

Study and Reliability Analysis on Testing Instrument for Dynamic Contact Resistance on Contact

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Abstract

In this paper, a new testing instrument for dynamic contact resistance of low capacity contact is introduced in detail. By means of this testing instrument, we carried on a series of experiments. In early experiments, we tested several types of industrial contact relays under different temperatures and operation times, and accumulated plenty of experimental data. By statistics and analysis of testing data, we drew some qualitative conclusions. The further experiments and reliability analysis are going on. The mathematical model of contact resistance of electrical apparatus contact and its dynamic changing principle are preliminarily discussed.

Key words: dynamic contact resistance, testing instrument, mathematical model, reliability of electrical apparatus.