

Safety in electroheat installations —

Part 5: Specifications for safety in plasma installations

ICS 25.180.10

National foreword

This Draft for Development is the UK implementation of IEC/TS 60519-5:2008.

This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional nature. It should be applied on this provisional basis, so that information and experience of its practical application can be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the international organization responsible for its conversion to an international standard. A review of this publication will be initiated not later than three years after its publication by the international organization so that a decision can be taken on its status. Notification of the start of the review period will be made in an announcement in the appropriate issue of *Update Standards*.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into an international Standard, to extend the life of the Technical Specification or to withdraw it. Comments should be sent to the Secretary of the responsible BSI Technical Committee at British Standards House, 389 Chiswick High Road, London W4 4AL.

The UK participation in its preparation was entrusted to Technical Committee PEL/27, Electroheating.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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TECHNICAL SPECIFICATION

**Safety in electroheat installations –
Part 5: Specifications for safety in plasma installations**

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SAFETY IN ELECTROHEAT INSTALLATIONS –

Part 5: Specifications for safety in plasma installations

1 Scope and object

This Technical Specification specifies safety requirements applicable to

- a) thermal plasma torch systems:
 - arc plasma systems,
 - inductive plasma systems;
- b) installations using plasma torch systems:
 - spraying equipment,
 - solid, liquid and gaseous charge heating and thermochemical treatment equipment.

For both plasma torch systems and installations using plasma torch systems, this specification determines safety requirements for all components, including the electrical equipment, the cooling circuits, the gas supply circuits, the furnace or reactor and more generally, all other equipment associated with the use of the furnace or reactor.

Safety and construction requirements for plasma torches for welding, cutting and allied processes are specified in IEC 60974-7.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-841:2004, *International Electrotechnical Vocabulary – Part 841: Industrial electroheat*

IEC 60519-1:2003, *Safety in electroheat installations – Part 1: General requirements*

IEC/TS 60680, *Test methods of plasma equipment for electroheat and electrochemical applications*

CISPR 11, *Industrial, scientific and medical (ISM) radio-frequency equipment – Electromagnetic disturbance characteristics – Limits and methods of measurement*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-841, IEC 60519-1 and IEC/TS 60680 apply.