



Product Selection Guide





Product Selection Guide

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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 & SPECS

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 40, 50 & 60 amps with isolated ground.

It 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 reseves 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/.

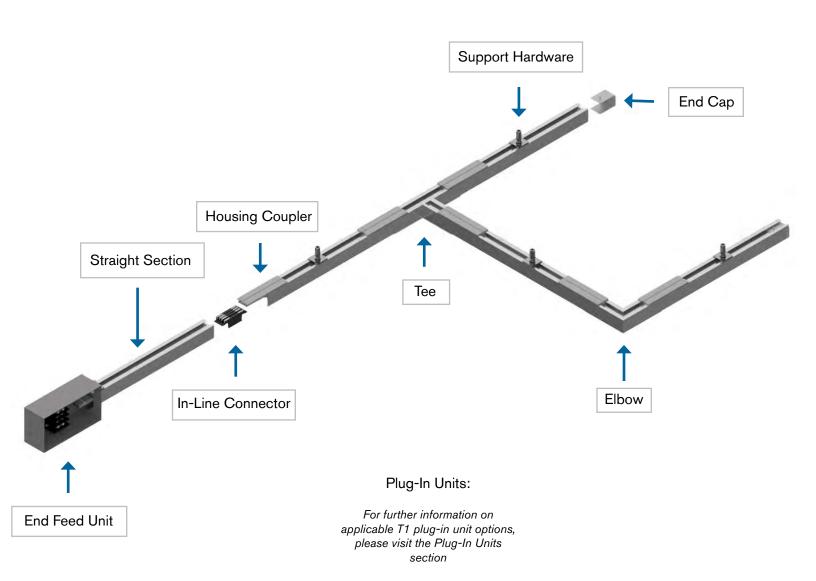


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SYSTEM LAYOUT DRAWING



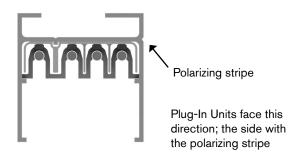


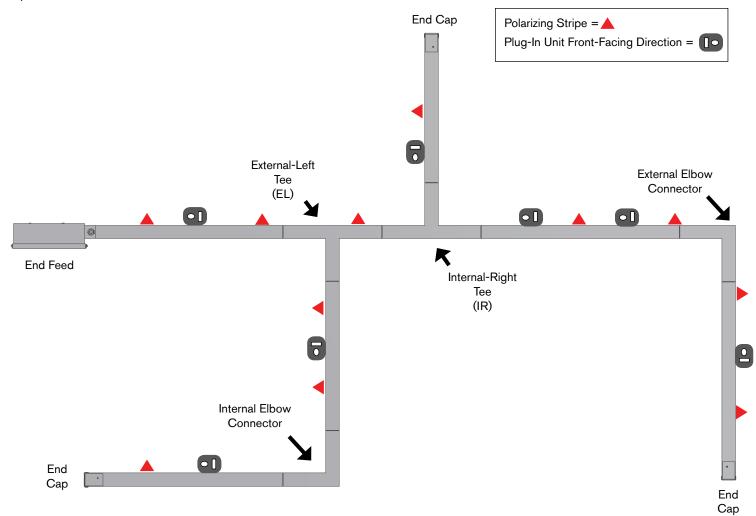
POLARITY TIPS

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 side with the polarizing stripe.







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 apart. Refer to page 1.26 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 20, 10 and 5-foot increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet, it is highly recommended to keep all layout runs in increments of 5 feet 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. With grid or any other bi-directional applications, there is a choice of two-plane with each direction on a separate plane or using cross sections if single-plane is required. Single-plane applications can provide power in both directions as well as parallel runs.

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

SYSTEM	DISTRIBUTED	VOLTAGE	VOLTAGE
DESIGNATION	LOAD	DROP @ 0.8 PF	DROP @ 0.8 PF
		Single Phase	Three Phase
40T1	40 amps	36 Ft.	63 Ft.
50T1	50 amps	29 Ft.	50 Ft.
60T1	60 amps	29 Ft.	51 Ft.



COMPONENT RELATIONSHIP TIPS

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

Examples:

- Each straight section requires a connector and coupler.
- Three Housing Couplers (HC) are needed for each Tee Connector.
- General support hardware rule to follow:

10 ft 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. 1.4 Polarity Tips for more detail.



STRAIGHT SECTIONS

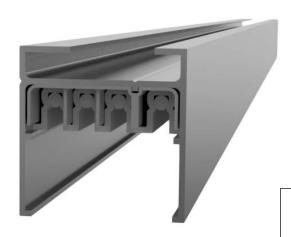
Product Description

Track Busway straight sections consist of an extruded aluminum shell with insulated copper conductor strips mounted on the top interior wall. The aluminum housing acts as a 100% ground path and each straight section has an open access slot over its entire length for the insertion of snap-in plug-in units. Housing configurations include 2 and 4 pole varieties, 480/277 Volts max. Track Busway straights are connected together using a joint kit, which includes an in-line connector and housing coupler (found under Accessories).

Sections are supported every 10 ft max. and can support 75 lbs hanging weight between vertical supports. Four-pole Busway is normally used in 3-phase/4-wire power systems. Four-pole Busway may be used for 2 independent single-phase circuits at different voltages. Sections can be factory cut to any length.

WEIGHT:

10 ft. 40 Amp, 2 or 4 pole: 7/8 lbs 10 ft. 50 Amp, 2 or 4 pole: 7/8 lbs 10 ft. 60 Amp, 2 or 4 pole: 8/9 lbs

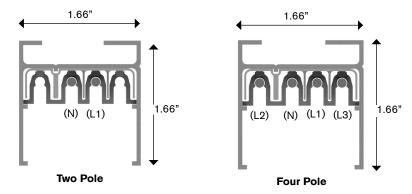


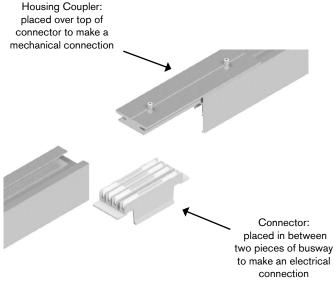
L1 = Black

L2 = Red

L3 = Blue

N = white or beige







STRAIGHT SECTIONS: RECESSED

Product Description

T1 housing is also available in a slightly different design, specifically tailored for Busway that is meant to be installed recessed into a suspended ceiling.

Busway straight sections are available in 20, 10, and 5 ft. lengths for two standard drop or suspended ceiling configurations.

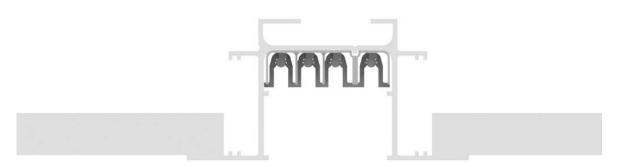
For recessed housing, please choose 'R1' as opposed to 'T1' in your product

*refer to pg. 1.9 option 4. Compatibility (frame compatibility)

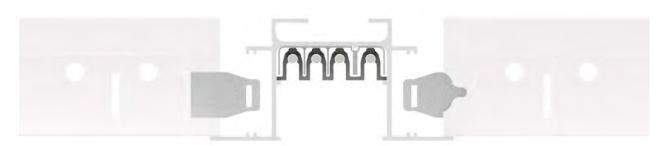
4. Compatibility (frame compatibility)

T1 systems

T1 systems (Recessed housing)



Dry Wall Installation



Standard and Regular Tile Installation



STRAIGHT SECTIONS: PRODUCT NUMBERS









ibility









Straight Length Buswa Access

- STD0

husbar

10. Paint color **RAL (please see page 1.25)

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- S Straight section
- 3. Product Frame (maximum amperage)

040 40 amps **050** 50 amps

060 60 amps

- 4. Compatibility (frame compatibility)
- T1 T1 systems R1 T1 systems (Recessed housing)
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 4 3 Phase plus Neutral 2 1 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- S Standard
- 8. Straight Length (length of section)

XXYY XX = feet, YY = inches

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

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

STD0UEC Mill FinishRED0Paint UEC RedBLK0Paint UEC BlackBLU0Paint UEC BlueWHT0Paint UEC White

**RAL system can also be used; reference page 1.25

Examples:

US060T1C4S-0906C-STD0 = US, Straight section, 60 amps, T1, Copper conductor, 3 Phase plus neutral, Standard polarization- 9ft., 6 in., Continuous access- standard

<u>US040R1C2S-0500C-PA50</u> = US, Straight section, 40 amps, R1 recessed housing, Copper conductor, 1 phase plus neutral, Standard polarization- 5ft., Continuous access-RAL 3005



ELBOW SECTIONS

Product Description

Factory pre-assembled elbow sections are used for making a 90-degree turn. Elbows are connected to busway sections electrically by means of built-in bus connectors.

Connectors are installed by "snapping" into position with housing section butted together. Connectors are polarized to prevent phase mismatch. Housings are then mechanically joined via couplers (found in Accessories section).

Dimensions below are 6" from center to center, not end to end.

WEIGHT: .5 lbs

= Polarizing Stripe

*Elbows are offered with various 'Turning Direction' options:

Internal (IN)

External (EX)

*see below

Non-Populated (NP)

*contains bus connectors but with no copper running through

Internal-Housing Only (IH)

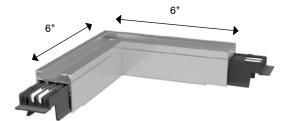
External-Housing Only (EH)

*contains no bus connectors or copper running through

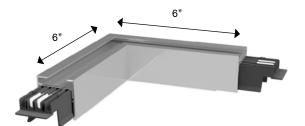
Internal-Feed (IF)

External-Feed (EF)

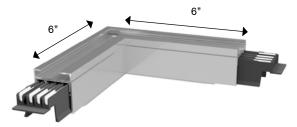
*comes with a hole in the top to feed wiring



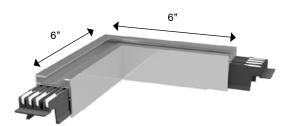
Internal Elbow 2-pole



External Elbow 2-pole



Internal Elbow 4-pole



External Elbow 4-pole



External Elbow



Internal Elbow



ELBOW SECTIONS: PRODUCT NUMBERS











Ground

husbar





- **STD0**

color

**RAL (please see page 1.25)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

E Elbow section

3. Product Frame (maximum amperage)

040 40 amps **050** 50 amps

060 60 amps

4. Compatibility (frame compatibility)

T1 T1 systems R1 T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral 2 1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing stripe)

IN Internal EX External

NP Non-Populated IH Internal-Housing Only

EH External-Housing Only IF Internal-Feed

EF External-Feed

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

STD0UEC Mill FinishRED0Paint UEC RedBLK0Paint UEC BlackBLU0Paint UEC Blue

WHT0 Paint UEC White

**RAL system can also be used; reference page 1.25

Examples:

UE060R1C4S-IN-BLK0 = US, Elbow section, 60 amps, R1 recessed housing, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal- painted black **UE050T1C2S-EH-STD0** = US, Elbow section, 50 amps, T1, Copper conductor, 1 phase plus neutral, Standard polarization- External-Housing Only- standard mill finish



TEE SECTIONS

= Polarizing Stripe

Product Description

Similar to elbow connectors, tee connectors are used for connecting branch housing sections at 90 degrees to the main run.

Please be aware of polarization issues before making your final selection (refer to pg. 1.4 Polarity Tips).

Tees are electrically connected to sections of 40/50/60 amp Busway by means of built-in bus connectors. Connectors are installed by "snapping" into position with housing section butted together. Connectors are polarized to prevent phase mismatch. Housings are then mechanically joined via couplers, ordered separately.

WEIGHT: 1 lb

*Tees are offered with various 'Turning Direction' options:

Internal-Left (IL)

Internal-Right (IR)

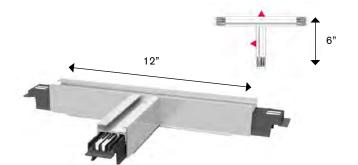
External-Left (EL)

External-Right (ER)

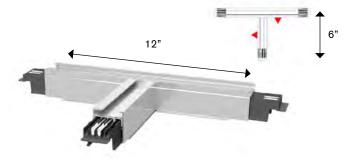
*see below

Non-Populated (NP)

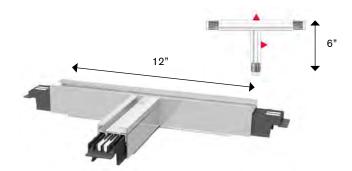
*contains bus connectors but with no copper running through



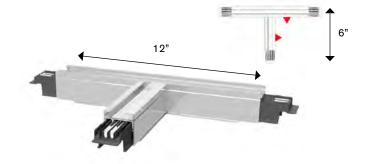
2-Pole: External-Left (EL)



2-Pole: Internal-Left (IL)



2-Pole: External-Right (ER)



2-Pole: Internal-Right (IR)



TEE SECTIONS (cont'd)

Product Description

Similar to elbow connectors, tee connectors are used for connecting branch housing sections at 90 degrees to the main run.

Please be aware of polarization issues before making your final selection (refer to pg. 1.4 Polarity Tips).

Tees are electrically connected to sections of 40/50/60 amp Busway by means of built-in bus connectors. Connectors are installed by "snapping" into position with housing section butted together. Connectors are polarized to prevent phase mismatch. Housings are then mechanically joined via couplers, ordered separately.

*Tees are offered with various 'Turning Direction' options:

Internal-Left (IL)

Internal-Right (IR)

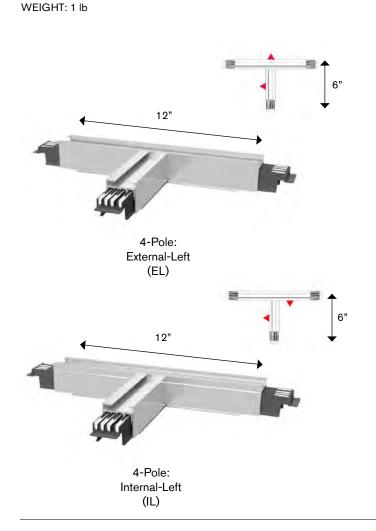
External-Left (EL)

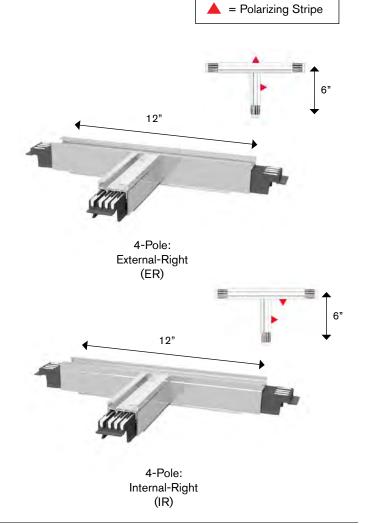
External-Right (ER)

*see below

Non-Populated (NP)

*contains bus connectors but with no copper running through







TEE SECTIONS: PRODUCT NUMBERS











Ground

husbar





- STD0

Paint color

**RAL (please see page 1.25)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

T Tee section

3. Product Frame (maximum amperage)

040 40 amps **050** 50 amps

060 60 amps

4. Compatibility (frame compatibility)

T1 T1 systems R1 T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral 2 1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing stripe)

NP Non-Populated

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

STD0UEC Mill FinishRED0Paint UEC RedBLK0Paint UEC BlackBLU0Paint UEC BlueWHT0Paint UEC White

**RAL system can also be used; reference page 1.25

Examples:

<u>UT060T1C4S-IR-RED0</u> = US, Tee section, 60 amps, T1, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal-Right- painted red <u>UT040R1C2S-EL-STD0</u> = US, Tee section, 40 amps, R1 recessed housing, Copper conductor, 1 phase plus neutral, Standard polarization- External-Left- standard mill finish



CROSS SECTIONS

Product Description

Similar to tee connectors, crosses are typically used for grid designs. Please be aware of polarization issues before making your final selection (refer to pg. 1.4 Polarity Tips).

Crosses are electrically connected to sections of 40/50/60 amp Busway by means of built-in bus connectors. Connectors are installed by "snapping" into position with housing section butted together. Connectors are polarized to prevent phase mismatch. Housings are then mechanically joined via couplers, ordered separately.

WEIGHT: 1.5 lbs

= Polarizing Stripe

*Crosses are offered with various 'Turning Direction' options:

Standard (ST)

*see below

Internal (IN)

External (EX)

Internal-Left (IL)

Internal-Right (IR)

External-Left (EL)
External-Right (ER)

*For structural configuration, empty legs of the cross may be ordered.

Please consult your applications engineer.

Non-Populated (NP)

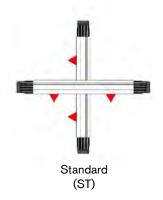
*contains bus connectors but with no copper running through







4-pole cross





CROSS SECTIONS: PRODUCT NUMBERS











Ground

husbar





- STD0

colo

**RAL (please see page 1.25)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

X Cross section

3. Product Frame (maximum amperage)

040 40 amps **050** 50 amps

060 60 amps

4. Compatibility (frame compatibility)

T1 T1 systems R1 T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral 2 1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing stripe)

STStandardNPNon-PopulatedILInternal-LeftIRInternal-RightELExternal-LeftERExternal-Right

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

STD0UEC Mill FinishRED0Paint UEC RedBLK0Paint UEC BlackBLU0Paint UEC BlueWHT0Paint UEC White

**RAL system can also be used; reference page 1.25

Examples:

<u>UX050T1C4S-NP-RED0</u> = US, cross section, 50 amps, T1, Copper conductor, 3 Phase plus neutral, Standard polarization- Non-populated turning direction- painted red

<u>UX060R1C2S-IL-STD0</u> = US, cross section, 60 amps, R1 recessed housing, Copper conductor, 1 phase plus neutral, Standard polarization- Internal-Left turning direction-standard mill finish

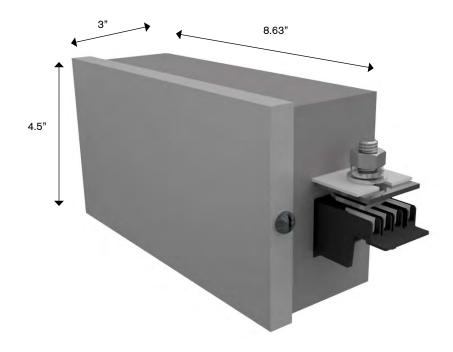


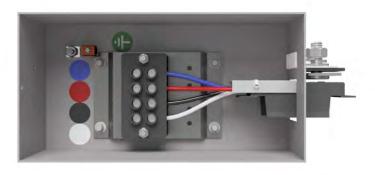
END FEED UNITS

Product Description

An end feed unit consists of a steel junction box with a removable side, a connector to insert into the Busway run and terminal block for field connections. The unit is bolted to the first Busway section.

WEIGHT: 3.3 lbs





Internal View



END FEED UNITS: PRODUCT NUMBERS











Lua/box

options



Lid





orientation Package Location

Type

Product Frame

Compat-Material ibility

System

Ground busbar

Polarization

Color

*Optional

**RAL (please see page 1.25)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

3. Product Frame (maximum amperage)

050 50 amps 40 amps

060 60 amps

4. Compatibility (frame compatibility)

T1 T1 systems R1 T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral 4 1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

S Standard Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box size)

S Standard lugs, standard box

9. Lid Orientation (viewed from the terminal, the side with removable lid)

R Right

10. Accessories Package (optional accessories for feed units)

S

11. Accessories Location (viewed from the terminal, the side with accessory)

None (N/A) N

*12. System (line to line or line to neutral system)

Line to line LN Line to neutral

*LL & LN specification required only when ordering a 2-pole system (reference option 6. Neutral/Ground Busbar)

13. Paint Color (allows painting of the busway housing)

STD0 Paint UEC Silver RED0 Paint UEC Red BLK0 Paint UEC Black BLU₀ Paint UEC Blue

WHT0 Paint UEC White

**RAL system can also be used; reference page 1.25

UF040T1C4R-SRSN-BLU0 = US, end Feed, 40 amps, T1, Copper conductor, 3 Phase plus neutral, Reversed polarization- Std lugs, Std box, Right lid orientation, Standard accessory package, No accessories location- painted blue

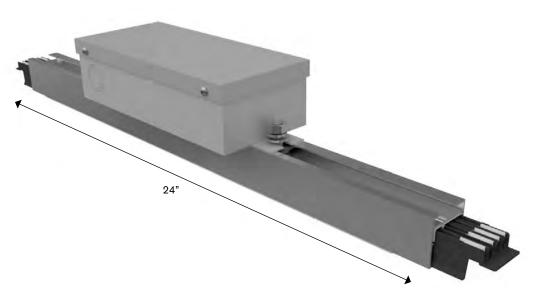


ABOVE FEED UNITS

Product Description

An above feed consists of a 2 ft. section of Busway with connectors at both ends to connect to adjacent Busway sections, and a junction box mounted on top with a terminal block for field connections.

WEIGHT: 5 lbs





Internal View



ABOVE FEED UNITS: PRODUCT NUMBERS



















0200

Length

Straight

Busway Access Location

System Product Type

Product Frame

Compat-Material ibility

Ground

Polarization busbar

Lug/box

Lid orientation

Package Location

*Optional

**RAL (please see page 1.25)

System

Color

1. System (standard of measure)

U U.S.

2. Product Type (section component)

Above Feed Α

3. Product Frame (maximum amperage)

050 50 amps 40 amps

060 60 amps

4. Compatibility (frame compatibility)

T1 systems R1 T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral 1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

S Standard Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box size)

S Standard lugs, standard box

9. Lid Orientation (viewed from the terminal, the side with removable lid)

None (N/A)

10. Accessories Package (optional accessories for feed units)

S

11. Accessories Location (viewed from the terminal, the side with accessory)

None (N/A) N

12. Straight Length (length of section)

0200 2 feet

13. Busway Access (how plugs access the busway)

Continuous

14. Feed Location (location of the center of the top feed)

*15. System (line to line or line to neutral system)

Line to line Line to neutral

*LL & LN specification required only when ordering a 2-pole system (reference option 6. Neutral/Ground Busbar)

16. Paint Color (allows painting of the busway housing)

RED0 Paint UEC Red STD0 Paint UEC Silver BLK₀ Paint UEC Black BLU₀ Paint UEC Blue WHT0 Paint UEC White

**RAL system can also be used; reference page 1.25

Examples:

<u>UA060T1C2S-SNSN-0200C012-LN-WHT0</u> = US, Above feed, 60 amps, T1, Copper conductor, 1 phase plus neutral, Standard polarization- Std lugs, Std box, No lid orientation, standard accessory package, no accessories location- 2 ft. straight length, Continuous busway access, 12 in.- Line to Neutral system- painted white

1.20

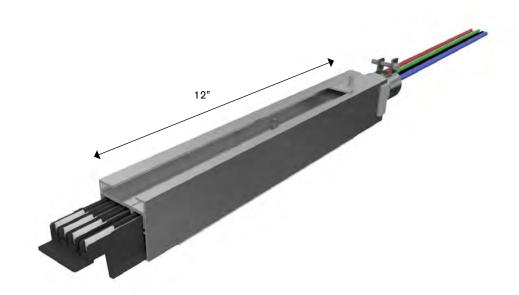


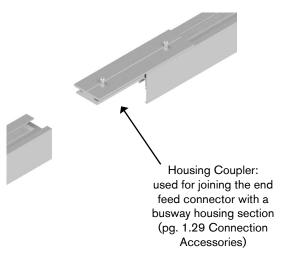
END FEED CONNECTOR UNITS

Product Description

An end feed connector provides an inconspicuous way to connect to power. It consists of a 1 ft. section of Busway with connector mounted inside and wire lead exiting through the end cap. A 1 inch conduit mounting adapter is included. A housing coupler (ordered separately) is used to connect to the Busway section.

WEIGHT: 2 lbs







END FEED CONNECTOR UNITS: PRODUCT NUMBERS



System



Type



Frame



ibility





024

8. Wire Length

-

*9. System STD0

Colo

husbar

*Optional
**RAL (please see page 1.25)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

c end feed Connector

3. Product Frame (maximum amperage)

040 40 amps **050** 50 amps

060 60 amps

4. Compatibility (frame compatibility)

T1 T1 systems R1 T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral

2 1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

S Standard

R Reversed

8. Wire Length (total length of wire in inches)

 024
 24 inches
 048
 48 inches

 072
 72 inches
 096
 96 inches

*9. System (line to line or line to neutral system)

L Line to line LN Line to neutral

*LL & LN specification required only when ordering a 2-pole system (reference option 6. Neutral/Ground Busbar)

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

STD0UEC Mill FinishRED0Paint UEC RedBLK0Paint UEC BlackBLU0Paint UEC Blue

WHT0 Paint UEC White

**RAL system can also be used; reference page 1.25

Examples:

<u>UC050T1C2R-048-LN-RED0</u> = US, end feed Connector, 50 amps, T1, Copper conductor, 1 phase plus neutral, Reversed polarization- 48 inch wire length- Line to Neutral system- painted red <u>UC060R1C4S-072-STD0</u> = US, end feed Connector, 60 amps, R1 recessed housing, Copper conductor, 3 phase plus neutral, Standard polarization- 72 inch wire length- standard mill finish

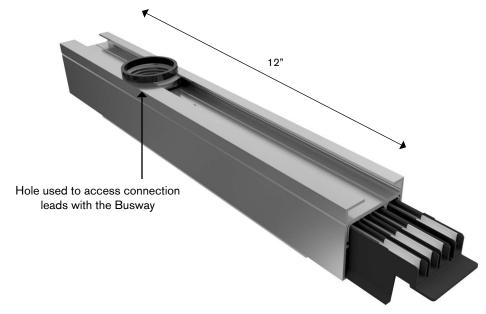


PENDANT FEED UNITS

Product Description

A Pendant Feed consists of a 1 ft. Busway section with a 1 inch conduit size access hole for access to connection leads inside the Busway. A 1 inch conduit mounting adapter is included.

WEIGHT: 2 lbs





PENDANT FEED UNITS: PRODUCT NUMBERS











husbar



Ground



Color

*Optional

**RAL (please see page 1.25)

1. System (standard of measure)

U.S. U

2. Product Type (section component)

Pendant Feed

3. Product Frame (maximum amperage)

40 amps **050** 50 amps

60 amps

4. Compatibility (frame compatibility)

T1 T1 systems T1 systems (Recessed housing)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

1 phase plus neutral

7. Polarization (orientation of section for mating purposes)

Standard Reversed *8. System (Line to Line or Line to Neutral System)

Line to Line Line to Neutral

*LL & LN specification required only when ordering a 2-pole system (reference option 6. Neutral/Ground Busbar)

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

UEC Mill Finish RED0 Paint UEC Red STD0 BLU0 Paint UEC Blue BLK0 Paint UEC Black

Paint UEC White WHT0

**RAL system can also be used; reference page 1.25

<u>UP040R1C2R-LL-PH50</u> = US, Pendant feed, 40 amps, R1 recessed housing, Copper conductor, 1 Phase plus neutral, Reversed polarization- Line to Line-RAL 5015 **<u>UP060T1C4S-STD0</u>** = US, Pendant feed, 60 amps, T1, Copper conductor, 3 Phase plus neutral, Standard polarization-standard mill finish



RAL Colors

1st Character

P Paint

2nd Character

0	100
1	101
2	102
3	103
4	200
5	201
Α	300
В	301
С	302
D	303
Е	400
F	401
G	500
H	501
J	502
K	600
L	601
М	602
N	603
Р	700
Q	701
R	702
S	703
T	704
U	800
V	801
W	802
Х	900
X Y Z	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

4th Character

0 0

Example:

P B 2 0 = Paint RAL 3012



ACCESSORIES: SUPPORT HARDWARE

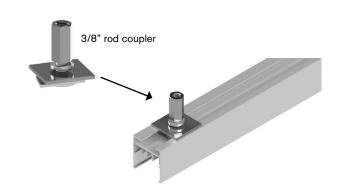
Threaded Rod

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

Part Number **URHB-3**

Available in plain zinc or black (-BLK)

> Weight .3 lb



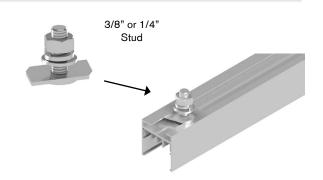
Standard

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. maximum.

Part Number UTHB-3 (3/8") UTHB-1/4 (1/4")

Available in plain zinc or black (-BLK)

> Weight .2 lb



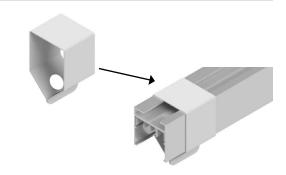
Weight Hook Adapter

Can be used as a hanger to suspend the Busway from chains or cables. Can also be used to hang loads of up to 50 lbs under the Busway, such as light fixtures, tools and balancers.

Part Number UWHRT1

Available in plain zinc or black (-BLK)

> Weight .2 lb



T-Bar Suspended Ceiling

For mounting to an inverted T-bar. The clip locks onto T-bar and the Busway is connected to the stud on the clip. T-bar is mounted with surface clip. Maximum spacing is 5 ft.

Part Number UTHB-5

Available in plain zinc

Weight .1 lb





ACCESSORIES: SUPPORT HARDWARE

Surface Mount

For mounting to a surface. Comes with a 7/32 inch hole.

For rod mounting, this comes with a 7/16 in. hole.

Part Number UMCT1-S (surface) Available in all standard and RAL colors

> UMCT1-R (rod) No available colors



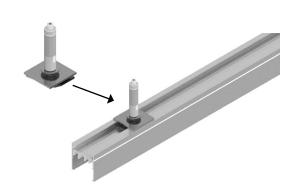
Cable

For mounting to a 1/16 in. or 3/32 in. aircraft cable with easy grip clamp assembly. Cable is not included. Hanger support is every 10 ft. maximum.

Part Number UACH-1 (1/16" cable) UACH-2 (3/32" cable)

Available in plain zinc

Weight .2 lb



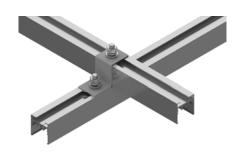
Crossover Bracket

Two plane (over-under): the most economical method for providing single, two or three phase power in both directions. Use simple straight runs with power feeds from either end.

Part Number UGBT1-OU2

Available in plain zinc or black (-BLK)

*4 required



Two-Hole Grid Bracket

Used to make the mechanical connection between two perpendicular pieces of T1 housing.

Part Number UGBT1-SP2 Available in plain zinc or black (-BLK)



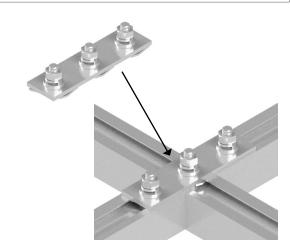
ACCESSORIES: SUPPORT HARDWARE

Three-Hole Grid Bracket

Used to make the mechanical connection between three, intersecting pieces of T1 housing.

Part Number UGBT1-SP3

Available in plain zinc or black (-BLK)

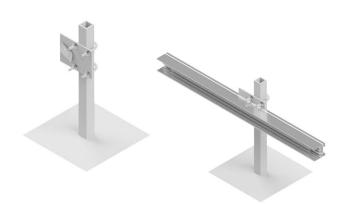


Raised Mounting Bracket

For mounting the busway horizontally (with access slot facing to the side) for under floor applications.

Part Number **URFBT1**

Available in plain zinc or black (-BLK)





ACCESSORIES: CONNECTION HARDWARE

Joint Kit

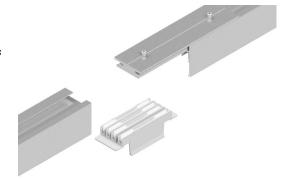
For the connection of adjacent busway sections. Each kit is comprised of an in-line connector and housing coupler.

In-Line Connector: sections of Busway are joined electrically by means of an in-line connector.

Housing Coupler: sections of Busway are joined mechanically by means of a housing coupler. One is required per connection point.

Part Number UJKT1-2 (for 2-pole systems) UJKT1-4 (for 4-pole systems)

Available in all standard and RAL colors



In-Line Connector

The connector is installed by 'snapping' into position with housing sections butted together. All in-line bus connectors are polarized to prevent phase mismatch.

Part Number UBCT1-2 (for 2-pole systems) UBCT1-4 (for 4-pole systems)

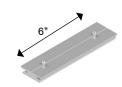




Housing Coupler

Housing couplers make the mechanical connection between sections of Busway. Part Number UHCT1

Available in all standard and RAL colors



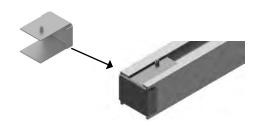
End Cap

Used for insulating the female end of the Busway.

Part Number UECT1

Available in all standard and RAL colors

Weight: .2 lb



Optional Closure Strip

Made of either rigid PVC or aluminum, the closure strip is used to close the continuous access slot of the Busway. It may be used for aesthetic purposes, for keeping dust and dirt from entering the Busway or as an added safety measure. It is easily cut to length in the field to be installed around plug-in units.

Part Number UCST1-WHT (PVC) UCST1-AL (aluminum)

Available in all standard colors





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 & SPECS

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 60 or 100 amps with isolated ground.

It 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 reseves 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/.

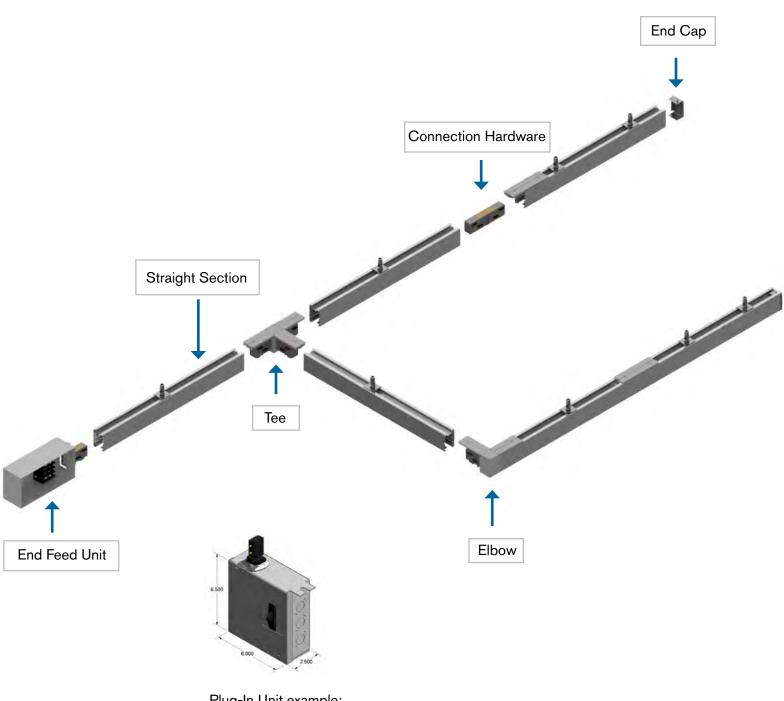


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SYSTEM LAYOUT DRAWING



Plug-In Unit example:

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

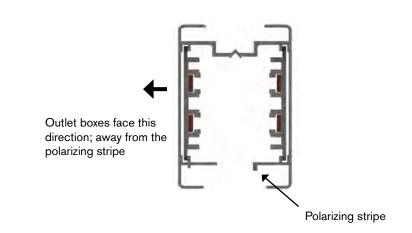


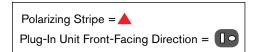
POLARITY TIPS

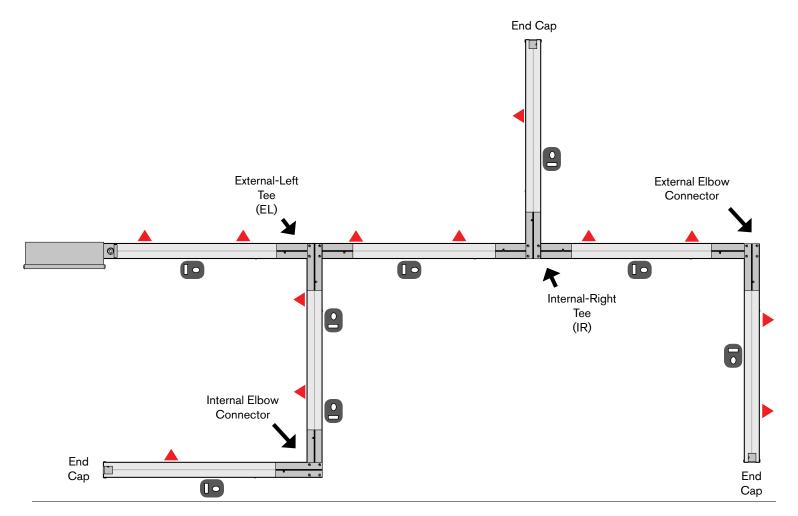
STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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.









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 apart. Refer to page 2.42 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 20, 10 and 5-foot increments. Although the factory can cut individual STARLINE Track Busway sections to any length under 20 feet, it is highly recommended to keep all layout runs in increments of 5 feet 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	VOLTAGE DROP @ 0.8 PF
		Single Phase	Three Phase
60T2 (standard)	60 amps	29 Ft.	51 Ft.
100T2 (standard)	100 amps	42 Ft.	72 Ft.



COMPONENT RELATIONSHIP TIPS

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

Examples:

- No need to add extra Joint Kits for Elbows, Tees, or Crosses, as they are already part of your housing count.
- If using an Above Feed, order a Joint Kit for each Feed.
- General support hardware rule to follow:

10 ft 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. 2.4 Polarity Tips for more detail.





STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist of an extruded aluminum shell with insulated copper conductor strips mounted on the two opposite interior side walls. The aluminum housing acts as a 100% ground path and each straight has an open access slot over its entire length for the insertion of turn-nlock plug-in units. The housing configuration is 4 pole in a 300 Volt design. Track Busway housing is connected together using in-line connectors and housing couplers (found under Accessories).

MATERIAL: Extruded Aluminum

RATINGS: 100% Ground Path

U.S: 60 Amp, 300 Volt

LENGTH: 5 Ft, 10 Ft, 20 Ft.;

or custom lengths between

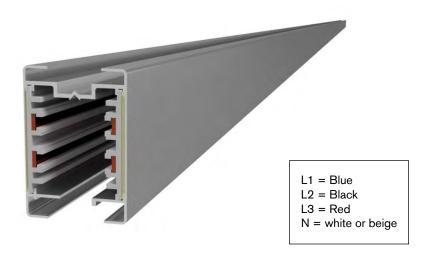
2 - 20 Ft.

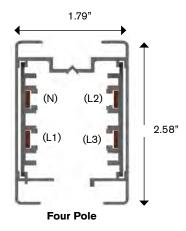
VOLTAGE DROP: distributed load

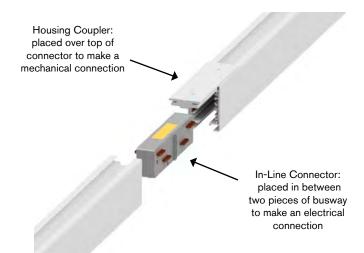
Single Phase 29 ft. (.8PF) Three Phase 51 ft. (.8PF)

WEIGHT:

10 ft. 4 pole: 12.5 lbs









STRAIGHT SECTIONS: PRODUCT NUMBERS

Paint UEC White









ibility











Paint

color

**RAL (please see page 2.41)

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- Straight section
- 3. Product Frame (maximum amperage)

060 60 amps

- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- s Standard
- 8. Straight Length (length of section)

XX = feet, YY = inches

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

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

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue WHT0

Examples:

US060T2C4S-1000C-STD0 = US, Straight section, 60 amps, T2, Copper conductor, 3 Phase plus neutral, Standard polarization- 10ft., Continuous access- standard mill

US06072C4S-0500C-P010 = US, Straight section, 60 amps, 72, Copper conductor, 3 phase plus neutral, Standard polarization- 5ft., Continuous access- RAL 1001





ELBOW SECTIONS

Product Description

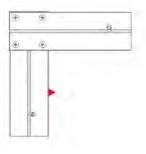
Elbow connectors are used for making a 90 degree turn in a 60 amp Busway run. Please be aware of polarization issues before making your final selection (refer to pg. 2.4 Polarity Tips).

Elbows are electrically connected to sections of 60 amp Busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent phase mismatch.

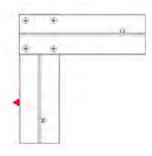
WEIGHT: .5 lbs







Internal Elbow



External Elbow



In-Line Connector





ELBOW SECTIONS: PRODUCT NUMBERS











Ground

husbar





Paint color **RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

Elbow section

3. Product Frame (maximum amperage)

060 60 amps

4. Compatibility (frame compatibility)

T2 T2 systems

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

s Standard

8. Turning Direction (direction of section polarizing stripe)

IN Internal ΕX External 9. Paint Color (allows painting of the busway housing)

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue

WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

UE060T2C4S-IN-BLK0 = US, Elbow section, 60 amps, T2, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal- painted black **<u>UE060T2C4S-EX-STD0</u>** = US, Elbow section, 60 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- External- standard mill finish





TEE SECTIONS

Product Description

Similar to elbow connectors, tee connectors are used for connecting branch housing sections at 90 degrees to the main run.

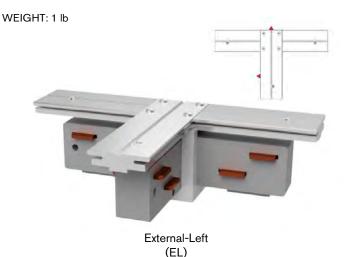
Please be aware of polarization issues before making your final selection (refer to pg. 2.4 Polarity Tips).

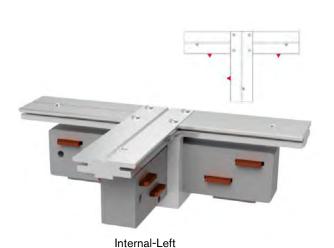
Tees are electrically connected to sections of 60 amp Busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent phase mismatch.



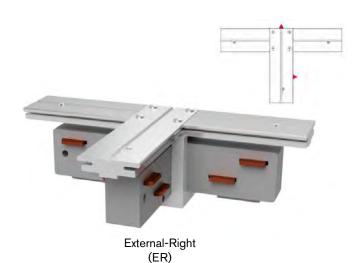
In-line Connector

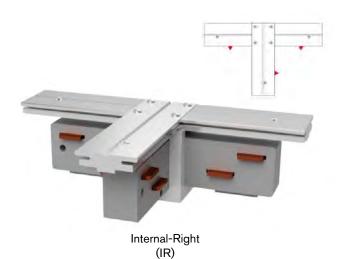
= Polarizing Stripe





(IL)







TEE SECTIONS: PRODUCT NUMBERS











Ground

husbar





Paint color **RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

Tee section

3. Product Frame (maximum amperage)

060 60 amps

4. Compatibility (frame compatibility)

T2 T2 systems

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

s Standard R Reversed

8. Turning Direction (direction of section polarizing stripe)

IL Internal-Left EL External-Left IR Internal-Right ER External-Right 9. Paint Color (allows painting of the busway housing)

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue Paint UEC White WHT0

**RAL system can also be used; reference page 2.41

Examples:

UT060T2C4S-IR-RED0 = US, Tee section, 60 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Internal-Right- painted red UT060T2C4S-EL-STD0 = US, Tee section, 60 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- External-Left- standard mill finish

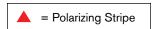


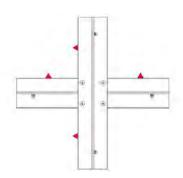
CROSS SECTIONS

Product Description

Similar to tee connectors, crosses are typically used for grid designs. Please be aware of polarization issues before making your final selection (refer to pg. 2.4 Polarity Tips).

Crosses are electrically connected to sections of 60 amp Busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent phase mismatch.







Standard cross



In-line Connector



CROSS SECTIONS: PRODUCT NUMBERS











Ground

husbar





Color

**RAL (please see page 2.41)

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- Cross section
- 3. Product Frame (maximum amperage)

060 60 amps

- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- s Standard
- 8. Turning Direction (direction of section polarizing stripe)
- ST Standard

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

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

UX060T2C4S-ST-RED0 = US, cross section, 60 amps, T2, Copper conductor, 3 Phase plus neutral, Standard polarization- Standard turning direction- painted red UX060T2C4S-ST-STD0 = US, cross section, 60 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Standard turning direction- standard mill finish





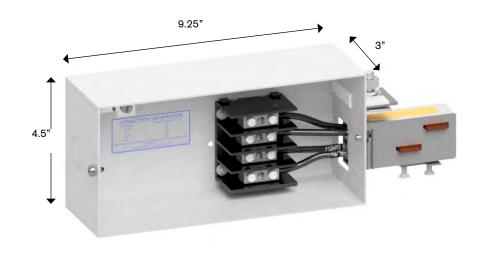
END FEED UNITS

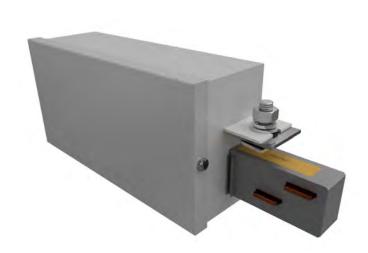
Product Description

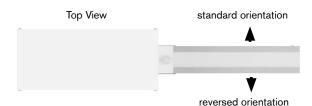
With a built-in connector, the end feed units for 60T2 systems consist of a steel junction box with removable side, a terminal block for field connections and an in-line connector already terminated to one side of the terminal block.

The unit is inserted into the Busway and held in position via a bolted connection to the Busway.

WEIGHT: 3.5 lbs









END FEED UNITS: PRODUCT NUMBERS



System

Product

Type



Frame



ibility



Paint Color

6. 7. Neutral/ Polarization Ground busbar - **S**



S

11.

Lug/box options

9. 10. Lid Accessorie orientation Package

es Accessories

-

STD0

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

- 2. Product Type (section component)
- F End Feed
- 3. Product Frame (maximum amperage)

060 60 amps

- 4. Compatibility (frame compatibility)
- T2 T2 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
- 9. Lid Orientation (viewed from the terminal, the side with removable lid)
- L Left
- Right
- 10. Accessories Package (optional accessories for feed units)
- S Standard
- 11. Accessories Location (viewed from the terminal, the side with accessory)
- N None (N/A)

12. Paint Color (allows painting of the busway housing)

 STD0
 Paint UEC Silver
 RED0
 Paint UEC Red

 BLK0
 Paint UEC Black
 BLU0
 Paint UEC Blue

 WHT0
 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

<u>UF060T2C4R-SLSN-BLU0</u> = US, end Feed, 60 amps, T2, Copper conductor, 3 Phase plus neutral, Reversed polarization- Std lugs, Std box, Left lid orientation, standard accessory package, no accessories location- painted blue





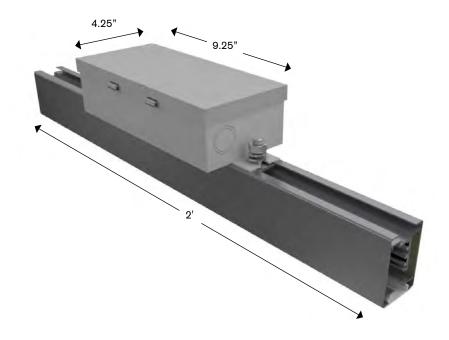
ABOVE FEED UNITS

Product Description

The above feed unit is used for supplying power anywhere along the top of a Busway run. It consists of a two-foot section of Busway, and a junction box with a 60A rated terminal block.

Two in-line connectors and housing couplers (supplied separately) are used to connect two adjacent busway sections.

WEIGHT: 2 - 5 lbs





Internal View



ABOVE FEED UNITS: PRODUCT NUMBERS



System



Product

Type



Product

Frame



ibility



Ground

husbar

Material







orientation Package





Length



Color

**RAL (please see page 2.41)

Busway

Access

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- Above Feed Α
- 3. Product Frame (maximum amperage)
- 060 60 amps
- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- S Standard
- Reversed
- 8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)
- Standard lugs, standard box
- 9. Lid Orientation (viewed from the terminal, the side with removable lid)
- None (N/A)
- 10. Accessories Package (optional accessories for feed units)
- S Standard

- 11. Accessories Location (viewed from the terminal, the side with accessory)
- N None (N/A)
- 12. Straight Length (length of section)

0200

- 13. Busway Access (how plugs access the busway)
- Continuous
- 14. Feed Location (location of the center of the top feed)

12 inches 012

15. Paint Color (allows painting of the busway housing)

STD0 Paint UEC Silver RED0 Paint UEC Red Paint UEC Black BLK₀ BLU₀ Paint UEC Blue WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

UA060T2C4S-SNSN-0200C012-BLK0 = US, Above feed, 60 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Std lugs, Std box, No lid orientation, Standard accessory package, No accessory location- 2 ft., Continuous access, 12 inches- painted black





END FEED CONNECTOR UNITS

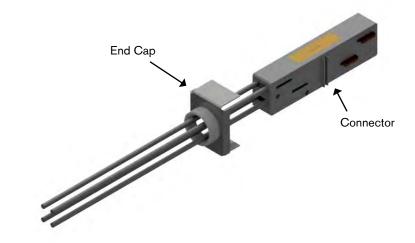
Product Description

This design of power feed has a builtin connector and is used primarily in applications where aesthetic appearance is important- such as retail.

Wire leads are preassembled to the connector and eliminate the junction box on the Busway.

24 in wire length is standard, but additional lengths are available upon request.

WEIGHT: 2 lbs





END FEED CONNECTOR UNITS: PRODUCT NUMBERS

















Length

Product System

Product

Compatibility

Neutral/ Ground busbar

Polarization

1. System (standard of measure)

U U.S.

2. Product Type (section component)

Concealed feed

3. Product Frame (maximum amperage)

060 60 amps

4. Compatibility (frame compatibility)

T2 T2 systems

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

S Standard

8. Wire Length (length of wire from the connector - in inches)

ZZZ ZZZ = inches (024 is standard)

Examples:

UC06072C4S-024 = US, Concealed feed, 60 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- 24 inches





BELOW FEED UNITS

Product Description

A Below Power Feed is designed to be installed anywhere along the full-access opening of a Busway run. Insert the Power Feed connector into the Busway run where desired and secure with a hanger bolt (supplied). The Below Power Feed unit must be completely installed in the selected Busway housing before the adjacent housing section can be installed. A terminal block is provided in the box for field terminations. Power supply cable is fed in from under the unit.

WEIGHT: 4.8 lbs





BELOW FEED UNITS: PRODUCT NUMBERS



System



Type



Frame



ibility





8. Lug/box

R

S

9. 10. 11.
Lid Accessories Accessories orientation Package Location

-

15. Paint Color

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

- 2. Product Type (section component)
- B Below Feed
- 3. Product Frame (maximum amperage)

060 60 amps

- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)

C Copper

- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 4 3Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- **S** Standard
- R Reversed
- 8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)
- S Standard lugs, standard box
- 9. Lid Orientation (viewed from the terminal, the side with meter)
- R Right
- 10. Accessories Package (optional accessories for feed units)
- S Standard
- 11. Accessories Location (viewed from the terminal, the side with accessory)
- N None (N/A)

15. Paint Color (allows painting of the busway housing)

GAL0 Galvanized

BLK₀

WHT0

Paint UEC Black Paint UEC White RED0 F

Paint UEC Red Paint UEC Blue

**RAL system can also be used; reference page 2.41

Examples:

<u>UB060T2C4S-SRSN-GAL0</u> = US, Below feed, 60 amps, T2, Copper conductor, 3Phase plus neutral, Standard polarization- Std lugs, Std box, Right lid orientation, Standard accessory package, No accessory location- Galvanized

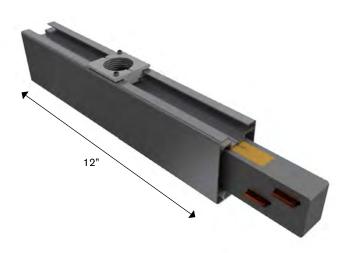




PENDANT FEED UNITS

Product Description

A Pendant Feed consists of a 1 ft. Busway section with a 1 inch conduit size access hole for access to connection leads inside the Busway. A 1 inch conduit mounting adapter is included.



Hole used to access connection leads with the Busway





PENDANT FEED UNITS: PRODUCT NUMBERS









ibility





Ground husbar



Paint Color

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

Pendant Feed

3. Product Frame (maximum amperage)

060 60 amps

4. Compatibility (frame compatibility)

T2 T2 systems

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

s Standard Reversed 8. Paint Color (allows painting of the busway housing)

STD0 **UEC Mill Finish** RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue

WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

<u>UP060T2C4R-PD60</u> = US, Pendant feed, 60 amps, T2, Copper conductor, 3 Phase plus neutral, Reversed polarization-RAL 3036 **<u>UP060T2C4S-STD0</u>** = US, Pendant feed, 60 amps, T2, Copper conductor, 3 Phase plus neutral, Standard polarization-standard mill finish





STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist of an extruded aluminum shell with insulated copper conductor strips mounted on the two opposite interior side walls. The aluminum extrusion acts as a 100% ground path and each straight has an open access slot over its entire length for the insertion of turn-nlock plug-in units. The housing configuration is 4 pole in a 600 Volt design. Track Busway straights are connected together using in-line connectors and housing couplers (found under Accessories).

MATERIAL: Extruded Aluminum

RATINGS: 100% Ground Path

100 Amp, 600 Volt

LENGTH: 5 Ft, 10 Ft, 20 Ft.;

or custom lengths between

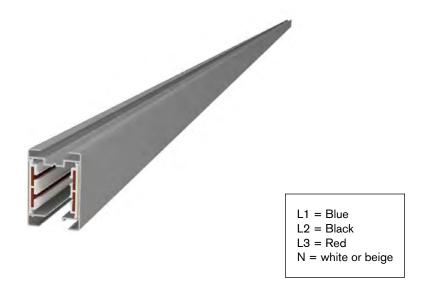
2 - 20 Ft.

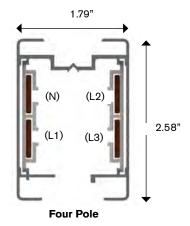
VOLTAGE DROP: distributed load

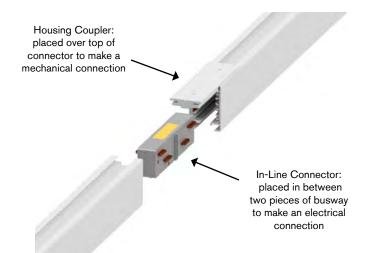
Single Phase 42 ft. (.85PF) Three Phase 72 ft. (.85PF)

WEIGHT:

10 ft. (3m) 4 pole: 16 lbs









STRAIGHT SECTIONS: PRODUCT NUMBERS







ibility









Paint

colo

Ground busbar

**RAL (please see page 2.41)

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- Straight section
- 3. Product Frame (maximum amperage)
- 100 amps
- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- s Standard
- 8. Straight Length (length of section)

XX = feet, YY = inches (for U.S.)

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

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

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

US100T2C4S-0206C-STD0 = US, Straight section, 100 amps, T2, Copper conductor, 3 Phase plus neutral, Standard polarization- 2ft. 6in., Continuous access- standard

US100T2C4S-0500C-P010 = US, Straight section, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- 5ft., Continuous access- RAL 1001





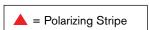
ELBOW SECTIONS

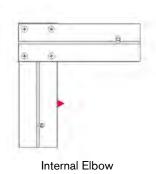
Product Description

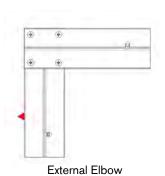
Elbow connectors are used for making a 90 degree turn in a 100 amp compact Busway run. Please be aware of polarization issues before making your final selection (refer to pg. 2.4 Polarity Tips).

Elbows are electrically connected to sections of 100 amp Busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent phase mismatch.

WEIGHT: .5 lbs











In-line Connector



ELBOW SECTIONS: PRODUCT NUMBERS











Ground

husbar





- STD0

colo

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

- 2. Product Type (section component)
- E Elbow section
- 3. Product Frame (maximum amperage)

100 100 amps

4. Compatibility (frame compatibility)

T2 T2 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 stripe)

IN Internal

EX

External

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

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

UE100T2C4S-IN-BLK0 = US, Elbow section, 100 amps, T2, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal- painted black **UE100T2C4S-EX-STD0** = US, Elbow section, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- External- standard mill finish





TEE SECTIONS

Product Description

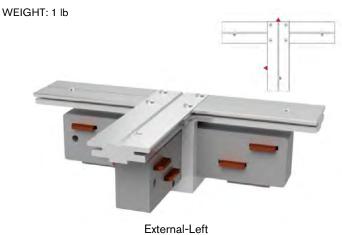
Similar to elbow connectors, tee connectors are used for connecting branch housing sections at 90 degrees to the main run. Please be aware of polarization issues before making your final selection (refer to pg. 2.4 Polarity Tips).

Tees are electrically connected to sections of 100 amp Busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent phase mismatch.

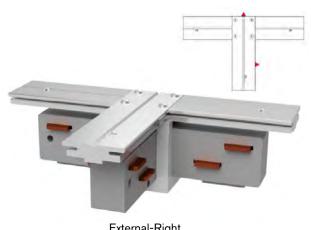


In-line Connector

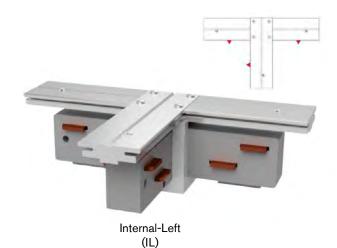
= Polarizing Stripe



(EL)



External-Right (ER)





Internal-Right (IR)



TEE SECTIONS: PRODUCT NUMBERS











husbar





- STD0

Color

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

T Tee section

3. Product Frame (maximum amperage)

100 100 amps

4. Compatibility (frame compatibility)

T2 T2 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. Turning Direction (direction of section polarizing stripe)

ILInternal-LeftELExternal-LeftIRInternal-RightERExternal-Right

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

STD0UEC Mill FinishRED0Paint UEC RedBLK0Paint UEC BlackBLU0Paint UEC BlueWHT0Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

<u>UT100T2C4S-IR-RED0</u> = US, Tee section, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Internal-Right- painted red <u>UT100T2C4S-EL-STD0</u> = US, Tee section, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- External-Left- standard mill finish



CROSS SECTIONS

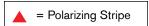
Product Description

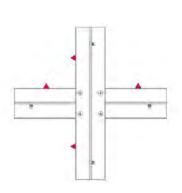
Similar to tee connectors, crosses are typically used for grid designs. Please be aware of polarization issues before making your final selection (refer to pg. 2.4 Polarity Tips).

Crosses are electrically connected to sections of 100 amp Busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent phase mismatch.



Standard cross







In-line Connector



CROSS SECTIONS: PRODUCT NUMBERS











husbar





color

**RAL (please see page 2.41)

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- Cross section
- 3. Product Frame (maximum amperage)
- 100 amps
- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- s Standard
- 8. Turning Direction (direction of section polarizing stripe)
- ST Standard

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

STD0 UEC Mill Finish RED0 Paint UEC Red BLK0 Paint UEC Black BLU0 Paint UEC Blue WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

<u>UX100T2C4S-ST-RED0</u> = US, cross section, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Standard turning direction- painted red UX100T2C4S-ST-STD0 = US, cross section, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Standard turning direction- standard mill finish





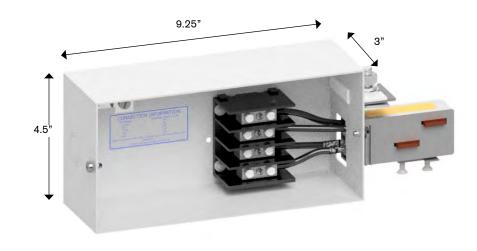
END FEED UNITS

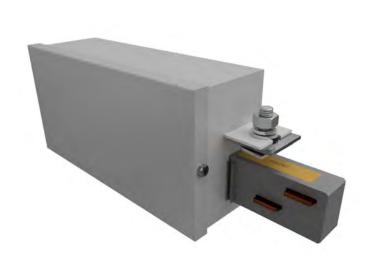
Product Description

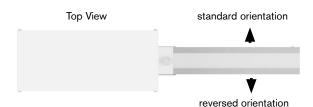
With a built-in connector, the end feed units for 100T2 systems consist of a steel junction box with removable side, a terminal block for field connections and an in-line connector already terminated to one side of the terminal block.

The unit is inserted into the Busway and held in position via a bolted connection to the Busway.

WEIGHT: 3.5 lb









END FEED UNITS: PRODUCT NUMBERS



System

Product

Type

100 Product

Frame

Compat-

ibility

Material

Ground

busbar

Paint Color Polarization

Lua/box

options

orientation Package

Lid

10.

Location

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

End Feed

3. Product Frame (maximum amperage)

100 amps

4. Compatibility (frame compatibility)

T2 T2 systems

5. Material (busbar material)

C Copper

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

3Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

s Standard Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box size)

S Standard lugs, standard box

9. Lid Orientation (viewed from the terminal, the side with

removable lid) Left

Right

10. Accessories Package (optional accessories for feed units)

S Standard

11. Accessories Location (viewed from the terminal, the side with accessory)

N None (N/A) 12. Paint Color (allows painting of the busway housing)

Paint UEC Silver BLK₀ Paint UEC Black

RED0 Paint UEC Red BLU0 Paint UEC Blue

WHT0 Paint UEC White

**RAL system can also be used; reference page 2.41

Examples:

<u>WF100T2C4R-SLSN-BLU0</u> = US, end Feed, 100 amps, T2, Copper conductor, 3 phase plus neutral, Reversed polarization- Std lugs, Std box, Left lid orientation, standard accessory package, no accessories location- painted blue



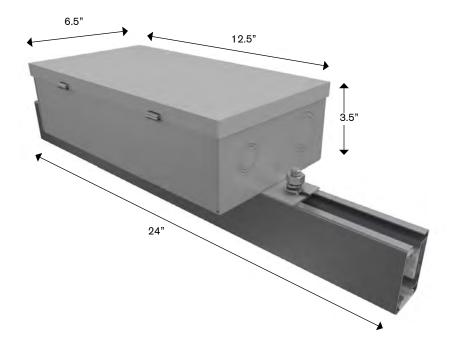
ABOVE FEED UNITS

Product Description

The above feed unit is used for supplying power anywhere along the top of a Busway run. It consists of a two-foot section of Busway, and a junction box with a 60A rated terminal block.

Two in-line connectors and housing couplers (supplied separately) are used to connect two adjacent busway sections.

WEIGHT: 5 lb





Internal View



ABOVE FEED UNITS: PRODUCT NUMBERS

















Color



orientation Package





Length

Busway Access

System Product Type

Product Frame

Compatibility

Material

Polarization Ground husbar

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

2. Product Type (section component)

Above Feed Α

3. Product Frame (maximum amperage)

100 amps

4. Compatibility (frame compatibility)

T2 T2 systems

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

S Standard Reversed

8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)

Standard lugs, standard box

9. Lid Orientation (viewed from the terminal, the side with meter)

None (N/A) N

10. Accessories Package (optional accessories for feed units)

s Standard

11. Accessories Location (viewed from the terminal, the side with accessory)

None (N/A) Ν

12. Straight Length (length of section)

0200 2 feet

13. Busway Access (how plugs access the busway)

Continuous

14. Feed Location (location of the center of the top feed)

012 12 inches

15. Paint Color (allows painting of the busway housing)

RED0 Paint UEC Red STD0 Paint UEC Silver BLU₀ Paint UEC Blue Paint UEC Black BLK₀

Paint UEC White WHT0

**RAL system can also be used; reference page 2.41

Examples:

<u>UA100T2C4S-SNSN-0200C012-BLK0</u> = US, Above feed, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- Std lugs, Std box, No lid orientation, Standard accessory package, No accessory location- 2 ft., Continuous access, 12 inches- painted black





END FEED CONNECTOR UNITS

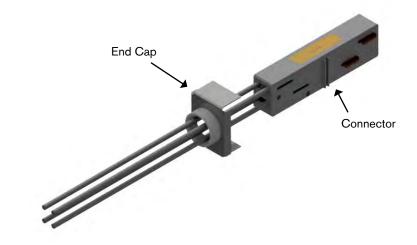
Product Description

This design of power feed has a builtin connector and is used primarily in applications where aesthetic appearance is important- such as retail.

Wire leads are preassembled to the connector and eliminate the junction box on the Busway.

24 in wire length is standard, but additional lengths are available upon request.

WEIGHT: 2 lbs





END FEED CONNECTOR UNITS: PRODUCT NUMBERS



System



Туре





ibility





Ground

busbar





Length

- 1. System (standard of measure)
- U U.S.
- 2. Product Type (section component)
- Concealed feed
- 3. Product Frame (maximum amperage)
- 100 100 amps
- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)
- C Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- S Standard
- 8. Wire Length (length of wire from the connector in inches)
- ZZZ ZZZ = inches (024 is standard)

Examples:

UC100T2C4S-024 = US, Concealed feed, 100 amps, T2, Copper conductor, 3 phase plus neutral, Standard polarization- 24 inches





BELOW FEED UNITS

Product Description

A Below Power Feed is designed to be installed anywhere along the full-access opening of a Busway run. Insert the Power Feed connector into the Busway run where desired and secure with a hanger bolt (supplied). The Below Power Feed unit must be completely installed in the selected Busway housing before the adjacent housing section can be installed. A terminal block is provided in the box for field terminations. Power supply cable is fed in from under the unit.

WEIGHT: 4.8 lbs





BELOW FEED UNITS: PRODUCT NUMBERS





Product

Type



Frame



ibility



Ground

busbar

Color



WHT0

Lug/box





Accessories Accessories orientation Package

GAL0

**RAL (please see page 2.41)

1. System (standard of measure)

U U.S.

- 2. Product Type (section component)
- Below Feed
- 3. Product Frame (maximum amperage)

100 amps

- 4. Compatibility (frame compatibility)
- T2 T2 systems
- 5. Material (busbar material)

C Copper

- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- s Standard
- Reversed
- 8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)
- Standard lugs, standard box
- 9. Lid Orientation (viewed from the terminal, the side with meter)
- R
- 10. Accessories Package (optional accessories for feed units)
- s Standard
- 11. Accessories Location (viewed from the terminal, the side with accessory)
- None (N/A) Ν

12. Paint Color (allows painting of the busway housing)

**RAL system can also be used; reference page 2.41

GAL₀ Galvanized BLK₀

Paint UEC Black

RED0 Paint UEC Red BLU₀

Paint UEC White Paint UEC Blue

Examples:

<u>UB100T2C4R-SRSN-WHT0</u> = US, Below feed, 100 amps, T2, Copper conductor, 3 phase plus neutral, Reversed polarization- Std lugs, Std box, Right lid orientation, Standard accessory package, No accessory location- painted white



RAL Colors

1st Character

P Paint

2nd Character

100
101
102
103
200
201
300
301
302
303
400
401
500
501
502
600
601
602
603
700
701
702
703
704
800
801
802
900
901
902

3rd Character

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

4th Character

0 0

Example:

P B 2 0 = Paint RAL 3012



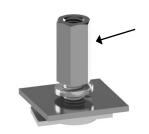
Threaded Rod

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

Part Number URHB-3

Available in plain zinc or black (-BLK)

> Weight .3 lb



3/8" rod coupler

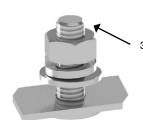
Standard

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 maximum.

Part Number UTHB-3 (3/8") UTHB-1/4 (1/4")

Available in plain zinc or black (-BLK)

> Weight .2 lb



3/8" or 1/4" Stud

Weight Hook

Can be used as a hanger to suspend the Busway from chains or cables. Can also be used to hang loads of up to 50 lbs under the Busway, such as light fixtures, tools and balancers.

Part Number UWHRT2

Available in plain zinc

Weight .2 lb





Surface Mount

For mounting to a surface. Comes with a 3/8 inch hole.

Part Number UMCT2-S (surface) Available in all standard and RAL colors



T-Bar Suspended Ceiling

For mounting to an inverted T-bar. The clip locks onto T-bar and the Busway is connected to the stud on the clip. T-bar is mounted with surface clip.

Part Number UTHB-4

Available in plain zinc

Weight .1 lb



Recessed Mount

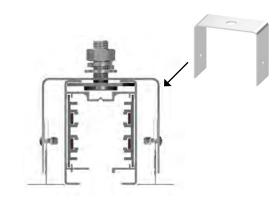
Recessed mount brackets are used when installing Busway that is recessed into a suspended ceiling.

*Hanger bolt must be ordered separately

Part Number URMT2

Available in plain zinc

Weight .1 lb



Cable

For mounting to a 1/16 in. or 3/32 in. aircraft cable with easy grip clamp assembly. Cable is not included. Hanger support is every 10 ft. maximum.

Part Number UACH-1 (1/16" cable) UACH-2 (3/32" cable)

Available in plain zinc

Weight .2 lb





ACCESSORIES: CONNECTION HARDWARE

Joint Kit

For the connection of adjacent busway sections. Each kit is comprised of an in-line connector and housing coupler.

In-Line Connector: sections of Busway are joined electrically by means of an in-line connector. All in-line bus connectors are polarized to prevent phase mismatch. Housing Coupler: sections of Busway are joined mechanically by means of a housing coupler. One is required per connection point.

Part Number UJKT2-4

Available in all standard and RAL colors



In-Line Connector

The connector is installed by inserting it into each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection.

Part Number UBCT2-4



Housing Coupler

Housing couplers make the mechanical connection between sections of Busway.

Part Number UHCT2

Available in all standard and RAL colors



End Cap

For covering the end of 60T2 or 100T2 busway.

Part Number UECT2

Available in all standard and RAL colors

Weight: .2 lb



Optional Closure Strip

Made of white, rigid PVC, the closure strip is used to close the continuous access slot of the Busway. It may be used for aesthetic purposes, for keeping dust and dirt from entering the Busway or as an added safety measure. It is easily cut to length in the field to be installed around plug-in units.

Part Number UCST2

Available in all standard colors

Maximum Cut Length: 20 ft



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 & SPECS

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 reseves 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/.

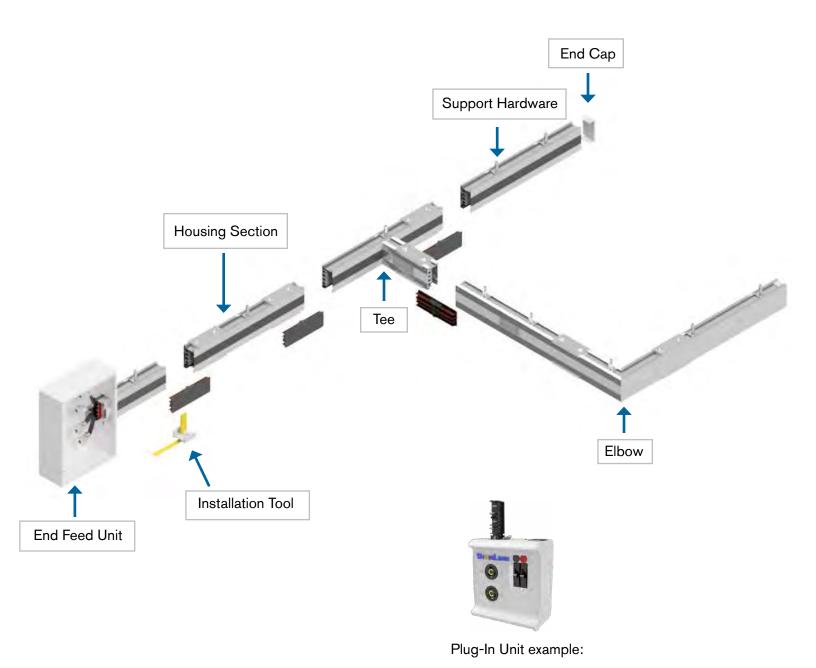


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SYSTEM LAYOUT DRAWING



unit options, please visit the Plug-In Units section

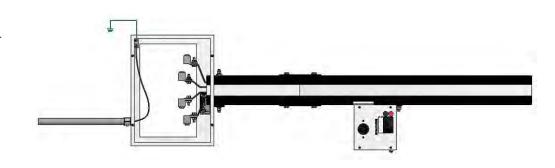


GROUND OPTIONS

Case Ground/Chassis Earth

Uses aluminum housing and no extra copper bar.

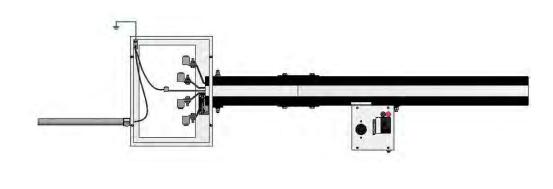




Dedicated Ground/Earth

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

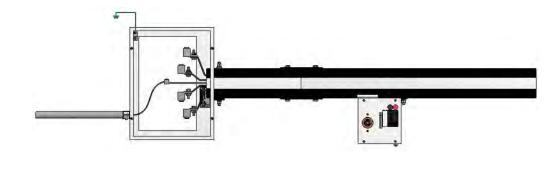




Isolated Ground/Earth

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





*<u>U.S.</u>: 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/

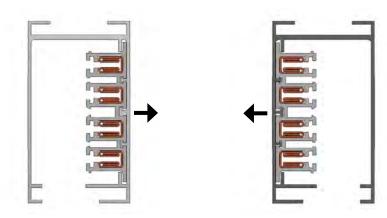


POLARITY TIPS

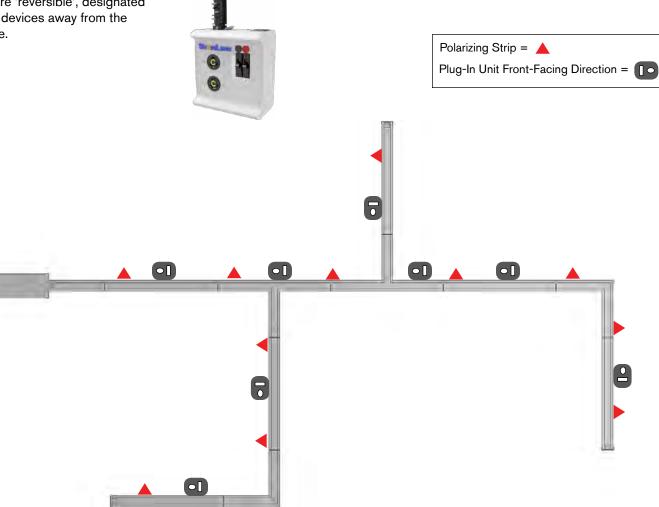
STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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





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	DISTRIBUTED	VOLTAGE	VOLTAGE
DESIGNATION	LOAD	DROP @ 0.8 PF	DROP @ 0.8 PF
		Single Phase	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)

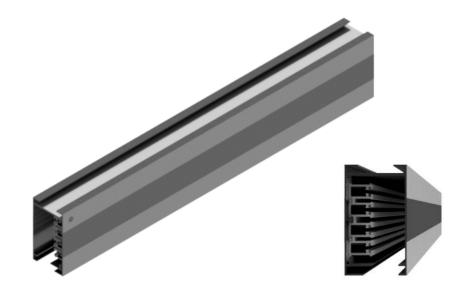
(.8PF)

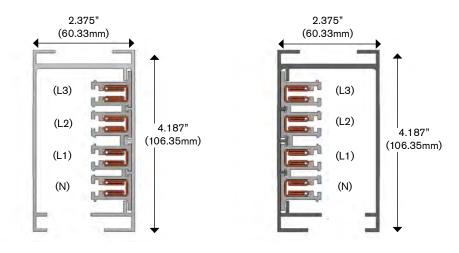
WEIGHT:

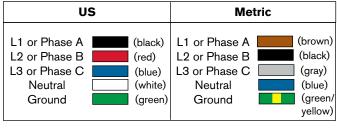
10 ft. (3m) 4 pole: 26 lbs/11.8 kg

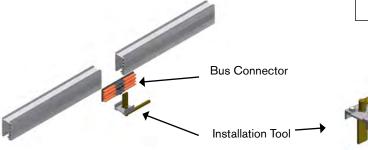
10 ft. (3m) 4 pole w/ ground: 30 lbs/13.6 kg 10 ft. (3m) 4 pole w/ 200% N: 33 lbs/15 kg

10 ft. (3m) 4 pole w/ ground & 200% N: 34 lbs/15.4 kg











100T3 Systems

STRAIGHT SECTIONS: PRODUCT NUMBERS



System







ibility





Ground

husbar







Length

Paint color

Tape Marking

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Straight section

3. Product Frame (maximum amperage)

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)

3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

Standard

8. Straight Length (length of section)

XX = feet, YY = inches (for U.S.)

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)

STD UEC Mill Finish **RED** Paint UEC Red Paint UEC Black BLU Paint UEC Blue **BLK**

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 Tape UEC Black Tape UEC Red

Tape UEC White

Tape UEC Blue

Examples:

US100T3C4S-0206C-STD0 = US, Straight section, 100 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- 2ft. 6in., Continuous access- standard mill finish, no tape marking

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



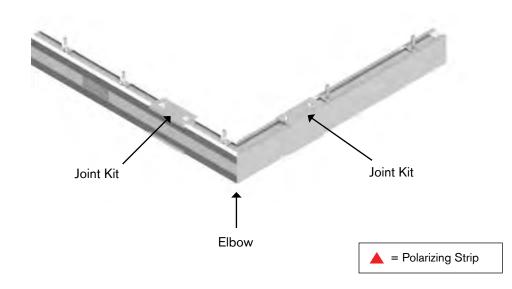


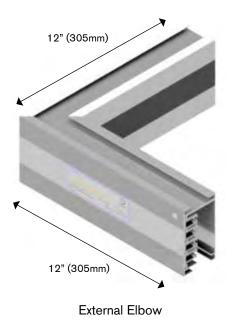
ELBOW SECTIONS

Product Description

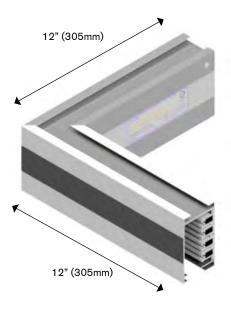
Elbows are used for making a 90 degree in a Busway run. Horizontal and vertical elbows are available. Specify external or internal elbow according to the orientation of the busbars in the Busway sections to be connected. Elbow sections are connected to adjacent Busway sections using an installation tool 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)

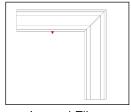




External Elbow



Internal Elbow



Internal Elbow



100T3 Systems

ELBOW SECTIONS: PRODUCT NUMBERS











Ground

husbar





Paint color

0 Tape Marking

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Elbow section

3. Product Frame (maximum amperage)

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)

3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

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)

Internal IN

ΕX

External

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

STD UEC Mill Finish **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 Tape UEC Black

Tape UEC Red Tape UEC Blue

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-STD0 = Metric, Elbow section, 100 amps, T3, Copper conductor, 3 Phase plus 200% Neutral, Standard polarization- External- standard mill finish, no tape marking



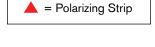


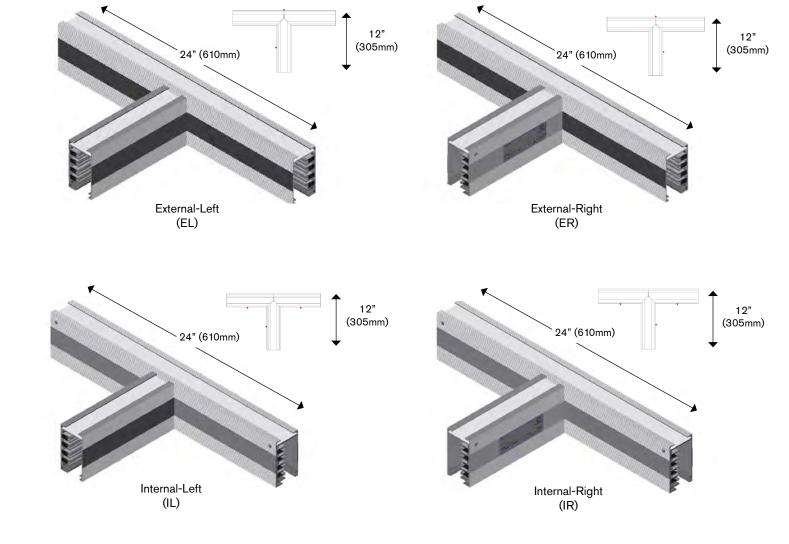
TEE SECTIONS

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 straight section and tee section of busway.

WEIGHT: 8 lbs (3.6 kg)







100T3 Systems

TEE SECTIONS: PRODUCT NUMBERS

















Paint color



Ground

husbar

Tape Marking

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Tee section

3. Product Frame (maximum amperage)

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)

3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

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)

RED Paint UEC Red STD UEC Mill Finish BLU Paint UEC Blue **BLK** Paint UEC Black

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 3 Tape UEC Black Tape UEC Red Tape UEC Blue

Tape UEC White

Examples:

UT100T3C4S-IR-RED0 = US, Tee section, 100 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal-Right- painted red, no tape marking MT100T3CGS-EL-STD0 = Metric, Tee section, 100 amps, T3, Copper conductor, 3 Phase plus neutral plus internal ground conductor, Standard polarization- External-Leftstandard mill finish, no tape marking



100T3 Systems

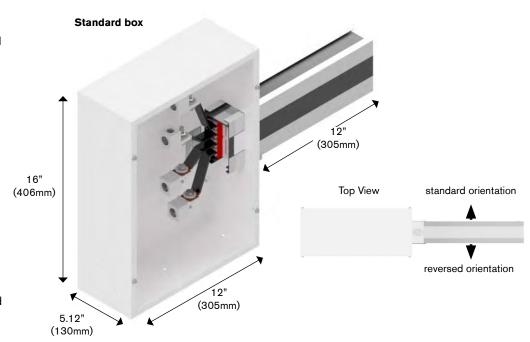
END FEED UNITS

Product Description

End power feed units connect to the end of the Busway. A large size, factory assembled unit consists of a 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.



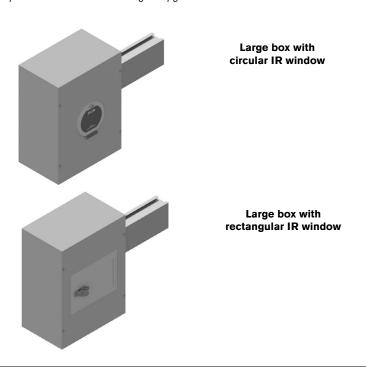
Infrared (IR) Window options: Refer to option 10. Accessories Package on pg. 3.16 End Feed Units: Product Numbers

		Boxes	
Lugs	Standard	Large	Fused
Standard	S	L	
Double	D	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/







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 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.

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

 $Y = wye, \Delta = delta$

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.





Box/Lugs Option	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)
(S) Standard Box, Standard Lugs		
(L) Large Box, Standard Lugs	Х	Х
(D) Standard Box, Double Lugs		
(A) Large Box, Double Lugs	Х	Х

^{*}Large box with one meter or accessory is 7.62" (193.5mm) deep, and large box with one meter and accessory (on opposite lids) extends the depth to 10.12" (257mm).

A meter and accessory can not be on the same lid.



*The above arrows show how to determine your meter location on an end feed (*Refer to option* 9. Meter Location on pg. 3.16 End Feed Units: Product Numbers)



100T3 Systems

END FEED UNITS: PRODUCT NUMBERS



System



Product

Type



Frame





Ground

husbar











12. Straight Length 13. Busway Access

- STD

Paint

color

15. Tape Marking M41

*16.
Meter

Release



*18.
System configuration

*Optional

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S.

M Metric

2. Product Type (section component)

F End Feed

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 NeutralN 3 Phase plus 200%

3 Phase plus 200% Neutral 3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

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)

L Standard lugs, large box A Double lugs, large box

9. Meter Location (looking down the busway run, the side with meter)

N None (N/A)

R Right

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)

None (N/A)

R Right

L Left

F Front (consult the factory)

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)

 STD
 Paint UEC Silver
 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

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

NoneTape UEC BlackTape UEC White

6 Tape UEC Red7 Tape UEC Blue

*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:

<u>UF100T3C4R-LNSN-0100C-STD0</u> = US, end Feed, 100 amps, T3, Copper conductor, 3 Phase plus neutral, Reversed polarization- Std lugs, Large box, No meter location, standard accessory package, no accessory location- 1 ft., Continuous access- painted silver, no tape marking



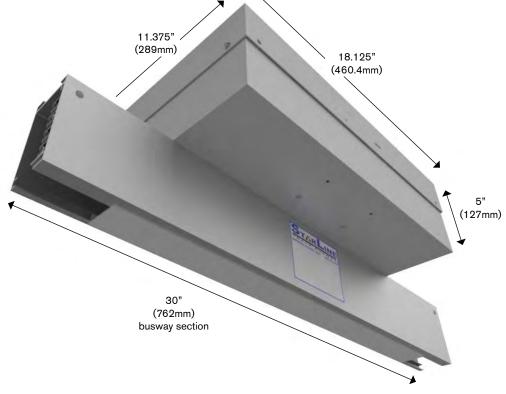


ABOVE FEED UNITS

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/



100T3 Systems

ABOVE FEED UNITS: PRODUCT NUMBERS



System











Paint

color



Tape

Marking





Location

Package

Location

Length

Busway Feed Access Location

Product Type

Product Frame

Compatibility

Material

Neutral/ Ground husbar

Meter Release M40

Options

System configuration and CT type

*Optional

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S.

Metric

2. Product Type (section component)

Above Feed Α

3. Product Frame (maximum amperage)

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)

3 Phase plus Neutral N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

S Standard

8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)

Standard lugs, standard box

Standard lugs, large box

9. Meter Location (viewed from the terminal, the side with meter)

None (N/A) N

R Right Left

Reversed

10. Accessories Package (optional accessories for feed units)

S

11. Accessories Location (viewed from the terminal, the side with accessory)

None (N/A) Ν Left

Right Т aoT

Rear F Front 12. Straight Length (length of section)

0206 2 ft 6 inches (for U.S.) M076 .76 meters (for Metric)

For other lengths, consult the factory

13. Busway Access (how plugs access the busway)

Continuous

14. Feed Location (location of the center of the top feed)

015 15 inches (for U.S.) 038 38 centimeters (for Metric)

For other lengths, consult the factory

15. Paint Color (allows painting of the busway housing)

Paint UEC Silver **RED** Paint UEC Red Paint UEC Black BLU Paint UEC Blue **BLK**

WHT Paint UEC White

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

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

Tape UEC Red 0 None Tape UEC Black Tape UEC Blue 3

4 Tape UEC White

*17. Meter Release (M40 Series Meters)

M45 WiFi, 480V Y, 400V Δ WiFi, ≤415V Y, ≤240V Δ M41 No WiFi, 480V Y, 400V Δ M43 No WiFi, ≤415V Y, ≤240V Δ M47

*18. M40 Options (choose from a 4.1" display, measured neutral, and/or an audible alarm)

S Standard Featured (D+A) D Display Ε Enhanced (N+A) (Measured) Neutral N Р Professional (D+N) Audible alarm U Ultimate (D+N+A)

*19. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

LLD - Standard, milivolt LLD - SC, 5A Κ LLY - Standard, milivolt L LLY - SC, 5A LNY - SC, 5A LNY - Standard, milivolt м

Examples:

L

<u>UA100T3CFS-LNSN-0206C015-STD0</u> = US, Above feed, 100 amps, T3, Copper conductor, 3 Phase plus 200% neutral plus internal ground conductor, Standard polarization- Std lugs, Large box, No lid orientation, Standard accessory package, No accessory location- 2 ft. 6 inches, Continuous access, 15 inches- painted silver, no tape marking



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)

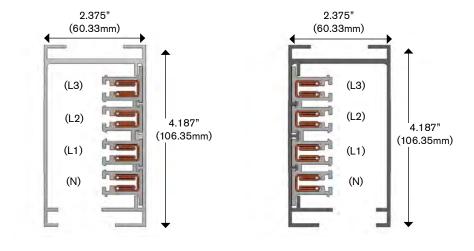
VOLTAGE DROP: distributed load

Single Phase 1V per 28ft (8.5m)

(.8PF)

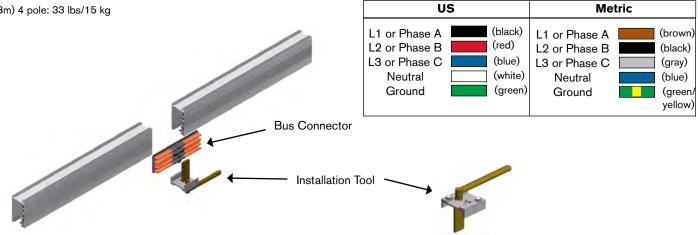
Three Phase 1V per 48ft (14.6m)

(.8PF)



WEIGHT:

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





225T3 System

STRAIGHT SECTIONS: PRODUCT NUMBERS









Paint color



Polarization

0200

Ground husbar

Tape Marking

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Straight section

3. Product Frame (maximum amperage)

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)

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.)

X = meters, YY = centimeters (for Metric)

9. Busway Access (how plugs access the busway)

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

RED Paint UEC Red STD UEC Mill Finish Paint UEC Blue Paint UEC Black BLU **BLK**

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 Tape UEC Red None 3 Tape UEC Black 7 Tape UEC Blue Tape UEC White

Examples:

US225T3C4S-0206C-STD6 = US, Straight section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- 2ft. 6in., Continuous access- standard mill finish, red tape marking

MS225T3C4S-M600C-P013 = Metric, Straight section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- 6m, Continuous access- RAL 1001, black tape

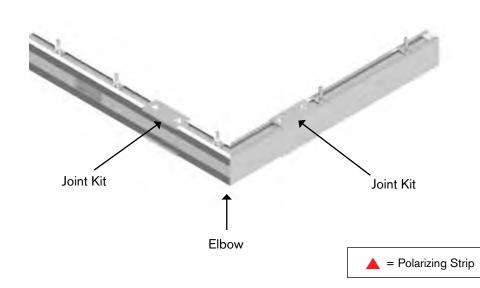


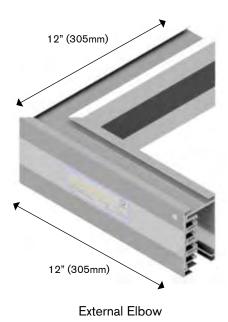
ELBOW SECTIONS

Product Description

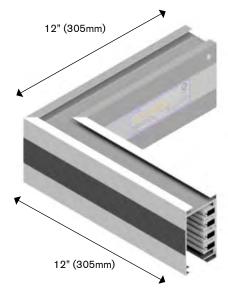
Elbows are used for making a 90 degree in a Busway run. Horizontal and vertical elbows are available. Specify external or internal elbow according to the orientation of the busbars in the Busway sections to be connected. Elbow sections are connected to adjacent Busway sections using an installation tool 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)

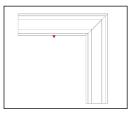




External Elbow



Internal Elbow



Internal Elbow



225T3 System

ELBOW SECTIONS: PRODUCT NUMBERS









Paint color



Ground

husbar







Tape Marking

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Elbow section

3. Product Frame (maximum amperage)

225 amps

4. Compatibility (frame compatibility)

Т3 T3 systems

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing strip)

IN Internal ΕX External 10. Paint Color (allows painting of the busway housing)

RED Paint UEC Red STD UEC Mill Finish Paint UEC Blue **BLK** Paint UEC Black BLU

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)

Tape UEC Red 0 None 3 Tape UEC Black 7 Tape UEC Blue

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





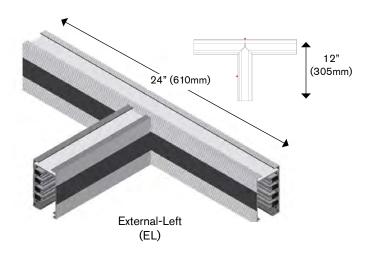
TEE SECTIONS

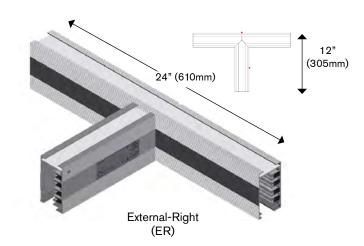
Product Description

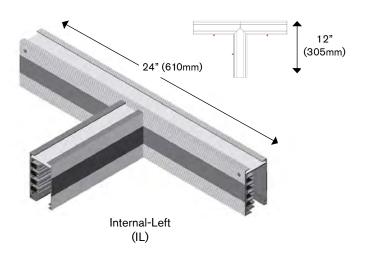
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent Busway sections using an installation 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.

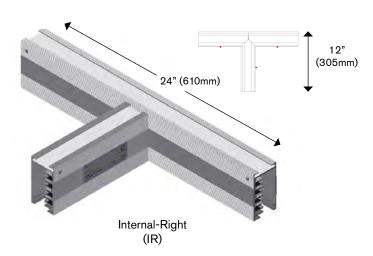
= Polarizing Strip

WEIGHT: 9.2 lbs (4.2 kg)













TEE SECTIONS: PRODUCT NUMBERS

1.

2.

225 3. Product 4.
Compat-

C 4 5

6. 7.
Neutral/ Polarization
Ground

8.
Turning
Direction

- STI

9. Paint color 10.

husbar

Tape Marking **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)

STDUEC Mill FinishREDPaint UEC RedBLKPaint UEC BlackBLUPaint 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:

<u>UT225T3C4S-IR-BLU0</u> = US, Tee section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- Internal-Right- painted blue, no tape marking <u>MT225T3C4S-EL-STD0</u> = Metric, Tee section, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Standard polarization- External-Left- standard mill finish, no tape marking





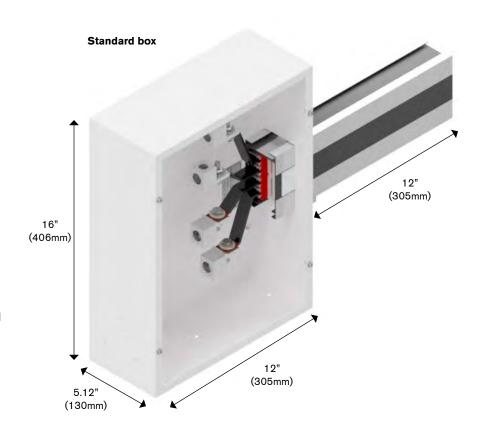
END FEED UNITS

Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 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).

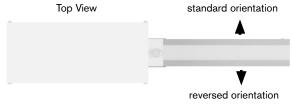
End power feed units are connected to adjacent Busway sections using an installation tool and joint kit (ordered separately).

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

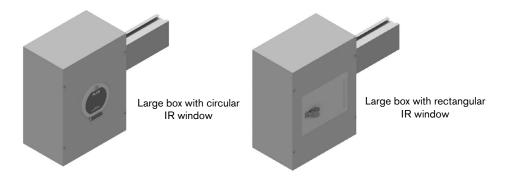


	Boxes		
Lugs	Standard	Large	Fused
Standard	S	L	
Double	D	A	
Bolt			
			_

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







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 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.

End Feed Meter Options:

 M41
 WiFi, ≤415V Y, ≤240V Δ

 M43
 No WiFi, ≤415V Y, ≤240V Δ

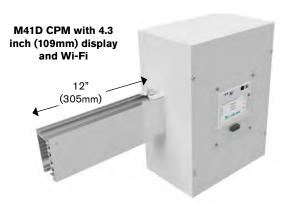
 M45
 WiFi, 480V Y, 400V Δ

 M47
 No WiFi, 480V Y, 400V Δ

 $Y = wye, \Delta = delta$

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.





Box/Lugs Option	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)
(S) Standard Box, Standard Lugs		
(L) Large Box, Standard Lugs	Х	Х
(D) Standard Box, Double Lugs		
(A) Large Box, Double Lugs	Х	Х

*Large box with one meter or accessory is 7.62" (193.5mm) deep, and large box with one meter and accessory (on opposite lids) extends the depth to 10.12" (257mm).

A meter and accessory can not be on the same lid.



*The above arrows show how to determine your meter location on an end feed (*Refer to option* 9. Meter Location on pg. 3.27 End Feed Units: Product Numbers)





END FEED UNITS: PRODUCT NUMBERS



System



Type



Frame



ibility





Ground

husbar







Location





Busway Access

Paint

color

Tape Marking Meter

Release

System configuration M40 Options

*Optional **RAL (please see page 3.30)

1. System (standard of measure)

U U.S.

Metric

2. Product Type (section component)

3. Product Frame (maximum amperage)

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)

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

S Standard Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box size)

S Standard lugs, standard box Double lugs, standard box

9. Meter Location (looking down the busway run, the side with meter)

N None (N/A) Left

L

R Right Front

10. Accessories Package (optional accessories for feed units)

IR window- Rectangular s Standard R C IR window- circular Angled meter lid Т IR (Rect.) + Angled Lid L IR (Circ.) + Angled Lid

11. Accessories Location (viewed from the terminal, the side with accessory)

N None (N/A)

R Right

L Left F Front (consult the factory)

12. Straight Length (length of section)

1 foot (for U.S.)

M030 .3 meters (for Metric)

For other lengths, consult the factory

13. Busway Access (how plugs access the busway)

С Continuous

14. Paint Color (allows painting of the busway housing)

Paint UEC Silver **RED** Paint UEC Red STD **BLK** Paint UEC Black BLU Paint UEC Blue WHT Paint UEC White

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

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

0 Tape UEC Red None Tape UEC Black Tape UEC Blue

Tape UEC White

*16. Meter Release (M40 Series Meters)

WiFi, ≤415V Y, ≤240V Δ WiFi, 480V Y, 400V Δ No WiFi, \leq 415V Y, \leq 240V Δ **M47** No WiFi, 480V Y, 400V Δ M43

*17. M40 Options (choose from a 4.1" display, measured neutral, and/or an audible alarm)

S Standard Featured (D+A) D Ε Enhanced (N+A) Display Professional (D+N) N (Measured) Neutral U Audible alarm Ultimate (D+N+A)

*18. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

1 LLD - Standard, milivolt Κ LLD - SC. 5A 2 LLY - Standard, milivolt L LLY - SC, 5A 3 LNY - Standard, milivolt м LNY - SC, 5A

UF225T3C4R-DRSN-0100C-BLK0-M45D1 = US, end Feed, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Reversed polarization- Double lugs, standard box, Right meter location, standard accessory package, no accessory location- 1 ft., Continuous access- painted Black, no tape marking- M45 meter, with Display, LLD-Standard, milivolt



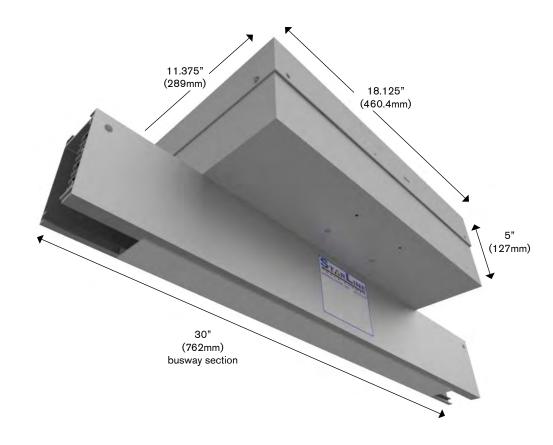


ABOVE FEED UNITS

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)







ABOVE FEED UNITS: PRODUCT NUMBERS



System

Product

Type

Product

Frame

Compat-

ibility

Neutral/

Ground

husbar

Paint

color

Polarization

Lug/box

Package Location

Location

Length

Busway Feed Access Location

Material

Tape

Marking

Meter

M40 Options

System configuration and CT type

*Ontional

**RAL (please see page 3.30)

1. System (standard of measure)

U U.S. Metric

2. Product Type (section component)

Above Feed Α

3. Product Frame (maximum amperage)

225 amps

4. Compatibility (frame compatibility)

T3 T3 systems

5. Material (busbar material)

C

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

3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

S Standard

Reversed

8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)

S Standard lugs, standard box L Standard lugs, large box

9. Meter Location (viewed from the terminal, the side with meter)

N None (N/A) Left

R

10. Accessories Package (optional accessories for feed units)

S Standard

11. Accessories Location (viewed from the terminal, the side with accessory)

N None (N/A) Left

Right т Top

F

Front Α Rear

12. Straight Length (length of section)

0206 2 ft 6 inches (for U.S.) M076 .76 meters (for Metric)

For other lengths, consult the factory

13. Busway Access (how plugs access the busway)

Continuous

14. Feed Location (location of the center of the top feed)

15 inches (for U.S.) 038 38 centimeters (for Metric)

For other lengths, consult the factory

15. Paint Color (allows painting of the busway housing)

Paint UEC Silver **RED** Paint UEC Red STD **BLK** Paint UEC Black BLU Paint UEC Blue

WHT Paint UEC White

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

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

0 None Tape UEC Red Tape UEC Black Tape UEC Blue

Tape UEC White

*17. Meter Release (M40 Series Meters)

M45 WiFi, 480V Y, 400V Δ **M41** WiFi, ≤415V Y, ≤240V Δ No WiFi, ≤415V Y, ≤240V Δ **M47** No WiFi, 480V Y, 400V Δ M43

*18. M40 Options (choose from a 4.1" display, measured neutral, and/or an audible alarm)

S Standard Featured (D+A) D Display Ε Enhanced (N+A) (Measured) Neutral Ρ Professional (D+N) Audible alarm Ultimate (D+N+A)

*19. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

LLD - Standard, milivolt Κ LLD - SC, 5A LLY - Standard, milivolt L LLY - SC, 5A LNY - Standard, milivolt LNY - SC, 5A М

Examples:

UA225T3C4R-SNSN-0206C015-STD0 = US, Above feed, 225 amps, T3, Copper conductor, 3 Phase plus neutral, Reversed polarization- Std lugs, std box, No meter location, standard accessory package, no accessory location- 2 ft. 6 inches, Continuous access, 15 inches- painted silver, no tape marking



RAL Colors

1st Character

|--|

2nd Character

0	100
1	101
2	102
3	103
4	200
5	201
Α	300
В	301
С	302
D	303
Е	400
F	401
G	500
Η	501
J	502
K	600
Г	601
М	602
Ν	603
Р	700
α	701
R	702
S	703
Т	704
U	800
V	801
W	802
Χ	900
Y Z	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



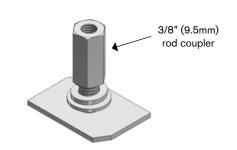
Threaded Rod

For mounting to 3/8 - 16 threaded rod. Can be inserted anywhere along the top fullaccess 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)



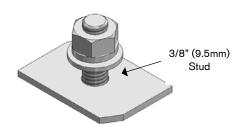
Standard

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)



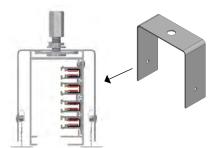
Recessed Suspended Ceilings

For hanging busway into a recessed ceiling.

*Hanger bolt must be ordered separately

Part Number SRMT3-1

Available in plain zinc



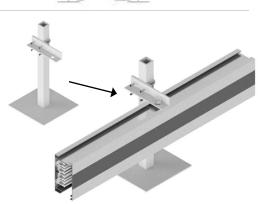
Raised Access Floor

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)





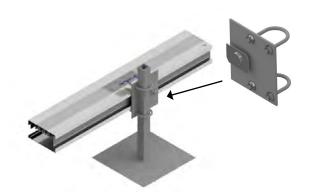
Raised Mounting Bracket

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)



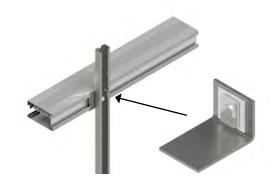
Side Mount Brackets

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)

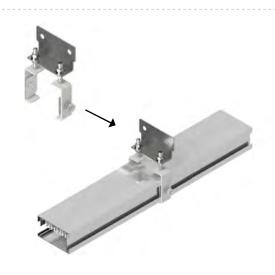


Mounted to overhead supports.

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

Available in plain zinc or black (-BLK)

> Weight 1.31 lb (.59 kg)





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

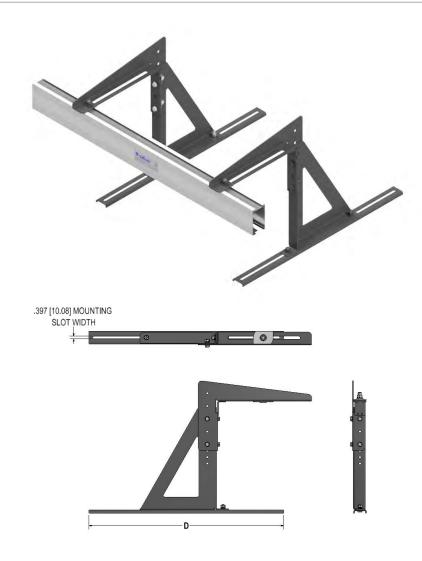
23.75" (603mm) Max

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

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

- **Anodized Silver** 1-
- 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)

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.

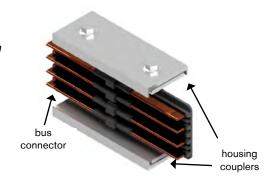
Bus Connector: copper blades secured to an insulating mounting plate. This makes the electrical connection between sections.

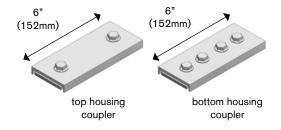
Housing Couplers: one pair that consists of a 2-bolt coupler for the top of busway, and a 4-bolt coupler for the bottom of busway.

*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

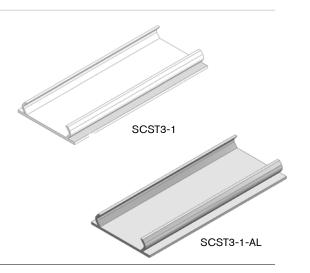
Snaps into bottom access slot of busway housing. The optional closure strip is normally shipped in 20 ft. (6m) lengths and can be field cut to fit exact desired length.

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

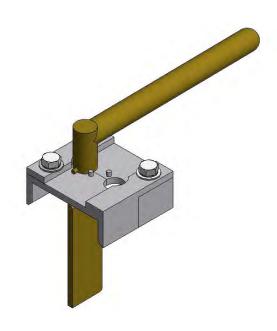
An installation tool is used to install the bus connector between two adjacent sections of busway. A joint kit, which is comprised of two housing couplers and a bus connector set, is required at every joint.

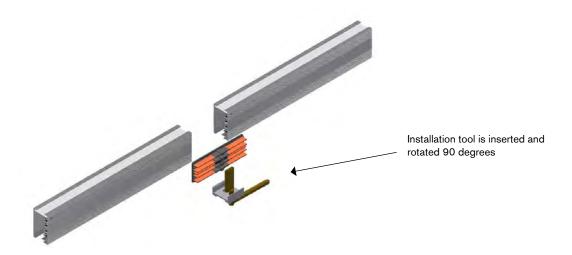
Busway sections are butted together and the top housing coupler is installed. The bus connector is inserted, centered and seated in the slot of the busway. The installation tool is inserted into the jointed intersection and rotated 90 degrees to form a spring-loaded, secure electrical connection. The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



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 & SPECS

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 250, 400 & 800 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 reseves 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/.



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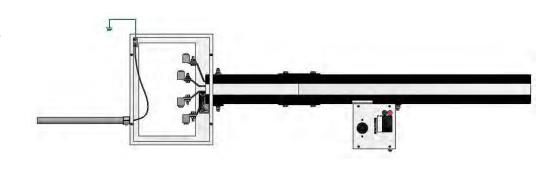


GROUND OPTIONS

Case Ground/Chassis Earth

Uses aluminum housing and no extra copper bar.

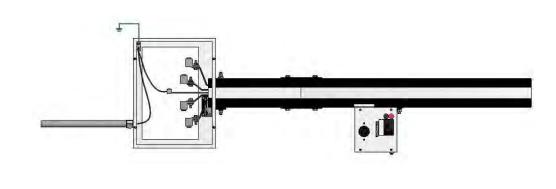




Dedicated Ground/Earth

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

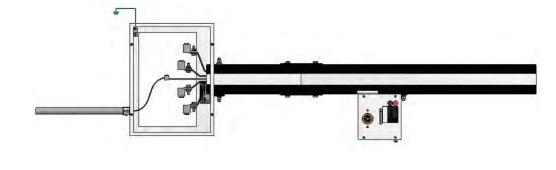




Isolated Ground/Earth

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





*<u>U.S.</u>: 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/

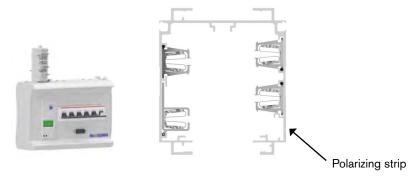


POLARITY TIPS

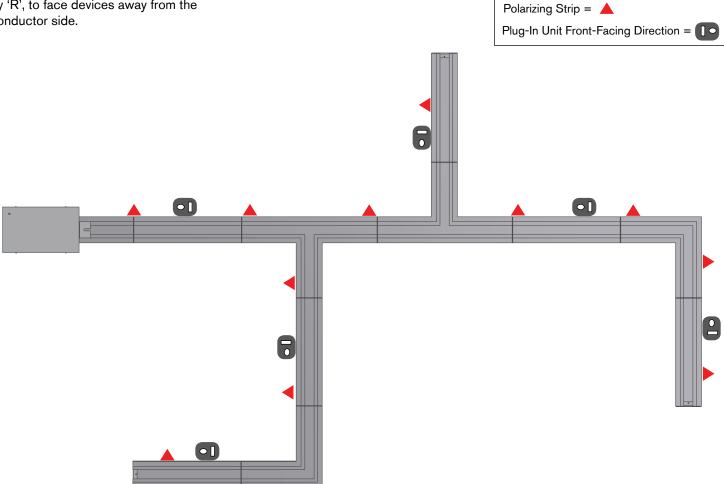
STARLINE utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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.



A standard plug-in unit will always face the polarizing strip





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 4.43 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 and BIM 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 (except for 800T5 where the max length is 10 ft. or 3m). 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	DISTRIBUTED	VOLTAGE	VOLTAGE
DESIGNATION	LOAD	DROP @ 0.8 PF	DROP @ 0.8 PF
		Single Phase	Three Phase
250T5 (standard)	250 amps	28 Ft. (8.5m)	48 Ft. (14.6m)
400T5 (standard)	400 amps	37 Ft. (11.3m)	65 Ft. (19.8m)
800T5 (standard)	800 amps	15 Ft. (4.6m)	25 Ft. (7.6m)



COMPONENT RELATIONSHIP TIPS

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

Examples:

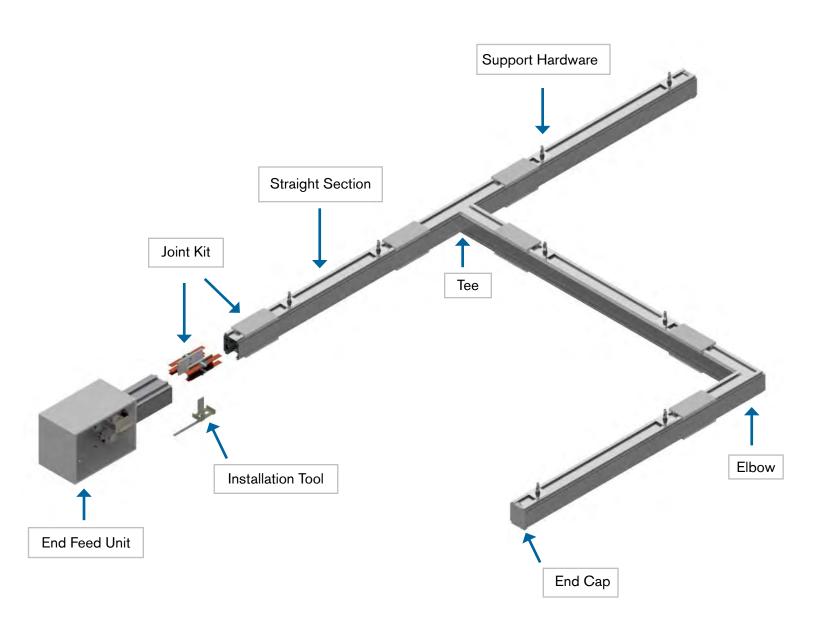
- The T5 series of plug-in units are compatible with all T5 Busway systems
- Each piece of housing (straights and elbows) requires a joint kit (containing two housing couplers and one bus connector). Determine the total number of housing sections (regardless of length) as this becomes the number of joint kits that will be needed.
 - -Add one extra joint kit for each tee section
- If this is your first installation for T5 systems, you will need to order an Installation Tool (ST5IT).
- 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. 4.5 Polarity Tips for more detail.



SYSTEM LAYOUT DRAWING



Plug-In Units:

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





STRAIGHT SECTIONS

Product Description

Track Busway straight section consists of an extruded aluminum shell with "springpressure" type copper channel busbars contained in a full length insulator mounted on the interior walls. The aluminum extrusion acts as a 100% ground path. Each housing has a continuous access slot over its entire length for the insertion of turn-n-lock plug-in units. Housing configurations include 4-pole varieties, optional isolated ground, optional oversize (200%) neutral. The housing sections join together using Bus connectors which fit into the channels of the adjoining section. An Installation tool is used to force the blades into the busbar channels for a solid "spring-pressure" electrical connection.

MATERIAL: Extruded Aluminum

RATINGS: 100% Ground Path

250 Amps

250T5C4/250T5CG: 600 Volt 250T5CN/250T5CF: 600 Volt

LENGTH: 10 Ft. (3m), 20 Ft. (6m);

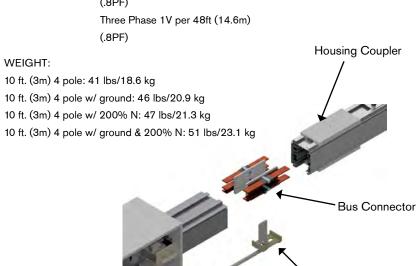
or custom lengths between

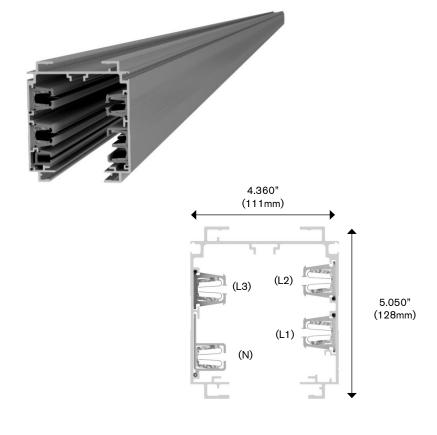
2 - 20 Ft. (.6 - 6m)

VOLTAGE DROP: distributed load

Single Phase 1V per 28ft (8.5m)

(.8PF)





US		Metric		
L1 or Phase A L2 or Phase B L3 or Phase C Neutral Ground	(black) (red) (blue) (white) (green)	L1 or Phase A L2 or Phase B L3 or Phase C Neutral Ground	(brown) (black) (gray) (blue) (green/ yellow)	

Installation Tool



STRAIGHT SECTIONS: PRODUCT NUMBERS

UEC Mill Finish

Paint UEC Black

Paint UEC White

side of busway housing)



System







ibility











Straight Length

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

**RAL system can also be used; reference page 4.42

RED

BLU

11. Tape Marking (allows colored tape on the polarizing strip

7

Busway

Paint color

Ground

husbar

Tape Marking

STD

BLK

WHT

0

None

Tape UEC Black

Tape UEC White

**RAL (please see page 4.42)

Paint UEC Red

Paint UEC Blue

Tape UEC Red

Tape UEC Blue

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Straight section

3. Product Frame (maximum amperage)

250 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

С Copper

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

3 Phase plus Neutral 4 N

3 Phase plus 200% Neutral

3 Phase plus Neutral plus Internal Ground Conductor

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)

XX = feet, YY = inches (for U.S.)

X = meters, YY = centimeters (for Metric)

9. Busway Access (how plugs access the busway)

С Continuous S Short shutters

L Long shutters Ε

"Extended" (short+4")

"Beginning" only long

Examples:

US250T5C4S-0500C-STD0 = US, Straight section, 250 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization- 5ft., Continuous access- standard mill finish, no tape marking

MS250T5CNS-M275C-BLU0 = Metric, Straight section, 250 amps, T5, Copper conductor, 3 phase plus 200% Neutral, Standard polarization- 2.75m, Continuous accesspainted blue, no tape marking



ELBOW SECTIONS

Product Description

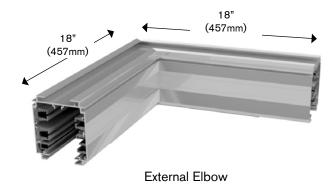
An Elbow is used for making a horizontal 90 degree change of direction in a Busway run. Specify right or left elbow, according to the orientation of the polarizing strip in the Busway sections to be connected.

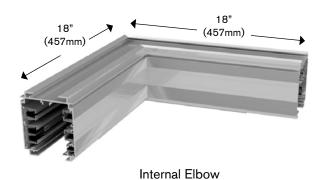
CONNECTION ACCESSORIES: (Ordered Separately)

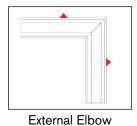
A Joint Kit (pg. 4.46) is used to make mechanical and electrical connections to adjacent Busway sections.

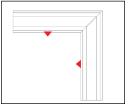
WEIGHT: 14.5 lbs (6.6 kg)











Internal Elbow



ELBOW SECTIONS: PRODUCT NUMBERS











Ground

husbar

0

Tape

Marking





Paint color **RAL (please see page 4.42)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Elbow section

3. Product Frame (maximum amperage)

250 250 amps

4. Compatibility (frame compatibility)

T5 T5 systems T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

G 3 Phase plus Neutral plus Internal Ground Conductor

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)

STD UEC Mill Finish **RED** Paint UEC Red Paint UEC Black BLU Paint UEC Blue **BLK**

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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

0 None Tape UEC Red 3 Tape UEC Black Tape UEC Blue

Tape UEC White

Examples:

UE250T5C4S-IN-BLU4 = US, Elbow section, 250 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization- Internal- painted black, white tape ME250T5CGS-EX-STD0 = Metric, Elbow section, 250 amps, T5, Copper conductor, 3 phase plus neutral plus isolated/dedicated ground, Standard polarization- Externalstandard mill finish, no tape marking





TEE SECTIONS

= Polarizing Strip

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.

18" 18" WEIGHT: 19.5 lbs (8.8 kg) (457mm) (457mm) 30" (762mm, 30" (762mm) External-Right External-Left (ER) (EL) 18" 18" (457mm) 30" (762mm) 30" (762mm) Internal-Right Internal-Left (IR)

(IL)



TEE SECTIONS: PRODUCT NUMBERS





250 Product





Ground

husbar





Paint

color

0

Tape Marking **RAL (please see page 4.42)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Tee section

3. Product Frame (maximum amperage)

250 250 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

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)

RED Paint UEC Red STD UEC Mill Finish BLU Paint UEC Blue **BLK** Paint UEC Black

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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

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

Examples:

UT250T5C4S-IR-RED0 = US, Tee section, 250 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization- Internal-Right- painted red, no tape marking MT250T5CFS-EL-STD7 = Metric, Tee section, 250 amps, T5, Copper conductor, 3 phase plus 200% neutral plus isolated/dedicated ground, Standard polarization-External-Left- standard mill finish, blue tape marking





END FEED UNITS

Product Description

End power feed units connect to the end of the Busway. A standard size, factory assembled unit consists of a steel junction box, with removable sides, connected to a 12 in. (305mm) section of Busway. The assembly includes connection lugs and a ground lug for wires up to 300MCM (150mm²) for standard size boxes, and (2) 250MCM (120mm²) or up to (1) 600MCM (300mm²) for large size boxes.

End power feed units are connected to adjacent Busway sections using a housing coupler and bus connector (ordered separately).

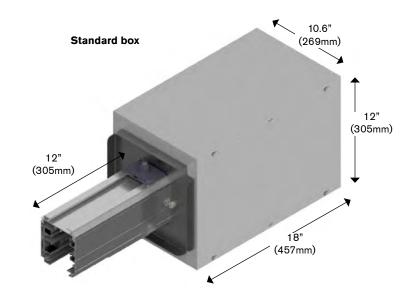
Special need power feed units for confined spaces, as found in mission critical data centers, can also be designed and fabricated but may require minimum quantities.

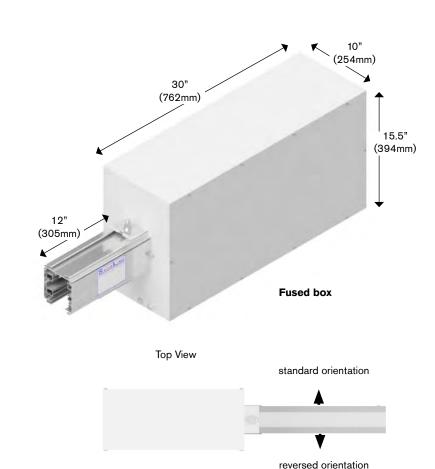
*Standard busway stub size is 1 ft. (.3m)

	Boxes			
Lugs	Standard	Large	Fused	
Standard	S	L	F	
Double				
Bolt		R		
		R		

Box size and Lug options: Refer to option 8. Lug/Box Options on pg. 4.17 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/









END FEED UNITS: METERING

Product Description

End power feed units connect to the end of the Busway. A large size, factory assembled unit consists of a 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 up to 300MCM (150mm²) for standard size boxes, and (2) 250MCM (120mm²) or up to (1) 600MCM (300mm²) for large size boxes.

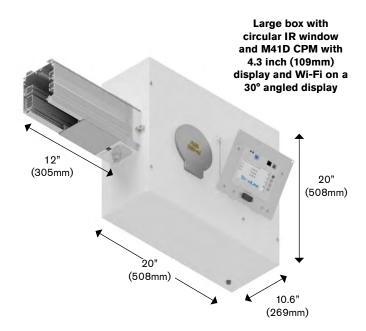
Integral CPM installed in the end feed provides power monitoring and alarm capabilities. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will 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.

End Feed Meter Options:

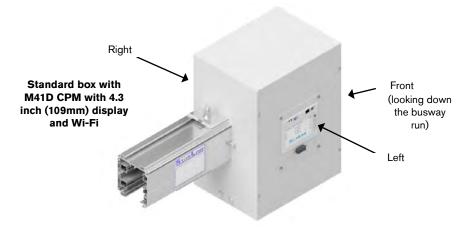
M41 WiFi, ≤415V Y, ≤240V Δ
M43 No WiFi, ≤415V Y, ≤240V Δ
M45 WiFi, 480V Y, 400V Δ
M47 No WiFi, 480V Y, 400V Δ

 $Y = wye, \Delta = delta$

*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.



Box/Lugs Option	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)
(S) Standard Box, Standard Lugs	х	Х	
(L) Large Box, Standard Lugs	Х	Х	Х
(R) Large Box, Bolt Lugs	Х	Х	Х



*The above arrows show how to determine your meter location on an end feed (*Refer to option* 9. Meter Location on pg. 4.17 End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS



System



Product

Type



Frame



ibility





Ground

husbar









Straight

Busway Access

Paint

colo

Tape Marking

Polarization

Meter Release

System configuration M40

Options

*Optional

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S. Metric

2. Product Type (section component)

Fnd Feed

3. Product Frame (maximum amperage)

250 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral N

3 Phase plus 200% Neutral

3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

S Standard R Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box

F Standard lugs, fused box S Standard lugs, standard box Bolt lugs, large box Standard lugs, large box

9. Meter Location (looking down the busway run, the side with meter)

N None (N/A) Right L Left Front

10. Accessories Package (optional accessories for feed units)

IR window - Rectangular S Standard R C IR window - circular Δ Angled meter lid IR (rect.) + angled lid IR (circ.) + angled lid

11. Accessories Location (viewed from the terminal, the side with accessory)

Ν None (N/A) R Right

L Left Front (consult the factory)

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)

С Continuous Short shutters Long shutters В "Beginning" only long Ε

"Extended" (Short + 4")

14. Paint Color (allows painting of the busway housing)

RED Paint UEC Red STD Paint UEC Silver BLU Paint UEC Blue **BLK** Paint UEC Black

Paint UEC White WHT

**RAL system can also be used; reference page 4.42

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

n Tape UEC Red None 3 Tape UEC Black Tape UEC Blue 4 Tape UEC White

*16. Meter Release (M40 Series Meters)

M45 WiFi, 480V Y, 400V Δ **M41** WiFi, ≤415V Y, ≤240V Δ No WiFi, \leq 415V Y, \leq 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)

Featured (D+A) S Standard Ε Enhanced (N+A) D Display (Measured) Neutral P Professional (D+N) N Ultimate (D+N+A) Audible alarm

*18. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

Κ LLD - SC, 5A 1 LLD - Standard, milivolt 1 LLY - SC, 5A 2 LLY - Standard, milivolt LNY - SC, 5A LNY - Standard, milivolt М

Examples:

<u>UF250T5C4R-LRLL-0100C-BLK0-M47S1</u> = US, end Feed, 250 amps, T5, Copper conductor, 3 phase plus neutral, Reversed polarization- Std lugs, Large box, Right meter location, Circular IR window + angled meter lid, left accessory location- 1 ft., Continuous access-painted Black, no tape marking- M47 meter, Standard options, LLD- standard, milivolt



12"

(305mm)



ABOVE FEED UNITS

Product Description

The above feed power unit supplies power from the topside of the Busway. Factory assembled unit consists of a 25 x 12 x 8 inch (635 x 305 x 203mm) steel junction box that is mounted on top of a 36 inch (914mm) section of Busway.

*36 inches (914mm) is the minimum and standard length of busway that an above feed is provided with.

Above feed units can be placed at the end or anywhere along a Busway run. Connections to adjoining Busway sections are made by the standard means, requiring couplers and bus connectors which are sold separately.

WEIGHT: 45.5 lbs (20.6 kg)

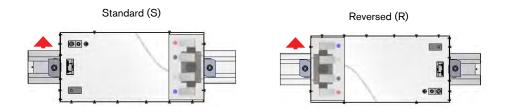
88 inch (635mm)

d ee 8" (203mm)

end or tions by and ely.

36" (914mm) busway section

*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/





ABOVE FEED UNITS: PRODUCT NUMBERS















Tape





Package

Location



Length



Busway Feed Access Location

Product Frame

Compatibility

Material

Neutral/ Polarization Ground husbar

Paint

color

Meter Marking

M41

System configuration M40 and CT type Options

*Optional **RAL (please see page 4.42)

1. System (standard of measure)

U U.S.

Metric

2. Product Type (section component)

Above Feed Α

3. Product Frame (maximum amperage)

250 250 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

S Standard Reversed

8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)

D Double lugs, standard box

9. Meter Location (viewed from the terminal, the side with meter)

N None (N/A)

R Right Left

10. Accessories Package (optional accessories for feed units)

11. Accessories Location (viewed from the terminal, the side with accessory)

N None (N/A) L Left

Right Top

Α

Front Rear

12. Straight Length (length of section)

0300 3 feet (for U.S.)

1 meter (for Metric)

For other lengths, consult the factory

13. Busway Access (how plugs access the busway)

С Continuous S Long shutters

Short shutters В "Beginning" only long

M100

Ε "Extended" (Short + 4")

14. Feed Location (location of the center of the top feed)

018 18 inches (for U.S.)

045 45 centimeters (for Metric)

For other lengths, consult the factory

15. Paint Color (allows painting of the busway housing)

Paint UEC Silver RED Paint UEC Red Paint UEC Black **BLK** BLU Paint UEC Blue WHT Paint UEC White

**RAL system can also be used; reference page 4.42

16. Tape Marking (allows colored tape on the polarizing strip

side of busway housing) 0 Tape UEC Red None

Tape UEC Black Tape UEC Blue 3

Tape UEC White

*17. Meter Release (M40 Series Meters)

M41 WiFi. ≤415V Y. ≤240V Δ M45 WiFi, 480V Y, 400V Δ **M47** No WiFi, 480V Y, 400V Δ M43 No WiFi, ≤415V Y, ≤240V Δ

*18. M40 Options (choose from a 4.1" display, measured neutral, and/or an audible alarm)

S Standard Featured (D+A) D Display Ε Enhanced (N+A) (Measured) Neutral N P Professional (D+N) Audible alarm U Ultimate (D+N+A)

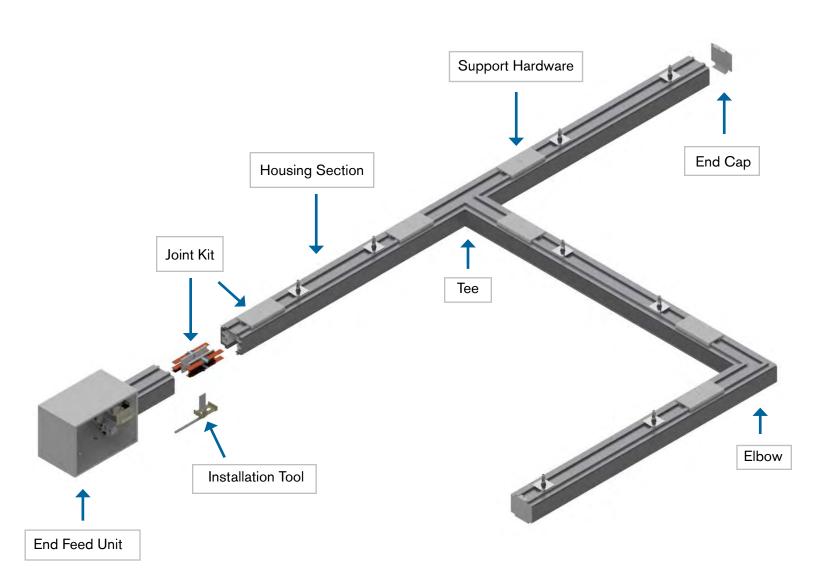
*19. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

LLD - Standard, milivolt Κ LLD - SC. 5A LLY - Standard, milivolt L LLY - SC, 5A LNY - Standard, milivolt LNY - SC, 5A М

UA250T5CFS-DLSN-0300C018-STD0-M41D2 = US, Above feed, 250 amps, T5, Copper conductor, 3 phase plus 200% neutral plus internal ground conductor, Standard polarization- Double lugs, standard box, Left meter location, Standard accessory package, No accessory location- 3 ft., Continuous access, 18 inches- painted silver, no tape marking- M41 meter, Display, LLY- Standard, milivolt



SYSTEM LAYOUT DRAWING



Plug-In Unit example:

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





STRAIGHT SECTIONS

Product Description

Track Busway straight section consists of an extruded aluminum shell with "springpressure" type copper channel busbars contained in a full length insulator mounted on the interior walls. The aluminum extrusion acts as a 100% ground path. Each housing has a continuous access slot over its entire length for the insertion of turn-n-lock plugin units. Housing configurations include 4-pole varieties, optional isolated ground, optional oversize (200%) neutral. The straight sections join together using bus connectors which fit into the channels of the adjoining section. An Installation tool is used to force the blades into the busbar channels for a solid "spring-pressure" electrical connection.

MATERIAL: Extruded Aluminum

RATINGS: 100% Ground Path

400 Amps

400T5C4/400T5CG: 600 Volt 400T5CN/400T5CF: 600 Volt

LENGTH: 10 Ft. (3m), 20 Ft. (6m);

or custom lengths between

2 - 20 Ft. (.6 - 6m)

VOLTAGE DROP: distributed load

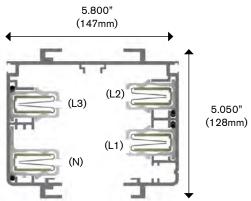
Single Phase 1V per 37ft (11m)

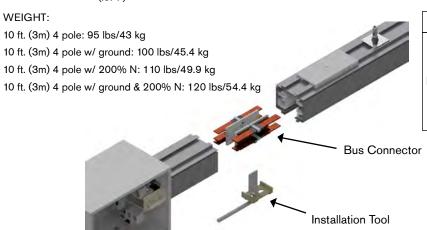
(.8PF)

Three Phase 1V per 65ft (19.8m)

(.8PF)







US		Metric		
L1 or Phase A L2 or Phase B L3 or Phase C Neutral Ground	(black) (red) (blue) (white) (green)	L1 or Phase A L2 or Phase B L3 or Phase C Neutral Ground	(brown) (black) (gray) (blue) (green/ yellow)	



STRAIGHT SECTIONS: PRODUCT NUMBERS



System







ibility



Paint color







Length

UEC Mill Finish

Paint UEC Black

Paint UEC White

side of busway housing)

Bus Acc

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

**RAL system can also be used; reference page 4.42

RED

BLU

11. Tape Marking (allows colored tape on the polarizing strip

-

11.

Ground

husbar

11. Tape Marking

STD

BLK

WHT

0

None

Tape UEC Black

Tape UEC White

**RAL (please see page 4.42)

Paint UEC Red

Paint UEC Blue

Tape UEC Red

Tape UEC Blue

1. System (standard of measure)

U U.S.

M Metric

2. Product Type (section component)

S Straight section

3. Product Frame (maximum amperage)

400 400 amps

4. Compatibility (frame compatibility)

T5 T5 systems

K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

4 3 Phase plus NeutralN 3 Phase plus 200%

3 Phase plus 200% Neutral 3 Phase plus Neutral plus Internal Ground Conductor

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

S Short shutters

L Long shutters

B "B

"Extended" (short+4")

"Beginning" only long

Examples:

Ε

<u>US400T5C4S-0500C-STD0</u> = US, Straight section, 400 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization- 5ft., Continuous access- standard mill finish, no tape marking

<u>MS400K5CNS-M450C-P013</u> = Metric, Straight section, 400 amps, K5, Copper conductor, 3 phase plus 200% Neutral, Standard polarization- 4.5m, Continuous access-RAL 1001, black tape



ELBOW SECTIONS

Product Description

An Elbow is used for making a horizontal 90 degree change of direction in a Busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the Busway sections to be connected.

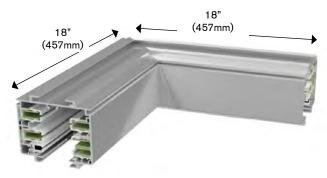
CONNECTION ACCESSORIES:

(Ordered Separately)

Joint Kits (pg. 4.46) are used to make mechanical and electrical connections to adjacent Busway sections.

WEIGHT: 28 lbs (12.7 kg)

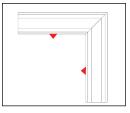




External Elbow



External Elbow



Internal Elbow



ELBOW SECTIONS: PRODUCT NUMBERS











husbar

0





9. Paint

color

10. Tape Marking **RAL (please see page 4.42)

1. System (standard of measure)

U U.S.

M Metric

2. Product Type (section component)

E Elbow section

3. Product Frame (maximum amperage)

400 400 amps

4. Compatibility (frame compatibility)

T5 T5 systems

K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral

N 3 Phase plus 200% Neutral **G** 3 Phase plus Neutral plus Internal Ground Conductor

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)

 STD
 UEC Mill Finish
 RED
 Paint UEC Red

 BLK
 Paint UEC Black
 BLU
 Paint UEC Blue

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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

NoneTape UEC Black

Tape UEC RedTape UEC Blue

4 Tape UEC White

Examples:

UE400K5C4S-IN-PJ70 = US, Elbow section, 400 amps, K5 (limiting strip), Copper conductor, 3 phase plus neutral, Standard polarization- Internal- RAL 5027 **ME400T5CGS-EX-STD3** = Metric, Elbow section, 400 amps, T5, Copper conductor, 3 phase plus neutral plus internal ground conductor, Standard polarization- External-standard mill finish, black tape marking

4.24





TEE SECTIONS

= Polarizing Strip

Product Description

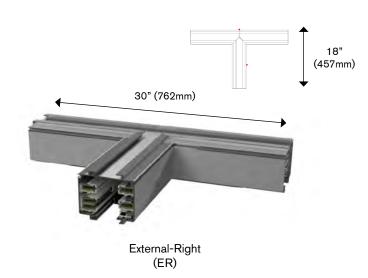
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent Busway sections using an installation 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.

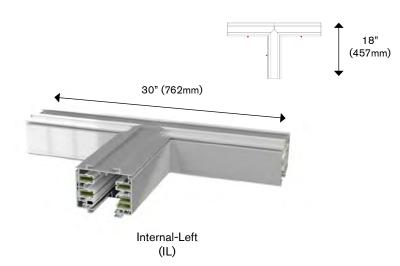
and electrical connection between a straight section and tee section of busway.

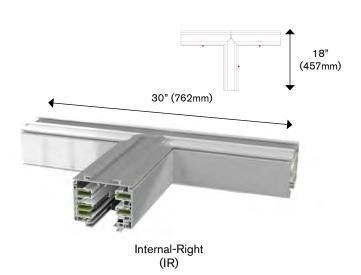
WEIGHT: 42 lbs (19 kg)

30" (762mm)

External-Left (EL)









TEE SECTIONS: PRODUCT NUMBERS





400 3. Product



Paint

color



ation

8.
Turning
Direction

-

10.

Ground

husbar

10. Tape Marking **RAL (please see page 4.42)

1. System (standard of measure)

U U.S.

M Metric

2. Product Type (section component)

T Tee section

3. Product Frame (maximum amperage)

400 amps

4. Compatibility (frame compatibility)

T5 T5 systems **K5** T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

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)

STDUEC Mill FinishREDPaint UEC RedBLKPaint UEC BlackBLUPaint UEC Blue

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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:

<u>UT400T5C4S-IR-RED0</u> = US, Tee section, 400 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization-Internal-Right- painted red, no tape marking <u>MT400K5CFS-EL-STD0</u> = Metric, Tee section, 400 amps, K5, Copper conductor, 3 phase plus 200% neutral plus internal ground conductor, Standard polarization-External-Left- standard mill finish, no tape marking





END FEED UNITS

Product Description

End power feed units connect to the end of the Busway. A standard size, factory assembled unit consists of a steel junction box, with removable sides, connected to a 1 ft (.3m) section of Busway. The assembly includes connection lugs and a ground lug for wires (2) 250MCM (120mm²) or up to 600MCM (300mm²).

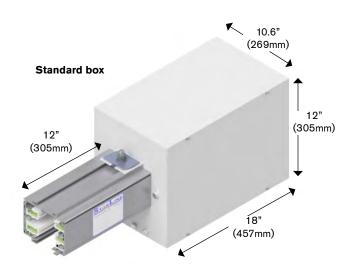
End power feed units are connected to adjacent Busway sections using a housing coupler and bus connector (ordered separately).

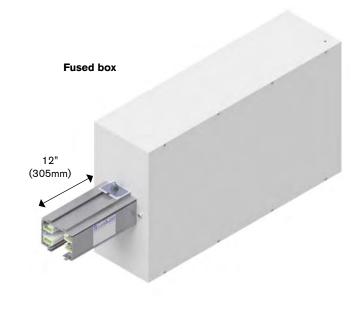
Special need power feed units for confined spaces, as found in mission critical data centers, can also be designed and fabricated but may require minimum quantities.

	Boxes			
Lugs	Standard	Large	Fused	
Standard	S	L	F	
Double				
Bolt	В	R		

Box size and Lug options: Refer to option 8. Lug/Box Options on pg. 4.29 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/





Top View

standard orientation

reversed orientation





END FEED UNITS: METERING

Product Description

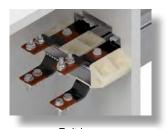
End power feed units connect to the end of the Busway. A large size, factory assembled unit consists of a steel junction box, with removable side, connected to a 1 ft (.3m) section of Busway. The assembly includes connection lugs and a ground lug for wires (2) 250MCM (120mm²) or up to 600MCM (300mm²).

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.

End Feed Meter Options:

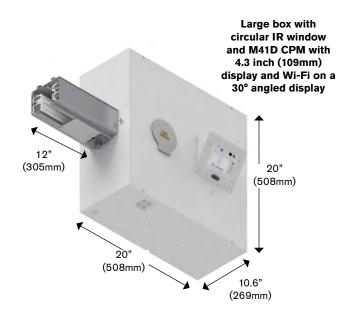
M47 No WiFi, 480V Y, 400V Δ

 $Y = wye, \Delta = delta$

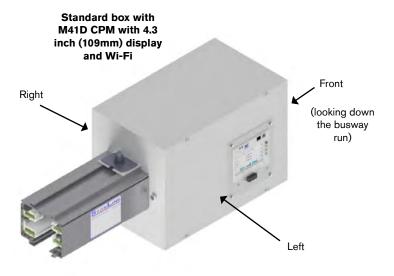


Bolt lugs

*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.



Box/Lugs Option	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)
(S) Standard Box, Standard Lugs	Х	Х	
(L) Large Box, Standard Lugs	Х	Х	Х
(R) Large Box, Bolt Lugs	Х	Х	Х



*The above arrows show how to determine your meter location on an end feed (*Refer to option* 9. Meter Location on pg. 4.29 End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS



System



Product









Polarization



Meter Release



Location



Straight

Busway Access

ibility Type Frame husbar

Paint

color

Ground

Tape Marking

System configuration M40 and CT type

Options

*Optional

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S.

Metric

2. Product Type (section component)

3. Product Frame (maximum amperage)

400 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

Standard

R Reversed

8. Lug/Box Options (choice of standard/double/bolt lugs and box

S Standard lugs, standard box Standard lugs, large box

В Bolt lugs, standard box Bolt lugs, large box

F Standard lugs, fused box

9. Meter Location (looking down the busway run, the side with

meter) N None (N/A)

Right Front

10. Accessories Package (optional accessories for feed units)

S Standard R C

IR window - Rectangular Angled meter lid

IR window - circular L IR (rect.) + angled lid IR (circ.) + angled lid 11. Accessories Location (viewed from the terminal, the side with accessory)

None (N/A) Ν

R Riaht

Left

Front (consult the factory)

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 Short shutters Long shutters R "Beginning" only long L

Ε "Extended" (Short + 4")

14. Paint Color (allows painting of the busway housing)

STD Paint UEC Silver RED Paint UEC Red **BLK** Paint UEC Black RIU Paint UEC Blue

Paint UEC White WHT

**RAL system can also be used; reference page 4.42

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

0 None Tape UEC Red Tape UEC Blue Tape UEC Black 3

Tape UEC White

*16. Meter Release (M40 Series Meters)

M41 WiFi, ≤415V Y, ≤240V Δ **M45** WiFi, 480V Y, 400V Δ No WiFi, \leq 415V Y, \leq 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 Featured (D+A) E D Display Enhanced (N+A) (Measured) Neutral P Professional (D+N) u Audible alarm Ultimate (D+N+A)

*18. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

LLD - Standard, milivolt LLD - SC, 5A K 2 LLY - Standard, milivolt L LLY - SC, 5A 3 LNY - Standard, milivolt M LNY - SC, 5A

Examples:

Т

UF400T5C4R-LRLL-0100C-BLK0-M47S1 = US, end Feed, 400 amps, T5, Copper conductor, 3 phase plus neutral, Reversed polarization- Std lugs, Large box, Right meter location, Circular IR window + angled meter lid, Left accessory location- 1 ft., Continuous access-painted Black, no tape marking- M47 meter, Standard options, LLD- standard, milivolt





ABOVE FEED UNITS

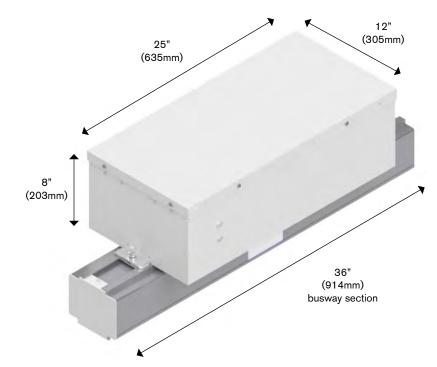
Product Description

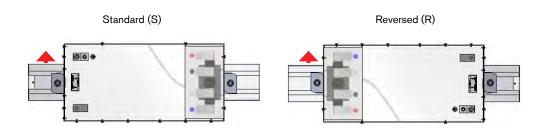
The above feed power unit supplies power from the topside of the Busway. Factory assembled unit consists of a 25 x 12 x 8 inch (635 x 305 x 203mm) steel junction box mounted on top of a 36 inch (914mm) section of Busway.

*36 inches (914mm) is the minimum and standard length of busway that an above feed is provided with.

Above feed units can be placed at the end or anywhere along a Busway run. Connections to adjoining Busway sections are made by the standard means, requiring couplers and bus connectors which are sold separately.

*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/







ABOVE FEED UNITS: PRODUCT NUMBERS



System







ibility









0300

Length

Busway Feed Access Location

Product Type

Product Frame

Compat-Material

Neutral/ Polarization Ground husbar

Tape

Marking

Paint

color

Meter

Package Location

M40 System configuration and CT type Options

*Optional

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S.

Metric

2. Product Type (section component)

Above Feed Α

3. Product Frame (maximum amperage)

400 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral

N 3 Phase plus 200%

Neutral

3 Phase plus Neutral plus Internal Ground Conductor

3 Phase plus 200% Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

S Standard Reversed

8. Lug Options (other than standard lugs, there is also the option for double lugs and bolt lugs)

Standard lugs, standard box

9. Meter Location (viewed from the terminal, the side with meter)

N None (N/A)

R Right Left

10. Accessories Package (optional accessories for feed units)

S

11. Accessories Location (viewed from the terminal, the side

with accessory) N

None (N/A) Left T

Right Top

F Front Α Rear

4.31

12. Straight Length (length of section)

3 feet (for U.S.) M100 1 meter (for Metric)

For other lengths, consult the factory

13. Busway Access (how plugs access the busway)

С Continuous Short shutters L Long shutters "Beginning" only long

F "Extended" (Short + 4")

14. Feed Location (location of the center of the top feed)

018 18 inches (for U.S.) 045 45 centimeters (for Metric)

For other lengths, consult the factory

15. Paint Color (allows painting of the busway housing)

Paint UEC Silver STD **RED** Paint UEC Red **BLK** Paint UEC Black BLU Paint UEC Blue

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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

0 None Tape UEC Red 3 Tape UEC Black Tape UEC Blue

Tape UEC White

*17. Meter Release (M40 Series Meters)

M41 WiFi. ≤415V Y. ≤240V Δ M45 WiFi, 480V Y, 400V Δ No WiFi, ≤415V Y, ≤240V Δ **M47** No WiFi, 480V Y, 400V Δ M43

*18. M40 Options (choose from a 4.1" display, measured neutral, and/or an audible alarm)

S Standard Featured (D+A) D Display Ε Enhanced (N+A) Ν (Measured) Neutral P Professional (D+N) Audible alarm U Ultimate (D+N+A)

*19. System Configuration and CT Type (line-line or line-neutral and wye or delta systems)

LLD - Standard, milivolt Κ LLD - SC, 5A LLY - Standard, milivolt L LLY - SC, 5A LNY - Standard, milivolt LNY - SC, 5A М

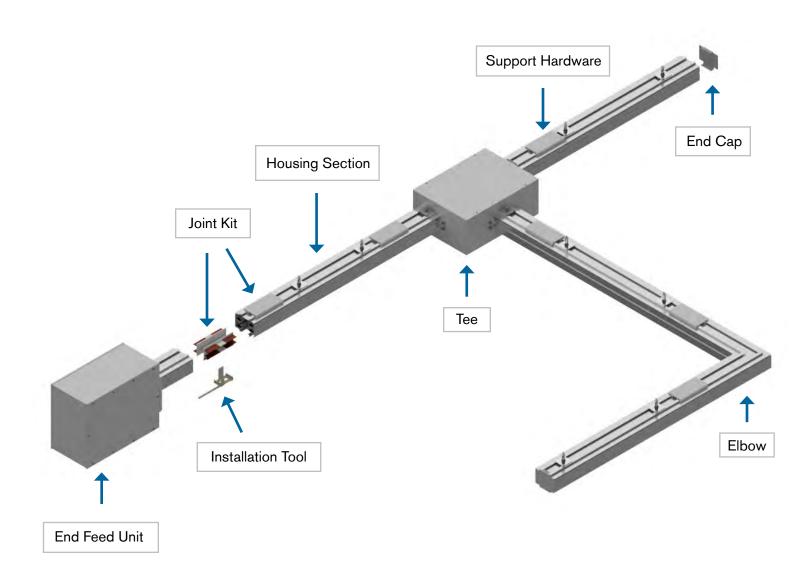
Examples:

L

<u>UA400K5CFS-SRSN-0300C018-STD0-M41DM</u> = US, Above feed, 400 amps, K5, Copper conductor, 3 phase plus 200% neutral plus internal ground conductor, Standard polarization-Standard lugs, standard box, Right meter location, Standard accessory package, No accessory location- 3 ft., Continuous access, 18 inches- painted silver, no tape marking- M41 meter, Display, LNY-SC, 5A



SYSTEM LAYOUT DRAWING



Plug-In Units:

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





STRAIGHT SECTIONS

Product Description

Track Busway straight section consists of an extruded aluminum shell with you choice of copper or copper-aluminum channel busbars contained in a full length insulator mounted on the interior walls. The aluminum extrusion acts as a 100% ground path. Each housing has a continuous access slot over its entire length for the insertion of plug-in units. Housing configurations include 4-pole varieties, with optional isolated ground. The housing sections join together using Bus connectors which fit into the channels of the adjoining section. An Installation tool is used to force the blades into the busbar channels for a solid "spring-pressure" electrical connection.

MATERIAL: Extruded Aluminum

RATINGS: 100% Ground Path

800 Amps 600 Volt

LENGTH: 5 ft.(1.5m), Max 10 ft.(3m)

or custom lengths between

2 - 10 ft. (.6 - 3m)

VOLTAGE DROP: distributed load

Single Phase 1V per 15ft (4.5m)

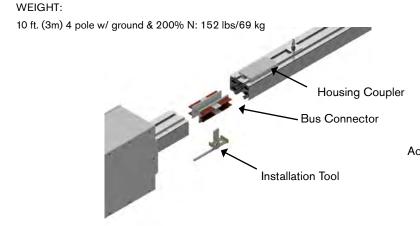
(.8PF)

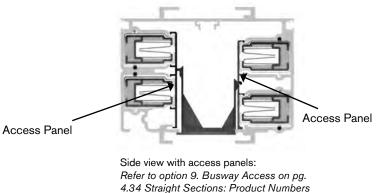
Three Phase 1V per 25ft (7.6m)

(.8PF)

6.4" (163mm) (L3) (L2) 5.050" (128mm)

US		Metric		
L1 or Phase A L2 or Phase B L3 or Phase C Neutral Ground	(red)	L1 or Phase A L2 or Phase B L3 or Phase C Neutral Ground	(brown) (black) (gray) (blue) (green/ yellow)	







STRAIGHT SECTIONS: PRODUCT NUMBERS



System







ibility









Busway

Paint color

Ground husbar

Tape Marking

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Straight section

3. Product Frame (maximum amperage)

800 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

С Copper Н Hybrid (Cu/Al)

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

4 3 Phase plus Neutral 3 Phase plus Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

S Standard

8. Straight Length (length of section)

XX = feet, YY = inches (for U.S.)

MXYY X = meters, YY = centimeters (for Metric)

9. Busway Access (how plugs access the busway)

L Long shutters

"Extended" (short+4")

Р Access Panels Short shutters

"Beginning" only long

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

STD UEC Mill Finish **RED** Paint UEC Red Paint UEC Black BLU Paint UEC Blue **BLK**

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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

0 None Tape UEC Red

Tape UEC Black

7 Tape UEC Blue Tape UEC White

Examples:

Ε

US800T5C4S-0500P-STD0 = US, Straight section, 800 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization- 5ft., access Panels- standard mill finish, no tape marking

MS800K5CGS-M225P-P013 = Metric, Straight section, 800 amps, K5, Copper conductor, 3 phase plus netural plus internal ground connector, Standard polarization-2.25m, access Panels-RAL 1001, black tape



ELBOW SECTIONS

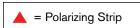
Product Description

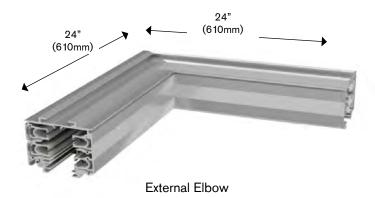
An Elbow is used for making a horizontal 90 degree change of direction in a Busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the Busway sections to be connected.

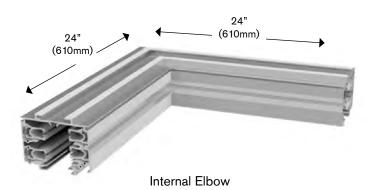
CONNECTION ACCESSORIES: (Ordered Separately)

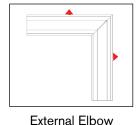
A Joint Kit (pg. 4.46) is used to make mechanical and electrical connections to adjacent Busway sections.

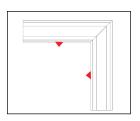
WEIGHT: 51 lbs (23.1 kg)











Internal Elbow



ELBOW SECTIONS: PRODUCT NUMBERS



9. 10. Tape color Marking

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S. M Metric

- 2. Product Type (section component)
- E Elbow section
- 3. Product Frame (maximum amperage)

800 amps

4. Compatibility (frame compatibility)

T5 T5 systems **K5** T5 systems (with limiting strip)

5. Material (busbar material)

C Copper H Hybrid (Cu/Al)

- 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
- 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)

 STD
 UEC Mill Finish
 RED
 Paint UEC Red

 BLK
 Paint UEC Black
 BLU
 Paint UEC Blue

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

- 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
- Tape UEC White

Examples:

UE800K5C4S-IN-STD7 = US, Elbow section, 800 amps, K5 (limiting strip), Copper conductor, 3 phase plus neutral, Standard polarization- Internal- standard mill finish, blue stripe

ME800T5CGS-EX-BLK0 = Metric, Elbow section, 800 amps, T5, Copper conductor, 3 phase plus neutral plus internal ground conductor, Standard polarization- External-painted black

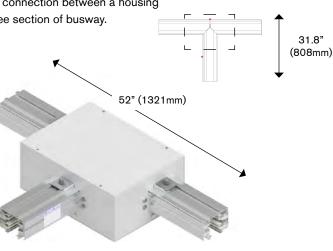




TEE SECTIONS

Product Description

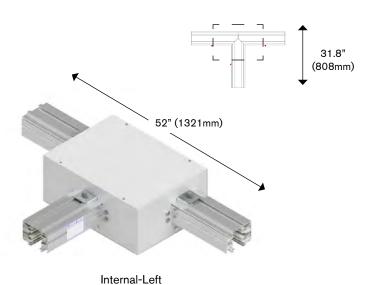
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent Busway sections using an installation 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.

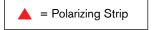


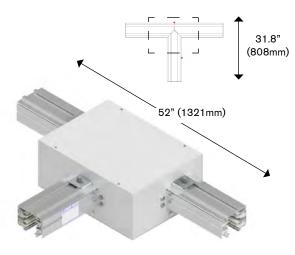
External-Left

(EL)

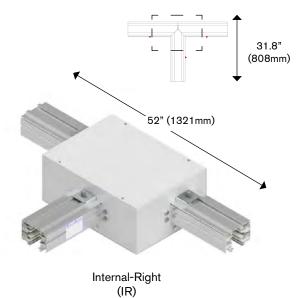
(IL)







External-Right (ER)





TEE SECTIONS: PRODUCT NUMBERS















Paint

color

0 Tape

Marking

Ground

husbar

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S. М Metric

2. Product Type (section component)

Т Tee section

3. Product Frame (maximum amperage)

800 amps

4. Compatibility (frame compatibility)

T5 T5 systems K5 T5 systems (with limiting strip)

5. Material (busbar material)

C Copper

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

3 Phase plus Neutral 3 Phase plus Neutral plus Internal Ground Conductor

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing strip)

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

RED Paint UEC Red STD UEC Mill Finish Paint UEC Blue **BLK** Paint UEC Black BLU

WHT Paint UEC White

Tape UEC White

**RAL system can also be used; reference page 4.42

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

0 None Tape UEC Red Tape UEC Black Tape UEC Blue

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

Examples:

UT800T5C4S-IR-PE90 = US, Tee section, 800 amps, T5, Copper conductor, 3 phase plus neutral, Standard polarization- Internal-Right- RAL 4009, no tape marking MT800K5CGS-EL-STD0 = Metric, Tee section, 800 amps, K5, Copper conductor, 3 phase plus neutral plus internal ground conductor, Standard polarization- External-Leftstandard mill finish, no tape marking



END FEED UNITS

Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 18.5 x 24 x 12 in. (470 x 610 x 305mm) steel junction box, with removable side, connected to an 14 inch (.3m) section of Busway. The assembly includes ground lugs for wires up to 350MCM and connection lugs that can handle up to (2) 600MCM (300mm²) wires (CU) or (2) 600MCM (300mm²) wires (AL). Reverse end feed units are for connection to the opposite end of the busway section (polarizing strip faces to right as viewed from end of unit).

Junction box is sized such that one or two 4" (101.6mm) conduits can be installed in the end of the box.

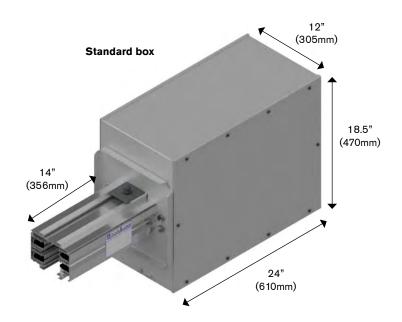
End power feed units are connected to adjacent Busway sections using a housing coupler and bus connector (ordered separately).

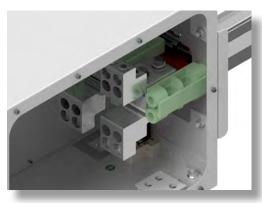
Special need power feed units for confined spaces, as found in mission critical data centers, can also be designed and fabricated but may require minimum quantities.

WEIGHT: 84.5 lbs (38.3 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. 4.41 End Feed Units: Product Numbers





Double lugs

*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/





Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 18.5 x 24 x 12 in. (470 x 610 x 305mm) steel junction box, with removable sides, connected to a 14 inch (356mm) section of Busway. The assembly includes ground lugs for wires up to 350MCM and connection lugs that can handle up to (2) 600MCM wires (CU) or (2) 600MCM wires (AL). Reverse end feed units are for connection to the opposite end of the busway section (polarizing strip faces to right as viewed from end of unit).

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.

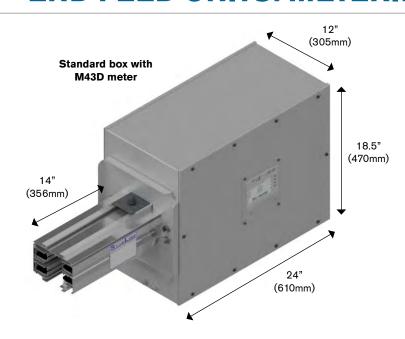
End Feed Meter Options:

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

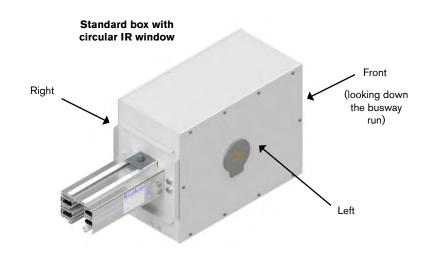
 $Y = wye, \Delta = delta$

*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: METERING



Box/Lugs Option	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)
(S) Standard Box, Standard Lugs	Х	Х	Х
(D) Standard Box, Double Lugs	Х	Х	Х



*The above arrows show how to determine your meter location on an end feed (*Refer to option* 9. Meter Location on pg. 4.41 End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS



System



Type



Frame



ibility





Ground

husbar







Location





12. 13.
Straight Busway
Length Access

- STD

Paint

color

15. Tape Marking

*16. Meter Release *17.
M40 System configuration

Options

*Optional
**RAL (plea

**RAL (please see page 4.42)

1. System (standard of measure)

U U.S.

M Metric

2. Product Type (section component)

F End Feed

3. Product Frame (maximum amperage)

800 800 amps

4. Compatibility (frame compatibility)

T5 T5 systems **K5** T5 systems (with limiting strip)

5. Material (busbar material)

C Copper H Hybrid (Cu/Al)

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

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. Meter Location (looking down the busway run, the side with meter)

 N
 None (N/A)
 R
 Right

 L
 Left
 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) R Right

and CT type

L Left **F** Front (consult the factory)

12. Straight Length (length of section)

0102 14 in (for U.S.) **M035** .35 meters (for Metric)

For other lengths, consult the factory

13. Busway Access (how plugs access the busway)

Short shutters L Long shutters

B "Beginning" only long **E** "Extended" (Short + 4")

P Access Panels

14. Paint Color (allows painting of the busway housing)

STD Paint UEC Silver RED Paint UEC Red
BLK Paint UEC Black BLU Paint UEC Blue

WHT Paint UEC White

**RAL system can also be used; reference page 4.42

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:

<u>UF800T5C4R-SLSN-0102P-BLK0-M47S1</u> = US, end Feed, 800 amps, 75, Copper conductor, 3 phase plus neutral, Reversed polarization- Std lugs, standard box, Left meter location, Standard accessory package, None (not applicable)- 1 ft. 2 in., access Panels- painted Black, no tape marking- M47 meter, Standard options, LLD- standard, milivolt



RAL Colors

1st Character

Р	Paint
---	-------

2nd Character

0	100
1	101
2	102
3	103
4	200
5	201
Α	300
В	301
С	302
D	303
Е	400
F	401
G	500
Ι	501
J	502
K	600
L	601
М	602
Ν	603
Р	700
a	701
R	702
S	703
Т	704
U	800
V	801
W X Y	802
Х	900
Υ	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 1/2 - 13 UNC (metric: M12) threaded rod. Twist-in design. Can be inserted anywhere along the top full-access slot of busway. Maximum hanger support

Part Number U.S: UBRHT5-1 Metric: MBRHT5-M12

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: UBHT5-1 Metric: MBHT5-M12

Available in plain zinc or black (-BLK)

> Weight .2 lb (.09 kg)



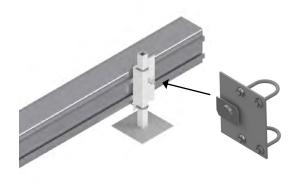
Raised Mounting Bracket

For mounting the busway horizontally (with access slot facing to the side) for under floor applications.

Part Number U.S: URFBT5-2 Metric: MRFBT5-2

Available in plain zinc or black (-BLK)

> Weight .2 lb (.09 kg)



Side Mount Brackets

Mounted to vertical supports.

Part Number U.S: UBSST5-1 Metric: MBSST5-12

Available in plain zinc or black (-BLK)

> Weight .2 lb (.09 kg)





ACCESSORIES: SUPPORT HARDWARE

Lateral Brackets

For mounting to 1/2 - 13 threaded rod with extra cross horizontal support.

Part Number U.S: USBT5-4

Available in plain zinc or black (-BLK)



Recessed Suspended Ceilings

For hanging busway into a recessed ceiling.

*Hanger bolt must be ordered separately

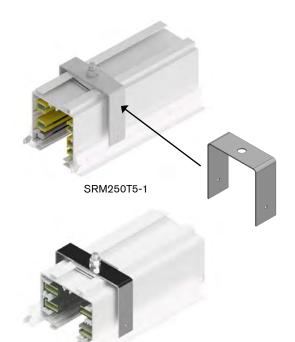
Part Numbers

(for 250 amp systems): SRM250T5-1

(for 400 amp systems): SRM400T5-1

(for 800 amp systems): SRM800T5-1

Available in plain zinc or black (-BLK)



SRM400T5-1



SRM800T5-1



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 - UBHT5-1 (or MBHT5-1)

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

23.75" (603mm) Max

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

.397 [10.08] MOUNTING SLOT WIDTH

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

- **Anodized Silver** 1-
- 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 (T5)

D = Depth (30"[762mm], 36"[914mm], 42"[1067mm], 48"[1219mm] or custom length)

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

UUSCMB-T5-36-4 = US, Universal Server Cabinet Mounting Bracket-T5 system-36 inch depth-white MUSCMB-T5-1219-7 = Metric, Universal Server Cabinet Mounting Bracket-T5 system-1219mm depth-blue

bus connectors



ACCESSORIES: CONNECTION HARDWARE

housing

couplers

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: consists of two 12-screw couplers-one for the top and one for the bottom. These make the mechanical connection between busway sections.

*Installation tool is required (see below)

Part Numbers

(for 250 amp systems):

SJK250T5-1

SJK250T5G-1

SJK250T5N-1

SJK250T5F-1

(for 400 amp systems) SJK400T5-1

SJK400T5G-1

SJK400T5N-1

SJK400T5F-1

(for hybrid (Cu/AI) 800 amp systems)

SJK800T5-2 SJK800T5G-2

(for copper (Cu/Cu) 800 amp systems)

SJK800T5C-1 SJK800T5GC-1

Available in all standard and RAL colors

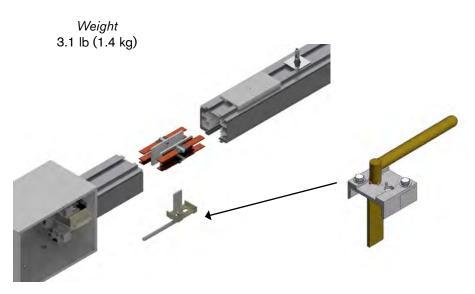
Installation Tool

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.

Part Number ST5IT

No available colors





ACCESSORIES: CONNECTION HARDWARE

End Cap

For covering the end of T5 busway systems.

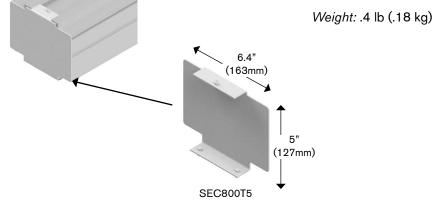
Part Numbers (for 250 amp systems): SEC250T5

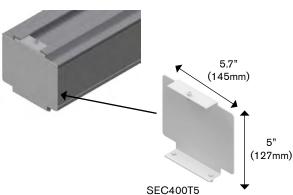
(for 400 amp systems): SEC400T5

(for 800 amp systems): SEC800T5

4.25" (108mm) (127mm) SEC250T5

Available in all standard and RAL colors





Optional Closure Strip

The Closure Strip snaps into the bottom access slot of T5 housing to close off access to power around the installed plug-in units. It is normally shipped in 10 ft (3m) sections.

The Closure Strip is offered in both PVC material and aluminum.

The aluminum Closure Strip affixes with an adhesive backing to the access slot of T5 housing.

Part Number SCST5-1

Aluminum closure strip: SCST5-1-AL

Available in all standard colors





ADD-ON ACCESSORIES: DATA CHANNEL

Data Channel Cover

The Data Channel Cover is used to hold cables into position and hide them from view. It can also be used for a variety of busway identification applications, and it is available in many different colors.

The Data Channel Cover is available in lengths of 10 ft. (3m).

Please contact sales to order the quantity needed.

Part Number U.S:

UDCCT5-10-SIL (silver) UDCCT5-10-BLK (black) UDCCT5-10-GRN (green) UDCCT5-10-YEL (yellow) UDCCT5-10-W (white) UDCCT5-10-RED (red) UDCCT5-10-BLU (blue)

Metric:

MDCCT5-3-SIL (silver) MDCCT5-3-BLK (black) MDCCT5-3-GRN (green) MDCCT5-3-YEL (yellow) MDCCT5-3-W (white) MDCCT5-3-RED (red) MDCCT5-3-BLU (blue)



Hinged Wire Way

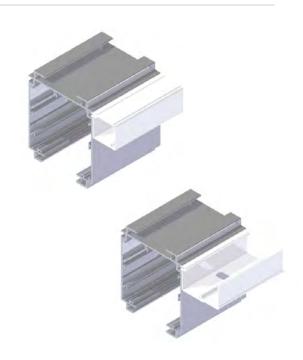
The Hinged Wire Way provides a seamless, integrated cable management solution that allows users to easily route cabling while leaving it easily accessible and identifiable. Discreet slots located every 6 inches (150mm) provide built-in accessibility for cable drops.

The Hinged Wire Way is available in lengths up to 10 ft. (3m).

Please contact sales to order the quantity and length needed.

Part Number U.S: UHWWT5-10 Metric: MHWWT5-3

Available in gray only





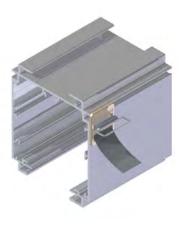
ADD-ON ACCESSORIES: DATA CHANNEL

Data Cable Strap

The Data Cable Strap provides a seamless, integrated cable management solution that allows users to easily route cabling while leaving it easily accessible and identifiable. The 12 inch (305mm) adjustable velcro strap can accommodate a wide variety and quantity of cables, and can be easily positioned along the busway to accommodate various cable management needs.

Part Number SVCST5-12

No available colors



Multi Use Mounting Bracket

The Multi Use Mounting Bracket is an all-purpose bracket that easily attaches to any position on the busway. The bracket comes with 1/4 inch (6.5mm) slotted holes throughout to allow for the attachment of a wide variety of accessories. Each bracket is capable of supporting a load of 25 lbs (12 kg).

The Multi Use Mounting Bracket is commonly used for suspending compressed air lines, tap box cable management and suspending accessory lighting.

Part Number SMMBT5-1

Available in plain zinc or black (-BLK)





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-inclass 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 indepth 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	Х	
2 trips per year		Х
Thermal imaging of all plug-in units		X
Thermal imaging of all Busway joints	X	Χ
Thermal imaging of all end feed units	X	Χ
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		Χ
Online portal to view test reports and documentation		Χ
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 unmetered 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.



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