

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Safety of machinery – Electrical equipment of machines –
Part 32: Requirements for hoisting machines**

**Sécurité des machines – Equipement électrique des machines –
Partie 32: Exigences pour les appareils de levage**



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CONTENTS

FOREWORD.....	9
INTRODUCTION.....	11
1 Scope.....	14
2 Normative references.....	15
3 Terms and definitions	18
4 General requirements	26
4.1 General considerations	26
4.2 Selection of equipment	27
4.2.1 General	27
4.2.2 Selection of power contactors	27
4.2.3 Electrical equipment in compliance with the IEC 60439 series	27
4.3 Electrical supply	27
4.3.1 General	27
4.3.2 AC supplies	27
4.3.3 DC supplies	28
4.3.4 On-board power supply	28
4.4 Physical environment and operating conditions	29
4.4.1 General	29
4.4.2 Electromagnetic compatibility (EMC)	29
4.4.3 Ambient air temperature.....	30
4.4.4 Humidity.....	30
4.4.5 Altitude	30
4.4.6 Contaminants	30
4.4.7 Ionizing and non-ionizing radiation	30
4.4.8 Vibration, shock, and bump.....	30
4.5 Transportation and storage.....	30
4.6 Provisions for handling	31
4.7 Installation.....	31
5 Incoming supply conductor terminations and devices for disconnecting and switching off.....	31
5.1 Incoming supply conductor terminations.....	31
5.2 Terminal for connection to the external protective earthing system	31
5.3 Supply disconnecting and switching devices.....	32
5.3.1 General	32
5.3.2 Type	32
5.3.3 Requirements	34
5.3.4 Operating means	34
5.3.5 Crane-supply-switch.....	34
5.3.6 Crane-disconnector.....	35
5.3.7 Crane-switch.....	36
5.3.8 Special circuits	37
5.4 Devices for switching off for prevention of unexpected start-up.....	37
5.5 Devices for disconnecting electrical equipment	38
5.6 Protection against unauthorized, inadvertent and/or mistaken connection.....	39
6 Protection against electric shock.....	39
6.1 General	39

6.2	Protection against direct contact	39
6.2.1	General	39
6.2.2	Protection by enclosures	39
6.2.3	Protection by insulation of live parts	40
6.2.4	Protection against residual voltages	41
6.2.5	Protection by barriers	41
6.2.6	Protection by placing out of reach or protection by obstacles	41
6.3	Protection against indirect contact	41
6.3.1	General	41
6.3.2	Prevention of the occurrence of a touch voltage	42
6.3.3	Protection by automatic disconnection of supply	42
6.4	Protection by the use of PELV	43
6.4.1	General requirements	43
6.4.2	Sources for PELV	43
7	Protection of equipment	43
7.1	General	43
7.2	Overcurrent protection	44
7.2.1	General	44
7.2.2	Supply conductors	44
7.2.3	Power circuits	44
7.2.4	Control circuits	45
7.2.5	Socket outlets and their associated conductors	45
7.2.6	Lighting circuits	45
7.2.7	Transformers	45
7.2.8	Location of overcurrent protective devices	45
7.2.9	Overcurrent protective devices	45
7.2.10	Rating and setting of overcurrent protective devices	46
7.3	Protection of motors against overheating	46
7.3.1	General	46
7.3.2	Overload protection	47
7.3.3	Over-temperature protection	47
7.3.4	Current limiting protection	47
7.4	Abnormal temperature protection	47
7.5	Protection against supply interruption or voltage reduction and subsequent restoration	47
7.6	Motor overspeed protection	48
7.7	Earth fault/residual current protection	48
7.8	Phase-sequence protection	48
7.9	Protection against switching surges and lightning	48
8	Equipotential bonding	49
8.1	General	49
8.2	Protective bonding circuit	51
8.2.1	General	51
8.2.2	Protective conductors	51
8.2.3	Continuity of the protective bonding circuit	52
8.2.4	Exclusion of switching devices from the protective bonding circuit	52
8.2.5	Parts that need not be connected to the protective bonding circuit	53
8.2.6	Protective conductor connecting points	53

8.2.7	Additional protective bonding requirements for electrical equipment having earth leakage currents higher than 10 mA a.c. or d.c.....	53
8.3	Functional bonding	54
8.4	Measures to limit the effects of high leakage current	54
9	Control circuits and control functions.....	54
9.1	Control circuits	54
9.1.1	Control circuit supply	54
9.1.2	Control circuit voltages.....	54
9.1.3	Protection	55
9.2	Control functions	55
9.2.1	Start functions	55
9.2.2	Stop functions.....	55
9.2.3	Operating modes	55
9.2.4	Suspension of safeguarding	55
9.2.5	Operation	56
9.2.6	Other control functions.....	58
9.2.7	Cableless controls	59
9.3	Protective interlocks	61
9.3.1	Reclosing or resetting of an interlocking safeguard.....	61
9.3.2	Exceeding operating limits	61
9.3.3	Operation of auxiliary functions	62
9.3.4	Interlocks between different operations and for contrary motions	62
9.3.5	Reverse current braking.....	62
9.4	Control functions in the event of failure	62
9.4.1	General requirements.....	62
9.4.2	Measures to minimize risk in the event of failure	63
9.4.3	Protection against mal-operation due to earth faults, voltage interruptions, and loss of circuit continuity	64
9.4.4	Protection against mal-operation of a motion control system.....	66
10	Operator interface and hoisting machine mounted control devices.....	66
10.1	General.....	66
10.1.1	General device requirements	66
10.1.2	Location and mounting	66
10.1.3	Protection	67
10.1.4	Position sensors	67
10.1.5	Portable and pendant control stations	67
10.2	Push-buttons	67
10.2.1	Colours.....	67
10.2.2	Markings.....	68
10.3	Indicator lights and displays	69
10.3.1	General	69
10.3.2	Colours.....	69
10.3.3	Flashing lights and displays	70
10.4	Illuminated push-buttons.....	70
10.5	Rotary control devices	70
10.6	Start devices	70
10.7	Emergency stop devices	70
10.7.1	Location of emergency stop devices.....	70
10.7.2	Types of emergency stop device	71

10.7.3	Colour of actuators	71
10.7.4	Local operation of the crane-supply-switch and the crane-disconnector to effect emergency stop	71
10.8	Emergency switching-off devices	71
10.8.1	Location of emergency switching-off devices	71
10.8.2	Types of emergency switching off device	71
10.8.3	Colour of actuators	72
10.8.4	Local operation of the crane-supply-switch and the crane-disconnector to effect emergency switching off	72
10.9	Enabling control device	72
11	Controlgear: location, mounting, and enclosures	72
11.1	General requirements	72
11.2	Location and mounting	73
11.2.1	Accessibility and maintenance	73
11.2.2	Physical separation or grouping	73
11.2.3	Heating effects	74
11.3	Degrees of protection	74
11.4	Enclosures, doors and openings	74
11.5	Access to switchgear and to controlgear	75
11.5.1	General	75
11.5.2	Access to gangways	75
11.5.3	Gangways in front of switchgear and controlgear	76
11.5.4	Gangway and door restrictions	76
12	Conductors and cables	76
12.1	General requirements	76
12.2	Conductors	76
12.3	Insulation	77
12.4	Current-carrying capacity in normal service	78
12.5	Voltage drop	79
12.6	Flexible cables	80
12.6.1	General	80
12.6.2	Mechanical rating	80
12.6.3	Current-carrying capacity of cables wound on drums	80
12.7	Conductor wires, conductor bars and slip-ring assemblies	81
12.7.1	Protection against direct contact	81
12.7.2	Protective conductor circuit	83
12.7.3	Protective conductor current collectors	83
12.7.4	Removable current collectors with a disconnector function	83
12.7.5	Clearances in air	83
12.7.6	Creepage distances	83
12.7.7	Conductor system sectioning	84
12.7.8	Construction and installation of conductor wire, conductor bar systems and slip-ring assemblies	84
13	Wiring practices	84
13.1	Connections and routing	84
13.1.1	General requirements	84
13.1.2	Conductor and cable runs	85
13.1.3	Conductors of different circuits	85
13.1.4	Connection between pick-up and pick-up converter of an inductive power supply system	85

13.2	Identification of conductors	86
13.2.1	General requirements	86
13.2.2	Identification of the protective conductor	86
13.2.3	Identification of the neutral conductor	86
13.2.4	Identification by colour	86
13.3	Wiring inside enclosures	87
13.4	Wiring outside enclosures	87
13.4.1	General requirements	87
13.4.2	External ducts	87
13.4.3	Connection to the hoisting machine and to moving elements on the hoisting machine	88
13.4.4	Interconnection of devices on the hoisting machine	89
13.4.5	Plug/socket combinations	89
13.4.6	Dismantling for shipment	90
13.4.7	Additional conductors	90
13.5	Ducts, connection boxes and other boxes	90
13.5.1	General requirements	90
13.5.2	Percentage fill of ducts	91
13.5.3	Rigid metal conduits and fittings	91
13.5.4	Flexible metal conduits and fittings	91
13.5.5	Flexible non-metallic conduits and fittings	91
13.5.6	Cable trunking systems	91
13.5.7	Hoisting machine compartments and cable trunking systems	92
13.5.8	Connection boxes and other boxes	92
13.5.9	Motor connection boxes	92
14	Electric motors and associated equipment	92
14.1	General requirements	92
14.2	Motor enclosures	92
14.3	Motor dimensions	92
14.4	Motor mounting and compartments	92
14.5	Criteria for motor selection	93
14.6	Protective devices for mechanical brakes	93
14.7	Electrically operated mechanical brakes	93
15	Accessories and lighting	94
15.1	Accessories	94
15.2	Local lighting on the hoisting machine and for the equipment	94
15.2.1	General	94
15.2.2	Supply	94
15.2.3	Protection	95
15.2.4	Fittings	95
16	Marking, warning signs and reference designations	95
16.1	General	95
16.2	Warning signs	95
16.2.1	Electric shock hazard	95
16.2.2	Hot surfaces hazard	95
16.3	Functional identification	96
16.4	Marking of equipment	96
16.5	Reference designations	96
17	Documentation	96

17.1	General	96
17.2	Information to be provided	97
17.3	Requirements applicable to all documentation	97
17.4	Installation documents	98
17.5	Overview diagrams and function diagrams	98
17.6	Circuit diagrams	99
17.7	Operating manual	99
17.8	Maintenance manual	99
17.9	Parts list	99
18	Verification	100
18.1	General	100
18.2	Verification of conditions for protection by automatic disconnection of supply	100
18.2.1	General	100
18.2.2	Test methods in TN-systems	100
18.2.3	Application of the test methods for TN-systems	101
18.3	Insulation resistance tests	103
18.4	Voltage tests	103
18.5	Protection against residual voltages	104
18.6	Functional tests	104
18.7	Retesting	104
	Annex A (normative) Protection against indirect contact in TN-systems	105
	Annex B (informative) Inquiry form for the electrical equipment of hoisting machines	109
	Annex C (informative) Current-carrying capacity and overcurrent protection of conductors and cables in the electrical equipment of machines	112
	Annex D (informative) Conductor selection for intermittent duty	117
	Annex E (informative) Explanation of emergency operation functions	120
	Annex F (informative) Comparison of typical conductor cross-sectional areas	121
	Bibliography	123
	Index	128
	Figure 1 – Block diagram of combined working cranes in a typical material handling system in a seaport	12
	Figure 2 – Block diagram of a typical crane and its associated electrical equipment	13
	Figure 3 – Examples of electrical supply systems	33
	Figure 4 – Example of equipotential bonding for electrical equipment of a hoisting machine	50
	Figure 5 – Protection against mal-operation due to earth faults – Method a)	65
	Figure 6 – Protection against mal-operation due to earth faults – Method b)	65
	Figure 7 – Limits of arm's reach	82
	Figure A.1 – Typical arrangement for fault loop impedance measurement	108
	Figure C.1 – Methods of conductor and cable installation independent of number of conductors/cables	113
	Figure C.2 – Parameters of conductors and protective devices	115

Figure D.1 – Example of current and time of the segments of the operating cycle of a variable speed a.c. hoist drive 119

Table 1 – Minimum cross-sectional area of the external protective copper conductor 32

Table 2 – Colour-coding for push-button actuators and their meanings 68

Table 3 – Symbols for push-buttons 69

Table 4 – Colours for indicator lights and their meanings with respect to the condition of the hoisting machine 69

Table 5 – Minimum cross-sectional areas of copper conductors 77

Table 6 – Classification of conductors 77

Table 7 – Examples of current-carrying capacity (I_Z) of PVC-insulated copper conductors or cables under steady-state conditions in an ambient air temperature of +40 °C for different methods of installation 79

Table 8 – Derating factors for cables wound on drums 81

Table 9 – Minimum permitted bending radii for the forced guiding of flexible cables 89

Table 10 – Application of the test methods for TN-systems 101

Table 11 – Examples of maximum cable length from each protective device to its load 102

Table A.1 – Maximum disconnecting times for TN systems 105

Table C.1 – Correction factors 112

Table C.2 – Derating factors from I_Z for grouping 114

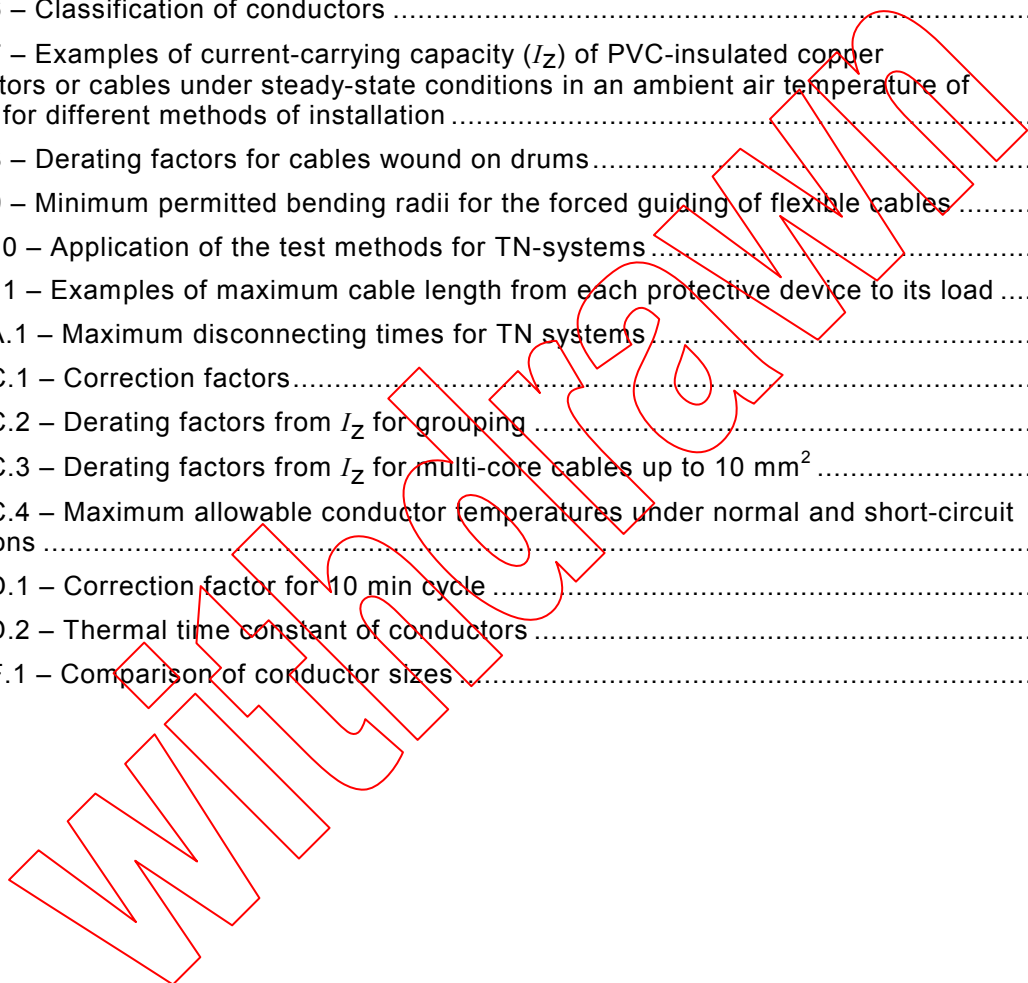
Table C.3 – Derating factors from I_Z for multi-core cables up to 10 mm² 114

Table C.4 – Maximum allowable conductor temperatures under normal and short-circuit conditions 116

Table D.1 – Correction factor for 10 min cycle 118

Table D.2 – Thermal time constant of conductors 118

Table F.1 – Comparison of conductor sizes 121



INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SAFETY OF MACHINERY –
ELECTRICAL EQUIPMENT OF MACHINES –****Part 32: Requirements for hoisting machines**

FOREWORD

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International Standard IEC 60204-32 has been prepared by IEC technical committee 44: Safety of machinery – Electrotechnical aspects.

This second edition cancels and replaces the first edition published in 1998 and constitutes a technical revision.

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

- a) Changes to IEC 60204-1, 5th edition (2005), have been incorporated, especially:
 - deletion of Clause 11 of the previous edition;
 - modification of the structure of equipotential bonding (Clause 8);
 - separation of control functions (Clause 9) and devices (Clause 10);
 - structure of technical documentation (Clause 17);
 - verification of protection by automatic disconnection of supply (18.2).

b) Subclause 9.2.7 on cableless controls has been modified.

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

FDIS	Report on voting
44/574/FDIS	44/579/RVD

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

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

The following differences exist in some countries:

- 4.3.1: The voltage characteristics of electricity supplied by public distribution systems are given in EN 50160:1999, *Voltage characteristics of electricity supplied by public distribution systems* (Europe);
- 7.2.3: Disconnection of the neutral conductor is mandatory in a TN-S system (France);
- 12.2, Table 5: Cross-sectional area is specified according to American Wire Gauge (AWG) (USA);
- 13.2.2: For the protective conductor, the colour identification GREEN (with or without YELLOW stripes) is used as equivalent to the bicolour combination GREEN-AND-YELLOW (USA and Canada);
- 13.2.3: The colour identification WHITE or NATURAL GREY is used for earthed neutral conductors instead of the colour identification LIGHT BLUE (USA and Canada);
- 13.2.4: The colour YELLOW is used instead of ORANGE for that purpose (USA).

The list of all the parts of the IEC 60204 series, under the general title *Safety of machinery – Electrical equipment of machines*, can be found on the IEC web site.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

INTRODUCTION

This part of IEC 60204 provides requirements and recommendations relating to the electrical equipment of hoisting machines so as to promote

- safety of persons and property;
- consistency of control response;
- ease of maintenance.

High performance is not to be obtained at the expense of the essential factors mentioned above.

Figures 1 and 2 have been provided as an aid to understanding the interrelationship of the various elements of a hoisting machine and its associated equipment. Figure 1 is an overall block diagram of a typical material handling system (a group of cranes working together in a coordinated manner) and Figure 2 is a block diagram of a typical crane and associated equipment showing the various elements of the electrical equipment addressed in this standard.

Withdrawing