

SERIES: CP50 | DESCRIPTION: PELTIER MODULE

FEATURES

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



MODEL

MODEL	input voltage ¹ max (Vdc)	input current ² max (A)	internal resistance ³ typ ($\Omega \pm 10\%$)	output Qmax ⁴		output ΔT_{max} ⁵	
				T _h =27°C (W)	T _h =50°C (W)	T _h =27°C (°C)	T _h =50°C (°C)
CP50141	2.1	5.0	0.31	5.5	6.1	68	75
CP50241	3.8	5.0	0.56	10.0	11.1	68	75
CP50301541	4.2	5.0	0.63	11	12.3	68	75
CP5030395 ⁶	11.8	5.0	1.74	35.0	38.0	70	77
CP50341 ⁶	8.6	5.0	1.29	23.0	25.7	70	77
CP50441 ⁶	15.4	5.0	2.3	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. 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=0W (ΔT_{max} measured in a vacuum at 1.3 Pa)
 6. Designed with arcTEC™ structure

SPECIFICATIONS

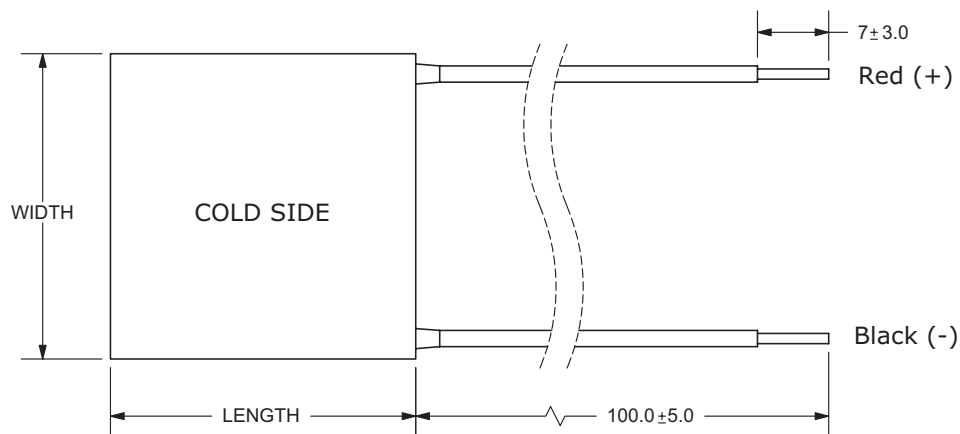
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

MECHANICAL DRAWING

units: mm



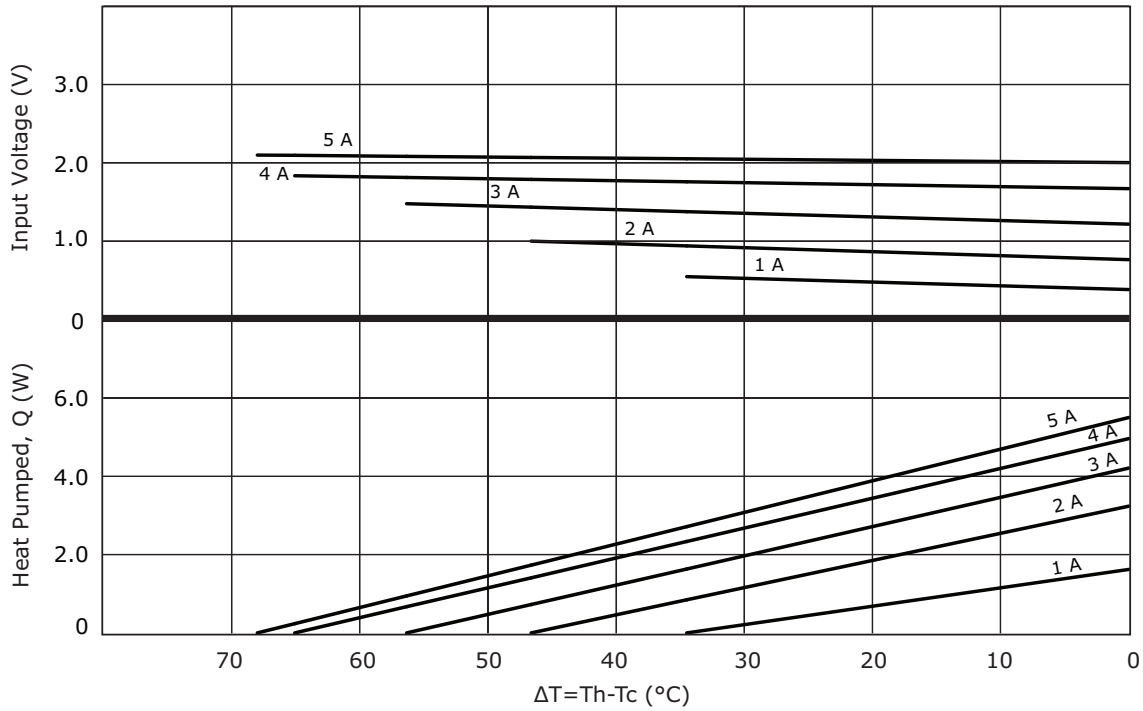
	MATERIAL	PLATING
ceramic plate	96% Al_2O_3	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	



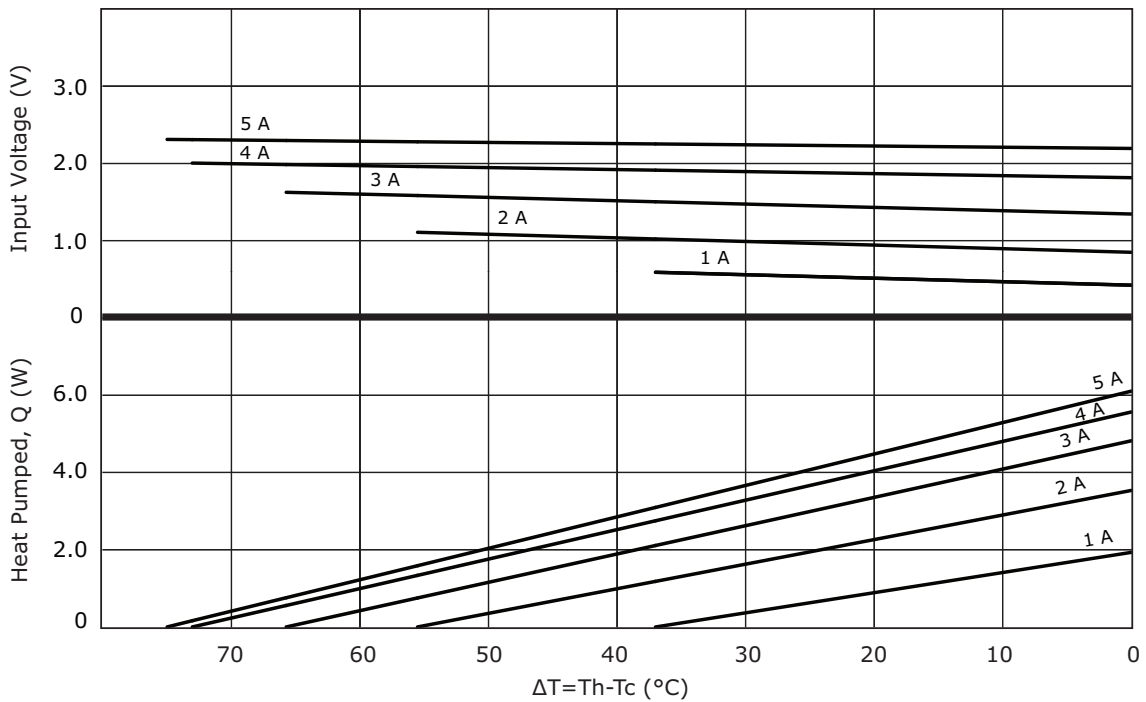
MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP50141	15 ± 0.3	15 ± 0.3	4.0 ± 0.1
CP50241	20 ± 0.3	20 ± 0.3	4.0 ± 0.1
CP50301541	30 ± 0.3	15 ± 0.3	4.0 ± 0.1
CP5030395	30 ± 0.3	30 ± 0.3	3.95 ± 0.025
CP50341 ¹	30 ± 0.3	30 ± 0.3	4.0 ± 0.1
CP50441 ¹	40 ± 0.3	40 ± 0.3	4.0 ± 0.1

Notes: 1. Wire lead strip length on models CP50341 & CP50441 is 10 ± 3.0 mm.

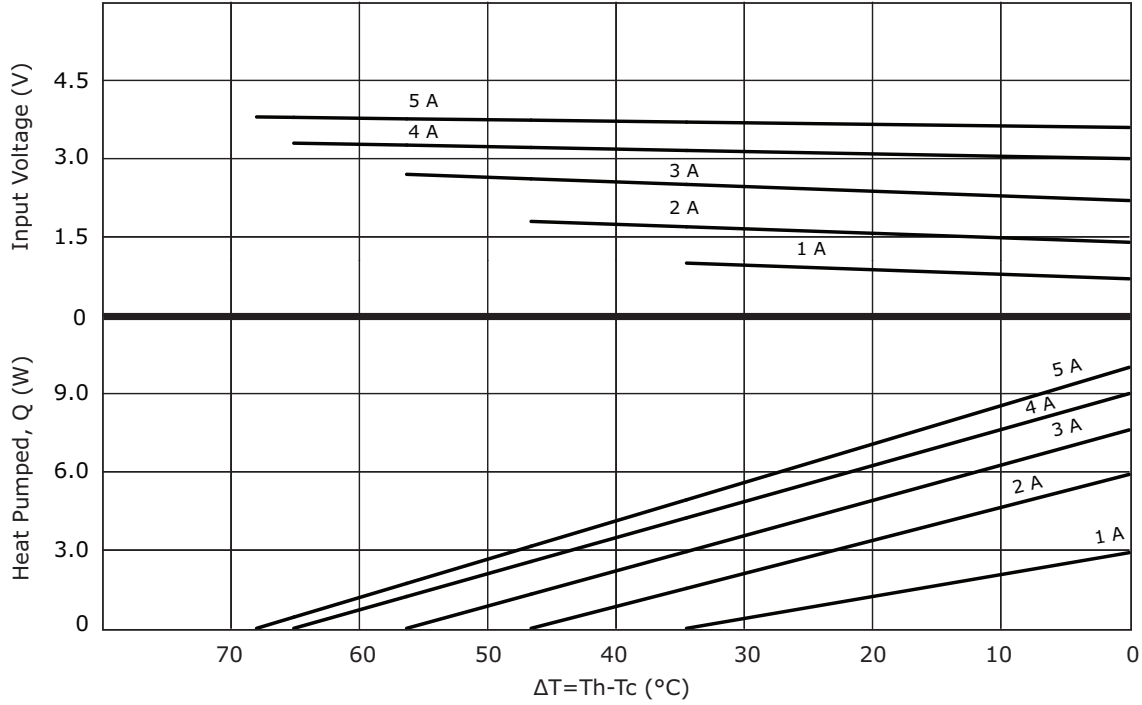
CP50141 PERFORMANCE (Th=27°C)



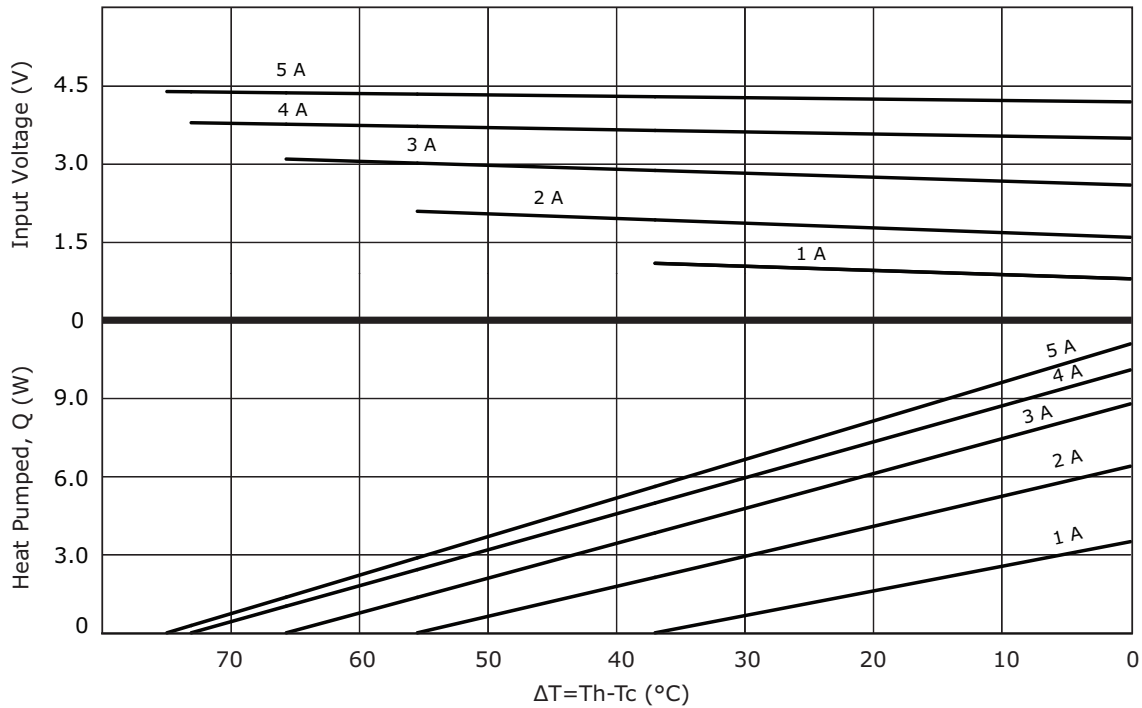
CP50141 PERFORMANCE (Th=50°C)



CP50241 PERFORMANCE (Th=27°C)



CP50241 PERFORMANCE (Th=50°C)



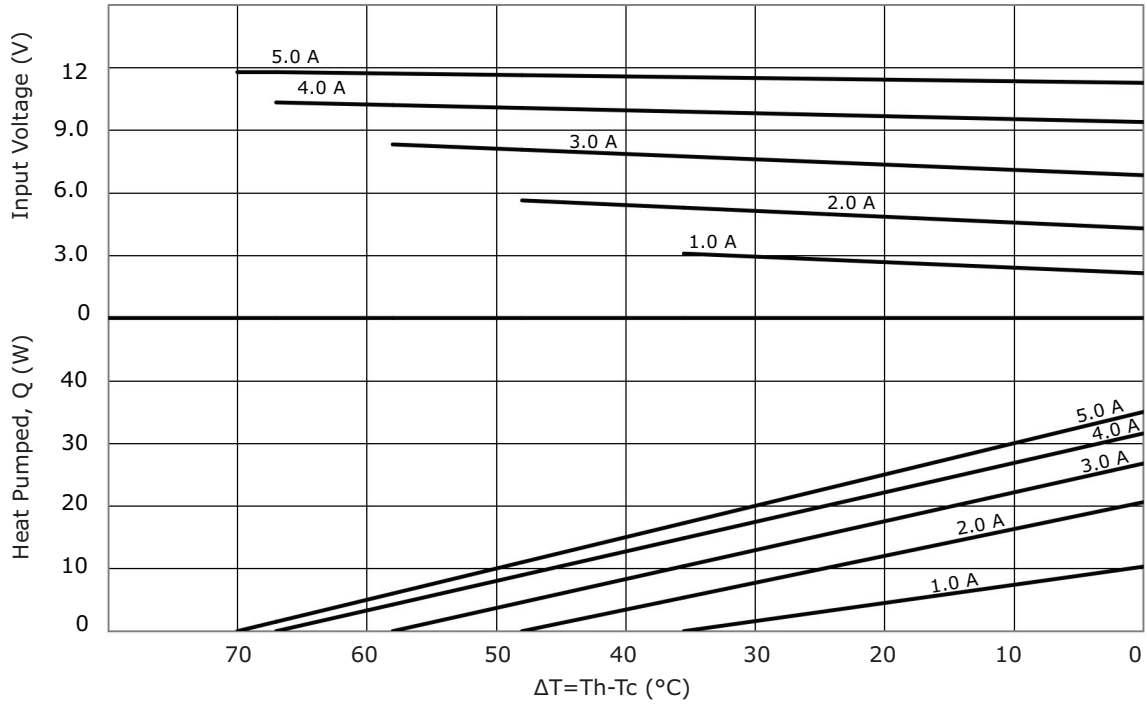
CP50301541 PERFORMANCE (Th=27°C)



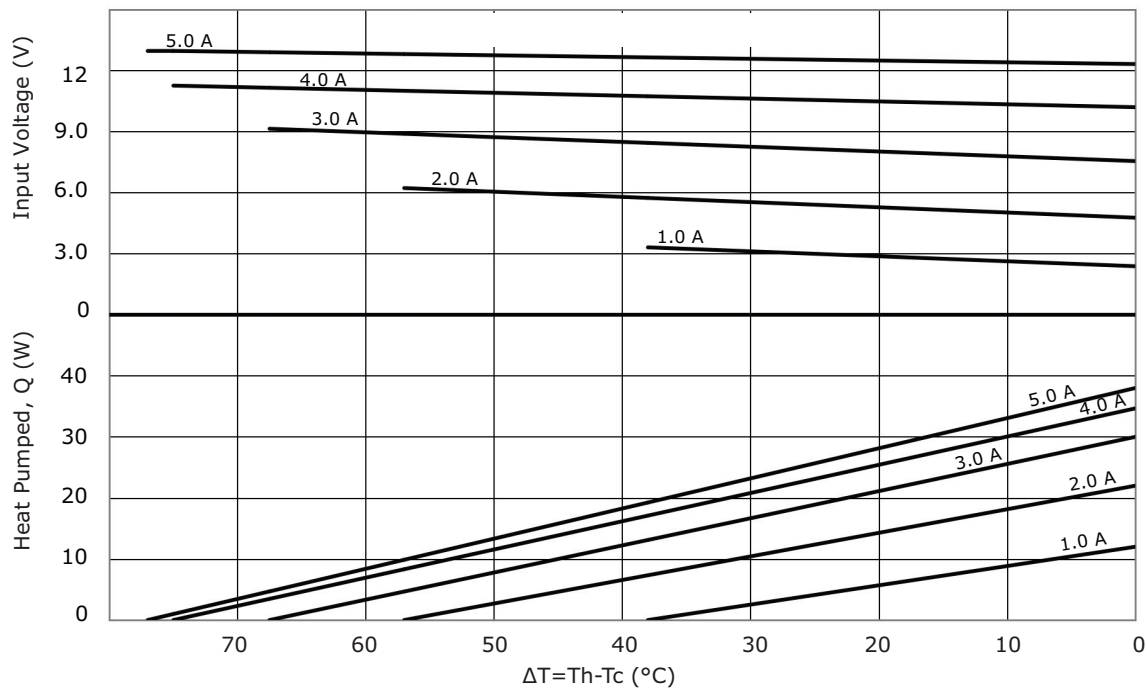
CP50301541 PERFORMANCE (Th=50°C)



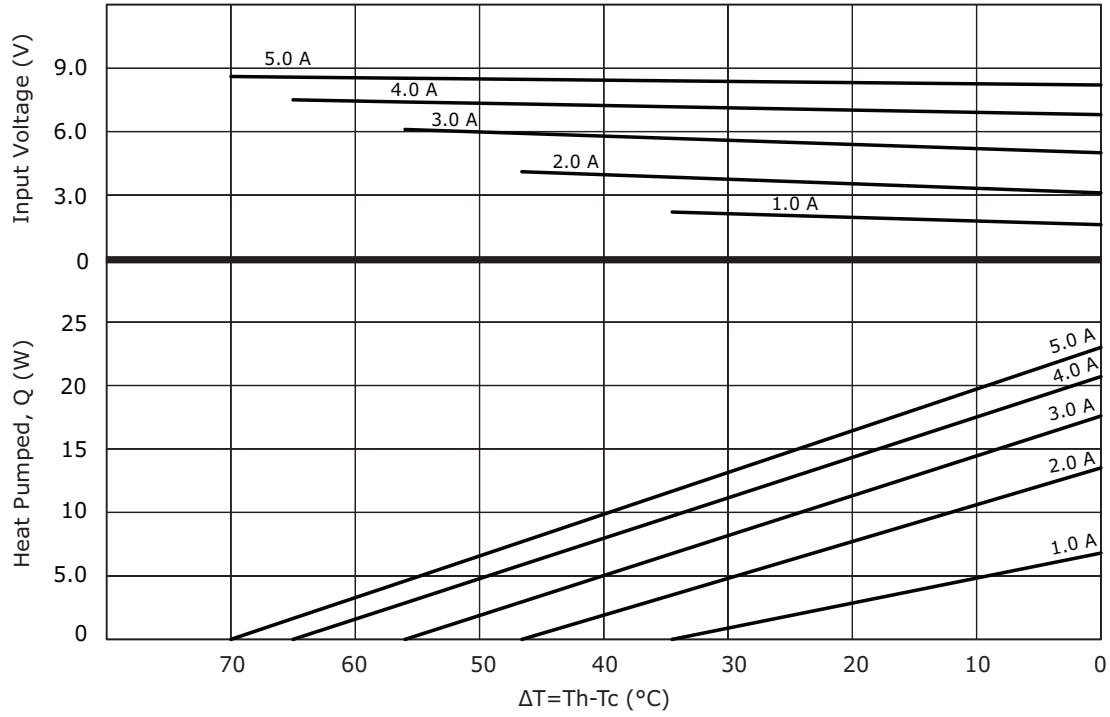
CP5030395 PERFORMANCE (Th=27°C)



CP5030395 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
1.02	changed thickness of CP50141, CP50241, CP50301541 models	09/20/2018
1.03	added model CP5030395, brand update	10/18/2019

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

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