Oil Connections

EMMEGI oil coolers are stocked with BSP Parallel thread oil connections. This allows us to draw inventory from our other Worldwide locations as needed. Product shipped from our US facility include SAE J514 37° flare adaptors. Both straight and 90° fittings are standard. A wide selection of optional types and sizes are available.

Bar & Plate Technology

Aluminum Bar & Plate construction is the most advanced heavy duty technology available today. This design has several significant features:

> **Compact Performance**: Up to 50% smaller than traditional fin & tube construction.
> **Rugged Construction**: 1/4” Thick bars protect the fluid channels from damage.
> **Serviceable**: Bars extend to fin edges allowing high pressure washing.
> **Non-Louvered Air Fins**: Low fouling (9 Fins / inch).
> Ultra-low fouling air fins optional (5 Fins / inch).
EMMEGI has Manufacturing facilities and sales support worldwide. In today's global marketplace, EMMEGI can provide seamless support to our Products. With reasonable quantity, product can be designed to specific customer specifications.

**Motor Options**
- High quality, Long life, sealed DC motors.
- 12 volt and 24 volt motors available.
- Metri-Pack wiring connections standard.
- Mating Metri-Pack electrical connector provided.

**Series Highlight: S & SBV**
When combined with the TMR Temperature Switch (integral relay) or the TMS Temperature Control with soft start and automatic reversing (for cooler clean out) the S & SBV series cooler is the best overall value.

**Optional Temperature Fan Controls**
- Sensors plug directly into a port provided on the cooler for simple “Plug & Play” installation.

**Custom Designs / Worldwide Support**
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**DC Performance Data - S & SBV, 2000K & KBV, & HPV**

**Entering Temperature Difference**

\[ ETD \, ^\circ F = \text{Oil Inlet Temperature} \, ^\circ F - \text{Air Entering Temperature} \, ^\circ F \]

**Oil Flow - GPM**

**OIL \, \Delta P**
- = 5 PSI
- = 10 PSI
\(\Delta\) = 20 PSI
■ = 30 PSI
16 cSt

---

**Horsepower Heat Rejection @ 50\(^\circ\)F ETD**

![Graph showing oil flow vs. gpm for DC Performance Data]

www.emmegiinc.com
DC Performance Data - S & SBV, 2000K & KBV, & HPV

Correcting Heat Removal for Cooler Selection from Curve

\[ \text{Horsepower} \times \frac{50^\circ \text{F}}{\text{Desired ETD}^\circ \text{F}} = \text{Corrected Horsepower Heat Removal for Curve Selection} \]

Correcting Curve to Actual Heat Removal

\[ \text{Horsepower} \times \frac{\text{Desired ETD}^\circ \text{F}}{50^\circ \text{F}} = \text{Corrected Horsepower Heat Removal} \]
### S & SBV Series Heat Exchangers

#### OVERALL DIMENSIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VOLTAGE</th>
<th>AMP DRAW</th>
<th>UNIT OF MEASURE</th>
<th>OVERALL DIMENSIONS</th>
<th>MOUNTING</th>
<th>CONNECTIONS</th>
<th>NET WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A (inch)</td>
<td>B (inch)</td>
<td>C (inch)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D (inch)</td>
<td>E (inch)</td>
<td>F (inch)</td>
<td>Weight LBS</td>
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<td>S 0</td>
<td>12 DC</td>
<td>4.5</td>
<td>(inch)</td>
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<td>(inch)</td>
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<td>(inch)</td>
<td>243</td>
<td>309</td>
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<td>147</td>
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<tr>
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<td>12 DC</td>
<td>15.4</td>
<td>(inch)</td>
<td>13.50</td>
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<td>18.90</td>
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<td>(inch)</td>
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<td>400</td>
<td>480</td>
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<tr>
<td>S &amp; SBV</td>
<td>12 DC</td>
<td>20.0</td>
<td>(inch)</td>
<td>16.20</td>
<td>18.30</td>
<td>21.46</td>
<td>7.40</td>
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<td></td>
<td>24 DC</td>
<td>10.0</td>
<td>(inch)</td>
<td>411</td>
<td>465</td>
<td>545</td>
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<tr>
<td>S &amp; SBV</td>
<td>12 DC</td>
<td>20.8</td>
<td>(inch)</td>
<td>20.29</td>
<td>21.65</td>
<td>25.30</td>
<td>7.40</td>
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<tr>
<td></td>
<td>24 DC</td>
<td>10.4</td>
<td>(inch)</td>
<td>515</td>
<td>550</td>
<td>643</td>
<td>188</td>
</tr>
<tr>
<td>S &amp; SBV</td>
<td>12 DC</td>
<td>26.2</td>
<td>(inch)</td>
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<td></td>
<td>24 DC</td>
<td>13.1</td>
<td>(inch)</td>
<td>515</td>
<td>570</td>
<td>666</td>
<td>219</td>
</tr>
</tbody>
</table>

* SBV dimensions shown unless otherwise noted. Some S models have slightly smaller overall dimensions.

#### Mounting

- **Internal**: Located on the inside of the heat exchanger.
- **External**: Located on the outside of the heat exchanger.

#### Connections

- **Tapped holes**: Screws that are threaded on the outside of the heat exchanger.
- **Slotted holes**: Screws that have a slot on the inside of the heat exchanger.

### Helicoil M6x1xD

- **Installation**: **SBV models**: M6 Helicoil (2) tapped holes.
- **SBV models**: M6 Helicoil (2) tapped holes.

### MOUNTING

- **Net Weight**: Weight of the heat exchanger in pounds (lbs).

### MODEL

- **SBV 6**: Basic model for heat exchanger series.
- **SBV**: Specialized model for heat exchanger series.

### OVERALL DIMENSIONS

- **A**: Overall length of the heat exchanger.
- **B**: Overall width of the heat exchanger.
- **C**: Overall height of the heat exchanger.

### Unit of Measure

- **inch**: Imperial measurement unit.
- **mm**: Metric measurement unit.

### Dimensions

- **0.5**: Internal or external connection size.
- **# 8**: Size of the screws used for mounting.
- **0.35 x .59 (4)**: Slotted holes dimensions.
- **0.35 x .70 (4)**: Slotted holes dimensions.
- **0.35 x .59 (4)**: Slotted holes dimensions.

### Connections

- **SBPP**: Screws for Basic Series of Pipe with Ports (SBPP).
- **JIC**: Screws for Joint Industrial Connection (JIC).

### Weight

- **LBS**: Weight of the heat exchanger in pounds (lbs).

### Website

- **www.emmegiinc.com**: Official website for more information and resources on heat exchangers.

### Diagrams

- **Diagram 1**: S & SBV Series Heat Exchangers.
- **Diagram 2**: Helicoil M6x1xD installation instructions.
- **Diagram 3**: MOUNTING and CONNECTIONS details.

### Models

- **SBV 6**: Basic model for heat exchanger series.
- **SBV**: Specialized model for heat exchanger series.

### Heat Exchanger Series

- **S & SBV**: Series of heat exchangers designed for specific applications.

---

**Note**: For more detailed information and specifications, please visit the official website or contact the manufacturer directly.
## 2000K & KBV Series Heat Exchangers

### OVERALL DIMENSIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VOLTAGE</th>
<th>AMP DRAW</th>
<th>UNIT OF MEASURE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>OPTIONAL MOUNTING FEET</th>
<th>NET WEIGHT LBS</th>
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</thead>
<tbody>
<tr>
<td>2015K &amp; KBV</td>
<td>12 DC</td>
<td>7.5</td>
<td>(inch)</td>
<td>12.12</td>
<td>13.38</td>
<td>16.54</td>
<td>6.82</td>
<td>7.09</td>
<td>10.04</td>
<td>10.2</td>
<td>(4) Slotted</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>3.8</td>
<td>(mm)</td>
<td>308</td>
<td>340</td>
<td>420</td>
<td>173</td>
<td>180</td>
<td>255</td>
<td>260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020K &amp; KBV</td>
<td>12 DC</td>
<td>7.0</td>
<td>(inch)</td>
<td>12.09</td>
<td>13.38</td>
<td>16.54</td>
<td>6.80</td>
<td>7.09</td>
<td>10.04</td>
<td>10.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>3.5</td>
<td>(mm)</td>
<td>307</td>
<td>340</td>
<td>420</td>
<td>173</td>
<td>180</td>
<td>255</td>
<td>260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2024K &amp; KBV</td>
<td>12 DC</td>
<td>7.8</td>
<td>(inch)</td>
<td>14.39</td>
<td>15.75</td>
<td>18.90</td>
<td>7.01</td>
<td>9.45</td>
<td>11.41</td>
<td>11.60</td>
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<tr>
<td></td>
<td>24 DC</td>
<td>3.9</td>
<td>(mm)</td>
<td>366</td>
<td>400</td>
<td>480</td>
<td>178</td>
<td>240</td>
<td>315</td>
<td>320</td>
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<td></td>
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<tr>
<td>2030K &amp; KBV</td>
<td>12 DC</td>
<td>12.0</td>
<td>(inch)</td>
<td>16.91</td>
<td>18.31</td>
<td>21.46</td>
<td>8.58</td>
<td>12.20</td>
<td>14.96</td>
<td>15.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>6.0</td>
<td>(mm)</td>
<td>430</td>
<td>465</td>
<td>545</td>
<td>218</td>
<td>310</td>
<td>380</td>
<td>385</td>
<td></td>
<td></td>
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<tr>
<td>2040K &amp; KBV</td>
<td>12 DC</td>
<td>19.5</td>
<td>(inch)</td>
<td>20.98</td>
<td>22.05</td>
<td>25.20</td>
<td>9.37</td>
<td>15.75</td>
<td>19.13</td>
<td>18.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>9.8</td>
<td>(mm)</td>
<td>533</td>
<td>560</td>
<td>640</td>
<td>238</td>
<td>400</td>
<td>486</td>
<td>482</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2000KBV dimensions shown unless otherwise noted. Some 2000K models have slightly smaller overall dimensions.*

**Notes:**

- **2000K & KBV Models:**
  - **Bypass Valve:** ø1/2"BSPP (Thermostat)
  - **Fan:** ø1/2"BSP

- **2004K & KBV Models:**
  - **Bypass Valve:** ø1/4"BSPP

---

### Fan Dimensions

- **2000K & KBV Models:**
  - **Fan Diameter:** ø1/2"BSP
  - **Fan Pitch:** ø1/2"BSP

- **2004K & KBV Models:**
  - **Fan Diameter:** ø1/4"BSP

---

### Fan Specifications

- **2000K & KBV Models:**
  - **Fan Speed:** 1500 RPM
  - **Fan Efficiency:** 80%

- **2004K & KBV Models:**
  - **Fan Speed:** 1200 RPM
  - **Fan Efficiency:** 75%

---

### Heat Exchanger Options

- **External Connections:**
  - **# 20 Slotted Holes**
  - **# 24 Tapped Holes**

- **Internal Connections:**
  - **# 16 Slotted Holes**
  - **# 16 Tapped Holes**

---

**Contact:**

EmmeGi Inc.
www.emmegiinc.com
# HPV Series Heat Exchangers

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VOLTAGE</th>
<th>AMP DRAW</th>
<th>UNIT OF MEASURE</th>
<th>OVERALL DIMENSIONS</th>
<th>MOUNTING</th>
<th>CONNECTIONS</th>
<th>NET WEIGHT LBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV 12</td>
<td>12 DC</td>
<td>12.0</td>
<td>(inch)</td>
<td>15.75, 14.21, 8.90</td>
<td>D: 5.91, 7.87</td>
<td>1° Internal</td>
<td># 16 External</td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>6.0</td>
<td>(mm)</td>
<td>400, 361, 226</td>
<td>E: 150, 200</td>
<td></td>
<td></td>
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<tr>
<td>HPV 18</td>
<td>12 DC</td>
<td>19.6</td>
<td>(inch)</td>
<td>20.08, 17.88, 8.98</td>
<td>D: 7.87, 7.87</td>
<td>1° Internal</td>
<td># 16 External</td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>9.8</td>
<td>(mm)</td>
<td>510, 454, 228</td>
<td>E: 200, 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV 24</td>
<td>12 DC</td>
<td>19.6</td>
<td>(inch)</td>
<td>21.06, 17.87, 10.20</td>
<td>D: 7.87, 9.84</td>
<td>1.25° Internal</td>
<td># 20 External</td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>9.9</td>
<td>(mm)</td>
<td>535, 454, 259</td>
<td>E: 200, 250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV 25</td>
<td>12 DC</td>
<td>19.2</td>
<td>(inch)</td>
<td>25.98, 23.62, 9.25</td>
<td>D: 15.70, 7.08</td>
<td>1° Internal</td>
<td># 20 Internal</td>
</tr>
<tr>
<td></td>
<td>24 DC</td>
<td>11.2</td>
<td>(mm)</td>
<td>660, 600, 235</td>
<td>E: 400, 180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV 30</td>
<td>12 DC</td>
<td>19.8</td>
<td>(inch)</td>
<td>26.00, 23.81, 9.25</td>
<td>D: 9.84, 7.08</td>
<td>1.25° Internal</td>
<td># 20 External</td>
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<tr>
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<td>24 DC</td>
<td>9.9</td>
<td>(mm)</td>
<td>660, 605, 235</td>
<td>E: 250, 180</td>
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<td>HPV 36</td>
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<td>27.2</td>
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<td>1° Internal</td>
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<tr>
<td></td>
<td>24 DC</td>
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<td>(mm)</td>
<td>785, 612, 259</td>
<td>E: 310, 250</td>
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<td></td>
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</tbody>
</table>

*TM 4 Pre-Wired Temperature Switch connected to sensor port as shown on an HPV 18*
Operating Pressure: 280 PSI
Test Pressure: 500 PSI
Maximum Operating Temperature: 248° F

Mineral Oils: HL & HLP
Water - Oil Emulsion
Water - Glycol
Consult Factory for other fluids.

TECHNICAL DATA FOR ALL S/SBV, 2000 K/KBV, & HPV MODELS

**Compatable fluids**
- Mineral Oils: HL & HLP
- Water - Oil Emulsion
- Water - Glycol
- Consult Factory for other fluids.

**Ratings**
- Operating Pressure: 280 PSI
- Test Pressure: 500 PSI
- Maximum Operating Temperature: 248° F
The integrated bypass check valve helps protect the hydraulic system and oil cooler from excessive back pressure.

Two primary operating conditions are:
- Cold Weather Start-up
- Intermittent Flow Surges

The fully integrated cartridge style valve eliminates the need to add an external valve and the related fittings and hoses. It may be removed for inspection and service.

<table>
<thead>
<tr>
<th>Model</th>
<th>Cartridge valve type</th>
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<tbody>
<tr>
<td>All SBV</td>
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<tr>
<td>All 2000KBV</td>
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</tr>
<tr>
<td>HPV 12 - 24</td>
<td>2</td>
</tr>
<tr>
<td>HPV 30 - 250</td>
<td>3</td>
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</tbody>
</table>
**TM4 - A1 Temperature Control**

**Bimetallic Monocontact Thermo-Switch Series TM4 - A1**

TM4 - A1 Series close on rise when the fluid temperature exceeds the higher set point (turning the fan on) and they re-open at the lower set point (turning the fan off).

The 22°F hysteresis prevents the fan from over-cycling. The top of the switch may be rotated in 90° increments for ease of wiring.

**Technical Data**
- **Power Supply:** 12v - 24v - 230v
- **Working temperature:** -4°F to 248°F
- **Maximum Pressure:** 2900 PSI
- **Switching Accuracy:** ± 7°F
- **Body Material:** Brass
- **Mounting:** Any Position
- **Weight:** 0.25 oz

**Electrical Data**
- **Electrical Connections:** Metripack 280
- **Electrical Protection:** DIN 40050 IP65
- **Electrical Contact:** Normally Open
- **Maximum Contact Load:**
  - 12v: 10 Amp
  - 24v: 5 Amp
  - 115v: 10 Amp
  - 230v: 15 Amp

**TM4 - P1 Pre-Wired Temperature Switch**

**Bimetallic Monocontact Thermo-Switch Series TM4 - P1**

The TM4 - P1 series allows the closing of an electrical contact when the fluid temperature exceeds the set-point value of the thermostatic switch.

**Technical Data**
- **Power Supply:** 12v - 24v
- **Working temperature:** -4°F to 248°F
- **Maximum Pressure:** 2900 PSI
- **Fixed Hysteresis Value:** About 22°F
- **Switching Accuracy:** ± 7°F
- **Body Material:** Brass
- **Mounting:** Any Position
- **Weight:** 2.8 oz

**Electrical Data**
- **Electrical Connections:** Metripack 280
- **Positive:** (A) Brown Wire
- **Negative:** (B) Blue Wire
- **Electrical Protection:** IP 67
- **Electrical Contact:** Normally Open
- **Maximum Contact Load:** 12v - 24v 8 Amp
HEAT-EXCHANGERS

The XT51 temperature switch closes on rise when the fluid temperature exceeds the set-point value of the switch.

The working temperature can be adjusted by moving the centigrade scale which is located below the waterproof protected top cover.

**Technical Data**

- **Power Supply:** 12v - 24v
- **Temperature Range:** 104°F to 194°F
- **Working temperature:** -4°F to 248°F
- **Maximum Pressure:** 1450 PSI
- **Switching Accuracy:** ± 3°F
- **Body Material:** Brass
- **Mounting:** Any Position
- **Weight:** 0.4 lbs

## Electrical Data

- **Electrical Connections:** Metripack 280
- **Positive:** (A) Brown Wire
- **Negative:** (B) Blue Wire
- **Electrical Protection:** IP 67
- **Electrical Contact:** Normally Open
- **Approvals:** CE
- **Maximum Contact Load:** TMR 4X 30 Amp
  TMR 5X 40 Amp

*Other Temperature settings Available. Consult Factory*

### XT51 Adjustable Temperature Switch

**Part Number** | **Temperature Range** | **Ordering Code (for cooler code)**
--- | --- | ---
XT51 - 12 | 104° - 194°F | 9D
XT51 - 24 | 104° - 194°F | 9E

Normally closed switches are available: Consult factory.

### TMR Temperature Switch With Integrated Relay

**Technical Data**

- **Power Supply:** 12v - 24v
- **Maximum Pressure:** 2900 PSI
- **Fixed Hysteresis Value:** About 22°F
- **Switching Accuracy:** ± 7°F
- **Body Material:** Brass
- **Mounting:** Any Position
- **Weight:** 0.6 lbs

**Electrical Data**

- **Electrical Connections:** DIN 43650
- **Electrical Protection:** DIN 40050 IP65
- **Electrical Contact:** Normally Open
- **Maximum Contact Load:**
  - TMR 4X: 30 Amp
  - TMR 5X: 40 Amp

*The supply includes a longer female connector for the power supply connection*

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Temperature Range</th>
<th>Volts</th>
<th>Ordering Code (for cooler code)</th>
<th>Max Contact Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMR 45 - 12</td>
<td>122°F - 140°F</td>
<td>12</td>
<td>2D</td>
<td>30 Amp</td>
</tr>
<tr>
<td>TMR 45 - 24</td>
<td>122°F - 140°F</td>
<td>24</td>
<td>2E</td>
<td></td>
</tr>
<tr>
<td>TMR 46 - 12</td>
<td>140°F - 160°F</td>
<td>12</td>
<td>3D</td>
<td>30 Amp</td>
</tr>
<tr>
<td>TMR 46 - 24</td>
<td>140°F - 160°F</td>
<td>24</td>
<td>3E</td>
<td></td>
</tr>
<tr>
<td>TMR 48 - 12</td>
<td>160°F - 176°F</td>
<td>12</td>
<td>5D</td>
<td>30 Amp</td>
</tr>
<tr>
<td>TMR 48 - 24</td>
<td>160°F - 176°F</td>
<td>24</td>
<td>5E</td>
<td></td>
</tr>
<tr>
<td>TMR 49 - 24</td>
<td>176°F - 194°F</td>
<td>24</td>
<td>6D</td>
<td>30 Amp</td>
</tr>
<tr>
<td>TMR 55 - 12</td>
<td>122°F - 140°F</td>
<td>12</td>
<td>7D</td>
<td>40 Amp</td>
</tr>
<tr>
<td>TMR 56 - 12</td>
<td>140°F - 160°F</td>
<td>12</td>
<td>8D</td>
<td>40 Amp</td>
</tr>
</tbody>
</table>

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**Bimetallic Monocontact Thermo-Switch series TMS4**

The TMS4 Temperature Switches incorporate a soft start feature that eliminates in-rush amp draw during start up. When the temperature setting of the switch is reached, the switch will turn the fan on. It will reach the maximum speed after about 30 seconds. When the temperature decreases by 9°F the fan will turn off.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Temperature Setting</th>
<th>Ordering Code (for cooler code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMS 44</td>
<td>104°F</td>
<td>7C</td>
</tr>
<tr>
<td>TMS 45</td>
<td>122°F</td>
<td>8C</td>
</tr>
<tr>
<td>TM4 46</td>
<td>140°F</td>
<td>9C</td>
</tr>
</tbody>
</table>

**Technical Data**

- **Power Supply**: 12v - 24v
- **Working temperature**: -4°F to 176°F
- **Maximum Pressure**: 2900 PSI
- **Fixed Hysteresis Value**: About 9°F
- **Switching Accuracy**: ± 7°F
- **Power Supply Cord Length**: 58”
- **Fan Motor Cord Length**: 9.5”
- **Body Material**: Anodized Aluminium / Brass
- **Mounting**: Any Position
- **Weight**: 0.77 lbs

**Electrical Data**

- **Electrical Connections**: Metripack 280
- **Positive**: (A) Brown Wire
- **Negative**: (B) Blue Wire
- **Electrical Protection**: IP 67
- **Electrical Contact**: Normally Open
- **Approvals**: CE
- **Maximum Contact Load**: 12v - 12 Amp  
  24v - 25 Amp

**NOTE**: In order to protect the thermostat from polarity reversion it is important to put a fuse in the power line.
The TMS 6 Temperature Control incorporates soft start, variable speed, and automatic fan reversing features.

**Operation:**
- Fan turns on at lower temperature range setting.
- Operates at variable speed between the lower and higher temperature range settings.
- Fan is at maximum RPM at the higher temperature range setting.
- After 15 minutes of operation the fan stops, reverses for 30 seconds, and re-starts. The cycle time takes 1.5 minutes. Cycling the fan to blowing operation clears airborne debris from the cooler, maintaining optimum performance.

**Technical Data**
- **Power Supply:** 12v - 24v
- **Working temperature:** -4°F to 176°F
- **Maximum Pressure:** 2900 PSI
- **Switching Accuracy:** ± 3.6°F
- **Power Supply Cord Length:** 19.7”
- **Fan Motor Cord Length:** 19.7”
- **Temperature Sensor Cord Length:** 15.75”
- **Body Material:** Anodized Aluminium
- **Mounting:** Any Position
- **Weight:** 0.55 lbs

**Electrical Data**
- **Electrical Connections:** Metripack 280
- **Positive:** (A) Brown Wire
- **Negative:** (B) Blue Wire
- **Electrical Protection:** DIN 40050IP 67
- **Electrical Contact:** Normally Open
- **Approvals:** CE
- **Maximum Contact Load:** 25 Amp

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**Part Number** | **Temperature Range** | **Volts** | **Model Code**
--- | --- | --- | ---
TMS 64 - 12 | 104°F - 122°F 40°C - 50°C | 12 | 7A
TMS 64 - 24 | 140°F - 158°F 60°C - 70°C | 24 | 7B
TMS 65 - 12 | 122°F - 140°F 50°C - 60°C | 12 | 8A
TMS 65 - 24 | | 24 | 8B
TMS 66 - 12 | | 12 | 9A
TMS 66 - 24 | | 24 | 9B
**AC Fan Driven**

2000K & KBV AC Motors
- Heat Removals to 16 HP.
- Optional Internal Bypass Valve.
- Totally Enclosed Motors.
- Oil Flows to 125 GPM.

HPV Series I AC Motors
- Heat Removals to 70 HP.
- Internal Bypass Valve Standard.
- Totally Enclosed Motors.
- Oil Flows to 100 GPM.

HPV Series II AC Motors
- Heat Removals to 265 HP.
- Internal Bypass Valve Standard.
- Totally Enclosed Motors.
- Oil Flows to 350 GPM.

**DC Fan Driven**

2000K & KBV DC Motors
- Heat Removals to 35 HP.
- Optional Internal Bypass Valve.
- Oil Flows to 125 GPM.

HPV Series DC Motors
- Heat Removals to 36 HP.
- Internal Bypass Valve Standard.
- Oil Flows to 80 GPM.

S & SBV Series DC Motors
- Heat Removals to 38 HP.
- Optional Internal Bypass Valve.
- Oil Flows to 100 GPM.

**Hydraulic Fan Driven**

2000K & KBV Hydraulic Motors
- Heat Removals to 30 HP.
- Optional Internal Bypass Valve.
- Wide range of Hydraulic Motor Displacements available.
- Oil Flows to 50 GPM.

HPV Series Hydraulic Motors
- Heat Removals to 130 HP.
- Internal Bypass Valve Standard.
- Oil Flows to 100 GPM.

HPV Series II Hydraulic Motors
- Heat Removals to 300 HP.
- Optional Internal Bypass Valve.
- Oil Flows to 350 GPM.

**Cooling Systems**

Silent Evo II
- Off-line cooling systems with oil cooler & recirculation.
- Pump heat removals to 60 HP.

RID Series
- Gearbox cooling systems with oil cooler, recirculation pump & filter.
- Heat removals to 25 HP.

HPA TK
- Combination reservoir, oil cooler, & suction filter.
- Ideal for closed loop hydrostatic cooling.

**Water / Oil**

WB Series
- Water/Oil Coolers.
- Stainless steel Water/Oil Coolers.
- Compact water saving design.
- Heat Removals to 360 HP.
- Oil Flows to 200 GMP.

MG Series
- Water/Oil
- Sea Water duty shell & tube heat exchangers.
- Corrosion resistant copper-nickel cooling tubes & bronze end bonnets.

Water Modulating Valves
- Control water flow through Water/Oil heat exchangers to maintain desired oil temperatures.
- No external input required.

**Accessories**

AC Temperature Switches
- Cycle cooling fan to maintain desired temperatures.
- Fixed & adjustable designs available.

DC Temperature Switches
- 12v & 24v Models.
- TMR Switches are prewired & include relay for plug & play operation.
- #8 through #24 sizes available.

Thermostatic Valves
- Modulating valves bypass out during cold startup.
- #8 through #24 sizes available.

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