

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Junction boxes for photovoltaic modules – Safety requirements and tests

Boîtes de jonction pour modules photovoltaïques – Exigences de sécurité et essais



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CONTENTS

FOREWORD	5
1 Scope	7
2 Normative references	7
3 Terms and definitions	9
4 Constructional requirements and performance	13
4.1 General.....	13
4.2 Marking and identification	14
4.2.1 Identification.....	14
4.2.2 Marking	14
4.2.3 Technical documentation	15
4.3 Protection against electric shock.....	15
4.4 Terminations, connecting devices and connection methods	15
4.5 Connectors	16
4.6 Cables	16
4.7 Resistance to ageing	16
4.8 General design	16
4.9 Degree of protection (IP).....	17
4.10 Dielectric strength.....	17
4.11 Range of ambient temperature.....	17
4.12 Cable anchorage.....	17
4.13 Mechanical strength.....	17
4.14 Insulation	18
4.14.1 Type of insulation	18
4.14.2 Basic insulation	18
4.14.3 Supplementary insulation.....	18
4.14.4 Double insulation	18
4.14.5 Reinforced insulation	18
4.15 Clearances and creepage distances.....	19
4.15.1 Clearances	19
4.15.2 Creepage distances.....	19
4.16 Insulation parts	21
4.16.1 Outer accessible parts	21
4.16.2 Inner parts keeping active parts in position	21
4.17 Current carrying parts and resistance against corrosion	21
4.18 Sealing	22
4.19 Bypass-diode	22
4.20 Knock-out inlets (outlets) intended to be removed by mechanical impact	22
5 Tests	22
5.1 General.....	22
5.2 Preparation of specimens	23
5.3 Performance of tests.....	25
5.3.1 General	25
5.3.2 Durability of marking.....	25
5.3.3 Fixing of lid on rewirable junction box	25
5.3.4 Protection against electric shock	25
5.3.5 Measurement of clearances and creepage distances	26

5.3.6	Dielectric strength.....	26
5.3.7	Resistance to corrosion	26
5.3.8	Mechanical strength at lower temperatures.....	26
5.3.9	Thermal cycle test (IEC 60068-2-14:2009, Test Nb).....	27
5.3.10	Damp heat test	28
5.3.11	Weather resistance test	28
5.3.12	Flammability class	28
5.3.13	Ball pressure test.....	29
5.3.14	Glow wire test.....	29
5.3.15	Resistance against ageing.....	29
5.3.16	Wet leakage current test.....	29
5.3.17	Humidity freeze test.....	30
5.3.18	Bypass diode thermal test.....	30
5.3.19	Test of terminations and connection methods	31
5.3.20	Knock-out inlets (outlets) intended to be removed by mechanical impact	32
5.3.21	Test of cord anchorage	32
5.3.22	Retention on the mounting surface	34
5.3.23	Reverse current test at junction box.....	34
5.4	Test schedule	35
Annex A (informative)	Symbol "Do not disconnect under load"	45
Annex B (normative)	Qualification of conformal coatings for protection against pollution.....	46
B.1	General.....	46
B.2	Technical properties	46
B.3	Qualification of coatings.....	46
Annex C (normative)	Measurement of clearances and creepage distances	49
Bibliography	53
Figure 1	– Thermal cycling test – Temperature and applied current profile.....	40
Figure 2	– Humidity-freeze cycle.....	41
Figure 3	– Typical arrangement for the cable anchorage pull test.....	41
Figure 4	– Typical arrangement for torsion test.....	42
Figure 5	– Typical arrangement for flammability test in accordance with 5.3.12.2.....	42
Figure 6	– Measurement of voltage drop	43
Figure 7	– Bypass diode thermal test	43
Figure 8	– Proper attachment of 5 N weight to junction box.....	44
Figure A.1	– Symbol "DO NOT DISCONNECT UNDER LOAD"	45
Figure A.2	– Symbol "DO NOT DISCONNECT UNDER LOAD" (IEC 60417-6070:2011-06)....	45
Figure C.1	– Examples of methods of measuring clearances and creepage distances.....	52
Table 1	– Required type of insulation	18
Table 2	– Rated impulse voltages and minimum clearances.....	19
Table 3	– Creepage distances for basic insulation	20
Table 4	– Number of specimens.....	23
Table 5	– Values of torque for screw-type clamping units.....	24
Table 6	– Pull forces for cord anchorage.....	33

Table 7 – Values for torsion test 34

Table 8 – Marking, information, documentation, test group A 35

Table 9 – Material test, test group B (single tests) 36

Table 10 – Constructional requirements, test group C (single tests)..... 37

Table 11 – Mechanical tests, test group D (single tests) 37

Table 12 – Test sequence I, test group E (tests to be performed consecutively in this order)..... 38

Table 13 – Test sequence II, test group F (tests to be performed consecutively in this order)..... 38

Table 14 – Test sequence III, test group G (tests to be performed consecutively in this order)..... 39

Table 15 – Test sequence IV, test group H (tests to be performed consecutively in this order)..... 39

Table 16 – Reverse current test, test group I 39

Table 17 – Test sequence V, test group J (tests to be performed consecutively in this order)..... 40

Table B.1 – Test parameters, test conditions and test procedures..... 47

Table B.2 – Test sequence and conformity check (tests to be performed consecutively in this order) 48

Table C.1 – Dimensions of *X*..... 49

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**JUNCTION BOXES FOR PHOTOVOLTAIC MODULES –
SAFETY REQUIREMENTS AND TESTS**

FOREWORD

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International Standard IEC 62790 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

This second edition cancels and replaces the first edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Modifications in normative references and terms and definitions;
- b) Improvement of declaration of categories for junction boxes in 4.1;
- c) Clarification for ambient temperature in 4.1;
- d) Addition of requirement to provide information concerning RTE/RTI or TI in 4.2;
- e) Reference to IEC 62930 instead of EN 50618 in 4.6;
- f) Addition of "Functional insulation" in Table 1;

- g) Addition of "Distance through cemented joints" in Table 3;
- h) Correction of procedure of process to categorize material groups (deletion of PTI) in 4.15.2.3;
- i) Requirement for approval of RTE/RTI or TI for insulation parts in 4.16.1 and 4.16.2;
- j) Change of requirements concerning electrochemical potential in 4.17.2;
- k) Clarification for IP-test in 5.3.4.2;
- l) Addition of test voltage for cemented joints in 5.3.6 and 5.3.16;
- m) Addition of detailed description on how to prepare the test sample for the thermal cycle test in 5.3.9.1;
- n) New test procedure for bypass diode thermal test (5.3.18) in accordance with MQT 18.1 of IEC 61215-2:2016;
- o) New test procedure for reverse overload current test in 5.3.23;
- p) New Figure 1 for thermal cycle test.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
82/1719/FDIS	82/1738/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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