
**Tractors and machinery for agriculture
and forestry — Auxiliary-power-
transmission connector for the operator
station**

*Tracteurs et matériels agricoles et forestiers — Connecteur de
transmission d'énergie auxiliaire au poste de l'opérateur*

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17612 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 4, *Tractors*.

Introduction

This International Standard specifies an electrical connector for the transmission of auxiliary power within the operator station of enclosed agricultural machines. The specification thus established will allow manufacturers to provide both individual and multiple outlets in the cab. Typical applications include monitors, light-duty controllers, remote operating devices and miscellaneous off-the-shelf items. Only the application dimensions and electrical characteristics are covered.

Other electrical transmission connectors for agricultural tractors and machinery are specified in ISO/TR 12369. For this and other International Standards dealing with connectors for electrical power transmission from tractor to implement or other means, see the Bibliography.

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Tractors and machinery for agriculture and forestry — Auxiliary-power-transmission connector for the operator station

1 Scope

This International Standard specifies the essential interface dimensions of a connector and its plug for the transmission of 12 V electrical power within the enclosed operator station of agricultural tractors and machinery. The device is intended to be used as a non-environmentally sealed, convenient source for power auxiliary devices, providing a means for the operator to obtain electrical power without altering the tractor/machine electrical wiring harness. The maximum current capacity of the specified device is 30 A: it is not applicable to any other voltage system (6 V or 24 V).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

contact

current-carrying element of the connector, either male or female

3.2

pin

male contact

3.3

contact socket

female contact

3.4

power strip socket

female half of the connector, integral to the power strip

3.5

power strip plug

male half of the connector, attached to the device to be powered

3.6

connector

complete mated assembly containing socket, plug, pins and contact sockets

3.7

power strip

connector containing one or more distribution positions

3.8

switched current

electrical current path containing a switching component between battery and power strip

3.9

un-switched current

electrical current path having an uninterrupted current path between battery and power strip

3.10

auxiliary device

device attached to the power strip plug

EXAMPLE Monitor, controller, communication device, computer.

4 Requirements

4.1 Dimensional requirements

4.1.1 Power strip socket

The connector shall consist of a base containing one or more sockets.

Each socket shall be covered with a lid, which shall be spring-loaded to close or have a detent to hold it in the closed position. The lid shall have symbols defining the contact positions and their respective use.

A typical example is shown in Figure 1, for reference purposes only.

The socket and pin spacing dimensions shall be in accordance with Figure 2.

Female contacts shall be of at least a tin-plated material designed to mate with the male contacts specified in Figure 3.

4.1.2 Power strip plug

Critical outside dimensions of the power strip plug shall be in accordance with Figure 4 to allow typical mating with the power strip socket.

Dimensions in millimetres

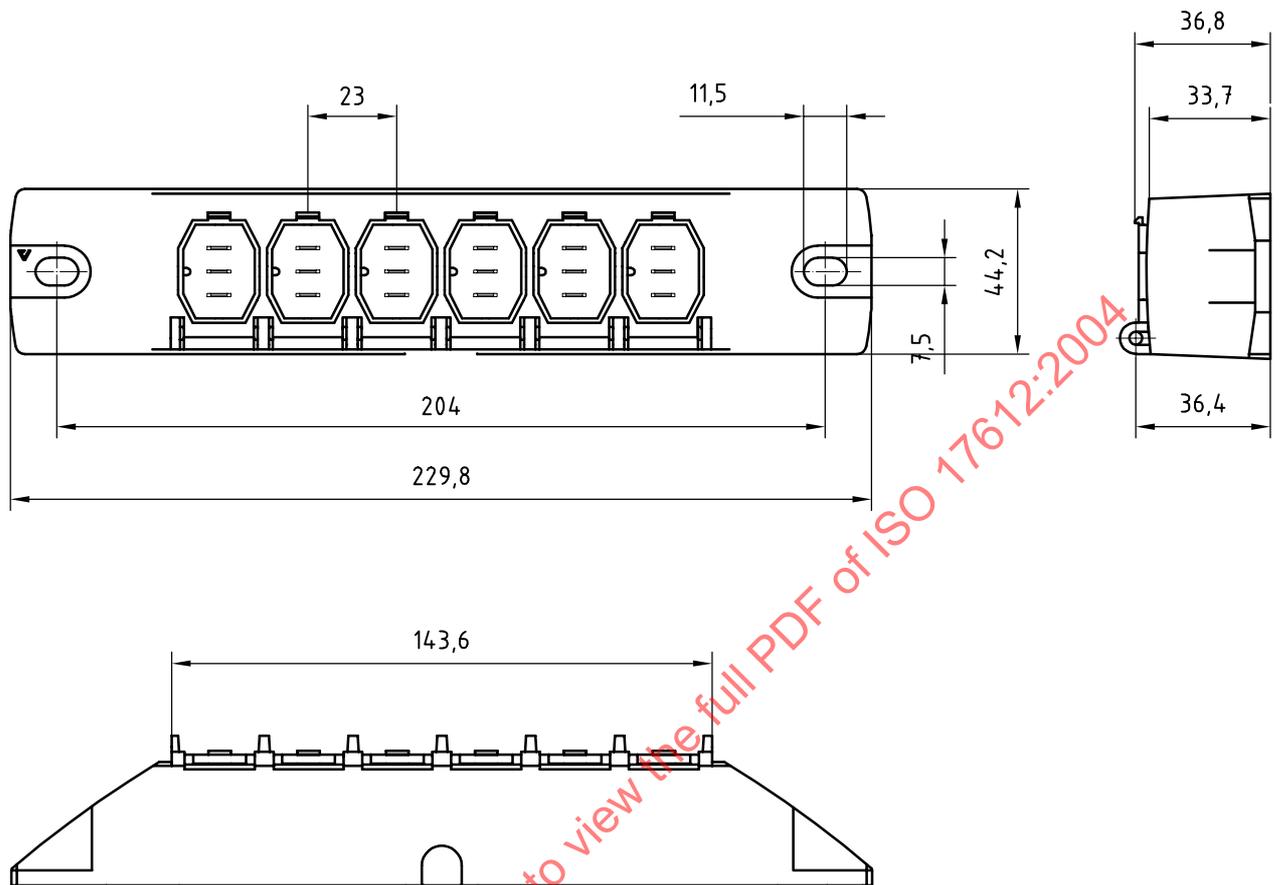


Figure 1 — Typical power strip socket (for information only)

Dimensions in millimetres,
tolerances in accordance with ISO 2768-m

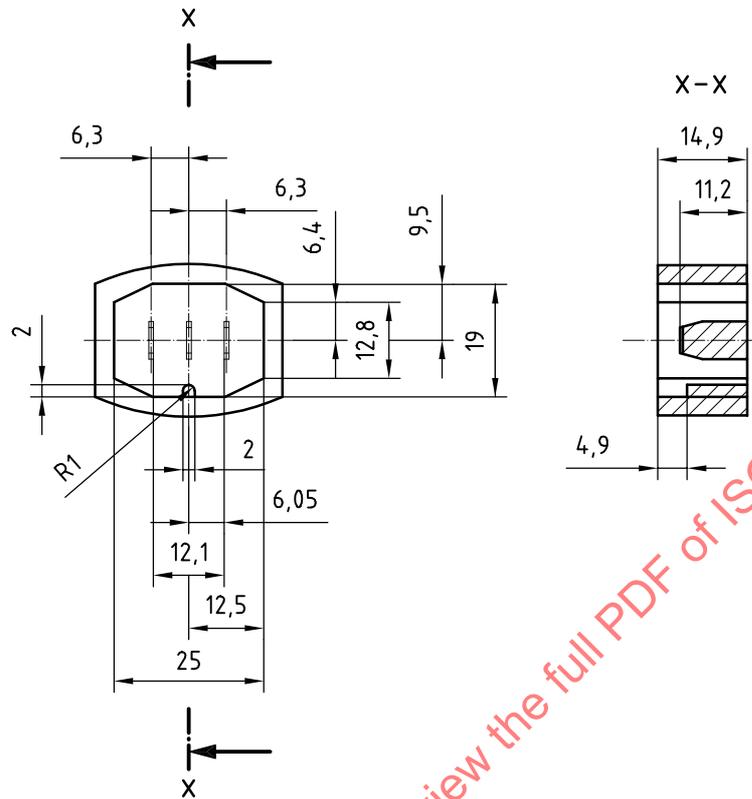


Figure 2 — Socket and pin spacing dimensions

Dimensions in millimetres,
tolerances in accordance with ISO 2768-m

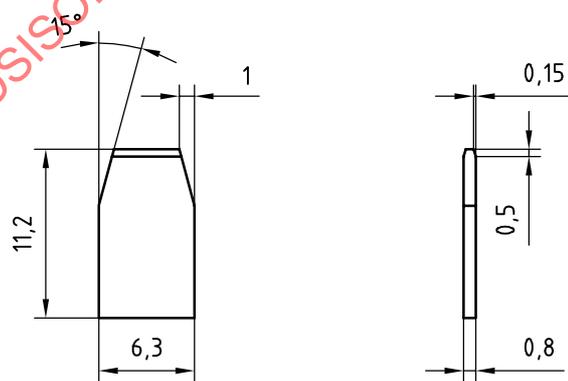


Figure 3 — Male contacts of power strip plug

Dimensions in millimetres,
tolerances in accordance with ISO 2768-m

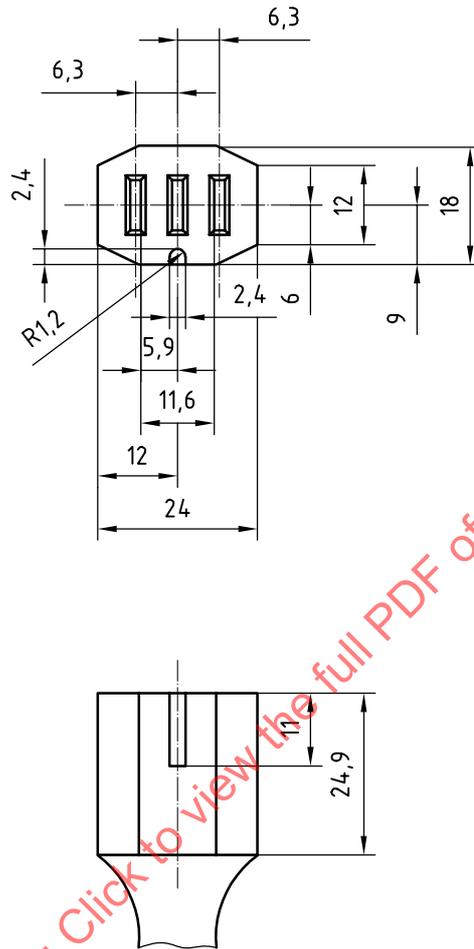


Figure 4 — Power strip plug