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Environmental conditions – Vibration and shock of electrotechnical equipment – Part 4: Equipment transported in road vehicles

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL CONDITIONS – VIBRATION AND SHOCK OF ELECTROTECHNICAL EQUIPMENT –

Part 4: Equipment transported in road vehicles

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IEC/TR 62131-4, which is a technical report, has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
104/509/DTR	104/538/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2. A list of all the parts in the IEC 62131 series, under the general title *Environmental conditions – Vibration and shock of electrotechnical equipment,* can be found on the IEC website.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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- withdrawn,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

A bilingual version of this standard may be issued at a later date.

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ENVIRONMENTAL CONDITIONS – VIBRATION AND SHOCK OF ELECTROTECHNICAL EQUIPMENT –

Part 4: Equipment transported in road vehicles

1 Scope

IEC/TR 62131-4, which is a technical report, reviews the available dynamic data relating to electrotechnical equipment transported by road vehicles. The intent is that from all the available data an environmental description will be generated and compared to that set out in IEC 60721 [25][1].

For each of the sources identified the quality of the data is reviewed and checked for self consistency. The process used to undertake this check of data quality and that used to intrinsically categorize the various data sources is set out in IEC/TR 62131-1.

This technical report primarily addresses data extracted from a number of different sources for which reasonable confidence exists as to the quality and validity. The report also presents data for which the quality and validity cannot realistically be reviewed. These data are included to facilitate validation of information from other sources. The report clearly indicates when utilizing information in this latter category.

This technical report addresses data from a number of data gathering exercises. The quantity and quality of data in these exercises varies considerably as does the range of road (and test track) conditions covered. The vast majority of the road conditions are from Western Europe. It is believed that one of the data sources considered is that used to set the current IEC 60721 severities. However, review of that data indicates the inclusion of some quite old vehicles.

Relatively little of the data reviewed were made available in electronic form. To permit comparison to be made in this assessment, a quantity of the original (non-electronic) data have been manually digitized.

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.

IEC 60721-3-2:1997, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Section 2: Transportation*

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1 References in square brackets refer to the bibliography.