

IEEE Standard Electrostatic Discharge Tests for Protective Relays

IEEE Power Engineering Society

Sponsored by the
Power System Relaying Committee



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**Power System Relay Committee
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IEEE Power Engineering Society**

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Abstract: This standard describes test procedure, test point selection, test level, and acceptance criteria for repeatable electrostatic discharge immunity evaluations for tabletop and floor-standing protective relay equipment. Simulator characteristics for hand/metal ESD testing are specified for both the air and contact discharge methods. This standard has been harmonized with other ESD standards where consensus could be reached.

Keywords: air discharge, contact discharge, coupling plane, direct application, electrostatic discharge (ESD), indirect application, protective relay

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Introduction

(This introduction is not a part of IEEE Std C37.90.3-2001, IEEE Standard Electrostatic Discharge Tests for Protective Relays.)

This standard was prepared by the Electrostatic Discharge Tests Working Group, 17, of the Relay Practices and Consumer Interface Protection Subcommittee of the Power System Relaying Committee.

In preparing this standard, consideration has been given to other committees and especially to Technical Committee 95 of the International Electrotechnical Commission (IEC) for their work in preparing IEC 60255, Electrical Relays, Part 22: Electrical disturbance tests for measuring relays and protection equipment—Section Two—Electrostatic discharge tests.

At the time this standard was completed, the Electrostatic Discharge Tests Working Group, 17, of the Relay Practices and Consumer Interface Protection Subcommittee of the Power System Relaying Committee had the following membership:

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