IEC 60335-2-2 Current-Carrying Hose Crushing Tester

KP-9109 Product Catalogue

Mechanical compression test equipment for current-carrying hoses used with vacuum cleaners and water-suction cleaning appliances. Designed for the IEC 60335-2-2 Clause 21.101 resistance to crushing test before subsequent electric strength verification.

1.5 kN | IEC 60335-2-2 | Hose

Standards
IEC 60335-2-2 Clause 21.101

Test Object
Current-carrying hose

Test Method
Parallel steel plate compression

Key Condition
1.5 kN / 50 mm/min +/- 5 mm/min

Specifications subject to final configuration.

Product Overview and Test Architecture

The KP-9109 is a dedicated current-carrying hose crushing tester for IEC 60335-2-2 Clause 21.101. It applies a controlled mechanical compression force to hose samples using parallel steel plates. The tester performs the mechanical crushing step only; post-crushing electric strength verification requires separate electrical safety test equipment.

Standard-oriented crushing test

Designed for IEC 60335-2-2 Clause 21.101 resistance to crushing testing of current-carrying hoses.

Dedicated compression fixture

The hose sample is compressed between two parallel steel plates under the specified force and speed conditions.

Button-controlled operation

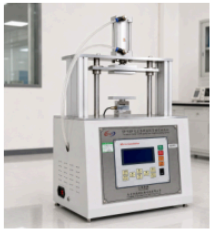
Micro controller and button operation support routine laboratory testing and sample validation.

Clear test boundary

Performs mechanical crushing only. Electric strength verification after crushing requires separate equipment.

KP-9109

Current-Carrying Hose Crushing Tester



Clause 21.101

1.5 kN Force

Functional Test Flow

1. **Prepare Sample** — Confirm clause and sample condition.
2. **Align Hose** — Place hose axis at right angles.
3. **Compress** — Apply 50 mm/min +/- 5 mm/min until 1.5 kN.
4. **Release** — Release force after reaching condition.
5. **Verify Separately** — Use separate electric strength equipment.

Detailed Technical Specifications

Catalogue-level parameters are shown below. Final setup, sample boundary and documentation should be reviewed against the applicable standard version and laboratory procedure.

Standard and Test Scope

Parameter	Specification
Product model	KP-9109
Applicable standard	IEC 60335-2-2 Clause 21.101
Test object	Current-carrying hose
Test purpose	Resistance to crushing test
Operation mode	Button-controlled operation

Core Crushing Parameters

Parameter	Specification
Compression method	Parallel steel plate compression
Steel plate size	100 x 50 mm
Compression speed	50 mm/min +/- 5 mm/min
Applied force	1.5 kN
Hose axis	At right angles to plate length
Control method	Micro controller / button operation

Instrument Configuration

Parameter	Specification
Power supply	AC 220 V, 50/60 Hz
Typical use	Laboratory validation and pre-compliance testing
Test boundary	Mechanical crushing only
Post-test step	Use separate equipment for electric strength verification

Technical Note

For IEC 60335-2-2 compliance testing, the steel plate size, compression speed, applied force and sample positioning should remain aligned with the applicable standard requirements.

Appearance, panel labeling or local power configuration can be discussed, but these options should not affect the required crushing test condition.

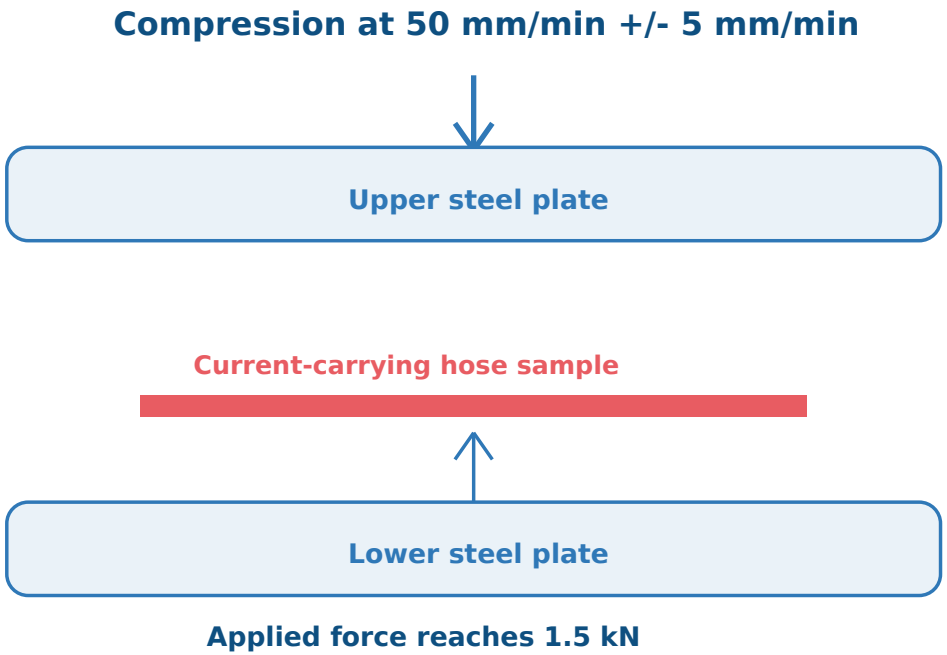
Mechanical crushing only - electric strength verification is separate.

IEC 60335-2-2 Clause 21.101 Test Method

The crushing test evaluates the mechanical robustness of a current-carrying hose before the following electric strength verification. The hose sample is positioned between two parallel steel plates and compressed under controlled speed and force conditions.

Clause 21.101 Crushing Test Concept

Representative mechanical setup for current-carrying hose crushing test



Core Conditions

- Steel plates: 100 x 50 mm
- Speed: 50 mm/min +/- 5 mm/min
- Applied force: 1.5 kN
- Hose axis: right angles to plate length

Test Method Notes

- Confirm clause and sample structure.
- Place hose between upper and lower plates.
- Apply and release the crushing force.
- Verify electric strength separately.

Note: Diagram is conceptual. Final setup should follow the applicable standard version and laboratory procedure.

1. Prepare hose
2. Align sample
3. Apply force
4. Release force
5. Verify separately

Applications, Operation Notes and Product Distinction

Typical Users

- Vacuum cleaner manufacturers
- Current-carrying hose suppliers
- Testing and certification laboratories
- R&D and quality control teams

Operation Notes

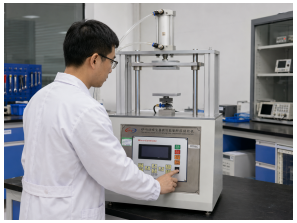
- Confirm test clause and sample condition
- Use in a controlled laboratory environment
- Check fixture alignment and cable routing
- Do not use as an electric strength tester

Calibration and Maintenance

- Verify compression speed and applied force regularl
- Inspect steel plates and moving mechanism
- Keep calibration and maintenance records
- Confirm separate electric strength equipment

Product Distinction

- IEC 60335-2-2 current-carrying hose crushing test
- Different from abrasion, flexing or torsion testers
- Performs mechanical crushing only
- Select equipment according to the required clause



Technical Inquiry and Expert Support

KingPo supplies the IEC 60335-2-2 Current-Carrying Hose Crushing Tester for Clause 21.101 resistance to crushing testing. Our engineering team can review your test clause, sample structure, crushing condition and laboratory setup.

Please Provide the Following Information

- Applicable standard: IEC 60335-2-2 Clause 21.101 or internal test procedure
- Test object: Current-carrying hose for vacuum cleaners or water-suction cleaning appliances
- Related clause: Resistance to crushing test requirement and laboratory procedure
- Sample information: Hose diameter, hose length and conductor structure if available
- Test requirement: Compression speed, applied force and test boundary confirmation
- Documentation: Datasheet, inspection record, calibration record or user manual
- Additional requirement: Whether separate electric strength test equipment is also needed

Product Page

Scan the QR code or visit the product page online.

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