

# Cable Solutions for Airport Applications

## BETAjet® – Robust, Energy-efficient and Future-oriented



Electrification is a key pillar of our future – aviation included. When aircraft or helicopters are stationary on the ground, electric power systems offer an eco-friendly alternative to traditional auxiliary power units. Our 400 Hz **BETAjet**® cables deliver low-loss, highly reliable power, ensuring efficient energy for ground operations in hangars, passenger boarding bridges, in-ground pit systems and cable reel mechanisms. Designed for flexible or fixed installation, they perform even under extreme conditions.

### Efficient power transmission with minimal losses

Energy-optimized power supply is becoming increasingly important. Our cables reduce the skin effect and thereby minimize energy losses. Their high current-carrying capacity enables fast, efficient power delivery – especially when aircraft are stationary at the terminal. The symmetric design with low voltage drop further enhances energy savings and ensures optimized power distribution.

### Safe handling and high flexibility in use

**BETAjet**® 400 FRNC-deltaflex stands out for its superior operator safety. Concentric shielding around power phases provides reliable protection against electric shock, ensuring safety for ground personnel. The cable is highly flexible and abrasion-resistant, ideal for mobile and fixed set-ups. Efficient heat dissipation supports safe operation even under high electrical loads.

## Advantages

- Low-loss power transmission thanks to reduced skin effect
- Extremely robust, cold-flexible and resistant to aviation fluids
- Outstanding abrasion resistance of sheath materials (with abrasion indicator)
- Very high current-carrying capacity
- Low voltage drop due to optimized symmetrical design
- EMC optimized (depending on version)
- Halogen-free and sustainable
- Double insulation between all electrical elements for optimal electric shock protection
- Electron-beam cross-linked insulation for power and control cores (with exception to control-C-flex)

## Robust performance in extreme conditions

Airports and military facilities demand the highest Standards for materials and technology. Our cable Solutions are built to endure extreme temperatures, maintain flexibility in cold environments, and resist aviation-specific fluids. An added safety feature of the **BETAjet®** 400 FRNC-deltaflex, smartflex, and 28 VDC variants is the orange inner sheath, which serves as an abrasion indicator – simplifying maintenance and enhancing operational safety.

## Innovative quality – made in Switzerland

Our high level of in-house production and extensive experience in the airport sector enable us to deliver tailored solutions for our customers. In our advanced laboratories, we develop new materials with optimal insulation properties, high temperature resistance, long service life, and enhanced safety features.



## 400 Hz Cables (mobile applications)

Other variants/cross sections available on request

	Nominal voltage	Temperature range	Cross sections	Standards and Certifications
<b>BETAjet®</b> 400 FRNC-deltaflex	600 / 1000 V	-40 to +90 °C	3×(1×50/20+8×1) mm <sup>2</sup> 3×(1×70/25+8×1) mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2, IEC 60332-1, EN 50265-1, TÜV Certificate of Operational Safety
<b>BETAjet®</b> 400 FRNC-FLEX 4-core	600 / 1000 V	-40 to +90 °C	4×(1×50+4×1,0) mm <sup>2</sup> 4×(1×70+4×1,0) mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2, IEC 60332-1, EN 50265-1
<b>BETAjet®</b> 400 FRNC-FLEX 1-core 28 VDC	28 VDC	-40 to +90 °C	1×120+4×1,0 mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2, IEC 60332-1, EN 50265-1
<b>BETAjet®</b> 400 FRNC-smartflex	600 / 1000 V	-40 to +90 °C	6×6+6×35+6×(4×1) mm <sup>2</sup> 6×6+6×35+6×6 mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2, IEC 60332-1, EN 50265-1
<b>BETAjet®</b> 400 FRNC-control-C-flex	300 / 500 V	-40 to +90 °C	12×2×1,5 mm <sup>2</sup> C	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2, IEC 60332-1, EN 50265-1

## 400 Hz Cables (fixed installation)

Other variants/cross sections available on request

	Nominal voltage	Temperature range	Cross sections	Standards and Certifications
<b>BETAjet®</b> 400 FRNC-flex	600 / 1000 V	-40 to +90 °C	1×35+6×35 mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2, IEC 61034, EN 50268-2, IEC 60332-1, EN 50265-1, IEC 60332-3, EN 50266-2
<b>BETAjet®</b> 400 LSHO-flex	600 / 1000 V	-40 to +90 °C	1×35+6×35+6×(4×1) mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2
<b>BETAjet®</b> 400 (N)2X2YC2Y	600 / 1000 V	-40 to +90 °C	1×35+6×35RM/35 mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2
<b>BETAjet®</b> 400 (N)2X2Y	600 / 1000 V	-40 to +90 °C	1×35+6×35RM mm <sup>2</sup>	EC 60754-1, EN 50267-2-1, EC 60754-2, EN 50267-2-2

In addition to premium products, Studer Cables provides comprehensive consulting, precise calculations and a wide range of services. We're happy to assist you personally with any questions.

### Studer Cables AG

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