

# Trusted TC000 Power Cables

## Product Overview

This document provides detailed information for Trusted® 24 Vdc Power Cables that are currently available. These are listed in Table 1 below.

| Cable Type              | Description  |
|-------------------------|--|
| TC-001-02,<br>TC-001-03 | Chassis Power Cable<br>To connect from a Power Distribution Unit Miniature Circuit Breaker (MCB) (T8292) to Trusted Controller or Expander Chassis |
| TC-002-02,<br>TC-002-03 | Power Cable<br>To connect from a power distribution unit MCB (T8292) to Power Distribution Module 15-Way Fused (T8293)                             |
| TC-003-02,<br>TC-003-03 | Power Cable<br>To connect from a Power Distribution Module 15-Way Fused (T8293) to Input Field Termination Assembly (FTA)                          |
| TC-004-02,<br>TC-004-03 | Power Cable<br>To connect from a Power Distribution Module 15-Way Fused (T8293) to Input Versatile Field Termination Assembly (VFTA)               |
| TC-006-02,<br>TC-006-03 | SmartSlot Link Cable<br>To interconnect expanders in a system using SmartSlot  |
| TC-011-02,<br>TC-011-03 | Fan Power Cable<br>To connect from a Power Distribution Unit MCB (T8292) to Fan Assembly (T8270)   |

**Table 1 Trusted 24 Vdc Power Cables**

The -02 / -03 suffix of the cable part number dictates the properties of the cable:

- 02 suffix cables, or those with no suffix, are cables which are halogen free, i.e. low smoke zero halogen, flame retardant to IEC 60332-3 Cat A.
- 03 suffix cables are UL Certified.

Both cables are manufactured using sufficient cross-sectional area to meet the power consumption requirements of a Trusted System.

## PREFACE

In no event will Rockwell Automation be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment. The examples given in this manual are included solely for illustrative purposes. Because of the many variables and requirements related to any particular installation, Rockwell Automation does not assume responsibility or reliability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, with respect to use of information, circuits, equipment, or software described in this manual.

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### DISCLAIMER

It is not intended that the information in this publication covers every possible detail about the construction, operation, or maintenance of a control system installation. You should also refer to your own local (or supplied) system safety manual, installation and operator/maintenance manuals.

### REVISION AND UPDATING POLICY

This document is based on information available at the time of its publication. The document contents are subject to change from time to time. The latest versions of the manuals are available at the Rockwell Automation Literature Library under "Product Information" information "Critical Process Control & Safety Systems".

### TRUSTED RELEASE

This technical manual was updated for **Trusted Release 4.0**.

### LATEST PRODUCT INFORMATION

For the latest information about this product review the Product Notifications and Technical Notes issued by technical support. Product Notifications and product support are available at the Rockwell Automation Support Centre at <http://rockwellautomation.custhelp.com>

At the Search Knowledgebase tab select the option "By Product" then scroll down and select the Trusted product.

Some of the Answer ID's in the Knowledge Base require a TechConnect<sup>SM</sup> Support Contract. For more information about TechConnect Support Contract Access Level and Features please click on the following link:

[https://rockwellautomation.custhelp.com/app/answers/detail/a\\_id/50871](https://rockwellautomation.custhelp.com/app/answers/detail/a_id/50871)

This will get you to the login page where you must enter your login details.

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**IMPORTANT** A login is required to access the link. If you do not have an account then you can create one using the "Sign Up" link at the top right of the web page.

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## DOCUMENTATION FEEDBACK

Your comments help us to write better user documentation. If you discover an error, or have a suggestion on how to make this publication better, send your comment to our technical support group at <http://rockwellautomation.custhelp.com>

## SCOPE

This manual specifies the maintenance requirements and describes the procedures to assist troubleshooting and maintenance of a Trusted system.

## WHO SHOULD USE THIS MANUAL

This manual is for plant maintenance personnel who are experienced in the operation and maintenance of electronic equipment and are trained to work with safety systems.

## SYMBOLS

In this manual we will use these notices to tell you about safety considerations.



**SHOCK HAZARD:** Identifies an electrical shock hazard. If a warning label is fitted, it can be on or inside the equipment.



**WARNING:** Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which can cause injury or death, property damage or economic loss.



**ATTENTION:** Identifies information about practices or circumstances that can cause injury or death.



**CAUTION:** Identifies information about practices or circumstances that can cause property damage or economic loss.



**BURN HAZARD:** Identifies where a surface can reach dangerous temperatures. If a warning label is fitted, it can be on or inside the equipment.



This symbol identifies items which must be thought about and put in place when designing and assembling a Trusted controller for use in a Safety Instrumented Function (SIF). It appears extensively in the Trusted Safety Manual.

### IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

### NOTE

Provides key information about the product or service.

### TIP

Tips give helpful information about using or setting up the equipment.

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**WARNINGS AND CAUTIONS**

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**WARNING: EXPLOSION RISK**

Do not connect or disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations or equivalent

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**AVERTISSEMENT - RISQUE D'EXPLOSION**

Ne pas connecter ou déconnecter l'équipement alors qu'il est sous tension, sauf si l'environnement est exempt de concentrations inflammables ou équivalente

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**MAINTENANCE**

Maintenance must be carried out only by qualified personnel. Failure to follow these instructions may result in personal injury.

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**CAUTION: RADIO FREQUENCY INTERFERENCE**

Most electronic equipment is influenced by Radio Frequency Interference. Caution should be exercised with regard to the use of portable communications equipment around such equipment. Signs should be posted in the vicinity of the equipment cautioning against the use of portable communications equipment.

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**CAUTION:**

The module PCBs contains static sensitive components. Static handling precautions must be observed. DO NOT touch exposed connector pins or attempt to dismantle a module.

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## ISSUE RECORD

| Issue | Date   | Comments   |
|-------|--------|--|
| 8     | Sep 05 | Format   |
| 9     | Dec 07 | Flame retardance   |
| 10    | Apr 16 | Rebranded, reformatted and correction of typographical errors  |
| 11    | May 19 | Added information about -03 suffix (UL) cables.<br>Added trademarks statement.<br>Updated header and footer display Rockwell Automation publication numbers. |
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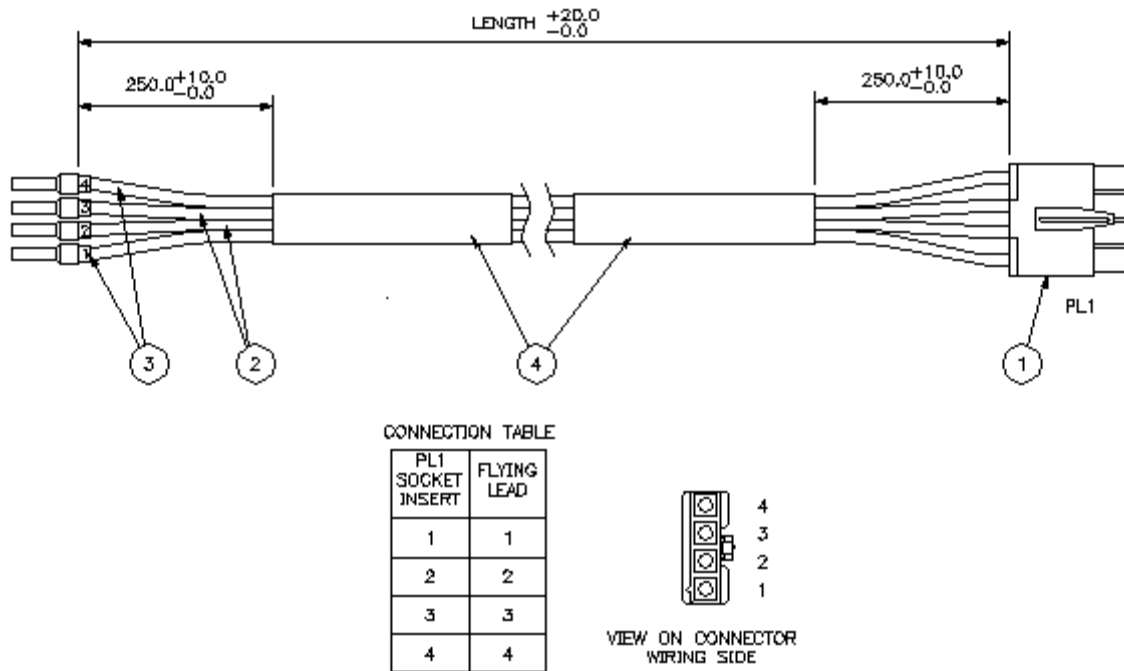
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# 1. Power Cable Type TC-001

This type of Power Cable is used to connect 24 Vdc from a Power Distribution Unit MCB (T8292) to a Trusted Controller or Expander Chassis, as shown in Figure 1 below.



**Figure 1 Power Cable Type TC-001**

The part numbers for the cable are detailed in Table 2 below. Non-standard lengths are available in increments of 0.5 m.

| Part Number   | Length | Description   |
|---------------|--------|---|
| TC-001-02-1m5 | 1.5 m  | Chassis Power Cable<br>(MCB Distribution Unit to Controller or first Expander Chassis)      |
| TC-001-02-2m5 | 2.5 m  | Chassis Power Cable<br>(MCB Distribution Unit to second, or third Expander Chassis)         |
| TC-001-02-6m0 | 6.0 m  | Chassis Power Cable<br>(MCB Distribution Unit to Expander Chassis in an adjacent bay)       |
| TC-001-03-1m5 | 1.5 m  | Chassis Power Cable (UL)<br>(MCB Distribution Unit to Controller or first Expander Chassis) |

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|               |       |  |
|---------------|-------|--|
| TC-001-03-2m5 | 2.5 m | Chassis Power Cable (UL)<br>(MCB Distribution Unit to second, or third Expander Chassis)   |
| TC-001-03-6m0 | 6.0 m | Chassis Power Cable (UL)<br>(MCB Distribution Unit to Expander Chassis in an adjacent bay) |

**Table 2 Power Cable Type TC-001 Part Numbers**

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## 2. Power Cable Type TC-002

This type of Power Cable is used connect from a Power Distribution Unit MCB (T8292) to a Power Distribution module 15-Way Fused (T8293), as shown in Figure 2 below.

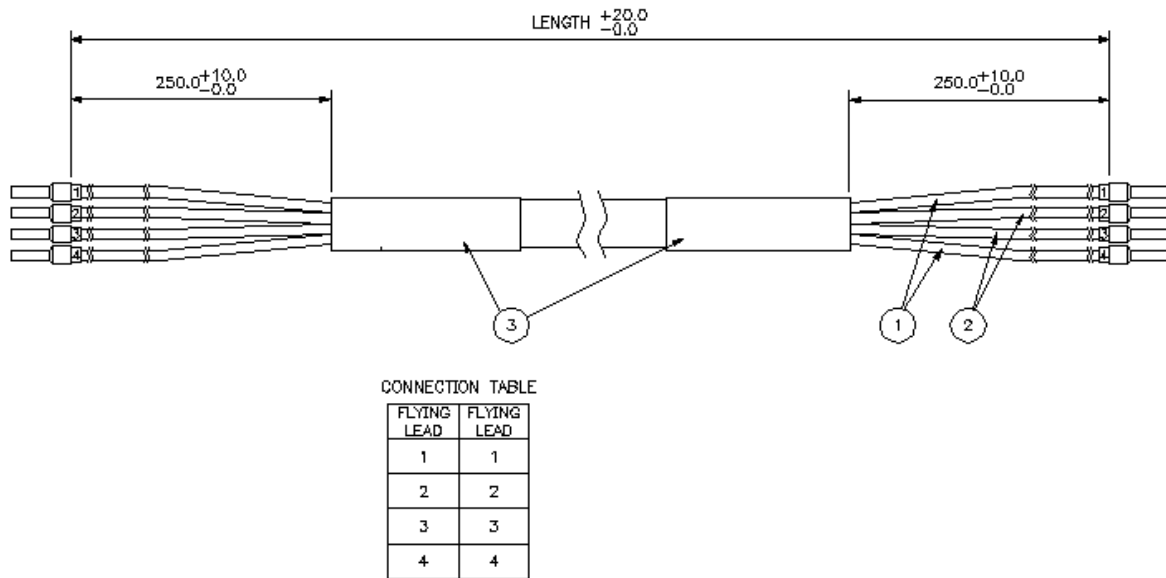


Figure 2 Power Cable Type TC-002

Currently, the cable is available in a standard length of 2.5 m fully assembled and ready for use. The part number for the cable is detailed in Table 3 below. Non-standard lengths are available in increments of 0.5 m.

| Part Number   | Length | Description      |
|---------------|--------|------------------|
| TC-002-02-2m5 | 2.5 m  | Power Cable      |
| TC-002-03-2m5 | 2.5 m  | Power Cable (UL) |

Table 3 Power Cable Type TC-002 Part Numbers

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### 3. Power Cable Type TC-003

This type of Power Cable is used to connect from a Power Distribution Module 15-Way Fused (T8293) to an Input FTA, as shown in Figure 3 below.

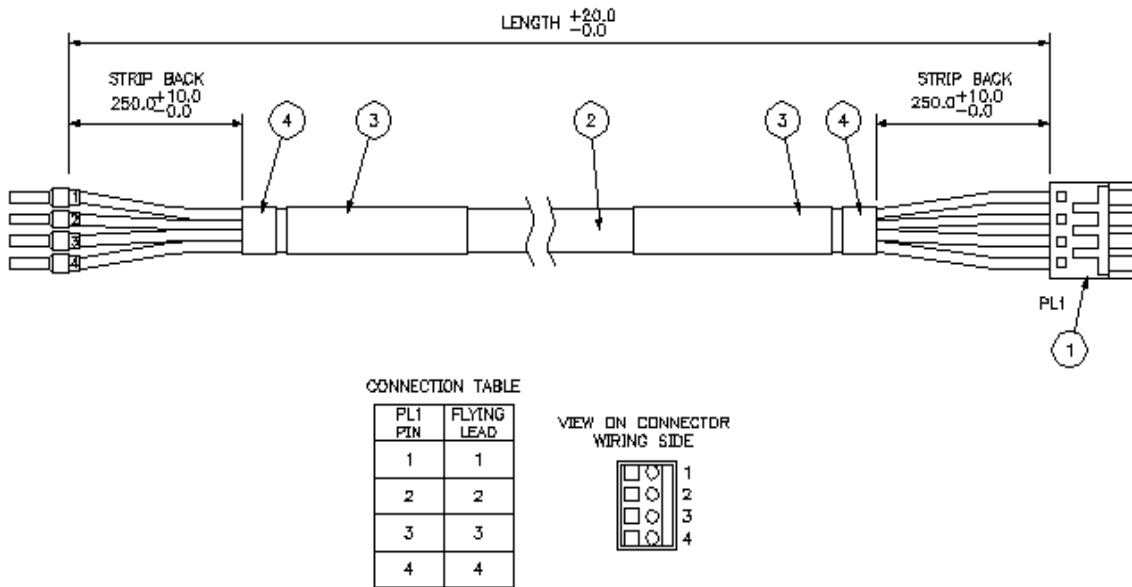


Figure 3 Power Cable Type TC-003

Currently, the cable is available in a standard length of 2.5 m fully assembled and ready for use. The part number for the cable is detailed in Table 4 below. Non-standard lengths are available in increments of 0.5 m.

| Part Number   | Length | Description      |
|---------------|--------|------------------|
| TC-003-02-2m5 | 2.5 m  | Power Cable      |
| TC-003-03-2m5 | 2.5m   | Power Cable (UL) |

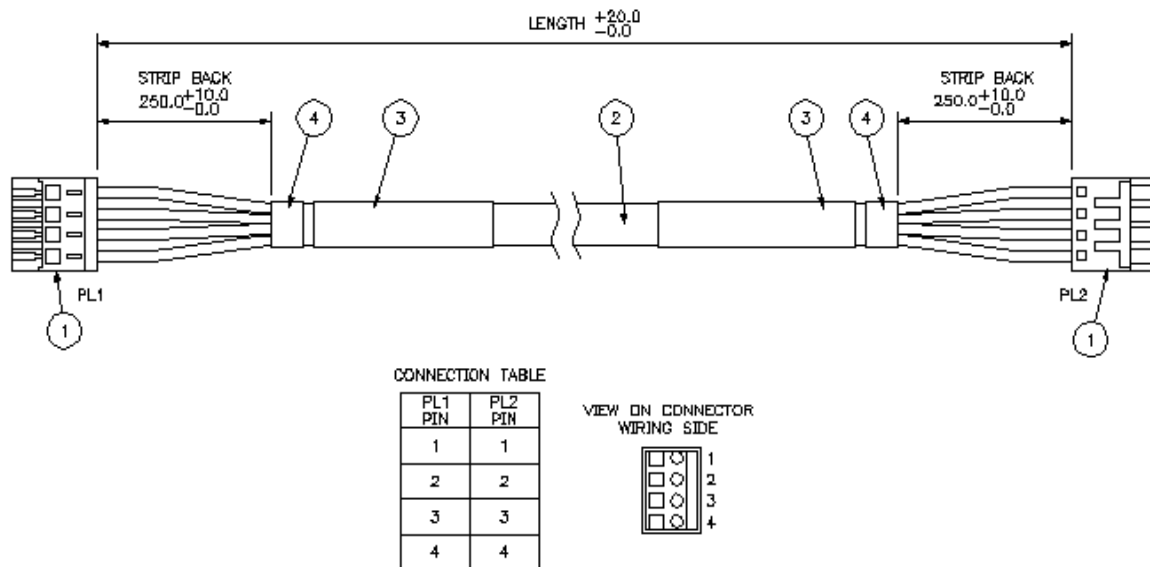
Table 4 Power Cable Type TC-003 Part Numbers



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## 4. Power Cable Type TC-004

This type of Power Cable is used to connect from a Power Distribution Module 15-Way Fused (T8293) to an Input VFTA, as shown in Figure 4 below.



**Figure 4 Power Cable Type TC-004**

Currently, the cable is available in a standard length of 2.5 m fully assembled and ready for use. The part number for the cable is detailed in Table 5 below. Non-standard lengths are available in increments of 0.5 m.

| Part Number   | Length | Description      |
|---------------|--------|------------------|
| TC-004-02-2m5 | 2.5 m  | Power Cable      |
| TC-004-03-2m5 | 2.5 m  | Power Cable (UL) |

**Table 5 Power Cable Type TC-004 Part Numbers**

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## 5. Power Cable Type TC-006

This type of Power Cable is used to interconnect expanders in a system using SmartSlot, as shown in Figure 5 below.

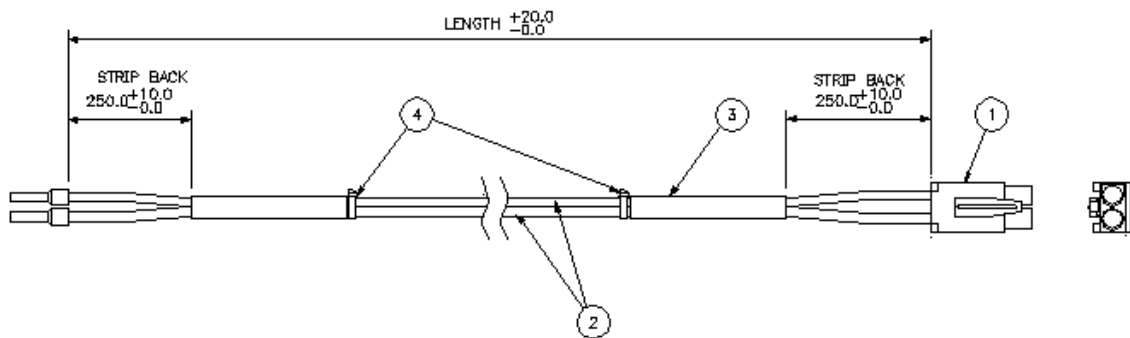


Figure 5 Power Cable Type TC-006

Currently, the cable is available in a standard length of 2.5 m fully assembled and ready for use. These are detailed in Table 6 below. Non-standard lengths are available in increments of 0.5 m.

| Part Number   | Length | Description      |
|---------------|--------|------------------|
| TC-006-02-2m5 | 2.5 m  | Power Cable      |
| TC-006-03-2m5 | 2.5 m  | Power Cable (UL) |

Table 6 Power Cable Type TC-006 Part Numbers

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## 6. Power Cable Type TC-011

This type of Power Cable is used to connect from a Power Distribution Unit MCB (T8292) to a Fan Assembly (T8270), and is shown in Figure 6 below.

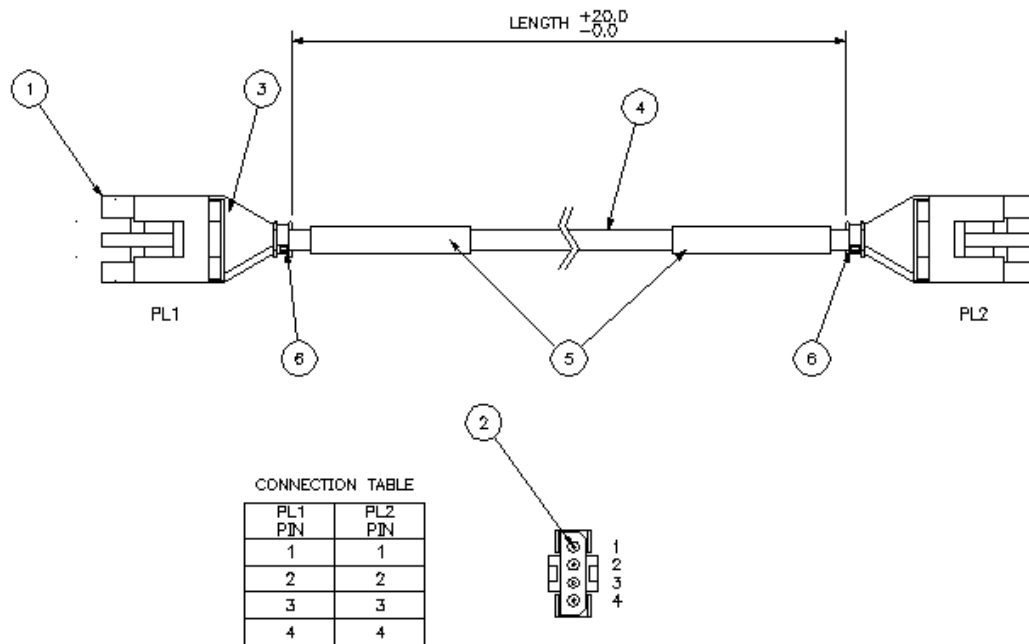


Figure 6 Power Cable Type TC-011-0X

Currently, the cable is available fully assembled and ready for use in three standard lengths. These are detailed in Table 7 below. Non-standard lengths are available in increments of 0.5 m.

| Part Number   | Length | Description          |
|---------------|--------|----------------------|
| TC-011-02-1m5 | 1.5 m  | Fan Power Cable      |
| TC-011-02-4m5 | 4.5 m  | Fan Power Cable      |
| TC-011-02-6m0 | 6.0 m  | Fan Power Cable      |
| TC-011-03-1m5 | 1.5 m  | Fan Power Cable (UL) |
| TC-011-03-4m5 | 4.5 m  | Fan Power Cable (UL) |
| TC-011-03-6m0 | 6.0 m  | Fan Power Cable (UL) |

Table 7 Power Cable Type TC-011 Part Numbers