Technical Data Sheet

Benchmark E 216-684 kW with Edge Controller Electric Boilers (Benchmark 750 to 2500 MBH equivalent)

The AERCO Benchmark® E (BMK E) hot water boiler is designed for any closed loop hydronic system. Just like our Benchmark condensing boilers, this unit is packed into a small footprint that fits through a standard door and can be transported in a freight elevator.

Benchmark Exclusive Options:

- Edge® Controller
- Boiler Sequencing Technology* – manage up to 16 BMK Es with the Edge Controller
- Hybrid plant control – sequence Benchmark and Benchmark E together without an external controller
- Peak load management* – manage electricity usage by limiting power output

Energy Efficient

Since the BMK E uses electricity, it produces zero emissions. Peak load management comes standard to lower building peak loads and take advantage of off-peak electricity rates*.The Edge controller can limit power output using a time schedule, analog input, Building Automation System (BAS) point, or outdoor temperature sensor, accommodating for great design flexibility.

Hybrid Boiler Plant Capability*

The BMK E can be sequenced together with Benchmark gas-fired condensing boilers, allowing two highly efficient products to work together. The hybrid boiler plant can prioritize gas or electric to best suit customer needs, helping lower operating costs and building emissions. Boiler status can be directly displayed on the unit in real time or be remotely monitored via BACnet.

Application and Plant Design

Benchmark boilers can be used as individual units or in modular arrangements. In addition to controlling the boiler according to a constant setpoint, outdoor reset schedule, analog input or BAS point, one or more units can be integrated via Modbus communications protocol*. For boiler plants ranging from 2-16 boilers, AERCO'S built-in Boiler Sequencing Technology (BST) can be utilized*. In addition, the Benchmark with Edge control has integrated solutions for multiple BAS protocols.

*See BST System technical data sheet for additional system details and capabilities

Standard Features

- ASME Section IV rated for 150 PSIG at 250°F
- Sequence up to 10 stages with stage sequencer
- 100kA SCCR
- Capable of variable primary flow installations
- Compact footprint, light weight, freight elevator friendly
- Real-time clock
- Full-port drain valve
- Easy open access for service
- Reliable quiet operation
- 2 year Edge controller warranty, 10 year pressure vessel warranty
- Lifting lugs

Edge Controller

- 7" touchscreen
- Precise temperature control
- Setpoint control options:
  - Constant setpoint
  - Outdoor reset
  - Remote BAS setpoint
  - Analog signal
- On-board BST*
- Hybrid boiler plant controls*
- Peak Load Management*
- Integrated BACnet IP and BACnet MSTP[1]

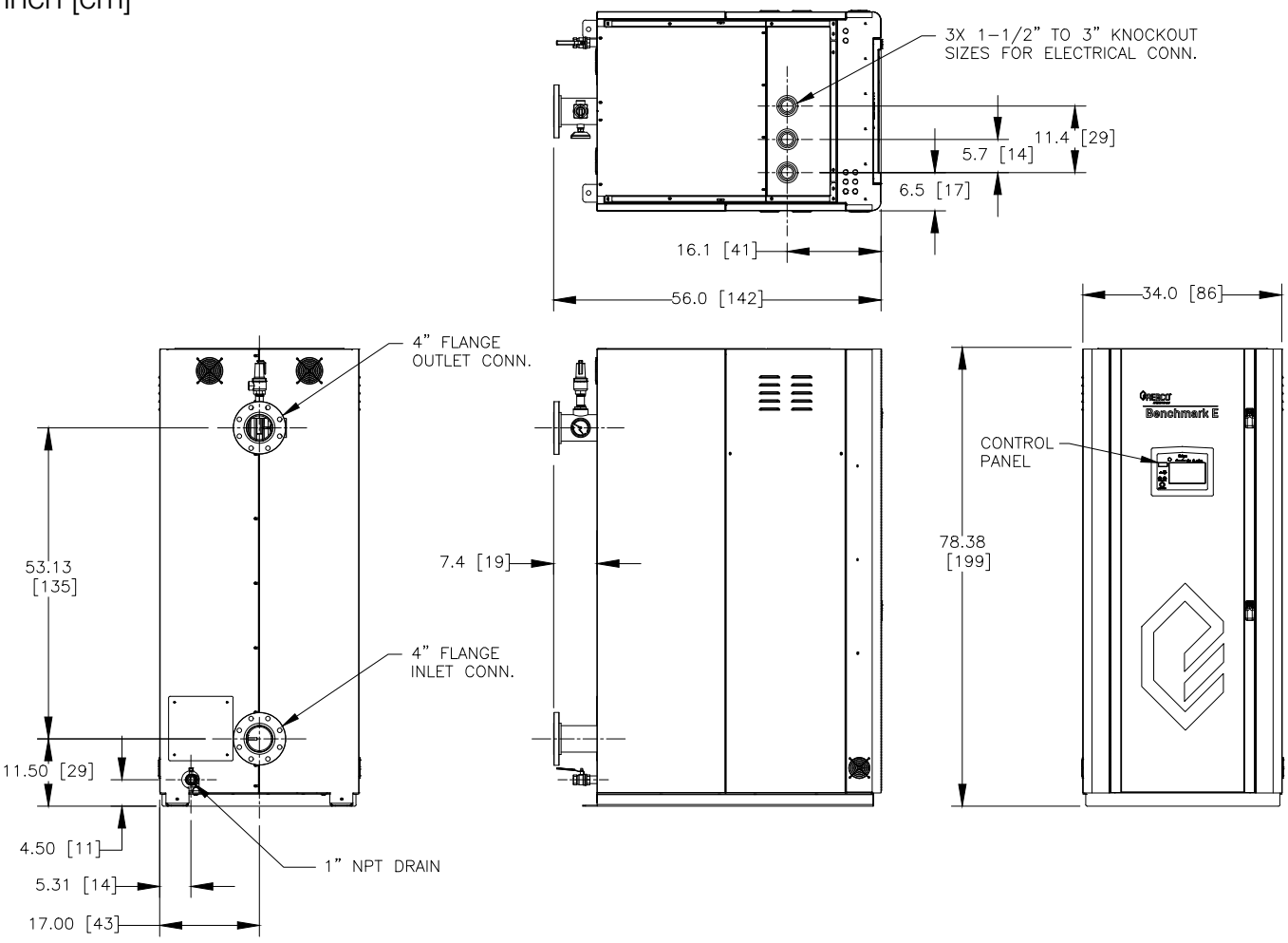
Specifications

	Benchmark E				
	216 kW (737 MBH)	360 kW (1228 MBH)	432 kW (1474 MBH)	576 kW (1965 MBH)	684 kW (2334 MBH)
Boiler Category	ASME Sect.IV				
Max. Allowed Working Pressure	150 PSIG				
Electrical Req. 480V/3PH/60Hz	260 A	433 A	520 A	693 A	823 A
Electrical Req. 600V/3PH/60Hz	208 A	347 A	416 A	555 A	659 A
Number of Elements	12	20	24	32	38
Number of Stages	6	10			
Water Connect. (Flanged)	4"				
Min. Water Flow (GPM)	25				
Max. Water Flow (GPM)	350				
Water Volume Gallons	135				
Water Pressure Drop	1.3 PSIG @ 350 GPM				
Temp. Control Range	50°F to 220°F				
Ambient Temp. Range	0°F to 130°F				
Standard Listings & Approvals	ASME, UL-834, CSA-C22.2 No. 165, CSD-1				
Dry Weight (lbs)	1450				
Shipping Weight (lbs)	1700				
36kW Modulating Element Group (SSR)	Optional				

*Features expected to be released in future firmware updates in 2025

Dimensions

inch [cm]



Benchmark E	Width	Depth	Height
216-684 kW	34"	56"	78.4"

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