

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
- 3.7:1 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 standard
- Approved for room and closet installations
(Zero Clearance to Combustibles)

Optional Accessories

- ☐ RS100 Single zone controller
- ☐ Flue Gas temperature sensor
- ☐ Twin pipe to concentric vent adapters
- ☐ Room Air Filter
- ☐ NG to LP Conversion Kit
- ☐ Flow Switch Conversion Kit
- ☐ Low Loss Header Plumbing Kit
- ☐ Low Loss Header Side Mount Kit

SPECIFICATIONS

General Specifications

	Units	Boiler Model
		E50CR
Water content	gal/L	0.9/3.4
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	85/39
Min inlet gas pressure NG	"W.C./mbar	3.0"/7.5
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

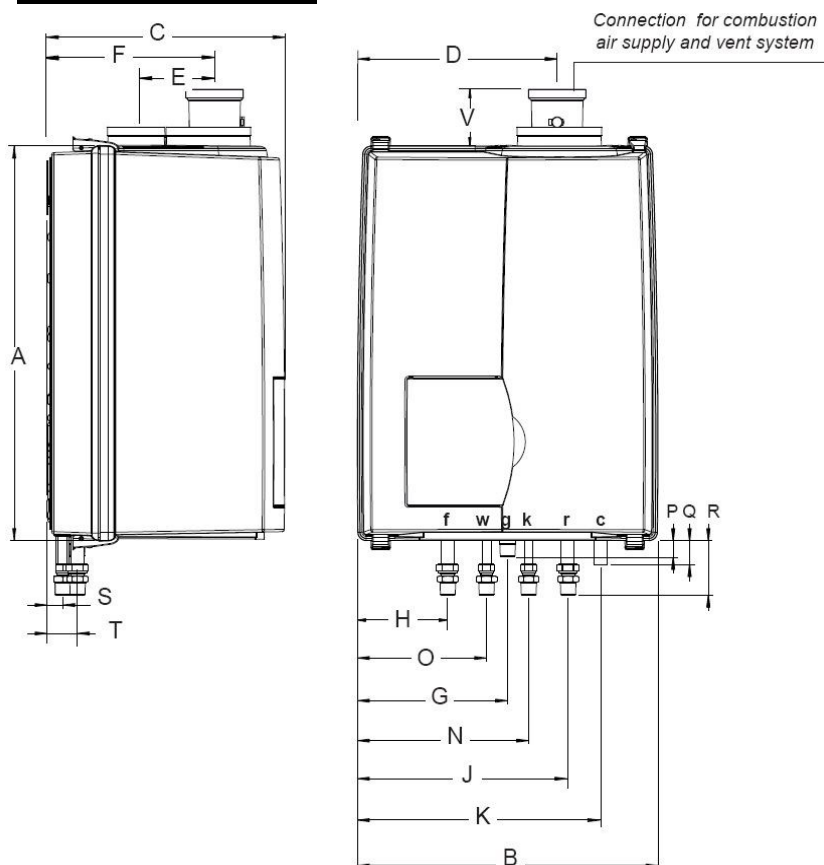
Performance Specifications

	Units	E50CR
Fuel Type		NG
Input (Heating)	MBH	50
	kWh	14.7
Heating Capacity	MBH	47.8
	kWh	14.0
Input (DHW)	MBH	85
	kWh	24.9
Minimum Input	MBH	13.6
	kWh	4.0
Turn Down Ratio	TDR	3.7:1
System Pump Model		UPER 20-58
Max Head Pressure at Flow Rate		6.7ft at 5.0GPM
		2.0m at 18.9LPM
AFUE (I=B=R)	%	95.6
Part Load Efficiency (EN677)	%	98.8
DHW flow rate 75°F ΔT	gpm	2.1
	lpm	7.9
DHW minimum activation	gpm	0.4
	lpm	1.5
Flow Restrictor Color		Brown
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



E50CR		
		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: 96lbs (44Kg)
- Shipping Dimensions: 34" x 17" x 22" (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