

FAO Mr Ken Gainda
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Dear Ken,

This statement is to confirm the technical requirements for Lead acid batteries used within Fire/Security panels.

Q. Are batteries considered to be a component of Fire/Security panels and power supply units?

A. We would specify that lead acid batteries fitted into the panel enclosure should be considered to be part of the panel and assessed as a critical component. There may have been instances in the past where manufacturers of panels have excluded batteries from an assessment and therefore the flammability requirements for the battery would be outside the scope of the assessment.

Q. What are the current flammability requirements of batteries installed in Fire/Security panels, power supply units and related products under LVD / IEC62368-1 / other relevant standard?

A. IEC 62368-1:2018 includes multiple routes to compliance which are covered under Clause 6, which is dependent on the power source classifications, separation for Potential Ignition sources and enclosure materials. Assuming that the "Control fire spread" of clause 6.4.1 is employed, the battery is a PS3 and a fire enclosure is provided in accordance with clause 6.4.8 then the following requirements apply:

1. Comply with the flammability requirements of the relevant IEC component standard
2. Be made of material complying with V-2 or better

Please also note that additional requirements may apply if the battery is located close to other potential ignition sources. In which case V-1 or better could be required. This could only be defined during the assessment of the end product.

Q. Under LVD, all Fire / Security panels and power supply units that are placed on the market must comply with IEC/EN62368-1 by 20th Dec 2020. Is this requirement limited to newly designed products placed on the market after 20th Dec 2020?

A. All CE marking directives require that the applicable essential requirements of the directive are complied with. Essential requirements define the results to be attained, or the hazards to be dealt with, but do not specify the technical solutions for doing so. The precise technical solution may be provided by a standard or by other technical specifications or be developed in accordance with general engineering or scientific knowledge laid down in engineering and

scientific literature at the discretion of the manufacturer. This flexibility allows manufacturers to choose the way to meet the requirements.

‘Standards’ are defined as technical specifications, adopted by a recognised standardisation body, for repeated or continuous application, **with which compliance is not compulsory**. ‘European standards’ are standards adopted by the European standardisation organisations. Taking into account these two definitions, ‘harmonised standards’ are European standards adopted, upon a request made by the Commission for the application of Union harmonisation legislation (for example, the low voltage directive). Harmonised standards maintain their status of **voluntary** application.

Harmonised standards typically provide a **presumption** of conformity with the essential requirements (of the appropriate CE marking directives/regulations) they aim to cover, if their references have been published in the Official Journal of the European Union (OJEU), and if the product in question falls within the scope of such a harmonised standard.

The recourse to use harmonised standards cited in the OJEU, and which give a presumption of conformity, remains voluntary. The manufacturer can choose whether or not to refer to such harmonised standards. However, if the manufacturer chooses not to follow a harmonised standard, he has the obligation to demonstrate that his products are in conformity with essential requirements by the use of other means of his own choice (for example by means of any existing technical specifications including all other available standards).

It should be noted, that compliance with an applicable harmonised standard, where possible and where such a standard exists, is generally considered the best way to determine and demonstrate conformity to the relevant harmonised standards. Furthermore, it is such standards that are likely to be considered as the benchmark against which conformity of the product could be assessed, by the authorities, in the event that conformity to a directive is questioned.

It is the case that EN 60950-1:2006+A11:2009+A12:2011+A1:2010+A2:2013 ceased to provide a presumption of conformity to the essential requirements (safety objectives) of the low voltage directive on 20 December 2020. This standard was superseded by EN 62368-1:2014(+AC:2015) which currently provides a presumption of conformity to the aforementioned directive. This standard was later amended by EN 62368-1:2014+A11:2017 however this version of the standard is not yet published in the OJEU so does not provide a presumption of conformity. Furthermore, this standard was superseded by a new version, EN 62368-1:2020, which was then amended by A11:2020. These newer editions are also not published in the OJEU, yet, but it is expected that they will be in due course. As such, they can be considered to represent state of the art and can be used for guidance; they can be applied as an alternative to the previous 2014 edition.

As such it should be considered as best practice for all products placed on the EU market after 20 December 2020 to comply with **EN 62368-1:2014** (where such products fall within the scope of this standard), if not one of the later editions of this standard, irrespective of when the product was designed.

Q. For those Fire and security systems installed prior to Dec 20th 2020 meeting the old BS60950 std, is there a requirement for replacement batteries installed after Dec 20th 2020 to meet flammability rating V2/V0?

A. EN 60950-1 included similar flammability requirements to EN 62368-1 and EN 60950-1 also included a number of routes to compliance. Assuming that a fire enclosure was provided and therefore clause 4.7.3.4 of EN 60950-1 was considered applicable "Materials for components and other parts within a fire enclosure" then the batteries would be required to meet V-2 flammability requirements or the relevant IEC component standard for compliance with EN 60950-1

Q. Does the responsibility lie with the battery supplier or the manufacturer of the fire and security panels for ensuring batteries are rated V2/V0?

A. The responsibility for the end product lies with the manufacturer of the security panel to ensure that all parts are compliant with the regulations in force at the time of manufacture.

I trust that this meets your requirements, but if you have any queries please do not hesitate to contact me.

Best regards



Nigel Parrott
Department Manager – Safety Division