

# NEMA Standards

NEMA works closely with regulators and manufacturers to develop more than 500 performance standards related to a variety of equipment used by the water sector. Of particular interest to the water sector are:

- **NEMA EWS 1 Increasing Energy Efficiency in Urban Water Systems: Summary Report**

This report presents the analysis and conclusions of a NEMA-funded strategic initiative related to the relationship of electricity and water in urban water systems.

Available at no cost.

- **NEMA EWS 1.1 Market Potential for Electricity Efficiency in Urban Water Systems**

Companion document to *Increasing Energy Efficiency in Urban Water Systems: Summary Report*.

**\$29**

- **NEMA EWS 1.2 Use of Performance Contracts for Advancing Efficiency in Water Infrastructure**

Companion document to *Increasing Energy Efficiency in Urban Water Systems: Summary Report*.

**\$78**

- **NEMA EWS 1.3 Glossary of Terms Used in the Water Sector**

Companion document to *Increasing Energy Efficiency in Urban Water Systems: Summary Report*.

Available at no cost.

- **NEMA EWS 1.4 Literature Review**

Companion document to *Increasing Energy Efficiency in Urban Water Systems: Summary Report*.

**\$64**

- **NEMA EWS 1.5 U.S. Water-Related Infrastructure Needs and Potential Funding Opportunities**

Companion document to *Increasing Energy Efficiency in Urban Water Systems: Summary Report*.

**\$59**

- **NEMA MG 1 Motors and Generators**

Assists users in the proper selection and application of motors and generators. Contains practical

information concerning performance, safety, testing, and construction and manufacture of ac and dc motors and generators.

**\$523**

- **NEMA MG 1 Condensed**

Provides a condensation of NEMA Motors and Generators, MG 1-2011. Some sections are reprinted in their entirety while others have been combined or abbreviated.

**\$139**

- **NEMA MG 2 Safety Standard for Construction and Guide for Selection, Installation and Use of Electric Motors and Generators**

Provides recommendations for the selection, installation and use of rotating electric machines so as to provide for the practical safeguarding of persons and property.

**\$109**

- **NEMA MG 10 Energy Management Guide for Selection and Use of Fixed Frequency Medium AC Squirrel-Cage Polyphase Induction Motors**

Provides practical information concerning proper selection and application of polyphase induction and synchronous motors, including installation, operation and maintenance.

**\$91**

- **NEMA MG 11 Energy Management Guide for Selection and Use of Single-Phase Motors**

Provides practical information concerning the proper selection and application of single-phase motors, including installation, operation and maintenance.

**\$49**

- **NEMA MG SET**

Provides the most complete and concise reference material available relative to the practical applicability of ac and dc motors and generators. This includes whether they are single phase, polyphase induction, or of the synchronous variety, including performance characteristics such as required levels of efficiency and sound pressure levels, as well as recommendations for their proper selection, installation, operation and maintenance. Set includes: MG 1, MG 2, MG 3, MG 10, MG 11.

**\$609**

- **NEMA ICS 1 Industrial Control and Systems: General Requirements**

Provides practical general information concerning ratings, construction, testing, performance and manufacture of industrial control and systems equipment and terminal blocks. Contains December 2010 editorial change.

**\$160**

- **NEMA ICS 1.3 Preventive Maintenance of Industrial Control and Systems Equipment**

Preventive Maintenance of Industrial Control and Systems Equipment Covers fundamental principles, safety precautions and common guidelines for preventive maintenance of most industrial control and systems equipment. Intended to supplement more specific maintenance instructions that may be provided for particular product lines, specific products and other NEMA standards and manufacturer publications.

**\$263**

- **NEMA ICS 2.3 Instructions for the Handling, Installation, Operation and Maintenance of Motor Control Centers Rated Not More Than 600 V**

Contains instructions for the handling, installation and maintenance of motor control centers rated 600 V or less.

**\$86**

- **NEMA ICS 2.4 NEMA and IEC Devices for Motor Service—A Guide for Understanding the Differences**

Control products compared or contrasted in this guide are those with equivalent electrical ratings; such ratings are expressed via nameplates, catalogues or technical literature.

**\$86**

- **NEMA ICS 3.1 Guide for the Application, Handling, Storage, Installation and Maintenance of Medium Voltage AC Contactors, Controllers and Control Centers**

Contains practical information for architects, electrical engineers, contractors and maintenance personnel on the handling, storage and installation of ac general-purpose medium voltage contactors and Class E controllers.

**\$167**

- **NEMA ICS 7 Adjustable Speed Drives**

Provides practical information concerning ratings, construction, test, performance and manufacture of industrial control equipment—adjustable speed drives.

**\$105**

- **NEMA ICS 7.1 Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable Speed Drive Systems**

Applies to all industrial equipment electrical components and wiring that are part of the electrical drive system, commencing at the point of connection of input power to these components.

Applies to open or enclosed electrical equipment for use on circuits that operate from an ac supply voltage of 600 V or less.

**\$96**

- **NEMA ICS 16 Motion/Position Control Motors, Controls and Feedback Devices**

Covers rotational electric servo and stepper motors and their power requirements, feedback devices and controls intended for use in a motion/position control system that provides precise positioning, speed control, torque control or any combination thereof.

**\$300**

- **NEMA ICS 18 Motor Control Centers**

Applies to three-phase 50 and 60 Hz motor control centers rated not more than 600 V ac.

**\$98**

- **NEMA ICS 19 Diagrams, Device Designations and Symbols**

Provides guidelines for representation of devices on diagrams and drawings in a standardized manner.

**\$111**

- **NEMA ICS 20 Informational Guide to Electrical Industrial Topics**

Provides information on various topics of interest related to the application and proper usage of electrical equipment in the global marketplace.

**\$86**

- **NEMA ICS 61131-1 Programmable Controllers (PLC), Part 1: General Information**

Applies to PLC and their associated peripherals, such as programming and debugging tools and human-machine interfaces, which have as their intended use the control and command of machines and industrial processes.

**\$96**

- **NEMA ICS 61131-4 Programmable Controllers, Part 4: User Guidelines**

Assists end users in selection and specification of PLC equipment.

**\$205**

- **NEMA ICS 61800-1 Adjustable Speed Electrical Power Drive Systems, Part 1: General Requirements—Rating Specifications for Low Voltage Adjustable-Speed DC Power Drive Systems**

Applies to general purpose adjustable speed dc drive systems that include the power conversion, control equipment and a motor or motors. Excluded are traction and electrical vehicle drives.

**\$184**

- **NEMA ICS 61800-2 Adjustable Speed Electrical Power Drive Systems, Part 2: General Requirements—Rating Specifications for Low Voltage Adjustable Frequency AC Power Drive Systems**

Applies to general purpose adjustable speed ac drive systems that include power conversion, control equipment and an ac motor or motors. Excluded are traction and electrical vehicle drives. Applies to systems connected to line voltages up to 1 kV ac, 50 or 60 Hz, and load side frequency up to 600 Hz.

**\$175**

- **PMC 1Programmable Motion Control Handbook Industrial Products & Systems**

Provides a complete resource guide to motion control technology, products and applications compiled by leading vendors and developers of motion control technology.

**\$42**