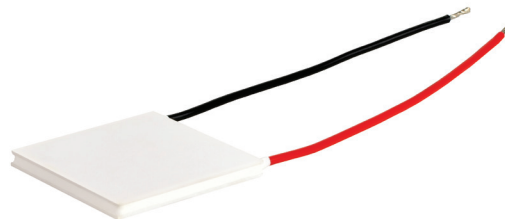


## SERIES: CP125 | DESCRIPTION: PELTIER MODULE

### FEATURES

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

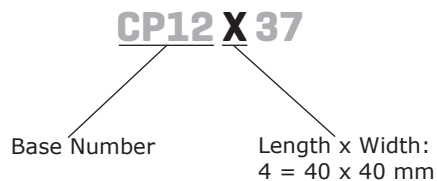


### MODEL

| MODEL   | input voltage <sup>1</sup><br>max<br>(Vdc) | input current <sup>2</sup><br>max<br>(A) | output Qmax <sup>3</sup>    |                             | output ΔTmax <sup>4</sup>    |                              |
|---------|--------------------------------------------|------------------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
|         |                                            |                                          | T <sub>n</sub> =27°C<br>(W) | T <sub>n</sub> =50°C<br>(W) | T <sub>n</sub> =27°C<br>(°C) | T <sub>n</sub> =50°C<br>(°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



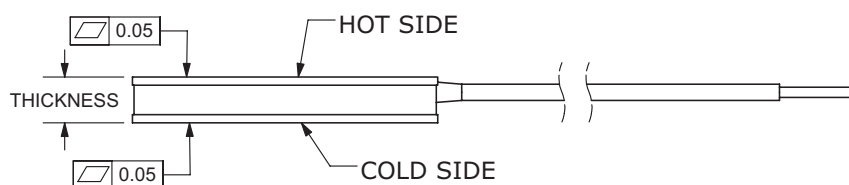
## SPECIFICATIONS

| 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                                     |       |      |       |       |

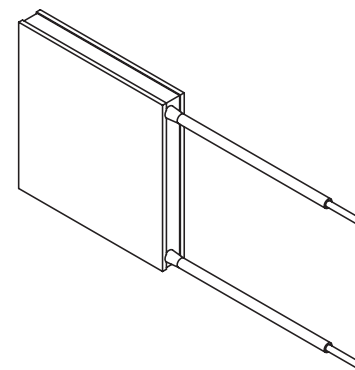
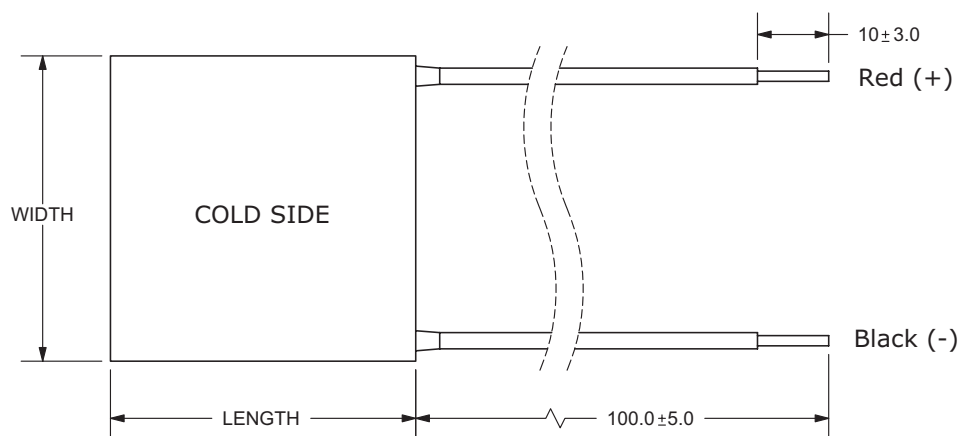
Note: 1. Measured by AC 4-terminal method at 25°C

## MECHANICAL DRAWING

units: mm

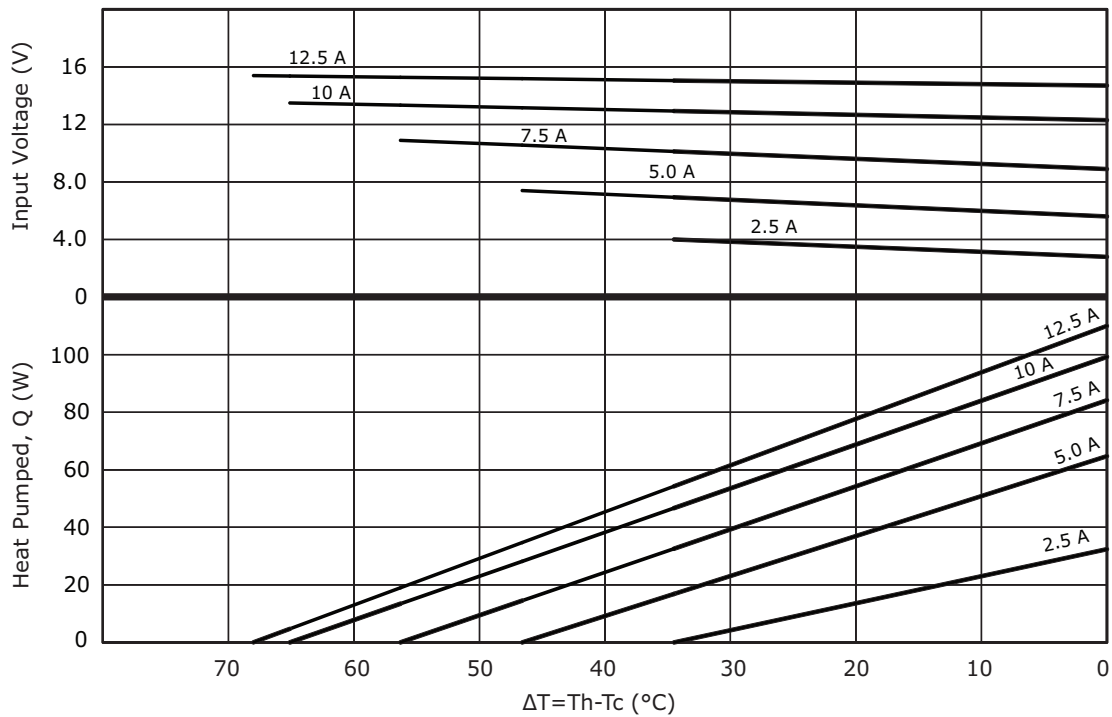


|               | MATERIAL                                                  | PLATING |
|---------------|-----------------------------------------------------------|---------|
| ceramic plate | 96% AL <sub>2</sub> O <sub>3</sub>                        |         |
| wire leads    | 18 AWG                                                    | 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                    |         |

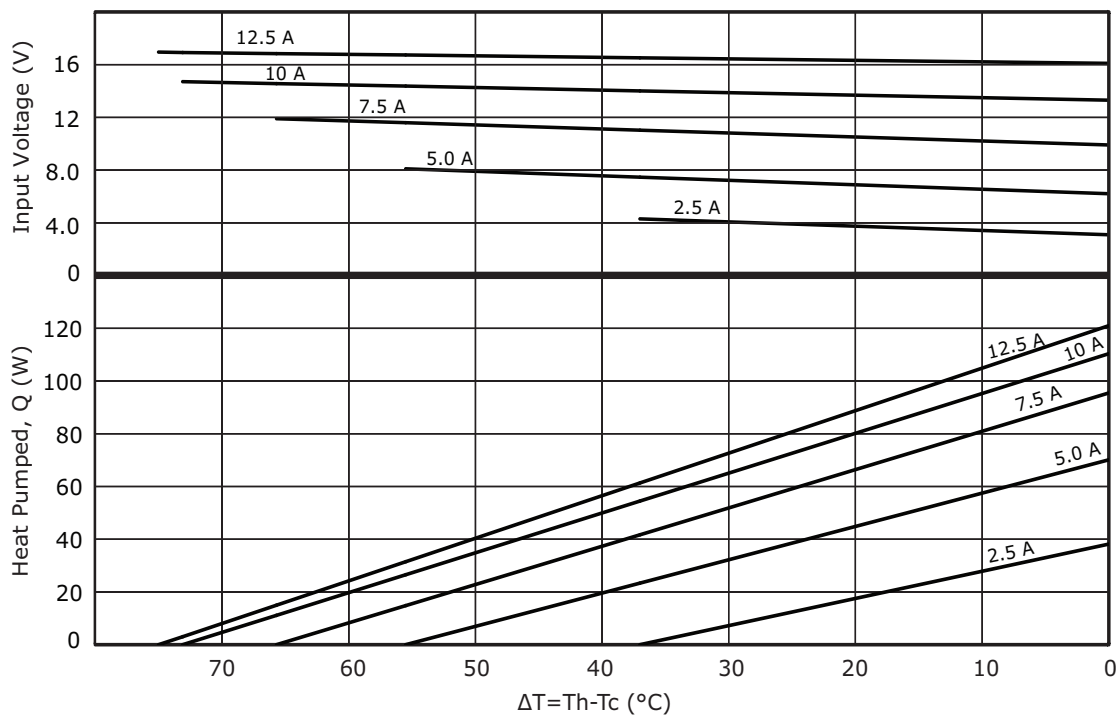


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|-----------|-------------|------------|----------------|
| CP12437   | 40 ±0.3     | 40 ±0.3    | 3.7 ±0.1       |

## PERFORMANCE (Th=27°C)



## PERFORMANCE (Th=50°C)



## REVISION HISTORY

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| 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 |

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

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