

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

	input voltage ¹	input current ²	internal resistance ³	output Qmax ⁴		output ΔT_{max} ⁵	
	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 ⁶	15.7	2.0	6.7	18.2	19.5	70	77

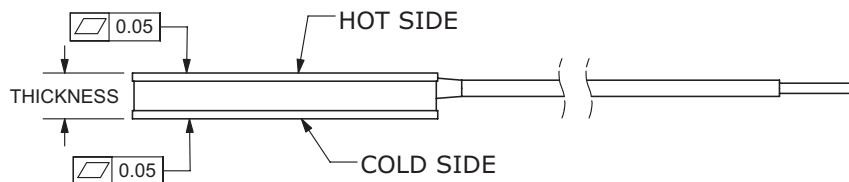
Notes: 1. Maximum voltage at ΔT_{max} and $T_h = 27^\circ\text{C}$
 2. Maximum current to achieve ΔT_{max}
 3. Measured by AC 4-terminal method at 25°C
 4. Maximum heat absorbed at cold side occurs at I_{max} , V_{max} , and $\Delta T = 0^\circ\text{C}$
 5. Maximum temperature difference occurs at I_{max}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

SPECIFICATIONS

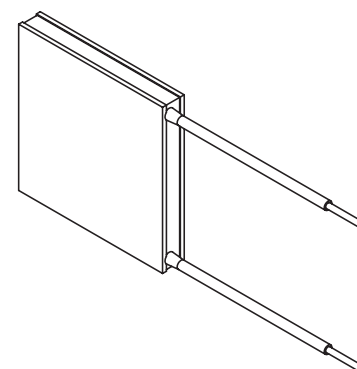
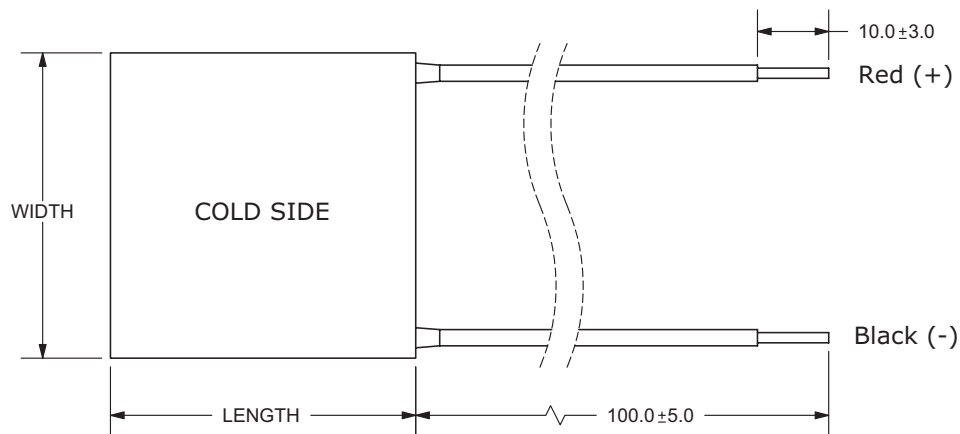
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

MECHANICAL DRAWING

units: mm

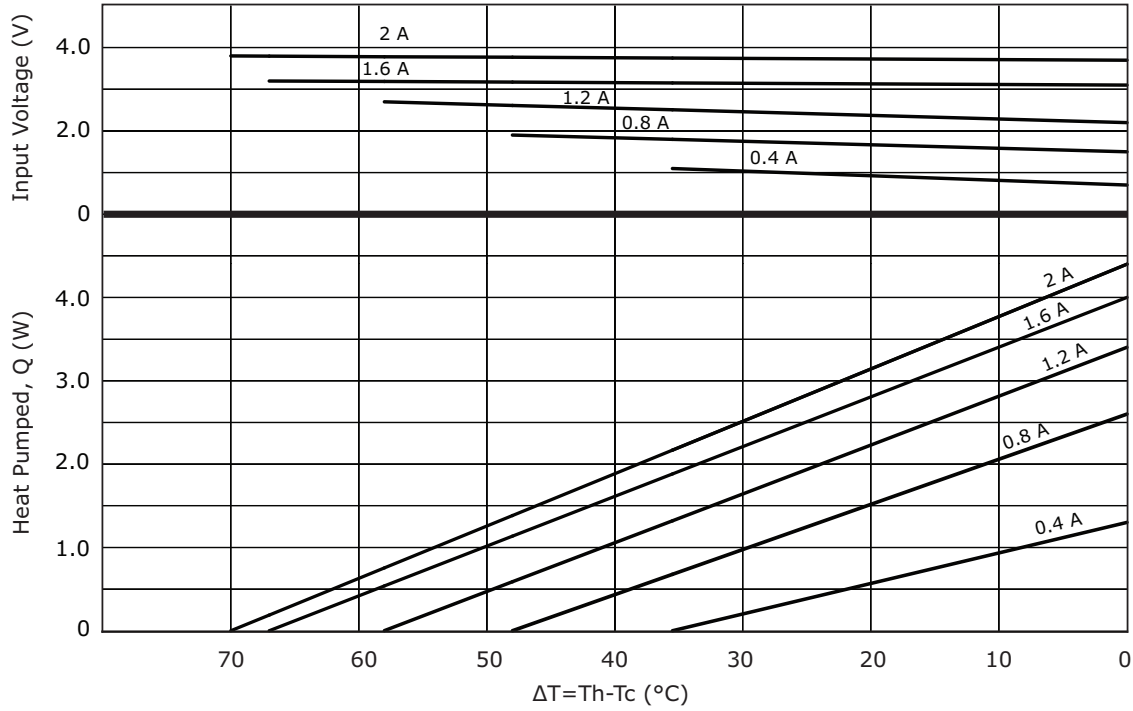


	MATERIAL	PLATING
ceramic plate	96% AL ₂ O ₃	
wire leads	22 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

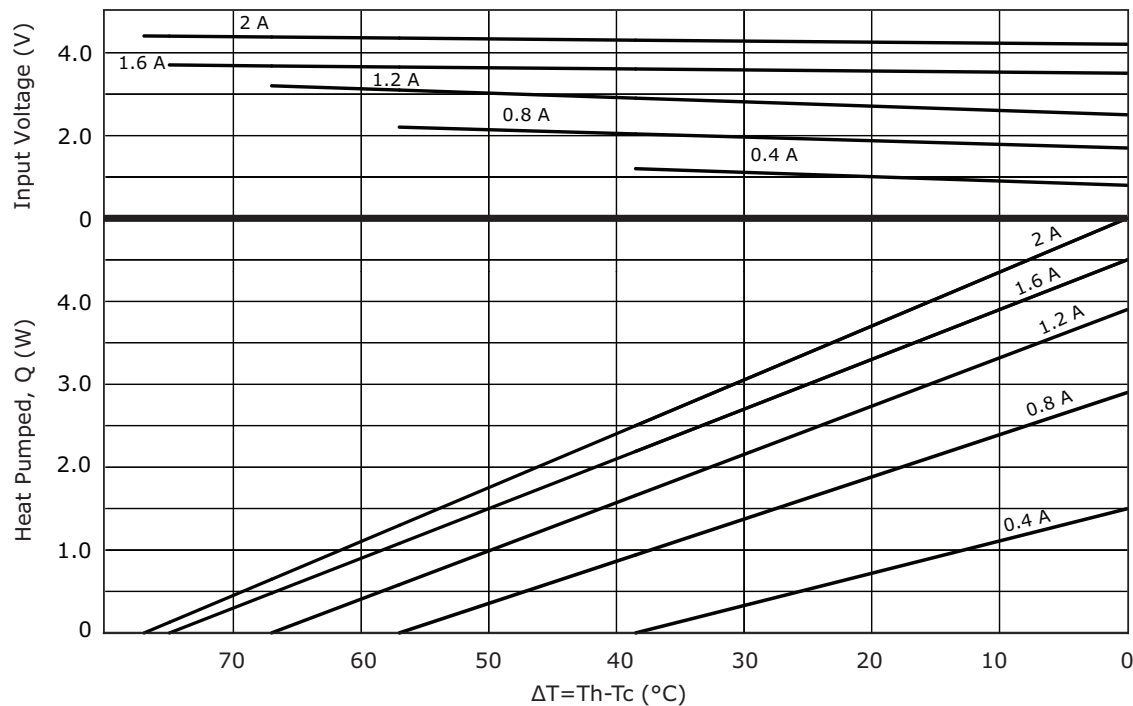


MODEL NO.	LENGTH [mm]	WIDTH [mm]	THICKNESS [mm]
CP20147H	15 ± 0.3	15 ± 0.3	4.7 ± 0.025
CP2020405H	20 ± 0.3	20 ± 0.3	4.05 ± 0.10
CP20247H	20 ± 0.3	20 ± 0.3	4.7 ± 0.025
CP20301547H	30 ± 0.3	15 ± 0.3	4.7 ± 0.025
CP203475H	30 ± 0.3	30 ± 0.3	4.75 ± 0.025

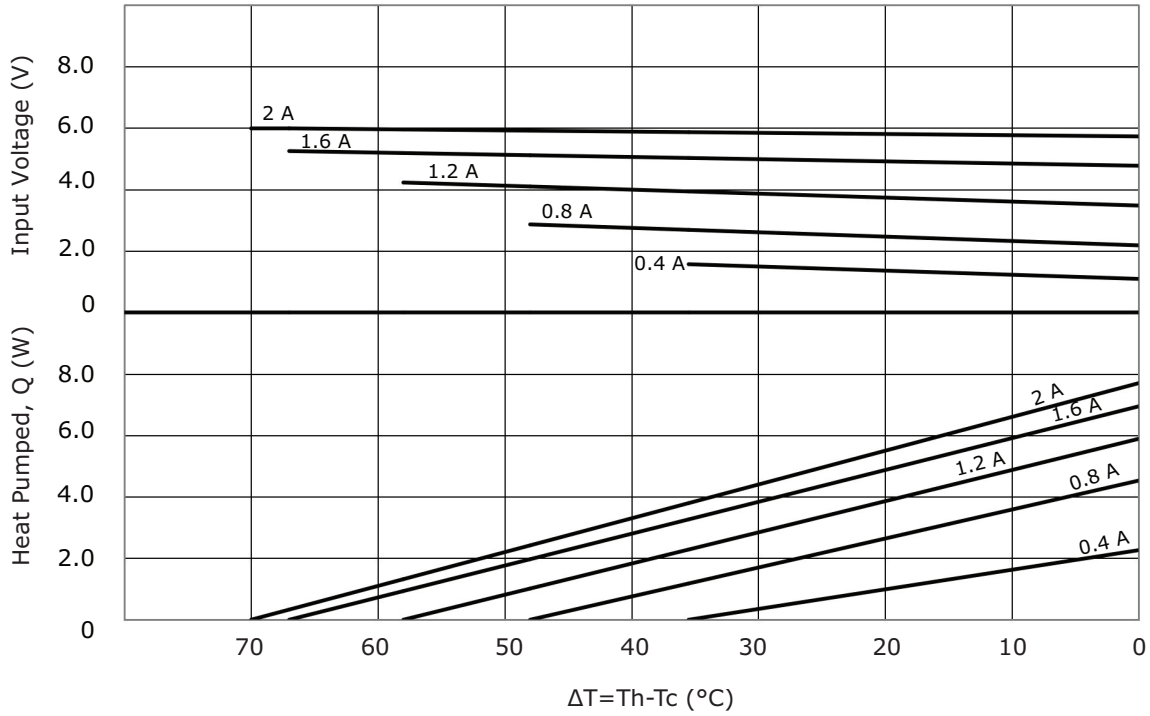
CP20147H PERFORMANCE (Th=27°C)



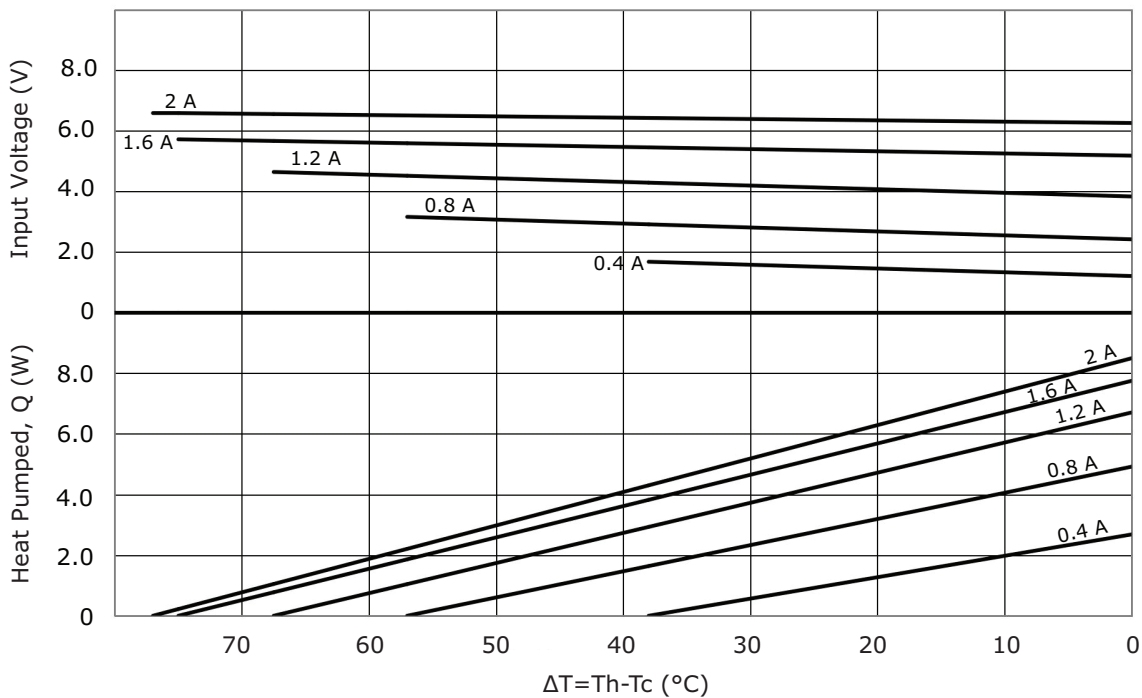
CP20147H PERFORMANCE (Th=50°C)



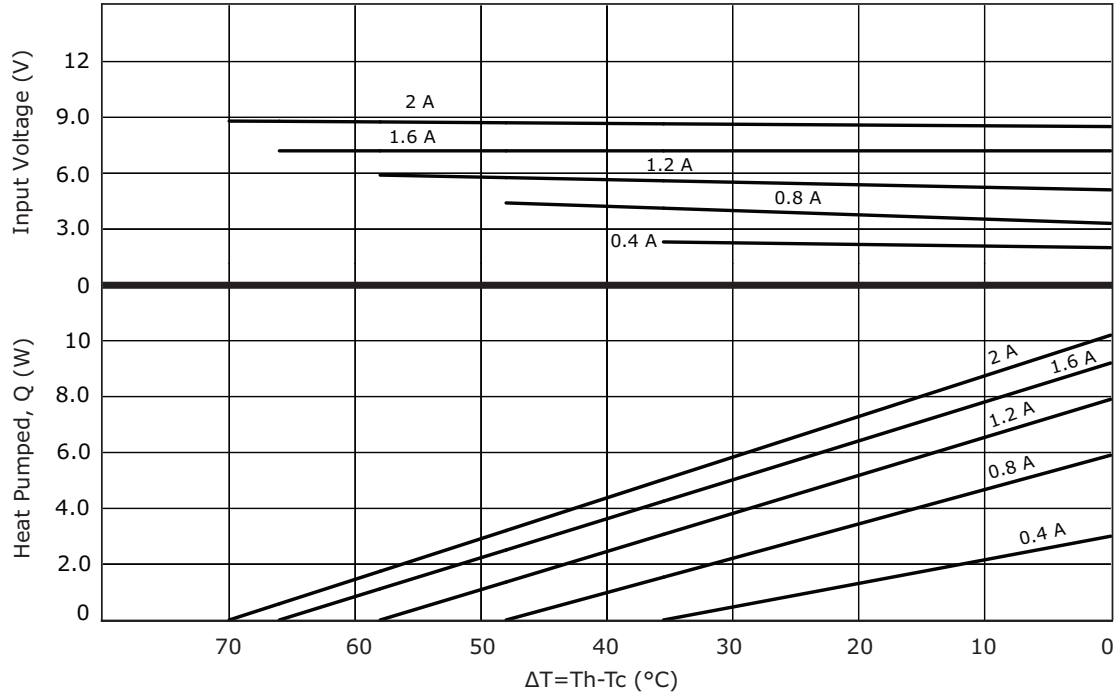
CP2020405H PERFORMANCE (Th=27°C)



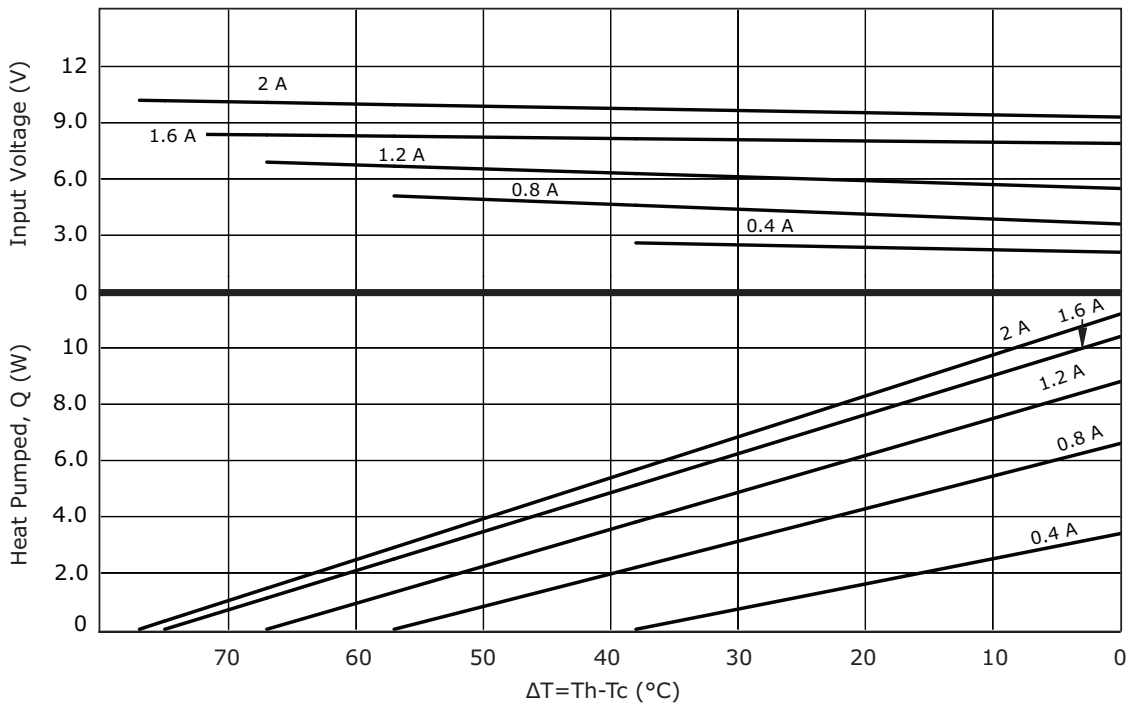
CP2020405H PERFORMANCE (Th=50°C)



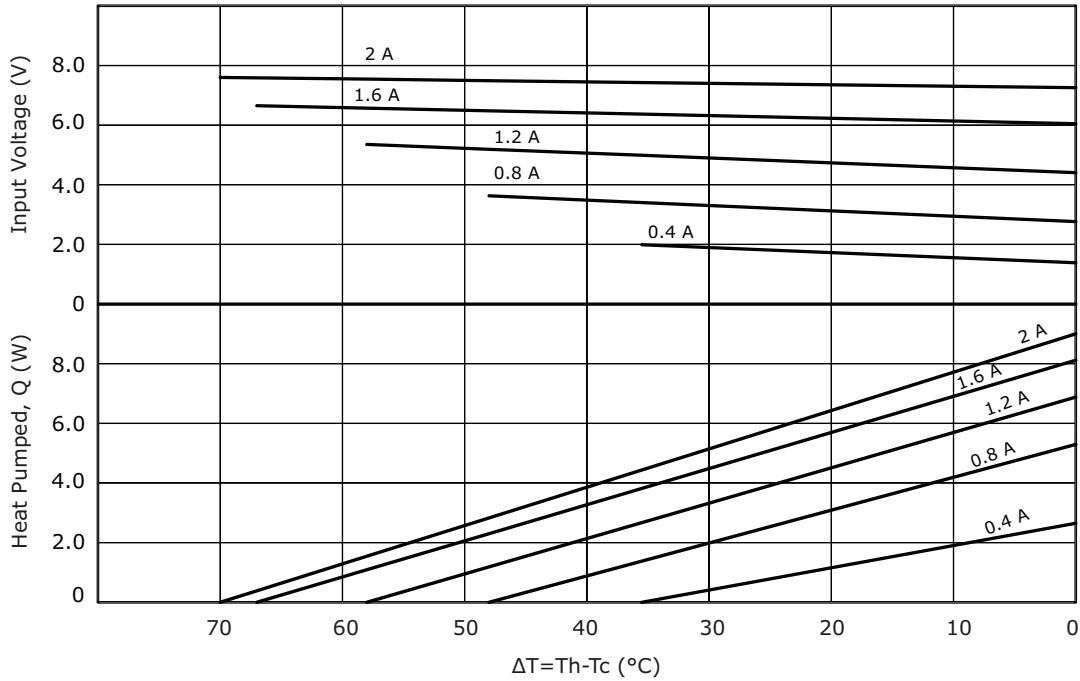
CP20247H PERFORMANCE (Th=27°C)



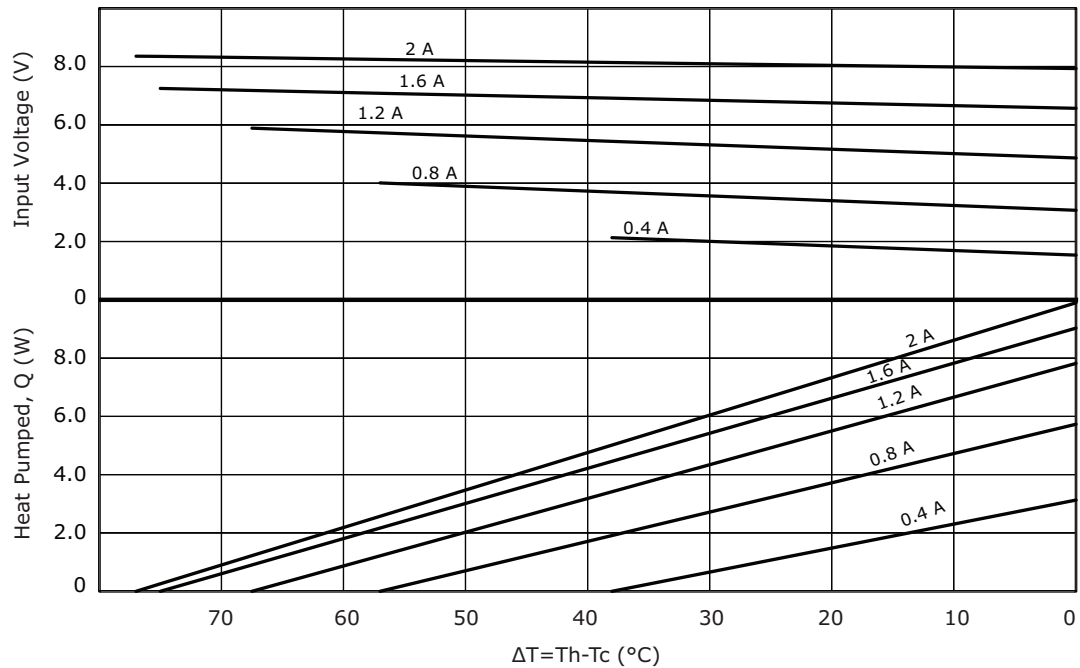
CP20247H PERFORMANCE (Th=50°C)



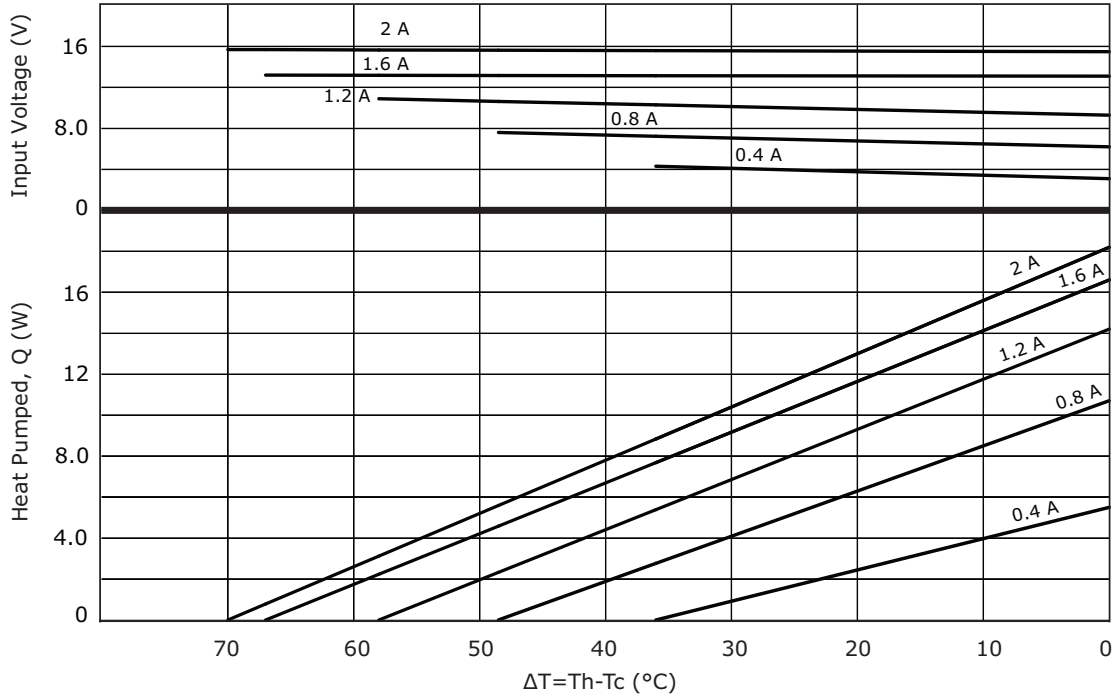
CP20301547H PERFORMANCE (Th=27°C)



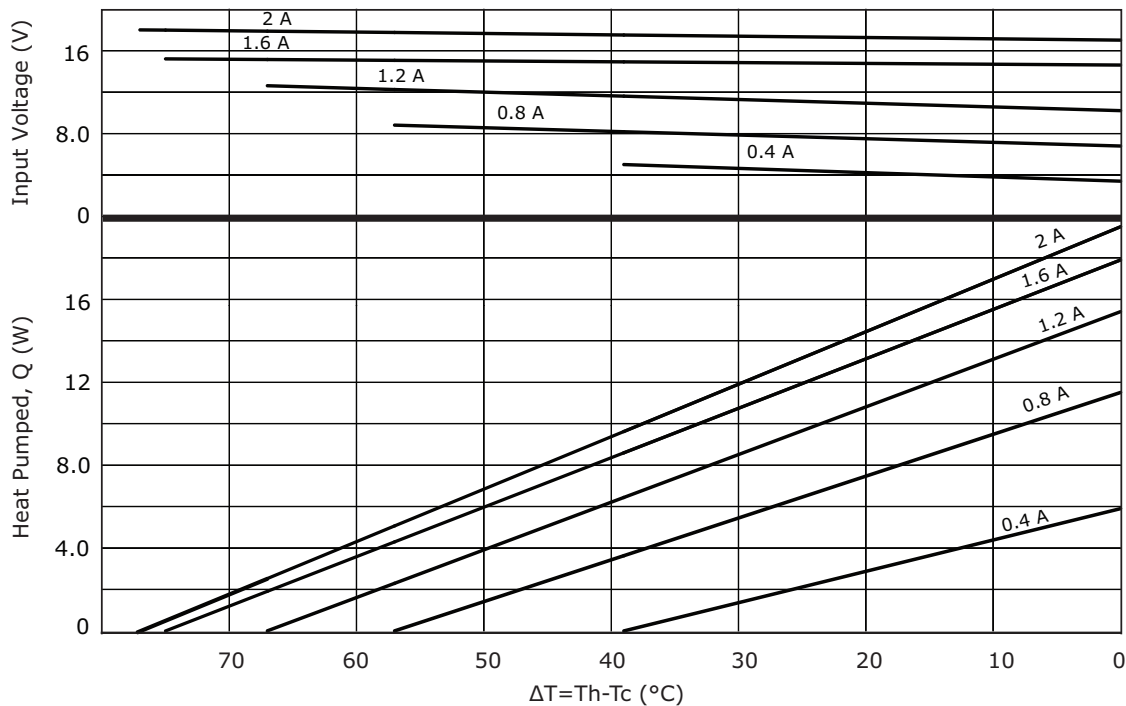
CP20301547H PERFORMANCE (Th=50°C)



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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