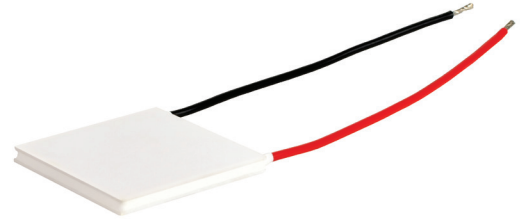




## SERIES: CP125 | DESCRIPTION: PELTIER MODULE

### FEATURES

- arcTEC™ structure
- solid state device
- precise temperature control
- quiet operation

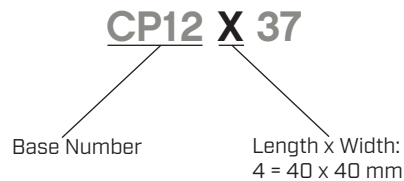


### MODEL

|         | input voltage <sup>1</sup> | input current <sup>2</sup> | output Qmax <sup>3</sup> |                          | output ΔTmax <sup>4</sup> |                           |
|---------|----------------------------|----------------------------|--------------------------|--------------------------|---------------------------|---------------------------|
|         | max [Vdc]                  | max [A]                    | T <sub>h</sub> =27°C [W] | T <sub>n</sub> =50°C [W] | T <sub>h</sub> =27°C [°C] | T <sub>n</sub> =50°C [°C] |
| CP12437 | 15.4                       | 12.5                       | 110                      | 121                      | 68                        | 75                        |

Notes: 1. Maximum voltage at ΔT max and T<sub>n</sub>=27°C  
 2. Maximum current to achieve ΔT max  
 3. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and ΔT=0°C  
 4. Maximum temperature difference occurs at I<sub>max</sub>, V<sub>max</sub>, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)

### PART NUMBER KEY



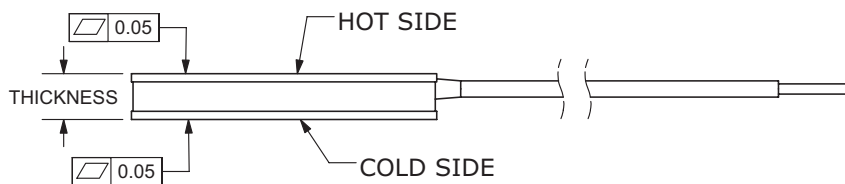
## SPECIFICATIONS

| parameter                        | conditions/description                  | min   | typ  | max   | units |
|----------------------------------|---|-------|------|-------|-------|
| internal resistance <sup>1</sup> |   | 0.855 | 0.95 | 1.045 | Ω     |
| solder melting temperature       | connection between thermoelectric pairs | 235   |      |       | °C    |
| assembly compression             |   |       |      | 1     | MPa   |
| hot side plate                   |   |       |      | 80    | °C    |
| RoHS                             | yes                                     |       |      |       |       |

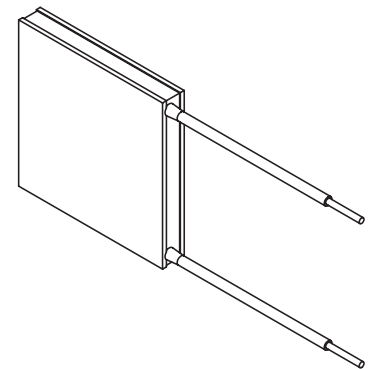
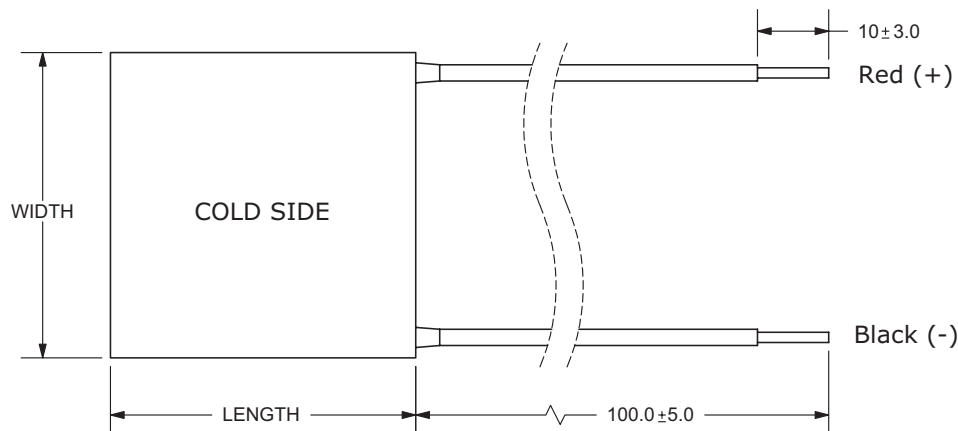
Note: 1. Measured by AC 4-terminal method at 25°C

## MECHANICAL DRAWING

units: mm

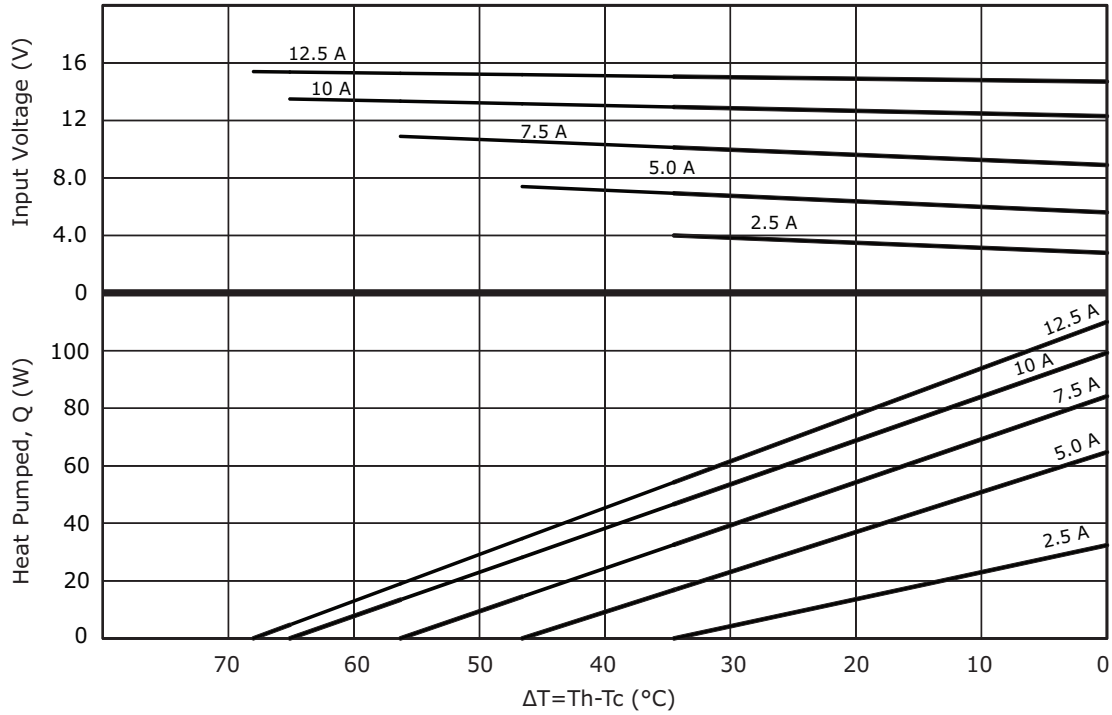


|               | MATERIAL  | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL <sub>2</sub> O <sub>3</sub>                        |         |
| wire leads    | 18 AWG  | tin     |
| sealer        | silicon rubber 703 RTV (between cold and hot side plates) |         |
| joint cover   | silicon rubber 703 RTV                                    |         |
| marking       | P/N & S/N printed on cold side surface                    |         |

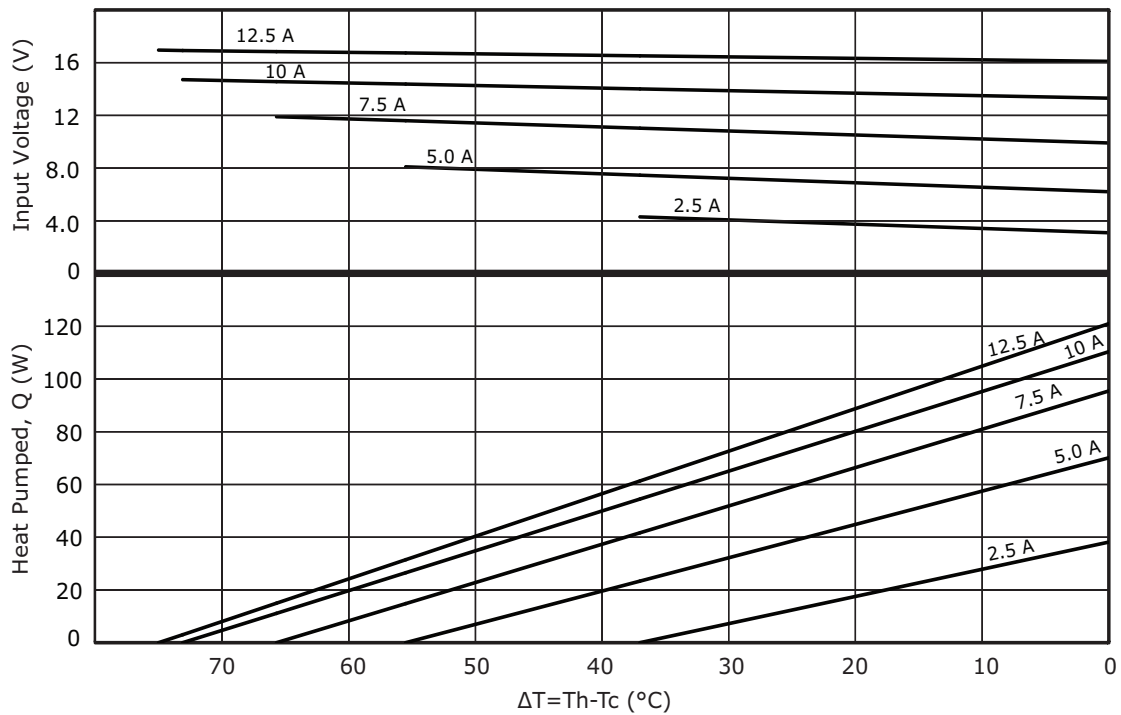


| MODEL NO. | LENGTH [mm] | WIDTH [mm] | THICKNESS [mm] |
|-----------|-------------|------------|----------------|
| CP12437   | 40 ± 0.3    | 40 ± 0.3   | 3.7 ± 0.1      |

## PERFORMANCE (Th=27°C)



## PERFORMANCE (Th=50°C)



## REVISION HISTORY

| rev. | description                  | date       |
|------|------------------------------|------------|
| 1.0  | initial release              | 09/08/2016 |
| 1.01 | changed to arcTEC™ structure | 12/01/2017 |
| 1.02 | brand update                 | 10/28/2019 |
| 1.03 | logo, datasheet style update | 08/05/2022 |

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



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

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