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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JG/T 209-2012

Replacing JG/T 209-2007

**Dampers for vibration energy dissipation of buildings
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces JG/T 209-2007 "building energy damper." this standard is JG/T 209-2007 "building energy damper" revision, compared with the JG/T 209-2007 main technical changes as follows.

--- Added "metal yielding damper, buckling restraint energy consumption support terms and definitions" (see 3.3,3.4);

--- Added "metal yielding dampers, buckling restraint energy consumption support classification and labeling" provisions (see 4.3,4.4);

--- Added "metal yield damper, buckling restraint energy consumption support technical requirements" (see 6.3,6.4);

--- Added "metal yield damper, buckling restraint energy consumption support test method" provisions (see 7.3,7.4);

--- Increase the "stainless steel" norms cited documents (see 2);

--- Added "viscoelastic damper fire resistance" requirement (see 6.1.3.4);

--- Added "viscous damper fire resistance" requirement (see 6.2.3.4);

--- Modify "viscoelastic damper" definition) (see 3.2, 2007 edition 3.1.1);

--- Modify the definition of "viscous damper design allowable displacement, viscous damper limit displacement" (see 3.3.4 and 3.5.5, 2007 Version 3.2.5 and 3.2.6);

- Modify "viscoelastic damper markings, viscous damper markings" (see 4.1.2 and 4.2.2, 2007 edition 4.1.2 and 4.2.2);
- Modify the "Viscoelastic Damper Appearance" requirement (see 6.1.1, 2007 edition 5.1.1);
- Modify the "viscoelastic damper main material quality requirements" provisions (see 6.2.1, 2007 edition of 5.1.2);
- Modify the "Viscoelastic Damper Size Deviation" provisions (see 6.1.1.3, 2007 version 5.1.3);
- Modify the "visco-elastic damper durability" requirement (see 6.1.3.2, 2007 edition 5.1.4.2);
- Modify the "viscoelastic damper other related performance" requirement (see 6.1.3.3, 2007 edition of 5.1.4.3);
- Modify the "viscous damper steel" requirement (see 6.2.2.2, 2007 edition 5.2.2.2);
- Modify the "viscous damper size deviation" requirement (see 6.2.1.2, 2007 edition of 5.2.3);
- Modify the "viscous damper performance" requirements (see 6.2.3, 2007 edition of 5.2.4);
- Modify the "viscoelastic damper mechanical properties test" provisions (see 6.1.3, 2007 edition of 6.1.4);
- Modify the "viscous damper product mechanical properties test" requirement (see 6.2.3, 2007 edition of 6.2.4);
- Modify the "factory inspection" requirements (see 8.2.1, 2007 version 7.2).

This standard proposed by the Ministry of Housing and Urban Standard and Design Institute.

This standard by the Ministry of Housing and Urban Construction Building Products and Components Products Standardization Technical Committee.

1 Scope

This standard specifies the terms and definitions building energy damper, classification and marking, requirements, test methods, inspection rules, signs, packaging, Transport and storage.

This standard applies to industrial and civil buildings with building energy damper. Energy-saving dampers required for structures, bridges, equipment, etc. may also be used According to use.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 191 Packaging - Pictorial signs GB/T 228 metallic materials at room temperature tensile test method Rubber, vulcanized or thermoplastic - Determination of tensile stress - strain properties GB/T 699 high-quality carbon structural steel GB/T 700 carbon structural steel GB/T 1220 stainless steel rod GB/T 3077 alloy structural steel GB/T 3452 hydraulic pneumatic O-ring with rubber GB/T 3512 vulcanized rubber or thermoplastic rubber hot air accelerated aging and heat test GB/T 4162 Wrought steel rod ultrasonic testing methods GB/T 5777 seamless steel pipe ultrasonic flaw detection and inspection methods GB/T 7314 metal materials at room temperature compression test methods GB/T 8162 structural seamless steel tubes GB/T 10708 reciprocating rubber ring structure size series GB/T 11211 vulcanized rubber or thermoplastic rubber and metal bonding strength of the second board method GB/T 14976 liquid stainless steel seamless pipe delivery GB/T 15242.1 cylinder piston and piston rod seal with coaxial seal size series and tolerances GB/T 15242.2 hydraulic cylinder piston and piston rod seal ring size and tolerances

3 Terms and definitions

The following terms and definitions apply to this document.

Building energy dissipation damper damperforvibrationenergydissipationofbuilding A device installed in a building to absorb and dissipate structural vibrational energy caused by wind, earthquakes, moving loads and power equipment.

Visco-elasticdamper

Velocity-dependent dampers made of viscoelastic materials and constraining layers, code-named VED.