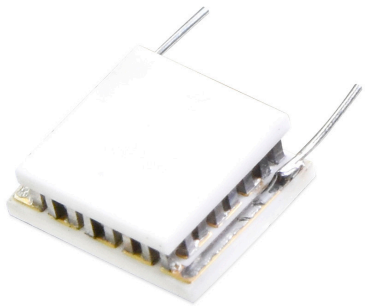
CUDEVICES

SERIES: CP07-M | DESCRIPTION: PELTIER MODULE

FEATURES

- micro size (less than 10 x 10 mm)
- wide ΔT max
- Qmax up to 1.9 W
- Au plating available, suitable for soldering
- precise temperature control
- solid state construction



RoHS

MODEL

	input voltage[1] max (Vdc)	input current[2] max (A)	internal resistance[3] typ (Ω±10%)	output Qmax[4] T_h=27°C (W)	output Qmax[4] T_h=50°C (W)	output ΔTmax[5] T_h=27°C (°C)	output ΔTmax[5] T_h=50°C (°C)
CP0734-238	0.5	0.7	0.52	0.2	0.2	70	77
CP0734-277P[6]	0.5	0.7	0.52	0.2	0.2	70	77
CP073450-238	1.0	0.7	1.04	0.4	0.5	70	77
CP074933-238	1.3	0.7	1.43	0.6	0.7	70	77
CP074933-277P[6]	1.3	0.7	1.43	0.6	0.7	70	77
CP074965-239	2.1	0.7	2.35	0.9	1.0	70	77
CP074965-238P[6]	2.1	0.7	2.35	0.9	1.0	70	77
CP076581-238	3.9	0.7	4.17	1.7	1.9	70	77
CP076581-238P[6]	3.9	0.7	4.17	1.7	1.9	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 ΔT=0°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. Gold plating on both sides.

SOLDERABILITY[7]

parameter	conditions/description	min	typ	max	units
soldering to plates	soldering iron temperature			150	°C

Note: 7. Only for gold plated models. The solder that holds the peltier together melts at 235°C. Caution must taken to not leave the soldering iron in contact with the surface too long, or damage to the peltier could occur.

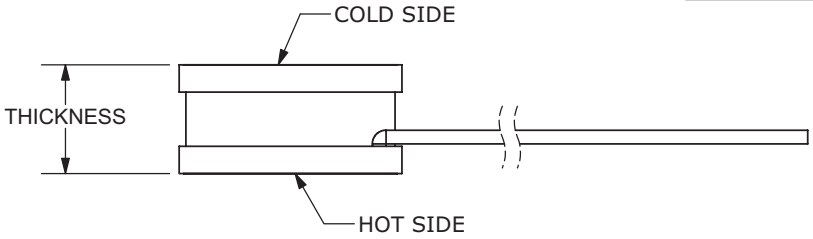
SPECIFICATIONS

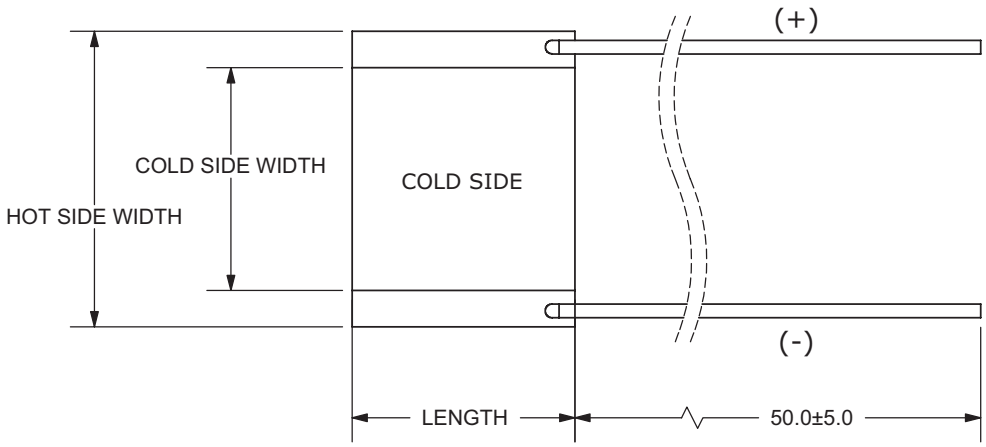
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				0.8	MPa
RoHS	yes				

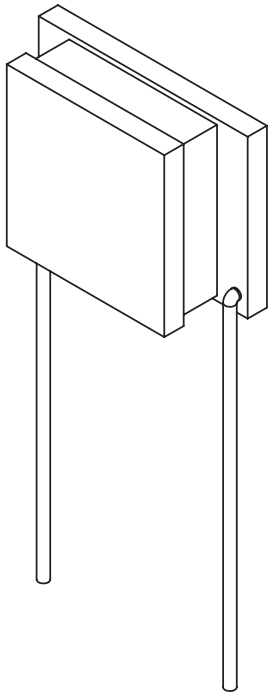
MECHANICAL DRAWING

units: mm

	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	Ø0.25-0.3 mm annealed copper	tin
sealer	no sealing	
ceramic surface	Au plating on select models	

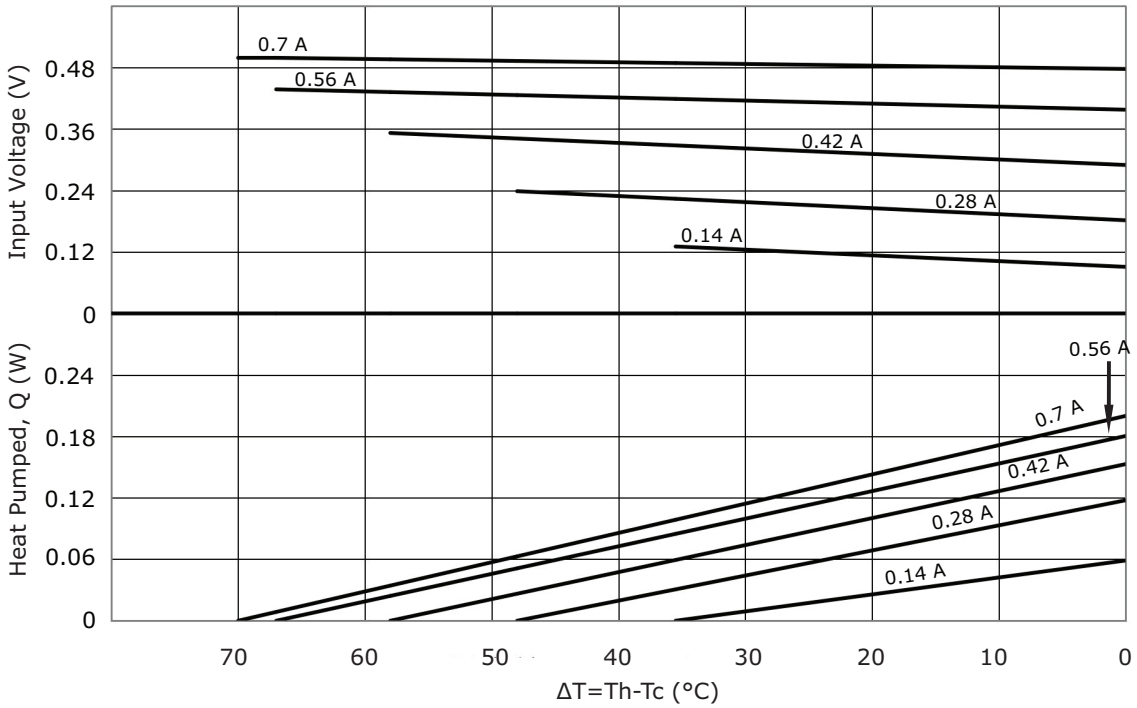




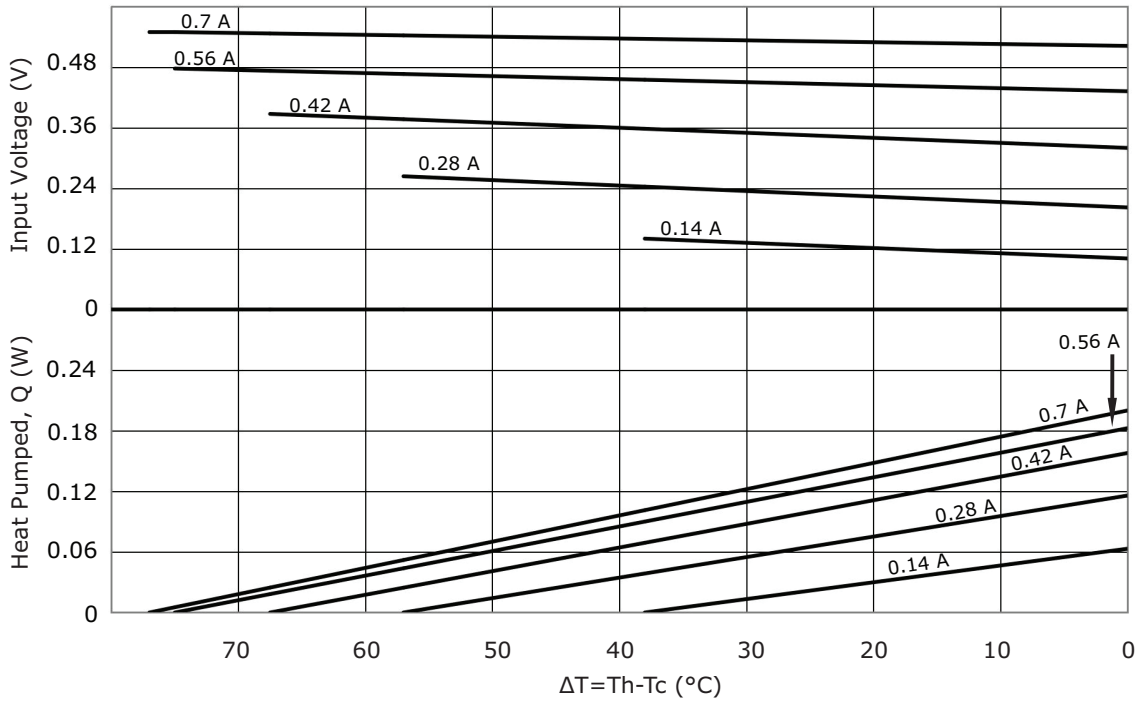


MODEL NO.	LENGTH (mm)	HOT SIDE WIDTH (mm)	COLD SIDE WIDTH (mm)	THICKNESS (mm)	GOLD PLATING HOT/ COLD SIDES
CP0734-238	3.4 ±0.3	3.4 ±0.3	1.8 ±0.3	2.38 ±0.15	NO
CP0734-277P	3.4 ±0.3	3.4 ±0.3	1.8 ±0.3	2.77 ±0.15	YES
CP073450-238	3.4 ±0.3	5.0 ±0.3	3.4 ±0.3	2.38 ±0.15	NO
CP074933-238	4.9 ±0.3	3.3 ±0.3	3.3 ±0.3	2.38 ±0.15	NO
CP074933-277P	4.9 ±0.3	3.3 ±0.3	3.3 ±0.3	2.77 ±0.15	YES
CP074965-239	4.9 ±0.3	6.5 ±0.3	4.9 ±0.3	2.38 ±0.15	NO
CP074965-238P	4.9 ±0.3	6.5 ±0.3	4.9 ±0.3	2.77 ±0.15	YES
CP076581-238	6.5 ±0.3	8.1 ±0.3	6.5 ±0.3	2.38 ±0.15	NO
CP076581-238P	6.5 ±0.3	8.1 ±0.3	6.5±0.3	2.77 ±0.15	YES

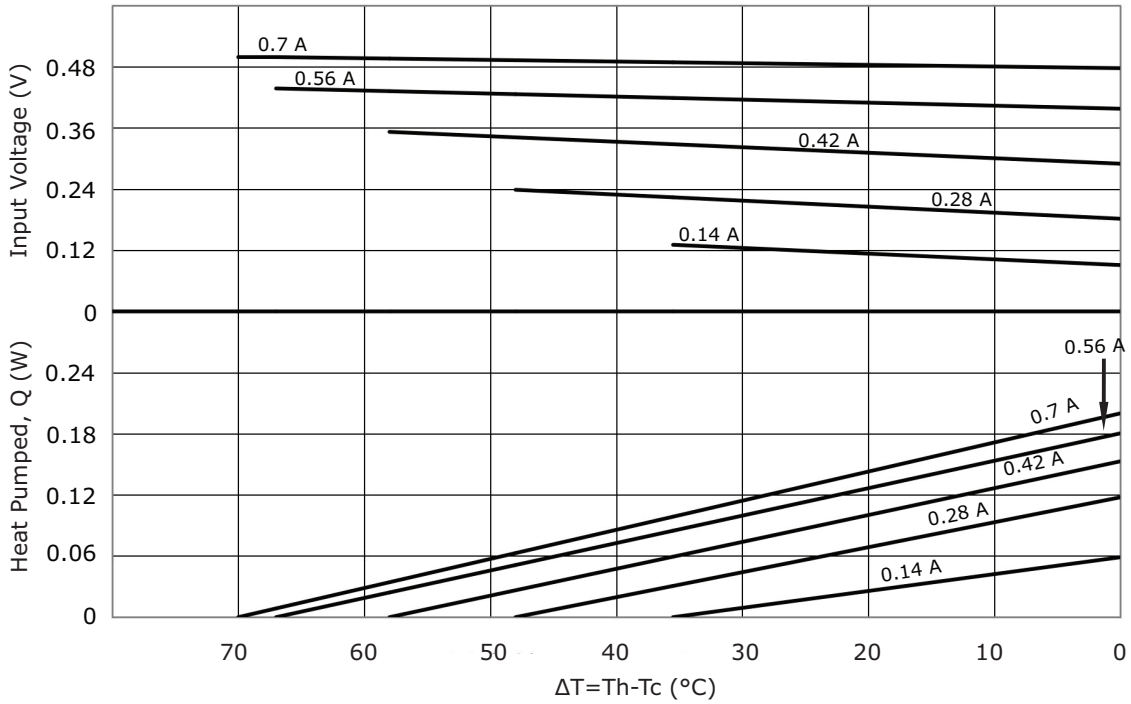
CP0734-238 PERFORMANCE (Th=27°C)



CP0734-238 PERFORMANCE (Th=50°C)



CP0734-277P PERFORMANCE (Th=27°C)



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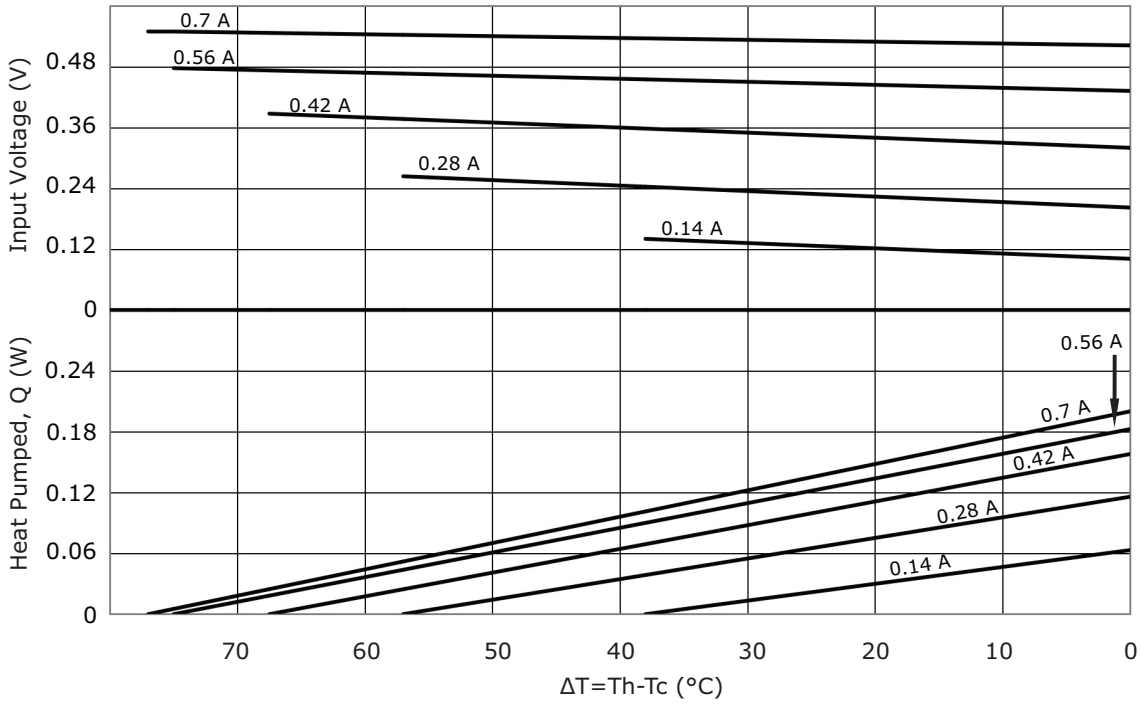
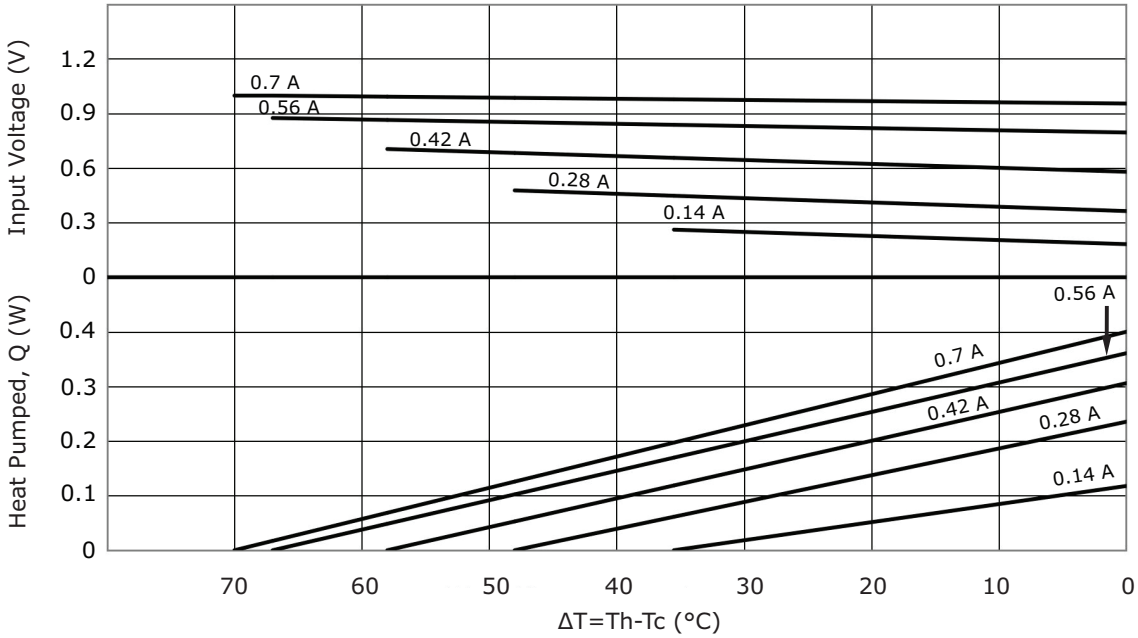


CP073450-238 PERFORMANCE (Th=27°C)



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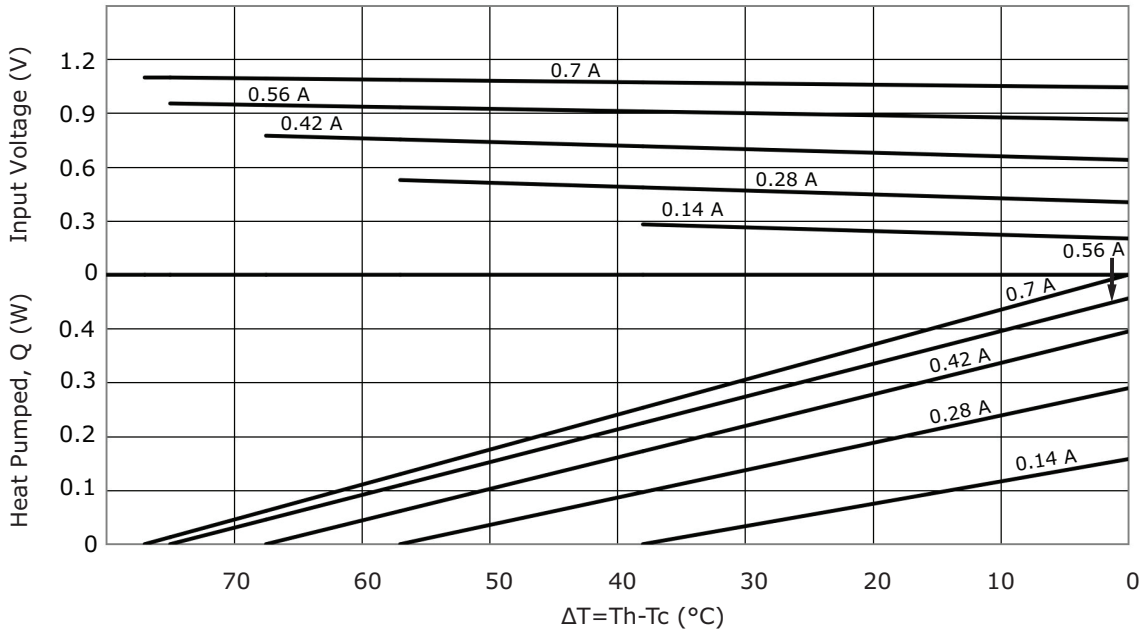

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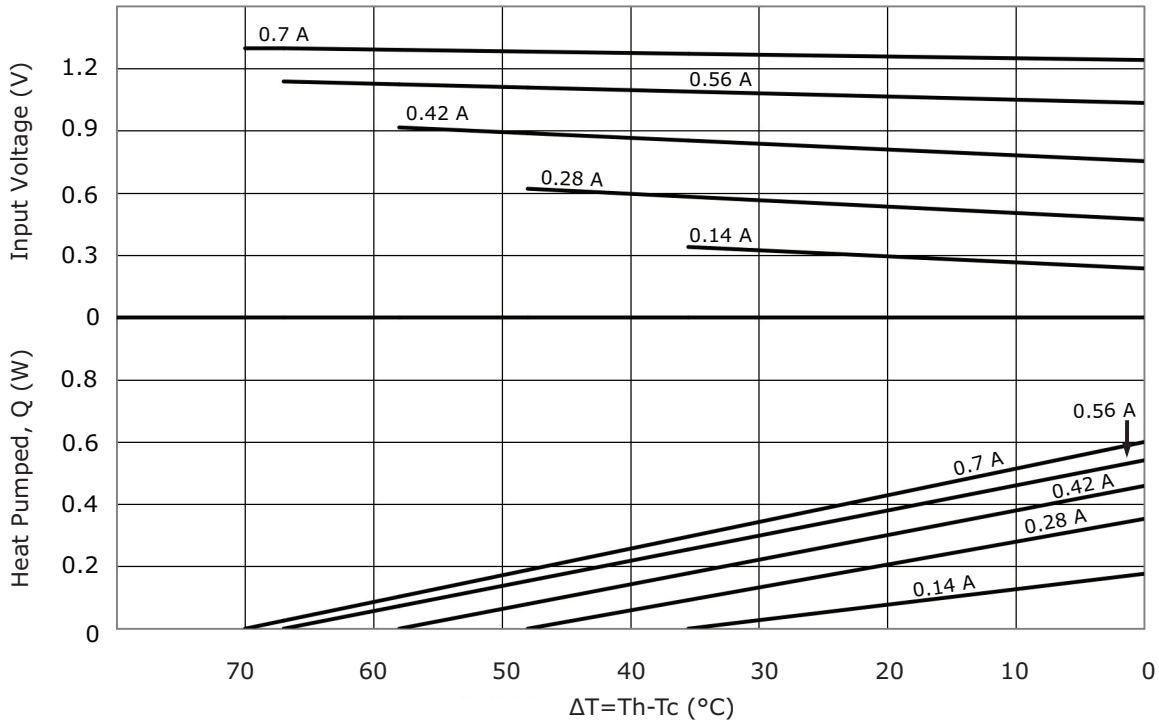

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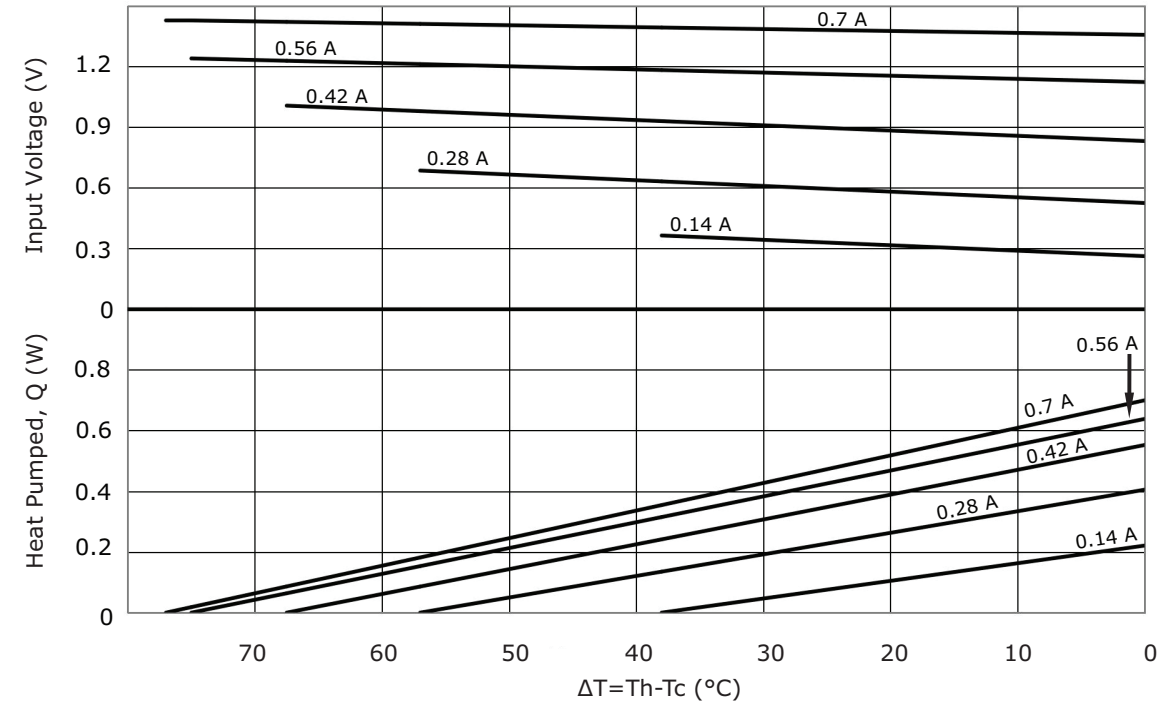

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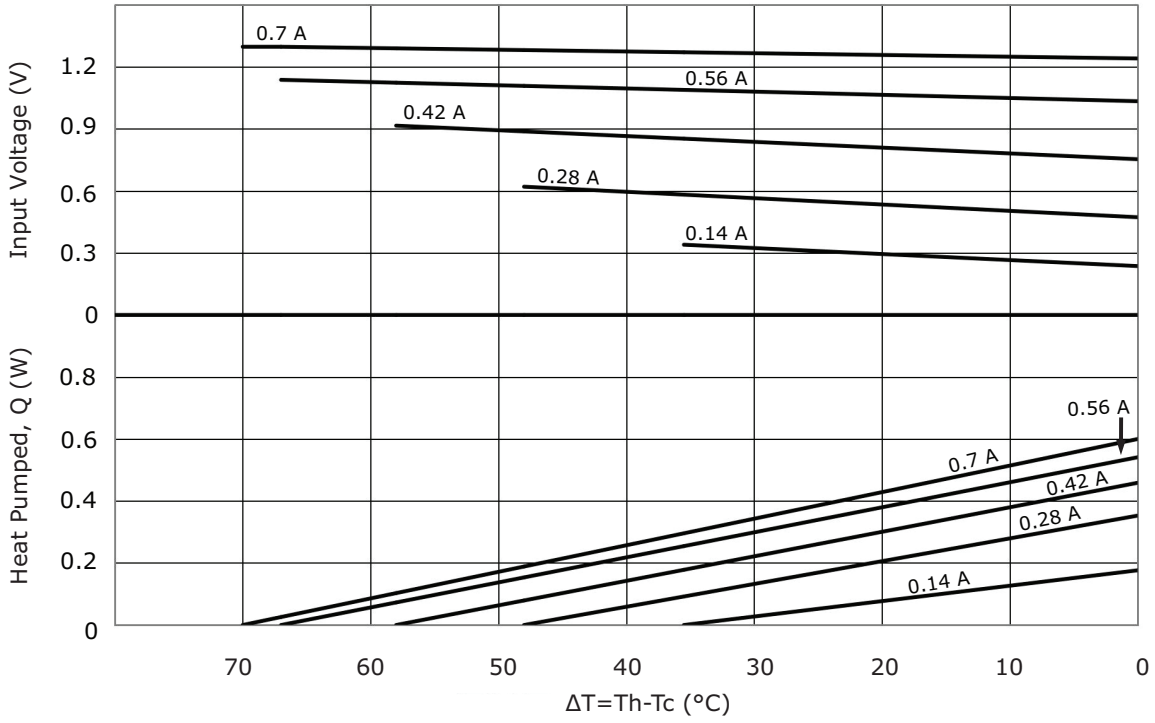

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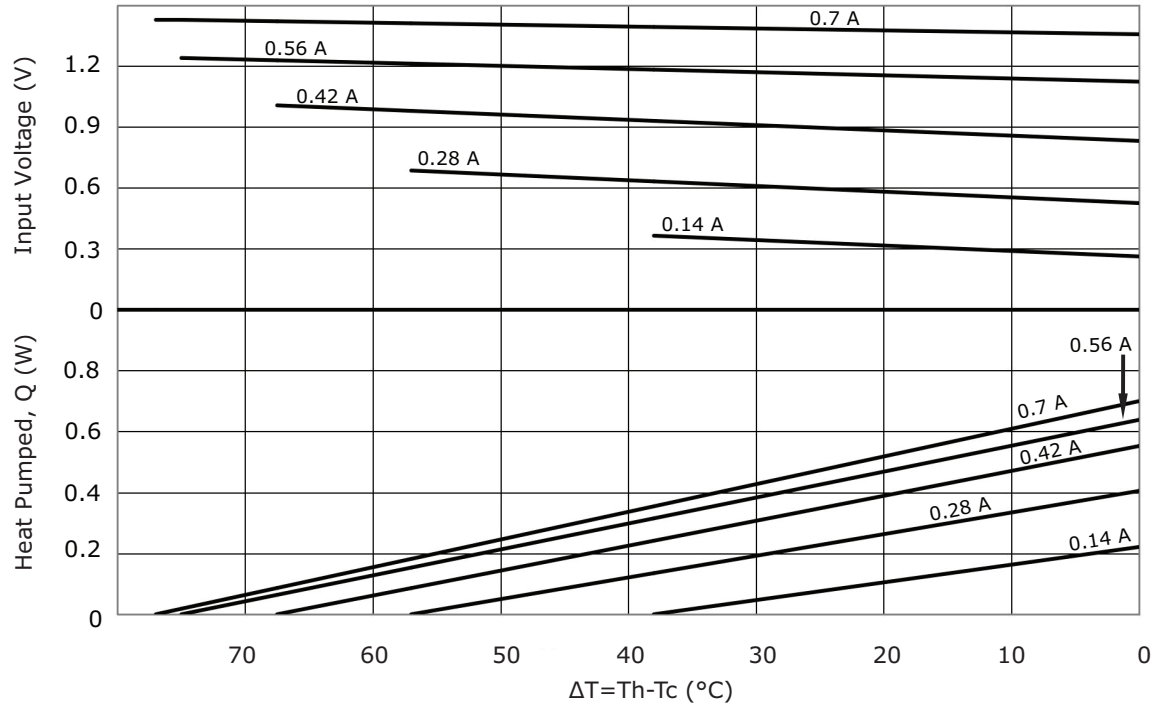

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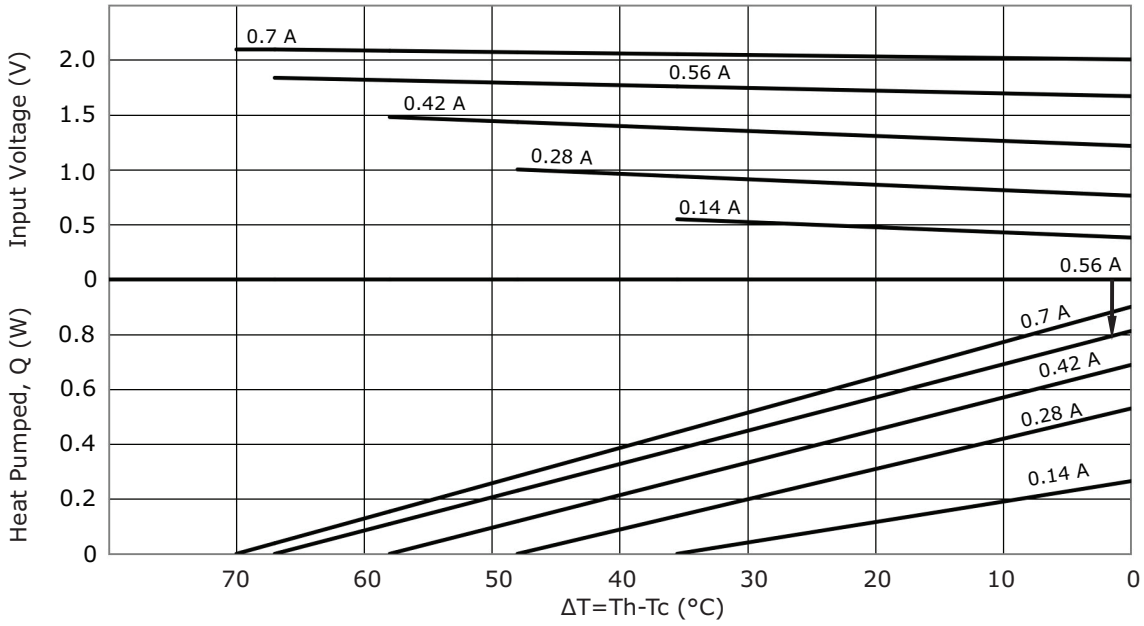

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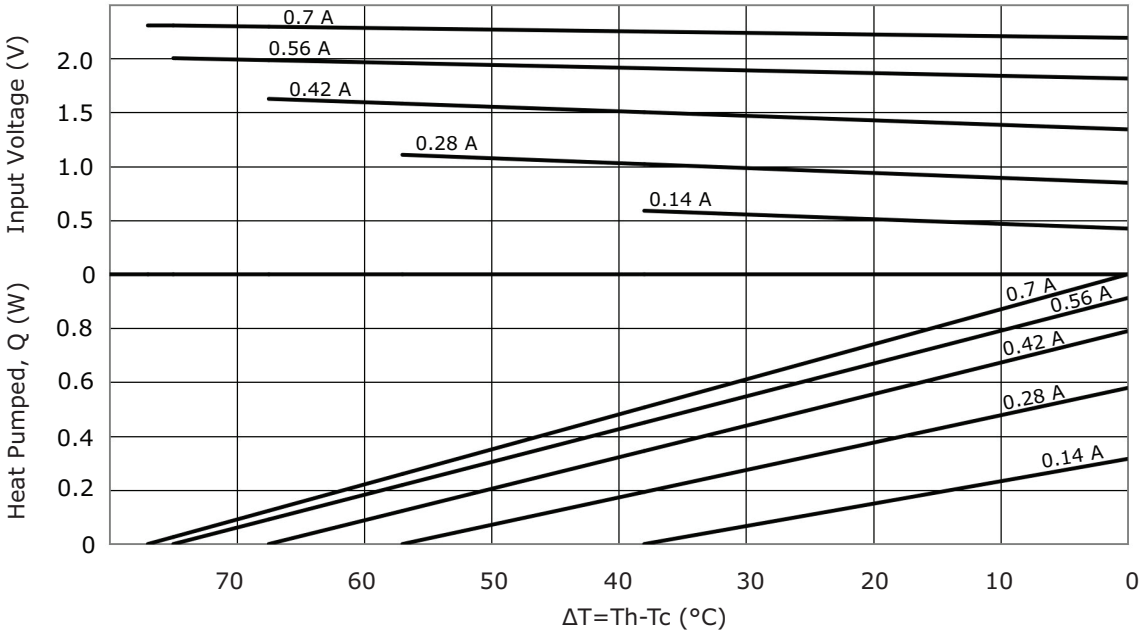

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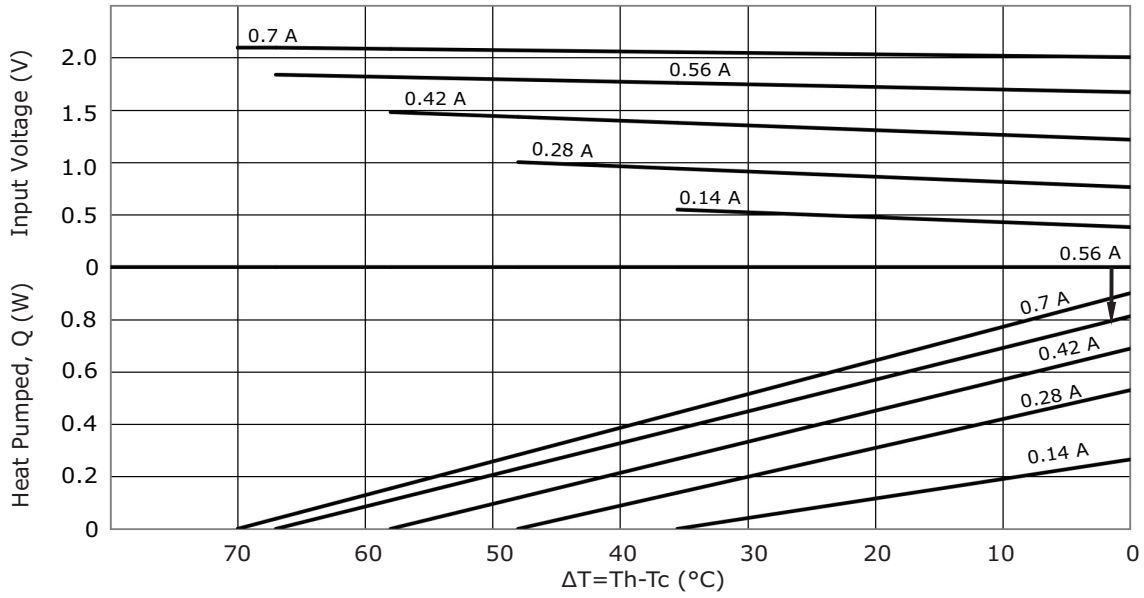

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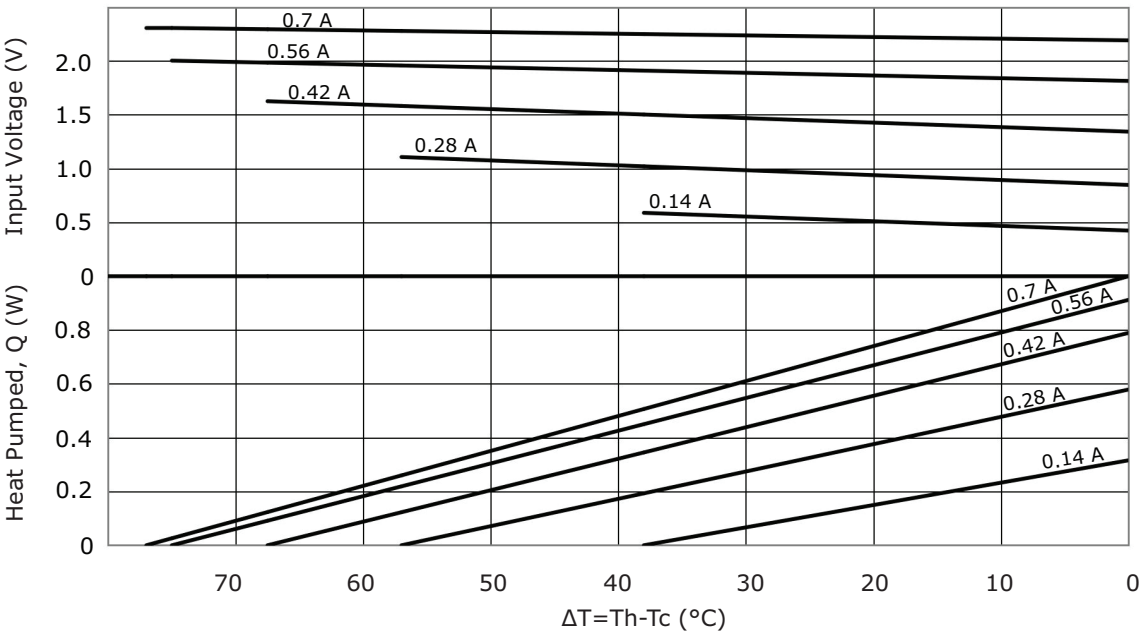

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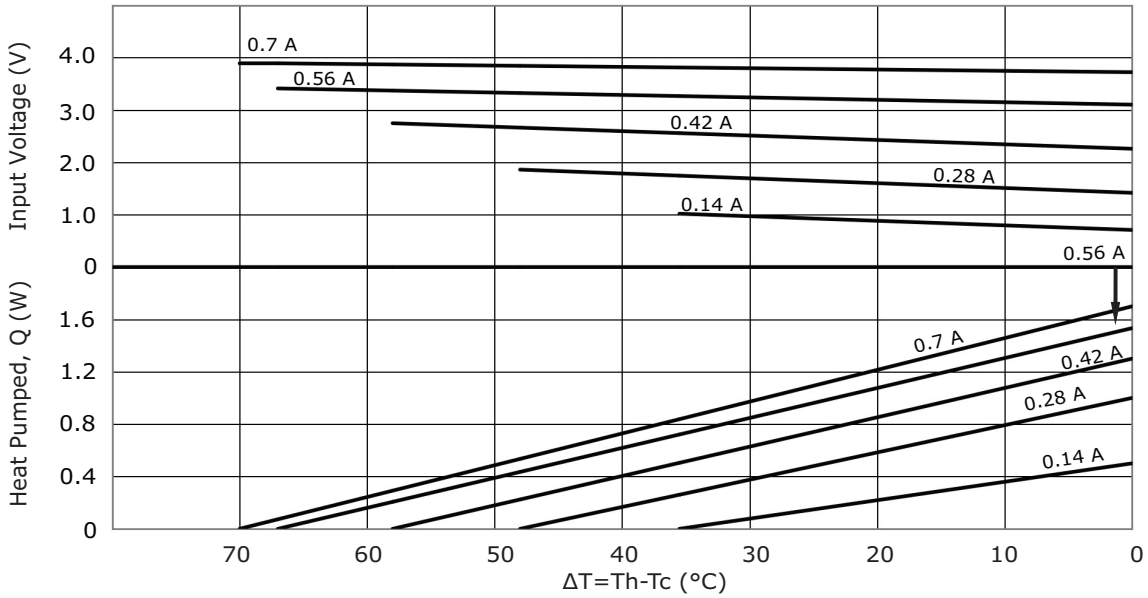

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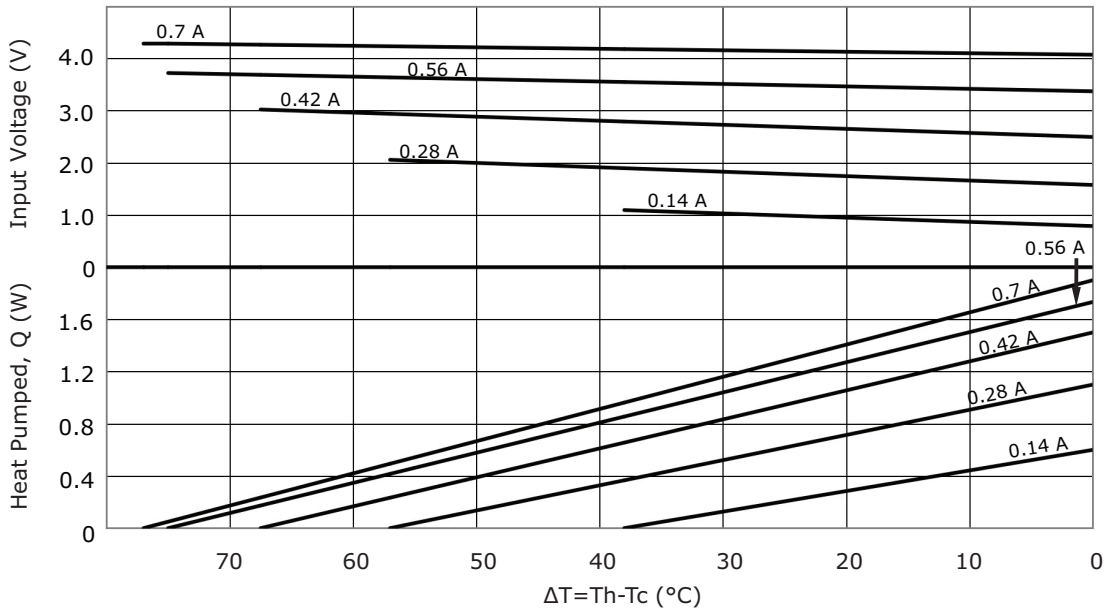

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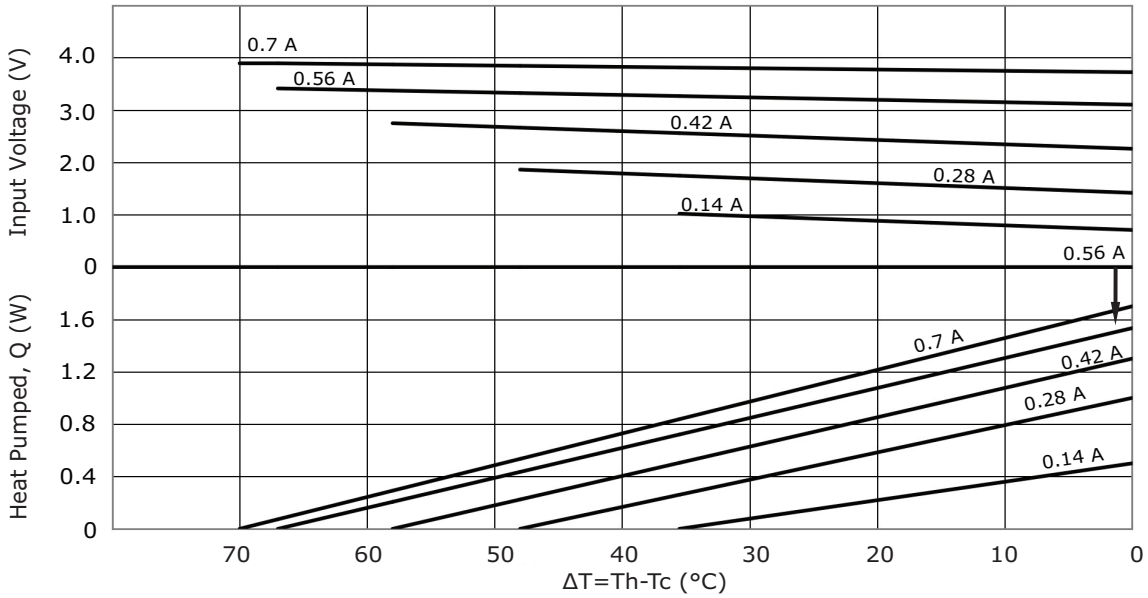

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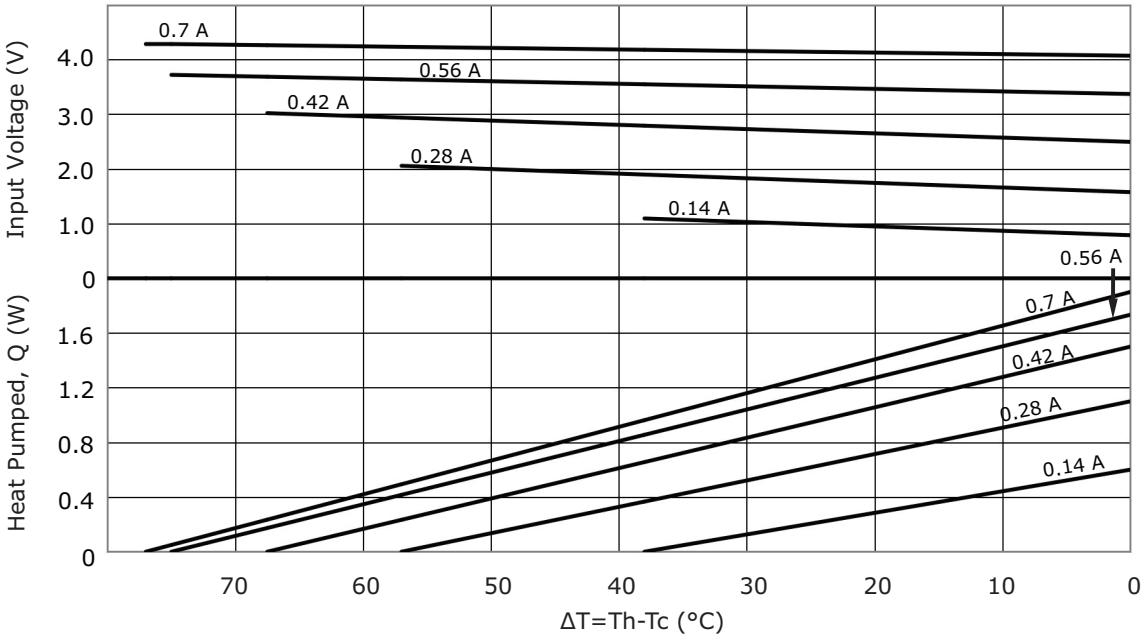

REVISION HISTORY

rev.	description	date
1.0	initial release	07/08/2020
1.01	logo, datasheet style update	08/05/2022

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