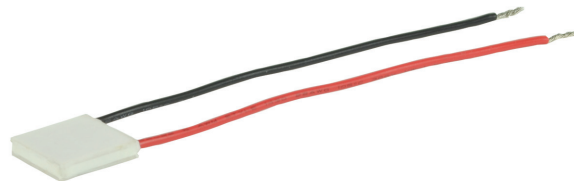



SERIES: CP60H | **DESCRIPTION:** PELTIER MODULE

FEATURES

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


MODEL

| MODEL | input voltage ¹ | input current ² | internal resistance ³ | output Qmax ⁴ | | output ΔT max ⁵ | |
|---------------------------|----------------------------|----------------------------|----------------------------------|------------------------------|------------------------------|---|---|
| | max (Vdc) | max (A) | typ ($\Omega \pm 10\%$) | $T_h = 27^\circ\text{C}$ (W) | $T_h = 50^\circ\text{C}$ (W) | $T_h = 27^\circ\text{C}$ ($^\circ\text{C}$) | $T_h = 50^\circ\text{C}$ ($^\circ\text{C}$) |
| CP60131H | 3.8 | 6.0 | 0.45 | 13 | 14.3 | 70 | 77 |
| CP60139H | 2.1 | 6.0 | 0.30 | 7.4 | 8.2 | 70 | 77 |
| CP60231H | 8.8 | 6.0 | 1.05 | 29.7 | 32.7 | 70 | 77 |
| CP60239H | 3.8 | 6.0 | 0.55 | 13.6 | 14.9 | 70 | 77 |
| CP602040395H ⁶ | 7.6 | 6.0 | 1.09 | 27.5 | 30.2 | 70 | 77 |
| CP60301233H | 5.6 | 6.0 | 0.76 | 19.7 | 21.7 | 70 | 77 |
| CP60301531H | 7.6 | 6.0 | 0.93 | 26.3 | 28.9 | 70 | 77 |
| CP603315H ⁶ | 15.7 | 6.0 | 1.90 | 53.1 | 59.1 | 70 | 77 |
| CP603395H ⁶ | 8.8 | 6.0 | 1.25 | 31.1 | 34.2 | 70 | 77 |
| CP604020395H ⁶ | 7.6 | 6.0 | 1.09 | 27.5 | 30.2 | 70 | 77 |
| CP60433H ⁶ | 19.5 | 6.0 | 2.54 | 67.6 | 74.3 | 68 | 75 |
| CP604395H ⁶ | 15.7 | 6.0 | 2.2 | 55.6 | 61.0 | 70 | 77 |

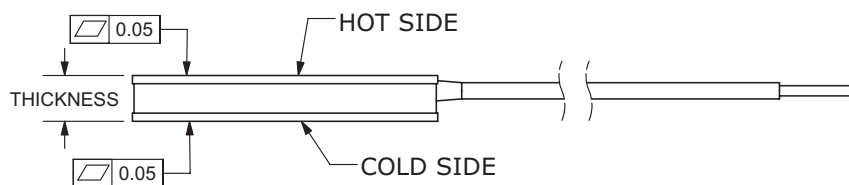
- Notes:
1. Maximum voltage at ΔT max and $T_h = 27^\circ\text{C}$
 2. Maximum current to achieve ΔT max
 3. Measured by AC 4-terminal method at 25°C
 4. Maximum heat absorbed at cold side occurs at I_{max} , V_{max} , and $\Delta T = 0^\circ\text{C}$
 5. Maximum temperature difference occurs at I_{max}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

SPECIFICATIONS

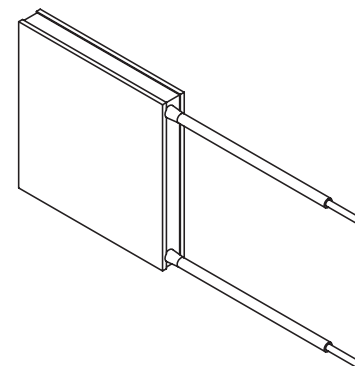
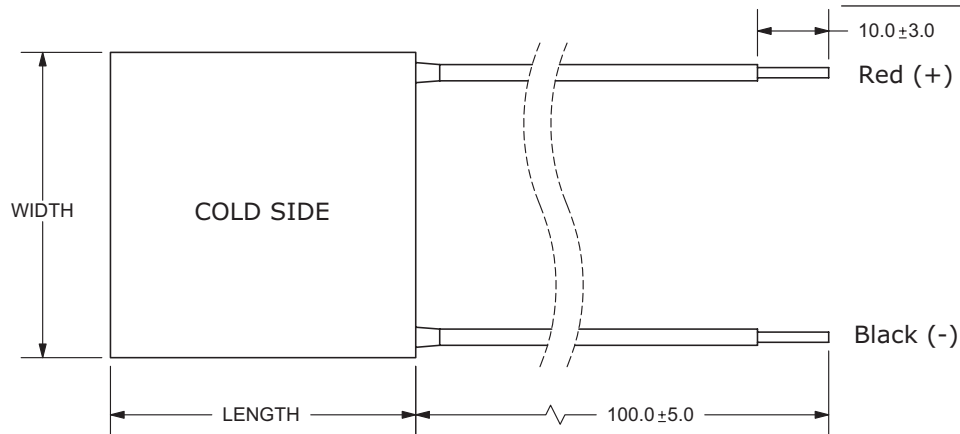
| parameter | conditions/description | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 1 | MPa |
| hot side plate | | | | 80 | °C |
| RoHS | 2011/65/EU | | | | |

MECHANICAL DRAWING

units: mm

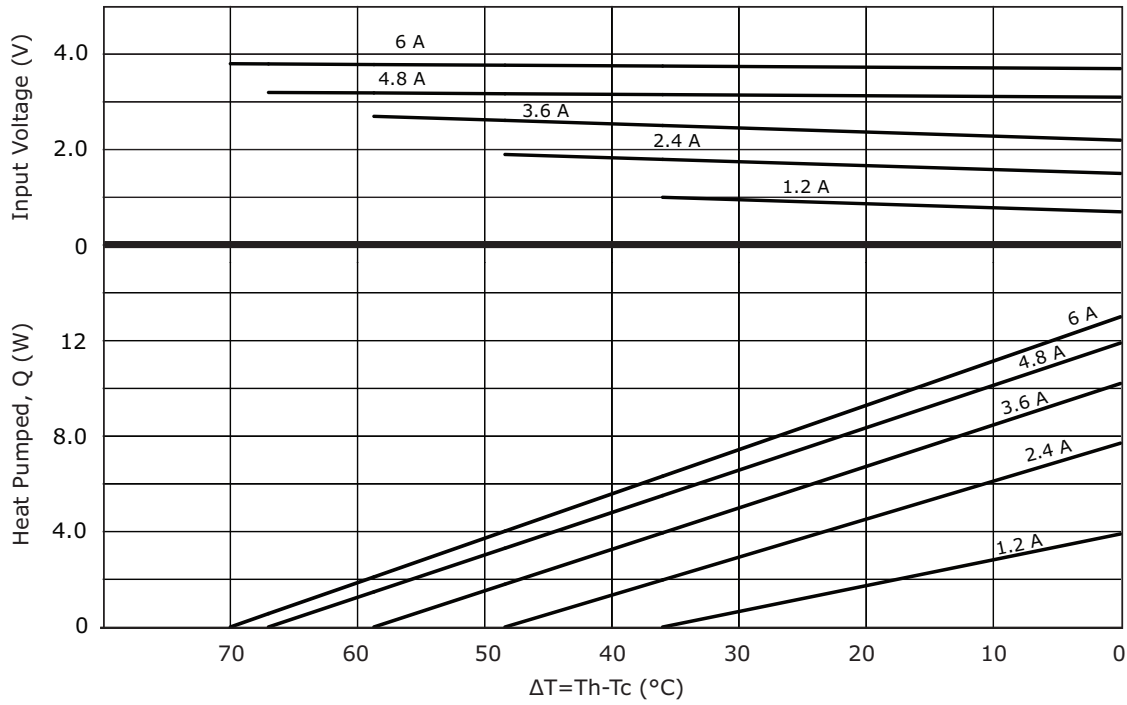


| | MATERIAL | PLATING |
|---|--|---------|
| ceramic plate | 96% AL ₂ O ₃ | |
| wire leads (CP60131H, CP60231H, CP60301233H, CP60301531H, CP603315H) | 22 AWG | tin |
| wire leads (all other models) | 20 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |

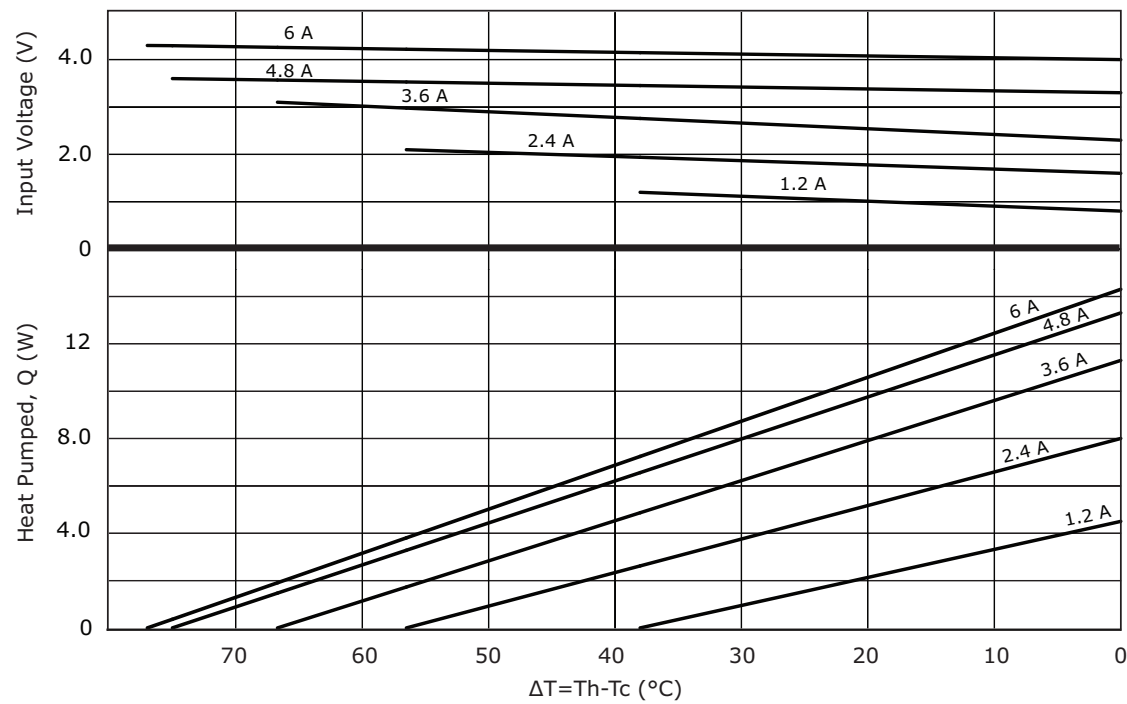


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|--------------|-------------|------------|----------------|
| CP60131H | 15 ± 0.3 | 15 ± 0.3 | 3.1 ± 0.025 |
| CP60139H | 15 ± 0.3 | 15 ± 0.3 | 3.9 ± 0.025 |
| CP60231H | 20 ± 0.3 | 20 ± 0.3 | 3.1 ± 0.025 |
| CP60239H | 20 ± 0.3 | 20 ± 0.3 | 3.9 ± 0.025 |
| CP602040395H | 20 ± 0.3 | 40 ± 0.3 | 3.95 ± 0.025 |
| CP60301233H | 30 ± 0.1 | 12 ± 0.1 | 3.3 ± 0.1 |
| CP60301531H | 30 ± 0.3 | 15 ± 0.3 | 3.1 ± 0.025 |
| CP603315H | 30 ± 0.3 | 30 ± 0.3 | 3.15 ± 0.025 |
| CP603395H | 30 ± 0.3 | 30 ± 0.3 | 3.95 ± 0.025 |
| CP604020395H | 40 ± 0.3 | 20 ± 0.3 | 3.95 ± 0.025 |
| CP60433H | 40 ± 0.3 | 40 ± 0.3 | 3.3 ± 0.03 |
| CP604395H | 40 ± 0.3 | 40 ± 0.3 | 3.95 ± 0.025 |

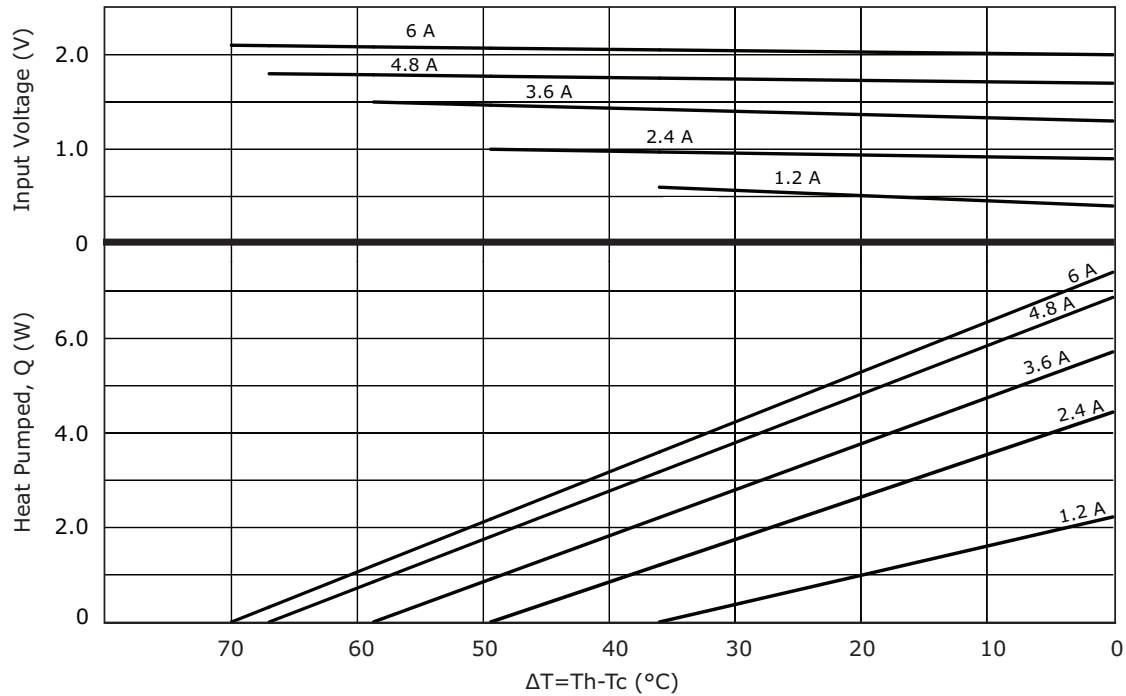
CP60131H PERFORMANCE (Th=27°C)



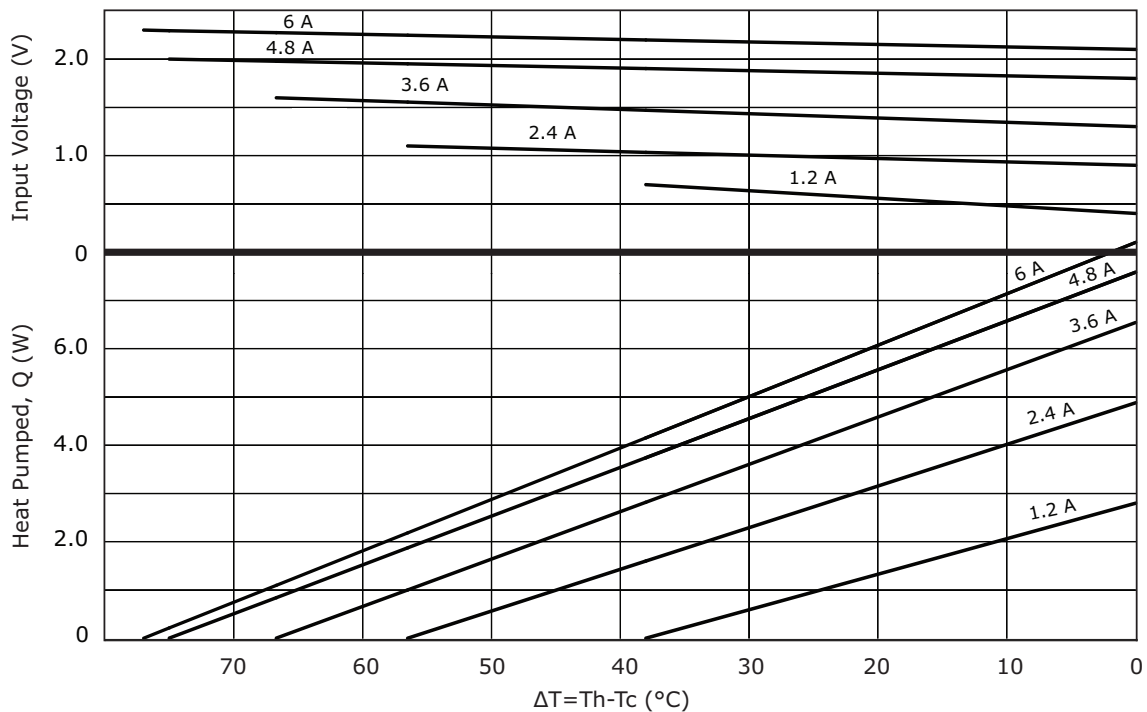
CP60131H PERFORMANCE (Th=50°C)



CP60139H PERFORMANCE (Th=27°C)



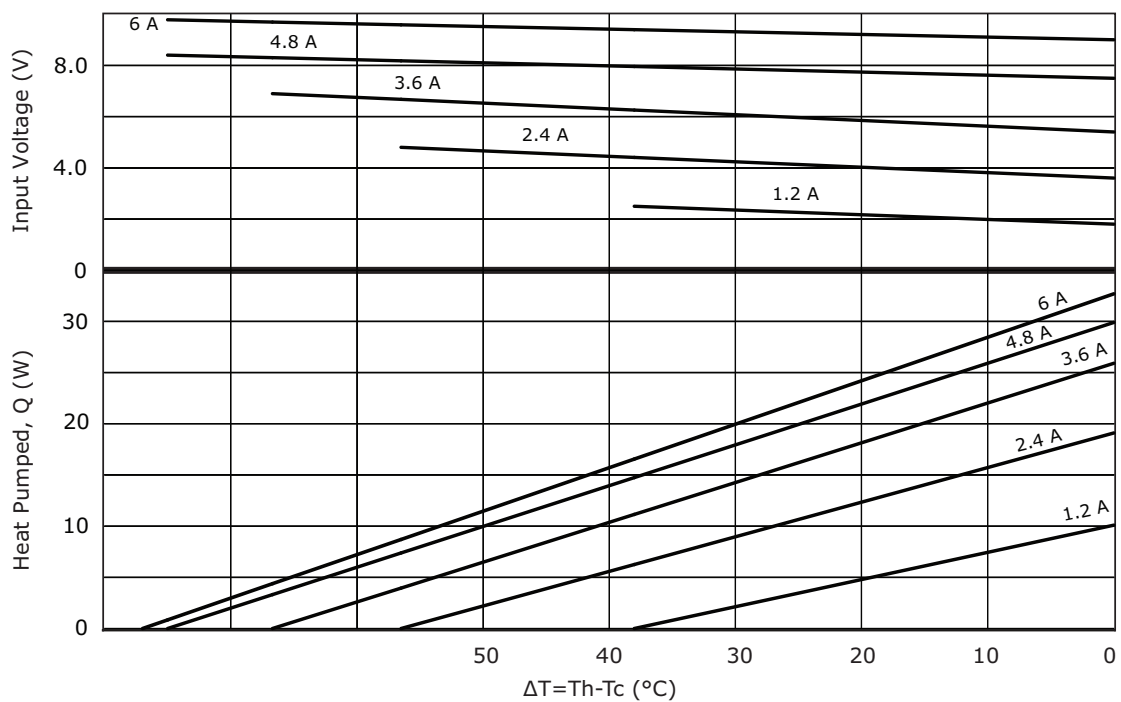
CP60139H PERFORMANCE (Th=50°C)



CP60231H PERFORMANCE (Th=27°C)



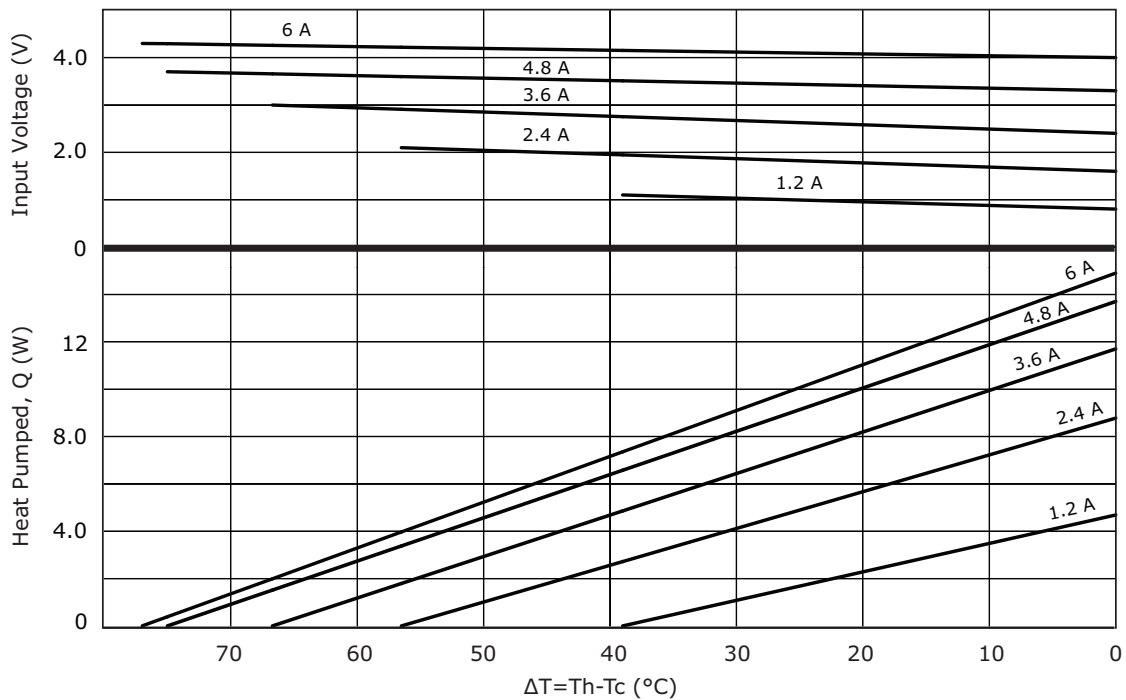
CP60231H PERFORMANCE (Th=50°C)



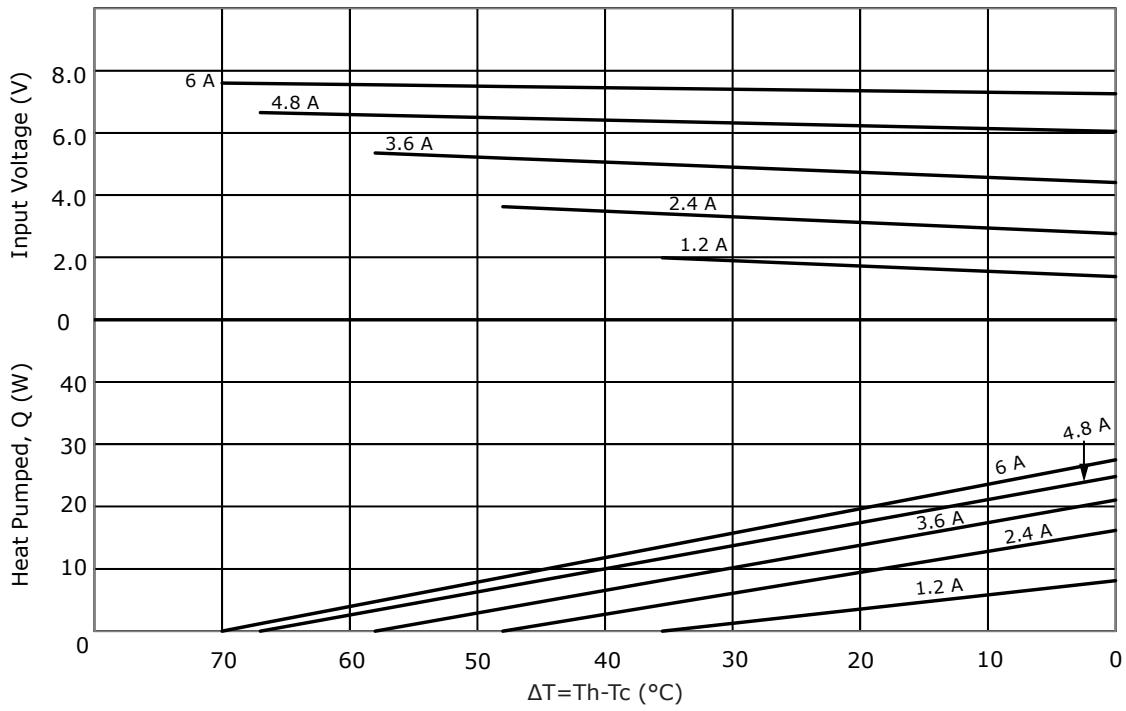
CP60239H PERFORMANCE (Th=27°C)



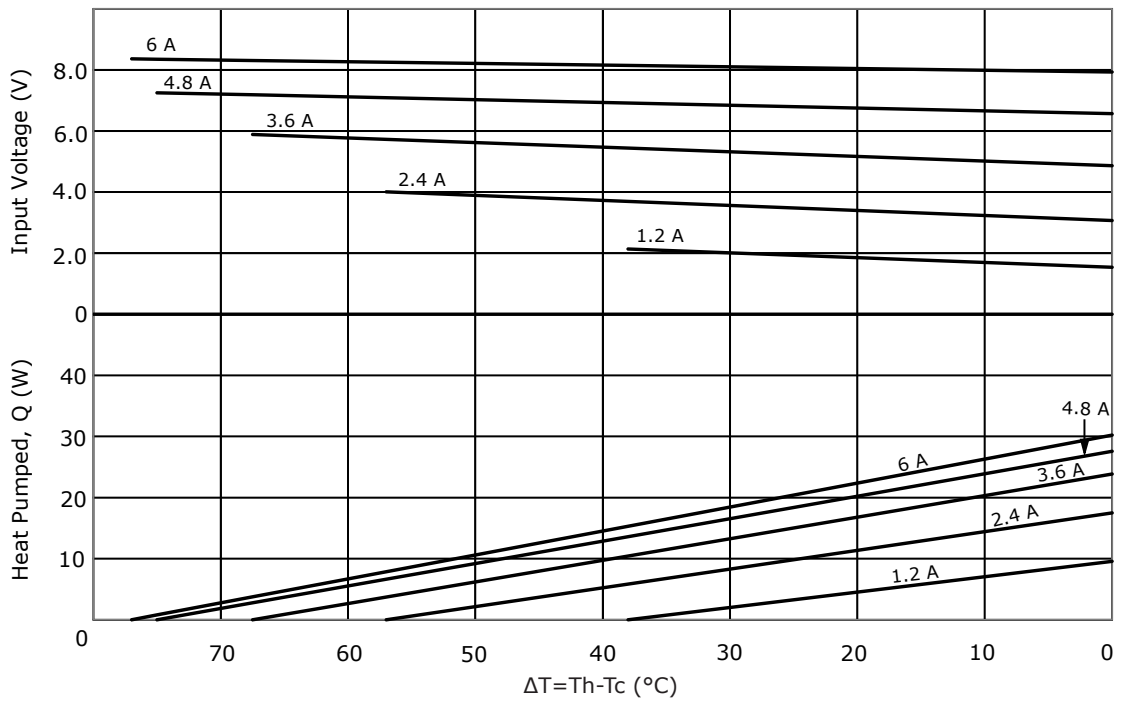
CP60239H PERFORMANCE (Th=50°C)



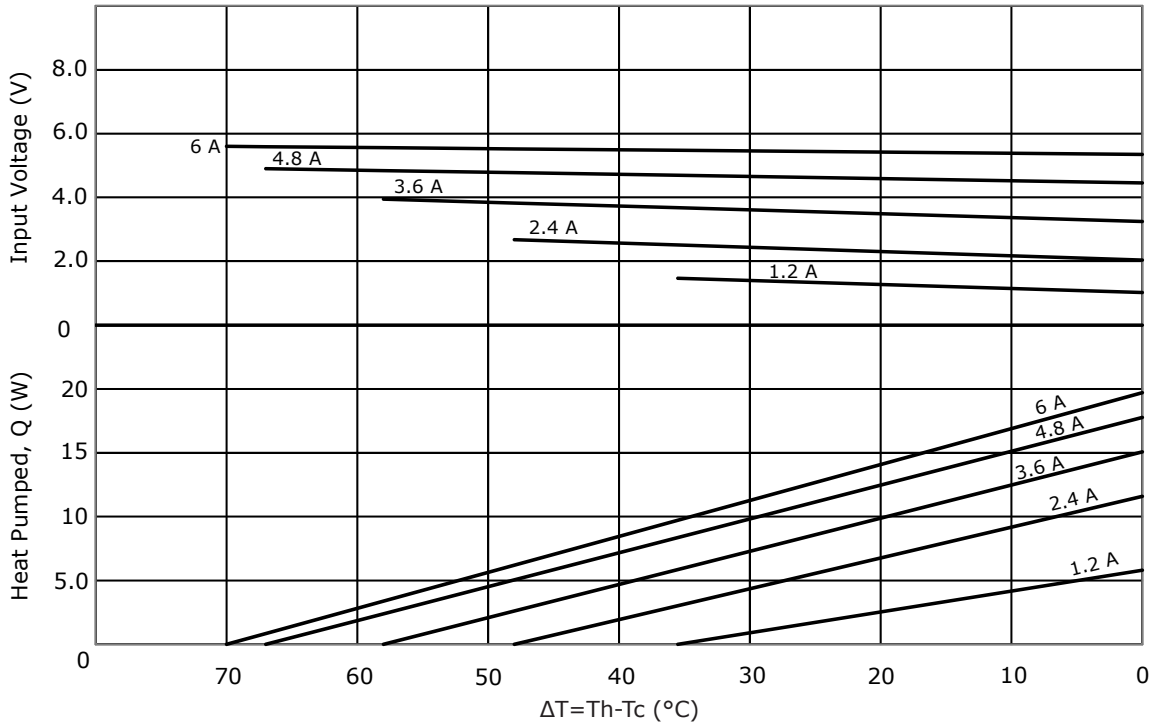
CP602040395H PERFORMANCE (Th=27°C)



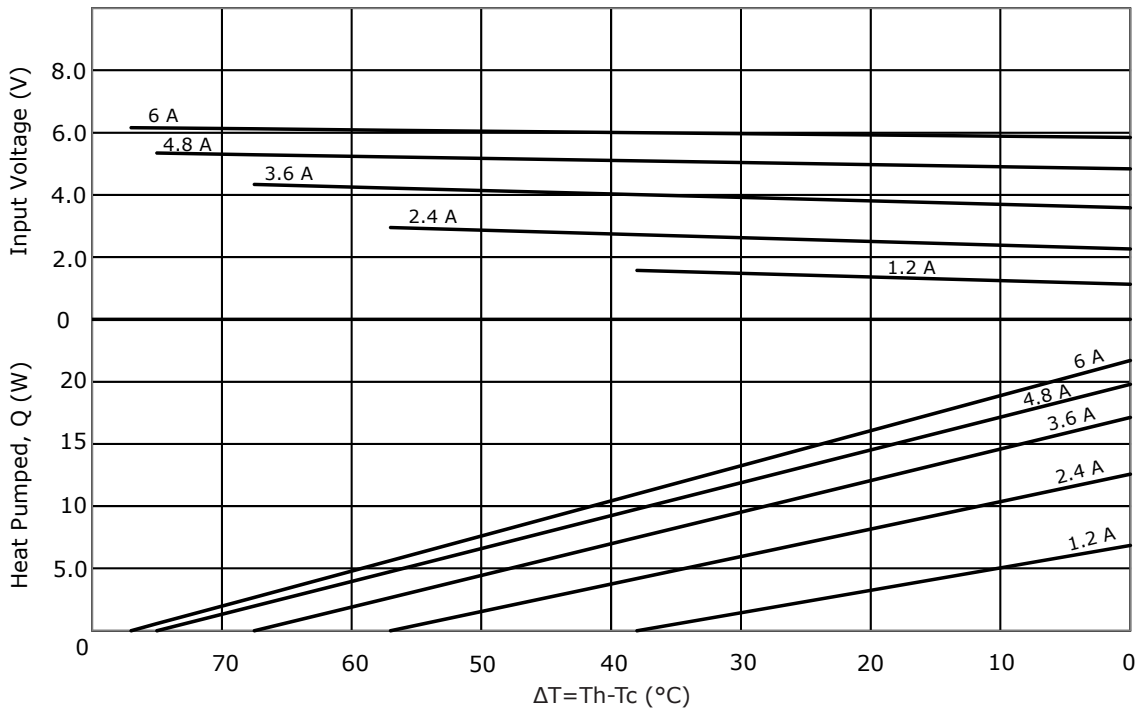
CP602040395H PERFORMANCE (Th=50°C)



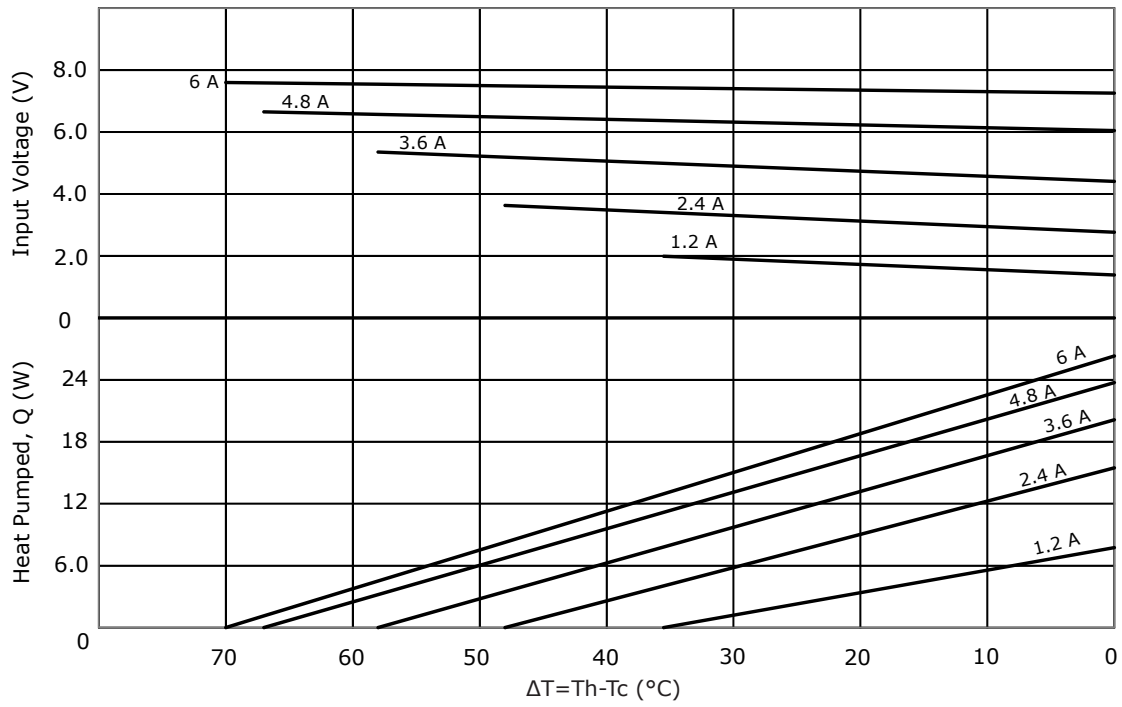
CP60301233H PERFORMANCE (Th=27°C)



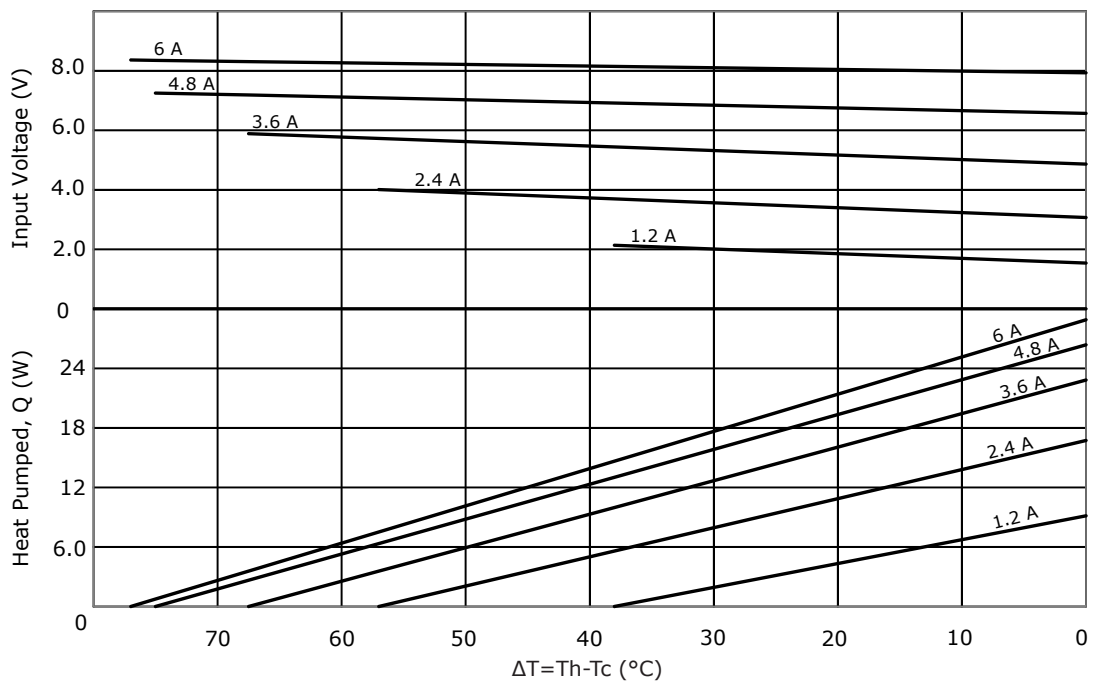
CP60301233H PERFORMANCE (Th=50°C)



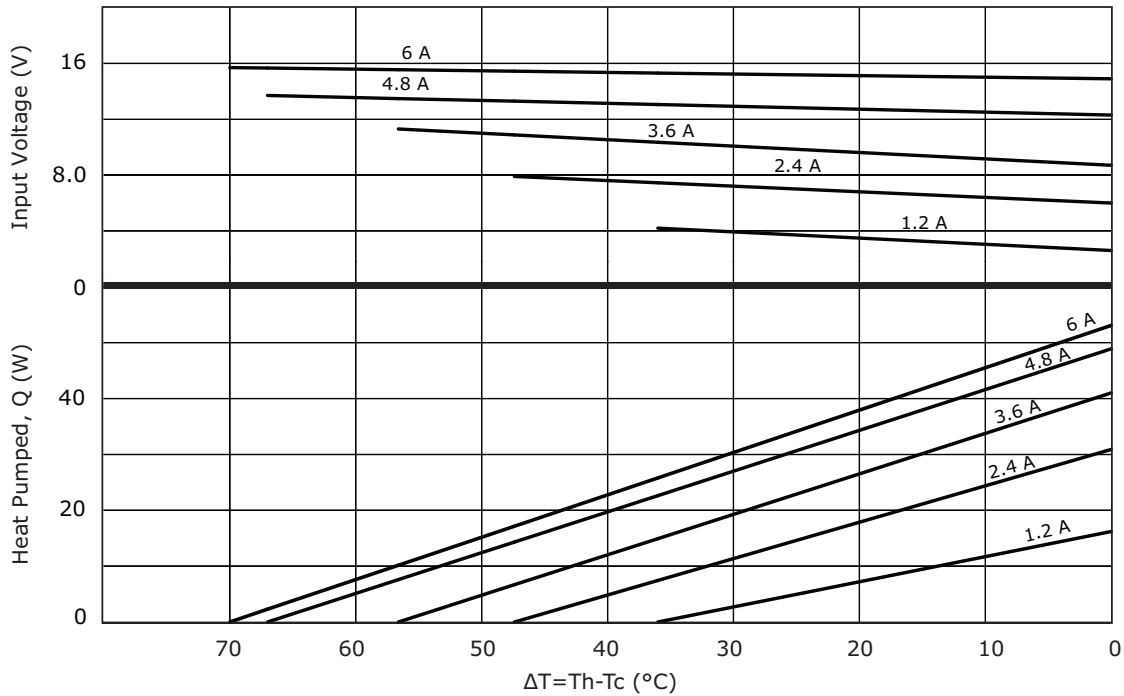
CP60301531H PERFORMANCE (Th=27°C)



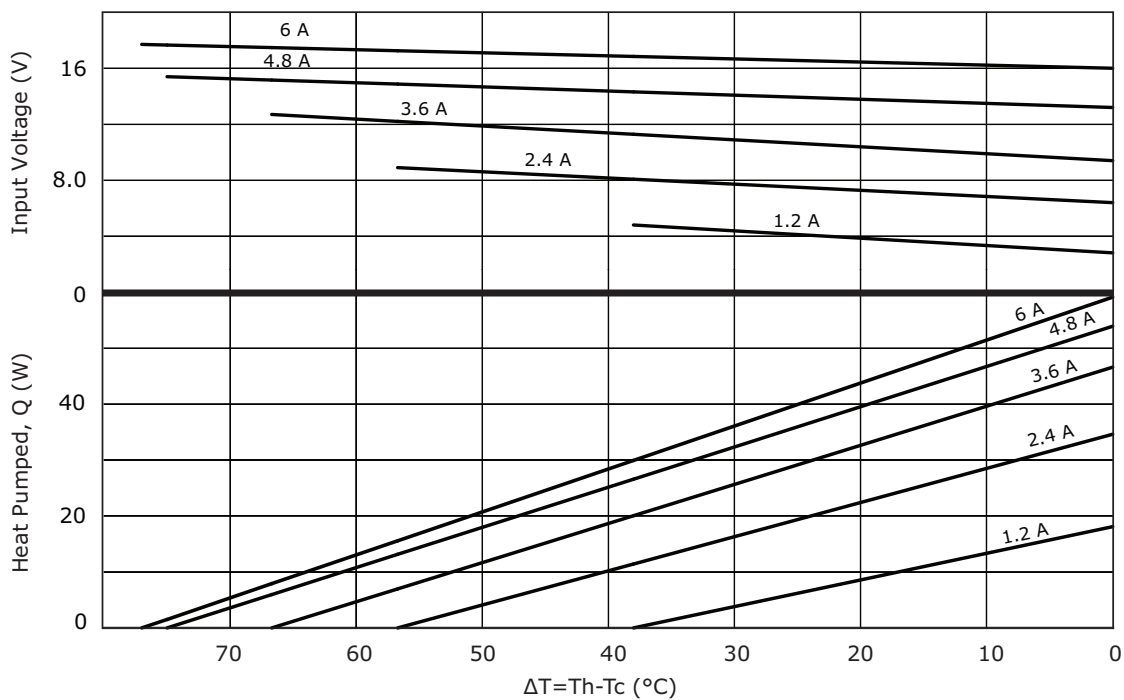
CP60301531H PERFORMANCE (Th=50°C)



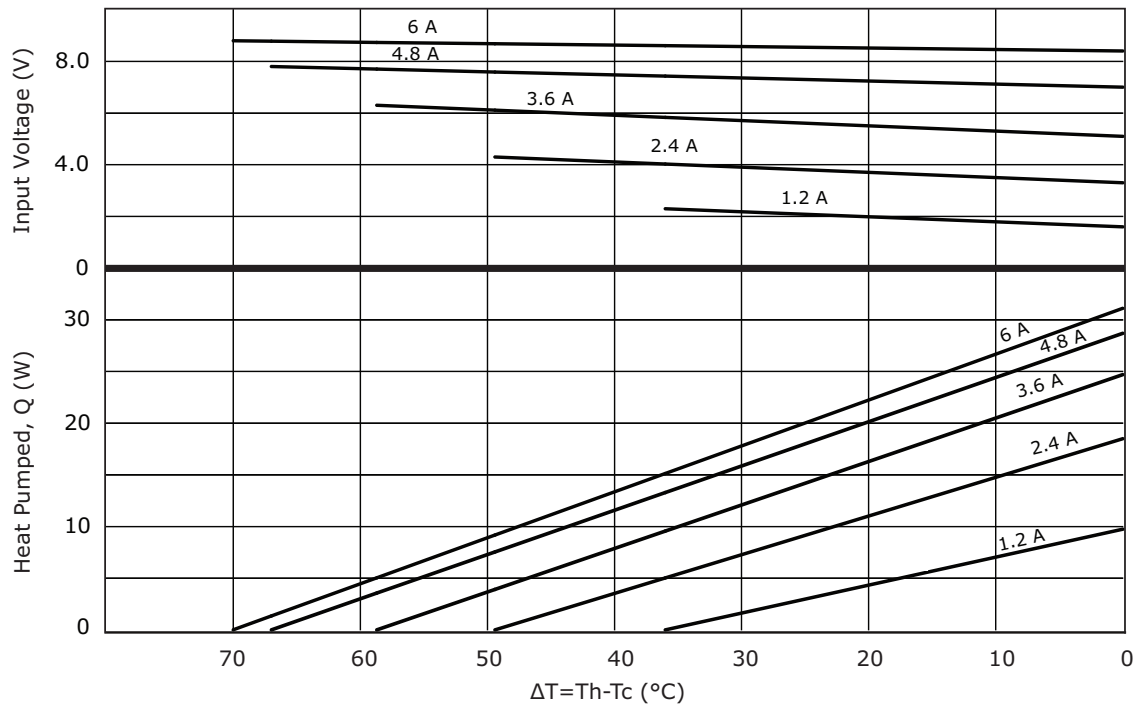
CP603315H PERFORMANCE (Th=27°C)



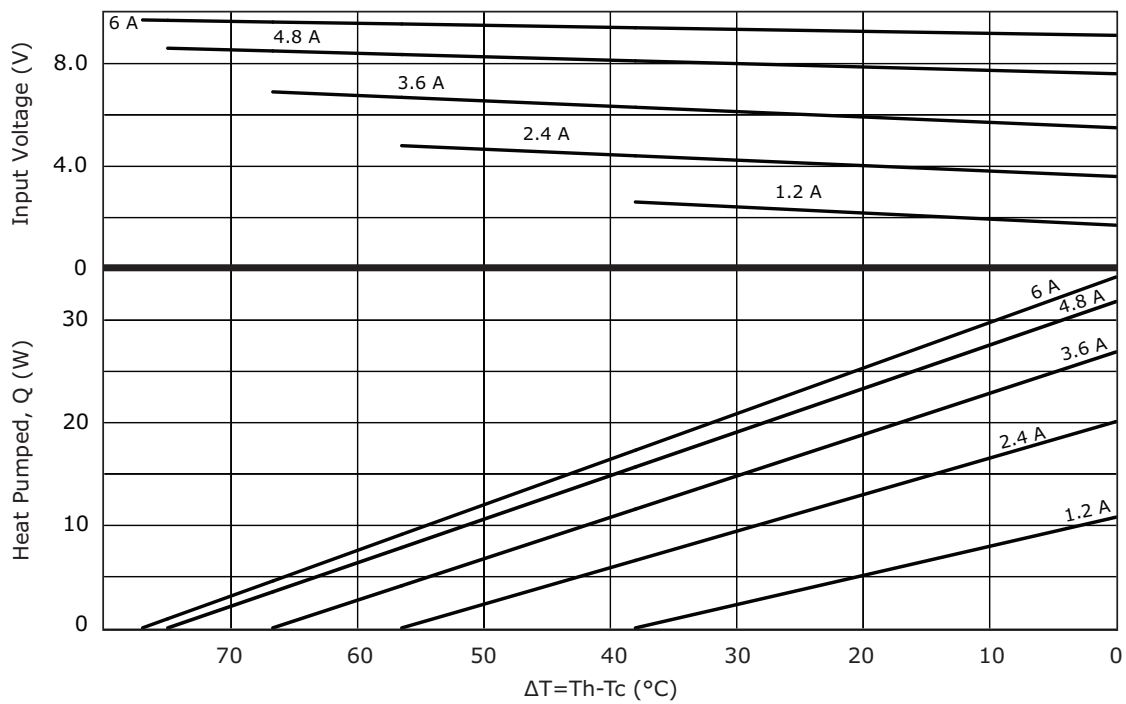
CP603315H PERFORMANCE (Th=50°C)



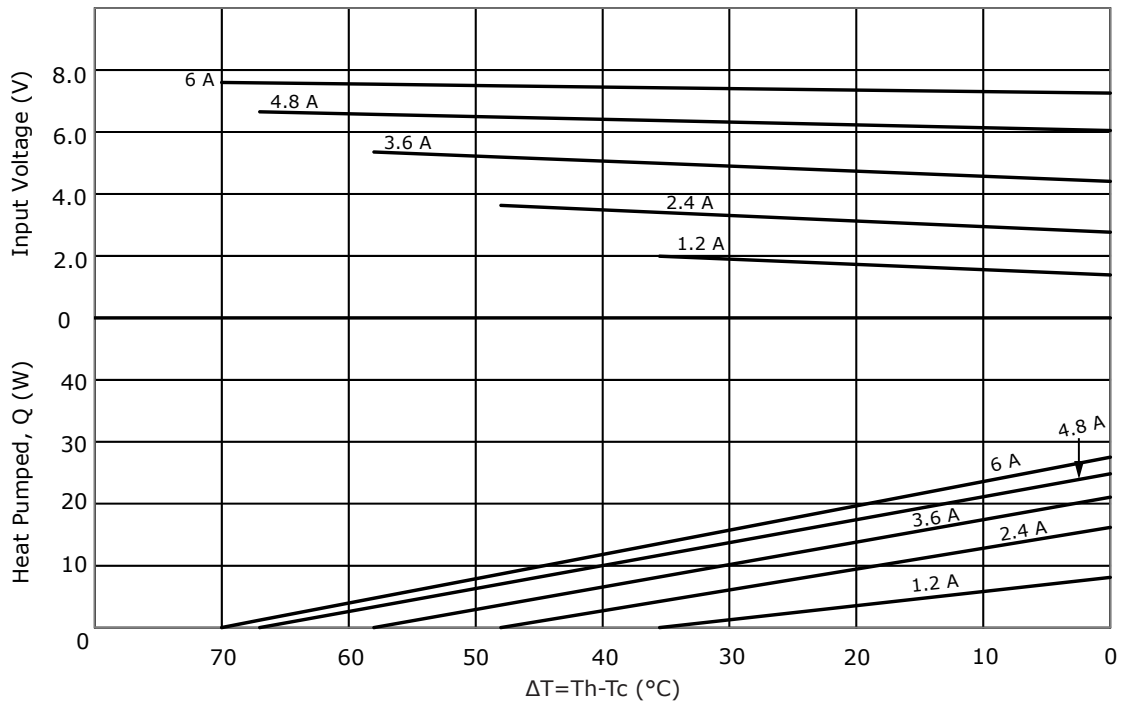
CP603395H PERFORMANCE (Th=27°C)



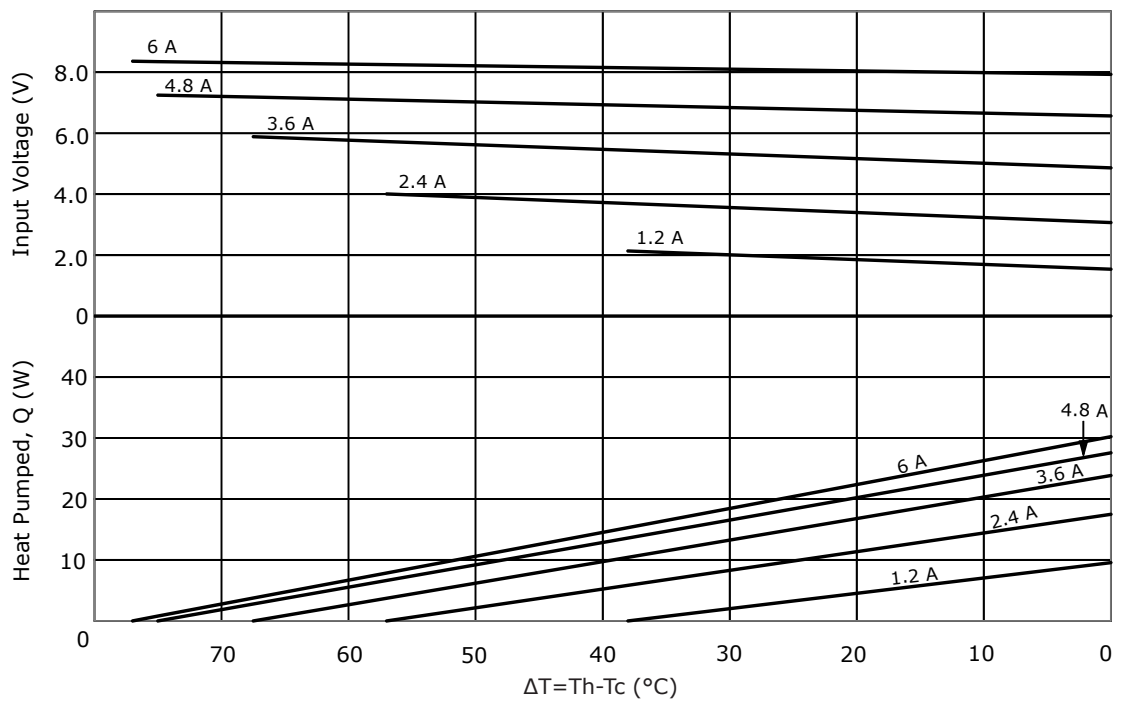
CP603395H PERFORMANCE (Th=50°C)



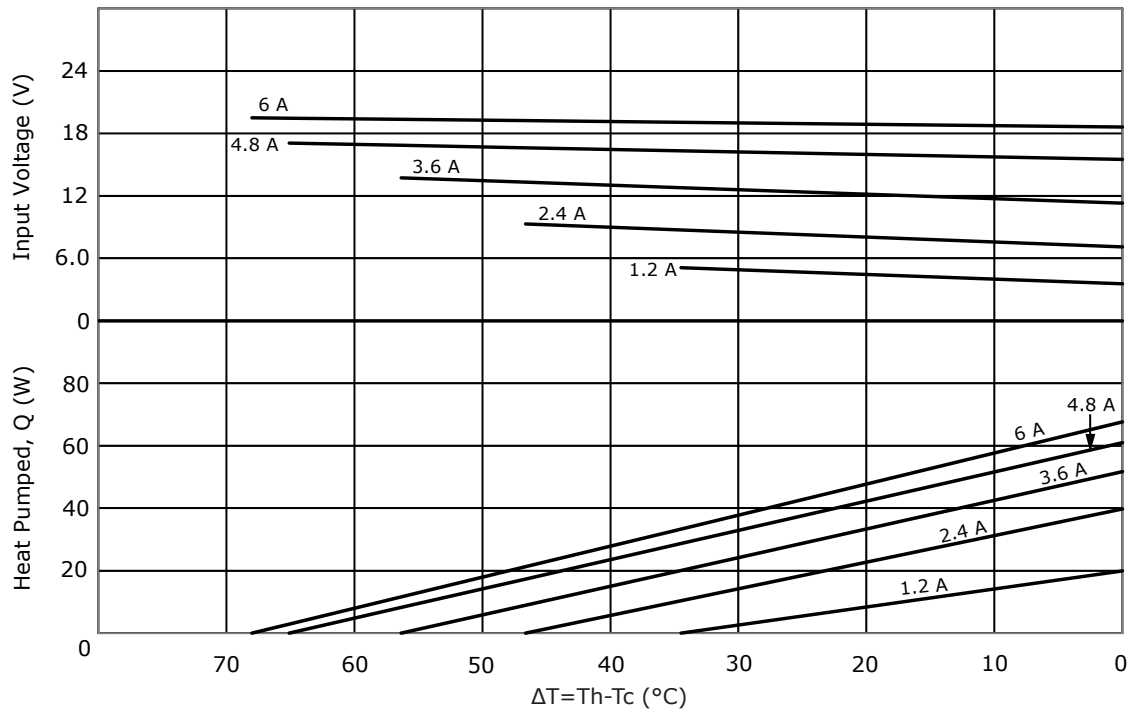
CP604020395H PERFORMANCE (Th=27°C)



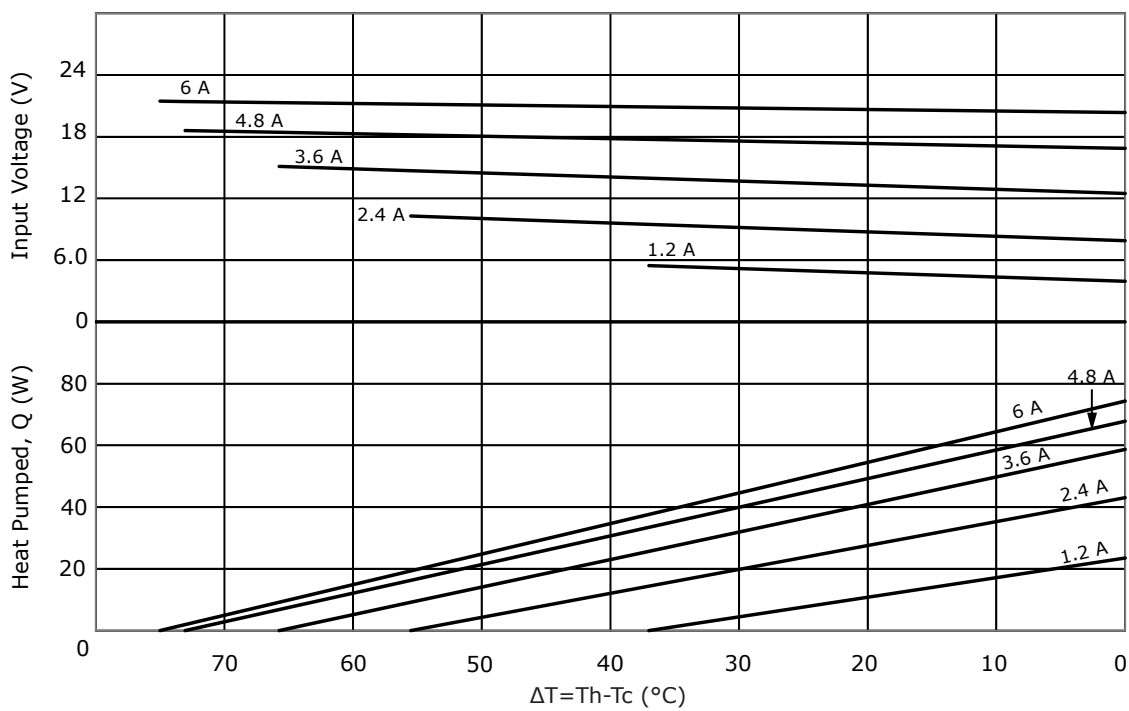
CP604020395H PERFORMANCE (Th=50°C)



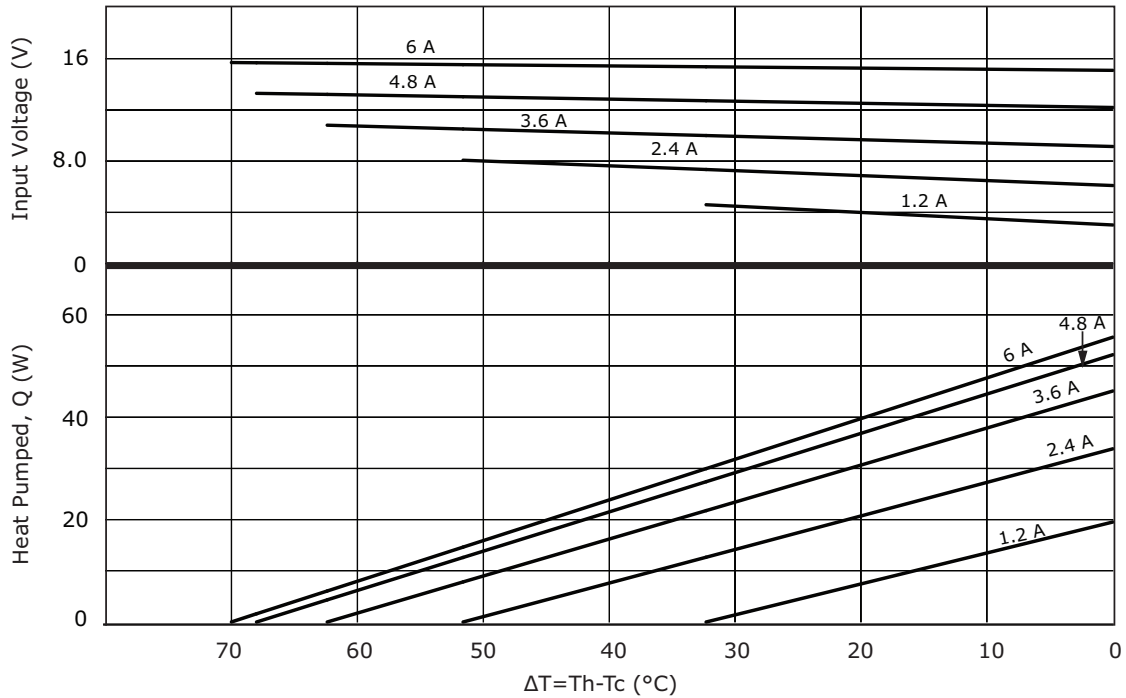
CP60433H PERFORMANCE (Th=27°C)



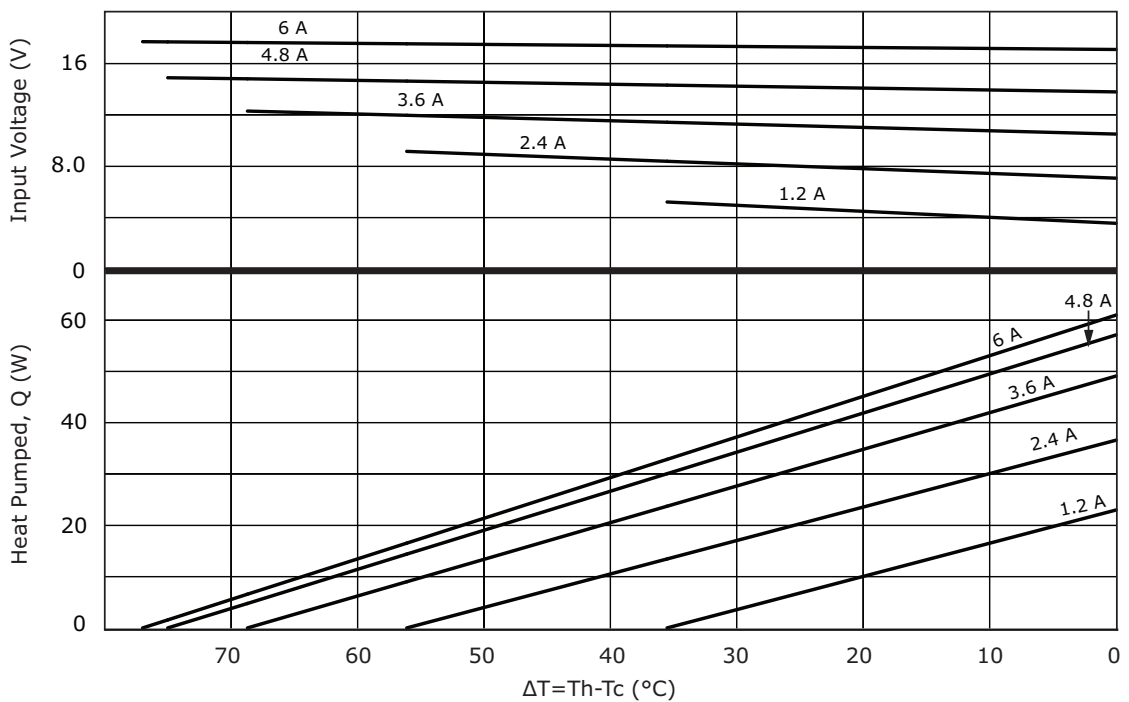
CP60433H PERFORMANCE (Th=50°C)



CP604395H PERFORMANCE (Th=27°C)



CP604395H PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|-------------------|------------|
| 1.0 | initial release | 09/08/2016 |
| 1.01 | updated datasheet | 09/25/2017 |
| 1.02 | added new models | 05/21/2018 |

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

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