

TRACK BUSWAY PRODUCT SELECTION GUIDE



TABLE OF CONTENTS

T3 Series: 160 & 225 Amps.....3 - 3.42

T5 Series: 250, 400, 630, 800, 1000, 1250 Amps.....4 - 4.90

T3 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:

IEC 61439-1, 61439-6

CCC GB7251.1-2013

CCC GB7251.6-2015

CSA C22.2 No. 27

NMX-J-148-1998-ANCE

UL 857, Ed. 13

Low Voltage Directive - 2014/35/EC

RoHS Directive - 2011/65/EU

*All standards and certifications available upon request

Introduction

Starline is the leader in electrical power distribution in the mission critical, commercial and light industrial industries with Starline Track Busway. This system was designed to meet the rugged specification of IEC 61439, General Rules & Busway Trunking Systems, with the flexible features of track lighting - and is available in systems with 160 & 225 amps with case, dedicated or isolated earth.

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**.

T3 TABLE OF CONTENTS

T3 SERIES

SYSTEM LAYOUT DRAWING.....3.4
GROUND OPTIONS.....3.5
POLARITY TIPS.....3.6
SYSTEM LAYOUT TIPS.....3.7
COMPONENT RELATIONSHIP TIPS.....3.8

160T3 SYSTEMS

STRAIGHT SECTIONS.....3.9
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....3.10
ELBOW SECTIONS.....3.11
 ELBOW SECTIONS: PRODUCT NUMBERS.....3.12
TEE SECTIONS.....3.13
 TEE SECTIONS: PRODUCT NUMBERS.....3.14
END FEED UNITS.....3.15
 END FEED UNITS: METERING.....3.16
 END FEED UNITS: ACCESSORIES.....3.17
 END FEED UNITS: PRODUCT NUMBERS.....3.18
 END FEED METERING: PRODUCT NUMBERS.....3.19
ABOVE FEED UNITS.....3.20
 ABOVE FEED UNITS: PRODUCT NUMBERS.....3.21

225T3 SYSTEMS

STRAIGHT SECTIONS.....3.22
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....3.23
ELBOW SECTIONS.....3.24
 ELBOW SECTIONS: PRODUCT NUMBERS.....3.25
TEE SECTIONS.....3.26
 TEE SECTIONS: PRODUCT NUMBERS.....3.27
END FEED UNITS.....3.28
 END FEED UNITS: METERING.....3.29
 END FEED UNITS: ACCESSORIES.....3.30
 END FEED UNITS: PRODUCT NUMBERS.....3.31
 END FEED METERING: PRODUCT NUMBERS.....3.32
ABOVE FEED UNITS.....3.33
 ABOVE FEED UNITS: PRODUCT NUMBERS.....3.34

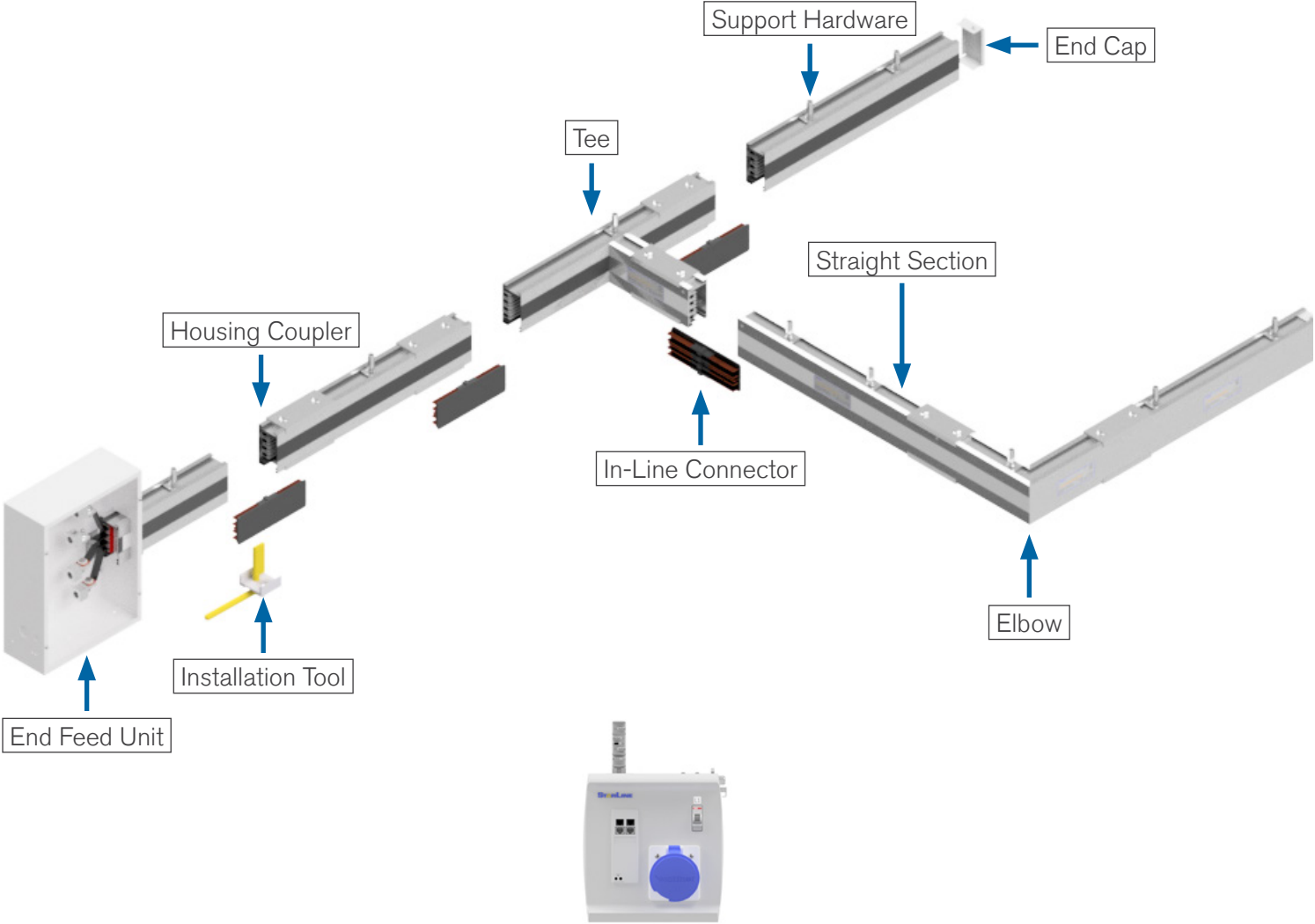
T3 ACCESSORIES

RAL COLORS.....3.35
ACCESSORIES: SUPPORT HARDWARE.....3.36

T3 TABLE OF CONTENTS

ACCESSORIES: CONNECTION HARDWARE 3.39
ACCESSORIES: INSTALLATION TOOL 3.40
SERVICES..... 3.41

SYSTEM LAYOUT DRAWING



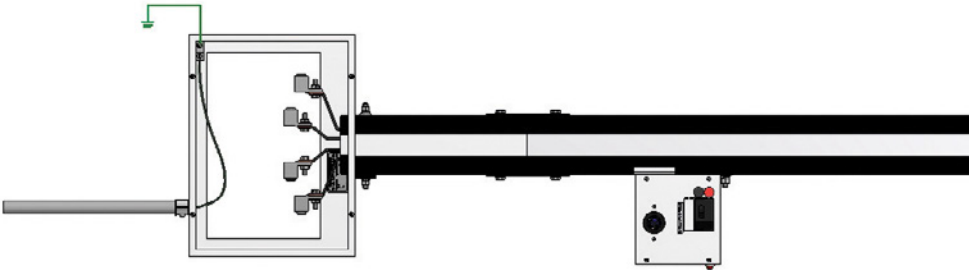
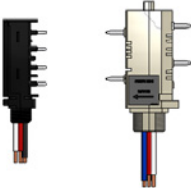
Plug-In Units

For further information on applicable T3 plug-in unit options, please consult the factory.

GROUND OPTIONS

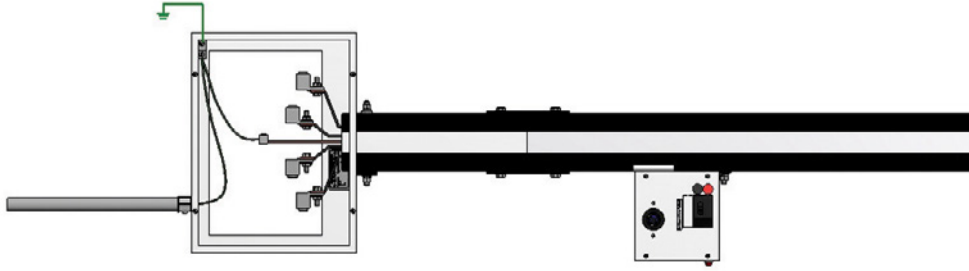
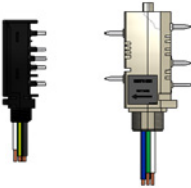
Case Ground/Chassis Earth

Uses aluminum housing and no extra copper bar.



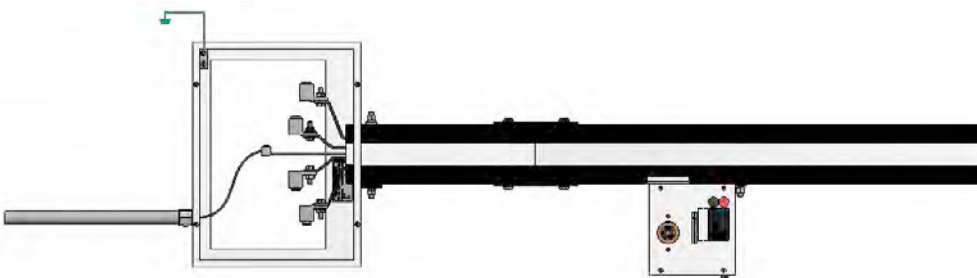
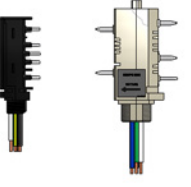
Dedicated Ground/Earth

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.



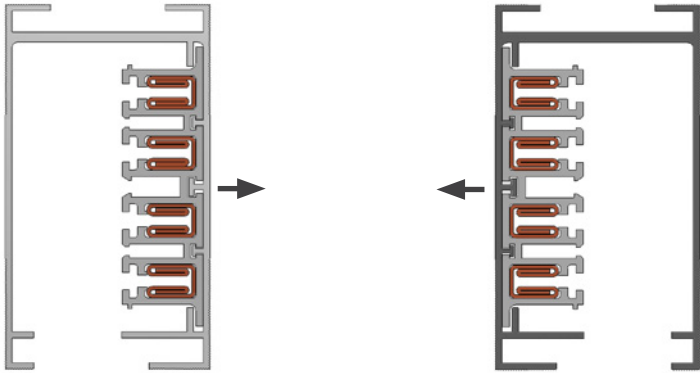
*For further details about Dedicated Earth vs. Isolated Earth, please reference our “Metric: Isolated Earth (IG) vs. Dedicated Earth (DG)” tech brief on downloads.starlinepower.com/

POLARITY TIPS

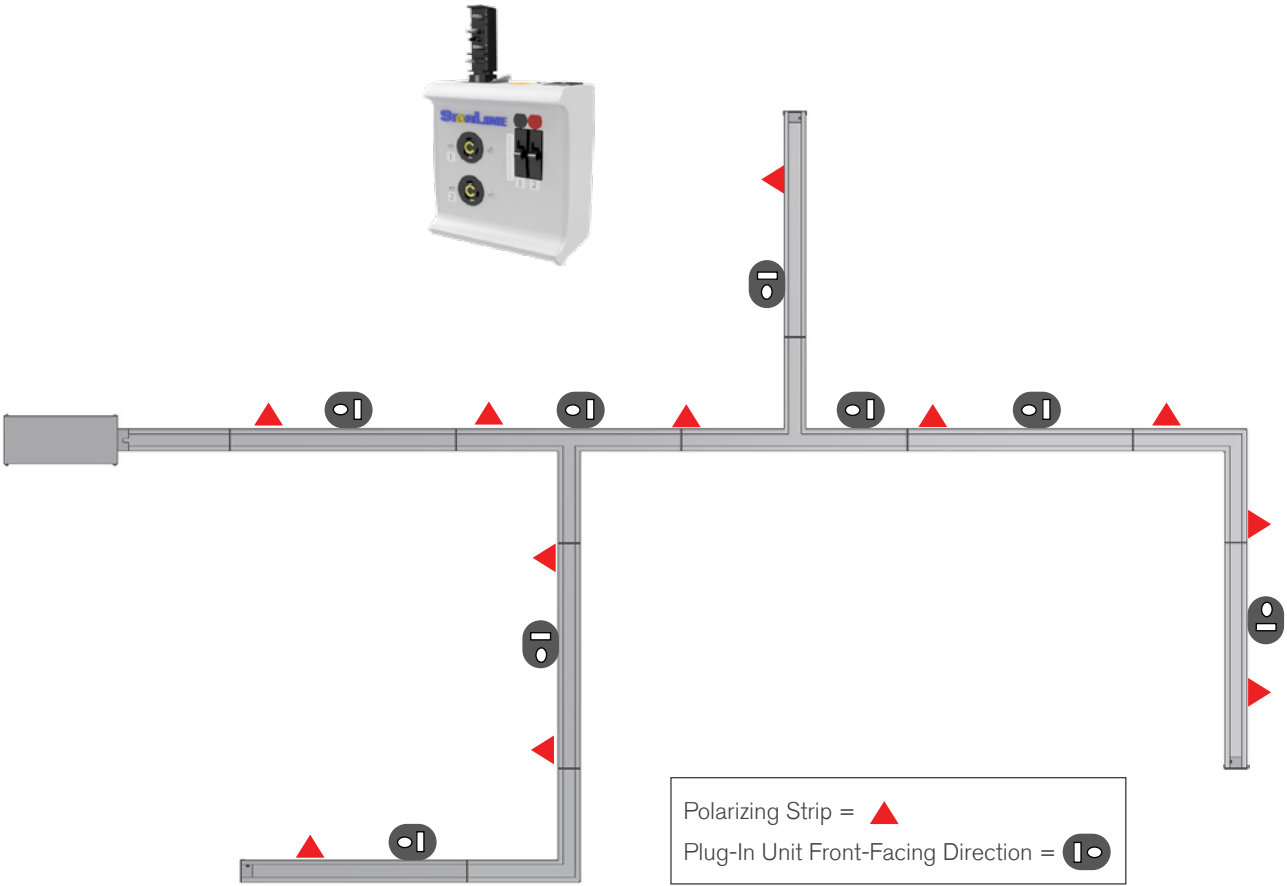
Starline utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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

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



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



SYSTEM LAYOUT TIPS

Power Feeds

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

Support Hardware

Support hardware is spaced no more than 3 meters apart. Refer to **page 3.36** for support hardware details. Contact your local Starline applications engineer for any questions.

Installation

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

Busway Housing Sections

Standard Busway lengths are available in 1.5 meter, 3 meter and 6 meter increments. Although the factory can cut individual Starline Track Busway sections to any length under 6 meters, it is highly recommended to keep all layout runs in increments of 1.5 meters 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.

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 160T3 or 225T3 systems, you will need to order an installation tool (ST3IT).

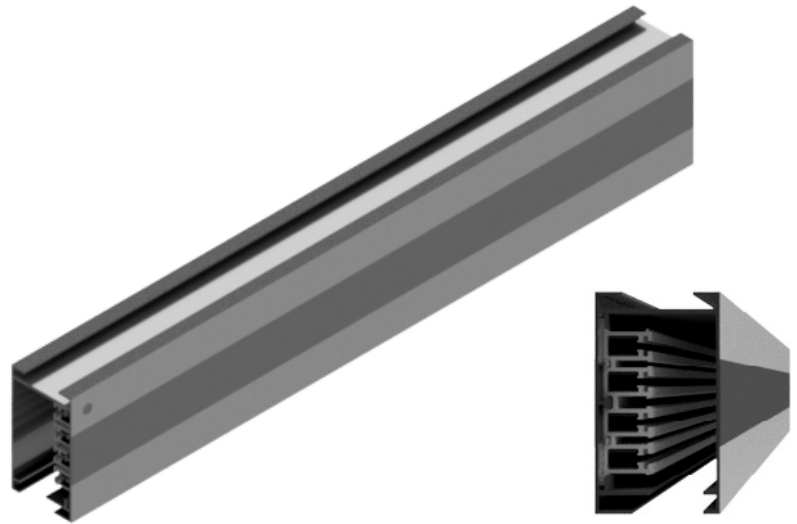
General support hardware rule to follow:

- 3 meter 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 3.6** Polarity Tips for more detail.

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist 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, 415 Volt. Busway joint connections are made using a joint kit, which includes a housing coupler and bus connector. An installation tool is used to insert the bus connector in between the busbar channels of the two sections for a solid spring-tempered electrical connection. A housing coupler is then used to make a solid mechanical connection.



Material

Extruded Aluminum

Ratings

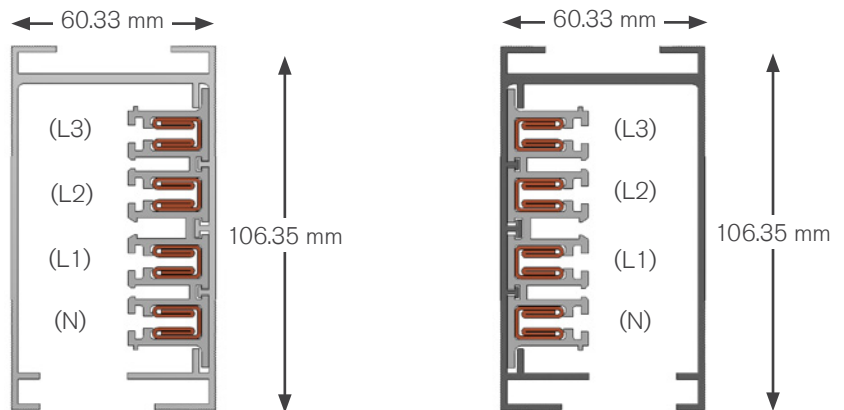
100% Protective Earth
160 Amp, 415 Volt






Length

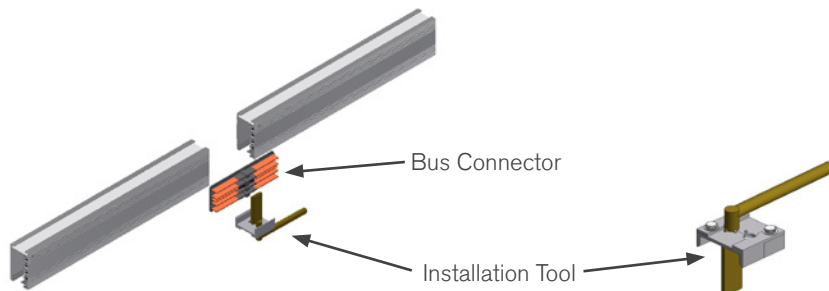
1.5 m, 3 m, 6 m; or custom lengths between 1.5 - 6 m

Weight

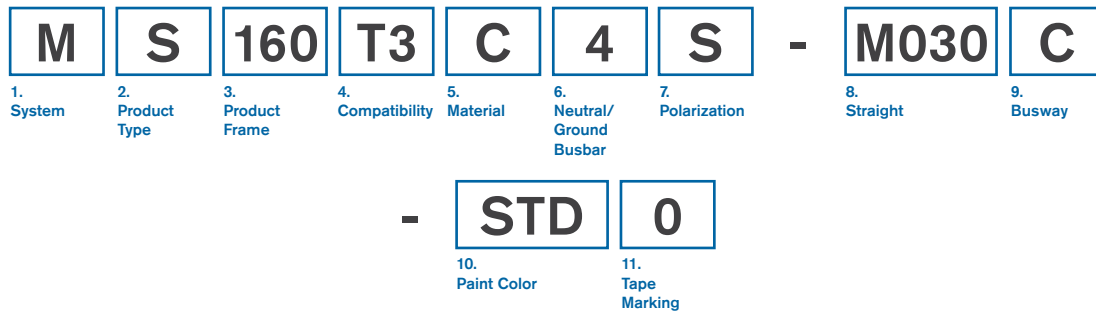
3m 4 pole: 11.8 kg
3m 4 pole w/ ground: 13.6 kg
3m 4 pole w/ 200% N: 15 kg
3m 4 pole w/ ground & 200% N: 15.4 kg



| Metric | | |
|----------------|---|------------------|
| L1 or Phase A |  | brown |
| L2 or Phase B |  | black |
| L3 or Phase C |  | gray |
| L3 or Phase C |  | blue |
| Neutral Ground |  | green/ yellow |



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

M Metric

2. Product Type (section component)

S Straight Section

3. Product Frame (maximum amperage)

160 160 amps

4. Compatibility (frame compatibility)

T3 T3 Series

5. Material (busbar material)

C Copper

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

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

7. Polarization (orientation of section for mating purposes)

S Standard

8. Straight Length (length of section)

MXYY X = meters, YY = centimeters

9. 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 3.35) | |

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

| | | | |
|----------|--------------------|----------|--------------------|
| 0 | None | 6 | Tape Factory Red |
| 3 | Tape Factory Black | 7 | Tape Factory Blue |
| 4 | Tape Factory White | 8 | Tape Factory Green |

EXAMPLES

MS160T3C4S-M200C-STD0 = Metric System, Straight Section, 160 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 2 meter Straight Length, Continuous Busway Access, Standard Mill Finish, No Tape Marking

MS160T3CNS-M600C-P013 = Metric System, Straight Section, 160 amps, T3 Series, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization, 6 meter Straight Length, Continuous Busway Access, Painted RAL 1001, Black Tape Marking

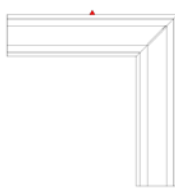
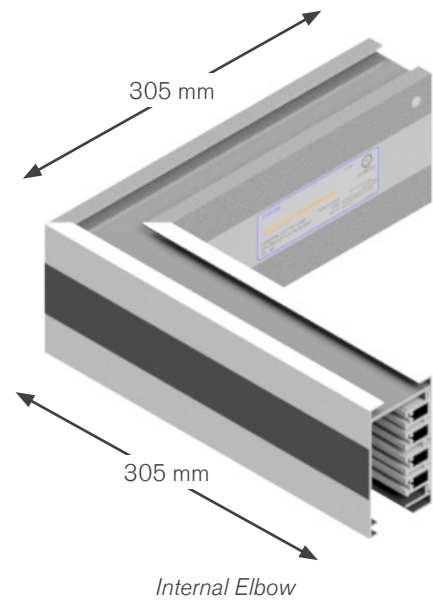
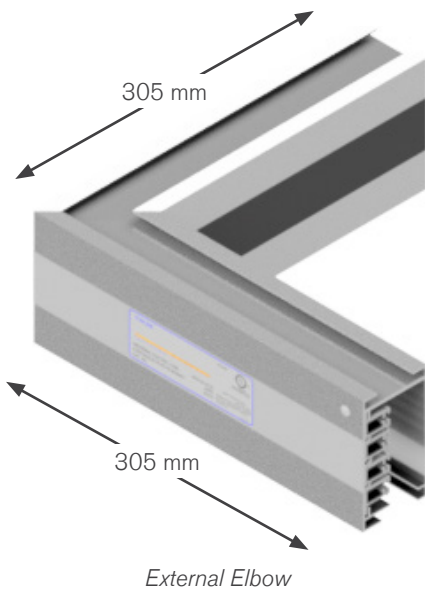
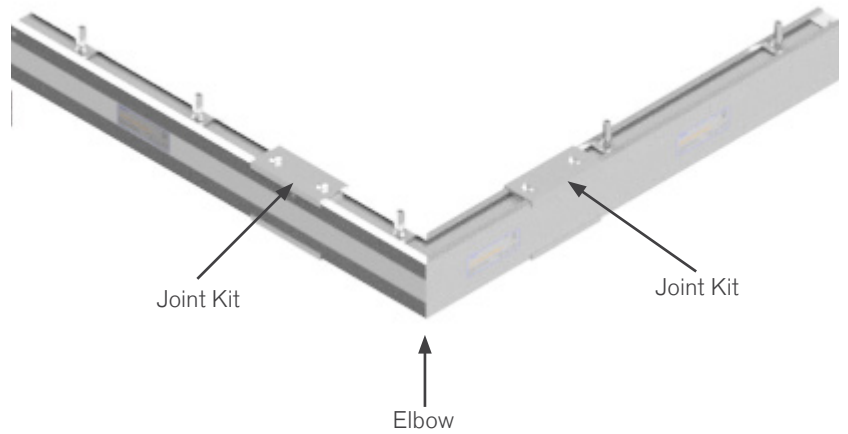
ELBOW SECTIONS

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.

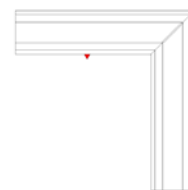
Weight

2.5 kg



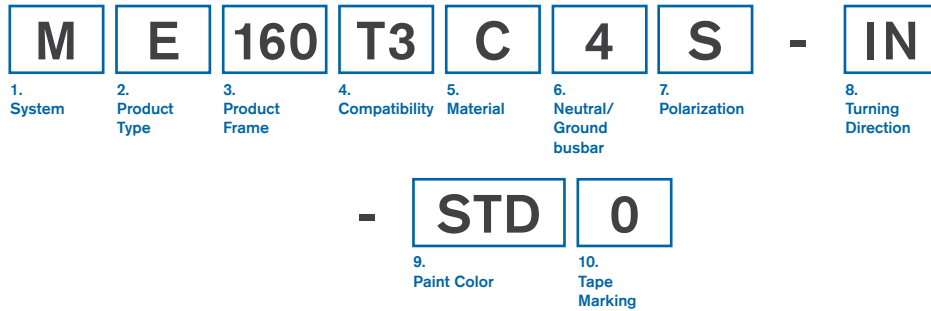
External Elbow

▲ = Polarizing Strip



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



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

2. Product Type (*section component*)
E Elbow Section

3. Product Frame (*maximum amperage*)
160 160 amps

4. Compatibility (*frame compatibility*)
T3 T3 Series

5. Material (*busbar material*)
C Copper

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

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

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

8. Turning Direction (*direction of section polarizing stripe*)

| | |
|----------------------------|----------------------------|
| IN Internal | EX External |
| HN Seismic Internal | GX Seismic External |

9. 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 3.35) |

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

| | |
|-----------------------------|-----------------------------|
| 0 None | 6 Tape Factory Red |
| 3 Tape Factory Black | 7 Tape Factory Blue |
| 4 Tape Factory White | 8 Tape Factory Green |

EXAMPLES
ME160T3C4S-IN-BLK4 = Metric System, Elbow Section, 160 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization- Internal Turning Direction- Painted Factory Black, White Tape Marking
ME160T3CNS-EX-STD0 = Metric System, Elbow Section, 160 amps, T3 Series, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization- External Turning Direction- Standard Mill Finish, No Tape Marking

TEE SECTIONS

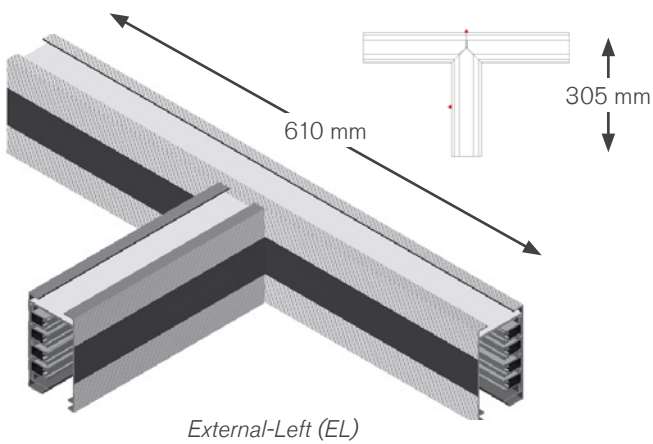
Product Description

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

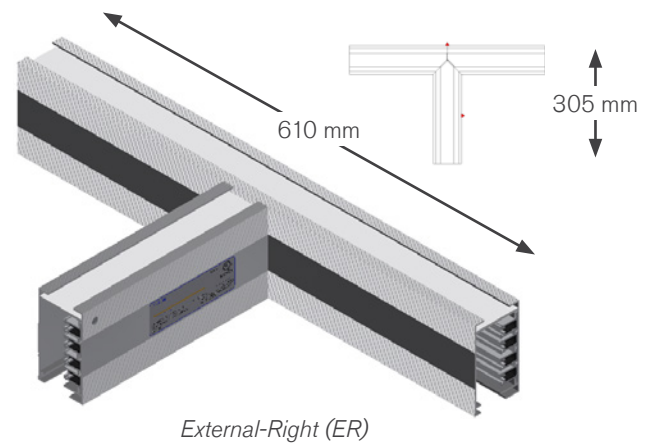
Weight

3.6 kg

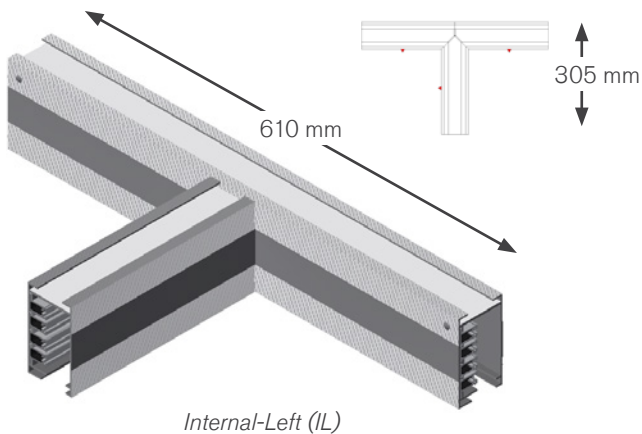
▲ = Polarizing Strip



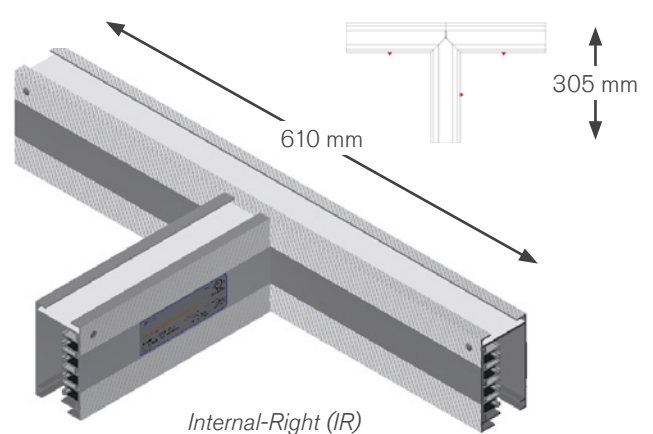
External-Left (EL)



External-Right (ER)

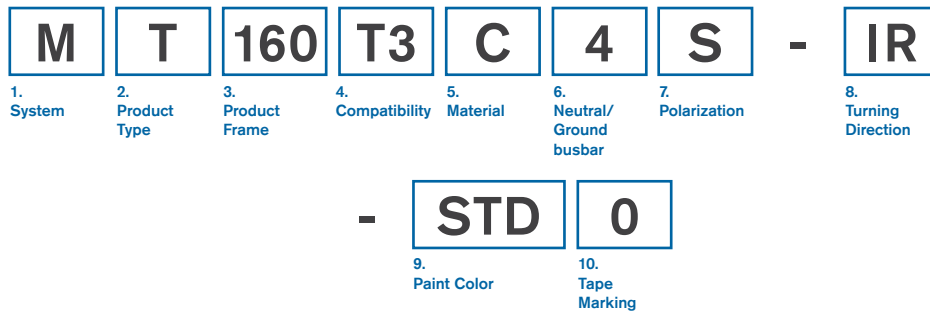


Internal-Left (IL)



Internal-Right (IR)

TEE SECTIONS: PRODUCT NUMBERS



1. System *(standard of measure)*

M Metric

2. Product Type *(section component)*

T Tee Section

3. Product Frame *(maximum amperage)*

160 160 amps

4. Compatibility *(frame compatibility)*

T3 T3 Series

5. Material *(busbar material)*

C Copper

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

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

7. Polarization *(orientation of section for mating purposes)*

S Standard

8. Turning Direction *(direction of section polarizing stripe)*

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

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 3.35) |

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

| | |
|-----------------------------|-----------------------------|
| 0 None | 6 Tape Factory Red |
| 3 Tape Factory Black | 7 Tape Factory Blue |
| 4 Tape Factory White | 8 Tape Factory Green |

EXAMPLES

MT160T3C4S-IR-RED0 = Metric System, Tee Section, 160 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

MT160T3CGS-EL-STD0 = Metric System, Tee Section, 160 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External-Left Turning Direction, Standard Mill Finish, No Tape Marking

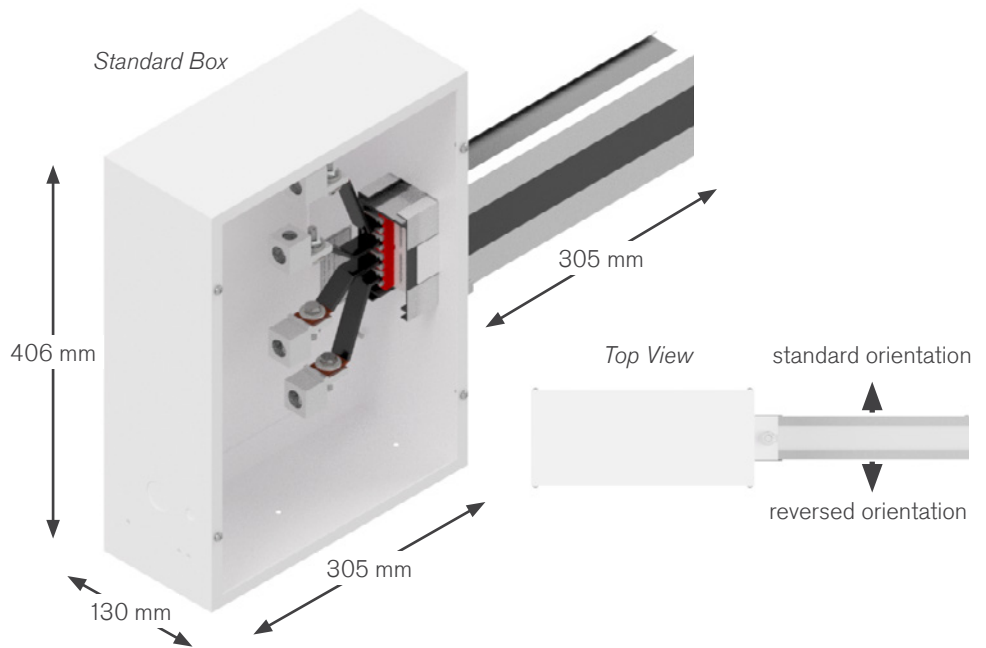
END FEED UNITS

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 305 millimeter section of busway. The assembly includes connection lugs, a ground lug and shrink tubing for wires up to 150 mm².

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.

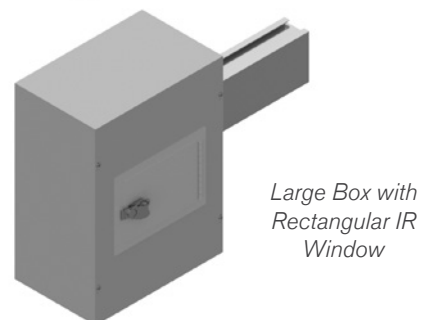
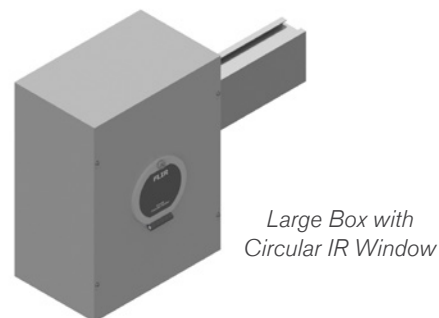


| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | L | |
| Double | D | A | |
| Bolt | | | |

Box size and Lug options:
Refer to option 8. Lug/Box Options on **page 3.18 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/

Infrared (IR) Window options:
Refer to option 10. Accessories Package on **page 3.18 End Feed Units: Product Numbers**



END FEED UNITS: METERING

Product Description

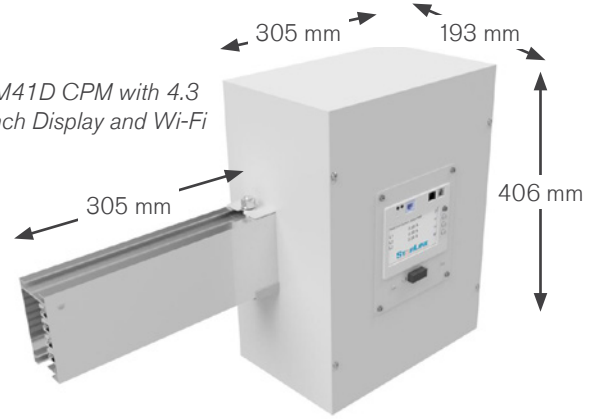
Standard end power feed units connect to the end of the busway. A factory assembled unit consists of a steel junction box, with removable sides, connected to a 305 millimeter section of busway. The assembly includes connection lugs, a ground lug, and shrink tubing for wires up to 150 mm².

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.

M41D CPM with 4.3 inch Display and Wi-Fi on a 30° Angled Display



M41D CPM with 4.3 inch Display and Wi-Fi



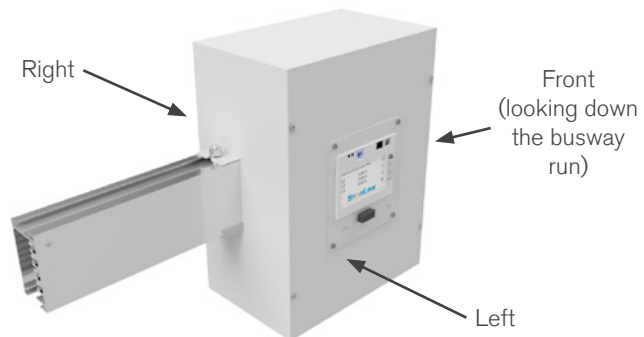
| AC End Feed Meter Options | |
|---------------------------|---------------------------|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| | Y = wye, Δ = delta |

| DC End Feed Meter Options | |
|---------------------------|--|
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

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

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

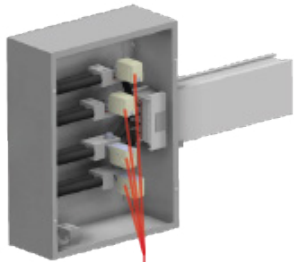


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 3.18** End Feed Units: Product Numbers)

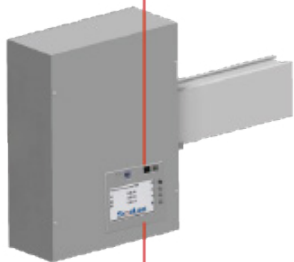
END FEED UNITS: ACCESSORIES

Temperature Monitor

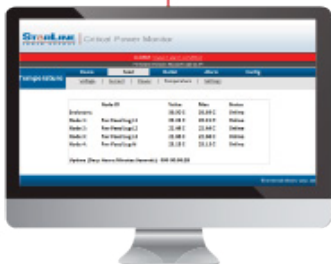
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Wired or wireless nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

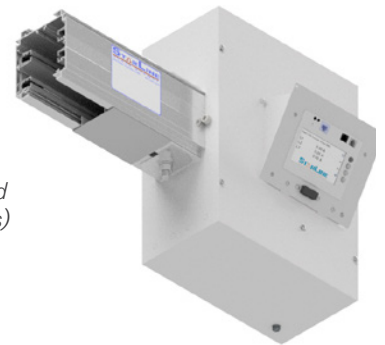
Wireless Temperature Monitor

(Refer to option 17. M40 Options on **page 3.19** End Feed Metering: Product Numbers)

Angled Meter Lid

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

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

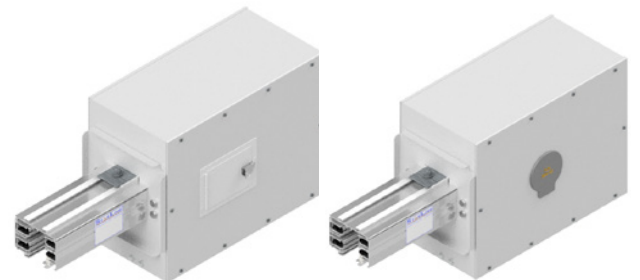


(Refer to option 10. Accessories Package on **page 3.18** End Feed Units: Product Numbers)

IR Windows

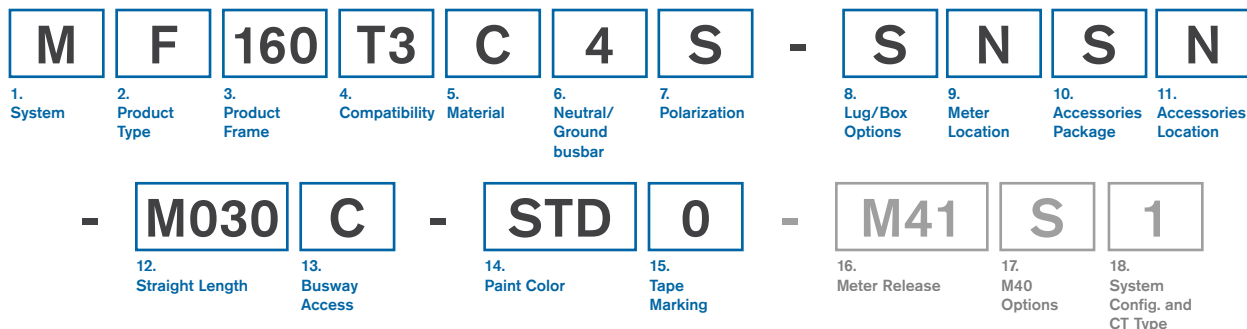
IR windows added to End Feeds offer:

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



(Refer to option 10. Accessories Package on **page 3.18** End Feed Units: Product Numbers)

END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)
M Metric

2. Product Type (section component)
F End Feed

3. Product Frame (maximum amperage)
160 160 amps

4. Compatibility (frame compatibility)
T3 T3 Series

5. Material (busbar material)
C Copper

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

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

7. Polarization (orientation of section for mating purposes)

| | |
|-------------------|-------------------|
| S Standard | R Reversed |
|-------------------|-------------------|

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

| | |
|--------------------------------------|------------------------------------|
| S Standard lugs, Standard box | D Double lugs, Standard box |
| L Standard lugs, Large box | A Double lugs, Large box |

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

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

10. Accessories Package (optional accessories for feed units)

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

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

| | |
|---------------------|--------------------------------------|
| N None (N/A) | R Right |
| L Left | F Front (consult the factory) |

12. Straight Length (length of section)
M030 .3 meters (For other lengths, consult the factory)

13. Busway Access
C Continuous

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

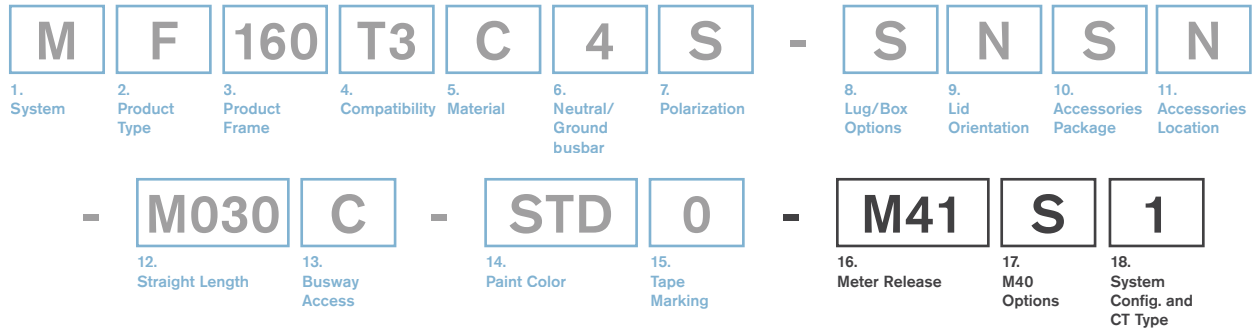
| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 3.35) |

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

| | |
|-----------------------------|-----------------------------|
| 0 None | 6 Tape Factory Red |
| 3 Tape Factory Black | 7 Tape Factory Blue |
| 4 Tape Factory White | 8 Tape Factory Green |

EXAMPLE
MF160T3C4R-LNSN-M030C-STD0 = Metric System, End Feed, 160 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, No Meter Location, Standard Accessory Package, No Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Silver, No Tape Marking

END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

| | | | |
|----------|--|----------|--------------|
| 1 | LLD - Standard, Milivolt | K | LLD - SC, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - SC, 5A |
| 3 | LNy - Standard, Milivolt | M | LNy - SC, 5A |
| 1 | Circuit 1 Only, Solid Core (M60s only) | | |
| 2 | Circuit 2 Only, Solid Core (M60s only) | | |
| 3 | Both Circuits, Solid Core (M60s only) | | |

*17. Meter Options (M40 AC)

| | | | |
|----------|------------------------------|----------|--------------------|
| S | Standard (M60s also) | F | Featured (D+A) |
| D | Display (M60s also) | E | Enhanced (N+A) |
| N | (Measured) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| T | Wireless Temperature Monitor | G | (T+D) |
| H | (T+N) | J | (T+A) |
| Q | (T+D+N) | K | (T+D+A) |
| L | (T+N+A) | R | (T+D+N+A) |
| B | Wired Temperature Monitor | W | (B+D+N) |
| V | (B+N) | 1 | (B+D+A) |
| C | (B+D) | 2 | (B+N+A) |
| M | (B+A) | 3 | (B+D+N+A) |

EXAMPLE
MF160T3C4R-LNSN-M030C-STD0-M43D1 = Metric System, End Feed, 160 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, No Meter Location, Standard Accessory Package, No Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Silver, No Tape Marking, M43 Meter, with Display, LLD-Standard Milivolt

ABOVE FEED UNITS

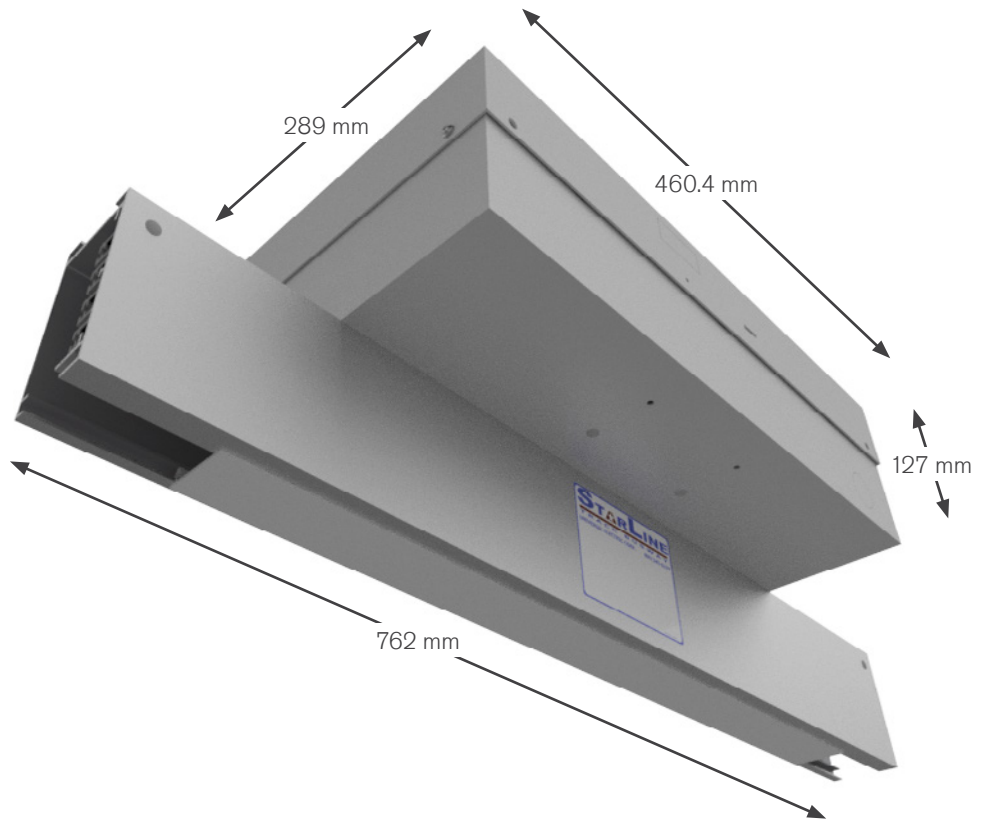
Product Description

The above feed power unit comes as a completely pre-wired steel box to the top of a 762 millimeter 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*).

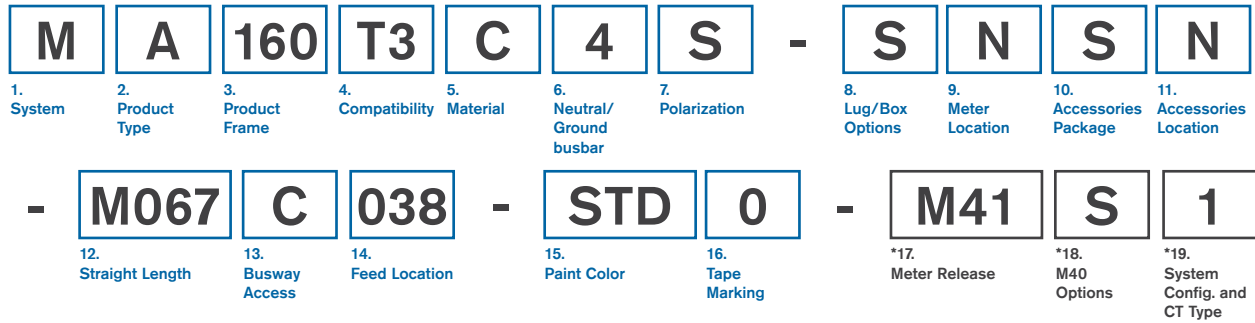
Weight

7.5 kg

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



ABOVE FEED UNITS: PRODUCT NUMBERS



| |
|--|
| 1. System <i>(standard of measure)</i> |
| M Metric |
| 2. Product Type <i>(section component)</i> |
| A Above Feed |
| 3. Product Frame <i>(maximum amperage)</i> |
| 160 160 amps |
| 4. Compatibility <i>(frame compatibility)</i> |
| T3 T3 Series |
| 5. Material <i>(busbar material)</i> |
| C Copper |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> |
| 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 <i>(orientation of section for mating purposes)</i> |
| S Standard R Reversed |
| 8. Lug/Box Options <i>(standard/double/bolt lugs and box size)</i> |
| S Standard lugs, Standard box L Standard lugs, Large box |
| 9. Meter Location <i>(from the terminal, side with removable lid)</i> |
| R Right L Left N None (N/A) |
| 10. Accessories Package <i>(optional accessories for feed units)</i> |
| S Standard |
| 11. Accessories Location <i>(from the terminal, side with removable lid)</i> |
| N None (N/A) R Right A Rear |
| L Left T Top F Front |
| 12. Straight Length <i>(length of section)</i> |
| M076 .76 meters |

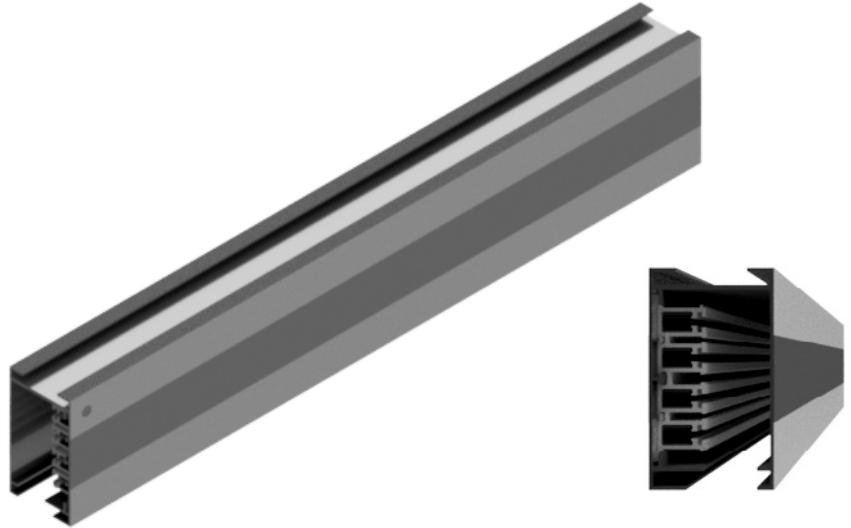
| |
|---|
| 13. Busway Access <i>(how plugs access the busway)</i> |
| C Continuous |
| 14. Feed Location <i>(location of the center of the top feed)</i> |
| 038 38 centimeters <i>(For other lengths, consult the factory)</i> |
| 15. Paint Color <i>(allows painting of the busway housing)</i> |
| STD Factory Mill Finish RED Paint Factory Red |
| BLK Paint Factory Black BLU Paint Factory Blue |
| WHT Paint Factory White **RAL (PLEASE SEE PAGE 3.35) |
| 16. Tape Marking <i>(colored tape on both sides of busway housing)</i> |
| 0 None 6 Tape Factory Red |
| 3 Tape Factory Black 7 Tape Factory Blue |
| 4 Tape Factory White 8 Tape Factory Green |
| *17. Meter Release <i>(M40 Series Meters)</i> |
| M41 WiFi, ≤415V Y, ≤240V Δ |
| M43 No WiFi, ≤415V Y, ≤240V Δ |
| M45 WiFi, 600V Y, 347V Δ |
| M47 No WiFi, 600V Y, 347V Δ |
| *18. M40 Options <i>(choose from a 4.1" display, measured neutral, audible alarm and/or a temperature monitor)</i> |
| S Standard (M60s also) F Featured (D+A) |
| D Display (M60s also) E Enhanced (N+A) |
| N (Measured) Neutral P Professional (D+N) |
| A Audible Alarm U Ultimate (D+N+A) |
| *19. System Configuration and CT Type <i>(line-line or line-neutral and wye or delta systems)</i> |
| 1 LLD - Standard, Milivolt K LLD - SC, 5A |
| 2 LLY - Standard, Milivolt L LLY - SC, 5A |
| 3 LNY - Standard, Milivolt M LNY - SC, 5A |

EXAMPLE
MA160T3CFS-LNSN-M076C038-STD0 = Metric System, Above Feed, 160 amps, T3 Series, 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, .76 meter Straight Length, Continuous Busway Access, 38 centimeter Feed Location, Painted Factory Silver, No Tape Marking

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist 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, 415 Volt. Busway joint connections are made using a joint kit, which includes a housing coupler and bus connector. An installation tool is used to insert the bus connector in between the busbar channels of the two sections for a solid spring-tempered electrical connection. A housing coupler is then used to make a solid mechanical connection.



Material

Extruded Aluminum

Ratings

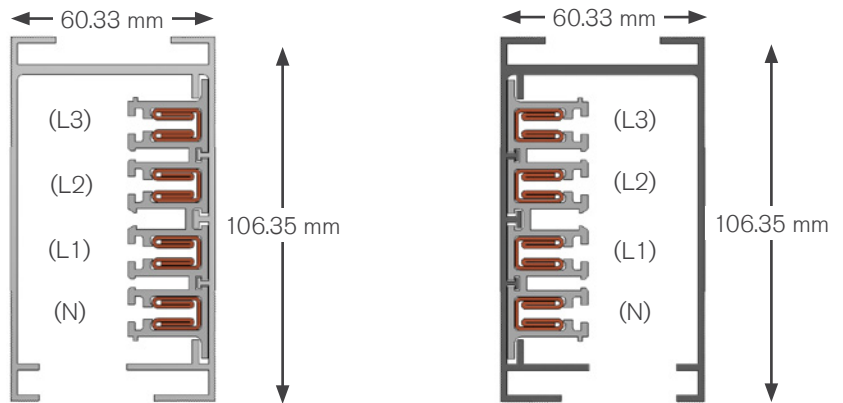
100% Protective Earth
225 Amp, 600 Volt






Length

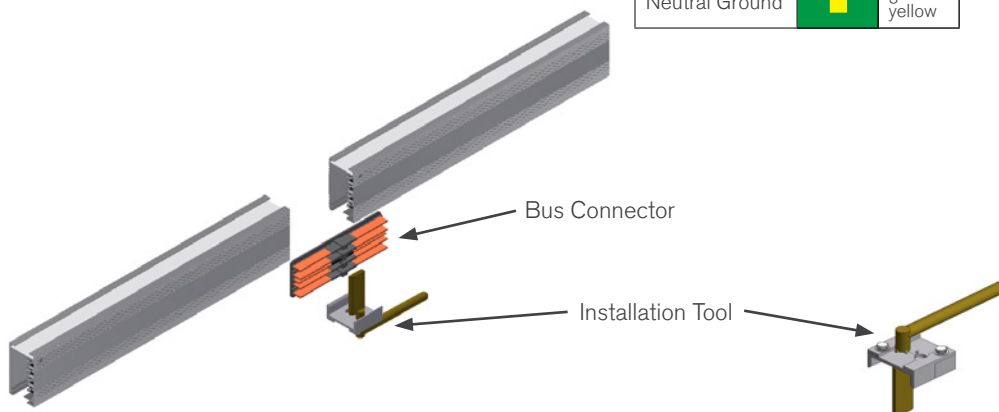
1.5 m, 3 m, 6 m; or custom lengths between 1.5 - 6 m

Weight

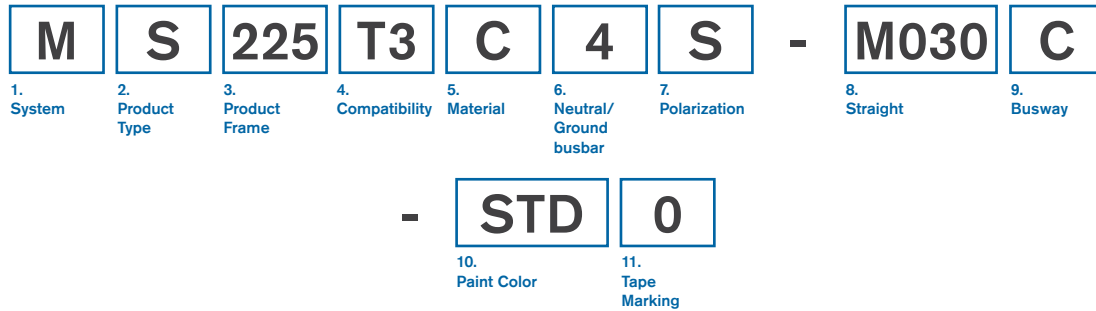
3m 4 pole: 15 kg



| Metric | | |
|----------------|---|------------------|
| L1 or Phase A |  | brown |
| L2 or Phase B |  | black |
| L3 or Phase C |  | gray |
| L3 or Phase C |  | blue |
| Neutral Ground |  | green/ yellow |



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

M Metric

2. Product Type (section component)

S Straight Section

3. Product Frame (maximum amperage)

225 225 amps

4. Compatibility (frame compatibility)

T3 T3 Series

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)

MXYY X = meters, YY = centimeters

9. 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 3.35)**

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

0 None **6** Tape Factory Red

3 Tape Factory Black **7** Tape Factory Blue

4 Tape Factory White **8** Tape Factory Green

EXAMPLES

MS225T3C4S-M100C-STD6 = Metric System, Straight Section, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 1 meter Straight Length, Continuous Busway Access, Standard Mill Finish, Red Tape Marking

MS225T3C4S-M600C-P013 = Metric System, Straight Section, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 6 meter Straight Length, Continuous Busway Access, RAL 1001, Black Tape Marking

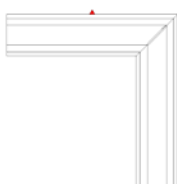
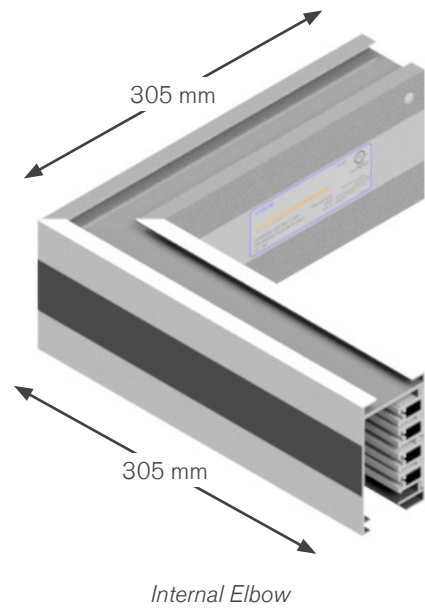
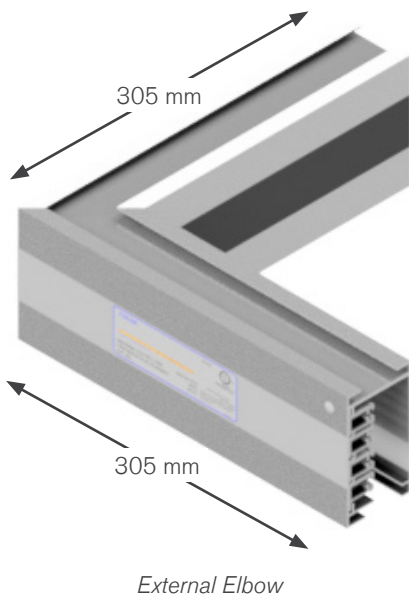
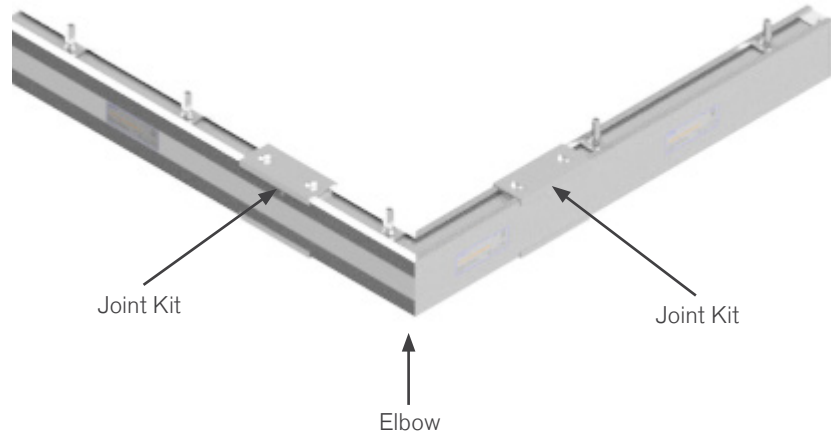
ELBOW SECTIONS

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.

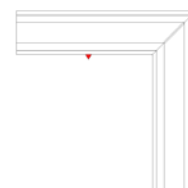
Weight

2.5 kg



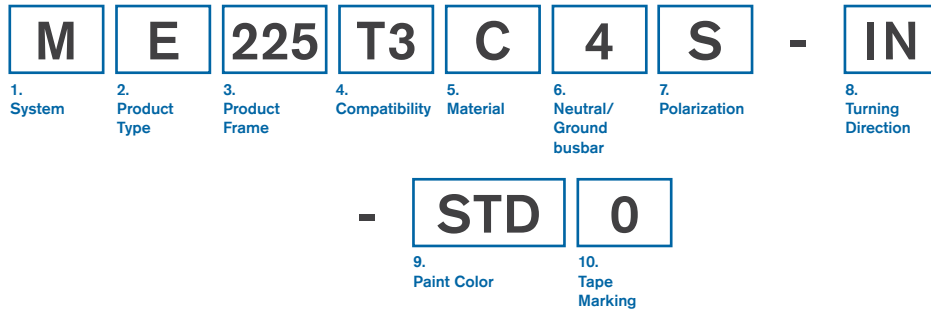
External Elbow

▲ = Polarizing Strip



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



| |
|---|
| 1. System <i>(standard of measure)</i> |
| M Metric |
| 2. Product Type <i>(section component)</i> |
| E Elbow Section |
| 3. Product Frame <i>(maximum amperage)</i> |
| 225 225 amps |
| 4. Compatibility <i>(frame compatibility)</i> |
| T3 T3 Series |
| 5. Material <i>(busbar material)</i> |
| C Copper |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> |
| 4 3 Phase plus Neutral |
| 7. Polarization <i>(orientation of section for mating purposes)</i> |
| S Standard |

| | | | |
|---|------------------|-----------|------------------|
| 8. Turning Direction <i>(direction of section polarizing stripe)</i> | | | |
| IN | Internal | EX | External |
| HN | Seismic Internal | GX | Seismic External |

| | | | |
|--|---------------------|-------------------------------------|--------------------|
| 9. Paint Color <i>(allows painting of the busway housing)</i> | | | |
| STD | Factory Mill Finish | RED | Paint Factory Red |
| BLK | Paint Factory Black | BLU | Paint Factory Blue |
| WHT | Paint Factory White | **RAL (PLEASE SEE PAGE 3.35) | |

| | | | |
|---|--------------------|----------|--------------------|
| 10. Tape Marking <i>(colored tape on both sides of busway housing)</i> | | | |
| 0 | None | 6 | Tape Factory Red |
| 3 | Tape Factory Black | 7 | Tape Factory Blue |
| 4 | Tape Factory White | 8 | Tape Factory Green |

EXAMPLES
ME225T3C4S-EX-WHT0 = Metric System, Elbow Section, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External Turning Direction, Painted Factory White, No Tape Marking
ME225T3C4S-IN-PH40 = Metric System, Elbow Section, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted RAL 5014, No Tape Marking

TEE SECTIONS

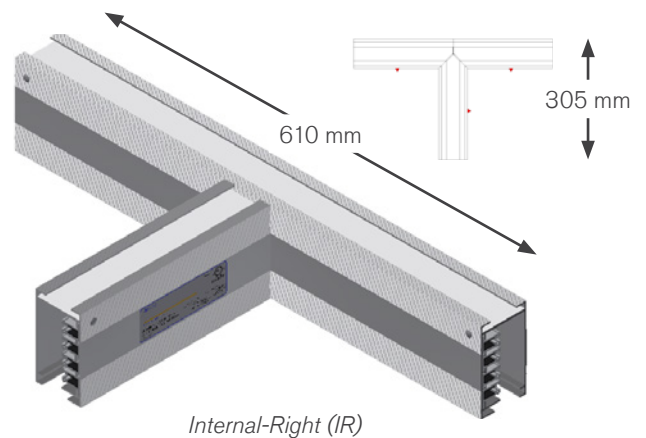
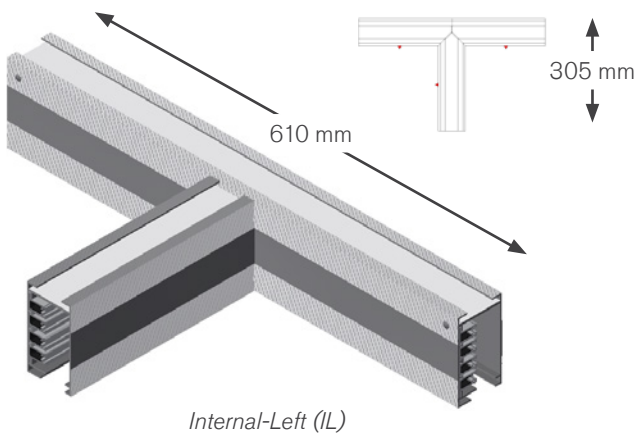
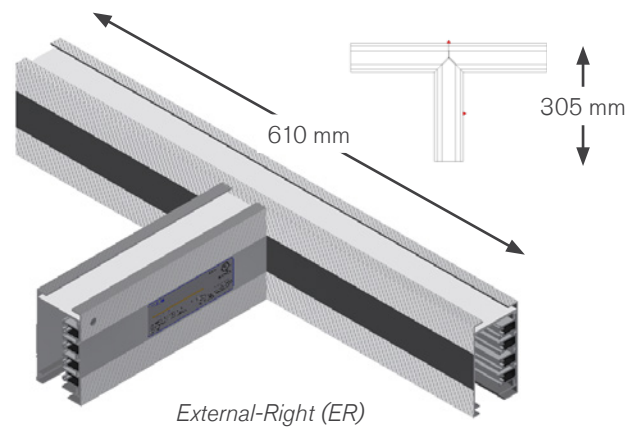
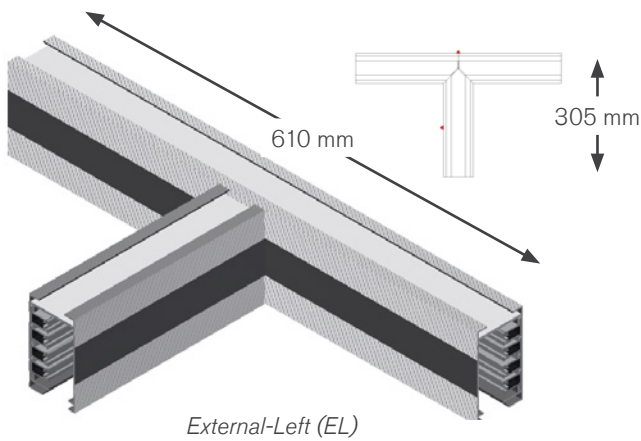
Product Description

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

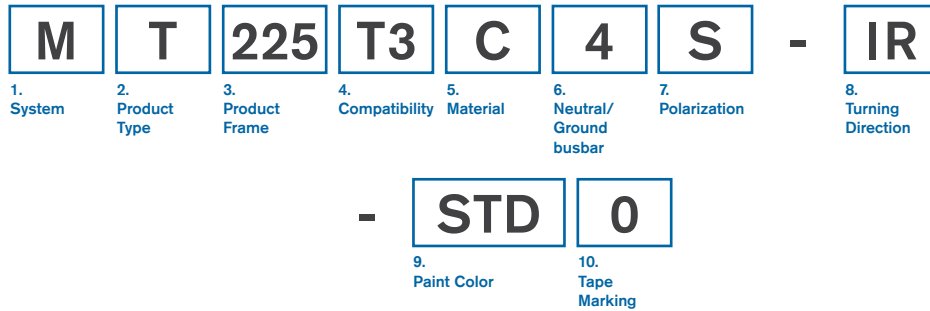
Weight

4.2 kg

▲ = Polarizing Strip



TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

M Metric

2. Product Type (section component)

T Tee Section

3. Product Frame (maximum amperage)

225 225 amps

4. Compatibility (frame compatibility)

T3 T3 Series

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)

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

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 3.35) |

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

| | |
|-----------------------------|-----------------------------|
| 0 None | 6 Tape Factory Red |
| 3 Tape Factory Black | 7 Tape Factory Blue |
| 4 Tape Factory White | 8 Tape Factory Green |

EXAMPLES

MT225T3C4S-IR-BLU0 = Metric System, Tee Section, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Blue, No Tape Marking

MT225T3C4S-EL-STD0 = Metric System, Tee Section, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, External-Left Turning Direction, Standard Mill Finish, No Tape Marking

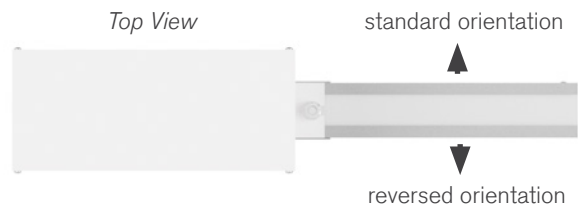
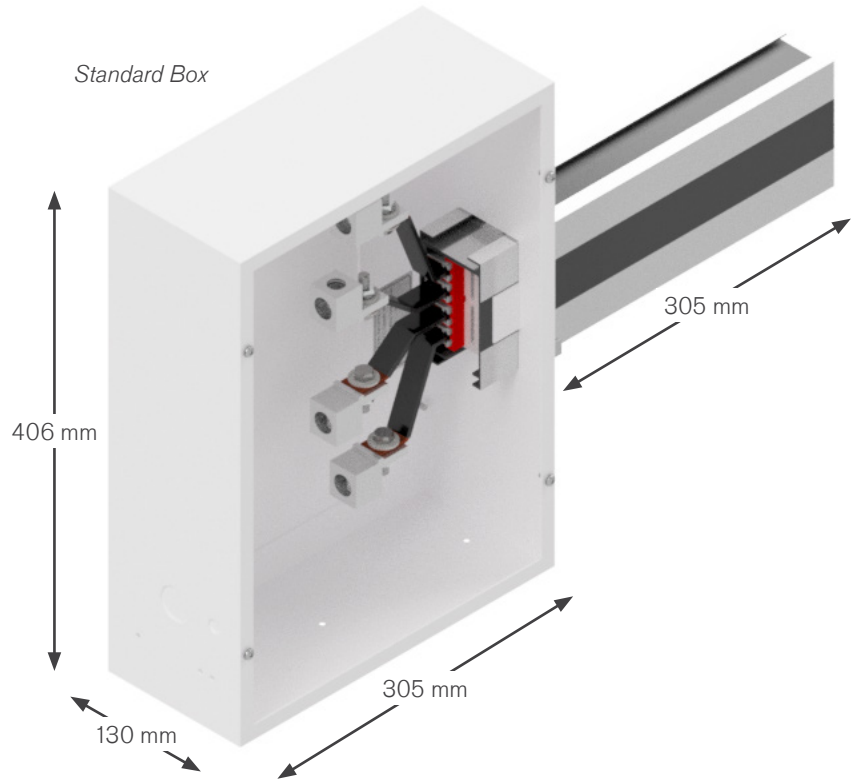
END FEED UNITS

Product Description

Standard end power feed units connect to the end of the busway. Factory assembled unit consists of a steel junction box, with removable side, connected to a 305 millimeter section of busway. The assembly includes connection lugs, a ground lug and shrink tubing for wires up to 150 mm².

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

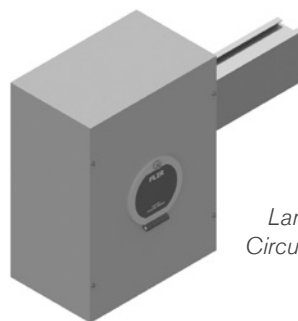
Special need power feed units for confined spaces as found in mission critical data centers can also be designed and fabricated requiring minimum quantities.



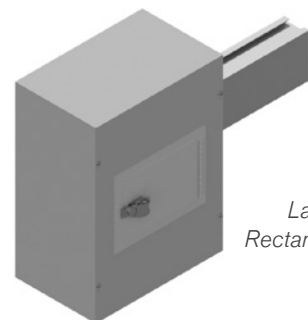
| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | L | |
| Double | D | A | |
| Bolt | | | |

Box size and Lug options:
Refer to option 8. Lug/Box Options on **PAGE 3.31** End Feed Units: Product Numbers

Infrared (IR) Window options
Refer to option 10. Accessories Package on **page 3.31** End Feed Units: Product Numbers



Large Box with Circular IR Window



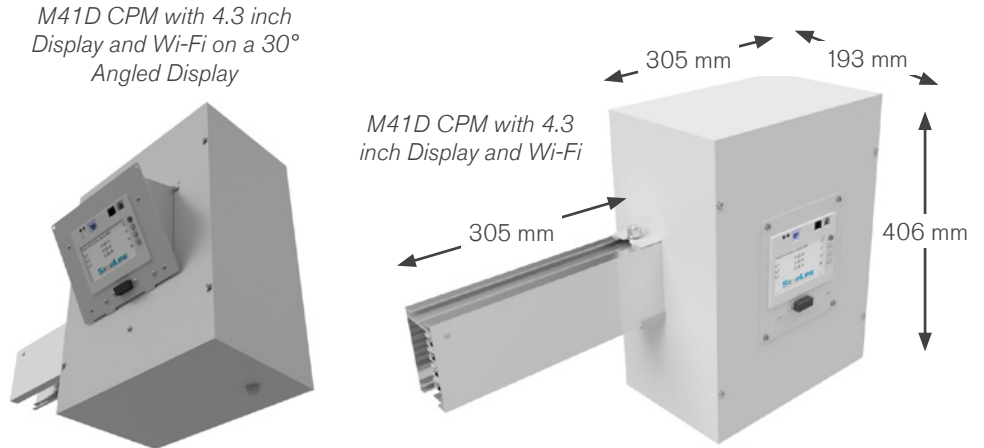
Large Box with Rectangular IR Window

END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the busway. A factory assembled unit consists of a steel junction box, with removable sides, connected to a 305 millimeter section of busway. The assembly includes connection lugs, a ground lug, and shrink tubing for wires up to 150 mm².

Integral CPM installed in the end feed provides power monitoring and alarm capabilities. The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



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

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

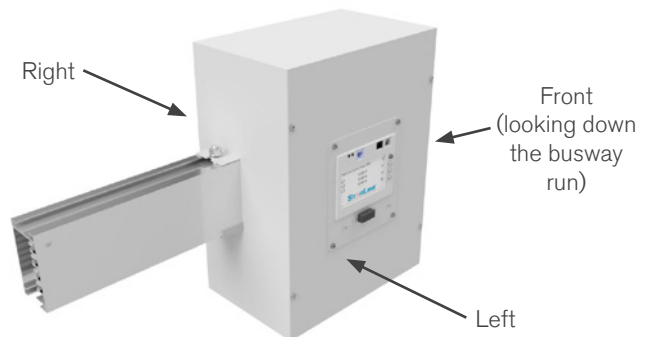
A meter and accessory can not be on the same lid.

AC End Feed Meter Options

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

DC End Feed Meter Options

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

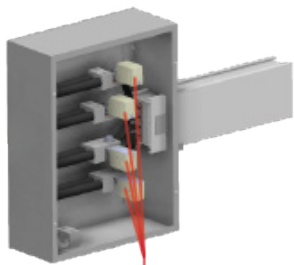


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 3.31** End Feed Units: Product Numbers)

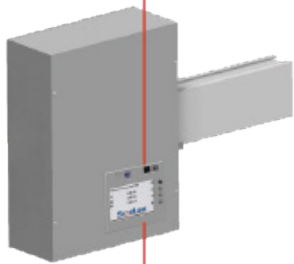
END FEED UNITS: ACCESSORIES

Temperature Monitor

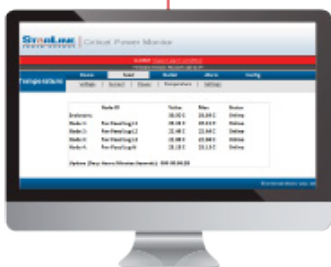
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Wired or wireless nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

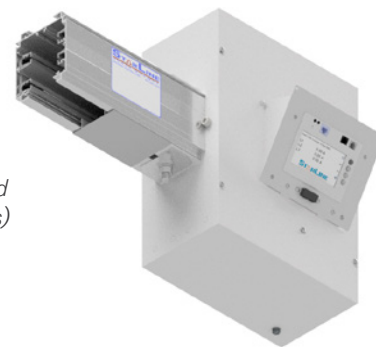
Wireless Temperature Monitor

(Refer to option 17. M40 Options on **page 3.32** End Feed Units: Product Numbers)

Angled Meter Lid

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

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

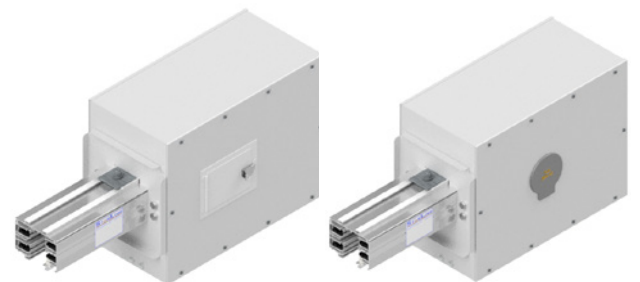


(Refer to option 10. Accessories Package on **page 3.31** End Feed Units: Product Numbers)

IR Windows

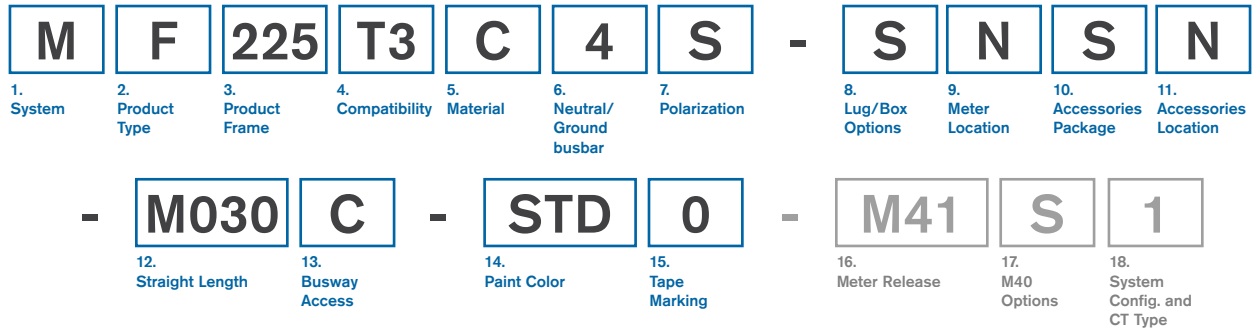
IR windows added to End Feeds offer:

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



(Refer to option 10. Accessories Package on **page 3.31** End Feed Units: Product Numbers)

END FEED UNITS: PRODUCT NUMBERS



- 1. System** *(standard of measure)*
M Metric
- 2. Product Type** *(section component)*
F End Feed
- 3. Product Frame** *(maximum amperage)*
225 225 amps
- 4. Compatibility** *(frame compatibility)*
T3 T3 Series
- 5. Material** *(busbar material)*
C Copper
- 6. Neutral/Ground Busbar** *(size of neutral busbar and/or ground)*
4 3 Phase plus Neutral
- 7. Polarization** *(orientation of section for mating purposes)*
S Standard **R** Reversed
- 8. Lug/Box Options** *(standard/double/bolt lugs and box size)*
S Standard lugs, Standard box **D** Double lugs, Standard box
L Standard lugs, Large box **A** Double lugs, Large box
- 9. Meter Location** *(from the terminal, side with removable lid)*
R Right **L** Left
N None (N/A)

- 10. Accessories Package** *(optional accessories for feed units)*

| | |
|---|--|
| S Standard | R IR Window - Rectangular |
| C IR Window - Circular | A Angled Meter Lid |
| T IR (rect.) + Angled Lid | L IR (circ.) + Angled Lid |
| O Seismic Mounting | D Seismic with IR Window - Circular |
| Q Seismic with IR Window - Rectangular | |
- 11. Accessories Location** *(from the terminal, side with accessory)*

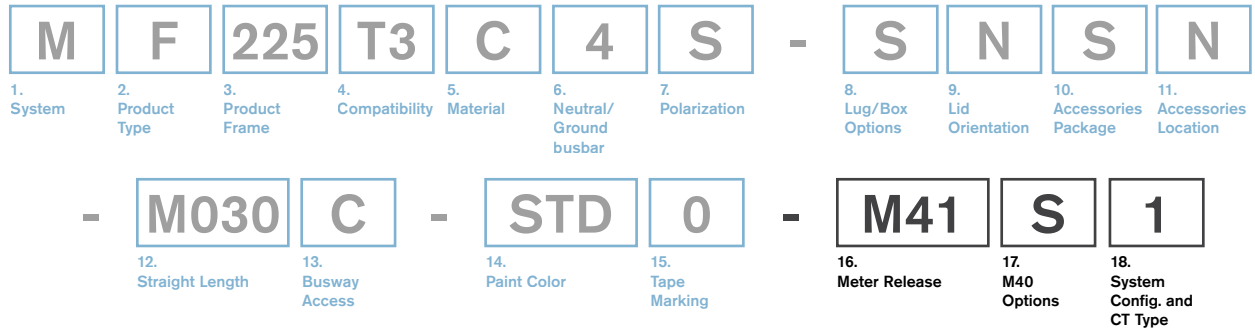
| | |
|---------------------|---|
| N None (N/A) | R Right |
| L Left | F Front <i>(consult the factory)</i> |
- 12. Straight Length** *(length of section)*
M030 .3 meters *(For other lengths, consult the factory)*
- 13. Busway Access**
C Continuous
- 14. Paint Color** *(allows painting of the busway housing)*

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 3.35) |
- 15. Tape Marking** *(colored tape on both sides of busway housing)*

| | |
|-----------------------------|-----------------------------|
| 0 None | 6 Tape Factory Red |
| 3 Tape Factory Black | 7 Tape Factory Blue |
| 4 Tape Factory White | 8 Tape Factory Green |

EXAMPLE
MF225T3C4R-DRSN-M030C-BLK0 = Metric System, End Feed, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Double Lugs, Standard Box, Right Meter Location, Standard Accessory Package, No Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking

END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

| | | | |
|----------|--|----------|--------------|
| 1 | LLD - Standard, Milivolt | K | LLD - SC, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - SC, 5A |
| 3 | LNy - Standard, Milivolt | M | LNy - SC, 5A |
| 1 | Circuit 1 Only, Solid Core (M60s only) | | |
| 2 | Circuit 2 Only, Solid Core (M60s only) | | |
| 3 | Both Circuits, Solid Core (M60s only) | | |

*17. Meter Options (M40 AC)

| | | | |
|----------|------------------------------|----------|--------------------|
| S | Standard (M60s also) | F | Featured (D+A) |
| D | Display (M60s also) | E | Enhanced (N+A) |
| N | (Measured) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| T | Wireless Temperature Monitor | G | (T+D) |
| H | (T+N) | J | (T+A) |
| Q | (T+D+N) | K | (T+D+A) |
| L | (T+N+A) | R | (T+D+N+A) |
| B | Wired Temperature Monitor | W | (B+D+N) |
| V | (B+N) | 1 | (B+D+A) |
| C | (B+D) | 2 | (B+N+A) |
| M | (B+A) | 3 | (B+D+N+A) |

EXAMPLE
MF225T3C4R-DRSN-M030C-BLK0-M45D1 = Metric System, End Feed, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Double Lugs, Standard Box, Right Meter Location, Standard Accessory Package, No Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M45 Meter, with Display, LLD-Standard, Milivolt

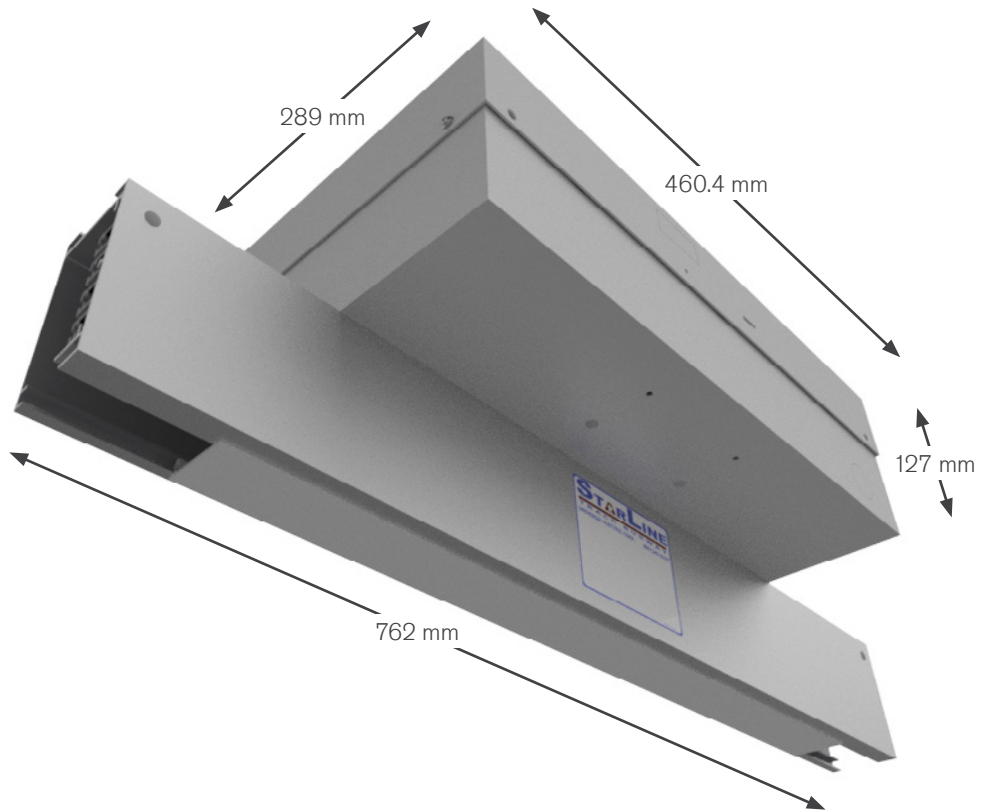
ABOVE FEED UNITS

Product Description

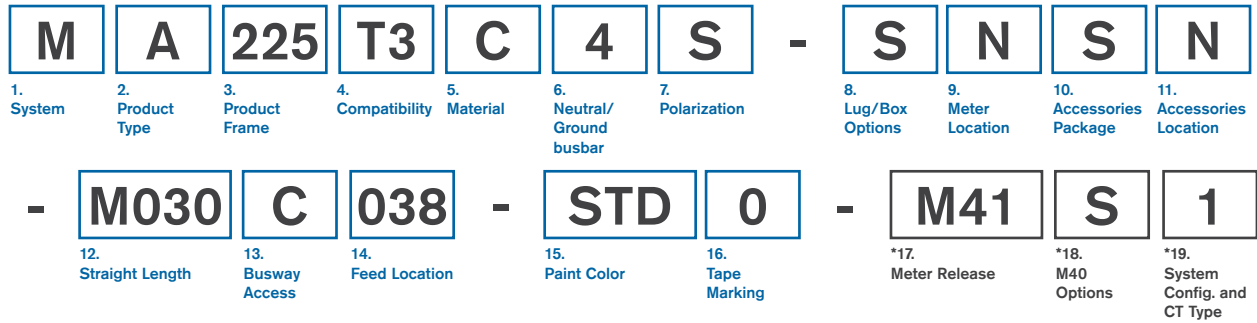
The above feed power unit comes as a completely pre-wired steel box to the top of a 762 millimeter section of busway. A connection lug is located inside the box for field termination of supply power cable up to 1/0. This unit is then connected to the end of an adjoining busway section using an installation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

Weight

7.5 - 10.4 kg



ABOVE FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)

M Metric

2. Product Type (section component)

A Above Feed

3. Product Frame (maximum amperage)

225 225 amps

4. Compatibility (frame compatibility)

T3 T3 Series

5. Material (busbar material)

C Copper

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

4 3 Phase plus Neutral

7. Polarization (orientation of section for mating purposes)

S Standard **R** Reversed

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

S Standard lugs, Standard box **L** Standard lugs, Large box

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

R Right **L** Left **N** None (N/A)

10. Accessories Package (optional accessories for feed units)

S Standard

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

N None (N/A) **R** Right **A** Rear
L Left **T** Top **F** Front

12. Straight Length (length of section)

M076 .76 meters

13. Busway Access (how plugs access the busway)

C Continuous

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

038 38 centimeters (For other lengths, consult the factory)

15. 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 3.35)**

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

0 None **6** Tape Factory Red
3 Tape Factory Black **7** Tape Factory Blue
4 Tape Factory White **8** Tape Factory Green

*17. Meter Release (M40 Series Meters)

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

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

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

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

1 LLD - Standard, Milivolt **K** LLD - SC, 5A
2 LLY - Standard, Milivolt **L** LLY - SC, 5A
3 LNY - Standard, Milivolt **M** LNY - SC, 5A

EXAMPLE
MA225T3C4R-SNSN-M076C038-STD0 = Metric System, Above Feed, 225 amps, T3 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, No Meter Location, Standard Accessory Package, No Accessory Location, .76 meters Straight Length, Continuous Busway Access, 38 centimeter Feed Location, Painted Factory Silver, No Tape Marking

RAL COLORS

1st Character

| | |
|---|-------|
| P | Paint |
|---|-------|

2nd Character

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

3rd Character

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

4th Character

| | |
|---|---|
| 0 | 0 |
|---|---|

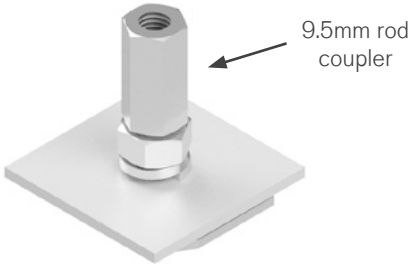
Example:
P B 2 0 = Paint RAL 3012

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 3 meters maximum.

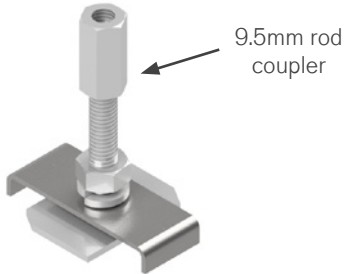
Part Number
MBRH-M10
Available in plain zinc
or black (-BLK)
Weight
.14 kg



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. Hanger support is required every 3 meters maximum.

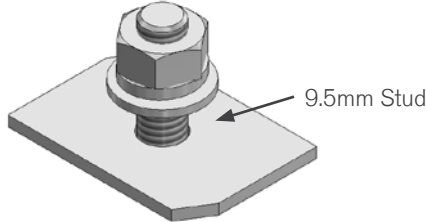
Part Number
MBRS-M10
Available in plain zinc
or black (-BLK)
Weight
.14 kg



Standard

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

Part Number
MBH-M10
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Weight Hook

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

Part Number
SWHRT3
Available in plain zinc
Weight
.09 kg

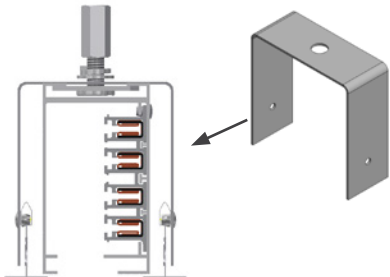


Recessed Suspended Ceilings

For hanging busway into a recessed ceiling.

**Hanger bolt must be ordered separately*

Part Number
SRMT3-1
Available in plain zinc

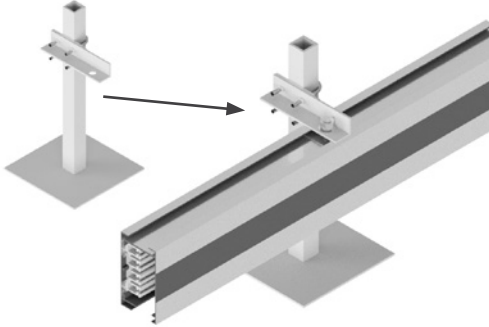


ACCESSORIES: SUPPORT HARDWARE

Raised Access Floor

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

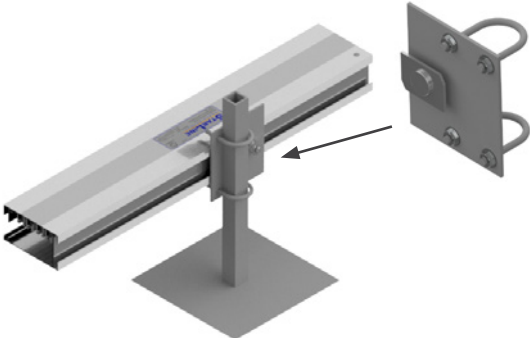
Part Number
MRFBT3-1
*MBH-M10 comes included
Available in plain zinc
or black (-BLK)



Raised Mounting Bracket

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

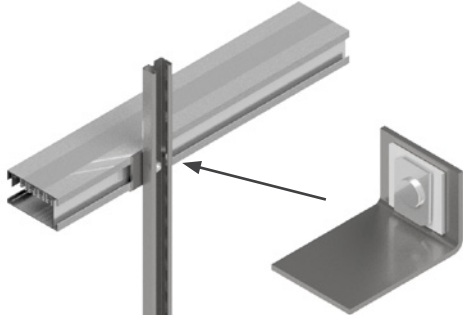
Part Number
MRFBT3-2
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Side Mount Brackets

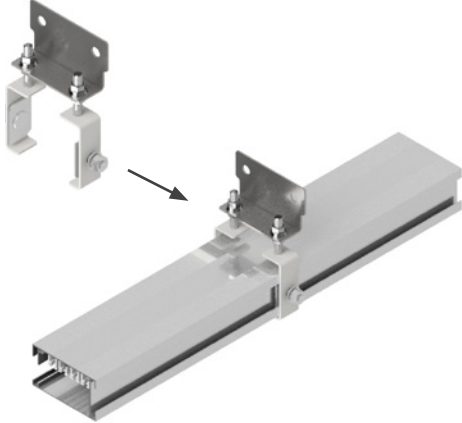
Mounted to vertical supports. Vertical supports not included, only bracket.

Part Number
MBSS-1
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Mounted to overhead supports.

Part Number
MBH-T3-SIDE
Available in plain zinc
or black (-BLK)
Weight
.59 kg



ACCESSORIES: SUPPORT HARDWARE

Universal Server Cabinet Mounting Brackets

The Universal Server Cabinet Mounting Brackets are designed with generous 3/8 inch (9.5 millimeter) 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 – MBH-M10

Material

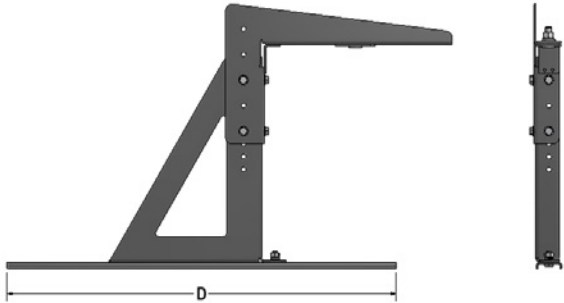
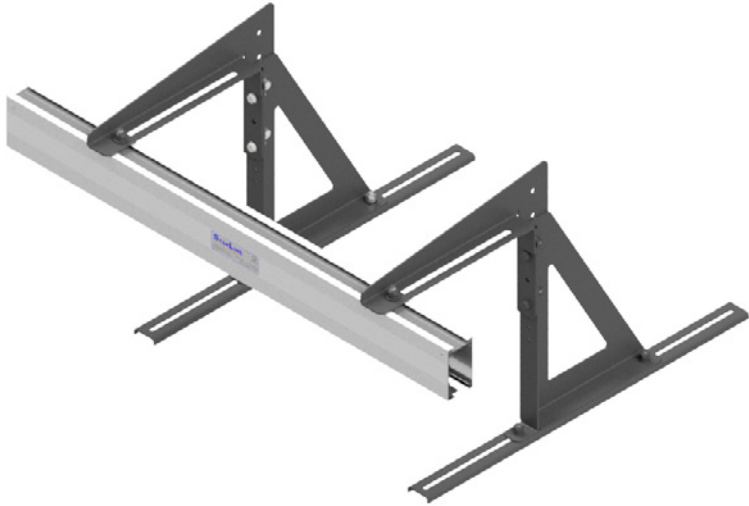
Galvanneal Steel

Height

449 mm Min
603 mm Max

Maximum Spacing

Every 3 m per run



| C: Color (1, 3, 4, 6, 7) | |
|------------------------------------|-----------------|
| 1- | Anodized Silver |
| 3- | Black |
| 4- | White |
| 6- | Red |
| 7- | Blue |
| *consult factory for custom colors | |

| <i>Part Number</i> MUSCMB-(X)-(D)-(C) | |
|---|--|
| X = System (T3) | |
| D = Depth (762 mm, 914 mm, 1067 mm, 1219 mm or custom length) | |
| C = Color (1, 3, 4, 6, 7) | |
| EXAMPLES | |
| MUSCMB-T3-762-4 = Metric System, Universal Server Cabinet Mounting Bracket, T3 Series, 762 millimeter Depth, White | |
| MUSCMB-T3-1219-3 = Metric System, Universal Server Cabinet Mounting Bracket, T3 Series, 1219 millimeter Depth, Black | |

ACCESSORIES: CONNECTION HARDWARE

Joint Kit

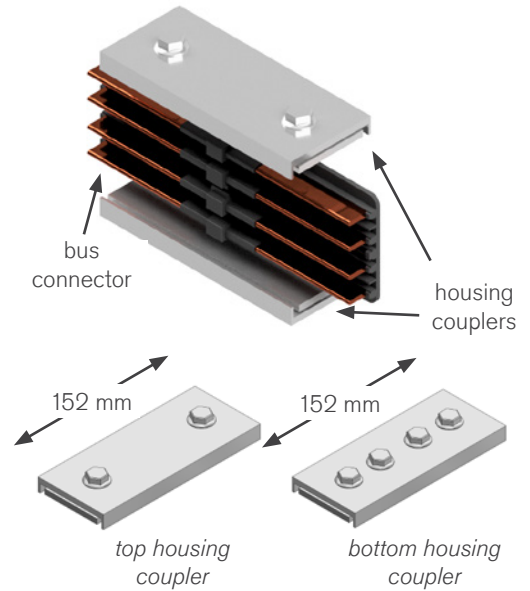
For the connection of adjacent busway sections. One kit is required at each joint. Each kit is comprised of a housing coupler pair and bus connector set.

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

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

**Installation tool is required (pg. 3.40)*

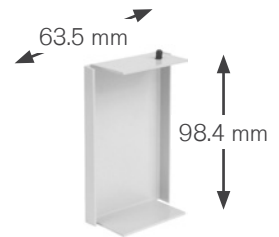
- Part Number*
 SJK160T3 (for 100 amp systems)
 SJK160T3G (for 100 amp systems with ground)
 SJK160T3N (for 100 amp systems with 200% neutral)
 SJK160T3F (for 100 amp systems with ground and 200% neutral)
 SJK225T3 (for 225 amp systems)
 Available in all standard and RAL colors



End Cap

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

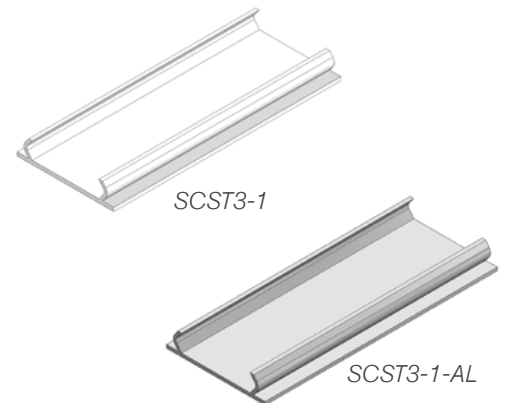
- Part Number*
 SECT3
 Available in all standard and RAL colors
 Weight: .09 kg



Optional Closure Strip

Snaps into bottom access slot of busway housing. The optional closure strip is normally shipped in 6 meter lengths and can be field cut to fit exact desired length. The closure strip is offered in both non-conductive plastic material and aluminum.

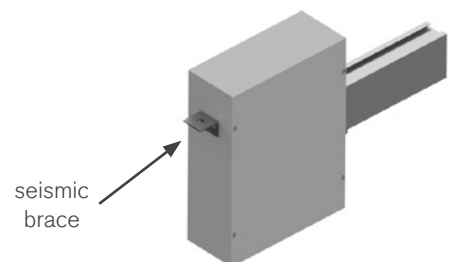
- Part Number*
 SCST3-1
 Aluminum closure strip:
 SCST3-1-AL
 -Plastic Closure Strip available in black & white
 -Aluminum Closure Strip available in all standard colors
 Maximum Cut Length: 6m



End Feed Seismic Brace

For seismic applications, the end feed seismic brace bolts on to the end feed, to be used with threaded rod for gravity hanger.

- Part Number*
 SEFB-SIL



ACCESSORIES: INSTALLATION TOOL**Installation Tool**

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

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

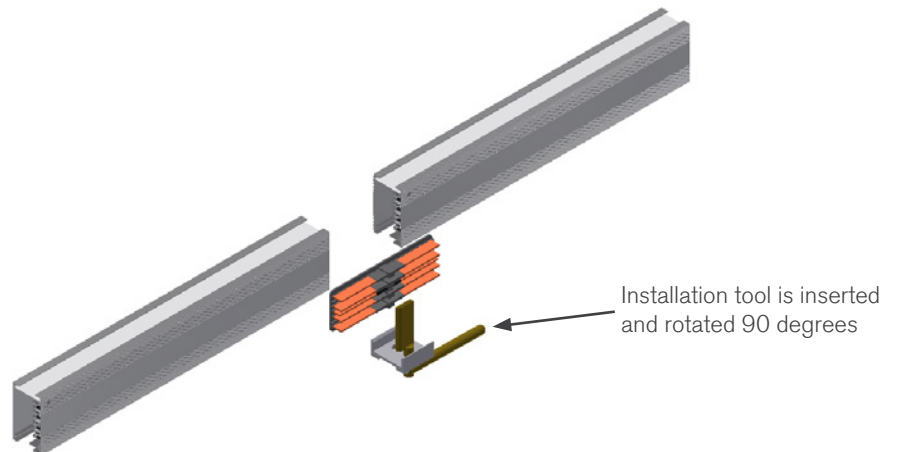
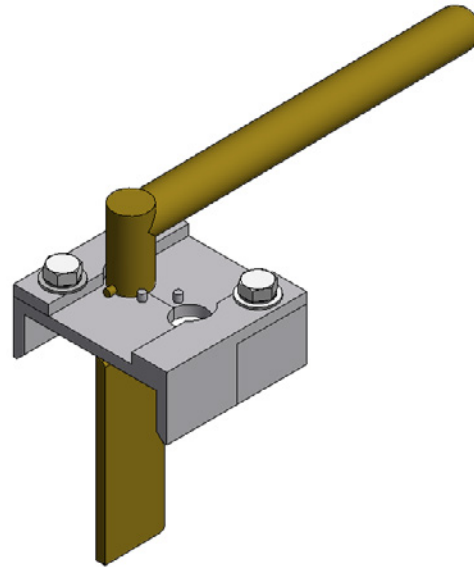
Weight

1.1 kg

Part Number (for all T3 systems)

ST3IT

No available colors



SERVICES

Starline Services offers a comprehensive suite of services from startup and system certification through on-going support contracts and extended warranty programs. To ensure that your Busway system is installed properly you can trust Starline's team of factory certified technicians to perform services throughout the long life of your Starline Track Busway system. Our complete line of services include:

- Load Bank Testing and Equipment Rentals
- Meter Services
- Startup and System Certification
- Engineering Studies
- On-Site Installation Support
- On-Site Product Training
- Extended Warranty and Enhanced Service Plans

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.

With over 30 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level. We are currently offering the following services:

Load Bank Testing and Equipment Rentals

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

Meter Services

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

Startup and System Certification

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

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

Engineering Studies (US Only)

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

Turnkey Installation Services (UK Only)

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

SERVICES

On-Site Installation Support

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

On-Site Product Training

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

Extended Warranty and Enhanced Service Plans

Ensure that your equipment investment is always covered. Select from an extended factory warranty or one of our many Enhanced Service Plans to meet your organizational requirements. Contact your Starline Representative today to add services to your Track Busway order, or download detailed Statement of Work documents at downloads.starlinepower.com/services.

| Choice of Extended Warranty or Enhanced: Silver, Gold or Platinum Service Plans | Extended 1, 2, 3, 4 years | Silver 1, 2, 3, 4 years | Gold 1, 2, 3, 4 years | Platinum 2, 3, 4 years |
|--|--|--|--------------------------------------|---------------------------------------|
| Repair or replacement of defective parts throughout life of service agreement | X | X | X | X |
| 24/7 technical support hotline | X | X | X | X |
| Visual inspection of meters | | X | X | X |
| Visual inspection of all joints for visible gaps | | X | X | X |
| Update firmware and verify all Starline CPMs | | X | X | X |
| Includes travel and expenses | | X | X | X |
| One (1) service site visit per year | | X | | |
| Two (2) service site visits per year | | | X | X |
| Thermal imaging of all plug-in units | | | X | X |
| Thermal imaging of all Busway joints | | | X | X |
| Thermal imaging of all end feed units | | | X | X |
| Detailed and fully executed thermography report | | | X | X |
| Online portal for test reports & documentation | | | X | X |
| Spare parts inventory management program | | | | X |

T5 SPECS & INTRODUCTION

Specs

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

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

IEC 61439-1, 61439-6

CCC GB7251.6-2015

CSA C22.2 No. 27

NMX-J-148-1998-ANCE

UL 857, Ed. 13

Low Voltage Directive - 2014/35/EC

RoHS Directive - 2011/65/EU

*All standards and certifications available upon request

Introduction

Starline is the leader in electrical power distribution in the mission critical, commercial and light industrial applications with Starline Track Busway. This system was designed to meet the rugged specification of IEC 61439, General Rules & Busway Trunking Systems, with the flexible features of track lighting - and is available in systems with 250, 400, 630, 800, 1000 & 1250 amps with case, dedicated or isolated earth.

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.

International Busway (Global vs. Metric)

Starline Track Busway Global series has been specifically designed and manufactured to meet IEC 61439-1 and IEC 61439-6 international standards for busway trunking systems. The Global busway system is lighter, more compact, and is compatible with Starline's fully customizable T5 tap-off units.

Starline's Metric series is a robust busway that meets the requirements of both UL 857 and IEC 61439-1,6. It carries industry leading short-circuit capabilities and electrical ratings.

Both systems can be specified utilizing this selection guide.

T5 TABLE OF CONTENTS

T5 SERIES

EARTH/GROUND OPTIONS.....4.4
POLARITY TIPS.....4.5
SYSTEM LAYOUT TIPS.....4.6
COMPONENT RELATIONSHIP TIPS4.7

250T5 SYSTEMS

SYSTEM LAYOUT DRAWING.....4.8
STRAIGHT SECTIONS4.9
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....4.10
ELBOW SECTIONS4.11
 ELBOW SECTIONS: PRODUCT NUMBERS4.12
TEE SECTIONS4.13
 TEE SECTIONS: PRODUCT NUMBERS.....4.14
END FEED UNITS4.15
 END FEED UNITS: METERING.....4.16
 END FEED UNITS: ACCESSORIES.....4.17
 END FEED UNITS: PRODUCT NUMBERS.....4.18
 END FEED METERING: PRODUCT NUMBERS.....4.19
ABOVE FEED UNITS4.20
 ABOVE FEED UNITS: PRODUCT NUMBERS4.21

400T5 SYSTEMS

SYSTEM LAYOUT DRAWING.....4.22
STRAIGHT SECTIONS.....4.23
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....4.24
ELBOW SECTIONS4.25
 ELBOW SECTIONS: PRODUCT NUMBERS4.26
TEE SECTIONS4.27
 TEE SECTIONS: PRODUCT NUMBERS.....4.28
END FEED UNITS4.29
 END FEED UNITS: METERING.....4.30
 END FEED UNITS: ACCESSORIES.....4.31
 END FEED UNITS: PRODUCT NUMBERS.....4.32
 END FEED METERING: PRODUCT NUMBERS.....4.33
ABOVE FEED UNITS4.34
 ABOVE FEED UNITS: PRODUCT NUMBERS4.35

630T5 SYSTEMS

SYSTEM LAYOUT DRAWING.....4.36
STRAIGHT SECTIONS4.37
 STRAIGHT SECTIONS: PRODUCT NUMBERS.....4.38
ELBOW SECTIONS4.39
 ELBOW SECTIONS: PRODUCT NUMBERS4.40
TEE SECTIONS4.41

T5 TABLE OF CONTENTS

| | |
|---|------|
| TEE SECTIONS: PRODUCT NUMBERS..... | 4.42 |
| END FEED UNITS | 4.43 |
| END FEED UNITS: METERING..... | 4.44 |
| END FEED UNITS: ACCESSORIES..... | 4.45 |
| END FEED UNITS: PRODUCT NUMBERS..... | 4.46 |
| END FEED METERING: PRODUCT NUMBERS..... | 4.47 |

800T5 SYSTEMS

| | |
|---|------|
| SYSTEM LAYOUT DRAWING..... | 4.48 |
| STRAIGHT SECTIONS..... | 4.49 |
| STRAIGHT SECTIONS: PRODUCT NUMBERS..... | 4.50 |
| ELBOW SECTIONS | 4.51 |
| ELBOW SECTIONS: PRODUCT NUMBERS | 4.52 |
| TEE SECTIONS | 4.53 |
| TEE SECTIONS: PRODUCT NUMBERS..... | 4.54 |
| END FEED UNITS | 4.55 |
| END FEED UNITS: METERING..... | 4.56 |
| END FEED UNITS: ACCESSORIES..... | 4.57 |
| END FEED UNITS: PRODUCT NUMBERS..... | 4.58 |
| END FEED METERING: PRODUCT NUMBERS..... | 4.59 |

1000T5 SYSTEMS

| | |
|---|------|
| SYSTEM LAYOUT DRAWING..... | 4.60 |
| STRAIGHT SECTIONS | 4.61 |
| STRAIGHT SECTIONS: PRODUCT NUMBERS..... | 4.62 |
| ELBOW SECTIONS | 4.63 |
| ELBOW SECTIONS: PRODUCT NUMBERS | 4.64 |
| END FEED UNITS | 4.65 |
| END FEED UNITS: METERING..... | 4.66 |
| END FEED UNITS: ACCESSORIES..... | 4.67 |
| END FEED UNITS: PRODUCT NUMBERS..... | 4.68 |
| END FEED METERING: PRODUCT NUMBERS..... | 4.69 |

1250T5 SYSTEMS

| | |
|---|------|
| SYSTEM LAYOUT DRAWING..... | 4.70 |
| STRAIGHT SECTIONS | 4.71 |
| STRAIGHT SECTIONS: PRODUCT NUMBERS..... | 4.72 |
| ELBOW SECTIONS | 4.73 |
| ELBOW SECTIONS: PRODUCT NUMBERS | 4.74 |
| END FEED UNITS | 4.75 |
| END FEED UNITS: METERING..... | 4.76 |
| END FEED UNITS: ACCESSORIES..... | 4.77 |
| END FEED UNITS: PRODUCT NUMBERS..... | 4.78 |
| END FEED METERING: PRODUCT NUMBERS..... | 4.79 |

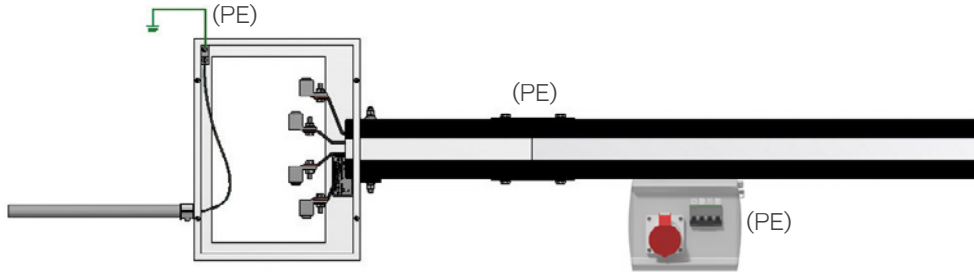
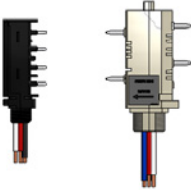
T5 TABLE OF CONTENTS

T5 ACCESSORIES

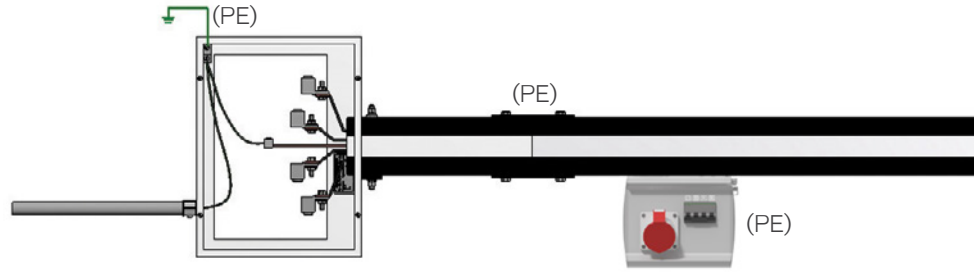
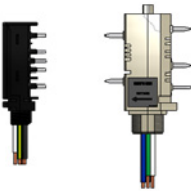
RAL COLORS 4.80
ACCESSORIES: SUPPORT HARDWARE 4.81
ACCESSORIES: CONNECTION HARDWARE 4.84
ADD-ON ACCESSORIES: DATA CHANNEL 4.86
SERVICES..... 4.88

EARTH/GROUND OPTIONS

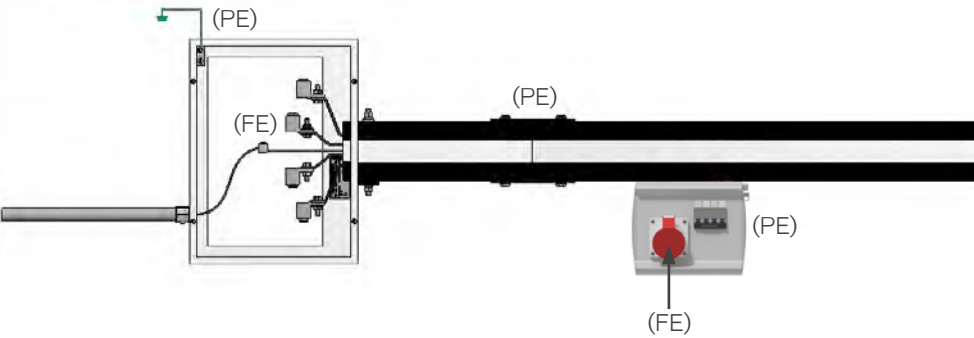
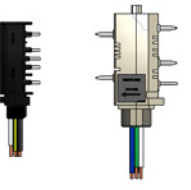
Case Ground/Chassis Earth
Uses aluminum housing and no extra copper bar.



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



Isolated Ground/Earth
Case ground isolated from copper ground bar. Isolated ground carried back to panel by others.



*For further details about Dedicated Earth vs. Isolated Earth, please reference our “Metric: Isolated Earth (IG) vs. Dedicated Earth (DG)” tech brief on downloads.starlinepower.com

POLARITY TIPS

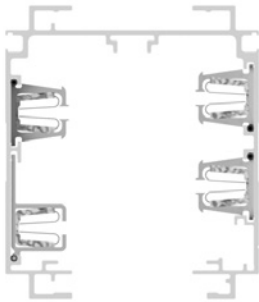
Starline utilizes a unique polarizing method to prevent mismatched components from being inadvertently connected to each other. The system is designed to prevent cross phasing during installation.

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.

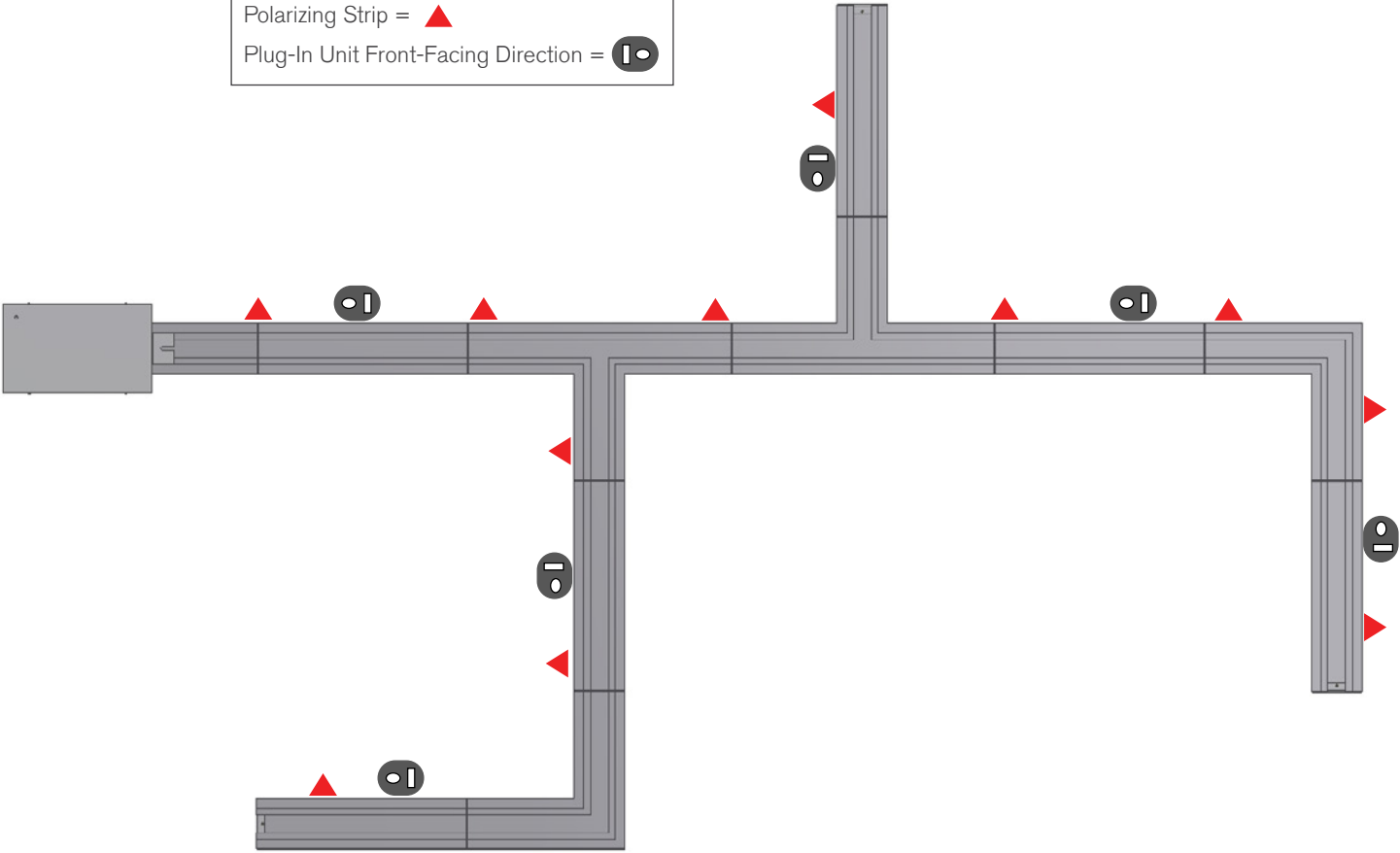


A standard plug-in unit will always face the polarizing strip



Polarizing Strip

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



SYSTEM LAYOUT TIPS

Power Feeds

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

Support Hardware

Support hardware is spaced no more than 3 meters apart. Refer to **PAGE 4.81** for support hardware details. Contact your local Starline applications engineer for any questions.

Installation

Printed installation drawings are supplied with each system shipment and they are also available for download online at downloads.starlinepower.com. 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 1.5 meter, 3 meter, and 6 meter increments (except for 800T5, 1000T5 and 1250T5 where the max length is 3 meters). Although the factory can cut individual Starline Track Busway sections to any length under 6 meters, it is highly recommended to keep all layout runs in increments of 1.5 meters 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.

COMPONENT RELATIONSHIP TIPS

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

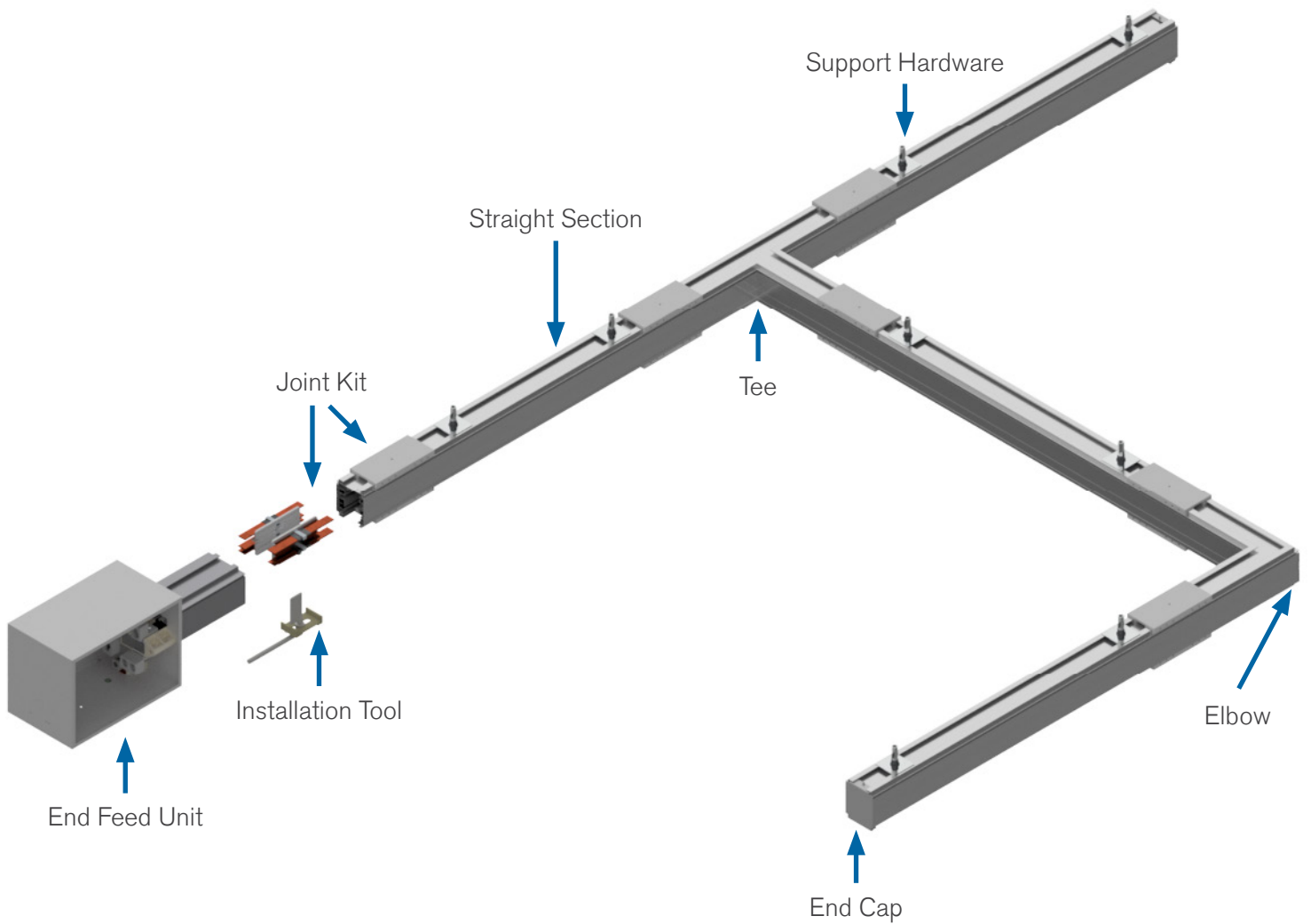
Examples

- 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:

- 3 meter maximum spacing between supports and we recommend 10% more than the required quantity to cover potential layout changes. Seismic mounts and supports will differ from the standard. Please consult the factory for details.
- Total power feeds and end caps can be determined by counting the total number of unconnected runs.
- Before specifying or ordering elbow or tee connectors, it is important to understand polarity and the relationship to direction of outlets. Please refer to **page 4.5** Polarity Tips for more detail.

SYSTEM LAYOUT DRAWING



Plug-In Units

For further information on applicable T5 plug-in unit options, please consult the factory.

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist 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 protective earth. 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 earth, 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 maintenance-free, “spring-pressure” electrical connection.

Material

Extruded Aluminum

Ratings

100% Protective Earth
 250 Amps
 250T5C4/250T5CG: 415 Volt
 250T5CN/250T5CF: 415 Volt

Length

3 m, 6 m; or custom lengths between .6 - 6 m

Global System Weight

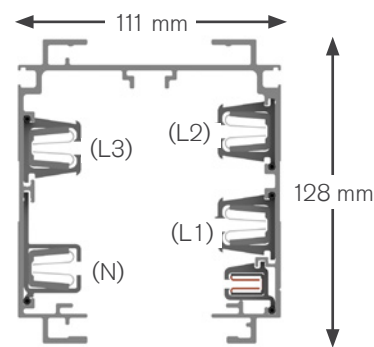
3 m 4 pole: 18.6 kg
 3 m 4 pole w/ ground: 20.9 kg
 3 m 4 pole w/ 200% N: 21.3 kg
 3 m 4 pole w/ ground & 200% N: 23.1 kg

Metric System Weight

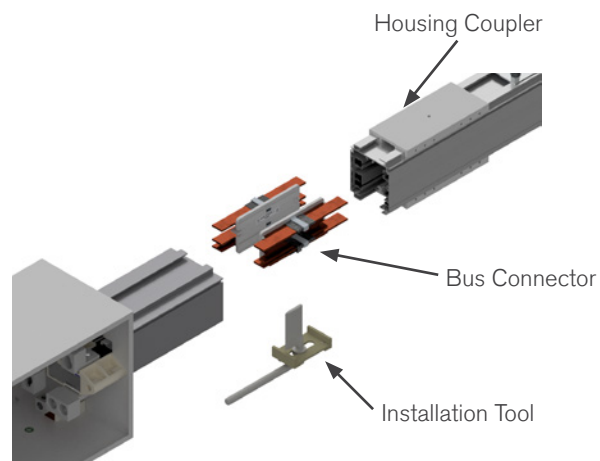
3 m 4 pole: 21.3 kg
 3 m 4 pole w/ ground: 23.6 kg
 3 m 4 pole w/ 200% N: 24.7 kg
 3 m 4 pole w/ ground & 200% N: 26.5 kg



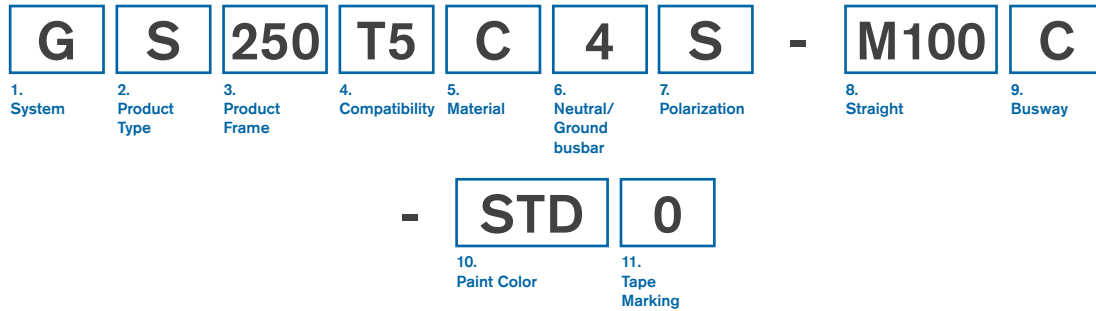
GLOBAL & METRIC SYSTEM



| Metric | | |
|----------------|--|------------------|
| L1 or Phase A | | brown |
| L2 or Phase B | | black |
| L3 or Phase C | | gray |
| L3 or Phase C | | blue |
| Neutral Ground | | green/ yellow |



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

G Global **M** Metric

2. Product Type (section component)

S Straight Section

3. Product Frame (maximum amperage)

250 250 amps

4. Compatibility (frame compatibility)

T5 T5 Series **K5** T5 Series (Limiting Strip)

5. Material (busbar material)

C Copper

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

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

7. Polarization (orientation of section for mating purposes)

S Standard

8. Straight Length (length of section)

MXYY X = meters, YY = centimeters

9. 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 4.80) | |

***Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems*

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

| | | | |
|----------|--------------------|----------|---------------------|
| 0 | None | 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

GS250T5C4S-M300C-STD0 = Global System, Straight Section, 250 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 3 meter Straight Length, Continuous Busway Access, Painted Factory Silver, No Tape Marking

MS250T5CNS-M275C-BLU0 = Metric System, Straight Section, 250 amps, T5 Series, Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization, 2.75 meter Straight Length, Continuous Busway Access, Painted Factory Blue, No Tape Marking

ELBOW SECTIONS

Product Description

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

Connection Accessories

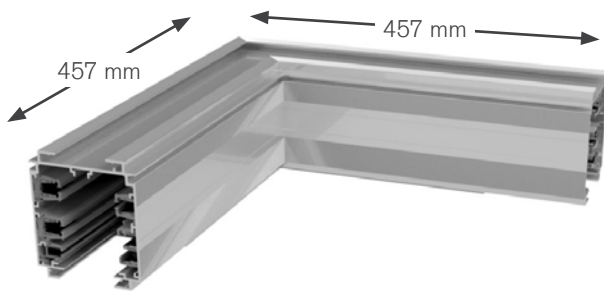
A joint kit (**PAGE 4.84**) is used to make mechanical and electrical connections to adjacent busway sections. (*ordered separately*)

Global System Weight

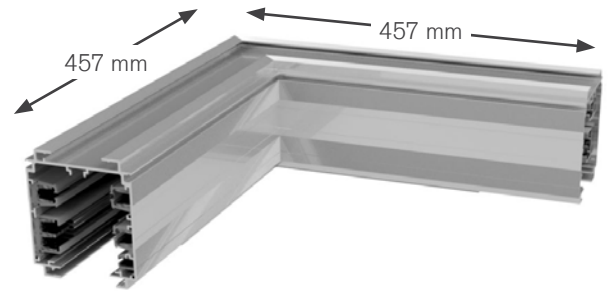
6.6 kg

Metric System Weight

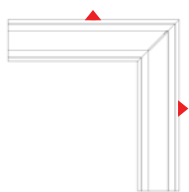
7.2 kg



External Elbow

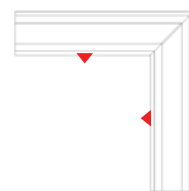


Internal Elbow



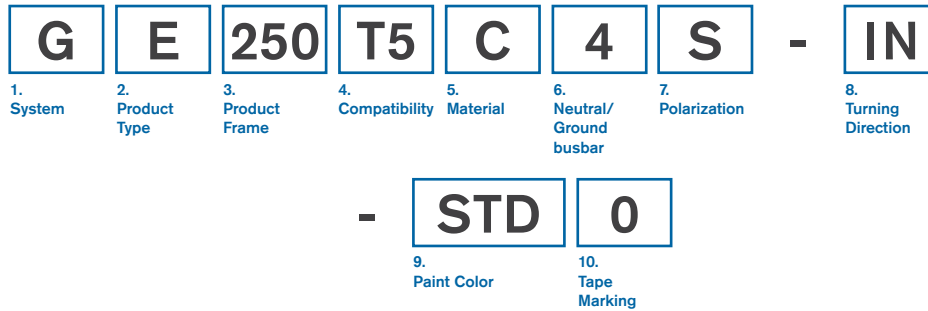
External Elbow

▲ = Polarizing Strip



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



| | |
|---|---|
| 1. System <i>(standard of measure)</i> | |
| G Global | M Metric |
| 2. Product Type <i>(section component)</i> | |
| E Elbow Section | |
| 3. Product Frame <i>(maximum amperage)</i> | |
| 250 250 amps | |
| 4. Compatibility <i>(frame compatibility)</i> | |
| T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | |
| C Copper | |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | |
| 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 <i>(orientation of section for mating purposes)</i> | |
| S Standard | |

| | | | |
|---|--|----------------------------|--|
| 8. Turning Direction <i>(direction of section polarizing stripe)</i> | | | |
| IN Internal | | EX External | |
| HN Seismic Internal | | GX Seismic External | |

| | | | |
|--|--|-------------------------------------|--|
| 9. Paint Color <i>(allows painting of the busway housing)</i> | | | |
| STD Factory Mill Finish | | RED Paint Factory Red | |
| BLK Paint Factory Black | | BLU Paint Factory Blue | |
| WHT Paint Factory White | | **RAL (PLEASE SEE PAGE 4.80) | |
| **Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems | | | |

| | | | |
|---|--|------------------------------|--|
| 10. Tape Marking <i>(colored tape on both sides of busway housing)</i> | | | |
| 0 None | | 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

GE250T5C4S-IN-BLU4 = Global System, Elbow Section, 250 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Black, Factory White Tape Marking

ME250T5CGS-EX-STD0 = Metric System, Elbow Section, 250 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral plus Isolated/Dedicated Ground, Standard Polarization, External Turning Direction, Factory Mill Finish, No Tape Marking

TEE SECTIONS

Product Description

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

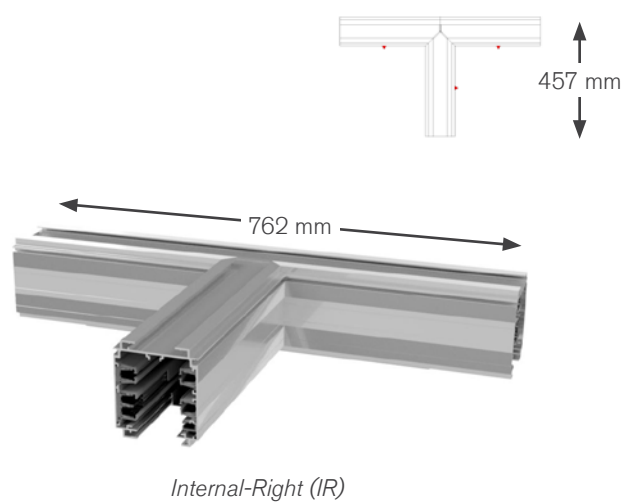
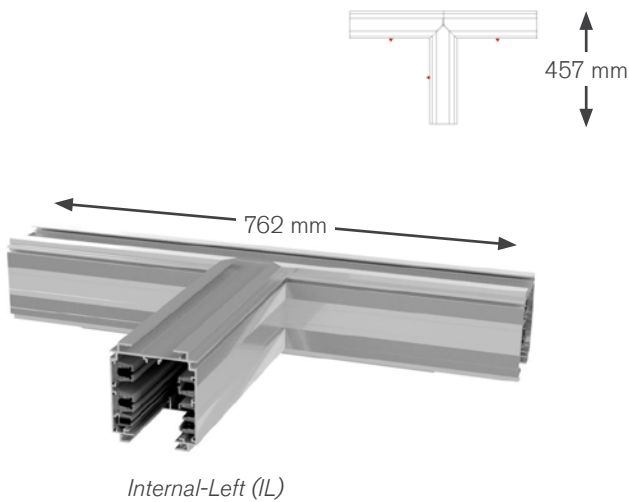
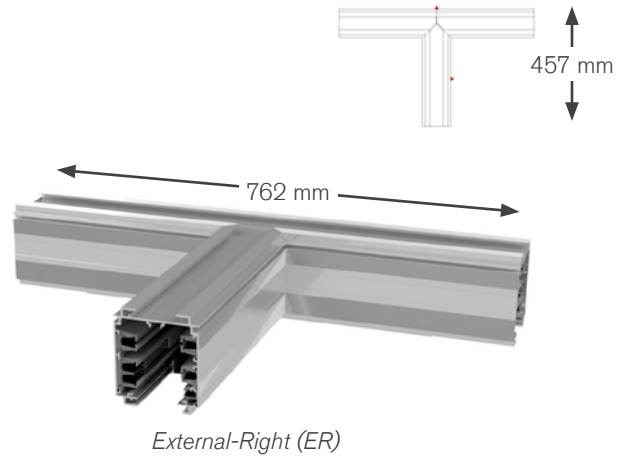
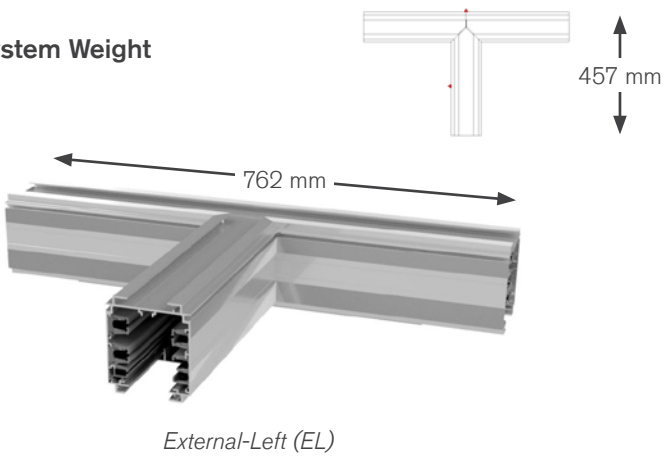
Global System Weight

8.8 kg

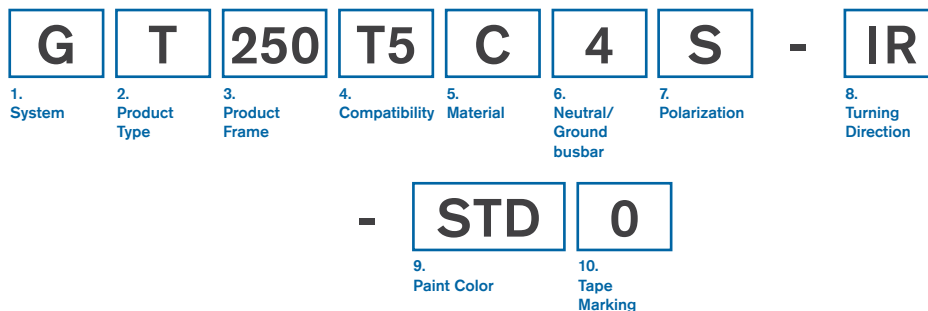
Metric System Weight

9.5 kg

▲ = Polarizing Strip



TEE SECTIONS: PRODUCT NUMBERS



| | |
|---|---|
| 1. System <i>(standard of measure)</i> | |
| G Global | M Metric |
| 2. Product Type <i>(section component)</i> | |
| T Tee Section | |
| 3. Product Frame <i>(maximum amperage)</i> | |
| 250 250 amps | |
| 4. Compatibility <i>(frame compatibility)</i> | |
| T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | |
| C Copper | |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | |
| 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 <i>(orientation of section for mating purposes)</i> | |
| S Standard | |

| | |
|--|-------------------------------------|
| 8. Turning Direction <i>(direction of section polarizing stripe)</i> | |
| IL Internal-Left | EL External-Left |
| IR Internal-Right | ER External-Right |
| HL Seismic Internal-Left | GL Seismic External-Left |
| HR Seismic Internal-Right | GR Seismic External-Right |
| 9. Paint Color <i>(allows painting of the busway housing)</i> | |
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |
| **Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems | |
| 10. Tape Marking <i>(colored tape on both sides of busway housing)</i> | |
| 0 None | 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
GT250T5C4S-IR-RED0 = Global System, Tee Section, 250 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking
MT250T5CFS-EL-STD7 = Metric System, Tee Section, 250 amps, T5 Series, 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 305 millimeter section of busway. The assembly includes connection lugs and a ground lug for wires up to 150 mm² 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).

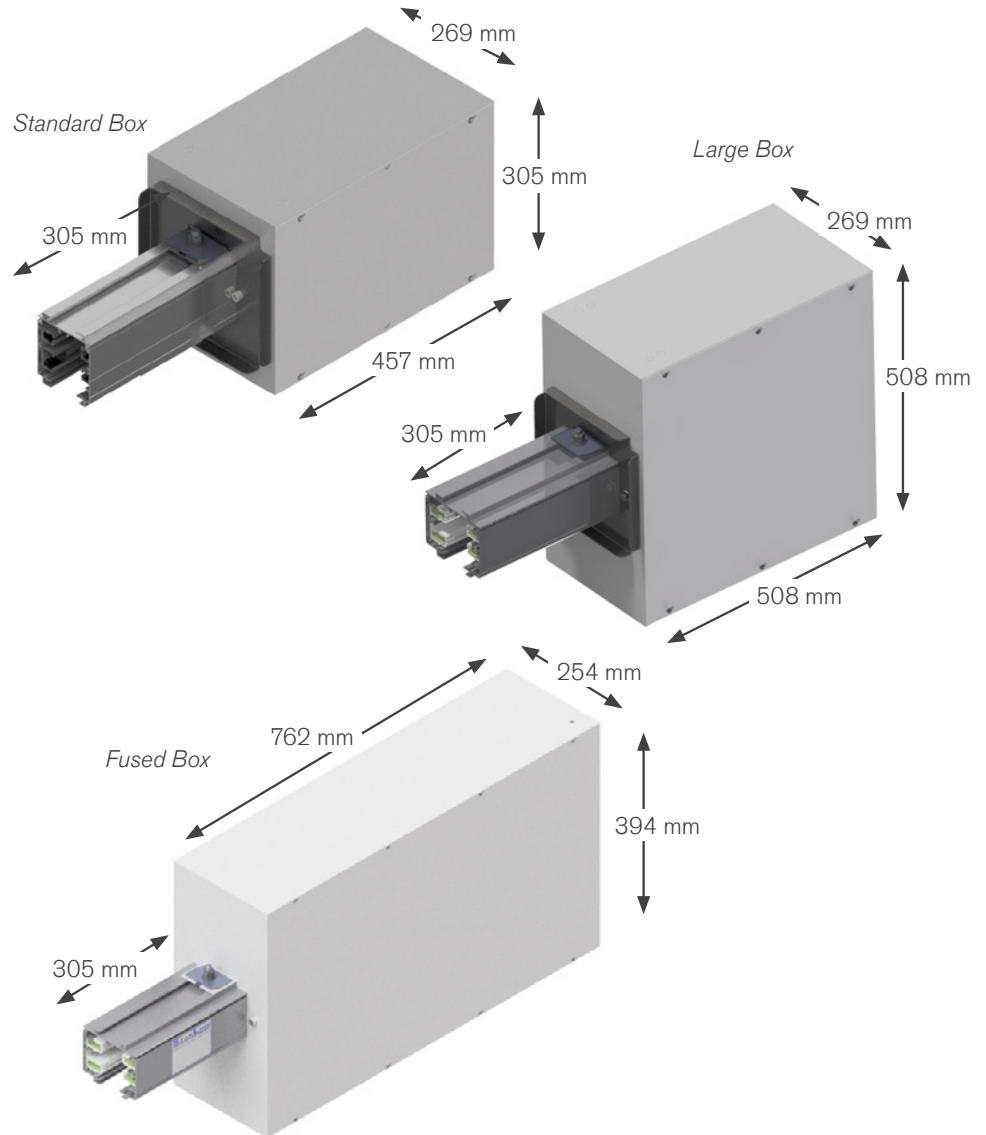
Special need power feed units for confined spaces, as found in mission critical data centers, can also be designed and fabricated but may require minimum quantities.

Global System Weight (for standard size end feed)

15 kg

Metric System Weight (for standard size end feed)

15.2 kg



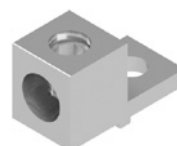
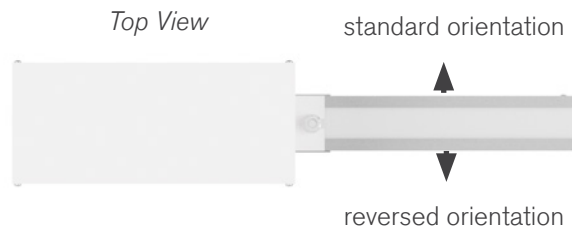
| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | L | F |
| Double | | | |
| Bolt* | B | R | |

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

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

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

Top View



Standard "S"/"L"



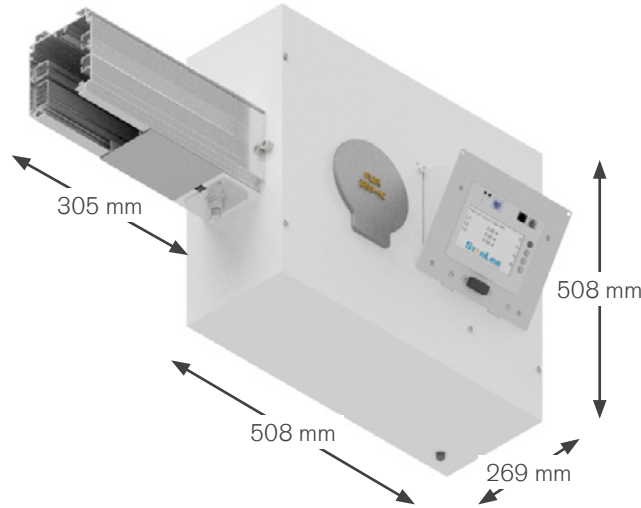
Bolt "B"/"R"

END FEED UNITS: METERING

Product Description

End power feed units connect to the end of the busway. A large size, factory assembled unit consists of a steel junction box, with removable sides, connected to a 305 millimeter section of busway. The assembly includes connection lugs, a ground lug, and shrink tubing for wires up to 150 mm² for standard size boxes and large size boxes.

The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. Once the meter is integrated, an automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



Large Box with Circular IR Window and M41D CPM with 4.3 inch Display and Wi-Fi on a 30° Angled Display

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

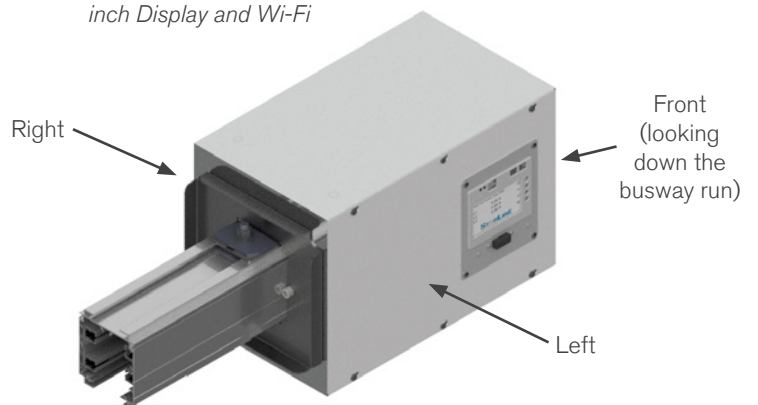
AC End Feed Meter Options:

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

DC End Feed Meter Options:

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

Standard Box with M41D CPM with 4.3 inch Display and Wi-Fi

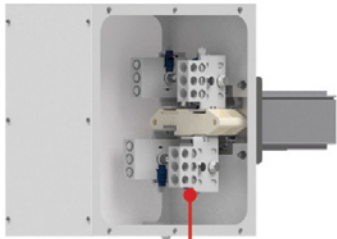


*The above arrows show how to determine your meter location on an end feed (Refer to option 9, Meter Location on **page 4.18** End Feed Units: Product Numbers)

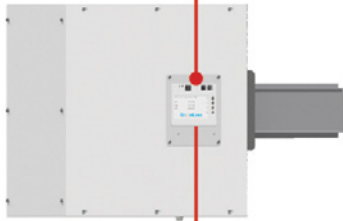
END FEED UNITS: ACCESSORIES

Temperature Monitor

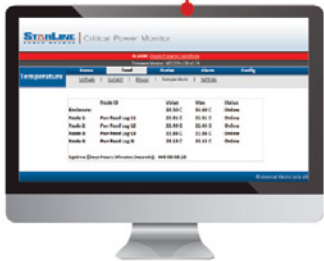
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Wired nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



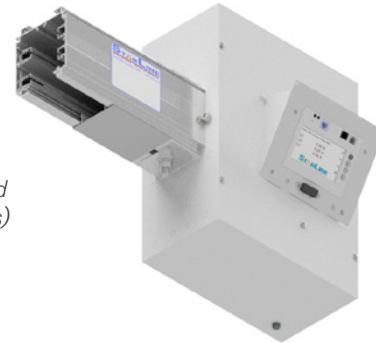
Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

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

Angled Meter Lid

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

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

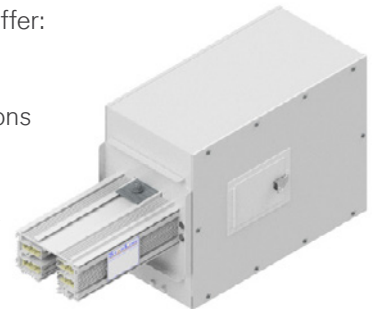


(Refer to option 10.
Accessories Package
on **page 4.18** End Feed
Units: Product Numbers)

IR Windows

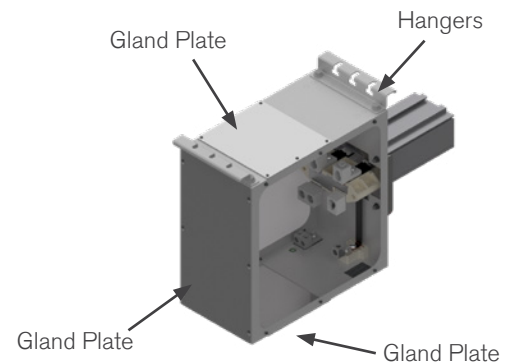
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

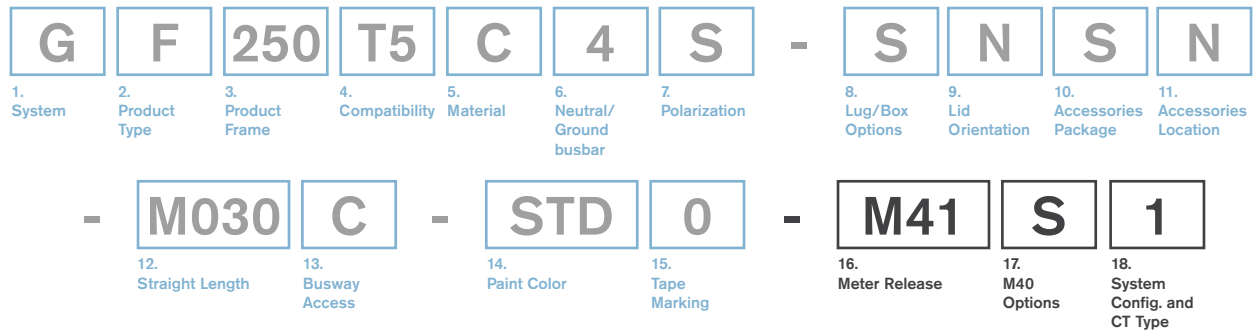


End Feed Hangers & Gland Plates

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make installation fast and easy and can be paired with other Starline end feed accessories. This option should also be chosen for seismic applications.



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

| | | | |
|----------|---|----------|---|
| 1 | LLD - Standard, Milivolt | K | LLD - Split Core, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - Split Core, 5A |
| 3 | LNY - Standard, Milivolt | M | LNY - Split Core, 5A |
| 0 | No CT's Present (<i>Temp Monitors only</i>) | 1 | Circuit 1 Only, Solid Core (<i>M60s only</i>) |
| 2 | Circuit 2 Only, Solid Core (<i>M60s only</i>) | 3 | Both Circuits, Solid Core (<i>M60s only</i>) |

*17. Meter Options (M40 AC)

| | | | |
|----------|-------------------------------|----------|--------------------|
| S | Standard (<i>M60s also</i>) | F | Featured (D+A) |
| D | Display (<i>M60s also</i>) | E | Enhanced (N+A) |
| N | (<i>Measured</i>) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| B | Temperature Monitor | C | (B+D) |
| V | (B+N) | M | (B+A) |
| W | (B+D+N) | 1 | (B+D+A) |
| 2 | (B+N+A) | 3 | (B+D+N+A) |

EXAMPLE
GF250T5C4R-LRLL-M030C-BLK0-M47S1 = Global System, End Feed, 250 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Options, LLD- Standard, Milivolt

ABOVE FEED UNITS

Product Description

The above feed power unit supplies power from the topside of the busway. Factory assembled unit consists of a 635 x 305 x 203 millimeter steel junction box that is mounted on top of a 914 millimeter section of busway.

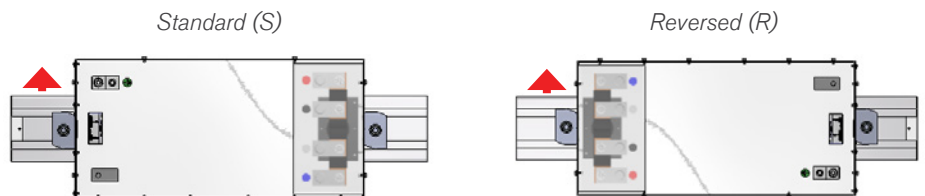
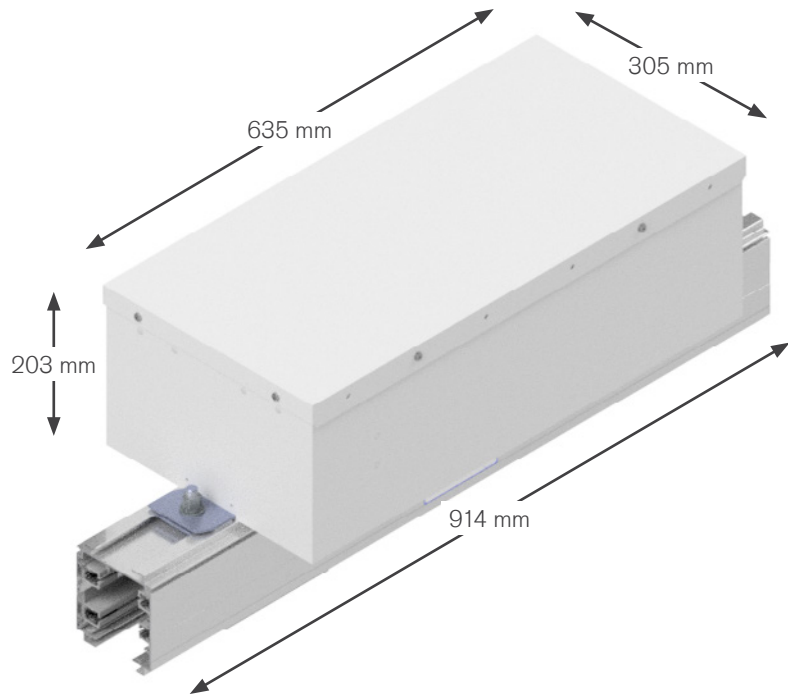
*914 millimeter is the minimum and standard length of busway that an above feed is provided with.

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.

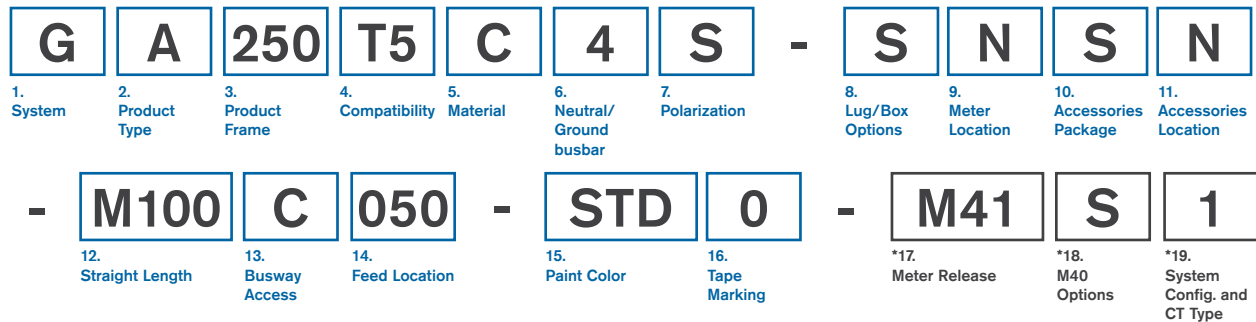
Weight

20.6 kg

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



ABOVE FEED UNITS: PRODUCT NUMBERS

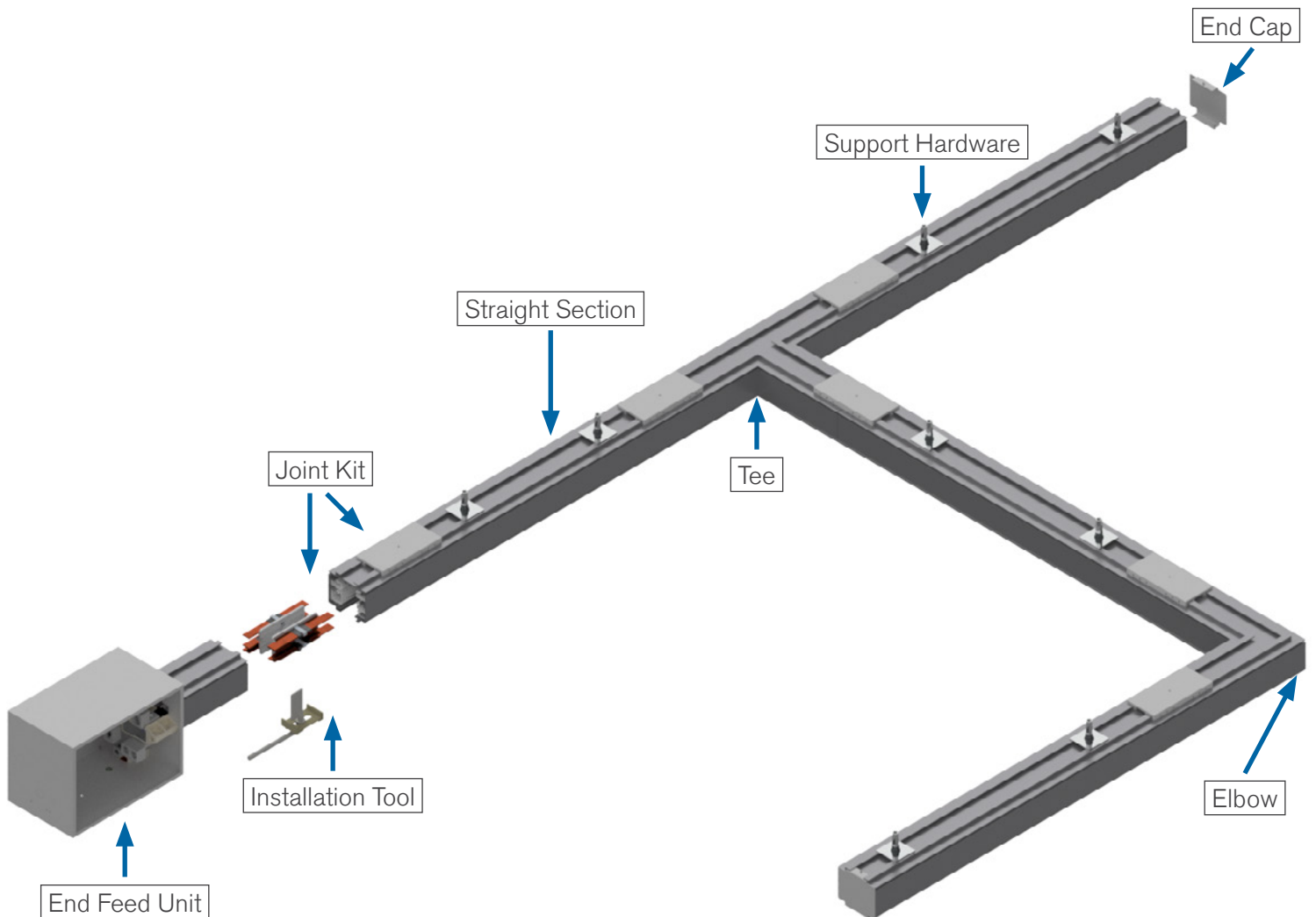


| | | |
|--|--------------------------------------|---|
| 1. System (standard of measure) | G Global | M Metric |
| 2. Product Type (section component) | A Above Feed | |
| 3. Product Frame (maximum amperage) | 250 250 amps | |
| 4. Compatibility (frame compatibility) | T5 T5 Series | K5 T5 Series (Limiting Strip) |
| 5. Material (busbar material) | C Copper | |
| 6. Neutral/Ground Busbar (size of neutral busbar and/or ground) | 4 3 Phase plus Neutral | G 3 Phase plus Neutral plus Internal Ground Conductor |
| | N 3 Phase plus 200% Neutral | F 3 Phase plus 200% Neutral plus Internal Ground Conductor |
| 7. Polarization (orientation of section for mating purposes) | S Standard | R Reversed |
| 8. Lug/Box Options (standard/double/bolt lugs and box size) | S Standard lugs, Standard box | |
| 9. Meter Location (from the terminal, side with removable lid) | R Right | L Left |
| | | N None (N/A) |
| 10. Accessories Package (optional accessories for feed units) | S Standard | |
| 11. Accessories Location (from the terminal, side with removable lid) | N None (N/A) | R Right |
| | L Left | T Top |
| | | F Front |
| 12. Straight Length (length of section) | M100 1 meter | |

| | | |
|--|--|-------------------------------------|
| 13. Busway Access (how plugs access the busway) | C Continuous | |
| 14. Feed Location (location of the center of the top feed) | 050 50 centimeters (For other lengths, consult the factory) | |
| 15. Paint Color (allows painting of the busway housing) | STD Factory Mill Finish | RED Paint Factory Red |
| | BLK Paint Factory Black | BLU Paint Factory Blue |
| | WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |
| **Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems | | |
| 16. Tape Marking (colored tape on both sides of busway housing) | 0 None | 7 Tape Factory Blue |
| | 3 Tape Factory Black | 8 Tape Factory Green |
| | 4 Tape Factory White | 9 Tape Factory Yellow |
| | 6 Tape Factory Red | |
| *17. Meter Release (M40 Series Meters) | M41 WiFi, ≤415V Y, ≤240V Δ | |
| | M43 No WiFi, ≤415V Y, ≤240V Δ | |
| | M45 WiFi, 600V Y, 347V Δ | |
| | M47 No WiFi, 600V Y, 347V Δ | |
| *18. M40 Options (choose from a 4.1" display, measured neutral, audible alarm and/or a temperature monitor) | S Standard (M60s also) | F Featured (D+A) |
| | D Display (M60s also) | E Enhanced (N+A) |
| | N (Measured) Neutral | P Professional (D+N) |
| | A Audible Alarm | U Ultimate (D+N+A) |
| *19. System Configuration and CT Type (line-line or line-neutral and wye or delta systems) | 1 LLD - Standard, Milivolt | K LLD - Split Core, 5A |
| | 2 LLY - Standard, Milivolt | L LLY - Split Core, 5A |
| | 3 LNY - Standard, Milivolt | M LNY - Split Core, 5A |

EXAMPLE
GA250T5CFS-DLSN-M100C050-STD0-M41D2 = Global System, Above Feed, 250 amps, T5 Series, 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, 1 meter Straight Length, Continuous Busway Access, 50 centimeter Feed Location, Painted Factory Silver, No Tape Marking, M41 Meter, Display, LLY- Standard, Milivolt

SYSTEM LAYOUT DRAWING



Plug-In Units

For further information on applicable T5 plug-in unit options, please consult the factory.

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist 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% earth path. Each housing has a continuous access slot over its entire length for the insertion of turn-n-lock plug-in units. 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 maintenance-free “spring-pressure” electrical connection.

Material

Extruded Aluminum

Ratings

100% Protective Earth
 400 Amps
 400T5C4/400T5CG: 415 Volt
 400T5CN/400T5CF: 415 Volt

Length

3 m, 6 m; or custom lengths between .6 - 6 m

Global System Weight

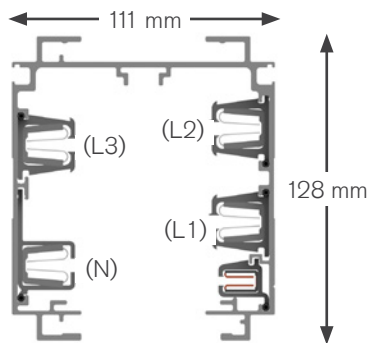
3 m 4 pole: 21.3 kg
 3 m 4 pole w/ ground: 23.6 kg
 3 m 4 pole w/ 200% N: 24.7 kg
 3 m 4 pole w/ ground & 200% N: 26.5 kg

Metric System Weight

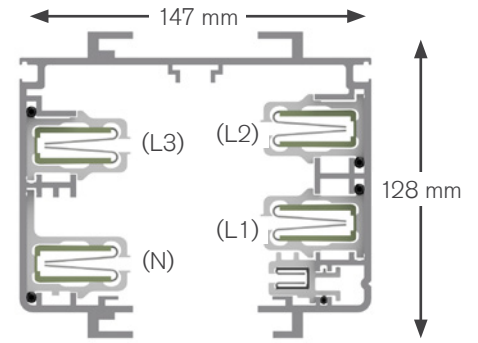
3 m 4 pole: 43 kg
 3 m 4 pole w/ ground: 45.4 kg
 3 m 4 pole w/ 200% N: 49.9 kg
 3 m 4 pole w/ ground & 200% N: 54.4 kg








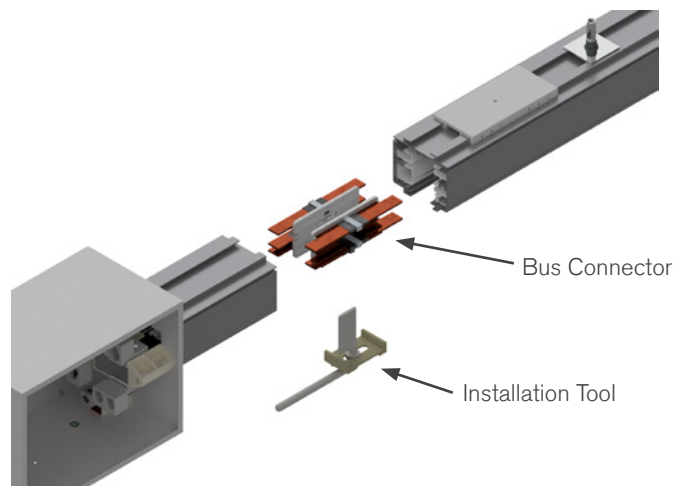
GLOBAL SYSTEM:



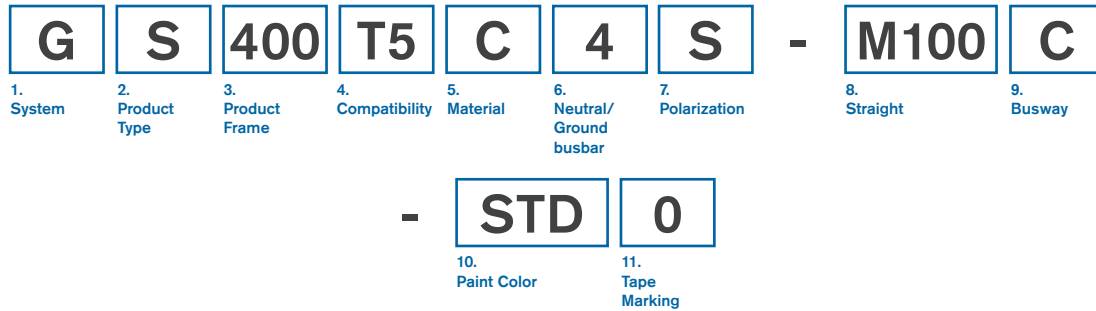
METRIC SYSTEM:



| Metric | | |
|----------------|---|------------------|
| L1 or Phase A |  | brown |
| L2 or Phase B |  | black |
| L3 or Phase C |  | gray |
| Neutral Ground |  | blue |
| |  | green/ yellow |



STRAIGHT SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

G Global **M** Metric

2. Product Type (section component)

S Straight Section

3. Product Frame (maximum amperage)

400 400 amps

4. Compatibility (frame compatibility)

T5 T5 Series **K5** T5 Series (Limiting Strip)

5. Material (busbar material)

C Copper

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

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

7. Polarization (orientation of section for mating purposes)

S Standard

8. Straight Length (length of section)

MXYY X = meters, YY = centimeters

9. 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 4.80) | |

***Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems*

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

| | | | |
|----------|--------------------|----------|---------------------|
| 0 | None | 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

GS400T5C4S-0500C-STD0 = Global System, Straight Section, 400 amps, T5 Series, Copper Conductor, 3 phase plus Neutral, Standard Polarization, 5 meter Straight Length, Continuous Busway Access, Painted Factory Silver, No Tape Marking

MS400K5CNS-M450C-P013 = Metric System, Straight Section, 400 amps, T5 Series K5 (Limiting Strip), Copper Conductor, 3 Phase plus 200% Neutral, Standard Polarization- 4.5 meter 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

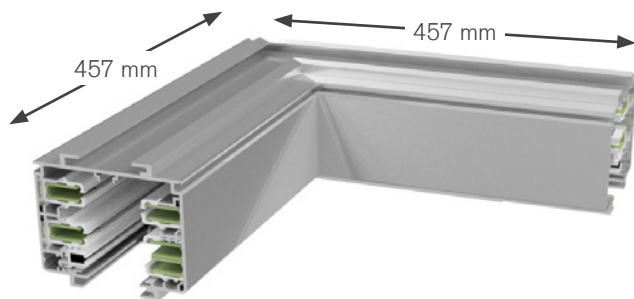
Joint kits (pg. 4.85) are used to make mechanical and electrical connections to adjacent busway sections (ordered separately).

Global System Weight

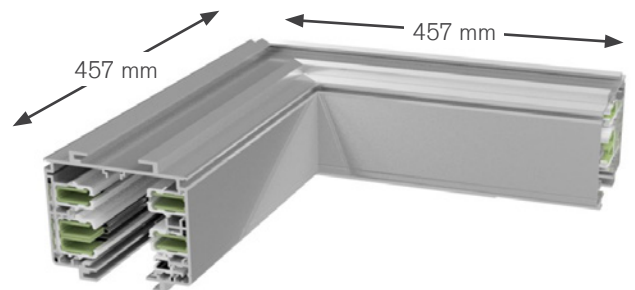
7.2 kg

Metric System Weight

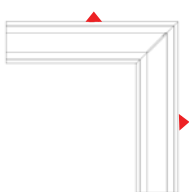
12.7 kg



External Elbow

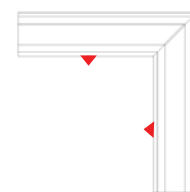


Internal Elbow



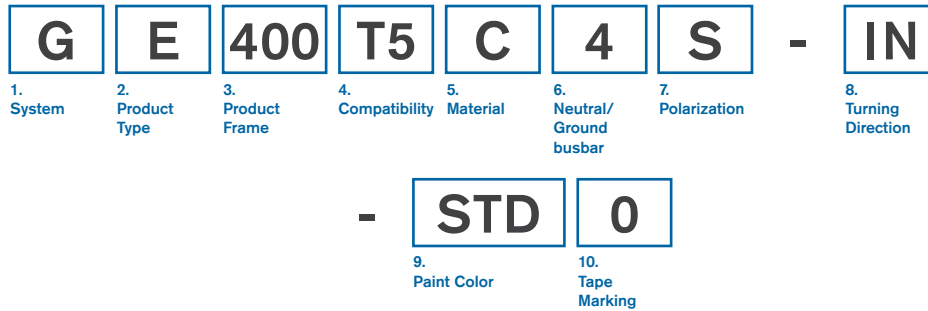
External Elbow

▲ = Polarizing Strip



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



| | |
|---|---|
| 1. System <i>(standard of measure)</i> | |
| G Global | M Metric |
| 2. Product Type <i>(section component)</i> | |
| E Elbow Section | |
| 3. Product Frame <i>(maximum amperage)</i> | |
| 400 400 amps | |
| 4. Compatibility <i>(frame compatibility)</i> | |
| T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | |
| C Copper | |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | |
| 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 <i>(orientation of section for mating purposes)</i> | |
| S Standard | |

| | | | |
|---|--|----------------------------|--|
| 8. Turning Direction <i>(direction of section polarizing stripe)</i> | | | |
| IN Internal | | EX External | |
| HN Seismic Internal | | GX Seismic External | |

| | | | |
|---|--|-------------------------------------|--|
| 9. Paint Color <i>(allows painting of the busway housing)</i> | | | |
| STD Factory Mill Finish | | RED Paint Factory Red | |
| BLK Paint Factory Black | | BLU Paint Factory Blue | |
| WHT Paint Factory White | | **RAL (PLEASE SEE PAGE 4.80) | |
| <small>**Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems</small> | | | |

| | | | |
|---|--|------------------------------|--|
| 10. Tape Marking <i>(colored tape on both sides of busway housing)</i> | | | |
| 0 None | | 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

GE400K5C4S-IN-PJ70 = Global System, Elbow Section, 400 amps, T5 Series K5 (Limiting Strip), Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted RAL 5027, No Tape Marking

ME400T5CGS-EX-STD3 = Metric System, Elbow Section, 400 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Factory Mill Finish, Factory Black Tape Marking

TEE SECTIONS

Product Description

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

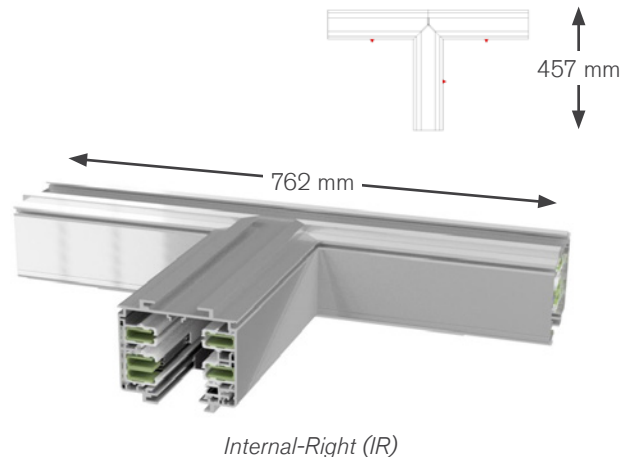
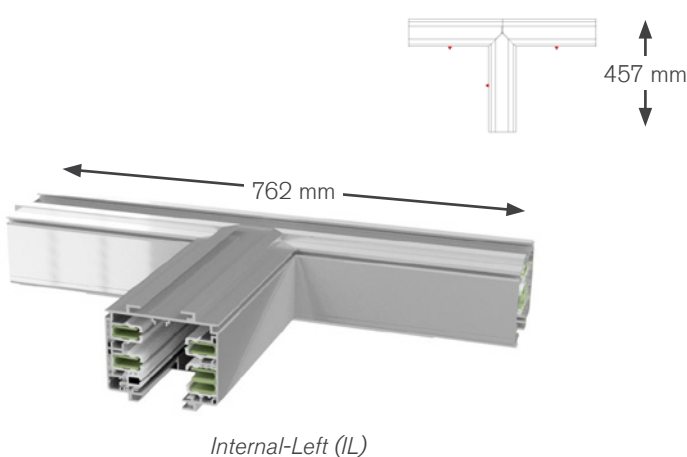
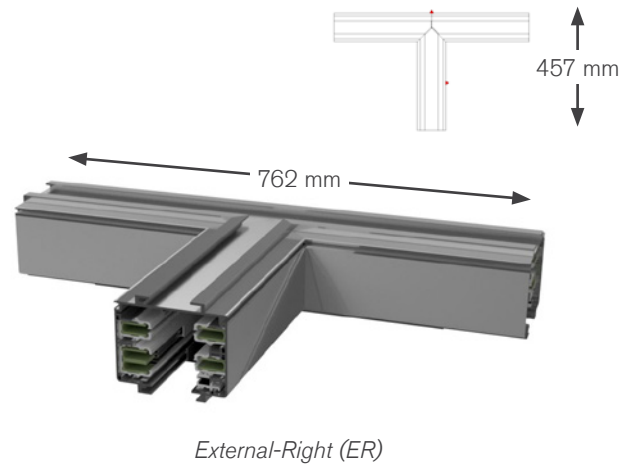
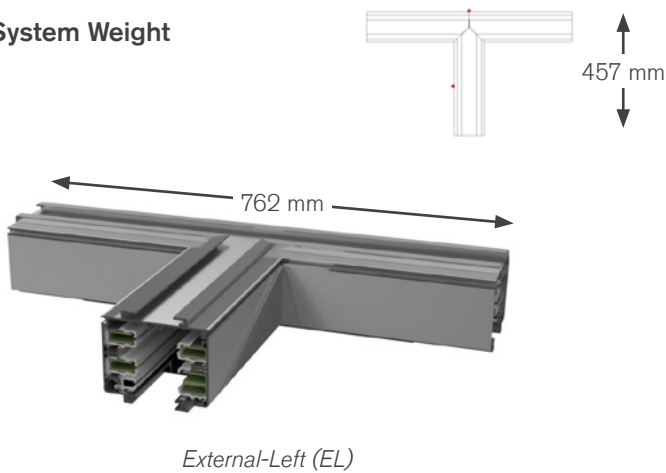
Global System Weight

9.5 kg

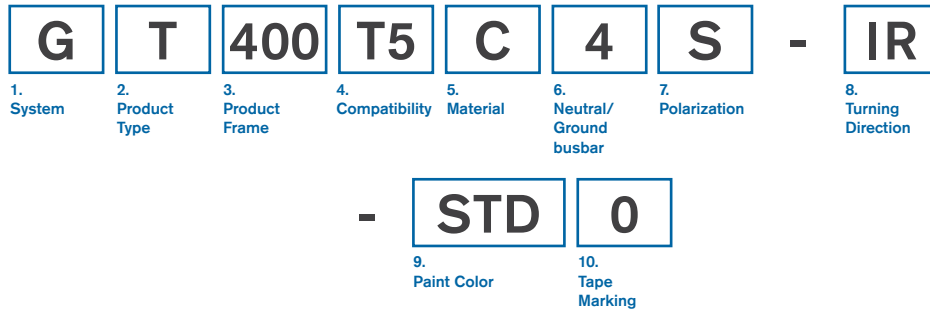
Metric System Weight

19 kg

 = Polarizing Strip



TEE SECTIONS: PRODUCT NUMBERS



| | |
|---|---|
| 1. System <i>(standard of measure)</i> | |
| G Global | M Metric |
| 2. Product Type <i>(section component)</i> | |
| T Tee Section | |
| 3. Product Frame <i>(maximum amperage)</i> | |
| 400 400 amps | |
| 4. Compatibility <i>(frame compatibility)</i> | |
| T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | |
| C Copper | |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | |
| 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 <i>(orientation of section for mating purposes)</i> | |
| S Standard | |

| | | | |
|---|------------------------|-----------|------------------------|
| 8. Turning Direction <i>(direction of section polarizing stripe)</i> | | | |
| IL | Internal-Left | EL | External-Left |
| IR | Internal-Right | ER | External-Right |
| HL | Seismic Internal-Left | GL | Seismic External-Left |
| HR | Seismic Internal-Right | GR | Seismic External-Right |

| | | | |
|--|---------------------|-------------------------------------|--------------------|
| 9. Paint Color <i>(allows painting of the busway housing)</i> | | | |
| STD | Factory Mill Finish | RED | Paint Factory Red |
| BLK | Paint Factory Black | BLU | Paint Factory Blue |
| WHT | Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) | |
| **Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems | | | |

| | | | |
|---|--------------------|----------|---------------------|
| 10. Tape Marking <i>(colored tape on both sides of busway housing)</i> | | | |
| 0 | None | 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

GT400T5C4S-IR-RED0 = Global System, Tee Section, 400 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

MT400K5CFS-EL-STD0 = Metric System, Tee Section, 400 amps, T5 Series 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

END FEED UNITS

Product Description

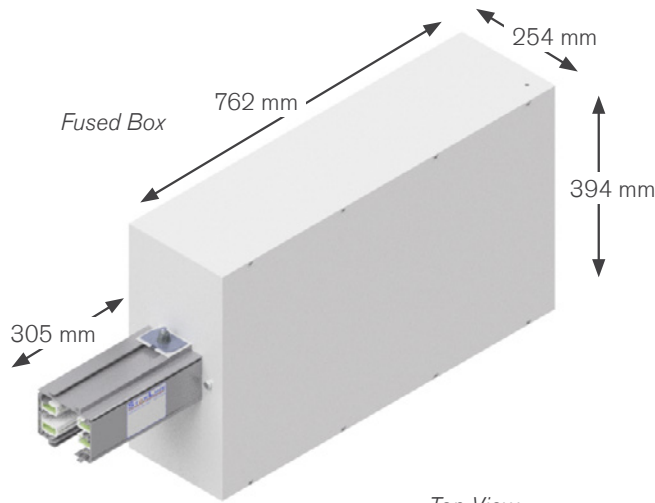
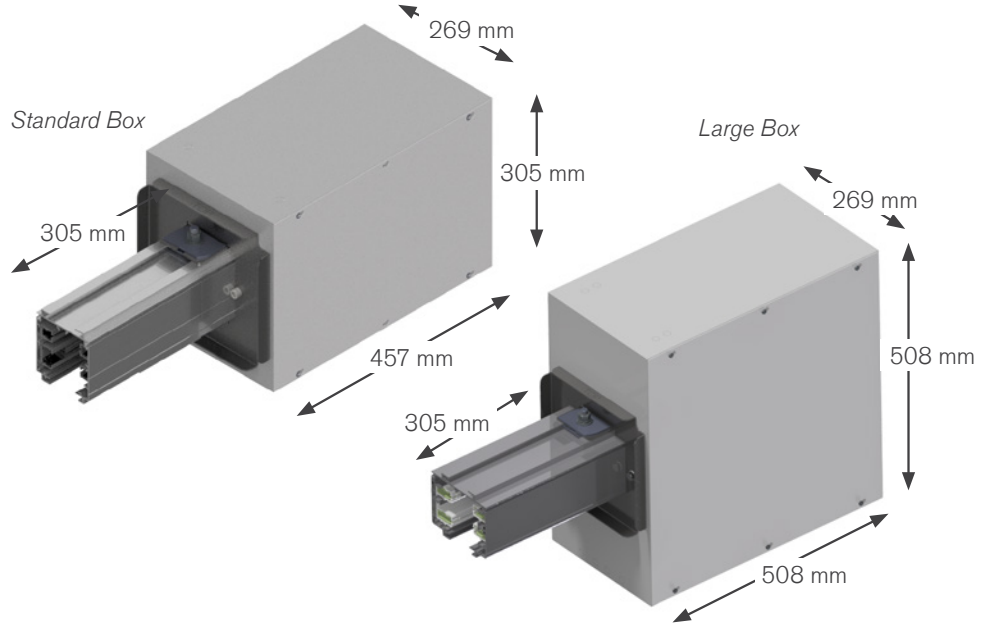
End power feed units connect to the end of the busway. A standard size, factory assembled unit consists of a steel junction box, with removable sides, connected to a .3 meter section of busway. The assembly includes connection lugs and a ground lug for wires 120 mm² or up to 300 mm² for standard size 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.

Global System Weight (for standard size end feed)
15.2 kg

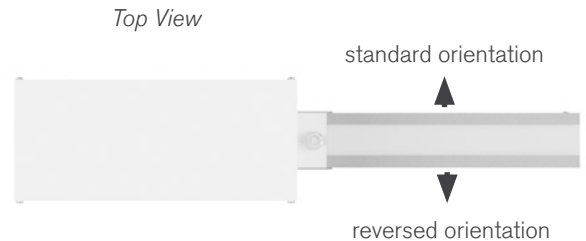
Metric System Weight (for standard size end feed)
16.3 kg



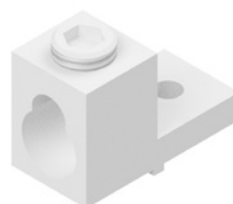
| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | L | F |
| Double | | | |
| Bolt* | B | R | |

Box size and Lug options:
Refer to option 8. Lug/Box Options on **PAGE 4.32 End Feed Units: Product Numbers**

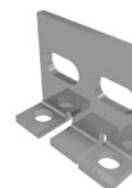
*Bolt options include bolt, washer, nut.
Lug not included.



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



Metric "S"



Global Bolt "B"/"R"



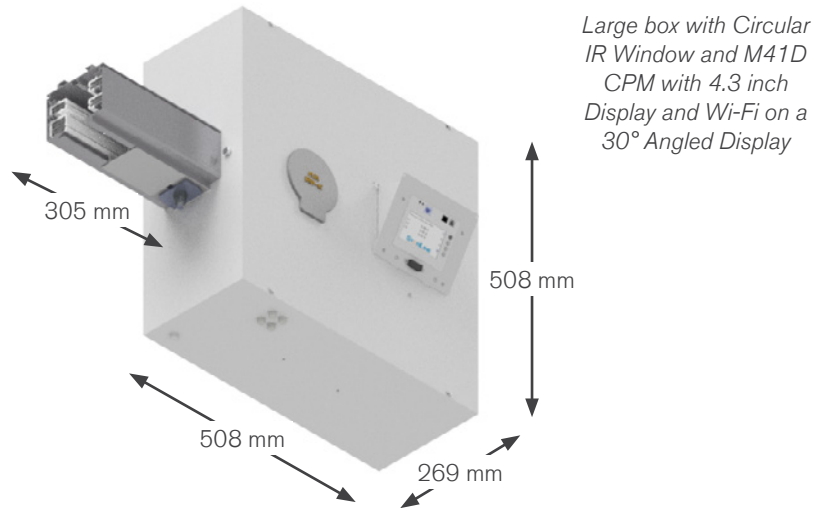
Metric "R"

END FEED UNITS: METERING

Product Description

End power feed units connect to the end of the busway. A large size, factory assembled unit consists of a steel junction box, with removable side, connected to a .3 meter section of busway. The assembly includes connection lugs and a ground lug for wires 120 mm² or up to 300 mm² for standard size boxes and large size boxes.

The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. Once the meter is integrated, an automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



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

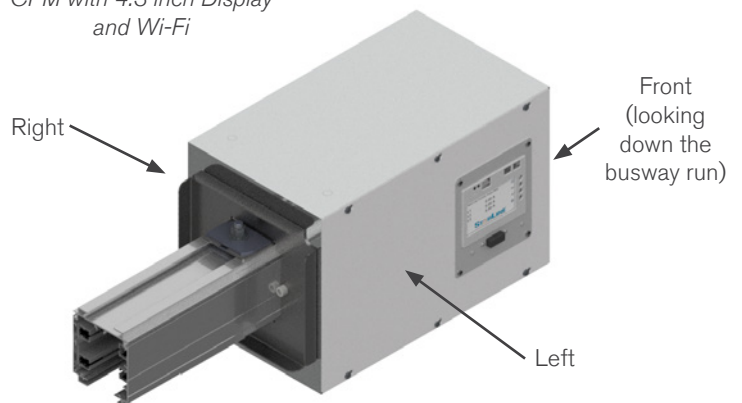
AC End Feed Meter Options:

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

DC End Feed Meter Options:

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

Standard Box with M41D CPM with 4.3 inch Display and Wi-Fi

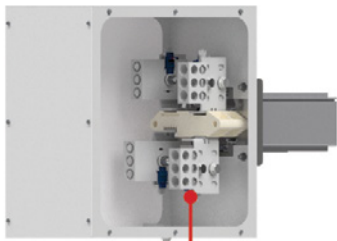


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **PAGE 4.32** End Feed Units: Product Numbers)

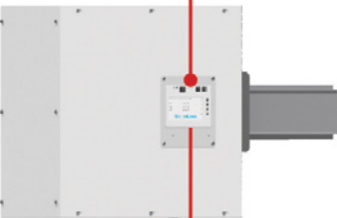
END FEED UNITS: ACCESSORIES

Temperature Monitor

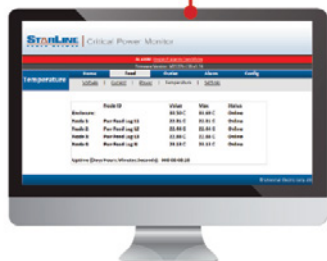
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Temperature nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

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

Angled Meter Lid

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

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

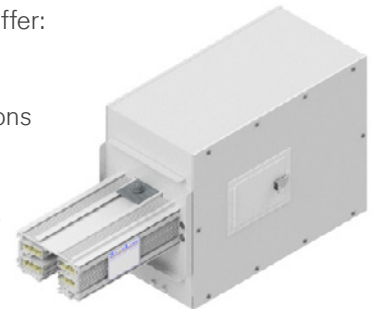


(Refer to option 10. Accessories Package on **page 4.32** End Feed Units: Product Numbers)

IR Windows

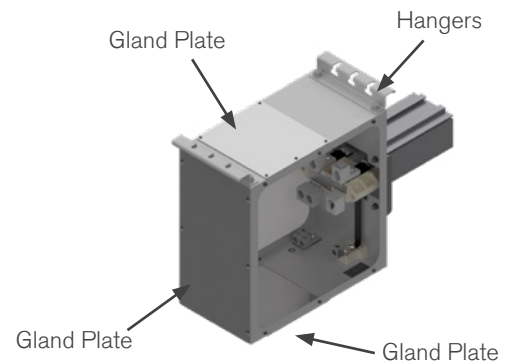
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

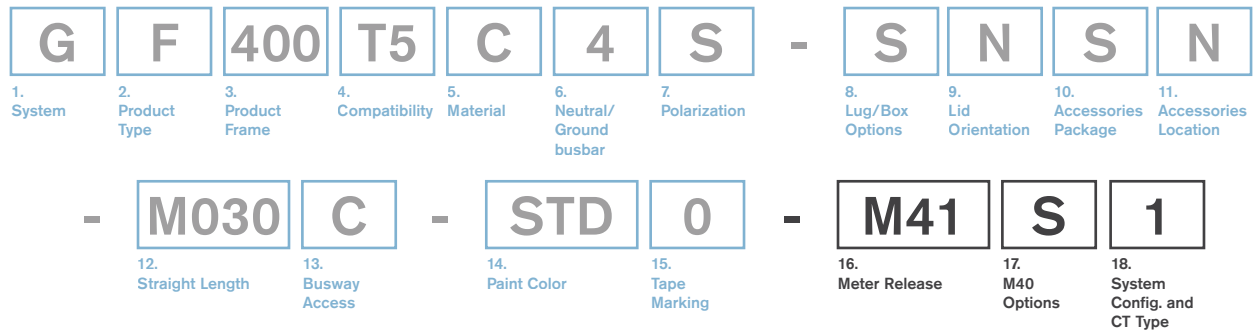


End Feed Hangers & Gland Plates

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make installation fast and easy and can be paired with other Starline end feed accessories. This option should also be chosen for seismic applications.



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

| | | | |
|----------|---|----------|---|
| 1 | LLD - Standard, Milivolt | K | LLD - Split Core, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - Split Core, 5A |
| 3 | LNY - Standard, Milivolt | M | LNY - Split Core, 5A |
| 0 | No CT's Present (<i>Temp Monitors only</i>) | 1 | Circuit 1 Only, Solid Core (<i>M60s only</i>) |
| 2 | Circuit 2 Only, Solid Core (<i>M60s only</i>) | 3 | Both Circuits, Solid Core (<i>M60s only</i>) |

*17. Meter Options (M40 AC)

| | | | |
|----------|-------------------------------|----------|--------------------|
| S | Standard (<i>M60s also</i>) | F | Featured (D+A) |
| D | Display (<i>M60s also</i>) | E | Enhanced (N+A) |
| N | (<i>Measured</i>) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| T | Wireless Temperature Monitor | G | (T+D) |
| H | (T+N) | J | (T+A) |
| Q | (T+D+N) | K | (T+D+A) |
| L | (T+N+A) | R | (T+D+N+A) |
| B | Wired Temperature Monitor | C | (B+D) |
| V | (B+N) | M | (B+A) |
| W | (B+D+N) | 1 | (B+D+A) |
| 2 | (B+N+A) | 3 | (B+D+N+A) |

EXAMPLE
GF400T5C4R-LRLL-M030C-BLK0-M47S1 = Global System, End Feed, 400 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Large Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Options, LLD- Standard, Milivolt

ABOVE FEED UNITS

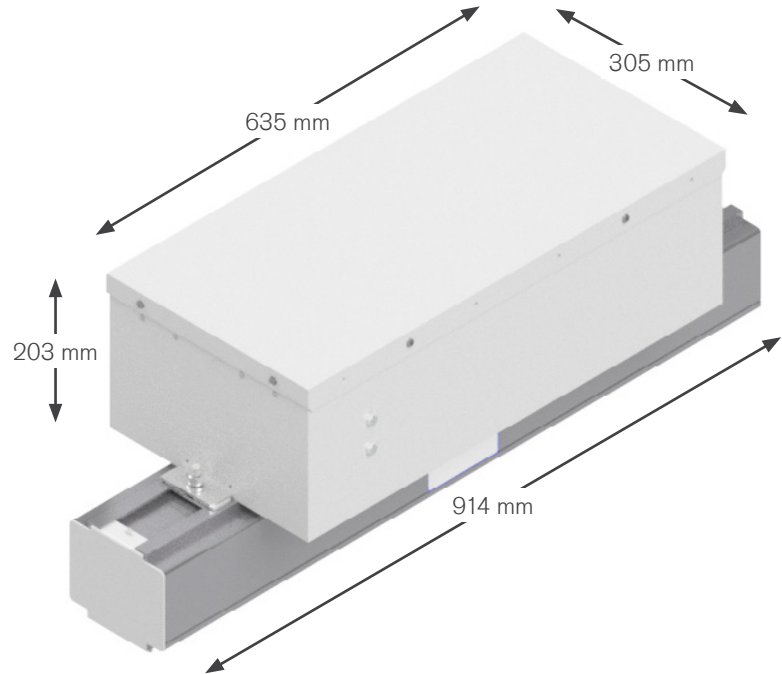
Product Description

The above feed power unit supplies power from the topside of the busway. Factory assembled unit consists of a 635 x 305 x 203 millimeter steel junction box mounted on top of a 914 millimeter section of busway.

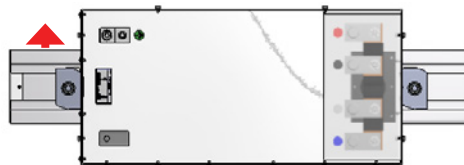
*914 millimeter is the minimum and standard length of busway that an above feed is provided with.

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.

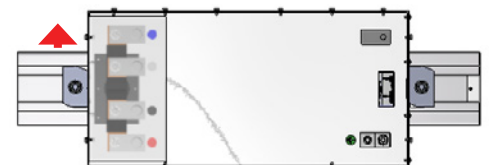
*Isolated or dedicated earth is determined at the feed during installation. For further details about Dedicated Ground vs. Isolated Ground, please reference our tech brief on downloads.starlinepower.com



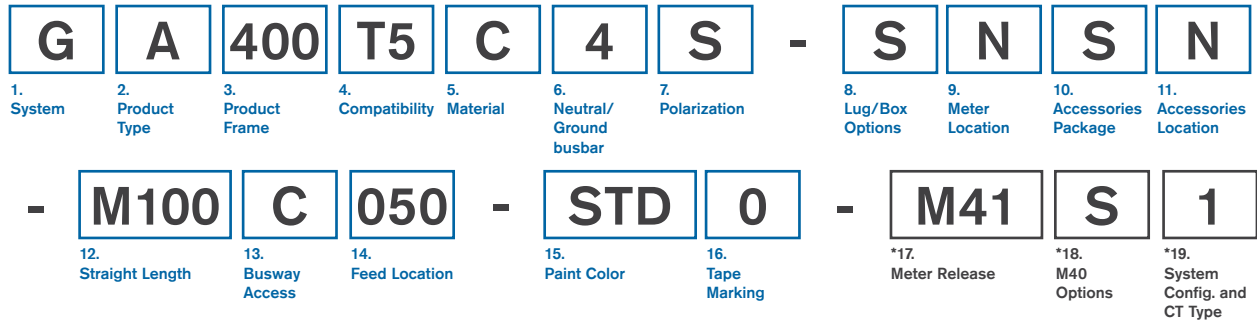
Standard (S)



Reversed (R)



ABOVE FEED UNITS: PRODUCT NUMBERS

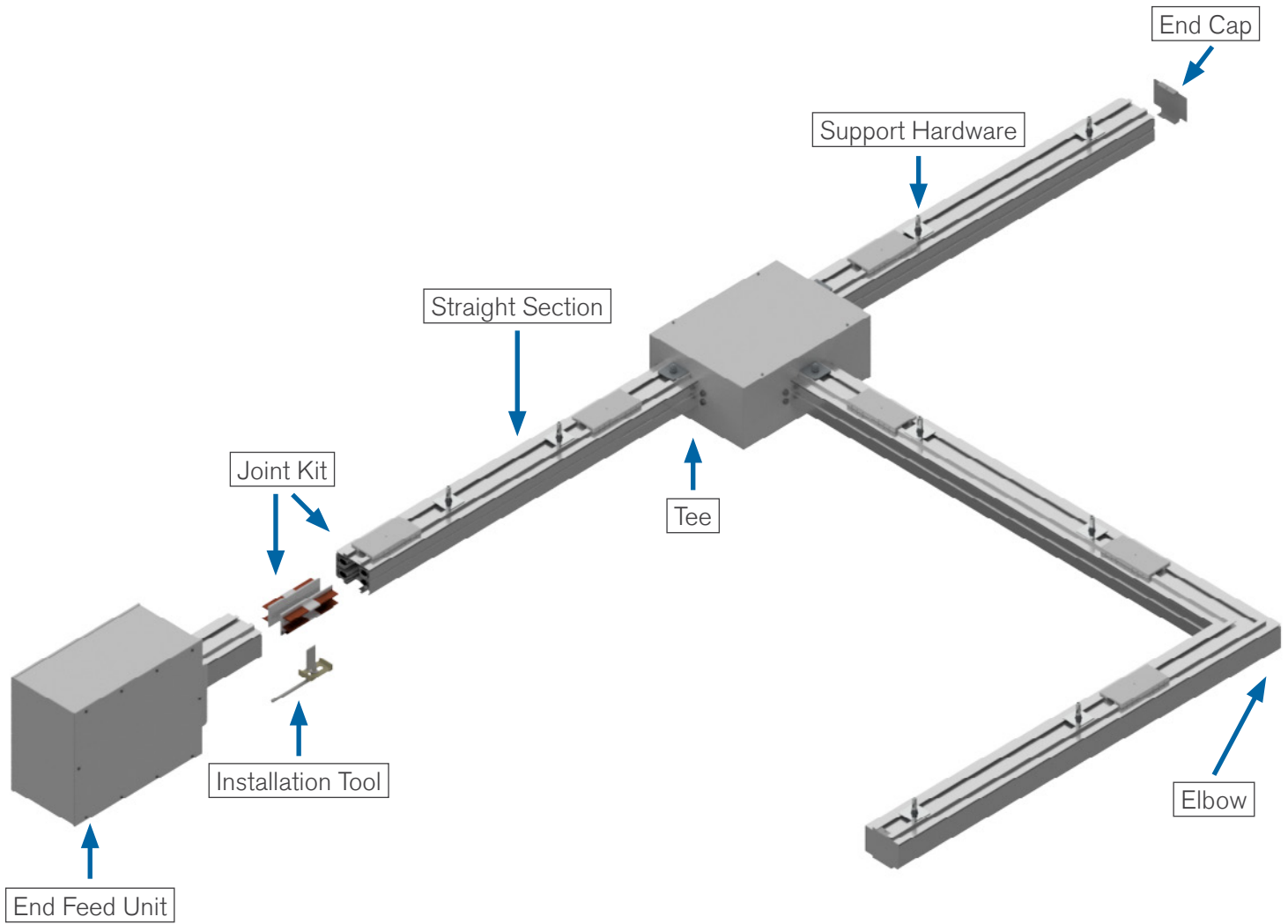


| | | |
|---|--------------------------------------|---|
| 1. System <i>(standard of measure)</i> | G Global | M Metric |
| 2. Product Type <i>(section component)</i> | A Above Feed | |
| 3. Product Frame <i>(maximum amperage)</i> | 400 400 amps | |
| 4. Compatibility <i>(frame compatibility)</i> | T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | C Copper | |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | 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 <i>(orientation of section for mating purposes)</i> | S Standard | R Reversed |
| 8. Lug/Box Options <i>(standard/double/bolt lugs and box size)</i> | S Standard lugs, Standard box | |
| 9. Meter Location <i>(from the terminal, side with removable lid)</i> | R Right | L Left |
| | | N None (N/A) |
| 10. Accessories Package <i>(optional accessories for feed units)</i> | S Standard | |
| 11. Accessories Location <i>(from the terminal, side with removable lid)</i> | N None (N/A) | R Right |
| | L Left | T Top |
| | | F Front |
| 12. Straight Length <i>(length of section)</i> | M100 1 meter | |

| | | |
|---|---|-------------------------------------|
| 13. Busway Access <i>(how plugs access the busway)</i> | C Continuous | |
| 14. Feed Location <i>(location of the center of the top feed)</i> | 050 50 centimeters <i>(For other lengths, consult the factory)</i> | |
| 15. Paint Color <i>(allows painting of the busway housing)</i> | STD Factory Mill Finish | RED Paint Factory Red |
| | BLK Paint Factory Black | BLU Paint Factory Blue |
| | WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |
| <i>**Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems</i> | | |
| 16. Tape Marking <i>(colored tape on both sides of busway housing)</i> | 0 None | 7 Tape Factory Blue |
| | 3 Tape Factory Black | 8 Tape Factory Green |
| | 4 Tape Factory White | 9 Tape Factory Yellow |
| | 6 Tape Factory Red | |
| *17. Meter Release <i>(M40 Series Meters)</i> | M41 WiFi, ≤415V Y, ≤240V Δ | |
| | M43 No WiFi, ≤415V Y, ≤240V Δ | |
| | M45 WiFi, 600V Y, 347V Δ | |
| | M47 No WiFi, 600V Y, 347V Δ | |
| *18. M40 Options <i>(choose from a 4.1" display, measured neutral, audible alarm and/or a temperature monitor)</i> | S Standard (M60s also) | F Featured (D+A) |
| | D Display (M60s also) | E Enhanced (N+A) |
| | N (Measured) Neutral | P Professional (D+N) |
| | A Audible Alarm | U Ultimate (D+N+A) |
| *19. System Configuration and CT Type <i>(line-line or line-neutral and wye or delta systems)</i> | 1 LLD - Standard, Milivolt | K LLD - Split Core, 5A |
| | 2 LLY - Standard, Milivolt | L LLY - Split Core, 5A |
| | 3 LNY - Standard, Milivolt | M LNY - Split Core, 5A |

EXAMPLE
GA400K5CFS-SRSN-M100C050-STD0-M41DM = Global System, Above Feed, 400 amps, T5 Series 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, 1 meter Straight Length, Continuous Busway Access, 50 centimeter Feed Location, Painted Factory Silver, No Tape Marking, M41 Meter, Display, LNY-SC, 5A

SYSTEM LAYOUT DRAWING



Plug-In Units

For further information on applicable T5 plug-in unit options, please consult the factory.

STRAIGHT SECTIONS

Product Description

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



Material

Extruded Aluminum

Ratings

100% Protective Earth
630 Amps
415 Volt

Metric Length

1.5 m, Max 3 m or custom lengths between .6 - 3 m

Metric Weight

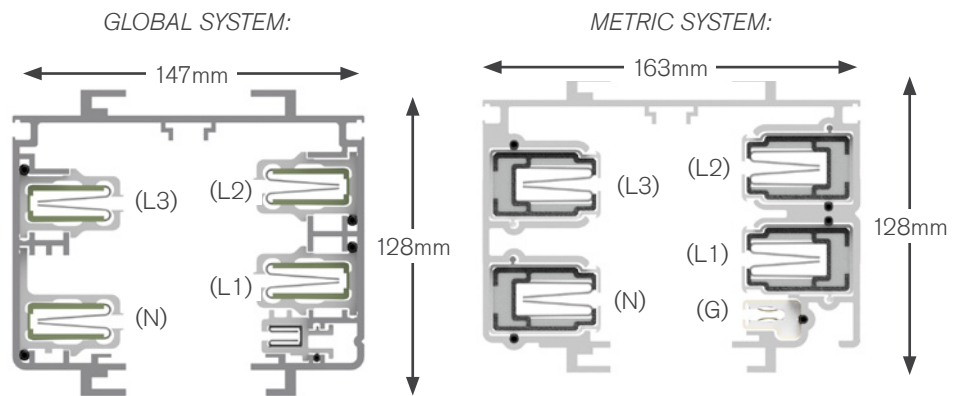
3 m 4 pole w/ ground: 69 kg






Global Length

1.5 m, Max 6 m or custom lengths between .6 - 6 m

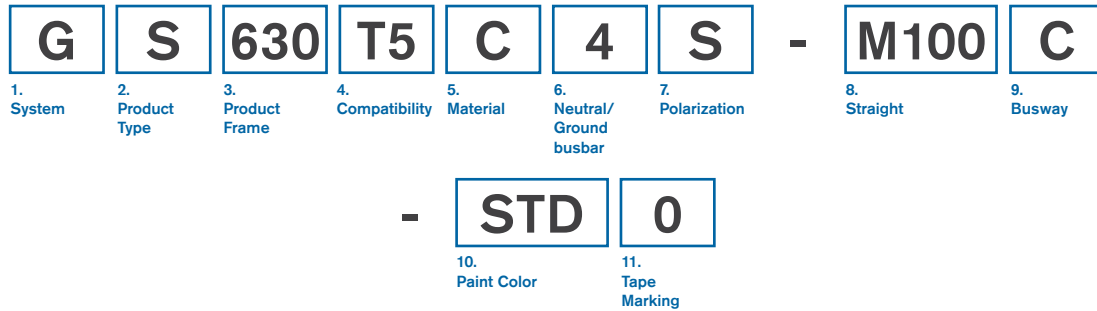
Global Weight

3 m 4 pole: 52.1 kg
3 m 4 pole w/ ground: 54.4 kg



| Metric | |
|----------------|--|
| L1 or Phase A |  brown |
| L2 or Phase B |  black |
| L3 or Phase C |  gray |
| L3 or Phase C |  blue |
| Neutral Ground |  green/ yellow |

STRAIGHT SECTIONS: PRODUCT NUMBERS



| | |
|---|--|
| 1. System (<i>standard of measure</i>) | |
| G Global | M Metric |
| 2. Product Type (<i>section component</i>) | |
| S Straight Section | |
| 3. Product Frame (<i>maximum amperage</i>) | |
| 630 630 amps | |
| 4. Compatibility (<i>frame compatibility</i>) | |
| T5 T5 Series | K5 T5 Series (<i>Limiting Strip</i>) |
| 5. Material (<i>busbar material</i>) | |
| C Copper | H Hybrid (Cu/Al) |
| <small>**Global (G) systems must choose Copper (C), Metric (M) systems must choose Hybrid (H)</small> | |
| 6. Neutral/Ground Busbar (<i>size of neutral busbar and/or ground</i>) | |
| 4 3 Phase plus Neutral | G 3 Phase plus Neutral plus Internal Ground Conductor |
| 7. Polarization (<i>orientation of section for mating purposes</i>) | |
| S Standard | |
| 8. Straight Length (<i>length of section</i>) | |
| MXYY X = meters, YY = centimeters | |

| | |
|---|-------------------------------------|
| 9. Busway Access (<i>how plugs access the busway</i>) | |
| C Continuous (<i>Global only</i>) | |
| 10. Paint Color (<i>allows painting of the busway housing</i>) | |
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |
| <small>**Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems</small> | |
| 11. Tape Marking (<i>colored tape on both sides of busway housing</i>) | |
| 0 None | 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

MS630K5HGS-M225C-P013 = Global System, Straight Section, 630 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, 2 meter Straight Length, Continuous Busway Access, Painted Factory Silver, No Tape Marking

MS630K5HGS-M225P-P013 = Metric System, Straight Section, 630 amps, T5 Series K5 (Limiting Strip), Hybrid Conductor, 3 Phase plus Neutral plus Internal Ground Connector, Standard Polarization, 2.25 meter 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.

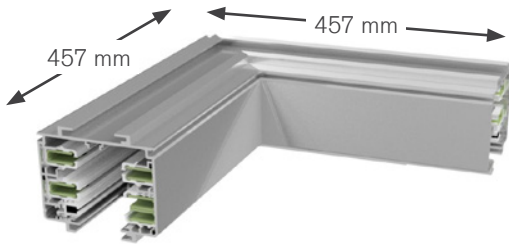
Connection Accessories

A joint kit (**PAGE 4.84**) is used to make mechanical and electrical connections to adjacent busway sections (*ordered separately*).

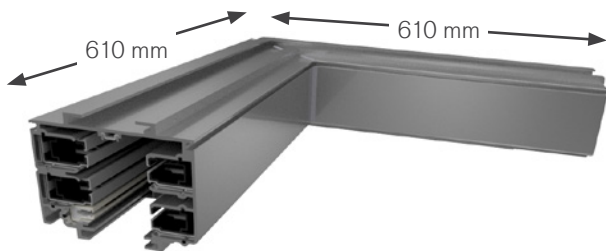
Metric System Weight

23.1 kg

GLOBAL SYSTEM:

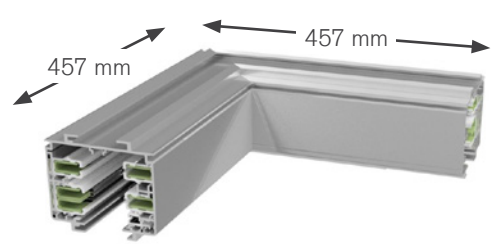


METRIC SYSTEM:



External Elbow

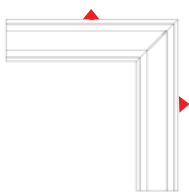
GLOBAL SYSTEM:



METRIC SYSTEM:

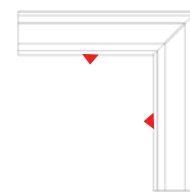


Internal Elbow



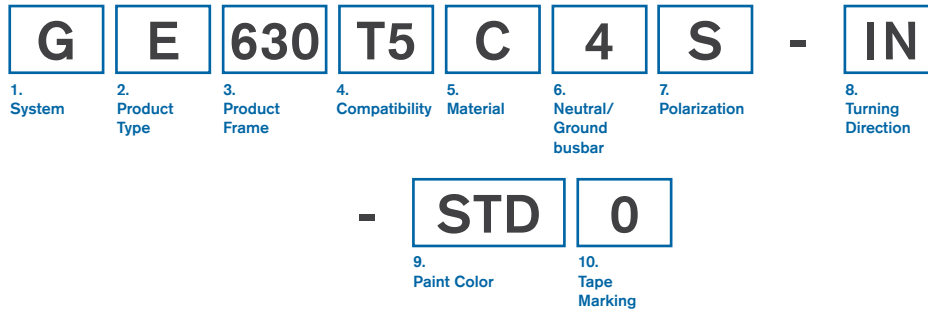
External Elbow

▲ = Polarizing Strip



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



| | |
|---|--|
| 1. System <i>(standard of measure)</i> | |
| G Global | M Metric |
| 2. Product Type <i>(section component)</i> | |
| E Elbow Section | |
| 3. Product Frame <i>(maximum amperage)</i> | |
| 630 630 amps | |
| 4. Compatibility <i>(frame compatibility)</i> | |
| T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | |
| C Copper | H Hybrid (Cu/Al) |
| <small>**Global (G) systems must choose Copper (C), Metric (M) systems must choose Hybrid (H)</small> | |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | |
| 4 3 Phase plus Neutral | G 3 Phase plus Neutral plus Internal Ground Conductor |
| 7. Polarization <i>(orientation of section for mating purposes)</i> | |
| S Standard | |

| | | | |
|---|----------|-----------|------------------|
| 8. Turning Direction <i>(direction of section polarizing stripe)</i> | | | |
| IN | Internal | HN | Seismic Internal |
| EX | External | GX | Seismic External |
| <small>**HN and GX seismic options can only be selected with Global (G) systems</small> | | | |

| | | | |
|---|---------------------|-------------------------------------|--------------------|
| 9. Paint Color <i>(allows painting of the busway housing)</i> | | | |
| STD | Factory Mill Finish | RED | Paint Factory Red |
| BLK | Paint Factory Black | BLU | Paint Factory Blue |
| WHT | Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) | |
| <small>**Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems</small> | | | |

| | | | |
|---|--------------------|----------|---------------------|
| 10. Tape Marking <i>(colored tape on both sides of busway housing)</i> | | | |
| 0 | None | 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
GE630K5C4S-IN-STD7 = Global System, Elbow Section, 630 amps, T5 Series K5 (Limiting Strip), Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Silver, Factory Blue Tape Marking
ME630T5HGS-EX-BLK0 = Metric System, Elbow Section, 630 amps, T5 Series, Hybrid Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Painted Factory Black

TEE SECTIONS


Product Description

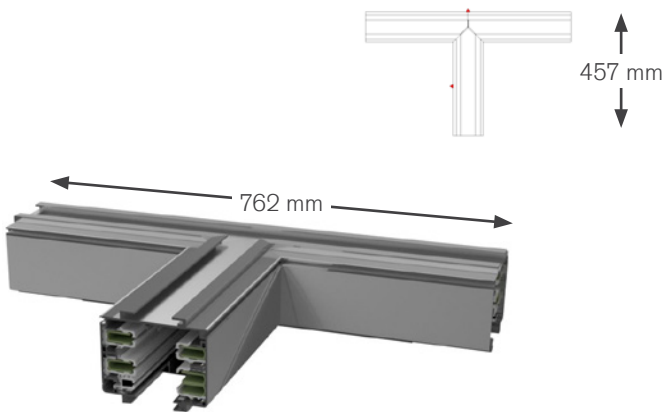
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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

Global System Weight

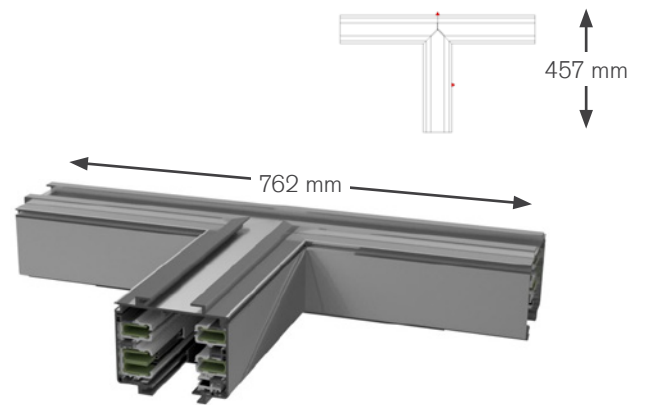
21.8 kg

**The below dimensions apply to G630 (Global) systems only. Tees are not available for M630 (Metric) systems.*

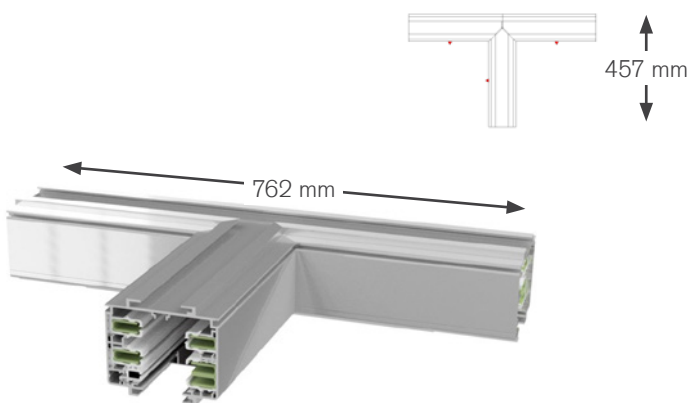
 = Polarizing Strip



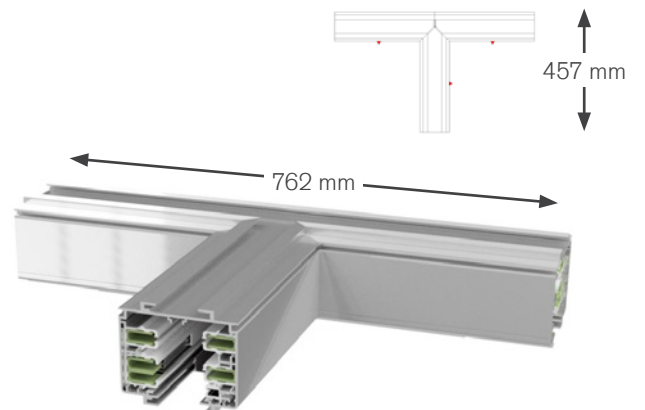
External-Left (EL)



External-Right (ER)

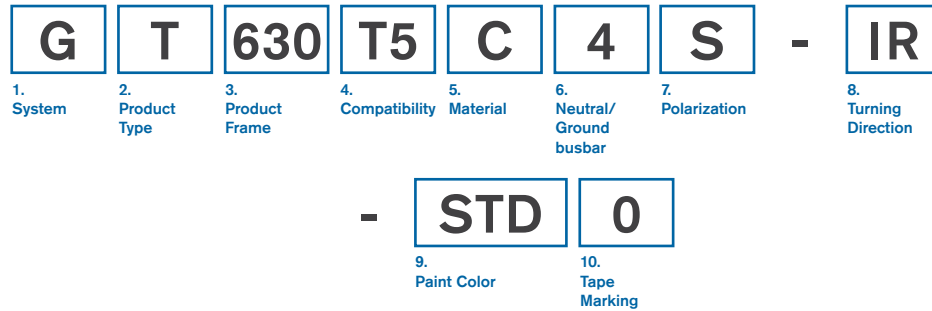


Internal-Left (IL)



Internal-Right (IR)

TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

G Global

2. Product Type (section component)

T Tee Section

3. Product Frame (maximum amperage)

630 630 amps

4. Compatibility (frame compatibility)

T5 T5 Series **K5** T5 Series (Limiting Strip)

5. Material (busbar material)

C Copper

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

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

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing stripe)

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

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |

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

| | |
|-----------------------------|------------------------------|
| 0 None | 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

GT630T5C4S-IR-RED0 = Global System, Tee Section, 630 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

GT630K5HGS-EL-STD0 = Global System, Tee Section, 630 amps, T5 Series K5 (Limiting Strip), Hybrid Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External-Left 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 steel junction box, with removable side, connected to a 0.3 meter section of busway. The assembly includes protective earth lugs for wires up to 350MCM and connection lugs that can handle up to (2) 300 mm² wires (CU) or (2) 300 mm² 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 101.6 millimeter 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.

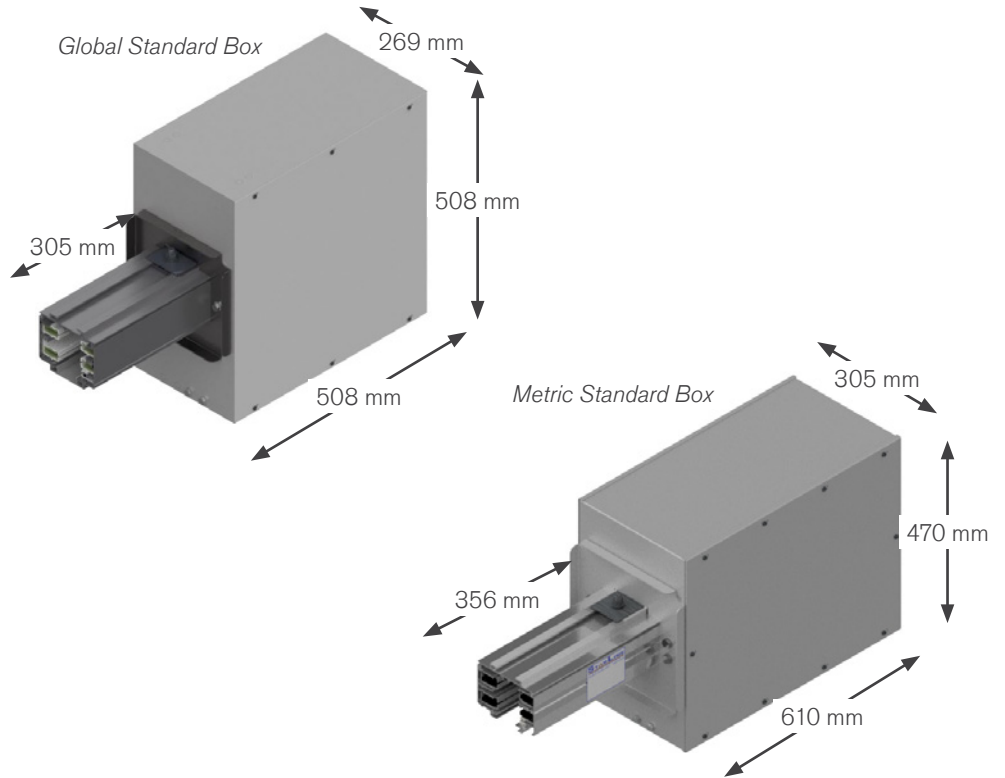
Global System Weight

16.3 kg

Metric System Weight

38.3 kg

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



| | Global Boxes | | |
|----------|--------------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | | |
| Double | | | |
| Bolt* | B | | |

| | Metric Boxes | | |
|----------|--------------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | | |
| Double | D | | |
| Bolt* | B | | |

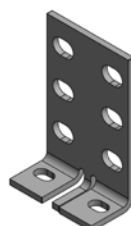
*Bolt options include bolt, washer, nut. Lug not included.



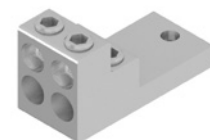
Global Standard "S"



Metric Standard "S"



Global Bolt "B"



Metric Double "D"



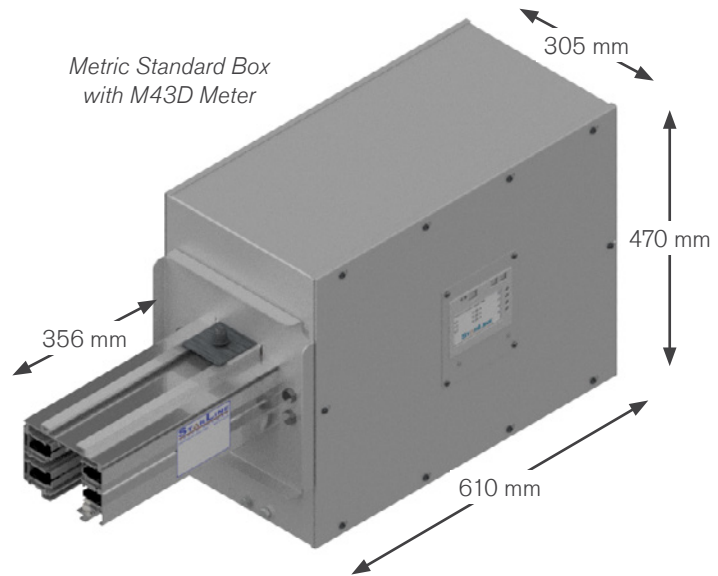
Metric Bolt "B"

END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the busway. Factory assembled unit consists of a 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an .3 meter section of busway. The assembly includes ground lugs for wires up to 350MCM and connection lugs that can handle up to (2) 300 mm² wires (CU) or (2) 300 mm² 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*).

The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



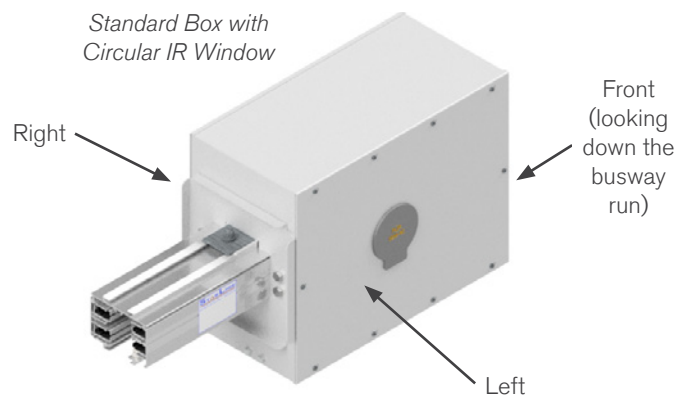
| Box/Lugs Option | 1 Meter or Accessory | 1 Meter & 1 Accessory (opposite lids) | 1 Meter & 1 Accessory (same lid) |
|---------------------------------|----------------------|---------------------------------------|----------------------------------|
| (S) Standard Box, Standard Lugs | X | X | X |
|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

AC End Feed Meter Options:

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

DC End Feed Meter Options:

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

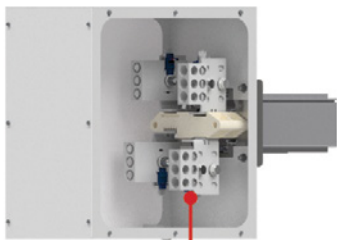


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **PAGE 4.46 End Feed Units: Product Numbers**)

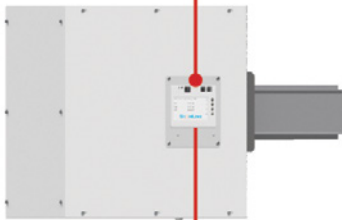
END FEED UNITS: ACCESSORIES

Temperature Monitor

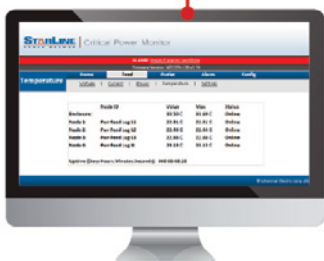
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Wired nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



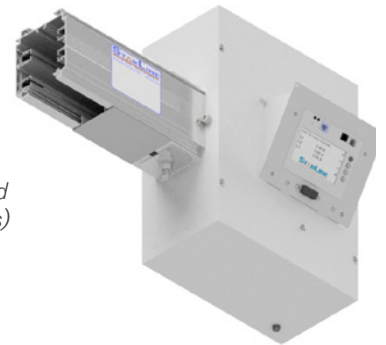
Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

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

Angled Meter Lid

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

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

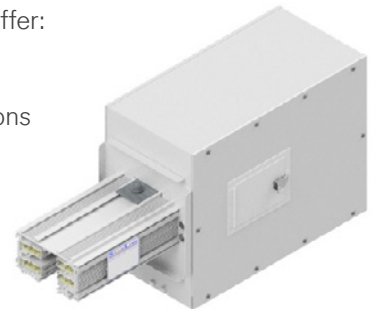


(Refer to option 10.
Accessories Package
on **page 4.46** End Feed
Units: Product Numbers)

IR Windows

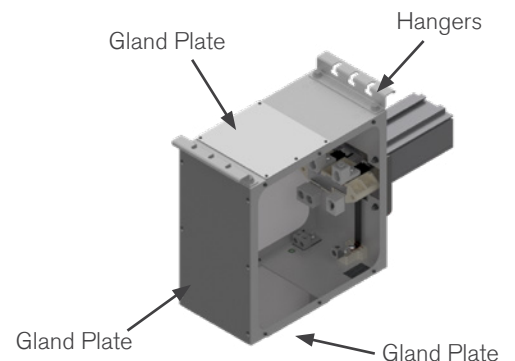
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

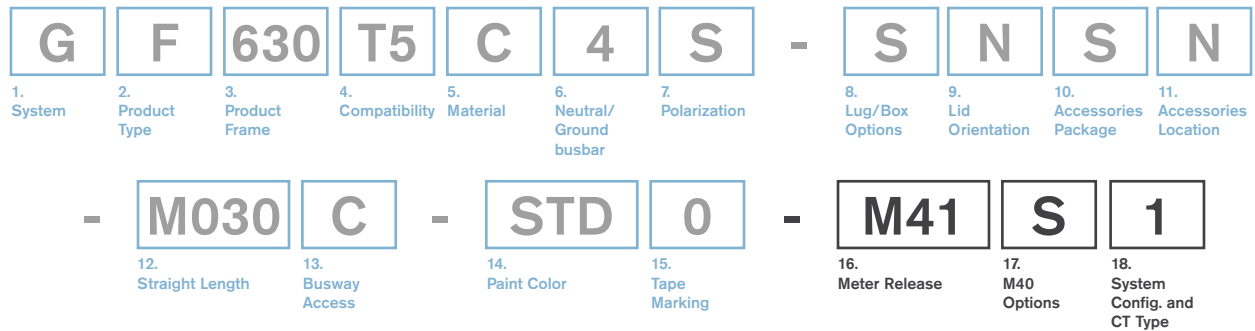


End Feed Hangers & Gland Plates

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make installation fast and easy and can be paired with other Starline end feed accessories. This option should also be chosen for seismic applications.



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

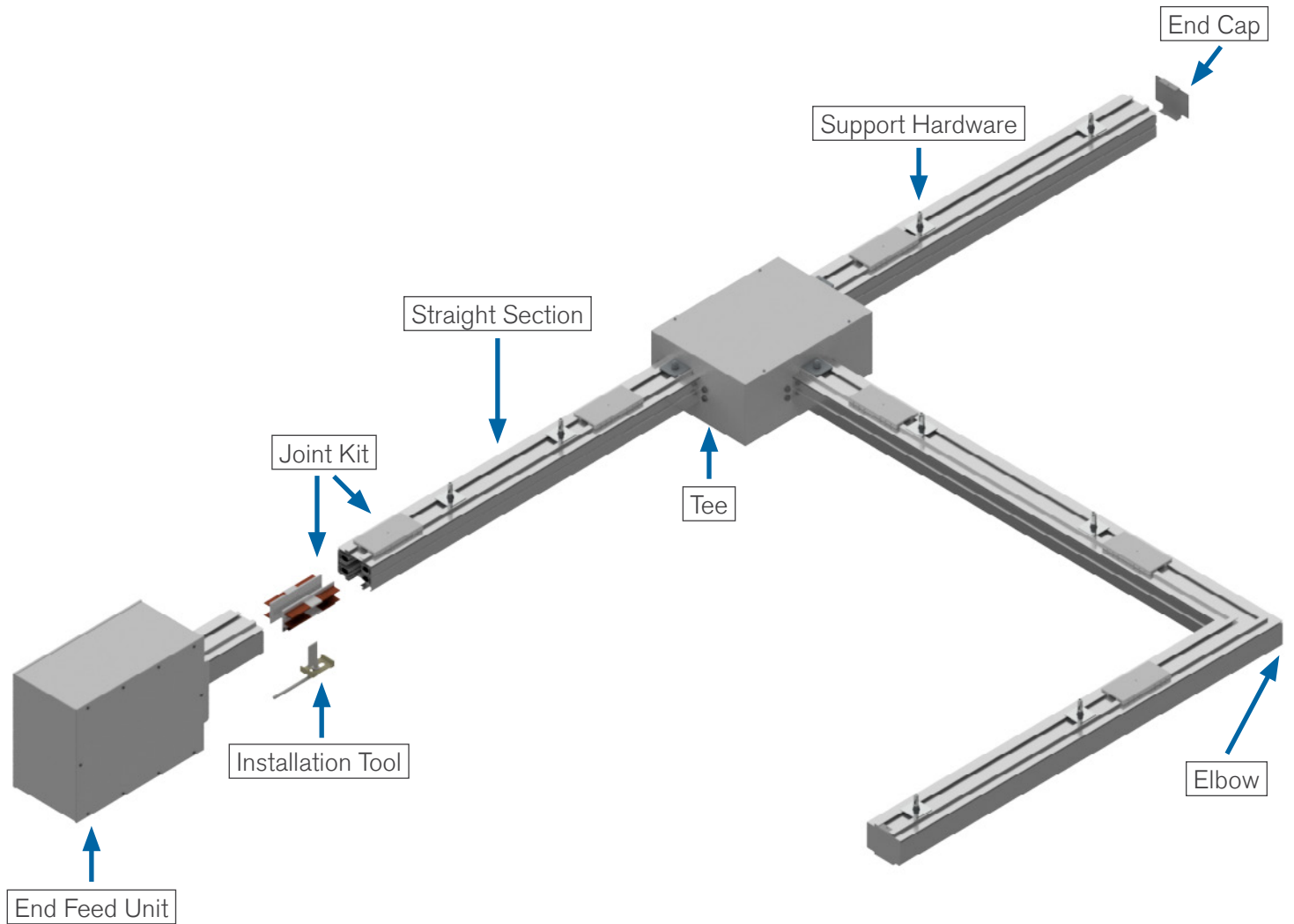
| | | | |
|----------|---|----------|---|
| 1 | LLD - Standard, Milivolt | K | LLD - Split Core, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - Split Core, 5A |
| 3 | LNY - Standard, Milivolt | M | LNY - Split Core, 5A |
| 0 | No CT's Present (<i>Temp Monitors only</i>) | 1 | Circuit 1 Only, Solid Core (<i>M60s only</i>) |
| 2 | Circuit 2 Only, Solid Core (<i>M60s only</i>) | 3 | Both Circuits, Solid Core (<i>M60s only</i>) |

*17. Meter Options (M40 AC)

| | | | |
|----------|-------------------------------|----------|--------------------|
| S | Standard (<i>M60s also</i>) | F | Featured (D+A) |
| D | Display (<i>M60s also</i>) | E | Enhanced (N+A) |
| N | (<i>Measured</i>) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| T | Wireless Temperature Monitor | G | (T+D) |
| H | (T+N) | J | (T+A) |
| Q | (T+D+N) | K | (T+D+A) |
| L | (T+N+A) | R | (T+D+N+A) |
| B | Wired Temperature Monitor | W | (B+D+N) |
| V | (B+N) | 1 | (B+D+A) |
| C | (B+D) | 2 | (B+N+A) |
| M | (B+A) | 3 | (B+D+N+A) |

EXAMPLE
GF630T5C4R-SLSN-M030C-BLKO-M47S1 = Global System, End Feed, 630 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessory Location, .3 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Options, LLD- Standard, Milivolt

SYSTEM LAYOUT DRAWING



Plug-In Units

For further information on applicable T5 plug-in unit options, please consult the factory.

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist of an extruded aluminum shell with your choice of copper or copper-aluminum channel busbars contained in a full length insulator mounted on the interior walls. The aluminum extrusion acts as a 100% protective earth. Each housing has a continuous access slot over its entire length for the insertion of plug-in units. The housing sections join together using Bus connectors which fit into the channels of the adjoining section. An Installation tool is used to force the blades into the busbar channels for a solid “spring-pressure” electrical connection.

Material

Extruded Aluminum

Ratings

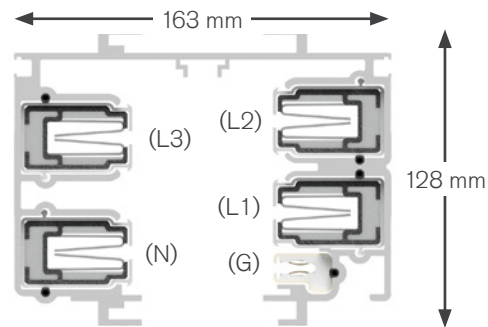
100% Protective Earth
800 Amps
415 Volt






Length

1.5 m, Max 3 m or custom lengths between .6 - 3 m

Weight

3 m 4 pole w/ ground: 69 kg- Hybrid
3 m 4 pole w/ ground: 98 kg- Copper



| Metric | | |
|----------------|---|------------------|
| L1 or Phase A |  | brown |
| L2 or Phase B |  | black |
| L3 or Phase C |  | gray |
| L3 or Phase C |  | blue |
| Neutral Ground |  | green/ yellow |

ELBOW SECTIONS

Product Description

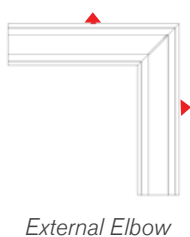
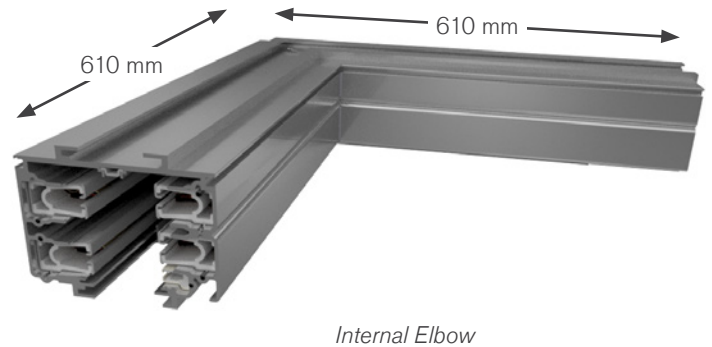
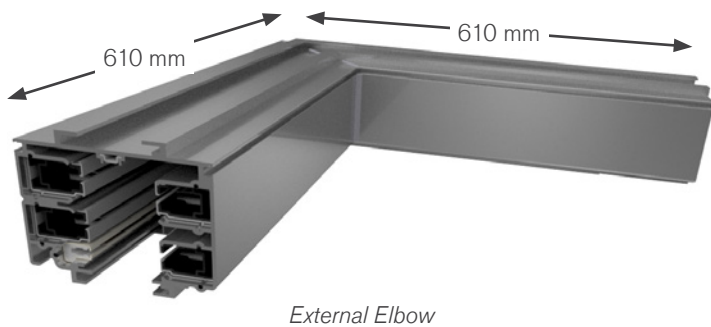
An elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

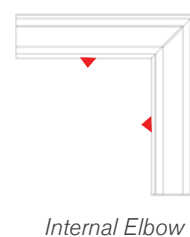
A joint kit (**PAGE 4.84**) is used to make mechanical and electrical connections to adjacent busway sections (*ordered separately*).

Weight

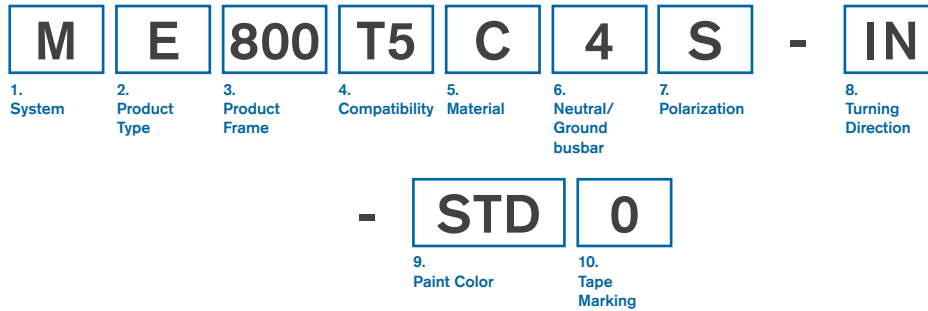
23.1 kg- Hybrid



▲ = Polarizing Strip



ELBOW SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)
M Metric

2. Product Type (section component)
E Elbow Section

3. Product Frame (maximum amperage)
800 800 amps

4. Compatibility (frame compatibility)
T5 T5 Series **K5** T5 Series (Limiting Strip)

5. Material (busbar material)
C Copper **H** Hybrid (Cu/Al)

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

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

8. Turning Direction (direction of section polarizing stripe)
IN Internal **EX** External

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |

***Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems*

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

| | |
|-----------------------------|------------------------------|
| 0 None | 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
ME800K5C4S-IN-STD7 = Metric System, Elbow Section, 800 amps, T5 Series K5 (Limiting Strip), Copper Conductor, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Factory Mill Finish, Factory Blue Tape Marking
ME800T5CGS-EX-BLK0 = Metric System, Elbow Section, 800 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External Turning Direction, Painted Factory Black, No Tape Marking

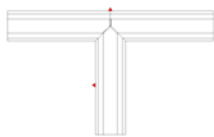
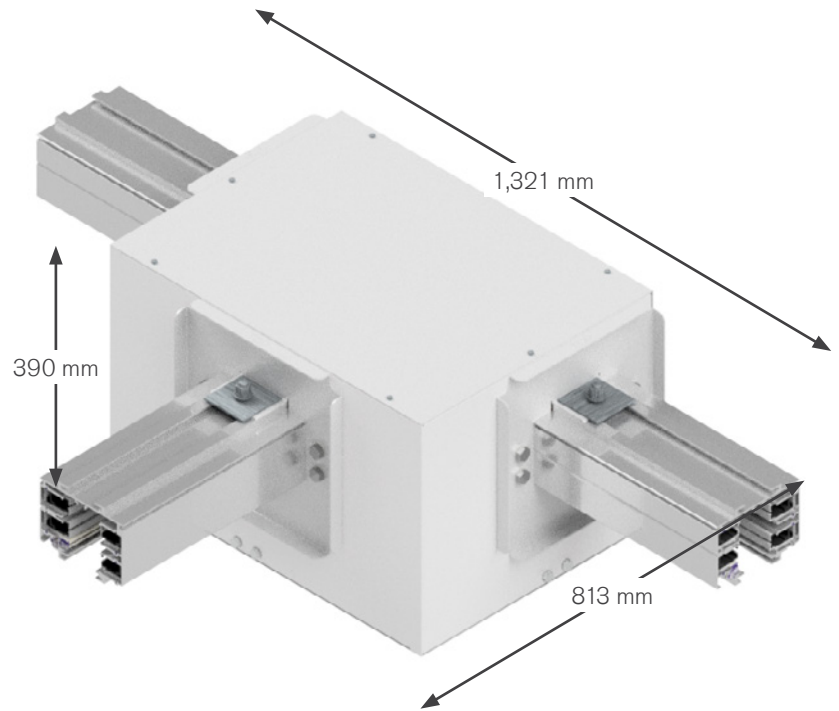
TEE SECTIONS

Product Description

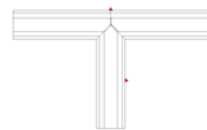
Tee sections are used for creating a 90 degree branch leg in a busway run. When laying out a system, specify the correct busbar orientation of the tee. Indicate right or left, external or internal busbars. External tees are preferred. Tee sections are connected to adjacent busway sections using an installation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

Weight

81.6 kg

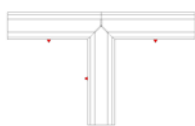


External-Left (EL)



External-Right (ER)

▲ = Polarizing Strip

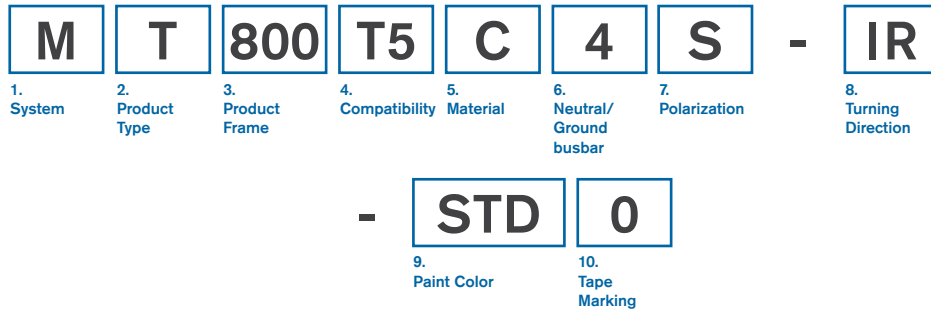


Internal-Left (IL)



Internal-Right (IR)

TEE SECTIONS: PRODUCT NUMBERS



1. System (standard of measure)

M Metric

2. Product Type (section component)

T Tee Section

3. Product Frame (maximum amperage)

800 800 amps

4. Compatibility (frame compatibility)

T5 T5 Series **K5** T5 Series (Limiting Strip)

5. Material (busbar material)

C Copper **H** Hybrid (Cu/Al)

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

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

7. Polarization (orientation of section for mating purposes)

S Standard

8. Turning Direction (direction of section polarizing stripe)

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

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |

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

| | |
|-----------------------------|------------------------------|
| 0 None | 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

MT800T5H4S-IR-RED0 = Metric System, Tee Section, 800 amps, T5 Series, Hybrid Conductor, 3 Phase plus Neutral, Standard Polarization, Internal-Right Turning Direction, Painted Factory Red, No Tape Marking

MT800K5HGS-EL-STD0 = Metric System, Tee Section, 800 amps, T5 Series K5 (Limiting Strip), Hybrid Conductor, 3 Phase plus Neutral plus Internal Ground Conductor, Standard Polarization, External-Left Turning Direction, Painted Factory Silver, No Tape Marking

END FEED UNITS

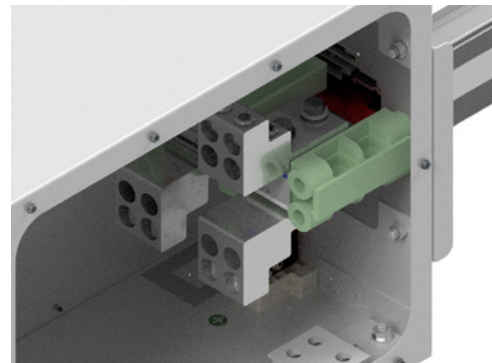
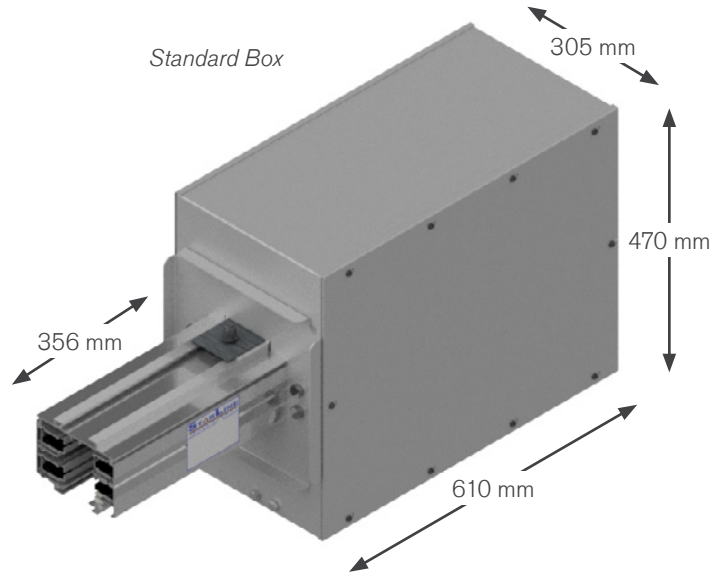
Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an 0.3 meter section of busway. The assembly includes ground lugs for wires up to 185mm² and connection lugs that can handle up to (2) 300mm² wires (CU) or (2) 300 mm² 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 101.6 millimeter 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.



Double Lugs

Weight

38.3 kg

| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | | |
| Double | D | | |
| Bolt* | B | | |
| Quad* | Q | | |

Box size and Lug options:
Refer to option 8. Lug/Box Options on **page 4.58 End Feed Units: Product Numbers**

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



Metric Standard "S"



Metric Double "D"



Metric Quad "Q"



Metric Bolt "B"

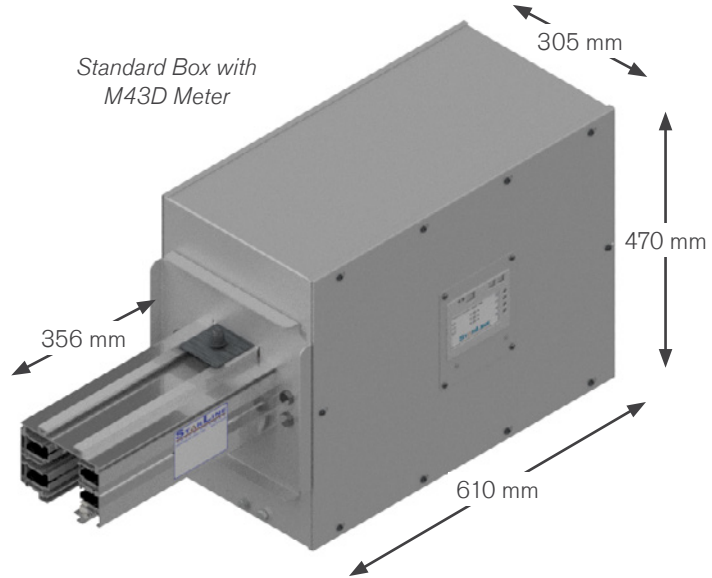
*Isolated or dedicated ground is determined at the feed during installation. For further details about Dedicated Ground vs. Isolated Ground, please reference our tech brief on downloads.starlinepower.com

END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an 0.3 meter section of busway. The assembly includes ground lugs for wires up to 185mm² and connection lugs that can handle up to (2) 300mm² wires (CU) or (2) 300 mm² 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*).

The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. Once the meter is integrated, an automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.



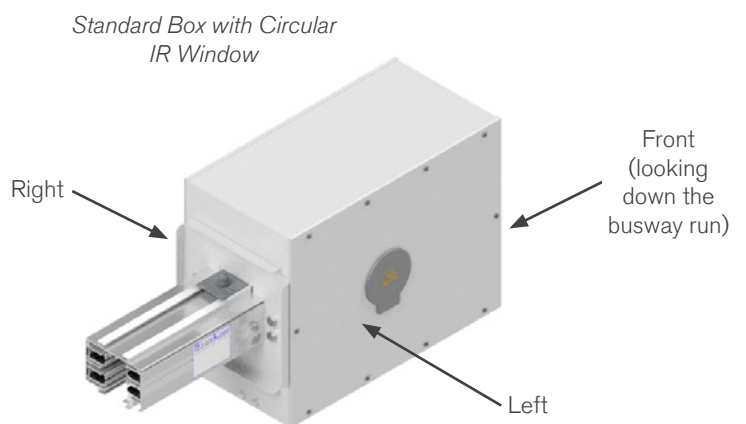
| Box/Lugs Option | 1 Meter or Accessory | 1 Meter & 1 Accessory (opposite lids) | 1 Meter & 1 Accessory (same lid) |
|---------------------------------|----------------------|---------------------------------------|----------------------------------|
| (S) Standard Box, Standard Lugs | X | X | X |
|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

AC End Feed Meter Options:

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

DC End Feed Meter Options:

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

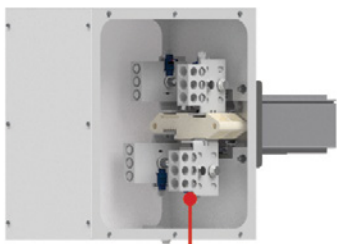


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on [page 4.58 End Feed Units: Product Numbers](#))

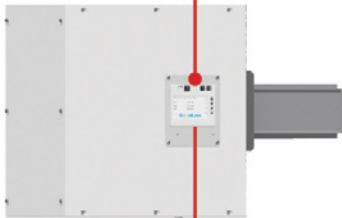
END FEED UNITS: ACCESSORIES

Temperature Monitor

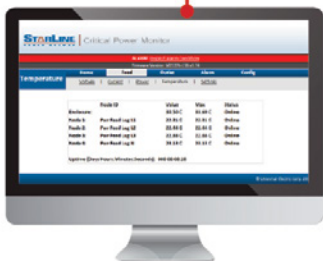
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Wired nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



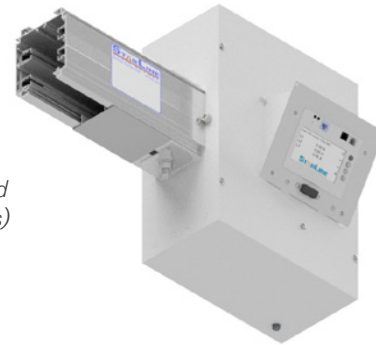
Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

(Refer to option 17. M40 Options on **page 4.59**
End Feed Units: Product Numbers)

Angled Meter Lid

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

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

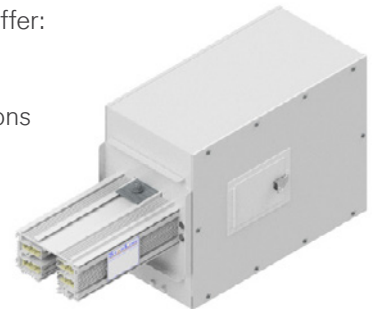


(Refer to option 10.
Accessories Package
on **page 4.58** End Feed
Units: Product Numbers)

IR Windows

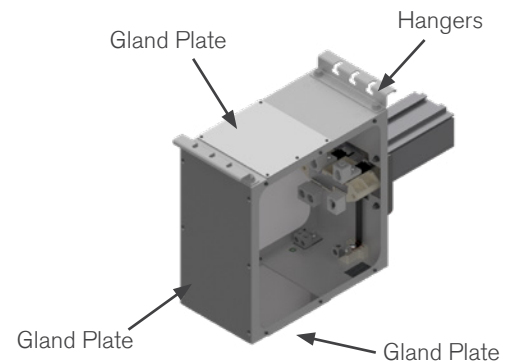
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

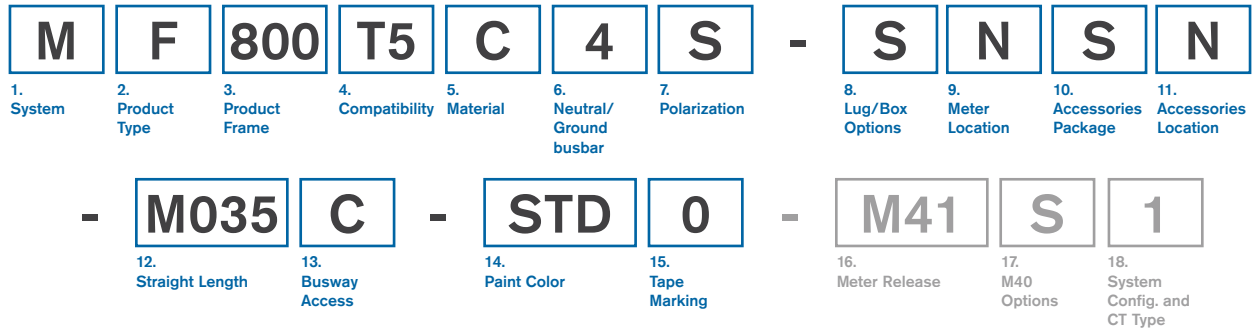


End Feed Hangers & Gland Plates

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make installation fast and easy and can be paired with other Starline end feed accessories. This option should also be chosen for seismic applications.



END FEED UNITS: PRODUCT NUMBERS



1. System (standard of measure)
M Metric

2. Product Type (section component)
F End Feed

3. Product Frame (maximum amperage)
800 800 amps

4. Compatibility (frame compatibility)
T5 T5 Series **K5** T5 Series (Limiting Strip)

5. Material (busbar material)
C Copper **H** Hybrid (Cu/Al)

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

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

8. Lug/Box Options (standard/double/bolt lugs and box size)
S Standard lugs, Standard box **D** Double lugs, Standard box
B Bolt lugs, Standard box **Q** Quad lugs (bolt), Standard box

9. Meter Location (from the terminal, side with removable lid)
R Right **L** Left
N None (N/A)

10. Accessories Package (optional accessories for feed units)

| | |
|---|----------------------------------|
| S Standard | R IR Window - Rectangular |
| C IR Window - Circular | A Angled Meter Lid |
| T IR (rect.) + Angled Lid | L IR (circ.) + Angled Lid |
| F End Feed Hanger & Gland Plates | B (C+F) |
| E (T+F) | J (R+F) |
| K (A+F) | M (L+F) |

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

| | |
|---------------------|--------------------------------------|
| N None (N/A) | R Right |
| L Left | F Front (consult the factory) |

12. Straight Length (length of section)
M035 .35 meters

13. Busway Access
C Continuous

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |

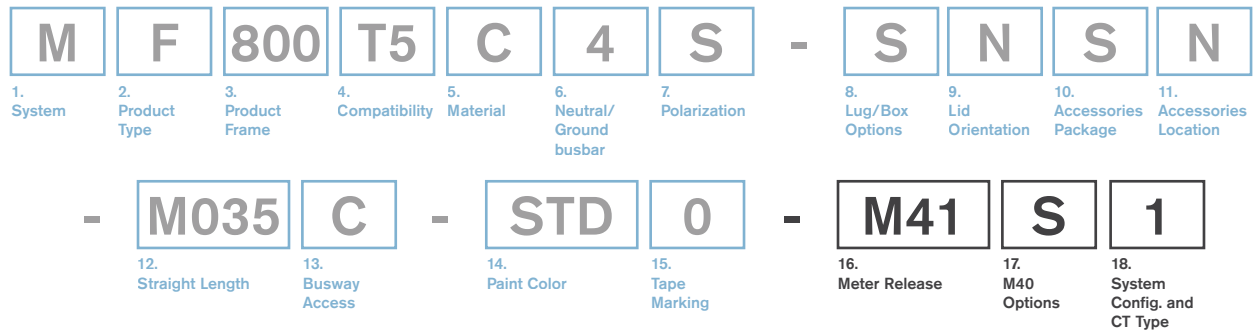
**Standard offering (STD) will be Factory Mill Finish for Metric (M) systems & Factory Silver Paint for Global (G) systems

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

| | |
|-----------------------------|------------------------------|
| 0 None | 7 Tape Factory Blue |
| 3 Tape Factory Black | 8 Tape Factory Green |
| 4 Tape Factory White | 9 Tape Factory Yellow |
| 6 Tape Factory Red | |

EXAMPLE
MF800T5C4R-SLSN-M035P-BLK0 = Metric System, End Feed, 800 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessory Location, .35 meter Straight Length, Access Panels, Painted Factory Black, No Tape Marking

END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

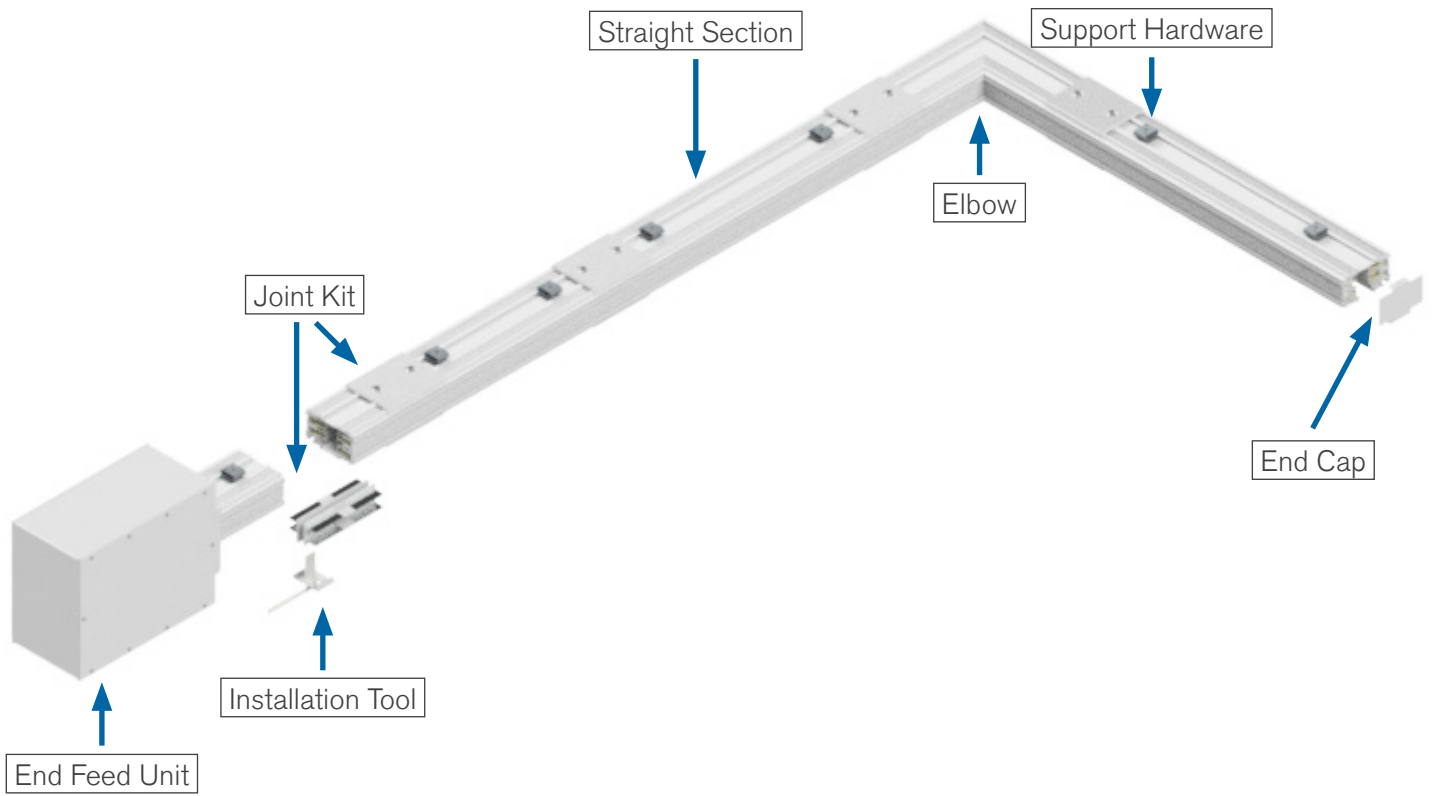
| | | | |
|----------|---|----------|---|
| 1 | LLD - Standard, Milivolt | K | LLD - Split Core, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - Split Core, 5A |
| 3 | LNY - Standard, Milivolt | M | LNY - Split Core, 5A |
| 0 | No CT's Present (<i>Temp Monitors only</i>) | 1 | Circuit 1 Only, Solid Core (<i>M60s only</i>) |
| 2 | Circuit 2 Only, Solid Core (<i>M60s only</i>) | 3 | Both Circuits, Solid Core (<i>M60s only</i>) |

*17. Meter Options (M40 AC)

| | | | |
|----------|-------------------------------|----------|--------------------|
| S | Standard (<i>M60s also</i>) | F | Featured (D+A) |
| D | Display (<i>M60s also</i>) | E | Enhanced (N+A) |
| N | (<i>Measured</i>) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| T | Wireless Temperature Monitor | G | (T+D) |
| H | (T+N) | J | (T+A) |
| Q | (T+D+N) | K | (T+D+A) |
| L | (T+N+A) | R | (T+D+N+A) |
| B | Wired Temperature Monitor | W | (B+D+N) |
| V | (B+N) | 1 | (B+D+A) |
| C | (B+D) | 2 | (B+N+A) |
| M | (B+A) | 3 | (B+D+N+A) |

EXAMPLE
MF800T5C4R-SLSN-M035P-BLK0-M47S1 = Metric System, End Feed, 800 amps, T5 Series, Copper Conductor, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Left Meter Location, Standard Accessory Package, No Accessory Location, .35 meter Straight Length, Access Panels, Painted Factory Black, No Tape Marking, M47 Meter, Standard Options, LLD- Standard, Milivolt

SYSTEM LAYOUT DRAWING



Plug-In Units

For further information on applicable T5 plug-in unit options, please consult the factory.

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist 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 protective earth. 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 earth. The housing sections join together using bus connectors which fit into the channels of the adjoining section. An installation tool is used to force the blades into the busbar channels for a solid “spring-pressure” electrical connection.

Material

Extruded Aluminum

Ratings

100% Protective Earth
1000 Amps
415 Volt

Length

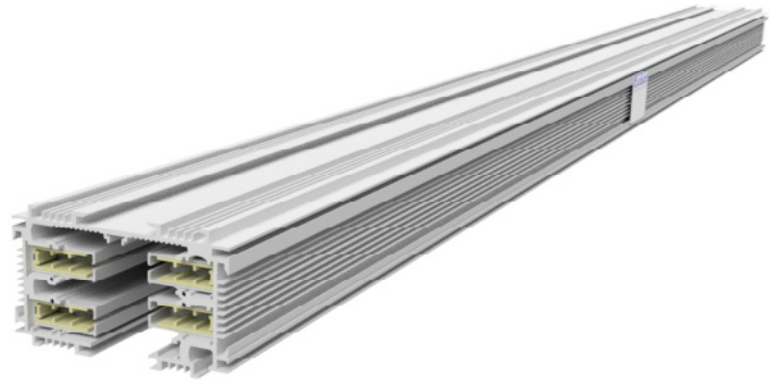
1.5 m, Max 3 m or custom lengths between .6 - 3 m






Metric Weight

3 m 4 pole w/ ground: 95 kg (Hybrid)

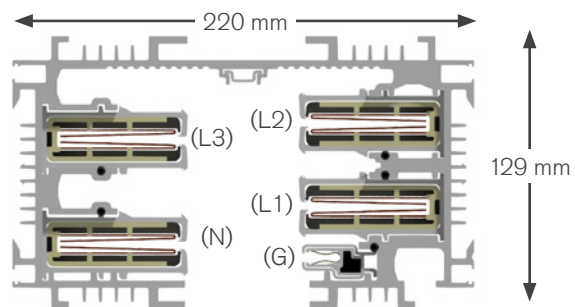
Global Weight

3 m 4 pole w/ Iso ground: 69 kg (Hybrid)

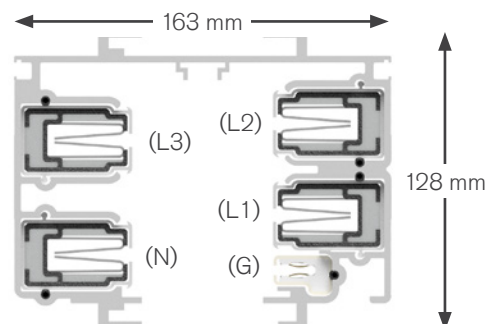


| Global/Metric | | |
|----------------|---|------------------|
| L1 or Phase A |  | brown |
| L2 or Phase B |  | black |
| L3 or Phase C |  | gray |
| Neutral Ground |  | blue |
| |  | green/ yellow |

METRIC SYSTEM:



GLOBAL SYSTEM:



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

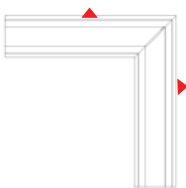
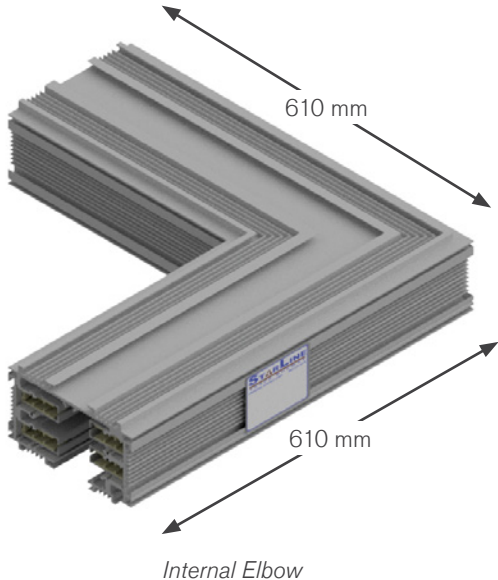
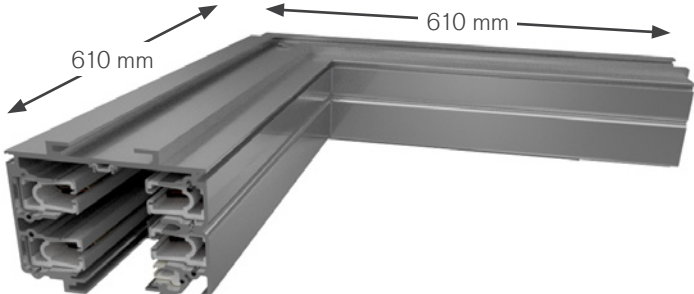
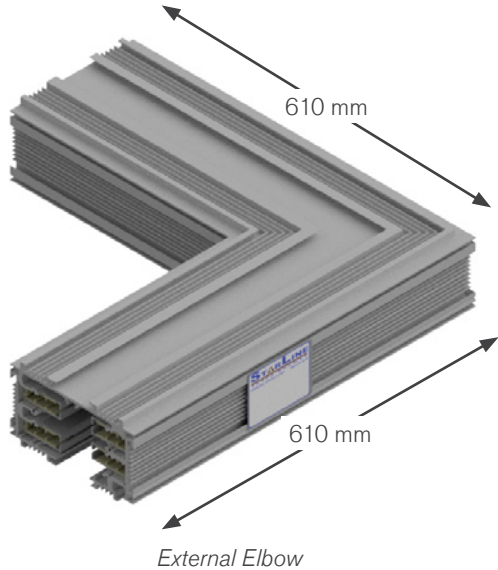
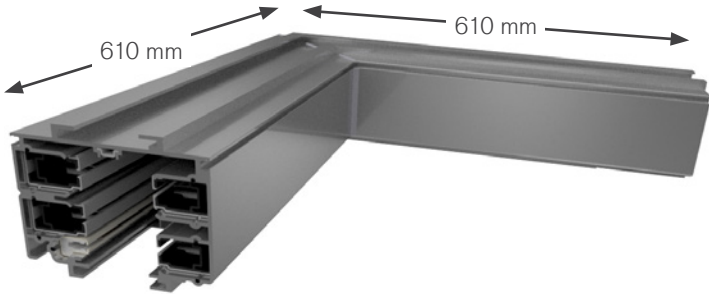
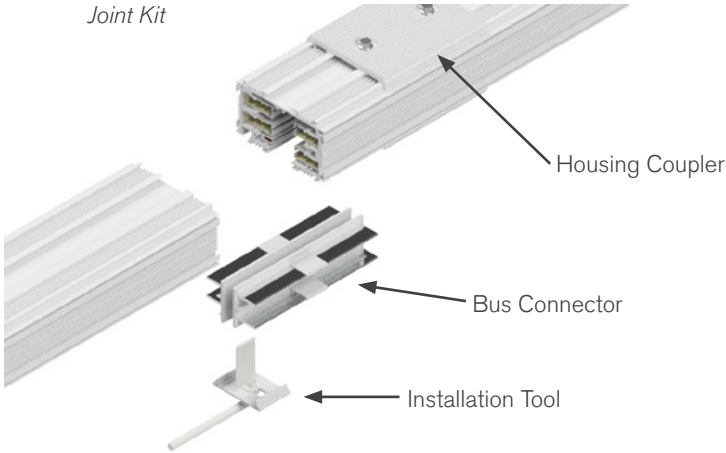
A joint kit is used to make mechanical and electrical connections to adjacent busway sections (*ordered separately*).

Metric Weight

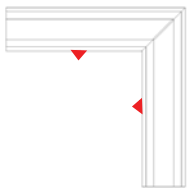
35 kg

Global Weight

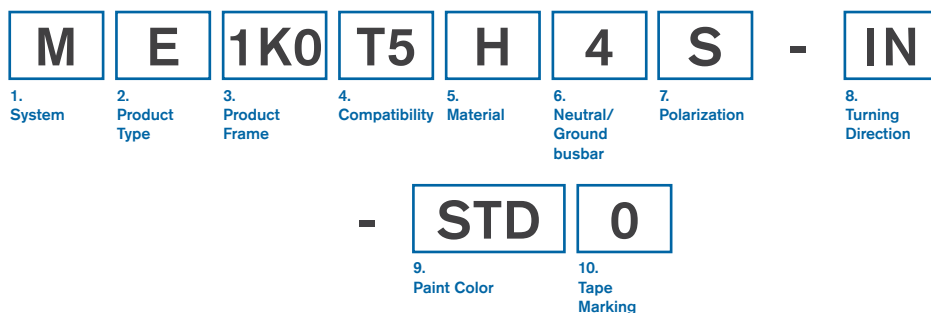
23.1 kg



▲ = Polarizing Strip



ELBOW SECTIONS: PRODUCT NUMBERS



1. System *(standard of measure)*

| | |
|-----------------|-----------------|
| M Metric | G Global |
|-----------------|-----------------|

2. Product Type *(section component)*

| |
|------------------------|
| E Elbow Section |
|------------------------|

3. Product Frame *(maximum amperage)*

| |
|----------------------|
| 1K0 1000 amps |
|----------------------|

4. Compatibility *(frame compatibility)*

| | |
|---------------------|---|
| T5 T5 Series | K5 T5 Series <i>(Limiting Strip)</i> |
|---------------------|---|

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

| | |
|--------------------|--------------------|
| IN Internal | EX External |
|--------------------|--------------------|

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

| | |
|--------------------------------|-------------------------------------|
| STD Factory Mill Finish | RED Paint Factory Red |
| BLK Paint Factory Black | BLU Paint Factory Blue |
| WHT Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) |

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

| | |
|-----------------------------|------------------------------|
| 0 None | 7 Tape Factory Blue |
| 3 Tape Factory Black | 8 Tape Factory Green |
| 4 Tape Factory White | 9 Tape Factory Yellow |
| 6 Tape Factory Red | |

***Colored tape options available in Global (G) only*

EXAMPLES

ME1K0K5H4S-IN-BLU0 = Metric System, Elbow Section, 1000 amps, T5 Series K5 (Limiting Strip), Hybrid, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Blue, No Tape Marking

GE1K0T5HGS-EX-STD0 = Global System, Elbow Section, 1000 amps, T5 Series, 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 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an 0.3 meter section of busway. The assembly includes ground lugs for wires up to 185mm² and connection lugs that can handle up to (2) 300mm² wires (CU) or (2) 300 mm² 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 three 101.6 millimeter 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*).

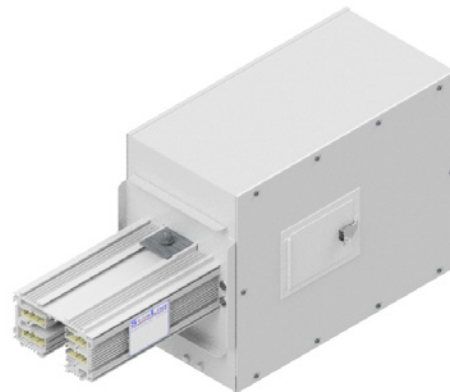
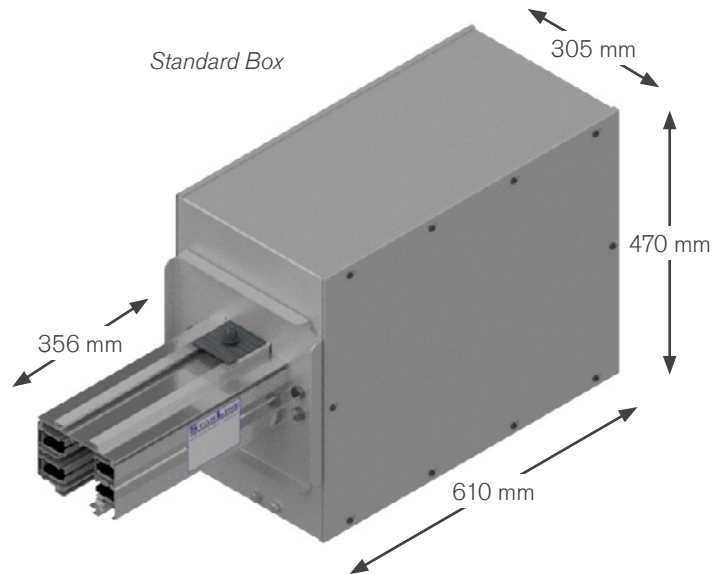
Special need power feed units for confined spaces, as found in mission critical data centers, can also be designed and fabricated but may require minimum quantities.

Weight

Metric 45.6 kg

(34.5 kg without busway stub)

Global 38.3 kg



Standard Box with Rectangular IR Window

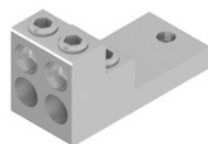
| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | | |
| Double | | | |
| Bolt* | B | | |

Box size and Lug options:

Refer to option 8. Lug/Box Options on **page**

4.68 End Feed Units: Product Numbers

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



Standard "S"



Standard "B"

*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

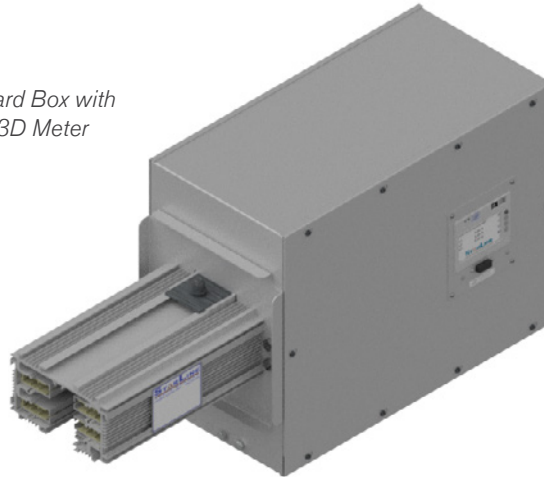
END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an 0.3 meter section of busway. The assembly includes ground lugs for wires up to 185mm² and connection lugs that can handle up to (2) 300mm² wires (CU) or (2) 300 mm² 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*).

The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. Once the meter is integrated, an automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.

Standard Box with M43D Meter



| Box/Lugs Option | 1 Meter or Accessory | 1 Meter & 1 Accessory (opposite lids) | 1 Meter & 1 Accessory (same lid) |
|---------------------------------|----------------------|---------------------------------------|----------------------------------|
| (S) Standard Box, Standard Lugs | X | X | X |
| (B) Standard Box, Bolt Lugs | X | X | X |

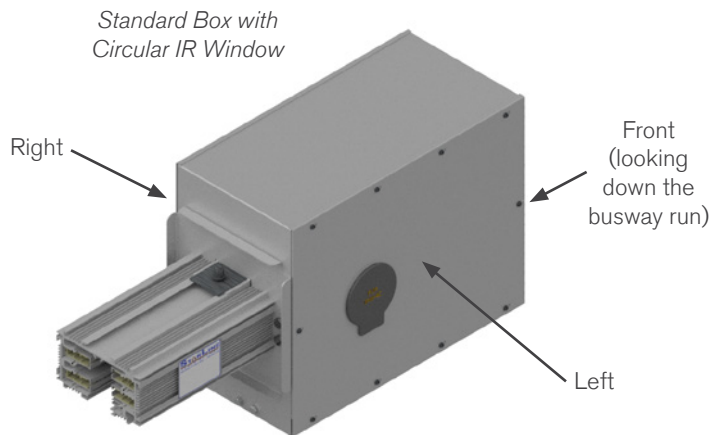
AC End Feed Meter Options:

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

DC End Feed Meter Options:

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

Standard Box with Circular IR Window

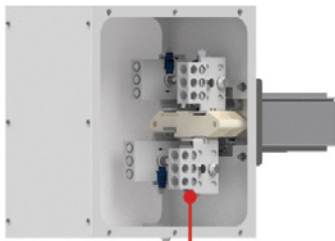


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.68** End Feed Units: Product Numbers)

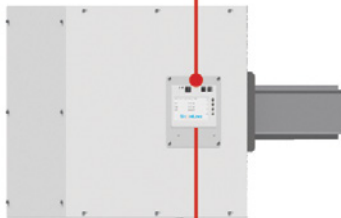
END FEED UNITS: ACCESSORIES

Temperature Monitor

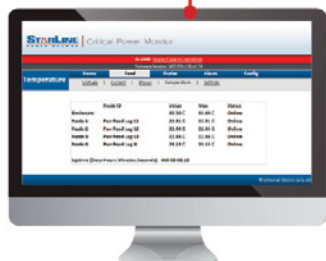
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous with no calibration required.



Wired nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



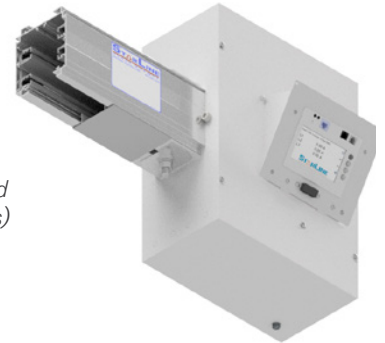
Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

(Refer to option 17. M40 Options on **page 4.69**
End Feed Units: Product Numbers)

Angled Meter Lid

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

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

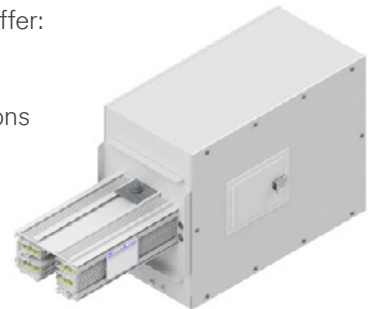


(Refer to option 10.
Accessories Package
on **page 4.68** End Feed
Units: Product Numbers)

IR Windows

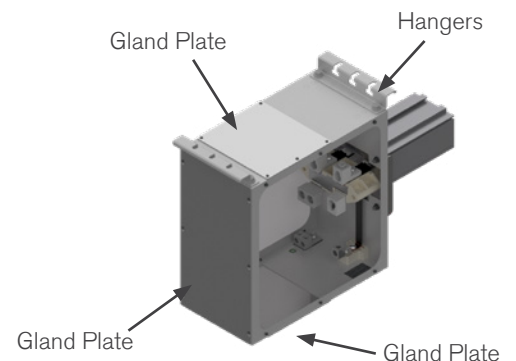
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

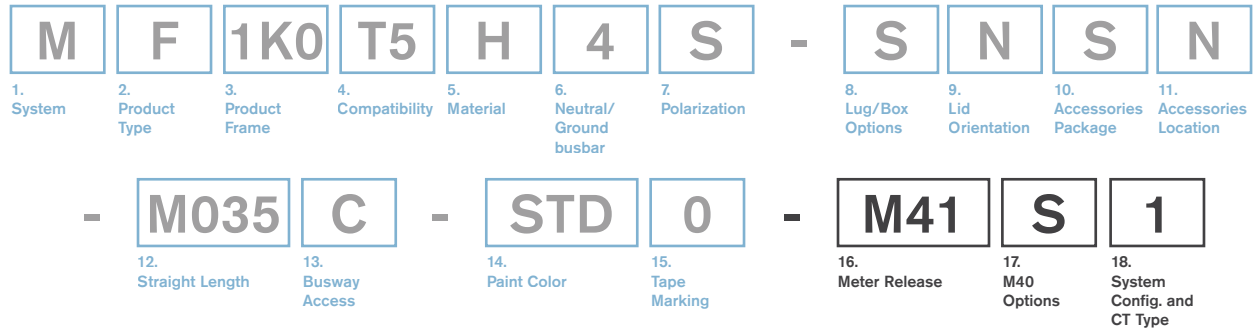


End Feed Hangers & Gland Plates

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make installation fast and easy and can be paired with other Starline end feed accessories. This option should also be chosen for seismic applications.



END FEED METERING: PRODUCT NUMBERS



*16. Meter Release (M40/M60 Series Meters)

| | |
|------------|--|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

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

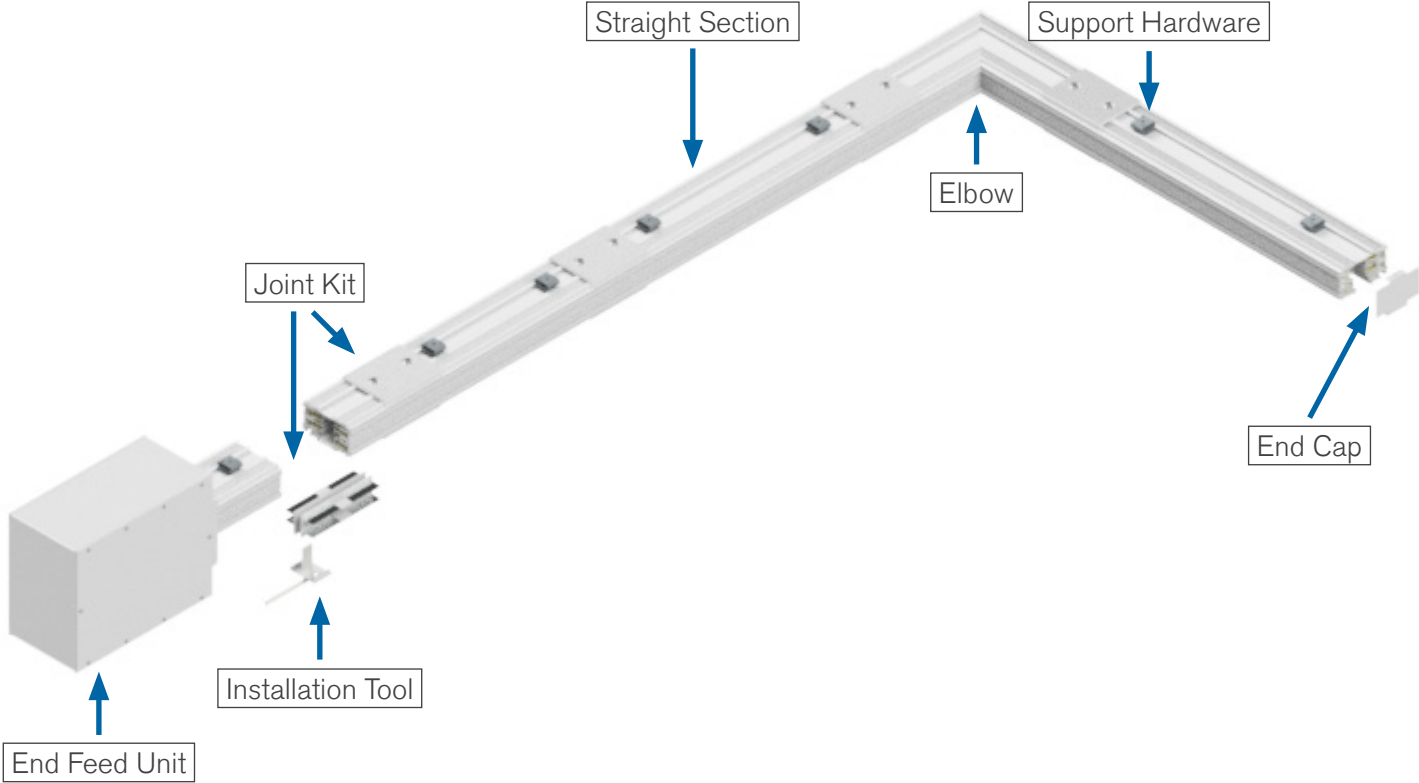
| | | | |
|----------|---|----------|---|
| 1 | LLD - Standard, Milivolt | K | LLD - Split Core, 5A |
| 2 | LLY - Standard, Milivolt | L | LLY - Split Core, 5A |
| 3 | LNY - Standard, Milivolt | M | LNY - Split Core, 5A |
| 0 | No CT's Present (<i>Temp Monitors only</i>) | 1 | Circuit 1 Only, Solid Core (<i>M60s only</i>) |
| 2 | Circuit 2 Only, Solid Core (<i>M60s only</i>) | 3 | Both Circuits, Solid Core (<i>M60s only</i>) |

*17. Meter Options (M40 AC)

| | | | |
|----------|-------------------------------|----------|--------------------|
| S | Standard (<i>M60s also</i>) | F | Featured (D+A) |
| D | Display (<i>M60s also</i>) | E | Enhanced (N+A) |
| N | (<i>Measured</i>) Neutral | P | Professional (D+N) |
| A | Audible Alarm | U | Ultimate (D+N+A) |
| T | Wireless Temperature Monitor | G | (T+D) |
| H | (T+N) | J | (T+A) |
| Q | (T+D+N) | K | (T+D+A) |
| L | (T+N+A) | R | (T+D+N+A) |
| B | Wired Temperature Monitor | W | (B+D+N) |
| V | (B+N) | 1 | (B+D+A) |
| C | (B+D) | 2 | (B+N+A) |
| M | (B+A) | 3 | (B+D+N+A) |

EXAMPLE
MF1K0T5H4R-SRLL-M035C-BLKO-M47S4 = Metric System, End Feed, 1000 amps, T5 Series, Hybrid, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, .35 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking, M47 Meter, Standard Options, LLD- Standard, 5 amp

SYSTEM LAYOUT DRAWING



Plug-In Units

For further information on applicable T5 plug-in unit options, please consult the factory.

STRAIGHT SECTIONS

Product Description

Track Busway straight sections consist 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 protective earth. Each housing has a continuous access slot over its entire length for the insertion of plug-in units. Housing configurations include 4-pole varieties, with optional isolated ground. The housing sections join together using bus connectors which fit into the channels of the adjoining section. An installation tool is used to force the blades into the busbar channels for a solid “spring-pressure” electrical connection.

Material

Powder Coated Extruded Aluminum

Ratings

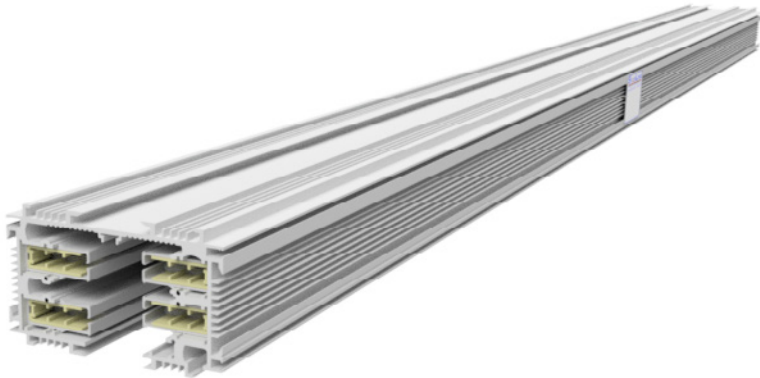
- 100% Protective Earth
- 1250 Amps
- 415 Volt






Length

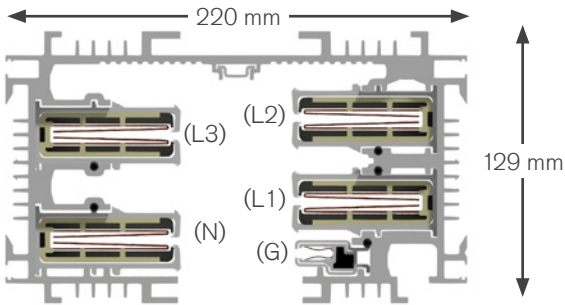
1.5 m, Max 3 m or custom lengths between .6 - 3 m

Weight

3 m 4 pole w/ ground: 95 kg (Hybrid)



| Metric | | |
|----------------|---|------------------|
| L1 or Phase A |  | brown |
| L2 or Phase B |  | black |
| L3 or Phase C |  | gray |
| L3 or Phase C |  | blue |
| Neutral Ground |  | green/ yellow |



ELBOW SECTIONS

Product Description

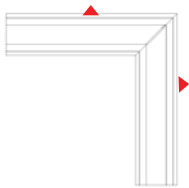
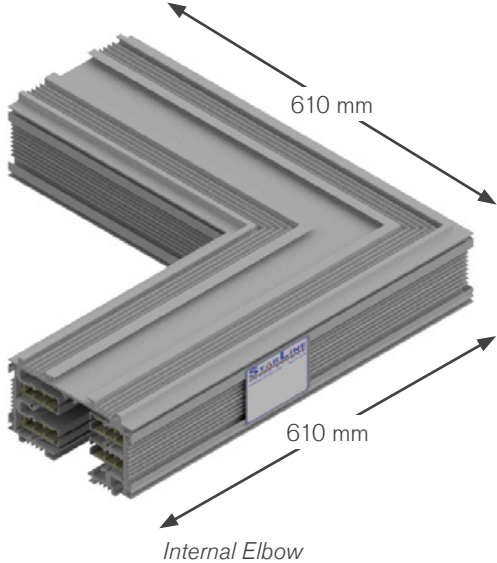
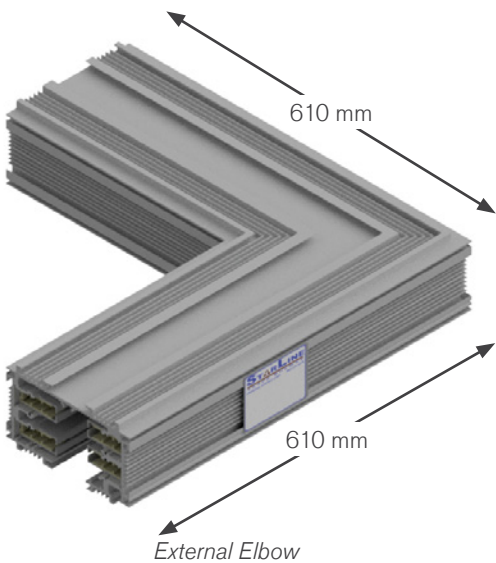
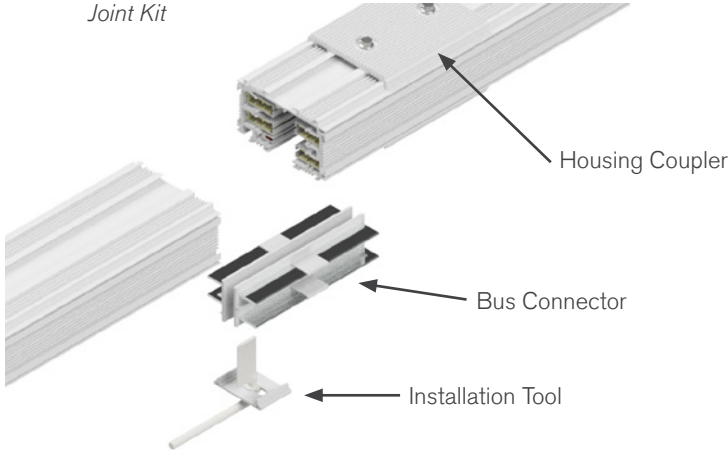
An elbow is used for making a horizontal 90 degree change of direction in a busway run. Specify external or internal elbow, according to the orientation of the polarizing strip in the busway sections to be connected.

Connection Accessories

A joint kit is used to make mechanical and electrical connections to adjacent busway sections (ordered separately).

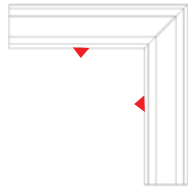
Weight

35 kg



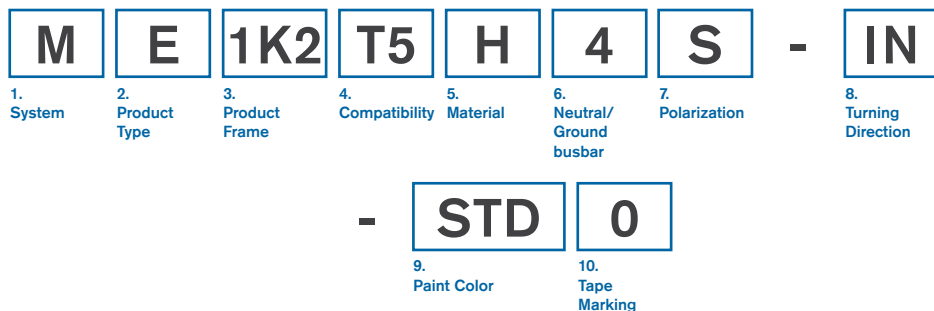
External Elbow

▲ = Polarizing Strip



Internal Elbow

ELBOW SECTIONS: PRODUCT NUMBERS



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

2. Product Type (*section component*)
E Elbow Section

3. Product Frame (*maximum amperage*)
1K2 1250 amps

4. Compatibility (*frame compatibility*)
T5 T5 Series **K5** T5 Series (*Limiting Strip*)

5. Material (*busbar material*)
H Hybrid (Cu/Al)

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

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

8. Turning Direction (*direction of section polarizing stripe*)
IN Internal **EX** External

9. Paint Color (*allows painting of the busway housing*)
STD Factory Mill Finish **RED** Paint Factory Red
BLK Paint Factory Black **BLU** Paint Factory Blue
WHT Paint Factory White ****RAL (PLEASE SEE PAGE 4.80)**

10. Tape Marking (*colored tape on both sides of busway housing*)
0 None

EXAMPLES
ME1K2K5H4S-IN-BLU0 = Metric System, Elbow Section, 1250 amps, T5 Series K5 (*Limiting Strip*), Hybrid, 3 Phase plus Neutral, Standard Polarization, Internal Turning Direction, Painted Factory Blue, No Tape Marking
ME1K2T5HGS-EX-STD0 = Metric System, Elbow Section, 1250 amps, T5 Series, 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 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an 0.3 meter section of busway. The assembly includes ground lugs for wires up to 185mm² and connection lugs that can handle up to (2) 300mm² wires (CU) or (2) 300 mm² 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*).

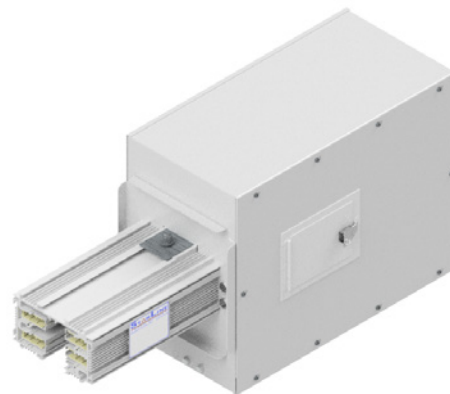
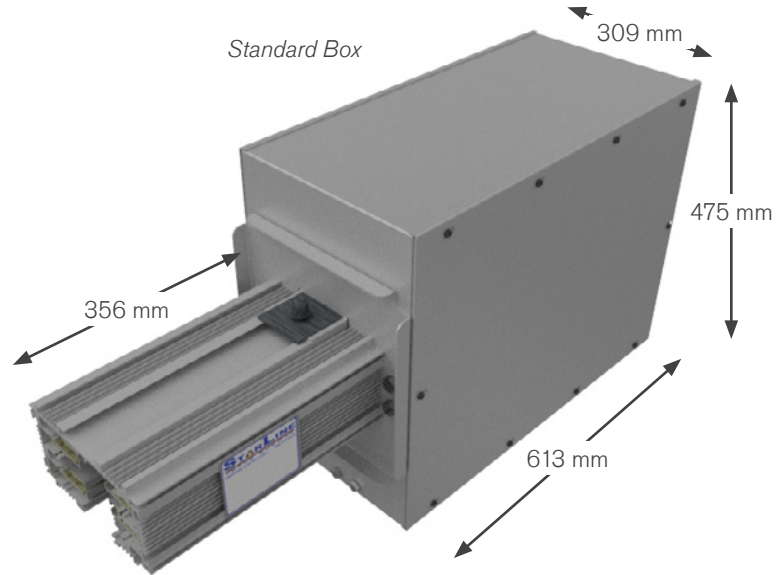
Junction box is sized such that three 101.6 millimeter conduits can be installed in the end of the box.

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

45.6 kg
(34.5 kg without busway stub)



Standard Box with Rectangular IR Window

| | Boxes | | |
|----------|----------|-------|-------|
| Lugs | Standard | Large | Fused |
| Standard | S | | |
| Double | | | |
| Bolt* | B | | |

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

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



Standard "S"



Standard "B"

*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

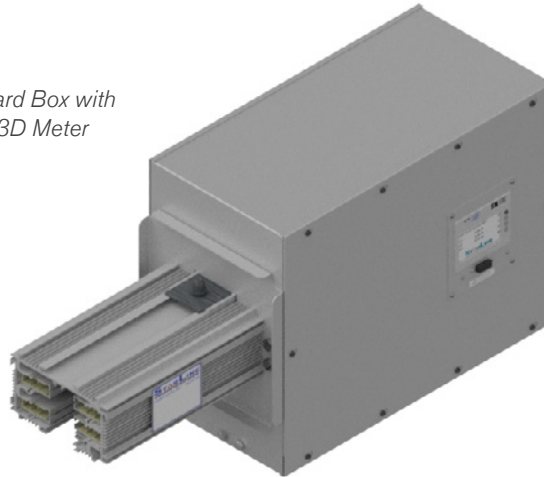
END FEED UNITS: METERING

Product Description

Standard end power feed units connect to the end of the Busway. Factory assembled unit consists of a 470 x 610 x 305 millimeter steel junction box, with removable side, connected to an 0.3 meter section of busway. The assembly includes ground lugs for wires up to 185mm² and connection lugs that can handle up to (2) 300mm² wires (CU) or (2) 300 mm² 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*).

The M40 models are for AC busway, while the M60 models are for DC busway. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. Once the meter is integrated, an automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the integrated webpage.

Standard Box with M43D Meter

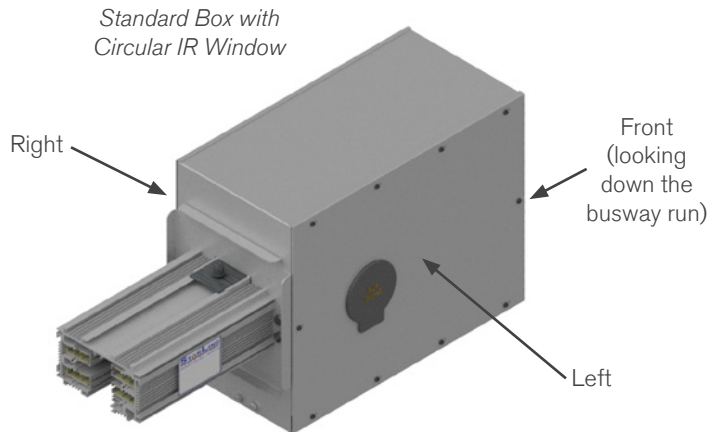


| Box/Lugs Option | 1 Meter or Accessory | 1 Meter & 1 Accessory (opposite lids) | 1 Meter & 1 Accessory (same lid) |
|---------------------------------|----------------------|---------------------------------------|----------------------------------|
| (S) Standard Box, Standard Lugs | X | X | X |
| (B) Standard Box, Bolt Lugs | X | X | X |

| AC End Feed Meter Options: | |
|----------------------------|---------------------------|
| M41 | WiFi, ≤415V Y, ≤240V Δ |
| M43 | No WiFi, ≤415V Y, ≤240V Δ |
| M45 | WiFi, 600V Y, 347V Δ |
| M47 | No WiFi, 600V Y, 347V Δ |
| Y = wye, Δ = delta | |

| DC End Feed Meter Options: | |
|----------------------------|--|
| M61 | Single Eth./WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M63 | Single Eth./No WiFi, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M67 | Dual Eth., single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |
| M69 | Dual Eth./Dual Modbus, single phase, 120VDC - 300VDC OR split phase 120VDC (+/-60VDC) to 380V(+/-190VDC) |

Standard Box with Circular IR Window

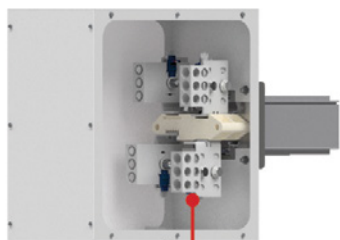


*The above arrows show how to determine your meter location on an end feed (Refer to option 9. Meter Location on **page 4.78** End Feed Units: Product Numbers)

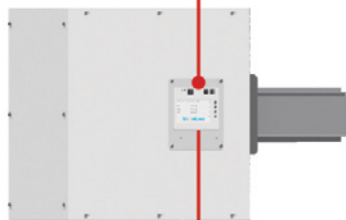
END FEED UNITS: ACCESSORIES

Temperature Monitor

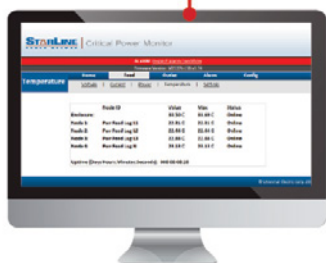
Temperature sensor technology is now available with the Starline Critical Monitor (CPM) for End Feeds. This innovative technology is a first of its kind; making the monitoring and viewing of temperature data instantaneous.



Wired nodes are installed in the busway end feed, which measure the temperature of each mechanical or compression lug.



Each node communicates the temperature back to the Starline CPM. Both power and temperature information will now display on the meter's LCD screen.



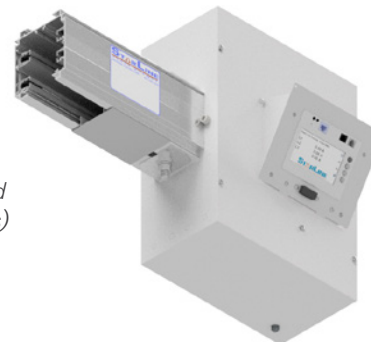
Temperature data also automatically transfer to the CPM's integral webpage—placing timely data at the end users fingertips.

(Refer to option 17. M40 Options on **page 4.79**
End Feed Metering: Product Numbers)

Angled Meter Lid

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

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

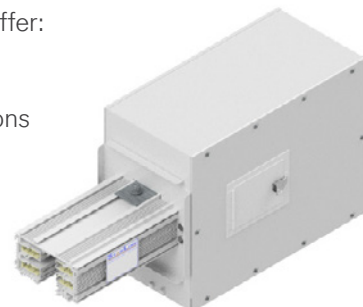


(Refer to option 10.
Accessories Package
on **page 4.78** End Feed
Units: Product Numbers)

IR Windows

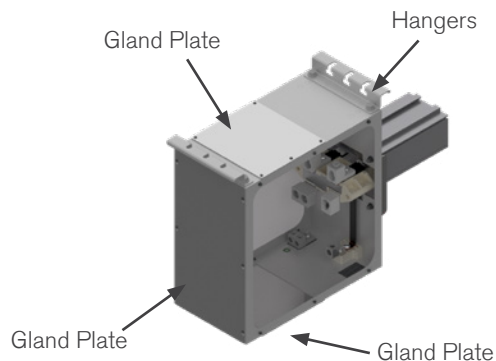
IR windows added to End Feeds offer:

- Enhanced electrical safety
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

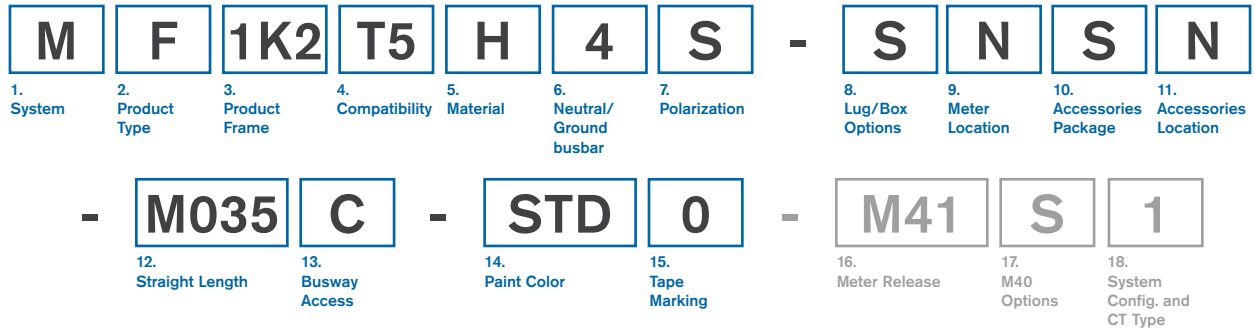


End Feed Hangers & Gland Plates

End feed hangers & aluminum cable gland plates, located on the top, bottom and back of the end feed, can now be added as an optional accessory to Starline end feeds. These features make installation fast and easy and can be paired with other Starline end feed accessories. This option should also be chosen for seismic applications.



END FEED UNITS: PRODUCT NUMBERS



| | |
|---|---|
| 1. System <i>(standard of measure)</i> | |
| M | Metric |
| 2. Product Type <i>(section component)</i> | |
| F | End Feed |
| 3. Product Frame <i>(maximum amperage)</i> | |
| 1K2 | 1250 amps |
| 4. Compatibility <i>(frame compatibility)</i> | |
| T5 | T5 Series |
| K5 | T5 Series <i>(Limiting Strip)</i> |
| 5. Material <i>(busbar material)</i> | |
| H | Hybrid (Cu/Al) |
| 6. Neutral/Ground Busbar <i>(size of neutral busbar and/or ground)</i> | |
| 4 | 3 Phase plus Neutral |
| G | 3 Phase plus Neutral plus Internal Ground Conductor |
| 7. Polarization <i>(orientation of section for mating purposes)</i> | |
| S | Standard |
| R | Reversed |
| 8. Lug/Box Options <i>(standard/double/bolt lugs and box size)</i> | |
| S | Standard lugs, Standard box |
| B | Bolt lugs, Standard box |
| 9. Meter Location <i>(from the terminal, side with removable lid)</i> | |
| R | Right |
| L | Left |
| N | None (N/A) |

| | | | |
|---|--------------------------------|-------------------------------------|------------------------------------|
| 10. Accessories Package <i>(optional accessories for feed units)</i> | | | |
| S | Standard | R | IR Window - Rectangular |
| C | IR Window - Circular | A | Angled Meter Lid |
| T | IR <i>(rect.)</i> + Angled Lid | L | IR <i>(circ.)</i> + Angled Lid |
| F | End Feed Hanger & Gland Plates | B | (C+F) |
| E | (T+F) | J | (R+F) |
| K | (A+F) | M | (L+F) |
| 11. Accessories Location <i>(from the terminal, side with accessory)</i> | | | |
| N | None (N/A) | R | Right |
| L | Left | F | Front <i>(consult the factory)</i> |
| 12. Straight Length <i>(length of section)</i> | | | |
| M035 | .35 meters | | |
| 13. Busway Access | | | |
| C | Continuous | | |
| 14. Paint Color <i>(allows painting of the busway housing)</i> | | | |
| STD | Factory Mill Finish | RED | Paint Factory Red |
| BLK | Paint Factory Black | BLU | Paint Factory Blue |
| WHT | Paint Factory White | **RAL (PLEASE SEE PAGE 4.80) | |
| 15. Tape Marking <i>(colored tape on both sides of busway housing)</i> | | | |
| 0 | None | | |

EXAMPLE
MF1K2T5H4R-SRLL-M035C-BLKO = Metric System, End Feed, 1250 amps, T5 Series, Hybrid, 3 Phase plus Neutral, Reversed Polarization, Standard Lugs, Standard Box, Right Meter Location, Circular IR Window + Angled Meter Lid, Left Accessory Location, .35 meter Straight Length, Continuous Busway Access, Painted Factory Black, No Tape Marking

RAL COLORS

1st Character

| | |
|---|-------|
| P | Paint |
|---|-------|

2nd Character

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

3rd Character

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

4th Character

| | |
|---|---|
| 0 | 0 |
|---|---|

Example:
P B 2 0 = Paint RAL 3012

ACCESSORIES: SUPPORT HARDWARE

Threaded Rod

For mounting to M12 threaded rod. Twist-in design. Can be inserted anywhere along the top full-access slot of busway. Maximum hanger support spacing is every 3 meters.

Part Number
250, 400, 630 & 800 amp systems only:
MBRHT5-M12
Available in plain zinc
or black (-BLK)
Weight
.14 kg



Seismic Threaded Rod

For mounting to M12 threaded rod. Can be inserted anywhere along the top full-access slot of busway, and includes a seismic brace. Hanger support is required every 3 meters maximum on every section of busway.

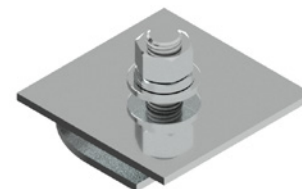
Part Number
250, 400 & 630 amp systems only:
MBRH-M12
Available in plain zinc
or black (-BLK)
Weight
.14 kg



Standard

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

Part Number
250, 400, 630 & 800 amp systems only:
MBHT5-M12
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Standard One-Piece, Slotted

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 3 meters maximum.

Part Number
(Available for all systems,
required for 1000 & 1250):
MBSHT5-4
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Wall Mount Bracket

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

Part Number
WMBT5-9

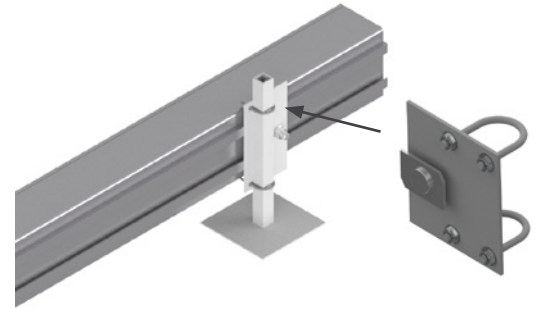


ACCESSORIES: SUPPORT HARDWARE

Raised Mounting Bracket

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

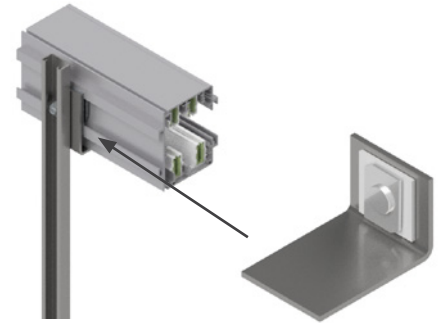
Part Number
250, 400, 630 & 800 amp
systems only:
MRFBT5-2
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Side Mount Brackets

Mounted to vertical supports.

Part Number
250, 400, 630 & 800 amp
systems only:
MBSST5-12
Available in plain zinc
or black (-BLK)
Weight
.09 kg



Recessed Suspended Ceilings

For hanging busway into a recessed ceiling.

**Hanger bolt must be ordered separately*

Part Numbers
(for 250 amp global & metric systems):
GRM250T5-1 MRM250T5-1

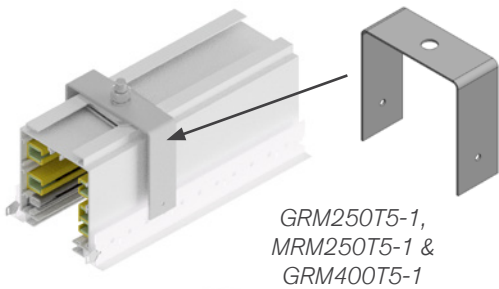
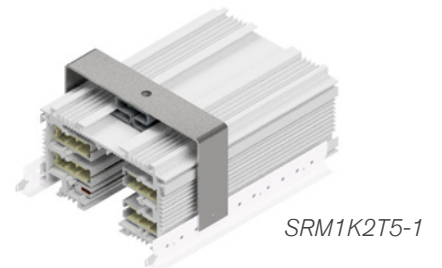
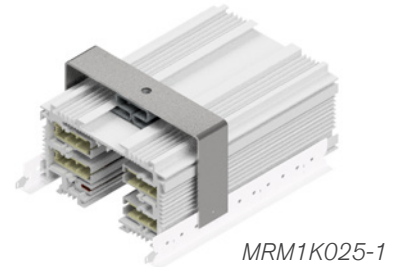
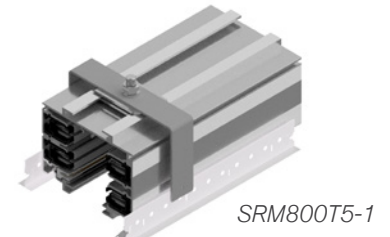
(for 400 amp global & metric systems):
GRM400T5-1 MRM400T5-1

(for 630 amp global & metric systems):
GRM630T5-1 MRM630T5-1

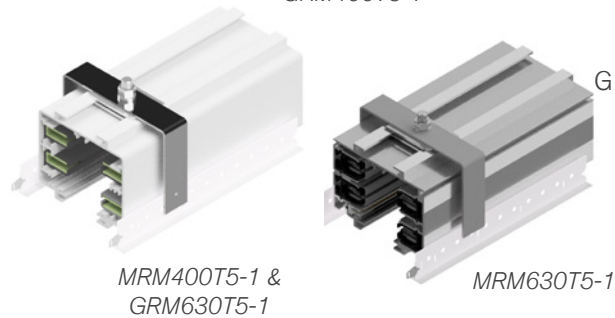
(for 800 amp systems):
SRM800T5-1

(for 1000 amp systems):
GRM1K025-1 MRM1K025-1

(for 1250 amp systems):
SRM1K2T5-1
Available in plain zinc
or black (-BLK)



GRM250T5-1,
MRM250T5-1 &
GRM400T5-1



MRM400T5-1 &
GRM630T5-1

MRM630T5-1

ACCESSORIES: SUPPORT HARDWARE

Universal Server Cabinet Mounting Brackets

The universal server cabinet mounting brackets are designed with generous 9.5 millimeter wide through slots to mount directly onto virtually any server cabinet.

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

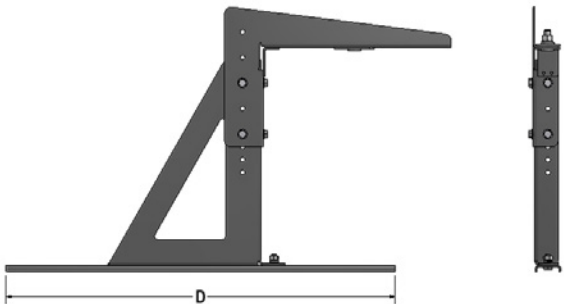
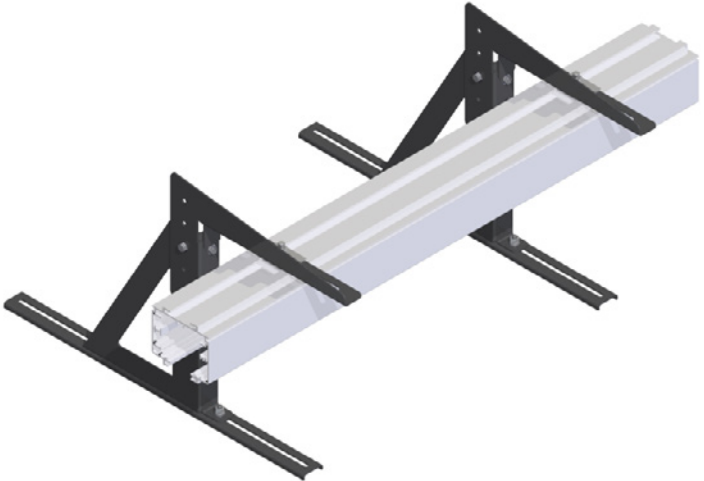
The brackets are adjustable in height, can be ordered in virtually any color, and can be positioned at any depth on the server cabinet. Moreover, they can accommodate up to 2 runs of 250 or 400 amp busway, and 1 run of 630, 800, 1000 or 1250 amp busway.

Hanger Bolt Included – MBHT5-1

Material
Galvanneal Steel

Height
449 mm Min
603 mm Max

Maximum Spacing
Every 3 m per run



| | |
|------------------------------------|-----------------|
| C: Color (1, 3, 4, 6, 7) | |
| 1- | Anodized Silver |
| 3- | Black |
| 4- | White |
| 6- | Red |
| 7- | Blue |
| *consult factory for custom colors | |

Part Number
Metric: MUSCMB-(X)-(D)-(C)

X = System (T5)
D = Depth (762mm, 914 mm, 1067 mm, 1219 mm or custom length)
C = Color (1, 3, 4, 6, 7)

EXAMPLES
MUSCMB-T5-1219-7 = Metric System, Universal Server Cabinet Mounting Bracket-T5 Series-1219 millimeter Depth, Blue
MUSCMB-T5-914-1 = Metric System, Universal Server Cabinet Mounting Bracket-T5 Series-914 millimeter Depth, Anodized Silver

ACCESSORIES: CONNECTION HARDWARE

Joint Kit

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

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

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

*Installation tool is required (see below)
**Available in all standard and RAL colors

Part Numbers

(for 250 amp global & metric systems):

| | |
|-------------|-------------|
| GJK250T5-1 | MJK250T5-1 |
| GJK250T5G-1 | MJK250T5G-1 |
| GJK250T5N-1 | MJK250T5N-1 |
| GJK250T5F-1 | MJK250T5F-1 |

(for 400 & 630 amp global & metric systems)

| | |
|-------------|-------------|
| GJK400T5-1 | MJK400T5-1 |
| GJK400T5G-1 | MJK400T5G-1 |
| GJK400T5N-1 | MJK400T5N-1 |
| GJK400T5F-1 | MJK400T5F-1 |
| GJK630T5-2 | MJK630T5-2 |
| GJK630T5G-2 | MJK630T5G-2 |

*G = copper, M = hybrid
(for 800 amp systems)

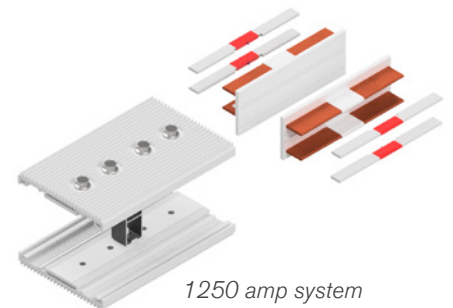
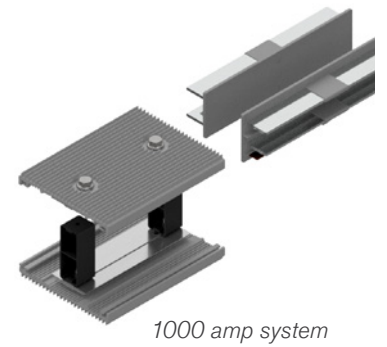
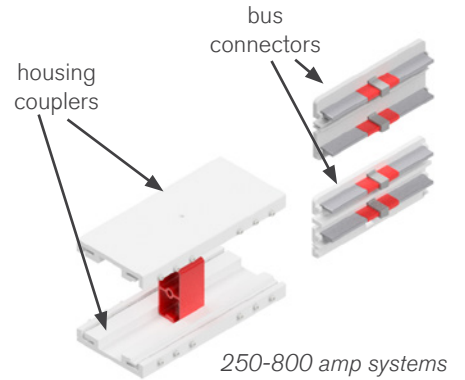
| |
|-------------|
| MJK800T5-2 |
| MJK800T5G-2 |

(for 1000 amp systems)

| | |
|-------------|-------------|
| GJK1K0T5-1 | MJK1K0T5-1 |
| GJK1K0T5G-1 | MJK1K0T5G-1 |

(for 1250 amp systems)

| |
|-------------|
| MJK1K2T5-1 |
| MJK1K2T5G-1 |

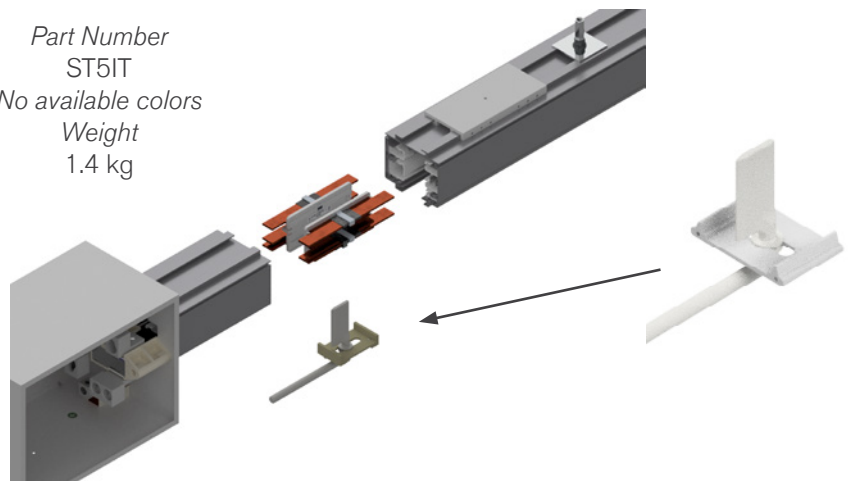


Installation Tool

An installation tool is used to install the bus connector between two adjacent sections of busway.

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.

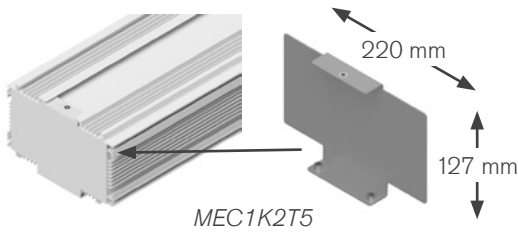
Part Number
ST5IT
No available colors
Weight
1.4 kg



ACCESSORIES: CONNECTION HARDWARE

End Cap

For covering the end of T5 busway systems.



MEC1K2T5

Part Numbers
 (for 250 amp global & metric systems):
 GEC250T5
 MEC250T5

(for 400 amp global & metric systems):
 GEC400T5
 MEC400T5

(for 630 amp global & metric systems):
 GEC630T5
 MEC630T5

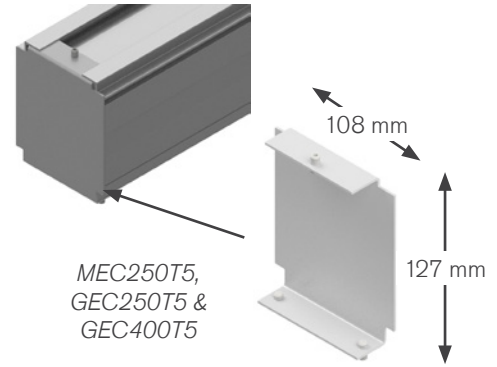
(for 800 amp systems):
 MEC800T5

(for 1000 amp global & metric systems):
 MEC1K0T5
 GEC1K0T5

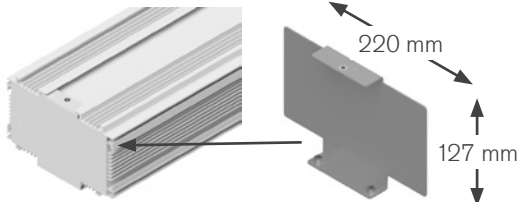
(for 1250 amp systems):
 MEC1K2T5

Available in all standard and RAL colors

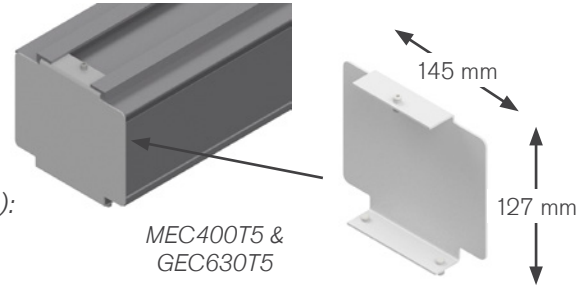
Weight: .18 kg



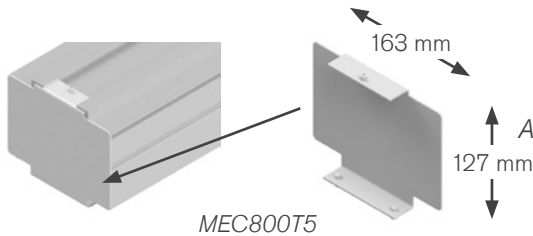
MEC250T5,
 GEC250T5 &
 GEC400T5



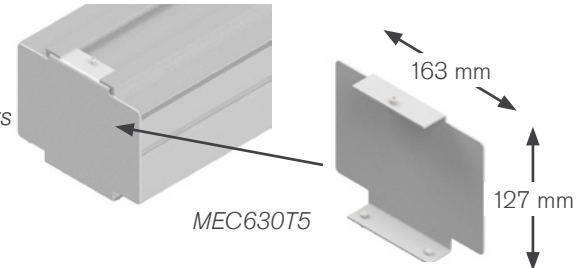
MEC1K0T5



MEC400T5 &
 GEC630T5



MEC800T5



MEC630T5

Optional Closure Strip

The closure strip snaps into the bottom access slot of T5 housing to close off access to power around the installed plug-in units. It is normally shipped in 2.9 meter sections.

The closure strip is offered in both non-conductive plastic material and aluminum for 250, 400, 630 & 800 amp systems. It is only available in plastic for the 1000 & 1250 amp systems.

The aluminum closure strip affixes with an adhesive backing to the access slot of T5 housing.

Part Numbers
 (for 250, 400, 630 & 800 amp systems):
 SCST5-1

Aluminum closure strip:
 SCST5-1-AL

(for 1000 & 1250 amp systems):
 SCST5-2
 -Plastic Closure Strip available in black & white
 -Aluminum Closure Strip available in all standard colors



ADD-ON ACCESSORIES: DATA CHANNEL

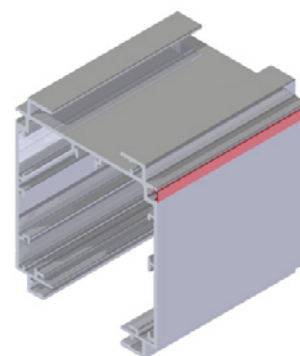
Data Channel Cover

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

The data channel cover is available in lengths of 3 meters.

Please contact sales to order the quantity needed.

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



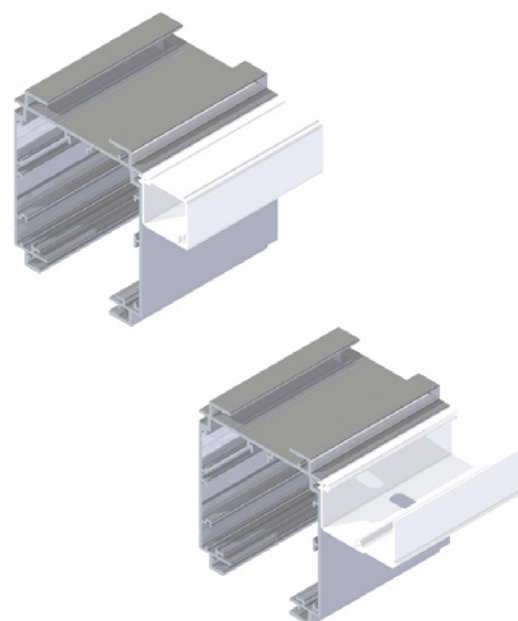
Hinged Wire Way

The hinged wire way provides a seamless, integrated cable management solution that allows users to easily route cabling while leaving it easily accessible and identifiable. Discreet slots located every 150 millimeter provide built-in accessibility for cable drops.

The hinged wire way is available in lengths up to 3 meters.

Please contact sales to order the quantity and length needed.

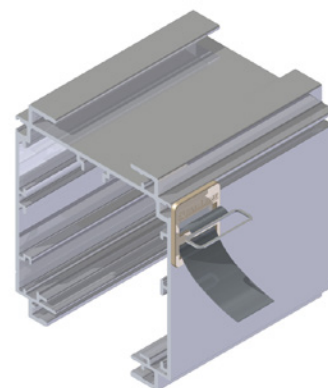
Part Number
 MHWWT5-3
 Available in gray only



ADD-ON ACCESSORIES: DATA CHANNEL**Data Cable Strap**

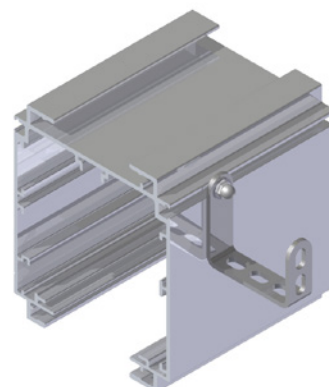
The data cable strap provides a seamless, integrated cable management solution that allows users to easily route cabling while leaving it easily accessible and identifiable. The 305 millimeter adjustable velcro strap can accommodate a wide variety and quantity of cables, and can be easily positioned 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 6.5 millimeter slotted holes throughout to allow for the attachment of a wide variety of accessories. Each bracket is capable of supporting a load of 12 kg. The multi use mounting bracket is commonly used for suspending compressed air lines, tap box cable management and suspending accessory lighting.

*Part Number
SMMBT5-1
Available in plain zinc
or black (-BLK)*



SERVICES

Universal Global Services offers a comprehensive suite of services from startup and system certification through on-going support contracts and extended warranty programs. To ensure that your Busway system is installed properly you can trust Starline's team of factory certified technicians to perform services throughout the long life of your Starline Track Busway system. Our complete line of services include:

- Load Bank Testing and Equipment Rentals
- Meter Services
- Startup and System Certification
- Engineering Studies
- On-Site Installation Support
- On-Site Product Training
- Extended Warranty and Enhanced Service Plans

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

With over 30 years of experience in the busway market, Starline has the knowledge and expertise to ensure that your Track Busway system is functioning at a best-in-class level. We are currently offering the following services:

Load Bank Testing and Equipment Rentals

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

Meter Services

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

Startup and System Certification

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

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

Engineering Studies (US Only)

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

Turnkey Installation Services (UK Only)

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

SERVICES

On-Site Installation Support

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

On-Site Product Training

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

Extended Warranty and Enhanced Service Plans

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

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

| Choice of Extended Warranty or Enhanced: Silver, Gold or Platinum Service Plans | Extended 1, 2, 3, 4 years | Silver 1, 2, 3, 4 years | Gold 1, 2, 3, 4 years | Platinum 2, 3, 4 years |
|--|--|--|--------------------------------------|---------------------------------------|
| Repair or replacement of defective parts throughout life of service agreement | X | X | X | X |
| 24/7 technical support hotline | X | X | X | X |
| Visual inspection of meters | | X | X | X |
| Visual inspection of all joints for visible gaps | | X | X | X |
| Update firmware and verify all Starline CPMs | | X | X | X |
| Includes travel and expenses | | X | X | X |
| One (1) service site visit per year | | X | | |
| Two (2) service site visits per year | | | X | X |
| Thermal imaging of all plug-in units | | | X | X |
| Thermal imaging of all Busway joints | | | X | X |
| Thermal imaging of all end feed units | | | X | X |
| Detailed and fully executed thermography report | | | X | X |
| Online portal for test reports & documentation | | | X | X |
| Spare parts inventory management program | | | | X |

Starline, a brand of Legrand, has been a leader in power distribution since 1924. The company's founders led the way for many new technologies in the power distribution equipment industry. Today, Starline continues to pave the way for safer, more innovative and more reliable electrical power distribution systems. Visit StarlinePower.com to learn more about our flexible power solutions.

Starline®

A brand of  **legrand®**

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