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Interested committees:

Title: BS EN IEC 62683-1 Low-voltage switchgear and controlgear - Product data and properties for information exchange

Part 1: Catalogue data

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

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## Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

## UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

## Submission of Comments

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- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

## Template for comments and secretariat observations

|                  |                        |
|------------------|------------------------|
| Date: xx/xx/20xx | Document: ISO/DIS xxxx |
|------------------|------------------------|

| 1  | 2                                          | (3)                          | 4               | 5                                                                                                                                  | (6)                                                                      | 7                                                  |
|----|--------------------------------------------|------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------|
| MB | Clause No./ Subclause No./Annex (e.g. 3.1) | Paragraph/Figure/ Table/Note | Type of comment | Commend (justification for change) by the MB                                                                                       | Proposed change by the MB                                                | Secretariat observations on each comment submitted |
|    | 3.1                                        | Definition 1                 | ed              | Definition is ambiguous and needs clarifying.                                                                                      | Amend to read '...so that the mains connector to which no connection...' |                                                    |
|    | 6.4                                        | Paragraph 2                  | te              | The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK. | Delete reference to UV photometer.                                       |                                                    |



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IEC TC 121 : SWITCHGEAR AND CONTROLGEAR AND THEIR ASSEMBLIES FOR LOW VOLTAGE

SECRETARIAT:

France

SECRETARY:

Mr Michaël LAHEURTE

OF INTEREST TO THE FOLLOWING COMMITTEES:

SC 3C, SC 65B, SC 65E

HORIZONTAL FUNCTION(S):

ASPECTS CONCERNED:

This document is still under study and subject to change. It should not be used for reference purposes.

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TITLE:

**Low-voltage switchgear and controlgear – Product data and properties for information exchange – Part 1: Catalogue data**

NOTE FROM TC/SC OFFICERS:

TC121 officers support the circulation of IEC 62683-1 ED2 2CD.

NC experts are kindly requested to refer their comments to line number.

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –****Product data and properties for information exchange –****Part 1: Catalogue data**

## FOREWORD

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International Standard IEC 62683-1 has been prepared by committee 121: Switchgear and controlgear and their assemblies for low voltage.

This second edition cancels and replaces the first edition published in March 2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition for reflecting the content of the [IEC CDD 62683DB](#) which has been updated with the change requests C00073, C00074, C00081, C00087, C00089, C00098, C00100, C00107, C00111, C00116, C00119, C00122 and C00135:

- a) New device class descriptions: ACC304, ACC305, ACC413, ACC417, ACC503, ACC504, ACC505, ACC512, ACC516, ACC536, ACC537, ACC538, ACC540, ACC541, ACC542, ACC543, ACC544, ACC545, ACC546, ACC547, ACC548
- b) New associated properties

## c) Slight modifications of some properties from Ed 1

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

| FDIS        | Report on voting |
|-------------|------------------|
| 121/xx/FDIS | 121/xx/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 committee has decided that the contents of this publication will remain unchanged until the stability 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.

The National Committees are requested to note that for this publication the stability date is **20XX**.

THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED AT THE PUBLICATION STAGE.

## INTRODUCTION

Mainly large customers and wholesalers are requesting standardized product descriptions and product properties to product manufacturers. However, all stakeholders can benefit from this standardised presentation and data exchange.

Multiple associations or groups of actors launched different initiatives to try to respond to this demand but, due to the lack of standardisation of classes and properties, the situation is not satisfactory neither for customers nor for manufacturers.

In order to keep the lead of product description, IEC proposes a consistent solution within its product standards.

The purpose of this document is to:

- define device classes and properties for low-voltage switchgear and controlgear and their assemblies in a dedicated standard,
- provide a basis of classes of the low-voltage switchgear and controlgear and their assemblies, and properties introduced into the [IEC 61360 database](http://std.iec.ch/iec61360) maintained by IEC/SC3D (see <http://std.iec.ch/iec61360>).

This document is not intended to establish a hierarchy of product classes called classification.

The intended benefits of this document are to:

- reduce the costs, time and efforts of mapping data for each customer request;
- optimize the workflow of B2B exchanges;
- minimize duplication of articles in customer inventories and in databases;
- minimize losses and misinterpretation of data during exchanges;
- facilitate the selection of a product, especially regarding reliability and safety;
- give access to product data everywhere regardless of country, language and culture;
- provide product data related to environmental aspects such as material declaration;
- contribute to the fast growth of the e-business by simplifying the development of
  - e-Catalogue allowing the differentiation of products performances, certificates, etc;
  - e-Commerce: use of electronic networks to exchange information, products, services and payments for commercial and communication purposes between individuals (consumers) and businesses, between businesses themselves.

The output of this document consists of:

- reference dictionary of low-voltage switchgear and controlgear and their assemblies using existing terms from IEC documents. However, terminology used in e-business may be relevant for the purpose of naming classes in this document to get a high level of acceptance;
- properties for e-commerce purposes, conformity of properties with product standards being the main goal of this document.

NOTE The classes "under consideration" are for information only and are intended to be completed during the next maintenance cycle.

The description of low-voltage switchgear and controlgear and their assemblies within the IEC 61360 database needs to address the following technical aspect:

- IEC 61360 requires mandatory attributes. The complete sets of attributes for low-voltage switchgear and controlgear and their assemblies are available in the IEC 62683DB

domain at <https://cdd.iec.ch/cdd/iec62683/iec62683.nsf/TreeFrameset?OpenFrameSet>.  
Within the present document, only the most useful attributes are presented;

- The switchgear and controlgear and their assemblies data models are implemented in the IEC 62683DB domain of the IEC Component Data Dictionary (CDD), by creating dictionaries of blocks, classes and properties.

# LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

## Product data and properties for information exchange –

### Part 1: Catalogue data

#### 1 Scope

This document establishes the reference dictionary of the general description of classes of low-voltage switchgear and controlgear and their assemblies based on defined properties.

This dictionary is used to facilitate the exchange in electronic format of data describing low-voltage switchgear and controlgear, their accessories and their assemblies.

This document provides clear and unambiguous definitions of a limited number of properties and classes which are mainly used for presentation, selection and identification of products particularly in electronic catalogues.

Each property has an unambiguously defined meaning and naming, and where relevant, a defined value list, a defined format and a defined unit.

The intention is not to cover manufacturer specific features.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60947-1, *Low-voltage switchgear and controlgear - Part 1: General rules*

IEC 61360-1, *Standard data element types with associated classification scheme for electric items - Part 1: Definitions - Principles and methods*

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 60947-1, as well as the following terms and definitions apply.

##### 3.1

##### **attribute**

data element for description of a property, a relation or a device class

EXAMPLE The name of a property, the code of a class, the measure unit of a property

##### 3.2

##### **block** (of properties)

collection of properties describing one common aspect of the device class

Note 1 to entry: A block is a feature class in the sense of IEC 61360-1 and ISO 13584-42.

EXAMPLE Diagnostic functions, control circuit.

**3.3****cardinality**

pattern defining the number of times a concept reoccurs within a description

Note 1 to entry: Cardinality allows a block of properties contained in a list of properties to be used more than once for a particular transaction in order to describe, for example, a device with several different outputs or more than one process cases.

Note 2 to entry: Cardinality is defined by IEC 61987-10.

**3.4****device**

material element or assembly of such elements intended to perform a required function

Note 1 to entry: In this document, a device corresponds to a low voltage switchgear and controlgear.

[SOURCE: IEC 60050-151, 151-11-20]

**3.5****device class**

set of properties which gives a description of a device

**3.6****polymorphism**

pattern that allows substitution of a single concept in the same context by a different more specific (specialized) concept

Note 1 to entry: A specialised polymorphic block of properties can replace a more generic one in the same context. A polymorphic operator (control property) can act in selecting between of various specialisations.

Note 2 to entry: Polymorphism is defined by IEC 61987-10.

**3.7****property**

defined parameter suitable for the description and differentiation of device class specific characteristic describing an aspect of device class

**4 General**

The attributes shall follow IEC 61360-1.

Based on IEC 61360-1 data model, the structured data called cardinality and polymorphism may be used.

**5 Properties****5.1 Criteria for naming properties**

In order to maintain consistency and clarity in the naming of properties, terms from product standards shall be used when they are available.

Synonymous names may be associated with the property name when well established terms are used on the market.

**5.2 Attributes of a property**

The following attributes of a property are considered in this document: identifier, preferred name, definition, source document, data type, unit of measure, value format, value list.

## 6 Block of properties

A property within a block shall describe one common aspect covered by the definition of this block.

The list of blocks of properties is defined in Table 1.

**Table 1 – Library of blocks used in the device classes of low-voltage switchgear and controlgear**

| Block name                                | Definition                                                                                                                                                                                                                                    | Source                                                  | Class ID |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------|
| Identification                            | information necessary for unambiguous identification of the device                                                                                                                                                                            |                                                         | ACC011   |
| General technical data                    | general technical aspects of the device                                                                                                                                                                                                       |                                                         | ACC012   |
| Diagnostic functions                      | ability to analyse a situation corresponding to a predefined set of parameters of the device                                                                                                                                                  |                                                         | ACC013   |
| Main circuit (of a switching device)      | all the conductive parts of a switching device included in the circuit which it is designed to close or open                                                                                                                                  | IEC 60050-441: 1984, 441-15-02                          | ACC014   |
| Input / Output circuit                    | circuit of the device used to receive or to send signals or data                                                                                                                                                                              |                                                         | ACC015   |
| Control and auxiliary circuits            | all the conductive parts of the device which are intended to be included in a circuit other than the main circuit                                                                                                                             |                                                         | ACC016   |
| Head of the control circuit device        | part which contains and support the actuator or contains the lens of an indicator light, fixed on an enclosure or on the body of the device                                                                                                   |                                                         | ACC017   |
| Light block of the control circuit device | part which contains and support the lamp, fixed on an enclosure or on the body of the device                                                                                                                                                  |                                                         | ACC018   |
| Equipment of control station              | set of control devices and indicators mounted on a control station                                                                                                                                                                            |                                                         | ACC019   |
| Emitting source of proximity switch       | radiation source which provides the beam operating the proximity switch                                                                                                                                                                       |                                                         | ACC020   |
| Short-circuit                             | short-circuit conditions, stated by the manufacturer, which the device can make, withstand or break satisfactorily                                                                                                                            |                                                         | ACC040   |
| Overcurrent release                       | release which causes a mechanical switching device to open with or without time delay when the current in the release exceeds a predetermined value<br>Note 1 to entry: This value can in some cases depend upon the rate-of-rise of current. | 3.6.26 of IEC 60947-1:2020, modified with relay deleted | ACC041   |
| Communication interfaces                  | communication functions for the transfer of information between the device and the system                                                                                                                                                     |                                                         | ACC050   |
| Installation, mounting and dimensions     | physical information of the device for installation                                                                                                                                                                                           |                                                         | ACC066   |
| Connection facilities                     | terminals, screws or other parts, used for the electrical connection of conductors of external circuits of the device                                                                                                                         |                                                         | ACC068   |
| Product certificates and standards        | conformity of a device with specified requirements and compliance with recognised product standards                                                                                                                                           |                                                         | ACC070   |

## 7 Device classes

### 7.1 Device class attributes

The attributes of the device class shall follow IEC 61360-1.

The following attributes of a device class are considered in this document: identifier, preferred name, definition, synonymous name and source document.

NOTE The synonymous names are limited to those necessary to avoid confusion when selecting a device class.

### 7.2 Classification of low-voltage switchgear and controlgear

Table 2 gives the classification of low-voltage switchgear and controlgear based on the corresponding product standards. The class name column is structured in four levels of hierarchy using indent alignments.

**Table 2 – Low-voltage switchgear and controlgear classification**

| Class name                                   | Synonyms                     | Definition                                                                                                                                                                                                                                                         | Source                                   | Class ID |
|----------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|
| <b>LV switchgear and controlgear domain</b>  |                              | domain covering switching devices and their combination with associated control, measuring, protective and regulating equipment, also assemblies of such devices and equipment with associated interconnections, accessories, enclosures and supporting structures | 3.3.1 of IEC 60947-1:2020, modified      | ACC001   |
| <b>LV switchgear and controlgear classes</b> |                              | set of switching devices and their combination with associated control, measuring, protective and regulating equipment, also assemblies of such devices and equipment with associated interconnections, accessories, enclosures and supporting structures          | 3.3.1 of IEC 60947-1:2020, modified      | ACC100   |
| <b>Circuit-breaker classes</b>               |                              | set of circuit-breakers, their releases and accessories                                                                                                                                                                                                            |                                          | ACC200   |
| Circuit-breaker                              | Moulded case circuit breaker | mechanical switching device, capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time and breaking currents under specified abnormal circuit conditions such as those of short-circuit     | IEC 60050-441: 1984, 441-14-20           | ACC201   |
| Release for circuit-breaker                  | Trip unit                    | unit connected to a circuit-breaker which initiates action that causes the protected circuit to be switched off when a pre-set threshold is exceeded                                                                                                               | derived from IEC 60947-1:2020, 3.6.26    | ACC202   |
| Residual current release for circuit-breaker | Earth leakage module         | unit connected to a circuit-breaker which concurrently performs residual current detection, compares such measurements with a pre-set value and initiates action that causes the protected circuit to be switched off when this value is exceeded                  | derived from IEC 60947-1:2020, 3.6.26    | ACC203   |
| Shunt release for circuit-breaker            | Shunt trip                   | release energized by a source of voltage                                                                                                                                                                                                                           | IEC 60050-441: 1984, 441-16-41, modified | ACC204   |

| Class name                                                | Synonyms           | Definition                                                                                                                                                                                                                                                                                                | Source                                   | Class ID |
|-----------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|
| Under-voltage release for circuit-breaker                 | Under-voltage trip | release which permits a circuit-breaker to open with or without time-delay, when the voltage across the terminals of the release falls below a predetermined value                                                                                                                                        | derived from IEC 60947-1:2020, 3.6.35    | ACC205   |
| Motor-operator for circuit-breaker                        |                    | dependent power operator capable of closing and opening the circuit-breaker                                                                                                                                                                                                                               |                                          | ACC206   |
| Plug-in base for circuit-breaker                          |                    | fixed part of a plug-in circuit breaker, which allows the circuit-breaker to be removed from the installation                                                                                                                                                                                             | derived from 3.4 of IEC 60947-2:2024     | ACC207   |
| Draw-out cradle for circuit-breaker                       |                    | fixed part of a withdrawable circuit-breaker, which allows the circuit-breaker to be disconnected from the main circuit, in the withdrawn position, to achieve the isolation of the downstream circuit                                                                                                    | derived from 3.5 of IEC 60947-2:2024     | ACC208   |
| <b>Switch classes</b>                                     |                    | set of mechanical switching device capable of making, carrying and breaking currents under normal circuit conditions which may include specified operating overload conditions and also carrying for a specified time currents under specified abnormal circuit conditions such as those of short-circuit | IEC 60050-441: 1984, 441-14-10, modified | ACC300   |
| Switch-disconnector                                       |                    | switch which, in the open position, satisfies the isolating requirements specified for a disconnector                                                                                                                                                                                                     | IEC 60050-441: 1984, 441-14-12           | ACC301   |
| Switch-disconnector-fuse                                  |                    | switch-disconnector in which one or more poles have a fuse in series in a composite unit                                                                                                                                                                                                                  | IEC 60050-441: 1984, 441-14-16           | ACC302   |
| Fuse-switch-disconnector                                  |                    | switch-disconnector in which a fuse-link or a fuse-carrier with fuse-link forms the moving contact                                                                                                                                                                                                        | IEC 60050-441: 1984, 441-14-19           | ACC303   |
| Operating handle (of a mechanical switching device)       | Knob               | part of the actuating system of mechanical switching device designed to be held in the operator's hand                                                                                                                                                                                                    |                                          | ACC304   |
| Shaft of operating handle                                 | Axis               | shaft designed to transmit the force from the operating handle to the mechanical switching device                                                                                                                                                                                                         |                                          | ACC305   |
| Cam-switch                                                |                    | rotary switch, the actuating system of which has to be rotated to one or more selectable positions in order to achieve a change in contacts state                                                                                                                                                         |                                          | ACC306   |
| <b>Contactors, starters and similar equipment classes</b> |                    | set of devices including:<br>- contactors<br>- motor-starters<br>- motor protective devices<br>Note 1 to entry See IEC 60947-4 series.                                                                                                                                                                    |                                          | ACC400   |

| Class name                                 | Synonyms                               | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Source                                     | Class ID |
|--------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------|
| Motor protective switching device          | MPSD                                   | manually operated motor starter additionally providing resettable short-circuit protection to the motor and the circuit<br>Note 1 to entry: A MPSD can also be used as a manual starter, a protected starter or a combination starter.<br>Note 2 to entry: A MPSD can be used as a SCPD within the motor branch.<br>Note 3 to entry: In North America, this device can be qualified as a manual motor controller suitable for tap conductor protection.                                                                                                                                      | IEC 60947-4-1:2023, 3.5.32                 | ACC401   |
| Motor management starter                   |                                        | starter including extended functions with communication ability<br>Note 1 to entry Interoperable device profiles for motor management starter are defined by IEC 61915-2:2011                                                                                                                                                                                                                                                                                                                                                                                                                | IEC 60947-4-1:2023, 3.5.31                 | ACC402   |
| Motor management starter, extension module |                                        | module providing at least one extended function to a motor management device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | derived from 3.5.31 of IEC 60947-4-1:2023  | ACC403   |
| Motor management starter, operator panel   |                                        | human machine interface dedicated to a motor management device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | derived from 3.5.31 of IEC 60947-4-1:2023  | ACC404   |
| Motor-starter combination                  | protected starter, combination starter | equipment consisting of a starter, a manually-operated switching device and a short-circuit protective device, which may or may not incorporate an isolating function<br>Note 1 to entry See also IEC 60947-6-2.                                                                                                                                                                                                                                                                                                                                                                             | derived from 3.5.7 of IEC 60947-4-1:2023   | ACC405   |
| Semiconductor motor controller             | Soft-starter                           | semiconductor controller that provides the starting function for an AC motor and an OFF-state<br>Note 1 to entry: This device can include any starting method specified by the manufacturer, control functions which can have any combination of manoeuvring, controlled acceleration, running or controlled deceleration of an AC motor. A FULL-ON state can also be provided.<br>Note 2 to entry: In a circuit where the current passes through zero (alternately or otherwise), the effect of "not making" the current following such a zero value is equivalent to breaking the current. | IEC 60947-4-2:2020, 3.1.1.3                | ACC406   |
| Power contactor, AC switching              |                                        | mechanical switching device having only one position of rest, operated otherwise than by hand, capable of making, carrying and breaking AC currents under normal circuit conditions including operating overload conditions<br>Note 1 to entry See IEC 60947-4-1.                                                                                                                                                                                                                                                                                                                            | derived from IEC 60050-441:1984, 441-14-34 | ACC407   |

| Class name                                                     | Synonyms                                                                            | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Source                                     | Class ID |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------|
| Capacitor contactor                                            |                                                                                     | contactor used to switch capacitor load<br>Note 1 to entry See IEC 60947-4-1.                                                                                                                                                                                                                                                                                                                                                                                             |                                            | ACC408   |
| Combination of contactors                                      | star-delta contactors, reversing contactors                                         | arrangement of several contactors for star-delta, reversing or two-step motor switching<br>Note 1 to entry See IEC 60947-4-1.                                                                                                                                                                                                                                                                                                                                             |                                            | ACC409   |
| Power contactor, DC switching                                  |                                                                                     | mechanical switching device having only one position of rest, operated otherwise than by hand, capable of making, carrying and breaking DC currents under normal circuit conditions including operating overload conditions<br>Note 1 to entry See IEC 60947-4-1.                                                                                                                                                                                                         | derived from IEC 60050-441:1984, 441-14-34 | ACC410   |
| Thermal overload relay                                         |                                                                                     | inverse time-delay overload relay depending for its operation (including its time-delay) on the thermal action of the current flowing in the relay<br>Note 1 to entry See IEC 60947-4-1.                                                                                                                                                                                                                                                                                  | IEC 60947-1:2020, 3.6.32                   | ACC411   |
| Electronic overload relay                                      |                                                                                     | inverse time-delay overload relay depending for its operation (including its time-delay) on the electronic thermal model of the current flowing in the relay<br>Note 1 to entry See IEC 60947-4-1.                                                                                                                                                                                                                                                                        |                                            | ACC412   |
| Relay for thermistor protection (PTC)                          | Control unit for built-in thermal protection (PTC) for rotating electrical machines | device which converts into a switching function the variation of the characteristic of a PTC thermistor<br>Note 1 to entry The control unit can be part of other devices or systems.                                                                                                                                                                                                                                                                                      | IEC 60947-8:2021, 3.1.6                    | ACC413   |
| Electromechanical contactor for household and similar purposes |                                                                                     | electromechanical air break contactor for household and similar purposes provided with main contacts intended to be connected to circuits the rated voltage of which does not exceed 440 V a.c. (between phases) with rated operational currents less than or equal to 63 A for utilization category AC-7a and 32 A for utilization categories AC-7b and AC-7c, and rated conditional short-circuit current less than or equal to 6 kA.<br>Note 1 to entry See IEC 61095. |                                            | ACC414   |
| Motor-starter                                                  |                                                                                     | combination of all the switching means necessary to start and stop a motor in combination with suitable overload protection                                                                                                                                                                                                                                                                                                                                               | IEC 60050-441:1984, 441-14-38, modified    | ACC415   |
| Transient suppressor                                           | Surge suppressor                                                                    | component intended to limit the transient voltage of the back electromotive force (e.m.f.) from a coil (e.g. of a contactor) during switching off                                                                                                                                                                                                                                                                                                                         | derived from IEC 61810-7:2006, 3.11.1      | ACC416   |

| Class name                               | Synonyms                                                                          | Definition                                                                                                                                                                                                                                                                     | Source                                     | Class ID |
|------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------|
| Mechanical interlocking device           | Interlock                                                                         | mechanical device that makes the state of two or more mechanisms mutually mechanically dependent and prevents the change of position of operation of one mechanism depending on the position of operation of the others                                                        | derived from IEC 60050-441:2000, 441-16-49 | ACC417   |
| Motor-starter enclosure                  |                                                                                   | protective enclosure, equipped with control switch, intended for housing a motor starter                                                                                                                                                                                       |                                            | ACC418   |
| Coil for contactor or contactor relay    |                                                                                   | component of an electromagnetic device, element of a contactor or the contactor relay allowing it to be remotely operated                                                                                                                                                      |                                            | ACC419   |
| Electromechanical latching device        |                                                                                   | electromechanical device attached to a contactor or a contactor relay, the moving elements of which are prevented from returning to the position of rest when the operating means are de-energized                                                                             | Derived from IEC 60050-441:1984, 441-14-34 | ACC420   |
| Control interface for contactor          | semiconductor interface, solid state interface, amplifier module, interface relay | interface performed electronically or electromechanically from a low current circuit to a higher current circuit needed for the coil of the contactor to be operated remotely                                                                                                  |                                            | ACC421   |
| <b>Control switch classes</b>            |                                                                                   | set of mechanical switching device which serves the purpose of controlling the operation of switchgear or controlgear, including signalling, electrical interlocking, etc.                                                                                                     | IEC 60050-441: 1984, 441-14-46 modified    | ACC500   |
| Inductive proximity switch               |                                                                                   | proximity switch producing an electromagnetic field within a sensing zone for detecting objects and having a semiconductor switching element                                                                                                                                   | 3.1.1.1 of IEC 60947-5-2:2019              | ACC501   |
| Capacitive proximity switch              |                                                                                   | proximity switch producing an electric field within a sensing zone for detecting objects and having a semiconductor switching element<br>Note 1 to entry Objects could be either solids or liquids.                                                                            | 3.1.1.2 of IEC 60947-5-2:2019              | ACC502   |
| Non-mechanical magnetic proximity switch |                                                                                   | proximity switch which senses the presence of a magnetic field and has a semiconductor switching element and no moving parts in the sensing element                                                                                                                            | 3.1.1.5 of IEC 60947-5-2:2019              | ACC503   |
| Ultrasonic proximity switch              |                                                                                   | proximity switch which detects objects that either reflect or interrupt ultrasound energy and having a semiconductor switching element<br>Note 1 to entry: Objects could be either solids or liquids.<br>Note 2 to entry: The principle is described in Figure 2 and Figure 3. | 3.1.1.3 of IEC 60947-5-2:2019              | ACC504   |
| Ultrasonic proximity switch              |                                                                                   | proximity switch transmitting and receiving ultrasound waves within a sensing zone and having a semiconductor switching element                                                                                                                                                | 2.1.1.3 of IEC 60947-5-2:2007              | ACC504   |

| Class name                                                                    | Synonyms                                                          | Definition                                                                                                                                                                                                                                                                                                                                                      | Source                                                                    | Class ID |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------|
| Ultrasonic proximity switch                                                   |                                                                   | proximity switch transmitting and receiving ultrasound waves within a sensing zone and having a semiconductor switching element                                                                                                                                                                                                                                 | 2.1.1.3 of IEC 60947-5-2:2007                                             | ACC504   |
| Through beam photoelectric proximity switch                                   | Photoelectric proximity switch type T                             | photoelectric proximity switch which is indirectly operated through lateral approach of its reference axis between emitter and receiver by a defined object                                                                                                                                                                                                     | 3.1.1.4.3 of IEC 60947-5-2:2019 modified                                  | ACC505   |
| Through beam photoelectric proximity switch                                   | Photoelectric proximity switch type T                             | photoelectric proximity switch which is indirectly operated through lateral approach of its reference axis between emitter and receiver by a defined object                                                                                                                                                                                                     | 2.1.1.4.3 of IEC 60947-5-2:2007 modified                                  | ACC505   |
| Retroreflective photoelectric proximity switch                                | Photoelectric proximity switch type R                             | retroreflective photoelectric proximity switch which is indirectly operated through lateral approach to its reference axis between emitter-receiver and reflector by a defined object                                                                                                                                                                           | 3.1.1.4.2 of IEC 60947-5-2:2019                                           | ACC506   |
| Diffuse reflective photoelectric proximity switch                             | Photoelectric proximity switch type D                             | diffuse reflective photoelectric proximity switch which is directly operated through lateral or axial approach to its reference axis by a defined object                                                                                                                                                                                                        | 3.1.1.4.1 of IEC 60947-5-2:2019                                           | ACC507   |
| Diffuse reflective photoelectric proximity switch with background suppression | Photoelectric proximity switch type D with background suppression | photoelectric proximity switch which is directly operated through lateral or axial approach to its reference axis by a defined object and specifically optimized for more predictable detection at the desired distance of objects with different reflectivity and capable of non-detection of objects in a precisely defined region called the background zone | 3.1.1.4.1.1 of IEC 60947-5-2:2019                                         | ACC508   |
| Auxiliary contact block                                                       | Contact unit                                                      | contact element or contact element combination which can be combined with similar units operated by a common actuating system of a power switching device                                                                                                                                                                                                       | IEC 60947-5-1: 2024, 3.1.5.13 modified with "of a power switching device" | ACC509   |
| Contact relay                                                                 | Auxiliary contactor                                               | contactor used as a control switch                                                                                                                                                                                                                                                                                                                              | IEC 60050-441: 1984, 441-14-35                                            | ACC510   |
| Position switch                                                               | Limit switch                                                      | pilot switch, the actuating system of which is operated by a moving part of a machine, when this part reaches a predetermined position                                                                                                                                                                                                                          | IEC 60050-441: 1984, 441-14-49                                            | ACC511   |
| Coded magnetic switch                                                         | Safety-related magnetic proximity switch                          | control circuit device incorporating two or more reed contact switching element(s) operated by a separate coded magnetic actuator, when this actuator reaches a predetermined position                                                                                                                                                                          | IEC 60947-5-1:2024, 3.1.10.2                                              | ACC512   |
| Safety position switch with separate actuator                                 | Key-operated safety switch                                        | positive opening pilot switch, the actuating system of which is operated by a separate actuator, when this actuator reaches a predetermined position                                                                                                                                                                                                            | derived from IEC 60050-441:1984, 441-14-49                                | ACC513   |

| Class name                           | Synonyms                                                | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Source                                | Class ID |
|--------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------|
| Guard locking safety position switch | Safety position switch with interlocking                | switch for use in a safety control system intended to monitor the position of a guard and to lock it in the closed position until its release is activated                                                                                                                                                                                                                                                                                                                                                                                    |                                       | ACC514   |
| Trip wire switch                     | Emergency stop rope pull switch                         | control switch in which the actuator is a rope, a wire or similar means                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | derived from IEC 60947-5-5:2005, 3.10 | ACC515   |
| Safety switch for hinge door         | Hinge switch                                            | positive opening pilot switch, the actuating system of which is operated by the pivoting of a guard, when this guard reaches a predetermined angle                                                                                                                                                                                                                                                                                                                                                                                            | ISO 14119:2024, A.3                   | ACC516   |
| Push-button                          |                                                         | control switch having an actuator intended to be operated by force exerted by a part of the human body, usually the finger or palm of the hand, and having stored energy (spring) return                                                                                                                                                                                                                                                                                                                                                      | IEC 60050-441: 1984, 441-14-53        | ACC517   |
| Rotary button                        | Selector switch                                         | combination of push-button type switching elements having an actuator operated by a manual rotation                                                                                                                                                                                                                                                                                                                                                                                                                                           | IEC 60947-5-1: 2024, 3.1.4.4          | ACC518   |
| Front element for rotary button      | Actuator of selector switch                             | actuator of a control switch intended to be operated by rotation                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       | ACC519   |
| Joy stick                            | Joystick controller                                     | control switch having an actuator consisting of a pin or stick projecting essentially at a right angle from the panel or enclosure when in one of its positions and intended to be operated by angular displacement<br>Note 1 to entry: A joy stick may have more than two positions associated with different directions of the displacement of the stick and operating the contact elements differently: such a joy stick is referred to as a joy stick selector.<br>Note 1 to entry: The pin or stick may or may not have a spring return. | IEC 60947-5-1: 2024, 3.1.4.19         | ACC520   |
| Foot switch                          | Pedal                                                   | control switch having an actuator intended to be operated by force exerted by a foot                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IEC 60947-5-1:2024, 3.1.4.21          | ACC521   |
| Emergency stop push-button           | E-stop                                                  | manually actuated control device used to initiate an emergency stop function                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3.3 of ISO 13850: 2015                | ACC522   |
| Indicator light                      | signal light, pilot light                               | light signal giving information either by lighting or extinguishing                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IEC 60947-5-1:2024, 3.1.14.1          | ACC523   |
| Indicating tower                     | signal column, signal tower, control tower stack lights | assembly including one or more signalling units giving information by visible or audible signals<br>Note 1 to entry Other elements, e.g. network interface elements, can be added.                                                                                                                                                                                                                                                                                                                                                            | IEC 60947-5-1:2024, 3.1.14.5          | ACC524   |
| Front element for push-button        |                                                         | actuator of the switching device intended to be operated by force exerted by a part of the human body, usually the finger or palm of the hand, and having stored energy (spring) return                                                                                                                                                                                                                                                                                                                                                       |                                       | ACC525   |

| Class name                                              | Synonyms                                                | Definition                                                                                                                                                                                                      | Source                                                            | Class ID |
|---------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------|
| Contact block for control circuit                       | Contact unit                                            | a contact element or contact element combination which can be combined with similar units operated by a common actuating system                                                                                 | IEC 60947-5-1: 2024, 3.1.5.13 modified with "for control circuit" | ACC526   |
| Front element for emergency stop push-button            |                                                         | actuator of the switching device intended to be operated by force exerted by a part of the human body in emergency situations, usually the finger or palm of the hand, and having stored energy (spring) return | derived from IEC 60947-5-5/AM2:2016, 3.3                          | ACC527   |
| Module for indicating tower                             |                                                         | assembly composed of a bezel and a lens for providing information either by lighting or sound signalling                                                                                                        |                                                                   | ACC528   |
| Reflector for reflective photoelectric proximity switch | Reflector                                               | specified device used to reflect light back to the receiver for Type R photoelectric proximity switches                                                                                                         | 3.2.14 of IEC 60947-5-2:2019                                      | ACC529   |
| Lamp for control device                                 |                                                         | source made in order to produce an optical radiation, usually visible, intended to be mounted in a control device<br>Note 1 to entry This term is also sometimes used for certain types of luminaires.          | Derived from IEC 60050-845: 1987, 845-07-03                       | ACC530   |
| Label holder for push-button and indicator light        | Label mount, Sign holder                                | support for label intended for equipping a push-button or an indicator light to allow disclosure of the nature of a control or a state                                                                          |                                                                   | ACC531   |
| Label plate for control operation                       |                                                         | plate which display information related to a control or a state                                                                                                                                                 |                                                                   | ACC532   |
| Protective cover for control device                     | boot, protective hood                                   | removable protection providing a degree of protection of the control device                                                                                                                                     |                                                                   | ACC533   |
| Pneumatic time delay auxiliary contact block            | Mechanical time delay auxiliary contact block           | auxiliary contact block actuated mechanically by the contactor or the contactor relay on which it is mounted, providing a time delay performed pneumatically before the auxiliary contacts are operated         |                                                                   | ACC534   |
| Electronic time delay auxiliary block                   | timing module, coil module                              | auxiliary block for controlling the coil providing a time delay performed electronically triggered by a control signal                                                                                          |                                                                   | ACC535   |
| Time relay                                              |                                                         | all-or-nothing relay with one or more time functions                                                                                                                                                            | IEC 60050-445:2010, 445-01-01                                     | ACC536   |
| Panel mounted audible signalling device                 | buzzer, acoustic alarm unit, acoustic signalling device | device which can be mounted on a panel and emits an audible sound when activated                                                                                                                                |                                                                   | ACC537   |
| Emitter for through beam photoelectric proximity switch | Emitter for type T photoelectric proximity switch       | light source, lens and necessary circuitry which provide the light beam operating the related through beam photoelectric proximity switch                                                                       | 3.2.12 of IEC 60947-5-2:2019 modified                             | ACC538   |
| Rotary encoder                                          | Shaft encoder                                           | transducer converting the angular position or the angular displacement of an axis to an analogue or digital code                                                                                                |                                                                   | ACC540   |

| Class name                                   | Synonyms                                                                                                                                  | Definition                                                                                                                                                                                                            | Source                            | Class ID |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------|
| Linear encoder                               |                                                                                                                                           | transducer converting its linear position or its linear displacement along a scale of an analogue or digital code                                                                                                     |                                   | ACC541   |
| Control station, empty                       |                                                                                                                                           | enclosure for control and indicator devices                                                                                                                                                                           |                                   | ACC542   |
| Control station, complete                    |                                                                                                                                           | assembly of control and indicator devices mounted on an enclosure                                                                                                                                                     |                                   | ACC543   |
| Pendant control station, empty               |                                                                                                                                           | enclosure for control and indicator devices, hold by a cable                                                                                                                                                          |                                   | ACC544   |
| Pendant control station, complete            |                                                                                                                                           | assembly of control and indicator devices mounted on an enclosure, hold by a cable                                                                                                                                    |                                   | ACC545   |
| Two-hand control device                      |                                                                                                                                           | control device which requires at least simultaneous actuation by both hands in order to initiate and to maintain hazardous machine functions, thus providing a protective measure only for the person who actuates it | 3.28.4 of ISO 12100:2010          | ACC546   |
| Cable connection assembly for control device | jumper cable, pre-wired connector, connecting lead, sensor-actuator patch cable, sensor-actuator patch cable, connecting cable for sensor | accessory for connecting mechanically and electrically a sensor to a control unit with a cable and at least one connector                                                                                             |                                   | ACC547   |
| Actuator for coded magnetic switch           | Actuator for safety-related magnetic proximity switch                                                                                     | actuator embedding coded magnets and designed to operate the associated coded magnetic switch                                                                                                                         |                                   | ACC548   |
| <b>Multiple function equipment classes</b>   |                                                                                                                                           | set of switching devices performing multiple functions                                                                                                                                                                |                                   | ACC600   |
| Transfer switching equipment                 |                                                                                                                                           | equipment containing one or more switching devices and associated operating mechanism for disconnecting load circuits from one supply and connecting to another supply                                                | IEC 60947-6-1:2021, 3.3.1         | ACC601   |
| <b>Terminal block classes</b>                |                                                                                                                                           | set of insulating part carrying one or more mutually insulated terminal assemblies and intended to be fixed to a support                                                                                              | IEC 60947-1:2020, 3.4.20 modified | ACC700   |
| Feed-through terminal block                  | Terminal strip                                                                                                                            | insulating part carrying one or more mutually insulated pairs of terminals interconnected on opposite sides and intended to be fixed to a support                                                                     |                                   | ACC701   |
| Disconnect terminal block                    | Knife terminal block                                                                                                                      | feed-through terminal block for which each circuit can be disconnected                                                                                                                                                |                                   | ACC703   |

| Class name                          | Synonyms | Definition                                                                                                                                                                                                                            | Source                    | Class ID |
|-------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|
| Protective conductor terminal block |          | device with one or more clamping units for connecting and/or joining protective conductors (PE and PEN conductors) with conducting connection to their supports, which may be designed with screw-type or screwless-type fixing means | 2.1 of IEC 60947-7-2:2009 | ACC704   |
| Fuse terminal block                 |          | terminal block base with a fuse carrier                                                                                                                                                                                               | 2.1 of IEC 60947-7-3:2009 | ACC705   |

### 7.3 Classification of low-voltage switchgear and controlgear assembly

Table 3 gives the classification of low-voltage switchgear and controlgear assembly based on the corresponding assembly standards. The class name column is structured in five levels of hierarchy using indent alignments.

**Table 3 – Low-voltage switchgear and controlgear assembly classification**

| Class name                                             | Synonyms | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Source                    | Class ID |
|--------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|
| <b>Low-voltage switchgear and controlgear assembly</b> | Assembly | combination of one or more low-voltage switching devices together with associated control, measuring, signalling, protective, regulating equipment, with all the internal electrical and mechanical interconnections and structural parts, as defined by the original manufacturer, which can be assembled in accordance with the original manufacturer's instructions Note 1Throughout this document, the term assembly(s) is used for a low-voltage switchgear and controlgear assembly(s) Note 2The term "switching device" includes mechanical switching devices and semiconductor switching devices, e.g. soft starters, semiconductor relays, frequency converters. The auxiliary circuits may also include electro-mechanical devices, e.g. control relays, terminal blocks, and electronic devices, e.g. electronic motor control devices, electronic measurement and protection devices, bus communication, programmable logic controller systems. | IEC 61439-1:2020, 3.1.1   | ACC101   |
| <b>Assembly for use by skilled persons</b>             |          | assembly used to distribute and control electrical energy for all types of loads, intended for industrial, commercial and similar applications where operation by ordinary persons is not intended                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IEC 61439-2:2020, 3.1.101 | ACC102   |
| Assembly for industrial and tertiary                   |          | assembly used to distribute and control electrical energy for all types of loads, intended for industrial and tertiary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | ACC110   |
| Assembly for power distribution in public networks     |          | assembly, generally for installation in a public electricity network which in use, receives electrical energy from one or more supplies and distributes that energy through one or more cables to other equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IEC 61439-5:2014, 3.1.101 | ACC111   |

| Class name                                                    | Synonym | Definition                                                                                                                                                                                                                                                                                                                                  | Source                                  | Class ID |
|---------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------|
| Assembly for construction or work site                        |         | combination of one or several transforming or low voltage switching devices with associated control, measuring, signalling, protective and regulating equipment complete with all their internal electrical and mechanical connections and structural parts, designed and built for use on all construction sites, indoors and outdoors     | IEC 61439-4:2012, 3.1.101               | ACC112   |
| Part of assembly for use by skilled persons                   |         | part of assembly used to distribute and control electrical energy for all types of loads, intended for industrial, commercial and similar applications where operation by ordinary persons is not intended                                                                                                                                  | IEC 61439-2:2020, 3.1.101, derived from | ACC113   |
| <b>Assemblies for use by ordinary persons</b>                 |         | low voltage assemblies intended to be operated by ordinary persons                                                                                                                                                                                                                                                                          |                                         | ACC103   |
| Distribution board intended for operation by ordinary persons |         | assembly used to distribute electrical energy in domestic (household) applications and other places where operation is intended by ordinary persons                                                                                                                                                                                         | IEC 61439-3:2013, 3.1.101, modified     | ACC115   |
| <b>Assemblies for specific applications</b>                   |         | assembly used in specific places to distribute and control electrical energy for all types of electrical supplies and loads, intended for operation by ordinary persons                                                                                                                                                                     |                                         | ACC116   |
| Assembly for marinas and harbour sites                        |         | combination of one or more transforming or switching devices together with associated control, measuring, signalling, protective and regulating equipment, with all their internal electrical and mechanical interconnections and structural parts, designed and built for use in all marinas, harbours and similar sites                   | IEC 61439-7:2022, 3.1.701               | ACC117   |
| Assembly for camping and caravan sites                        |         | combination of one or more transforming or switching devices together with associated control, measuring, signalling, protective and regulating equipment, with all their internal electrical and mechanical interconnections and structural parts, designed and built for use in all camping, caravan and similar sites                    | IEC 61439-7:2022, 3.1.702               | ACC118   |
| Assembly for markets and other outdoor public                 |         | combination of one or more transforming or switching devices together with associated control, measuring, signalling, protective and regulating equipment, with all their internal electrical and mechanical interconnections and structural parts, designed and built for use in all market squares and other similar outdoor public sites | IEC 61439-7:2022, 3.1.703               | ACC119   |
| Assembly for electric vehicles charging stations              |         | combination of one or more transforming or switching devices together with associated control, measuring, signalling, protective and regulating equipment, with all their internal electrical and mechanical interconnections and structural parts, designed and built for electric vehicle charging stations                               | IEC 61439-7:2022, 3.1.704               | ACC120   |

| Class name                                   | Synonym | Definition                                                                                                                                                                                                                                                                              | Source                                  | Class ID |
|----------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------|
| Part of assembly for use by ordinary persons |         | assembly used to distribute electrical energy in domestic (household) applications and other places where operation is intended by ordinary persons                                                                                                                                     | IEC 61439-3:2013, 3.1.101, derived from | ACC121   |
| <b>Generic part of assembly</b>              |         | framework designed to support various components and suitable for installation in an assembly                                                                                                                                                                                           | IEC 62208:2023, 3.1                     | ACC104   |
| Mounting frame of an assembly                |         | framework designed to support various components and suitable for installation in an assembly                                                                                                                                                                                           | IEC 61439-1:2020, 3.4.4                 | ACC123   |
| Empty enclosure                              |         | enclosure intended for support and installation of electrical equipment, whose internal space provides suitable protection against external influences as well as a specified degree of protection against approach to or contact with live parts and against contact with moving parts | IEC 61439-1:2020, 3.4.4                 | ACC148   |
| <b>Enclosure of an assembly</b>              |         | housing affording the type and degree of protection suitable for the intended application                                                                                                                                                                                               | IEC 61439-1:2020, 3.4.5                 | ACC124   |
| <b>Door of an assembly</b>                   |         | hinged or sliding cover which is designed for closing an opening in the external enclosure and which can be removed for carrying out certain operations and maintenance work                                                                                                            | IEC 61439-1:2020, 3.4.8, modified       | ACC135   |
| Transparent door                             |         | door for an enclosure made of transparent raw material                                                                                                                                                                                                                                  |                                         | ACC150   |
| Opaque door                                  |         | door for an enclosure made of opaque raw material                                                                                                                                                                                                                                       |                                         | ACC151   |
| Metal door                                   |         | door for an enclosure made of metal                                                                                                                                                                                                                                                     |                                         | ACC152   |
| Hinge                                        |         | jointed device or flexible piece on which a door, gate, shutter, lid, or other attached part turns, swings, or moves                                                                                                                                                                    | IEC 61439-1:2020, 3.4.9, modified       | ACC153   |
| Empty enclosure                              |         | enclosure intended for support and installation of electrical equipment, whose internal space provides suitable protection against external influences as well as a specified degree of protection against approach to or contact with live parts and against contact with moving parts | IEC 61439-1:2020, 3.4.6, modified       | ACC148   |
| <b>Planking plate</b>                        |         | external housing part of the enclosure of an assembly                                                                                                                                                                                                                                   | IEC 61439-1:2020, 3.4.9, modified       | ACC125   |
| Rear                                         |         | rear cover of an assembly which is used for closing back housing of the external enclosure and designed to be held in place by screws or similar means                                                                                                                                  | IEC 61439-1:2020, 3.4.9, modified       | ACC155   |
| Left side                                    |         | cover of an assembly which is used for closing left side housing of the external enclosure and designed to be held in place by screws or similar means                                                                                                                                  | IEC 61439-1:2020, 3.4.9, modified       | ACC156   |
| Right side                                   |         | cover of an assembly which is used for closing right side housing of the external enclosure and designed to be held in place by screws or similar means                                                                                                                                 | IEC 61439-1:2020, 3.4.9, modified       | ACC157   |

| Class name                       | Synonym | Definition                                                                                                                                                                                                           | Source                             | Class ID |
|----------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------|
| Top                              |         | cover of an assembly which is used for closing roof housing of the external enclosure and designed to be held in place by screws or similar means                                                                    | IEC 61439-1:2020, 3.4.9, modified  | ACC158   |
| Bottom                           |         | cover of an assembly which is used for closing the bottom of the external enclosure and designed to be held in place by screws or similar means                                                                      |                                    | ACC159   |
| Front plate                      |         | Part providing protection against direct contact from any usual direction of access of an assembly intended to be used for closing an opening in the external enclosure and covering different front face of devices |                                    | ACC160   |
| <b>Component mounting system</b> |         | specific or additional part intended for mounting the components of the assembly                                                                                                                                     | IEC 61439-1:2020, 3.4.3            | ACC126   |
| Mounting plate                   |         | plate designed to support various components and suitable for installation in an assembly                                                                                                                            | IEC 60715:2017, 3.1                | ACC161   |
| Mounting rail                    |         | standardized profile of any material used for supporting switchgear, controlgear and accessories                                                                                                                     | IEC 61439-1:2020, 3.1.5, modified  | ACC162   |
| <b>Busbar system</b>             |         | low-impedance conductor to which several electric circuits can be connected at separate points, intended for industrial and similar application                                                                      | IEC 61439-1:2020, 3.1.6, derived   | ACC131   |
| Main busbar                      |         | busbar to which one or several distribution busbars and/or incoming and outgoing units are connected                                                                                                                 | IEC 61439-1:2020, 3.1.7, derived   | ACC141   |
| Distribution busbar              |         | busbar within one section which is connected to a main busbar and from which outgoing units are supplied                                                                                                             |                                    | ACC142   |
| Insulation busbar support        |         | Insulated component intended to fix and to maintain the busbar and other conductor in their designed position                                                                                                        |                                    | ACC163   |
| Mechanical busbar support        |         | metallic part intended to fix the insulation busbar support to the structure of an assembly                                                                                                                          |                                    | ACC164   |
| <b>Locking system</b>            |         | mechanism securing or limiting the access to the assembly                                                                                                                                                            |                                    | ACC127   |
| Lock insert                      |         | insert in lock for a dedicated key which can be handle by authorized personnel                                                                                                                                       |                                    | ACC165   |
| Key lock                         |         | device in which a key is locked and can only be released by authorized person<br>Note 1 to entry See 8.4.6.2.1 of IEC 61439-1:2020.                                                                                  |                                    | ACC166   |
| Key of the lock                  |         | key intended to be used with a dedicated lock                                                                                                                                                                        |                                    | ACC167   |
| Handle                           |         | component designed for holding, moving, or carrying different types of cover easily                                                                                                                                  |                                    | ACC154   |
| <b>Thermal management system</b> |         | element supporting the thermal exchange of the assembly                                                                                                                                                              |                                    | ACC132   |
| Screened opening                 |         | air inlet or outlet openings to create a natural air ventilation                                                                                                                                                     | IEC 61439-2:2020, 3.4.101, derived | ACC143   |

| Class name                                | Synonym | Definition                                                                                                                                                                                                                                                                                                 | Source                            | Class ID |
|-------------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------|
| Active cooling system                     |         | use of equipment mounted on or within the assembly, installed to reduce or control the assembly's internal air temperature during normal operation, which requires energization to operate                                                                                                                 |                                   | ACC144   |
| Air filter                                |         | filter covering air inlet or outlet openings to reduce ingress of liquid or solid object                                                                                                                                                                                                                   |                                   | ACC145   |
| Air conditioning system                   |         | treatment of the ambient air to bring it to predetermined conditions of temperature and humidity                                                                                                                                                                                                           |                                   | ACC146   |
| heat resistance                           |         | electric resistance used to rise the temperature                                                                                                                                                                                                                                                           | IEC 61439-1:2020, 8.1.6, modified | ACC147   |
| Lifting means                             |         | mechanical system designed to lift or move an assembly (or part of)                                                                                                                                                                                                                                        | IEC 61439-6:2012, 3.1.101         | ACC133   |
| <b>Low-voltage busbar trunking system</b> |         | enclosed assembly used to distribute and control electrical energy for all types of loads, intended for industrial, commercial and similar applications, in the form of a conductor system comprising busbars which are spaced and supported by insulating material in a duct, trough or similar enclosure | IEC 61439-6:2012, 3.1.102         | ACC106   |
| busbar trunking unit                      |         | unit of a BTS complete with busbars, their supports and insulation, external enclosure and any fixing and connecting means to other units                                                                                                                                                                  | IEC 61439-6:2012, 3.1.103         | ACC170   |
| busbar trunking run                       | BT run  | number of BTUs connected together to form the BTS, excluding the tap-off units                                                                                                                                                                                                                             | IEC 61439-6:2012, 3.1.104         | ACC171   |
| Tapp-off units                            |         | tap-off unit outgoing unit, either fixed or removable, for tapping-off power from the BTU                                                                                                                                                                                                                  | IEC 61439-6:2012, 3.1.105         | ACC172   |
| BTU with trolley type                     |         | BTU designed to permit the use of roller- or brush-type tap-off units                                                                                                                                                                                                                                      | IEC 61439-6:2012, 3.1.107         | ACC173   |
| Thermal expansion BTU                     |         | BTU intended to permit a certain movement in the axial direction of the BT run due to thermal expansion of the system                                                                                                                                                                                      | IEC 61439-6:2012, 3.1.108         | ACC174   |
| Phase transposition BTU                   |         | BTU intended to change the relative positions of the phase conductors in order to balance the inductive reactances or to transpose the phases (such as L1-L2-L3-N to N-L3-L2-L1)                                                                                                                           | IEC 61439-2:2020, 3.1.101         | ACC175   |

107

108 **7.4 Properties of circuit-breaker classes**

109 Table 4 to Table 11 give the lists of properties for each device class.

110 **7.4.1 Circuit-breaker**

111

**Table 4 - Circuit-breaker**

| Properties of each class        | Class ID | Property ID |
|---------------------------------|----------|-------------|
| <b>Circuit-breaker</b>          | ACC201   |             |
| <b>Identification</b>           | ACC011   |             |
| global trade item number (GTIN) |          | ACE101      |

| Properties of each class                                    | Class ID | Property ID |
|-------------------------------------------------------------|----------|-------------|
| manufacturer name                                           |          | ACE102      |
| manufacturer product number                                 |          | ACE103      |
| product family                                              |          | ACE104      |
| product name                                                |          | ACE105      |
| supplier name                                               |          | ACE106      |
| supplier product number                                     |          | ACE107      |
| product online information URL                              |          | ACE108      |
| customs tariff number                                       |          | ACE109      |
| <b>General technical data</b>                               | ACC012   |             |
| type of actuator                                            |          | ACE214      |
| degree of protection of front face                          |          | ACE247      |
| degree of protection of terminals                           |          | ACE248      |
| isolating function                                          |          | ACE204      |
| provision for locking                                       |          | ACE243      |
| motor-operator                                              |          | ACE239      |
| <b>Main circuit (of a switching device)</b>                 | ACC014   |             |
| number of poles                                             |          | ACE401      |
| rated current                                               |          | ACE424      |
| rated operational voltage, a.c.                             |          | ACE457      |
| rated impulse withstand voltage                             |          | ACE460      |
| ambient air temperature                                     |          | ACE440      |
| <b>Short-circuit</b>                                        | ACC040   |             |
| rated ultimate short-circuit breaking capacity, a.c., 230 V |          | ACE716      |
| rated ultimate short-circuit breaking capacity, a.c., 400 V |          | ACE702      |
| rated ultimate short-circuit breaking capacity, a.c., 690 V |          | ACE717      |
| rated service short-circuit breaking capacity, a.c., 230 V  |          | ACE715      |
| rated service short-circuit breaking capacity, a.c., 400 V  |          | ACE701      |
| rated service short-circuit breaking capacity, a.c., 690 V  |          | ACE718      |
| interrupting rating, a.c., 120 V                            |          | ACE700      |
| interrupting rating, a.c., 480 V                            |          | ACE703      |
| interrupting rating, a.c., 600 V                            |          | ACE704      |
| rated short-time withstand current, a.c., 1 s               |          | ACE712      |
| rated operational voltage for IT systems                    |          | ACE721      |
| <b>Overcurrent release</b>                                  | ACC041   |             |
| reference temperature of compensated release                |          | ACE743      |
| reference temperature of non-compensated release            |          | ACE744      |
| over-current release technology                             |          | ACE740      |
| overload release capability                                 |          | ACE742      |
| overload release current setting                            |          | ACE741      |
| overload current setting of the neutral pole                |          | ACE745      |
| short-time delay release                                    |          | ACE746      |
| instantaneous short-circuit current setting                 |          | ACE747      |

| Properties of each class                                          | Class ID | Property ID |
|-------------------------------------------------------------------|----------|-------------|
| ground fault current release                                      |          | ACE760      |
| ground fault current setting                                      |          | ACE761      |
| residual current release                                          |          | ACE750      |
| residual current protection type                                  |          | ACE751      |
| rated operational voltage of the residual current release, limits |          | ACE752      |
| residual operating current setting                                |          | ACE753      |
| residual current time-delay setting                               |          | ACE755      |
| <b>Diagnostic functions</b>                                       | ACC013   |             |
| number of auxiliary contacts, normally open                       |          | ACE511      |
| number of auxiliary contacts, normally open, additional           |          | ACE512      |
| number of auxiliary contacts, normally closed                     |          | ACE508      |
| number of auxiliary contacts, normally closed, additional         |          | ACE509      |
| number of auxiliary contacts, changeover                          |          | ACE514      |
| number of auxiliary contacts, changeover, additional              |          | ACE515      |
| <b>Control and auxiliary circuits</b>                             | ACC016   |             |
| number of auxiliary contacts, normally open                       |          | ACE511      |
| number of auxiliary contacts, normally open, additional           |          | ACE512      |
| number of auxiliary contacts, normally closed                     |          | ACE508      |
| number of auxiliary contacts, normally closed, additional         |          | ACE509      |
| number of auxiliary contacts, changeover                          |          | ACE514      |
| number of auxiliary contacts, changeover, additional              |          | ACE515      |
| <b>Communication interfaces</b>                                   | ACC050   |             |
| communication protocol                                            |          | ACE361      |
| <b>Installation, mounting and dimensions</b>                      | ACC066   |             |
| height of the device                                              |          | ACE801      |
| width of the device                                               |          | ACE802      |
| depth of the device                                               |          | ACE803      |
| mounting onto standard rail                                       |          | ACE804      |
| product mass                                                      |          | ACE808      |
| <b>Connection facilities</b>                                      | ACC068   |             |
| clamping unit of main circuit                                     |          | ACE852      |
| position of the connection of the main circuit                    |          | ACE870      |
| disconnecting method                                              |          | ACE855      |
| <b>Product certificates and standards</b>                         | ACC070   |             |
| certificates and approvals                                        |          | ACE902      |
| product standards                                                 |          | ACE901      |
| environmental declaration                                         |          | ACE903      |

112

113 **7.4.2 Release for circuit-breaker**

114

**Table 5 - Release for circuit-breaker**

| Properties of each class                                          | Class ID | Property ID |
|-------------------------------------------------------------------|----------|-------------|
| <b>Release for circuit-breaker</b>                                | ACC202   |             |
| <b>Identification</b>                                             | ACC011   |             |
| global trade item number (GTIN)                                   |          | ACE101      |
| manufacturer name                                                 |          | ACE102      |
| manufacturer product number                                       |          | ACE103      |
| product family                                                    |          | ACE104      |
| product name                                                      |          | ACE105      |
| supplier name                                                     |          | ACE106      |
| supplier product number                                           |          | ACE107      |
| product online information URL                                    |          | ACE108      |
| customs tariff number                                             |          | ACE109      |
| <b>General technical data</b>                                     | ACC012   |             |
| type of associated circuit-breaker                                |          | ACE219      |
| rated current                                                     |          | ACE424      |
| <b>Overcurrent release</b>                                        | ACC041   |             |
| reference temperature of compensated release                      |          | ACE743      |
| reference temperature of non-compensated release                  |          | ACE744      |
| over-current release technology                                   |          | ACE740      |
| overload release capability                                       |          | ACE742      |
| overload release current setting                                  |          | ACE741      |
| overload current setting of the neutral pole                      |          | ACE745      |
| short-time delay release                                          |          | ACE746      |
| instantaneous short-circuit current setting                       |          | ACE747      |
| ground fault current release                                      |          | ACE760      |
| ground fault current setting                                      |          | ACE761      |
| residual current release                                          |          | ACE750      |
| residual current protection type                                  |          | ACE751      |
| rated operational voltage of the residual current release, limits |          | ACE752      |
| residual operating current setting                                |          | ACE753      |
| residual current time-delay setting                               |          | ACE755      |
| <b>Communication interfaces</b>                                   | ACC050   |             |
| communication protocol                                            |          | ACE361      |
| <b>Product certificates and standards</b>                         | ACC070   |             |
| certificates and approvals                                        |          | ACE902      |
| product standards                                                 |          | ACE901      |
| environmental declaration                                         |          | ACE903      |

### 7.4.3 Residual current release for circuit-breaker

**Table 6 - Residual current release for circuit-breaker**

| Properties of each class                            | Class ID | Property ID |
|-----------------------------------------------------|----------|-------------|
| <b>Residual current release for circuit-breaker</b> | ACC203   |             |
| <b>Identification</b>                               | ACC011   |             |
| global trade item number (GTIN)                     |          | ACE101      |
| manufacturer name                                   |          | ACE102      |
| manufacturer product number                         |          | ACE103      |
| product family                                      |          | ACE104      |
| product name                                        |          | ACE105      |
| supplier name                                       |          | ACE106      |
| supplier product number                             |          | ACE107      |
| product online information URL                      |          | ACE108      |
| customs tariff number                               |          | ACE109      |
| <b>General technical data</b>                       | ACC012   |             |
| suitable for use in single phase                    |          | ACE206      |
| type of associated circuit-breaker                  |          | ACE219      |
| <b>Main circuit (of a switching device)</b>         | ACC014   |             |
| number of poles                                     |          | ACE401      |
| rated current                                       |          | ACE424      |
| rated operational voltage                           |          | ACE455      |
| <b>Overcurrent release</b>                          | ACC041   |             |
| functionally dependent on line voltage              |          | ACE756      |
| residual current protection type                    |          | ACE751      |
| residual operating current setting                  |          | ACE753      |
| residual current time-delay setting                 |          | ACE755      |
| <b>Product certificates and standards</b>           | ACC070   |             |
| certificates and approvals                          |          | ACE902      |
| product standards                                   |          | ACE901      |
| environmental declaration                           |          | ACE903      |

### 7.4.4 Shunt release for circuit-breaker

**Table 7 - Shunt release for circuit-breaker**

| Properties of each class                 | Class ID | Property ID |
|------------------------------------------|----------|-------------|
| <b>Shunt release for circuit-breaker</b> | ACC204   |             |
| <b>Identification</b>                    | ACC011   |             |
| global trade item number (GTIN)          |          | ACE101      |
| manufacturer name                        |          | ACE102      |
| manufacturer product number              |          | ACE103      |

| Properties of each class                  | Class ID | Property ID |
|-------------------------------------------|----------|-------------|
| product family                            |          | ACE104      |
| product name                              |          | ACE105      |
| supplier name                             |          | ACE106      |
| supplier product number                   |          | ACE107      |
| product online information URL            |          | ACE108      |
| customs tariff number                     |          | ACE109      |
| <b>General technical data</b>             | ACC012   |             |
| type of associated circuit-breaker        |          | ACE219      |
| <b>Control and auxiliary circuits</b>     | ACC016   |             |
| rated control voltage, a.c., 50 Hz        |          | ACE602      |
| rated control voltage, a.c., 60 Hz        |          | ACE604      |
| rated control voltage, d.c.               |          | ACE606      |
| <b>Product certificates and standards</b> | ACC070   |             |
| certificates and approvals                |          | ACE902      |
| product standards                         |          | ACE901      |
| environmental declaration                 |          | ACE903      |

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122 **7.4.5 Under-voltage release for circuit-breaker**

123

**Table 8 - Under-voltage release for circuit-breaker**

| Properties of each class                         | Class ID | Property ID |
|--------------------------------------------------|----------|-------------|
| <b>Under-voltage release for circuit-breaker</b> | ACC205   |             |
| <b>Identification</b>                            | ACC011   |             |
| global trade item number (GTIN)                  |          | ACE101      |
| manufacturer name                                |          | ACE102      |
| manufacturer product number                      |          | ACE103      |
| product family                                   |          | ACE104      |
| product name                                     |          | ACE105      |
| supplier name                                    |          | ACE106      |
| supplier product number                          |          | ACE107      |
| product online information URL                   |          | ACE108      |
| customs tariff number                            |          | ACE109      |
| <b>General technical data</b>                    | ACC012   |             |
| type of associated circuit-breaker               |          | ACE219      |
| <b>Control and auxiliary circuits</b>            | ACC016   |             |
| rated control voltage, a.c., 50 Hz               |          | ACE602      |
| rated control voltage, a.c., 60 Hz               |          | ACE604      |
| rated control voltage, d.c.                      |          | ACE606      |
| <b>Product certificates and standards</b>        | ACC070   |             |
| certificates and approvals                       |          | ACE902      |
| product standards                                |          | ACE901      |

| Properties of each class  | Class ID | Property ID |
|---------------------------|----------|-------------|
| environmental declaration |          | ACE903      |

124

125 **7.4.6 Motor-operator for circuit-breaker**

126

**Table 9 - Motor-operator for circuit-breaker**

| Properties of each class                  | Class ID | Property ID |
|-------------------------------------------|----------|-------------|
| <b>Motor-operator for circuit-breaker</b> | ACC206   |             |
| <b>Identification</b>                     | ACC011   |             |
| global trade item number (GTIN)           |          | ACE101      |
| manufacturer name                         |          | ACE102      |
| manufacturer product number               |          | ACE103      |
| product family                            |          | ACE104      |
| product name                              |          | ACE105      |
| supplier name                             |          | ACE106      |
| supplier product number                   |          | ACE107      |
| product online information URL            |          | ACE108      |
| customs tariff number                     |          | ACE109      |
| <b>General technical data</b>             | ACC012   |             |
| type of associated circuit-breaker        |          | ACE219      |
| <b>Control and auxiliary circuits</b>     | ACC016   |             |
| motor-operator closing time               |          | ACE521      |
| motor-operator opening time               |          | ACE522      |
| rated control voltage, a.c., 50 Hz        |          | ACE602      |
| rated control voltage, a.c., 60 Hz        |          | ACE604      |
| rated control voltage, d.c.               |          | ACE606      |
| <b>Product certificates and standards</b> | ACC070   |             |
| certificates and approvals                |          | ACE902      |
| product standards                         |          | ACE901      |
| environmental declaration                 |          | ACE903      |

127

128 **7.4.7 Plug-in base for circuit-breaker**

129

**Table 10 - Plug-in base for circuit-breaker**

| Properties of each class                | Class ID | Property ID |
|-----------------------------------------|----------|-------------|
| <b>Plug-in base for circuit-breaker</b> | ACC207   |             |
| <b>Identification</b>                   | ACC011   |             |
| global trade item number (GTIN)         |          | ACE101      |
| manufacturer name                       |          | ACE102      |
| manufacturer product number             |          | ACE103      |
| product family                          |          | ACE104      |

| Properties of each class                       | Class ID | Property ID |
|------------------------------------------------|----------|-------------|
| product name                                   |          | ACE105      |
| supplier name                                  |          | ACE106      |
| supplier product number                        |          | ACE107      |
| product online information URL                 |          | ACE108      |
| customs tariff number                          |          | ACE109      |
| <b>General technical data</b>                  | ACC012   |             |
| type of associated circuit-breaker             |          | ACE219      |
| <b>Connection facilities</b>                   | ACC068   |             |
| clamping unit of main circuit                  |          | ACE852      |
| position of the connection of the main circuit |          | ACE870      |
| <b>Main circuit (of a switching device)</b>    | ACC014   |             |
| number of poles                                |          | ACE401      |
| rated current                                  |          | ACE424      |
| rated operational voltage, a.c.                |          | ACE457      |
| rated impulse withstand voltage                |          | ACE460      |
| <b>Installation, mounting and dimensions</b>   | ACC066   |             |
| height of the device                           |          | ACE801      |
| width of the device                            |          | ACE802      |
| depth of the device                            |          | ACE803      |
| product mass                                   |          | ACE808      |
| <b>Product certificates and standards</b>      | ACC070   |             |
| certificates and approvals                     |          | ACE902      |
| product standards                              |          | ACE901      |
| environmental declaration                      |          | ACE903      |

130

131 **7.4.8 Draw-out cradle for circuit-breaker**

132

**Table 11 - Draw-out cradle for circuit-breaker**

| Properties of each class                   | Class ID | Property ID |
|--------------------------------------------|----------|-------------|
| <b>Draw-out cradle for circuit-breaker</b> | ACC208   |             |
| <b>Identification</b>                      | ACC011   |             |
| global trade item number (GTIN)            |          | ACE101      |
| manufacturer name                          |          | ACE102      |
| manufacturer product number                |          | ACE103      |
| product family                             |          | ACE104      |
| product name                               |          | ACE105      |
| supplier name                              |          | ACE106      |
| supplier product number                    |          | ACE107      |
| product online information URL             |          | ACE108      |
| customs tariff number                      |          | ACE109      |
| <b>General technical data</b>              | ACC012   |             |

| Properties of each class                       | Class ID | Property ID |
|------------------------------------------------|----------|-------------|
| type of associated circuit-breaker             |          | ACE219      |
| provision for locking                          |          | ACE243      |
| <b>Connection facilities</b>                   | ACC068   |             |
| clamping unit of main circuit                  |          | ACE852      |
| position of the connection of the main circuit |          | ACE870      |
| <b>Main circuit (of a switching device)</b>    | ACC014   |             |
| number of poles                                |          | ACE401      |
| rated current                                  |          | ACE424      |
| rated operational voltage, a.c.                |          | ACE457      |
| rated impulse withstand voltage                |          | ACE460      |
| <b>Installation, mounting and dimensions</b>   | ACC066   |             |
| height of the device                           |          | ACE801      |
| width of the device                            |          | ACE802      |
| depth of the device                            |          | ACE803      |
| product mass                                   |          | ACE808      |
| <b>Product certificates and standards</b>      | ACC070   |             |
| certificates and approvals                     |          | ACE902      |
| product standards                              |          | ACE901      |
| environmental declaration                      |          | ACE903      |

133

134 **7.5 Properties of switch classes**

135 Table 12 to Table 16 give the lists of properties for each device class.

136 **7.5.1 Switch-disconnector**

137

**Table 12 - Switch-disconnector**

| Properties of each class                    | Class ID | Property ID |
|---------------------------------------------|----------|-------------|
| <b>Switch-disconnector</b>                  | ACC301   |             |
| <b>Identification</b>                       | ACC011   |             |
| global trade item number (GTIN)             |          | ACE101      |
| manufacturer name                           |          | ACE102      |
| manufacturer product number                 |          | ACE103      |
| product family                              |          | ACE104      |
| product name                                |          | ACE105      |
| supplier name                               |          | ACE106      |
| supplier product number                     |          | ACE107      |
| product online information URL              |          | ACE108      |
| customs tariff number                       |          | ACE109      |
| <b>General technical data</b>               | ACC012   |             |
| degree of protection of the device          |          | ACE218      |
| main contact fully visible in open position |          | ACE234      |
| type of actuator                            |          | ACE214      |

| Properties of each class                             | Class ID | Property ID |
|------------------------------------------------------|----------|-------------|
| isolating function                                   |          | ACE204      |
| provision for locking                                |          | ACE243      |
| <b>Main circuit (of a switching device)</b>          | ACC014   |             |
| number of poles                                      |          | ACE401      |
| rated current                                        |          | ACE424      |
| rated operational current, AC-21, 230 V              |          | ACE476      |
| rated operational current, AC-21, 400 V              |          | ACE471      |
| rated operational current, AC-21, 690 V              |          | ACE472      |
| rated operational current, AC-22, 230 V              |          | ACE477      |
| rated operational current, AC-22, 400 V              |          | ACE432      |
| rated operational current, AC-22, 690 V              |          | ACE473      |
| rated operational voltage, AC-22                     |          | ACE475      |
| rated operational current, AC-23, 230 V              |          | ACE478      |
| rated operational current, AC-23, 400 V              |          | ACE435      |
| rated operational current, AC-23, 690 V              |          | ACE474      |
| rated operational current, DC-21                     |          | ACE479      |
| rated operational voltage, DC-21                     |          | ACE480      |
| rated operational current, DC-22                     |          | ACE426      |
| rated operational voltage, DC-22                     |          | ACE459      |
| rated operational current, DC-23                     |          | ACE481      |
| rated operational voltage, DC-23                     |          | ACE482      |
| category of operating cycles                         |          | ACE463      |
| rated operational power, AC-3, 400 V                 |          | ACE413      |
| 3 ph. horsepower rating, 460 V, 60 Hz                |          | ACE418      |
| 3 ph. horsepower rating, 575 V, 60 Hz                |          | ACE419      |
| 1 ph. horsepower rating, 120 V, 60 Hz                |          | ACE443      |
| conventional enclosed thermal current                |          | ACE439      |
| ambient air temperature                              |          | ACE440      |
| rated impulse withstand voltage                      |          | ACE460      |
| <b>Short-circuit</b>                                 | ACC040   |             |
| rated short-time withstand current, a.c., 1 s        |          | ACE712      |
| rated conditional short-circuit current, a.c., 230 V |          | ACE722      |
| rated conditional short-circuit current, a.c., 400 V |          | ACE708      |
| rated conditional short-circuit current, a.c., 690 V |          | ACE723      |
| rated short-circuit making capacity, a.c., 230 V     |          | ACE724      |
| rated short-circuit making capacity, a.c., 400 V     |          | ACE725      |
| rated short-circuit making capacity, a.c., 690 V     |          | ACE726      |
| <b>Installation, mounting and dimensions</b>         | ACC066   |             |
| height of the device                                 |          | ACE801      |
| width of the device                                  |          | ACE802      |
| length of the device                                 |          | ACE803      |
| mounting onto standard rail                          |          | ACE804      |

| Properties of each class                       | Class ID | Property ID |
|------------------------------------------------|----------|-------------|
| panel mounting                                 |          | ACE805      |
| door mounting                                  |          | ACE806      |
| <b>Connection facilities</b>                   | ACC068   |             |
| clamping unit of main circuit                  |          | ACE852      |
| position of the connection of the main circuit |          | ACE870      |
| <b>Product certificates and standards</b>      | ACC070   |             |
| certificates and approvals                     |          | ACE902      |
| product standards                              |          | ACE901      |
| environmental declaration                      |          | ACE903      |

138

139 **7.5.2 Switch-disconnector-fuse**

140

**Table 13 - Switch-disconnector-fuse**

| Properties of each class                    | Class ID | Property ID |
|---------------------------------------------|----------|-------------|
| <b>Switch-disconnector-fuse</b>             | ACC302   |             |
| <b>Identification</b>                       | ACC011   |             |
| global trade item number (GTIN)             |          | ACE101      |
| manufacturer name                           |          | ACE102      |
| manufacturer product number                 |          | ACE103      |
| product family                              |          | ACE104      |
| product name                                |          | ACE105      |
| supplier name                               |          | ACE106      |
| supplier product number                     |          | ACE107      |
| product online information URL              |          | ACE108      |
| customs tariff number                       |          | ACE109      |
| <b>General technical data</b>               | ACC012   |             |
| degree of protection of the device          |          | ACE218      |
| type of actuator                            |          | ACE214      |
| isolating function                          |          | ACE204      |
| provision for locking                       |          | ACE243      |
| double opening of the circuit               |          | ACE236      |
| <b>Main circuit (of a switching device)</b> | ACC014   |             |
| number of poles                             |          | ACE401      |
| number of protected poles                   |          | ACE410      |
| rated current                               |          | ACE424      |
| fuse system                                 |          | ACE453      |
| characteristic of the fuse-link             |          | ACE452      |
| size of the fuse-link                       |          | ACE454      |
| rated operational current, AC-21, 230 V     |          | ACE476      |
| rated operational current, AC-21, 400 V     |          | ACE471      |
| rated operational current, AC-21, 690 V     |          | ACE472      |

| Properties of each class                             | Class ID | Property ID |
|------------------------------------------------------|----------|-------------|
| rated operational current, AC-22, 230 V              |          | ACE477      |
| rated operational current, AC-22, 400 V              |          | ACE432      |
| rated operational current, AC-22, 690 V              |          | ACE473      |
| rated operational voltage, AC-22                     |          | ACE475      |
| rated operational current, AC-23, 230 V              |          | ACE478      |
| rated operational current, AC-23, 400 V              |          | ACE435      |
| rated operational current, AC-23, 690 V              |          | ACE474      |
| rated operational current, DC-21                     |          | ACE479      |
| rated operational voltage, DC-21                     |          | ACE480      |
| rated operational current, DC-22                     |          | ACE426      |
| rated operational voltage, DC-22                     |          | ACE459      |
| rated operational current, DC-23                     |          | ACE481      |
| rated operational voltage, DC-23                     |          | ACE482      |
| category of operating cycles                         |          | ACE463      |
| rated operational power, AC-3, 400 V                 |          | ACE413      |
| 3 ph. horsepower rating, 460 V, 60 Hz                |          | ACE418      |
| 3 ph. horsepower rating, 575 V, 60 Hz                |          | ACE419      |
| 1 ph. horsepower rating, 120 V, 60 Hz                |          | ACE443      |
| conventional free air thermal current                |          | ACE438      |
| conventional enclosed thermal current                |          | ACE439      |
| ambient air temperature                              |          | ACE440      |
| rated impulse withstand voltage                      |          | ACE460      |
| <b>Short-circuit</b>                                 | ACC040   |             |
| rated conditional short-circuit current, a.c., 230 V |          | ACE722      |
| rated conditional short-circuit current, a.c., 400 V |          | ACE708      |
| rated conditional short-circuit current, a.c., 690 V |          | ACE723      |
| <b>Installation, mounting and dimensions</b>         | ACC066   |             |
| height of the device                                 |          | ACE801      |
| width of the device                                  |          | ACE802      |
| length of the device                                 |          | ACE803      |
| mounting onto standard rail                          |          | ACE804      |
| panel mounting                                       |          | ACE805      |
| <b>Connection facilities</b>                         | ACC068   |             |
| clamping unit of main circuit                        |          | ACE852      |
| position of the connection of the main circuit       |          | ACE870      |
| <b>Product certificates and standards</b>            | ACC070   |             |
| certificates and approvals                           |          | ACE902      |
| product standards                                    |          | ACE901      |
| environmental declaration                            |          | ACE903      |

141

142 **7.5.3 Fuse-switch-disconnector**

143

**Table 14 - Fuse-switch-disconnector**

| Properties of each class                    | Class ID | Property ID |
|---------------------------------------------|----------|-------------|
| <b>Fuse-switch-disconnector</b>             | ACC303   |             |
| <b>Identification</b>                       | ACC011   |             |
| global trade item number (GTIN)             |          | ACE101      |
| manufacturer name                           |          | ACE102      |
| manufacturer product number                 |          | ACE103      |
| product family                              |          | ACE104      |
| product name                                |          | ACE105      |
| supplier name                               |          | ACE106      |
| supplier product number                     |          | ACE107      |
| product online information URL              |          | ACE108      |
| customs tariff number                       |          | ACE109      |
| <b>General technical data</b>               | ACC012   |             |
| degree of protection of the device          |          | ACE218      |
| type of actuator                            |          | ACE214      |
| double opening of the circuit               |          | ACE236      |
| isolating function                          |          | ACE204      |
| provision for locking                       |          | ACE243      |
| <b>Main circuit (of a switching device)</b> | ACC014   |             |
| number of poles                             |          | ACE401      |
| number of protected poles                   |          | ACE410      |
| rated current                               |          | ACE424      |
| fuse system                                 |          | ACE453      |
| characteristic of the fuse-link             |          | ACE452      |
| size of the fuse-link                       |          | ACE454      |
| rated operational current, AC-21, 230 V     |          | ACE476      |
| rated operational current, AC-21, 400 V     |          | ACE471      |
| rated operational current, AC-21, 690 V     |          | ACE472      |
| rated operational current, AC-22, 230 V     |          | ACE477      |
| rated operational current, AC-22, 400 V     |          | ACE432      |
| rated operational current, AC-22, 690 V     |          | ACE473      |
| rated operational current, AC-23, 230 V     |          | ACE478      |
| rated operational current, AC-23, 400 V     |          | ACE435      |
| rated operational current, AC-23, 690 V     |          | ACE474      |
| rated operational current, DC-21            |          | ACE479      |
| rated operational voltage, DC-21            |          | ACE480      |
| rated operational current, DC-22            |          | ACE426      |
| rated operational voltage, DC-22            |          | ACE459      |
| category of operating cycles                |          | ACE463      |

| Properties of each class                             | Class ID | Property ID |
|------------------------------------------------------|----------|-------------|
| 3 ph. horsepower rating, 460 V, 60 Hz                |          | ACE418      |
| 3 ph. horsepower rating, 575 V, 60 Hz                |          | ACE419      |
| 1 ph. horsepower rating, 120 V, 60 Hz                |          | ACE443      |
| conventional free air thermal current                |          | ACE438      |
| conventional enclosed thermal current                |          | ACE439      |
| ambient air temperature                              |          | ACE440      |
| rated impulse withstand voltage                      |          | ACE460      |
| <b>Short-circuit</b>                                 | ACC040   |             |
| rated conditional short-circuit current, a.c., 230 V |          | ACE722      |
| rated conditional short-circuit current, a.c., 400 V |          | ACE708      |
| rated conditional short-circuit current, a.c., 690 V |          | ACE723      |
| <b>Installation, mounting and dimensions</b>         | ACC066   |             |
| height of the device                                 |          | ACE801      |
| width of the device                                  |          | ACE802      |
| length of the device                                 |          | ACE803      |
| mounting onto standard rail                          |          | ACE804      |
| panel mounting                                       |          | ACE805      |
| <b>Connection facilities</b>                         | ACC068   |             |
| clamping unit of main circuit                        |          | ACE852      |
| position of the connection of the main circuit       |          | ACE870      |
| <b>Product certificates and standards</b>            | ACC070   |             |
| certificates and approvals                           |          | ACE902      |
| product standards                                    |          | ACE901      |
| environmental declaration                            |          | ACE903      |

144

145 **7.5.4 Operating handle (of a mechanical switching device)**146 **Table 15 - Operating handle (of a mechanical switching device)**

| Properties of each class                                   | Class ID | Property ID |
|------------------------------------------------------------|----------|-------------|
| <b>Operating handle (of a mechanical switching device)</b> | ACC304   |             |
| <b>Identification</b>                                      | ACC011   |             |
| global trade item number (GTIN)                            |          | ACE101      |
| manufacturer name                                          |          | ACE102      |
| manufacturer product number                                |          | ACE103      |
| product family                                             |          | ACE104      |
| product name                                               |          | ACE105      |
| supplier name                                              |          | ACE106      |
| supplier product number                                    |          | ACE107      |
| product online information URL                             |          | ACE108      |
| customs tariff number                                      |          | ACE109      |
| <b>General technical data</b>                              | ACC012   |             |

| Properties of each class                        | Class ID | Property ID |
|-------------------------------------------------|----------|-------------|
| degree of protection of the device              |          | ACE218      |
| degree of protection against mechanical impacts |          | ACE238      |
| provision for locking                           |          | ACE243      |
| locking position                                |          | ACE244      |
| type of locking means                           |          | ACE245      |
| type of associated control or switching device  |          | ACE241      |
| type of associated shaft                        |          | ACE242      |
| number of selectable positions                  |          | ACE624      |
| door interlocking                               |          | ACE246      |
| colour of the handle                            |          | ACE298      |
| colour of the escutcheon                        |          | ACE293      |
| type of associated mechanical connection        |          | ACE296      |
| material of the handle                          |          | ACE294      |
| shape of the handle                             |          | ACE295      |
| <b>Installation, mounting and dimensions</b>    | ACC066   |             |
| panel mounting                                  |          | ACE805      |
| door mounting                                   |          | ACE806      |
| direct mounting                                 |          | ACE809      |
| width of the device                             |          | ACE802      |
| height of the device                            |          | ACE801      |
| length of the device                            |          | ACE803      |
| <b>Product certificates and standards</b>       | ACC070   |             |
| certificates and approvals                      |          | ACE902      |
| product standards                               |          | ACE901      |
| environmental declaration                       |          | ACE903      |

147

148 **7.5.5 Shaft of operating handle**

149

**Table 16 - Shaft of operating handle**

| Properties of each class         | Class ID | Property ID |
|----------------------------------|----------|-------------|
| <b>Shaft of operating handle</b> | ACC305   |             |
| <b>Identification</b>            | ACC011   |             |
| global trade item number (GTIN)  |          | ACE101      |
| manufacturer name                |          | ACE102      |
| manufacturer product number      |          | ACE103      |
| product family                   |          | ACE104      |
| product name                     |          | ACE105      |
| supplier name                    |          | ACE106      |
| supplier product number          |          | ACE107      |
| product online information URL   |          | ACE108      |
| customs tariff number            |          | ACE109      |

| Properties of each class                       | Class ID | Property ID |
|------------------------------------------------|----------|-------------|
| <b>General technical data</b>                  | ACC012   |             |
| type of associated control or switching device |          | ACE241      |
| housing or body material                       |          | ACE260      |
| <b>Installation, mounting and dimensions</b>   | ACC066   |             |
| length of the shaft                            |          | ACE819      |
| adjustable length                              |          | ACE820      |
| coupling type                                  |          | ACE821      |
| width of the device                            |          | ACE802      |
| height of the device                           |          | ACE801      |

150

151 **7.6 Properties of contactors, starters and similar equipment classes**

152 Table 17 to Table 37 give the lists of properties for each device class.

153 **7.6.1 Motor protective switching device**154 **Table 17 - Motor protective switching device**

| Properties of each class                    | Class ID | Property ID |
|---------------------------------------------|----------|-------------|
| <b>Motor protective switching device</b>    | ACC401   |             |
| <b>Identification</b>                       | ACC011   |             |
| global trade item number (GTIN)             |          | ACE101      |
| manufacturer name                           |          | ACE102      |
| manufacturer product number                 |          | ACE103      |
| product family                              |          | ACE104      |
| product name                                |          | ACE105      |
| supplier name                               |          | ACE106      |
| supplier product number                     |          | ACE107      |
| product online information URL              |          | ACE108      |
| customs tariff number                       |          | ACE109      |
| <b>General technical data</b>               | ACC012   |             |
| type of actuator                            |          | ACE214      |
| degree of protection of enclosure           |          | ACE218      |
| type of over-current release                |          | ACE215      |
| trip class                                  |          | ACE213      |
| <b>Main circuit (of a switching device)</b> | ACC014   |             |
| rated operational power, AC-3, 400 V        |          | ACE413      |
| rated operational power, AC-3, 230 V        |          | ACE412      |
| 3 ph. horsepower rating, 460 V, 60 Hz       |          | ACE418      |
| 3 ph. horsepower rating, 575 V, 60 Hz       |          | ACE419      |
| rated operational current, 400 V            |          | ACE429      |
| ambient air temperature                     |          | ACE440      |
| <b>Overcurrent release</b>                  | ACC041   |             |
| overload release current setting            |          | ACE741      |

| Properties of each class                                    | Class ID | Property ID |
|-------------------------------------------------------------|----------|-------------|
| temperature compensated overload protection                 |          | ACE748      |
| sensitive to phase loss                                     |          | ACE749      |
| <b>Control and auxiliary circuits</b>                       | ACC016   |             |
| number of auxiliary contacts, normally open                 |          | ACE511      |
| number of auxiliary contacts, normally closed               |          | ACE508      |
| <b>Short-circuit</b>                                        | ACC040   |             |
| rated ultimate short-circuit breaking capacity, a.c., 400 V |          | ACE702      |
| rated ultimate short-circuit breaking capacity, a.c., 230 V |          | ACE716      |
| rated service short-circuit breaking capacity, a.c., 400 V  |          | ACE701      |
| rated service short-circuit breaking capacity, a.c., 230 V  |          | ACE715      |
| short-circuit current rating, 480 Y/277 V                   |          | ACE713      |
| short-circuit current rating, 600 Y/347 V                   |          | ACE714      |
| <b>Installation, mounting and dimensions</b>                | ACC066   |             |
| mounting onto standard rail                                 |          | ACE804      |
| width of the device                                         |          | ACE802      |
| height of the device                                        |          | ACE801      |
| depth of the device                                         |          | ACE803      |
| <b>Connection facilities</b>                                | ACC068   |             |
| clamping unit of main circuit                               |          | ACE852      |
| clamping unit of auxiliary and/or control circuits          |          | ACE854      |
| <b>Product certificates and standards</b>                   | ACC070   |             |
| certificates and approvals                                  |          | ACE902      |
| product standards                                           |          | ACE901      |
| environmental declaration                                   |          | ACE903      |

## 7.6.2 Motor management starter

**Table 18 - Motor management starter**

| Properties of each class         | Class ID | Property ID |
|----------------------------------|----------|-------------|
| <b>Motor management starter</b>  | ACC402   |             |
| <b>Identification</b>            | ACC011   |             |
| global trade item number (GTIN)  |          | ACE101      |
| manufacturer name                |          | ACE102      |
| manufacturer product number      |          | ACE103      |
| product family                   |          | ACE104      |
| product name                     |          | ACE105      |
| supplier name                    |          | ACE106      |
| supplier product number          |          | ACE107      |
| product online information URL   |          | ACE108      |
| customs tariff number            |          | ACE109      |
| <b>General technical data</b>    | ACC012   |             |
| suitable for use in single phase |          | ACE206      |

| Properties of each class                           | Class ID | Property ID |
|----------------------------------------------------|----------|-------------|
| self-powered device                                |          | ACE207      |
| nature of the reset of the overload release        |          | ACE208      |
| degree of protection of enclosure                  |          | ACE218      |
| trip class                                         |          | ACE213      |
| built-in current sensor                            |          | ACE216      |
| load shedding                                      |          | ACE205      |
| ground/earth fault detection                       |          | ACE220      |
| jam detection                                      |          | ACE222      |
| stall detection                                    |          | ACE221      |
| over and/or under current detection                |          | ACE223      |
| over and/or under voltage detection                |          | ACE224      |
| current imbalance detection                        |          | ACE225      |
| phase reversal detection                           |          | ACE227      |
| <b>Diagnostic functions</b>                        | ACC013   |             |
| cos( $\varphi$ ) variation detection               |          | ACE302      |
| voltage monitoring                                 |          | ACE301      |
| under power detection                              |          | ACE303      |
| <b>Overcurrent release</b>                         | ACC041   |             |
| overload release current setting                   |          | ACE741      |
| sensitive to phase loss                            |          | ACE749      |
| <b>Input / Output circuit</b>                      | ACC015   |             |
| number of PTC thermistor inputs                    |          | ACE334      |
| number of analogue inputs                          |          | ACE331      |
| number of digital outputs                          |          | ACE333      |
| number of digital inputs (current sinking)         |          | ACE332      |
| <b>Control and auxiliary circuits</b>              | ACC016   |             |
| kind of current                                    |          | ACE601      |
| rated control voltage, a.c., 50 Hz                 |          | ACE602      |
| rated control voltage, a.c., 60 Hz                 |          | ACE604      |
| rated control voltage, d.c.                        |          | ACE606      |
| <b>Communication interfaces</b>                    | ACC050   |             |
| communication protocol                             |          | ACE361      |
| HMI port                                           |          | ACE362      |
| <b>Installation, mounting and dimensions</b>       | ACC066   |             |
| mounting onto standard rail                        |          | ACE804      |
| width of the device                                |          | ACE802      |
| height of the device                               |          | ACE801      |
| depth of the device                                |          | ACE803      |
| <b>Connection facilities</b>                       | ACC068   |             |
| clamping unit of main circuit                      |          | ACE852      |
| clamping unit of auxiliary and/or control circuits |          | ACE854      |
| <b>Product certificates and standards</b>          | ACC070   |             |

| Properties of each class   | Class ID | Property ID |
|----------------------------|----------|-------------|
| certificates and approvals |          | ACE902      |
| product standards          |          | ACE901      |
| environmental declaration  |          | ACE903      |

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158 **7.6.3 Motor management starter, extension module**

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**Table 19 - Motor management starter, extension module**

| Properties of each class                          | Class ID | Property ID |
|---------------------------------------------------|----------|-------------|
| <b>Motor management starter, extension module</b> | ACC403   |             |
| <b>Identification</b>                             | ACC011   |             |
| global trade item number (GTIN)                   |          | ACE101      |
| manufacturer name                                 |          | ACE102      |
| manufacturer product number                       |          | ACE103      |
| product family                                    |          | ACE104      |
| product name                                      |          | ACE105      |
| supplier name                                     |          | ACE106      |
| supplier product number                           |          | ACE107      |
| product online information URL                    |          | ACE108      |
| customs tariff number                             |          | ACE109      |
| <b>General technical data</b>                     | ACC012   |             |
| degree of protection of enclosure                 |          | ACE218      |
| load shedding                                     |          | ACE205      |
| ground/earth fault detection                      |          | ACE220      |
| over and/or under voltage detection               |          | ACE224      |
| over and/or under current detection               |          | ACE223      |
| jam detection                                     |          | ACE222      |
| stall detection                                   |          | ACE221      |
| current imbalance detection                       |          | ACE225      |
| voltage asymmetry detection                       |          | ACE226      |
| phase reversal detection                          |          | ACE227      |
| <b>Diagnostic functions</b>                       | ACC013   |             |
| cos( $\phi$ ) variation detection                 |          | ACE302      |
| under power detection                             |          | ACE303      |
| <b>Input / Output circuit</b>                     | ACC015   |             |
| number of analogue inputs                         |          | ACE331      |
| number of PTC thermistor inputs                   |          | ACE334      |
| number of digital outputs                         |          | ACE333      |
| number of digital inputs (current sinking)        |          | ACE332      |
| <b>Control and auxiliary circuits</b>             | ACC016   |             |
| kind of current                                   |          | ACE601      |
| rated control voltage, a.c., 50 Hz                |          | ACE602      |

| Properties of each class                     | Class ID | Property ID |
|----------------------------------------------|----------|-------------|
| rated control voltage, a.c., 60 Hz           |          | ACE604      |
| rated control voltage, d.c.                  |          | ACE606      |
| <b>Communication interfaces</b>              | ACC050   |             |
| communication protocol                       |          | ACE361      |
| HMI port                                     |          | ACE362      |
| <b>Installation, mounting and dimensions</b> | ACC066   |             |
| mounting onto standard rail                  |          | ACE804      |
| width of the device                          |          | ACE802      |
| height of the device                         |          | ACE801      |
| depth of the device                          |          | ACE803      |
| <b>Connection facilities</b>                 | ACC068   |             |
| clamping unit                                |          | ACE850      |
| <b>Product certificates and standards</b>    | ACC070   |             |
| certificates and approvals                   |          | ACE902      |
| product standards                            |          | ACE901      |
| environmental declaration                    |          | ACE903      |

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161 **7.6.4 Motor management starter, operator panel**

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**Table 20 - Motor management starter, operator panel**

| Properties of each class                        | Class ID | Property ID |
|-------------------------------------------------|----------|-------------|
| <b>Motor management starter, operator panel</b> | ACC404   |             |
| <b>Identification</b>                           | ACC011   |             |
| global trade item number (GTIN)                 |          | ACE101      |
| manufacturer name                               |          | ACE102      |
| manufacturer product number                     |          | ACE103      |
| product family                                  |          | ACE104      |
| product name                                    |          | ACE105      |
| supplier name                                   |          | ACE106      |
| supplier product number                         |          | ACE107      |
| product online information URL                  |          | ACE108      |
| customs tariff number                           |          | ACE109      |
| <b>General technical data</b>                   | ACC012   |             |
| degree of protection of enclosure               |          | ACE218      |
| <b>Product certificates and standards</b>       | ACC070   |             |
| certificates and approvals                      |          | ACE902      |
| product standards                               |          | ACE901      |
| environmental declaration                       |          | ACE903      |

## 7.6.5 Motor-starter combination

Table 21 - Motor-starter combination

| Properties of each class                                     | Class ID | Property ID |
|--------------------------------------------------------------|----------|-------------|
| <b>Motor-starter combination</b>                             | ACC405   |             |
| <b>Identification</b>                                        | ACC011   |             |
| global trade item number (GTIN)                              |          | ACE101      |
| manufacturer name                                            |          | ACE102      |
| manufacturer product number                                  |          | ACE103      |
| product family                                               |          | ACE104      |
| product name                                                 |          | ACE105      |
| supplier name                                                |          | ACE106      |
| supplier product number                                      |          | ACE107      |
| product online information URL                               |          | ACE108      |
| customs tariff number                                        |          | ACE109      |
| <b>General technical data</b>                                | ACC012   |             |
| kind of motor-starter                                        |          | ACE201      |
| degree of protection of enclosure                            |          | ACE218      |
| isolating function                                           |          | ACE204      |
| trip class                                                   |          | ACE213      |
| <b>Main circuit (of a switching device)</b>                  | ACC014   |             |
| rated operational power, AC-3, 400 V                         |          | ACE413      |
| rated operational power, AC-3, 230 V                         |          | ACE412      |
| 3 ph. horsepower rating, 460 V, 60 Hz                        |          | ACE418      |
| 3 ph. horsepower rating, 575 V, 60 Hz                        |          | ACE419      |
| rated operational current, AC-3, 400 V                       |          | ACE434      |
| rated operational current, AC-3, 230 V                       |          | ACE442      |
| ambient air temperature                                      |          | ACE440      |
| <b>Overcurrent release</b>                                   | ACC041   |             |
| overload release current setting                             |          | ACE741      |
| temperature compensated overload protection                  |          | ACE748      |
| <b>Short-circuit</b>                                         | ACC040   |             |
| rated conditional short-circuit current, type 2, a.c., 400 V |          | ACE705      |
| rated conditional short-circuit current, type 2, a.c., 230 V |          | ACE709      |
| rated conditional short-circuit current, type 1, 480 Y/277 V |          | ACE706      |
| rated conditional short-circuit current, type 1, 600 Y/347 V |          | ACE707      |
| <b>Control and auxiliary circuits</b>                        | ACC016   |             |
| number of auxiliary contacts, normally open                  |          | ACE511      |
| number of auxiliary contacts, normally closed                |          | ACE508      |
| kind of current                                              |          | ACE601      |
| compatible with PLC outputs                                  |          | ACE608      |
| rated control voltage, a.c., 50 Hz                           |          | ACE602      |

| Properties of each class                           | Class ID | Property ID |
|----------------------------------------------------|----------|-------------|
| rated control voltage, a.c., 60 Hz                 |          | ACE604      |
| rated control voltage, d.c.                        |          | ACE606      |
| <b>Communication interfaces</b>                    | ACC050   |             |
| communication protocol                             |          | ACE361      |
| <b>Installation, mounting and dimensions</b>       | ACC066   |             |
| mounting onto standard rail                        |          | ACE804      |
| width of the device                                |          | ACE802      |
| height of the device                               |          | ACE801      |
| depth of the device                                |          | ACE803      |
| <b>Connection facilities</b>                       | ACC068   |             |
| clamping unit of main circuit                      |          | ACE852      |
| clamping unit of auxiliary and/or control circuits |          | ACE854      |
| <b>Product certificates and standards</b>          | ACC070   |             |
| certificates and approvals                         |          | ACE902      |
| environmental declaration                          |          | ACE903      |
| product standards                                  |          | ACE901      |

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167 **7.6.6 Semiconductor motor controller**

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**Table 22 - Semiconductor motor controller**

| Properties of each class                                     | Class ID | Property ID |
|--------------------------------------------------------------|----------|-------------|
| <b>Semiconductor motor controller</b>                        | ACC406   |             |
| <b>Identification</b>                                        | ACC011   |             |
| global trade item number (GTIN)                              |          | ACE101      |
| manufacturer name                                            |          | ACE102      |
| manufacturer product number                                  |          | ACE103      |
| product family                                               |          | ACE104      |
| product name                                                 |          | ACE105      |
| supplier name                                                |          | ACE106      |
| supplier product number                                      |          | ACE107      |
| product online information URL                               |          | ACE108      |
| customs tariff number                                        |          | ACE109      |
| <b>General technical data</b>                                | ACC012   |             |
| degree of protection of enclosure                            |          | ACE218      |
| motor overload protection integrated                         |          | ACE211      |
| bypass circuit integrated                                    |          | ACE212      |
| <b>Main circuit (of a switching device)</b>                  | ACC014   |             |
| rated operational current, 40 °C                             |          | ACE430      |
| rated operational power, delta connected motor, 230 V, 40 °C |          | ACE416      |
| rated operational power, delta connected motor, 400 V, 40 °C |          | ACE417      |
| 3 ph. horsepower rating, 460 V, 60 Hz, delta connected motor |          | ACE420      |