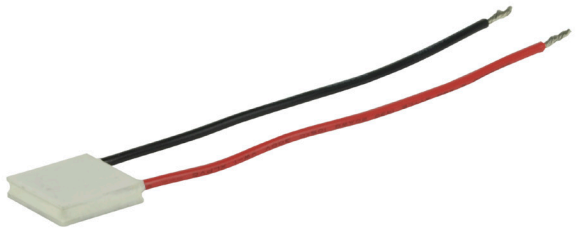
SERIES: CP85H | DESCRIPTION: PELTIER MODULE

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)	output Qmax[3] T_h=27°C (W)	output Qmax[3] T_h=50°C (W)	output ΔTmax[4] T_h=27°C (°C)	output ΔTmax[4] T_h=50°C (°C)
CP85134H	2.1	8.5	10.3	11.3	70	77
CP85234H	3.8	8.5	18.8	20.8	70	77
CP853345H[5]	8.8	8.5	43.1	48	70	77
CP854345H[5]	15.7	8.5	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. Maximum heat absorbed at cold side occurs at I_{max}, V_{max}, and ΔT=0°C
4. Maximum temperature difference occurs at I_{max}, V_{max}, and Q=0W (ΔT max measured in a vacuum at 1.3 Pa)
5. Designed with arcTEC™ structure.

PART NUMBER KEY

CP85 XXXX XXX H

Base Number

Length x Width:
1^1 = 15 x 15 mm
2^1 = 20 x 20 mm
3^2 = 30 x 30 mm
4^2 = 40 x 40 mm

Thickness:
34 = 3.4 mm
345 = 3.45 mm

Notes:
1. Only available in 3.4 mm thickness
2. Only available in 3.45 mm thickness

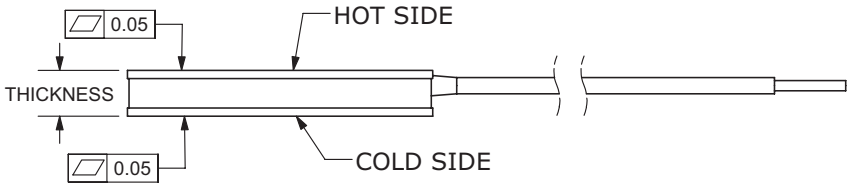
SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
internal resistance[1]	CP85134H	0.18	0.2	0.22	Ω
	CP85234H	0.315	0.35	0.385	Ω
	CP853345H	0.765	0.85	0.935	Ω
	CP854345H	1.35	1.5	1.65	Ω
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
hot side plate				80	°C
RoHS	2011/65/EU				

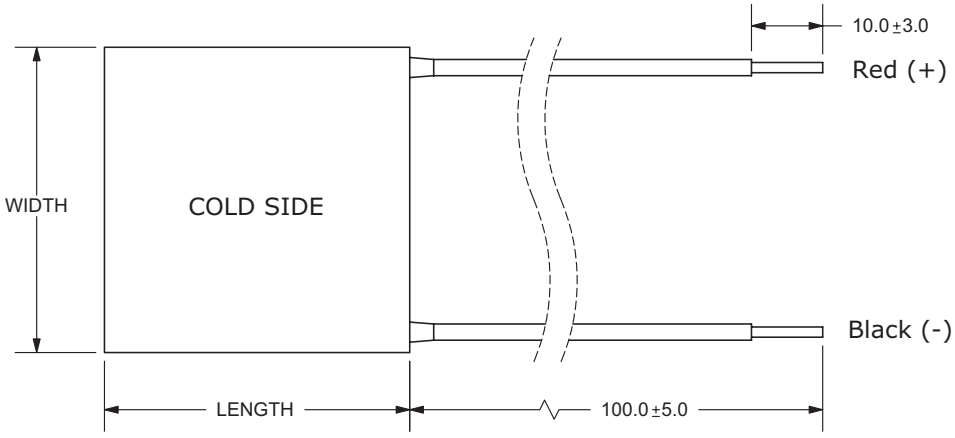
Note: 1. Measured by AC 4-terminal method at 25°C

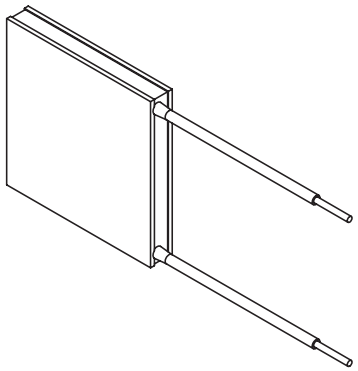
MECHANICAL DRAWING

units: mm



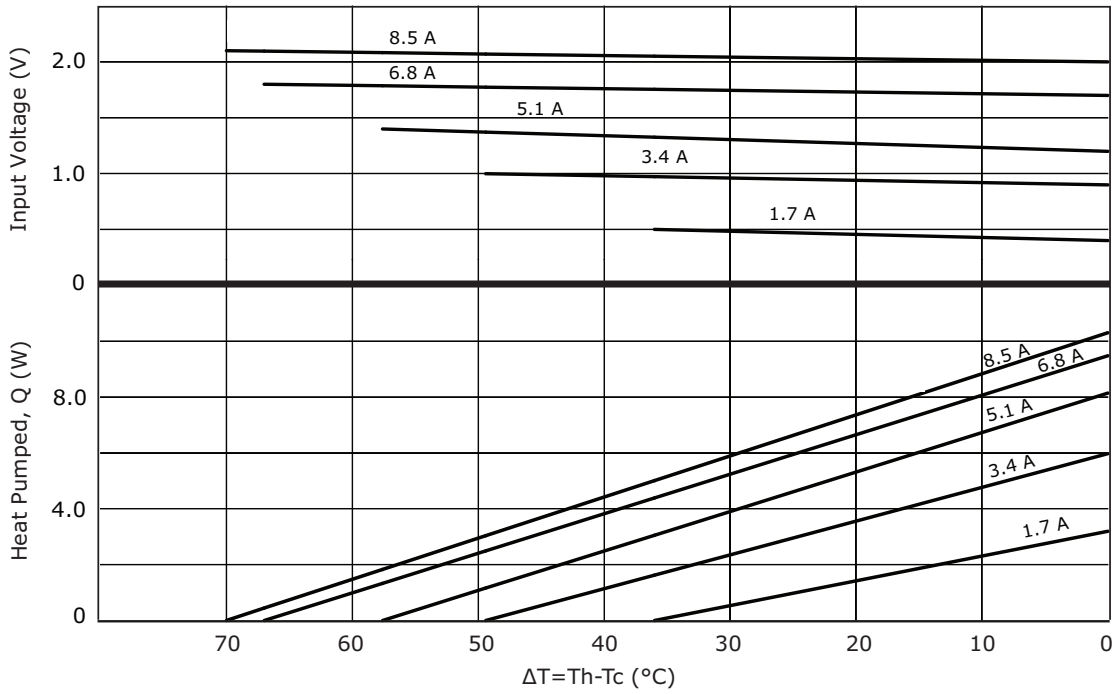
	MATERIAL	PLATING
ceramic plate	96% AL_2O_3	
wire leads	20 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	



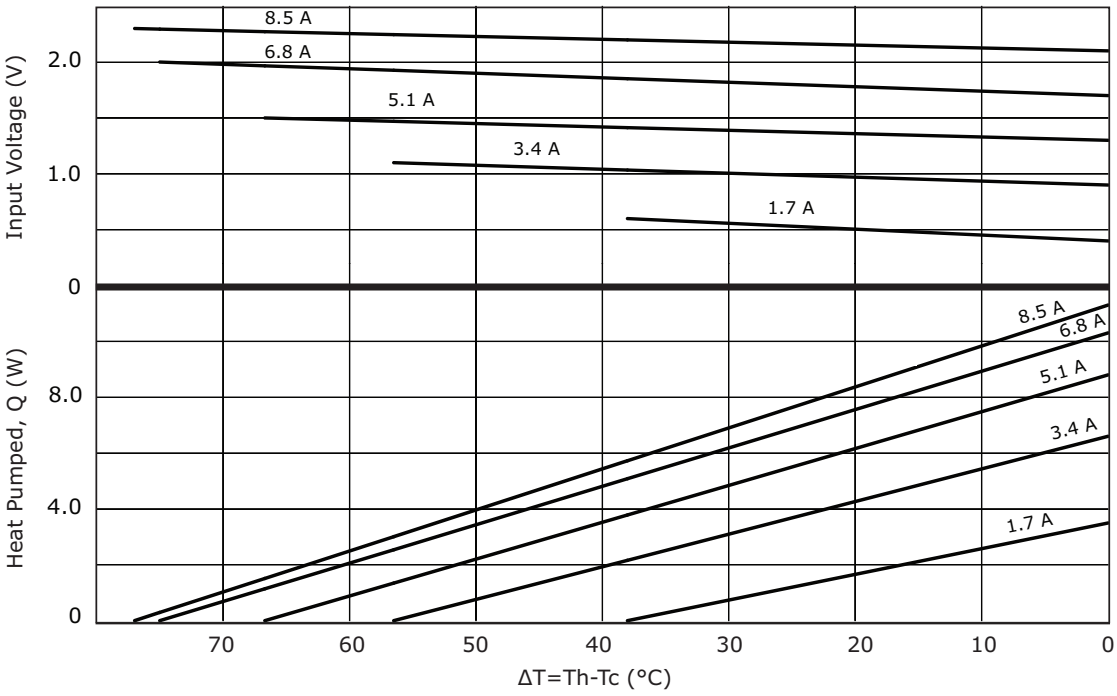


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP85134H	15 ±0.3	15 ±0.3	3.4 ±0.025
CP85234H	20 ±0.3	20 ±0.3	3.4 ±0.025
CP853345H	30 ±0.3	30 ±0.3	3.45 ±0.025
CP854345H	40 ±0.3	40 ±0.3	3.45 ±0.025

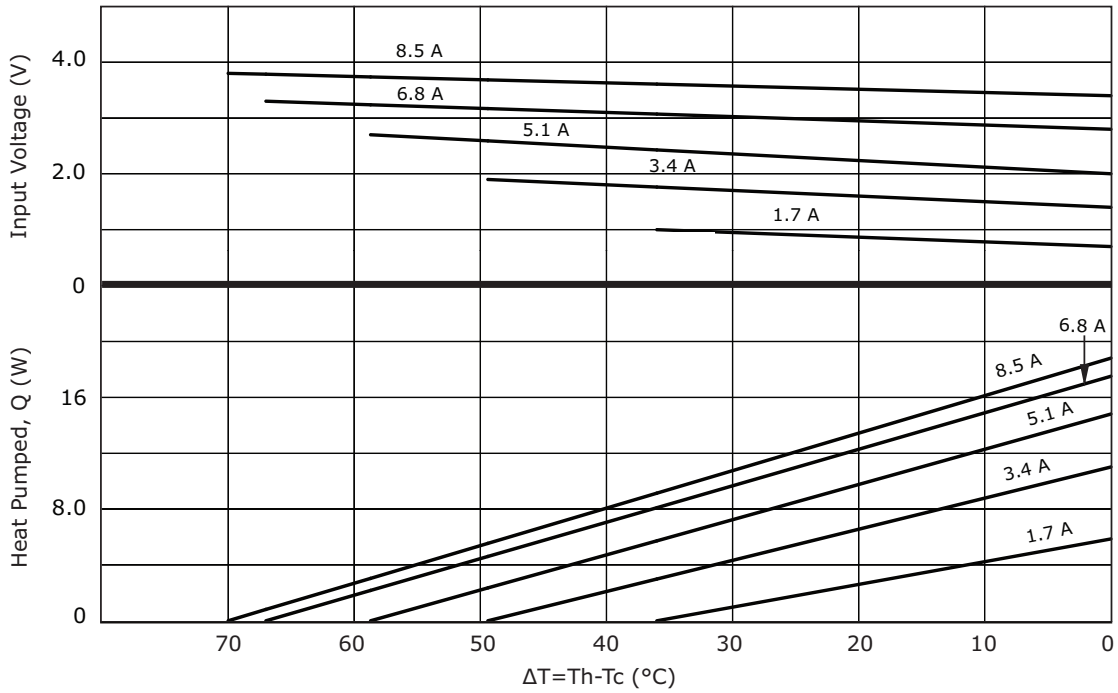
CP85134H PERFORMANCE (Th=27°C)



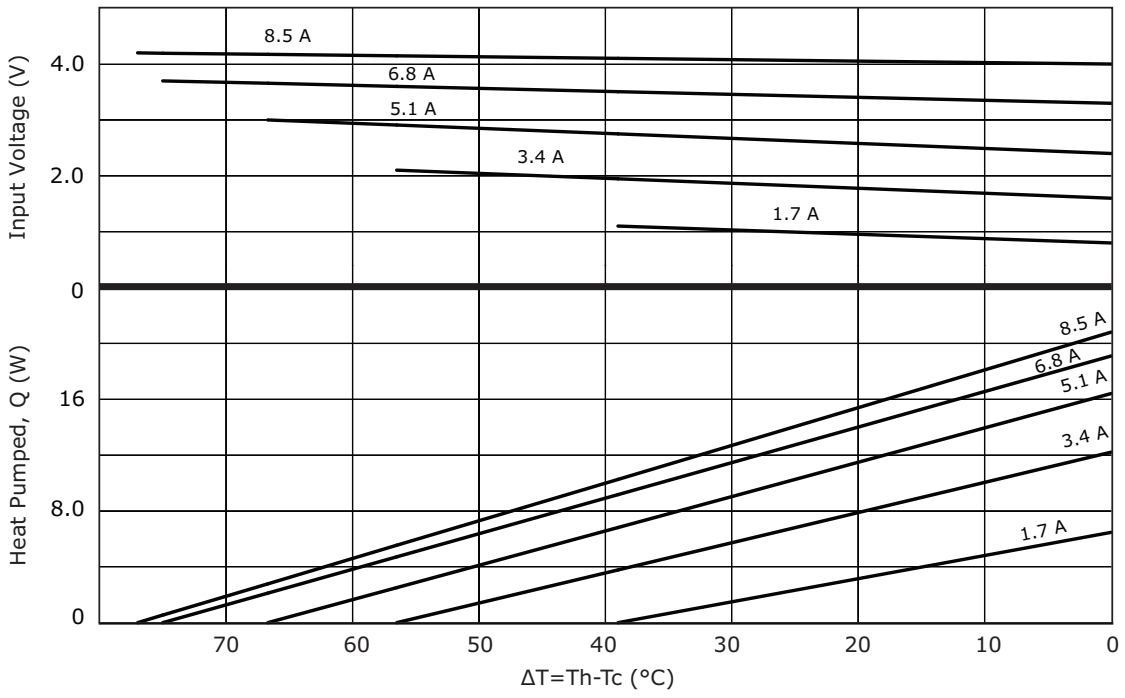
CP85134H PERFORMANCE (Th=50°C)



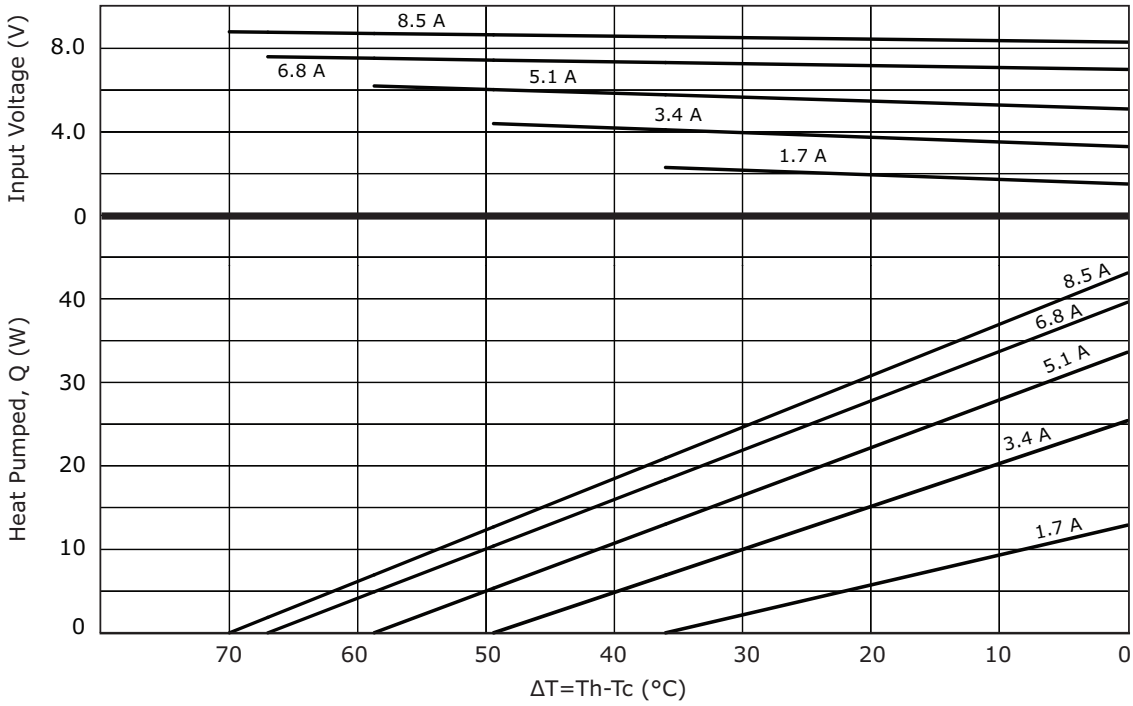
CP85234H PERFORMANCE (Th=27°C)



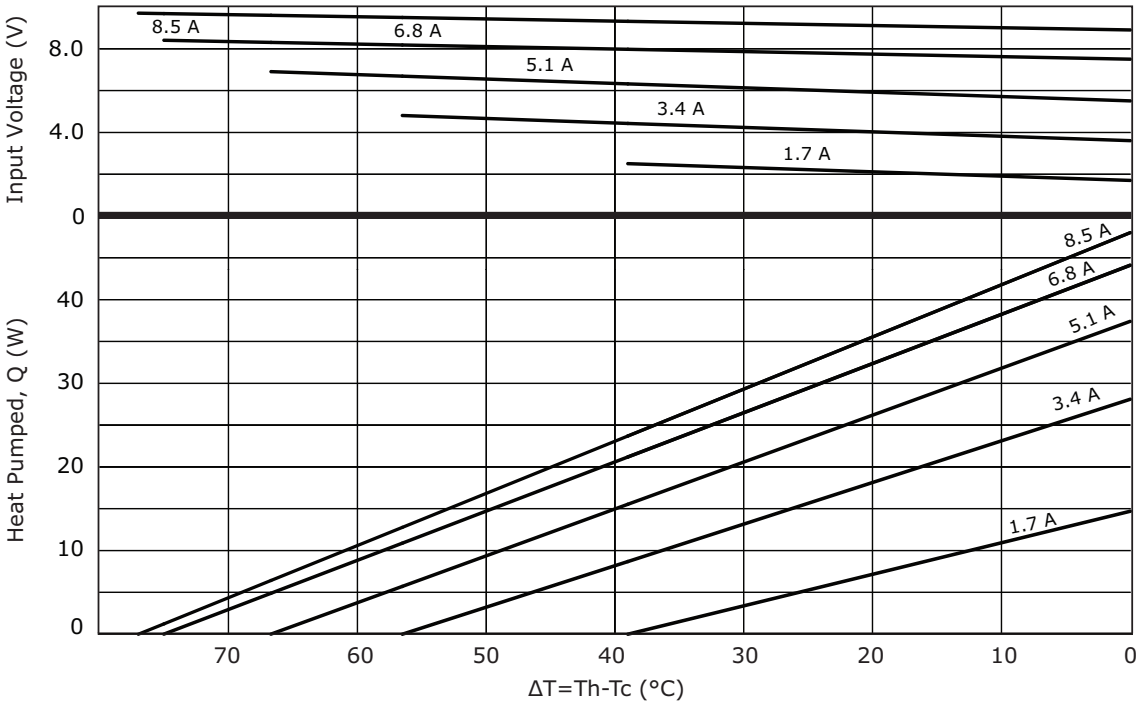
CP85234H PERFORMANCE (Th=50°C)



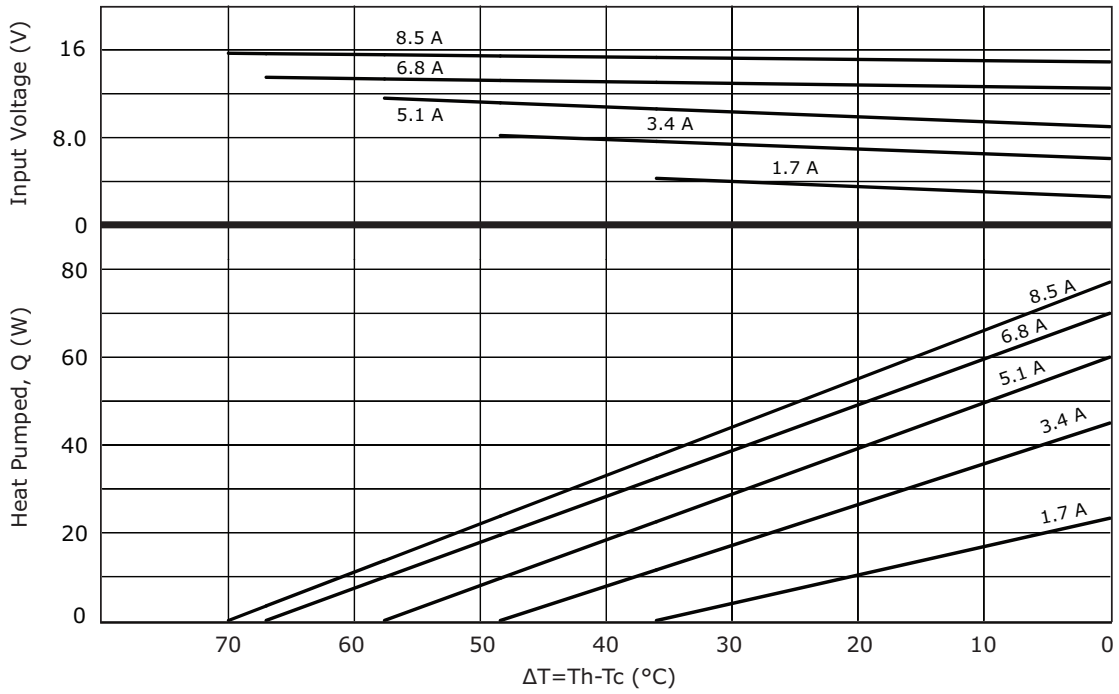
CP853345H PERFORMANCE (Th=27°C)



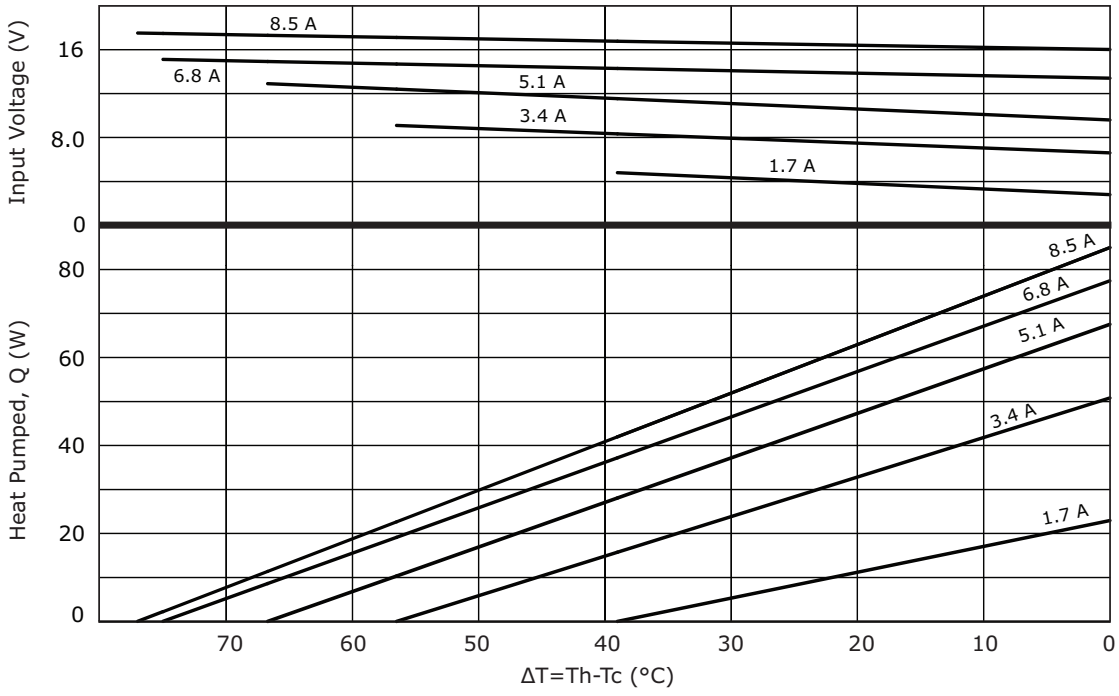
CP853345H PERFORMANCE (Th=50°C)



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

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

CUI INC®

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com