

For over 70 years Brugg Cables has been at the forefront of high-voltage cable technology in the range of 45 kV to 420 kV. Reliable and convincing solutions have been developed for customers worldwide.

Whether in Singapore, Dubai, Zurich or Davos, the Brugg High-Voltage Systems Division supplies and installs not only cable systems. Brugg Cables meets the needs and wishes of customers with revolutionary overall solutions, with creativity and imagination, as for example in the development of cable laying with integrated permanent temperature monitoring, to maximise the performance of the installation. Share with us your needs and wishes. We will be happy to stay under high voltage for you.



XDCUW-N

Single-core high-voltage cable with segmental copper conductor, cross-linked XLPE insulation, radially and longitudinally watertight corrugated copper sheath, flame retardant halogen-free outer sheath.



XDRCU-PBT

Single-core high-voltage cable with segmental copper conductor, cross-linked XLPE insulation, radially and longitudinally watertight round copper wire screen and lead sheath, halogen-free HDPE outer sheath.



XDRCU-ALT

Single-core high-voltage cable with stranded round copper wire conductor, XLPE insulation, radially and longitudinally watertight round copper wire screen, with laminated aluminium foil, halogen-free HDPE outer sheath.



GDCUW-T

Single-core high-voltage cable with stranded round copper wire conductor, cross-linked EPR insulation, radially and longitudinally watertight corrugated copper sheath, halogen-free HDPE outer sheath.



XDRCU-CUT

Single-core high-voltage cable with stranded round copper wire conductor, cross-linked XLPE insulation, radially and longitudinally watertight round copper wire screen with laminated copper foil, halogen-free HDPE outer sheath.



XDRCU-ALT with temperature monitoring

Single-core high-voltage cable, round copper wire conductor, XLPE insulation, radially and longitudinally watertight copper wire screen, optical fibres for temperature monitoring, laminated aluminium foil, HDPE outer sheath.



XDFCU-CUT

Single-core high-voltage cable with stranded round copper wire conductor, cross-linked XLPE insulation, radially and longitudinally watertight flat copper wire screen with laminated copper foil, halogen-free HDPE outer sheath.



POCUW-T

Single-core high-voltage oil-filled cable with segmental hollow copper conductor, oil-impregnated paper insulation, radially watertight corrugated copper sheath, halogen-free HDPE outer sheath.



XDPB-T

Single-core high-voltage cable with stranded round copper wire conductor, cross-linked XLPE insulation, radially and longitudinally watertight lead sheath, halogen-free HDPE outer sheath.



POPB-T

Single-core high-voltage oil-filled cable with hollow round copper wire conductor, oil-impregnated paper insulation, radially watertight lead sheath, halogen-free HDPE outer sheath.

High-voltage systems are only as good as the accessories used. With Brugg Cables nothing is left to chance. Complete 400 kV Brugg high-voltage systems have been subjected to the prequalification test at CESI in Milan.

High-voltage accessories, straight-through joints, transition joints, sealing ends, clamps and fixations from Brugg Cables are manufactured using the latest technology and to the highest quality standards. If necessary, accessories for connections to specific systems and installations for other cable manufacturers can be developed and manufactured, and guaranteed to meet the quality requirements of complex overall solutions, as the cabling of entire cities.



FR 1.300-01
Outdoor sealing end with composite insulator for overhead line connection.



FR 1.245-01
Outdoor sealing ends with composite insulators mounted on pylons.



TF 1.170-11
Sealing end for single-pole insertion in SF6 switchgear.



TFF 1.275-11
Sealing ends for parallel cable insertion in SF6 switchgear with short-circuit resistant supports.



OE 1.145-04
Outdoor oil-filled cable sealing end with porcelain insulator for overhead line connection.



TT 1.170-11
Sealing end for single-pole insertion in transformer entrance box.



TF 1.170-11
Sealing end for three-pole insertion in SF6 switchgear.



MP 1.245-21
Straight-through joint with partial discharge monitoring facility.

Meeting customers' declared targets and requirements for safety, cost-effectiveness and fitness for purpose is Brugg's aim for every required high-voltage installation. Brugg Cables supplies total solutions as well as products.

It is acknowledged that Brugg Cables' responsibility and experience covers more than cable laying. The High-Voltage Division is known for its practically minded solutions of the highest technical standard for applications. Environmentally friendly high-voltage underground cable installations are an alternative to overhead lines. Special cable sealing ends for SF6-insulated equipment and transformers guarantee a safe-to-touch installation. Anchoring clamps are securing cables in steep terrain. The list of applications is being continuously extended.



Cross-bonding link box.
For the cross-bonding of cable screens. The surge voltage arrestors protect the outer sheath of the cable from both switching and atmospheric over-voltages.



All under control.
Pressure control box for oil-filled cables with pressure gauge, pressure switches and pressure pump.



BRIPORT and BRIFIX.
Installation and guidance of single-core high-voltage cables in cable tunnel with BRIPORT support and BRIFIX cable-belt systems.



Fastening in basement.
Alignment and fastening of high-voltage single-core cables in cable basement.



Safely protected.
Sheath overvoltage arrestors across the isolated part of the SF6 sealing end protect the outer sheath from surge voltages.



Temperature measurement.
Sealing end box for temperature measurement by means of optical fibres in the cable sheath.



Good routing.
Synthetic rubber clamps for fastening and alignment of cables to required route.



All fixed.
Anchoring clamps for fixing cables against longitudinal stretching in steep terrain.

The production of cables in the range 45 kV to 420 kV requires especially developed tools, processes and high-performance equipment. Hence, the largest cable-stranding machine in Europe is installed at Brugg Cables.

Brugg High-Voltage Systems Division guarantees both a high quality of manufacture and answers to the demands on the maximum limits of ampacities and installations. Brugg Cables in addition offers exceptional advantages arising from the decades of knowledge and experience gained in high-voltage system technology on a global basis. This experience and the assurance that the latest research knowledge is exploited in every Brugg high-voltage cable system is to your advantage.



For silicone joints.
Extrusion machine for the manufacture of pre-moulded slip-on silicone-insulating bodies and stress cones.



Superextruder.
High-performance extrusion plant, type CDCC, with materials feed under controlled "clean room" conditions.



Apply cable screen.
Machine for the application of cable wire screen.



Horizontal curing.
Horizontal triple-head extrusion machine, type MDCV, with long-land die for dry curing.



Extruding and centring.
Latest technology extrusion head and eccentricity-measuring instrument for catenary line.



Lightning impulse testing.
Impulse generator in the high-voltage laboratory for lightning and switching impulse testing of high-voltage cables and accessories (impulse voltages up to 1.8 MV).



Routine testing.
Screened and protected room for routine testing, guaranteeing the highest quality standard of the insulation system.



Test room.
Routine testing of every length of cable. Test room of alternating voltage and partial discharge test field.



Dry curing.
Completely dry-curing and -cooling high-performance extrusion line, type CDCC.

Customer specifications and requirements call for a constant willingness and ability to develop, modify and improve existing already good equipment, systems and products.

Anticipating and reacting to customers' new requirements is a recognised skill of Brugg Cables High-Voltage Systems Manufacturing Division. Brugg engineering is highly developed and the engineering team seeks not only to fulfil the demands of customers in every way, but to exceed them. How successful the approach is, can be verified by the numerous patents and Certificates of Approval held.



Quality targets.

The Brugg quality management system covers every aspect of the business and complies with the standard ISO 9001.



Environmental targets.

The protection of the environment and the conservation of natural resources are the declared environmental objectives of Brugg Cables. They comply with the standard ISO 14001.



High voltage in the basement.

Typical cable-laying arrangement in cable basement.



Reliable connections.

Joints with premoulded and pretested insulating bodies guarantee the highest possible quality.



Cable drums in the desert.

Drums with Brugg high-voltage cables in the desert, awaiting laying.



One, two, pulled in.

Pulling of single-core cables through joint pit using a cable-pulling eye.



Flame-resistant.

Single-core high-voltage cables with flame-retardant outer sheath, installed in cable basement, secured with aluminium clamps for short-circuit protection.



Fire protection.

Cables laid in stainless steel ducts, type CNW, for optimal protection against fire and mechanical damage.