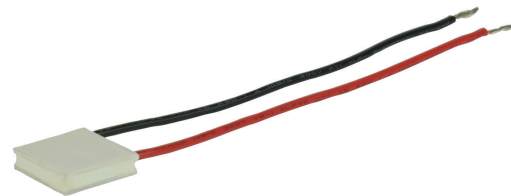




**SERIES:** CP30H | **DESCRIPTION:** PELTIER MODULE

**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 voltage <sup>1</sup>	input current <sup>2</sup>	internal resistance <sup>3</sup>	output Qmax <sup>4</sup>		output $\Delta T$ max <sup>5</sup>	
	max (Vdc)	max (A)	typ ( $\Omega \pm 10\%$ )	T <sub>h</sub> =27°C (W)	T <sub>h</sub> =50°C (W)	T <sub>h</sub> =27°C (°C)	T <sub>h</sub> =50°C (°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

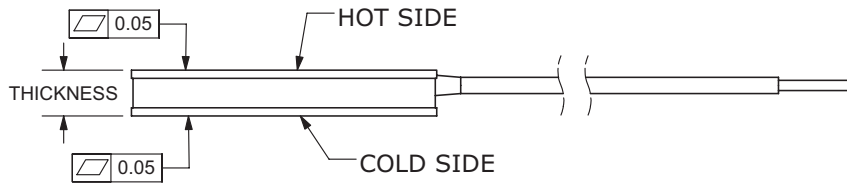
- Notes:
1. Maximum voltage at  $\Delta T$  max and T<sub>h</sub>=27°C
  2. Maximum current to achieve  $\Delta T$  max
  3. Measured by AC 4-terminal method at 25°C
  4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and  $\Delta T=0^\circ\text{C}$
  5. Maximum temperature 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

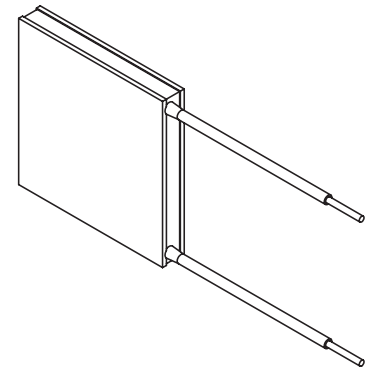
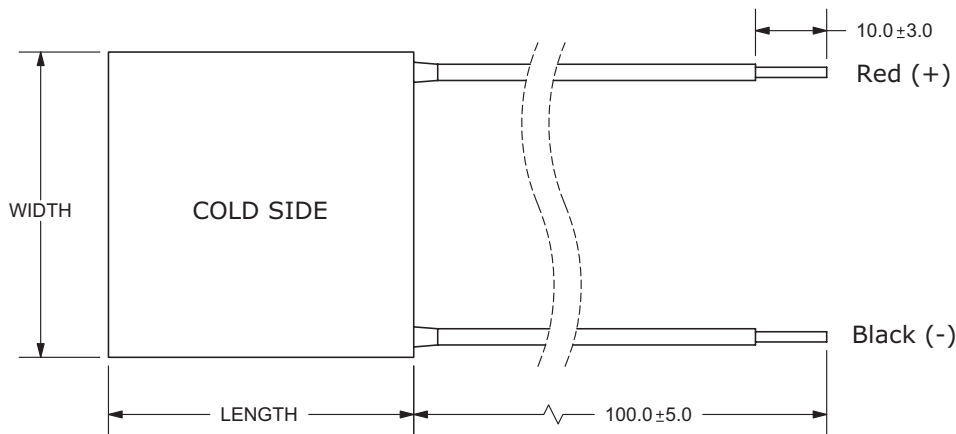
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
hot side plate				80	°C
RoHS	2011/65/EU				

## MECHANICAL DRAWING

units: mm

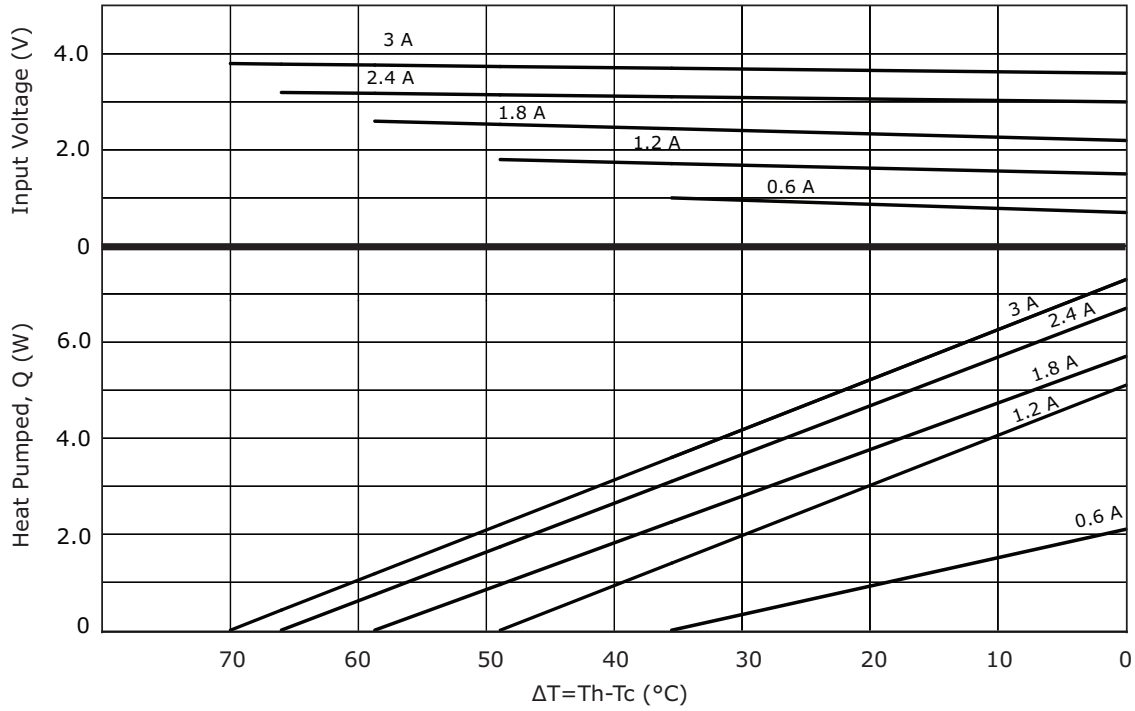


	MATERIAL	PLATING
ceramic plate	96% AL <sub>2</sub> O <sub>3</sub>	
wire leads	22 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

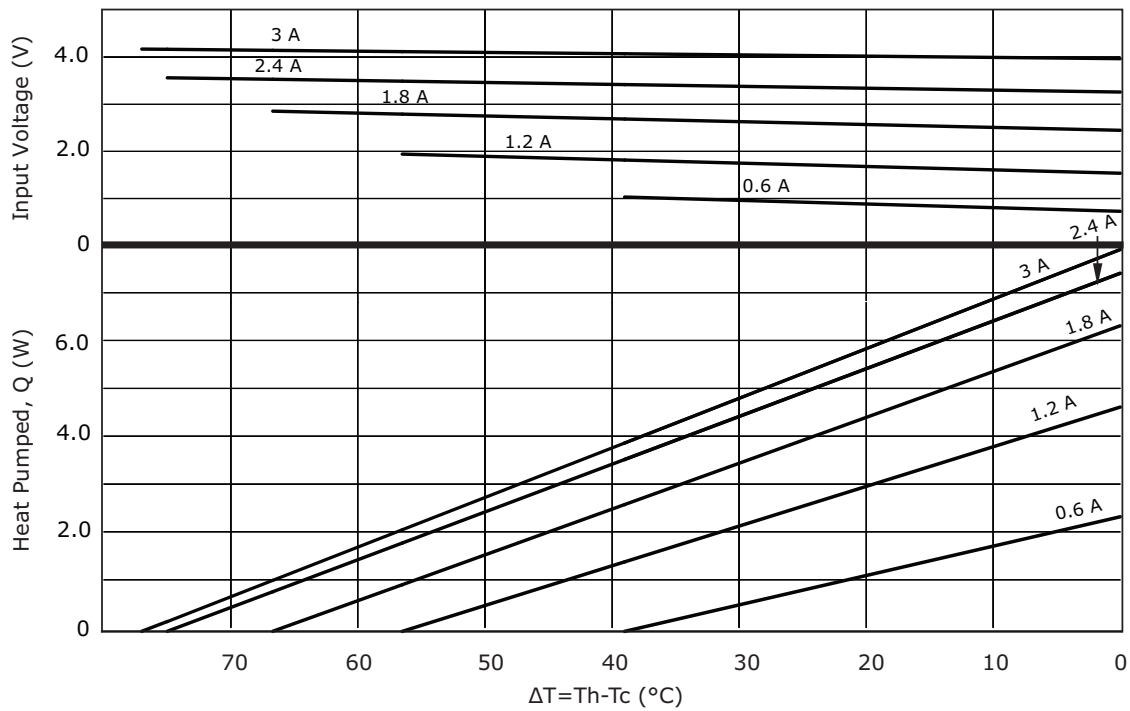


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP30138H	15 ±0.3	15 ±0.3	3.8 ±0.025
CP30238H	20 ±0.3	20 ±0.3	3.8 ±0.025
CP30239H	20 ±0.3	20 ±0.3	3.9 ±0.1
CP30301538H	30 ±0.3	15 ±0.3	3.8 ±0.025
CP303385H	30 ±0.3	30 ±0.3	3.85 ±0.02

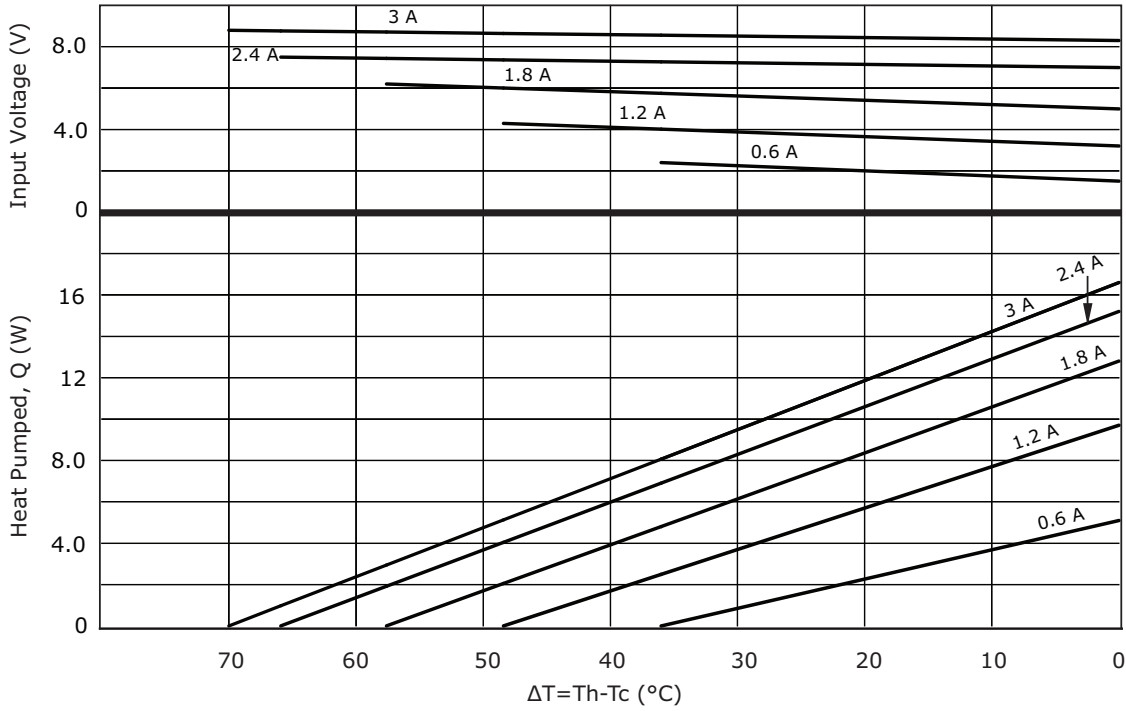
### CP30138H PERFORMANCE (Th=27°C)



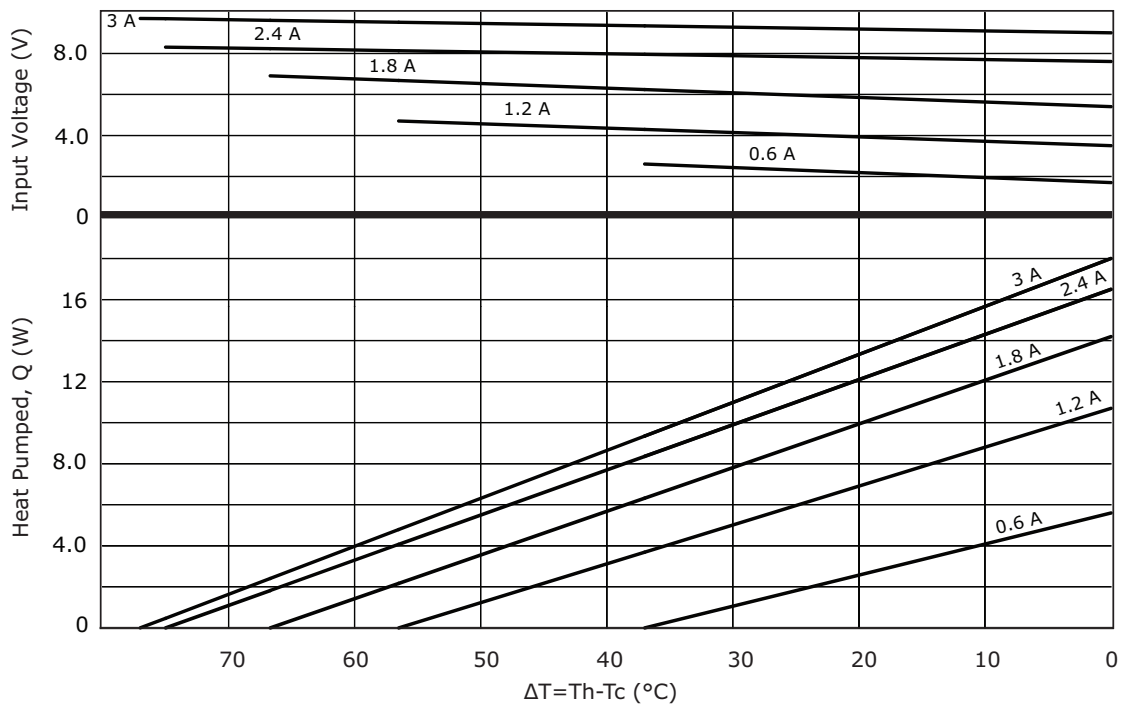
### CP30138H PERFORMANCE (Th=50°C)



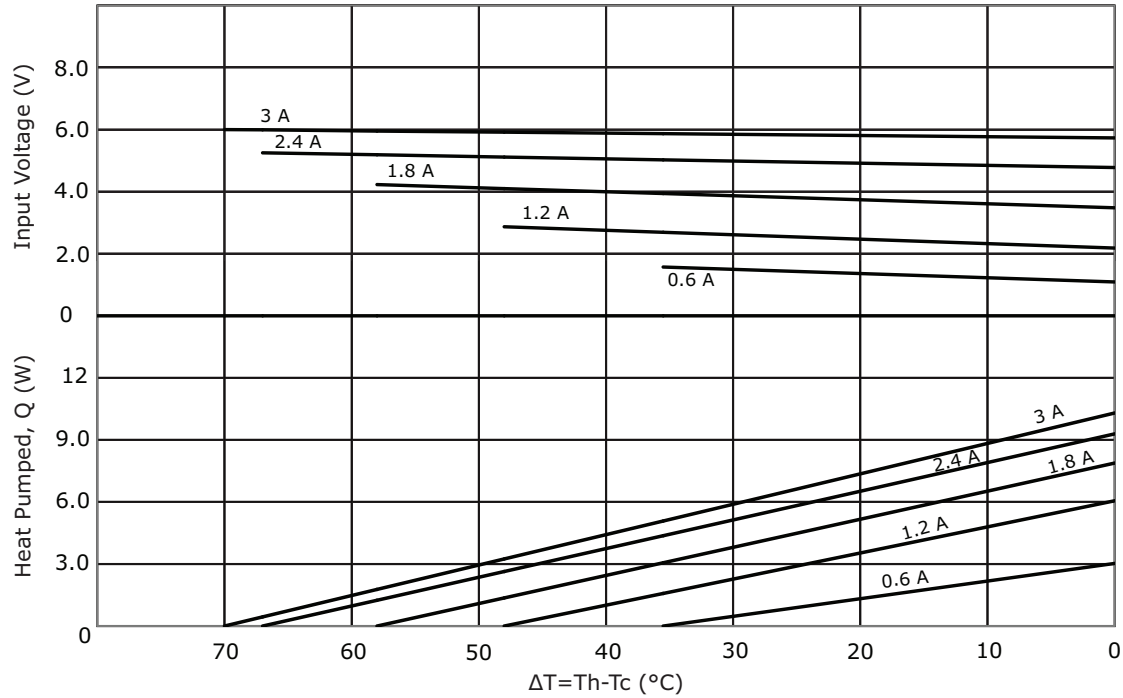
### CP30238H PERFORMANCE (Th=27°C)



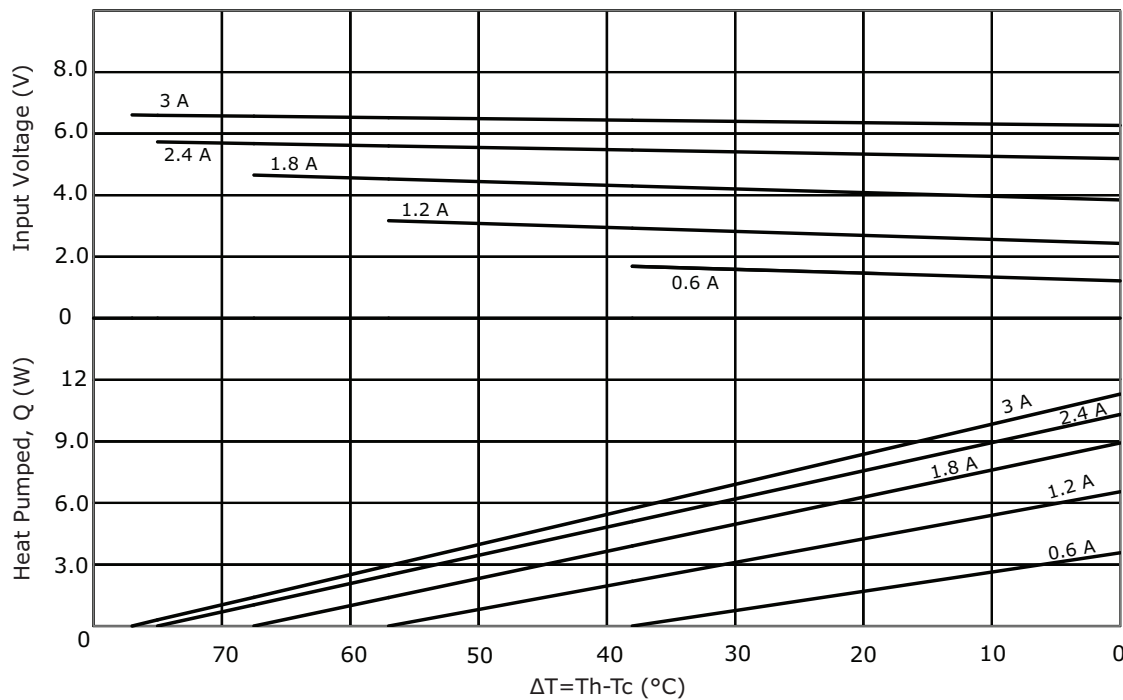
### CP30238H PERFORMANCE (Th=50°C)



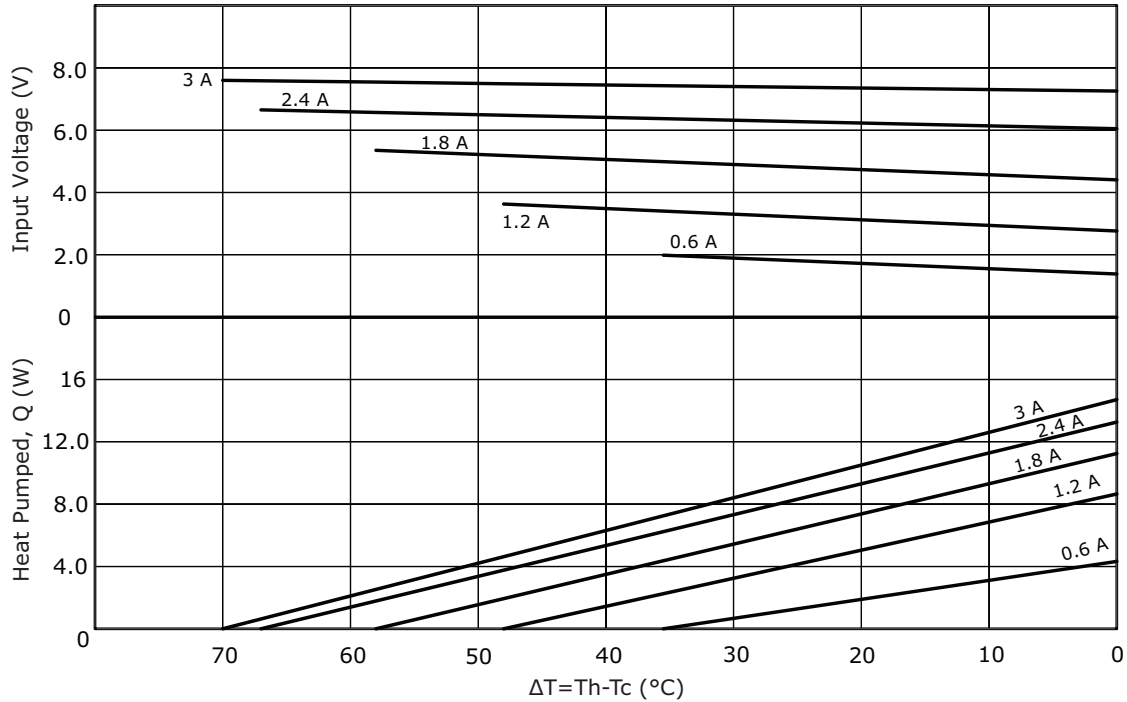
### CP30239H PERFORMANCE (Th=27°C)



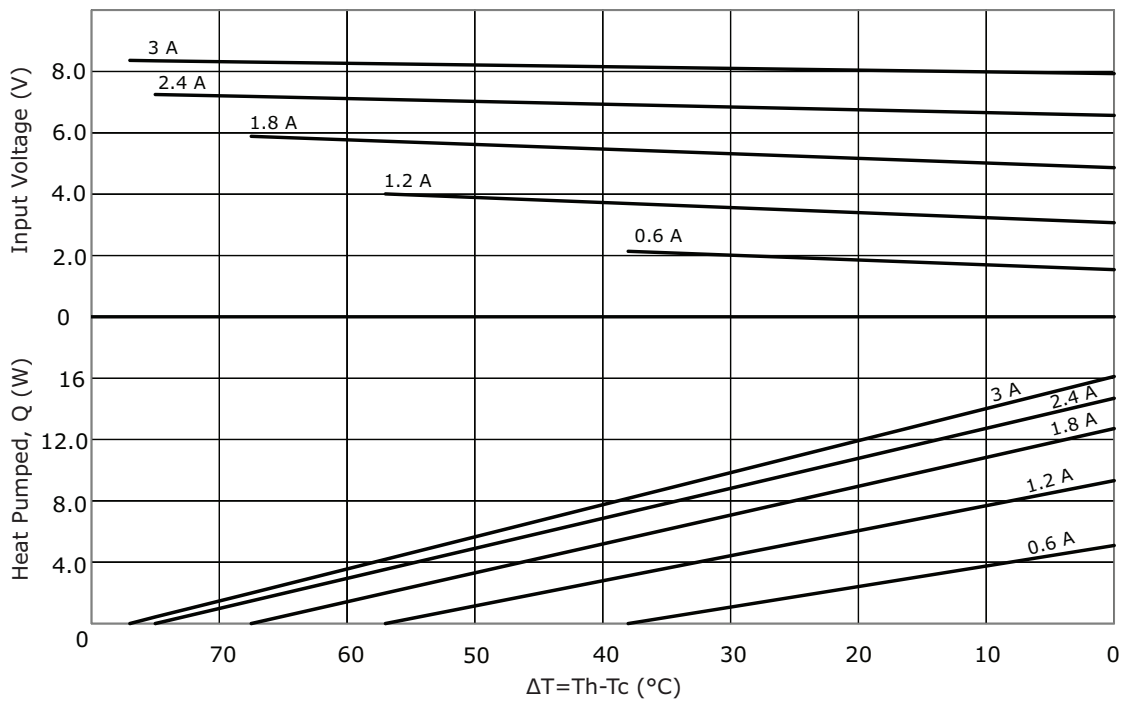
### CP30239H PERFORMANCE (Th=50°C)



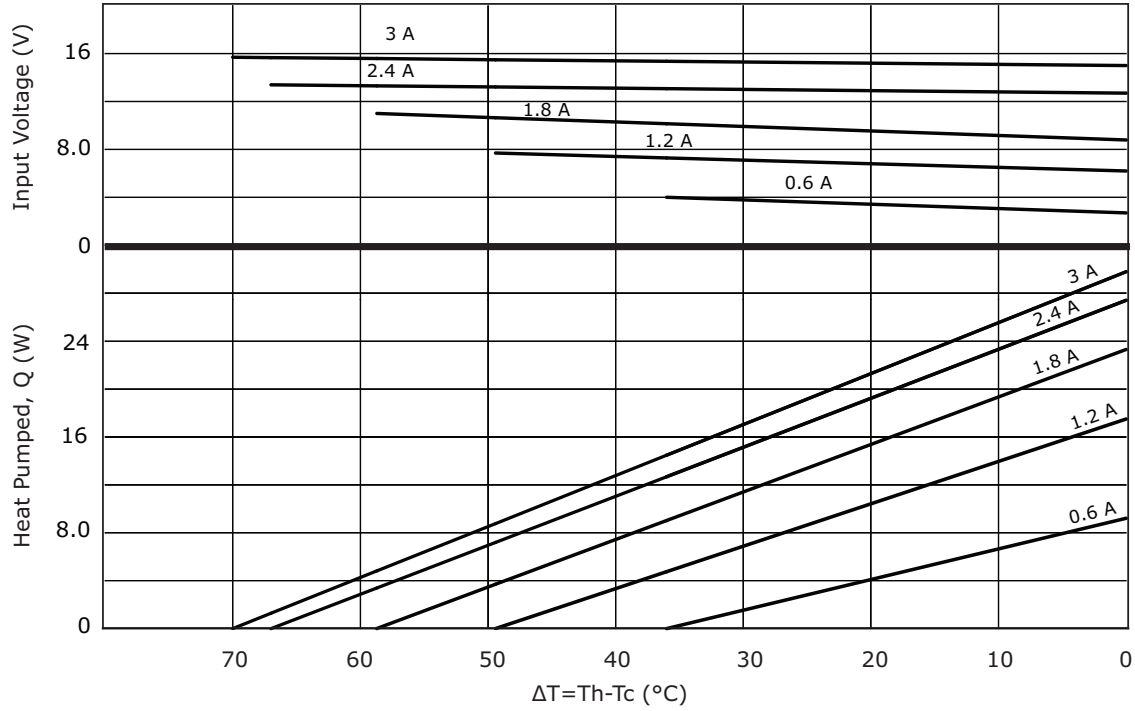
### CP30301538H PERFORMANCE (Th=27°C)



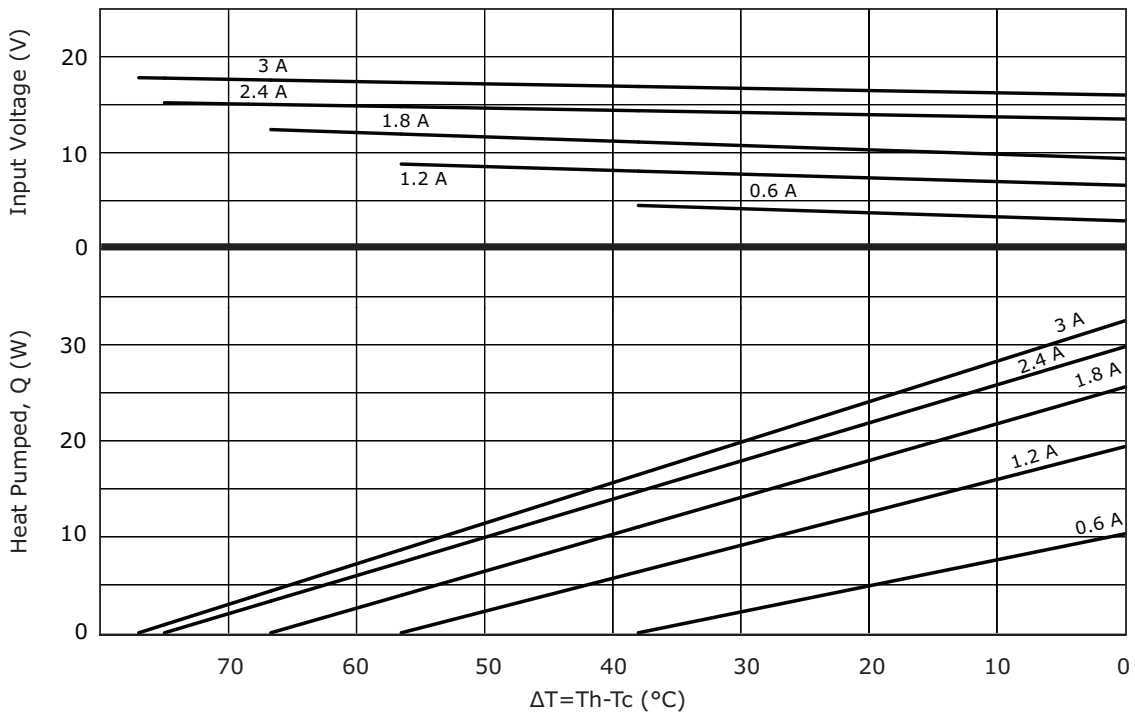
### CP30301538H PERFORMANCE (Th=50°C)



### CP303385H PERFORMANCE (Th=27°C)



### CP303385H PERFORMANCE (Th=50°C)



## 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

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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CUI 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.