



Ice Protection Systems

Providing mission and safety-critical ice protection system solutions



Key features

- Very high efficiency and low thermal losses allows the system to be passively cooled.
- Designs to cater to AC and DC power supplies.
- Can operate as an anti-ice or de-ice system.
- Very high reliability proven in service.
- Systems for aerodynamic surface de-icing, and engine inlets.
- Precise control of heated surface temperatures – only heat as much as needed.
- Heater mat technology can be shaped and fitted to complex geometries.
- Can be used to detect ice.
- Fast over-current detection protects the structure.
- Fault tolerant designs.

Overview

With over 15 years' experience, Ultra PCS is the market leader in developing innovative electro-thermal Ice Protection System solutions for the Aerospace industry. We have teamed successfully with heater mat providers, to provide a complete ice protection system capability. Our systems are designed to operate in either an anti-icing, de-icing or hybrid mode. We cater to a range of ice protection requirements; from simple, time/voltage, on-off control through to very complex multi-zone, closed loop feedback control.

Existing products include the Boeing 787 Wing Ice Protection System, the Lockheed F-35 Engine Inlet Ice Protection System, helicopter engine inlet ice protection controllers, and propeller de-ice controllers.

Our Ice Protection Systems

Tailored to your needs:

The Ultra PCS Ice Protection Systems can be tailored to your ice protection and safety case requirements. Single and multi-lane control can be used depending on the safety case.

Ultra PCS can provide modular centralised solutions, or distributed architectures depending on the application needs.

Interfaces

Ultra PCS can provide dynamic harness solutions for applications where the heated elements are on moving parts of the structure.

Environment

Controllers can be designed to be installed in avionics racks, or to be installed in engine mounted or externally mounted environments.

