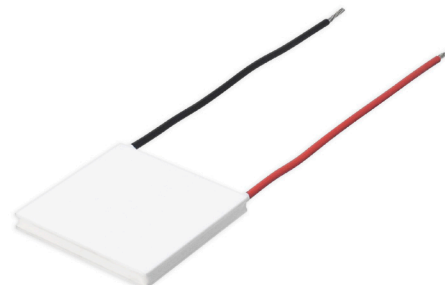


SERIES: CP140 | **DESCRIPTION:** PELTIER MODULE**FEATURES**

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

**MODEL**

| MODEL | input voltage ¹ max (Vdc) | input current ² max (A) | internal resistance ³ typ ($\Omega \pm 10\%$) | output Qmax ⁴ | | output ΔT max ⁵ | |
|-------------|--|--|--|-----------------------------|-----------------------------|------------------------------------|------------------------------|
| | | | | T _h =27°C (W) | T _h =50°C (W) | T _h =27°C (°C) | T _h =50°C (°C) |
| CP144044 | 8.6 | 14 | 0.49 | 67 | 73 | 70 | 77 |
| CP144745325 | 19.5 | 14 | 1.08 | 157 | 172 | 70 | 77 |

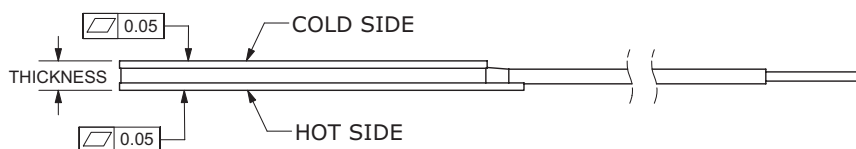
- Notes:
1. Maximum voltage at ΔT max and T_h=27°C
 2. Maximum current to achieve ΔT max
 3. Measured by AC 4-terminal method at 25°C
 4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and $\Delta T=0^\circ\text{C}$
 5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W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

SPECIFICATIONS

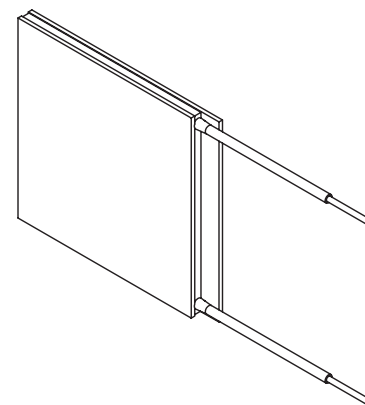
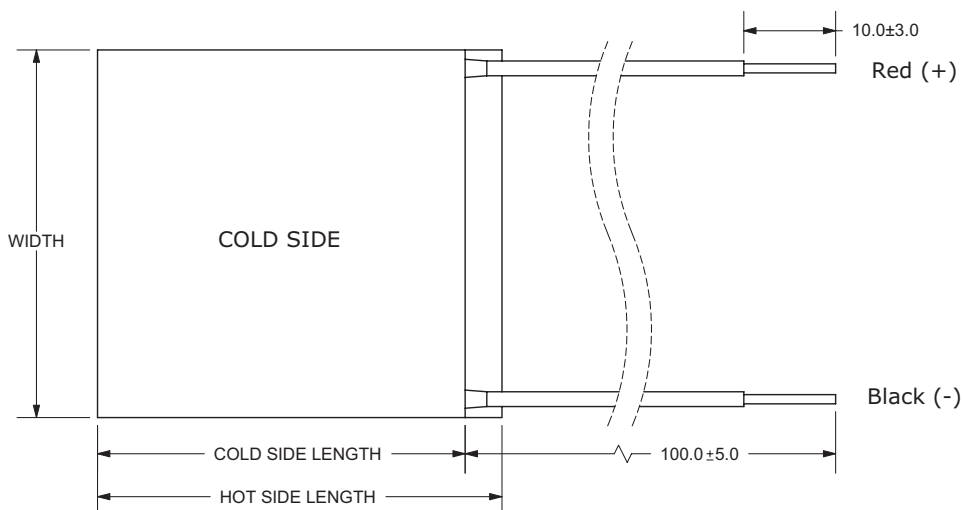
| parameter | conditions/description | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 1 | MPa |
| RoHS | yes | | | | |

MECHANICAL DRAWING

units: mm

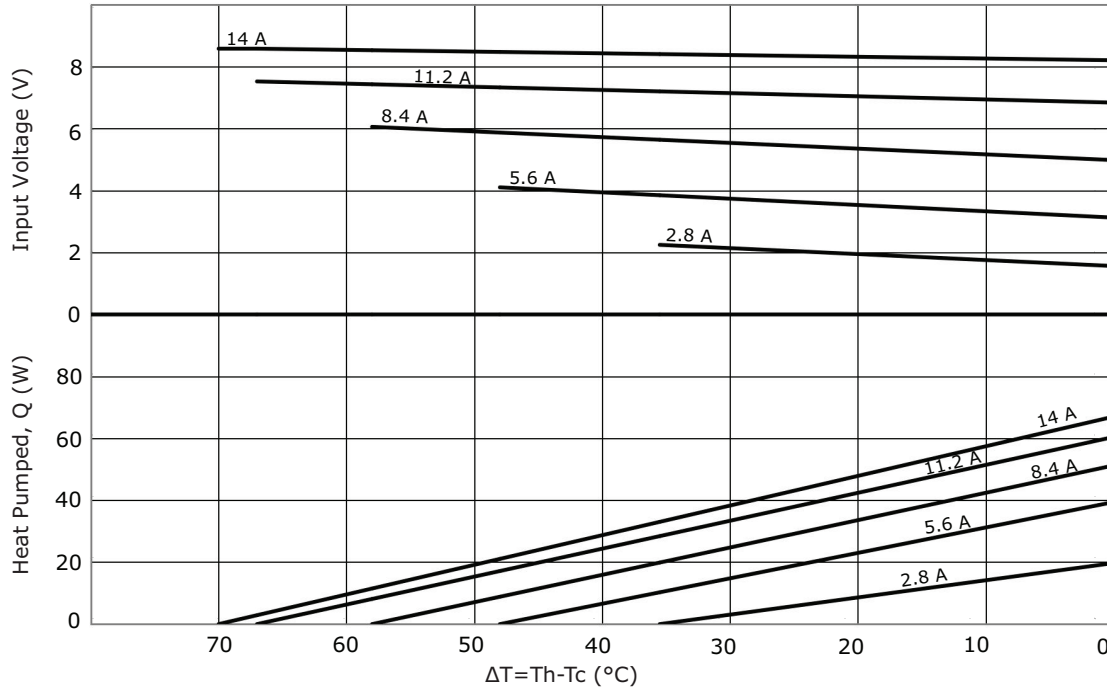


| | MATERIAL | PLATING |
|---------------|---|---------|
| ceramic plate | 96% Al_2O_3 | |
| wire leads | 18 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |

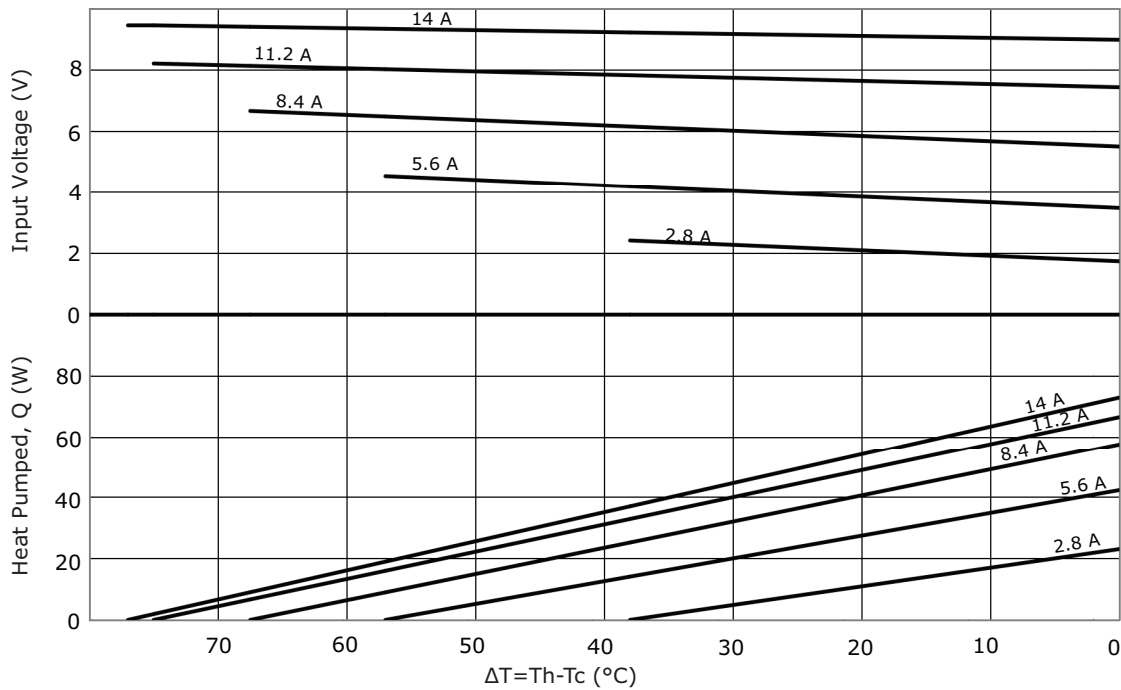


| MODEL NO. | HOT SIDE LENGTH (mm) | COLD SIDE LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|-------------|----------------------|-----------------------|------------|----------------|
| CP144044 | 40 ± 0.3 | 40 ± 0.3 | 40 ± 0.3 | 4.4 ± 0.1 |
| CP144745325 | 47 ± 0.5 | 44.8 ± 0.5 | 44.8 ± 0.3 | 3.25 ± 0.025 |

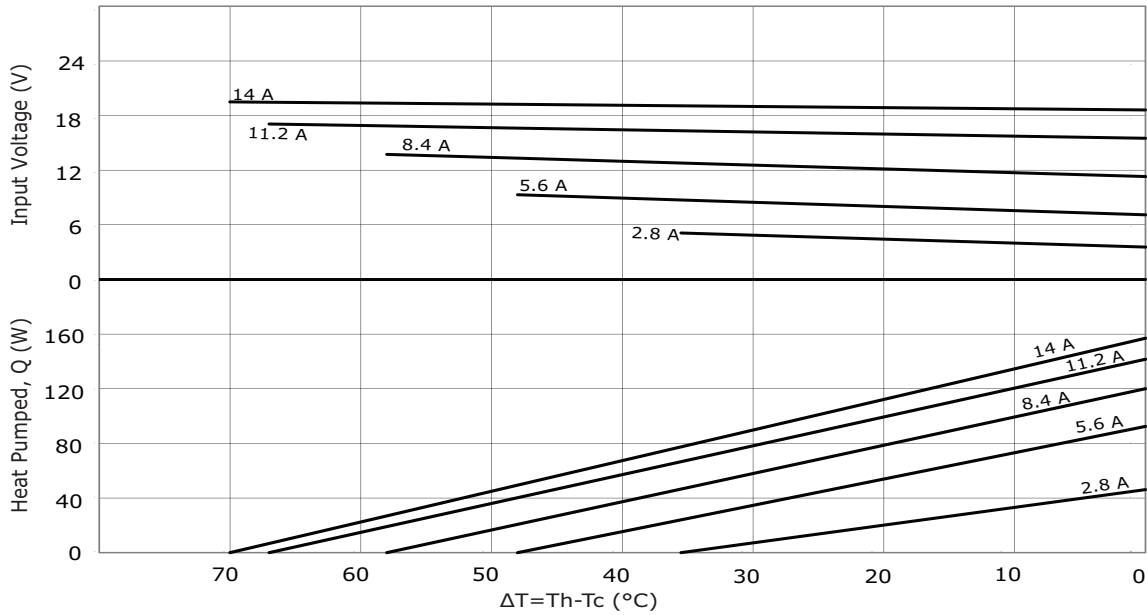
CP144044 PERFORMANCE (Th=27°C)



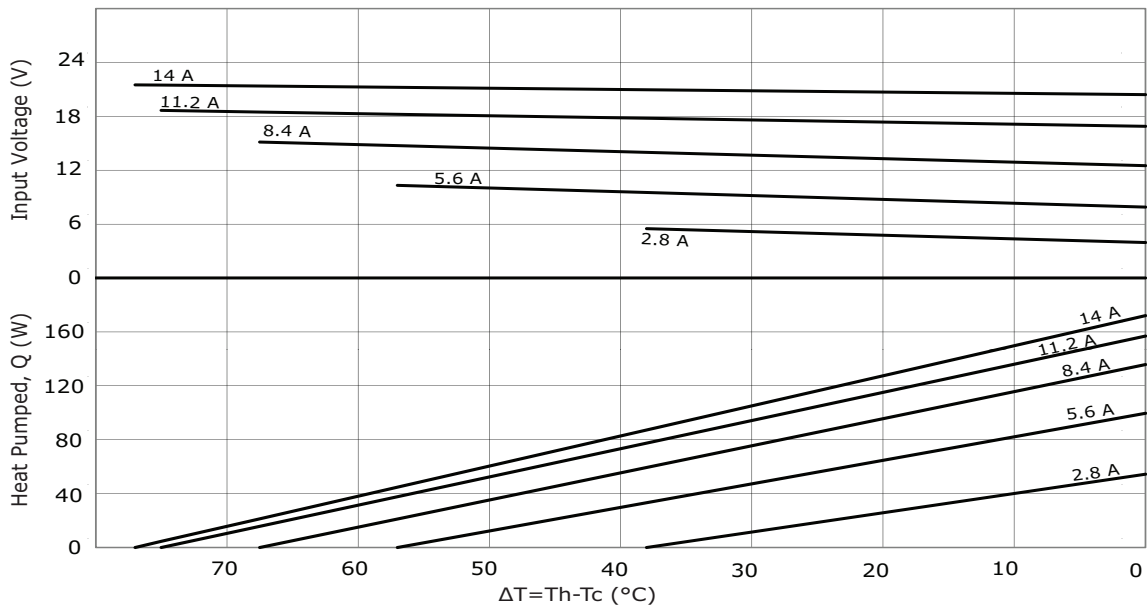
CP144044 PERFORMANCE (Th=50°C)



CP144745325 PERFORMANCE (Th=27°C)



CP144745325 PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|-------------------------|------------|
| 1.0 | initial release | 10/17/2019 |
| 1.01 | added model CP144745325 | 11/10/2020 |

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

CUI DEVICES

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

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