



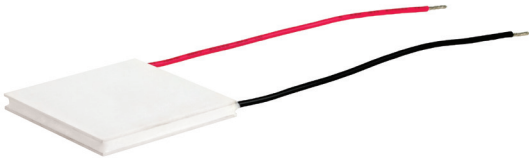
SERIES: CP30

|

DESCRIPTION: PELTIER MODULE

FEATURES

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



MODEL

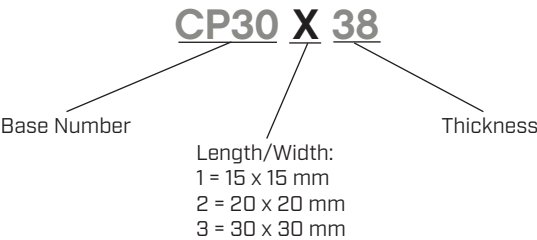
|         | input<br>voltage<br>max<br>[V] | input<br>current<br>max<br>[A] | output<br>Qmax <sup>1</sup> |                             | output<br>ΔTmax <sup>2</sup> |                              |
|---------|--------------------------------|--------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
|         |                                |                                | 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



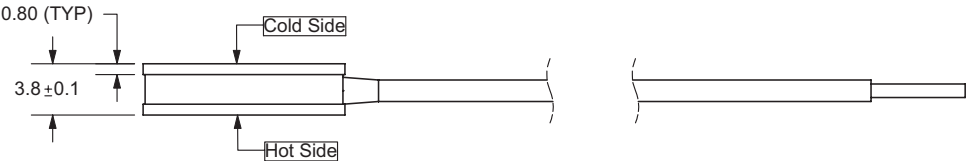
SPECIFICATIONS

| 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                                     |      |     |             |                                          |

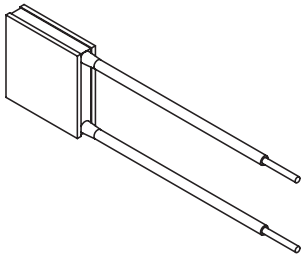
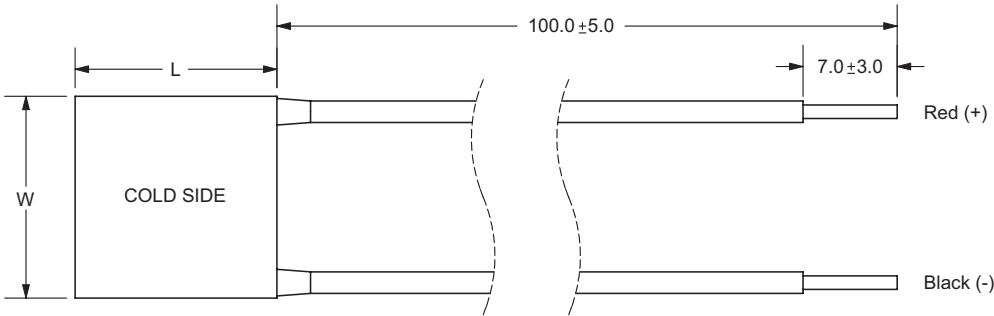
Notes: 3. measured by AC 4-terminal method at 25°C

MECHANICAL DRAWING

units: mm

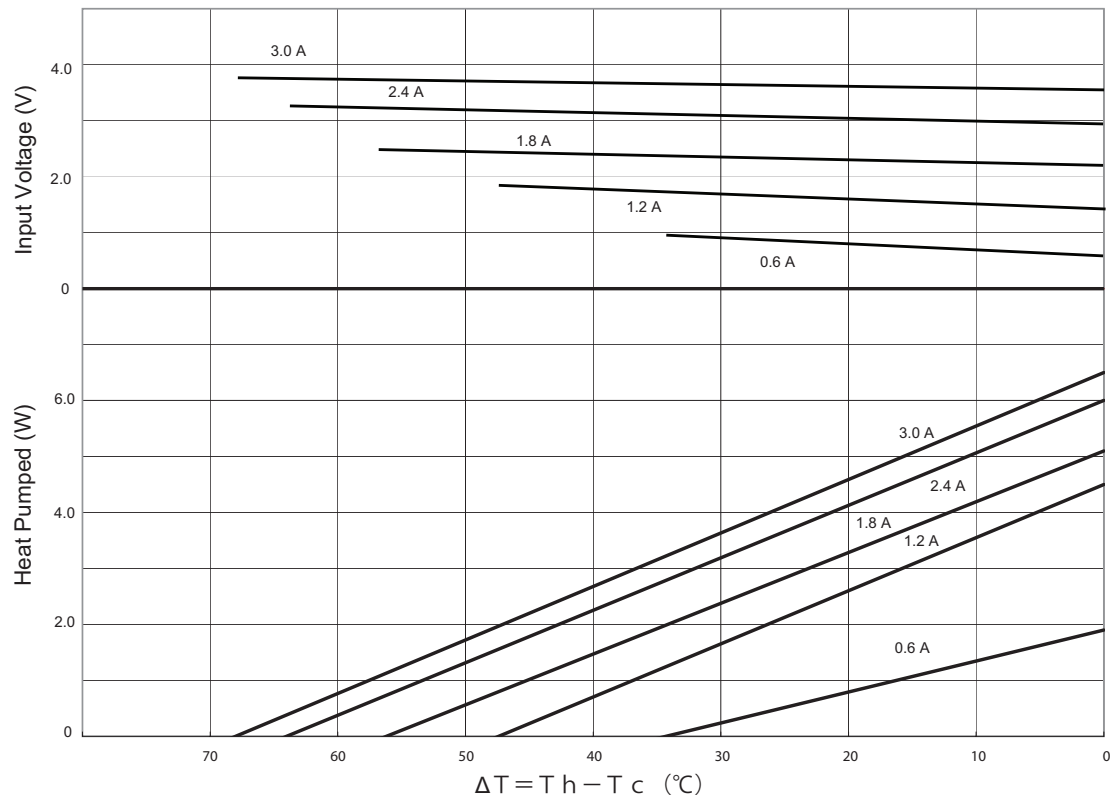


|               | MATERIAL                                 | PLATING |
|---------------|------------------------------------------|---------|
| ceramic plate | Al <sub>2</sub> O <sub>3</sub> (Alumina) |         |
| sealer        | silicon rubber RTV                       |         |
| lead wire     |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

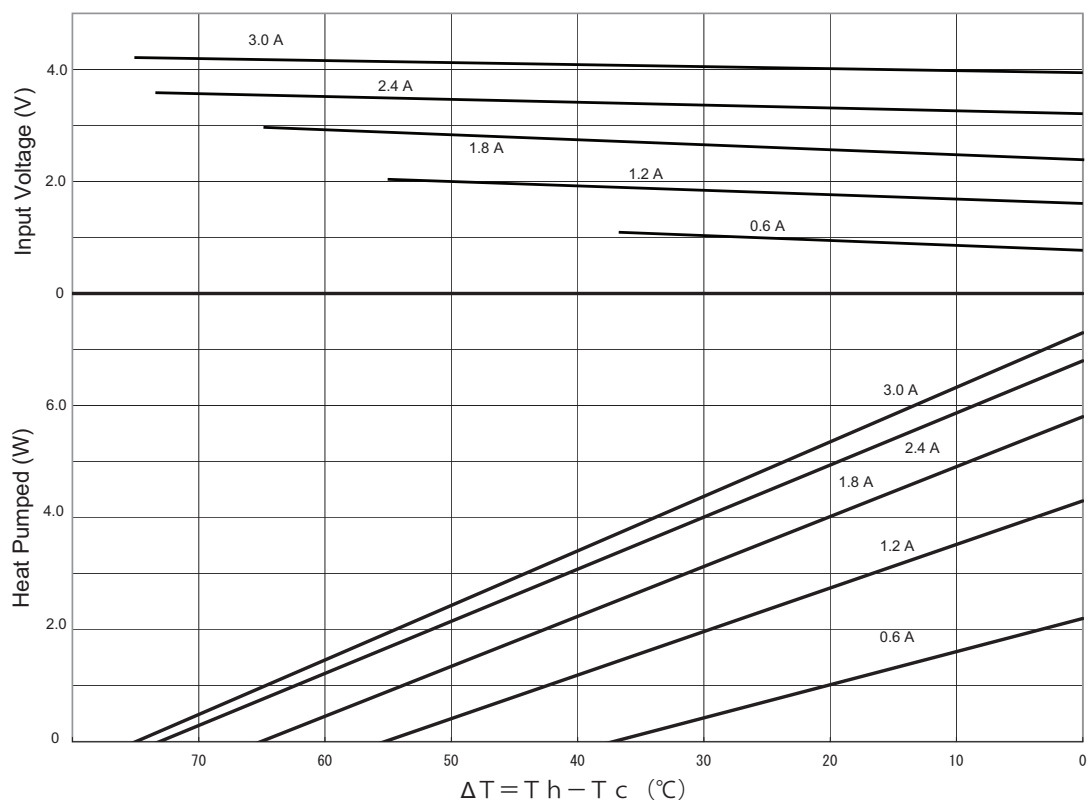


| MODEL NO. | LENGTH [mm] | WIDTH [mm] | THICKNESS [mm] |
|-----------|-------------|------------|----------------|
| CP30138   | 15 ±0.3     | 15 ±0.3    | 3.8 ±0.1       |
| CP30238   | 20 ±0.3     | 20 ±0.3    | 3.8 ±0.1       |
| CP30338   | 30 ±0.3     | 30 ±0.3    | 3.8 ±0.1       |

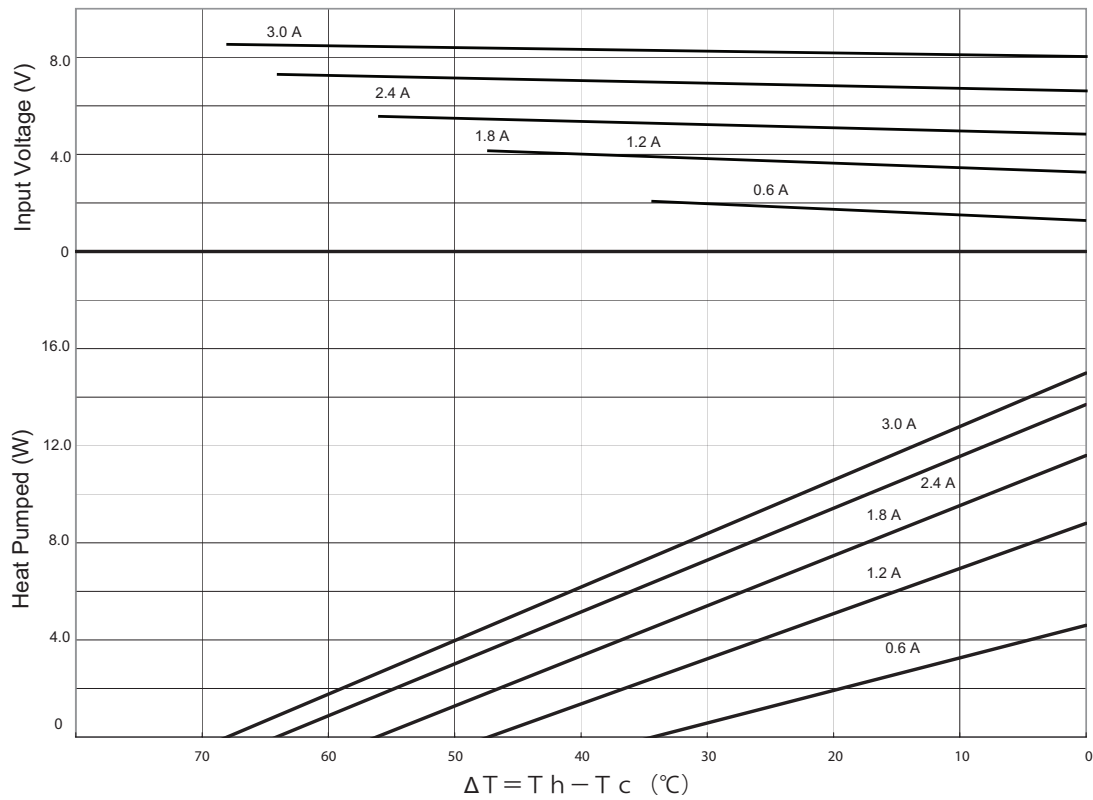
## CP30138 PERFORMANCE (Th=27°C)



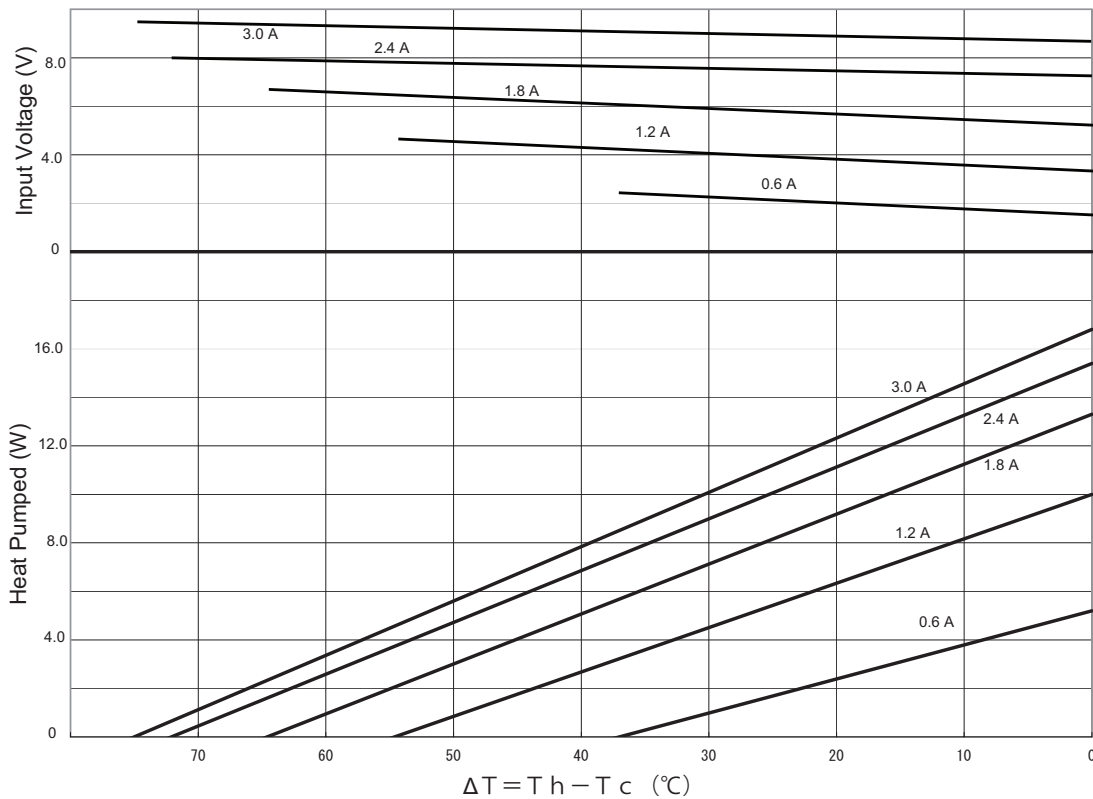
## CP30138 PERFORMANCE (Th=50°C)



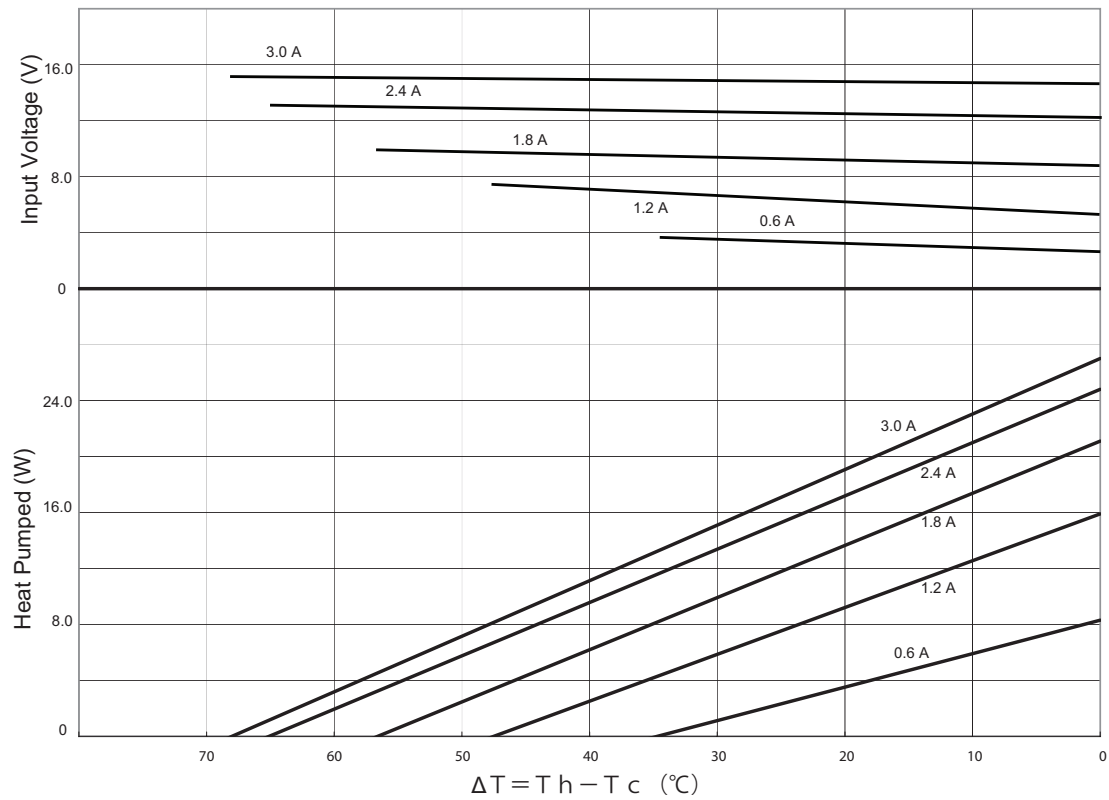
## CP30238 PERFORMANCE (Th=27°C)



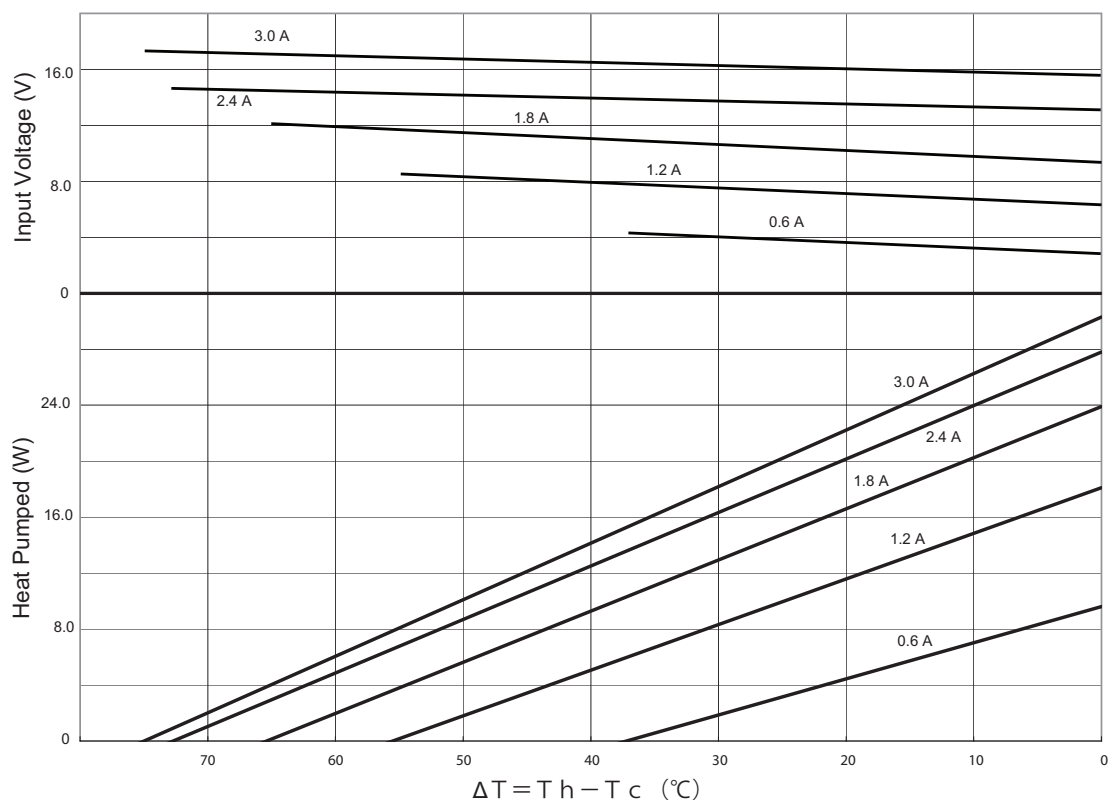
## CP30238 PERFORMANCE (Th=50°C)



## 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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