

**SERIES:** CP85H | **DESCRIPTION:** PELTIER MODULE**FEATURES**

- arcTEC™ structure on select models
- enhanced reliability for high thermal cycling
- superior thermal performance
- silicon sealed
- wide  $\Delta T_{max}$
- low profile
- precise temperature control
- solid state construction

**MODEL**

	input voltage <sup>1</sup>	input current <sup>2</sup>	internal resistance <sup>3</sup>	output Qmax <sup>4</sup>		output $\Delta T_{max}$ <sup>5</sup>	
	max [Vdc]	max [A]	typ [ $\Omega \pm 10\%$ ]	$T_h=27^\circ\text{C}$ [W]	$T_h=50^\circ\text{C}$ [W]	$T_h=27^\circ\text{C}$ [°C]	$T_h=50^\circ\text{C}$ [°C]
CP85134H	2.1	8.5	0.2	10.3	11.3	70	77
CP85153034H	4.2	8.5	0.4 <sup>7</sup>	21	23	70	77
CP85234H	3.8	8.5	0.35	18.8	20.8	70	77
CP852040345H <sup>6</sup>	7.6	8.5	0.75	38.2	42	70	77
CP85301534H	4.2	8.5	0.4 <sup>7</sup>	21	23	70	77
CP853345H <sup>6</sup>	8.8	8.5	0.85	43.1	48	70	77
CP8530345 <sup>6</sup>	11.8	8.5	1.15	57.7	63.4	70	77
CP854020345H <sup>6</sup>	7.6	8.5	0.75	38.2	42	70	77
CP854345H <sup>6</sup>	15.7	8.5	1.5	77.1	85	70	77

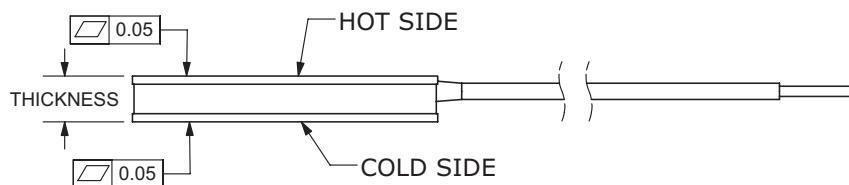
- Notes:
1. Maximum voltage at  $\Delta T_{max}$  and  $T_h=27^\circ\text{C}$
  2. Maximum current to achieve  $\Delta T_{max}$
  3. Measured by AC 4-terminal method at  $25^\circ\text{C}$
  4. Maximum heat absorbed at cold side occurs at  $I_{max}$ ,  $V_{max}$ , and  $\Delta T=0^\circ\text{C}$
  5.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

## SPECIFICATIONS

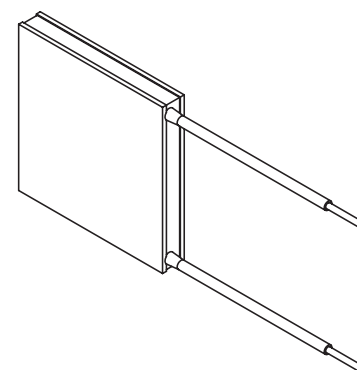
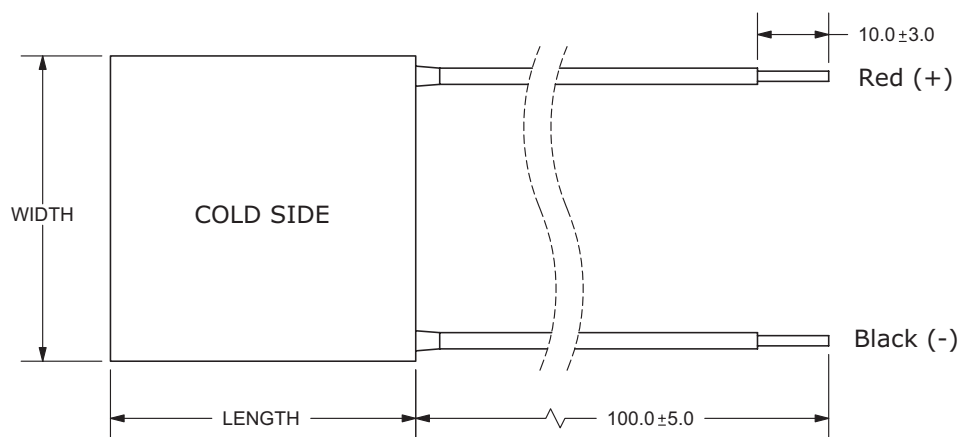
parameter	conditions/description	min	typ	max	units
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
RoHS	yes				

## MECHANICAL DRAWING

units: mm

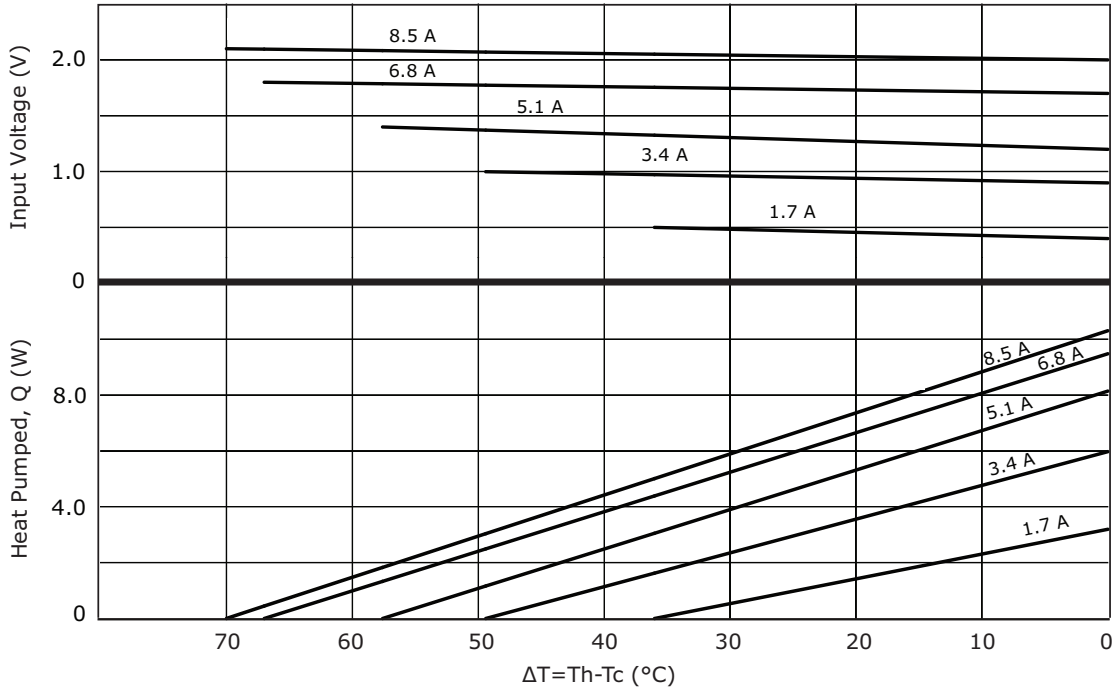


	MATERIAL	PLATING
ceramic plate	96% AL <sub>2</sub> O <sub>3</sub>	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

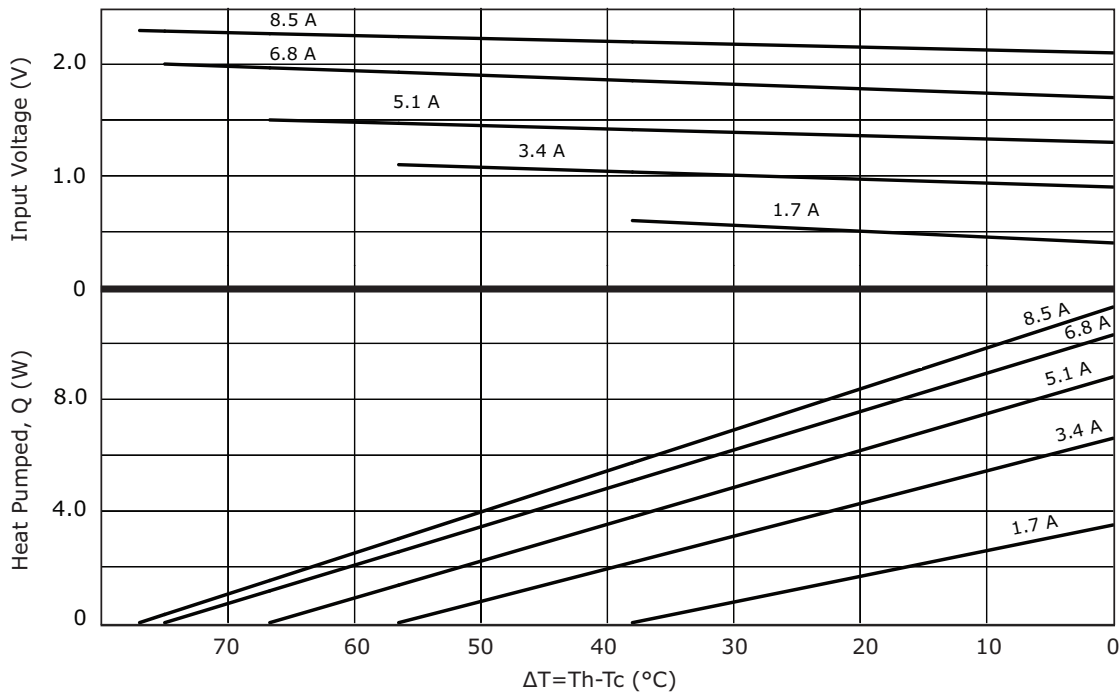


MODEL NO.	LENGTH [mm]	WIDTH [mm]	THICKNESS [mm]
CP85134H	15 ±0.3	15 ±0.3	3.4 ±0.025
CP85153034H	15 ±0.3	30 ±0.3	3.4 ±0.025
CP85234H	20 ±0.3	20 ±0.3	3.4 ±0.025
CP852040345H	20 ±0.3	40 ±0.3	3.45 ±0.025
CP85301534H	30 ±0.3	15 ±0.3	3.4 ±0.025
CP853345H	30 ±0.3	30 ±0.3	3.45 ±0.025
CP8530345	30 ±0.3	30 ±0.3	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

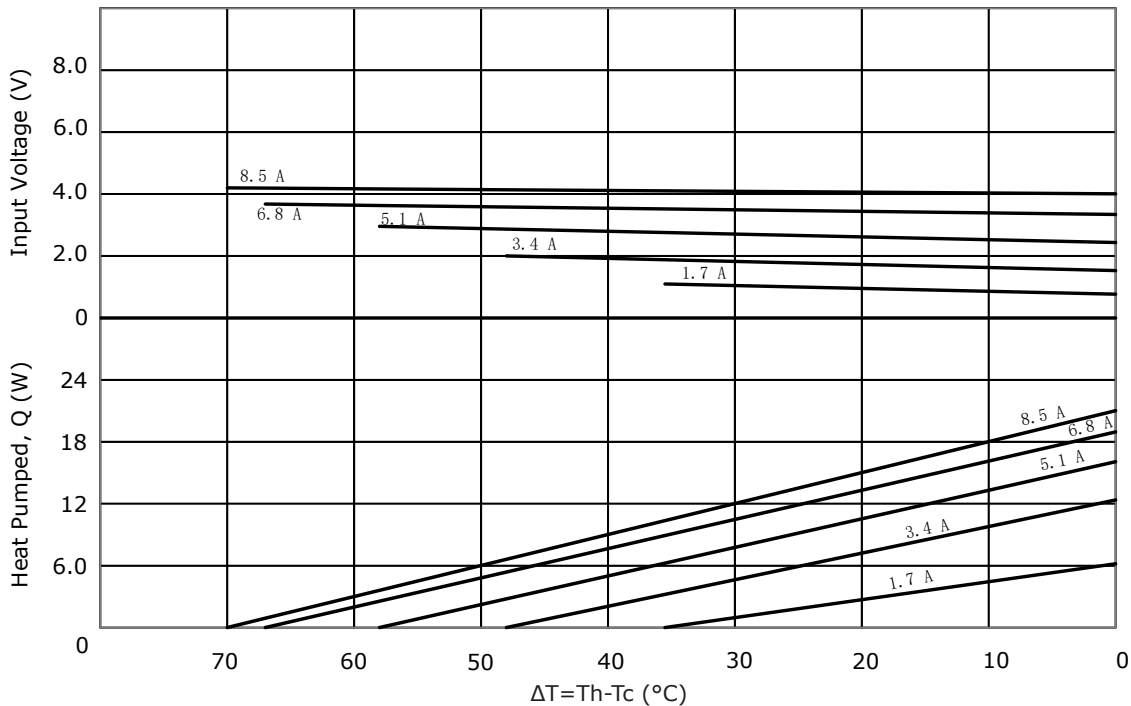
## CP85134H PERFORMANCE (Th=27°C)



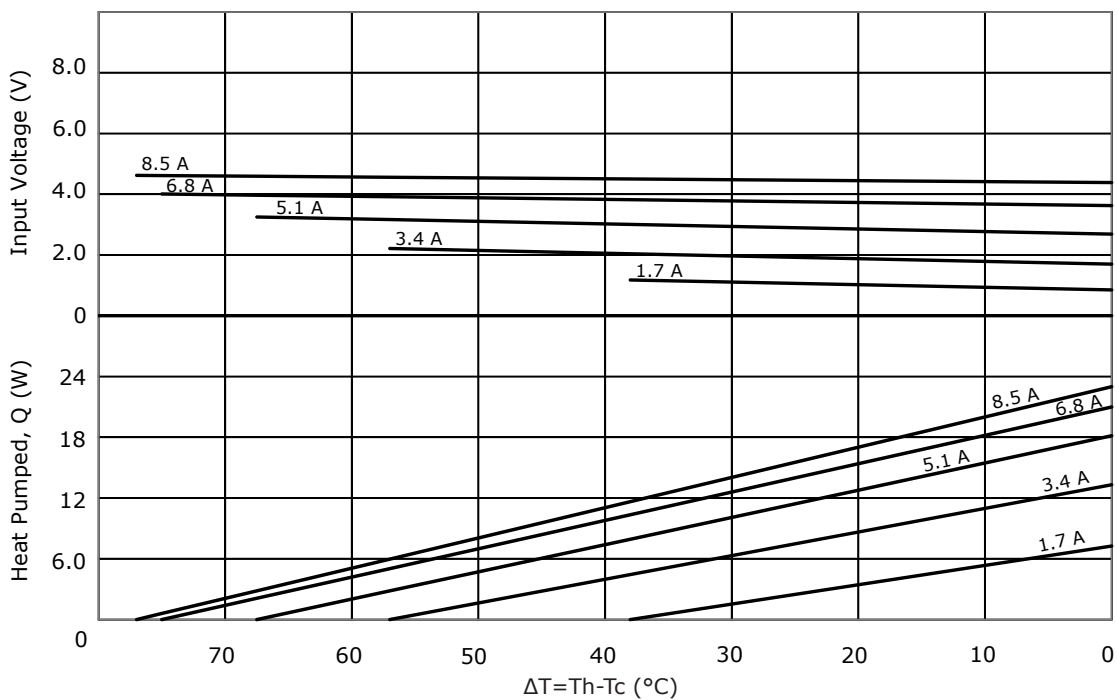
## CP85134H PERFORMANCE (Th=50°C)



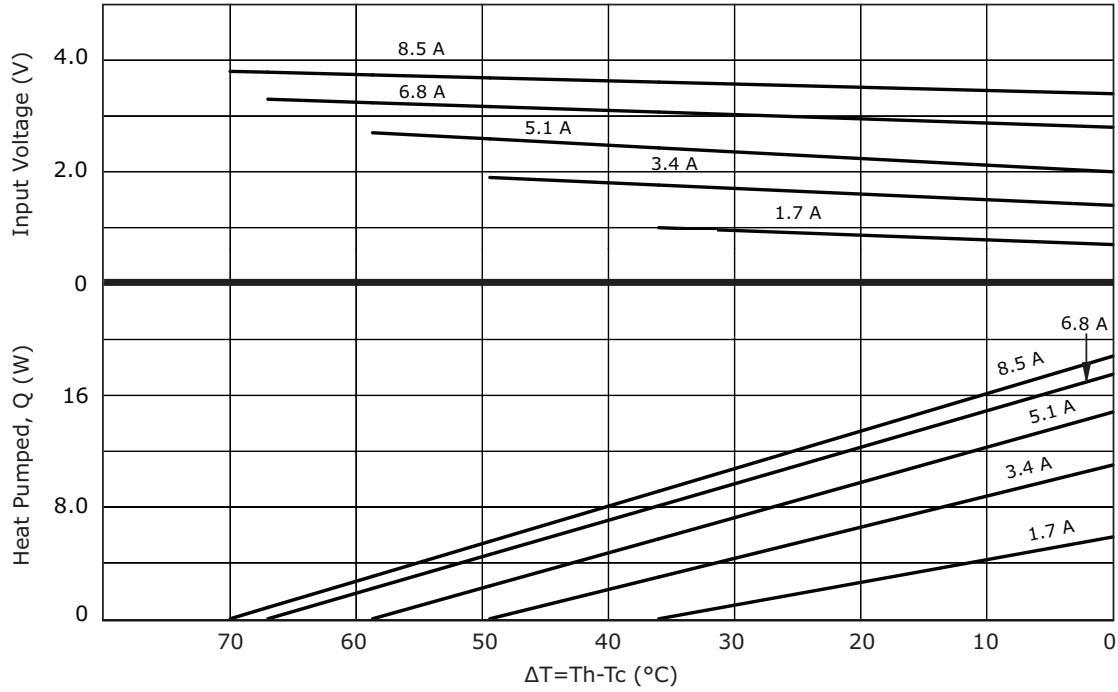
### CP85153034H PERFORMANCE (Th=27°C)



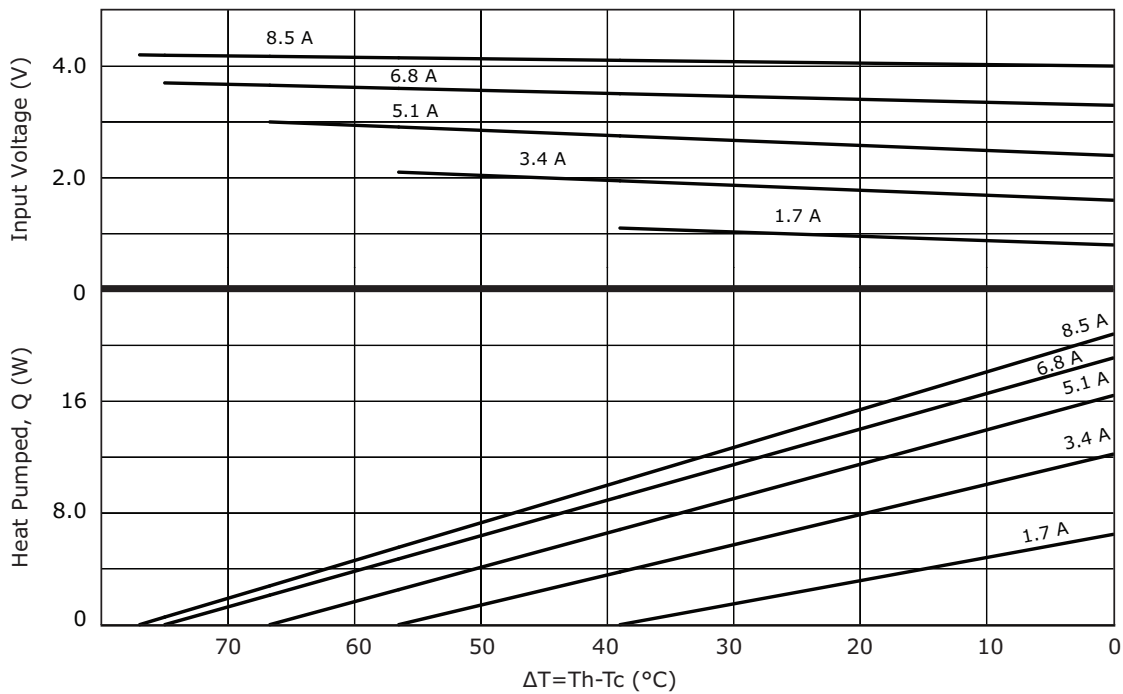
### CP85153034H PERFORMANCE (Th=50°C)



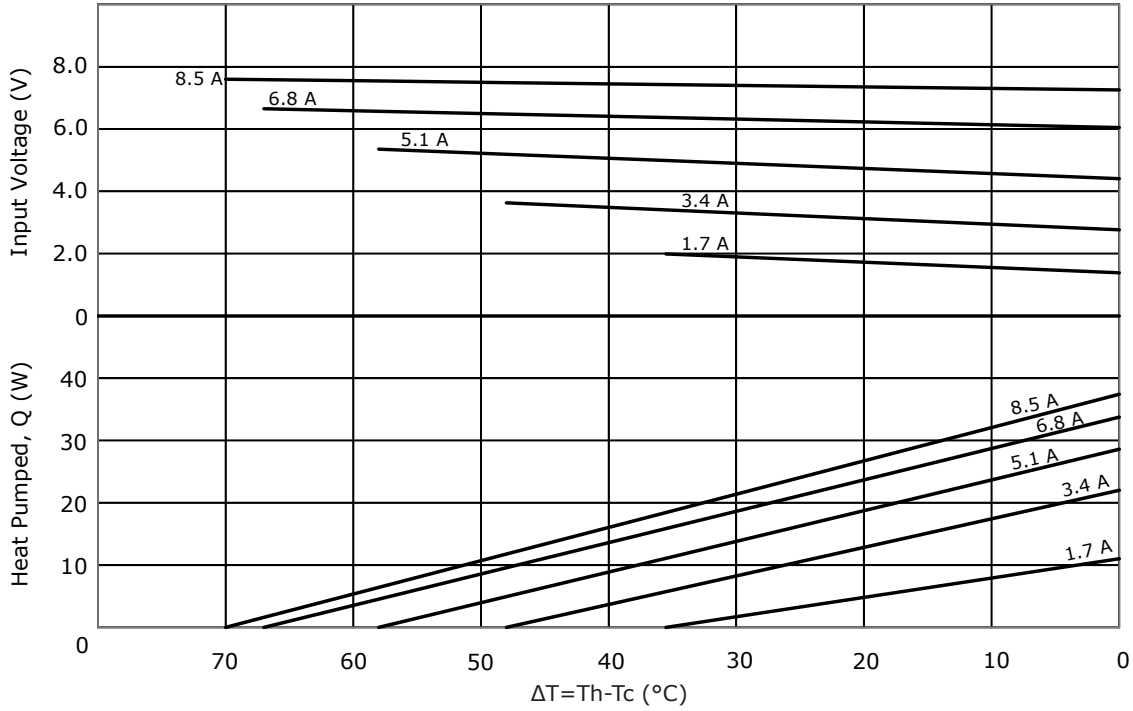
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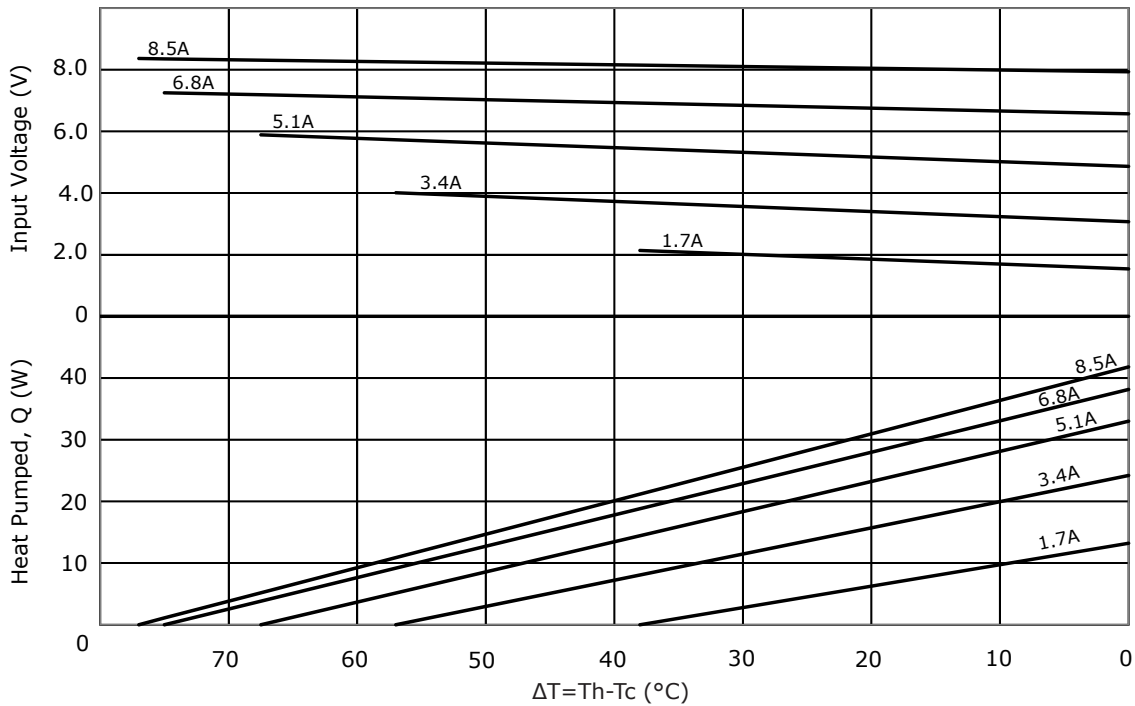
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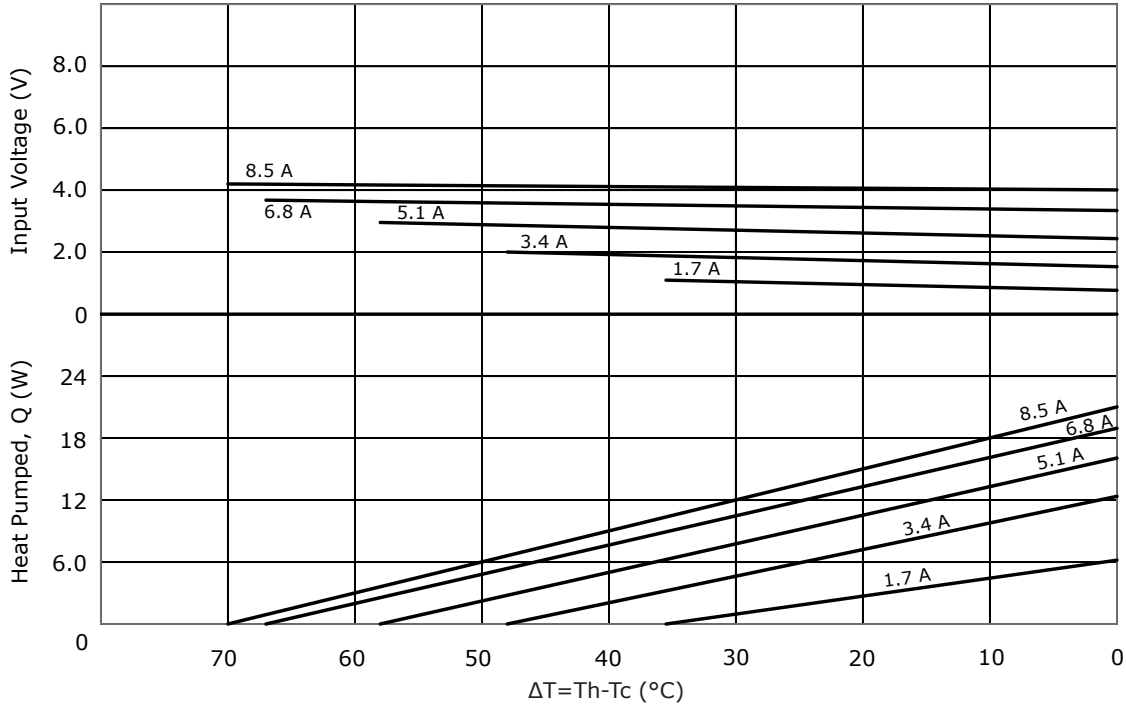
## CP852040345H PERFORMANCE (Th=27°C)



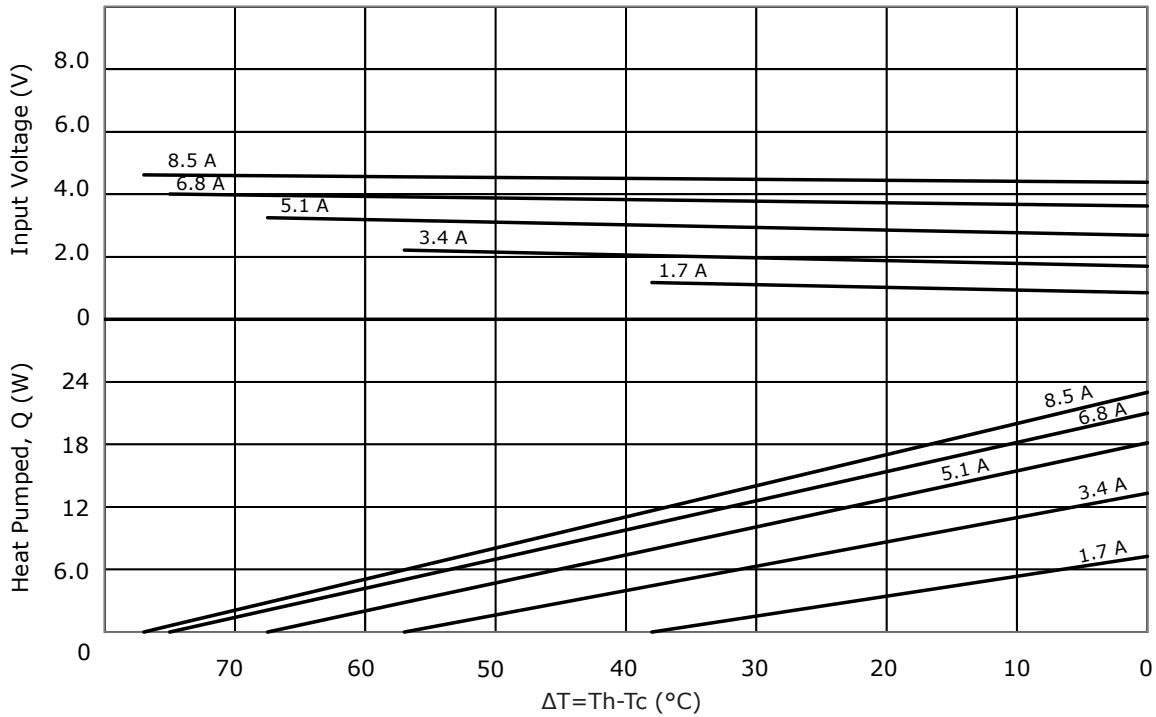
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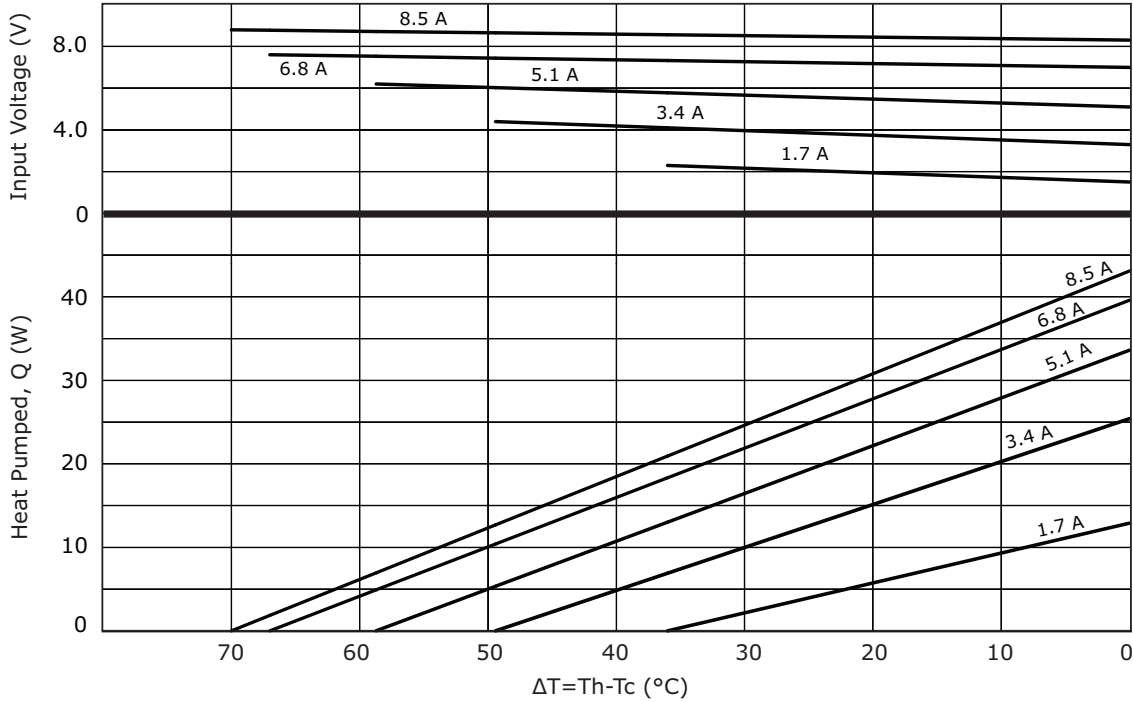
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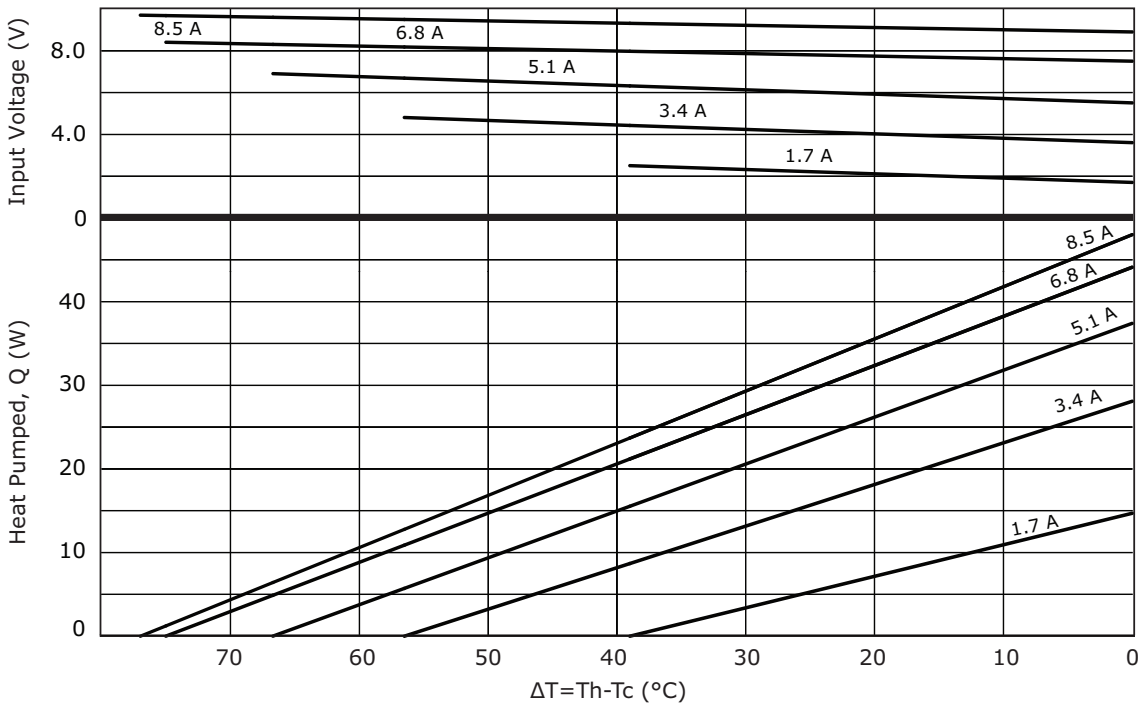
### CP85301534H PERFORMANCE (Th=50°C)



### CP853345H PERFORMANCE (Th=27°C)

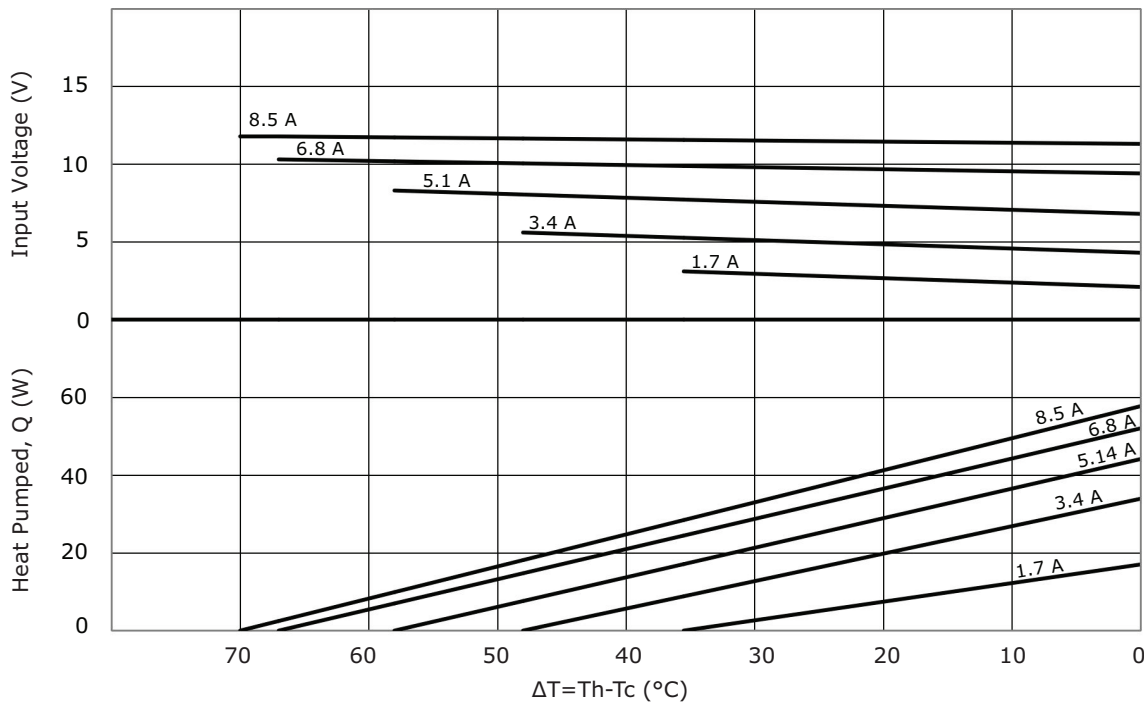


### CP853345H PERFORMANCE (Th=50°C)

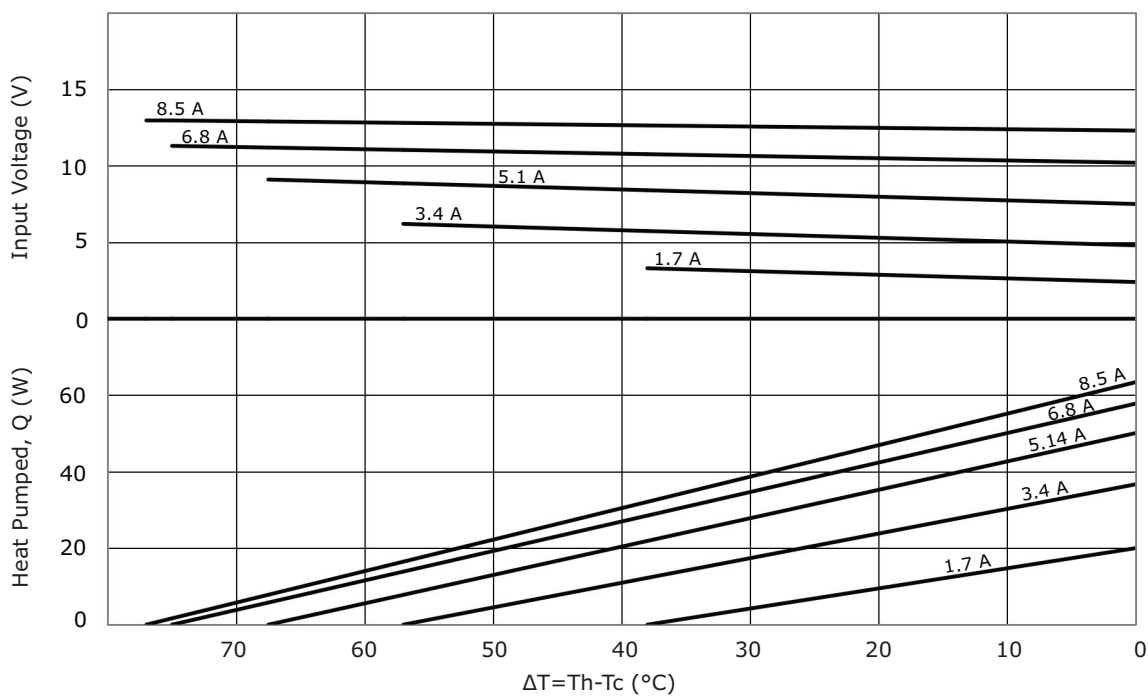




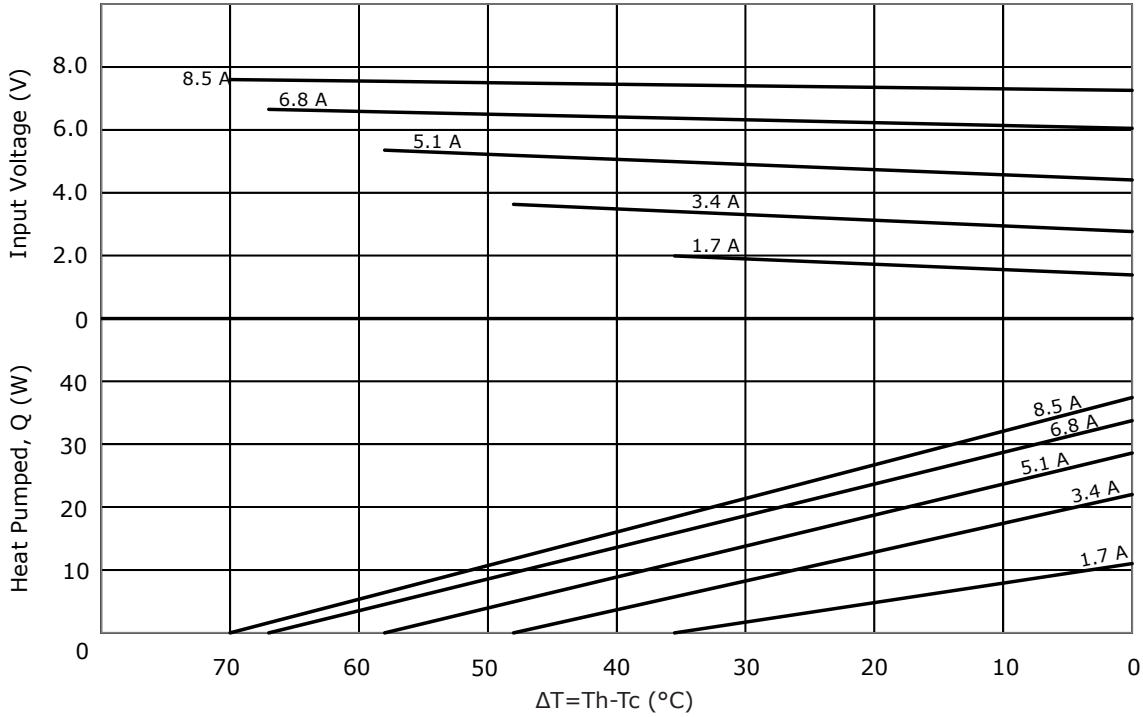
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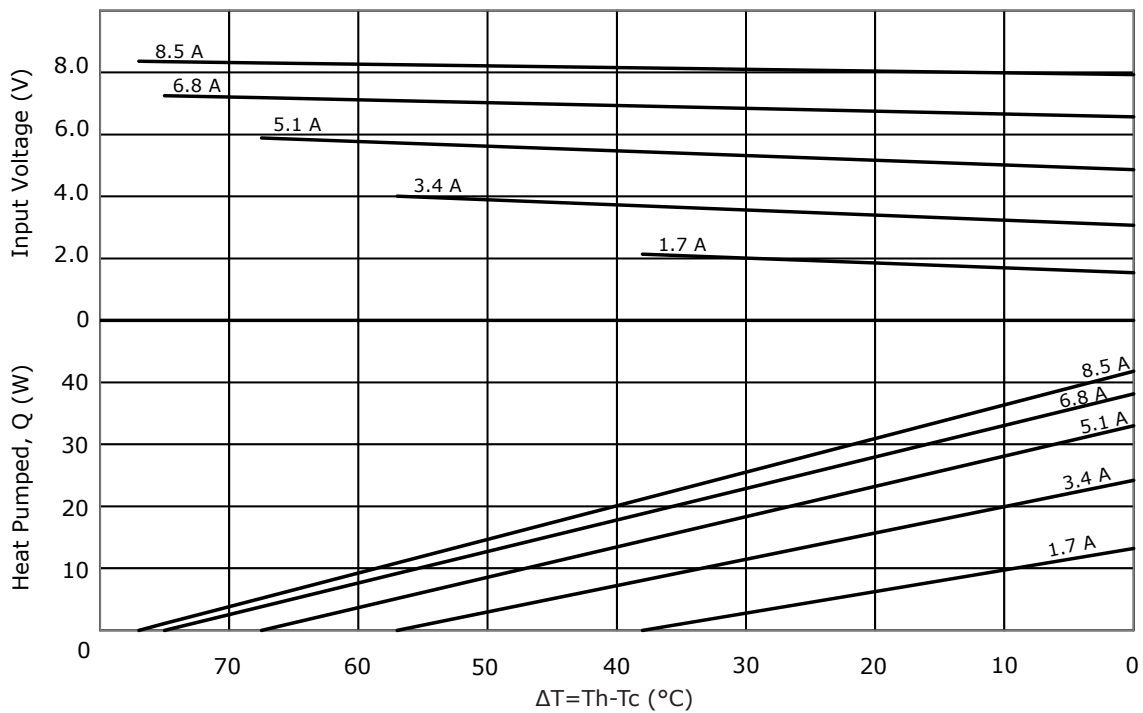
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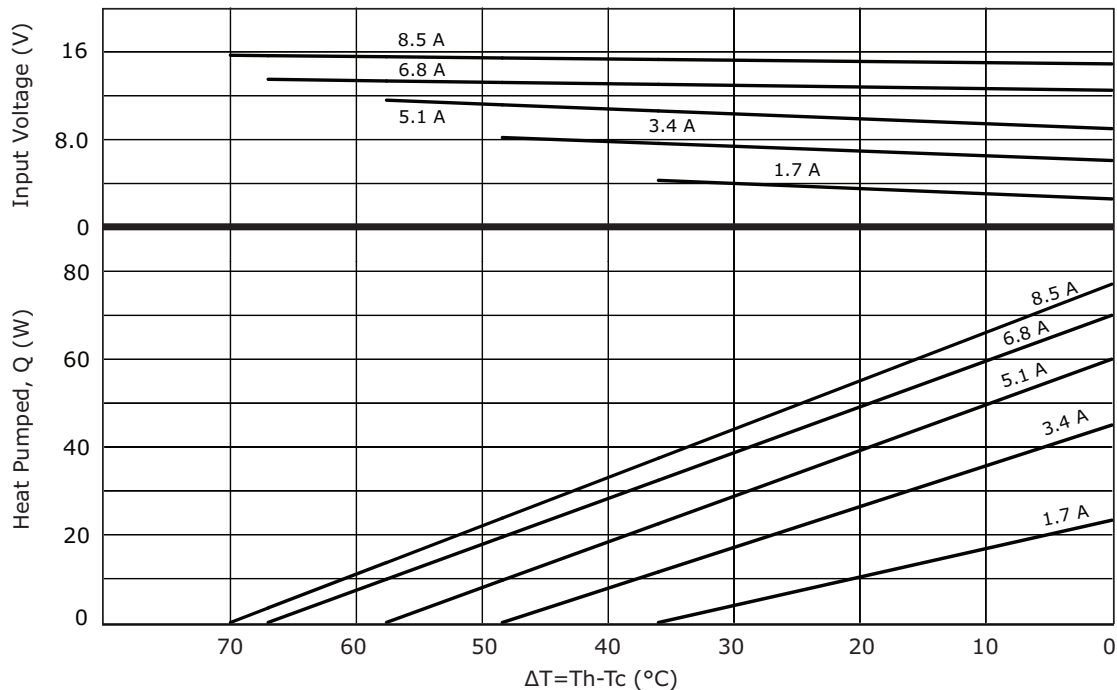
## CP854020345H PERFORMANCE (Th=27°C)



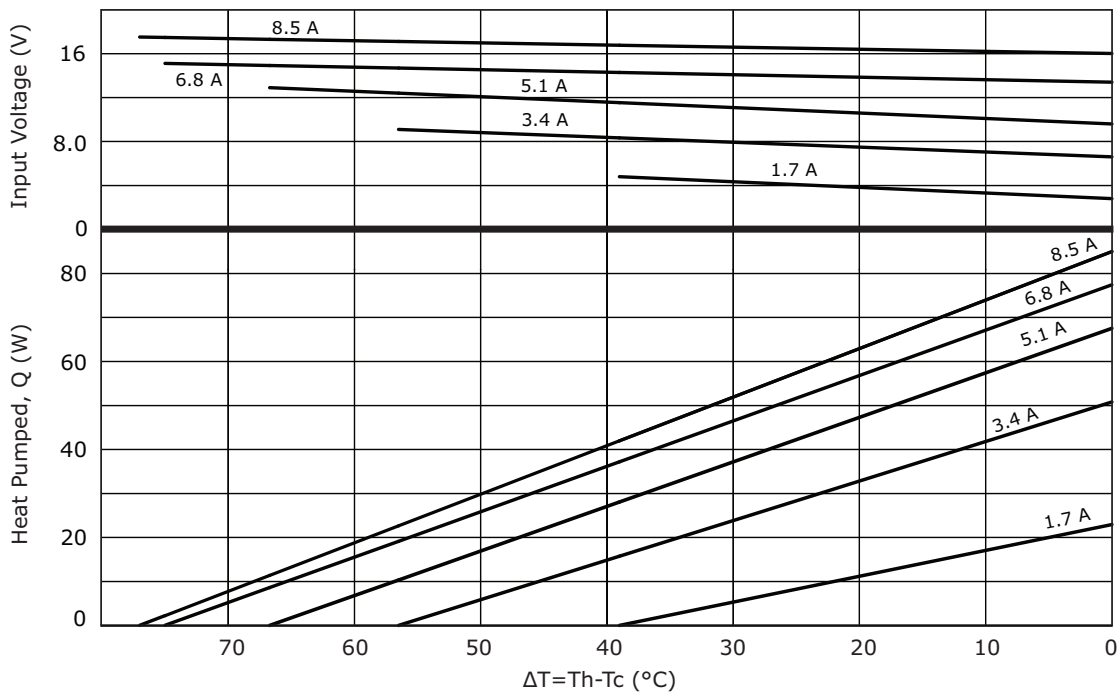
## CP854020345H PERFORMANCE (Th=50°C)



### CP854345H PERFORMANCE (Th=27°C)



### CP854345H PERFORMANCE (Th=50°C)



## 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.



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