

# SPECIFICATION

Product : Thermoelectric module

Part Number : HPE-200-14-06

## 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			Note-1
I <sub>max.</sub>	15.4 A		Note-2
V <sub>max.</sub>	24.8 V		Note-3
	Th=25°C	Th=50°C	
Q <sub>max.</sub>	232.0 W	249.4W	Note-4
ΔT <sub>max.</sub>	68°C	78	Note-5
solder melting point	138 °C		Note-6
Maximum. compress.	1MPa		Note-7

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

Note-2 Maximum current at ΔT<sub>max.</sub>

Note-3 Maximum voltage at ΔT<sub>max.</sub>

Note-4 Maximum cooling capacity at I<sub>max.</sub>,V<sub>max.</sub> and ΔT = 0°C.

Note-5 Maximum temperature difference at I<sub>max.</sub>,V<sub>max.</sub> and Q = 0W.

( Maximum parameters are measured in a vacuum 1.3P )

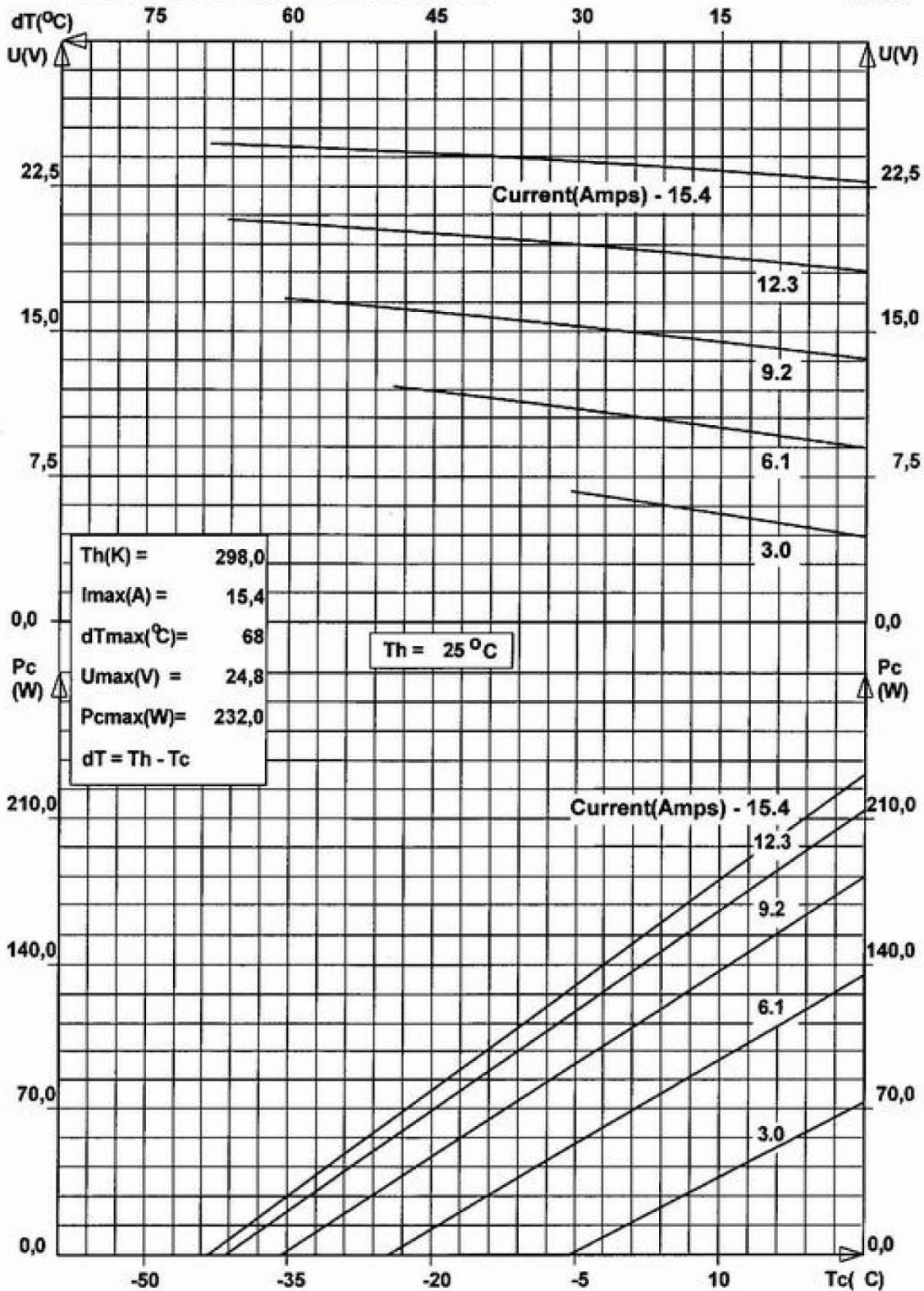
Note-6 The solder melting point of thermoelectric module

Note-7 Recommended maximum compression (not destruction limit)

2 -2 Recommendations:

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

2 - 3 Performance Graph (298K)



2 - 4 Performance Graph (323K)

