

C2-30-1503 Thermoelectric Module Specifications

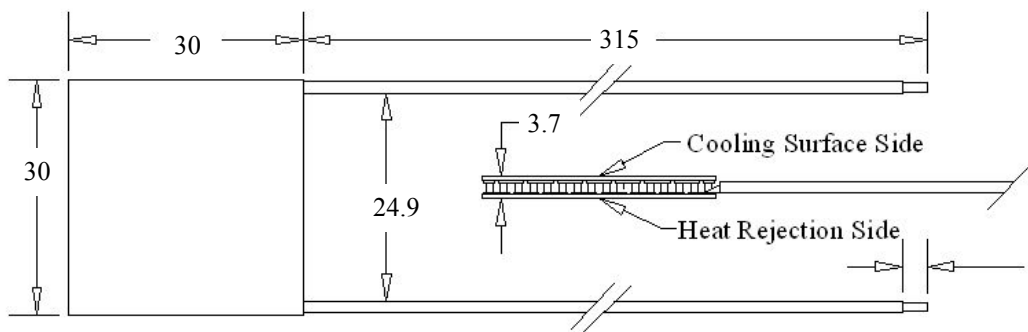
This single stage thermoelectric module is designed for cooling and heating applications up to 100°C. Standard configuration of this modules is:

- PVC insulated leads 300 to 330mm (12 to 13 inches) stripped ends approx. 6mm (1/4 inch)
- 30mm by 30mm (1.18 inches by 1.18 inches)
- Flatness/Parallelism $\pm 0.025\text{mm}$ (.001 inch)

Performance Specifications

Parameter	@ $T_{\text{hot}} 27^{\circ}\text{C}$	@ $T_{\text{hot}} 50^{\circ}\text{C}$	(Explanation of Parameter)
$DT_{\text{max}}^{\circ}\text{C}$	68	76	Maximum temperature difference across the device with no heat load (material specification possible only in laboratory conditions)
Voltage Max (V_{max})	15.50	17.36	Voltage level that returns maximum performance of the device
Current Max (I_{max})	3.5	3.5	Current level that returns maximum performance of the device
Q_{Cmax}	34.1	37.4	Heat load that is being pumped when T_{hot} is equal to T_{cold}
AC Resistance	3.85	4.31	Electrical resistance of device, must be tested with alternating current meter

Physical Characteristics (dimensions in millimeters, divide mm by 25.4 to convert to inches)



RoHS Compliant

Materials:

- Ceramic, Alumina 96% Al_2O_3
- Semiconductor Bi_2Te_3
- Solder Bismuth Tin BiSn 138°C

Product customization and enhancements available from Tellurex (subject to minimum order quantities, lead time, and availability)

- Z-Coat corrosion resistance
- Z-Seal dielectric protection
- Graphite thermal interface
- Height matching within groups
- Customer specified wire insulation and length

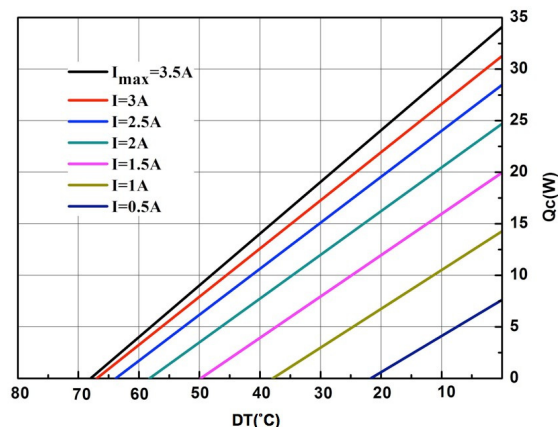
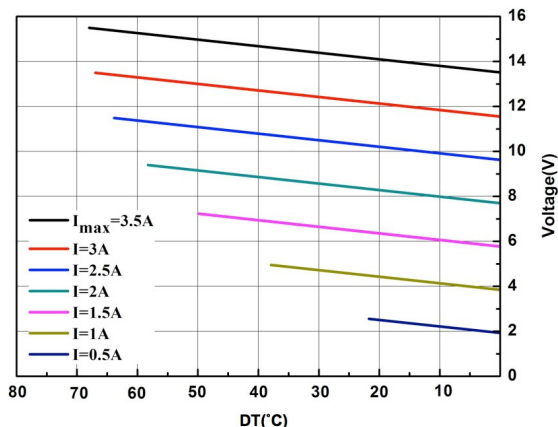
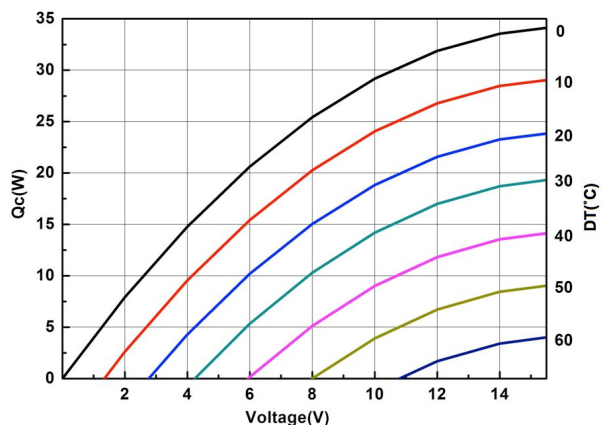
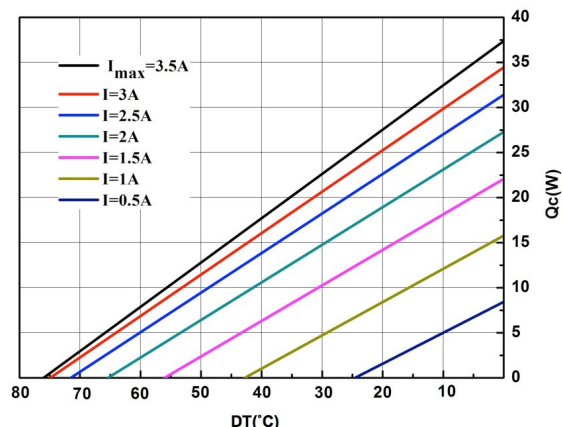
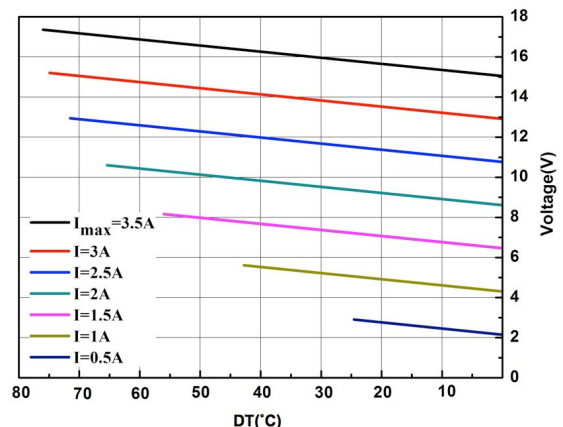
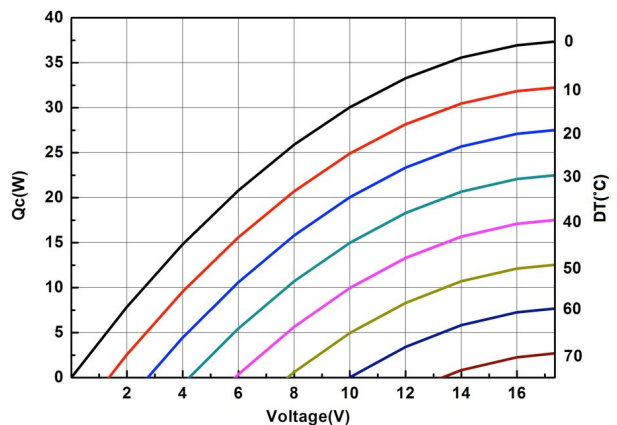
Operation Cautions:

- Do not apply power to device without heat sinking
- Do not exceed 100°C in operation or storage
- For optimal cooling performance, operate at or below I_{max} , V_{max}

Contact us...we're ready to help:

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C2-30-1503 Thermoelectric Module Performance Graphs

Performance Curves at $T_{hot} = 27^{\circ}\text{C}$
 Q_c v. ΔT under various currents

Voltage v. ΔT under various currents

 Q_c v. Voltage under various ΔT

Performance Curves at $T_{hot} = 50^{\circ}\text{C}$
 Q_c v. ΔT under various currents

Voltage v. ΔT under various currents

 Q_c v. Voltage under various ΔT


Performance Graphs and specifications are based on tests and measurements in controlled laboratory conditions.
 Actual performance in applications may be influenced by conditions not present in laboratory testing.
 Specifications and materials are subject to change without notice.