



## Industrial and Manufacturing Applications







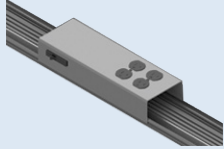
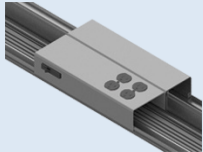
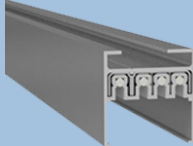
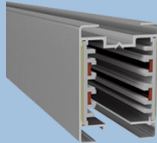
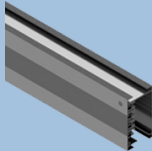
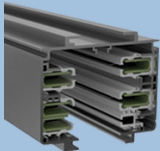




## Powering industrial sites for more than 50 years.

Universal Electric Corporation (UEC) has been an innovator in delivering flexible power solutions to industrial and manufacturing facilities since the 1960s. In fact, UEC was founded when we recognized the need to bring safer products to these markets. Expertly designed as simple, versatile, fast and economical solutions for supplying power, our products are unique because they can be tapped instantly at any location. Whether it be for an automotive assembly line, a workcell manufacturing environment or a biotechnology facility, Starline products will maximize efficiency, flexibility, and cost savings.

We invite you to learn more about our strong commitment to developing innovative products, and how we can deliver safe, reliable power to your facility.

**STARLINE**

# STARLINE

Starline Solution	Series	Continuous Current	Common Application	System Profile
Plug-In Raceway	RP	20 & 60 Amp	Assembly cells, conveyor systems, testing labs, quality labs, conference rooms, break room areas, cafeterias, etc.	
	RD			
Track Busway	T1	40, 50 & 60 Amp	Compact design for lighting fixtures, small loads, etc.	
	T2	60 & 100 Amp	Overhead lighting, small industrial loads, power tools, etc.	
	T3	100 & 225 Amp	Mid to large loads in assembly lines, machining centers, test areas, etc.	
	T5	250, 400, 600, 800 & 1200 Amp	Large loads in assembly lines, machining centers, test areas, etc.	
Critical Power Monitor	M40	Standalone or Integrated	Assembly lines requiring load balancing, building management systems, etc.	
	M50	Integrated	Power monitoring at the point-of-use: biotech equipment, CNC, 3D printers, injection molding, etc.	
	Retrofit	For Integration	Any branch circuit where the integration of a meter inside the plug-in unit is not feasible	
	Corded	Standalone	Any branch circuit where plug-in unit is installed at a high elevation	



## STARLINE PLUG-IN RACEWAY

### Reduced Installation Costs

- Patented prewired bus-type design
- Fast installation means labor costs are reduced
- Eliminates costly changes related to using traditional power distribution methods
- Lower overall cost of ownership

### Flexible and Scalable

- The system can be easily expanded, relocated and reconfigured
- Ability to relocate from space to space, if needed
- Add additional raceway without having to run additional wiring
- Additional plug-in modules can be added without the need of an electrician
- Available in power-only (RP) or power & data (RD)
- Reduces installation time by 30%

### Reliable

- Tested to meet NEC, UL, ETL, and IEC standards

Starline Plug-In Raceway has revolutionized electrical power distribution for industrial sites. Its simple and flexible design provides site managers with an efficient and economical solution for supplying power, expanding operations quickly, and optimizing future facility infrastructure changes.

### Advantages of Starline Plug-In Raceway:

- Safe fingerproof design allows end users to add plug-in modules without cutting power
- Flexible design allows receptacle plug-in modules to be added or relocated anywhere on the raceway quickly and easily



## STARLINE TRACK BUSWAY

### Reduced Facility Construction Costs

- Simple installation equals labor savings
- Eliminates costly change orders and outside labor costs for electrical specialists

### Faster Installation

- Building projects are up and running faster
- Add, remove or relocate power easily and quickly without any downtime

### Flexibility for the Future

- Plug-in units can be disconnected and connected without de-energizing the busway
- Requires no routine maintenance
- Easily reconfigure work space

### More Choices

- Customizable for any environment, space or power requirement
- Scalable, reusable and customizable lengths, sizes, colors and configurations to meet your unique specifications
- A variety of plug-in units and Starline's monitoring capabilities make us the preferred choice for industrial and manufacturing facilities



*Starline Plug-In Units are completely customizable, and can incorporate devices such as circuit breakers, fuses, pin and sleeve connectors, twist-lock connectors, etc.*

Starline Track Busway is a simple, versatile, and economical solution for supplying power to industrial sites. It's unique, overhead design can be tapped instantly at any location, providing power exactly where it is needed.

### Advantages of Starline Track Busway:

- Maintenance-free design has been field-proven in industrial sites for more than 30 years
- Plug-in units can be positioned at any point along the busway for maximum versatility
- Most reliable plug-in design with the least amount of electrical connections from busway to plug-in unit
- Available in lengths up to 20ft (6m) for faster installation
- UL, ETL & IEC listed



## Starline Track Busway T1 Series

The 40, 50 & 60 amp compact series offers reliable, easy to install overhead power distribution for lighting, or any other light duty power draw needs.

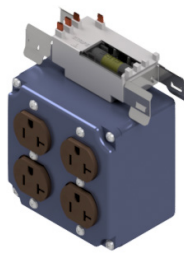
### PERFECT FOR

Lighting

Power for:

- Security cameras
- Egress lighting
- Speakers or alarms

T1 system offers a unique IP50 connector that 'snaps' into the busway, connecting to virtually any lighting fixture or small load power device.



## Starline Track Busway T2 Series

The 60 & 100C amp busway is a mid-amperage system that is ideal for overhead lighting and other small industrial applications.

### PERFECT FOR

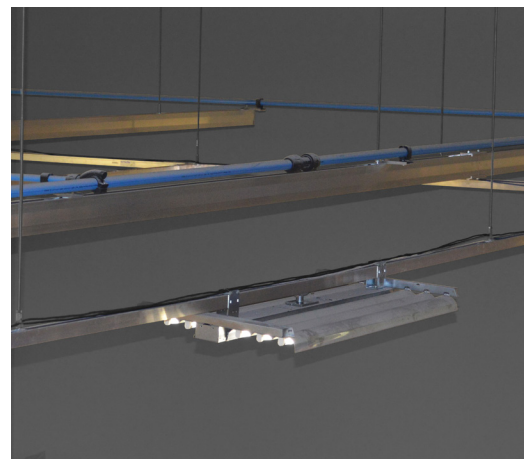
Lighting (industrial or office)

Power for:

- Power tools
- Fans in production floor
- Small loads in assembly cells



The variety of available plug-in units range from simple one or two outlet units, to the possible combination of multiple drop cords and circuit breakers.



## Starline Track Busway T3 Series

The 100 & 225 amp systems are ideal for supplying power for mid to large size loads in industrial environments.

### PERFECT FOR POWERING

Automotive component assemblies

Clean rooms in biotech applications

Electronic Circuit board printers, 3D printers

Small CNC machines, Injection molding machinery

Automation, wire cutters

Starline Plug-In Units are unique and customizable, with no moving parts to connect them to the busbar. The lesser complicated design, the higher the reliability.



## Starline Track Busway T5 Series

The 250, 400, 600, 800 & 1200 amp systems offer high amperage for powering equipment or for feeding other runs of busway.

### PERFECT FOR POWERING

Automotive assembly plants

Biotech manufacturing equipment

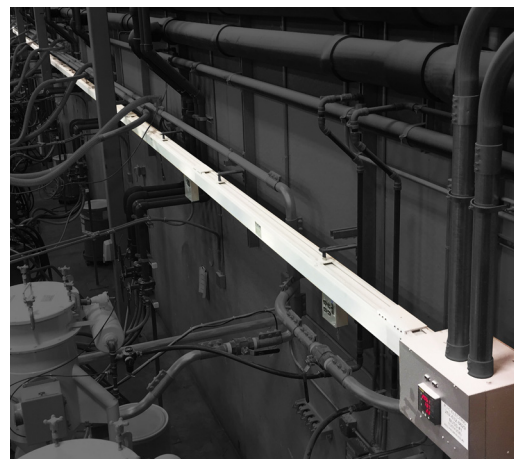
Heavy stationary equipment, metal presses

Large CNC machines, Injection molding machinery

Automation/robots



Designed specifically for industrial environments, our T5 paddle connector is compatible with all 250, 400, 600, 800 and 1200 amp systems.



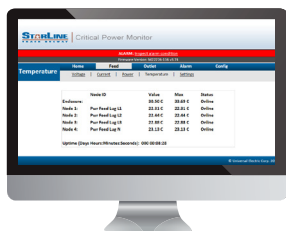


# STARLINE

## CRITICAL POWER MONITOR

### The Starline CPM features:

- Revenue grade metering functionality
- Monitors multi-circuit configurations
- End feed and branch circuit models
- Display and non-display versions
- Wired Ethernet and serial communications optional
- Daisy-chain Ethernet is available
- Optional temperature monitoring
- Available for AC or DC applications



CPM Temperature Monitor



Standalone M40 CPM



Integrated M50 CPM



Retrofit CPM



Corded CPM

The Starline Critical Power Monitor (CPM) is uniquely designed to provide the functionality required for monitoring any facility's power use. Monitors can be integrated into end feeds and plug-in units (M40, M50 & Retrofit) or as standalone devices (M40 & Corded). Starline CPM provides information when and where you need it.

### Advantages of Starline Critical Power Monitor:

- Identify and characterize load imbalance before it impacts equipment. By continuously monitoring each phase, changes due to new equipment or varying load conditions are easily detected.

With more than 30 years of experience in the industry, Starline has the knowledge and expertise to ensure that your system is functioning at a best-in-class level.

### AVAILABLE SERVICES

Load bank testing and equipment rentals

Meter programming, BMS integration and temperature monitoring

Startup and system certification

Arch flash engineering studies

On-site Busway system installation support

On-site system training

Extended warranty and enhanced service plans

Thermal imaging and reporting

## UNIVERSAL

### GLOBAL SERVICES



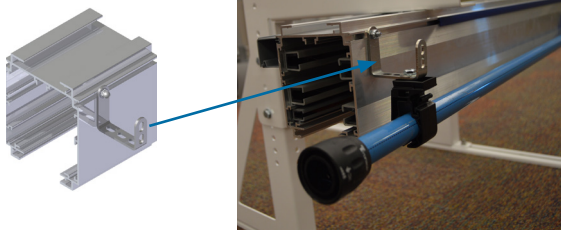
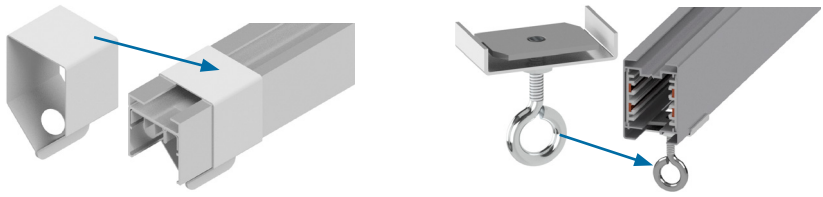
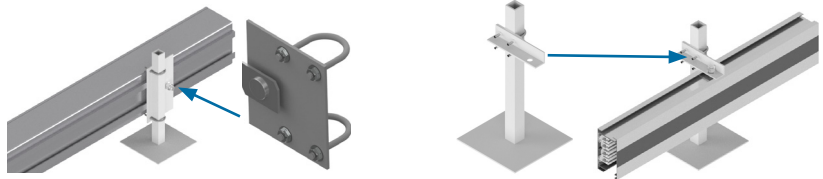
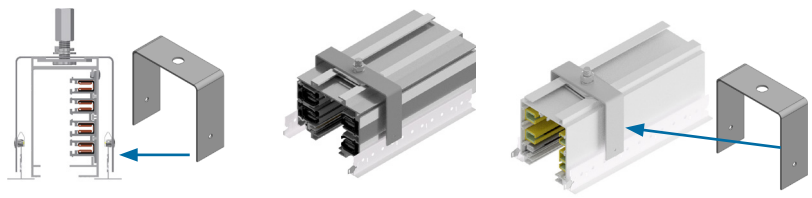
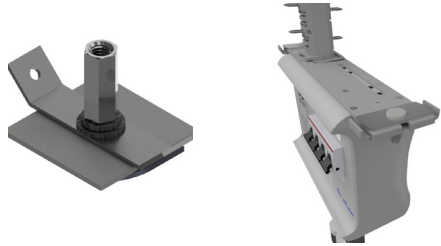

For more information on service offerings, ask your Starline Sales Representative or download the detailed Statement of Work documents at:  
<http://downloads.uecorp.com/services/>  
 or contact [service@uecorp.com](mailto:service@uecorp.com)

## Technical Data & System Ratings

Specifications	RP	RD	T1	T2	T3
<b>Ampacity</b>	<b>20/60</b>	<b>20/60</b>	<b>40/50/60</b>	<b>60/100</b>	<b>100/225</b>
<b>Rated Voltage</b>	480	480	480 AC or DC	600 AC or DC	600 AC or DC
<b>Rated Short Circuit Capacity</b>	10kAIC	10kAIC	10kAIC	10kAIC	22kAIC
<b>Conductor Type</b>	Copper	Copper	Copper	Copper	Copper
<b>Frequency Ratings</b>	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
<b>Meets Standards</b>	IEC 61534-1, UL857	IEC 61534-1, UL857	UL 857 CSA C22.2# 27	UL 857 CSA C22.2# 27	UL 857 IEC 61439 1, 6 CSA C22.2#27 GB 7251 -1, 6 NMX-J-515-ANCE
<b>Certifications</b>	ETL, NEC, TUV, CE	ETL, NEC, TUV, CE	cULus	cETLus	cETLus, CE, CCC, NOM
<b>Housing Material</b>	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum
<b>System Weight</b>	Backplane with cover 1ft (.3m) = 1.2lbs	Backplane with cover 1ft (.3m) = 1.5lbs	Straight sections based on 4 pole. 1ft (.3m) = 0.9lbs (0.4kg)	Straight sections based on 4 pole. 1ft (.3m) = 1.25lbs (0.56kg)	Straight sections based on 4 pole. 1ft (.3m) = 3.4lbs (1.54kg)
<b>Support Distance</b>	Supported every 30" (762mm)	Supported every 30" (762mm)	Max distance 10ft (3m)	Max distance 10ft (3m)	Max distance 10ft (3m)
<b>Available Lengths</b>	Up to 10ft (3m)	Up to 10ft (3m)	Up to 20ft (6m)	Up to 20ft (3m)	Up to 20ft (6m)

Specifications	T5				
<b>Ampacity</b>	<b>250</b>	<b>400</b>	<b>600</b>	<b>800</b>	<b>1200</b>
<b>Rated Voltage</b>	600 AC or DC	600 AC or DC	600 AC or DC	600 AC or DC	600 AC or DC
<b>Rated Short Circuit Capacity</b>	35kAIC	42kAIC	65kAIC	65kAIC	75kAIC
<b>Conductor Type</b>	Copper	Copper	Copper or Copper/Aluminum	Copper or Copper/Aluminum	Copper/Aluminum
<b>Frequency Ratings</b>	50/60Hz	50/60Hz	50/65Hz	50/65Hz	50/60Hz
<b>Meets Standards</b>	UL 857 IEC 61439 1, 6 CSA C22.2#27 GB 7251 -1, 6 NMX-J-515-ANCE	UL 857 IEC 61439 1, 6 CSA C22.2#27 GB 7251 -1, 6 NMX-J-515-ANCE	UL 857 IEC 61439 1, 6 CSA C22.2#27 NMX-J-515-ANCE	UL 857 IEC 61439 1, 6 CSA C22.2#27 NMX-J-515-ANCE	UL 857 IEC 61439 1, 6 CSA C22.2#27 NMX-J-515-ANCE
<b>Certifications</b>	cETLus, CE, VDE, CCC, NOM	cETLus, CE, VDE, CCC, NOM	cETLus, CE, VDE, CCC (pending), NOM	cETLus, CE, CCC (pending), NOM	cETLus, CE, CCC (pending), NOM
<b>Housing Material</b>	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum	Extruded Aluminum
<b>System Weight</b>	Straight sections based on 4 pole. 1ft (.3m) = 4.1lbs (1.86kg)	Straight sections based on 4 pole. 1ft (.3m) = 9.5lbs (4.31kg)	Straight sections based on 4 pole. CU 1ft (.3m) = 19.6lbs (8.89kg) CU/AL 1ft (.3m) = 11.5lbs (5.52kg)	Straight sections based on 4 pole. CU 1ft (.3m) = 19.6lbs (8.89kg) CU/AL 1ft (.3m) = 11.5lbs (5.52kg)	Straight sections based on 4 pole. 1ft (.3m) = 21lbs (9.53kg)
<b>Support Distance</b>	Max distance 10ft (3m)	Max distance 10ft (3m)	Max distance 10ft (3m)	Max distance 10ft (3m)	Max distance 10ft (3m)
<b>Available Lengths</b>	Up to 20ft (6m)	Up to 20ft (6m)	Up to 10ft (3m)	Up to 10ft (3m)	Up to 10ft (3m)

## Special Applications & Added Value

Track Busway T1, T2, T3 & T5 Parts & Accessories		
Application	Description	Part Drawings
<b>Added Benefits</b> Busway-compatible accessories make incorporating other necessary equipment or tools quicker, easier and less costly.	<b>Multi-Use Mounting Bracket</b> Commonly used for suspending compressed air lines, tap box cable management and suspending accessory lighting.	
	<b>Weight Hook Adapter</b> Used for hanging loads of up to 100 lbs (45.4 kg) under the busway, such as light fixtures, tools and load balancers.	
<b>Special Installation</b> Starline Track Busway is typically installed overhead, but optional accessories for special installations are also available.	<b>Raised Mounting Brackets/Raised Access Floor</b> For mounting the busway horizontally (with access slot facing to the side) or vertically (with access slot facing down) on restricted access areas.	
	<b>Recessed Mounting Brackets</b> Used when installing busway that is recessed into a suspended ceiling.	
	<b>Seismic Brackets</b> For mounting to 1/2 - 13 threaded rod with extra cross horizontal support.	
<b>Added Protection</b> While Track Busway is rated UL finger-safe, extra protection is also available.	<b>Optional Closure Strips</b> To keep dust and dirt from entering the busway, as an added safety measure or for aesthetic purposes.	 <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>Rigid PVC</span> <span>Aluminum</span> </div>

\*All accessories may not be available for all Starline Track Busway systems.



Universal Electric Corporation (UEC), the manufacturer of Starline, 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, this family tradition of innovation continues to pave the way for safer, more innovative and more reliable electrical power distribution systems. Visit [www.StarlinePower.com](http://www.StarlinePower.com) for your flexible power solutions.



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