

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Mechanical structures for electronic equipment – Outdoor enclosures –
Part 2: Coordination dimensions**

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**Structures mécaniques pour équipement électronique – Enveloppes de
plein air –**
Partie 2: Dimensions de coordination

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT –
OUTDOOR ENCLOSURES –****Part 2: Coordination dimensions**

FOREWORD

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International Standard IEC 61969-2 has been prepared by subcommittee 48D: Mechanical structures for electronic equipment, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This second edition cancels and replaces the first edition issued in 2000. It constitutes a technical revision.

The main technical changes with regard to the previous edition are as follows:

It was the intention when IEC 61969-2 Ed. 1.0 was created that a sectional standard is to be followed by a detail standard, consisting of IEC 61969-2-1 and IEC 61969-2-2.

The intention of detail standards was to create a recommended but cost-effective range of outdoor enclosure solutions offered from multiple vendors. However, it became evident that

the outdoor enclosure applications were extremely application specific and the intended effect became irrelevant.

Consequently, IEC 61969-2-1 and IEC 61969-2-2 became obsolete and will be withdrawn at the time when IEC 61969-2 Ed.2.0 is published.

To provide for a useful outdoor enclosure installation matrix IEC 61969-2 Ed. 2.0 focuses on overall outdoor enclosure co-ordination dimension only.

The text of this standard is based on the following documents:

FDIS	Report on voting
48D/482/FDIS	48D/496/RVD

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

A list of all parts of IEC 61969 series, under the general title *Mechanical structures for electronic equipment – Outdoor enclosures*, can be found on the IEC website.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed, [IEC 61969-2:2011](#)
- withdrawn, <https://standards.iteh.ai/catalog/standards/sist/943a748c-eca9-4f0f-a52e-093191ea6140/iec-61969-2-2011>
- replaced by a revised edition, or
- amended.

MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT – OUTDOOR ENCLOSURES –

Part 2: Coordination dimensions

1 Scope

This part of IEC 61969 applies to the design of enclosures for outdoor applications for stationary use at non-weatherprotected locations as defined in IEC 61969-1 Ed.2.0.

The internal and external coordination dimensions are derived from IEC 60917-2. The internal dimensions meet the mounting dimensions of subracks in accordance with IEC 60917-2-2 and IEC 60297-3. The external dimensions, compared to IEC 60917-2, are partly increased in order to meet the design requirements of the outdoor specific conditions.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60917-2, *Modular order for the development of mechanical structures for electronic equipment practices – Part 2: Sectional specification – Interface co-ordination dimensions for the 25 mm equipment practice*

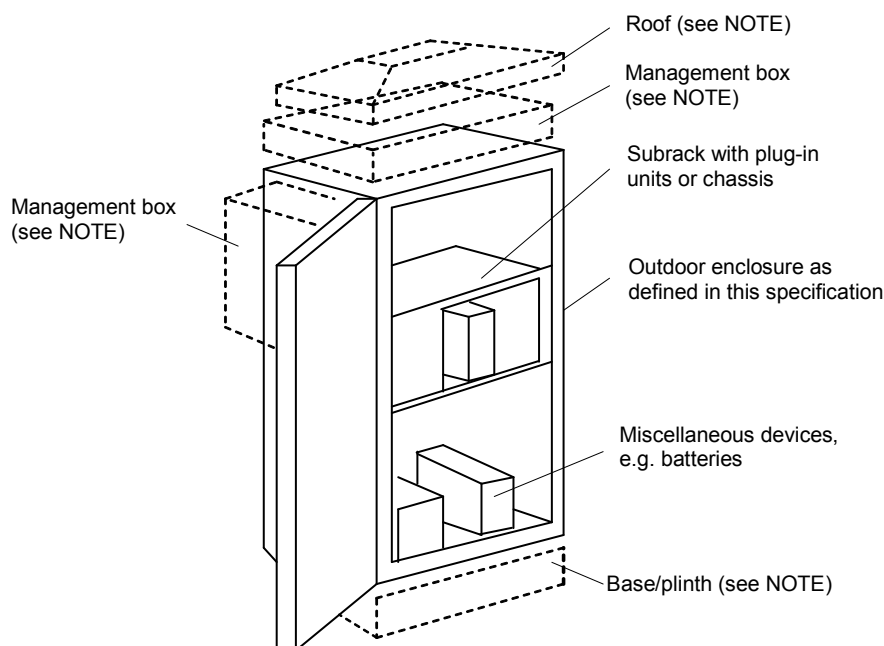
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3 Arrangement overview

An example of an outdoor enclosure is given in Figure 1. Application specific roofs and/or bases/plinth, cable entry/exit and external mounted cable entry or cable management boxes are not covered by this standard.



IEC 2455/11

NOTE The enclosure may be closed by doors and at the top and/or bottom without the use of any additional roof or a base/plinth. Management boxes may be attached at any surface of the enclosure (inclusive doors) and are typically used for cable and/or power management etc and are application specific. Specific roofs and/or bases may be optional for technical or appearance reasons and are not specified in this standard.

Figure 1 – Arrangement overview

[IEC 61969-2:2011](https://standards.iteh.ai/catalog/standards/sist/943a748c-eca9-440f-a52e-193191ea6140/iec-61969-2-2011)

4 Coordination dimensions

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4.1 General

Following the coordination rules as defined in IEC 60917-2, the external dimensions may be decreased and the aperture dimensions may be decreased. Smaller parts such as locks, hinges or handles may exceed the enclosure dimension by 25 mm. However, special requirements, regulatory or application specific are exempted.

The figures do not imply product design. Only the coordination dimensions are relevant. Smaller parts, for example locks or handles, may exceed the enclosure dimensions by 25 mm maximum. See Figure 2 and Tables 1 to 3.

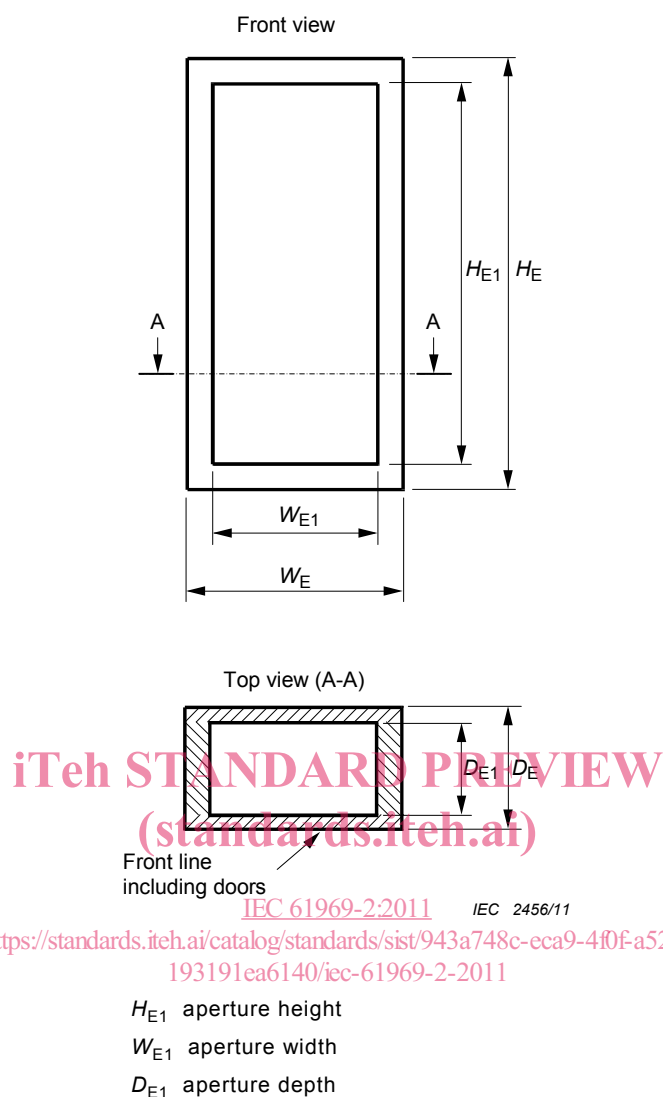


Figure 2 – Outdoor enclosure coordination dimensions

4.2 Height

Table 1 – H_E and H_{E1} dimensions

Dimensions in millimetres

H_E^b	400	500	600	700	800	900	1 000	1 100	1 200	1 300	1 400
H_{E1}^a	150	250	350	450	550	650	750	850	950	1 050	1 150

H_E^b	1 500	1 600	1 700	1 800	1 900	2 000	2 100	2 200	2 300	2 400	2 500	2 600
H_{E1}^a	1 250	1 350	1 450	1 550	1 650	1 750	1 850	1 950	2 050	2 150	2 250	2 350

^a Aperture height dimensions: H_{E1} may be increased or decreased. Multiples of 5 mm are to be used.

^b Formulae for any optional outside height dimension: $H_E = H_{E1} + 200 + (n \times 50)$.

4.3 Width

Table 2 – W_E and W_{E1} dimensions

Dimensions in millimetres

W_E^b	300	400	500	600	700	800	900	1 000	1 100	1 200
W_{E1}^a	200	300	400	500	500	600	700	800	900	1 000

W_E^b	1 300	1 400	1 500	1 600	1 700	1 800	1 900	2 000	2 100	2 200	2 300
W_{E1}^a	1 100	1 200	1 300	1 400	1 500	1 600	1 700	1 800	1 900	2 000	2 100

^a Aperture width dimensions W_{E1} may be increased or decreased. Multiples of 5 mm are to be used.

^b Formulae for any optional outside width dimension from 700 mm upwards: $W_E = W_{E1} + 150 + (n \times 50)$.

For width of 600 mm and smaller: $W_E = W_{E1} + (n \times 50)$.

4.4 Depth

Table 3 – D_E and D_{E1} dimensions

Dimensions in millimetres

D_E^b	300	400	500	600	700	800	900	1 000	1 100	1 200
D_{E1}^a	200	300	400	500	600	700	800	900	1 000	1 100

^a Aperture depth dimensions D_{E1} may be increased or decreased. Multiples of 5 mm are to be used.

^b Formulae for any optional outside depth dimension: $D_E = D_{E1} + 150 + (n \times 50)$.

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