

IK07-10 Pendulum Impact Tester



Introduction:

IK07-10 pendulum impact tester for drop hammer test from IK07, IK08 until IK10 comply with IEC60068-2-75:1997

The most of luminaires manufactory were request to do IK level test (Impact Protection), IK ratings are defined as IKXX, where "XX" is a number from 00 to 10 indicating the degrees of protection provided by enclosures (including luminaires) against external mechanical impacts. The different IK ratings relate to the ability of an enclosure to resist impact energy levels measured in joules (J). IEC 62262 specifies how the enclosure must be mounted for testing, the atmospheric conditions required, the quantity and distribution of the test impacts and the impact

hammer to be used for each level of IK rating.

Technical parameters:

Pendulum: Length: 1000mm; external diameter: 15.9 mm; thickness: 1.5 mm; material: steel;

The impact height can be adjustable (200-1200mm). It can be customized. The impact apparatus can be moved on all sides.

| Energy/J | ≤1±10% | 2±5% | 5±5% | 10±5% | 20±5% | 50±5% | | | | | |
|----------------------|-----------|---------------------------------------------------|-------|-------|-------|-------|--|--|--|--|--|
| Equivalent mass2%/KG | 0.25(0.2) | 0.5 | 1.7 | 5 | 5 | 10 | | | | | |
| Material | Nylon | | steel | | | | | | | | |
| R/mm | 10 | 25 | 25 | 50 | 50 | 50 | | | | | |
| D/mm | 18.5(20) | 35 | 60 | 80 | 100 | 125 | | | | | |
| f/mm | 6.2(10) | 7 | 10 | 20 | 20 | 25 | | | | | |
| r/mm | - | - | 6 | - | 10 | 17 | | | | | |
| L/mm | According | According equivalent mass to adjust and determine | | | | | | | | | |

A.Rockwell hardness HRR 85-100, Aaccording to ISO2039-2

B.Fe 490-2 according to ISO1052, Rockwell hardness HRR 80-85, according to ISO6508

Drop height

| Energy/J | 0.14 | 0. | 2 | (0.3) | 0.35 | (0.4) | 0. | 5 | 0.7 | 1 | 2 | 5 | 10 | 20 | 50 |
|----------------------|------|-------|------|-------|------|-------|-------|------|------|------|-----|-----|-----|-----|-----|
| Equivalent mass2%/KG | 0.25 | (0.2) | 0.25 | (0.2) | 0.25 | (0.2) | (0.2) | 0.25 | 0.25 | 0.25 | 0.5 | 1.7 | 5 | 5 | 10 |
| Drop height ±1%/mm | 56 | (100) | 80 | (150) | 140 | (200) | (250) | 200 | 280 | 400 | 400 | 300 | 200 | 400 | 500 |

The Correspondence Between the Collision Energy and IK Code

| IK Code | IK01 | IK02 | IK03 | IK04 | IK05 | IK06 | IK07 | IK08 | IK09 | IK10 |
|--------------------|------|------|------|------|------|------|------|------|------|------|
| Collision Energy/J | 0.14 | 0.2 | 0.35 | 0.5 | 0.7 | 1 | 2 | 5 | 10 | 20 |