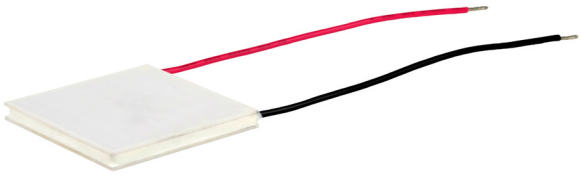
CUI INC®

SERIES: CP50 | DESCRIPTION: PELTIER MODULE

FEATURES

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



RoHS

MODEL

MODEL	input voltage[1] max (Vdc)	input current[2] max (A)	output Qmax[3] T_h=27°C (W)	output Qmax[3] T_h=50°C (W)	output ΔTmax[4] T_h=27°C (°C)	output ΔTmax[4] T_h=50°C (°C)
CP50141	2.1	5.0	5.5	6.1	68	75
CP50241	3.8	5.0	10.0	11.1	68	75
CP50301541	4.2	5.0	11	12.3	68	75
CP50341[5]	8.6	5.0	23.0	25.7	70	77
CP50441[5]	15.4	5.0	41.0	45.8	70	77

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

PART NUMBER KEY

CP50 XXXX 41

Base Number

Length x Width:
1 = 15 x 15 mm
2 = 20 x 20 mm
3 = 30 x 30 mm
4 = 40 x 40 mm
3015 = 30 x 15 mm

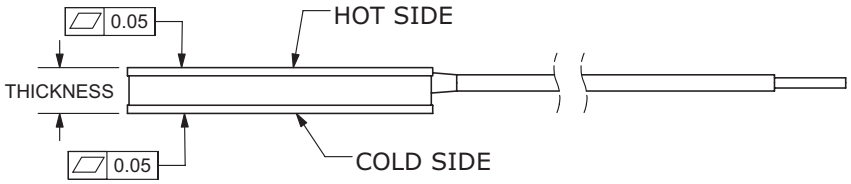
SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
internal resistance[1]	CP50141	0.279	0.31	0.341	Ω
	CP50241	0.504	0.56	0.616	Ω
	CP50301541	0.567	0.63	0.693	Ω
	CP50341	1.161	1.29	1.419	Ω
	CP50441	2.07	2.3	2.53	Ω
solder melting temperature	connection between thermoelectric pairs				
	CP50341, CP50441	235			°C
	all other models	138			°C
assembly compression				1	MPa
hot side plate				80	°C
RoHS	2011/65/EU				

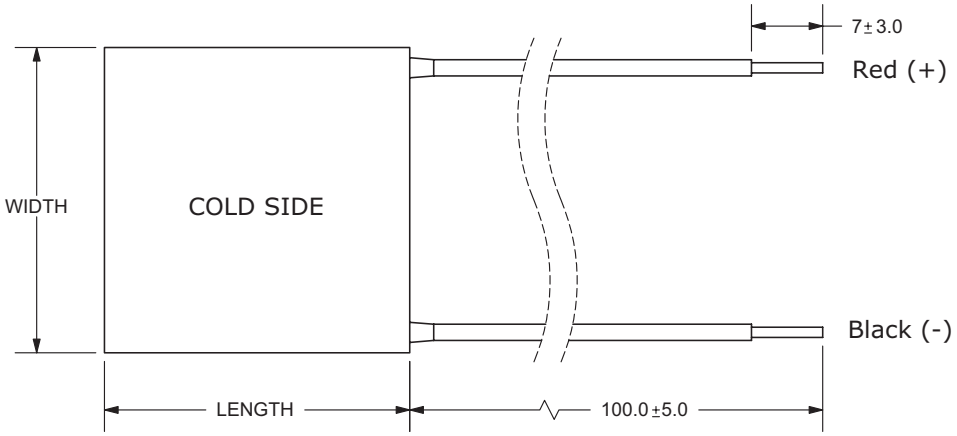
Note: 1. Measured by AC 4-terminal method at 25°C

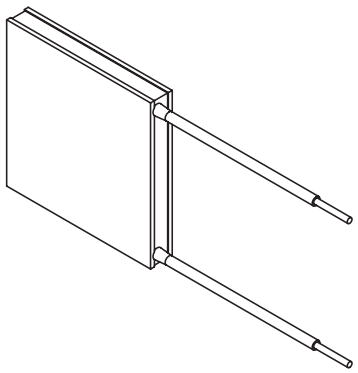
MECHANICAL DRAWING

units: mm



	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	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	

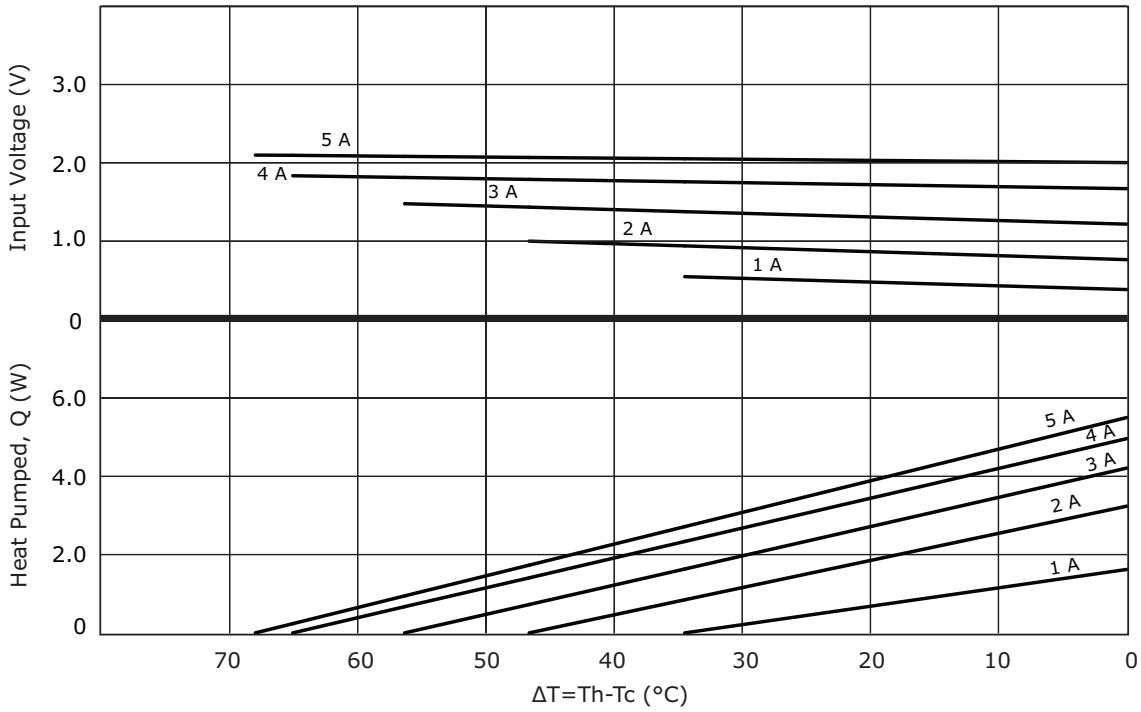




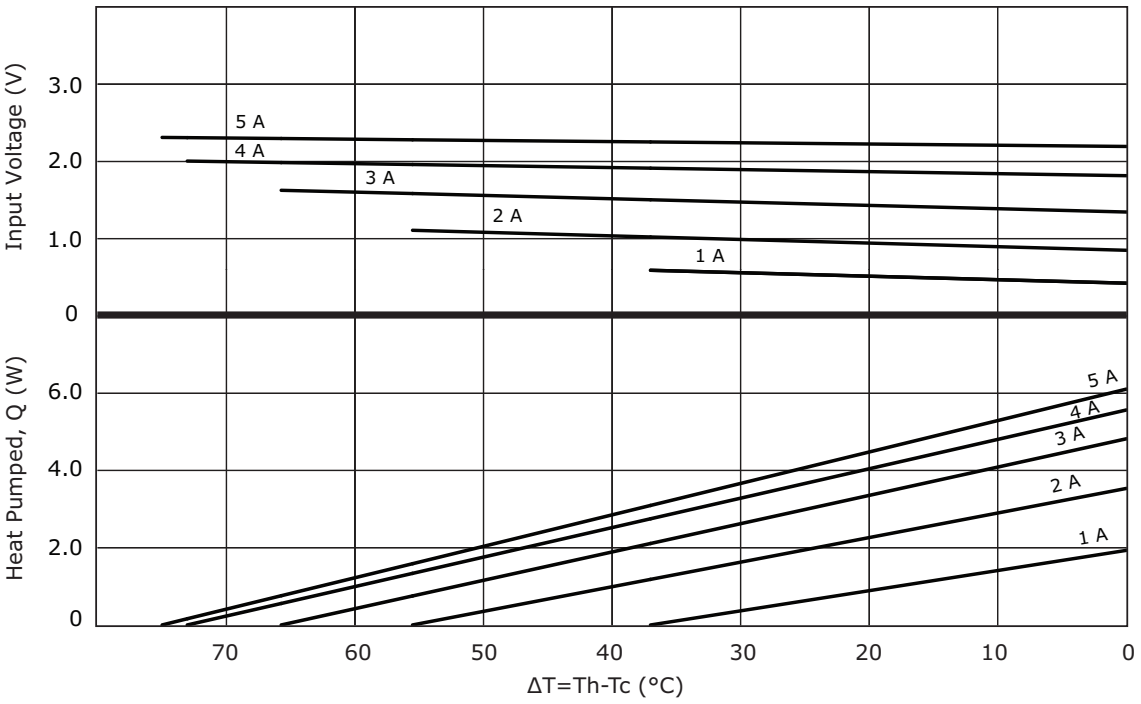
MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP50141	15 ±0.3	15 ±0.3	4.05 ±0.1
CP50241	20 ±0.3	20 ±0.3	4.05 ±0.1
CP50301541	30 ±0.3	15 ±0.3	4.05 ±0.1
CP50341[2]	30 ±0.3	30 ±0.3	4.0 ±0.1
CP50441[2]	40 ±0.3	40 ±0.3	4.0 ±0.1

Notes: 2. Wire lead strip length on models CP50341 & CP50441 is 10 ±3.0 mm.

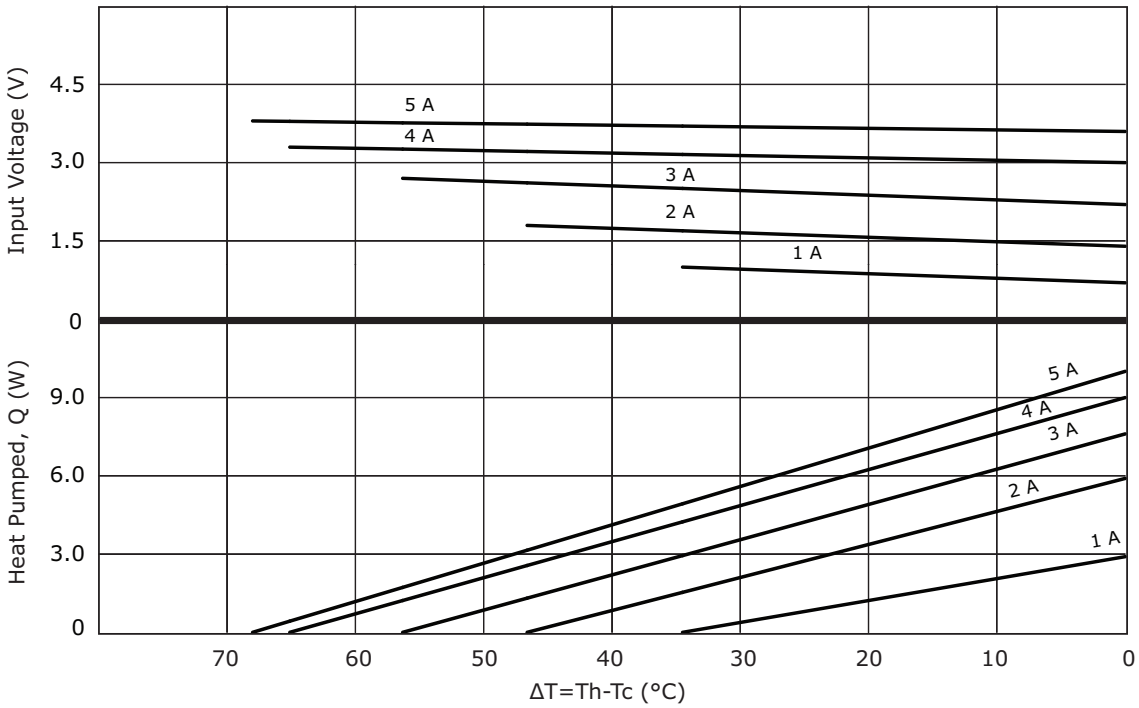
CP50141 PERFORMANCE (Th=27°C)



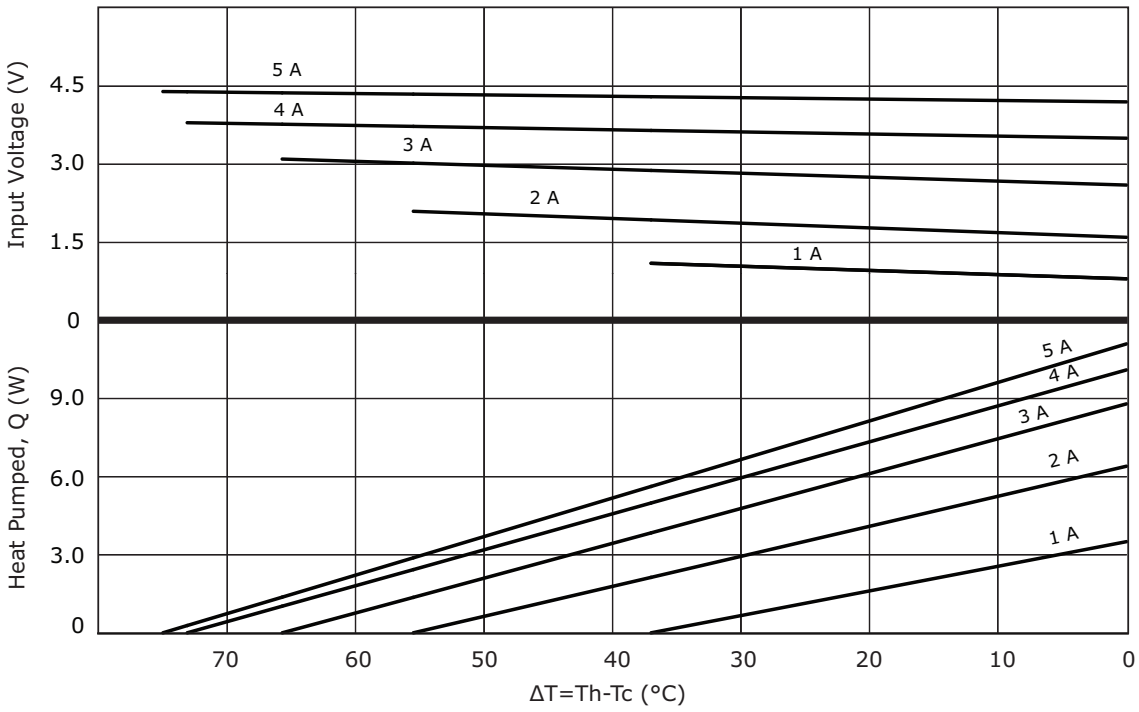
CP50141 PERFORMANCE (Th=50°C)



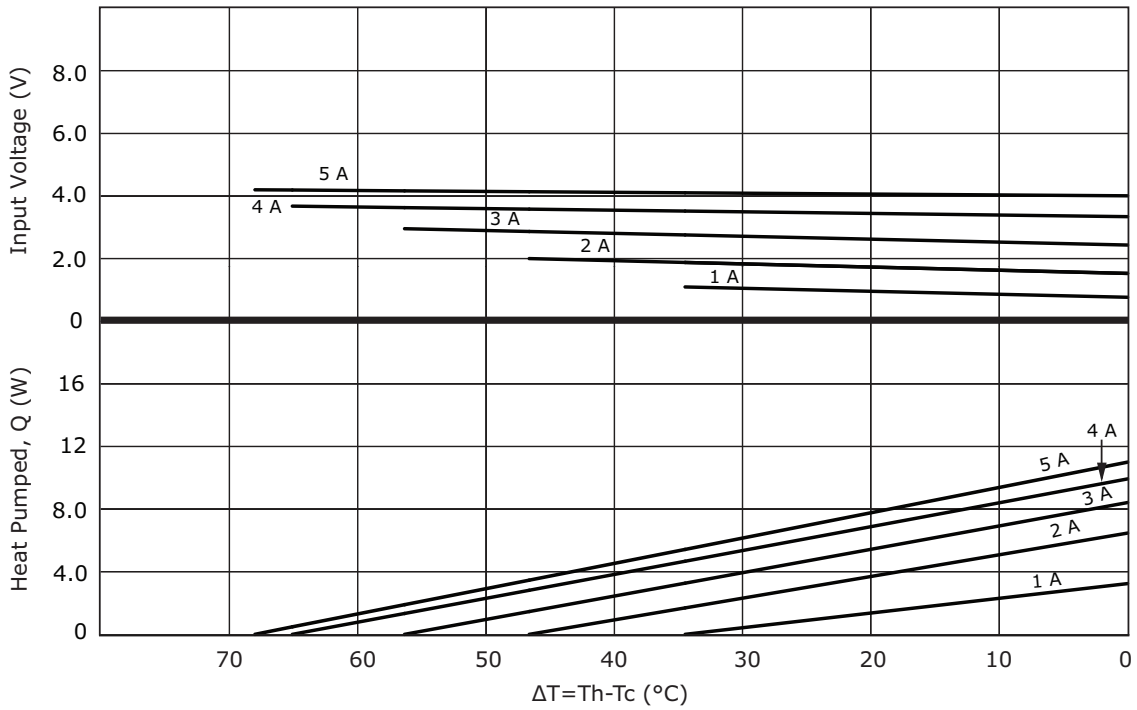
CP50241 PERFORMANCE (Th=27°C)



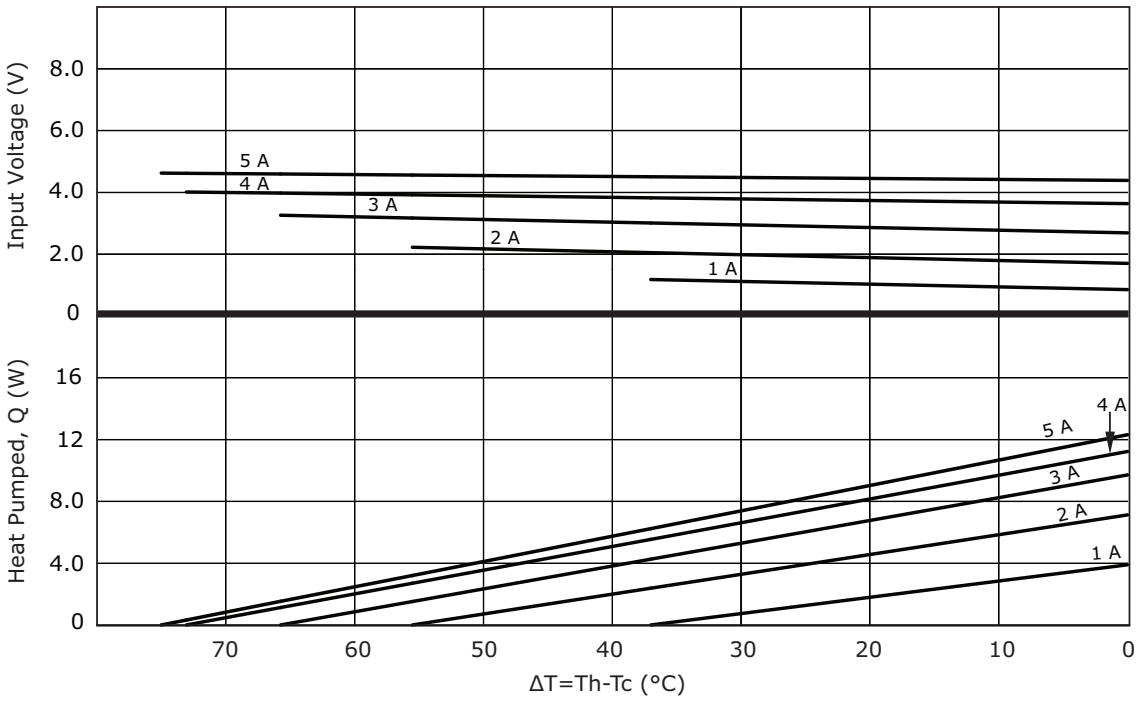
CP50241 PERFORMANCE (Th=50°C)



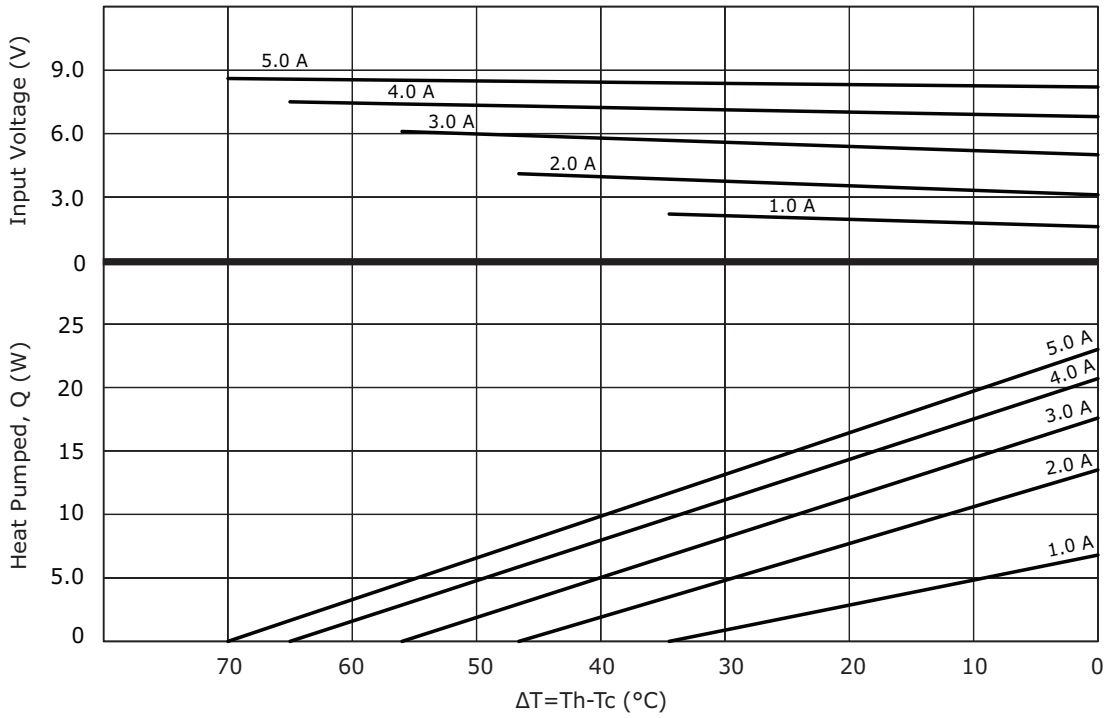
CP50301541 PERFORMANCE (Th=27°C)



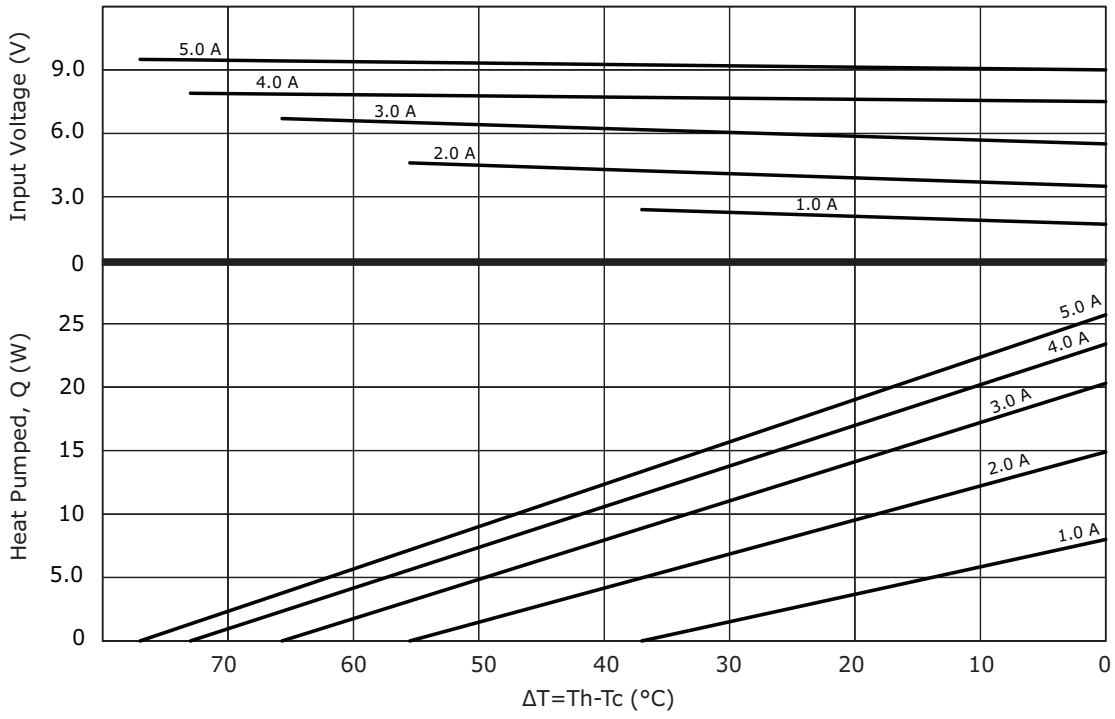
CP50301541 PERFORMANCE (Th=50°C)



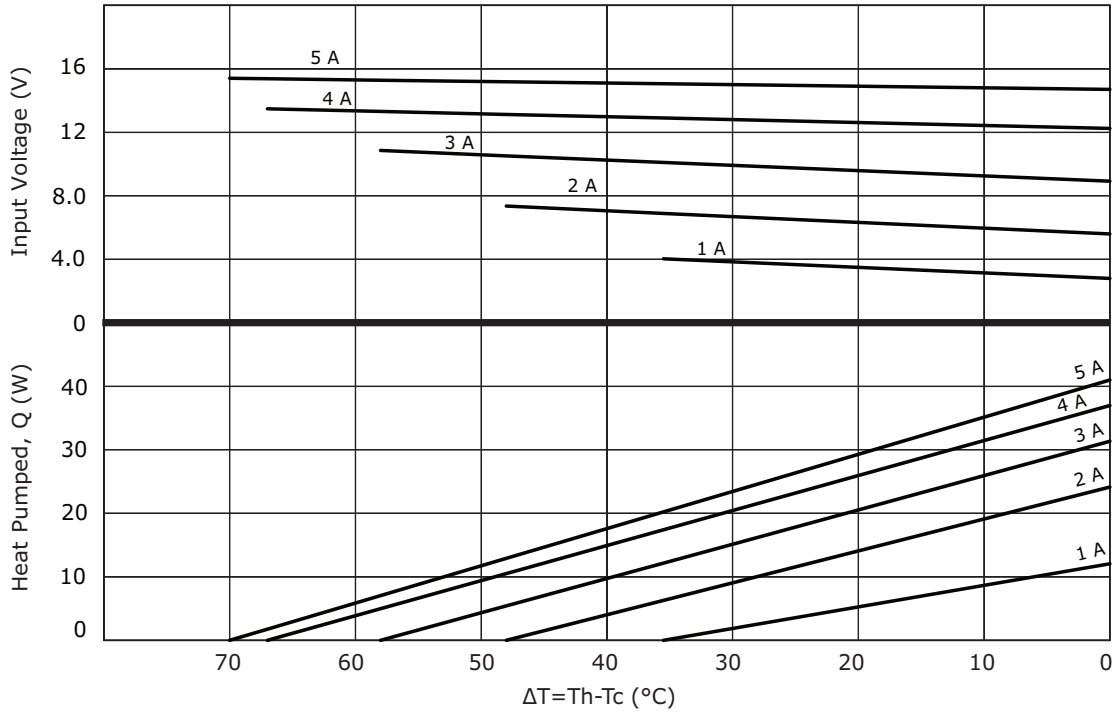
CP50341 PERFORMANCE (Th=27°C)



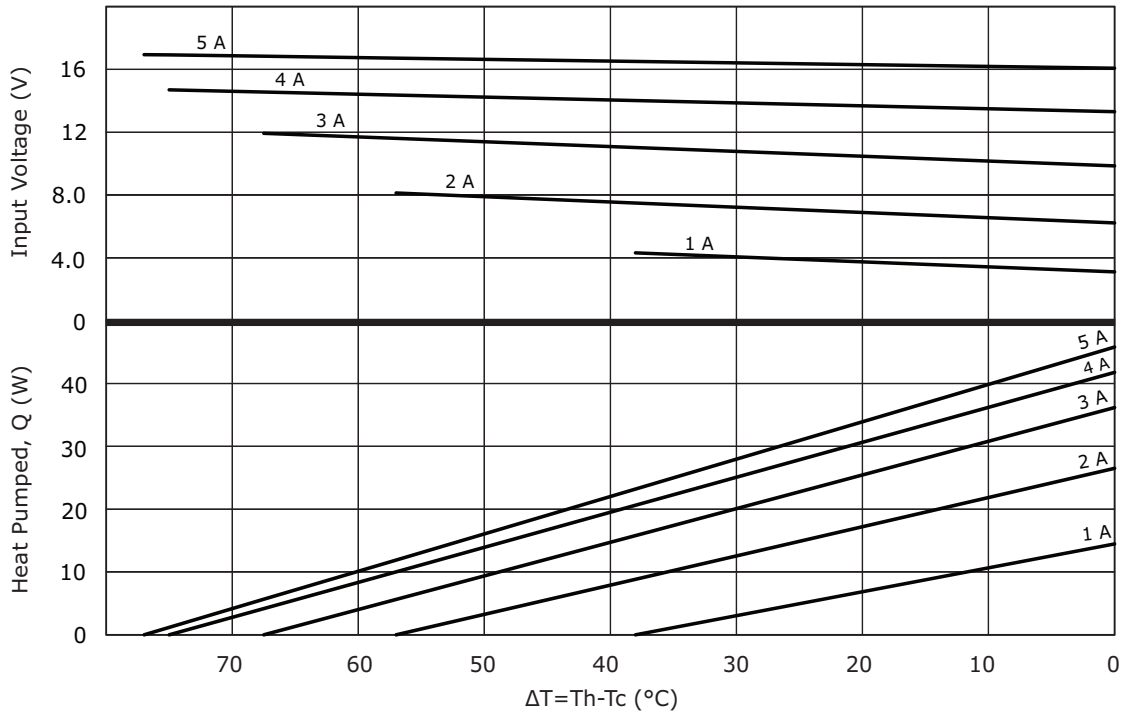
CP50341 PERFORMANCE (Th=50°C)



CP50441 PERFORMANCE (Th=27°C)



CP50441 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	09/08/2016
1.01	changed models CP50341 & CP50441 to arcTEC™ structure	12/01/2017

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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