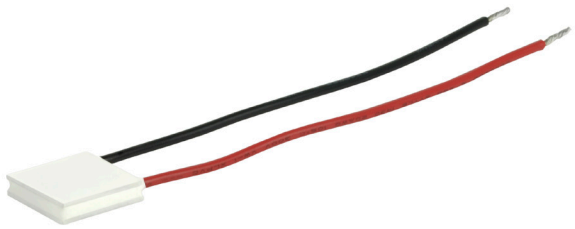
CUDEVICES

SERIES: CP85H | DESCRIPTION: PELTIER MODULE

FEATURES

- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide ΔT max
- low profile
- precise temperature control
- solid state construction



RoHS

MODEL

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)
CP85134H	2.1	8.5	0.2	10.3	11.3	70	77
CP85153034H	4.2	8.5	0.4[7]	21	23	70	77
CP85234H	3.8	8.5	0.35	18.8	20.8	70	77
CP852040345H[6]	7.6	8.5	0.75	38.2	42	70	77
CP85301534H	4.2	8.5	0.4[7]	21	23	70	77
CP853345H[6]	8.8	8.5	0.85	43.1	48	70	77
CP8530345[6]	11.8	8.5	1.15	57.7	63.4	70	77
CP854020345H[6]	7.6	8.5	0.75	38.2	42	70	77
CP854345H[6]	15.7	8.5	1.5	77.1	85	70	77

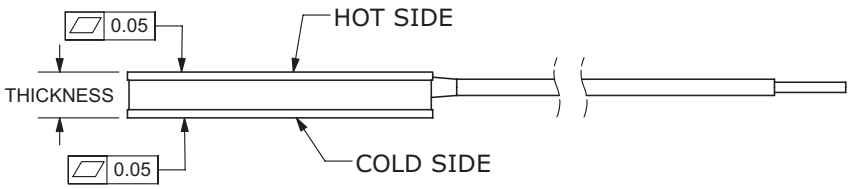
Notes:
1. Maximum voltage at ΔT max and T_h=27°C
2. Maximum current to achieve ΔT max
3. Measured by AC 4-terminal method at 25°C
4. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and ΔT=0°C
5. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
6. Designed with arcTEC™ structure.
7. Internal resistance tolerance is ±12.5%

SPECIFICATIONS

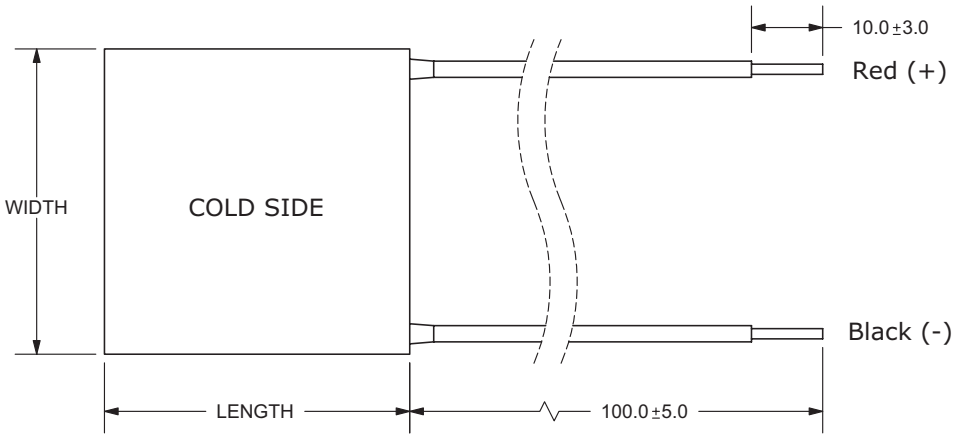
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

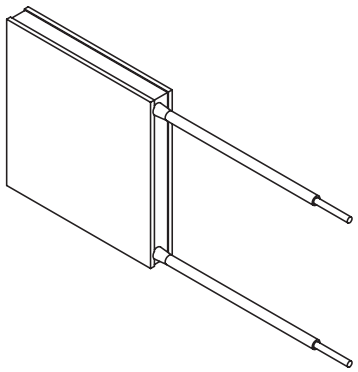
MECHANICAL DRAWING

units: mm



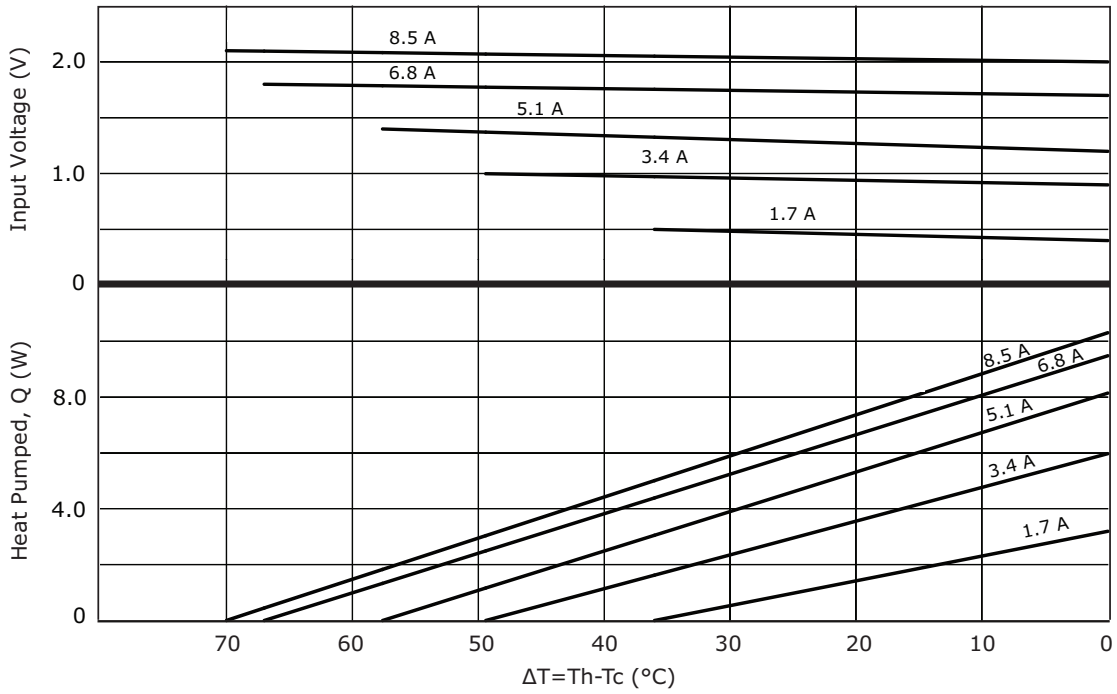
	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	



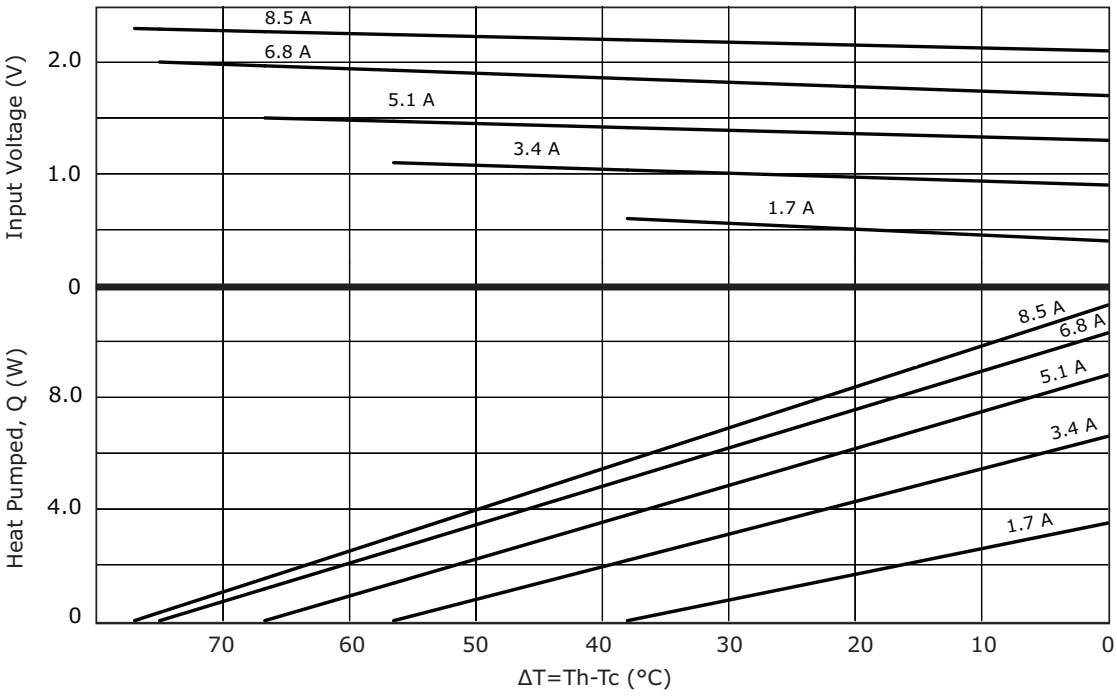


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP85134H	15 ±0.3	15 ±0.3	3.4 ±0.025
CP85153034H	15 ±0.3	30 ±0.3	3.4 ±0.025
CP85234H	20 ±0.3	20 ±0.3	3.4 ±0.025
CP852040345H	20 ±0.3	40 ±0.3	3.45 ±0.025
CP85301534H	30 ±0.3	15 ±0.3	3.4 ±0.025
CP853345H	30 ±0.3	30 ±0.3	3.45 ±0.025
CP8530345	30 ±0.3	30 ±0.3	3.45 ±0.025
CP854020345H	40 ±0.3	20 ±0.3	3.45 ±0.025
CP854345H	40 ±0.3	40 ±0.3	3.45 ±0.025

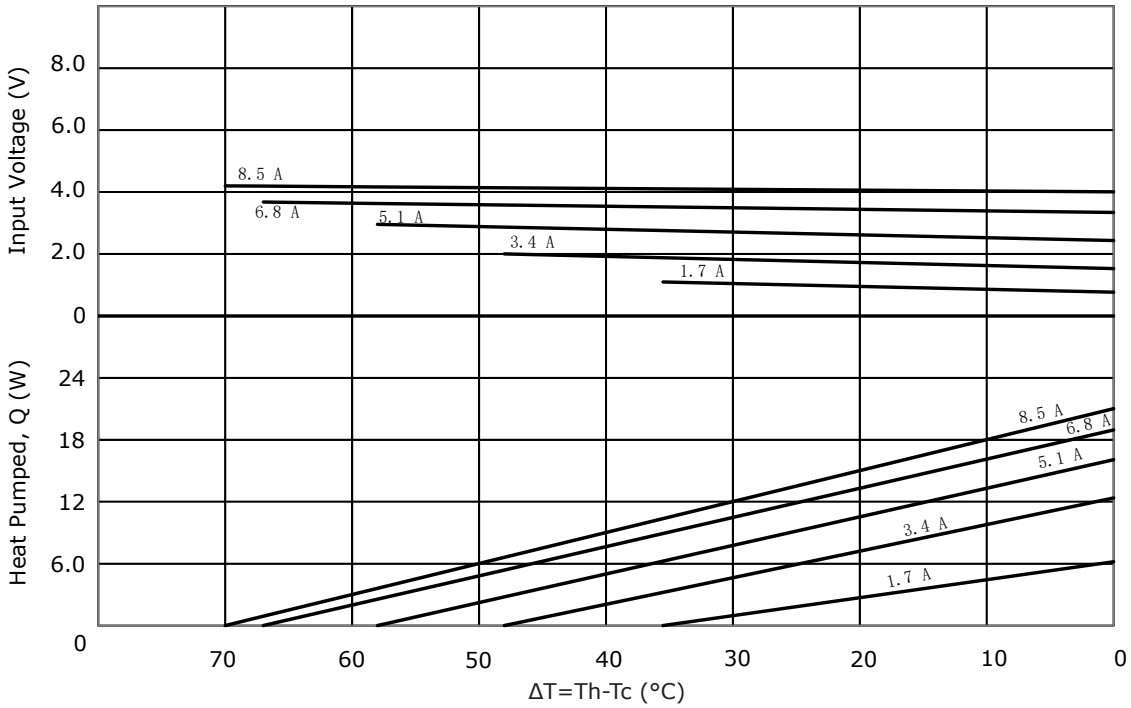
CP85134H PERFORMANCE (Th=27°C)



CP85134H PERFORMANCE (Th=50°C)



CP85153034H PERFORMANCE (Th=27°C)



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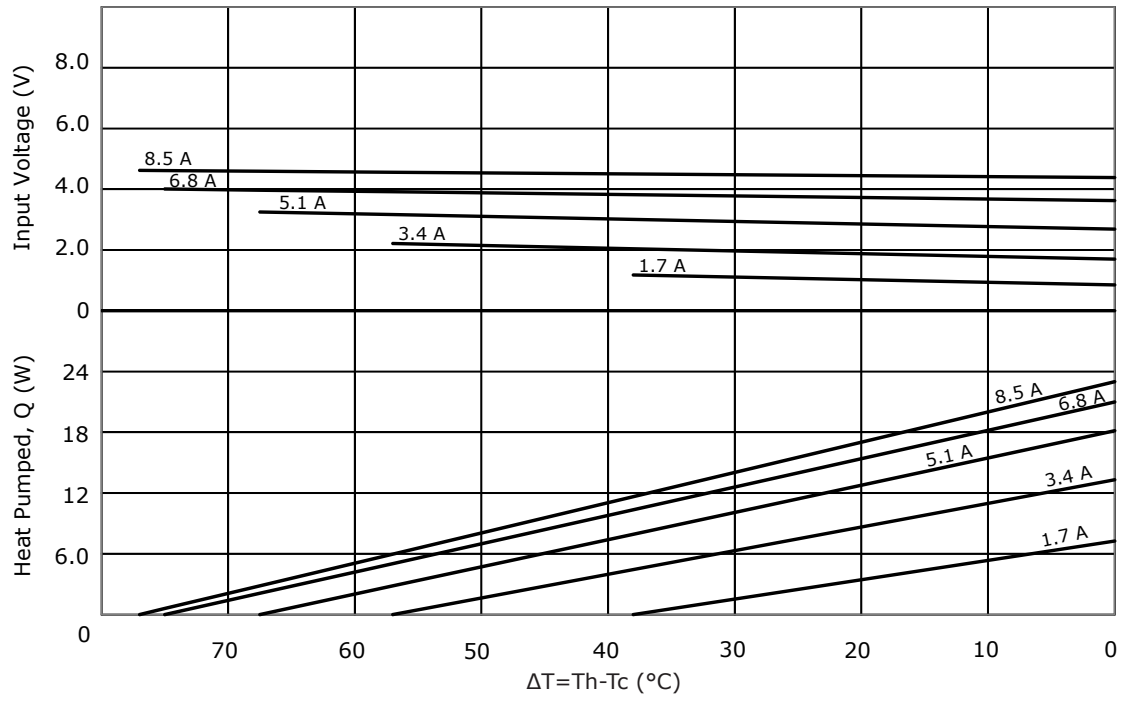

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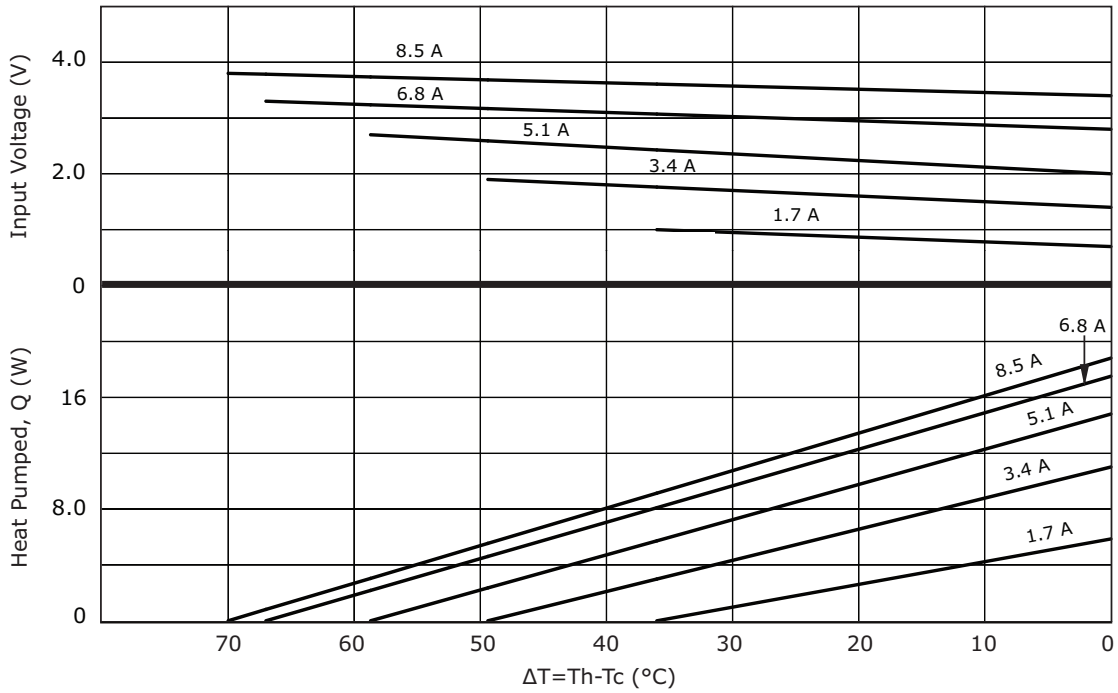
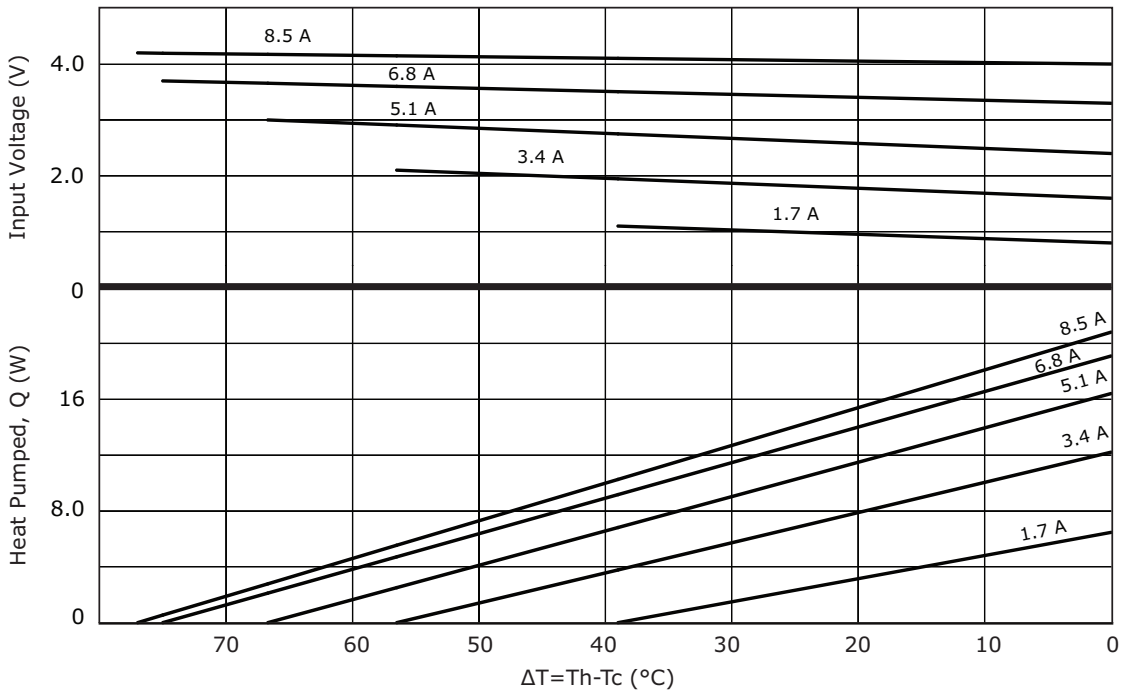
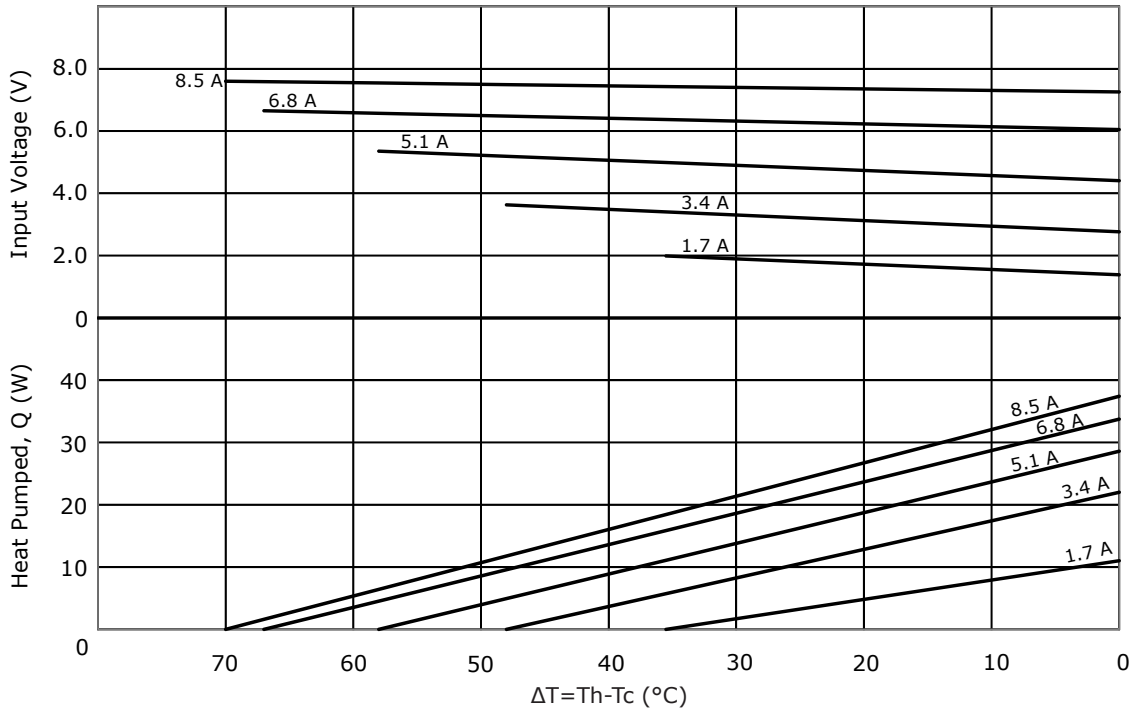


CP85234H PERFORMANCE (Th=50°C)



CP852040345H PERFORMANCE (Th=27°C)



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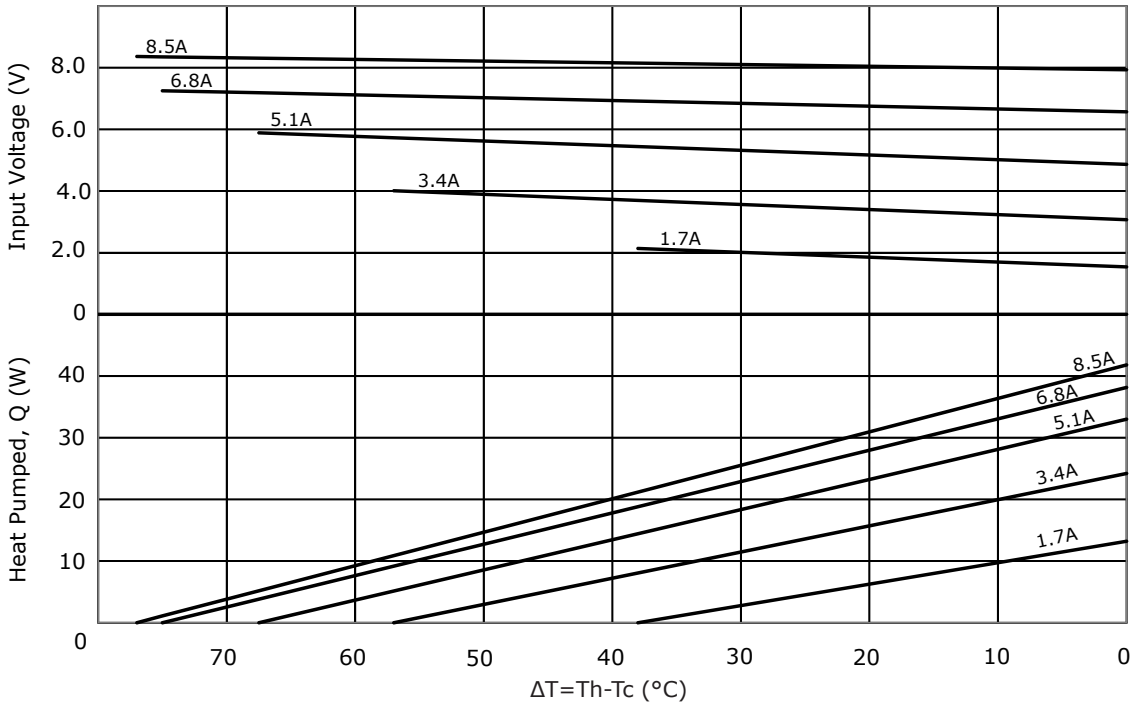
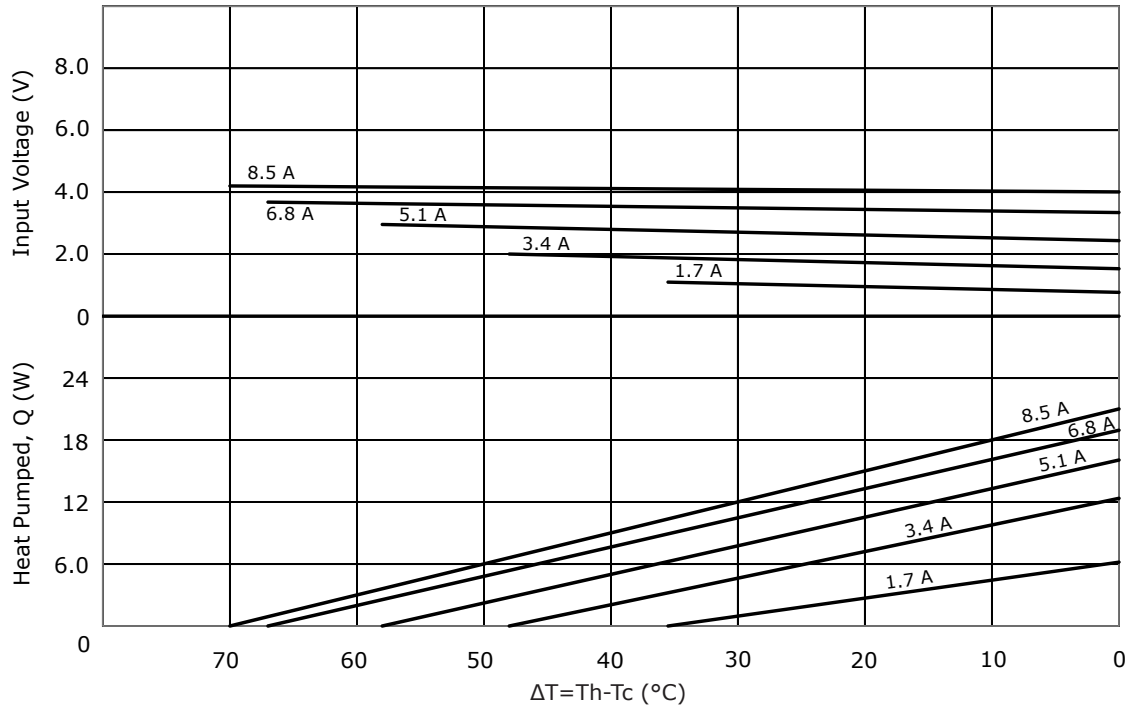


CP85301534H PERFORMANCE (Th=27°C)



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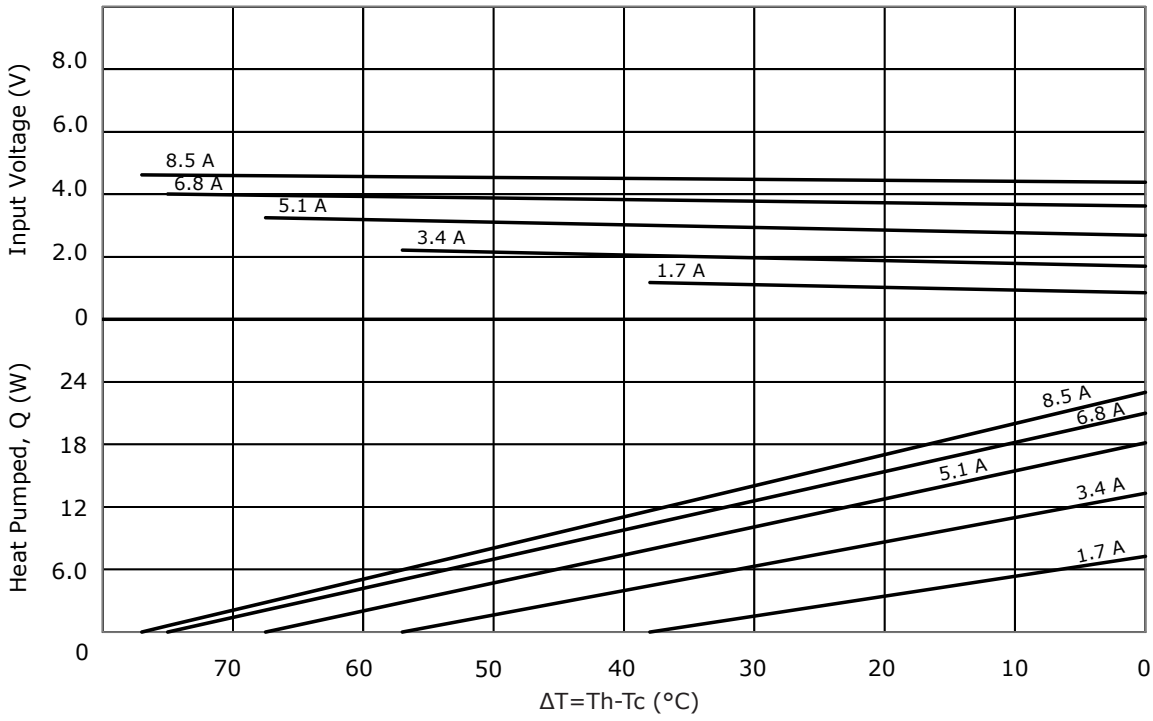

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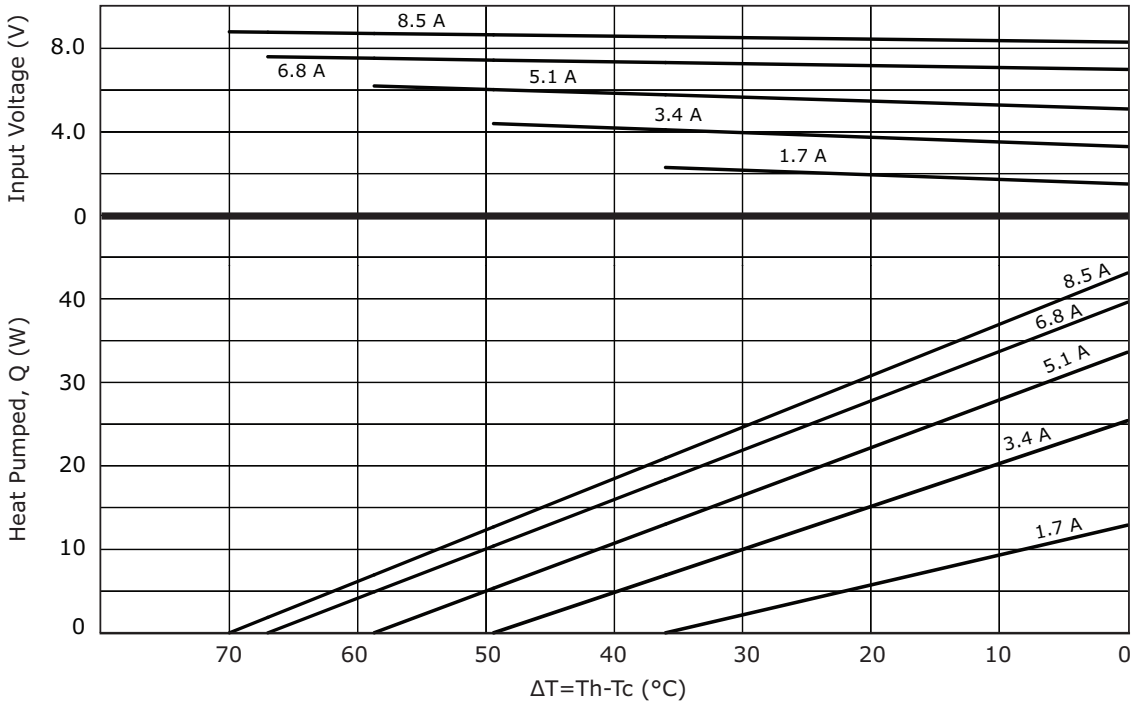
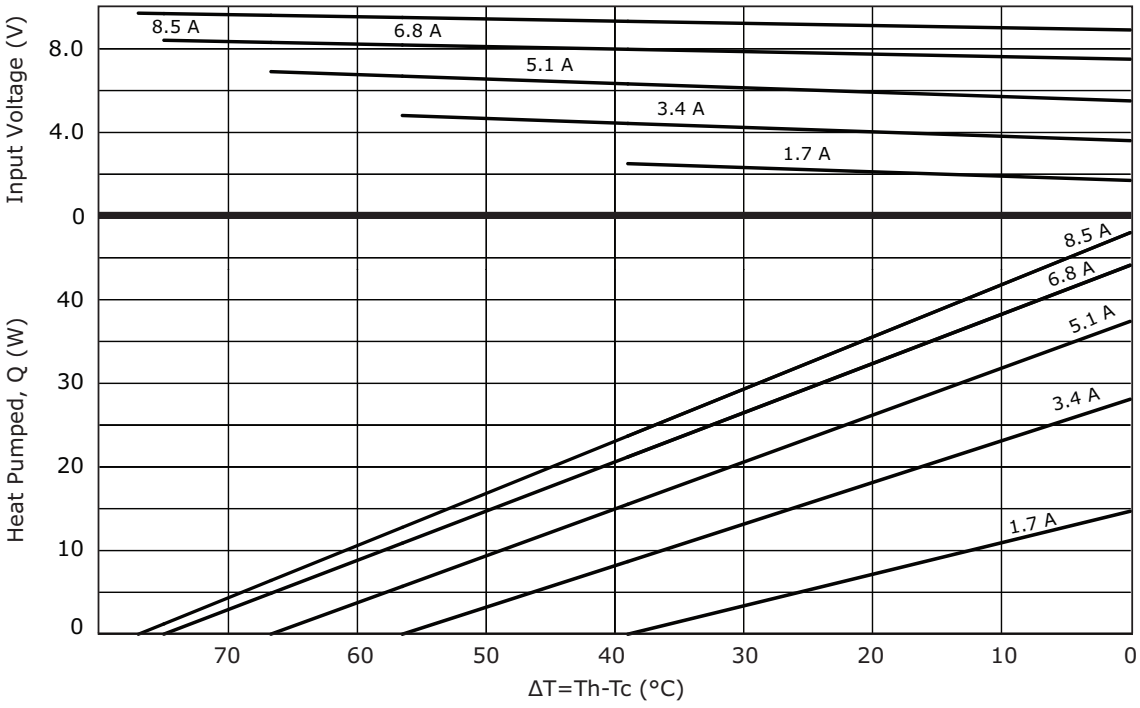
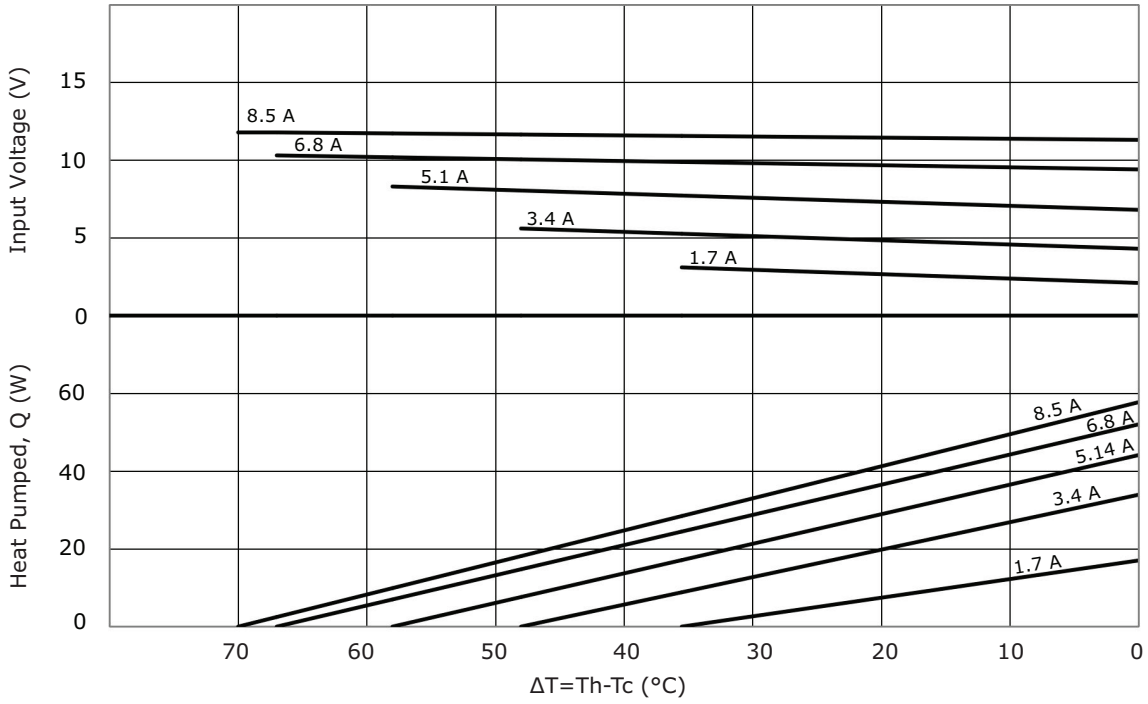


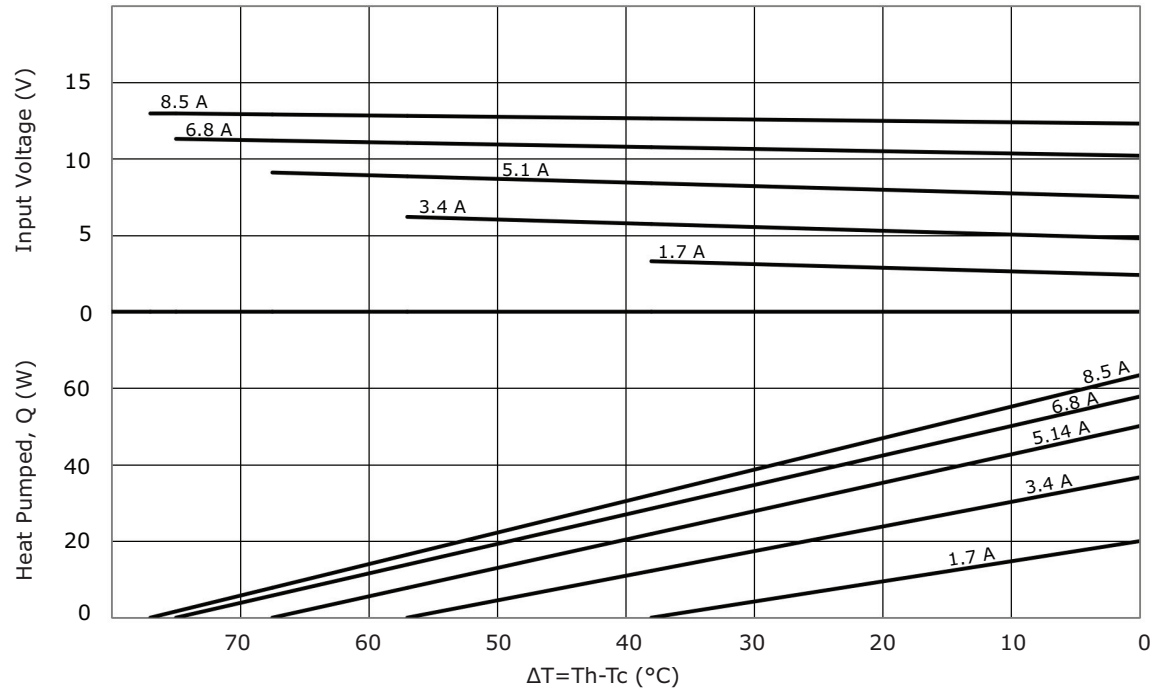
CP853345H PERFORMANCE (Th=50°C)



CP8530345 PERFORMANCE (Th=27°C)



CP8530345 PERFORMANCE (Th=50°C)



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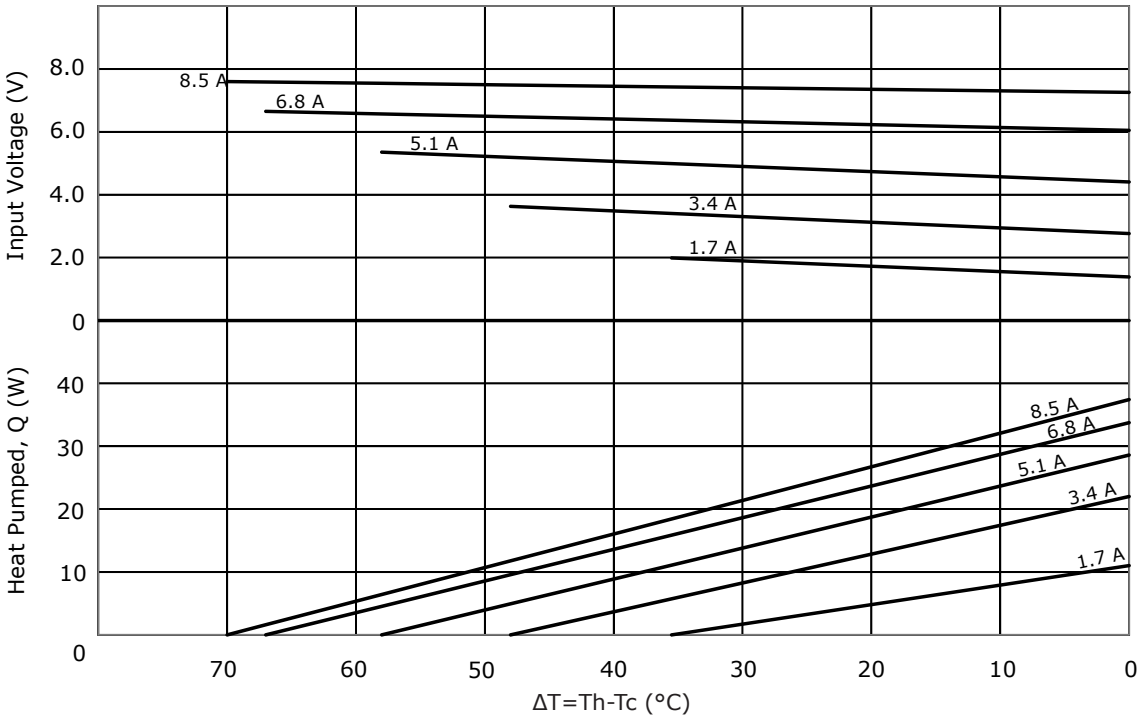

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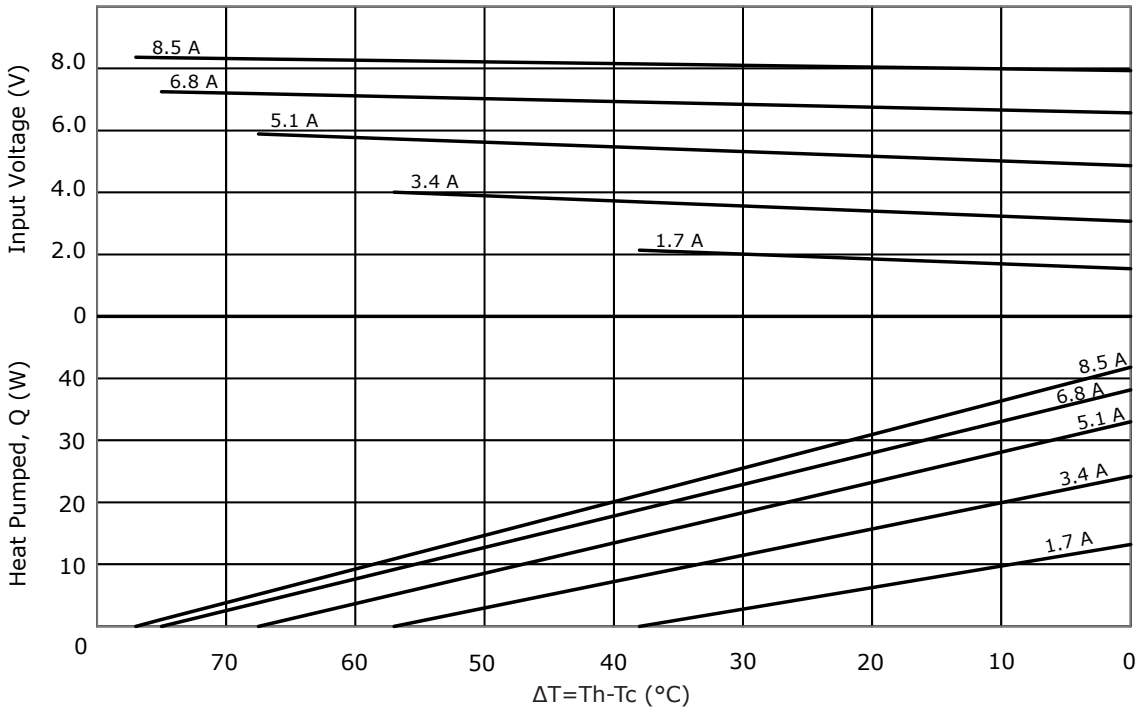

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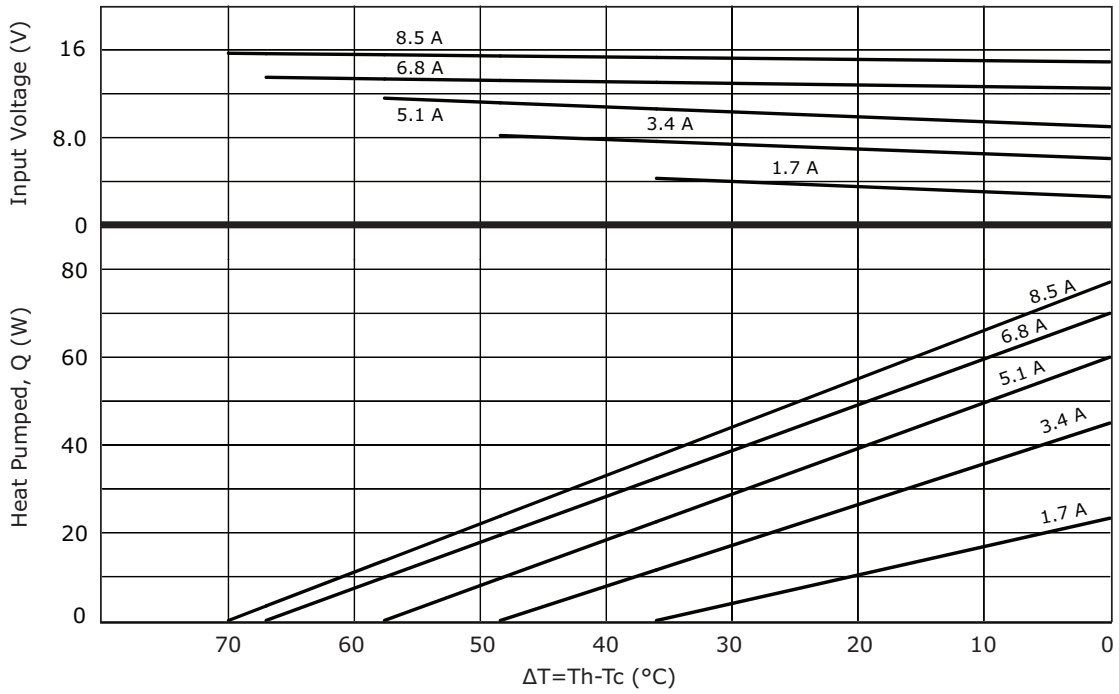

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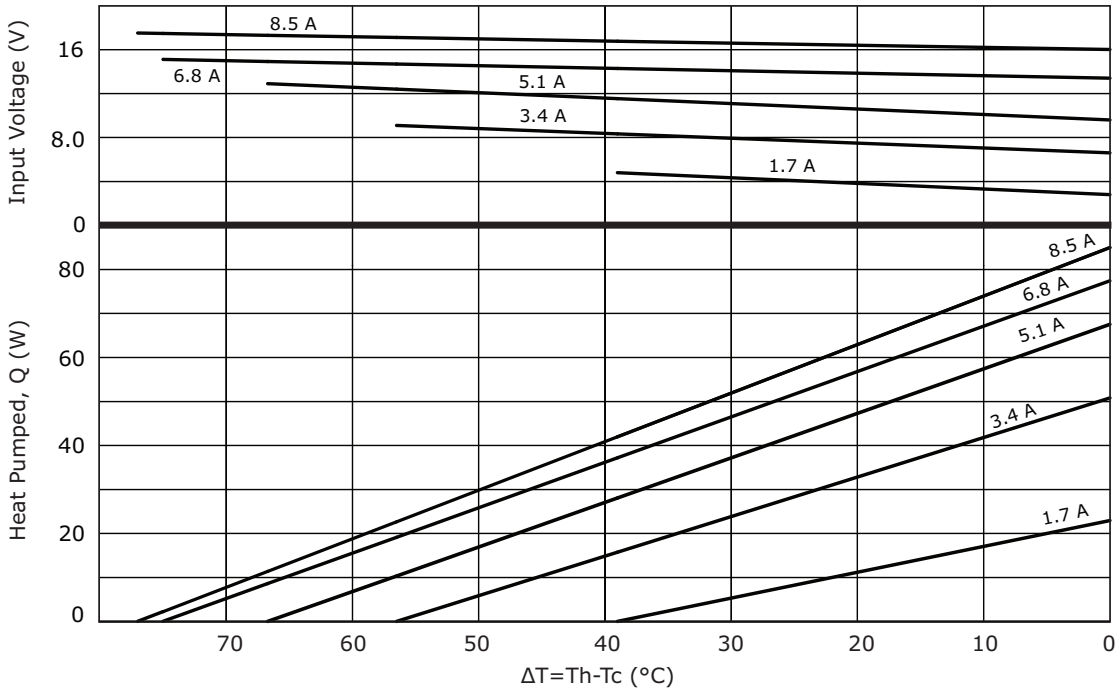

REVISION HISTORY

rev.	description	date
1.0	initial release	09/08/2016
1.01	updated datasheet	09/25/2017
1.02	added new models	05/21/2018
1.03	added model CP8530345, brand update	10/18/2019
1.04	logo, datasheet style update	08/05/2022

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