



# **Residential Gas**

ThermaForce Super High Efficiency **Condensing Combi Boilers** 

The new degree of comfort."

# Rheem<sup>®</sup> ThermaForce<sup>™</sup> Super High-Efficiency **Condensing Combi Boilers**

## **Flexible Installation**

- Moveable combustion air intake (left/right) and ability to flex vent in existing B-vent
- Extra long pipe fittings with notched sides for easy gripping with wrench
- Only 5 moving parts Fan, Bypass Valve, Pump, Gas Valve, and Damper
- Universal shared platform parts Easily diagnose and service with common parts for all ThermaForce<sup>™</sup> units

#### **Key Features**

- Innovative Labyrinth Heat Exchanger with 2 independent copper waterways for maximum heat transfer and minimal heat loss
- S

•	Built-in ECM variable speed,	high
	efficiency boiler pump	

- Built-in Illuminated Touchscreen **Control Panel**
- Outdoor reset technology increases efficiency by lowering water temperature automatically
- Wireless cascading using RF balances workload of each unit for longer life
- Only Combi Boilers that can be cascaded for both space heating and domestic hot water
- ENERGY STAR<sup>®</sup> certified with up to 96% AFUE and ASME-rated (excludes 160K combi model).

<sup>3</sup>Natural Gas only, LP is 7,800 ft

		ODODU	ODODU	ODODU	ODODU
MODEL NO.		CRCBH- L99i	CRCBH- L125i	CRCBH- L160i	CRCBH- L199i
Input Rate	MAX	99,000 BTU/h	99,000 BTU/h	125,000 BTU/h	125,000 BTU/h
(Heating Mode)	MIN	15,500 BTU/h	16,500 BTU/h	23,000 BTU/h	28,500 BTU/h
Output Rate	MAX	89,000 BTU/h	89,000 BTU/h	111,000 BTU/h	111,000 BTU/h
(Heating mode)	MIN	14,800 BTU/h	15,800 BTU/h	22,000 BTU/h	27,100 BTU/h
Input Rate	MAX	99,000 BTU/h	125,000 BTU/h	160,000 BTU/h	199,000 BTU/h
(Domestic Hot Water)	MIN	15,500 BTU/h	16,500 BTU/h	23,000 BTU/h	28,500 BTU/h
AFUE		96%	95%	94%	95%
Gas Pressure	MAX	14" WC			
(Nat Gas or LP gas)	MIN	4" WC			
Power Supply		120V/60Hz			
Weight Ibs. (empty)		85		84	
Pressure vessel water con	tent – USG	0.5		0.19	
Boiler Flow Rate - GPM	MAX	1	0	11	12
Boller Flow Mate - Gr M	MIN	2			
Water Pressure	MAX			Heating 43.5psi	
Water Pressure	MIN		DHW 40psi /	Heating 8psi	
Maximum Altitude		10,100 ft	10,100 ft	10,100 ft	10,100 ft <sup>3</sup>
Ambient temperature – Lo	Ambient temperature – Low (°F)		32°		
Ambient temperature – High (°F)		122°			
Max relative humidity (non-condensing)		90%			
Temp Range	Heating Mode	51°F-194°F			
	Domestic Hot Water				
Minimum Activation Flow I	Rate (DHW)	0.5 GPM			
Gallons per Minute - GPM	MAX		4		7
(Domestic Hot Water)	67°F Rise	2.4	3.2	4.1	5
Gas Connection	Gas Connection		3/4" Male NPT		
Domestic Hot Water Conne	Domestic Hot Water Connection		3/4" Male NPT		
Heating Connection		1" Male NPT			
Max equivalent vent length 2" (each side) <sup>2</sup>		65'			
Max equivalent vent length 3" each side)		120'			
Ultra Low NOx		Meets 14ng/J NOx requirements - SCAQMD Rule 1146.2 compliant			
Warranty <sup>1</sup>		10-Year Heat Exchanger, 5-Year Parts, 1-Year Labor			

<sup>1</sup>See Warranty Certificate for complete information. <sup>2</sup>Approximate input derate of 10 - 16% at 2" maximum vent length.

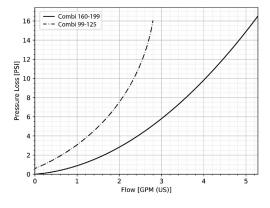


#### CRCBH-L99i CRCBH-L125i, CRCBH-L160i & CRCBH-L199i Indoor Direct Vent 99,000-199,000 BTU/h

Natural Gas/LP Convertible



Water heater pressure drop – ThermaForce™ CRCBH-L99i, CRCBH-L125i, CRCBH-L160i & CRCBH-L199i



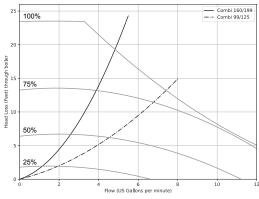




Water

#### **Residential Gas** ThermaForce Super High Efficiency **Condensing Combi Boilers**

View the boiler head loss – ThermaForce<sup>™</sup> CRCBH-L99i, CRCBH-L125i, CRCBH-L160i & CRCBH-L199i



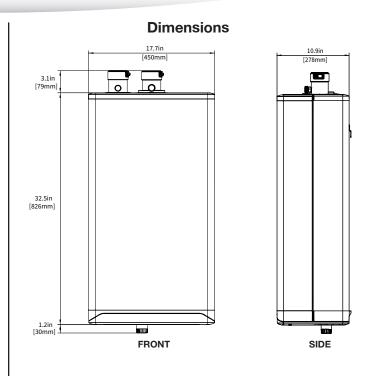
#### **Specifications**

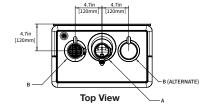
VENTING	MAXIMUM EQUIVALENT LENGTH
ULC-636 PVC, CPVC or Polyproyplene	(each side)
2"	65' <sup>2</sup>
3"	120'
2" or 3" 90° Long Sweep Vent Elbow	Allow 5 equivalent feet
2" or 3" 90° Short Sweep Vent Elbow	Allow 8 equivalent feet
2" or 3" 45° Vent Elbow	Allow 3 equivalent feet
Polyproyplene	
PPs 87-90° Elbow	Allow 8 equivalent feet
Flex PPS	
3" PPs Flex	35' Actual (Equivalent = Actual x 1.4)

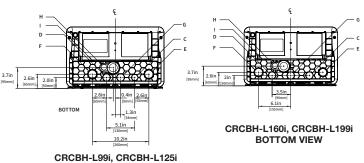
<sup>2</sup>Approximate input derate of 10 - 16% at 2" maximum vent length.

SURFACE	MIN. DISTANCE FROM COMBUSTIBLE SURFACES	RECOMMENDED DISTANCE FOR INSTALLATION AND SERVICE
Front	2"	24"
Rear	0"	0"
Left Side	1.5"	6"
Right Side	4"	6"
Тор	2"	24"
Bottom	8"	24"

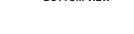
	PIPING CONNECTIONS	DIMENSION
A	Exhaust Outlet	2" Schedule 40 PVC
В	Combustion Air Inlet	2" Schedule 40 PVC
С	Cold Domestic Water Connection	3/4" Male NPT
D	Hot Domestic Water Connection	3/4" Male NPT
E	Heating Water Inlet	1" Male NPT
F	Heating Water Outlet	1" Male NPT
G	Gas Inlet	3/4" Male NPT
Н	Condensate Outlet	3/4" Hose
I	Control Wiring	7/16" Rubber Plug







BOTTOM VIEW



### **Parts & Accessories**



In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.

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