**SERIES:** CP60H  |  **DESCRIPTION:** PELTIER MODULE

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

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### MODEL | input voltage$^1$ | input current$^2$ | internal resistance$^3$ | output $Q_{\text{max}}^4$ | output $\Delta T_{\text{max}}^5$
|---|---|---|---|---|---
| CP60131H | 3.8 | 6.0 | 0.45 | 13 | 14.3 |
| CP60139H | 2.1 | 6.0 | 0.30 | 7.4 | 8.2 |
| CP60231H | 8.8 | 6.0 | 1.05 | 29.7 | 32.7 |
| CP60239H | 3.8 | 6.0 | 0.55 | 13.6 | 14.9 |
| CP602040395H$^6$ | 7.6 | 6.0 | 1.09 | 27.5 | 30.2 |
| CP60301233H | 5.6 | 6.0 | 0.76 | 19.7 | 21.7 |
| CP60301531H | 7.6 | 6.0 | 0.93 | 26.3 | 28.9 |
| CP60302031H | 13.0 | 6.0 | 1.51 | 49.5 | 54.5 |
| CP603315H$^6$ | 15.7 | 6.0 | 1.90 | 53.1 | 59.1 |
| CP6030395$^6$ | 11.8 | 6.0 | 1.65 | 41.5 | 45.6 |
| CP603395H$^6$ | 8.8 | 6.0 | 1.25 | 31.1 | 34.2 |
| CP604020395H$^6$ | 7.6 | 6.0 | 1.09 | 27.5 | 30.2 |
| CP60433H$^6$ | 19.5 | 6.0 | 2.54 | 67.6 | 74.3 |
| CP604395H$^6$ | 15.7 | 6.0 | 2.2 | 55.6 | 61.0 |
| CP604040$^6$ | 24.1 | 6.0 | 3.21 | 83.5 | 91.9 |
| CP60546241$^6$ | 41.3 | 6.0 | 5.78 | 147 | 161 |
| CP6055354$^6$ | 35.4 | 6.0 | 4.95 | 126 | 138 |
| CP60555542$^6$ | 29.8 | 6.0 | 4.15 | 106 | 116 |
| CP604060395$^6$ | 23.6 | 6.0 | 3.3 | 80.2 | 88.2 |

Notes:
1. Maximum voltage at $\Delta T$ max and $T_h=27^\circ$C
2. Maximum current to achieve $\Delta T$ max
3. Measured by AC 4-terminal method at 25$^\circ$C
4. Maximum heat absorbed at cold side occurs at $I_{\text{max}}, V_{\text{max}}$, and $\Delta T=0^\circ$C
5. Maximum temperature difference occurs at $I_{\text{max}}, V_{\text{max}}$, and $Q=0$W ($\Delta T$ 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>
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<td>connection between thermoelectric pairs</td>
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**MECHANICAL DRAWING**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>LENGTH (mm)</th>
<th>WIDTH (mm)</th>
<th>THICKNESS (mm)</th>
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<tbody>
<tr>
<td>CP60131H</td>
<td>15 ±0.3</td>
<td>15 ±0.3</td>
<td>3.1 ±0.025</td>
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<tr>
<td>CP60139H</td>
<td>15 ±0.3</td>
<td>15 ±0.3</td>
<td>3.9 ±0.025</td>
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<tr>
<td>CP60231H</td>
<td>20 ±0.3</td>
<td>20 ±0.3</td>
<td>3.1 ±0.025</td>
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<tr>
<td>CP60239H</td>
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<td>20 ±0.3</td>
<td>3.9 ±0.025</td>
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<tr>
<td>CP602040395H</td>
<td>40 ±0.3</td>
<td>40 ±0.3</td>
<td>3.95 ±0.025</td>
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<tr>
<td>CP60301233H</td>
<td>30 ±0.1</td>
<td>12 ±0.1</td>
<td>3.3 ±0.1</td>
</tr>
<tr>
<td>CP60301531H</td>
<td>30 ±0.3</td>
<td>15 ±0.3</td>
<td>3.1 ±0.025</td>
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<tr>
<td>CP60302031H</td>
<td>30 ±0.3</td>
<td>20 ±0.3</td>
<td>3.1 ±0.1</td>
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<tr>
<td>CP6030315H</td>
<td>30 ±0.3</td>
<td>30 ±0.3</td>
<td>3.15 ±0.025</td>
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<tr>
<td>CP6030395</td>
<td>30 ±0.3</td>
<td>30 ±0.3</td>
<td>3.95 ±0.025</td>
</tr>
</tbody>
</table>

**MATERIAL**

- Ceramic plate: 96% Al₂O₃
- Wire leads (CP60131H, CP60231H, CP60302031H, CP60301531H, CP603315H): 22 AWG, tin
- Wire leads (all other models): 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

**Additional Resources:**
- Product Page
- 3D Model

CUI Devices | SERIES: CP60H | DESCRIPTION: PELTIER MODULE

Date: 11/12/2020 | Page: 2 of 22
CP60131H PERFORMANCE (Th=27°C)

![Graph showing performance of CP60131H at Th=27°C]

CP60131H PERFORMANCE (Th=50°C)

![Graph showing performance of CP60131H at Th=50°C]
CP60139H PERFORMANCE (Th=27°C)

Input Voltage (V) vs. Heat Pumped, Q (W) for different currents and input voltages.

CP60139H PERFORMANCE (Th=50°C)

Input Voltage (V) vs. Heat Pumped, Q (W) for different currents and input voltages.
### CP60231H PERFORMANCE (Th=27°C)

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

### CP60231H PERFORMANCE (Th=50°C)

![Graph showing performance at Th=50°C]
**CP60239H PERFORMANCE (Th=27°C)**

![Graph showing performance of CP60239H at 27°C](image)

**CP60239H PERFORMANCE (Th=50°C)**

![Graph showing performance of CP60239H at 50°C](image)
CP602040395H PERFORMANCE (Th=27°C)

CP602040395H PERFORMANCE (Th=50°C)
**CP60301233H PERFORMANCE \((T_h=27^\circ C)\)**

![Graph showing performance for CP60301233H at T_h=27°C](image)

**CP60301233H PERFORMANCE \((T_h=50^\circ C)\)**

![Graph showing performance for CP60301233H at T_h=50°C](image)
CP60301531H PERFORMANCE (Th=27°C)

![Graph showing performance of CP60301531H at Th=27°C]

CP60301531H PERFORMANCE (Th=50°C)

![Graph showing performance of CP60301531H at Th=50°C]
CP60302031H PERFORMANCE (Th=27°C)

\[\Delta T = T_h - T_c (\degree C)\]

CP60302031H PERFORMANCE (Th=50°C)

\[\Delta T = T_h - T_c (\degree C)\]
CP603315H PERFORMANCE (Th=27°C)

![Graph showing performance of CP603315H with Th=27°C.]

CP603315H PERFORMANCE (Th=50°C)

![Graph showing performance of CP603315H with Th=50°C.]

Additional Resources:  Product Page  |  3D Model
CP6030395 PERFORMANCE (Th=27°C)

![Graph showing performance of CP6030395 at Th=27°C]

CP6030395 PERFORMANCE (Th=50°C)

![Graph showing performance of CP6030395 at Th=50°C]

Additional Resources: Product Page | 3D Model
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)

CP604395H PERFORMANCE (Th=50°C)
CP604040 PERFORMANCE (Th=27°C)

![Graph showing performance data for CP604040 at Th=27°C. The graph plots input voltage vs. heat pumped for different currents (1.2 A to 6 A) and ΔT values.]

CP604040 PERFORMANCE (Th=50°C)

![Graph showing performance data for CP604040 at Th=50°C. The graph plots input voltage vs. heat pumped for different currents (1.2 A to 6 A) and ΔT values.]

Additional Resources:  
- Product Page  
- 3D Model
CP60546241 PERFORMANCE (Th=27°C)

CP60546241 PERFORMANCE (Th=50°C)
CP6055354 PERFORMANCE (Th=27°C)

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

CP6055354 PERFORMANCE (Th=50°C)

![Graph showing performance at Th=50°C]
CP60555542 PERFORMANCE (Th=27°C)

CP60555542 PERFORMANCE (Th=50°C)
CP604060395 PERFORMANCE (Th=27°C)

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

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<tr>
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<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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<td>added models CP604060395, CP60555542, CP6030395, CP604040, CP6055354, CP60546241, brand update</td>
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<td>1.04</td>
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The revision history provided is for informational purposes only and is believed to be accurate.