

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

Uninterruptible power systems (UPS) – Part 5-3: DC output UPS – Performance and test requirements

(ICS 29.200)

Power Electronics Sectional
Committee, ETD 31

Last date for comments-05/09/2024

NATIONAL FOREWORD

This Draft Indian Standard which is identical with IEC 62040-5-3:2016 ‘Uninterruptible power systems (UPS) – Part 5-3: DC output UPS – Performance and test 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.

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 60068-2-1, Environmental testing – Part 2-1: Tests – Test A: Cold	IS/IEC 60068-2-1) : 2007 Environmental Testing Part 2 Tests Section 1 Test A: Cold	Identical
IEC 60068-2-2, Environmental testing – Part 2-2: Tests – Test B: Dry heat	IS/IEC 60068-2-2) : 2007 Environmental Testing Part 2: Tests - Test B Section 2: Dry Heat	Identical
IEC 60068-2-27, Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock	IS 9000 (Part 7/Sec 1) : 2018/ IEC 60068-2-27 : 2008 Basic environmental testing procedures for	Identical

	electronic and electrical items: Part 7 impact test: Sec 1 shock (Test Ea) (<i>Second Revision</i>)	
IEC 60068-2-31, Environmental testing – Part 2-31: Tests – Test Ec: Rough handling shocks, primarily for equipment-type specimens	IS 9000 (Part 7/Sec 3) : 2019/ IEC 60068-2-31 : 2008 Environmental testing: Part 7 tests :: Sec 3 test Ec: rough handling shocks, primarily for equipment - Types specimens (<i>First Revision</i>)	Identical
IEC 60068-2-78, Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state	IS 9000 (Part 4) : 2020/ IEC 60068-2-78 : 2012 Environmental Testing Part 4 Tests - Test Cab: Damp Heat, Steady State (<i>Second Revision</i>)	Identical
IEC 60146-1-1:2009, Semiconductor converters – General requirements and line commutated converters – Part 1-1: Specification of basic requirements	IS 16539 (Part 1/Sec 1) : 2017/ IEC 60146-1-1 : 2009 Semiconductor Converters Part 1 General and Line Commutated Converters Section 1 Specification of basic requirements	Identical
IEC 60146-2, Semiconductor converters – Part 2: Self-commutated semiconductor converters including direct d.c converters	IS 16539 (Part 1/Sec 1) : 2017/ IEC 60146-1-1 : 2009 Semiconductor Converters Part 1 General and Line Commutated Converters Section 1 Specification of basic requirements	Identical
IEC 61672-1, Electroacoustics – Sound level meters – Part 1: Specifications	IS 15575 (Part 1) : 2016/ IEC 61672-1: 2013 Electroacoustics - Sound level meters: Part 1 specifications (<i>First Revision</i>)	Identical
IEC 62040-1, Uninterruptible power systems (UPS) – Part 1: General and safety requirements for UPS	IS 16242 (Part 1) : 2014/ IEC 62040-1 : 2008 Uninterruptible power systems (UPS): Part 1 general and safety requirements for UPS	Identical
IEC 62040-2, 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 60364-1:2005	Low-voltage electrical installations – Part 1: Fundamental principles, assessment of general characteristics, definitions
IEC TR 60721-4-3	Classification of environmental conditions - Part 4-3: Guidance for the correlation and transformation of environmental condition classes of IEC 60721-3 to the environmental tests of IEC 60068 - Stationary use at weatherprotected locations

IEC 61000-2-2:2002	Electromagnetic compatibility (EMC) – Part 2-2: Environment – Compatibility levels for low-frequency conducted disturbances and signalling in public lowvoltage power supply systems
ISO 7779	Acoustics – Measurement of airborne noise emitted by information technology and telecommunications equipment

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 62040-5-3:2016 or kindly contact:

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