

# Specification Data Sheet - Industrial Electro-Boiler™

## STANDARD EQUIPMENT

- Pressure vessel built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code (National Board and CRN registered)
- Meets the requirements of ASME CSD-1
- Circuit breakers, each stage
- Manual reset hi-limit -220° F
- Auto reset limit control -210° F
- Low water cut-off with manual reset
- Integrated ½" air vent
- ASME pressure relief valve, 30 psi (125 psi optional, must specify when ordering)
- Pressure/temperature gauge
- 3" NPT inlet and outlet, with inspection opening
- Staging indicator lights, at contactor
- Safety door interlock and lockable door latch
- 0-10VDC for external boiler control
- Digital temperature control
- Supply and return water temperature sensing
- Outdoor reset (auto detect)
- Multi-boiler lead/lag control



## OPTIONS

- Bender fault monitor
- T775R controller
- 125 psi vessel
- BACnet or LonWorks interface



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**ELECTRO  
INDUSTRIES**

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## ELECTRIC SUPPLY

<b>Model</b>	<b>Volts</b>	<b>kW</b>	<b>Total Amps</b>	<b>Watts</b>	<b>Element Quantity</b>	<b>Steps</b>	<b>Btu/h Output</b>
EB-NB-60-600	600	60	58	60,000	5	5 @ 12	204,729
EB-NB-72-600	600	72	70	72,000	6	6 @ 12	245,674
EB-NB-84-600	600	84	81	84,000	7	7 @ 12	286,620
EB-NB-96-600	600	96	93	96,000	8	8 @ 12	327,566
EB-NB-108-600	600	108	104	108,000	9	9 @ 12	368,511
EB-NB-120-600	600	120	116	120,000	10	10 @ 12	409,457
EB-NB-132-600	600	132	128	132,000	11	11 @ 12	450,403
EB-NB-144-600	600	144	139	144,000	12	12 @ 12	491,348
EB-NB-160-600	600	160	154	160,000	8	8 @ 20	545,943
EB-NB-180-600	600	180	174	180,000	9	9 @ 20	614,186
EB-NB-200-600	600	200	193	200,000	10	10 @ 20	682,428
EB-NB-220-600	600	220	212	220,000	11	11 @ 20	750,671
EB-NB-240-600	600	240	231	240,000	12	12 @ 20	818,914
EB-NB-260-600	600	260	251	260,000	13	13 @ 20	887,157
EB-NB-280-600	600	280	270	280,000	14	14 @ 20	955,400
EB-NB-300-600	600	300	289	300,000	15	15 @ 20	1,023,643
EB-NB-300-600H	600	300	289	300,000	13	13 @ 23	1,023,643
EB-NB-60-480	480	60	73	60,000	5	5 @ 12	204,729
EB-NB-72-480	480	72	87	72,000	6	6 @ 12	245,674
EB-NB-84-480	480	84	102	84,000	7	7 @ 12	286,620
EB-NB-96-480	480	96	116	96,000	8	8 @ 12	327,566
EB-NB-108-480	480	108	130	108,000	9	9 @ 12	368,511
EB-NB-120-480	480	120	145	120,000	10	10 @ 12	409,457
EB-NB-132-480	480	132	159	132,000	11	11 @ 12	450,403
EB-NB-144-480	480	144	174	144,000	12	12 @ 12	491,348
EB-NB-160-480	480	160	193	160,000	8	8 @ 20	545,943
EB-NB-180-480	480	180	217	180,000	9	9 @ 20	614,186
EB-NB-200-480	480	200	241	200,000	10	10 @ 20	682,428
EB-NB-220-480	480	220	265	220,000	11	11 @ 20	750,671
EB-NB-240-480	480	240	289	240,000	12	12 @ 20	818,914
EB-NB-260-480	480	260	313	260,000	13	13 @ 20	887,157
EB-NB-280-480	480	280	337	280,000	14	14 @ 20	955,400
EB-NB-300-480	480	300	361	300,000	15	15 @ 20	1,023,643
EB-NB-300-480H	480	300	361	300,000	13	13 @ 23	1,023,643

## ELECTRIC SUPPLY (continued)

Model	Volts	kW	Total Amps	Watts	Element Quantity	Steps	Btu/h Output
EB-NB-60-208	208	60	167	60,000	4	4 @ 15	204,729
EB-NB-75-208	208	75	209	75,000	5	5 @ 15	255,911
EB-NB-90-208	208	90	250	90,000	6	6 @ 15	307,093
EB-NB-105-208	208	105	292	105,000	7	7 @ 15	358,275
EB-NB-120-208	208	120	334	120,000	8	8 @ 15	409,457
EB-NB-135-208	208	135	375	135,000	9	9 @ 15	460,639
EB-NB-150-208	208	150	417	150,000	10	10 @ 15	511,821
EB-NB-165-208	208	165	458	165,000	11	11 @ 15	563,003
EB-NB-180-208	208	180	500	180,000	12	12 @ 15	614,186
EB-NB-60-240	240	60	145	60,000	4	4 @ 15	204,729
EB-NB-75-240	240	75	181	75,000	5	5 @ 15	255,911
EB-NB-90-240	240	90	217	90,000	6	6 @ 15	307,093
EB-NB-105-240	240	105	253	105,000	7	7 @ 15	358,275
EB-NB-120-240	240	120	289	120,000	8	8 @ 15	409,457
EB-NB-135-240	240	135	325	135,000	9	9 @ 15	460,639
EB-NB-150-240	240	150	361	150,000	10	10 @ 15	511,821
EB-NB-165-240	240	165	397	165,000	11	11 @ 15	563,003
EB-NB-180-240	240	180	434	180,000	12	12 @ 15	614,186

Note: Canadian models include single feed bus option where applicable.

## ENGINEERING SPECIFICATION STATEMENT

The electric hot water boiler shall be an Electro Industries, Inc. model number EB-NB-\_\_\_\_\_. The Boiler output shall be \_\_\_\_\_ Btu/h or \_\_\_\_\_ kW at \_\_\_\_\_ volts three phase. Wiring within the main cabinet shall be rated at 75°C or higher. Aluminum or copper conductors may be used for field installed power wiring. The boiler shall include provisions to connect directly to utility load control. The boiler shall include a dedicated 15A 120V single phase control circuit (general service).

As a preferred option the boiler (dependant upon kW) shall be wired using (2) three phase delta feeds without neutral (unbonded neutral) within the dedicated utility transformer XO terminal. All Delta 3-phase require optional Bender fault monitor.

The vessel shall be wrapped with 3" insulation. The vessel shall be enclosed in a 14 gauge fully enclosed cabinet. The cabinet and vessel shall be attached to a 10 gauge structural steel base. The base includes integral fork pockets for easy maneuvering during installation. Both base and cabinet shall be painted with powder coated enamel. The cabinet shall include a full length hinged door with an included lockable T-handle. The inside dead front panel shall include an integral door safety interlock switch.

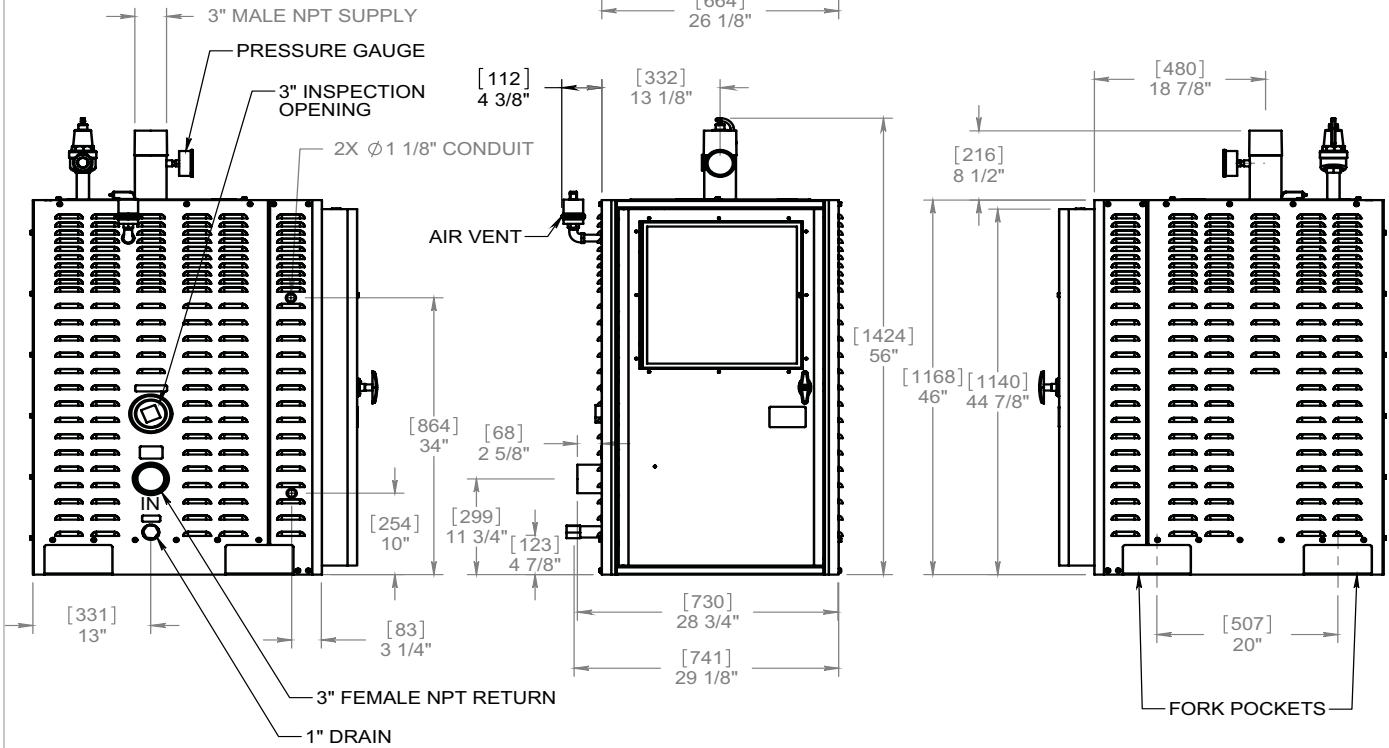
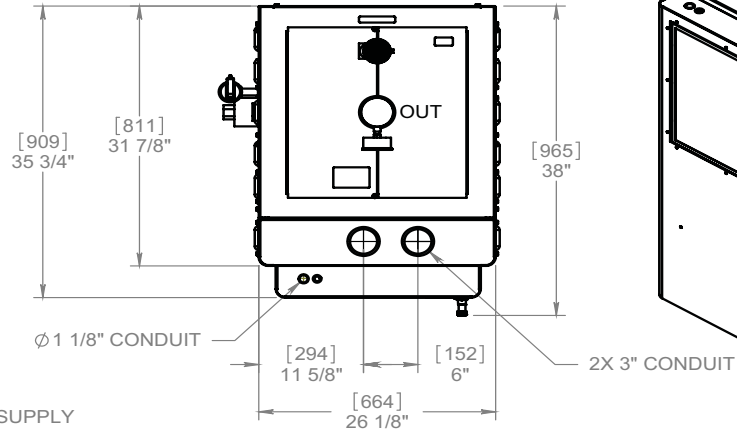
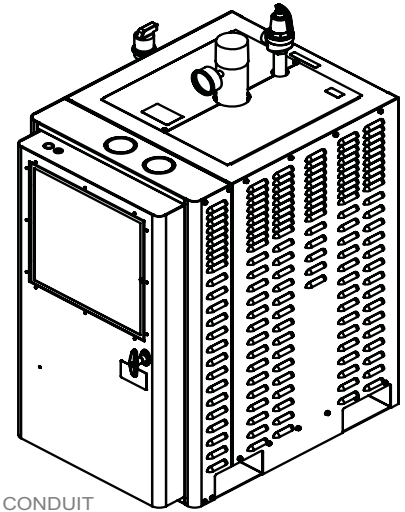
The vessel shall have a capacity of 40 gallons. The vessel shall be "H" stamped and National Board registered with a maximum working pressure of 30 or 125 PSI. The Vessel shall have 3" NPT threaded inlet and outlet nozzles. The outlet nozzle shall be located on the top of the vessel. The inlet nozzle shall be located on the left side of the vessel.

The immersion heating elements shall be installed in the top of the vessel and threaded into vessel for easy servicing (water draw-down not required). The heating elements shall be constructed using incoloy sheathing for long service life. The low-watt density heating elements shall be 30" in length. The cabinet shall have a split cover top for easy access to the heating elements. Contactors used to operate the heating elements shall be rated for 500,000 cycles.

The boiler shall include mounted control enclosure. The control enclosure shall contain all boiler controls and adjustments. Operator is not required to enter main cabinet for resets or other functions. A window shall be included on the door of the control enclosure to permit viewing of monitor and alarm LED's. The control assembly shall include a six function alarm LED. The sequencer shall include provisions for stage rotation. An optional emergency stop switch can be field installed at the terminals provided in the boiler. The boiler shall include a 5-year limited warranty on the vessel and a 1-year limited warranty on the parts. The boiler shall be fully tested using standard UL834 and shall bear the CSA mark.

# INDUSTRIAL BOILER, EB-N\*\_-\*\*\*\_\*\*\*

Hydronic Boilers  
Submittal Data



### CLEARANCES

	MINIMUM CLEARANCE FROM COMBUSTIBLE SURFACES		SUGGESTED MINIMUM SERVICE CLEARANCE	
	INCH	MM	INCH	MM
BACK	0 INCH	0 MM	0 INCH	0 MM
LEFT	12 INCHES	305 MM	24 INCHES	610 MM
RIGHT	8 INCHES	203 MM	12 INCHES	305 MM
FRONT	24 INCHES	457 MM	36 INCHES	914 MM
TOP	26 INCHES	660 MM	26 INCHES	660 MM

DIMENSIONS ARE:  
[mm]  
IN