



AERCO ADVANCED MODULAR (AM) BOILERS & WATER HEATERS

Models: AM 399 through AM 1000

The Advanced Modular (AM) Series represents the latest in high efficiency, condensing boiler hydronic technology. The AM series of boilers and water heaters have a unique modular design that provides exceptional reliability, serviceability, and fuel savings from 399 to 1000 MBTU. Each unit is comprised of between two and four independent thermal modules firing up to 250 MBTU each at 5:1 individual turndown. This allows for superior temperature control and low-cycling operation. This unique design provides the multiple boiler redundancy required in a boiler plant, but with a single unit installation including a single set of water and gas connections and a single vent connection. When needed, multiple units are easily co-located and common vented to provide a boiler plant with the highest efficiency, turndown, and redundancy in the smallest footprint. Multiple units are sequenced via modbus through a Boiler Management System. High efficiencies and low vent temperatures mean the unit can be vented in PVC, cPVC, Polypropylene, and AL29-4C vent materials. The simple front-access design also means the unit is very simple to maintain and service.



THERMAL EFFICIENCY:

AERCO is currently undergoing efficiency testing on these models.

FEATURES:

- High Efficiency Condensing Boiler/ Water Heater
- Natural Gas or Propane
- Superior Turndown 8:1 to 20:1 depending on unit
- Low NOx Emission <20ppm
- Direct or Conventional Vent with PVC, cPVC, Polypropylene, or AL29-4C materials
- Concentric Vent Capability
- Common Vent Capability
- Side wall common venting with no additional check valve
- Small, Doorway-Size Footprint
- Superior Reliability
- Minimal Maintenance
- Easy Front Access for Serviceability
- Supports Integration to BAS System
- Modbus Communication Standard

RATINGS:

Model Number	Min Input	Max Input	Max Output*	AHRI Rating
AM 399	50,000	399,000	351,000- 395,000	pending
AM 500	50,000	500,000	440,000- 495,000	pending
AM 750	50,000	750,000	660,000- 742,500	pending
AM 1000	50,000	1,000,000	880,000- 990,000	pending

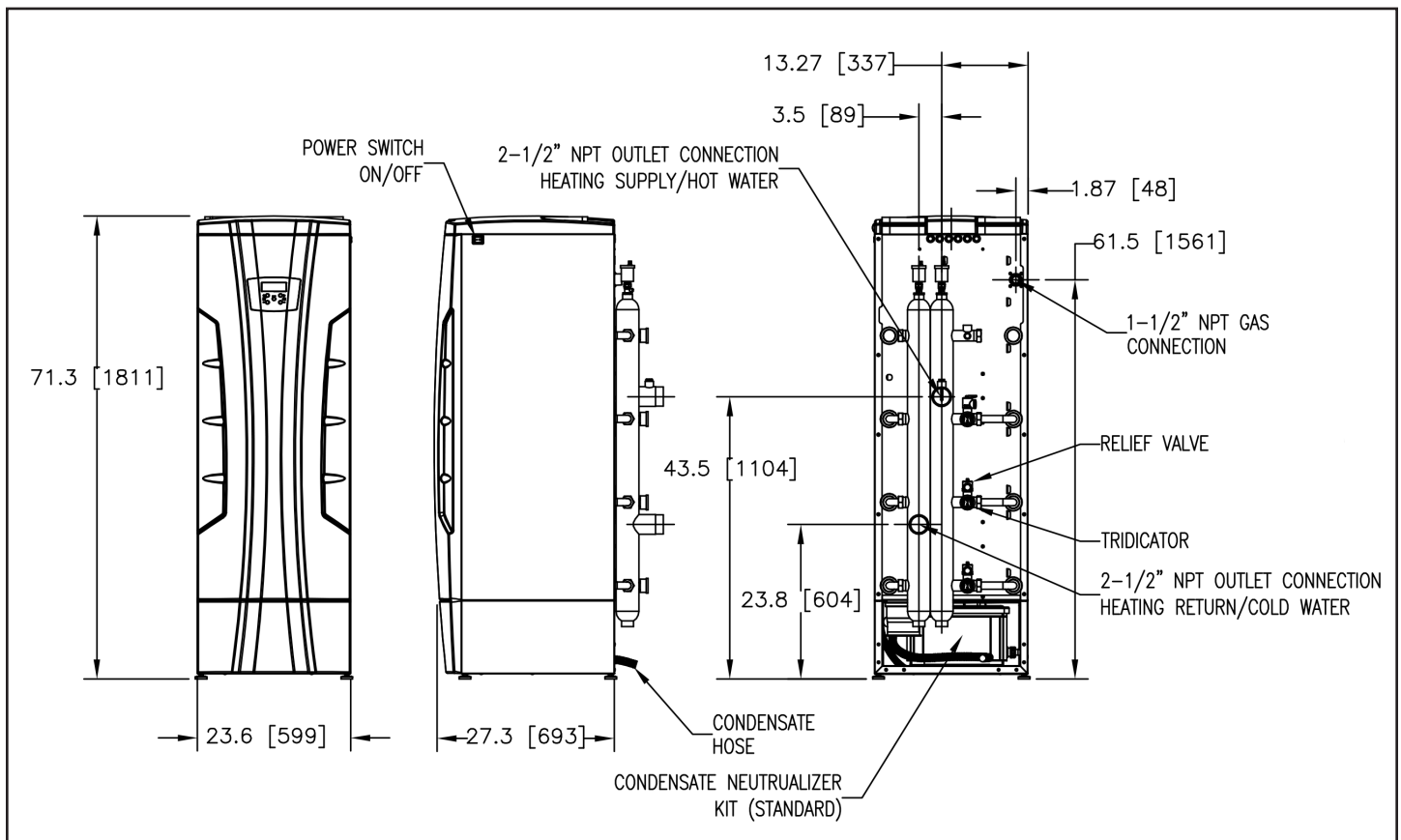
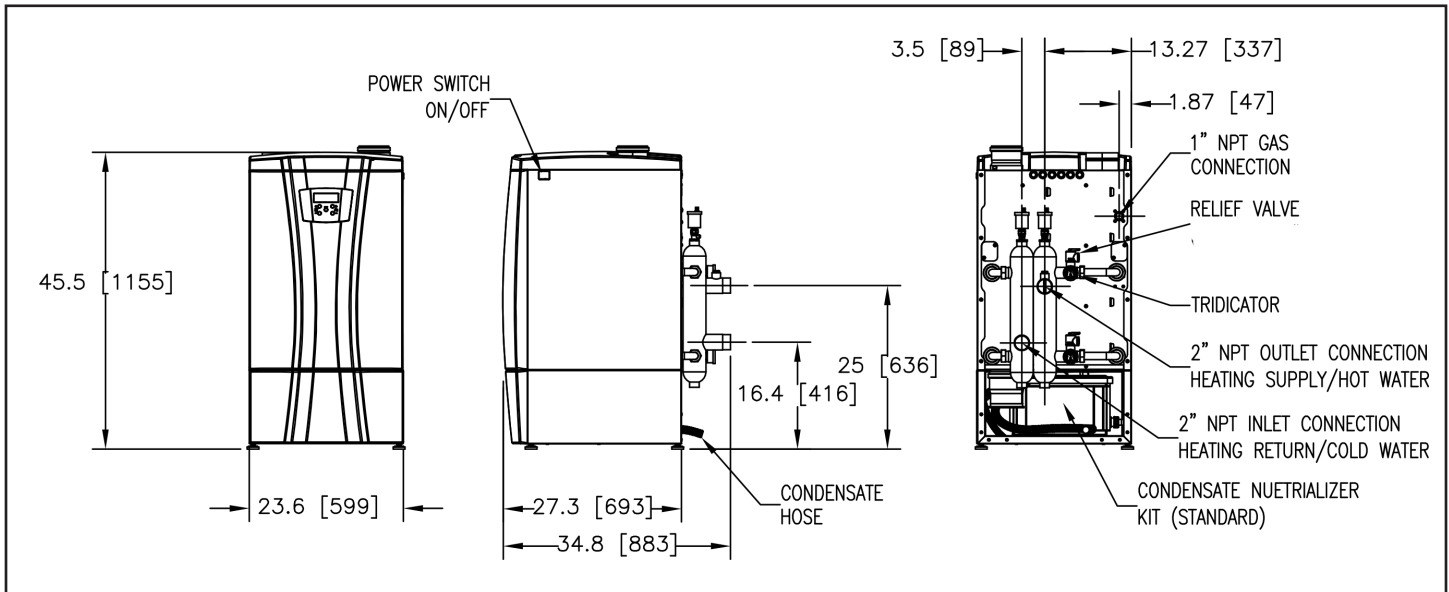
Note: AHRI testing is in process.

SPECIFICATIONS:

	AM 399	AM 500	AM 750	AM 1000
Boiler Category	IV	IV	IV	IV
Gas Connections (NPT)	1"	1"	1 1/2"	1 1/2"
Max. Gas Pressure	13"	13"	13"	13"
Min. Gas Pressure	3"	3"	3"	3"
Max. Allowed Working Pressure	160 psi	160 psi	160 psi	160 psi
Electrical Req: 120V (AMP)	1.8	2.5	3.6	4.9
Water Connections (NPT)	2"	2"	2 1/2"	2 1/2"
Min. Water Flow (GPM) @ Min. Fire	4	4	4	4
Min. Water Flow (GPM) @ Max. Fire	7	9	14	18
Max. Water Flow (GPM)	29	37	55	74
Water Pressure Drop @ Max. Flow (Ft. of Head)	19	55	41.5	38
Water Volume: Gallons	4	4	7	9
Thermal Modules	2	2	3	4
Turndown or Operating Range	8:1	10:1	15:1	20:1
Vent Size (combustion air & vent)	4"	4"	6"	6"
Vent Materials (as per local code)	Can support PVC, CPVC, Polypropylene, or AL29-4C venting materials			
Type of Gas	Natural Gas or Propane			
Temperature Control Range	Boilers deliver 68°-189°F, Water Heaters deliver 104°-140°F			
Maximum Noise Level	<50 dBA			
Condensate Production (gal/hr)	3.84	4.62	9.96	9.24
Standard Listings and Approvals	ASME, CSA, CSD-1, SCAQMD, NSF 372			

DIMENSIONS:

Model Number	Height	Width	Depth	Weight (wet)	Weight (shipping)
AM 399	45.7"	23.6"	34.8"	300 lbs.	324 lbs.
AM 500	45.7"	23.6"	34.8"	310 lbs.	335 lbs.
AM 750	71.3"	23.6"	35.3"	530 lbs.	555 lbs.
AM 1000	71.3"	23.6"	35.3"	615 lbs.	643 lbs.



UNBEATABLE RELIABILITY AND EFFICIENCY

The Advanced Modular design uses multiple independent thermal modules for high reliability, high turndown, low cycling, and high efficiency. The on-board controller will automatically cycle lead-lag burners to balance run hours and cycles, as well as stage burners to provide multiple burners at the lowest fire rate. In a condensing boiler low fire rates mean higher efficiency, thus unit is always running at its most efficient. Integrated check valves and automatic shutoff valves on every module means that if a module is off, no heat is lost through either the flue or water side of that module.

The innovative design features on each module add up to an industry-leading unit. For example, the AM 1000B boiler combines four independent 250 MBTU, 5:1 turndown boilers for a total input of 1000 MBTU, but a low fire input of one module at 50 MBTU. This means the unit as a whole has 20:1 turndown and can maintain incredibly tight temperature control with no temperature overshoot.

Emergency tech service visits are a thing of the past with the AM series boiler. Each module has its own independent burner, gas valve, ignition system, flame safeguard, check valve, and automatic water shut-off valve. If one module were to ever go down, the remaining modules would be available to cover the load until scheduled maintenance can be performed.

The AM series boiler provides all of the advantages of a multiple boiler plant with all of the cost savings and simplicity of a single unit installation.

Represented By:

Specifications subject to change without prior notice.
Consult website or contact AERCO.
AM 3/2014 NY



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