SUBMITTAL DATA SHEET

JOB NAME: _____ DATE: _____

LOCATION: _____

ENGINEER: _____

WHOLESALER: _____

CONTRACTOR: _____

SUBMITTED TO: _____

MODEL DESIGNATION: _____ FUEL: _____

CHECK ONE: _____ REFERENCE (NOT FOR PRODUCTION)

_____ APPROVED (IMMEDIATE PRODUCTION)

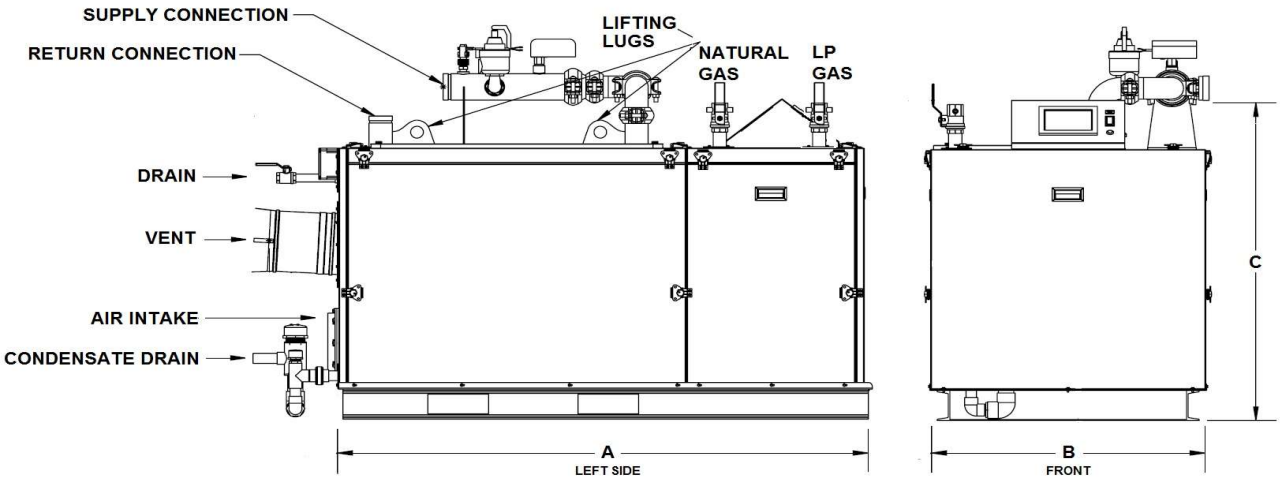
_____ APPROVED WITH CHANGES NOTED (IMMEDIATE PRODUCTION)

RATINGS AND TECHNICAL DATA

MODELS	INPUT MIN (MBH)	INPUT MAX (MBH)	GROSS OUPUT (MBH)	THERMAL EFFICIENCY (%)	HEATING SURFACE (SQ/FT)	WATER CONTENT (GAL.)	*FUEL NAT. GAS MIN / MAX	*FUEL PROPANE MIN / MAX	SHIPPING WEIGHT (LBS)
BFIT-1000	200	1000	970	97.0%	100	11.0	4"/14"wc	8"/14"wc	922
BFIT-1250	250	1250	1213	97.0%	100	11.0	4"/14"wc	8"/14"wc	922
BFIT-1500	300	1500	1455	97.0%	120	13.0	4"/14"wc	8"/14"wc	1217
BFIT-2000	400	2000	1940	97.0%	153	16.2	4"/14"wc	8"/14"wc	1217
BFIT-2500	500	2500	2425	97.0%	301	34.6	4"/14"wc	8"/14"wc	2038
BFIT-3000	600	3000	2910	97.0%	301	34.6	4"/14"wc	8"/14"wc	2038
BFIT-3500	700	3500	3395	97.0%	403	45.3	4"/14"wc	8"/14"wc	2485
BFIT-4000	800	4000	3880	97.0%	403	45.3	4"/14"wc	8"/14"wc	2485

*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)
BFIT-1000	45-1/2"	34-1/4"	42-3/4"	8	Up to 300	1 NPT	3	2-1/2
BFIT-1250	45-1/2"	34-1/4"	42-3/4"	8	Up to 300	1 NPT	3	2-1/2
BFIT-1500	66-1/8"	34-1/4"	42-3/4"	8	Up to 300	** 1-1/4 NPT	3	2-1/2
BFIT-2000	66-1/8"	34-1/4"	42-3/4"	8	Up to 200	1-1/4 NPT	3	2-1/2
BFIT-2500	75-5/8"	46"	54-7/8"	10	Up to 300	1-1/2 NPT	4	4
BFIT-3000	75-5/8"	46"	54-7/8"	10	Up to 300	1-1/2 NPT	4	4
BFIT-3500	97-1/8"	46"	54-7/8"	12	Up to 300	2 NPT	4	4
BFIT-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, "H" Stamp
MAWP 160 PSIG & Max Temp 210°F
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

BOILER 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 Safety Relief Valve
(Available 30, 50, 60, 75,100, 125 or 150 psig)

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)
- Boiler Options (Sensors)
- Pumps (Boiler, DHW, System) & Auxiliary Devices

* 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

_____ Hydronic Kit (Boiler Circulation Pump, Pump Flange Kit and Condensate Neutralizer)

_____ External High Limit Temperature Control, Manual Reset

_____ Condensate Neutralizer

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

_____ Outdoor Air Temperature Sensor: ☐ Wired ☐ Wireless

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

_____ Motorized Isolation Valves

_____ 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

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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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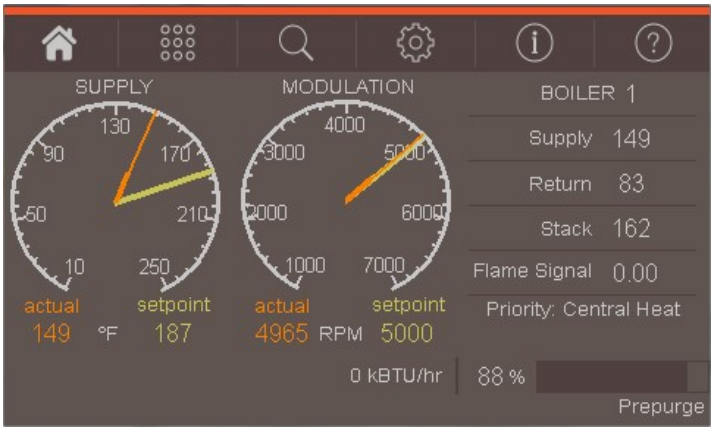
CONCERT CONTROL FEATURES



Dashboard - Color Touchscreen Display, 7"
- Intuitive Icon Navigation
- "Quick" Setup Menus
- *Real Time BTU/H Display

Two (2) Temperature Demand Inputs
- Outdoor Air Reset Curve for Each Input
- Time of Day Setback Capability
  (Enviracom Thermastat must be installed)

Three (3) Pump Control
- Boiler Pump With On/Off or Variable Speed Control
- Domestic Hot Water (DHW) Pump
- 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 Boiler Sequencing Up to 8 Units
- *Two (2) Boiler Start/Stop Trigger
- 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 boiler 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 Boilers
- Download Parameters for Troubleshooting
- Import Data into .CRV Formatted Files for Performance Analysis

Energy Efficiency Enhancer
- Anti-Cycling Technology
- Multipler boiler base load common rate
- Outdoor Air Temperature Reset Curve
- Warm Weather Shutdown
- 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 - Boilers & Pumps
- Resettable (Lockouts/Alarms/Cycles & Run Time)

Domestic Hot Water Priority
- DHW Tank Piped With Priority in the Boiler Loop
- DHW Tank Piped as a Zone in the System With the Pumps Controlled by the Concert Control
- DHW Modulation Limiting

Status Screens

Sensor Monitoring and Control

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 Central Heat, DWH, Sequencer and Fan
- Built-in Brown-Out Protection

* Unique to Concert

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