



Liberty US300 High Efficiency Gas-Fired Boiler & Water Heater

Submittal Sheet

Section 1 - Specifications
Section 2 - Dimensions
Section 3 - Electrical

Project Name: _____ Date: _____

Location: _____

Engineer: _____

Contractor: _____ Rep: _____

1 SPECIFICATIONS

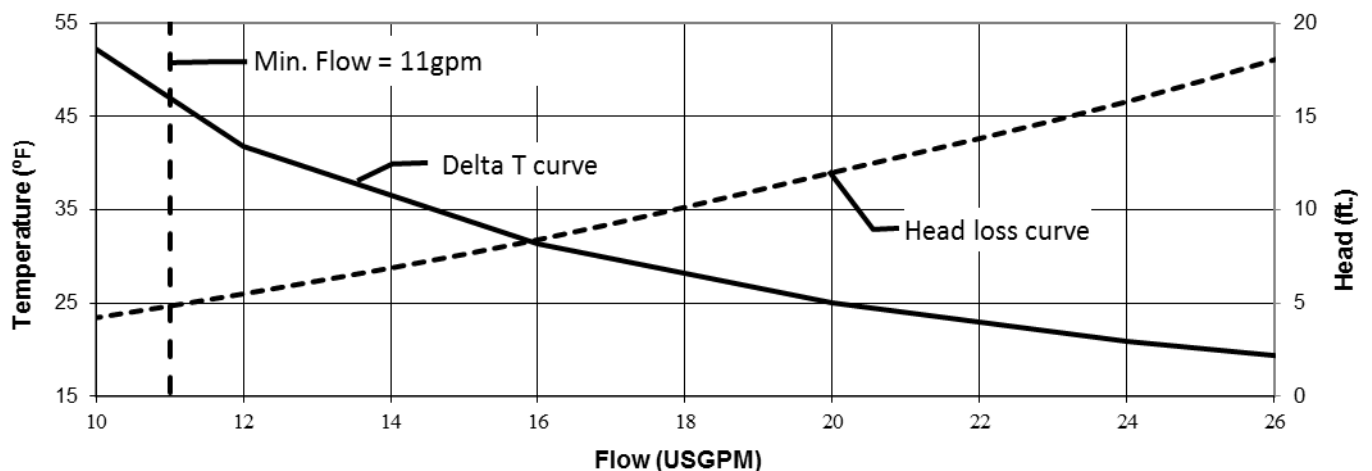
General Specifications

- ▶ Product Features
 - Certified to ANSI Z21.13 / CSA 4.9 Gas-fired Boiler Standard
 - ASME "H" stamped boiler, designed and constructed in compliance with the ASME Boiler and Pressure Vessel Code Section IV
 - SA-249 TP316L Stainless Steel Heat Exchanger
 - Maximum operating pressure 160 psi [1103 kPa]
 - Field conversion from Natural Gas (factory) to Propane
 - Modulating burner, 5:1 turndown
 - Direct Spark Ignition
 - Wall or floor mounting
 - Zero clearance to combustibles (clearances required for service)
- ▶ Optional Side Wall Vent Terminal Kit
- ▶ Factory Supplied Items
 - 10k Outdoor sensor (System sensor optional)
 - 1 – 500ml bottle Fernox F1 Protector
 - 30PSI ASME Relief Valve
 - Pressure/Temperature Gauge
- ▶ Control Features
 - Integral microprocessor safety control
 - 2 central heat inputs (high & low temperature)
 - Domestic Hot Water Priority
 - Outdoor reset
 - Warm weather shutdown
 - Lead-Lag up to 8 Lx series boilers
 - Integrated Modbus RTU for connection to BMS gateways

Water Connections NPT, in.	Gas Connection NPT, in.	Vent/Air-inlet Pipe Diameter, in.	Vent/Air-inlet Max. Length, ft.	Approx. Weight with Water lb.
1-1/4 (Female)	1/2 (Female)	4	100	180

Performance Specifications

Input Modulation, MBH	DOE Heating Capacity, MBH	Net I=B=R Rating, MBH	AFUE, %
55 - 275	251	218	93.7



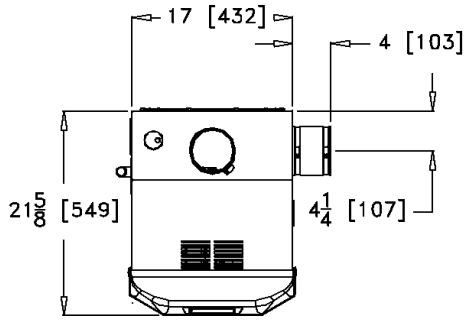


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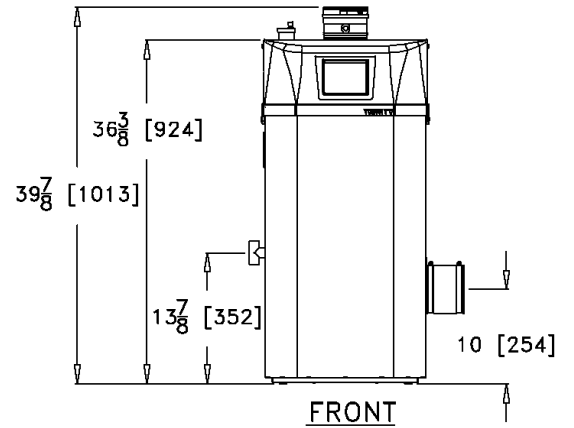
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2 DIMENSIONS

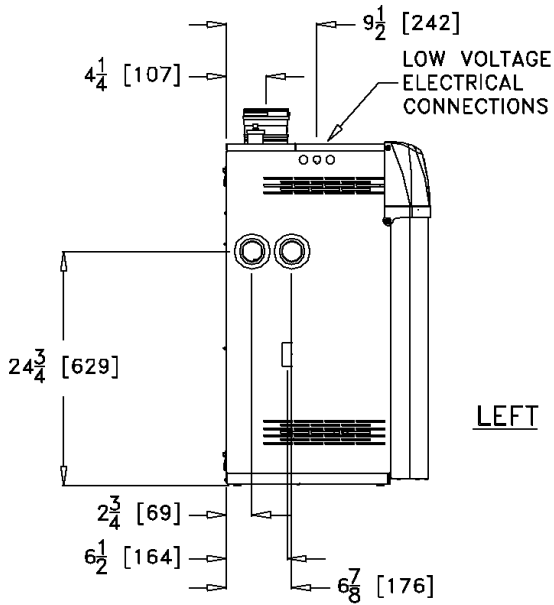
Product Dimensions – in. [mm]



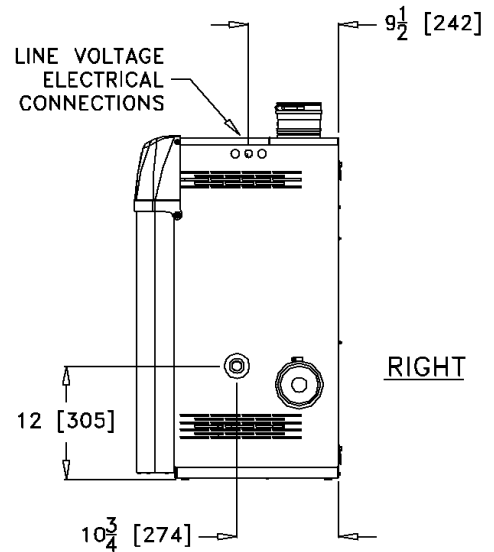
TOP



FRONT



LEFT



RIGHT

Recommended Clearances – in. [mm]

Top	Front	Left	Right	Back	Bottom
24 [610]	24 [610]	24 [610]	12 [305]	0	0



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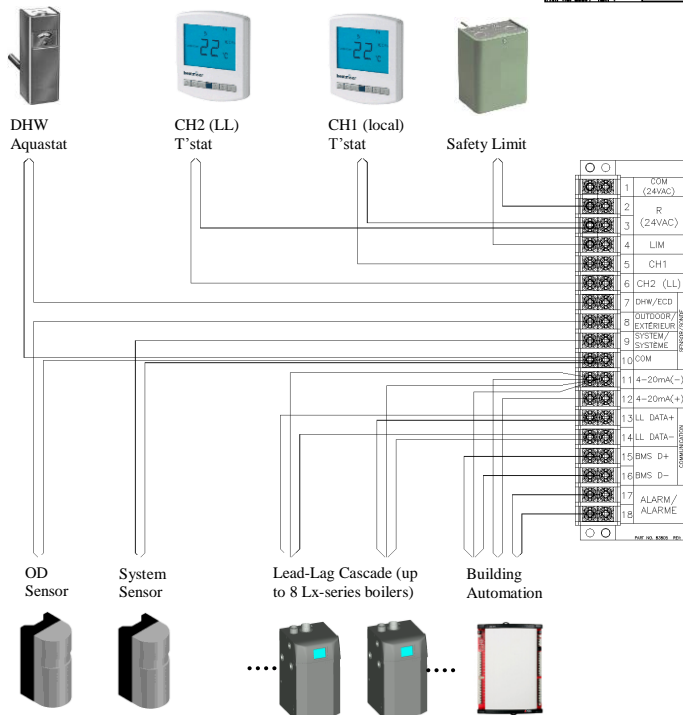
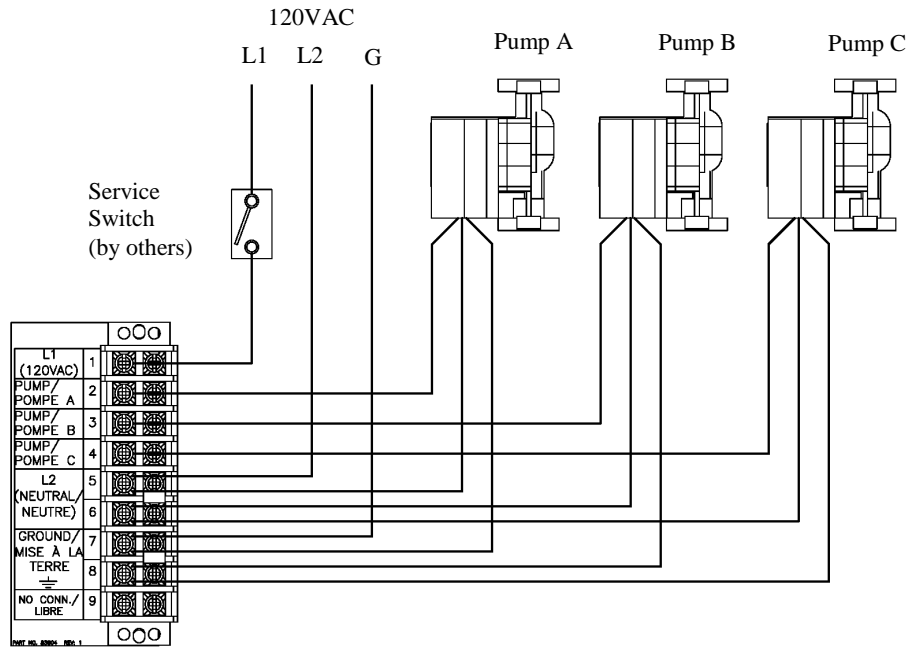
3 ELECTRICAL

Simplified Wiring Diagrams

Line Voltage Electrical:

- ▶ 120VAC / 60 Hz / 1 Phase / 12 Amp
- ▶ Barrier Strip for field wiring terminations
- ▶ 3 Pump outputs
 - Indirect Domestic Hot Water (Pump A)
 - Boiler (Pump B)
 - Central Heat (Pump C)

Note: Pumps are field supplied.



Low Voltage Electrical:

- ▶ Barrier Strip for field wiring terminations
- ▶ 120/24 VAC Transformer 40VA (factory supplied)
- ▶ Inputs
 - CH1 thermostat (by others)
 - CH2 thermostat (by others)
 - Indirect DHW aquastat (by others) or DHW Tank sensor (factory option)
 - External Limit (by others)
 - Outdoor sensor (factory supplied)
 - System sensor (factory option)
 - 4-20mA external modulating control (by others)
- ▶ Outputs
 - Alarm dry contact (24VAC 0.63A max.)
- ▶ EIA-485 Modbus communications for Lead-Lag
- ▶ EIA-485 Modbus to BMS gateways (not shown). Optional available gateways:
 - BACnet/N2
 - LonWorks