

Standard Features

- Factory installed boiler/system modulating pump
- Onboard outdoor reset control system with sensor standard
- Priority DHW standard
- Built in DHW plate heat exchanger
- Modulating Ceramic premix burner
- 4.2:1 turn down ratio
- Spark ignition
- Exceeds SCAQMD 1146.2 Low NO_x requirements
- Stainless Steel Water tube condensing heat exchanger
- Direct Vent sealed combustion
- Twin pipe venting adapters included
- Approved for room and closet installations (Zero Clearance to Combustibles)

Optional Accessories

- RS100 Single zone controller
- Flue Gas temperature sensor
- Room Air Filter
- Flow Switch Conversion Kit
- Low Loss Header Plumbing Kit
- Low Loss Header Side Mount Kit

SPECIFICATIONS

General Specifications

	Units	Boiler Model
		E110CR
Water content	gal/L	1.3/4.8
Max. supply boiler temperature	°F/°C	176/80
Max operating pressure	psi/kPa	45/310
Relief valve rating	MBH/ kWh	375/110
Relief valve pressure rating	psi/kPa	30/207
Dry weight	lbs/kg	92/42
Min inlet gas pressure NG	"W.C./ mbar	4.0"/10.0
Max inlet gas pressure NG	"W.C./ mbar	10.5"/26.2
Min inlet gas pressure LP	"W.C./ mbar	8.0"/19.9
Max inlet gas pressure LP	"W.C./ mbar	13.5"/33.6
Electrical Voltage Mains	V/Hz	120/60
Electrical Voltage Controls	V	24
Power Consumption Max Load	W	145
Power Consumption Stand by Load	W	14
Recommended Circuit breaker rating	A	15

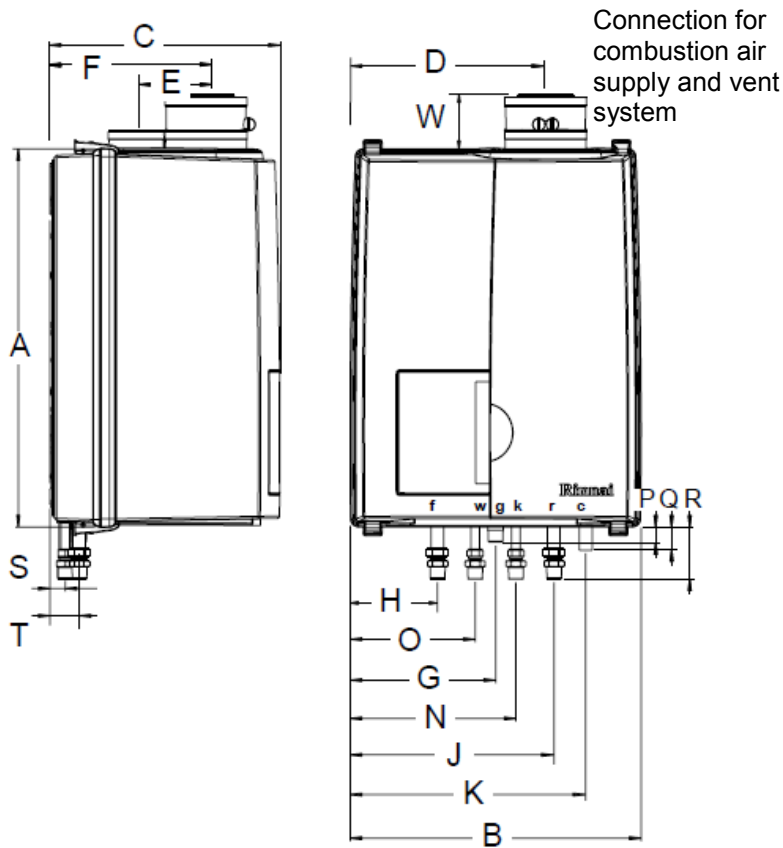
Performance Specifications

	Units	E110CR
Fuel Type		NG/LP
Input (Heating)	MBH	110
	kWh	32.2
Heating Capacity	MBH	105.7
	kWh	31.0
Input (DHW)	MBH	130
	kWh	38.1
Minimum Input	MBH	26/59
	kWh	7.6/17.4
Turn Down Ratio	TDR	4.2:1/1.9:1
System Pump Model		UPER 20-78
Max Head Pressure at Flow Rate		13.8ft at 5.0GPM
		4.2m at 18.9LPM
AFUE (I=B=R)	%	95.5
Part Load Efficiency (EN677)	%	99.0
DHW flow rate 75°F ΔT	gpm	3.2
	lpm	12.1
DHW minimum activation	gpm	0.4
	lpm	1.5
Flow Restrictor Color		Green
Max equivalent exhaust vent length	ft	100
	m	30.5
Max equivalent combustion air vent length	ft	100
	m	30.5
Approved venting materials		Polypropylene, Stainless Steel, PVC, CPVC



Rinnai is continually updating and improving products; therefore, specifications are subject to change without prior notice. Local, state, provincial and federal codes must be adhered to prior to installation.

DIMENSIONS



E110CR		inch / mm
A	Height	25.6 / 650
B	Width	19.7 / 500
C	Depth	15.6 / 395
D	Left side / vent	13.2 / 335
E	Center to center / vent and air supply	4.7 / 120
F	Back / vent	10.6 / 270
G	Left side / gas pipe	9.8 / 250
H	Left side / supply pipe	5.9 / 150
J	Left side / return pipe	13.8 / 350
K	Left side / condensate pipe	15.9 / 405
N	Left side / cold water pipe	11.2 / 285
O	Left side / hot water pipe	8.5 / 215
P	Pipe length of g	1/26
Q	Pipe length of c	1.6 / 40
R	Pipe length of f, k, r, and w	3.5/90
S	Back / center of pipe c, k, and w	1 / 26
T	Back / Center of pipe f, g, and r	1.9/49
V	Pipe length vent co-axial Pipe length vent parallel	3.7 / 95 7 / 177

Additional Information:

- If the boiler is to be installed in a system that utilizes zone circulators and not zone valves a low loss header plumbing kit is required to be installed.
- If the pressure drop in the loop/system is greater than the available head pressure from the boiler circulator a Low Loss Header Plumbing kit part number: 804000061 must be used.
- If the boiler is installed in a system with zone valves and the constant recirculation function is activated then a differential pressure bypass valve or a low loss header plumbing kit is required to be installed.

Shipping Specifications:

- Shipping Weight: 110lbs (50Kg)
- Shipping Dimensions: 34"x17"x22" (86cm x 44cm x 55cm)

Clearances

	Minimum required clearance to combustibles and non-combustibles	Recommended service clearances
	inch / mm	inch / mm
Top	0	10 / 250
Back	0	0
Front	1 / 25	24 / 600
Left side	0	2 / 50
Right side	0	2 / 50
Floor / Ground	0	30 / 762
Vent	0	0