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Draft Indian Standard

Low-Voltage Surge Protective Devices - Part 32: Surge Protective Devices Connected to the d.c. Side of Photovoltaic Installations - Selection and Application Principles

ICS 29.240.01; 29.240.10

Surge Arrester Sectional Committee, ETD 30	Last date of receipt of comment **20-10-2025**

NATIONAL FOREWORD

This draft Indian Standard which is identical with IEC 61643-32:2017 "Low-voltage surge protective devices - Part 32: Surge protective devices connected to the d.c. side of photovoltaic installations - Selection and application principles" issued by the International Electrotechnical Commission (IEC) will be adoptedby the Bureau of Indian Standards on the recommendation of the Power Systems Relays Sectional Committee and approval of the Electrotechnical Division Council.

This standard provides information for the selection of SPDs connected to photovoltaic installations.

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 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:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*

IEC 60364-7-712:2017, Low voltage electrical installations – Part 7-712: Requirements for special installations or locations – Solar photovoltaic (PV) power supply systems	IS 16997: 2018 IEC 60364-7-712, Requirements for Low-Voltage Special Electrical Installations or Locations Solar Photovoltaic (PV) Power Supply Systems	Identical
IEC 60664-1:2007, Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests	Insulation coordination for equipment within low - Voltage systems: Part 1 principles, requirements and tests (First Revision) (Withdrawn)	Identical
IEC 61000-4-5:2014, Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test	IS 14700 (Part 4/Sec 5): 2019 IEC 61000-4-5: 2017, Electromagnetic compatibility (EMC): Part 4 testing and measurement techniques: Sec 5 surge immunity test (First Revision)	Identical
IEC 61643-11:2011, Low-voltage surge protective devices – Part 11: Surge protective devices connected to low-voltage power systems – Requirements and test methods	IS 16463 (Part 11): 2016 IEC 61643-11: 2011, Low - Voltage surge protective devices: Part 11 surge protective devices connected to low - Voltage power systems - Requirements and test methods	Identical
IEC 61643-12, Low-voltage surge protective devices – Part 12: Surge protective devices connected to low-voltage power distribution systems – Selection and application principles	IS 16463 (Part 12): 2017 IEC 61643-12: 2008, Low - Voltage surge protective devices: Part 12 surge protective devices connected to low - Voltage power distribution systems - Selection and application principles	Identical
IEC 62305-2, Protection against lightning – Part 2: Risk management	IS/IEC 62305-2: 2010, Protection against lightning: Part 2 risk management	Identical
IEC 62305-3:2010, Protection against lightning – Part 3: Physical damage to structures and life hazard	IS/IEC 62305-3: 2010 IEC 62305-3, Protection against lightning: Part 3 physical damage to structures and life hazard	Identical
IEC 62305-4, Protection against lightning – Part 4: Electrical and electronic systems within structures	IS/IEC 62305-4: 2010, Protection against lightning: Part 4 electrical and electronic systems within stuctures	Identical

The technical committee has reviewed the provisions of the following international standards referred inthis adopted standard and decided that they are acceptable for use in conjunction with this standard.

International Standard	*Title*
IEC 60364-4-44:2007	Low-voltage electrical installations – Part 4-44: Protection for safety– Protection against voltage disturbances and electromagnetic disturbances IEC 60364-4-44:2007/AMD1:2015
IEC 60364-5-53:2015	Electrical installations of buildings – Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control
IEC 60364-5-54	Low-voltage electrical installations – Part 5-54: Selection and erection of electrical equipment – Earthing arrangements and protective conductors
IEC 61643-21	Low voltage surge protective devices – Part 21: Surge protective devices connected to telecommunications and signalling networks – Performance requirements and testing methods
IEC 61643-22	Low-voltage surge protective devices – Part 22: Surge protective devices connected to telecommunications and signalling networks – Selection and application principles
IEC 61643-31	Low-voltage surge protective devices – Part 31: Surge protective devices connected to the DC side of photovoltaic installations – Requirements and test methods1
ITU-T	Recommendation K.20, Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents
ITU-T	Recommendation K.21, Resistibility of telecommunication equipment installed in customer premises to overvoltages and overcurrents

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 61643-32:2017 or kindly contact:

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