SUBMITTAL DATA SHEET

JOB NAME: _____ DATE: _____

LOCATION: _____

ENGINEER: _____

WHOLESALER: _____

CONTRACTOR: _____

SUBMITTED TO: _____

MODEL DESIGNATION: _____ FUEL: _____

CHECK ONE: _____ REFERENCE (NOT FOR PRODUCTION)

_____ APPROVED (IMMEDIATE PRODUCTION)

_____ APPROVED WITH CHANGES NOTED (IMMEDIATE PRODUCTION)

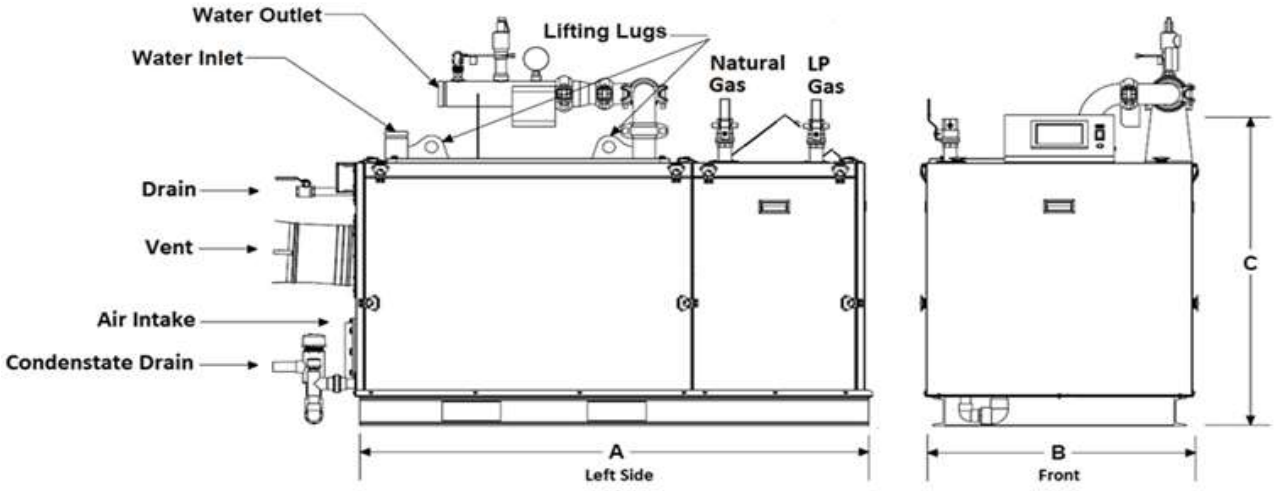
RATINGS AND TECHNICAL DATA

MODELS	INPUT MIN (MBH)	INPUT MAX (MBH)	GROSS OUPUT (MBH)	*DHW RECOVERY (GPH)	THERMAL EFFICIENCY (%)	WATER CONTENT (GAL.)	**FUEL NAT. GAS MIN / MAX	**FUEL PROPANE MIN / MAX	SHIPPING WEIGHT (LBS)
BFITW-1000	200	1000	980	1188	98.0%	12.0	4"/14"wc	8"/14"wc	922
BFITW-1250	250	1250	1225	1485	98.0%	12.0	4"/14"wc	8"/14"wc	922
BFITW-1500	300	1500	1470	1782	98.0%	13.9	4"/14"wc	8"/14"wc	1217
BFITW-2000	400	2000	1960	2376	98.0%	17.2	4"/14"wc	8"/14"wc	1217
BFITW-2500	500	2500	2450	2970	98.0%	36.4	4"/14"wc	8"/14"wc	2038
BFITW-3000	600	3000	2940	3564	98.0%	36.4	4"/14"wc	8"/14"wc	2038
BFITW-3500	700	3500	3430	4158	98.0%	47.1	4"/14"wc	8"/14"wc	2485
BFITW-4000	800	4000	3920	4752	98.0%	47.1	4"/14"wc	8"/14"wc	2485

* Temperature Rise from 40°F to 140°F

**Single or Dual Fuel Options

DIMENSIONS



MODELS	"A" LENGTH (Inches)	"B" WIDTH (Inches)	"C" HEIGHT (Inches)	VENT / AIR INTAKE SIZE (Inches)	VENT / AIR INTAKE EQUIV. LENGTH (Ft.)	GAS (Inches)	SUPPLY Grooved Connection (Inches)	RETURN Grooved Connection (Inches)
BFITW-1000	45-1/2"	34-1/4"	42-3/4"	8	Up to 300	1 NPT	3	2-1/2
BFITW-1250	45-1/2"	34-1/4"	42-3/4"	8	Up to 300	1 NPT	3	2-1/2
BFITW-1500	66-1/8"	34-1/4"	42-3/4"	8	Up to 300	*** 1-1/4 NPT	3	2-1/2
BFITW-2000	66-1/8"	34-1/4"	42-3/4"	8	Up to 200	1-1/4 NPT	3	2-1/2
BFITW-2500	75-5/8"	46"	54-7/8"	10	Up to 300	1-1/2 NPT	4	4
BFITW-3000	75-5/8"	46"	54-7/8"	10	Up to 300	1-1/2 NPT	4	4
BFITW-3500	97-1/8"	46"	54-7/8"	12	Up to 300	2 NPT	4	4

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BFITW-4000	97-1/8"	46"	54-7/8"	12	Up to 300	2 NPT	4	4

*** Propane is 1" NPT

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STANDARD EQUIPMENT

PRESSURE VESSEL DESIGN

Stainless Steel Heat Exchanger
ASME Section IV Certified, "HLW" Stamp (1000 - 2000)
ASME Section IV Certified, "H" Stamp (2500 - 4000)
MAWP 160 PSIG & Max Temp 210°F
Five Year Limited Heat Exchanger Warranty
Ten Year Limited Pressure Vessel Warranty

COMBUSTION DESIGN

Stainless Steel Pre-Mix Burner
Low NOx Emissions (< 10 ppm)
Full Modulation, 5:1 Turndown
Natural Gas, Propane or Dual Fuel (Gas/Gas)
4" wc (8" wc Propane) to 14" wc inlet gas pressure
Direct Spark Ignition System with UV Scanner
High/Low gas pressure switches, manual reset
Zero governor gas valve
Variable Speed Combustion Blower
Air Proving Switch
Blocked Vent Switch
Manual fuel changeover switch (Dual Fuel Only)

VENTING

Category II or IV Venting
Indivdual or Common (Engineered) Vent System
Vertical or Horizontal
CPVC, PP or SS Venting *Materials Acceptable
Combustion Air Intake - Sealed or Room

WATER HEATER EQUIPMENT

Concert ™ Control (24 Vac)
High Limit Temp Control, Manual Reset
Low water cutoff, manual reset
Water Flow Switch
Supply, Return & DHW Water Temperature Sensors
Flue Gas Temperature Sensor
Condensate trap
Blocked Condensate Switch
Pressure & Temperature Gauge
ASME Temperature & Pressure Safety Relief Valve, 150 psi

ELECTRICAL DESIGN

Models 1000-2500:
- 120-208-230VAC/60HZ/1PH - High Voltage
(1500 to 2500 - Optional 208-230-460VAC/60HZ/3PH)

Models 3000-4000:
- 208 or 230VAC/60HZ/1PH - High Voltage
- 208-230-460VAC/60HZ/3PH - High Voltage
- PCB (Printed Circuit Board) Fused Connections

24VAC/5VDC - Low Voltage PCB
- EMS Communications
(Dual RJ45 Jacks for Peer-To-Peer or ModBus)
- DHW Demand Contacts
- Remote Header Sensor Contacts
- Remote 4-20mA Contacts

* Flue system material shall be capable of continuous operation at 210°F or higher and shall be certified to UL 1738 – venting system for gas-burning appliances cat II, III and IV.

OPTIONAL EQUIPMENT

_____ External High Limit Temperature Control, Manual Reset

_____ Condensate Neutralizer

_____ Hot Water Header Temperature Sensor: ☐ Direct Immersion ☐ Well Immersion (with Well)

_____ EMS Signal Converter Kit (Converts Energy or Building Management System 0-10v signal to 4-20mA)

_____ Alarm Buzzer with Silencing Switch

_____ Gas Valve Proving Switch

_____ Vent Adapter - CPVC or Polypropelyne

_____ Universal Communications Gateway (BACnet, Metasys, Modbus or Lonworks)

_____ Stackable Rack

_____ Conductor Sequencing Panel

The Conductor manages multiple condensing & non-condensing, small & large heat output, new and/or existing boilers (full modulation or on-off), and steam or hot water applications. It helps improve system efficiency by selecting and modulating the right boiler to match operating conditions. The Conductor offers a single point boiler plant Energy Management System (EMS) interface including Modbus TCP/IP, Modbus RTU RS485, BACnet/IP and BACnet MSTP standard. If Lonworks needed, add for the separate Lonworks gateway.

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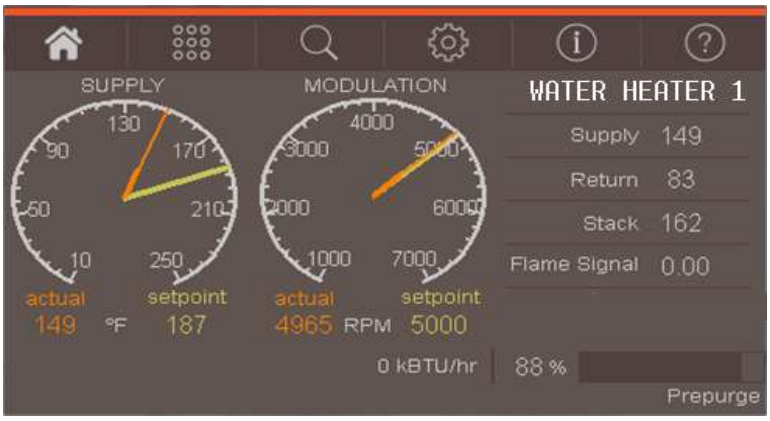
CONCERT CONTROL FEATURES



Dashboard - Color Touchscreen Display, 4"
- Intuitive Icon Navigation
- "Quick" Setup Menus
- *Real Time BTU/H Display

Temperature Demand Inputs
- Time of Day Setback Capability (Enviracom Thermastat must be installed)

Two (2) Pump Control
- System Pump
- Alternative Control to Isolation Valve, Combustion Air Damper or Standby Loss Damper
- Pump Overun for Heat Dissipation
- Pump Exercise
- Pump Rotor Seizing Protection

Peer-to-Peer Boiler Communications
- Multiple Size Unit Sequencing Up to 8 Units
- Lead Boiler Automatic Rotation

Energy Management System (EMS) Interface
- *Firing Rate and Water Temperature Based Algorithms for Multiple Boilers; loss of EMS signal defaults to local settings
- 4-20mAdc Input/Output (0-10Vdc Optional Converter)
- ModBus Input/Output (BACnet or LonWorks Optional Gateway)
- Simultaneous Interface with Peer-to-Peer

***USB Data Port Transfer**
- Upload Settings Between Units
- Download Parameters for Troubleshooting
- Import Data into .CRV Formatted Files for Performance Analysis

Energy Efficiency Enhancer
- Anti-Cycling Technology
- Multipler Unit Base Load Common Rate
- Boost Temperature & Time
- Ramp Delay
- Over-Temperature Safeguarding

Self-Guiding Diagnostics
- Identifies Fault
- Describes Possible Problems
- Provides Corrective Actions

*Time/Date Stamp on Alarms and Lockouts

Unmatched Archives
- Historical Trends - Collects Up to 4 months Data
- Event History - Up to 3000 Alarms, Lockouts and Cycle & Run Times
- Alarm - Limit String Faults, Holds, Lockouts and Others
- Cycle & Run Time - Water Heaters & Pumps
- Resettable (Lockouts/Alarms/Cycles & Run Time)

Other Features
- *Factory Default Settings
- Three Level Password Security
- Frost Protection
- Contractor Contacts (Up to 3)
- Low Water Flow Safety Control & Indication
- Proportion Integral Derivative (PID) Parameters for DWH, Sequencer and Fan
- Built-in Brown-Out Protection

* Unique to Concert

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