



IEC/IEEE 80005-1

Edition 2.0 2022-02



INTERNATIONAL STANDARD

NORME INTERNATIONALE

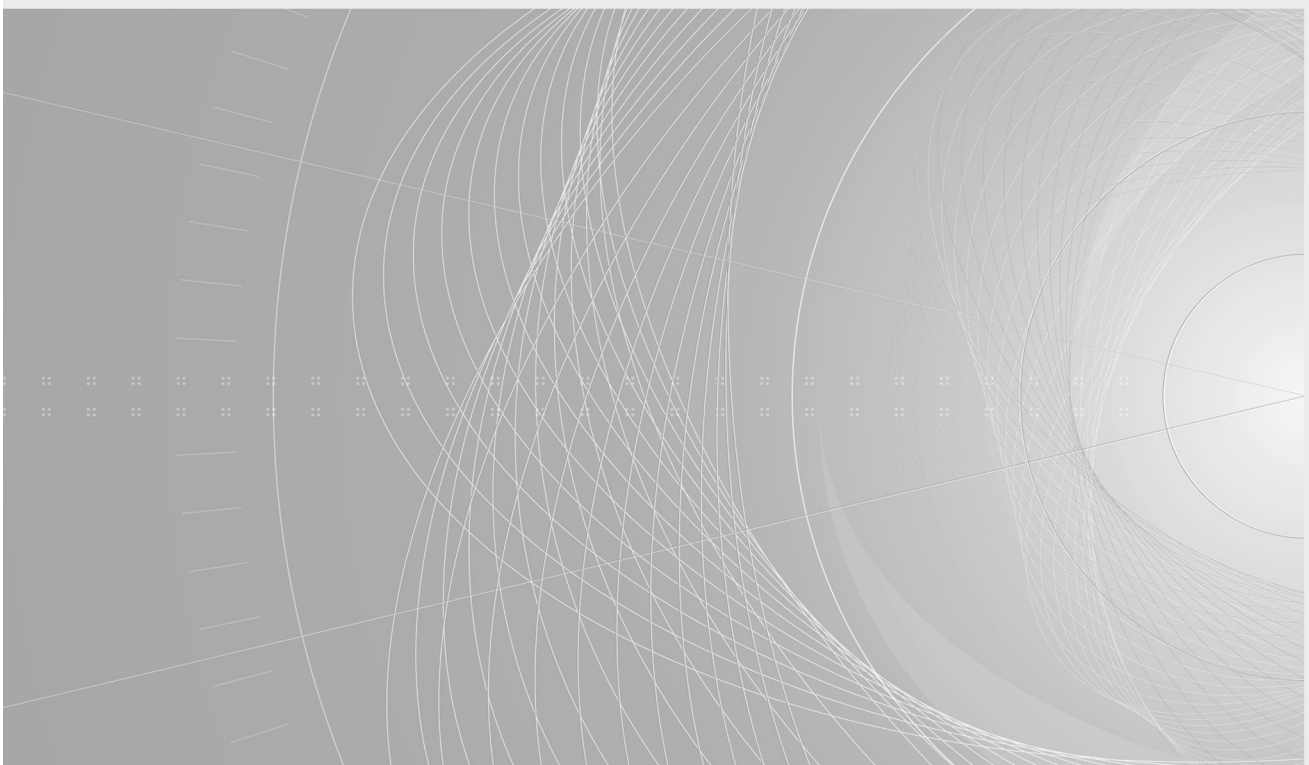
AMENDMENT 1
AMENDEMENT 1

Utility connections in port –
Part 1: High voltage shore connection (HVSC) systems – General requirements

Alimentation des navires à quai –
Partie 1: Systèmes de connexion à quai à haute tension (HVSC) – Exigences
générales

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

UTILITY CONNECTIONS IN PORT –

**Part 1: High voltage shore connection (HVSC) systems –
General requirements**

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This amendment has been prepared by IEC technical committee 18: Electrical installations of ships and of mobile and fixed offshore units, in cooperation with

- IEC subcommittee 23H: Plugs, socket-outlets and couplers for industrial and similar applications, and for electric vehicles, of IEC technical committee 23: Electrical accessories,
- ISO subcommittee 3: Piping and machinery, of ISO technical committee 8: Ships and marine technology, and
- IEEE IAS Petroleum and chemical industry committee.

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

Draft	Report on voting
18/1737/FDIS	18/1754/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table. In ISO, the amendment has been approved by 10 P members out of 10 having cast a vote.

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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

- reconfirmed,
 - withdrawn,
 - replaced by a revised edition, or
 - amended.
-

2 Normative references

Add, after the existing reference IEC/IEEE 80005-2, the following new reference:

IEEE Std C37.20.2™, *Standard for Metal-Clad Switchgear*

4.8 System study and calculations

Add, after c) 3), the following new note:

NOTE Provisional load restrictions can be necessary during load transfer.

5.1 Voltages and frequencies

Replace the existing fourth paragraph with the following new paragraph:

The phase sequence shall be L1-L2-L3 or A-B-C or R-S-T, anticlockwise. A phase sequence indicator shall indicate correct sequence prior to energizing or paralleling HVSC – see Figure 2 a). Figure 2 b) illustrates the balanced three-phase voltages in the time domain.

Add, after the existing fifth paragraph, the following new note:

NOTE See ship specific annexes for phase assignment of the pins in the connector.

5.2 Quality of HV shore supply

Delete, in item c) of the existing second paragraph, the last sentence.

Figure 3 – Single harmonic distortion limits

Delete the existing figure, including its title.

Replace, after Figure 3, the existing note with the following new note:

NOTE Additional recommendations are provided in IEEE Std 519™, MIL STD 1399-680, and IEC 60092-101.

6.2.1 Circuit-breaker, disconnect and earthing switch

Replace the existing first paragraph with the following new paragraph and note:

The shore connection switchgear and control gear shall be designed and tested in accordance with IEC 62271-200 or ANSI/UL Metal-Clad Switchgear (IEEE Std C37.20.2™). Switching devices and their combination shall be electrically and mechanically interlocked, to provide safe isolation before earthing and during operation.

NOTE 1 Switching devices and their combination for isolation and earthing can be part of different switchgear functional units (see IEC 60050-441:2000, 441-13-04).

Replace, in the existing note, the word "NOTE" with "NOTE 2".

7.3.4 Fibre-optic connection

Delete the existing subclause, including its title.

B.1 General

Delete, in the existing first paragraph, the words "excluding pure car carriers".