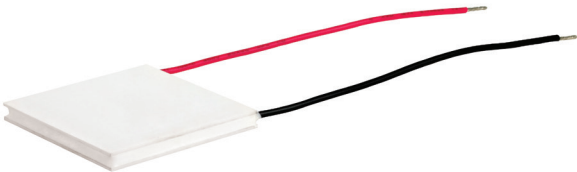


SERIES: CP40 | DESCRIPTION: PELTIER MODULE

FEATURES

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



MODEL

| MODEL                  | input<br>voltage <sup>1</sup><br>max<br>[Vdc] | input<br>current <sup>2</sup><br>max<br>[A] | internal<br>resistance <sup>3</sup><br>typ<br>[Ω±10%] | output<br>Qmax <sup>4</sup> |                             | output<br>ΔTmax <sup>5</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] |
| CP40136                | 3.8                                           | 4.0                                         | 0.80                                                  | 8.1                         | 9.0                         | 66                           | 72                           |
| CP40236                | 8.6                                           | 4.0                                         | 2.0                                                   | 18.7                        | 21.8                        | 66                           | 72                           |
| CP40336                | 15.4                                          | 4.0                                         | 3.5                                                   | 33.4                        | 37.3                        | 66                           | 72                           |
| CP40147                | 2.1                                           | 4.0                                         | 0.42                                                  | 4.2                         | 4.6                         | 68                           | 75                           |
| CP40247                | 3.8                                           | 4.0                                         | 0.77                                                  | 7.5                         | 8.3                         | 68                           | 75                           |
| CP402533 <sup>6</sup>  | 15.4                                          | 4.0                                         | 2.88                                                  | 35.2                        | 39.0                        | 68                           | 75                           |
| CP40301547             | 4.2                                           | 4.0                                         | 0.87                                                  | 8.4                         | 9.2                         | 68                           | 75                           |
| CP40347 <sup>6</sup>   | 8.6                                           | 4.0                                         | 1.76                                                  | 19.6                        | 21.6                        | 70                           | 77                           |
| CP40439 <sup>6</sup>   | 19.5                                          | 4.0                                         | 4.18                                                  | 45.0                        | 49.5                        | 68                           | 75                           |
| CP404046 <sup>6</sup>  | 24.1                                          | 4.0                                         | 4.94                                                  | 55.7                        | 61.2                        | 68                           | 75                           |
| CP40447 <sup>6</sup>   | 15.4                                          | 4.0                                         | 3.15                                                  | 32.0                        | 35.2                        | 70                           | 77                           |
| CP4055485 <sup>6</sup> | 29.8                                          | 4.0                                         | 5.97                                                  | 63.0                        | 69.0                        | 70                           | 77                           |

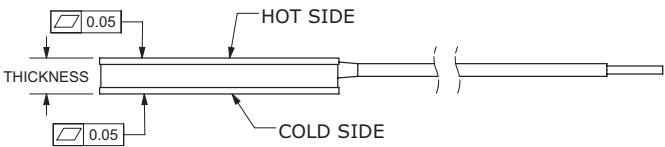
Notes: 1. Maximum voltage at ΔT max and T<sub>h</sub>=27°C  
2. Maximum current to achieve ΔT max  
3. Measured by AC 4-terminal method at 25°C  
4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and ΔT=0°C  
5. Maximum temperature difference occurs at I<sub>max</sub>, V<sub>max</sub>, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)  
6. Designed with arcTEC™ structure.

SPECIFICATIONS

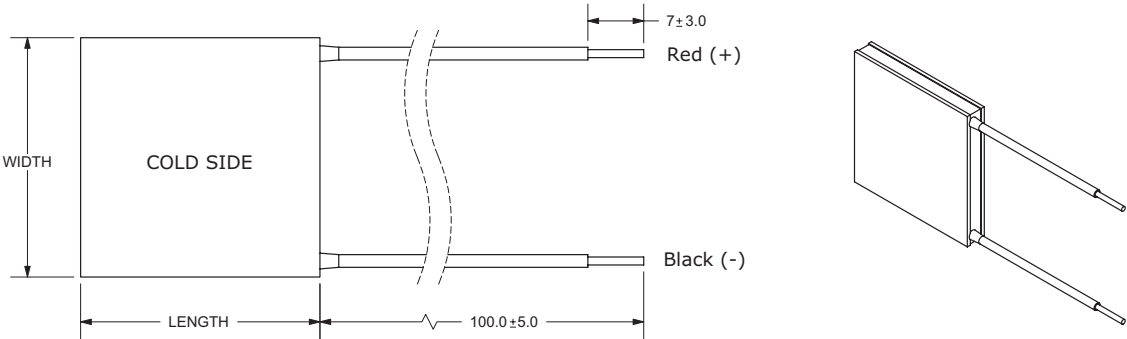
| parameter                  | conditions/description                       | min | typ | max | units |
|----------------------------|----------------------------------------------|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs      |     |     |     |       |
|                            | CP40347, CP40447, CP40147, CP40247, CP402533 |     |     |     |       |
|                            | CP40301547, CP404046, CP40439, CP4055485     | 235 |     |     | °C    |
|                            | all other models                             | 138 |     |     | °C    |
| assembly compression       |                                              |     |     | 1   | MPa   |
| RoHS                       | yes                                          |     |     |     |       |

MECHANICAL DRAWING

units: mm



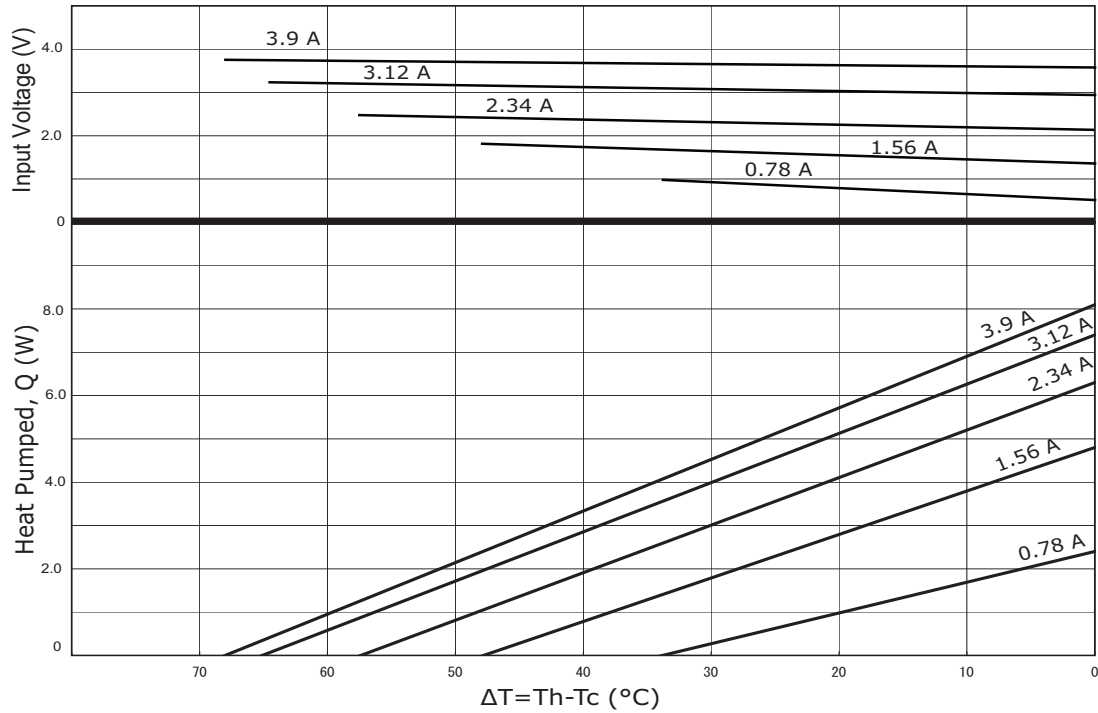
|                                  | MATERIAL                                                  | PLATING |
|----------------------------------|-----------------------------------------------------------|---------|
| ceramic plate                    | 96% AL <sub>2</sub> O <sub>3</sub>                        |         |
| wire leads [3.3 & 3.6 mm models] | 22 AWG                                                    | tin     |
| wire leads [all other models]    | mod- 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                    |         |



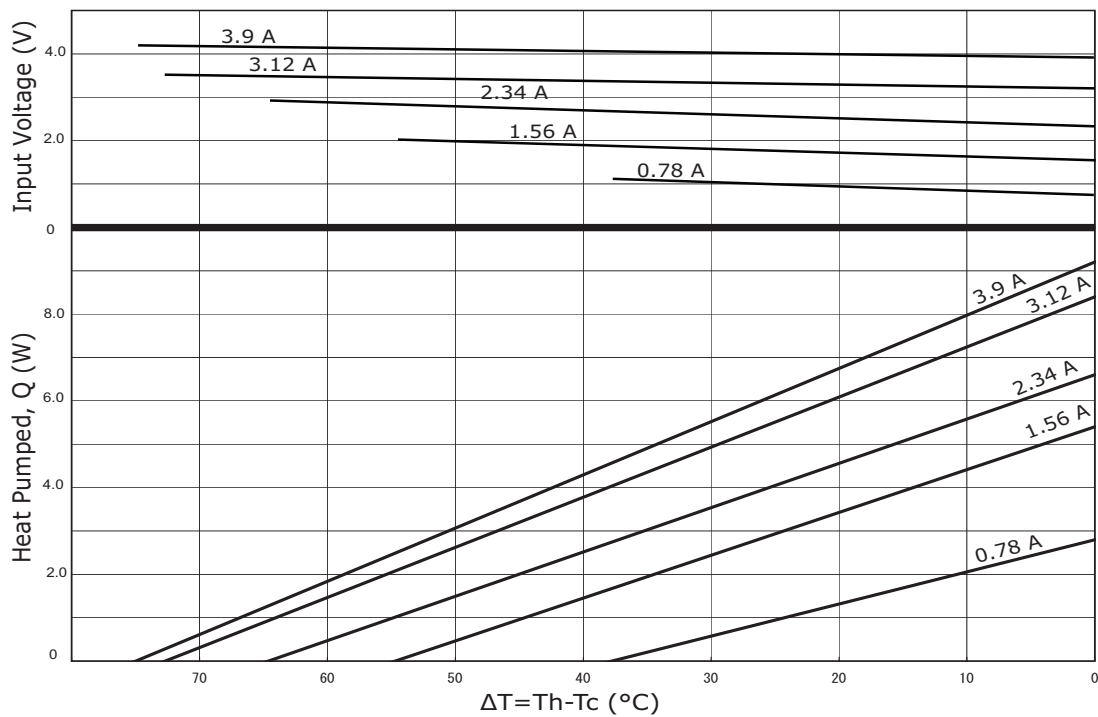
| MODEL NO.              | LENGTH [mm] | WIDTH [mm] | THICKNESS [mm] |
|------------------------|-------------|------------|----------------|
| CP40136                | 15 ±0.3     | 15 ±0.3    | 3.6 ±0.1       |
| CP40236                | 20 ±0.3     | 20 ±0.3    | 3.6 ±0.1       |
| CP40336                | 30 ±0.3     | 30 ±0.3    | 3.6 ±0.1       |
| CP40147                | 15 ±0.3     | 15 ±0.3    | 4.6 ±0.1       |
| CP40247                | 20 ±0.3     | 20 ±0.3    | 4.6 ±0.1       |
| CP402533 <sup>1</sup>  | 25 ±0.3     | 25 ±0.3    | 3.3 ±0.1       |
| CP40301547             | 30 ±0.3     | 15 ±0.3    | 4.6 ±0.1       |
| CP40347 <sup>1</sup>   | 30 ±0.3     | 30 ±0.3    | 4.6 ±0.1       |
| CP40439 <sup>1</sup>   | 40 ±0.3     | 40 ±0.3    | 3.9 ±0.1       |
| CP404046               | 40 ±0.3     | 40 ±0.3    | 4.6 ±0.1       |
| CP40447 <sup>1</sup>   | 40 ±0.3     | 40 ±0.3    | 4.6 ±0.1       |
| CP4055485 <sup>1</sup> | 55 ±0.3     | 55 ±0.3    | 4.85 ±0.1      |

Notes: 1. Wire lead strip length on models CP40347, CP40447, CP40439, CP402533, & CP4055485 is 10 ±3.0 mm.

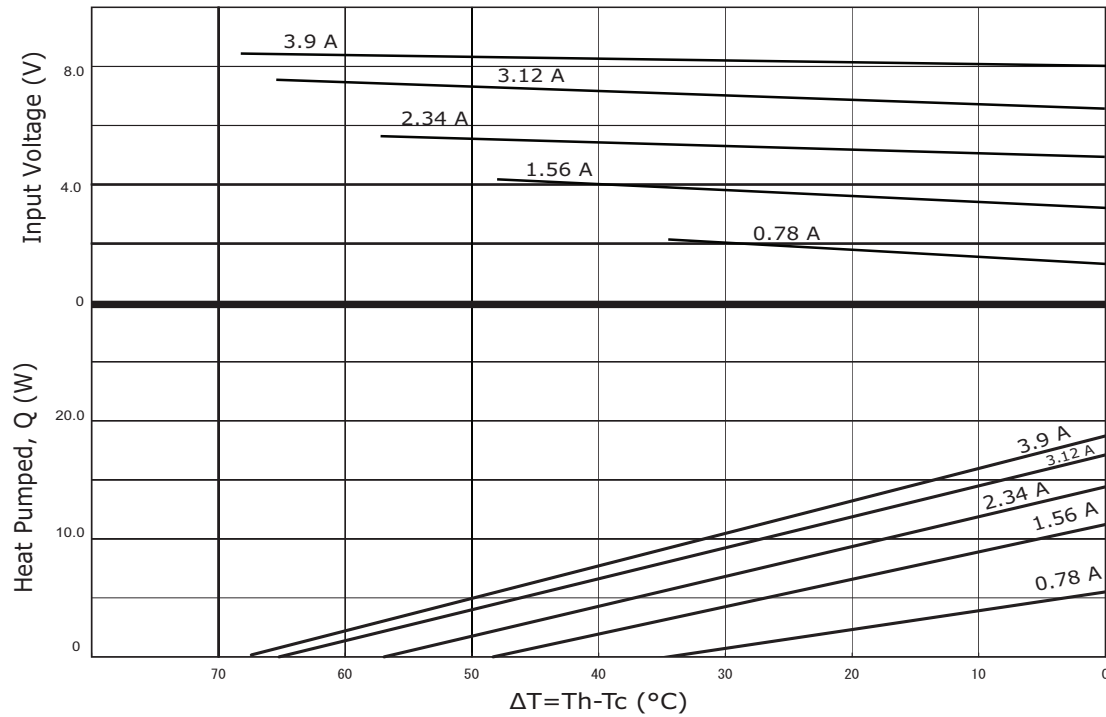
## CP40136 PERFORMANCE (Th=27°C)



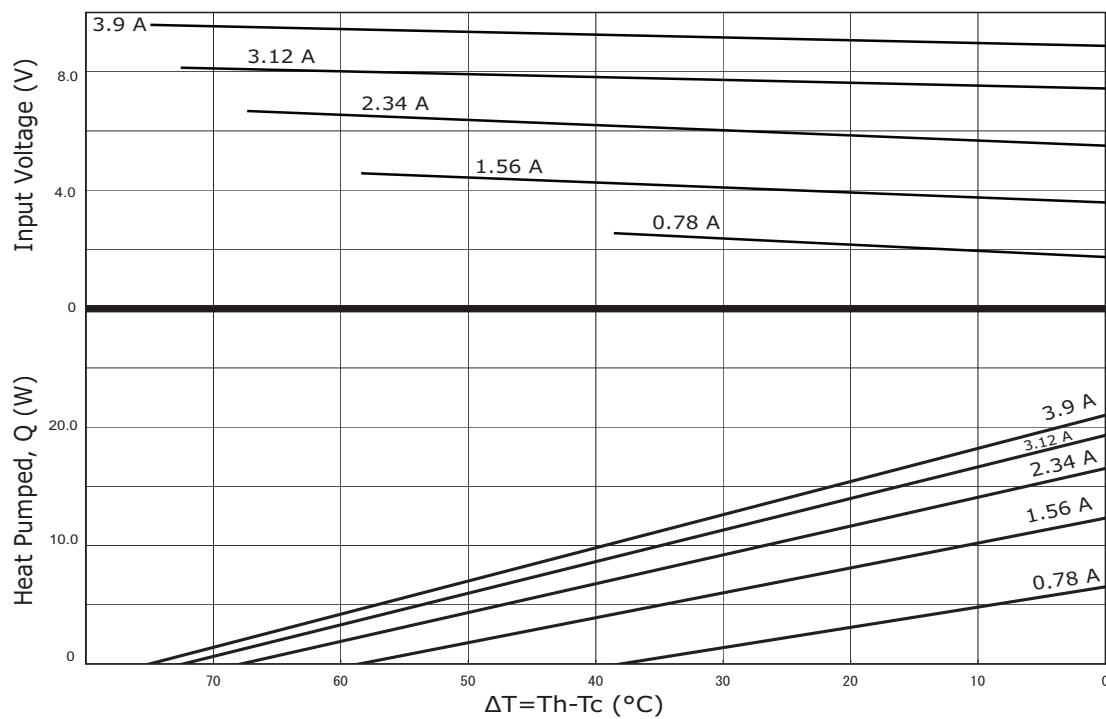
## CP40136 PERFORMANCE (Th=50°C)



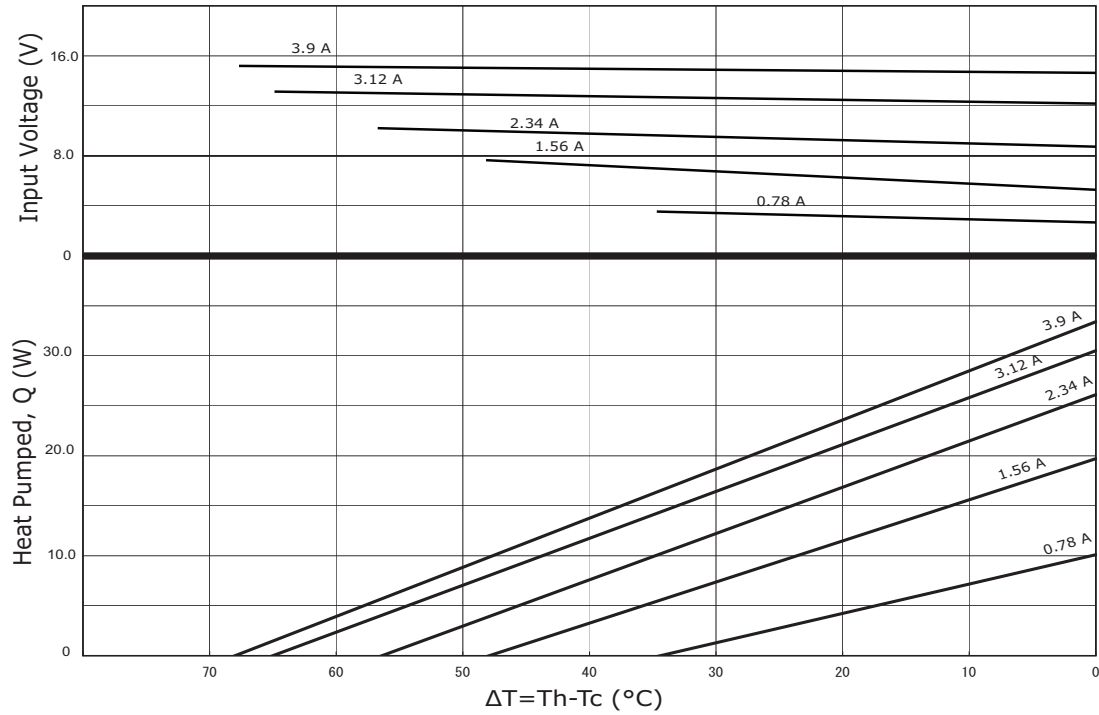
## CP40236 PERFORMANCE (Th=27°C)



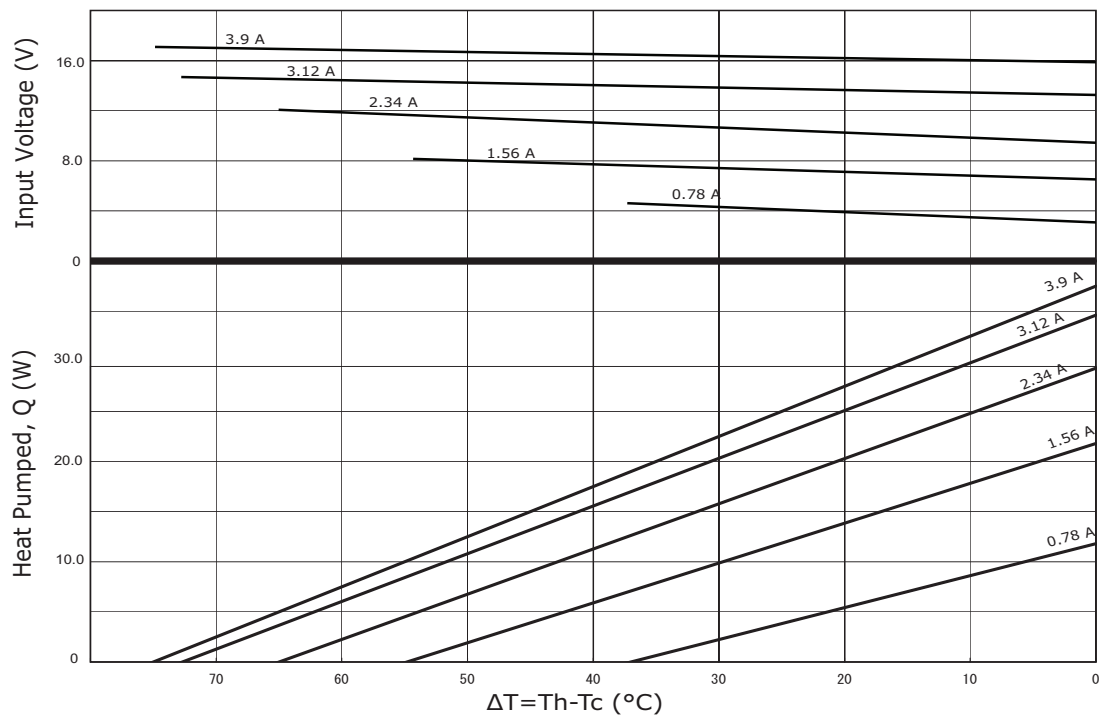
## CP40236 PERFORMANCE (Th=50°C)



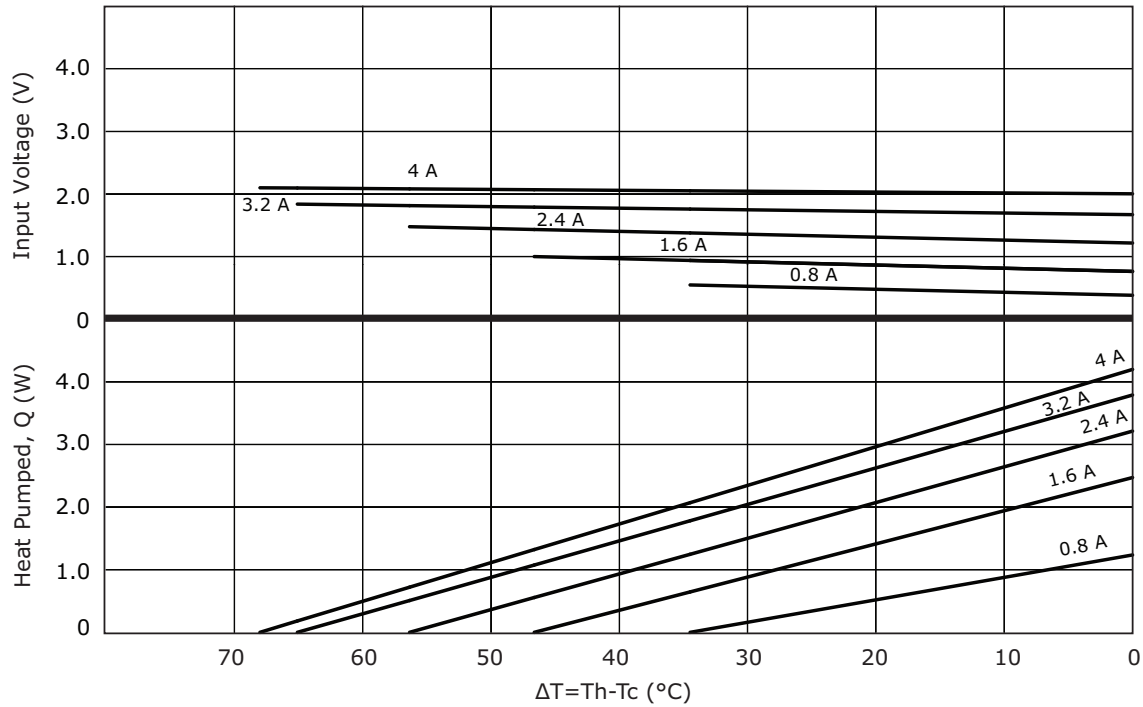
## CP40336 PERFORMANCE (Th=27°C)



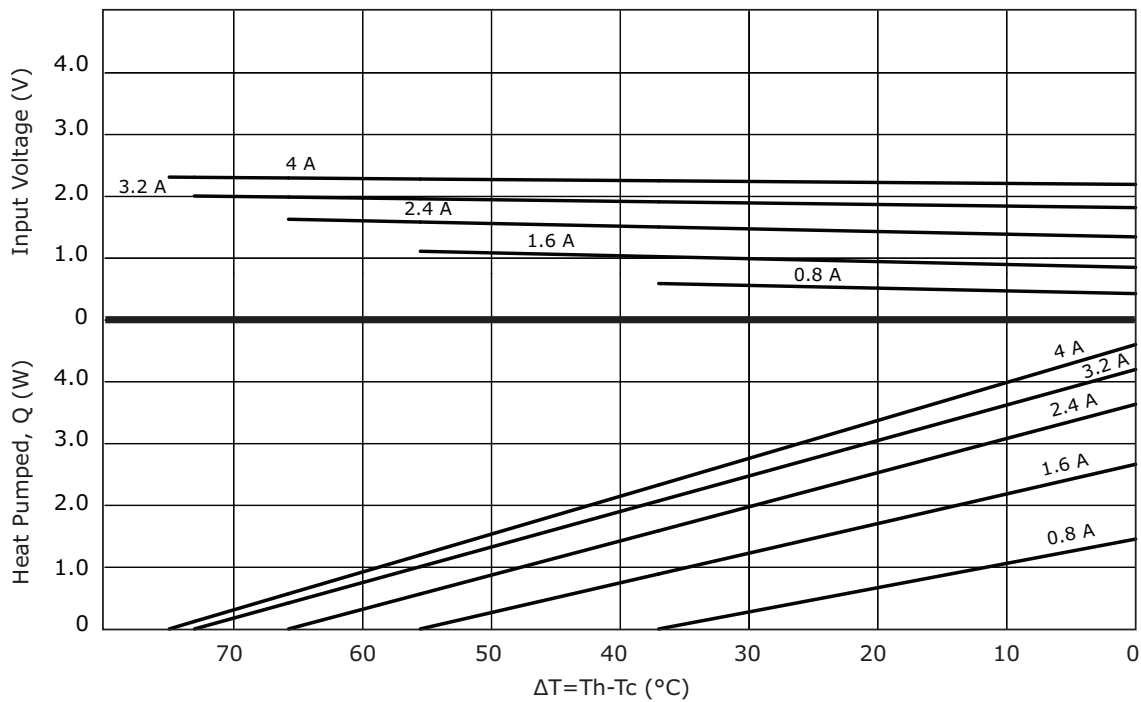
## CP40336 PERFORMANCE (Th=50°C)



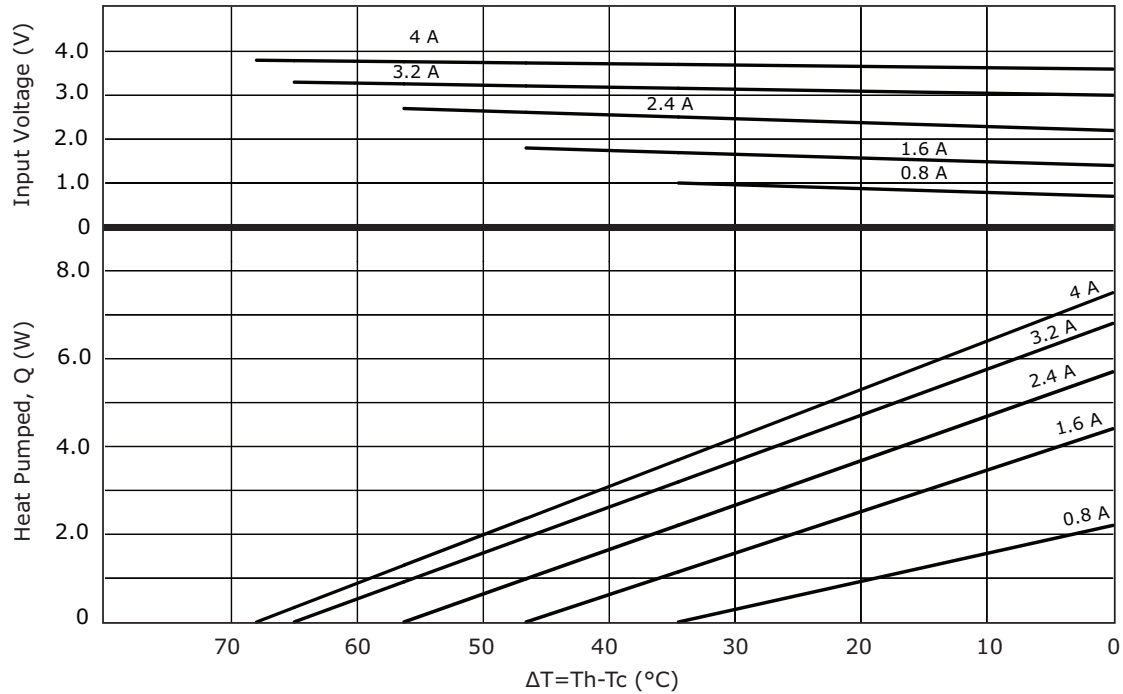
## CP40147 PERFORMANCE (Th=27°C)



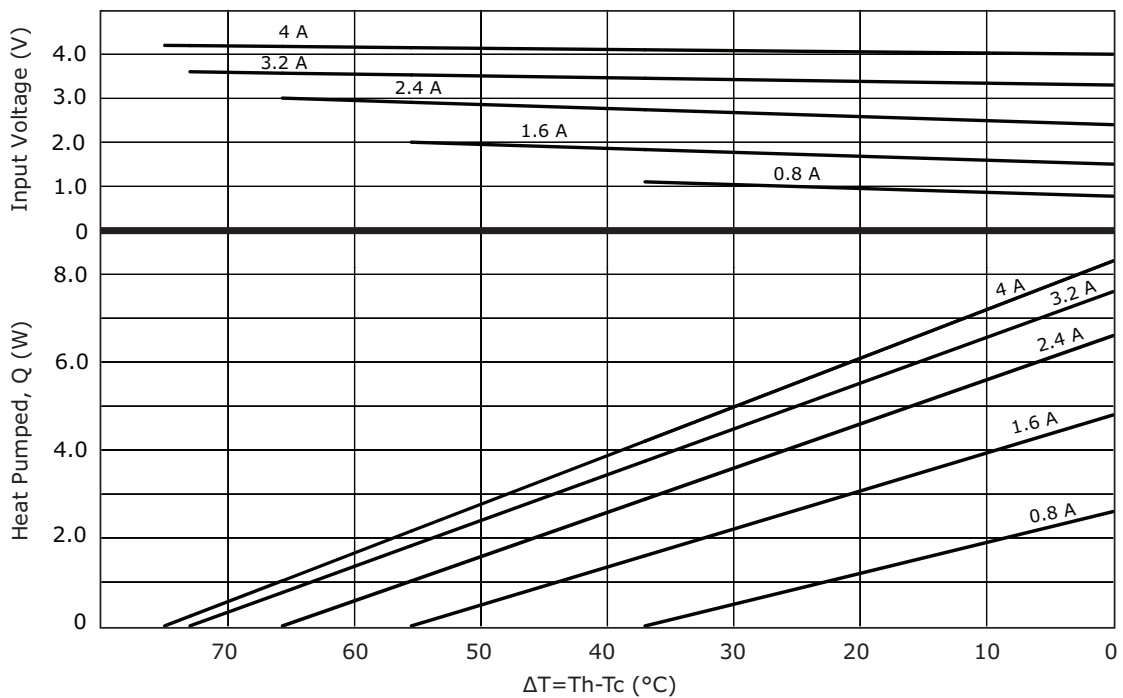
## CP40147 PERFORMANCE (Th=50°C)



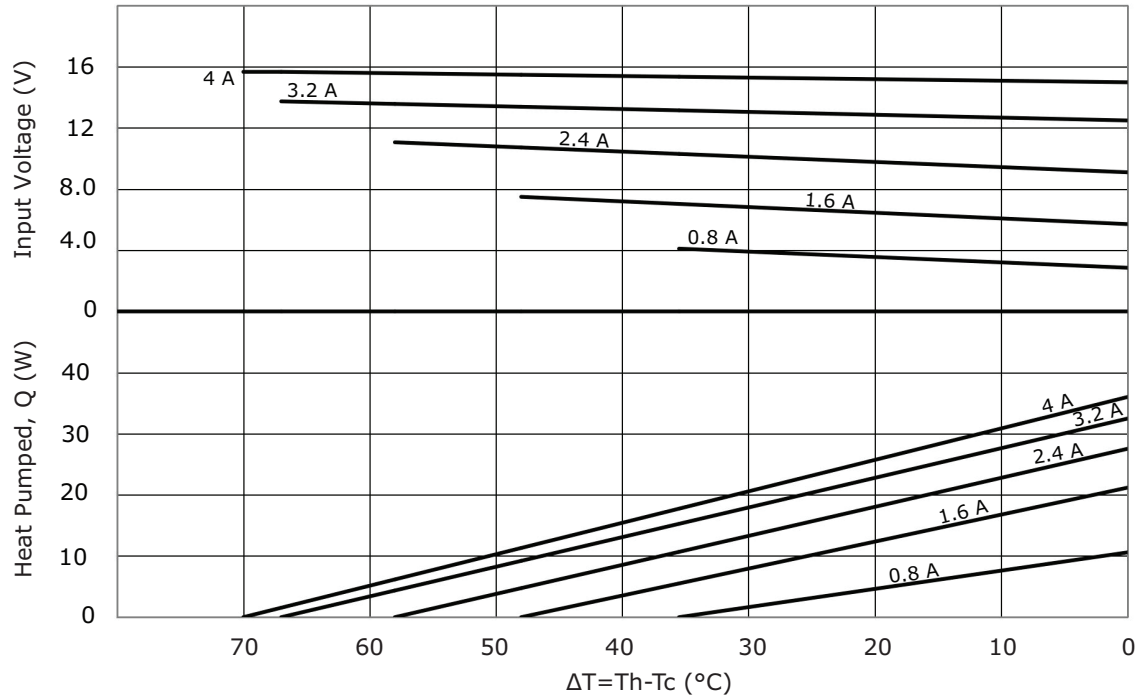
## CP40247 PERFORMANCE (Th=27°C)



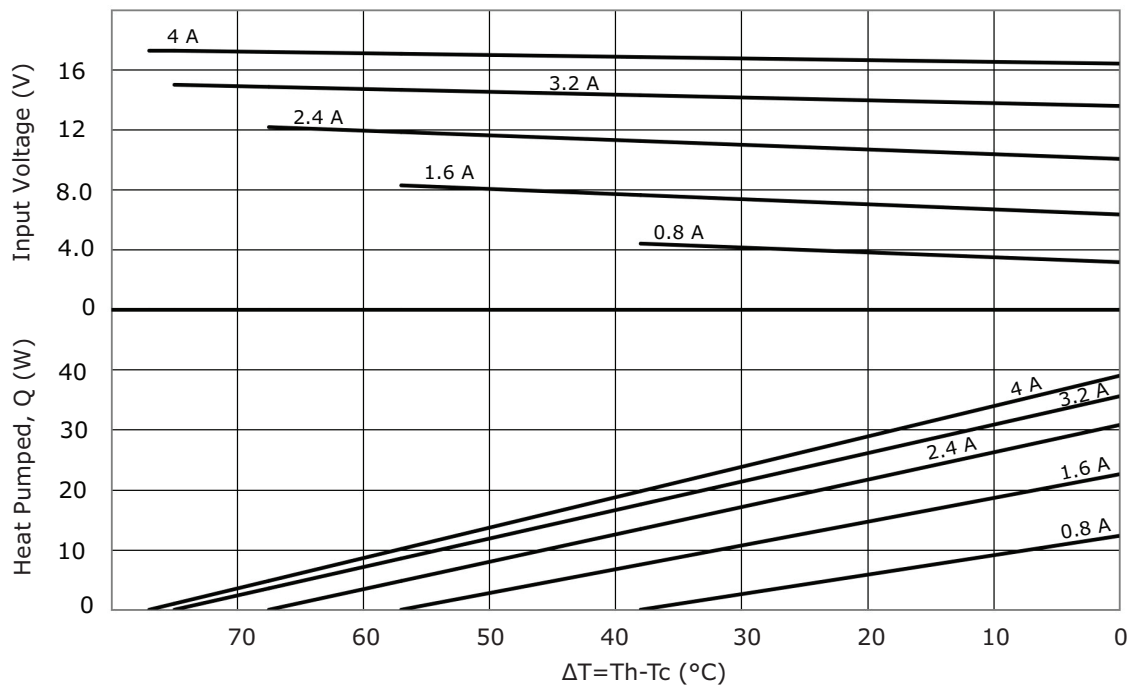
## CP40247 PERFORMANCE (Th=50°C)



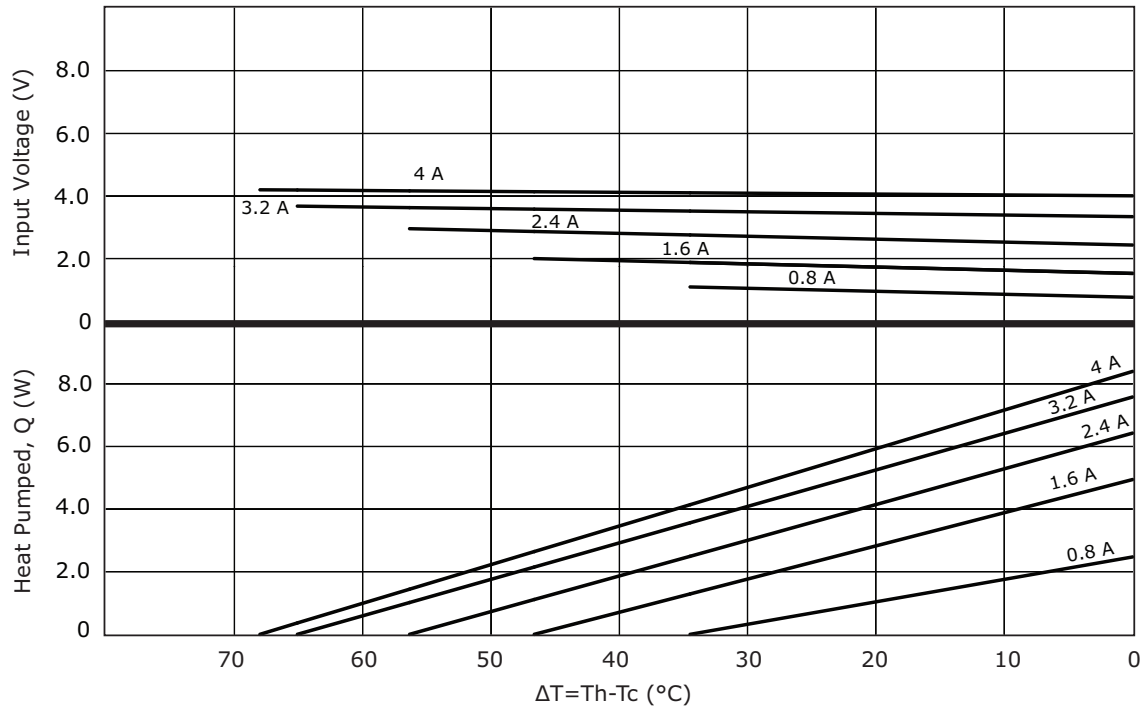
## CP402533 PERFORMANCE (Th=27°C)



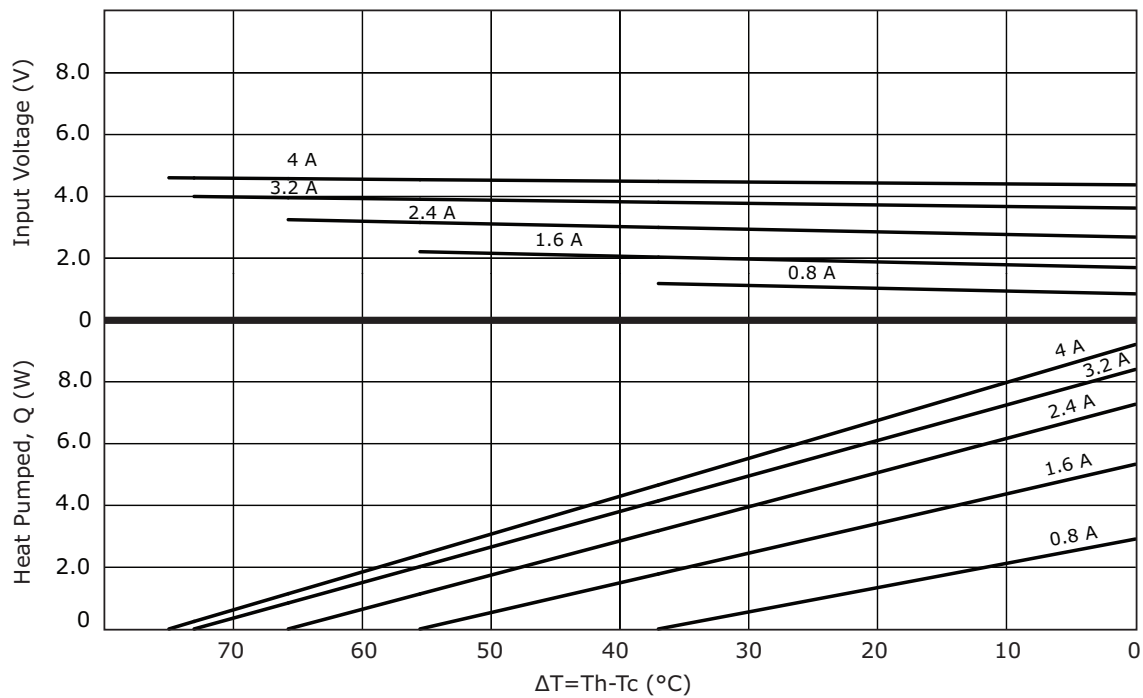
## CP402533 PERFORMANCE (Th=50°C)



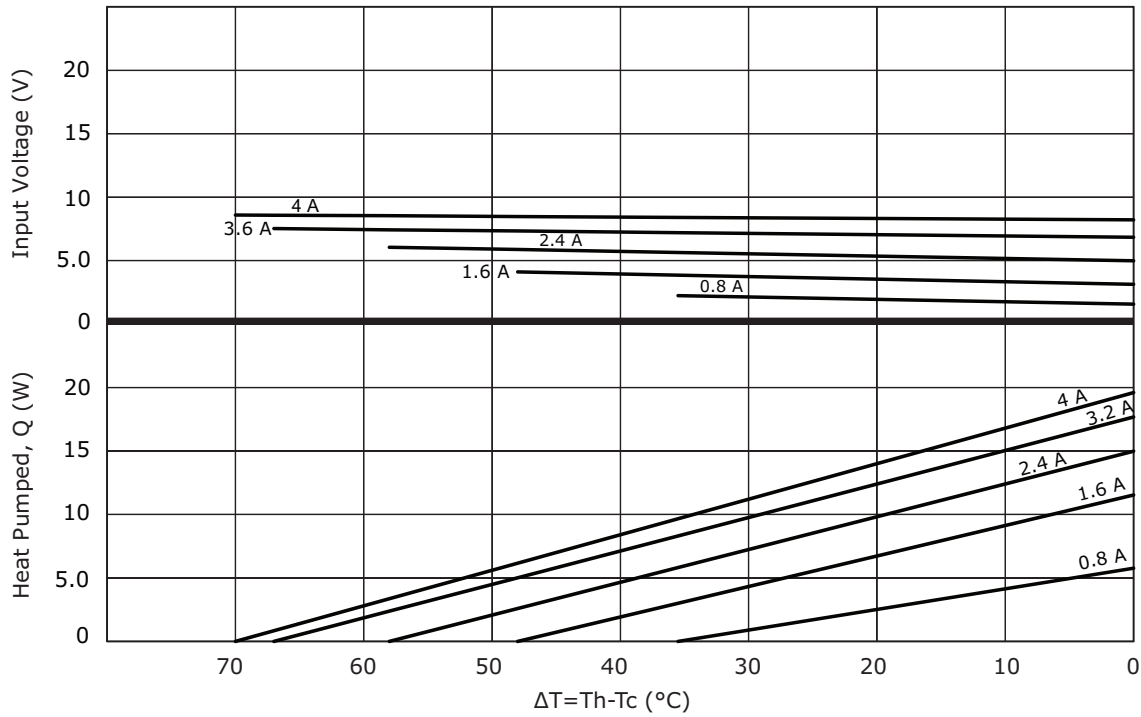
## CP40301547 PERFORMANCE (Th=27°C)



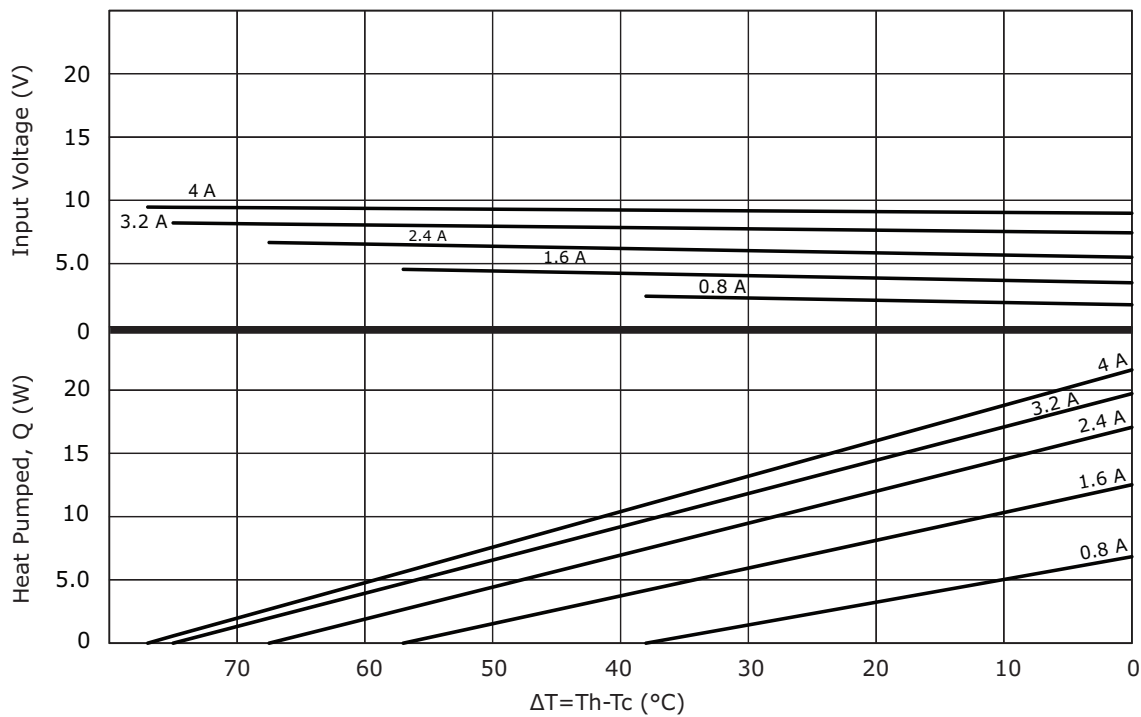
## CP40301547 PERFORMANCE (Th=50°C)



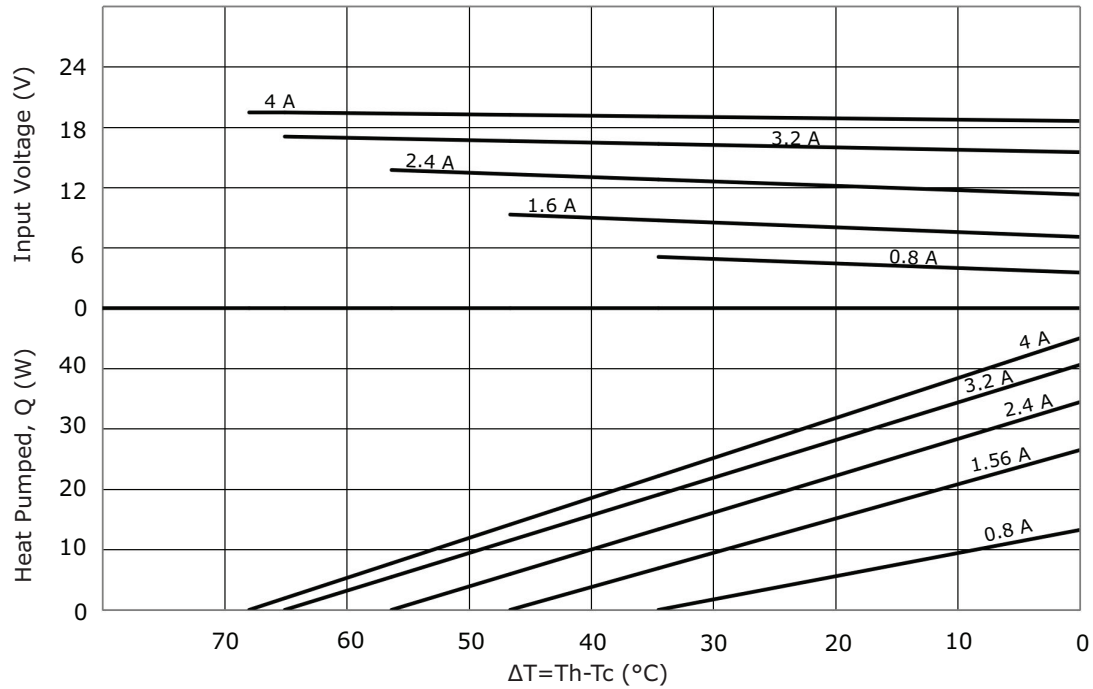
## CP40347 PERFORMANCE (Th=27°C)



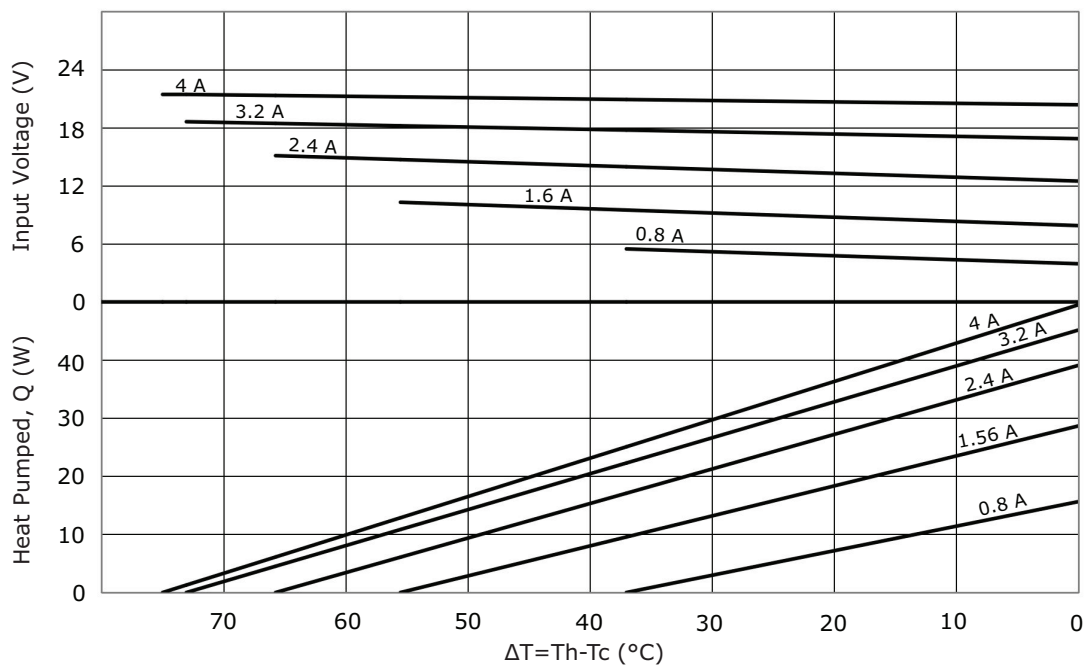
## CP40347 PERFORMANCE (Th=50°C)



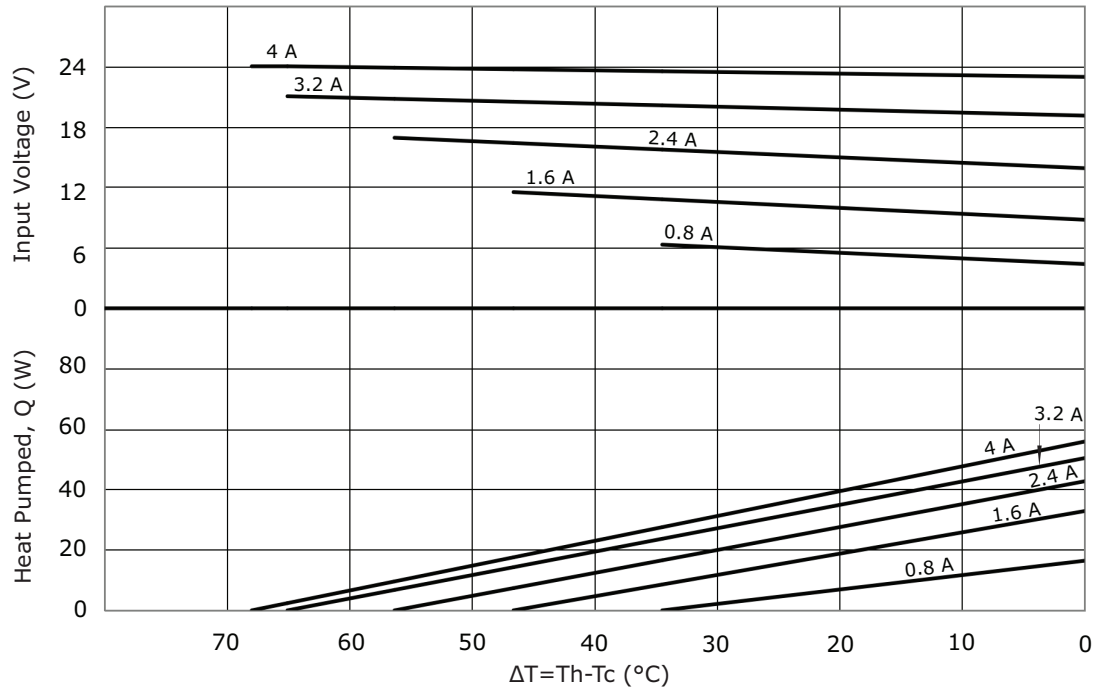
## CP40439 PERFORMANCE (Th=27°C)



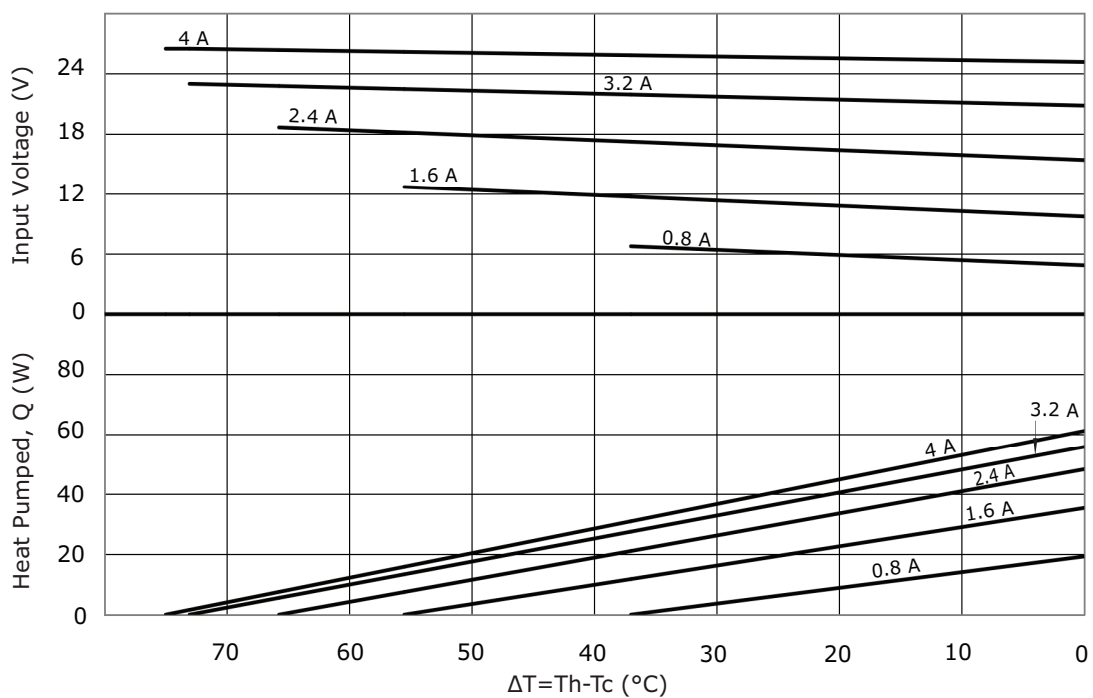
## CP40439 PERFORMANCE (Th=50°C)



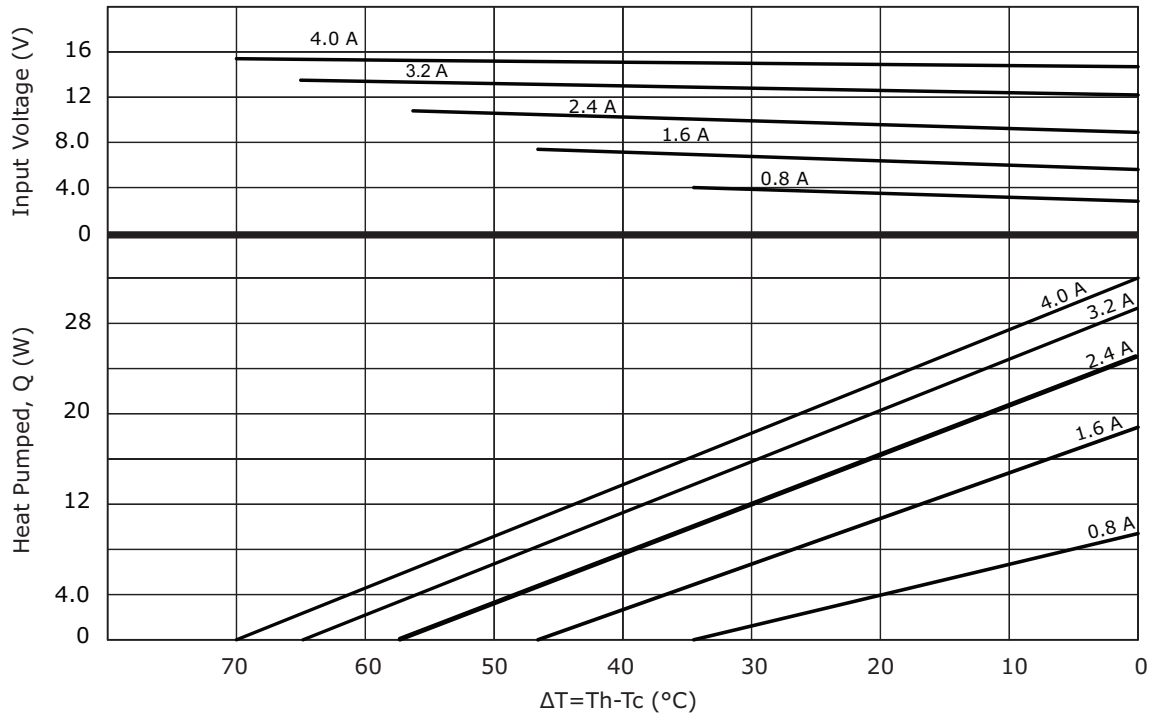
## CP404046 PERFORMANCE (Th=27°C)



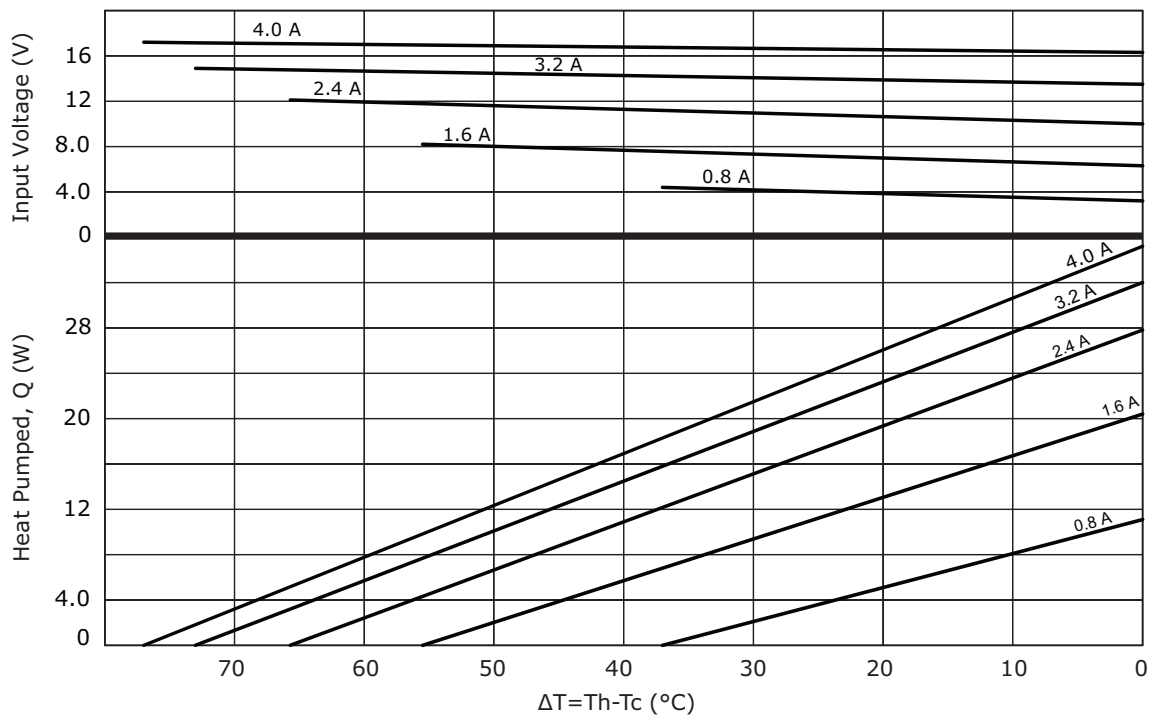
## CP404046 PERFORMANCE (Th=50°C)



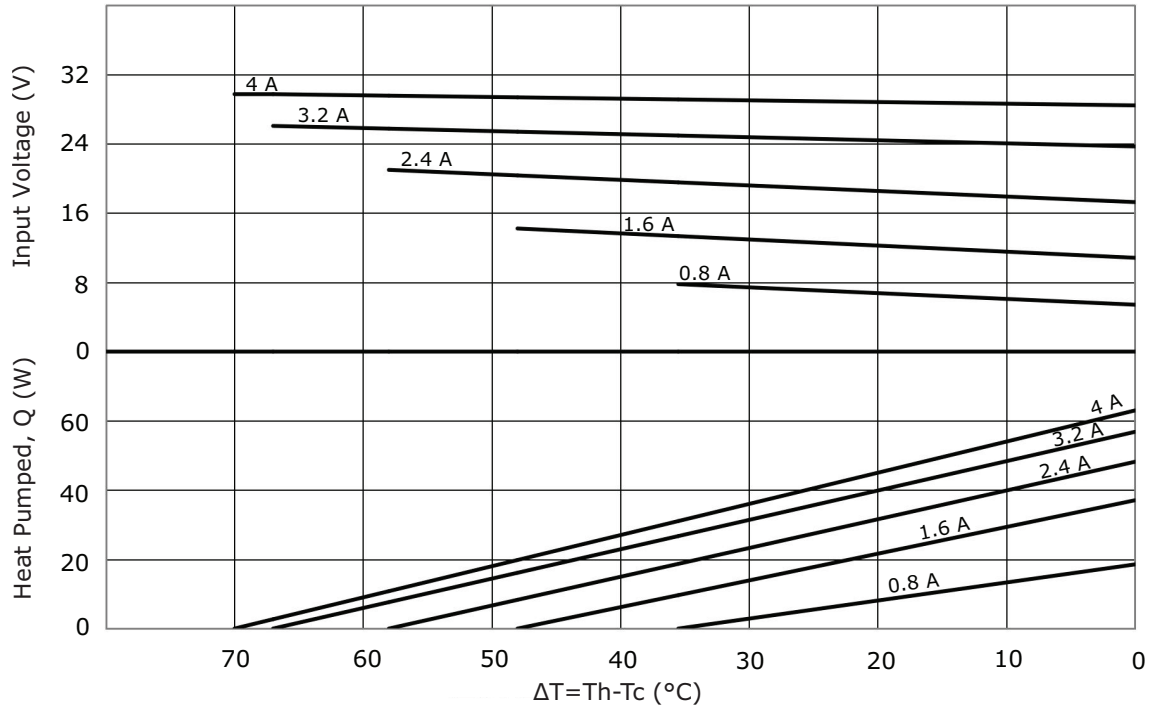
## CP40447 PERFORMANCE (Th=27°C)



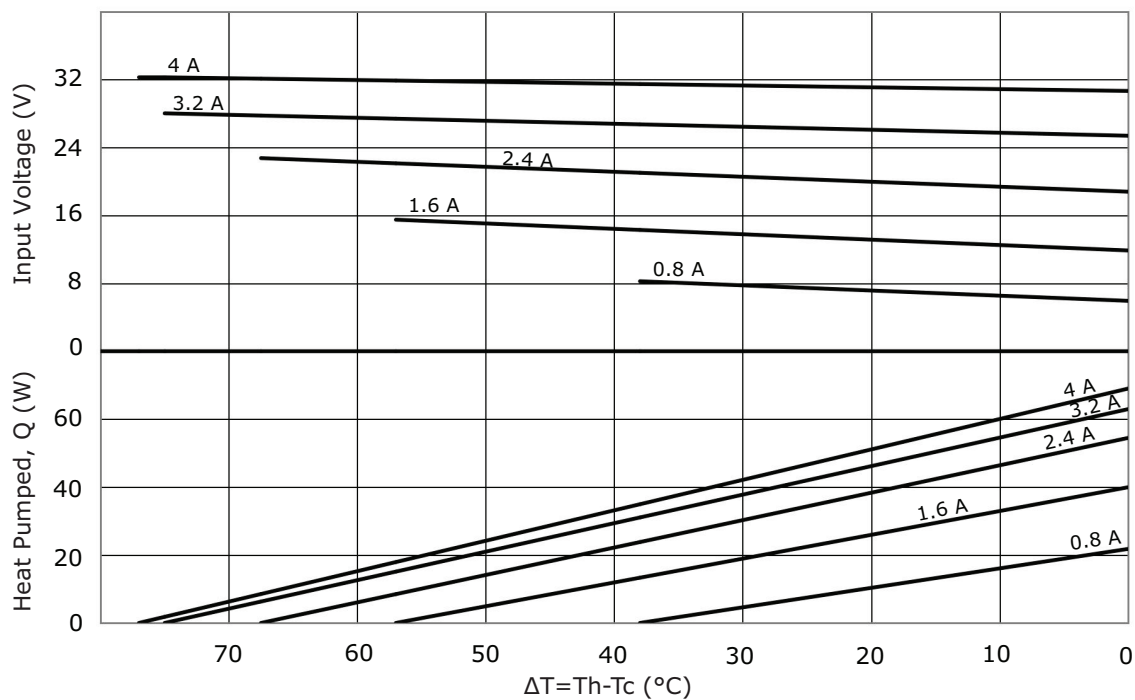
## CP40447 PERFORMANCE (Th=50°C)



## CP4055485 PERFORMANCE (Th=27°C)



## CP4055485 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description                                              | date       |
|------|----------------------------------------------------------|------------|
| 1.0  | initial release                                          | 09/03/2009 |
| 1.01 | applied new template                                     | 05/08/2012 |
| 1.02 | added new models                                         | 09/08/2016 |
| 1.03 | changed models CP40347 & CP40447 to arcTEC™ structure    | 12/01/2017 |
| 1.04 | changed thickness of CP40147, CP40247, CP40301547 models | 09/19/2018 |
| 1.05 | added models CP40439, CP404046, CP4055485, brand update  | 10/18/2019 |
| 1.06 | added model CP402533                                     | 11/17/2020 |
| 1.07 | logo, datasheet style update                             | 08/05/2022 |
| 1.08 | 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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