

## **Fire pump controllers**



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**CONTENTS**

Preface .....	6
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**INTRODUCTION**

1 Scope .....	8
1.1 Products covered .....	8
1.2 Products not covered .....	8
2 Normative References .....	8
3 Units of Measurement .....	9
4 General Requirements .....	9
4.1 General .....	9
4.2 Components .....	9
5 Definitions .....	9

**CONSTRUCTION**

6 Construction .....	11
6.1 Enclosures .....	11
6.2 Spacings .....	12
6.3 Insulating barriers .....	12
6.4 Field wiring terminals .....	13
6.5 Grounding .....	14
6.6 Service equipment .....	15
6.7 Wire bending space .....	16
6.8 Internal wiring, busbars, and connection .....	16
6.9 Provisions for use of test instruments .....	18
6.10 Control circuit .....	18
6.11 Auxiliary circuits .....	18
6.12 Manual controls .....	18
6.13 Surge arresters .....	19
6.14 Isolating switch .....	19
6.15 Circuit breaker – disconnecting means .....	20
6.16 Locked rotor overcurrent protection .....	21
6.17 Motor starting means .....	21
6.18 Use of sensing devices .....	23
6.19 Provisions for alarm and signal devices .....	24
6.20 Automatic controllers .....	25
6.21 Non-automatic controllers .....	28
6.22 Stopping methods .....	29
6.23 Power interruption .....	29
6.24 Ground fault and arc fault protection .....	29

**PERFORMANCE**

7 Performance Tests .....	29
7.1 Short circuit test – general .....	29
7.2 Short circuit test – standard fault currents .....	31
7.3 Short circuit test – high fault currents .....	31
7.4 Dielectric voltage-withstand test .....	31
7.5 Wire flexing test .....	32

7.6	Phase loss detection test	32
7.7	Pressure switch/transducer tests	32
7.8	Locked rotor overcurrent protection test	34
7.9	Barrier dielectric strength test	35
7.10	Temperature test	36
7.11	Dielectric voltage withstand test (after normal operating temperature)	40
7.12	Coated printed circuit board performance test	41
7.13	Test for controllers with single-phase start protection	44
7.14	Preshipment	44
7.15	Controller functionality tests	45
7.16	Emergency run mechanism	45
7.17	EMC requirements	45
8	Limited Service Controllers For Electric Motor Driven Fire Pumps	45
8.1	General	45
9	Residential Fire Pump Controllers	45
9.1	General	45
9.2	Visible indicators	47
9.3	Marking	47
10	Medium Voltage Fire Pump Controllers (Rated Over 600 V)	47
10.1	General	47
10.2	Meters	47
10.3	Isolation switch	48
10.4	Pressure-activated device	48
10.5	Control circuits	48
10.6	Visible indicators	48
10.7	Disconnecting means	48
10.8	Emergency run mechanical control at controller	49
10.9	Locked rotor overcurrent protection	49
10.10	Performance	49
10.11	Ratings	49
10.12	Markings	49
11	Controllers With Automatic Transfer Switches For Electric Driven Fire Pumps (600 V Maximum)	49
11.1	General	49
11.2	Isolating switch	50
11.3	Circuit breaker	50
11.4	Sensing and signal devices	50
11.5	Transfer between sources	51
11.6	Test switch	52
11.7	Rating	52
12	Diesel Engine Drive Controllers	52
12.1	General	52
12.2	Locked enclosure	52
12.3	Field wiring terminals	53
12.4	Starting and control	53
12.5	Alarm and signal devices	54
12.6	Auxiliary contacts for remote sensors	56
12.7	Pressure recorder	57
12.8	Weekly program timer	57
12.9	Automatic controllers	57
12.10	Non-automatic controller	59
12.11	Methods of stopping	59
12.12	Emergency control	60

- 13 Controllers For Additive Pumps .....60
  - 13.1 General .....60
  - 13.2 Automatic starting .....60
  - 13.3 Dump valves .....60
  - 13.4 Methods of stopping .....61
  - 13.5 Manual operation .....61
  - 13.6 Lockout .....61
- 14 Variable Speed Fire Pump Controllers .....61
  - 14.1 General .....61
  - 14.2 Environmental .....62
  - 14.3 Power components .....63
  - 14.4 Control equipment and components .....64
  - 14.5 Mode control .....65
  - 14.6 Motor control .....66
  - 14.7 Signals and alarms .....66
  - 14.8 Skip frequencies .....66
  - 14.9 Variable mode operation .....66
  - 14.10 Automatic transfer to bypass operation .....67
  - 14.11 Marking .....67

**RATING**

- 15 Ratings .....67

**MARKING**

- 16 Markings .....68

**Routine Tests**

- 17 Routine Tests .....71

**TABLES AND FIGURES**

**Annex A References (Normative)**

**Annex B Standards for components (normative)**

- B.1 Component Standards .....95

**Annex C French and Spanish Translations and Markings (informative)**

- C.1 Markings – French and Spanish Translations .....99

**Annex D Test Samples (informative)**

## Preface

This is the harmonized ANCE, CSA Group, and UL standard for fire pump controllers. It is the second edition of NMX-J-626-ANCE, the second edition of CSA C22.2 No. 263, and the third edition of UL 218. This edition of NMX-J-626-ANCE supersedes the previous edition published on September 28, 2009. This edition of CSA C22.2 No. 263 supersedes the previous edition published in 2009. This edition of UL 218 supersedes the previous edition published in 1999.

This harmonized standard was prepared by the Association of Standardization and Certification, (ANCE), CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the Technical Harmonization Committee for Fire Pump Controllers, CANENA THSC 17B WG4, of the Council on the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA), are gratefully acknowledged.

This standard is considered suitable for use for conformity assessment within the stated scope of the standard.

The present Mexican Standard was developed by the CT 64 Instalaciones eléctricas y protección contra choque eléctrico from the Comité de Normalización de la Asociación de Normalización y Certificación, A.C., CONANCE, with the collaboration of the fire pump controllers manufacturers and users.

This standard was reviewed by the CSA Subcommittee for Fire Pump Controllers, under the jurisdiction of the CSA Technical Committee on Industrial Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee. This standard was reviewed and approved by the Comité de Normalización of ANCE (CONANCE). This standard was reviewed by UL's Standards Technical Panel (STP) for Fire Pump Controllers, STP 218.

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

### Application of standard

A UL standard is current only if it incorporates the most recently adopted revisions, all of which are itemized on the transmittal notice that accompanies the latest set of revised requirements.

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

**Note:** Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

### Level of harmonization

This standard uses the IEC format but is not based on, nor shall it be considered equivalent to, an IEC standard. This standard is published as an equivalent standard for ANCE, CSA, and UL.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

### Reasons for differences from IEC

This standard provides requirements for fire pump controllers for use in accordance with the electrical installation codes of Canada, Mexico, and the United States. At present there is no IEC standard for fire pump controllers for use in accordance with these codes. Therefore, this standard does not employ any IEC standard for base requirements.

### Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

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### CSA Group effective date

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### UL Effective date

A UL effective date is one established by UL LLC and is no part of the ANSI approved standard.

## INTRODUCTION

### 1 Scope

#### 1.1 Products covered

1.1.1 These requirements cover controllers intended for starting and stopping centrifugal and positive displacement fire pumps, including automatic and non-automatic types for electric motor with or without transfer switch or engine driven pumps in accordance with Annex A, item 1. Types of controllers covered include diesel engine, electric motor, limited service, medium voltage and residential. Controllers may be suitable for use as service equipment. This equipment is for installation in non-hazardous locations in accordance with Annex A, item 2.

1.1.2 Controllers for electric motor driven, centrifugal fire pumps are intended for use with squirrel cage or wound rotor motors rated 600 V or less. Controllers for squirrel cage motors may be for across-the-line or reduced inrush current starting. Controllers may be provided with integral automatic transfer switches.

1.1.3 Variable speed fire pump controllers for electric motor driven, centrifugal fire pumps are intended for use with squirrel cage induction, inverter duty rated motors rated 600 V or less, and rated for 50 Hz or 60 Hz.

1.1.4 Limited service controllers are intended for across-the-line starting of squirrel cage motors rated 22 kW (30 hp) or less, 600 V or less. Controllers may be provided with integral automatic transfer switches.

1.1.5 Medium voltage fire pump controllers are intended for use with squirrel cage motors rated 601 V – 7.2 kV AC.

1.1.6 Residential fire pump controllers are intended for use with single-phase squirrel cage motors rated 240 V or less. Residential fire pump controllers are intended to be used in one or two family dwelling units in accordance with the requirements of item 35 in Annex A.

1.1.7 Diesel engine fire pump controllers rated nominal 24 V DC or less are intended for use with fire pump engines. Where required, AC voltage is limited to 600 V AC or less.

#### 1.2 Products not covered

1.2.1 An automatic transfer switch intended to be used in fire pump circuits, that is provided separate from a controller.

**Note:** Stand-alone automatic transfer switches for fire pump circuits are covered by the requirements of item 11, Annex A.

## 2 Normative References

2.1 Products covered by this standard shall comply with the referenced installation codes and standards noted in Annex A as appropriate for the country where the product is to be used. When the product is intended for use in more than one country, the product shall comply with the installation codes and standards for all countries where it is intended to be used.