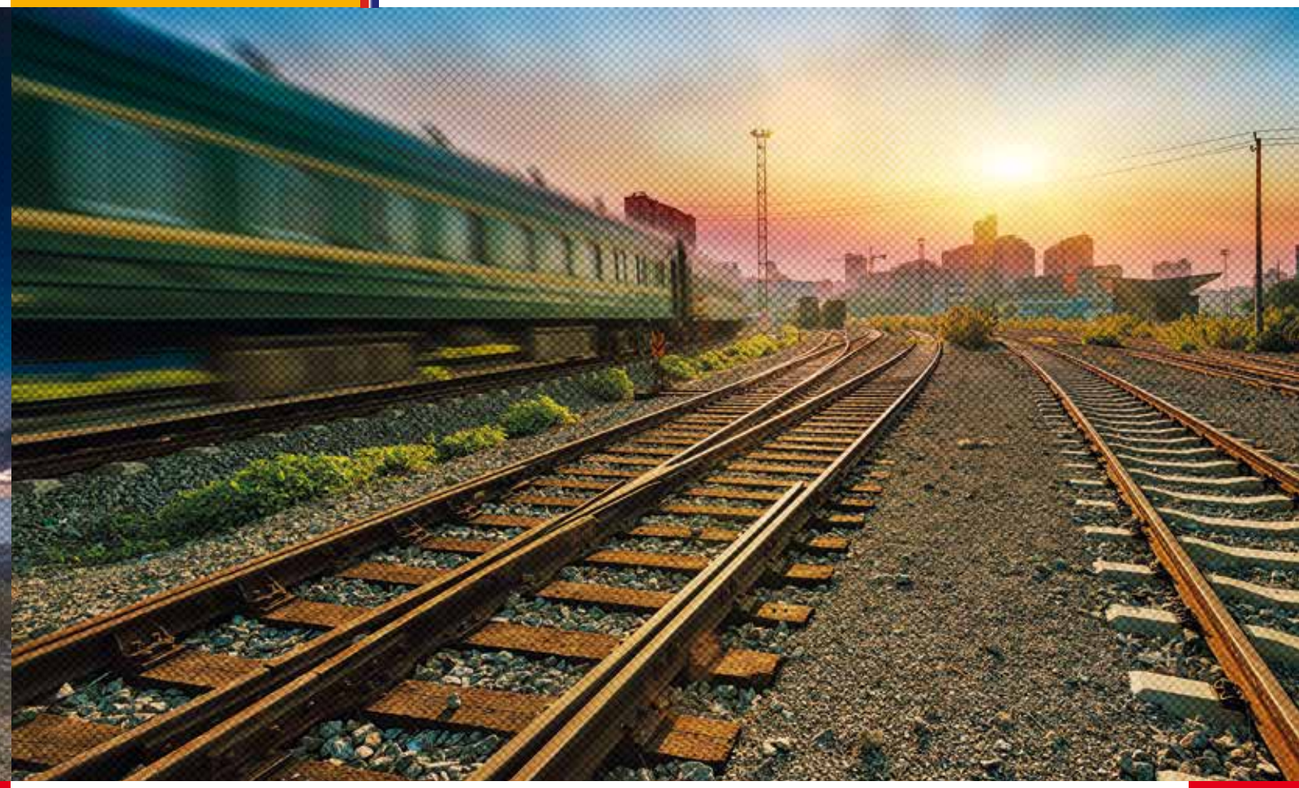
TRANSPORT & TRAFFIC



TRANSPORT & TRAFFIC

CABLE AND WIRES BY PROFESSIONALS
FOR PROFESSIONALS.

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Gärtnerstraße 1
74579 Fichtenau
Germany

Find out more: **www.faberkabel.de/en/**

FABER

THE CABLE PROFESSIONALS.

As a specialized wholesaler of cables and wires we offer our customers assortment width as well as assortment depth.
We stock approximately 70,000 kilometers of cable and wiring worth up to 100 million euros across a space of 148,000 square meters. This makes us one of the largest cable distributors in Europe. The products we keep available for you also include underground cables with special profiles.

We will gladly support you in new projects, but are also there for you in the event of an emergency. We know how painful the repercussions of disruptions in transportation can be. And we will provide a remedy – quickly and without fuss.

EXPERTS

Our product portfolio with up to 17.000 items makes our cable and wire range one of the largest in Europe. The foundation of our corporate concept: immediate product availability, extraordinary product variety, and thus risk minimization for our clients. What this means for you: no capital lockup, no risk of theft, and no valuation risk. And we will support you in avoiding idle periods and in successfully coping with time and cost pressure.

FABER

PRODUCTS FOR INDUSTRY PROFESSIONALS.

All images shown here are for illustrations and product reference purposes only.

Power cable NYY-J / -O / -JZ / -OZ

CROSS SECTIONS: 1.5 to 630 mm²

APPLICATION: For fixed installation indoors, outdoors, in the ground, in water and in concrete.

Power cable NAYY-J / -O

CROSS SECTIONS: 6 to 800 mm²

APPLICATION: For fixed installation indoors, outdoors, in the ground, in water and in concrete.

Power cable NYCY / NYCWY

CROSS SECTIONS: 1.5 to 240 mm²

APPLICATION: For fixed installation indoors, outdoors, in the ground, in water and in concrete.

Power cable NAYCWY

CROSS SECTIONS: 35 to 240 mm²

APPLICATION: For fixed installation indoors, outdoors, in the ground, in water and in concrete.

FRNC power cable N2XH / N2XCH

CROSS SECTIONS: 1.5 to 240 mm²

APPLICATION: Low-smoke, zero-halogen, flame-retardant power cable. For fixed indoor installation as well as in concrete, but not for direct burial in the ground or application in water.

Medium voltage cable N2XSY / NA2XSY

CROSS SECTIONS: 35 to 630 mm²

APPLICATION: For installation in the ground, in water, outdoors, indoors and in cable ducts for power stations, industrial applications and distribution networks. The good installation properties of this cable make installation easy, even on difficult routes. According to VDE 0276-603 cables must be protected from direct solar radiation.

Medium voltage cable N2XS2Y / NA2XS2Y

CROSS SECTIONS: 35 to 630 mm²

APPLICATION: For installation in the ground, in water, outdoors, indoors and in cable ducts for power stations, industrial applications and distribution networks. The high mechanical durability of the PE-sheath permits strong mechanical stress during installation or during operation. It should be noted during installation in cable ducts and interior spaces that the PE-sheath is zero-halogen, yet not flame-retardant as defined under DIN VDE 0482-332-1.

Medium voltage cable N2XS(F)2Y

CROSS SECTIONS: 35 to 1,000 mm²

APPLICATION: For installation in the ground, in water, outdoors, indoors and in cable ducts for power stations, industrial applications and distribution networks. It should be noted during installation in cable ducts and interior spaces that the PE-sheath is zero-halogen, yet not flame-retardant as defined under DIN VDE 0482-332-1. This cable is also suitable for unfavorable operating conditions, specifically where there is a need to avoid water penetration lengthwise following mechanical damage.

Medium voltage cable NA2XS(F)2Y

CROSS SECTIONS: 50 to 1,000 mm²

APPLICATION: For installation in the ground, in water, outdoors, indoors and in cable ducts for power stations, industrial applications and distribution networks. It should be noted during installation in cable ducts and interior spaces that the PE-sheath is zero-halogen, yet not flame-retardant as defined under DIN VDE 0482-332-1. This cable is also suitable for unfavorable operating conditions, specifically where there is a need to avoid water penetration lengthwise following mechanical damage.

Medium voltage cable N2XS(FL)2Y / NA2XS(FL)2Y

CROSS SECTIONS: 50 to 500 mm²

APPLICATION: For installation indoors, outdoors, in the ground, in water and in concrete. This cable is also suitable for unfavorable operating conditions, specifically where there is a need to avoid water penetration both crosswise and lengthwise following mechanical damage.

Copper rope Cu bare / tinned

CROSS SECTIONS: 10 to 300 mm²

APPLICATION: Annealed cables are used for earthing purposes in electrical installations. They have a mathematical tensile strength of 200 N/mm². Hard-drawn conductors are used primarily as overhead lines. Their mathematical tensile strength is 400 N/mm².

Sheathed building wire NYM-J / -O

CROSS SECTIONS: 1.5 to 35 mm²

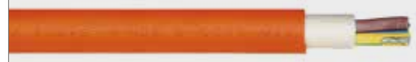
APPLICATION: For installation in, on or under plaster, in dry, damp or wet rooms as well as in walls and concrete. Also suitable for installation outdoors if protected from direct solar radiation (with the exception of vibrated and compressed concrete).

Power cable with circuit integrity E30
NHXH... FE180/E30 / NHXCH... FE180/E30

CROSS SECTIONS: 1.5 to 240 mm²

APPLICATION: For installation in dry and wet rooms, also for direct bedding in concrete, but not for direct burial in the ground and not for use in water. The cables are halogen-free, have a low smoke density and are fire-resistant (180 minutes) according to VDE 0472 T. 814. Furthermore the cable passed the test of 30 min. circuit integrity according to DIN 4102 part 12 (E30) for all standard-installation systems (ladder, tray and ceiling).

Power cable with circuit integrity E90
NHXH... FE180/E90 / NHXCH... FE180/E90



CROSS SECTIONS: 1.5 to 240 mm²

APPLICATION: For installation in dry and wet rooms, also for direct bedding in concrete, but not for direct burial in the ground and not for use in water. The cables are halogen-free, have a low smoke density and are fire-resistant (180 minutes) according to VDE 0472 T. 814. Furthermore the cable passed the test of 90 min. circuit integrity according to DIN 4102 part 12 (E90) for all standard-installation systems (ladder, tray and ceiling).

Communication cable with circuit integrity E30-E90
JE-H(St)H... FE180/E30 / JE-H(St)H... FE180/E90

CROSS SECTIONS: 2 to 52 pairs

APPLICATION: For signal transmission within systems for measuring-, data-, control-engineering and for use as an installation cable in fire hazardous rooms with a high concentration of people or material assets, and for installation of fire survival cable systems according to DIN 4102 part 12. For fixed installation in dry and wet rooms.

Rubber-insulated cable H07RN-F

CROSS SECTIONS: 1 to 630 mm²

APPLICATION: For use at medium mechanical stress in dry, wet and damp locations. Also for fixed installation on plaster or machines. The cable is oil-, UV- and ozone-resistant.

FABER

THE LOGISTICS PROFESSIONALS.

Not only do we deliver the right product to the right place at the right time, you can also rely on our products arriving in the right quantity and agreed quality. We are renowned for our adherence to delivery dates and schedules, and our supplier ratings attest to this. We ensure this logistical quality through our mastery of the processes, driven by our desire to never stop getting better. So there is no need for you to worry about holding inventories or capital commitment. We deliver just in time, thereby also offering you the most effective protection against theft.
We always keep an eye on the exacting quality requirements for our products. Our suppliers are certified in accordance with ISO 9001, and their products are thoroughly inspected upon receipt.

01 SUPPLIER

DB

Einstufung der Qualitätsfähigkeit

Die Qualitätsfähigkeit des Lieferanten

Klaus Faber AG
Lebacher Str. 152-154
66113 Saarbrücken
Deutschland

wird in Fichtenau, Hedemünden für das Produktspektrum

Kabel und Leitungen bis 1000 KV, Kabel und Leitungen ab 1000 KV, Kabelzubehör

der Warengruppe(n)
10170040, 10170050, 11490799, 11490865

in Bezug auf die qualitativen Anforderungen der Deutschen Bahn AG mit

Q1

eingestuft.

Diese Einstufung ist gültig bis zum 09.06.2017.

Berlin, 15.06.2016
Deutsche Bahn AG
Qualitätssicherung Beschaffung Infrastruktur

i. V.
Thomas Müller

i. A.
Klaus-Peter Dittmar

The assessment.
In its variance analysis, Deutsche Bahn AG evaluates provided services and deliveries with respect to the contractually established agreements.
This audit concerns the quality, costs and adherence to deadlines.

Importance of the Q1 certificate for Faber.
Not only is the Q1 certificate a requirement for supplying Deutsche Bahn AG and its partners, the certification is regarded as a hallmark of excellence by customers in other industries too.

Certificate status: 06/2017

FABER

PRODUCTS FOR INDUSTRY PROFESSIONALS.

All images shown here are for illustrations and product reference purposes only.

FRNC rubber cable H07ZZ-F

CROSS SECTIONS: 1.5 to 300 mm²

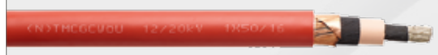
APPLICATION: These cables are designed for indoor and outdoor installation, particularly for applications where only small quantities of smoke and corrosive gases may be emitted in the event of a fire.

Railway power cable GGSG 1.8/3 kV

CROSS SECTIONS: 300 mm²

APPLICATION: The cable is designed for use in the rail sector, where narrow bending radii and vibrations may occur.

Trailing cable (N)TMCGCWOEU



CROSS SECTIONS: 35 to 630 mm²

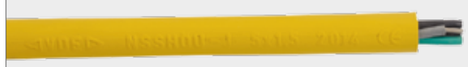
APPLICATION: Single core cables are used in short lengths, e.g. for the connection of switchgear cubicles and for the connection of mobile transformer substations. When laying and during operation, care should be taken to protect them against excessive mechanical stress. The outer semi-conducting layer must not be heated before removal.

LAN cable FACAB® dataline 1000 / outdoor

CATEGORY: 7+

APPLICATION: For the connection of IT system units in the desktop area (tertiary sector), e.g. between floor distributors and workstations up to 1000 MHz (category 7+). It fully complies with the electromagnetic compatibility requirements (EMC) of European Standard EN 55022 and the guidelines of the European Postal Administration. Furthermore, the copper braiding ensures perfect matching with screened connectors.

Rubber-insulated cable NSSHÖU



CROSS SECTIONS: 1.5 to 500 mm²

APPLICATION: Designed to withstand high mechanical stresses. For the connection of heavy-duty underground mining, industrial and construction equipment, in dry and damp areas and outdoors. The cable is largely flame- and oil-resistant.

PUR insulated cable H07BQ-F

CROSS SECTIONS: 1.5 to 95 mm²

APPLICATION: In dry and wet environments as well as outdoors under medium mechanical stresses. For connection of electrical tools on building sites or in cold environments.

Trailing cable (N)TSCGEWOEU MT PLUS

CROSS SECTIONS: 25 to 185 mm²

APPLICATION: Flexible medium voltage reeling cable for high and extreme mechanical stresses, e.g. torsional stress, deflection into different planes and high reeling speed. Other applications have to be agreed with Faber, otherwise warranty may become void.

Fiber optic indoor cable I-V(ZN)H

FIBERS: 4 – 12

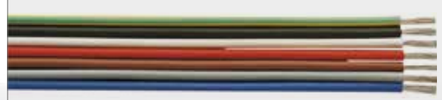
APPLICATION: Indoor distribution cable with tight buffers and LSOH jacket. For installation in cable trays and ducts. The cable contains up to 24 fibers, which may be fitted directly to connectors and are suitable for field-assembly.

Rubber-insulated wire NSGAFÖU

CROSS SECTIONS: 1.5 to 500 mm²

APPLICATION: This wire is designed for use in dry rooms, buses and rail-borne vehicles. It is considered to be short circuit-proof and earth leakage-proof when used in switching appliances and distributors of up to 1 kV. It is flame-retardant and resistant to most oils.

Silicone-insulated wire SiF



CROSS SECTIONS: 0.25 to 240 mm²

APPLICATION: For use in ambient temperatures above 55 °C, for the internal wiring of lamps, heating equipment and electrical appliances as well as for switching boxes and distribution grids.

Subscriber line cable A-2Y(L)2Y St III Bd / A-2YF(L)2Y St III Bd

CROSS SECTIONS: 2 to 500 pairs, Ø 0.6 and 0.8 mm

APPLICATION: For fixed installation indoors, outdoors, in the ground, in water and in concrete.

Fiber optic indoor cable A-DQ(ZN)B2Y

FIBERS: 2 – 72

APPLICATION: Fiber optic cable with central tubes and non-metallic armor, strain relief and rodent protection. Swelling elements within the strand ensure the watertightness of the cable lengthwise. The rugged and abrasion-resistant PE-sheath enables easy installation in tubes and ducts. The sheath is halogen-free, but not flame-retardant.

FRNC rubber cable NSHXAFÖ

CROSS SECTIONS: 1.5 to 500 mm²

APPLICATION: This insulated wire is designed for application in buses and rail-borne vehicles. If used in distribution or switching appliances up to 1000 V it is considered to be short circuit-proof and earth leakage-proof. The cable is halogen-free, flame-retardant and resistant to most oils and grease.

Silicone-insulated cord SiHF

CROSS SECTIONS: 0.5 to 50 mm²

APPLICATION: In connections for mobile electrical appliances with low mechanical stresses at increased ambient temperatures, in steelworks, for example. But also at low temperatures. Insulation and sheath are resistant to most oils, greases, lyes and oxidants. For indoor and outdoor use.

LAN cable FACAB® dataline 600

CATEGORY: 6

APPLICATION: For the connection of IT system units in the desktop area (tertiary sector), e.g. between floor distributors and workstations up to 600 MHz (category 6). It fully complies with the electromagnetic compatibility requirements (EMC) of European Standard EN 55022 and the guidelines of the European Postal Administration. Furthermore, the copper braiding ensures perfect matching with screened connectors.

Indoor and outdoor fiber optic cable U-DQ(ZN)

FIBERS: 2 – 24

APPLICATION: LSOH optical cable with central loose tube and glass yarn strength members. The special sheath material enables outdoor installation and direct burial as well as indoor installation where halogen-free, fire-resistant and smoke-free requirements apply. The cable is therefore ideal for connection between buildings.

MAJOR PROJECT:

DEVELOPMENT AND UPGRADE OF THE NUREMBERG – BERLIN LINE.

faber

We know all about the handling of complex projects and safety requirements to be met: We have been a certified Q1 supplier for Deutsche Bahn AG, among others, for many years, and also supply their suppliers with our cables and wires, as well as private transport companies. This made Faber the perfect partner for the new construction/upgrade of the Nuremberg – Berlin line. The availability of larger diameters, adjustment as required, just-in-time delivery and coordination between the construction site personnel and contracted hauliers presented no problems. The Faber service als ensured the unloading options by crane.

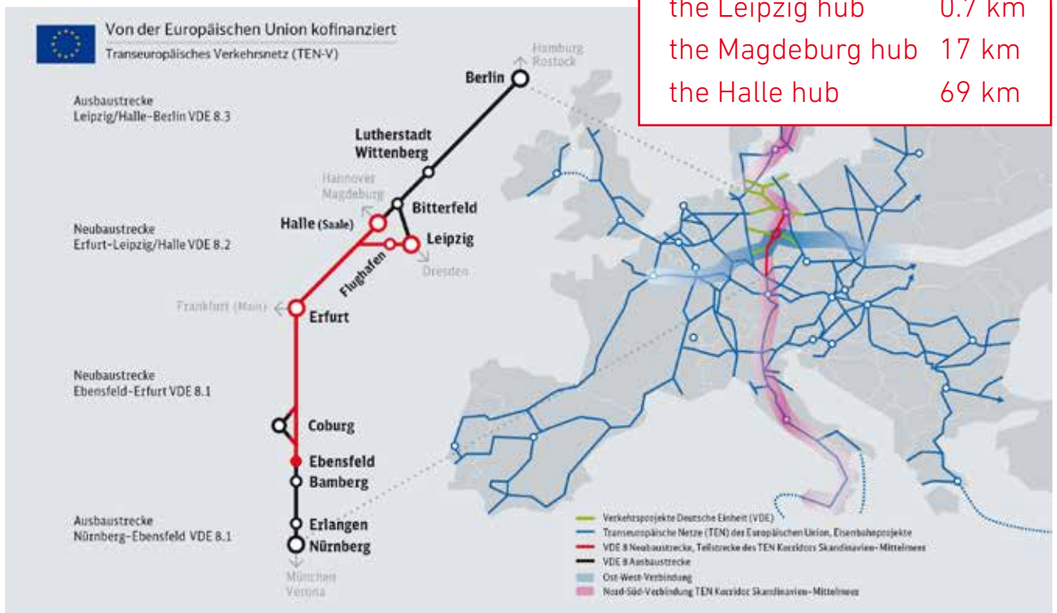
The project.

The Nuremberg – Berlin line (also referred to as VDE 8) is one of 17 "German unity transportation projects" (VDEs). These projects involve the construction and upgrade of railway lines and/or line sections with a total length of 515 km between Nuremberg, Erfurt, Halle (Saale), Leipzig and Berlin. The upgrade and development of this line is one of the largest and most substantial transportation projects since Germany's unification.

The federal government approved the ten-billion-project in 1991 to improve the transport links between the east and west as well as the north and south, but it also closes a gap in the European express train network. The line connecting Nuremberg and Berlin is an important section of the trans-European transport networks (TEN-V). It is part of one of nine key corridors in railway transportation: The Scandinavia-Mediterranean corridor extending from the eastern border of Finland to Sicily. Closing the gap between Nuremberg and Berlin will in future enable passengers to travel between southern and northern Europe across national borders without train stops, changing locomotives or switching control systems. High-speed trains will soon be able travel at up to 300 km per hour along the entire new line. They will get people from city to city between Munich and Berlin in under four hours.
The project involves 1164 km of overhead cable, 214 passages, 177 road bridges, 335 railway bridges, 48 railway stations, 40 viaducts, 27 tunnels and 190 km of railway power line.

Our contribution to:

the Leipzig hub	0.7 km
the Magdeburg hub	17 km
the Halle hub	69 km



Overall rating **Good**

Top performance for top results!

	Number of reviews:		1
	Delivery/service phase		Weighting 100%
Quality weighting 1/3	Delivery/service quality according to contract	99	
Costs weighting 1/3	Delivery/service costs according to contract	99	
Deadline weighting 1/3	Adherence of the delivery/ service to schedules according to contract	99	
	Result for the delivery/ service phase	99	

Good between 79.9 up to 99.0 The supplier **has met the requirements** of DB AG.

Our service VDE 8.1 and 8.2:

68 km	NYY-O	4 x 240
33 km	NYY-O	4 x 185
12 km	NYY-O	4 x 70
117 km	NYY-O	2 x 6 to 2 x 25
30 km	N2XH-O	4 x 25
9,5 km	N2XH-O	4 x 50
86 km	NHXHM-O	2 x 1,5 to 2 x 2,5
29 km	N2XS(F)2Y 20 kV	1 x 95/16 to 1 x 240/70

Source/Pics: DB Netz AG | http://www.vde8.de

FABER

PRODUCTS FOR INDUSTRY PROFESSIONALS.

FRNC control cable HSLH-JZ / -OZ / -JB

CROSS SECTIONS: 0.75 to 185 mm²

APPLICATION: Halogen-free and LSOH control cable for multiple purposes in control and measurement circuits indoors. The cable is to a large extent resistant to oil and grease.

Screened FRNC control cable HSLCH-JZ

CROSS SECTIONS: 0.5 to 120 mm²

APPLICATION: LSOH control cable for multiple purposes in control and measurement circuits with increased electromagnetic compatibility requirements. For indoor use only. The cable is to a large extent resistant to oil and grease.

Screened FRNC electronic cable LiHCH

CROSS SECTIONS: 0.14 to 1.5 mm²

APPLICATION: Halogen-free data cable for mA-range signal transmission between electronic devices, in computer systems, process control units, office devices etc.

All images shown here are for illustrations and product reference purposes only.

FIND OUT MORE:

www.faberkabel.de/en/

FABER

THE SERVICE PROFESSIONALS.

Be it cable and wiring for rail or road, aviation, waterways or use in airports or stations: whatever you need, we have in constant supply, ready to dispatch to you quickly, reliably and in the desired lengths. Our proposal is rounded off by good service.

Your contact:
T +49 681 9711-0
info@faberkabel.de

Contact us.
Our service team will be delighted to assist you.

WE LOOK
FORWARD TO
HEARING FROM YOU!

RELIABLE
OUR
REFERENCES.

Companies from all over the world place their trust in us. We always have the right solution at hand for every one of our clients. That is because their success is our business and that is why they know they can rely on us.

More information about our references can be found at
www.faberkabel.de/en/branchen/referenzen.html