

Foreword

This British Standard has been prepared by Technical Committee GEL/81 and supersedes BS 6651:1992, which is withdrawn.

Some of the changes introduced since the publication of the previous edition include:

- the provision of a new lightning flash density map (Figure 1), compiled from data accumulated over the last ten years;
- a simple calculation, based on IEC findings, relating to buildings with cantilevered upper floors and the risk of side flashing from external down conductors to persons standing under the overhang;
- modifications to Figure 13 to clarify the positioning of air terminals on buildings with sloping roofs;
- modifications to Figure 28 to give additional information relating to flashover voltage through cracks in mortar and brickwork.

Corrigendum No. 1 (September 2000) makes corrections to the following:

- Figure 1; Table 1, last row; Table 9, row 3;
- Table 10, title and heading of column 1; Table 13, rows a) and f);
- Figure 13a, diagram 3; 19.2.1.4 equation in example of use of equation (6);
- 19.3.9 (deletion of last three paragraphs); 27.7 item a).

The principle informing all the provisions of this British Standard is that of the "Faraday cage" form of lightning protection. The Technical Committee is aware of development and research on other technologies in the field of lightning protection that has been taking place in recent years, but it is the Committee's considered opinion that the materials, extent and dimensions of the air terminations, down conductors, earth terminations, bonding, components, etc. as laid down in this code of practice be adhered to in full, irrespective of any devices or systems employed which are claimed to provide enhanced protection.

This standard is intended to provide guidance on the principles and practice that experience has shown to be important in protecting structures against damage from lightning. It examines the characteristics of the lightning phenomenon and indicates the statistical nature of the evidence on which assessments for protection are based. Guidance is also provided on the need for protection for structures in general and for specific structures that are considered to be most at risk; these recommendations are an economic compromise between absolute protection and the cost of the installation.

The protection of electronic equipment against lightning continues to be the subject of standardization work in the international and European Standards fora. However, until definitive European Standards are available for adoption as British Standards, the Technical Committee maintains the general advice on the subject which is given in annex C.

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

WARNING Attention is drawn to the danger of installing or carrying out maintenance work on lightning protection systems or surge protection devices during a storm.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

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