

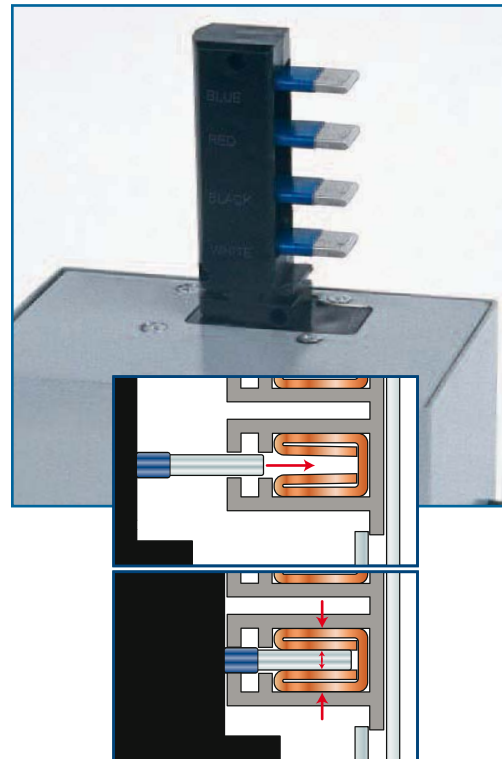
# Flexible Power Solutions

## Reliability: Critical to Your Mission Performance

Continuous up-time of electrical power distribution systems is absolutely crucial for mission-critical operations. The unquestionable reliability of STARLINE Track Busway is the result of the unique, turn-n-lock "compression-fit" connection method used in all system electrical connections at individual modular plug-ins, or between housing sections.

Insert the turn-n-lock plug head into the continuous access slot ANYWHERE along the busway run and rotate the plug 90 degrees. The stabs make a compression-fit into the channel-shaped busbars and result in a constant, reliable connection. This method maintains constant spring-pressure between the connection surfaces — no matter what the electrical load.

This feature eliminates power interruptions caused by an overheated or loose connection, or the need for periodic re-tightening that is recommended with traditional busbar systems. Once the plug-in unit is turned into the connection position, it can be secured or locked into place, reducing the risk of accidental power disruption.



Plug-in units can be configured for hundreds of data center applications, including:

- Hard wire from plug-in to server rack
- Horizontal and vertical single and 3-pole circuit breaker with drop cord to each server rack
- Fused plug-in with drop cord to each server rack
- Circuit Breaker with individual power monitoring and drop to each server rack

### Plug-In Units Lock into Place

The key to the reliability and maintenance-free benefit of STARLINE is its patented electrical connection design of the plug-in unit ("residual" mechanical spring pressure connection principal). With the male connector stabs fully inserted into the mating conductor, constant mechanical pressure is being applied at the connection point.

## STARLINE Eliminates Human Error

Most mission-critical facilities report the bulk of power interruptions are caused by human error. STARLINE Track Busway eliminates the power interruptions caused by human error in conventional systems by eliminating the need to gain access to cables under raised floors, open or enter any power distribution unit (PDU), or any other distribution panel during a relocation or add-on condition.

This unique maintenance-free electrical distribution system provides fast, easy access to compact three-phase power instantly, anywhere you need it along a continuously accessible busway. Simply insert and rotate one of the many types of available plug-in units. Adding a circuit does not require any power shut down, so your system never has to go off-line. STARLINE'S modular build-as-you-need design provides the freedom to improve power distribution density and bring individual server rack circuit protection as close to the point of use as possible, while simultaneously reducing costs.

## Scalability and Flexibility

The modular STARLINE Track Busway is an investment that dramatically improves your ability to meet user demands, to expand, reconfigure, or relocate operations elsewhere. Improved construction cash flow can be a direct result of this inherent design flexibility. The initial phase of a mission-critical data center need only include the STARLINE power feed units. Then, because STARLINE installs so rapidly, busway sections and plug-in units can be added in a matter of minutes as needed. As a result, you never need to tie up valuable capital until expansions in the electrical distribution system are absolutely needed.

**STARLINE Track Busway is rapidly becoming the benchmark for mission-critical power distribution.**

- 40 to 400 Amp
- Single & 3-Phase
- 600 Volt rated
- Lightweight Aluminum Housing
- Double Neutral & Isolated Ground
- Many NEMA receptacle configurations
- 22,000 AIC available
- UL Listed
- IEC Certified
- U.S. Green Building Council Member



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# STARLINE™

TRACK BUSWAY

## Flexible Power Solutions

MISSION  
CRITICAL

mh mulder-hardenberg group



# MISSION CRITICAL

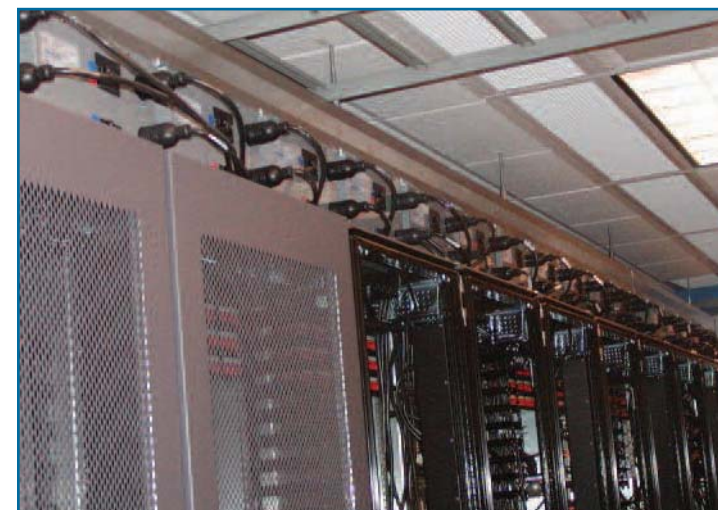
# Reliable Power Distribution Made Easy

## Increasing Power & Cooling Requirements Made Easy

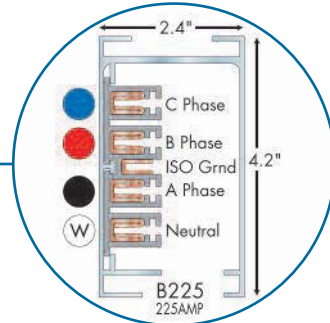
Ever-increasing transistor densities and higher-speed clocks are causing an increase in kW power density, resulting in increased cooling requirements in today's modern data center. For every kW increase in power, an equal amount of cooling capacity is required. This never-ending cycle of increasing power and cooling requirements translates into more and larger cables under the floor... robbing valuable cooling space. These power and thermal issues have caused the data center design community to change the basic data center design, either by eliminating costly raised flooring or making the raised floor space a more effective cooling plenum.

The STARLINE™ approach is to locate the entire aesthetically pleasing electrical distribution system overhead for easy accessibility. STARLINE Track Busway is a modular, build-as-you-need, overhead, high-density electrical distribution system. It is designed to meet and exceed the rigorous reliability demands and thermal requirements of mission-critical facilities. STARLINE eliminates all the distribution panels associated with traditional systems. Changes and additions can be easily made without shutting off power to other racks or cabinets, opening any remote distribution panels, or disturbing any cabinets to access floor panels.

The simple turn-n-lock connection at the heart of the system has transformed the design and lowered the costs of maintaining and upgrading today's mission-critical data center. Plug-in units located anywhere along the full access busway can include almost any NEMA configuration in the form of receptacles or drop cords all protected with either circuit breakers or fuses at each location.



4 copper conductor, 3-circuit STARLINE Track Busway is available with 100, 160, 225, or 400 Amp busbars, 200% Neutral and Isolated Ground.



STARLINE puts full access track busway overhead for a clean appearance, dramatically improved accessibility, and providing much less risk of human error during changeover or addition.



Each power module is circuit protected with circuit breakers or fuses right at point-of-use.



The 225 Amp STARLINE supplies power to rows of computer cabinets used in data centers and for development, testing, and manufacturing of computer networking equipment. It replaces hardwired raceway with bulky, fixed position outlets.



STARLINE offers a wide variety of plug-in modules to meet specific needs. They can be relocated in seconds without power interruption and you can choose to supply power drops to two cabinets from a single plug-in unit.



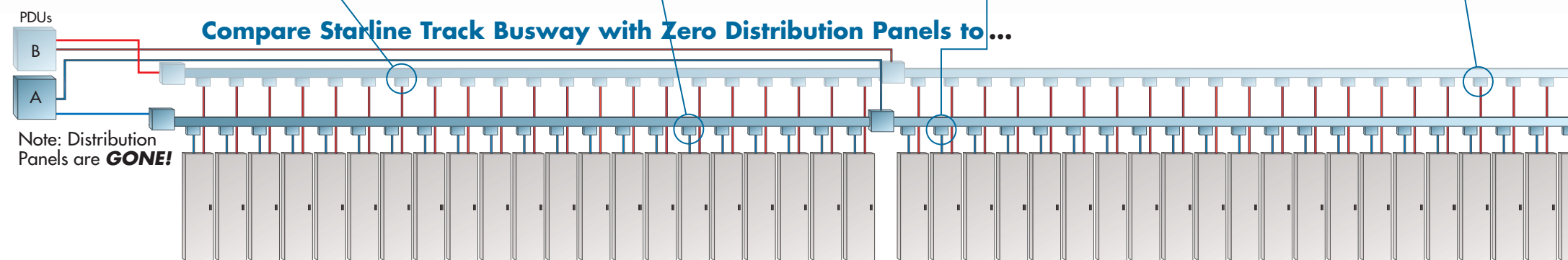
Plug-in units are offered with a wide variety of receptacles, circuit breakers, and drop cords. Multiple circuit breaker plug-ins are offered and can be used in high-density applications.



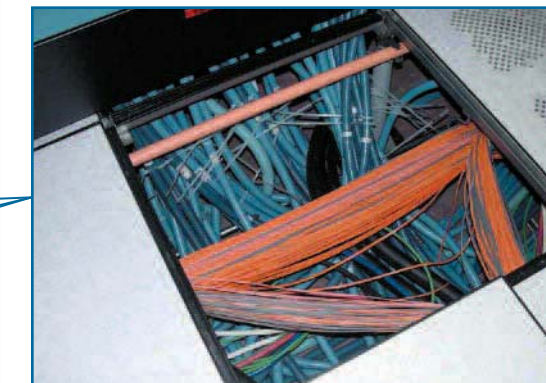
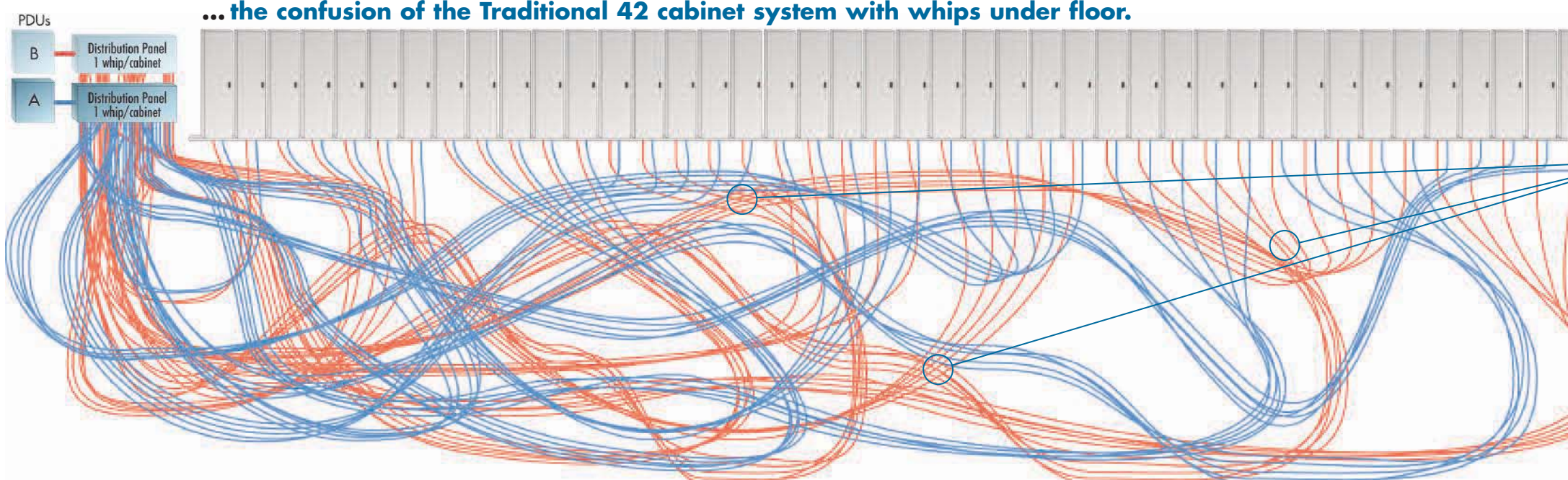
Power monitoring is available to measure phase loads, provide alarm functions, onboard LED displays, and/or remote communication of information. Monitoring can be built into the power feed unit (redundant runs shown) or as a plug-in monitor (right).



## Compare Starline Track Busway with Zero Distribution Panels to...



## ... the confusion of the Traditional 42 cabinet system with whips under floor.



A "jungle" of cables running in every direction. Difficult to locate and expensive to move, the jungle is often accompanied with power interruptions, AND takes up valuable cooling air space!