

SYNOPSIS

IS 16504 (Part 1) : 2019 / IEC 60204-1 : 2016

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IS Title : SAFETY OF MACHINERY – ELECTRICAL EQUIPMENT OF MACHINES – PART 1: GENERAL REQUIREMENTS (*First Revision*)

a) Scope

This part of the standard applies to electrical, electronic and programmable electronic equipment and systems to machines not portable by hand while working, including a group of machines working together in a co-ordinated manner.

NOTE 1 — This part of the standard is an application standard and is not intended to limit or inhibit technological advancement.

NOTE 2 — In this part of the standard, the term “electrical” includes electrical, electronic and programmable electronic matters (i.e. “electrical equipment” means electrical, electronic and programmable electronic equipment).

NOTE 3 — In the context of this part of the standard, the term “person” refers to any individual and includes those persons who are assigned and instructed by the user or his agent(s) in the use and care of the machine in question.

The equipment covered by this part of the standard commences at the point of connection of the supply to the electrical equipment of the machine (see 5.1).

NOTE 4 — The requirements for the electrical supply installation are given in the IEC 60364 series.

This part of the standard is applicable to the electrical equipment or parts of the electrical equipment that operate with nominal supply voltages not exceeding 1 000 V for alternating current (AC) and not exceeding 1 500 V for direct current (DC), and with nominal supply frequencies not exceeding 200 Hz.

NOTE 5 — Information on electrical equipment or parts of the electrical equipment that operate with higher nominal supply voltages can be found in IEC 60204-11.

This part of the standard does not cover all the requirements (for example guarding, interlocking, or control) that are needed or required by other standards or regulations in order to protect persons from hazards other than electrical hazards. Each type of machine has unique requirements to be accommodated to provide adequate safety.

This part of the standard specifically includes, but is not limited to, the electrical equipment of machines as defined in 3.1.40.

NOTE 6 — Annex C lists examples of machines whose electrical equipment can be covered by this part of IEC 60204.

This part of the standard does not specify additional and special requirements that can apply to the electrical equipment of machines that, for example:

- are intended for use in open air (i.e. outside buildings or other protective structures);
- use, process, or produce potentially explosive material (for example paint or sawdust);

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- are intended for use in potentially explosive and/or flammable atmospheres;
- have special risks when producing or using certain materials;
- are intended for use in mines;
- are sewing machines, units, and systems (which are covered by IEC 60204-31);
- are hoisting machines (which are covered by IEC 60204-32);
- are semiconductor fabrication equipment (which are covered by IEC 60204-33).

Power circuits where electrical energy is directly used as a working tool are excluded from this part of the standard.

Disclaimer: