

IEEE Standard for High-Potential Test Requirements for Excitation Systems for Synchronous Machines

Sponsor

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of the
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Abstract: High-potential test voltages for excitation systems used with synchronous machines are established. Test voltages are established based on whether equipment is connected to the exciter power circuit or is electrically isolated from the exciter power circuit.

Keywords: dielectric testing, excitation systems, test voltages

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Introduction

(This introduction is not part of IEEE Std 421.3-1997, IEEE Standard for High-Potential Test Requirements for Excitation Systems for Synchronous Machines.)

This standard defines high-potential test requirements for excitation systems for synchronous machines. IEEE Std 421B-1979 established test voltages as a function of exciter output circuit and for all other circuits electrically isolated from the exciter output circuit. This standard was written to agree with existing standards as much as possible but expands the test voltages to account for stresses associated with high ceiling exciters.

At the time that this standard was completed, the Hi-Pot Testing Task Force of the Equipment Working Group of the Excitation Systems Subcommittee of the Energy Development and Power Generation Committee had the following membership:

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