SERIES: CP39H | 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\(^1\) max (Vdc) | input current\(^2\) max (A) | internal resistance\(^3\) typ (Ω±10%) | output Qmax\(^4\) | output ΔTmax\(^5\) \\
--- | --- | --- | --- | --- | --- \\
CP39136H | 3.8 | 3.9 | 0.85 | 8.6 | 70 | 77 \\
CP39236H | 8.8 | 3.9 | 1.95 | 18.7 | 20.9 | 70 | 77 \\
CP39234030H | 14.9 | 3.9 | 3.38 | 31.0 | 35.9 | 68 | 75 \\
CP39301536H | 7.6 | 3.9 | 1.73 | 16.5 | 18.1 | 70 | 77 \\
CP393365H\(^6\) | 15.7 | 3.9 | 3.50 | 35.2 | 39.0 | 70 | 77 \\
CP394044365\(^6\) | 32.5 | 3.9 | 6.95±5% | 71.8 | 80.0 | 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 \(I_{\text{max}}, V_{\text{max}},\) and ΔT=0°C
5. Maximum temperature difference occurs at \(I_{\text{max}}, V_{\text{max}},\) 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>
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<tr>
<td>solder melting temperature</td>
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MECHANICAL DRAWING

MATERIAL | PLATING
---|---
ceramic plate | 96% Al₂O₃
wire leads | 22 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

MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm)
---|---|---|---
CP39136H | 15 ±0.3 | 15 ±0.3 | 3.6 ±0.025
CP39236H | 20 ±0.3 | 20 ±0.3 | 3.6 ±0.025
CP39234030H | 23 ±0.3 | 40 ±0.3 | 3.0 ±0.05
CP39301536H | 30 ±0.3 | 15 ±0.3 | 3.6 ±0.025
CP393365H | 30 ±0.3 | 30 ±0.3 | 3.65 ±0.025
CP394044365 | 44 ±0.3 | 40.5 ±0.3 | 3.65 ±0.1
CP39136H PERFORMANCE (Th=27°C)

CP39136H PERFORMANCE (Th=50°C)
CP39236H PERFORMANCE (Th=27°C)

Additional Resources:  Product Page  |  3D Model

CP39236H PERFORMANCE (Th=50°C)
CP39234030H PERFORMANCE (Th=27°C)

![Graph showing CP39234030H performance at Th=27°C.](image)

CP39234030H PERFORMANCE (Th=50°C)

![Graph showing CP39234030H performance at Th=50°C.](image)
CP39301536H PERFORMANCE (Th=27°C)

![Graph showing performance data for CP39301536H at Th=27°C.]  

CP39301536H PERFORMANCE (Th=50°C)

![Graph showing performance data for CP39301536H at Th=50°C.]
CP393365H PERFORMANCE (Th=27°C)

![Graph showing the performance of CP393365H at Th=27°C](image)

CP393365H PERFORMANCE (Th=50°C)

![Graph showing the performance of CP393365H at Th=50°C](image)
CP394044365 PERFORMANCE (Th=27°C)

Input Voltage (V) vs. Heat Pumped, Q (W) graph with different currents (0.78 A, 1.56 A, 2.34 A, 3.12 A, 3.9 A) for ΔT=Th-Tc (°C).

CP394044365 PERFORMANCE (Th=50°C)

Input Voltage (V) vs. Heat Pumped, Q (W) graph with different currents (0.78 A, 1.56 A, 2.34 A, 3.12 A, 3.9 A) for ΔT=Th-Tc (°C).
## REVISION HISTORY

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<thead>
<tr>
<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>
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<td>05/21/2018</td>
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<tr>
<td>1.03</td>
<td>added model CP394044365, brand update</td>
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<td>1.04</td>
<td>added model CP39234030H</td>
<td>11/12/2020</td>
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The revision history provided is for informational purposes only and is believed to be accurate.