

NEMA SSL 1

Electronic Drivers for LED Devices, Arrays, or Systems



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**ELECTRONIC DRIVERS
FOR LED DEVICES,
ARRAYS, OR SYSTEMS**

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Electronic Drivers for LED Devices, Arrays, or Systems

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Foreword

The NEMA Solid State Lighting Section has developed this standards publication. In its preparation, input of users and other interested parties was sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to the concerned NEMA product subdivision by contacting:

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Section approval of the standard does not necessarily imply that all section members voted for its approval or participated in its development. At the time the standard was approved, the Solid State Lighting Section was composed of the following members:

Amerlux Global Lighting Solutions
Atlas Lighting Products, Inc.
Cooper Industries plc
Cree, Inc.
Dialight Corporation
EiKO, Ltd.
EYE Lighting International of N.A., Inc.
GE
Hatch Transformers, Inc.
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Ruud Lighting Inc.
Schneider Electric
Sora Inc.
Technical Consumer Products, Inc.
TerraLUX Inc.
Toshiba International Corporation
Universal Lighting Technologies

Section 1 GENERAL

1.1 SCOPE

This standard provides specifications for and operating characteristics of non-integral electronic drivers (power supplies) for LED devices, arrays, or systems intended for general lighting applications. Electronic drivers are devices that use semiconductors to control and supply dc power for LED starting and operation. The drivers operate from multiple supply sources of 600 V maximum at a frequency of 50 or 60 hertz.

1.2 REFERENCES

1.2.1 Normative References

The following standards contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

American National Standards Institute (ANSI)

25 West 43rd Street
New York, NY 10018

ANSI C82.13-2002	<i>Lamp Ballasts—Definitions—for Fluorescent Lamps and Ballasts</i>
ANSI C82.77-2002	<i>Harmonic Emission Limits—Related Power Quality Requirements for Lighting Equipment</i>
ANSI C84.1-2006	<i>Electric Power Systems and Equipment—Voltage Ratings (60 Hertz)</i>
ANSI/IESNA RP-16-2010	<i>Nomenclature and Definitions for Illuminating Engineering</i>
ANSI Z535.1-6	<i>Safety Standards</i>

Institute of Electrical and Electronics Engineers (IEEE)

445 Hoes Lane
 Piscataway, NJ 08854-4141

IEEE 100-2000	<i>The Authoritative Dictionary of IEEE Standards Terms</i>
IEEE C62.41-1991	<i>Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits</i>

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NEMA 10-2004	<i>Performance Testing for Lighting Controls and Switching Devices with Electronic Fluorescent Ballasts</i>
NEMA SSL 6-2010	<i>Solid State Lighting for Incandescent Replacement—Dimming</i>