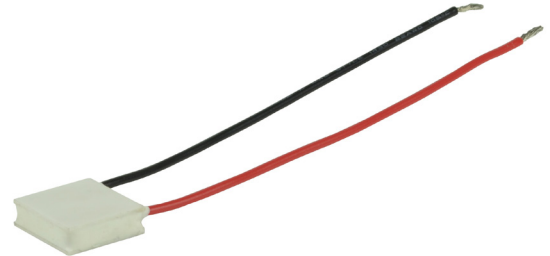


SERIES: CP20H | **DESCRIPTION:** PELTIER MODULE

FEATURES

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

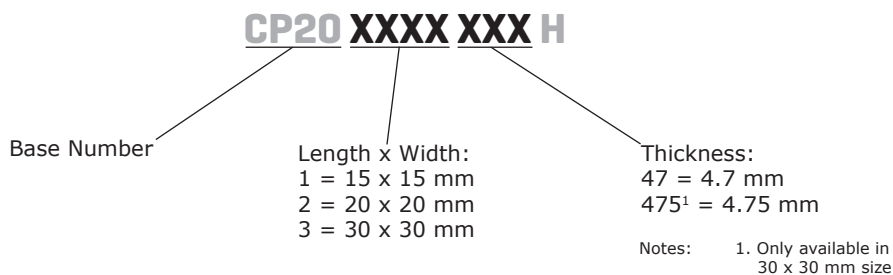


MODEL

| MODEL | input voltage ¹ max (Vdc) | input current ² max (A) | output Qmax ³ | | output ΔT max ⁴ | |
|------------------------|--|--|-----------------------------|-----------------------------|------------------------------------|------------------------------|
| | | | T _h =27°C (W) | T _h =50°C (W) | T _h =27°C (°C) | T _h =50°C (°C) |
| CP20147H | 3.8 | 2.0 | 4.4 | 5.0 | 70 | 77 |
| CP20247H | 8.8 | 2.0 | 10.2 | 11.2 | 70 | 77 |
| CP203475H ⁵ | 15.7 | 2.0 | 18.2 | 19.5 | 70 | 77 |

- 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 $\Delta T=0^\circ\text{C}$
 4. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
 5. Designed with arcTEC™ structure.

PART NUMBER KEY



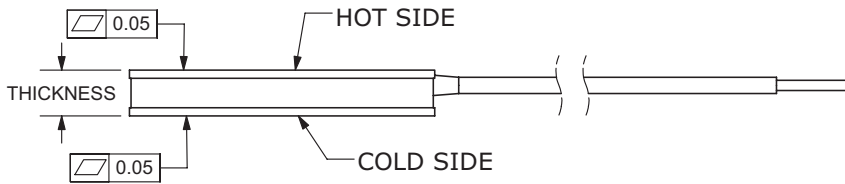
SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|----------------------------------|---|-------|------|-------|-------|
| internal resistance ¹ | CP20147H | 1.485 | 1.65 | 1.815 | Ω |
| | CP20247H | 3.33 | 3.7 | 4.07 | Ω |
| | CP203475H | 6.03 | 6.7 | 7.37 | Ω |
| solder melting temperature | connection between thermoelectric pairs | 235 | | | °C |
| assembly compression | | | | 1 | MPa |
| hot side plate | | | | 80 | °C |
| RoHS | 2011/65/EU | | | | |

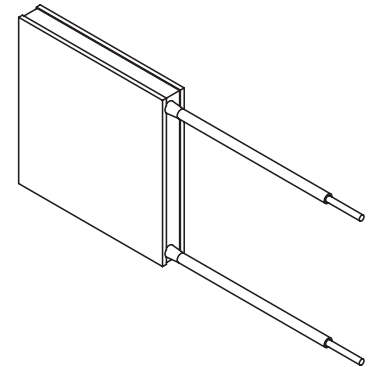
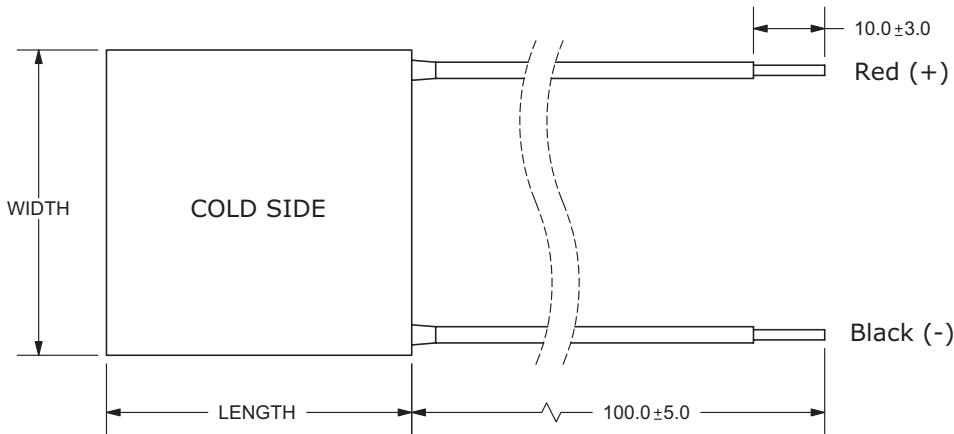
Note: 1. Measured by AC 4-terminal method at 25°C

MECHANICAL DRAWING

units: mm

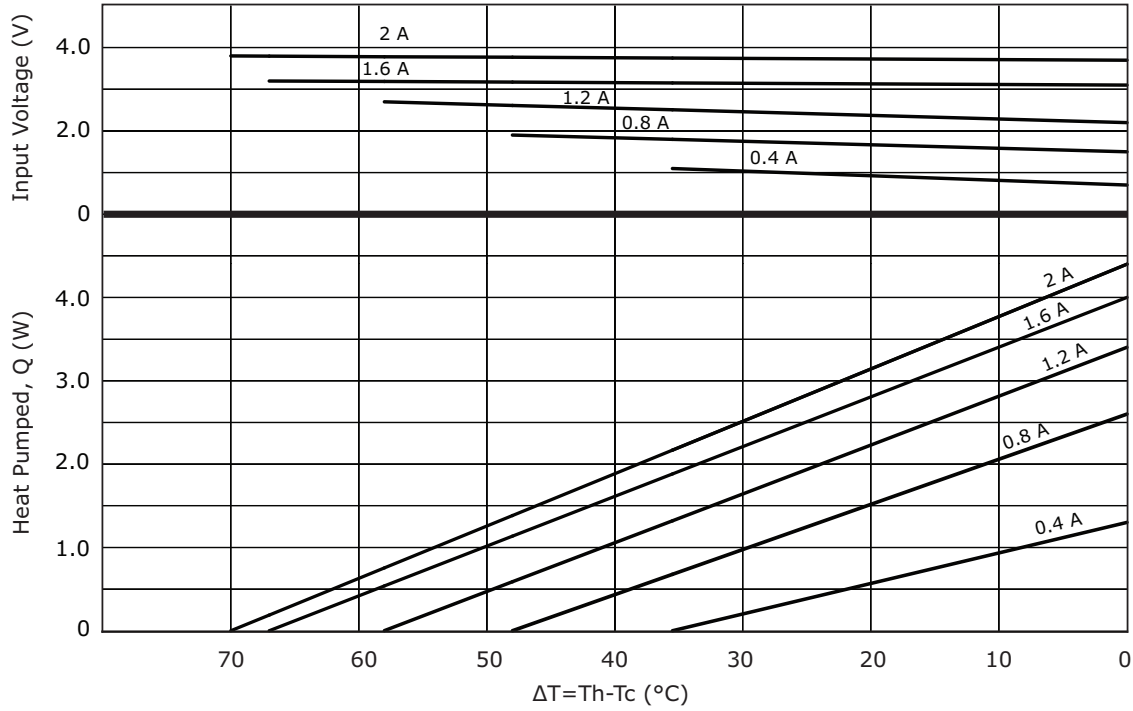


| | MATERIAL | PLATING |
|---------------|---|---------|
| ceramic plate | 96% AL ₂ O ₃ | |
| wire leads | 22 AWG | tin |
| sealer | silicon rubber 703 RTV (between cold and hot side plates) | |
| joint cover | silicon rubber 703 RTV | |
| marking | P/N & S/N printed on cold side surface | |

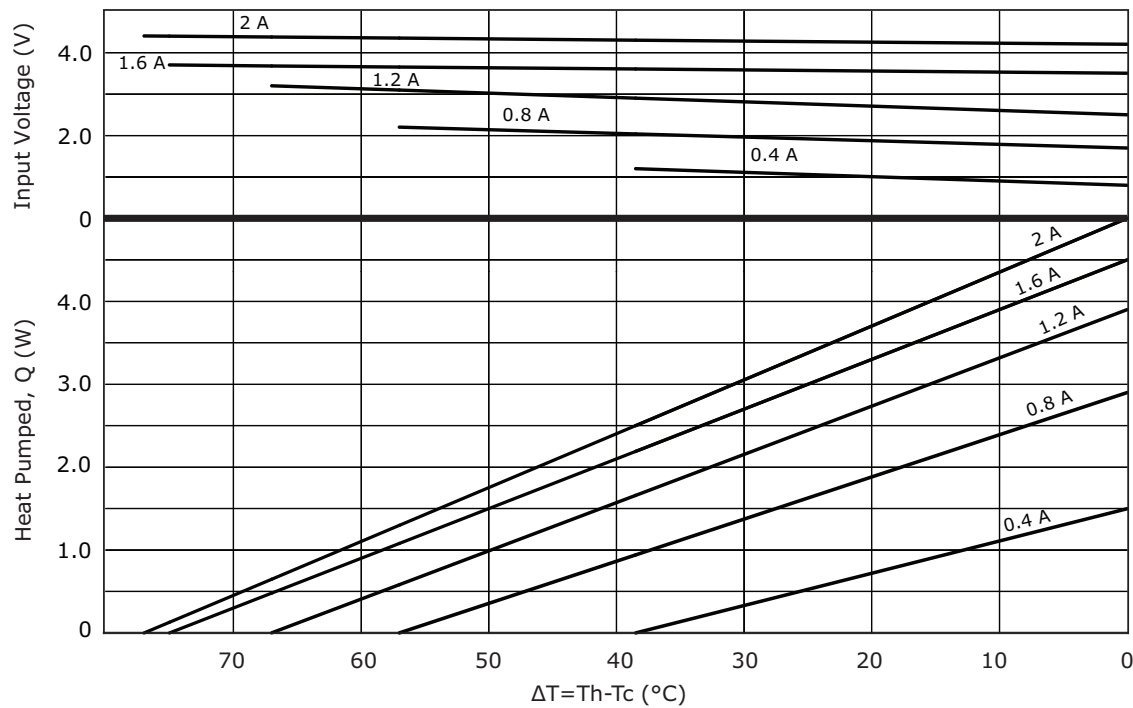


| MODEL NO. | LENGTH (mm) | WIDTH (mm) | THICKNESS (mm) |
|-----------|-------------|------------|----------------|
| CP20147H | 15 ±0.3 | 15 ±0.3 | 4.7 ±0.025 |
| CP20247H | 20 ±0.3 | 20 ±0.3 | 4.7 ±0.025 |
| CP203475H | 30 ±0.3 | 30 ±0.3 | 4.75 ±0.025 |

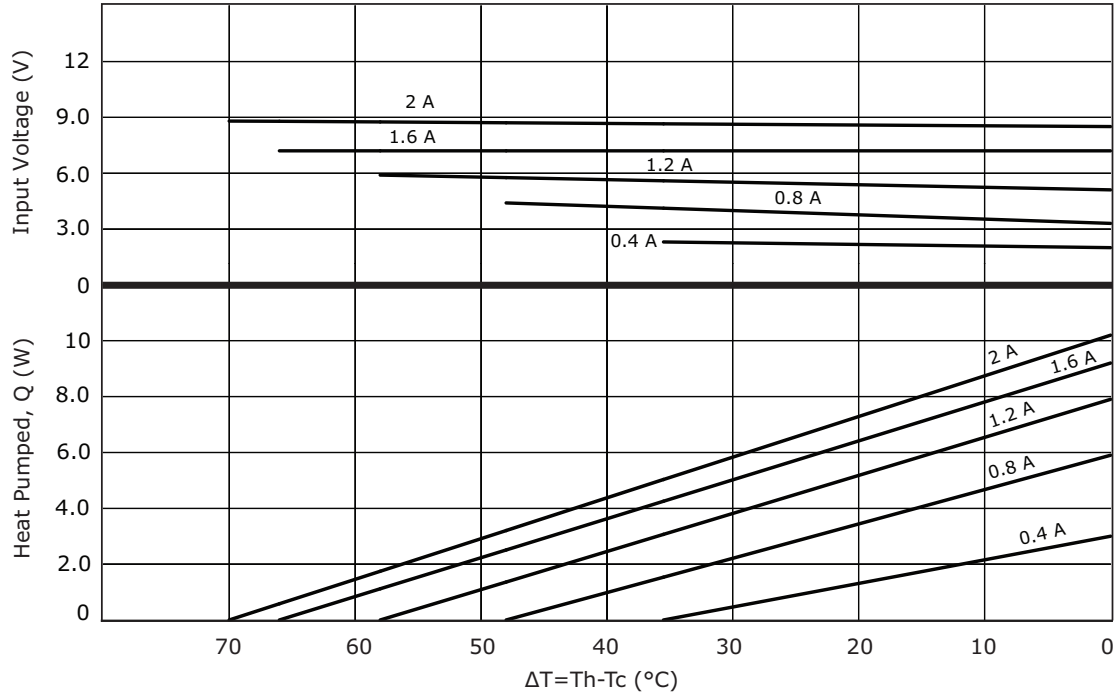
CP20147H PERFORMANCE (Th=27°C)



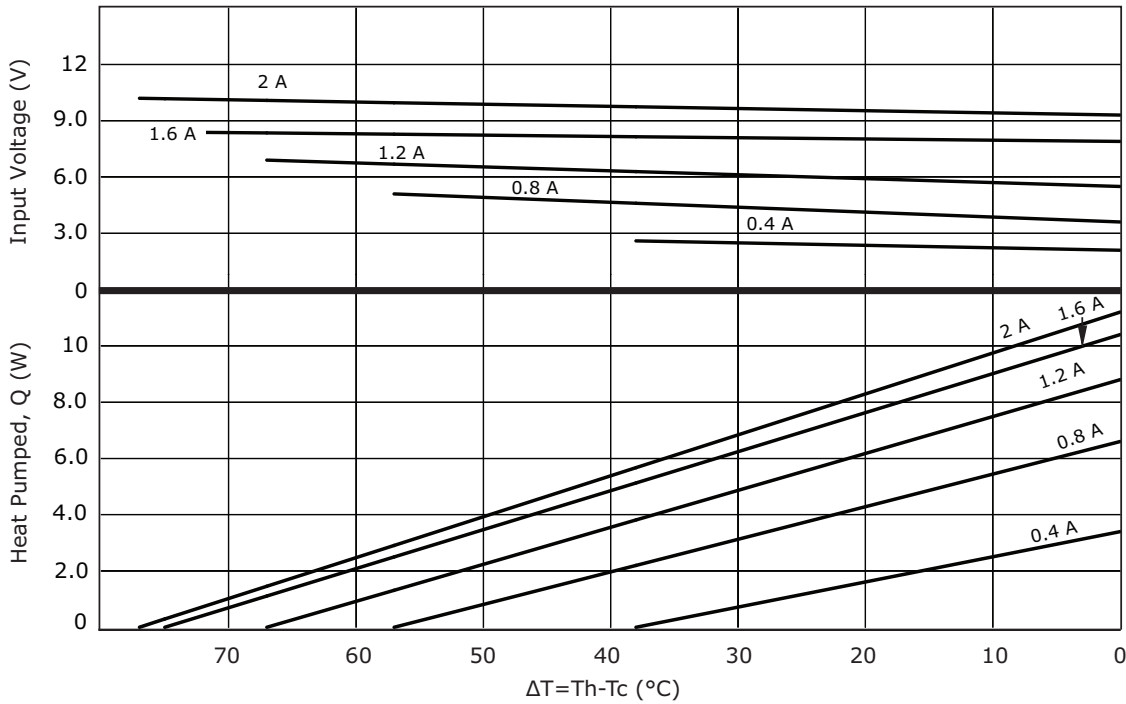
CP20147H PERFORMANCE (Th=50°C)



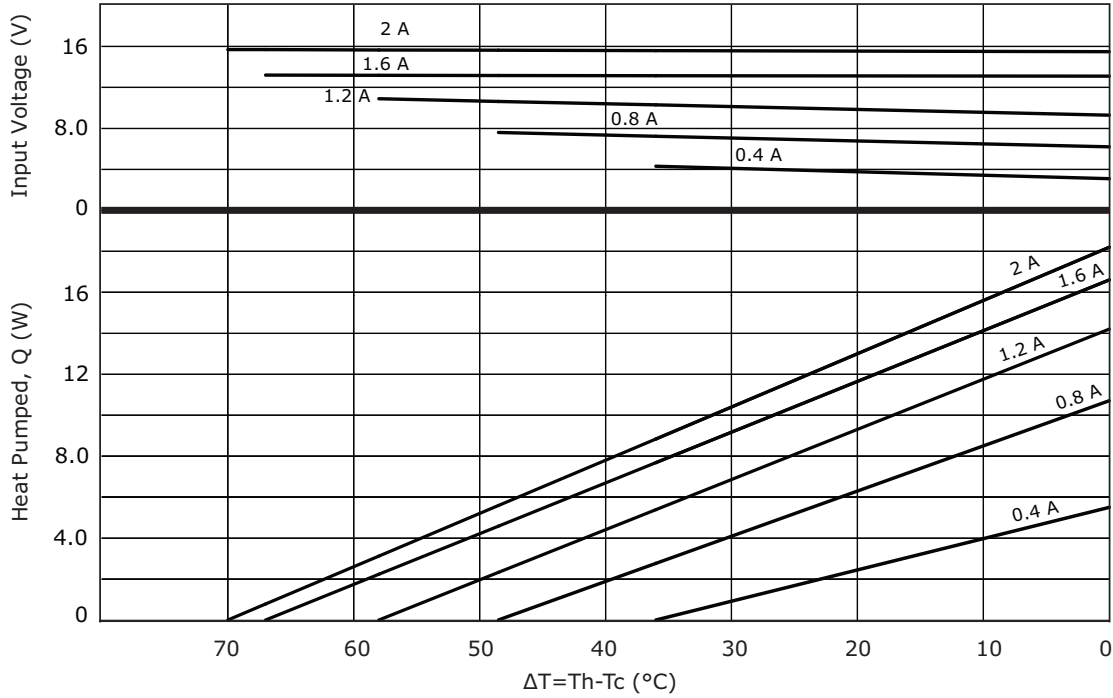
CP20247H PERFORMANCE (Th=27°C)



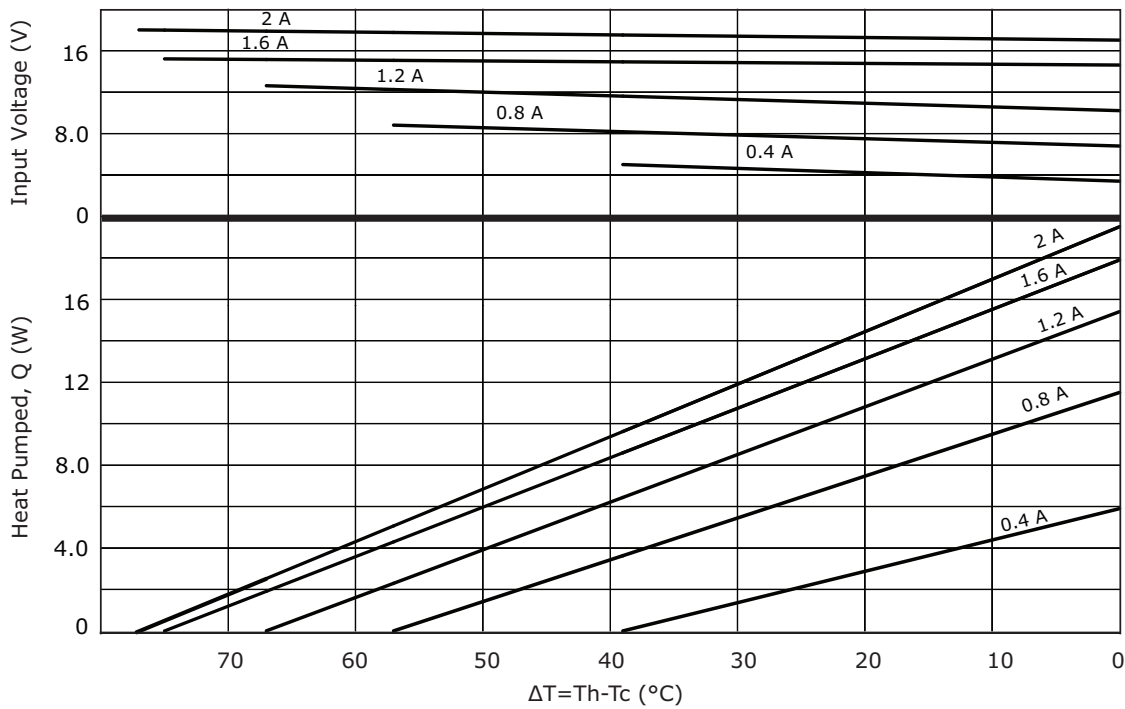
CP20247H PERFORMANCE (Th=50°C)



CP203475H PERFORMANCE (Th=27°C)



CP203475H PERFORMANCE (Th=50°C)



REVISION HISTORY

| rev. | description | date |
|------|-------------------|------------|
| 1.0 | initial release | 09/08/2016 |
| 1.01 | updated datasheet | 09/25/2017 |

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



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