Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com
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SERIES: CP50 | DESCRIPTION: PELTIER MODULE

FEATURES

- 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	8.6	5.0	23.0	25.7	68	75
CP50441	15.4	5.0	41.0	45.8	68	75

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)

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

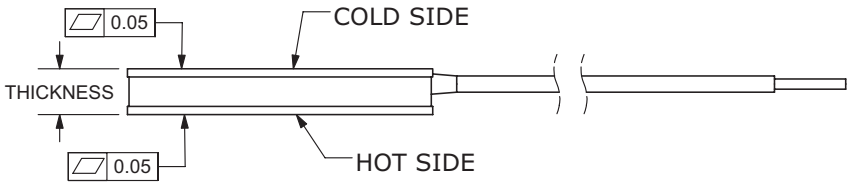
SPECIFICATIONS

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	138			°C
assembly compression				1	MPa
hot side plate				80	°C
RoHS	2011/65/EU				

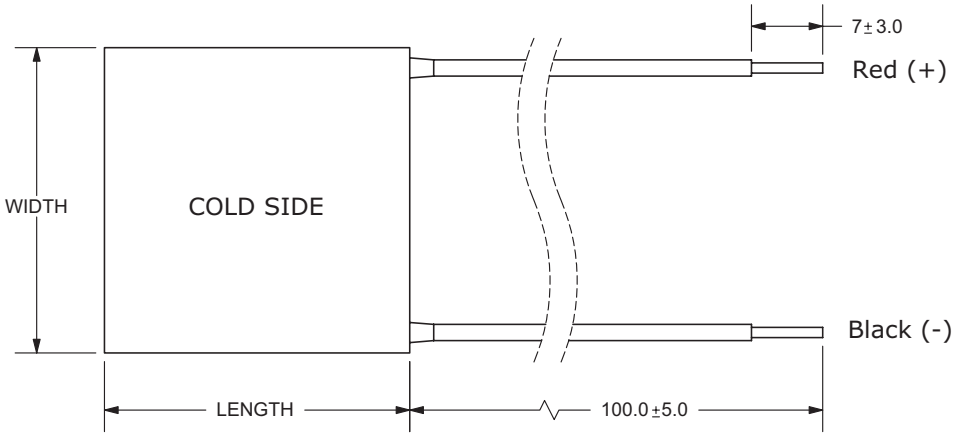
Note: 1. Measured by AC 4-terminal method at 25°C

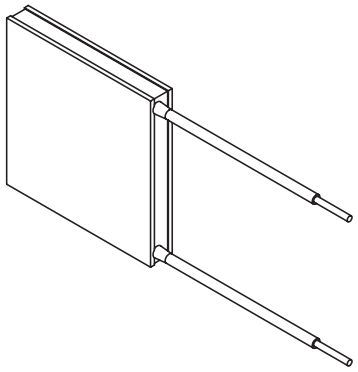
MECHANICAL DRAWING

units: mm



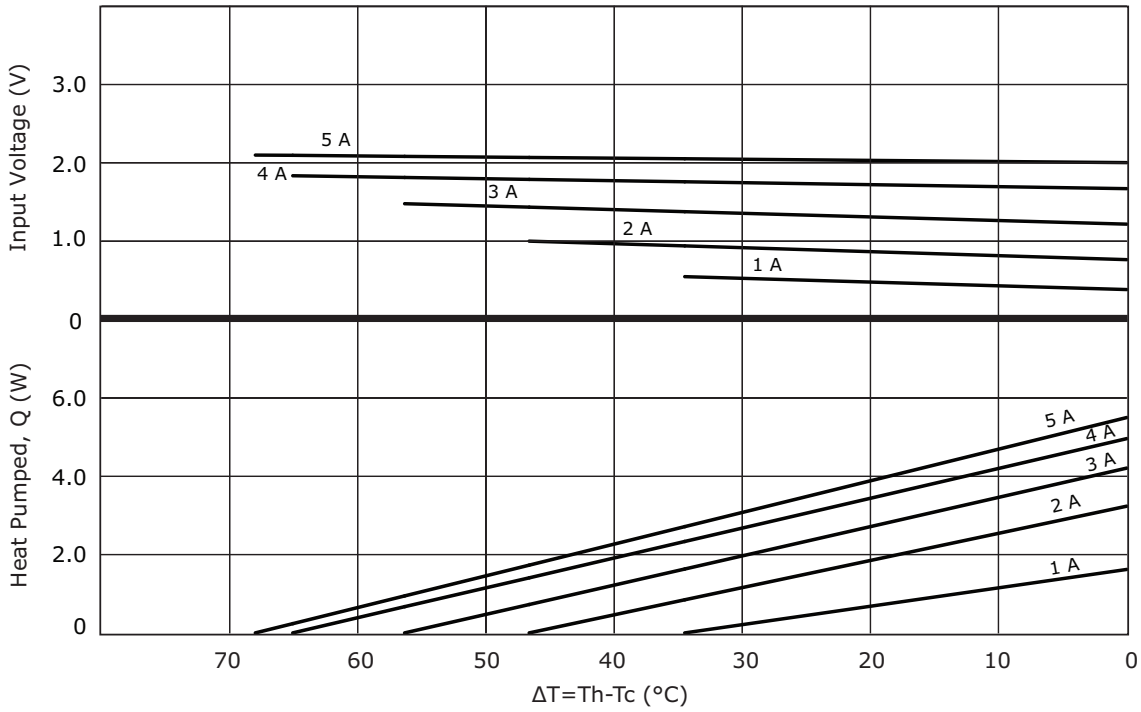
	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	



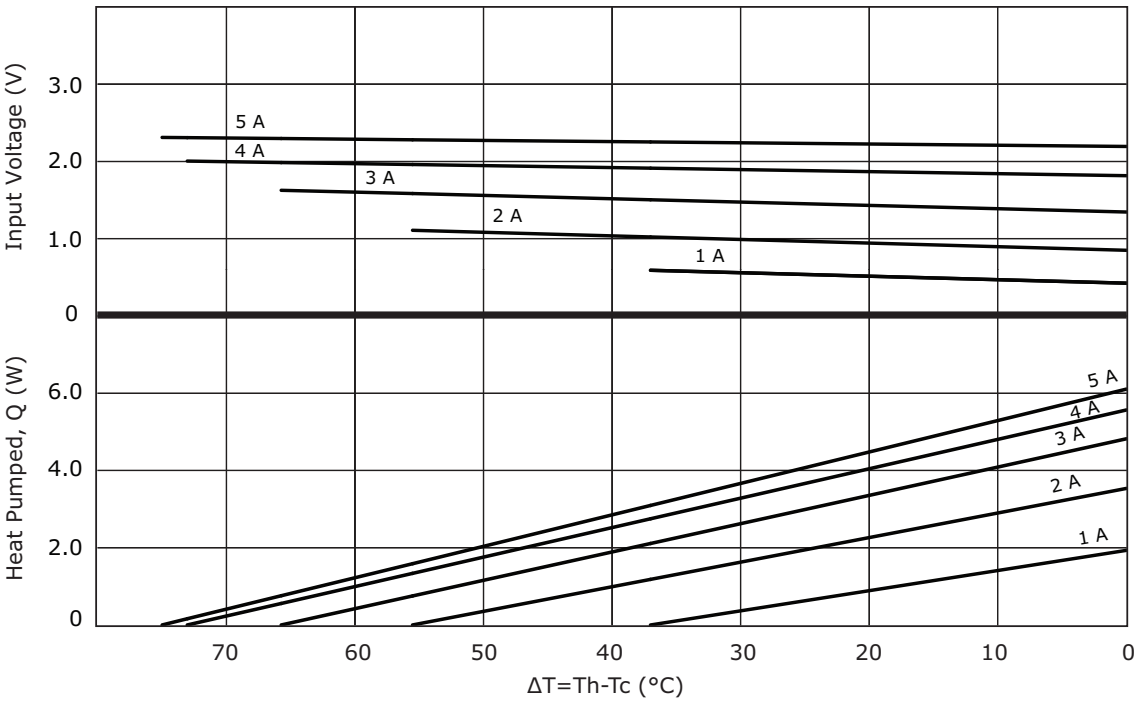


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP50141	15 ±0.3	15 ±0.3	4.05 ±0.1
CP50241	20 ±0.3	20 ±0.3	4.05 ±0.1
CP50301541	30 ±0.3	15 ±0.3	4.05 ±0.1
CP50341	30 ±0.3	30 ±0.3	4.05 ±0.1
CP50441	40 ±0.3	40 ±0.3	4.05 ±0.1

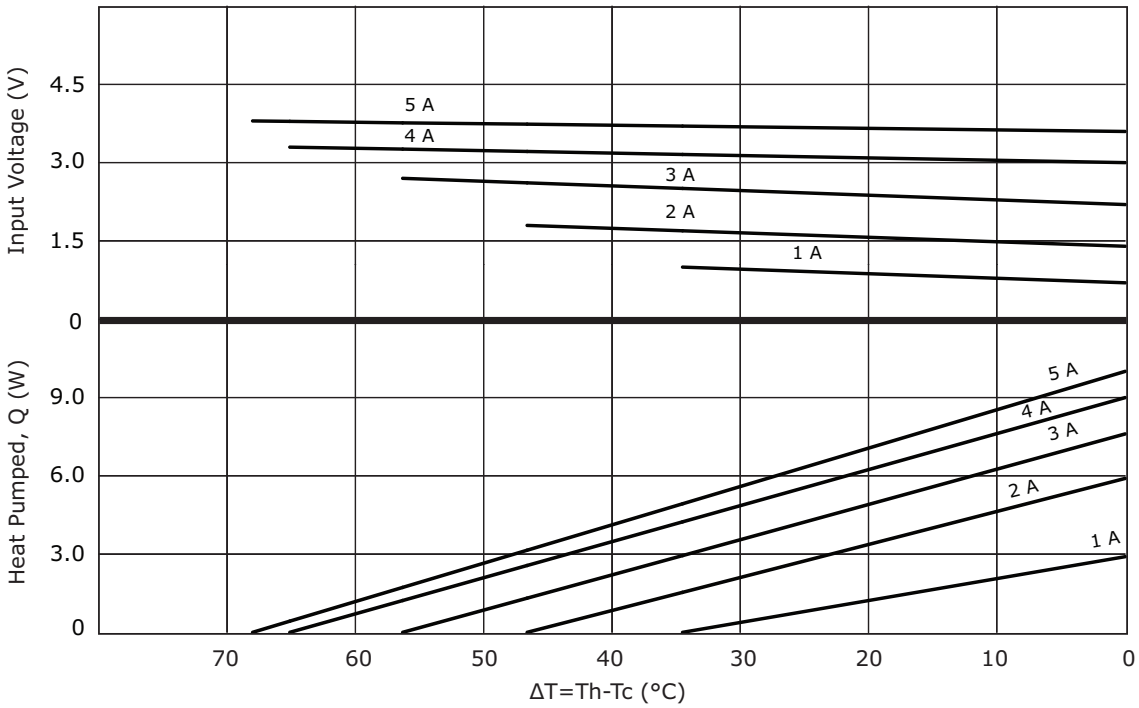
CP50141 PERFORMANCE (Th=27°C)



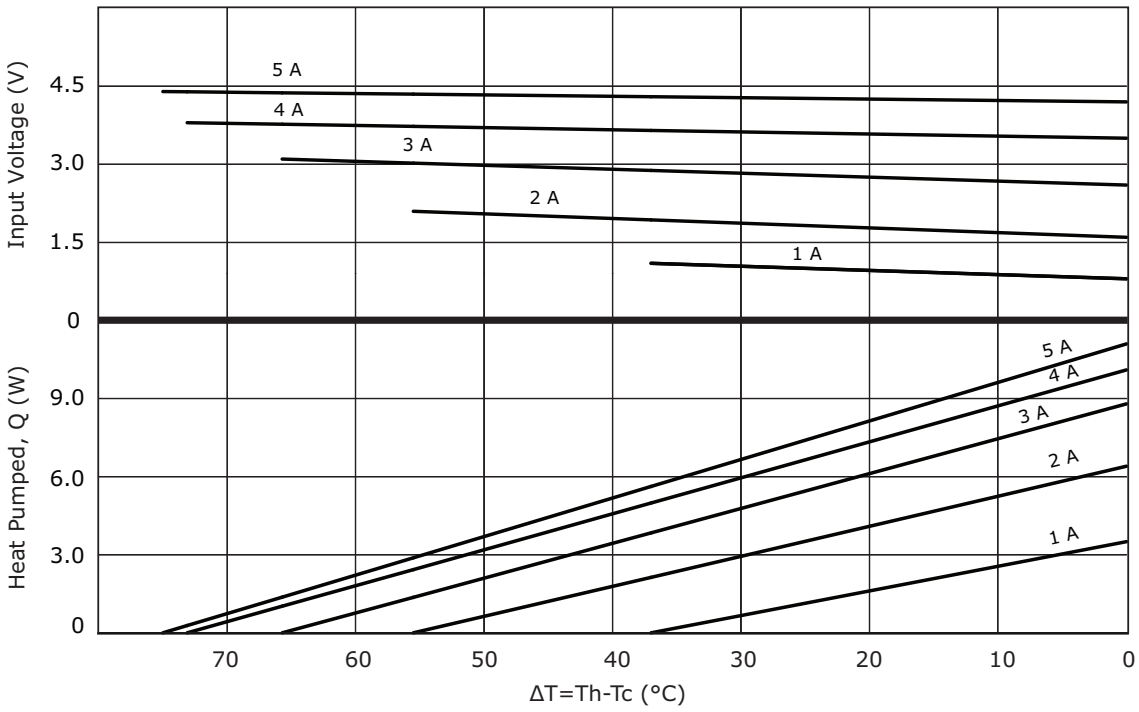
CP50141 PERFORMANCE (Th=50°C)



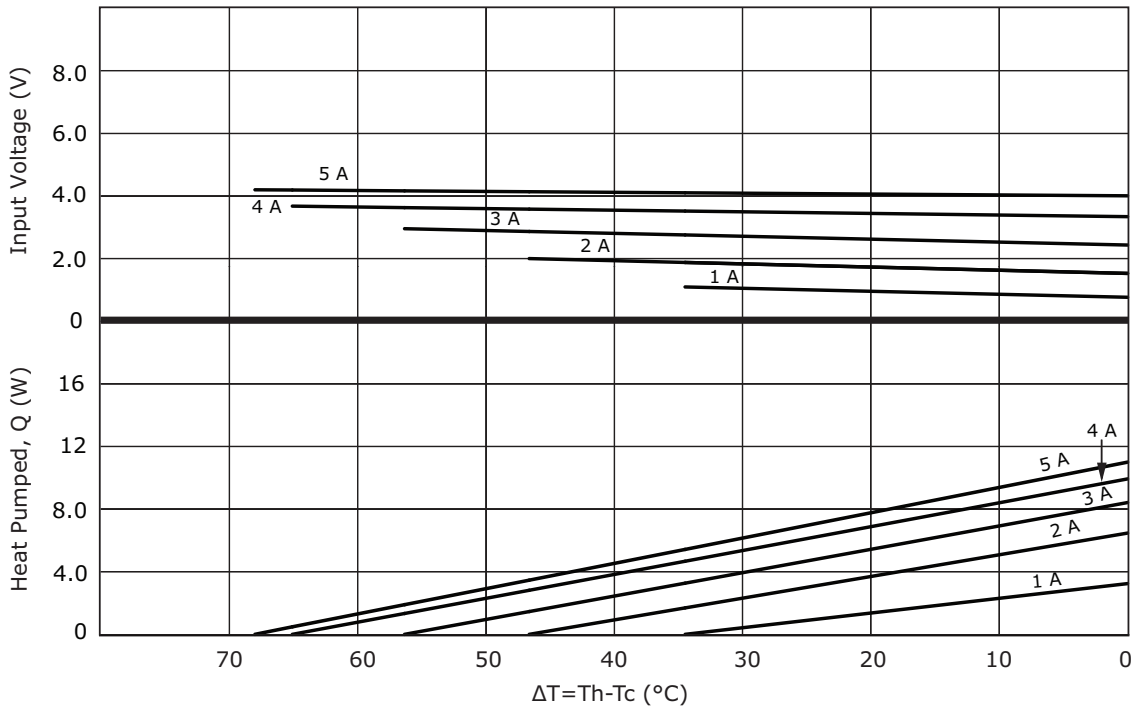
CP50241 PERFORMANCE (Th=27°C)



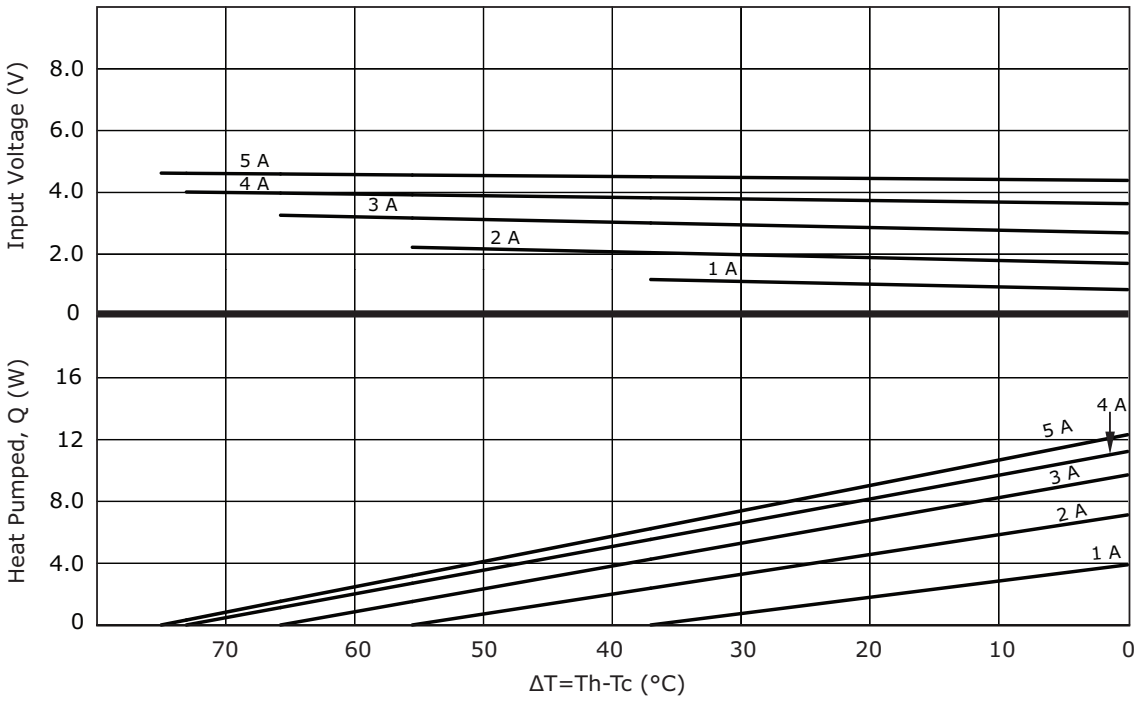
CP50241 PERFORMANCE (Th=50°C)



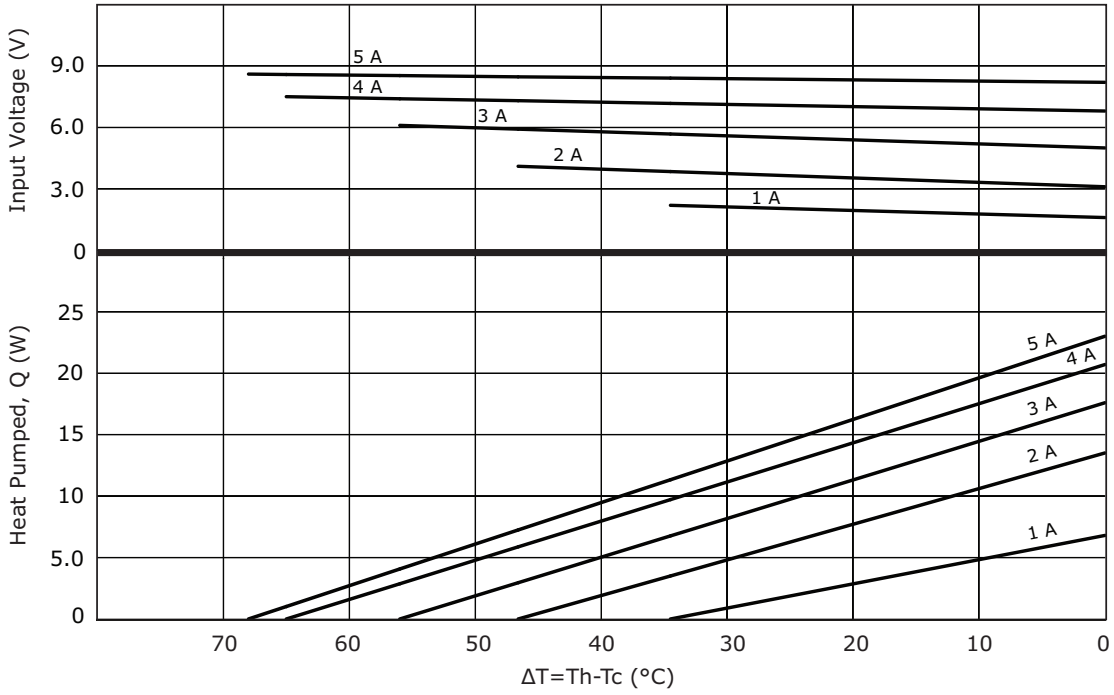
CP50301541 PERFORMANCE (Th=27°C)



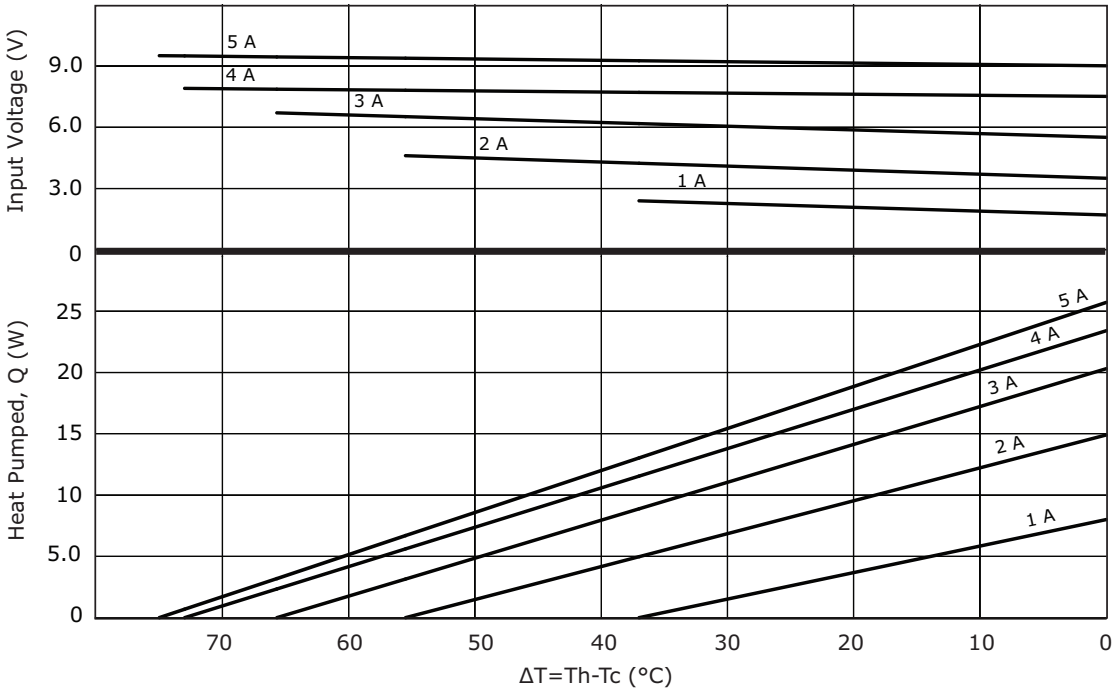
CP50301541 PERFORMANCE (Th=50°C)



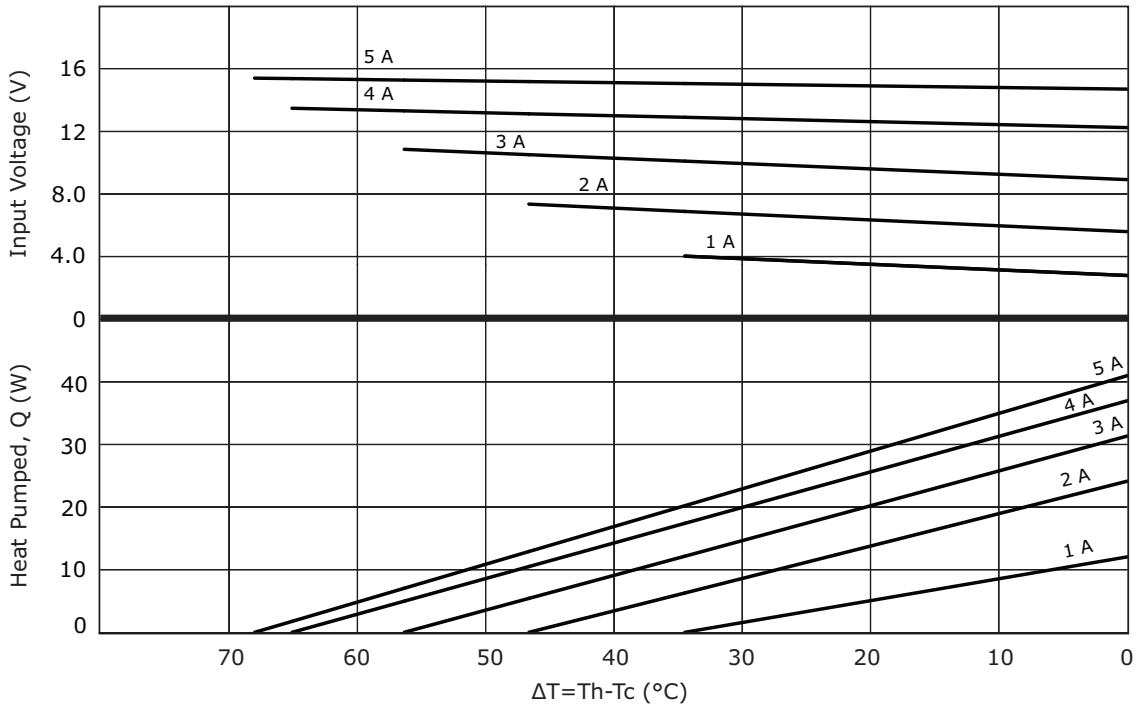
CP50341 PERFORMANCE (Th=27°C)



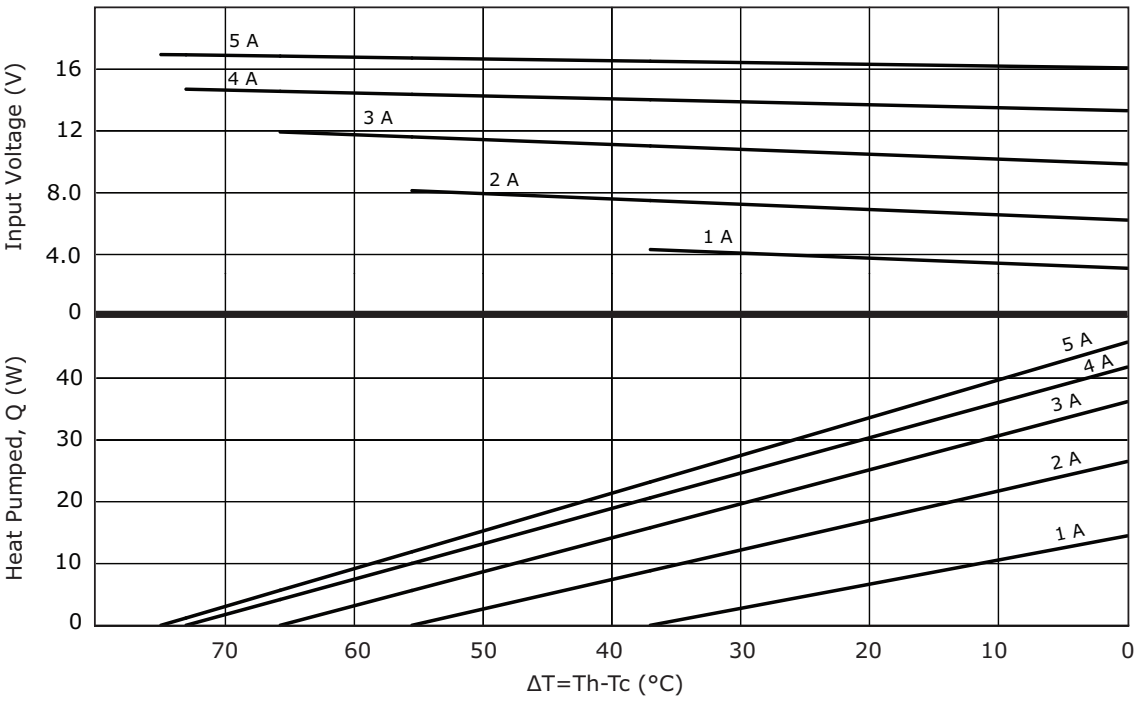
CP50341 PERFORMANCE (Th=50°C)



CP50441 PERFORMANCE (Th=27°C)



CP50441 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	09/06/2016

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

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