DATA CENTER BUSWAY GUIDE

CHOOSING THE RIGHT BUSWAY FOR YOUR APPLICATION

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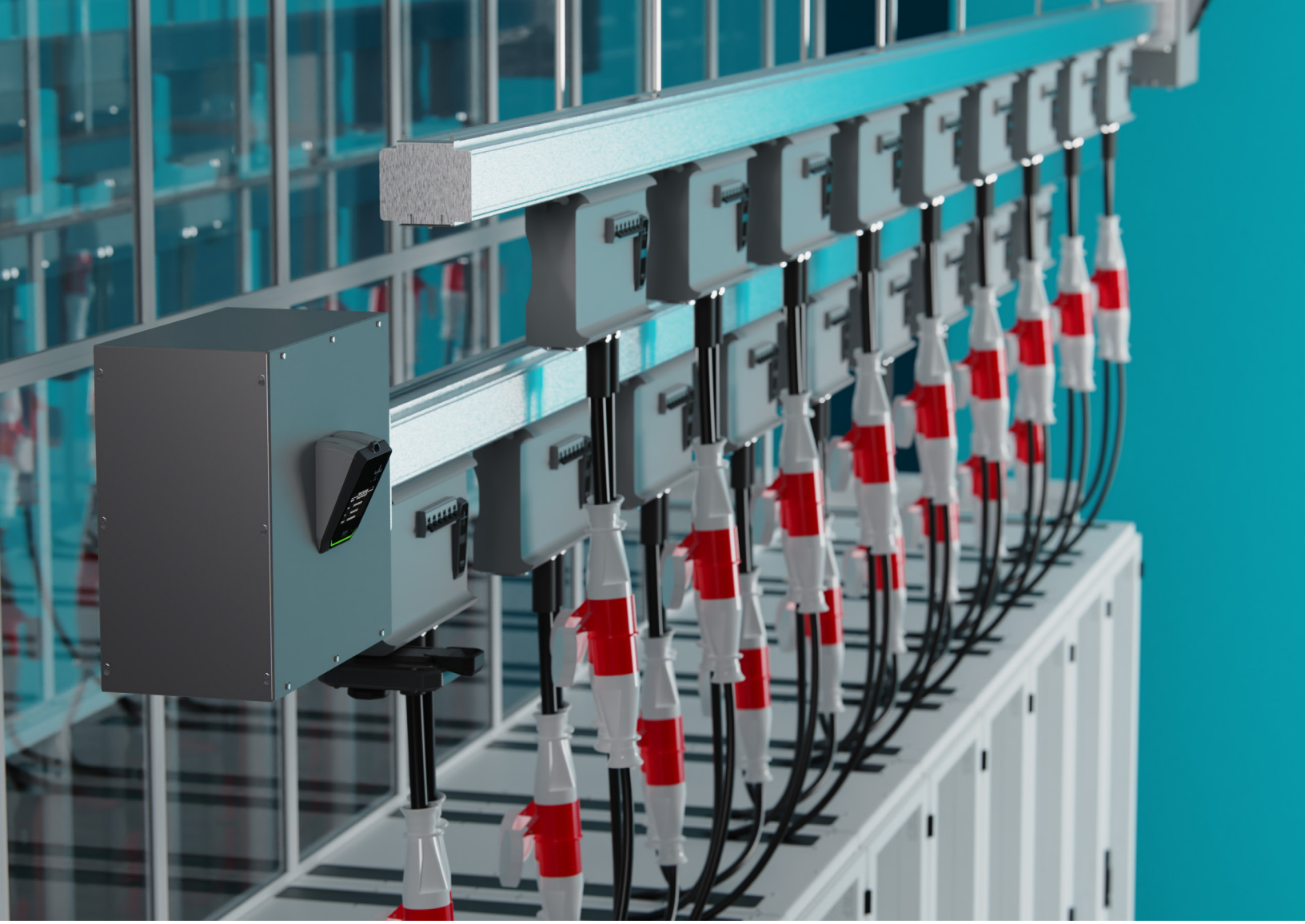


INTRODUCTION

The rapid rise of AI and high-performance computing is fundamentally changing how data centers are designed and powered. Rack densities have more than doubled in recent years and power demands are still climbing. At the same time, data centers are being asked to scale faster with greater flexibility than ever before.

Busway has long been the preferred power distribution solution for mission-critical data center environments. But not all busway is built for the same application or environment. Choosing the right type starts with understanding what your project requires, because the wrong choice can mean costly rework down the road.

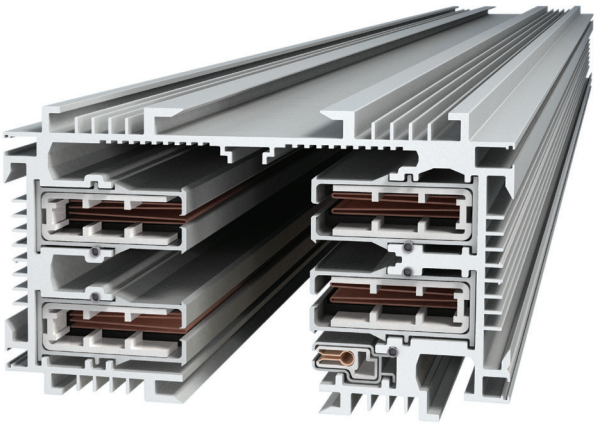
Starline has been the industry leader in data center busway for over 30 years, offering a complete UL857-listed, customizable portfolio from 100 to 6000 amps. This guide will help you understand the difference between our two primary busway families and determine which one is right for your application.

OPEN-CHANNEL T5 VS ENCLOSED SERIES HP

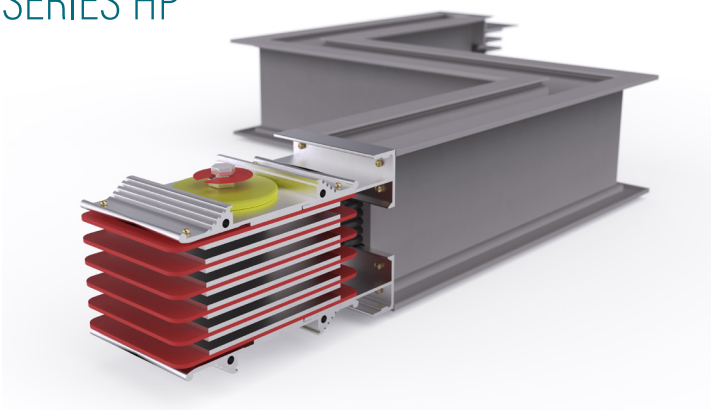
	T5	SERIES HP
Product Type	Open-channel	Enclosed
Amperage	250 - 1200A (UL) 250 - 1250A (IEC)	630 - 6000A (UL) 630 - 6300 (IEC)
Best For	Rack-level power distribution; flexible, fast-changing environments in enterprise and colocation data centers	High-capacity bulk power distribution; high-density deployments in hyperscale or AI data centers
Flexibility	Plug-in units can be added, moved, or removed at any point without downtime	Custom-engineered assemblies; designed for stable, high-load runs
Installation	Modular, plug-and-play design; fast setup with compression joints (no re-torquing)	Full design and installation support from Starline
Power Monitoring	M70 Critical Power Monitor available at feed and branch-circuit level	Real-time temperature sensor and power monitoring available
Certifications	UL857, IEC 61439-6, ETL, CCC, NOM, VDE, CE	ANSI/UL857, NEMA BU 1.1, IEC 61439-6, ISO 9001, cUL
IP Rating	Standard indoor and IP54-rated Series-S available for liquid-cooled environments	IP42, IP54, IP55 standard; IP65 outdoor rated on request

WHERE EACH SOLUTION FITS

T5



SERIES HP



Choose T5 when:

- You need the flexibility to add, move, or remove power without downtime
- You operate at 250 - 1200A and want plug-and-play simplicity
- You need a scalable, reusable system that grows with your facility
- You require rapid agility to accommodate phased expansion

Choose Series HP when:

- You need high-capacity distribution up to 6000A
- Your application requires a fully enclosed solution
- You need greater power capacity within existing space constraints
- You want to front-load additional capacity for long-term scale

QUESTIONS TO ASK BEFORE SELECTING A BUSWAY SYSTEM

1. **What is your target amperage range?**
   If you're operating at 250–1200A with plug-in flexibility needs, T5 busway is your solution. For up to 6000A, especially for bulk power distribution, Series HP is purpose-built for the task.

2. **How often will your layout change?**
   If you anticipate frequent rack additions, moves, or reconfigurations, T5's open-channel design lets you reposition plug-in units without downtime. Series HP is better suited to stable, high-load environments without frequent modifications.

3. **What power density are you designing for?**
   Standard data center deployments up to 1200A are well-served by T5. The Series HP system is a better fit for higher density deployments up to 6000A. Some deployments will require both, as Series HP can be used as a trunking system to power open channel busway over the rack.

4. **Are you planning for future growth?**
   Both systems scale but in different ways. T5 scales at the rack level, adding plug-ins as you grow. Series HP scales at the infrastructure level, supporting larger backbone deployments over time.

WHY DATA CENTERS CHOOSE STARLINE

30+ YEARS	COMPLETE PORTFOLIO	CUSTOMIZABLE	LIFECYCLE SUPPORT
Dependable performance in mission-critical data centers	**UL857 data center busway solutions up to 6000A**	**Designed for your environment, density, and growth plans**	**Support for your data center busway project at every stage**

CHOOSING THE RIGHT OVERHEAD BUSWAY STARTS HERE.

Speak with a Starline representative today to find the right solution for your application.

www.starlinepower.com/data-center-busway-portfolio