SERIES: CP30 | DESCRIPTION: PELTIER MODULE

FEATURES
- solid state device
- small and lightweight
- precise temperature control
- quiet operation

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RoHS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>MODEL</th>
<th>input voltage max (V)</th>
<th>input current max (A)</th>
<th>output Qmax (^1) (T_h=27^\circ C) (W)</th>
<th>output (\Delta T_{max}^2) (T_h=50^\circ C) (W)</th>
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<tbody>
<tr>
<td>CP30138</td>
<td></td>
<td>3.8</td>
<td>3</td>
<td>6.5</td>
<td>7.2</td>
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<td>CP30238</td>
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<td>3</td>
<td>15</td>
<td>16.7</td>
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<tr>
<td>CP30338</td>
<td></td>
<td>15.4</td>
<td>3</td>
<td>27</td>
<td>30.1</td>
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</tbody>
</table>

Notes:
1. maximum cooling capacity at \(I_{max}, V_{max}\) and \(\Delta T=0^\circ C\)
2. maximum temperature difference at \(I_{max}, V_{max}\) and \(Q=0 W\) (maximum parameters are measured in a vacuum)

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PART NUMBER KEY

CP30 X 38

Base Number
Length/Width:
1 = 15 x 15 mm
2 = 20 x 20 mm
3 = 30 x 30 mm

Thickness

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Additional Resources:  [Product Page] |  [3D Model]
**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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<tbody>
<tr>
<td>internal resistance(^3)</td>
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<td>CP30138</td>
<td>0.9</td>
<td>1.0</td>
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<td>CP30238</td>
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<td>2.3</td>
<td>2.53</td>
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<td></td>
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<td>3.6</td>
<td>4.0</td>
<td>4.4</td>
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<tr>
<td>solder melting temperature</td>
<td>connection between thermoelectric pairs</td>
<td>138</td>
<td></td>
<td></td>
<td>°C</td>
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<td>assembly compression</td>
<td></td>
<td>98.07</td>
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<td>10</td>
<td>N/cm(^2)</td>
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<td></td>
<td></td>
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<td>kgf/cm(^2)</td>
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</tbody>
</table>

RoHS yes

Notes: 3. measured by AC 4-terminal method at 25°C

**MECHANICAL DRAWING**

MATERIAL | PLATING
---|---
ceramic plate | Al\(_2\)O\(_3\) (Alumina)
sealer | silicon rubber RTV
lead wire | UL1430 (22AWG) tin
joint cover | silicon rubber RTV

**MODEL NO.** | **LENGTH (mm)** | **WIDTH (mm)** | **THICKNESS (mm)**
---|---|---|---
CP30138 | 15 ±0.3 | 15 ±0.3 | 3.8 ±0.1
CP30238 | 20 ±0.3 | 20 ±0.3 | 3.8 ±0.1
CP30338 | 30 ±0.3 | 30 ±0.3 | 3.8 ±0.1
CP30138 PERFORMANCE (Th=27°C)

CP30138 PERFORMANCE (Th=50°C)
CP30238 PERFORMANCE (Th=27°C)

![Graph showing CP30238 performance at 27°C with input voltage and heat pumped plotted against temperature difference.]

CP30238 PERFORMANCE (Th=50°C)

![Graph showing CP30238 performance at 50°C with input voltage and heat pumped plotted against temperature difference.]

Additional Resources:  [Product Page] | [3D Model]
CP30338 PERFORMANCE (Th=27°C)

ΔT = T_h − T_c (°C)

Heat Pumped (W) vs. Input Voltage (V)

- CP30338 PERFORMANCE (Th=50°C)

ΔT = T_h − T_c (°C)

Heat Pumped (W) vs. Input Voltage (V)
## REVISION HISTORY

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<td>1.01</td>
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<tr>
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The revision history provided is for informational purposes only and is believed to be accurate.