

# Thermoelectric module TM - 450-0.8-3.0



## Performance Data

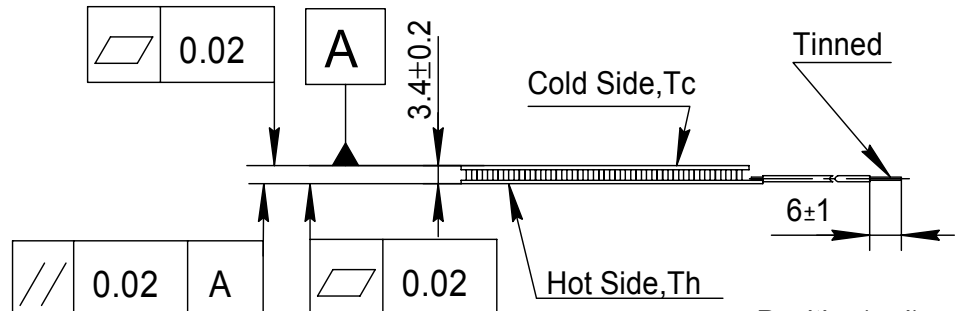
I <sub>max</sub> (amps)	3.3	$\Delta T = \Delta T_{max}$ . $T_h = 25 \pm 0.5$ °C.
V <sub>max</sub> (volts)	52	$T_h = 25 \pm 0.5$ °C. $\Delta T = \Delta T_{max}$ . $I = I_{max} \pm 0.1$ A
$\Delta T_{max}$ (°C)	71	$T_h = 25 \pm 0.5$ °C. $I = I_{max} \pm 0.1$ A
Q <sub>max</sub> (watts)	102	$T_h = T_c = 25 \pm 0.5$ °C. $I = I_{max} \pm 0.1$ A
AC resistance (ohms)	14	$25 \pm 0.5$ °C.

Environment: dry air, N<sub>2</sub>

Tolerances for thermal and electrical parameters  $\pm 10\%$

Drawing № ND 094.00.00

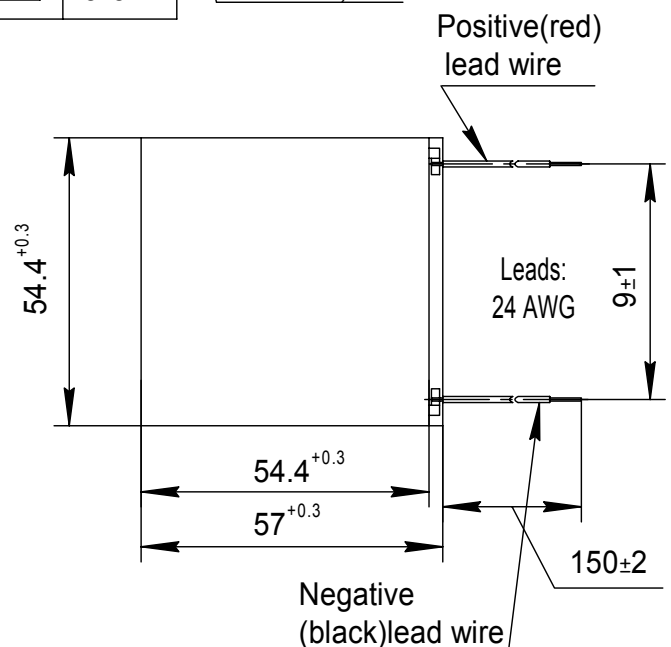
Dimensions in millimeters



## Options

Model Number	Description
TM-450-0.8-3.0 M	High reliable version on Cold Side
TM-450-0.8-3.0 MM	High reliable version on Hot Side and Cold Side

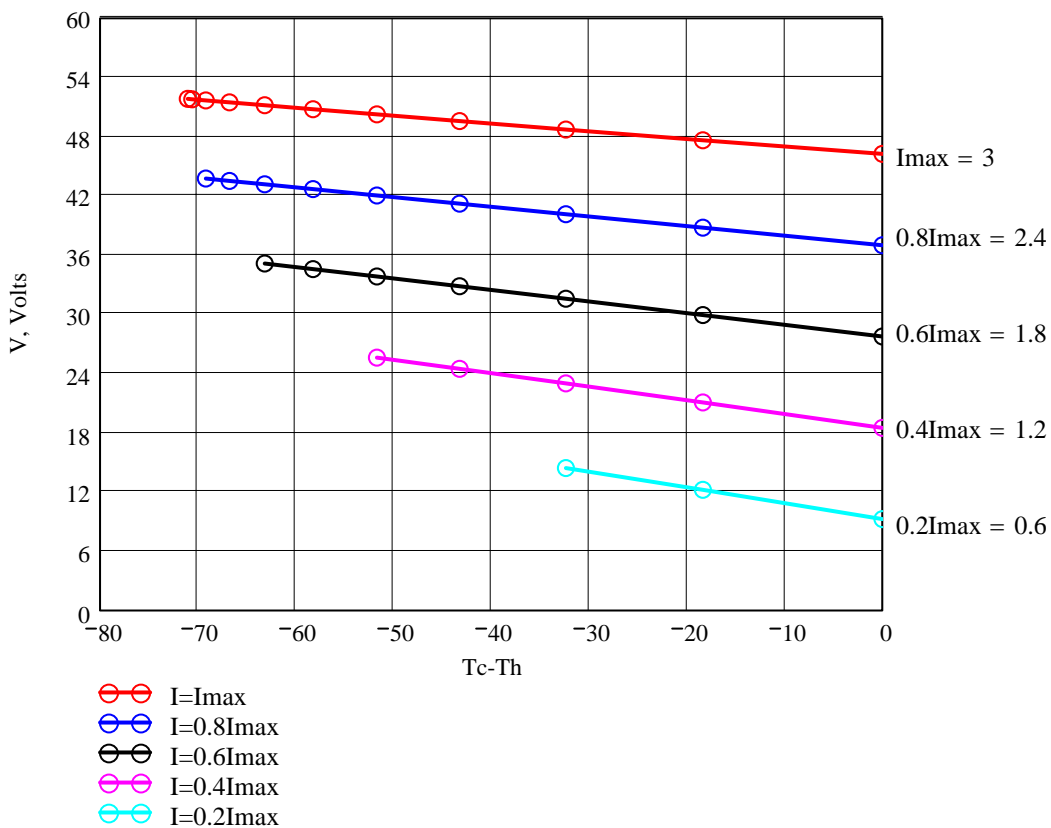
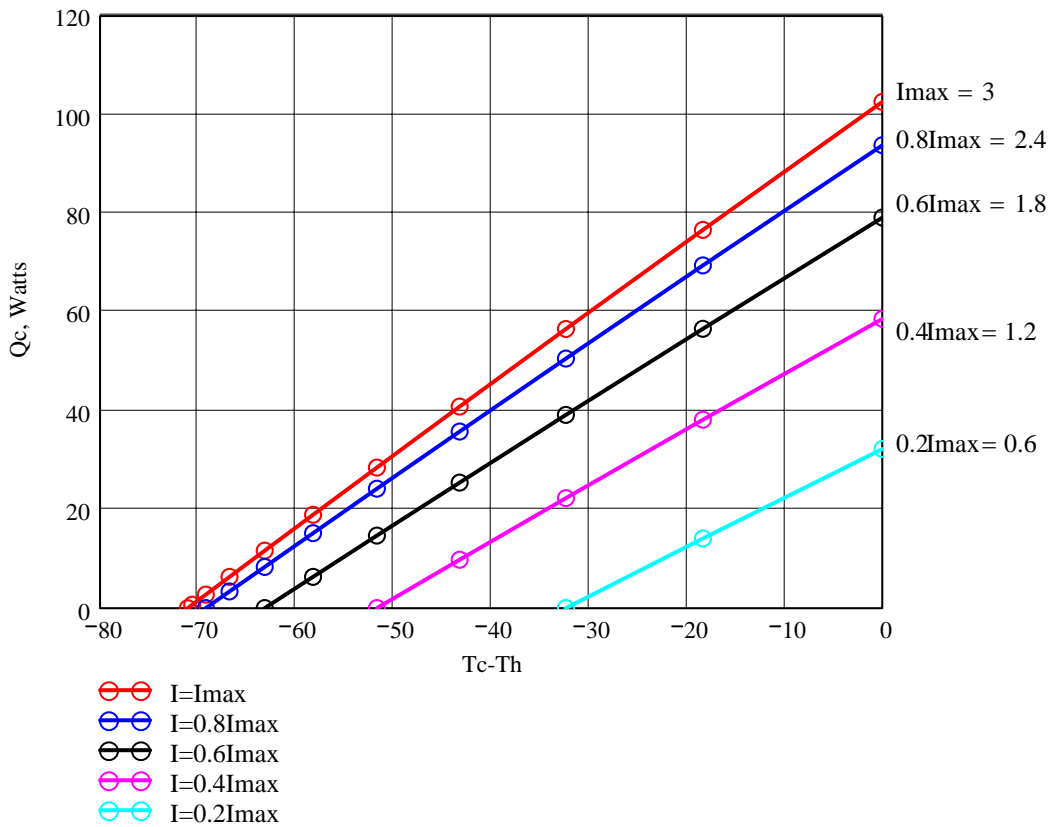
Lead wire insulation	Module maximum processing temperature
PVC	90°C
Silicone	200°C
PTFE	200°C



## Additional

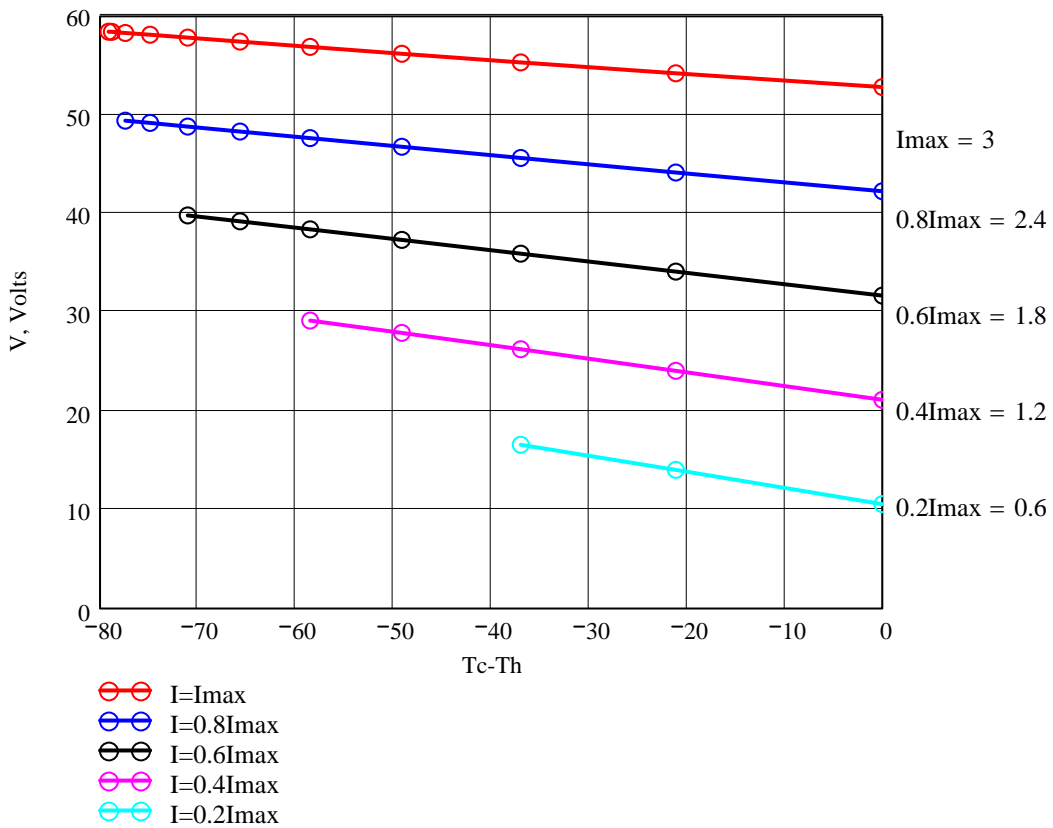
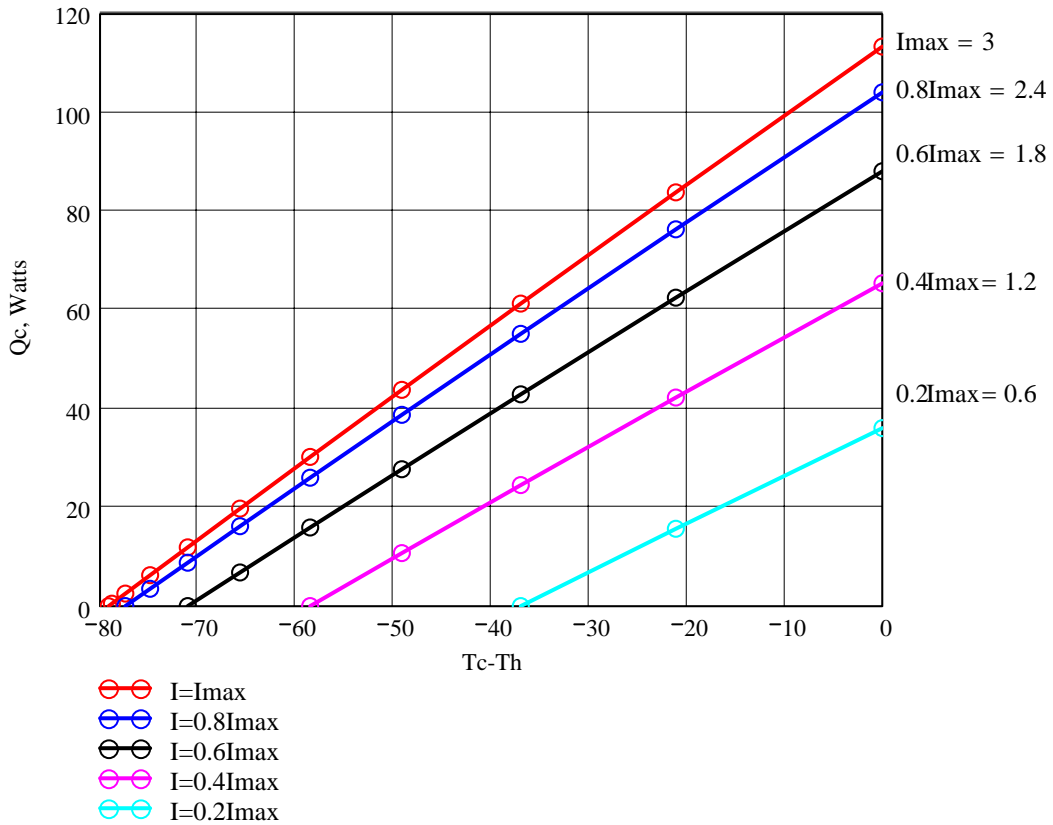
- RoHS 2002/95/EC compliant
- Cold Side and Hot Side Ceramics: Al<sub>2</sub>O<sub>3</sub>, white 96%
- Assembling Solder: SnSb, M.P. 232 °C ; SnCu M.P. 227 °C

Performance graphs for TM-450-0.8-3.0 modules at  $T_h=25\text{ }^\circ\text{C}$   
 Environment: dry air,  $N_2$



$Q_c$  -refrigerating capacity at cold side of the module (Watts),  
 $\Delta T = T_c - T_h$  - temperature difference between cold and hot sides of the module (°C),  
 $I$  - DC current through the modules (Amps)  
 $V$  -voltage applied to the module (Volts).

Performance graphs for TM-450-0.8-3.0 modules at  $T_h=50\text{ }^\circ\text{C}$   
 Environment: dry air,  $N_2$



$Q_c$  -refrigerating capacity at cold side of the module (Watts),  
 $\Delta T = T_c - T_h$  - temperature difference between cold and hot sides of the module ( $^\circ\text{C}$ ),  
 $I$  - DC current through the modules (Amps)  
 $V$  -voltage applied to the module (Volts).