



SERIES:

CP30H

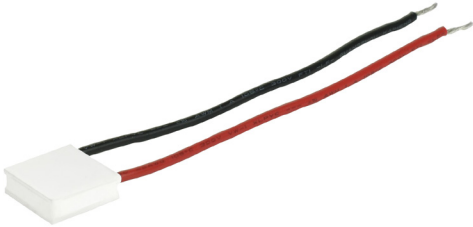
|

DESCRIPTION:

PELTIER MODULE

FEATURES

- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide  $\Delta T_{max}$
- low profile
- precise temperature control
- solid state construction



MODEL

|                        | input<br>voltage <sup>1</sup><br>max<br>[Vdc] | input<br>current <sup>2</sup><br>max<br>[A] | internal<br>resistance <sup>3</sup><br>typ<br>[ $\Omega \pm 10\%$ ] | output<br>Qmax <sup>4</sup> |                             | output<br>$\Delta T_{max}$ <sup>5</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] |
| CP30138H               | 3.8                                           | 3.0                                         | 1.0                                                                 | 7.3                         | 8.0                         | 70                                      | 77                           |
| CP30238H               | 8.8                                           | 3.0                                         | 2.20                                                                | 16.6                        | 18.0                        | 70                                      | 77                           |
| CP30239H               | 6.0                                           | 3.0                                         | 1.5                                                                 | 10.3                        | 11.3                        | 70                                      | 77                           |
| CP30301538H            | 7.6                                           | 3.0                                         | 1.95                                                                | 14.7                        | 16.1                        | 70                                      | 77                           |
| CP303385H <sup>6</sup> | 15.7                                          | 3.0                                         | 4.0                                                                 | 29.8                        | 32.5                        | 70                                      | 77                           |
| CP30444 <sup>6</sup>   | 19.5                                          | 3.0                                         | 4.8                                                                 | 34                          | 37                          | 70                                      | 77                           |

Notes:

1. Maximum voltage at  $\Delta T_{max}$  and T<sub>h</sub>=27°C

2. Maximum current to achieve  $\Delta T_{max}$

3. Measured by AC 4-terminal method at 25°C

4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and  $\Delta T=0^\circ\text{C}$

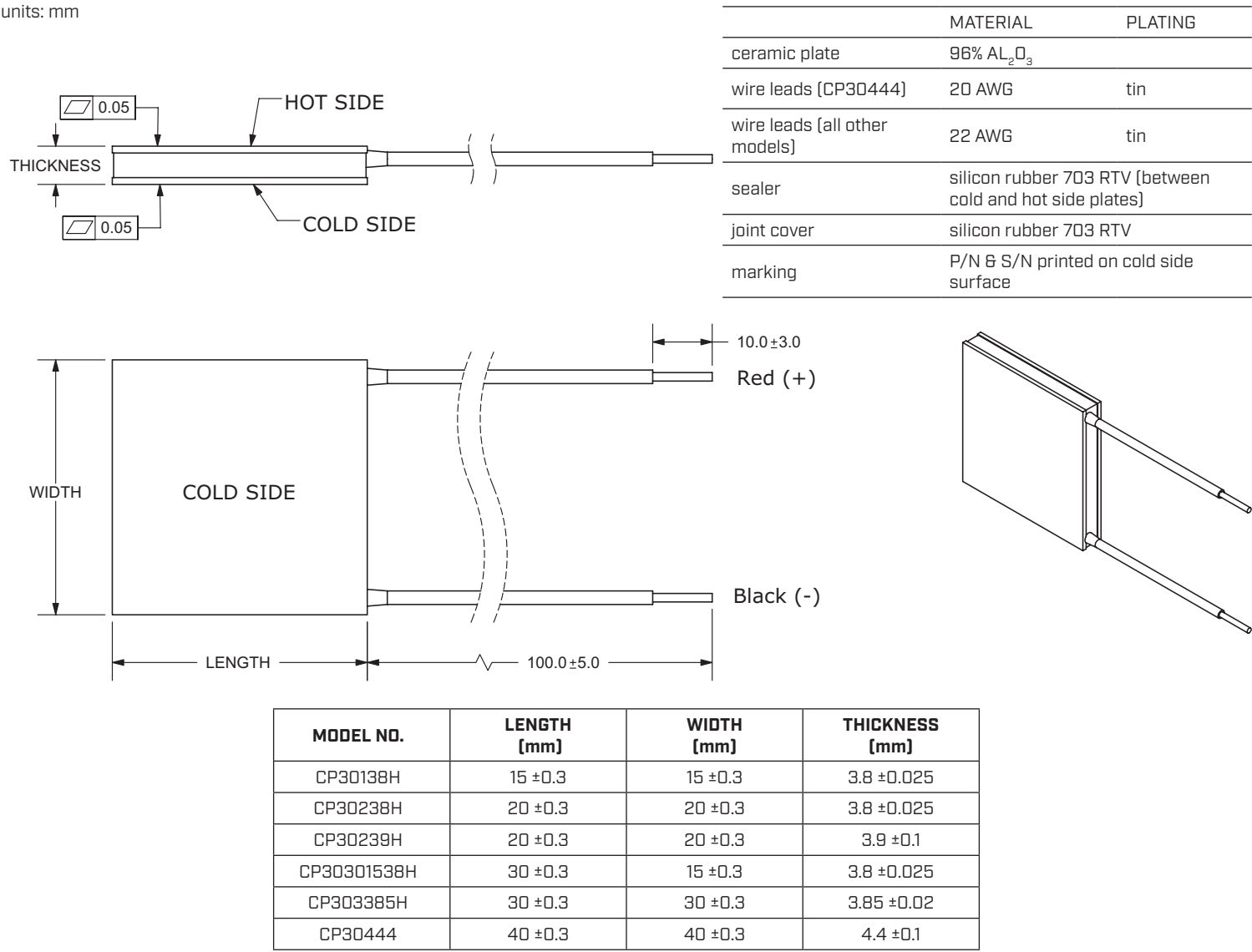
5. Maximum temperature difference occurs at I<sub>max</sub>, V<sub>max</sub>, and Q=0W ( $\Delta T_{max}$  measured in a vacuum at 1.3 Pa)

6. Designed with arcTEC™ structure.

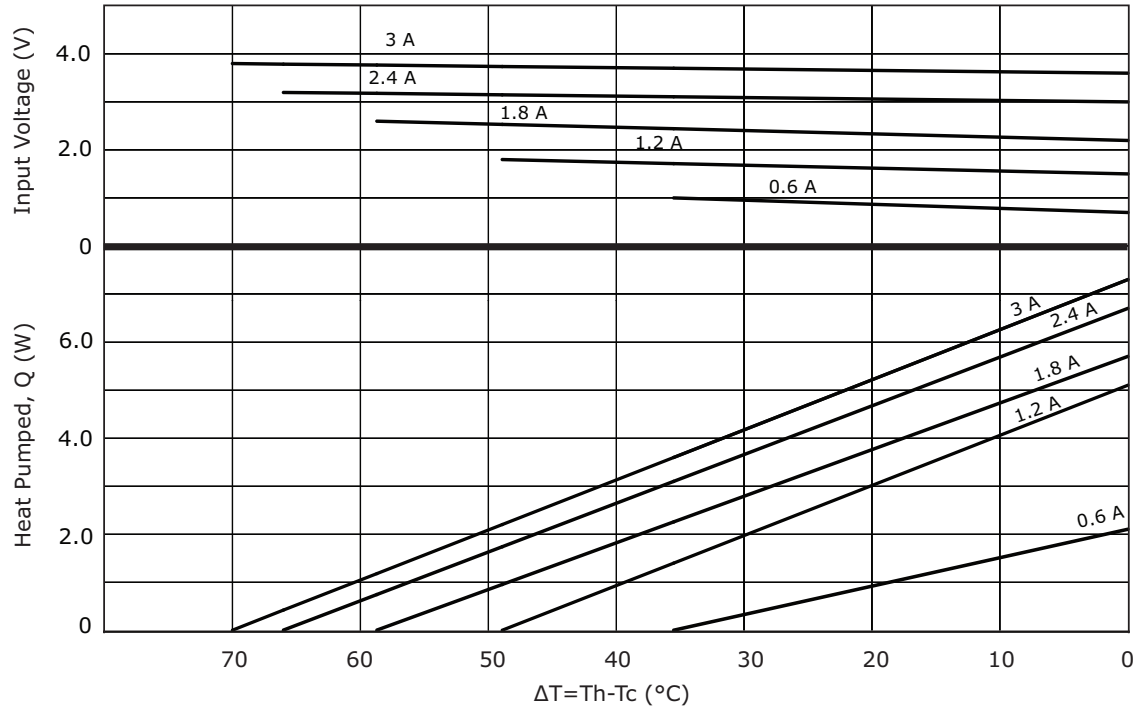
SPECIFICATIONS

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

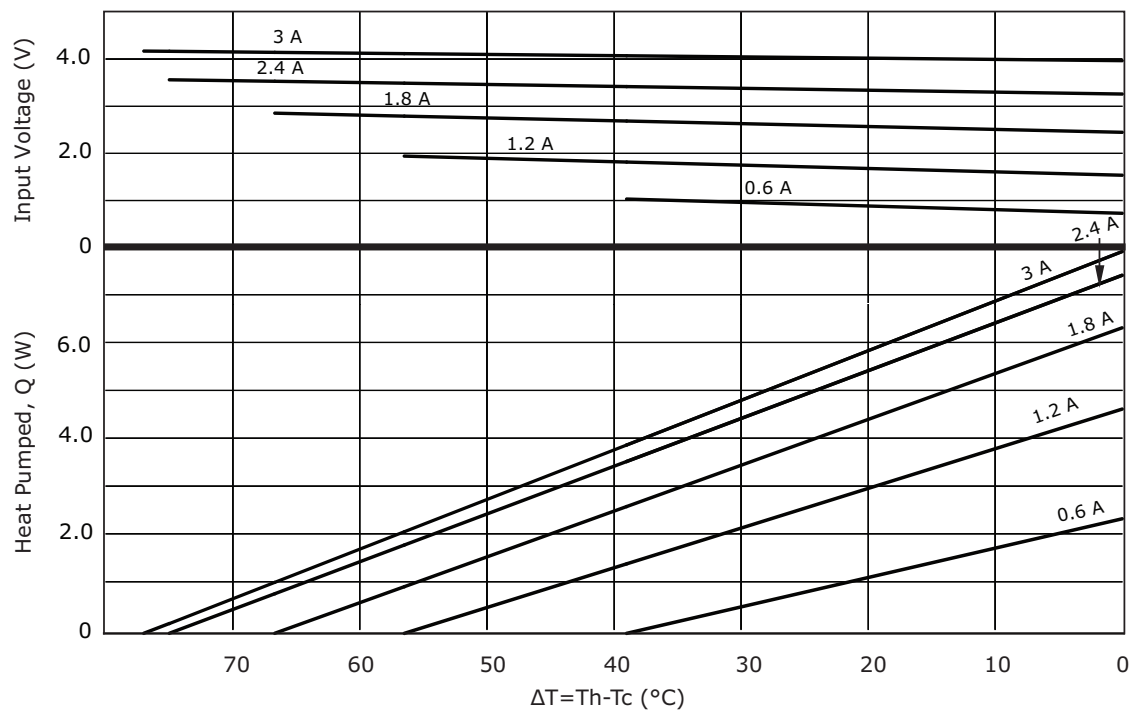
MECHANICAL DRAWING



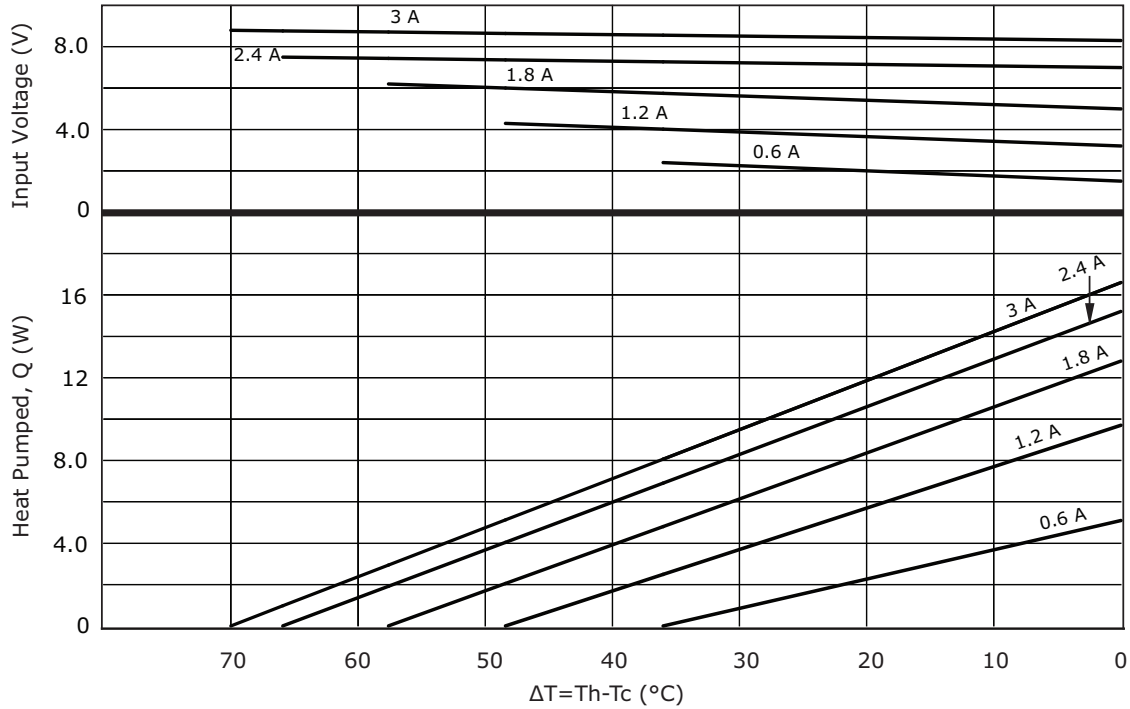
## CP30138H PERFORMANCE (Th=27°C)



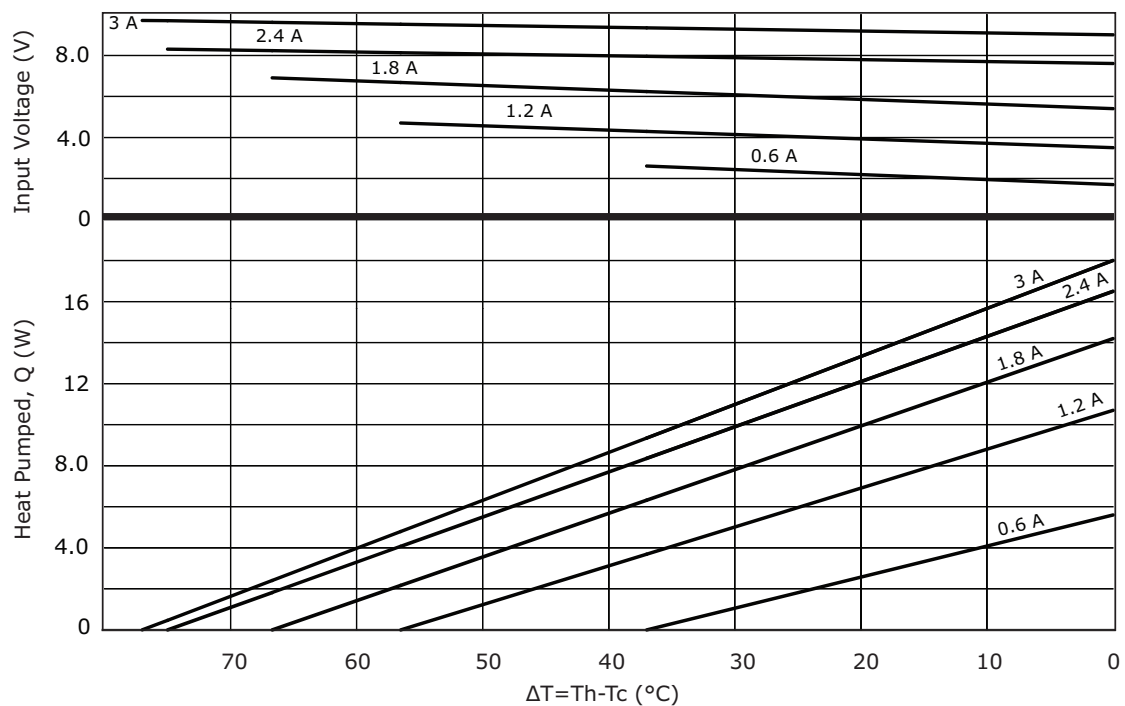
## CP30138H PERFORMANCE (Th=50°C)



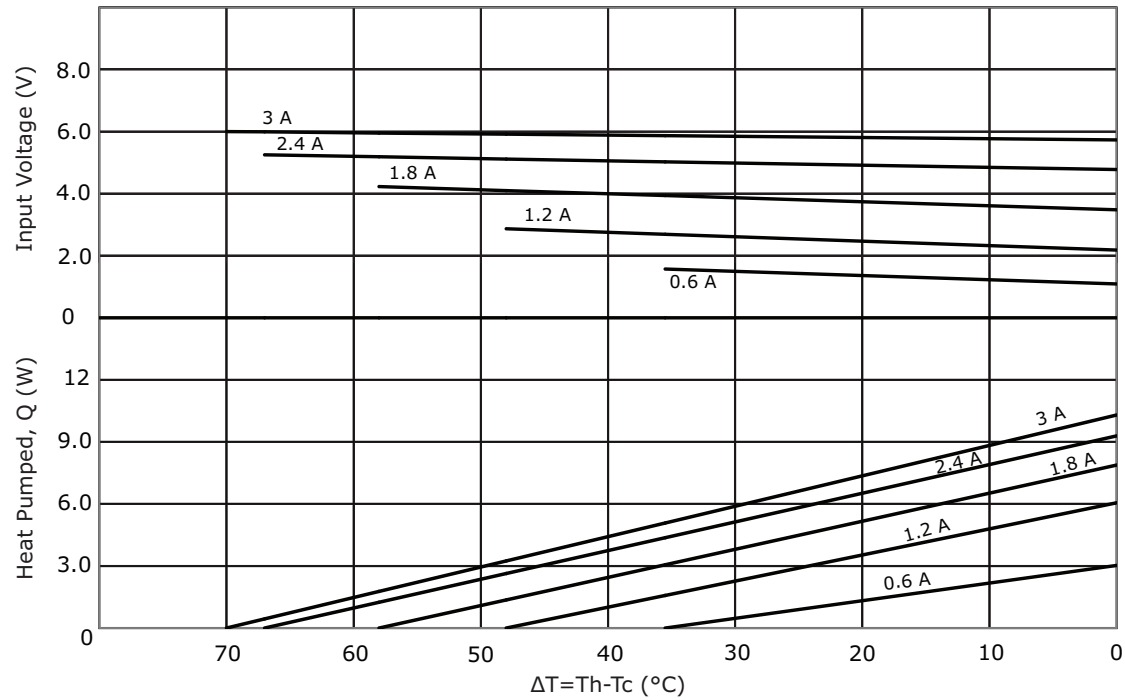
## CP30238H PERFORMANCE (Th=27°C)



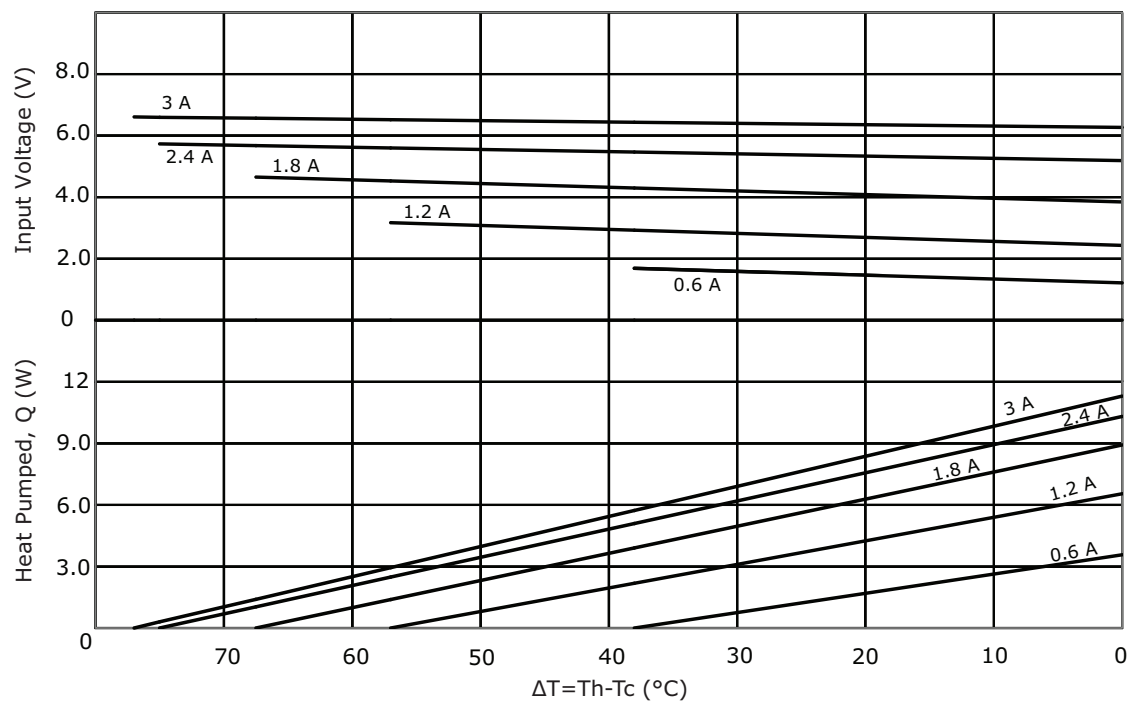
## CP30238H PERFORMANCE (Th=50°C)



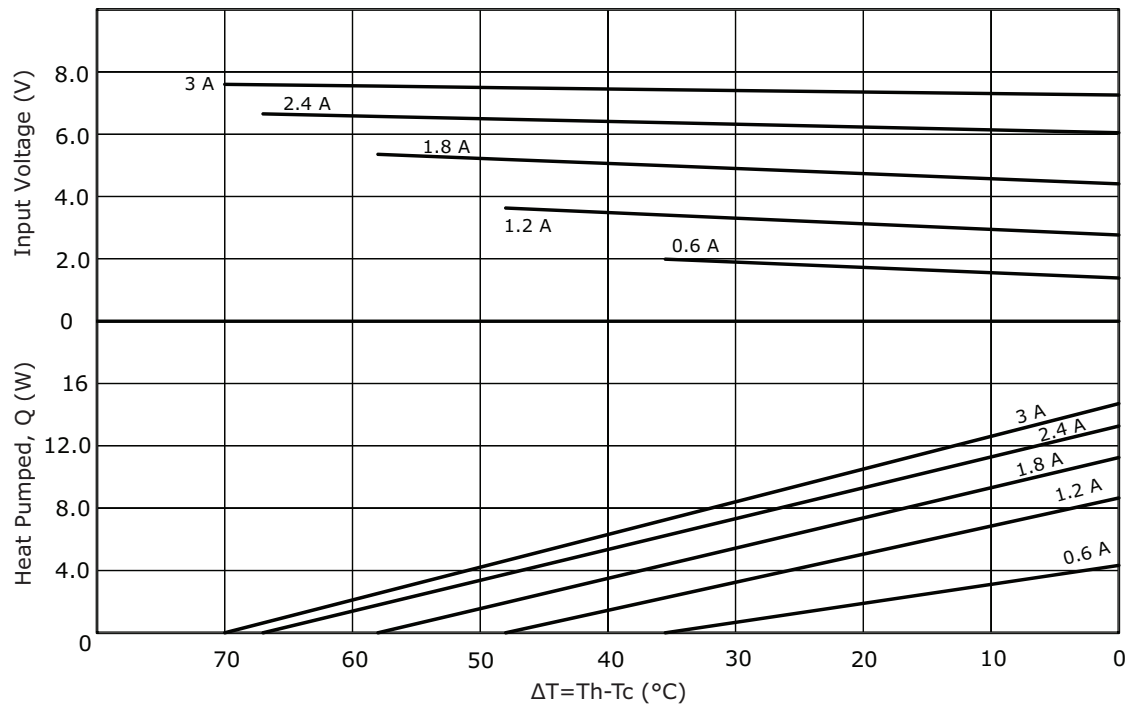
## CP30239H PERFORMANCE (Th=27°C)



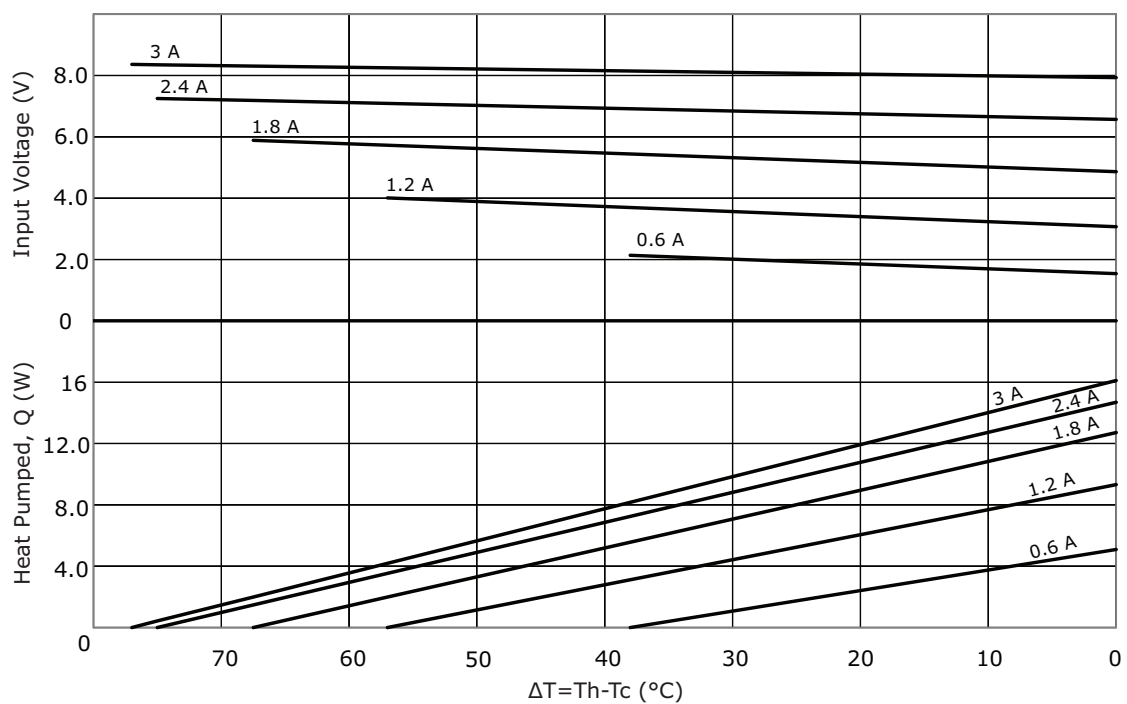
## CP30239H PERFORMANCE (Th=50°C)



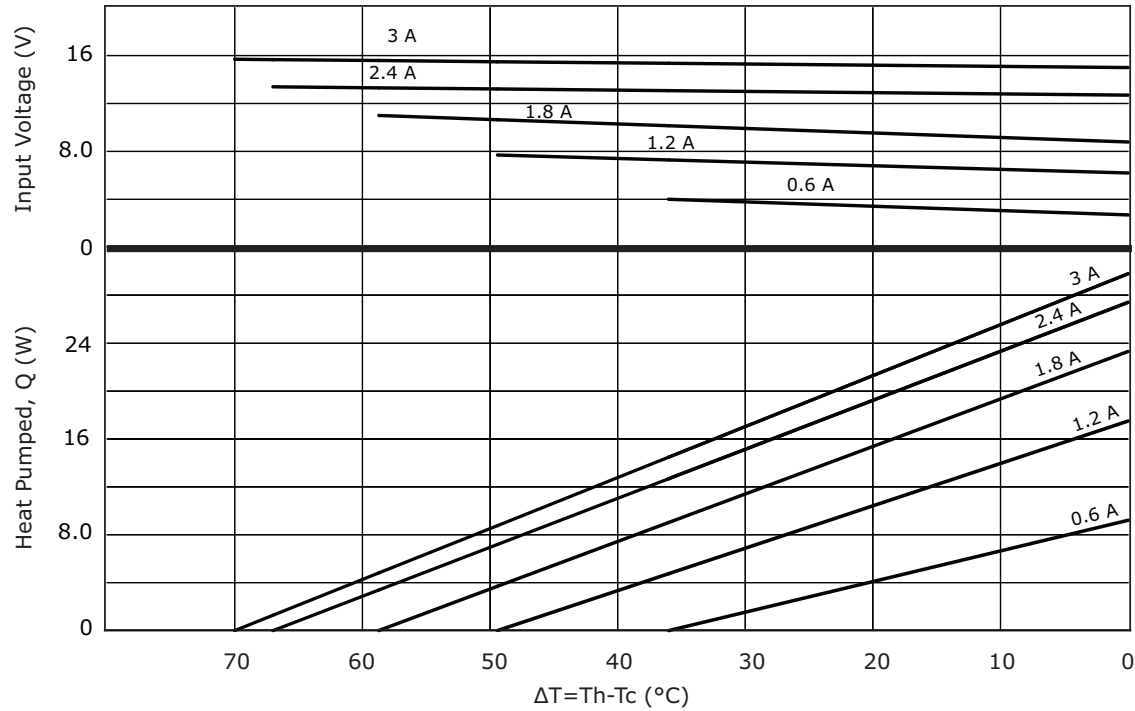
## CP30301538H PERFORMANCE (Th=27°C)



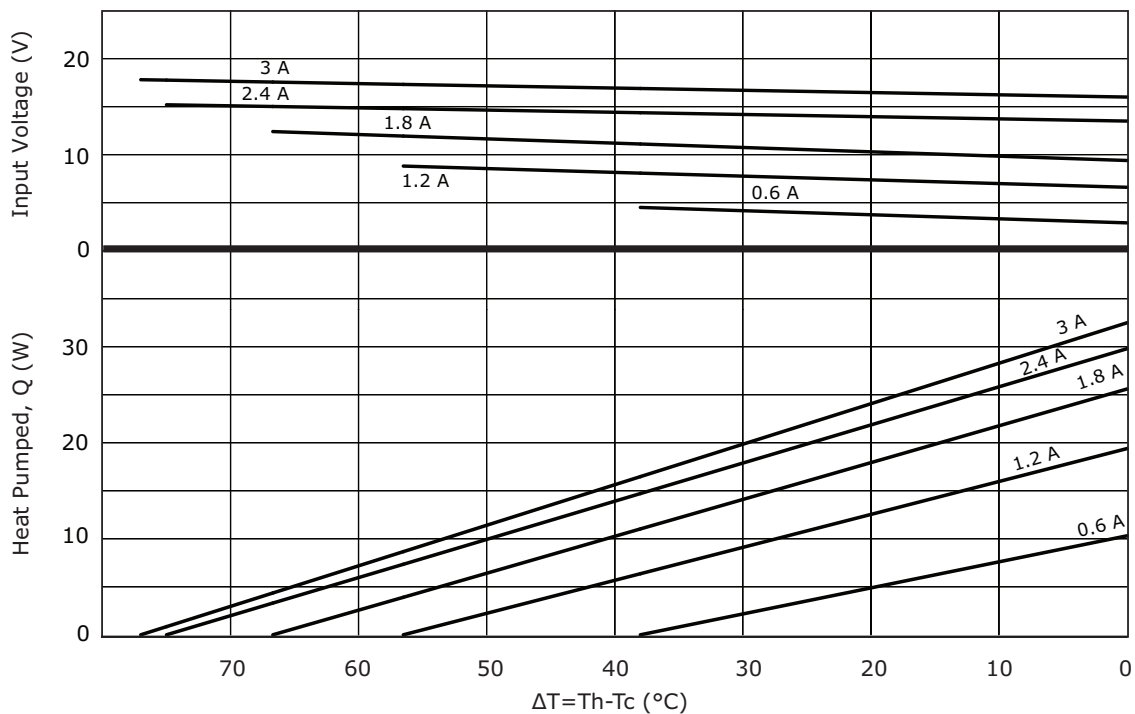
## CP30301538H PERFORMANCE (Th=50°C)



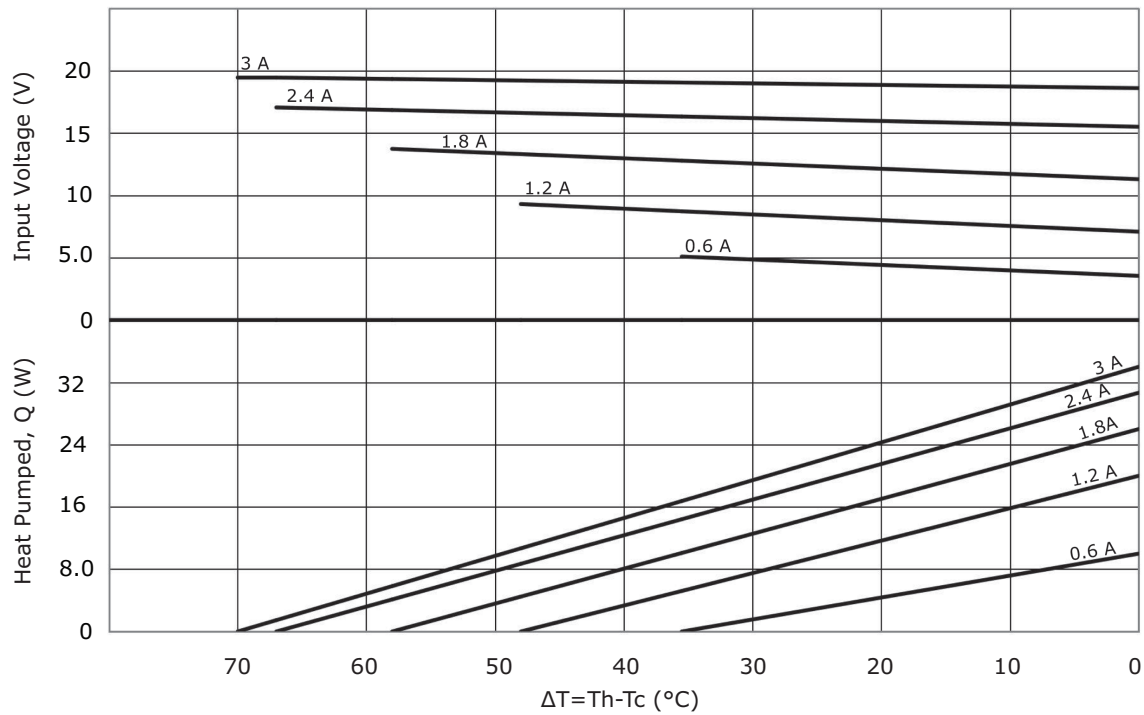
## CP303385H PERFORMANCE (Th=27°C)



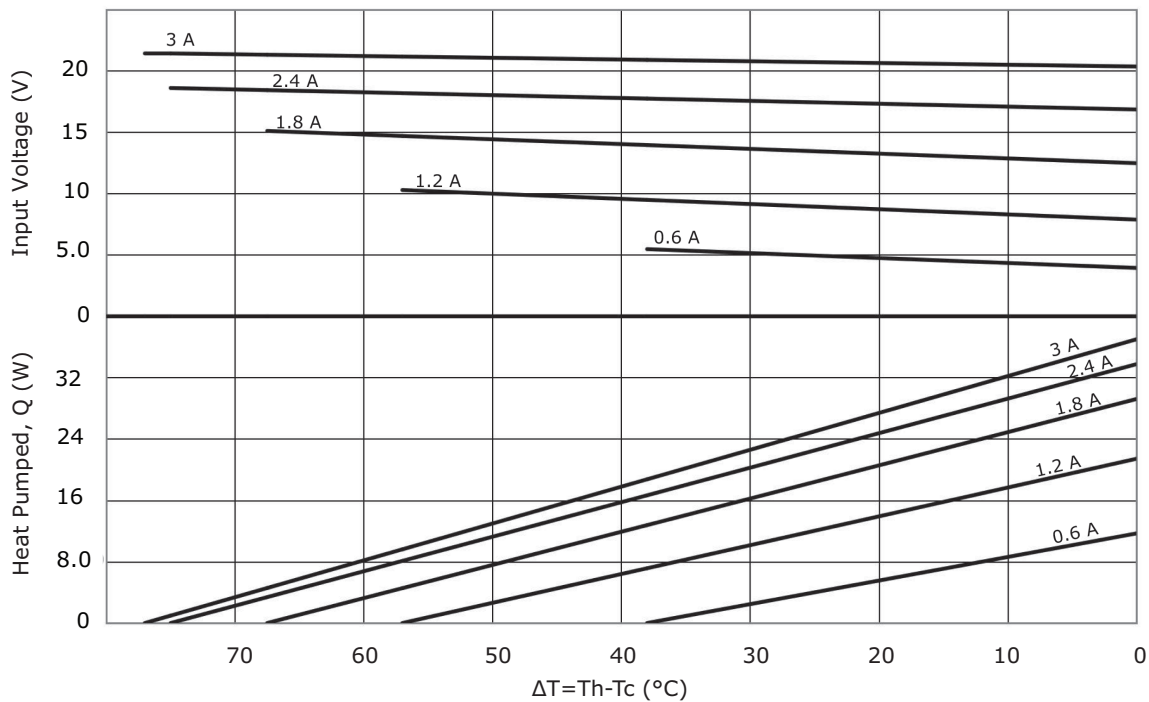
## CP303385H PERFORMANCE (Th=50°C)



## CP30444 PERFORMANCE (Th=27°C)



## CP30444 PERFORMANCE (Th=50°C)





REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 09/08/2016 |
| 1.01 | updated datasheet                 | 09/25/2017 |
| 1.02 | added new models                  | 05/21/2018 |
| 1.03 | added model CP30444, brand update | 10/18/2019 |
| 1.04 | logo, datasheet style update      | 08/05/2022 |
| 1.05 | CUI Devices rebranded to Same Sky | 09/12/2024 |

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



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

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

**sameskydevices.com**

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[CUI Devices:](#)

[CP30238H](#) [CP303385H](#) [CP30138H](#) [CP30239H](#) [CP30301538H](#) [CP30444](#)