# **Peltier Cooler**





## Scope:

- · This specification is applied to Multicomp thermoelectric modules
- · Revision of these specifications is carried out after consent

## Specification:

#### 1. Parameters

| Parameters           |                         |          | Remarks |
|----------------------|-------------------------|----------|---------|
| Internal resistance  | 2.35Ω ± 10%             |          | Note-1  |
| lmax.                | 8.5A                    |          | Note-2  |
| Vmax.                | 24.1V                   |          | Note-3  |
|                      | Th=25°C                 | Th =50°C |         |
| Qmax.                | 118W                    | 132W     | Note-4  |
| ΔTmax.               | 68°C                    | 75°C     | Note-5  |
| Solder melting point | 138°C                   |          | Note-6  |
| Max. Compress.       | 98.07N/cm² (10 kgf/cm²) |          | Note-7  |

Note-1 Measured by AC 4-terminal method at 25°C.

Note-2 Maximum current at ΔTmax.

Note-3 Maximum voltage at ΔTmax.

Note-4 Maximum cooling capacity at Imax.,Vmax. and  $\Delta T = 0$ °C.

Note-5 Maximum temperature difference at Imax.,Vmax. and Q = 0W.

(Maximum parameters are measured in a vacuum 1.3P)

Note-6 The solder melting point of thermoelectric module

Note-7 Recommended maximum compression (not destruction limit)



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#### 2. Recommendations

- Operating range: -40°C to +90°C
- · Dropping or exerting mechanical shock will cause breakage, take care in handling
- · Thinly spread thermally conductive grease should be placed between module and heat exchanger
- · Surface deviation from flatness should be kept under 0.02mm
- · For optimum reliability and performance it is recommended that the module be utilised <0.7 Imax

### **Part Number Table**

| Description          | Part Number    |  |
|----------------------|----------------|--|
| Peltier Cooler, 118W | MCTE1-19908L-S |  |

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