

## SERIES: CP50 | DESCRIPTION: PELTIER MODULE

### FEATURES

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



### MODEL

MODEL	input voltage <sup>1</sup> max (Vdc)	input current <sup>2</sup> max (A)	internal resistance <sup>3</sup> typ (Ω±10%)	output Qmax <sup>4</sup>		output ΔTmax <sup>5</sup>	
				T <sub>h</sub> =27°C (W)	T <sub>h</sub> =50°C (W)	T <sub>h</sub> =27°C (°C)	T <sub>h</sub> =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 <sup>6</sup>	11.8	5.0	1.74	35.0	38.0	70	77
CP50341 <sup>6</sup>	8.6	5.0	1.29	23.0	25.7	70	77
CP50441 <sup>6</sup>	15.4	5.0	2.3	41.0	45.8	70	77

- Notes:
1. Maximum voltage at ΔT max and T<sub>h</sub>=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<sub>max'</sub>, V<sub>max'</sub>, and ΔT=0°C
  5. Maximum temperature difference occurs at I<sub>max'</sub>, V<sub>max'</sub>, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
  6. Designed with arcTEC™ structure

## SPECIFICATIONS

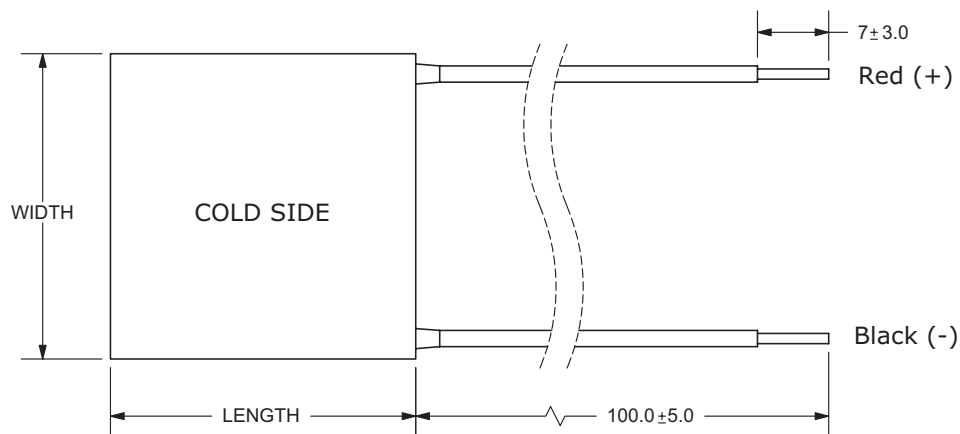
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

## MECHANICAL DRAWING

units: mm



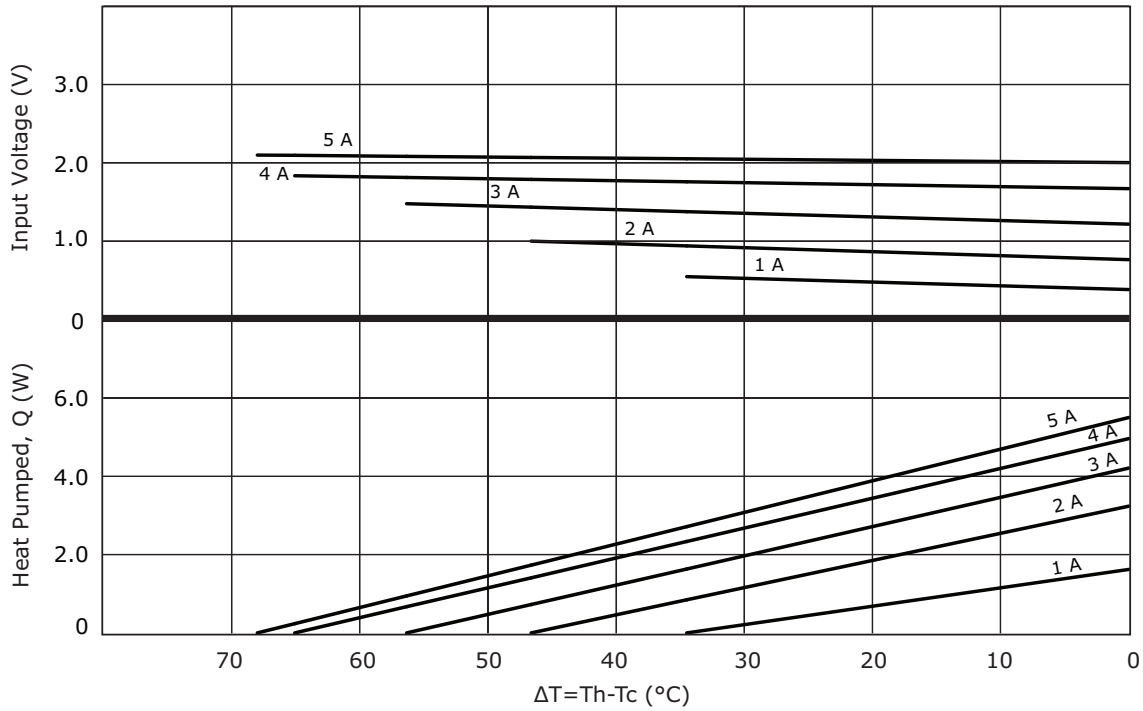
	MATERIAL	PLATING
ceramic plate	96% $Al_2O_3$	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	



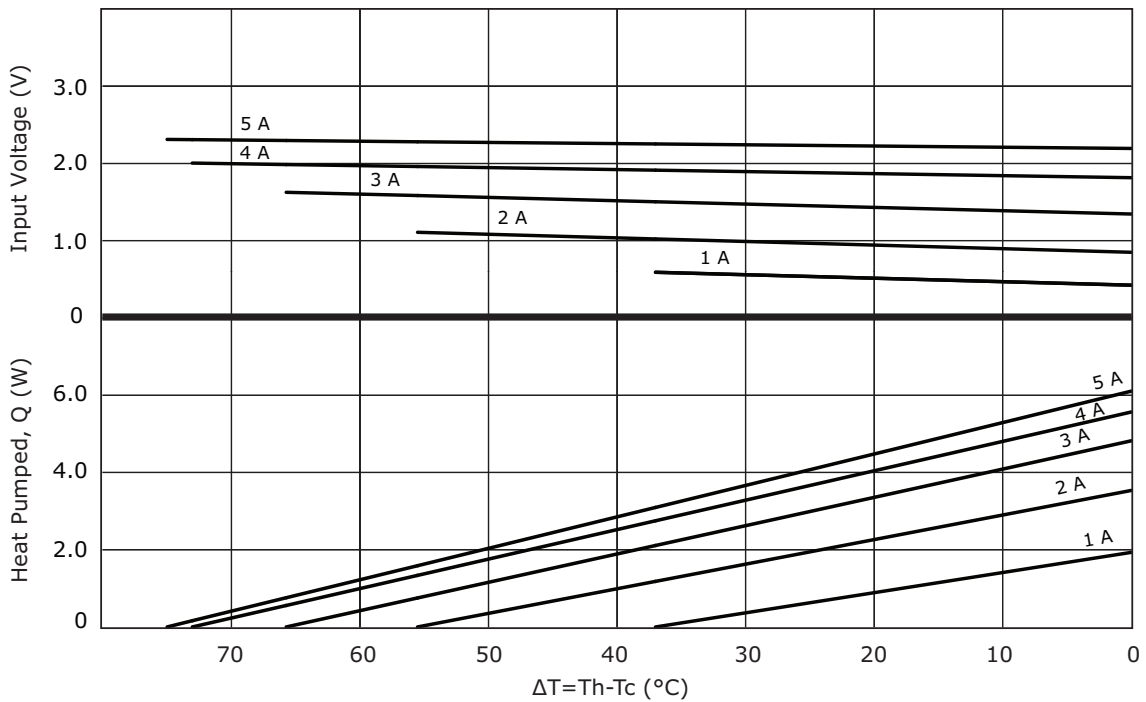
MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP50141	15 ± 0.3	15 ± 0.3	4.0 ± 0.1
CP50241	20 ± 0.3	20 ± 0.3	4.0 ± 0.1
CP50301541	30 ± 0.3	15 ± 0.3	4.0 ± 0.1
CP5030395	30 ± 0.3	30 ± 0.3	3.95 ± 0.025
CP50341 <sup>1</sup>	30 ± 0.3	30 ± 0.3	4.0 ± 0.1
CP50441 <sup>1</sup>	40 ± 0.3	40 ± 0.3	4.0 ± 0.1

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

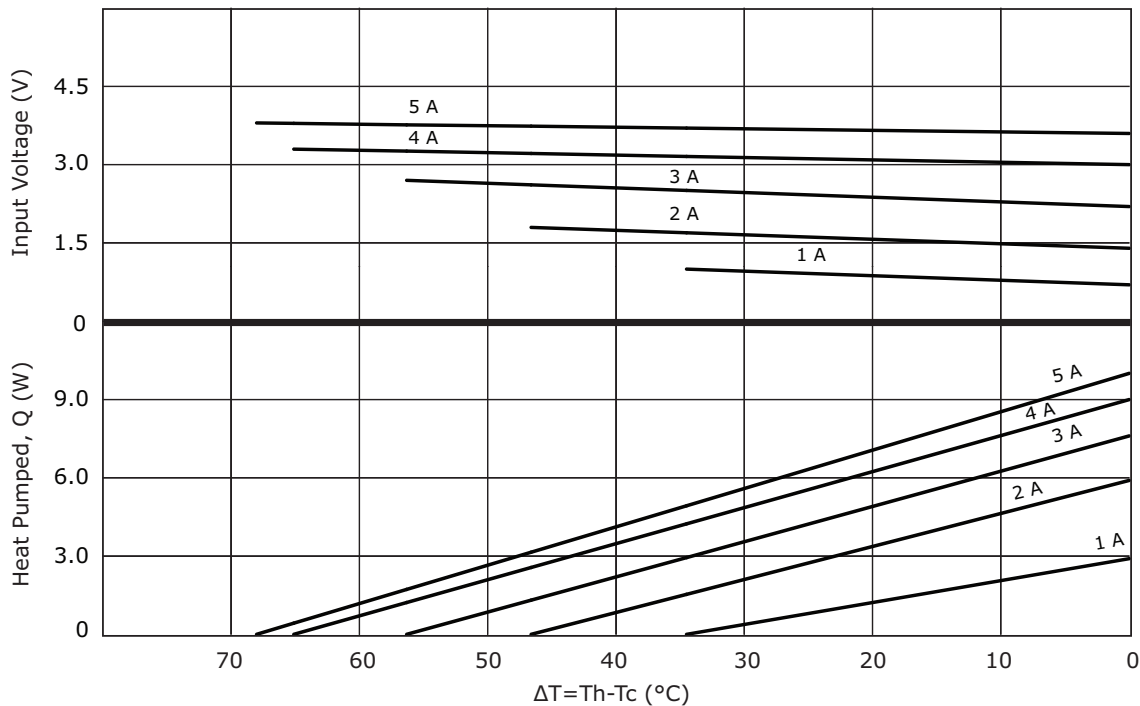
### CP50141 PERFORMANCE (Th=27°C)



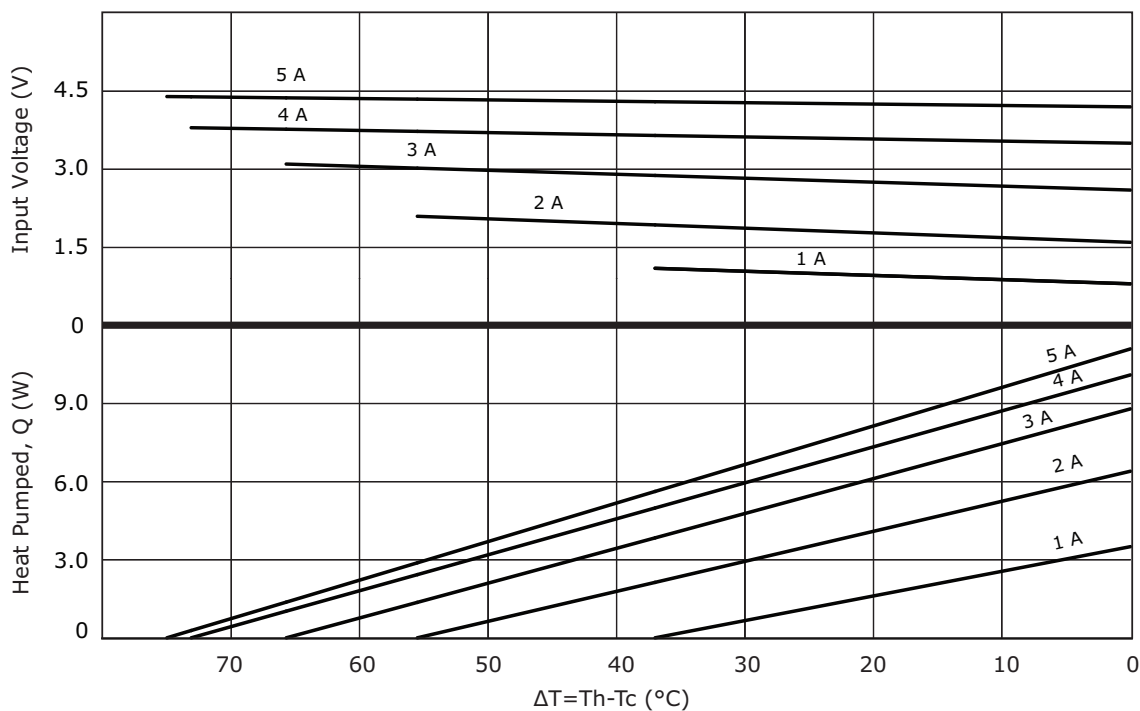
### CP50141 PERFORMANCE (Th=50°C)



### CP50241 PERFORMANCE (Th=27°C)



### CP50241 PERFORMANCE (Th=50°C)



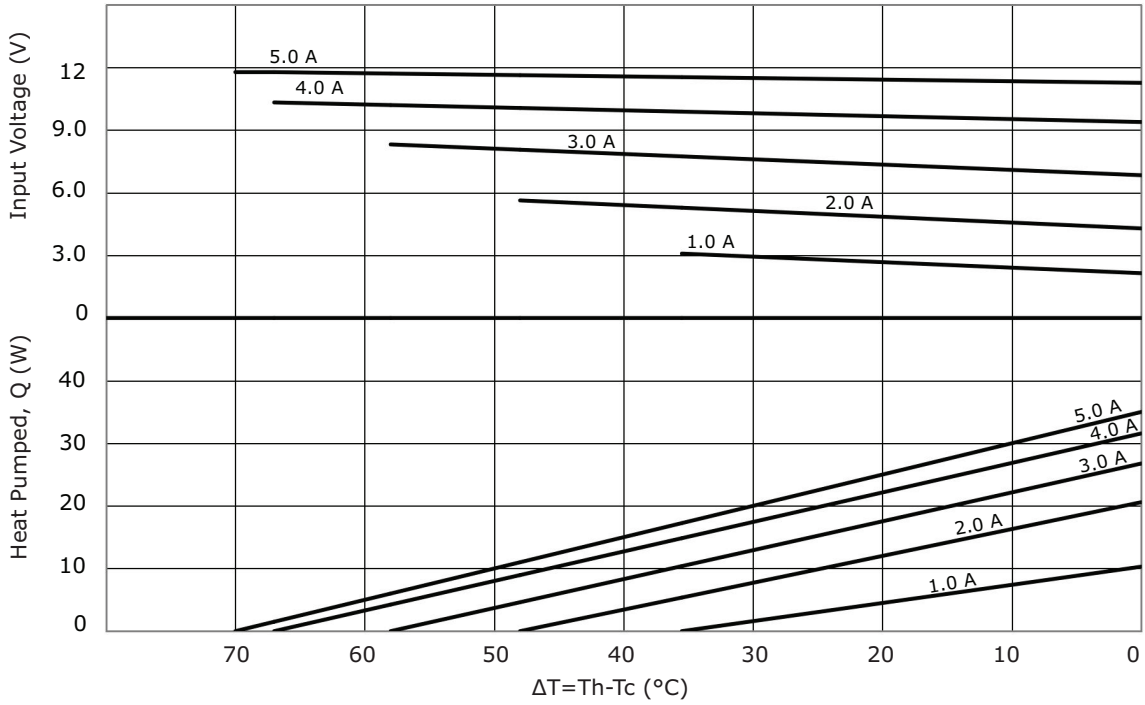
### CP50301541 PERFORMANCE (Th=27°C)



### CP50301541 PERFORMANCE (Th=50°C)



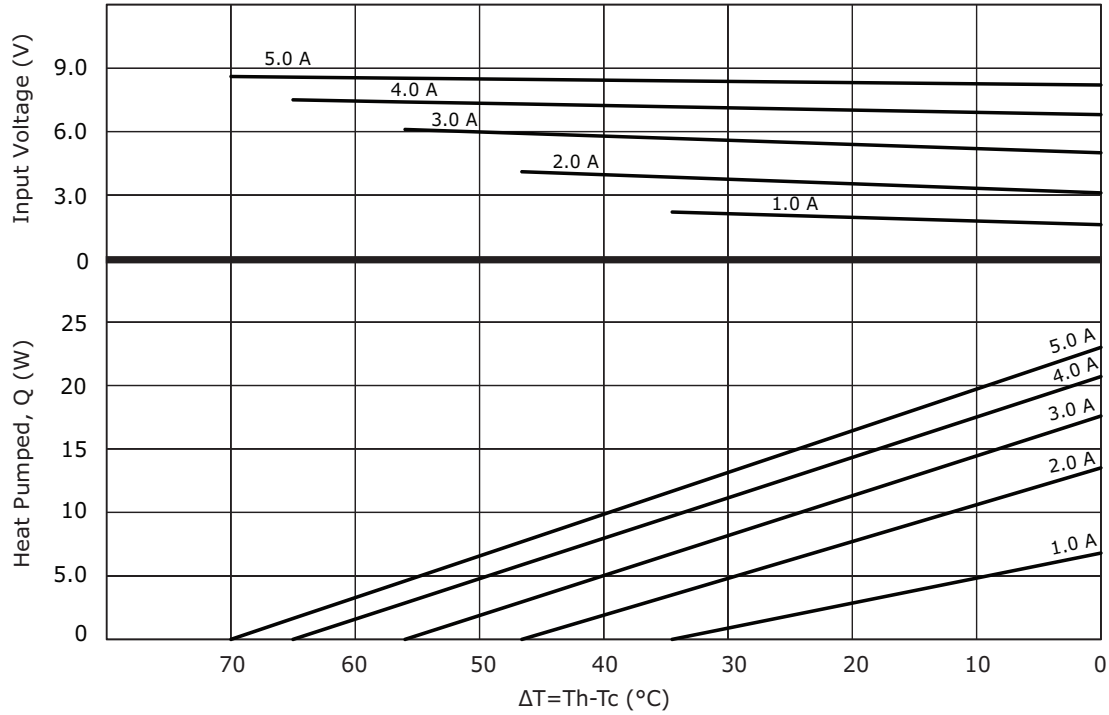
### CP5030395 PERFORMANCE (Th=27°C)



### 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

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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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