Job:		
Engineer:		
Contractor:		
Prepared By:	Date:	
Model:		_ Indoor

Raytherm® - Type H

Hydronic Heating Boilers Models 182-400 - Indoor

EFFICIENT

▶ 82% efficiency – highest of any atmospheric boiler available today

THERMAL SHOCK PROOF

- ➤ Twenty-year warranty against thermal shock damage up to 150°F differential
- Maximum operating temperature: 230°F

LIGHTWEIGHT

▶ A floor load of 70 lbs./sq. ft. or less

HIGH RECOVERY

 Cuts fuel costs substantially because the standby and radiation losses normal to other boilers and tank-type water heaters are eliminated

LOW WATER OPERATING TEMPERATURE

 Operates with water temperature as low as 105°F without condensing

Heat Exchanger

- ASME Inspected and Stamped 160 PSIG
- National Board Approved
- Headers
 - ☐ Cast Iron Glass-lined Standard☐ Bronze Option A-1
- Finned Tubing
- ☐ Copper Standard☐ Cupro Nickel Option A-3
- ASME Steel Tube Sheet
- Silicone O-Rings
- ASME Pressure Relief Valve
 - 45 PSIG Standard
 - PSIG ASME Optional
- Temperature and Pressure Gauge, Shipped Loose
- Water Connections
 - ☐ Left Hand Standard ☐ Right Hand Option A-6
- Flow Configuration Two-pass
- Pump Optional
 - ☐ Mounted, 1/8 HP, 120 Volt, 1&, 60 Hz

Controls

- 120V, 60Hz, 1 Ph Power Supply
- 120/24V Transformer
- 100% Pilot Shut-off/Lockout
- Electronic, Intermittent Ignition (IID) Pilot
- High Limit Control, Manual Reset
- On/Off Switch
- Flow Switch
- Economaster II Pump Time Delay
- Electronic Outdoor Reset Control (Std. on Models 182 & 260)

Gas Control Train

- Manual Main Gas Shut-off Cock
- Main Gas Pressure Regulator
- Redundant Safety Shut-off Valve
- Control Valve
- Firing Mode
- On/Off (H4)
- Two-stage Firing (H3)
- 110-170°F (H5) Available only on Models 330 & 400
- Mechanical Modulation, 150-210 ♥ (H1) Available only on
- Models 330 & 400
 Fuel
 - ☐ Natural Gas
 - ☐ Propane Gas
- Design Certified ANSI Z21.13 /CSA 4.9

Construction

- Front Controls
- Stainless Steel Burners
- Polytuf Powder Coat Finish
- Vent Selection
 - ☐ Draft Diverter Option D-10 ☐ Power Vent, Loose Option D-2
- Base (Optional)
- ☐ Combustible Floor Shield Option J-1



Temperature Controls

Note: H1 and H5 do not require a controller

- ☐ B-6 Two-stage 100-200°F
- B-___,Temp Tracker Digital
- Controller, 2 Stages

 B-___, Temp Tracker Digital,
- Controller, 4 Stages

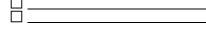
 B-42 Electronic Outdoor Reset
 Controller.(Std. on Models
 - Controller.(Std. on Models 182 & 260)

Additional Safety Controls

- ☐ F-10 Low Water Cut-off Probe ☐ I-1 High Limit Control, Auto
- Reset, 240°F
 ☐ S-1 Low Gas Pressure Switch,
- Manual
- S-2 High Gas Pressure Switch, Manual

Ш	

Regulatory Agency Requirements



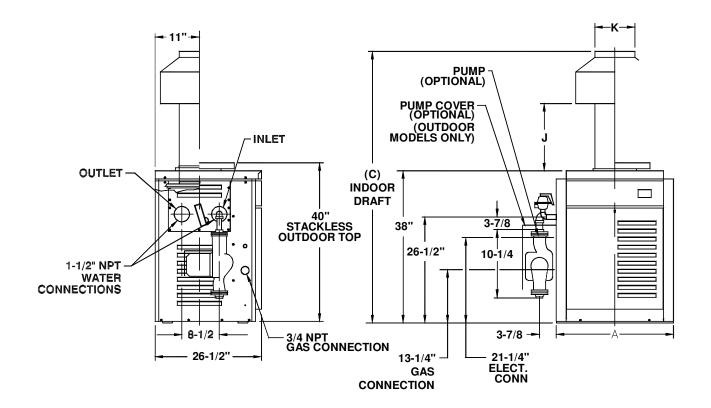








Catalog No.: 2000.205E Effective: 11-1-13 Replaces: 1-1-08



				Dimensions (Inches)			Shipping Weight		
Model	MBTU	MBTU	AFUE*	Width	Height		Flue Dia.	(Lbs.) – Approx.	
No.	Input	Output	(%)	Α	C	J	K	No Pump	w/ Pump
H-182	181	148	82.6	18-1/4	62-5/8	12-1/16	6	191	221
H-260	264	216	82.7	22-3/8	62-7/8	11-1/8	7	214	244
H-330	334	274	N/A	25-3/4	63-3/4	10-3/4	8	234	264
H-400	399	327	N/A	29-1/4	65-3/8	12-1/2	9	253	283

^{*} With Vent Damper

NOTE: Ratings shown are for elevations up to 2,000 feet. For elevations over 2,000, reduce ratings at the rate of 4% for each 1,000 feet above sea level.

BOILER RATE OF FLOW AND PRESSURE DROP

Model	10°∆T		20 °	Δ Τ	30°∆T	
No.	GPM	ΔP FT	GPM	ΔP FT	GPM	ΔP FT
H-182	30	4.2	N/A	N/A	N/A	N/A
H-260	43	8.5	22	2.2	N/A	N/A
H-330	N/A	N/A	27	3.4	N/A	N/A
H-400	N/A	N/A	33	5.2	22	2.3

N/A - Not Applicable