# **SPECIFICATION**

Product: Thermoelectric module

Part Number: HPE-71-10-08

#### 1. Scope

- 1—1 This specification is applied to thermoelectric modules supplied by GCS
- 1—2 Revision of these specifications is carried out after consent.

#### 2. Specification

2 - 1 Parameters

Parameters			Remarks
Internal resistance	1.21 Ω ± 10%		Note-1
Imax.	6.0 A		Note-2
Vmax.	8.9 V		Note-3
	Th=25°C		
Qmax.	32.1 W		Note-4
⊿Tmax.	69°C		Note-5
solder melting point	138 ℃		Note-6
Maximum. compress.	1MPa		Note-7

- Note-1 Measured by AC 4-terminal method at 25°C.
- Note-2 Maximum current at ⊿Tmax.
- Note-3 Maximum voltage at ⊿Tmax.
- Note-4 Maximum cooling capacity at Imax., Vmax. and  $\Delta T = 0^{\circ}C$ .
- 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 -2 Recommendations:

- high cooling capacity from a small surface and long lifetime in power cycling applications with change of current
- operation temperature up to 90°C for long lifetime;
  with operation current close to 0.5 Imax extremely high COP (coefficient of performance possible)

## 2 - 3 Performance Graph (298K)



