

## Technical Data Sheet

# Innovation 600-1400 Water Heaters

The AERCO Innovation Water Heater utilizes state-of-the-art technology to easily meet highly diverse, demanding commercial and industrial hot water requirements in a compact and reliable condensing design. The durable high efficiency helical firetube heat exchanger is time tested to be impervious to thermal stress for an extended life. The all stainless steel construction maximizes longevity in the condensing application and the corrugated tubes increase effective heat transfer surface area for optimal thermal efficiencies up to 99%. Enhanced waterside flow distribution maintains constant minimum velocities across the heat exchanger; this keeps solids in suspension and greatly reduces scale dropout to maintain high efficiency performance and long life.

The advanced C-More control system of the Innovation incorporates dynamic feed-forward sensing for precise modulation of its turndown air/fuel delivery system. These controls fire the unit to accurately match load requirements and produce tight hot water outlet temperature control. C-More includes onboard multi-unit sequencing logic, eliminating a need for separate sequencing panel. Wasteful overshooting and cycling are virtually eliminated as is the need for storage tanks, mixing valves and other temperature averaging components in most applications. The set point is adjustable from 10°C to 88°C and control to +/- 2.2°C is easily achieved. Sidewall, through-the-roof, and sealed combustion capabilities provide broad installation flexibility. The small foot print, doorway size, and quiet operation make it ideal for retrofit. With its tight temperature control, high efficiency, reliability and longevity the AERCO Innovation is truly a unique and advanced design.



U.S. Patent No.: 9,243,848

## Features

- Precise Temperature Control +/- 2.2°C
- Fully Modulating
- Condensing Design
- Stainless Steel Heat Exchanger
- Compact, Space Efficient Design
- Natural Gas, Propane
- Outlet Water Temperature of 10° to 88°C
- UL, CUL Listed for Closet Installation on Combustible Flooring
- NG NOx Emissions: less than 10.4 ng/J (19.9 ppm @ 3% O<sub>2</sub> corrected) at all firing rates
- 11 bar (1100 kPa) ASME Working Pressure Certified
- Direct or Conventional Vent with PVC, CPVC, PP, or AL29-4C Materials
- Whisper quiet operation
- Remote Alarm Contacts
- Sealed Combustion
- FM Compliant, ASME Section IV (HLW) Stamped

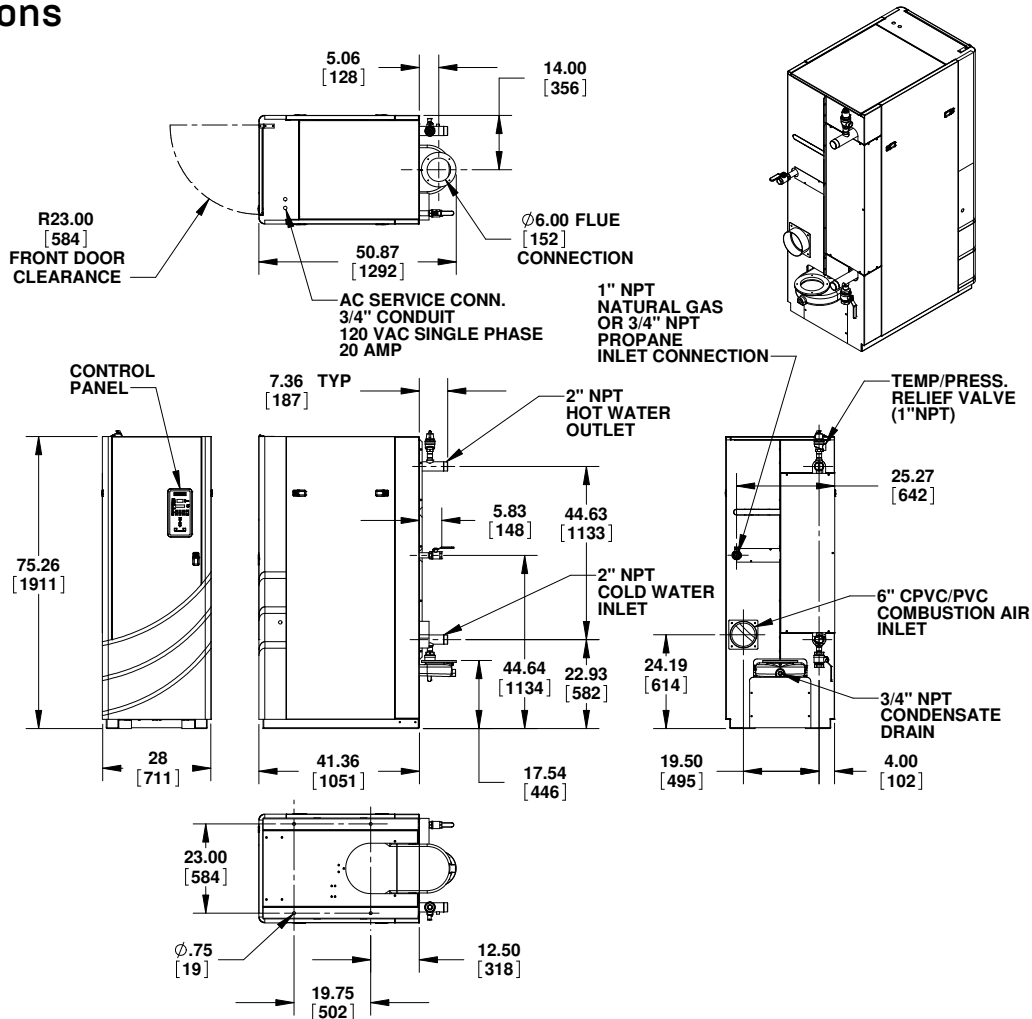
# Recovery Capacity\*

Innovation 600 (INN 600)									
Temperature Rise (°C)	33.3	38.9	44.4	50.0	55.6	61.1	66.7	72.2	77.8
Flow (LPS)	1.2	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.5
Flow (LPH)	4272.9	3662.5	3204.7	2848.6	2563.7	2330.7	2136.5	1972.1	1831.2
Innovation 800 (INN 800)									
Temperature Rise (°C)	33.3	38.9	44.4	50.0	55.6	61.1	66.7	72.2	77.8
Flow (LPS)	1.6	1.4	1.2	1.1	1.0	0.9	0.8	0.7	0.7
Flow (LPH)	5733.5	4914.4	4300.1	3822.3	3440.1	3127.4	2866.8	2646.2	2457.2
Innovation 1060 (INN 1060)									
Temperature Rise (°C)	33.3	38.9	44.4	50.0	55.6	61.1	66.7	72.2	77.8
Flow (LPS)	2.1	1.8	1.6	1.4	1.3	1.2	1.1	1.0	0.9
Flow (LPH)	7661.0	6566.6	5745.8	5107.3	4596.6	4178.7	3830.5	3535.8	3283.3
Innovation 1400 (INN 1400)									
Temperature Rise (°C)	33.3	38.9	44.4	50.0	55.6	61.1	66.7	72.2	77.8
Flow (LPS)	2.7	2.3	2.1	1.8	1.6	1.5	1.4	1.3	1.2
Flow (LPH)	9843.1	8437.0	7382.3	6562.1	5905.9	5369.0	4921.6	4543.0	4218.5

\*In condensing mode <610m above sea level

# Dimensions

(mm)



## Specifications\*

	INN 600	INN 800	INN 1060	INN 1400
Adjustable Temperature Control	10°C to 88°C			
Ambient Temperature	-18°C to 54°C			
Accuracy	+/-2.2°C			
Input [kW]	176	234	311	410
Net Output [kW]	166	222	297	382
Turndown Ratio (up to)	14:1	18:1	24:1	30:1
Flue and Air Intake Diameter	101.6 mm	152.4 mm		
Flue Material (per local code)	PVC, CPVC, PP or AL29-4C			
Water Inlet & Outlet	2" MNPT (50.8 mm NPT Male)			
Gas Connection- Natural Gas	1" MNPT (25.4 mm NPT Male)			
Gas Connection- Propane	1/2" NPT Male (12.7 mm NPT Male)		3/4" NPT Male (19.05 mm NPT Male)	
Gas Pressure Requirements	Maximum 34.9 mbar (3.5 kPa)			
Gas Pressure Requirements (Nat. Gas)	Minimum 10.0 mbar (1.0 kPa) @ Full Load			
Gas Pressure Requirements (Propane)	Minimum 14.9 mbar (1.5 kPa) @ Full Load			
Maximum Continuous Water Flow	3.15 LPS			
Condensate Connection	3/4" FNPT (19.05 mm NPT Female)			
Maximum Condensate Flow (LPH)	17	23	30	42
Pressure Rating	11 bar (1100 kPa) @ 99°C			
Standard Listing & Approvals	ASME (HLW)			
Gas Train Options	FM Compliant or Factory Installed			
Electrical Requirements	220 VAC, Single Phase, 50/60 Hz - 15A Breaker (8 FLA)			
Water Pressure Drop @ 0.95 LPS	86.2 mbar (8.6 kPa)			
Water Pressure Drop @ 1.89 LPS	137.9 mbar (13.8 kPa)			
Water Volume (Liters)	95.8	95.8	83.3	75.3
Weight, Installed [kg]	445 (dry), 545 (wet)	445 (dry), 545 (wet)	454 (dry), 540 (wet)	476 (dry), 554 (wet)
Weight Shipping [kg]	490	490	483	506

\*For all water heater connections (water, gas, vent) a metric adapter kit must be sourced locally, as appropriate.



Heat | Hot Water | Energy Recovery Solutions

AERCO International, Inc. • 100 Oritani Drive • Blauvelt, NY 10913  
USA: T: (845) 580-8000 • Toll Free: (800) 526-0288 • AERCO.com