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BS 1363 Transition – Guidance for Product Manufacturers

Q1. What is the background to this issue?

The BS 1363:2023 series of standards was published 30 June 2023.

It replaces BS 13631:2016 which will be withdrawn 30th June 2026. The majority of existing Kitemark certified products will require some level of testing – maybe as simple as a revised marking check and document review.

Q2. What technical changes have been made?

BS 1363-1:2023 Plugs

This is a full revision of the document, and introduces the following principal changes:

- the scope now covers operating frequencies from 50 Hz to 60 Hz;
- current carrying parts made of brass are required to have a minimum content of 58% copper;
- the overload test has been revised for rewirable and non-rewirable plugs;
- Revision to testing of incorporated switches.

There are other minor changes, such as the requirement to mark plugs with their rated voltage and all plugs having a rated voltage of 250 V unless fitted with electronics.

The significant change for the majority of Kitemark certified plugs is the requirement that current carrying parts made of brass are required to have a minimum content of 58% copper. *This applies to all plug pins, including the earth plug pin.*

The changes to the overload testing of clause 27 align with the methodology that BSI has been applying since the clause was first introduced.

For all KM certified plugs (<u>without</u> incorporated electronics or switches) updating to BS 1363-1:2023 can be conducted with minimal testing and document review e.g. current-carrying parts material composition and revised classification declarations.

Updating of existing Kitemark conversion plugs would be done upon client application following a review of the existing products – this will determine, case by case, what testing etc is necessary.

BS 1363-2:2023 Socket-outlets

This is a full revision of the document, and introduces the following principal changes:

- the scope now covers operating frequencies from 50 Hz to 60 Hz;
- current carrying parts made of brass are required to have a minimum content of 58% copper;
- a new definition has been included for individually protected socket-outlet (IPS) and includes tests and requirements for IPS;
- new requirements have been added for switch actuating force test for double-pole switches;
- mounting box clearance requirements for flush mounted socket-outlets have been modified;
- Annex requirements for incorporated electronic components have been modified, specifically, USB circuits intended for charging portable devices with the addition of the abnormal condition.

Individually protected socket-outlet (IPS) is a significant new addition to the scope of BS 1363-2:

Individually protected socket-outlets (IPS) are intended for incorporation into equipment or enclosures such as those for use in electrical systems within the scope of BS 6396. IPS may be either fixed or portable, subject to manufacturer's instructions, integral with the complete assembly,



(e.g. furniture), in a surface accessory, or they may comprise a flush accessory mounted in a corresponding box.

There are several minor changes not listed above, including restriction on screwless terminal types, rated voltages, switches conforming to BS EN IEC 61058 and incorporated electronic components.

Updating of existing Kitemark conversion plugs would be done upon client application following a review of the existing products – this will determine, case by case, what testing etc is necessary.

BS 1363-3:2023 Adaptors

This is a full revision of the document, and introduces the following principal changes:

- the scope now covers operating frequencies from 50 Hz to 60 Hz;
- current carrying parts made of brass are required to have a minimum content of 58% copper;
- the requirements governing voltage and current ratings of adaptors incorporating electronic components have changed;
- new adaptor requirements have been added for the maximum number of socket-outlets on the same plane;
- Annex requirements for incorporated electronic components have been modified, specifically, USB circuits intended for charging portable devices with the addition of the abnormal condition.

Updating of existing Kitemark conversion plugs would be done upon client application following a review of the existing products – this will determine, case by case, what testing etc is necessary.

BS 1363-4:2023 Fused connection units

This is a full revision of the document, and introduces the following principal changes:

- the scope now covers operating frequencies from 50 Hz to 60 Hz;
- current carrying parts made of brass are required to have a minimum content of 58% copper;
- new requirements have been added for switch actuating force test for double-pole switches;
- mounting box clearance requirements for flush mounted connection units have been modified.

Updating of existing Kitemark Fused Connection Units (FCUs) would be done upon client application following a review of the existing products – this will determine, case by case, what testing etc is necessary. For example, FCUs are now rated 250 V so each Kitemark certified FCU will need to be reviewed for its existing rated voltage and to verify at what voltage Clause 19 Normal operation of connections units was conducted – any FCUs tested at 240 V would require re-testing.

BS 1363-5:2023 Fused conversion plugs

This is a full revision of the document, and introduces the following principal changes:

- the scope now covers operating frequencies from 50 Hz to 60 Hz;
- current carrying parts made of brass are required to have a minimum content of 58% copper;
- a new requirement has been added for creepage and clearance between fuse and fuse clips and engagement face with fuse carrier or cover removed.

Updating of existing Kitemark conversion plugs would be done upon client application following a review of the existing products – this will determine, case by case, what testing etc is necessary.

Q3. Do I have to upgrade my 13 A plugs, socket-outlets, adaptors, and connection units to BS 1363:2023?

Third party type 5 certification to BS 1363 is a statutory requirement for plugs in the UK as per the Plugs and Sockets (Safety) Regulations 1994.

Q4. When must I upgrade 13 A plugs, socket-outlets, adaptors and connection units to BS 1363:2023?

BS 1363:2016 will be withdrawn on 30th June 2026.

Any product which has not been updated to BS 1363:2023 at this date will no longer be legal for sale in the UK.

Q5. So my "old" 13 A plugs, socket-outlets, adaptors and connection units to BS 1363:2023 must be retested?

BS 1363:2023 s a full revision and contains many significant technical changes.

Most products will require some level of additional testing, this may be as little as marking checks or as much as complete switch re-testing. Test plans will be determined on a case-by-case basis from a review of technical data against the changes to the relevant part of BS 1363:2023.

Q6. What if I have any further questions?

In the first instance, please contact Malcolm Smith – Certification Technical Expert (<u>Malcolm.Smith@bsigroup.com</u>) or Leo Yang – Certification manager (<u>Leo.Yang@bsigroup.com</u>)