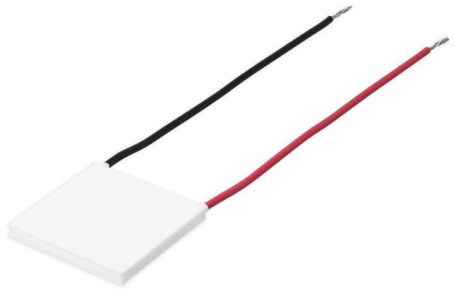
CUDEVICES

SERIES: CP100 | **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



RoHS

MODEL	input voltage[1] max (Vdc)	input current[2] max (A)	internal resistance[3] typ (Ω±10%)	output Qmax[4] T_h=27°C (W)	output Qmax[4] T_h=50°C (W)	output ΔTmax[5] T_h=27°C (°C)	output ΔTmax[5] T_h=50°C (°C)
CP10205033	9.6	10	0.71	56.2	62	68	75
CP103033[6]	11.8	10	0.88	69	75	70	77
CP10304033[6]	15	10	1.13	89	97	70	77
CP10415273[6]	4.9	10	0.37	28	30	70	77
CP105559415[6]	24.6	10	1.82	140	154	70	77

Notes:
1. Maximum voltage at ΔT max and T_h=27°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 ΔT=0°C
5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
6. Designed with arcTEC™ structure.

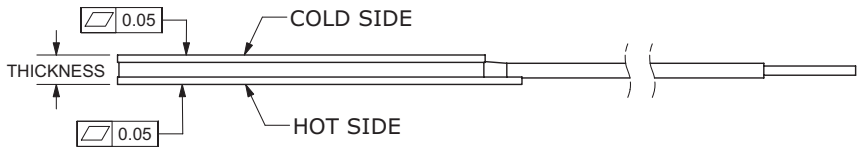
SPECIFICATIONS

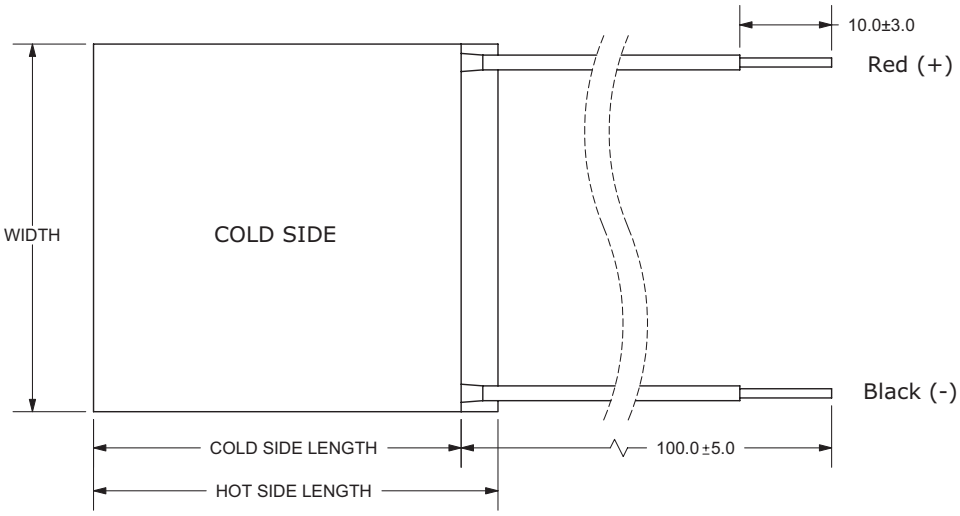
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

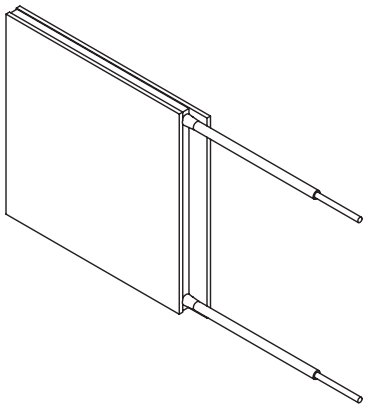
MECHANICAL DRAWING

units: mm

	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads (CP10415273)	18 AWG	tin
wire leads (all other models)	20 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	

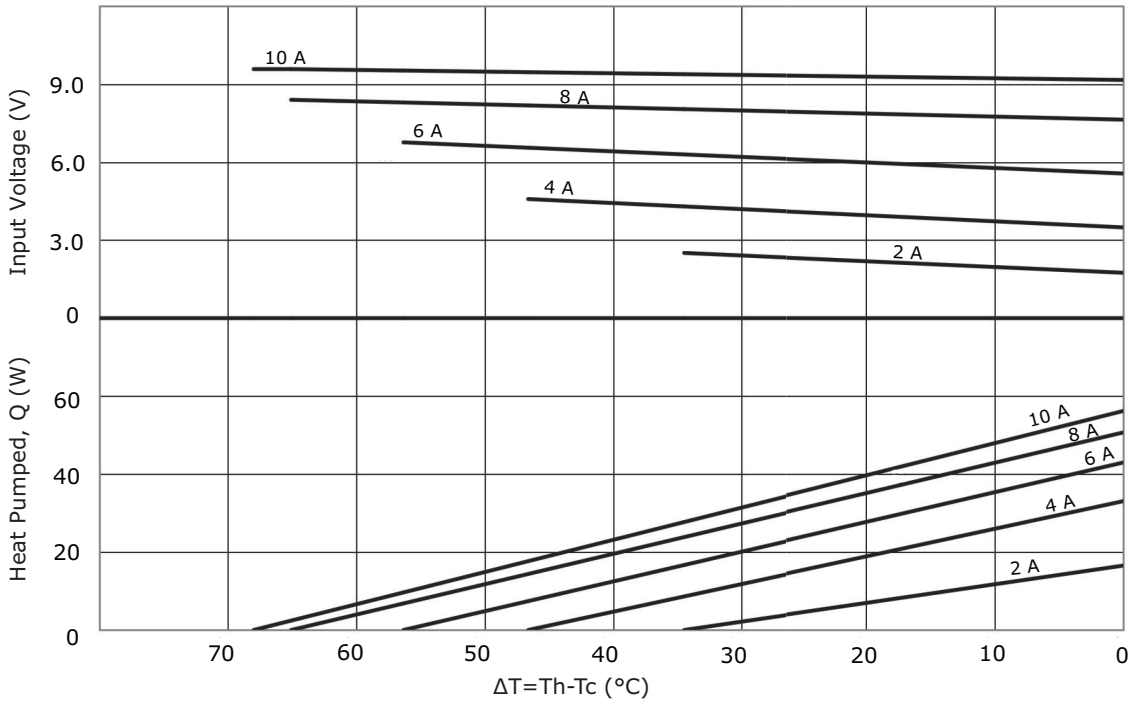




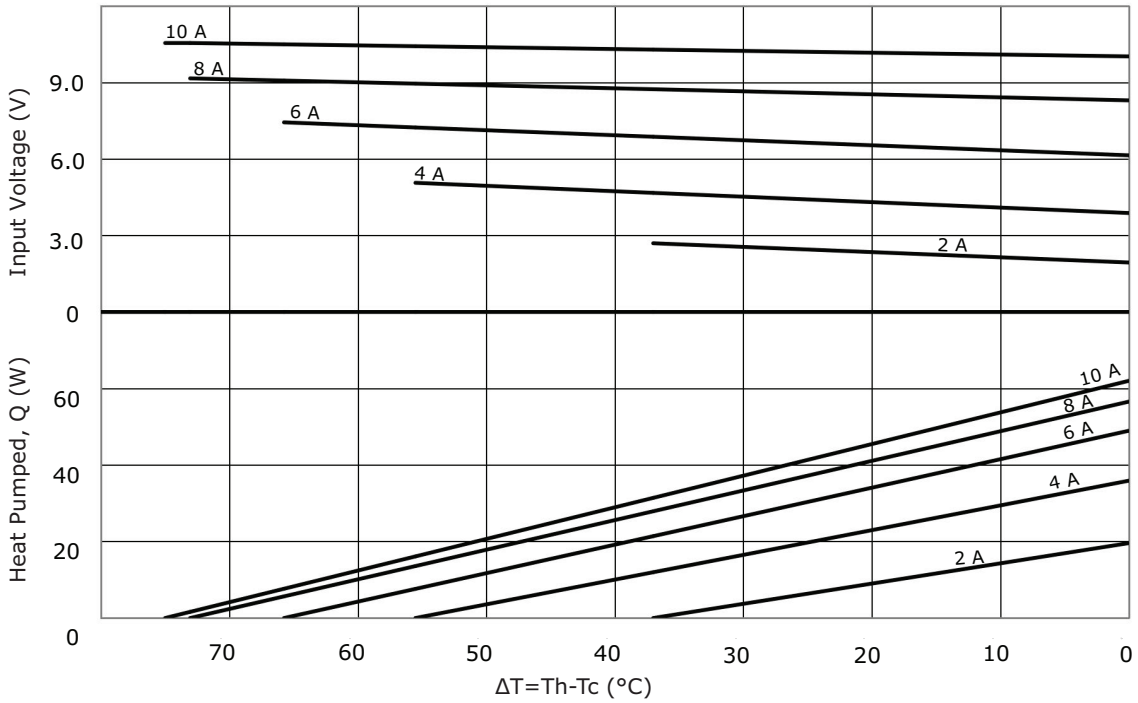


MODEL NO.	HOT SIDE LENGTH (mm)	COLD SIDE LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP10205033	20 ±0.3	20 ±0.3	50 ±0.3	3.3 ±0.1
CP103033	30 ±0.3	30 ±0.3	30 ±0.3	3.3 ±0.1
CP10304033	30 ±0.3	30 ±0.3	40 ±0.3	3.3 ±0.1
CP10415273	57 ±0.3	52 ±0.3	41 ±0.3	7.3 ±0.1
CP105559415	59 ±0.3	55 ±0.3	55 ±0.3	4.15 ±0.1

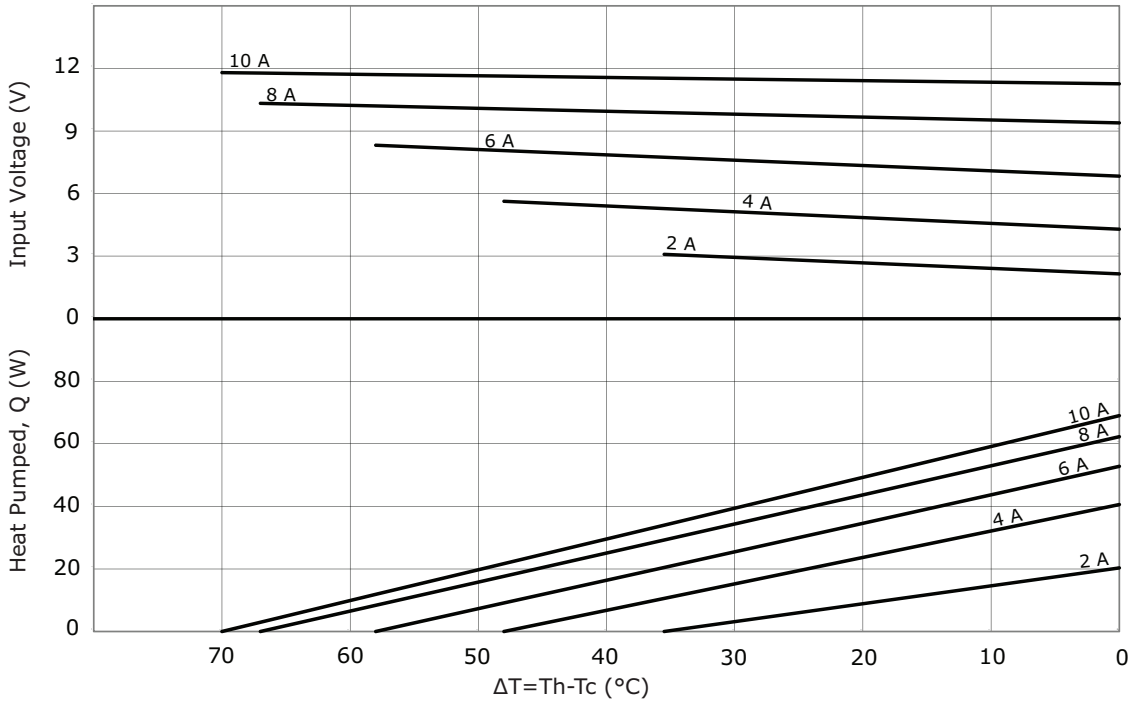
CP10205033 PERFORMANCE (Th=27°C)



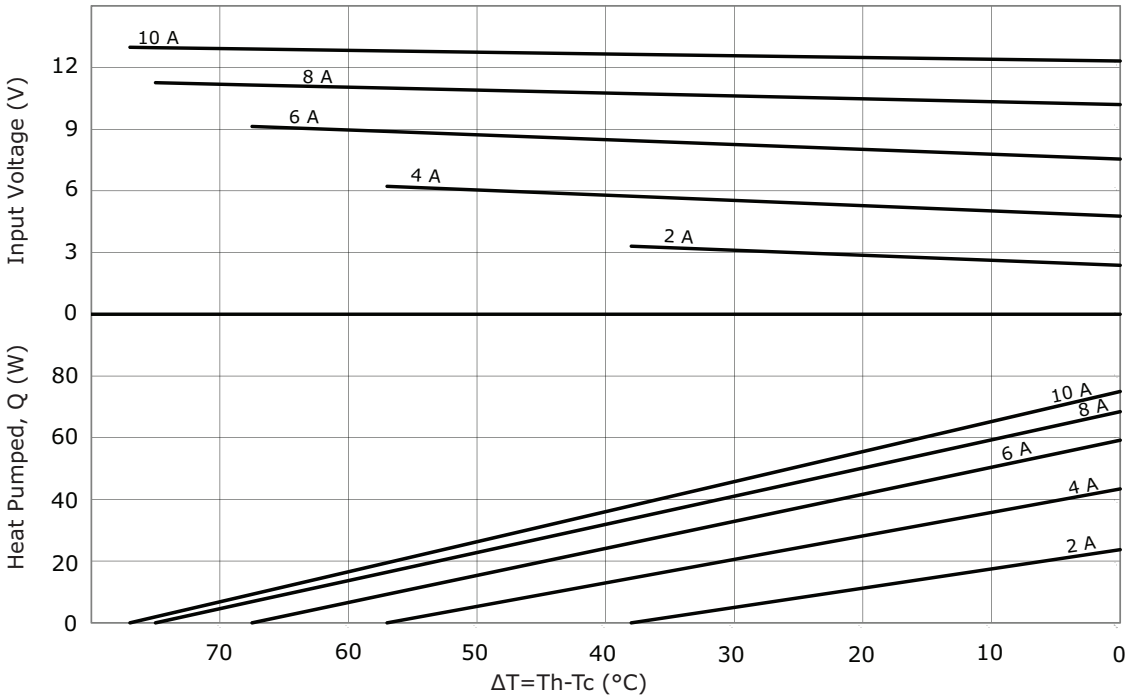
CP10205033 PERFORMANCE (Th=50°C)



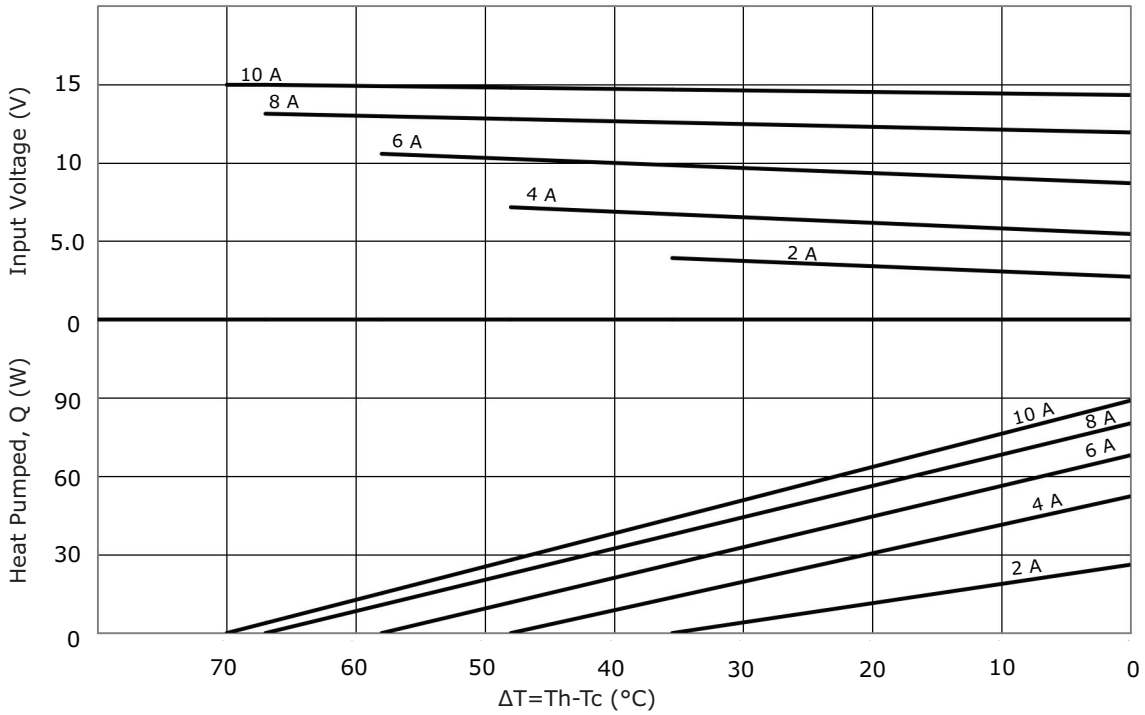
CP103033 PERFORMANCE (Th=27°C)



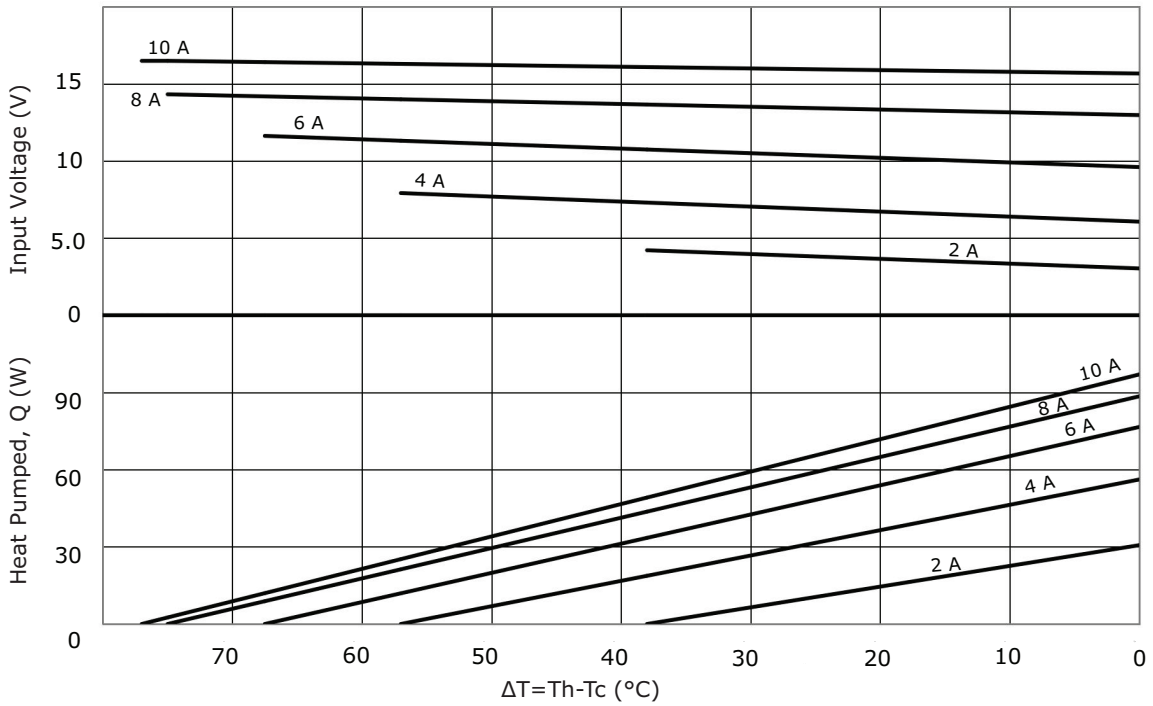
CP103033 PERFORMANCE (Th=50°C)



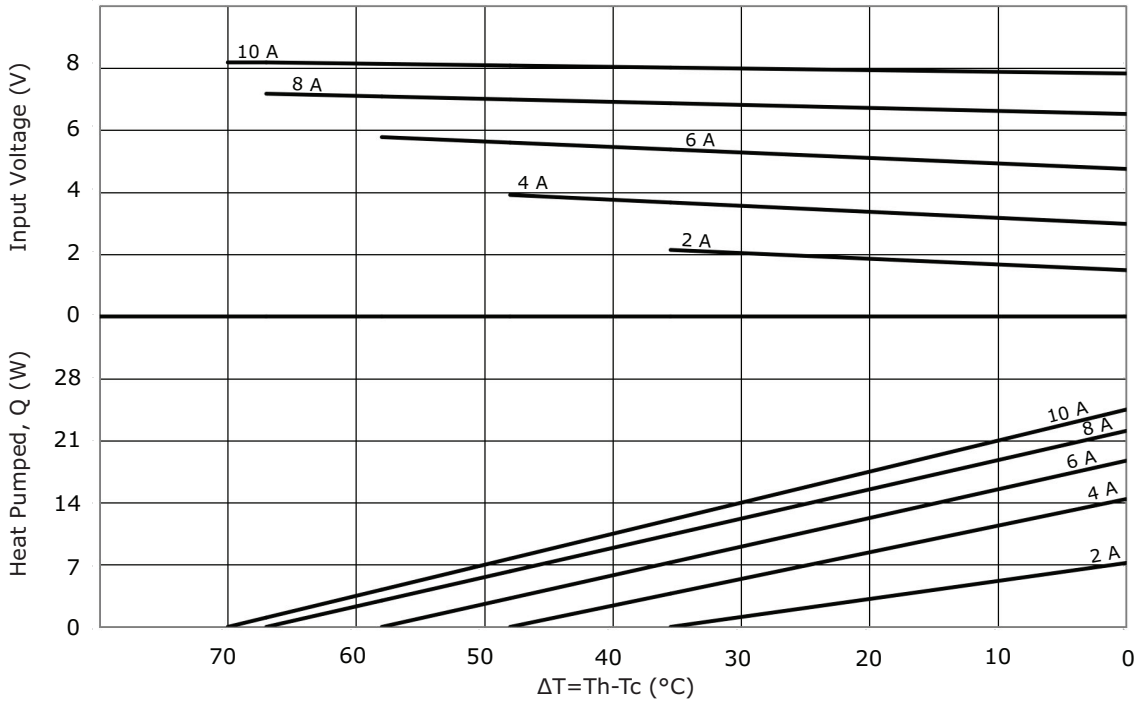
CP10304033 PERFORMANCE (Th=27°C)



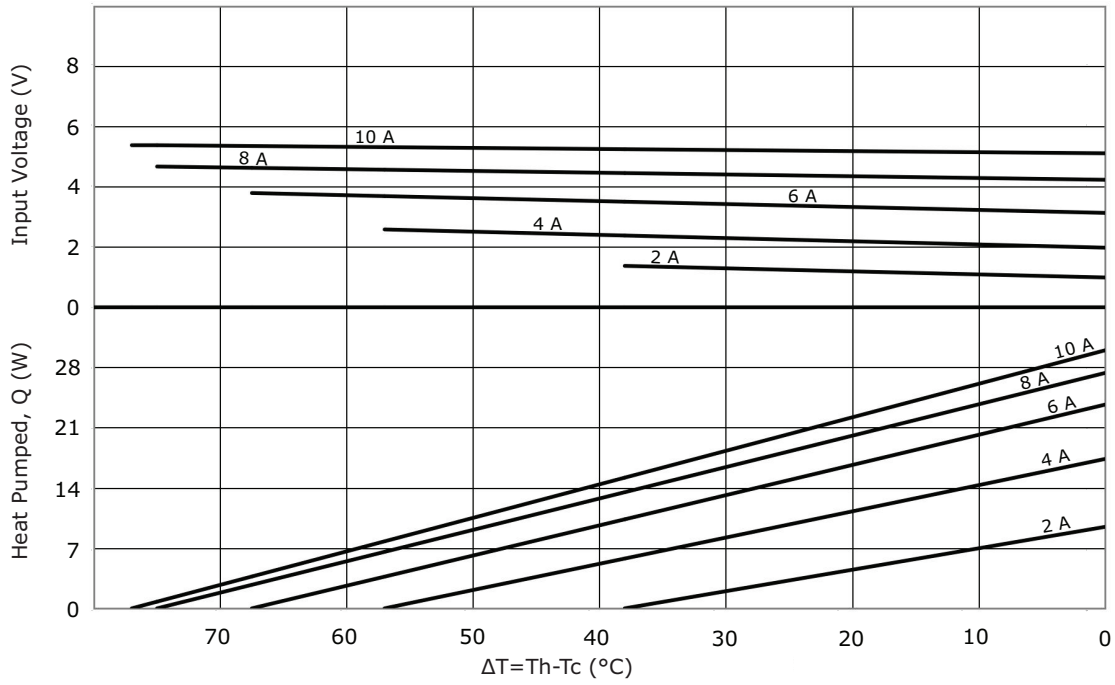
CP10304033 PERFORMANCE (Th=50°C)



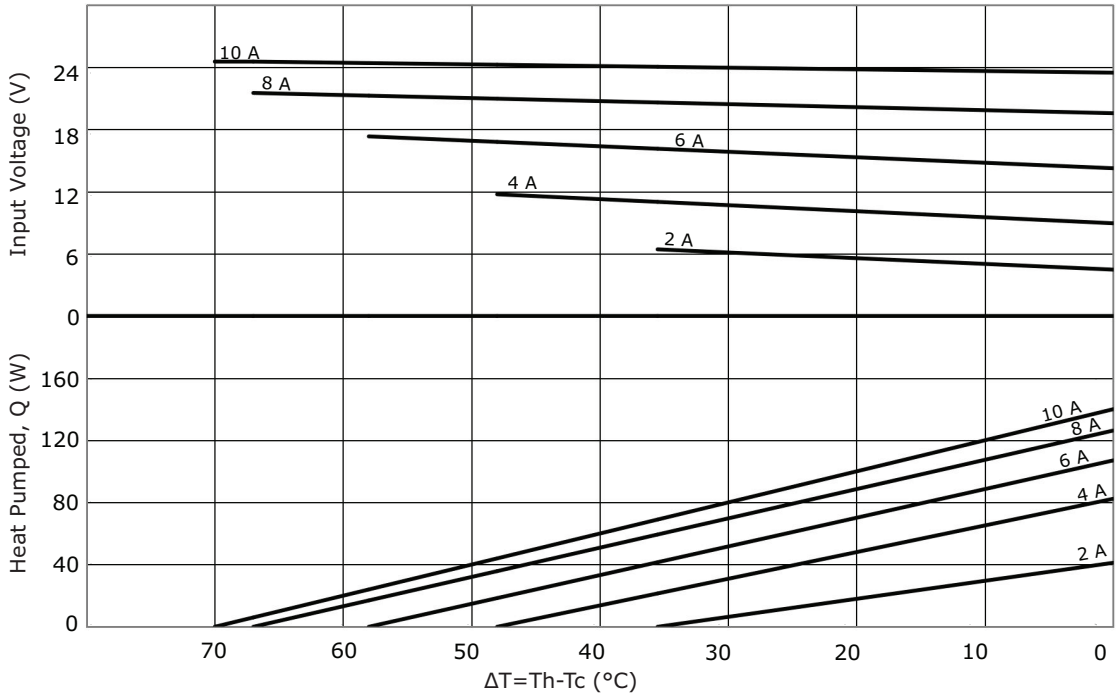
CP10415273 PERFORMANCE (Th=27°C)



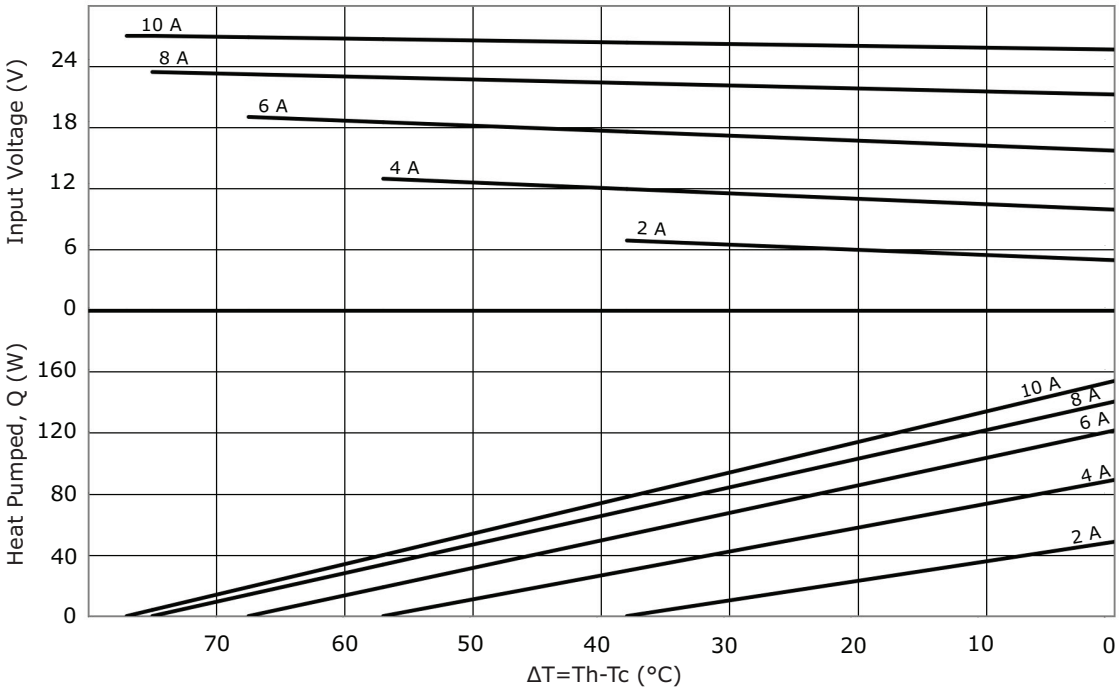
CP10415273 PERFORMANCE (Th=50°C)



CP105559415 PERFORMANCE (Th=27°C)



CP105559415 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	11/05/2019
1.01	added models CP10205033 & CP10304033	11/09/2020
1.02	logo, datasheet style update	08/05/2022

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