

End of the legendary EN 60950-1

EN 61010 – New standard for power supplies in industrial applications



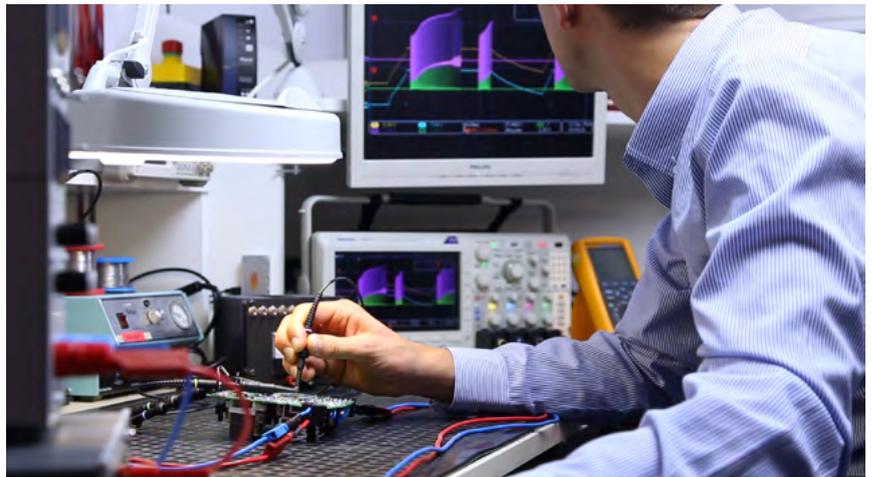
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The end of the EN 60950-1 in the Official Journal of the European Union on December 20th 2020* will require power supply manufacturers to take action. Although the Official Journal cites EN 62368-1 as the successor to EN 60950-1, the alternative applicable standards EN 61010 series have significant advantages in the safety evaluation of power supplies in the industrial sector.

In the absence of alternatives, EN 60950-1 has been applied to industrial power supplies to date, even though this standard does not really take into account the requirements and installation conditions of industrial environments. Power supplies for the industrial environment, are typically DIN-rail mounted devices that are installed inside cabinets or machinery. Higher requirements are placed on the qualified personnel installing and operating these devices than in traditional EN 62368-1 applications.

As an alternative, it has recently become possible to evaluate power supplies for the industrial environment in terms of safety according to IEC 61010-1 in combination with IEC 61010-2-201.

The IEC 61010-1 applies to electrical equipment for measurement, control, and laboratory use, the IEC 61010-2-201 covers the particular requirements for control equipment. These standards are specifically aimed at the needs of industrial devices. The standards are internationally harmonised and can be used as a norm for the Declaration of Conformity for the Low Voltage Directive in the European Union.



In comparison to the EN 62368-1, the EN 61010-2-201 has many advantages for industrial devices:

- The EN 61010-2-201 can also be applied to DC-UPSs and other industrial supplementary devices that are explicitly excluded in EN 62368-1.
- Assuming the national deviations of the ANSI/UL 61010-1 are taken into account in an approval process according to IEC 61010-1 and IEC 61010-2-201, it is possible to apply for a UL mark using the CB-Scheme test reports. The ANSI/UL 61010 series replaces the outdated UL 508 standard for industrial power supplies.
- It simplifies the approval process for end products with regards to safety requirements for product standards. For example, in the fourth edition of IEC 61131-2 (PLC standard), the safety requirements have been removed and point to the IEC 61010-2-201.

The general statement that EN 62368-1 is the successor to EN 60950-1 is misleading and suggests that simply only the successor standard should be applied. However, by understanding the overall picture and thereby choosing the correct standard, it is possible to achieve the regulatory compliance faster and cheaper. For power supplies in the industrial environment, the best scenario currently is the EN/IEC/UL 61010 series together with the IEC 60950-1. The IEC 60950-1 is required since it is still the primary measure for many regions outside Europe and North America.

* On June 15th 2018 the date has changed from June 19th 2019 to December 20th 2020