





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.



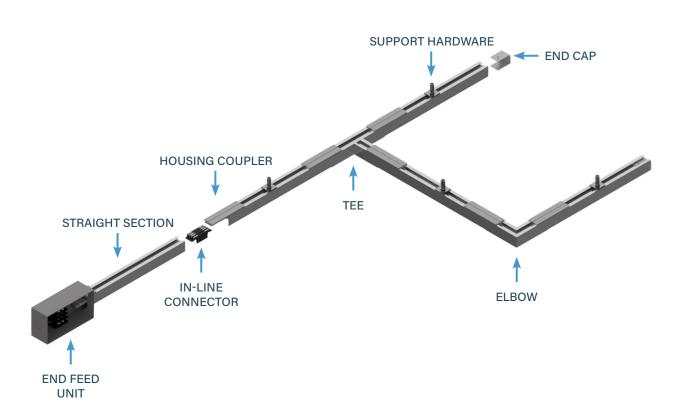
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SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

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



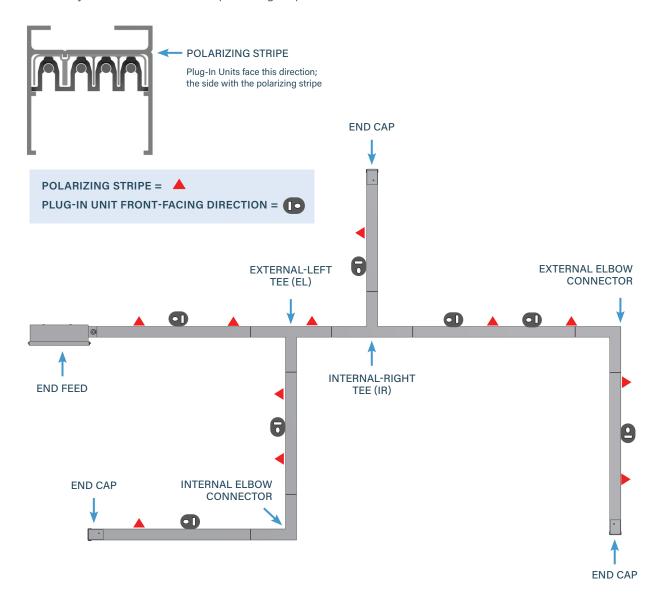
T1 SERIES

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 side with the polarizing stripe.





T1 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 1.24** 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	



T1 SERIES

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.



40-50-60 AMP SYSTEMS

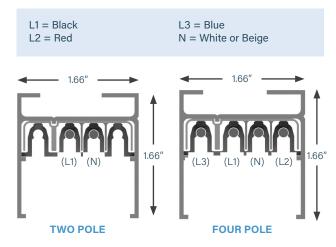
STRAIGHT SECTIONS

■ 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).

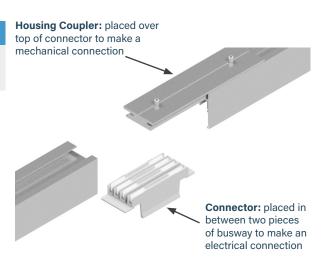
Sections are supported every 10 feet maximum and can support 100 pounds hanging weight between vertical supports. Four-pole busway is normally used in 3-phase/4-wire power systems. Four-pole busway may be used for 2 independent single-phase circuits at different voltages. Sections can be factory cut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

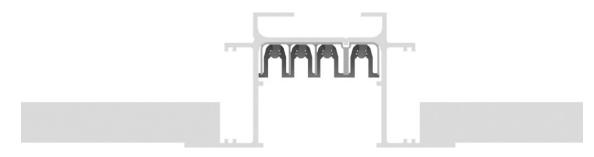
T1 housing is also available in a slightly different design, specifically tailored for busway that is meant to be installed recessed into a suspended ceiling.

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

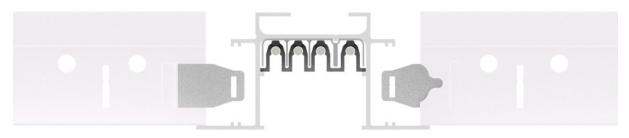
For recessed housing, please choose 'R1' as opposed to 'T1' in your product number.

*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)	
S Straight Section	
3. Product Frame (maximum amperag	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 no	eutral busbar and/or ground)
4 3 Phase plus Neutral 2	1 Phase plus Neutral
7. Polarization (orientation of section for	r 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

**

REDO Paint Factory Red **BLUO** Paint Factory Blue ****RAL** (please see page 1.23)

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



External Elbow

1.9

40-50-60 AMP SYSTEMS

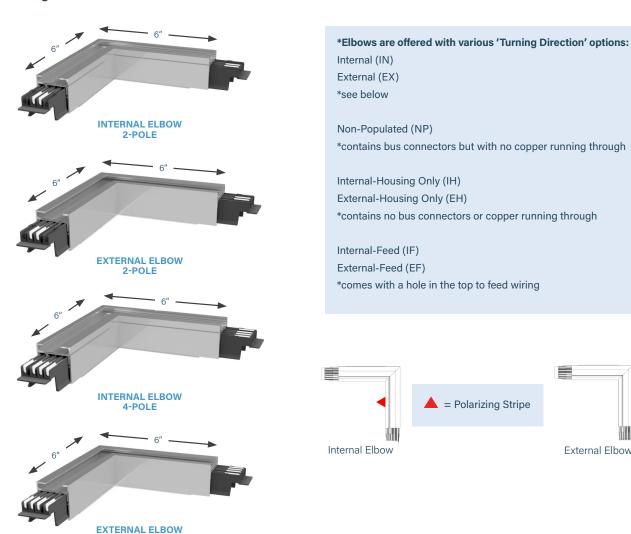
ELBOW SECTIONS

■ 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



STARLINEPOWER.COM Track Busway Product Selection Guide

4-POLE



ELBOW SECTIONS: PRODUCT NUMBERS



- STD0

9. Paint Color

1. System (standard of measure)			
U US			
2. Product Type (section component)			
E Elbow Section			
3. Product Frame (maximum amperage)		
040 40 amps 05 060 60 amps	0 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 ne	utral 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)

Internal
 NP Non-Populated
 EX External
 Internal-Housing Only
 EXTERNAL External
 Internal-Feed
 Internal-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 1.23)

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



40-50-60 AMP SYSTEMS

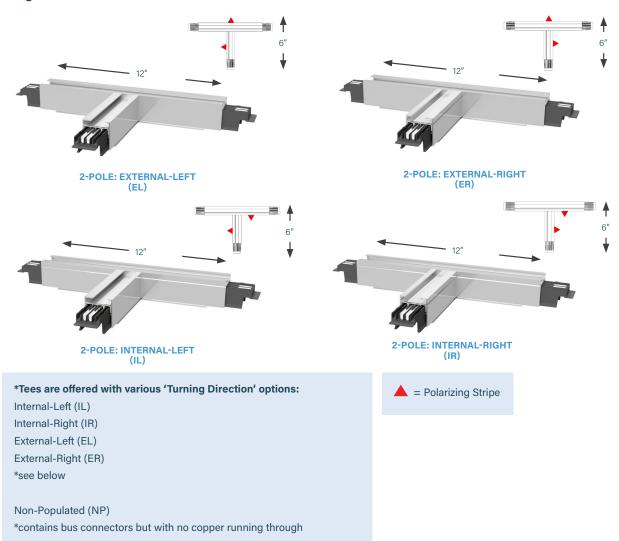
TEE SECTIONS

■ 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.

Weight 1 lb

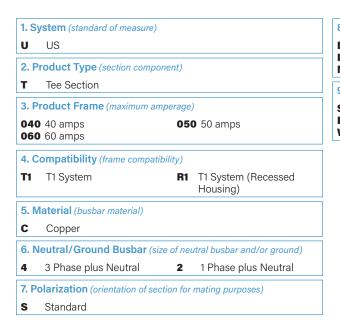




TEE SECTIONS: PRODUCT NUMBERS



9. Paint Color



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

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**RAL (please see page 1.23)

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



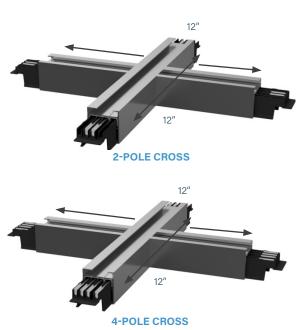
CROSS SECTIONS

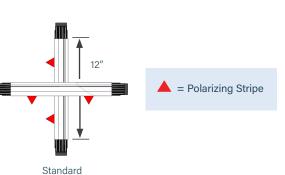
PRODUCT DESCRIPTION

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

(ST)



CROSS SECTIONS: PRODUCT NUMBERS



9.

9. Paint Color

1. System (standard of measure)	
U US	
2. Product Type (section component)	
X Cross Section	
3. Product Frame (maximum amperage	e)
040 40 amps 05 060 60 amps	50 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 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	

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 1.23)

EXAMPLES

<u>UX050T1C4S-NP-RED0</u> = US System, Cross Section, 50 amps, T1 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



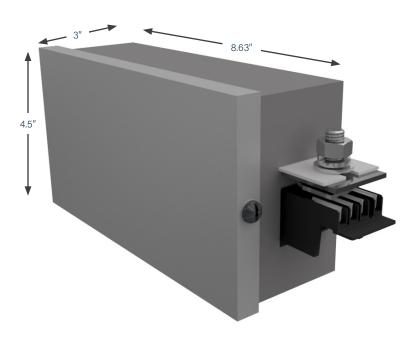
40-50-60 AMP SYSTEMS

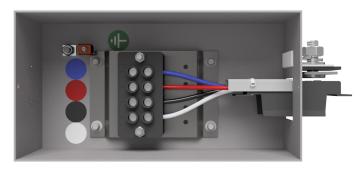
END FEED UNITS

■ 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

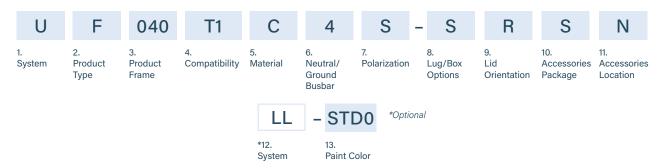




INTERNAL VIEW



END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)		9. Lid Orientation (from the terminal, side with removable lid)
U US		R Right
2. Product Type (section component	t)	10. Accessories Package (optional accessories for feed units)
F End Feed		S Standard
3. Product Frame (maximum amper	age)	11. Accessories Location (from the terminal, side with accessor
· •	050 50 amps	N None (N/A)
060 60 amps		*12. System (line to line or line to neutral system
4. Compatibility (frame compatibility	/)	LL Line to Line LN Line to Neutral
T1 T1 System	R1 T1 System (Recessed Housing)	*LL & LN specification required only when ordering a 2-pole system (reference option 6 Neutral/Ground Busbar)
5. Material (busbar material)		13. Paint Color (allows painting of the busway housing)
C Copper		STD0 Factory Mill Finish RED0 Paint Factory Red
6. Neutral/Ground Busbar (size of	f neutral busbar and/or ground)	BLKO Paint Factory Black WHTO Paint Factory White **RAL (please see page 1.23)
4 3 Phase plus Neutral	2 1 Phase plus Neutral	in please see page 12.5)
7. Polarization (orientation of section	for mating purposes)	
S Standard	R Reversed	
8. Lug/Box Options (standard/doub	ble/bolt lugs and box size)	

EXAMPLE

Standard lugs, Standard box

<u>UF040T1C4R-SRSN-BLU0</u> = US System, End Feed, 40 amps, Tl 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

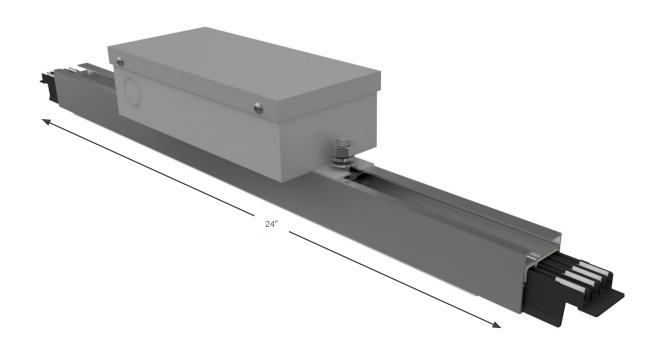


40-50-60 AMP SYSTEMS

ABOVE FEED UNITS

■ PRODUCT DESCRIPTION

Weight 5 lbs





INTERNAL VIEW



ABOVE FEED UNITS: PRODUCT NUMBERS

U	Α	040	T1	С	4	5	3 -	- S	N	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibili	5. ty Material	6. Neutral/ Ground Busbar	7. Polari	zation	8. Lug/Box Options	9. Lid Orientation	10. Accessories Package	11. Accessories Location
		- 02	200	C)12 -	LL	- 5	STD0	*Optional		
		12. Straiç Leng		,	d ation	*15. System	16 Pa	aint Color			
1. Systen	າ (standard of	measure)					sories ndard	Package (d	pptional accesso	ries for feed un	nits)
	Product Type (section component) A Above Feed				11. Accessories Location (from the terminal, side with accessory) N None (N/A)					essory)	
3. Product Frame (maximum amperage)				12. Straight Length (optional accessories for feed units)							
040 40 a 060 60 a	1		050 50 am	nps		0200 2 f		()			
4. Comp	atibility (fran	ne compatibili	·y)				tinuous	ess (now piu	igs access the bu	usway	
T1 T1 System R1 T1 System (Recessed Housing)			ed	14. Feed I 012 12 in		n (location o	of the center of th	he top feed)			
5. Mater	i al (busbar ma	aterial)						to line or line	e to neutral syste	am.	
C Cop	pper						to Line			 Line to Neutr	al
6. Neutral/Ground Busbar (size of neutral busbar and/or ground) 4 3 Phase plus Neutral 2 1 Phase plus Neutral						ion required o Neutral/Grou	only when orderi and Busbar)	ng a 2-pole sys	tem		
7. Polariz	ation (orient	ation of section	n for mating p	ourposes)		16. Paint	Color (a	allows paintir	ng of the busway	housing)	
S Standard R Reversed 8. Lug/Box Options (standard/double/bolt lugs and box size)					iint Éac	Iill Finish tory Black tory White	BLU0 Pair	nt Factory Re nt Factory Blu ase see page 1.	ıe		
		Standard box		emovable lid)							

EXAMPLE

None (N/A)

<u>UA060T1C2S-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

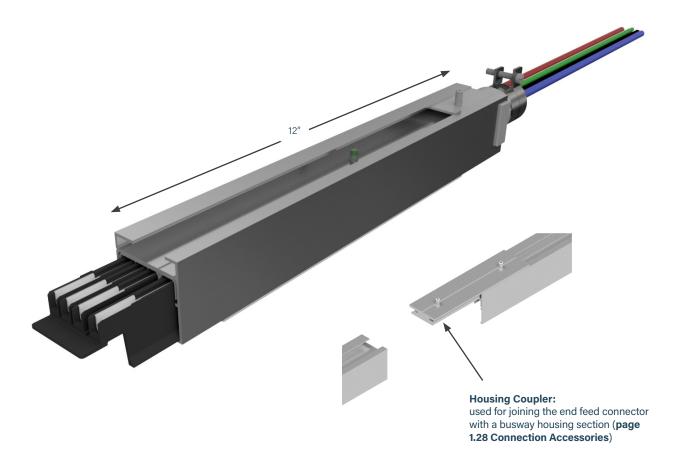


END FEED CONNECTOR UNITS

■ 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)
c End Feed Connector	
3. Product Frame (maximum ampera	age)
040 40 amps 060 60 amps	050 50 amps
4. Compatibility (frame compatibility	7)
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	o neutral sy	stem	
LL Line to Line	LN	Line to Neutral	
*LL & LN specification required or (reference option 6 Neutral/Groun	,	dering a 2-pole system	
10. Paint Color (allows painting	g of the bus	way housing)	
STD0 Factory Mill Finish	RED0	Paint Factory Red	
BLKO Paint Factory Black BLUO Paint Factory Blue			
BLKO Paint Factory Black WHTO Paint Factory White		Paint Factory Blue (please see page 1.23)	

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

1.20



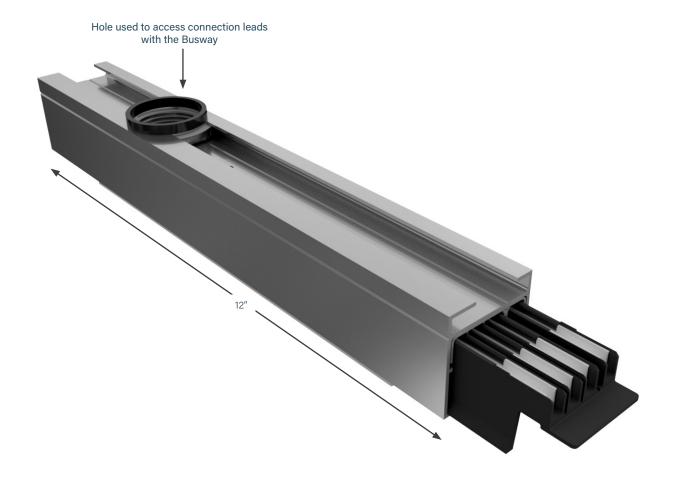
40-50-60 AMP SYSTEMS

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



1. System (standard of measure)	
U US	
2. Product Type (section component	t)
P Pendant Feed	
3. Product Frame (maximum ampera	age)
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	R Reversed

*8. 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)

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 1.23)

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

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

1.22



T1 SERIES

RAL COLORS

1ST CHARACTER		
Р	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:

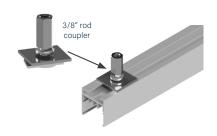
P B 2 0 = Paint RAL 3012



ACCESSORIES: SUPPORT HARDWARE

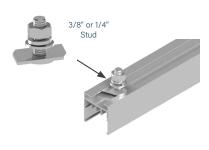
■ THREADED ROD

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



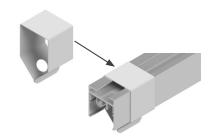
■ STANDARD

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

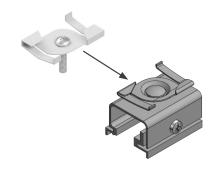
Can be used as a hanger to suspend the busway from chains or cables. Can also be used to hang loads of up to 50 pounds under the busway, such as light fixtures, tools and balancers. Part Number UWHRT1 Available in plain zinc or black (-BLK) Weight .2 lb



■ 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





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.

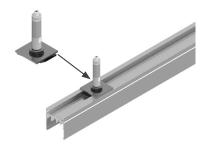
Part Number
UMCT1-S (surface)
Available in all standard
and RAL colors
UMCT1-R (rod)
No available colors



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.

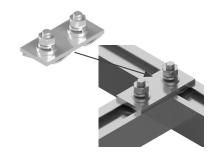
Part Number UGBT1-OU2 Available in plain zinc or black (-BLK) *4 required



■ 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)



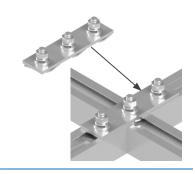


ACCESSORIES: SUPPORT HARDWARE

■ THREE-HOLE GRID BRACKET

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

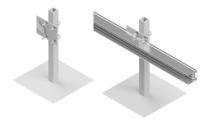
Part Number UGBT1-SP3 Available in plain zinc or black (-BLK)



■ 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: CONNECTOR AND ADAPTERS

■ MONOPOINT ADAPTER

The monopoint track lighting adapter is compatible with a variety of Juno style track lighting fixtures, providing a direct connection to T1 Busway.

Weight 0.5 lbs

Part Number UMPT1-1 (J-Style)



■ IP50 CONNECTOR

The IP50 connector can be hardwired into lighting fixtures other small loads to connect directly into T1 Busway.

*Additional fuse amperage available. Please consult factory.

Weight 0.5 lbs

Part Number IP50-30-4





ACCESSORIES: CONNECTION HARDWARE

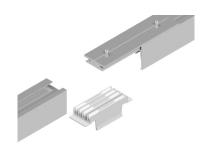
JOINT KIT

For the connection of adjacent busway sections. Each kit is comprised of an inline 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)





2-pole connector

■ HOUSING COUPLER

Housing couplers make the mechanical connection between sections of busway.

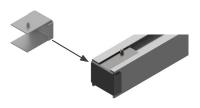
Part Number UHCT1 Available in all standard and RAL colors



■ END CAP

Used for insulating the female end of the busway.

Part Number
UECT1
Available in standard &
RAL colors
UECR1
is required for recessed housing
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.

Part Number UCST1 Available in standard colors



1.28



SERVICES

Regular servicing of busway systems is crucial for ensuring that your system performs at its best. By conducting regular maintenance, you can identify and address any potential issues before they turn into expensive problems, thus saving you time and money in the long run. Regular servicing can help extend the lifespan of your busway system, ensuring that it meets safety standards and complies with regulations. Choose from various offerings and customize a service plan that works best for you.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

COMMISSIONING AND EQUIPMENT RENTALS

Designing a mission-critical facility involves a significant investment of time and money. Through comprehensive commissioning services, Starline can help guarantee your project delivers the outcomes you expect.

Whether you need rental equipment to test your busway system or certified technicians to perform the testing, Starline has you covered. Choose from our inventory of load bank tap-offs and associated gear, or work with a Starline Engineer to customize and perform a commissioning plan to fit your specific needs.

METER SERVICES

Starline's certified technicians make optimizing your meters' performance and functionality a breeze. Our comprehensive on-site meter programming service includes inspecting, programming, reporting, and optional retrofitting services for you existing systems.

STARTUP AND SYSTEM CERTIFICATION

At Starline, we are committed to ensuring the success of your project. Our team understands the risks associated with the energization of systems, which is why we've designed a rigorous certification process to inspect, test and report on your Starline Busway and Critical Power Monitor ("CPM") products. Our certification process proactively identifies and prevents any potential issues before they happen.

To ensure the long-term success of your project, it is crucial to have Starline-certified technicians inspect and validate the installation before full commissioning. Level 2 and 3 commissioning ensures the installation complies with safety requirements and meets factory standards for ongoing reliability.

- 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

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

TURNKEY INSTALLATION SERVICES

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.

PREVENTATIVE MAINTENANCE PLANS AND IR SCANNING

Although Starline busway is expertly designed to require less maintenance, NETA ATS and MTS guidelines recommend conducting annual inspections and health assessments on all critical equipment. Yearly preventative maintenance helps to ensure your system's long-term reliability and safety.

Starline's FLIR-certified technicians will create a custom preventative maintenance plan for your specific needs. Our certified technicians will work to:

- Identify thermal anomalies
- Extend equipment lifecycle
- Ensure optimal system performance
- Improve facility safety and operational sustainability

Upon completing your preventative maintenance plan, you may be eligible to extend your product warranty.

ON-SITE INSTALLATION SUPPORT

Starline's on-site installation service makes installing your busway as quick and easy as possible.

Our installation support starts with scheduling a preliminary trip to the installation site. During the initial visit, our certified technicians will train your installing contractor and develop a thorough installation and commissioning plan.

After completing the training, your installing contractor will have a direct line of communication with our installation experts. Our experts can help answer questions and provide hands-on guidance when needed.

Opting for Starline's installation support helps mitigate the installation risk and reduces the learning curve typically associated with new installations.

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 PRODUCT TRAINING

At Starline, we offer comprehensive on-site product training services facilitated by our team of certified technicians. With their extensive expertise and commitment to upholding our high factory standards, you can confidently rely on them to ensure your and your systems' reliability and operational safety.

Our training programs equip your team with the knowledge and skills necessary to operate and maintain your systems effectively. Through hands-on demonstrations and interactive sessions, our certified technicians will guide your staff in understanding the intricate workings of the products and address any questions or concerns your team may have during the training process.

By choosing our on-site product training services, you are investing in your system's and operations' long-term success

RECERTIFICATION AND EXTENDED WARRANTY PLANS

Starline's recertification and extended warranty options provide best-in-class coverage for all of your Starline products and systems. Our extended warranty plans safeguard your investment beyond the standard warranty timeframe, offering you peace-of-mind while our recertification programs help mitigate risk and downtime. Whether the busway has been installed for years or you are relocating to another building, Starline is here to help.

Choose from one of our flexible one to four-year plans or have your system recertified anytime. Contact your Starline rep for more information.

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.**



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

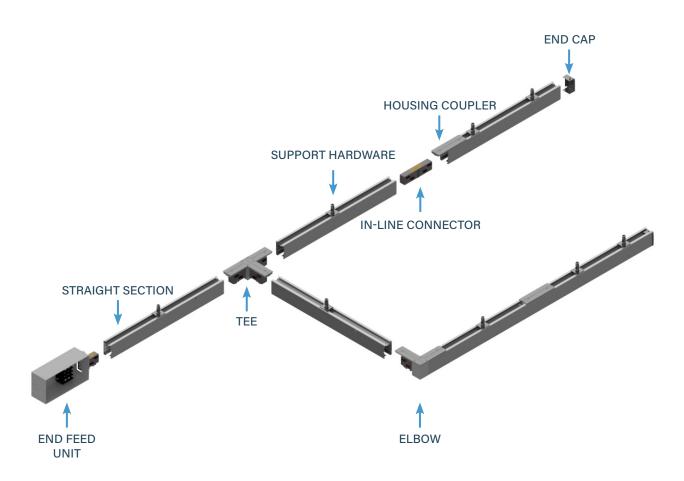
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T2 SERIES

SYSTEM LAYOUT DRAWING





PLUG-IN UNITS

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



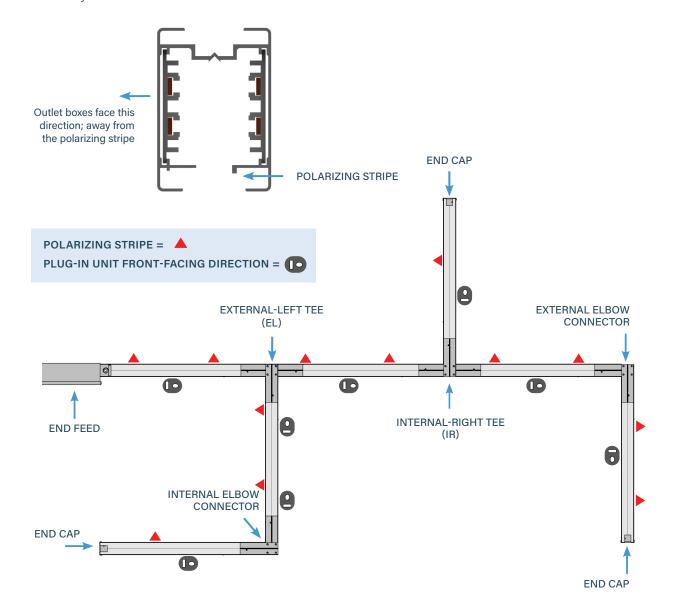
T2 SERIES

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 (OF BUSWAY FOR A ONE V	OLT DROP IN LINE TO LIN	E 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.

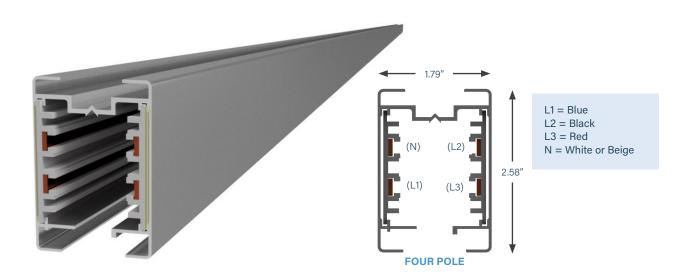


60 AMP SYSTEMS

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

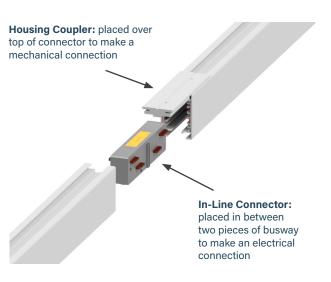
5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft

VOLTAGE DROP

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

WEIGHT

10 ft 4 pole: 12.5 lbs





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

REDO Paint Factory Red **BLUO** 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



60 AMP SYSTEMS

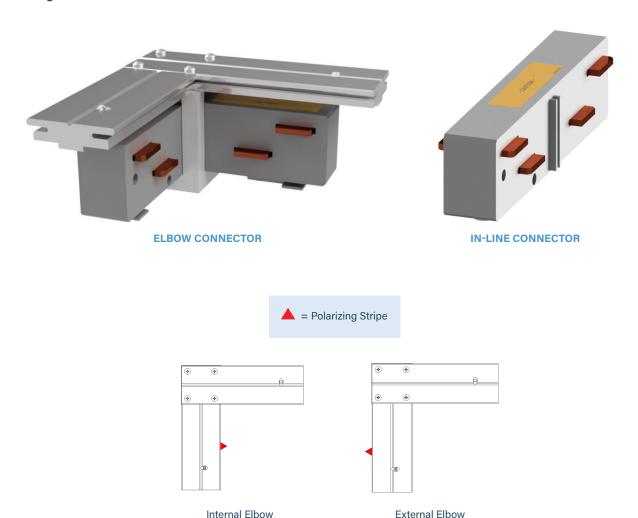
ELBOW SECTIONS

■ 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

8. Turning Direction (direction of section polarizing stripe)

I Internal

EX External

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

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

REDO Paint Factory Red **BLUO** Paint Factory Blue ****RAL** (please see page 2.42)

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



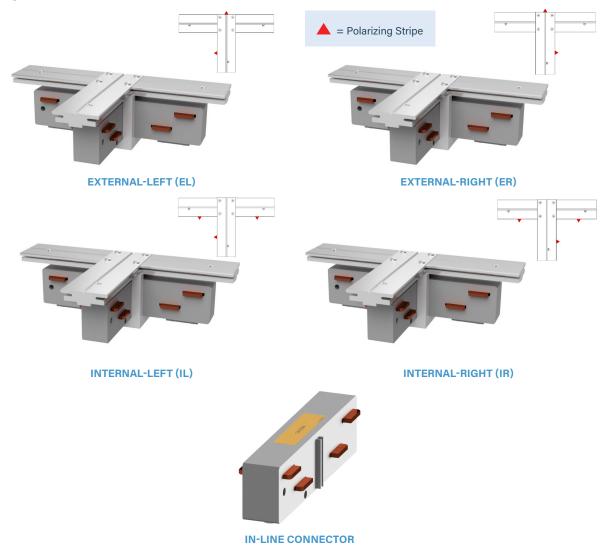
TEE SECTIONS

■ 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.

Weight 1 lb





TEE SECTIONS: PRODUCT NUMBERS



9. 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)

L Internal-Left EL External-Left
R 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



60 AMP SYSTEMS

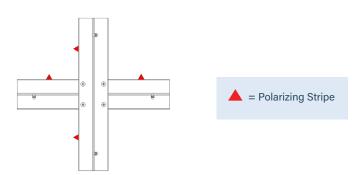
CROSS SECTIONS

■ 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.







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)
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

REDO Paint Factory Red **BLUO** Paint Factory Blue ****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



60 AMP SYSTEMS

END FEED UNITS

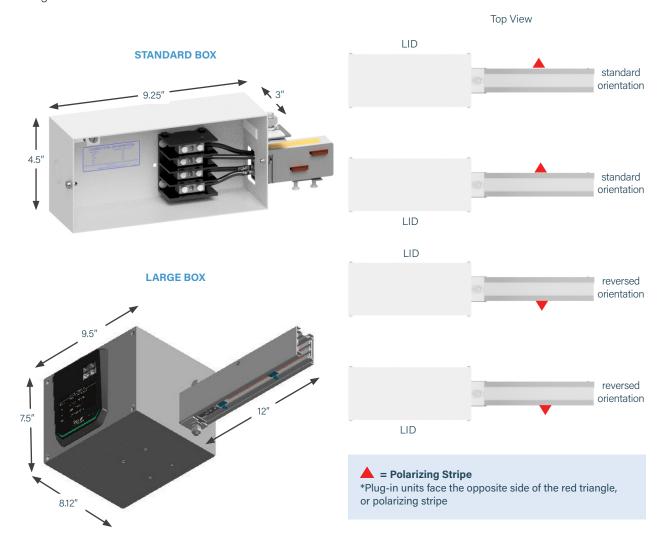
■ PRODUCT DESCRIPTION

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

■ PRODUCT DESCRIPTION

End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

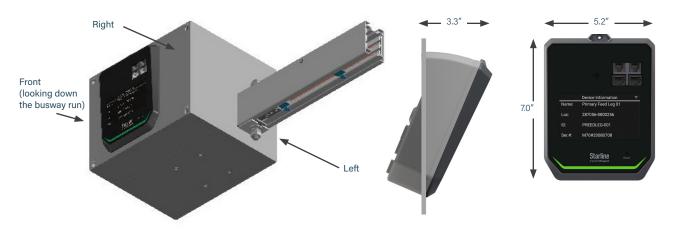
Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.

LARGE 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).

*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.

Track Busway Product Selection Guide

2.15



60 AMP SYSTEMS

END FEED UNITS: PRODUCT NUMBERS

U	F	060	T2	С	4	5	S -	.	L	-	R	S	Ν
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polari	ization	8. Lug/ Optio		9. Mete Locat		10. Accessories Package	11. Accessories Location
		- 0100	С	- STD0	0	_	M7	3	00		1	*Optiona	1
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Release	1	17. //eter Options	S	18. System and CT	Config. Type	
1. System U US	n (standard o	f measure)			s	Star	ssories F ndard es not ava			N	Noi	ries for feed un	nits)
F End	d Feed	ation componer			N	Nor	sories L ne (N/A)					side with acc	essory)
60 60	amps	me compatibilit				12. Straight Length (for large box only) 0100 1 ft. (For other lengths, consult the factory)							
5. Mater	System ial (busbar m	aterial)			13 C		ay Acce	ss (for	large bo	ox only	<i>')</i>		
6. Neutr	· ·		f neutral busbai	r and/or ground	ST BI	TDO Fa	actory M aint Fact	ill Finis	sh ack	RED BLU	0 Pair 10 Pair	housing) nt Factory Rent Factory Bl	ue
	zation (orient ndard	tation of section	n for mating pur R Reverse			. Tape I	Marking Tape Ma	(colore			- "	ase see page a	
		(standard/dou Standard box	ble/bolt lugs an	d box size) d lugs, Large		INU	iape ivia	ikirig					
meter mus	st follow lid or	rom the termina ientation on lar	al, side with rem ge box) L Left	ovable lid;									

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



C

*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

0B DHCP

WPA2E OC.

OE IPV6 + DHCP

0F IPV6 + WPA2E

OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

Audible Alarm 30

A0 Lug Temp + Audible Alarm

Lug Temp + IPV6 1A

Lug Temp + DHCP **1B**

Lug Temp + WPA2E 1C

Lug Temp + IPV6 + DHCP 1E

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

Audible Alarm + WPA2E **3C** 3E

Audible Alarm + IPV6 + DHCP

Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E 3J

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP

Lug Temp + Audible Alarm + IPV6 + WPA2E ΑF

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral 1
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
 - Δ, Split CTs, 5A-secondary, Measured Neutral



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

EXAMPLE

<u>UF60T2C4S-LRSN-0100C-STD0-M73001</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 - M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



60 AMP SYSTEMS

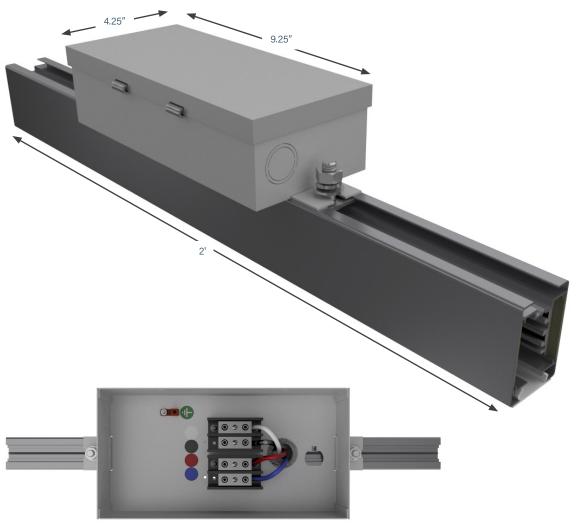
ABOVE FEED UNITS

■ 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



INTERNAL VIEW



ABOVE FEED UNITS: PRODUCT NUMBERS

PRO	וטטכו	NUME	SERS									
U	Α	060	T2	С	4	S	_	S	N	S	N	
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polarizat	ion	8. Lug/Box Options	9. Lid Orientation	10. Accessories Package	11. Accessories Location	
			- 02 12. Strai Leng		14. sway Fee	D12 -	15.	Color				
U US 2. Produ		f measure)	nt)		s	Standa . Accessor	ard ries Lo		tional accesso			
3. Produ 060 60		naximum ampe	rage)			2. Straight 200 2 feet	_	h (length of	section)			
	oatibility (frai System	me compatibili	ty)		13 C	_		s (how plugs	s access the b	usway)		
	rial (<i>busbar m</i> pper	aterial)				14. Feed Location (location of the center of the top feed) 012 12 inches						
	r <mark>al/Ground</mark> I hase plus N	•	of neutral busbar	and/or grou	S	TD0 Facto	ory Mil	l Finish		nt Factory R		
	zation (orien	tation of sectio	n for mating purp R Reverse			LKO Paint /HTO Paint				nt Factory Bl ease see page		
		(standard/dou Standard box	ıble/bolt lugs and	d box size)								
	rientation (fi	rom the termin	al, side with remo	ovable lid)								

EXAMPLE

<u>UA060T2C4S-SNSN-0200C012-BLK0</u> = US System, Above Feed, 60 amps, 72 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



60 AMP SYSTEMS

END FEED CONNECTOR UNITS

■ PRODUCT DESCRIPTION

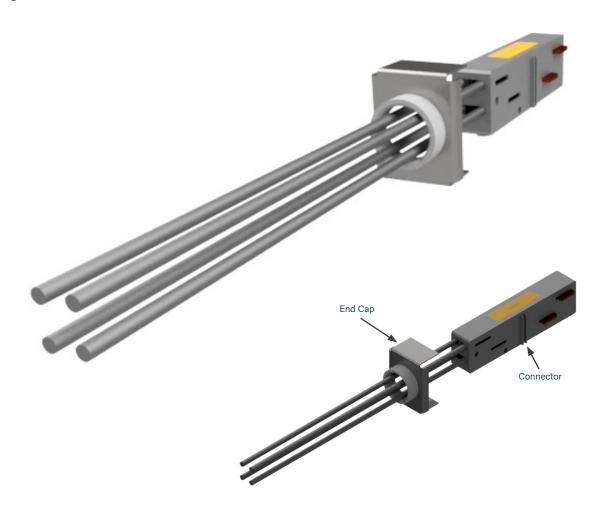
This design of power feed has a built-in connector and is used primarily in applications where aesthetic appearance is important — such as retail.

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.

End Feed Connector units are shipped with an installation tool specifically designed to move the housing clip to desired location to allow for proper fit. See Installation Instructions for more details.

Weight 2 lbs





2,21

60 AMP SYSTEMS

END FEED CONDUCTOR UNITS: PRODUCT NUMBERS



1. System (standard of measure) U US 2. Product Type (section component) 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) 3 Phase plus Neutral 1 Phase plus Neutral 2 7. Polarization (orientation of section for mating purposes) Standard Reversed

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

ZZZ ZZZ = inches (024 is standard)

EXAMPLE

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



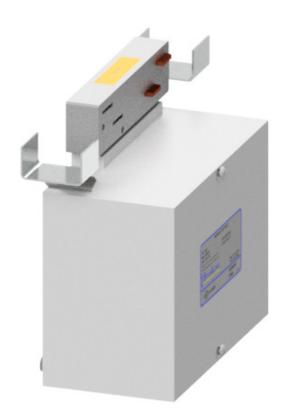
60 AMP SYSTEMS

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

060 Lug/Box Product Product Compatibility Material Neutral/ Polarization Lid System Accessories Accessories Frame Ground Options Orientation Package Location Type Bushar - STD0

> 12. Paint Color

1. Sy	stem (standard of measure)
U	US
2. Pi	roduct Type (section component)
В	Below Feed
3. Pr	roduct Frame (maximum amperage)
060	60 amps
4. C	ompatibility (frame compatibility)
T2	T2 System
5. M	aterial (busbar material)
С	Copper
6. N	eutral/Ground Busbar (size of neutral busbar and/or ground)
4	3 Phase plus Neutral
7. Pc	plarization (orientation of section for mating purposes)
s	Standard R Reversed
8. Lu	ug/Box Options (standard/double/bolt lugs and box size)
s	Standard lugs, Standard box

- 9. Lid Orientation (from the terminal, side with removable lid)
- R Right
- 10. Accessories Package (optional accessories for feed units)
- **S** Standard
- **11. Accessories Location** (from the terminal, side with accessory)
- N None (N/A)
- 12. Paint Color (allows painting of the busway housing)

STD0 Paint Factory Silver
BLK0 Paint Factory Black
WHT0 Paint Factory White

RED0 Paint Factory Red
BLU0 Paint Factory Blue
**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

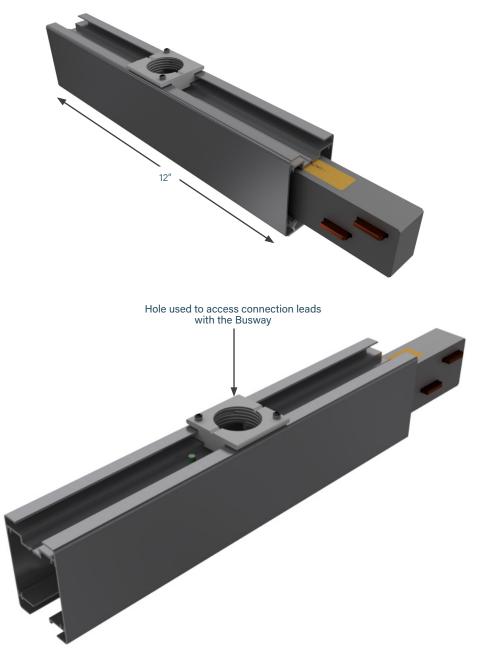


60 AMP SYSTEMS

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. Sy	ystem (standard of measure)
U	US
2. P	roduct Type (section component)
P	Pendant Feed
3. P	roduct Frame (maximum amperage)
060	60 amps
4. C	ompatibility (frame compatibility)
T2	T2 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
7. Po	plarization (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 **BLK0** Paint Factory Black **WHT0** Paint Factory White

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

EXAMPLES

 $\underline{\textbf{UP060T2C4R-PD60}} = \textbf{US System, Pendant Feed, 60 amps, T2 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Painted RAL 3036}$

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

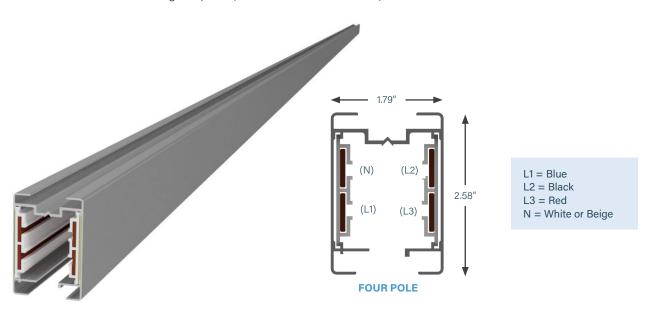


100 AMP SYSTEMS

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 inline connectors and housing couplers (found under Accessories).



MATERIAL

Extruded Aluminum

RATINGS

100% Ground Path 100 Amp, 600 Volt

LENGTH

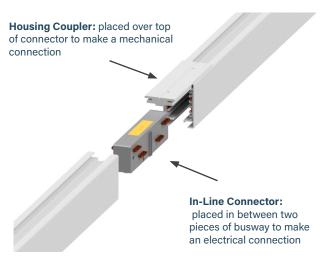
5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft

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



- 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



100 AMP SYSTEMS

ELBOW SECTIONS

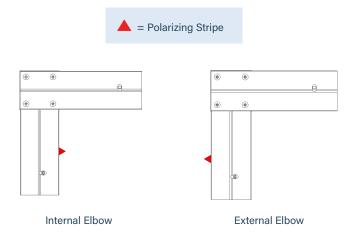
■ PRODUCT DESCRIPTION

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

8. Turning Direction (direction of section polarizing stripe)

Internal

EX External

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

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

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



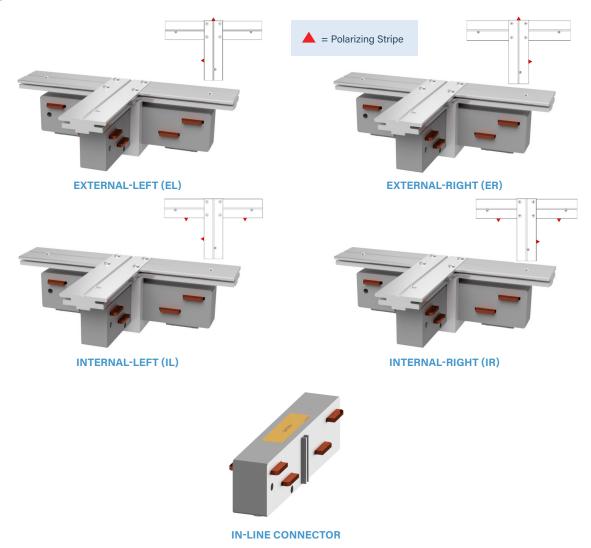
TEE SECTIONS

■ 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**).

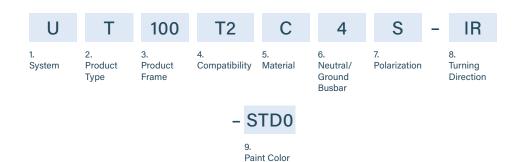
Tees are electrically connected to sections of 100 amp busway by means of an in-line connector. The connector is installed by inserting in each end of the housing sections to be joined. Hex head compression screws are tightened to make a reliable connection. All in-line connectors are polarized to prevent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

Weight 1 lb

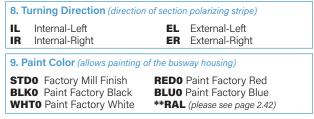




TEE SECTIONS: PRODUCT NUMBERS



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)
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



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



100 AMP SYSTEMS

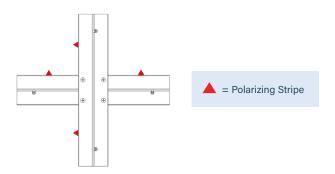
CROSS SECTIONS

■ 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



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 **BLKO** Paint Factory Black WHTO Paint Factory White **REDO** 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



100 AMP SYSTEMS

END FEED UNITS

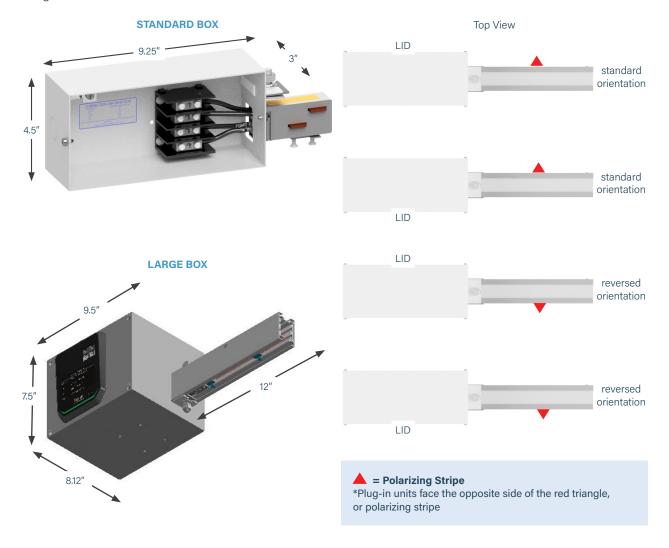
■ PRODUCT DESCRIPTION

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





100 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display a that can be angled down for easier viewing from the floor.

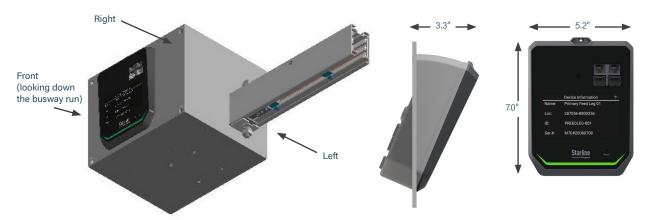
Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.

LARGE 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).

Meters and accessories are not available on Standard box.

^{*}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.



100 AMP SYSTEMS

END FEED UNITS: PRODUCT NUMBERS

U	F	100	T2	С	4		5	3 -	-	L		R	S	N	
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. 6. atibility Material Ne Gr Bu		İ	7. Polarization			8. Lug/Box Options		ter ation	10. Accessories Package	11. Accessories Location	
		- 0100	С	- STDO)	0	-	M7	'3	00		1	*Optiona		
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Mark	ing		*16. Meter Release	e	*17. Meter Options		*18. System and CT			
1. System (standard of measure) U US						10. Accessories Package (optional accessories for feed units) S Standard N None (N/A) *Accessories not available on standard box									
	2. Product Type (section component) F End Feed						11. Accessories Location (consult factory for Large box accessory options)								
3. Product Frame (maximum amperage)						N None (N/A)									
	100 100 amps						12. Straight Length (for large box only)								
4. Compatibility (frame compatibility) T2 T2 System						0100 1 ft. (For other lengths, consult the factory) 13. Busway Access (for large box only)									
5. Material (busbar material)						C Continuous									
C Copper						14. Paint Color (allows painting of the busway housing)									
Neutral/Ground Busbar (size of neutral busbar and/or ground) 3 Phase plus Neutral						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)									
7. Polarization (orientation of section for mating purposes) S Standard R Reversed						15. Tape Marking (colored tape on both sides of busway housing) 0 No Tape Marking									
8. Lug/B	ox Options	s (standard/dou	ble/bolt lugs an	d box size)		0	No 1	ape Ma	arkin	g					
S Star	ndard lugs,	Standard box	L Standard	d lugs, Large	box										
		from the termina rientation on lai	al, side with rem	ovable lid;											
	3														

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 (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

0B DHCP

WPA2E OC.

0E IPV6 + DHCP

IPV6 + WPA2E 0F DHCP + WPA2E OJ

IPV6 + WPA2E + DHCP ОН

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

Audible Alarm 30

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1R Lug Temp + DHCP

Lug Temp + WPA2E 1C

Lug Temp + IPV6 + DHCP 1E

Lug Temp + IPV6 + WPA2E 1F

1J Lug Temp + DHCP + WPA2E

Lug Temp + IPV6 + WPA2E + DHCP 1H

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

Audible Alarm + IPV6 + DHCP 3E

Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E **3**J

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E AE Lug Temp + Audible Alarm + IPV6 + DHCP

Lug Temp + Audible Alarm + IPV6 + WPA2E AF

Lug Temp + Audible Alarm + DHCP + WPA2E ΑJ

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral 1
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral C
 - Δ, Split CTs, 5A-secondary, Measured Neutral



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

EXAMPLE

UF100T2C4S-LRSN-0100C-STD0-MM73001 = 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 - M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



100 AMP SYSTEMS

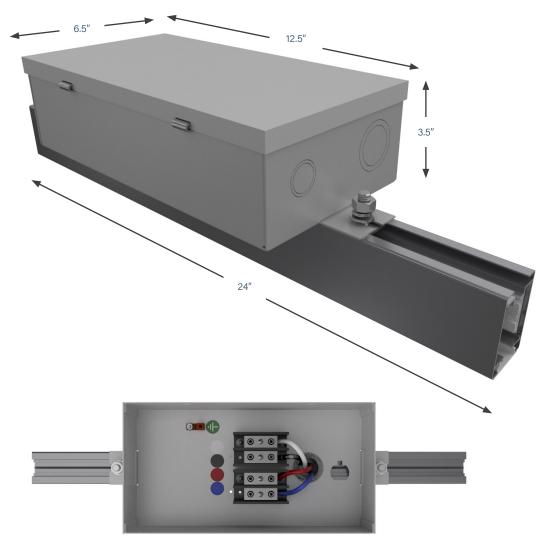
ABOVE FEED UNITS

■ 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 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



100 AMP SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS

PRO	DUCT	NUME	BERS									
U	Α	100	T2	С	2	ļ	S	-	S	N	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutra Groun Busba	d	7. Polarizati	on	8. Lug/Box Options	9. Lid Orientation	10. Accessories Package	11. Accessories Location
			- 02	200	С	01	2 -	ST	D0			
			12. Stra Len	0	3. usway ccess	14. Feed Locati	on	15. Paint	Color			
1. System	n (standard o	f measure)				10. Accessories Package (optional accessories for feed units) S Standard						
	ict Type (sec	tion compone	nt)			11. Accessories Location (from the terminal, side with accessory)						
	ove Feed oct Frame (m	ovimum omno	araga)			N None (N/A) 12. Straight Length (length of section)						
100 100		ахинин атре	raye)			0200 2 feet						
4. Comp	atibility (fran	me compatibili	ity)			13. Busway Access (how plugs access the busway)						
T2 T2	System					С	Continu	ious				
	ial (busbar m	aterial)				14. Feed Location (location of the center of the top feed)						
	pper					012 12 inches						
		•	of neutral busbar	and/or gro	und)					of the busway		
4 3 Phase plus Neutral						• Facto • Paint		l Finish ry Black		nt Factory Re nt Factory Bl		
7. Polarization (orientation of section for mating purposes) S Standard R Reversed					WH	TO Paint	Facto	ry White	**RAL (ple	ease see page	2.42)	
	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)												

EXAMPLE

<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



100 AMP 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





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

Standard lugs, Standard box

BELOW FEED UNITS: PRODUCT NUMBERS

В 100 System Product Product Compatibility Material Neutral/ Polarization Lug/Box Lid Accessories Accessories Frame Ground Options Orientation Package Location Type Busbar

- STD0

12. Paint Color

1. System (standard of measure)	9. Lid Orientation (from the terminal, side with rem
U US	R Right
2. Product Type (section component)	10. Accessories Package (optional accessories for
B Below Feed	S Standard
3. Product Frame (maximum amperage)	11. Accessories Location (from the terminal, side to
100 100 amps	N None (N/A)
4. Compatibility (frame compatibility)	12. Paint Color (allows painting of the busway housi
T2 T2 System	STD0 Factory Mill Finish RED0 Paint Fac
5. Material (busbar material)	BLKO Paint Factory Black WHTO Paint Factory White **RAL (please se
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	

movable lid)

for feed units)

with accessory)

sing)

actory Red actory Blue 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



T2 SERIES

RAL COLORS

1ST CHAF	RACTER
Р	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 CHA	RACTER
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:

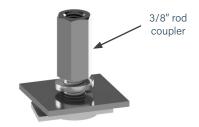
P B 2 0 = Paint RAL 3012



ACCESSORIES: SUPPORT HARDWARE

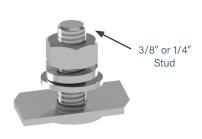
■ THREADED ROD

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

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



2.43



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



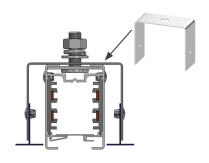
■ RECESSED MOUNT

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

*Hanger bolt must be ordered separately

**Busway must sit slightly below the surface of the ceiling in order to install plug in units.

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



2.44



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

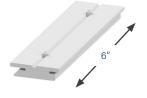


HOUSING COUPLER

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

*Hanger bolt must be ordered separately

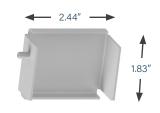
Part Number UHCT2 Available in all standard and RAL colors



■ 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



2.45



T2 SERIES

SERVICES

Regular servicing of busway systems is crucial for ensuring that your system performs at its best. By conducting regular maintenance, you can identify and address any potential issues before they turn into expensive problems, thus saving you time and money in the long run. Regular servicing can help extend the lifespan of your busway system, ensuring that it meets safety standards and complies with regulations. Choose from various offerings and customize a service plan that works best for you.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

COMMISSIONING AND EQUIPMENT RENTALS

Designing a mission-critical facility involves a significant investment of time and money. Through comprehensive commissioning services, Starline can help guarantee your project delivers the outcomes you expect.

Whether you need rental equipment to test your busway system or certified technicians to perform the testing, Starline has you covered. Choose from our inventory of load bank tap-offs and associated gear, or work with a Starline Engineer to customize and perform a commissioning plan to fit your specific needs.

METER SERVICES

Starline's certified technicians make optimizing your meters' performance and functionality a breeze. Our comprehensive on-site meter programming service includes inspecting, programming, reporting, and optional retrofitting services for you existing systems.

STARTUP AND SYSTEM CERTIFICATION

At Starline, we are committed to ensuring the success of your project. Our team understands the risks associated with the energization of systems, which is why we've designed a rigorous certification process to inspect, test and report on your Starline Busway and Critical Power Monitor ("CPM") products. Our certification process proactively identifies and prevents any potential issues before they happen.

To ensure the long-term success of your project, it is crucial to have Starline-certified technicians inspect and validate the installation before full commissioning. Level 2 and 3 commissioning ensures the installation complies with safety requirements and meets factory standards for ongoing reliability.

- 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

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

TURNKEY INSTALLATION SERVICES

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.

PREVENTATIVE MAINTENANCE PLANS AND IR SCANNING

Although Starline busway is expertly designed to require less maintenance, NETA ATS and MTS guidelines recommend conducting annual inspections and health assessments on all critical equipment. Yearly preventative maintenance helps to ensure your system's long-term reliability and safety.

Starline's FLIR-certified technicians will create a custom preventative maintenance plan for your specific needs. Our certified technicians will work to:

- Identify thermal anomalies
- Extend equipment lifecycle
- Ensure optimal system performance
- Improve facility safety and operational sustainability

Upon completing your preventative maintenance plan, you may be eligible to extend your product warranty.

ON-SITE INSTALLATION SUPPORT

Starline's on-site installation service makes installing your busway as quick and easy as possible.

Our installation support starts with scheduling a preliminary trip to the installation site. During the initial visit, our certified technicians will train your installing contractor and develop a thorough installation and commissioning plan.

After completing the training, your installing contractor will have a direct line of communication with our installation experts. Our experts can help answer questions and provide hands-on guidance when needed.

Opting for Starline's installation support helps mitigate the installation risk and reduces the learning curve typically associated with new installations.

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.**



T2 SERIES

SERVICES

ON-SITE PRODUCT TRAINING

At Starline, we offer comprehensive on-site product training services facilitated by our team of certified technicians. With their extensive expertise and commitment to upholding our high factory standards, you can confidently rely on them to ensure your and your systems' reliability and operational safety.

Our training programs equip your team with the knowledge and skills necessary to operate and maintain your systems effectively. Through hands-on demonstrations and interactive sessions, our certified technicians will guide your staff in understanding the intricate workings of the products and address any questions or concerns your team may have during the training process.

By choosing our on-site product training services, you are investing in your system's and operations' long-term success.

RECERTIFICATION AND EXTENDED WARRANTY PLANS

Starline's recertification and extended warranty options provide best-in-class coverage for all of your Starline products and systems. Our extended warranty plans safeguard your investment beyond the standard warranty timeframe, offering you peace-of-mind while our recertification programs help mitigate risk and downtime. Whether the busway has been installed for years or you are relocating to another building, Starline is here to help.

Choose from one of our flexible one to four-year plans or have your system recertified anytime. Contact your Starline rep for more information.

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.**



3

T3 AND S3 SERIES BUSWAY

SPECS & INTRODUCTION

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.

The Product Selection Guide also covers the Series-S Busway System, which offers the same performance, functionality, and flexibility of Starline Track Busway at higher ingress protection levels. Please note that most information is applicable across both systems. Any variations between systems will be differentiated throughout the document. In these cases, please note that the "S3" nomenclature refers to the Series-S system and "T3" refers to the standard Track Busway System.

SERIES-S SYSTEM

The Series-S System is certified to both IP54 and NEMA 3R ratings, which offers a higher level of protection against ingress of dust, water or other foreign objects. The unique sealed-system design provides the same level of protection across the entire power distribution system, from the power feeds to the busway and plug-in units.

Series-S plug-in units are specifically designed with durable, impact and chemical resistant materials commonly used in UL and outdoor applications. These plug-in units are paired with a wide variety of watertight rated IEC and NEMA devices.

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/**.



T3 AND S3 SERIES BUSWAY

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.

SERIES-S SPECS

The S3 Busway Series is designed with additional levels of ingress protection, IEC IP54 and NEMA 3R ratings, against liquid and solid contaminants.

This system meets or exceeds the additional standards for ingress protection:

- 3. International Electrotechnical Commission (IEC) 60529, Degrees of Protection Provided by Enclosures (IP Code)
- 4. National Electrical Manufacturers Association (NEMA) 250, Enclosures for Electrical Equipment (1000 Volts Maximum)
- 5. Housing shall be protected against corrosion utilizing protective coating (per MIL-DTL-5541), while maintaining case grounding capability, with option for powder-coating.



T3 AND S3 SERIES BUSWAY

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T3 AND S3 SERIES BUSWAY

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T3 AND S3 SERIES BUSWAY

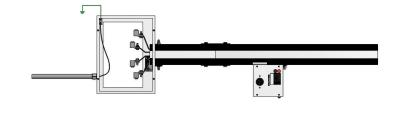
GROUND OPTIONS

■ 100 & 225 OPTIONS

CASE GROUND/CHASSIS EARTH

Uses aluminum housing and no extra copper bar.



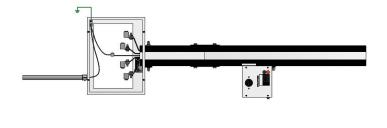


■ 100 OPTION ONLY DEDICATED GROUND/EARTH

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





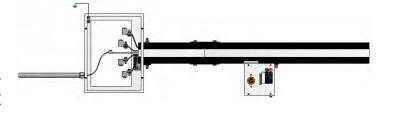


■ 100 OPTION ONLY ISOLATED GROUND/EARTH

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.**



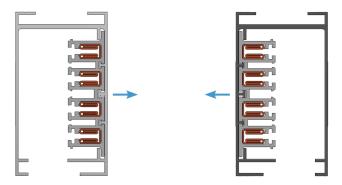
T3 AND S3 SERIES BUSWAY

POLARITY TIPS

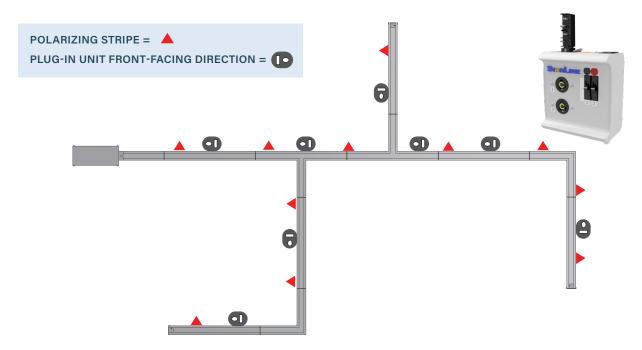
Starline utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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





T3 AND S3 SERIES BUSWAY

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 3.41** 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 DESIGNATION	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	



T3 AND S3 SERIES BUSWAY

SYSTEM LAYOUT TIPS

S3 INFORMATION:

Each piece of S3 housing components (straights and elbows) requires an S3 joint kit (containing two housing couplers, one bus connector, a joint seal, and two joint covers). 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 S3 systems, you will need to order an Installation Tool (ST3IT). Closure strip must also be ordered separately, and should match the total length of busway housing ordered.

PLEASE NOTE: All S3 Busway components are designed to work together to function as one complete IP54-rated system. When selecting system components, it is important that only S3 Busway components from this catalog are used together. Do not use any T3 components within this catalog. For technical questions related to these systems and/or specific applications, please contact our technical support team.

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	
100S3 (standard)	100 amps	42 ft	72 ft	
225S3 (standard)	225 amps	28 ft	48 ft	



T3 AND S3 SERIES BUSWAY

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.

S3 SYSTEM INFORMATION

All S3 components must be purchased and installed together to build a complete S3 System.

For the S3 system, please note the specific catalog numbering systems dedicated for these components. S3 system components will include the "S3" nomenclature in the "compatibility" field of the catalog number. 225S3 (standard)

The standard installation tool (ST3IT) can be used for both the T3 and S3 system.

T3 AND S3 SERIES BUSWAY

INGRESS PROTECTION

This table provides descriptions for the various Ingress Protection (IP) ratings as listed in IEC 60529. General T5 Busway is listed as IP2X. IP3X rated busway is available with additional accessories. Series - S Busway is available with an IP54 rating.

As the table indicates, for the IP54 rating the first number (5) pertains to the solid particle protection and the second (4) pertains to the level of protection from water. For purposes of real-world application of the Series-S busway system, please consider these general guidelines.

1. Splashproof and sprinkler proof; 2. Highly dust-resistant; 2. Not waterproof or watertight; 3. Not for outdoor use; 4. Not subject to direct exposure to natural elements, such as wind, rain, sun, ice, etc.

IP Rating Table IP54 Solid Protection Water Protection Not protected. Not protected. Protected against solid objects greater than 50mm, such as a hand. Protected against vertical falling drops of water. Limited ingress permitted. Protected against solid objects greater than 12.5mm, such as a finger. Commonly called "Finger safe". Protected against diagonally falling water (up to 15 degrees). 10 minutes at a rate of 1 mm/min. Protected against sprays of water up to 60 degrees from the vertical. Protected against solid objects greater than 2.5mm, such as a Limited ingress permitted. screwdriver. Protected against water splashes from all directions. Limited ingress Protected against solid objects greater than 1mm, such as a wire. permitted. Dust protected. Limited ingress of dust permitted. Will not interfere with Protected against jets of water. Limited ingress permitted. operation of the equipment. Protected against power jets of water. Dust tight. No ingress of dust. Limited ingress permitted. Watertight. Protected against the effects of immersion in water between 15cm and 1m for 30 minutes. Watertight against the effects of immersion in water under pressure for long periods.

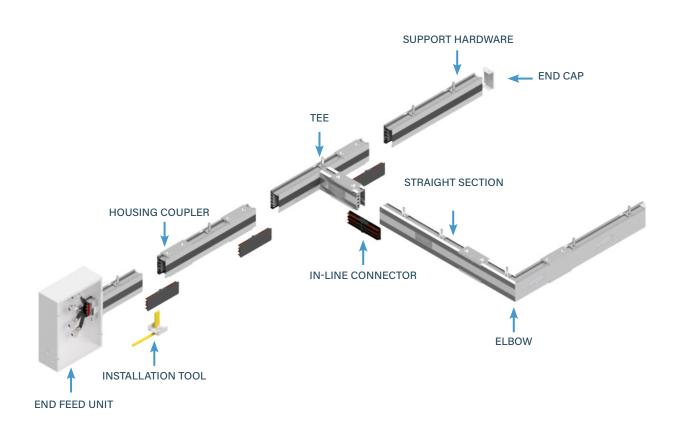
Ratings in accordance with the International Electrotechnical Commission (IEC) - 60529, Degrees of Protection Provided by Enclosures (IP Code)

3.9



T3 SERIES

SYSTEM LAYOUT DRAWING





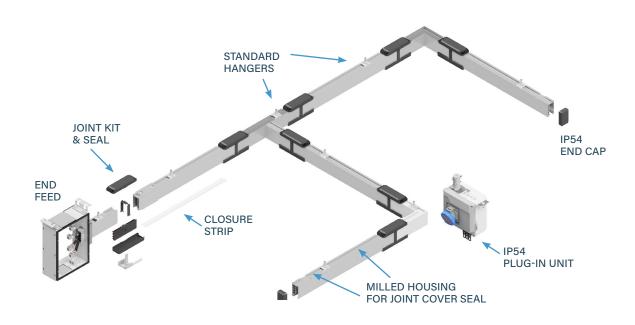
T3 PLUG-IN UNITS

See page **3.50** for further information on applicable T3 plug-in unit options.



S3 SERIES

SYSTEM LAYOUT DRAWING





S3 PLUG-IN UNITS

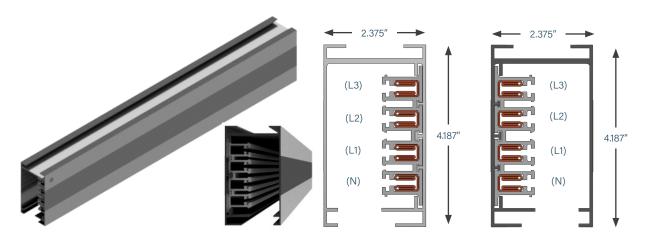
See enclosure style options page **3.76** for more information on applicable plug-in units.



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

Note: S3 housing includes corrosion resistant base coating

RATINGS

100% Ground Path US: 100 Amp, 600 Volt Metric: 160 Amp, 415 Volt

LENGTH

T3: 5 ft, 10 ft, 20 ft; or custom lengths between 2 - 20 ft S3: 5 ft, 10 ft max. Consult factory for additional lengths

VOLTAGE DROP

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

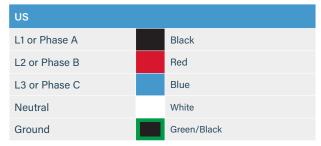
WEIGHT

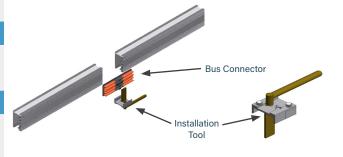
10 ft 4 pole: 26 lbs

10 ft 4 pole w/ ground: 30 lbs

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

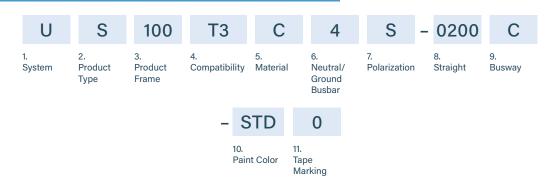
10 ft 4 pole w/ ground & 200% N: 34 lbs







STRAIGHT SECTIONS: **PRODUCT NUMBERS**



1. S	ystem (standard of measure)			
U	US			
2. P	roduct Type (section component)			
S	Straight Section			
3. P	roduct Frame (maximum amperage)			
100	100 amps			
4. C	compatibility (frame compatibility)			
T3	T3 System S3	S3 System		
5. N	laterial (busbar material)			
С	Copper			
6. N	leutral/Ground Busbar (size of neu	tral 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)				
XX	YY XX=feet, YY=inches			

C	Continuous		
10. Pa	aint Color (allows painting	of the buswa	ay housing)
STD BLK WHT	Factory Mill Finish Paint Factory Black Paint Factory White	RED BLU **RAL	Paint Factory Red Paint Factory Blue (please see page 3.40)

9. Busway Access (how plugs access the busway)

NOTE: All Series-S Housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

- No Tape Marking 7 Tape Factory Blue Tape Factory Black 8 Tape Factory Green
- Tape Factory White Tape Factory Yellow

3

Tape Factory Red

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



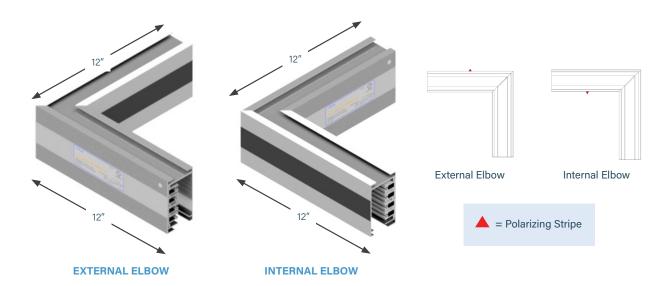
100 AMP SYSTEMS

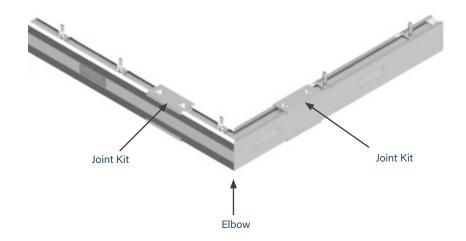
ELBOW SECTIONS

■ 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.

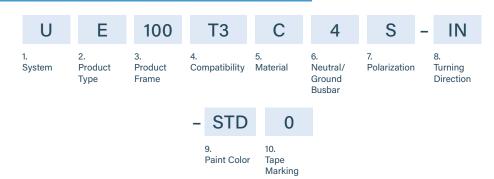
Weight 5.6 lbs







ELBOW SECTIONS: PRODUCT NUMBERS



U US	
2. Product Type (section compo	unont)
E Flow Section	ment)
E EIDOM Section	
3. Product Frame (maximum am	nperage)
100 100 amps	
4. Compatibility (frame compatil	bility)
T3 T3 System	S3 S3 System
5. Material (busbar material)	
C Copper	
6. Neutral/Ground Busbar (siz	ze 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% Neutra	ral F 3 Phase plus 200% Neutral plus Internal Ground Conductor

	nternal Seismic Internal	EX External GX Seismic External			
9. Pai	nt Color (allows painting	of the busy	vay housing)		
BLK	Factory Mill Finish Paint Factory Black		Paint Factory Blue		
WHT	Paint Factory White	**RAL	(please see page 3.40)		
NOTE base o	,	include a aint color	clear corrosion resistant selection.		

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



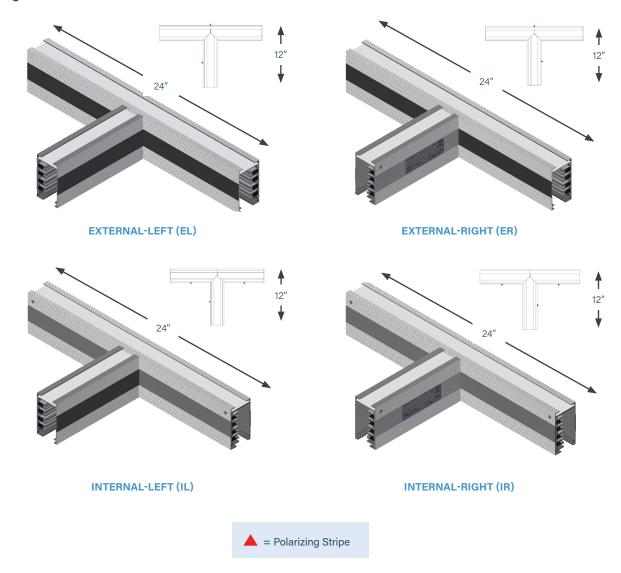
100 AMP SYSTEMS

TEE SECTIONS

■ PRODUCT DESCRIPTION

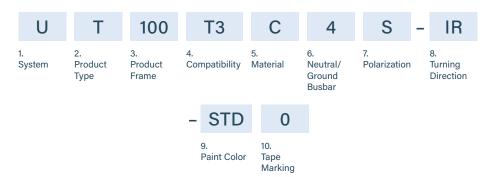
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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

Weight 8 lbs





TEE SECTIONS: PRODUCT NUMBERS



IL Internal-Left
IR Internal-Right HL Seismic Internal-Left
HR Seismic Internal-Right
9. Paint Color (allows painting
STD Factory Mill Finish
BLK Paint Factory Black WHT Paint Factory White
NOTE: All Series-S housings
base coating, regardless of p
10. Tape Marking (colored tap
No Tape MarkingTape Factory Black
us 4 Tape Factory White ctor 6 Tape Factory Red
utral

ion 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

g 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 3.40)

is include a clear corrosion resistant paint color selection.

pe on both sides of busway housing)

ì
/

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



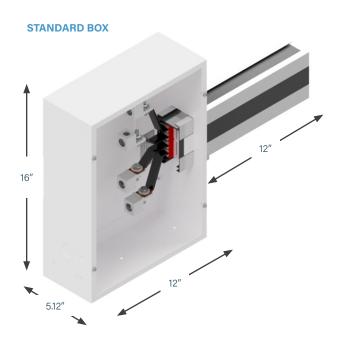
END FEED UNITS

■ 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 3.21 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 3.21** End Feed Units: Product Numbers



Large box with circular IR window



100S3 End Feed with CPM

Track Busway Product Selection Guide 3.18



100 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.

Front (looking down the busway run) Right 7.0" Starling Starling Left

*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 3.21 End Feed Units: Product Numbers).

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

^{*}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".

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



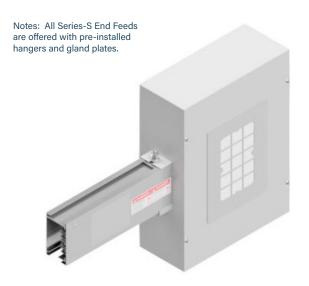
END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.



Note: Rectangular IR window option not available for Series-S systems. See S3 end feed accessories package for more information.

FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T3); IP54 (S3)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 3.22** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 3.21** End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS

U	F	100	Т3	С	4	5	S -		S	1	V	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polari	zation	8. Lug, Opti	/Box ions	9. Meter Locat		10. Accessories Package	11. Accessories Location
	-	0100	С	- STD	0	_	M7	3	00		1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Release		*17. Meter Options	S	18. System (nd CT T		
U US2. ProduF En3. Produ100 100	d Feed ct Frame (ma	ion componer	rage)		TG S G C O D	S Option Star Star IR W Seis Seis	ns: ndard line Rec Vindow - mic Mou mic with mic with	t. IR \ - Circ untino n IR V	Window ular g Holes Vindow	, 5"x7" Circul	ar	ies for feed ur	nits)
	System	ne compatibilit	y) S3 S3 Syste	m	F B	S3 S						land plates)	
5. Mater	rial (busbar ma	terial)			11.	Acces	sories L	ocati	ion (fron	n the te	erminal,	side with acc	essory)
	pper al/Ground B	usbar (size o	f neutral busbar	and/or ground	N L	Non Left	ie (N/A)			R F	Righ Fron	nt nt (consult th	ne factory)
	hase plus Ne	•		plus Neutral p		. Straig	ht Leng	th (le	ngth of s	ection))		

plus Internal Ground

7. Polarization (orientation of section for mating purposes)

3 Phase plus 200% Neutral F

Reversed

Conductor

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

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

Internal Ground Conductor

3 Phase plus 200% Neutral

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

R Right

Standard

- **L** Left
- N None (N/A)

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)

RED Paint Factory Red STD Factory Mill Finish Paint Factory Black **BLU** Paint Factory Blue **BLK** **RAL (please see page 3.40) **WHT** Paint Factory White

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

- No Tape Marking
- Tape Factory Blue
- 3 Tape Factory Black
- 8 Tape Factory Green
- 4 Tape Factory White
- Tape Factory Yellow
- Tape Factory Red
- 9

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 (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

3J Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP

AF Lug Temp + Audible Alarm + IPV6 + WPA2E

AJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- **1** Δ, Solid CTs, Millivolt, No Measured Neutral
- **4** Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- **9** Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

J DC Circuit 1, Solid CT

K DC Circuit 2, Solid CT

L DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

UF100T3C4R-LNSN-0100C-STD0-M73001= 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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



100 AMP SYSTEMS

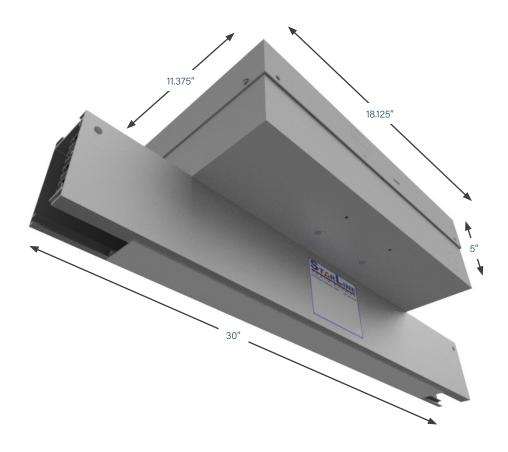
ABOVE FEED UNITS

■ 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 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>





3,24

100 AMP SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS

PRO	DUCT	NUME	BER5								
U	Α	100	T 3	С	4	S	-	S	N	S	N
ystem	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polariz	ation	8. Lug/Box Options	9. Meter Location	10. Accessories Package	11. Accessorie Location
-	0206	С	015	- STD	0	_	M7	3 00	1	*Optiona	
	12. Straight Length	13. Busway Access	14. Feed Location	15. Paint Color	16. r Tape Marking		*17. Meter Release	*18. Meter Options		Config. Type	
1. System U US	n (standard of	measure)			1			Package (opt	ional accesso	ories for feed u	nits)
	ct Type (sect	ion compone	nt)				ories L e (N/A)	ocation (fror	n the termina	l, side with rem	ovable lid)
3. Produ 100 100	ct Frame (ma	aximum ampe	erage)			2. Straigh	•	th (length of s	section)		
4. Comp	atibility (fram	ne compatibili	<i>(ty)</i> S3 S3 Syste	m	1		y Acces	ss (how plugs	access the b	usway)	
5. Mater	ial (busbar ma	nterial)						l (location of t			
6. Neutra	al/Ground B	Susbar (size o	of neutral busbar	and/or ground	d) 1	5. Paint C	Color (al	lows painting	of the busway	y housing)	
	hase plus Ne hase plus 20		Internal (F 3 Phase	plus Neutral p Ground Cond plus 200% Ne	uctor E	BLK Pai	nt Facto	II Finish ory Black ory White	BLU Pai	nt Factory Re nt Factory Bl ease see page	ue
			Conduct	rnal Ground tor	1	6. Tape N	larking	(colored tape	on both sides	s of busway ho	using)
S Sta	ndard		n for mating purp	d	3	Tape Tape	ape Ma Factory Factory Factory	/ Black / White	8 Tap	pe Factory Bl pe Factory G pe Factory Ye	reen
	ox Options (ndard lugs, St		uble/bolt lugs and L Standard	<i>d box size)</i> d lugs, Large l		Тарс	, dotor)	1100			
	st follow lid orie			ovable lid; None (N	N/A)						

EXAMPLE

<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



100 AMP SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS



*17. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*17. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*18. Meter Options (M70 AC and DC)

IPV6 0A

DHCP **0B**

OC. WPA2E 0E IPV6 + DHCP

0F IPV6 + WPA2E

OJ DHCP + WPA2E ОН IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A₀ Lug Temp + Audible Alarm

1A Lug Temp + IPV6

Lug Temp + DHCP **1B**

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

Lug Temp + IPV6 + WPA2E 1F

Lug Temp + DHCP + WPA2E 1J

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

Audible Alarm + IPV6 + DHCP 3E

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E 3J

Audible Alarm + IPV6 + WPA2E + DHCP **3H**

AA Lug Temp + Audible Alarm + IPV6

Lug Temp + Audible Alarm + DHCP AB

AC Lug Temp + Audible Alarm + WPA2E

ΑE Lug Temp + Audible Alarm + IPV6 + DHCP

AF Lug Temp + Audible Alarm + IPV6 + WPA2E

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*19. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral 1
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*19. System Configuration and CT Type (M70 DC)

DC Circuit 1, Solid CT

DC Circuit 2, Solid CT K

DC Both Circuits, Solid CT

EXAMPLE

UA100T3CFS-LNSN-0206C015-STD0 = 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

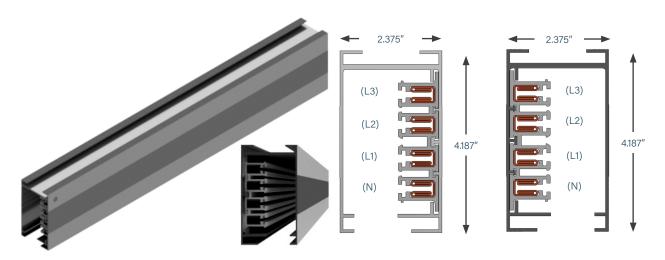


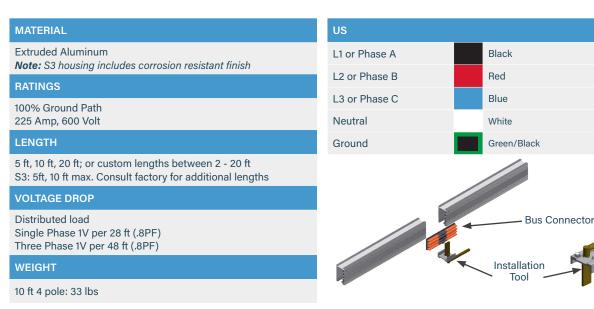
225 AMP SYSTEMS

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.



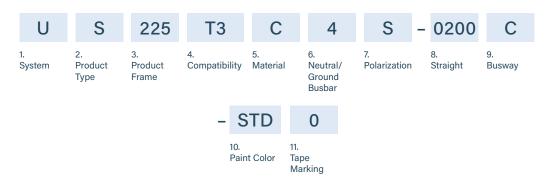




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225 AMP SYSTEMS

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

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

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

BLK	Factory Mill Finish	RED	Paint Factory Red
	Paint Factory Black	BLU	Paint Factory Blue
	Paint Factory White	**RAL	(please see page 3.40)
NOTE.	All Carias C bassines in	ماديطه م مام	

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

11. 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

US225T3C4S-0206C-STD6 = 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



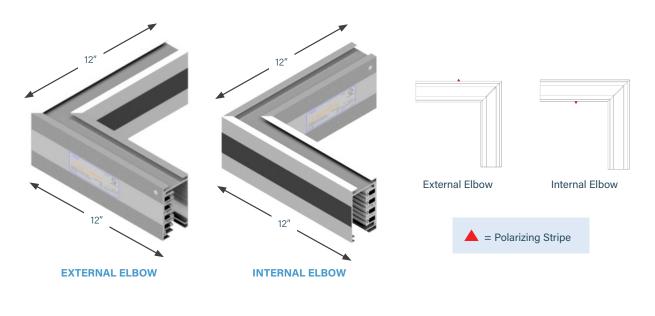
225 AMP SYSTEMS

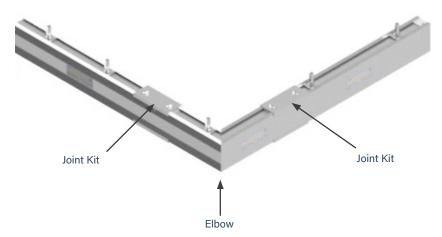
ELBOW SECTIONS

■ 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

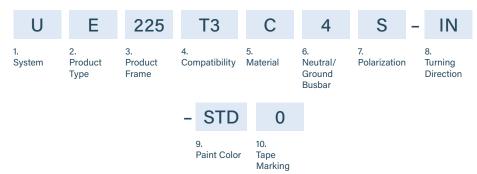






225 AMP SYSTEMS

ELBOW SECTIONS: PRODUCT NUMBERS



4 Contact () ()	To Turning Dispation (II. II. II. II. II. II. II. II. II. II					
System (standard of measure) U US	8. Turning Direction (direction of section polarizing stripe) IN Internal EX External HN Seismic Internal GX Seismic External					
Product Type (section component) Elbow Section	9. Paint Color (allows painting of the busway housing)					
3. Product Frame (maximum amperage) 225 225 amps	STD Factory Mill Finish RED Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 3.40)					
4. Compatibility (frame compatibility) T3 T3 System S3 S3 System	NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.					
5. Material (busbar material) C Copper	 10. Tape Marking (colored tape on both sides of busway housing) No Tape Marking Tape Factory Blue Tape Factory Green 					
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)4 3 Phase plus Neutral	4 Tape Factory White 9 Tape Factory Yellow 6 Tape Factory Red					
7. Polarization (orientation of section for mating purposes) S Standard						

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



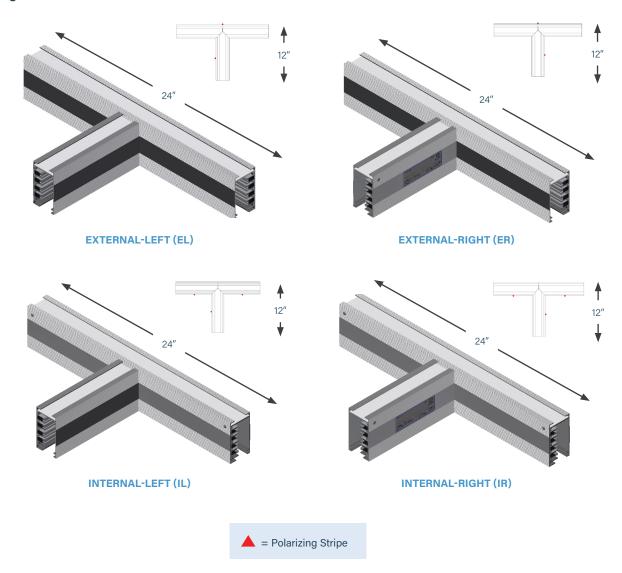
225 AMP SYSTEMS

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 9.2 lbs

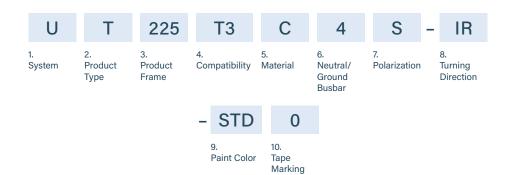




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225 AMP SYSTEMS

TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)	8. Turning Direction (direction of section polarizing stripe)
U US	IL Internal-Left EL External-Left
2. Product Type (section component)	IR Internal-Right ER External-Right HL Seismic Internal-Left GL Seismic External-Left
T Tee Section	HR Seismic Internal-Right GR Seismic External-Right
3. Product Frame (maximum amperage)	9. Paint Color (allows painting of the busway housing)
225 225 amps	STD Factory Mill Finish RED Paint Factory Red
4. Compatibility (frame compatibility)	BLK Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 3.38)
T5 T5 System S5 S5 System	NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.
5. Material (busbar material)	base coating, regardless of paint color selection.
C Copper	10. Tape Marking (colored tape on both sides of busway housing)
6. Neutral/Ground Busbar (size of neutral busbar and/or ground)	No Tape Marking Tape Factory Blue
	3 Tape Factory Black 8 Tape Factory Green 9 Tape Factory Yellow
4 3 Phase plus Neutral	6 Tape Factory Red
7. Polarization (orientation of section for mating purposes)	
S Standard	

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



225 AMP SYSTEMS

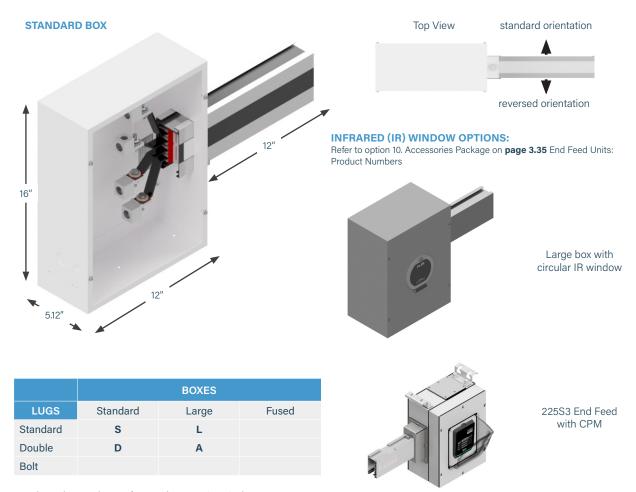
END FEED UNITS

■ 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.



Box size and Lug options: Refer to option 8. Lug/Box Options on page 3.35 End Feed Units: Product Numbers



225 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

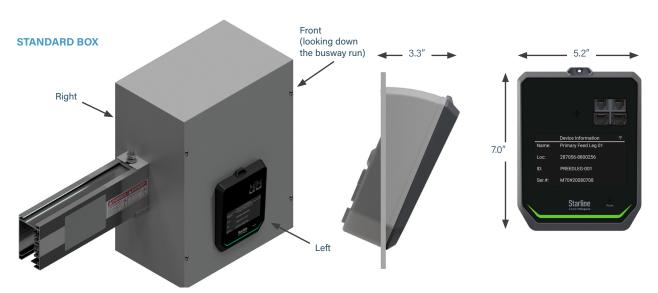
End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.



*The above arrows show how to determine your meter location on an end feed (*Refer to option 9. Meter Location on* **page 3.35** *End Feed Units: Product Numbers*).

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

^{*}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".

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



225 AMP SYSTEMS

END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

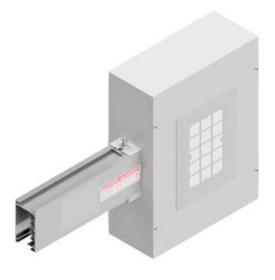
When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

Notes: All Series-S End Feeds are offered with pre-installed hangers and gland plates.

FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance



Note: Rectangular IR window option not available for Series-S systems. See S3 end feed accessories package for more information.

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T3); IP54 (S3)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 3.36** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 3.35** End Feed Units: Product Numbers)



225 AMP SYSTEMS

END FEED UNITS: PRODUCT NUMBERS

U	F	225	Т3	С	4	5	3	-	S		Ν	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polari	zation	L	3. Lug/Box Options		eter cation	10. Accessories Package	11. Accessories Location
		0100	С	- STD	0	_	M	73	00)	1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Mete Relea		*17. Meter Options		*18. System (and CT)		

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

US

2. Product Type (section component)

End Feed

3. Product Frame (maximum amperage)

225 225 amps

4. Compatibility (frame compatibility)

T3 System S3 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

Reversed R

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

Standard lugs, Standard box **D** Standard lugs, Large box

Double lugs, Standard box Double lugs, Large box

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

Right

Left

Ν None (N/A)

10. Accessories Package (optional accessories for feed units)

T3 Options:

- S Standard
- G Starline Rect. IR Window, 5"x7"
- C IR Window - Circular
- 0 Seismic Mounting Holes
- Seismic with IR Window Circular D
- Q Seismic with IR Window Rectangular

S3 Options:

- S3 Standard (includes hangars and gland plates)
- S3 Standard + IR Window Circular

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

None (N/A)

Right

Left

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 BLK Paint Factory Black **RED** Paint Factory Red

WHT Paint Factory White

BLU Paint Factory Blue **RAL (please see page 3.40)

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

No Tape Marking

Tape Factory Blue

- 8 Tape Factory Green
- Tape Factory Black 4 Tape Factory White
- Tape Factory Yellow

3.35

Tape Factory Red

EXAMPLE

UF225T3C4R-DRSN-0100C-BLK0 = 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

3



225 AMP SYSTEMS

END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

IPV6 0A

DHCP **0B**

WPA2E OC.

0E IPV6 + DHCP

0F IPV6 + WPA2E

OJ DHCP + WPA2E

ОН IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A₀ Lug Temp + Audible Alarm

1A Lug Temp + IPV6

Lug Temp + DHCP **1B**

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

Lug Temp + IPV6 + WPA2E 1F

Lug Temp + DHCP + WPA2E 1J

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

Audible Alarm + IPV6 + DHCP 3E

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E 3J

Audible Alarm + IPV6 + WPA2E + DHCP **3H**

Lug Temp + Audible Alarm + IPV6 AA

Lug Temp + Audible Alarm + DHCP AB

AC Lug Temp + Audible Alarm + WPA2E

ΑE Lug Temp + Audible Alarm + IPV6 + DHCP AF

Lug Temp + Audible Alarm + IPV6 + WPA2E

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- 1 Δ, Solid CTs, Millivolt, No Measured Neutral
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- Δ, Solid CTs, Millivolt, Measured Neutral 9
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

DC Circuit 1, Solid CT J

Κ DC Circuit 2, Solid CT

L DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display

M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

<u>UF225T3C4R-DRSN-0100C-BLK0-M73001</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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



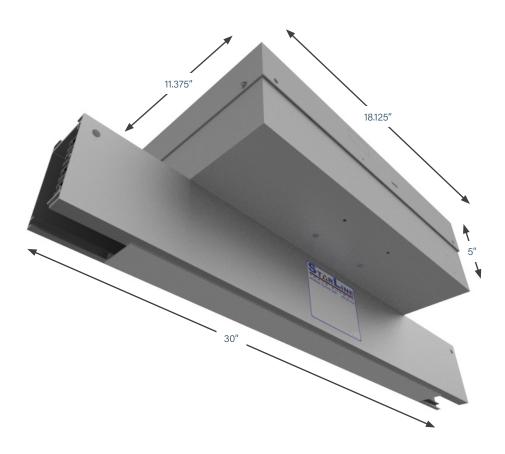
225 AMP SYSTEMS

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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225 AMP SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS

FIIO	DUCT	INOIVIL	LIIO								
U	Α	225	T3	С	4	S	3 -	S	N	S	N
System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polariz	zation	8. Lug/Box Options	9. Meter Location	10. Accessories Package	11. Accessorie Location
	0206	С	015	- STD	0	_	M7	3 00	1	*Optional	
	12. Straight Length	13. Busway Access	14. Feed Location	15. Paint Color	16. r Tape Marking		*17. Meter Release	*18. Meter Options		Config. Type	
U US					11. N L		sories L e (N/A)	ocation (from	m the termina Right Top	l, side with rem A F	ovable lid) Rear Front
	ict Type (sect ove Feed	tion compone	nt)		12	. Straig	ht Leng	th (length of	section)		
3. Produ	ıct Frame (ma	aximum ampe	rage)		02	206 2 fe	eet, 6 inc	hes			
225 225	amps					13. Busway Access (how plugs access the busway)					
	atibility (fran	ne compatibili			С						
	System		S3 S3 Syste	m				n (location of the state of the			
	<mark>rial</mark> (<i>busbar ma</i> pper	aterial)						lows painting			
6. Neutr			of neutral busbar	and/or ground	d) S1	T D Fa . K Pa	ctory Mi		RED Pai	nt Factory Re nt Factory Bl ease see page 3	ue
	zation (orienta ndard	ation of sectio	n for mating purp					eed enclosu painted star		nted. "STD Fac	ctory Mill
8. Lug/Box Options (standard/double/bolt lugs and box size) S Standard lugs, Standard box L Standard lugs, Large box					0	No T Tape	Tape Mai e Factory	rking / Black	7 Tap 8 Tap	s of busway ho pe Factory Bl pe Factory Gr	ue reen
	Location (fro st follow lid orio		al, side with rem	ovable lid;	4		e Factory e Factory		9 Ta _l	pe Factory Ye	llow
R Rig	ht	L Left	N	None (N	/A)						
10. Acce	ssories Pacl	kage (optiona	al accessories for	r feed units)							

EXAMPLE

Standard

<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



225 AMP SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS



*17. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*17. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*18. Meter Options (M70 AC and DC)

IPV6 0A DHCP

0B

0C WPA2E 0E

IPV6 + DHCP 0F

IPV6 + WPA2E

OJ DHCP + WPA2E

IPV6 + WPA2E + DHCP OH

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

STARLINEPOWER.COM _

Audible Alarm 30

A₀ Lug Temp + Audible Alarm

1A Lug Temp + IPV6

Lug Temp + DHCP 1R

1C Lug Temp + WPA2E

Lug Temp + IPV6 + DHCP 1E

Lug Temp + IPV6 + WPA2E 1F

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP Audible Alarm + IPV6 + WPA2E

3F **3**J

Audible Alarm + DHCP + WPA2E **3H**

Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

Lug Temp + Audible Alarm + DHCP AB AC Lug Temp + Audible Alarm + WPA2E

Lug Temp + Audible Alarm + IPV6 + DHCP ΑE

ΑF Lug Temp + Audible Alarm + IPV6 + WPA2E

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP AH

*19. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
- Δ, Split CTs, 5A-secondary, Measured Neutral

*19. System Configuration and CT Type (M70 AC)

DC Circuit 1, Solid CT

DC Circuit 2, Solid CT

DC Both Circuits, Solid CT

EXAMPLE

UA225T3C4R-SNSN-0206C015-STD0 = 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

3.39



T3 SERIES

RAL COLORS

1ST CHARACTER				
Р	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

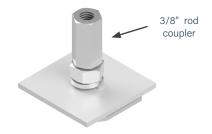


T3 SERIES

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



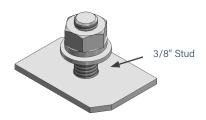
■ SEISMIC THREADED ROD

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



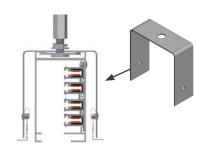
■ RECESSED SUSPENDED CEILINGS

For hanging busway into a recessed ceiling.

*Hanger bolt must be ordered separately

**Busway must sit slightly below the surface of the ceiling in order to install plug in units.

Part Number SRMT3-1 Available in plain zinc





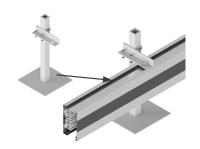
T3 SERIES

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)



■ WALL MOUNT BRACKET

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

Note: All S3 Systems must be mounted in the standard vertical orientation.

Part Number WMBT5-9

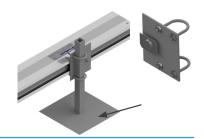


■ RAISED MOUNTING BRACKET

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

Note: Not available for S3 systems

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.

Note: Not available for S3 systems

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



Mounted to overhead supports

Note: Not available for S3 systems

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





T3 AND S3 SERIES BUSWAY

ACCESSORIES: SUPPORT HARDWARE

■ PRODUCT DESCRIPTION

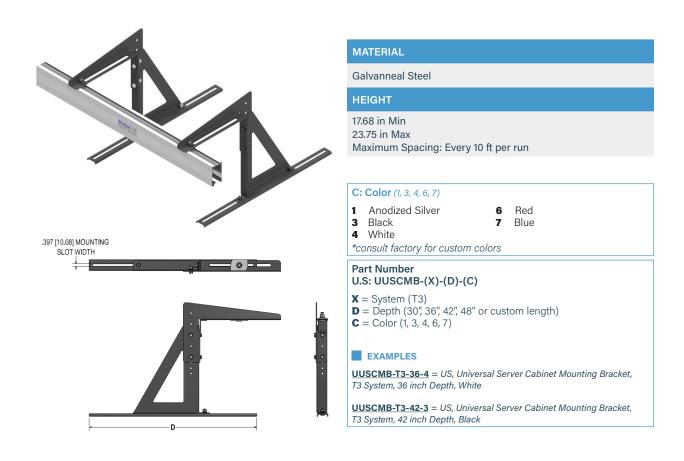
UNIVERSAL SERVER CABINET MOUNTING BRACKETS

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





T3 AND S3 SERIES BUSWAY

ACCESSORIES: CONNECTION HARDWARE

■ T3 & S3 JOINT KITS

SYSTEM AMPERAGE	NEUTRAL/GROUNDBAR OPTION	T3 SERIES CATALOG #	S3 SERIES CATALOG #
100	3 Phase plus Neutral	SJK100T3	SJK100S3
100	3 Phase plus Neutral plus Internal Ground Conductor	SJK100T3G	SJK100S3G
100	3 Phase plus 200% Neutral	SJK100T3N	SJK100S3N
100	3 Phase plus 200% Neutral plus Internal Ground Conductor	SJK100T3F	SJK100S3F
225	3 Phase plus Neutral	SJK225T3	SJK225S3

T3 JOINT KIT

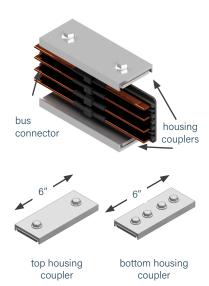
For the connection of adjacent busway sections. One kit is required at each joint. Each kit is comprised of a housing coupler pair and bus connector set.

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 of busway. These make the mechanical connection between busway sections.

*Installation tool is required (see below)

T3 Joint Kit components



S3 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, joint seal and two joint covers.

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 of busway. These make the mechanical connection between busway sections.

Joint Seal: Plastic sealing component installed between two housings at joint prior to bus connector and coupler installation.

Joint Covers: Plastic sealing cover fitted over top of housing coupler after coupler installation.

*Installation tool is required (see below)

S3 Joint Kit components



Includes: Couple Covers, Top and Bottom Housing Couplers, Joint Seal and Bus Connector

^{**}Available in all standard and RAL colors



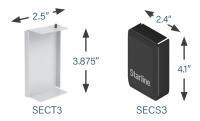
T3 AND S3 SERIES BUSWAY

ACCESSORIES: CONNECTION HARDWARE

END CAP

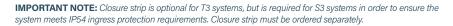
For covering the end of 100T3, 100S3, 225T3, or 225S3 busway.

SYSTEM	DESCRIPTION	T3 SERIES CATALOG #	S3 SERIES CATALOG #
100	100 Amp End Cap	SECT3	SECS3
250	100 Amp End Cap	SECT3	SECS3



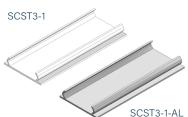
■ CLOSURE STRIP

Snaps into bottom access slot of busway housing. The optional closure strip is normally shipped in 10 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.



SYSTEM	AMPERAGE	PART NUMBER	MATERIAL TYPE	REQUIRED
T3	100-225	SCST3-1	Plastic	Optional
T3	100-225	SCST3-1-AL	Aluminum	Optional
S3	100-225	SCSS3-1-AL	Aluminum	Yes

^{*}Standard colors are available in Gray (GY), Black (BK), Red (RED) and Blue (BLU). The color code is applied to the end of the part number. For example: SCST3-1-AL-RED



■ TAP-OFF SEAL ASSEMBLY

For use with Series-S Busway only. The seal assembly (2 pieces) wraps around the enclosure, protecting it from dust and liquid ingress.

*Tap-off Seal Assemblies are already included with each Series-S Plug-in Unit, but may be ordered separately.

PLUG-IN (TAP-OFF) ENCLOSURE	SEAL ASSEMBLY CATALOG #
S1 Enclosure	S3TOU-SEAL-S1-STD
S2 Enclosure	S3TOU-SEAL-S2-STD
S3 Enclosure	S3TOU-SEAL-S3-STD



3.45



T3 AND S3 SERIES BUSWAY

ACCESSORIES: INSTALLATION TOOL

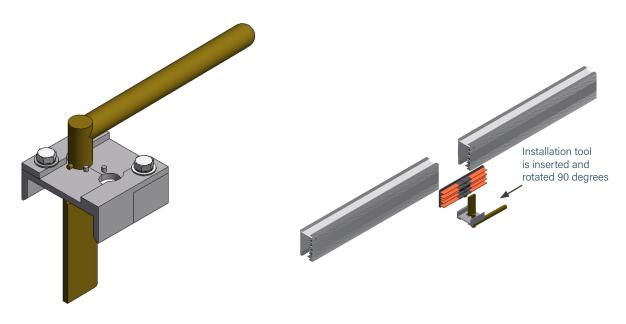
■ PRODUCT DESCRIPTION

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. Series-S and Track Busway use the same installation tool.

Weight 2.5 lb



Part Number ST3IT No available colors



T3 AND S3 SERIES BUSWAY

SERVICES

Regular servicing of busway systems is crucial for ensuring that your system performs at its best. By conducting regular maintenance, you can identify and address any potential issues before they turn into expensive problems, thus saving you time and money in the long run. Regular servicing can help extend the lifespan of your busway system, ensuring that it meets safety standards and complies with regulations. Choose from various offerings and customize a service plan that works best for you.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

COMMISSIONING AND EQUIPMENT RENTALS

Designing a mission-critical facility involves a significant investment of time and money. Through comprehensive commissioning services, Starline can help guarantee your project delivers the outcomes you expect.

Whether you need rental equipment to test your busway system or certified technicians to perform the testing, Starline has you covered. Choose from our inventory of load bank tap-offs and associated gear, or work with a Starline Engineer to customize and perform a commissioning plan to fit your specific needs.

METER SERVICES

Starline's certified technicians make optimizing your meters' performance and functionality a breeze. Our comprehensive on-site meter programming service includes inspecting, programming, reporting, and optional retrofitting services for you existing systems.

STARTUP AND SYSTEM CERTIFICATION

At Starline, we are committed to ensuring the success of your project. Our team understands the risks associated with the energization of systems, which is why we've designed a rigorous certification process to inspect, test and report on your Starline Busway and Critical Power Monitor ("CPM") products. Our certification process proactively identifies and prevents any potential issues before they happen.

To ensure the long-term success of your project, it is crucial to have Starline-certified technicians inspect and validate the installation before full commissioning. Level 2 and 3 commissioning ensures the installation complies with safety requirements and meets factory standards for ongoing reliability.

- 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

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.**



T3 AND S3 SERIES BUSWAY

SERVICES

TURNKEY INSTALLATION SERVICES

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.

PREVENTATIVE MAINTENANCE PLANS AND IR SCANNING

Although Starline busway is expertly designed to require less maintenance, NETA ATS and MTS guidelines recommend conducting annual inspections and health assessments on all critical equipment. Yearly preventative maintenance helps to ensure your system's long-term reliability and safety.

Starline's FLIR-certified technicians will create a custom preventative maintenance plan for your specific needs. Our certified technicians will work to:

- Identify thermal anomalies
- Extend equipment lifecycle
- Ensure optimal system performance
- Improve facility safety and operational sustainability

Upon completing your preventative maintenance plan, you may be eligible to extend your product warranty.

ON-SITE INSTALLATION SUPPORT

Starline's on-site installation service makes installing your busway as quick and easy as possible.

Our installation support starts with scheduling a preliminary trip to the installation site. During the initial visit, our certified technicians will train your installing contractor and develop a thorough installation and commissioning plan.

After completing the training, your installing contractor will have a direct line of communication with our installation experts. Our experts can help answer questions and provide hands-on guidance when needed.

Opting for Starline's installation support helps mitigate the installation risk and reduces the learning curve typically associated with new installations.

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.**



T3 AND S3 SERIES BUSWAY

SERVICES

ON-SITE PRODUCT TRAINING

At Starline, we offer comprehensive on-site product training services facilitated by our team of certified technicians. With their extensive expertise and commitment to upholding our high factory standards, you can confidently rely on them to ensure your and your systems' reliability and operational safety.

Our training programs equip your team with the knowledge and skills necessary to operate and maintain your systems effectively. Through hands-on demonstrations and interactive sessions, our certified technicians will guide your staff in understanding the intricate workings of the products and address any questions or concerns your team may have during the training process.

By choosing our on-site product training services, you are investing in your system's and operations' long-term success

RECERTIFICATION AND EXTENDED WARRANTY PLANS

Starline's recertification and extended warranty options provide best-in-class coverage for all of your Starline products and systems. Our extended warranty plans safeguard your investment beyond the standard warranty timeframe, offering you peace-of-mind while our recertification programs help mitigate risk and downtime. Whether the busway has been installed for years or you are relocating to another building, Starline is here to help.

Choose from one of our flexible one to four-year plans or have your system recertified anytime. Contact your Starline rep for more information.

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.**



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.





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■ 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.





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

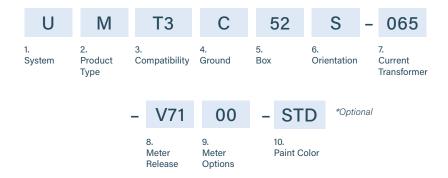
- 1. What is the amperage needed for the system? (100, 225, etc.)
- 2. Does the system need an internal ground?
- 3. Are there any limitations on the length of a run? (5ft max, 10ft max, 20ft max, etc.)

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



	_		
1.	System	(standard of	measure)

US U

2. Product Type (section component)

Meter Plug

3. Compatibility (frame compatibility)

T3 System

4. Ground (ground type installed)

Case (Housing) Ground

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **3.57**)

*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

8. Meter Release (M70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

8. Meter Release (M70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

9. Meter Options (V70 AC and DC)

OA IPV6

0B

DHCP OC. WPA2E

IPV6 + DHCP 0E

IPV6 + WPA2E

DHCP + WPA2E OJ

0H IPV6 + WPA2E + DHCP

00 Standard (IPV4 + No Accessories) 40 AC Supply Voltage Only - Breaker Sense (On/Off)

Breaker Sense + IPV6 4Α

Breaker Sense + DHCP

4C Breaker Sense + WPA2E

Breaker Sense + IPV6 + DHCP 4E Breaker Sense + IPV6 + WPA2E

Breaker Sense + DHCP + WPA2E 41

Breaker Sense + IPV6 + WPA2E + DHCP

10. 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 3.40)

EXAMPLE

3.52



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 **3.57**)

*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 ampss

1K2 1200 amps

V71 (2) RJ11, (2) RJ45, No Display, 480vac

V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

8. Meter Release (M70 DC)

8. Meter Release (M70 AC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

9. Meter Options (V70 AC and DC)

OA IPV6

0B DHCP OC. WPA2E

IPV6 + DHCP 0E

IPV6 + WPA2E

DHCP + WPA2E OJ

0H IPV6 + WPA2E + DHCP

00 Standard (IPV4 + No Accessories)

40 AC Supply Voltage Only - Breaker Sense (On/Off)

4Α Breaker Sense + IPV6

Breaker Sense + DHCP

4C Breaker Sense + WPA2E

Breaker Sense + IPV6 + DHCP 4E Breaker Sense + IPV6 + WPA2E

Breaker Sense + DHCP + WPA2E 41

4H Breaker Sense + IPV6 + WPA2E + DHCP

*10. Meter Configuration and CT Type (V70 AC)

1 Δ, Solid CTs, Millivolt, No Measured Neutral

Δ, Split CTs, 5A-secondary, No Measured Neutral

5 Y, Solid CTs, Millivolt, No Measured Neutral

8 Y, Split CTs, 5A-secondary, No Measured Neutral

9 Δ, Solid CTs, Millivolt, Measured Neutral

C Δ, Split CTs, 5A-secondary, Measured Neutral

*10. Meter Configuration and CT Type (V70 DC)

DC Circuit 1, Solid CT

DC Circuit 2, Solid CT K

DC Both Circuits, Solid CT

11. 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 3.40)

EXAMPLE

UBNAC52S-065-V71001-STD = US System, Meter Box, Not Applicable, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, V71 Meter, No display, 480vac, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral, Painted Factory Silver

Track Busway Product Selection Guide



TERMINAL BLOCK UNITS: PRODUCT NUMBERS



1. System	(standard o	f measure)
-----------	-------------	------------

US U

2. Product Type (section component)

- Terminal Block Т
- 3. Compatibility (frame compatibility)
- T3 System

4. Ground (ground type installed)

- Case (Housing) Ground D
 - **Dedicated Ground** Isolated (Separate) Ground
- 5. Box (what size enclosure)
- 01, 02, ... 99 (refer to enclosure reference page 3.57)

6. Orientation (what direction the paddle faces)

- Standard
- Reversed

7. Amperage (amperage of terminal block)

030 30 amps **060** 60 amps 100 100 amps **225** 225 amps

- 8. Poles (number of poles in a circuit)
- 4 poles

9. Lug Options (number of poles in a circuit)

- Standard S
- D Double Lug
- N Double Neutral
- 2 2 Bolt Lua
- Double Neutral & 2 Bolt Luq В

10. Meter Location (location of optional meter)

N N/A

- Left Bottom (lid)
- R Right
- 11. Accessories (optional accessories for plugs)
- N N/A

IR Window

*12. Meter Release (V70 AC)

- V71 (2) RJ11, (2) RJ45, No Display, 480vac
- V72 (2) RJ11, (2) RJ45, Display, 480vac
- **V74** Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac
- **V75** Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*12. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc **V7E** Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

*13. Meter Options (V70 AC and DC)

- 0A IPV6
- **0B** DHCP
- OC. WPA2E
- IPV6 + DHCP 0E
- **OF** IPV6 + WPA2E DHCP + WPA2E O.I
- ОН
- IPV6 + WPA2E + DHCP
- 00 Standard (IPV4 + No Accessories)
- AC Supply Voltage Only Breaker Sense (On/Off) 40
- Breaker Sense + IPV6 **4A**
- **4B** Breaker Sense + DHCP
- 4C Breaker Sense + WPA2E
- Breaker Sense + IPV6 + DHCP 4E
- Breaker Sense + IPV6 + WPA2E 4F
- 41 Breaker Sense + DHCP + WPA2E
- Breaker Sense + IPV6 + WPA2E + DHCP

*14. Meter Configuration and CT Type (V70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral 1
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*14. Meter Configuration and CT Type (V70 DC)

- J DC Circuit 1, Solid CT
- Κ DC Circuit 2, Solid CT
 - DC Both Circuits, Solid CT

15. Paint Color

STD Paint Factory Silver BLK

RED Paint Factory Red **BLU** Paint Factory Blue

Paint Factory Black WHT Paint Factory White

**RAL (please see page 3.40)



T3 PLUG-IN UNITS

CIRCUIT BREAKER/FUSED DISCONNECT: PRODUCT NUMBERS



1. S	vstem	(standard of measure)
	, 0 . 0	otariaara or moadaro,

U US

2. Product Type (section component)

Circuit Breaker Unit Fused Disconnect Unit

3. Compatibility (frame compatibility)

T3 System

4. Ground (ground type installed)

- Case (Housing) Ground D **Dedicated Ground** Isolated (Separate) Ground
- 5. Box (what size enclosure)
- **01, 02, ... 99** (refer to enclosure reference page **3.57**)

6. Orientation (what direction the paddle faces)

Standard

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.)

Reversed

8. Device Quantity (quantity of device 1)

1, 2, 3, 4, 5, 6, 7, 8, 9 (for more than 1 device type, reference page 3.72)

9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 3.72)

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

F Front Back В Bottom Т Top 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)

12. Accessories (optional accessories for plugs)

N Finger Shroud Circuit Breaker Interlock Padlock Adapter for Circuit C Breaker IR Window S Seismic Hanger R

*13. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac V72 (2) RJ11, (2) RJ45, Display, 480vac **V74** Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*13. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

*14. Meter Options (V70 AC and DC)

OA IPV6

0B DHCP

OC. WPA2E

0E IPV6 + DHCP

0F IPV6 + WPA2E

OJ DHCP + WPA2E

ОН IPV6 + WPA2E + DHCP

00 Standard (IPV4 + No Accessories)

40 AC Supply Voltage Only - Breaker Sense (On/Off)

4A Breaker Sense + IPV6

4R Breaker Sense + DHCP

4C Breaker Sense + WPA2E

4E Breaker Sense + IPV6 + DHCP

Breaker Sense + IPV6 + WPA2E 4F

Breaker Sense + DHCP + WPA2E **4**J

4H Breaker Sense + IPV6 + WPA2E + DHCP

15. Paint Color

STD Paint Factory Silver **RED** Paint Factory Red BLK Paint Factory Black **BLU** Paint Factory Blue Paint Factory White **RAL (please see page 3.40)

16. Drop Cord Tape Marking

Tape Factory Black Tape Factory Blue Tape Factory White Tape Factory Green 6 Tape Factory Red Tape Factory Yellow



CIRCUIT BREAKER/FUSED DISCONNECT: GROUND



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

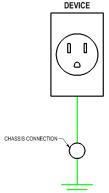
D

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.

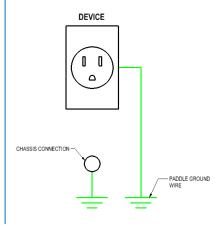
CHASSIS GROUND/ STANDARD GROUND DEVICE



■ ISOLATED GROUND/EARTH

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

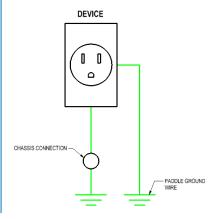
ISOLATED GROUND



■ DEDICATED GROUND/EARTH

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

DEDICATED GROUND (ISOLATED + CHASSIS)



3.56

*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**



CIRCUIT BREAKER/FUSED DISCONNECT: BOX



5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **3.67**)

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:



*For all box sizes and styles, please refer to page 3.67



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.







3.58







CIRCUIT BREAKER/FUSED DISCONNECT: DEVICE



9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 3.72)



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 devicesanything more than that will be handled in the G0 code.

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.



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 Box6' Drop Cord

UCT3C53S-14-3ABFN-STD

(3) 5-20 Duplex Receptacles

UCT3C92S-14-1MAB060N-STD-G001

3.60

MA = Custom Device

Gxxx = Specific Meltric Brand Industrial Connector

*For the full list of all device codes, please refer to page 3.72



3,61

T3 PLUG-IN UNITS

CIRCUIT BREAKER/FUSED DISCONNECT: MOUNT LOCATION



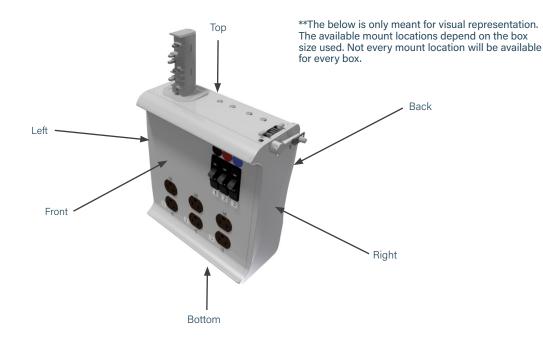
*10. Mount Location (with respect to busway polarizing stripe)

F Front A Back
T Top B Bottom
L Left R 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.





CIRCUIT BREAKER/FUSED DISCONNECT: ACCESSORIES



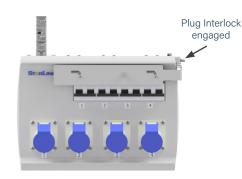
12. Accessories (optional accessories for plugs)

- N N/A
- C Circuit Breaker Interlock
- **S** Seismic Hanger
- T NETA Injection Tested Breakers
- **F** Finger Shroud
- Padlock Adapter for Circuit Breaker
- R IR Window
- L Pilot Light

IN OPTION 12. you have the option to choose an accessory:

The Circuit Breaker prevents disengaging the plug from the busway while the breaker is in the "on" position. The Finger Shroud prevents accidentail on or off contact with the breaker toggle. The Padlock Adapter provides optional protection for locking out breakers. NETA injection testing certifies the breakers will operate as specified in their trip logic. The Pilot Light signals breakers on with a green light. Green light is off in the off/tripped position.

■ CIRCUIT BREAKER INTERLOCK



■ PILOT LIGHT



■ FINGER SHROUD



■ PADLOCK ADAPTER FOR CIRCUIT BREAKER LOCK-OUT



■ SEISMIC HANGER



■ IR WINDOW





CIRCUIT BREAKER/FUSED DISCONNECT: METER RELEASE



*13. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac

V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac **V75** Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*13. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

IN OPTION 13. You are able to select metering for your plug-in unit. V70 series meters are available for plug-in units.

Communications Interfaces include:

- (2) RJ11
- (2) RJ45 (Ethernet)
- Wireless (Optional)

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

V70 series meters also have the capability to sense circuit breaker position (on/off) for up to two outlets.

*14. Meter Options (V70 AC and DC) IPV6 OA 0B DHCP OC. WPA2E IPV6 + DHCP 0E IPV6 + WPA2E DHCP + WPA2E OJ ОН IPV6 + WPA2E + DHCP Standard (IPV4 + No Accessories) 40 AC Supply Voltage Only - Breaker Sense (On/Off) 4Α Breaker Sense + IPV6 4B Breaker Sense + DHCP 4C Breaker Sense + WPA2E 4E Breaker Sense + IPV6 + DHCP Breaker Sense + IPV6 + WPA2E Breaker Sense + DHCP + WPA2E 41 4H Breaker Sense + IPV6 + WPA2E + DHCP









V71(2) RJ11,
(2) RJ45,
No Display

V72 (2) RJ11, (2) RJ45, Display

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display



CIRCUIT BREAKER UNITS, NO DEVICES: PRODUCT NUMBERS



1. Sy	ystem (standard of measure)		
U	US		
2. P	roduct Type (section componen	nt)	
С	Circuit Breaker Unit	F	Fused Disconnect Unit
3. C	ompatibility (frame compatibilit	y)	
T3 R5	T3 System T3 System (Rotating Paddle)	K5 Z5	
4. G	round (ground type installed)		
C G	Case (Housing) Ground Isolated (Separate) Ground	D	Dedicated Ground
5. B	ox (what size enclosure)		
01, (02, 99 (refer to enclosure re	efere	nce page 3.57)
6. 0	rientation (what direction the pa	addle	faces)

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 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)

*13. Number of Wires (V70 AC)

2, 3, 4, 5

14. Accessories (optional accessories for plugs)

C Circuit Breaker Interlock

Seismic Hanger

Finger Shroud Padlock Adapter for Circuit Breaker IR Window

V71 (2) RJ11, (2) RJ45, No Display, 480vac V72 (2) RJ11, (2) RJ45, Display, 480vac **V74** Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

15. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc **V7E** Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

16. Meter Options (V70 AC and DC)

OA IPV6

DHCP 0B

WPA2E OC.

IPV6 + DHCP 0E

OF IPV6 + WPA2E

DHCP + WPA2E OJ

IPV6 + WPA2E + DHCP OH

00 Standard (IPV4 + No Accessories)

AC Supply Voltage Only - Breaker Sense (On/Off) 40

4A Breaker Sense + IPV6

Breaker Sense + DHCP 4R

Breaker Sense + WPA2E

4F Breaker Sense + IPV6 + DHCP

4F Breaker Sense + IPV6 + WPA2E

4J Breaker Sense + DHCP + WPA2E

4H Breaker Sense + IPV6 + WPA2E + DHCP

17. Paint Color

STD Paint Factory Silver **RED** Paint Factory Red **BLK** Paint Factory Black **BLU** Paint Factory Blue **RAL (please see page 3.40) WHT Paint Factory White

18. Drop Cord Tape Marking

3 Black Red Green 4 White Blue

3.64



II CCDM M 71 C 1 L515 C

CORDED METERS

U	CCPIVI	IVI	/ 1	5	ı	-	L515	C	_	XXXX	_	C	_	BLK
1. System	2. Product Type	3. Monitoring Capabilities	4. Meter Release	5. Meter Variations	6. System Voltage		7. Wiring Device or Cord Set	8. Device Style		9. Length (end to end)		10. Meter Location on the Cord	ı	11. Paint Color
1. Syst	em (standard of	measure)					5. Meter	· Variatio	ns					
U	JS						S Sta	ndard Un	it	D)	Display		
2. Product Type (section component)				6. System Voltage										
CCPN	Corded CPM						1 Lin	e-Line		3		Line-Neutr	al	
3. Mor	nitoring Comp	atibilities					7. Wiring	Device o	or C	ord Set				
M P	addle/Feed Mo	onitoring					Options listed on page 3.66							
							7							

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 V70 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.

6. Sy			
	stem Voltage		
1	Line-Line	3	Line-Neutral
7. Wir	ring Device or Cord Set	t	
Optio	ns listed on page 3.66		
8. De	vice Style		
	Connector Body Duplex	R Q	Receptacle Quad Receptacle
9. Lei	ngth (end to end)		
XXX	Length will be selected		1 2
be for			dering. There will always a range from 4 to 25 feet in
be fou increr	ur X's for these characters	. (lengths	
be four increr	ur X's for these characters ments of 1 foot)	. (lengths	
be fou increr	ur X's for these characters ments of 1 foot) eter Location on the Co Center	ord	s range from 4 to 25 feet in





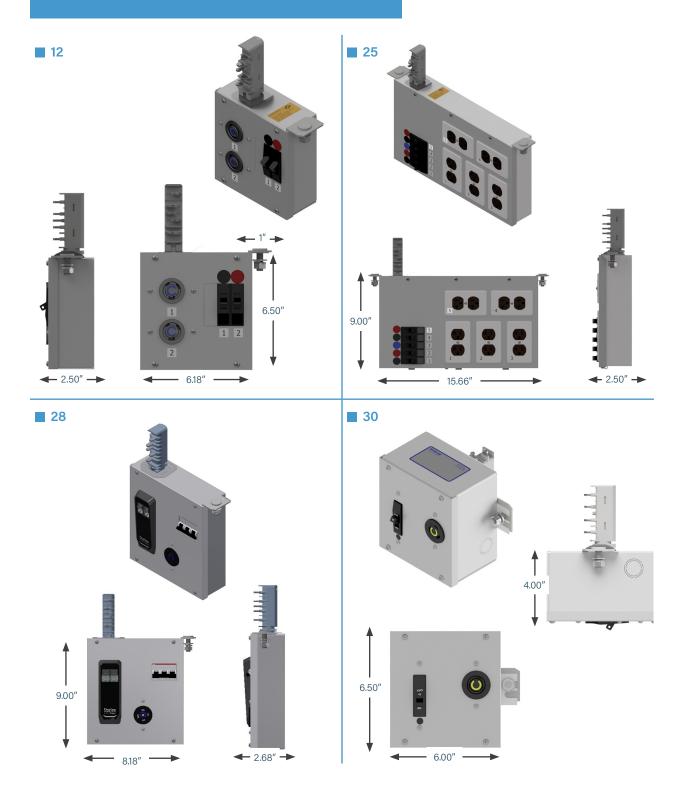
WIRING DEVICE/CORD SET OPTIONS

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
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



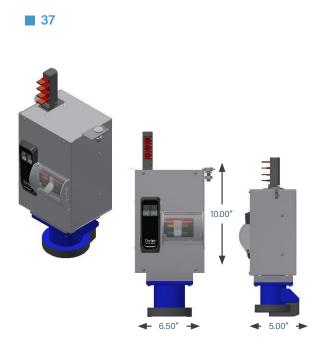
BOX SIZES & STYLES

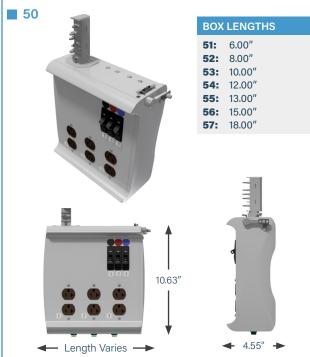


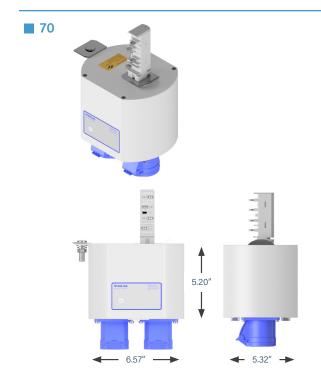


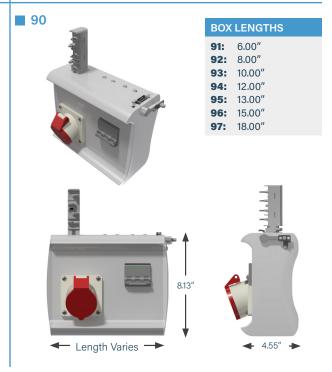
T3 PLUG-IN UNITS

BOX SIZES & STYLES







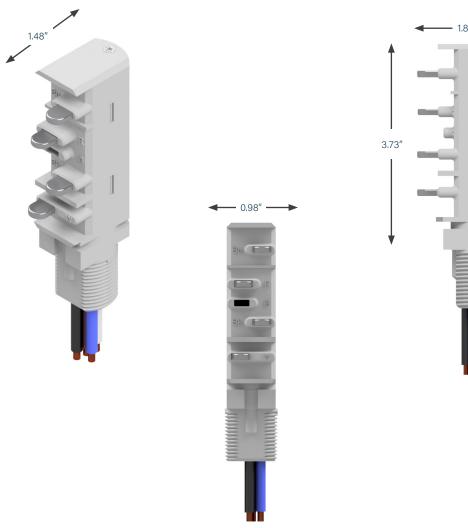


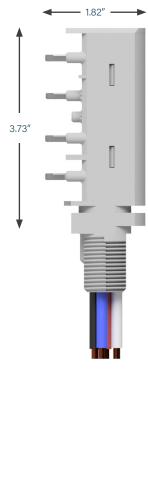


T3 PLUG-IN UNITS

BOX SIZES & STYLES

T3 PADDLE







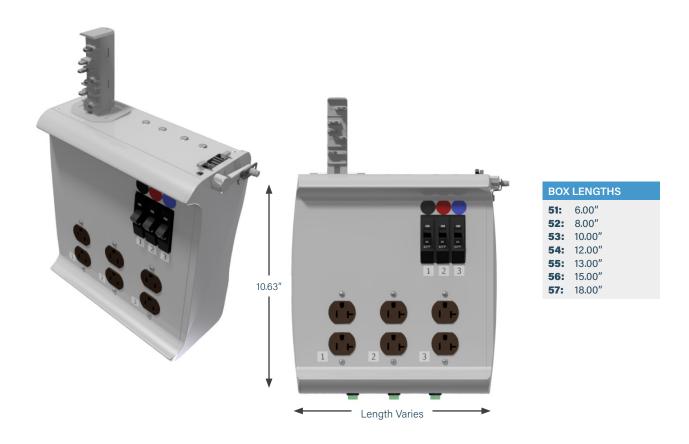
T3 PLUG-IN UNITS

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



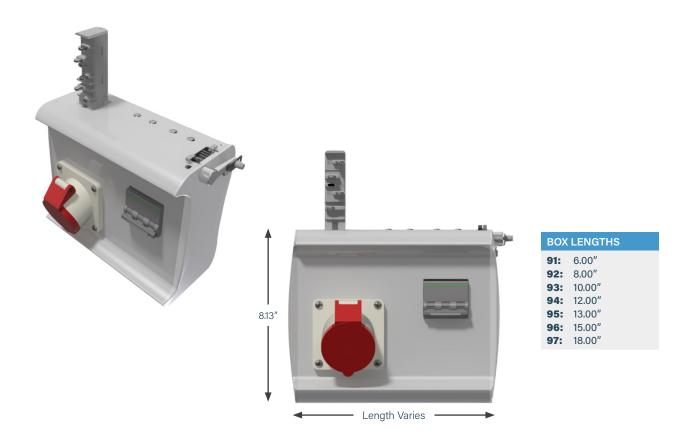
T3 PLUG-IN UNITS

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, I6-30, Bottom Located, 5 foot Drop Cord, Finger Shroud, PPG Anodized SilverIGL15-30, Front Located, No Accessories, PPG Anodized Silver



T3 PLUG-IN UNITS

US DEVICE CODE TABLE

	NEN	IA 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
СО	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
BA	L6-15C	Connector	240	2PG
ВН	L6-20C	Connector	240	2PG
BG	L6-30C	Connector	240	2PG
СК	L7-15C	Connector	277	1PNG
CJ	L7-20C	Connector	277	1PNG
CF	L7-30C	Connector	277	1PNG

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

	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			
ВХ	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			



T3 PLUG-IN UNITS

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			
ВТ	360C6S	Connector	240	2PG			
во	560C9S	Connector	120/208	3PNG			

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

	NEM	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



T3 PLUG-IN UNITS

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				

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground

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		



T3 PLUG-IN UNITS

US DEVICE CODE TABLE

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

	Isolated (Ground Recepta	acles		
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	240 120/208 120/208	3PG	
EL	IGL21-20R	Receptacle		3PNG	
EG	IGL21-30R	Receptacle		3PNG	
EU	IGL22-20R	Receptacle 277/480	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								
СР	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 Type 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: colored receptacle, etc.)					

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



S3 PLUG-IN UNITS

■ PRODUCT DESCRIPTION

S3 Plug-in Units are designed to provide the same "plug and play" flexbility as T3 Plug-in Units, but with added ingress protection. These Plug-In units have been tested and certified to meet the additional IP54 ingress protection levels of the overall system.

OPTIONS:

- 1. Receptacle Box/Drop Cord Units
- 2. Circuit Breaker Uniits Only
- 3. Meter Plugs

GENERAL SPECS:

- Three (3) Standard size enclosures
 - ES1 Up to 3 poles available
 - ES2 Up to 6 poles available
 - ES3 Up to 9 poles available
- Clear cover protects breakers and meter while maintaining status visibility
- UV, Corrosion, and impact-resistant materials
- NEMA & IEC water tight devices available
- Bottom or Front-Mounted receptacles available
- Breaker actuators for floor operability
- Lock-out lids and breaker
- Up to 125A and 600V per box
- Compatible with Starline Critical Power Monitors
- Wide range of configuration options

Note: All Series-S Plug-in Units come standard with Tap-off seal assembly. To order separately, please see **page 3.45**









S3 ENCLOSURE STYLE OPTIONS

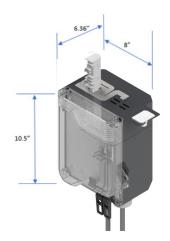
■ ES1 ENCLOSURE

Dimensions(in):

H: 10.5" W: 8" D: 6.36"

Configuration Options:

- Up to 3 Poles
- Up to 3 drop cords
- Meter available
- 1 Bottom-Mounted receptacle



■ ES2 ENCLOSURE

Dimensions(in):

H: 10.5" W: 11" D: 6.36"

Configuration Options:

- Up to 6 Poles
- Up to 6 drop cords
- Meter available
- 1 Front-Mounted or Bottom-Mounted receptacle



■ ES3 ENCLOSURE

Dimensions(in):

H: 10.5" W: 18" D: 6.36"

Configuration Options:

- Up to 9 Poles
- Up to 8 drop cords
- Meter available
- Up to 2 Front-Mounted receptacles





S3 PLUG-IN UNITS

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)

WHEN DETERMINING DESIRED PLUG CONFIGURATIONS

- 1. What type of system is this being used on? (S3)
- 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?



CIRCUIT BREAKER/FUSED DISCONNECT UNITS W/ DEVICES: PRODUCT NUMBERS



1. S	vstem	(standard of measure)	

U US

- 2. Product Type (section component)
- Circuit Breaker Unit Fused Disconnect Unit
- 3. Compatibility (frame compatibility)
- S3 System
- 4. Ground (ground type installed)
- Case (Housing) Ground D **Dedicated Ground**
- Isolated (Separate) Ground
- 5. Box (what size enclosure)
- S1, S2, or S3 (refer to S3 Enclosure Style Options, page 3.77)
- 6. Orientation (what direction the paddle faces)
- 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 (for more than 1 device type, refer to S3 Device Code Table, page 3.80)
- 9. Device (quantity of device 1)
- AA, AB, ...ZZ (refer to S3 Device Code Table, page 3.80)
- *10. Mount Location (with respect to busway polarizing stripe)
- F Front

Bottom

*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 lenath is 10 feet (100)

12. Accessories (optional accessories for plugs)

*13. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac

V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*13. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

*14. Meter Options (V70 AC and DC)

- 0A IPV6
- DHCP 0B
- OC. WPA2E
- 0E IPV6 + DHCP
- 0F IPV6 + WPA2E
- DHCP + WPA2E OJ
- **0H** IPV6 + WPA2E + DHCP
- 00 Standard (IPV4 + No Accessories)
- AC Supply Voltage Only Breaker Sense (On/Off) 40
- **4A** Breaker Sense + IPV6
- Breaker Sense + DHCP 4R
- 4C Breaker Sense + WPA2E Breaker Sense + IPV6 + DHCP 4E
- 4F
- Breaker Sense + IPV6 + WPA2E
- 41 Breaker Sense + DHCP + WPA2E
- Breaker Sense + IPV6 + WPA2E + DHCP

15. Paint Color

STD Standard Dark Grav

NOTE: Consult Factory for other options

16. Drop Cord Tape Marking

- Tape Factory Black
- Tape Factory Blue
- Tape Factory White
- 8 Tape Factory Green
- Tape Factory Red
- Tape Factory Yellow



S3 PLUG-IN UNITS

US DEVICE CODE TABLE

			NEMA (Connectors	;		
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating
RU	NEMA	5-15C-IP	CONNECTOR	120	15	1PNG	IP67
PV	NEMA	L5-15C-IP	CONNECTOR	120	15	1PNG	IP67
RV	NEMA	6-15C-IP	CONNECTOR	240	15	2PG	IP67
PW	NEMA	L6-15C-IP	CONNECTOR	240	15	2PG	IP67
PX	NEMA	L7-15C-IP	CONNECTOR	277	15	1PNG	IP67
RW	NEMA	5-20C-IP	CONNECTOR	120	20	1PNG	IP67
PY	NEMA	L5-20C-IP	CONNECTOR	120	20	1PNG	IP67
RX	NEMA	6-20C-IP	CONNECTOR	240	20	2PG	IP67
PZ	NEMA	L6-20C-IP	CONNECTOR	240	20	2PG	IP67
QC	NEMA	L15-20C-IP	CONNECTOR	240	20	3PG	IP67
QA	NEMA	L7-20C-IP	CONNECTOR	277	20	1PNG	IP67
QD	NEMA	L16-20C-IP	CONNECTOR	480	20	3PG	IP67
QG	NEMA	L23-20C-IP	CONNECTOR	600	20	3PNG	IP67
QB	NEMA	L14-20C-IP	CONNECTOR	120/208	20	2PNG	IP67
QE	NEMA	L21-20C-IP	CONNECTOR	120/208	20	3PNG	IP67
QF	NEMA	L22-20C-IP	CONNECTOR	277/480	20	3PNG	IP67
QH	NEMA	L5-30C-IP	CONNECTOR	120	30	1PNG	IP67
QI	NEMA	L6-30C-IP	CONNECTOR	240	30	2PG	IP67
QL	NEMA	L15-30C-IP	CONNECTOR	240	30	3PG	IP67
QJ	NEMA	L7-30C-IP	CONNECTOR	277	30	1PNG	IP67
QM	NEMA	L16-30C-IP	CONNECTOR	480	30	3PG	IP67
QN	NEMA	L17-30C-IP	CONNECTOR	600	30	3PG	IP67
QR	NEMA	L23-30C-IP	CONNECTOR	600	30	3PNG	IP67
QK	NEMA	L14-30C-IP	CONNECTOR	120/208	30	2PNG	IP67
QO	NEMA	L18-30C-IP	CONNECTOR	120/208	30	3PG	IP67
QP	NEMA	L21-30C-IP	CONNECTOR	120/208	30	3PNG	IP67
QQ	NEMA	L22-30C-IP	CONNECTOR	277/480	30	3PNG	IP67

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



S3 PLUG-IN UNITS

US DEVICE CODE TABLE

			Pin & Slee	ve Connec	tors		
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating
SU	IEC	320C7W	CONNECTOR	480	20	2PG	IP67
SY	IEC	420C7W	CONNECTOR	480	20	3PG	IP67
TA	IEC	320C9W	CONNECTOR	120/208	20	2PG	IP67
SZ	IEC	520C7W	CONNECTOR	277/480	20	3PNG	IP67
sv	IEC	330C7W	CONNECTOR	480	30	2PG	IP67
ТВ	IEC	330C9W	CONNECTOR	120/208	30	2PG	IP67
SW	IEC	360C7W	CONNECTOR	240	60	2PG	IP67
TC	IEC	360C9W	CONNECTOR	120/208	60	2PG	IP67
SX	IEC	3100C7W	CONNECTOR	480	100	2PG	IP67
TD	IEC	3100C9W	CONNECTOR	120/208	100	2PG	IP67
ВІ	IEC	530C9W	CONNECTOR	120/208	30	3PNG	IP67
ВР	IEC	430C9W	CONNECTOR	250	30	3PG	IP67
BW	IEC	430C7W	CONNECTOR	480	30	3PG	IP67
вх	IEC	460C7W	CONNECTOR	480	60	3PG	IP67
EH	IEC	560C9W	CONNECTOR	120/208	60	3PNG	IP67
EI	IEC	460C9W	CONNECTOR	250	60	3PG	IP67
GI	IEC	4100C9W	CONNECTOR	250	100	3PG	IP67
GJ	IEC	560C7W	CONNECTOR	277/480	60	3PNG	IP67
GK	IEC	530C7W	CONNECTOR	277/480	30	3PNG	IP67
GR	IEC	5100C7W	CONNECTOR	277/480	100	3PNG	IP67
GS	IEC	5100C9W	CONNECTOR	120/208	100	3PNG	IP67
MK	IEC	4100C7W	CONNECTOR	480	100	3PG	IP67
NL	IEC	420C9W	CONNECTOR	250	20	3PG	IP67

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



S3 PLUG-IN UNITS

US DEVICE CODE TABLE

	NEMA Receptacles									
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating			
RQ	NEMA	5-15R-IP	RECEPTACLE	120	15	1PNG	IP67			
QS	NEMA	L5-15R-IP	RECEPTACLE	120	15	1PNG	IP67			
RR	NEMA	6-15R-IP	RECEPTACLE	240	15	2PG	IP67			
QT	NEMA	L6-15R-IP	RECEPTACLE	240	15	2PG	IP67			
QU	NEMA	L7-15R-IP	RECEPTACLE	277	15	1PNG	IP67			
RS	NEMA	5-20R-IP	RECEPTACLE	120	20	1PNG	IP67			
QV	NEMA	L5-20R-IP	RECEPTACLE	120	20	1PNG	IP67			
RT	NEMA	6-20R-IP	RECEPTACLE	240	20	2PG	IP67			
QW	NEMA	L6-20R-IP	RECEPTACLE	240	20	2PG	IP67			
QZ	NEMA	L15-20R-IP	RECEPTACLE	240	20	3PG	IP67			
QX	NEMA	L7-20R-IP	RECEPTACLE	277	20	1PNG	IP67			
RA	NEMA	L16-20R-IP	RECEPTACLE	480	20	3PG	IP67			
RD	NEMA	L23-20R-IP	RECEPTACLE	600	20	3PNG	IP67			
QY	NEMA	L14-20R-IP	RECEPTACLE	120/208	20	2PNG	IP67			
RB	NEMA	L21-20R-IP	RECEPTACLE	120/208	20	3PNG	IP67			
RC	NEMA	L22-20R-IP	RECEPTACLE	277/480	20	3PNG	IP67			
RE	NEMA	L5-30R-IP	RECEPTACLE	120	30	1PNG	IP67			
RF	NEMA	L6-30R-IP	RECEPTACLE	240	30	2PG	IP67			
RI	NEMA	L15-30R-IP	RECEPTACLE	240	30	3PG	IP67			
RG	NEMA	L7-30R-IP	RECEPTACLE	277	30	1PNG	IP67			
RJ	NEMA	L16-30R-IP	RECEPTACLE	480	30	3PG	IP67			
RK	NEMA	L17-30R-IP	RECEPTACLE	600	30	3PG	IP67			
RN	NEMA	L23-30R-IP	RECEPTACLE	600	30	3PNG	IP67			
RH	NEMA	L14-30R-IP	RECEPTACLE	120/208	30	2PNG	IP67			
RL	NEMA	L21-30R-IP	RECEPTACLE	120/208	30	3PNG	IP67			
RM	NEMA	L22-30R-IP	RECEPTACLE	277/480	30	3PNG	IP67			

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



S3 PLUG-IN UNITS

US DEVICE CODE TABLE

			Pin & Slee	ve Recepta	cles		
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating
SN	IEC	420R9W	RECEPTACLE	240	20	3PG	IP67
RY	IEC	320R7W	RECEPTACLE	480	20	2PG	IP67
sc	IEC	420R7W	RECEPTACLE	480	20	3PG	IP67
SQ	IEC	520R9W	RECEPTACLE	120/208	20	3PNG	IP67
SG	IEC	520R7W	RECEPTACLE	277/480	20	3PNG	IP67
RZ	IEC	330R7W	RECEPTACLE	480	30	2PG	IP67
SD	IEC	430R7W	RECEPTACLE	480	30	3PG	IP67
SR	IEC	530R9W	RECEPTACLE	120/208	30	3PNG	IP67
SA	IEC	360R7W	RECEPTACLE	480	60	2PG	IP67
SH	IEC	560R7W	RECEPTACLE	277/480	60	3PNG	IP67
SE	IEC	460R7W	RECEPTACLE	480	60	3PG	IP67
so	IEC	460R9W	RECEPTACLE	120/208	60	3PG	IP67
SS	IEC	560R9W	RECEPTACLE	120/208	60	3PNG	IP67
SB	IEC	3100R7W	RECEPTACLE	480	100	2PG	IP67
SF	IEC	4100R7W	RECEPTACLE	480	100	3PG	IP67
SP	IEC	4100R9W	RECEPTACLE	120/208	100	3PG	IP67
ST	IEC	5100R9W	RECEPTACLE	120/208	100	3PNG	IP67
SI	IEC	5100R7W	RECEPTACLE	277/480	100	3PNG	IP67

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

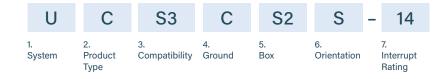
P = Poles

N = Neutral

G = Ground



CIRCUIT BREAKER/FUSED DISCONNECT UNITS, NO DEVICES: PRODUCT NUMBERS



2	030	3	240	050	3	N -	- V71	00	-	STD	0	*Optional
8. Circuit Protection Quantity	9. Amperage	10. Poles	11. Voltage	*12. Drop Cord Length	*13. Number of Wires	14. Accessories	15. Meter Release	16. Meter Options	1 F	7. Paint Color	18. Drop Cord Tape Marking	I

N/A

15. Meter Release (V70 AC)

ntity		J. J.					
1. S	ystem (standard of measure)						
U	US						
2. P	Product Type (section component)						
С	Circuit Breaker Unit F	Fused Disconnect Unit					
3. C	compatibility (frame compatibility)						
S 3	S3 System						
4. G	iround (ground type installed)						
C G	Case (Housing) Ground Isolated (Separate) Ground	Dedicated Ground					
5. Box (what size enclosure)							
S1,	S2, S3 (refer to S3 Enclosure Style	e Options, page 3.77)					
6. C	Prientation (what direction the paddle	faces)					
S	Standard R	Reversed					
7. In	iterrupt Rating (interrupt rating of the	e breakers in K)					
10,	14, 22, 25, 30, 35, 50, 65, CC (C	C = 200,000) (for US)					
8. C	ircuit Protection Quantity						
1, 2	, 3, 4, 5, 6						
9. A	mperage						
015	, 020, 030, 60, 100						
10.	Poles (number of poles in a circuit)						
1							

15. Meter Release (V70 DC)
V7A (2) RJ11, (2) RJ45, No Display, 48vdc V7B (2) RJ11, (2) RJ45, Display, 48vdc V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc V7H (2) RJ11, (2) RJ45, No Display, 48vdc V7H (2) RJ11, (2) RJ45, No Display, 400vdc V7I (2) RJ11, (2) RJ45, Display, 400vdc V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc
16. Meter Options (V70 AC and DC)
 OA IPV6 OB DHCP OC WPA2E OE IPV6 + DHCP OF IPV6 + WPA2E OJ DHCP + WPA2E OH IPV6 + WPA2E + DHCP
Standard (IPV4 + No Accessories)AC Supply Voltage Only - Breaker Sense (On/Off)
HAB Breaker Sense + IPV6 Breaker Sense + DHCP Breaker Sense + WPA2E Breaker Sense + IPV6 + DHCP Breaker Sense + IPV6 + WPA2E Breaker Sense + DHCP + WPA2E Breaker Sense + IPV6 + WPA2E + DHCP
17. Paint Color
STD Standard Dark Gray

14. Accessories (optional accessories for plugs)

V71 (2) RJ11, (2) RJ45, No Display, 480vac **V72** (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac **V75** Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

2, 3, 4, 5 **EXAMPLE**

1, 2, 3, 4, 5 11. Voltage

010 1 foot

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

*13. Number of Wires (V70 AC)

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

over 70 amps, the max. drop cord length is 10 feet (100)

UCS3D57S-25-203032400503N-STD0 = US System, Circuit Breaker Only Unit, S3 system, Case Ground, ES2 Box, Standard Orientation, 14kA interrupt rating, 2 circuits, 30 amps, 3 poles, 240v, 5 ft drop cord, 3 wires, no accessories, no meter, standard dark gray color

(only can be chosen in 6" increments) For any device configuration chosen

XXY XX=feet, Y=inches

18. Drop Cord Tape Marking

Note: Consult Factory for other options

3 Black Red 6 8 Green White Blue



METER PLUGS: PRODUCT NUMBERS



1. System (standard of measure)

U US

2. Product Type (section component)

M Meter Plug

3. Compatibility (frame compatibility)

S3 System

4. Ground (ground type installed)

C Case (Housing) Ground

5. Box (what size enclosure)

S1, S2, S3 (refer to S3 Enclosure Style Options, page 3.77)

6. Orientation (what direction the paddle faces)

S Standard R Reversed

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

8. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac

V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

8. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc **V7I** (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

9. Meter Options (V70 AC and DC)

OA IPV6

OB DHCP
OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

Standard (IPV4 + No Accessories)AC Supply Voltage Only - Breaker Sense (On/Off)

4A Breaker Sense + IPV6

4B Breaker Sense + DHCP

4C Breaker Sense + WPA2E

4E Breaker Sense + IPV6 + DHCP

4F Breaker Sense + IPV6 + WPA2E4J Breaker Sense + DHCP + WPA2E

4H Breaker Sense + IPV6 + WPA2E + DHCP

10. Paint Color

STD Standard Dark Gray

Note: Consult Factory for other options

EXAMPLE

<u>UMS3CS2S-065-V7100-STD</u> = US System, Meter Plug, S3 System, Case Ground, ES2 Box, Standard Orientation, 65 Current Rating, V71 Meter, No display, 480vac, Standard Meter Options, Standard Dark Gray



SPECS & INTRODUCTION

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, 500, 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/**.

SERIES-S SYSTEM

The Series-S System is certified to both IP54 and NEMA 3R ratings, which offers a higher level of protection against ingress of dust, water or other foreign objects. The unique sealed-system design provides the same level of protection across the entire power distribution system, from the power feeds to the busway and plugin units.

Series-S plug-in units are specifically designed with durable, impact and chemical resistant materials commonly used in UL and outdoor applications. These plug-in units are paired with a wide variety of watertight rated IEC and NEMA devices.

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/**.



T5 AND S5 SERIES BUSWAY

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.

SERIES-S SPECS

The S5 Busway Series is designed with additional levels of ingress protection, IEC IP54 and NEMA 3R ratings, against liquid and solid contaminants.

This system meets or exceeds the additional standards for ingress protection:

- 3. International Electrotechnical Commission (IEC) 60529, Degrees of Protection Provided by Enclosures (IP Code)
- 4. National Electrical Manufacturers Association (NEMA) 250, Enclosures for Electrical Equipment (1000 Volts Maximum)
- 5. Housing shall be protected against corrosion utilizing protective coating (per MIL-DTL-5541), while maintaining case grounding capability, with option for powder-coating.



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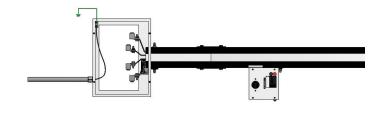


GROUND OPTIONS

■ CASE GROUND/CHASSIS EARTH

Uses aluminum housing and no extra copper bar.





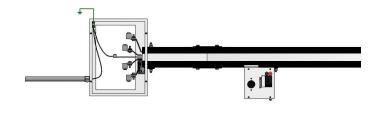
■ DEDICATED GROUND/EARTH

Extra bar in busway for ground.

Everything tied together inside plugs.

Bar and housing at same potential.

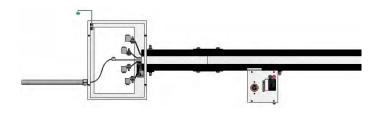




■ ISOLATED GROUND/EARTH

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 **downloads.starlinepower.com/starline/busway**.



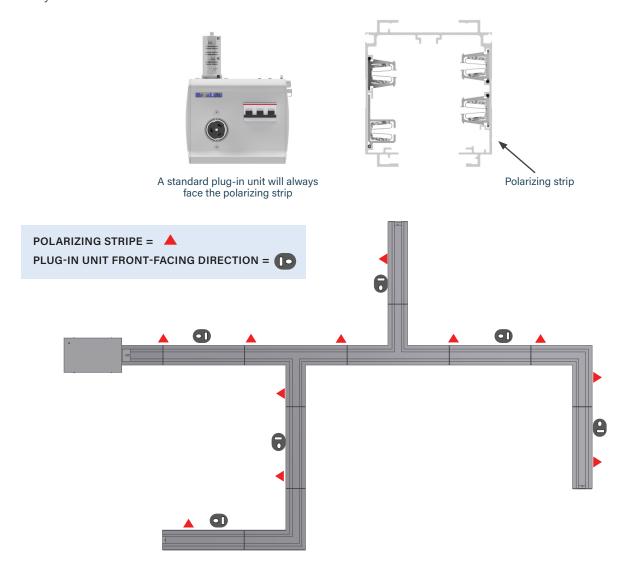
T5 AND S5 SERIES BUSWAY

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





T5 AND S5 SERIES BUSWAY

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 4.107** 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/starline/busway/</u>. 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.

S5 INFORMATION:

Each piece of S5 housing components (straights and elbows) requires an S5 joint kit (containing two housing couplers, one bus connector, a joint seal, and two joint covers). 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 S5 systems, you will need to order an Installation Tool (ST5IT). Closure strip must also be ordered to match the total length of busway housing ordered.

PLEASE NOTE: All S5 Busway components are designed to work together to function as one complete IP54-rated system. When selecting system components, it is important that only S5 Busway components from this catalog are used together. Do not use any T5 components within this catalog. For technical questions related to these systems and/or specific applications, please contact our technical support team.



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 4.6 Polarity Tips for more detail.

S5 SYSTEM INFORMATION

All S5 components must be purchased and installed together to build a complete S5 System.

For the S5 system, please note the specific catalog numbering systems dedicated for these components. S5 system components will include the "S5" nomenclature in the "compatibility" field of the catalog number. Closure strip is required and must be ordered separately.

The S5 Joint Kit (SJK250S5) includes an additional joint seal and joint cover component required for the IP54 rating.

The standard installation tool (ST5IT) can be used for both the T5 and S5 system.



INGRESS PROTECTION

This table provides descriptions for the various Ingress Protection (IP) ratings as listed in IEC 60529. General T5 Busway is listed as IP2X. IP3X rated busway is available with additional accessories. Series - S Busway is available with an IP54 rating.

As the table indicates, for the IP54 rating the first number (5) pertains to the solid particle protection and the second (4) pertains to the level of protection from water. For purposes of real-world application of the Series-S busway system, please consider these general guidelines.

1. Splashproof and sprinkler proof; 2. Highly dust-resistant; 2. Not waterproof or watertight; 3. Not for outdoor use; 4. Not subject to direct exposure to natural elements, such as wind, rain, sun, ice, etc.

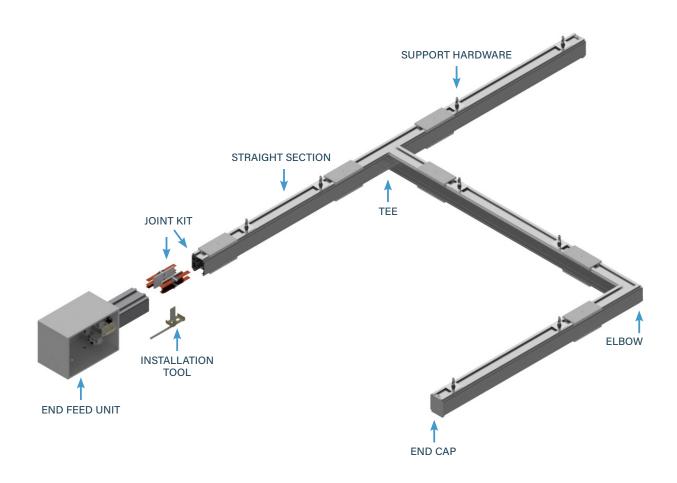
IP Rating Table IP54 Solid Protection Water Protection 4 Not protected. Not protected. Protected against solid objects Protected against vertical falling drops of water. Limited ingress permitted. Protected against solid objects greater than 12.5mm, such as a finger. Commonly called "Finger safe". Protected against diagonally falling water (up to 15 degrees). 10 minutes at a rate of 1 mm/min. Protected against sprays of water up to 60 degrees from the vertical. Limited ingress permitted. Protected against solid objects greater than 2.5mm, such as a screwdriver. Protected against water splashes Protected against solid objects greater than 1mm, such as a wire. from all directions. Limited ingress permitted. Dust protected. Limited ingress of dust permitted. Will not interfere with Protected against jets of water. Limited ingress permitted. operation of the equipment. Protected against power jets of water. Dust tight. No ingress of dust. Limited ingress permitted. Watertight. Protected against the effects of immersion in water between 15cm and 1m for 30 minutes. Watertight against the effects of immersion in water under pressure for long periods.

Ratings in accordance with the International Electrotechnical Commission (IEC) - 60529, Degrees of Protection Provided by Enclosures (IP Code)



250 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



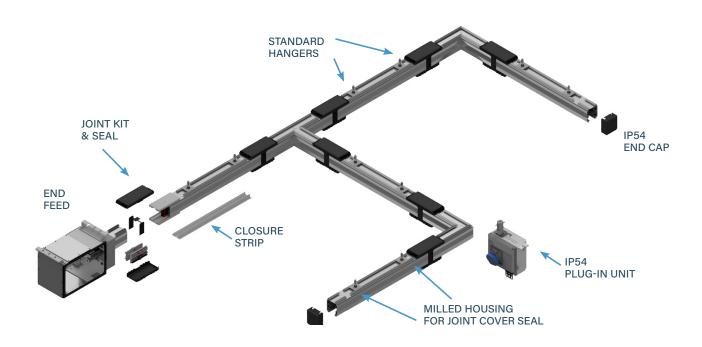
PLUG-IN UNITS

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



250 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable S5 plug-in unit options, please visit the **Plug-In Units** section.

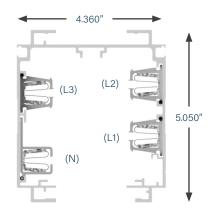


STRAIGHT SECTIONS

■ PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with "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

Note: S5 housing includes corrosion resistant base coating.

RATINGS

100% Ground Path

250 Amps

250T5C4/250T5CG: 600 Volt

250T5CN/250T5CF: 600 Volt

LENGTH

T5: 10 ft, 20 ft; or custom lengths between 2 - 20 ft S5: 5 ft, 10 ft max. Consult factory for additional lengths

VOLTAGE DROP

Distributed load

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

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

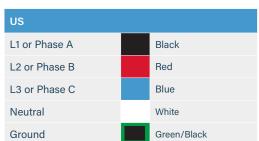
WEIGHT

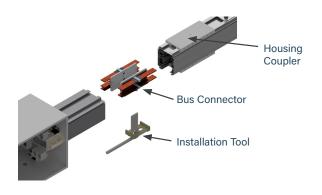
10 ft 4 pole: 41 lbs

10 ft 4 pole w/ ground: 46 lbs

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

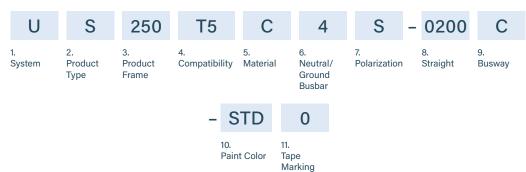
10 ft 4 pole w/ ground & 200% N: 51 lbs







STRAIGHT SECTIONS: PRODUCT NUMBERS



	stem (standard of measure)		
U	US		
2. Pro	oduct Type (section componer	nt)	
S	Straight Section		
3. Pro	oduct Frame (maximum ampe	erage)	
250	250 amps		
4. Co	mpatibility (frame compatibili	ty)	
	T5 System S5 System	K5 L5	T5 System (Limiting Strip) S5 System (Limiting Strip)
5. Ma	terial (busbar material)		
С	Copper		
6. Ne	utral/Ground Busbar (size o	of neu	tral 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. Pol	arization (orientation of sectio	n for r	mating purposes)
S	Standard		

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

C Continuous

10. 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 4.106)
	4110 1 01 1		

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

		*			0,
0	No Tape Marking	7	Tape F	actory Blue	
3	Tape Factory Black		Tape F	actory Gree	n
4	Tape Factory White	9	Tape F	actory Yellov	W
6	Tape Factory Red			-	

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



250 AMP SYSTEMS

ELBOW SECTIONS

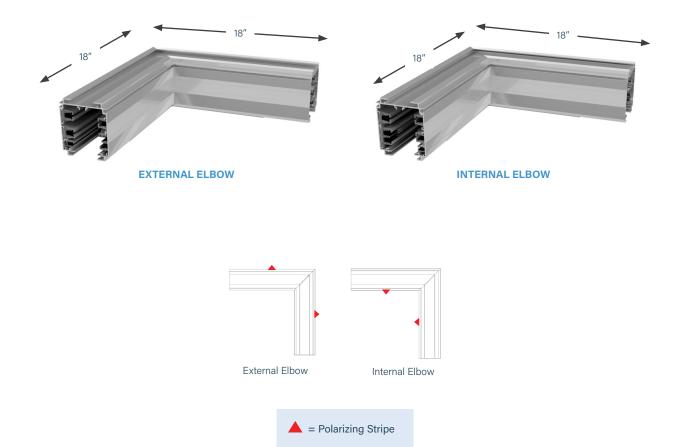
■ PRODUCT DESCRIPTION

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)

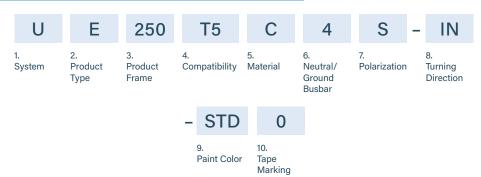
A Joint Kit (page 4.110) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 14.5 lbs





ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)						
U US						
2. P	roduct Type (section compone	nt)				
E	Elbow Section					
3. P	roduct Frame (maximum ampe	rage)				
250	250 amps					
4. C	ompatibility (frame compatibili	ty)				
T5 S5	T5 System S5 System	K5 L5	T5 System (Limiting Strip) S5 System (Limiting Strip)			
5. N	laterial (busbar material)					
С	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)

	urning Direction (direction		, ,
IN HN	Internal Seismic Internal		External Seismic External
9. Pa	aint Color (allows painting	of the busy	vay housing)
BLK	Factory Mill Finish Paint Factory Black Paint Factory White	BLU	
base	E: All Series-S housings is coating, regardless of page	aint color s	selection.
10. 1	Tape Marking (colored tap No Tape Marking		ape Factory Blue
0			

EXAMPLES

Standard

<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

4.15



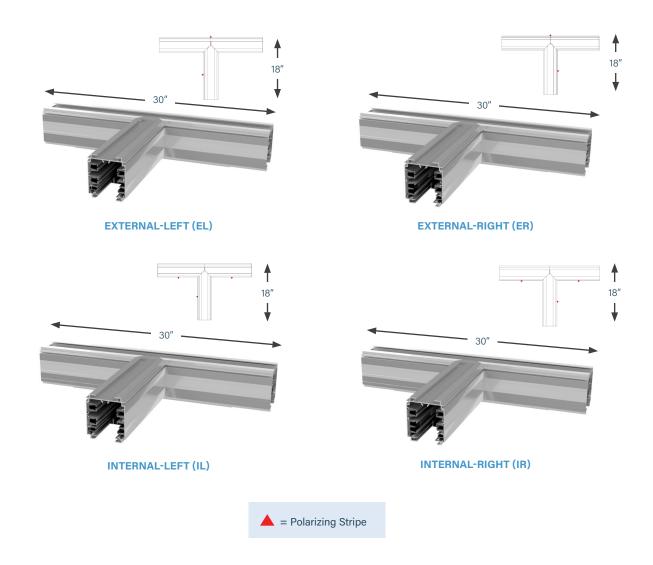
250 AMP SYSTEMS

TEE SECTIONS

■ PRODUCT DESCRIPTION

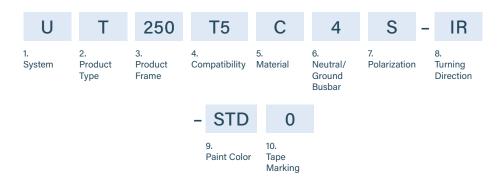
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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





TEE SECTIONS: PRODUCT NUMBERS



1. Sy	ystem (standard of measure)					
U	U US					
2. P	roduct Type (section compone	nt)				
T	Tee Section					
3. P	roduct Frame (maximum ampe	rage)				
250	250 amps					
4. Compatibility (frame compatibility)						
T5 S5	T5 System S5 System	K5 L5	T5 System (Limiting Strip) S5 System (Limiting Strip)			
5. N	laterial (busbar material)					
С	Copper					
6. N	leutral/Ground Busbar (size o	of neu	itral 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			

7. Polarization (orientation of section for mating purposes)

Conductor

8. Turning Direction (direction of section polarizing stripe)

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

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

Factory Mill Finish RED Paint Factory Red Paint Factory Black **BLU** Paint Factory Blue **RAL **WHT** Paint Factory White (please see page 4.106)

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

- No Tape Marking Tape Factory Blue 3 Tape Factory Black
- Tape Factory White Tape Factory Red
- Tape Factory Green Tape Factory Yellow

EXAMPLES

Standard

UT250T5C4S-IR-RED0 = 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

UT250T5CFS-EL-STD7 = 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



END FEED UNITS

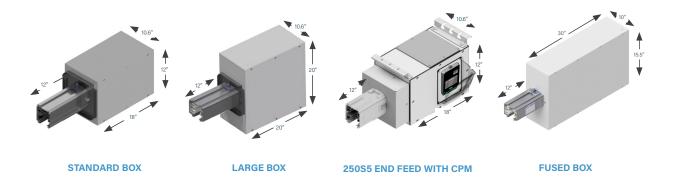
■ PRODUCT DESCRIPTION

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

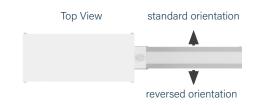


	BOXES						
LUGS	Standard	Large	Fused				
Standard	S	L	F				
Double							
Bolt	В	R					

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.21 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







250 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

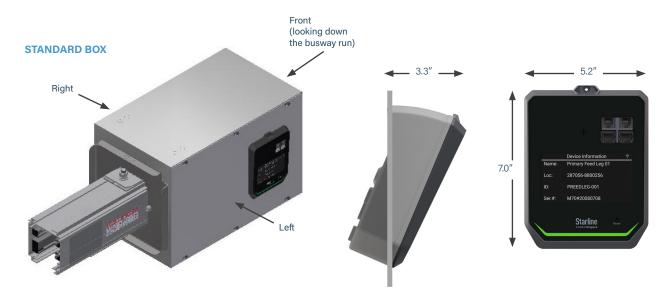
End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 4.21 End Feed Units: Product Numbers).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



250 AMP SYSTEMS

END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

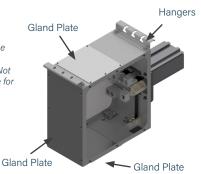


■ END FEED HANGERS & GLAND PLATES

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.

SERIES-S END FEED INFORMATION

All Series-S End Feeds come standard with preinstalled hangars and gland plates. Not all accessories are available for Series-S End Feeds.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.22** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.21** End Feed Units: Product Numbers)



END FEED UNITS: **PRODUCT NUMBERS**

U	F	250	T5	С	4	5	6 -	-	S		N	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polari	zation		ig/Box otions	9. Me Loc	ter cation	10. Accessories Package	11. Accessories Location
		- 0100	С	- STD	0	_	M7	3	00		1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Release		*17. Meter Options		*18. System (and CT T		

1. S	ystem (standard of measure)					
U US						
2. P	Product Type (section component)					
F	End Feed					
3. P	Product Frame (maximum amperage)				
250	250 amps					
4. C	Compatibility (frame compatibility)					
T5		T5 System (Limiting Strip)				
S5	S5 System L5	S5 System (Limiting Strip)				
5. N	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				

5. Material (busbar material)							
С	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% Neutra plus Internal Ground Conductor				
7. Po	olarization (orientation of sectio	n for	mating purposes)				
S	Standard	R	Reversed				
8. Lug/Box Options (standard/double/bolt lugs and box size)							
S L B	Standard lugs, Standard box Standard lugs, Large box Bolt Lugs, Standard Box	R F	Bolt lugs, Large box Standard lugs, Fused box				

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

Left

ng	Release Options a	па Ст туре							
10. Accessories Package (optional accessories for feed units)									
T5 Options: S Standard B (C+F) C IR Window - Circular I (G+F) F End Feed Hanger & Gland Plates G Starline Rect. IR window, 5"x7"									
F	S5 Options: F S5 Standard (includes hangars, and gland plates) B S5 Standard + IR Window - Circular								
11.	Accessories Location (from the te	rminal, side with accessory)							
N L	None (N/A) R Left F	Right Front (consult the factory)							
12.	12. Straight Length (length of section)								
01	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 BLK Paint Factory Black BLU Paint Factory Blue **WHT** Paint Factory White **RAL (please see page 4.106) NOTE: All End Feed enclosures are painted. "STD Factory Mill

Finish" represents painted standard silver.

15.	Tape Marking (colored tap	be 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

Tape Factory Red

EXAMPLE

Right None (N/A)

R

<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



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E 1J Lug Temp + DHCP + WPA2E

Lug lemp + DHCP + WPAZE

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

3J Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP

AF Lug Temp + Audible Alarm + IPV6 + WPA2E

AJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- 1 Δ, Solid CTs, Millivolt, No Measured Neutral
- **4** Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- **9** Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

- J DC Circuit 1, Solid CT
- K DC Circuit 2, Solid CT
- L DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

<u>UF250T5C4R-LRLL-0100C-BLKO-M73001</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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



250 AMP SYSTEMS

ABOVE FEED UNITS

■ PRODUCT DESCRIPTION

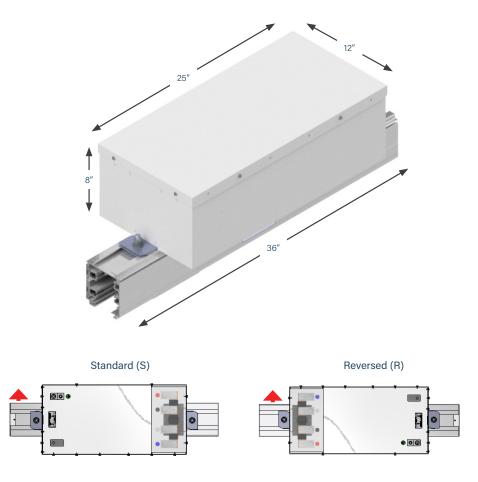
The above feed power unit supplies power from the topside of the Busway. Factory assembled unit consists of a $25 \times 12 \times 8$ inch steel junction box that is mounted on top of a 36 inch section of busway.

*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>





250 AMP SYSTEMS

ABOVE FEED UNITS: **PRODUCT NUMBERS**

U	Α	250	T5	C	4		S	-		D		N	S	N
System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	/	7. Polariz	ation		g/Box tions	9. Mete Loca		10. Accessories Package	11. Accessorie Location
	- 0300	С	018	- STD	()	_	M7	3	00		1	*Optional	
	12. Straight Length	13. Busway Access	14. Feed Location	15. Paint Color	16. Tape Marki	ng		*17. Meter Release		*18. Meter Options	5	19. System and CT	Config. Type	
1. Syste	em (standard of	measure)				11. A	ccess	ories L	oca	tion (fron	n the te	erminal	, side with rem	ovable lid)
U U	S					N		(N/A)		R	Righ	it	A	Rear
2. Prod	uct Type (sect	ion compone	nt)			L	Left		.1	Т	Тор		- F	Front
A Al	oove Feed						otraigh O 3 fe		th (/	ength of s	ection)		
3. Prod	uct Frame (ma	aximum ampe	erage)		L				00 //			- 41 1-		
250 25	0 amps					C		inuous	SS (7	now plugs	acces	s the bi	usway)	
	patibility (fram	ne compatibili			L				2 (la		h a a a a		he top feed)	
	System System		K5 T5 System L5 S5 System							ner length:				
5. Mate	erial (busbar ma	terial)											/ housing)	
C C	opper					STD		ctory M		, ,	RED		Paint Factory	/ Red
6. Neut	ral/Ground B	usbar (size d	of neutral busbar	and/or ground	1)	BLK WH	Pa	int Éact int Fact	tory	Black	BLU **R		Paint Factory	
4 31	Phase plus Ne	utral		plus Neutral p Ground Condi		NOT	E: All	End Fe	ed e	nclosure	s are į	oainte	d. "STD Facto	
N 31	Phase plus 20	0% Neutral	F 3 Phase	plus 200% Ne						nted stan				
			plus Inte Conduct	rnal Ground tor									of busway hou	
7. Polar	ization (orienta	ation of section	n for mating purp	noses)		0 3	Tape	ape Ma Factory	y Bla	ack	7 8	Tap	be Factory Blo be Factory Gr	een
	andard		R Reverse			4 6		Factory			9	Tap	e Factory Ye	llow
8. Lug/	Box Options	รtandard/doเ	uble/bolt lugs and	d box size)				-						
D Do	ouble lugs, Star	ndard boy	B Bolt lugs	, Standard bo	v									

EXAMPLE

Standard

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

10. Accessories Package (optional accessories for feed units)

N None (N/A)

<u>UA250T5CFS-DLSN-0300C018-STD0-M73001</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, Continuous Busway Access, 18 inch Feed Location, Factory Mill Finish, No Tape Marking, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



ABOVE FEED UNITS: PRODUCT NUMBERS



*17. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*17. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc M7M(2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*18. Meter Options (M70 AC and DC)

OA IPV6

0B DHCP

WPA2E OC

0E IPV6 + DHCP

OF IPV6 + WPA2E OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

Audible Alarm 30

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

Lug Temp + DHCP **1B**

1C

Lug Temp + WPA2E 1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

Audible Alarm + WPA2E **3C**

Audible Alarm + IPV6 + DHCP 3E

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E 3J

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP

Lug Temp + Audible Alarm + IPV6 + WPA2E ΑF

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*19. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral
- Δ, Split CTs, 5A-secondary, No Measured Neutral
- Y, Solid CTs, Millivolt, No Measured Neutral
- Y, Split CTs, 5A-secondary, No Measured Neutral
- Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*19. System Configuration and CT Type (M70 DC)

DC Circuit 1, Solid CT

DC Circuit 2, Solid CT

DC Both Circuits, Solid CT

EXAMPLE

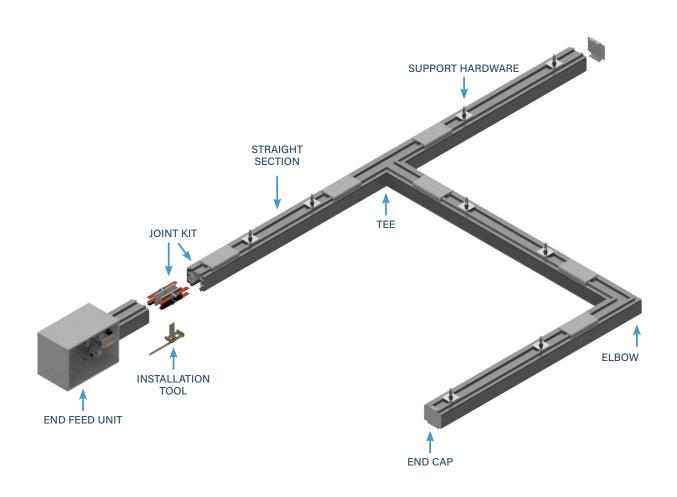
<u>UA250T5CFS-DLSN-0300C018-STD0-M73001</u> = US System, Above Feed, 250 amps, T5 System, Copper Conductor, 3 Phase plus 200% Neutral plus Internal Ground Conductor, Standard Polarization, Double Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessory Location-3 foot Straight Length, Continuous Busway Access, 18 inch Feed Location, Factory Mill Finish, No Tape Marking, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral

4.25



400 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



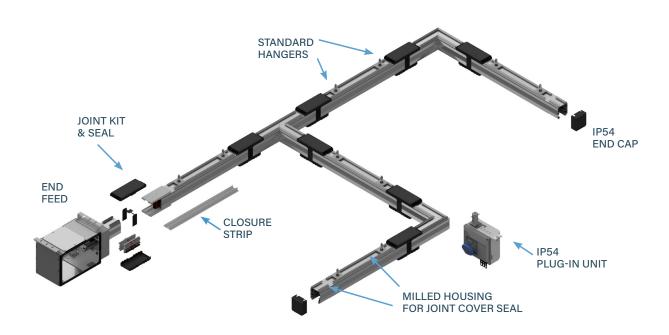
PLUG-IN UNITS

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



400 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

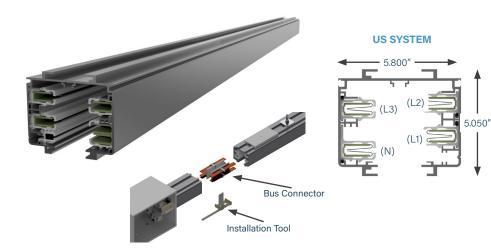
For further information on applicable S5 plug-in unit options, please visit the **Plug-In Units** section.

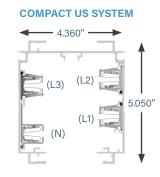


STRAIGHT SECTIONS

■ PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with "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

Note: S5 housing includes corrosion resistant base coating

RATINGS

100% Ground Path

400 Amps

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

LENGTH

T5: 10 ft, 20 ft; or custom lengths between 2 - 20 ft S5: 5 ft, 10 ft max. Consult factory for additional lengths

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

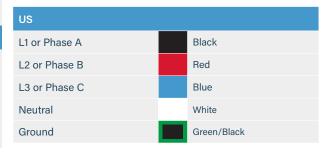
Compact US System

10 ft 4 pole: 52 lbs

10 ft 4 pole w/ ground: 57 lbs

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

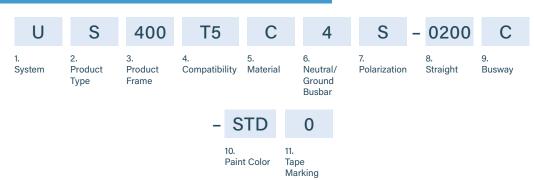
10 ft 4 pole w/ ground & 200% N: 64 lbs





400 AMP SYSTEMS

STRAIGHT SECTIONS: **PRODUCT NUMBERS**



1. System (standard o	f measure)		9. Busway Access (how plugs access the busway)					
U US	С	Compact	C (Continuous				
2. Product Type (see	etion component)		10. Pa	int Color (allows painting	g of the busw	ay housing)		
S Straight Sectio	n		STD	Factory Mill Finish	RED	Paint Factory Red		
3. Product Frame (n	naximum amperage)		BLK WHT	Paint Factory Black Paint Factory White	BLU **RAL	Paint Factory Blue (please see page 4.106)		
400 400 amps			*Paint Factory Silver for Compact US systems					
4. Compatibility (fra	me compatibility)			All Series-S housings includess of paint color selection.		rrosion resistant base coating		
T5 T5 System S5 S5 System		T5 System (Limiting Strip) S5 System (Limiting Strip)		pe Marking (colored tape		es of busway housing)		
5. Material (busbar m	aterial)			No Tape Marking Tape Factory Black		ne Factory Blue ne Factory Green		
C Copper			4	Tape Factory White Tape Factory Red		e Factory Yellow		
6. Neutral/Ground	Busbar (size of neu	tral busbar and/or ground)	6					
4 3 Phase plus N	eutral G	3 Phase plus Neutral plus Internal Ground Conductor						
N 3 Phase plus 20	00% Neutral F	3 Phase plus 200% Neutral plus Internal Ground Conductor						
7. Polarization (orien	tation of section for	mating purposes)						
S Standard								
8. Straight Length (length of section)							
XXYY XX=feet, YY=	inches							

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

 $\underline{\textbf{CS400K5CNS-0206C-P013}} = Compact~\textit{US~System, Straight~Section, 400~amps, T5~System-K5~Limiting~Strip, Copper~Conductor, 3~Phase~plus~200\%~Neutral, and the property of Standard Polarization, 2 foot 6 inch Straight Length, Continuous Busway Access, Painted RAL 1001, Factory Black Tape Marking



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.

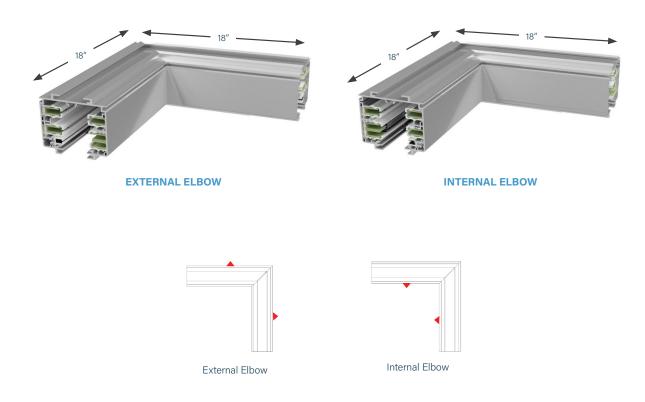
Connection Accessories

(Ordered Separately)

Joint Kits (page 4.110) are used to make mechanical and electrical connections to adjacent busway sections.

Weight

28 lbs US System18 lbs Compact US System

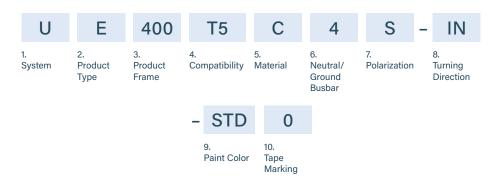


STARLINEPOWER.COM ______ Track Busway Product Selection Guide

= Polarizing Stripe



ELBOW SECTIONS: PRODUCT NUMBERS



1. Sy	ystem (standard of measure)		8. Turning Direction (direction of section polarizing stripe)					
U	US	Compact US		nternal		External		
2 P	roduct Type (section component)		HN	Seismic Internal	GX	Seismic External		
E	Elbow Section		9. Pai	nt Color (allows painting	of the busw	ay housing)		
3. P	roduct Frame (maximum ampera	ge)	STD BLK	Factory Mill Finish Paint Factory Black	RED BLU	Paint Factory Red Paint Factory Blue		
400	400 amps		WHT	Paint Factory White	**RAL	(please see page 4.106)		
4. C	Compatibility (frame compatibility)		NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.					
T5		(5 T5 System (Limiting Strip)						
S5	S5 System	.5 S5 System (Limiting Strip)	10. Ta	pe Marking (colored tape	e on both si	des of busway housing)		
5. N	Material (busbar material)			No Tape Marking Tape Factory Black		ape Factory Blue ape Factory Green		
С	Copper		4	Tape Factory White		pe Factory Yellow		
6. N	leutral/Ground Busbar (size of	neutral busbar and/or ground)	6	Tape Factory Red				
4	3 Phase plus Neutral	3 Phase plus Neutral plus Internal Ground Conductor						
N	3 Phase plus 200% Neutral	3 Phase plus 200% Neutral plus Internal Ground Conductor						
7. Po	olarization (orientation of section	for mating purposes)						
S	Standard							

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



400 AMP SYSTEMS

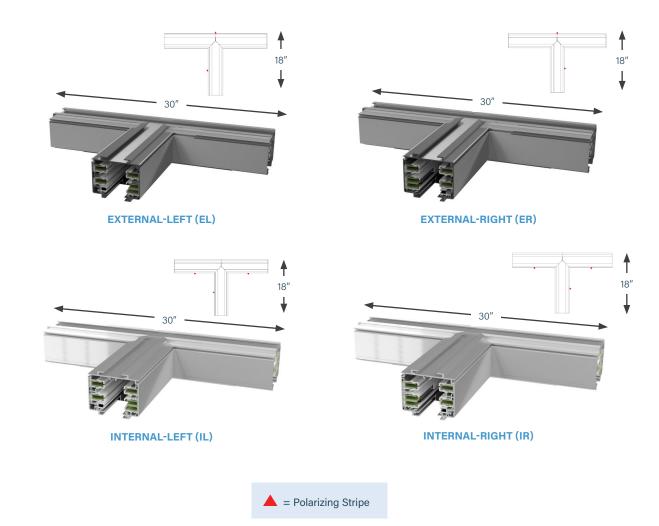
TEE SECTIONS

■ 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 straight section and tee section of busway.

Weight

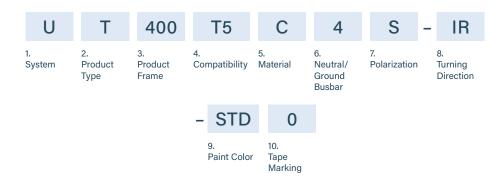
42 lbs US System 24 lbs Compact US System





400 AMP SYSTEMS

TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)									
U	US	С	Compact US						
2. Product Type (section component)									
Т	Tee Section								
3. Product Frame (maximum amperage)									
400 400 amps									
4. Compatibility (frame compatibility)									
T5 S5	T5 System S5 System	K5 L5	T5 System (Limiting Strip) S5 System (Limiting Strip)						
5. M	aterial (busbar material)								
С	Copper								
6. Ne	eutral/Ground Busbar (size o	of neu	itral 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. Po	plarization (orientation of section	n for	mating purposes)						
S	Standard								

8. Turning Direction (direction of section polarizing stripe)

ILInternal-LeftELExternal-LeftIRInternal-RightERExternal-RightHLSeismic Internal-LeftGLSeismic External-LeftHRSeismic Internal-RightGRSeismic External-Right

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

STD Factory Mill Finish BLK Paint Factory Black Paint Factory Black BLU Paint Factory Blue **RAL Paint Factory White Paint Factory White Paint Factory Blue Paint Factory Blue Paint Factory Blue Paint Factory Red Paint Factory Blue Paint Factory Red Paint Factory Blue Paint Factory Blue Paint Factory Blue Paint Factory Red Paint Factory Blue Paint Factor

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

No Tape Marking
 Tape Factory Blue
 Tape Factory Blue
 Tape Factory Green
 Tape Factory Yellow
 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



400 AMP SYSTEMS

END FEED UNITS

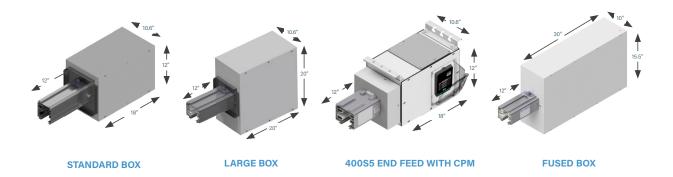
■ PRODUCT DESCRIPTION

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

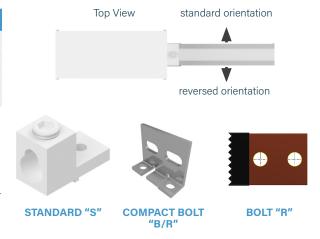


	BOXES									
LUGS	Standard	Large	Fused							
Standard	S	L	F							
Double										
Bolt	В	R								

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.37 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





400 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

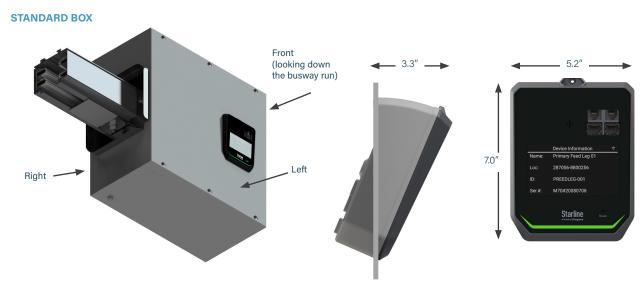
End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.



*The above arrows show how to determine your meter location on an end feed (*Refer to option 9. Meter Location on* **page 4.37** *End Feed Units: Product Numbers*).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



400 AMP SYSTEMS

END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

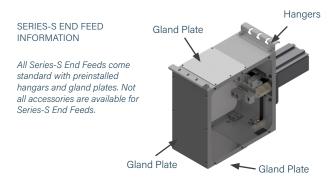
When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.



■ 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.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- Plug-in units have both Line & Load side IR windows for OCPD connections
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.38** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.37** End Feed Units: Product Numbers)



END FEED UNITS:

PRO	DUCT	NUMB	ERS										
U	F	400	T 5	С	4		S	_	S		N	S	N
ystem	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutra Ground Busbar	d	7. Polarizat	tion	8. Lug/Bo Options		fleter ocation	10. Accessories Package	11. Accessorie Location
	-	0100	С	- STD)	0	-	M7	3	00	1	*Optiona	I
		12. Straight Length	13. Busway Access	14. Paint Cold	15. or Tape Mark		M	6. leter elease	*17. Me Opt		*18. System Config. CT Typ	. and	
1. System (standard of measure) U US C Compact US 2. Product Type (section component) F End Feed 10. Accessories Package (optional accessories for feed units) T5 Options: S Standard B (C+F) C IR Window - Circular I (G+F) F End Feed Hanger & Gland Plates G Starline Rect. IR window, 5"x7"													
3. Produ 400 400	ct Frame (m	aximum ampe	rage)			S5 Options: F S5 Standard (includes hangars and gland plates) B S5 Standard + IR Window - Circular							
T5 T5	atibility (fran System System	ne compatibilit	y) K5 T5 Syste L5 S5 Syste			11. Accessories Location (from the terminal, side with accessory) N None (N/A) R Right L Left F Front (consult the factory)							
	ial (<i>busbar ma</i> pper	aterial)				12. Straight Length (length of section)							
6. Neutr	al/Ground E	Busbar (size o	f neutral busba	r and/or groun	nd)	0100 1 ft. (For other lengths, consult the factory)							
	hase plus Ne hase plus 20		Internal	plus Neutral Ground Cond plus 200% N	ductor	13. Busway Access C Continuous							
14 31	nase plus 20	070 Neutrai	plus Inte	rnal Ground		14.	Paint Co	lor (al	lows pair	nting of	the buswa	ny housing)	
S Sta	ndard		Conductor for mating pur R Reverse ble/bolt lugs an	poses)		NOT	K Pain IT Pain	it Fact it Fact d Feed		ck E te * es are pa	RED BLU *RAL ainted. "ST	Paint Factor Paint Factor (please see pa D Factory Mill I	y Blue ge 4.106)
S Sta L Sta 9. Meter R Rig	ndard lugs, Sindard lugs, La	tandard box arge box	F Standar	d lugs, Fused s, Large box	l box	Ė	Tape Ma No Tap Tape F	rking be Mar actory	(colored rking / Black / White		7 Ta 8 Ta	pe Factory G pe Factory G pe Factory Ye	ue reen

EXAMPLE

<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



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

0J DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

3J Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP **AF** Lug Temp + Audible Alarm + IPV6 + WPA2E

AJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- **1** Δ, Solid CTs, Millivolt, No Measured Neutral
- **4** Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- **9** Δ, Solid CTs, Millivolt, Measured Neutral
- **C** Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

J DC Circuit 1, Solid CT

K DC Circuit 2, Solid CT

L DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

<u>UF400T5C4R-LRLL-0100C-BLKO-M73001</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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



ABOVE FEED UNITS

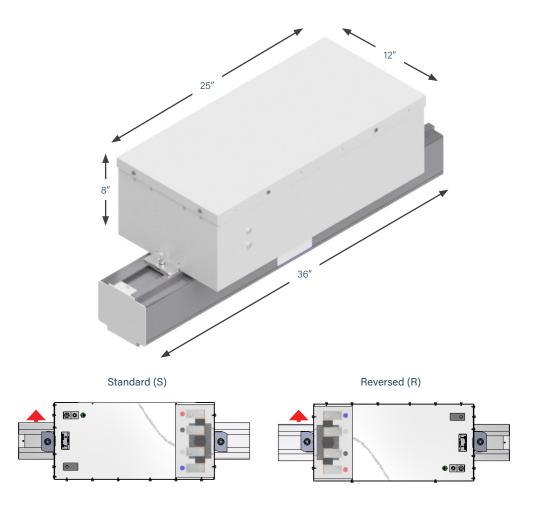
■ PRODUCT DESCRIPTION

The above feed power unit supplies power from the topside of the busway. Factory assembled unit consists of a $25 \times 12 \times 8$ 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>





ABOVE FEED UNITS: PRODUCT NUMBERS

U	Α	400	T5	С	4		S	_	S	N	S	Ν	
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral Ground Busbar	l	7. Polariza	ation	8. Lug/Box Options	9. Meter Location	10. Accessories Package	11. Accessories Location	
	0300	С	018	- STD		0	-	M7	3 00	1	*Optiona	1	
	12. Straight Length	13. Busway Access	14. Feed Location	15. Paint Color	16. r Tape Mark	ing	ľ	17. Meter Release	*18. Meter Options		Config. Type		
1. System U US	n (standard of	measure)	C Compac	t US		10. A	Access Stand		Package (op	tional accesso	ories for feed u	nits)	
A Ab	ct Type (sect			ories L (N/A)	ocation (from R Rig T Top	ht	I, side with ren A Rear F Front	novable lid)					
3. Produ 400 400	ct Frame (ma	aximum ampe	rage)			12. 9	Straigh	t Leng	th (length of				
4. Comp	atibility (fran	ne compatibili				0300 3 feet							
	System System		K5 T5 Syste L5 S5 Syste			13. Busway Access (how plugs access the busway) C Continuous							
5. Mater	ial (busbar ma	aterial)				14. Feed Location (location of the center of the top feed)							
C Co	oper					018 18 inches (For other lengths, consult the factory)							
		•	of neutral busbar		1	15. F	Paint C	olor (al	lows painting	of the busway	y housing)		
	Internal Ground Conductor							STD Factory Mill Finish RED Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 4.106) NOTE: All Above Feed enclosures are painted. "STD Factory Mill Finish"					
7. Polari	zation (orienta	ation of sectio	n for mating pur	poses)		repre	sents pa	ainted st	andard silver.				
S Sta	ndard		R Reverse	d		16. 7		•			s of busway ho		
	Sox Options (ndard lugs, St		ıble/bolt lugs an	d box size)		0 3 4 6	Tape Tape	ipe Mai Factory Factory Factory	Black White	8 Ta	pe Factory Bl pe Factory G pe Factory Ye	reen	
9. Meter	Location (fro	om the termin	al, side with rem	ovable lid)									

EXAMPLE

Right

L Left

<u>UA400K5CFS-SRSN-0300C018-STD0-M73001</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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral

N None (N/A)



ABOVE FEED UNITS: PRODUCT NUMBERS



*17. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*17. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc M7M(2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*18. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

IPV6 + DHCP 0E

IPV6 + WPA2E

OΙ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

Lug Temp 10

30 Audible Alarm

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

Lug Temp + DHCP **1B**

Lug Temp + WPA2E 1C

Lug Temp + IPV6 + DHCP 1E 1F

Lug Temp + IPV6 + WPA2E Lug Temp + DHCP + WPA2E 1J

Lug Temp + IPV6 + WPA2E + DHCP 1H

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

3J Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

ΑE Lug Temp + Audible Alarm + IPV6 + DHCP

Lug Temp + Audible Alarm + IPV6 + WPA2E AF

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

Lug Temp + Audible Alarm + DHCP + WPA2E ΔI

*19. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral 1
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*19. System Configuration and CT Type (M70 DC)

DC Circuit 1, Solid CT

DC Circuit 2, Solid CT Κ

DC Both Circuits, Solid CT

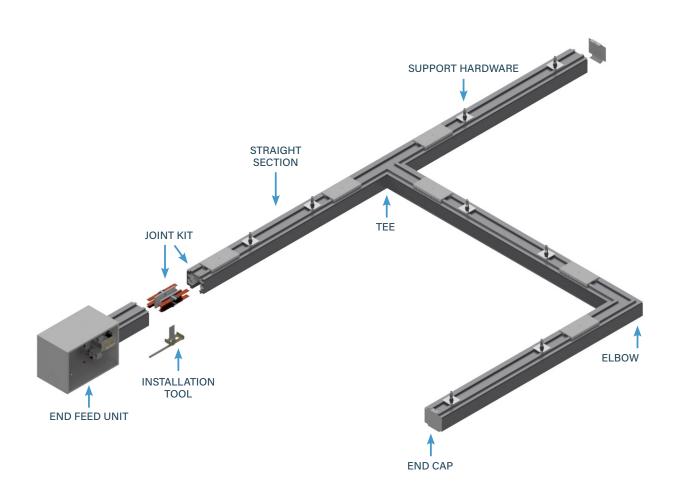
EXAMPLE

<u>UA400K5CFS-SRSN-0300C018-STD0-M73001</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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



500 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



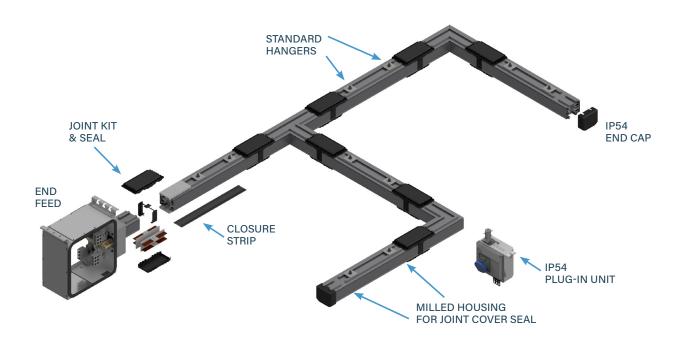
PLUG-IN UNITS

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



500 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

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

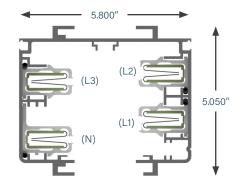


STRAIGHT SECTIONS

■ PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with "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 plugin 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.





MATERIAL

Extruded Aluminum

Note: S5 housing includes corrosion resistant base coating

RATINGS

100% Ground Path

500 Amps

500T5C4/500T5CG: 600 Volt

LENGTH

T5: 10 ft, 20 ft; or custom lengths between 2 - 20 ft S5: 5 ft, 10 ft max. Consult factory for additional lengths

VOLTAGE DROP

Distributed load

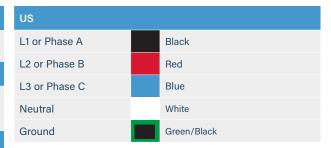
Single Phase 1V per 37 ft (.8PF)

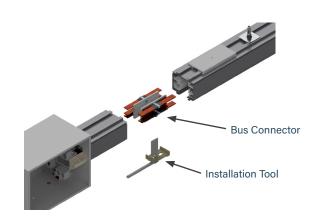
Three Phase 1V per 65 ft (.8PF)

WEIGHT

10 ft 4 pole: 104 lbs

10 ft 4 pole w/ ground: 109 lbs

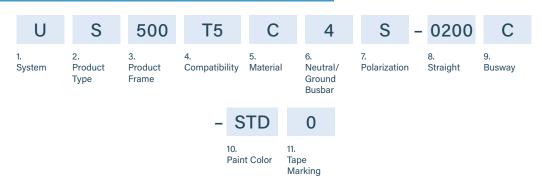




4.44



STRAIGHT SECTIONS: **PRODUCT NUMBERS**



1. System (st	tandard of measure)	
U US		
2. Product T	Type (section component)	
S Straigh	nt Section	
3. Product F	rame (maximum amperage)
500 500 am	nps	
4. Compatib	pility (frame compatibility)	
T5 T5 Syst S5 S5 Syst		T5 System (Limiting Strip) S5 System (Limiting Strip)
5 Material /	busbar material)	
J. Marchal (
C Coppe	r	
C Coppe		utral busbar and/or ground)
C Coppe		
C Coppe 6. Neutral/C 4 3 Phase	Ground Busbar (size of ne	3 Phase plus Neutral plus Internal Ground Conductor
C Coppe 6. Neutral/C 4 3 Phase	Ground Busbar (size of ne e plus Neutral G on (orientation of section for	3 Phase plus Neutral plus Internal Ground Conductor
C Coppe6. Neutral/O4 3 Phase7. PolarizationS Standa	Ground Busbar (size of ne e plus Neutral G on (orientation of section for	3 Phase plus Neutral plus Internal Ground Conductor

9.	9. Busway Access (how plugs access the busway)									
С	C Continuous									
10. Paint Color (allows painting of the busway housing)										
W	STD Factory Mill Finish RED Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 4.106) NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.									
11.	11. Tape Marking (colored tape on both sides of busway housing)									
0 3 4	3 Tape Factory Black 8 Tape Factory Green									

Tape Factory Red

EXAMPLES

<u>US500T5C4S-0500C-STD0</u> = US System, Straight Section, 500 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>US500K5CGS-0206C-P013</u> = US System, Straight Section, 500 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

4.45



500 AMP SYSTEMS

ELBOW SECTIONS

■ PRODUCT DESCRIPTION

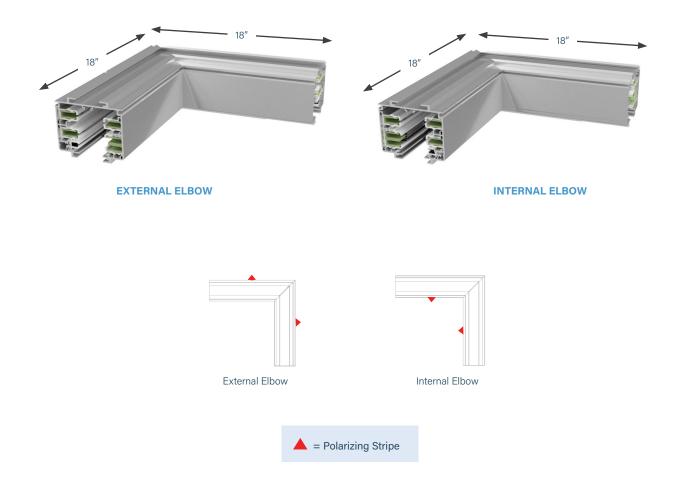
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

(Ordered Separately)

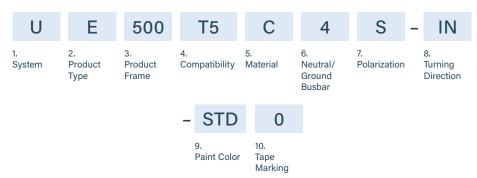
A Joint Kit (page 4.110) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 17.5 lbs





ELBOW SECTIONS: PRODUCT NUMBERS



I. System (standard of measure)		8. Turning Direction
U US		IN Internal
2. Product Type (section compo	onent)	9. Paint Color (allows
E Elbow Section		STD Factory Mill F
3. Product Frame (maximum ar	nperage)	BLK Paint Factory WHT Paint Factory
500 500 amps		NOTE: All Series-S housi
4. Compatibility (frame compat	ibility)	regardless of paint color s
T5 T5 System	K5 T5 System (Limiting Strip)	10. Tape Marking (co.
S5 System	L5 S5 System (Limiting Strip)	No Tape Markin
5. Material (busbar material)		3 Tape Factory Bl4 Tape Factory W
C Copper		6 Tape Factory Re
6. Neutral/Ground Busbar (si	ze of neutral busbar and/or ground)	
4 3 Phase plus Neutral	G 3 Phase plus Neutral plus Internal Ground Conductor	

8. Tur	8. Turning Direction (direction of section polarizing stripe)							
IN I	nternal	EX	External					
9. Pai	nt Color (allows painting	of the bus	way housing)					
STD BLK WHT		RED BLU **RAL	Paint Factory Red Paint Factory Blue (please see page 4.106)					
	All Series-S housings includ less of paint color selection.	le a clear c	corrosion resistant base coating,					
10. Ta	10. Tape Marking (colored tape on both sides of busway housing)							
3 4	No Tape Marking Tape Factory Black Tape Factory White Tape Factory Red	8 7	ape Factory Blue ape Factory Green ape Factory Yellow					

EXAMPLES

<u>UE500K5C4S-IN-STD7</u> = US System, Elbow Section, 500 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>UE500T5CGS-EX-BLK0</u> = US System, Elbow Section, 500 amps, T5 System, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Painted Factory Black, No Tape Marking



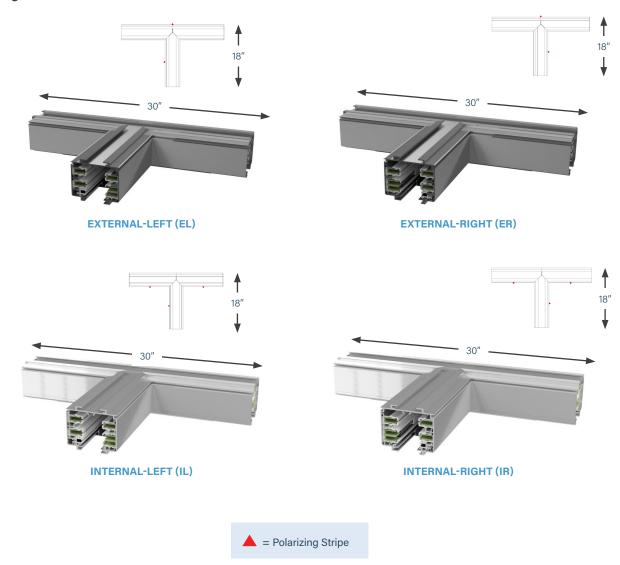
500 AMP SYSTEMS

TEE SECTIONS

■ PRODUCT DESCRIPTION

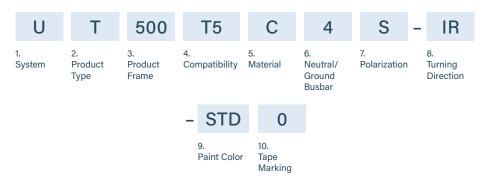
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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

Weight 45.5 lbs





TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)
U US	
2. Product Type (section comp	ponent)
T Tee Section	
3. Product Frame (maximum a	amperage)
500 500 amps	
4. Compatibility (frame compa	atibility)
T5 T5 System S5 S5 System	K5 T5 System (Limiting Strip)L5 S5 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 s	section for mating purposes)
S Standard	

8. Turning Direction (direction of section polarizing stripe)

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

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

Factory Mill Finish **RED** Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 4.106)

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

- 0 No Tape Marking Tape Factory Blue Tape Factory Green 3 Tape Factory Black Tape Factory White
- Tape Factory Red
- Tape Factory Yellow

EXAMPLES

UT500T5C4S-IR-RED0 = US System, Tee Section, 500 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

UT500K5CGS-EL-STD0 = US System, Tee Section, 500 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



END FEED UNITS

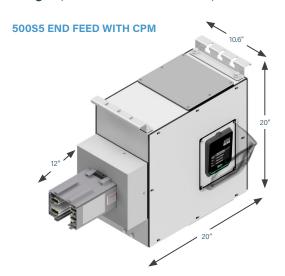
■ PRODUCT DESCRIPTION

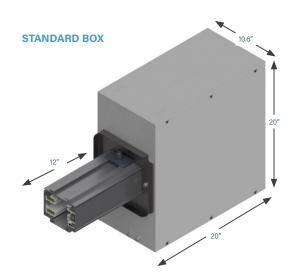
End power feed units connect to the end of the busway. A standard size, factory assembled unit consists of a steel junction box, with removable sides, connected to a 1 foot section of busway. The assembly includes connection lugs and a ground lug for wires (2) 250MCM or up to 600MCM for standard size 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) 35 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





BOLT "B'

Track Busway Product Selection Guide



500 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

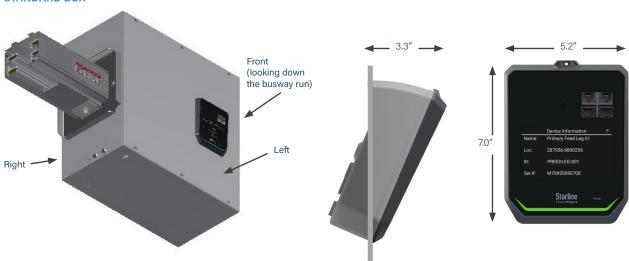
Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.

STANDARD BOX



*The above arrows show how to determine your meter location on an end feed (*Refer to option 9. Meter Location on* **page 4.53** *End Feed Units: Product Numbers*).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



500 AMP SYSTEMS

END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

Note: Rectangular IR window option not available for Series-S systems. See S5 end feed accessories package for more information.

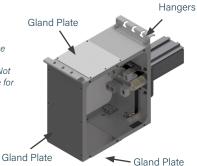


■ END FEED HANGERS & GLAND PLATES

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.

SERIES-S END FEED INFORMATION

All Series-S End Feeds come standard with preinstalled hangars and gland plates. Not all accessories are available for Series-S End Feeds.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

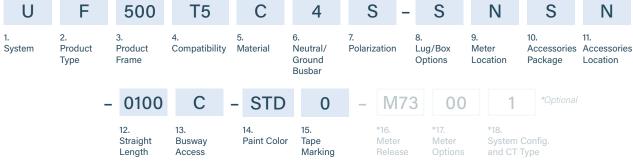
GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.54** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.53** End Feed Units: Product Numbers)



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)				
500 500 amps					
4. Compatibility (frame compatibility)					
	T5 System (Limiting Strip) S5 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 R	Reversed				

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

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

Bolt Lugs, Standard Box

Left

L

Standard Lugs, Standard Box **B**

e king	*16. Meter Release	*17. Meter Options		tem Config. I CT Type				
10. A	ccessories Pac	kage (optio	nal acc	essories for feed units)				
T5 O S C F	ptions: Standard IR Window - C End Feed Hano Starline Rect. II	ger & Gland		(C+F) (U+F) S				
S5 O F B	ptions: S5 Standard (ir S5 Standard +			nd gland plates) ular				
11. Ac	ccessories Loc	ation (from	the tern	ninal, side with accessory)				
N L								
12. S	traight Length	(length of se	ction)					
0100	1 ft. (For other l	engths, cons	ult the f	actory)				
13. B	usway Access							
С	Continuous							
14. P	aint Color (allow	s painting of	f the bu	sway housing)				
BLK	STD Factory Mill Finish RED Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 4.106)							
	NOTE: All End Feed enclosures are painted. "STD Factory Mill Finish" represents painted standard silver.							
15. Ta	ape Marking (co	olored tape o	n both s	sides of busway housing)				
0	No Tape Marking Tape Factory Blue							

8

Tape Factory Green

Tape Factory Yellow

4.53

EXAMPLE

R

Right

None (N/A)

<u>UF500T5C4R-SLSN-0102P-BLK0-M73001</u> = US System, End Feed, 500 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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral

3

4

6

Tape Factory Black

Tape Factory White

Tape Factory Red



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

DHCP + WPA2E OJ

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A0 Lug Temp + Audible Alarm

Lug Temp + IPV6 1A

1B Lug Temp + DHCP

Lug Temp + WPA2E 1C

Lug Temp + IPV6 + DHCP 1E

1F Lug Temp + IPV6 + WPA2E

Lug Temp + DHCP + WPA2E 1J

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

Audible Alarm + WPA2E 3C

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E 3J

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP

AF Lug Temp + Audible Alarm + IPV6 + WPA2E Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral
- Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
- Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

- DC Circuit 1, Solid CT
- DC Circuit 2, Solid CT
 - DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

UF500T5C4R-SLSN-0102P-BLK0-M73001 = US System, End Feed, 500 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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



ABOVE FEED UNITS

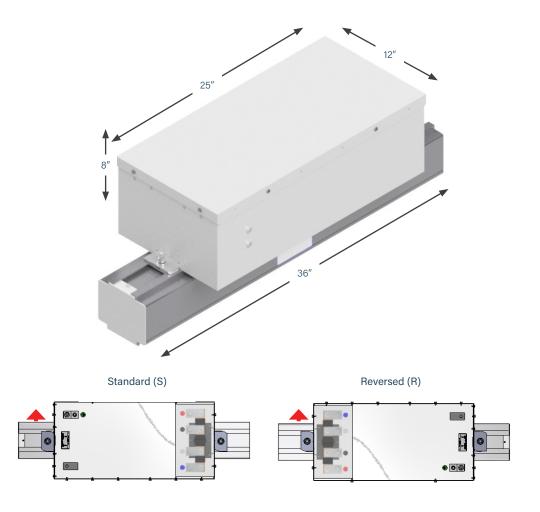
■ PRODUCT DESCRIPTION

The above feed power unit supplies power from the topside of the busway. Factory assembled unit consists of a $25 \times 12 \times 8$ 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>





500 AMP SYSTEMS

ABOVE FEED UNITS: PRODUCT NUMBERS

		Λ	FOO	TC		А					C		NI	0	N.I
U		A	500	T5	С	4		S	-		S		N	S	N
ystem		2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutra Ground Busbar	b	7. Polari	zation		g/Box tions	9. Me	ter eation	10. Accessories Package	11. Accessor Location
	_	0300	С	018	- STD		0	-	M7	3	00		1	*Optional	l
		12. Straight Length	13. Busway Access	14. Feed Location	15. Paint Color	16. r Tape Mark			*17. Meter Release		*18. Meter Options		*19. System and CT	Config. Type	
1. Sy	stem US	(standard of	measure)					Straig 00 3 fe		jth (/d	ength of s	ectio	on)		
		t Type (sect	ion compone	nt)						ee (h	ow plugs	2000	oss tha h	ueway)	
A		ve Feed	ion componer	11)			C		tinuous		low plugs	acce	รรร และ ม	usway)	
3. Pr	oduc	t Frame (ma	aximum ampe	rage)			14.	Feed I	Locatio	n (loc	eation of t	he ce	enter of t	he top feed)	
500	500 a	amps					018	18 in	ches (F	or oth	er length	s, coi	nsult the	factory)	
4. Co	ompa	tibility (fram	ne compatibili	ty)			15.	Paint (Color (a	llows	painting	of the	e busway	y housing)	
T5		ystem		K5 T5 Syste			STI		actory M			RE		Paint Factor	
S5		ystem		L5 S5 Syste	m (Limiting :	Strip)	BLI WH		aint Fac aint Fac	,		BL **I	.U RAL	Paint Factor (please see pa	,
5. IVI	Cop	a l (busbar ma	iterial)									are p	ainted. "S	STD Factory Mi	II Finish"
			uchar (cizo (of neutral busbar	and/or groups	d)		,	painted s						
4		ase plus Ne			plus Neutral p		16.		vlarking Tape Ma					s <i>of busway ho</i> be Factory Bl	
					Ground Cond		3	Таре	Factor	y Bla	ick		в Тар	oe Factory G	reen
7. Po	lariza	ation (orienta	ation of sectio	n for mating pur	poses)		4 6		e Factor e Factor				9 Tap	oe Factory Ye	ellow
s	Stan	dard		R Reverse	d					-					
8. Lu	ıg/Bo	x Options (รtandard/doเ	ıble/bolt lugs an	d box size)										
S	Stand	dard lugs, St	andard box												
9. M	eter L	ocation (fro	om the termin	al, side with rem	ovable lid)										
R	Right	t I	L Left	N	None (N/A)										
10. A	cces:		kage (optiona	al accessories fo	r feed units)										
			tion (from th	e terminal, side v	vith removable	e lid)									
N L		e (N/A) I	R Right T Top	Α	Rear Front	,									

EXAMPLE

<u>UA500T5C4S-SRSN-0300C018-STD0-M73001</u> = US System, Above Feed, 500 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, 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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



ABOVE FEED UNITS: PRODUCT NUMBERS



*17. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*17. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*18. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC. WPA2E

0E IPV6 + DHCP

IPV6 + WPA2E 0F

ΟJ DHCP + WPA2E

IPV6 + WPA2E + DHCP **0H**

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

Lug Temp + Audible Alarm A₀

1A Lug Temp + IPV6

Lug Temp + DHCP **1B**

Lug Temp + WPA2E 1C

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

Lug Temp + DHCP + WPA2E 11

Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

Audible Alarm + DHCP 3B

Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

3J Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

ΑE Lug Temp + Audible Alarm + IPV6 + DHCP

Lug Temp + Audible Alarm + IPV6 + WPA2E ΑF

Lug Temp + Audible Alarm + DHCP + WPA2E

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*19. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral
- Δ, Split CTs, 5A-secondary, No Measured Neutral
- Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- 9 Δ, Solid CTs, Millivolt, Measured Neutral
- Δ, Split CTs, 5A-secondary, Measured Neutral

*19. System Configuration and CT Type (M70 DC)

DC Circuit 1, Solid CT

K DC Circuit 2, Solid CT

DC Both Circuits, Solid CT

EXAMPLE

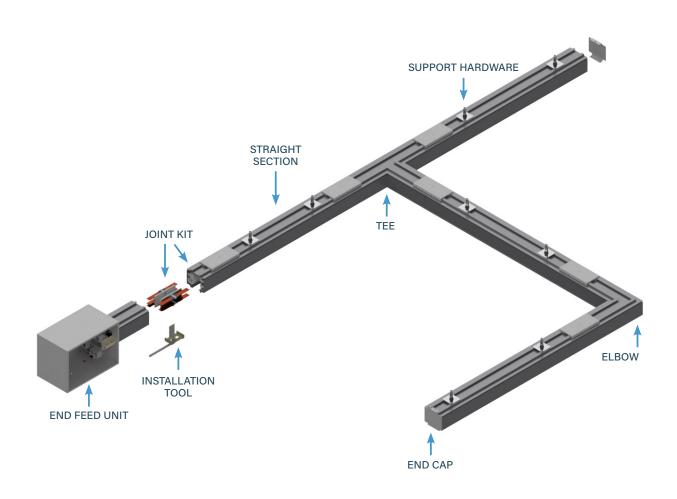
<u>UA500T5C4S-SRSN-0300C018-STD0-M73001</u> = US System, Above Feed, 500 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Standard Lugs, Standard Box, Right Meter Location, Standard Accessory Package, No Accessory Location, 3 foot Straight Length, Continuous Busway Access, 18 inch Feed Location, Factory Mill Finish, No Tape Marking, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral

4.57



600 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



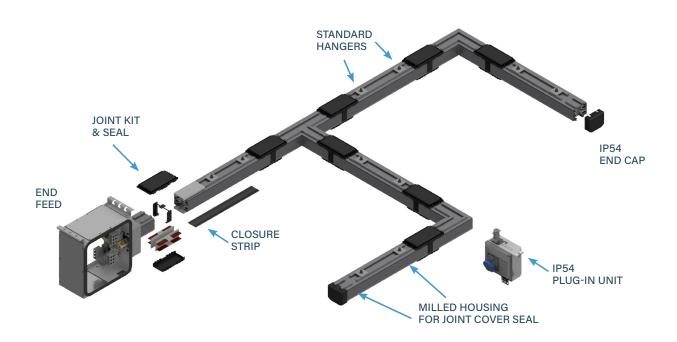
PLUG-IN UNITS

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



600 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

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

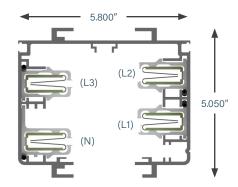


STRAIGHT SECTIONS

■ PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with "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 plugin 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.





MATERIAL

Extruded Aluminum

Note: S5 housing includes corrosion resistant base coating

RATINGS

100% Ground Path

600 Amps

600T5C4/600T5CG: 600 Volt

LENGTH

T5: 10 ft, 20 ft; or custom lengths between 2 - 20 ft S5: 5 ft, 10 ft max. Consult factory for additional lengths

VOLTAGE DROP

Distributed load

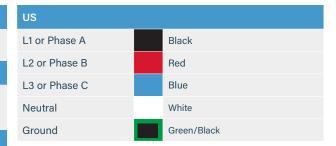
Single Phase 1V per 37 ft (.8PF)

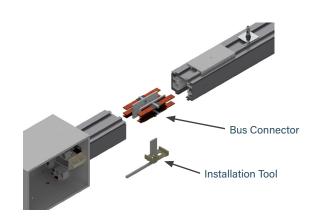
Three Phase 1V per 65 ft (.8PF)

WEIGHT

10 ft 4 pole: 115 lbs

10 ft 4 pole w/ ground: 120 lbs

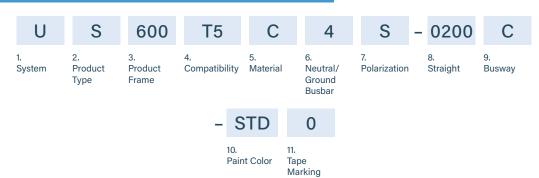




4.60



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)		9. Bus	sway Access (how
U US		C	Continuous
2. Product Type (section component)		10. Pa	int Color (allows pa
S Straight Section		STD	Factory Mill Finis
3. Product Frame (maximum amperag	e)	BLK WHT	Paint Factory Bla Paint Factory Wh
600 600 amps		NOTE:	All Series-S housings
4. Compatibility (frame compatibility)		regardl	ess of paint color sele
	T5 System (Limiting Strip)S5 System (Limiting Strip)	0	be Marking (colored No Tape Marking
5. Material (busbar material)			Tape Factory Black Tape Factory White
C Copper			Tape Factory Red
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		
7. Polarization (orientation of section for	r mating purposes)		
S Standard			
8. Straight Length (length of section)			
XXYY XX=feet, YY=inches			

vay Access (how plugs access the busway)

nt Color (allows painting of the busway housing)

Factory Mill Finish RED Paint Factory Red Paint Factory Black **BLU** Paint Factory Blue **RAL Paint Factory White (please see page 4.106)

Ill Series-S housings include a clear corrosion resistant base coating, ss of paint color selection.

Marking (colored tape on both sides of busway housing)

o Tape Marking ape Factory Black ape Factory White

Tape Factory Blue Tape Factory Green 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



600 AMP SYSTEMS

ELBOW SECTIONS

■ PRODUCT DESCRIPTION

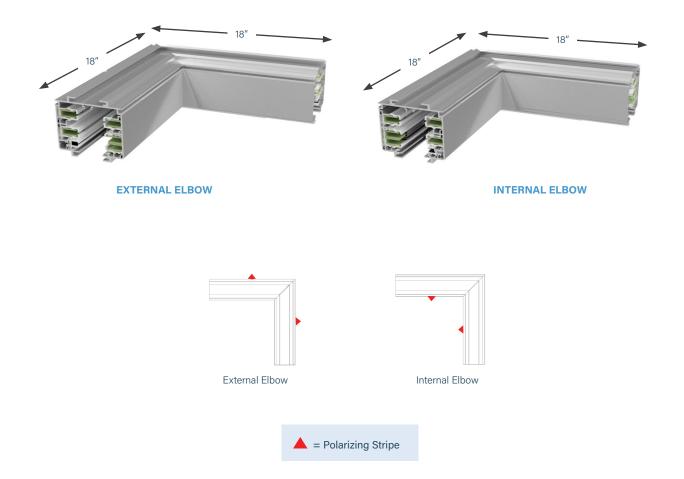
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

(Ordered Separately)

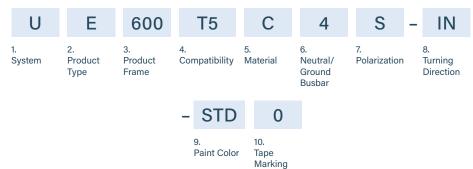
A Joint Kit (page 4.110) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 32 lbs





ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure,		8. Turning Direction	n (direction of section p	olarizing stripe)
U US		IN Internal	EX E	external
2. Product Type (section comp	onent)	9. Paint Color (allow	s painting of the buswa	y housing)
E Elbow Section		STD Factory Mill		Paint Factory Red
3. Product Frame (maximum a	mperage)	BLK Paint Factor WHT Paint Factor		Paint Factory Blue (please see page 4.106)
600 600 amps		NOTE: All Series-S hous	sings include a clear corr	rosion resistant base coating,
4. Compatibility (frame compa	tibility)	regardless of paint color	r selection.	
T5 T5 System	K5 T5 System (Limiting Strip)	10. Tape Marking (c	colored tape on both side	es of busway housing)
S5 S5 System	L5 S5 System (Limiting Strip)	No Tape Mark		e Factory Blue
5. Material (busbar material)		3 Tape Factory E 4 Tape Factory V		e Factory Green e Factory Yellow
C Copper		6 Tape Factory F		
6. Neutral/Ground Busbar (s	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 se	ection for mating purposes)			

EXAMPLES

Standard

<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



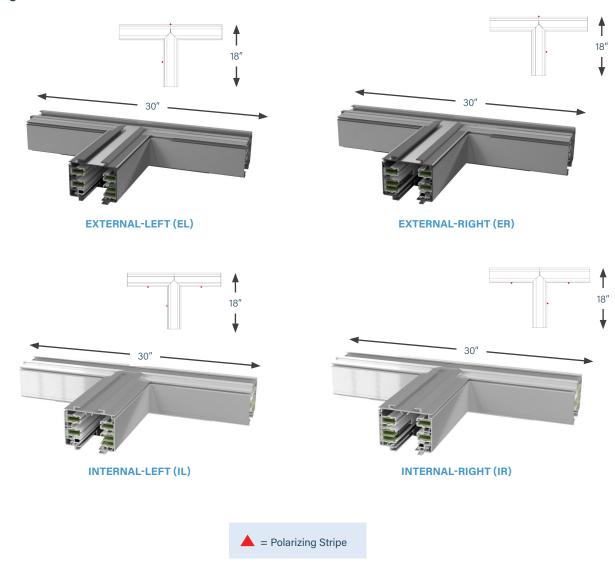
600 AMP SYSTEMS

TEE SECTIONS

■ PRODUCT DESCRIPTION

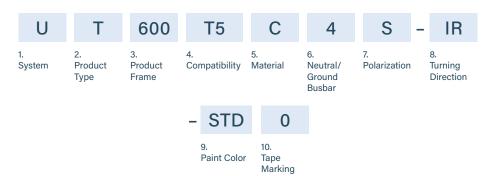
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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

Weight 47.5 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	e)				
600 600 amps					
4. Compatibility (frame compatibility)					
T5 T5 System K8 S5 S5 System L5	T5 System (Limiting Strip)S5 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	3 Phase plus Neutral plus Internal Ground Conductor				
7. Polarization (orientation of section for mating purposes)					
S Standard					

8. Tu	urning Direction (direction	of section	n polarizing stripe)				
IL IR	Internal-Left Internal-Right	EL ER	External-Left External-Right				
9. Pa	aint Color (allows painting	of the bus	way housing)				
STD BLK WH	Paint Factory Black	RED BLU **RAL	Paint Factory Red Paint Factory Blue (please see page 4.106)				
	NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.						
10. T	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 T	ape Factory Blue ape Factory Green ape 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



END FEED UNITS

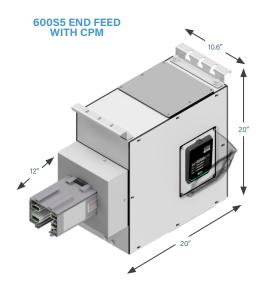
■ PRODUCT DESCRIPTION

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.

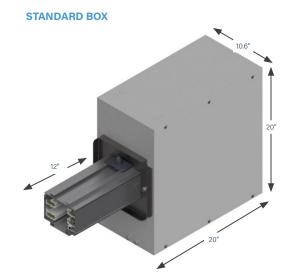
Weight (for standard size end feed) 52 lbs



		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







STANDARD "S"

BOLT "B"



600 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

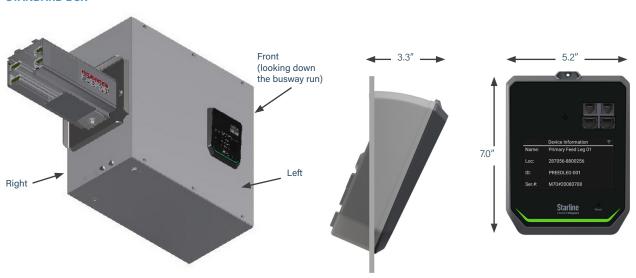
Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.

STANDARD BOX



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 4.69 End Feed Units: Product Numbers).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



600 AMP SYSTEMS

END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

Note: Rectangular IR window option not available for Series-S systems. See S5 end feed accessories package for more information.

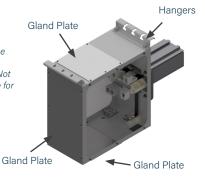


■ END FEED HANGERS & GLAND PLATES

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.

SERIES-S END FEED INFORMATION

All Series-S End Feeds come standard with preinstalled hangars and gland plates. Not all accessories are available for Series-S End Feeds.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5"(127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.70** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.69** End Feed Units: Product Numbers)



600 AMP SYSTEMS

END FEED UNITS: PRODUCT NUMBERS

U	F	600	T5	С	4	5	3	-	S		N	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polari	zation		ıg/Box ptions	9. Me Lo	eter cation	10. Accessories Package	11. Accessories Location
		0100	С	- STD	0	-	M	73	00		1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Releas	se	*17. Meter Options		*18. System (and CT T		

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 System (Limiting Strip) S5 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)			

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

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

Standard Lugs, Standard Box **B** Bolt Lugs, Standard Box

Reversed

Left

10. Accessorie	s Package (optional ad	ccessories for feed units)		
	w - Circular P Hanger & Gland Plat ect. IR window, 8"x12'	(U+F) es		
S5 Options: F S5 Standard (includes hangars and gland plates) B S5 Standard + IR Window - Circular				
11. Accessories	Location (from the te	rminal, side with accessory)		

N L	None (N/A) Left	R F	Right Front (consult the factory)			
12. S	traight Length (length of s	ection)				
0100	1 ft. (For other lengths, con	sult the fa	actory)			
13. B	usway Access					
С	Continuous					
14. P	14. Paint Color (allows painting of the busway housing)					
STD BLK WH1	Paint Factory Black	RED BLU **RAL	Paint Factory Red Paint Factory Blue (please see page 4.106)			

WHT	Paint Factory Black Paint Factory White	**RAL	(please see page 4.106)
	All End Feed enclosures are nts painted standard silver.	painted. "S	TD Factory Mill Finish"

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

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

EXAMPLE

S

Standard

Right

None (N/A)

<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



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

0B DHCP

WPA2E OC.

IPV6 + DHCP 0E

0F IPV6 + WPA2E

OJ DHCP + WPA2E 0H

IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

Audible Alarm 30

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

Lug Temp + DHCP + WPA2E 1J

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

Audible Alarm + DHCP **3B**

Audible Alarm + WPA2E **3C**

Audible Alarm + IPV6 + DHCP 3E

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E **3**J

Audible Alarm + IPV6 + WPA2E + DHCP 3H

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

Lug Temp + Audible Alarm + IPV6 + DHCP ΑE

Lug Temp + Audible Alarm + IPV6 + WPA2E AF

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, Millivolt, No Measured Neutral
- Δ, Split CTs, 5A-secondary, No Measured Neutral
- Y, Solid CTs, Millivolt, No Measured Neutral
- Y, Split CTs, 5A-secondary, No Measured Neutral
- Δ, Solid CTs, Millivolt, Measured Neutral 9
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

DC Circuit 1, Solid CT

Κ DC Circuit 2, Solid CT

DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

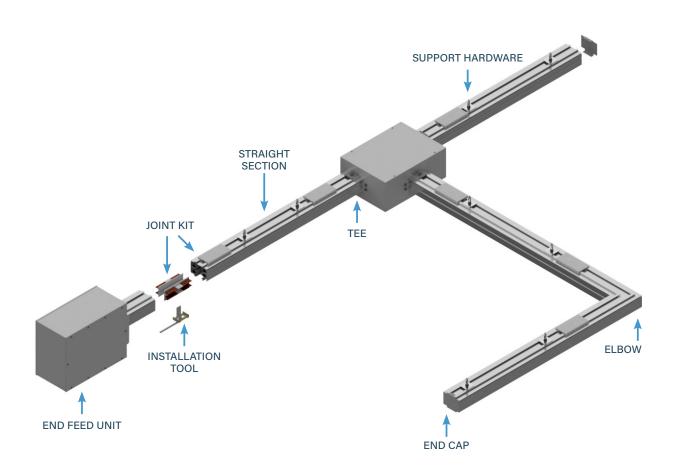
EXAMPLE

UF600T5C4R-SLSN-0102P-BLK0-M73001 = 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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



800 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



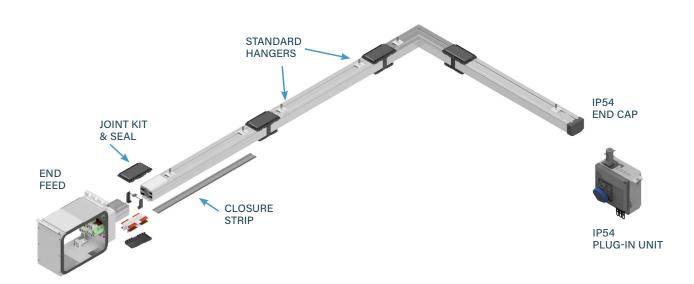
PLUG-IN UNITS

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



800 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

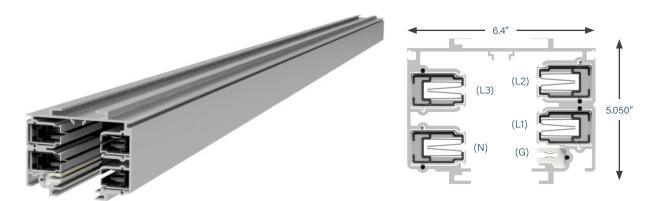
For further information on applicable T5 plug-in unit options, please visit the **Plug-In Units** section.



STRAIGHT SECTIONS

■ PRODUCT DESCRIPTION

Track Busway straight section consists of an extruded aluminum shell with you choice of copper or copperaluminum 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

Note: S5 housing includes corrosion resistant base coating

RATINGS

100% Ground Path 800 Amps, 600 Volt

LENGTH

T5: 5 ft, Max 10 ft or custom lengths between 2 - 10 ft S5: 5 ft or 10 ft max. Consult factory for additional lengths

VOLTAGE DROP

Distributed load

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

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

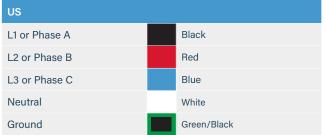
WEIGHT

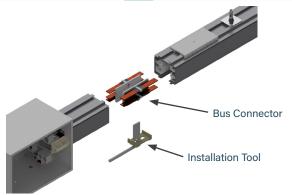
10 ft 4 pole w/ standard ground: 204 lbs - Copper

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

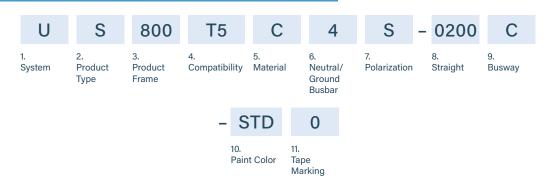




4.73



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. Sy	stem (standard of measure)		9. B	us
U	US		С	C
2. Pı	roduct Type (section component)		10. F	a
S	Straight Section		STD	
3. Pr	roduct Frame (maximum amperage)		BLK WH	-
800	800 amps		NOT	
4. C	ompatibility (frame compatibility)		coatii	ng
T5 S5	T5 System K5 S5 System L5	T5 System (Limiting Strip) S5 System (Limiting Strip)	11. Ta	ap 1
5. M	aterial (busbar material)		3 4	7
С	Copper H	Hybrid (Cu/Al)	6	٦
6. N	eutral/Ground Busbar (size of neu	itral busbar and/or ground)		
4	3 Phase plus Neutral G	3 Phase plus Neutral plus Internal Ground Conductor		
7. Pc	plarization (orientation of section for	mating purposes)		
s	Standard			
8. St	traight Length (length of section)			
XXY	Y XX=feet, YY=inches			

۵.	Busway	Acces	Chow	pluge	200000	tho	huguan	
J.	Dusway	ACCESS	(TIOVV	piuys	access	uie	Dusway)	

c Continuous

10. 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 4.106)

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

11. 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>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



ELBOW SECTIONS

■ PRODUCT DESCRIPTION

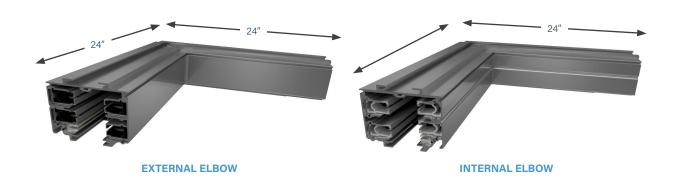
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

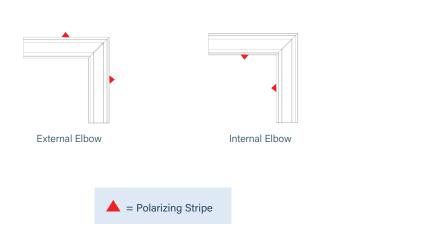
Connection Accessories

(Ordered Separately)

A Joint Kit (page 4.110) is used to make mechanical and electrical connections to adjacent busway sections.

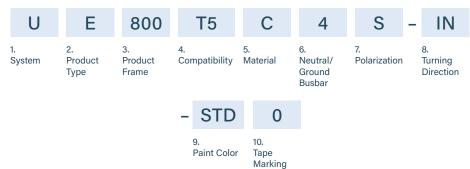
Weight 51 lbs - Hybrid







ELBOW SECTIONS: PRODUCT NUMBERS



						-9			
1. S	ystem (standard of measure)			8. T	urn	ning Direction (direction	of secti	ion po	plarizing stripe)
U	US			IN Internal EX External				kternal	
2. P	Product Type (section comp	onent)		9. Paint Color (allows painting of the busway housing)					housing)
E	Elbow Section			STI		Factory Mill Finish	RED		Paint Factory Red
3. P	Product Frame (maximum a	mperage)	BLI WH		Paint Factory Black Paint Factory White	BLU **R <i>F</i>		Paint Factory Blue (please see page 4.106)
800 800 amps				NOTE: All Series-S housings include a clear corrosion resistant base					
4. C	Compatibility (frame compa	ibility)		coat	ing,	regardless of paint color s	selection		
T5	T5 System	K5	T5 System (Limiting Strip)	10.	10. Tape Marking (colored tape on both sides of busway housing,				
S5	S5 System	L5	S5 System (Limiting Strip)	0		lo Tape Marking	7		Factory Blue
5. N	Material (busbar material)			3 4		ape Factory Black ape Factory White	8 9		e Factory Green e Factory Yellow
С	Copper	Н	Hybrid (Cu/Al)	6		ape Factory Red		тарс	Tuotory renew
6. N	Neutral/Ground Busbar (s	ize of ne	utral busbar and/or ground)						
4	3 Phase plus Neutral	G	3 Phase plus Neutral plus Internal Ground Conductor						
7. P	Polarization (orientation of se	ction for	mating purposes)						
s	Standard								

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



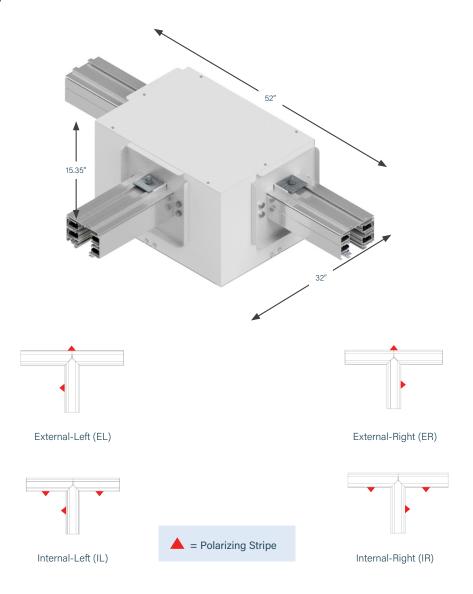
800 AMP SYSTEMS

TEE SECTIONS

■ PRODUCT DESCRIPTION

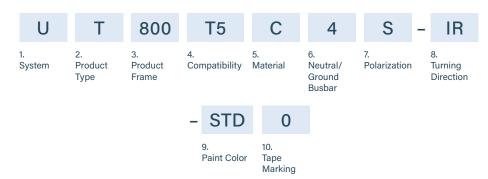
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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

Weight 180 lbs





TEE SECTIONS: PRODUCT NUMBERS



1. Sy	stem (standard of measure)						
U	US						
2. P	roduct Type (section component)						
Т	Tee Section						
3. P	roduct Frame (maximum amperage)						
800	800 amps						
4. C	ompatibility (frame compatibility)						
T5 S5		T5 System (Limiting Strip) S5 System (Limiting Strip)					
5. M	laterial (busbar material)						
С	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. Po	plarization (orientation of section for	mating purposes)					
S	Standard						

8. Turning Direction (direction of section polarizing stripe) Internal-Left **EL** External-Left IR Internal-Right **ER** External-Right 9. Paint Color (allows painting of the busway housing) Factory Mill Finish **RED** STD Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue **WHT** Paint Factory White **RAL (please see page 4.106) NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection. **10. Tape Marking** (colored tape on both sides of busway housing) No Tape Marking Tape Factory Blue Tape Factory Black Tape Factory Green Tape Factory Yellow 8 3 Tape Factory White 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



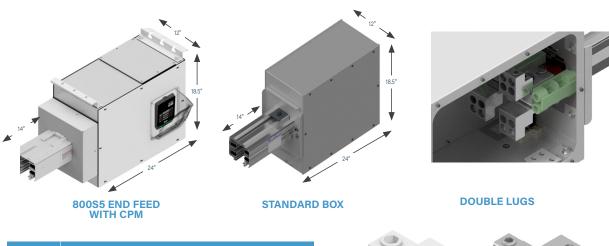
800 AMP SYSTEMS

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.

Weight 84.5 lbs



	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 4.82 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



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



800 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

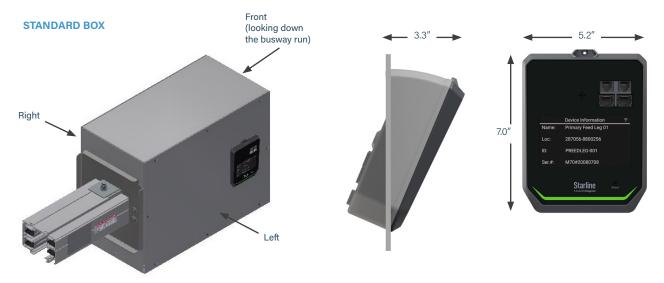
End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 4.82 End Feed Units: Product Numbers).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



800 AMP SYSTEMS

END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

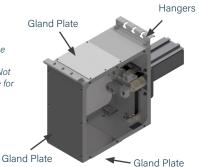


■ END FEED HANGERS & GLAND PLATES

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.

SERIES-S END FEED INFORMATION

All Series-S End Feeds come standard with preinstalled hangars and gland plates. Not all accessories are available for Series-S End Feeds.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.83** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.82** End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS

U	F	800	T5	С	4	5	3	-	S	N	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polari	zation		ug/Box ptions	eter cation	10. Accessories Package	11. Accessories Location
		- 0102	С	- STD	0	-	M	73	00	1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking		*16. Meter Releas		*17. Meter Options	*18. System (and CT 1		

1. System (standard of measure)							
U US							
2. Product Type (section component)							
F End Feed							
3. Product Frame (maximum amp	perage,)					
800 800 amps							
4. Compatibility (frame compatibility)							
T5 T5 System S5 S5 System	K5 L5	T5 System (Limiting Strip) S5 System (Limiting Strip)					
5. Material (busbar material)							
C Copper	Н	Hybrid (Cu/Al)Strip)					
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 Delevination (minutation of cost							

С	Copper	Н	Hybrid (Cu/Al)Strip)
6. N	leutral/Ground Busbar (size	of ne	utral busbar and/or ground)
4	3 Phase plus Neutral	G	3 Phase plus Neutral plus Internal Ground Conducto
7. P	olarization (orientation of secti	on for	mating purposes)
S	Standard	R	Reversed
8. L	.ug/Box Options (standard/do	ouble/I	bolt lugs and box size)
S B	Standard lugs, Standard box Bolt Lugs, Standard Box	D Q	Double lugs, Standard bo Quad lugs, Large box
9. N	Meter Location (from the termi	nal, sid	de with removable lid)
R N	Right None (N/A)	L	Left

	_				
10. Accessories	Package	(optional	accessories	for feed	units)

T5 Options:

- Standard (C+F) C IR Window - Circular (U+F)
 - End Feed Hanger & Gland Plates
- F U Starline Rect. IR window, 8"x12"

S5 Options:

- S5 Standard (includes hangars and gland plates)
- S5 Standard + IR Window Circular

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

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

12. Straight Length (length of section)

0102 14 inches (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 **BLK** Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 4.106)

NOTE: All End Feed enclosures are painted. "STD Factory Mill Finish" represents painted standard silver.

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

- No Tape Marking
- Tape Factory Blue
- 3 Tape Factory Black
- 8 Tape Factory Green
- Tape Factory White
- Tape Factory Red
- Tape Factory Yellow 9

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



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E **3J** Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP AF Lug Temp + Audible Alarm + IPV6 + WPA2E

AJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- **1** Δ, Solid CTs, Millivolt, No Measured Neutral
- **4** Δ, Split CTs, 5A-secondary, No Measured Neutral
- 5 Y, Solid CTs, Millivolt, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- **9** Δ, Solid CTs, Millivolt, Measured Neutral
- C Δ, Split CTs, 5A-secondary, Measured Neutral

*18. System Configuration and CT Type (M70 DC)

J DC Circuit 1, Solid CT

K DC Circuit 2, Solid CT

L DC Both Circuits, Solid CT



M73 (2) RJ11, (2) RJ45, Lg. Display



M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

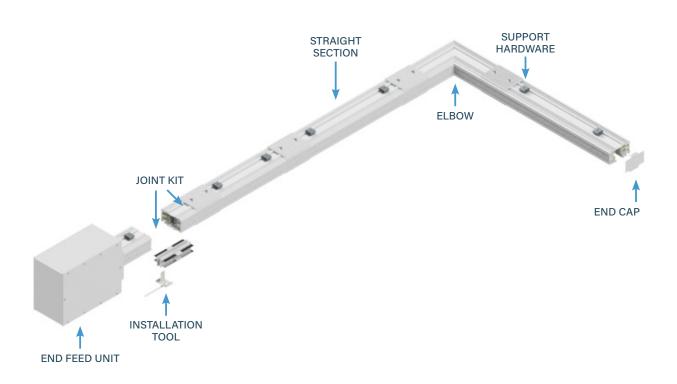
<u>UF800T5C4R-SLSN-0102C-BLK0-M73001</u> = US System, End Feed, 800 amps, T5 System, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization- Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessories Location, 1 foot 2 inch Straight Length, Painted Factory Black, No Tape Marking, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral

4.83



1000 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



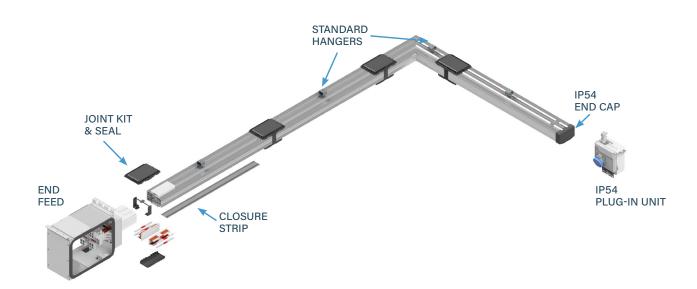
PLUG-IN UNITS

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



1000 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

For further information on applicable S5 plug-in unit options, please visit the **Plug-In Units** section.

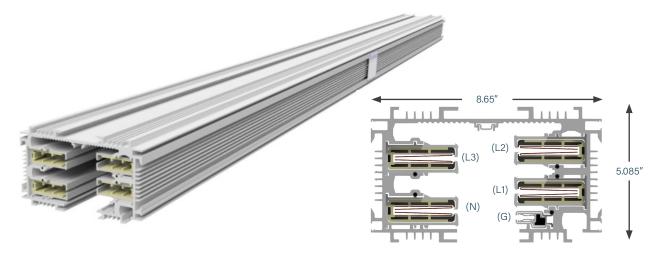


1000 AMP SYSTEMS

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 plugin 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

Note: S5 housing includes corrosion resistant base coating

RATINGS

100% Ground Path 1000 Amps 600 Volt

LENGTH

T5: 5 ft, 10 ft max. Custom lengths between 2 - 10 ft S5: 5 ft, 10 ft max. Consult factory for additional lengths

VOLTAGE DROP

Distributed load Single Phase 1V per 15 ft (.8PF) Three Phase 1V per 25 ft (.8PF)

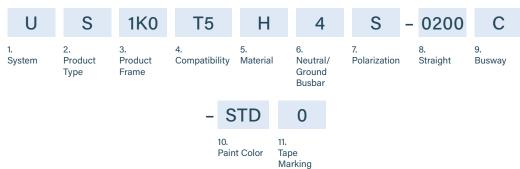
WEIGHT

10 ft 4 pole w/ standard ground: 195.5 lbs - Hybrid 10 ft 4 pole w/ copper ground: 210 lbs - Hybrid





STRAIGHT SECTIONS: PRODUCT NUMBERS



		g
1. System (standard of measure	e)	9. Busway Acces
U US		C Continuous
2. Product Type (section com	ponent)	10. Paint Color (a
S Straight Section		STD Factory M
3. Product Frame (maximum	amperage)	BLK Paint Fact WHT Paint Fact
1K0 1000 amps		NOTE: All Series-S h
4. Compatibility (frame comp	patibility)	coating, regardless of
T5 T5 System S5 S5 System	K5 T5 System (Limiting Strip)L5 S5 System (Limiting Strip)	11. Tape Marking None
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		

9. Busway Access (how plugs access the busway)

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

Factory Mill Finish RED Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue **RAL (please see page 4.106)

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

EXAMPLES

<u>USIKOK5HGS-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



1000 AMP SYSTEMS

ELBOW SECTIONS

■ PRODUCT DESCRIPTION

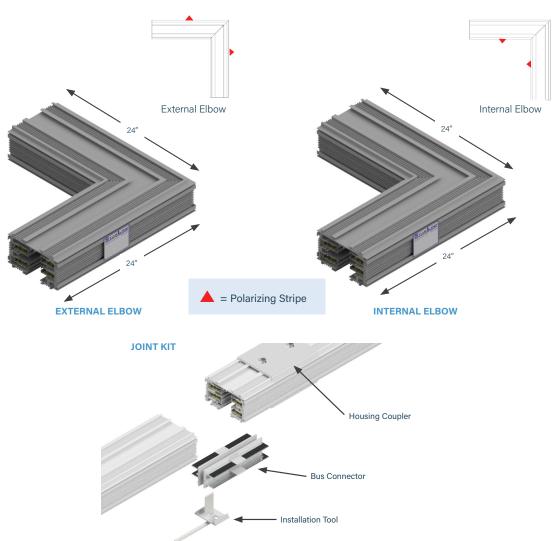
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

(Ordered Separately)

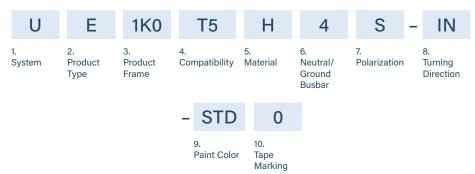
A Joint Kit (page 4.110) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 77 lbs





ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measu	ure)	8. Tur	ning Direction (direction	n of section _l	polarizing stripe)	
U US		IN I	nternal	EX External		
2. Product Type (section co	mponent)	9. Pai	nt Color (allows painting	of the buswa	ay housing)	
E Elbow Section		STD	Factory Mill Finish	RED	Paint Factory Red	
3. Product Frame (maximum amperage) 1KO 1000 amps		BLK WHT	Paint Factory Black Paint Factory White	BLU **RAL	Paint Factory Blue (please see page 4.106)	
		NOTE: All Series-S housings include a clear corrosion resistant base				
4. Compatibility (frame com	patibility)	coating	n, regardless of paint color s	selection.		
T5 T5 System	K5 T5 System (Limiting Strip)	10. Tape Marking (colored tape on both sides of busway housing)				
S5 S5 System	L5 S5 System (Limiting Strip)	0	Vone			
5. Material (busbar material)						
H Hybrid (Cu/Al)						
6. Neutral/Ground Busba	r (size of neutral busbar and/or ground)					
4 3 Phase plus Neutral	G 3 Phase plus Neutral plus Internal Ground Conductor					
7. Polarization (orientation o	f section for mating purposes)					

EXAMPLES

Standard

<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

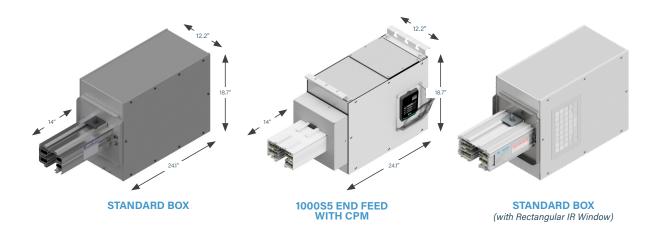


END FEED UNITS

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)



	BOXES					
LUGS	Standard	Large	Fused			
Standard	S					
Double						
Bolt*	В					

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.93 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



1000 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

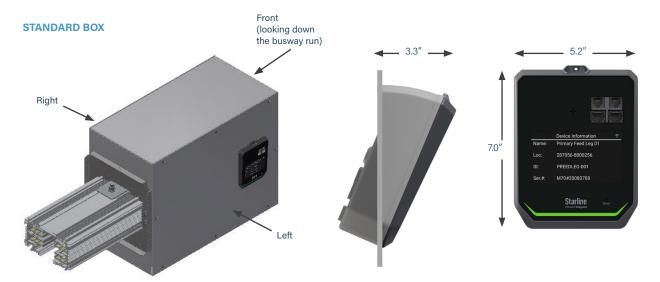
End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 4.93 End Feed Units: Product Numbers).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

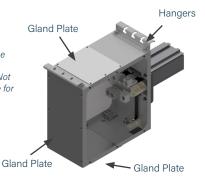


■ END FEED HANGERS & GLAND PLATES

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.

SERIES-S END FEED INFORMATION

All Series-S End Feeds come standard with preinstalled hangars and gland plates. Not all accessories are available for Series-S End Feeds.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.94** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.93** End Feed Units: Product Numbers)



1000 AMP SYSTEMS

END FEED UNITS: PRODUCT NUMBERS

U	F	1K0	T5	Н	4	S	-	S	Ν	S	N
1. System	2. Product Type	3. Product Frame	4. Compatibility	5. Material	6. Neutral/ Ground Busbar	7. Polariza	ion L	3. _ug/Box Options	9. Meter Location	10. Accessories Package	11. Accessories Location
		0102	С	- STD	0	-	M73	00	1	*Optional	
		12. Straight Length	13. Busway Access	14. Paint Color	15. Tape Marking	IV.	6. leter elease	*17. Meter Options	*18. System and CT		

1. S	ystem (standard of measure)	
U	US	
2. P	Product Type (section component)	
F	End Feed	
3. P	roduct Frame (maximum amperage)
1K0	1000 amps	
4. C	compatibility (frame compatibility)	
T5 S5	T5 System K5 S5 System L5	T5 System (Limiting Strip) S5 System (Limiting Strip)
5. N	flaterial (busbar material)	
Н	Hybrid (Cu/Al)Strip)	
6. N	leutral/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. P	olarization (orientation of section for	mating purposes)
S	Standard R	Reversed
8. L	ug/Box Options (standard/double/	bolt lugs and box size)
s	Standard lugs, Standard box B	Bolt lugs, Standard box
9. N	leter Location (from the terminal, si	de with removable lid)
R N	Right L None (N/A)	Left

10. Accessories Package (optional accessories for feed units)

T5 Options:

- S Standard (C+F) C IR Window - Circular
 - **P** (U+F) End Feed Hanger & Gland Plates
- F Starline Rect. IR window, 8"x12"

S5 Options:

- S5 Standard (includes hangars and gland plates)
- S5 Standard + IR Window Circular
- 11. Accessories Location (from the terminal, side with accessory)
- None (N/A) Right
- Front (consult the factory) Left
- 12. Straight Length (length of section)
- **0102** 14 inches (For other lengths, consult the factory)
- 13. Busway Access
- Continuous
- 14. Paint Color (allows painting of the busway housing)

RED STD Factory Mill Finish Paint Factory Red **BLK** Paint Factory Black BLU Paint Factory Blue WHT Paint Factory White **RAL (please see page 4.106)

NOTE: All End Feed enclosures are painted. "STD Factory Mill Finish" represents painted standard silver.

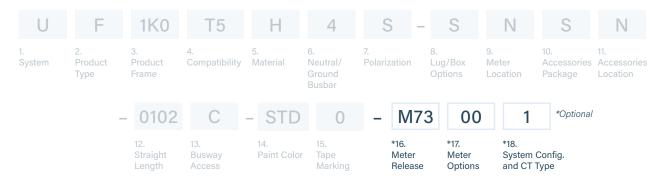
- **15. Tape Marking** (colored tape on both sides of busway housing)
- None

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



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

IPV6 0A

0B DHCP

WPA2E OC.

IPV6 + DHCP 0E 0F IPV6 + WPA2E

OJ DHCP + WPA2E

ОН IPV6 + WPA2E + DHCP

Standard Features (IPV4 + No Accessories)

00

10 Lug Temp

Audible Alarm 30

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

Audible Alarm + DHCP **3B**

Audible Alarm + WPA2E **3C**

Audible Alarm + IPV6 + DHCP 3E

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E **3**J **3H** Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

Lug Temp + Audible Alarm + DHCP AB

AC Lug Temp + Audible Alarm + WPA2E

Lug Temp + Audible Alarm + IPV6 + DHCP ΑE

AF Lug Temp + Audible Alarm + IPV6 + WPA2E

ΑJ Lug Temp + Audible Alarm + DHCP + WPA2E

Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP AΗ

*18. System Configuration and CT Type (M70 AC)

- Δ, Solid CTs, 5A-secondary, No Measured Neutral
- Δ, Split CTs, 5A-secondary, No Measured Neutral
- 6 Y, Solid CTs, 5A-secondary, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- A Y, Solid CTs, 5A-secondary, Measured Neutral
- Y, Split CTs, 5A-secondary, Measured Neutral





M73 (2) RJ11, (2) RJ45, Lg. Display

M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

4.94

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

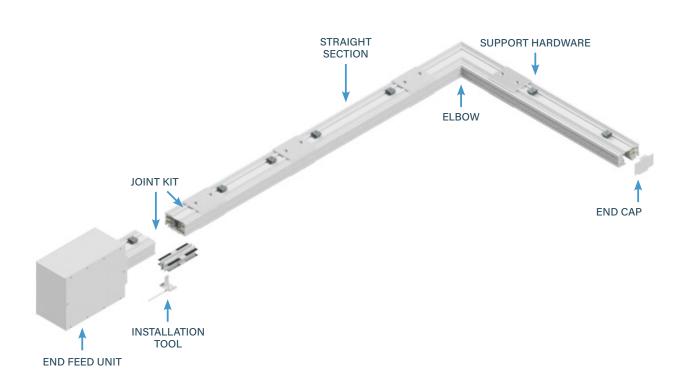
EXAMPLE

UF1K0T5H4R-SRLL-0102C-BLK0-M73001= 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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



1200 AMP SYSTEMS

T5 SYSTEM LAYOUT DRAWING



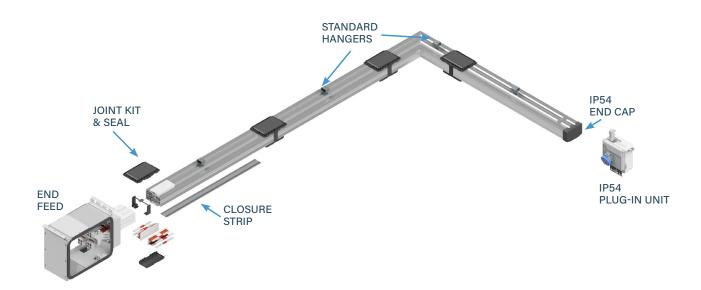
PLUG-IN UNITS

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



1200 AMP SYSTEMS

S5 SYSTEM LAYOUT DRAWING



PLUG-IN UNITS

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

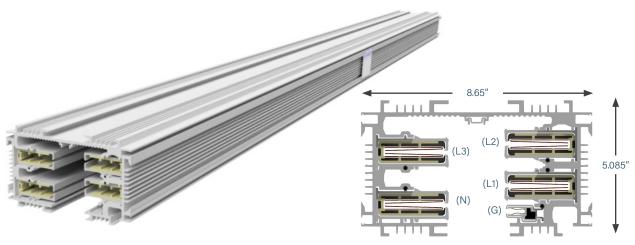


1200 AMP SYSTEMS

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 plugin 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.



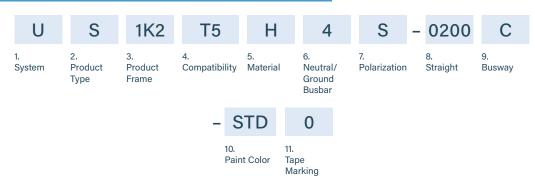
MATERIAL Powder Coated Extruded Aluminum Note: S5 housing includes corrosion resistant base coating **RATINGS** 100% Ground Path 1200 Amps 600 Volt **LENGTH** T5: 5 ft, 10 ft max. Custom lengths between 2 - 10 ft S5: 5 ft, 10 ft max. Consult factory for additional lengths **VOLTAGE DROP** Distributed 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





STRAIGHT SECTIONS: PRODUCT NUMBERS



System (standard of	modelare)	
J US		
. Product Type (sec	tion component))
Straight Section	1	
. Product Frame (m	aximum ampera	age)
K2 1200 amps		
. Compatibility (fran	me compatibility	·)
T5 System S5 System		K5 T5 System (Limiting Strip)L5 S5 System (Limiting Strip)
i. Material (busbar ma	aterial)	
■ Hybrid (Cu/Al)		
i. Neutral/Ground E	Busbar (size of l	neutral busbar and/or ground)
3 Phase plus Ne	eutral C	3 Phase plus Neutral plus Internal Ground Conducto
. Polarization (orient	ation of section	for mating purposes)
Standard		

9. Busway Access (how plugs access the busway)

C Continuous

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

Factory Mill Finish RED Paint Factory Red BLK Paint Factory Black BLU Paint Factory Blue **RAL (please see page 4.106)

NOTE: All Series-S housings include a clear corrosion resistant base coating, regardless of paint color selection.

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

D None

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



ELBOW SECTIONS

■ PRODUCT DESCRIPTION

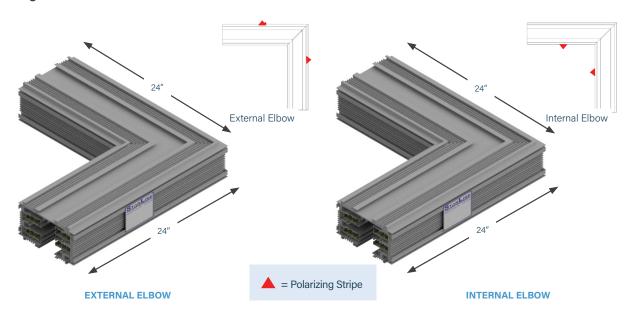
An Elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

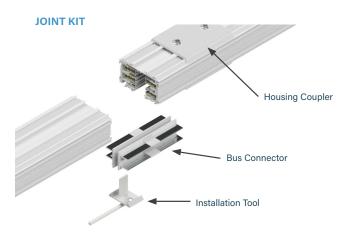
Connection Accessories

(Ordered Separately)

A Joint Kit (page 4.110) is used to make mechanical and electrical connections to adjacent busway sections.

Weight 77 lbs

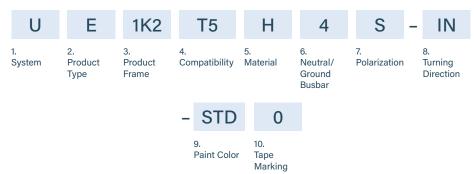






1200 AMP SYSTEMS

ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measu	re)	8. Tur	ning Direction (direction	n of section _l	polarizing stripe)
U US		IN I	nternal	EX	External
2. Product Type (section cor	mponent)	9. Pai	nt Color (allows painting	of the buswa	ay housing)
E Elbow Section		STD	Factory Mill Finish	RED	Paint Factory Red
3. Product Frame (maximum amperage) 1K2 1200 amps		BLK WHT	Paint Factory Black Paint Factory White	BLU **RAL	Paint Factory Blue (please see page 4.106)
		NOTE: All Series-S housings include a clear corrosion resistant base			
4. Compatibility (frame com	patibility)	coating	n, regardless of paint color s	selection.	
T5 T5 System S5 S5 System	K5 T5 System (Limiting Strip)L5 S5 System (Limiting Strip)		pe Marking (colored tap None	e on both sid	des of busway housing)
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)				

EXAMPLES

Standard

<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

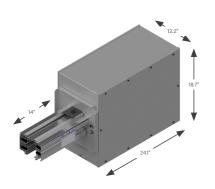


END FEED UNITS

■ 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.

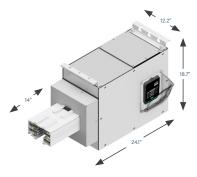
Weight 100.5 lbs (76 lbs without busway stub)



STANDARD BOX



STANDARD BOX (with Rectangular IR Window)



1200S5 END FEED WITH CPM

	BOXES					
LUGS	Standard	Large	Fused			
Standard	S					
Double						
Bolt	В					

Box size and Lug options: Refer to option 8. Lug/Box Options on page 4.104 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"



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



1200 AMP SYSTEMS

END FEED UNITS: METERING

■ PRODUCT DESCRIPTION

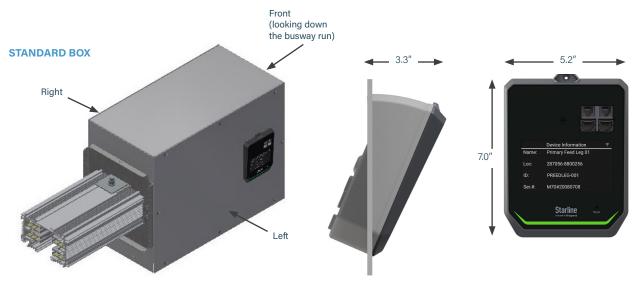
End feed units can be populated with Starline's Critical Power Monitor to provide access to revenue-grade, three-phase power data. The M70 CPM is built with a 4.3-inch LCD touchscreen display that can be angled down for easier viewing from the floor.

Wired ethernet and serial communications are standard with (2) RJ11 and (2) RJ45 jacks built in for easy daisy chaining. Optional 802.11n Wi-Fi connectivity is also available. Both serial Modbus and Ethernet-based protocols can be used simultaneously. These include: SNMP (v1, v2 & v3), Modbus RTU and TCP/IP, BACnet, HTTPS, and SSH.

Firmware communication options (IPV4, IPV6, DHCP, WPA2) are pre-packaged into the meter build. While these options are selected and then enabled during factory assembly, they can be re-configured at any time in the field. The M70 CPM is compatible with all major DCIM and BMS packages.

The M70 CPM can also be complemented with end feed accessories, such as real-time lug temperature monitoring, IR window scanning and audible alarms. Unlike firmware options, these hardware features are not field changeable.

The M70 is available in 110-500vac, 48vdc and 380vdc versions.



*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on page 4.104 End Feed Units: Product Numbers).

Series-S Note: End Feed metering not currently offered for Series-S systems. For custom inquiries, please contact your Starline representative.



END FEED UNITS: ACCESSORIES

■ IR WINDOWS

Starline Track Busway Polymer IR Window systems use a proprietary stack-up of advanced materials to ensure highest levels of safety and optimal infrared thermography of critical connections.

When paired with Starline's monitoring and service solutions, a complete and effective maintenance program can be developed that further reduces downtime lowers total cost of ownership, and provides increased safety for the end-user.

Safely and accurately scan connection points while the system is under load, without exposing the operator to live connections.

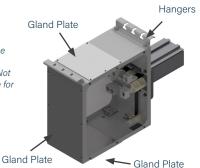


■ END FEED HANGERS & GLAND PLATES

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.

SERIES-S END FEED INFORMATION

All Series-S End Feeds come standard with preinstalled hangars and gland plates. Not all accessories are available for Series-S End Feeds.



FEATURES & BENEFITS

- Allows for safe IR scanning without powering down busway
- Complete system coverage with IR windows for plug-in units and end feeds
- End feed IR windows designed in 2 sizes for optimized viewing angles
- Cost effective design allows for quick end user ROI
- ETL Listed, CE Marked
- Lower TCO
- Enhanced safety
- Effective preventative maintenance

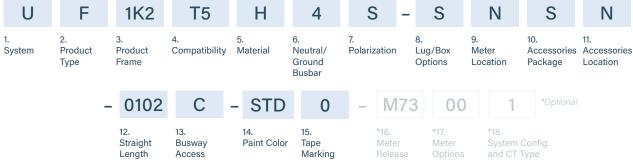
GENERAL SPECIFICATIONS	
Viewing Material	IR transmissive polymer, UL 94B HB Rated
Structural Mesh Material	Stainless Steel 304
Body Material	Powder Coated Steel or Aluminum (matched to busway or plug-in unit color)
Ingress Protection	IP3x (T5); IP54 (S5)
Max Operating Temperature	125°C
WINDOW DIMENSIONS	
End Feeds: 400A and Below	5" (127mm) x 7" (178mm)
End Feeds: 500A and Above	8" (203mm) x 12" (305mm)

(Refer to option 17. M70 Options on **page 4.105** End Feed Units: Product Numbers)

(Refer to option 10. Accessories Package on **page 4.104** End Feed Units: Product Numbers)



END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure	<u> </u>				
U US	,				
2. Product Type (section comp	ponent)				
F End Feed					
3. Product Frame (maximum a	amperage)				
1K2 1200 amps					
4. Compatibility (frame compa	atibility)				
T5 T5 System S5 S5 System	K5 T5 System (Limiting Strip)L5 S5 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	R Reversed				

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

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

Bolt lugs, Standard box

Left

Standard lugs, Standard box **B**

Release	Options	and	СТ Туре
cessories Pac	kage (option	nal acce	essories for feed units)
End Feed Hang	er & Gland	P Plates	(C+F) (U+F)
cessories Loca	ntion (from th	he term	inal, side with accessory)
None (N/A) ∟eft		R F	Right Front (consult the factory)
	0		t the factory)
sway Access			
Continuous			
int Color (allow	s painting of	the bus	sway housing)
Paint Factory	Black E	BLU	Paint Factory Blue
		ainted.	"STD Factory Mill Finish"
	cessories Pacitions: Standard R Window - Cinend Feed Hang Starline Rect. IF tions: S5 Standard + In S5 Standard + In S5 Standard + In S5 Standard + In S6 Standard + In S6 Standard + In S7 Standard + In S8 Stand	cessories Package (option tions: Standard R Window - Circular End Feed Hanger & Gland Starline Rect. IR window, 8 tions: S5 Standard (includes hanges Standard + IR Window Cessories Location (from to None (N/A) Left Caight Length (length of second includes (For other lengths, sway Access Continuous Continuou	R Window - Circular R Window - Circular R Window - Circular End Feed Hanger & Gland Plates Starline Rect. IR window, 8"x12" tions: S Standard (includes hangars at S Standard + IR Window - Circular Cessories Location (from the term None (N/A) R Left R I Raight Length (length of section) 14 inches (For other lengths, consulations Sway Access Continuous Int Color (allows painting of the bus Factory Mill Finish Paint Factory Black Paint Factory White **RAL All End Feed enclosures are painted.

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

EXAMPLE

R

Right

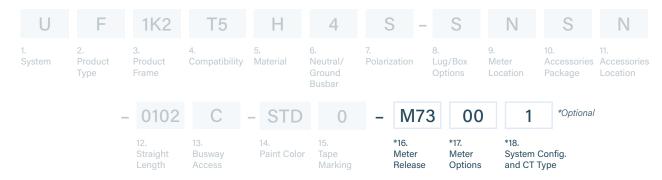
None (N/A)

<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

None



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac

M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi

*16. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc

M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi

M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc

M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*17. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

OC WPA2E

OE IPV6 + DHCP

OF IPV6 + WPA2E

OJ DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lug Temp

30 Audible Alarm

A0 Lug Temp + Audible Alarm

1A Lug Temp + IPV6

1B Lug Temp + DHCP

1C Lug Temp + WPA2E

1E Lug Temp + IPV6 + DHCP

1F Lug Temp + IPV6 + WPA2E

1J Lug Temp + DHCP + WPA2E

1H Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

3C Audible Alarm + WPA2E

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

3J Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

AC Lug Temp + Audible Alarm + WPA2E

AE Lug Temp + Audible Alarm + IPV6 + DHCP

AF Lug Temp + Audible Alarm + IPV6 + WPA2E

AJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

*18. System Configuration and CT Type (M70 AC)

- **2** Δ, Solid CTs, 5A-secondary, No Measured Neutral
- 4 Δ, Split CTs, 5A-secondary, No Measured Neutral
- 6 Y, Solid CTs, 5A-secondary, No Measured Neutral
- 8 Y, Split CTs, 5A-secondary, No Measured Neutral
- A Y, Solid CTs, 5A-secondary, Measured Neutral
 - Y, Split CTs, 5A-secondary, Measured Neutral







M76 Wi-Fi + (2) RJ11, (2) RJ45, Lg. Display

Note: Series - S end feeds not currently equipped with power monitoring. Consult factory for details.

EXAMPLE

<u>UF1K2T5H4R-SRLL-0102C-BLK0-M73001</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, M73 Meter with Display, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral



T5 SERIES

RAL COLORS

1ST CHARACTER	
Р	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 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



■ 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



■ WALL MOUNT BRACKET

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

Note: All S3 Systems must be mounted in the standard vertical orientation

Part Number WMBT5-9

.09 kg





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.

Note: Not available for S5 Systems

Part Number (250, 400, 600 & 800 amp systems only):

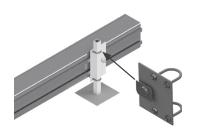
URFBT5-2

Available in plain zinc

or black (-BLK)

Weight

,2 lb



■ SIDE MOUNT BRACKETS

Mounted to vertical supports.

Note: Not available for S5 Systems

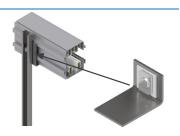
Part Number (250, 400, 600 & 800 amp systems only):

UBSST5-1

Available in plain zinc

or black (-BLK)

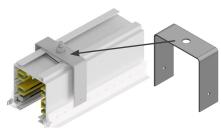
Weight



■ RECESSED SUSPENDED CEILINGS

For hanging busway into a recessed ceiling.

*Hanger bolt must be ordered separately



SRM250T5-1



Part Numbers (for 250 and compact 400A systems): SRM250T5-1

,2 lb

(for 400 amp systems): SRM400T5-1

(for 600 amp systems): SRM600T5-1

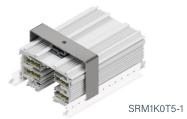
(for 800 amp systems): SRM800T5-1

(for 1000 amp systems): SRM1K0T5-1

(for 1200 amp systems): SRM1K2T5-1

Available in plain zinc or black (-BLK)









T5 AND S5 SERIES BUSWAY

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. Special versions for Legrand Nexpand cabinets are also available.

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 - UBHT5-2





T5 AND S5 SERIES BUSWAY

ACCESSORIES: CONNECTION HARDWARE

■ T5 & S5 JOINT KITS

SYSTEM AMPERAGE	NEUTRAL/GROUNDBAR OPTION	T5 SERIES CATALOG #	S5 SERIES CATALOG #
	3 Phase plus Neutral	SJK250T5-1	SJK250S5-1
050	3 Phase plus Neutral plus Internal Ground Conductor	SJK250T5G-1	SJK250S5G-1
250	3 Phase plus 200% Neutral	SJK250T5N-1	SJK250S5N-1
	3 Phase plus 200% Neutral plus Internal Ground Conductor	SJK250T5F-1	SJK250S5F-1
	3 Phase plus Neutral	SJK400T5-1	SJK400S5-1
400	3 Phase plus Neutral plus Internal Ground Conductor	SJK400T5G-1	SJK400S5G-1
400	3 Phase plus 200% Neutral	SJK400T5N-1	SJK400S5N-1
	3 Phase plus 200% Neutral plus Internal Ground Conductor	SJK400T5F-1	SJK400S5F-1
	3 Phase plus Neutral	CJK400T5-1	CJK400S5-1
0400	3 Phase plus Neutral plus Internal Ground Conductor	CJK400T5G-1	CJK400S5G-1
C400	3 Phase plus 200% Neutral	CJK400T5N-1	CJK400S5N-1
	3 Phase plus 200% Neutral plus Internal Ground Conductor	CJK400T5F-1	CJK400S5F-1
500	3 Phase plus Neutral	SJK500T5-2	SJK500S5-2
500	3 Phase plus Neutral plus Internal Ground Conductor	SJK500T5G-2	SJK500S5G-2
600	3 Phase plus Neutral	SJK600T5-2	SJK600S5-2
600	3 Phase plus Neutral plus Internal Ground Conductor	SJK600T5G-2	SJK600S5G-2
200	3 Phase plus Neutral	SJK800T5-2	SJK800S5-2
800	3 Phase plus Neutral plus Internal Ground Conductor	SJK800T5G-2	SJK800S5G-2
1000	3 Phase plus Neutral	SJK1K0T5-2	SJK1K0S5-2
1000	3 Phase plus Neutral plus Internal Ground Conductor	SJK1K0T5G-2	SJK1K0S5G-2
1200	3 Phase plus Neutral	SJK1K2T5-2	SJK1K2S5-2
1200	3 Phase plus Neutral plus Internal Ground Conductor	SJK1K2T5G-2	SJK1K2S5G-2



ACCESSORIES: **CONNECTION HARDWARE**

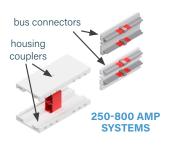
■ T5 JOINT KIT

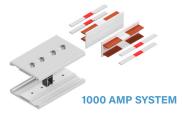
For the connection of adjacent busway sections. One kit is required at each joint. Each kit is comprised of a housing coupler pair and bus connector set.

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







S5 JOINT KIT

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.

Joint Seal: Plastic sealing component installed between two housings at joint prior to bus connector and coupler installation

Joint Cover: Plastic sealing cover snapped over top of housing coupler after coupler installation.



Includes: Couple Covers, Top and Bottom Housing Couplers, Joint Seal and Bus Connectors



T5 AND S5 SERIES BUSWAY

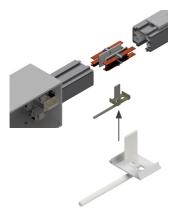
ACCESSORIES: CONNECTION HARDWARE

■ 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.

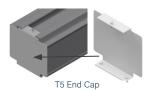
Part Number ST5IT No available colors Weight 3.1 lb



■ END CAP

For covering the end of T5 busway systems.

SYSTEM	DESCRIPTION	T5 SERIES CATALOG #	S5 SERIES CATALOG #
250	250 Amp End Cap	SEC250T5	SEC250S5
250	250 Amp End Cap, 200% N	SEC250T5-2N	SEC250S5-2N
C400	Compact 400 Amp End Cap	CEC400T5	CEC400S5
C400	Compact 400 Amp End Cap, 200% N	CEC400T5-2N	CEC400S5-2N
400	400 Amp End Cap	SEC400T5	SEC400S5
400	400 Amp End Cap, 200% N	SEC400T5-2N	SEC400S5-2N
500	500 Amp End Cap	SEC500T5	SEC500S5
600	600 Amp End Cap	SEC600T5	SEC600S5
800	800 Amp End Cap	SEC800T5	SEC800S5
1000	1000 Amp End Cap	SEC1K0T5	SEC1K0S5
1200	1200 Amp End Cap	SEC1K2T5	SEC1K2S5





S5 End Cap and Cover



ACCESSORIES: CONNECTION HARDWARE

■ CLOSURE STRIP

Snaps into bottom access slot of busway housing. The optional closure strip is normally shipped in 10 feet lenghts and can be field cut to fit exact desired length.

Closure Strip is offered in both non-conductive plastic material and aluminum. Consult factory for custom colors.



SYSTEM	AMPERAGE	PART NUMBER	MATERIAL TYPE	REQUIRED
T5	250-800A	SCST5-1	Plastic	Optional
T5	250-800A	SCST5-1-AL	Aluminum	Optional
T5	1000-1200	SCST5-2	Plastic	Optional
S5	250-800A	SCSS5-1-AL	Aluminum	Yes
S5	1000-1200	SCST5-2	Plastic	Yes

*Standard colors are available in Gray (GY), Black (BK), Red (RED) and Blue (BLU). The color code is applied to the end of the part number. For example: SCST5-1-AL-RED

■ TAP-OFF SEAL ASSEMBLY

For use with Series-S Busway only. The seal assembly (2 pieces) wraps around the enclosure, protecting it and the busway from dust and liquid ingress.

Note: Tap-off Seal Assemblies are already included with each Series-S Plug-in unit, but may be ordered separately.

PLUG-IN (TAP-OFF) ENCLOSURE	SEAL ASSEMBLY CATALOG #
S1 Enclosure	S5TOU-SEAL-S1-STD
S2 Enclosure	S5TOU-SEAL-S2-STD
S3 Enclosure	S5TOU-SEAL-S3-STD



4.113



ADD-ON ACCESSORIES: DATA CHANNEL

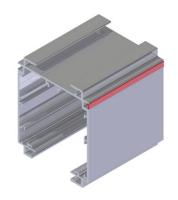
■ DATA CHANNEL COVER

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)



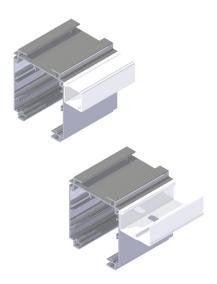
■ HINGED WIRE WAY

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



4.114



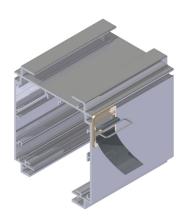
ADD-ON ACCESSORIES: DATA CHANNEL

■ 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

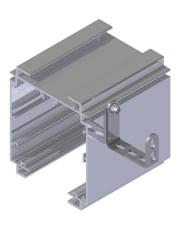


■ MULTI USE MOUNTING BRACKET

The Multi Use Mounting Bracket is an all-purpose 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)



4.115



SERVICES

Regular servicing of busway systems is crucial for ensuring that your system performs at its best. By conducting regular maintenance, you can identify and address any potential issues before they turn into expensive problems, thus saving you time and money in the long run. Regular servicing can help extend the lifespan of your busway system, ensuring that it meets safety standards and complies with regulations. Choose from various offerings and customize a service plan that works best for you.

WE ARE CURRENTLY OFFERING THE FOLLOWING SERVICES:

COMMISSIONING AND EQUIPMENT RENTALS

Designing a mission-critical facility involves a significant investment of time and money. Through comprehensive commissioning services, Starline can help guarantee your project delivers the outcomes you expect.

Whether you need rental equipment to test your busway system or certified technicians to perform the testing, Starline has you covered. Choose from our inventory of load bank tap-offs and associated gear, or work with a Starline Engineer to customize and perform a commissioning plan to fit your specific needs.

METER SERVICES

Starline's certified technicians make optimizing your meters' performance and functionality a breeze. Our comprehensive on-site meter programming service includes inspecting, programming, reporting, and optional retrofitting services for you existing systems.

STARTUP AND SYSTEM CERTIFICATION

At Starline, we are committed to ensuring the success of your project. Our team understands the risks associated with the energization of systems, which is why we've designed a rigorous certification process to inspect, test and report on your Starline Busway and Critical Power Monitor ("CPM") products. Our certification process proactively identifies and prevents any potential issues before they happen.

To ensure the long-term success of your project, it is crucial to have Starline-certified technicians inspect and validate the installation before full commissioning. Level 2 and 3 commissioning ensures the installation complies with safety requirements and meets factory standards for ongoing reliability.

- 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

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

TURNKEY INSTALLATION SERVICES

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.

PREVENTATIVE MAINTENANCE PLANS AND IR SCANNING

Although Starline busway is expertly designed to require less maintenance, NETA ATS and MTS guidelines recommend conducting annual inspections and health assessments on all critical equipment. Yearly preventative maintenance helps to ensure your system's long-term reliability and safety.

Starline's FLIR-certified technicians will create a custom preventative maintenance plan for your specific needs. Our certified technicians will work to:

- Identify thermal anomalies
- Extend equipment lifecycle
- Ensure optimal system performance
- Improve facility safety and operational sustainability

Upon completing your preventative maintenance plan, you may be eligible to extend your product warranty.

ON-SITE INSTALLATION SUPPORT

Starline's on-site installation service makes installing your busway as quick and easy as possible.

Our installation support starts with scheduling a preliminary trip to the installation site. During the initial visit, our certified technicians will train your installing contractor and develop a thorough installation and commissioning plan.

After completing the training, your installing contractor will have a direct line of communication with our installation experts. Our experts can help answer questions and provide hands-on guidance when needed.

Opting for Starline's installation support helps mitigate the installation risk and reduces the learning curve typically associated with new installations.

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.**



T5 AND S5 SERIES BUSWAY

SERVICES

ON-SITE PRODUCT TRAINING

At Starline, we offer comprehensive on-site product training services facilitated by our team of certified technicians. With their extensive expertise and commitment to upholding our high factory standards, you can confidently rely on them to ensure your and your systems' reliability and operational safety.

Our training programs equip your team with the knowledge and skills necessary to operate and maintain your systems effectively. Through hands-on demonstrations and interactive sessions, our certified technicians will guide your staff in understanding the intricate workings of the products and address any questions or concerns your team may have during the training process.

By choosing our on-site product training services, you are investing in your system's and operations' long-term success.

RECERTIFICATION AND EXTENDED WARRANTY PLANS

Starline's recertification and extended warranty options provide best-in-class coverage for all of your Starline products and systems. Our extended warranty plans safeguard your investment beyond the standard warranty timeframe, offering you peace-of-mind while our recertification programs help mitigate risk and downtime. Whether the busway has been installed for years or you are relocating to another building, Starline is here to help.

Choose from one of our flexible one to four-year plans or have your system recertified anytime. Contact your Starline rep for more information.

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.**



T5 PLUG-IN UNITS

T5 PLUG-IN UNITS

■ METER PLUG UNITS

Any T5 compatible Starline Plug-In Unit that contains only a meter.



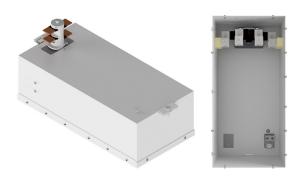
■ METER BOX UNITS

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.





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

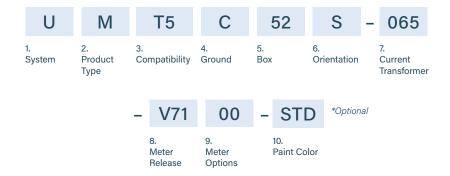
- 1. What is the amperage needed for the system? (200, 400, 500, 600, etc.)
- 2. Does the system need an internal ground?
- 3. Are there any limitations on the length of a run? (5ft max, 10ft max, 20ft max, etc.)

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)

M Meter Plug

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

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference **page 4.127**)

*12 and 28 boxes are currently not available

6. Orientation (what direction the paddle faces)

S Standard R Reversed

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

8. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac

V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

8. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

EXAMPLE

9. Meter Options (V70 AC and DC)0A IPV6

OB DHCP

OC WPA2E

0E IPV6 + DHCP

OF IPV6 + WPA2E

0J DHCP + WPA2E

OH IPV6 + WPA2E + DHCP

Standard (IPV4 + No Accessories)

40 AC Supply Voltage Only - Breaker Sense (On/Off)

4A Breaker Sense + IPV6

4B Breaker Sense + DHCP

4C Breaker Sense + WPA2E

4E Breaker Sense + IPV6 + DHCP **4F** Breaker Sense + IPV6 + WPA2E

4J Breaker Sense + DHCP + WPA2E

4H Breaker Sense + IPV6 + WPA2E + DHCP

10. Paint Color

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

RED Paint Factory Red
BLU Paint Factory Blue
**RAL (please see page 4.106)

<u>UMT5C52S-065-V7100-STD</u> = US System, Meter Plug, T5 System, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, V71 Meter, No display, 480vac, Standard Meter Options, Painted Factory Silver



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 **4.127**)

*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 1K0 1000 amps

1K2 1200 amps

8. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac V72 (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

8. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

9. Meter Options (V70 AC and DC)

OA IPV6

0B DHCP OC. WPA2E

0E

IPV6 + DHCP IPV6 + WPA2E

DHCP + WPA2E OJ

0H IPV6 + WPA2E + DHCP

00 Standard (IPV4 + No Accessories)

40 AC Supply Voltage Only - Breaker Sense (On/Off)

4A Breaker Sense + IPV6

Breaker Sense + DHCP

4C Breaker Sense + WPA2E

Breaker Sense + IPV6 + DHCP 4E Breaker Sense + IPV6 + WPA2E

Breaker Sense + DHCP + WPA2E 41

4H Breaker Sense + IPV6 + WPA2E + DHCP

*10. Meter Configuration (M70 AC)

Δ, Solid CTs, Millivolt, No Measured Neutral

Δ, Split CTs, 5A-secondary, No Measured Neutral

5 Y, Solid CTs, Millivolt, No Measured Neutral

Y, Split CTs, 5A-secondary, No Measured Neutral

Δ, Solid CTs, Millivolt, Measured Neutral

C Δ, Split CTs, 5A-secondary, Measured Neutral

*10. Meter Configuration (M70 DC)

DC Circuit 1, Solid CT

DC Circuit 2, Solid CT

DC Both Circuits, Solid CT

11. 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 4.106)

EXAMPLE

<u>UBNAC52S-065-V71001-STD</u> = US System, Meter Box, Not Applicable, Case Ground, 52 Box, Standard Orientation, 65 Current Rating, V71 Meter, No display, 480vac, Standard Features, Delta, Solid CTs, Millivolt, No Measured Neutral, Painted Factory Silver

Track Busway Product Selection Guide



TERMINAL BLOCK UNITS: PRODUCT NUMBERS



1. S	vstem	(standard	of	measure)	
	,	(Otaliaaia	٠.		

US U

2. Product Type (section component)

Т Terminal Block

3. Compatibility (frame compatibility)

T5 T5 System K5 T5 System (Limiting Strip) T5 System (Rotating Paddle) **Z5** K5 + R5

4. Ground (ground type installed)

Case (Housing) Ground **Dedicated Ground** Isolated (Separate) Ground G

5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference page **4.127**)

6. Orientation (what direction the paddle faces)

Standard Reversed

7. Amperage (amperage of terminal block)

030 30 amps **060** 60 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)

Standard D Double Lug N Double Neutral 2 Bolt Lug В Double Neutral & 2 Bolt Lug

10. Meter Location (location of optional meter)

Ν N/A Left R Right Bottom (lid)

11. Accessories (optional accessories for plugs)

N N/A IR Window R Finger Shroud IR Window & Finger Shroud

*12. Meter Release (M70 AC)

M73 (2) RJ11, (2) RJ45, Lg. Display, 480vac M76 (2) RJ11, (2) RJ45, Lg. Display, 480vac + Wi-Fi (continued)

*12. Meter Release (M70 DC)

M7C (2) RJ11, (2) RJ45, Lg. Display, 48vdc M7F (2) RJ11, (2) RJ45, Lg. Display, 48vdc + Wi-Fi M7J (2) RJ11, (2) RJ45, Lg. Display, 400vdc M7M (2) RJ11, (2) RJ45, Lg. Display, 400vdc + Wi-Fi

*13. Meter Options (M70 AC and DC)

OA IPV6

OB DHCP

WPA2E OC. IPV6 + DHCP ΩF

0F IPV6 + WPA2E

OJ DHCP + WPA2E

0H IPV6 + WPA2E + DHCP

00 Standard Features (IPV4 + No Accessories)

10 Lua Temp

Audible Alarm 30

Lug Temp + Audible Alarm

Lua Temp + IPV6 1A

Lug Temp + DHCP 1B

Lug Temp + WPA2E 1E Lug Temp + IPV6 + DHCP

1F

Lug Temp + IPV6 + WPA2E

Lug Temp + DHCP + WPA2E 1J

Lug Temp + IPV6 + WPA2E + DHCP

3A Audible Alarm + IPV6

3B Audible Alarm + DHCP

Audible Alarm + WPA2E 3C

3E Audible Alarm + IPV6 + DHCP

3F Audible Alarm + IPV6 + WPA2E

Audible Alarm + DHCP + WPA2E

3H Audible Alarm + IPV6 + WPA2E + DHCP

AA Lug Temp + Audible Alarm + IPV6

AB Lug Temp + Audible Alarm + DHCP

Lug Temp + Audible Alarm + WPA2E Lug Temp + Audible Alarm + IPV6 + DHCP

Lug Temp + Audible Alarm + IPV6 + WPA2E

AJ Lug Temp + Audible Alarm + DHCP + WPA2E

AH Lug Temp + Audible Alarm + IPV6 + WPA2E + DHCP

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 4.106)

4.123



CIRCUIT BREAKER/FUSED DISCONNECT: PRODUCT NUMBERS



1. S	vstem	(standard of measure)	

U US

- 2. Product Type (section component)
- Circuit Breaker Unit Fused Disconnect Unit
- 3. Compatibility (frame compatibility)
- T5 T5 System
- K5 T5 System (Limiting Strip)
- T5 System (Rotating Paddle) **Z5** K5 + R5
- 4. Ground (ground type installed)
- Case (Housing) Ground
- D **Dedicated Ground**
- G Isolated (Separate) Ground
- 5. Box (what size enclosure)
- **01, 02, ... 99** (refer to enclosure reference page **4.127**)

6. Orientation (what direction the paddle faces)

- 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

9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 4.141)

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

- Front E Top
- Back
- Left
- В **Bottom** 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)

12. Accessories (optional accessories for plugs)

N N/A

- Finger Shroud
- C Circuit Breaker Interlock
- Padlock Adapter for Circuit Breaker
- Seismic Hanger
- IR Window

*13. Meter Release (V70 AC)

- V71 (2) RJ11, (2) RJ45, No Display, 480vac
- V72 (2) RJ11, (2) RJ45, Display, 480vac
- **V74** Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac
- **V75** Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*13. Meter Release (V70 DC)

- V7A (2) RJ11, (2) RJ45, No Display, 48vdc
- V7B (2) RJ11, (2) RJ45, Display, 48vdc
- **V7D** Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc
- **V7E** Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc
- **V7H** (2) RJ11, (2) RJ45, No Display, 400vdc
- **V7I** (2) RJ11, (2) RJ45, Display, 400vdc
- **V7K** Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc
- **V7L** Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

*14. Meter Options (V70 AC and DC)

- OA IPV6
- **0B** DHCP
- OC. WPA2E
- 0E IPV6 + DHCP
- 0F IPV6 + WPA2E
- OJ DHCP + WPA2E
- ОН IPV6 + WPA2E + DHCP
- 00 Standard (IPV4 + No Accessories)
- 40 AC Supply Voltage Only - Breaker Sense (On/Off)
- **4A** Breaker Sense + IPV6
- 4R Breaker Sense + DHCP
- 4C Breaker Sense + WPA2E
- 4E Breaker Sense + IPV6 + DHCP Breaker Sense + IPV6 + WPA2E 4F
- **4**J Breaker Sense + DHCP + WPA2E
- Breaker Sense + IPV6 + WPA2E + DHCP **4H**

15. Paint Color

- STD Paint Factory Silver **BLK** Paint Factory Black
- **RED** Paint Factory Red **BLU** Paint Factory Blue
- **RAL (please see page 4.106) WHT Paint Factory White

16. Drop Cord Tape Marking

- Tape Factory Black
- 7 Tape Factory Blue
- Tape Factory White
- Tape Factory Green
- Tape Factory Red
- Tape Factory Yellow



CIRCUIT BREAKER/FUSED DISCONNECT: COMPATIBILITY

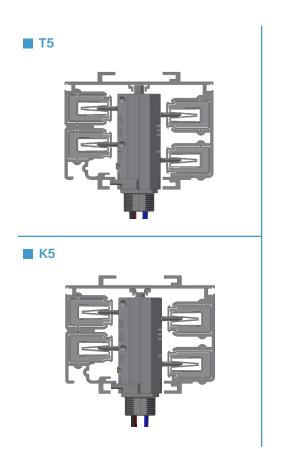


3. Compatibility (frame compatibility)

 T5
 T5 System
 K5
 T5 System (Limiting Strip)

 R5
 T5 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 which is required for compatibility with the Remote Plug-in Actuator.







CIRCUIT BREAKER/FUSED DISCONNECT: GROUND



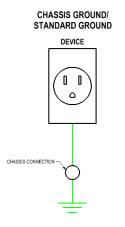
- 4. Ground (ground type installed)
- C Case (Housing) Ground
 Isolated (Separate) Ground
- **D** Dedicated Ground

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

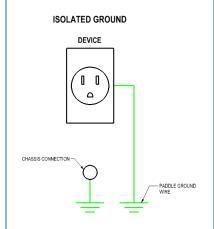
Uses aluminum housing and no extra copper bar.



■ ISOLATED GROUND/EARTH

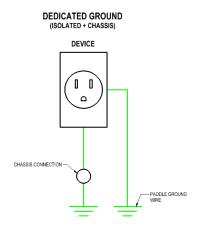
Orange receptacles in plugs.

Case ground isolated from copper ground bar. Isolated ground carried back to panel by others.



■ DEDICATED GROUND/EARTH

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



4.126

*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**



CIRCUIT BREAKER/FUSED DISCONNECT: BOX

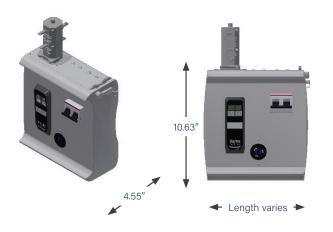


5. Box (what size enclosure)

01, 02, ... 99 (refer to enclosure reference **page 4.136**)

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:

■ 50 SERIES



■ 90 SERIES



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 4.136



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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T5 PLUG-IN UNITS

CIRCUIT BREAKER/FUSED DISCONNECT: DEVICE



9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to device codes page 4.141)



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 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.



*For the full list of all device codes, please refer to **page 4.141**





CIRCUIT BREAKER/FUSED DISCONNECT: MOUNT LOCATION



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

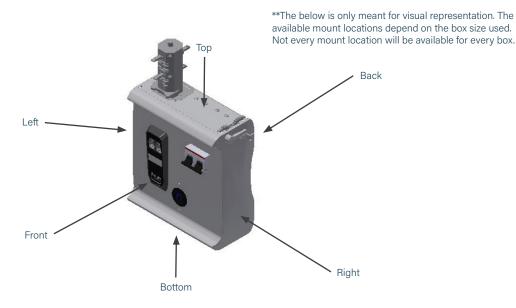
 F
 Front
 A
 Back

 T
 Top
 B
 Bottom

 L
 Left
 R
 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.





T5 PLUG-IN UNITS

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: The Circuit Breaker prevents disengaging the plug from the busway while the breaker is in the "on" position. The Finger Shroud prevents accidentail on or off contact with the breaker toggle. The Padlock Adapter provides optional protection for locking out breakers. NETA injection testing certifies the breakers will operate as specified in their trip logic. Pilot Light: When breaker is on, pilot light will be illuminated green. When the breaker off or tripped, the pilot light is off.

Plug Interlock engaged Plug Interlock disengaged PADLOCK ADAPTER FOR CIRCUIT BREAKER LOCK-OUT PADLOCK ADAPTER FOR CIRCUIT BREAKER LOCK-OUT



CIRCUIT BREAKER/FUSED DISCONNECT: METER RELEASE



*13. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac **V72** (2) RJ11, (2) RJ45, Display, 480vac

V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac **V75** Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*13. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc **V7B** (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc **V7H** (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc **V7L** Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

IN OPTION 13. V70 series meters are available for plug-in unit power monitoring.

Communications Interfaces include:

- (2) RJ11
- (2) RJ45 (Ethernet)
- Wireless (Optional)

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

Tap off units available with circuit breaker position sensing: on/off.

*14. Meter Options (V70 AC and DC) IPV6 OA **0B** DHCP OC. WPA2E IPV6 + DHCP 0E IPV6 + WPA2E DHCP + WPA2E OJ **0H** IPV6 + WPA2E + DHCP Standard (IPV4 + No Accessories) 40 AC Supply Voltage Only - Breaker Sense (On/Off) Breaker Sense + IPV6 4Α 4B Breaker Sense + DHCP 4C Breaker Sense + WPA2E Breaker Sense + IPV6 + DHCP 4E Breaker Sense + IPV6 + WPA2E 41 Breaker Sense + DHCP + WPA2E 4H Breaker Sense + IPV6 + WPA2E + DHCP









V71 (2) RJ11, (2) RJ45, No Display

V72 (2) RJ11, (2) RJ45, Display

V74Wi-Fi +
(2) RJ11,
(2) RJ45,
No Display

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display



CIRCUIT BREAKER UNITS, NO DEVICES: PRODUCT NUMBERS

Breaker

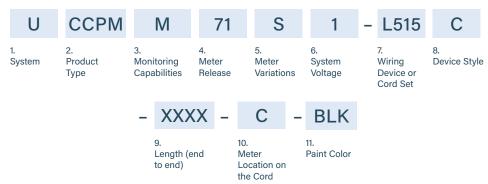
IR Window

R

1 1101		INCIVIL											
		U	С	T5	С	52)	S	-	14	_		
		1. System	2. Product Type	3. Compatibili	4. ty Ground	5. Box		6. Orientation	n I	7. Interrupt Rating			
2	030	3	480	050	5	N	_	V71	0	0 -	STD	0	*Optio
8. Circuit Protection Quantity	9. Amperage	10. Poles	11. Voltage	*12. Drop Cord Length	*13. Number of Wires	14. Accessories	;	15. Meter Release	16. Meter Optio		17. Paint Color	18. Drop Cord Tape Markin	g
1. System	(standard of	measure)				15. Meter	Rele	ease (V70 A	AC)				
U US								(2) RJ45, N (2) RJ45, D			vac		
2. Product	Type (sect	ion compone	ent)			V74 Wi-F	i + (2) RJ11, (2)	RJ45,	, No Disp	lay, 480vac		
C Circu	it Breaker L	Jnit	F Fus	ed Disconnec	t Unit		,	(2) RJ11, (2)		, Display,	480vac		
3. Compat	ibility (fram	e compatibi	-					ease (V70 E	-	alas / 40s //	4.0		
T5 T5 Sy R5 T5 Sv	stem stem (Rotat	ing Paddle)		System (Limiti ⊦ R5	ng Strip)	V7B (2) F	lJ11, ((2) RJ45, N (2) RJ45, D	isplay,	, 48vdc			
	(ground type	,				V7D Wi-F	i + (i + ((2) RJ11, (2) (2) RJ11, (2)	RJ45, RJ45.	, No Disp . Displav.	olay, 48vdc 48vdc		
	(Housing)	,	D Dec	icated Groun	d	V7H (2) F	lJ11, ((2) RJ45, N	o Disp	olay, 400°			
	ed (Separa							(2) RJ45, D (2) RJ11, (2)			lay, 400vdc		
5. Box (who	at size enclos	sure)				V7L Wi-F	i + ((2) RJ11, (2)	RJ45,	, Display,	400vdc		
01, 02,	99 (refer to	enclosure	reference r	age 4.127)		16. Meter	Opt	ions (V70 A	AC and	IDC)			
6. Orienta	tion (what d	lirection the p	paddle faces)		OA IPVO							
S Stand	dard		R Rev	ersed		OB DHO							
7. Interrup	t Rating (in	terrupt ratin	g of the brea	kers in K)		OE IPV6							
10, 14, 22,	25, 30, 35	, 50, 65, C	CC (CC = 2	00,000) (for	·US)			VPA2E WPA2E					
8. Circuit	Protection	Quantity						VPA2E + D					
1, 2, 3, 4,	5, 6							l (IPV4 + N ly Voltage			s) r Sense (On	/Off)	
9. Ampera	ge					4A Brea	ker S	Sense + IP	V6				
015, 020,	030, 600							Sense + Di Sense + W					
10. Poles (number of po	oles in a circu	uit)			4E Brea	ker \$	Sense + IP	V6 +	DHCP			
1, 2, 3, 4, 5	i							Sense + IP Sense + Di			<u> </u>		
11. Voltage	•							Sense + IP					
120, 240, 2	277, 300, 4°	15, 480, 60	00			17. Paint (Colo	r					
*12. Drop	Cord Leng	th (length of	drop cord)					actory Silv			Paint Factor		
010 1 foot	oboson in 6"	ingramantal		feet, Y=inche				actory Bla actory Wh			Paint Factor (please see p	•	
	cnosen in 6" s, the max. dr	,	-	e configuration 00)	CHOSEH						ιριούσου σου ρ		
*13. Numb	er of Wires	s (V70 AC)				3 Black		l Tape Mar 6	Red	I	8 Gre	en .	
2, 3, 4, 5						4 White		7	Blue		• are		
14. Access	ories (optio	nal accesso	ries for plugs)									
N N/A C Circu	it Breaker II	nterlock		er Shroud ock Adapter f	or Circuit								



CORDED METERS



1. System (standard of measure)			
U US			
2. Product Type (section component)			
CCPM Corded CPM			
3. Monitoring Compatibilities			
M Paddle/Feed Monitoring			
4. Meter Release (V70 AC)			
 V71 (2) RJ11, (2) RJ45, No Display, 480vac V72 (2) RJ11, (2) RJ45, Display, 480vac V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac 			
4. Meter Release (V70 DC)			
V7A (2) RJ11, (2) RJ45, No Display, 48vdc V7B (2) RJ11, (2) RJ45, Display, 48vdc V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc V7H (2) RJ11, (2) RJ45, No Display, 400vdc V7I (2) RJ11, (2) RJ45, Display, 400vdc V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc			

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 onthe-fly. It is capable of monitoring the energy of any device. The Corded CPM is also available without connectors. All V70 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.

5. Me	ter Variations					
S	Standard Unit	D	Display			
6. Sys	6. System Voltage					
1 l	ine-Line	3	Line-Neutral			
7. Wir	ing Device or Cord Set					
Optio	ns listed on page 4.135					
8. Dev	vice Style					
	Connector Body Duplex	R Q	Receptacle Quad Receptacle			
9. Ler	ngth (end to end)					
be fou	X Length will be selected war X's for these characters. (nents of 1 foot)		dering. There will always range from 4 to 25 feet in			
10. Me	eter Location on the Cor	ď				
_						
11. Pai	int Color					
	Paint Factory Silver Paint Factory Black Paint Factory White	BLU	Paint Factory Red Paint Factory Blue • (please see page 4.106)			

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.





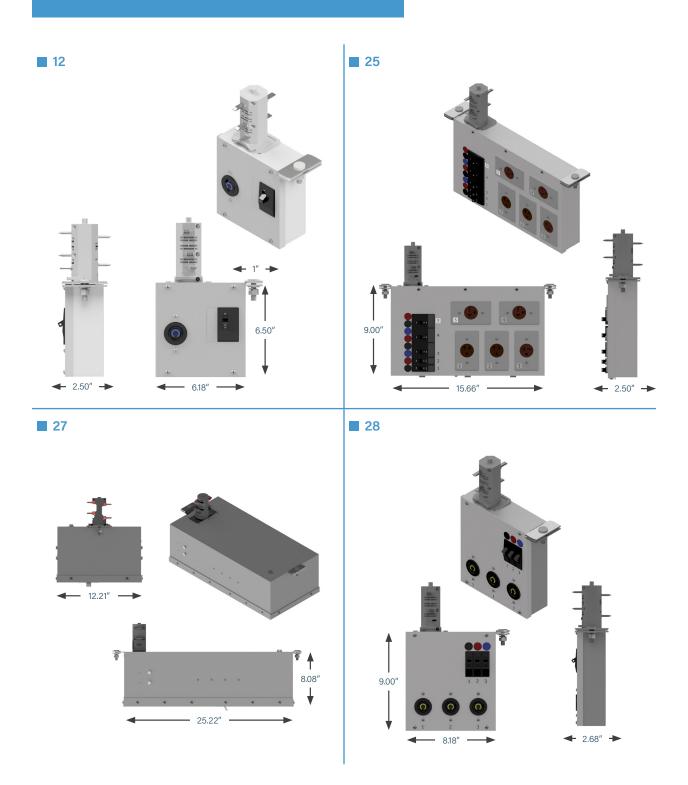
WIRING DEVICE/CORD SET OPTIONS

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
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

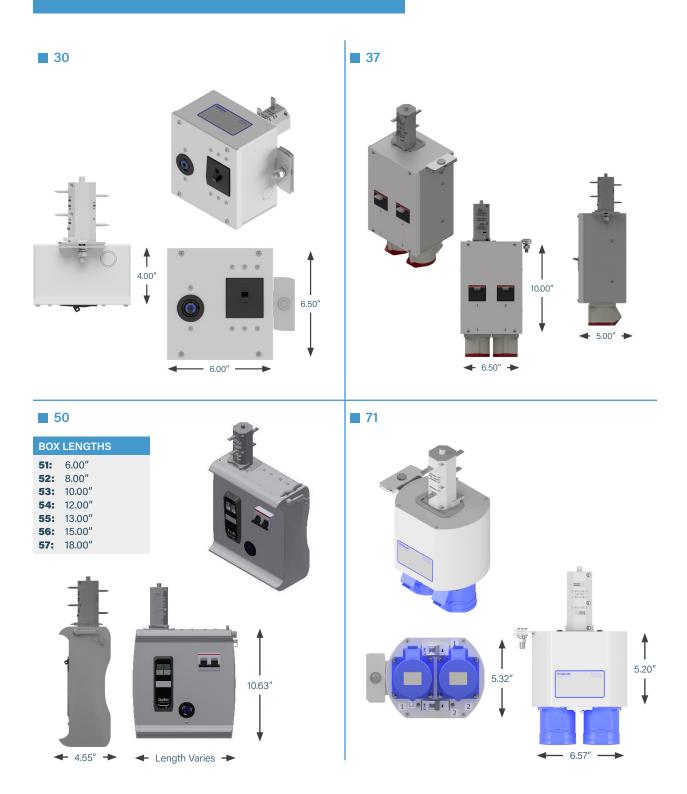


BOX SIZES & STYLES



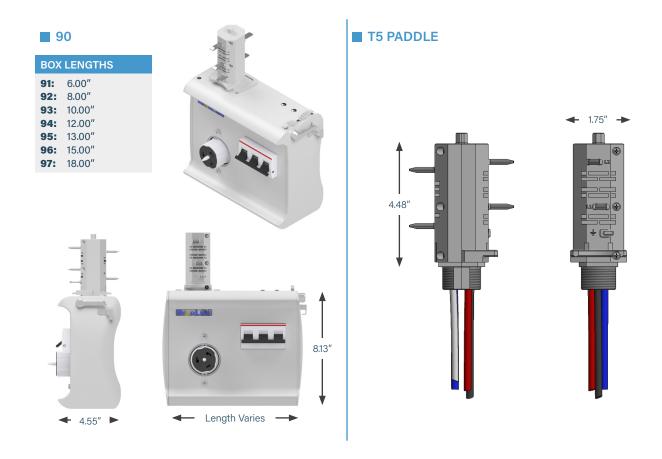


BOX SIZES & STYLES





BOX SIZES & STYLES





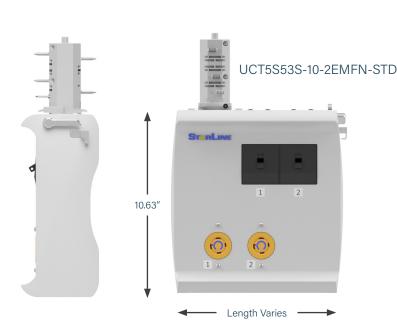
50 SERIES ENCLOSURE CUT SHEET

■ 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.







BOX LENGTHS

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

4.139

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

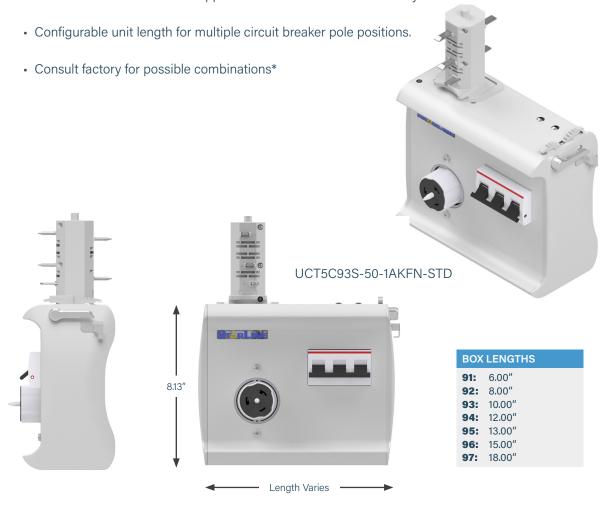


T5 PLUG-IN UNITS

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



T5 PLUG-IN UNITS

DEVICE CODE TABLE

NEMA 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			
СО	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			
BA	L6-15C	Connector	240	2PG			
ВН	L6-20C	Connector	240	2PG			
BG	L6-30C	Connector	240	2PG			
СК	L7-15C	Connector	277	1PNG			
CJ	L7-20C	Connector	277	1PNG			
CF	L7-30C	Connector	277	1PNG			

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

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	
ВХ	460C7W	Connector	480	3PG	
EJ	460C9S	Connector	240	3PG	
El	460C9W	Connector	240	3PG	
BZ	520C6S	Connector	240/415	3PNG	
CC	530C6S	Connector	240/415	3PNG	
EX	530C6W	Connector	240/415	3PNG	



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	

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

NEMA 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	



T5 PLUG-IN UNITS

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			

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

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 363R6S 430R9W	Receptacle 240	2PG					
FS		Receptacle	240/415 240	2PG				
DF		Receptacle		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				



DEVICE CODE TABLE

Pin & Sleeve Receptacles (Continued)							
Device Code	Device Designation	Туре	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 Type Voltage Wiring Configurati								
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, e	tc.)	

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral



S5 PLUG-IN UNITS

■ PRODUCT DESCRIPTION

S5 Plug-in Units are designed to provide the same "plug and play" flexbility for our S5 systems. These Plug-In units have been tested and certified to meet the additional ingress protection levels of the overall system. Plugs are designed with lightweight engineered plastic for standard amperage ranges. For higher short circuit and amperage requirements, metal enclosures are available.

OPTIONS:

- 1. Receptacle Box/Drop Cord Units
- 2. Circuit Breaker Units only
- 3. Meter Plugs

GENERAL SPECS:

- Five Enclosure Options.
 - ES1 Up to 3 poles available
 - ES2 Up to 6 poles available
 - ES3 Up to 9 poles available
 - ES4 Up to 250A, 480V/65kA
 - ES5 Up to 600A, 480V/65kA
- Clear cover protects breakers and meter while maintaining status visibility
- UV, Corrosion, and impact-resistant materials
- NEMA & IEC watertight devices available
- Breaker actuators for floor operability
- Lock-out lids and breaker
- Up to 600A per box
- 65kA Short Circuit rating @480V
- Compatible with Starline meters
- Wide range of configuration options

Note: Series-S Plug-in Units come standard with tap-off seal assembly. Reference T5 Accessories

page 4.113 to order separately.





4.145



SERIES-S ENCLOSURE STYLE OPTIONS

■ ES1 ENCLOSURE

Dimensions(in):

H: 10.5" W: 8" D: 6.36"

Configuration Options:

- Up to 3 Poles
- Up to 3 drop cords
- Meter available
- 1 Bottom-Mounted receptacle



■ ES2 ENCLOSURE

Dimensions(in):

H: 10.5" W: 11" D: 6.36"

Configuration Options:

- Up to 6 Poles
- Up to 6 drop cords
- Meter available
- Up to 1 Front-Mounted or 2 Bottom-Mounted receptacles



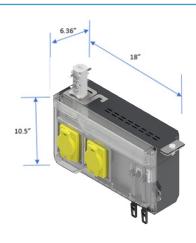
ES3 ENCLOSURE

Dimensions(in):

H: 10.5" W: 18" D: 6.36"

Configuration Options:

- Up to 9 Poles
- Up to 9 drop cords
- Meter available
- Up to 2 Front-Mounted or 3 Bottom-Mounted receptacles





S5 PLUG-IN UNITS

SERIES-S METAL ENCLOSURE OPTIONS

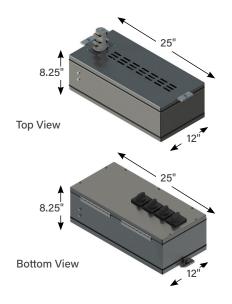
■ ES4 ENCLOSURE

Dimensions(in):

H: 8.25" W: 25" D: 12"

Configuration Options:

- Up to 12 Poles
- Drop cords and receptacles available
- Up to 65kA short circuit rating
- Up to 100 Amps



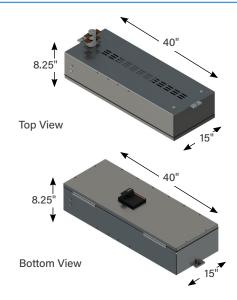
■ ES5 ENCLOSURE

Dimensions(in):

H: 8.25" W: 40" D: 15"

Configuration Options:

- Up to 12 Poles
- Drop cords and receptacles available
- Up to 65kA short circuit rating
- Up to 250 Amps





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? (250, 400, 500, etc.)
- 2. Does the system need an internal ground?
- 3. Are there any limitations on the length of a run? (5ft max, 10ft max)

WHEN DETERMINING DESIRED PLUG CONFIGURATIONS

- 1. What type of system is this being used on? (S5)
- 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?



CIRCUIT BREAKER/FUSED DISCONNECT UNITS W/ DEVICES: 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)						
S5 S5 System						
4. Ground (ground type installed)						
C Case (Housing) Ground D Isolated (Separate) Ground	Dedicated Ground					
5. Box (what size enclosure)						
S1, S2, S3, S4, S5						
6. Orientation (what direction the paddle	e faces)					
S Standard R	Reversed					

7. Interrupt Rating (interrupt rating of the breakers in K)
7 Interrupt Poting (interwent acting of the breekers in IC)

8. Device Quantity (quantity of device 1)

1, 2, 3, 4, 5, 6, 7, 8 (for more than 1 device type, refer to S5 Device Code Table, page 4.149)

9. Device (quantity of device 1)

AA, AB, ...ZZ (refer to S5 Device Code Table, page 4.149)

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

F Front Bottom

*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)

12. Accessories (optional accessories for plugs)

N/A

*13. Meter Release (V70 AC)

V71 (2) RJ11, (2) RJ45, No Display, 480vac

(2) RJ11, (2) RJ45, Display, 480vac

Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac V74

V75 Wi-Fi + (2) RJ11, (2) RJ45, Display, 480vac

*13. Meter Release (V70 DC)

V7A (2) RJ11, (2) RJ45, No Display, 48vdc

V7B (2) RJ11, (2) RJ45, Display, 48vdc

V7D Wi-Fi + (2) RJ11, (2) RJ45, No Display, 48vdc

V7E Wi-Fi + (2) RJ11, (2) RJ45, Display, 48vdc

V7H (2) RJ11, (2) RJ45, No Display, 400vdc

V7I (2) RJ11, (2) RJ45, Display, 400vdc

V7K Wi-Fi + (2) RJ11, (2) RJ45, No Display, 400vdc

V7L Wi-Fi + (2) RJ11, (2) RJ45, Display, 400vdc

*14. Meter Options (V70 AC and DC)

0A IPV6

DHCP 0B

OC. WPA2E

0E IPV6 + DHCP

IPV6 + WPA2E 0F

0J DHCP + WPA2E

ОН IPV6 + WPA2E + DHCP

00 Standard (IPV4 + No Accessories)

40 AC Supply Voltage Only - Breaker Sense (On/Off)

4A Breaker Sense + IPV6

4R Breaker Sense + DHCP

4C Breaker Sense + WPA2E

4E Breaker Sense + IPV6 + DHCP

Breaker Sense + IPV6 + WPA2E 4F

4J Breaker Sense + DHCP + WPA2E

Breaker Sense + IPV6 + WPA2E + DHCP **4H**

15. Paint Color

STD Standard Dark Gray

NOTE: Consult Factory for other options

16. Drop Cord Tape Marking

- Tape Factory Black
- Tape Factory Blue
- Tape Factory White
- 8 Tape Factory Green
- Tape Factory Red
- 9 Tape Factory Yellow

EXAMPLE

UCS5CS3S-22-2QSFN-STD0 = US System, circuit Breaker Only Unit, S5 System, Case Ground, S3 Box, Standard Orientation, 22kA interrupt rating, 2 devices, NEMA L5-15R-IP receptacles, front mount location, no accessories, no meter, standard dark gray color



US DEVICE CODE TABLE

NEMA Connectors									
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating		
RU	NEMA	5-15C-IP	CONNECTOR	120	15	1PNG	IP67		
PV	NEMA	L5-15C-IP	CONNECTOR	120	15	1PNG	IP67		
RV	NEMA	6-15C-IP	CONNECTOR	240	15	2PG	IP67		
PW	NEMA	L6-15C-IP	CONNECTOR	240	15	2PG	IP67		
PX	NEMA	L7-15C-IP	CONNECTOR	277	15	1PNG	IP67		
RW	NEMA	5-20C-IP	CONNECTOR	120	20	1PNG	IP67		
PY	NEMA	L5-20C-IP	CONNECTOR	120	20	1PNG	IP67		
RX	NEMA	6-20C-IP	CONNECTOR	240	20	2PG	IP67		
PZ	NEMA	L6-20C-IP	CONNECTOR	240	20	2PG	IP67		
QC	NEMA	L15-20C-IP	CONNECTOR	240	20	3PG	IP67		
QA	NEMA	L7-20C-IP	CONNECTOR	277	20	1PNG	IP67		
QD	NEMA	L16-20C-IP	CONNECTOR	480	20	3PG	IP67		
QG	NEMA	L23-20C-IP	CONNECTOR	600	20	3PNG	IP67		
QB	NEMA	L14-20C-IP	CONNECTOR	120/208	20	2PNG	IP67		
QE	NEMA	L21-20C-IP	CONNECTOR	120/208	20	3PNG	IP67		
QF	NEMA	L22-20C-IP	CONNECTOR	277/480	20	3PNG	IP67		
QH	NEMA	L5-30C-IP	CONNECTOR	120	30	1PNG	IP67		
QI	NEMA	L6-30C-IP	CONNECTOR	240	30	2PG	IP67		
QL	NEMA	L15-30C-IP	CONNECTOR	240	30	3PG	IP67		
QJ	NEMA	L7-30C-IP	CONNECTOR	277	30	1PNG	IP67		
QM	NEMA	L16-30C-IP	CONNECTOR	480	30	3PG	IP67		
QN	NEMA	L17-30C-IP	CONNECTOR	600	30	3PG	IP67		
QR	NEMA	L23-30C-IP	CONNECTOR	600	30	3PNG	IP67		
QK	NEMA	L14-30C-IP	CONNECTOR	120/208	30	2PNG	IP67		
QO	NEMA	L18-30C-IP	CONNECTOR	120/208	30	3PG	IP67		
QP	NEMA	L21-30C-IP	CONNECTOR	120/208	30	3PNG	IP67		
QQ	NEMA	L22-30C-IP	CONNECTOR	277/480	30	3PNG	IP67		

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



S5 PLUG-IN UNITS

US DEVICE CODE TABLE

Pin & Sleeve Connectors									
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating		
SU	IEC	320C7W	CONNECTOR	480	20	2PG	IP67		
SY	IEC	420C7W	CONNECTOR	480	20	3PG	IP67		
TA	IEC	320C9W	CONNECTOR	120/208	20	2PG	IP67		
SZ	IEC	520C7W	CONNECTOR	277/480	20	3PNG	IP67		
sv	IEC	330C7W	CONNECTOR	480	30	2PG	IP67		
ТВ	IEC	330C9W	CONNECTOR	120/208	30	2PG	IP67		
sw	IEC	360C7W	CONNECTOR	240	60	2PG	IP67		
TC	IEC	360C9W	CONNECTOR	120/208	60	2PG	IP67		
SX	IEC	3100C7W	CONNECTOR	480	100	2PG	IP67		
TD	IEC	3100C9W	CONNECTOR	120/208	100	2PG	IP67		
ВІ	IEC	530C9W	CONNECTOR	120/208	30	3PNG	IP67		
BP	IEC	430C9W	CONNECTOR	250	30	3PG	IP67		
BW	IEC	430C7W	CONNECTOR	480	30	3PG	IP67		
вх	IEC	460C7W	CONNECTOR	480	60	3PG	IP67		
EH	IEC	560C9W	CONNECTOR	120/208	60	3PNG	IP67		
EI	IEC	460C9W	CONNECTOR	250	60	3PG	IP67		
GI	IEC	4100C9W	CONNECTOR	250	100	3PG	IP67		
GJ	IEC	560C7W	CONNECTOR	277/480	60	3PNG	IP67		
GK	IEC	530C7W	CONNECTOR	277/480	30	3PNG	IP67		
GR	IEC	5100C7W	CONNECTOR	277/480	100	3PNG	IP67		
GS	IEC	5100C9W	CONNECTOR	120/208	100	3PNG	IP67		
MK	IEC	4100C7W	CONNECTOR	480	100	3PG	IP67		
NL	IEC	420C9W	CONNECTOR	250	20	3PG	IP67		

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



US DEVICE CODE TABLE

	NEMA Receptacles									
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating			
RQ	NEMA	5-15R-IP	RECEPTACLE	120	15	1PNG	IP67			
QS	NEMA	L5-15R-IP	RECEPTACLE	120	15	1PNG	IP67			
RR	NEMA	6-15R-IP	RECEPTACLE	240	15	2PG	IP67			
QT	NEMA	L6-15R-IP	RECEPTACLE	240	15	2PG	IP67			
QU	NEMA	L7-15R-IP	RECEPTACLE	277	15	1PNG	IP67			
RS	NEMA	5-20R-IP	RECEPTACLE	120	20	1PNG	IP67			
QV	NEMA	L5-20R-IP	RECEPTACLE	120	20	1PNG	IP67			
RT	NEMA	6-20R-IP	RECEPTACLE	240	20	2PG	IP67			
QW	NEMA	L6-20R-IP	RECEPTACLE	240	20	2PG	IP67			
QZ	NEMA	L15-20R-IP	RECEPTACLE	240	20	3PG	IP67			
QX	NEMA	L7-20R-IP	RECEPTACLE	277	20	1PNG	IP67			
RA	NEMA	L16-20R-IP	RECEPTACLE	480	20	3PG	IP67			
RD	NEMA	L23-20R-IP	RECEPTACLE	600	20	3PNG	IP67			
QY	NEMA	L14-20R-IP	RECEPTACLE	120/208	20	2PNG	IP67			
RB	NEMA	L21-20R-IP	RECEPTACLE	120/208	20	3PNG	IP67			
RC	NEMA	L22-20R-IP	RECEPTACLE	277/480	20	3PNG	IP67			
RE	NEMA	L5-30R-IP	RECEPTACLE	120	30	1PNG	IP67			
RF	NEMA	L6-30R-IP	RECEPTACLE	240	30	2PG	IP67			
RI	NEMA	L15-30R-IP	RECEPTACLE	240	30	3PG	IP67			
RG	NEMA	L7-30R-IP	RECEPTACLE	277	30	1PNG	IP67			
RJ	NEMA	L16-30R-IP	RECEPTACLE	480	30	3PG	IP67			
RK	NEMA	L17-30R-IP	RECEPTACLE	600	30	3PG	IP67			
RN	NEMA	L23-30R-IP	RECEPTACLE	600	30	3PNG	IP67			
RH	NEMA	L14-30R-IP	RECEPTACLE	120/208	30	2PNG	IP67			
RL	NEMA	L21-30R-IP	RECEPTACLE	120/208	30	3PNG	IP67			
RM	NEMA	L22-30R-IP	RECEPTACLE	277/480	30	3PNG	IP67			

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



US DEVICE CODE TABLE

Pin & Sleeve Receptacles									
Code	Туре	Designation	Device Type	Voltage	Amperage	Wiring Configuration	IP Rating		
SN	IEC	420R9W	RECEPTACLE	240	20	3PG	IP67		
RY	IEC	320R7W	RECEPTACLE	480	20	2PG	IP67		
sc	IEC	420R7W	RECEPTACLE	480	20	3PG	IP67		
SQ	IEC	520R9W	RECEPTACLE	120/208	20	3PNG	IP67		
SG	IEC	520R7W	RECEPTACLE	277/480	20	3PNG	IP67		
RZ	IEC	330R7W	RECEPTACLE	480	30	2PG	IP67		
SD	IEC	430R7W	RECEPTACLE	480	30	3PG	IP67		
SR	IEC	530R9W	RECEPTACLE	120/208	30	3PNG	IP67		
SA	IEC	360R7W	RECEPTACLE	480	60	2PG	IP67		
SH	IEC	560R7W	RECEPTACLE	277/480	60	3PNG	IP67		
SE	IEC	460R7W	RECEPTACLE	480	60	3PG	IP67		
so	IEC	460R9W	RECEPTACLE	120/208	60	3PG	IP67		
SS	IEC	560R9W	RECEPTACLE	120/208	60	3PNG	IP67		
SB	IEC	3100R7W	RECEPTACLE	480	100	2PG	IP67		
SF	IEC	4100R7W	RECEPTACLE	480	100	3PG	IP67		
SP	IEC	4100R9W	RECEPTACLE	120/208	100	3PG	IP67		
ST	IEC	5100R9W	RECEPTACLE	120/208	100	3PNG	IP67		
SI	IEC	5100R7W	RECEPTACLE	277/480	100	3PNG	IP67		

WIRING CONFIGURATION REFERENCE TABLE

1 = Number of poles

P = Poles

N = Neutral

G = Ground



N/A

CIRCUIT BREAKER/FUSED DISCONNECT UNITS, NO DEVICES: PRODUCT NUMBERS

		0	0.5	0	C	2	0		1.1			
	U	C	S5	С	S	2	S	-	14	-		
	1. System	2. Product Type	3. Compatibili	4. ity Ground	5. Box		6. Orientation		errupt ting			
2 030	3	480	050	5	N	_	V71	00) –	STD	0	*Opt
8. 9. Circuit Amperage Protection Quantity	10. Poles	11. Voltage	*12. Drop Cord Length	*13. Number of Wires	14. Accessori	es	15. Meter Release	16. Meter Options	;	17. Paint Color	*18. Drop Cord Tape Marking	J
1. System (standard	of measure)				15. Mete	r Re	lease (V70 A	AC)				7
U US					V71 (2) RJ11, (2) RJ45, No Display, 480vac V72 (2) RJ11, (2) RJ45, Display, 480vac V74 Wi-Fi + (2) RJ11, (2) RJ45, No Display, 480vac							
2. Product Type (se	ection compon	ent)										
C Circuit Breake	r Unit	F Fuse	d Disconne	ct Unit			+ (2) RJ11, (2	,	Display,	480vac		
3. Compatibility (fr	ame compatibi	ility)					lease (V70 E	-	40	1		
S5 S5 System					V7A (2) RJ11, (2) RJ45, No Display, 48vdc V7B (2) RJ11, (2) RJ45, Display, 48vdc							
4. Ground (ground t							+ (2) RJ11, (2 + (2) RJ11, (2					
C Case (HousingG Isolated (Sepa			cated Grour	nd	V7H (2)	RJ11	I, (2) RJ45, N I, (2) RJ45, D	lo Displa	ay, 400	vdc		
5. Box (what size end	losure)				V7K Wi	-Fi +	- (2) RJ11, (2) RJ45, N	No Disp	olay, 400vdc		
S1, S2, S3, S4, S5							+ (2) RJ11, (2			400vdc		_
6. Orientation (wha	t direction the	paddle faces)			OA IPV		otions (V70 A	AC and DO	C)			
S Standard		R Reve	rsed		OB DH	CP						
7. Interrupt Rating					OC WP		DHCP					
10, 14, 22, 25, 30, 35, 50, 65, CC (CC = 200,000) (for US)				r US)	OF IPV6 + WPA2E OJ DHCP + WPA2E							
8. Circuit Protection	n Quantity				OH IPV6 + WPA2E + DHCP							
1, 2, 3, 4, 5, 6					O0 Standard (IPV4 + No Accessories)40 AC Supply Voltage Only - Breaker Sense (On/Off)							
9. Amperage 015, 020, 030, 60	100						Sense + IP	,	orounor	conce (on)		
					4B Breaker Sense + DHCP 4C Breaker Sense + WPA2E							
10. Poles (number of poles in a circuit) 1, 2, 3, 4, 5				4E Breaker Sense + IPV6 + DHCP								
11. Voltage				4F Breaker Sense + IPV6 + WPA2E 4J Breaker Sense + DHCP + WPA2E								
120, 240, 277, 300,	415, 480, 60	00			4H Bre	aker	Sense + IP	V6 + W	PA2E +	- DHCP		
*12. Drop Cord Ler	ngth (length o	f drop cord)			17. Paint							
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)				Note: Consult Factory for other options								
*13. Number of Wi			-/				d Tape Mar					
2, 3, 4, 5					3 Black 6 Red 8 Green 4 White 7 Blue							
14. Accessories (op	tional accesso	ories for plugs)										_



METER PLUGS: PRODUCT NUMBERS



1. Sy	1. System (standard of measure)					
U	US					
2. P	2. Product Type (section component)					
M	Meter Plug					
3. Compatibility (frame compatibility)						
S5	\$5 S5 System					
4. G	4. Ground (ground type installed)					
С	Case (Housing) Ground					
5. Box (what size enclosure)						
S1, S2, S3, S4, S5						
6. Orientation (what direction the paddle faces)						
S	Standard R	Reversed				
7. Current Transformer (current rating)						
250 800	250 amps 400	225 amps 400 amps 1000 amps				

	ompatibility (frame compatibili	ity)	
S5	S5 System		
4. Gr	round (ground type installed)		
С	Case (Housing) Ground		
5. Bo	x (what size enclosure)		
S1, S	62, S3, S4, S5		
6. Or	rientation (what direction the p	paddle faces)	
S	Standard	R Reversed	
7. Cu	rrent Transformer (current ra	ating)	
250 800	65 amps 250 amps 800 amps 1200 amps	225 225 amps 400 400 amps 1K0 1000 amps	
8. Me	eter Release (V70 AC)		
V71 V72 V74 V75	(-, , (-, , - , - , - , - , - , - ,),	480vac No Display, 480vac	
8. Me	eter Release (V70 DC)		
V7A V7B V7D V7E V7H V7I V7K V7L	(2) RJ11, (2) RJ45, Display, 2 Wi-Fi + (2) RJ11, (2) RJ45, N Wi-Fi + (2) RJ11, (2) RJ45, I (2) RJ11, (2) RJ45, No Displ (2) RJ11, (2) RJ45, Display, 2 Wi-Fi + (2) RJ11, (2) RJ45, N	48vdc No Display, 48vdc Display, 48vdc lay, 400vdc 400vdc No Display, 400vdc	

0A	IPV6
0B	DHCP
0C	WPA2E
0E	IPV6 + DHCP
0F	IPV6 + WPA2E
OJ	DHCP + WPA2E
OН	IPV6 + WPA2E + DHCP
	Standard (IPV4 + No Accessories) AC Supply Voltage Only - Breaker Sense (On/Off)
4B	Breaker Sense + IPV6 Breaker Sense + DHCP Breaker Sense + WPA2E

4E Breaker Sense + IPV6 + DHCP Breaker Sense + IPV6 + WPA2E Breaker Sense + DHCP + WPA2E 4H Breaker Sense + IPV6 + WPA2E + DHCP 10. Paint Color

STD Standard Dark Gray

Note: Consult Factory for other options

9. Meter Options (V70 AC and DC)

EXAMPLE

<u>UMS5CS2S-065-V7100-STD</u> = US System, Meter Plug, S5 System, Case Ground, S2 Box, Standard Orientation, 65 Current Rating, V71 Meter, No display, 480vac, Standard Meter Options, Painted Factory Silver

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