SEHI-T Electric Expansion Valve
R-134a Chillers/Heat Pumps

FEATURES AND BENEFITS

■ Reduction in number of expansion valves required per system
  • Valve cost reduction versus multiple expansion valves
  • Simplified system piping enables piping material cost reduction
  • Reduced install time enables labor cost reduction
  • Single actuator reduces control and wiring complexity
■ Improved superheat or level control versus alternate metering device
■ Standard 42mm DLA integrates with existing electronics
  • 6,386 steps of resolution
  • 75 Ω bipolar stepper motor
  • 160 mA per winding
■ Bi-sealing piston assembly
■ Integrated sightglass with moisture indicator for diagnostics and verification of operation

SEHI-T CAPACITY:

<table>
<thead>
<tr>
<th>Refrigerant</th>
<th>Evaporator Temperature (°F)</th>
<th>Pressure Drop Across Valve (psid)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40°F</td>
<td>60°F</td>
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<tr>
<td>R-134a</td>
<td>419</td>
<td>513</td>
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</table>

<table>
<thead>
<tr>
<th>Refrigerant</th>
<th>Evaporator Temperature (°C)</th>
<th>Pressure Drop Across Valve (bar)</th>
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<tbody>
<tr>
<td></td>
<td>5°C</td>
<td>-10°C</td>
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<tr>
<td>R-134a</td>
<td>1612</td>
<td>2038</td>
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LIQUID CORRECTION FACTORS

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<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
<th>110</th>
<th>120</th>
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<tr>
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<td>-12</td>
<td>-7</td>
<td>-1</td>
<td>4</td>
<td>10</td>
<td>16</td>
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<tr>
<td>R-134a</td>
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<td>1.56</td>
<td>1.49</td>
<td>1.42</td>
<td>1.36</td>
<td>1.29</td>
<td>1.21</td>
<td>1.14</td>
<td>1.07</td>
<td>1.00</td>
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<td>0.85</td>
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<td>0.71</td>
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SPECIFICATIONS

Motor Type: Permanent magnet bipolar internal (wet) motor
Compatible Refrigerant: R-134a
Compatible Oil: POE, PAG
Supply Voltage (unless current limited): 12 VDC +10%-5%
Cable: Hermetic 4 conductor w/ stripped ends
Phase Resistance: 75Ω ±10% at 70°F (21°C)
Stepping Current: 160 mA / winding
Holding Current: Not recommended
Number of Full Steps: 6,386
Step Rate: 200 steps / second (PPS)
Initialization: 7,500 steps closing
Overdriving: Recommended one 10% overdrive closed per day maximum
(MR/V/MWP/MWP/MPA) 
MRP/MAP/MWP: 500 psig (34 bar)
Ultimate Strength: 1,900 psig (131 bar)
MOPD: 150 psid (10.3 bar)
Max Internal Leakage: 400 cc/min. at 100 psid (6.9 bar) dry air (bi-sealing)
Max External Leakage: 0.10 oz./yr. at 300 psig (2.8 gram/yr. at 20 bar)
Liquid Temperature Range: -40°F to 155°F (-40°C to 68°C)
Ambient Temperature Range: -40°F to 140°F (-40°C to 60°C)
Installation Maximum Temperature: 230°F (110°C) for 15 minutes (wet rag required for brazing)
Relative Humidity: 0-100% (Condensing)
Mounting Orientation: Motor assembly above horizontal
Flow Direction: Forward flow only (side inlet) - Seals against pressure in both directions
Certifications: UL (SA5460), CE, ROHS, REACH
WARNING – USER RESPONSIBILITY

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DIMENSIONS

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