

CONSUMER PRODUCT SAFETY OFFICE

Reference : CPSO-070923-11
Date : 07 Sep 2023
To : Registered Suppliers and Conformity Assessment Bodies
Subject : Certification requirements under IEC 62368-1 for AC adaptors that can deliver more than 100W of power to connected equipment

Dear Registered Suppliers (RSes) and Conformity Assessment Bodies (CABs),

1. AC adaptors, including those that can deliver >100W to connected equipment, are classified as Controlled Goods under the Consumer Protection (Safety Requirements) Regulations (CPSR), and are required to comply with relevant safety standards such as IEC 62368-1.
2. This circular seeks to provide clarity on the testing and certification requirements for AC adaptors which can deliver more than 100W of power (>100W), under IEC 62368-1.

A. Requirements for AC adaptors tested to IEC 62368-1 editions 3.0 and earlier (i.e., IEC 62368-1:2018 and earlier)

- a. Clause 6.6. of IEC 62368-1 (Ed. 3.0 and earlier) only allows for AC adaptors that can deliver >100W to a connected equipment if the connected equipment also complies with IEC 62368-1.
- b. To fulfill clause 6.6, suppliers of AC adaptors that can deliver >100W shall provide assurance that their AC adaptor will only be used with connected equipment that are also compliant to IEC 62368-1, using one or more of the following methods:
 - i. Incorporating handshaking methods such as Extended Power Range (EPR) capability into the AC adaptor and intended connected equipment(s). This will ensure the AC adaptor will only output >100W when supplying power to the intended connected equipment; or
 - ii. Designing the AC adaptor's connectors such that it can only be connected to intended equipment; or
 - iii. Additional instructional safeguards on the AC adaptor, such as the following text: 'This AC adaptor can output more than 100W. Please monitor the adaptor while charging.'; or
 - iv. Ensure that the AC adaptor is not supplied as a standalone item, and only sold when bundled together with the specific model and/or brand

of connected equipment compliant with IEC 62368-1; RS'es choosing this approach will need to submit a declaration letter on company letterhead, containing the following information:

- Declaration that the AC adaptor will not be supplied as a standalone item
 - Information on connected equipment the AC adaptor will be bundled with
- c. Suppliers may propose alternate methods to provide assurance that their AC adaptor will comply with IEC 62368-1 edition 3 and earlier. The CPSO will assess such proposals on a case-by-case basis.

B. Requirements for AC adaptors tested to IEC 62368-1 edition 4.0 (i.e., IEC 62368-1:2023)

- a. Clause 6.6. of IEC 62368-1 (Ed. 4.0) allows for AC adaptors that can deliver >100W to a connected equipment if power is not delivered via a communication port.
- b. AC adaptors that can deliver >100W to a connected equipment are unlikely to deliver power via a communication port. Hence, most AC adaptors which delivers >100W to a connected equipment will fully comply with IEC 62368-1 (Ed. 4.0) without needing further requirements.
3. All AC adaptors that can deliver >100W to connected equipment which have been registered prior to this circular will need to comply with the requirements specified in part A or B during their CoC renewal.
4. Please refer to the appended Frequently Asked Questions for any questions that you may have. If your question is not answered there, please contact the CPSO at consumerproductsafety@enterprisesg.gov.sg

Issued by:

The Consumer Product Safety Office

This is a computer-generated circular and no signature is required.

Frequently Asked Questions for Circular CPSO-070923-11

Q. Does this regulatory update **only** affect AC adaptors certified to IEC 62368-1?

A. **Yes**. This update seeks to clarify on the requirements related to IEC 62368-1 and does not apply to other standards.

Q. Will this regulatory update affect AC adaptors with rated output below 100W?

A. **No actions need to be taken** for AC adaptors that can only deliver below 100W to connected equipment.

Q. Does the regulatory update affect all AC adaptors with rated output over 100W?

A. **No**. The additional requirements only apply to AC adaptors that deliver >100W to individual connected equipment. AC adaptors with power rating over 100W which have their output power split across multiple connectors/ports, resulting in <100W power delivered at each connector/port, will not be affected.

Q. If the AC adaptors delivering >100W to connected equipment is compliant to clause 6.6 of IEC 62368-1:2023 but does not have the full IEC 62368-1:2023 test report is it possible to combine clause 6.6 of IEC 62368-1:2023 with an earlier version of the IEC 62368-1 report?

A. **No**. The complete safety standard must be applied to the product.

Q. Are there any avenues for Registered Suppliers to feedback to CPSO regarding this regulatory decision?

A. Please write in to CPSO and furnish us with the details. Any such feedback/appeal will be evaluated on a case-by-case basis.