SERIES: CP45H | DESCRIPTION: PELTIER MODULE

FEATURES
- arcTEC™ structure
- solid state device
- precise temperature control
- silent operation

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![Image](image.png)

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**MODEL**

<table>
<thead>
<tr>
<th>Model</th>
<th>input voltage(^1) max (Vdc)</th>
<th>input current(^2) max (A)</th>
<th>internal resistance(^3) typ (Ω±10%)</th>
<th>output Qmax(^4) (T_\text{h}=27^\circ\text{C}) (W)</th>
<th>output (\Delta T\text{max})^2 (T_\text{h}=50^\circ\text{C}) (W)</th>
<th>(T_\text{h}=27^\circ\text{C}) (^5) (°C)</th>
<th>(T_\text{h}=50^\circ\text{C}) (^5) (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP454375</td>
<td>19.5</td>
<td>4.5</td>
<td>3.54</td>
<td>50.7</td>
<td>55.7</td>
<td>70</td>
<td>77</td>
</tr>
<tr>
<td>CP455535H</td>
<td>15.7</td>
<td>4.5</td>
<td>2.5</td>
<td>41</td>
<td>45</td>
<td>70</td>
<td>77</td>
</tr>
</tbody>
</table>

Notes:
1. Maximum voltage at \(\Delta T\text{ max}\) and \(T_\text{h}=27^\circ\text{C}\)
2. Maximum current to achieve \(\Delta T\text{ max}\)
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at \(I_\text{max}\), \(V_\text{max}\), and \(\Delta T=0^\circ\text{C}\)
5. Maximum temperature difference occurs at \(I_\text{max}\), \(V_\text{max}\), and \(Q=0\) W (\(\Delta T\text{ max}\) measured in a vacuum at 1.3 Pa)
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>parameter</th>
<th>conditions/description</th>
<th>min</th>
<th>typ</th>
<th>max</th>
<th>units</th>
</tr>
</thead>
<tbody>
<tr>
<td>solder melting temperature</td>
<td>connection between thermoelectric pairs</td>
<td>235</td>
<td></td>
<td></td>
<td>°C</td>
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<tr>
<td>assembly compression</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>MPa</td>
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<td>RoHS</td>
<td>yes</td>
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</tbody>
</table>

### MECHANICAL DRAWING

**units: mm**

- **COLD SIDE**
  - 5.35 ±0.1
  - 0.05

- **HOT SIDE**
  - 0.05

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**MATERIAL PLATING**

- **ceramic plate**: 96% Al₂O₃
- **wire leads**: 20 AWG tin
- **sealer**: silicon rubber 703 RTV (between cold and hot side plates)
- **Joint cover**: silicon rubber 703 RTV
- **marking**: P/N & S/N printed on cold side surface

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### MODEL NO.

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>LENGTH (mm)</th>
<th>WIDTH (mm)</th>
<th>THICKNESS (mm)</th>
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</thead>
<tbody>
<tr>
<td>CP454375</td>
<td>40 ±0.3</td>
<td>40 ±0.3</td>
<td>3.75 ±0.1</td>
</tr>
<tr>
<td>CP455535H</td>
<td>50 ±0.3</td>
<td>50 ±0.3</td>
<td>5.35 ±0.1</td>
</tr>
</tbody>
</table>
CP454375 PERFORMANCE (Th=27°C)


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CP454375 PERFORMANCE (Th=50°C)
CP455535H PERFORMANCE (Th=27°C)

![Graph showing CP455535H performance at Th=27°C]

CP455535H PERFORMANCE (Th=50°C)

![Graph showing CP455535H performance at Th=50°C]
### REVISION HISTORY

<table>
<thead>
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<th>rev.</th>
<th>description</th>
<th>date</th>
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<tbody>
<tr>
<td>1.0</td>
<td>initial release</td>
<td>05/21/2018</td>
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<tr>
<td>1.01</td>
<td>added model CP454375, brand update</td>
<td>10/16/2019</td>
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The revision history provided is for informational purposes only and is believed to be accurate.

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