

**SERIES:** CP60 | **DESCRIPTION:** PELTIER MODULE

**FEATURES**

- solid state device
- precise temperature control
- quiet operation


**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>n</sub> =27°C<br>[W] | T <sub>n</sub> =50°C<br>[W] | T <sub>h</sub> =27°C<br>[°C] | T <sub>h</sub> =50°C<br>[°C] |
| CP60133    | 3.8   | 6.0   | 0.51  | 12.2                        | 13.6                        | 66                           | 72                           |
| CP60233    | 8.6   | 6.0   | 1.20  | 27.9                        | 31.2                        | 66                           | 72                           |
| CP60333    | 15.4  | 6.0   | 2.20  | 50.5                        | 56.5                        | 66                           | 72                           |
| CP60140    | 2.1   | 6.0   | 0.29  | 7.1                         | 7.9                         | 68                           | 75                           |
| CP60240    | 3.8   | 6.0   | 0.53  | 13.0                        | 14.5                        | 68                           | 75                           |
| CP60301540 | 4.2   | 6.0   | 0.57  | 14.5                        | 16.1                        | 68                           | 75                           |
| CP60340    | 8.6   | 6.0   | 1.21  | 29.0                        | 32.4                        | 68                           | 75                           |
| CP60440    | 15.4  | 6.0   | 2.17  | 53.0                        | 59.3                        | 68                           | 75                           |

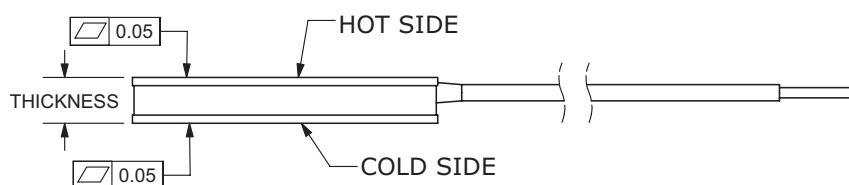
Notes: 1. Maximum voltage at ΔT max and T<sub>n</sub>=27°C  
 2. Maximum current to achieve ΔT max  
 3. Measured by AC 4-terminal method at 25°C  
 4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and ΔT=0°C  
 5. Maximum temperature difference occurs at I<sub>max</sub>,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

## SPECIFICATIONS

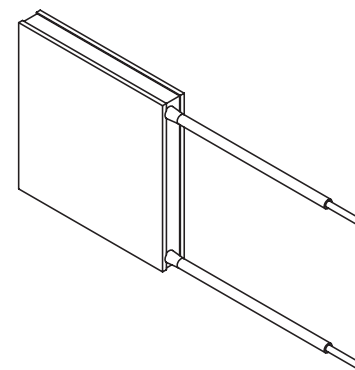
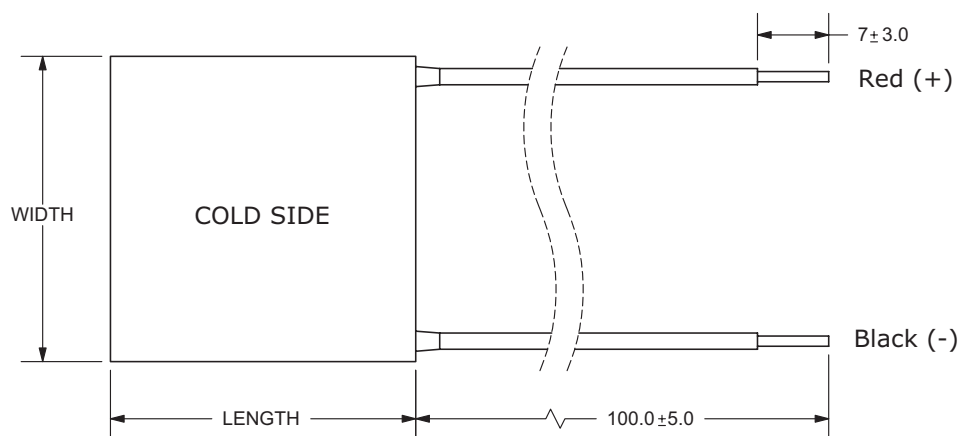
| parameter                  | conditions/description                                    | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs                   | 235 |     |     | °C    |
|                            | CP60133, CP60233, CP60333, CP60301540<br>all other models | 138 |     |     | °C    |
| assembly compression       |   |     |     | 1   | MPa   |
| hot side plate             |   |     |     | 80  | °C    |
| RoHS                       | yes   |     |     |     |       |

## MECHANICAL DRAWING

units: mm

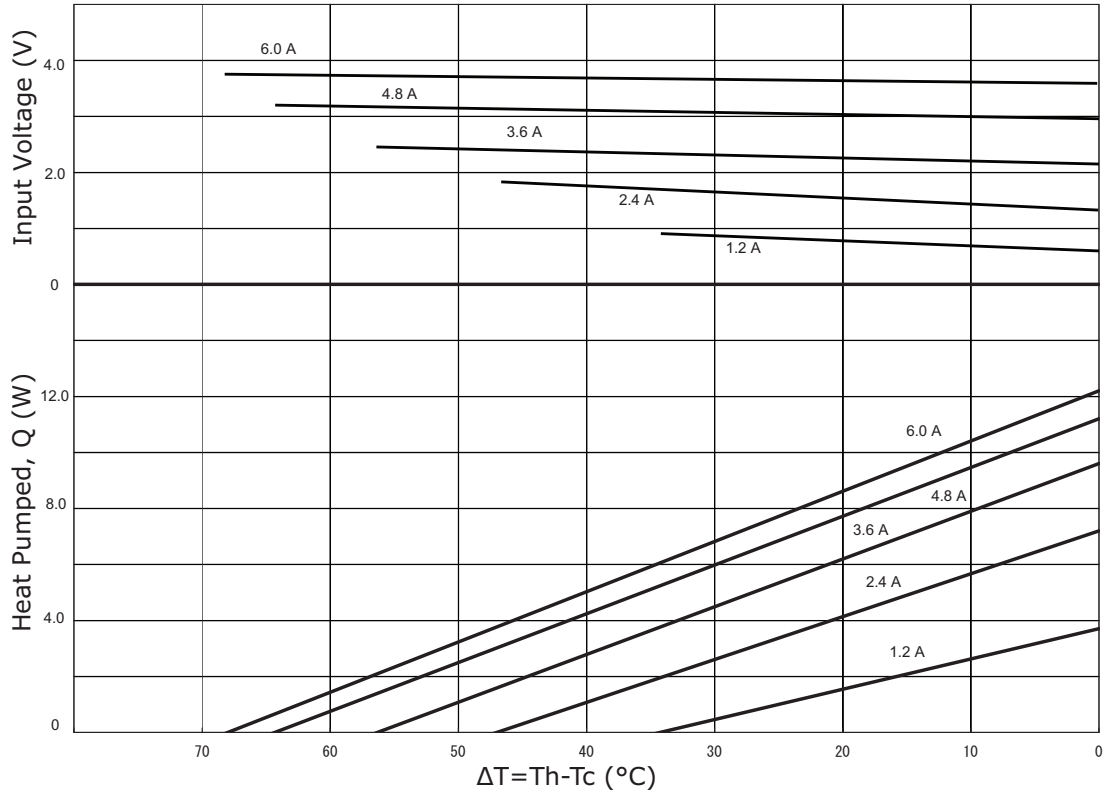


|               | MATERIAL  | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL <sub>2</sub> O <sub>3</sub>                        |         |
| wire leads    | 20 AWG  | tin     |
| sealer        | silicon rubber 703 RTV (between cold and hot side plates) |         |
| joint cover   | silicon rubber 703 RTV                                    |         |
| marking       | P/N & S/N printed on cold side surface                    |         |

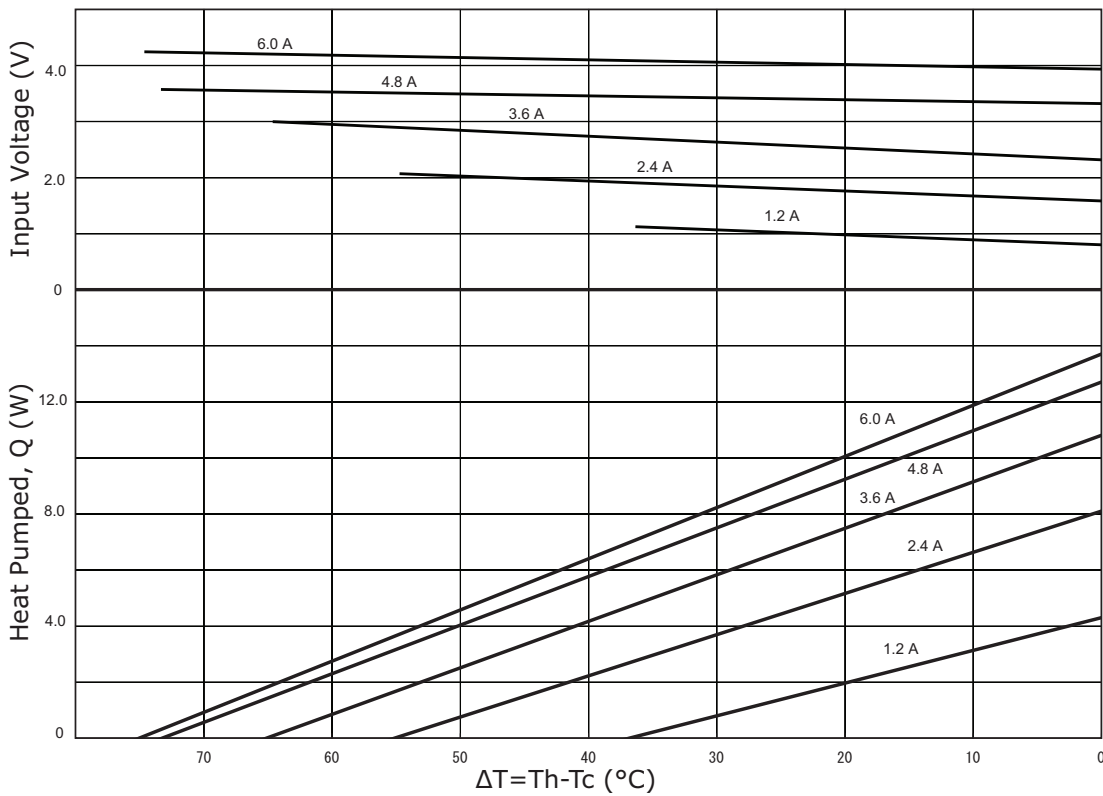


| MODEL NO.  | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|------------|-------------|------------|----------------|
| CP60133    | 15 ±0.3     | 15 ±0.3    | 3.22 ±0.1      |
| CP60233    | 20 ±0.3     | 20 ±0.3    | 3.22 ±0.1      |
| CP60333    | 30 ±0.3     | 30 ±0.3    | 3.22 ±0.1      |
| CP60140    | 15 ±0.3     | 15 ±0.3    | 4.0 ±0.1       |
| CP60240    | 20 ±0.3     | 20 ±0.3    | 4.0 ±0.1       |
| CP60301540 | 30 ±0.3     | 15 ±0.3    | 4.0 ±0.1       |
| CP60340    | 30 ±0.3     | 30 ±0.3    | 4.0 ±0.1       |
| CP60440    | 40 ±0.3     | 40 ±0.3    | 4.0 ±0.1       |

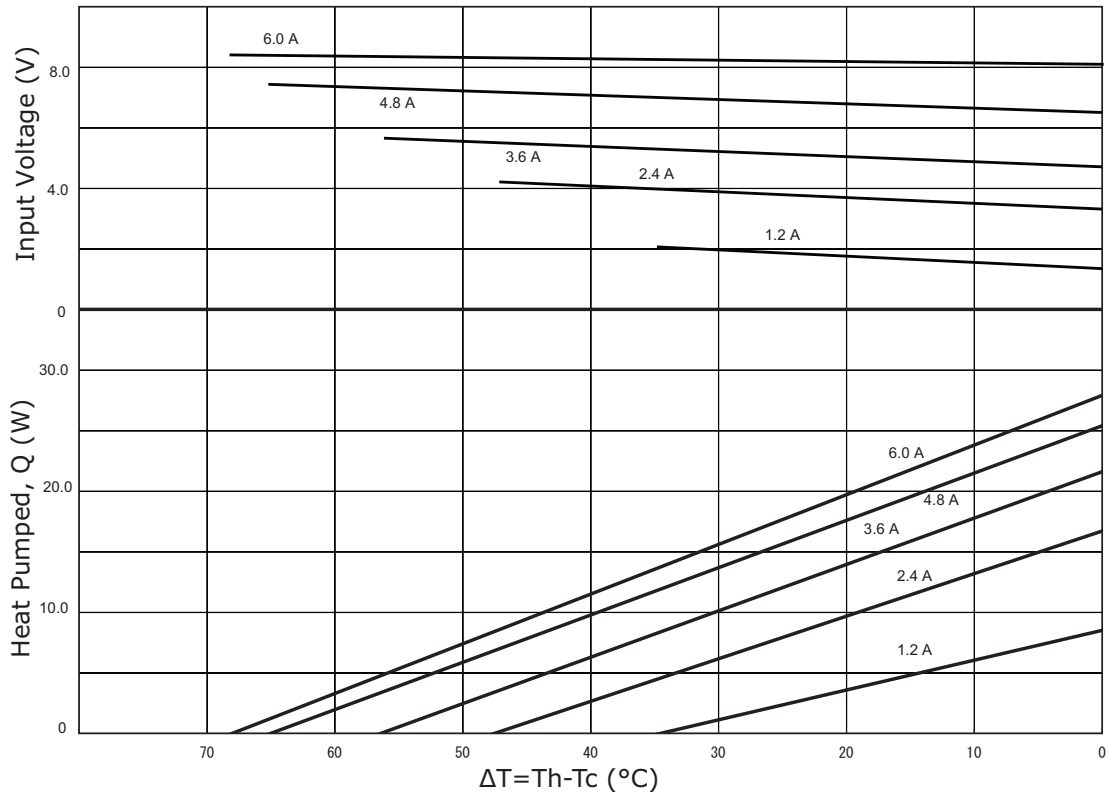
## CP60133 PERFORMANCE (Th=27°C)



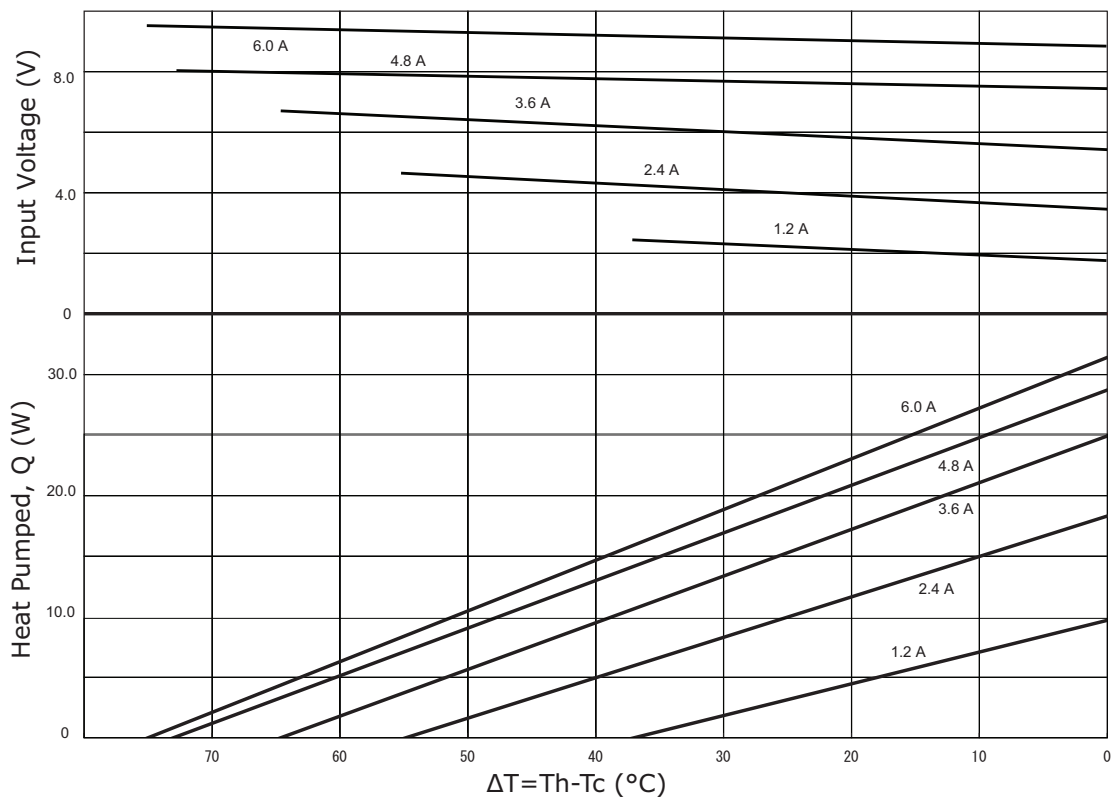
## CP60133 PERFORMANCE (Th=50°C)



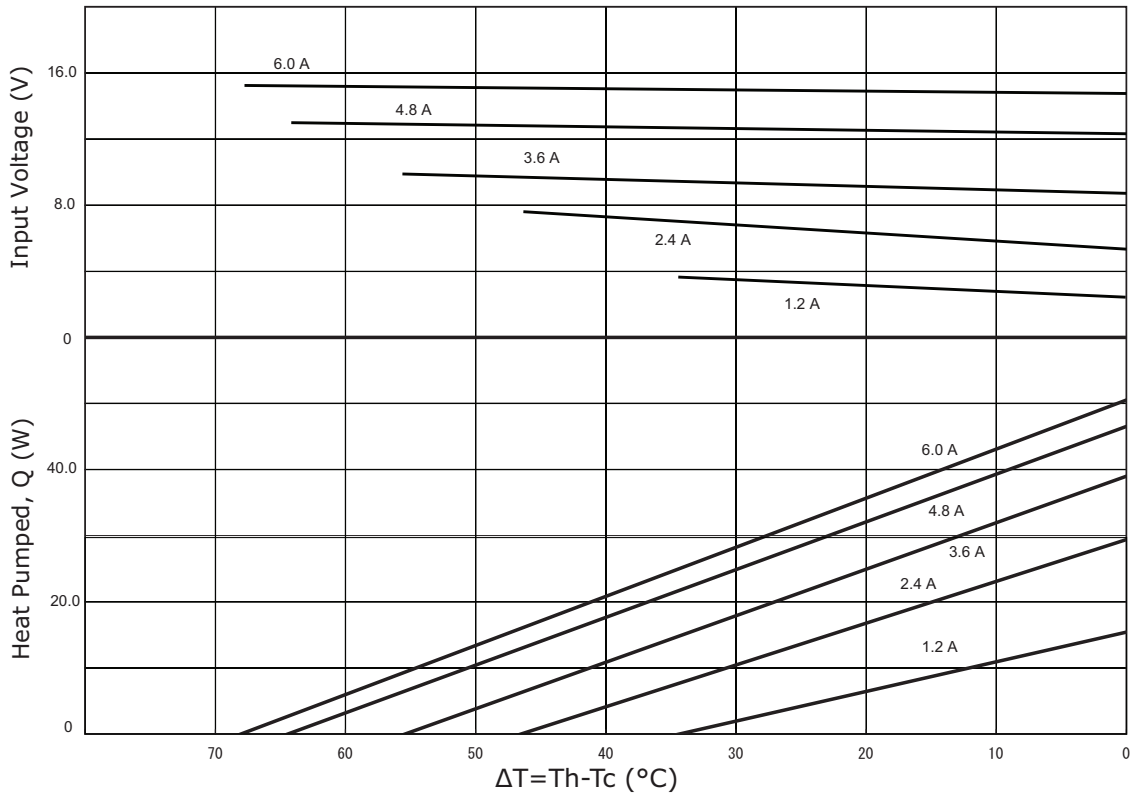
## CP60233 PERFORMANCE (Th=27°C)



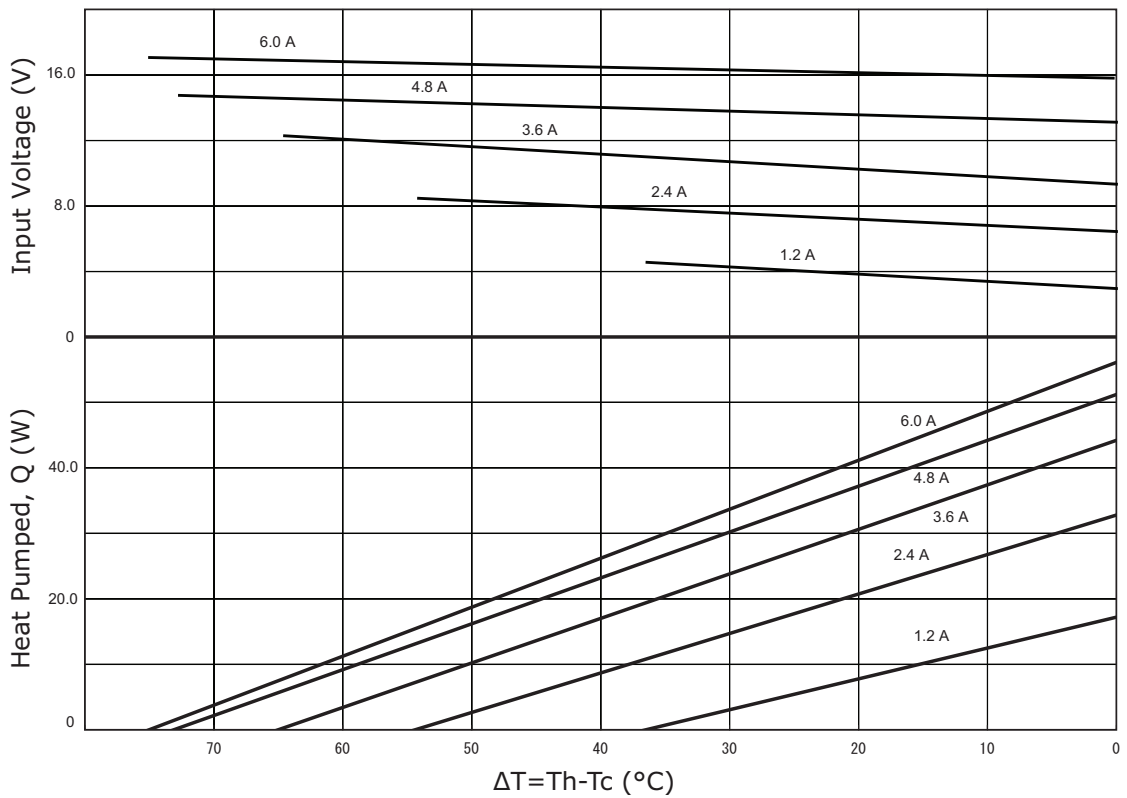
## CP60233 PERFORMANCE (Th=50°C)



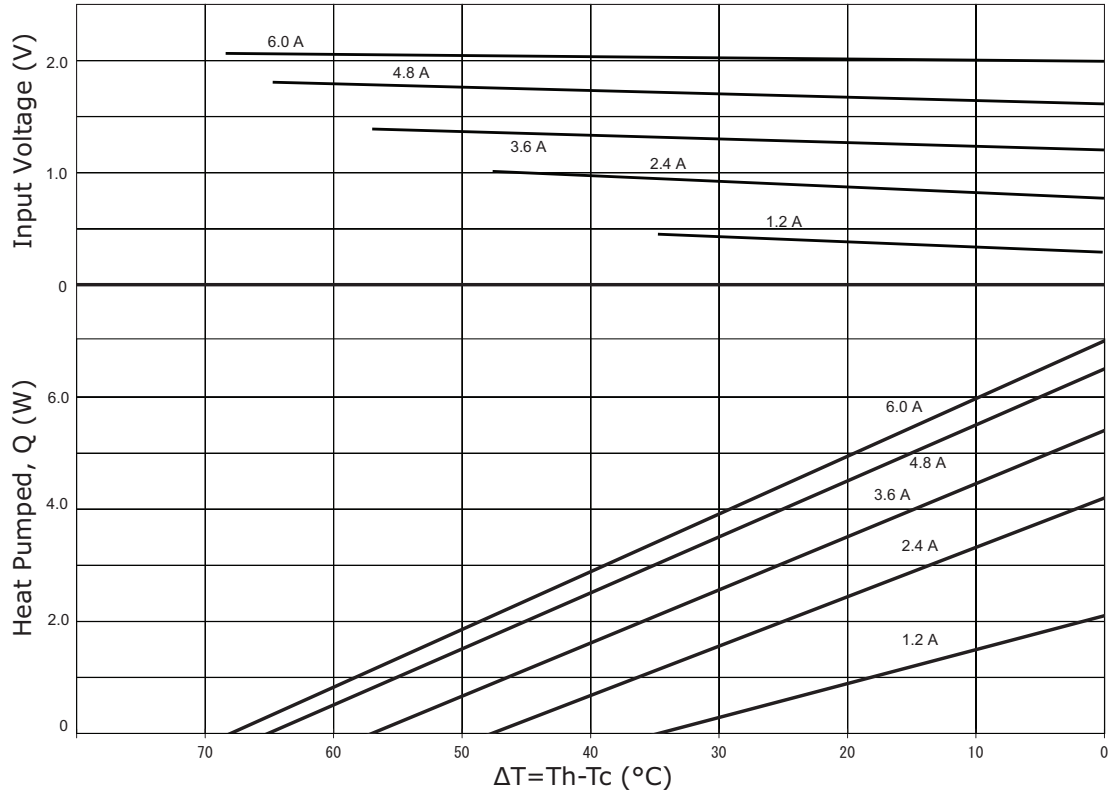
### CP60333 PERFORMANCE (Th=27°C)



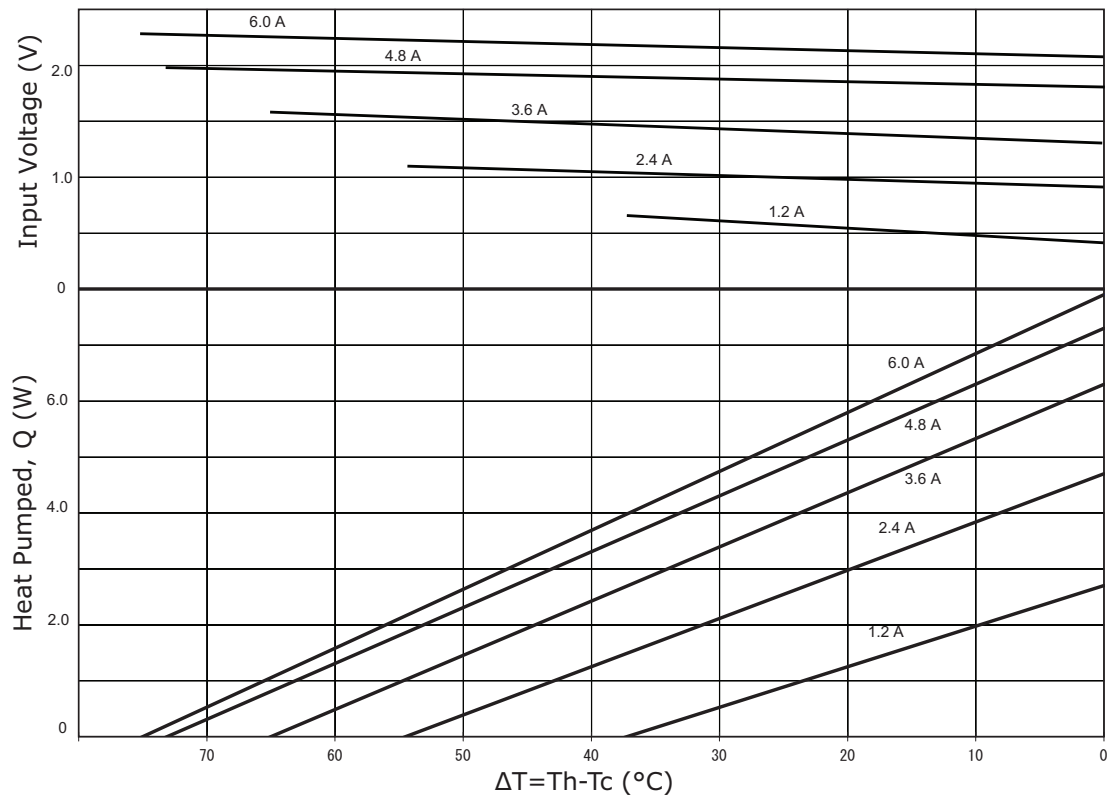
### CP60333 PERFORMANCE (Th=50°C)



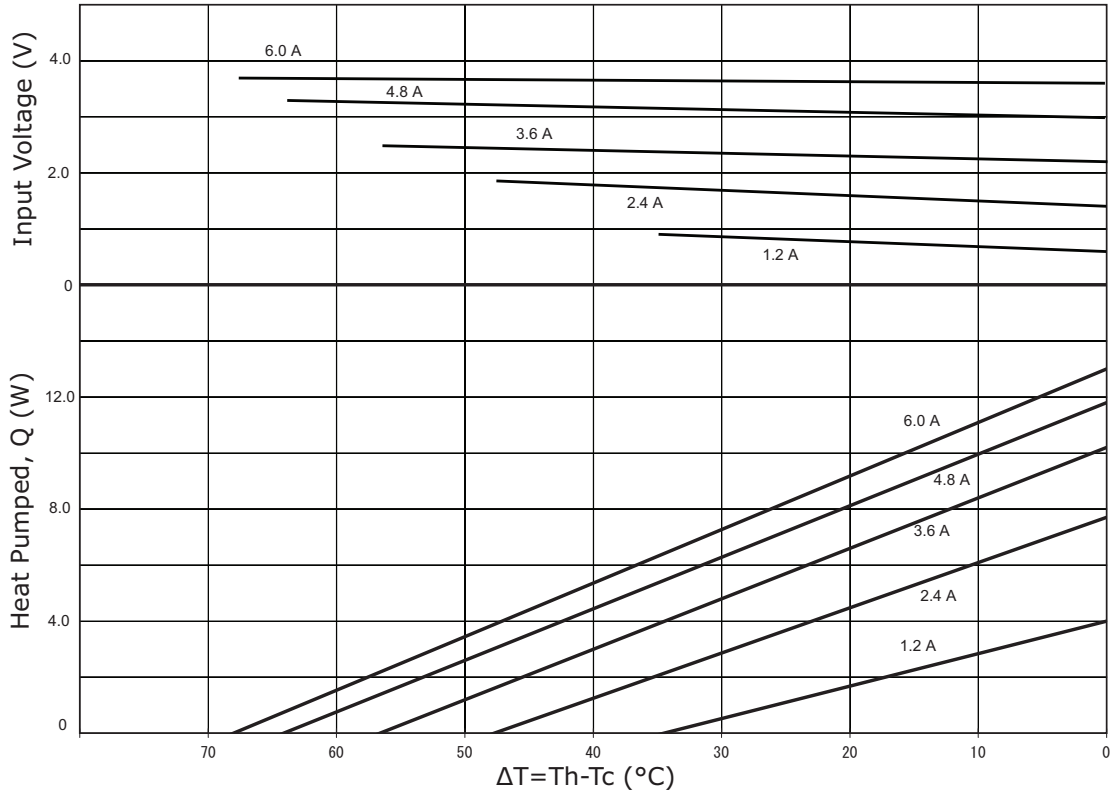
## CP60140 PERFORMANCE (Th=27°C)



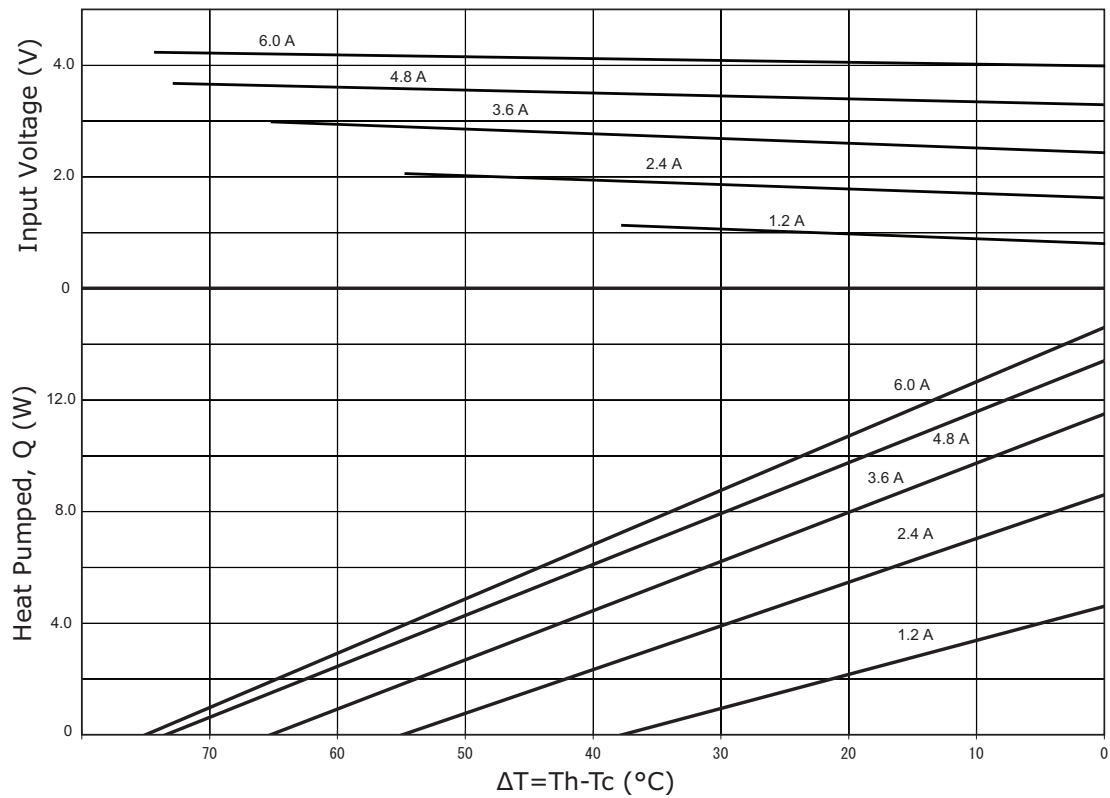
## CP60140 PERFORMANCE (Th=50°C)



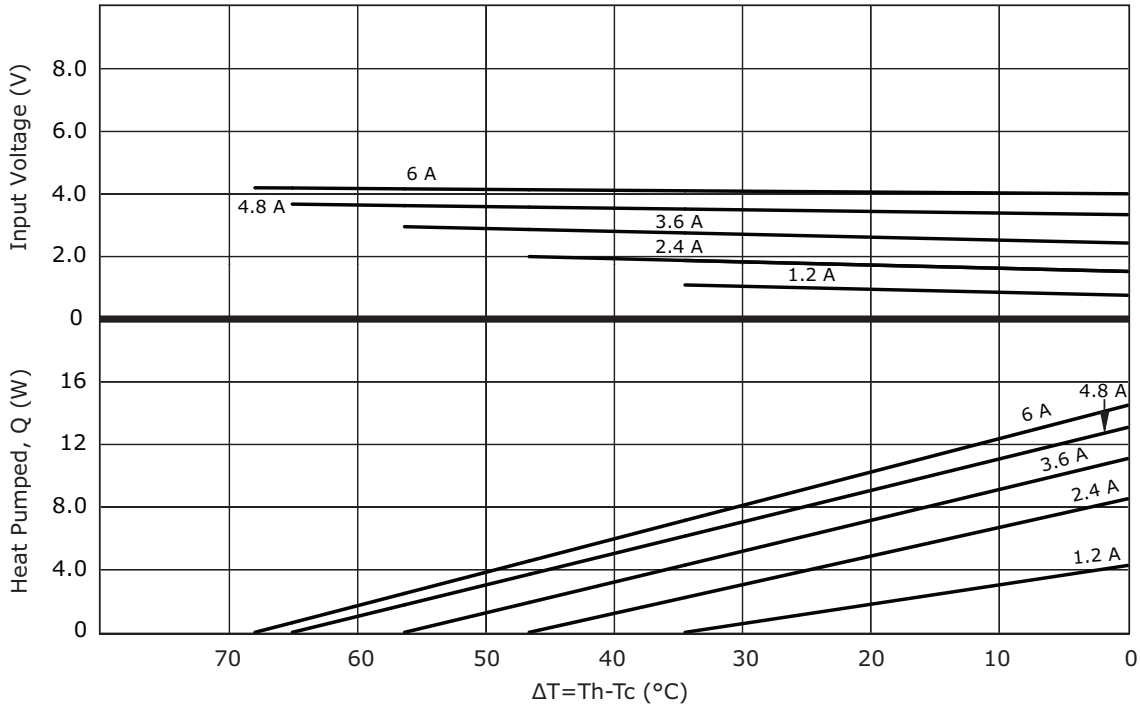
## CP60240 PERFORMANCE (Th=27°C)



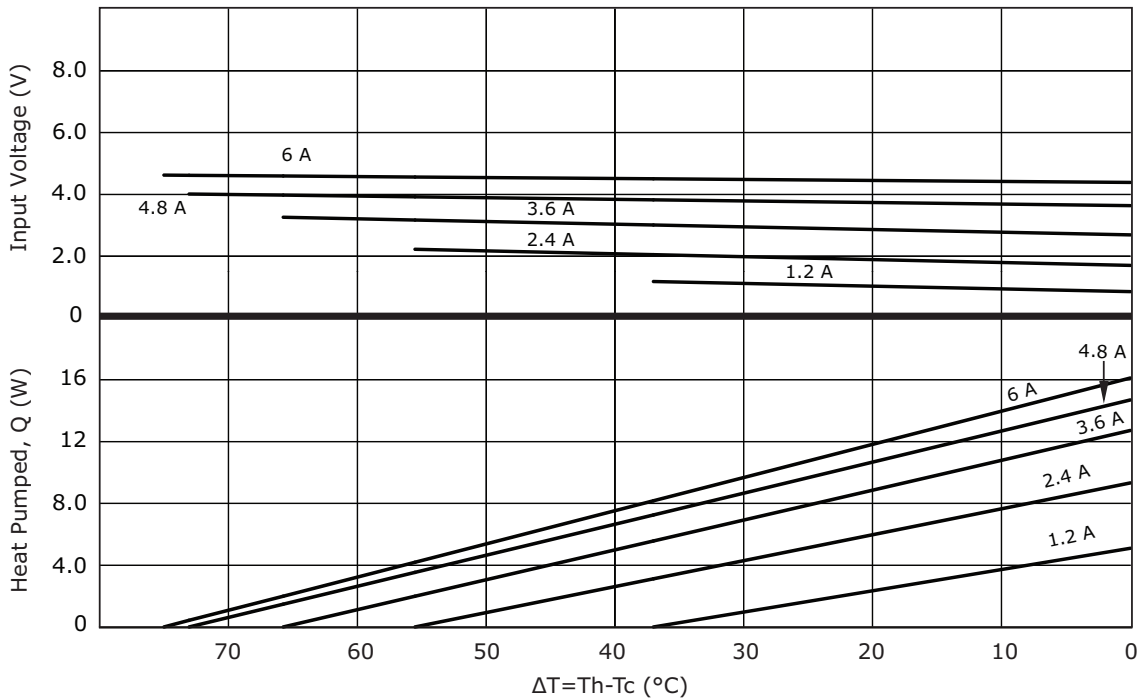
## CP60240 PERFORMANCE (Th=50°C)



## CP60301540 PERFORMANCE (Th=27°C)

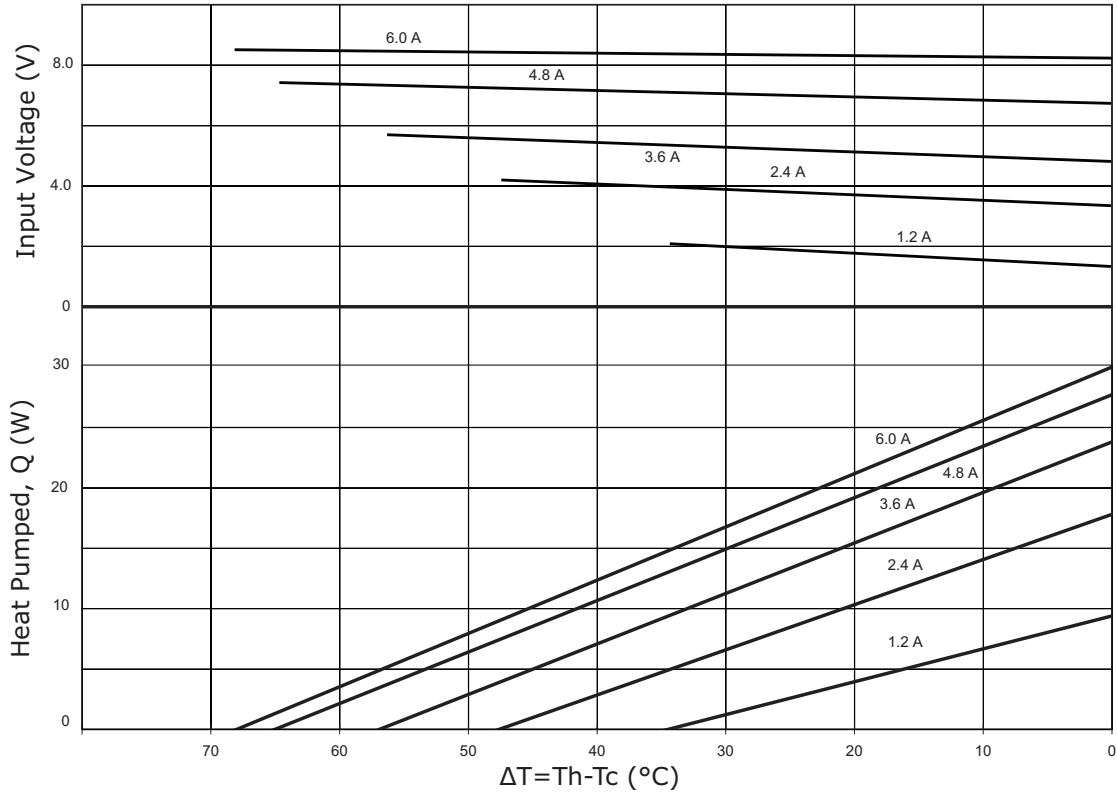


## CP60301540 PERFORMANCE (Th=50°C)

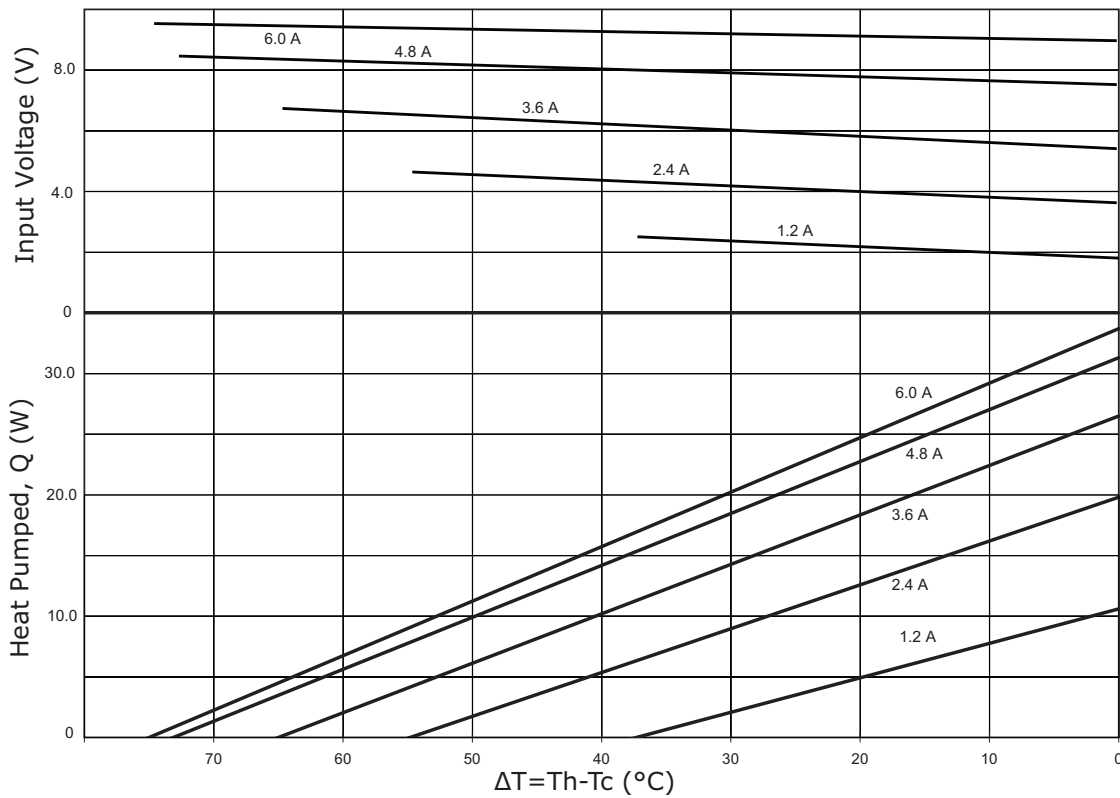




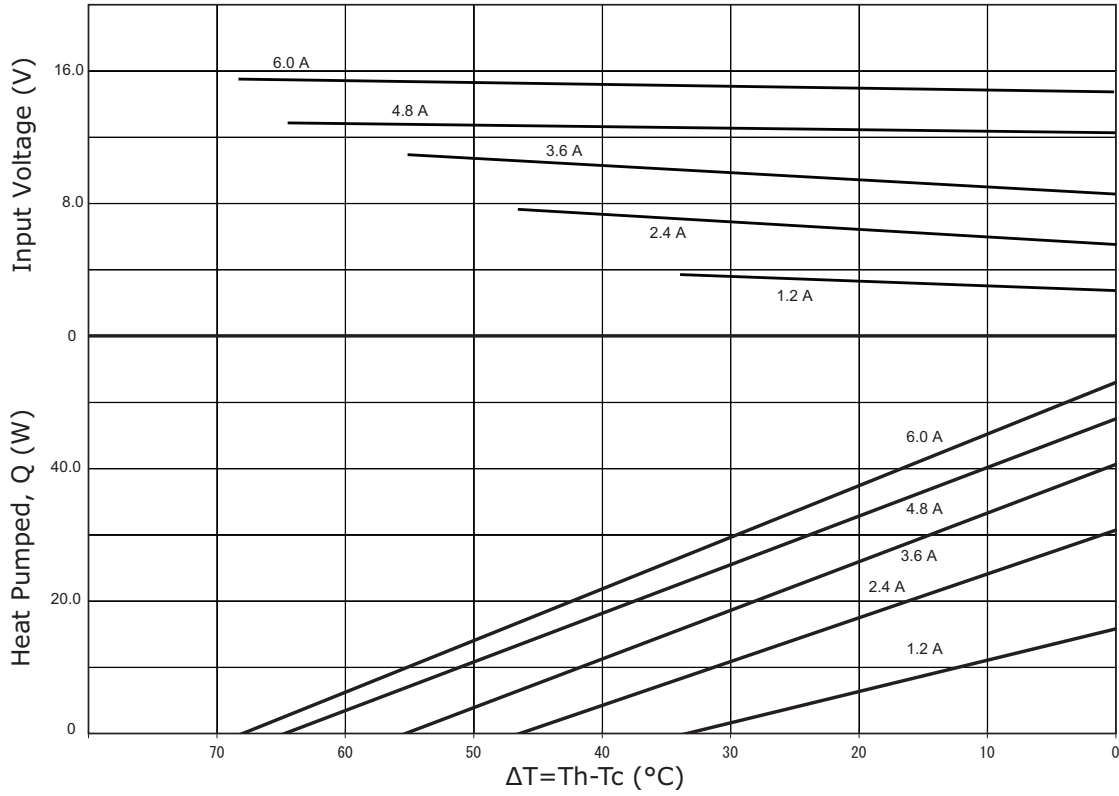
## CP60340 PERFORMANCE (Th=27°C)



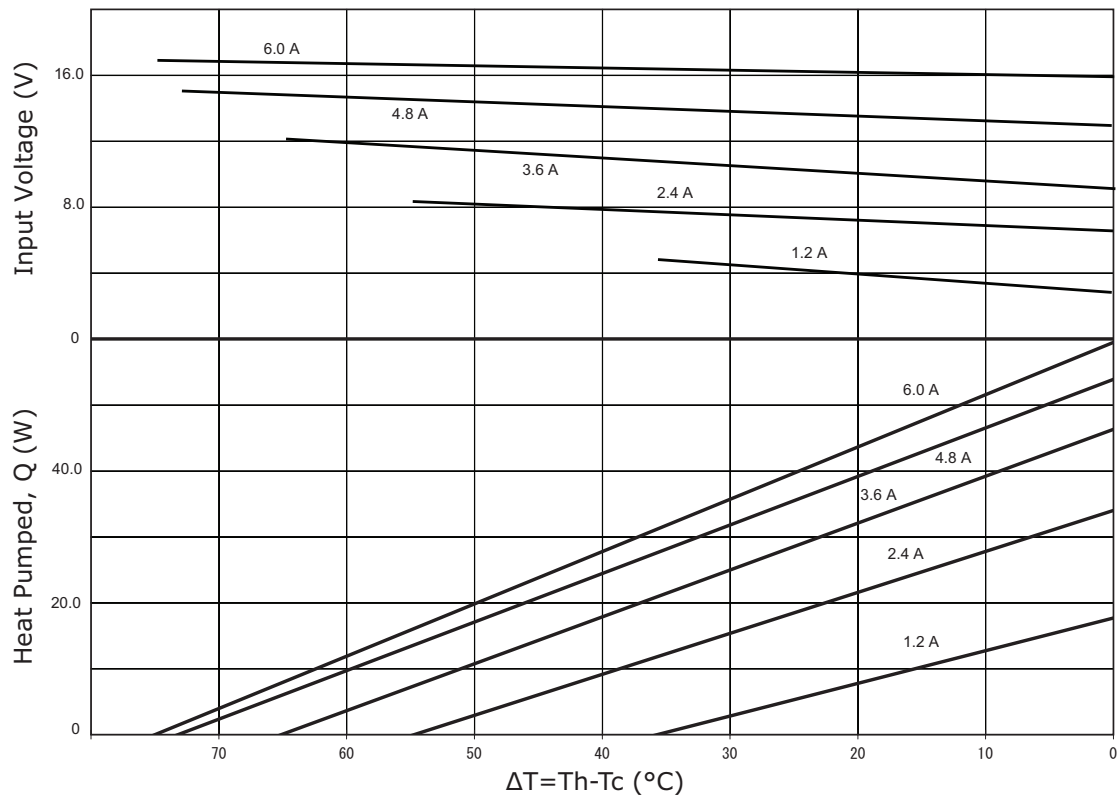
## CP60340 PERFORMANCE (Th=50°C)



## CP60440 PERFORMANCE (Th=27°C)



## CP60440 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  | 09/09/2016 |
| 1.03 | changed thickness of CP60133, CP60233, CP60333, CP60301540 models | 09/20/2018 |
| 1.04 | brand update  | 10/28/2019 |
| 1.05 | logo, datasheet style update                                      | 08/05/2022 |

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



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