



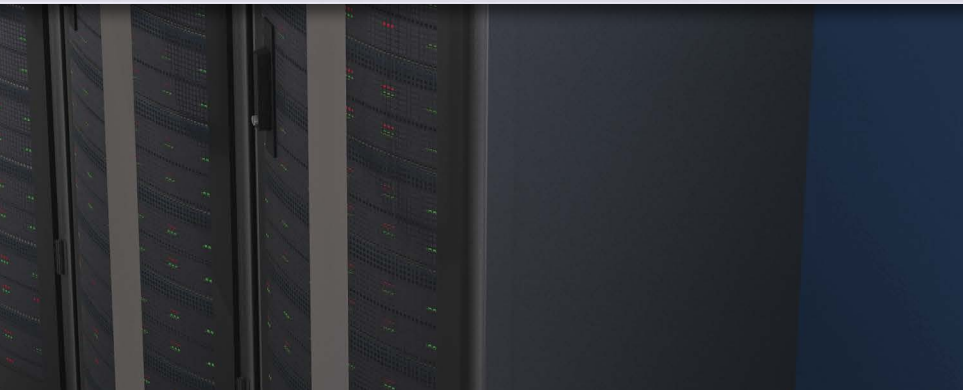
 **newenglandlab®**
lab-tested furniture systems

888.635.2080 | newenglandlab.com

Baltimore • Boston • Raleigh • Richmond

STARLINE®
TRACK BUSWAY

Product Selection Guide: T3 Series- 100 & 225 Amps



INTRODUCTION & SPECS

Specs

This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway). The system shall be designed primarily for overhead distribution of electrical power; supporting designated work areas and equipment. Once installed the Busway will provide a simple, versatile, fast and economic means of distributing power. Loads fed from a variety of plug-in units can be easily added or removed without shutting power down to the busway.

The Track Busway shall be designed and manufactured to the following standards:

1. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelfth edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
2. Low Voltage Switchgear and Controlgear Assemblies, Part 1: Type Tested and partially type tested Assemblies, IEC 61439-1 & IEC 61439-6.

*All standards and certifications available upon request

Introduction

Universal Electric Corporation (UEC) is the leader in electrical power distribution in the mission critical, commercial and light industrial industries with STARLINE Track Busway. This system was designed to meet the rugged specification of the UL857, Busway and Associated Fittings, with the flexible features of track lighting - and is available in systems with 100 or 225 amps with isolated ground.

Track Busway is the simple, versatile, fast and economical solution for supplying power to electrical loads and is unique because the busway can be instantly tapped at any location, with a variety of plug-in units.

The Product Selection Guide was developed to help the design engineer understand and consider all of the options available with STARLINE Track Busway when designing a system.

This guide is all-inclusive; however, UEC excels at collaborating with design engineers to provide solutions for any application. If you have a need that is not found in this guide, please contact us at **1-800-245-6378** or email us at **info@uecorp.com**. We will be happy to answer your questions over the telephone or schedule a visit with one of our local representatives.

Also, if viewing this guide in print, please keep in mind that this is a working document. UEC reserves the right to change information and descriptions of listed services and products. The latest version of this guide is available for download at downloads.uecorp.com/starline/busway/.

TABLE OF CONTENTS

SYSTEM LAYOUT DRAWING.....3.3
 GROUND OPTIONS.....3.4
 POLARITY TIPS.....3.5
 SYSTEM LAYOUT TIPS.....3.6
 COMPONENT RELATIONSHIP TIPS.....3.7

100T3 Systems

STRAIGHT SECTIONS.....3.8
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....3.9
 ELBOW SECTIONS.....3.10
 ELBOW SECTIONS: PRODUCT NUMBERS.....3.11
 TEE SECTIONS.....3.12
 TEE SECTIONS: PRODUCT NUMBERS.....3.13
 END FEED UNITS.....3.14
 END FEED UNITS: METERING.....3.15
 END FEED UNITS: PRODUCT NUMBERS.....3.16
 ABOVE FEED UNITS.....3.17
 ABOVE FEED UNITS: PRODUCT NUMBERS.....3.18

225T3 Systems

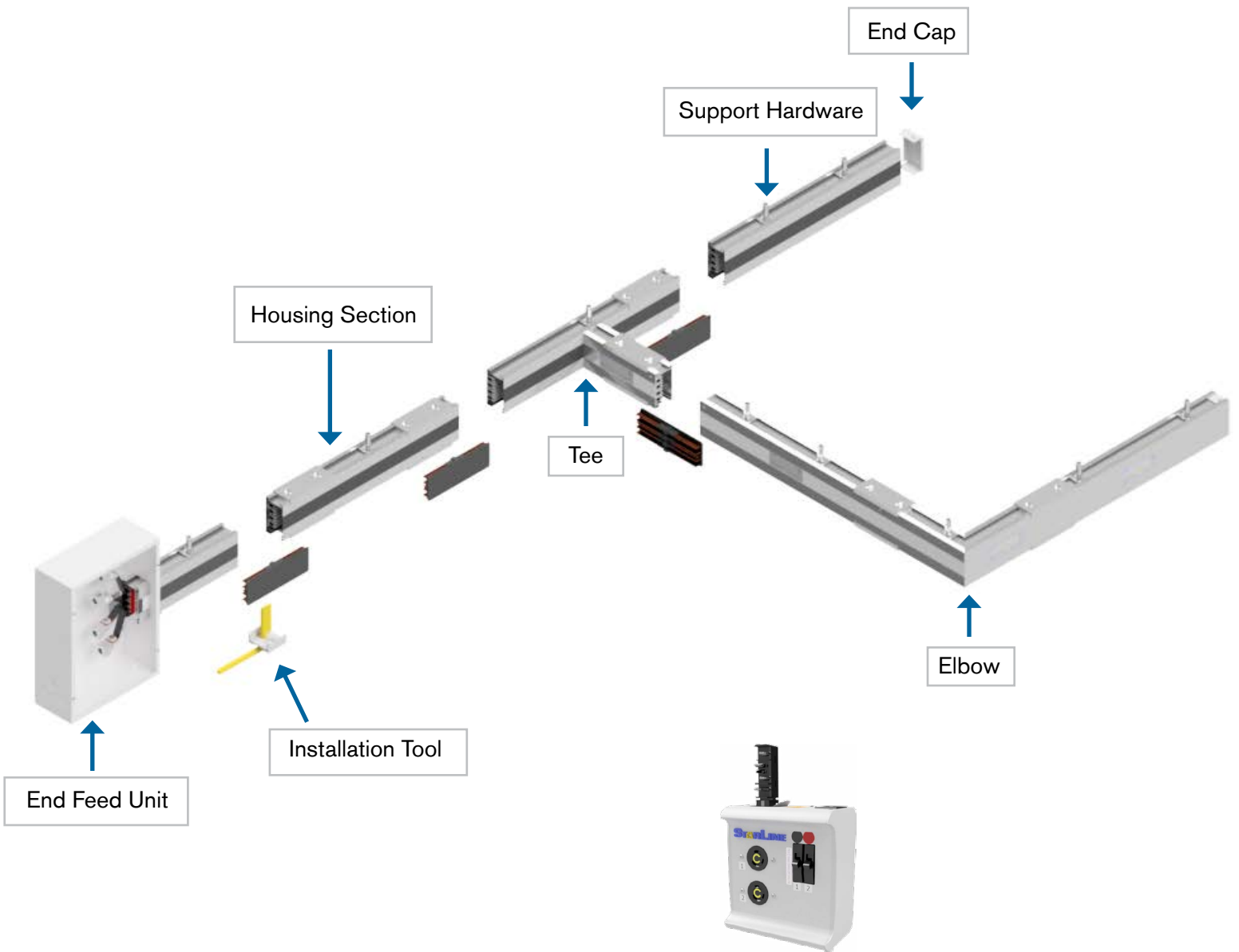
STRAIGHT SECTIONS.....3.19
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....3.20
 ELBOW SECTIONS.....3.21
 ELBOW SECTIONS: PRODUCT NUMBERS.....3.22
 TEE SECTIONS.....3.23
 TEE SECTIONS: PRODUCT NUMBERS.....3.24
 END FEED UNITS.....3.25
 END FEED UNITS: METERING.....3.26
 END FEED UNITS: PRODUCT NUMBERS.....3.27
 ABOVE FEED UNITS.....3.28
 ABOVE FEED UNITS: PRODUCT NUMBERS.....3.29

RAL Colors.....3.30

ACCESSORIES: SUPPORT HARDWARE.....3.31
 ACCESSORIES: SUPPORT HARDWARE.....3.32
 ACCESSORIES: SUPPORT HARDWARE.....3.33
 ACCESSORIES: CONNECTION HARDWARE.....3.34
 ACCESSORIES: INSTALLATION TOOL.....3.35

SERVICES.....3.36

SYSTEM LAYOUT DRAWING



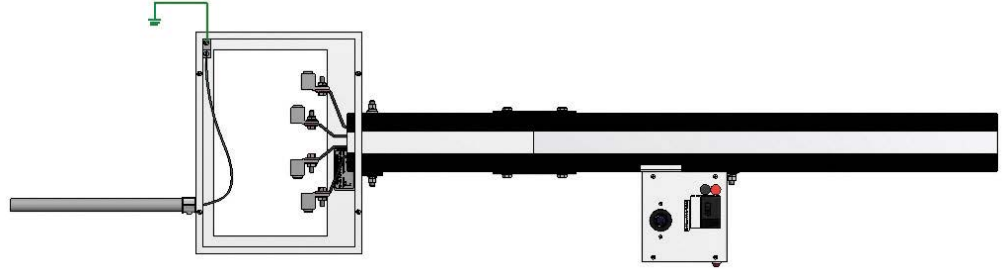
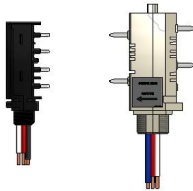
Plug-In Unit example:

For further information on plug-in unit options, please visit the Plug-In Units section

GROUND OPTIONS

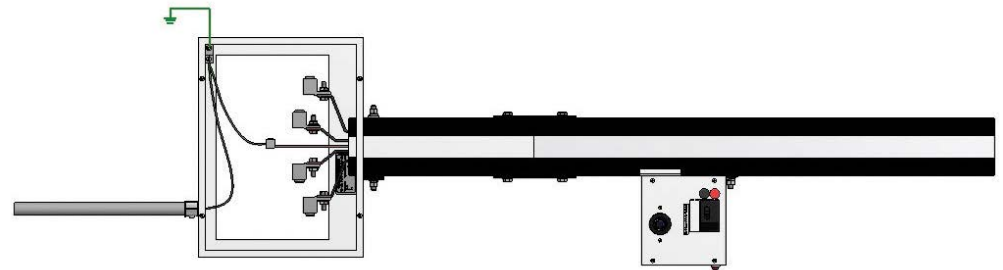
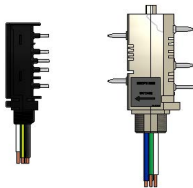
Case Ground/Chassis Earth

Uses aluminum housing and no extra copper bar.



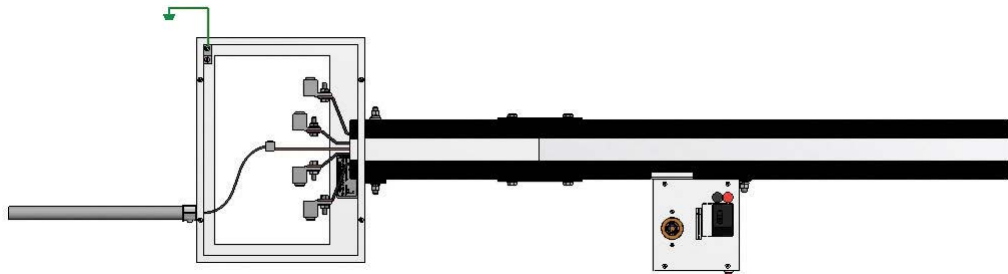
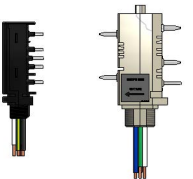
Dedicated Ground/Earth

Extra bar in busway for ground. Everything tied together inside plugs. Bar and housing at same potential.



Isolated Ground/Earth

Orange receptacles in plugs. Case ground isolated from copper ground bar. Isolated ground carried back to panel by others.



*U.S.: For further details about Dedicated Ground vs. Isolated Ground, please reference our “Isolated Ground vs. Dedicated Ground” tech brief on <http://downloads.uecorp.com/starline/>

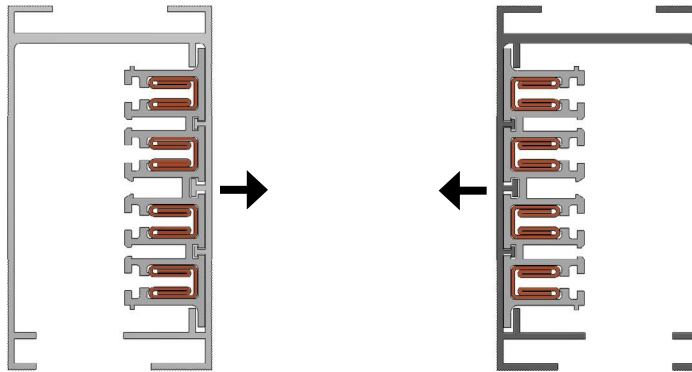
*International: For further details about Dedicated Earth vs. Isolated Earth, please reference our “Metric: Isolated Earth (IG) vs. Dedicated Earth (DG)” tech brief on <http://downloads.uecorp.com/starline/>

POLARITY TIPS

STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

It is particularly important to understand this design concept prior to ordering and/or installing some components.

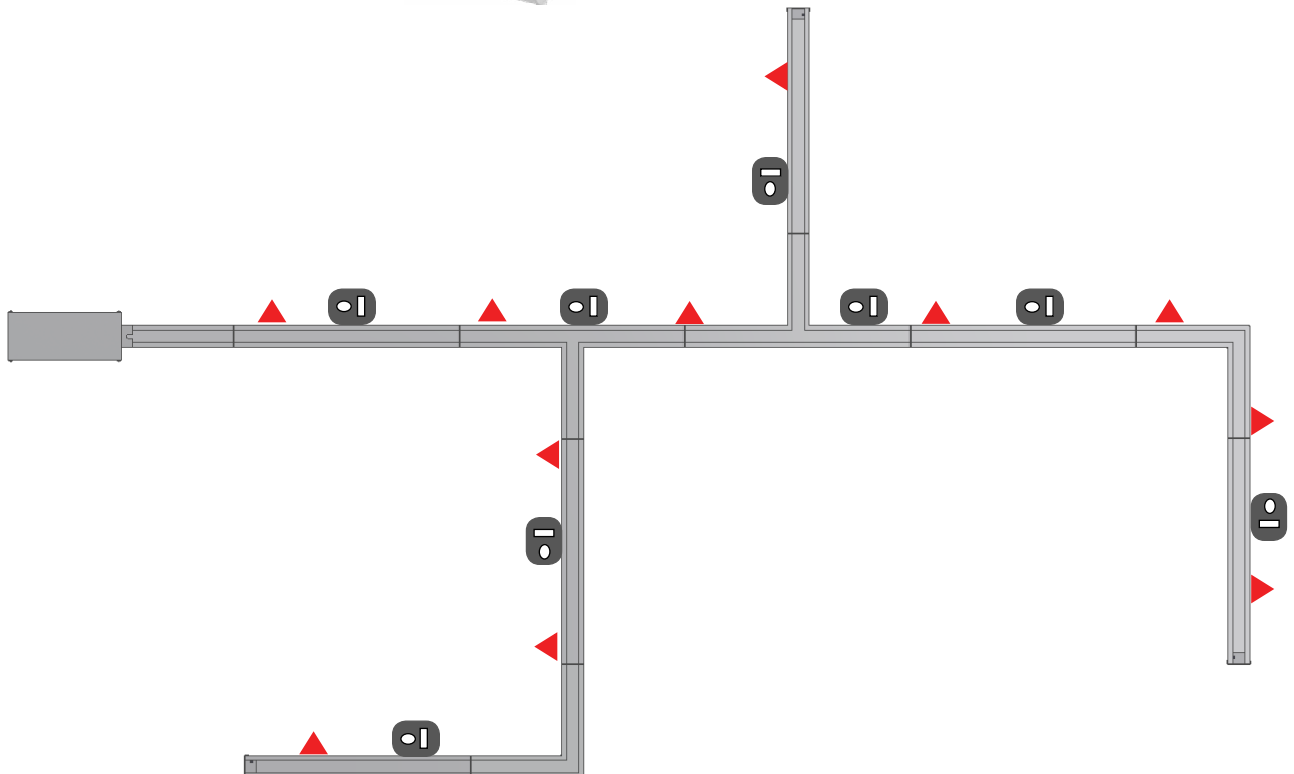
For example, if the face direction of a STARLINE plug-in unit is important in your installation consider that they will always face the conductor side. Certain plug-in units are 'reversible', designated by 'R', to face devices away from the conductor side.



All standard outlet boxes face the conductor side unless reversed plugs are specified



Polarizing Strip = ▲
 Plug-In Unit Front-Facing Direction = ◻◐



SYSTEM LAYOUT TIPS

Power Feeds

Determine location of power feeds based on relation to power source, existing feeders and voltage drop concerns for longer runs.

Support Hardware

Support hardware is spaced no more than 10 ft. (3m) apart. Refer to page 3.31 for support hardware details. Contact your local Starline applications engineer for any questions.

Installation

Printed installation drawings are supplied with each system shipment and they are also available for download online at <http://downloads.uecorp.com/starline/busway/>. CAD files of these drawings are also available by contacting your local Starline applications engineer.

Busway Housing Sections

Standard Busway lengths are available in 5 ft (1.5m) 10 ft (3m) and 20 foot (6m) increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet (6m), it is highly recommended to keep all layout runs in increments of 5 feet (1.5m) to simplify layout and installation. Custom lengths can be made but can increase lead time and make layout and installation a bit more complex.

Busway Tees and Elbows Sections

Try to keep all runs as straight as possible as tees and elbows are added cost. Pay close attention to polarity on the elbows. The polarity will need to match the adjacent busway section(s) to be compatible.

Length of Busway for a One Volt Drop in Line to Line Voltage:

SYSTEM DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF Single Phase	VOLTAGE DROP @ 0.8 PF Three Phase
100T3 (standard)	100 amps	42 Ft. (12.8m)	72 Ft. (22m)
225T3 (standard)	225 amps	28 Ft. (8.5m)	48 Ft. (14.6m)

COMPONENT RELATIONSHIP TIPS

When ordering material, it is important to understand the relationship between various components.

Examples:

- Each piece of housing (straights and elbows) requires a joint kit (containing two housing couplers and one bus connector). Determine the total number of housing sections (regardless of length) as this becomes the number of joint kits that will be needed.
 - Add one extra joint kit for each tee section
- If this is your first installation for 100T3 or 225T3 systems, you will need to order an Installation Tool (ST3IT).
- General support hardware rule to follow:

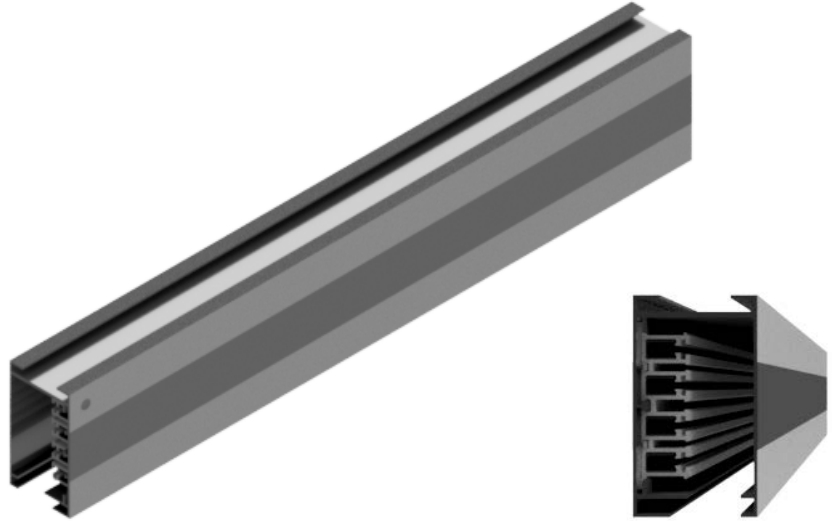
10 ft (3m) maximum spacing between supports and we recommend 10% more than the required quantity to cover potential layout changes.

- Total Power Feeds and End Caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering elbow or tee connectors, it is important to understand polarity and the relationship to direction of outlets. Please refer to pg. 3.5 Polarity Tips for more detail.

STRAIGHT SECTIONS

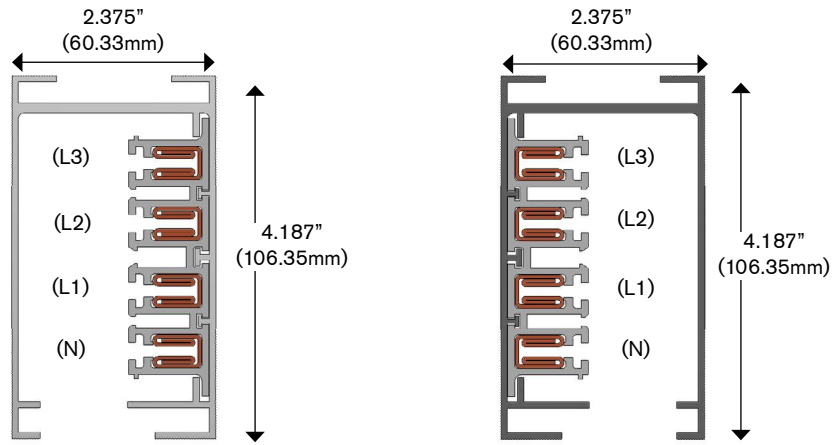
Product Description

Track Busway straight section consists of an extruded aluminum shell with channel type solid copper busbars contained in a full length insulator mounted on one side of the interior wall. Each straight has an open access slot over its entire length for the insertion of turn-n-lock plug-in units. Housing configuration is 4 pole, 600 Volt for U.S. systems, and 4 pole, 415 Volt for metric systems (IEC). Busway joint connections are made using a joint kit, which includes a housing coupler and bus connector. An installation tool is used to insert the bus connector in between the busbar channels of the two sections for a solid spring-tempered electrical connection. A housing coupler is then used to make a solid mechanical connection.

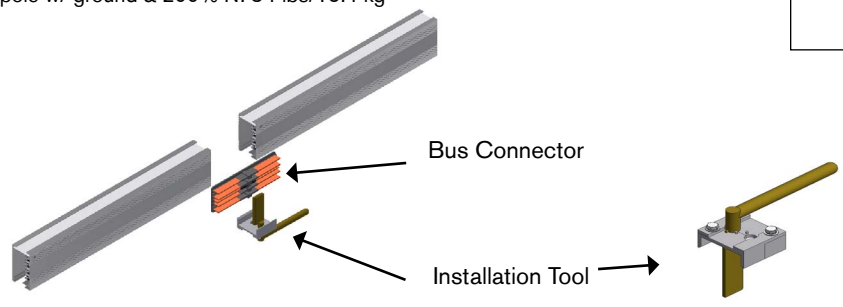


- MATERIAL:** Extruded Aluminum
- RATINGS:** 100% Ground Path
U.S: 100 Amp, 600 Volt
Metric: 100 Amp, 415 Volt
- LENGTH:** 5 Ft (1.5m), 10 Ft (3m), 20 Ft. (6m); or custom lengths between 2 - 20 Ft. (1.5 - 6m)
- VOLTAGE DROP:** distributed load
Single Phase 1V per 54ft (16.5m) (.8PF)
Three Phase 1V per 62ft (19m) (.8PF)

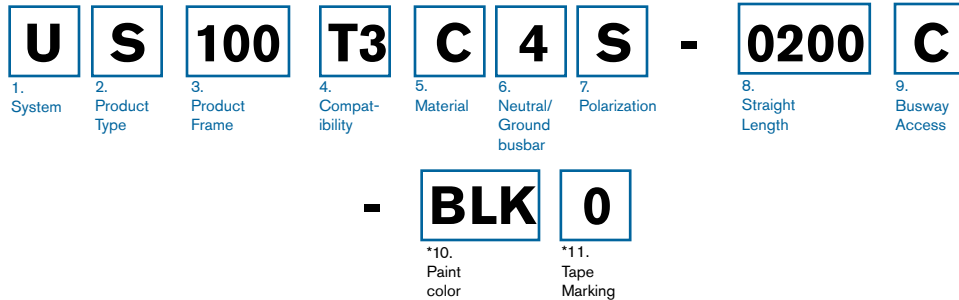
- WEIGHT:**
- 10 ft. (3m) 4 pole: 26 lbs/11.8 kg
- 10 ft. (3m) 4 pole w/ ground: 30 lbs/13.6 kg
- 10 ft. (3m) 4 pole w/ 200% N: 33 lbs/15 kg
- 10 ft. (3m) 4 pole w/ ground & 200% N: 34 lbs/15.4 kg



US		Metric	
L1 or Phase A		L1 or Phase A	
L2 or Phase B		L2 or Phase B	
L3 or Phase C		L3 or Phase C	
Neutral		Neutral	
Ground		Ground	



STRAIGHT SECTIONS: PRODUCT NUMBERS



*Optional
**RAL (please see page 3.30)

1. System (standard of measure)
U U.S. **M** Metric

2. Product Type (section component)
S Straight section

3. Product Frame (maximum amperage)
100 100 amps

4. Compatibility (frame compatibility)
T3 T3 systems

5. Material (busbar material)
C Copper

6. Neutral/Ground Busbar (size of neutral busbar and/or ground)

4 3 Phase plus Neutral	G 3 Phase plus Neutral plus Internal Ground Conductor
N 3 Phase plus 200% Neutral	F 3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)
S Standard

8. Straight Length (length of section)
XXYY XX = feet, YY = inches (for U.S.)
MXYY X = meters, YY = centimeters (for Metric)

9. Busway Access (how plugs access the busway)
C Continuous

***10. Paint Color (allows painting of the busway housing)**

000 None	RED Paint UEC Red
BLK Paint UEC Black	BLU Paint UEC Blue
WHT Paint UEC White	

**RAL system can also be used; reference page 3.30

***11. Tape Marking (allows colored tape on the polarizing strip side of busway housing)**

0 None	6 Tape UEC Red
3 Tape UEC Black	7 Tape UEC Blue
4 Tape UEC White	

Examples:

US100T3C4S-0206C = US, Straight section, 100 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- 2ft. 6in., Continuous access

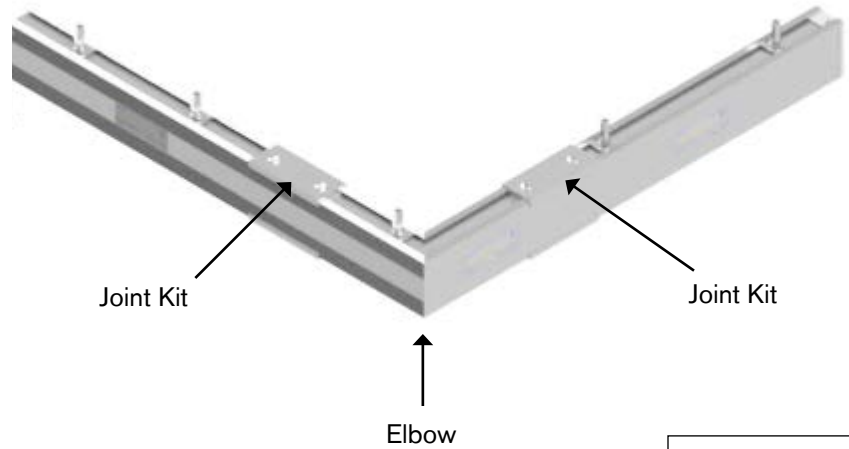
MS100T3CNS-M600C-P013 = Metric, Straight section, 100 amps, T3, Copper conductor, 3 Phase plus 200% Neutral, Standard polarization- 6m, Continuous access- RAL 1001, black tape


ELBOW SECTIONS

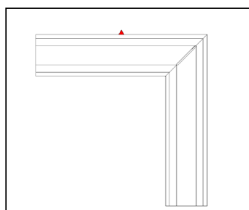
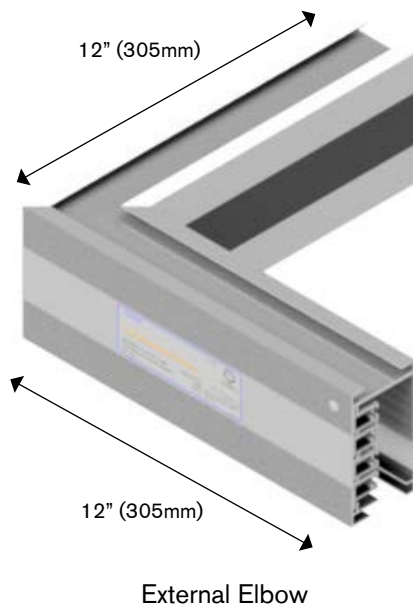
Product Description

Elbows are used for making a 90 degree in a Busway run. Horizontal and vertical elbows are available. Specify external or internal elbow according to the orientation of the busbars in the Busway sections to be connected. Elbow sections are connected to adjacent Busway sections using an installation tool and joint kit that includes a housing coupler and bus connector (ordered separately). This handles both the mechanical and electrical connection between a straight section and elbow section of busway.

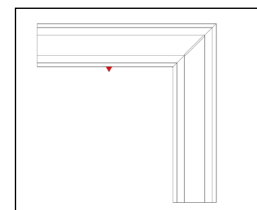
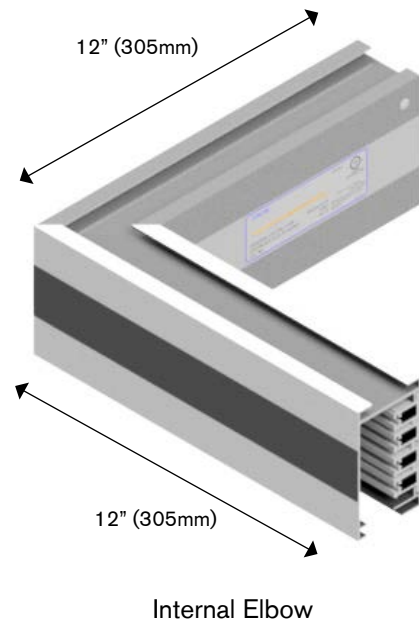
WEIGHT: 5.6 lbs (2.5 kg)



 = Polarizing Strip

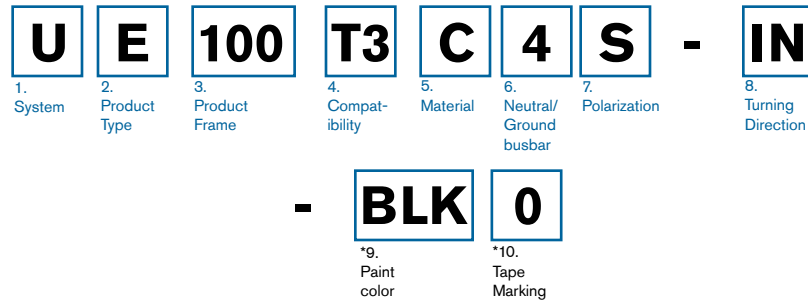


External Elbow



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



*Optional
**RAL (please see page 3.30)

1. System (standard of measure)	
U U.S.	M Metric
2. Product Type (section component)	
E Elbow section	
3. Product Frame (maximum amperage)	
100 100 amps	
4. Compatibility (frame compatibility)	
T3 T3 systems	
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)	
4 3 Phase plus Neutral	G 3 Phase plus Neutral plus Internal Ground Conductor
N 3 Phase plus 200% Neutral	F 3 Phase plus 200% Neutral plus Internal Ground Conductor
7. Polarization (orientation of section for mating purposes)	
S Standard	
8. Turning Direction (direction of section polarizing strip)	
IN Internal	EX External

*9. Paint Color (allows painting of the busway housing)			
000	None	RED	Paint UEC Red
BLK	Paint UEC Black	BLU	Paint UEC Blue
WHT	Paint UEC White		
**RAL system can also be used; reference page 3.30			

*10. Tape Marking (allows colored tape on the polarizing strip side of busway housing)			
0	None	6	Tape UEC Red
3	Tape UEC Black	7	Tape UEC Blue
4	Tape UEC White		

Examples:

UE100T3C4S-IN-BLK4 = US, Elbow section, 100 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal- painted black, white tape
ME100T3CNS-EX = Metric, Elbow section, 100 amps, T3, Copper conductor, 3 Phase plus 200% Neutral, Standard polarization- External

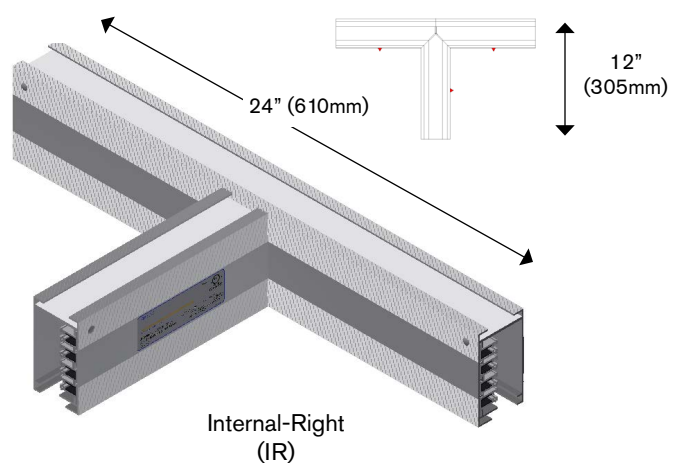
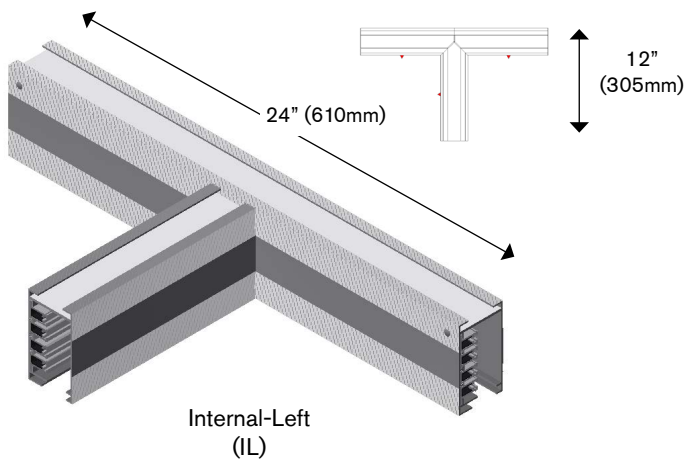
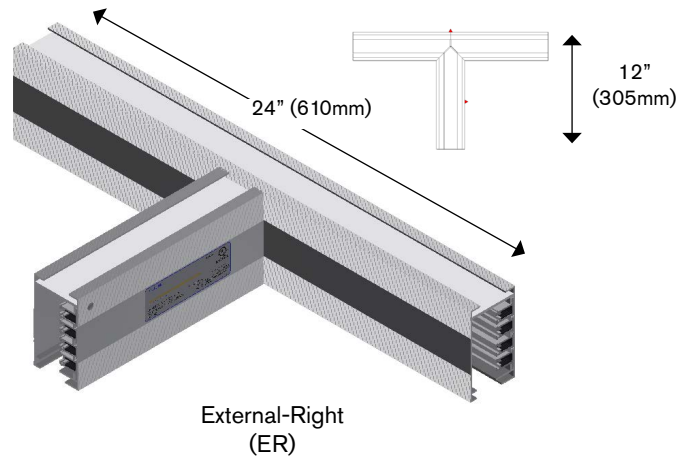
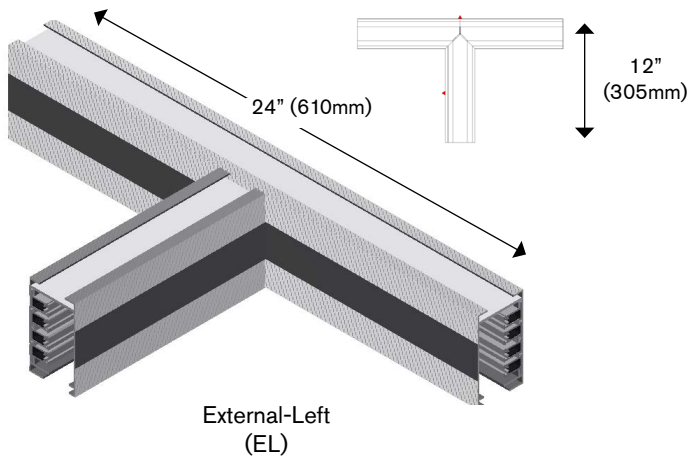
TEE SECTIONS

Product Description

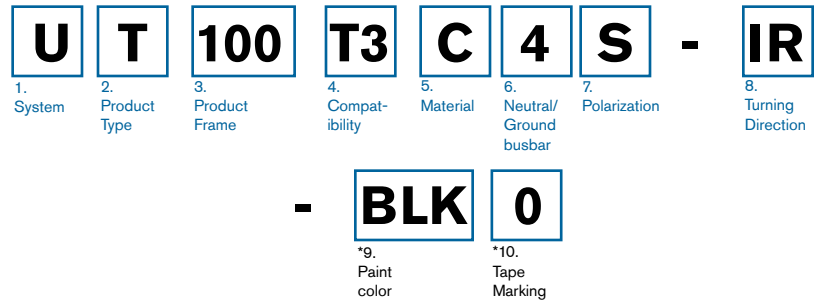
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent Busway sections using an installation tool and joint kit that includes a housing coupler and bus connector (ordered separately). This handles both the mechanical and electrical connection between a straight section and tee section of busway.

WEIGHT: 8 lbs (3.6 kg)

▲ = Polarizing Strip



TEE SECTIONS: PRODUCT NUMBERS



*Optional
**RAL (please see page 3.30)

1. System (standard of measure)
U U.S. **M** Metric

2. Product Type (section component)
T Tee section

3. Product Frame (maximum amperage)
100 100 amps

4. Compatibility (frame compatibility)
T3 T3 systems

5. Material (busbar material)
C Copper

6. Neutral/Ground Busbar (size of neutral busbar and/or ground)

4 3 Phase plus Neutral	G 3 Phase plus Neutral plus Internal Ground Conductor
N 3 Phase plus 200% Neutral	F 3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)
S Standard

8. Turning Direction (direction of section polarizing strip)

IL Internal-Left	EL External-Left
IR Internal-Right	ER External-Right

***9. Paint Color (allows painting of the busway housing)**

000 None	RED Paint UEC Red
BLK Paint UEC Black	BLU Paint UEC Blue
WHT Paint UEC White	

**RAL system can also be used; reference page 3.30

***10. Tape Marking (allows colored tape on the polarizing strip side of busway housing)**

0 None	6 Tape UEC Red
3 Tape UEC Black	7 Tape UEC Blue
4 Tape UEC White	

Examples:

UT100T3C4S-IR-REDO = US, Tee section, 100 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal-Right- painted red, no tape marking
MT100T3CGS-EL = Metric, Tee section, 100 amps, T3, Copper conductor, 3 Phase plus neutral plus internal ground conductor, Standard polarization- External-Left

END FEED UNITS

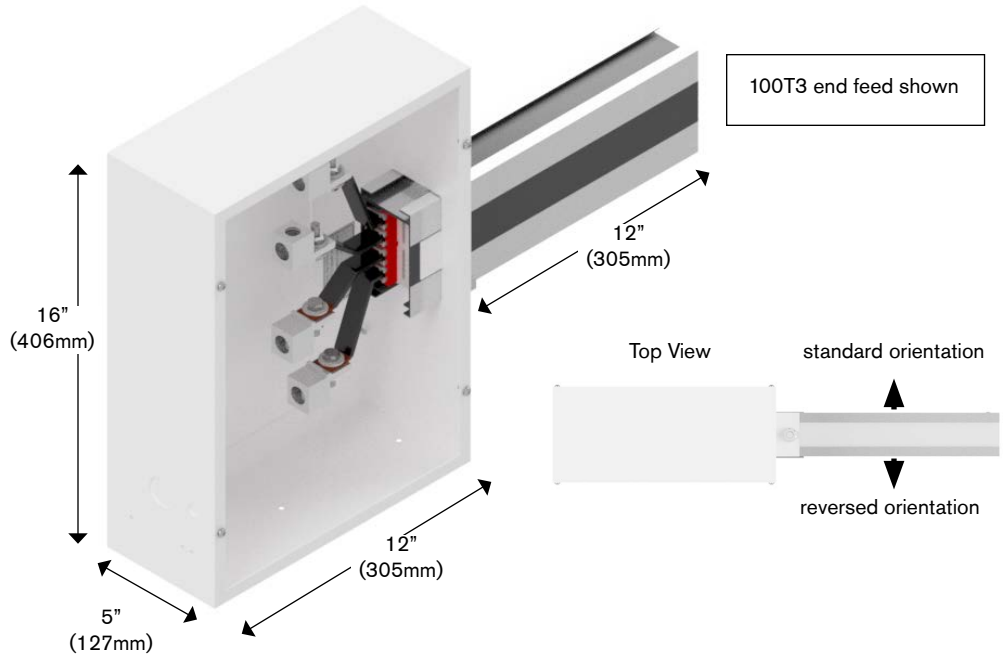
Product Description

End power feed units connect to the end of the Busway. A large size, factory assembled unit consists of a 12 x 16 x 5 in. (305 x 406 x 127mm) steel junction box, with removable sides, connected to a 12 in. (305mm) section of Busway. The assembly includes connection lugs, a ground lug and shrink tubing for wires up to 300 MCM (150mm²).

End power feed units are connected to adjacent Busway sections using an installation tool and housing coupler set (ordered separately).

Special need power feed units for confined spaces as found in mission critical data centers can also be designed and fabricated requiring minimum quantities.

WEIGHT: 17 lbs (7.7 kg)



Infrared (IR) Window options:
Refer to option 10. Accessories Package on pg. 3.16 End Feed Units: Product Numbers

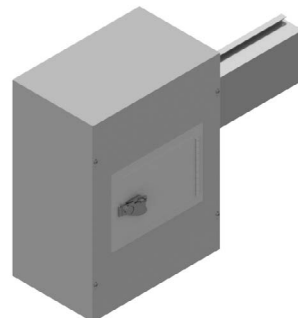
Boxes			
Lugs	Standard	Large	Fused
Standard		L	
Double		A	
Bolt			

Box size and Lug options:
Refer to option 8. Lug/Box Options on pg. 3.16 End Feed Units: Product Numbers

*Isolated or dedicated ground is determined at the feed during installation. For further details about Dedicated Ground vs. Isolated Ground, please reference our tech brief on <http://downloads.uecorp.com/starline/>



Large box with circular IR window



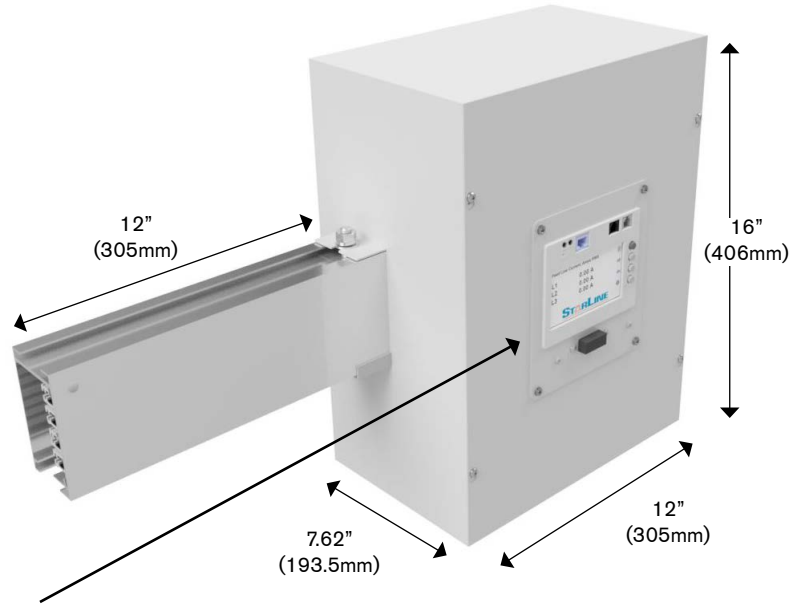
Large box with rectangular IR window

END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the busway. A factory assembled unit consists of a 12 x 16 x 7.62 inch (305 x 406 x 193.5mm) steel junction box, with removable sides, connected to a 12 in. (305mm) section of busway. The assembly includes connection lugs, a ground lug, and shrink tubing for wires up to 300 MCM (150mm²).

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



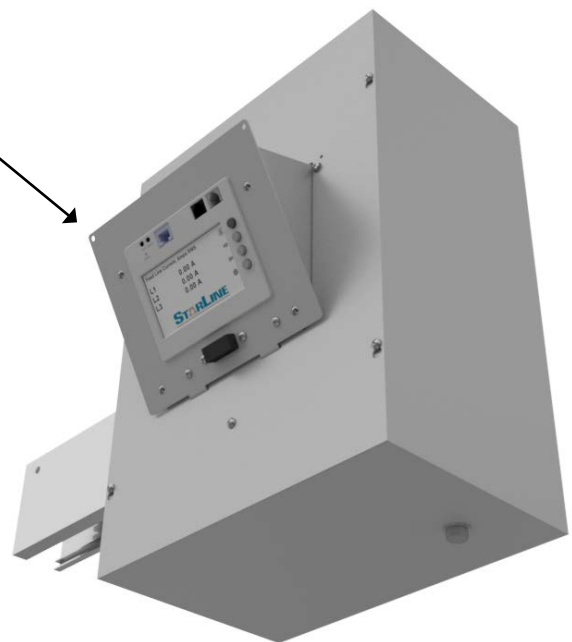
M41D CPM with 4.3 inch (109mm) display and Wi-Fi

Please note: standard depth of an end feed is 5 in (127mm) while the depth of an end feed with meter is 7.62 in (193.5mm). This is because an extender plate is automatically inserted to incorporate the meter.

- End Feed Meter Options:**
- M41** WiFi, ≤415V Y, ≤240V Δ
 - M43** No WiFi, ≤415V Y, ≤240V Δ
 - M45** WiFi, 480V Y, 400V Δ
 - M47** No WiFi, 480V Y, 400V Δ

Y = wye, Δ = delta

M41D CPM with 4.3 inch (109mm) display and Wi-Fi on a 30° angled display



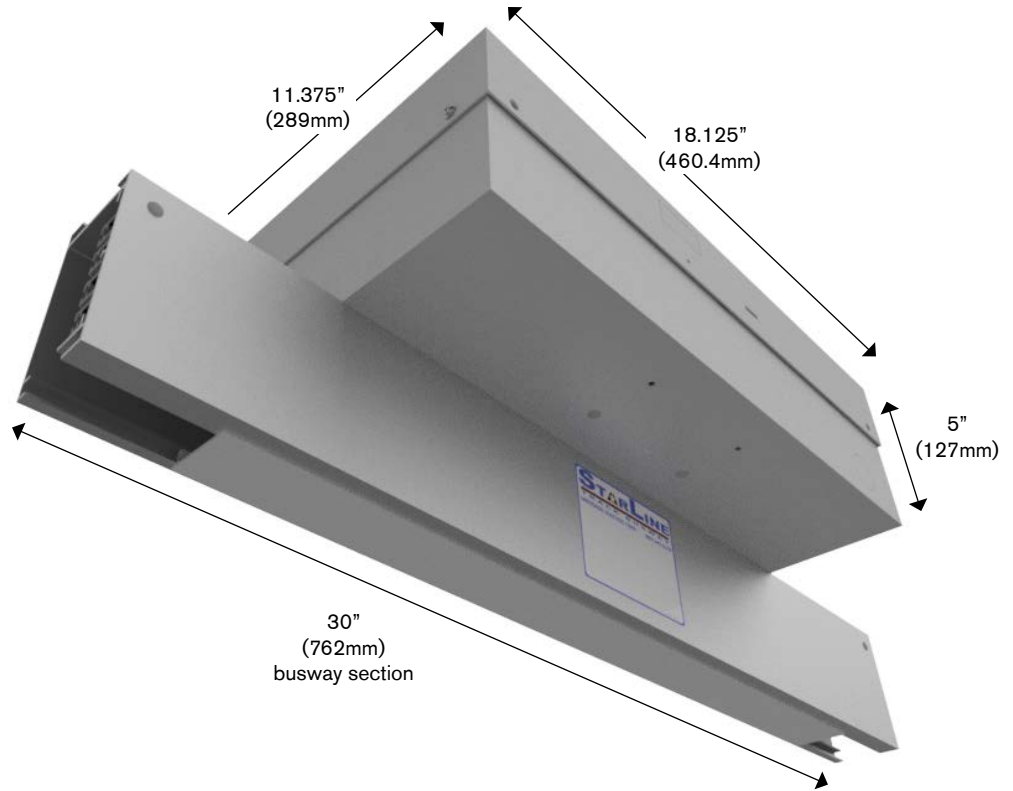
*For additional information on metering options, and for metering accessory options such as IR Windows & Angled Display please visit the separate Metering document found at downloads.uecorp.com/starline.

ABOVE FEED UNITS

Product Description

The above feed power unit comes as a completely pre-wired steel box to the top of a 30" (762mm) section of busway. A connection lug is located inside the box for field termination of supply power cable up to 1/0. This unit is then connected to the end of an adjoining busway section using an installation tool and set of housing couplers (ordered separately).

WEIGHT: 16.5 lbs (7.5 kg)

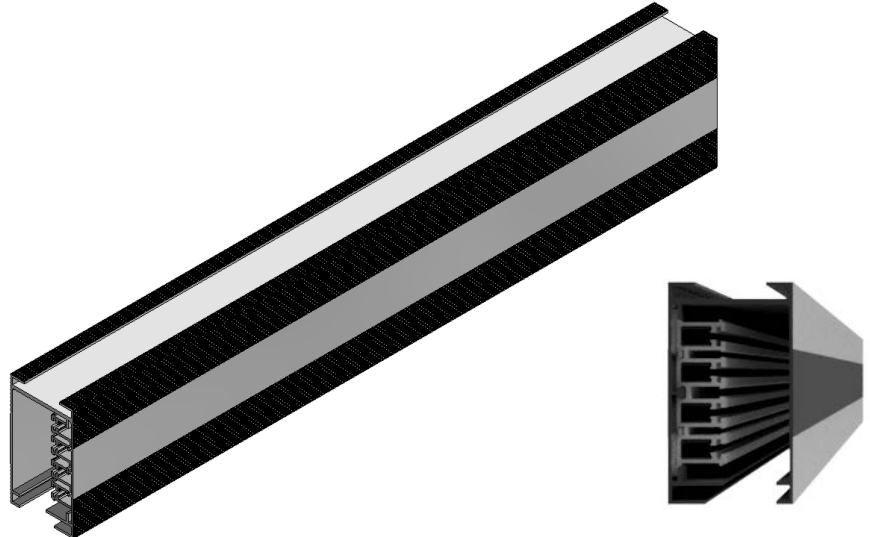


*Isolated or dedicated ground is determined at the feed during installation. For further details about Dedicated Ground vs. Isolated Ground, please reference our tech brief on <http://downloads.uecorp.com/starline/>

STRAIGHT SECTIONS

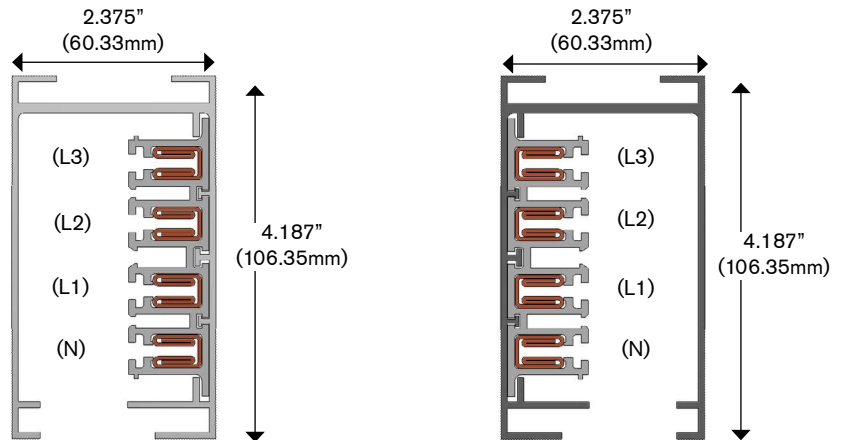
Product Description

Track Busway straight section consists of an extruded aluminum shell with channel type solid copper busbars contained in a full length insulator mounted on one side of the interior wall. Each straight has an open access slot over its entire length for the insertion of turn-n-lock plug-in units. Housing configuration is 4 pole, 600 Volt for U.S. systems, and 4 pole, 415 Volt for metric systems (IEC). Busway joint connections are made using a joint kit, which includes a housing coupler and bus connector. An installation tool is used to insert the bus connector in between the busbar channels of the two sections for a solid spring-tempered electrical connection. A housing coupler is then used to make a solid mechanical connection.

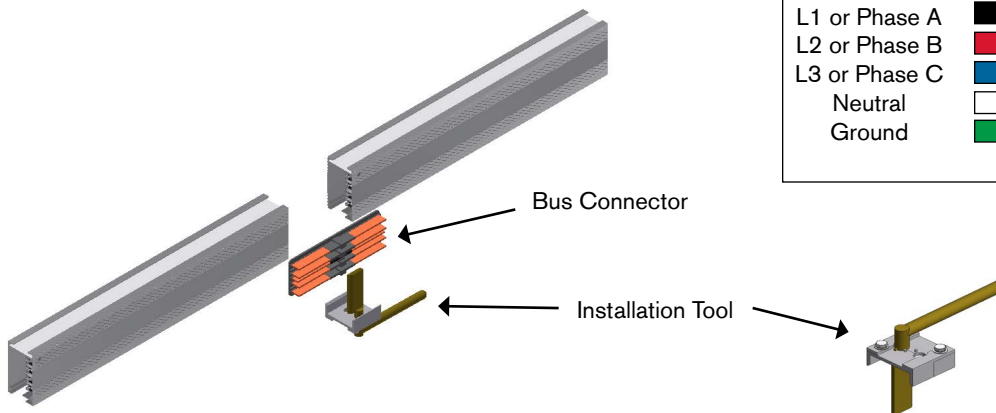


- MATERIAL:** Extruded Aluminum
- RATINGS:** 100% Ground Path
225 Amp, 600 Volt
- LENGTH:** 5 Ft (1.5m), 10 Ft (3m), 20 Ft. (6m); or custom lengths between 2 - 20 Ft. (1.5 - 6m)
- VOLTAGE DROP:** distributed load
Single Phase 1V per 28ft (8.5m) (.8PF)
Three Phase 1V per 48ft (14.6m) (.8PF)

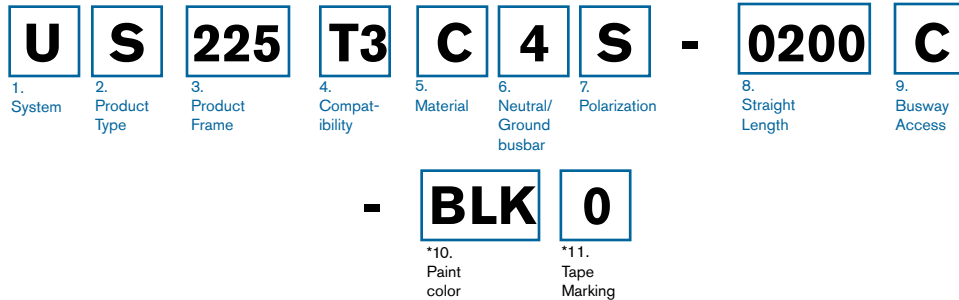
WEIGHT:
10 ft. (3m) 4 pole: 33 lbs/15 kg



US		Metric	
L1 or Phase A		L1 or Phase A	
L2 or Phase B		L2 or Phase B	
L3 or Phase C		L3 or Phase C	
Neutral		Neutral	
Ground		Ground	



STRAIGHT SECTIONS: PRODUCT NUMBERS



*Optional
**RAL (please see page 3.30)

1. System (standard of measure)
U U.S. **M** Metric

2. Product Type (section component)
S Straight section

3. Product Frame (maximum amperage)
225 225 amps

4. Compatibility (frame compatibility)
T3 T3 systems

5. Material (busbar material)
C Copper

6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
4 3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)
S Standard

8. Straight Length (length of section)
XXYY XX = feet, YY = inches (for U.S.)
MXYY X = meters, YY = centimeters (for Metric)

9. Busway Access (how plugs access the busway)
C Continuous

*10. Paint Color (allows painting of the busway housing)
000 None **RED** Paint UEC Red
BLK Paint UEC Black **BLU** Paint UEC Blue
WHT Paint UEC White

**RAL system can also be used; reference page 3.30

*11. Tape Marking (allows colored tape on the polarizing strip side of busway housing)
0 None **6** Tape UEC Red
3 Tape UEC Black **7** Tape UEC Blue
4 Tape UEC White

Examples:

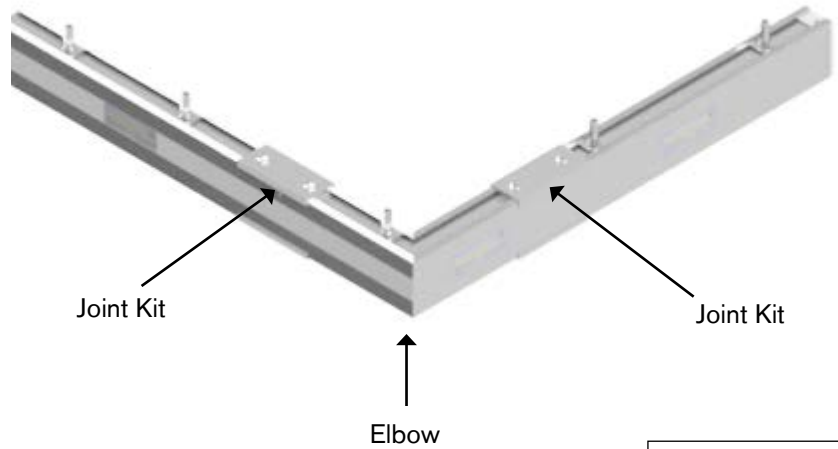
US225T3C4S-0206C = US, Straight section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- 2ft. 6in., Continuous access
MS225T3C4S-M600C-P013 = Metric, Straight section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- 6m, Continuous access- RAL 1001, black tape


ELBOW SECTIONS

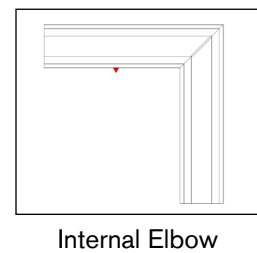
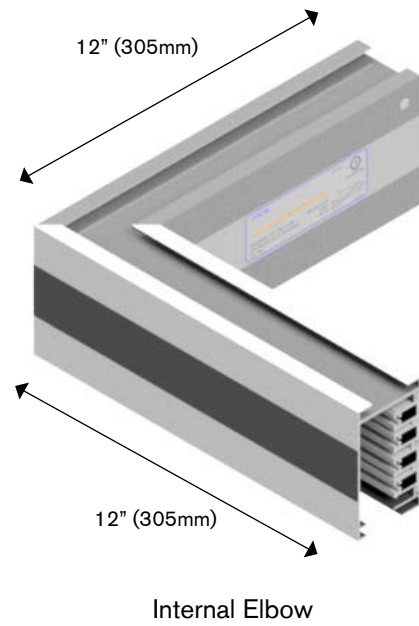
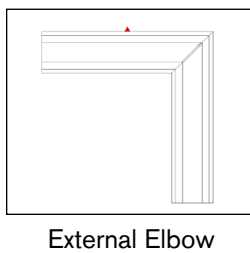
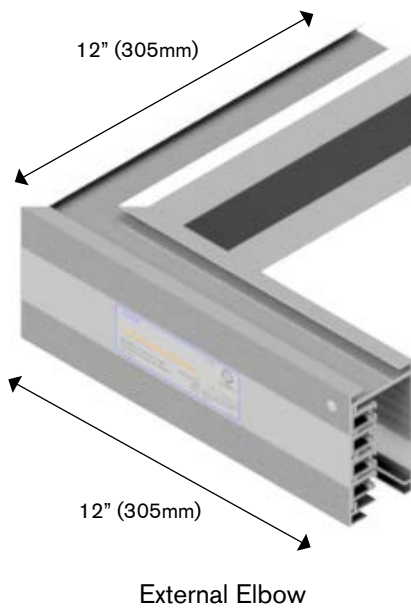
Product Description

Elbows are used for making a 90 degree in a Busway run. Horizontal and vertical elbows are available. Specify external or internal elbow according to the orientation of the busbars in the Busway sections to be connected. Elbow sections are connected to adjacent Busway sections using an installation tool and joint kit that includes a housing coupler and bus connector (ordered separately). This handles both the mechanical and electrical connection between a straight section and elbow section of busway.

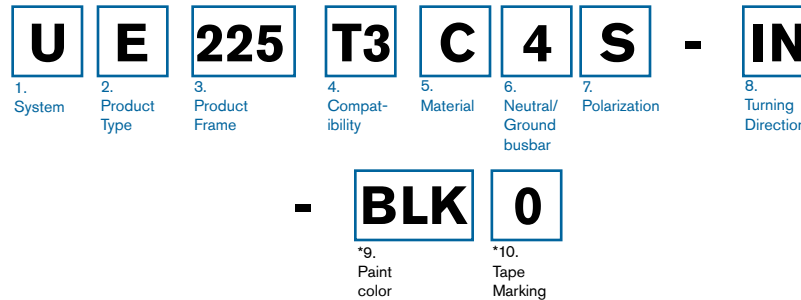
WEIGHT: 5.5 lbs (2.5 kg)



 = Polarizing Strip



ELBOW SECTIONS: PRODUCT NUMBERS



*Optional
**RAL (please see page 3.30)

1. System (standard of measure)	
U U.S.	M Metric
2. Product Type (section component)	
E Elbow section	
3. Product Frame (maximum amperage)	
225 225 amps	
4. Compatibility (frame compatibility)	
T3 T3 systems	
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)	
4 3 Phase plus Neutral	
7. Polarization (orientation of section for mating purposes)	
S Standard	
8. Turning Direction (direction of section polarizing strip)	
IN Internal	EX External

*10. Paint Color (allows painting of the busway housing)			
000	None	RED	Paint UEC Red
BLK	Paint UEC Black	BLU	Paint UEC Blue
WHT	Paint UEC White		
**RAL system can also be used; reference page 3.30			

*11. Tape Marking (allows colored tape on the polarizing strip side of busway housing)			
0	None	6	Tape UEC Red
3	Tape UEC Black	7	Tape UEC Blue
4	Tape UEC White		

Examples:

UE225T3C4S-EX-WHT0 = US, Elbow section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- External- painted white, no tape marking
ME225T3C4S-IN-PH40 = Metric, Elbow section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal- painted RAL 5014, no tape marking

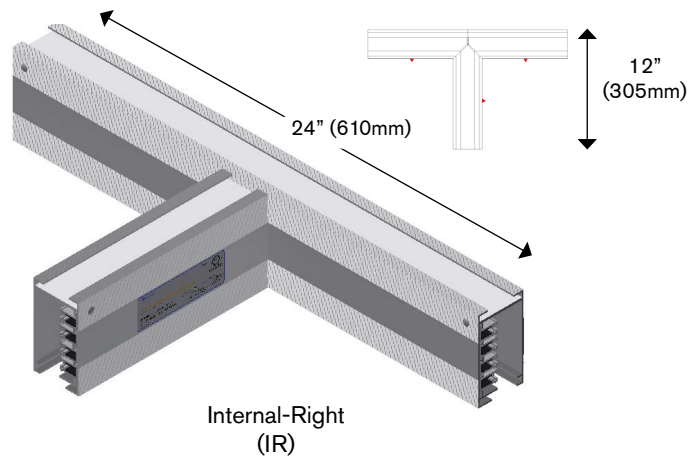
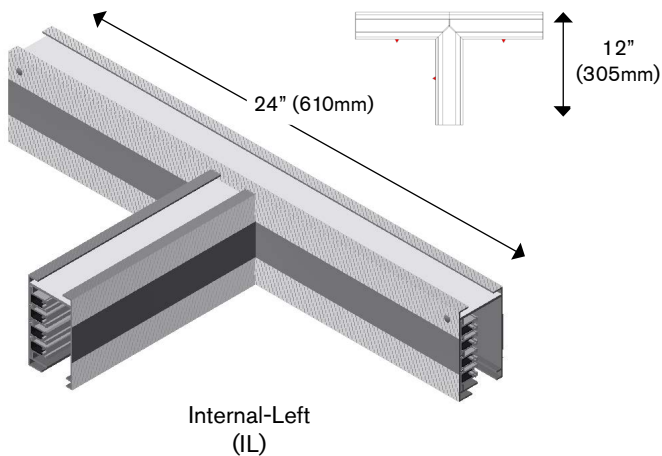
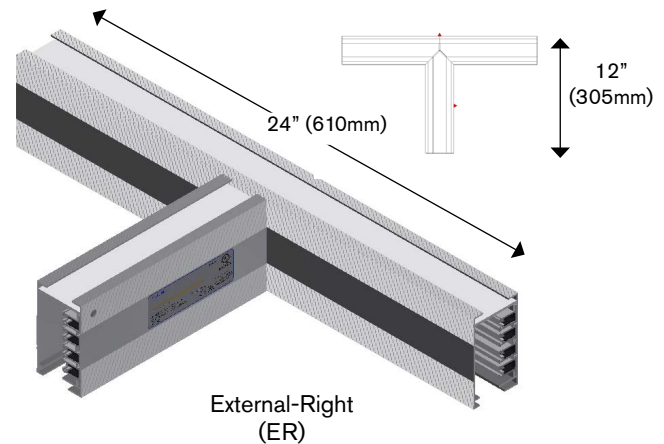
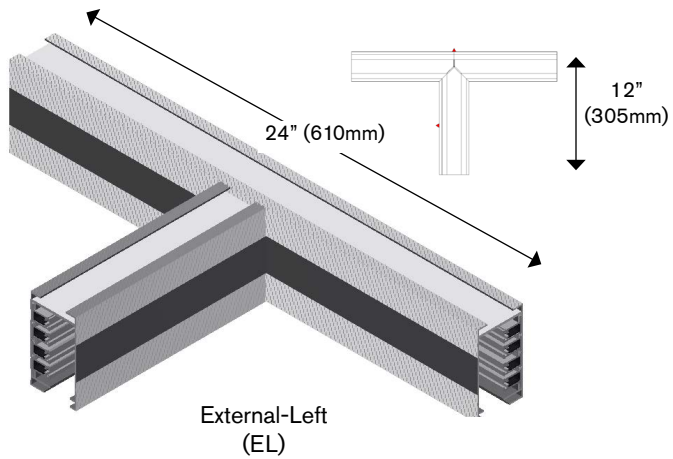
TEE SECTIONS

Product Description

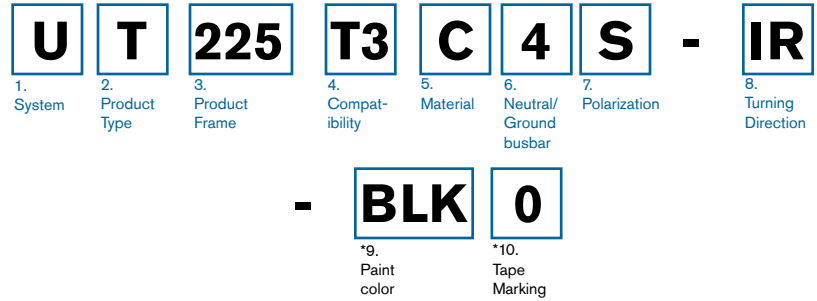
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent Busway sections using an installation tool and joint kit that includes a housing coupler and bus connector (ordered separately). This handles both the mechanical and electrical connection between a housing section and tee section of busway.

WEIGHT: 9.2 lbs (4.2 kg)

▲ = Polarizing Strip



TEE SECTIONS: PRODUCT NUMBERS



**Optional*
***RAL (please see page 3.30)*

1. System (standard of measure)
U U.S. **M** Metric

2. Product Type (section component)
T Tee section

3. Product Frame (maximum amperage)
225 225 amps

4. Compatibility (frame compatibility)
T3 T3 systems

5. Material (busbar material)
C Copper

6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
4 3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)
S Standard

8. Turning Direction (direction of section polarizing strip)
IL Internal-Left **EL** External-Left
IR Internal-Right **ER** External-Right

***10. Paint Color (allows painting of the busway housing)**

000 None	RED Paint UEC Red
BLK Paint UEC Black	BLU Paint UEC Blue
WHT Paint UEC White	

***RAL system can also be used; reference page 3.30*

***11. Tape Marking (allows colored tape on the polarizing strip side of busway housing)**

0 None	6 Tape UEC Red
3 Tape UEC Black	7 Tape UEC Blue
4 Tape UEC White	

Examples:

UT225T3C4S-IR-BLU0 = US, Tee section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal-Right- painted blue, no tape marking
MT225T3C4S-EL = Metric, Tee section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- External-Left

END FEED UNITS

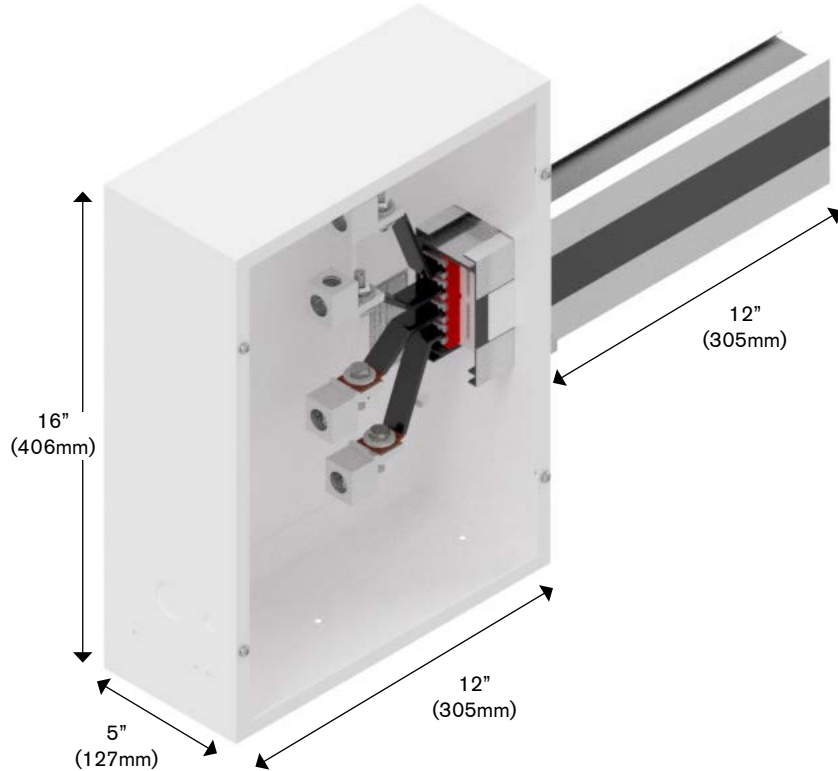
Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 12 x 16 x 5 in. (305 x 406 x 127mm) steel junction box, with removable side, connected to a 12 in. (305mm) section of Busway. The assembly includes connection lugs, a ground lug and shrink tubing for wires up to 300 MCM (150mm²).

End power feed units are connected to adjacent Busway sections using an installation tool and joint kit (ordered separately).

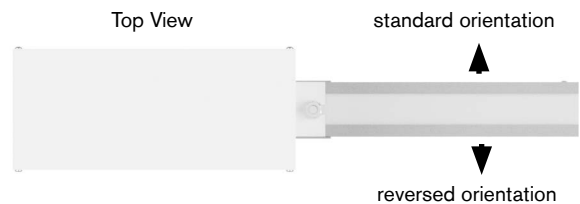
Special need power feed units for confined spaces as found in mission critical data centers can also be designed and fabricated requiring minimum quantities.

WEIGHT: 16.5 lbs (7.5 kg)

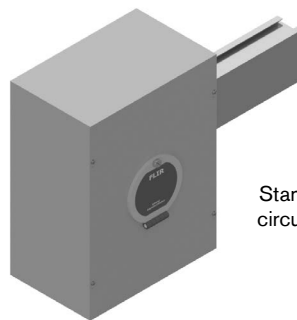


Boxes			
Lugs	Standard	Large	Fused
Standard	S		
Double	D		
Bolt			

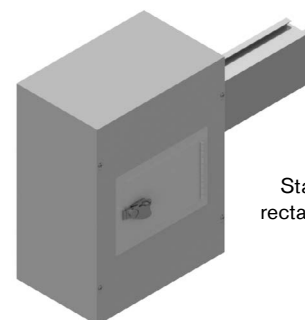
Box size and Lug options:
Refer to option 8. Lug/Box Options on pg. 3.27
End Feed Units: Product Numbers



Infrared (IR) Window options
Refer to option 10. Accessories Package on pg. 3.27 End Feed Units: Product Numbers



Standard box with circular IR window



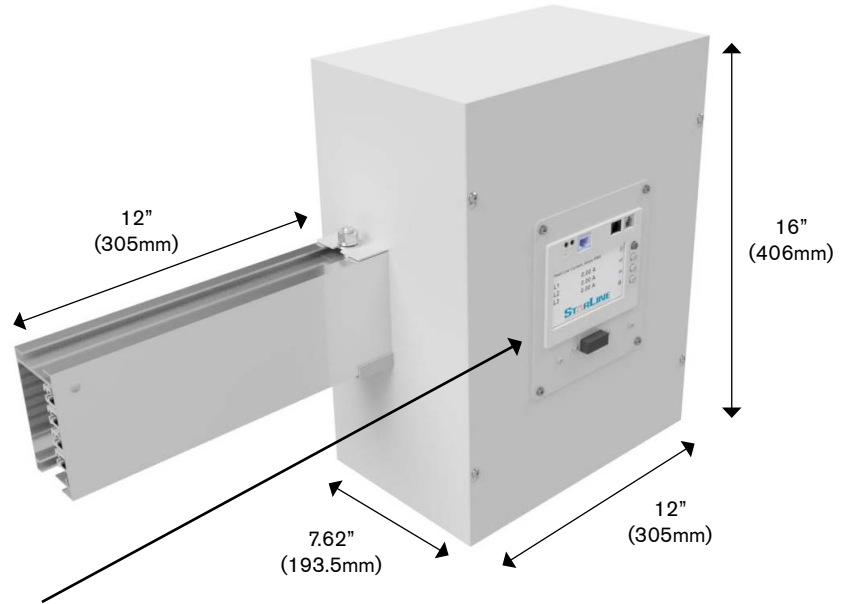
Standard box with rectangular IR window

END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the busway. A factory assembled unit consists of a 12 x 16 x 7.62 inch (305 x 406 x 193.5mm) steel junction box, with removable sides, connected to a 12 in. (305mm) section of busway. The assembly includes connection lugs, a ground lug, and shrink tubing for wires up to 300 MCM.

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



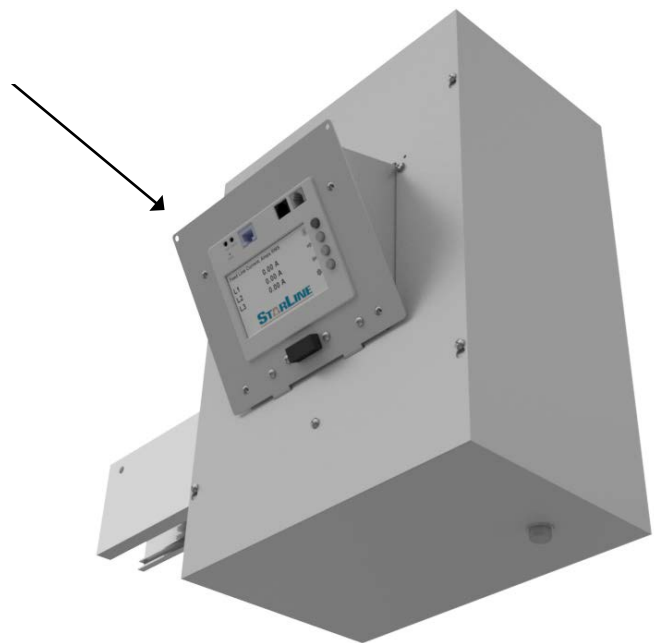
M41D CPM with 4.3 inch (109mm) display and Wi-Fi

Please note: standard depth of an end feed is 5 in (127mm) while the depth of an end feed with meter is 7.62 in (193.5mm). This is because an extender plate is automatically inserted to incorporate the meter.

- End Feed Meter Options:
- M41** WiFi, ≤415V Y, ≤240V Δ
 - M43** No WiFi, ≤415V Y, ≤240V Δ
 - M45** WiFi, 480V Y, 400V Δ
 - M47** No WiFi, 480V Y, 400V Δ

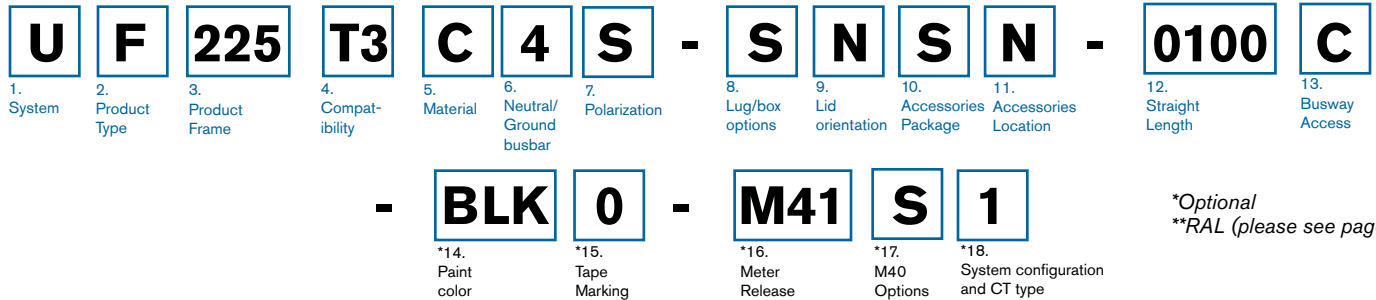
Y = wye, Δ = delta

M41D CPM with 4.3 inch (109mm) display and Wi-Fi on a 30° angled display



*For additional information on metering options, and for metering accessory options such as IR Windows & Angled Display please visit the separate Metering document found at downloads.uecorp.com/starline.

END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)
U U.S. **M** Metric

2. Product Type (section component)
F End Feed

3. Product Frame (maximum amperage)
225 225 amps

4. Compatibility (frame compatibility)
T3 T3 systems

5. Material (busbar material)
C Copper

6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
4 3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)
S Standard **R** Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box size)
S Standard lugs, standard box **D** Double lugs, standard box

9. Lid Orientation (viewed from the terminal, the side with meter)
N None (N/A) **T** Top
L Left **B** Bottom
R Right **F** Front

10. Accessories Package (optional accessories for feed units)
S Standard **R** IR window- Rectangular
C IR window- circular **A** Angled meter lid
T IR (Rect.) + Angled Lid **L** IR (Circ.) + Angled Lid

11. Accessories Location (viewed from the terminal, the side with accessory)
N None (N/A) **T** Top
L Left **B** Bottom
R Right **F** Front

12. Straight Length (length of section)
0100 1 foot (for U.S.) **M030** .3 meters (for Metric)
 For other lengths, consult the factory

13. Busway Access (how plugs access the busway)
C Continuous

***14. Paint Color (allows painting of the busway housing)**
000 None **RED** Paint UEC Red
BLK Paint UEC Black **BLU** Paint UEC Blue
WHT Paint UEC White

***15. Tape Marking (allows colored tape on the polarizing strip side of busway housing)**
0 None **6** Tape UEC Red
3 Tape UEC Black **7** Tape UEC Blue
4 Tape UEC White

***16. Meter Release (M40 Series Meters)**
M41 WiFi, ≤415V Y, ≤240V Δ **M45** WiFi, 480V Y, 400V Δ
M43 No WiFi, ≤415V Y, ≤240V Δ **M47** No WiFi, 480V Y, 400V Δ

***17. M40 Options (choose from a 4.1" display, measured neutral, and/or an audible alarm)**
S Standard **F** Featured (D+A)
D Display **E** Enhanced (N+A)
N (Measured) Neutral **P** Professional (D+N)
A Audible alarm **U** Ultimate (D+N+A)

***18. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)**
1 LLD - Standard, milivolt **K** LLD - SC, 5A
2 LLY - Standard, milivolt **L** LLY - SC, 5A
3 LNY - Standard, milivolt **M** LNY - SC, 5A

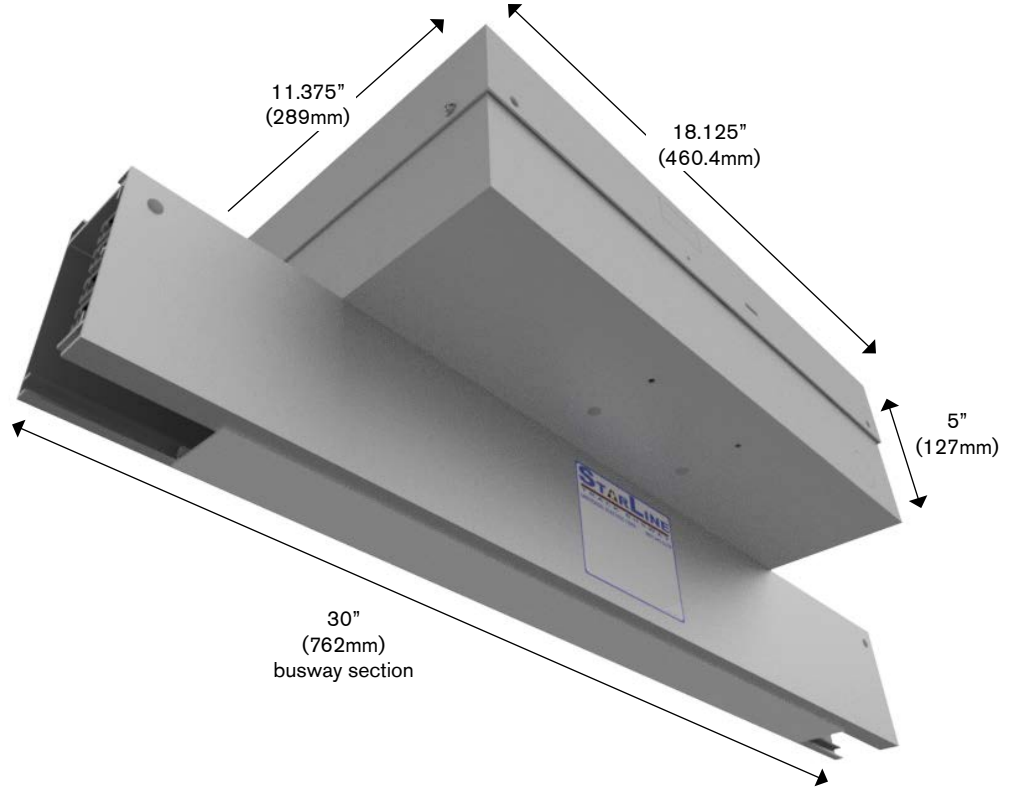
Examples:
UF225T3C4R-DNSN-0100C = US, end Feed, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Reversed polarization- Double lugs, standard box, No lid orientation, standard accessory package, no accessory location- 1 ft., Continuous access

ABOVE FEED UNITS

Product Description

The above feed power unit comes as a completely pre-wired steel box to the top of a 30" (762mm) section of busway. A connection lug is located inside the box for field termination of supply power cable up to 1/0. This unit is then connected to the end of an adjoining busway section using an installation tool and a joint kit (ordered separately).

WEIGHT: 16.5 - 23 lbs (7.5 - 10.4 kg)



RAL Colors

1st Character

P	Paint
---	-------

2nd Character

0	100
1	101
2	102
3	103
4	200
5	201
A	300
B	301
C	302
D	303
E	400
F	401
G	500
H	501
J	502
K	600
L	601
M	602
N	603
P	700
Q	701
R	702
S	703
T	704
U	800
V	801
W	802
X	900
Y	901
Z	902

3rd Character

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

Example:

P B 2 = Paint RAL 3012

ACCESSORIES: SUPPORT HARDWARE

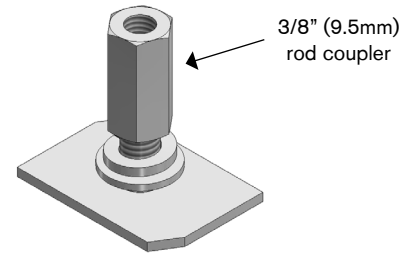
Threaded Rod

For mounting to 3/8 - 16 threaded rod. Can be inserted anywhere along the top full-access slot of busway. Hanger support is required every 10 ft (3m) maximum.

Part Number
U.S: UBRH-1
Metric: MBRH-M10

Available in plain zinc or black (-BLK)

Weight
.3 lb (.14 kg)



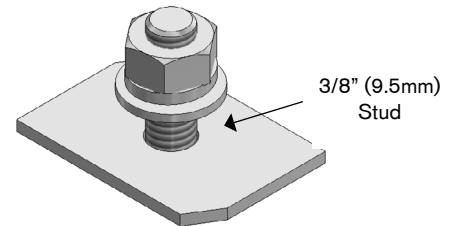
Standard

For mounting to strut or other flat surfaces. Twist-in design allows inserting anywhere along the top full-access slot on the busway. Hanger support is required every 10 ft (3m) maximum.

Part Number
U.S: UBH-1
Metric: MBH-M10

Available in plain zinc or black (-BLK)

Weight
.2 lb (.09 kg)



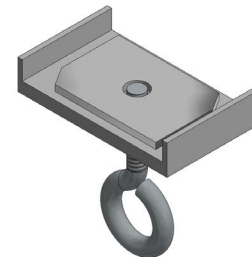
Weight Hook

Can be used as a hanger to suspend the busway from chains or cables. Can also be used to hang loads up to 100 lbs (45.4 kg) under the busway, such as light fixtures, tools and balancers.

Part Number
SWHRT3

Available in plain zinc

Weight
.2 lb (.09 kg)



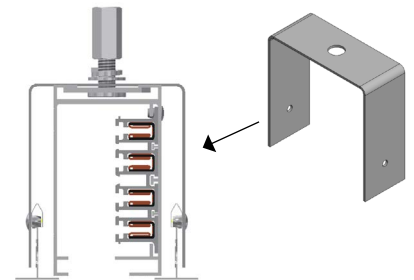
Recessed Suspended Ceilings

For hanging busway into a recessed ceiling.

**Hanger bolt must be ordered separately*

Part Number
SRMT3-1

Available in plain zinc



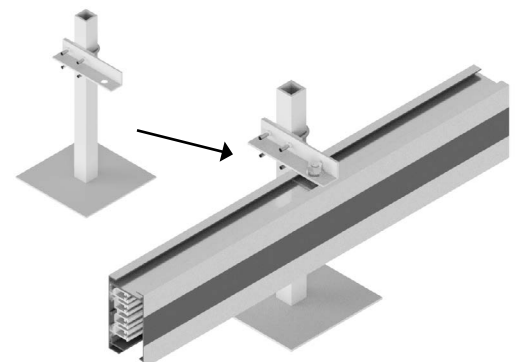
Raised Access Floor

For mounting the busway vertically (with access slot facing down) for under floor applications.

Part Number
U.S: URFBT3-1
Metric: MRFBT3-1

**UBH-1 (or MBH-M10) comes included*

Available in plain zinc or black (-BLK)



ACCESSORIES: SUPPORT HARDWARE

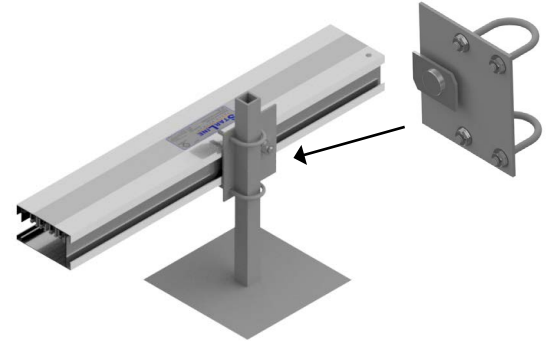
Raised Mounting Bracket

For mounting the busway horizontally (with access slot facing to the side) for under floor applications. Pedestal not included.

Part Number
U.S: URFBT3-2
Metric: MRFBT3-2

*Available in plain zinc
or black (-BLK)*

Weight
.2 lb (.09 kg)



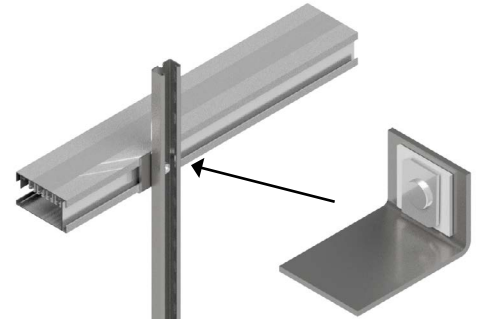
Side Mount Brackets

Mounted to vertical supports. Vertical supports not included, only bracket.

Part Number
U.S: UBSS-1
Metric: MBSS-1

*Available in plain zinc
or black (-BLK)*

Weight
.2 lb (.09 kg)

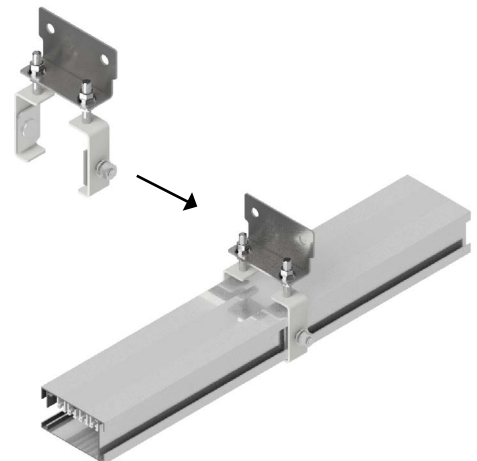


Mounted to overhead supports.

Part Number
U.S: UBH-T3-SIDE
Metric: MBH-T3-SIDE

*Available in plain zinc
or black (-BLK)*

Weight
1.31 lb (.59 kg)



ACCESSORIES: SUPPORT HARDWARE

Universal Server Cabinet Mounting Brackets

The Universal Server Cabinet Mounting Brackets are designed with generous 3/8" (9.5mm) wide through slots to mount directly onto virtually any server cabinet.

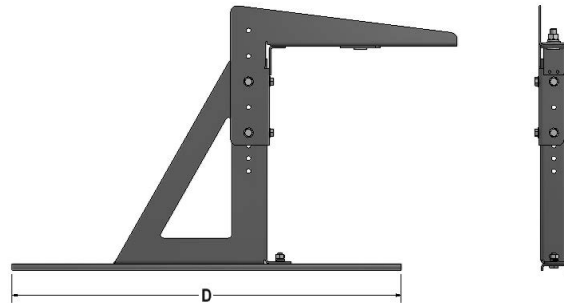
These accessories quickly and easily provide a flexible busway mounting solution on top of server cabinets, eliminating the need for threaded rod and strut support from the ceiling.

The brackets are adjustable in height, can be ordered in virtually any color, and can be positioned at any depth on the server cabinet. Moreover, they can accommodate up to (2) runs of busway.

Hanger Bolt Included – UBH-1 (or MBH-M10)

MATERIAL: Galvanneal Steel
HEIGHT: 17.68" (449mm) Min
23.75" (603mm) Max

Maximum Spacing: Every 10' (3m) per run



C: Color (1, 3, 4, 6, 7)

- 1- Anodized Silver
- 3- Black
- 4- White
- 6- Red
- 7- Blue

**consult factory for custom colors*

Part Number

U.S: UUSCMB-(X)-(D)-(C)
Metric: MUSCMB-(X)-(D)-(C)

X = System (T3)
D = Depth (30"[762mm], 36"[914mm], 42"[1067mm], 48"[1219mm] or custom length)
C = Color (1, 3, 4, 6, 7)

Examples:

UUSCMB-T3-36-4 = US, Universal Server Cabinet Mounting Bracket-T3 system-36 inch depth-white
MUSCMB-T3-1219-3 = Metric, Universal Server Cabinet Mounting Bracket-T3 system-1219mm depth-black

ACCESSORIES: CONNECTION HARDWARE

Joint Kit

For the connection of adjacent busway sections. One kit is required at each joint. Each kit is comprised of a housing coupler pair and bus connector set.

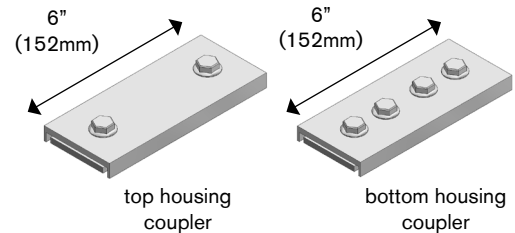
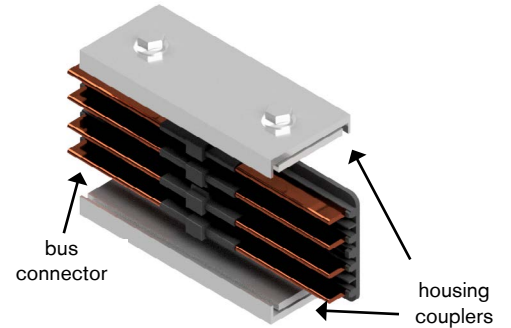
Bus Connector: copper blades secured to an insulating mounting plate. This makes the electrical connection between sections.

Housing Couplers: one pair that consists of a 2-bolt coupler for the top of busway, and a 4-bolt coupler for the bottom of busway.

*Installation tool is required (pg. 3.35)

Part Number
SJK100T3 (for 100 amp systems)
SJK100T3G (for 100 amp systems with ground)
SJK225T3 (for 225 amp systems)

Available in all standard and RAL colors



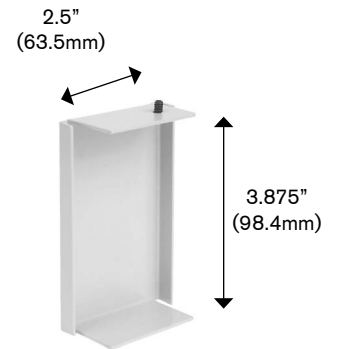
End Cap

For covering the end of 100T3 or 225T3 busway.

Part Number
SECT3

Available in all standard and RAL colors

Weight: .2 lb (.09 kg)



Optional Closure Strip

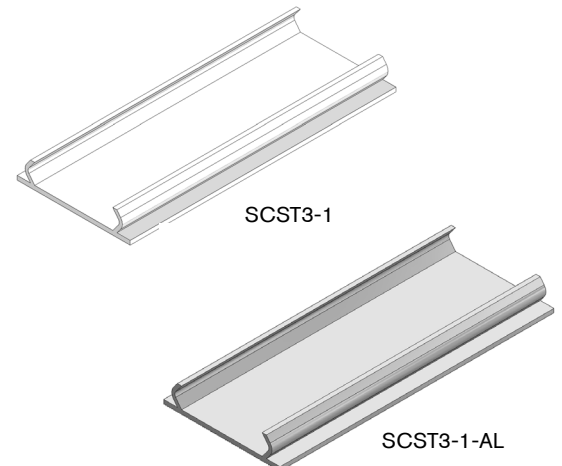
Snaps into bottom access slot of busway housing. The optional closure strip is normally shipped in 20 ft. (6m) lengths and can be field cut to fit exact desired length.

Part Number
SCST3-1

Aluminum closure strip:
SCST3-1-AL

Available in all standard colors

Maximum Cut Length: 20 ft (6m)

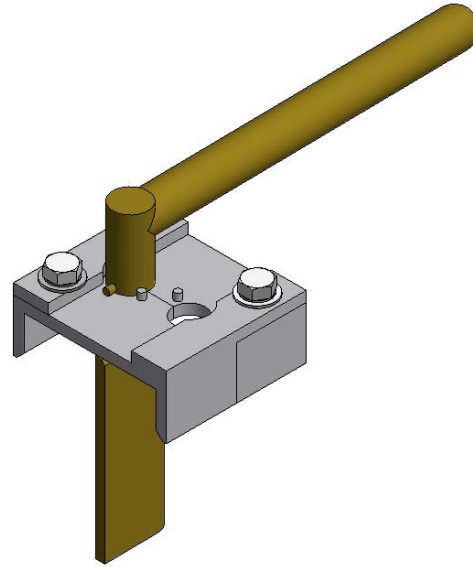


ACCESSORIES: INSTALLATION TOOL

Installation Tool

An installation tool is used to install the bus connector between two adjacent sections of busway. A joint kit, which is comprised of two housing couplers and a bus connector set, is required at every joint.

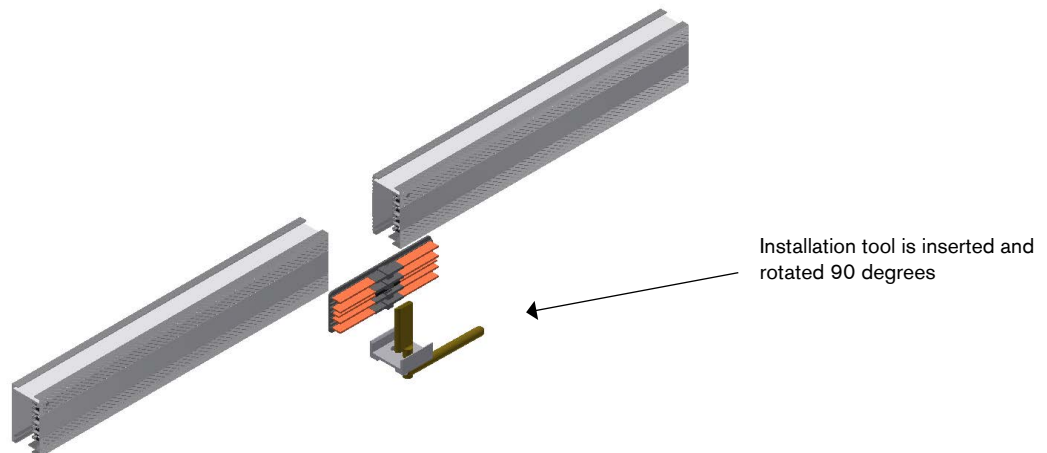
Busway sections are butted together and the top housing coupler is installed. The bus connector is inserted, centered and seated in the slot of the busway. The installation tool is inserted into the jointed intersection and rotated 90 degrees to form a spring-loaded, secure electrical connection. The housing coupler is then positioned over the bottom joint and tightened.



Weight: 2.5 lb (1.1 kg)

Part Number (for all T3 systems):
ST3IT

No available colors



SERVICES

Our trained and authorized factory representatives will provide unmatched on-site services whenever you need them. Our complete line of services include:

- 24/7 Emergency Service and Phone Support
- On-site Training
- Installation Inspection, Commissioning and Certification
- Load Bank Testing
- IR Scanning and other Ongoing Support
- Extended Warranty Programs
- Meter Programming, Commissioning and Maintenance

With over 25 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level.

We are currently offering the following services:

On-Site Support & System Startup

Training

Plan to have a Starline service technician on-site prior to installation to train the contractor on installation best practices as well as proper operation and safety techniques while using the product. The factory representative will conduct an in-depth training program which is sure to save you time and money throughout the installation process and operational lifetime of the busway system.

Commissioning & Certification

A Starline service technician will perform a comprehensive visual inspection of all joint connections, lug connections, plug-in units and supports. Any and all issues will be immediately addressed with the installation company. Once the results are satisfactory, a certification report will be generated and distributed, increasing the standard factory warranty from 12 months to 18 months.

Load Bank Testing

Starline Services also offers load bank testing for the entire power chain at the industry's most competitive rates. Once testing is successfully completed, a results and certification report will be submitted, extending the factory warranty on the tested busway system from one to two years.

Ongoing Support Plans

Service	Silver	Gold
1 trip per year	X	
2 trips per year		X
Thermal imaging of all plug-in units		X
Thermal imaging of all Busway joints	X	X
Thermal imaging of all end feed units	X	X
Fully executed thermography report	X	X
Extended warranty throughout life of contract	X	X
Parts and freight covered on all warranty claims	X	X
Update firmware and verify all Starline CPM products		X
Secure online portal to view test reports and documentation		X
24/7 emergency support hotline		X

SERVICES (cont'd)**Metering Services**

A trained Starline service technician is always available to help you with the start-up, programming, integration and verification of your Starline CPM metering devices. End-users are provided a full meter report and guide to ensure ease of use once our technician has completed the job. The Starline service technician will provide training while on-site pertaining to meter operation and care, programming and use of the CPM Mobile App.

Meter Upgrade

Thinking about upgrading your unmetred components? Is it time to replace older metering products with something new and improved? Starline offers a full-service meter retrofit program for any type of plug-in or end feed unit. You no longer have to replace an entire module just to add a meter. Save money and downtime with the Starline CPM upgrade program.

Warranty Programs**Standard Warranty**

Starline Track Busway is proud to stand behind its American made, best-in-class busway products. Every Starline product is backed by a one year factory warranty that covers replacement parts and freight on components that are found to have defects related to shipping, workmanship or material.

Extended Warranty

To ensure less downtime and unmatched field service support, be sure to purchase one of Starline's customizable extended warranty programs. You can choose the length of your warranty and whether to add a yearly Ongoing Support visit as a standard. Replacement parts are guaranteed for all parts covered under warranty and will be quickly delivered to the site.

*All warranties are subject to the proper commissioning and certification of the Track Busway system performed by a Starline service technician or factory representative. Systems that had previously been in operation and have surpassed the factory warranty term are subject to a visual inspection and certification before an extended warranty can be applied. Please contact the factory for further details.

Universal Electric Corporation, manufacturer of Starline Track Busway, has been a global leader in power distribution since 1924. The company's focus on innovation continues to pave the way for safer, more flexible and reliable electrical power distribution systems. Other Starline products include the Critical Power Monitor (CPM), which works in conjunction with Starline Track Busway to improve energy efficiency; Plug-In Raceway, the flexible, wall-mounted power distribution system; and DC Solutions, the revolutionary 380V direct current alternative for data centers.



www.StarlinePower.com | info@uecorp.com



United States

168 Georgetown Rd. | Canonsburg, PA 15317 | 800-245-6378 | +1 724-597-7800

UK & Northern Europe

804 Oxford Avenue, Slough Trading Estate | Slough, Berkshire | SL14LN | +44 (0) 1753 376 700

Asia Pacific Region Office

Level 8 Samsung Hub | 3 Church Street | Singapore 049483 | +65 6408 0165

S.W. Asia Region Office

Ground Floor, E-1 Block, Beech Building | Manyata Embassy Business Park | Outer Ring Road | Bangalore, India 560045 | +91 80 4276 4627

REV 1



While every effort has been made to ensure the accuracy of all information, Universal Electric Corporation does not accept liability for any errors or omissions and reserves the right to change information and descriptions of listed services and products.

Most STARLINE systems and most standard components are UL, CE or ETL listed.