

## SAFE SELECTION OF DEVICES FOR INSTALLATION IN ASSEMBLIES



## Safe selection of devices for installation in assemblies

BEAMA takes safety seriously and warns against the incorrect selection of devices (e.g. RCBOs, MCBs, MCCBs) for installation into assemblies<sup>1</sup> (e.g. consumer units, distribution boards, panelboards). There are two scenarios to be aware of:

- a) The practice of installing devices of one manufacturer into assemblies of another manufacturer.
- b) The practice of installing new devices into an old assembly, even if both are of the same manufacturer.

There is evidence that this practice of mixing products by installers, often without fully understanding the safety implications, is commonplace. Although devices can appear similar; the dimensions, technical performance and terminals are not necessarily compatible and mixing products in this way is likely to result in an unsafe installation.

In the case of scenario a), assemblies such as consumer units, distribution boards and panelboards conforming to BS EN 61439, formerly BS EN 60439 or BS 5486, are tested with specific devices which are usually from the same manufacturer as the enclosure.

In the case of scenario b), it should not be assumed that old and new devices and assemblies from the same manufacturer are compatible, because products are subject to continuous development. Over time, new ranges may be released, which may not necessarily be backwards compatible.

Therefore, in both scenarios, it is essential that the assembly manufacturer's guidance is sought concerning suitability of any substitution or addition.

Where modifications or additions are made to assemblies, including the incorporation of heat detection / tripping systems, those responsible for such modifications or additions must ensure through verification / testing, that the modified assembly conforms to the requirements of the relevant product standard of the BS EN 61439 series and related LVD CE safety directive.

**In all cases installing devices or components other than those declared by the assembly manufacturer invalidates any testing/certification and warranty.**

<sup>1</sup> An assembly is an enclosure and all its associated mechanical and electrical components such as the enclosure, busbars, terminals and electrical devices.

BS 7671 (IET Wiring Regulations) Regulation 510.3 places specific responsibility on the installer, requiring that assembly manufacturer's instructions are taken into account.

BS 7671 Regulation 536.4.203 specifies requirements for integrating devices and components into low voltage assemblies to the BS EN 61439 series, e.g. consumer units, distribution boards. The regulation highlights:

- The need to ensure conformity with the relevant part of BS EN 61439 series,
- The fact that individual components conform to their respective product standards and are CE marked, does not indicate their compatibility for integration into an assembly,
- The person introducing a modification / alteration becomes the original manufacturer with the corresponding obligations for that assembly.

## In conclusion

- It is the responsibility of the installer who intends to mix devices / components in an assembly, to undertake appropriate verification and ensure conformity with the relevant standard.
- The installer has responsibility to act "with due care". If this is not done then there is a probability that, in the event of death, injury, fire or other damage, the installer would be accountable under Health and Safety legislation.

## Distributor and wholesaler responsibilities

A distributor or wholesaler also has a responsibility under the General Product Safety Regulations to act "with due care". Distributors and wholesalers should be able to substantiate any advice related to interchangeability of devices in assemblies. If the installer acts on a distributor's advice and information and in doing so produces a non-compliant assembly then both the distributor and installer may be liable for any consequences.

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