



IEC 62368-1: Hazard-Based Safety Standard for Audio/Visual and IT Equipment

As the pace of new product introductions increases, the line between “traditional” Audio/Visual (AV) devices and Information Technology Equipment (ITE) is changing beyond recognition. The International Electrotechnical Commission’s IEC 62368-1 standard was created to not only replace the existing IEC 60065 and IEC 60950-1 designations, but also to provide a new “hazard-based” standard covering both electronic equipment and IT/ Communication technology. This new “hybrid” standard is intended to be more performance oriented, technology independent and allow more design freedom.

In June 2018, the European Union (EU) published the extended date of withdrawal (DOW) to **December 20, 2020**, on which the superseded standards (EN 60065 and EN 60950-1) will cease to give presumption of conformity with the Low Voltage Directive (2014/35/EU). It is generally understood that the accredited Certification Bodies in Canada and the USA will align with the EU on the same date.

What Does This Mean for Manufacturers?

In practice, this means that both EN 60065 and EN 60950-1 will be withdrawn and replaced by EN 62368-1 on the DOW (12/20/2020) for CE marking to the LVD and corresponding certifications in the EU. In the USA and Canada, which have different regulatory procedures to the EU, the accredited Certification Bodies will not cancel existing certifications, but will not accept applications for new certifications or major technical modifications to UL/CSA 60065 or UL/CSA 60950-1 after the DOW.

The European Union published the third edition (EN 62368-1:2020) in March 2020. The date of 6-1-2023 was published as a tentative date when the third edition will supersede the second edition. Currently, the EN 62368-1:2020 has not been published in the Official Journal for Europe. Please contact your TÜV Rheinland representative for details on CE Marking.

The third edition of IEC 62368-1 AV/ITE - Part 1: Safety Requirements, published in October 2018, includes the following significant technical changes with respect to the second edition:



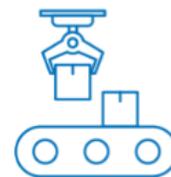
Addition of requirements for outdoor equipment



New requirements for optical radiation



Addition of requirements for insulating liquids



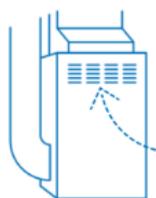
Addition of requirements for work cells



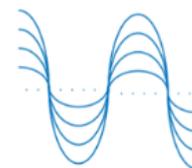
Addition of requirements for wireless power transmitters



Addition of requirements for fully insulated winding wire (FIW)



Alternative method for determination of top, bottom, and side openings for fire enclosures



Alternative requirements for sound pressure

In both the second and the third editions, sub-clause 4.1.1, Application of requirements and acceptance of materials, components and sub-assemblies states:

“Internal and external components and sub-assemblies that comply with IEC 60950-1 or IEC 60065 are acceptable as part of equipment covered by this document without further evaluation other than to give consideration to the appropriate use of the component or sub-assembly in the end-product.”

This means that products certified to the second edition of IEC/EN/CSA/UL 62368-1 are permitted to include e.g. power supply units certified to IEC/EN/CSA/UL 60065 or 60950-1. The current third edition of IEC 62368-1 also makes this allowance (for CB certification). However, until the corresponding national standards are published or finalized, it is unclear whether or not the applicable paragraph will be deleted. In particular, as the extended DOW of EN 60065 and EN 60950-1 has now been published, it is possible that components (e.g. power supply units) which have not by then been assessed for conformity and/or certified to EN 62368-1 will meet the requirements of the LVD. In this case, CE marking of products which include these power supply units would not be permitted. It remains to be seen whether the same restriction will be in the third edition of the national standards.

How TÜV Rheinland Experts Can Help

TÜV Rheinland currently offers manufacturers two options of applying ahead of the DOW:

- To the second edition of EN/IEC/UL/CSA 62368-1 for CE conformity assessment, CB, cTUVus, and other certifications or;
- To the third edition of IEC 62368-1 for CB certification, EN 62368-1 Third Edition, and the recently published UL/CSA 62368-1: Third Edition for NRTL/SCC Certification.

[Click Here to Ensure Your Compliance to IEC 62368-1!](#)

Document Updated: August 2020