IK Tester

(EV Charger Pendulum Hammer and vertical hammer)

KP-IK1000A

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Standard ：

IEC60884-1

IEC60238-1

IEC60068-2-75 Environmental testing – Part 2: Tests – Test Eh: Hammer tests, IEC60068-2-63, IEC62262 Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code), IEC60439-5 Low-voltage switchgear and controlgear assemblies - Part 5:Particular requirements for assemblies for power distribution in public networks

Application

This device is suitable for mechanical impact strength test to electric cabinets and other sheet metal, shell of Non metal electric energy metering cabinet, substation cable switchboard and cable junction box

Test sample

The shell of electric energy metering cabinet, substation cable switchboard and cable junction box and similar equipment

Feature

Equipment using the car structure, can be moved left and right, forward and backward, the upper and lower impact point height adjustable, and the impact angle 0-90°adjustable. The device is a low energy pendulum impact device for 2J and above.

Parameters

Model	KP-IK1000A
Pendulum	Length: 1000mm; external diameter: 12mm; steel pipe wall thickness: 1.5mm. Composition of the equivalent mass with impact element
Impact point	Up and down adjustable
Impact height	50-1000mm
Impact element	2,5,10,20J 50J impact hammer
Drop height	Scale display
Release mode	Mechanical
Power :	220V/50HZ or 110v/60HZ.(Controlled vertical hammer)
Dimension	800*11050*1950mm（W*D*H）

1.Relation between IK code and impact energy

IK code	IK00	IK01	IK02	IK03	IK04	IK05	IK06	IK07	IK08	IK09	IK10
Impact energy, J	*	0,14	0,2	0,35	0,5	0,7	1	2	5	10	20
* Not protected according to this standard.											
NOTE 1 When higher impact energy is required, the value of 50 J is recommended. NOTE 2 A characteristic group numeral of two figures has been chosen to avoid confusion with some national standards which used a single numeral for a specific impact energy.											

2.Impact energy, equivalent mass and drop height table

Energy/J	2	5	10	20	50	
Equivalent mass /kg	0.5	1.7	5	5	10	
Drop height ±1%mm	400	300	200	400	500	
	Notes: 1. See note in IEC 60068-2-75 3.2.2 1. In this part, the energy (J) is calculated taking the standard acceleration due to the earth's gravity(g), rounded up to the nearest whole number, that is 10m/s².					

3.Co-ordinated characteristics of the striking elements

Energy /J	≤1 ±10%	2 ±5%	5 ±5%	10 ±5%	20 ±5%	50 ±5%
Equivalent mass ±2%kg	0.25(0.2)	0.5	1.7	5	5	10
Material	Polyamide [1)]	Steel [2)]				
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	To be adjusted to match the equivalent mass, see Annex A.					
1) 85≤HRR≤100, Rockwell hardness according to ISO2039-2. 2) Fe490-2, according to ISO1052; Rockwell hardness according to ISO6508.						
NOTE- The values shown in the brackets for the equivalent mass and the diameter of the striking elements for the energy value equal to or less than 1 J are those in the current test Ef. The values currently in test Eg are also shown for these two parameters. For co-ordination purpose, the values in brackets will be deleted fives years from the publication of this standard.						