



















In the latter case, the relative humidity shall be reduced to 75 % RH  $\pm$  2 % RH in not more than 1 h. The temperature shall then be adjusted to laboratory temperature within  $\pm$ 1 K in not more than one further hour. For large specimens, the relevant specification may allow longer change over times.

The recovery time of 1 h to 2 h is counted from the moment when the prescribed recovery conditions have been obtained.

Specimens having a large thermal time constant may be submitted to recovery for a period sufficient to attain temperature stability (see Clause 4 of 60068-1).

The relevant specification shall state whether any special precautions shall be taken regarding the removal of surface moisture.

## 10 Final measurements

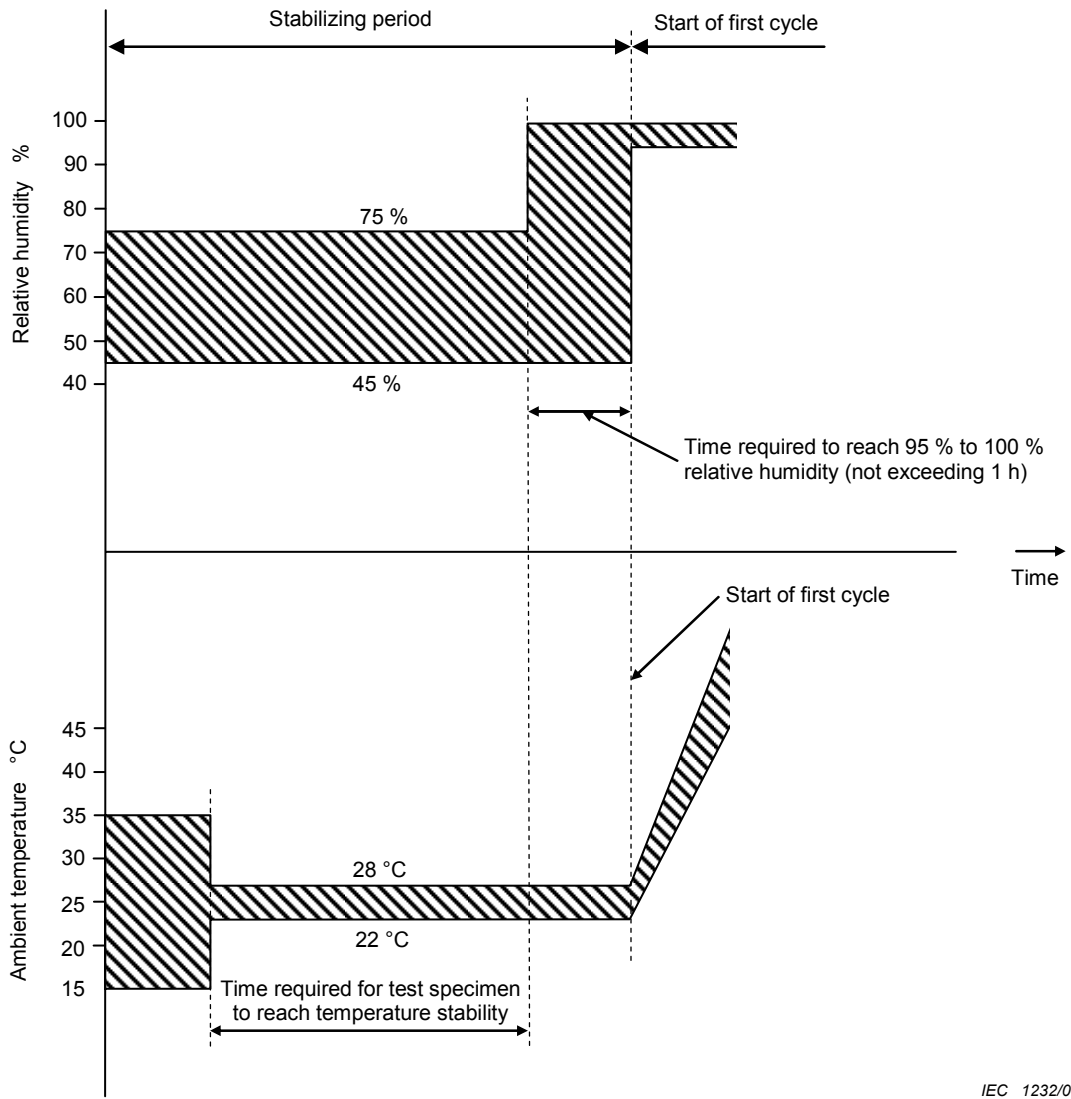
The specimens shall be visually inspected, and functionally tested as required by the relevant specification.

The measurements shall be commenced immediately after the recovery period and the parameters most sensitive to changes of relative humidity shall be measured first. Unless otherwise specified, the measurement of these parameters shall be completed within 30 min.

## 11 Information to be given in the relevant specification

When this test is included in the relevant specification, the following details shall be given as far as they are applicable.

	Clause or subclause
a) Severity: temperature and number of cycles .....	5.2
b) Initial measurements .....	6
c) State of the specimen during conditioning .....	7
d) Details of mounting or supports .....	7
e) Variant 1 or variant 2 .....	7.3.3
f) Intermediate measurements .....	8
g) Recovery conditions .....	9
h) Special precautions to be taken regarding removal of surface moisture .....	9
i) Visual inspection and/or functional tests to be made at the end of the test, the parameters to be measured first, and the maximum period allowed for the measurement of these parameters (final measurements) .....	10



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Figure 1 – Test Db – Stabilizing period

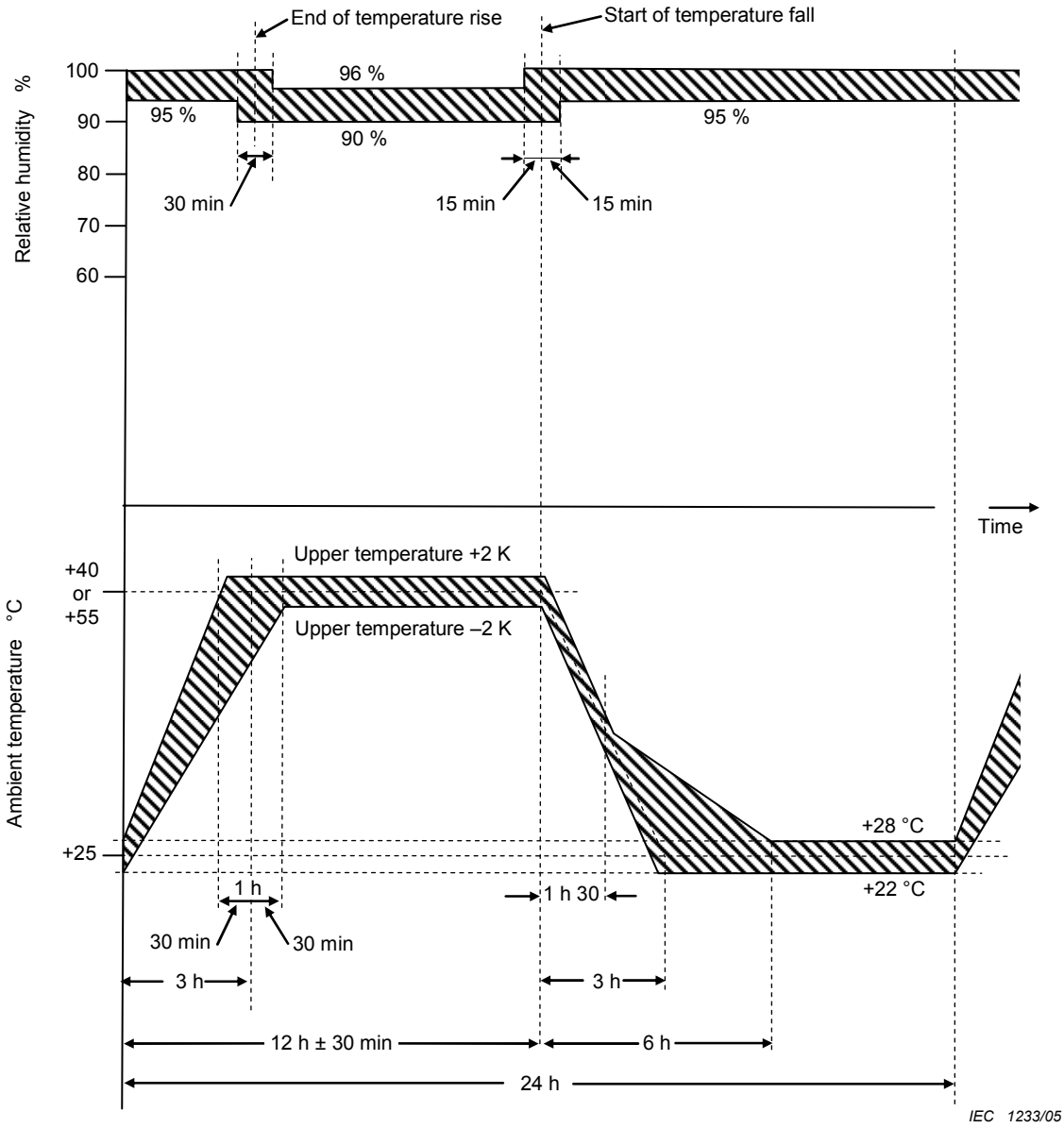


Figure 2a – Test Db – Test cycle – Variant 1

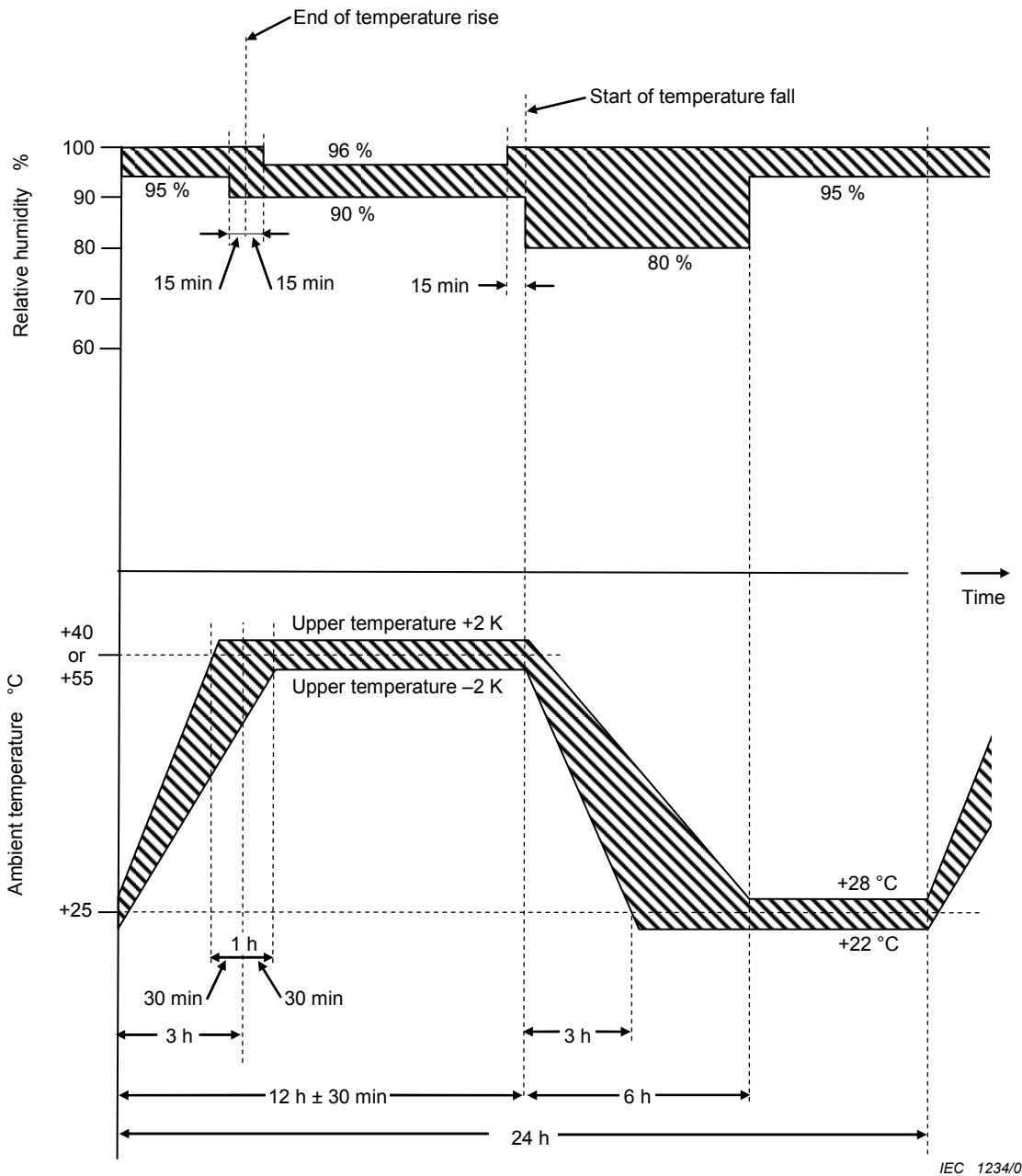
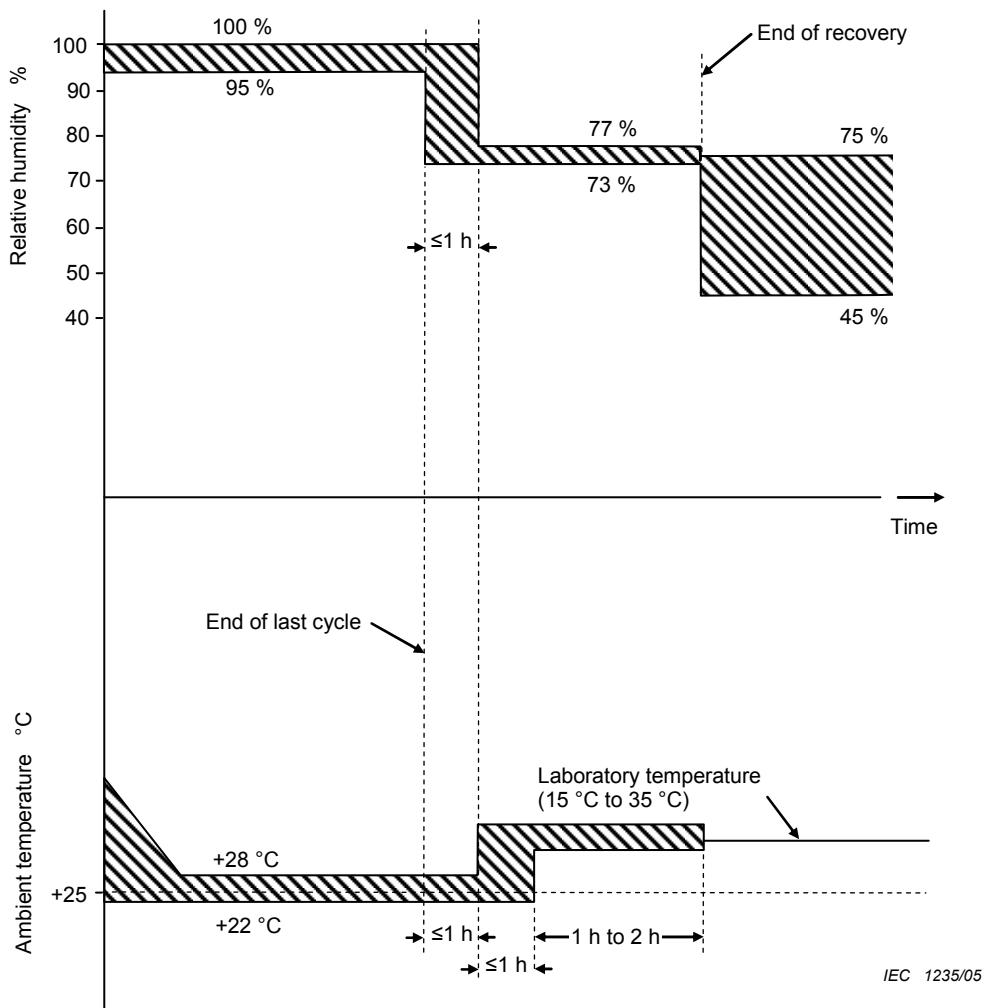


Figure 2b – Test Db – Test cycle – Variant 2

Figure 2 – Test Db – Test cycle – Variants 1 and 2



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**Figure 3 – Test Db – Recovery at controlled conditions**

**Annex A**  
(informative)

**Selection of variant for the temperature-fall period –  
Guidance**

In this test two variants are included for the temperature-fall period.

Variant 1, where the rate of temperature fall shall be closely controlled during the first 90 minutes and the relative humidity shall be not less than 95 % except for the first 15 min when it shall be not less than 90 %. This variant requires specially designed chambers.

Variant 1 is particularly suitable for specimens where moisture may penetrate due to the breathing effect for example, specimens which include hollow spaces where condensation may occur on internal surfaces.

Variant 2 gives satisfactory reproducibility for all other types of specimens.

Further information on the application of damp heat tests including a comparison of steady-state and cyclic tests can be found in IEC 60068-3-4<sup>1</sup>.

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<sup>1</sup> IEC 60068-3-4, *Environmental testing – Part 3-4: Supporting documentation and guidance – Damp heat tests*

*(Continued from second cover)*

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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