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Motors and Generators

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Foreword

The standards appearing in this publication have been developed by the Motor and Generator Section and approved for publication as standards of the National Electrical Manufacturers Association. They are intended to assist users in the proper selection and application of motors and generators. These standards are revised periodically to provide for changes in user needs, advances in technology, and changing economic trends. All persons having experience in the selection, use, or manufacture of electric motors and generators are encouraged to submit recommendations that will improve the usefulness of these standards. Inquiries, comments, and proposed or recommended revisions should be submitted to the Motor and Generator Section by contacting:

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The best judgment of the Motor and Generator Section on the performance and construction of motors and generators is represented in these standards. They are based upon sound engineering principles, research, and records of test and field experience. Also involved is an appreciation of the problems of manufacture, installation, and use derived from consultation with and information obtained from manufacturers, users, inspection authorities, and others having specialized experience. For machines intended for general applications, information as to user needs was determined by the individual companies through normal commercial contact with users. For some motors intended for definite applications, the organizations that participated in the development of the standards are listed at the beginning of those definite-purpose motor standards.

Practical information concerning performance, safety, test, construction, and manufacture of alternating-current and direct-current motors and generators within the product scopes defined in the applicable section or sections of this publication is provided in these standards. Although some definite-purpose motors and generators are included, the standards do not apply to machines such as generators and traction motors for railroads, motors for mining locomotives, arc-welding generators, automotive accessory and toy motors and generators, machines mounted on airborne craft, etc.

In the preparation and revision of these standards, consideration has been given to the work of other organizations whose standards are in any way related to motors and generators. Credit is hereby given to all those standards organizations that may have been helpful in the preparation of this volume.

NEMA MG 1-2016 (Revised 2018) is a revision of MG 1-2014. Prior to publication, the NEMA Standards and Authorized Engineering Information appearing in this publication unchanged since the preceding edition were reaffirmed by the Motor and Generator Section.

The standards or guidelines presented in a NEMA standards publication are considered technically sound at the time they are approved for publication. They are not a substitute for a product seller's or user's own judgment with respect to the particular product referenced in the standard or guideline, and NEMA does not undertake to guaranty the performance of any individual manufacturer's products by virtue of this standard or guide. Thus, NEMA expressly disclaims any responsibility for damages arising from the use, application, or reliance by others on the information contained in these standards or guidelines.

This standards publication was developed by the Motor and Generator Section. 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 it was approved, the Motor and Generator Section was composed of the following members:

ABB Motors and Mechanical, Inc.—Fort Smith, AR
Bluffton Motor Works—Bluffton, IN
Brook Crompton North America—Toronto, ON
Cummins, Inc.—Minneapolis, MN
GE Industrial Motors, a Wolong Company—Houston, TX
Nidec Motor Corporation—Saint Louis, MO
NORD Gear Corporation—Waukegan, WI
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 Electra-Gear—Union Grove, WI
 Leeson Electric—Grafton, WI
 Lincoln Motors—Cleveland, OH
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