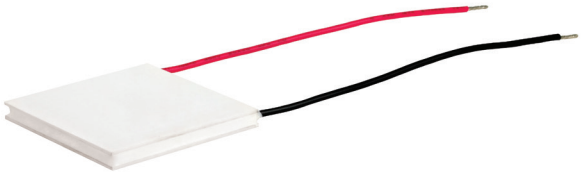
CUDEVICES

SERIES: CP40 | **DESCRIPTION:** PELTIER MODULE

FEATURES

- arcTEC™ structure on select models
- solid state device
- precise temperature control
- quiet operation



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)
CP40136	3.8	4.0	0.80	8.1	9.0	66	72
CP40236	8.6	4.0	2.0	18.7	21.8	66	72
CP40336	15.4	4.0	3.5	33.4	37.3	66	72
CP40147	2.1	4.0	0.42	4.2	4.6	68	75
CP40247	3.8	4.0	0.77	7.5	8.3	68	75
CP402533[6]	15.4	4.0	2.88	35.2	39.0	68	75
CP40301547	4.2	4.0	0.87	8.4	9.2	68	75
CP40347[6]	8.6	4.0	1.76	19.6	21.6	70	77
CP40439[6]	19.5	4.0	4.18	45.0	49.5	68	75
CP404046[6]	24.1	4.0	4.94	55.7	61.2	68	75
CP40447[6]	15.4	4.0	3.15	32.0	35.2	70	77
CP4055485[6]	29.8	4.0	5.97	63.0	69.0	70	77

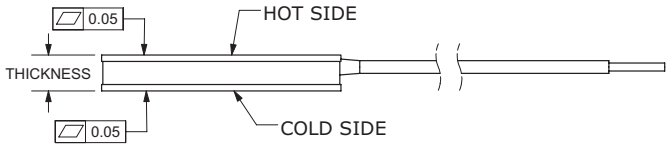
Notes:
1. Maximum voltage at ΔT max and T_h=27°C
2. Maximum current to achieve ΔT max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and ΔT=0°C
5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum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

SPECIFICATIONS

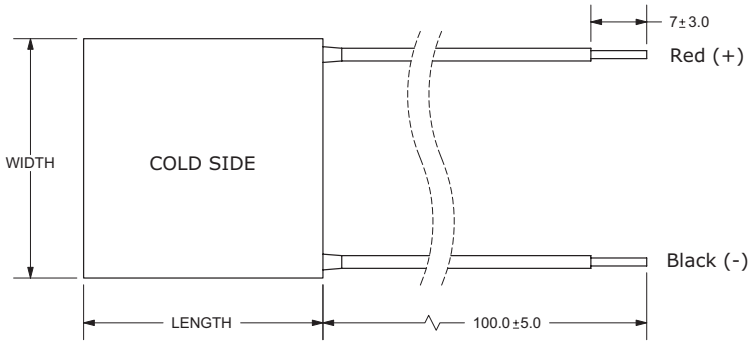
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs CP40347, CP40447, CP40147, CP40247, CP402533 CP40301547, CP404046, CP40439, CP4055485 all other models	 235 138			 °C °C
assembly compression				1	MPa
RoHS	yes				

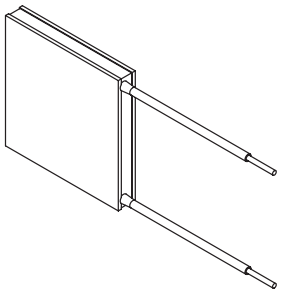
MECHANICAL DRAWING

units: mm



	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads (3.3 & 3.6 mm models)	22 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	

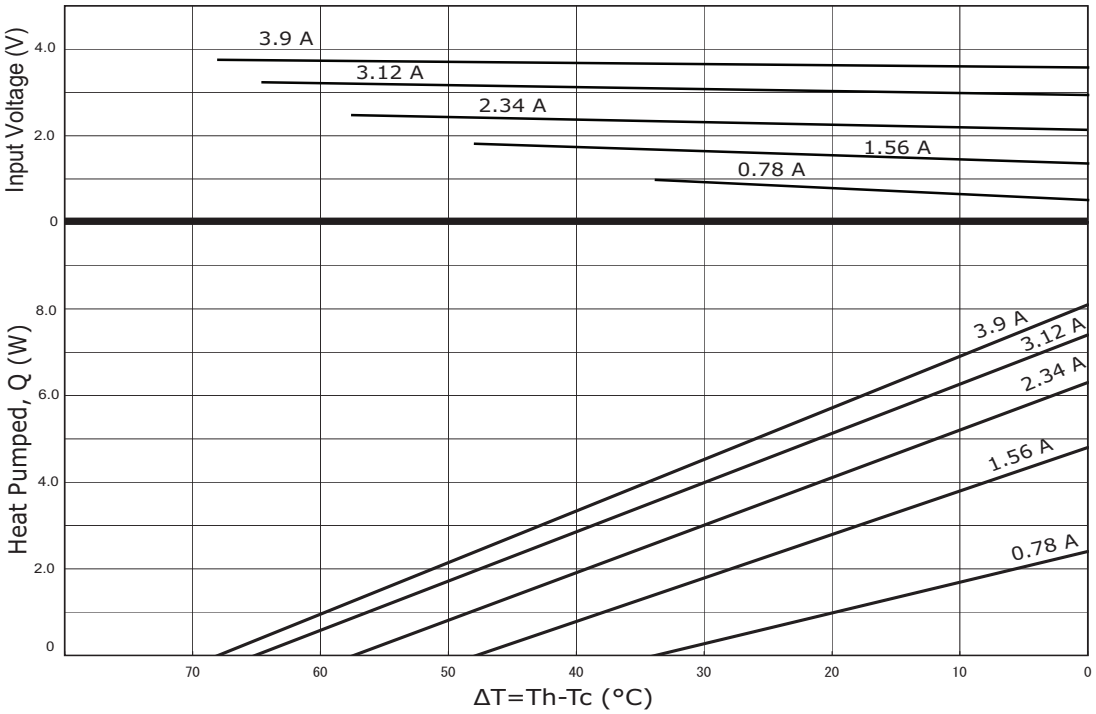




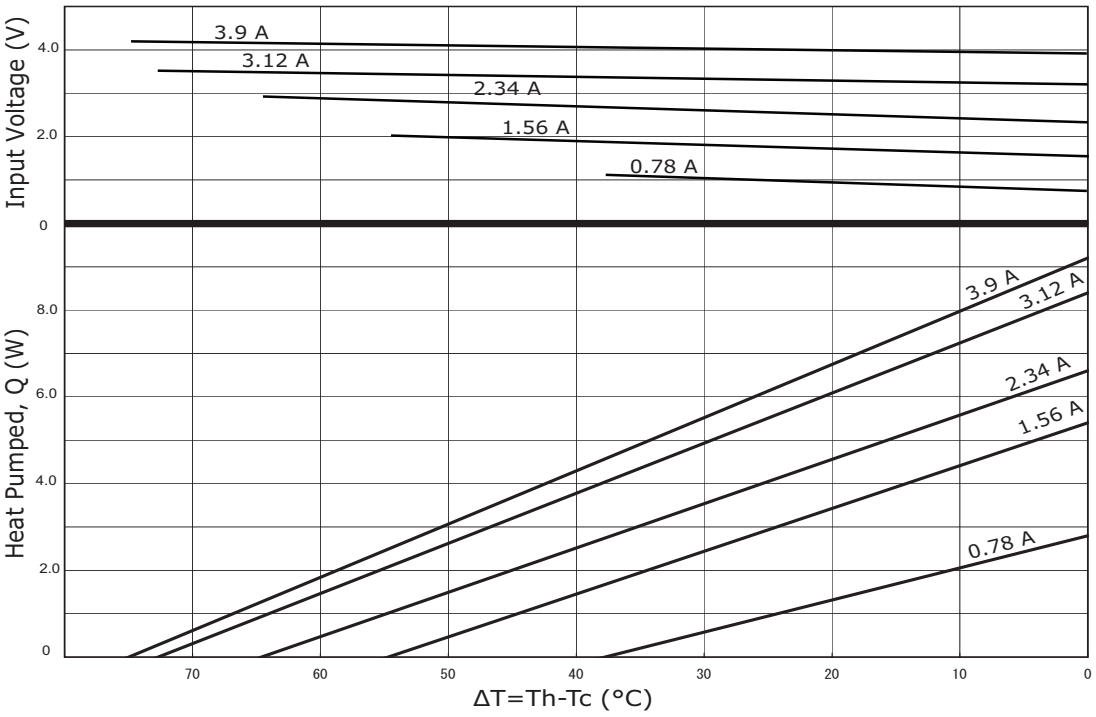
MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP40136	15 ±0.3	15 ±0.3	3.6 ±0.1
CP40236	20 ±0.3	20 ±0.3	3.6 ±0.1
CP40336	30 ±0.3	30 ±0.3	3.6 ±0.1
CP40147	15 ±0.3	15 ±0.3	4.6 ±0.1
CP40247	20 ±0.3	20 ±0.3	4.6 ±0.1
CP402533[1]	25 ±0.3	25 ±0.3	3.3 ±0.1
CP40301547	30 ±0.3	15 ±0.3	4.6 ±0.1
CP40347[1]	30 ±0.3	30 ±0.3	4.6 ±0.1
CP40439[1]	40 ±0.3	40 ±0.3	3.9 ±0.1
CP404046	40 ±0.3	40 ±0.3	4.6 ±0.1
CP40447[1]	40 ±0.3	40 ±0.3	4.6 ±0.1
CP4055485[1]	55 ±0.3	55 ±0.3	4.85 ±0.1

Notes: 1. Wire lead strip length on models CP40347, CP40447, CP40439, CP402533, & CP4055485 is 10 ±3.0 mm.

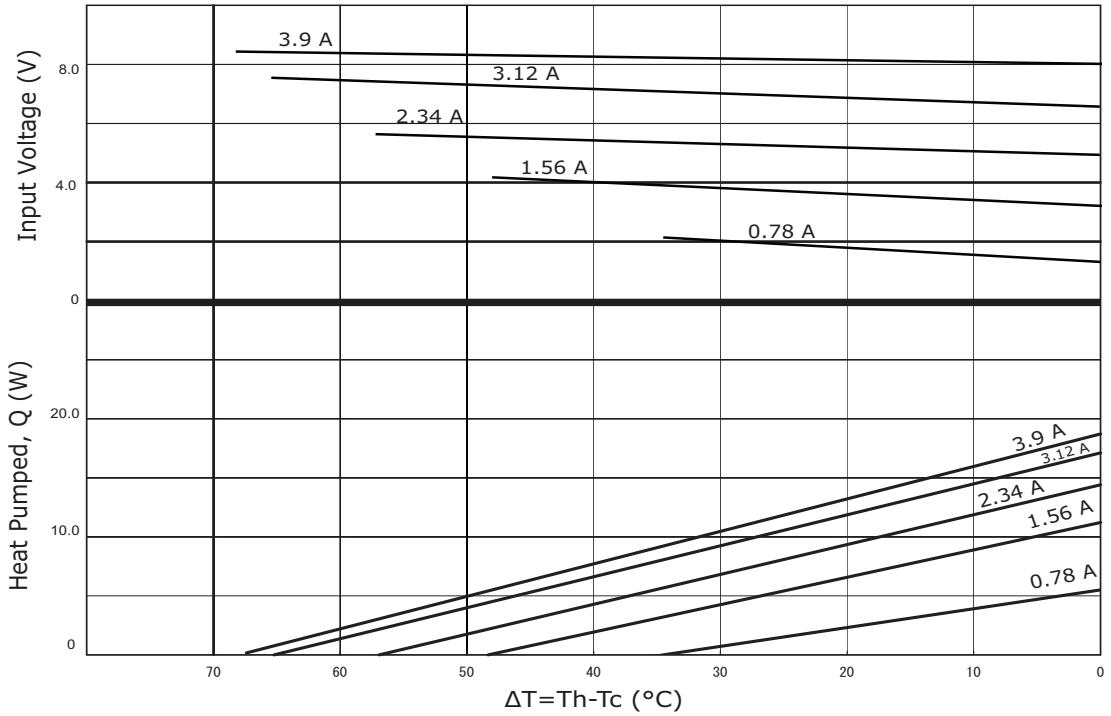
CP40136 PERFORMANCE (Th=27°C)



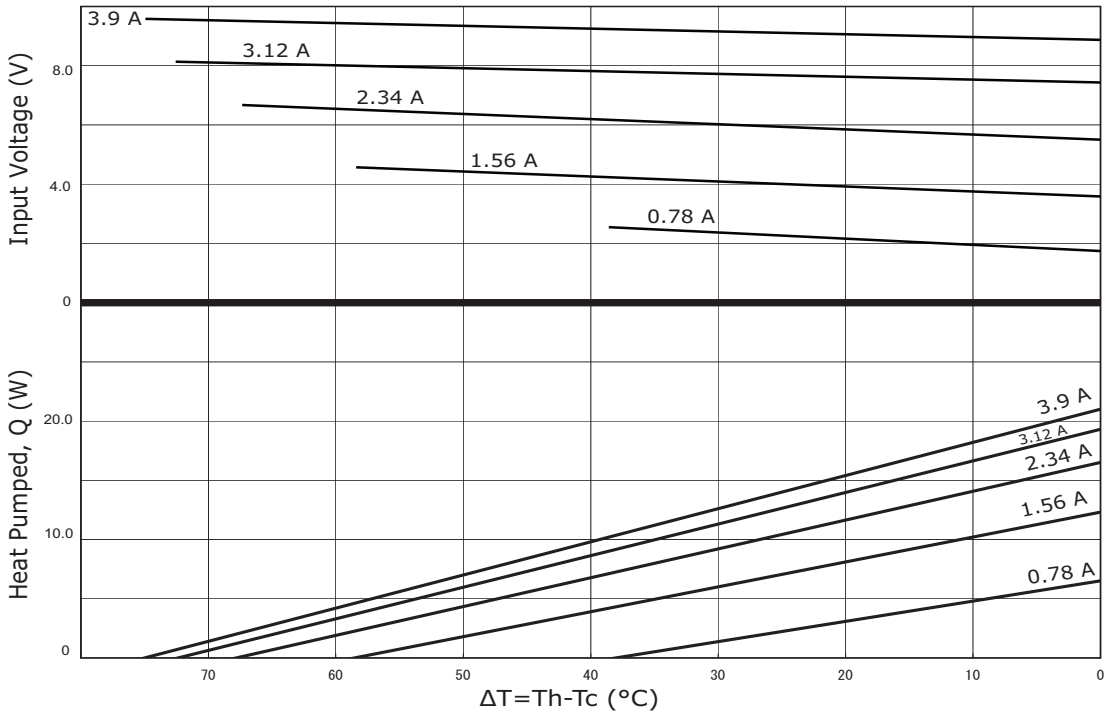
CP40136 PERFORMANCE (Th=50°C)



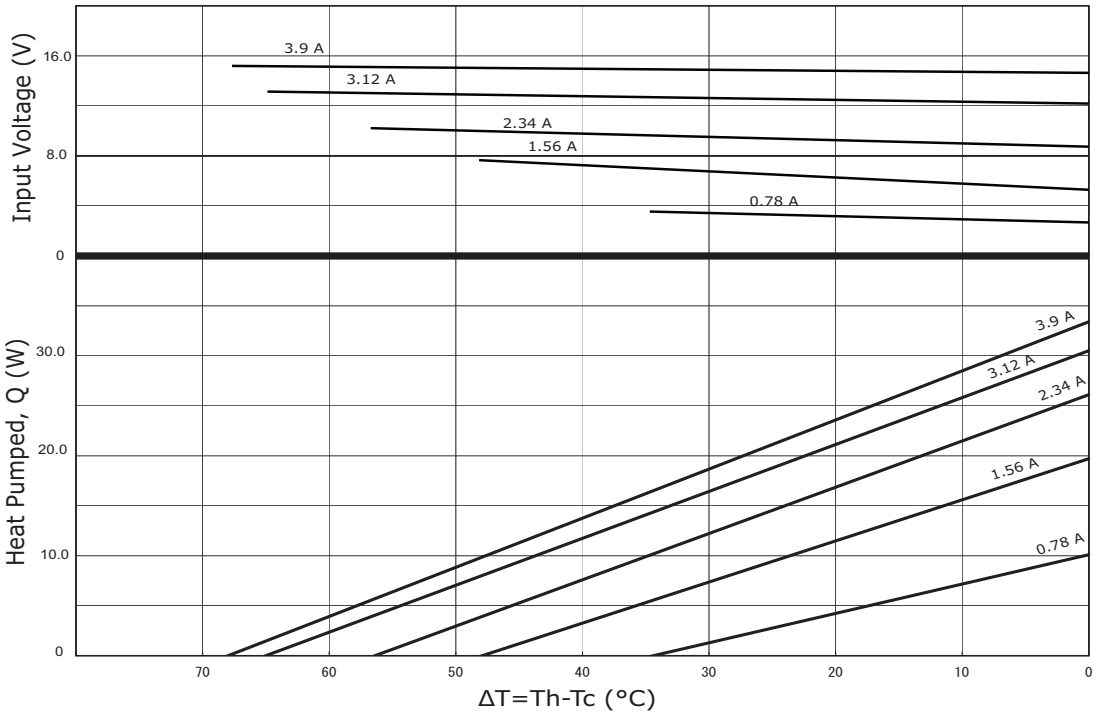
CP40236 PERFORMANCE (Th=27°C)



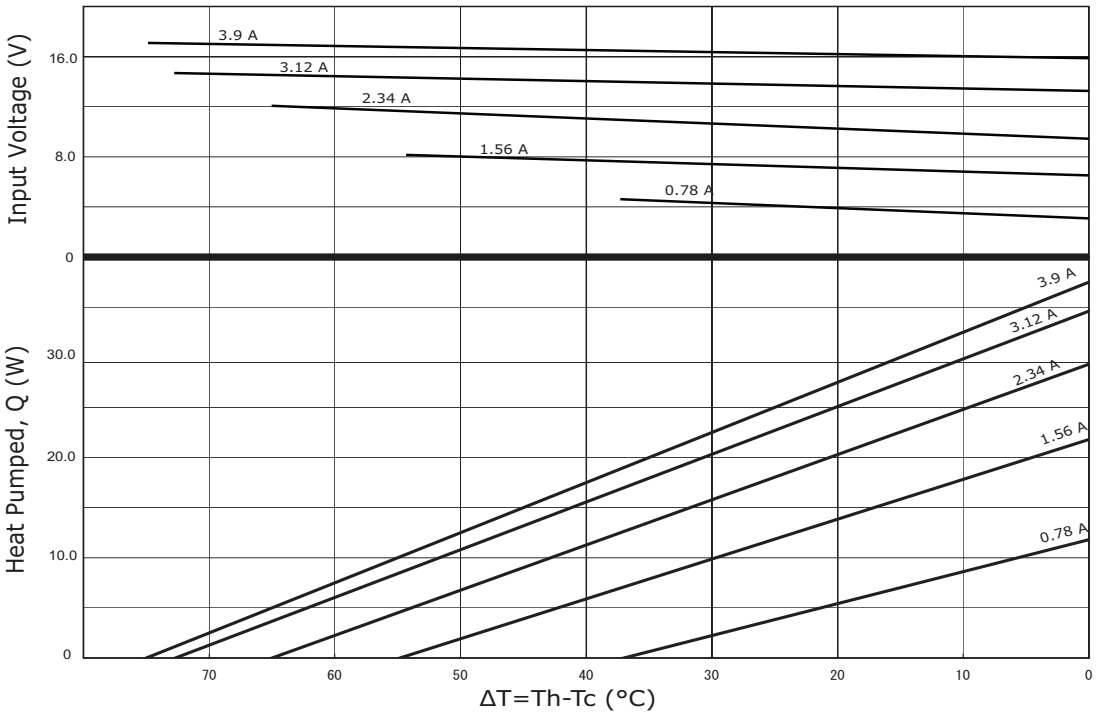
CP40236 PERFORMANCE (Th=50°C)



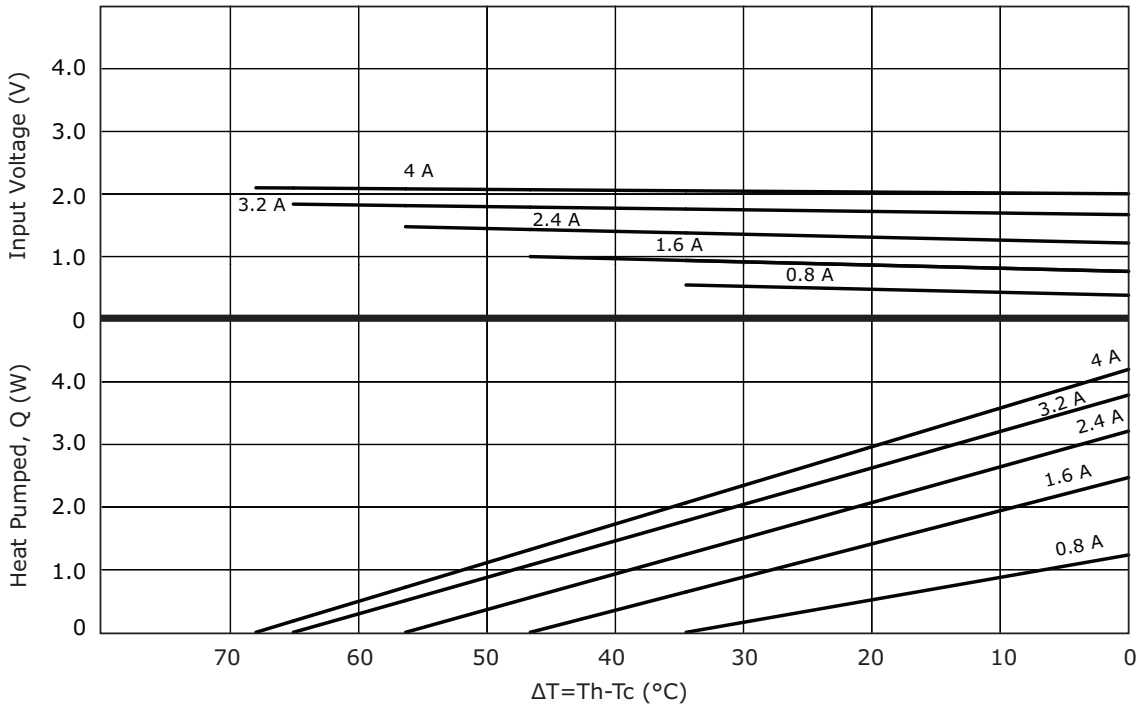
CP40336 PERFORMANCE (Th=27°C)



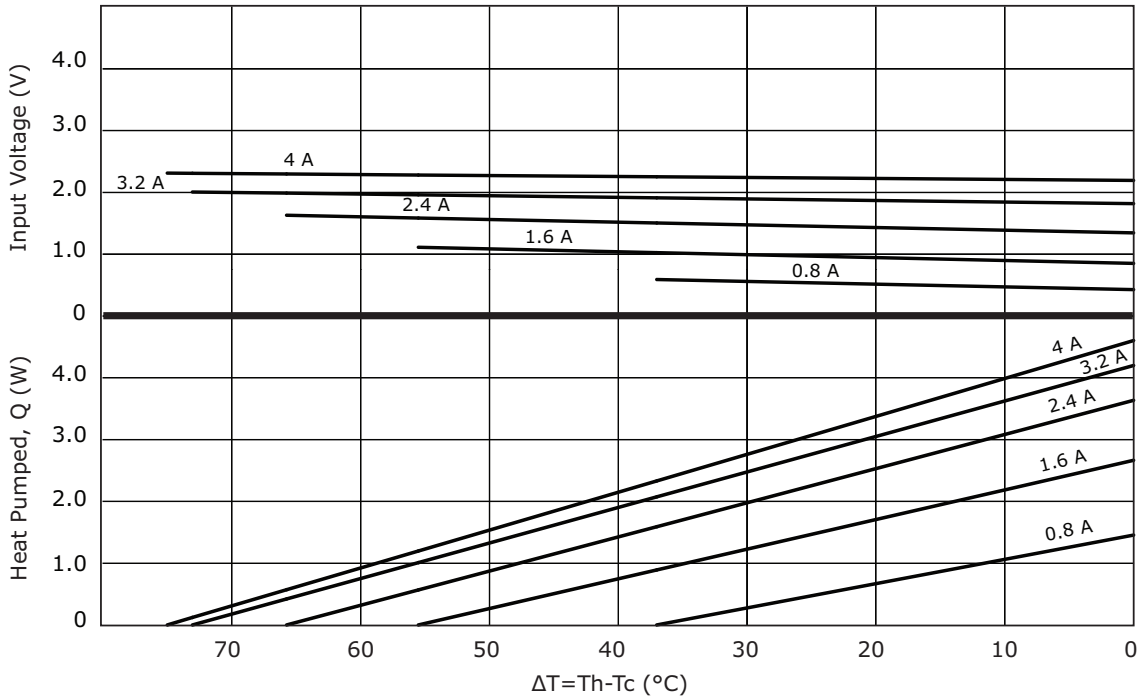
CP40336 PERFORMANCE (Th=50°C)



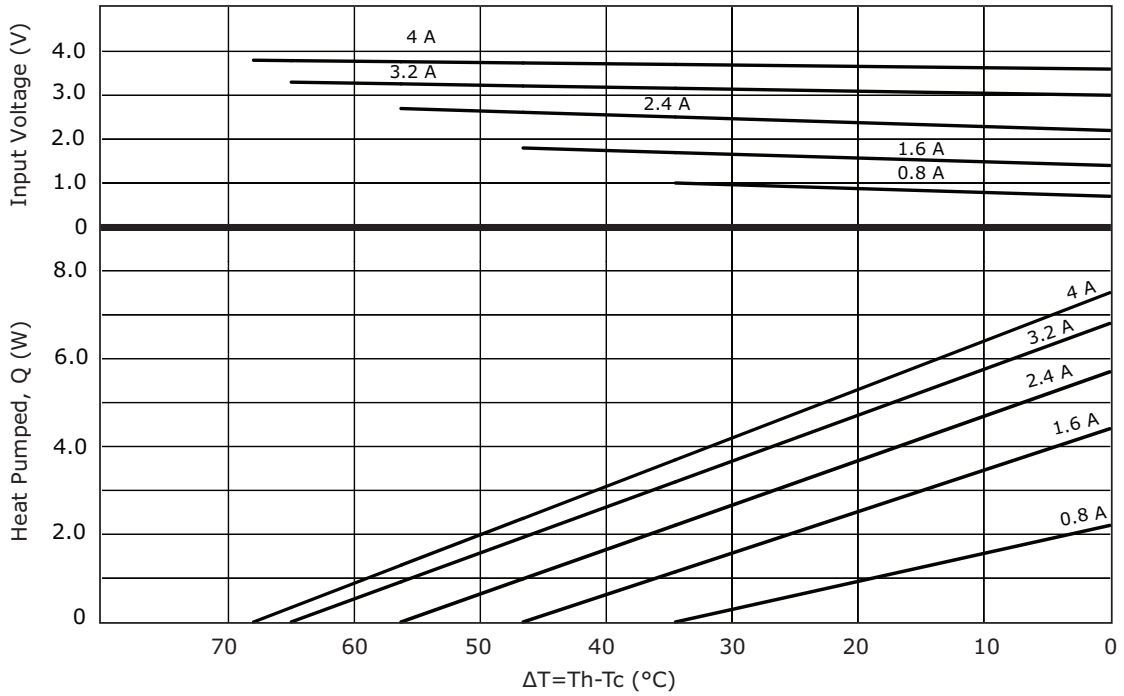
CP40147 PERFORMANCE (Th=27°C)



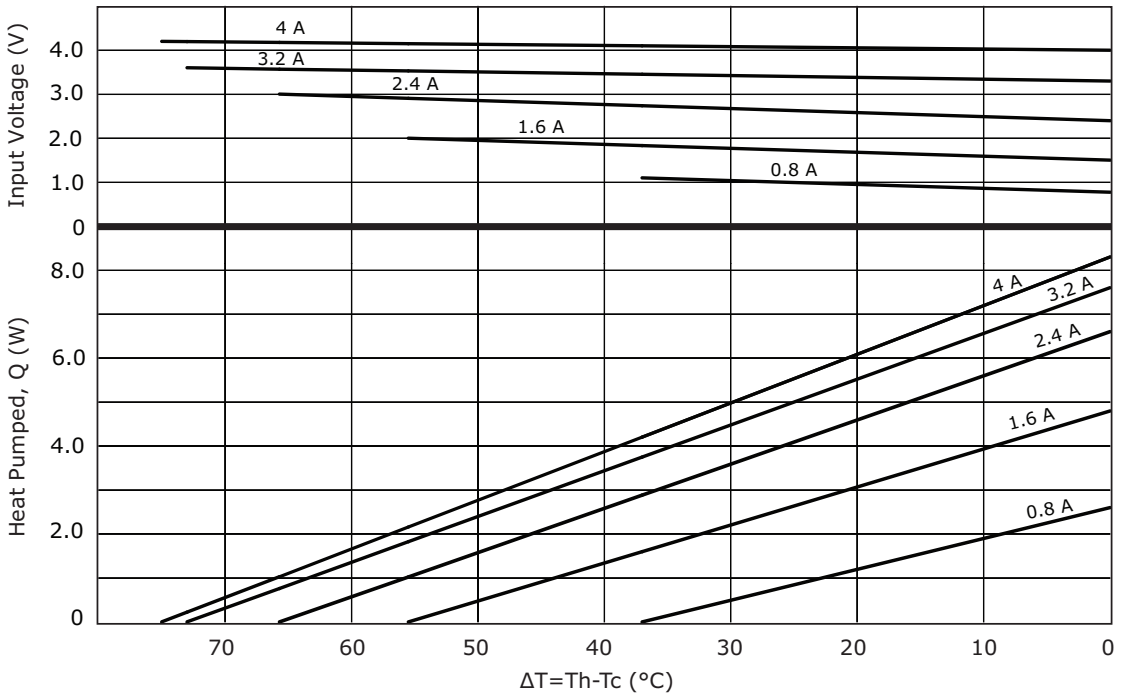
CP40147 PERFORMANCE (Th=50°C)



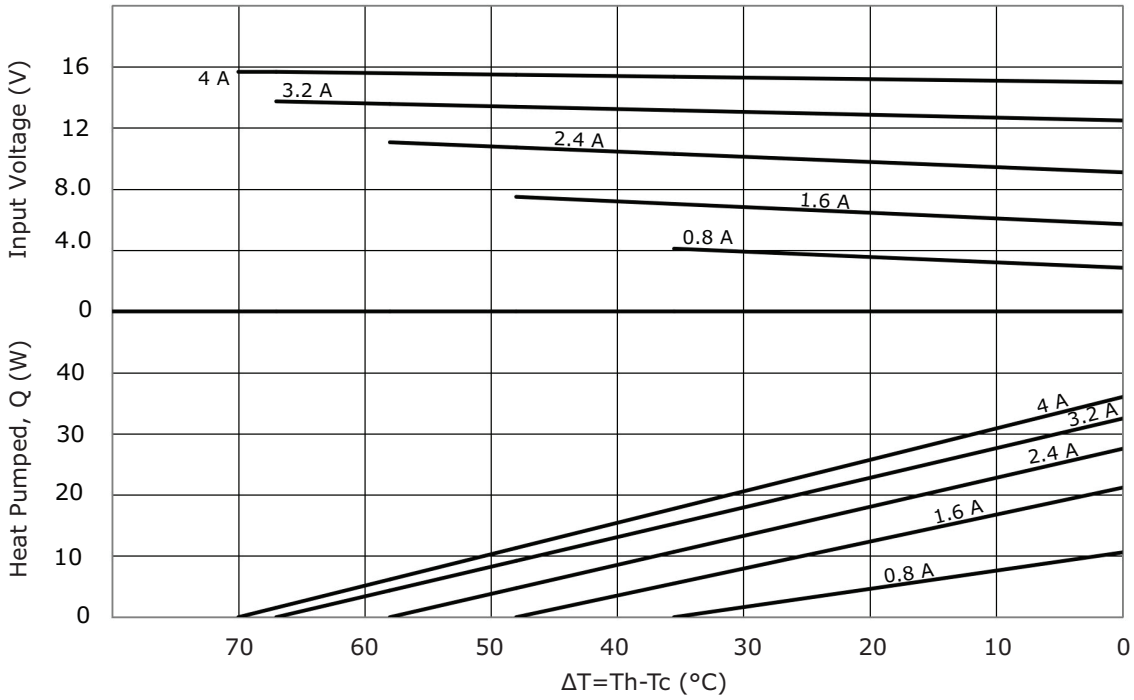
CP40247 PERFORMANCE (Th=27°C)



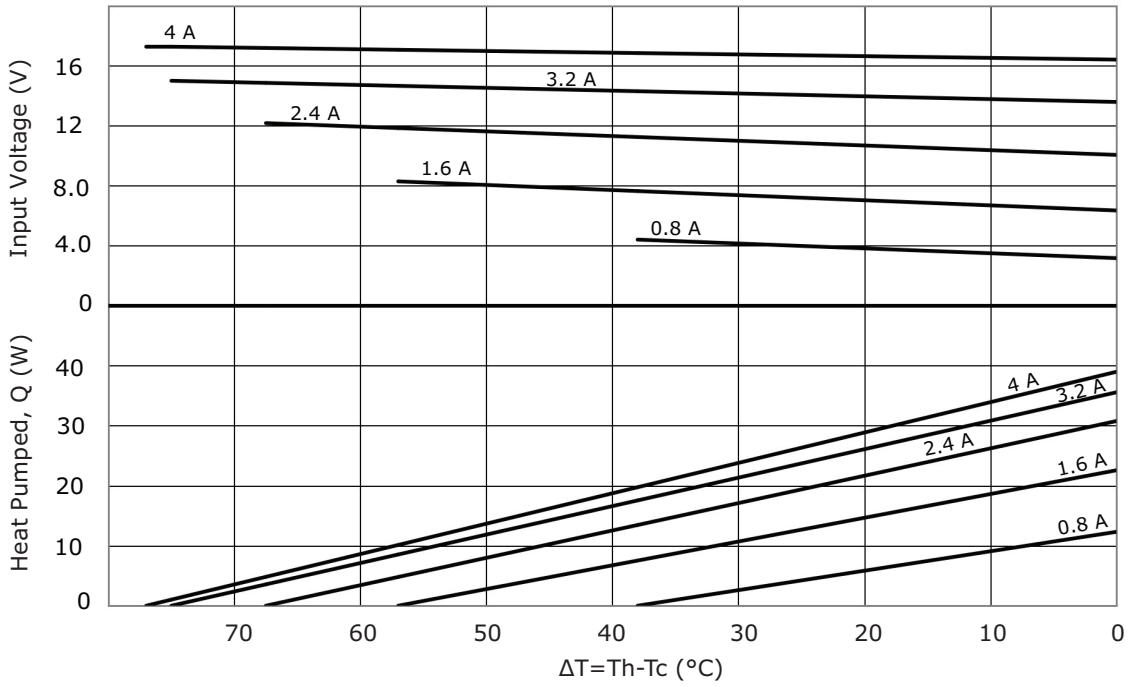
CP40247 PERFORMANCE (Th=50°C)



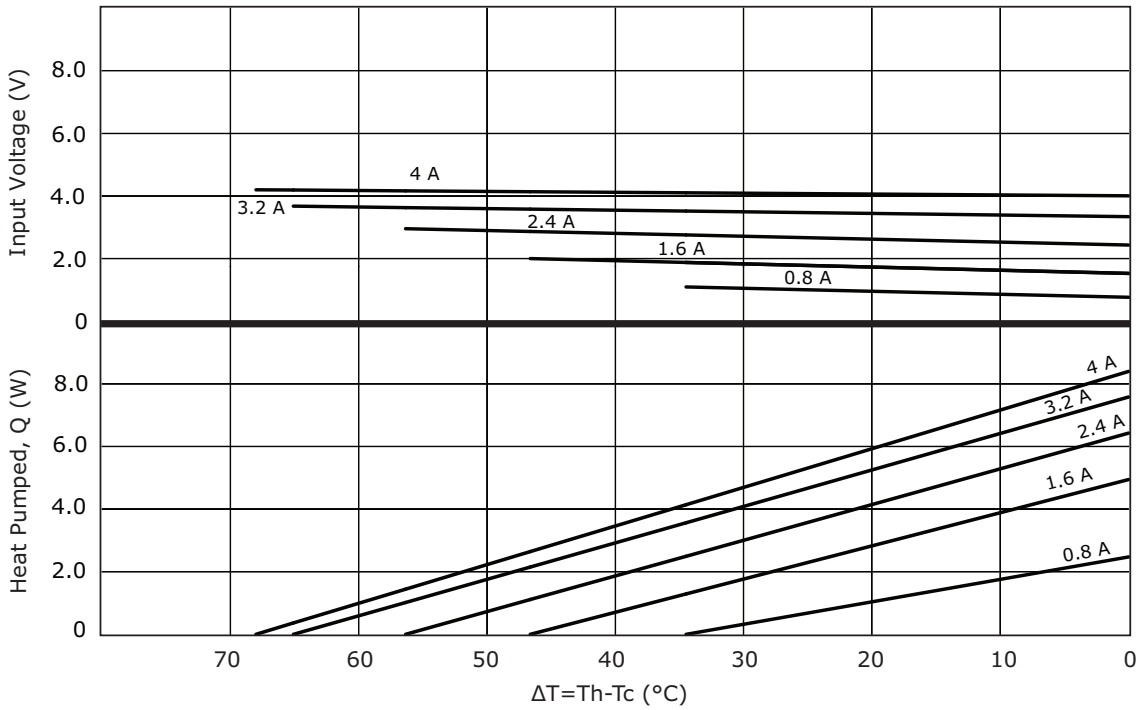
CP402533 PERFORMANCE (Th=27°C)



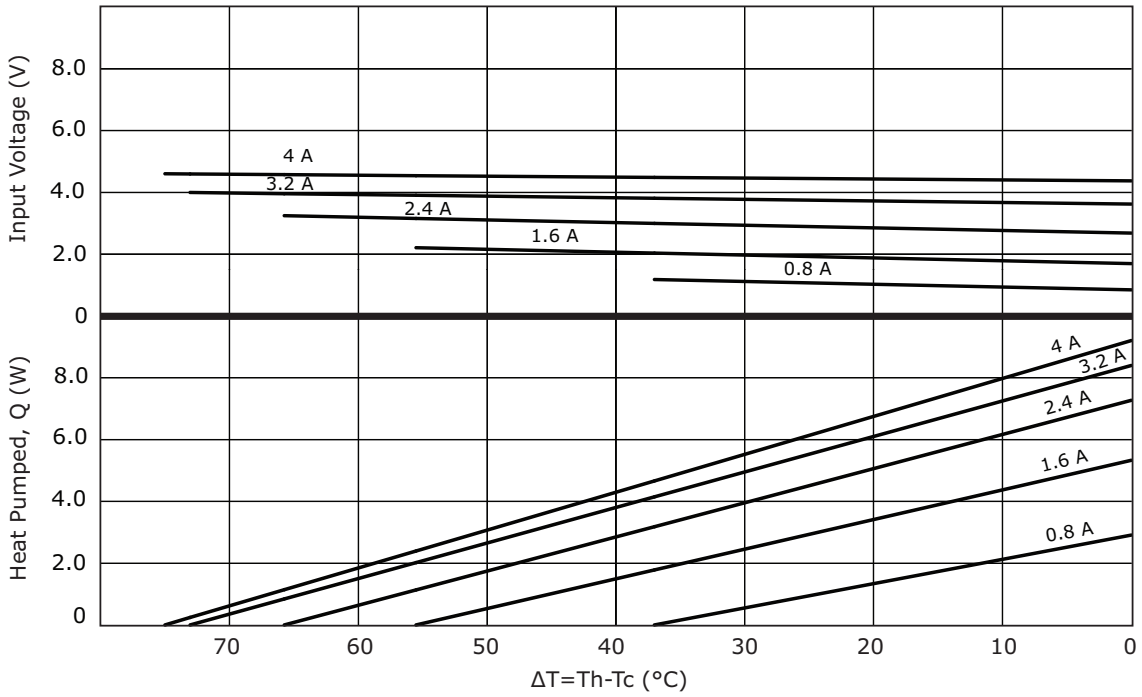
CP402533 PERFORMANCE (Th=50°C)



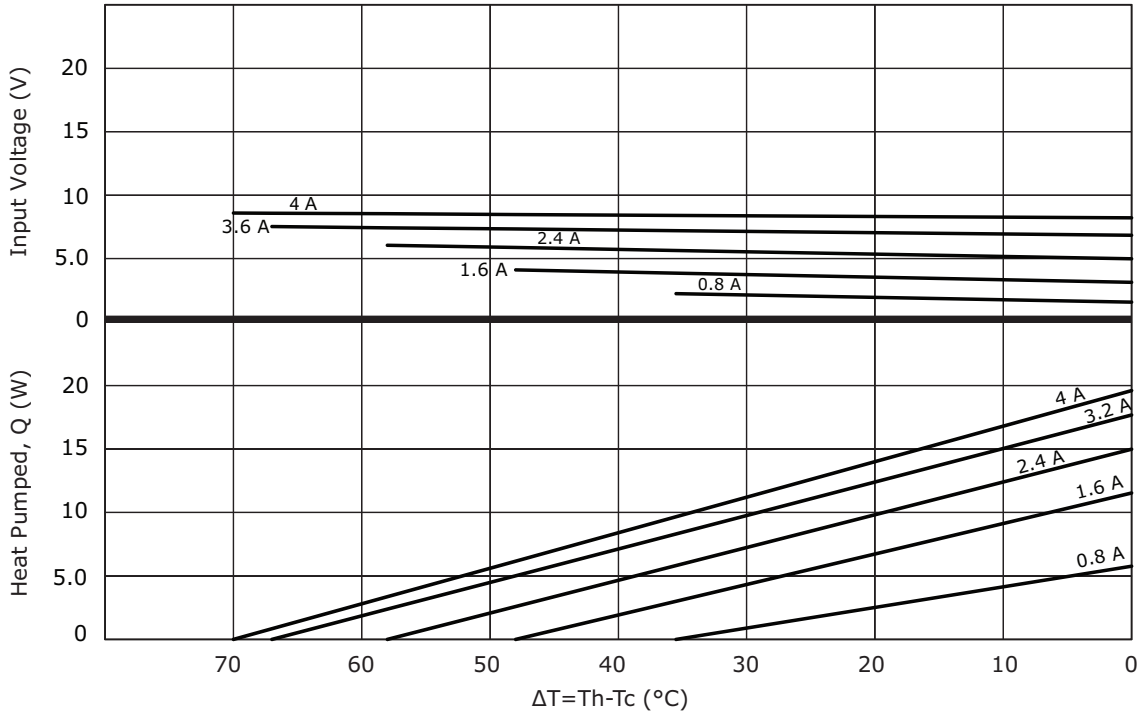
CP40301547 PERFORMANCE (Th=27°C)



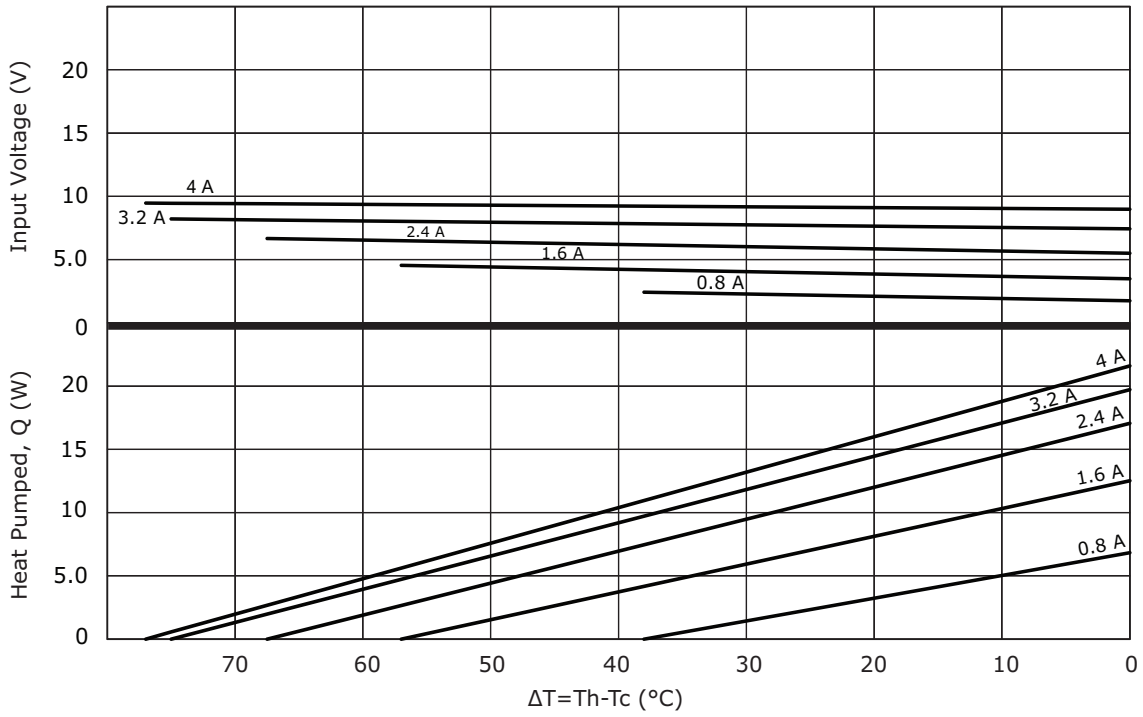
CP40301547 PERFORMANCE (Th=50°C)



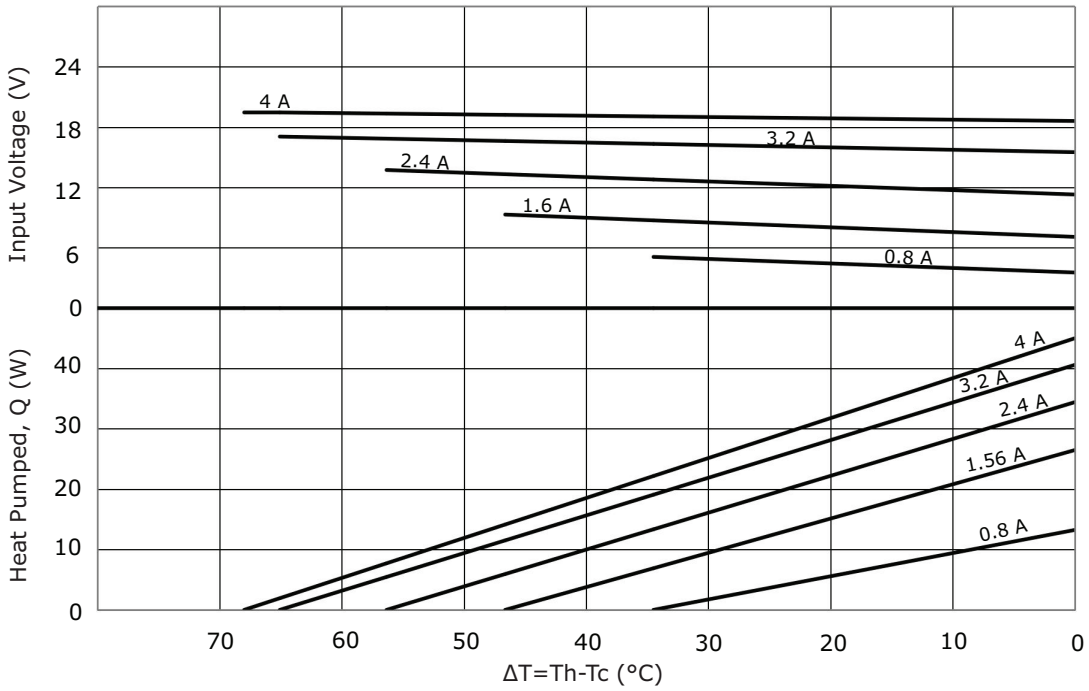
CP40347 PERFORMANCE (Th=27°C)



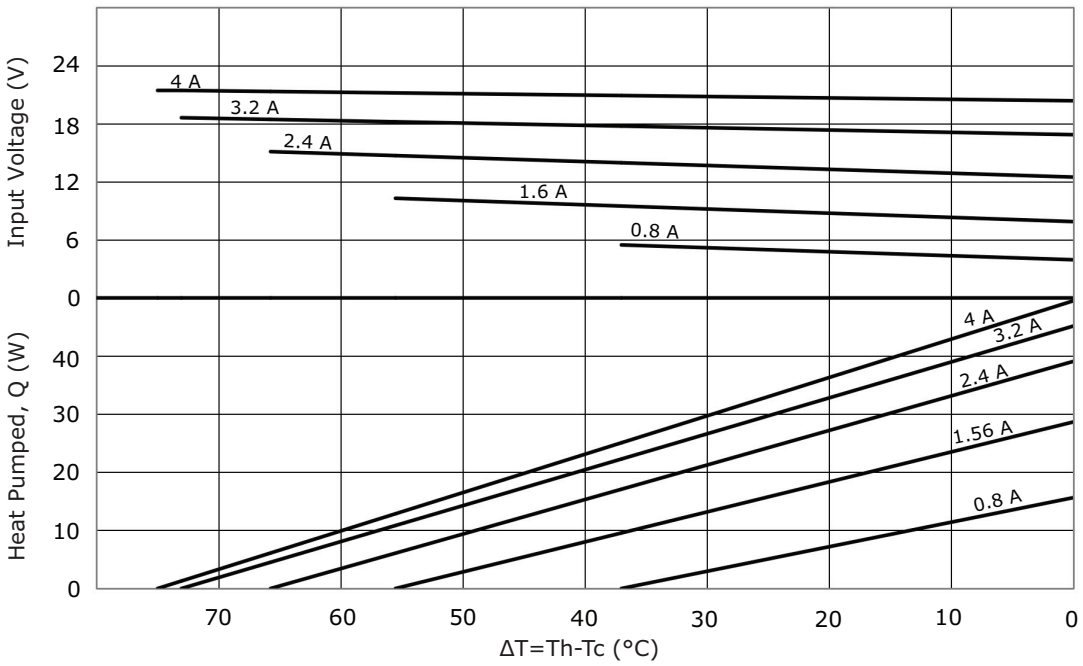
CP40347 PERFORMANCE (Th=50°C)



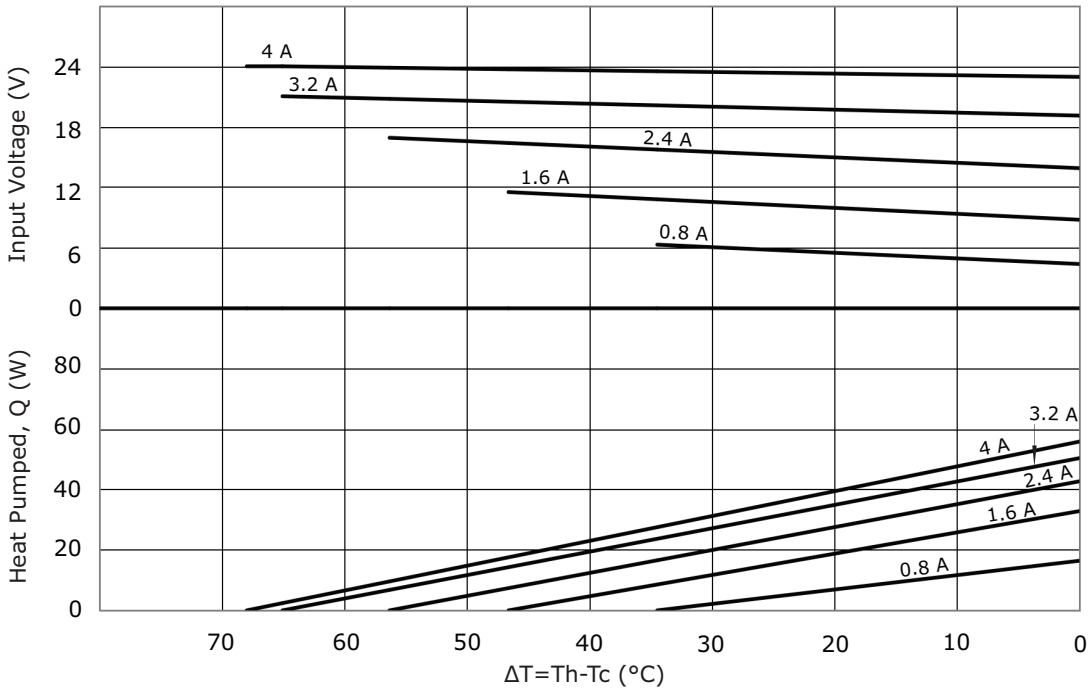
CP40439 PERFORMANCE (Th=27°C)



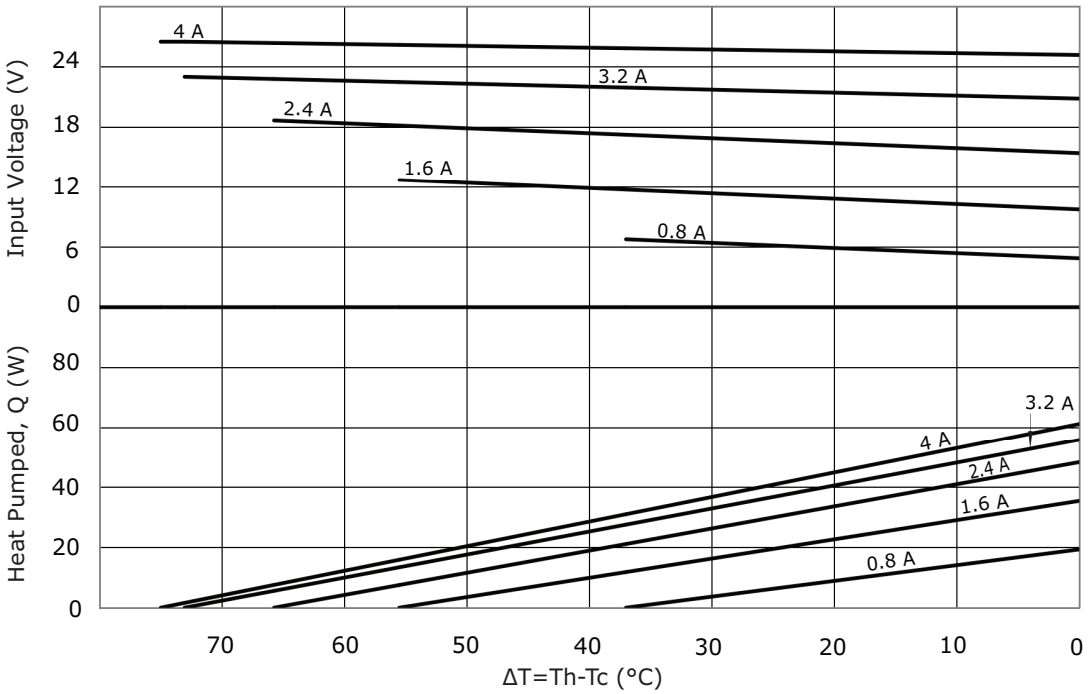
CP40439 PERFORMANCE (Th=50°C)



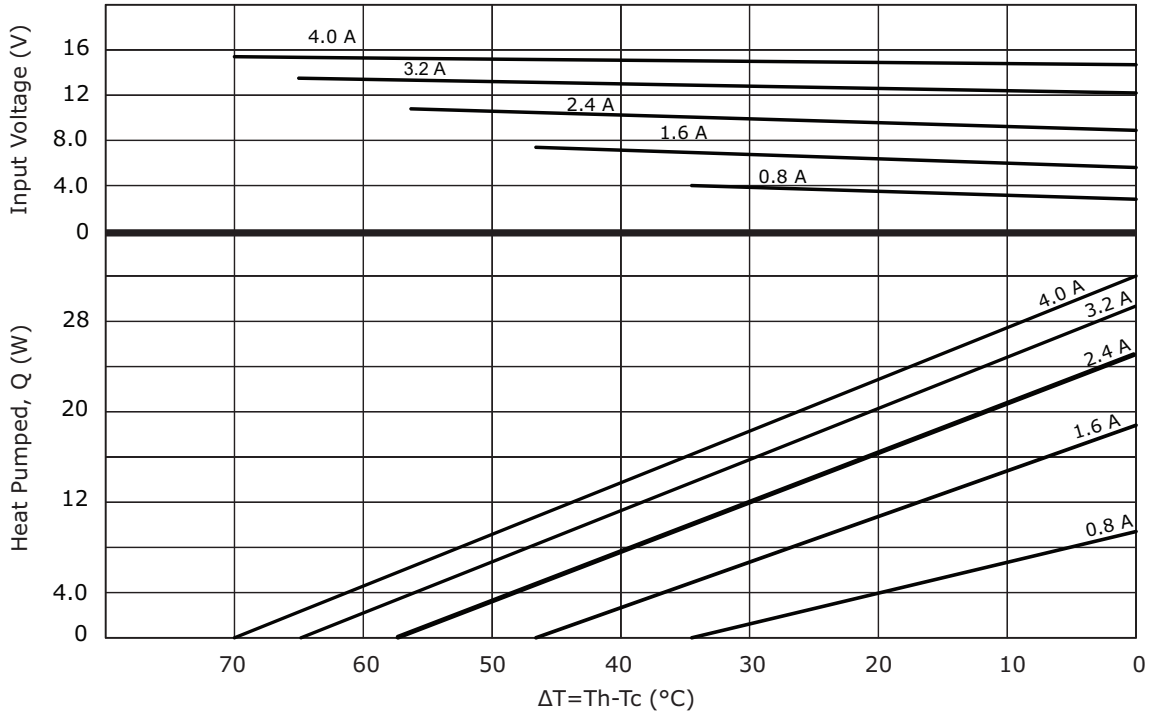
CP404046 PERFORMANCE (Th=27°C)



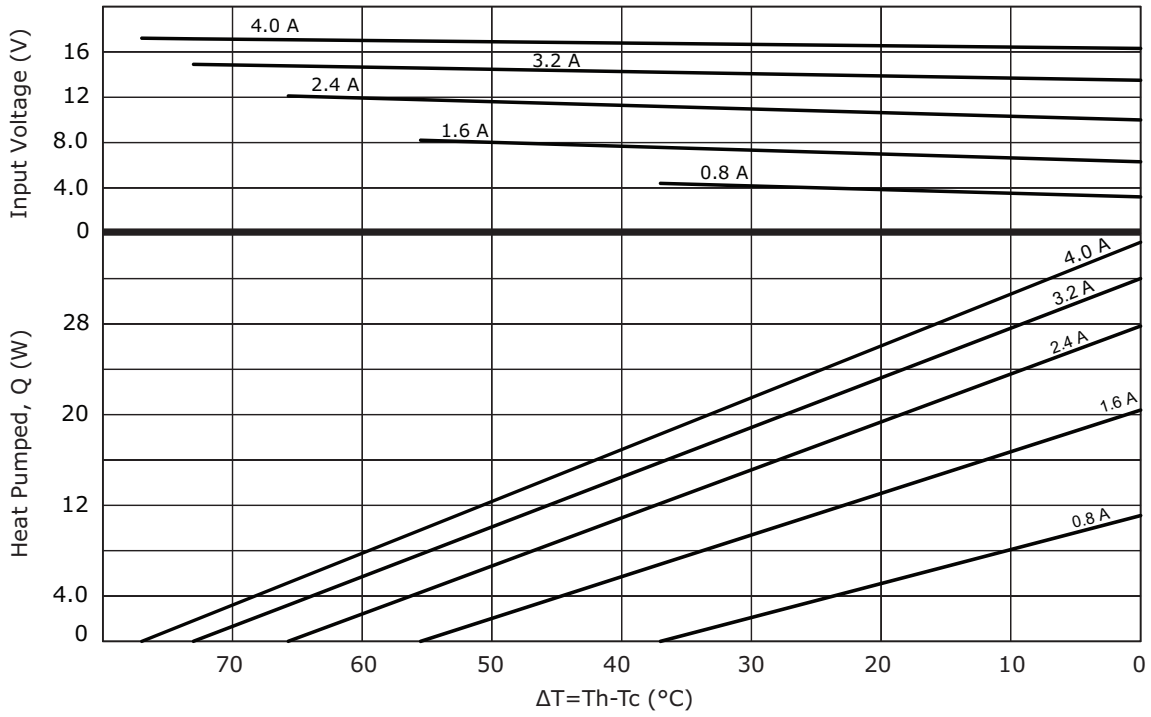
CP404046 PERFORMANCE (Th=50°C)



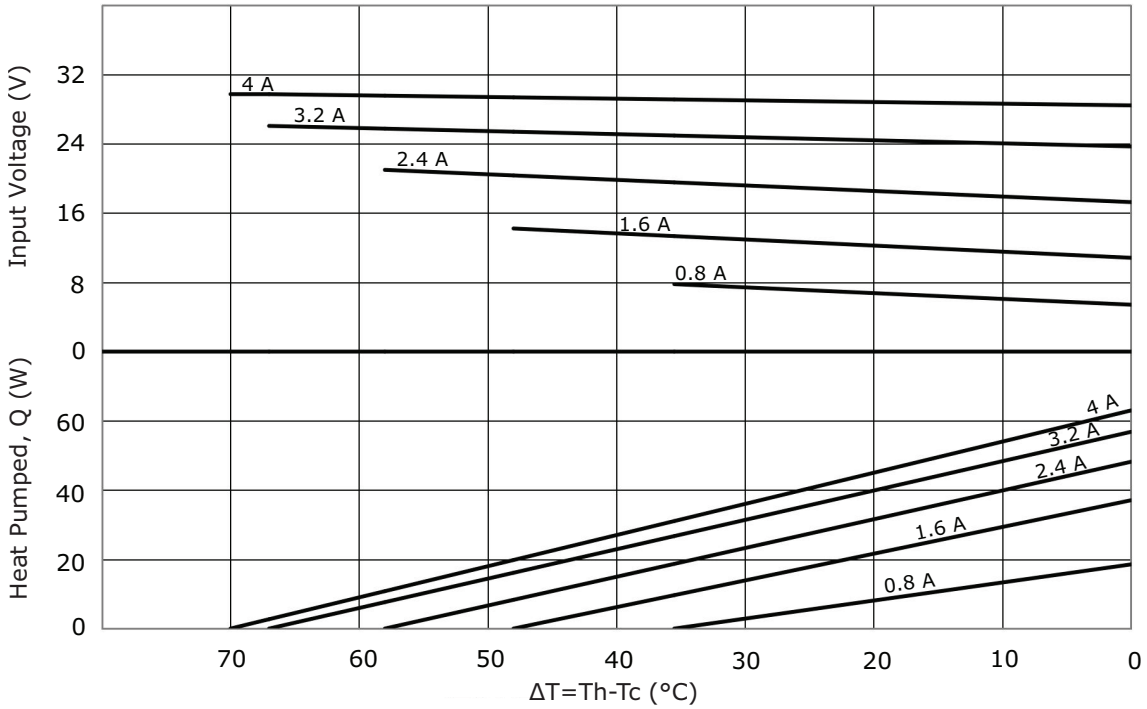
CP40447 PERFORMANCE (Th=27°C)



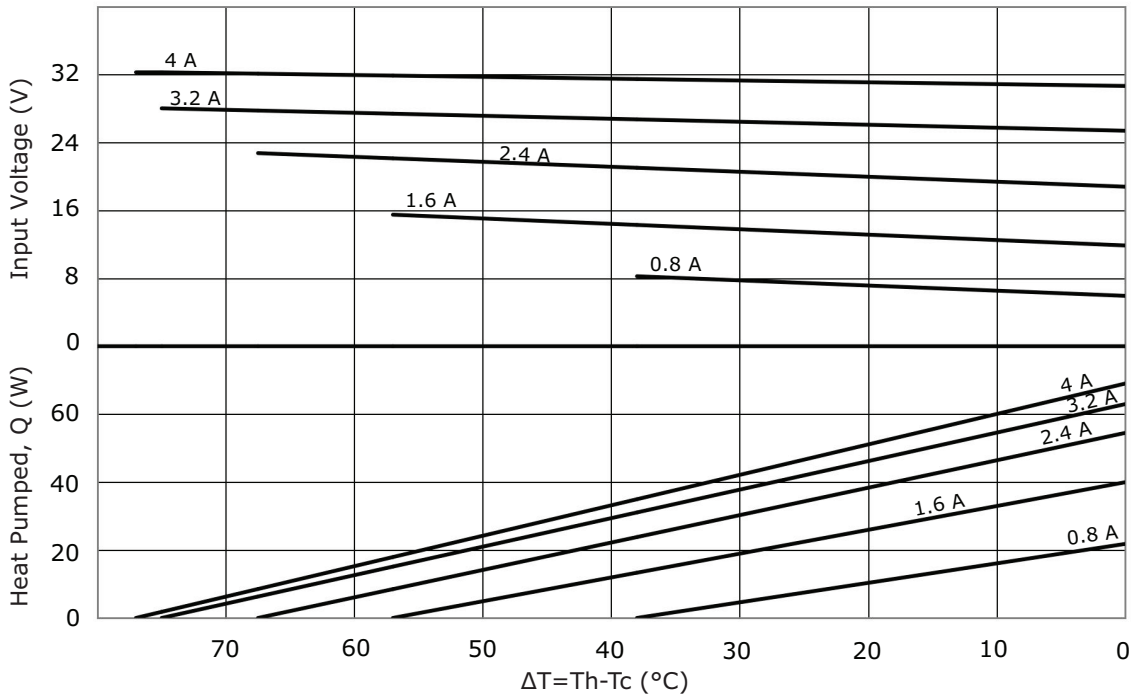
CP40447 PERFORMANCE (Th=50°C)



CP4055485 PERFORMANCE (Th=27°C)



CP4055485 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	09/03/2009
1.01	applied new template	05/08/2012
1.02	added new models	09/08/2016
1.03	changed models CP40347 & CP40447 to arcTEC™ structure	12/01/2017
1.04	changed thickness of CP40147, CP40247, CP40301547 models	09/19/2018
1.05	added models CP40439, CP404046, CP4055485, brand update	10/18/2019
1.06	added model CP402533	11/17/2020
1.07	logo, datasheet style update	08/05/2022

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