

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Plugs and socket-outlets for household and similar purposes –
Part 3-1: Particular requirements for socket-outlets incorporating USB power
supply**

**Prises de courant pour usages domestiques et analogues –
Partie 3-1: Exigences particulières pour les socles de prise de courant qui
intègrent l'alimentation électrique par port USB**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES –

Part 3-1: Particular requirements for socket-outlets incorporating USB power supply

FOREWORD

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IEC 60884-3-1 has been prepared by subcommittee 23B: Plugs, socket-outlets and switches, of IEC technical committee 23: Electrical accessories. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
23B/1360/FDIS	23B/1362/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This document shall be used in conjunction with IEC 60884-1:—¹.

This document supplements or modifies the corresponding clauses in IEC 60884-1, so as to convert that publication into the IEC International Standard: Particular requirements for socket-outlets incorporating USB power supply.

Where this document states "addition", "modification" or "replacement", the relevant requirement, test specifications or explanatory matter in IEC 60884-1 shall be adapted accordingly.

Subclauses, figures, tables or notes which are additional to those in IEC 60884-1 are numbered starting from 101. Additional annexes are lettered starting from AA.

A list of all parts in the IEC 60884 series, published under the general title *Plugs and socket-outlets for household and similar purposes*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

¹ Fourth edition under preparation. Stage at the time of publication: IEC FDIS 60884-1:2021.

PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES –

Part 3-1: Particular requirements for socket-outlets incorporating USB power supply

1 Scope

IEC 60884-1:—, Clause 1 is applicable except as follows:

Replace the first paragraph by the following:

This part of IEC 60884 applies to fixed or portable socket-outlets for AC only, with or without earthing contact, with a rated voltage greater than 50 V but not exceeding 440 V and a rated current not exceeding 32 A, intended for household and similar purposes, either indoors or outdoors, incorporating a USB power supply.

This document defines the safety and EMC requirements for socket-outlets incorporating a USB power supply.

Specifications, performance and dimensional requirements of the USB technologies are not covered by this document; these are defined in the relevant part(s) of IEC 62680.

2 Normative references

IEC 60884-1:—, Clause 2 is applicable except as follows:

Addition:

IEC 60317-0-1:2013, *Specifications for particular types of winding wires – Part 0-1: General requirements – Enamelled round copper wire*
IEC 60317-0-1:2013/AMD1:2019

IEC 60884-1:—², *Plugs and socket-outlets for household and similar purposes – Part 1: General requirements*

IEC 61000-3-2, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤16 A per phase)*

IEC 61000-4-2, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*

IEC 61000-4-3, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*

IEC 61000-4-4, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*

² Fourth edition under preparation. Stage at the time of publication: IEC FDIS 60884-1:2021.

IEC 61000-4-5, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-6, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

IEC 61000-4-8, *Electromagnetic compatibility (EMC) – Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test*

IEC 61000-4-11, *Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase*

IEC 62368-1:2018, *Audio/video, information and communication technology equipment – Part 1: Safety requirements*

IEC 62368-3:2017, *Audio/video, information and communication technology equipment – Part 3: Safety aspects for DC power transfer through communication cables and ports*

CISPR 32, *Electromagnetic compatibility of multimedia equipment – Emission requirements*

3 Terms and definitions

IEC 60884-1:—, Clause 3 is applicable except as follows:

Replacement of NOTE 3:

NOTE 3 The term "accessory" is used as a general term covering socket-outlets and socket-outlets incorporating a USB power supply; the term "portable accessory" covers portable socket-outlets and portable socket-outlets incorporating a USB power supply.

Add the following terms and definitions:

3.101

universal serial bus

USB

standardized bus using serial transmission

[SOURCE: IEC 60050-171:2019, 171-04-48, modified – Note 1 to entry is deleted.]

3.102

USB port

IEC 62680 series female connector used to supply power to a connected portable device

3.103

USB power supply

electronic circuit, including connections to the socket-outlet, PCB, connectors, internal wiring and similar that converts mains voltage into a lower voltage with smoothed direct current that is delivered through one or more USB port

Note 1 to entry: USB connector types are defined in the IEC 62680 series.

3.104

SELV

electric system in which the voltage cannot exceed the value of extra-low voltage:

– under normal conditions and