



## 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 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.

## Our ice protection systems

### Tailored to your needs:

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

### Interfaces

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

