Printed PTC Heaters



e₂ip technologies 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/m² (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

Transforming the surfaces we touch in our everyday lives.

For more information, speak with a specialist at e₂ip technologies.

We're always looking forward to hearing from you!

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