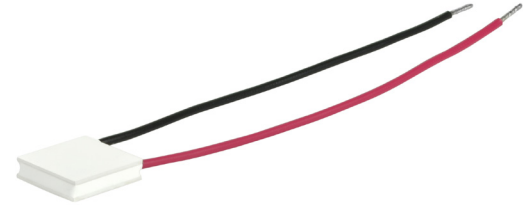


SERIES: CP70 | **DESCRIPTION:** PELTIER MODULE

FEATURES

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


MODEL

| | input voltage ¹ max [Vdc] | input current ² max [A] | internal resistance ³ typ [Ω±10%] | output Qmax ⁴ | | output ΔTmax ⁵ | |
|----------------------|---|---|---|-----------------------------|-----------------------------|------------------------------|------------------------------|
| | | | | T _n =27°C [W] | T _n =50°C [W] | T _h =27°C [°C] | T _h =50°C [°C] |
| CP70137 | 2.1 | 7.0 | 0.24 | 7.5 | 8.3 | 68 | 75 |
| CP70237 | 3.8 | 7.0 | 0.42 | 13.6 | 15.1 | 68 | 75 |
| CP70301537 | 4.2 | 7.0 | 0.48 | 15.4 | 17.1 | 68 | 75 |
| CP70337 ⁶ | 8.6 | 7.0 | 1.0 | 31.0 | 34.6 | 70 | 77 |
| CP70437 ⁶ | 15.4 | 7.0 | 1.75 | 55.0 | 60.5 | 70 | 77 |

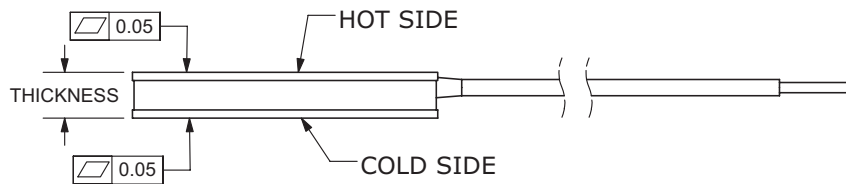
Notes: 1. Maximum voltage at ΔT max and T_n=27°C
 2. Maximum current to achieve ΔT max
 3. Measured by AC 4-terminal method at 25°C
 4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and ΔT=0°C
 5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in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

SPECIFICATIONS

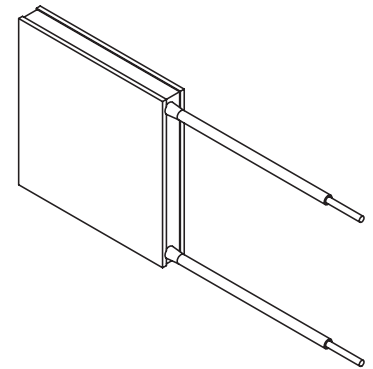
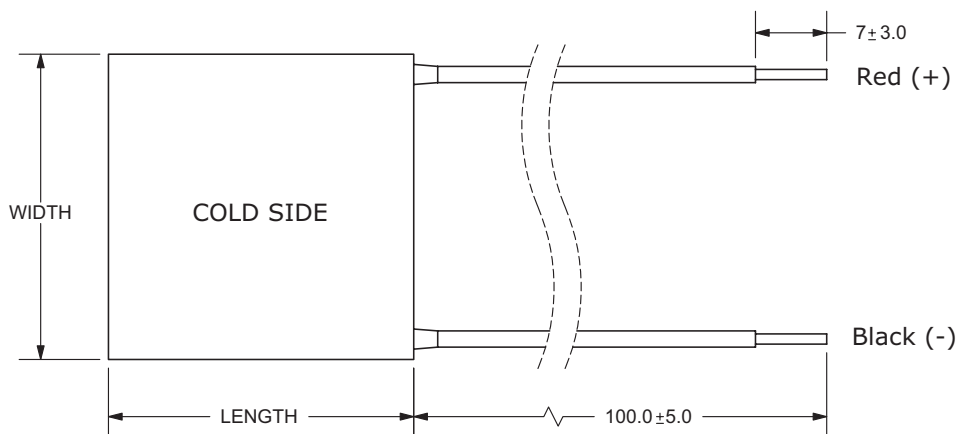
| parameter | conditions/description | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 1 | MPa |
| hot side plate | | | | 80 | °C |
| RoHS | yes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

MECHANICAL DRAWING

units: mm



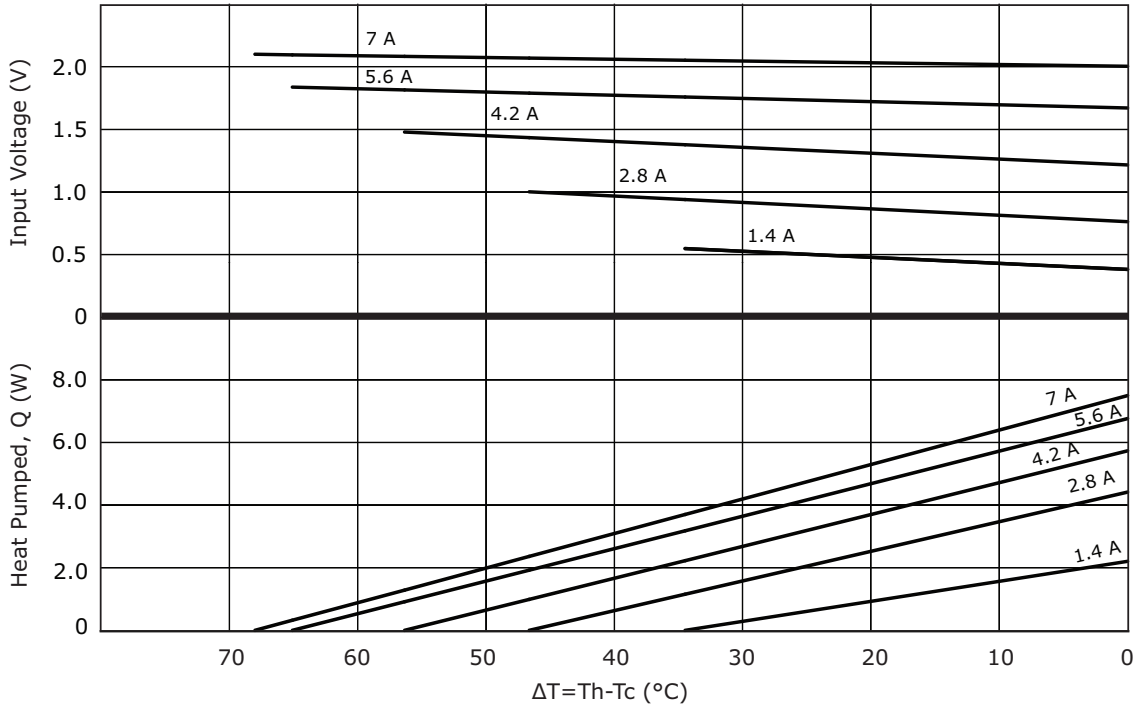
| | MATERIAL | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL ₂ O ₃ | |
| wire leads | 20 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |



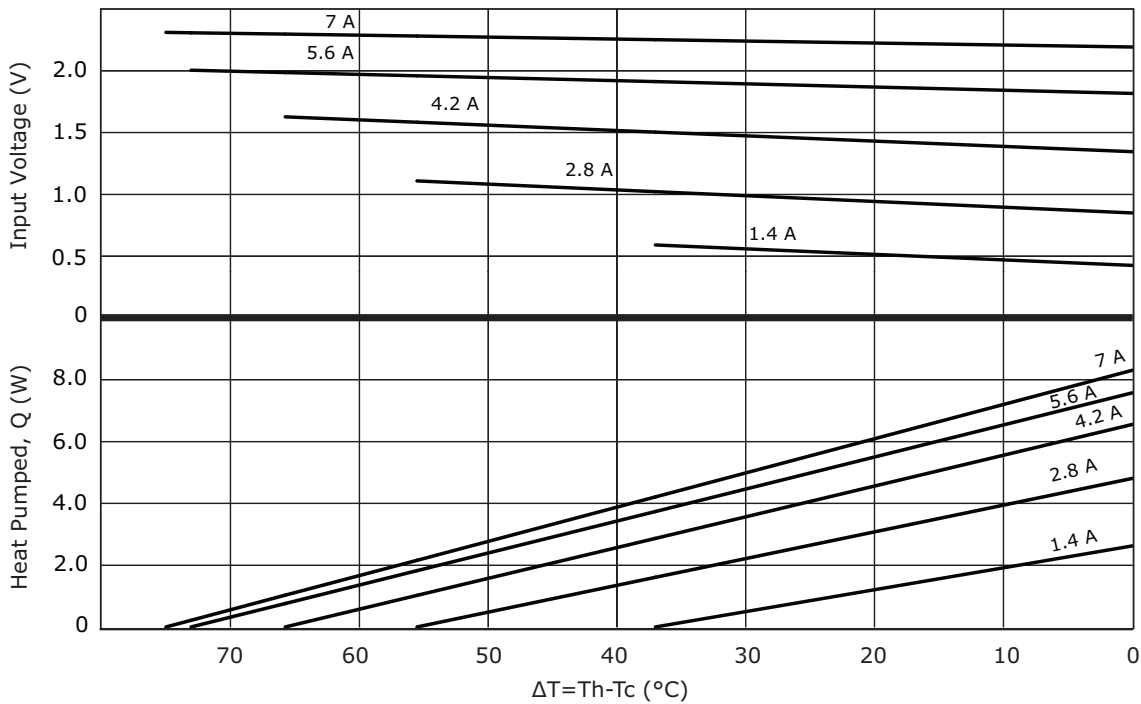
| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|----------------------|-------------|------------|----------------|
| CP70137 | 15 ±0.3 | 15 ±0.3 | 3.7 ±0.1 |
| CP70237 | 20 ±0.3 | 20 ±0.3 | 3.7 ±0.1 |
| CP70301537 | 30 ±0.3 | 15 ±0.3 | 3.7 ±0.1 |
| CP70337 ¹ | 30 ±0.3 | 30 ±0.3 | 3.7 ±0.1 |
| CP70437 ¹ | 40 ±0.3 | 40 ±0.3 | 3.7 ±0.1 |

Notes: 1. Wire lead strip length on models CP70337 & CP70437 is 10 ±3.0 mm.

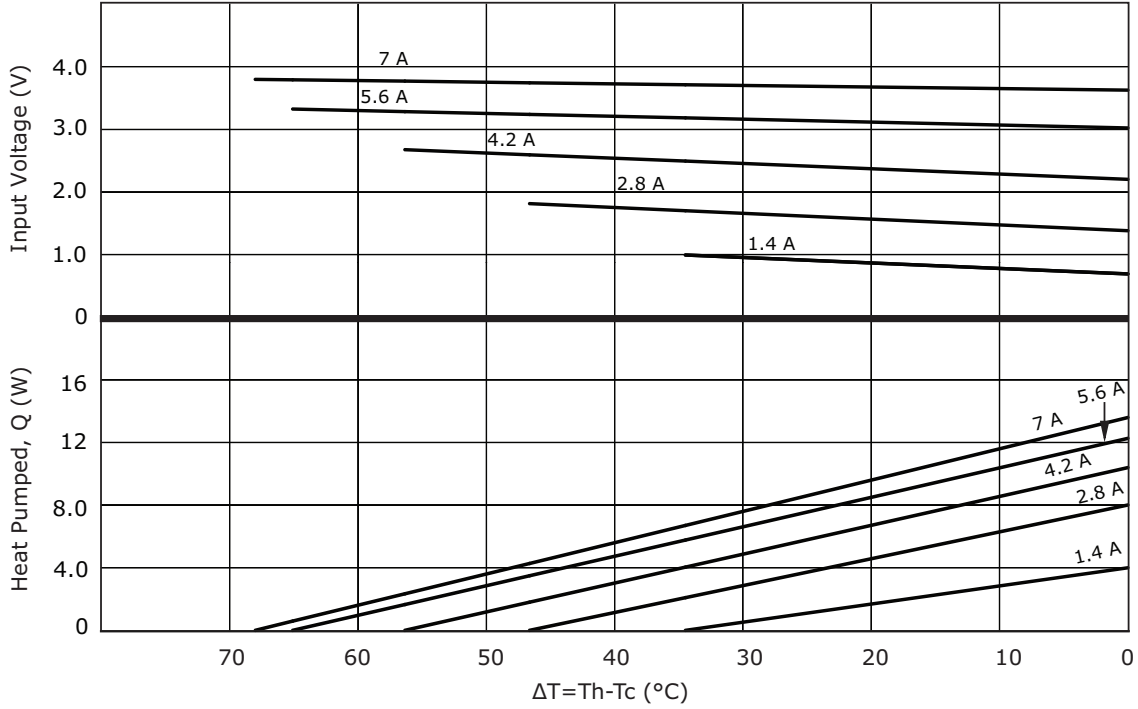
CP70137 PERFORMANCE (Th=27°C)



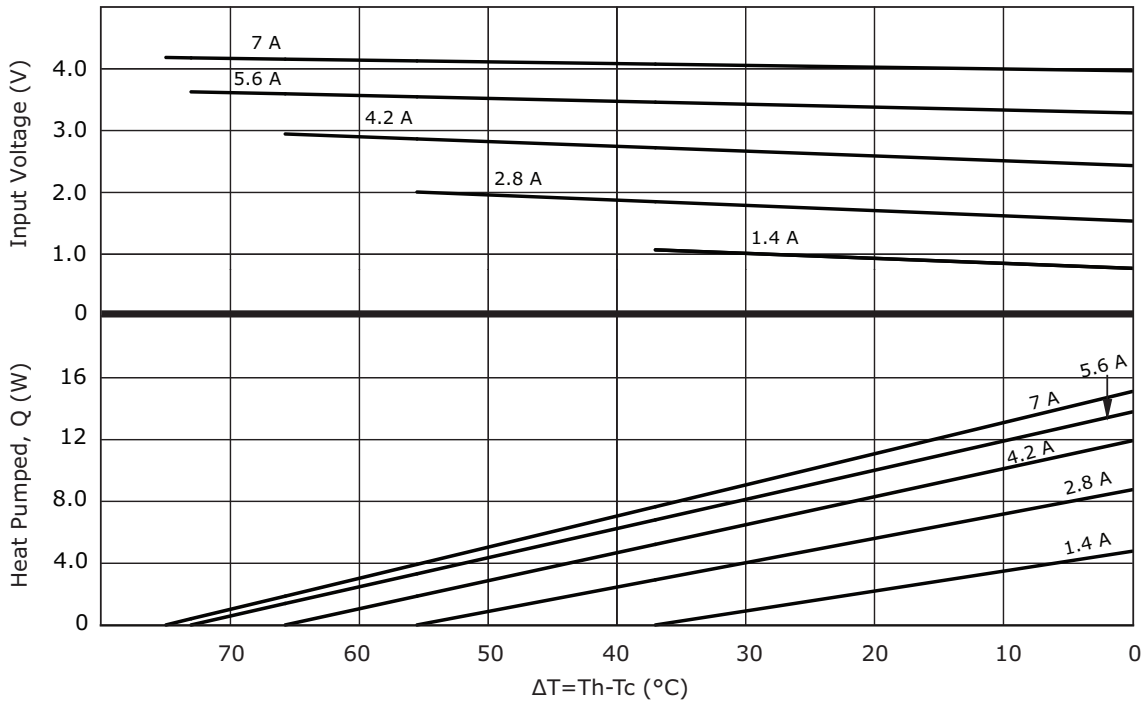
CP70137 PERFORMANCE (Th=50°C)



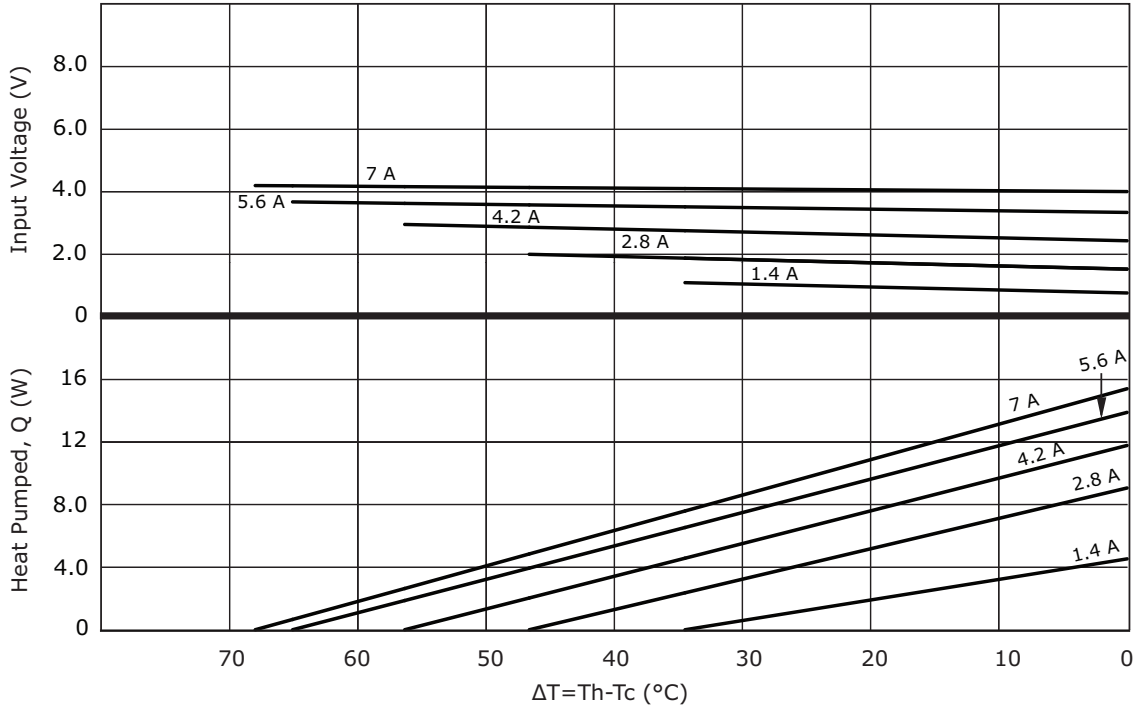
CP70237 PERFORMANCE (Th=27°C)



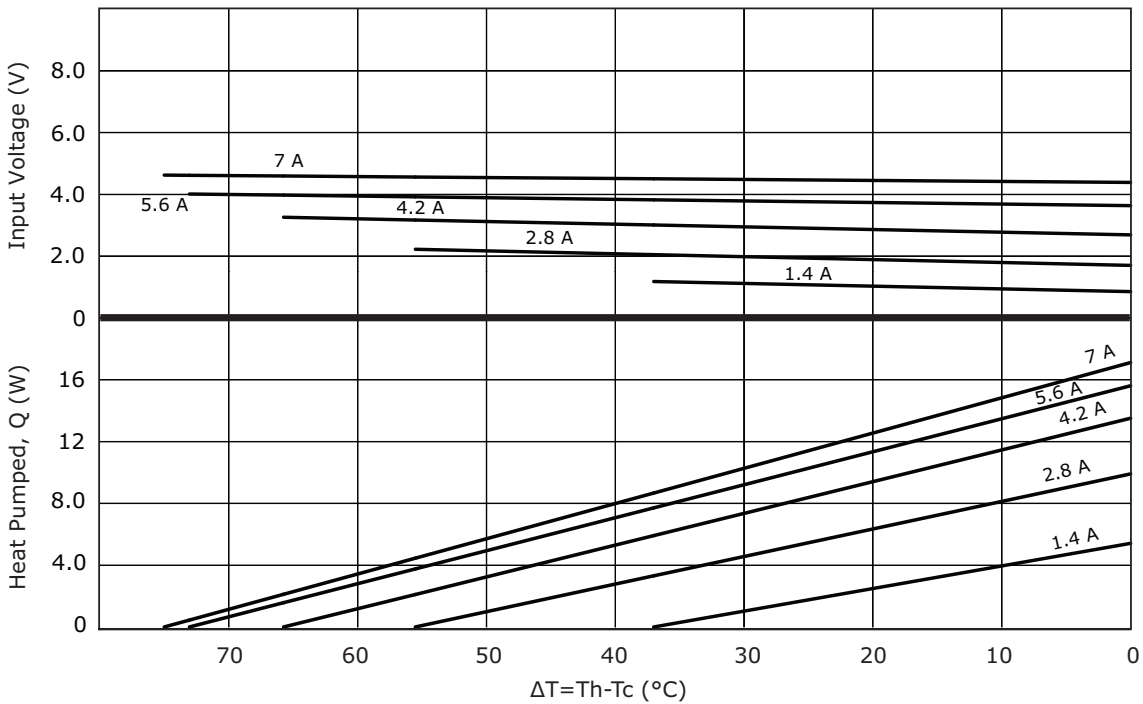
CP70237 PERFORMANCE (Th=50°C)



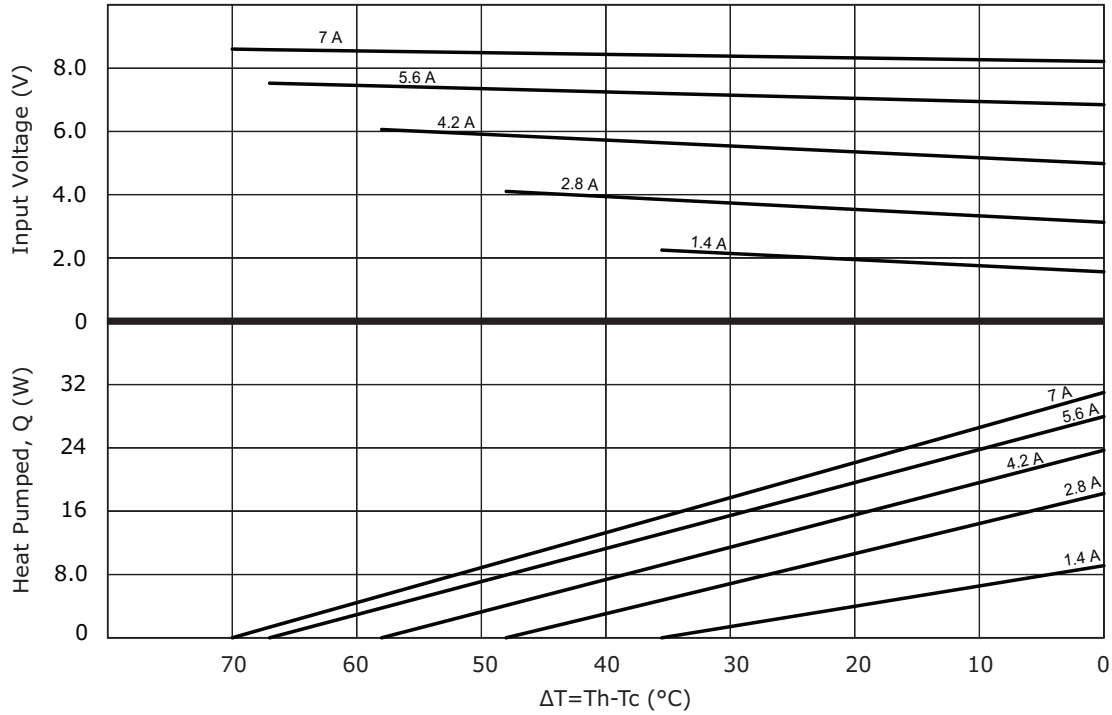
CP70301537 PERFORMANCE (Th=27°C)



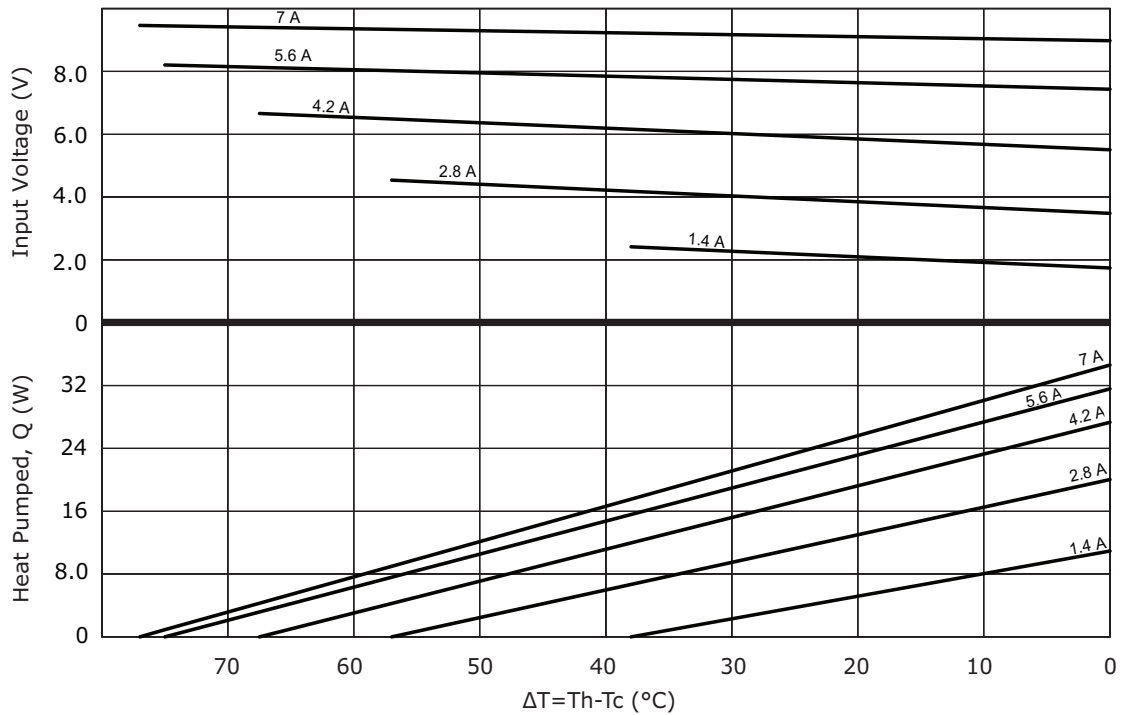
CP70301537 PERFORMANCE (Th=50°C)



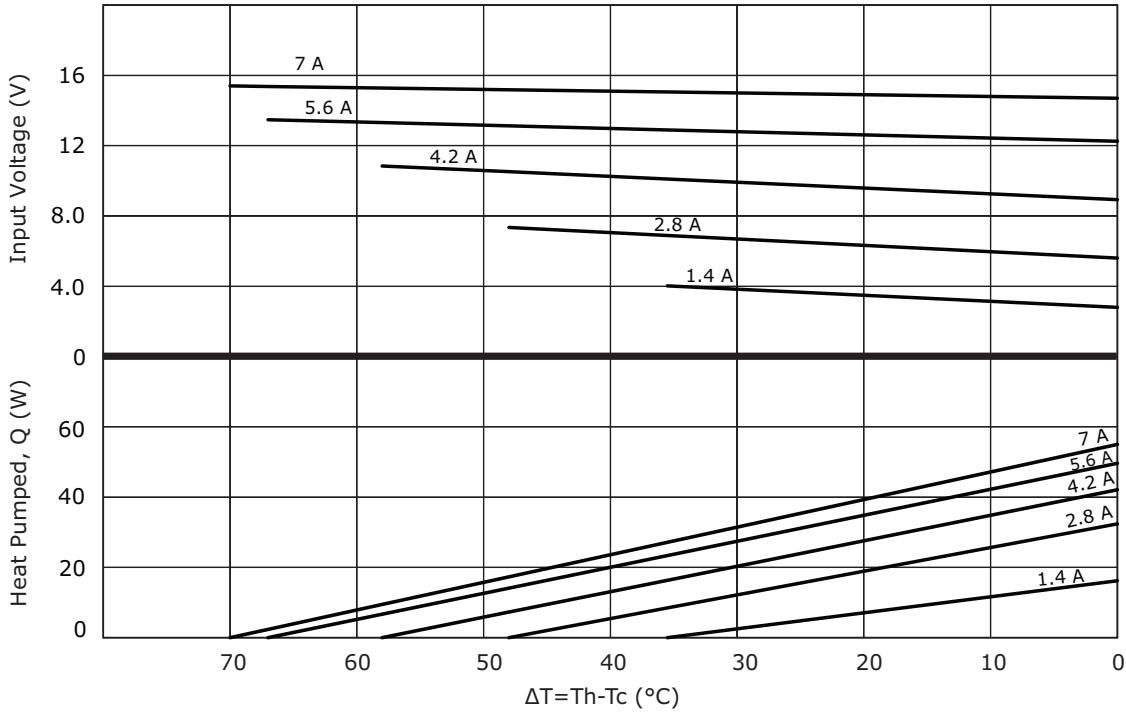
CP70337 PERFORMANCE (Th=27°C)



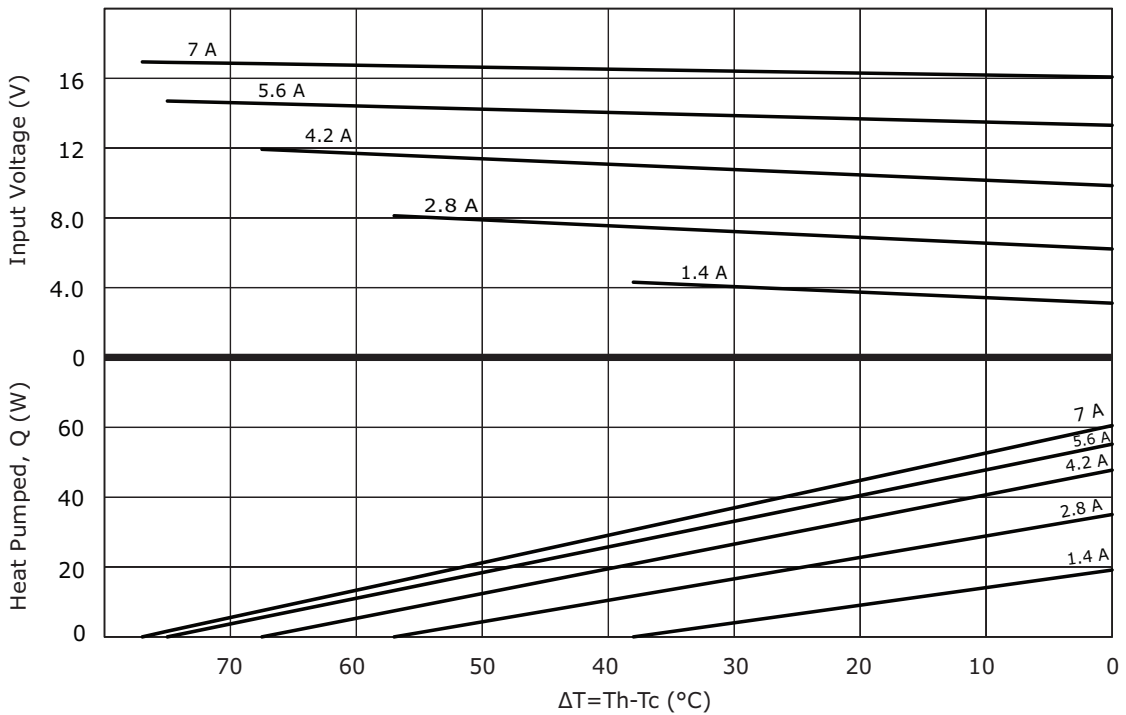
CP70337 PERFORMANCE (Th=50°C)



CP70437 PERFORMANCE (Th=27°C)



CP70437 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|--|------------|
| 1.0 | initial release | 09/08/2016 |
| 1.01 | changed models CP70337 & CP70437 to arcTEC™ structure | 12/01/2017 |
| 1.02 | changed thickness of CP70137, CP70237, CP70301537 models | 09/19/2018 |
| 1.03 | brand update | 10/30/2019 |
| 1.04 | 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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