ELECTRA STEAM, INC.

4407 Martinsburg Pike
Clear Brook, VA 22624
USA

Phone: 540-662-3811
Fax: 540-665-8101
email: sales@reimersinc.com
web: www.reimersinc.com

HLR120 - HLR180 HOT WATER BOILERS

Features

- Maximum design 100psi, 250°F
- Maximum operating 85psi, 235°F
- All boilers are manufactured in accordance with the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and A.S.M.E. CSD-1. Each boiler bears the National Board Stamp "H".
- Shell fiberglass insulation thickness minimum 2".
- Power range 120kW - 180kW with up to 6 heating stages, depending on model.
- Heating stages managed by digital step controller.

Standard Equipment of Each Boiler Includes:

- A.S.M.E. pressure relief valve
- One (1) primary high temperature cutoff control with automatic reset and one (1) secondary high temperature cutoff controll with manual reset
- One (1) low water cutoff control w ith manual reset
- PID-step controller with number of heating stages depending on the boiler heating power
- Digital readout of the operating temperature
- Magnetic contactors
- Internal branch circuit fusing
- Main supply power distribution block
- Indicator lights for POWER, HEATING, CIRCULATOR PUMP, and ALARMS
- Pressure and temperature gauges

Applications

- Space Heating
- Tank Heating
- Water Source Heat Pumps
- Swimming Pools
- Bio-Diesel Reactors
- De-Icing

HEATING POWER KW	OUTPUT CAPACITY BTU/HR	NO. OF STEPS	VOLTAGE[1] 50/60Hz	PHASE	INLET & OUTLET SIZE NPT	20°F RISE WATER FLOW G.P.M. (L/min.)	WATER CAPACITY GAL. (L)	OPERATING TEMPERATURE RANGE °F (°C)	SHIP WT. LBS (kg)
120	409,440	4	240/380/415/480/600	3	2-1/2"	42.6 (161.26)	33 (125)	35 (1) - 235 (113)	910 (413)
150	511,800	5	240/380/415/480/600	3	2-1/2"	53.3 (201.76)	33 (125)	35 (1) - 235 (113)	930 (422)
180	614,160	6	240/380/415/480/600	3	2-1/2"	64 (242.27)	33 (125)	35 (1) - 235 (113)	940 (427)

Model Number Key

H L R [ ][ ][ ] [ ] [ ] [ ]

- Boiler Power in kW
- Power Supply Voltage:
  C = 208V
  E = 240V
  G = 380V
  J = 415V
  K = 480V
  M = 600V
- Safety Relief Valve Setting:
  A = 15psi (1.0 bar)
  B = 30psi (2.1 bars)
  C = 50psi (3.4 bars)
  D = 60psi (4.1 bars)
  E = 75 psi (5.2 bars)
  F = 100psi (6.9bars)
- Power Supply:
  1 = 1-Phase
  3 = 3-Phase

Example: HLR180K3B = HLR-Series hot water boiler, 180kW heating power, power supply 480V, 3ph, safety valve set to 30psi

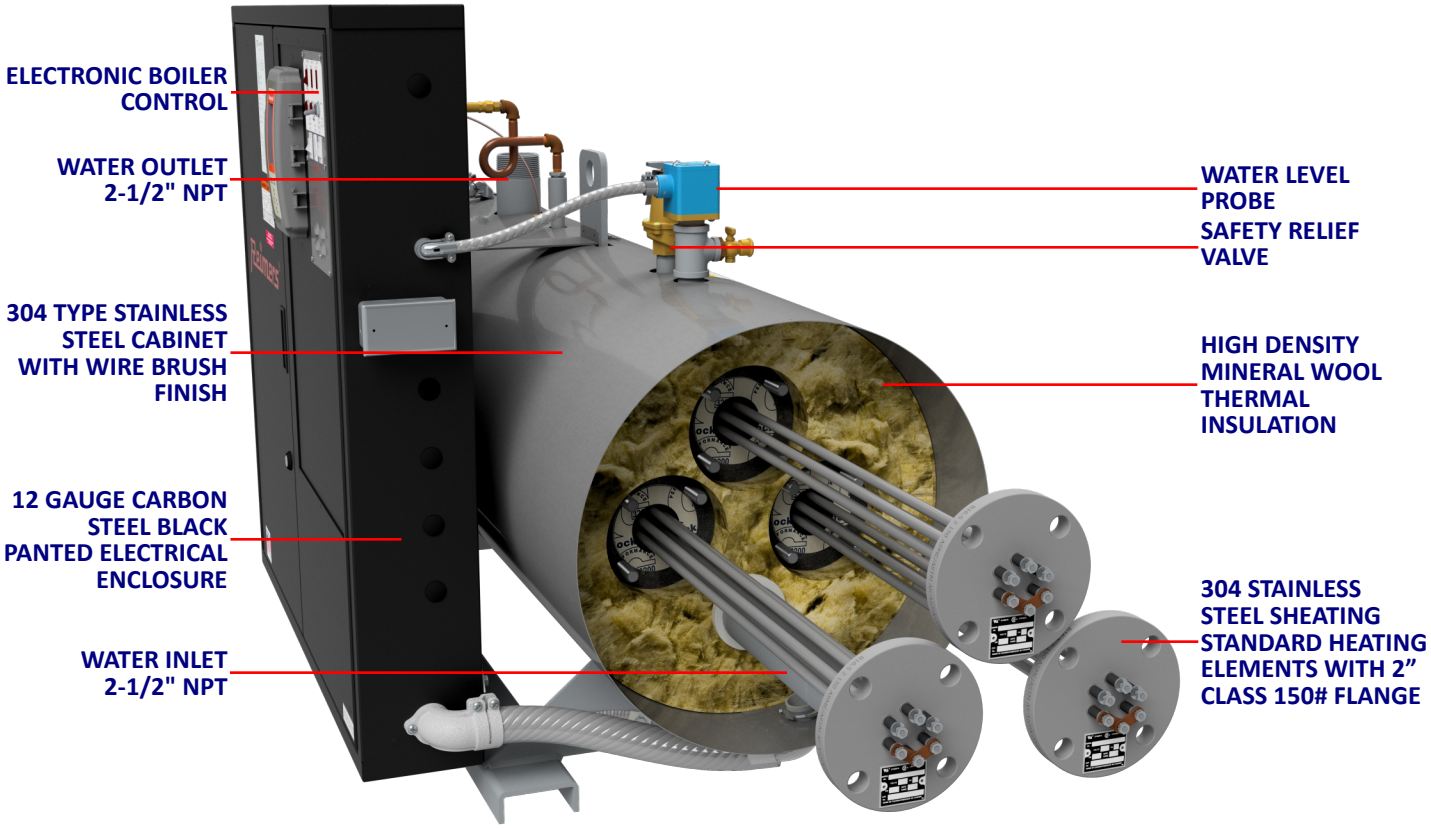
* Each boiler model requires two (2) power supplies: Heating power and control voltage. Nominal control voltage is 120V AC. Boiler models rated for 380V and 415V are equipped with control voltage transformers that require 220/240V applied to their primary side in order to provide the 120V AC control voltage to the boiler. As an option, all boiler models can be equipped with control voltage transformers so that only the heating power supply needs to be connected to the boiler.

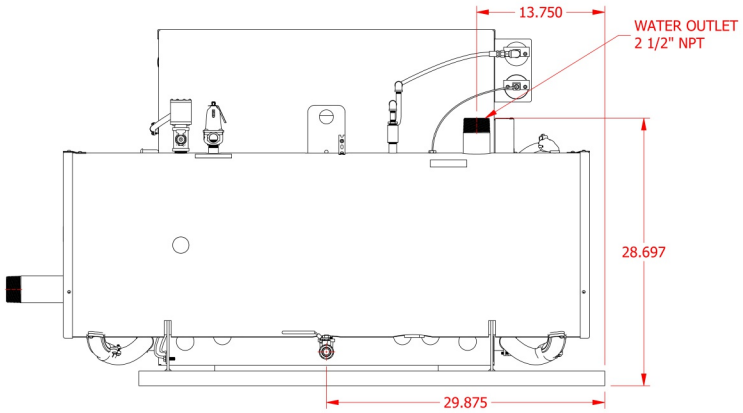
Please note that all information provided within this brochure is approximate and subject to change without notice.
Please contact Reimers Electra Steam, Inc. with any questions regarding the specifications or dimensions detailed within.

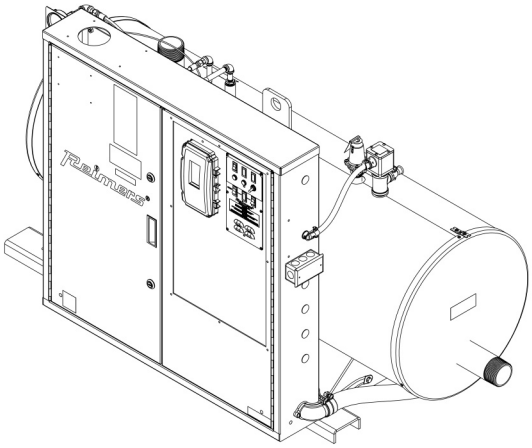
Electrical Specifications

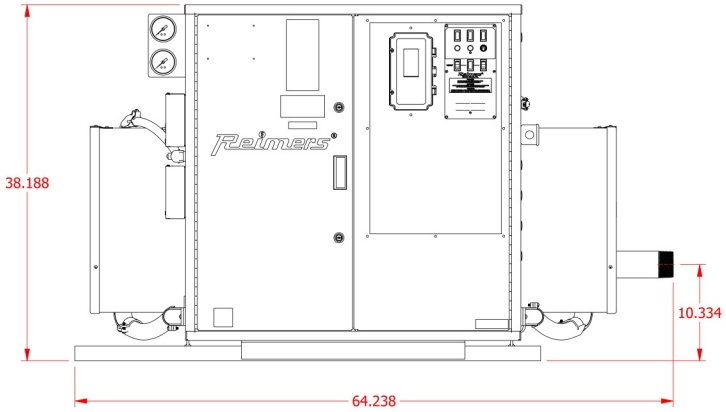
HEATING POWER	VOLTAGE	PH	AMP DRAW	INTERNAL POWER FUSING	INTERNAL ELEMENT WIRING	NUMBER & SIZES OF CONTACTORS	NUMBER & SIZE OF ELEMENTS	POWER SUPPLY	
kW	V		A		AWG (mm^2)			GAUGE OF POWER ENTRY WIRES AWG/MCM	NO. AND SIZE OF POWER ENTRY WIRE CONDUITS
120	240	3	288.7	12 x 90A, 250V	6 (13.3)	4 x 93A res.	4 x 30kW, 240V, 3ph	3 x 500MCM	1 x 3"
	380	3	182.3	12 x 60A, 600V	8 (8.35)	4 X 75A res.	4 x 30kW, 380V, 3ph	3 x 4/0AWG	1 x 2-1/2"
	415	3	166.9	12 x 50A, 600V	8 (8.35)	4 x 50A res.	4 x 30kW, 415V, 3ph	3 x 4/0AWG	1 x 2-1/2"
	480	3	144.3	12 x 50A, 600V	8 (8.35)	4 x 50A res.	4 x 30kW, 480V, 3ph	3 x 3/0AWG	1 x 2"
	600	3	115.5	12 x 40A, 600V	8 (8.35)	4 x 50A res.	4 x 30kW, 600V, 3ph	3 x 3/0AWG	1 x 2"
150	240	3	360.8	15 x 90A, 250V	6 (13.3)	5 x 93A res.	5 x 30kW, 240V, 3ph	6 x 4/0AWG	1 x 2-1/2"
	380	3	227.9	15 x 60A, 600V	8 (8.35)	5 X 75A res.	5 x 30kW, 380V, 3ph	3 x 300MCM	1 x 2-1/2"
	415	3	208.7	15 x 50A, 600V	8 (8.35)	5 x 50A res.	5 x 30kW, 415V, 3ph	3 x 300MCM	1 x 2-1/2"
	480	3	180.4	15 x 50A, 600V	8 (8.35)	5 x 50A res.	5 x 30kW, 480V, 3ph	3 x 4/0AWG	1 x 2-1/2"
	600	3	144.3	15 x 40A, 600V	8 (8.35)	5 x 50A res.	5 x 30kW, 600V, 3ph	3 x 3/0AWG	1 x 2"
180	240	3	433	18 x 90A, 250V	6 (13.3)	6 x 93A res.	6 x 30kW, 240V, 3ph	6 x 300MCM	2 x 2-1/2"
	380	3	273.5	18 x 60A, 600V	8 (8.35)	6 X 75A res.	6 x 30kW, 380V, 3ph	3 x 500MCM	1 x 3"
	415	3	250.4	18 x 50A, 600V	8 (8.35)	6 x 50A res.	6 x 30kW, 415V, 3ph	3 x 400MCM	1 x 3"
	480	3	216.5	18 x 50A, 600V	8 (8.35)	6 x 50A res.	6 x 30kW, 480V, 3ph	3 x 4/0AWG	1 x 2-1/2"
	600	3	173.2	18 x 40A, 600V	8 (8.35)	6 x 50A res.	6 x 30kW, 600V, 3ph	3 x 4/0AWG	1 x 2-1/2"

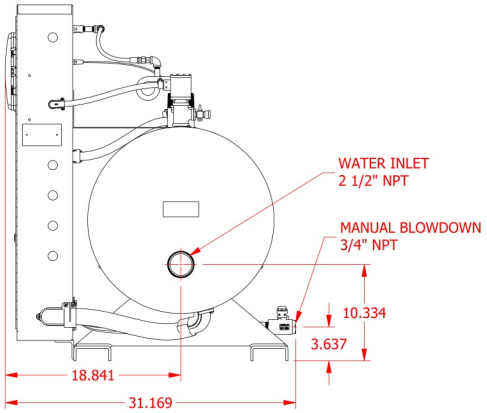
Construction




13.750
WATER OUTLET
2 1/2" NPT
28.697
29.875

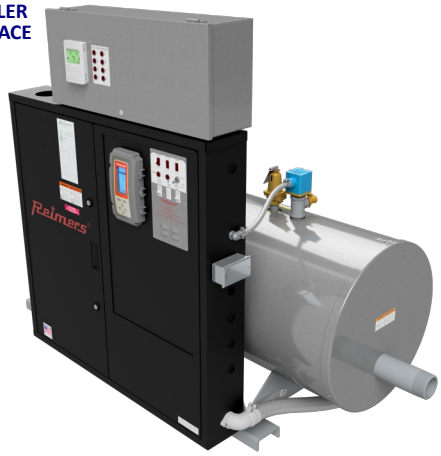

Reimers


38.188
Reimers
10.334
64.238

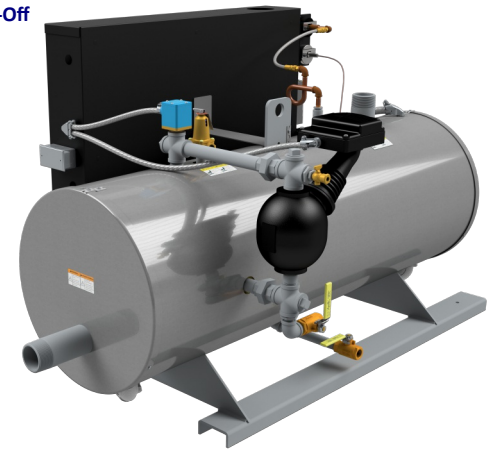

WATER INLET
2 1/2" NPT
MANUAL BLOWDOWN
3/4" NPT
10.334
3.637
18.841
31.169

Optional Equipment and Accessories

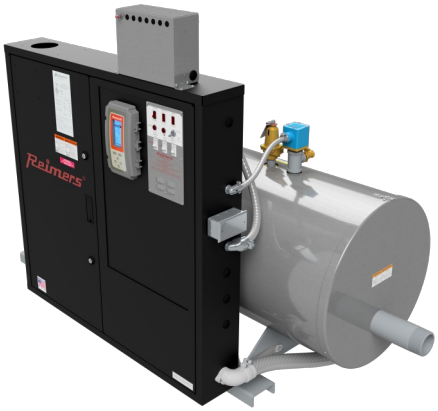
HOT WATER BOILER CONTROLLER W/ BACnet PROTOCOL INTERFACE # OPT-BMS-HLR:



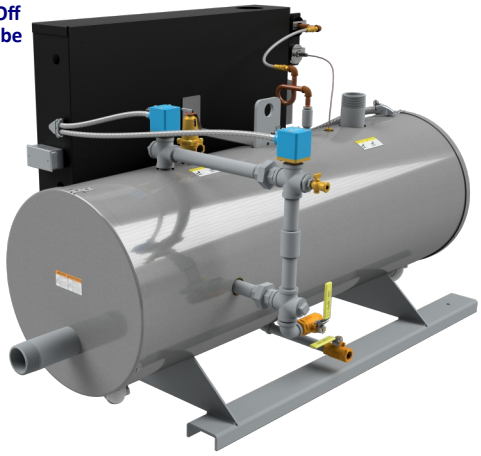
Auxiliary Low Water Cut-Off with McDonnel & Miller Model MM150 # OPTMM150:



REMOTE ALARM MONITOR BASIC # OPT1034:



Auxiliary Low Water Cut-Off with Conductive Type Probe Fitting in External Water Column # OPT1012:



REMOTE ALARM MONITOR BASIC W/ HORN & LIGHT # OPT1037:

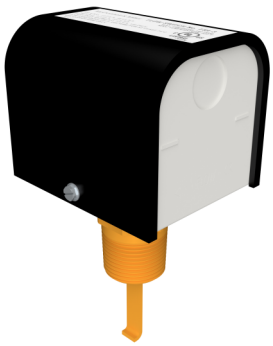
HEATING ELEMENT OPTIONS

OPT-316SH: SS 316 SHEATHING HEATING ELEMENT OPTION
OPT-INCOLOY: INCOLOY SHEATHING HEATING ELEMENT OPTION

Control Voltage Transformer Options:
Use one of these options for single point boiler power supply.

Transformer Options	
Part Number	**Description**
OPT1010	OPTIONAL INSTALL TRANS .5KVA PRIMARY
OPT1011	OPTIONAL INSTALL TRANS 1.5KVA PRIMARY

FLOW SWITCH MM FS4-3 # 02512:



Timer Controlled Boiler On/Off, #OPT1017

PART # 03893

MISC. OPTIONS

OPT1036: UNFUSED DISCONNECT SWITCH OPTION
OPT-HLR-WEB: HOT WATER BOILER BACNET GATEWAY