



T1-T5 SYSTEMS

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SPECS & INTRODUCTION

SPECS

This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway or 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.

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.

*All standards and certifications available upon request

INTRODUCTION

Starline 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, Starline 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@starlinepower.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. Starline reserves the right to change information and descriptions of listed services and products. The latest version of this guide is available for download at downloads.starlinepower.com.

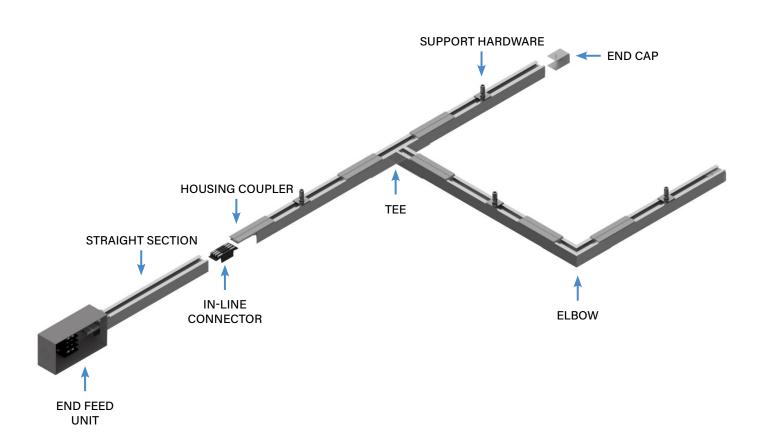


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SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T1 plug-in unit options, please consult the factory.

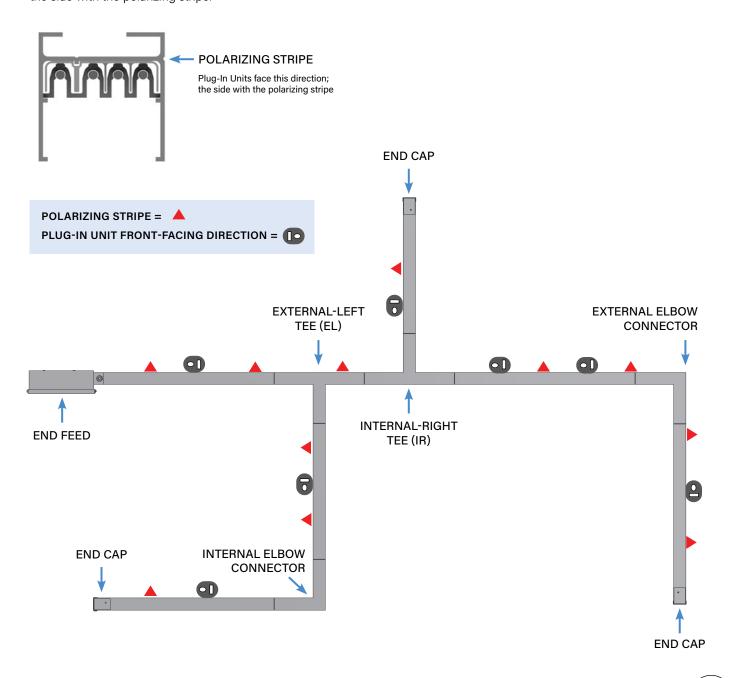


POLARITY TIPS

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 feet 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 <u>downloads.starlinepower.com</u>. 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 bidirectional 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 DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF SINGLE PHASE	VOLTAGE DROP @ 0.8 PF 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 feet 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 **page 1.3 Polarity Tips** for more detail.

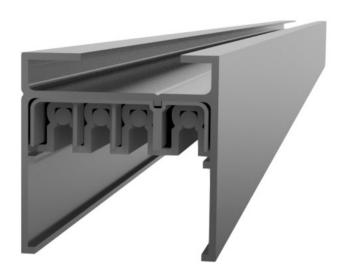


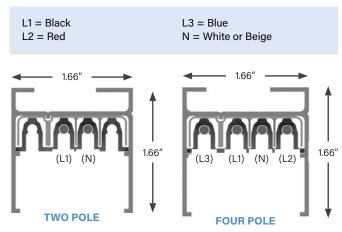
STRAIGHT SECTIONS

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).

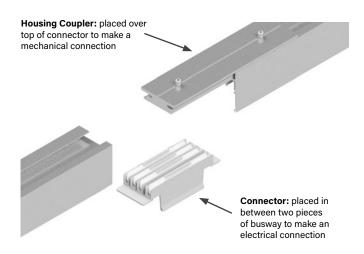
Sections are supported every 10 feet maximum and can support 100 pounds hanging weight between vertical supports. Four-pole busway is normally used in 3-phase/4-wire power systems. Four-pole busway may be used for 2 independent single-phase circuits at different voltages. Sections can be factory cut 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





STRAIGHT SECTIONS: RECESSED

■ PRODUCT DESCRIPTION

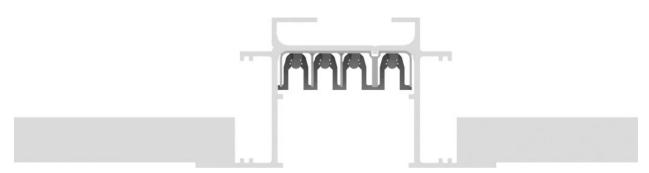
T1 housing is also available in a slightly different design, specifically tailored for busway that is meant to be installed recessed into a suspended ceiling.

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

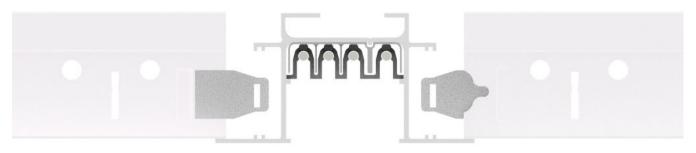
For recessed housing, please choose 'R1' as opposed to 'T1' in your product number.

*refer to **page 1.8** option 4. Compatibility (frame compatibility)





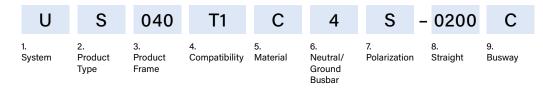
DRY WALL INSTALLATION



STANDARD AND REGULAR TILE INSTALLATION



STRAIGHT SECTIONS: PRODUCT NUMBERS



- STD0

10. Paint Color

1. System (standard of measure)	
U US	
2. Product Type (section component	nent)
S Straight Section	
3. Product Frame (maximum am)	perage)
040 40 amps 060 60 amps	050 50 amps
4. Compatibility (frame compatib	ility)
T1 T1 System	R1 T1 System (Recessed Housing)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size	e of neutral busbar and/or ground)
4 3 Phase plus Neutral	2 1 Phase plus Neutral
7. Polarization (orientation of sect	tion for mating purposes)
S Standard	
8. Straight Length (length of sec	tion)
XXYY XX=feet, YY=inches	

9. Busway Access (how plugs access the busway)

C Continuous

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

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

**RAL (please see page 1.24)

EXAMPLES

<u>US060T1C4S-0906C-STD0</u> = US System, Straight Section, 60 amps, T1 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 9 foot - 6 inch Straight Length, Continuous Busway Access, Factory Mill Finish

<u>USO40R1C2S-0500C-PA50</u> = US System, Straight Section, 40 amps, T1 System-R1 Recessed Housing, Copper Conductor, 1 Phase plus Neutral, Standard Polarization- 5 foot Straight Length, Continuous Busway Access, Painted RAL 3005



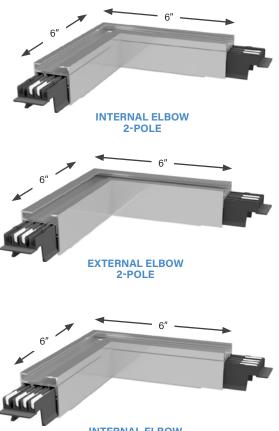
ELBOW SECTIONS

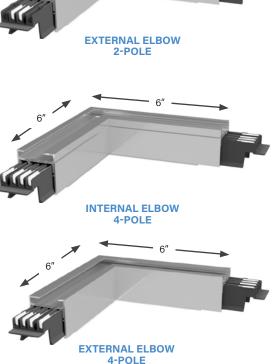
PRODUCT DESCRIPTION

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 inches from center to center, not end to end.

Weight .5 lbs





*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)

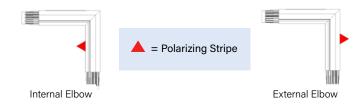
External-Housing Only (EH)

*contains no bus connectors or copper running through

Internal-Feed (IF)

External-Feed (EF)

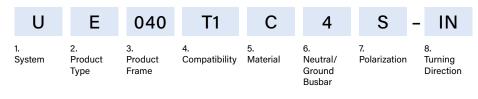
*comes with a hole in the top to feed wiring



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ELBOW SECTIONS: PRODUCT NUMBERS



- STD0

9. Paint Color

1. System (standard of measure)	
U US	
2. Product Type (section compone	nt)
E Elbow Section	
3. Product Frame (maximum ampe	erage)
040 40 amps 060 60 amps	050 50 amps
4. Compatibility (frame compatibil	ity)
T1 T1 System	R1 T1 System (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
 NP Non-Populated
 EH External-Housing Only
 IF Internal-Feed

F External-Feed

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 1.24)

EXAMPLES

<u>UE060R1C4S-IN-BLK0</u> = US System, Elbow Section, 60 amps, T1 System-R1 Recessed Housing, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Black

<u>UE050T1C2S-EH-STD0</u> = US System, Elbow Section, 50 amps, T1 System, Copper Conductor, 1 Phase plus Neutral, Standard Polarization, External Turning Direction Housing Only, Factory Mill Finish



1.11

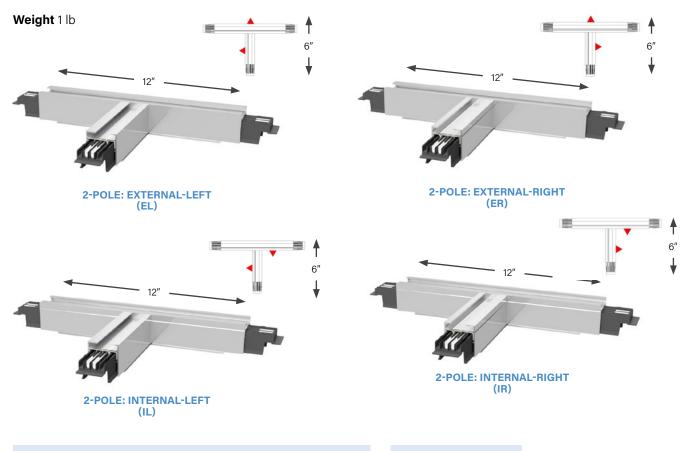
40-50-60T1 SYSTEMS

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 **page 1.3 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

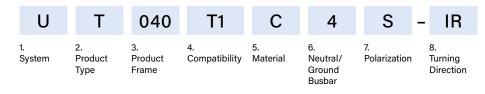
Non-Populated (NP)

*contains bus connectors but with no copper running through

= Polarizing Stripe



TEE SECTIONS: PRODUCT NUMBERS



- STD0

9. Paint Color

1. System (standard of measure)		
U US		
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 System R1 T1 System (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)

 IL
 Internal-Left
 EL
 External-Left

 IR
 Internal-Right
 ER
 External-Right

 NP
 Non-Populated

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

**RAL (please see page 1.24)

EXAMPLES

<u>UT060T1C4S-IR-RED0</u> = US System, Tee Section, 60 amps, T1 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red

<u>UT040R1C2S-EL-STD0</u> = US System, Tee Section, 40 amps, T1 System-R1 Recessed Housing, Copper Conductor, 1 Phase plus Neutral, Standard Polarization, External-Left Turing Direction, Factory Mill Finish



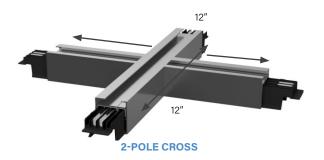
CROSS SECTIONS

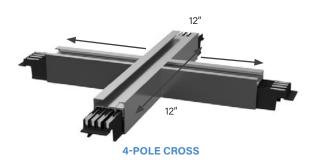
PRODUCT DESCRIPTION

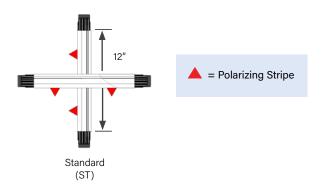
Similar to tee connectors, crosses are typically used for grid designs. Please be aware of polarization issues before making your final selection (refer to **page 1.3 Polarity Tips**).

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







*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.

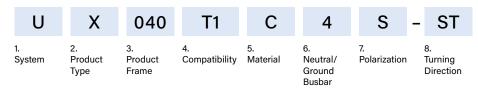
Non-Populated (NP)

*contains bus connectors but with no copper running through

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CROSS SECTIONS: PRODUCT NUMBERS



- STD0

9. Paint Color

1. System (standard of measure)	
U US	
2. Product Type (section compone	ent)
X Cross Section	
3. Product Frame (maximum amp	erage)
040 40 amps 060 60 amps	050 50 amps
4. Compatibility (frame compatibility)	lity)
T1 T1 System	R1 T1 System (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)

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 1.24)

EXAMPLES

<u>UX050T1C4S-NP-RED0</u> = US System, Cross Section, 50 amps, Tl System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Non-Populated Turning Direction, Painted Factory Red

<u>UX060R1C2S-IL-STD0</u> = US System, Cross Section, 60 amps, T1 System-R1 Recessed Housing, Copper Conductor, 1 Phase plus Neutral, Standard Polarization, Internal-Left Turning Direction, Factory Mill Finish

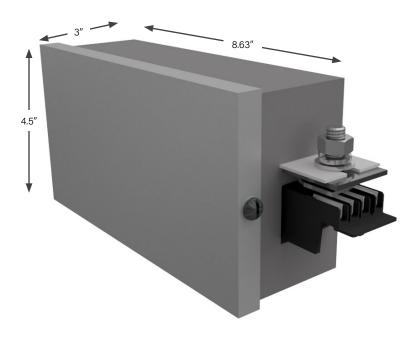


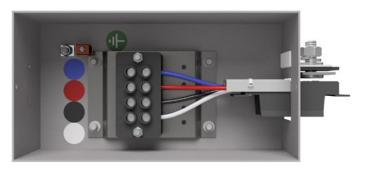
END FEED UNITS

■ 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

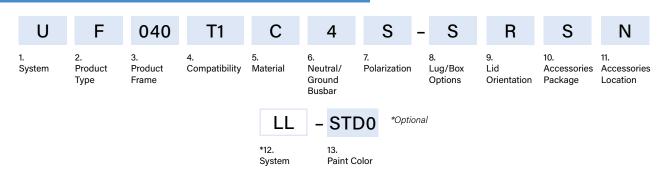




INTERNAL VIEW



END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)		
U US		
2. Product Type (section component)		
F End Feed		
3. Product Frame (maximum amperage	e)	
040 40 amps 05 060 60 amps	50 50 amps	
4. Compatibility (frame compatibility)		
T1 T1 System R1	I T1 System (Recessed Housing)	
5. Material (busbar material)		
C Copper		
6. Neutral/Ground Busbar (size of ne	eutral busbar and/or ground)	
4 3 Phase plus Neutral 2	1 Phase plus Neutral	
7. Polarization (orientation of section fo	r mating purposes)	
S Standard R	Reversed	
8. Lug/Box Options (standard/double/bolt lugs and box size)		
S Standard lugs, Standard box		

9. Lid Orientation (from the te	rminal, sid	 le и	with removable lid)
R Right			
10. Accessories Package (op	tional acc	ess	sories for feed units)
S Standard			
11. Accessories Location (fro	m the tern	nina	al, side with accessory)
N None (N/A)			
*12. System (line to line or line	to neutral :	sys	stem
LL Line to Line	LN		Line to Neutral
*LL & LN specification required or (reference option 6 Neutral/Groun	-	rde	ering a 2-pole system
13. Paint Color (allows painting	of the bu	SW8	ay housing)
STD0 Factory Mill Finish			aint Factory Red
BLKO Paint Factory Black WHTO Paint Factory White			aint Factory Blue Dlease see page 1.24)

EXAMPLE

<u>UF040T1C4R-SRSN-BLU0</u> = US System, End Feed, 40 amps, T1 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right lid Orientation, Standard Accessory Package, No Accessories Location, Painted Factory Blue

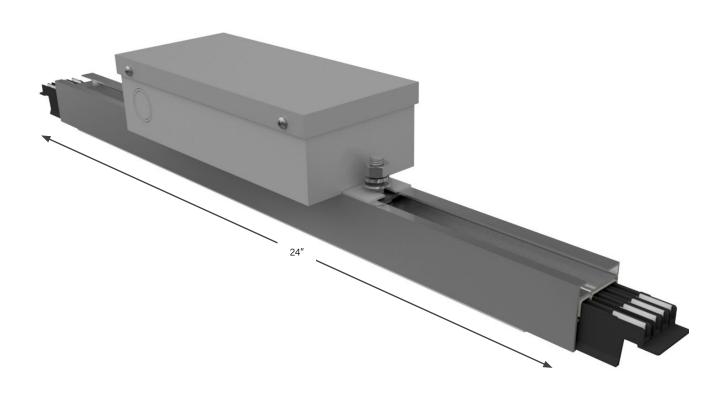
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ABOVE FEED UNITS

■ PRODUCT DESCRIPTION

Weight 5 lbs

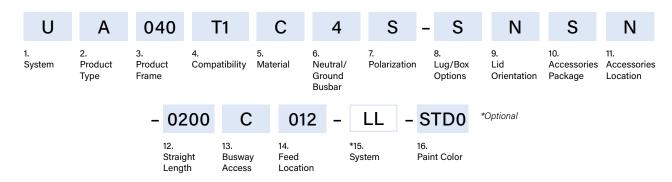




INTERNAL VIEW



ABOVE FEED UNITS: PRODUCT NUMBERS



- **1. System** (standard of measure)
- U US
- 2. Product Type (section component)
- A Above Feed
- 3. Product Frame (maximum amperage)
- **040** 40 amps **060** 60 amps
- **050** 50 amps
- 4. Compatibility (frame compatibility)
- T1 T1 System
- R1 T1 System (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
- Reversed
- 8. Lug/Box Options (standard/double/bolt lugs and box size)
- **S** Standard lugs, Standard box
- 9. Lid Orientation (from the terminal, side with removable lid)
- N None (N/A)

- 10. Accessories Package (optional accessories for feed units)
- S Standard
- 11. Accessories Location (from the terminal, side with accessory)
- None (N/A)
- 12. Straight Length (optional accessories for feed units)
- **0200** 2 feet
- 13. Busway Access (how plugs access the busway
- **C** Continuous
- 14. Feed Location (location of the center of the top feed)
- **012** 12 inches
- *15. System (line to line or line to neutral system
- **LL** Line to Line
- LN
 - 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)

STDO Factory Mill Finish
BLKO Paint Factory Black
WHTO Paint Factory White

REDO Paint Factory Red
BLUO Paint Factory Blue
**RAL (please see page 1.24)

EXAMPLE

<u>UA060TIC2S-SNSN-0200C012-LN-WHT0</u> = US System, Above Feed, 60 amps, T1 System, Copper Conductor, 1 Phase plus Neutral, Standard Polarization, Standard Lugs, Standard Box, No Lid Orientation, Standard Accessory Package, No Accessories Location- 2 foot Straight Length, Continuous Busway Access, 12 inch Feed Location, Line to Neutral System, Painted Factory White

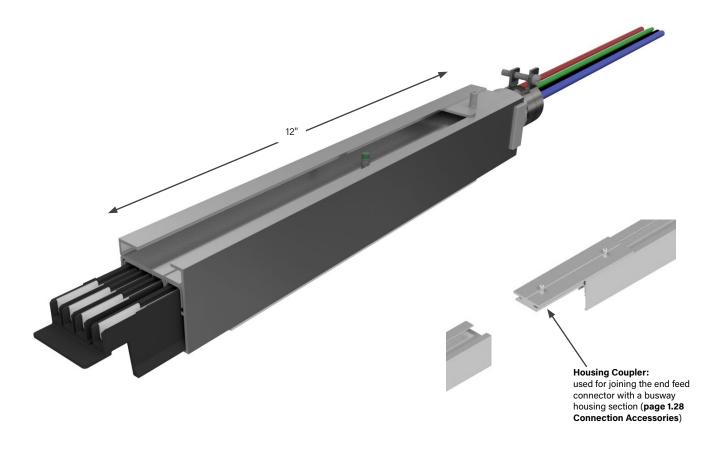


END FEED CONNECTOR UNITS

■ PRODUCT DESCRIPTION

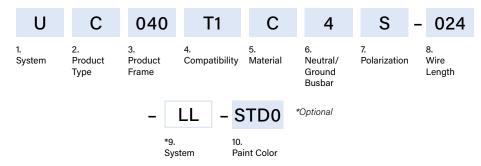
An end feed connector provides an inconspicuous way to connect to power. It consists of a 1 foot section of busway with connector mounted inside and wire lead exiting through the end cap. A 1 inch conduit mounting adapter is included. A housing coupler (ordered separately) is used to connect to the busway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

Weight 2 lbs





END FEED CONNECTOR UNITS: PRODUCT NUMBERS



1. System (standard of measure)		
U US		
2. Product Type (section component	ent)	
C End Feed Connector		
3. Product Frame (maximum amp	perage)	
040 40 amps 060 60 amps	050 50 amps	
4. Compatibility (frame compatible	ility)	
T1 T1 System	R1 T1 System (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	

024 24 inches	048	48 inches
072 72 inches	096	96 inches
*9. System (line to line or line to	neutral sy	rstem
LL line to line	LN	Line to Neutral
LE LINE to LINE		
*LL & LN specification required or	nly when or	dering a 2-pole system
*LL & LN specification required or (reference option 6 Neutral/Groun 10. Paint Color (allows painting	nly when or d Busbar)	
"LL & LN specification required or reference option 6 Neutral/Groun 10. Paint Color (allows painting	nly when or d Busbar) g of the bus	
*LL & LN specification required or reference option 6 Neutral/Groun	nly when or d Busbar) g of the bus	way housing)

EXAMPLES

<u>UC050T1C2R-048-LN-RED0</u> = US System, End Feed Connector, 50 amps, T1 System, Copper Conductor, 1 Phase plus Neutral, Reversed Polarization, 48 inch Wire Length, Line to Neutral System, Painted Factory Red

<u>UC060R1C4S-072-STD0</u> = US System, End Feed Connector, 60 amps, T1 System-R1 Recessed Housing, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 72 inch Wire Length, Factory Mill Finish



1.21

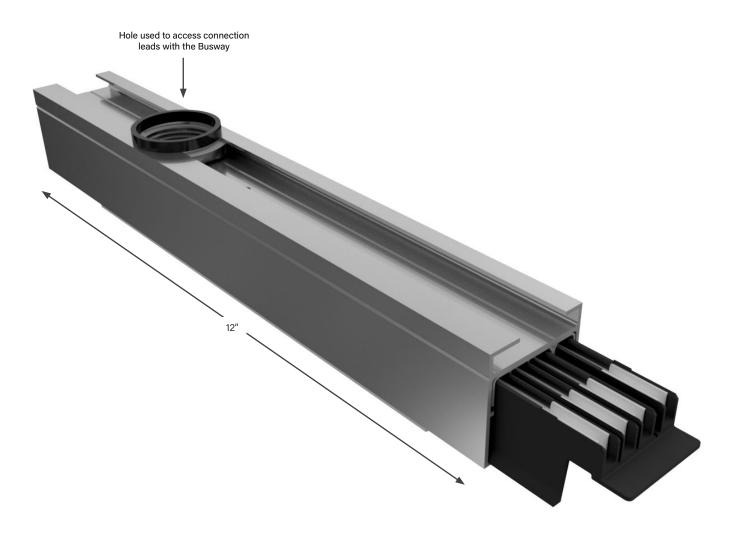
40-50-60T1 SYSTEMS

PENDANT FEED UNITS

■ PRODUCT DESCRIPTION

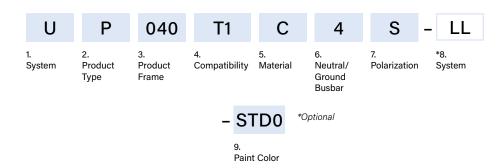
A Pendant Feed consists of a 1 foot busway section with a 1 inch conduit size access hole for access to connection leads inside the busway. A 1 inch conduit mounting adapter is included.

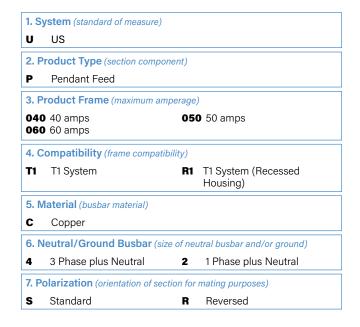
Weight 2 lbs

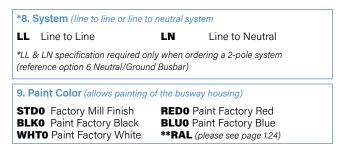




PENDANT FEED UNITS: PRODUCT NUMBERS







EXAMPLES

<u>UP040R1C2R-LL-PH50</u> = US System, Pendant Feed, 40 amps, T1 System-R1 Recessed Housing, Copper Conductor, 1 Phase plus Neutral, Reversed Polarization, Line to Line System, Painted RAL 5015

UP060T1C4S-STD0 = US System, Pendant Feed, 60 amps, T1 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Factory Mill Finish



RAL COLORS

1ST CHARACTER		
P	Paint	

2ND CHA	RACTER
0	100
1	101
2	102
3	103
4	200
5	201
Α	300
В	301
С	302
D	303
E	400
F	401
G	500
Н	501
J	502
K	600
L	601
M	602
N	603
Р	700
Q	701
R	702
S	703
Т	704
U	800
V	801
W	802
X	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	

4TH CHARACTER			
0	0		

EXAMPLE:

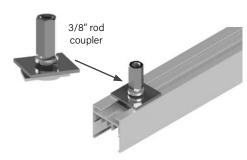
P B 2 0 = Paint RAL 3012



ACCESSORIES: SUPPORT HARDWARE

THREADED ROD

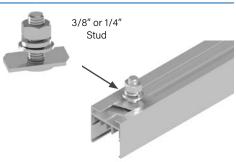
For mounting to 3/8 - 16 threaded rod. Can be inserted anywhere along the top fullaccess slot of busway. Hanger support is required every 10 feet maximum. Part Number URHB-3 Available in plain zinc or black (-BLK) Weight .3 lb



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 feet maximum.

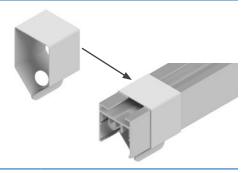
Part Number UTHB-3 (3/8") UTHB-1/4 (1/4") Available in plain zinc or black (-BLK) Weight .2 lb



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 pounds under the busway, such as light fixtures, tools and balancers.

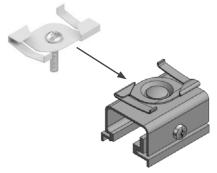
Part Number UWHRT1 Available in plain zinc or black (-BLK) Weight .2 lb



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 feet.

Part Number UTHB-5 Available in plain zinc Weight .1 lb



1.24



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 inch hole.

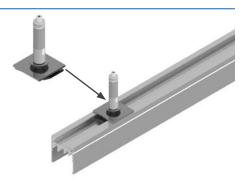
Part Number UMCT1-S (surface) Available in all standard and RAL colors UMCT1-R (rod) No available colors



CABLE

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

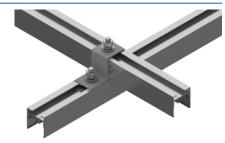
Part Number UACH-1 (1/16" cable) UACH-2 (3/32" cable) Available in plain zinc Weight .2 lb



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.

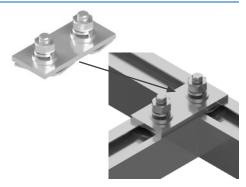
Part Number UGBT1-OU2 Available in plain zinc or black (-BLK) *4 required



■ 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)



1.25

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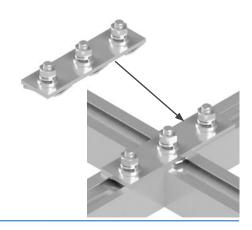


ACCESSORIES: SUPPORT HARDWARE

■ THREE-HOLE GRID BRACKET

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

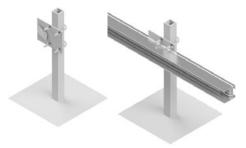
Part Number UGBT1-SP3 Available in plain zinc or black (-BLK)



■ 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

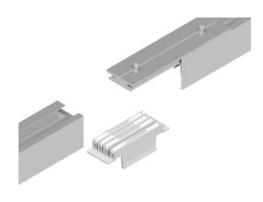
JOINT KIT

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.

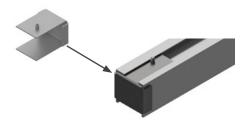
Part Number UHCT1 Available in all standard and RAL colors



END CAP

Used for insulating the female end of the busway.

Part Number UECT1 Available in standard & RAL colors Weight: .2 lb



OPTIONAL CLOSURE STRIP

Made of 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.

USCT1 Available in standard colors

Part Number

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SERVICES

Starline Services offers a comprehensive suite of services from startup and system certification through on-going support contracts and extended warranty programs. To ensure that your Busway system is installed properly you can trust Starline's team of factory certified technicians to perform services throughout the long life of your Starline Track Busway system. With over 30 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

LOAD BANK TESTING AND EQUIPMENT RENTALS

Whether you are in need of rental equipment to test your power system or a team of technicians to test the system for you, Starline Services has you covered. Select testing equipment from our inventory of load banks and associated gear, or work with a Starline engineer to customize your own test plan to suit your individual needs.

METER SERVICES

Factory trained and certified technicians will provide comprehensive on-site meter commissioning that includes meter inspection, programming and detailed documentation. Our technicians will program CPM meters and offer optional integration services to your BMS or DCIM for any and all meters located within your facility.

STARTUP AND SYSTEM CERTIFICATION

Certified technicians inspect and validate that the installation meets factory standards, ensuring ongoing reliability and compliance with facility safety requirements. Upon successful completion of system startup, Starline's standard one (1) year manufacturer's warranty will be automatically extended in duration.

- Double the length of the standard factory warranty
- Ensure all joint and feed connections are properly installed with continuity testing
- Ensure proper installation of all plug-in units
- Validate that system will perform to your specified requirements
- Full certification report delivered electronically at conclusion of service

ENGINEERING STUDIES (US ONLY)

Understanding the dangers and implementing a safety program is imperative to maintaining a safe work environment. Our professional engineers will conduct comprehensive facility electrical studies and recommend corrective actions, confirming your systems reliability and compliance with government and safety requirements.

TURNKEY INSTALLATION SERVICES (UK ONLY)

Our trained and factory certified Busbar installers are looking forward to completing your next job. You can order your best-in-class power distribution system and leave the rest to us. Our technicians will complete your installation quickly and safely and will reduce your overall TCO by extending your product warranty.

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at <u>downloads.starlinepower.com/services</u>.



SERVICES

ON-SITE INSTALLATION SUPPORT

On-site installation support begins by scheduling a site trip during your system installation. All work is performed by certified technicians- including review of installation best practices prior to the job, visual inspection of safe system installation, contractor installation oversight, and inspection and verification of functionality after rework.

ON-SITE PRODUCT TRAINING

Certified technicians will provide a comprehensive training course curriculum that meets our high factory system standards, ensuring ongoing reliability of the system while also emphasizing operational safety. This course curriculum takes place in both a classroom and on-site with equipment.

EXTENDED WARRANTY AND ENHANCED SERVICE PLANS

Ensure that your equipment investment is always covered. Select from an extended factory warranty or one of our many Enhanced Service Plans to meet your organizational requirements.

CHOICE OF EXTENDED WARRANTY OR ENHANCED: SILVER, GOLD OR PLATINUM SERVICE PLANS	EXTENDED 1, 2, 3, 4 YEARS	SILVER 1, 2, 3, 4 YEARS	GOLD 1, 2, 3, 4 YEARS	PLATINUM 2, 3, 4 YEARS
Repair or replacement of defective parts throughout life of service agreement	Χ	Χ	Χ	X
24/7 technical support hotline	X	Χ	Χ	X
Visual inspection of meters		X	X	X
Visual inspection of all joints for visible gaps		Χ	Χ	X
Update firmware and verify all Starline CPMs		Χ	Χ	X
Includes travel and expenses		Χ	Χ	X
One (1) service site visit per year		X		
Two (2) service site visits per year			Χ	X
Thermal imaging of all plug-in units			Χ	X
Thermal imaging of all Busway joints			Χ	X
Thermal imaging of all end feed units			Χ	X
Detailed and fully executed thermography report			Χ	X
Online portal for test reports & documentation			Χ	X
Spare parts inventory management program				X

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at <u>downloads.starlinepower.com/services</u>.



T2 SERIES

SPECS & INTRODUCTION

SPECS

This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway or 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.

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.

*All standards and certifications available upon request

INTRODUCTION

Starline 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, Starline 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@starlinepower.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. Starline reserves the right to change information and descriptions of listed services and products. The latest version of this guide is available for download at downloads.starlinepower.com.



T2 SYSTEMS

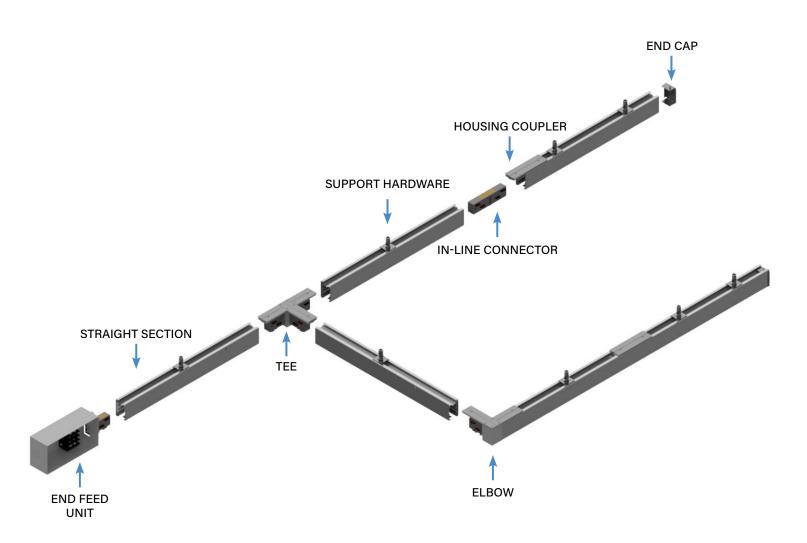
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Accessories: Connection Hardware	
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T2 SERIES

SYSTEM LAYOUT DRAWING





PLUG-IN UNITS

For further information on applicable T2 plug-in unit options, please consult the factory.

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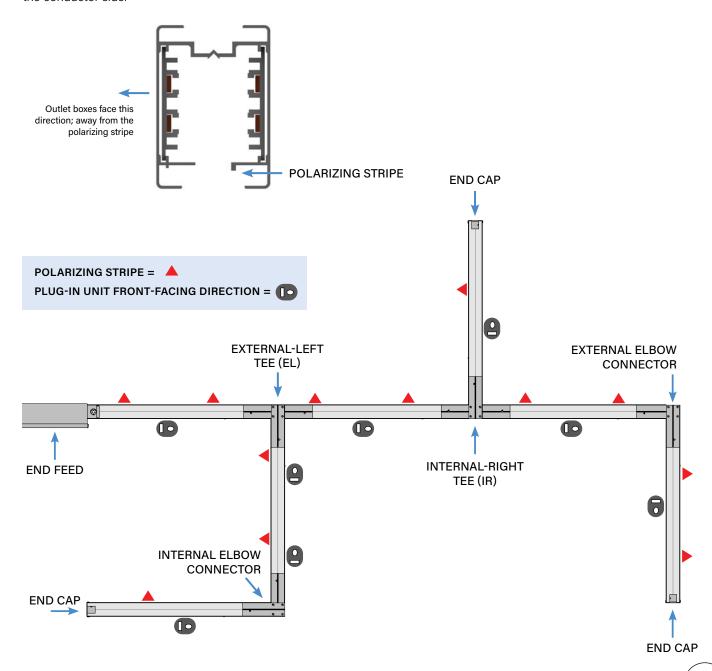
T2 SERIES

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.





T2 SERIES

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 feet apart. Refer to **page 2.43** 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 <u>downloads.starlinepower.com</u>. 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 O	F BUSWAY FOR A ONE VO	LT DROP IN LINE TO LINE	VOLTAGE:
SYSTEM DESIGNATION	DISTRIBUTED LOAD	VOLTAGE DROP @ 0.8 PF SINGLE PHASE	VOLTAGE DROP @ 0.8 PF THREE PHASE
60T2 (standard)	60 amps	29 ft	51 ft
100T2 (standard)	100 amps	42 ft	72 ft



T2 SERIES

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 feet maximum spacing between supports and we recommend 10% more than the required quantity to cover potential layout changes.

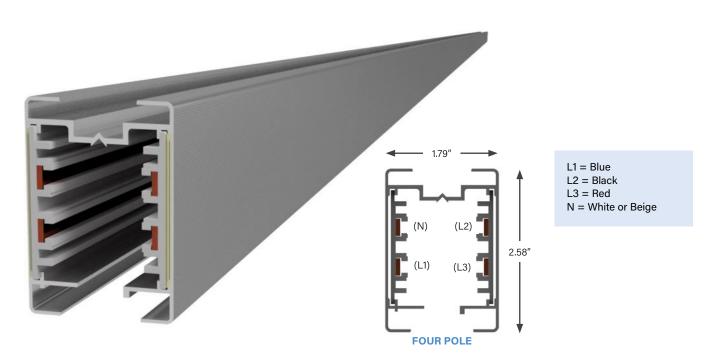
- Total Power Feeds and End Caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering elbow or tee connectors, it is important to understand polarity and the relationship to direction of outlets. Please refer to **page 2.3 Polarity Tips** for more detail.



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-n-lock plug-in units. The housing configuration is 4 pole in a 480V design. Track Busway housing is connected together using in-line connectors and housing couplers (found under Accessories).



MATERIAL

Extruded Aluminum

RATINGS

100% Ground Path US: 60 Amp, 480 Volt

LENGTH

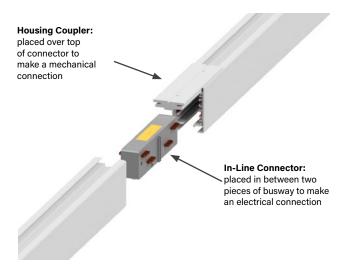
5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft

VOLTAGE DROP

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

WEIGHT

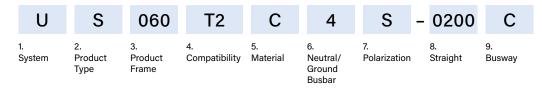
10 ft 4 pole: 12.5 lbs



2.6



STRAIGHT SECTIONS: PRODUCT NUMBERS



- STD0

10. Paint Color

1. System (standard of measure)
U US
2. Product Type (section component)
S Straight Section
3. Product Frame (maximum amperage)
060 60 amps
4. Compatibility (frame compatibility)
T2 T2 System
5. Material (busbar material)
C Copper
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
4 3 Phase plus Neutral
7. Polarization (orientation of section for mating purposes)
S Standard
8. Straight Length (length of section)
XXYY XX=feet, YY=inches

9. Busway Access (how plugs access the busway)

C Continuous

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 2.42)

EXAMPLES

<u>US060T2C4S-1000C-STD0</u> = US System, Straight Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 10 foot Straight Length, Continuous Busway Access, Factory Mill Finish

<u>US060T2C4S-0500C-P010</u> = US System, Straight Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Continuous Busway Access, Painted RAL 1001

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ELBOW SECTIONS

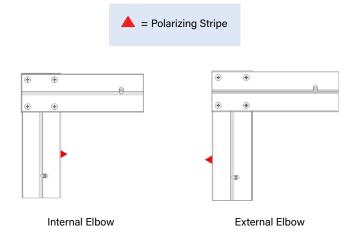
PRODUCT DESCRIPTION

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 **page 2.3 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.

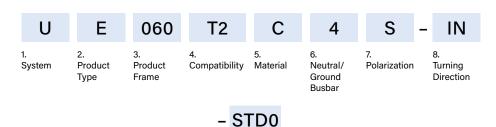
Weight .5 lbs





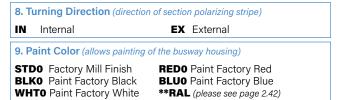


ELBOW SECTIONS: PRODUCT NUMBERS



9. Paint Color

1. System (standard of measure)
U US
2. Product Type (section component)
E Elbow Section
3. Product Frame (maximum amperage)
060 60 amps
4. Compatibility (frame compatibility)
T2 T2 System
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



EXAMPLES

<u>UE060T2C4S-IN-BLK0</u> = US System, Elbow Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Black

<u>UE060T2C4S-EX-STD0</u> = US System, Elbow Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External Turning Direction, Factory Mill Finish

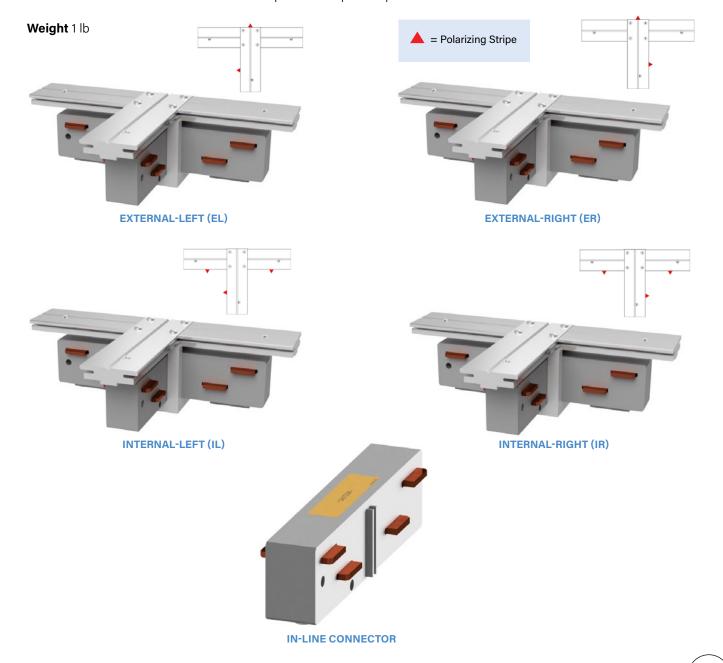


TEE SECTIONS

PRODUCT DESCRIPTION

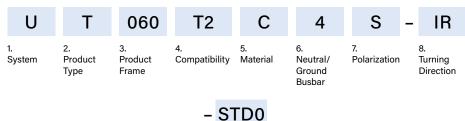
Similar to elbow connectors, tee connectors are used for connecting branch housing sections at 90 degrees to the main run. Please be aware of polarization issues before making your final selection (refer to **page 2.3 Polarity Tips**).

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.





TEE SECTIONS: PRODUCT NUMBERS



0100

Paint Color

1. System (standard of measure)
U US
2. Product Type (section component)
T Tee Section
3. Product Frame (maximum amperage)
060 60 amps
4. Compatibility (frame compatibility)
T2 T2 System
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)

 IL
 Internal-Left
 EL
 External-Left

 IR
 Internal-Right
 ER
 External-Right

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 2.42)

EXAMPLES

<u>UT060T2C4S-IR-RED0</u> = US System, Tee Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red

<u>UT060T2C4S-EL-STD0</u> = US System, Tee Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External-Left Turning Direction, Factory Mill Finish

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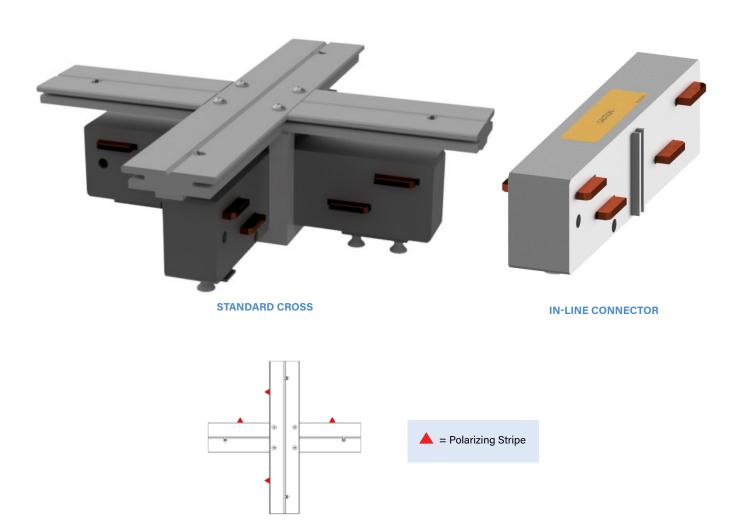


CROSS SECTIONS

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 page 2.3 Polarity Tips**).

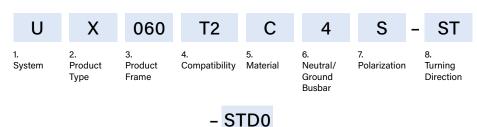
Crosses are electrically connected to sections of 60 amp busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to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



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CROSS SECTIONS: PRODUCT NUMBERS



- 3100

9. Paint Color

1. System (standard of measure)
U US
2. Product Type (section component)
X Cross Section
3. Product Frame (maximum amperage)
060 60 amps
4. Compatibility (frame compatibility)
T2 T2 System
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)

ST Standard

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

**RAL (please see page 2.42)

EXAMPLES

<u>UX060T2C4S-ST-RED0</u> = US System, Cross Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Turning Direction, Painted Factory Red

<u>UX060T2C4S-ST-STD0</u> = US System, Cross Section, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Turning Direction, Factory Mill Finish



2.14

60T2 SYSTEMS

END FEED UNITS

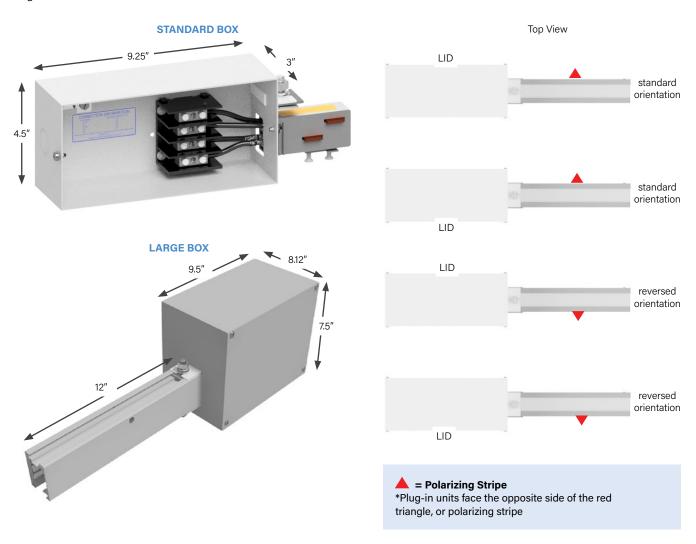
PRODUCT DESCRIPTION

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.

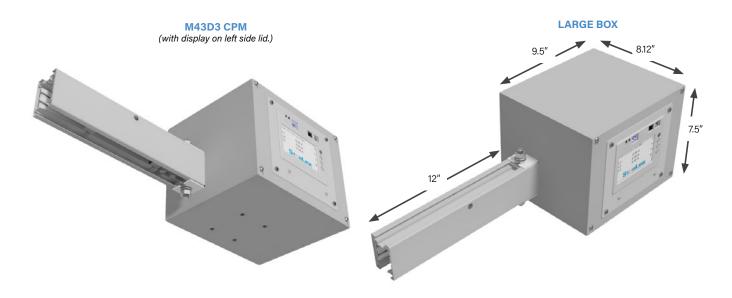
Weight

Standard box: 3.5 lbs Large box: 12 lbs





END FEED UNITS: METERING



AC END FEED METER OPTIONS

M41 WiFi, \leq 415V Y, \leq 240V Δ

M43 No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC)

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

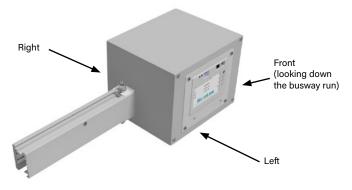
M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

BOX/LUGS OPTION	1 Meter or Accessory
(S) Standard Box, Standard Lugs	
(L) Large Box, Standard Lugs	X

*Large box with one meter or accessory is 8.12" deep. A meter and accessory cannot be on the same lid. Consult factory to determine accessory location for Large box.

Meters and accessories are not available on Standard box.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 2.16 End Feed Units: Product Numbers)

2.15



END FEED UNITS: PRODUCT NUMBERS

U	F	060	T2	С	4	,	S -	-	L		R	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	Material	6. Neutral/ Ground Busbar	7. Polar	ization		3. Lug/Box Options	9. Mete Loca		10. Accessories Package	11. Accessories Location
		0100	С	- STD0	0	-	M	11	S		1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Release	9	*17. M40 Options	(18. System Config. a		
1. System (sta	andard of meas	sure)				10. Ac	cessorie	s F	Package (d	ptiona	al acces	sories for feed	units)
U US							tandard sories not		ailable on st	andar		ingled Meter	Lid
2. Product T		omponent)				11. Acc	essorie	s L	ocation (fi	om th	e termin	al, side with a	ccessory)
F End Feed 3. Product Frame (maximum amperage)					lone (N/ t factory	,	Large box a	ccesso	ory optic	ons			

- **60** 60 amps 4. Compatibility (frame compatibility)
- T2 T2 System
- 5. Material (busbar material)
- Copper
- 6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
- 3 Phase plus Neutral
- 7. Polarization (orientation of section for mating purposes)
- Standard S
- Reversed
- 8. Lug/Box Options (standard/double/bolt lugs and box size)
- s Standard lugs, Standard box L Standard lugs, Large box
- 9. Meter Location (from the terminal, side with removable lid; meter must follow lid orientation on large box)
- Right
- Left
- N None (N/A)

- 12. Straight Length (for large box only)
- **0100** 1 ft. (For other lengths, consult the factory)
- 13. Busway Access (for large box only)
- Continuous
- 14. Paint Color (allows painting of the busway housing)

RED0 Paint Factory Red **STD0** Factory Mill Finish **BLU0** Paint Factory Blue **BLKO** Paint Factory Black WHTO Paint Factory White **RAL (please see page 2.42)

- **15. Tape Marking** (colored tape on both sides of busway housing)
- No Tape Marking

EXAMPLE

<u>UF60T2C4S-LNSN-0100C-STD0</u> = US System, End Feed, 60 Amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Large Box, No Meter Location, Standard Accessory Package, No Accessory Location - 1 ft. Straight Length, Continuous - Factory Mill Finish, No Tape Marking



END FEED UNITS: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆

M43 No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S Standard (M60s also)

D Display (M60s also)

N (Measured) Neutral

Α Audible Alarm

*17. Meter Options (M60 DC)

S Standard (High Voltage) Display (High Voltage)

Display (48 VDC) Q

Standard (48 VDC)

Enhanced (N+A)

Professional (D+N)

Ultimate (D+N+A)

Featured (D+A)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

Ε

P

U

F

*18. System Configuration and CT Type (M40 AC)

*18. System Configuration and CT Type (M60 DC)

LLD - Standard, Milivolt

LLY - Standard, Milivolt

LNY - Standard, Milivolt

L LLY - SC, 5A LNY - SC, 5A М

LLD - SC, 5A

K

line-line or line-neutral and wye or delta systems

Circuit 1 Only, Solid Core

Circuit 2 Only, Solid Core 2

3 Both Circuits, Solid Core

EXAMPLE

<u>UF60T2C4S-LRSN-0100C-STD0-M41D1</u> = US System, End Feed, 60 Amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Large Box, Right Meter Location, Standard Accessory Package, No Accessory Location - 1 ft. Straight Length, Continuous - Factory Mill Finish, No Tape Marking -M41 Meter, with Display, LLD - Standard Milivolt



2.18

60T2 SYSTEMS

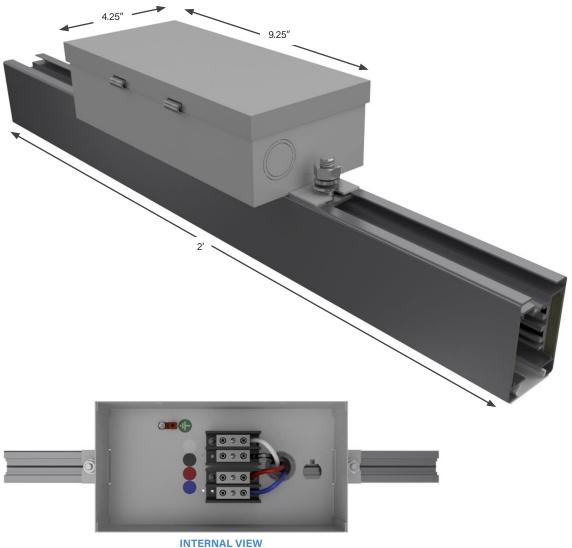
ABOVE FEED UNITS

■ 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.

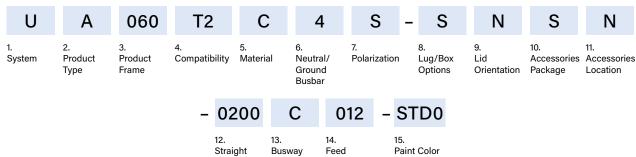
Two in-line connectors and housing couplers (supplied separately) are used to connect two adjacent busway sections.

Weight 2 - 5 lbs





ABOVE FEED UNITS: PRODUCT NUMBERS



Access

Length

1. System (standard of measure)	
U US	
2. Product Type (section component)	
A Above Feed	
3. Product Frame (maximum amperag	ne)
060 60 amps	
4. Compatibility (frame compatibility)	
T2 T2 System	
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of n	eutral busbar and/or ground)
4 3 Phase plus Neutral	
7. Polarization (orientation of section for	or mating purposes)
S Standard R	Reversed
8. Lug/Box Options (standard/double	e/bolt lugs and box size)
S Standard lugs, Standard box	

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

10. Accessories Package (optional accessories for feed units)
S Standard	
1. Accessories Location (#	from the terminal, side with accessory)
None (N/A)	
12. Straight Length (length	of section)
0200 2 feet	
13. Busway Access (how plu	ugs access the busway)
C Continuous	
14. Feed Location (location	of the center of the top feed)
012 12 inches	
15. Paint Color (allows painti	ing of the busway housing)
STD0 Factory Mill Finish	REDO Paint Factory Red
BLKO Paint Factory Black	
WHTO Paint Factory White	**RAL (please see page 2.42)

EXAMPLE

None (N/A)

<u>UA060T2C4S-SNSN-0200C012-BLK0</u> = US System, Above Feed, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Standard Box, No Lid Orientation, Standard Accessory Package, No Accessory Location, 2 foot Straight Length, Continuous Access, 12 inch Feed Location, Painted Factory Black



END FEED CONNECTOR UNITS

■ PRODUCT DESCRIPTION

This design of power feed has a built-in 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 CONDUCTOR UNITS: PRODUCT NUMBERS

U	С	060	T2	С	4	S	- 024
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polarization	8. Wire Length

1. System (standard of measure)
U US
2. Product Type (section component)
C Concealed Feed
3. Product Frame (maximum amperage)
060 60 amps
4. Compatibility (frame compatibility)
T2 T2 System
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)

ZZZ ZZZ = inches (024 is standard)

EXAMPLE

<u>UC060T2C4S-024</u> = US System, Concealed Feed, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 24 inch Wire Length



2.22

60T2 SYSTEMS

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

U В 060 S N Product Lug/Box Product Compatibility Material Polarization Lid System Neutral/ Accessories Accessories Ground Orientation Type Frame Options Package Location Busbar - STD0

> 12. Paint Color

1. System (standard of measure)
U US
2 Product Type (section component)
2. Product Type (section component)
B Below Feed
3. Product Frame (maximum amperage)
060 60 amps
4. Compatibility (frame compatibility)
T2 T2 System
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 (standard/double/bolt lugs and box size)
S Standard lugs, Standard box

9. Lid Orientation (from the te	 rminal. side with removable lid)			
R Right	,			
10. Accessories Package (op	tional accessories for feed units)			
S Standard				
11. Accessories Location (fro	m the terminal, side with accessory)			
N None (N/A)				
12. Paint Color (allows painting	of the busway housing)			
STD0 Paint Factory Silver	REDO Paint Factory Red			
BLKO Paint Factory Black WHTO Paint Factory White **RAL (please see page 2.42)				

EXAMPLE

<u>UB060T2C4S-SRSN-STD0</u> = US System, Below Feed, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Standard Box, Right Lid Orientation, Standard Accessory Package, No Accessory Location, Galvanized



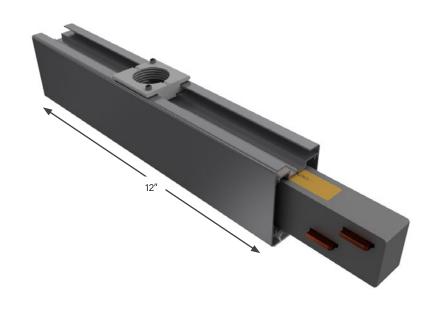
2.24

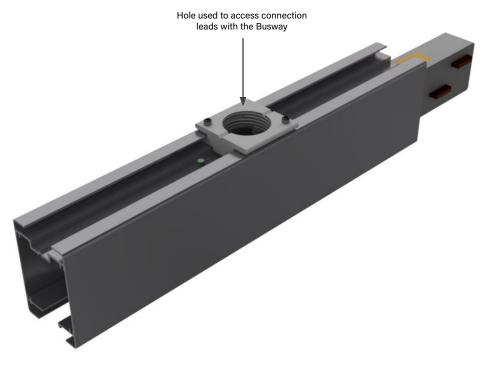
60T2 SYSTEMS

PENDANT FEED UNITS

■ PRODUCT DESCRIPTION

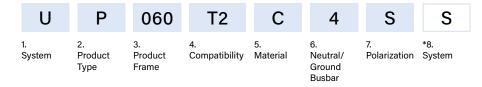
A Pendant Feed consists of a 1 foot busway section with a 1 inch conduit size access hole for access to connection leads inside the Busway. A 1 inch conduit mounting adapter is included.







PENDANT FEED UNITS: PRODUCT NUMBERS



- STD0

9. Paint Color

1. System (standard of measure)			
U US			
2. Product Type (section component)			
P Pendant Feed			
3. Product Frame (maximum amperage)			
060 60 amps			
4. Compatibility (frame compatibility)			
T2 T2 System			
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. System (Line to Line or Line to Neutral System)

LL LL Line to Line LN 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)

STD0 Factory Mill Finish RED0 Paint Factory Red BLK0 Paint Factory Black BLU0 Paint Factory Blue **RAL (please see page 2.42)

EXAMPLES

<u>UP060T2C4R-PD60</u> = US System, Pendant Feed, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Painted RAL 3036

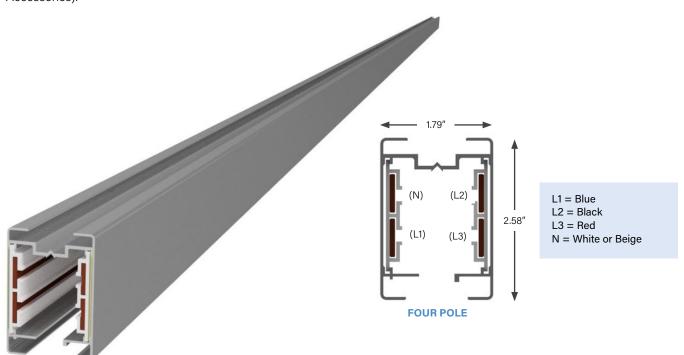
<u>UP060T2C4S-STD0</u> = US System, Pendant Feed, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Factory Mill Finish



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-n-lock 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

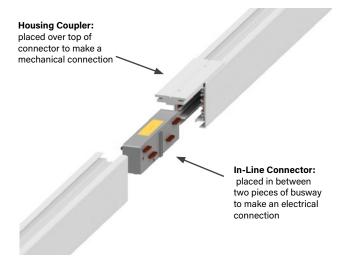
5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft

VOLTAGE DROP

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

WEIGHT

10 ft 4 pole: 16 lbs





STRAIGHT SECTIONS: PRODUCT NUMBERS

S 100 0200 Compatibility Product Product Material Neutral/ System Polarization Straight Busway Ground Type Frame Bushar

- STD0

10. Paint Color

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

9. Busway Access (how plugs access the busway)

C Continuous

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 2.42)

EXAMPLES

<u>US100T2C4S-0206C-STD0</u> = US System, Straight Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 2 foot 6 inch Straight Length, Continuous Busway Access, Factory Mill Finish

<u>US100T2C4S-0500C-P010</u> = US System, Straight Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Continuous Busway Access, Painted RAL 1001



ELBOW SECTIONS

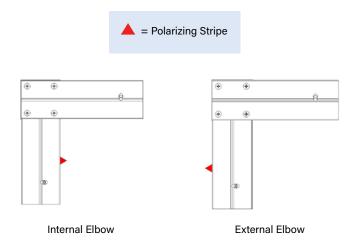
■ PRODUCT DESCRIPTION

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 **page 2.3 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.

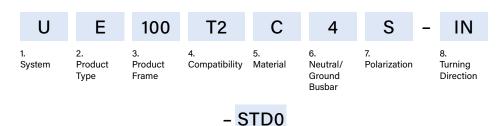
Weight .5 lbs





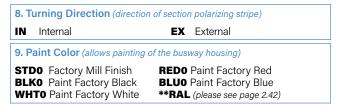


ELBOW SECTIONS: PRODUCT NUMBERS



Paint Color

1. System (standard of measure)
U US
2. Product Type (section component)
E Elbow Section
3. Product Frame (maximum amperage)
100 100 amps
4. Compatibility (frame compatibility)
T2 T2 System
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



EXAMPLES

<u>UE100T2C4S-IN-BLK0</u> = US System, Elbow Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Black

<u>UE100T2C4S-EX-STD0</u> = US System, Elbow Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External Turning Direction, Factory Mill Finish

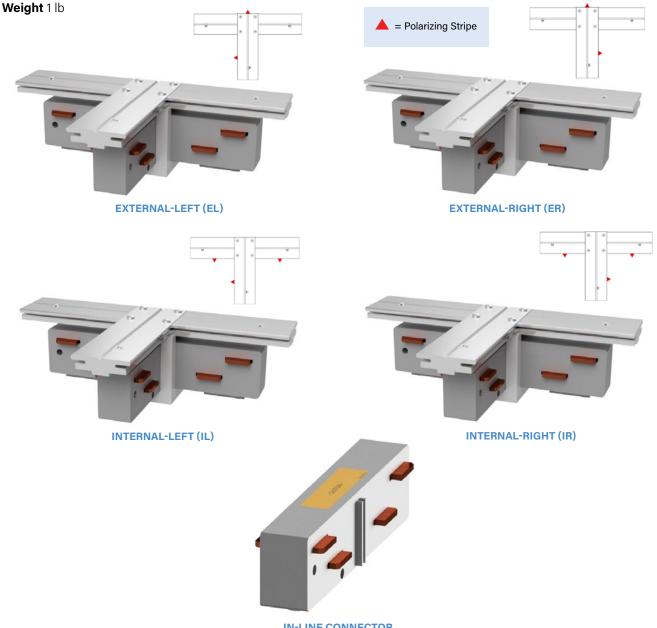


TEE SECTIONS

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 page 2.3 Polarity Tips).

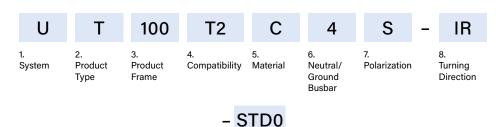
Tees are electrically connected to sections of 100 amp busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent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



IN-LINE CONNECTOR



TEE SECTIONS: PRODUCT NUMBERS



9.

9. Paint Color

1. System (standard of measure)					
U US					
2. Product Type (section component)					
T Tee Section					
3. Product Frame (maximum amperage)					
100 100 amps					
4. Compatibility (frame compatibility)					
T2 T2 System					
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)

 IL
 Internal-Left
 EL
 External-Left

 IR
 Internal-Right
 ER
 External-Right

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 2.42)

EXAMPLES

<u>UT100T2C4S-IR-RED0</u> = US System, Tee Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red

<u>UT100T2C4S-EL-STD0</u> = US System, Tee Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External-Left Turning Direction, Factory Mill Finish

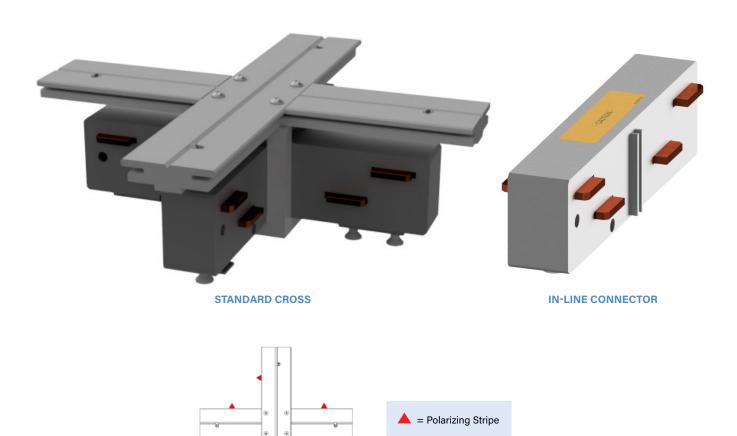


CROSS SECTIONS

PRODUCT DESCRIPTION

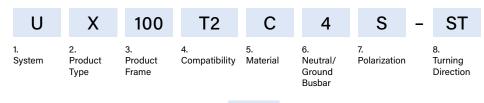
Similar to tee connectors, crosses are typically used for grid designs. Please be aware of polarization issues before making your final selection (**refer to page 2.3 Polarity Tips**).

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.





CROSS SECTIONS: PRODUCT NUMBERS



- STD0

9. Paint Color

1. System (standard of measure)			
U US			
2. Product Type (section component)			
X Cross Section			
3. Product Frame (maximum amperage)			
100 100 amps			
4. Compatibility (frame compatibility)			
T2 T2 System			
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)

ST Standard

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

STD0 Factory Mill Finish
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 2.42)

EXAMPLES

<u>UX100T2C4S-ST-RED0</u> = US System, Cross Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Turning Direction, Painted Factory Red

<u>UX100T2C4S-ST-STD0</u> = US System, Cross Section, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Turning Direction, Factory Mill Finish



END FEED UNITS

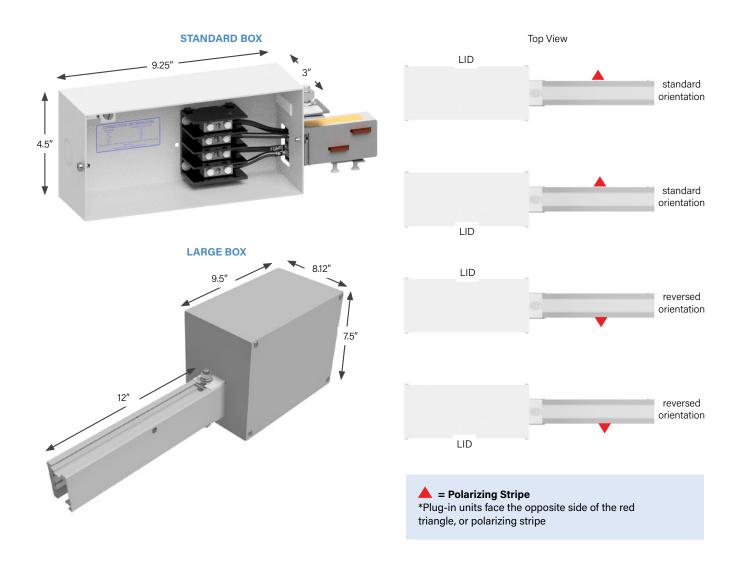
PRODUCT DESCRIPTION

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.

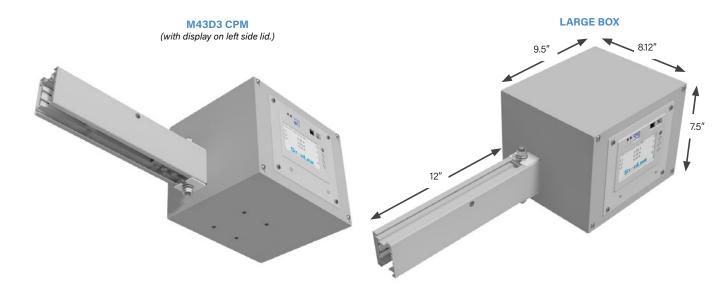
Weight

Standard box: 3.5 lbs Large box: 12 lbs





END FEED UNITS: METERING



AC END FEED METER OPTIONS

M41 WiFi, ≤415V Y, ≤240V Δ

M43 No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

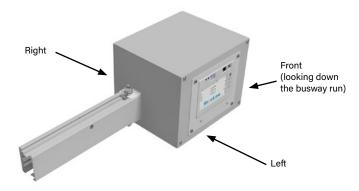
M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

BOX/LUGS OPTION	1 Meter or Accessory				
(S) Standard Box, Standard Lugs					
(L) Large Box, Standard Lugs	X				

*Large box with one meter or accessory is 8.12" deep. A meter and accessory cannot be on the same lid. Consult factory to determine accessory location for Large box.

Meters and accessories are not available on Standard box.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 2.36** End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS

U	F	100	T2	С	4		s -	L	R	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	Material	6. Neutral/ Ground Busbar	7. Polar	ization	8. Lug/Box Options	9. Meter Location	10. Accessories Package	11. Accessories Location
		- 0100	С	- STD0	0	-	M4	1 S	1	*Optiona	l
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Release	*17. M40 Options	*18. System Config. CT Type	and	
1. System (sta	andard of mea	asure)				10. Ac	cessories	s Package	optional acces	ssories for feed	l units)
U US							tandard	available on s		Angled Mete	r Lid
2. Product Type (section component)				L	*Accessories not available on standard box						
F End Feed					11. Accessories Location (consult factory for Large box accessory options)						
3. Product Frame (maximum amperage)				N N	lone (N/	۹)					

- 4. Compatibility (frame compatibility)
- T2 T2 System

100 100 amps

- 5. Material (busbar material)
- 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 (standard/double/bolt lugs and box size)
- s Standard lugs, Standard box L Standard lugs, Large box
- 9. Meter Location (from the terminal, side with removable lid; meter must follow lid orientation on large box)
- Right
- Left
- N None (N/A)

- None (N/A)
- 12. Straight Length (for large box only)
- **0100** 1 ft. (For other lengths, consult the factory)
- 13. Busway Access (for large box only)
- Continuous
- 14. Paint Color (allows painting of the busway housing)

STD0 Factory Mill Finish **REDO** Paint Factory Red **BLKO** Paint Factory Black **BLU0** Paint Factory Blue WHTO Paint Factory White **RAL (please see page 2.42)

- **15. Tape Marking** (colored tape on both sides of busway housing)
- No Tape Marking

EXAMPLE

<u>UF100T2C4S-LNSN-0100C-STD0</u> = US System, End Feed, 100 Amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Large Box, No Meter Location, Standard Accessory Package, No Accessory Location - 1 ft. Straight Length, Continuous - Factory Mill Finish, No Tape Marking



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, \leq 415V Y, \leq 240V Δ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S Standard (M60s also) Enhanced (N+A) Ε D Р Display (M60s also) Professional (D+N) U N (Measured) Neutral Ultimate (D+N+A) Α Audible Alarm Featured (D+A)

*17. Meter Options (M60 DC)

S Standard (High Voltage) Standard (48 VDC) D Display (High Voltage) Q Display (48 VDC) M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

*18. System Configuration and CT Type (M40 AC)

LLD - Standard, Milivolt K LLD - SC, 5A LLY - SC, 5A LLY - Standard, Milivolt L LNY - Standard, Milivolt LNY - SC, 5A М line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

Circuit 1 Only, Solid Core 1 2 Circuit 2 Only, Solid Core Both Circuits, Solid Core

EXAMPLE

<u>UF100T2C4S-LRSN-0100C-STD0-M41D1</u> = US System, End Feed, 100 Amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Large Box, Right Meter Location, Standard Accessory Package, No Accessory Location - 1 ft. Straight Length, Continuous - Factory Mill Finish, No Tape Marking -M41 Meter, with Display, LLD - Standard Milivolt



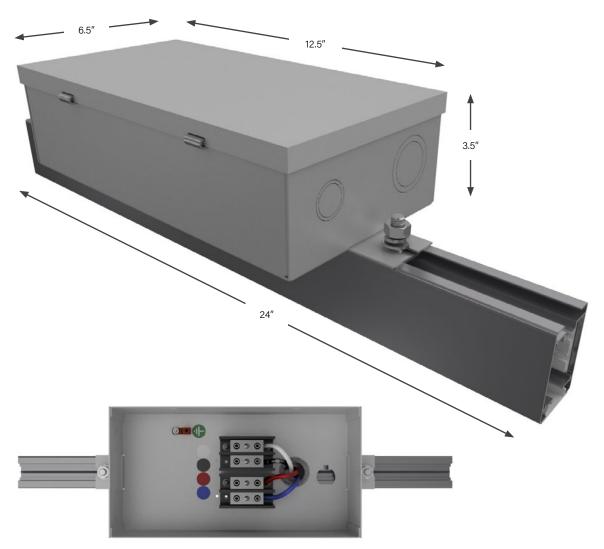
ABOVE FEED UNITS

■ 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 100 amp rated terminal block.

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

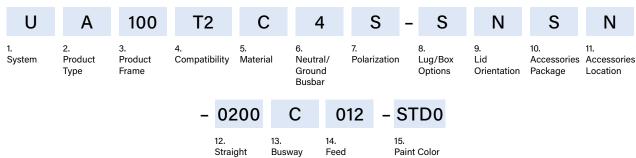
Weight 5 lb



INTERNAL VIEW



ABOVE FEED UNITS: PRODUCT NUMBERS



Access

Length

1. System (standard of measure)			
U US			
2. Product Type (section component)			
A Above Feed			
3. Product Frame (maximum amperage)			
100 100 amps			
4. Compatibility (frame compatibility)			
T2 T2 System			
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 (standard/double/bolt lugs and box size)			
S Standard lugs, Standard box			

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

ed cation	Paint Color
10. Ac	ccessories Package (optional accessories for feed units)
S	Standard
11. Ac	cessories Location (from the terminal, side with accessory)
N	None (N/A)
12. St	raight Length (length of section)
0200	2 feet
13. Bu	Isway Access (how plugs access the busway)
C	Continuous
14. Fe	eed Location (location of the center of the top feed)
012	12 inches
15. Pa	int Color (allows painting of the busway housing)
BLK	Paint Factory White REDO Paint Factory Red BLUO Paint Factory Blue **RAL (please see page 2.42)

EXAMPLE

None (N/A)

<u>UA100T2C4S-SNSN-0200C012-BLK0</u> = US System, Above Feed, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Standard Box, No Lid Orientation, Standard Accessory Package, No Accessory Location, 2 foot Straight Length, Continuous Access, 12 inch Feed Location, Painted Factory Black



2.40

100T2 SYSTEMS

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





100T2 SYSTEMS

BELOW FEED UNITS: PRODUCT NUMBERS

U 100 S N Lug/Box Product Product Compatibility Material Polarization Lid System Neutral/ Accessories Accessories Ground Orientation Type Frame Options Package Location Busbar - STD0

12

12. Paint Color

1. System (standard of measure)		
U	US	
2. Pro	oduct Type (section component)	
В	Below Feed	
3. Pro	oduct Frame (maximum amperage)	
100	100 amps	
4. Co	mpatibility (frame compatibility)	
T2	T2 System	
5. Ma	iterial (busbar material)	
С	Copper	
6. Ne	utral/Ground Busbar (size of neutral busbar and/or ground)	
4 :	3 Phase plus Neutral	
7. Pol	arization (orientation of section for mating purposes)	
s	Standard R Reversed	
8. Lug	g/Box Options (standard/double/bolt lugs and box size)	
S	Standard lugs, Standard box	

9. Lid Orientation (from the tel	rminal, side with removable lid)		
R Right			
10. Accessories Package (op	utional accessories for feed units)		
S Standard			
11. Accessories Location (fro	m the terminal, side with accessory)		
N None (N/A)			
12. Paint Color (allows painting	g of the busway housing)		
STD0 Factory Mill Finish	RED0 Paint Factory Red		
BLKO Paint Factory Black	BLU0 Paint Factory Blue		
WHTO Paint Factory White **RAL (please see page 2.42)			

EXAMPLE

<u>UB100T2C4R-SRSN-WHT0</u> = US System, Below Feed, 100 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Lid Orientation, Standard Accessory Package, No Accessory Location, Painted Factory White



RAL COLORS

1ST CHARACTER		
P	Paint	

2ND CHA	RACTER
0	100
1	101
2	102
3	103
4	200
5	201
Α	300
В	301
С	302
D	303
E	400
F	401
G	500
Н	501
J	502
K	600
L	601
M	602
N	603
Р	700
Q	701
R	702
S	703
Т	704
U	800
V	801
W	802
X	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		

4TH CHARACTER			
0	0		

EXAMPLE:

P B 2 0 = Paint RAL 3012

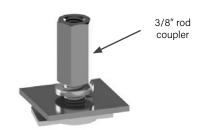


ACCESSORIES: SUPPORT HARDWARE

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 feet 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 feet 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

2.43

■ 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 pounds under the busway, such as light fixtures, tools and balancers.

Part Number **UWHRT2** Available in plain zinc Weight .2 lb





ACCESSORIES: SUPPORT HARDWARE

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

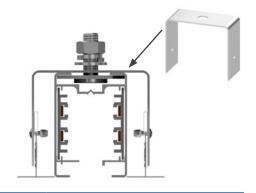


RECESSED MOUNT

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 feet 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

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 UBCT2-4

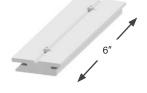


HOUSING COUPLER

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

*Hanger bolt must be ordered separately

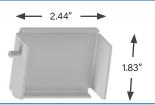
Part Number UHCT2 Available in all standard and RAL colors



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 black & white Maximum Cut Length: 20 ft

designed to be better.



SERVICES

Starline Services offers a comprehensive suite of services from startup and system certification through on-going support contracts and extended warranty programs. To ensure that your Busway system is installed properly you can trust Starline's team of factory certified technicians to perform services throughout the long life of your Starline Track Busway system. With over 30 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

LOAD BANK TESTING AND EQUIPMENT RENTALS

Whether you are in need of rental equipment to test your power system or a team of technicians to test the system for you, Starline Services has you covered. Select testing equipment from our inventory of load banks and associated gear, or work with a Starline engineer to customize your own test plan to suit your individual needs.

METER SERVICES

Factory trained and certified technicians will provide comprehensive on-site meter commissioning that includes meter inspection, programming and detailed documentation. Our technicians will program CPM meters and offer optional integration services to your BMS or DCIM for any and all meters located within your facility.

STARTUP AND SYSTEM CERTIFICATION

Certified technicians inspect and validate that the installation meets factory standards, ensuring ongoing reliability and compliance with facility safety requirements. Upon successful completion of system startup, Starline's standard one (1) year manufacturer's warranty will be automatically extended in duration.

- Double the length of the standard factory warranty
- Ensure all joint and feed connections are properly installed with continuity testing
- Ensure proper installation of all plug-in units
- Validate that system will perform to your specified requirements
- Full certification report delivered electronically at conclusion of service

ENGINEERING STUDIES (US ONLY)

Understanding the dangers and implementing a safety program is imperative to maintaining a safe work environment. Our professional engineers will conduct comprehensive facility electrical studies and recommend corrective actions, confirming your systems reliability and compliance with government and safety requirements.

TURNKEY INSTALLATION SERVICES (UK ONLY)

Our trained and factory certified Busbar installers are looking forward to completing your next job. You can order your best-in-class power distribution system and leave the rest to us. Our technicians will complete your installation quickly and safely and will reduce your overall TCO by extending your product warranty.

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at **downloads.starlinepower.com/services.**



SERVICES

ON-SITE INSTALLATION SUPPORT

On-site installation support begins by scheduling a site trip during your system installation. All work is performed by certified technicians- including review of installation best practices prior to the job, visual inspection of safe system installation, contractor installation oversight, and inspection and verification of functionality after rework.

ON-SITE PRODUCT TRAINING

Certified technicians will provide a comprehensive training course curriculum that meets our high factory system standards, ensuring ongoing reliability of the system while also emphasizing operational safety. This course curriculum takes place in both a classroom and on-site with equipment.

EXTENDED WARRANTY AND ENHANCED SERVICE PLANS

Ensure that your equipment investment is always covered. Select from an extended factory warranty or one of our many Enhanced Service Plans to meet your organizational requirements.

CHOICE OF EXTENDED WARRANTY OR ENHANCED: SILVER, GOLD OR PLATINUM SERVICE PLANS	EXTENDED 1, 2, 3, 4 YEARS	SILVER 1, 2, 3, 4 YEARS	GOLD 1, 2, 3, 4 YEARS	PLATINUM 2, 3, 4 YEARS
Repair or replacement of defective parts throughout life of service agreement	Χ	Χ	Χ	X
24/7 technical support hotline	X	X	X	X
Visual inspection of meters		X	X	X
Visual inspection of all joints for visible gaps		X	X	X
Update firmware and verify all Starline CPMs		Χ	Χ	X
Includes travel and expenses		X	X	X
One (1) service site visit per year		X		
Two (2) service site visits per year			X	X
Thermal imaging of all plug-in units			X	X
Thermal imaging of all Busway joints			X	X
Thermal imaging of all end feed units			X	X
Detailed and fully executed thermography report			X	X
Online portal for test reports & documentation			Χ	X
Spare parts inventory management program				X

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at <u>downloads.starlinepower.com/services</u>.



SPECS & INTRODUCTION

SPECS

This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway or 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

Starline 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, Starline 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. 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. Starline reserves the right to change information and descriptions of listed services and products. The latest version of this guide is available for download at downloads.starlinepower.com/starline/busway/.



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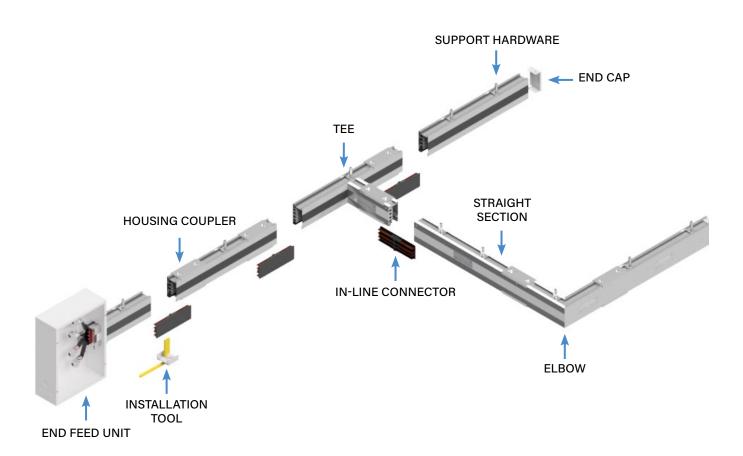
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SYSTEM LAYOUT DRAWING





PLUG-IN UNITS

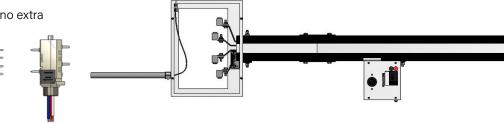
For further information on applicable T3 plug-in unit options, please visit the **Plug-In Units** section.



GROUND OPTIONS

■ 100 & 225 OPTIONS CASE GROUND/CHASSIS EARTH

Uses aluminum housing and no extra copper bar.

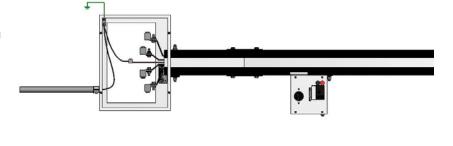


■ 100 OPTION ONLY DEDICATED GROUND/EARTH

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





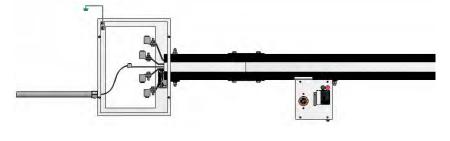


■ 100 OPTION ONLY ISOLATED GROUND/EARTH

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







*For further details about Dedicated Ground vs. Isolated Ground, please reference our "Isolated Ground vs. Dedicated Ground" tech brief on downloads.starlinepower.com/starline/busway.

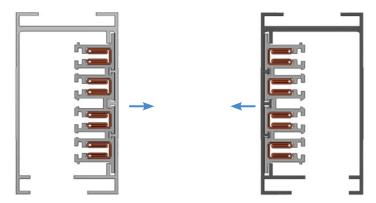


POLARITY TIPS

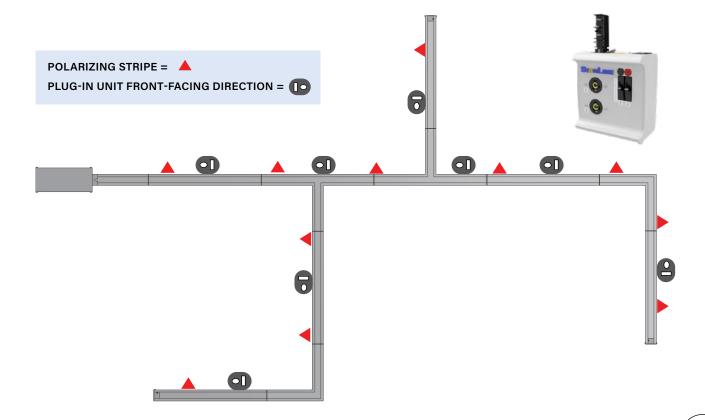
Starline utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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 feet apart. Refer to **page 3.35** 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 <u>downloads.starlinepower.com</u>. 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, 10 and 20 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 DISTRIBUTED LOAD		VOLTAGE DROP @ 0.8 PF SINGLE PHASE	VOLTAGE DROP @ 0.8 PF THREE PHASE	
100T3 (standard)	100 amps	42 ft	72 ft	
225T3 (standard)	225 amps	28 ft	48 ft	

STARLINEPOWER.COM designed to be better. The state of the



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 feet maximum spacing between supports and we recommend 10% more than the required quantity to cover potential layout changes.

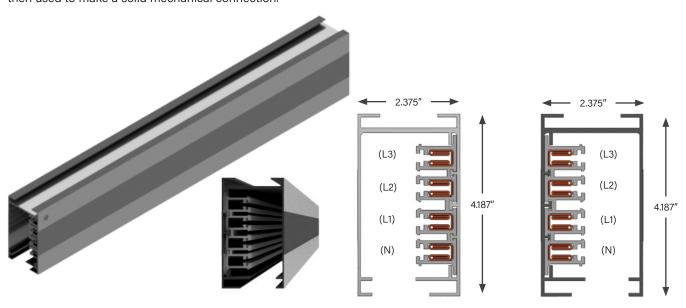
- Total Power Feeds and End Caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering Elbow or Tee connectors, it is important to understand polarity and the relationship to direction of outlets. Please refer to **page 3.5** Polarity Tips for more detail.



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. 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 US: 100 Amp, 600 Volt Metric: 160 Amp, 415 Volt

LENGTH

5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft

VOLTAGE DROP

Distributed load Single Phase 1V per 54 ft (.8PF) Three Phase 1V per 62 ft (.8PF)

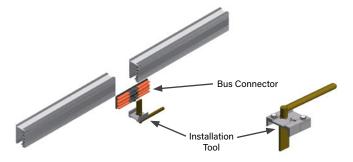
WEIGHT

10 ft 4 pole: 26 lbs

10 ft 4 pole w/ ground: 30 lbs 10 ft 4 pole w/ 200% N: 33 lbs

10 ft 4 pole w/ ground & 200% N: 34 lbs







STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)		
U US		
2. Product Type (section component)		
S Straight Section		
3. Product Frame (maximum amperage	e)	
100 100 amps		
4. Compatibility (frame compatibility)		
T3 T3 System		
5. Material (busbar material)		
C Copper		
6. Neutral/Ground Busbar (size of ne	eutral busbar and/or ground)	
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor	
N 3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor	
7. Polarization (orientation of section for mating purposes)		
S Standard		
8. Straight Length (length of section)		
XXYY XX=feet, YY=inches		

viaikiiig				
9. Bus	way Access (how plugs	access	the busway)	
C C	Continuous			
10. Pa	int Color (allows painting	of the	busway housing)	
	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue (please see page 3.34)	
11. Tape Marking (colored tape on both sides of busway housing)				
3 7 4 7	No Tape Marking Fape Factory Black Fape Factory White Fape Factory Red	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow	

EXAMPLES

<u>US100T3C4S-0206C-STD0</u> = US System, Straight Section, 100 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 2 foot 6 inch Straight Length, Continuous Access, Factory Mill Finish, No Tape Marking

<u>US100T3CNS-0500C-P013</u> = US System, Straight Section, 100 amps, T3 System, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization, 5 foot Straight Length, Continuous Access, Painted RAL 1001, Factory Black Tape

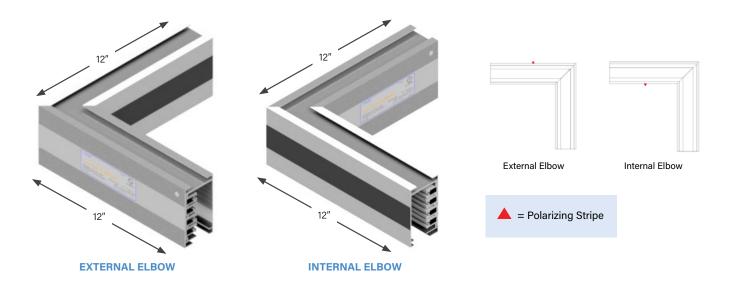


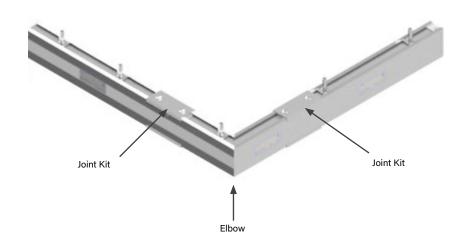
ELBOW SECTIONS

PRODUCT DESCRIPTION

Elbows are used for making a 90 degree in a busway run. Horizontal 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





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ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)					
U US					
2. Product Type (section component)					
E Elbow Section					
3. Product Frame (maximum amperage	e)				
100 100 amps					
4. Compatibility (frame compatibility)					
T3 T3 System					
5. Material (busbar material)					
C Copper					
6. Neutral/Ground Busbar (size of ne	eutral busbar and/or ground)				
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor				
N 3 Phase plus 200% Neutral F 3 Phase plus 200% Neutral plus Internal Ground Conductor					
7. Polarization (orientation of section for mating purposes)					
S Standard					

8. Turning Direction (direction	n of section polarizing stripe)
IN Internal HN Seismic Internal	EX External GX Seismic External
9. Paint Color (allows painting	of the busway housing)
STD Factory Mill Finish BLK Paint Factory Black WHT Paint Factory White	RED Paint Factory Red BLU Paint Factory Blue **RAL (please see page 3.34)
10. Tape Marking (colored tape	e on both sides of busway housing)
 No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red 	7 Tape Factory Blue8 Tape Factory Green9 Tape Factory Yellow

EXAMPLES

<u>UE100T3C4S-IN-BLK4</u> = US System, Elbow Section, 100 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Black, Factory White Tape

<u>UE100T3CNS-EX-STD0</u> = US System, Elbow Section, 100 amps, T3 System, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization, External Turning Direction, Factory Mill Finish, No Tape Marking

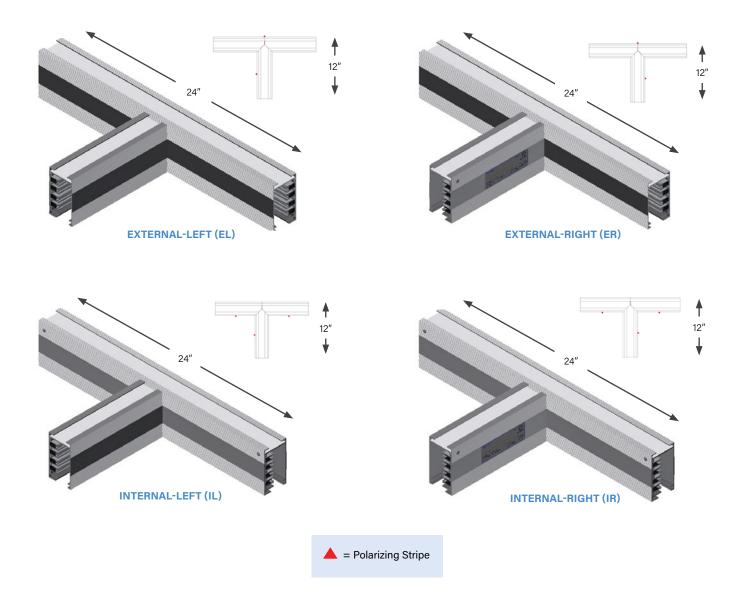


TEE SECTIONS

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





TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)					
U US					
2. Product Type (section component)					
T Tee Section					
3. Product Frame (maximum amperage)				
100 100 amps					
4. Compatibility (frame compatibility)					
T3 T3 System					
5. Material (busbar material)					
C Copper					
6. Neutral/Ground Busbar (size of ne	utral busbar and/or ground)				
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor				
N 3 Phase plus 200% Neutral F 3 Phase plus 200% Neutral plus Internal Ground Conductor					
7. Polarization (orientation of section for mating purposes)					
S Standard					

8. Turning Direction (direction of section polarizing stripe)

IL	Internal-Left	EL	External-Left
IR	Internal-Right	ER	External-Right
HL	Seismic Internal-Left	GL	Seismic External-Left
HR	Seismic Internal-Right	GR	Seismic External-Right

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

STD	Factory Mill Finish	RED Paint Fa	ctory Red
BLK	Paint Factory Black	BLU Paint Fa	ctory Blue
WHT	Paint Factory White	**RAL (please s	ee page 3.34)

10. Tape Marking (colored tape on both sides of busway housing)

0	No Tape Marking	7	Tape Factory Blue
3	Tape Factory Black	8	Tape Factory Green
4	Tape Factory White	9	Tape Factory Yellow
6	Tape Factory Red		

EXAMPLES

<u>UT100T3C4S-IR-RED0</u> = US System, Tee Section, 100 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

<u>UT100T3CGS-EL-STD0</u> = US System, Tee Section, 100 amps, T3 System, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External-Left Turning Direction, Factory Mill Finish, No Tape Marking



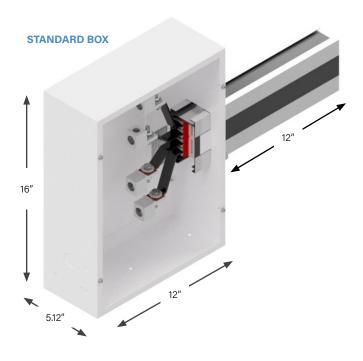
END FEED UNITS

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 inch section of busway. The assembly includes connection lugs, a ground lug and shrink tubing for wires up to 300 MCM.

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

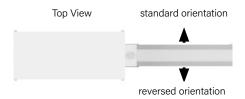
Special need power feed units for confined spaces as found in mission critical data centers can also be designed and fabricated requiring minimum quantities.



	BOXES						
LUGS	Standard	Large	Fused				
Standard	S	L					
Double	D	Α					
Bolt							

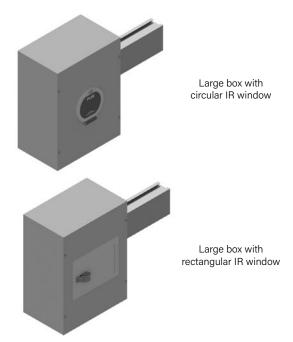
Box size and Lug options: Refer to option 8. Lug/Box Options on page 3.17 End Feed Units: Product Numbers

*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 downloads.starlinepower.com/starline/busway



INFRARED (IR) WINDOW OPTIONS:

Refer to option 10. Accessories Package on **page 3.17** End Feed Units: Product Numbers



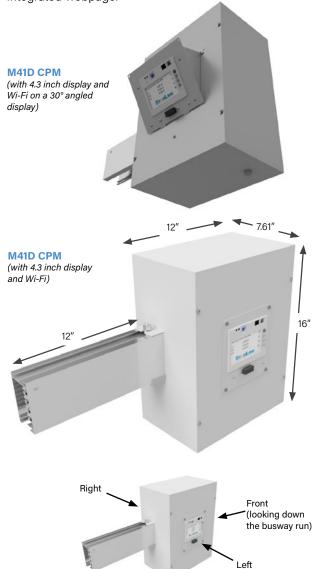


END FEED UNITS: METERING

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 inch 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. The M40 models are for AC busway, while the M60 models are for DC busway. 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.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 3.17** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, \leq 415V Y, \leq 240V Δ

M43 No WiFi, ≤415V Y, ≤240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

- M61 Single Eth./WiFi, single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC
- M63 Single Eth./No WiFi, single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC
- **M67** Dual Eth., single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC
- M69 Dual Eth/Dual Modbus, single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

BOX/LUGS OPTION	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)
(S) Standard Box, Standard Lugs		
(L) Large Box, Standard Lugs	Χ	Χ
(D) Standard Box, Double Lugs		
(A) Large Box, Double Lugs	X	Χ

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

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

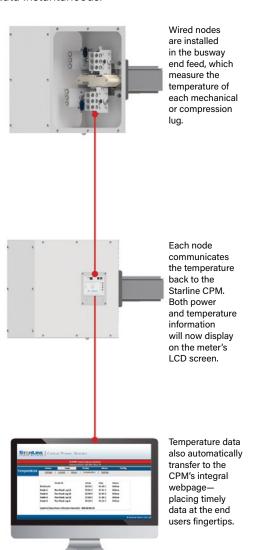
^{*}Any metering configuration that includes temperature monitoring will require a box depth of 10.12".



END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on **page 3.18** End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

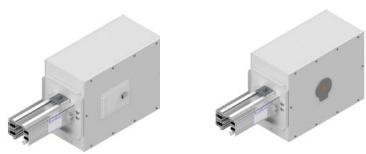
This enclosure allows for the meter to be mounted flush to the End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



■ IR WINDOWS

IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera



(Refer to option 10. Accessories Package on page 3.17 End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS

U	F	100	T3	С	4	S	-		S		N	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polariz	ration		g/Box tions	9. Met Loc	ter .	10. Accessories Package	11. Accessories Location
	-	0100	С	- STD	0	_	M4	1	S		1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Release		*17. M40 Options		*18. System Config. an CT Type	nd	

1. System	(standard	of measure)
-----------	-----------	-------------

US U

2. Product Type (section component)

- F End Feed
- 3. Product Frame (maximum amperage)
- 100 100 amps
- 4. Compatibility (frame compatibility)
- T3 System
- 5. Material (busbar material)
- Copper

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

- 3 Phase plus Neutral
- 3 Phase plus 200% Neutral F
- 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/Box Options (standard/double/bolt lugs and box size)

- Standard lugs, Standard box **D** Standard lugs, Large box L
 - Double lugs, Standard box Α Double lugs, Large box

9. Meter Location (from the terminal, side with removable lid; meter must follow lid orientation on large box)

- R Right
- Left
- N None (N/A)

10. Accessories Package (optional accessories for feed units)

- S Standard
- C IR Window - Circular
- Т IR (rect.) + Angled Lid
- Seismic Mounting Holes
- Q
- IR Window Rectangular R
- Angled Meter Lid L
- IR (circ.) + Angled Lid Seismic with IR Window D
- Seismic with IR Window Rectangular

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

- None (N/A)
- Left
- Right
- Front (consult the factory)

12. Straight Length (length of section)

0100 1 ft. (For other lengths, consult the factory)

13. Busway Access

Continuous

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

Factory Mill Finish Paint Factory Black WHT Paint Factory White

RED Paint Factory Red **BLU** Paint Factory Blue **RAL (please see page 3.34)

15. Tape Marking (colored tape on both sides of busway housing)

- 0 No Tape Marking Tape Factory Black
- Tape Factory White
 - Tape Factory Red
- Tape Factory Blue
- Tape Factory Green Tape Factory Yellow

EXAMPLE

<u>UF100T3C4R-LNSN-0100C-STD0</u> = US System, End Feed, 100 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, No Meter Location, Standard Accessory Package, No Accessory Location-1 foot Straight Length, Continuous Busway Access- Factory Mill Finish, No Tape Marking



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, \leq 415V Y, \leq 240V Δ **M45** WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S Standard (M60s also)
D Display (M60s also)

N (Measured) Neutral

A Audible Alarm

B Temperature Monitor (R+N)

C (B+D) **M** (B+A)

F Featured (D+A)

E Enhanced (N+A)

P Professional (D+N)

U Ultimate (D+N+A)

W (B+D+N)

1 (B+D+A)

2 (B+N+A)

3 (B+D+N+A)

*17. Meter Options (M60 DC)

Standard (High Voltage)

Display (High Voltage)

Q

P Standard (48 VDC)

Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

*18. System Configuration and CT Type (M40 AC)

1 LLD - Standard, Milivolt

K LLD - SC, 5A

2 LLY - Standard, Milivolt

L LLY - SC, 5AM LNY - SC, 5A

3 LNY - Standard, Milivolt **M** LNY line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

1 Circuit 1 Only, Solid Core

2 Circuit 2 Only, Solid Core

3 Both Circuits, Solid Core

EXAMPLE

<u>UF100T3C4R-LNSN-0100C-STD0-M41D1</u> = US System, End Feed, 100 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, No Meter Location, Standard Accessory Package, No Accessory Location, 1 foot Straight Length, Continuous Busway Access, Factory Mill Finish, No Tape Marking, M41 Meter, with Display, LLD - Standard, Milivolt



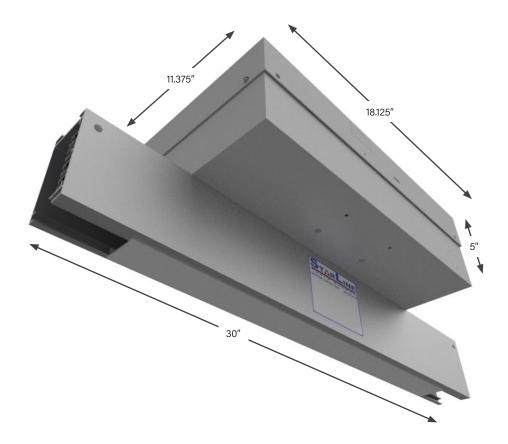
ABOVE FEED UNITS

■ PRODUCT DESCRIPTION

The above feed power unit comes as a completely pre-wired steel box to the top of a 30 inch 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

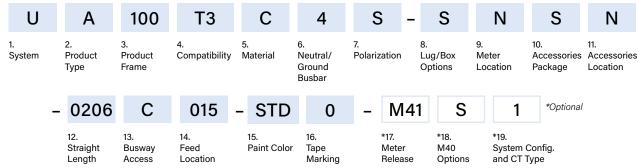
*Isolated or dedicated ground is determined at the feed during installation. For further details about Dedicated Ground vs. Isolated Ground, please reference our tech brief on <u>downloads.starlinepower.com/starline/busway</u>



STARLINEPOWER.COM designed to be better. The standard designed to be better.



ABOVE FEED UNITS: PRODUCT NUMBERS



	Longin	Location				
1. Syste	em (standard of measure)					
U U	S					
2. Prod	luct Type (section component)					
A A	bove Feed					
3. Prod	luct Frame (maximum ampera	ge)				
100 10	0 amps					
4. Com	patibility (frame compatibility)					
T3 T3	3 System					
5. Mate	erial (busbar material)					
C C	opper					
6. Neut	6. Neutral/Ground Busbar (size of neutral busbar and/or ground)					
4 3	Phase plus Neutral	3 Phase plus Neutral plus Internal Ground Conductor				
N 3	Phase plus 200% Neutral F	3 Phase plus 200% Neutral				

Т3	T3 System			
5. N	laterial (busbar material)			
С	Copper			
6. N	leutral/Ground Busbar (size o	of neu	tral busbar and/or gro	und)
4	3 Phase plus Neutral	G	3 Phase plus Neut	
N	3 Phase plus 200% Neutral	F	Internal Ground Co 3 Phase plus 2009 plus Internal Groun Conductor	6 Neutral
7. P	olarization (orientation of sectio	n for r	mating purposes)	
S	Standard	R	Reversed	
8. L	ug/Box Options (standard/dou	ıble/b	olt lugs and box size)	
S	Standard lugs, Standard box	L	Standard lugs, Larg	ge box
	leter Location (from the terminer must follow lid orientation on la			
R	Right L Le	eft	N N	lone (N/A)
10. /	Accessories Package (optiona	al acce	essories for feed units))
S	Standard			
11. <i>A</i>	Accessories Location (from the	e term	ninal, side with remova	ble lid)
N	None (N/A)			
12.	Straight Length (length of sect	ion)		

	Continuous ed Location (location of	the cente	or of the top feed)	
015	15 inches (For other length	ns, consu	t the factory)	
15. Pa	nint Color (allows painting	of the bu	isway housing)	
	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue L (please see page 3.34)	
	pe Marking (colored tape			
3	No Tape Marking Tape Factory Black Tape Factory White	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow	

*17. Meter Release (M40 Series Meters)

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, \leq 415V Y, \leq 240V Δ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

Tape Factory Red

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

 S
 Standard (M60s also)
 F
 Featured (D+A)

 D
 Display (M60s also)
 E
 Enhanced (N+A)

 N
 (Measured) Neutral
 P
 Professional (D+N)

 A
 Audible Alarm
 U
 Ultimate (D+N+A)

*19. 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

EXAMPLE

0206 2 feet, 6 inches

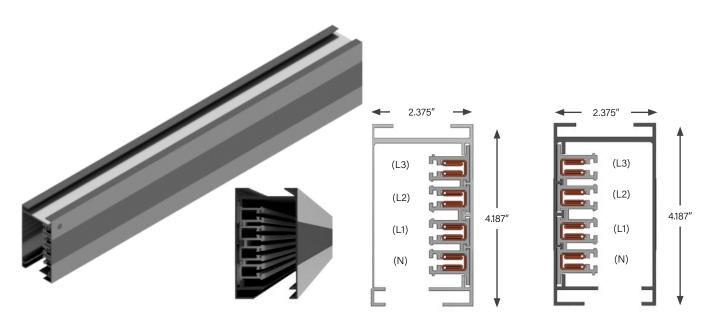
<u>UA100T3CFS-LNSN-0206C015-STD0</u> = US System, Above Feed, 100 amps, T3 System, Copper Conductor, 3 Phase plus 200% Neutral plus Internal Ground Conductor, Standard Polarization, Standard Lugs, Large Box, No Lid Orientation, Standard Accessory Package, No Accessory Location- 2 foot 6 inch Straight Length, Continuous Busway Access, 15 inch Feed Location, Factory Mill Finish, No Tape Marking



STRAIGHT SECTIONS

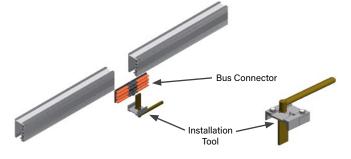
PRODUCT DESCRIPTION

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. 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.



Extruded Aluminum RATINGS 100% Ground Path 225 Amp, 600 Volt LENGTH 5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft VOLTAGE DROP Distributed load Single Phase 1V per 28 ft (.8PF) Three Phase 1V per 48 ft (.8PF) WEIGHT 10 ft 4 pole: 33 lbs





3.21



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)
U US
2. Product Type (section component)
S Straight Section
3. Product Frame (maximum amperage)
225 225 amps
4. Compatibility (frame compatibility)
T3 T3 System
5. Material (busbar material)
C Copper
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)
4 3 Phase plus Neutral
7. Polarization (orientation of section for mating purposes)
S Standard
8. Straight Length (length of section)
XXYY XX=feet, YY=inches

viarking						
9. Bus	9. Busway Access (how plugs access the busway)					
C (C Continuous					
10. Pa	10. Paint Color (allows painting of the busway housing)					
	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue AL (please see page 3.34)			
11. Tape Marking (colored tape on both sides of busway housing)						
3 4	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow			

EXAMPLES

<u>US225T3C4S-0206C-STD6</u> = US System, Straight Section, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 2 foot 6 inch Straight Length, Continuous Busway Access, Factory Mill Finish, Factory Red Tape

<u>US225T3C4S-1000C-P013</u> = US System, Straight Section, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 10 foot Straight Length, Continuous Busway Access, Painted RAL 1001, Factory Black Tape



3.23

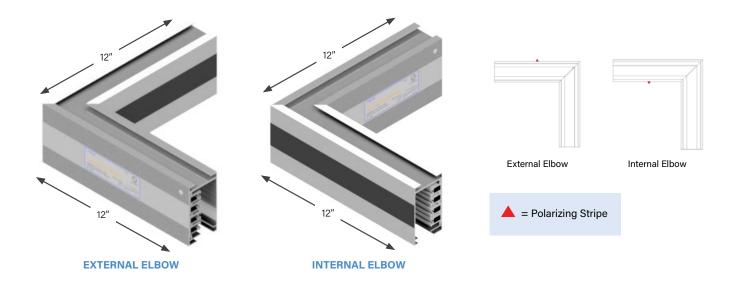
225T3 SYSTEMS

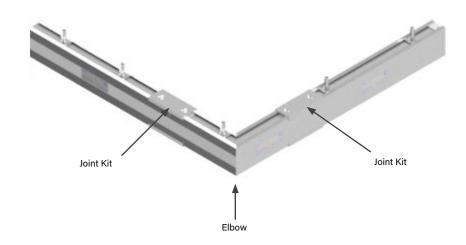
ELBOW SECTIONS

PRODUCT DESCRIPTION

Elbows are used for making a 90 degree in a busway run. Horizontal 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







ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)				
U US				
2. Product Type (section component)				
E Elbow Section				
3. Product Frame (maximum amperage)				
225 225 amps				
4. Compatibility (frame compatibility)				
T3 T3 System				
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 HN	Internal Seismic Internal		External Seismic External	
9. Pa	9. Paint Color (allows painting of the busway housing)			
BLK	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue L (please see page 3.34)	
10. Tape Marking (colored tape on both sides of busway housing)				
0 3 4 6	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	8	Tape Factory Blue Tape Factory Green Tape Factory Yellow	

EXAMPLES

<u>UE225T3C4S-EX-WHT0</u> = US System, Elbow Section, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External Turning Direction, Painted Factory White, No Tape Marking

<u>UE225T3C4S-IN-PH40</u> = US System, Elbow Section, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted RAL 5014, No Tape Marking

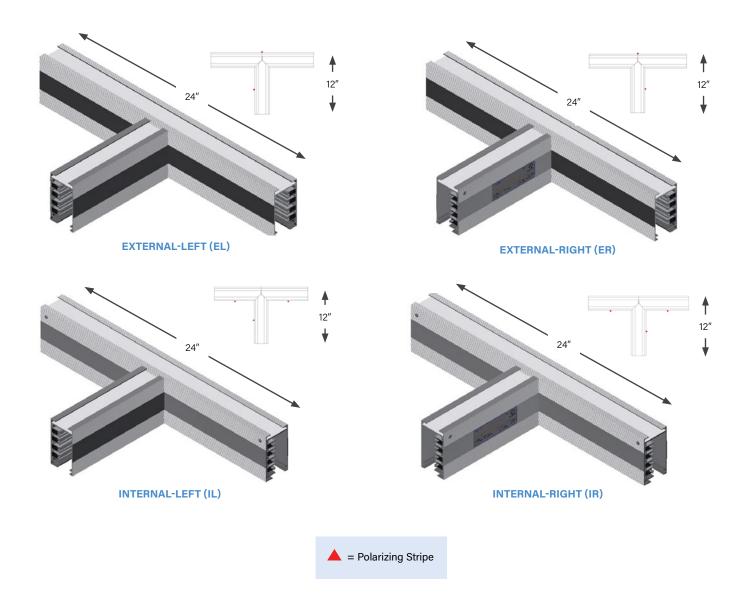


TEE SECTIONS

PRODUCT DESCRIPTION

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

Weight 9.2 lbs





TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)				
U US				
2. Product Type (section component)				
T Tee Section				
3. Product Frame (maximum amperage)				
225 225 amps				
4. Compatibility (frame compatibility)				
T3 T3 System				
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				

IL IR HL	rning Direction (direction Internal-Left Internal-Right Seismic Internal-Left	EL ER GL	External-Left External-Right Seismic External-Left
	Seismic Internal-Right		Seismic External-Right
STD BLK	Factory Mill Finish Paint Factory Black Paint Factory White	RED BLU	Paint Factory Red Paint Factory Blue (please see page 3.34)
10. To 0 3 4 6	Ape Marking (colored tape No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	7 T 8 T	sides of busway housing) Tape Factory Blue Tape Factory Green Tape Factory Yellow

EXAMPLES

<u>UT225T3C4S-IR-BLU0</u> = US System, Tee Section, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Blue, No Tape Marking

<u>UT225T3C4S-EL-STD0</u> = US System, Tee Section, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External-Left Turning Direction, Factory Mill Finish, No Tape Marking



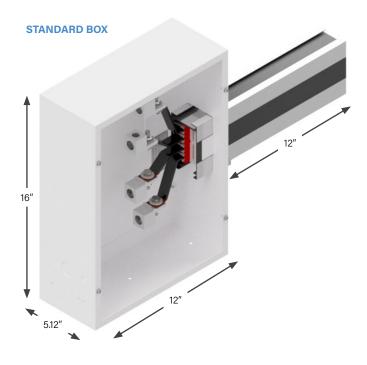
END FEED UNITS

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 inch section of busway. The assembly includes connection lugs, a ground lug and shrink tubing for wires up to 300 MCM.

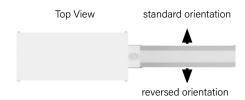
End power feed units are connected to adjacent busway sections using an installation tool and joint kit (ordered separately).

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



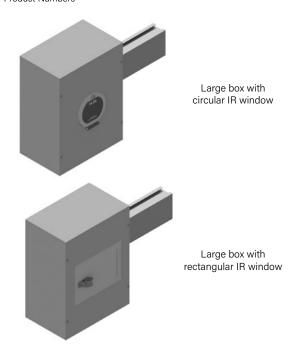
	BOXES				
LUGS	Standard	Large	Fused		
Standard	S	L			
Double	D	Α			
Bolt					

Box size and Lug options: Refer to option 8. Lug/Box Options on page 3.30 End Feed Units: Product Numbers



INFRARED (IR) WINDOW OPTIONS:

Refer to option 10. Accessories Package on **page 3.30** End Feed Units: Product Numbers



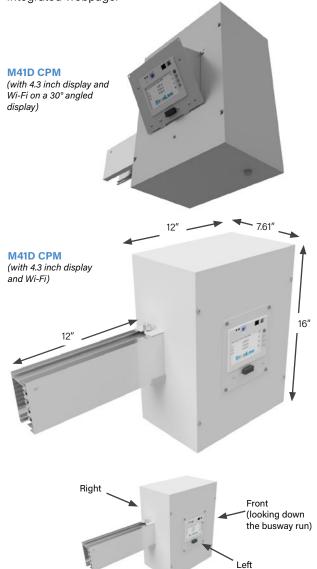


END FEED UNITS: METERING

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 inch 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. The M40 models are for AC busway, while the M60 models are for DC busway. 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.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 3.30** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, ≤415V Y, ≤240V ∆

M43 No WiFi, ≤415V Y, ≤240V ∆

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

BOX/LUGS OPTION	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)
(S) Standard Box, Standard Lugs		
(L) Large Box, Standard Lugs	Χ	Χ
(D) Standard Box, Double Lugs		
(A) Large Box, Double Lugs	Χ	Χ

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

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

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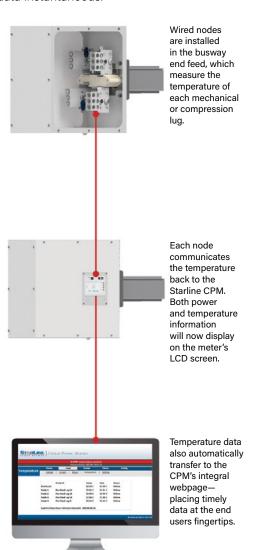
^{*}Any metering configuration that includes temperature monitoring will require a box depth of 10.12".



END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on **page 3.31** End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

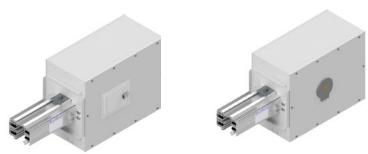
This enclosure allows for the meter to be mounted flush to the End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



IR WINDOWS

IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera



(Refer to option 10. Accessories Package on page 3.30 End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS



1. Syste	em (standard of measure)
U US	S
2. Prod	uct Type (section component)
F Er	nd Feed
3. Prod	uct Frame (maximum amperage)
225 22	5 amps
4. Com	patibility (frame compatibility)
T3 T3	3 System
5. Mate	rial (busbar material)
C Co	opper
6. Neut	ral/Ground Busbar (size of neutral busbar and/or ground)
4 3 F	Phase plus Neutral
7. Polar	ization (orientation of section for mating purposes)

4. Compatibility (frame compatibility)	
T3 T3 System	
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of n	eutral busbar and/or ground)
4 3 Phase plus Neutral	
7. Polarization (orientation of section for	or mating purposes)
S Standard R	Reversed
8. Lug/Box Options (standard/double	e/bolt lugs and box size)
S Standard lugs, Standard box L Standard lugs, Large box A	
9. Meter Location (from the terminal, meter must follow lid orientation on large	
R Right L N None (N/A)	Left

1	10. Accessories Package (optional accessories for feed units)				
S	Standard	R	IR Window - Rectangular		
C	IR Window - Circular	Α	Angled Meter Lid		
T	' IR (rect.) + Angled Lid	L	IR (circ.) + Angled Lid		

- 0 Seismic Mounting Holes
 - Seismic with IR Window Circular
- Q Seismic with IR Window Rectangular
- 11. Accessories Location (from the terminal, side with accessory)
- N None (N/A) Right Front (consult the factory) L Left
- 12. Straight Length (length of section)

0100 1 ft. (For other lengths, consult the factory)

- 13. Busway Access Continuous
- 14. Paint Color (allows painting of the busway housing)

STD	Factory Mill Finish	RED Paint Factory Red	RED	
BLK	Paint Factory Black	BLU Paint Factory Blue	BLU	
WHT	Paint Factory White	**RAL (please see page 3.34	**RAI	4)

15. Tape Marking (colored tape on both sides of busway housing)

- No Tape Marking Tape Factory Blue Tape Factory Black Tape Factory Green Tape Factory White
- Tape Factory Red
- Tape Factory Yellow

EXAMPLE

<u>UF225T3C4R-DRSN-0100C-BLK0</u> = US System, End Feed, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Double Lugs, Standard Box, Right Meter Location, Standard Accessory Package, No Accessory Location, 1 foot Straight Length, Continuous Access, Painted Factory Black, No Tape Marking

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, \leq 415V Y, \leq 240V Δ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S

Standard (M60s also)

D Display (M60s also) Ε Enhanced (N+A) N (Measured) Neutral P Professional (D+N) Α Audible Alarm U Ultimate (D+N+A) В Temperature Monitor (B+D+N)W ν (B+N)(B+D+A)1 C (B+D) 2 (B+N+A)М (B+D+N+A)(B+A)

*17. Meter Options (M60 DC)

S Standard (High Voltage)
D Display (High Voltage)
Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

F

Featured (D+A)

*18. System Configuration and CT Type (M40 AC)

LLD - Standard, Milivolt
 LLY - Standard, Milivolt
 LLY - Standard, Milivolt
 LNY - Standard, Milivolt
 LNY - SC, 5A

Image: Image:

*18. System Configuration and CT Type (M60 DC)

Circuit 1 Only, Solid Core
 Circuit 2 Only, Solid Core
 Both Circuits, Solid Core

EXAMPLE

<u>UF225T3C4R-DRSN-0100C-BLK0-M45D1</u> = US System, End Feed, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Double Lugs, Standard Box, Right Meter Location, Standard Accessory Package, No Accessory Location, 1 foot Straight Length, Continuous Access, Painted Factory Black, No Tape Marking, M45 Meter, with Display, LLD - Standard, Milivolt

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3.32

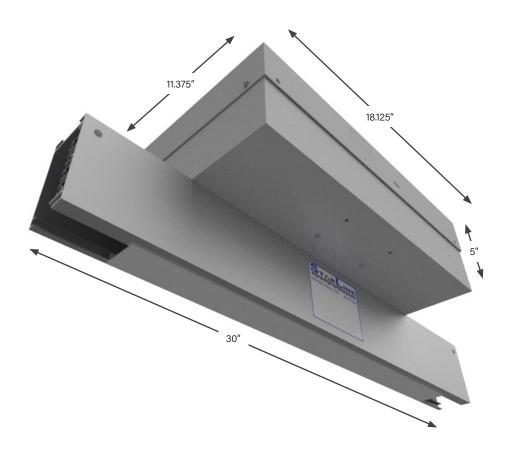
225T3 SYSTEMS

ABOVE FEED UNITS

■ PRODUCT DESCRIPTION

The above feed power unit comes as a completely pre-wired steel box to the top of a 30 inch 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).

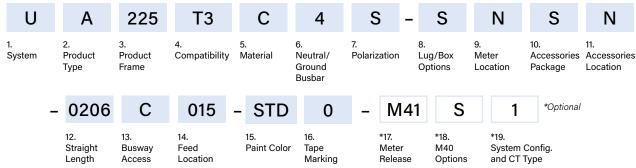
Weight 16.5 - 23 lbs



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ABOVE FEED UNITS: PRODUCT NUMBERS



1. Sy	ystem (standard of measure)
U	US
2. P	roduct Type (section component)
A	Above Feed
3. P	roduct Frame (maximum amperage)
225	225 amps
4. C	ompatibility (frame compatibility)
T3	T3 System
5. N	laterial (busbar material)
С	Copper
6. N	eutral/Ground Busbar (size of neutral busbar and/or ground)
4	3 Phase plus Neutral

8. Lug/Box Options (standard/double/bolt lugs and box size)				
S	Standard lugs, Standard box L	Standard lugs, Large box		

Reversed

9. Meter Location (from the terminal, side with removable lid; meter must follow lid orientation on large box)

7. Polarization (orientation of section for mating purposes)

R Right L Left N None (N/A)

10. Accessories Package (optional accessories for feed units)

Standard

11. Accessories Location (from the terminal, side with removable lid)

 N
 None (N/A)
 R
 Right
 A
 Rear

 L
 Left
 T
 Top
 F
 Front

12. Straight Length (length of section)0206 2 feet, 6 inches

13. Busway Access (how plugs access the busway)

C Continuous

Standard

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

015 15 inches (For other lengths, consult the factory)

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

STDFactory Mill FinishREDPaint Factory RedBLKPaint Factory BlackBLUPaint Factory BlueWHTPaint Factory White**RAL (please see page 3.34)

16. Tape Marking (colored tape on both sides of busway housing)

No Tape Marking
Tape Factory Blue
Tape Factory Black
Tape Factory Green
Tape Factory White
Tape Factory Yellow

*17. Meter Release (M40 Series Meters)

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, \leq 415V Y, \leq 240V Δ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

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

S Standard (M60s also)
D Display (M60s also)
E Enhanced (N+A)
N (Measured) Neutral
A Audible Alarm
D Featured (D+A)
E Enhanced (N+A)
P Professional (D+N)
U Ultimate (D+N+A)

*19. 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

EXAMPLE

<u>UA225T3C4R-SNSN-0206C015-STD0</u> = US System, Above Feed, 225 amps, T3 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, No Meter Location, Standard Accessory Package, No Accessory Location, 2 foot 6 inch Straight Length, Continuous Access, 15 inch Feed Location, Factory Mill Finish, No Tape Marking

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RAL COLORS

1ST CHARACTER		
Р	Paint	

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

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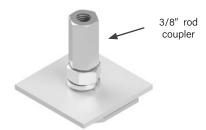


ACCESSORIES: SUPPORT HARDWARE

THREADED ROD

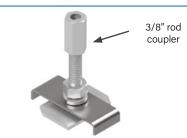
For mounting to 3/8 - 16 threaded rod. Can be inserted anywhere along the top full-access slot of busway. Hanger support is required every 10 feet maximum.

Part Number UBRH-1 Available in plain zinc or black (-BLK) Weight .3 lb



SEISMIC THREADED ROD

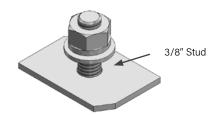
For mounting to 3/8 - 16 threaded rod. Can be inserted anywhere along the top full-access slot of busway, and includes a seismic brace. Hangers are required every 5 feet maximum for seismic support. Part Number UBRH-3 Available in plain zinc or black (-BLK) Weight .3 lb



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 feet maximum.

Part Number UBH-1 Available in plain zinc or black (-BLK) Weight .2 lb



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 pounds under the busway, such as light fixtures, tools and balancers.

Part Number SWHRT3 Available in plain zinc Weight .2 lb

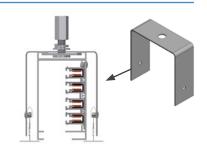


■ RECESSED SUSPENDED CEILINGS

For hanging busway into a recessed ceiling.

*Hanger bolt must be ordered separately

Part Number SRMT3-1 Available in plain zinc



3.35

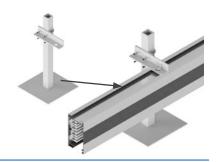


ACCESSORIES: SUPPORT HARDWARE

RAISED ACCESS FLOOR

For mounting the busway vertically (with access slot facing down) for under floor applications. Pedestal not included.

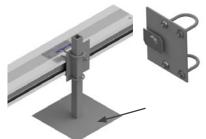
Part Number URFBT3-1 *UBH-1 comes included Available in plain zinc or black (-BLK)



■ RAISED MOUNTING BRACKET

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

Part Number URFBT3-2 Available in plain zinc or black (-BLK) Weight .2 lb



SIDE MOUNT BRACKETS

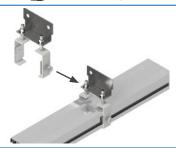
Mounted to vertical supports. Vertical supports not included, only bracket.

Part Number UBSS-1 Available in plain zinc or black (-BLK) Weight ,2 lb



Mounted to overhead supports

Part Number UBH-T3-SIDE Available in plain zinc or black (-BLK) Weight 1.31 lb



WALL MOUNT BRACKET

For mounting to walls, using standard hangers. Hanger support is required everything 3 meters maximum.

Part Number WMBT5-9



3.36

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ACCESSORIES: SUPPORT HARDWARE

PRODUCT DESCRIPTION

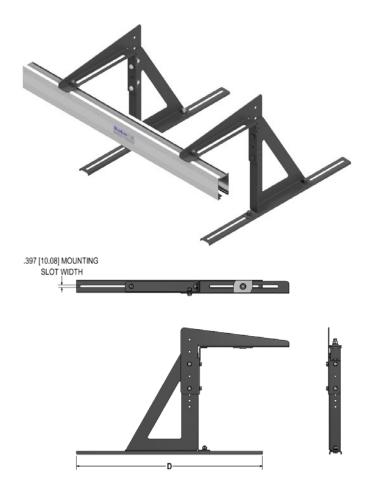
UNIVERSAL SERVER CABINET MOUNTING BRACKETS

The Universal Server Cabinet Mounting Brackets are designed with generous 3/8 inch 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

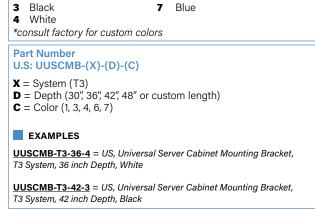


MATERIAL Galvanneal Steel HEIGHT 17.68 in Min 23.75 in Max Maximum Spacing: Every 10 ft per run

6 Red

3.37

C: Color (1, 3, 4, 6, 7) **1** Anodized Silver



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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 (page 3.39)

Part Number SJK100T3 (for 100 amp systems)

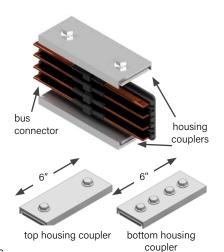
SJK100T3G (for 100 amp systems with ground)

SJK100T3N (for 100 amp systems with 200% neutral)

SJK100T3F (for 100 amp systems with ground and 200% neutral)

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



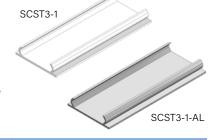
OPTIONAL CLOSURE STRIP

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

The Closure Strip is offered in both non-conductive plastic material and aluminum.

Part Number SCST3-1 Aluminum closure strip: SCST3-1-AL -Plastic Closure Strip available in black & white

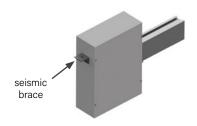
-Aluminum Closure Strip available in all standard colors Maximum Cut Length: 20 ft



END FEED SEISMIC BRACE

For seismic applications, the End Feed Seismic Brace bolts on to the end feed, to be used with threaded rod for gravity hanger.

Part Number SEFB-SIL



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ACCESSORIES: INSTALLATION TOOL

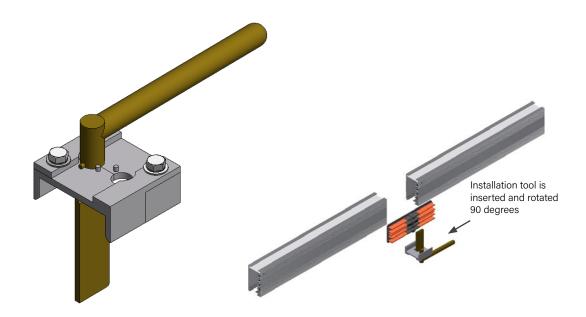
PRODUCT DESCRIPTION

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



Part Number ST3IT

No available colors

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SERVICES

Starline Services offers a comprehensive suite of services from startup and system certification through on-going support contracts and extended warranty programs. To ensure that your Busway system is installed properly you can trust Starline's team of factory certified technicians to perform services throughout the long life of your Starline Track Busway system. With over 30 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

LOAD BANK TESTING AND EQUIPMENT RENTALS

Whether you are in need of rental equipment to test your power system or a team of technicians to test the system for you, Starline Services has you covered. Select testing equipment from our inventory of load banks and associated gear, or work with a Starline engineer to customize your own test plan to suit your individual needs.

METER SERVICES

Factory trained and certified technicians will provide comprehensive on-site meter commissioning that includes meter inspection, programming and detailed documentation. Our technicians will program CPM meters and offer optional integration services to your BMS or DCIM for any and all meters located within your facility.

STARTUP AND SYSTEM CERTIFICATION

Certified technicians inspect and validate that the installation meets factory standards, ensuring ongoing reliability and compliance with facility safety requirements. Upon successful completion of system startup, Starline's standard one (1) year manufacturer's warranty will be automatically extended in duration.

- Double the length of the standard factory warranty
- Ensure all joint and feed connections are properly installed with continuity testing
- Ensure proper installation of all plug-in units
- Validate that system will perform to your specified requirements
- Full certification report delivered electronically at conclusion of service

ENGINEERING STUDIES (US ONLY)

Understanding the dangers and implementing a safety program is imperative to maintaining a safe work environment. Our professional engineers will conduct comprehensive facility electrical studies and recommend corrective actions, confirming your systems reliability and compliance with government and safety requirements.

TURNKEY INSTALLATION SERVICES (UK ONLY)

Our trained and factory certified Busbar installers are looking forward to completing your next job. You can order your best-in-class power distribution system and leave the rest to us. Our technicians will complete your installation quickly and safely and will reduce your overall TCO by extending your product warranty.

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at downloads.starlinepower.com/services.



SERVICES

ON-SITE INSTALLATION SUPPORT

On-site installation support begins by scheduling a site trip during your system installation. All work is performed by certified technicians- including review of installation best practices prior to the job, visual inspection of safe system installation, contractor installation oversight, and inspection and verification of functionality after rework.

ON-SITE PRODUCT TRAINING

Certified technicians will provide a comprehensive training course curriculum that meets our high factory system standards, ensuring ongoing reliability of the system while also emphasizing operational safety. This course curriculum takes place in both a classroom and on-site with equipment.

EXTENDED WARRANTY AND ENHANCED SERVICE PLANS

Ensure that your equipment investment is always covered. Select from an extended factory warranty or one of our many Enhanced Service Plans to meet your organizational requirements.

CHOICE OF EXTENDED WARRANTY OR ENHANCED: SILVER, GOLD OR PLATINUM SERVICE PLANS	EXTENDED 1, 2, 3, 4 YEARS	SILVER 1, 2, 3, 4 YEARS	GOLD 1, 2, 3, 4 YEARS	PLATINUM 2, 3, 4 YEARS
Repair or replacement of defective parts throughout life of service agreement	Χ	Χ	Χ	X
24/7 technical support hotline	X	X	X	X
Visual inspection of meters		X	X	X
Visual inspection of all joints for visible gaps		X	X	X
Update firmware and verify all Starline CPMs		Χ	Χ	X
Includes travel and expenses		X	X	X
One (1) service site visit per year		X		
Two (2) service site visits per year			X	X
Thermal imaging of all plug-in units			X	X
Thermal imaging of all Busway joints			X	X
Thermal imaging of all end feed units			X	X
Detailed and fully executed thermography report			X	X
Online portal for test reports & documentation			Χ	X
Spare parts inventory management program				X

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at <u>downloads.starlinepower.com/services</u>.

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T3 PLUG-IN UNITS

■ METER PLUG/METER BOX UNITS

Any T3 compatible Starline Plug-In Unit that contains only a meter, or any lone box (without paddle head) that includes a meter.



TERMINAL BLOCK UNITS

Any T3 compatible Starline Plug-In Unit that's fully rated to the listed electrical ratings that can accept incoming connections from the end user.





■ RECEPTACLE BOX/DROP CORD UNITS WITH CLASS CC FUSE

Any T3 compatible Starline Plug-In Unit that contains a receptacle box or drop cord that contains a class CC fuse.



■ CIRCUIT BREAKER/FUSED DISCONNECT UNITS

Any T3 compatible Starline Plug-In Unit that contains a receptacle and/or drop cord along with circuit breaker(s) or fused disconnect.



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SYSTEM & BUILD GUIDE

The below is a suggested list of questions to determine answers to in order to properly build or assemble both Track Busway systems and plugs.

WHEN BUILDING SYSTEMS

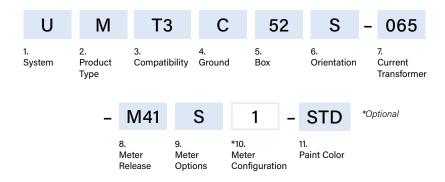
- 1. What is the amperage needed for the system? (100, 225, etc..)
- 2. Does the system need an internal ground?
- 3. Are there any limitations on the length of a run? (5ft max, 10ft max, 20ft max, etc...)

WHEN DETERMINING DESIRED PLUG CONFIGURATIONS

- 1. What type of system is this being used on? (T3)
- 2. Does the system have an internal ground? If so, does the plug need to be wired Isolated or Dedicated ground/earth?
- 3. What is the fault current needed for the breaker? (10Kaic, 22Kaic, etc...)
- 4. Does the plug need to have drop cords or receptacles?
- 5. What is the device configuration of the connector bodies or receptacles?
- 6. What is your desired MCB configuration? (phase, amperage, poles?)
- 7. Do you require metering?
- 8. How many outlets are needed?
- 9. What is the trip curve needed?
- 10. What MCB brand is preferred?
- 11. What is the voltage required?



METER PLUGS: PRODUCT NUMBERS



Α

1. S	vstem	(standard of measure)	
0	yotom	(Staridard of Incasure)	

U US

2. Product Type (section component)

Meter Plug

3. Compatibility (frame compatibility)

T3 T3 System

4. Ground (ground type installed)

C Case (Housing) Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **3.60**)

*12 and 28 boxes are currently not available

6. Orientation (what direction the paddle faces)

S Standard

7. Current Transformer (current rating)

065 65 amps 225 225 amps

250 250 amps **400** 400 amps

800 800 amps **1KO** 1000 amps

1K2 1200 amps

**M60 (DC) meters are only available with 800 amp current transducers

Reversed

8. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, ≤480V Y, ≤277V ∆

M53 Single Eth./No WiFi, \leq 480V Y, \leq 277V Δ

M58 Dual Eth., ≤480V Y, ≤277V Δ

M59 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ

M41 WiFi, ≤415V Y, ≤240V ∆

M43 No WiFi, ≤415V Y, ≤240V ∆

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

8. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

9. Meter Options (M40/M50 AC)

S Standard Featured (D+A) D Display Ε Enhanced (N+A)

Ν (Measured) Neutral Р Professional (D+N)

Audible Alarm Ultimate (D+N+A)

9. Meter Options (M60 DC)

Standard (High Voltage) Standard (48 VDC)

Display (High Voltage) Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

*10. Meter Configuration (M40/M50 AC)

LL power, Delta Solid Core, mV CT

LL power, Wye Solid Core, mV CT 2

LN power, Wye Solid Core, mV CT

LL power, Delta Solid Core, 5A-secondary CT

LL power, Wye Solid Core, 5A-secondary CT

6 LN power, Wye Solid Core, 5A-secondary CT

7 LL power, Delta Split Core, mV CT

LL power, Wye Split Core, mV CT

LN power, Wye Split Core, mV CT 9

K LL power, Delta Split Core, 5A-secondary CT

LL power, Wye Split Core, 5A-secondary CT

M LN power, Wye Split Core, 5A-secondary CT

*10. Meter Configuration (M60 DC)

Circuit 1 Only, Solid Core

Circuit 2 Only, Solid Core

Both Circuits, Solid Core

11. Paint Color

Paint Factory Silver **RED** Paint Factory Red Paint Factory Black **BLK BLU** Paint Factory Blue Paint Factory White **RAL (please see page 3.34)

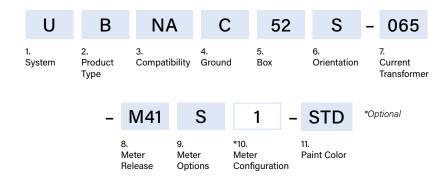
EXAMPLE

<u>UMT3C52S-065-M43S1-STD</u> = US System, Meter Plug, T3 System, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, M43 Meter, Standard, LL Power, Delta Solid Core, mV CT, Painted Factory Silver

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METER BOXES: PRODUCT NUMBERS



1. System (standard of measure)

U US

2. Product Type (section component)

В Meter Box

3. Compatibility (frame compatibility)

NA Not Applicable

4. Ground (ground type installed)

Case (Housing) Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **3.60**)

*12 and 28 boxes are currently not available

6. Orientation (what direction the paddle faces)

S Standard

7. Current Transformer (current rating)

065 65 amps 225 225 amps **400** 400 amps 250 250 amps 800 800 amps 1KO 1000 ampss

1K2 1200 amps

**M60 (DC) meters are only available with 800 amp current transducers

8. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, ≤480V Y, ≤277V ∆

M53 Single Eth./No WiFi, ≤480V Y, ≤277V ∆

M58 Dual Eth., ≤480V Y, ≤277V Δ

M59 Dual Eth/Dual Modbus, \leq 480V Y, \leq 277V Δ

M41 WiFi, \leq 415V Y, \leq 240V Δ M43 No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ M47 No WiFi, 600V Y, 347V Δ

8. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

9. Meter Options (M40/M50 AC)

S Standard Featured (D+A) D Display Ε Enhanced (N+A) Ν (Measured) Neutral Р Professional (D+N) Audible Alarm Α Ultimate (D+N+A)

9. Meter Options (M60 DC)

Standard (High Voltage) Standard (48 VDC) Display (High Voltage) Q Display (48 VDC) M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

*10. Meter Configuration (M40/M50 AC)

1 LL power, Delta Solid Core, mV CT

LL power, Wye Solid Core, mV CT 2

LN power, Wye Solid Core, mV CT

LL power, Delta Solid Core, 5A-secondary CT

LL power, Wye Solid Core, 5A-secondary CT

6 LN power, Wye Solid Core, 5A-secondary CT

7 LL power, Delta Split Core, mV CT

LL power, Wye Split Core, mV CT LN power, Wye Split Core, mV CT 9

K LL power, Delta Split Core, 5A-secondary CT

LL power, Wye Split Core, 5A-secondary CT

M LN power, Wye Split Core, 5A-secondary CT

*10. Meter Configuration (M60 DC)

1 Circuit 1 Only, Solid Core

2 Circuit 2 Only, Solid Core

Both Circuits, Solid Core 3

11. Paint Color

Paint Factory Silver **RED** Paint Factory Red Paint Factory Black **BLK BLU** Paint Factory Blue Paint Factory White **RAL (please see page 3.34)

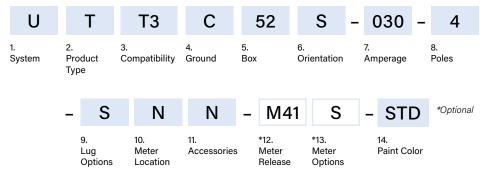
EXAMPLE

<u>UBNAC52S-065-M43S1-STD</u> = US System, Meter Box, Not Applicable, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, M43 Meter, Standard, LL Power, Delta Solid Core, mV CT, Painted Factory Silver

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TERMINAL BLOCK UNITS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
T Terminal Block	
3. Compatibility (frame compatibility)	
T3 T3 System	
4. Ground (ground type installed)	
C Case (Housing) Ground D Isolated (Separate) Ground	Dedicated Ground
5. Box (what size enclosure)	
01, 02, 99 (refer to enclosure refer	ence page 3.63)
6. Orientation (what direction the paddl	e faces)
S Standard R	Reversed
7. Amperage (amperage of terminal bloc	k)
	0 60 amps 5 225 amps
8. Poles (number of poles in a circuit)	
4 4 poles	
9. Lug Options (number of poles in a cir	cuit)
S Standard D N Double Neutral 2 Double Neutral & 2 Bolt Lug	Double Lug 2 Bolt Lug
10. Meter Location (location of optional	meter)
N N/A L R Right B	Left Bottom (lid)

N	N/A	R IF	Window			
*12	. Meter Release (M40/M50 AC)				
M51 Single Eth./WiFi, ≤480V Y, ≤277V Δ M53 Single Eth./No WiFi, ≤480V Y, ≤277V Δ M58 Dual Eth., ≤480V Y, ≤277V Δ M59 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ M41 WiFi, ≤415V Y, ≤240V Δ M43 No WiFi, ≤415V Y, ≤240V Δ M45 WiFi, 600V Y, 347V Δ M47 No WiFi, 600V Y, 347V Δ						
*12	. Meter Release (M60 DC)					
M6 M6	1 Single Eth./WiFi, single pha 3 Single Eth./No WiFi, single 7 Dual Eth., single phase, VD 9 Dual Eth/Dual Modbus, sin	phase, V C				
M6 M6 M6	3 Single Eth./No WiFi, single 7 Dual Eth., single phase, VD	phase, V C gle phas				
M6 M6 M6	3 Single Eth./No WiFi, single 7 Dual Eth., single phase, VD 9 Dual Eth/Dual Modbus, sir Meter Options (M40/M50 AC Standard	phase, VC gle phase) F Fe E Er				
*13 S D N A	3 Single Eth./No WiFi, single 7 Dual Eth., single phase, VD 9 Dual Eth/Dual Modbus, sir Meter Options (M40/M50 AC Standard Display (Measured) Neutral	phase, VC gle phase) F Fe E Er	eatured (D+A) nhanced (N+A) rofessional (D+N)			

RED Paint Factory Red

BLU Paint Factory Blue

**RAL (please see page 3.34)

Paint Factory Silver Paint Factory Black

Paint Factory White

BLK

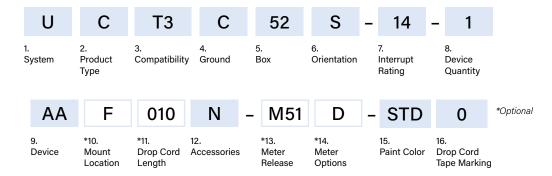
EXAMPLE

<u>UTT3C27S-225-4-SBN-M47A-BLK</u> = US System, Terminal Block, T3 System, Case (Housing) Ground , 27 Box, Standard Orientation, 225 amps, 4 poles, Standard Lugs, Bottom-Located Meter, No Accessories, M47 Meter, Audible Alarm, Painted Factory Black

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CIRCUIT BREAKER/FUSED DISCONNECT: PRODUCT NUMBERS



1. System (standard of measure)

U US

2. Product Type (section component)

C Circuit Breaker Unit F Fused Disconnect Unit

3. Compatibility (frame compatibility)

T3 T3 System

4. Ground (ground type installed)

- C Case (Housing) GroundG Isolated (Separate) Ground
- D Dedicated Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **3.60**)

6. Orientation (what direction the paddle faces)

S Standard

Reversed

7. Interrupt Rating (interrupt rating of the breakers in K)

10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000) (for U.S.)

8. Device Quantity (quantity of device 1)

1, 2, 3, 4, 5, 6, 7, 8, 9 (for more than 1 device type, reference **page 3.51**)

9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 3.65)

*10. Mount Location (with respect to busway polarizing stripe)

 F
 Front
 A
 Back

 T
 Top
 B
 Bottom

 L
 Left
 R
 Right

*11. Drop Cord Length (location of optional meter)

XXY: XX = feet, Y = Inches (010 = 1 foot, 0 inches) (only can be chosen in 6" increments)

***For any device configuration chosen over 70 amps, the max. drop cord length is 10 feet (100)

EXAMPLE

<u>UCT3D28S-50-2BCB010N-M53D-STD</u> = US System, Circuit Breaker Unit, T3 System, Dedicated Ground, 28 Box, Standard Orientation, 50 kA Interrupt Rating-2 Devices, 6-20C, Bottom Located, 12 inch Long Drop Cord, No Accessories- M53 Meter, with Display, Painted Factory Silver

12. Accessories (optional accessories for plugs)

N N/A F Finger Shroud

C Circuit Breaker Interlock

P Padlock Adapter for Circuit Breaker

Seismic Hanger R IR Window

*13. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, ≤480V Y, ≤277V ∆

M53 Single Eth./No WiFi, ≤480V Y, ≤277V Δ

M58 Dual Eth., ≤480V Y, ≤277V Δ

M59 Dual Eth/Dual Modbus, \leq 480V Y, \leq 277V Δ

M41 WiFi, ≤415V Y, ≤240V Δ

M43 No WiFi, ≤415V Y, ≤240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

M56 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ, Breaker Monitoring

M57 Dual Eth, Breaker Monitoring ≤480V Y, ≤277V Δ

*13. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*14. Meter Options (M40/M50 AC)

 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)

*14. Meter Options (M60 DC)

S Standard (High Voltage)
P Standard (48 VDC)
D Display (High Voltage)
Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

3.47

15. Paint Color

STD Paint Factory Silver
BLK Paint Factory Black
WHT Paint Factory White

RED Paint Factory Red
BLU Paint Factory Blue
**RAL (please see page 3.34)

16. Drop Cord Tape Marking

 0
 No Tape
 6
 Red

 3
 Black
 7
 Blue

 4
 White
 8
 Green

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CIRCUIT BREAKER/FUSED DISCONNECT: GROUND



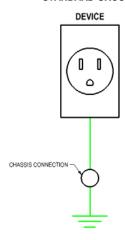
- **4. Ground** (ground type installed)
- C Case (Housing) GroundG Isolated (Separate) Ground
- Dedicated Ground

IN OPTION 4. you are asked to specify what type of ground you would like: case, dedicated or isolated. Parts affected by grounding are the plug paddle (ground paddles have a fifth stab).

■ CASE GROUND/CHASSIS EARTH

Uses aluminum housing and no extra copper bar.

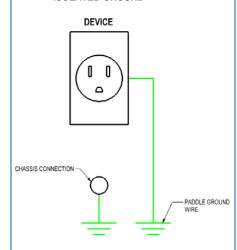
CHASSIS GROUND/ STANDARD GROUND



■ ISOLATED GROUND/EARTH

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

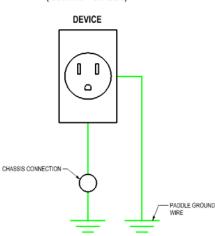
ISOLATED GROUND



DEDICATED GROUND/EARTH

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

DEDICATED GROUND (ISOLATED + CHASSIS)



*For further details about Dedicated Ground vs. Isolated Ground, please reference our "Isolated Ground vs. Dedicated Ground" tech brief on <u>downloads.starlinepower.com/starline/busway</u>

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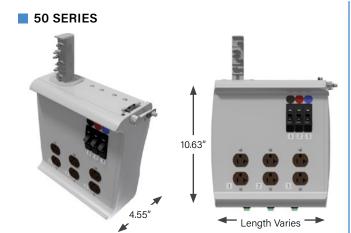
CIRCUIT BREAKER/FUSED DISCONNECT: BOX



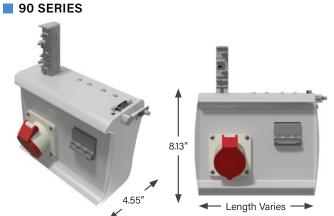
5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference **page 3.60**)

IN OPTION 5. you are asked to specify what size and style enclosure that you would like. A few common enclosure sizes for T3 busway systems are shown below:



BOX LENGTHS 51: 6.00" **52:** 8.00" **53:** 10.00" **54:** 12.00" **55:** 13.00" **56:** 15.00" **57:** 18.00"



BOX LENGTHS

91: 6.00" 92: 8.00" 93: 10.00" 94: 12.00" 95: 13.00" 96: 15.00" 97: 18.00"

*For all box sizes and styles, please refer to page 3.60

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CIRCUIT BREAKER/FUSED DISCONNECT: INTERRUPT RATING



7. Interrupt Rating (interrupt rating of the breakers in K)

10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000) (for U.S.)

IN OPTION 7. you are asked to specify what the interrupt rating of your protection will be. The breaker used is dependent on voltage, amperage and short-circuit ratings. Different or particular brands may be available upon request. Images of example breakers can be found below.



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CIRCUIT BREAKER/FUSED DISCONNECT: DEVICE



9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 3.65)

IN OPTION 9. you are asked to specify what device(s) you would like in your plug. All devices will need to be coded. The catalog number can accommodate up to 3 different types of devices- anything more than that will be handled in the G0 code. If you require more than one type of device, see the example catalog number below:

UCT3C57S-22-2AD-3AB-1ACFN-M51D-STD

If you require a drop cord(s), only one device type can be accommodated in the main catalog number. In addition, drop cord length is only specified if it's the same for all devices. Any additional device types or varying lengths will be handled in the G0 code.









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CIRCUIT BREAKER/FUSED DISCONNECT: DEVICE: INDUSTRIAL SPECIFIC

PRODUCT DESCRIPTION

For your convenience, the below display includes a variety of plug-in units that are popularly used in industrial-specific applications. However, these plug configurations are not limited to use in industrial environments.



UCT3C12S-14-1FGB060N-STD 5-20 Receptacle Quad Box 6' Drop Cord



UCT3C53S-14-3ABFN-STD (3) 5-20 Duplex Receptacles



UCT3C92S-14-1MAB060N-STD -G001
MA = Custom Device
Gxxx = Specific Metric Brand
Industrial Connector

*For the full list of all device codes, please refer to page 3.65

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3.53

T3 PLUG-IN UNITS

CIRCUIT BREAKER/FUSED DISCONNECT: MOUNT LOCATION



*10. Mount Location (with respect to busway polarizing stripe)

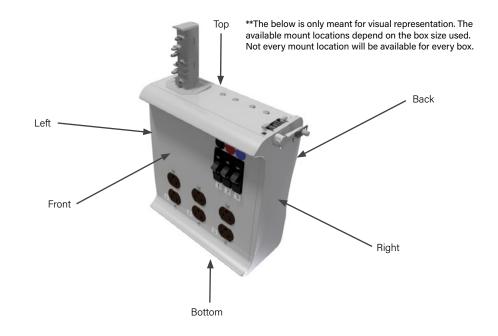
F Front
 T Top
 L Left

A BackB BottomR Right

IN OPTION 10. if you are required to specify the devices desired location on the plug.

Please see the image below to guide you in selecting your specified mounting location.

*Mount location is only specified if it's the same for all chosen devices. If it is not the same, then it is omitted.



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CIRCUIT BREAKER/FUSED DISCONNECT: ACCESSORIES



12. Accessories (optional accessories for plugs)

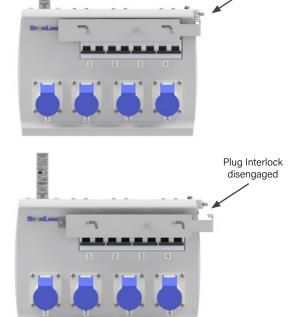
- N N/A
- C Circuit Breaker Interlock
- **S** Seismic Hanger
- T NETA Injection Tested Breakers
- F Finger Shroud
- P Padlock Adapter for Circuit Breaker

Plug Interlock engaged

- R IR Window
- L Pilot Light

IN OPTION 12. you have the option to choose an accessory. Please see examples below. The Circuit Breaker Interlock is a device that prevents disengaging the plug from the busway. The Finger Shroud goes over top of your breakers, preventing accidental on or off motions. The Padlock Adapter for Circuit Breaker is optional breaker protection offered by ABB.

■ CIRCUIT BREAKER INTERLOCK









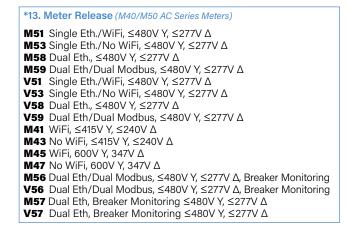


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CIRCUIT BREAKER/FUSED DISCONNECT: (AC ONLY) METER RELEASE





IN OPTION 13. you are able to select metering for your plug-in unit. M50 and V50 series meters are the best options for plug-in units.

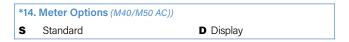
The communication options include:

- Single Ethernet + WiFi
- Single Ethernet
- Dual Ethernet
- Dual Modbus + Dual Ethernet

The difference between 'M' and 'V' is that M50 series meters are capable of monitoring the current of the entire unit, and V50 series meters are capable of monitoring up to 6 individual devices limited to 6 solid core Current Transformers (CTs).

Each unit is calibrated for accuracy and is within 0.5% to meet ANSI Revenue Grade Standards.

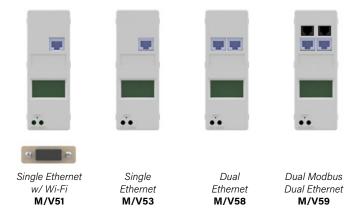
M/V56 and M/V57 meters also have the capability to sense circuit breaker position (on/off) for up to two outlets.



CRITICAL POWER MONITOR (NO DISPLAY)



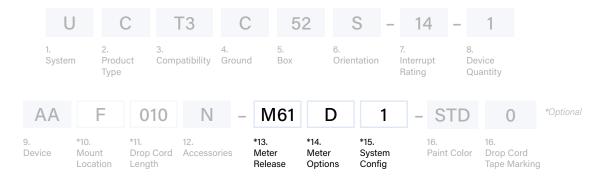
CRITICAL POWER MONITOR WITH OPTIONAL DISPLAY



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CIRCUIT BREAKER/FUSED DISCONNECT: (DC ONLY) METER RELEASE



*13. Meter Release (M60 DC Series Meters)

M61/V61 Single Eth./WiFi, single phase, VDC
M63/V63 Single Eth./No WiFi, single phase, VDC
M67/V67 Dual Eth., single phase, VDC
M69/V69 Dual Eth/Dual Modbus, single phase, VDC

If you've chosen to use direct current (DC) for your Track Busway system, then the DC M60 series meters are a perfect fit. For M60 meters there is a special addition to the catalog number (reference 15. System Configuration). It is important to select your circuit(s) when ordering.

The M60 device utilizes the M50 bezel (shown on previous page) and is capable of measuring up to 4 outlets (circuit 1 or circuit 2). The difference between 'M' and 'V' is that M60 series meters are capable of monitoring the current of the entire unit, and V60 series meters are capable of monitoring up to 4 individual devices.

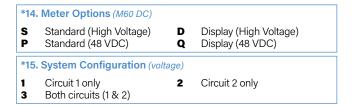
M60 devices support the following voltages:

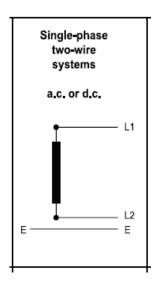
High Voltage: 120-300VDC or split phase 120VDC (+/-

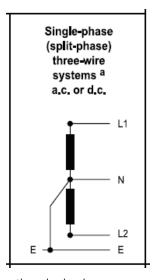
60VDC) to 380VDC (+/- 190VDC)

Low Voltage: 48 VDC

Each unit is calibrated for accuracy within 1% of energy.







M60 meters are capable of supporting single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380VDC(+/-190VDC).

*12VDC & 24VDC applications are not supported at this time.

**Meter is capable of reporting A to B voltages (as shown above). A to N+B to N voltages will not be reported.

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CIRCUIT BREAKER UNITS, NO DEVICES: PRODUCT NUMBERS

Р	KUDU	CINU	JMRE	15										
			U	С	Т3	С	52		S	_	14	-		
			1. System	2. Product Type	3. Compatibilit	4. cy Ground	5. Box		6. Orientation		nterrupt ating			
	2	030	3	480	050	5	N	_	M59		D	- STD	0	*Optional
	8. Circuit Protection Quantity	9. Amperage	10. Poles	11. Voltage	*12. Drop Cord Length	*13. Number of Wires	14. Accessories	3	15. Meter	16. Met Opt	ter tions	17. Paint Color	18. Drop Cord Tape Marking	9
1. S	ystem (stan	dard of meas	sure)				*13. Nun	nber	of Wires (/	M40/N	M50 AC)			
U	US						2, 3, 4,	5						
2. F	roduct Typ	ce (section co	omponent)				14. Acce	ssor	ies (optiona	l acce	essories fo	or plugs)		
С	Circuit Br	eaker Unit	F	Fused Disc	connect Unit	t	N N/)		F	Finger Shro		.:.
3. 0	ompatibili	ty (frame cor	mpatibility)				C Cir	CUIT	Breaker Inte	eriock	< P	Breaker	apter for Circu	IIT
T3 R5	T3 Syster T3 Systen		K5 Paddle) Z5	T3 System K5 + R5	(Limiting St	trip)	S Sei		Hanger		R	IR Window		
4. 0	Ground (gro	und type inst	talled)						th./WiFi, ≤4	180V	Y. <277\/	′		
C Case (Housing) Ground D Dedicated Ground M53 Single Eth./N M58 Dual Eth, ≤4				th./No WiFi ı, ≤480V Y, :	i, ≤48 ≤277	30V Y, ≤2 ′V Δ	77V Δ							
5. E	Box (what siz	re enclosure)							/Dual Mod 15V Y, ≤240		≤480V Y,	≤277V ∆		
^4	00 00 /				CO)		M43 No	WiFi.	<415V Y. <	240\	/			

01, 02, ... 99 (refer to enclosure reference **page 3.60**)

6. Orientation (what direction the paddle faces)

S Standard R Reversed

7. Interrupt Rating (interrupt rating of the breakers in K)

10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000) (for US)

8. Circuit Protection Quantity

1, 2, 3, 4, 5, 6

9. Amperage

015, 020, 030, 600

10. Poles (number of poles in a circuit)

1, 2, 3, 4, 5

11. Voltage

120, 240, 277, 300, 415, 480, 600

*12. Drop Cord Length (length of drop cord)

izi biop doid zongm (longm or drop don

010 1 foot **XXY** XX=feet, Y=inches (only can be chosen in 6" increments) For any device configuration chosen over 70 amps, the max. drop cord length is 10 feet (100)

M43 No WiFi, ≤415V Y, ≤240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

M56 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ, Breaker Monitoring

M57 Dual Eth, Breaker Monitoring ≤480V Y, ≤277V Δ

16. Meter Options (M40/M50 AC)

S	Standard	F	Featured (D+A)
D	Display	E	Enhanced (N+A)
N	(Measured) Neutral	P	Professional (D+N)
Α	Audible Alarm	U	Ultimate (D+N+A)

*16. Meter Options (M60 DC)

S	Standard (High Voltage)	Р	Standard (48 VDC)
D	Display (High Voltage)	Q	Display (48 VDC)
M60	Meters support: High Voltage: 120	to 300	VDC/Split Phase 120 VDC (+/-60)
to 38	0 VDC (+/-180) OR Low Voltage: 4	18 VDC	

17. Paint Color

STD	Paint Factory Silver	RED Paint Factory Red
BLK	Paint Factory Black	BLU Paint Factory Blue
WHT	Paint Factory White	**RAL (please see page 3.34)
	BLK	STD Paint Factory Silver BLK Paint Factory Black WHT Paint Factory White

18. Drop Cord Tape Marking

	-	 _			
0	No Tape	•	3	Red	
3	Black	7	7	Blue	
4	White	8	3	Green	

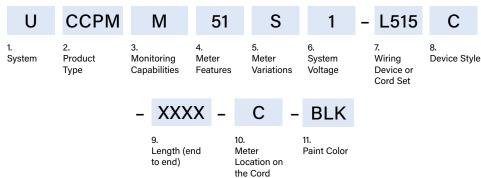
EXAMPLE

<u>UCT5D57S-25-203034800505N-M59D-STD</u> = US System, Circuit Breaker Only Unit, T5 system, Dedicated Ground, 57 box, Standard orientation, 25kA interrupt rating, 2 circuits, 30 amps, 3 poles, 480v, 5 ft drop cord, 5 wires, no accessories, M53 meter, painted factory silver

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CORDED METERS

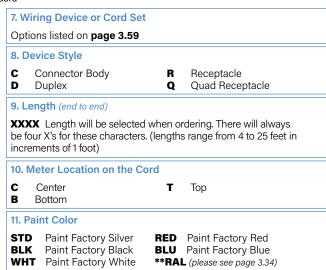


1. Sy	1. System (standard of measure)					
U	US					
2. Pr	2. Product Type (section component)					
CCP	CCPM Corded CPM					
3. M	3. Monitoring Compatibilities					
M	Paddle/Feed Monitoring					
4. M	eter Features					
51 58	Single Ethernet WiFi Dual Ethernet	53 59	3			
5. M	eter Variations					
s	Standard Unit	D	Display			
6. Sy	stem Voltage					
1	Line-Line	3	Line-Neutral			

Monitoring: The Corded CPM has a plug on one end and a connector body or receptacle on the other end; making it ideal for field power monitoring on-the-fly. It is capable of monitoring the energy of any device. The Corded CPM is also available without connectors. All M50 meter features, communication options and accessories are available except for measured neutral.

Box Size: There are two different Corded CPM box sizes. The smaller is designed for single phase (2 pole/3 wire, 1 pole+N/3W) wiring devices rated from 0-32A & 0-480V. The color is black unless specified. The larger enclosure is designed for all other configurations. These include single phase (2 pole/3 wire) rated at 32A-63A & 0-480V, three phase delta (3 pole/4 wire) rated at 0-63A & 0-480V and three phase wye (4 pole/5 wire) rated at 0-63A & 0-480V.

Meter Location: The meter can be placed in the center or offset from the top or bottom of the cord. Top or Bottom meters will always be 1'8" from the end of the connector.





3.58

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3.59

T3 PLUG-IN UNITS

WIRING DEVICE/CORD SET OPTIONS

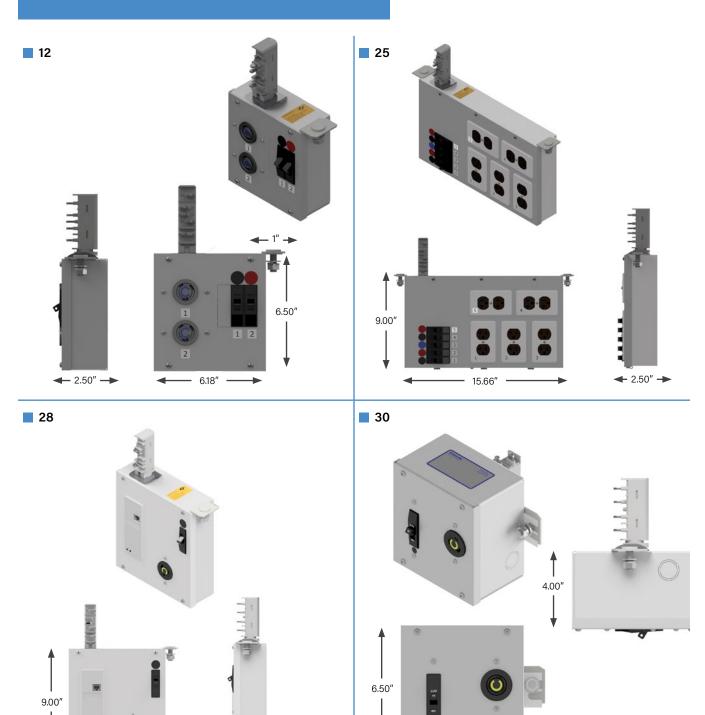
AC NEMA/IEC NAME	VOLTAGE	CURRENT
CS6360C	125V	50
CS6364C	125/250V	50
CS8264C	250V	50
CS8364C	250V	50
CS8164C	480V	50
CS8464C	480V	50
515D	125V	15
515	125V	15
520D	125V	20
520	125V	20
530	125V	30
615D	250V	15
615	250V	15
620D	250V	20
620	250V	20
630	250V	30
L1420	125/250V	20
L1430	125/250V	30
L1520	250V	20
L1530	250V	30
L1620	480V	20
L1630	480V	30
L2120	120/208V	20
L2130	120/208V	30
L2220	277/480V	20
L2230	277/480V	30
L2320	347/600V	20
L2330	347/600V	30
L515	125V	15
L520	125V	20
L530	125V	30
L615	250V	15
L620	250V	20
L630	250V	30
L715	277V	15
L720	277V	20
L730	277V	30
L820	480V	20
L830	480V	30
316C4S	110V	16
332C4S	110V	32
363C4S	110V	63
320C4S	125V	20
330C4S	125V	30
360C4S	125V	60
520C9W	120/208V	20
530C9W	120/208V	30
560C9W	120/208V	60
316C6S	230V	16
332C6S	230V	32
363C6S	230V	63

AC NEMA/IEC NAME	VOLTAGE	CURRENT
420C12W	125/250V	20
430C12W	125/250V	30
460C12W	125/250V	60
320C6W	250V	20
330C6W	250V	30
360C6W	250V	60
320C5W	277V	20
330C5W	277V	30
360C5W	277V	60
416C4S	110V	16
432C4S	110V	32
463C4S	110V	63
416C9S	230V	16
432C9S	230V	32
463C9S	230V	63
420C9S	250V	20
430C9S	250V	30
460C9S	250V	60
416C6S	415V	16
432C6S	415V	32
463C6S	415V	63
420C7S	480V	20
430C7S	480V	30
460C7S	480V	60
516C6S	230/400V	16
532C6S	230/400V	32
563C6S	230/400V	63
316C9S	415V	16
332C9S	415V	32
363C9S	415V	63
520C7S	277/480V	20
530C7S	277/480V	30
560C7S	277/480V	60
320C7W	480V	20
330C7W	480V	30
360C7W	480V	60
15A-300V	300V	15
16A-300V	300V	16
20A-300V	300V	20
30A-300V	300V	30
32A-300V	300V	32
50A-300V	300V	50
60A-300V	300V	60
63A-300V	300V	63
15A-480V	480V	15
15A-480V 16A-480V		
	480V	16
20A-480V	480V	20
30A-480V	480V	30
32A-480V	480V	32
50A-480V	480V	50
60A-480V	480V	60
63A-480V	480V	63

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BOX SIZES & STYLES



← 2.68" **→**

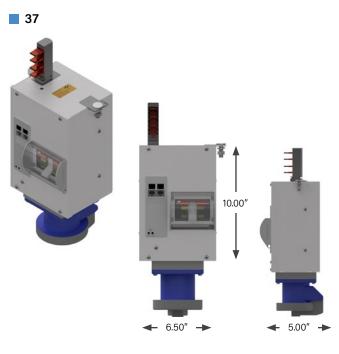
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6.00" -

8.18"



BOX SIZES & STYLES

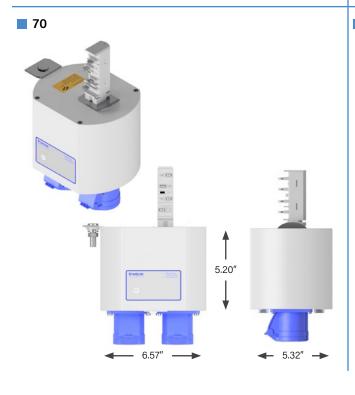


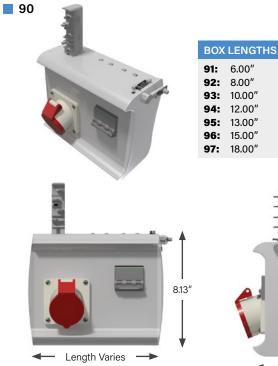


BOX LENGTHS

6.00" 8.00" **53:** 10.00" **54:** 12.00" **55:** 13.00" **56:** 15.00"





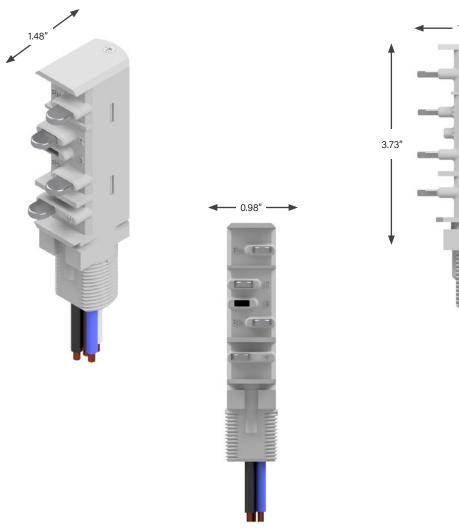


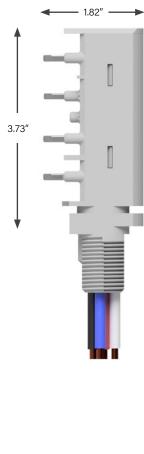




BOX SIZES & STYLES

T3 PADDLE





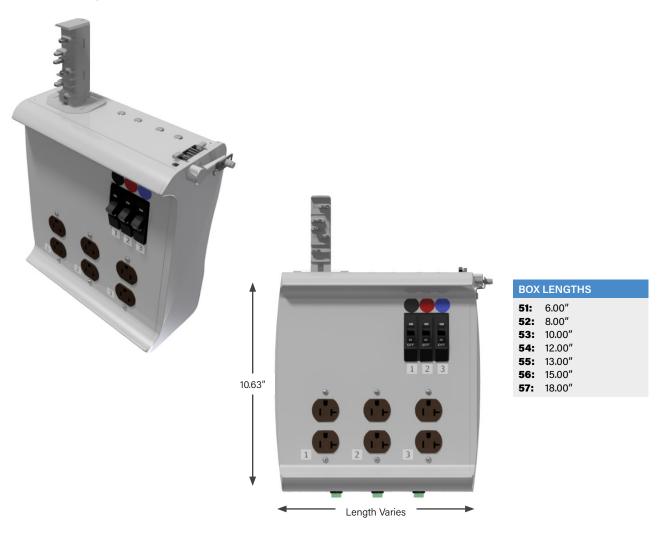


50 SERIES ENCLOSURE CUT SHEET

PRODUCT DESCRIPTION

Next-generation, custom engineered enclosure that features a stylish exterior combined with a spacious interior and customizable body length to accommodate a wide variety of applications. The 50 Series enclosure is designed to tap off power from the busway. The option is available to have a reverse paddle such that the enclosure faces in the opposite direction when in the busway.

- Configurable unit length for multiple circuit breaker pole positions.
- Consult factory for possible combinations*



EXAMPLES

<u>UCT3C54S-22-2ACFN-STD</u> = US System, Circuit Breaker Plug, T3 System, Case (Housing) Ground, 54 Box, Standard Orientation, 22 Interrupt Rating, 2 Devices, L21-30, Front Located, No Accessories, PPG Anodized Silver

<u>UCT3G53S-10-2EMFN-STD</u> = US System, Circuit Breaker Plug, T3 System, Isolated (Separate) Ground, 53 Box, Standard Orientation, 10 Interrupt Rating, 2 Devices, IGL15-30, Front Located, No Accessories, PPG Anodized Silver

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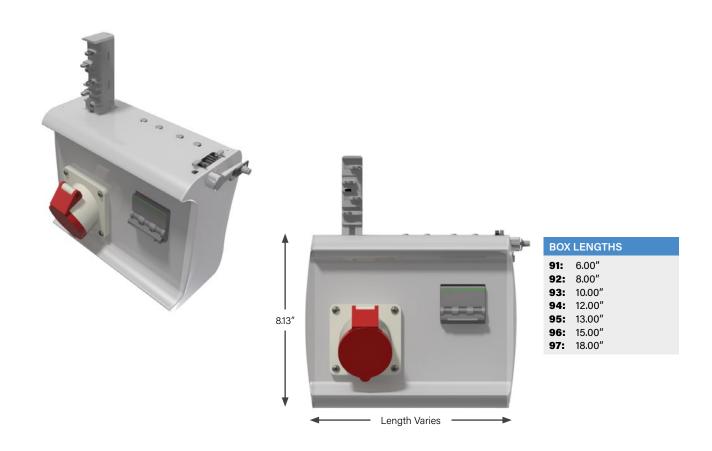


90 SERIES ENCLOSURE CUT SHEET

PRODUCT DESCRIPTION

Next-generation, custom engineered enclosure that features a stylish exterior combined with a spacious interior and customizable body length to accommodate a wide variety of applications. The 90 Series enclosure is designed to tap off power from the busway. The option is available to have a reverse paddle such that the enclosure faces in the opposite direction when in the busway.

- Configurable unit length for multiple circuit breaker pole positions.
- Consult factory for possible combinations*



EXAMPLES

<u>UCT3C93S-50-1AKFN-STD</u> = US System, Circuit Breaker Plug, T3 System, Case (Housing) Ground, 93 Box, Standard Orientation, 50 Interrupt Rating, 1 Device, CS8369, Front Located, No Accessories, PPG Anodized Silver

<u>UCT3C94S-10-2BGB050F-STD</u> = US System, Circuit Breaker Plug, T3 System, Case (Housing) Ground, 94 Box, Standard Orientation, 10 Interrupt Rating, 2 Devices, 16-30, Bottom Located, 5 foot Drop Cord, Finger Shroud, PPG Anodized SilverIGL15-30, Front Located, No Accessories, PPG Anodized Silver

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US DEVICE CODE TABLE

	NEI	MA Connectors		
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
BS	5-15C	Connector	120	1PNG
FF	5-15Q-X	Connector	120	1PNG
BD	5-20C	Connector	120	1PNG
FG	5-20-Q-X	Connector	120	1PNG
BB	6-15C	Connector	240	2PG
FH	6-15Q-X	Connector	240	2PG
BC	6-20C	Connector	240	2PG
FI	6-20Q-X	Connector	240	2PG
CO	L14-20C	Connector	120/208	2PNG
CN	L14-30C	Connector	120/208	2PNG
CM	L15-20C	Connector	240	3PG
CL	L15-30C	Connector	240	3PG
CE	L16-20C	Connector	480	3PG
CD	L16-30C	Connector	480	3PG
CS	L21-20C	Connector	120/208	3PNG
СТ	L21-30C	Connector	120/208	3PNG
FA	L22-20C	Connector	277/480	3PNG
EZ	L22-30C	Connector	277/480	3PNG
BR	L5-15C	Connector	120	1PNG
BE	L5-20C	Connector	120	1PNG
BF	L5-30C	Connector	120	1PNG
ВА	L6-15C	Connector	240	2PG
ВН	L6-20C	Connector	240	2PG
BG	L6-30C	Connector	240	2PG
СК	L7-15C	Connector	277	1PNG
Cl	L7-20C	Connector	277	1PNG
CF	L7-30C	Connector	277	1PNG

Pin & Sleeve Connectors				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
BJ	360C6W	Connector	240	2PG
BQ	420C6W	Connector	240	2PNG
BW	430C7W	Connector	480	3PG
BP	430C9W	Connector	240	3PG
BX	460C7W	Connector	480	3PG
EJ	460C9S	Connector	240	3PG
EI	460C9W	Connector	240	3PG
BZ	520C6S	Connector	240/415	3PNG
CC	530C6S	Connector	240/415	3PNG
EX	530C6W	Connector	240/415	3PNG

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

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US DEVICE CODE TABLE

Pin & Sleeve Connectors (Continued)				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
СН	530C7S	Connector	480	3PNG
BI	530C9W	Connector	240/415	3PNG
СВ	560C6S	Connector	240/415	3PNG
CI	560C7S	Connector	480	3PNG
EH	560C9W	Connector	120/208	3PNG
BV	320C6S	Connector	240	2PG
BU	330C6S	Connector	240	2PG
BT	360C6S	Connector	240	2PG
во	560C9S	Connector	120/208	3PNG

	NEN	/IA Receptacles	;	
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
DD	14-20R	Receptacle	120/208	2PNG
DC	14-30R	Receptacle	120/208	2PNG
CW	14-50R	Receptacle	120/208	2PNG
cv	14-60R	Receptacle	120/208	2PNG
CU	15-20R	Receptacle	240	3PG
CY	15-30R	Receptacle	240	3PG
DI	15-50R	Receptacle	240	3PG
DH	15-60R	Receptacle	240	3PG
AW	5-15D	Receptacle	120	1PNG
FB	5-15Q	Receptacle	120	1PNG
DN	5-15R	Receptacle	120	1PNG
AB	5-20D	Receptacle	120	1PNG
DL	5-20D-GFI	Receptacle	120	1PNG
FC	5-20Q	Receptacle	120	1PNG
DM	5-20R	Receptacle	120	1PNG
DV	5-30R	Receptacle	120	1PNG
GB	6-15D	Receptacle	240	2PG
FD	6-15Q	Receptacle	240	2PG
DU	6-15R	Receptacle	240	2PG
GC	6-20D	Receptacle	240	2PG
FE	6-20Q	Receptacle	240	2PG
DO	6-20R	Receptacle	240	2PG
DR	6-30R	Receptacle	240	2PG
DA	6-50R	Receptacle	240	2PG
CZ	L14-20R	Receptacle	120/208	2PNG
DB	L14-30R	Receptacle	120/208	2PNG
СХ	L15-20R	Receptacle	240	3PG
AH	L15-30R	Receptacle	240	3PG
EO	L16-20R	Receptacle	480	3PG

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

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US DEVICE CODE TABLE

	NEMA Receptacles (Continued)				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration	
EQ	L16-30R	Receptacle	480	3PG	
AT	L21-20R	Receptacle	120/208	3PNG	
AC	L21-30R	Receptacle	120/208	3PNG	
AA	L22-20R	Receptacle	277/480	3PNG	
AF	L22-30R	Receptacle	277/480	3PNG	
AS	L5-15D	Receptacle	120	1PNG	
AP	L5-15R	Receptacle	120	1PNG	
AG	L5-20R	Receptacle	120	1PNG	
AO	L5-30R	Receptacle	120	1PNG	
DP	L6-15D	Receptacle	240	2PG	
DQ	L6-15R	Receptacle	240	2PG	
Al	L6-20R	Receptacle	240	2PG	
AD	L6-30R	Receptacle	240	2PG	
ES	L7-15D	Receptacle	277	1PNG	
ER	L7-15R	Receptacle	277	1PNG	
AQ	L7-20R	Receptacle	277	1PNG	
EP	L7-30R	Receptacle	277	1PNG	

Pin & Sleeve Receptacles				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
FJ	316A6S	Receptacle	240/415	2PG
FK	316A6W	Receptacle	240/415	2PG
FL	316R6S	Receptacle	240/415	2PG
FM	320A6S	Receptacle	240/415	2PG
FN	320A6W	Receptacle	240/415	2PG
FO	332A6S	Receptacle	240/415	2PG
FP	332A6W	Receptacle	240/415	2PG
FQ	332A9S	Receptacle	240/415	2PG
FR	332R6S	Receptacle	240/415	2PG
DG	360R6W	Receptacle	240	2PG
FS	363R6S	Receptacle	240/415	2PG
DF	430R9W	Receptacle	240	3PG
AU	460R9S	Receptacle	240	3PG
AN	460R9W	Receptacle	240	3PG
FT	5125R6S	Receptacle	240/415	3PNG
FU	516A6S	Receptacle	240/415	3PNG
FV	516A6W	Receptacle	240/415	3PNG
FW	516R6S	Receptacle	240/415	3PNG
FX	520A6W	Receptacle	240/415	3PNG
FY	520R6S	Receptacle	240/415	3PNG
AR	530R6S	Receptacle	240/415	3PNG
FZ	532A6S	Receptacle	240/415	3PNG
GA	532A6W	Receptacle	240/415	3PNG

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

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US DEVICE CODE TABLE

Pin & Sleeve Receptacles (Continued)				
Device Code Device Designation Type Voltage Wiring Configuration				
BY	560R6S	Receptacle	240/415	3PNG
DS	360C4W	Receptacle	120	1PNG

Isolated Ground Receptacles				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
EN	IG14-30R	Receptacle	120/208	2PNG
AX	IG5-20D	Receptacle	120	1PNG
EA	IG5-20R	Receptacle	120	1PNG
DY	IG6-20D	Receptacle	240	2PG
DZ	IG6-20R	Receptacle	240	2PG
EK	IGL14-20R	Receptacle	120/208	2PNG
ET	IGL15-20R	Receptacle	240	3PG
EM	IGL15-30R	Receptacle	240	3PG
EL	IGL21-20R	Receptacle	120/208	3PNG
EG	IGL21-30R	Receptacle	120/208	3PNG
EU	IGL22-20R	Receptacle	277/480	3PNG
EV	IGL22-30R	Receptacle	277/480	3PNG
EB	IGL5-15R	Receptacle	120	1PNG
AY	IGL5-20R	Receptacle	120	1PNG
ED	IGL5-30R	Receptacle	120	1PNG
DW	IGL6-15D	Receptacle	240/415	2PG
DX	IGL6-15R	Receptacle	240/415	2PG
AM	IGL6-20R	Receptacle	240/415	2PG
AZ	IGL6-30R	Receptacle	240/415	2PG

California Connectors				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
CP	CS6360C	Connector	120	1PNG
CG	CS8164C	Connector	480	3PG
CR	CS8264C	Connector	240	2PG
CQ	CS8364C	Connector	240	3PG

California Receptacles				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
DK	CS6369	Receptacle	120/208	2PNG
DE	CS8269	Receptacle	240	2PG
AK	CS8369	Receptacle	240	3PG

Other				
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
XX	Custom Device (ex: colore	ed receptacle, et	tc.)	

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



SPECS & INTRODUCTION

SPECS

This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway or busway). The system is designed primarily for overhead distribution of electrical power; supporting designated work areas and equipment. Once installed the busway provides 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.

Track Busway is designed, manufactured and conforms to the following standards::

CCC UL 857, Ed. 13 CSA C22.2 No. 27 NMX-J-148-1998-ANCE IEC 61439-1, 61439-6 Low Voltage Directive - 2014/35/EC RoHS Directive - 2011/65/EU.

*All standards and certifications available upon request

INTRODUCTION

Starline is the leader in electrical power distribution in the mission critical, commercial and light industrial applications 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, 600, 800, 1000 & 1200 amps with case, dedicated or 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, Starline 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@starlinepower.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. Starline reserves the right to change information and descriptions of listed services and products. The latest version of this guide is available for download at downloads.starlinepower.com/starline/busway/.

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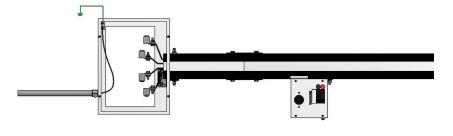


GROUND OPTIONS

CASE GROUND/CHASSIS EARTH

Uses aluminum housing and no extra copper bar.

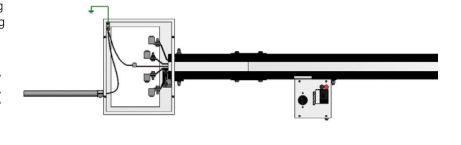




■ DEDICATED GROUND/EARTH

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



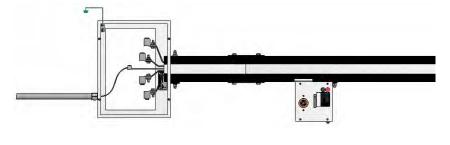


■ ISOLATED GROUND/EARTH

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







*For further details about Dedicated Ground vs. Isolated Ground, please reference our "Isolated Ground vs. Dedicated Ground" tech brief on <u>downloads.starlinepower.com/starline/busway</u>.

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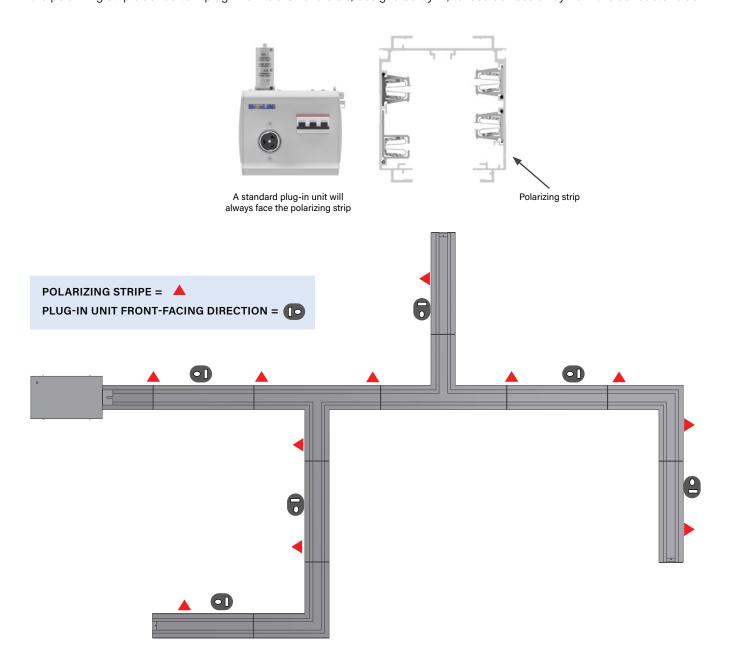


POLARITY TIPS

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 polarizing strip side. Certain plug-in units are 'reversible', designated by 'R', to face devices away from the conductor side.



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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 feet apart. Refer to **page 4.81** 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 **downloads.starlinepower.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 foot, 10 foot and 20 foot increments (except for 800 amp and above where the max length is 10 feet. 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.

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.

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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:

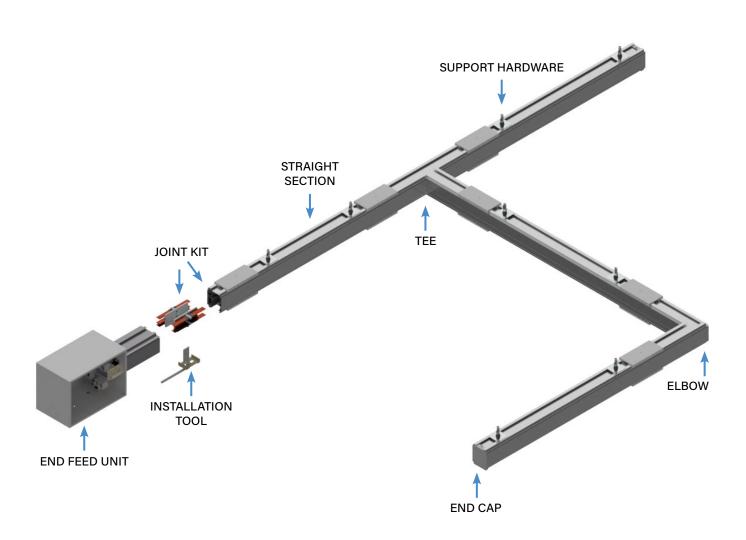
10 foot maximum spacing between supports and we recommend 10% more than the required quantity to cover potential layout changes. Seismic mounts and supports will differ from the standard. Please consult the factory for details.

- 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 **page 4.5** Polarity Tips for more detail.

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SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.

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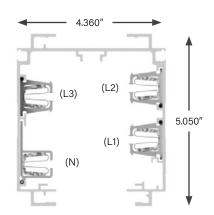


STRAIGHT SECTIONS

PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with "spring-pressure" 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 or dedicated 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: 6

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

LENGTH

10 ft, 20 ft; or custom lengths between 2 - 20 ft

VOLTAGE DROP

Distributed load

Single Phase 1V per 28ft (.8PF) Three Phase 1V per 48ft (.8PF)

WEIGHT

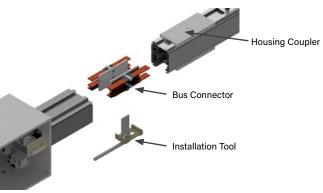
10 ft 4 pole: 41 lbs

10 ft 4 pole w/ ground: 46 lbs

10 ft 4 pole w/ 200% N: 47 lbs

10 ft 4 pole w/ ground & 200% N: 51 lbs







STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
S Straight Section	
3. Product Frame (maximum amperage	e)
250 250 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of ne	utral busbar and/or ground)
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor
N 3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor
7. Polarization (orientation of section for	mating purposes)
S Standard	
8. Straight Length (length of section)	
XXYY XX=feet, YY=inches	

9. Bus	way Access (how plugs	access	the busway)	
C C	Continuous			
10. Pai	10. Paint Color (allows painting of the busway housing)			
STD BLK WHT	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue (please see page 4.80)	
11. Tape Marking (colored tape on both sides of busway housing)				
3 T 4 T	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow	

EXAMPLES

<u>US250T5C4S-0500C-STD0</u> = US System, Straight Section, 250 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Continuous Busway Access, Factory Mill Finish, No Tape Marking

<u>US250T5CNS-0206C-BLU0</u> = US System, Straight Section, 250 amps, T5 System, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization, 2 foot 6 inch Straight Length, Continuous Busway Access, Painted Factory Blue, No Tape Marking

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ELBOW SECTIONS

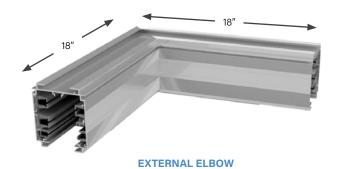
■ PRODUCT DESCRIPTION

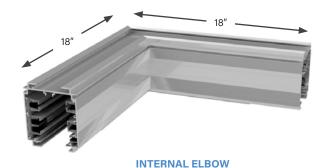
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify right or left elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

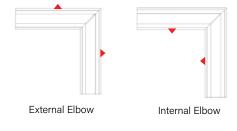
Connection Accessories (Ordered Separately)

A Joint Kit (page 4.84) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 14.5 lbs









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ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)		
U US		
2. Product Type (section component)		
E Elbow Section		
3. Product Frame (maximum amperage))	
250 250 amps		
4. Compatibility (frame compatibility)		
T5 T5 System K5	T5 System (Limiting Strip)	
5. Material (busbar material)		
C Copper		
6. Neutral/Ground Busbar (size of neu	utral busbar and/or ground)	
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor	
N 3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor	
7. Polarization (orientation of section for mating purposes)		
S Standard		

8. Tu	rning Direction (direction	of section	on polarizing stripe)
	Internal Seismic Internal		External Seismic External
9. Pa	int Color (allows painting	of the bu	sway housing)
BLK	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue L (please see page 4.80)
10. Ta	ape Marking (colored tape	on both	sides of busway housing)
0 3 4 6	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	8	Tape Factory Blue Tape Factory Green Tape Factory Yellow

EXAMPLES

<u>UE250T5C4S-IN-BLU4</u> = US System, Elbow Section, 250 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Black, Factory White Tape

<u>UE250T5CGS-EX-STD0</u> = US System, Elbow Section, 250 amps, T5 System, Copper Conductor, 3 Phase plus Neutral plus Isolated/Dedicated Ground, Standard Polarization, External Turning Direction, Factory Mill Finish, No Tape Marking

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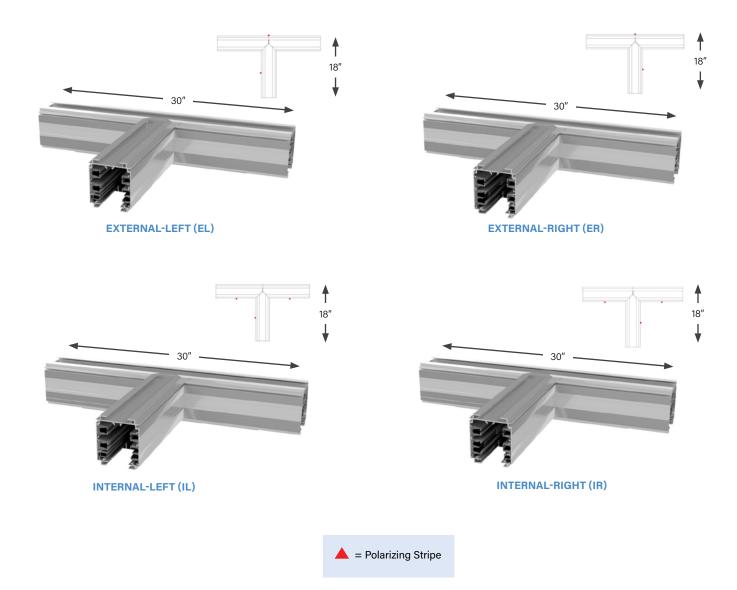
250T5 SYSTEMS

TEE SECTIONS

PRODUCT DESCRIPTION

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

Weight 19.5 lbs



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TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
T Tee Section	
3. Product Frame (maximum amperag	
250 250 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K	5 T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of n	neutral busbar and/or ground)
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor
N 3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor
7. Polarization (orientation of section for	or mating purposes)
S Standard	

IL IR HL	Irning Direction (direction Internal-Left Internal-Right Seismic Internal-Left Seismic Internal-Right	n of section polarizing stripe) EL External-Left ER External-Right GL Seismic External-Left GR Seismic External-Right	
STD	Paint Factory Black	RED Paint Factory Red	
 10. Tape Marking (colored tape on both sides of busway housing) 0 No Tape Marking 7 Tape Factory Blue 3 Tape Factory Black 4 Tape Factory White 9 Tape Factory Yellow 6 Tape Factory Red 			

EXAMPLES

<u>UT250T5C4S-IR-RED0</u> = US System, Tee Section, 250 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

<u>UT250T5CFS-EL-STD7</u> = US System, Tee Section, 250 amps, T5 System, Copper Conductor, 3 Phase plus 200% Neutral plus Isolated/Dedicated Ground, Standard Polarization, External-Left Turning Direction, Factory Mill Finish, Factory Blue Tape Marking

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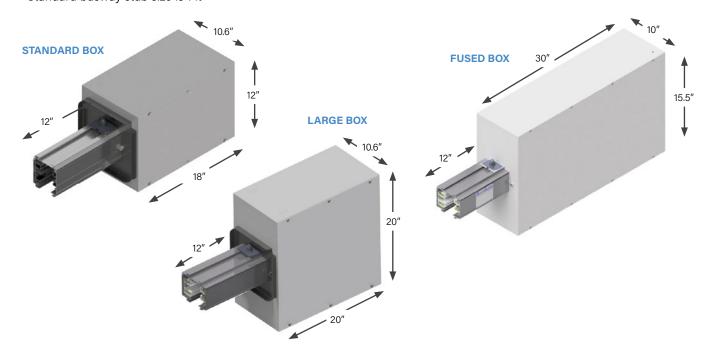
END FEED UNITS

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 inch section of busway. Certain assemblies include connection lugs and a ground lug for wires up to 300MCM for standard size boxes and 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.

Weight (for standard size end feed) 33 lbs *Standard busway stub size is 1 ft

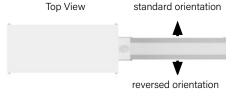


	BOXES		
LUGS	Standard	Large	Fused
Standard	S	L	F
Double			
Bolt	В	R	

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.18 End Feed Units: Product Numbers

*Bolt options include bolt, washer, nut. Lug not included.

*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 downloads.starlinepower.com/starline/busway









COMPACT BOLT BOLT "R"

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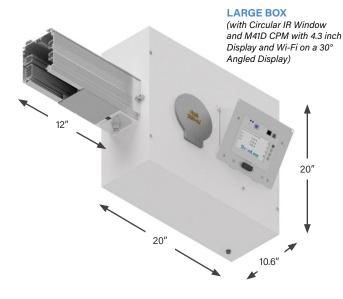


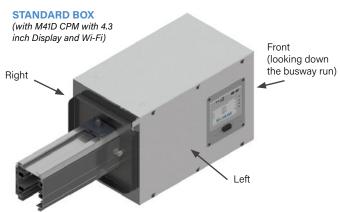
END FEED UNITS: METERING

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 inch section of busway. Certain assemblies include connection lugs, a ground lug, and shrink tubing for wires up to 300MCM for standard size boxes and large size boxes.

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. The M40 models are for AC busway, while the M60 models are for DC busway. 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. Once the meter is integrated, 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.





*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.18** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, ≤415V Y, ≤240V Δ

M43 No WiFi, ≤415V Y, ≤240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

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	X	Х	Х

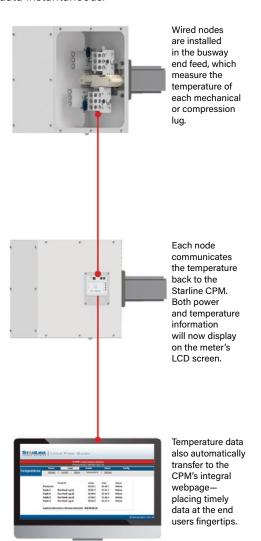
4.16



END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on page 4.19 End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the meter to be mounted flush to the

End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



IR WINDOWS

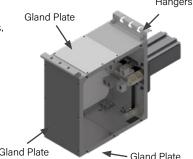
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

END FEED HANGERS & GLAND PLATES

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make

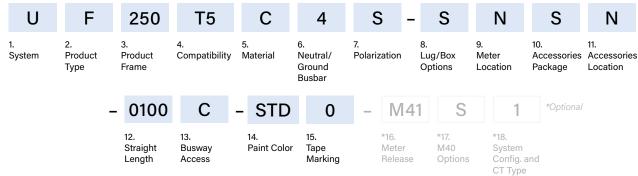
installation fast and easy and can be paired with other Starline end feed accessories.



Gland Plate - Gland Plate



END FEED UNITS: PRODUCT NUMBERS



_	
1. System (standard of measure)	
U US	
2. Product Type (section component)	
F End Feed	
3. Product Frame (maximum amperag	ge)
250 250 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K	5 T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of r	neutral busbar and/or ground)
4 3 Phase plus Neutral G	3 Phase plus Neutral plus

4. C	compatibility (frame compatibilit	y)	
T5	T5 System	K5	T5 System (Limiting Strip)
5. N	laterial (busbar material)		
С	Copper		
6. N	leutral/Ground Busbar (size o	f neu	tral busbar and/or ground)
4	3 Phase plus Neutral	G	3 Phase plus Neutral plus
N	3 Phase plus 200% Neutral	F	Internal Ground Conductor 3 Phase plus 200% Neutral plus Internal Ground Conductor
7. P	olarization (orientation of section	for i	mating purposes)
s	Standard	R	Reversed
8. L	ug/Box Options (standard/dou	ble/b	polt lugs and box size)
S L B	Standard lugs, Standard box Standard lugs, Large box Bolt Lugs, Standard Box	R F	0 1 0
9. N	leter Location (from the termina	al, sia	le with removable lid)
R	Right		Left

9	Release Options	CT Ty	g. and /pe		
10.	Accessories Package (option	nal acc	cessories for feed units)		
S C T F	Standard IR Window - Circular IR (rect.) + Angled Lid End Feed Hanger & Gland Plates		Angled Meter Lid IR (circ.) + Angled Lid		
E	(T+F)	J	(R+F)		
K	(A+F)	M	(L+F)		
11. /	Accessories Location (from	the teri	minal, side with accessory)		
N	None (N/A)	R	Right		
L	Left	F	Front (consult the factory)		
12.	12. Straight Length (length of section)				

12.	Stra	ight	Length	(length	of section)
		_			

0100 1 ft. (For other lengths, consult the factory)

13.	Busway Access
C	Continuous

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

STD	Factory Mill Finish	RED	Paint Factory Red
BLK	Paint Factory Black	BLU	Paint Factory Blue
WHT	Paint Factory White	**RAL	(please see page 4.80)

15. Tape Marking (colored tape on both sides of busway housing)

0	No Tape Marking	7	Tape Factory Blue
3	Tape Factory Black	8	Tape Factory Green
4	Tape Factory White	9	Tape Factory Yellow
6	Tane Factory Red		•

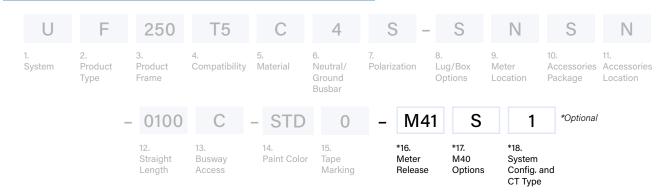
EXAMPLE

<u>UF250T5C4R-LRLL-0100C-BLK0</u> = US System, End Feed, 250 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

Standard (M60s also) S F Featured (D+A) D Display (M60s also) Ε Enhanced (N+A) N (Measured) Neutral Р Professional (D+N) Α Audible Alarm U Ultimate (D+N+A) В Wired Temperature Monitor (B+D+N)W ν (B+N)1 (B+D+A)C (B+D) 2 (B+N+A)М (B+D+N+A)(B+A)3

*17. Meter Options (M60 DC)

Standard (High Voltage) Standard (48 VDC) Display (High Voltage) Display (48 VDC) 0 M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

*18. System Configuration and CT Type (M40 AC)

1 LLD - Standard, Milivolt Κ LLD - SC, 5A 2 LLY - Standard, Milivolt L LLY - SC, 5A LNY - Standard, Milivolt М LNY - SC, 5A line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

- Circuit 1 Only, Solid Core Circuit 2 Only, Solid Core 2
- Both Circuits, Solid Core

EXAMPLE

<u>UF250T5C4R-LRLL-0100C-BLK0-M47S1</u> = US System, End Feed, 250 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Meter Options, LLD - Standard, Milivolt

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4.20

250T5 SYSTEMS

ABOVE FEED UNITS

PRODUCT DESCRIPTION

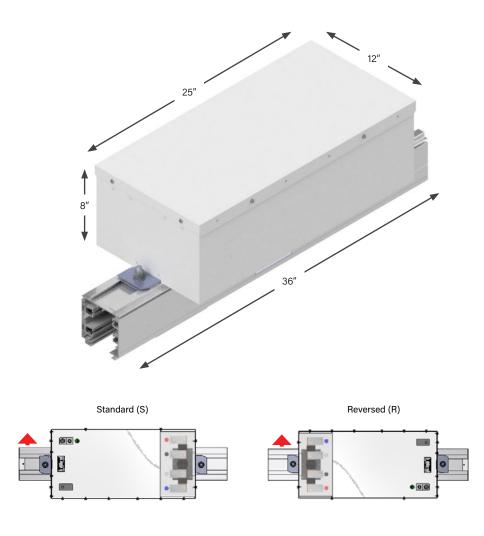
The above feed power unit supplies power from the topside of the Busway. Factory assembled unit consists of a 25 x 12 x 8 inch steel junction box that is mounted on top of a 36 inch section of busway.

*36 inches 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

*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 <u>downloads.starlinepower.com/starline/busway</u>



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LLY - SC, 5A

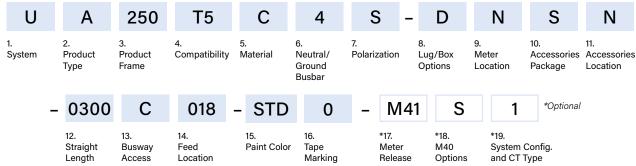
LNY - SC, 5A

L

М

250T5 SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS



	Length Ac	cess	Location
1. S	ystem (standard of measure)		
U	US		
2. F	roduct Type (section compo	nent)	
A	Above Feed		
3. P	roduct Frame (maximum am	perage)	
250	250 amps		
4. C	compatibility (frame compatil	bility)	
T5	T5 System	K5	T5 System (Limiting Strip)
5. \	laterial (busbar material)		
С	Copper		
6. N	leutral/Ground Busbar (siz	e of neu	tral busbar and/or ground)
4	3 Phase plus Neutral	G	3 Phase plus Neutral plus
N	3 Phase plus 200% Neutr	al F	Internal Ground Conductor 3 Phase plus 200% Neutral plus Internal Ground Conductor
7. P	olarization (orientation of sec	tion for I	mating purposes)
S	Standard	R	Reversed
8. L	ug/Box Options (standard/d	double/b	oolt lugs and box size)

В

Left

11. Accessories Location (from the terminal, side with removable lid)

Right

Top

9. Meter Location (from the terminal, side with removable lid)

10. Accessories Package (optional accessories for feed units)

Bolt lugs, Standard box

13. Busy	vay Access (how plugs	access t	the busway)
	ntinuous		
14. Feed	Location (location of t	he cente	r of the top feed)
018 18	inches (For other lengths	s, consul	t the factory)
15. Pain	t Color (allows painting	of the bu	sway housing)
BLK F	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue L (please see page 4.80)
16. Tape	Marking (colored tape	on both	sides of busway housing)
3 Tap 4 Tap	Tape Marking oe Factory Black oe Factory White oe Factory Red	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow
*17. Met	er Release (M40 Series	Meters)	
M43 No M45 W	iFi, ≤415V Y, ≤240V Δ o WiFi, ≤415V Y, ≤240V iFi, 600V Y, 347V Δ o WiFi, 600V Y, 347V Δ		
	O Options (choose from d/or a temperature monito		splay, measured neutral, aud
D Dis	indard (M60s also) splay (M60s also) easured) Neutral dible Alarm	F E P U	Enhanced (N+A)
	tem Configuration an	d CT T	ype (line-line or line-neutra
1 LLI	D - Standard, Milivolt	K	LLD - SC, 5A

LLY - Standard, Milivolt

LNY - Standard, Milivolt

0300 3 feet

Double lugs, Standard box

12. Straight Length (length of section)

D

R

S

L

Right

Standard

None (N/A)

Left

EXAMPLE <u>UA250T5CFS-DLSN-0300C018-STD0-M41D2</u> = US System, Above Feed, 250 amps, T5 System, 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 foot Straight Length,

2

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None (N/A)

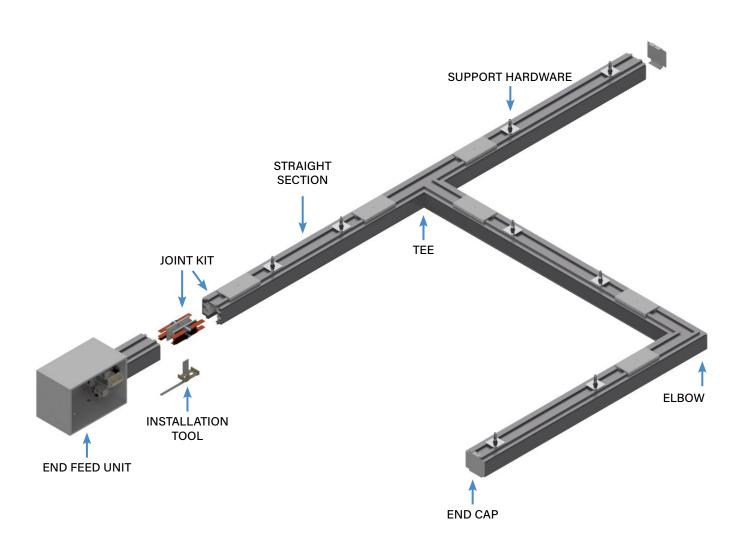
Rear

Front

Continuous Busway Access, 18 inch Feed Location, Factory Mill Finish, No Tape Marking, M41 Meter, Display, LLY - Standard, Milivolt



SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.

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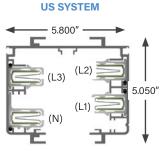


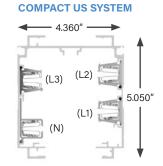
STRAIGHT SECTIONS

PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with "spring-pressure" 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 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, 20 ft; or custom lengths between 2 - 20 ft

VOLTAGE DROP

Distributed load

US System

Single Phase 1V per 37ft (.8PF)

Three Phase 1V per 65ft (.8PF)

Compact US System

Single Phase 1V per 28ft (.8PF)

Three Phase 1V per 48ft (.8PF)

WEIGHT

US System

10 ft 4 pole: 95 lbs

10 ft 4 pole w/ ground: 96 lbs

10 ft 4 pole w/ 200% N: 97 lbs

10 ft 4 pole w/ ground & 200% N: 107 lbs

Compact US System

10 ft 4 pole: 52 lbs

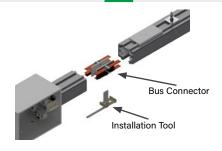
10 ft 4 pole w/ ground: 57 lbs

10 ft 4 pole w/ 200% N: 60 lbs

10 ft 4 pole w/ ground & 200% N: 64 lbs

US
L1 or

L1 or Phase A	Black
L2 or Phase B	Red
L3 or Phase C	Blue
Neutral	White
Ground	Green/Black



4.23



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. S	ystem (standard of measure)		
U	US C	Compact	
2. F	Product Type (section component)		
S	Straight Section		
3. F	Product Frame (maximum amperage,)	
400	0 400 amps		
4. 0	Compatibility (frame compatibility)		
T5	T5 System K5	T5 System (Limiting Strip)	
5. N	Material (busbar material)		
С	Copper		
6. N	Neutral/Ground Busbar (size of net	utral busbar and/or ground)	
4	3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor	
N	3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor	
7. Polarization (orientation of section for mating purposes)			
S Standard			
8. Straight Length (length of section)			
XXYY XX=feet, YY=inches			

9. B	susway Access (how plug	is acces	s the husway)		
С					
10.	Paint Color (allows paintin	ng of the	busway housing)		
BLI WH	Factory Mill Finish* Paint Factory Black Factory White Pactory Silver for Compact	BLI **R	RAL (please see page 4.80)		
11. 1	ape Marking (colored tag	e on bo	th sides of busway housing)		
0 3 4 6	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow		

EXAMPLES

<u>US400T5C4S-0500C-STD0</u> = US System, Straight Section, 400 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Continuous Busway Access, Factory Mill Finish, No Tape Marking

<u>CS400K5CNS-0206C-P013</u> = Compact US System, Straight Section, 400 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization, 2 foot 6 inch Straight Length, Continuous Busway Access, Painted RAL 1001, Factory Black Tape Marking

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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.

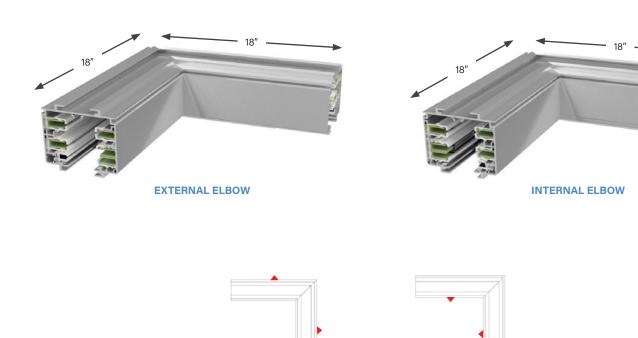
Connection Accessories

(Ordered Separately)

Joint Kits (page 4.84) are used to make mechanical and electrical connections to adjacent busway sections.

Weight

28 lbs US System 18 lbs Compact US System



External Elbow



Internal Elbow

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ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)			
U US C	Compact US		
2. Product Type (section component)			
E Elbow Section			
3. Product Frame (maximum amperage)		
400 400 amps			
4. Compatibility (frame compatibility)			
T5 T5 System K5	T5 System (Limiting Strip)		
5. Material (busbar material)			
C Copper			
6. Neutral/Ground Busbar (size of ne	utral busbar and/or ground)		
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor		
N 3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor		
7. Polarization (orientation of section for mating purposes)			
S Standard			

8. To	8. Turning Direction (direction of section polarizing stripe)				
IN HN	Internal Seismic Internal	EX External GX Seismic External			
9. P	9. Paint Color (allows painting of the busway housing)				
BLK	Factory Mill Finish Paint Factory Black Paint Factory White	RED Paint Factory Red BLU Paint Factory Blue **RAL (please see page 4.80)			
10. Tape Marking (colored tape on both sides of busway housing)					
0 3 4 6	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	7 Tape Factory Blue8 Tape Factory Green9 Tape Factory Yellow			

EXAMPLES

<u>UE400K5C4S-IN-PJ70</u> = US System, Elbow Section, 400 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted RAL 5027, No Tape Marking

<u>CE400T5CGS-EX-STD3</u> = Compact US System, Elbow Section, 400 amps, T5 System, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Factory Mill Finish, Factory Black Tape Marking

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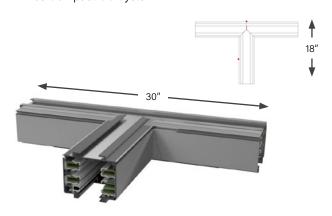
TEE SECTIONS

PRODUCT DESCRIPTION

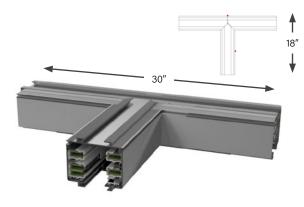
Tee sections are used for creating a 90 degree branch leg in a Busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent Busway sections using an installation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

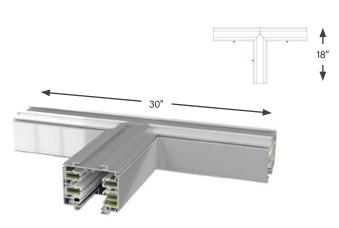
42 lbs US System 24 lbs Compact US System



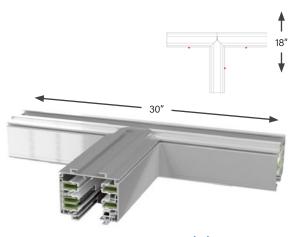
EXTERNAL-LEFT (EL)



EXTERNAL-RIGHT (ER)



INTERNAL-LEFT (IL)



INTERNAL-RIGHT (IR)



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TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)				
U US C	Compact US			
2. Product Type (section component)				
T Tee Section				
3. Product Frame (maximum amperage)				
400 400 amps				
4. Compatibility (frame compatibility)				
T5 T5 System K5	T5 System (Limiting Strip)			
5. Material (busbar material)				
C Copper				
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)				
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor			
N 3 Phase plus 200% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor			
7. Polarization (orientation of section for mating purposes)				
S Standard				

8. IU	rning Direction (direction	of section polarizing stripe)		
IL	Internal-Left	EL External-Left		
	Internal-Right Seismic Internal-Left	ER External-Right GL Seismic External-Left		
	Seismic Internal-Right	GR Seismic External-Right		
	Paint Factory Black Paint Factory White	BLU Paint Factory Blue **RAL (please see page 4.80)		
10. Tape Marking (colored tape on both sides of busway housing)				
	No Tape Marking	7 Tape Factory Blue		
0	Tto Tapo Marking			
0 3 4	, ,	8 Tape Factory Green9 Tape Factory Yellow		

EXAMPLES

<u>UT400T5C4S-IR-RED0</u> = US System, Tee Section, 400 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning direction, Painted Factory Red, No Tape Marking

<u>CT400K5CFS-EL-STD0</u> = Compact US System, Tee Section, 400 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus 200% Neutral plus Internal Ground Conductor, Standard Polarization, External-Left Turning Direction, Factory Mill Finish, No Tape Marking

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END FEED UNITS

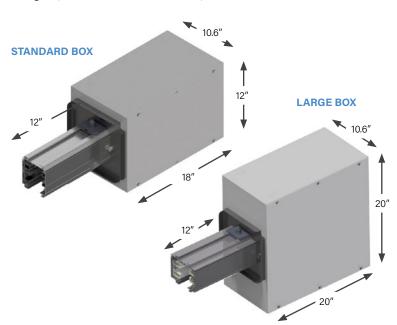
PRODUCT DESCRIPTION

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 foot section of busway. Certain assemblies include connection lugs and a ground lug for wires (2) 250MCM or up to 600MCM for standard size boxes and 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.

Weight (for standard size end feed) 36 lbs



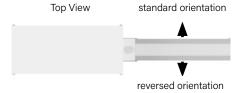
		10"
FUSED BOX	30"	1
		15.5"
12"		

	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 page 4.32 End Feed Units: Product Numbers

*Bolt options include bolt, washer, nut. Lug not included.

*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 downloads.starlinepower.com/starline/busway









COMPACT BOLT
"B/R"

BOLT "R"

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4.29

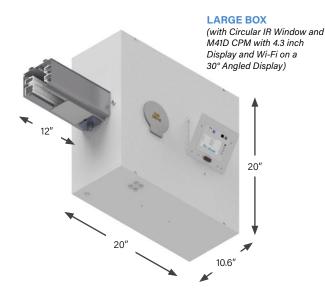


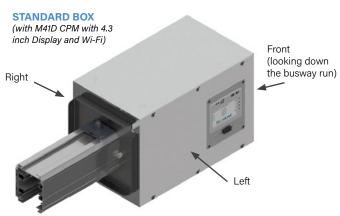
END FEED UNITS: METERING

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 foot section of busway. Certain assemblies include connection lugs and a ground lug for wires (2) 250MCM or up to 600MCM for standard size boxes and large size boxes.

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. The M40 models are for AC busway, while the M60 models are for DC busway. 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. Once the meter is integrated, 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.





*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.32** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, ≤415V Y, ≤240V Δ

M43 No WiFi, ≤415V Y, ≤240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC)
OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

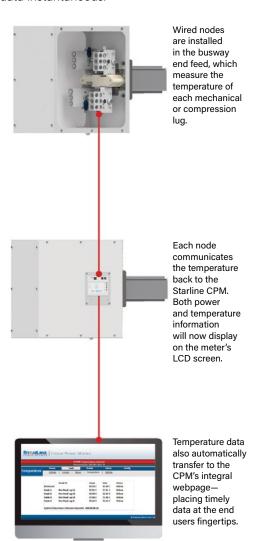
BOX/LUGS OPTION	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)	
(S) Standard Box, Standard Lugs	X	X		
(L) Large Box, Standard Lugs	X	X	X	
(R) Large Box, Bolt Lugs	X	X	X	
(B) Standard Box, Bolt Lugs	Х	Х		



END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on **page 4.33** End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the meter to be mounted flush to the

End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



■ IR WINDOWS

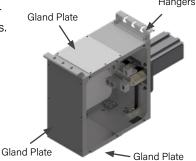
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

■ END FEED HANGERS & GLAND PLATES

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make

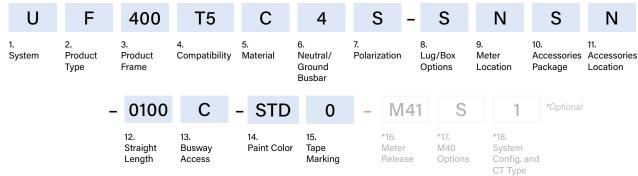
installation fast and easy and can be paired with other Starline end feed accessories.



Gland Plate



END FEED UNITS: PRODUCT NUMBERS



C Compact US
C Compact 05
mponent)
m amperage)
npatibility)
K5 T5 System (Limiting Strip)
7,

2. Floudet Type (section component)	
F End Feed	
3. Product Frame (maximum amperage	e)
400 400 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	5 T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of ne	eutral busbar and/or ground)
4 3 Phase plus Neutral G	a contract production production
N 3 Phase plus 200% Neutral F	Internal Ground Conductor 3 Phase plus 200% Neutral plus Internal Ground Conductor
7. Polarization (orientation of section for	r mating purposes)
S Standard R	Reversed
8. Lug/Box Options (standard/double,	/bolt lugs and box size)
S Standard lugs, Standard box F L Standard lugs, Large box R B Bolt Lugs, Standard Box	0 /
9. Meter Location (from the terminal, s	ide with removable lid)
R Right L	Left

ng	·	Config CT Ty	
	10. Accessories Package (option	al acc	essories for feed units)
	 Standard IR Window - Circular IR (rect.) + Angled Lid End Feed Hanger & Gland Plates 		IR (circ.) + Angled Lid
	E (T+F) K (A+F)	J M	(R+F) (L+F)
	11. Accessories Location (from the	he terr	minal, side with accessory)
	N None (N/A) L Left	R F	Right Front (consult the factory)
	12. Straight Length (length of sec	tion)	
	0100 1 ft. (For other lengths, consu	It the	factory)
	13. Busway Access		
	C Continuous		
	14. Paint Color (allows painting of	the bu	sway housing)
	STD Factory Mill Finish F	RED	Paint Factory Red

15. Tape Marking (colored tape on both sides of busway housing)

8

BLU Paint Factory Blue

**RAL (please see page 4.80)

Tape Factory Blue

Tape Factory Green

Tape Factory Yellow

EXAMPLE

None (N/A)

<u>UF400T5C4R-LRLL-0100C-BLK0</u> = US System, End Feed, 400 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking

BLK

0

3

Paint Factory Black

WHT Paint Factory White

No Tape Marking

Tape Factory Black

Tape Factory White

Tape Factory Red

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S Standard (M60s also) F Featured (D+A) Display (M60s also) Enhanced (N+A) D E N (Measured) Neutral P Professional (D+N) Α Audible Alarm U Ultimate (D+N+A) В Wired Temperature Monitor (B+D) C v (B+N)M (B+A)w (B+D+A)(B+D+N)1

*17. Meter Options (M60 DC)

(B+N+A)

2

Standard (48 VDC) Standard (High Voltage) Display (High Voltage) Q Display (48 VDC) D

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

(B+D+N+A)

*18. System Configuration and CT Type (M40 AC)

LLD - Standard, Milivolt LLD - SC, 5A

LLY - Standard, Milivolt LLY - SC, 5A LNY - SC, 5A LNY - Standard, Milivolt М

line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

- Circuit 1 Only, Solid Core 1
- Circuit 2 Only, Solid Core 2
- Both Circuits, Solid Core

EXAMPLE

<u>UF400T5C4R-LRLL-0100C-BLK0-M47S1</u> = US System, End Feed, 400 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Meter Options, LLD - Standard, Milivolt

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4.34

400T5 SYSTEMS

ABOVE FEED UNITS

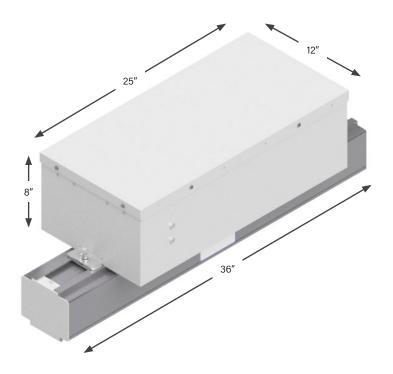
PRODUCT DESCRIPTION

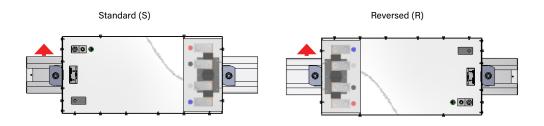
The above feed power unit supplies power from the topside of the busway. Factory assembled unit consists of a 25 x 12 x 8 inch steel junction box mounted on top of a 36 inch section of busway.

*36 inches 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 <u>downloads.starlinepower.com/starline/busway</u>

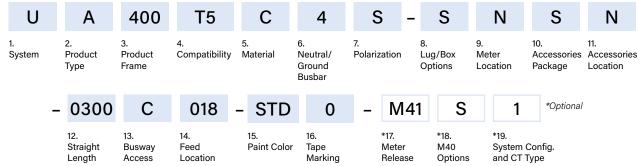




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ABOVE FEED UNITS: PRODUCT NUMBERS



Length	Access	Location
1. System (standard of meas	 ure)	
U US	С	Compact US
2. Product Type (section co	omponent)	
A Above Feed		
3. Product Frame (maximus	m amperage)	
400 400 amps		
4. Compatibility (frame con	mpatibility)	
T5 T5 System	K5	T5 System (Limiting Strip)
5. Material (busbar material))	
C Copper		
6. Neutral/Ground Busba	ır (size of neu	utral busbar and/or ground)
4 3 Phase plus Neutral	G	3 Phase plus Neutral plus Internal Ground Conductor
N 3 Phase plus 200% N	leutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor
7. Polarization (orientation of	of section for	mating purposes)
S Standard	R	Reversed
8. Lug/Box Options (stand	lard/double/b	polt lugs and box size)
S Standard lugs, Standa	rd box	
9. Meter Location (from the	e terminal, sid	de with removable lid)

Left

11. Accessories Location (from the terminal, side with removable lid)

Right

Top

10. Accessories Package (optional accessories for feed units)

	Continuous ed Location (location of	the cente	r of the ton feed)	
	8 inches (For other length		, ,	
15. Pa	int Color (allows painting	of the bu	sway housing)	
BLK	Factory Mill Finish Paint Factory Black Paint Factory White	BLU		
16. Ta _l	pe Marking (colored tape	on both	sides of busway housing)	
	No Tape Marking Tape Factory Black	7 8	Tape Factory Blue Tape Factory Green	

6	Tape Factory Red
*17. N	Meter Release (M40 Series Meters)
M43 M45	WiFi, ≤415V Y, ≤240V Δ No WiFi, ≤415V Y, ≤240V Δ WiFi, 600V Y, 347V Δ No WiFi, 600V Y, 347V Δ

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

S	Standard (M60s also)	F	Featured (D+A)
D	Display (M60s also)	E	Enhanced (N+A)
N	(Measured) Neutral	P	Professional (D+N)
Α	Audible Alarm	U	Ultimate (D+N+A)

*19. 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

12. Straight Length (length of section) **0300** 3 feet

Left

R

S

Right

Standard

None (N/A)

EXAMPLE

<u>UA400K5CFS-SRSN-0300C018-STD0-M41DM</u> = US System, Above Feed, 400 amps, T5 System-K5 Limiting Strip, 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 foot Straight Length, Continuous Busway Access, 18 inch Feed Location, Factory Mill Finish, No Tape Marking, M41 Meter, Display, LNY - SC, 5A

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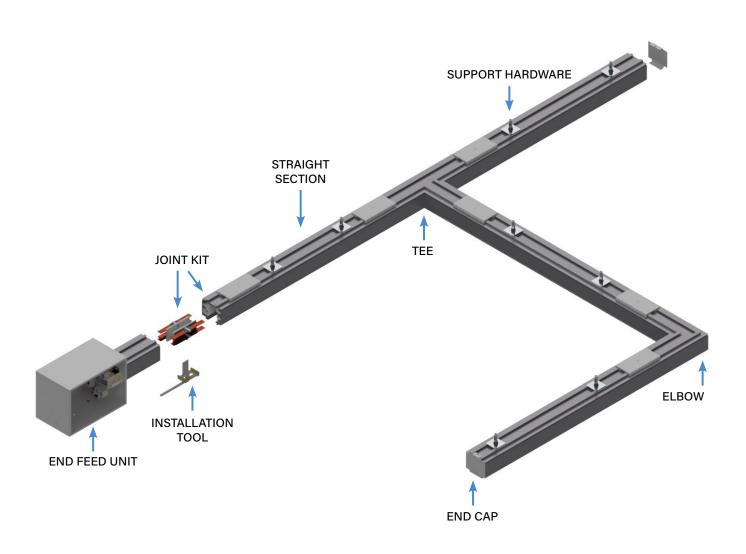
None (N/A)

Rear

Front



SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.

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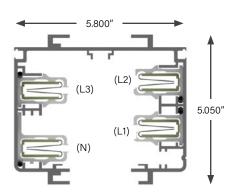


STRAIGHT SECTIONS

PRODUCT DESCRIPTION

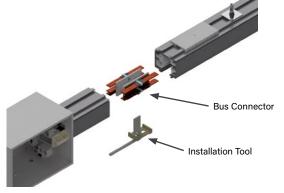
Track Busway straight section consists of an extruded aluminum shell with "spring-pressure" type copper channel busbars contained in a full length insulator mounted on the interior walls. The aluminum extrusion acts as a 100% ground path. Each housing has a continuous access slot over its entire length for the insertion of turn-n-lock plug-in units. Housing configurations include 4-pole varieties and optional isolated ground. 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.





Extruded Aluminum RATINGS 100% Ground Path 600 Amps 600T5C4/600T5CG: 600 Volt LENGTH 10 ft, 20 ft; or custom lengths between 2 - 20 ft VOLTAGE DROP Distributed load Single Phase 1V per 37 ft (.8PF) Three Phase 1V per 65 ft (.8PF) WEIGHT





10 ft 4 pole: 115 lbs

10 ft 4 pole w/ ground: 120 lbs



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
S Straight Section	
3. Product Frame (maximum amperage)
600 600 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of ne	utral 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. Straight Length (length of section)	
XXYY XX=feet, YY=inches	

Marking	
9. Busway Access (how plug	as access the busway)
C Continuous	
10. Paint Color (allows painting	ng of the busway housing)
STD Paint Factory Silver BLK Paint Factory Black WHT Paint Factory White	RED Paint Factory Red BLU Paint Factory Blue **RAL (please see page 4.80)
11. Tape Marking (colored tap	pe on both sides of busway housing)
No Tape MarkingTape Factory BlackTape Factory WhiteTape Factory Red	7 Tape Factory Blue8 Tape Factory Green9 Tape Factory Yellow

EXAMPLES

<u>US600T5C4S-0500C-STD0</u> = US System, Straight Section, 600 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Continuous Busway Access, Factory Mill Finish, No Tape Marking

<u>US600K5CGS-0206C-P013</u> = US System, Straight Section, 600 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Connector, Standard Polarization, 2 foot 6 inch Straight Length, Continuous Busway Access, Painted RAL 1001, Factory Black Tape Marking

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ELBOW SECTIONS

■ PRODUCT DESCRIPTION

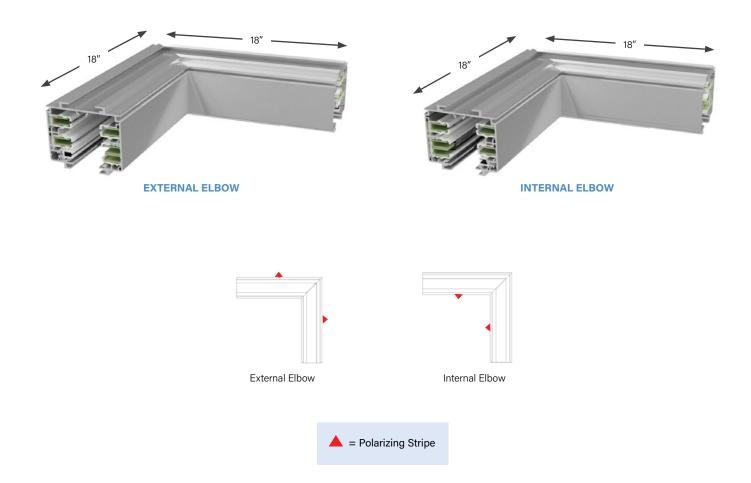
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

(Ordered Separately)

A Joint Kit (page 4.84) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 32 lbs



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ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
E Elbow Section	
3. Product Frame (maximum amperage))
600 600 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (size of neu	utral 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. 7 IN	Turning Direction (direction Internal	n of section polarizing stripe) EX External
9. F	Paint Color (allows painting	of the busway housing)
BL	Pactory Mill FinishPaint Factory BlackPaint Factory White	RED Paint Factory Red BLU Paint Factory Blue **RAL (please see page 4.80)
10.	Tape Marking (colored tap	e on both sides of busway housing)
0	No Tape Marking	7 Tape Factory Blue
3	Tape Factory Black Tape Factory White	8 Tape Factory Green9 Tape Factory Yellow
4		9 Tape Factory Yellow

EXAMPLES

<u>UE600K5C4S-IN-STD7</u> = US System, Elbow Section, 600 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Factory Mill Finish, Factory Blue Tape Marking

<u>UE600T5CGS-EX-BLK0</u> = US System, Elbow Section, 600 amps, T5 System, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Painted Factory Black, No Tape Marking

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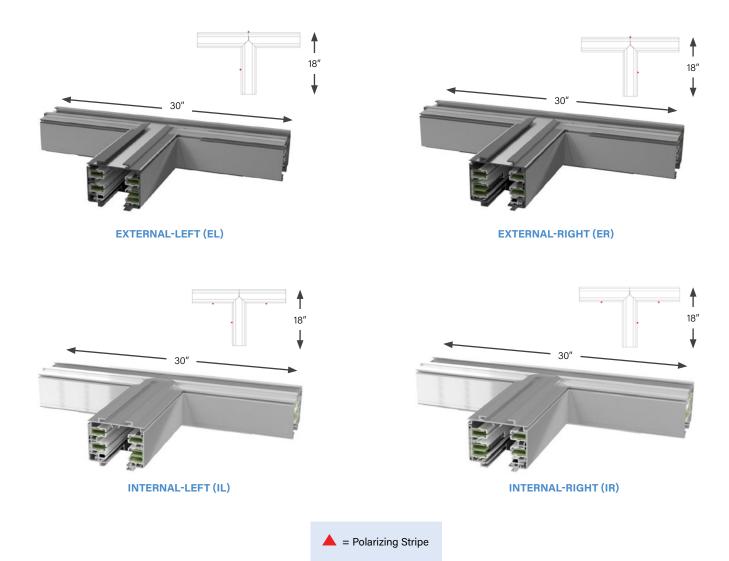


TEE SECTIONS

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.

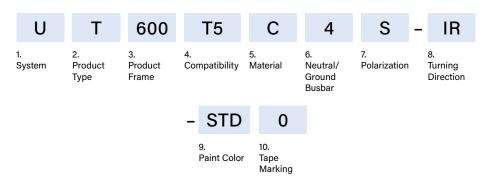
Weight 47.5 lbs



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TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)				
U US				
2. Product Type (section component)				
T Tee Section				
3. Product Frame (maximum amperage)				
600 600 amps				
4. Compatibility (frame compatibility)				
T5 T5 System (Limiting Strip)				
5. Material (busbar material)				
C Copper				
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)				
4 3 Phase plus Neutral G 3 Phase plus Neutral plus Internal Ground Conductor				
7. Polarization (orientation of section for mating purposes)				
S Standard				

8. Turning Direction (direct	tion of section polarizing stripe)
IL Internal-Left IR Internal-Right	EL External-Left ER External-Right
9. Paint Color (allows painting	ng of the busway housing)
STD Paint Factory Silver BLK Paint Factory Black WHT Paint Factory White	BLU Paint Factory Blue
10. Tape Marking (colored to	ape on both sides of busway housing)
No Tape MarkingTape Factory BlackTape Factory WhiteTape Factory Red	7 Tape Factory Blue8 Tape Factory Green9 Tape Factory Yellow

EXAMPLES

<u>UT600T5C4S-IR-RED0</u> = US System, Tee Section, 600 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

<u>UT600K5CGS-EL-STD0</u> = US System, Tee Section, 600 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External-Left Turning Direction, Factory Mill Finish, No Tape Marking

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END FEED UNITS

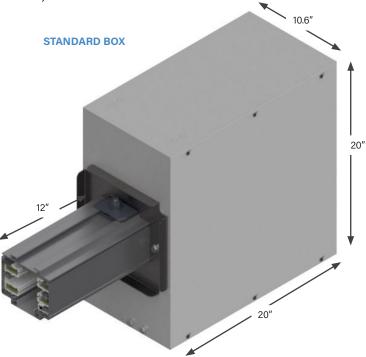
PRODUCT DESCRIPTION

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 foot section of busway. The assembly includes connection lugs and a ground lug for wires (2) 250MCM or up to 600MCM for standard size boxes and 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.

Weight (for standard size end feed) 52 lbs



	BOXES			
LUGS	Standard	Large	Fused	
Standard	S			
Double				
Bolt*	В			





*Bolt options include bolt, washer, nut. Lug not included.

*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 downloads.starlinepower.com/starline/busway

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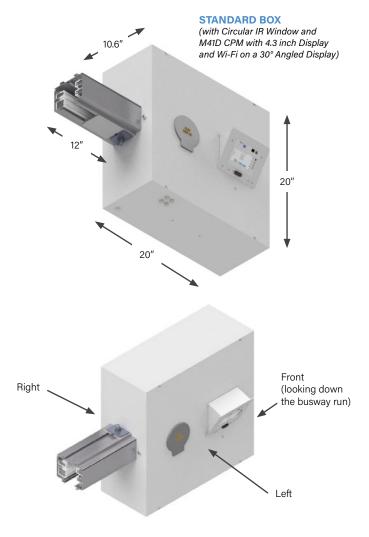


END FEED UNITS: METERING

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 foot section of busway. The assembly includes connection lugs and a ground lug for wires (2) 250MCM or up to 600MCM for standard size boxes and large size boxes.

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. The M40 models are for AC busway, while the M60 models are for DC busway. 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. Once the meter is integrated, 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.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.46** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

- **M41** WiFi, ≤415V Y, ≤240V Δ
- **M43** No WiFi, ≤415V Y, ≤240V Δ
- **M45** WiFi, 600V Y, 347V Δ
- **M47** No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

- M61 Single Eth./WiFi, single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC)
 OR 48VDC
- M63 Single Eth./No WiFi, single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC
- M67 Dual Eth., single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC
- M69 Dual Eth/Dual Modbus, single phase, 120VDC 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

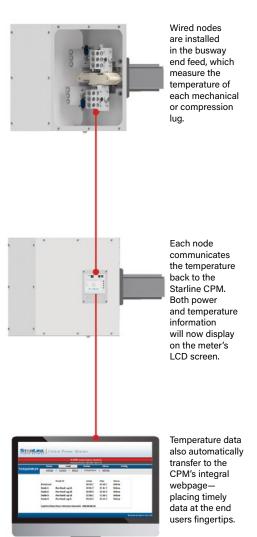
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END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on page 4.47 End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the meter to be mounted flush to the

End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



Package on page 4.46 End Feed Units: Product Numbers)

IR WINDOWS

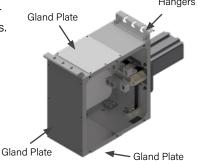
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

END FEED HANGERS & GLAND PLATES

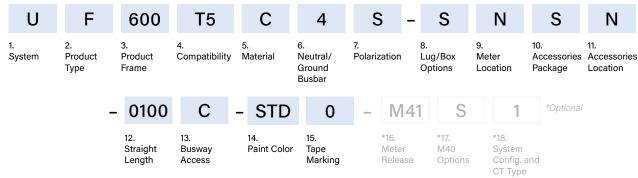
End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make

installation fast and easy and can be paired with other Starline end feed accessories.





END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)			
U US			
2. Product Type (section component)			
F End Feed			
3. Product Frame (maximum amperage))		
600 600 amps			
4. Compatibility (frame compatibility)			
T5 T5 System K5	T5 System (Limiting Strip)		
5. Material (busbar material)			
C Copper			
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)			
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor		
7. Polarization (orientation of section for mating purposes)			
S Standard R	Reversed		
8. Lug/Box Options (standard/double/bolt lugs and box size)			
S Standard Lugs, Standard Box B	Bolt Lugs, Standard Box		

9. Meter Location (from the terminal, side with removable lid)

R

Reversed

10. Accessories Package (optional ac	cessories for feed units)			
S Standard R C IR Window - Circular A T IR (rect.) + Angled Lid L F End Feed Hanger & Gland B Plates	Angled Meter Lid			
E (T+F) J K (A+F) M	(R+F) (L+F)			
K (A+F)	(L+F)			
11. Accessories Location (from the tel	rminal, side with accessory)			
N None (N/A) R L Left F	Right Front (consult the factory)			
12 Straight Longth (January of continu)				
12. Straight Length (length of section)				
0100 1 ft. (For other lengths, consult the factory)				
13. Busway Access				
C Continuous				
14. Paint Color (allows painting of the b	usway housing)			
STD Factory Mill Finish RED	Paint Factory Red			
BLK Paint Factory Black BLU	, ,			
WHT Paint Factory White **RA	L (please see page 4.80)			
15. Tape Marking (colored tape on both sides of busway housing)				
• No Tape Marking 7	- 1			
3 Tape Factory Black 8	- 1			
4 Tape Factory White6 Tape Factory Red	Tape Factory Yellow			

EXAMPLE

Standard

<u>UF600T5C4R-SLSN-0102C-BLK0</u> = US System, End Feed, 600 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessories Location, 1 foot 2 inch Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, \leq 415V Y, \leq 240V Δ M43 No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

 S
 Standard (M60s also)
 F
 Fea

 D
 Display (M60s also)
 E
 Enh

 N
 (Measured) Neutral
 P
 Pro

A Audible Alarm

B Temperature Monitor

V (B+N)

C (B+D)

M (B+A)

F Featured (D+A)

E Enhanced (N+A)

Professional (D+N)

U Ultimate (D+N+A)

W (B+D+N)

1 (B+D+A)

2 (B+N+A)

3 (B+D+N+A)

*17. Meter Options (M60 DC)

S Standard (High Voltage)

D Display (High Voltage)

P Standard (48 VDC)

Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

*18. System Configuration and CT Type (M40 AC)

1 LLD - Standard, Milivolt

K LLD - SC, 5A

2 LLY - Standard, Milivolt

L LLY - SC, 5A

3 LNY - Standard, Milivolt

M LNY - SC, 5A

line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

1 Circuit 1 Only, Solid Core

2 Circuit 2 Only, Solid Core

3 Both Circuits, Solid Core

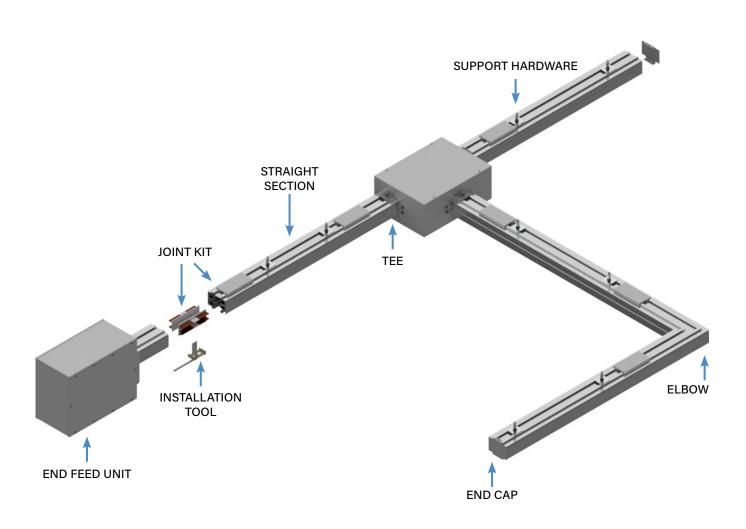
EXAMPLE

<u>UF600T5C4R-SLSN-0102P-BLK0-M47S1</u> = US System, End Feed, 600 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard box, Left Meter Location, Standard Accessory Package, No Accessories Location, 1 foot 2 inch Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Meter Options, LLD - Standard, Milivolt

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SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.

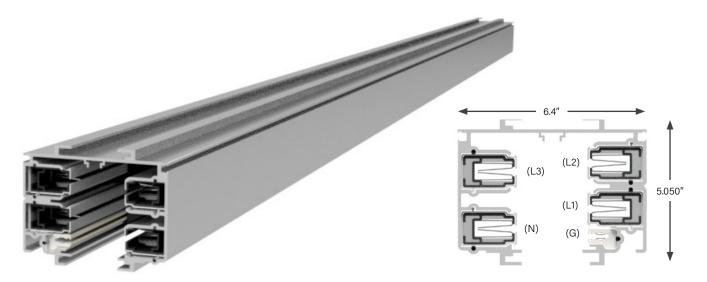
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STRAIGHT SECTIONS

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, Max 10 ft or custom lengths between 2 - 10 ft

VOLTAGE DROP

Distributed load

Single Phase 1V per 15 ft (.8PF)

Three Phase 1V per 25 ft (.8PF)

WEIGHT

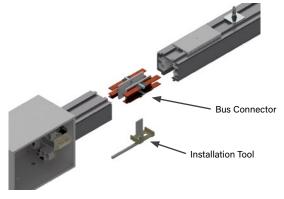
10 ft 4 pole w/ standard ground: 204 lbs - Copper

10 ft 4 pole w/ standard ground: 142 lbs - Hybrid

10 ft 4 pole w/ copper ground: 215 lbs - Copper

10 ft 4 pole w/ copper ground: 152 lbs - Hybrid







STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
S Straight Section	
3. Product Frame (maximum amperage)
800 800 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	T5 System (Limiting Strip)
5. Material (busbar material)	
C Copper H	Hybrid (Cu/Al)
6. Neutral/Ground Busbar (size of ne	utral 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. Straight Length (length of section)	
XXYY XX=feet, YY=inches	

Marking					
9. Busway	9. Busway Access (how plugs access the busway)				
C Conti	nuous				
10. Paint C	10. Paint Color (allows painting of the busway housing)				
BLK Pai	ctory Mill Finish nt Factory Black int Factory White	BLU	Paint Factory Red Paint Factory Blue AL (please see page 4.80)		
11. Tape M	arking (colored tape	on both	sides of busway housing)		
3 Tape4 Tape	ape Marking Factory Black Factory White Factory Red	7 8 9	Tape Factory Blue Tape Factory Green Tape Factory Yellow		

EXAMPLES

<u>US800T5C4S-0500C-STD0</u> = US System, Straight Section, 800 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Factory Mill Finish, No Tape Marking

<u>US800K5CGS-0206C-P013</u> = US System, Straight Section, 800 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus Netural plus Internal Ground Connector, Standard Polarization, 2 foot 6 inch Straight Length, Painted RAL 1001, Factory Black Tape Marking

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ELBOW SECTIONS

■ PRODUCT DESCRIPTION

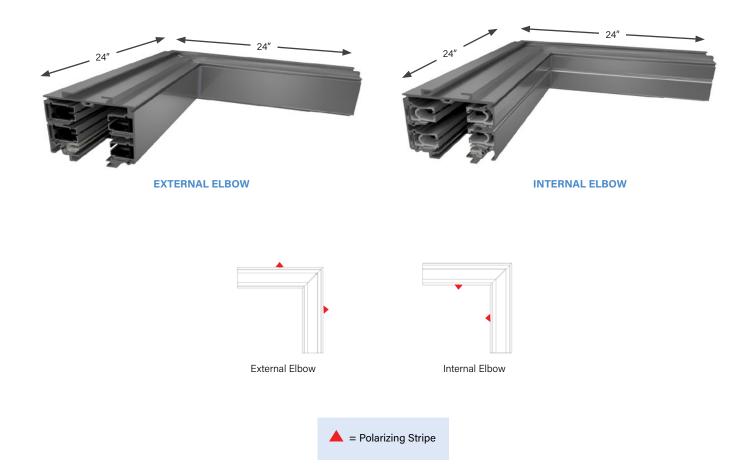
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

(Ordered Separately)

A Joint Kit (page 4.84) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 51 lbs - Hybrid



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ELBOW SECTIONS: PRODUCT NUMBERS



i. System (standard of measure)	1. System (standard of measure)			
U US				
2. Product Type (section component)				
E Elbow Section				
3. Product Frame (maximum amperage)				
800 800 amps				
4. Compatibility (frame compatibility)				
T5 T5 System K5 T5	System (Limiting Strip)			
5. Material (busbar material)				
C Copper H Hyb	orid (Cu/Al)			
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)				
	Phase plus Neutral plus ernal Ground Conductor			
7. Polarization (orientation of section for mating purposes)				
S Standard				

IN	Internal	EX External
9. P	aint Color (allows painting	of the busway housing)
BLK	Factory Mill FinishPaint Factory BlackPaint Factory White	RED Paint Factory Red BLU Paint Factory Blue **RAL (please see page 4.80)
10. 7	Tape Marking (colored tap	e on both sides of busway housing)
0 3 4 6	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	7 Tape Factory Blue8 Tape Factory Green9 Tape Factory Yellow

EXAMPLES

<u>UE800K5C4S-IN-STD7</u> = US System, Elbow Section, 800 amps, T5 System-K5 Limiting Strip, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Factory Mill Finish, Factory Blue Tape Marking

<u>UE800T5CGS-EX-BLK0</u> = US System, Elbow Section, 800 amps, T5 System, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Painted Factory Black, No Tape Marking

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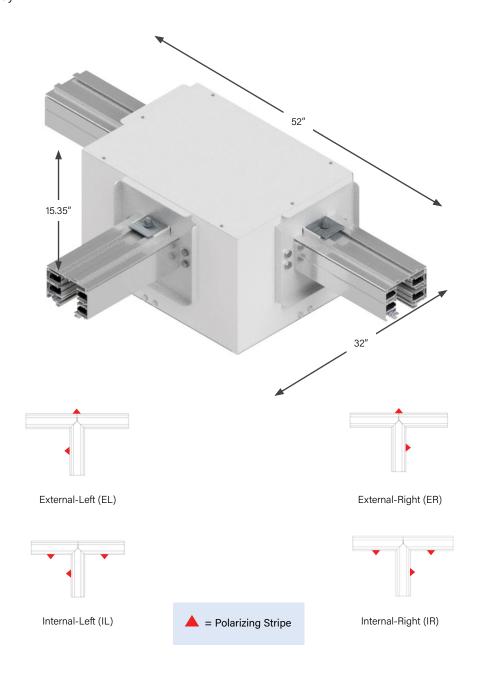


TEE SECTIONS

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.

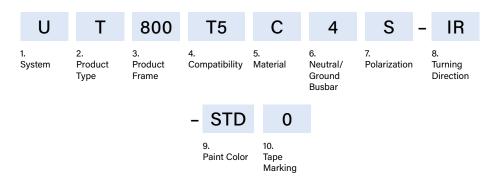
Weight 180 lbs



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TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)			
U US			
2. Product Type (section component)			
T Tee Section			
3. Product Frame (maximum amperage	e)		
800 800 amps			
4. Compatibility (frame compatibility)			
T5 T5 System K5	5 T5 System (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 stripe) IL Internal-Left EL External-Left				
IR I	nternal-Right	ER External-Right		
9. Paint Color (allows painting of the busway housing)				
STD Factory Mill Finish RED Paint Factory Red				
	Paint Factory Black Paint Factory White	BLU Paint Factory Blue **RAL (please see page 4.80)		
*****	Taint ractory write	(piease see page 4,00)		
10. Ta	pe Marking (colored tape	e on both sides of busway housing)		
0	No Tape Marking	7 Tape Factory Blue		
3	Tape Factory Black	8 Tape Factory Green		
	Tape Factory White	9 Tape Factory Yellow		
6	Tape Factory Red			

EXAMPLES

<u>UT800T5H4S-IR-RED0</u> = US System, Tee Section, 800 amps, T5 System, Hybrid Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

<u>UT800K5HGS-EL-STD0</u> = US System, Tee Section, 800 amps, T5 System-K5 Limiting Strip, Hybrid Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External-Left Turning Direction, Factory Mill Finish, No Tape Marking

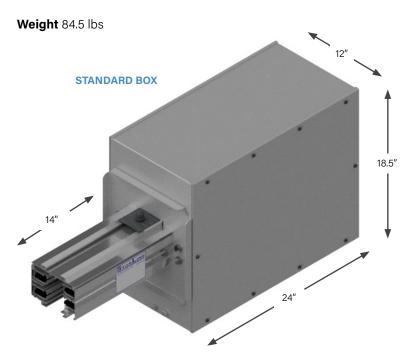
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END FEED UNITS

PRODUCT DESCRIPTION

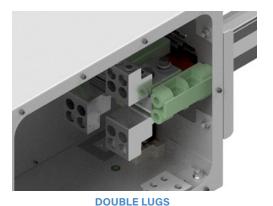
End power feed units connect to the end of the busway. A standard size, factory assembled unit consists of a steel junction Standard end power feed units connect to the end of the busway. Factory assembled unit consists of a 18.5 x 24 x 12 inch steel junction box, with removable side, connected to an 14 inch section of busway. Certain assemblies include 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). Junction box is sized such that one or two 4 inch 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.



	BOXES				
LUGS	Standard	Large	Fused		
Standard	S				
Double	D				
Bolt*	В				
Quad*	Q				

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.58 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 downloads.starlinepower.com/starline/busway



STANDARD "S"

DOUBLE "D"





BOLT "B"

OUAD "O"

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4.55

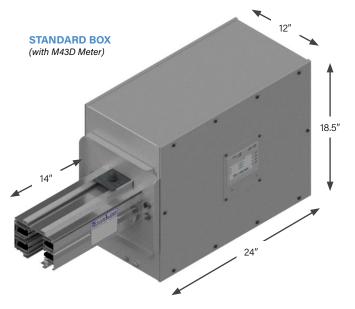
^{*}Bolt options include bolt, washer, nut. Lug not included.

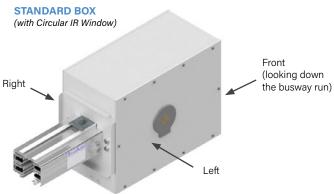


END FEED UNITS: METERING

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 inch steel junction box, with removable sides, connected to a 14 inch section of busway. Certain assemblies include 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. The M40 models are for AC busway, while the M60 models are for DC busway. 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. Once the meter is integrated, 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.





*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.58** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, ≤415V Y, ≤240V Δ

M43 No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V \triangle Y = wye, \triangle = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC)
OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

BOX/LUGS OPTION	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)
(S) Standard Box, Standard Lugs	X	X	X
(D) Standard Box, Double Lugs	X	X	X
(Q) Large Box, Quad Lugs	X	X	X
(B) Standard Box, 2 Bolt Lugs	X	X	X

4.56

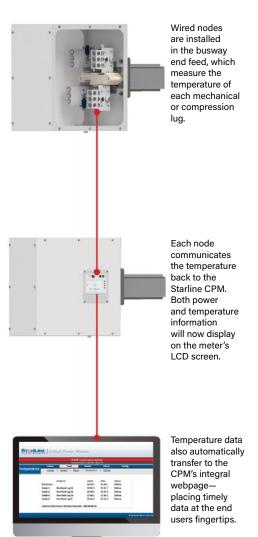
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END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on **page 4.59** End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the meter to be mounted flush to the

End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



IR WINDOWS

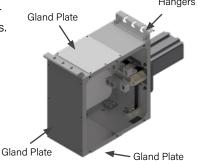
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

■ END FEED HANGERS & GLAND PLATES

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make

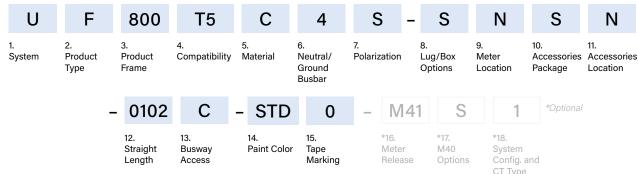
installation fast and easy and can be paired with other Starline end feed accessories.



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END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)			
U US			
0 05			
2. Product Type (section component)			
F End Feed			
3. Product Frame (maximum amperage))		
800 800 amps			
4. Compatibility (frame compatibility)			
T5 T5 System K5	T5 System (Limiting Strip)		
5. Material (busbar material)			
C Copper H	Hybrid (Cu/Al)Strip)		
6. Neutral/Ground Busbar (size of neu	utral 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 (standard/double/bolt lugs and box size)			
S Standard lugs, Standard box D Bolt Lugs, Standard Box Q	O 1		
9. Meter Location (from the terminal, side with removable lid)			
R Right L N None (N/A)	Left		

CTT	ype		
10. Accessories Package (optional ac	cessories for feed units)		
S Standard R C IR Window - Circular A T IR (rect.) + Angled Lid L	Angled Meter Lid		
11. Accessories Location (from the tel	rminal, side with accessory)		
N None (N/A) R L Left F	Right Front (consult the factory)		
12. Straight Length (length of section)			
0102 14 inches (For other lengths, cor	sult the factory)		
13. Busway Access			
C Continuous			
14. Paint Color (allows painting of the b	usway housing)		
BLK Paint Factory Black BLU	Paint Factory Red Paint Factory Blue L (please see page 4.80)		
15. Tape Marking (colored tape on both sides of busway housing)			
 No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red 			

EXAMPLE

<u>UF800T5C4R-SLSN-0102C-BLK0</u> = US System, End Feed, 800 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization-Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessories Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S Standard (M60s also) F Featured (D+A) Display (M60s also) Enhanced (N+A) D E N (Measured) Neutral P Professional (D+N) Α Audible Alarm U Ultimate (D+N+A) В Wired Temperature Monitor W (B+D+N)ν (B+N)(B+D+A)C (B+D)(B+N+A)2 M (B+D+N+A)

*17. Meter Options (M60 DC)

(B+A)

S Standard (High Voltage) Р Standard (48 VDC) Display (High Voltage) Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

*18. System Configuration and CT Type (M40 AC)

LLD - Standard, Milivolt LLD - SC, 5A

LLY - Standard, Milivolt LLY - SC, 5A LNY - SC, 5A LNY - Standard, Milivolt М

line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

- Circuit 1 Only, Solid Core 1
- Circuit 2 Only, Solid Core 2
- Both Circuits, Solid Core

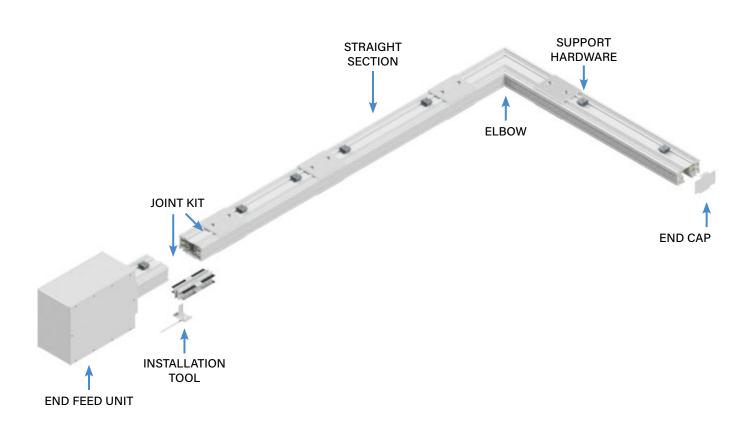
EXAMPLE

<u>UF800T5C4R-SLSN-0102C-BLK0-M47S1</u> = US System, End Feed, 800 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization- Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessories Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking, M47 Meter, Standard Meter Options, LLD - Standard, Milivolt

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SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.

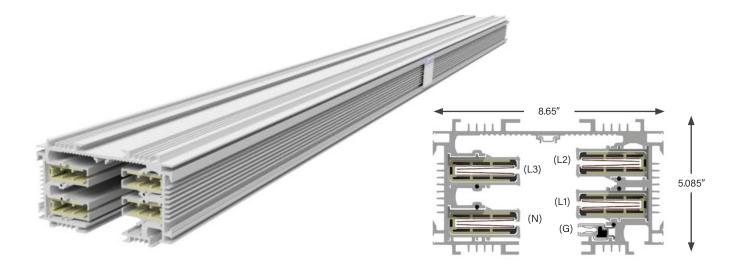
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STRAIGHT SECTIONS

PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with you 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 1000 Amps 600 Volt LENGTH Standard lengths 5 and 10 ft (max) or custom in between 2-10ft VOLTAGE DROP Distributed load Single Phase 1V per 15 ft (.8PF) Three Phase 1V per 25 ft (.8PF) WEIGHT

10 ft 4 pole w/ standard ground: 195.5 lbs - Hybrid 10 ft 4 pole w/ copper ground: 210 lbs - Hybrid

US	
L1 or Phase A	Black
L2 or Phase B	Red
L3 or Phase C	Blue
Neutral	White
Ground	Green/Black

4.61

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STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)			
U US			
2. Product Type (section component)			
S Straight Section			
3. Product Frame (maximum amperage)		
1KO 1000 amps			
4. Compatibility (frame compatibility)			
T5 T5 System K5	T5 System (Limiting Strip)		
5. Material (busbar material)			
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. Straight Length (length of section)			
XXYY XX=feet, YY=inches			

warking				
9. Bus	9. Busway Access (how plugs access the busway)			
C Continuous				
10. Paint Color (allows painting of the busway housing)				
BLK	Factory Mill Finish Paint Factory Black Paint Factory White	RED Paint Factory Red BLU Paint Factory Blue **RAL (please see page 4.80)		
11. Tape Marking (colored tape on both sides of busway housing)				
1 0	None			

EXAMPLES

<u>US1KOK5HGS-1000C-C010</u> = US System, Straight Section, 1000 amps, T5 System, Hybrid, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Factory Mill Finish, No Tape Marking

<u>US1K0K5HGS-1000R-C010</u> = US System, Straight Section, 1000 amps, T5 System-K5 Limiting Strip, Hybrid, 3 Phase plus Neutral plus Internal Ground Connector, Standard Polarization, 10 foot Straight Length, Painted RAL 1001, No Tape Marking

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ELBOW SECTIONS

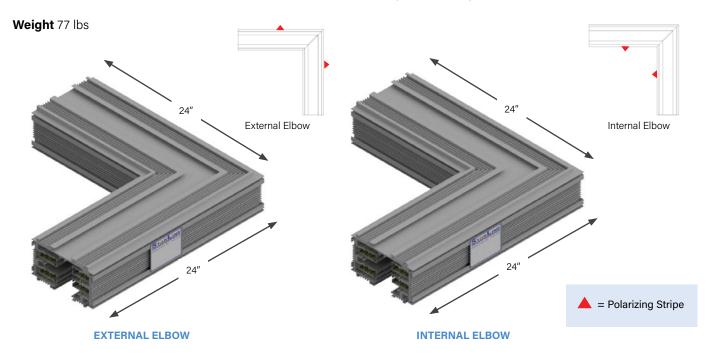
■ PRODUCT DESCRIPTION

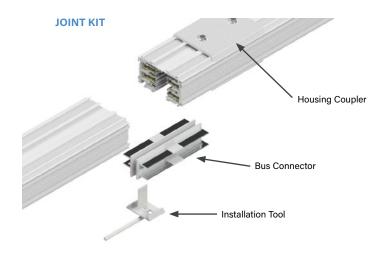
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

(Ordered Separately)

A Joint Kit is used to make mechanical and electrical connections to adjacent busway sections.





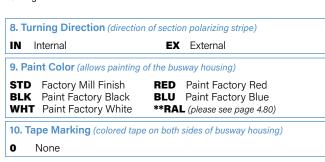
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ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)			
U US			
2. Product Type (section component)			
E Elbow Section			
3. Product Frame (maximum amperage)		
1K0 1000 amps			
4. Compatibility (frame compatibility)			
T5 T5 System K5	T5 System (Limiting Strip)		
5. Material (busbar material)			
H Hybrid (Cu/Al)			
6. Neutral/Ground Busbar (size of ne	utral 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			



EXAMPLES

<u>UE1K0K5H4S-IN-BLU0</u> = US System, Elbow Section, 1000 amps, T5 System-K5 Limiting Strip, Hybrid, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Blue, No Tape Marking

<u>UE1K0T5HGS-EX-STD0</u> = US System, Elbow Section, 1000 amps, T5 System, Hybrid, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Factory Mill Finish, No Tape Marking

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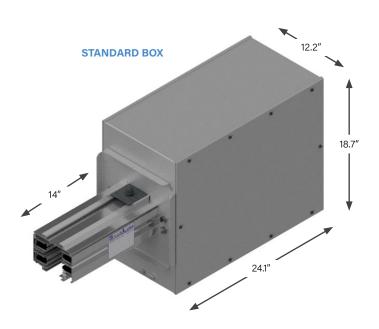


END FEED UNITS

PRODUCT DESCRIPTION

Standard end power feed units connect to the end of the busway. Factory assembled unit consists of a 18.7 x 24.125 x 12.15 inch steel junction box that is removable for easier installation, also with removable side, connected to an 14 inch section of busway. Certain assemblies include ground lugs for wires up to 350MCM and mechanical lugs that can accommodate up to (4) 600MCM cables per phase. Compression lug capable feeds are available upon request. 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 three 4 inch 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 100.5 lbs (76 lbs without busway stub)



STANDARD BOX (with Rectangular IR Window)	
	, ,
	, ,

	BOXES		
LUGS	Standard	Large	Fused
Standard	S		
Double			
Bolt*	В		

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.68 End Feed Units: Product Numbers





4.65

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^{*}Bolt options include bolt, washer, nut. Lug not included.

^{*}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 downloads.starlinepower.com/starline/busway

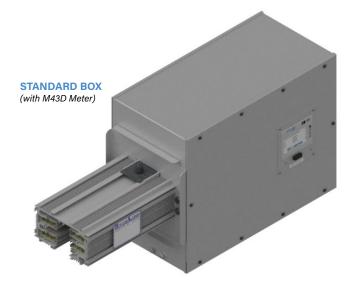


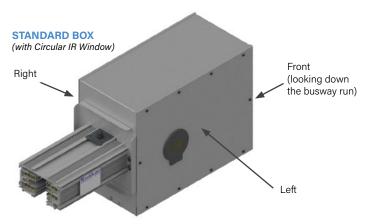
END FEED UNITS: METERING

PRODUCT DESCRIPTION

Factory assembled unit consists of a 18.7 x 24.125 x 12.15 inch steel junction box that is removable for easier installation, also with removable side, connected to an 14 inch section of busway. Certain assemblies include ground lugs for wires up to 350MCM and mechanical lugs that can accommodate up to (4) 600MCM cables per phase. Compression lug capable feeds are available upon request. 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. The M40 models are for AC busway, while the M60 models are for DC busway. 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. Once the meter is integrated, 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.





*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.68** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, ≤415V Y, ≤240V Δ

M43 No WiFi, ≤415V Y, ≤240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V \triangle Y = wye, \triangle = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC)
OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC)
OR 48VDC

M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

BOX/LUGS OPTION	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)
(S) Standard Box, Standard Lugs	X	X	Х
(B) Standard Box, Bolt Lugs	X	X	Х

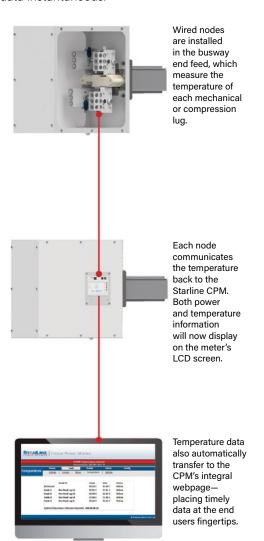
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END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on page 4.69 End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the meter to be mounted flush to the

End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



(Refer to option 10. Accessories Package on page 4.68 End Feed Units: Product Numbers)

IR WINDOWS

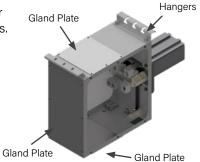
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

END FEED HANGERS & GLAND PLATES

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make

installation fast and easy and can be paired with other Starline end feed accessories.





END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
F End Feed	
3. Product Frame (maximum amperage)
1K0 1000 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	T5 System (Limiting Strip)
5. Material (busbar material)	
H Hybrid (Cu/Al)Strip)	
6. Neutral/Ground Busbar (size of ne	utral 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 (standard/double/bolt lugs and box size)	
S Standard lugs, Standard box B	Bolt lugs, Standard box
9. Meter Location (from the terminal, side	de with removable lid)
R Right L N None (N/A)	Left

_		
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 (from the	e terminal, side with accessory)
N	None (N/A)	R Right
IV.		
L 12.	Left Straight Length (length of section 12 14 inches (For other lengths, c	Front (consult the factory
L 12.	Left Straight Length (length of sections)	Front (consult the factory)
12. 010	Left Straight Length (length of sections)	Front (consult the factory)
12. 010	Left Straight Length (length of section 2 14 inches (For other lengths, common 2 Busway Access	Front (consult the factory)
12. 010	Straight Length (length of section 12 14 inches (For other lengths, c	Front (consult the factory)
12. 010 13.	Left Straight Length (length of section 2 14 inches (For other lengths, common 2 Busway Access	Front (consult the factory) on) onsult the factory)
12. 3 010 13. C	Left Straight Length (length of section 2 14 inches (For other lengths, common 2 14 inches (For other lengths)) Paint Color (allows painting of the color lengths)	Front (consult the factory) onsult the factory) ne busway housing)
12. 010 13. C 14.	Left Straight Length (length of section 2 14 inches (For other lengths, compared to 2 14 inches (For other lengths)) Paint Color (allows painting of the 2 14 inches (For other lengths)) Paint Color (allows painting to 2 14 inches (For other lengths))	Front (consult the factory) onsult the factory) ne busway housing) ED Paint Factory Red
12. 3 010 13. C 14. STI	Left Straight Length (length of section 2 14 inches (For other lengths, compared to 3 14 inches (For other lengths, compared to 3 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths) Paint Color (allows painting of the 2 14 inches (For other lengths))	Front (consult the factory) onsult the factory) ne busway housing)

EXAMPLE

<u>UF1K0T5H4R-SRLL-0102C-BLK0</u> = US System, End Feed, 1000 amps, T5 System, Hybrid, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

Standard (M60s also)

S

Display (M60s also) Enhanced (N+A) D E N (Measured) Neutral P Professional (D+N) Α Audible Alarm U Ultimate (D+N+A) В Wired Temperature Monitor W (B+D+N)ν (B+N)(B+D+A)(B+N+A)2

C (B+D)

M (B+A)

*17. Meter Options (M60 DC)

Standard (48 VDC) S Standard (High Voltage) Р Display (High Voltage) Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

F

Featured (D+A)

(B+D+N+A)

*18. System Configuration and CT Type (M40 AC)

LLD - Standard, Milivolt LLD - SC, 5A

LLY - Standard, Milivolt LLY - SC, 5A LNY - SC, 5A LNY - Standard, Milivolt М

line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

- Circuit 1 Only, Solid Core 1
- Circuit 2 Only, Solid Core 2
- Both Circuits, Solid Core

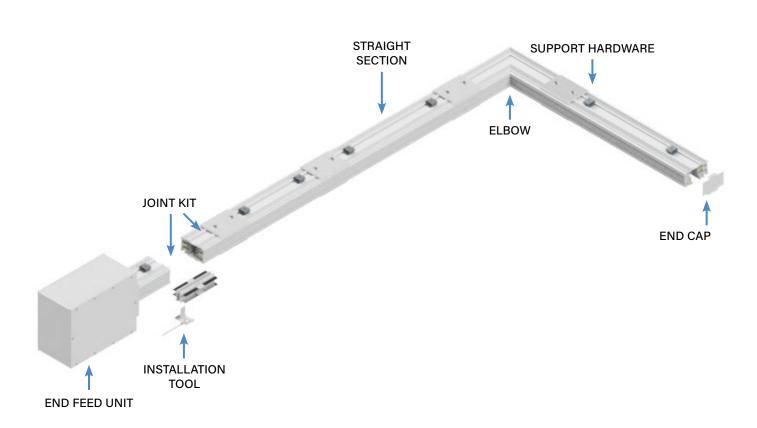
EXAMPLE

UF1K0T5H4R-SRLL-0102C-BLK0-M47S4 = US System, End Feed, 1000 amps, T5 System, Hybrid, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking, M47 Meter, Standard Meter Options, LLD - Standard, 5 amp

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SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.

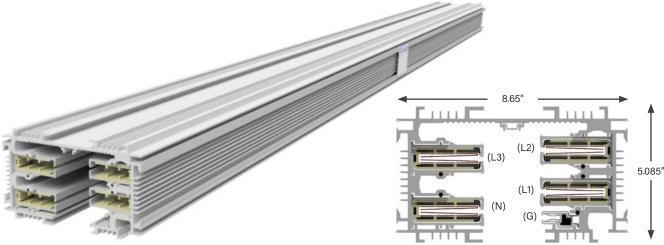
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STRAIGHT SECTIONS

PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with you 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

Powder Coated Extruded Aluminum

RATINGS

100% Ground Path 1200 Amps 600 Volt

LENGTH

Standard lengths 5 and 10 ft (max) or custom in between 2-10ft

VOLTAGE DROP

Distributed load Single Phase 1V per 15ft (.8PF) Three Phase 1V per 25ft (.8PF)

WEIGHT

10 ft 4 pole w/ standard ground: 195.5 lbs - Hybrid 10 ft 4 pole w/ copper ground: 210 lbs - Hybrid

US	
L1 or Phase A	Black
L2 or Phase B	Red
L3 or Phase C	Blue
Neutral	White
Ground	Green/Black

4.71

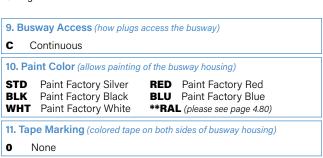
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STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
S Straight Section	
3. Product Frame (maximum amperage)
1K2 1200 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K5	T5 System (Limiting Strip)
5. Material (busbar material)	
H Hybrid (Cu/Al)	
6. Neutral/Ground Busbar (size of net	utral 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. Straight Length (length of section)	
XXYY XX=feet, YY=inches	



EXAMPLES

<u>US1K2T5H4S-0500C-STD0</u> = US System, Straight Section, 1200 amps, T5 System, Hybrid, 3 Phase plus Neutral, Standard Polarization, 5 foot Straight Length, Painted Factory Silver, No Tape Marking

<u>US1K2K5HGS-0206C-P010</u> = US System, Straight Section, 1200 amps, T5 System-K5 Limiting Strip, Hybrid, 3 Phase plus Neutral plus Internal Ground Connector, Standard Polarization, 2 foot 6 inch Straight Length, Painted RAL 1001, No Tape Marking

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4.73

1200T5 SYSTEMS

ELBOW SECTIONS

PRODUCT DESCRIPTION

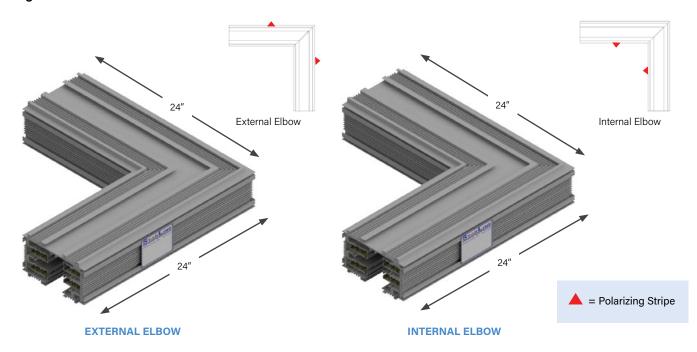
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

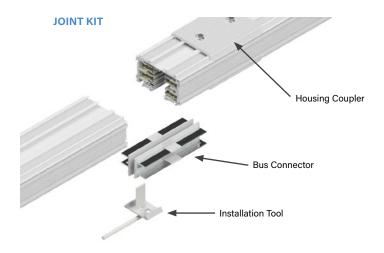
Connection Accessories

(Ordered Separately)

A Joint Kit is used to make mechanical and electrical connections to adjacent busway sections.

Weight 77 lbs





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ELBOW SECTIONS: PRODUCT NUMBERS



1. Sy	ystem (standard of measure)	
U	US	
2. P	roduct Type (section component)	
E	Elbow Section	
3. P	roduct Frame (maximum amperage	e)
1K2	1200 amps	
4. C	compatibility (frame compatibility)	
T5	T5 System K	5 T5 System (Limiting Strip)
5. N	laterial (busbar material)	
Н	Hybrid (Cu/Al)	
6. N	leutral/Ground Busbar (size of ne	eutral busbar and/or ground)
4	3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor
7. Po	olarization (orientation of section fo	r mating purposes)



EXAMPLES

<u>UE1K2K5H4S-IN-BLU0</u> = US System, Elbow Section, 1200 amps, T5 System-K5 Limiting Strip, Hybrid, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Blue, No Tape Marking

<u>UE1K2T5HGS-EX-STD0</u> = US System, Elbow Section, 1200 amps, T5 System, Hybrid, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Painted Factory Silver, No Tape Marking

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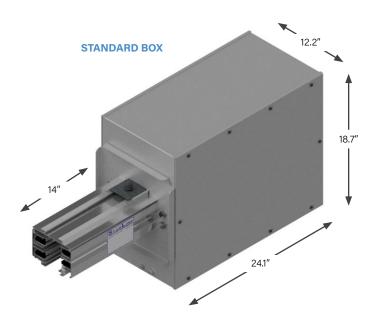


END FEED UNITS

PRODUCT DESCRIPTION

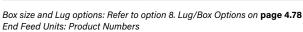
Standard end power feed units connect to the end of the busway. Factory assembled unit consists of a 18.7 x 24.125 x 12.15 inch steel junction box that is removable for easier installation, also with removable side, connected to an 14 inch section of busway. Certain assemblies include ground lugs for wires up to 350MCM and mechanical lugs that can accommodate up to (4) 600MCM cables per phase. Compression lug capable feeds are available upon request. 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 three 4 inch 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.

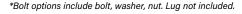
Weight 100.5 lbs (76 lbs without busway stub)



STANDARD BOX (with Rectangular IR Window)	
	1
	1,

		BOXES	
LUGS	Standard	Large	Fused
Standard	s		
Double			
Bolt	В		





^{*}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 downloads.starlinepower.com/starline/busway





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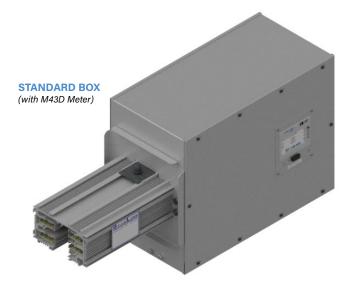


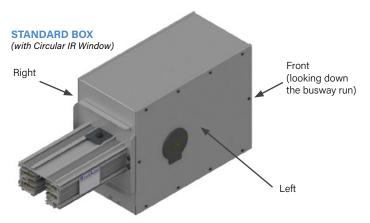
END FEED UNITS: METERING

PRODUCT DESCRIPTION

Factory assembled unit consists of a 18.7 x 24.125 x 12.15 inch steel junction box that is removable for easier installation, also with removable side, connected to an 14 inch section of busway. Certain assemblies include ground lugs for wires up to 350MCM and mechanical lugs that can accommodate up to (4) 600MCM cables per phase. Compression lug capable feeds are available upon request. 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. The M40 models are for AC busway, while the M60 models are for DC busway. 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. Once the meter is integrated, 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.





*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.78** End Feed Units: Product Numbers)

AC END FEED METER OPTIONS

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ Y = wye, Δ = delta

DC END FEED METER OPTIONS

M61 Single Eth./WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M63 Single Eth./No WiFi, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M67 Dual Eth., single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

M69 Dual Eth/Dual Modbus, single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) OR 48VDC

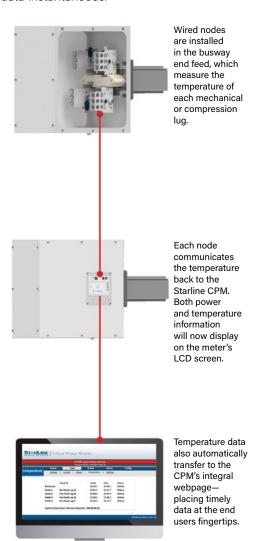
BOX/LUGS OPTION	1 Meter or Accessory	1 Meter & 1 Accessory (opposite lids)	1 Meter & 1 Accessory (same lid)
(S) Standard Box, Standard Lugs	X	X	X
(B) Standard Box, Bolt Lugs	X	X	X



END FEED UNITS: ACCESSORIES

■ TEMPERATURE MONITOR

Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



(Refer to option 17. M40 Options on page 4.79 End Feed Units: Product Numbers)

ANGLED METER LID

The angled meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the meter to be mounted flush to the

End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.



IR WINDOWS

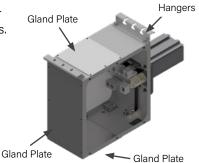
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

END FEED HANGERS & GLAND PLATES

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make

installation fast and easy and can be paired with other Starline end feed accessories.



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END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)	
U US	
2. Product Type (section component)	
F End Feed	
3. Product Frame (maximum amperag	ne)
1K2 1200 amps	
4. Compatibility (frame compatibility)	
T5 T5 System K	5 T5 System (Limiting Strip)
5. Material (busbar material)	
H Hybrid (Cu/Al)	
6. Neutral/Ground Busbar (size of n	eutral busbar and/or ground)
4 3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor
7. Polarization (orientation of section for	or mating purposes)
S Standard R	Reversed
8. Lug/Box Options (standard/double	e/bolt lugs and box size)
S Standard lugs, Standard box B	Bolt lugs, Standard box
9. Meter Location (from the terminal,	side with removable lid)
R Right L N None (N/A)	Left

01	туре
10. Accessories Package (optional a	accessories for feed units)
C IR Window - Circular A	IR Window - Rectangular Angled Meter Lid IR (circ.) + Angled Lid
11. Accessories Location (from the t	rerminal, side with accessory)
N None (N/A) R L Left F	9
12. Straight Length (length of section	 1)
0102 14 inches (For other lengths, cor	
13. Busway Access	
C Continuous	
14. Paint Color (allows painting of the	busway housing)
BLK Paint Factory Black BLU	Paint Factory Red Paint Factory Blue AL (please see page 4.80)
15. Tape Marking (colored tape on bo	th sides of busway housing)
0 None	-

EXAMPLE

<u>UF1K2T5H4R-SRLL-0102C-BLK0</u> = US System, End Feed, 1200 amps, T5 System, Hybrid, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking

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END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40 AC)

M41 WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

*16. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*17. Meter Options (M40 AC)

S Standard (M60s also) F Featured (D+A) D Display (M60s also) Enhanced (N+A) E N (Measured) Neutral P Professional (D+N) Α Audible Alarm U Ultimate (D+N+A) В Wired Temperature Monitor W (B+D+N)ν (B+N)(B+D+A)(B+N+A)

C (B+D)2 M (B+D+N+A)(B+A)

*17. Meter Options (M60 DC)

Standard (48 VDC) S Standard (High Voltage) Р Display (High Voltage) Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300VDC/Split Phase 120VDC (+/-60) to 380VDC (+/-180) OR Low Voltage: 48VDC

*18. System Configuration and CT Type (M40 AC)

LLD - Standard, Milivolt LLD - SC, 5A

LLY - Standard, Milivolt LLY - SC, 5A

LNY - SC, 5A LNY - Standard, Milivolt М line-line or line-neutral and wye or delta systems

*18. System Configuration and CT Type (M60 DC)

Circuit 1 Only, Solid Core 1

Circuit 2 Only, Solid Core 2

Both Circuits, Solid Core

EXAMPLE

UF1K2T5H4R-SRLL-0102C-BLK0-M47S4 = US System, End Feed, 1200 amps, T5 System, Hybrid, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking, M47 Meter, Standard Meter Options, LLD - Standard, 5 amp

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RAL COLORS

1ST CHARACTER	
P	Paint

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

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ACCESSORIES: SUPPORT HARDWARE

■ THREADED ROD

For mounting to 1/2 - 13 UNC threaded rod (UBRHT5-1) or to 3/8 - 16 UNC (UBRHT5-2). Twist-in design. Can be inserted anywhere along the top full-access slot of busway. Maximum hanger support spacing is every 10 feet.

Part Number
(250, 400, 600 & 800 amp systems
only):
UBRHT5-1
UBRHT5-2
Available in plain zinc
or black (-BLK)
Weight
.3 lb



SEISMIC THREADED ROD

For mounting to 1/2 - 13 UNC threaded rod. Can be inserted anywhere along the top full-access slot of busway. Hangers are required every 10 feet maximum for seismic support.

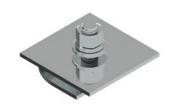
Part Number
(250, 400 & 600 amp systems only):
US: UBRHT5-3
Available in plain zinc
or black (-BLK)
Weight
,3 lb



STANDARD

For mounting to strut or other flat surfaces. Twist-in design allows inserting anywhere along the top fullaccess slot on the busway. Hanger support is required every 10 feet maximum.

Part Number
(250, 400, 600 & 800 amp systems
only):
UBHT5-1
Available in plain zinc
or black (-BLK)
Weight
.2 lb



■ STANDARD ONE-PIECE, SLOTTED

For mounting to 1/2 - 13 UNC threaded rod. Can be inserted anywhere along the top full-access slot of busway. Hangers are required every 10 feet maximum.

Part Number (Required for 1000 and 1200A, available for all T5 systems.) UBSHT5-4 Available in plain zinc or black (-BLK) Weight .09 kg



WALL MOUNT BRACKET

For mounting to walls, using standard hangers. Hanger support is required everything 3 meters maximum.

Part Number WMBT5-9



4.81

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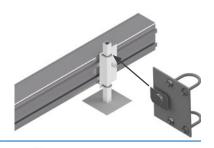


ACCESSORIES: SUPPORT HARDWARE

RAISED MOUNTING BRACKET

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

Part Number (250, 400, 600 & 800 amp systems only): URFBT5-2 Available in plain zinc or black (-BLK) Weight .2 lb



SIDE MOUNT BRACKETS

Mounted to vertical supports.

Part Number (250, 400, 600 & 800 amp systems only): UBSST5-1 Available in plain zinc or black (-BLK) Weight .2 lb



■ RECESSED SUSPENDED CEILINGS

For hanging busway into a recessed ceiling.

*Hanger bolt must be ordered separately



SRM250T5-1



SRM600T5-1

Part Numbers (for 250 and compact 400A systems): SRM250T5-1

(for 400 amp systems): SRM400T5-1

(for 600 amp systems): SRM600T5-1

(for 800 amp systems): SRM800T5-1

(for 1000 amp systems): SRM1K0T5-1

(for 1200 amp systems): SRM1K2T5-1

Available in plain zinc or black (-BLK)







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ACCESSORIES: SUPPORT HARDWARE

PRODUCT DESCRIPTION

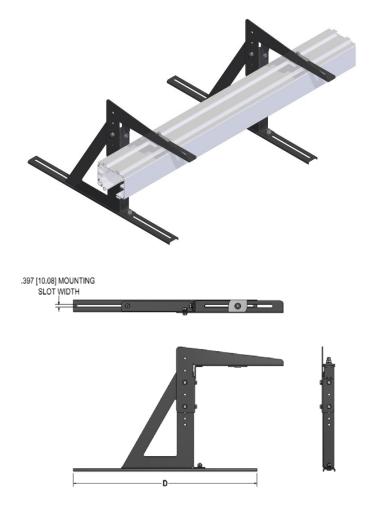
UNIVERSAL SERVER CABINET MOUNTING BRACKETS

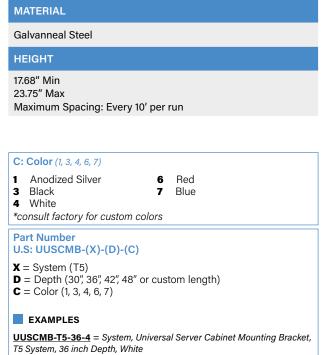
The Universal Server Cabinet Mounting Brackets are designed with generous 3/8 inch wide through slots to mount directly onto virtually any server cabinet.

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 250 or 400 amp busway, and 1 run of 600, 800, 1000 or 1200 amp busway.

Hanger Bolt Included - UBHT5-1 (or MBHT5-1)





<u>UUSCMB-T5-42-7</u> = US System, Universal Server Cabinet Mounting

Bracket, T5 System, 42 inch Depth, Blue

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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: 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)

**Available in all standard and RAL colors

Part Numbers (for 250 amp systems): SJK250T5-1 SJK250T5G-1 SJK250T5N-1 SJK250T5F-1 (for 400 amp systems)

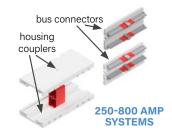
 SJK400T5-1
 CJK400T5-1

 SJK400T5G-1
 CJK400T5G-1

 SJK400T5N-1
 CJK400T5N-1

 SJK400T5F-1
 CJK400T5F-1

(for 1000 amp systems)
SJK1K0T5-2
SJK1K0T5G-2
(for 1200 amp systems)
SJK1K2T5-2
SJK1K2T5G-2





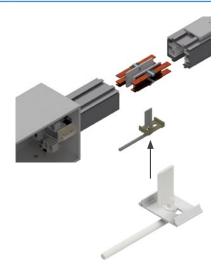


■ INSTALLATION TOOL

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 secure electrical connection. The housing coupler is then positioned over the bottom joint and tightened.

Part Number (for all T5 systems 250-1200 amps) ST5IT No available colors Weight 3.1 lb



4.84

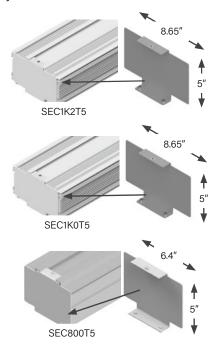
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ACCESSORIES: CONNECTION HARDWARE

END CAP

For covering the end of T5 busway systems.



Part Numbers (for 250 amp systems and Compact 400A systems): SEC250T5, CEC400T5

> (for 400 amp systems): SEC400T5

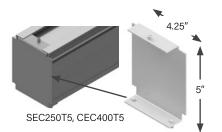
> (for 600 amp systems): SEC600T5

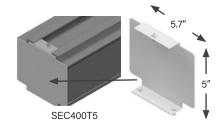
> (for 800 amp systems): SEC800T5

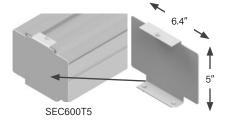
(for 1000 amp systems): SEC1K0T5

(for 1200 amp systems): SEC1K2T5

Available in all standard and RAL Weight: .4 lb







OPTIONAL CLOSURE STRIP

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 secure electrical connection. The housing coupler is then positioned over the bottom joint and tightened.

Part Numbers (for 250, 400, 600 & 800 amp systems): SCST5-1

> Aluminum closure strip: SCST5-1-AL

(for 1000 & 1200 amp systems): SCST5-2

-Plastic Closure Strip available in black & white

-Aluminum Closure Strip available in all standard colors



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ADD-ON ACCESSORIES: DATA CHANNEL

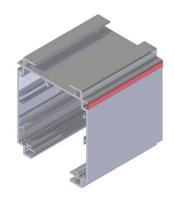
DATA CHANNEL COVER

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 feet.

Please contact sales to order the quantity needed.

Part Number
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)



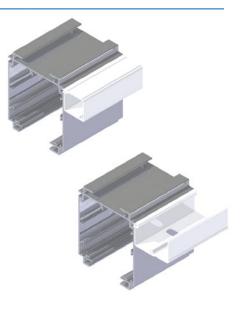
HINGED WIRE WAY

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 provide built-in accessibility for cable drops.

The Hinged Wire Way is available in lengths up to 10 feet.

Please contact sales to order the quantity and length needed.

Part Number UHWWT5-10 Available in gray only



4.86

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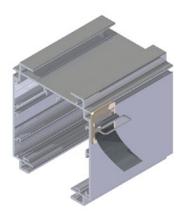
ADD-ON ACCESSORIES: DATA CHANNEL

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 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

Available in gray, with a black colored strap only



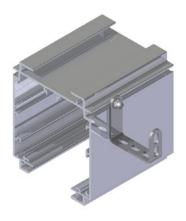
MULTI USE MOUNTING BRACKET

The Multi Use Mounting Bracket is an allpurpose bracket that easily attaches to any position on the busway. The bracket comes with 1/4 inch slotted holes throughout to allow for the attachment of a wide variety of accessories. Each bracket is capable of supporting a load of 25 pounds.

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)



4.87

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SERVICES

Starline Services offers a comprehensive suite of services from startup and system certification through on-going support contracts and extended warranty programs. To ensure that your Busway system is installed properly you can trust Starline's team of factory certified technicians to perform services throughout the long life of your Starline Track Busway system. With over 30 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

LOAD BANK TESTING AND EQUIPMENT RENTALS

Whether you are in need of rental equipment to test your power system or a team of technicians to test the system for you, Starline Services has you covered. Select testing equipment from our inventory of load banks and associated gear, or work with a Starline engineer to customize your own test plan to suit your individual needs.

METER SERVICES

Factory trained and certified technicians will provide comprehensive on-site meter commissioning that includes meter inspection, programming and detailed documentation. Our technicians will program CPM meters and offer optional integration services to your BMS or DCIM for any and all meters located within your facility.

STARTUP AND SYSTEM CERTIFICATION

Certified technicians inspect and validate that the installation meets factory standards, ensuring ongoing reliability and compliance with facility safety requirements. Upon successful completion of system startup, Starline's standard one (1) year manufacturer's warranty will be automatically extended in duration.

- Double the length of the standard factory warranty
- Ensure all joint and feed connections are properly installed with continuity testing
- Ensure proper installation of all plug-in units
- Validate that system will perform to your specified requirements
- Full certification report delivered electronically at conclusion of service

ENGINEERING STUDIES (US ONLY)

Understanding the dangers and implementing a safety program is imperative to maintaining a safe work environment. Our professional engineers will conduct comprehensive facility electrical studies and recommend corrective actions, confirming your systems reliability and compliance with government and safety requirements.

TURNKEY INSTALLATION SERVICES (UK ONLY)

Our trained and factory certified Busbar installers are looking forward to completing your next job. You can order your best-in-class power distribution system and leave the rest to us. Our technicians will complete your installation quickly and safely and will reduce your overall TCO by extending your product warranty.

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at downloads.starlinepower.com/services.

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SERVICES

ON-SITE INSTALLATION SUPPORT

On-site installation support begins by scheduling a site trip during your system installation. All work is performed by certified technicians- including review of installation best practices prior to the job, visual inspection of safe system installation, contractor installation oversight, and inspection and verification of functionality after rework.

ON-SITE PRODUCT TRAINING

Certified technicians will provide a comprehensive training course curriculum that meets our high factory system standards, ensuring ongoing reliability of the system while also emphasizing operational safety. This course curriculum takes place in both a classroom and on-site with equipment.

EXTENDED WARRANTY AND ENHANCED SERVICE PLANS

Ensure that your equipment investment is always covered. Select from an extended factory warranty or one of our many Enhanced Service Plans to meet your organizational requirements.

CHOICE OF EXTENDED WARRANTY OR ENHANCED: SILVER, GOLD OR PLATINUM SERVICE PLANS	EXTENDED 1, 2, 3, 4 YEARS	SILVER 1, 2, 3, 4 YEARS	GOLD 1, 2, 3, 4 YEARS	PLATINUM 2, 3, 4 YEARS
Repair or replacement of defective parts throughout life of service agreement	Χ	Χ	Χ	X
24/7 technical support hotline	X	X	X	X
Visual inspection of meters		X	X	X
Visual inspection of all joints for visible gaps		X	X	X
Update firmware and verify all Starline CPMs		X	X	X
Includes travel and expenses		X	X	X
One (1) service site visit per year		X		
Two (2) service site visits per year			X	X
Thermal imaging of all plug-in units			X	X
Thermal imaging of all Busway joints			X	X
Thermal imaging of all end feed units			X	X
Detailed and fully executed thermography report			X	X
Online portal for test reports & documentation			Χ	X
Spare parts inventory management program				X

Contact your Starline Representative today to add services to your Track Busway order, or download the detailed Statement of Work documents at <u>downloads.starlinepower.com/services</u>.

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T5 PLUG-IN UNITS

METER PLUG UNITS

Any T5 compatible Starline Plug-In Unit that contains only a meter.



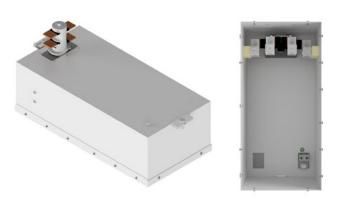
METER BOX UNITS

Any lone box (without paddle head) that includes a meter.



TERMINAL BLOCK UNITS

Any T5 compatible Starline Plug-In Unit that's fully rated to the listed electrical ratings that can accept incoming connections from the end user.



■ CIRCUIT BREAKER/FUSED DISCONNECT UNITS

Any T5 compatible Starline Plug-In Unit that contains a receptacle and/or drop cord along with circuit breaker(s) or fused disconnect.



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SYSTEM & BUILD GUIDE

The below is a suggested list of questions to determine answers to in order to properly build or assemble both Track Busway systems and plugs.

WHEN BUILDING SYSTEMS

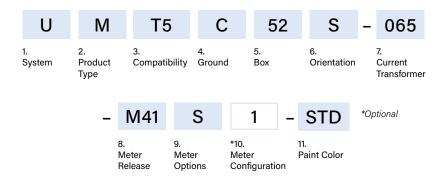
- 1. What is the amperage needed for the system? (200, 400, 600, etc.)
- 2. Does the system need an internal ground?
- 3. Are there any limitations on the length of a run? (5ft max, 10ft max, 20ft max, etc.)

WHEN DETERMINING DESIRED PLUG CONFIGURATIONS

- 1. What type of system is this being used on? (T5)
- 2. Does the system have an internal ground? If so, does the plug need to be wired Isolated or Dedicated ground/earth?
- 3. What is the fault current needed for the breaker? (10Kaic, 22Kaic, etc.)
- 4. Does the plug need to have drop cords or receptacles?
- 5. What is the device configuration of the connector bodies or receptacles?
- 6. What is your desired circuit breaker configuration? (phase, amperage, poles?)
- 7. Do you require metering?
- 8. How many outlets are needed?
- 9. What is the trip curve needed?
- 10. What is the voltage required?



METER PLUGS: PRODUCT NUMBERS



1. System (standard of measure)

U US

2. Product Type (section component)

М Meter Plug

3. Compatibility (frame compatibility)

T5 System **K5** T5 System (Limiting Strip)

T5 System (Rotating Paddle) **Z5** K5 + R5 R5

4. Ground (ground type installed) C Case (Housing) Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **4.108**)

*12 and 28 boxes are currently not available

6. Orientation (what direction the paddle faces)

S Standard Reversed

7. Current Transformer (current rating)

065 65 amps **225** 225 amps 250 250 amps **400** 400 amps **800** 800 amps **1KO** 1000 amps

1K2 1200 amps

**M60 (DC) meters are only available with 800 amp current transducers

8. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, \leq 480V Y, \leq 277V Δ

M53 Single Eth./No WiFi, \leq 480V Y, \leq 277V Δ

M58 Dual Eth., ≤480V Y, ≤277V Δ

M59 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ

M41 WiFi, ≤415V Y, ≤240V ∆

M43 No WiFi, ≤415V Y, ≤240V ∆

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

8. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

9. Meter Options (M40/M50 AC)

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

9. Meter Options (M60 DC)

Standard (High Voltage) Standard (48 VDC) Display (High Voltage) Q Display (48 VDC) M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

*10. Meter Configuration (M40/M50 AC)

LL power, Delta Solid Core, mV CT

LL power, Wye Solid Core, mV CT 2

LN power, Wye Solid Core, mV CT

LL power, Delta Solid Core, 5A-secondary CT

LL power, Wye Solid Core, 5A-secondary CT

LN power, Wye Solid Core, 5A-secondary CT

6 7 LL power, Delta Split Core, mV CT

LL power, Wye Split Core, mV CT

LN power, Wye Split Core, mV CT 9

K LL power, Delta Split Core, 5A-secondary CT

LL power, Wye Split Core, 5A-secondary CT

M LN power, Wye Split Core, 5A-secondary CT

*10. Meter Configuration (M60 DC)

Circuit 1 Only, Solid Core

Circuit 2 Only, Solid Core

Both Circuits, Solid Core

11. Paint Color

Paint Factory Silver **RED** Paint Factory Red **BLK** Paint Factory Black **BLU** Paint Factory Blue Paint Factory White **RAL (please see page 4.80)

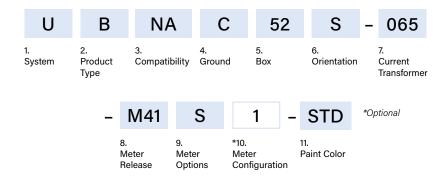
EXAMPLE

<u>UMT5C52S-065-M43S1-STD</u> = US System, Meter Plug, T5 System, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, M43 Meter, Standard Meter Options, LL Power, Delta Solid Core, mV CT, Painted Factory Silver

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METER BOXES: PRODUCT NUMBERS



1. System (standard of measure)

U US

2. Product Type (section component)

B Meter Box

3. Compatibility (frame compatibility)

NA Not Applicable

4. Ground (ground type installed)

C Case (Housing) Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference **page 4.108**)

*12 and 28 boxes are currently not available

6. Orientation (what direction the paddle faces)

S Standard

7. Current Transformer (current rating)

065 65 amps
 225 225 amps

 250 250 amps
 400 400 amps

 800 800 amps
 1K0 1000 amps

1K2 1200 amps

**M60 (DC) meters are only available with 800 amp current transducers

8. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, ≤480V Y, ≤277V ∆

M53 Single Eth./No WiFi, \leq 480V Y, \leq 277V Δ

M58 Dual Eth., \leq 480V Y, \leq 277V Δ

M59 Dual Eth/Dual Modbus, \leq 480V Y, \leq 277V Δ

M41 WiFi, \leq 415V Y, \leq 240V Δ M43 No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ M47 No WiFi, 600V Y, 347V Δ

8. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

9. Meter Options (M40/M50 AC)

 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)

9. Meter Options (M60 DC)

S Standard (High Voltage) P Standard (48 VDC)
D Display (High Voltage) Q Display (48 VDC)
M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC
(+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

*10. Meter Configuration (M40/M50 AC)

1 LL power, Delta Solid Core, mV CT

2 LL power, Wye Solid Core, mV CT

3 LN power, Wye Solid Core, mV CT

LL power, Delta Solid Core, 5A-secondary CT

LL power, Wye Solid Core, 5A-secondary CT

6 LN power, Wye Solid Core, 5A-secondary CT

7 LL power, Delta Split Core, mV CT

8 LL power, Wye Split Core, mV CT

9 LN power, Wye Split Core, mV CT

K LL power, Delta Split Core, 5A-secondary CT

LL power, Wye Split Core, 5A-secondary CT

M LN power, Wye Split Core, 5A-secondary CT

*10. Meter Configuration (M60 DC)

1 Circuit 1 Only, Solid Core

2 Circuit 2 Only, Solid Core

Both Circuits, Solid Core

11. Paint Color

STDPaint Factory SilverREDPaint Factory RedBLKPaint Factory BlackBLUPaint Factory BlueWHTPaint Factory White**RAL (please see page 4.80)

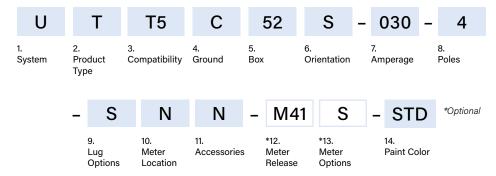
EXAMPLE

<u>UBNAC52S-065-M43S1-STD</u> = US System, Meter Box, Not Applicable, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, M43 Meter, Standard, LL Power, Delta Solid Core, mV CT, Painted Factory Silver

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TERMINAL BLOCK UNITS: PRODUCT NUMBERS



1. System (standard of measure)			
U	US		
2. Product Type (section component)			

- Terminal Block Т 3. Compatibility (frame compatibility)
- K5 T5 System (Limiting Strip) **T**5 T5 System T5 System (Rotating Paddle) **Z5** K5 + R5 R5
- **4. Ground** (ground type installed)
- Case (Housing) Ground **Dedicated Ground** G Isolated (Separate) Ground
- **5.** Box (what size enclosure)
- **01, 02, ... 99** (refer to enclosure reference page **4.108**)
- 6. Orientation (what direction the paddle faces)
- S Standard Reversed
- 7. Amperage (amperage of terminal block)
- **060** 60 amps **030** 30 amps 100 100 amps 225 225 amps 250 250 amps **400** 400 amps 600 600 amps
- 8. Poles (number of poles in a circuit)
- 4 poles
- 9. Lug Options (number of poles in a circuit)
- S Standard D Double Lug Double Neutral 2 Bolt Lug В Double Neutral & 2 Bolt Lug
- 10. Meter Location (location of optional meter)
- Ν N/A Left R Bottom (lid) Right

11. Accessories (optional accessories for plugs)

N	N/A	R	IR Window
F	Finger Shroud	В	IR Window & Finger Shroud

*12. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, ≤480V Y, ≤277V ∆ **M53** Single Eth./No WiFi, \leq 480V Y, \leq 277V Δ **M58** Dual Eth., ≤480V Y, ≤277V Δ

M59 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

*12. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*13. Meter Options (M40/M50 AC)

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

*13. Meter Options (M60 DC)

Standard (High Voltage) Standard (48 VDC) Display (High Voltage) Q Display (48 VDC) M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

14. Paint Color

STD	Paint Factory Silver	RED Paint Factory Red
BLK	Paint Factory Black	BLU Paint Factory Blue
WHT	Paint Factory White	**RAL (please see page 4.80)

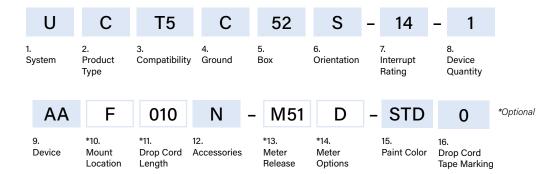
EXAMPLE

UTT5C27S-225-4-SBN-M47A-BLK = US System, Terminal Block, T5 System, Case (Housing) Ground , 27 Box, Standard Orientation, 225 amps, 4 Pole - Standard Lugs, Bottom Located Meter, No Accessories, M47 Meter, Audible Alarm, Painted Factory Black

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CIRCUIT BREAKER/FUSED DISCONNECT: PRODUCT NUMBERS



1 Cv	ictom.	(standard of measu	ra 1
1, 3	Stelli	(Stariuaru di Illeasu	(U)

U US

2. Product Type (section component)

C Circuit Breaker Unit **F** Fused Disconnect Unit

3. Compatibility (frame compatibility)

T5 T5 System **K5** T5 System (Limiting Strip)

R5 T5 System (Rotating Paddle) **Z5** K5 + R5

4. Ground (ground type installed)

C Case (Housing) Ground D Dedicated Ground

G Isolated (Separate) Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference **page 4.108**)

6. Orientation (what direction the paddle faces)

S Standard R Reversed

7. Interrupt Rating (interrupt rating of the breakers in K)

10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000) (for U.S.)

8. Device Quantity (quantity of device 1)

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

9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 4.113)

*10. Mount Location (with respect to busway polarizing stripe)

 F
 Front
 A
 Back

 T
 Top
 B
 Bottom

 L
 Left
 R
 Right

 (Not every mount location will be available for every box)

*11. Drop Cord Length (location of optional meter)

XXY: XX=feet, Y=inches

(only can be chosen in 6" increments) For any device configuration chosen over 70 amps, the max. drop cord length is 10 feet (100)

EXAMPLE

<u>UCT5D57S-25-2CDB0100N-M53D-STD</u> = US System, Circuit Breaker Unit, T5 System, Dedicated Ground, 57 Box, Standard Orientation, 25 Interrupt Rating, 2 Devices, L16-30C, Bottom Located, 1 foot Drop Cord, No Accessories, M53 Meter, with Display, Painted Factory Silver

12. Accessories (optional accessories for plugs)

N N/A F Finger Shroud

C Circuit Breaker Interlock P Padlock Adapter for Circuit

Breaker

S Seismic Hanger

R IR Window

*13. Meter Release (M40/M50 AC)

M51 Single Eth./WiFi, ≤480V Y, ≤277V ∆

M53 Single Eth./No WiFi, ≤480V Y, ≤277V ∆

M58 Dual Eth., ≤480V Y, ≤277V Δ

M59 Dual Eth/Dual Modbus, \leq 480V Y, \leq 277V Δ

M41 WiFi, \leq 415V Y, \leq 240V Δ **M43** No WiFi, \leq 415V Y, \leq 240V Δ

M45 WiFi, 600V Y, 347V Δ

M47 No WiFi, 600V Y, 347V Δ

M56 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ, Breaker Monitoring

M57 Dual Eth, Breaker Monitoring ≤480V Y, ≤277V Δ

*13. Meter Release (M60 DC)

M61 Single Eth./WiFi, single phase, VDC

M63 Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*14. Meter Options (M40/M50 AC)

 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)

*14. Meter Options (M60 DC)

S Standard (High Voltage)
D Display (High Voltage)
P Standard (48 VDC)
Q Display (48 VDC)

M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

4.95

15. Paint Color

STD Paint Factory Silver
BLK Paint Factory Black
WHT Paint Factory White

RED Paint Factory Red
BLU Paint Factory Blue

**RAL (please see page 4.80)

16. Drop Cord Tape Marking

 0
 No Tape
 6
 Red

 3
 Black
 7
 Blue

 4
 White
 8
 Green

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4.96

T5 PLUG-IN UNITS

CIRCUIT BREAKER/FUSED DISCONNECT: COMPATIBILITY

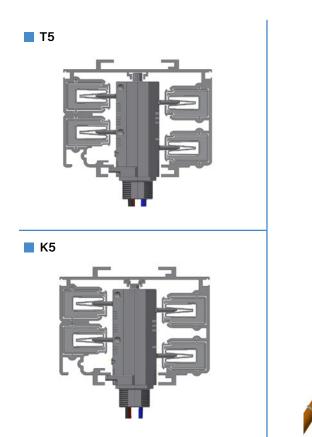


3. Compatibility (frame compatibility)

T5 T5 System K5 T5 System (Limiting Strip)

R5 T5 System (Rotating Paddle) **Z5** K5 + R5

IN OPTION 3. you are asked to specify what type of compatibility (paddle type) you would like to work with your busway system. There are three different types: the traditional T5 system, the K5 that works with systems with a limiting strip, and the R5 that is a rotating design capable of being operated from the floor.

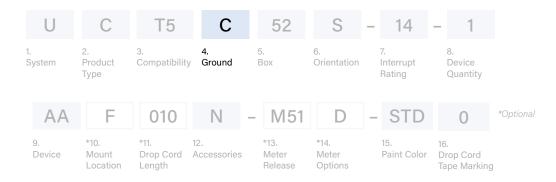




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CIRCUIT BREAKER/FUSED DISCONNECT: GROUND



- **4. Ground** (ground type installed)
- C Case (Housing) GroundG Isolated (Separate) Ground
- D Dedicated Ground

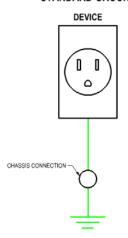
IN OPTION 4. you are asked to specify what type of ground you would like: case, dedicated or isolated.

Parts affected by grounding are the plug paddle (ground paddles have a fifth stab).

■ CASE GROUND/CHASSIS EARTH

Uses aluminum housing and no extra copper bar.

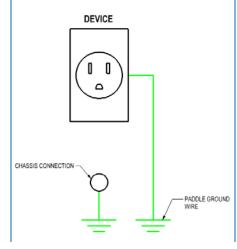
CHASSIS GROUND/ STANDARD GROUND



■ ISOLATED GROUND/EARTH

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

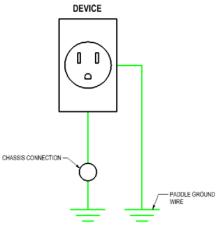
ISOLATED GROUND



DEDICATED GROUND/EARTH

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

DEDICATED GROUND (ISOLATED + CHASSIS)

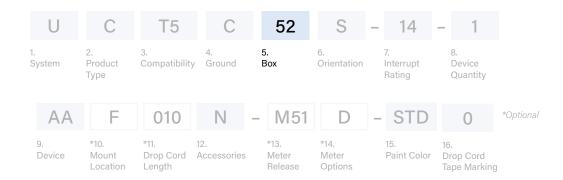


*For further details about Dedicated Ground vs. Isolated Ground, please reference our "Isolated Ground vs. Dedicated Ground" tech brief on <u>downloads.starlinepower.com/starline/busway</u>

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CIRCUIT BREAKER/FUSED DISCONNECT: BOX

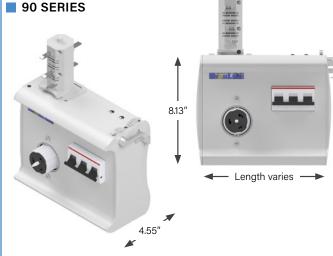


5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference **page 4.108**)

IN OPTION 5. you are asked to specify what style enclosure you would like. Size is typically a result of the options and features that you choose. A few common enclosure sizes for T5 busway systems are shown below:





BOX LENGTHS

51: 6.00" **52:** 8.00" **53:** 10.00" **54:** 12.00" **55:** 13.00" **56:** 15.00"

57: 18.00"

BOX LENGTHS

91: 6.00" 92: 8.00" 93: 10.00" 94: 12.00" 95: 13.00" 96: 15.00"

97: 18.00"

*For all box sizes and styles, please refer to page 4.108

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CIRCUIT BREAKER/FUSED DISCONNECT: INTERRUPT RATING



7. Interrupt Rating (interrupt rating of the breakers in K)

10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000)

IN OPTION 7. you are asked to specify what the interrupt rating of your protection will be. Starline standardizes on Schneider Electric (Square D) and ABB for breakers, and the breaker used is dependent on voltage, amperage and short-circuit ratings. Different or particular brands may be available upon request. Images of example breakers can be found below. Injection (NETA) testing may also be available upon request.











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CIRCUIT BREAKER/FUSED DISCONNECT: DEVICE



9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 4.113)

IN OPTION 9. you are asked to specify what device(s) you would like in your plug. All devices will need to be coded. The catalog number can accommodate up to 3 different types of devices- anything more than that will be handled in the G0 code. If you require more than one type of device, see the example catalog number below:

UCT5C57S-22-2AD-3AB-1ACFN-M51D-G001

If you require a drop cord(s), only one device type can be accommodated in the main catalog number. In addition, drop cord length is only specified if it's the same for all devices. Any additional device types or varying lengths will be handled in the G0 code.



UCT5C53S-22-3AIFN-STD



MCT5C53S-14-1FOFN-M59S-STD



UCT5D92S-22-2BGB(XXX)N-STD



UFT5C93R-CC-1EYB(XXX)N-V59S-STD

*For the full list of all device codes, please refer to page 4.113



4.101

T5 PLUG-IN UNITS

CIRCUIT BREAKER/FUSED DISCONNECT: MOUNT LOCATION



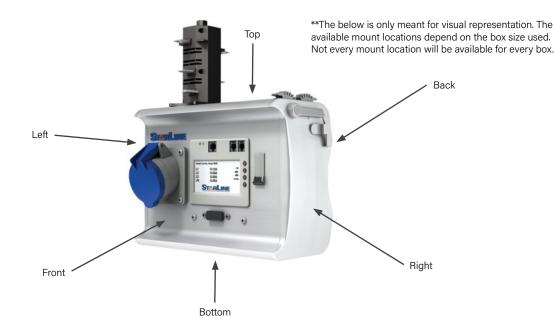
*10. Mount Location (with respect to busway polarizing stripe)

F Front
 T Top
 L Left

A BackB BottomR Right

IN OPTION 10. you are required to specify the devices desired location on the plug. Please see the image below to guide you in selecting your specified mounting location.

*Mount location is 'situational' because it is only specified if it's the same for all chosen devices. If it is not the same, then it is omitted from the catalog number and moved to the configuration code.



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CIRCUIT BREAKER/FUSED DISCONNECT: ACCESSORIES

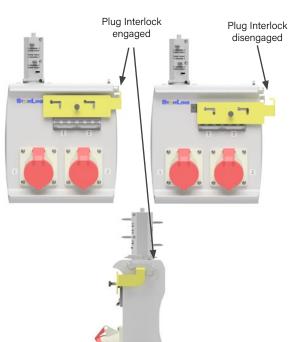


12. Accessories (optional accessories for plugs)

- N N/A
- **C** Circuit Breaker Interlock
- **S** Seismic Hanger
- L Pilot Light
- T NETA Injection Tested Breakers
- F Finger Shroud
- P Padlock Adapter for Circuit Breaker
- R IR Window

IN OPTION 12. you have the option to choose an accessory. Please see examples below. The Circuit Breaker Interlock is a device that prevents disengaging the plug from the busway. The Finger Shroud goes over top of your breakers, preventing accidental on or off motions. The Padlock Adapter for Circuit Breaker is the option for breaker lock-out. The Seismic Hanger is required for use in seismic applications and can only be used in conjunction with 250T5, 400T5, and 600T5 systems.

Plug Interlock







■ PADLOCK ADAPTER FOR CIRCUIT BREAKER LOCK-OUT



SEISMIC HANGER



IR WINDOW



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CIRCUIT BREAKER/FUSED DISCONNECT: (AC ONLY) METER RELEASE



*13. Meter Release (M40/M50 AC Series Meters) **M51** Single Eth./WiFi, \leq 480V Y, \leq 277V Δ **M53** Single Eth./No WiFi, ≤480V Y, ≤277V Δ **M58** Dual Eth., ≤480V Y, ≤277V Δ M59 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ **V51** Single Eth./WiFi, ≤480V Y, ≤277V ∆ **V53** Single Eth./No WiFi, ≤480V Y, ≤277V ∆ **V58** Dual Eth., ≤480V Y, ≤277V ∆ **V59** Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ **M41** WiFi, ≤415V Y, ≤240V ∆ **M43** No WiFi, ≤415V Y, ≤240V ∆ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ M56 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ, Breaker Monitoring V56 Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ, Breaker Monitoring **M57** Dual Eth, Breaker Monitoring ≤480V Y, ≤277V Δ **V57** Dual Eth, Breaker Monitoring ≤480V Y, ≤277V Δ

IN OPTION 13. you are able to select metering for your plug-in unit. M50 and V50 series meters are the best options for plug-in units.

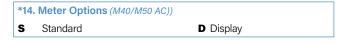
The communication options include:

- Single Ethernet + WiFi
- Single Ethernet
- Dual Ethernet
- Dual Modbus + Dual Ethernet

The difference between 'M' and 'V' is that M50 series meters are capable of monitoring the current of the entire unit, and V50 series meters are capable of monitoring up to 6 individual devices limited to 6 solid core Current Transformers (CTs).

Each unit is calibrated for accuracy and is within 0.5% to meet ANSI Revenue Grade Standards.

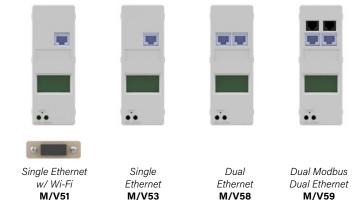
M/V56 and M/V57 meters also have the capability to sense circuit breaker position (on/off) for up to two outlets.



CRITICAL POWER MONITOR (NO DISPLAY)

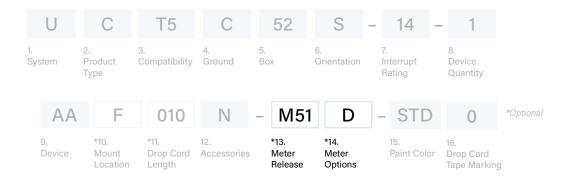


CRITICAL POWER MONITOR WITH OPTIONAL DISPLAY





CIRCUIT BREAKER/FUSED DISCONNECT: (DC ONLY) METER RELEASE



*13. Meter Release (M60 DC Series Meters)

M61 Single Eth./WiFi, single phase, VDC **M63** Single Eth./No WiFi, single phase, VDC

M67 Dual Eth., single phase, VDC

M69 Dual Eth/Dual Modbus, single phase, VDC

*14. Meter Options (M60 DC)

S Standard (High Voltage)
P Standard (48 VDC)
Q

Display (High Voltage)

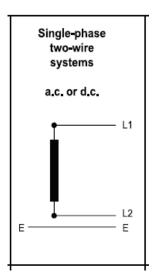
Q Display (48 VDC)

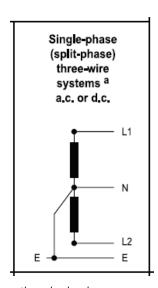
M60 Meters support: High Voltage: 120 to 300 VDC/Split Phase 120 VDC (+/-60) to 380 VDC (+/-180) OR Low Voltage: 48 VDC

If you've chosen to use direct current (DC) for your Track Busway system, then the DC M60 series meters are a perfect fit. For M60 meters there is a special addition to the catalog number (reference 15. System Configuration). It is important to select your circuit(s) when ordering.

The M60 device utilizes the M50 bezel (shown on previous page) and is capable of measuring up to 4 outlets (circuit 1 or circuit 2). The difference between 'M' and 'V' is that M60 series meters are capable of monitoring the current of the entire unit, and V60 series meters are capable of monitoring up to 4 individual devices.

Each unit is calibrated for accuracy within 1% of energy.





M60 meters are capable of supporting single phase, 120VDC - 300VDC or split phase 120VDC (+/-60VDC) to 380VDC(+/-190VDC).

*12VDC & 24VDC applications are not supported at this time.

**Meter is capable of reporting A to B voltages (as shown above). A to N+B to N voltages will not be reported.



CIRCUIT BREAKER UNITS, NO DEVICES: PRODUCT NUMBERS

		U	С	T5	С	52	S	- 14	-		
		1. System	2. Product Type	3. Compatibility	4. Ground	5. Box	6. Orientation	7. Interrupt Rating			
2	030	3	480	050	5	N	- M59	D	- STD	0	*Optional
8. Circuit Protectio Quantity	9. Amperage n	10. Poles	11. Voltage		*13. Number of Wires	14. Accessories	15. Meter	16. Meter Options	17. Paint Color	18. Drop Cord Tape Marking	J
1. System (st	andard of meas	sure)				*13. Num	ber of Wires (M40/M50 AC)			
U US						2, 3, 4, 5					
2. Product 1	ype (section c	omponent)				14. Acces	sories (optiona	al accessories i	for plugs)		

3. Compatibility (frame compatibility)						
	T5 System T5 System (Rotating Paddle)		T5 System (Limiting Strip) K5 + R5			
4. G	round (ground type installed)					
С	Case (Housing) Ground	D	Dedicated Ground			

Fused Disconnect Unit

5. Box (what size enclosure)

Isolated (Separate) Ground

Circuit Breaker Unit

01, 02, ... 99 (refer to enclosure reference **page 4.108**)

6. Orientation (what direction the paddle faces)

Standard R Reversed

7. Interrupt Rating (interrupt rating of the breakers in K)

10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000) (for US)

8. Circuit Protection Quantity

1, 2, 3, 4, 5, 6

9. Amperage

015, 020, 030, 600

10. Poles (number of poles in a circuit)

1, 2, 3, 4, 5

11. Voltage

120, 240, 277, 300, 415, 480, 600

*12. Drop Cord Length (length of drop cord)

010 1 foot **XXY** XX=feet, Y=inches

(only can be chosen in 6'' increments) For any device configuration chosen over 70 amps, the max. drop cord length is 10 feet (100)

N C	N/A Circuit Breaker Interlock	F P	Finger Shroud Padlock Adapter for Circuit Breaker
S	Seismic Hanger	R	IR Window

15. Meter

M51 Single Eth./WiFi, ≤480V Y, ≤277V Δ **M53** Single Eth./No WiFi, ≤480V Y, ≤277V Δ **M58** Dual Eth, ≤480V Y, ≤277V Δ **M59** Dual Eth/Dual Modbus, ≤480V Y, ≤277V Δ **M41** WiFi, ≤415V Y, ≤240V Δ **M43** No WiFi, ≤415V Y, ≤240V Δ **M45** WiFi, 600V Y, 347V Δ **M47** No WiFi, 600V Y, 347V Δ

M56 Dual Eth/Dual Modbus, ≤480V Y, ≤277V ∆, Breaker Monitoring

M57 Dual Eth, Breaker Monitoring ≤480V Y, ≤277V Δ

16. Meter Options (M40/M50 AC)

S	Standard	F	Featured (D+A)
D	Display	E	Enhanced (N+A)
N	(Measured) Neutral	P	Professional (D+N)
Α	Audible Alarm	U	Ultimate (D+N+A)

*16. Meter Options (M60 DC)

S	Standard (High Voltage)	Ρ	Standard (48 VDC)
D	Display (High Voltage)	Q	Display (48 VDC)
M60	Meters support: High Voltage: 120	to 300	VDC/Split Phase 120 VDC (+/-60)
to 38	0 VDC (+/-180) OR Low Voltage: 4	8 VDC	

17. Paint Color

	Paint Factory Silver	RED Paint Factory Red
BLK	Paint Factory Black	BLU Paint Factory Blue
WHT	Paint Factory White	**RAL (please see page 4.80)

18. Drop Cord Tape Marking

0	No Tape	6	Red
3	Black	7	Blue
4	White	8	Green

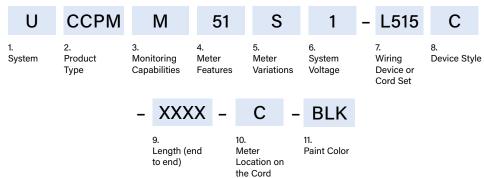
EXAMPLE

<u>UCT5D57S-25-203034800505N-M59D-STD</u> = US System, Circuit Breaker Only Unit, T5 system, Dedicated Ground, 57 box, Standard orientation, 25kA interrupt rating, 2 circuits, 30 amps, 3 poles, 480v, 5 ft drop cord, 5 wires, no accessories, M53 meter, painted factory silver

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CORDED METERS



1. System (standard of measure)						
U	U US					
2. Product Type (section component)						
CCI	CCPM Corded CPM					
3. N	Ionitoring Compatibilities					
М	Paddle/Feed Monitoring					
4. N	leter Features					
51 58	Single Ethernet WiFi Dual Ethernet	53 59	3			
5. N	leter Variations					
s	Standard Unit	D	Display			
6. S	ystem Voltage					
1	Line-Line	3	Line-Neutral			

Monitoring: The Corded CPM has a plug on one end and a connector body or receptacle on the other end; making it ideal for field power monitoring on-the-fly. It is capable of monitoring the energy of any device. The Corded CPM is also available without connectors. All M50 meter features, communication options and accessories are available except for measured neutral.

Box Size: There are two different Corded CPM box sizes. The smaller is designed for single phase (2 pole/3 wire, 1 pole+N/3W) wiring devices rated from 0-32A & 0-480V. The color is black unless specified. The larger enclosure is designed for all other configurations. These include single phase (2 pole/3 wire) rated at 32A-63A & 0-480V, three phase delta (3 pole/4 wire) rated at 0-63A & 0-480V and three phase wye (4 pole/5 wire) rated at 0-63A & 0-480V.

Meter Location: The meter can be placed in the center or offset from the top or bottom of the cord. Top or Bottom meters will always be 1'8" from the end of the connector.





designed to be better. ™ (4.106



WIRING DEVICE/CORD SET OPTIONS

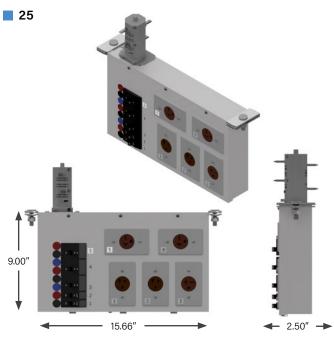
AC NEMA/IEC NAME	VOLTAGE	CURRENT
CS6360C	125V	50
CS6364C	125/250V	50
CS8264C	250V	50
CS8364C	250V	50
CS8164C	480V	50
CS8464C	480V	50
515D	125V	15
515	125V	15
520D	125V	20
520	125V	20
530	125V	30
615D	250V	15
615	250V	15
620D	250V	20
620	250V	20
630	250V	30
L1420	125/250V	20
L1430	125/250V	30
L1520	250V	20
L1530	250V	30
L1620	480V	20
L1630	480V	30
L2120	120/208V	20
L2130	120/208V	30
L2220	277/480V	20
L2230	277/480V	30
L2320	347/600V	20
L2330	347/600V	30
L515	125V	15
L520	125V	20
L530	125V	30
L615	250V	15
L620	250V	20
L630	250V	30
L715	277V	15
L720	277V	20
L730	277V	30
L820	480V	20
L830	480V	30
316C4S	110V	16
332C4S	110V	32
363C4S	110V	63
320C4S	125V	20
330C4S	125V	30
360C4S	125V	60
520C9W	120/208V	20
530C9W	120/208V	30
560C9W	120/208V	60
316C6S	230V	16
332C6S	230V	32
363C6S	230V	63

AO NEMA /IFO NAME	VOLTAGE	CURRENT
AC NEMA/IEC NAME 420C12W	VOLTAGE 125/250V	CURRENT
420C12W 430C12W	125/250V 125/250V	20 30
450C12W 460C12W		
	125/250V	60
320C6W	250V	20
330C6W	250V	30
360C6W	250V	60
320C5W	277V	20
330C5W	277V	30
360C5W	277V	60
416C4S	110V	16
432C4S	110V	32
463C4S	110V	63
416C9S	230V	16
432C9S	230V	32
463C9S	230V	63
420C9S	250V	20
430C9S	250V	30
460C9S	250V	60
416C6S	415V	16
432C6S	415V	32
463C6S	415V	63
420C7S	480V	20
430C7S	480V	30
460C7S	480V	60
516C6S	230/400V	16
532C6S	230/400V	32
563C6S	230/400V	63
316C9S	415V	16
332C9S	415V	32
363C9S	415V	63
520C7S	277/480V	20
530C7S	277/480V	30
560C7S	277/480V	60
320C7W	480V	20
330C7W	480V	30
360C7W	480V	60
15A-300V	300V	15
16A-300V	300V	16
20A-300V	300V	20
30A-300V	300V	30
32A-300V	300V	32
50A-300V	300V	50
60A-300V	300V	60
63A-300V	300V	63
15A-480V	480V	15
16A-480V	480V	16
20A-480V	480V	20
30A-480V	480V	30
32A-480V	480V	32
50A-480V	480V	50
60A-480V	480V	60
63A-480V	480V	63

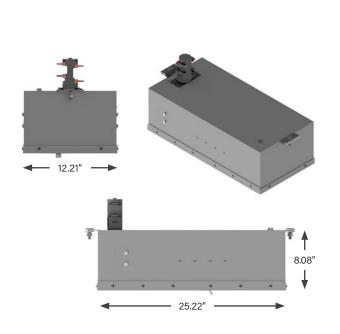


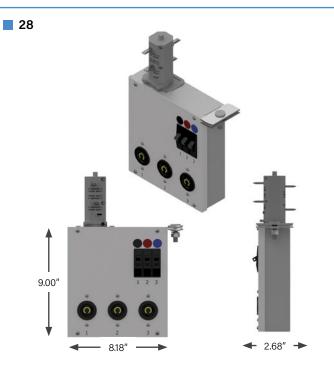
BOX SIZES & STYLES





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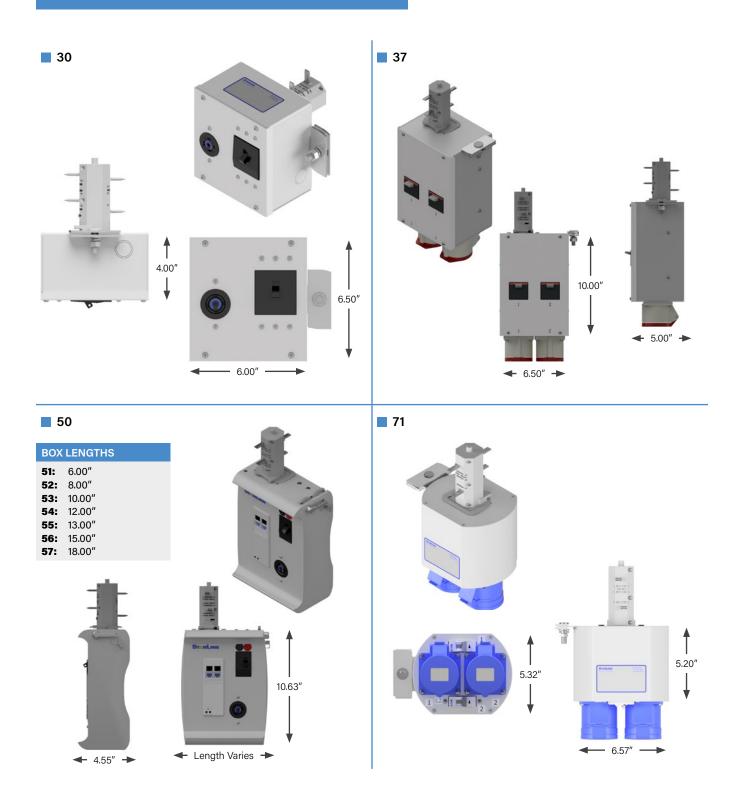




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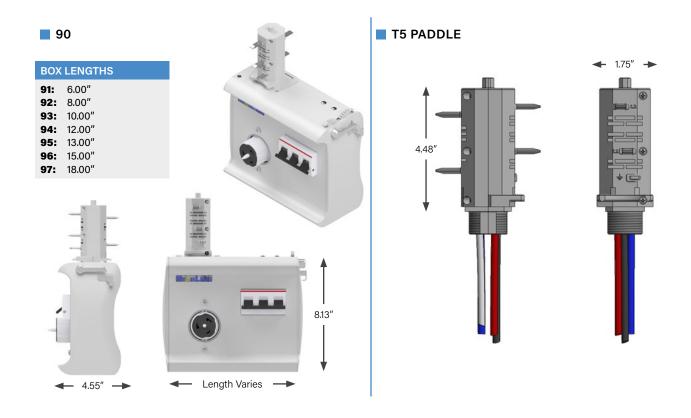


BOX SIZES & STYLES





BOX SIZES & STYLES



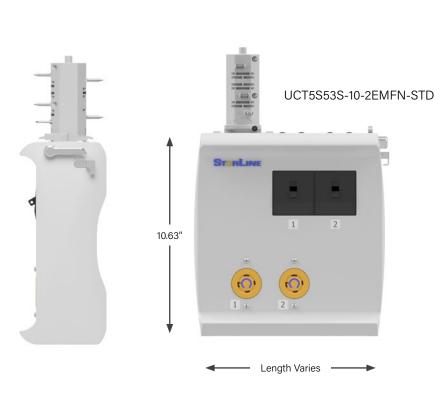


50 SERIES ENCLOSURE CUT SHEET

PRODUCT DESCRIPTION

Next-generation, custom engineered enclosure that features a stylish exterior combined with a spacious interior and customizable body length to accommodate a wide variety of applications. The 50 Series enclosure is designed to tap off power from the busway. The option is available to have a reverse paddle such that the enclosure faces in the opposite direction when in the busway.

- Configurable unit length for multiple circuit breaker pole positions.
- Consult factory for possible combinations*





BOX LENGTHS

51: 6.00" **52:** 8.00" **53:** 10.00" **54:** 12.00" **55:** 13.00" **56:** 15.00" **57:** 18.00"

EXAMPLES

<u>UCT5C54S-22-2ACFN-STD</u> = US, Circuit Breaker Plug, T5 Systems, Case (Housing) Ground, 54 Box, Standard Orientation, 22 Interrupt Rating, 2 Devices, L21-30, Front Located, No Accessories, Painted Factory Silver

<u>UCT5G53S-10-2EMFN-STD</u> = US, Circuit Breaker Plug, T5 Systems, Isolated (Separate) Ground, 53 Box, Standard Orientation, 10 Interrupt Rating, 2 Devices, IGL15-30, Front Located, No Accessories, Painted Factory Silver



90 SERIES ENCLOSURE CUT SHEET

PRODUCT DESCRIPTION

Next-generation, custom engineered enclosure that features a stylish exterior combined with a spacious interior and customizable body length to accommodate a wide variety of applications. The 90 Series enclosure is designed to tap off power from the busway. The option is available to have a reverse paddle such that the enclosure faces in the opposite direction when in the busway.



EXAMPLES

<u>UCT5C93S-50-1AKFN-STD</u> = US, Circuit Breaker Plug, T5 Systems, Case (Housing) Ground, 93 Box, Standard Orientation, 50 Interrupt Rating, 1 Device, CS8369, Front Located, No Accessories, Painted Factory Silver

<u>UCT5C94S-10-2BGB050F-STD</u> = US, Circuit Breaker Plug, T5 Systems, Case (Housing) Ground, 94 Box, Standard Orientation, 10 Interrupt Rating, 2 Devices, I6-30, Bottom Located, 5 foot Drop Cord, Finger Shroud, Painted Factory Silver



DEVICE CODE TABLE

	NEI	MA Connectors		
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
BS	5-15C	Connector	120	1PNG
FF	5-15Q-X	Connector	120	1PNG
BD	5-20C	Connector	120	1PNG
FG	5-20-Q-X	Connector	120	1PNG
BB	6-15C	Connector	240	2PG
FH	6-15Q-X	Connector	240	2PG
BC	6-20C	Connector	240	2PG
FI	6-20Q-X	Connector	240	2PG
CO	L14-20C	Connector	120/208	2PNG
CN	L14-30C	Connector	120/208	2PNG
CM	L15-20C	Connector	240	3PG
CL	L15-30C	Connector	240	3PG
CE	L16-20C	Connector	480	3PG
CD	L16-30C	Connector	480	3PG
CS	L21-20C	Connector	120/208	3PNG
СТ	L21-30C	Connector	120/208	3PNG
FA	L22-20C	Connector	277/480	3PNG
EZ	L22-30C	Connector	277/480	3PNG
BR	L5-15C	Connector	120	1PNG
BE	L5-20C	Connector	120	1PNG
BF	L5-30C	Connector	120	1PNG
ВА	L6-15C	Connector	240	2PG
ВН	L6-20C	Connector	240	2PG
BG	L6-30C	Connector	240	2PG
СК	L7-15C	Connector	277	1PNG
Cl	L7-20C	Connector	277	1PNG
CF	L7-30C	Connector	277	1PNG

Pin & Sleeve Connectors						
Device Code	Device Designation	Туре	Voltage	Wiring Configuration		
BJ	360C6W	Connector	240	2PG		
BQ	420C6W	Connector	240	2PNG		
BW	430C7W	Connector	480	3PG		
BP	430C9W	Connector	240	3PG		
BX	460C7W	Connector	480	3PG		
EJ	460C9S	Connector	240	3PG		
EI	460C9W	Connector	240	3PG		
BZ	520C6S	Connector	240/415	3PNG		
CC	530C6S	Connector	240/415	3PNG		
EX	530C6W	Connector	240/415	3PNG		

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

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DEVICE CODE TABLE

Pin & Sleeve Connectors (Continued)					
Device Code	Device Designation	Туре	Voltage	Wiring Configuration	
СН	530C7S	Connector	480	3PNG	
BI	530C9W	Connector	240/415	3PNG	
СВ	560C6S	Connector	240/415	3PNG	
CI	560C7S	Connector	480	3PNG	
EH	560C9W	Connector	120/208	3PNG	
BV	320C6S	Connector	240	2PG	
BU	330C6S	Connector	240	2PG	
ВТ	360C6S	Connector	240	2PG	
во	560C9S	Connector	120/208	3PNG	

	NEN	/IA Receptacles	5	
Device Code	Device Designation	Туре	Voltage	Wiring Configuration
DD	14-20R	Receptacle	120/208	2PNG
DC	14-30R	Receptacle	120/208	2PNG
cw	14-50R	Receptacle	120/208	2PNG
cv	14-60R	Receptacle	120/208	2PNG
CU	15-20R	Receptacle	240	3PG
CY	15-30R	Receptacle	240	3PG
DI	15-50R	Receptacle	240	3PG
DH	15-60R	Receptacle	240	3PG
AW	5-15D	Receptacle	120	1PNG
FB	5-15Q	Receptacle	120	1PNG
DN	5-15R	Receptacle	120	1PNG
AB	5-20D	Receptacle	120	1PNG
DL	5-20D-GFI	Receptacle	120	1PNG
FC	5-20Q	Receptacle	120	1PNG
DM	5-20R	Receptacle	120	1PNG
DV	5-30R	Receptacle	120	1PNG
GB	6-15D	Receptacle	240	2PG
FD	6-15Q	Receptacle	240	2PG
DU	6-15R	Receptacle	240	2PG
GC	6-20D	Receptacle	240	2PG
FE	6-20Q	Receptacle	240	2PG
DO	6-20R	Receptacle	240	2PG
DR	6-30R	Receptacle	240	2PG
DA	6-50R	Receptacle	240	2PG
CZ	L14-20R	Receptacle	120/208	2PNG
DB	L14-30R	Receptacle	120/208	2PNG
СХ	L15-20R	Receptacle	240	3PG
AH	L15-30R	Receptacle	240	3PG
EO	L16-20R	Receptacle	480	3PG

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



DEVICE CODE TABLE

NEMA Receptacles (Continued)					
Device Code	Device Designation	Туре	Voltage	Wiring Configuration	
EQ	L16-30R	Receptacle	480	3PG	
AT	L21-20R	Receptacle	120/208	3PNG	
AC	L21-30R	Receptacle	120/208	3PNG	
AA	L22-20R	Receptacle	277/480	3PNG	
AF	L22-30R	Receptacle	277/480	3PNG	
AS	L5-15D	Receptacle	120	1PNG	
AP	L5-15R	Receptacle	120	1PNG	
AG	L5-20R	Receptacle	120	1PNG	
AO	L5-30R	Receptacle	120	1PNG	
DP	L6-15D	Receptacle	240	2PG	
DQ	L6-15R	Receptacle	240	2PG	
Al	L6-20R	Receptacle	240	2PG	
AD	L6-30R	Receptacle	240	2PG	
ES	L7-15D	Receptacle	277	1PNG	
ER	L7-15R	Receptacle	277	1PNG	
AQ	L7-20R	Receptacle	277	1PNG	
EP	L7-30R	Receptacle	277	1PNG	

Pin & Sleeve Receptacles					
Device Code	Device Designation	Туре	Voltage	Wiring Configuration	
FJ	316A6S	Receptacle	240/415	2PG	
FK	316A6W	Receptacle	240/415	2PG	
FL	316R6S	Receptacle	240/415	2PG	
FM	320A6S	Receptacle	240/415	2PG	
FN	320A6W	Receptacle	240/415	2PG	
FO	332A6S	Receptacle	240/415	2PG	
FP	332A6W	Receptacle	240/415	2PG	
FQ	332A9S	Receptacle	240/415	2PG	
FR	332R6S	Receptacle	240/415	2PG	
DG	360R6W	Receptacle	240	2PG	
FS	363R6S	Receptacle	240/415	2PG	
DF	430R9W	Receptacle	240	3PG	
AU	460R9S	Receptacle	240	3PG	
AN	460R9W	Receptacle	240	3PG	
FT	5125R6S	Receptacle	240/415	3PNG	
FU	516A6S	Receptacle	240/415	3PNG	
FV	516A6W	Receptacle	240/415	3PNG	
FW	516R6S	Receptacle	240/415	3PNG	
FX	520A6W	Receptacle	240/415	3PNG	
FY	520R6S	Receptacle	240/415	3PNG	
AR	530R6S	Receptacle	240/415	3PNG	
FZ	532A6S	Receptacle	240/415	3PNG	
GA	532A6W	Receptacle	240/415	3PNG	

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



DEVICE CODE TABLE

Pin & Sleeve Receptacles (Continued)						
Device Code Device Designation Type Voltage Wiring Configuration						
BY	560R6S	Receptacle	240/415	3PNG		
DS 360C4W Receptacle 120 1PNG						

Isolated Ground Receptacles					
Device Code	Device Designation	Туре	Voltage	Wiring Configuration	
EN	IG14-30R	Receptacle	120/208	2PNG	
AX	IG5-20D	Receptacle	120	1PNG	
EA	IG5-20R	Receptacle	120	1PNG	
DY	IG6-20D	Receptacle	240	2PG	
DZ	IG6-20R	Receptacle	240	2PG	
EK	IGL14-20R	Receptacle	120/208	2PNG	
ET	IGL15-20R	Receptacle	240	3PG	
EM	IGL15-30R	Receptacle	240	3PG	
EL	IGL21-20R	Receptacle	120/208	3PNG	
EG	IGL21-30R	Receptacle	120/208	3PNG	
EU	IGL22-20R	Receptacle	277/480	3PNG	
EV	IGL22-30R	Receptacle	277/480	3PNG	
EB	IGL5-15R	Receptacle	120	1PNG	
AY	IGL5-20R	Receptacle	120	1PNG	
ED	IGL5-30R	Receptacle	120	1PNG	
DW	IGL6-15D	Receptacle	240/415	2PG	
DX	IGL6-15R	Receptacle	240/415	2PG	
AM	IGL6-20R	Receptacle	240/415	2PG	
AZ	IGL6-30R	Receptacle	240/415	2PG	

California Connectors						
Device Code Device Designation Type Voltage Wiring Configuration						
CP	CS6360C	Connector	120	1PNG		
CG	CS8164C	Connector	480	3PG		
CR	CS8264C	Connector	240	2PG		
CQ	CS8364C	Connector	240	3PG		

California Receptacles					
Device Code	Device Designation	Туре	Voltage	Wiring Configuration	
DK	CS6369	Receptacle	120/208	2PNG	
DE	CS8269	Receptacle	240	2PG	
AK	CS8369	Receptacle	240	3PG	

Other					
Device Code Device Designation Type Voltage Wiring Configuration					
XX Custom Device (ex: colored receptacle, etc.)					

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

Starline, a brand of Legrand, has been a leader in power distribution since 1924. The company's founders led the way for many new technologies in the power distribution equipment industry. Today, Starline continues to pave the way for safer, more innovative and more reliable electrical power distribution systems. Visit StarlinePower.com to learn more about our flexible power solutions.



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