

SERIES: CP70 | **DESCRIPTION:** PELTIER MODULE

FEATURES

- solid state device
- precise temperature control
- quiet operation

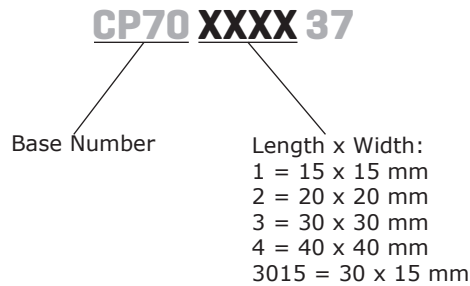


MODEL

| MODEL | input voltage ¹ max (Vdc) | input current ² max (A) | output Qmax ³ | | output ΔTmax ⁴ | |
|------------|--|--|-----------------------------|-----------------------------|------------------------------|------------------------------|
| | | | T _n =27°C (W) | T _n =50°C (W) | T _n =27°C (°C) | T _n =50°C (°C) |
| CP70137 | 2.1 | 7.0 | 7.5 | 8.3 | 68 | 75 |
| CP70237 | 3.8 | 7.0 | 13.6 | 15.1 | 68 | 75 |
| CP70301537 | 4.2 | 7.0 | 15.4 | 17.1 | 68 | 75 |
| CP70337 | 8.6 | 7.0 | 31.0 | 34.6 | 68 | 75 |
| CP70437 | 15.4 | 7.0 | 55.0 | 60.5 | 68 | 75 |

- Notes:
1. Maximum voltage at ΔT max and T_n=27°C
 2. Maximum current to achieve ΔT max
 3. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and ΔT=0°C
 4. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)

PART NUMBER KEY



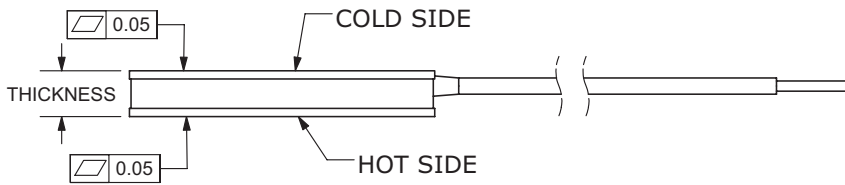
SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|----------------------------------|---|-------|------|-------|-------|
| internal resistance ¹ | CP70137 | 0.216 | 0.24 | 0.264 | Ω |
| | CP70237 | 0.378 | 0.42 | 0.462 | Ω |
| | CP70301537 | 0.432 | 0.48 | 0.528 | Ω |
| | CP70337 | 0.9 | 1.0 | 1.1 | Ω |
| | CP70437 | 1.575 | 1.75 | 1.925 | Ω |
| solder melting temperature | connection between thermoelectric pairs | 138 | | | °C |
| assembly compression | | | | 1 | MPa |
| hot side plate | | | | 80 | °C |
| RoHS | 2011/65/EU | | | | |

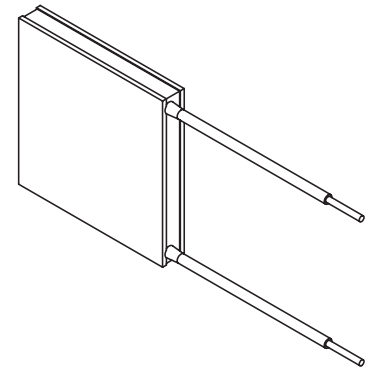
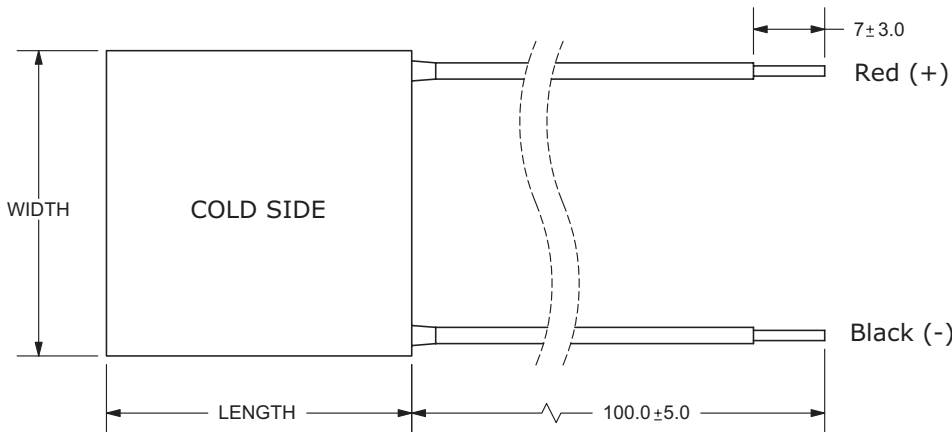
Note: 1. Measured by AC 4-terminal method at 25°C

MECHANICAL DRAWING

units: mm

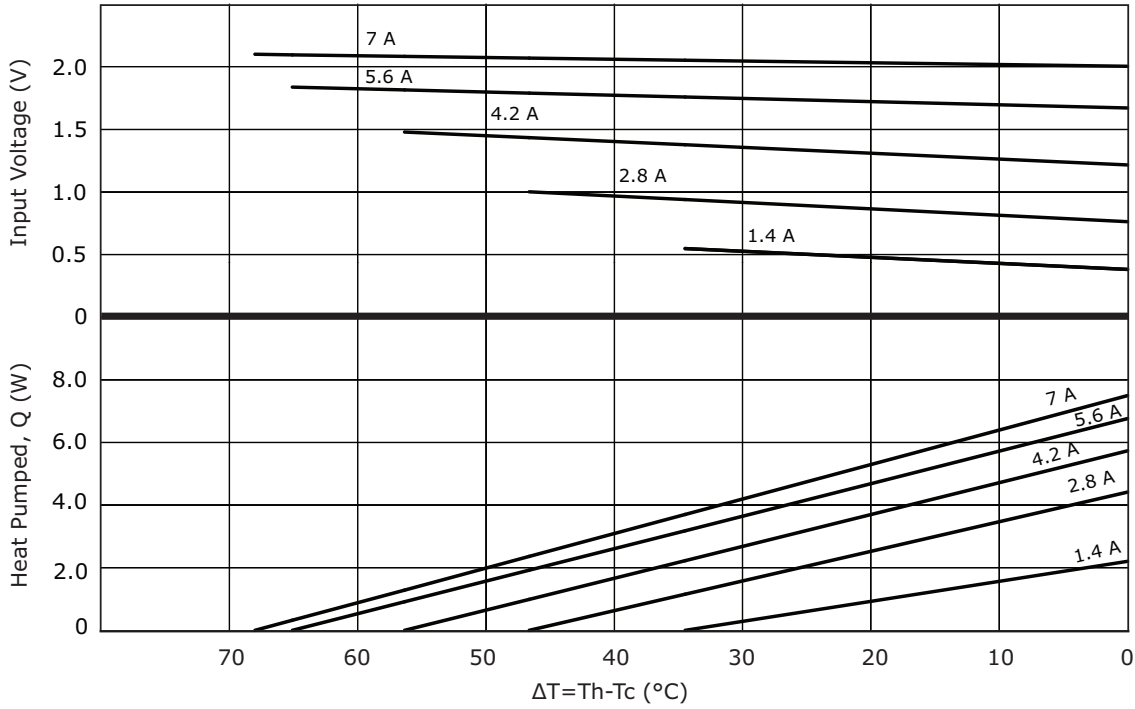


| | MATERIAL | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL ₂ O ₃ | |
| wire leads | 20 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |

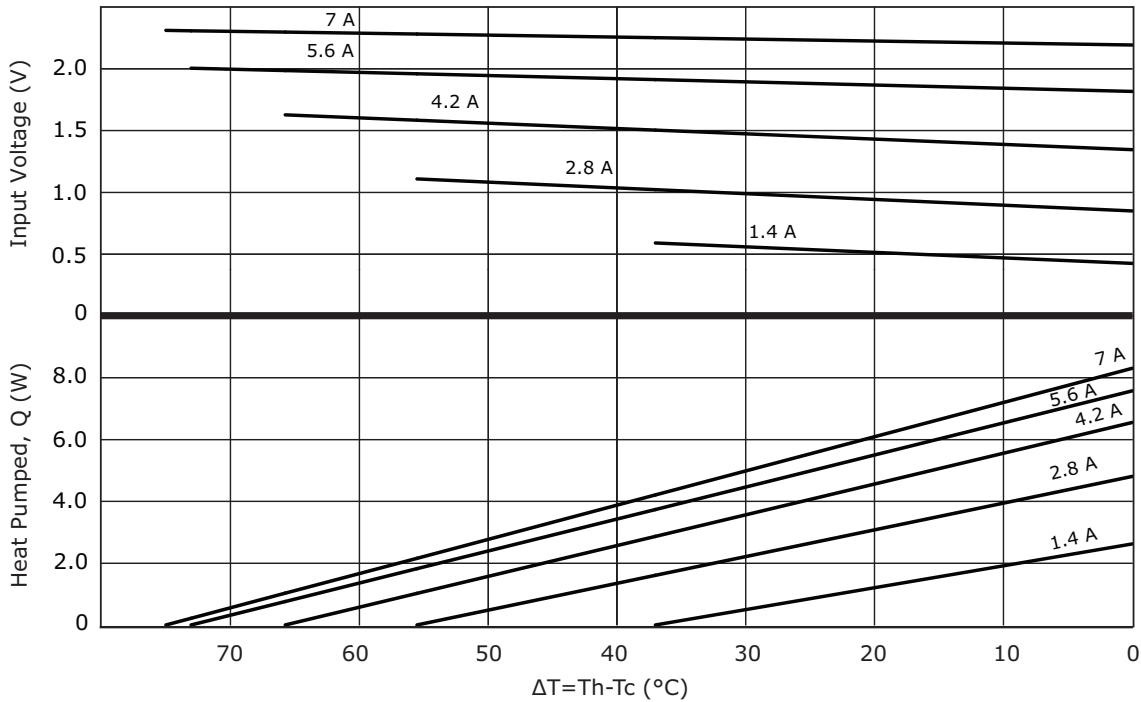


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|------------|-------------|------------|----------------|
| CP70137 | 15 ±0.3 | 15 ±0.3 | 3.8 ±0.1 |
| CP70237 | 20 ±0.3 | 20 ±0.3 | 3.8 ±0.1 |
| CP70301537 | 30 ±0.3 | 15 ±0.3 | 3.8 ±0.1 |
| CP70337 | 30 ±0.3 | 30 ±0.3 | 3.8 ±0.1 |
| CP70437 | 40 ±0.3 | 40 ±0.3 | 3.8 ±0.1 |

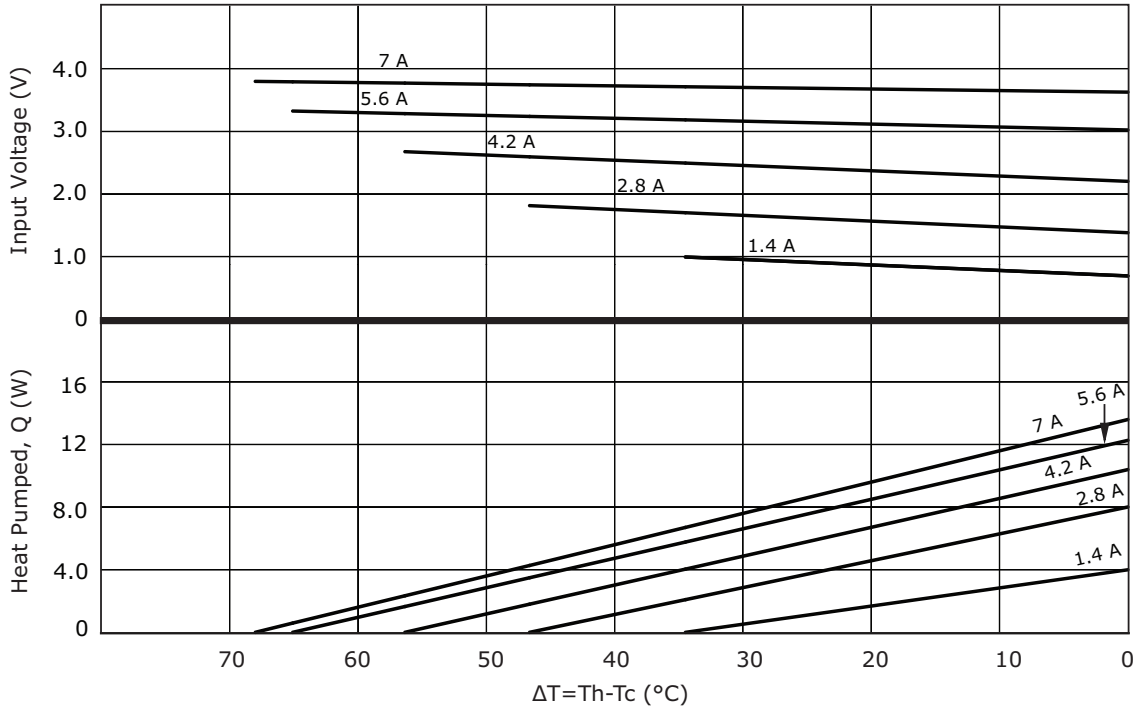
CP70137 PERFORMANCE (Th=27°C)



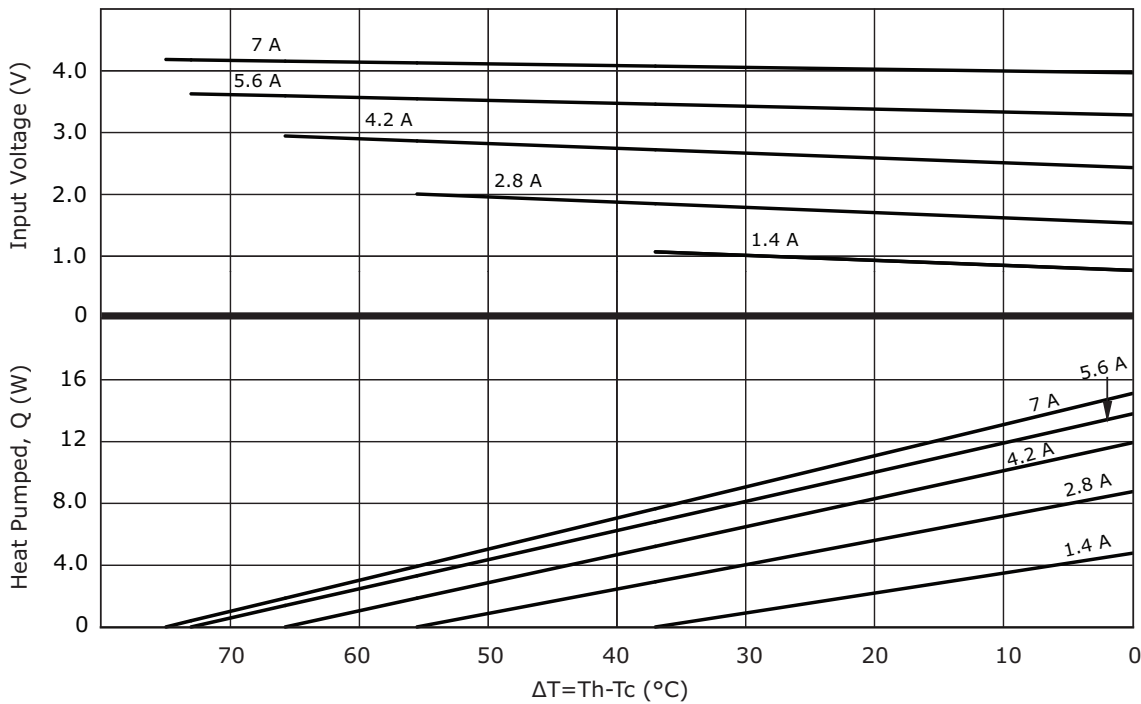
CP70137 PERFORMANCE (Th=50°C)



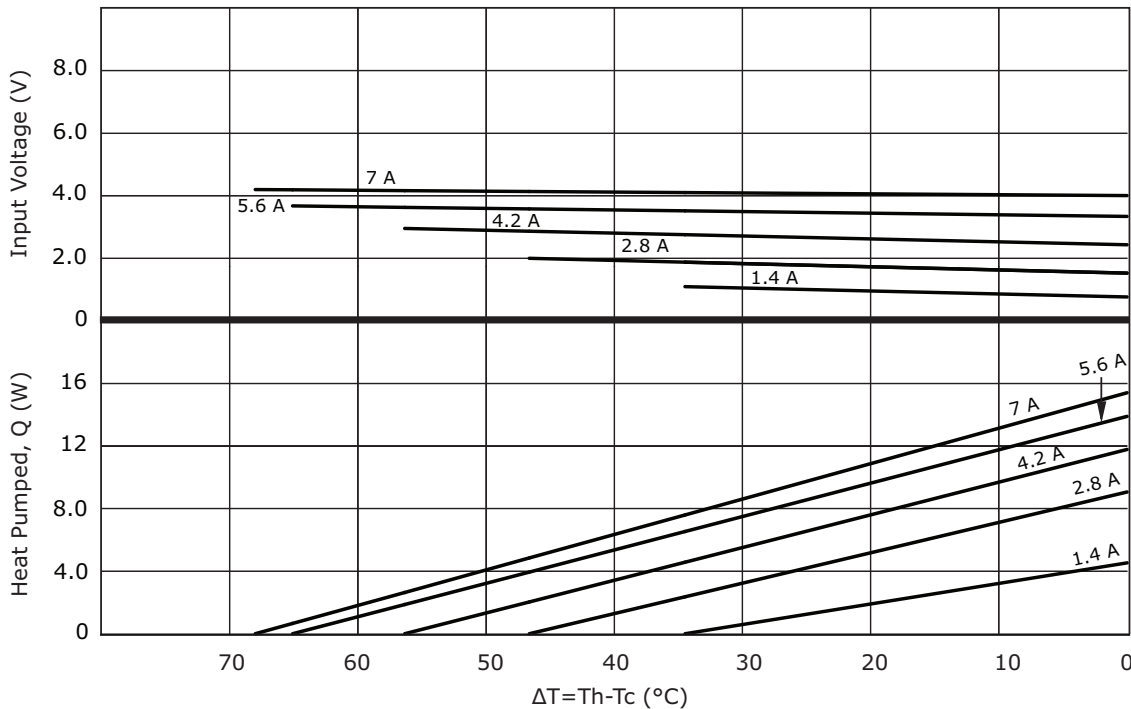
CP70237 PERFORMANCE (Th=27°C)



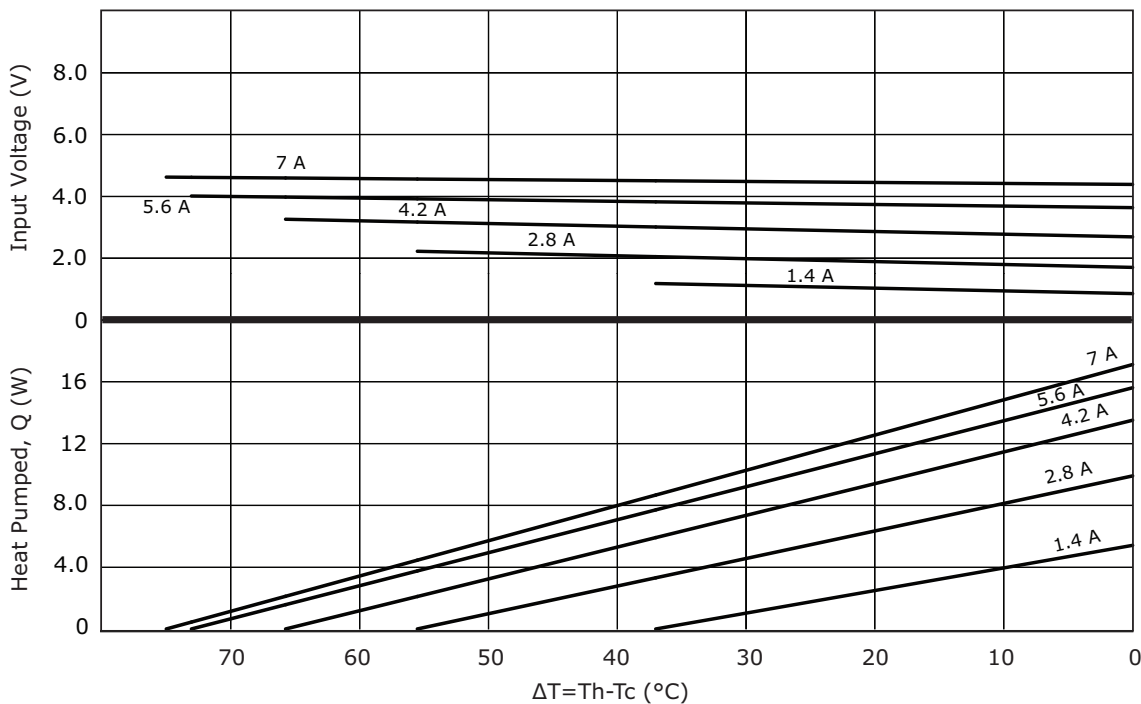
CP70237 PERFORMANCE (Th=50°C)



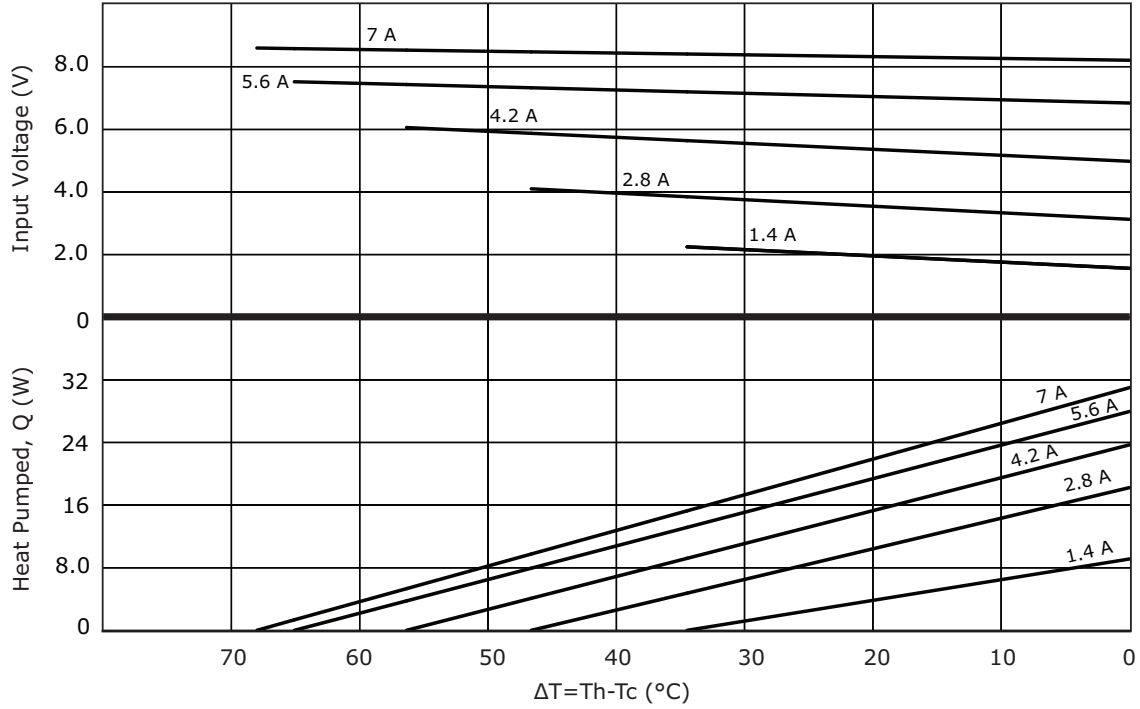
CP70301537 PERFORMANCE (Th=27°C)



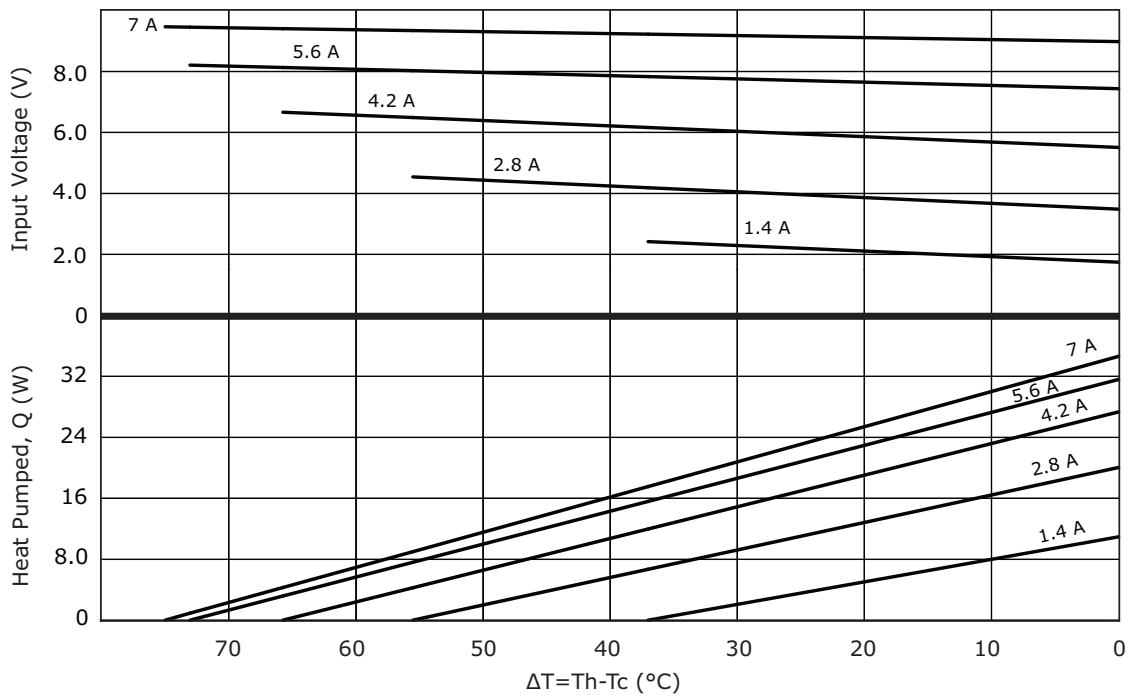
CP70301537 PERFORMANCE (Th=50°C)



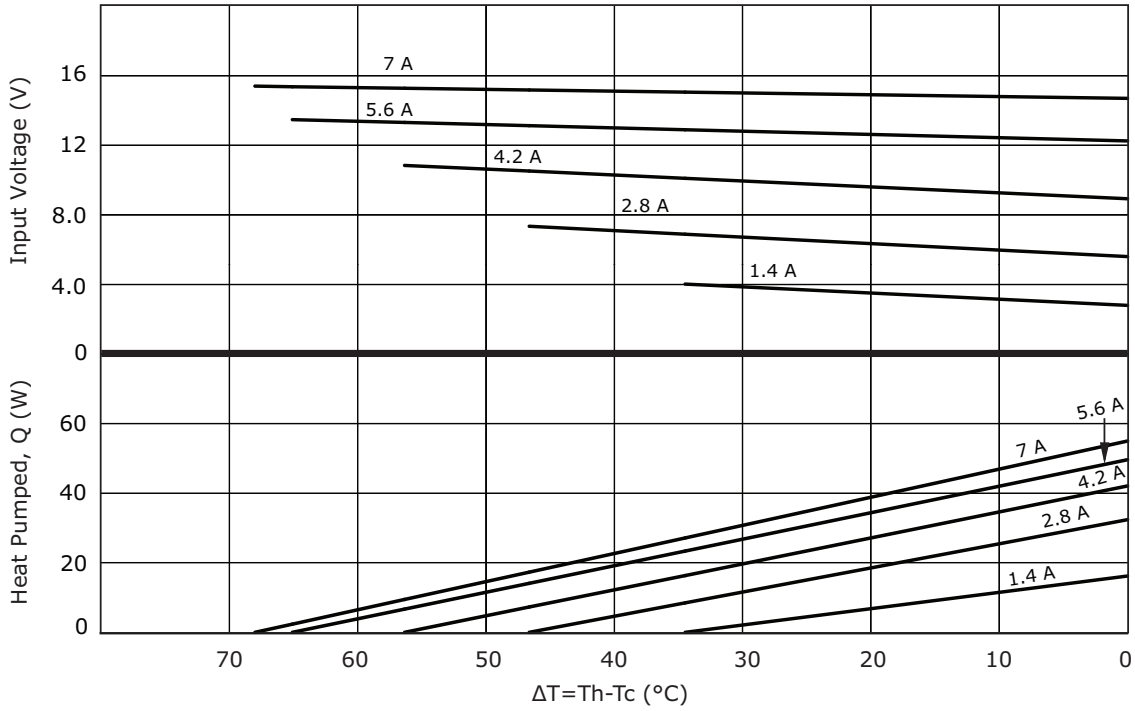
CP70337 PERFORMANCE (Th=27°C)



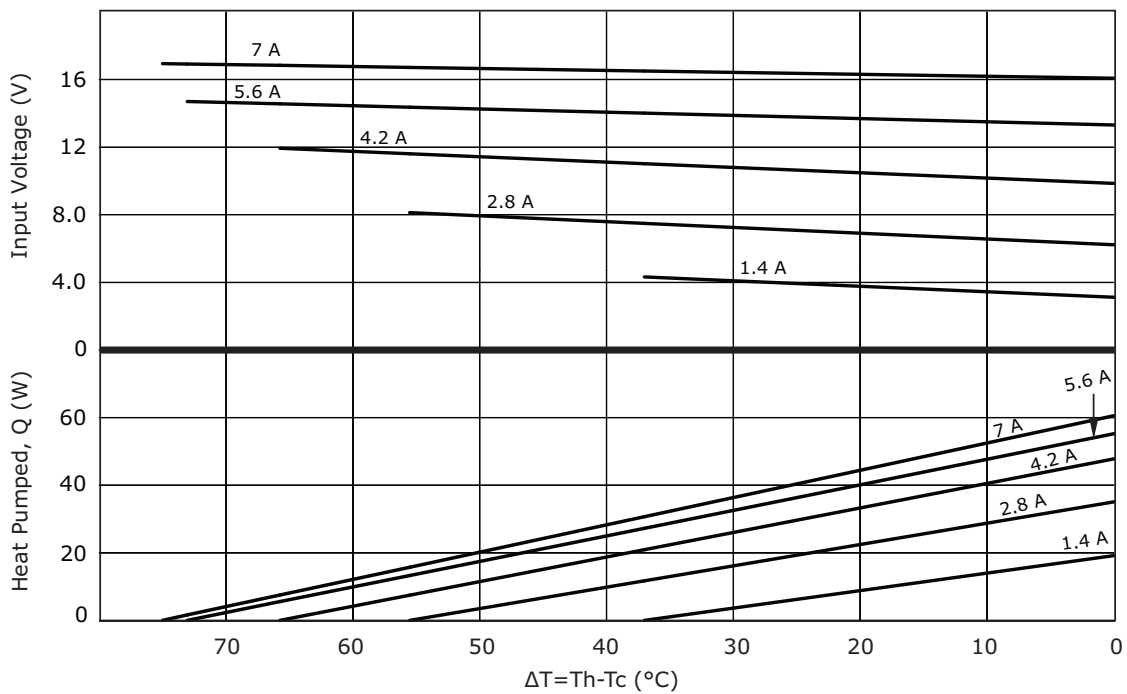
CP70337 PERFORMANCE (Th=50°C)



CP70437 PERFORMANCE (Th=27°C)



CP70437 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 09/02/2016 |

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



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