***भारतीय मानक***

***Indian Standard***

**IS/** **IEC TS 60079-43:2017**

**विसफोटी पर्यावरण**

**भाग 43 प्रतिकूल सेवा शर्तों में उपकरण**

**Explosive Atmospheres**

**Part 43: Equipment in adverse service conditions**

ICS 29.260.20

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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NATIONAL FOREWORD

This Indian Standard which is identical with IEC TS 60079-43 “Explosive atmospheres – Part 43: Equipment in adverse service conditions” issued by the International Electrotechnical Commission (IEC) was adopted by the Bureau of Indian Standards on the recommendation of the Electrical Apparatus for Explosive Atmosphere Sectional Committee and approval of the Electrotechnical Division Council.

This Indian Standard provides guidance for equipment for use in explosive atmospheres in environments which may include ambient temperatures below –20 °С, and additional adverse conditions, including maritime applications.

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

1. Wherever the words ‘International Standard’ appear 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 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 60034-5, Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) - Classification | IS/IEC 60034-5 : 2000  Rotating electrical machines: Part 5 degrees of protection provided by the integral design of rotating electrical machines (IP Code) – Classification (Second Revision) | Identical |
| IEC 60068 (all parts), Environmental testing | IS/IEC 60068 (all parts), Environmental testing | Identical |
| IEC 60079-0, Explosive atmospheres - Part 0: Equipment - General requirements | IS/IEC 60079-0 : 2017 Explosive Atmospheres Part 0 Equipment — General Requirements (Third Revision ) | Identical |
| IEC 60079-11, Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i" | IS/IEC 60079-11: 2023 Explosive Atmospheres Part 11 Equipment Protection | Identical |
| IEC 60079-14, Explosive atmospheres - Part 14: Electrical installations design, selection and erection | IS 16724 : 2018 Explosive atmospheres - Electrical installations design, selection and erection | Modified/Technically equivalent with IEC 60079-14 : 2013 |
| IEC 60079-17, Explosive atmospheres Part 17: Electrical installations inspection and maintenance | IS/IEC 60079-17 : 2013 Explosive atmospheres Part 17: Electrical installations inspection and maintenance (First Revision) | Identical |
| IEC 60529, Degrees of protection provided by enclosures (IP Code) | IS/IEC 60529 : 2001 Degrees of protection provided by enclosures (IP Code) | Identical |
| IEC 60721-1, Classification of environmental conditions  - Part 1: Environmental parameters and their severities | IS 13736 (Part 1) : 2018  Classification of environmental conditions Part 1 Environmental parameters and their severities (First Revision) | Identical with IEC 60721-1 : 2002 |
| IEC 60721-2-1, Classification of environmental conditions - Part 2-1: Environmental conditions appearing in nature - Temperature and humidity | IS 13736 (Part 2/Sec 1) : 2020 Classification of Environmental Conditions Part 2 Environmental Conditions Appearing in Nature Section 1 Temperature and humidity (First Revision) | Identical with IEC 60721-2-1 : 2013 |

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* |
| *IEC TR 60721-4 (all*  *parts)* | *Classification of environmental conditions* |

Only the 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 IEC Publication.

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 or analysis shall be rounded off in accordance with IS 2: 2022 ‘Rules for rounding of 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.