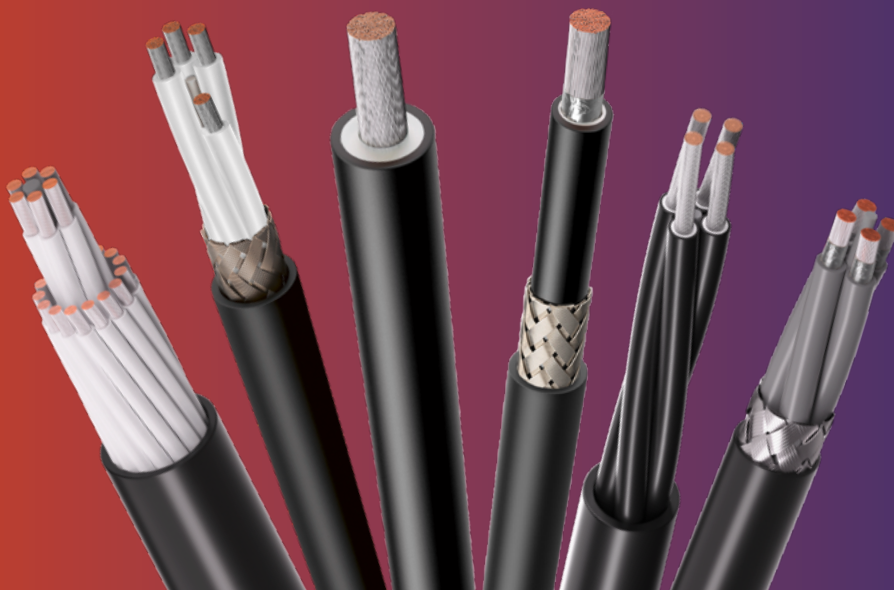


BETAtrans® GKW-ENX R and RI

Resource-Optimised Cables for the Future



To meet the growing market requirements for sustainability, we have systematically enhanced our product portfolio. With **BETAtrans® GKW-ENX R** (reduced version) and **RI** (reduced insulation), we are complementing our proven range with resource-optimised cable solutions. The result: less material, lower weight and more sustainable operation of rail vehicles.

Our contribution to sustainable cable solutions

Studer Cables provides reliable, application-specific cables and cable system solutions. With our comprehensive product and service portfolio for internal and external rail vehicle cabling, we support you throughout the entire life cycle of your vehicles, worldwide.

You can rely on our in-depth industry and product expertise as well as our many years of experience. Our proven and extensive product portfolio includes halogen-free, electron-beam cross-linked control, power supply and data cables.

Rely on our expertise and experience

Our products have proven their reliability and safety over many years of operation. Their properties help our customers and rail vehicle operators reduce total operating costs by eliminating the need for regular cable replacement.

Thanks to the continuous development of our products, you can rely on solutions that are ready to meet the requirements of tomorrow.

Benefits

- Reduced weight
- Less material required
- Smaller dimensions
- Reduced material requirements for installation
- Maintenance-free with low upkeep costs
- Energy-efficient cable solutions thanks to a reduction in overall weight, including cables and installation materials
- Optimised SRC conductors for increased current-carrying capacity and higher voltage ranges
- Excellent ageing properties (IEC 60216, IEC 62995)

Less weight. Greater efficiency.

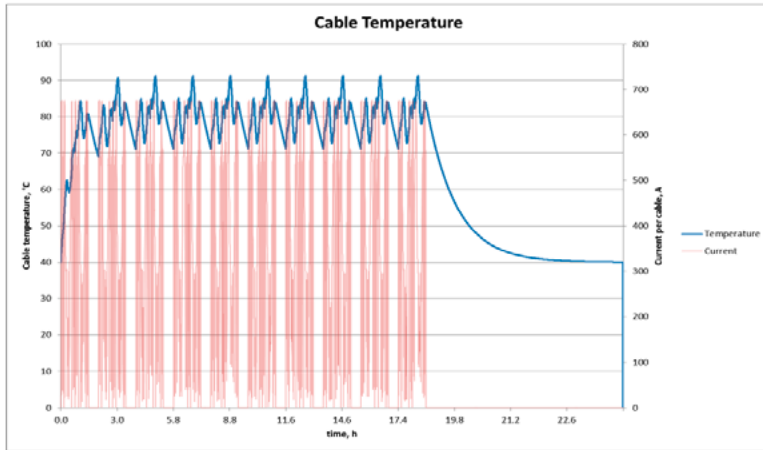
Whether viewed in cross-section or measured on the scales, the reduced outer diameter and lower weight speak for themselves.

Innovative compound development

Thanks to the unique materials expertise that Studer Cables has built up through its in-house compound development since the company was founded in 1939, we are able to meet the required technical properties of international standards despite using thinner and therefore lighter wall and insulation thicknesses.

Special material properties enable us to manufacture cables with smaller dimensions than those specified by the standards. Our products with reduced outer diameters and optimised insulation thicknesses are designed in accordance with international standards. These resource-efficient solutions offer our customers numerous benefits.

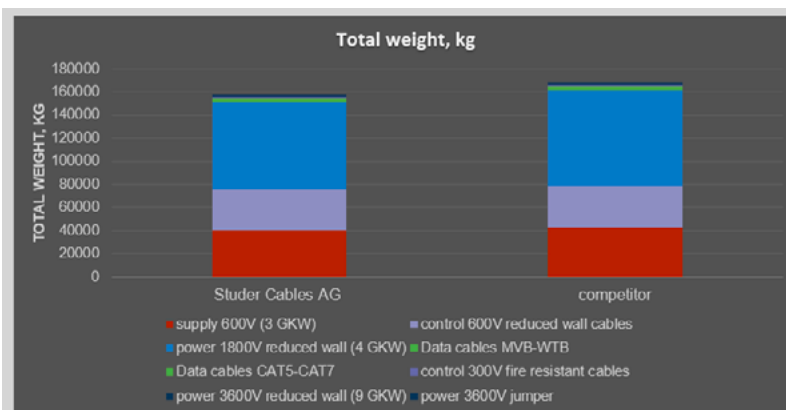




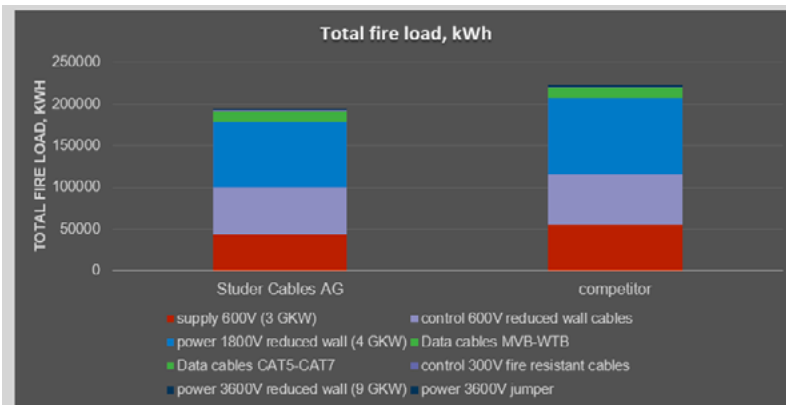
Results	
Expected Lifetime, years	51.0
Average current pro cable, A	230.2
Average cable temperature, °C	67.6
Maximum cable temperature, °C	91.2
aging rate / 24 hours, h ⁻¹	6.4833E-05
current @120°C at given condition, A	358

Safety comes first

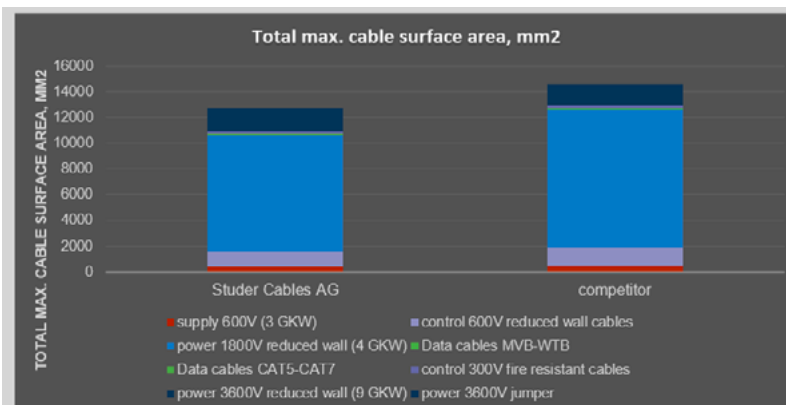
In addition to sustainability, safety is another key advantage. Our portfolio offers the lowest fire load on the market. This advantage is further enhanced by a high oxygen index. Our products meet, or are based on, all relevant international standards and requirements, including EN, NFPA, RTE and IRS.



Total weight, kg	
Studer Cables AG	competitor
157401	168023
Result	
BETrans cables	
-7 %	
Low weight	



Total fire load, kWh	
Studer Cables AG	competitor
194460	222963
Result	
BETrans cables	
-15 %	
Low fire load	



Total max. cable surface area, mm2	
Studer Cables AG	competitor
12710	14568
Result	
BETrans cables	
-15 %	
Volume optimiert	



Sustainable cable solutions

BETAtrans® GKW-ENX R 600 V M

BETAtrans® GKW-ENX flex R 600 V MM 105

BETAtrans® GKW-ENX C-flex R 600 V MM S 105

BETAtrans® GKW-ENX RI FE180 300 V M

BETAtrans® GKW-ENX RI FE180 flex 300 V MM

BETAtrans® GKW-ENX RI FE180 C-flex 300 V MM S

BETAtrans® 4 GKW-ENX R 1800 V M ($\leq 16 \text{ mm}^2$)

BETAtrans® 4 GKW-ENX flex R 1800 V MM

BETAtrans® 4 GKW-ENX C-flex R 1800 V MM S

BETAtrans® 4 GKW-ENX R FE180 1800 V M

BETAtrans® 4 GKW-ENX FE180 C-flex R 1800 V MM S

BETAtrans® 9 GKW-ENX R 3600 V M

BETAtrans® 9 GKW-ENX C-flex R 3600 V MM S

Many years of expertise for your individual project

In addition to our first-class products, Studer Cables provides comprehensive consulting, precise calculations and a wide range of additional services. We are happy to assist you in comparing different cable types.

We simulate cable service life under various installation conditions and calculate the optimum cable design and copper cross-section for customer-specific applications.

Please do not hesitate to contact us if you have any questions.



Further information can be found in our data sheets on our website: <https://studercables.com/en/products/>