

Automatic Rotor Tester

Model 4008RJ

4008RJ Automatic Rotor tester is the most reliable, fast and cost-effective way to detect faults in the rotors.



The Latest Rotor tester detect faults in rotors such as broken & shorted bars, air porosity, interrupted bars, missing ring connections and deviation in skew angles.

Testing Of Rotor Fast And Easy

The following rotor bar characteristics can be quickly checked by rotor tester

- Broken or interrupted rotor bars
- Poor or missing connections to the rotor end rings
- High Bar resistance
- A short circuit between two or more bars
- Error in the relative position between commutator and slots
- Non-uniformity between lamination of commutator
- Deviation of the Skew angle

Principle of Rotor Testing

The Rotor tester uses the principle of electrical and magnetic effects caused by the circulation of induced currents into the bars of a rotor, which is made to turn at a constant speed, with in a magnetic field produced by a permanent magnet.

The induced magnetic field produced by permanent magnet, acts on one slot at a time. The direction of magnetic field is such that the turns of a moving rotor cut the lines of force normally.

The induced currents, which are proportional to the field intensity (distance of magnet from the rotor, on the speed of rotation constant) & on the rotor characteristics, produce magnetic fields, the symmetry of which enable a clear observation of the turns in the short-circuited condition.

A fixed probe subjected to the magnetic fields produced by the rotor under test, provides the signals, which after being amplified, are applied to the monitor.

The synchronized sinusoidal wave pattern from the rotor bars is displayed on the monitor screen.

The waveform identifies typically occurring faults in the rotor bars & there is a distant correlation between the result of the inductive test of the rotor bars & the starting torque of a motor.

Benefits

- User friendly front panel controls
- Fast and easy to test large volume of rotors
- Pnuematic cylinders to load and unload the rotors of varying inner and outer diameters
- Adjusting probe for changes in the outer diameter of rotor and also for skew angles
- Bright and sharp Monitor for waveform display

Applications

4008RJ is ideally suited to test the rotors of varying inner and outer diameters :

Inner Diameter	10mm - 30mm
Outer Diameter	40mm - 100mm
Stack Length	50mm - 180mm

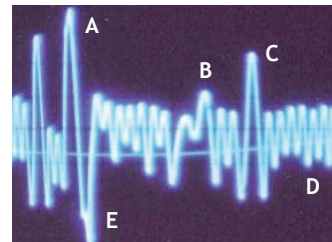
The waveform pattern of Good and Defective rotor are shown below respectively :

Wave Pattern of a Good Rotor



A symmetric wave pattern is seen.

Wave Pattern of a Defective Rotor



A : Defect due to broken bar
 B : Defect due to bar to bar shorting
 C : Blow hole or High bar resistance
 D : Perfect part
 E : Due to skew angle mark

Adjustment of Pnuematic Cylinders



(Use the pneumatic cylinder to load and unload the rotors)

Adjustment of Probe



(Adjust the probe for changes in the outer diameter of rotor and also for skew angles)

Specifications

Model	4008RJ
Display	Monitor (Adjustable vertical gain)
Operating Frequency	50Hz \pm 3%
Operating Voltage	230V \pm 10%
Power Consumption	250W

Weight	225lbs
Physical Dimensions	
Width	1042 mm
Depth	405 mm
Height	1042 mm

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