



SUBMITTAL DATA SHEET

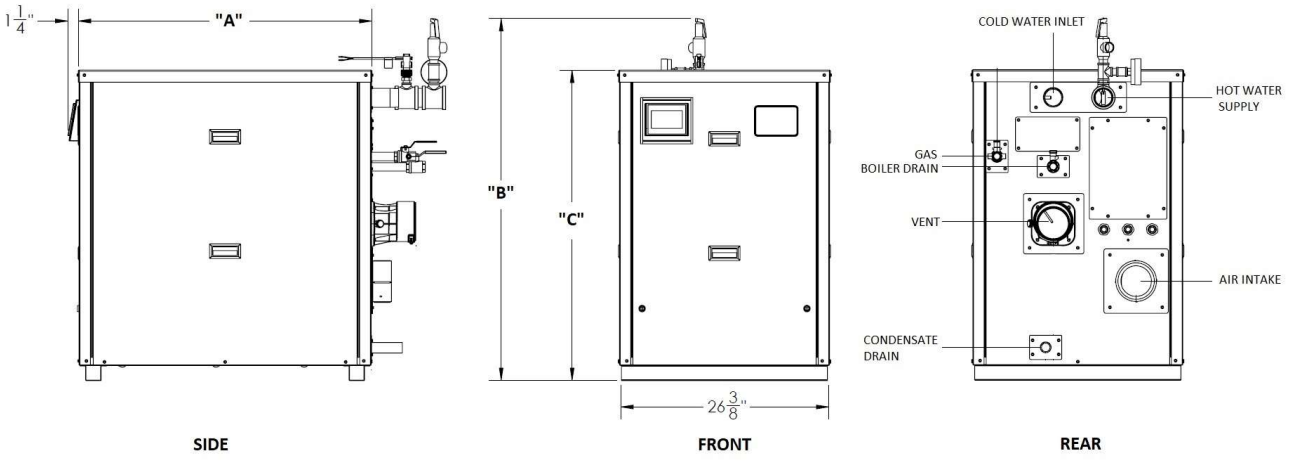
JOB NAME: _____ DATE: _____
 LOCATION: _____
 ENGINEER: _____
 WHOLESALER: _____
 CONTRACTOR: _____
 SUBMITTED TO: _____
 MODEL DESIGNATION: _____ FUEL: _____



CHECK ONE: _____ REFERENCE (NOT FOR PRODUCTION)
 _____ APPROVED (IMMEDIATE PRODUCTION)
 _____ APPROVED WITH CHANGES NOTED (IMMEDIATE PRODUCTION)

RATINGS AND TECHNICAL DATA									
BFIT MODELS	INPUT		GROSS	THERMAL	*DHW	WATER	*FUEL		SHIPPING
	MIN	MAX	OUTPUT	EFFICIENCY	RECOVERY	CONTENT	NAT. GAS	PROPANE	WEIGHT
	(MBH)	(MBH)	(MBH)	(%)	(GPH)	(GAL.)	MIN / MAX	MIN / MAX	(LBS)
BFITW-400	40	399	391	98.0%	475	3.8	4"/14"wc	8"/14"wc	460
BFITW-500	50	500	490	98.0%	594	4.3	4"/14"wc	8"/14"wc	470
BFITW-650	65	650	637	98.0%	772	5.6	4"/14"wc	8"/14"wc	530
BFITW-800	80	800	784	98.0%	950	6.6	4"/14"wc	8"/14"wc	560
BFITW-1000L	100	999	980	98.0%	1188	8.1	4"/14"wc	8"/14"wc	600

DIMENSIONS



BFIT MODELS	"A"	WIDTH	"B"	"C"	VENT / AIR INTAKE		GAS	SUPPLY	RETURN
	LENGTH		O/A HGT.	HEIGHT	SIZE	EQUIV.		OUTLET	INLET
	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	LENGTH (Ft.)	(Inches)	NPT Female	NPT Male
BFITW-400	37 3/4	26 3/8	46 7/8	38 1/2	4	Up to 200	3/4 NPT	2	2
BFITW-500	37 3/4	26 3/8	46 7/8	38 1/2	4	Up to 200	3/4 NPT	2	2
BFITW-650	53 7/8	26 3/8	66 3/8	38 1/2	6	Up to 200	1 NPT	2	2
BFITW-800	53 7/8	26 3/8	66 3/8	38 1/2	6	Up to 200	1 NPT	2	2
BFITW-1000L	53 7/8	26 3/8	66 3/8	38 1/2	6	Up to 200	1 NPT	2	2



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STANDARD EQUIPMENT

PRESSURE VESSEL DESIGN

Stainless Steel Heat Exchanger
 ASME Section IV Certified, "H" Stamp
 MAWP 160 PSIG & Max Temp 210°F
 Setpoint range is 60-185°F
 Adjustable, manual reset high limit setting of $\leq 200^\circ\text{F}$.
 ASME HLW stamp MAWT is 210°F for the vessel.
 (For max setpoint, see Setpoint range.)
 Five Year Limited Heat Exchanger Warranty
 Ten Year Limited Pressure Vessel Warranty

WATER HEATER EQUIPMENT

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

COMBUSTION DESIGN

Stainless Steel Pre-Mix Burner
 Low NOx Emissions (< 10 ppm)
 Full Modulation, 10:1 Turndown
 Natural Gas or Propane
 4" wc (8" wc Propane) to 14" wc inlet gas pressure
 Direct Spark Ignition System
 High/Low gas pressure switches, manual reset
 Variable Speed Combustion Blower
 Air Proving Switch
 Blocked Vent Switch

ELECTRICAL DESIGN

Models 400-500:
 - 120 VAC Only
 Amp Draw: 7.0 Amps
Models 650-1000L:
 - 120 VAC Only
 Amp Draw: 8.0 Amps
 - 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

VENTING

Category II or IV Venting
 Individual or Common (Engineered) Vent System
 Vertical or Horizontal
 3-in-1 Vent Connector
 Acceptable venting materials: CPVC, PP or SS Venting
 Built-in vent gas sensor test port
 Combustion Air Intake - Sealed or Room

* Flue systems material shall be capable of continuous operation at 210°F or higher & shall be certified to UL 1738-venting systems for gas-burning appliances cat II, II 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 Building Management System 0v signal to 4-20mA)

Alarm Buzzer with Silencing Switch

PVC Starter Kit

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

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.

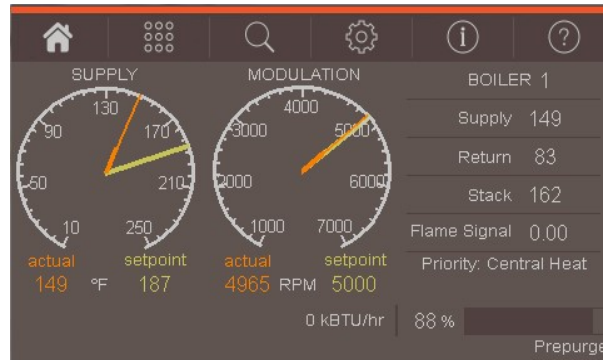
Extended Warranty

3 Year Parts 5 Year Parts 10-Year Parts 5-Yr. Prts/Lbr. 10 Yr. Prts/Lbr



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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
(Envirocom Thermostat must be installed)

Two (2) Pump Control

- System Pump
- Alternative Control to Combustion
Air Damper or Standby Loss Damper
- Pump Overrun 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
- 4-20mA 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

* Unique to Concert

Energy Efficiency Enhancer

- Anti-Cycling Technology
- Multiplier 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

