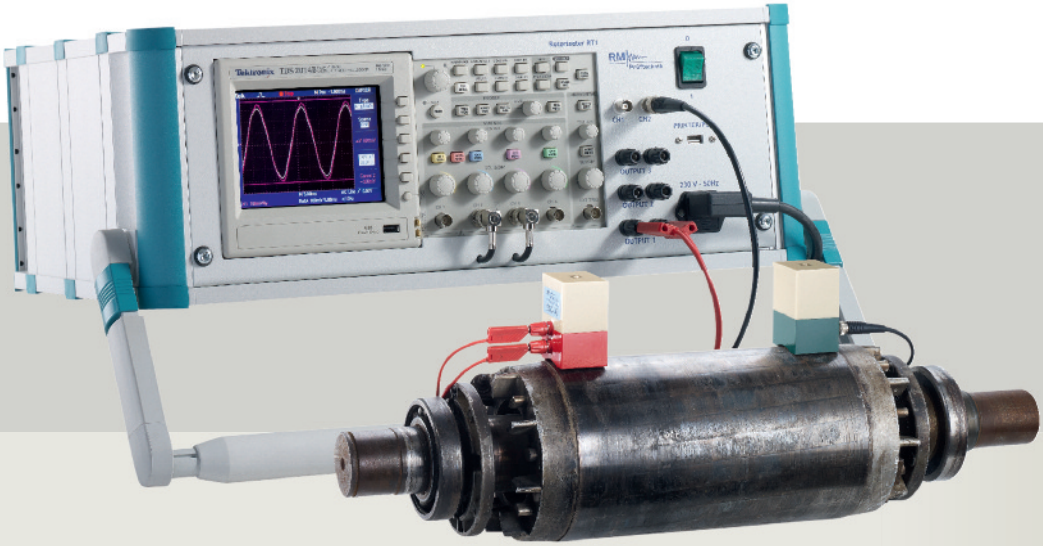
# Rotor Tester RT1/RT1A

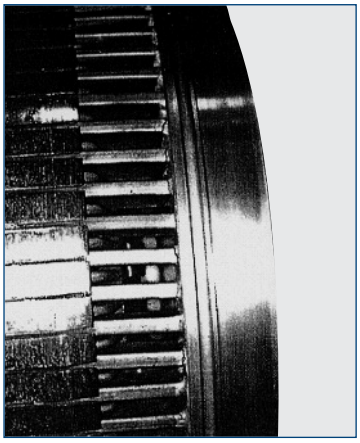
*Testing the quality of squirrel-cage rotors*



**This test system for the detection of faults and damages in squirrel cage rotors of AC induction motors is result of years of experience of RM Prüftechnik in the field of manufacturing, testing and maintenance of electric machines. Oftenly the users of electrical machines are confronted with rotor problems which cannot be identified with conventional test methods. With the rotor test a fast and easy fault detection is possible if the rotor is outside of the stator and its surface is readily available for special measurement sensors.**

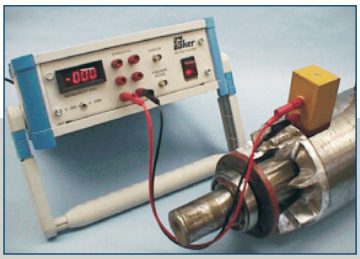
RM Prüftechnik

*Test equipment for electrical machines and windings*

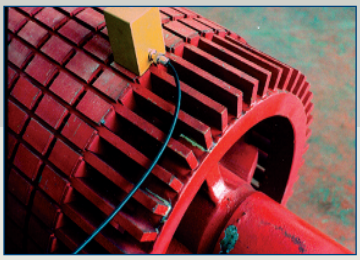


Typical motor faults are breakage and cracks in the bars and in the end-rings, voids or blowholes in the aluminium as well as poor soldering or welding connections. They lead to a reduced conductivity of the squirrel cage and therefore to a decrease of the performance or a malfunction of the motor, to overheating or noise.

The test configuration is based on a special power supply, a display unit with memory and a set of electromagnetic sensors. Normally the test system consists of more than one set of sensors to cover a wide range of rotor sizes and slot widths.



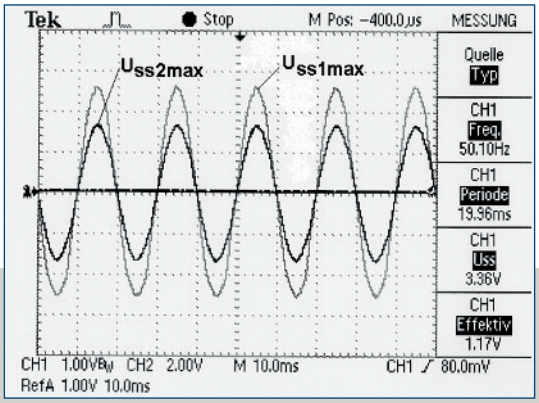
The sensors are placed in pairs on the surface of the rotor. This allows a step by step testing of each bar of the rotor and therefore a precise fault location. After a short learning period the user will have enough knowledge and experience for a reliable fault determination.



## Rotor Tester RT1

The test waveforms for the rotor test are displayed on the front side on the integrated digital oscilloscope Tektronix TDS. This oscilloscope allows an easy and effective operation without knowledge of an oscilloscope. The needed settings are stored during manufacturing of the tester and can be recalled at any time. The oscilloscope also has a language utility.

Printing of the waveforms is easily possible on most available printers as well as data transfer to external PC.




## Rotor Tester RT1A

As being the low-cost version of the Rotor Tester, the RT1A does not contain an oscilloscope. The test signal is displayed on a digital voltmeter. With that the RT1A is lighter and more compact. If the full waveform is needed, any external oscilloscope can be connected through BNC output.

| Technical Data | | |
|---|---|---|
| **Sensors** | | 3 different sizes available (S15, S30, S50)<br>One sensor set contains two probes<br>(excitation sensor ES, measuring sensor MS) |
| **Display Unit** | | RT1: digital storage oscilloscope 60 MHz / 1 GS / s with USB printer port, USB port for PC / memory etc., datalogger software “opensource” for Windows<br>RT1A: digital voltmeter with two ranges, 3 $^1/_2$ digit |
| **Inputs** | | 2x BNC (RT1), 1x BNC (RT1A) |
| **Outputs** | | 3 connectors for excitation sensors; 1x BNC for external scope (RT1A) |
| **Power Input** | | 220 – 240 V / 50 Hz, also available for 60 Hz and other input voltages (upon request) |
| **Dimensions** (W x H x D) | cm<br>cm | RT1: 59 x 21 x 44<br>RT1A: 35 x 13 x 30 |
| **Weight** | kg<br>kg | RT1: 16<br>RT1A: 9 |

RM Prüftechnik GmbH · Hutbergstraße 21 · D-90475 Nürnberg
Phone +49(0)911 984600 · Fax +49(0)911 9846030 · rm@rm-prueftechnik.de · www.rm-prueftechnik.de