Non-Segregated and Segregated Phase Bus Systems

Bus bar for diverse applications in any environment
Non-Segregated and Segregated Phase Bus Systems

Designed for efficient, long-term power connections

AZZ Medium Voltage Bus Systems designs have been engineered to provide optimum performance at the lowest total installed cost. With over 55 years of industry experience as both the Calvert Company and AZZ utilizing the latest materials and manufacturing techniques, AZZ’s segregated and non-segregated phase bus systems provide a long lasting and reliable system unmatched in the industry.

Cover photo: AZZ Non-Segregated Bus Bar

AZZ Segregated Bus Bar
Segregated Bus installed alongside Isolated Phase Bus in Saudi Arabia
Non-Segregated Bus connecting to switchgear
Custom-designed Segregated Bus
Non-Segregated Phase Bus

Custom Bus Duct Solutions
Developed for the most demanding industrial and power generation environments, AZZ non-segregated phase bus represents an innovative design that provides effective system performance that's cost-effective, low maintenance and ensures greater reliability than power cables provide.

AZZ’s single-bar design means lower installation costs, less hardware at splice connections, and reduced install time. A 3-phase, 4-wire system (full and half neutrals) and 2-pole DC bus provides added efficiency in a number of applications.

Non-Seg Bus Applications
- Transformers to switchgear
- Switchgear to switchgear
- Motor control centers
- AC and DC excitation
- Generator bus

Engineered for Multiple Environments
AZZ non-segregated bus systems are available from 1200A through 5000A and 600 volt to 38 kV and are perfect for both indoor and outdoor locations. Non-segregated systems are available with either copper or aluminum painted or epoxy-coated conductors, and are mounted on custom-molded, fiberglass-reinforced polyester support blocks or post insulators for maximum performance and safety.

Segregated Phase Bus

The Ideal Bus Solution for Rugged Applications
AZZ's segregated phase bus systems are built to deliver decades of reliable service in some of the most hostile environments. AZZ segregated bus represents an innovative design that provides consistent performance and low maintenance.

With voltages ranging from 600 volts to 38kV and ampere ratings up to 8,000 amps, this design utilizes single-phase conductors in a common enclosure with metal barriers between phases.

Segregated Bus Applications
- Smaller generator lead-in power plants
- Hydro plants
- Metal enclosed substations connecting to switchgear
- Transmission distribution substations

Common Attributes

Standard Features
- Rugged design for long-term reliable operation
- Silver-plated contact surfaces for maximum conductivity
- Fluidized bed epoxy insulation
- Bus joints insulated with flame-retardent PVC boot
- ISO 9001 certified
- Meets or exceeds IEEE, IEC and CSA standards, including ANSI C37.23 for safety and performance.

Customized Engineering
- Copper or aluminum bus bar
- Aluminum or stainless steel housing
- Available bushing box terminations
- Cable tap box
- Temperature maximum designed to customer needs
- Seismic certifications available
- Customized condensation control

Supporting Services
- Turnkey installation available
- Complete on-site service and parts
- Preventive maintenance programs

AZZ Non-Segregated Bus connecting transformers to switchgear in Saudi Arabia