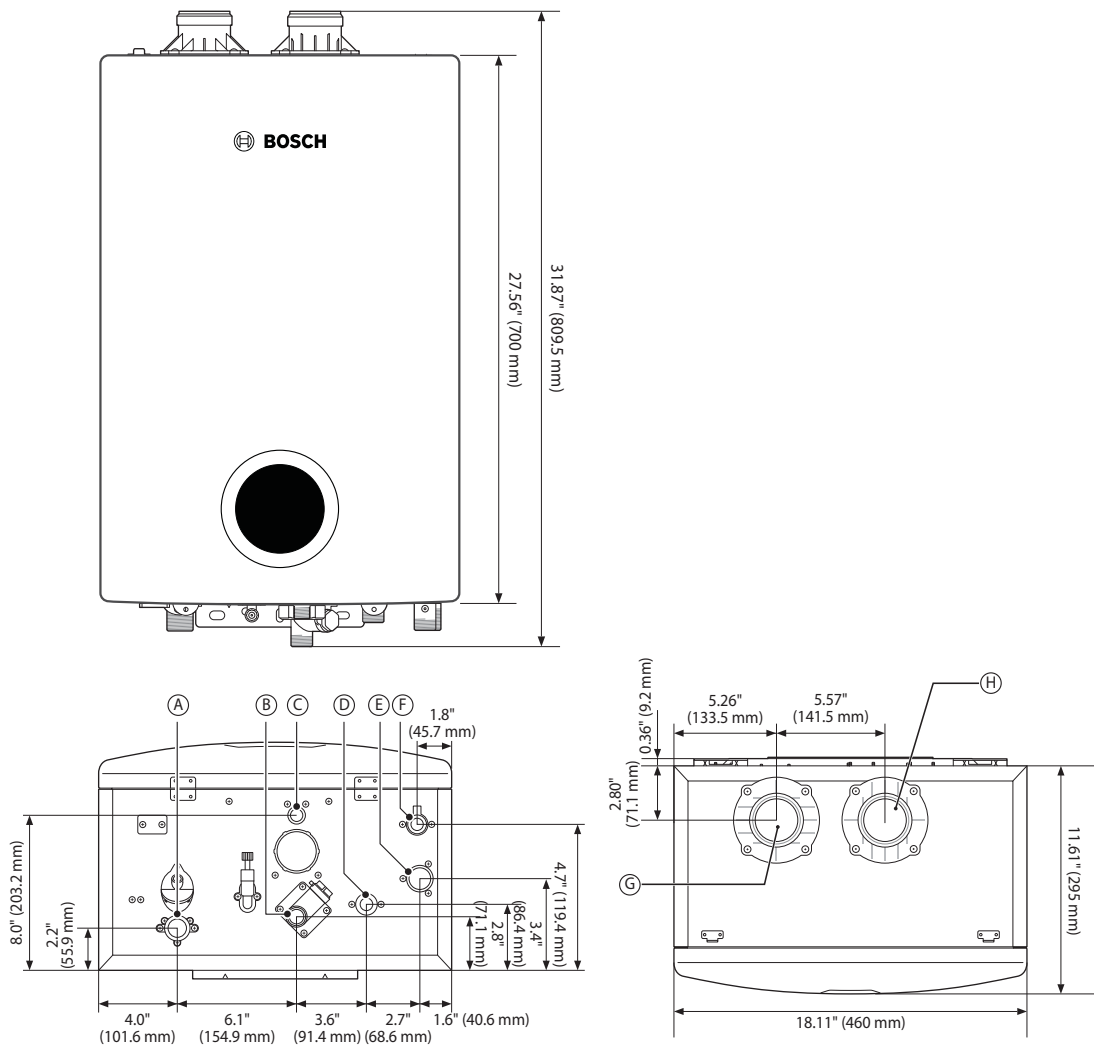
Technical Data

		Singular 4000	Singular 5200
Installation Type		Indoor wall-hung	
Dimensions (W x D x H)		18.1" x 27.6" x 11.6" (460 mm x 700 mm x 295 mm)	
Ignition		Electronic ignition	
Heat Capacity (Input)	Space Heating	19,900–80,000 BTU/H	19,900–140,000 BTU/H
	Domestic Hot Water	19,900–155,000 BTU/H	19,900–199,000 BTU/H
Flow Rate (DHW)	45°F (25°C) Temp Rise	6.0GPM (23LPM)	7.7GPM (29LPM)
	67°F (37°C) Temp Rise	4.0GPM (15LPM)	5.2GPM (20LPM)
	Minimum Flow Rate	0.5GPM(2.0LPM)	
Supply Pressure	Natural Gas	3.5" – 10.5" WC	
	Propane	8" – 13" WC	
Water Pressure(Hydronic/DHW)		12–30psi / 15–150 psi	
AFUE	Natural Gas (propane)	95.0% (95.0%)	95.0% (95.0%)
Temperature Range	Space Heating	82°F – 180°F(27°C – 82°C)	
	DHW	86 °F – 140°F(31°C – 60°C)	
Power Supply	Main Supply	120V AC, 60 Hz / use less than 5 AMP	
Connection Sizes	Space heating Supply/Return	1" NPT	
	Cold water Inlet	3/4" NPT	
	Hot Water Outlet	3/4" NPT	
	Gas Inlet	3/4" NPT	
Materials	Primary Heat Exchanger	Stainless steel	
	Secondary Heat Exchanger	Stainless steel	
Venting	Venting Type	Forced draft direct vent	
	Exhaust/Intake	2" or 3" PVC, CPVC, Polypropylene 2" or 3" Special gas vent type BH (Class II, A/B/C)	
	Length 2"	60ft(18.3m)	
	Length 3"	150ft(45.7m)	
	Vent Clearances	0" to combustibles	

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Singular 4000/5200 Combi Boiler Dimensions



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Position	Description	Diameter
A	Space Heating Return	1" NPT
B	Cold Water Inlet	3/4" NPT
C	Condensate Outlet	1/2" NPT
D	Hot Water Outlet	3/4" NPT
E	Space Heating Supply	1" NPT
F	Gas Inlet	3/4" NPT
G	Exhaust Vent	2"
H	Air Inlet	2"