

SERIES 107
FLEXIBLE
BRAIDED STRAPS
GROUNDS, BONDS,
AND BUSBARS

LOW-RESISTANCE, HIGH CONDUCTIVITY

Flexible Power Distribution Busbars

Multi-layer braided construction for mission-critical power distribution applications



Installation of custom quadruple-layer ground straps with selective insulation in a transformer application. Glenair is able to provide custom busbars to meet exact customer requirements.

Insulated and uninsulated flexible busbars manufactured by Glenair using 30 AWG soft-drawn copper wire are used in a wide range of electrical applications including power distribution panels, switch gear, control panels, battery plants, and power feed line applications. Busbar designs are preferred for source-to-load applications such as in unmanned aerial vehicles, due to their inherent light weight and flexibility. In fact, uninsulated flexible busbars offer a more compact and lighter weight power management solution compared to conventional cables—with improved current-carrying capability—in applications where space and weight constraints are critical considerations.

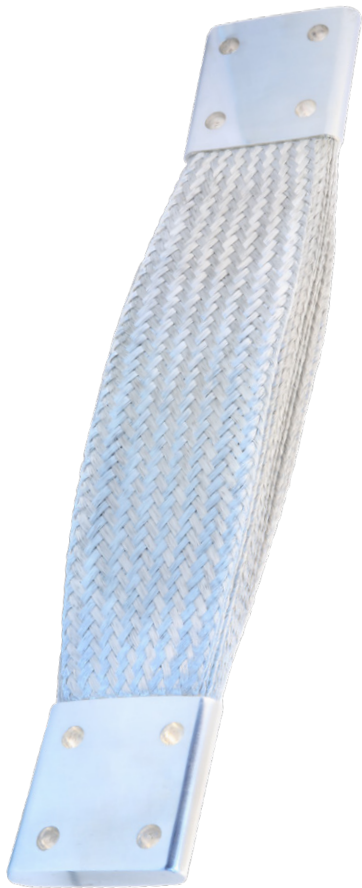
Busbars can provide better heat dissipation compared to jacketed cable, as there is no insulating material to impede the transfer of heat away from the conductors.

In addition, uninsulated busbars allow for easier visual inspection and maintenance compared to jacketed cable, as there are no insulating covers or barriers obstructing access to the conductors. This can simplify troubleshooting and servicing tasks, particularly in vehicle applications.

- **Single, double, triple, and quadruple layer configurations** for current ratings up to 615 Amps, and special 5–10 layer braided busbars with current ratings up to 1055 Amps
- **Flat braided form-factor** with improved current-carrying capability compared to round cables with the same cross-sectional area
- **30 AWG soft-drawn copper-core** with available plating options including tin, nickel, and silver
- **Stainless steel material busbars** for high heat dissipation applications
- **Heavy-duty, high-conductivity lugs** with single, double, and quadruple bolt hole patterns

LOW-RESISTANCE, HIGH CONDUCTIVITY Flexible Power Distribution Busbars

For Mission-Critical Power Distribution Applications



Multilayer flat form factor translates to significant improvements in current-carrying capacity and resistance compared to conventional cables.

The selection of flexible busbars for power distribution applications is based on several factors to ensure optimal performance, reliability, and safety. Here are some key considerations that influence the selection process:

Current Carrying Capacity: One of the primary factors in selecting flexible busbars is their current carrying capacity, which should match or exceed the maximum expected current requirements of the electrical system to ensure safe and efficient power distribution without overheating or voltage drops.

Voltage Rating: Flexible busbars must be rated for the voltage levels present in the electrical system. The voltage rating should exceed the maximum to which the busbars will be subjected to prevent electrical breakdown.

Material: Glenair flexible busbars are made from either copper or stainless steel (consult factory for aluminum busbars). The choice of material depends on factors such as conductivity, mechanical strength, weight, and corrosion resistance.

Flexibility: Flexibility is essential to accommodate bending, twisting, and routing within the confined spaces of electrical enclosures or vehicle fuselage. The busbars should be flexible enough to facilitate installation while maintaining their shape and mechanical stability.

Insulation: Depending on the application requirements, busbars may be insulated to protect against electrical shock hazards, prevent short circuits, and provide environmental protection.

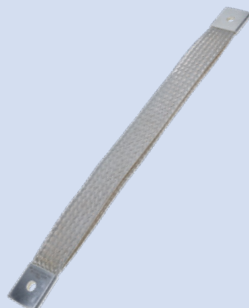
Environmental Conditions: The operating environment of the electrical system influences the selection of available plating. Factors such as temperature extremes, moisture, humidity, vibration, and exposure to chemicals or corrosive substances should be considered.

Standards Compliance: Flexible busbars should comply with relevant industry standards, codes, and regulations governing electrical distribution systems. Customer compliance with standards ensures that the busbars meet minimum safety and performance requirements for their intended applications.

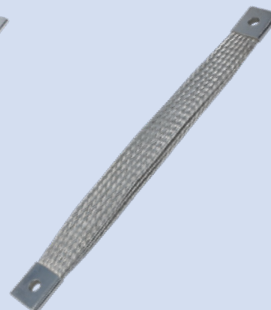
SELECTION GUIDE: FLEXIBLE POWER DISTRIBUTION BUSBARS



107-277
Single-layer busbar



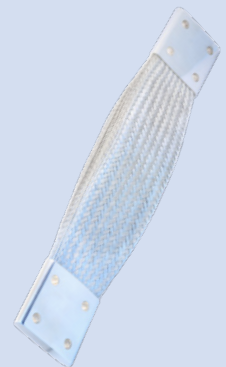
107-278
Double-layer busbar



107-435
Triple-layer busbar



107-436
Quadruple-layer busbar



107-110
5-10 layer busbar