NEMA JSC 10410-2023

Performance Testing for Lighting Controls and Switching Devices with Electronic Drivers and Discharge Ballasts

(Formerly NEMA 410)

Published by:

National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, Virginia 22209

www.nema.org

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Foreword

The purpose of this standard is to provide guidance for the design and testing of lighting controls and switching devices to be used with electronic drivers, discharge ballasts, and self-ballasted lamps. This document defines the worst-case inrush current expected to be encountered in field installations and establishes uniform test criteria for compatibility.

In the preparation of this standard, input of users and other interested parties has been sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to the NEMA Wiring Device Section and Lighting Systems Division by contacting:

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This is the third edition of this guide.

This standard was originally developed by the NEMA Wiring Devices and the Ballast and Driver Sections and published under the NEMA 410 designation. In its current form, it was approved by the two product sections and certified by the NEMA Codes and Standards Committee. NEMA changed its designation policy in 2021 and subsequently changed the designation of the document to JSC 10410.

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Scope

This standard covers the definition, measurement, and testing of characteristics relevant to the use and application of lighting controls and electronic drivers, discharge ballasts, and self-ballasted lamps.

This standard covers devices rated 120 Vac, 277 Vac, 347 Vac, and 480 Vac intended to control electronic drivers, discharge ballasts, and self-ballasted lamp loads up to 16 amps of steady state current.

This standard does not cover or require additional testing for 15 A and 20 A general-use AC snap switches rated 120 Vac with or without additional voltage ratings tested and Listed in accordance with UL 20/CSA C22.2 No. 111, which includes a high-inrush tungsten lamp load endurance test. They have been evaluated and determined to be compatible with the electronic drivers, discharge ballasts, and self-ballasted lamps as described in this publication.