

INFORMATION ABOUT THE STANDARD EN 50536:2011 (Protection against lightning -Thunderstorm warning systems)

REDUCTION IN RISK USING PREVENTIVE LIGHTNING STORM DETECTION

This European Standard has its origins in the serious threat to humans and property involved in this destructive atmospheric phenomenon.

Each year, due to the direct or indirect effects of lightning strikes, property damage and also serious injuries or deaths of humans occurs, affecting the activity of both public and private sectors. The proliferation of electronic and data equipment, which is extremely sensitive to electro-atmospheric disturbances, has increased substantially the losses caused by this natural phenomenon.

The standard identifies the following circumstances of risk:

- Prevention of environmental disasters in activities where an accident could involve serious consequences for the environment, for instance the manufacturing or use of chemical, flammable, radioactive, toxic or explosive products.
- Prevention of workplace risk in case of thunderstorms.
- Buildings, transport or facilities with public external open areas.
- Prevention of losses in industrial processes and operations.
- Sensitive goods protection: computers, electric or electronic controls, emergency, alarm or security systems.
- Basic services which continuity has to be assured: telecommunications, power supply, energy transport and distribution, health and emergency services.
- People in open areas: multitudinous events, sport competitions and industry, farming or fishing activities.
- Infrastructures: harbours, airports, trains, roads, highways, etc.
- Areas where there is a need of protection to the people and the environment: prevention of forest fires, etc.

The standard includes a guide to determine the usefulness of a storm warning system providing advance information of the atmospheric electrical activity, giving the possibility of taking the temporal preventive measures that have previously been determined by the user in the emergency protocols.

Examples of possible temporary preventive measures:

- Alert the people responsible using optical, acoustic, GSM or any other warning system
- Switching on auxiliary power generators
- Disconnecting critical systems if they are sensitive to electro-atmospheric disturbances.
- Suspension of hazardous activities.
- Evacuation of exposed areas.

Aplicaciones Tecnológicas, S.A. technical department offers for free this analysis according to the standard for a given location. We also work together with the clients having multiple locations for determining their global thunderstorm detection needs according to the standard EN 50536:2011 with the aim of decreasing hazardous situations that are identified in this standard and were described above.

ATSTORM®v2 is a Class I thunderstorm detector, based on electric field measurement that reports of all phases of a storm thus allowing a lead time of several tens of minutes to take pre-set preventive actions.

http://www.at3w.com/site/upload/ficheros/at3w_english_preventive.zip