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Road vehicles — Fuse-links —

Part 2: User's guide

Véhicules routiers — Liaisons fusibles —

Partie 2: Guide de l'utilisateur



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 8820-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This second edition cancels and replaces the first edition (ISO 8820-2:1994). The fuse-links of ISO 8820-2:1994 have been combined with ISO 8820-3:2002. (The optional fuse-links of the former Annex A have been suppressed.)

ISO 8820 consists of the following parts, under the general title *Road vehicles — Fuse-links*:

- *Part 1: Definitions and general test requirements*
- *Part 2: User's guide*
- *Part 3: Fuse-links with tabs (blade type)*
- *Part 4: Fuse-links with female contacts (type A) and bolt-in contacts (type B) and their test fixtures*
- *Part 5: Fuse-links with axial terminals (strip fuse-links) type SF 30 and SF 51 and test fixtures*

The following parts are under preparation:

- *Part 6: Single-bolt fuse-links*
- *Part 7: Fuse-links with rated voltage of 450 V (type BZ)*

Road vehicles — Fuse-links —

Part 2: User's guide

1 Scope

This part of ISO 8820 gives guidance for the choice and application of automotive fuse-links (see Annex A). It describes the various parameters which have to be taken into account when selecting fuse-links.

It is intended to be used in conjunction with the other parts of ISO 8820.

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.

8820-1, *Road vehicles — Fuse-links — Part 1: Definitions and general test requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8820-1 apply.

4 Rated voltage and system voltage

The fuse rated voltage shall always be higher than the nominal voltage of the electrical system of the vehicle, to allow for possible overvoltage conditions.

5 Rated current and continuous current

The rated current (I_N) is the current used for identifying the fuse-link.

The continuous current (I_C) in Figure 1 is the maximum current flowing continuously through the circuit (fuse-link, contacts, holder and cables) at a maximum ambient temperature. The continuous current is lower than the rated current.

6 Cold resistance

The cold resistance is the resistance of a fuse-link without self heating at a defined ambient temperature. It can be calculated by the voltage drop across the contacts of a fuse-link at a certain test current.

The spread of fuse-link cold resistance due to volume production results in a spread in power dissipation and a spread in time-current characteristic (see Figure 2).