

SLOVENSKI
STANDARD

**SIST EN 61000-6-
1:2002/IS1:2006**

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**Elektromagnetna združljivost (EMC) – 6-1. del: Osnovni standardi –
Odpornost v stanovanjskih, poslovnih in manj zahtevnih industrijskih okoljih**

Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments

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3b8ef282cef1/sist-en-61000-6-1-2002-is1-2006](https://standards.iteh.ai/catalog/standards/sist/ccff6c36-0857-45b7-99cf-3b8ef282cef1/sist-en-61000-6-1-2002-is1-2006)

ICS 33.100.20

Referenčna številka
SIST EN 61000-6-1:2002/IS1:2006(en)

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Interpretation Sheet 1**EN 61000-6-1:2001**English version

Foreword

This Interpretation Sheet to the European Standard EN 61000-6-1:2001 was prepared by the Interpretation Panel of the Technical Committee CENELEC TC 210, Electromagnetic compatibility (EMC). The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC on 2005-07-16.

Clause 9 Immunity test requirements

The last two points of this clause state:

“The description of the test, the test generator, the test methods, and the test set-up to be used are given in the basic standards which are referred to in the following tables.

<https://standards.iteh.ai/catalog/standards/sist/ccff6c36-0857-45b7-99cf-12002/IS1-2006>

The contents of these basic standards are not repeated here, however modifications or additional information needed for the practical application of the tests are given in this standard.”

Question:

This implies the user must refer to the Basic standard for instructions on the application of the particular phenomenon. How should the user proceed and how many tests should be carried out ?

Interpretation:

- (a) In the case of Table 1, 1.3 Electrostatic discharge, the Basic standard is EN 61000-4-2:1995 with Amendments A1:1998 and A2:2001.

In 8.3.1 of EN 61000-4-2 there is an instruction “The test voltage shall be increased from the minimum to the selected test level, in order to determine any threshold of failure.” This is a clear instruction to ‘step’ through the levels from 2 kV up to the level specified in the Table 1.3 of EN 61000-6-1.

- (b) In the case of Table 2, 2.2, Table 3, 3.3, Table 4, 4.5 and Table 5, 5.2 Fast transients, the Basic standard is EN 61000-4-4:1995 with Amendments A1:2001 and A2:2001.

In 8.2 of EN 61000-4-4 there are two instructions on the application of the transients.

- “The test shall be carried out on the basis of a test plan that shall include the verification of the performances of the EUT as defined in the technical specification.” and
- “The test plan shall specify:
 - test level;
 - polarity of the test voltage (both polarities are mandatory);”

This is a clear instruction to only apply the transients at the specified test level and to apply the transient voltage in both polarities.

- (c) In the case of Table 3, 3.2 and Table 4, 4.4 Surges, the Basic standard is EN 61000-4-5:1995 with Amendment A1:2001.

In 8.2 of EN 61000-4-5 there are two instructions on the application of the surge.

- “If not otherwise specified the surges have to be applied synchronised to the voltage phase at the zero crossing and the peak value of the a.c. voltage wave (positive and negative).” and
- “All lower levels including the selected test level shall be satisfied.”

This is a clear instruction to step through the levels from 0,5 kV up to the level specified in Tables 3.2 and 4.4 and apply the surge at the 0, 90, 180 and 270 degree phase angles.

Validity:

This interpretation remains valid until an amendment or updated standard dealing with this issue is published by CENELEC.