SERIES: CP60H | DESCRIPTION: PELTIER MODULE

FEATURES
- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide ΔT max
- low profile
- precise temperature control
- solid state construction

RoHS

MODEL | input voltage max (Vdc) | input current max (A) | internal resistance typ (Ω±10%) | output Qmax max (W) | output ΔTmax typ (°C) | T_h=27°C (W) | T_h=50°C (W) | T_h=27°C (°C) | T_h=50°C (°C)
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
CP60131H | 3.8 | 6.0 | 0.45 | 13 | 14.3 | 70 | 77
CP60139H | 2.1 | 6.0 | 0.30 | 7.4 | 8.2 | 70 | 77
CP60231H | 8.8 | 6.0 | 1.05 | 29.7 | 32.7 | 70 | 77
CP60239H | 3.8 | 6.0 | 0.55 | 13.6 | 14.9 | 70 | 77
CP602040395H | 7.6 | 6.0 | 1.09 | 27.5 | 30.2 | 70 | 77
CP60301233H | 5.6 | 6.0 | 0.76 | 19.7 | 21.7 | 70 | 77
CP60301531H | 7.6 | 6.0 | 0.93 | 26.3 | 28.9 | 70 | 77
CP603315H | 15.7 | 6.0 | 1.90 | 53.1 | 59.1 | 70 | 77
CP6030395 | 11.8 | 6.0 | 1.65 | 41.5 | 45.6 | 70 | 77
CP603395H | 8.8 | 6.0 | 1.25 | 31.1 | 34.2 | 70 | 77
CP604020395H | 7.6 | 6.0 | 1.09 | 27.5 | 30.2 | 70 | 77
CP60433H | 19.5 | 6.0 | 2.54 | 67.6 | 74.3 | 68 | 75
CP604395H | 15.7 | 6.0 | 2.2 | 55.6 | 61.0 | 70 | 77
CP604040 | 24.1 | 6.0 | 3.21 | 83.5 | 91.9 | 68 | 75
CP60546241 | 41.3 | 6.0 | 5.78 | 147 | 161 | 70 | 77
CP6055354 | 35.4 | 6.0 | 4.95 | 126 | 138 | 70 | 77
CP60555542 | 29.8 | 6.0 | 4.15 | 106 | 116 | 70 | 77
CP604060395 | 23.6 | 6.0 | 3.3 | 80.2 | 88.2 | 70 | 77

Notes:
1. Maximum voltage at ΔT max and T_h=27°C
2. Maximum current to achieve ΔT max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at I_max, V_max, and ΔT=0°C
5. Maximum temperature difference occurs at I_max, V_max, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
6. Designed with arcTEC™ structure.
### 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>
</tr>
<tr>
<td>Assembly compression</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>MPa</td>
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<tr>
<td>RoHS</td>
<td></td>
<td>Yes</td>
<td></td>
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</tbody>
</table>

### MECHANICAL DRAWING

**Units: mm**

- **COLD SIDE**: 0.05 mm thickness
- **HOT SIDE**: 0.05 mm thickness
- **WIDTH**: 100.0 ± 5.0 mm
- **LENGTH**: 10.0 ± 3.0 mm

#### MATERIALS AND PLATING

<table>
<thead>
<tr>
<th>Material</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic plate</td>
<td>96% Al₂O₃</td>
</tr>
<tr>
<td>Wire leads (CP60131H, CP60231H, CP60301233H, CP60301531H, CP6030315H)</td>
<td>22 AWG tin</td>
</tr>
<tr>
<td>Wire leads (all other models)</td>
<td>20 AWG tin</td>
</tr>
<tr>
<td>Sealer</td>
<td>Silicon rubber 703 RTV (between cold and hot side plates)</td>
</tr>
<tr>
<td>Joint cover</td>
<td>Silicon rubber 703 RTV</td>
</tr>
<tr>
<td>Marking</td>
<td>P/N &amp; S/N printed on cold side surface</td>
</tr>
</tbody>
</table>

#### MECHANICAL DRAWING

- **Model NO.**
  - **CP60131H**: 15 ± 0.3 mm, 15 ± 0.3 mm, 3.1 ± 0.025 mm
  - **CP60139H**: 15 ± 0.3 mm, 15 ± 0.3 mm, 3.9 ± 0.025 mm
  - **CP60231H**: 20 ± 0.3 mm, 20 ± 0.3 mm, 3.1 ± 0.025 mm
  - **CP60239H**: 20 ± 0.3 mm, 20 ± 0.3 mm, 3.9 ± 0.025 mm
  - **CP60240395H**: 20 ± 0.3 mm, 20 ± 0.3 mm, 3.95 ± 0.025 mm
  - **CP60301233H**: 30 ± 0.1 mm, 12 ± 0.1 mm, 3.3 ± 0.1 mm
  - **CP60301531H**: 30 ± 0.3 mm, 15 ± 0.3 mm, 3.1 ± 0.025 mm
  - **CP6030315H**: 30 ± 0.3 mm, 30 ± 0.3 mm, 3.15 ± 0.025 mm
  - **CP6030395**: 30 ± 0.3 mm, 30 ± 0.3 mm, 3.95 ± 0.025 mm
  - **CP6030395H**: 30 ± 0.3 mm, 30 ± 0.3 mm, 3.95 ± 0.025 mm
  - **CP604020395H**: 40 ± 0.3 mm, 20 ± 0.3 mm, 3.95 ± 0.025 mm
  - **CP604020395H**: 40 ± 0.3 mm, 20 ± 0.3 mm, 3.95 ± 0.025 mm
  - **CP604040**: 40 ± 0.3 mm, 40 ± 0.3 mm, 4.0 ± 0.1 mm
  - **CP604040**: 40 ± 0.3 mm, 40 ± 0.3 mm, 4.0 ± 0.1 mm
  - **CP60546241**: 62.5 ± 0.3 mm, 54 ± 0.3 mm, 4.1 ± 0.1 mm
  - **CP60655354**: 55 ± 0.3 mm, 55 ± 0.3 mm, 4.1 ± 0.1 mm
  - **CP60555542**: 60 ± 0.3 mm, 60 ± 0.3 mm, 3.95 ± 0.025 mm
  - **CP604060395**: 40 ± 0.3 mm, 60 ± 0.3 mm, 3.95 ± 0.025 mm
CP60131H PERFORMANCE (Th=27°C)

CP60131H PERFORMANCE (Th=50°C)
**CP60139H PERFORMANCE (Th=27°C)**

![Graph showing performance at Th=27°C.](image)

**CP60139H PERFORMANCE (Th=50°C)**

![Graph showing performance at Th=50°C.](image)
CP60231H PERFORMANCE (Th=27°C)

\[ \Delta T = T_h - T_c \ (°C) \]

<table>
<thead>
<tr>
<th>Input Voltage (V)</th>
<th>Heat Pumped, Q (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 A</td>
<td>10</td>
</tr>
<tr>
<td>2.4 A</td>
<td>20</td>
</tr>
<tr>
<td>3.6 A</td>
<td>30</td>
</tr>
<tr>
<td>4.8 A</td>
<td>40</td>
</tr>
</tbody>
</table>

CP60231H PERFORMANCE (Th=50°C)

\[ \Delta T = T_h - T_c \ (°C) \]

<table>
<thead>
<tr>
<th>Input Voltage (V)</th>
<th>Heat Pumped, Q (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 A</td>
<td>10</td>
</tr>
<tr>
<td>2.4 A</td>
<td>20</td>
</tr>
<tr>
<td>3.6 A</td>
<td>30</td>
</tr>
<tr>
<td>4.8 A</td>
<td>40</td>
</tr>
</tbody>
</table>

Additional Resources: Product Page | 3D Model

cuidevices.com
**CP60239H PERFORMANCE (Th=27°C)**

![Graph showing performance data for Th=27°C.](image)

**CP60239H PERFORMANCE (Th=50°C)**

![Graph showing performance data for Th=50°C.](image)
CP602040395H PERFORMANCE (Th=27°C)

CP602040395H PERFORMANCE (Th=50°C)
CP60301233H PERFORMANCE (Th=27°C)

CP60301233H PERFORMANCE (Th=50°C)
**CP60301531H PERFORMANCE (Th=27°C)**

![Graph showing heat pumped vs input voltage at Th=27°C.](#)

**CP60301531H PERFORMANCE (Th=50°C)**

![Graph showing heat pumped vs input voltage at Th=50°C.](#)
CP603315H PERFORMANCE (Th=27°C)

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

CP603315H PERFORMANCE (Th=50°C)

![Graph showing performance at Th=50°C]
CP6030395 PERFORMANCE (Th=27°C)

![Graph showing performance with Th=27°C]

CP6030395 PERFORMANCE (Th=50°C)

![Graph showing performance with Th=50°C]
CP603395H PERFORMANCE (Th=27°C)

CP603395H PERFORMANCE (Th=50°C)
CP604020395H PERFORMANCE (Th=27°C)

CP604020395H PERFORMANCE (Th=50°C)
CP60433H PERFORMANCE (Th=27°C)

CP60433H PERFORMANCE (Th=50°C)
**CP604395H PERFORMANCE (Th=27°C)**

![Graph](image1.png)

**CP604395H PERFORMANCE (Th=50°C)**

![Graph](image2.png)
## CP604040 PERFORMANCE (Th=27°C)

![Graph showing performance for Th=27°C]

## CP604040 PERFORMANCE (Th=50°C)

![Graph showing performance for Th=50°C]
CP60546241 PERFORMANCE (Th=27°C)

CP60546241 PERFORMANCE (Th=50°C)
CUI Devices | SERIES: CP60H | DESCRIPTION: PELTIER MODULE

**CP6055354 PERFORMANCE (Th=27°C)**

![Graph showing CP6055354 performance at Th=27°C](image)

**CP6055354 PERFORMANCE (Th=50°C)**

![Graph showing CP6055354 performance at Th=50°C](image)

Additional Resources: [Product Page]  |  [3D Model]

cuidevices.com
CP6055542 PERFORMANCE (Th=27°C)

![Graph showing performance data for CP6055542 at Th=27°C]

CP6055542 PERFORMANCE (Th=50°C)

![Graph showing performance data for CP6055542 at Th=50°C]
CP604060395 PERFORMANCE (Th=27°C)

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CP604060395 PERFORMANCE (Th=50°C)
# REVISION HISTORY

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<th>rev.</th>
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<tr>
<td>1.0</td>
<td>initial release</td>
<td>09/08/2016</td>
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<tr>
<td>1.01</td>
<td>updated datasheet</td>
<td>09/25/2017</td>
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<tr>
<td>1.02</td>
<td>added new models</td>
<td>05/21/2018</td>
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<td>1.03</td>
<td>added models CP604060395, CP60555542, CP6030395, CP604040,</td>
<td>10/22/2019</td>
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<td>CP6055354, CP60546241, brand update</td>
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The revision history provided is for informational purposes only and is believed to be accurate.