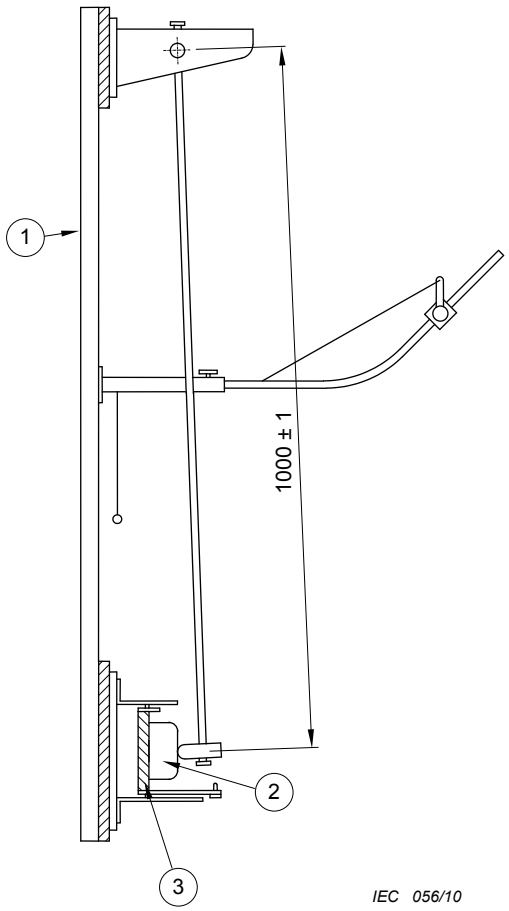
Dimensions in millimetres

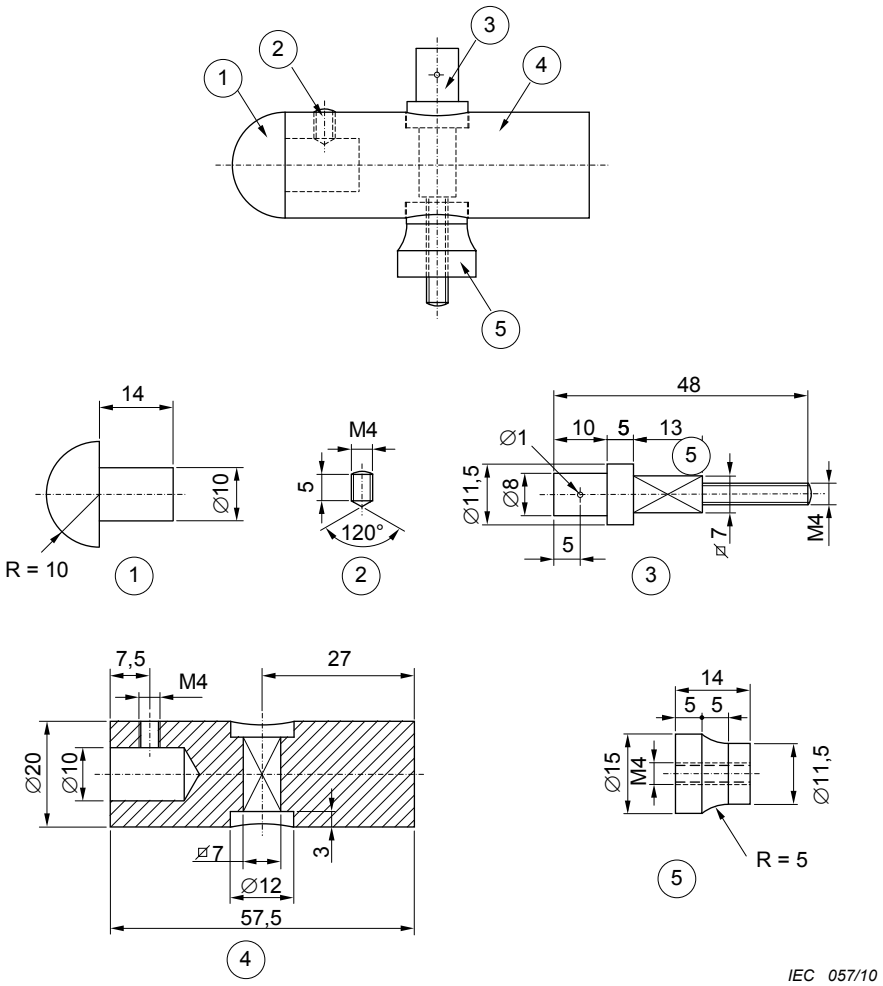


Key

1 Frame
2 Sample
3 Mounting support

Figure 15 – Mechanical impact test apparatus (9.13.2.1)

Dimensions in millimetres



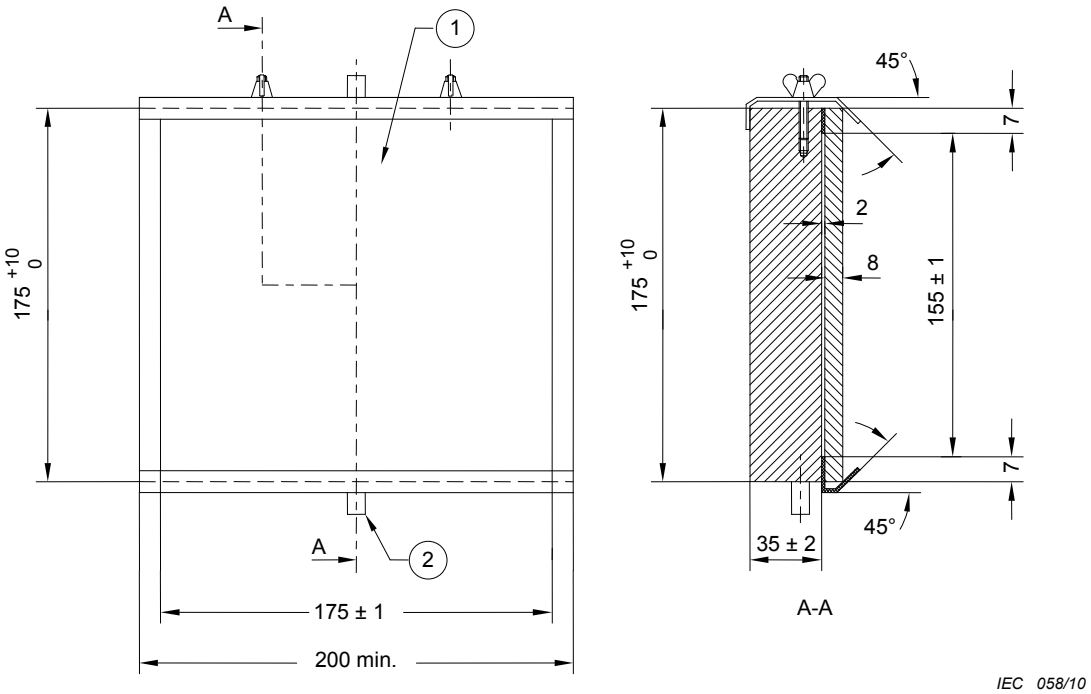
Key

1 Polyamide

2, 3, 4, 5 Steel Fe 360

Figure 16 – Striking element for pendulum impact test apparatus (9.13.2.1)

Dimensions in millimetres



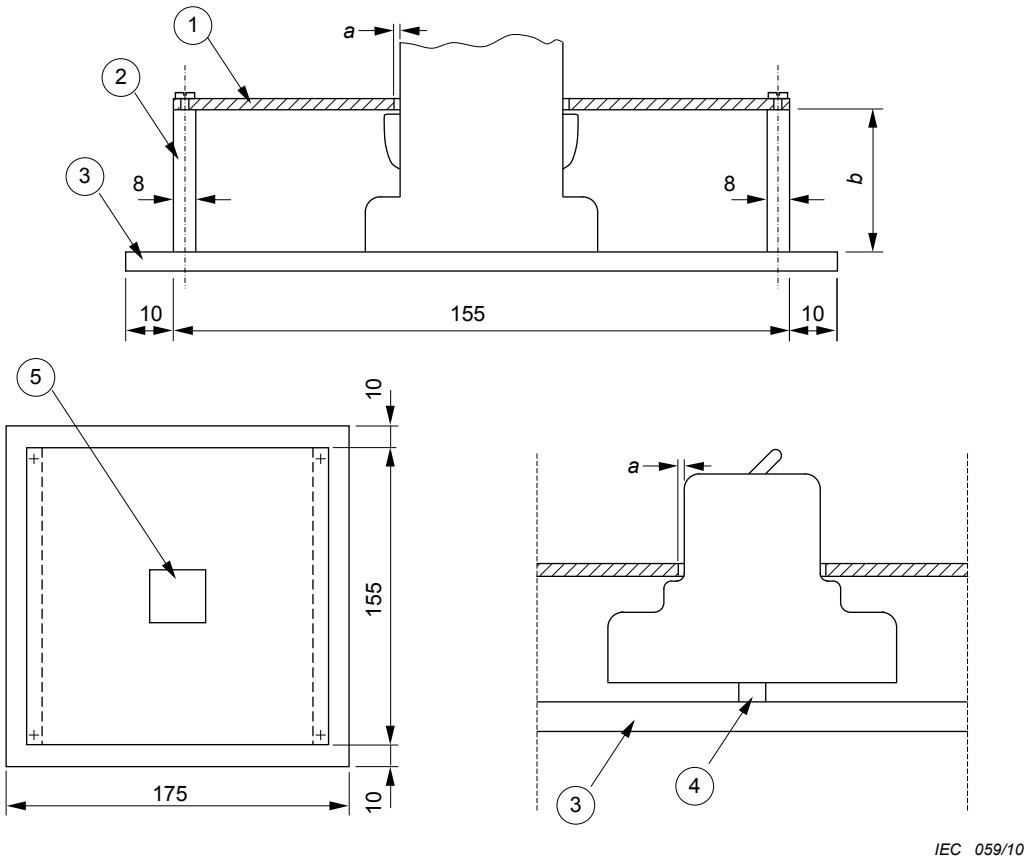
Key

1 Sheet of plywood

2 Pivot

Figure 17 – Mounting support for sample for mechanical impact test (9.13.2.1)

Dimensions in millimetres



Key

1 Interchangeable steel plate with a thickness of 1 mm

2 Aluminium plates with a thickness of 8 mm

3 Mounting plate

4 Rail for RCBO designed to be mounted on a rail

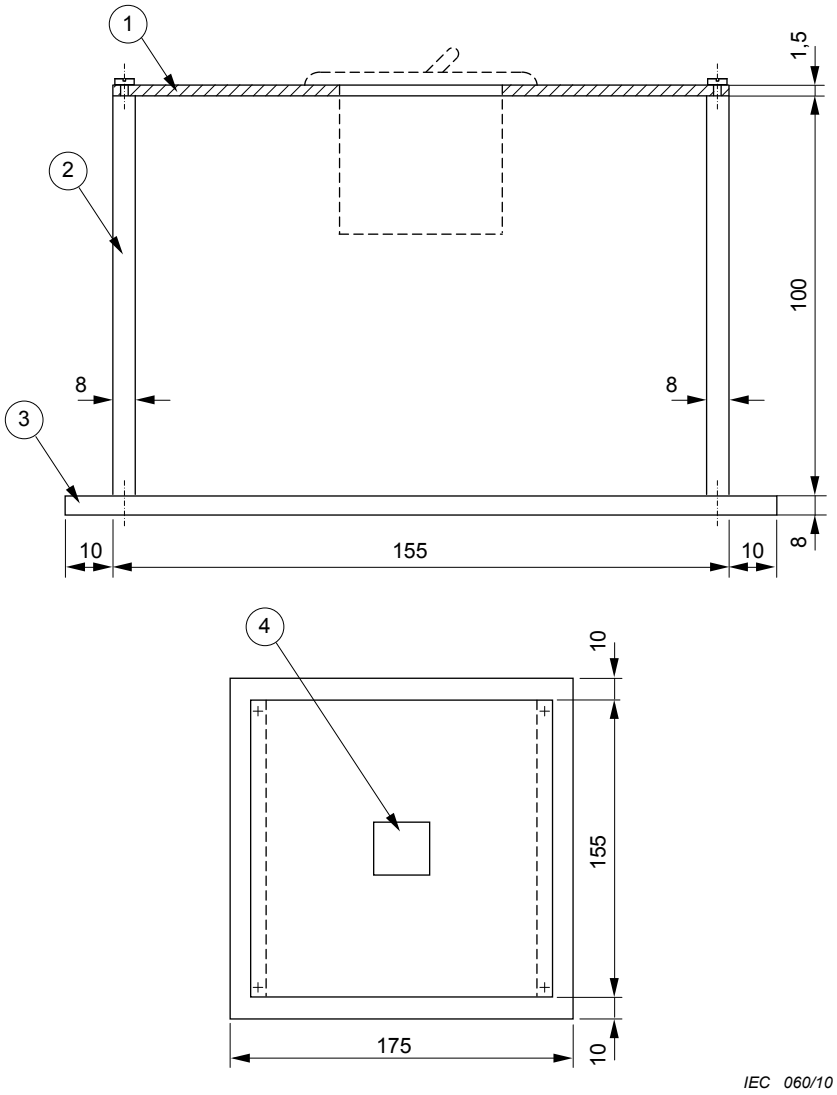
5 Cut-out for the RCBO in the steel plate

a The distance between the edges of the cut-out and the faces of the RCBO shall be between 1 mm and 2 mm

b The height of the aluminium plates shall be such that the steel plate rests on the supports of the RCBO or, if the RCBO has no such supports, the distance from live parts, which are to be protected by an additional cover plate, to the underside of the steel, is 8 mm.

Figure 18 – Example of mounting an unenclosed RCBO for mechanical impact test (9.13.2.1)

Dimensions in millimetres

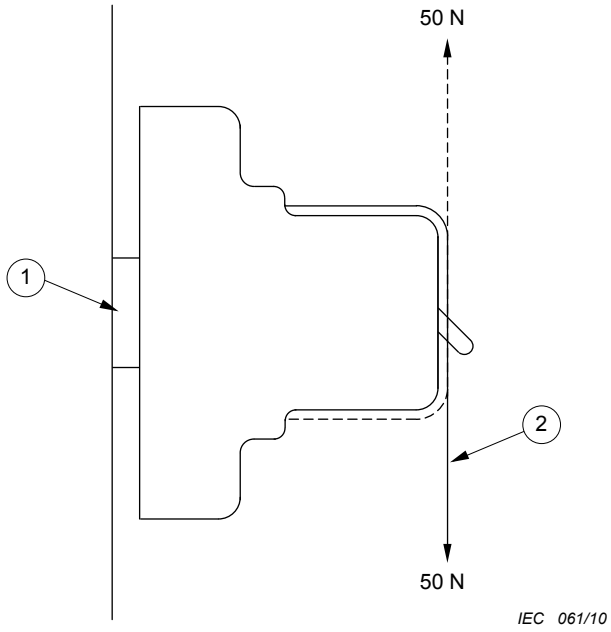


Key

1 Interchangeable steel plate with a thickness of 1,5 mm
2 Aluminium plates with a thickness of 8 mm
3 Mounting plate
4 Cut-out for the RCBO in the steel plate

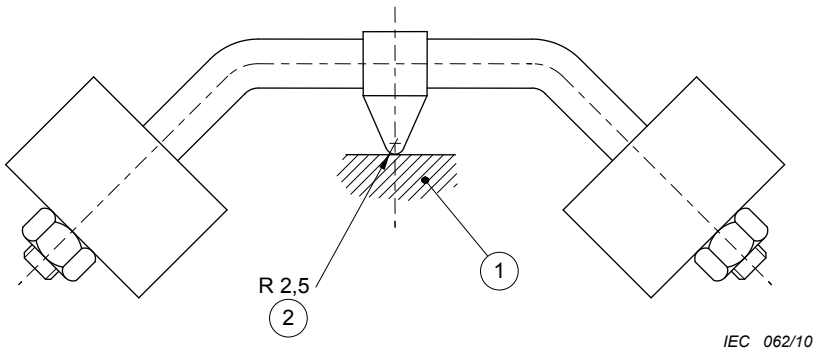
NOTE In particular cases the dimensions may be increased.

Figure 19 – Example of mounting of panel mounting type RCBO for the mechanical impact test (9.13.2.1)



Key
1 Rail
2 Cord

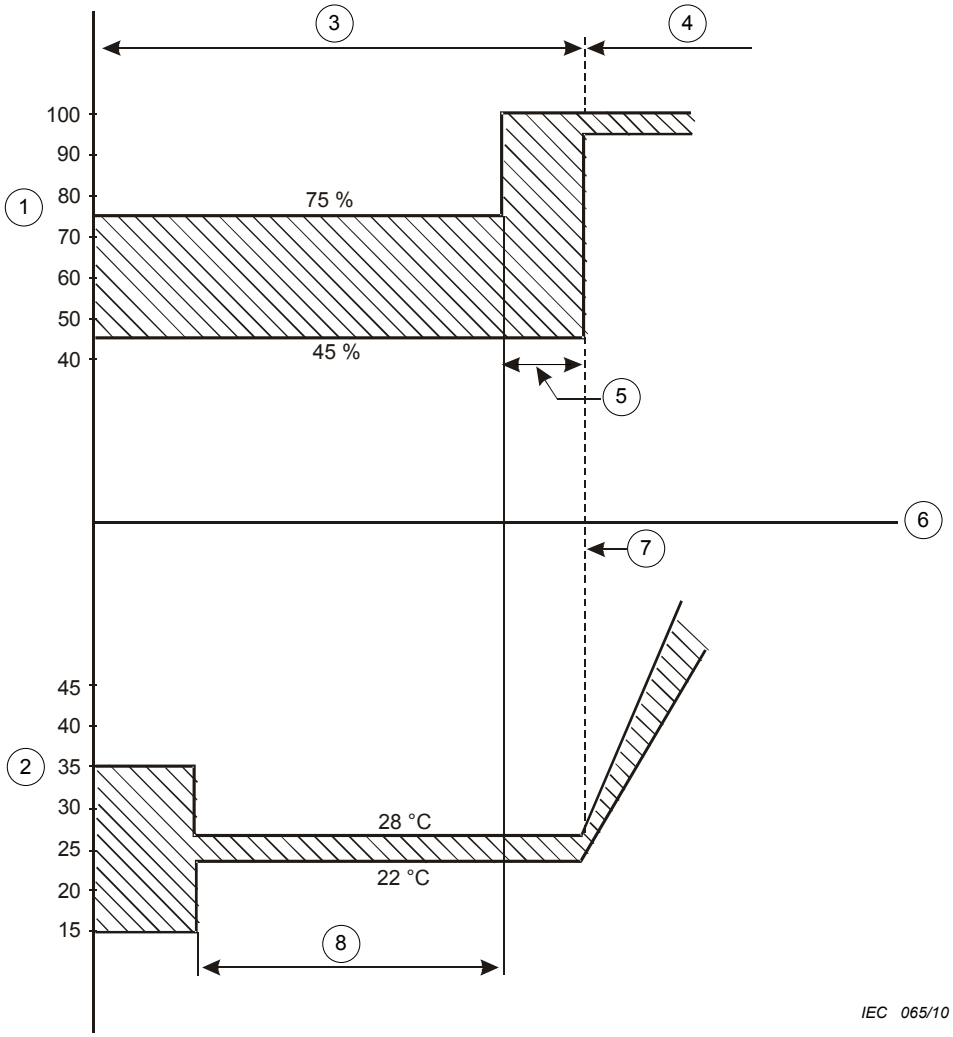
Figure 20 – Application of force for mechanical impact test of rail mounted RCBO (9.13.2.2)



Key
1 Sample
2 Spherical

Figure 21 – Ball-pressure test apparatus (9.14.2)

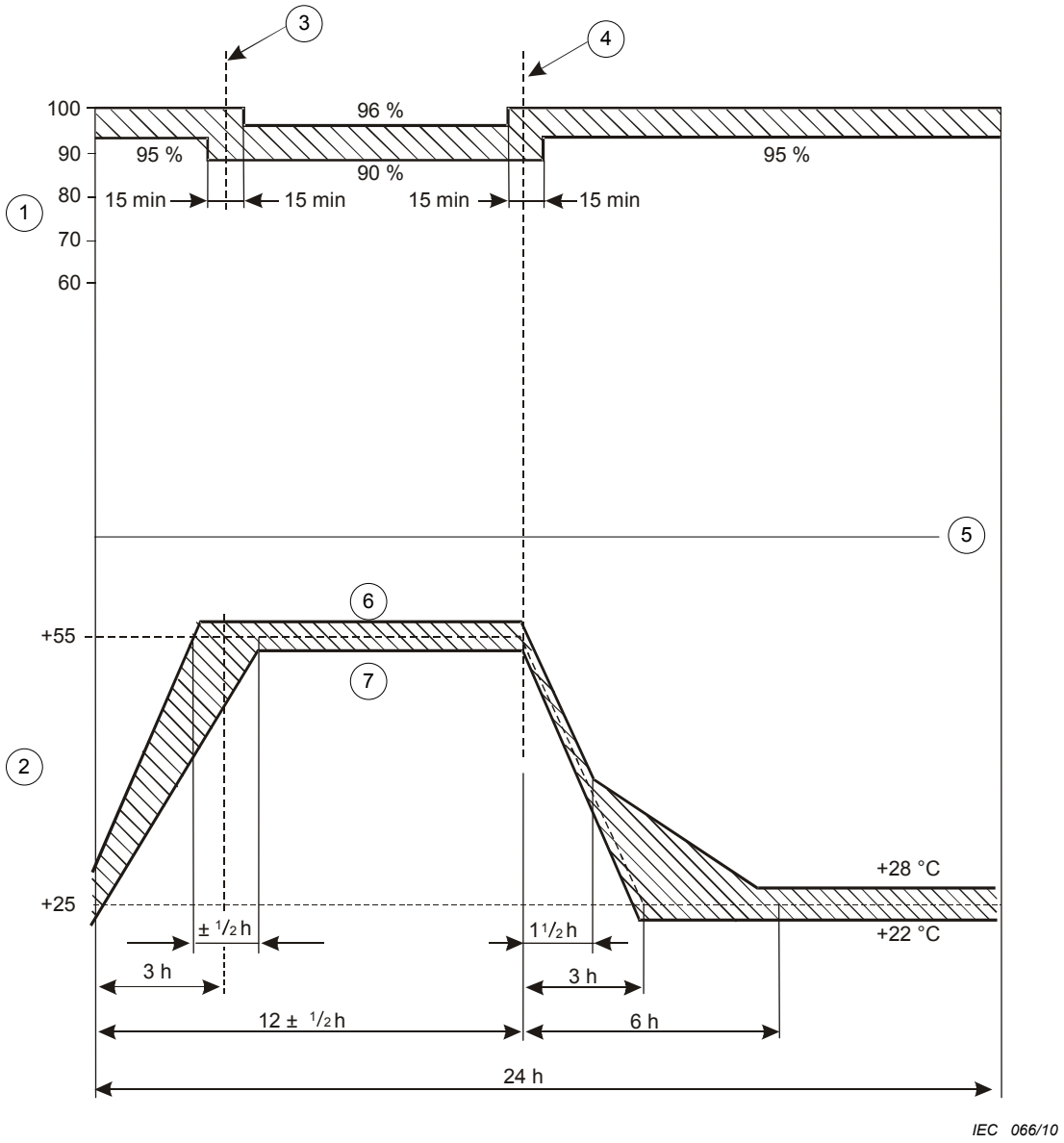
Figure 22 – Void



Key

1 Relative humidity (%)
2 Ambient temperature (°C)
3 Stabilizing period
4 First cycle
5 Time required to reach 95 %-100 % relative humidity (not exceeding 1 h)
6 Time
7 Start of the first cycle
8 Time required for test specimen toreach temperature stability

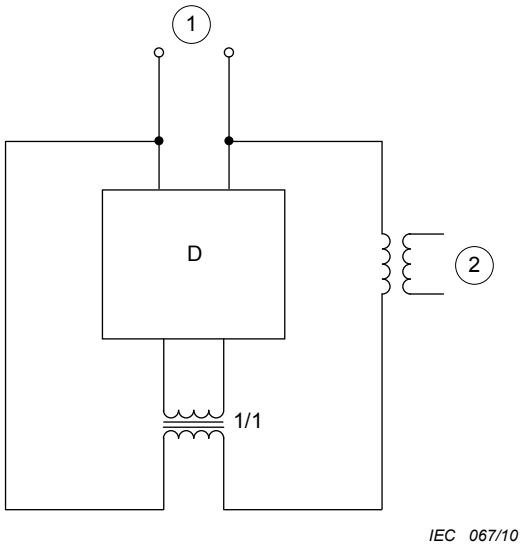
Figure 23 – Stabilizing period for reliability test (9.22.1.3)



Key

1 Relative humidity (%)
2 Ambient temperature (°C)
3 End of the temperature rise
4 Start of the temperature fall
5 Time
6 Upper temperature +57 °C
7 Lower temperature +53 °C

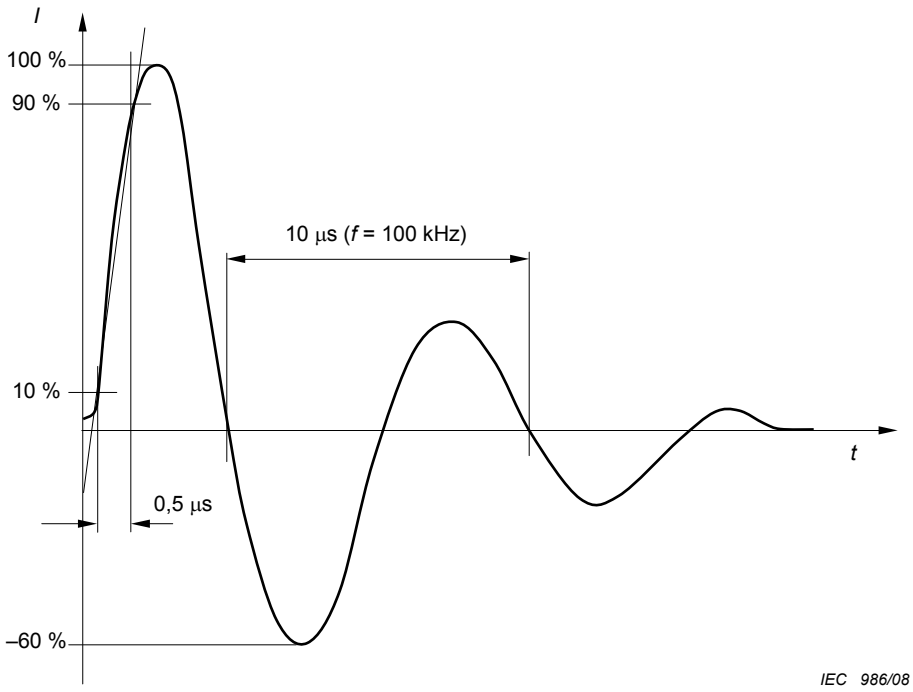
Figure 24 – Reliability test cycle (9.22.1.3)



Key

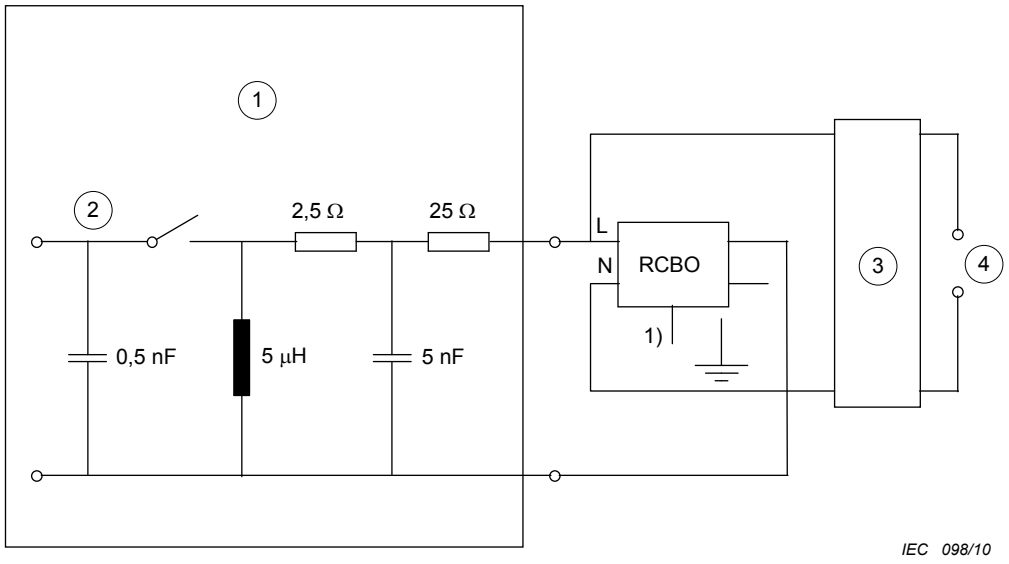
D RCBO under test
1 Supply at 1,1 U_n
2 Current supply

Figure 25 – Example of a test circuit for verification of ageing of electronic components (9.23)



NOTE Care should be taken that the oscillating wave is guaranteed at least up to the 5th full period (50 µs).

Figure 26 – Damped oscillator current wave, 0,5 µs/100 kHz



Key

1 Ring wave generator 0,5 µs/100 kHz
2 Trigger
3 Filter
4 Supply

1) If the RCBO has an earthing terminal, it shall be connected to the neutral terminal, if any, and if so marked on the RCBO or, that failing, to any phase terminal.

Figure 27 – Test circuit for the ring wave test at RCBOs

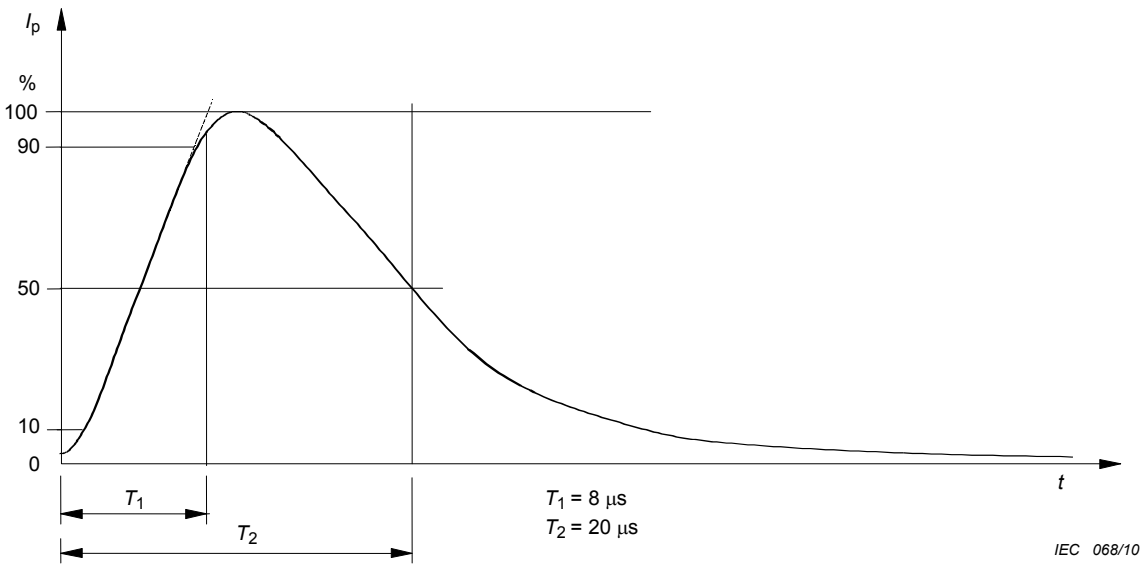


Figure 28 – Surge current impulse 8/20 µs