

TRINIDAD AND TOBAGO STANDARD

COMPULSORY

ELECTRIC CABLES – PVC INSULATED, NON-ARMoured CABLES FOR VOLTAGES UP TO AND INCLUDING 450/750 V, FOR ELECTRIC POWER, LIGHTING AND INTERNAL WIRING

PCTTS/BS 6004: 20XX
(Replaces TTS/BS 6004: 2008)

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General statement

The Trinidad and Tobago Bureau of Standards (the Bureau) is a body corporate established under the authority of the Standards Act No. 18 of 1997 (herein after referred to as the Standards Act).

In accordance with the Standards Act, the Bureau shall promote and encourage the development and maintenance of standards and further shall establish standards for the following: to improve goods produced or used in Trinidad and Tobago; to ensure industrial efficiency and development; to promote public and industrial welfare, health and safety; and to protect the environment.

The Bureau develops standards through consultation with relevant interest groups, and public comment is invited on all draft standards before they are declared as Trinidad and Tobago Standards in accordance with the provisions of the Standards Act.

The Bureau is the legal custodian of Trinidad and Tobago Standard Marks, which are issued in accordance with the Standards Act. When a Trinidad and Tobago Standard Mark appears on any product, or in connection with any service, process or practice, it provides assurance that such a product, service, process or practice conforms to a Trinidad and Tobago Standard.

The Bureau's Standards Information Centre maintains a reference library of standards, including local, regional and international standards and is the national node of the International Organization for Standardization Information Network (ISONET). The Centre serves as the WTO/TBT Enquiry Point which disseminates information on standards and technical regulations as it relates to the World Trade Organization, Technical Barriers to Trade Agreement. It also acts as the sales agent for the publications of foreign and international standards organizations.

NOTE In order to keep abreast of progress in the industries concerned, Trinidad and Tobago Standards are subject to periodic review. Suggestions for improvements are welcome.

Committee

The Committee responsible for the formulation of this Trinidad and Tobago Standard is as follows:

NATIONAL TECHNICAL COMMITTEE FOR ELECTRICAL ENGINEERING (ELECTRICAL CODE COMMITTEE)

Member		Representing
Mr John Phillip	Chairman	Private capacity
Mr Colin Baksh Mr Phillip Cummins		Electrical Industries Limited
Mr Roopnarine Beeka Agency		Occupational Safety and Health
Mr Ryan Biran		Ministry of Public Utilities
Mr Chad Lue Choy		TYE Manufacturing Co. Ltd
Mr Lawrence De Freitas		BOETT
Mr Hugh Gaskin and Tobago		Electricians' Association of Trinidad
Mr Marlon Williams Mr George Sampson Mr Hayden Batson		Government Electrical Inspectorate
Mr Merlyn Ramjohn		TATEC Ltd
Mr Wayne Solomon		Trinidad and Tobago Electricity
Commission		Design Engineering Services
Mr Peter Sammy Limited		Engineering Consultants Limited
Mr Cavallo Sebastien		Trinidad and Tobago Bureau of
Ms Nadita Ramachala Standards	Technical Secretary	

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National foreword

This specification was declared a Trinidad and Tobago Standard on, after the adoption agreed upon by the National Technical Committee for Electrical Engineering (Electrical Code Committee) had been approved by the Bureau.

This Trinidad and Tobago Standard is an adoption of the British Standard BS 6004:2000, *Electric cables – PVC insulated, non-armoured cables for voltages up to and including 450/750 V for electric power, lighting and internal wiring* and incorporates Amendments No. 1: 2004 and No. 2: 2005 respectively.

The Trinidad and Tobago Bureau of Standards has recommended that this standard be compulsory to:

- a) protect the consumer or user against danger to health or safety;
- b) protect public or industrial health, welfare or safety; and
- c) ensure acceptable product quality.

This standard will be effective as a compulsory standard on a date to be notified by the Minister responsible for trade and industrial development in a Notice to be published in the Trinidad and Tobago Gazette, as required by the Standards Act.

In this standard, the national deviations have been modified from the previous version (TTS/BS 6004:2008) in order to specify more stringent requirements for compliance in the interest of protecting the consumer or user against danger to health or safety and ensuring acceptable product quality.

This Trinidad and Tobago Standard replaces TTS/BS 6004:2008, *Electric cables - PVC insulated, non-armoured cables for voltages up to and including 450/750 V for electric power, lighting and internal wiring* which has been withdrawn.

This standard is intended for use by a wide range of stakeholders including:

- i. manufacturers - in the production process;
- ii. importers and distributors - in the procurement process;
- iii. regulatory agencies - in assessing compliance of electric cables manufactured in and imported into Trinidad and Tobago;
- iv. public or private sector agencies - in specifying electric cables for procurement; and
- v. consumers - in verifying that electric cables meet minimum safety and performance requirements thus ensuring value for money.

Although the editorial style and layout of BS 6004:2000 does not conform to that of the Trinidad and Tobago Standards, it has been approved as suitable for publication as a Trinidad and Tobago Standard.

Technical deviations to the original standard necessary to make provisions relevant to Trinidad and Tobago are given on pages vii and viii.

This standard includes four (4) normative annexes which are to be considered as a part of the requirements to be met, as follows:

- Annex C specifies requirements and procedures for electrical tests;
- Annex D specifies the procedure for measurement of thicknesses;
- Annex E specifies the procedure for checking the efficacy of the spark testing method and equipment; and
- Annex G specifies the procedure for the compatibility test.

The standard also includes two (2) informative annexes which provide guidance to assist in the understanding of the standard as follows:

- Annex A is a guide to the use of PVC insulated cables; and
- Annex B provides guidance on the procedure for routine tests on PVC insulated cables of rated voltages U_0/U up to 450/750 V.

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National deviations

General

1. The Foreword of BS 6004:2000 is for information only.
2. From clause 1 of BS 6004 to Annex G inclusive, replace "British Standard" with "Trinidad and Tobago Standard".
3. Replace "BS 7671" throughout the text of the standard by "TTS 171: Part 1: 2002, *Trinidad and Tobago Electrical Wiring Code - Part 1: Low voltage installations (including Amendment 1 (2007))*".
4. Add the following NOTE to clauses containing references to "Harmonized code designations" and "National type" throughout the standard:

NOTE All references to "Harmonized code designations" and "National type" are not applicable to Trinidad and Tobago. However, these may be required for exports.

Clause 2 Normative references

5. Delete the following standard from the list of standards:

BS 4727-2: Group 08, *Glossary of electrotechnical, power, telecommunications, electronics, lighting and colour terms - Part 2: Terms particular to power engineering - Group 08: Electric cables.*

6. Add the following standards to the list of standards:

Trinidad and Tobago Bureau of Standards

TTS/BS 4727-2: Group 08: 2007, *Glossary of electrotechnical, power, telecommunications, electronics, lighting and colour terms - Part 2: Terms particular to power engineering - Group 08: Electric cables.*

TTS 171: Part 1: 2002, *Trinidad and Tobago Electrical Wiring Code - Part 1: Low voltage installations (including Amendment 1 (2007))*.

Clause 3 Terms and definitions

7. Replace "BS 4727-2: Group 08" by "TTS/BS 4727-2: Group 08: 2007".

Clause 5 General

8. Delete clause 5.3.1 General.
9. Delete clause 5.3.3 CENELEC "Common Marking".
10. Delete clause 5.3.4 Identification mark.

Add a new clause 9 Compliance

11. Add a new clause 9 Compliance as follows:

9 Compliance

9.1 In order to demonstrate compliance with this Trinidad and Tobago Standard, electric cables of the types specified in this standard shall be accompanied by a certification mark which is acceptable to the Trinidad and Tobago Bureau of Standards:

9.2 In the event that electric cables of similar types, are manufactured to a standard different to this Trinidad and Tobago Standard, these electric cables shall be accompanied by a certification mark acceptable to the Trinidad and Tobago Bureau of Standards, to demonstrate compliance to the standard to which the electric cables have been manufactured.

9.3 The Trinidad and Tobago Bureau of Standards shall conduct random inspections to verify compliance to this standard. Where necessary, the Trinidad and Tobago Bureau of Standards shall obtain a test report from a third party accredited laboratory in order to assess compliance to this standard.