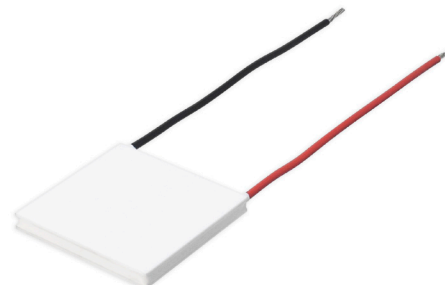


SERIES: CP140 | **DESCRIPTION:** PELTIER MODULE

FEATURES

- arcTEC™ structure
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide ΔT_{max}
- precise temperature control
- solid state construction


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]
CP144044	8.6	14	0.49	67	73	70	77
CP144745325	19.5	14	1.08	157	172	70	77

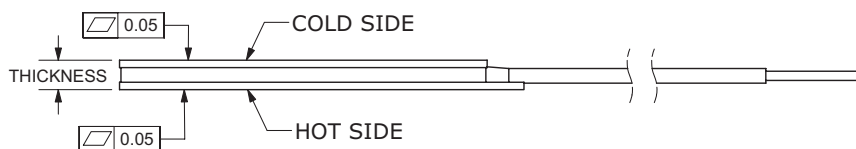
Notes: 1. Maximum voltage at ΔT_{max} and T_h=27°C
 2. Maximum current to achieve ΔT_{max}
 3. Measured by AC 4-terminal method at 25°C
 4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and $\Delta T=0^\circ\text{C}$
 5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT_{max} measured in a vacuum at 1.3 Pa)

SPECIFICATIONS

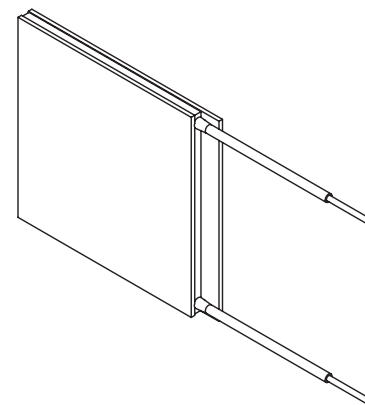
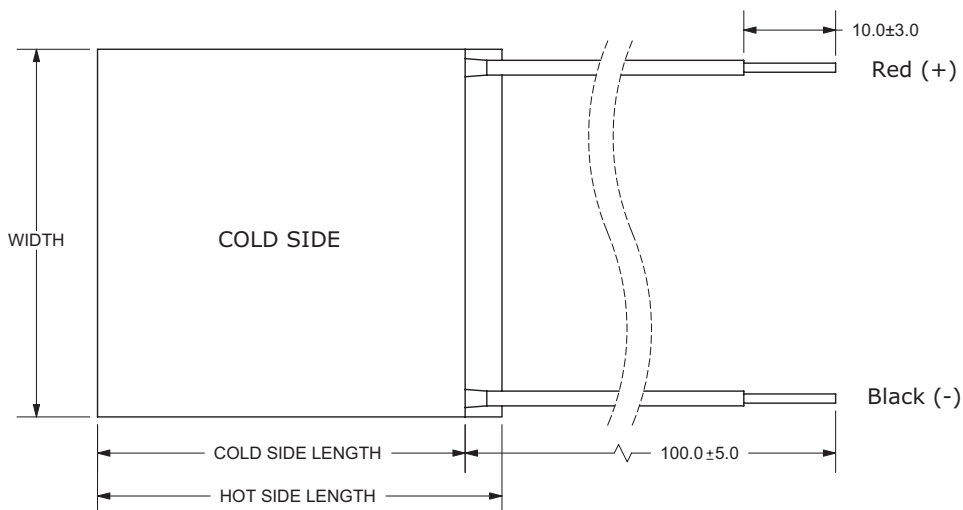
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

MECHANICAL DRAWING

units: mm

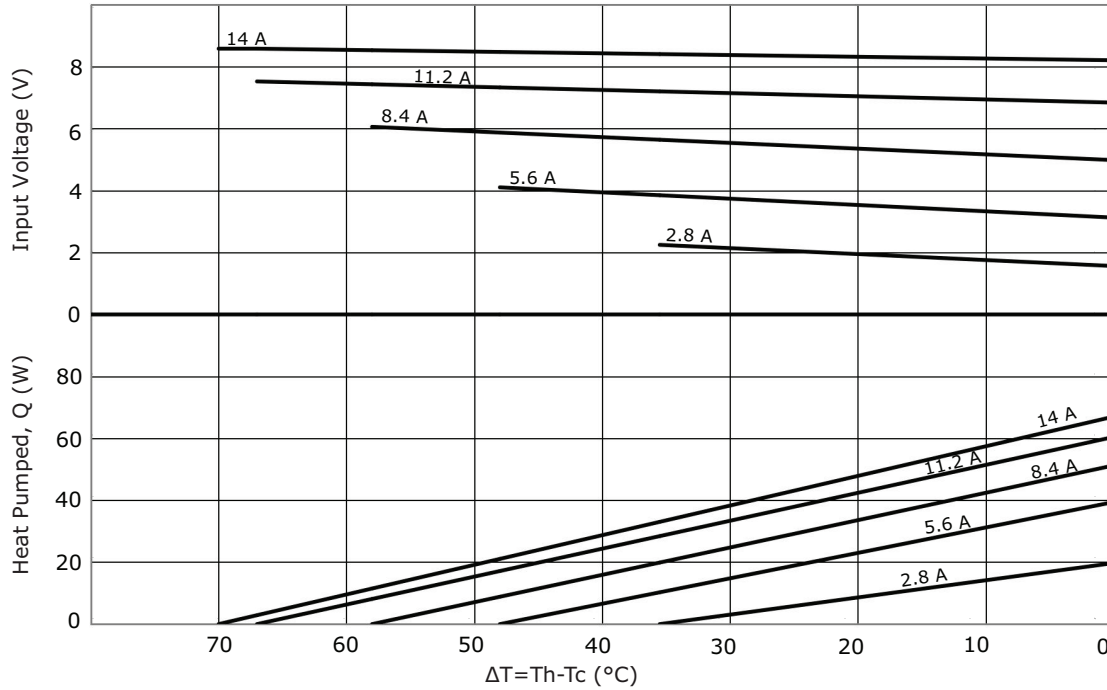


	MATERIAL	PLATING
ceramic plate	96% Al_2O_3	
wire leads	18 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

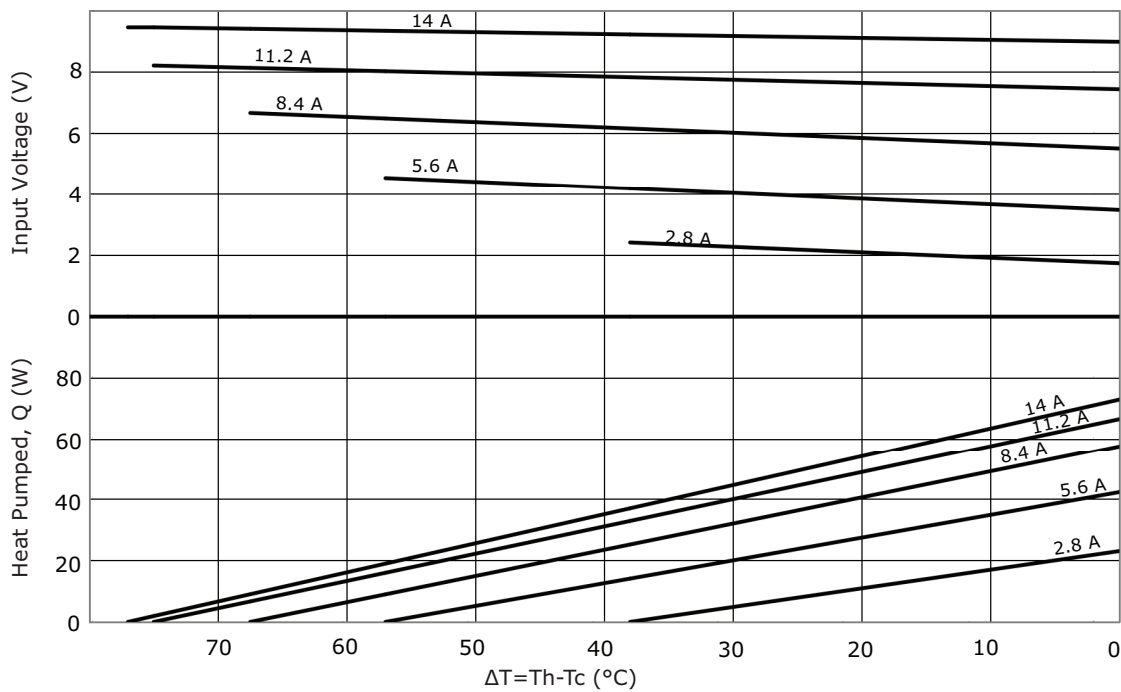


MODEL NO.	HOT SIDE LENGTH [mm]	COLD SIDE LENGTH [mm]	WIDTH [mm]	THICKNESS [mm]
CP144044	40 ±0.3	40 ±0.3	40 ±0.3	4.4 ±0.1
CP144745325	47 ±0.5	44.8 ±0.5	44.8 ±0.3	3.25 ±0.025

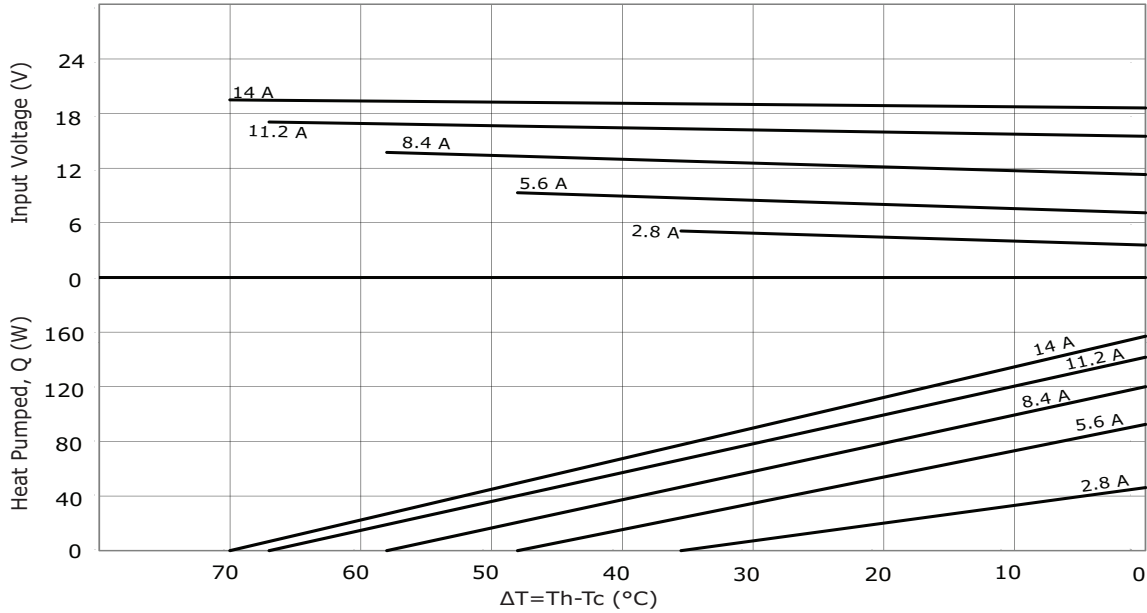
CP144044 PERFORMANCE (Th=27°C)



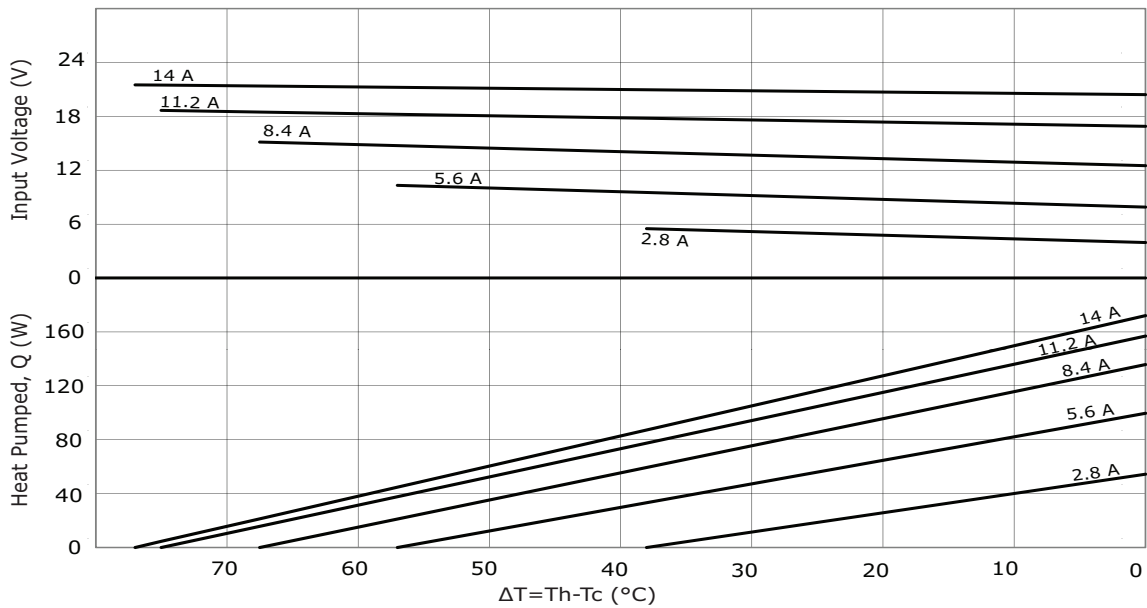
CP144044 PERFORMANCE (Th=50°C)



CP144745325 PERFORMANCE (Th=27°C)



CP144745325 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	10/17/2019
1.01	added model CP144745325	11/10/2020
1.02	logo, datasheet style update	08/05/2022

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



CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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