**IS/IEC 60519-4: 2021**

***भारतीय मानक Indian Standards***

इलेक्ट्रोहीटिंग और इलेक्ट्रोमैग्नेटिक

प्रोसेसिंग के लिए संस्थापनों मैं सुरक्षा

भाग 4 आर्क फरनेस की संस्थापना के लिए विशेष अपेक्षाएं

Safety in Installations for Electroheating and Electromagnetic Processing

Part 4 Particular Requirements for Arc Furnace Installations

ICS 25.180.10

© BIS 2024

© IEC 2021



****भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG

NEW DELHI - 110002

[www.bis.gov.in](http://www.bis.org.in) [www.standardsbis.in](http://www.standardsbis.in)

**November 2024 Price Group x**

Industrial Process Measurement and Control Sectional Committee, ETD 18

NATIONAL FOREWORD

This Indian Standard which is identical with IEC 60519-4: 2021 “Safety in installations for electroheating and electromagnetic processing – Part 4: Particular requirements for arc furnace installations” issued by the International Electrotechnical Commission (IEC) was adopted by the Bureau of Indian Standards on the recommendation of the Industrial Process Measurement and Control Sectional Committee and approval of the Electrotechnical Division Council.

This Indian Standard is published in several parts. The other parts in this series are:

|  |  |
| --- | --- |
| Part 1 | General Requirements |
| Part 3 | Particular Requirements for Induction and Conduction Heating and Induction Melting Installations |
| Part 6 | Particular Requirements for High Frequency Dielectric and Microwave Heating and Processing Equipment |
| Part 8 | Particular requirements for Electroslag Remelting Furnaces |

This Standard supersedes IS 9080 (Part 4): 1981 ‘Safety requirements in electro – Heat installations: Part 4 particular requirements for arc furnace installations’. After the publication of this standard, IS 9080 (Part 4): 1981 shall be treated as withdrawn.

The text of the IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

1. Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
2. Comma (,) has been used as a decimal marker, while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to International Standards for which Indian Standards also exists. The corresponding Indian Standards, which are to be substituted, are listed below along with their degree of equivalence for the editions indicated:

|  |  |  |
| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| IEC 61936-1:2021, Power  installations exceeding 1 kV AC  and 1,5 kV DC - Part 1: AC | IS/IEC 61936-1:2021 Power installations exceeding 1 kV ac Part 1: Common Rules | Identical |
| IEC 60060-3, High-voltage test  techniques – Part 3: Definitions  and requirements for on-site  Testing | IS/IEC 60060-3 : 2006 High - Voltage test techniques: Part 3  definitions and requirements for on – Site testing | Identical |
| IEC 60519-1:2020, Safety in  installations for electroheating and  electromagnetic processing – Part  1: General requirements | IS/IEC 60519-1 : 2020 Safety In Installations For Electroheating And Electromagnetic  Processing - Part 1: General Requirements | Identical |

The technical committee has reviewed the provisions of the following international standards referred in this adopted standard and decided that they are acceptable for use in conjunction with this standard.

|  |  |
| --- | --- |
| *International Standard* | *Title* |
| ISO 13577-1:2016 | Industrial furnaces and associated processing equipment – Safety – Part 1: General requirements |
| ISO 13578:2017 | Industrial furnaces and associated processing equipment – Safety requirements for machinery and equipment for production of steel by electric arc furnaces |

Only English language text has been retained while adopting it in this Indian Standard, and as such the page numbers given here are not the same as in the International Standard.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.