

# Thermoelectric module TM - 63-1.0-3.9



## Performance Data

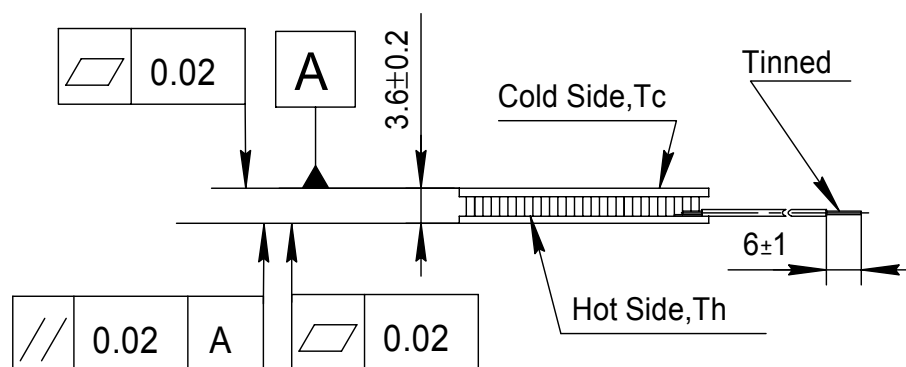
I <sub>max</sub> (amps)	4.2	ΔT=ΔT <sub>max</sub> . Th=25 ± 0.5 °C.
V <sub>max</sub> (volts)	7.2	Th=25 ± 0.5 °C. ΔT=ΔT <sub>max</sub> . I=I <sub>max</sub> ± 0.1A
ΔT <sub>max</sub> (°C)	71	Th=25 ± 0.5 °C. I=I <sub>max</sub> ± 0.1A
Q <sub>max</sub> (watts)	18.3	Th=T <sub>c</sub> =25 ± 0.5 °C. I=I <sub>max</sub> ± 0.1A
AC resistance (ohms)	1.5	25 ± 0.5 °C.

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

Tolerances for thermal and electrical parameters ± 10%

Drawing № ND 004.00.00

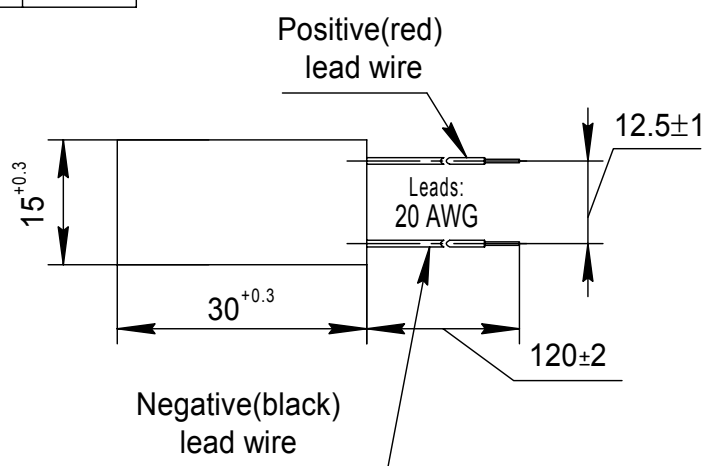
Dimensions in millimeters



## Options

Model Number	Description
TM-63-1.0-3.9 M	High reliable version on Cold Side

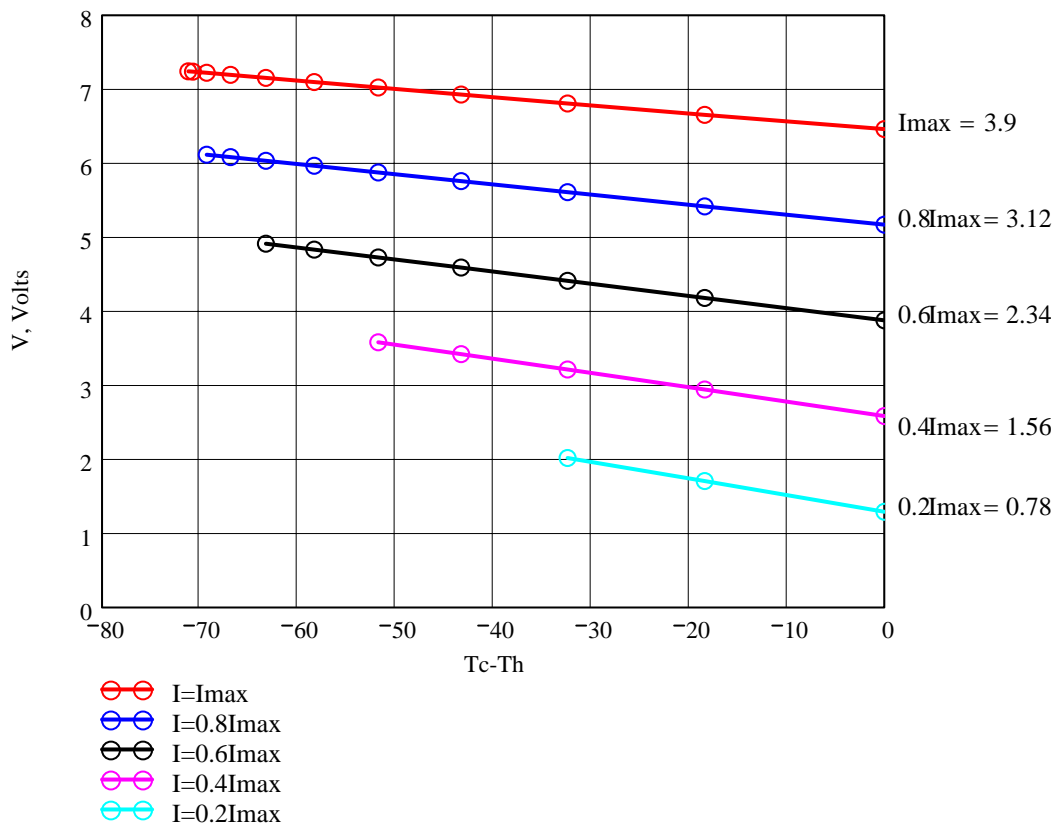
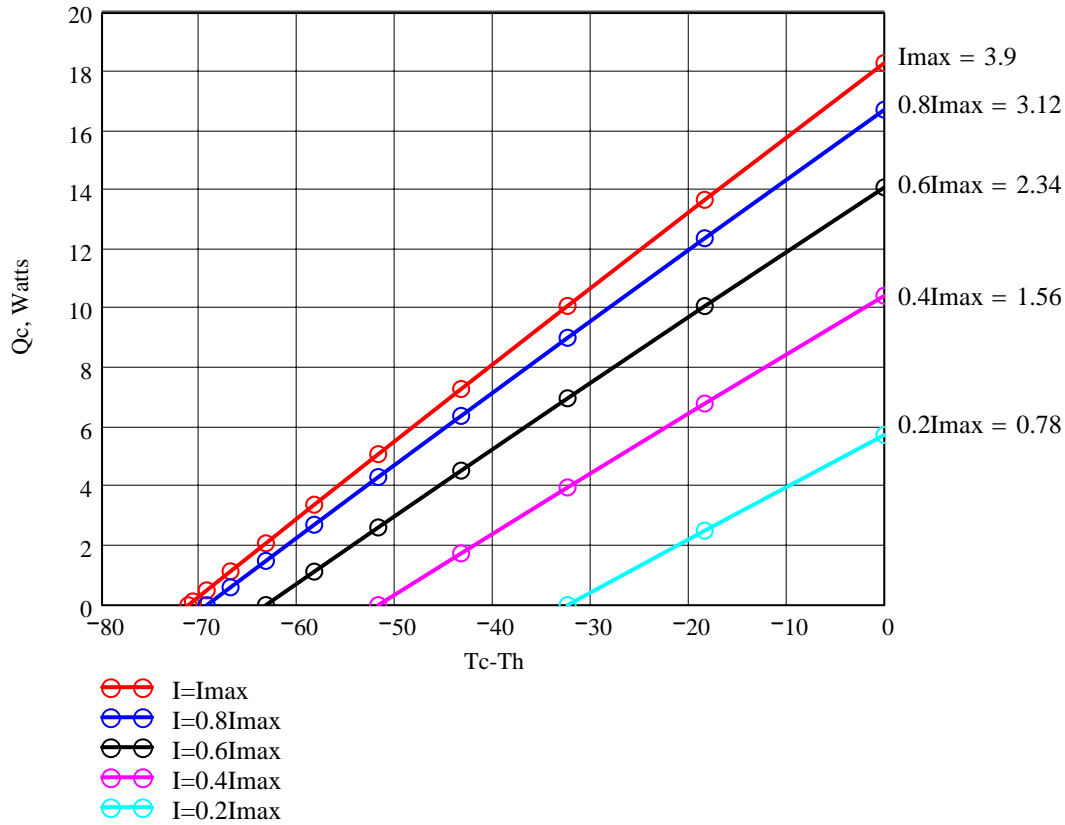
Lead wire insulation	Module maximum processing temperature
PVC	90°C
Silicone	200°C
PTFE	200°C



## 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-63-1.0-3.9 modules at Th=25 °C  
 Environment: dry air, N<sub>2</sub>



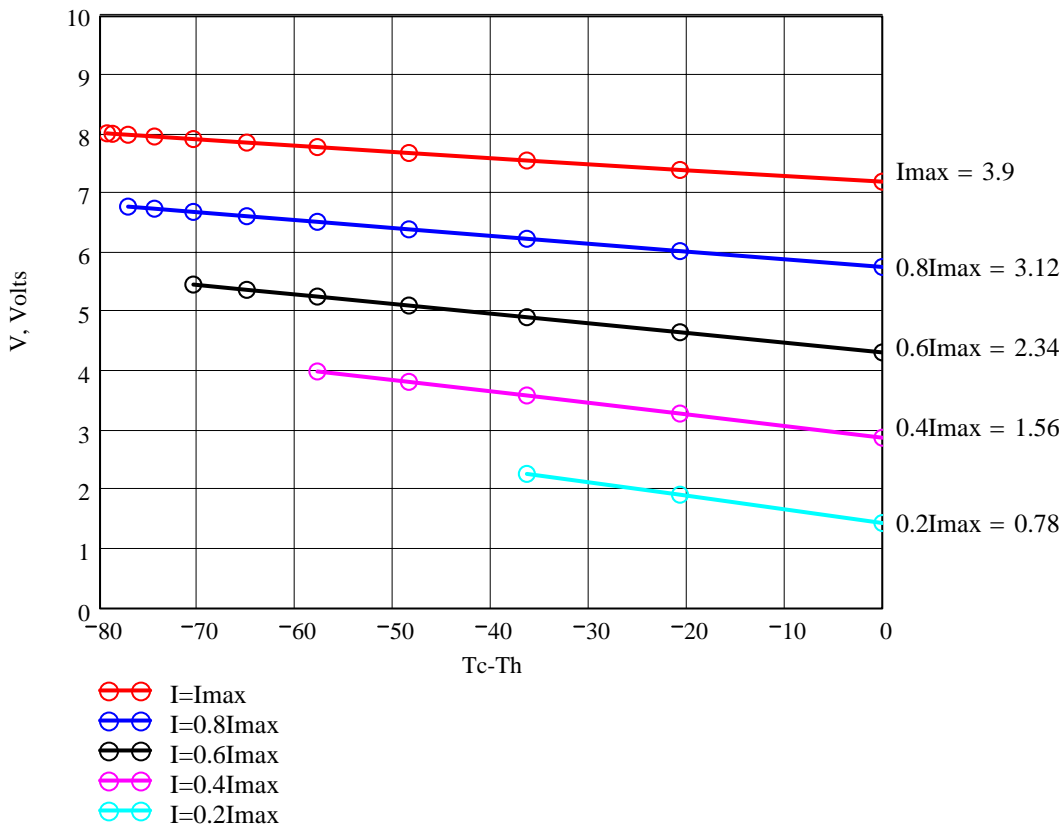
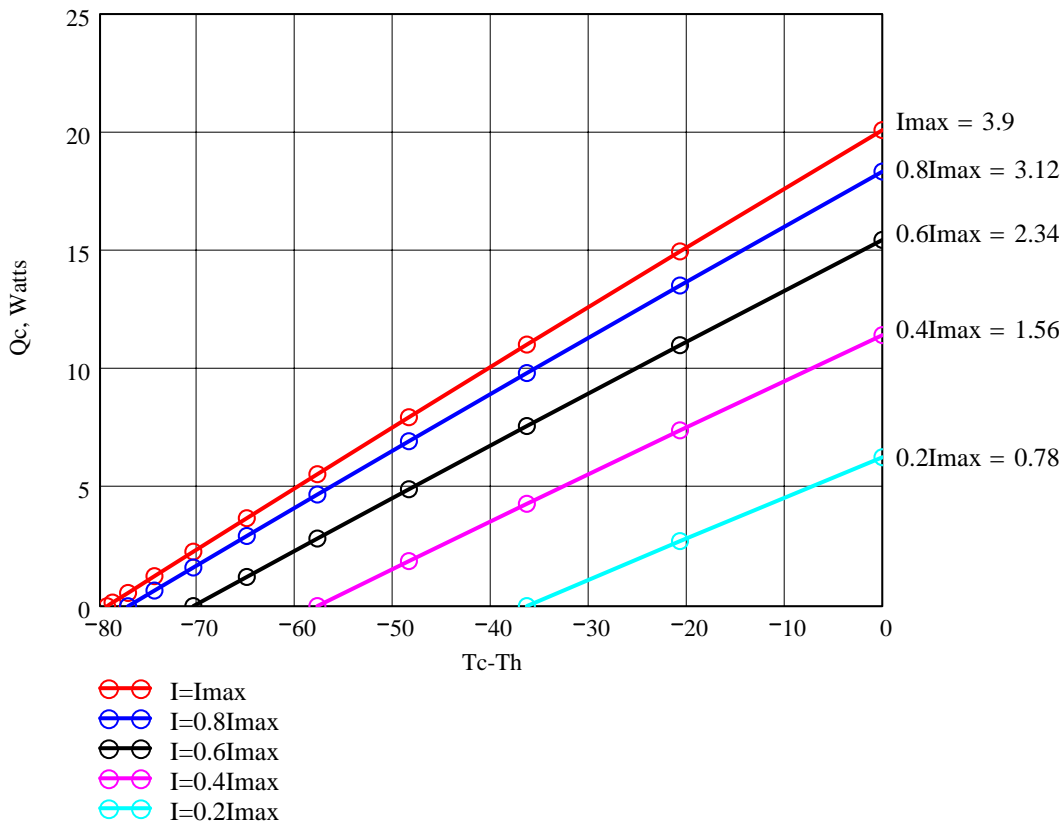
Q<sub>c</sub> -refrigerating capacity at cold side of the module (Watts),

ΔT=T<sub>c</sub>-T<sub>h</sub> - 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-63-1.0-3.9 modules at  $T_h=50\text{ }^\circ\text{C}$   
 Environment: dry air,  $\text{N}_2$



$Q_c$  -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).