

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

Uninterruptible power systems (UPS) - Part 1: Safety requirements

(First Revision of IS 16242 Part 1)

(ICS 29.200)

Power Electronics Sectional
Committee, ETD 31

Last date for comments - 11/12/2024

NATIONAL FOREWORD

This Draft Indian Standard (Part 1) (First Revision) which is identical with IEC 62040-1:2017+AMD1: 2021+AMD2: 2022 CSV 'Uninterruptible power systems (UPS) - Part 1: Safety requirements' issued by the International Electrotechnical Commission (IEC) is proposed to be adopted by the Bureau of Indian Standards on the recommendation of the Power Electronics Sectional Committee and approval of the Electrotechnical Division Council.

This standard was originally published in 2014. The first revision of this standard has been undertaken to align it with the latest version of IEC 62040-1: 2017+AMD1: 2021+AMD2: 2022 CSV.

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:

- a) Wherever the words 'International Standard' appears 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 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:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60947-2:2006, Low-voltage switchgear and controlgear – Part 2: Circuit-breakers	IS/IEC 60947-2 : 2016 Low - Voltage switchgear and controlgear Part 2 Circuit - Breakers (<i>first revision</i>)	Identical

IEC 60950-1:2005, Information technology equipment – Safety – Part 1: General requirements	IS 13252 (Part 1) : 2010/ IEC 60950 Part 1:2005 Information technology equipment - Safety Part 1 General requirements (<i>second revision</i>)	Identical
IEC 61008-1, Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – Part 1: General rules	IS 12640 (Part 1) : 2016/ IEC 61008-1 : 2012 Residual current operated circuit Breakers without integral overcurrent protection for household and similar uses (Rccbs) Part 1 General rules (<i>second revision</i>)	Identical
IEC 61009-1, Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) – Part 1: General rules	IS 12640 (Part 2) : 2016/ IEC 61009-1 : 2012 Residual current operated circuit - Breakers with integral overcurrent protection for household and similar uses (Rcbos): Part 2 general rules	Identical
IEC 62040-2:2005, Uninterruptible power systems (UPS) – Part 2: Electromagnetic compatibility (EMC) requirements	IS 16242 (Part 2) : 2020/ IEC 62040-2 : 2020 Uninterruptible Power Systems UPS Part 2 Electromagnetic Compatibility EMC Requirements (<i>first revision</i>)	Identical

The technical committee has reviewed the provision of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
IEC 60364-4-42	Low-voltage electrical installations – Part 4-42: Protection for safety – Protection against thermal effects
IEC 60384-14	Fixed capacitors for use in electronic equipment – Part 14: Sectional specification – Fixed capacitors for electromagnetic interference suppression and connection to the supply mains
IEC TR 60755	General requirements for residual current operated protective devices
IEC 61000-2-2:2002	Electromagnetic compatibility (EMC) – Part 2-2: Environment – Compatibility levels for low-frequency conducted disturbances and signaling in public low voltage power supply systems

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.

NOTE — The technical content of their document has not been enclosed as there are identical with the corresponding IEC standards for details, please refer the corresponding IEC 62040-1:2017+AMD1: 2021+AMD2: 2022 CSV or kindly contact:

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