



CSA C22.2 No. 178.1:14

National Standard of Canada

(reaffirmed 2019)



Transfer switch equipment



Standards Council of Canada
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Revision History

CSA C22.2 No. 178.1:14, Transfer switch equipment

| National Standard of Canada — September 2019 |
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| Outside front cover, National Standard of Canada text, and title page. |
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| This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group. |
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Update No. 2

C22.2 No. 178.1-14

September 2018

Note: For information about the **Standards Update Service** or if you are missing any updates, go to store.csagroup.org or e-mail techsupport@csagroup.org.

Title: *Transfer switch equipment* — originally published December 2014

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The following revisions have been formally approved and are marked by a vertical line in the margin on the attached replacement pages:

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|----------------|---|
| Revised | Cover, Copyright page, Preface, Clauses 1.1, 1.2. 3.5, 4.2.2, 5.2.1.1, 5.2.4.2, 5.2.7.10, 6.19.19, 7.1.3, 8.1.2.1, 8.1.2.2, 8.2.3.1, 9.13.2.3, 9.13.3.10, 9.13.3.11, 9.13.3.18, E1.1, E1.2, E2.3, E2.4, E2.13, E3, E4.1, E5.1, J5.4, and J6.7, Tables 2, 25, 27, and J2, and Annex A1 |
| New | Clauses 1.1 j), 1.2 f), 1.2 g), 3.7A, 5.2.6.2.5, 8.1.2.6, E1.2 a), E1.2 b), E2.3 a) 4) – E2.3 a) 6), E2.3 b) 5) – E2.3 b) 11), E2.3 c), E3.2, E3A, E5.1.1, E5.6 – E5.8, and G5.2.3 and Figure E3A.1 |
| Deleted | Clauses 4.2.2 a) – d), 9.13.3.12, and 9.13.3.13 |

- Update your copy by inserting these revised pages.
- Keep the pages you remove for reference.

Third Edition, Dated December 22, 2014

Summary of Topics

This revision is being issued to incorporate the following changes:

Revision to Add Recreational Vehicle Transfer Switches to the Scope

Revisions to Address the Grounding and Bonding of Neutral Circuits

Revision to the Overload, Endurance, and Short Circuit Testing

Miscellaneous Revisions Regarding Inlet Assemblies, Mechanical Interlocking of Single Pole Inlets and Readily Accessible Service Disconnect Switches

Revisions Regarding the Use of "Circuit Breaker Based" Transfer Switches and Compliance with Service Disconnecting Requirements

Revision for Consistency with UL 50E Rain Test

Revisions to Annex E to Cover Freestanding Complete Packaged Fire Pump Power Transfer Units

Revisions to Address System Available Fault Calculations for Momentary Paralleling Situations

Clarification of Marking Requirements

Revised Requirements for Monitoring the Temperature on Inlets



Association of Standardization and Certification
NMX-J-672 ANCE
Second Edition



CSA Group
CSA C22.2 No. 178.1-14
Third Edition



Underwriters Laboratories Inc.
UL 1008
Eighth Edition

Transfer Switch Equipment

December 22, 2014

(Title Page Reprinted: September 24, 2018)



ANSI/UL 1008-2018

Commitment for Amendments

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CONTENTS

| | |
|---|-----|
| PREFACE | 6 |
| 1 Scope | 8 |
| 2 General Requirements | 9 |
| 2.1 General | 9 |
| 2.2 Kits, other than field-wiring kits | 10 |
| 2.3 Reference publications | 10 |
| 2.4 Units of measurement | 10 |
| 3 Definitions | 10 |
| 4 Characteristics | 13 |
| 4.1 Summary of characteristics | 13 |
| 4.2 Ratings | 14 |
| 5 Product Information | 15 |
| 5.1 Data requirements | 15 |
| 5.2 Marking requirements | 16 |
| 5.3 Instructions for installation, operation, and maintenance | 28 |
| 6 Construction Requirements | 28 |
| 6.1 Materials | 28 |
| 6.2 Intended for service equipment | 29 |
| 6.3 Clearance and creepage distances | 29 |
| 6.4 Components | 33 |
| 6.5 Enclosures | 34 |
| 6.6 Connections for wiring systems | 37 |
| 6.7 Corrosion protection | 38 |
| 6.8 Insulating materials | 38 |
| 6.9 Bases | 39 |
| 6.10 Mounting of parts | 39 |
| 6.11 Guarding and accessibility of live parts | 40 |
| 6.12 Current-carrying parts | 40 |
| 6.13 Field-wiring terminals | 40 |
| 6.14 Internal wiring | 43 |
| 6.15 Grounding and bonding | 44 |
| 6.16 Ground-fault protection | 44 |
| 6.17 Receptacles | 45 |
| 6.18 Wiring spaces | 45 |
| 6.19 Transfer switches with integral inlets for portable generator connection | 46 |
| 6.20 Inlets for generator connection | 48 |
| 7 Performance Requirements | 48 |
| 7.1 Operating mechanism | 48 |
| 7.2 Temperature rise | 52 |
| 7.3 Dielectric properties | 52 |
| 7.4 Ability to make and break under no-load, normal load, and overload conditions | 52 |
| 7.5 Short-circuit tests | 53 |
| 8 Service Equipment Requirements | 53 |
| 8.1 Service equipment for use in Mexico and the United States | 53 |
| 8.2 Service equipment for use in Canada | 58 |
| 9 Test Requirements – General | 58B |
| 9.1 General | 58B |
| 9.2 Performance | 61 |
| 9.3 Overvoltage condition | 61 |

9.4 Undervoltage condition61
9.5 Operation on loss of supply voltage62
9.6 Operation on reduction of supply voltage62
9.7 Transfer on availability of alternative voltage or voltage-frequency63
9.8 Temperature rise test63
9.9 Dielectric voltage-withstand test65
9.10 Overload test66
9.11 Contact opening test69
9.12 Endurance test69
9.13 Short-circuit test70
9.14 Dielectric voltage-withstand test (following short-circuit withstand or closing tests) ...79
9.15 Short-time current rating test – optional79
9.16 Receptacle withstand test82
9.17 Strength of insulating base and support tests83
10 Test Requirements – Routine Tests83
 10.1 Ground-fault protection83
Tables85

Annex A1 Normative references

Annex A2 Informative references

Annex B (informative) French translation of markings

Annex C (informative) Spanish translation of markings

Annex D (normative) Bypass/Isolation switches

D1 Scope115
D2 Construction – General115
D3 Performance – General116
D4 Normal Operation Test116
D5 Overload Test116
D6 Temperature Test116
D7 Endurance Test117
D8 Dielectric Voltage-Withstand Test117
D9 Short-Circuit Withstand Test117
D10 Short-Time Current Rating Test (Optional)117
D11 Short-Circuit Closing Test117
D12 Dielectric Voltage-Withstand Test (following short-circuit withstand or closing tests)117
D13 Rating – Details118
D14 Marking – Details118

Annex E (normative) Transfer switches for fire pump service

E1 Scope119
E2 Construction – General119

| | |
|--|------|
| E3 Performance | 122 |
| E3A Performance Tests – Transfer Switch Assembly | 122A |
| E3A.1 Short-circuit test (short-circuit rating) | 122A |
| E3A.2 Dielectric voltage-withstand test | 122D |
| E3A.3 Rated short-circuit capacity (withstand) | 122E |
| E3A.4 Dielectric voltage-withstand test | 122F |
| E3A.5 Circuit breaker time-current protection test | 122F |
| E3A.6 Temperature rise test | 122I |
| E4 Rating – Details | 122I |
| E5 Marking – Details | 122I |

Annex F (Normative in Canada) (Informative in Mexico and the United States) Hybrid Transfer Switches

| | |
|-----------------------|-----|
| F1 Scope | 123 |
| F2 Construction | 123 |
| F3 Performance | 123 |
| F4 Rating | 124 |
| F5 Marking | 124 |

Annex G (normative) Softload Transfer Switches

| | |
|--|-----|
| G1 Scope | 127 |
| G2 General Requirements | 127 |
| G3 Definitions | 127 |
| G4 Characteristics | 127 |
| G5 Product Information | 127 |
| G5.1 Data Requirements | 127 |
| G5.2 Marking Requirements | 127 |
| G5.3 Instructions for Installation, Operation, and Maintenance | 128 |
| G6 Constructional Requirements | 128 |
| G7 Performance Requirements | 128 |
| G8 Service Equipment | 129 |
| G9 Test Requirements | 129 |
| G10 Manufacturing and Production Tests | 130 |

Annex H (Normative in Mexico and the United States) (Informative in Canada) Instrumentation and Calibration of High Capacity Circuits

| | |
|-----------------------------------|-----|
| H1 General | 131 |
| H2 Test Circuit Calibration | 131 |
| H3 Direct Current | 131 |
| H4 Alternating Current | 132 |
| H5 Galvanometers | 132 |

Annex I (informative) Sample Markings

| | |
|--------------------|-----|
| I1 Scope | 137 |
| I2 Example 1 | 137 |

13 Example 2137
14 Example 3138
15 Example 4139
16 Example 5139
17 Example 6140
18 Example 7140
19 Example 8141

Annex J (normative) Inlet Assemblies for Transfer Switch Equipment

INTRODUCTION

J1 Scope142
J2 Components142
J3 Units of Measurement142
J4 Undated References143

CONSTRUCTION

J5 General143
J6 Enclosure143
J7 Insulating Material144
J8 Mounting of Parts144
J9 Guarding and Accessibility of Live Parts145
J10 Current Carrying Parts145
J11 Field Wiring Connections145
J12 Wiring146
 J12.1 Internal wiring146
 J12.2 Conductors passing through metal barriers146
J13 Disconnect Switches146
 J13.1 General146
 J13.2 Disconnecting means147
J14 Grounding and Bonding147
J15 Ground-Fault Protection148
J16 Spacings148
J17 Wiring Space148

PERFORMANCE

J18 Inlet Assemblies148
J19 Temperature Test148
J20 Dielectric Voltage-Withstand Test149
J21 Short Circuit Withstand Test149
J22 Dielectric Voltage-Withstand Test (Repeated)152
J23 Spring-Closing Cycling Test152
J24 Gasket Tests152
J25 Routine Tests – Ground-Fault Protection152

RATINGS

J26 General153

MARKINGS

J27 General153
J28 Permanence of Marking154

INSTALLATION

J29 Installation Test Procedures154

PREFACE

This is the harmonized ANCE, CSA Group, and UL standard for transfer switch equipment. It is the second edition of NMX-J-672-ANCE, the third edition of CSA C22.2 No. 178.1, and the eighth edition of UL 1008. This harmonized standard has been jointly revised on September 21, 2018. For this purpose, CSA Group and UL are issuing revision pages dated September 24, 2018, and ANCE is issuing a new edition dated [month day, year of revision pages].

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 Subcommittee for Transfer Switches and the Council of the Harmonization of Electrotechnical Standards for 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 CDI Control y Distribución Industrial from the Comité de Normalización de la Asociación de Normalización y Certificación, A.C., CONANCE, with the collaboration of the transfer switch manufacturers and users.

This standard was reviewed by the CSA Subcommittee on Automatic Transfer Switches, 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.

Application of Standard

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 is it to be considered equivalent to, an IEC standard.

This standard is published as an equivalent standard for ANCE, CSA Group, 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

There is no corresponding IEC standard.

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.

TRANSFER SWITCH EQUIPMENT

1 Scope

1.1 This standard applies to the following types of transfer switches that have a maximum rating of 1000 volts for use in non-hazardous locations, in accordance with Annex A1, Item 1:

- a) Automatic transfer switches;
- b) Manual or non-automatic transfer switches;
- c) Closed transition transfer switches;
- d) Hybrid transfer switches;
- e) Transfer switches for fire pumps;
- f) Bypass/isolating switches;
- g) Softload transfer switches;
- h) Transfer switches intended for use as service equipment;
- i) Transfer switches intended for use in mobile/portable applications such as recreational vehicles, motor homes, camping trailers, and mobile health care facilities; and
- j) In Mexico and the United States, branch circuit emergency lighting transfer switches (BCELTS). In Canada, the requirements for BCELTS do not apply.

1.2 This standard specifically does not apply to:

- a) Double-throw switches for use in optional standby systems;
- b) Switches used in equipment manufactured in accordance with Annex A1, Item 9;
- c) In Canada, manually operated generator transfer panels in accordance with Annex A1, Item 12.
- d) Transfer switches rated over 1000 V;
- e) Solid-state (static) transfer equipment;
- f) Transfer switches for aircraft; and
- g) Transfer switches for water craft.