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Draft Indian Standard

**Explosive atmospheres –
Part 43: Equipment in adverse service conditions**

Electrical Apparatus for Explosive Atmosphere
Sectional Committee, ETD 22

Last date of receipt of
comments: **02 July 2023**

NATIONAL FOREWORD

This draft 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) will be adopted by the Bureau of Indian Standards on the recommendation of the Electrical Apparatus for Explosive Atmosphere Sectional Committee.

This draft Indian Standard provides guidance for equipment for use in explosive atmospheres in environments which may include ambient temperatures below $-20\text{ }^{\circ}\text{C}$, 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:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) 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:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
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"	[Doc. ETD 22 (22394)WC Under preparation]	Identical to IEC 60079 : PART 11: 2023 (<i>Second Revision</i>)
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.

<i>International Standard</i>	<i>Title</i>
<i>IEC TR 60721-4 (all parts)</i>	<i>Classification of environmental conditions</i>

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.

Note: The technical content of the document is not available on website. For details, please refer the corresponding IEC TS 60079-43:2017 or kindly contact:

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