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Adjustable speed electrical power drive systems – Part 8: Specification of voltage on the power interface

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS –

Part 8: Specification of voltage on the power interface

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 61800-8, is a technical specification, which has been prepared by subcommittee SC 22G: Adjustable speed electric drive systems incorporating semiconductor power converters, of IEC technical committee TC 22: Power electronic systems and equipment.

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

Enquiry draft	Report on voting
22G/207/DTS	22G/215/RVC

Full information on the voting for the approval of this technical specification 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 parts of IEC 61800 series, under the general title *Adjustable speed electrical power drive systems* can be found on the IEC website.

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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

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ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS –

Part 8: Specification of voltage on the power interface

1 Scope

This part of IEC 61800 gives the guidelines for the determination of voltage on the power interface of power drive systems (PDS's).

NOTE The power interface, as defined in the IEC 61800 series, is the electrical connection used for the transmission of the electrical power between the converter and the motor(s) of the PDS.

The guidelines are established for the determination of the phase to phase voltages and the phase to ground voltages at the converter and at the motor terminals.

These guidelines are limited in the first issue of this document to the following topologies with three phase output

- indirect converter of the voltage source type, with single phase diode rectifier as line side converter;
- indirect converter of the voltage source type, with three phase diode rectifier as line side converter;
- indirect converter of the voltage source type, with three phase active line side converter.

All specified inverters in this issue are of the pulse width modulation type, where the individual output voltage pulses are varied according to the actual demand of voltage versus time integral.

Other topologies are excluded of the scope of this International Specification.

Safety aspects are excluded from this Specification and are stated in IEC 61800-5 series. EMC aspects are excluded from this Specification and are stated in IEC 61800-3.

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 61000-2-4*, Electromagnetic compatibility (EMC) – Part 2-4: Environment – Compatibility levels in industrial plants for low-frequency conducted disturbances*