

INTERNATIONAL STANDARD

**Low-voltage switchgear and controlgear –
Part 4-3: Contactors and motor-starters – Semiconductor controllers and
semiconductor contactors for non-motor loads**





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CONTENTS

FOREWORD.....	7
INTRODUCTION.....	9
1 Scope.....	10
2 Normative references	11
3 Terms, definitions, symbols and abbreviated terms.....	11
3.1 General.....	11
3.2 Alphabetical index of terms	12
3.3 Terms and definitions concerning the types of semiconductor controllers and semiconductor contactors (see Figure 1).....	12
3.4 Terms and definitions concerning characteristics of semiconductor controllers and semiconductor contactors	13
3.5 Terms and definitions concerning safety aspects	16
3.6 Symbols and abbreviated terms	16
4 Classification.....	17
5 Characteristics of semiconductor controllers and semiconductor contactors	17
5.1 Summary of characteristics	17
5.2 Type of equipment	17
5.2.1 Kind of equipment.....	17
5.2.2 Number of poles	18
5.2.3 Kind of current	18
5.2.4 Interrupting medium (air, vacuum, etc.).....	18
5.2.5 Operating conditions of the equipment.....	18
5.3 Rated and limiting values for main circuits	20
5.3.1 Rated voltages.....	20
5.3.2 Currents.....	20
5.3.3 Rated frequency	20
5.3.4 Duty cycle values and symbols	20
5.3.5 Normal load and overload characteristics.....	21
5.3.6 Rated conditional short-circuit current.....	21
5.3.7 Controller power losses	22
5.4 Utilization category	22
5.4.1 General.....	22
5.4.2 Assignment of ratings based on the results of tests	23
5.5 Control circuits.....	23
5.6 Auxiliary circuits.....	23
5.7 Vacant	24
5.8 Coordination with short-circuit protective devices (SCPD).....	24
6 Product information	24
6.1 Nature of information	24
6.2 Marking.....	25
6.3 Instructions for installation, operation, maintenance, decommissioning and dismantling	26
6.4 Environmental information	26
7 Normal service, mounting and transport conditions.....	26
7.1 Normal service conditions	26
7.1.1 Ambient air temperature	26
7.1.2 Altitude	27

7.1.3	Atmospheric conditions	27
7.1.4	Shock and vibrations	27
7.2	Conditions during transport and storage	27
7.3	Mounting	27
7.4	Electrical system disturbances and influences	27
8	Constructional and performance requirements	28
8.1	Constructional requirements	28
8.1.1	General	28
8.1.2	Materials	28
8.1.3	Current-carrying parts and their connections	29
8.1.4	Clearances and creepage distances	29
8.1.5	Actuator	29
8.1.6	Indication of the contact position	29
8.1.7	Additional requirements for equipment suitable for isolation	29
8.1.8	Terminals	29
8.1.9	Additional requirements for equipment provided with a neutral pole	30
8.1.10	Provisions for protective earthing	30
8.1.11	Enclosures for equipment	30
8.1.12	Degrees of protection of enclosed equipment	30
8.1.13	Conduit pull-out, torque and bending with metallic conduits	30
8.1.14	Limited energy source	30
8.1.15	Stored charge energy circuit	32
8.1.16	Fault and abnormal conditions	32
8.1.17	Short-circuit and overload protection of ports	33
8.2	Performance requirements	33
8.2.1	Operating conditions	33
8.2.2	Temperature-rise	34
8.2.3	Dielectric properties	35
8.2.4	Normal load and overload performance requirements	36
8.2.5	Coordination with short-circuit protective devices	41
8.3	EMC requirements	41
8.3.1	General	41
8.3.2	Immunity	41
8.3.3	Emission	43
9	Tests	43
9.1	Kinds of tests	43
9.1.1	General	43
9.1.2	Type tests	43
9.1.3	Routine tests	44
9.1.4	Sampling tests	44
9.1.5	Special tests	44
9.2	Compliance with constructional requirements	45
9.2.1	General	45
9.2.2	Electrical performance of screwless-type clamping units	45
9.2.3	Ageing test for screwless-type clamping units	45
9.2.4	Limited energy source test	45
9.2.5	Breakdown of components	46
9.2.6	Wire flexing test	47
9.3	Compliance with performance requirements	47

9.3.1	Test sequences	47
9.3.2	General test conditions	48
9.3.3	Performance under no load, normal load and overload conditions	48
9.3.4	Performance under short-circuit conditions	56
9.4	EMC tests	59
9.4.1	General.....	59
9.4.2	EMC immunity tests	60
9.4.3	EMC emission tests	61
9.5	Routine and sampling tests	63
9.5.1	General.....	63
9.5.2	Operation and operating limits	63
9.5.3	Dielectric tests	63
Annex A	(normative) Marking and identification of terminals	65
A.1	General.....	65
A.2	Marking and identification of terminals of semiconductor controllers and semiconductor contactors	65
A.2.1	Marking and identification of terminals of main circuits.....	65
A.2.2	Marking and identification of terminals of control circuits.....	65
Annex B	(informative) Typical service conditions for semiconductor controllers and semiconductor contactors	66
B.1	Control of resistive heating elements	66
B.2	Switching of electric discharge lamp controls	66
B.3	Switching of incandescent lamps	66
B.4	Switching of transformers.....	67
B.5	Switching of capacitor banks.....	67
Annex C	Vacant.....	68
Annex D	Vacant.....	69
Annex E	Vacant	70
Annex F	(informative) Operating capability.....	71
Annex G	Vacant.....	74
Annex H	Vacant.....	75
Annex I	(normative) Modified test circuit for short-circuit testing of semiconductor contactors and semiconductor controllers	76
Annex J	(informative) Vacant.....	78
Annex K	(normative) Examples of overvoltage category reduction	79
K.1	General.....	79
K.2	Insulation to the surroundings	79
K.2.1	Circuits connected directly to the supply mains	79
K.2.2	Insulation between circuits.....	80
Annex L	(normative) Additional requirements and tests for equipment with protective separation.....	84
L.1	General.....	84
L.2	Terms and definitions.....	84
L.3	Requirements	84
L.3.1	Test method for implementing protective impedance.....	84
L.3.2	Touch current measurement	85
Bibliography	87

Figure 1 – Semiconductor control devices	13
Figure 2 – Methods of connecting	19
Figure F.1 – Thermal stability test profile	71
Figure F.2 – Overload withstand test profile	72
Figure F.3 – Blocking and commutating capability test profile	73
Figure I.1 – Modified circuit for short-circuit testing of semiconductor devices	76
Figure I.2 – Timeline for the short-circuit test of 9.3.4.1.6	77
Figure K.1 – Basic insulation evaluation for circuits connected directly to the origin of the installation mains supply	79
Figure K.2 – Basic insulation evaluation for circuits connected directly to the mains supply	80
Figure K.3 – Basic insulation evaluation for equipment not permanently connected to the mains supply	80
Figure K.4 – Basic insulation evaluation for insulation between circuits connected directly to the origin of the installation mains supply and that are declared galvanically separated	81
Figure K.5 – Basic insulation evaluation for insulation between circuits connected directly to the mains supply and that are declared galvanically separated	81
Figure K.6 – Basic insulation evaluation for insulation between circuits not permanently connected directly to the mains supply and that are declared galvanically separated	82
Figure K.7 – Basic insulation evaluation for insulation between circuits connected directly to the origin of the installation mains supply and that are declared galvanically separated where internal SPDs are used	82
Figure K.8 – Basic insulation evaluation for insulation between circuits connected directly to the mains supply and that are declared galvanically separated where internal SPDs are used	83
Figure K.9 – Basic insulation evaluation for insulation between circuits connected directly to the mains supply and that are declared galvanically separated	83
Figure L.1 – Protection by means of protective impedance	85
Figure L.2 – Measuring instrument	86
Table 1 – Utilization categories	23
Table 2 – Relative levels of severity	23
Table 14 – Limits for limited energy sources without an over-current protective device	31
Table 15 – Limits for limited energy sources with an over-current protective device	31
Table 16 – Limits for limited energy source with current limiting impedance	32
Table 3 – Temperature-rise limits for insulated coils in air and in oil	35
Table 4 – Minimum overload current withstand time (T_x) in relation to overload current ratio (X)	37
Table 5 – Minimum requirements for thermal stability test conditions	37
Table 6 – Minimum requirements for overload current withstand test conditions	38
Table 7 – Making and breaking capacity test – Making and breaking conditions according to utilization categories for the mechanical switching device	39
Table 8 – Conventional operational performance – Making and breaking conditions according to utilization categories for the mechanical switching device	40
Table 9 – Specific performance criteria when EM disturbances are present	42
Table 10 – Thermal stability test specifications	52
Table 11 – Blocking and commutating capability test specifications	54

Table 12 – Terminal disturbance voltage limits for conducted radio-frequency emission (AC mains power port)	62
Table 13 – Radiated emissions test limits	63
Table A.1 – Main circuit terminal markings	65
Table K.1 – Drawing keys	79

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

**Part 4-3: Contactors and motor-starters –
Semiconductor controllers and semiconductor
contactors for non-motor loads**

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International Standard IEC 60947-4-3 has been prepared by subcommittee 121A: Low-voltage switchgear and controlgear, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low-voltage.

This third edition cancels and replaces the second edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) scope exclusions;
- b) editorial correction of notes and hanging paragraphs;

- c) safety aspects related to:
 - general aspects;
 - limited energy circuits;
 - electronic circuits;
- d) mention of dedicated wiring accessories;
- e) power consumption measurement;
- f) alignment to IEC 60947-1:2020;
- g) alignment with IEC 60947-4-2 when appropriate.

The provisions of the general rules dealt with IEC 60947-1 are applicable to this part of IEC 60947 series where specifically called for. Clauses and subclauses, tables, figures and annexes of the general rules thus applicable are identified by reference to IEC 60947-1:2020.

The text of this document is based on the following documents:

FDIS	Report on voting
121A/357/FDIS	121A/368/RVD

Full information on the voting for the approval of this document can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60947 series, published under the general title *Low-voltage switchgear and controlgear*, can be found on the IEC website.

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5.5 USA and Canada

8.1.14.1 Canada

Table 14 USA

Table 15 USA

9.4.3.2 USA

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This document covers low-voltage semiconductor controllers and semiconductor contactors (solid-state contactors) intended for the use with non-motor loads. As semiconductor controllers, they have many capabilities beyond the simple switching on and off of non-motor loads. As semiconductor contactors, they perform the same functions as mechanical contactors, but utilize one or more semiconductor switching devices in their main poles.

The devices may be single-pole or multi-pole (see 3.5.1 of IEC 60947-1:2020). This document refers to complete devices rated as a unit incorporating all necessary heat-sinking material and terminals. It includes devices with all necessary terminals, which are supplied with or without heat-sink in knocked-down form for combination by the users, when the manufacturer gives with the device detailed information about choosing the heat-sink and mounting the device on the heat-sink.