

BS EN 61969-2:2012



BSI Standards Publication

Mechanical structures for electronic equipment — Outdoor enclosures

Part 2: Coordination dimensions

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National foreword

This British Standard is the UK implementation of EN 61969-2:2012. It is identical to IEC 61969-2:2011. It supersedes BS EN 61969-2:2000, BS EN 61969-2-1:2000 and BS EN 61969-2-2:2000, which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/48, Electromechanical components and mechanical structures for electronic equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Amendments issued since publication

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English version

**Mechanical structures for electronic equipment -
Outdoor enclosures -
Part 2: Coordination dimensions
(IEC 61969-2:2011)**

Structures mécaniques pour équipement
électronique -
Enveloppes de plein air -
Partie 2: Dimensions de coordination
(CEI 61969-2:2011)

Mechanische Bauweisen für elektronische
Einrichtungen -
Außengehäuse -
Teil 2: Koordinationsmaße
(IEC 61969-2:2011)

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Foreword

The text of document 48D/482/FDIS, future edition 2 of IEC 61969-2, prepared by SC 48D, "Mechanical structures for electronic equipment", of IEC/TC 48, "Electromechanical components and mechanical structures for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61969-2:2012.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-09-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-12-22

This document supersedes EN 61969-2:2000, EN 61969-2-1:2000 and EN 61969-2-2:2000.

EN 61969-2:2012 includes the following significant technical changes with respect to EN 61969-2:2000:

It was the intention when EN 61969-2:2000 was created that a sectional standard is to be followed by a detail standard, consisting of EN 61969-2-1 and EN 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, EN 61969-2-1 and EN 61969-2-2 became obsolete and will be withdrawn at the time when EN 61969-2:2012 is published.

To provide for a useful outdoor enclosure installation matrix EN 61969-2:2012 focuses on overall outdoor enclosure co-ordination dimension only.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61969-2:2011 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	EN 60917-2	-

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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.

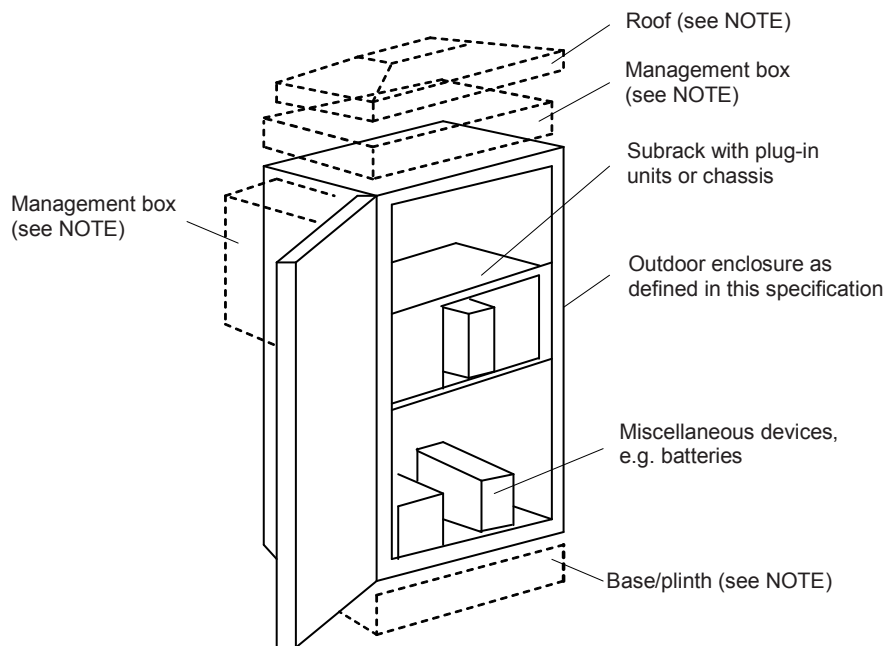
2 Normative references

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*

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.

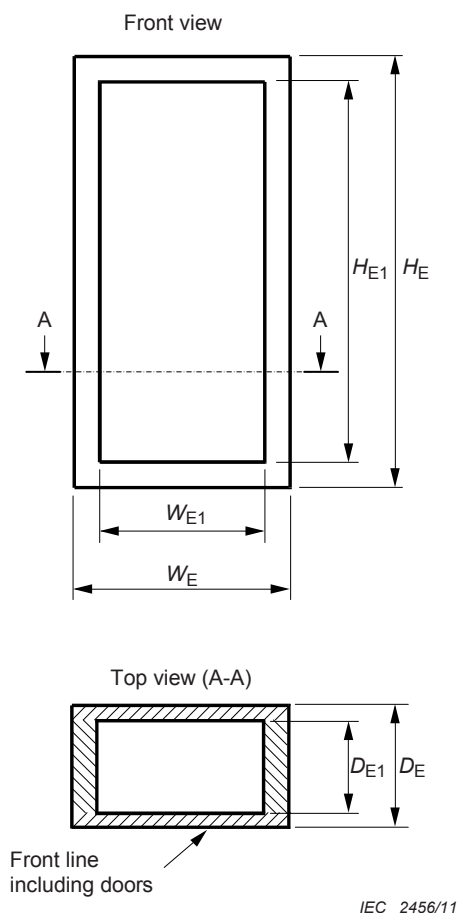
Figure 1 – Arrangement overview

4 Coordination dimensions

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.



Key

H_E overall height
 W_E overall width
 D_E overall depth

H_{E1} aperture height
 W_{E1} aperture width
 D_{E1} aperture depth

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: $D_E = D_{E1} + 50 + (n \times 50)$.

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BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

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