



Product Catalog

# Trane Rental Services

Electrical Cable — for use in Canada





# Introduction

Read this manual thoroughly before operating or servicing this unit.

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## General Information

Trane Rental Services offers two different sizes of electrical cable to rent for customers with temporary equipment needs. The three different sizes are 2 awg and 4/0 awg cable. Trane provides various cable lengths and connections to support consistent and rapid deployment of equipment for temporary applications. The electrical cable is intended for connecting the temporary equipment to a buildings electrical supply, generator, or a transformer.

Trane disclaims liability for damages and costs resulting from third party failure to follow the instructions in this bulletin.



# Model Number Description

## Electrical Cable Box Nomenclature

### Digit 1, 2

CS = Rental Services

### Digit 3, 4

CE = Electrical Cable

### Digit 5, 6, 7, 8

00xx = 100-ft Distance

50xx = 50-ft Distance

xx40 = 4/0 Cable

### Digit 9, 10

F1 = 2 x 50-ft Sections of Cable

### Digit 11, 12, 13

AAA = Unique Asset Identifier for Rental Services

## Unit Dimensions and Weights

- Each box is labeled with a placard or stenciled with the unique inventory number (including the electrical cable size).
- All cable sizes will be marked on the outside of the cable jacket, specified as 4/0 awg cable.
- Each box is designed for easy shipping and handling to be moved with a fork or pallet truck.
- To avoid potential charges for missing parts when returned, each box should be inspected upon receipt. If parts are missing, notify Trane Rental Services immediately.
- When returning cable boxes at the end of the rental project, put the cable back in each box based on how it was originally shipped. See “,” for reference.

**Table 1. Cable box weights and dimensions**

Box Number	Cable Size	Weight	Length	Width	Height
CSCE5040F____	4/0	421	3 feet 7 inches	2 feet 6 inches	2 feet 6 inches

### **⚠ WARNING**

#### **Heavy Object!**

Failure to follow instructions below could result in death or serious injury, and equipment damage.  
Use a forklift of suitable capacity to move equipment.

**Figure 1. Example of a typical cable box**



## Contents of Electrical Cable Box

**Table 2. CSCE0040F1 contents**

Description	Quantity Color	Weight 4/0 (lbs)
Wire with Series 16 cam-type pin connector x lug/bare wire (plug) 7 ft.	(1) Black	14
	(1) Red	
	(1) Blue	
	(1) Green	
Wire with Series 16 cam-type receptacle connector x lug/bare wire 7 ft.	(1) Black	14
	(1) Red	
	(1) Blue	
	(1) Green	
Wire with Series 16 cam-type pin and receptacle connector wire 50 ft.	(2) Black	47
	(2) Red	
	(2) Blue	
	(2) Green	

**Notes:**

1. If this box is returned with missing or damaged item(s), a replacement fee will be incurred.
2. If you are missing contents or have damaged items upon delivery inspection, notify Trane Rental Services immediately.

**Table 3. CSCE0040F2 contents**

Description	Quantity Color	Weight 4/0 (lbs)
Wire with Series 16 cam-type pin connector x lug/bare wire (plug) 7 ft.	(1) Black	14
	(1) Red	
	(1) Blue	
	(1) Green	
Wire with Series 16 cam-type receptacle connector x lug/bare wire 7 ft.	(1) Black	14
	(1) Red	
	(1) Blue	
	(1) Green	
Wire with Series 16 cam-type pin and receptacle connector wire 50 ft.	(1) Black	47
	(1) Red	
	(1) Blue	
	(1) Green	

**Notes:**

1. If this box is returned with missing or damaged item(s), a replacement fee will be incurred.
2. If you are missing contents or have damaged items upon delivery inspection, notify Trane Rental Services immediately.

## Unit Dimensions and Weights

**Table 4. 500 ton series trailer box contents**

Description	Quantity Color	Weight 4/0 (lbs)
Wire with Series 16 cam-type receptacle connector x lug/bare wire 7 ft.	(4) Black	14
	(4) Red	
	(4) Blue	
	(2) Green	
Wire with Series 16 cam-type pin and receptacle connector wire 50 ft.	(8) Black	47
	(8) Red	
	(8) Blue	
	(4) Green	

**Notes:**

1. If this box is returned with missing or damaged item(s), a replacement fee will be incurred.
2. If you are missing contents or have damaged items upon delivery inspection, notify Trane Rental Services immediately.

## Banded Electrical Cable Offering

**Table 5. Banded electrical cable offering**

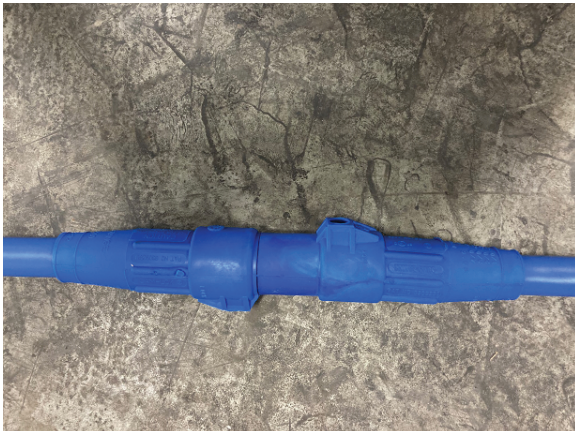
Description	Quantity / Color	Weight 2 AWG (pounds)
Banded Wire with Series 16 cam-type pin and receptacle connector wire (25 feet)	Red, Blue, Black, Green	35
Wire with Series 16 cam-type receptacle connector x lug/bare wire (7 feet)	Red, Blue, Black, Green	10
Wire with Series 16 cam-type pin connector x lug/bare wire (7 feet)	Red, Blue, Black, Green	10

**Note:** If this offering is returned with missing or damaged item(s), a replacement fee will be incurred. If you are missing contents or have damaged items upon delivery inspection, notify Trane Rental Services immediately.

## Cam-type Connectors

Each 25 or 50 foot section of cable is supplied with a pin cam-type connector on one end and a receptacle cam-type connector on the other. The cam-type connectors provide quick, easy one-twist connections. Never cut or remove cam-type connectors from ends of the cable.

**Figure 2. Receptacle to pin cam-type connection**



## Pigtail Connectors

Each 4/0 cable box has four pin pigtails and four receptacle pig-tails for non cam-type connections. Banded, 2 awg cable pigtails available upon request. Each pin pigtail has a pin cam-type connector on one end and a barrel lug or bare wire on the other. Each receptacle pigtail has a receptacle cam-type connector on one and a barrel lug or bare wire. The cable end allows for connection into a power distribution panel or non cam-type connector equipment. The corresponding pigtail can then be connected to the standard 25 or 50 foot cam-type connector cable.

**Figure 3. 7-foot pigtail unbanded cable section**



**Figure 4. Banded cable**



**Figure 5. Cam-type connectors with cables connected**



**Figure 6. Cam-type connectors without cables connected**







# Component Specification

## Unbanded Cable

### Electrical Cable

#### Features

- Extra Flexible Class K (ASTM-B) Bare annealed copper stranding
- -45°C (-49° F) to 105°C (194° F), 2000 Volt Rating, flame retardant
- Resistant to oil, water, acid, gas, ozone, cuts, tears and abrasion
- (UL) 2000 volt rating, C(UL) 600 volts continuous use
- Manufactured to (UL) and C(UL) standard 1650
- MSHA Listed
- ROHS Compliant

#### Construction

##### Conductor — (Banded/Unbanded)

- Bare, annealed electrolytic copper
- 30 awg Class K rope lay stranding

##### Dual Insulated Jacketing Technology — (Unbanded)

**Inner Jacket** - A separator of high contrast color is applied between the conductor and outer sheath safety. This provides increased insulation, added flexibility, and allows you to easily identify damage or wear.

**Outer Jacket** - TYPE PPE (FT5) provides oil, water, acid, gas, ozone, resistance, flame retardant, durability and extreme flexibility at all operating temperatures.

Indented into the outer Jacket: (UL) TYPE PPE 90°C DRY 75°C WET SUN RES 2000V

E204219 P-07-KA070022-MSHA AWG 4/0 C(UL) PPC/TPE FT5 90°C SUN RES 600V

Table 6.

Size (awg)	Stranding	Strand Nominal OD	Finished Nominal OD	Weight (lb/ft)
4/0	2109 x 30	0.580	0.965	0.895

## Banded Cable

### Electrical Cable

#### Features

- Extra Flexible Class K (ASTM-B) Bare annealed copper stranding
- -45°C (-49° F) to 105°C (194° F), 2000 Volt Rating, flame retardant
- Resistant to oil, water, acid, gas, ozone, cuts, tears and abrasion
- (UL) 2000 volt rating, C(UL) 600 volts continuous use
- Manufactured to (UL) and C(UL) standard 1650
- MSHA Listed
- ROHS Compliant
- For use in accordance with NEC Article 520, 530, and CEC
- Passes vertical flame test per UL854 (service entrance cable)
- Listed for indoor and outdoor use



## Component Specification

### Construction

#### Conductor

- Bare, annealed electrolytic copper
- 30 awg Class K rope lay stranding

#### Insulated Jacketing Technology

**Outer Jacket** - A water-resistant safety insulator separates the outer sheath, which is composed of a -49°C to +105°C tested to -30°C to +90°C elastomer compound (FT-5). The cable is RoHS compliant and will withstand abrasion, extreme temperatures, and long periods of immersion in water, oil, or acid. It is UL rated at 600 volts for Type SCE and it is C(UL) rated at 600 volts for Type PPC/ TPE.

Indented into the outer Jacket: (UL) TYPE PPE 90°C DRY 75°C WET SUN RES 2000V

E204219 P-07-KA070022-MSHA AWG 4/0 C(UL) PPC/TPE FT5 90°C SUN RES 600V

**Table 7.**

Size (awg)	Stranding	Strand Nominal OD	Finished Nominal OD	Weight (lb/ft)
2	665 (7x95/30)	0.326	0.538	0.295

### Technical Data

Ampacity of Cable Type PPE - Based on Ambient Temperature of 30°C (86°F)

**Table 8. Unbanded cable**

Temperature Rating of Cable			
Size (awg)	60°C (140°F)	75°C (167°F)	90°C (194°F)
4/0	303	358	405

**Table 9. Banded cable**

Temperature Rating of Cable			
Size (awg)	60°C (140°F)	75°C (167°F)	90°C (194°F)
2	142	168	190

The ampacities for single conductors shall be permitted where the individual conductors are not installed in raceways (or buried) and are not in physical contact with each other except in lengths not to exceed 24-inches where passing through the wall of an enclosure.

Reference: CEC Code, Table 12

## Correction Factors

**Table 10. Temperature correction factor**

Ambient Air Temperature (°C)	Correction Factor
10	1.14
20	1.07
30	1.00
40	0.91
50	0.82

**Table 11. Conductor insulation rating correction factor**

Insulated Conductor Temperature Rating (°C)	Correction Factor
60	0.75
75	0.885
90	1.00

**Table 12. Layering correction factor**

Number of Layers of Cable on Drum	Correction Factor
1	0.85
2	0.65
3	0.45
4	0.35

Reference: Correction Factors, CEC Code, Table 12, B.

When considering voltage drop for FLA < 500 Amps, 460V 3 Phase, 0.85 Power Factor, up to 500 feet of rental electrical cable is acceptable.

Contact Trane Rental Services for further details if the application is outside of these parameters.



# Installation

This section provides the proper installation of electrical cable as part of a Trane Rental Services.

## ⚠ WARNING

### Live Electrical Components!

Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

When it is necessary to work with live electrical components, have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks.

## ⚠ WARNING

### Electrical Shock Hazard!

Failure to follow instructions below could result in death or serious injury. Exposure to water could result in death or serious injury.

Protect controls from exposure to water. Do not allow water to drip on the ignition system.

## ⚠ WARNING

### Conform to All Applicable National, State, and Local Electrical Codes!

Failure to follow all applicable codes could result in an arc flash event, electrocution, explosion, or fire, which could result in death or serious injury.

Users **MUST** conform to all applicable national, state, and local electrical codes during the electrical installation and servicing of this product.

1. Confirm cable box contents is accounted for upon arrival and inspect cable for nicks, cuts, burns, and damaged cam-type connectors upon arrival and prior to use. Notify Trane Rental Services if there are missing or damaged cable(s).

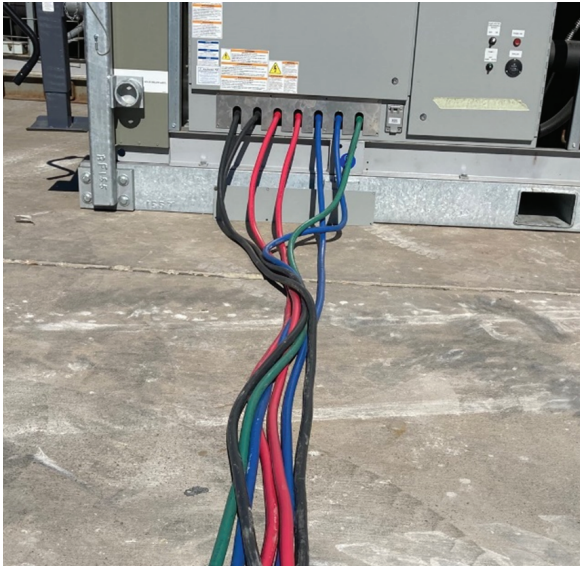
**Important:** Do not cut or remove cam-type connectors from ends of the cable. If the cable is cut or cam-type connectors removed, the customer will be responsible for any charges related to replacement of the cable.

2. Lay all cables flat to the ground, leaving a 1-inch space on all sides to allow the heat the cable generates to dissipate. Do not coil or pile up the cable. This will cause extra heat that can melt or damage the cable. See [Figure 7, p. 14](#) and [Figure 8, p. 15](#).

**Figure 7. Correct installation - properly spaced cable**



**Figure 8. Incorrect installation - cable is not spaced out**



- Cable should not be submerged in any fluid. In cases where cable will run through potential waterways, elevate it with open air cable trays or equivalent. Reference [Figure 9, p. 15](#).

**Figure 9. Incorrect installation - submerged cable**



- Maintain vegetation to avoid contact with cable.
- Do not install cable in raceways (or buried).
- Cable should not come into contact except in lengths (not to exceed) 24 inches where passing through the wall of an enclosure. Not adhering to this will de-rate the cable ampacity and could cause damage to the cable and the equipment. Cable ampacity is rated for free air.
- Connectors must be twisted and engaged fully to avoid increased resistance and heat buildup inside the connector. Connectors must be rotated 180° opposite of each other once connected to ensure proper seating. See .
- Periodically scan cable using a thermal infrared camera to identify hot spots, especially in connections. Perform these scans when chillers are operating near full load. If a hot-spot is found, take immediate action.
- Some rental equipment requires multiple wires per phase. Confirm the number of wires per phase will handle the required amps of the rental equipment.
- Any exceptions to the guidelines established in this bulletin must be authorized in writing by Trane Rental Services. For additional questions, contact Trane Rental Services.

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