

Printed PTC Heaters



Cipem has developed printed heaters using Positive Temperature Coefficient (PTC) ink. The heaters are lightweight, thin and produce heat rapidly in a uniform fashion while remaining inherently safe. They are designed to generate heat up to a specified temperature to be chosen upon development of the necessary application, limited to specific temperatures.

Applications include a variety of possibilities, where uniform heating and a simple low cost solution is required. Installation is easy and the heating elements can be applied to a wide range of surfaces.

Applications

- Heated seats & beds
(medical & aero)
- Heated floors & walls
- Battery heaters
- Anti-condensation units
- Food warming
- Blood & IV bag heating
- Medical accessory heating
- Wing heating & de-icing
- Etc

Electrical Specifications

Set Temperature (standalone)	45°C to 85°C (at 25°C ambient temperature)
Power Density	Up to 3000W/m ²
Dielectric Strength	60GΩ at 500VDC typ
Electrical Interface	-Wire leads -2.54mm pitch connector (with or without latch) -ZIF termination -Other configurations available upon request
Input Voltage	5V to 300V (AC or DC)
Drive Current	-Max 3A (start-up less than 1 min) -Max 1A (steady state)

Mechanical Specifications

Thickness	0.5mm typical
Flexibility (min. bend radius)	1 cm
Weight	0.6kg/m ² (at thickness = 0.5mm)

Environmental & Certifications

Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 85°C
Humidity	95% RH @ 40°C
Certifications	RTCA/DO-160, ASTM Section 10, certifiable to CSA



**Responsible & Innovative.
Printed Electronics Manufacturer.**

cipem | ihm

For more information, get in touch with one of our experts at IHM or CIPEM.

We're here to support and nurture your project.

79 Chemin des Près Bouvaux
74600 Seynod
France

info-ihm@cipem.fr
+33 (0) 4 50 68 25 25