

Technical information : TERMoeLECTRICAL COOLERS MODULES - PELTIER

Description:

Peltier Coolers are thermocouple assembled between two **ceramic** sheets. They act as a **heat pump**. They require the usage of **heatsinks** to **spread** the heat pumped by Peltier cooler. A continuous voltage is produced to create a temperature difference of 70°C (between the ceramic sheets) for a single stage Peltier module.

Options: micro modules, single stage, multistage, thermal cycle modules, generating modules, reference black body...

Advantages

- Reliability, solid component, no fluid
- Temperature precision
- Compact
- Design assistance, possibility to supply an assembly with a thermal interface and a heatsink.

FEATURES

- Solid state reliability
- Built with high temperature solder with the ability to withstand higher assembly processing temperatures for short periods of time (<160°C)
- Superior nickel diffusion barriers of elements
- High strength for rugged environment
- Porched configuration for improved reliability in condensing environment
- RTV sealing option available to improve reliability in condensing environment
- Lapped option available for multiple module applications.

ORDERING OPTIONS

- Base Model
- Lapped Model
- Sealed Model
- Lapped and Sealed Model

PROPERTIES	VALUES					
	Thermoelectric Cooler 3-4		Thermoelectric Cooler 6-6		Thermoelectric Cooler 12-8	
Hot Side Temperature (°C)	27	50	27	50	27	50
Δt_{max} (°C-dry N ₂)	65	73	65	73	66	74
Q _{max} (watts)	9	10	30	33	71	78
I _{max} (amps)	3.7	3.7	5.6	5.6	7.4	7.4
V _{max} (vdc)	3.6	4.1	8.2	9.2	14.7	16.4
AC Resistance (ohms)	0.8	-	1.2	-	1.6	-