WHP125R
Commercial Heat Pump Water Heating Systems

WATER SOURCE HEAT PUMP

c LC US

DESIGNED ★ ENGINEERED ★ ASSEMBLED
USA

Lochinvar®

WHP125R

Specifications

Operating Conditions	Model Number	WHP125R
	Recovery Rate [1]	233 Gal/hr
	Nominal DOE Capacity	137,160 BTU/h
	Nominal DOE Performance	4.4 COP
	Compressor Type	Scroll
	Refrigerant	R513A
	Factory Charge	14 lbs.
	Max Water Temperature	160° F
	Source Water Range	35° F - 120° F
	Min Ambient Exposure	33° F
	Max Working Water Pressure	150 psig (DHW); 300 psig (Source)

Multi-Pass Unit Sizing	DHW & Source Water Connections	1 ½" FPT Copper
	DHW Water Flow Rate	20 GPM
	DHW Pressure Drop [2]	8.4 ft Head
	DHW Water Circuit Cv Value [2]	11.0
	Source Water Flow Rate	23 GPM
	Source Water Circuit Pressure Drop	13.9 ft Head
	Source Water Circuit Cv Value	9.0
	External Head Pressure Allowed by Unit [3]	13.4 ft Head
	Min Cold Cycle Volume [5]	61 Gal.
	Min. Warm Cycle Volume [6]	171 Gal.
	Min. Tank Recovery [7]	427 Gal.

Single-Pass Unit Sizing	DHW & Source Water Connections	1½" FPT Copper
	DHW Design Flow Rate	12.0 GPM
	DHW Water Circuit Pressure Drop [2]	7.1 ft Head
	DHW Water Circuit Cv Value [2]	7.0
	Source Water Flow Rate	23 GPM
	Source Water Circuit Pressure Drop	13.9 ft Head
	Source Water Circuit Cv Value	9.0 ft Head
	External Head Pressure Allowed by Unit [3]	9.7 ft Head
	Min Cold Cycle Volume [5]	61 Gal.

Unit Specifications	Dry Weight	649 lbs
	Operating Weight	667 lbs
	Sound Pressure [4]	63.9 dB Front; 66.8 dB Left; 65.9 dB Right; 65.7 dB Rear
	Dimensions (L x W x H)	52" x 31" x 40"

Power Requirements	Voltage	Compressor LRA	RLA	Wire and Disconnect Sizing	
				MCA	MOCP
	208-230/3/60	300	52.0	64	110
	440-480/3/60	150	25.0	30	50

Performance Data

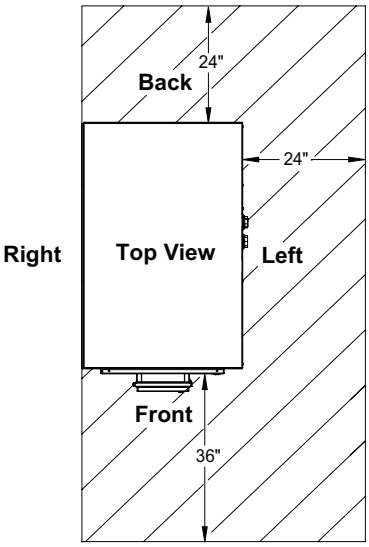
Performance Test Conditions: 50 EWT, 140 LWT, 100% Water Source Side

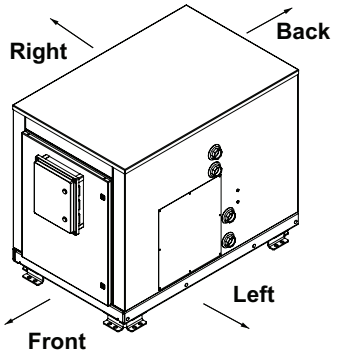
Entering Source Water Temp(˚F)	Supply Heating Capacity (Btu/hr)	Source Cooling Capacity (Btu/hr)	Power Input (kW)	Heating COP	Cooling COP	Combined COP
90A°F	143,600	108,456	10.3	4.1	3.1	7.2
80A°F	129,000	93,515	10.4	3.6	2.6	6.3
70A°F	114,400	78,574	10.5	3.2	2.2	5.4
60A°F	99,700	64,898	10.2	2.9	1.9	4.7
50A°F	85,000	51,221	9.9	2.5	1.5	4
40A°F	77,200	45,468	9.3	2.4	1.4	3.9

In view of ongoing product improvements, design and specification are subject to change without notice. Lochinvar Water Heating Systems can accept no responsibility for possible errors in catalogs, brochures or any other printed material.

Dimensions

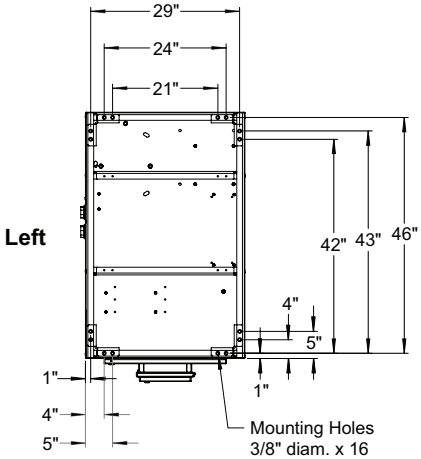
Clearances



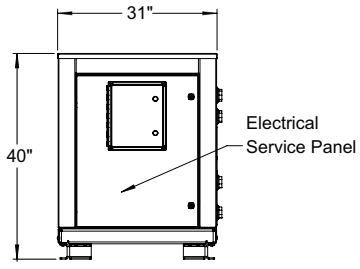


R513A Unit

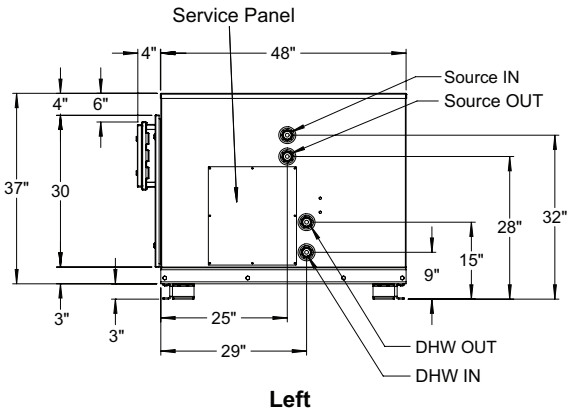
Anchor Locations



Bottom



Front



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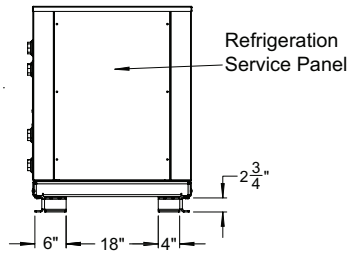

Back

Notes:Certified to UL60335-1, UL60335-2-40, CSA C22.2 60335-1, CSA 60335-2-40 (LC16116-1)
1. Recovery Rate at 80 Deg F source 100% water, DHW 50 EWT 140LWT
2 Water Circuit Pressure Drop and Heat Pump Cv value apply to external pump applications.
3 Pressure drop allowed by internal circulator for external piping, at design flow rate.
4 Sound Pressure recorded 3' from unit face, 3' from ground.
5 Cold Cycle volume is the volume below the cold trigger sensor. Cold in water over 70 Deg F will need more volume.
6 Warm Cycle volume is the volume of water below the warm/recirc trigger sensor.
7 Tank volume is based on individual project demands, but cannot be lower than minimum value. Contact factory for sizing.

Legend
LRA: Locked Rotor Amps
RLA: Rated Load Amps
MCA: Maximum Current Ampacity (used for wire sizing)
MOCP: Minimum Overcurrent Protection (minimum disconnect size to be used)

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