

Interpretation Number: 1-07/10
Topic: Standardization of 0.3/50 impulse
Relevant Clause: Clause 32.6.1.4.4
Classification: Request for Interpretation

Interpretation Request



IEEE Standards Interpretation Request

Requests for interpretations should only be submitted for seeking clarification of:

- The meaning of portions of standards as they relate to specific applications; and/or
- The exact nature of the contents of the standard.

If the interpretation request meets the above criteria, complete the following and send to the [Manager, Governance](#).

Name:

Michael Maytum

Email:

m.j.maytum@ieee.org

Phone:

+44 1234 838589

Mobile:

+44 7879697652

IEEE Std: IEEE Std 802.3TM 2008⁻ (include year)

Standard Title:

IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements

Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and Physical Layer specifications

Topic:

Standardization of 0.3/50 impulse

Clause, Subclause, Annex, Figure, or Table:

32.6.1.4.4 MDI fault tolerance

(Attach your request – if you have more than one request, please label each request as “Interpretation Request #1,” “Interpretation Request #2,” etc. Please refrain from using proper names, company names and pronouns. Interpretation requests should be as generic as possible. You may attach graphic files in JPEG, EPS, TIFF or PDF format.)

Interpretation Request #1,

Clause 32.6.1.4.4 states:

Transmitters shall withstand without damage a 1000 V common-mode impulse applied at Ecm of either polarity (as indicated in Figure 32–24). The shape of the impulse shall be 0.3/50 μ s (300 ns virtual front time, 50 μ s virtual time of half value), as defined in IEC 60060.

Your normative references are IEC 60060-1 ed2.0 (1989-11), IEC 60060-2 ed2.0 (1994-11) and IEC 60060-3 ed1.0 (2006-02). Part 1 defines

8.3.1 Standard lightning impulse voltage: The standard lightning impulse voltage is a full lightning impulse having a front time of 1.2 μ s and a time to half-value of 50 μ s. It is described as a 1.2/50 impulse.

1) What Part of IEC 60060 defines the 0.3/50 impulse? I cannot find such a waveshape in the IEC 60060 documents

Interpretation Request #2

Following Interpretation Request #1, is the 0.3/50 a mistake and the test impulse should be a 1.2/50 as defined in IEC 60060-1?

Interpretation Request #3

Is the 1.2/50 as defined in IEC 60060-1 a suitable replacement for the specified 0.3/50 impulse. The only difference is the rise time, which isn't going to make a difference to insulation testing. If there is a difference please explain.

NOTE FOR RESPONDERS: Attach your response here. If you are responding to more than one interpretation request, please label your responses as “Interpretation Response #1,” “Interpretation Response #2,” etc.

Response to Interpretation Request #1

Your interpretation request referenced text in Clause 32. Clause 32 is not recommended for new installations. However, the standard is unambiguous. Further, the standard references the IEC 60060 documents for the waveform shape (e.g. the meaning of virtual front which is not defined in IEEE Std 802.3-2008) and not intended for the values.

Response to Interpretation Request #2

See response to interpretation request #1 above.

Response to Interpretation Request #3

This request is being returned to you because the questions asked do not constitute a request for interpretation but instead a request for consultation. Generally, an interpretation request is submitted when the wording of a specific clause or portion of a standard is ambiguous or incomplete. The request should state the two or more possible interpretations or the lack of completeness of the text.