

**BUREAU OF INDIAN STANDARDS**  
**DRAFT FOR COMMENTS ONLY**

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*Draft Indian Standard*

**Photovoltaic (PV) Modules – Transportation Testing**  
**Part 1: Transportation and Shipping of Module Package Units**

(ICS 27.160)

Solar Photovoltaic Energy Systems  
Sectional Committee, ETD 28

Last Date- 30 08 2024

**NATIONAL FOREWORD**

This draft Indian Standard (Part 1) which is identical with IEC 62759 -1: 2022 ‘Photovoltaic (PV) Modules Transportation Testing Part 1 Transportation and Shipping of Module Package Units’ issued by the International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Solar Photovoltaic Energy Systems 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 60068-2-27: 2008, 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 Electronic and Electrical Items Part 7 Impact Test Section 1 Shock (Test Ea) ( <i>Second Revision</i> )	Identical

IEC TS 60904-13, Photovoltaic devices – Part 13: Electroluminescence of photovoltaic modules	IS 12762 (Part 13) : 2020 / IEC TS 60904-13 : 2018 Photovoltaic Devices Part 13 Electroluminescence of Photovoltaic Modules	Identical
IEC 61215-1:2021, Terrestrial Photovoltaic (PV) Modules – Design Qualification And Type Approval – Part 1: Test Requirements	IS 14286 (Part 1) : 2019 IEC 61215-1 : 2022 Terrestrial Photovoltaic (PV) Modules — Design Qualification and Type Approval Part 1 Test Requirements ( <i>Second Revision</i> )	Identical
IEC 61215-2: 2021, Terrestrial Photovoltaic (PV) Modules – Design Qualification And Type Approval – Part 2: Test Procedures	IS 14286 (Part 2) : 2019 / IEC 61215-2 : 2021 Terrestrial Photovoltaic (PV) Modules — Design Qualification and Type Approval Part 2 Test Procedures ( <i>Second Revision</i> )	Identical
IEC 61730-2: 2022, Photovoltaic (PV) Module Safety Qualification – Part 2: Requirements For Testing	IS/IEC 61730-2 : 2016 Photovoltaic (PV) Module Safety Qualification Part 2 Requirements for Testing ( <i>First Revision</i> )	Identical
IEC TS 61836, Solar photovoltaic (PV) energy systems – Terms, definitions and symbols	IS 12834 : 2023 / IEC TS 61836 : 2016 Solar Photovoltaic Energy Systems - Terms, Definitions and Symbols ( <i>Second Revision</i> )	Identical
IEC TS 62782: 2016, Photovoltaic (PV) modules – Cyclic (dynamic) mechanical load testing	IS/IEC TS 62782 : 2016 Photovoltaic (PV) Modules — Cyclic (Dynamic) Mechanical Load Testing	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>
ASTM D880-92	Standard Test Method for Impact Testing for Shipping Containers and Systems
ASTM D4169-16	Standard Practice for Performance Testing of Shipping Containers and Systems
ASTM D4728:2006	Standard Test Method for Random Vibration Testing of Shipping Containers
ASTM D5277-92	Test method for performing programmed horizontal impact using an inclined impact tester
ISTA 3E:2017	Unitized Loads of Same Product

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 the document is not available on website. For details, please refer the corresponding IEC 62759-1: 2022 or kindly contact:

Head  
Electrotechnical Department  
Bureau of Indian Standards  
9, B.S. Zafar Marg,  
New Delhi-110002  
Email: [eetd@bis.gov.in](mailto:eetd@bis.gov.in)  
Telephone/ fax: 011-23231192