



Energy
Efficiency
Solutions



BOR ENERJİ

Our main business line covers; storing accessories that connect MV switchgear, overhead lines and cables employed in the generation, transmission and distribution of electrical energy; selling this equipment through our distribution network or direct project-based sales; offering supervision services; increasing energy efficiency with high-quality products, as well as raising awareness on the issue.

The major building blocks of our company are as follows:

- Energy Cables and Accessories
- Energy Efficiency Technologies

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**ERSOY
DEMİR**
Founding Partner

"People are the most useful to the society in topics they know and believe in. This is how my brother and I translated our background in engineering and corporate professional experience to our own business. That is how Bor Enerji was born.

We are engaged in project-based direct sales of accessories that connect MV switchgear and cables. We prefer efficient and long-lasting products. We offer supervision services. Increasing energy efficiency with high-quality products and their correct implementation is one of the focal points of our mission."



**HÜSEYİN
DEMİR**
Partner

I've had the opportunity to advance in my profession and enhance my expertise at ABB, the market leader in drives. The drive service department in particular has contributed a lot to my experience, professional vision, and the way I view business.

Electrical energy is one of the biggest cost items in industry. At Bor Enerji, we use high-quality, efficient and long-lasting products with a view to improve energy efficiency. We complement all our services with meticulous planning taking into account engineering facts that suit the project most. We regard being next to our client throughout all the stages of the process as a critical part of our job."



**RECEP
TOPÇU**
Sales Manager

"Understand the product. Understand the problems, the need. Work with the most seamless product that has the longest life. Believe in engineering knowledge and benefit from it. Always be by your client's side"

Easier said than done, a full 10 years. Two months after Bor Enerji was established, I was already part of the team. Today, I, we still feel that very same enthusiasm.

New projects and our goal to proceed our journey with ever-increasing success in the international arena motivate us and make us happy. Actually, we feel like we are continuing on this journey together with our clients.



**ÖZLEM
HÜSEM**
Foreign Trade Manager

I joined the Bor Enerji team a short time ago. I already had a positive impression about the company owing to the way it was doing business and the high-quality products it used.

What I have observed in this limited time is that this is a workplace that exudes the warmth of a family and a team spirit. The importance attached to the notion of engineering and the customer-oriented business processes are indicators of the principle of professionalism.



**ZÜMRÜT
KIKKAYA**
Sales Responsible

Bor Enerji is a company that attaches utmost importance to customer satisfaction. For us, the highlight of doing business is not selling a product or receiving the approval for a quote we have given for a project.

Since we choose the products from amongst the best of their league and plan and share with the client the most efficient use of them, everything runs smoothly. Some of our clients, who consider this as part of our expertise, sometimes even call and consult us for some technical issues that are not directly related to our business. We are more than happy to try and help them.



**AYSUN
ASLANBOĞA**
Accounting & Finance Responsible

At Bor Enerji, the accounting and finance leg is executed with the same professionalism that applies to all other stages. Invoicing and all processes in the accounting flow are run meticulously, in a timely fashion, and informing the client along the way.

Companies that have worked with Bor Enerji before know that the prices they are offered are rational and are confident that the whole financial process will run without a hitch. Therefore, the share of companies that decide to work with us again and recommend Bor Enerji in other projects is quite high.



**AHMET
YAKIŞAN**
Stock & Logistic Responsible

At Bor Enerji, we plan our inventory using a backup structure called "safety stock level.

That is how we can supply demanded products very quickly. When needed, the installation is executed just as rapidly by Bor Enerji technicians. Therefore, our clients know that we will supply their products in a short period of time when they contact us. In a nutshell, we do our best to carefully implement the requirements of a customer-oriented business approach in all handling and shipment processes as well.

ABB, writing the future of industrial digitalization...

We are working on technologies that make our customers more competitive and at the same time reduce their environmental impact.

Authorized
value
provider

ABB

2019
/20



Complete low voltage solution

ABB offers a complete range of low-voltage solutions for electrical installations, switchboards, electronic and electromechanical devices for connection, protection, control and measurement needs.

This business line provides credibility and increased productivity for customers operating in all areas of the industry, including the housing industry.



 **ABB Low voltage
AC drives**



ACS 880

ACS880 series drives are part of ABB's all-compatible drives portfolio. Compatible with virtually all types of processes, automation systems, users and business requirements they are designed to tackle any motor-driven application, in any industry, whatever the power range. The innovation behind all-compatibility is our new drives architecture that simplifies operation, optimizes energy efficiency and helps maximize process output. The ACS880 series consists of single drives, multidrives and drive modules.

ACS 800

ABB ACS 800 industrial drives are available both as complete AC drives and as modules to meet your requirements as a user, OEM or system integrator. Single drive modules configuration contains a rectifier, DC link and an inverter in one single AC drive unit. They can be installed without any additional cabinet or enclosure, available in wall-mounted, freestanding and cabinet-built constructions. They are specifically designed for industrial applications in process industries such as the pulp & paper, metals, mining, cement, power, chemical, and oil & gas.



ACS 580

ACS 580 drives include all the essential components for typical light industry applications, with a scalable offering from 0.75 kW to 500 kW. It is ready to control compressors, conveyors, mixers, pumps and fans, as well as many other variable and constant torque applications. The all-compatible drives family ensures you will always find the best drive for your needs. These drives share similar user interface and PC tools making using and learning them fast and easy.



ABB Low voltage
AC drives



ACQ 580

The drives secure the flow of water and wastewater in the pumping system throughout their whole life cycle. With built-in pump functionalities, the drive keeps the pumping system operating optimally, lowering the energy bill. The drive is used with inflow pumps, transfer pumps, dosing pumps, sludge pumps, booster pumps, submersible pumps and compressors, blowers, decanter centrifuges, mixers and fans.



ACS 355

If you are a system integrator, original equipment manufacturer or panel builder, the ACS355 is our top tier micro drive. It is focused on material handling, food and beverage applications, processing of rubber, plastic and wood. You have a cost effective, versatile drive offering the best connectivity in its class. Installation and commissioning is simple and easy, saving you labour time.



ACH 580

The new ACH 580 drives come with a range of advanced features, such as a new primary settings menu that makes commissioning the drives much easier and faster. Bluetooth connectivity offers improved accessibility for drives in remote areas and increases safety by letting users stay out of arc flash zones.



ACS 310

ACS 310 dedicated to optimize your variable torque applications, such as booster pumps and centrifugal fans. Designed with a powerful set of features that vary the drive's performance in response to changes in pressure, flow or other external data. Helping you to save on operating costs, increase energy efficiency and reduce CO2 emissions.



ACS 550

Ideal for variable and constant torque applications from pumps and fans to conveyors and mixers as well as many other variable and constant torque applications. No customizing or special product engineering required. Monitor your savings easily with the built-in counters, which display energy savings in kilowatt hours, carbon dioxide emissions or local currencies.



ACS 150

ACS 150 variable frequency drives feature an integrated control panel with LCD display and built-in speed potentiometer. For easy setup and commissioning, the drives include a variety of predefined I/O configuration macros including: ABB standard, 3-wire control, Digital input control, PID control, Hand/Auto control, and a PLC interface. User defined macros can also be created.

Reliable and intelligent technologies

ABB offers a wide range of medium voltage solutions for public service, industrial and commercial customers with safe, reliable and intelligent technologies for electricity distribution.



ABB Medium voltage
AC drives



ACS 5000

The ACS 5000 medium voltage drive is part of ABB's special purpose drives portfolio. Special purpose drives are engineered drives for your high power, high speed or special performance applications such as test stands, marine propulsion and thrusters, rolling mills, SAG and ball mills, large pumps, fans and compressors.

ACS 1000

Whatever your industry, the medium voltage drive is an all-rounder to control your standard applications and optimize your processes. Tailor the drive to your specific application by selecting from an extended choice of pre-engineered options. Extensive versatility makes the ACS1000 suitable for operations in different conditions and environments, even hazardous areas. High reliability in your daily business is ensured by the drive's simple design and robust control platform that has proven itself over many years.



ACS 2000

The medium voltage ACS 2000 drive is an industrial all-rounder that perfectly adapts to a wide variety of standard applications across all industries. Various options and drive configurations allow you to choose a perfect match to increase efficiency of your processes and systems. Boundless versatility makes the ACS 2000 sure to fit perfectly into different conditions and environments, including hazardous areas, all over the world. Benefit from the drive's simple design and robust control platform which ensures reliable operations every day, everywhere.



ACS 580MV

The ACS 580MV medium voltage converter turns complicated to simple while ensuring highest reliability. The straightforward settings menu and assistants help you to commission the variable speed drive quickly and get it into action. All the essential features are built-in as standard, which reduces the need for additional hardware and facilitates drive selection. The drive is easy to use in terms of controlling pumps, fans and many other applications like conveyors and mixers (variable and constant torque).



Renew retrofit installation

Whether you are looking to build new or retrofit an existing installation, our portfolio of state-of-the-art DC drives gives you design flexibility and the proven dependable performance expected from an ABB drive.

You can use our DC drives in almost any industrial application, either as part of a new installation or as a cost-effective retrofit.

Our range is based on the latest control technology, and it gives you a complete selection of three phase DC drives starting at 9 kW (12 hp) and extending up to 18 MW (24,000 hp). With programmability, built-in control programs, communication and I/O options, you can integrate them no matter what your process needs are.



DCS 880

ABB DCS 880 industrial drives are customized to meet the precise needs of industries such as oil and gas, mining, metals, cement, non motoric, material handling, pulp and paper, rubber and plastics, marine, water and wastewater, food and beverage and automotive. They control a wide range of applications such as cranes, extruders, winches, winders, conveyors, mixers, millstands, centrifuges, test benches, elevators, electrolysis, kiln.



DCS 800

The DCS800 DC Drive is simple to buy, install, configure and use, saving considerable time. The drive has common user and process interface with fieldbus, common software tools for sizing, commissioning, maintenance and common spare parts. Embedded software functions offer the upgrades of all classic installations 12-pulse, shared motion, double motor operation, field reversal control.



DCS 550

This compact and feature packed DCS550 DC drive is designed to give machine builders the flexibility and features needed, either for new machine designs or to retrofit existing machines. They are designed with a wide range of built-in features including an integrated three phase field exciter (up to 35 A), a wide selection of communication options, PID controls, and adaptive programming. All of these features help you integrate without DC drive control without having to add more and more components.

Motor starting matters

ABB's softstarters increase a motor's lifetime by protecting it from electrical stresses. They do so by letting you optimize starting currents that with conventional starting methods put lots of stress on the motor. With many built-in motor protection features, your motor is safe in its hands. ABB's softstarters are also installation-friendly and can cut your assembly and startup time by being easy to use and easy to learn.

With everything that you need in one unit, from bypass contactor to overload protection, a single Softstarter makes for a compact and complete starting solution. Furthermore, with many application specific features, ABB's softstarters can ultimately help you increase productivity. Torque control, pump cleaning and many more features let you do more than simply softstarting.



PSTX

The PSTX combines many years of research and product development with extensive knowledge of application specific requirements and needs. The PSTX is our latest advancement in motor control and protection and adds new functionality with increased reliability to any motor starting application.

PSE

The PSE softstarter is the world's first compact softstarter with torque control and LCD display. It is developed in close cooperation with customers to ensure that the product fulfills their important needs. The PSE softstarter is ideal for any application where space is limited, but where advanced functionality is still required. It is suitable for all common applications such as pumps, fans, compressors, conveyor belts, and more.



PSR

The PSR softstarter range is a simple yet reliable starting solution that utilizes only the most basic of soft starting features: soft start and stop. It performs well in applications requiring many starts per hour and is perfect for installations where you need to save space.



Motors and generators

ABB offers a comprehensive range of reliable and high efficiency motors and generators for all applications.

ABB has what it takes to help every industry and application reach new levels of efficiency and energy savings even under the most demanding conditions. Combining the best available materials with superior technology, the electric motors and generators are designed to operate reliably no matter how challenging the process or application, and to have low life cycle costs.

Authorized
value
provider

ABB

BOR ENERJI
ENERGY EFFICIENCY TECHNOLOGIES

 ABB AC Motors

ABB AUTHORIZED
VALUE PROVIDER

**BOR
ENERJI**

ABB





Drive service

The future of your drives and systems depends on the service you choose. Your choice should be based on a well-informed decision. We have the expertise and experience to help you find and implement the right service for your assets. You have our guidance and full support along the course you take, throughout the entire lifetime of your drives.

Well-planned maintenance actions extend the lifetime of your drives. To make maintenance planning easier, ABB has developed a four-phase life cycle management model which defines service availability for each drive throughout its lifetime.

ABB Drive service

SPARE PARTS

Genuine spare parts for ABB drives allow you to continue operation fast and reliably in case of a failure. Parts are delivered in one package, so that you get all the material you need for the installation.



PREVENTIVE MAINTENANCE SERVICE

Installed drives are maintained according to detailed product specific schedules. Regular preventive maintenance actions allow to control maintenance costs and to optimize life time performance.



SERVICE AGREEMENT



Let your business grow!

Each ABB Drive Care agreement is designed to let you focus on your core business. With a service agreement matching your needs we can reduce the risk of unplanned downtime and make it easier for you to budget maintenance. This means better, more reliable drive performance, extended drive lifetime, and improved cost control.

RECONDITIONING SERVICE



Bring your drivers back to the original!

Reconditioning will improve your drive's reliability, extend its lifetime, and minimize the cost of unexpected repairs. Reconditioning includes a full inspection, thorough cleaning, and individual component analysis and replacement. Every reconditioned drive is thoroughly tested and comes with a one year warranty.

REMOTE MONITORING



Unleash the true potential of your drive.

The remote monitoring service and support packages allow customers to do just that through early diagnosis. By accessing centralized drive data, ABB's remote monitoring services allow our medium voltage technical experts to quickly identify and troubleshoot any drive irregularities without having to be on site.

ENERGY OPTIMIZATION

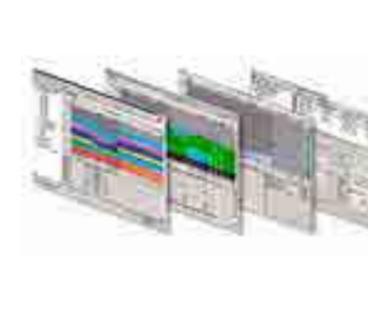


ABB has devised a simple, methodical ABB Ability Energy Optimization for Drives and Motors service that highlights the energy saving potential for end users of using ABB drives and motors in selected applications. This helps end users target their investments to generate the greatest savings and deliver the best return.

INSPECTION & DIAGNOSTICS SERVICE



Inspection and Diagnostics service enables you to recognize your drive's future maintenance needs by measuring and analyzing the condition of your drive's and its application.

TECHNICAL TRAINING



Professional training enhances employee competence and motivation, improves site safety, productivity and reduces downtime. ABB provides drive courses for your personnel.



Different applications, common purpose:
Full security.

The cleanup of the waters in India, the
improvement of highways in Turkey.
Applications may vary, but the target is the
same. We keep you safe wherever you go.



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Industrial SCOTCH tapes

Electrical tape is an essential component of any installation, repair and manufacturing project. 3M invented vinyl electrical tape and today we offer durable, reliable electrical tapes, designed to protect in the most challenging environments.

3M electrical tapes and mastics; protect, seal and mark applications in the construction and maintenance industry. Electrical equipment and wire harness markers can count on 3M tapes to provide field-proven insulation, mechanical support, grounding and EMI shielding.



3M Industrial electrical tapes

SCOTCH 23 Rubber Splicing

Greater physical and electrical properties that are unaffected by the degree of stretch. This tape is highly resistant to split, crack and flag when exposed to indoor or outdoor environments. It is designed to splice and terminate cables whose emergency overload temperatures can reach 130 °C.



SCOTCH 33+ Premium PVC Tape

Abrasion-resistant tape that offers electrical and mechanical protection with the combination of an aggressive, rubber-resin adhesive and an elastic PVC backing. This tape is highly resistant to UV rays, moisture, alkalis, acids, corrosion and varying weather conditions.



TEMFLEX 1300e PVC Isolation Tape

It has good resistance to: abrasion, moisture, alkalis, acid and varying weather conditions (including sunlight). It is a polyvinyl chloride (PVC) tape that has a good electric strength, is conformable and provides good mechanical protection with minimum bulk.



SCOTCHFIL Insulation Putty

It is used to insulate irregular surfaces like fittings and valves. This self-fusing, electrical-grade tape can be stretched or wrapped and helps to insulate connections up to 600V. It withstands a wide temperature range of 0 to 80 °C.



SCOTCH 27 Glass Cloth Tape

7-mil woven insulating glass cloth tape with pressure-sensitive rubber thermosetting adhesive. This tape is designed to operate in 600-volt dry applications requiring high mechanical strength and resistance to high temperatures. The glass cloth is specially treated and prepared to provide corrosion-free protection. The glass cloth will not shrink, rot or burn, has a high tensile strength and is printable.



3M Industrial
electrical tapes



SCOTCH 70 Silicone Runner Electrical Tape



High-temperature, arc- and track-resistant tape composed of self-fusing, inorganic silicone rubber with an easy-tear and easy-strip liner. Scotch® Self-Fusing Silicone Rubber Electrical Tape 70 can be used as base tape layer to cleanly reenter connections.

SCOTCH 2151 Low Voltage Isolation Tape



Highly conformable, 0.51mm Thick, self-fusing EPR (Ethylene Propylene Rubber) based low voltage jointing tape. Dielectric strength is 27 kV / mm. The operating temperature is 90°C. Insulation of low voltage inserts, insulation of motor connections, connections requiring moisture tightness, general purpose sealing applications.

SCOTCH 24 Electrical Shielding Tape



Scotch® Electrical Shielding Tape 24 is an all-metal, open-weave, shielding braid tape in a flat, cable-like form. It is conformable due to the open-weave knit construction of two No. 36 AWG tinned copper wires.

SCOTCH 13 EPR Rubber Tape



Rubber tape, semi-conductive. Compatible with cable semi-conducting jackets. Electrically round high voltage connections. Provide cable shield continuation. Non-vulcanizing and shelf stable while maintaining stable conductivity over a wide temperature range. The tape elongates easily and conforms to irregular shapes. This semi-conducting, premium-grade tape provides magnificent shielding for cable joints on solid dielectric insulated power cables. It withstands temperatures up to 90°C).

SCOTCH 2000 Water Resistant Tape



Scotch 2000 Electrician's Duct Tape is a water resistant duct tape with a polyvinyl chloride (PVC) backing and a rubber adhesive. Scotch 2000 is designed to be an electrician's utility tape for holding and bundling applications.

SCOTCHRAP 50 PVC Tape

Polyvinyl chloride based tapes with special high tack adhesives formulated to resist corrosion of metal piping systems above and below ground, fittings and joints on all mill-coated pipe and electrical conduit systems.



SCOTCH 130C Splicing Tape

Scotch Linerless Rubber Splicing Tape 130C is a highly conformable, linerless, ethylene rubber (EPR), high-voltage insulating tape, formulated to provide excellent thermal dissipation of splice heat. The tape is designed for use in splicing and terminating wires and cables. Rated up to 90°C continuous operating temperatures and short-term 130°C overload service.



TEMFLEX 1500 Electrical Tape

Temflex 1500 Electrical Tape is a good quality and general purpose PVC insulating tape. Available colors are: black, blue, brown, yellow, yellow/green, gray, orange, red, white, purple and green. It has good resistance to: abrasion, moisture, alkalis, acid and varying weather conditions (including sunlight). It is a polyvinyl chloride (PVC) tape that has a high electric strength, is conformable and provides good mechanical protection with minimum bulk.



TEMFLEX 1700P Vinyl Tape

Printed with MSHA (Mine Safety and Health Administration) product approval and is a good quality, economical general purpose vinyl insulating tape. It is for use in MSHA-approved splicing kits.



Cold shrink technology

Cold shrink technology developed for 3M mines in 1973 today provides fast and easy installation to all industries without using hand tools.

Thanks to its special design, it provides reliable solutions in industrial plants by minimizing the risk of errors in cable header and additional muf applications.



MEDIUM VOLTAGE TERMINATION KITS

3M Quick Term II consists of a high dielectric constant (high-K) stress control tube insulated with a molded silicone skirted insulator. There is a four skirt design rated 15 kV, a six skirt design rated 25/28 kV and an eight skirt design rated 34.5 kV. Each insulator design incorporates an extended base feature which when combined with mastic ensures a seal at the cable jacket end where the cable neutral wires are brought out. Quick Term II terminations are provided in an expanded state, mounted on a removable inner supporting plastic core. As supplied in this pre-stretched condition the termination is ready for field installation. During installation the core is unwound, allowing termination to shrink and form a tight seal.



MEDIUM VOLTAGE COLD SHRINK JOINTS

QS1000 is a one piece cold shrink joint body manufactured from a specially formulated silicone material which provides flexibility, easy installation at low temperatures and superior electrical performance over a wide range of operating temperatures. The finished body is expanded and loaded onto a removable supporting core which allows the joint to be installed without the need for tools or heat.

QS1000 is suitable for use on polymeric and paper cables up to and including 15kV. The QS1000 body is used as the basis for a range of joints covering polymeric and paper in line joints and transition joints, both 3 core and single core.



PST COLD SHRINK CONNECTOR INSULATORS

3M Brand PST Cold Shrink Connector Insulators are a series of open-ended, tubular rubber sleeves, which are factory expanded and assembled onto a removable core. They are supplied for field installation in this pre-stretched condition. The core is removed after the tube has been positioned for installation over an in line connection, terminal lug, etc., allowing the tube to shrink and form a waterproof seal. The insulating tube is made of EPDM rubber, which contains no chlorides or sulphurs. Six diameter sizes will cover a range of 1000 volt cables, copper and aluminium conductors.



Heat shrink technology

3M heat shrink tubing provides solutions in all areas of industry.

Resistance to chemicals, heat changes, different electrical insulation values, corrosion, UV rays; No matter what problem you encounter, 3M surely has a solution according to your application.



MDT TUBING

MDT comes with a factory-applied sealant. This sealant is a heat-activated thermoplastic material that remains soft and flexible over long periods under adverse environmental conditions. During heating the sealant softens, bonds to underlying surfaces and fills small voids that might be present. When cool, the sealant forms a barrier against water, moisture, dirt and other environmental contaminants.



HDCW HEAT SHRINK CABLE REPAIR SLEEVES

3M HDCW Wraparound Heat Shrink Cable Repair Sleeves are designed to quickly repair damaged cable jacketing. They may also be used to re-jacket in-line splices. HDCW wrap sleeves can be used as insulation material on cable and splices up to 1000 volts and as jacket repair material on cable up to 35kV. The design of the wrap sleeve allows it to be installed in tight spaces with ordinary heating equipment such as a torch.



HSR

HSR is a thinwall Polyolefin heatshrink tubing. Shrink ratio is 2:1, min. shrink temperature is 120°C, operating temperature is -55°C to +135°C. HSR is RoHS compliant, flame retardant – self extinguishing and provides good chemical resistance. HSR is a fast shrinking thinwall material and the preferred choice for general purpose electrical applications such as insulating, bundling, marking, mechanical abrasion protection, corrosion protection, strain relief of LV cables, wire termination and electrical connections.



MEDIUM VOLTAGE HEAT SHRINK TUBING FOR BUS BAR

3M BBI-A Series Heat Shrinkable Tubing for Bus Bar is designed for insulating rectangular, square and round bus bar rated from 5 kV through 35 kV. It will also cover and insulate inline bolted connections of rectangular bus bars. The tubing meets the requirements of ANSI/IEEE Standard C37.20. The standard tubing lengths are 20 feet (6,1 m) and 50 feet (15,2 m).



HDT-A THICK WALL ADHESIVE COATED TUBING

HDT-A is a thick wall polyolefin tubing. The toughness and weatherability of the tubing make it well suited for exposed applications. HDT-A is supplied with a specially designed hot melt adhesive layer. The adhesive is applied during extrusion of the tubing thus achieving a very smooth, constant adhesive layer, which ensures excellent sealing properties. HDT-A meets the longitudinal sealing requirements of VDE 0278 part 3 and is, therefore, ideal for sealing underground or exposed inline joints and terminations.



Resins and mining applications

One of the most common causes of explosions in closed-type mines is the arc-induced explosions occurring in the electrical cable connections.

Providing different solutions to provide a safe working environment in mines, 3M eliminates the danger of explosion caused by arcing with resin-based cable glands with flame-retardant properties according to the Atex norms.



3M Resins and mining applications

EASY DISPENSER 250

Easy to use dispenser of electrical re-enterable resin for electrical installers. Contains 3M Scotchcast 8882 resin. This is a soft, two-part polybutadiene electrical resin encapsulate, designed for re-enterable splice protection. 3M Scotchcast 8882 resin is formulated for virtually every electrical application requiring a reliable, soft, re-enterable resin with good handling and performance characteristics. Scotchcast 8882 has excellent wetting properties and low viscosity. The resin flows well at low temperatures, filling the closure and minimizing air voids.



DIRECT BURY CLOSURE KIT DBC SERIES

Direct Bury Closure Kit The DBC Series consists of pre-filled silicone gel cans that provide fast and secure electrical installation. The kit is easy to connect with the provided premium connector block and provides excellent waterproof sealing. Ideal for use on small cable cross-sections (0.6 / 1kV) in high humidity environments such as outdoor electrical lighting and garden landscape applications.

Direct Bury Closure boxes are ready for power immediately after closing the box and provide high mechanical protection from external forces.



SCOTCHCAST RESIN KITS 92-NBA

Designed to be used for 1-core up to 5-core non shielded, polymeric, low voltage energy cables. The application incorporates electrical insulation and mechanical protection of joints with compression or mechanical connectors. They can be used for indoor and outdoor, underground and submerged applications. These joints are also suitable for Single Core Airfield Ground Lighting Cables rated to 6kV with the use of additional components.



SCOTCHCAST 48-FR RE-ENTERABLE RESIN

Milky white unfused plastic film made of PTFE fluorocarbon resin. It is chemically inert, conformable, and stable through a temperature range of -268°C to 260°C; the film will fuse at 374°C. Also approved for use on high-pressure oxygen lines.



Sprays

Dehumidifier, contact cleaner, zinc plating, surface care, degreasing, protective coating.

There is a 3M Maintenance Spray for every point you need in your electrical and mechanical maintenance departments.



3M Sprays

SCOTCH 1601 INSULATING SPRAY

Insulating and covering paint based on alkyd resin. It "hardens" into a flexible and resistant film, with excellent adhesion to most common surfaces such as metal, glass, plastic, wood, etc. Scotch 1601 is resistant to UV-rays, acids, oil and alkalis, it is moisture and weatherproof and is especially characterized by its high dielectric strength.



SCOTCH 1625 CONTACT CLEANER SPRAY

Scotch 1625 loosens dirt, light oxide layers and impurities of every kind in an effective gentle manner. Scotch 1625 is electrically neutral and totally residue-free, making it ideal for use in almost any environment as a spray cleaner.



SCOTCH 1640 MULTI-5 SPRAY

Multi Five is a general purpose spray. Due to unique additives, provides excellent capillarity activities, lubricating, corrosion and cleaning properties, adhesion to metals and a extreme low surface tension. Therefore it is able to release screws and remove dirt like adhesives, tar. It displaces water immediatly which avoids tracking currents. The high dielectric strength allows to use for sensitive switch connections.



SCOTCH 1609 SILICONE SPRAY

General use product for preventative maintenance, protection and lubrication. It lubricates moving parts, without becoming resinous and can be used over a wide temperature range (- 32 °C to + 177 °C) thereby, providing long lasting protection against moisture and corrosion. Scotch™1609 is neutral towards paints, plastic, rubber, foamed materials, wood and fabrics.



SCOTCH 1602 RED PROTECTIVE INSULATION SPRAY

Scotch 1602 is a red color insulating and covering paint based on alkyd resin. It "hardens" into a flexible and resistant film, with excellent adhesion to most common surfaces such as metal, glass, plastic, wood, etc. Scotch 1602 is resistant to UV-rays, acids, oil and alkalis, it is moisture and weatherproof and is especially characterized by its high dielectric strength.



Occupational health and safety

Whether in India to get cleaner water, to improve roads in London, or to save lives in battle, 3M helps make everyone in our changing world safer.

With our technology, expertise and energy in different sectors and applications, we provide innovative solutions to help you create a safe environment and focus on your business.

3M Occupational health and safety

G 3000
3M Helmet



The G3000 helmet has been designed in close collaboration with forestry and industrial workers. It is intended for use in harsh environments with tough demands for effective protection, excellent ventilation and a maximum field of vision.

8812
Disposable Respirator



Provides lightweight, comfortable respiratory protection against dusts and mists using the Cool Flow™ Exhalation Valve for reduced heat buildup and increased comfort. An excellent choice for work settings involving heat, humidity and long periods of wear.

9312+
Aura Particulate Respirator



The 3M Aura Particulate Respirator 9300+ Series provide effective respiratory protection for use in industries where workers will be exposed to dust particles and/or non-volatile liquid particles.

E-A-R DISPENSER
Earplug dispenser



One Touch dispenser offers convenient access to workers on the move. The "No Waste Funnel" delivers earplugs with each turn. The reusable, free-standing base can be re-stocked with One Touch refills of our most popular 3M Earplugs. The versatile design includes tabletop or wall-mount options for convenient dispensing.

SECUREFIT
Protective eyewear



With patent pending 3M Pressure Diffusion Temple Technology there are no moving parts and nothing to adjust. Simply put on 3M SecureFit Protective Eyewear and feel the difference as it self-adjusts to provide a secure, comfortable fit each time it is worn.

2820
Protective eyewear



Very lightweight, the 3M 2820 Spectacles are a sleek, modern design offering excellent coverage and field of vision.

Brings energy to life with cable and cable equipments.

Leading brand in structured cabling products and equipment for rubber cables and computer networks convenient for Turkey construction market.



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Cables

Nexans cable and cable systems are in every aspect of our lives, from communication to energy networks, from aviation to automotive, from construction to petrochemical and medical applications.



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N2XRY (IEC) 0.6/1 kV XLPE Insulated Low Voltage Cables

0.6 / 1 kV XLPE insulated steel wire armored multi-core cables with copper conductor.
Min. bending radius: 12xD
Max. working temperature: 90°C
Max. short circuit temperature 250°C



N2XCY (IEC) 0.6/1 kV XLPE Insulated Low Voltage Cables

0.6 / 1 kV XLPE insulated, concentric copper wire screened, multi core PVC sheathed cable with copper conductors.
Min. bending radius: 8xD
Max. working temperature: 90°C
Max. short circuit temperature 250°C.



N2XH (IEC) Halogen Free, Flame Retardant Cables / Fire Resistant Cables

6/10 kV XLPE insulated single core, halogen free, flame resistant cables.
Min. bending radius: 12xD
Max. working temperature: 90°C
Max. short circuit temperature 250°C.



N2XH FE 180 (IEC) Halogen Free, Flame Retardant Cables / Fire Resistant Cables

6/10 kV XLPE single-core, halogen-free and flame resistant cables.
Min. bending radius: 12xD
Max. working temperature: 90°C
Max. short circuit temperature 250°C.



CU/XLPE/AWA/LSZH Halogen Free, Flame Retardant Cables / Fire Resistant Cables

6/10 kV XLPE insulated, aluminum wire armored, single core LSZH sheathed cable with copper conductors.
Min. bending radius: 15xD
Max. working temperature: 90°C
Max. short circuit temperature 250°C.



Uninterrupted energy with Nexans Euromold plugins

Nexans Euromold products offer total premoulded connectors, termination, cable connections, epoxy bushings for transformers up to 550 kV, heat and cold shrink terminations and connections up to 72 kV and cable lugs and mechanical connectors.

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Plugins

Detachable brackets are designed to connect the polymer insulated cable to the equipment (transformers, switching equipment, motors, etc.) In addition, cables can be connected to each other using the appropriate insert.



TYPE A

The detachable bracket type (L) shielded cap is designed to connect the polymer insulated cable to the equipment (transformers, switching equipment, motors, etc.). In addition, cables can be connected to each other using the appropriate insert.

The thick conductive EPDM sheath provides safety to employees against accidental touches. Detachable shielded heads have been tested for AC resistance and partial discharge before leaving the factory.

The detachable bracket-type shielded cap (158LR) complies with CENELEC HD 629.1.



TYPE B

The detachable (T) type shielded head is designed to connect the polymer insulated cable to the equipment (transformers, switching equipment, motors, polimer). In addition, cables can be connected to each other using the appropriate insert.

The thick conductive EPDM sheath provides safety to employees against accidental touches. Detachable shielded heads have been tested for AC resistance and partial discharge before leaving the factory.

The detachable T type shielded headboard (440TB) complies with CENELEC HD 629.1 standards.



TYPE C

The detachable (T) type shielded head is designed to connect the polymer insulated cable to the equipment (transformers, switching equipment, motors, polimer). In addition, cables can be connected to each other using the appropriate insert.

The thick conductive EPDM sheath provides safety to employees against accidental touches. Detachable shielded heads have been tested for AC resistance and partial discharge before leaving the factory.

The detachable T type shielded headboard (484TB) complies with CENELEC HD 629.1 standards.



Cable preparation sets

Designed to ensure medium voltage power cables can be prepared with ease, with the correct usage. Tools within the kit are necessary to prepare bonded semiconductive screens. It is supplied in a hard wearing, foam filled case, which with proper use, will protect the contents from damage, ensuring the longevity of the tools.



 Nexans Cable preparation sets



■ Coat and insulation cutter

The outer shell of the tool is a minimum of 15 mm to a maximum of 57 mm (according to Diameter VDE (German Engineers Association) 0276: 25 mm² 10 kV cable = minimum 22 mm, 500 mm² 30 kV cable = maximum 57 mm), using for.

To release the conductor (cable lug or connector), a plastic piece is clamped into the tool; thus, the isolation of all cables mentioned above can be peeled off without any problem.

The tool has an adjustable knife that can be stepless in depth and angle (0- for position round cutting, position 1-small forward thrust for insulation, position 2 - large feed forward for outer jacket). The form of the blade is designed so that the cable components are not damaged in a proper adjustment.

■ XLPE (groove) cutter with radius knife

The minimum diameter of 12 mm to maximum 45 mm K on the device insulation (German Engineers Association) according to 0276: 25 mm² 10 kV cable = minimum 13.7 mm, 500 mm² 30 kV cable = maximum 45.6 mm) rounding using for.

The blade of the tool is in the form of a radius. After the chamfering of the insulation, there is no edge, the slurry (silicone oil) is plastered when the garnish is applied. For example, when the last closing part is pushed, the force to be consumed is greatly reduced.

■ Semiconductor peeler

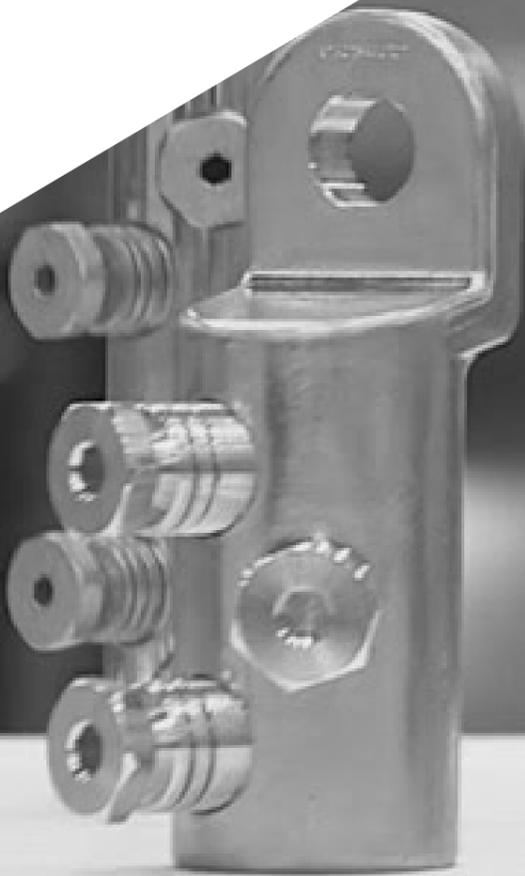
The external diameter of the tool insulation is minimum 10 mm to a maximum of 52 mm K (according to German Engineers Association) 0276: 25 mm² 10 kV cable = minimum 13.7 mm, 500 mm² 30 kV cable = maximum 45.6 mm) tightly It is used to peel the boiled outer conductive layer.

Blade adjustable; thus the conductive layer thickness can be peeled off to a non-critical angle to garnish up to 1.2 mm (maximum 0.65 mm in VDE value).

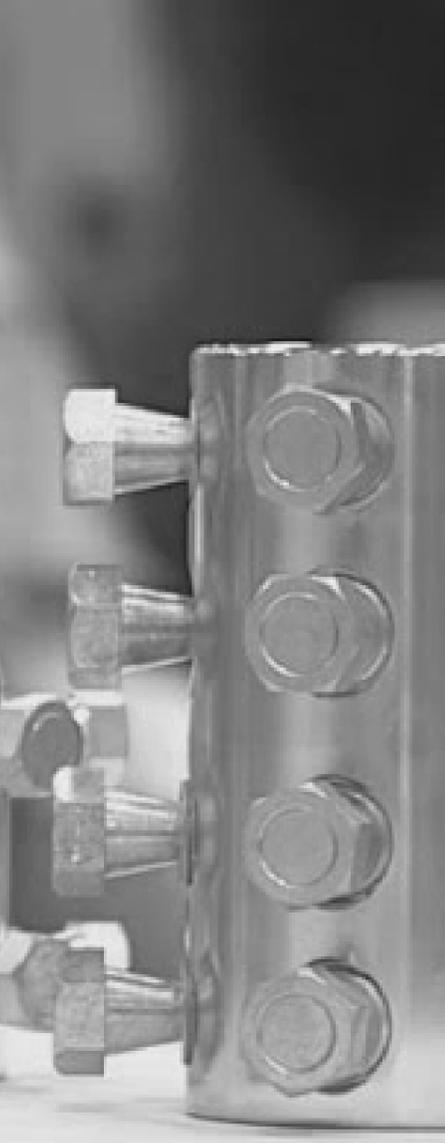
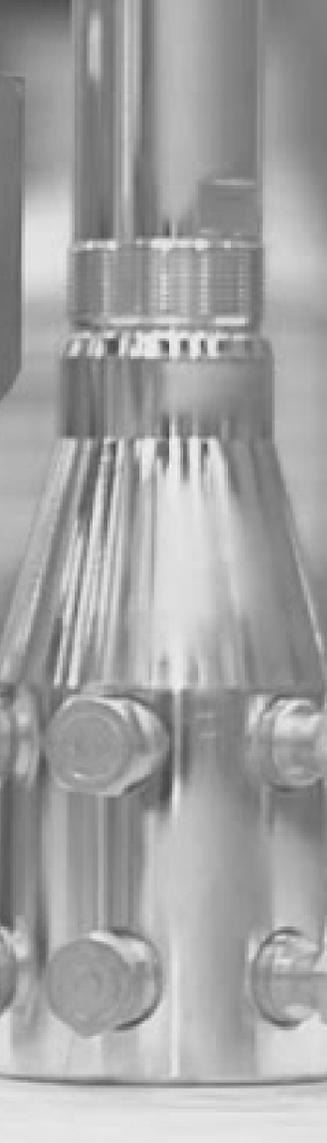
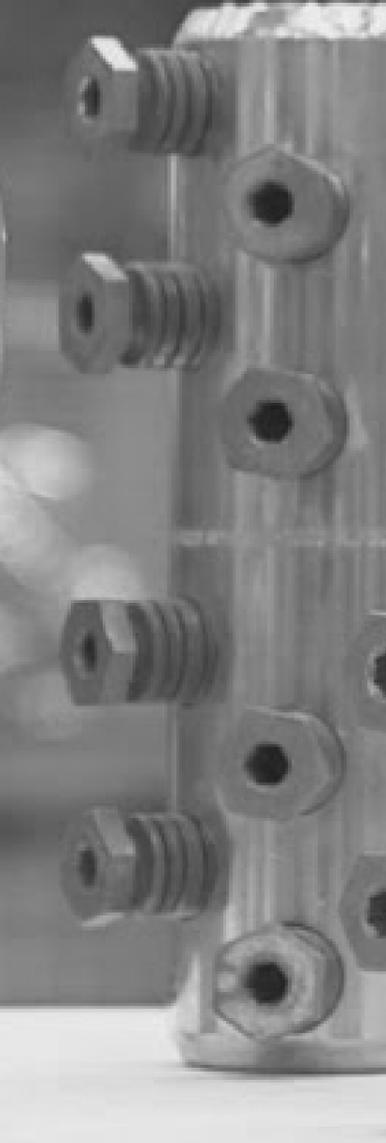
The tool can be used with an adjustable stop (available in the case); thus an additional auxiliary winding, tubular, between 28 mm and 100 mm measured from conductive layer lengths, twisted copper umbrellas or shielding wires remains without the length of the conductive layer without 'stop' is 23 mm.

Nexans GPH products are now easier with
mechanical connections...

Along with the development and production of a wide
range of standard crimped and screw connectors and cable
lugs of the GPH trademark, products of a special design are
developed and supplied at the request of customers.



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Connectors

The mechanical connectors of the GPH are mounted with multiple cutting head bolts and are therefore a reliable and economical way of combining the same or different conductor cross sections and conductive materials.

Installation can be done with internal and external hexagonal tools which are widely available on the market. All mechanical connections and cable lugs of Nexans Power Accessories are electrically tested according to IEC standard.



GPH Connectors

M95-240

Mechanical connector with cutting head bolt and transverse grooving up to 52 kV.

Mechanical connectors are assembled with multiple shear-off-head bolts and are therefore a reliable and economical way of connecting identical or different conductor cross-sections and conductor materials.



This product is also part of the Windlink® specific to wind turbines.

Body: Aluminum alloy with high strength tin coating. Screws: Inside and outside hexagonal tin plated brass or aluminum alloy.

The plastic centering rings are used for central positioning of the cable conductor, while the curved metal centering plate is both for central positioning of the conductor and for preventing bending.

C95-240

It is suitable for use with both copper and aluminum couplings.

Body: Aluminum alloy with high strength tin coating. Screws: Inside and outside hexagonal tin plated brass or aluminum alloy.

The plastic centering rings are used for central positioning of the cable conductor, while the curved metal centering plate is both for central positioning of the conductor and for preventing bending. More lug connection holes are available on request.



WEICON TOOLS cable stripping tools ...

Weicon tools are especially tailored to the needs of professional users and can be used in both the craft and industrial areas, as well as for private use. WEICON produces special chemo-technical products for the industry as well as TOOLS.



Cable stripping tools

 WEICON Cable stripping tools



DUO CRIMP 300

Removing and crimping with a single tool. Easily remove the insulation of conductors from 0,5 to 6,0 mm². The conductor insulation is removed 5 mm long and then the wire conductor is drilled. There are two pressure zones for pressing the core tip sleeves 0,5 – 2,5 mm² and 4,0 – 6,0 mm².



DUO STRIPPER 200

- For all conductor and solid conductors measuring 0,5 to 6,0 mm² (20 to 10 AWG).
- Integrated length scale from 8 to 20 mm.
- The special scanning system automatically adjusts to the diameter of the wire, allowing for a fast and responsive stripping.



CABLE STRIPPING PLATE NO 5

- Automatic cable stripper for all common stranded and solid conductors of 0,2 – 6,0 mm² / 24 – 10 AWG sizes.
- Adjustable 5 – 12 mm length fixing piece (removable if necessary).
- Integrated side chisel which is easily accessible up to 2 mm diameter.



CABLE STRIPPER 4-28 H

- Complete, quick and secure stripping of all common round cables with a diameter of 4 – 28 mm.
- Removable adapter made of wear resistant plastic (POM).
- Thanks to the infinitely variable adjustment of the cutting depth, the internal conductors are not damaged at all.



MINI DUO 150

- It strips all common round cables with a
- For all conductor and solid conductors measuring 0,5 to 6,0 mm² (20 to 10 AWG).
- Integrated length scale from 8 to 20 mm.
- The special scanning system automatically adjusts to the diameter of the wire, allowing for a fast and responsive stripping.



CABLE CUTTER HD 1000

- To remove the thick insulation cables and cut different layers of multilayer insulated cables. The blade-shaped blade tip limits the cutting depth and prevents damage to the conductor.
- Tool is VDE controlled and suitable for use on components that are under voltage up to 1000 volts.

Since 1967, Weicon has been manufacturing, developing and delivering a wide range of cable stripping tools. These include Cable Strippers, Cable Strippers, Scrapers, and Versatile Scrapers.

The tools are developed for accurate, fast and safe cutting of all common cable types. In addition, TÜV Nord has GS seal and has been developed under occupational safety conditions.

The tools are especially tailored to the needs of professional users and can be used in both the craft and the industrial area, and are also suitable for private use.

CERTIFICATES



Bor Enerji Insaat Elektrik Muhend.
Taahhut San. Tic. Ltd. Sti.

AWARDED TO
Huseyin Demir
Turkey

has participated in the ABB partner expert training days
Jun 12-14, 2018 in Helsinki, Finland

Training consisted of hands-on exercises and lectures.

June 14, 2018

Mervi Sihvonen
Mervi Sihvonen
Global BU Channel Manager
ABB Drives





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A black and white photograph of an industrial facility, likely a power plant or refinery, featuring large cylindrical tanks, complex piping, and scaffolding. The image is partially obscured by a large white diagonal shape that cuts across the bottom right corner of the page.