

IEC60068-2-75

IK Vertical Hammer Impact Tester



ACE-LC-3207

IK Vertical hammer impact tester is designed according to IEC-60068-2-75 Test Ehc <Environmental testing – Part 2: Tests – Test Eh: Hammer tests>. It consists of striking element which falls freely from rest through a vertical height, on to the specimen surface held in a horizontal plane and guide tube. The equipment is released by electromagnet to ensure instantaneous release and vertical drop.

Hammer Test

Standard EN/IEC 60068 consists of three methods for testing the impact resistance of a test object against impacts with different severity levels. It serves to demonstrate the mechanical strength of a product and is intended primarily for the testing of electrical equipment. The test consists of a standard test procedure with a defined number of impacts on the test object with a defined impact energy. Standard IEC 60068-2-75 covers impact energies from 0.14 J to 50 J.

Technical parameters:

Item	Technical parameter
Striking element	Impact component Options : 1J/2J/5J/10J/20J/50J(optional) 1J Equivalent mass of impacting element: 0.25±2g 2J Equivalent mass of impacting element: 0.5±5g 5J Equivalent mass of impacting element: 1.7±5g 10J Equivalent mass of impacting element: 5.0±5g 20J Equivalent mass of impacting element: 5.0±5g 50J Equivalent mass of impacting element: 10.0±5g
Constrain the catheter	According to the impact of matching components: 1J/2J/5J/10J/20J/50J (optional)
Universal fixture	Maximum clamping: 15KG.
Impact release	Manual, magnetic type. Sided four-bit card slot to facilitate the replacement of impact components.
Drop height	Manual adjustable range: 200-1300mm; Effective accuracy: ± 1mm.
Height adjustment	Hand wheel, ball-type screw, with the Japanese import rod.

EN 60068-2-75 DIMENSIONS TABLE OF IMPACT ELEMENTS:

IK CODE	IK00	IK01	IK02	IK03	IK04	IK05	IK06	IK07	IK08	IK09	IK10	IK11
Impact energy (Joule)	*	0.14	0.20	0.35	0.50	0.70	1.00	2.00	5.00	10.00	20.00	50.00
Drop Height (mm)	*	56	80	140	200	280	400	400	300	200	400	500
Mass (kg)	*	0.25	0.25	0.25	0.25	0.25	0.25	0.50	1.70	5.00	5.00	10.00
Material	*	P1	P1	P1	P1	P1	P1	S2	S2	S2	S2	S2
R (mm)	*	10	10	10	10	10	10	25	25	50	50	50
D (mm)	*	18.5	18.5	18.5	18.5	18.5	18.5	35	60	80	100	125
f (mm)	*	6.2	6.2	6.2	6.2	6.2	6.2	7	10	20	20	25
r (mm)	*	—	—	—	—	—	—	—	6	—	10	17

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Pendulum Impact Hammer Test Equipment



ACE-BC-3208

The pendulum hammer impact test equipment is manufactured according to the test method Eh hammer test of the test method in the part 2 of the environmental test of IEC60068-2-75 and GB 2423.55. Capable of performing tests specified in multiple standards (IEC 60335, IEC 60065, IEC 60745, IEC 61029, IEC 60950); Mainly used for impact resistance testing of household and similar electronic and electrical products and their accessories, and to detect the mechanical strength of the products. At the same time, we not only have a variety of standard test equipment, but also provide customization.

The pendulum impact hammer test apparatus mainly consists of a pendulum with its upper end swinging in a vertical plane around its pendulum axis. The pendulum axis is 1000mm above the measuring point. The pendulum consists of a rigid pendulum axis and a matching impact element. For test samples that are heavier, larger in size or difficult to carry, a handheld pendulum can be used for testing.

Application:

It is used for impact resistance testing of household and similar electrical and electronic products and their plugs and sockets, wall-mounted boxes, screw glands, covers, switches, lamps and other accessories to assess the safety performance and strength level of the products.

Technical Parameters:

1. Impact element mass: 150±1g(0.2) / 200±1g(0.5) (optional);
2. Mounting bracket quality: 10±1Kg;
3. Bracket rotation angle: ±180° arbitrarily adjustable;
4. Pendulum shaft length: 1000±1mm;
5. Swing shaft material: steel pipe with outer diameter of 9 mm and wall thickness of 0.5 mm;
6. Pendulum shaft mass: 1mm=1g;
7. Impact height: 100mm, 150mm, 200mm, 250mm, 400mm.

Choose the drop height:

1. Place the pendulum shaft in the guide and install the blocking pin.
2. The drop height is selected according to the equivalent mass of the selected impact energy hammerhead and can be measured by the steel ruler and the height indicator.

Energy /J	0.14	0.2		(0.3)	0.35	(0.4)	0.5		0.7	1	2
Equivalent Mass /kg	0.25	(0.2)	0.25	(0.2)	0.25	(0.2)	(0.2)	0.25	0.25	0.25	0.5
Drop Height ±1%mm	56	(100)	80	(150)	140	(200)	(250)	200	280	400	400



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Notice

1. The pendulum impact test device must be firmly secured to the wall to ensure safety.
2. The pendulum impact test device should not be installed in a higher position, and it is better to be 60 cm below the ground.
3. During the test, the control handle can be placed as far as possible on the side of the device, and should not stand directly below the device.
4. When replacing the fixture, please do so with someone's assistance.
5. The height indication of the instrument is for reference only. Please use other length measuring tools to determine the drop height to reduce the measurement error.
6. Regularly add lubricating oil to the adjusting screw and seat to ensure smooth adjustment.
7. When the impact hammer is not tested, it should be properly protected from collision.
8. Environmental conditions required: temperature 5 ~ 35 ° C , humidity 45 ~ 75%.

IEC60068-2-75

Adjustable Universal Energy Spring Impact Hammer(0.14J-1J)



(ACE-TC106)

Adjustable universal energy spring impact hammer strictly complies with IEC60068-2-75, IEC884, UL1244 standards. The impact energy of universal impact hammer is adjustable. The impact energy adjustment range is 0.14J to 1J. You can use an adjustable energy impact hammer to complete IK01 to IK06 tests. At the same time, we also provide multiple standard single energy impact hammers, and provide customization.

The impact hammer is used to check the durability of the housing of household appliances or other electronic products; if damage occurs during the impact hammer test, the accessibility probe can be used to measure the extent or severity of the damage. The impact hammer simulates mechanical shock and tests the ability of household and similar electrical housings, levers, handles, knobs, lighting, etc. to withstand mechanical shock.

Adjustable Universal Energy Impact Hammer Details:

1. Body: including release mechanism and striking element guide, weight 1250 g, outer diameter 50 mm.
2. Striking element: with trigger knob and hammer head, surface is polyamide, hemispherical radius is 10 mm, hardness is HR85-100, weight 250 g, length about 310 mm.
3. Release cone: weight 60 g, release force $\leq 10\text{N}$.
4. Impact force: impact energy for single force and adjustable models is 0.14, 0.20, 0.35, 0.50, 0.70 and 1.0 J, the mass of the striking element is 250g.
5. Custom padded carrying case included.

Impact Energy Details:

Impact Energy	Error
0.14J	$\pm 0.01\text{J}$
0.20J	$\pm 0.02\text{J}$
0.35J	$\pm 0.03\text{J}$
0.50J	$\pm 0.04\text{J}$
0.70J	$\pm 0.05\text{J}$
1.00J	$\pm 0.05\text{J}$