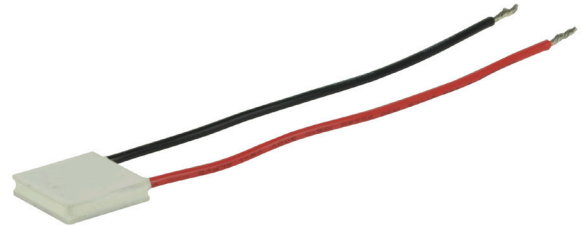


**SERIES:** CP85H | **DESCRIPTION:** PELTIER MODULE
**FEATURES**

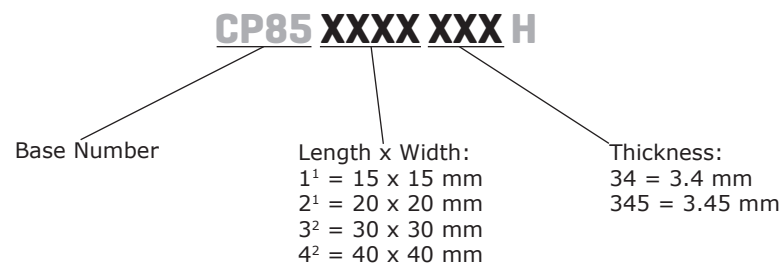
- solid state device
- high performance cooler
- precise temperature control
- quiet operation

**MODEL**

| MODEL     | input<br>voltage <sup>1</sup><br>max<br>(Vdc) | input<br>current <sup>2</sup><br>max<br>(A) | output<br>Qmax <sup>3</sup> |                             | output<br>ΔTmax <sup>4</sup> |                              |
|-----------|-----------------------------------------------|---------------------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
|           |                                               |                                             | T <sub>h</sub> =27°C<br>(W) | T <sub>h</sub> =50°C<br>(W) | T <sub>h</sub> =27°C<br>(°C) | T <sub>h</sub> =50°C<br>(°C) |
| CP85134H  | 2.1                                           | 8.5                                         | 10.3                        | 11.3                        | 70                           | 77                           |
| CP85234H  | 3.8                                           | 8.5                                         | 18.8                        | 20.8                        | 70                           | 77                           |
| CP853345H | 8.8                                           | 8.5                                         | 43.1                        | 48                          | 70                           | 77                           |
| CP854345H | 15.7                                          | 8.5                                         | 77.1                        | 85                          | 70                           | 77                           |

Notes:

1. Maximum voltage at ΔT max and T<sub>h</sub>=27°C
2. Maximum current to achieve ΔT max
3. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and ΔT=0°C
4. 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)

**PART NUMBER KEY**

Notes:

1. Only available in 3.4 mm thickness
2. Only available in 3.45 mm thickness

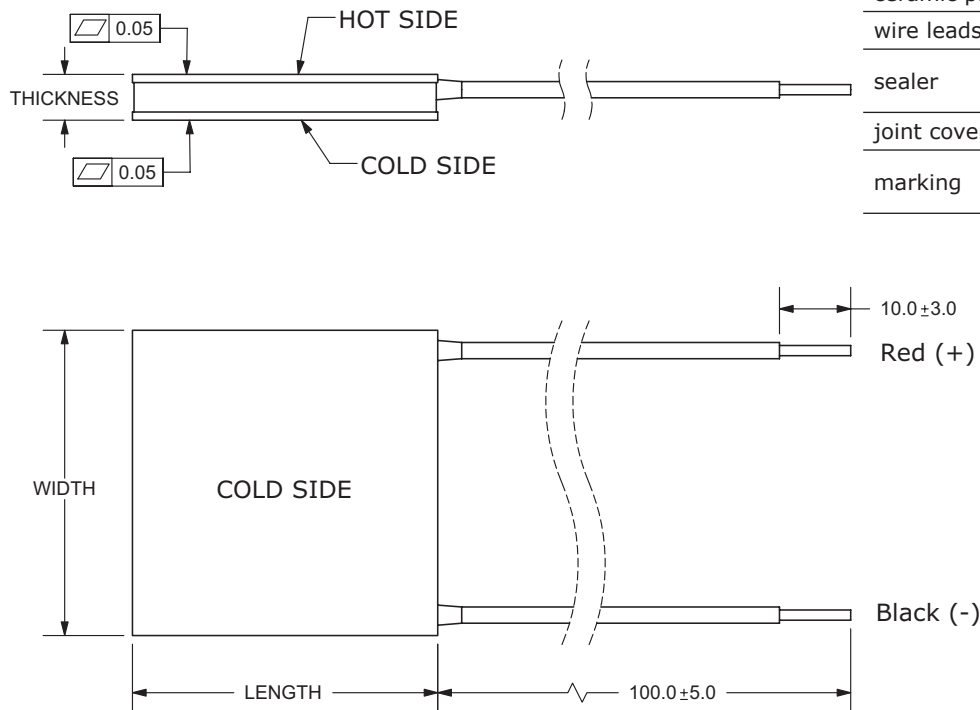
## SPECIFICATIONS

| parameter                        | conditions/description                  | min   | typ  | max   | units              |
|----------------------------------|-----------------------------------------|-------|------|-------|--------------------|
| internal resistance <sup>1</sup> | CP85134H                                | 0.18  | 0.2  | 0.22  | $\Omega$           |
|                                  | CP85234H                                | 0.315 | 0.35 | 0.385 | $\Omega$           |
|                                  | CP853345H                               | 0.765 | 0.85 | 0.935 | $\Omega$           |
|                                  | CP854345H                               | 1.35  | 1.5  | 1.65  | $\Omega$           |
| solder melting temperature       | connection between thermoelectric pairs | 235   |      |       | $^{\circ}\text{C}$ |
| assembly compression             |                                         |       |      | 1     | MPa                |
| hot side plate                   |                                         |       |      | 80    | $^{\circ}\text{C}$ |
| RoHS                             | 2011/65/EU                              |       |      |       |                    |

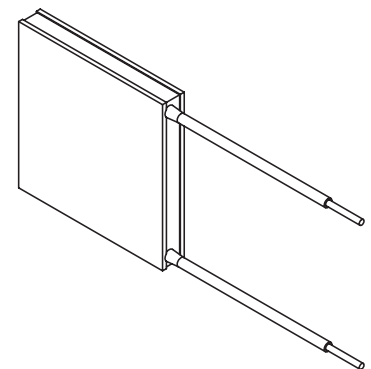
Note: 1. Measured by AC 4-terminal method at 25 $^{\circ}\text{C}$

## MECHANICAL DRAWING

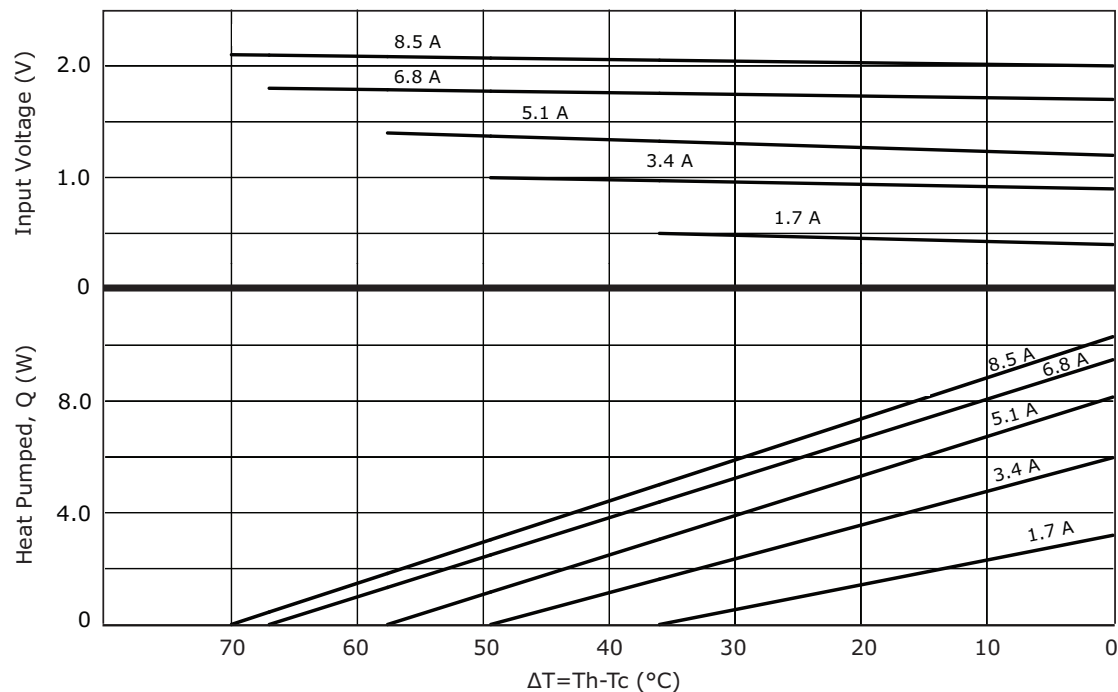
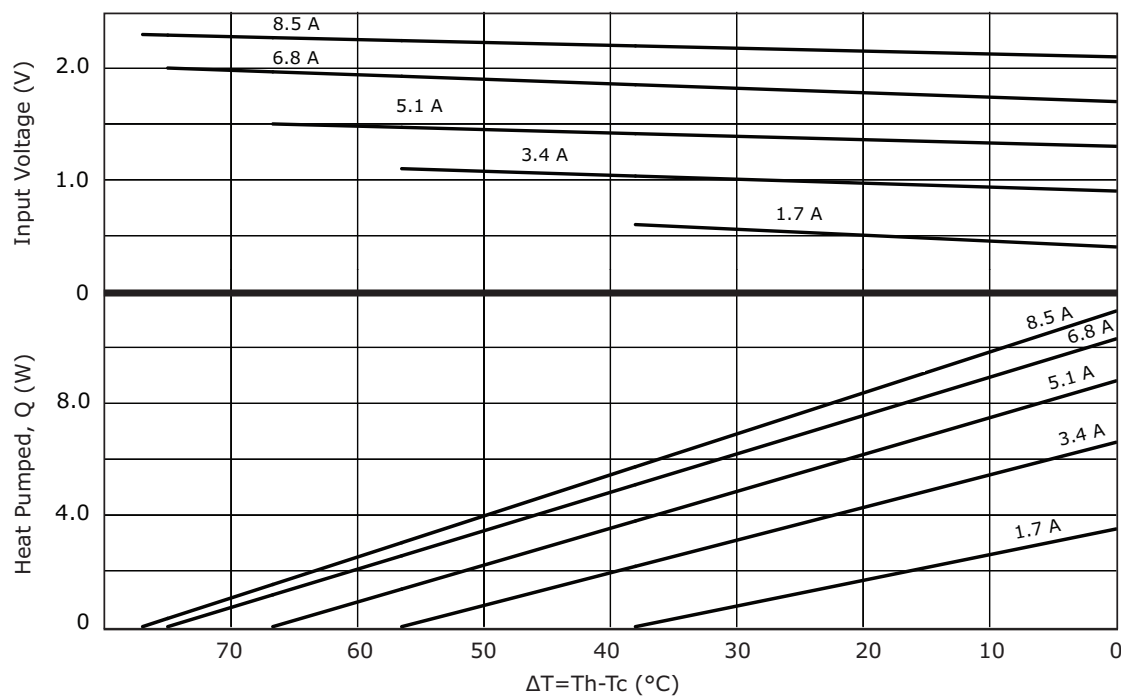
units: mm

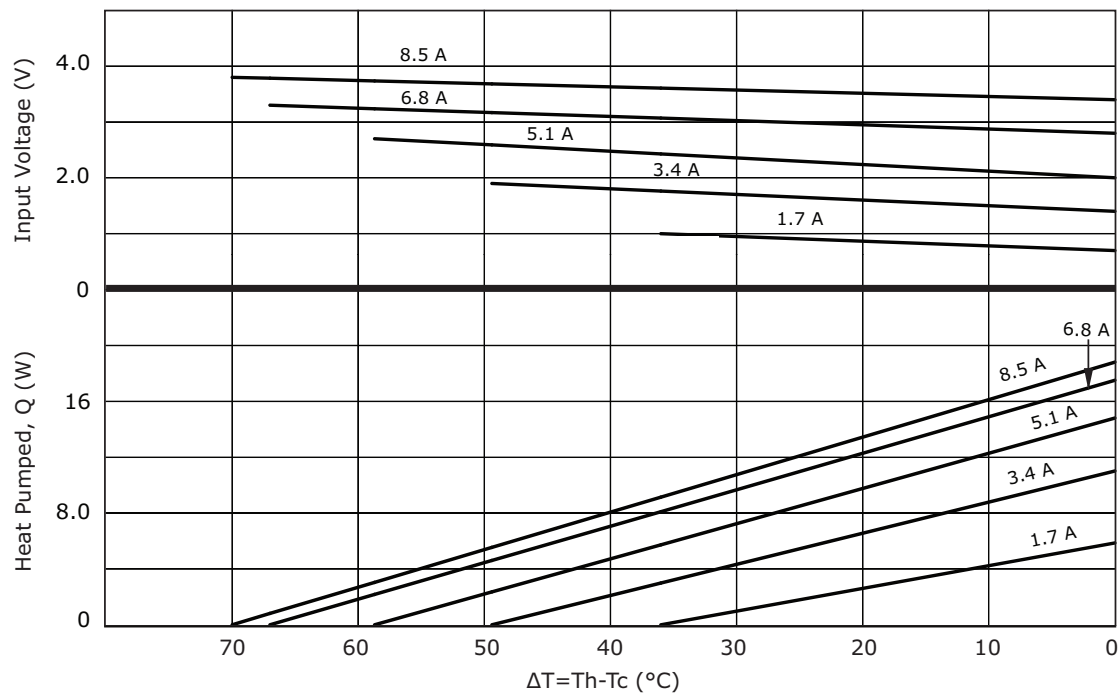
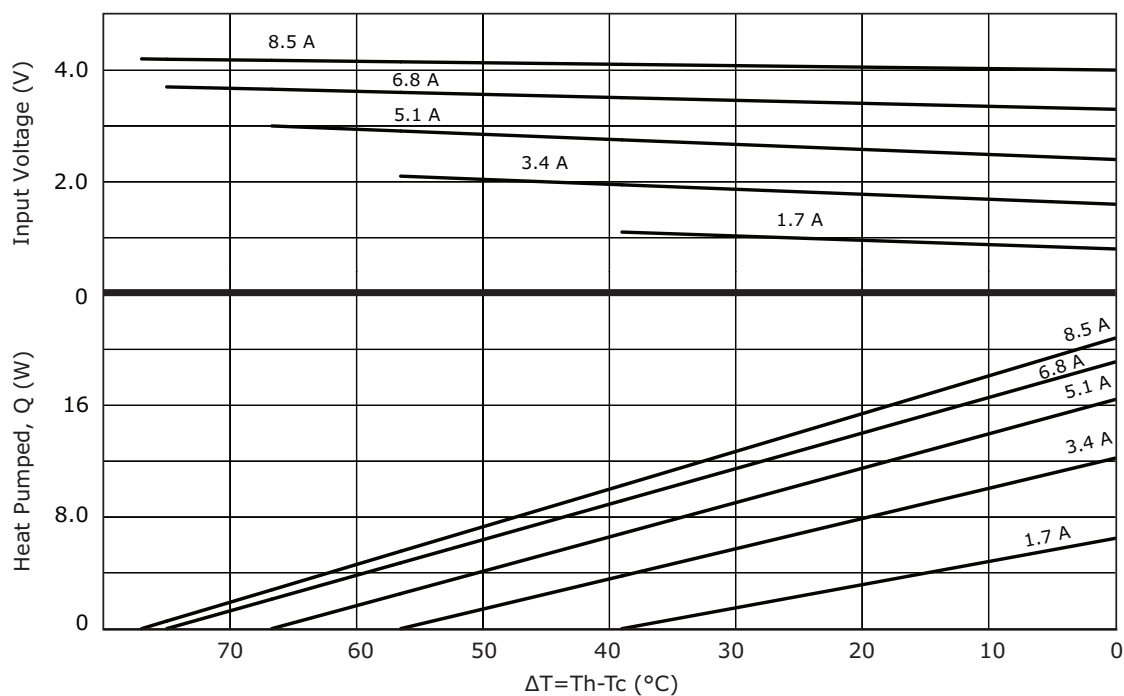


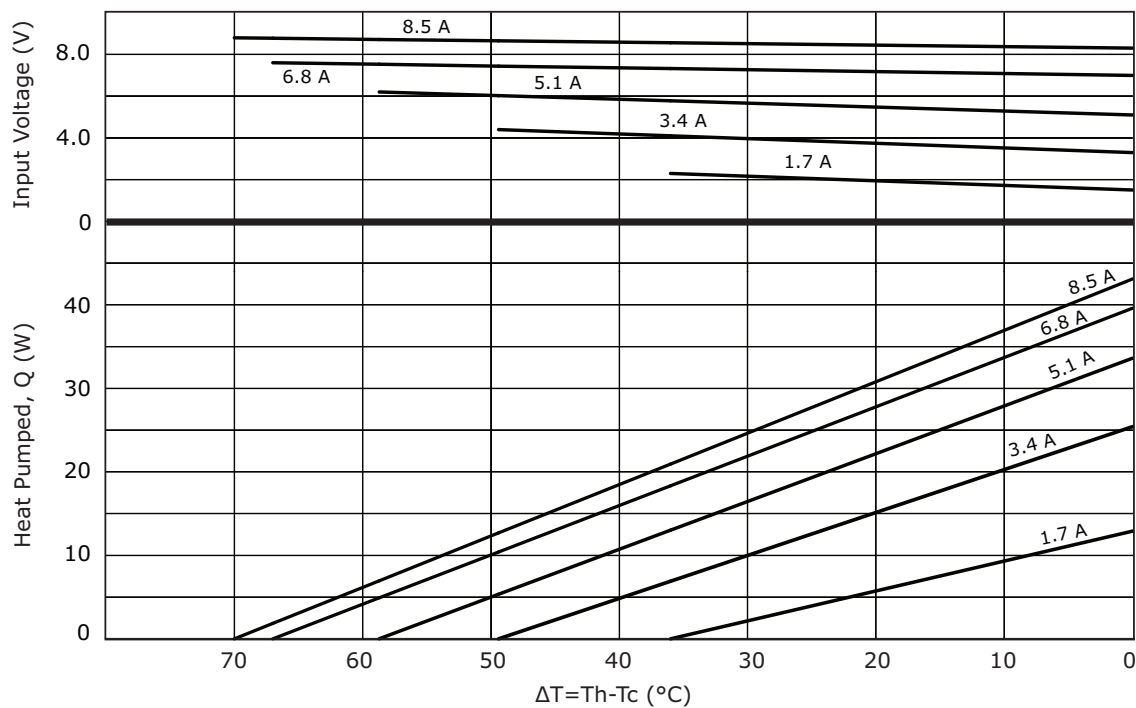
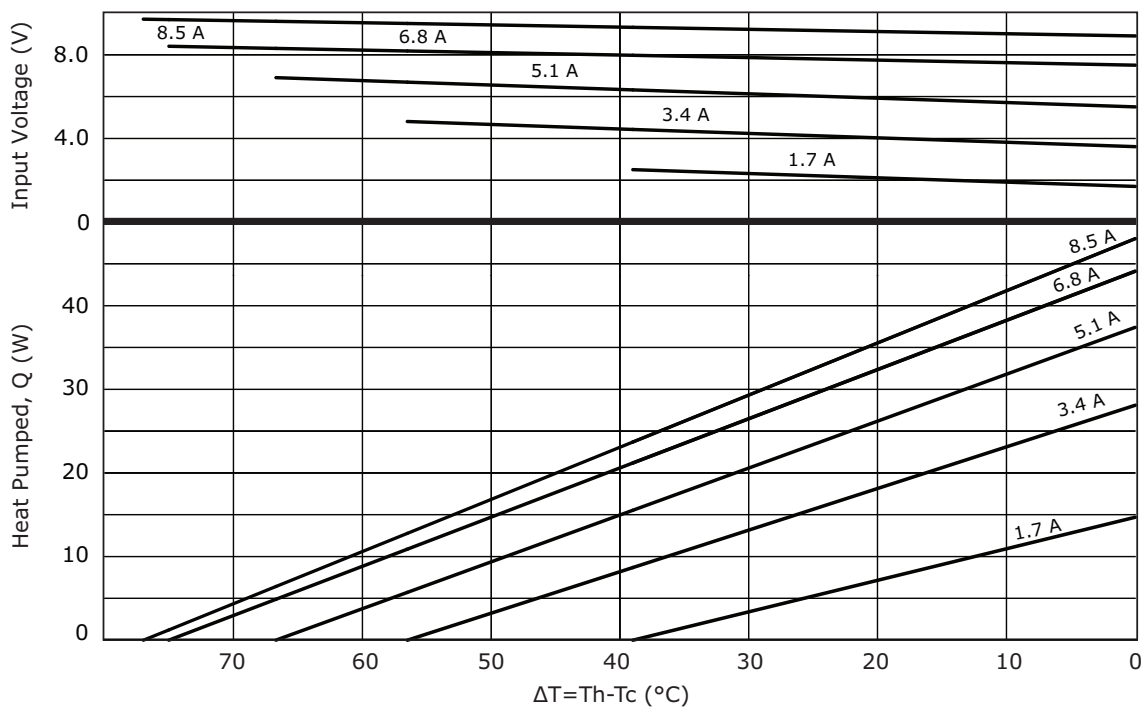
|               | MATERIAL                                                  | PLATING |
|---------------|-----------------------------------------------------------|---------|
| ceramic plate | 96% $\text{Al}_2\text{O}_3$                               |         |
| wire leads    | 20 AWG                                                    | 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                    |         |

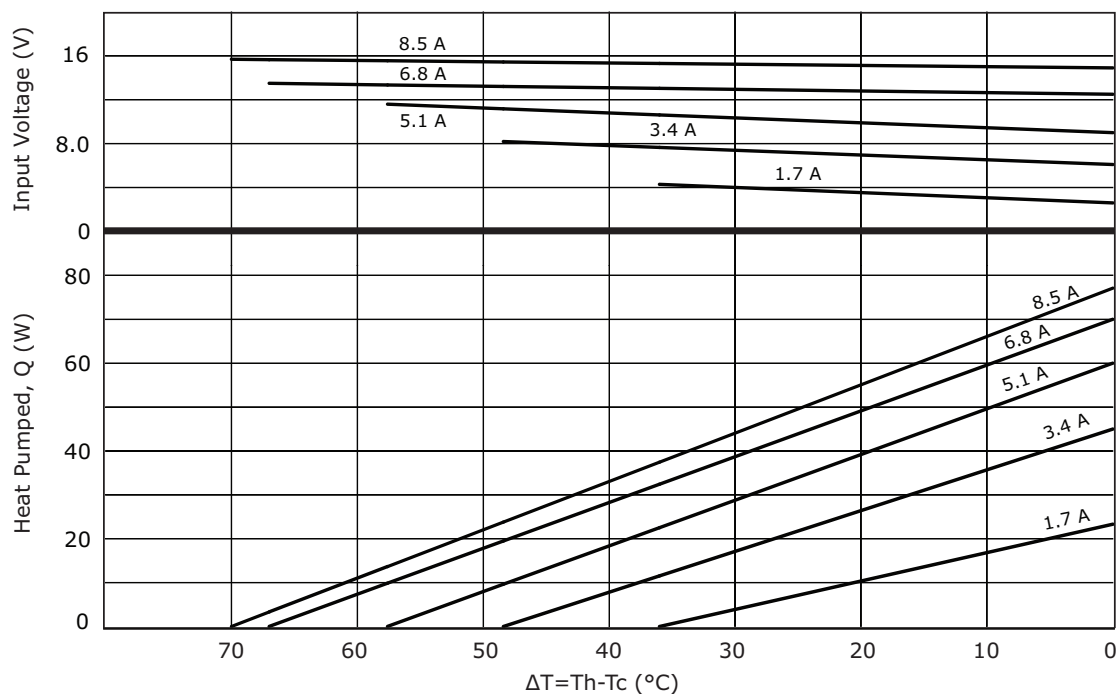
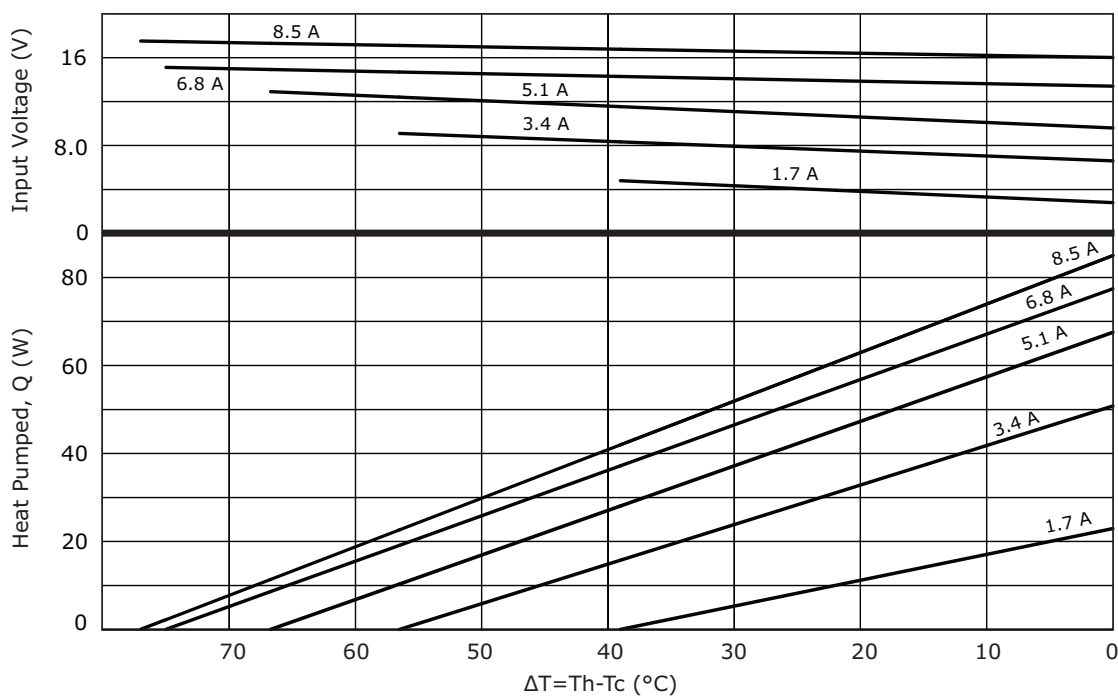


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|-----------|-------------|------------|----------------|
| CP85134H  | 15 ± 0.3    | 15 ± 0.3   | 3.4 ± 0.025    |
| CP85234H  | 20 ± 0.3    | 20 ± 0.3   | 3.4 ± 0.025    |
| CP853345H | 30 ± 0.3    | 30 ± 0.3   | 3.45 ± 0.025   |
| CP854345H | 40 ± 0.3    | 40 ± 0.3   | 3.45 ± 0.025   |

**CP85134H PERFORMANCE (Th=27°C)****CP85134H PERFORMANCE (Th=50°C)**

**CP85234H PERFORMANCE (Th=27°C)****CP85234H PERFORMANCE (Th=50°C)**

**CP853345H PERFORMANCE (Th=27°C)****CP853345H PERFORMANCE (Th=50°C)**

**CP854345H PERFORMANCE (Th=27°C)****CP854345H PERFORMANCE (Th=50°C)**

## REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 09/08/2016 |

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



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CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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