



APPROVED

Product Submittal for XVers™ - Type H Heating Boiler Models 0856-3006

Date: \_\_\_\_\_ Job: \_\_\_\_\_ Location: \_\_\_\_\_

Equipment Tags: \_\_\_\_\_ Engineer: \_\_\_\_\_ Contractor: \_\_\_\_\_

Model: \_\_\_\_\_ Notes: \_\_\_\_\_

Prepared by: \_\_\_\_\_ Indoor  Outdoor  Gas Type: Natural Gas  Propane

**Stainless steel vertical fire-tube construction with versatile and adaptive controls.**

- Up to 96.2% thermal efficiency at full rate
- 100% factory fire-tested
- VERSA IC® modulating controller with 7" color touchscreen display
- Raymote™ remote connectivity provided standard
- Up to 15:1 turndown
- Fault history with full diagnostics
- Status display lights
- Cascade up to 8 boilers - no external sequencer required
- Cascade in parallel or sequential modulation modes
- Modbus RTU BMS port
- Rich-start ignition system (Patent Pending)
- Maximum outlet water temperature: 200°F(93.3°C)
- Minimum continuous inlet water temperature: 40°F(4.4°C)
- Limited 25-year thermal shock warranty
- Limited 10-year heat exchanger warranty
- Ultra Low NOx < 20 PPM - Sizes 0856-2006 certified by SCAQMD to rule 1146.2
- Proudly assembled in the USA



**Standard Features**

**Heat Exchanger**

- 316L stainless steel
- ASME H-stamped; 160 PSIG MAWP
- National Board registered
- ASME pressure relief valve
  - 60 PSIG (standard)
  - \_\_\_\_ PSIG (optional)
- T&P gauge

**Control**

- Power supply 0856-1506
  - E-16 120V, 60Hz, 1Ø (standard)
  - E-16 208/240/277V, 1Ø (optional)
  - E-17 480/600V, 3Ø (optional)
- Power supply 1756-3006
  - E-16 208/240/277V, 1Ø (standard)
  - E-17 480/600V, 3Ø (optional)
- 24VAC 60Hz transformer
- 12VDC transformer
- VERSA IC® controller
- 7" color touchscreen display
- Raymote™ IoT connectivity
- Cascade up to 8 heaters
- Parallel and sequential modulation cascade modes
- Cascade interstage delay settings
- Cascade flow offset control
- Ignition module
  - 3-Try (standard)
  - C-6 single-try (optional)
- Remote flame sensor
- High limit, manual-reset, fixed, 200°F
- Vent temperature sensor
- Off-idle-run power switch
- Low water cut off
- Flow switch
- Water flow sensor
- Blocked vent pressure switch
- Freeze protection
- Alarm dry contact
- Programmable pump time delay outputs (pilot duty)
- DHW indirect-system-boiler (pump/valve)
- Modulating temperature control

- Outdoor air sensor
- Water temperature sensors 10KΩ (2 mtd, 3 loose, 1 well)
- Blocked condensate switch
- Modbus RTU BMS port
- B-85 BMS Gateway, Modbus RTU to Modbus TCP, N2 Metasys, BACnet IP, or BACnet MS/TP (optional)
  - Loose
  - Factory mounted
- B-86 BMS Gateway, Modbus RTU to LONWorks (optional)
  - Loose
  - Factory mounted

**Burner**

- Hot surface ignition (HSI)
- Easily accessible radially-fired knitted burner

**Gas Train**

- Fuel
  - Natural gas
  - Propane (minimum grade HD5)
- C-10 HO<sub>2</sub>T O<sub>2</sub> trim system (optional)
- Rich-start ignition system (patent pending)
- Dual-seat combination valve
- Manual shut-off firing valve
- Sediment trap connection standard

**Construction**

- Indoor/outdoor construction
- Enclosed front controls
- PolyTuf powder-coat finish
- Rear connections (water, gas, vent, electrical, condensate drain)
- Combustion air filter
- Design certified ANSI Z21.13/CSA 4.9
- Front connection low-voltage wiring
- Built-in lifting lugs for rigging
- Built-in flue gas analysis port
- Forklift or pallet jack accessible

**Venting (Cat IV)**

- D-11 Outdoor vent kit, Centrotherm® polypro
- D-11 Alternative outdoor vertical vent termination
- D-15 Sidewall vent termination cap
- D-23 Outdoor vent support
- D-26 Vent termination tee, Centrotherm® polypro

- D-29 Straight vent pipe, Centrotherm® polypro 36"
- D-33 Vent adapter Centrotherm® polypro
- D-37 Motorized combustion air damper
- D-108 90° vent adapter SS to PVC

**Options**

- B-31 Sensor well assy
- B-65 Indirect tank aquastat (for use with hydronic system with indirect tank)
- E-5 Boiler alarm with 4" bell
- E-15 Boiler alarm with buzzer
- I-5 High limit, adj. manual reset, 200°F max
- I-13 High limit, adj. auto reset, 200°F max
- M-1 Safety valve - motorized
- M-10 Safety valve - solenoid
- M-15 Safety valve - vent valve (requires M-1 or M-10)
- P-170 Motorized isolation valve
- P-171 Suction diffuser (3x3)
- S-1 Low gas pressure switch, manual-reset
- S-2 High gas pressure switch, manual-reset (STD 2506-3006)
- Z-12 Condensate treatment kit
- Z-21 Cabinet latch with key

**Additional Options or Accessories**

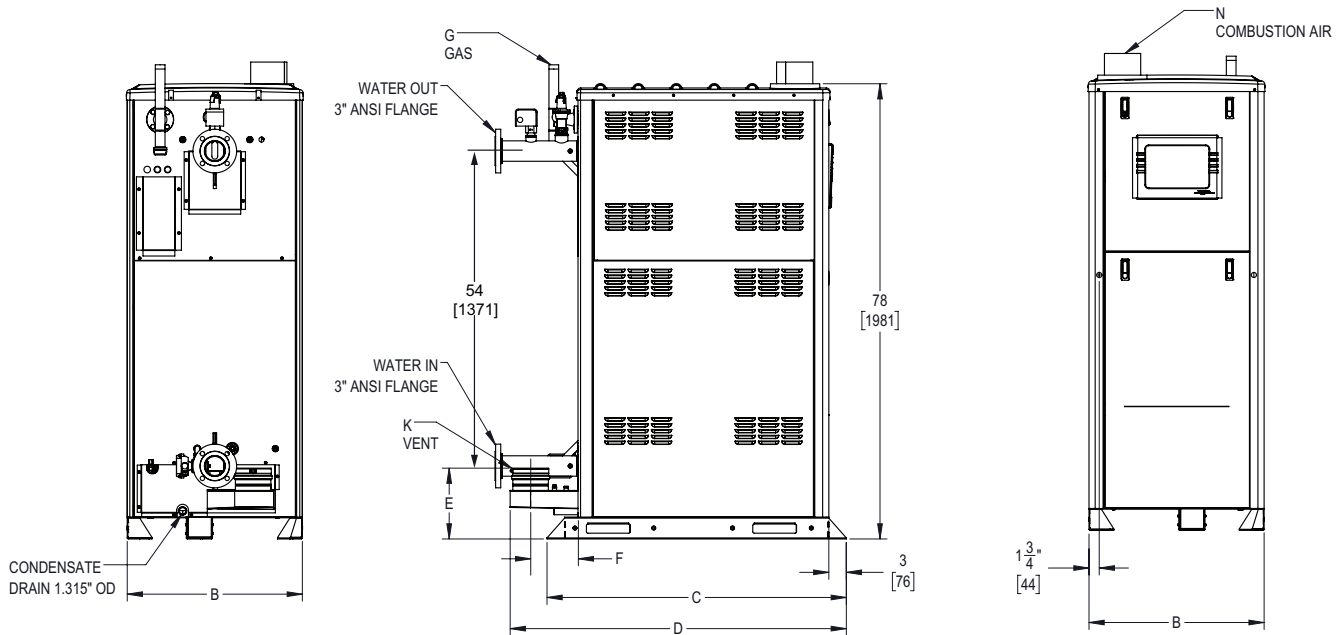
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**Pumps (optional)**

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**Hybrid Multi-Boiler Temp Controllers**

- B-36 TempTracker Mod+ Hybrid, 2-4 boilers, OA reset
- B-37 TempTracker Mod+ Hybrid, 5-10 boilers, OA reset
- B-38 TempTracker Mod+ Hybrid, 11-16 boilers, OA reset
- B-39\* EMS 4-20 mA Remote Setpoint Interface Module
- B-62\* BACnet MS/TP Interface Module (\*only used with B-36 to B-38)



Model (H7-)	MBTUH (kW/h)		Turn Down	AHRI Thermal Efficiency	Dimensions - Inches (mm)							Shipping Weight lbs. (kg)	Operating Weight lbs. (kg)	Water Content gal. (L)	
	Input	Output			B Width	C Base Depth	D Overall Depth	E	F	G NPT	K Flue Ø*				N C/A Ø
<input type="checkbox"/> 0856	855 (250.6)	822.5 (241.1)	8 to 1	96.2%	30 (762)	51.3 (1303)	60.2 (1529)	12-1/8 (308)	12-1/2 (318)	1-1/4 (31.75)	6	6	1596 (724)	2237 (1015)	77 (291.5)
<input type="checkbox"/> 1006	999 (292.8)	961 (281.6)	9 to 1	96.2%	30 (762)	51.3 (1303)	60.2 (1529)			1-1/4 (31.75)	6	6	1596 (724)	2237 (1015)	77 (291.5)
<input type="checkbox"/> 1256	1250 (366.3)	1202.5 (352.4)	13 to 1	96.2%	30 (762)	54.4 (1382)	63.4 (1610)			1-1/4 (31.75)	8	6	1960 (889)	2835 (1286)	105 (397.5)
<input type="checkbox"/> 1506	1500 (439.6)	1443 (422.9)	15 to 1	96.2%	30 (762)	54.4 (1382)	63.4 (1610)			1-1/4 (31.75)	8	6	1960 (889)	2835 (1286)	105 (397.5)
<input type="checkbox"/> 1756	1750 (512.9)	1683.5 (493.4)	8 to 1	96.2%	34 (864)	56.5 (1435)	65.7 (1669)			2 (51.0)	8	8	2080 (943)	3055 (1386)	117 (442.9)
<input type="checkbox"/> 2006	1999 (585.8)	1923 (563.6)	9 to 1	96.2%	34 (864)	56.5 (1435)	65.7 (1669)			2 (51.0)	8	8	2080 (943)	3055 (1386)	117 (442.9)
<input type="checkbox"/> 2506	2499 (732.4)	2404 (704.5)	9 to 1	96.2%	34 (864)	60 (1524)	70.4 (1788)	13-1/8 (333)	13-1/2 (343)	2-1/2 (63.5)	10	8	2900 (1315)	4141 (1878)	149 (564)
<input type="checkbox"/> 3006	3000 (879.2)	2868 (840.5)	10 to 1	95.5%	34 (864)	60 (1524)	70.4 (1788)			2-1/2 (63.5)	10	8	2900 (1315)	4141 (1878)	149 (564)

\*DuraVent FasNSeal®

Clearances - Inches (mm)

	Front	Rear	Right	Left	Top	Floor*	Vent
Certified Minimum to Combustibles	Open	24 (610)	1 (25)	1 (25)	1 (25)	0	1 (25)
Recommended Service	30 (762)	24 (610)	1 (25)	1 (25)	24 (610)	0	

\*WARNING: Do not install on carpeting.

Flow and Pressure Loss Information

Model (H7-)	☐ 0856		☐ 1006		☐ 1256		☐ 1506		☐ 1756		☐ 2006		☐ 2506		☐ 3006	
	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)	GPM (L/min)	ΔP ft.hd. (kPa)
20°F ΔT	82 (310)	1.7 (5.1)	96 (363)	2.2 (6.6)	120 (454)	2.6 (7.8)	144 (545)	3.6 (10.8)	168 (636)	3.8 (11.4)	192 (727)	4.7 (14.0)				
40°F ΔT	41 (155)	0.5 (1.5)	48 (182)	0.7 (2.1)	60 (227)	0.8 (2.4)	72 (273)	0.9 (2.7)	84 (318)	1.0 (3.0)	96 (363)	1.2 (3.6)	120 (454)	2.1 (6.3)	143 (541)	3.0 (8.9)
**Max Flow	165 (624)	6.4 (19.1)	192 (727)	7.8 (23.3)	231 (874)	8.0 (23.9)	231 (874)	8.0 (23.9)	231 (874)	6.7 (20.0)	231 (874)	6.7 (20.0)	231 (874)	7.1 (21.2)	231 (874)	7.1 (21.2)
Min Flow at 100%	22 (83)		24 (91)		30 (114)		36 (136)		42 (159)		48 (182)		60 (227)		72 (273)	
*Min Flow for Ignition	22 (83)		22 (83)		22 (83)		22 (83)		25 (95)		30 (114)		40 (151)		45 (170)	
*Min Flow	22 (83)		22 (83)		22 (83)		22 (83)		22 (83)		22 (83)		22 (83)		29 (110)	

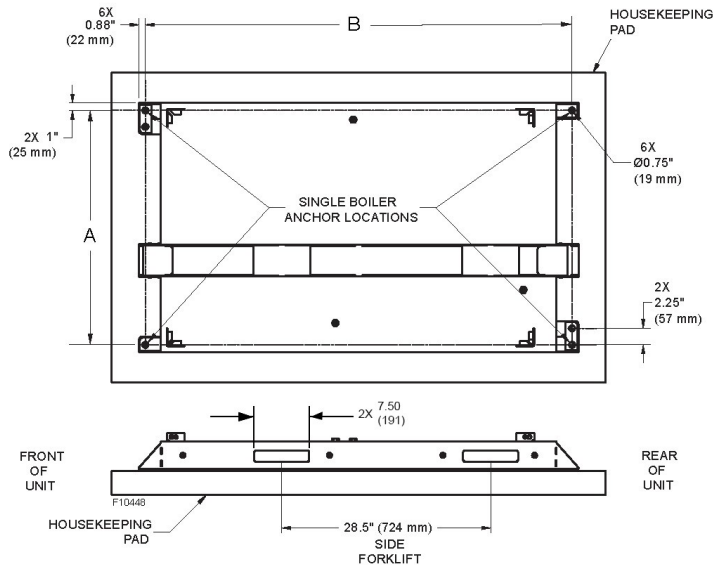
\*Minimum flow based on water as a heating medium. Mediums other than water may require higher minimum flow rates.

\*\*Maximum flow based on 10°F ΔT or 10.5 feet per second velocity, whichever is less.

Model (H7-)	Boiler Current Draw					
	☐ 120VAC	☐ 208VAC	☐ 240VAC	☐ 277VAC	☐ 480VAC	☐ 600VAC
☐ 0856	< 12A					
☐ 1006						
☐ 1256						
☐ 1506						
☐ 1756	< 17A			< 12A		
☐ 2006						
☐ 2506						
☐ 3006						

Current draw is for boiler only (supply breaker must have delayed trip).

Engineered Base



Model (H7-)	Engineered Base Dimensions - Inches (mm)		
	A	B	Operating Weight lbs. (kg)
☐ 0856-1006	28 (711)	49.5 (1257)	2237 (1015)
☐ 1256-1506		52.6 (1336)	2835 (1286)
☐ 1756-2006	32 (813)	54.7 (1390)	3055 (1386)
☐ 2506-3006		58.2 (1478)	4141 (1878)