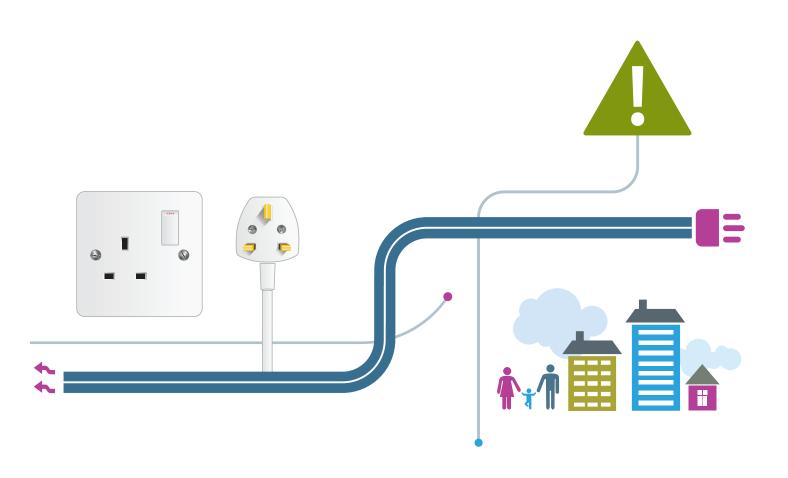




2023 REVISION OF BS 1363 SERIES – SUMMARY OF KEY TECHNICAL CHANGES



ABOUT BEAMA

BEAMA is the long established and respected trade association for the electrotechnical sector. The association has a strong history in the development and implementation of standards to promote safety and product performance for the benefit of manufacturers and their customers.

This publication provides a summary of the key technical changes introduced in the 2023 revision of the BS 1363 series of standards. For a comprehensive update, the standards need to be read fully.

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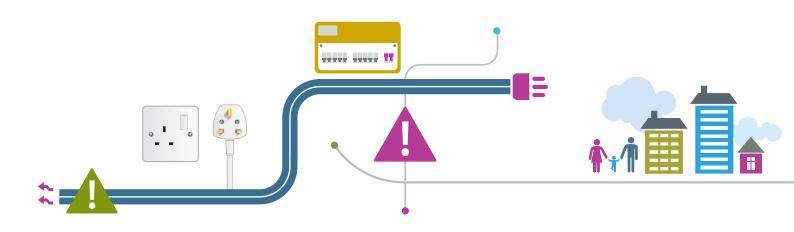
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1. INTRODUCTION

The 2023 revision of the BS 1363 series, the UK national standards for 13A plugs, socketoutlets, adaptors, connection units and conversion plugs, includes many new changes in its five parts:

- **BS 1363-1:2023** 13 A plugs, socket-outlets, adaptors and connection units **Part 1:** Rewirable and non-rewirable 13 A fused plugs Specification
- **BS 1363-2:2023** 13 A plugs, socket outlets, adaptors and connection units **Part 2:** 13 A switched and unswitched socket-outlets Specification
- BS 1363-3:2023 13 A plugs, socket-outlets, adaptors and connection units
 Part 3: Adaptors Specification
- **BS 1363-4:2023** 13 A plugs, socket-outlets, adaptors and connection units **Part 4:** 13 A fused connection units switched and unswitched Specification
- BS 1363-5:2023 13 A plugs, socket-outlets, adaptors and connection units
 Part 5: Fused conversion plugs Specification

Since its initial publication in 1947, BS 1363 has been evolving over the many years since to meet the changing needs of modern connected living, both in the home and the working environment. Changes have also been made over the years as a consequence of the advancements in engineering and design, new materials technology, manufacturing and quality and the introduction of new government legislation to support greater product and user safety.

The 2023 revision is no exception. Today's world is one in which we all find ourselves having to use many more items of electronic equipment, for example mobile phones, tablets, laptops and various other smart devices to serve our busy connected lifestyles at home and working in the new virtual office.

All these loads are placing more demands on our electrical infrastructure which includes the BS 1363 plug and socket-outlet. This connectivity and the smart feature functionality has necessitated many of these enabling electronic technologies to be embedded within our wiring accessories and the BS 1363 series is no exception. Demands for new types of connected loads all need to be taken into account for use with these products and their associated standards, ensuring that they remain safe whilst delivering the performance expected by users each time they plug in their latest new appliance or piece of technology, which may include electric scooters, cycles or electric vehicles.

2. KEY CHANGES

To meet these challenges the BS 1363 series 2023 revision now includes the following key changes:

- The scope of all five parts now cover operating frequencies from 50 Hz to 60 Hz.
- Modification to requirements for actuating members of switches to include single push-button switches where the actuating member takes up a single rest position.
- New requirements for switch actuating force test for double-pole switches.
- Insulation and Electric Strength test now includes provision for both indicators and incorporated electronic components to be disconnected.
- Current carrying parts made of brass are required to have a minimum content of 58% Copper.
- Overload test for plugs now requires rewireable plugs to be fitted with 13 A fuse-links and non-rewireable plugs fitted with highest rated fuse-links specified in Table 2 of BS 1363-1 for the cable fitted.
- A new requirement forbidding the suspension of a plug or an adaptor in an inverted orientation unless permitted in the manufacturer's instructions.
- BS 1363-2 now includes tests and requirements for socket-outlets incorporating Circuit Breakers for Equipment (CBE).
- BS 1363-2 now includes a new definition for individually protected socket-outlet (IPS) and includes tests and requirements for IPS.
- Socket-outlet and adaptor switches cannot not be used to switch incorporated electronic components other than an indicator lamp.
- Modification of mounting box clearance requirements for flush mounted socket-outlets.
- Re-useable fixings of any type, including tamperproof and security screws cannot be used for non-rewireable portable socket- outlets, non-rewireable intermediate adaptors and adaptor plugs.
- Switches conforming to BS EN IEC 61058:2018 or BS EN 60669-1:2018 incorporated in socket-outlets do not need to be tested for normal operation.
- Modification of Annex requirements for incorporated electronic components. Specifically, USB circuits intended for charging portable devices with the addition of Abnormal condition.
- New Annex in BS 1363-2 containing recommendations for products that incorporate BS 1363-2 socket-outlets.
- Change to the requirements governing voltage and current ratings of adaptors incorporating electronic components.
- New adaptor requirements for the maximum number of socket-outlets on the same plane.

| | BS 1363 2023 Clause References | | | | | |
|--|--------------------------------|---|---------------------------|------------------|---------|--|
| Change | Part 1 | Part 2 | Part 3 | Part 4 | Part 5 | |
| Operating frequencies from 50 Hz to 60 Hz now in Scope Test frequency extended to span 50Hz to 60Hz Temperature rise test is conducted at most unfavourable frequency | 1 Scope 16.2 17.1.1 | 1 Scope 16.2 17.1.1 | 1 Scope 16.2 17.1.2 | 1 Scope | 1 Scope | |
| New non-rewireable plug requirement for creepage and clearance between fuse and fuse clips and engagement face with fuse carrier or cover removed. | 13.5.2 | N/A | 13.6 | N/A | 12.4.3 | |
| Modification to requirements for actuating members of switches to include single push-button switches where the actuating member takes up a single rest position. | 13.18.2 | 14.11.2 | 14.12.2 | 14.6.2 | N/A | |
| New requirements for switch actuating force test for double pole switches. | 13.18.3 | 14.11.4 | 14.12.3 | 14.6.4 | N/A | |
| Insulation and Electric Strength test now includes provision for both indicators and incorporated electronic components to be disconnected. | 16.1.2 16.1.3 | 16.1.2 16.1.3 | 16.1.2 16.1.3 | 16.1.2 16.1.3 | N/A | |
| Current carrying parts made of Brass shall have a minimum content of 58% Copper. | 13.9 22.3 | 22.3 | 13.12 22.3 | 22.3 | 21.2.1 | |
| Overload test for plugs now requires rewireable plugs to be fitted with 13 A fuse link and non-rewireable plugs fitted with highest rated fuse link specified in Table 2 for the cable fitted. | 27.1.1 | N/A | N/A | N/A | N/A | |
| Socket-outlets incorporating Circuit Breakers for Equipment (CBE) are now included within the Scope with requirements and tests. | N/A | 1 Scope 14.13 | N/A | N/A | N/A | |
| New definition, requirements, and tests for individually protected socket-outlet (IPS) . | N/A | 1 Scope, 3.16, 6.1, Table 1 Sequence 14, 8.1k), 14.13, 17.1.1, 17.1.3 18.1.2, 18.1.3, 26.1 and 26.1.2 | N/A | N/A | N/A | |

| | BS 1363 2023 Clause References | | | | | |
|---|--------------------------------|---------|---------|--------|--------|--|
| Change | Part 1 | Part 2 | Part 3 | Part 4 | Part 5 | |
| The socket-outlet switch shall not be used to switch incorporated electronic components other than an indicator lamp. | N/A | 14.11 | 14.12 | N/A | N/A | |
| Modification of mounting box adequate space requirements for flush mounted devices (socketoutlets/connection units). | N/A | 14.15d) | N/A | 14.3d) | N/A | |
| Re-useable fixings, tamperproof and security screws for non-rewireable portable devices (socket-outlets/ intermediate adaptors and adaptor plugs) shall not be used. | N/A | 14.18 | 13.7 | N/A | N/A | |
| Switches conforming to BS EN IEC 61058:2018 or BS EN 60669-1:2018 incorporated in socketoutlets do not need to be tested for normal operation. | N/A | 19.1.3 | N/A | N/A | N/A | |
| Modification of Annex requirements for incorporated electronic components. Specifically, USB circuits intended for charging portable devices with the addition of Abnormal condition . | N/A | A.2.5 | A.3.5 | N/A | N/A | |
| New Annex for recommendations for products that incorporate BS 1363-2 socket-outlets. | N/A | Annex I | N/A | N/A | N/A | |
| Change to the requirements governing voltage and current rating of adaptors. | N/A | N/A | 7.2 | N/A | N/A | |
| New adaptor requirements for the maximum number of socketoutlets on the same plane. | N/A | N/A | 14.10.2 | N/A | N/A | |

The above provides a snapshot of the key changes. To understand the implications of the 2023 revision of the BS 1363 series, the standards need to be fully read.

3. IMPLEMENTATION

The 2023 revision of BS 1363 series supersede the 2016 editions (including any amendments) which remain current and will be withdrawn on 30 June 2026.



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