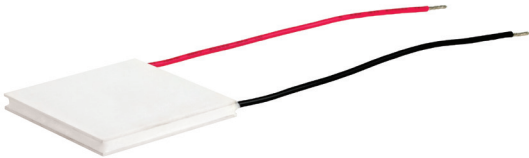




SERIES: CP30 | DESCRIPTION: PELTIER MODULE

FEATURES

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



MODEL

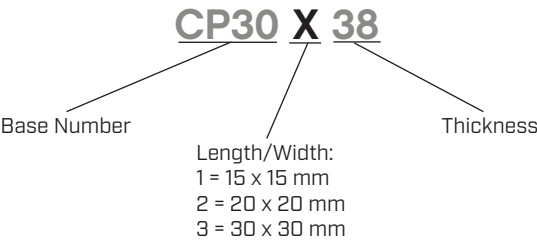
|         | input<br>voltage<br>max<br>[V] | input<br>current<br>max<br>[A] | output<br>Qmax <sup>1</sup> |                             | output<br>ΔTmax <sup>2</sup> |                              |
|---------|--------------------------------|--------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
|         |                                |                                | T <sub>h</sub> =27°C<br>[W] | T <sub>h</sub> =50°C<br>[W] | T <sub>h</sub> =27°C<br>[°C] | T <sub>h</sub> =50°C<br>[°C] |
| CP30138 | 3.8                            | 3                              | 6.5                         | 7.2                         | 66                           | 72                           |
| CP30238 | 8.6                            | 3                              | 15                          | 16.7                        | 66                           | 72                           |
| CP30338 | 15.4                           | 3                              | 27                          | 30.1                        | 66                           | 72                           |

Notes:

1. maximum cooling capacity at I<sub>max</sub>, V<sub>max</sub>, and ΔT=0°C

2. maximum temperature difference at I<sub>max</sub>, V<sub>max</sub>, and Q=0W (maximum parameters are measured in a vacuum)

PART NUMBER KEY



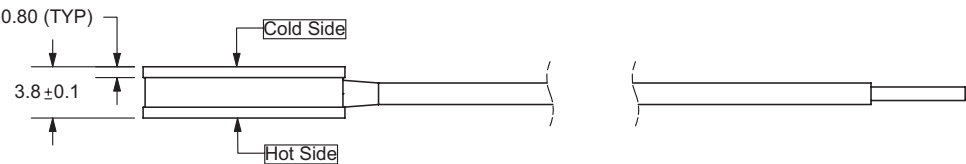
SPECIFICATIONS

| parameter                        | conditions/description                  | min  | typ | max         | units                                    |
|----------------------------------|-----------------------------------------|------|-----|-------------|------------------------------------------|
| internal resistance <sup>3</sup> | CP30138                                 | 0.9  | 1.0 | 1.1         | Ω                                        |
|                                  | CP30238                                 | 2.07 | 2.3 | 2.53        | Ω                                        |
|                                  | CP30338                                 | 3.6  | 4.0 | 4.4         | Ω                                        |
| solder melting temperature       | connection between thermoelectric pairs |      |     | 138         | °C                                       |
| assembly compression             |                                         |      |     | 98.07<br>10 | N/cm <sup>2</sup><br>kgf/cm <sup>2</sup> |
| RoHS                             | yes                                     |      |     |             |                                          |

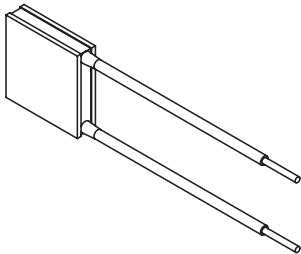
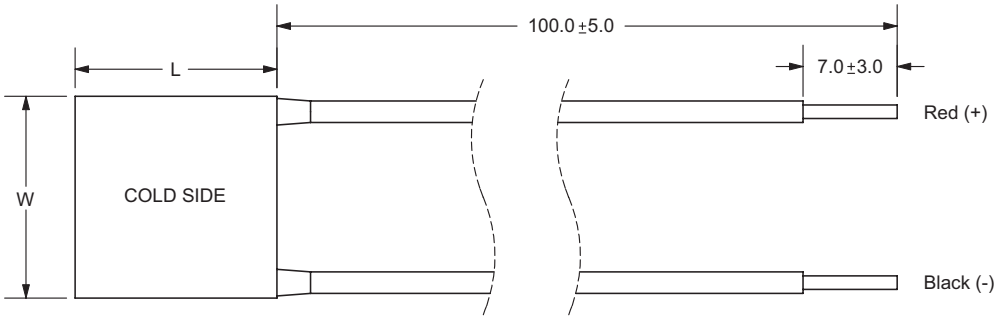
Notes: 3. measured by AC 4-terminal method at 25°C

MECHANICAL DRAWING

units: mm

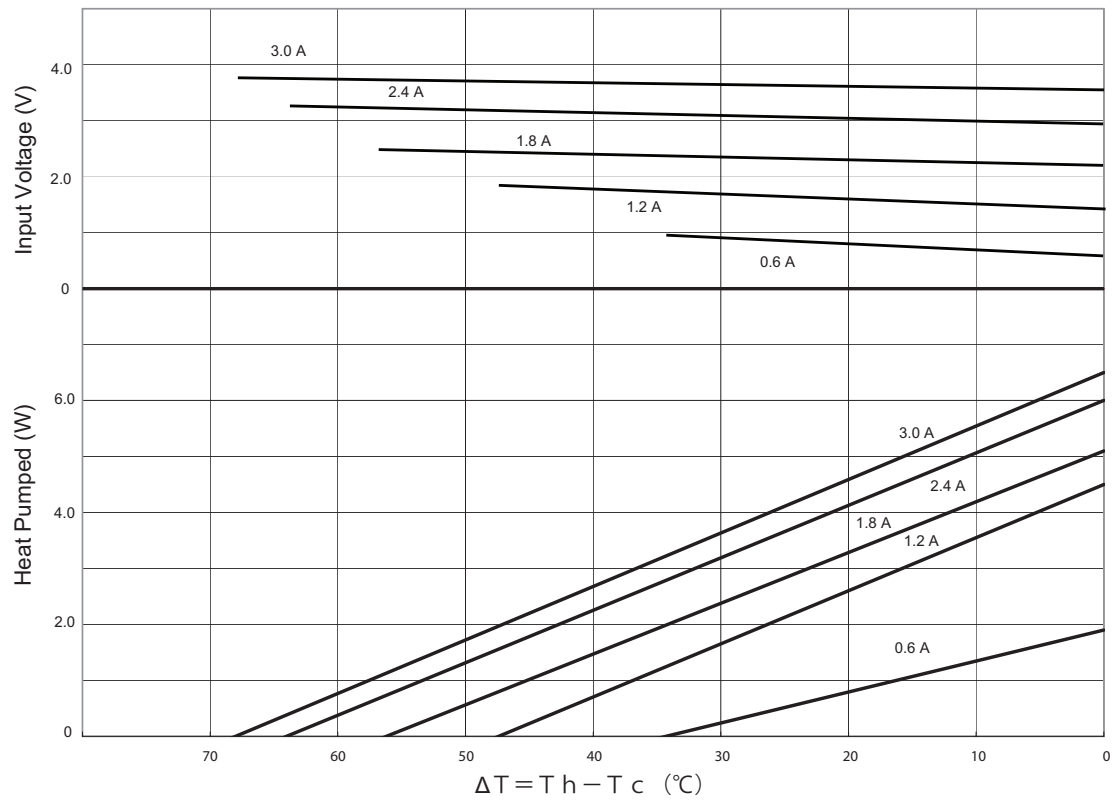


|               | MATERIAL                                 | PLATING |
|---------------|------------------------------------------|---------|
| ceramic plate | Al <sub>2</sub> O <sub>3</sub> (Alumina) |         |
| sealer        | silicon rubber RTV                       |         |
| lead wire     | UL1430 [22AWG]                           | tin     |
| joint cover   | silicon rubber RTV                       |         |

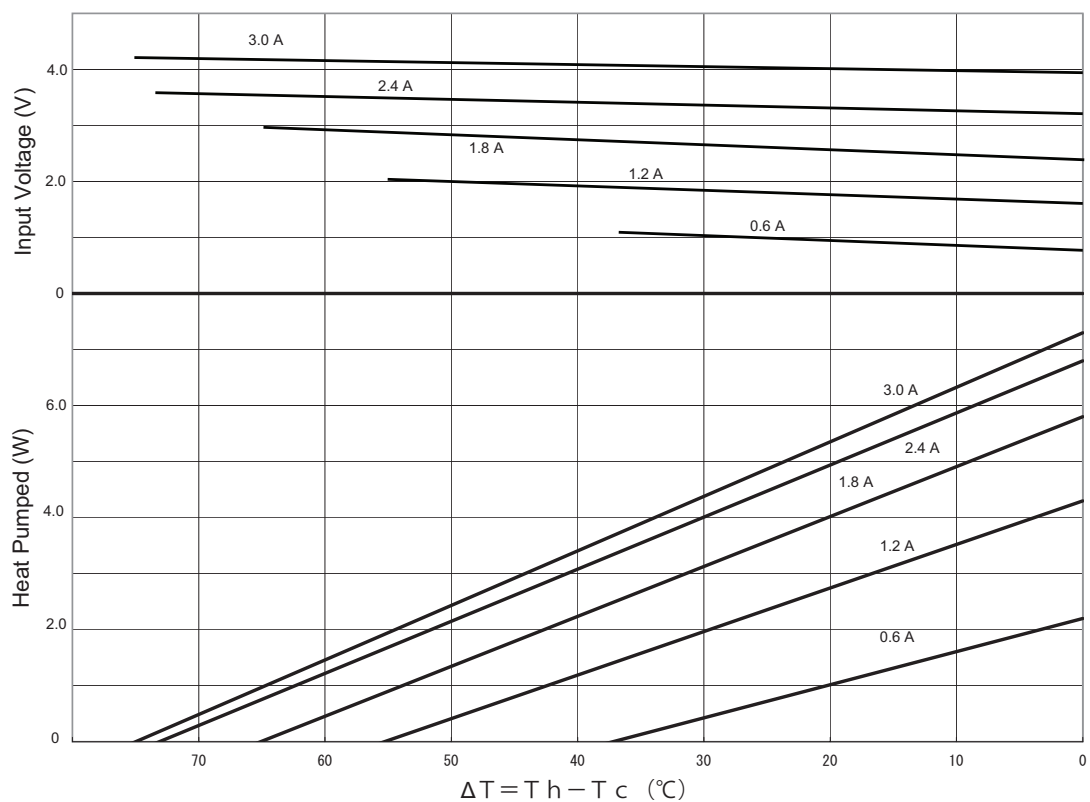


| MODEL NO. | LENGTH [mm] | WIDTH [mm] | THICKNESS [mm] |
|-----------|-------------|------------|----------------|
| CP30138   | 15 ±0.3     | 15 ±0.3    | 3.8 ±0.1       |
| CP30238   | 20 ±0.3     | 20 ±0.3    | 3.8 ±0.1       |
| CP30338   | 30 ±0.3     | 30 ±0.3    | 3.8 ±0.1       |

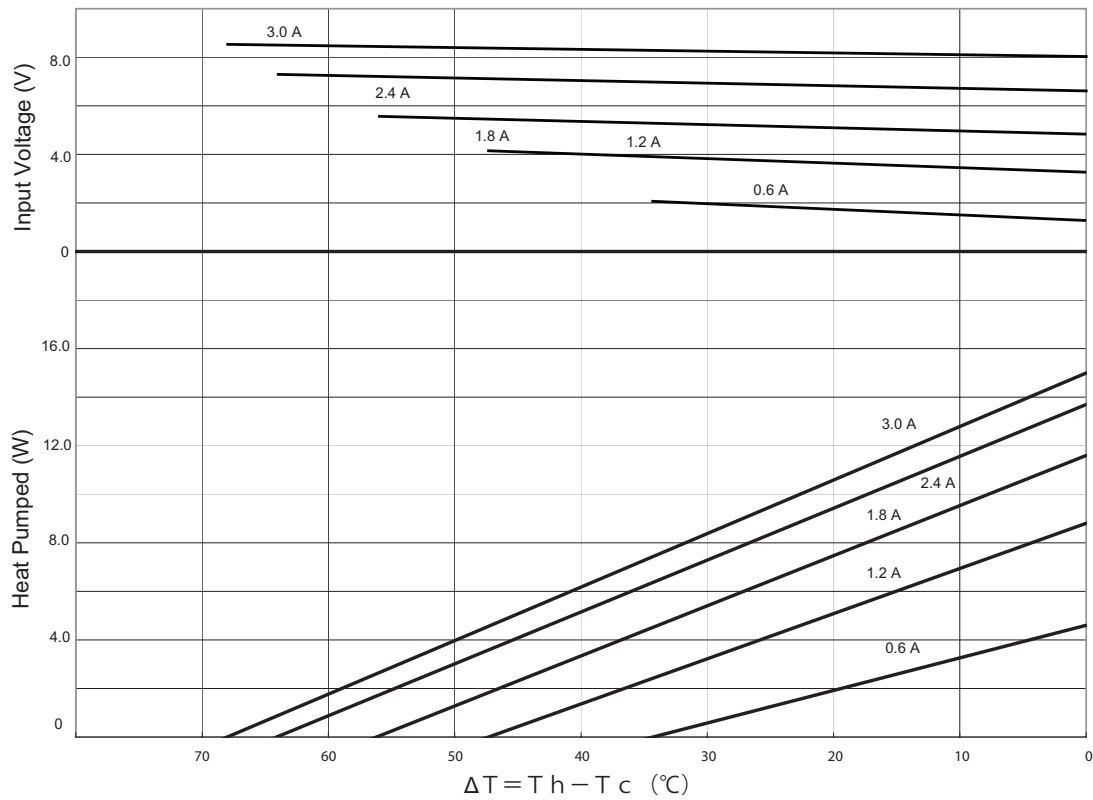
## CP30138 PERFORMANCE (Th=27°C)



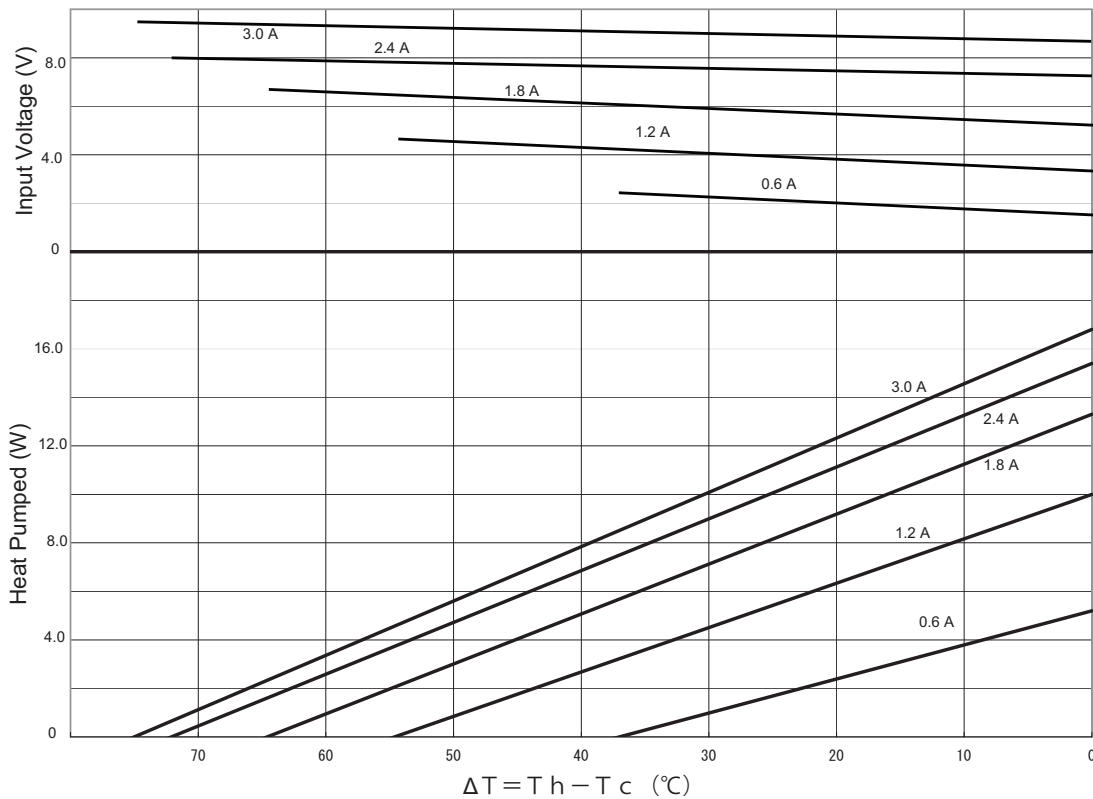
## CP30138 PERFORMANCE (Th=50°C)



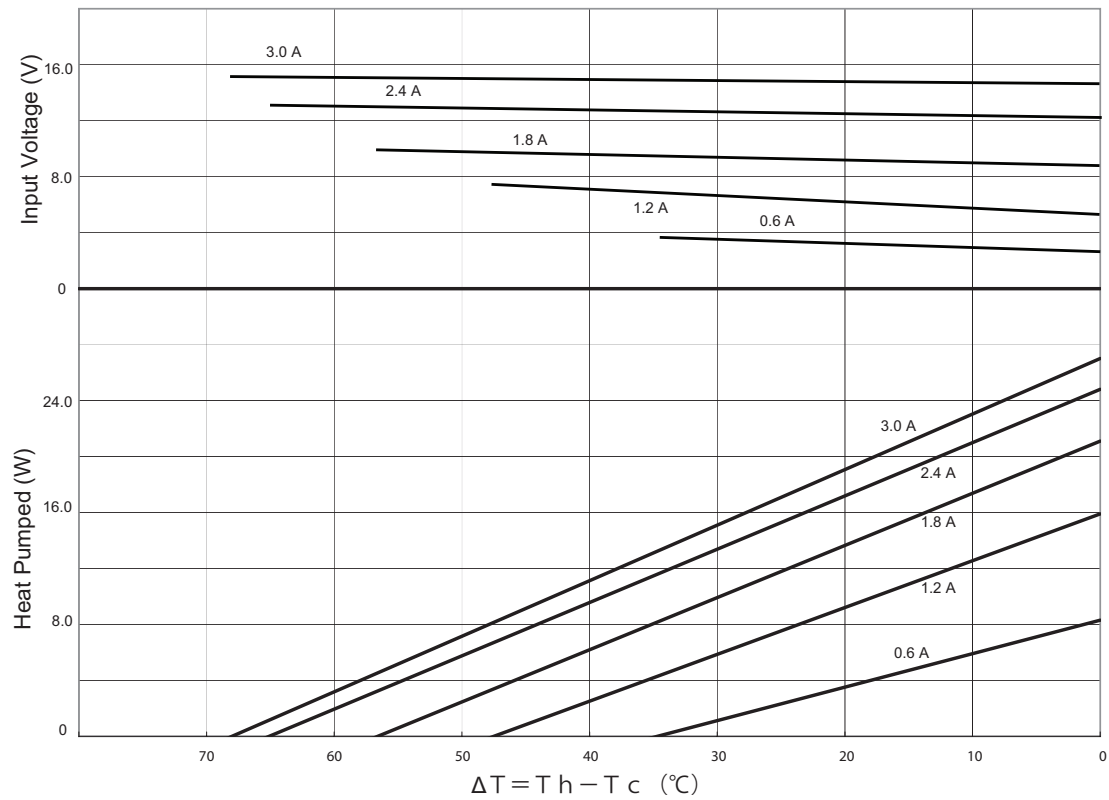
## CP30238 PERFORMANCE (Th=27°C)



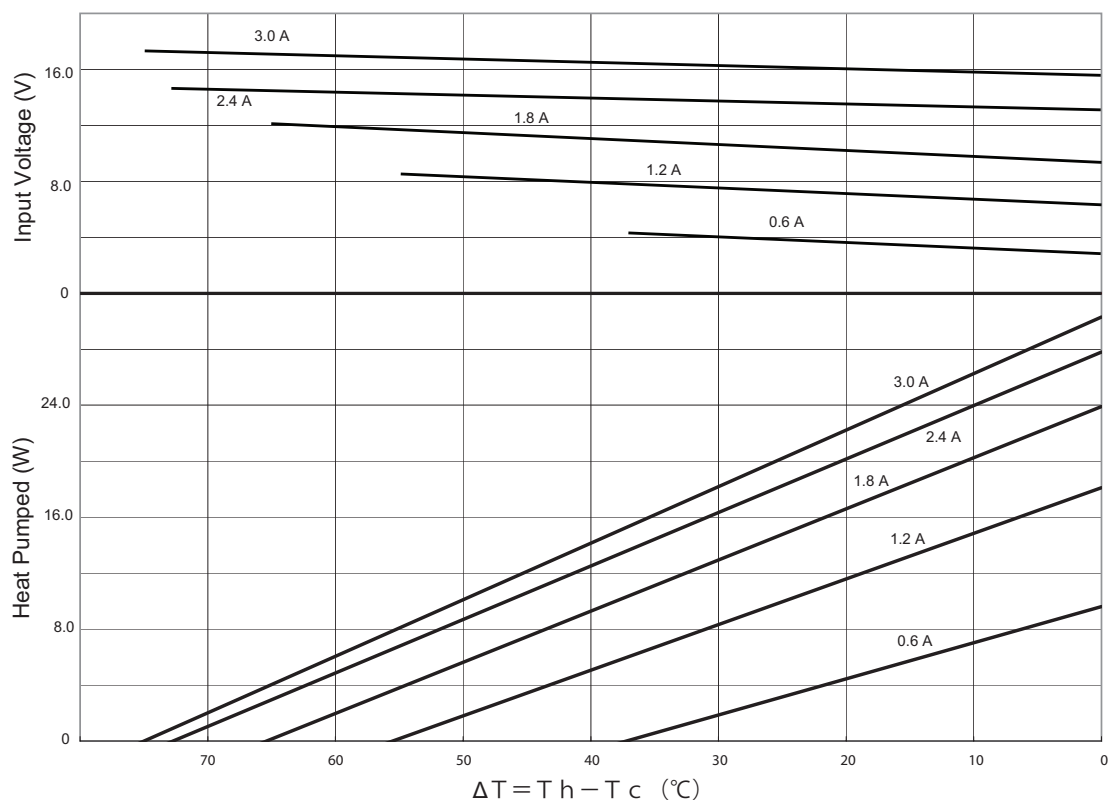
## CP30238 PERFORMANCE (Th=50°C)



## CP30338 PERFORMANCE (Th=27°C)



## CP30338 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 09/03/2009 |
| 1.01 | applied new template              | 05/07/2012 |
| 1.02 | brand update                      | 10/30/2019 |
| 1.03 | logo, datasheet style update      | 08/05/2022 |
| 1.04 | CUI Devices rebranded to Same Sky | 09/12/2024 |

The revision history provided is for informational purposes only and is believed to be accurate.



Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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