

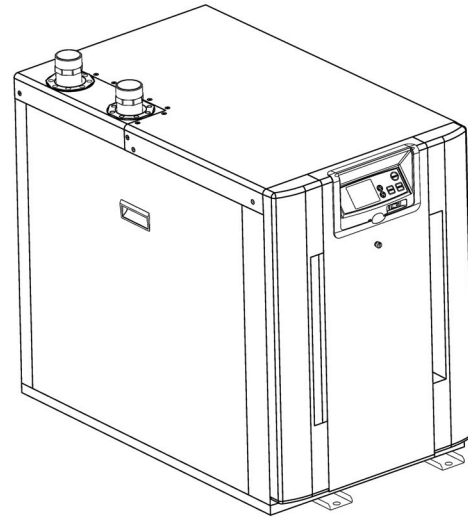
Job: _____
 Engineer: _____
 Contractor: _____
 Prepared By: _____ Date: _____
 Model: _____ Indoor/Outdoor: _____


XFyre™ - Type H

Condensing Heating Boilers

Models 300A-850A

- 94% Thermal Efficiency at Full Rate, up to 99% at Part Load**
- Indoor/Outdoor Construction Standard**
- PVC *, CPVC, Centrotherm™ Polypropylene or
Stainless Venting Certified**
- VERSA IC Integrated Control Platform**
- Soft Start, Electronic Modulation, 5:1 Turndown**
- LCD Status Display with Full Diagnostics and Fault Memory**
- Zero Clearance to Combustibles**
- Meets 2012 NOx Requirements (< 20 ppm)**
- Maximum Outlet Water Temperature: 195°F**
- Maximum System Temperature: 190°F ***
- Limited 25-Year Thermal Shock Warranty**
- Limited 10-Year Heat Exchanger Warranty**
- Modbus RTU RS485 Port**



 Made in the USA

Heat Exchanger

- All Stainless Steel Construction with copper connections
- Gasketless Heat Exchanger Design
- ASME H Stamped
 - 160 PSIG Working Pressure
- National Board Approved
- ASME Pressure Relief Valve
 - 45 PSIG – Standard (300 & 400)
 - 60 PSIG – Standard (500 – 850)
 - ___ PSIG – Optional
- Temperature and Pressure Gauge, Shipped Loose

Control

- 120V, 60Hz, 1Ø, Power Supply
- Versa IC Operating Control with LCD display.
- Outdoor reset with Indirect Priority
- 0-10 VDC input for BMS
- Cascade up to 4 boilers
- Spark Ignition (DSI)
- Remote Flame Sensor
- High Limit, Manual Reset, Fixed, 200°F
- Alarm Dry Contact Connection
- On/Off Power Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Boiler, DHW & System Pump Contacts
- Water Temperature Sensors (5)10kΩ (3 shipped loose)

- Outdoor Air Sensor (1) 10kΩ (optional)

Burner

- Ultra-Low NOx: Less than 20 PPM

Gas Train

- Fuel
 - Natural Gas
 - Propane
- Dual-Seat Combination Valve
- Electronic Modulating Firing Mode (H7)

Construction

- Indoor/Outdoor Construction
- Front Controls Enclosed
- PolyTuf Powder Coat Finish
- Rear Connections (Electrical, Gas, Vent, Combustion Air)
- Top Connections (Water)
- Design Certified ANSI Z21.13/ CSA 4.9
- Combustion Air Filter
- Condensate Trap
- CSA Certified – AB 1953 & VLA 193 Low Lead Compliant

Venting (PVC*-CPVC-Centrotherm™ Polypropylene - Stainless.)

- Vent Termination
 - Indoor, Vertical – Option D-11
 - Indoor, Horizontal – Option D-15 S/S
 - Outdoor
 - D-33 Polypropylene Adapter

- Extractor - Optional

- By others
- Not required

Multi-Boiler System Controllers

- B-36 TempTracker Mod+ Hybrid Digital Controller, 2-4 Boilers, OA Reset
- B-37 TempTracker Mod+ Hybrid Digital Controller, 5-10 Boilers, OA Reset
- B-38 TempTracker Mod+ Hybrid Digital Controller, 11-16 Boilers, OA Reset

Options

- D-21 TruSeal™ Combustion Air Inlet (Mounted)
- D-22 TruSeal™ Combustion Air Inlet (Loose)
- F-10 Low Water Cut-Off, Remote Probe
- P-__ Pump: ___HP, 120V, 1Ø, 60Hz
 - Cast Iron
 - Bronze/SS
- S-1/S-2 High/Low Gas Pressure Switch, Manual Reset
- Z-12 Condensate Neutralizer Kit

Regulatory Agency Requirements



*Configured for PVC Vent Standard. Maximum Return Water Temperature of 170°F for PVC Vent. See I & O Manual Cat. 1000.65

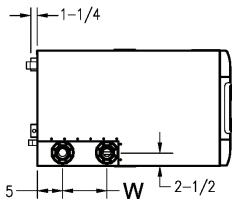
Raypak®
 A Rheem® Company

XFyre – Type H Models 300A-850A

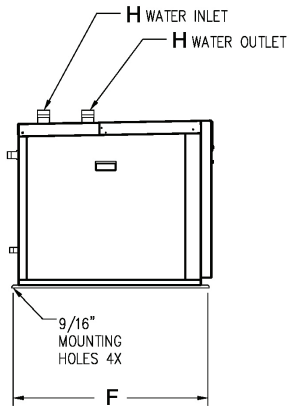
Model _____

CLEARANCES

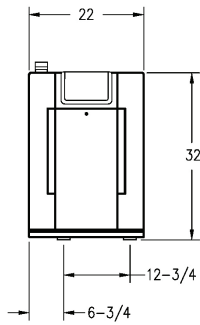
	Certified Minimum	Service Minimum
Front	24"	24"
Rear	24"	24"
Right	0"	0"
Left	0"	0"
Top	12"	24"
Floor	0"	--
Vent	1"	--



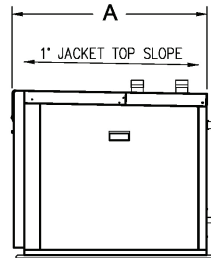
TOP VIEW



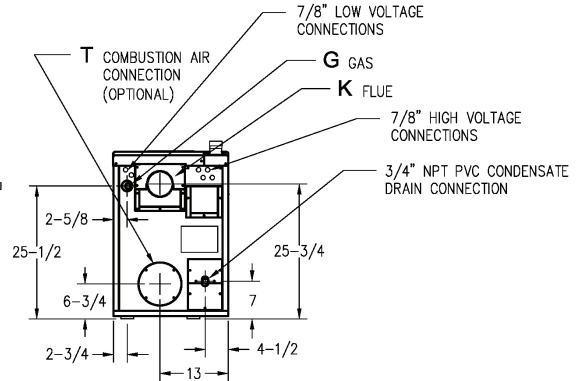
LEFT VIEW



FRONT



RIGHT VIEW



REAR

Model (H7-)	MBTUH		Dimensions (in.)						
	Input	Output	A Length	F Mounting	G NPT	H NPT	K Flue Ø	T C/A Ø	W (Water)
300A	300	282	28-1/4	27-9/16	3/4	1-1/2	4	4	8-1/2
400A	399	375	30-3/4	32-5/16	1	2	4	4	7-1/16
500A	500	470	37-1/4	36-9/16	1	2	4	4	8-1/2
700A	700	658	47-3/4	49-5/16	1-1/4	2	6	6	10-9/16
850A	850	799	54-1/4	53-9/16	1-1/4	2	6	6	10-9/16

Ratings shown are for elevations up to 2,000 feet. For installations at elevations above 2,000 feet, please consult the factory for additional instructions.

RATES OF FLOW AND PRESSURE DROPS

Model (H7-)	20°F ΔT		30°F ΔT		35°F ΔT		Min Flow			Max Flow		
	GPM	ΔP**	GPM	ΔP**	GPM	ΔP	GPM	ΔP**	ΔT	GPM	ΔP**	ΔT
300A	28	17	19	8	16	6	14	5	39	36	28	16
400A	38	18	25	7	21	5	19	4	39	47	29	16
500A	47	16	31	7	27	5	24	4	39	56	23	17
700A	66	30	44	13	38	9	34	7	39	70	34	19
850A	80	40	53	17	46	12	41	10	39	80	40	20

* Closed systems only

** Connected plumbing pressure drops are not included.

Model	Amps*	Foot-Print (Ft ²)	Ship Weight (Lbs.)
300A	3	4.3	410
400A	4	4.7	465
500A	4	5.7	505
700A	5	7.3	550
850A	5	8.3	580

* Current draw is for heater only.
(Supply breaker must have delayed trip.)

Job: _____
Engineer: _____
Contractor: _____
Prepared By: _____
Date: _____

TempTracker Mod+ Hybrid™ Modulating Controllers

For Controlling Raypak Condensing and/or
Non-Condensing Boilers and Water Heaters

TempTracker Mod+ Hybrid is designed to sequence multiple condensing and/or non-condensing boilers up to 16 total units in a single system, and is capable of controlling Raypak modulating or stage-fired boilers. It is available loose with **Hi Delta**, **Raytherm**, **MVB**, **XTherm** and **XFyre** boilers and water heaters. This control can be used for space heating and hot water supply, including outdoor reset for heating systems. It monitors and displays system temperatures on all applications as well as monitors outdoor temperature when an outdoor sensor is utilized.



Proudly Made in the USA

Features

- 1-4 boilers/stages
- Lead/Lag Rotation
- PID logic
- 5 LED Status Lights
- LCD digital display
- System Pump Relay – Pilot Duty
- Remote Thermostat Connection
- NEMA 1 enclosure
- System water sensor
- Outdoor air sensor
- Reset Ratio 1:4 to 4:1
- 120 VAC, 60 Hz, 12 VA Supply Power
- Relay Ratings
1A Inductive, 6A Resistive at 120 VAC, 60 Hz
15A total for all circuits

Programmable Functions

- Adjustable outdoor reset
- 4-20 mA or 0-10 VDC output
- System water temperature
 - Heating – 50° - 220 °F
 - Temp to Indirect DHW – 140° - 200 °F
- Switch differential (5° to 20 °F)
- Outdoor cutoff (20 to 100 °F)
- Indirect Domestic Hot Water with/without Priority
- System pump-off delay (0 to 360 min.)
- Temperature measurement (°F or °C)
- BACnet compatible (requires B-62)

Model Information

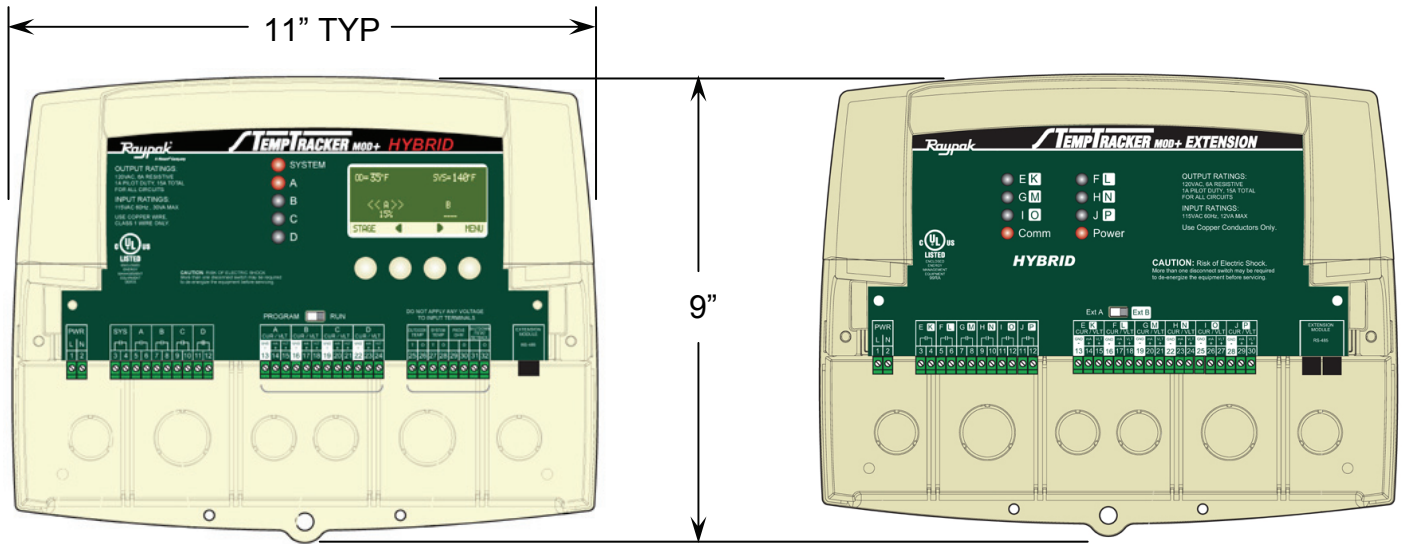
- B-36 Up to 4 Units
- B-37 Up to 10 Units
- B-38 Up to 16 Units

Options

- B-39 4-20mA Remote Set Point
- B-62 BACnet MS/TP



Raypak®
A Rheem® Company



Specifications

Voltage Input:	120 VAC 60 Hz
Power Consumption:	12 VA Max
Operating Temperature:	20°F/-6°C to 130°F/54°C
Operating Humidity:	20% to 80% non-condensing
Dimensions:	11"W x 9" H x 3 3/4" D
Weight:	2.5 pounds

TempTracker MOD+ Hybrid Specifications

Pump Output:	1 N.O. S.P.S.T
Modulating Boiler Modes:	Auto, Manual, Standby, On, Off
Staging Boiler Modes:	Auto, Standby, On, Off
Modulating Output Types:	4-20mA and 0-10V
Sequencing Output Types:	On/Off, 2-Stage, 3-Stage, or 4-Stage
Output Relay Ratings:	1 Amp inductive (1/8 HP), 6 Amp resistive at 120 VAC DHW Call Input. (Dry Contacts Only)
Add-On Extension Panels:	up two Extension Panels using RS485 (RJ45 or RJ11)
Modulation Modes:	Normal or Parallel
Sequencing Modes:	Lo/Hi/Lo/Hi or Lo/Lo/Hi/Hi
Temperature Display:	Fahrenheit or Celsius
Display:	Graphical Alphanumeric (up to 7 rows x 21 char. each)
LED:	1 System Output relay, 4 Boiler Output relays
Outdoor Cutoff Range:	20°F/-6°C to 100°F, ON and OFF
Reset Ratio Range:	(1:4) to (4:1) (Outdoor : System Water)
Minimum Water Temperature:	50°F/10°C to 170°F/77°C
Maximum Water Temperature:	90°F/32°C to 240°F/116°C
Indirect Domestic Hot Water:	with Priority or without Priority
Schedules:	1 Day and 1 Night (Setback) setting per day
Night Setback:	0°F/0°C to 75°F/42°C
Power Backup:	Lithium coin battery, 100 days minimum 5 year replacement (Maintains Clock in power outages)
External Inputs:	Shutdown, Tstat, and Setback Input, and Prove and DHW Call Input. (Dry Contacts Only)

Extension Specifications

(Each Extension can add up to (6) additional boiler stages. A maximum of two Extensions can be used.)

Boiler Outputs:	(6) N.O. S.P.S.T.
Modulating Output Types:	(6) 4-20mA and 0-10V
Output Relay Ratings:	1 Amp inductive (1/8 HP), 6Amp resistive at 120 VAC 6 60 Hz, 15 A total for all circuits

Connection to TempTracker mod+ Hybrid and another extension:

Two RS485 connections using 6 wire RJ11 cable (Cable is provided)