# MHP0540R Commercial Heat Pump Water Heating Systems

#### **MODULAR WATER SOURCE HEAT PUMP**







## **MHP0540R**

### Specifications

Model Number     MH/P0540R       Nominal DOE Capacity     557.600       Nominal DOE Parformance     4.1 COP       Recovery Rate *     1.328 Gathr       Compressor Type     Scoll       Retrigerant     R513A       Factory Charge     38.5 hs. x.2       Max Working Water Temperature     160° F       Source Water Range     33° F       Max Working Water Pressure     150 paig (DHW): 300 paig (Source)       DHW & Source Water Connections     2° FPT Copper x.4       DHW Condenser Flow Rate     7.2 GPM       DHW Water Circuit Covalue <sup>2</sup> 20       Source Evaporator Water Flow Rate     86 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Water Circuit Covalue <sup>2</sup> 20       Source Water Circuit Covalue <sup>3</sup> 21       Source Water Circuit Covalue <sup>3</sup> 32       Min. Cold Cycle Volume *     113 ft Head       Source Water Circuit Covalue <sup>3</sup> 20       Source Water Circuit Covalue <sup>3</sup> 33 fs       Min. Tark Recovery 7     835 Galions       DHW Condenser Flow Rate     64 GPM       DHW Condenser Pressure Drop								
Nominal Coc Capacity     007 400       Nominal DOC Performance     4.1 COP       Recovery Rate '     1.328 Gal/hr       Compressor Type     Scroll       Refrigerant     R513A       Factory Charge     38.5 lbs. x.2       Max Water Temperature     160° F       Source Water Range     33° F       Max Working Water Pressure     150 psig (DHW): 300 psig (Source)       DHW & Source Water Connections     2' FPT Copper x 4       DHW Water Circuit Connections     2' FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     7.4 lt Head       DHW Water Circuit Covalue'     20       Source Water Circuit Covalue'     22       External Head Pressure Allowed by Unit     118.7 ft Head       Min. Cold Cycle Volume *     119 Gallons       Min. Cold Cycle Volume *     334 Galons       Min. Tark Recovery 7     835 Galons       DHW Water Circuit Covalae     2		Model Number MHP0540R						
Recovery Rate '     1,328 Galthr Compressor Type     Scroll       Refrigerant     RS13A     Galter State       Factory Charge     38.5 lbs. x 2     Max Water Femperature     100° F       Source Water Range     36° F - 120° F     Mmx Water Pressure     150 psig (DHW): 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop '     7.4 It Head       DHW Water Circuit Cv Value'     20       Source Water Circuit Cv Value'     20       Source Water Circuit Cv Value'     20       Source Water Circuit Cv Value'     22       External Head Pressure Drop     11.11. Head       Min. Tank Recovery '     B35 Gallons       Min. Tank Recovery '     835 Gallons       DHW Water Circuit Cv Value '     2       Source Water Circuit Cv Value '     2       DHW Water Circuit Cv Value '     2       Source Ev	[	Nominal D	OE Capacity	557,600	R Lochinar R Lochinar			
Outcome     Outcome     Outcome       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Conduct CV Value2     20       Source Water Circuit CV Value2     22       External Head Pressure Allowed by Unit     11.1 ft. Head       Min. Cold Cycle Volume 5     119 Gallons       Min. Varm Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       OHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 1     11.1 ft Head       Source Evaporator Mater Flow Rate     96 GPM       Source Evaporator Pressure Drop 1     11.9 ft Head       DHW Water Circuit Condenser Pressure Drop 1     11.1 ft Head       Source Evaporator Pressu	<b>Operating Conditions</b>	Nominal DO	E Performance	4.1 COP				
Outcome     Outcome     Outcome       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Conduct CV Value2     20       Source Water Circuit CV Value2     22       External Head Pressure Allowed by Unit     11.1 ft. Head       Min. Cold Cycle Volume 5     119 Gallons       Min. Varm Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       OHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 1     11.1 ft Head       Source Evaporator Mater Flow Rate     96 GPM       Source Evaporator Pressure Drop 1     11.9 ft Head       DHW Water Circuit Condenser Pressure Drop 1     11.1 ft Head       Source Evaporator Pressu		Recovery Rate <sup>1</sup> 1,328 Gal/hr						
Outcome     Outcome     Outcome       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Conduct CV Value2     20       Source Water Circuit CV Value2     22       External Head Pressure Allowed by Unit     11.1 ft. Head       Min. Cold Cycle Volume 5     119 Gallons       Min. Varm Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       OHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 1     11.1 ft Head       Source Evaporator Mater Flow Rate     96 GPM       Source Evaporator Pressure Drop 1     11.9 ft Head       DHW Water Circuit Condenser Pressure Drop 1     11.1 ft Head       Source Evaporator Pressu		Compre	essor Type	Scroll				
Outcome     Statistical State       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Condenser Flow Rate     72 GPM       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Conduct CV Value2     20       Source Water Circuit CV Value2     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min. Cold Cycle Volume 5     119 Gallons       Min. Varm Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 2       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 2       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 11.1 ft Head       Source Evaporator Pressure Drop 11.1 ft Head     Source Evaporator Pressure Stop <td< td=""><td colspan="3">Refrigerant R513A</td><td></td><td></td></td<>		Refrigerant R513A						
Outcome     Statistical State       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Condenser Flow Rate     72 GPM       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Conduct CV Value2     20       Source Water Circuit CV Value2     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min. Cold Cycle Volume 5     119 Gallons       Min. Varm Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 2       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 2       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 11.1 ft Head       Source Evaporator Pressure Drop 11.1 ft Head     Source Evaporator Pressure Stop <td< td=""><td colspan="3">Factory Charge 38.5 lbs. x 2</td><td></td><td></td></td<>		Factory Charge 38.5 lbs. x 2						
Outcome     Statistical State       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW & Source Water Connections     2° FPT Copper x 4       DHW Condenser Flow Rate     72 GPM       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Conduct CV Value2     20       Source Water Circuit CV Value2     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min. Cold Cycle Volume 5     119 Gallons       Min. Varm Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       Min. Tank Recovery 7     835 Gallons       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 2       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 2       DHW Water Circuit Condenser Pressure Drop 11.1 ft Head     Source Evaporator Pressure Drop 11.1 ft Head       Source Evaporator Pressure Drop 11.1 ft Head     Source Evaporator Pressure Stop <td< td=""><td>Max Water</td><td>Temperature</td><td>160° F</td><td colspan="3" rowspan="2"></td></td<>		Max Water	Temperature	160° F				
Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       Max Working Water Pressure     150 psig (DHW); 300 psig (Source)       DHW Condenser Flow Rate     2" FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop <sup>2</sup> 7.4 ft Head       DHW Water Circuit Core Value <sup>2</sup> 20       Source Evaporator Water Flow Rate     96 GPM       Source Water Circuit Cv Value <sup>2</sup> 22       Source Water Circuit Cv Value     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min. Old Cycle Volume <sup>6</sup> 334 Gallons       Min. Warm Cycle Volume <sup>6</sup> 334 Gallons       Min. Warm Cycle Volume <sup>6</sup> 334 Gallons       DHW Water Circuit Cv Value <sup>2</sup> 8       DHW Water Circuit Condenser Pressure Drop <sup>2</sup> 16.9 ft Head       DHW Water Circuit Cv Value <sup>2</sup> 8       Source Evaporator Water Flow Rate     44 GPM       DHW Water Circuit Cv Value <sup>2</sup> 8       Source Evaporator Pressure Drop     11.1 ft Head		Source V	/ater Range	35° F - 120° F				
DHW & Source Water Connections     2° FPT Copper x 4       DHW Condenser Flow Rate     72 GPM       DHW Water Circuit Condenser Pressure Drop 2     7.4 ft Head       DHW Water Circuit Cov Value2     20       Source Evaporator Water Flow Rate     96 GPM       Source Water Circuit Pressure Drop     11.1 ft. Head       Source Water Circuit Pressure Drop     11.1 ft. Head       Source Water Circuit Pressure Drop     11.1 ft. Head       Min. Cold Cycle Volume 6     334 Gallons       Min. Tank Recovery 7     835 Gallons       DHW Water Circuit Cov Value 2     8       DHW Water Circuit Cov Value 2     8       DHW & Source Water Connections     2° FPT Copper x 4       DHW & Source Water Connections     2° FPT Copper x 4       DHW Water Circuit Cov Value 2     8       Source Evaporator Water Flow Rate     96 GPM       OHW Water Circuit Cov Value 2     8       Source Evaporator Pressure Drop     11.1 ft. Head       DHW Water Circuit Cov Value 2     8       Source Evaporator Pressure Drop     11.1 ft. Head       DHW Water Circuit Cov Value 2     8       Source Evaporator Pressure Drop     11.1 ft. Hea		Min. Ambi	ent Exposure	33° F				
Understand     DHW Condenser Flow Rate     72 GPM       DHW Water Circuit Condenser Pressure Drop <sup>2</sup> 7.4 ft Head     20       Source Evaporator Water Flow Rate     96 GPM     96 GPM       Source Water Circuit CV Value <sup>2</sup> 20     11.1 ft. Head       Source Water Circuit CV Value     22     20       External Head Pressure Allowed by Unit     18.7 ft Head     22       Min. Cold Cycle Volume <sup>5</sup> 119 Gallons     334 Gallons       Min. Warm Cycle Volume <sup>6</sup> 334 Gallons     334 Gallons       Min. Tank Recovery <sup>7</sup> 835 Gallons     344 GPM       DHW Water Circuit CV Value     22     16.9 ft Head     11.1 ft Head       DHW Water Circuit Condenser Pressure Drop <sup>2</sup> 16.9 ft Head     11.1 ft Head     11.1 ft Head       Source Evaporator Water Flow Rate     96 GPM     96 GPM     11.1 ft Head     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head	ĺĺ	Max Working	Water Pressure	150 psig (DHW); 300 psig (Source)				
DHW Condenser Flow Rate     72 GPM       DHW Water Circuit Condenser Pressure Drop <sup>2</sup> 7.4 ft Head       DHW Water Circuit Cv Value <sup>2</sup> 20       Source Evaporator Water Flow Rate     96 GPM       Source Water Circuit Pressure Drop     11.1 ft. Head       Source Water Circuit Cv Value     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min Cold Cycle Volume <sup>6</sup> 334 Gallons       Min. Warm Cycle Volume <sup>6</sup> 334 Gallons       Min. Tank Recovery <sup>7</sup> 835 Gallons       DHW Water Circuit Cv Value <sup>2</sup> 8       Source Evaporator Water Flow Rate     96 GPM       DHW & Source Water Connections     2" FPT Copper x 4       DHW Condenser Water Flow Rate     44 GPM       DHW Water Circuit Cv Value <sup>2</sup> 8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Pressure Drop <sup>2</sup> 11.1 ft Head       DHW Water Circuit Cv Value <sup>2</sup> 8       Source Evaporator Pressure Prop     11.1 ft Head       DHW Water Circuit Cv Value     22       DHW Water Circuit Cv Value     23       Source Evaporator Pressure Allowed by Unit     19.5 ft Head			DHW & Sourd	ce Water Connections	2" FPT Coppe	er x 4		
UPUT OF Compression     DHW Water Circuit Cv Value <sup>2</sup> 20       Source Evaporator Water Flow Rate     96 GPM       Source Water Circuit Pressure Drop     11.1 ft. Head       Source Water Circuit Cv Value     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min Cold Cycle Volume <sup>6</sup> 334 Gallons       Min. Cold Cycle Volume <sup>6</sup> 334 Gallons       Min. Tank Recovery <sup>7</sup> 835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Condenser Water Flow Rate     444 GPM       DHW Condenser Water Flow Rate     444 GPM       DHW Water Circuit Cv Value <sup>7</sup> 8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Value <sup>7</sup> 8       Source Value Circuit Cv Value <sup>2</sup> 8       Source Value Circuit Cv Value <sup>2</sup> 8       Source Value Circuit Cv Value <sup>2</sup> 19       DHW External								
UPUT OF Compression     DHW Water Circuit Cv Value <sup>2</sup> 20       Source Evaporator Water Flow Rate     96 GPM       Source Water Circuit Pressure Drop     11.1 ft. Head       Source Water Circuit Cv Value     22       External Head Pressure Allowed by Unit     18.7 ft Head       Min Cold Cycle Volume <sup>6</sup> 334 Gallons       Min. Cold Cycle Volume <sup>6</sup> 334 Gallons       Min. Tank Recovery <sup>7</sup> 835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Condenser Water Flow Rate     444 GPM       DHW Condenser Water Flow Rate     444 GPM       DHW Water Circuit Cv Value <sup>7</sup> 8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Value <sup>7</sup> 8       Source Value Circuit Cv Value <sup>2</sup> 8       Source Value Circuit Cv Value <sup>2</sup> 8       Source Value Circuit Cv Value <sup>2</sup> 19       DHW External	ass Unit Sizing	DHW Water Circuit Condenser Pressure Drop <sup>2</sup>			 7.4 ft Head			
Min Cold Cycle Volume*     The Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Tank Recovery *     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit CV Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Vater Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit CV Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ½* x 39* x 74 ½*       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/360     605     176     216     350								
Min Cold Cycle Volume*     The Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Tank Recovery *     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit CV Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Vater Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit CV Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ½* x 39* x 74 ½*       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/360     605     176     216     350								
Min Cold Cycle Volume*     The Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Tank Recovery *     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit CV Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Vater Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit CV Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ½* x 39* x 74 ½*       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/360     605     176     216     350								
Min Cold Cycle Volume*     The Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Tank Recovery *     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit CV Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Vater Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit CV Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ½* x 39* x 74 ½*       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/360     605     176     216     350								
Min Cold Cycle Volume*     The Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Warm Cycle Volume *     334 Gallons       Min. Tank Recovery *     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit CV Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Vater Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit CV Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ½* x 39* x 74 ½*       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/360     605     176     216     350	Iti-P							
Min. Warm Cycle Volume *     334 Gallons       Min. Tank Recovery *     835 Gallons       Min. Tank Recovery *     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Condenser Water Flow Rate     44 GPM       DHW Water Circuit Condenser Pressure Drop *     16.9 ft Head       DHW Water Circuit Cv Value *     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 %" x 39" x 74 ½"       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/360     605     176     216     350       440-480/360     272     89     109     175     125	Mu							
Min. Tank Recovery ?     835 Gallons       DHW & Source Water Connections     2" FPT Copper x 4       DHW Condenser Water Flow Rate     44 GPM       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Cov Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Evaporator Pressure Drop     11.1 ft Head       Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Dry Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ¼"       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/3/60     605     176     216     350       4040480/3/60     272     89     109     175       575/3/60     238     61     75     125								
Voltage     Compressor     RLA     Wire and Disconnect Sizing       Voltage     Compressor     RLA     Mine A       Voltage     Compressor     RLA     Mire and Disconnect Sizing       Voltage     Compressor     RLA     Mire and Disconnect Sizing       75/3/60     238     61     75     125					835 Gallons			
DHW Condenser Water Flow Rate     44 GPM       DHW Water Circuit Condenser Pressure Drop 2     16.9 ft Head       DHW Water Circuit Cv Value 2     8       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Water Flow Rate     96 GPM       Source Evaporator Vater Flow Rate     96 GPM       Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume *     119 Gallons       Operating Weight     2,342 lbs       Sound Pressure 4     TBD       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ½"       Voltage     Compressor LRA     Per Compressor       MCA     MOCP       208-230/3/60     605     176     216     350       4040480/3/60     272     89 <t< td=""><td></td><td colspan="3"></td><td colspan="3"></td></t<>								
Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume 5     119 Gallons       Min. Cold Water Cycle Volume 5     119 Gallons       Dry Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ¼"       Voltage     Compressor LRA     Per Compressor     MCA     MOCP       208-230/3/60     605     176     216     350       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	5		1					
Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume 5     119 Gallons       Min. Cold Water Cycle Volume 5     119 Gallons       Dry Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ¼"       Voltage     Compressor LRA     Per Compressor     MCA     MOCP       208-230/3/60     605     176     216     350       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	izin							
Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume 5     119 Gallons       Min. Cold Water Cycle Volume 5     119 Gallons       Dry Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ¼"       Voltage     Compressor LRA     Per Compressor     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	it S							
Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume 5     119 Gallons       Min. Cold Water Cycle Volume 5     119 Gallons       Dry Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ¼"       Voltage     Compressor LRA     Per Compressor     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	۲ ۲							
Source Water Circuit Cv Value     22       DHW External Head Pressure Allowed by Unit     19.5 ft Head       Min. Cold Water Cycle Volume 5     119 Gallons       Min. Cold Water Cycle Volume 5     119 Gallons       Dry Weight     2,342 lbs       Operating Weight     2,421 lbs       Sound Pressure 4     TBD       Sound Pressure 4     TBD       Dimensions (L x D x H)     77 ¾" x 39" x 74 ¼"       Voltage     Compressor LRA     Per Compressor     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	ass							
Voltage     Compressor LRA     RLA Per Compressor     Wire and Disconnect Sizing       Voltage     Compressor LRA     RLA Per Compressor     Wire and Disconnect Sizing       440480/3/60     272     89     109     175			-	· · · · · · · · · · · · · · · · · · ·				
Min. Cold Water Cycle Volume 5     119 Gallons       Image: Specified	Sing							
Image: bit	, v)							
Voltage     Compressor LRA     RLA Per Compressor     Wire and Disconct Sizing       208-230/3/60     605     176     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125								
Voltage     Compressor LRA     RLA Per Compressor     Wire and Disconct Sizing       208-230/3/60     605     176     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	ion							
Voltage     Compressor LRA     RLA Per Compressor     Wire and Disconct Sizing       208-230/3/60     605     176     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	nit icat							
Voltage     Compressor LRA     RLA Per Compressor     Wire and Disconct Sizing       208-230/3/60     605     176     MCA     MOCP       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	ecifi	Sound Pressure ⁴			TBD			
Voltage     Compression     MCA     MOCP       208-230/3/60     605     176     216     350       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	Spe	Dimensions (L x D x H)			77 ¾" x 39" x 74 ¼"			
Voltage     Compression     MCA     MOCP       208-230/3/60     605     176     216     350       440-480/3/60     272     89     109     175       575/3/60     238     61     75     125	Š			RLA				
575/3/60 238 61 75 125			Compressor	RLA	Wire and Disconne	ect Sizing		
575/3/60 238 61 75 125		Voltage						
575/3/60 238 61 75 125			ĹŔĂ	Per Compressor	MCA	MOCP		
		208-230/3/60	605	Per Compressor 176	MCA 216	MOCP 350		
		208-230/3/60 440-480/3/60	LRA 605 272	Per Compressor   176   89	MCA 216 109	MOCP 350 175		

Legend

LRA: Locked Rotor Amps

RLA: Rated Load Amps

MCA: Maximum Current Ampacity (used for wire sizing)

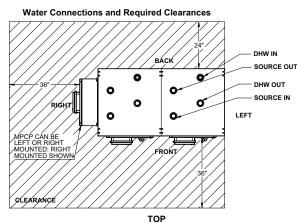
MOCP: Minimum Overcurrent Protection (minimum disconnect size to be used)

#### **Performance Data**

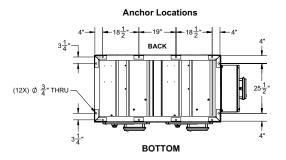
#### Performance Test Conditions: 50 EWT, 140 LWT, 100% Water Source Side

Entering Source Water Temp(°F)	Supply Heating Capacity (Btu/hr)	Source Cooling Capacity (Btu/hr)	Power Input (kW)	Heating COP	Cooling COP	Combined COP
90°F	560,800	407,260	45	3.7	2.7	6.3
80°F	507,300	357,172	44	3.4	2.4	5.8
70°F	453,800	307,084	43	3.1	2.1	5.2
60°F	401,300	259,020	41.7	2.8	1.8	4.6
50°F	348,800	210,955	40.4	2.5	1.5	4.1
40°F	304,400	174,062	38.2	2.3	1.3	3.7

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**

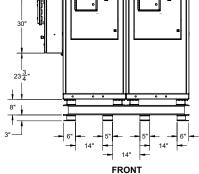


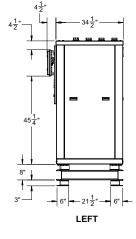


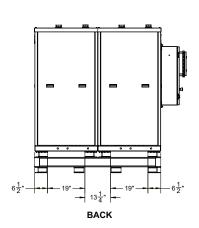
 $9\frac{1}{4}$ 

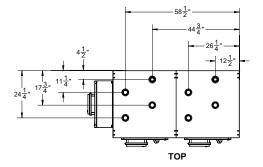
3<u>3</u>

 $9\frac{1}{2}$ "









Notes: Certified to UL60335-1, UL60335-2-40, CSA C22.2 60335-1, CSA 60335-2-40 (LC16116-1) Control Panel: UL508A Short Circuit Current Rating (SCCR) 100, Compressor Horsepower 25 HP, 1000 hrs. Salt Spray Resistance Cabinet/Evap

- 1. Recovery rate at 80° F source 100% water, DHW 50 EWT 140 LWT
- 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° F will need more volume.
- 6. Warm Cycle volume is the volume of water below the warm/recirc trigger sensor.

<sup>7.</sup> Tank volume is based on individual project demands, but cannot be lower than minimum value. Contact factory for accurate sizing.



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