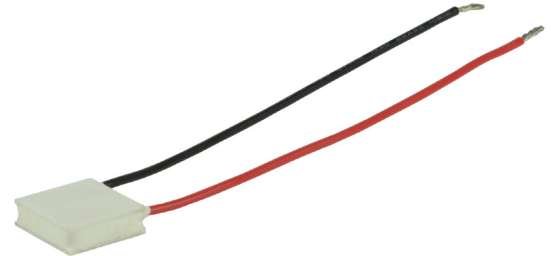


**SERIES:** CP20H | **DESCRIPTION:** PELTIER MODULE

**FEATURES**

- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide  $\Delta T$  max
- 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)
CP20147H	3.8	2.0	1.65	4.4	5.0	70	77
CP20247H	8.8	2.0	3.7	10.2	11.2	70	77
CP20301547H	7.6	2.0	3.32	9	9.9	70	77
CP203475H <sup>6</sup>	15.7	2.0	6.7	18.2	19.5	70	77

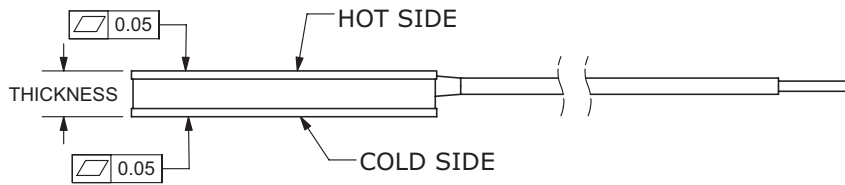
- Notes:
1. Maximum voltage at  $\Delta T$  max and T<sub>h</sub>=27°C
  2. Maximum current to achieve  $\Delta T$  max
  3. Measured by AC 4-terminal method at 25°C
  4. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and  $\Delta T=0^\circ\text{C}$
  5. Maximum temperature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

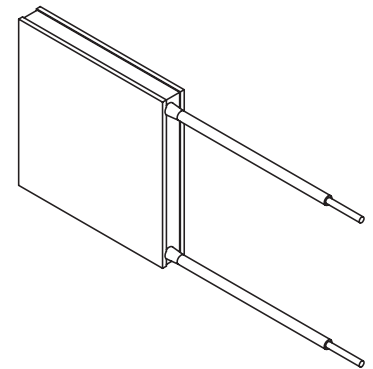
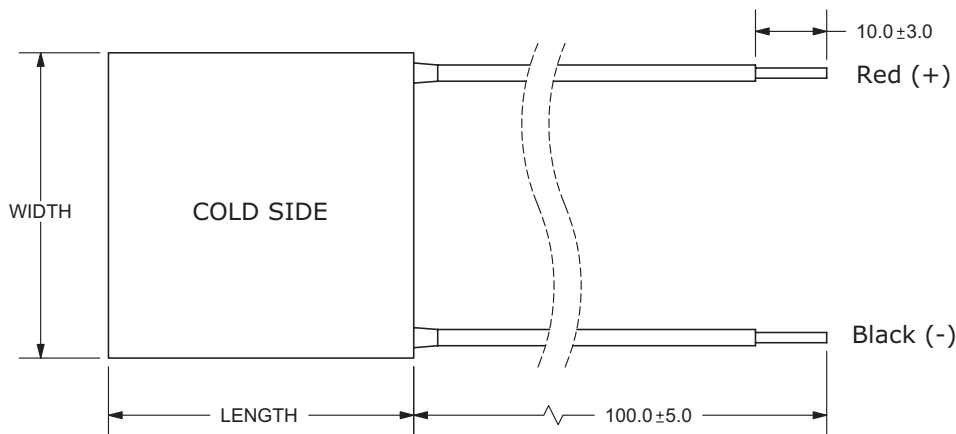
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
hot side plate				80	°C
RoHS	2011/65/EU				

## MECHANICAL DRAWING

units: mm

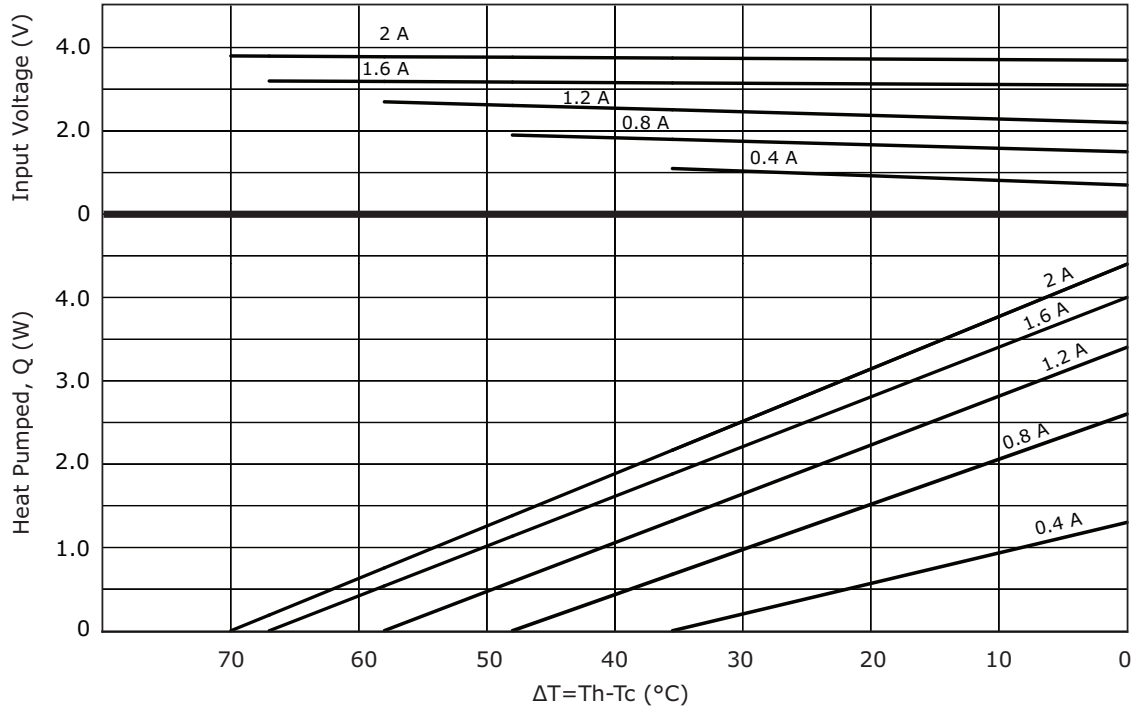


	MATERIAL	PLATING
ceramic plate	96% $Al_2O_3$	
wire leads	22 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

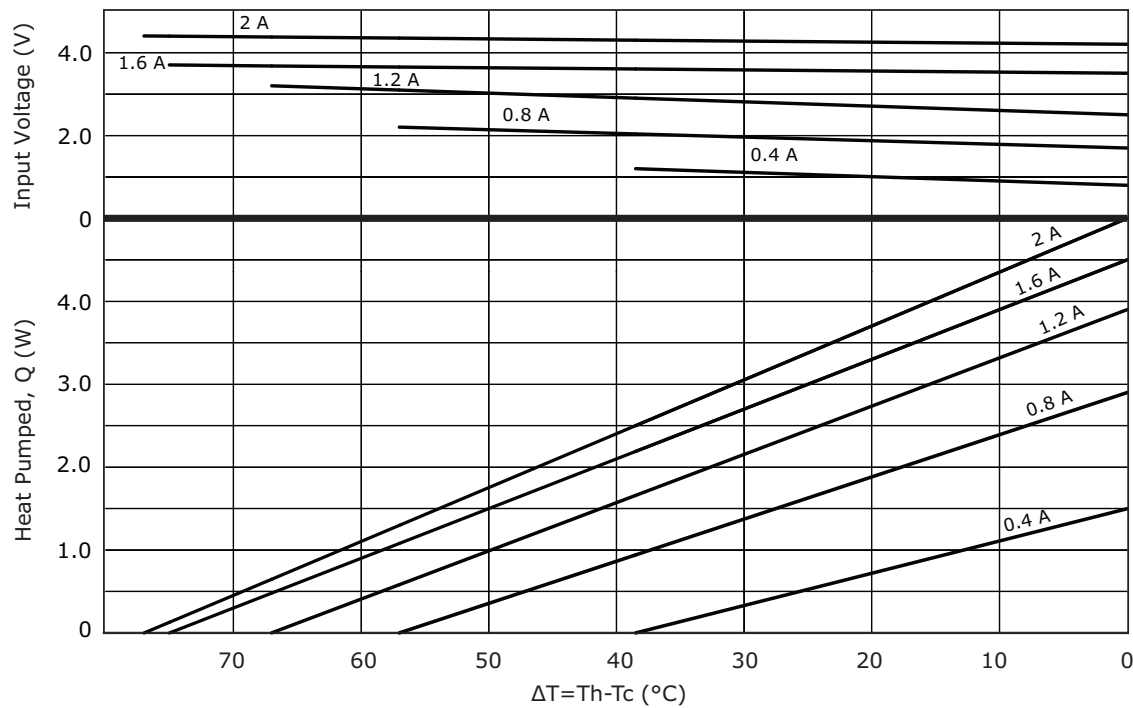


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP20147H	$15 \pm 0.3$	$15 \pm 0.3$	$4.7 \pm 0.025$
CP20247H	$20 \pm 0.3$	$20 \pm 0.3$	$4.7 \pm 0.025$
CP20301547H	$30 \pm 0.3$	$15 \pm 0.3$	$4.7 \pm 0.025$
CP203475H	$30 \pm 0.3$	$30 \pm 0.3$	$4.75 \pm 0.025$

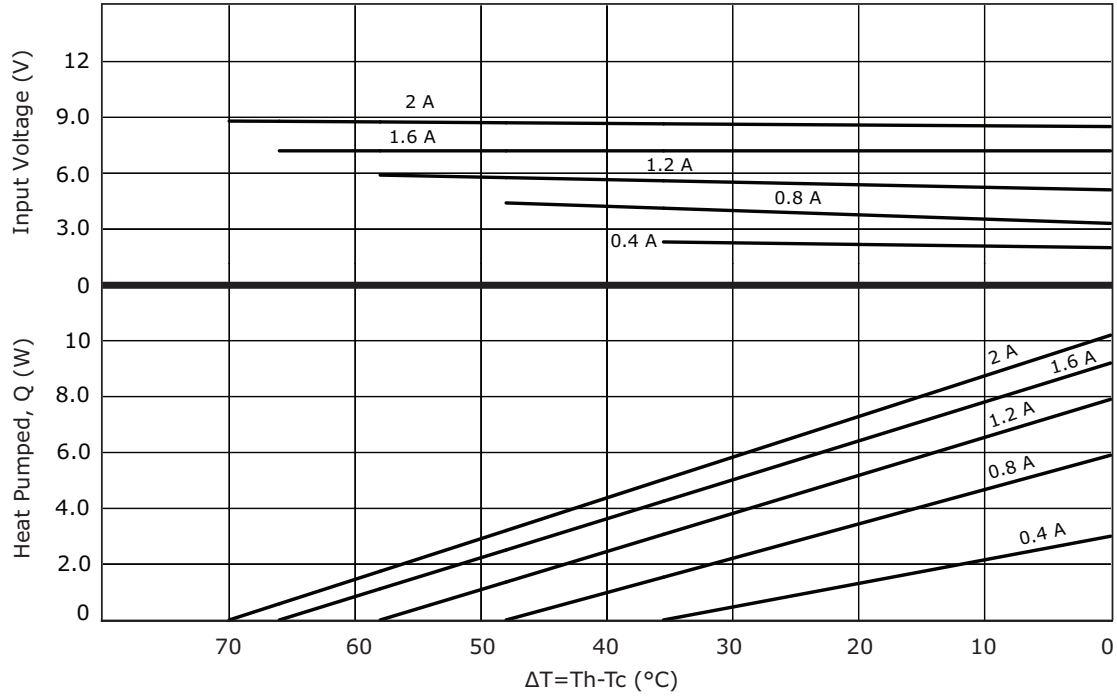
### CP20147H PERFORMANCE (Th=27°C)



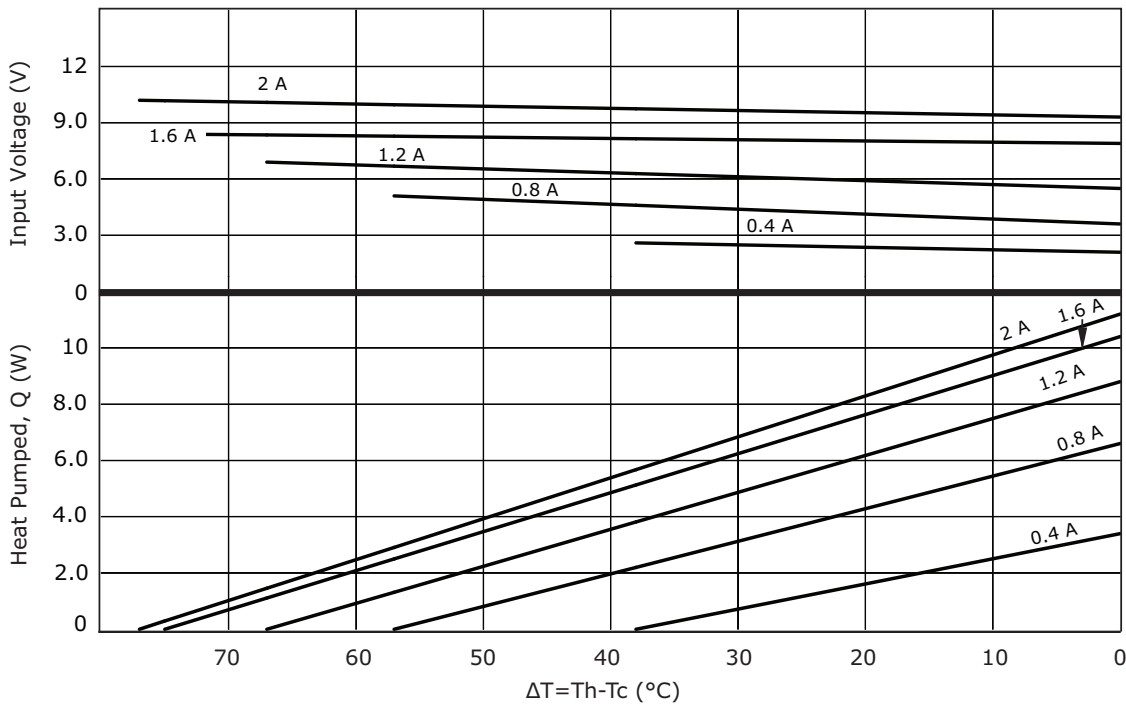
### CP20147H PERFORMANCE (Th=50°C)



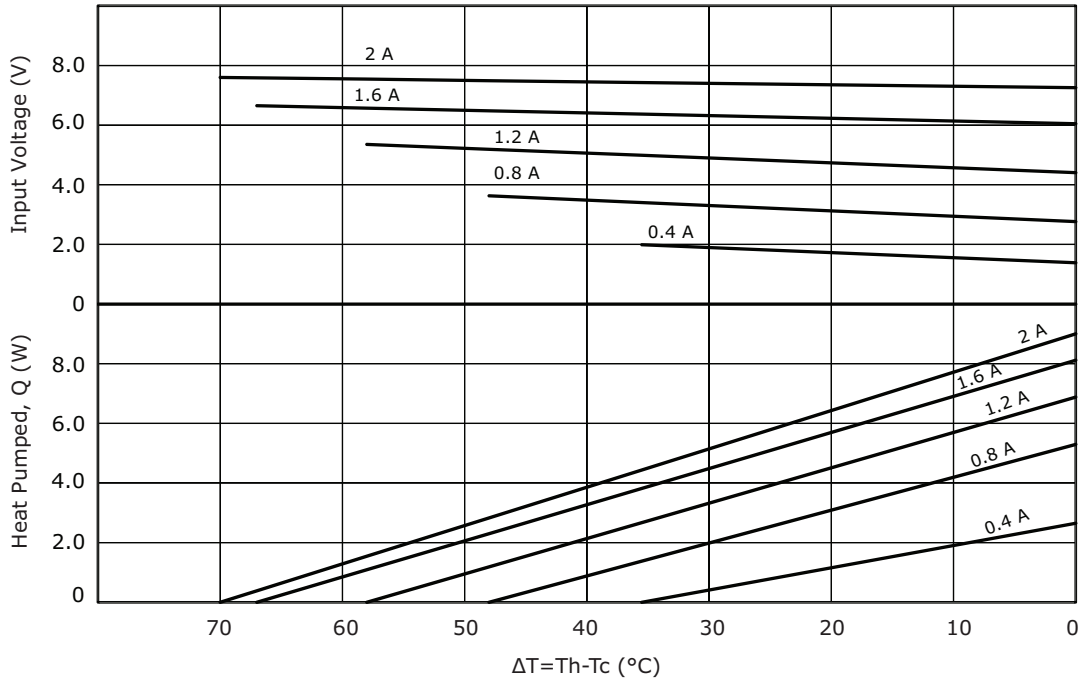
### CP20247H PERFORMANCE (Th=27°C)



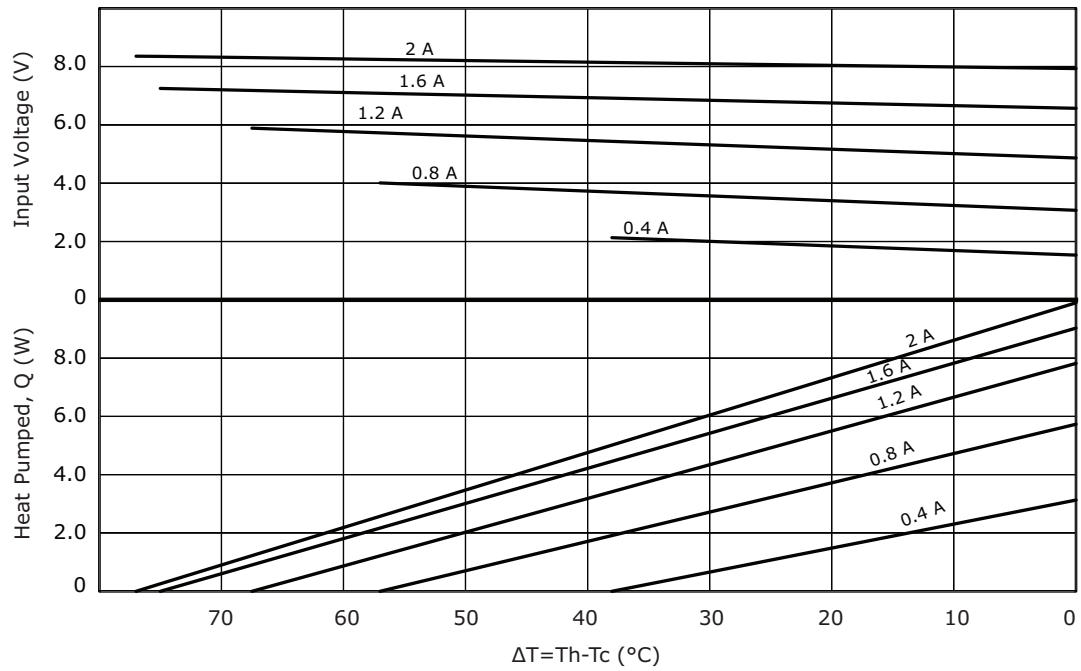
### CP20247H PERFORMANCE (Th=50°C)



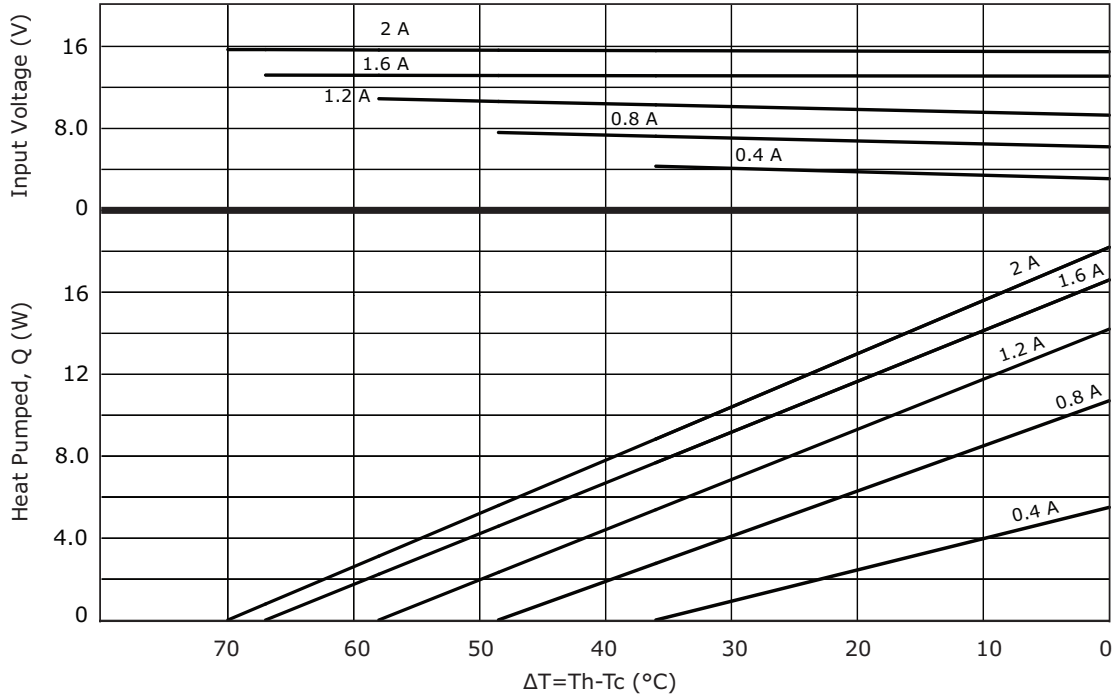
### CP20301547H PERFORMANCE (Th=27°C)



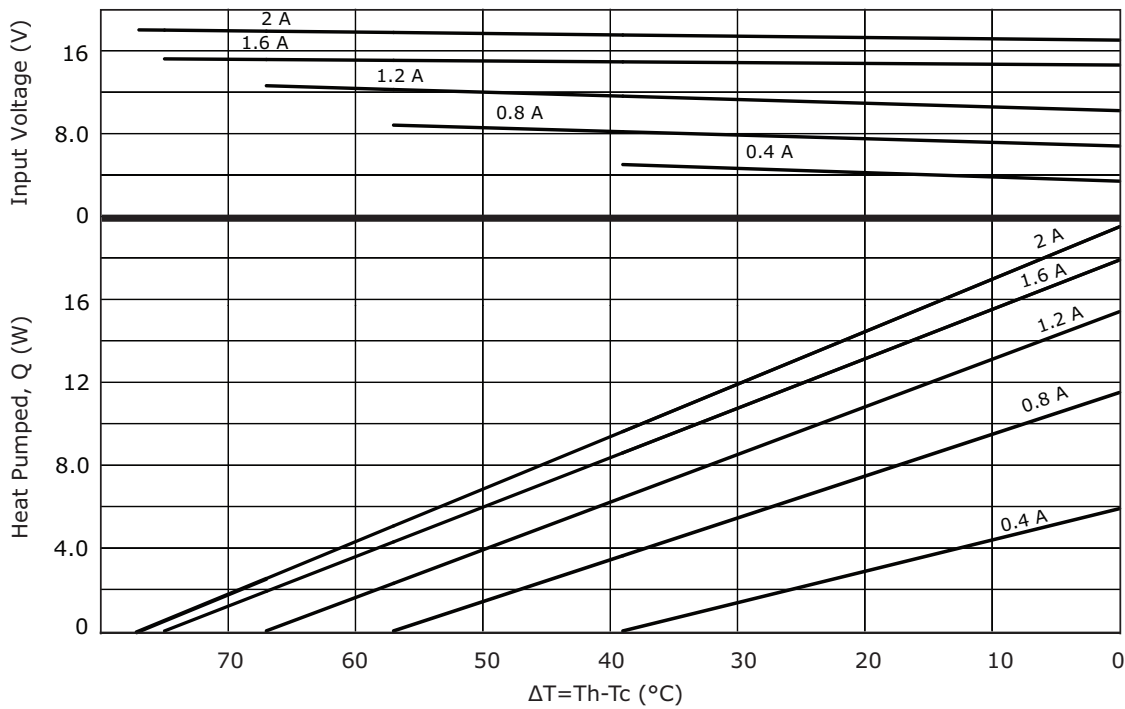
### CP20301547H PERFORMANCE (Th=50°C)



### 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
1.02	added new model	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.