

SINGAPORE STANDARD

SS 504 : Part 21 : 2003

(IEC 61386-21 : 2002)

(ICS 29.120.10)

SPECIFICATION FOR

Conduit systems for cable management

*Part 21 : Particular requirements – Rigid
conduit systems*

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National Foreword

This Singapore Standard was prepared by the Technical Committee on Electrical Accessories and Electric Cables under the direction of the Electrical and Electronic Standards Committee. This standard is identical to the First Edition of IEC 61386-21 : 2002-02 published by the International Electrotechnical Commission. This standard was established as a result of the review on SS 100 : 1974 – 'Specification for rigid steel conduits for electrical installations'. This part together with Part 1 replaces SS 100 : 1974.

Part 21 which specifies particular requirements for rigid conduit systems is to be used in conjunction with SS 504 : Part 1 : Specification for conduit systems for cable management – General requirements.

Part 21 supplements or modifies the corresponding clauses in Part 1. Where a particular clause or subclause of Part 1 is not mentioned in Part 21, that clause or subclause applies as far as is reasonable. Where Part 21 states 'addition', 'modification' or 'replacement', the relevant text of Part 1 is to be adapted accordingly.

Subclause, tables and figures, which are in addition to those in Part 1, are numbered starting with 101.

A conduit system which complies with this standard, is deemed safe for use when installed in accordance with the electrical installation code, whilst applying the manufacturer's installation instructions and conduit classification.

In this publication, the following print types are used:

- Requirements proper : in roman type
- Test specifications : in italic type
- Explanatory matter : in smaller roman type

The Committee has decided that the contents of this publication will remain unchanged until **2006**. At this date, the publication will be

Reconfirmed

Withdrawn

Replaced by a revised edition, or

Amended

The comma has been used throughout as a decimal marker in IEC 61386-21, whereas in Singapore Standards it is a practice to use a full-point on the baseline as the decimal marker.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. SPRING Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue of either amendment slips or revised editions.*
2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONDUIT SYSTEMS FOR CABLE MANAGEMENT –

Part 21: Particular requirements – Rigid conduit systems

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61386-21 has been prepared by subcommittee 23A: Cable management systems, of IEC technical committee 23: Electrical accessories.

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

FDIS	Report on voting
23A/369/FDIS	23A/372/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 3.

This part 21, which specifies particular requirements for rigid conduit systems, is to be used in conjunction with IEC 61386-1, *Conduit systems for electrical installations – Part 1: General Requirements*, and its amendments¹. It was established on the basis of the first edition (1996) of that standard and its amendment 1 (2000).

¹ Please note that the generic title of the IEC 61386 series has been changed to *Conduit systems for cable management* since the publication of part 1, hence all other parts of the series are now published under this new title.

This part 21 supplements or modifies the corresponding clauses of IEC 61386-1. Where a particular clause or subclause of part 1 is not mentioned in this part 21, that clause or subclause applies as far as is reasonable. Where this part 21 states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

Subclauses, tables and figures which are in addition to those in part 1 are numbered starting with 101.

A conduit system which complies with this standard, is deemed safe for use when installed in accordance with national wiring regulations, whilst applying the manufacturer's installation instructions and conduit classification.

NOTE The following print types are used:

requirements: in roman type

test specifications: in italic type

notes: in small roman type

The committee has decided that the contents of this publication will remain unchanged until 2006-12. At this date, the publication will be

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

CONDUIT SYSTEMS FOR CABLE MANAGEMENT –

Part 21: Particular requirements – Rigid conduit systems

1 Scope

This clause of part 1 is applicable, except as follows:

Addition:

This part of IEC 61386 specifies the requirements for rigid conduit systems.

2 Normative references

This clause of part 1 is applicable.

3 Definitions

This clause of part 1 is applicable.

4 General requirements

This clause of part 1 is applicable.

5 General conditions for tests

This clause of part 1 is applicable.

6 Classification

This clause of part 1 is applicable, except as follows:

6.1.1 1, **6.1.2 1**, **6.1.3 2**, **6.1.3 3**, **6.1.3 4**, **6.1.4 1** and **6.1.5 1** are not applicable.

NOTE Rigid conduit systems according to 6.1.1 2 and 6.1.2 2 and classification 1X from 6.2.1, table 1 are not allowed in France.

7 Marking and documentation

This clause of part 1 is applicable, except as follows:

Addition:

7.1.101 The conduit shall be marked in accordance with 7.1 along its entire length at regular intervals of preferably 1 m but not longer than 3 m and each length shall be marked at least once.

Compliance is checked by inspection.