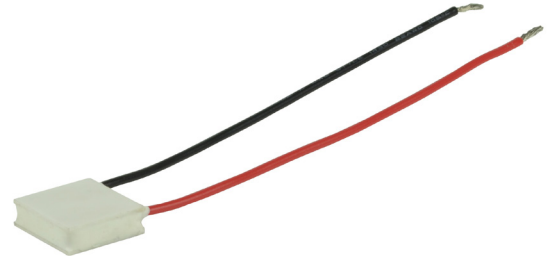


**SERIES:** CP20H | **DESCRIPTION:** PELTIER MODULE

**FEATURES**

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

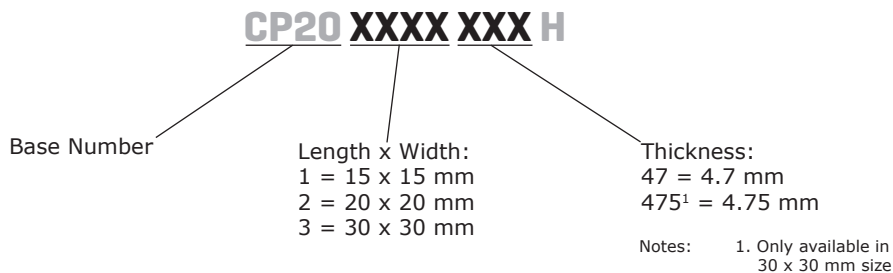


**MODEL**

MODEL	input voltage <sup>1</sup> max (Vdc)	input current <sup>2</sup> max (A)	output Qmax <sup>3</sup>		output $\Delta T$ max <sup>4</sup>	
			T <sub>h</sub> =27°C (W)	T <sub>h</sub> =50°C (W)	T <sub>h</sub> =27°C (°C)	T <sub>h</sub> =50°C (°C)
CP20147H	3.8	2.0	4.4	5.0	70	77
CP20247H	8.8	2.0	10.2	11.2	70	77
CP203475H <sup>5</sup>	15.7	2.0	18.2	19.5	70	77

- Notes:
1. Maximum voltage at  $\Delta T$  max and T<sub>h</sub>=27°C
  2. Maximum current to achieve  $\Delta T$  max
  3. Maximum heat absorbed at cold side occurs at I<sub>max</sub>, V<sub>max</sub>, and  $\Delta T=0^\circ\text{C}$
  4. Maximum temperature difference occurs at I<sub>max</sub>, V<sub>max</sub>, and Q=0W ( $\Delta T$  max measured in a vacuum at 1.3 Pa)
  5. Designed with arcTEC™ structure.

**PART NUMBER KEY**



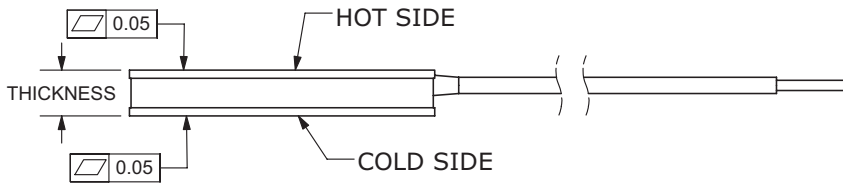
## SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
internal resistance <sup>1</sup>	CP20147H	1.485	1.65	1.815	Ω
	CP20247H	3.33	3.7	4.07	Ω
	CP203475H	6.03	6.7	7.37	Ω
solder melting temperature	connection between thermoelectric pairs	235			°C
assembly compression				1	MPa
hot side plate				80	°C
RoHS	2011/65/EU				

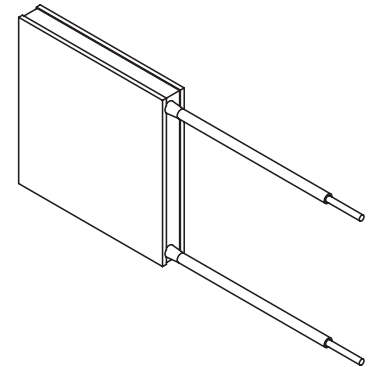
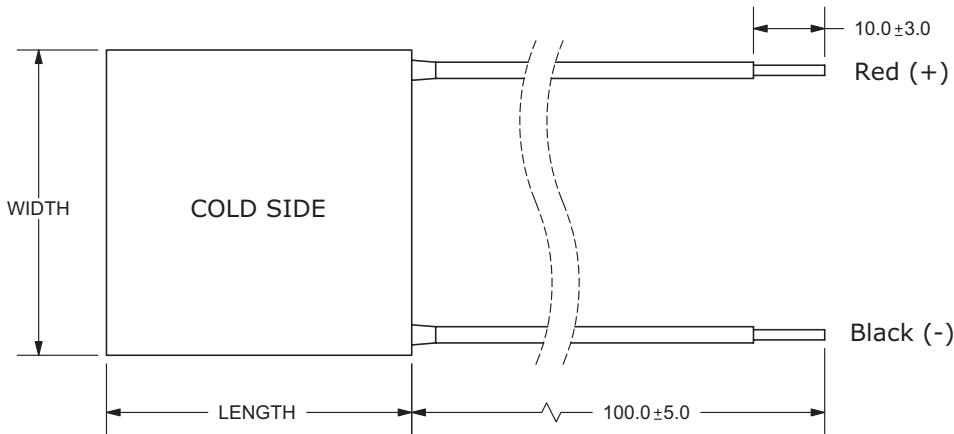
Note: 1. Measured by AC 4-terminal method at 25°C

## MECHANICAL DRAWING

units: mm

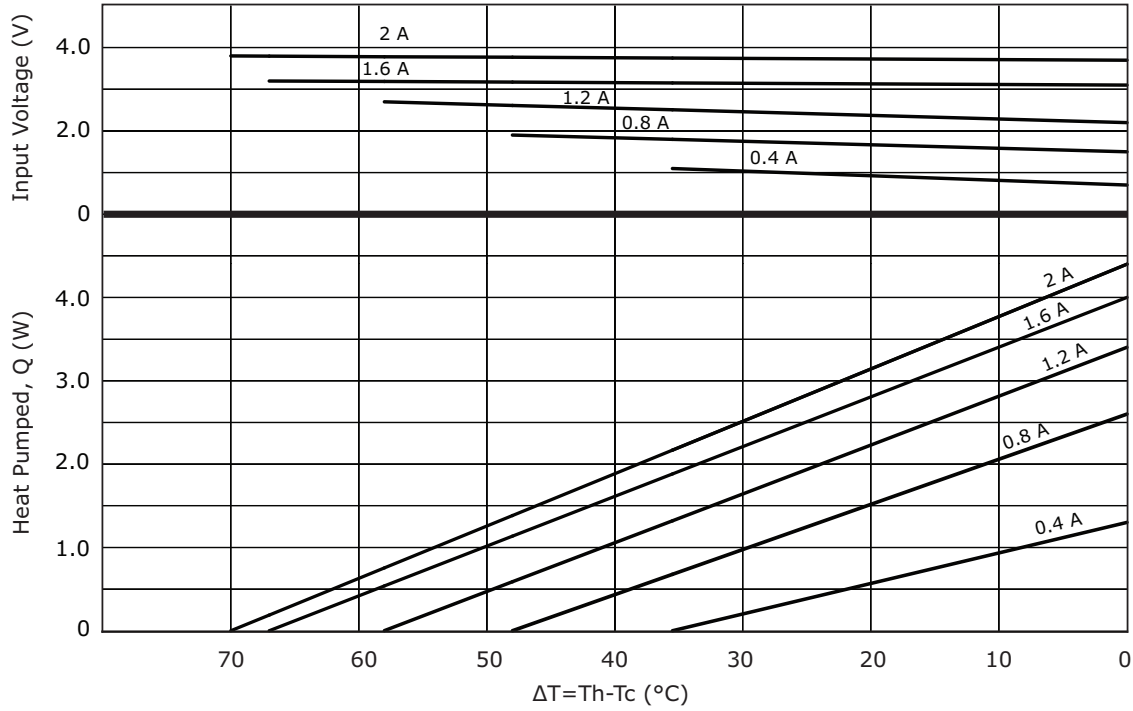


	MATERIAL	PLATING
ceramic plate	96% AL <sub>2</sub> O <sub>3</sub>	
wire leads	22 AWG	tin
sealer	silicon rubber 703 RTV (between cold and hot side plates)	
joint cover	silicon rubber 703 RTV	
marking	P/N & S/N printed on cold side surface	

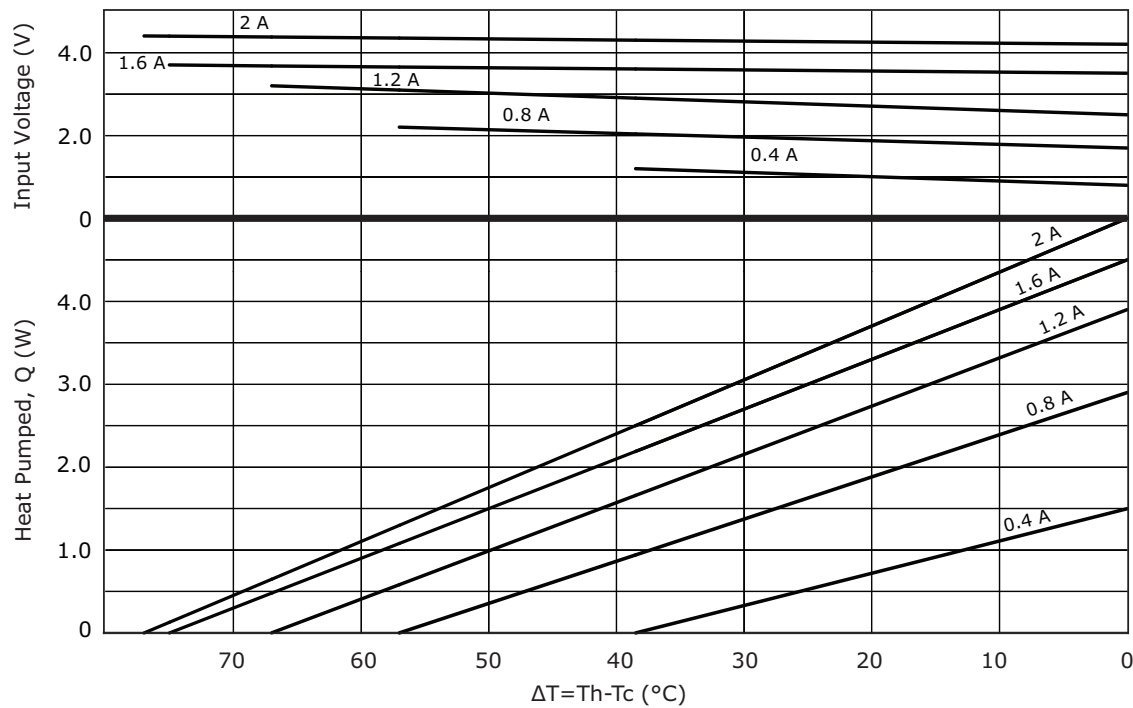


MODEL NO.	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)
CP20147H	15 ±0.3	15 ±0.3	4.7 ±0.025
CP20247H	20 ±0.3	20 ±0.3	4.7 ±0.025
CP203475H	30 ±0.3	30 ±0.3	4.75 ±0.025

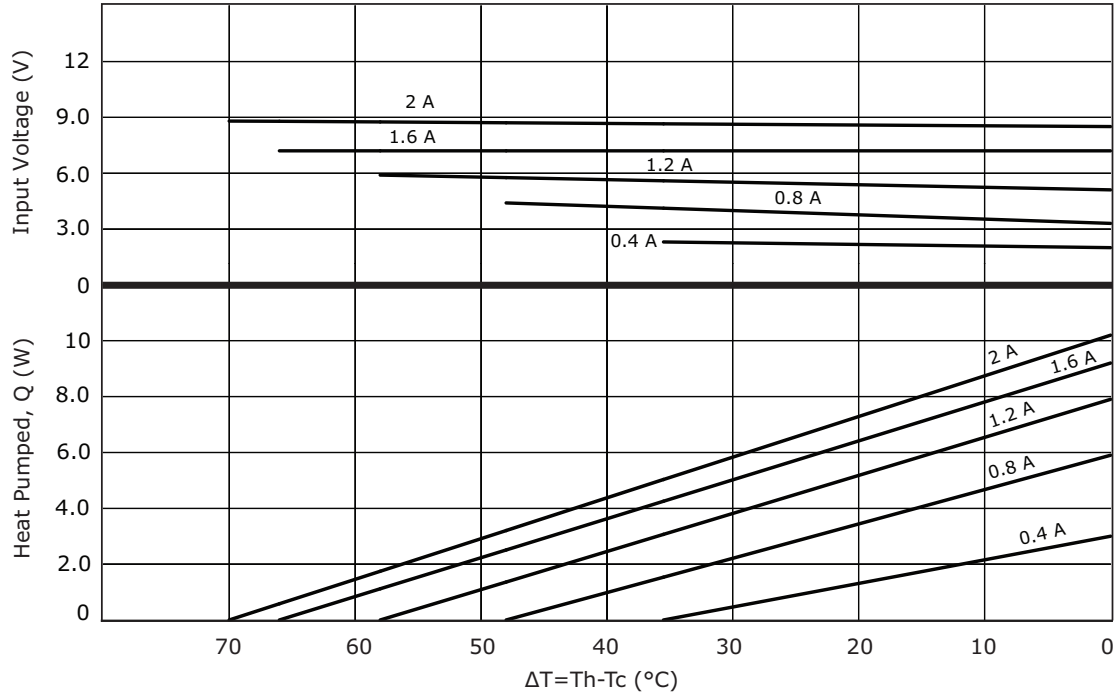
### CP20147H PERFORMANCE (Th=27°C)



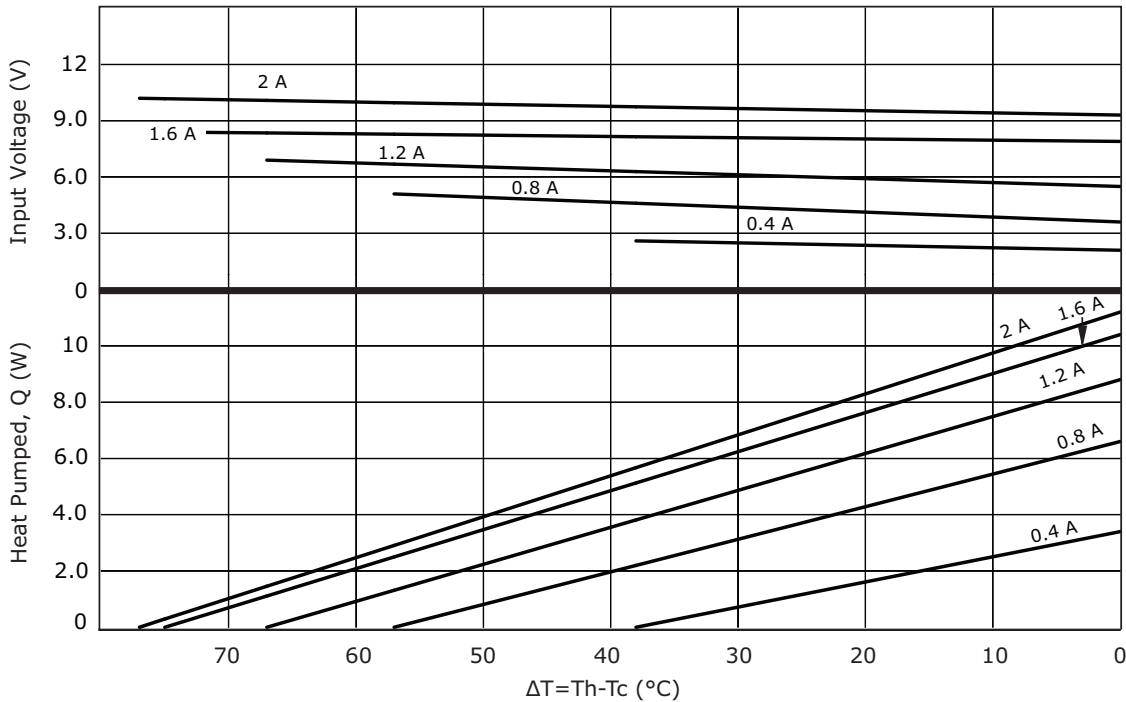
### CP20147H PERFORMANCE (Th=50°C)



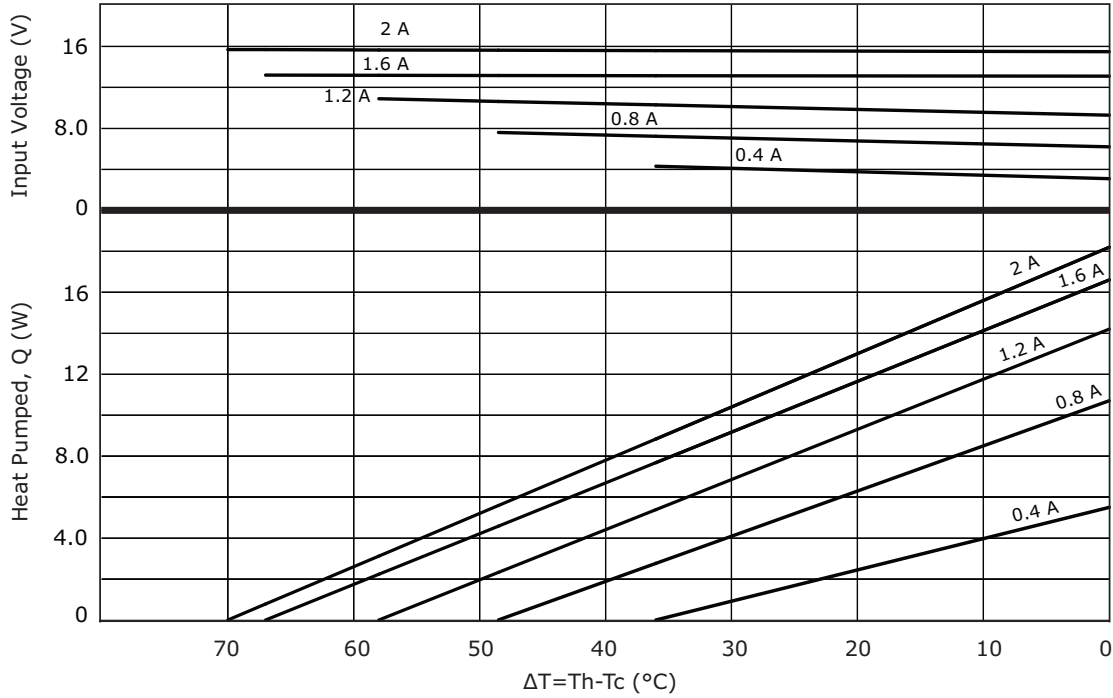
### CP20247H PERFORMANCE (Th=27°C)



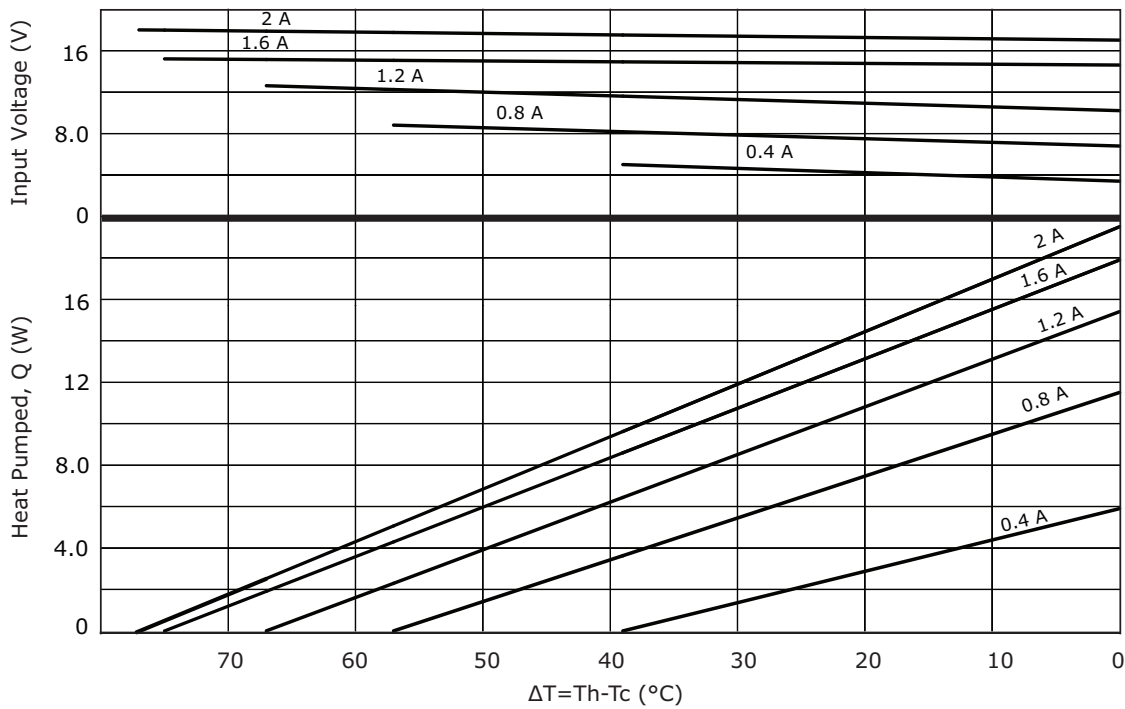
### CP20247H PERFORMANCE (Th=50°C)



### CP203475H PERFORMANCE (Th=27°C)



### CP203475H PERFORMANCE (Th=50°C)



## REVISION HISTORY

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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.



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