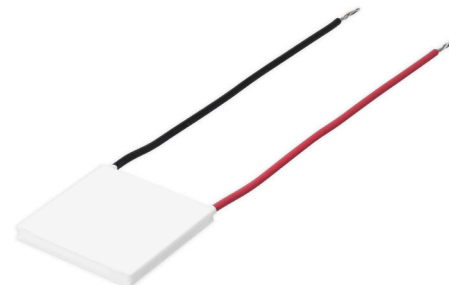


SERIES: CP100 | **DESCRIPTION:** PELTIER MODULE

FEATURES

- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide ΔT_{max}
- precise temperature control
- solid state construction


MODEL

| | input voltage ¹ max [Vdc] | input current ² max [A] | internal resistance ³ typ [$\Omega \pm 10\%$] | output Qmax ⁴ | | output ΔT_{max} ⁵ | |
|--------------------------|---|---|---|-----------------------------|-----------------------------|---|------------------------------|
| | | | | T _h =27°C [W] | T _h =50°C [W] | T _h =27°C [°C] | T _h =50°C [°C] |
| CP10205033 | 9.6 | 10 | 0.71 | 56.2 | 62 | 68 | 75 |
| CP103033 ⁶ | 11.8 | 10 | 0.88 | 69 | 75 | 70 | 77 |
| CP10304033 ⁶ | 15 | 10 | 1.13 | 89 | 97 | 70 | 77 |
| CP10415273 ⁶ | 4.9 | 10 | 0.37 | 28 | 30 | 70 | 77 |
| CP105559415 ⁶ | 24.6 | 10 | 1.82 | 140 | 154 | 70 | 77 |

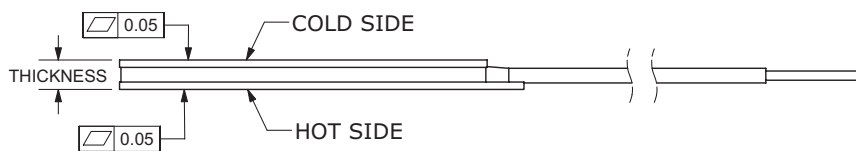
Notes: 1. Maximum voltage at ΔT_{max} and T_h=27°C
 2. Maximum current to achieve ΔT_{max}
 3. Measured by AC 4-terminal method at 25°C
 4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and $\Delta T=0^\circ\text{C}$
 5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT_{max} measured in a vacuum at 1.3 Pa)
 6. Designed with arcTEC™ structure.

SPECIFICATIONS

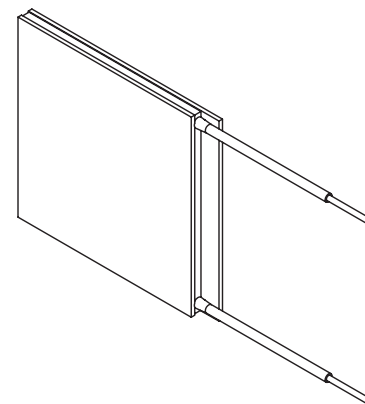
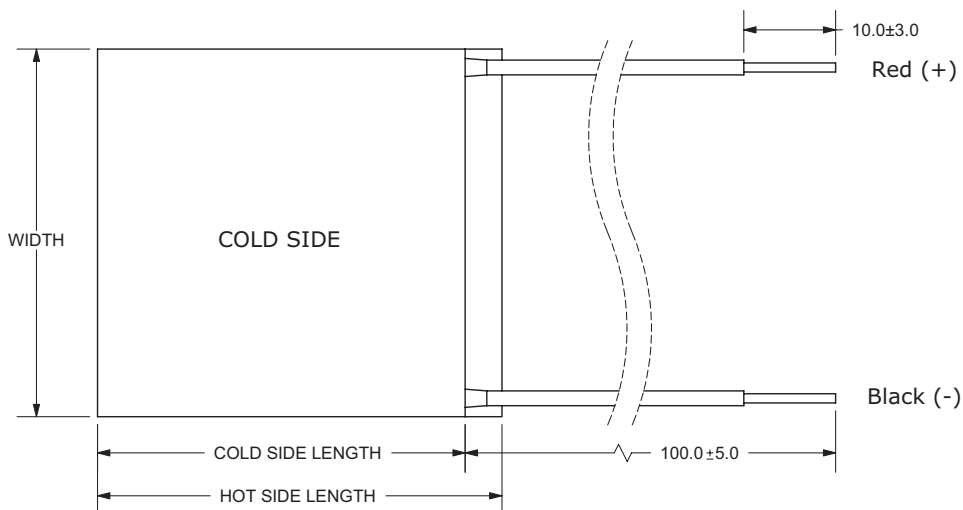
| parameter | conditions/description | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 1 | MPa |
| RoHS | yes | | | | |

MECHANICAL DRAWING

units: mm

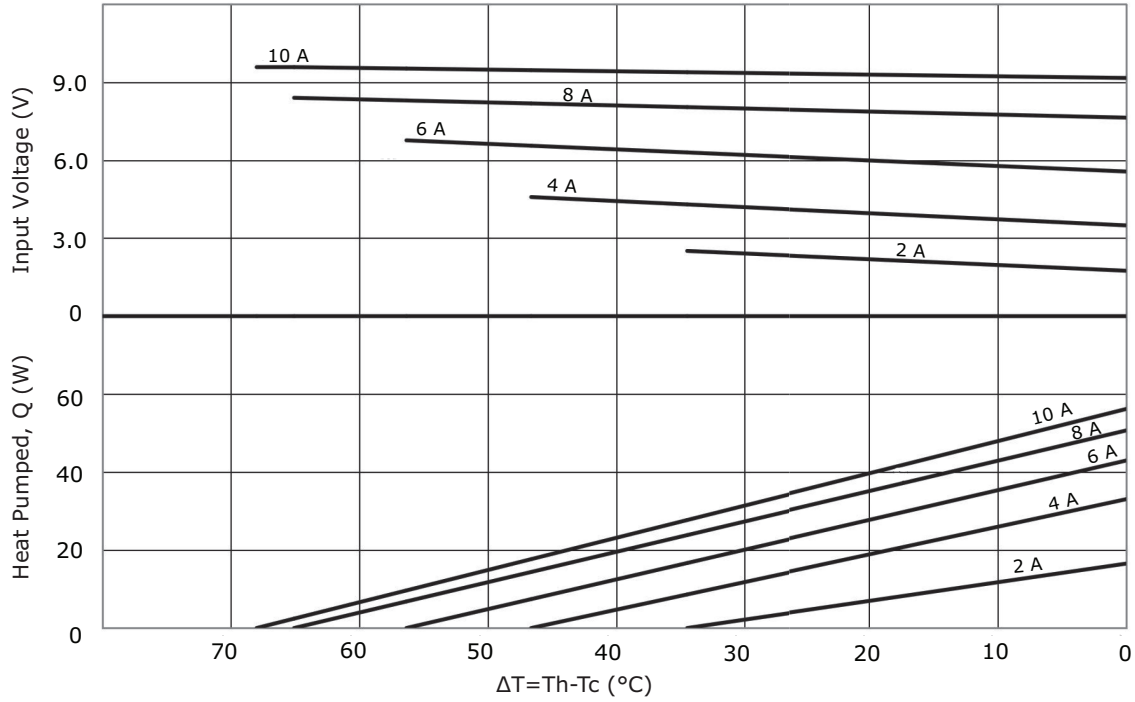


| | MATERIAL | PLATING |
|-------------------------------|---|---------|
| ceramic plate | 96% Al_2O_3 | |
| wire leads [CP10415273] | 18 AWG | tin |
| wire leads [all other models] | 20 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |

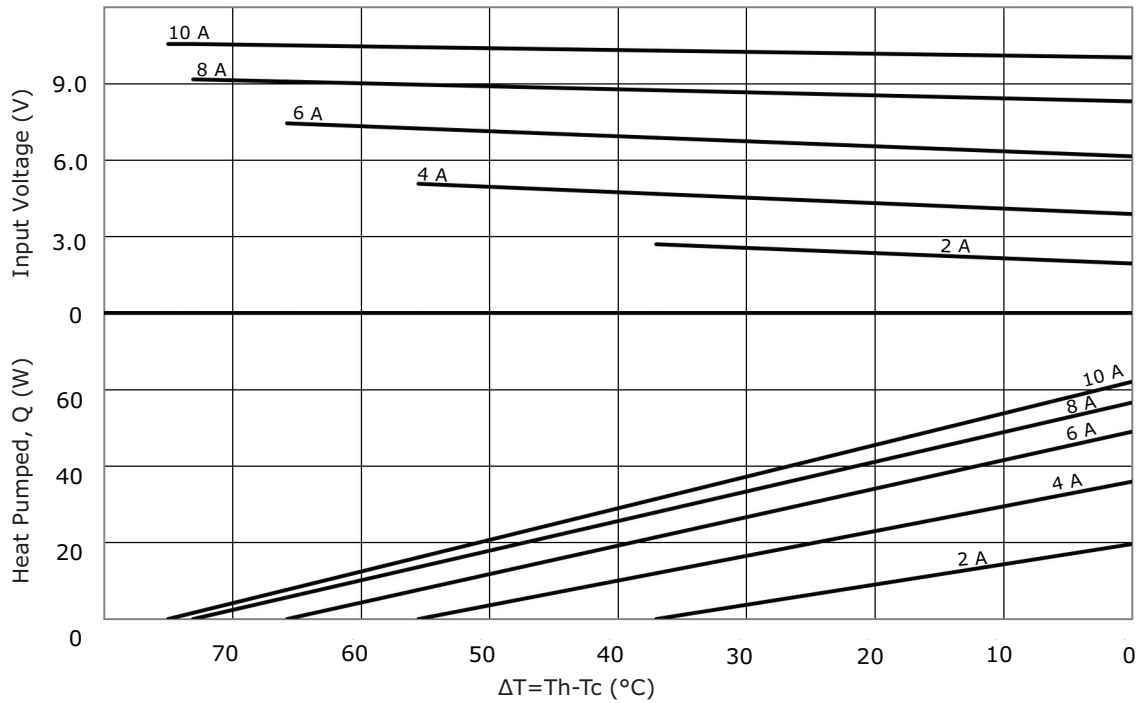


| MODEL NO. | HOT SIDE LENGTH [mm] | COLD SIDE LENGTH [mm] | WIDTH [mm] | THICKNESS [mm] |
|-------------|----------------------|-----------------------|------------|----------------|
| CP10205033 | 20 ±0.3 | 20 ±0.3 | 50 ±0.3 | 3.3 ±0.1 |
| CP103033 | 30 ±0.3 | 30 ±0.3 | 30 ±0.3 | 3.3 ±0.1 |
| CP10304033 | 30 ±0.3 | 30 ±0.3 | 40 ±0.3 | 3.3 ±0.1 |
| CP10415273 | 57 ±0.3 | 52 ±0.3 | 41 ±0.3 | 7.3 ±0.1 |
| CP105559415 | 59 ±0.3 | 55 ±0.3 | 55 ±0.3 | 4.15 ±0.1 |

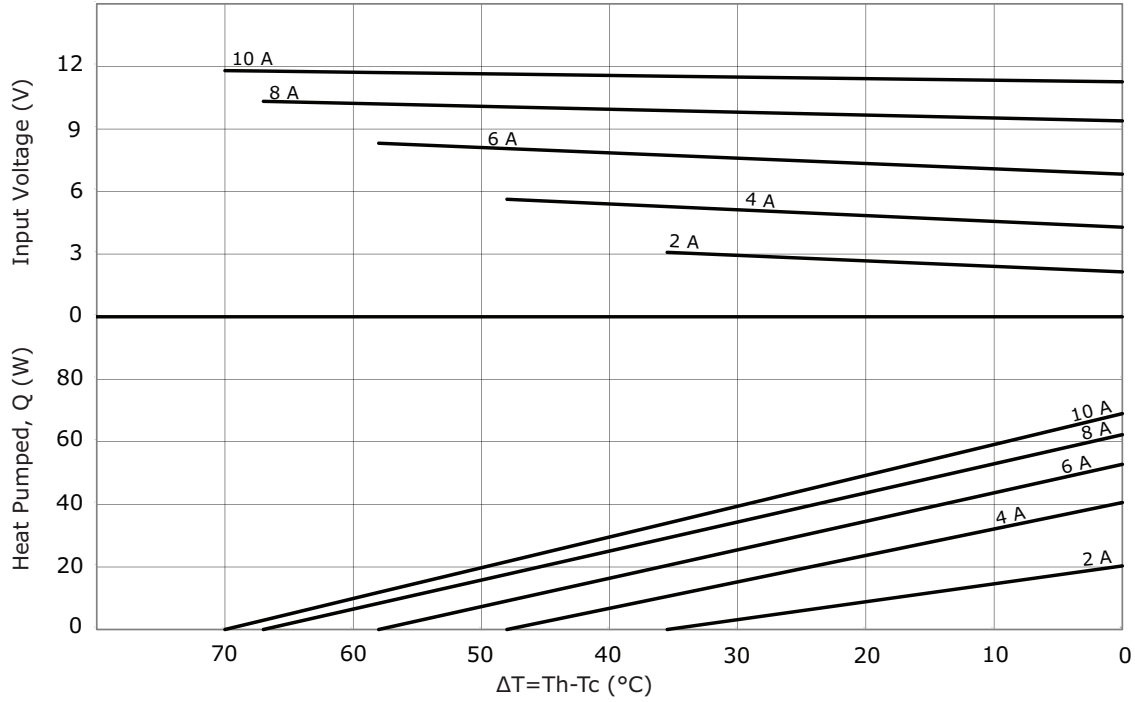
CP10205033 PERFORMANCE (Th=27°C)



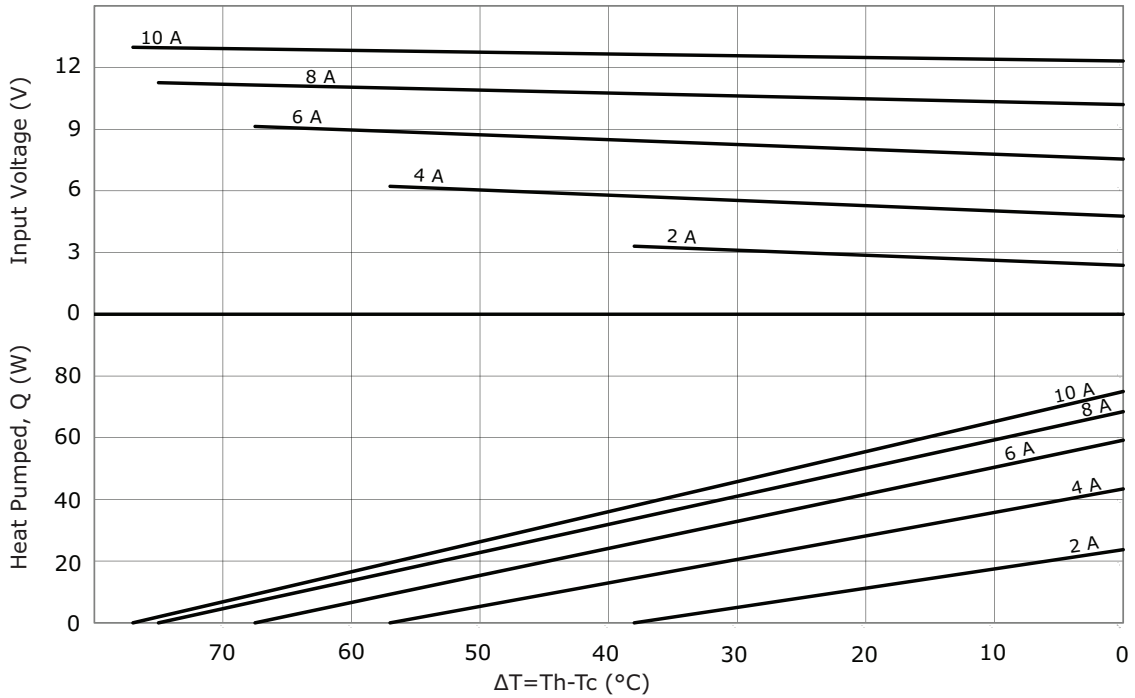
CP10205033 PERFORMANCE (Th=50°C)



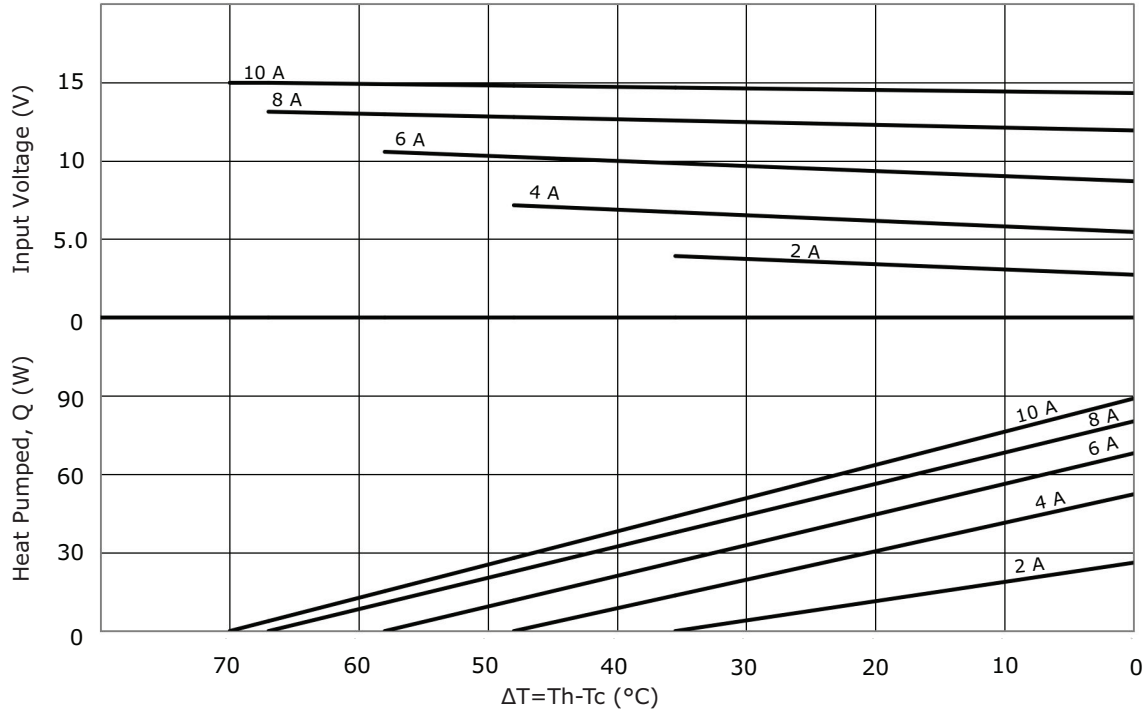
CP103033 PERFORMANCE (Th=27°C)



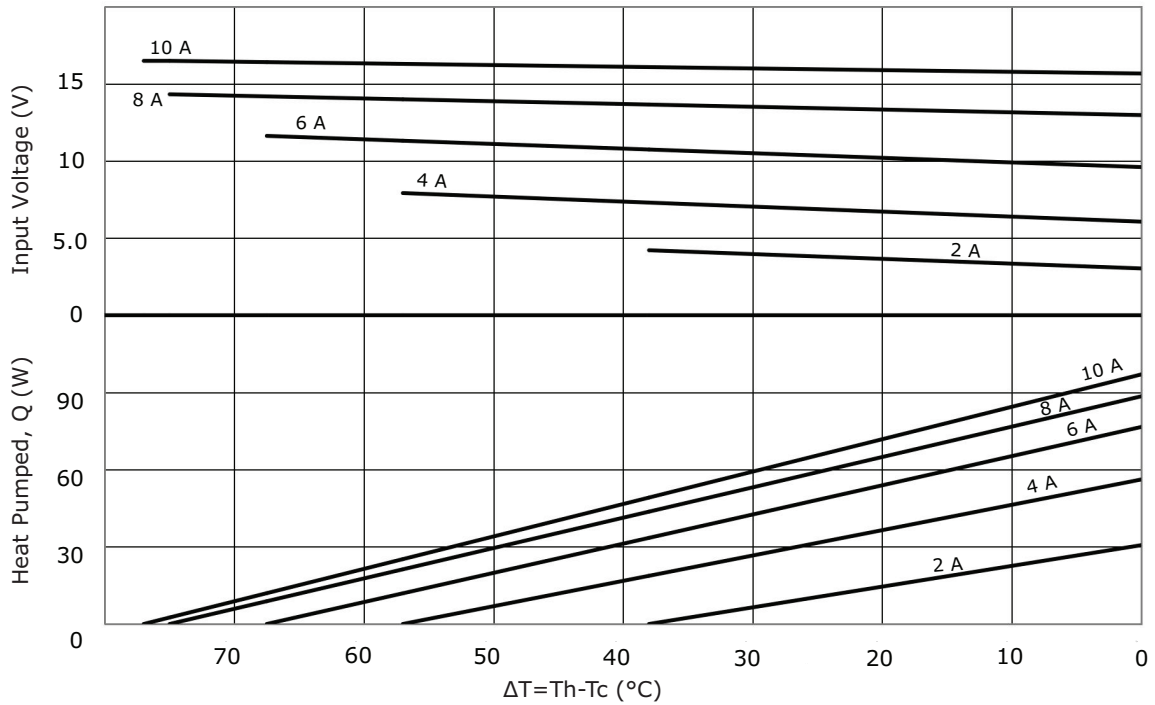
CP103033 PERFORMANCE (Th=50°C)



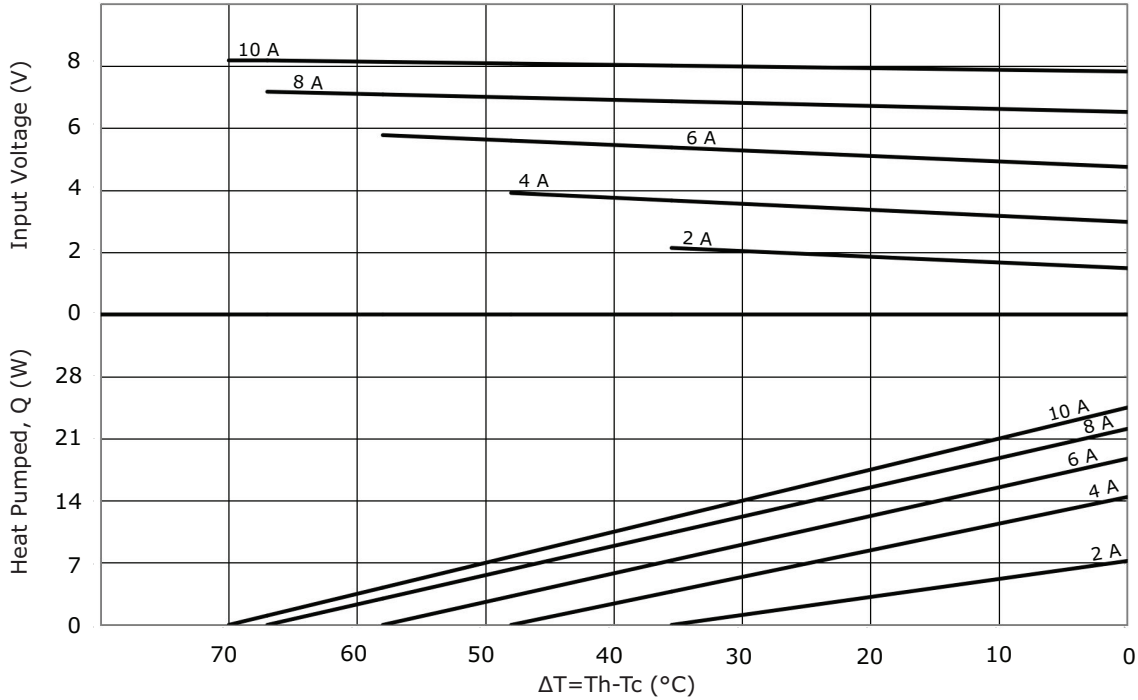
CP10304033 PERFORMANCE (Th=27°C)



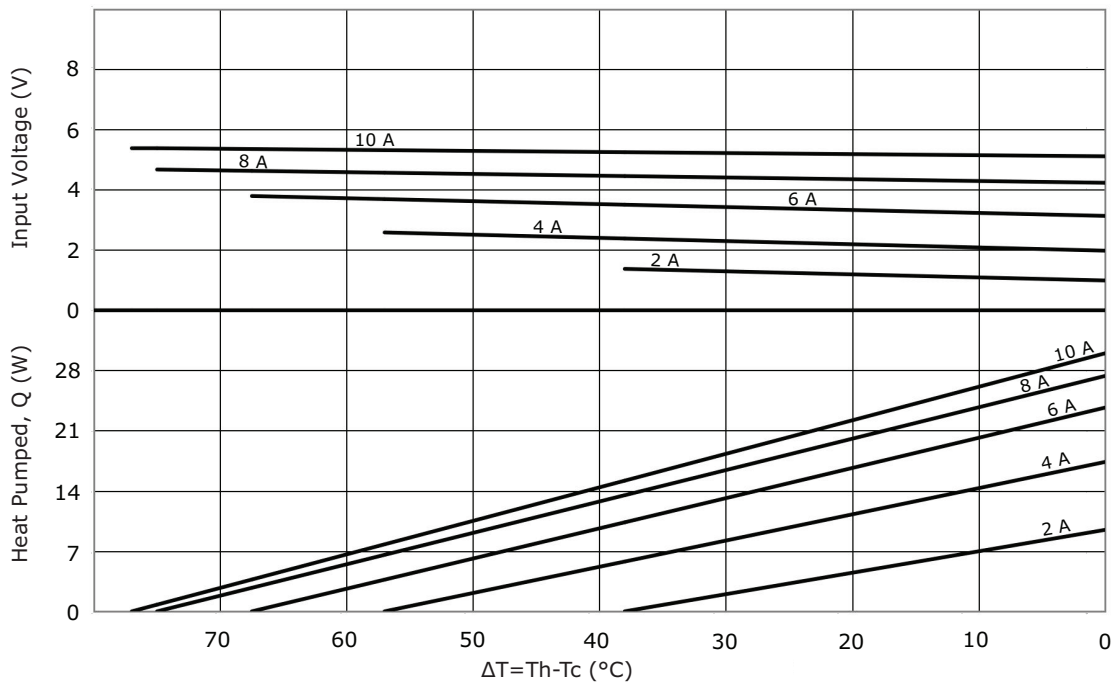
CP10304033 PERFORMANCE (Th=50°C)



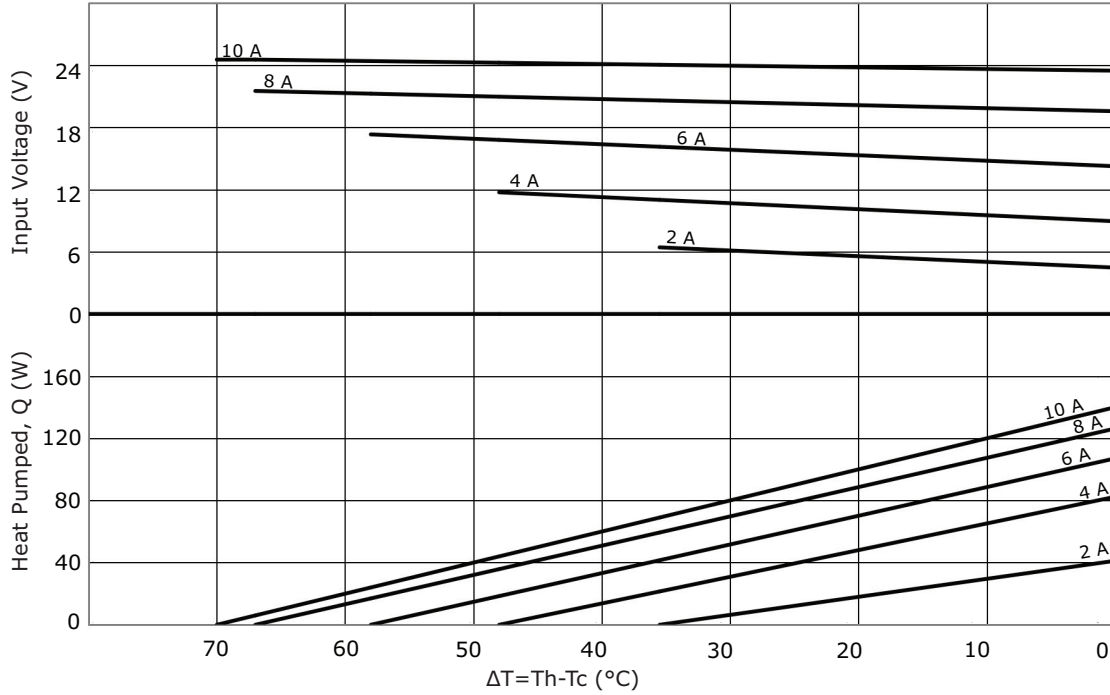
CP10415273 PERFORMANCE (Th=27°C)



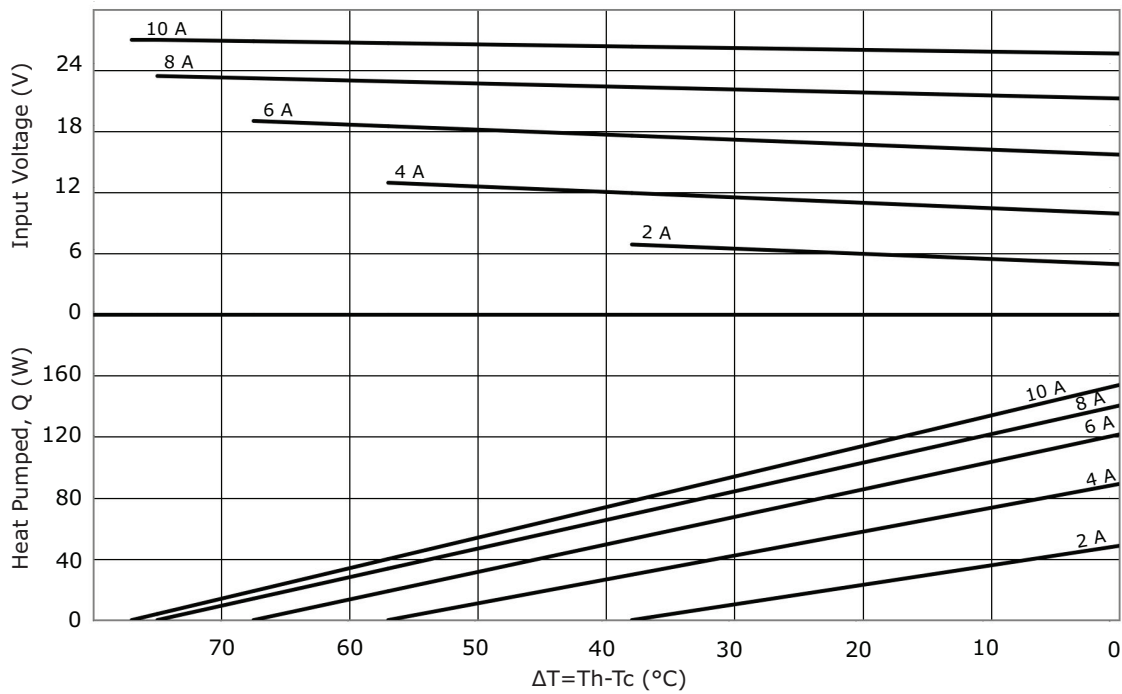
CP10415273 PERFORMANCE (Th=50°C)



CP10559415 PERFORMANCE (Th=27°C)



CP10559415 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|--------------------------------------|------------|
| 1.0 | initial release | 11/05/2019 |
| 1.01 | added models CP10205033 & CP10304033 | 11/09/2020 |
| 1.02 | 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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