### APH-161-12-16-E

**Peltier cooler module**

#### Data sheet

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imax</td>
<td>A</td>
<td>4.5</td>
</tr>
<tr>
<td>Vmax</td>
<td>Vdc</td>
<td>19.5</td>
</tr>
<tr>
<td>Pc max</td>
<td>W</td>
<td>49.2</td>
</tr>
<tr>
<td>ΔTmax</td>
<td>°C</td>
<td>69</td>
</tr>
<tr>
<td>A</td>
<td>mm</td>
<td>40</td>
</tr>
<tr>
<td>A1</td>
<td>mm</td>
<td>40</td>
</tr>
<tr>
<td>B</td>
<td>mm</td>
<td>40</td>
</tr>
<tr>
<td>H</td>
<td>mm</td>
<td>3.9</td>
</tr>
<tr>
<td>L</td>
<td>mm</td>
<td>100</td>
</tr>
<tr>
<td>Wire</td>
<td>AWG</td>
<td>n/a</td>
</tr>
</tbody>
</table>

(At hot side temperature Th = 25°C / 298K, under dry N₂).

- **Pc max** = Cooling power at ΔT = 0 and I = Imax.
- **ΔTmax** = Temperature difference at I = Imax and Pc = 0.
- Max hot side temperature Th = 80°C for best long term performance.
- Max mounting pressure: 1.5MPa.
- Wires: UL-style 1569, 105°C (Unstripped).

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Data sheet - At hot side temperature 25°C

- Heat removed (W) vs. Temperature difference (°C)
- Waste heat (W) vs. Temperature difference (°C)
- Input Voltage (V) vs. Temperature difference (°C)
- COP vs. Current (A)
APH-161-12-16-E
Peltier cooler module

Data sheet - At hot side temperature 50°C

- Heat removed (W) vs. Temperature difference (°C)
- Waste heat (W) vs. Temperature difference (°C)
- Input Voltage (V) vs. Temperature difference (°C)
- COP vs. Current (A)

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Data sheet - At hot side temperature 75°C

Heat removed (W)

Temperature difference (°C)

I = 4.5 A
I = 3.5 A
I = 2.5 A
I = 2.0 A
I = 1.5 A
I = 1.0 A
Max COP

Waste heat (W)

Temperature difference (°C)

I = 4.5 A
I = 3.5 A
I = 2.5 A
I = 2.0 A
I = 1.5 A
I = 1.0 A

Input Voltage (V)

Temperature difference (°C)

I = 4.5 A
I = 3.5 A
I = 2.5 A
I = 2.0 A
I = 1.5 A
I = 1.0 A

COP

Current (A)

ΔT = 0 C
ΔT = 10 C
ΔT = 20 C
ΔT = 30 C
ΔT = 40 C
ΔT = 50 C
ΔT = 60 C