ADVANCED THERMOELECTRIC

Technical Data Sheet

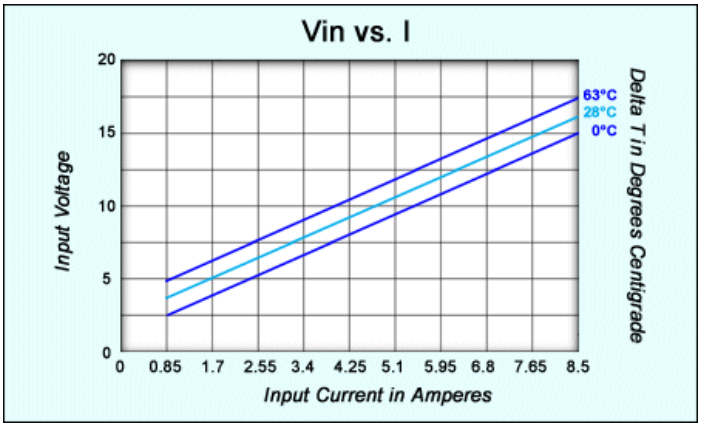
TM-127-1.4-8.5

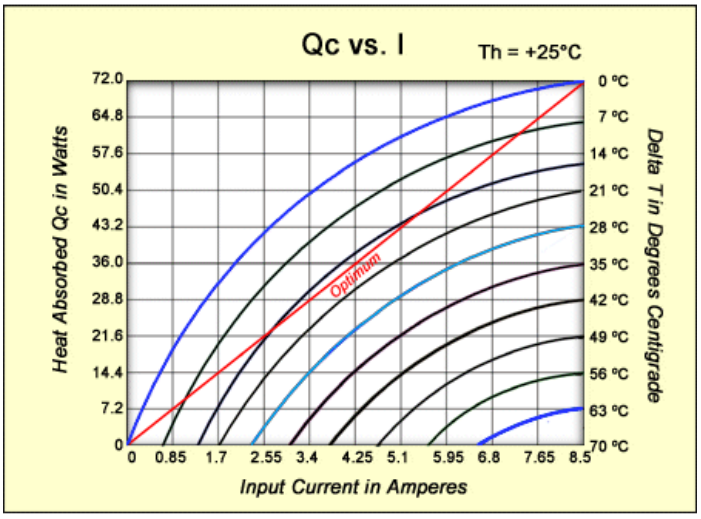
Thermoelectric Module

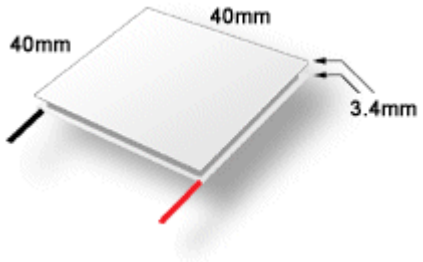
UNIT CODE	DESCRIPTION
TM-127-1.4-8.5	Thermoelectric Cooling Module

SPECIFICATIONS			
Current I_{max}	Voltage V_{max}	Cooling Capacity Q_{max}	Maximum Delta T ΔT_{max}
8.5 Amps	16.5 Volts	72 Watts	70 °C

PERFORMANCE CURVES (T_h = 25 °C)







TM-127-1.4-8.5 is our most powerful single-stage thermoelectric module, in the 40 x 40 mm footprint and is intended for use with 12 to 15-volt DC power sources. Having the greatest Qmax also means having to eject the greatest amount of heat and this module may require a fabricated forced convection heat sink, or liquid heat sink, in order to limit the hot-side temperature increase to an acceptable level. This was formerly in our “HP” series TEC pn: HP127-1.4-8.5

TM-127-1.4-8.5 may be used for cooling, heating and temperature stabilization and is employed in a wide range of applications including consumer, industrial, lab/scientific, biomedical, telecommunications, military and aerospace. Also available with porch, metallized and tinned surfaces and in strings from 2-12 modules long. This was formerly our “HP” series TEC

Operating temperature -50°C +200°C
Height, flatness and parallel variance: ± 0.02mm

Option Suffix designations:
Anti-corrosion Potting = "P"
Epoxy edge sealing = "E"
Lapping to ± 0.01mm = "L"
(for example ST-127-1.4-8.5"PE")

Prices: 100+ $19.95 1K+ $14.45

Module Characteristics and Value Descriptions:

I_{max} is the maximum (optimal) input current in amperes.
V_{max} is the maximum input voltage in volts when the current is optimal (I_{max}).
Q_{max} is the maximum amount of heat the module is capable of pumping. This value is achieved when there is no difference in the temperature (DT=0) on the modules two surfaces. If your application requires cooling, the heat pumping capacity will be less.

ΔT_{max} or DT_{max} is the maximum temperature differential between the hot and cold side of the module with no heat load (Q=0). As the thermal mass of the object to be cooled increases the ΔT narrows until Q_{max} is reached and ΔT=0.

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