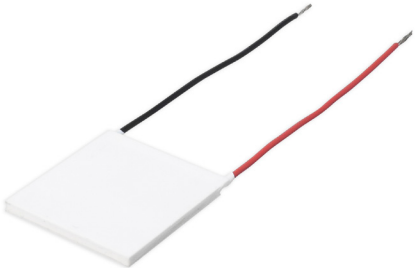




SERIES: CP110 | DESCRIPTION: PELTIER MODULE

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]
CP1130325	11.8	11.0	0.9	74.7	82	68	75
CP1140203	7.6	11.0	0.53	48	52	70	77
CP11404432	24.1	11.0	1.65	156	171	70	77
CP115035335	16.8	11.0	1.18	106	116	70	77
CP115559405	24.6	11.0	1.66	154	169	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

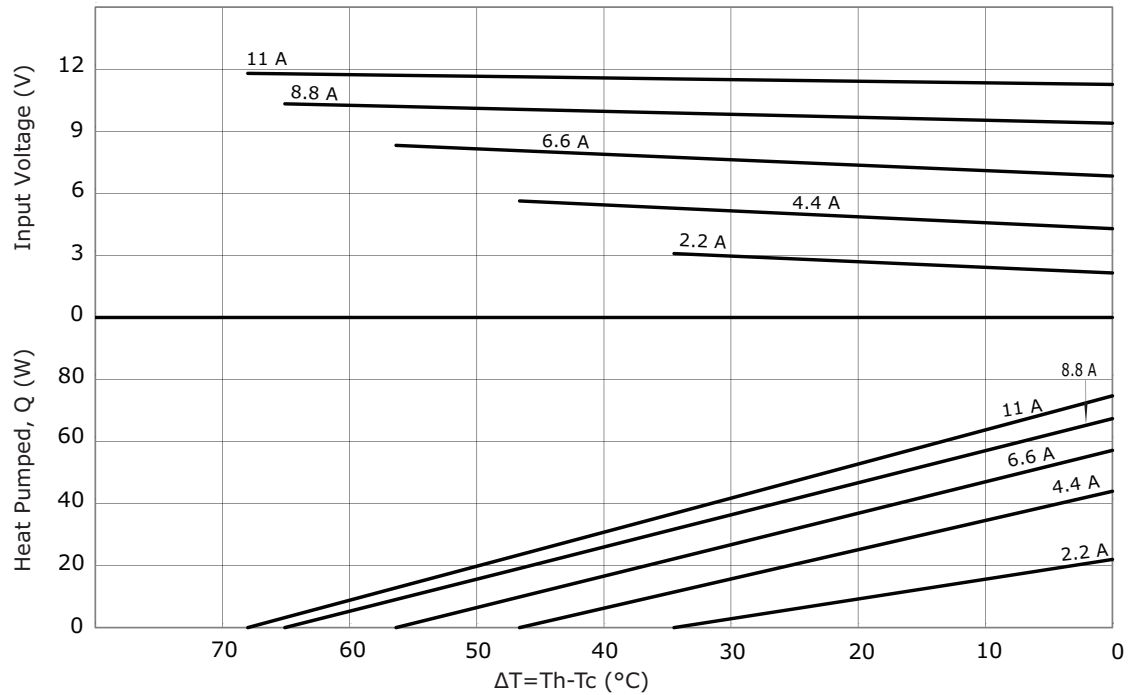
units: mm

The top view shows a rectangular module with a 'COLD SIDE' and 'HOT SIDE'. Dimensions include 'THICKNESS' with a 0.05 mm tolerance, 'COLD SIDE LENGTH', 'HOT SIDE LENGTH', and 'WIDTH'. The side view shows the module's profile with a 'Red (+)' terminal and a 'Black (-)' terminal. A dimension of 10.0±3.0 mm is shown for the terminal length. A dashed line indicates a break in the module.

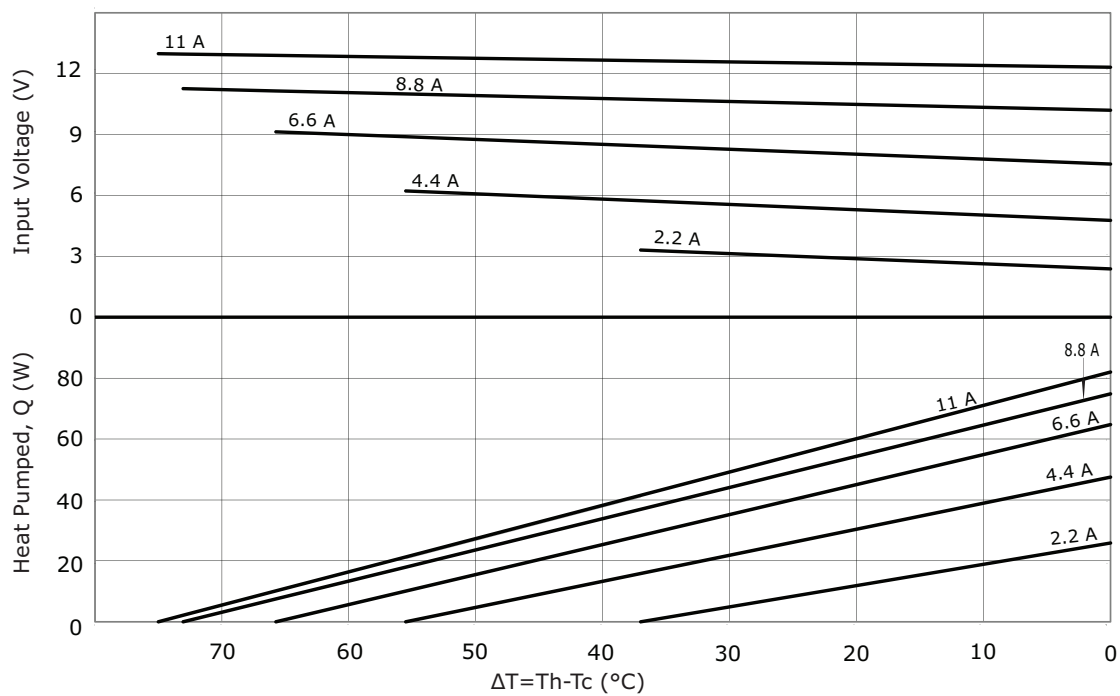
	MATERIAL	PLATING
ceramic plate	96% AL ₂ O ₃	
wire leads [CP1140203]	22 AWG	tin
wire leads [CP115559405]	18 AWG	tin
wire leads [all other models]	20 AWG	tin
sealer	silicon rubber 703 RTV [between cold and hot side plates]	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

MODEL NO.	HOT SIDE LENGTH [mm]	COLD SIDE LENGTH [mm]	WIDTH [mm]	THICKNESS [mm]
CP1130325	30 ±0.3	30 ±0.3	30 ±0.3	3.25 ±0.025
CP1140203	40 ±0.3	40 ±0.3	20 ±0.3	3.0 ±0.05
CP11404432	44 ±0.3	40 ±0.3	40 ±0.3	3.2 ±0.1
CP115035335	50 ±0.3	50 ±0.3	35 ±0.3	3.35 ±0.05
CP115559405	59 ±0.3	55 ±0.3	55 ±0.3	4.05 ±0.1

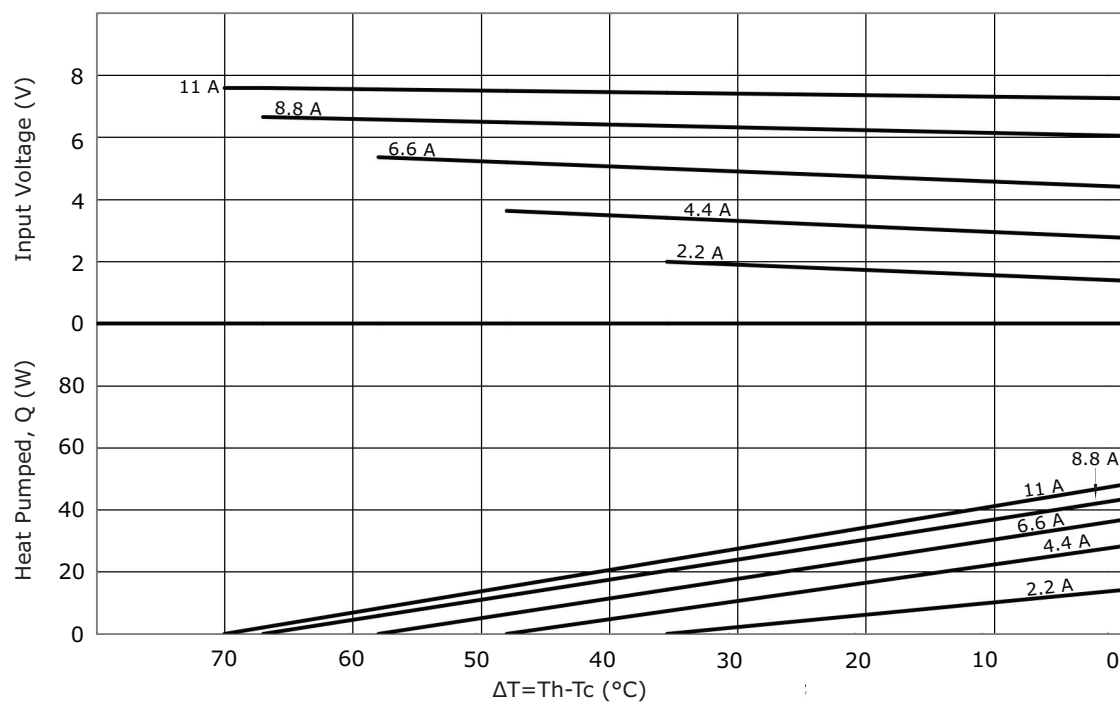
CP1130325 PERFORMANCE (Th=27°C)



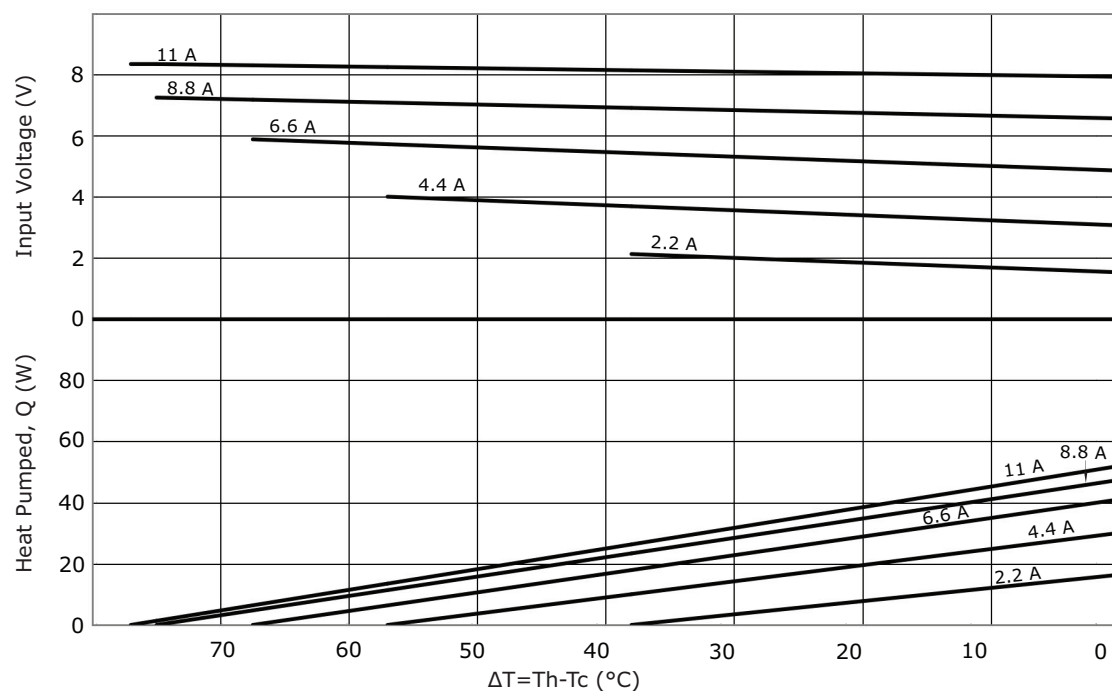
CP1130325 PERFORMANCE (Th=50°C)



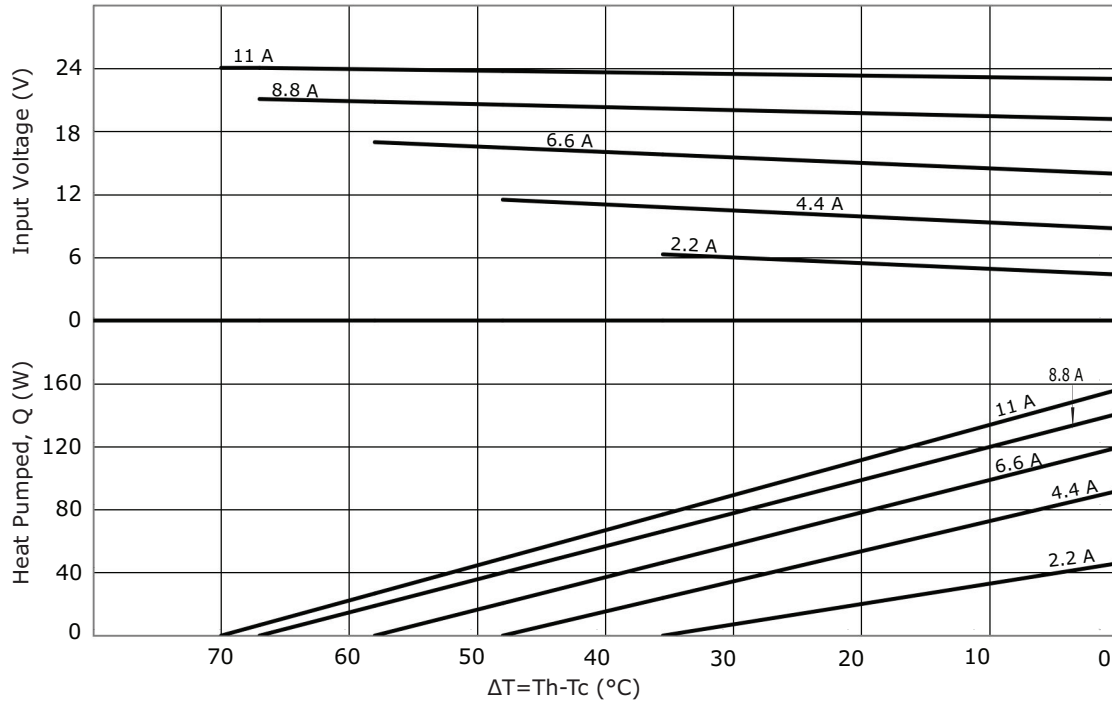
CP1140203 PERFORMANCE (Th=27°C)



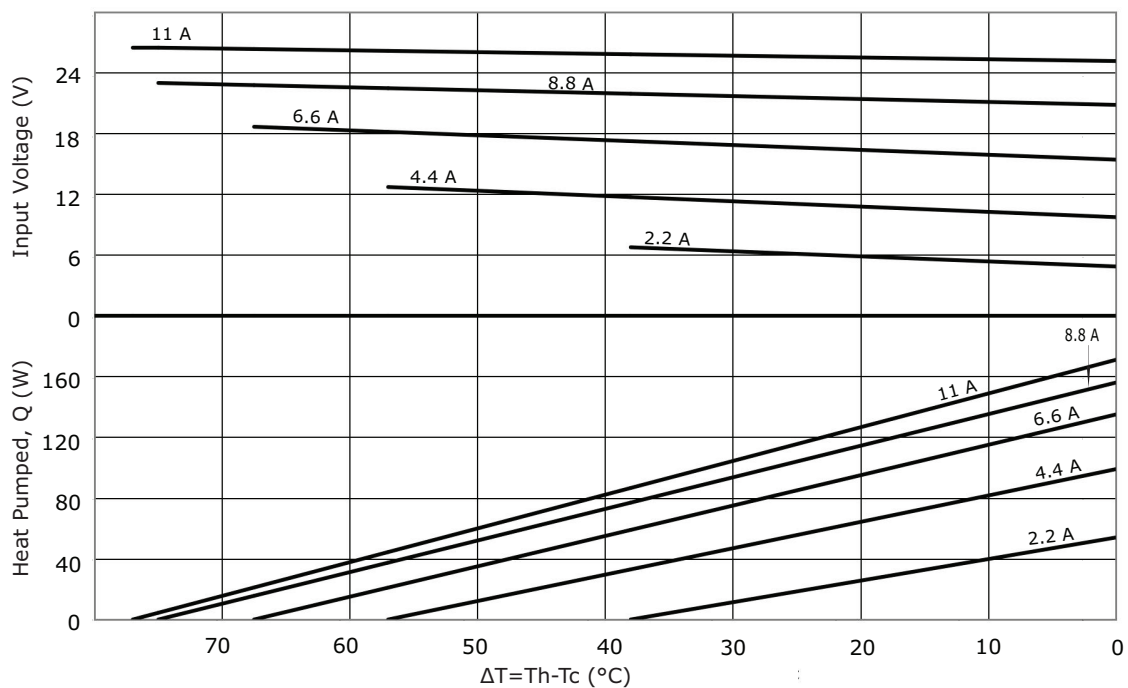
CP1140203 PERFORMANCE (Th=50°C)



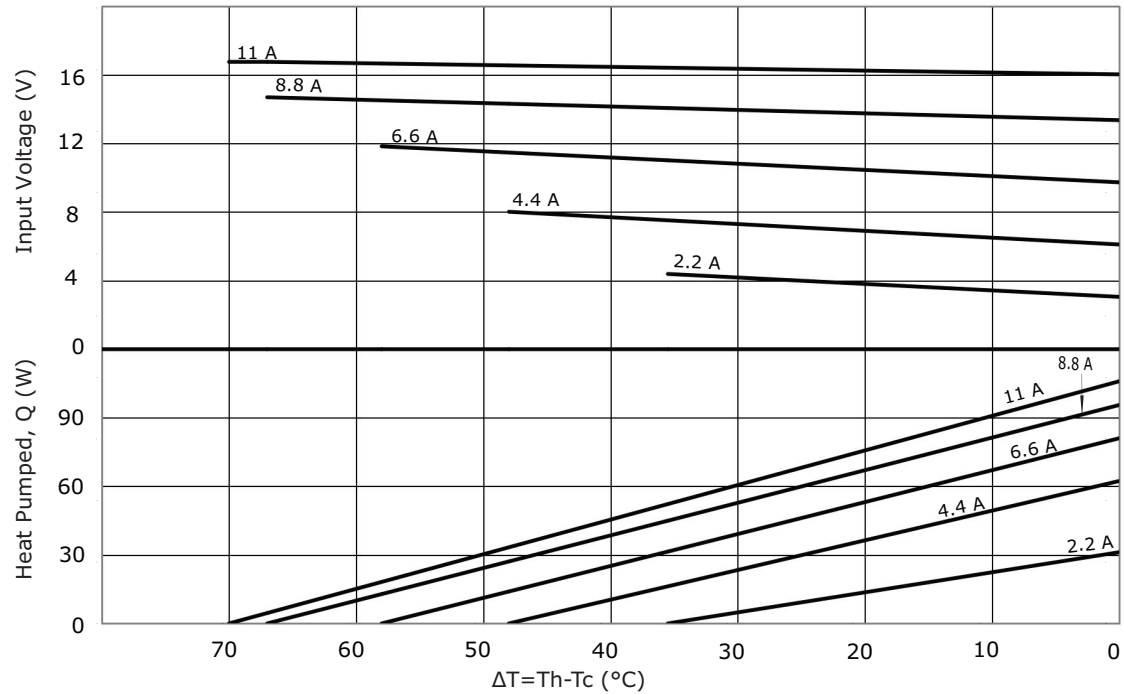
CP11404432 PERFORMANCE (Th=27°C)



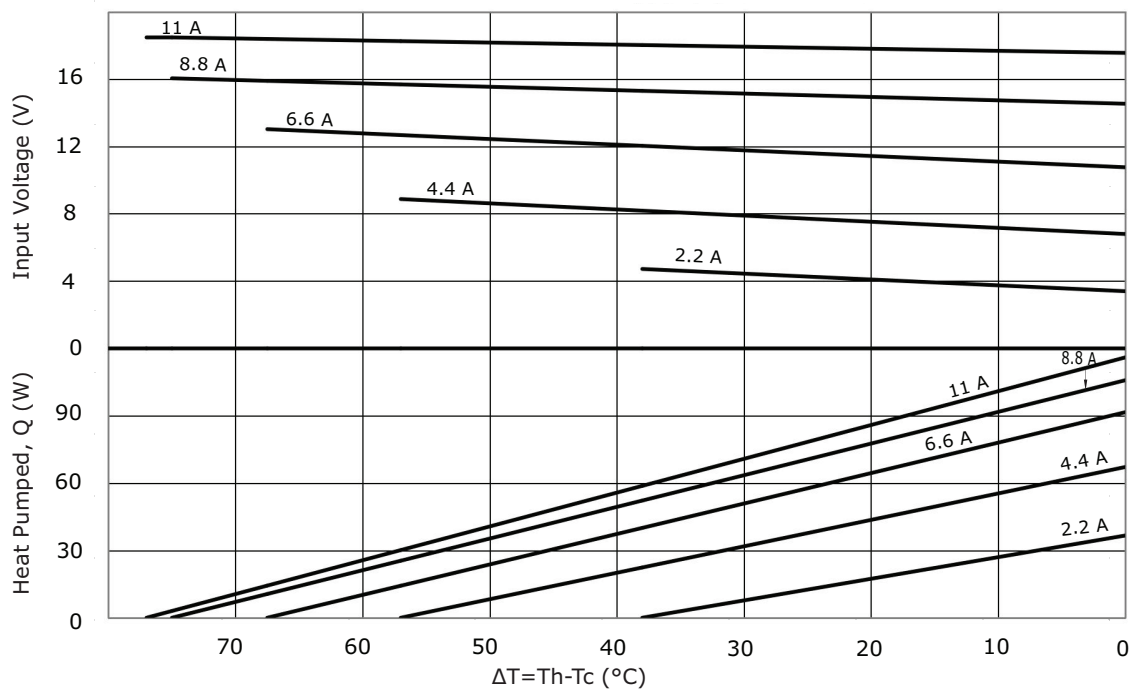
CP11404432 PERFORMANCE (Th=50°C)



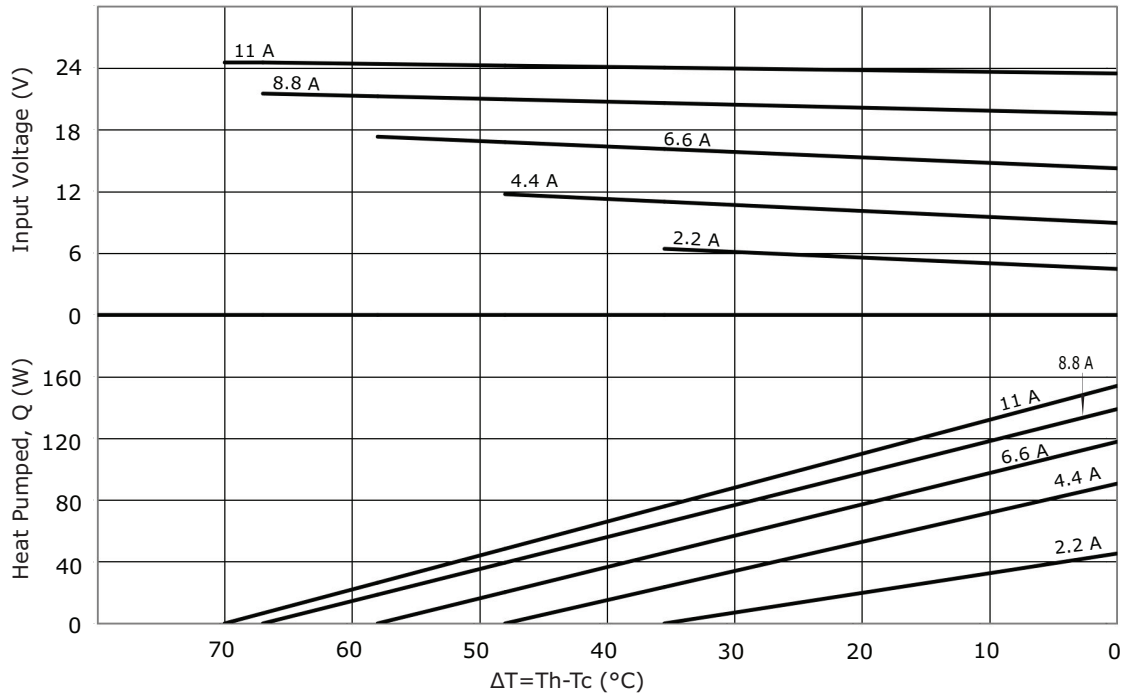
CP115035335 PERFORMANCE (Th=27°C)



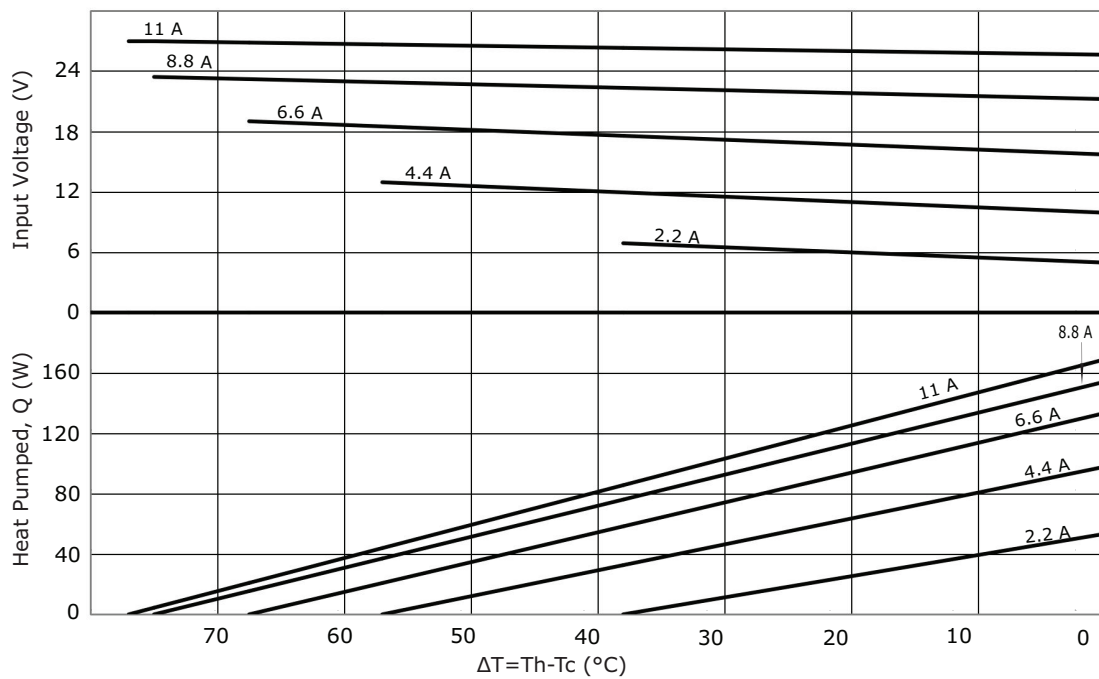
CP115035335 PERFORMANCE (Th=50°C)



CP11559405 PERFORMANCE (Th=27°C)



CP11559405 PERFORMANCE (Th=50°C)



REVISION HISTORY

rev.	description	date
1.0	initial release	11/05/2019
1.01	added model CP115035335	11/10/2020
1.02	logo, datasheet style update	08/05/2022
1.03	CUI Devices rebranded to Same Sky	09/12/2024

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



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

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Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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