BAHRA
ELECTRIC

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IEEE GCC Lab المقنين الخليجي ISO 14001: 2015 ASR American Systems REGISTRAR Certificate No. 4018 ISO 9001: 2015 ASR American Systems REGISTRAR Certificate No. 3749 ANAB Accredited ISO 45001: 2018 ASR American Systems REGISTRAR Certificate No. 8315 SASO QUALITY MARK

Committed to Standard KEMA

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Established in 2008, Bahra Cables Company is a prominent manufacturer and distributor of high-quality electric cables serving Saudi Arabia and the broader GCC region. Located in **Bahra Industrial City**, just 35 km from Jeddah, our facility spans over **700,000 square meters** of prime manufacturing space. This expansive site includes design offices, laboratories, and storage areas, positioning Bahra Cables as a leader in the industry.

Commitment to Quality and Advanced Technology
At **Bahra Cables**, we are committed to producing products of the highest quality and providing exceptional service to our clients. Our manufacturing processes incorporate **cutting-edge European technology** to ensure precision, reliability, and superior performance. Core technologies in production processes, material applications, and logistics were introduced by **German experts**, and our key functions are managed by highly skilled **German engineers**, further ensuring the highest operational standards. Our advanced production lines are built to meet the most rigorous standards, with every step of the process optimized for efficiency and product excellence. Bahra Cables utilizes **state-of-the-art machinery** and technology, allowing us to maintain high quality and meet the ever-evolving demands of the market.

Efficient Management Structure
We operate with a **lean vertical management structure** that is fully integrated with an advanced IT-based system. This setup ensures the rapid flow of information across all levels of the company, allowing for quick and effective decision-making. Our agile management system promotes a hands-on approach, enabling **timely responses** to market demands and customer needs.

Versatility Across Multiple Sectors
Bahra Cables offers a **versatile range of products**, providing tailored solutions to a wide variety of sectors. These include construction, electric utilities, distribution, industrial, oil & gas, and petrochemical industries. Our ability to adapt to the specific needs of each sector ensures that we can provide high-quality cables and accessories for virtually any application.

Global Standards Compliance
Our products meet the stringent standards set by both **American and European organizations**. Bahra Cables manufactures cables in compliance with **CSA**, **ANSI**, and **ICEA** standards, as well as **IEC**, **BS**, **NF**, and **VDE** specifications. This global compliance guarantees that our products perform reliably, meet safety requirements, and are suited for a broad range of applications worldwide.

MV Cable Accessories Product

At BAHRA Electric Company, we take pride in designing and manufacturing all key components of cable accessories up to 36kV in-house, crafted by our skilled engineers and workers. Our commitment is to provide the highest-quality medium voltage (MV) cable accessories for the local market, the GCC region, and export.

Comprehensive Product Range
Our versatile product range caters to a wide variety of customer needs, with products adhering to international standards such as IEC 60502-4, HD629-1-S3, IEEE 404, and the latest SEC standards. These cover voltages up to 18/30 (36) kV, all detailed in our product catalog.

Quality and Innovation
Our products are meticulously designed and manufactured to meet both global standards and the stringent requirements set by the Saudi Electricity Company (SEC). We use premium materials like Silicon LSR, known for its superior electrical and mechanical properties, ensuring exceptional performance and reliability. We also leverage cutting-edge simulation software, including COMSOL Multi-Physics, to optimize product designs, accurately calculating and minimizing electrical and mechanical stresses. This results in efficient, compact products that are easy to install in any panel or switchgear system.

State-of-the-Art Manufacturing
Our manufacturing facility is equipped with advanced technologies, including injection molding sourced from top European suppliers. This ensures high production efficiency and zero defects. We maintain a pristine production environment and utilize the latest quality control systems, including advanced measurement devices, to meet international standards.

Factory Machinery and Automation
All of our production machines are from leading suppliers, covering processes from injection molding and pre-molding to grinding, cleaning, painting, assembly, and final testing. Each machine is equipped with data communication systems, ensuring a fully automated and optimized production process.

Commitment to Excellence
At BAHRA Electric Company, we focus on innovation and customer satisfaction. Our customer-oriented approach ensures that we deliver not only technically advanced and thoroughly tested products but also reliable and safe system solutions. We continually invest in technology to ensure our products meet the evolving needs of the industry.

MV Cable Accessories Product

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Cable Joint (JS) up to 36kV

JS is a straight Joint Kit with Pre-molded slip on and cold shrink body made of silicon rubber for XLPE insulated cable up to 36kV

Characteristics

- Wide cross-section range from cable 50mm² to cable 800 mm²
- Quick, safe and easy assembly
- Slip on Joint Body with Geometrical stress control system
- Ready for immediate operation
- No special tool

Application/ Suitability

- Indoor
- Outdoor
- Underground
- Water
- Installation ducts
- Ductwork

Voltage level

- U_0/U (U_m) 6/10 (12) kV - 8.7/15 (17.5) kV
- U_0/U (U_m) 12/20 (24) kV – 18/30 (36) kV

Test standards
- IEC 60502-4,
- IEEE 404

Storage conditions/Shelf life
Long time shelf life in Extreme temperature conditions

Scope of Delivery
Conductor connector / Metallic shielded kit / Constant force spring / Armour connection kit / Installation instructions / Sealing kit / Accessories.

Electrical Properties:

		12/20(24)	18/30(36)
1	Maximum Voltage system	24kV	36kV
2	Partial Discharge at 2Uo	< 5 pC	< 5 pC
3	Alternating withstand voltage (AC, 5 min.) at Dry condition	27kV	39kV
4	Electrical heat cycling in air/water	30kV	45kV
5	Impulse withstand voltage	125kV	170kV

Indoor Termination (TI) up to 36kV

TI is an indoor termination with slip-on body made of high performance silicon rubber applicable for connection between XLPE insulated Cable to air insulated switchgear or transformers up to 36kV. Applicable to work using Compression or Mechanical Connector

Characteristics

- Wide cross-section range from cable 50mm² to cable 800 mm²
- Silicone slip-on components for quick, safe and easy assembly one-piece design with Geometry stress control system
- Ready for immediate operation
- Long creepage distance by optimized shed arrangement use of various cable lug types

Application/ Suitability

- Indoor Panels
- Air insulated switch gear or transformers

Voltage level

- U_0/U (U_m) 6/10 (12) kV -8.7/15 (17.5) kV
- U_0/U (U_m) 12/20 (24) kV -18/30 (36) kV

Test standards
- IEC 60502-4
- IEEE 404

Storage conditions/Shelf life
Unlimited shelf life

Scope of Delivery
One-piece slip-on silicone cable terminations with geometry stress control element, sealing tape, assembly material, assembly instructions, compression or mechanical cable lugs, earthing kit, anti-tracking tube, trifurcating boot, traceability ID marker, silicone grease, and straight boot.

Electrical Properties:

		12/20(24)	18/30(36)
1	Maximum Voltage system	24kV	36kV
2	Partial Discharge at 2Uo	< 5 pC	< 5 pC
3	Alternating withstand voltage (AC, 5 min.) at Dry condition	27kV	39kV
4	Electrical heat cycling in air/water	30kV	45kV
5	Impulse withstand voltage	125kV	170kV
6	Humidity Test at 300h	15kV	22.5 kV

Outdoor termination (TO) up to 36kV

TO is an Outdoor termination with slip-on body made of high-performance silicon rubber applicable for connection between XLPE insulated Cable to overhead link and other outdoor application up to 36kV. Applicable to work using Compression or Mechanical Connector

Characteristics

- Wide cross-section range from cable 50mm² to cable 800 mm²
- Silicone slip-on components for quick, safe and easy assembly one-piece design with Geometry stress control system
- Ready for immediate operation
- Long creepage distance by optimized shed arrangement use of various cable lug types

Application/ Suitability

- Outdoor Application
- Air insulated switch gear or transformers

Voltage level

- U_0/U (U_m) 6/10 (12) kV -8.7/15 (17.5) kV
- U_0/U (U_m) 12/20 (24) kV -18/30 (36) kV

Test standards
- IEC 60502-4
- IEEE 404

Storage conditions/Shelf life
Unlimited shelf life

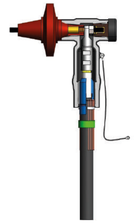
Scope of Delivery
One-piece slip-on silicone cable terminations with geometry stress control element, sealing tape, assembly material, assembly instructions, compression or mechanical cable lugs, earthing kit, anti-tracking tube, support bracket, polymer insulator, ID marker, silicon grease.

Electrical Properties:

		12/20(24)	18/30(36)
1	Maximum Voltage system	24kV	36kV
2	Partial Discharge at 2Uo	< 5 pC	< 5 pC
3	Alternating withstand voltage (AC, 5 min.) at Dry condition	27kV	39kV
4	Electrical heat cycling in air/water	30kV	45kV
5	Impulse withstand voltage	125kV	170kV
6	Salt fog Test for 1000h	15kV	22.5 kV

MV separable Elbow

Type Connector (T-Body) (ETS) up to 36kV 1250-A



MV Elbow Separable Connector made of silicon Rubber with T-shaped construction to terminate medium-voltage power cables on the primary side of the pad-mounted transformers, including unit substation and RMUs with Type C bushing conforming to EN 50180 and EN 50181

Characteristics

- With fully shielded outer layer
- Require No special tools for installation
- Premolded with outer shielded thickness 3 mm Applicable for Aluminum and copper conductor
- Elbow connector with bolt that meet all the requirements of IEEE 386 Tested individually
- With Compression OR Mechanical connector as per customer request

Voltage level

- U_0/U (U_m) 6/10 (12) kV -8.7/15 (17.5) kV
- U_0/U (U_m) 12/20 (24) kV -18/30 (36) kV

Test standards
- IEC 60502-4
- IEEE 404

Storage conditions/Shelf life
Unlimited shelf life

Scope of Delivery
Elbow separable connector housing, Elbow lug, Elbow cap, dummy plug, Elbow stud, Insulating tube, Cleaning tissue, installation manual, Breakout, and coupling connector (if needed).

Electrical Properties:

		12/20(24)	18/30(36)
1	Maximum Voltage system	24kV	36kV
2	Partial Discharge at 2Uo	< 5 pC	< 5 pC
3	Alternating withstand voltage (AC, 5 min.) at Dry condition	27kV	39kV
4	Electrical heat cycling in air/water	30kV	45kV
5	Impulse withstand voltage	125kV	170kV