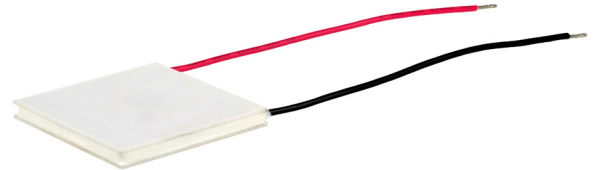


SERIES: CP85 | **DESCRIPTION:** PELTIER MODULE

FEATURES

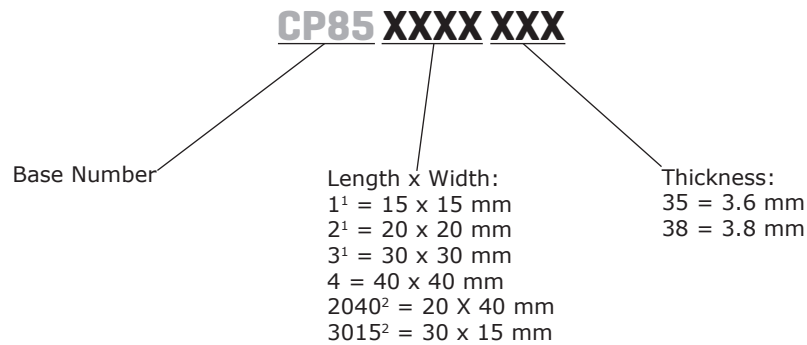
- solid state device
- precise temperature control
- quiet operation



| MODEL | input voltage ¹ max (Vdc) | input current ² max (A) | output Qmax ³ | | output ΔTmax ⁴ | |
|------------|--|--|-----------------------------|-----------------------------|------------------------------|------------------------------|
| | | | T _h =27°C (W) | T _h =50°C (W) | T _h =27°C (°C) | T _h =50°C (°C) |
| CP85204035 | 7.6 | 8.5 | 37.4 | 41.8 | 68 | 75 |
| CP85301535 | 4.2 | 8.5 | 20.0 | 22.3 | 68 | 75 |
| CP85435 | 24.1 | 8.5 | 118 | 130 | 68 | 75 |
| CP85138 | 2.1 | 8.5 | 10.0 | 11.1 | 68 | 75 |
| CP85238 | 3.8 | 8.5 | 18.0 | 20.1 | 68 | 75 |
| CP85338 | 8.6 | 8.5 | 42.0 | 46.9 | 68 | 75 |
| CP85438 | 15.4 | 8.5 | 75.0 | 83.9 | 68 | 75 |

- Notes:
1. Maximum voltage at ΔT max and T_h=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



- Notes:
1. Only available in 3.8 mm thickness
 2. Only available in 3.6 mm thickness

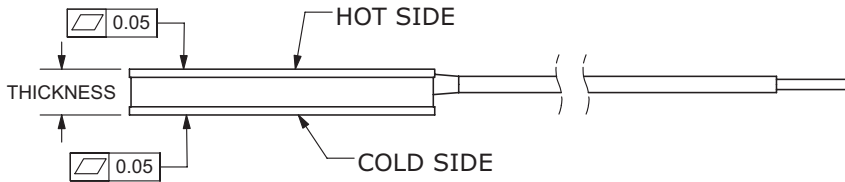
SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|----------------------------------|---|-------|------|-------|-------|
| internal resistance ¹ | CP85204035 | 0.675 | 0.75 | 0.825 | Ω |
| | CP85301535 | 0.369 | 0.41 | 0.451 | Ω |
| | CP85435 | 2.052 | 2.28 | 2.508 | Ω |
| | CP85138 | 0.18 | 0.20 | 0.22 | Ω |
| | CP85238 | 0.36 | 0.40 | 0.44 | Ω |
| | CP85338 | 0.81 | 0.90 | 0.99 | Ω |
| | CP85438 | 1.35 | 1.50 | 1.65 | Ω |
| solder melting temperature | connection between thermoelectric pairs | | | | |
| | CP85204035 | 235 | | | °C |
| | all other models | 138 | | | °C |
| assembly compression | 3.8 mm models | | | 0.98 | MPa |
| | 3.6 mm models | | | 1 | MPa |
| hot side plate | | | | 80 | °C |
| RoHS | 2011/65/EU | | | | |

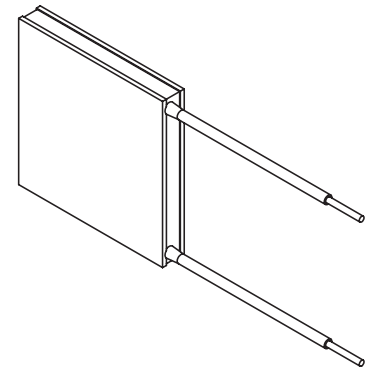
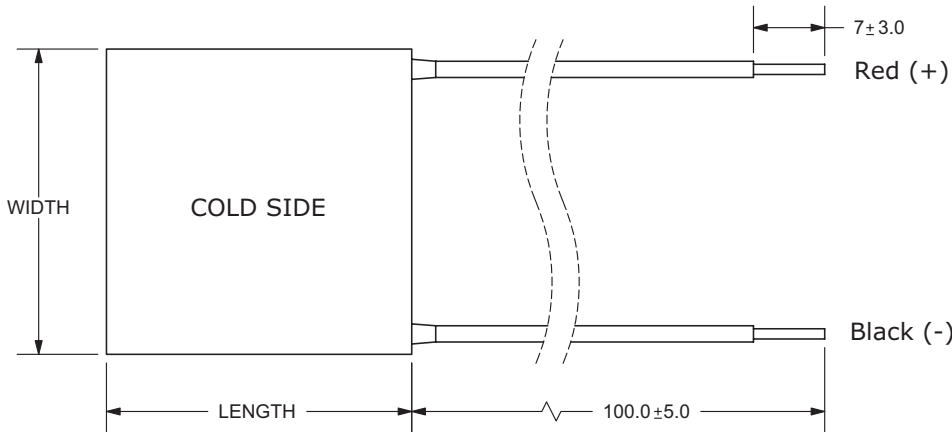
Note: 1. Measured by AC 4-terminal method at 25°C

MECHANICAL DRAWING

units: mm

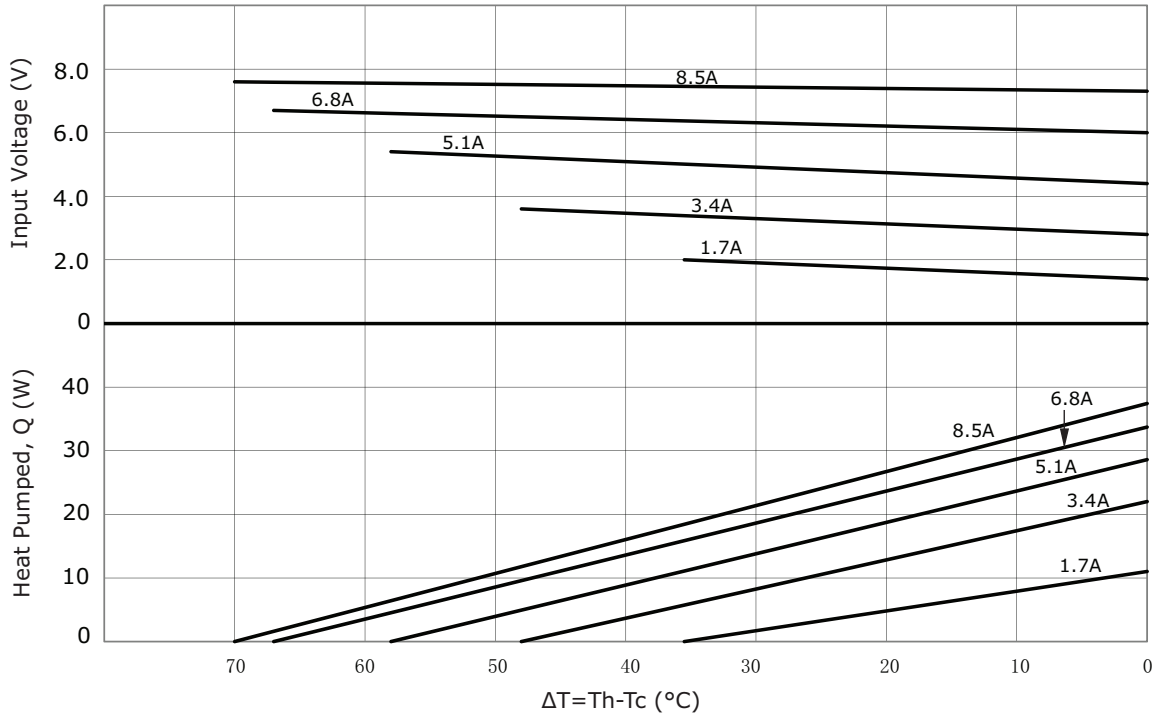


| | MATERIAL | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL ₂ O ₃ | |
| wire leads | 20 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |

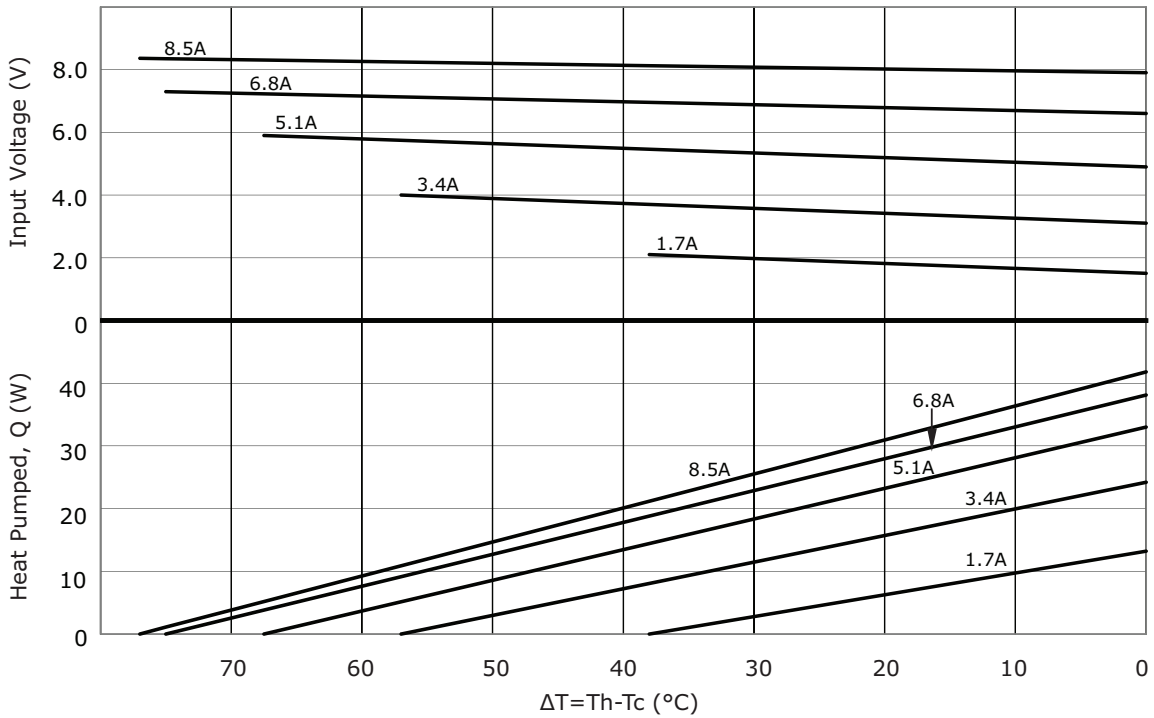


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|------------|-------------|------------|----------------|
| CP85204035 | 20 ±0.3 | 40 ±0.3 | 3.6 ±0.1 |
| CP85301535 | 30 ±0.3 | 15 ±0.3 | 3.6 ±0.1 |
| CP85435 | 40 ±0.3 | 40 ±0.3 | 3.6 ±0.1 |
| CP85138 | 15 ±0.3 | 15 ±0.3 | 3.8 ±0.1 |
| CP85238 | 20 ±0.3 | 20 ±0.3 | 3.8 ±0.1 |
| CP85338 | 30 ±0.3 | 30 ±0.3 | 3.8 ±0.1 |
| CP85438 | 40 ±0.3 | 40 ±0.3 | 3.8 ±0.1 |

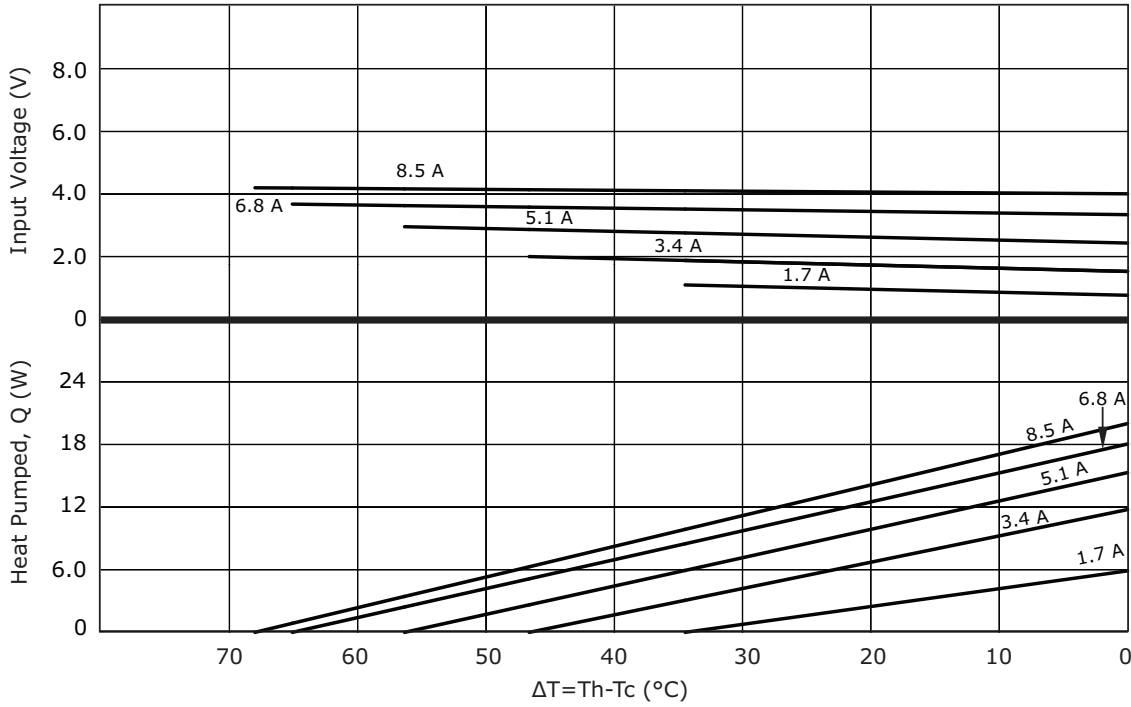
CP85204035 PERFORMANCE (Th=27°C)



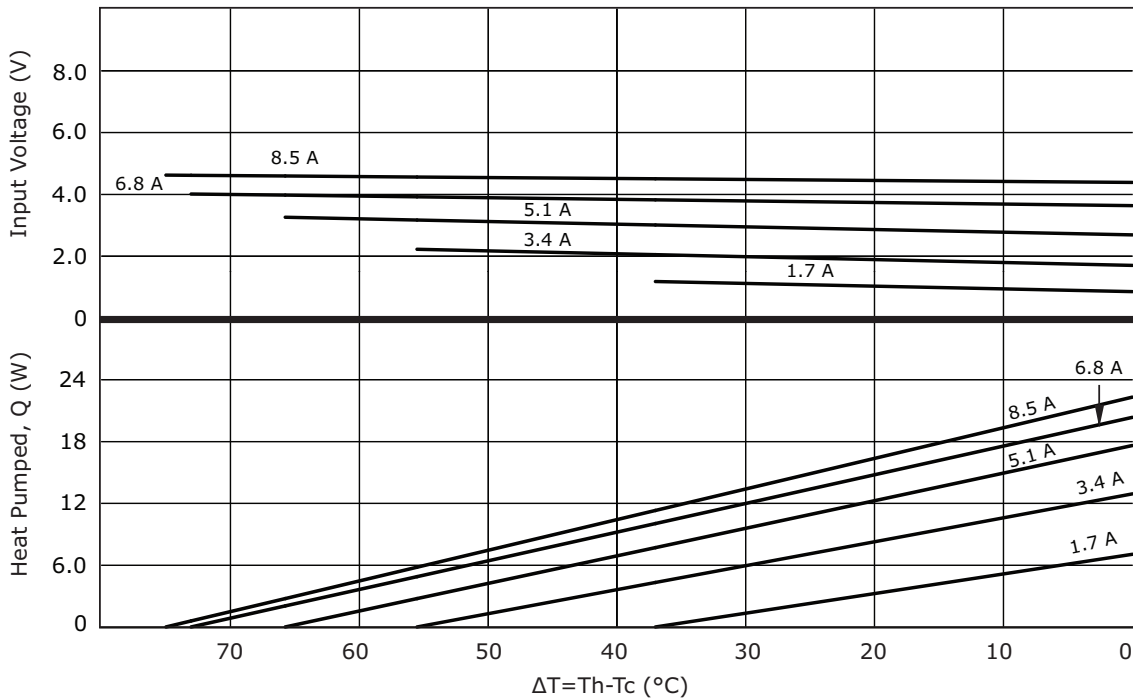
CP85204035 PERFORMANCE (Th=50°C)



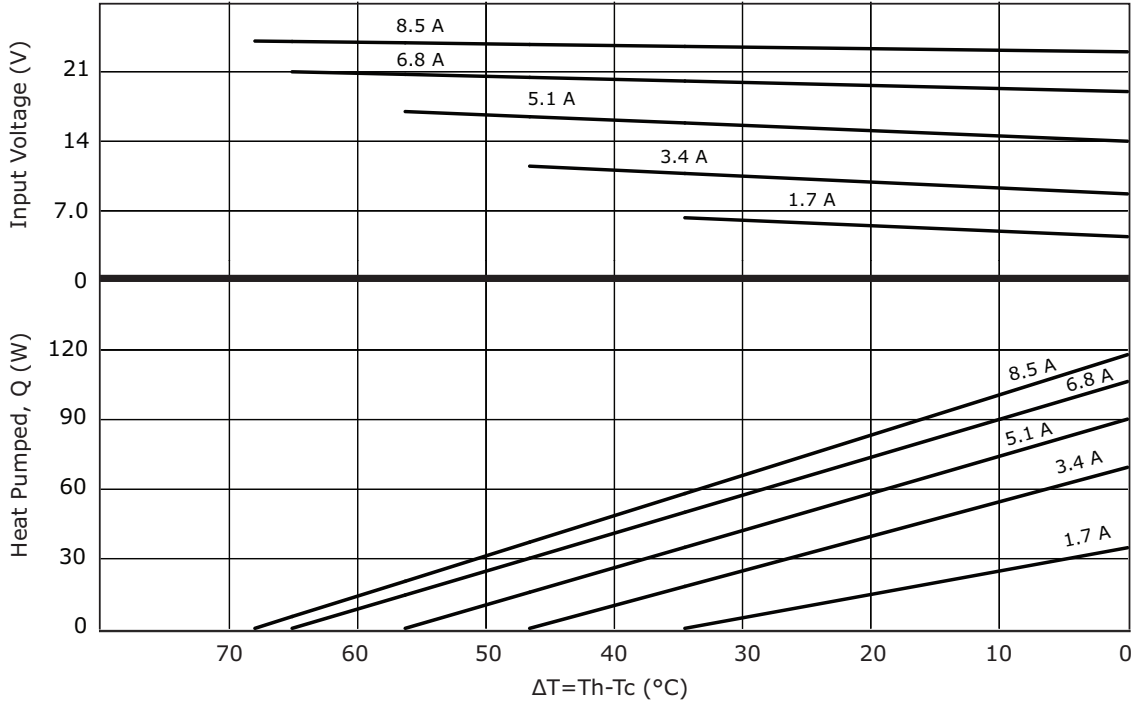
CP85301535 PERFORMANCE (Th=27°C)



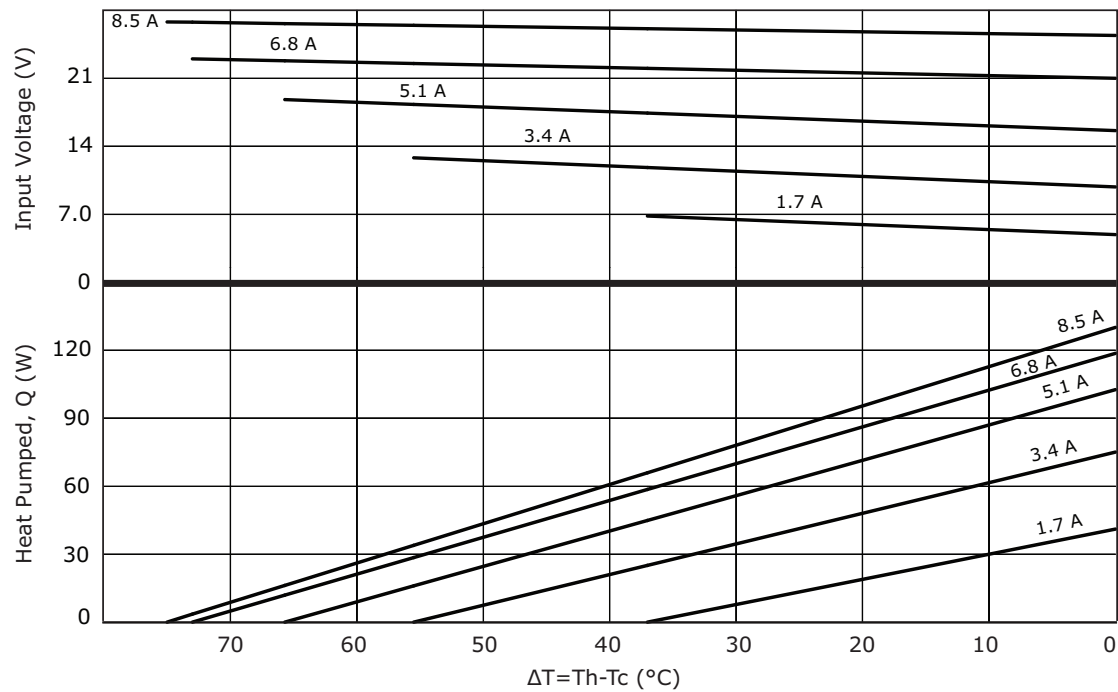
CP85301535 PERFORMANCE (Th=50°C)



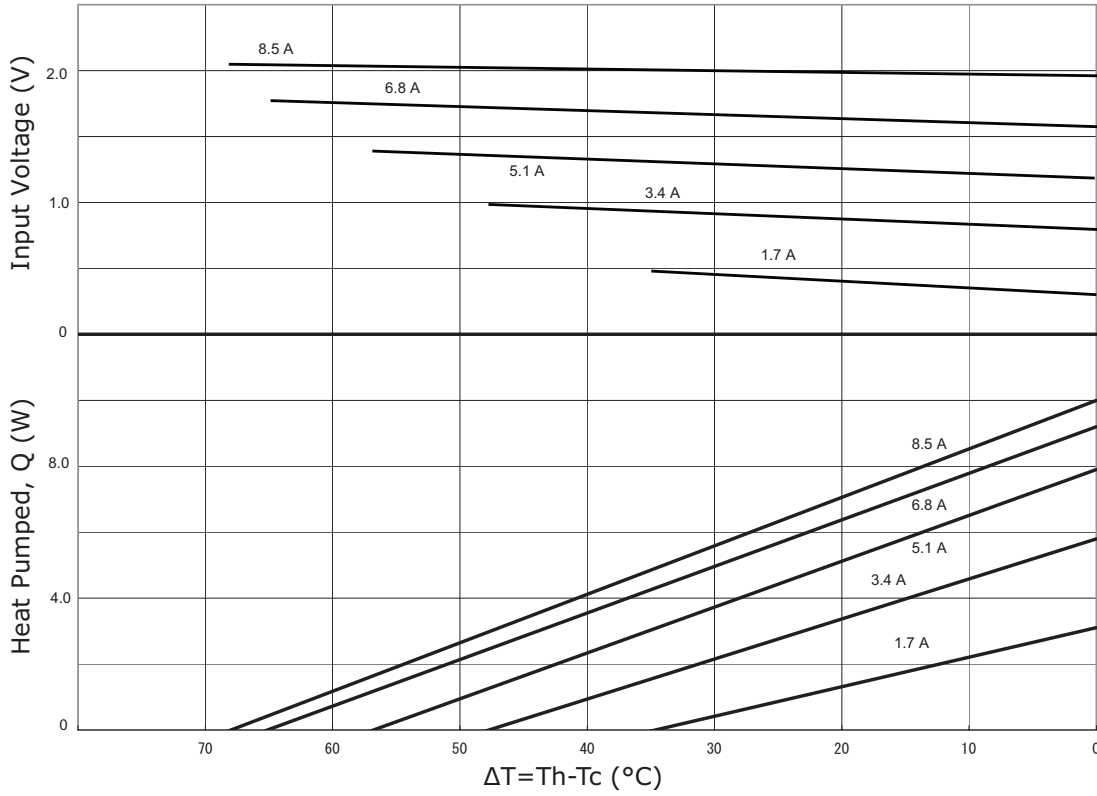
CP85435 PERFORMANCE (Th=27°C)



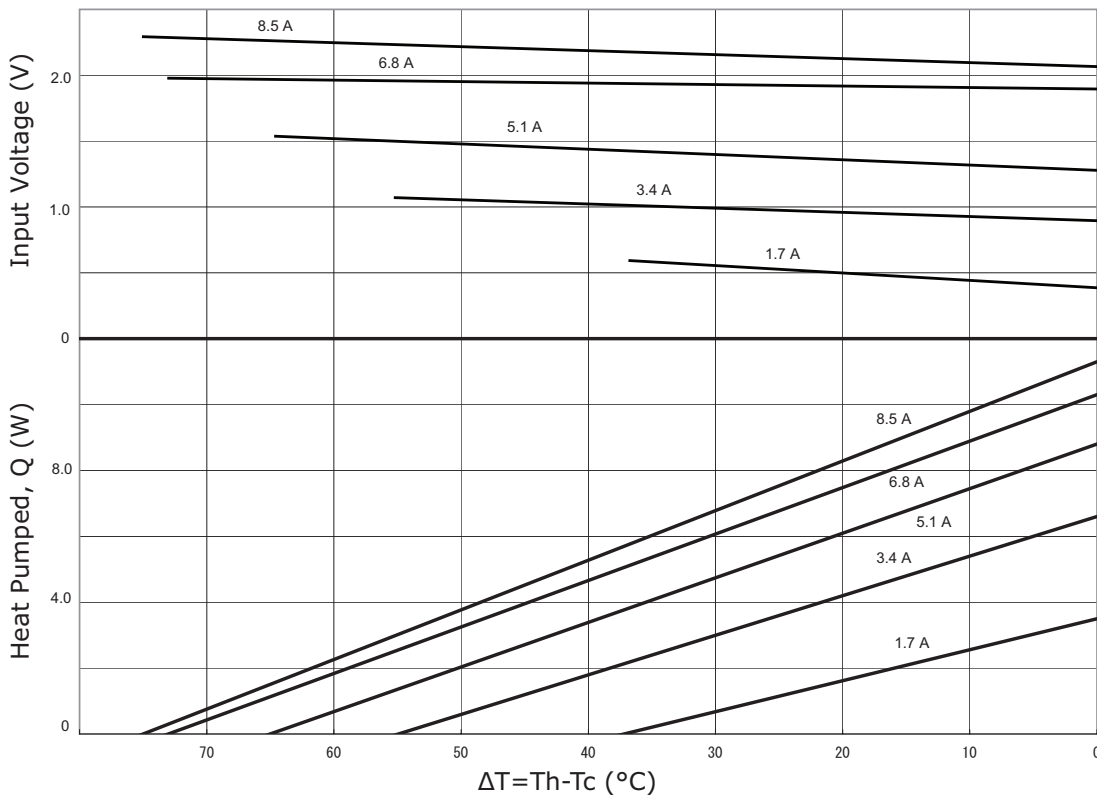
CP85435 PERFORMANCE (Th=50°C)



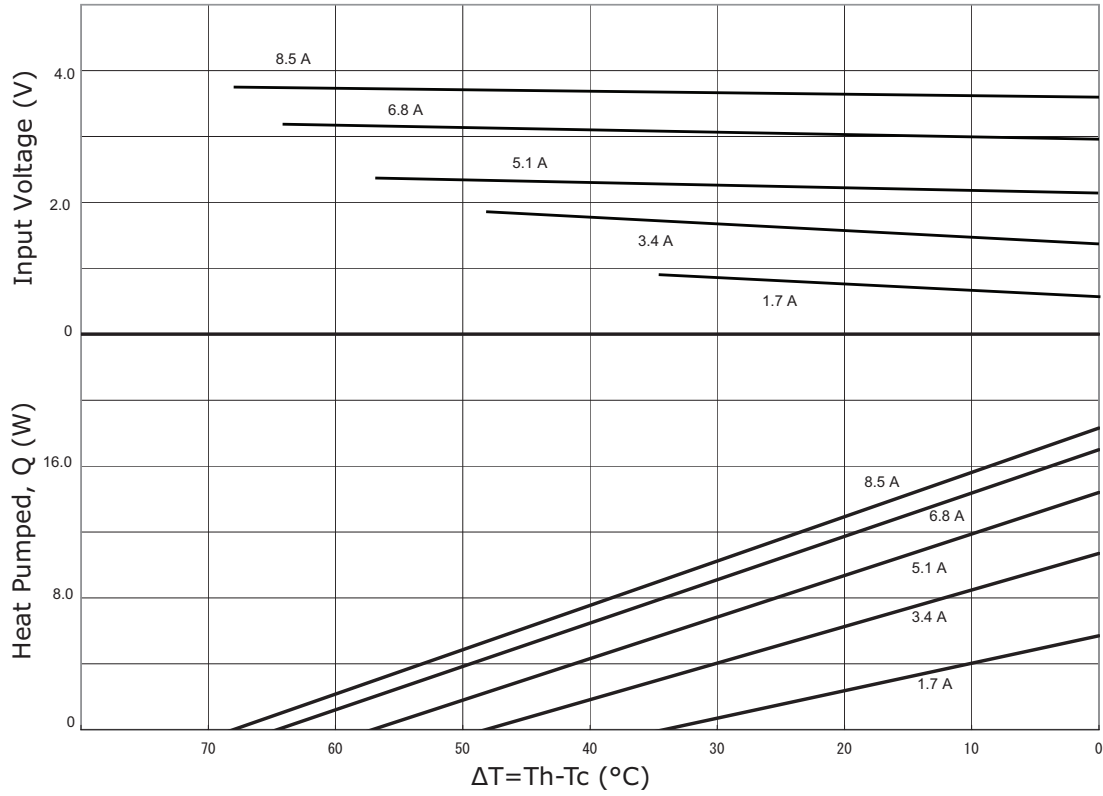
CP85138 PERFORMANCE (Th=27°C)



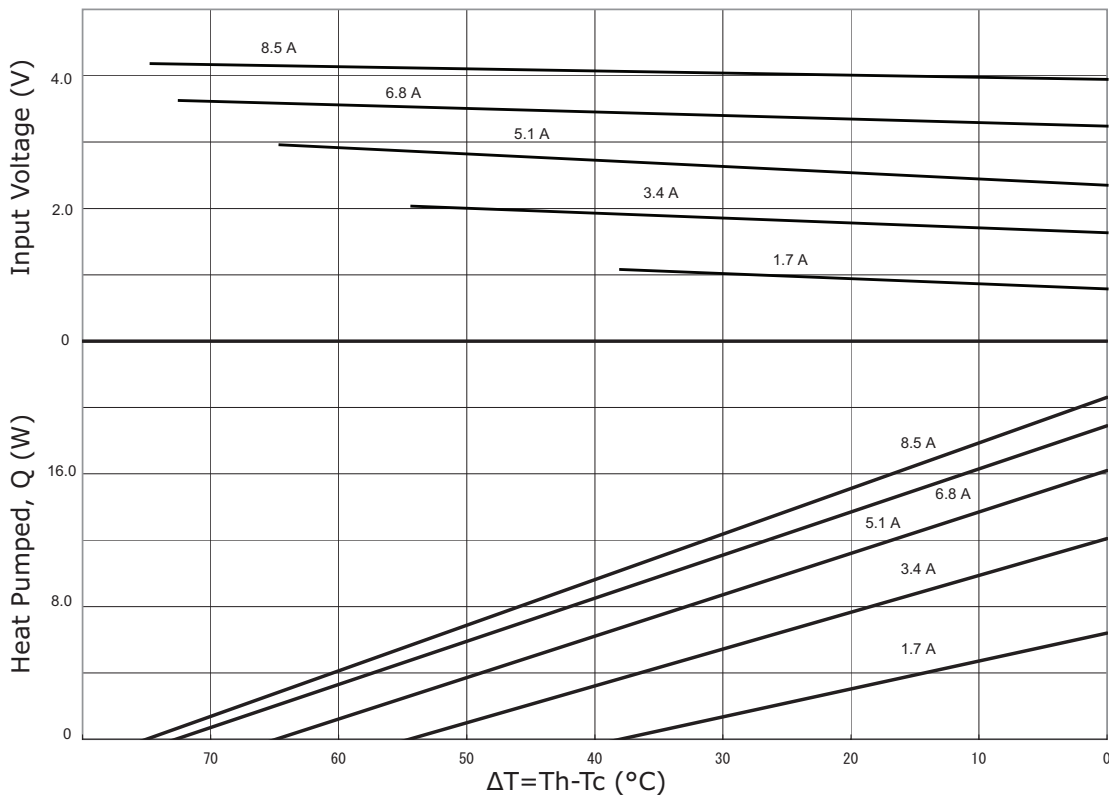
CP85138 PERFORMANCE (Th=50°C)



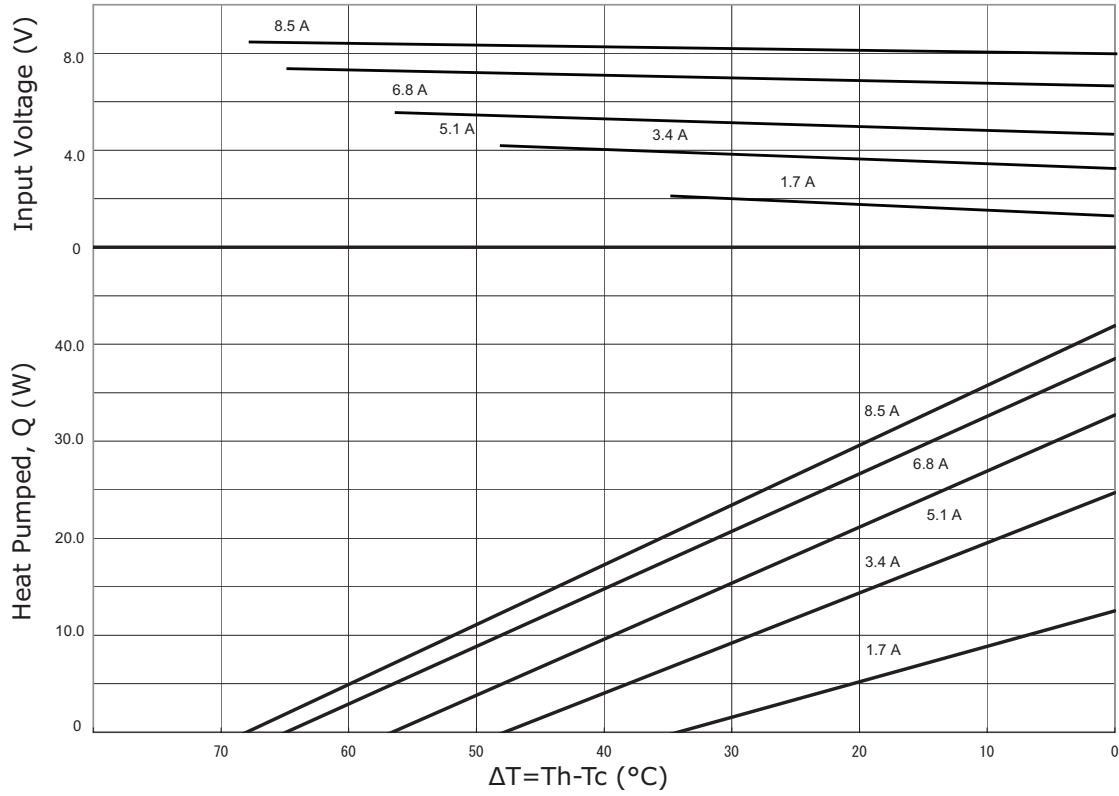
CP85238 PERFORMANCE (Th=27°C)



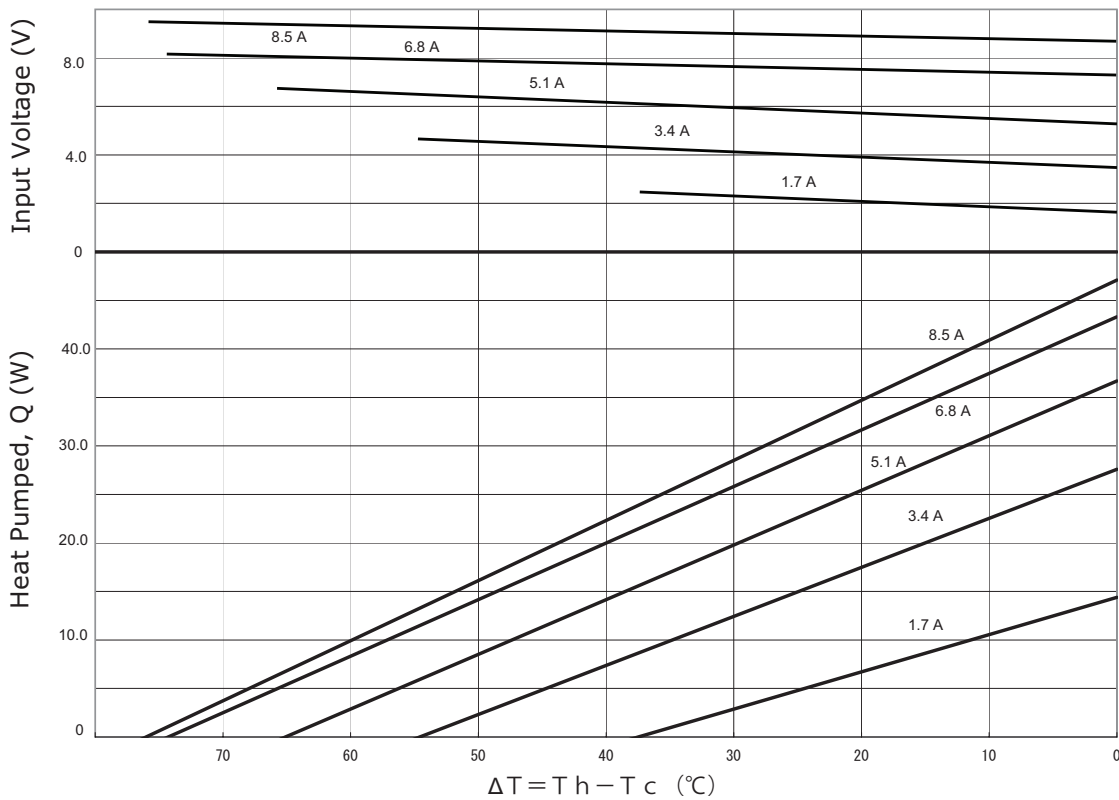
CP85238 PERFORMANCE (Th=50°C)



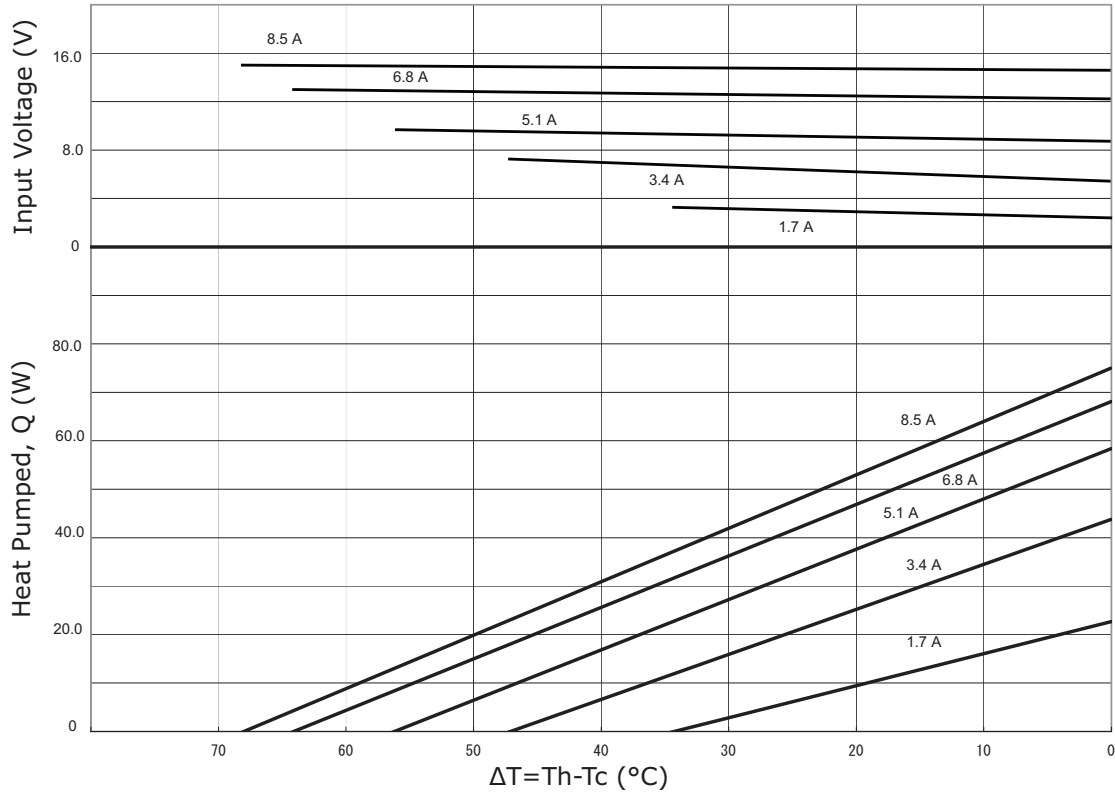
CP85338 PERFORMANCE (Th=27°C)



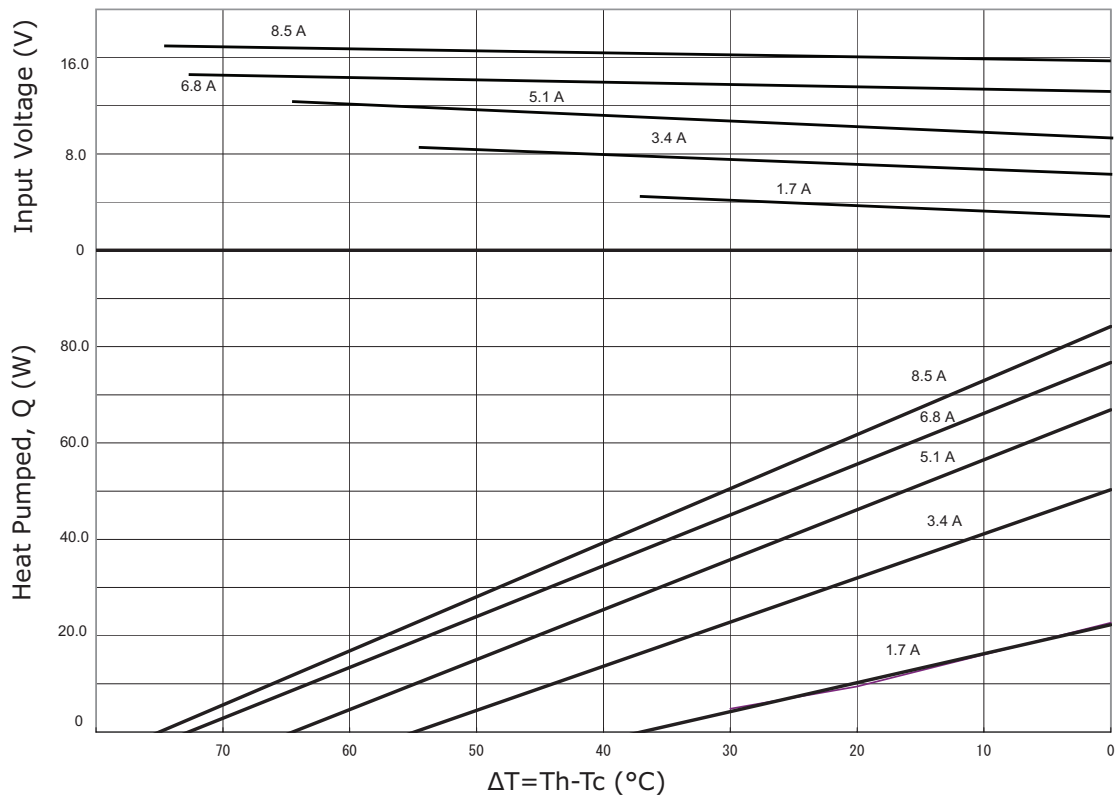
CP85338 PERFORMANCE (Th=50°C)



CP85438 PERFORMANCE (Th=27°C)



CP85438 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 to higher temperature solder used in model CP85204035 | 11/29/2017 |

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



CUI INC[®]

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

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