

SERIES: CP14-M | **DESCRIPTION:** PELTIER MODULE**FEATURES**

- micro size (less than 10 x 10 mm)
- wide ΔT max
- Q_{max} up to 1.7 W
- Au plating available, suitable for soldering
- precise temperature control
- solid state construction

**MODEL**

| MODEL | input voltage ¹ | input current ² | internal resistance ³ | output Q_{max} ⁴ | | output ΔT_{max} ⁵ | |
|----------------------------|----------------------------|----------------------------|----------------------------------|-------------------------------|------------------------|--------------------------------------|-----------------------------------|
| | max (Vdc) | max (A) | typ ($\Omega \pm 10\%$) | $T_h = 27^\circ C$ (W) | $T_h = 50^\circ C$ (W) | $T_h = 27^\circ C$ ($^\circ C$) | $T_h = 50^\circ C$ ($^\circ C$) |
| CP147660-195 | 2.0 | 1.4 | 1.17 | 1.6 | 1.7 | 70 | 77 |
| CP147660-236P ⁶ | 2.0 | 1.4 | 1.17 | 1.6 | 1.7 | 70 | 77 |

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

SOLDERABILITY⁷

| parameter | conditions/description | min | typ | max | units |
|---------------------|----------------------------|-----|-----|-----|------------|
| soldering to plates | soldering iron temperature | | | 150 | $^\circ C$ |

- Note:
7. Only for gold plated models. The solder that holds the peltier together melts at $235^\circ C$. Caution must be taken to not leave the soldering iron in contact with the surface too long, or damage to the peltier could occur.

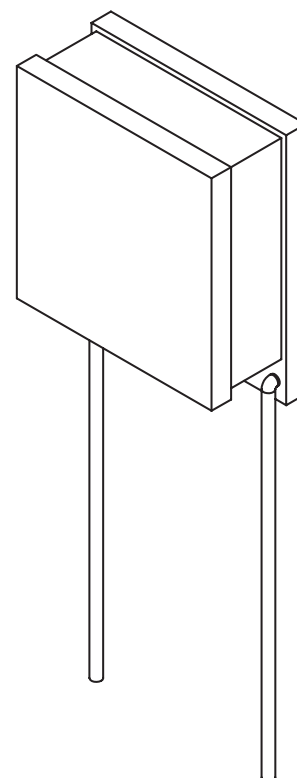
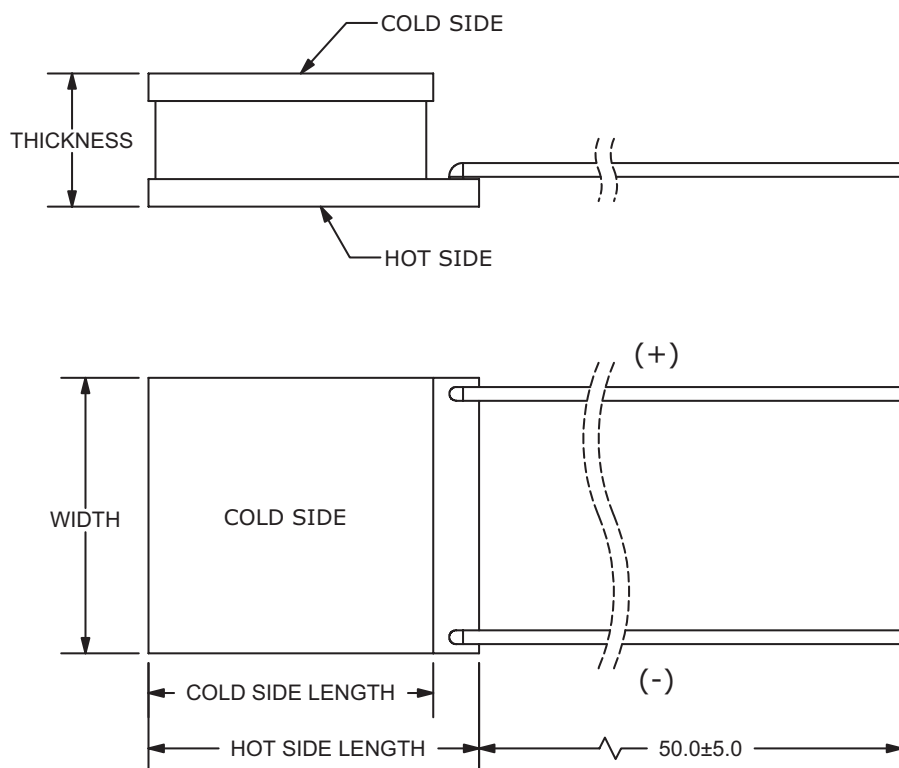
SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|----------------------------|---|-----|-----|-----|-------|
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 0.8 | MPa |
| RoHS | yes | | | | |

MECHANICAL DRAWING

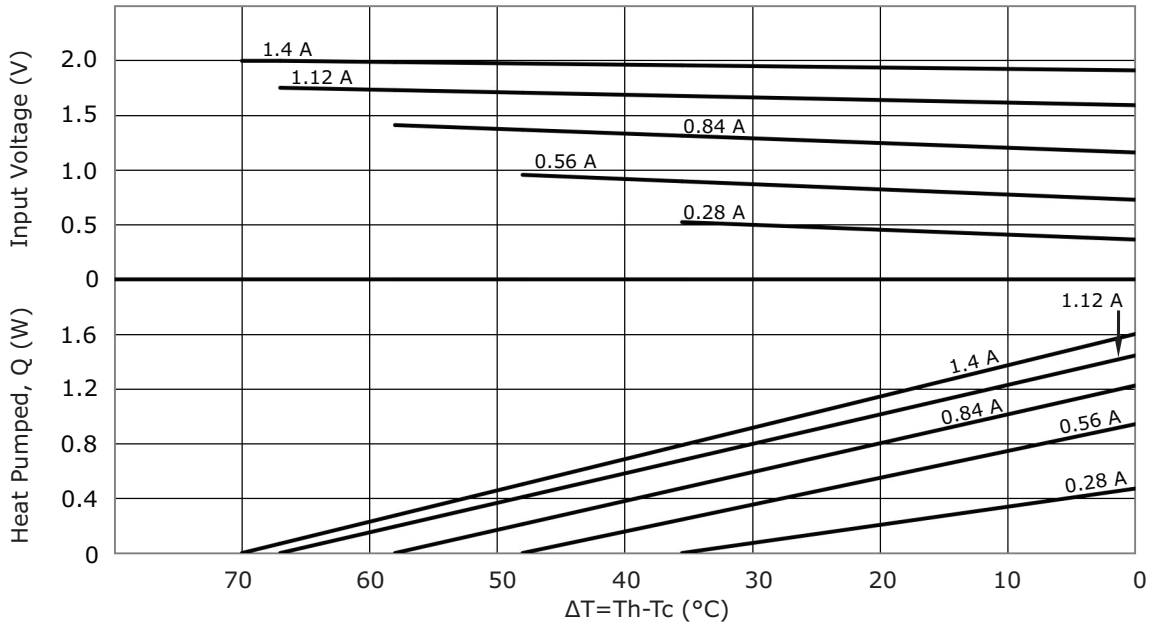
units: mm

| | MATERIAL | PLATING |
|-----------------|------------------------------------|---------|
| ceramic plate | 96% AL ₂ O ₃ | |
| wire leads | Ø0.25-0.3 mm annealed copper | tin |
| sealer | no sealing | |
| ceramic surface | Au plating on select models | |

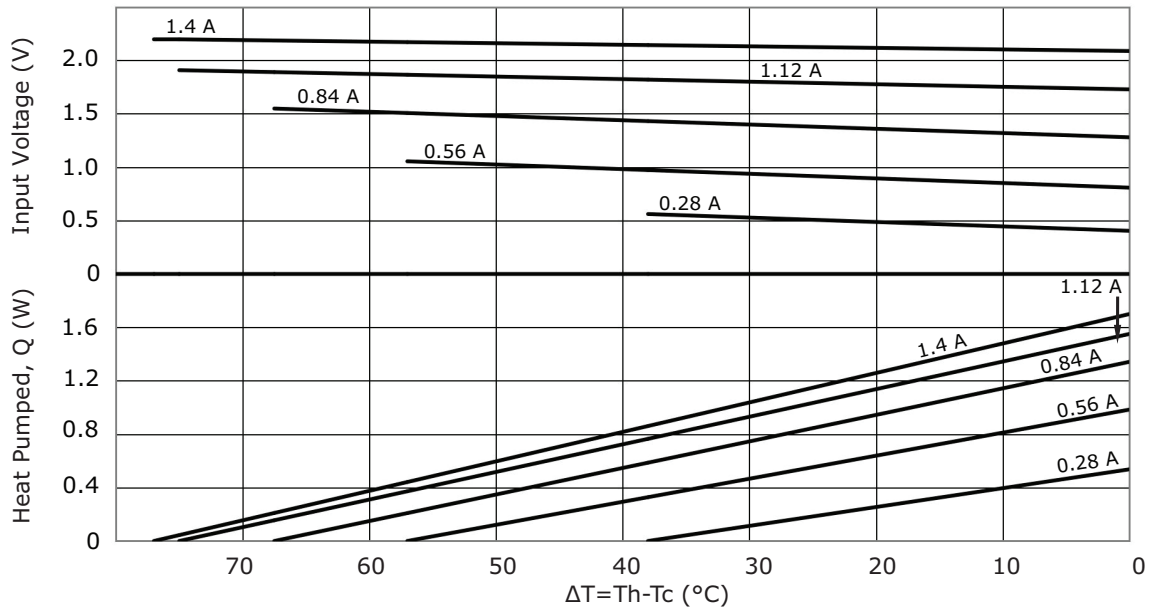


| MODEL NO. | HOT SIDE LENGTH (mm) | COLD SIDE LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) | GOLD PLATING HOT/ COLD SIDES |
|---------------|----------------------|-----------------------|------------|----------------|------------------------------|
| CP147660-195 | 7.6±0.3 | 6.0 ±0.3 | 6.0 ±0.3 | 1.95 ±0.15 | NO |
| CP147660-236P | 7.6±0.3 | 6.0 ±0.3 | 6.0 ±0.3 | 2.36 ±0.15 | YES |

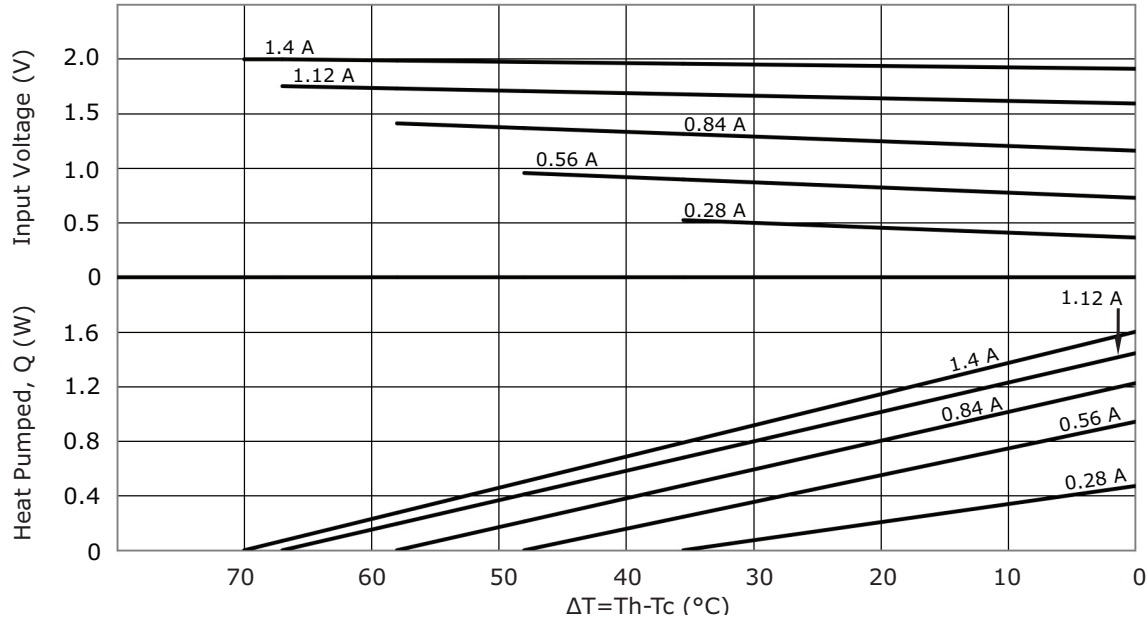
CP147660-195 PERFORMANCE (Th=27°C)



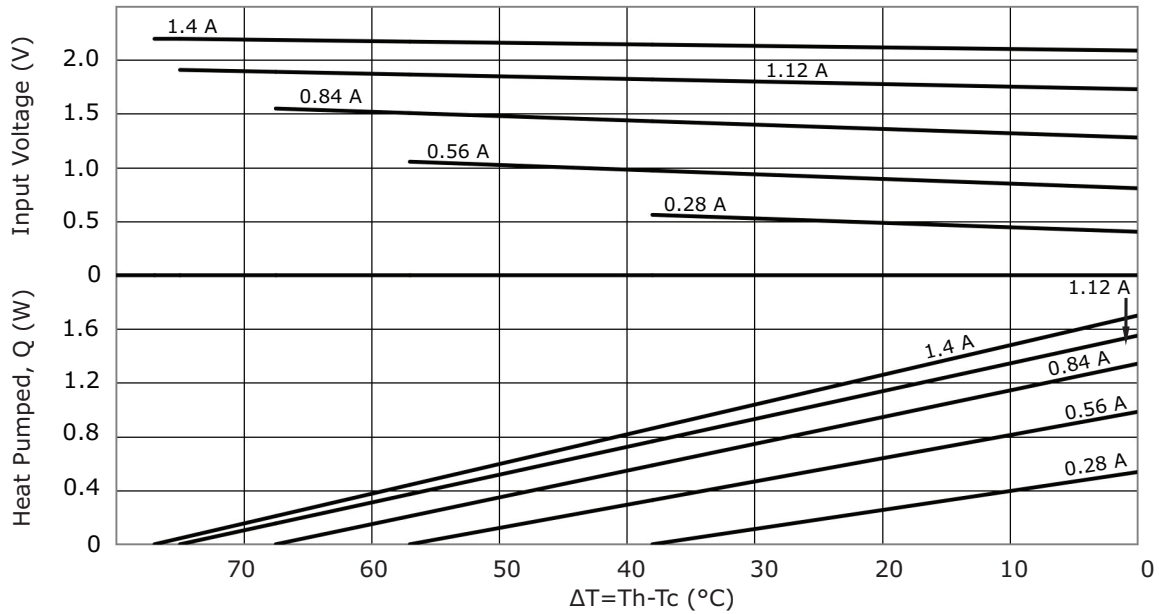
CP147660-195 PERFORMANCE (Th=50°C)



CP147660-236P PERFORMANCE (Th=27°C)



CP147660-236P PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 07/08/2020 |

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

CUI DEVICES

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