



Motor device

Defect detection during motor production test

GW INSTEK
Simply Reliable

Arc detection function of the GPT - 9900 series

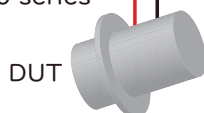
In the withstand voltage test of the motor, if there is a defect such as a pinhole in the insulation between the phases of the motor, the insulating part may be denatured by heat by arc discharge. Even if there are such defective parts in a general withstand voltage tester, the test may be passed without being able to detect the arc discharge. Since the arc detection function of the GPT - 9900 series can also be checked whether or not such an arc discharge has occurred, it is possible to construct the production process of the arc generation inspection of the motor at low cost.

Test Image

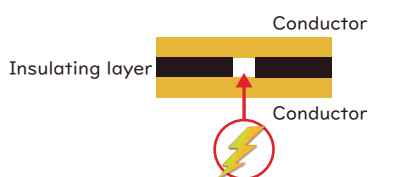


GPT-9000 series

DUT

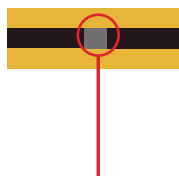


FLASH-OVER DETECTION

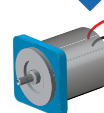
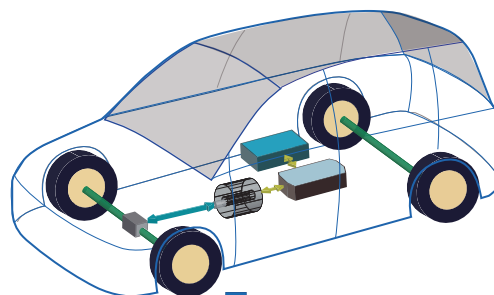


Insulation defect such as pinhole

For arc detection, the motor that passes even partial discharge can be determined as ARC and re-tested.



The portion where arcing occurs in the withstand voltage test will be metamorphosed, and the test will pass but the structural weakness.

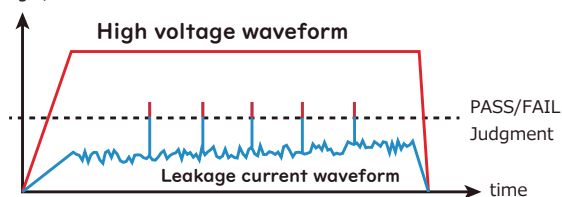


Feature

✓ Arc detection function to detect partial discharge

The arc detection mode is also called flash-over. The arc detection mode detects a fast transient voltage or transient current that is not normally detected. Arc discharge usually occurs where the withstand voltage is weak. If there is a problem such as a defective electrical insulator electrically withstanding voltage, a momentary voltage or current spike phenomenon occurs. There are three arc detection modes in the GTP - 9900 series. Users can select whether to stop immediately when it is detected or to continue the test even if it is detected or end the test after detection.

Voltage / current



The withstand voltage tester without the arc detection function will pass / fail judgment with the averaged leakage current value. The GPT-9900 series detects an instantaneous arc current of 30 μ s or less, and it can be judged as "ARC" when the arc discharge is confirmed even when the averaged current value is PASS.