***भारतीय मानक***

***Indian Standard***

 **IS 12032: 2024**

 **IEC 60617: 2024**

[Superseding IS 12032 (Part 1): 1987

 IS 12032 (Part 2): 1987

 IS 12032 (Part 3): 1987

 IS 12032 (Part 4): 1987

 IS 12032 (Part 6): 1987

 IS 12032 (Part 7): 1987

 IS 12032 (Part 8): 1987

 IS 12032 (Part 10): 1991

 IS 12032 (Part 11): 1987]

**इलेक्ट्रोटेक्नोलॉजी के क्षेत्र में आरेखों के लिए आलेखी चिह्न**

**Graphical Symbols for Diagrams in the field of Electrotechnology**

ICS 01.080.10; 01.080.30; 29.020; 29.130.01; 31.260; 33.020

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Basic Electrotechnical Standards and Power Quality Sectional Committee, ETD 01

NATIONAL FOREWORD

This draft Indian Standard which is identical with IEC 60617: 2024 database “Graphical symbols for diagrams” issued by the International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Basic Electrotechnical Standards and Power Quality Sectional Committee and approval of the Electrotechnical Division Council.

It is common in electrical engineering practice to employ graphical symbols to denote the various means and devices used when making diagrams of connections. With the object of making these diagrams easily understandable and universal in meaning, it became necessary to standardize the basic symbols for various devices which are commonly used in the field of electrical engineering. Consequently, work on standardization of graphical symbols for diagrams in the field electrotechnology began around the year 1960 and since then several standards have been brought out covering symbols applicable to specific areas in the field. Over the years, some of these have also undergone significant updating to keep pace with additional needs and developments at the international level.

In selecting and devising these symbols, the objective has been to ensure that symbols, as far as possible are self-explanatory and easy to draw in general use. However, over the years a strong need has emerged to present standardized graphical symbols in as precise and condensed form as possible, and at the same time not losing sight of the technical advancement in the field.

This standard covers the graphical symbols for diagrams in the field of Electrotechnology previously covered in IS 12032 (Part 1): 1987, IS 12032 (Part 2): 1987, IS 12032 (Part 3): 1987, IS 12032 (Part 4): 1987, IS 12032 (Part 6): 1987, IS 12032 (Part 7): 1987, IS 12032 (Part 8): 1987, IS 12032 (Part 10): 1991, IS 12032 (Part 11): 1987 identical to IEC 60617-1: 1985, IEC 60617-2: 1983, IEC 60617-3: 1983, IEC 60617-4: 1983, IEC 60617-6: 1983, IEC 60617-7: 1983, IEC 60617-8: 1983, IEC 60617-10: 1983 and IEC 60617-11: 1987 respectively.

The IEC 60617 Parts mentioned in the fourth paragraph have been withdrawn by IEC and the graphical symbols for use in electrotechnical diagrams have been subsequently incorporated into a standard which is brought out as a database and named as IEC 60617: 2024 DB. The incorporation of the symbols into the database has been accompanied by the addition of symbol name, usage, keywords, remarks, etc. and has also provided classified views (by shape, function and application). It is therefore a much richer and more user-friendly tool for those who need to understand and apply graphical symbols in electrotechnical diagrams.

This standard supersedes IS 12032 (Part 1): 1987, IS 12032 (Part 2): 1987, IS 12032 (Part 3): 1987, IS 12032 (Part 4): 1987, IS 12032 (Part 6): 1987, IS 12032 (Part 7): 1987, IS 12032 (Part 8): 1987, IS 12032 (Part 10): 1991 and IS 12032 (Part 11): 1987.

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 fact that wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.