

**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 [ $\Omega \pm 10\%$ ]	$T_h = 27^\circ\text{C}$ [W]	$T_h = 50^\circ\text{C}$ [W]	$T_h = 27^\circ\text{C}$ [°C]	$T_h = 50^\circ\text{C}$ [°C]
CP20147H	3.8	2.0	1.65	4.4	5.0	70	77
CP2020405H	6.0	2.0	2.0	7.7	8.5	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

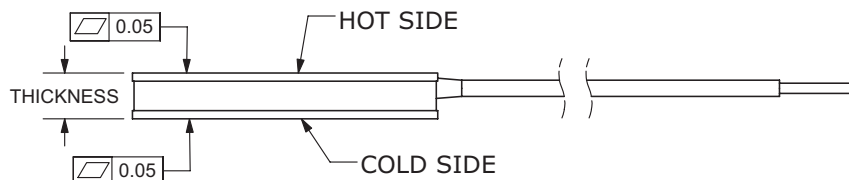
Notes: 1. Maximum voltage at  $\Delta T_{max}$  and  $T_h = 27^\circ\text{C}$   
 2. Maximum current to achieve  $\Delta T_{max}$   
 3. Measured by AC 4-terminal method at  $25^\circ\text{C}$   
 4. Maximum heat absorbed at cold side occurs at  $I_{max}$ ,  $V_{max}$ , and  $\Delta T = 0^\circ\text{C}$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

## SPECIFICATIONS

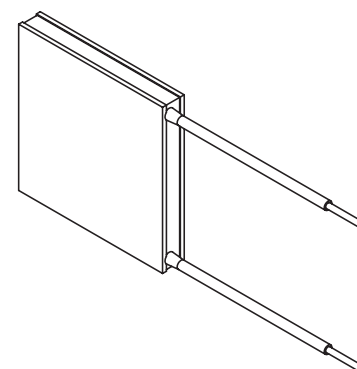
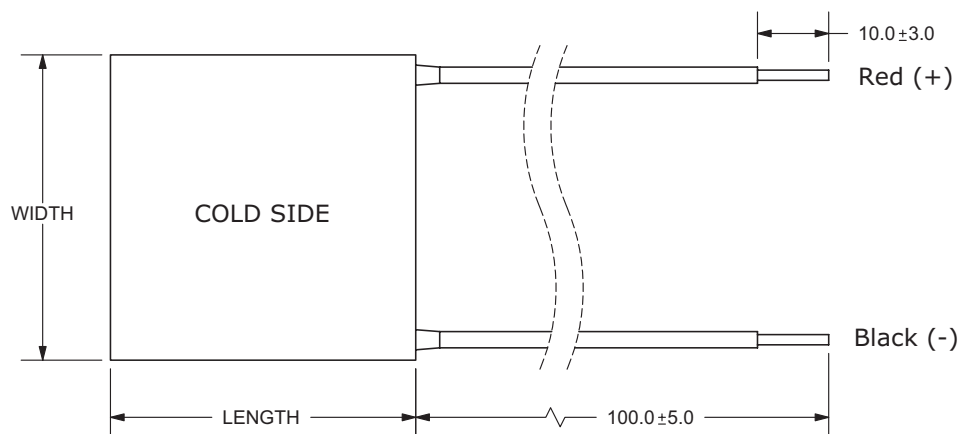
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

## MECHANICAL DRAWING

units: mm

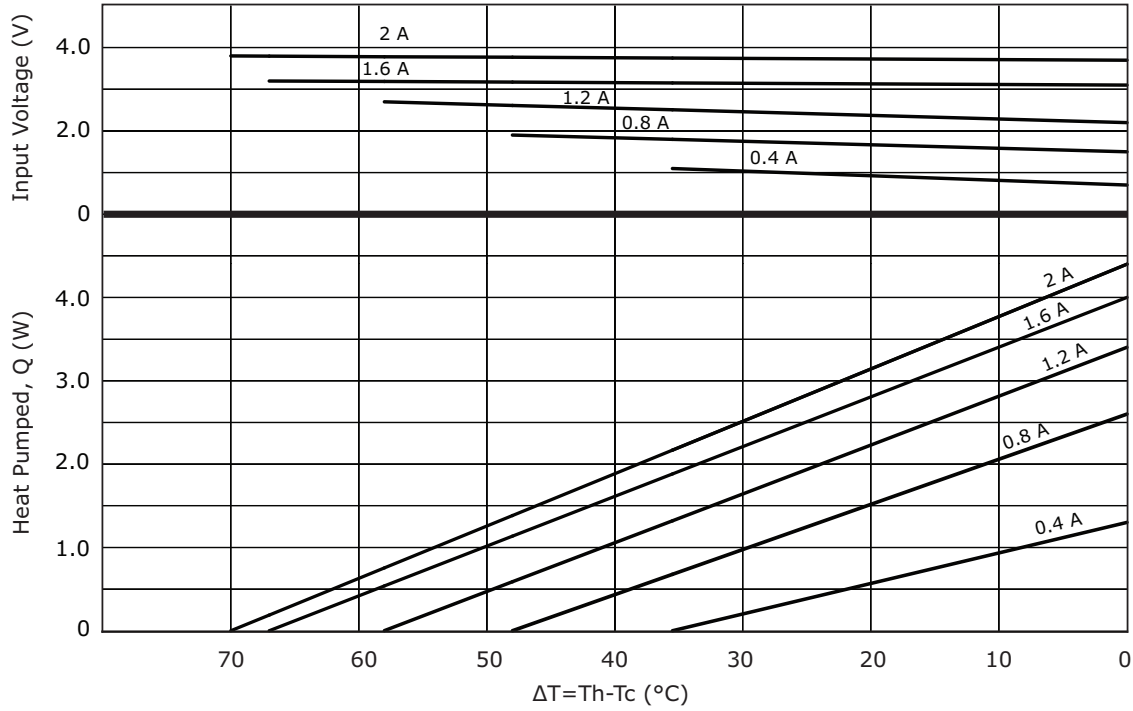


	MATERIAL	PLATING
ceramic plate	96% $Al_2O_3$	
wire leads	22 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

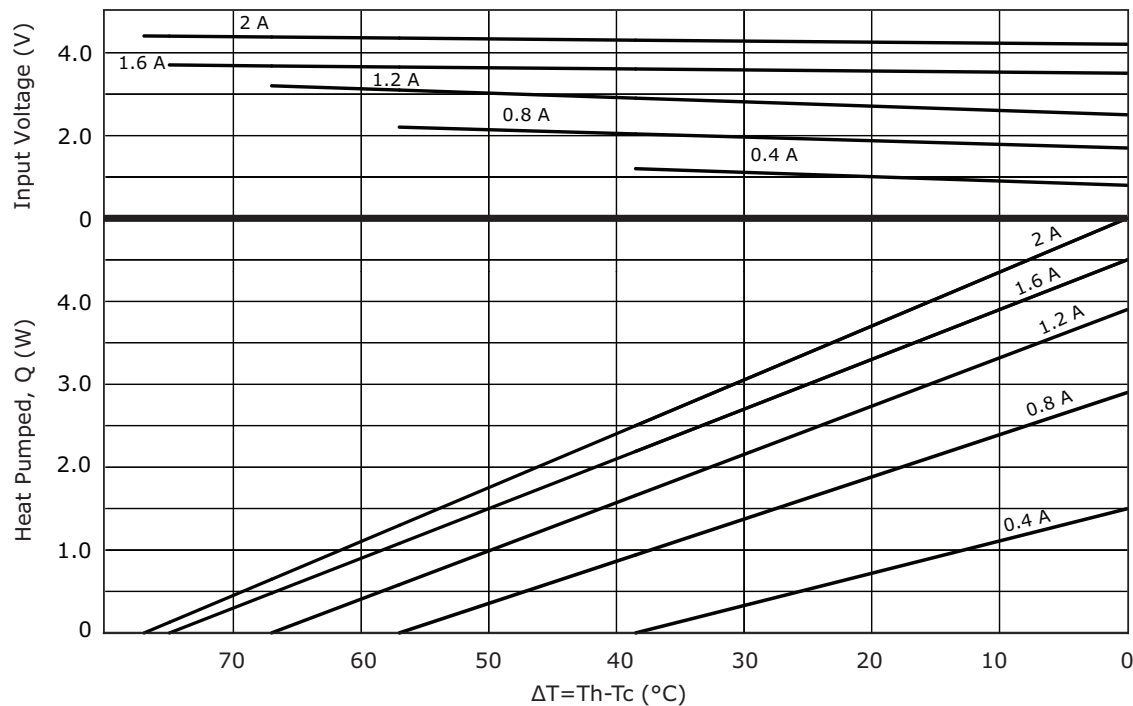


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP20147H	15 ± 0.3	15 ± 0.3	4.7 ± 0.025
CP2020405H	20 ± 0.3	20 ± 0.3	4.05 ± 0.10
CP20247H	20 ± 0.3	20 ± 0.3	4.7 ± 0.025
CP20301547H	30 ± 0.3	15 ± 0.3	4.7 ± 0.025
CP203475H	30 ± 0.3	30 ± 0.3	4.75 ± 0.025

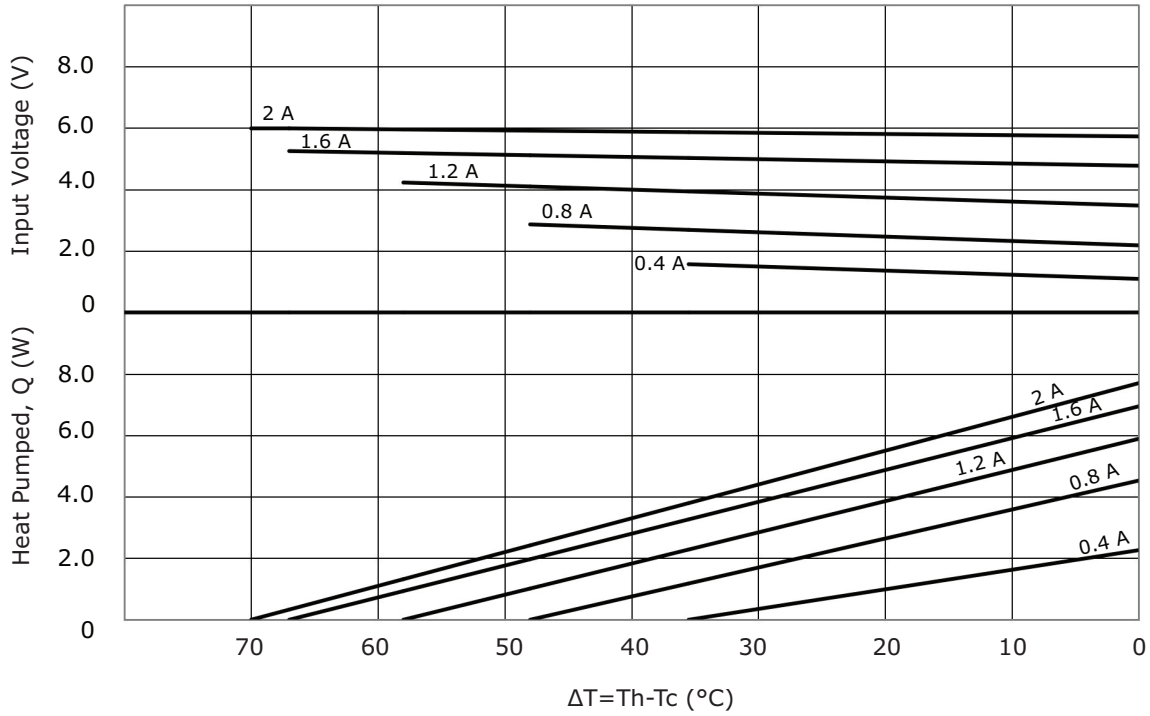
## CP20147H PERFORMANCE (Th=27°C)



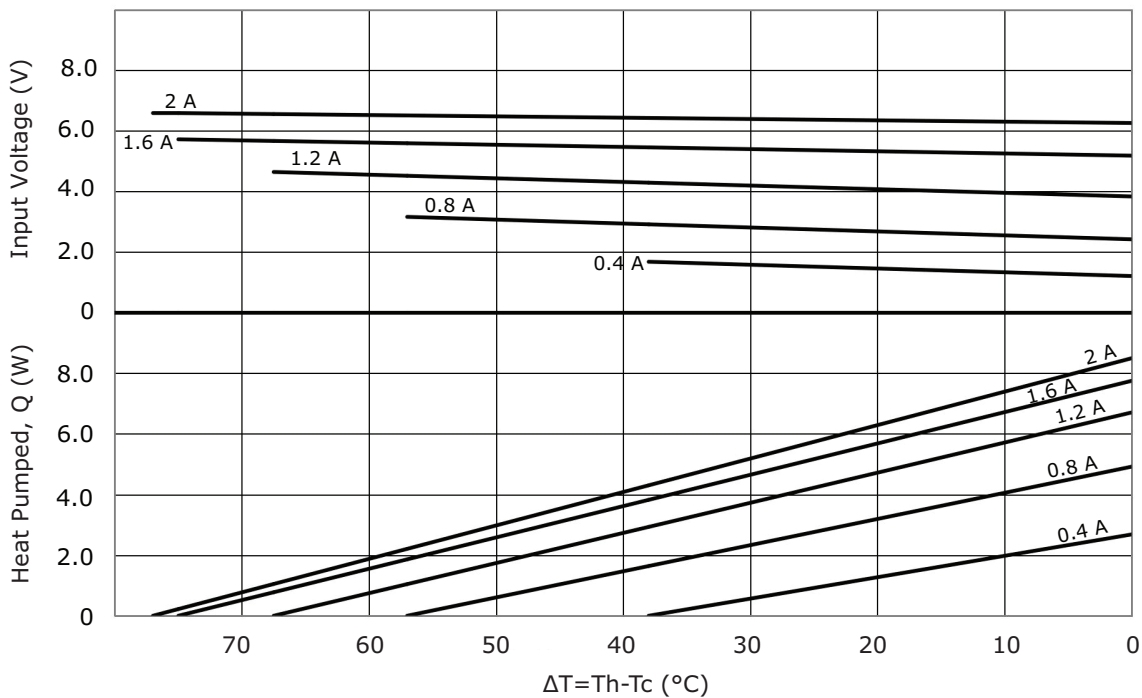
## CP20147H PERFORMANCE (Th=50°C)



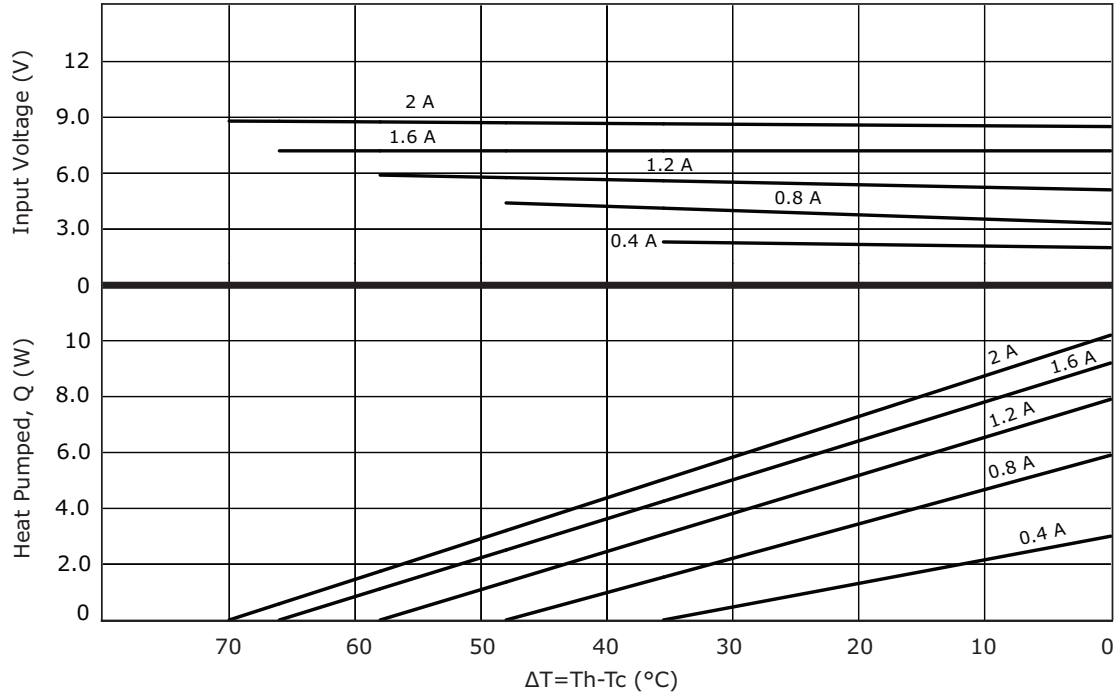
## CP2020405H PERFORMANCE (Th=27°C)



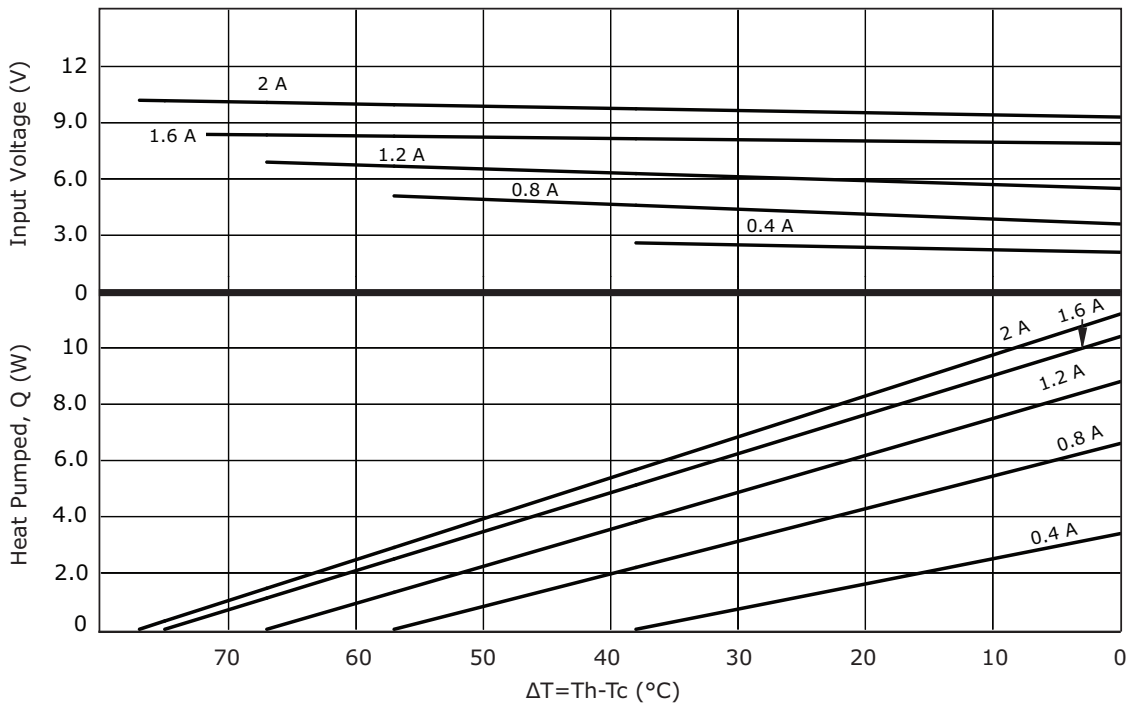
## CP2020405H PERFORMANCE (Th=50°C)



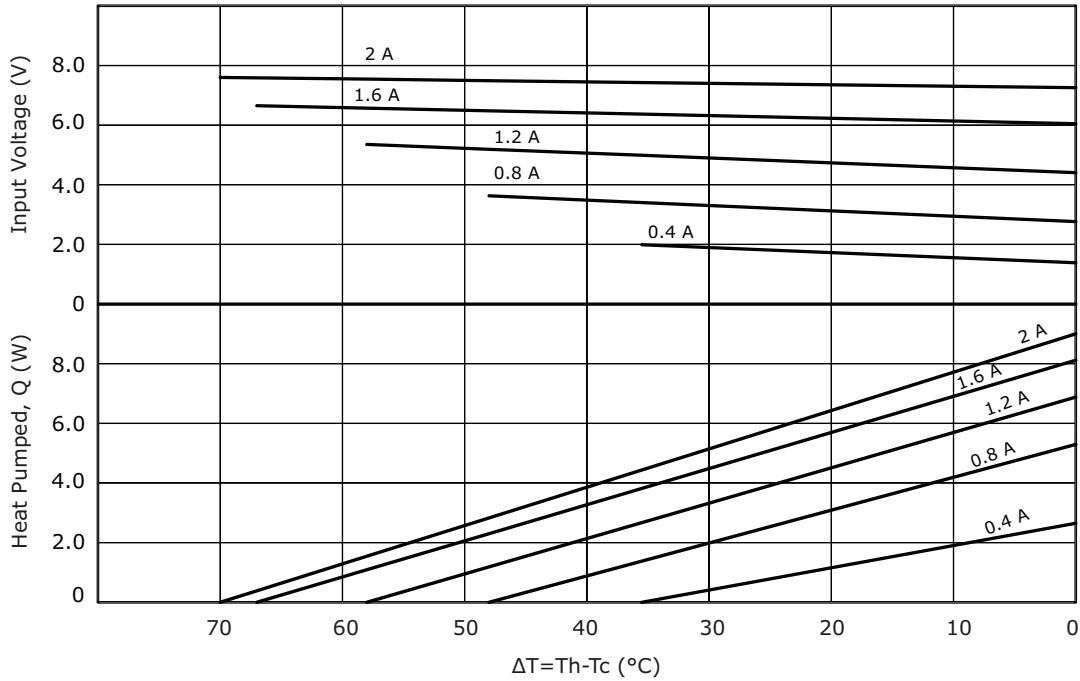
## CP20247H PERFORMANCE (Th=27°C)



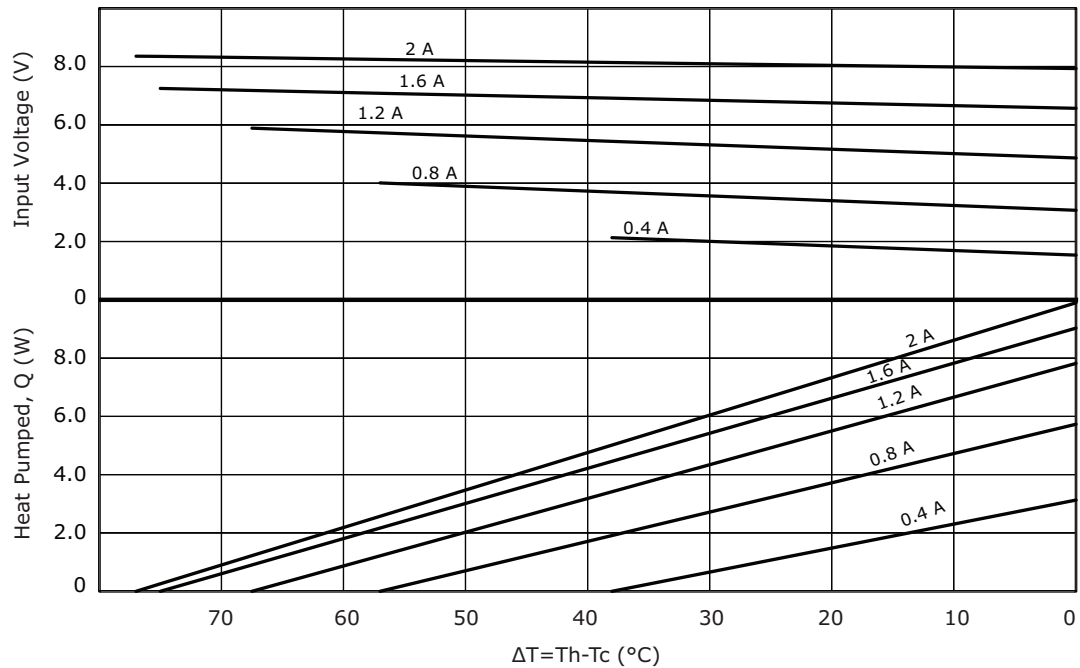
## CP20247H PERFORMANCE (Th=50°C)



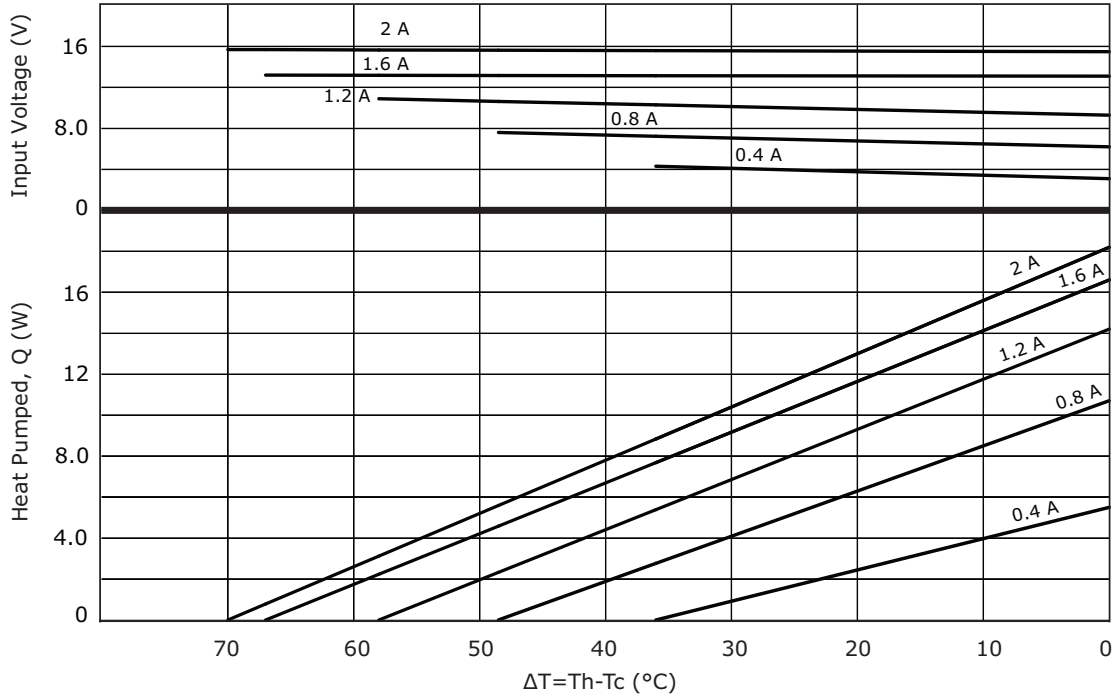
## CP20301547H PERFORMANCE (Th=27°C)



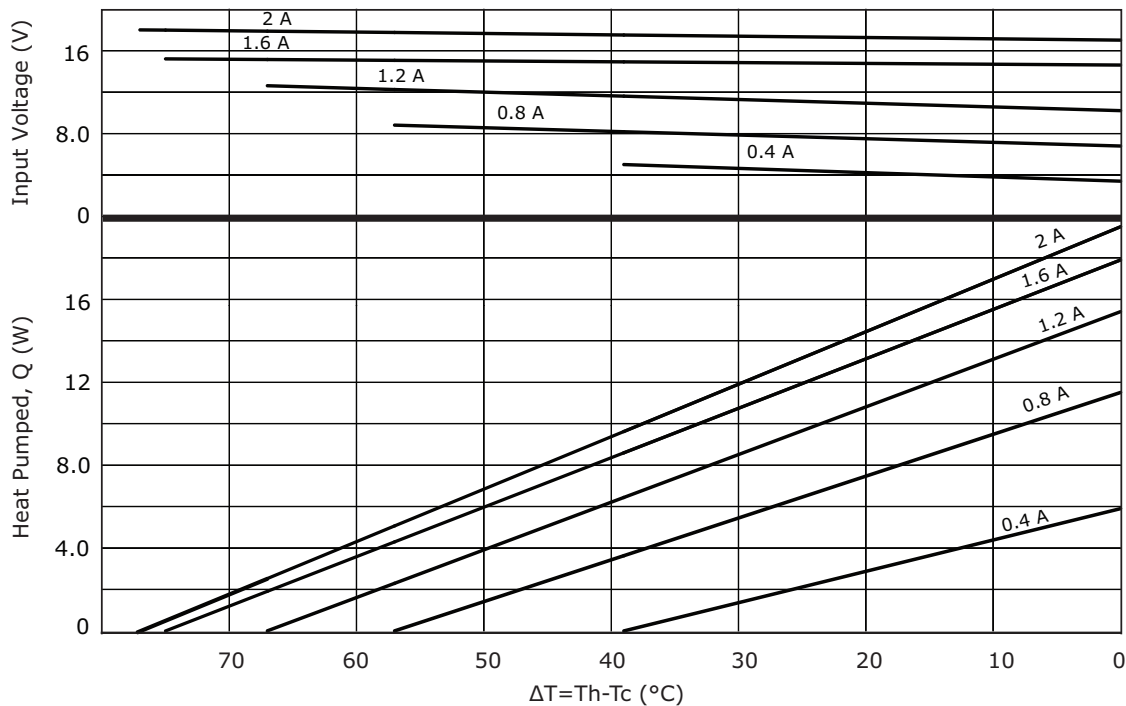
## CP20301547H PERFORMANCE (Th=50°C)



## 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
1.03	brand update	10/28/2019
1.04	added model CP2020405H	11/09/2020
1.05	logo, datasheet style update	08/05/2022

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



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