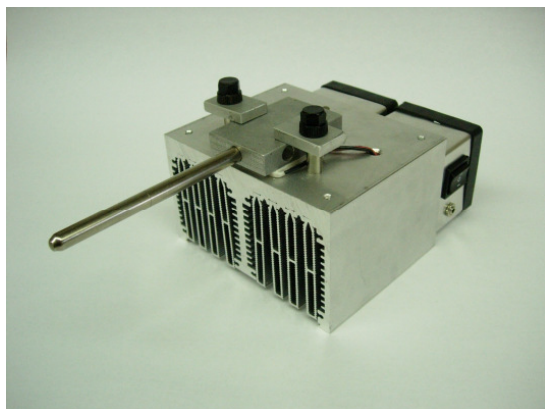




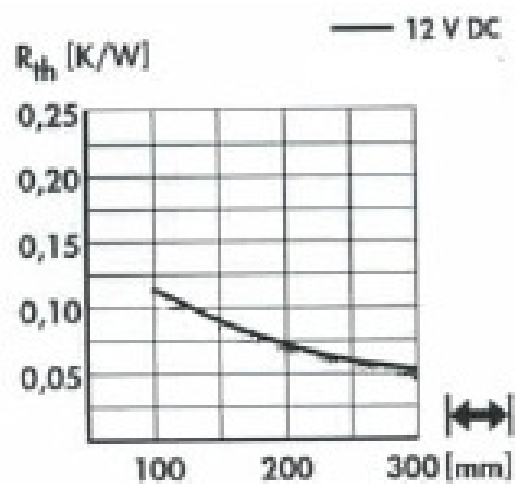
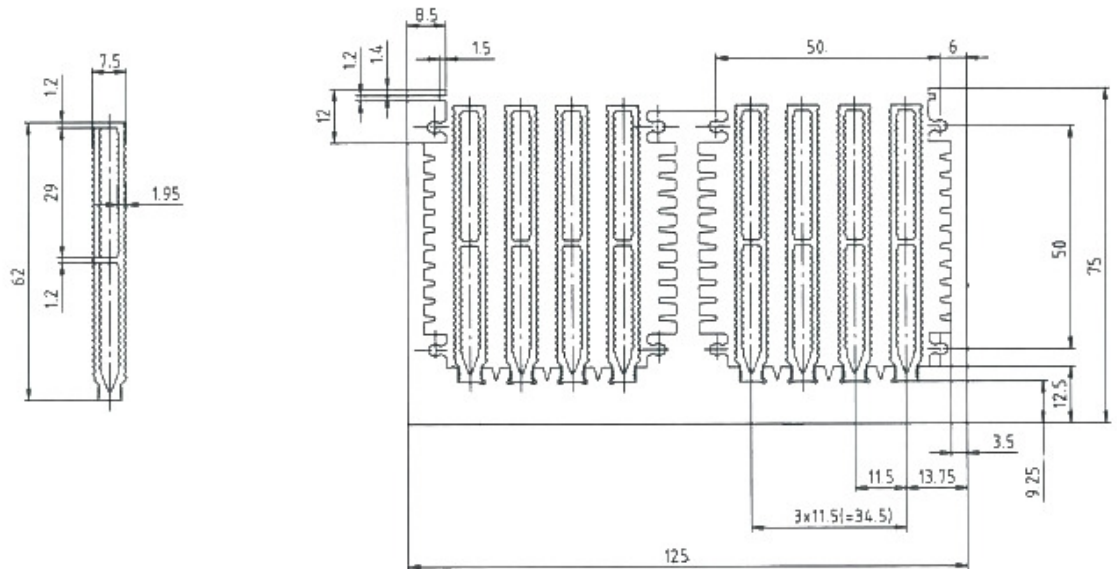
## Peltier-Explorer-Kit



Das Peltier-Explorer-Kit ist ein fertig aufgebauter Demonstrator zur Peltiertechnik. Mit ihm kann der Peltiereffekt sowie die Leistungsfähigkeit eines Peltierelementes demonstriert werden. Die massive Ausführung ermöglicht eigene Versuchsaufbauten. Darüber hinaus können Versuche zum Seebeck-Effekt (Thermogenerator) und mit Heatpipes durchgeführt werden.



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Elektrischer Anschluss: 12 Volt, max. 8,5A

Maße:

Länge: 150 mm

Breite: 125 mm

Höhe: 75mm (ohne Aufbauten)

Gewicht: 1250 gr. (ohne Aufbauten)

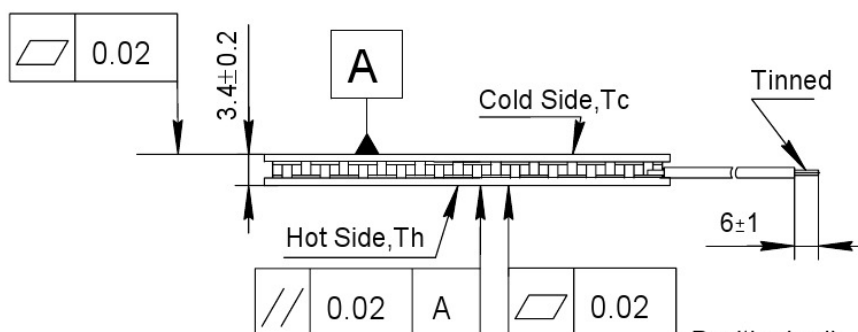
## Datenblatt Peltierelement: QC-127-1.4-8.5MS

I <sub>max</sub> (amps)	8.5	$\Delta T = \Delta T_{\text{max}}$ . $T_h = 25 \pm 0.5^\circ\text{C}$ .
V <sub>max</sub> (volts)	14.6	$T_h = 25 \pm 0.5^\circ\text{C}$ . $\Delta T = \Delta T_{\text{max}}$ . $I = I_{\text{max}} \pm 0.1\text{A}$
$\Delta T_{\text{max}}$ ( $^\circ\text{C}$ )	71	$T_h = 25 \pm 0.5^\circ\text{C}$ . $I = I_{\text{max}} \pm 0.1\text{A}$
Q <sub>max</sub> (watts)	74.8	$T_h = T_c = 25 \pm 0.5^\circ\text{C}$ . $I = I_{\text{max}} \pm 0.1\text{A}$
AC resistance (ohms)	1.5	$25 \pm 0.5^\circ\text{C}$ .

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

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

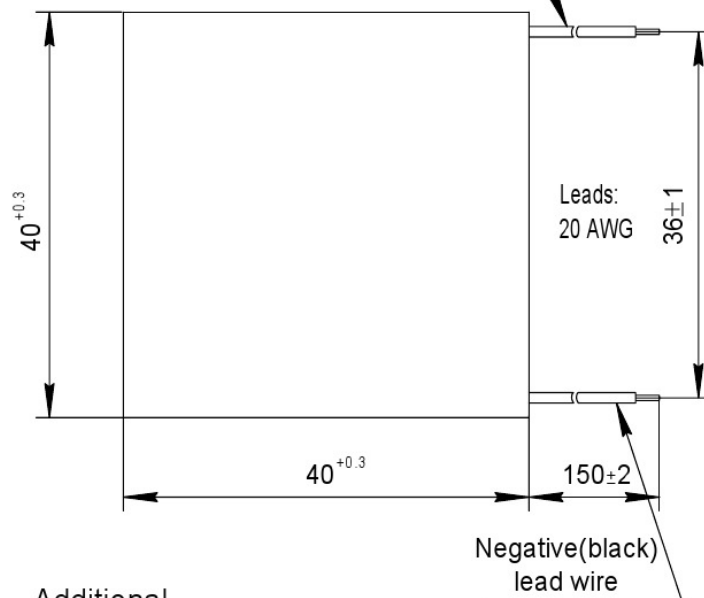
Dimensions in millimeters



### Options

Model Number	Description
QC-127-1.4-8.5	High reliable version on Cold Side

Lead wire insulation	Module maximum processing temperature
PVC	90 $^\circ\text{C}$
Silicone	200 $^\circ\text{C}$
PTFE	200 $^\circ\text{C}$

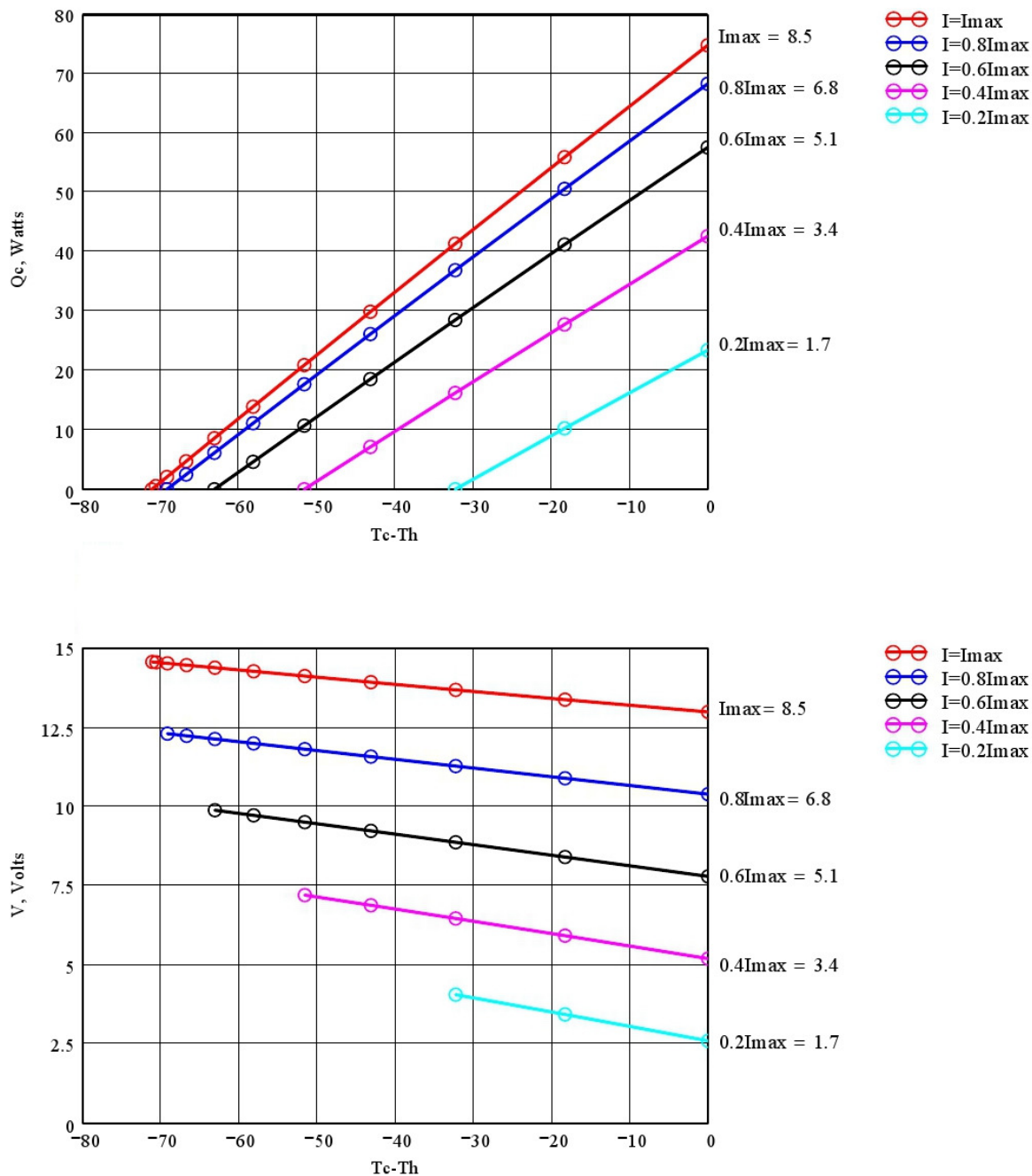


### Additional

- 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  $^\circ\text{C}$  ; SnCu M.P. 227  $^\circ\text{C}$



Performance graphs for QC-127-1.4-8.5MS modules at  $T_h=25^\circ\text{C}$   
Environment: dry air



$Q_c$  - refrigerating capacity at cold side of the module (Watts),

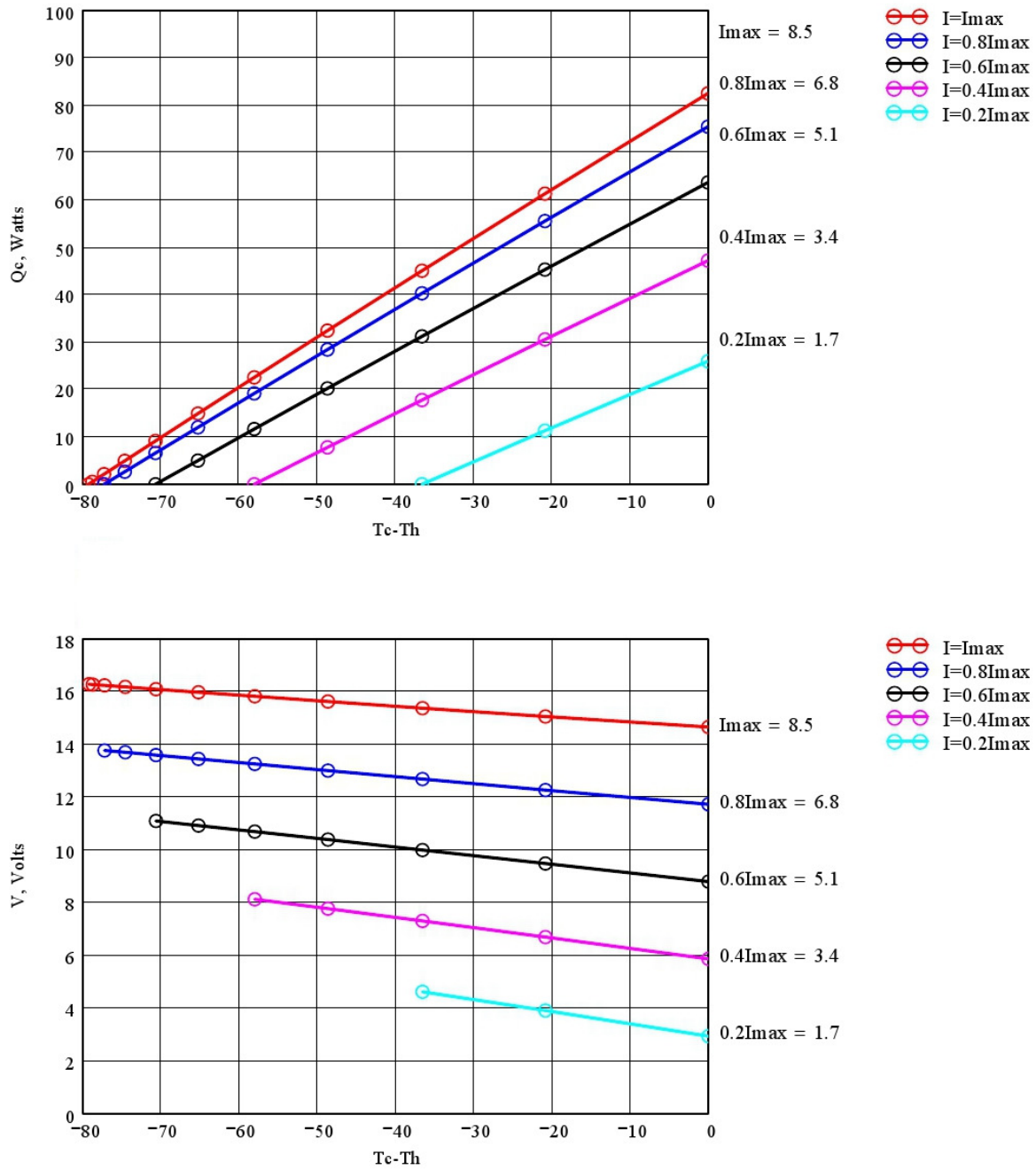
$\Delta T = T_c - T_h$  - temperature difference between cold and hot sides of the module ( $^\circ\text{C}$ ),

$I$  - DC current through the modules (Amps)

$V$  - voltage applied to the module (Volts).



Performance graphs for QC-127-1.4-8.5MS modules at  $T_h=50^\circ\text{C}$   
Environment: dry air



$Q_c$  - 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).