

HST-HWN Computer Controlled Electronic Bending and Torsion Testing Machine



(Picture just for reference)

1. Introduction

Our HST-HWN series electronic bending and torsion testing machines are suitable for bending and torsion testing of pillar insulators. They can be used for pillar insulators, composite insulators, pin insulators, rod insulators, rod composite insulators, glass insulators, lightning arresters, and sheaths. Bending and torsion testing of insulators, porcelain core rods, composite core rods, bushings, hollow insulators, wall bushings, etc. Meet the bending test, torsion test, deflection test under load and mechanical test one by one for pillar

porcelain insulators of 1000kV and below.

The processing of all parts of the company's products is controlled by the ISO9001 quality management system. Key outsourced components are all imported, which effectively improves the accuracy and long-term stability of the equipment.

The HST-HWN series electronic bending and torsion testing machine is a device produced in accordance with the relevant testing standards for insulators. It not only meets the requirements, but can also perform 4-point (or 1-point) bending program tests and destruction tests, as well as torsion program tests and destruction tests of insulators.

This equipment is the latest generation of bending and torsion composite testing machine. It adopts electronic servo motor control technology. Bending, torsion and height adjustment are all driven by servo motors. It can automatically control force, deformation and displacement in any closed loop. It has load holding function and high control accuracy. High, long-term use stability and easy maintenance. It avoids the past loading of the oil cylinder, changes in grease and oil temperature after long-term use that affect the control accuracy, as well as oil leakage and difficulty in maintenance.

This latest generation (fully electronic) bending and torsion testing machine is currently used in the insulator industry and the country at home and abroad.

2. Parameters

1. Maximum specimen height: 1500mm
2. Accuracy level: Level 1
3. Maximum bending load: 50kN
4. Effective measurement range of bending test force (kN): 0.5%~100%F·S (0.5kN~50kN)
5. Load resistance measurement accuracy: within $\pm 0.5\%$ of the indication value
6. Bending stroke: 1000mm (deformation amount)
7. Bending control method: electronic servo closed-loop control (force, displacement, deformation closed-loop arbitrary program control)
8. Maximum torque: 20kN.m
9. Effective measurement range of torsion test force (kN): 1% ~ 100%F·S
10. Torsional load measurement accuracy: within $\pm 1\%$ of the indication value
11. Four-point direction bending conversion method: 90° automatically completed

- 12. Torsion angle: 90° arbitrary control (torsion loading speed, angle-time, force value-time can be freely selected and controlled);
- 13. Torsion angle measurement accuracy: 0.1°
- 14. Torsion control method: electro-hydraulic servo closed-loop control (force, displacement, angle closed-loop arbitrary program control)
- 15. Control error during load holding: $\leq \pm 1\%$
- 16. Test force speed control adjustment range: 0.5~10%F·S/s