

2025

PRODUCT CATALOG

ELECTRICAL & INDUSTRIAL ELECTRICAL MATERIALS

www.akrmtrading.com







ADEL KHALIFA RAJAB MOHAMMED TRADING CO.

شركة عادل خليفة رجب محمد التجارية

At AKRM, we take immense pride in being a dynamic and trusted supplier, serving a wide spectrum of industries with top-quality products and unrivaled service. With our headquarters strategically located in Al Khobar, Saudi Arabia. We have emerged as a strong player in the supply of electrical, industrial, oil and gas, pipes and fittings, hydraulics, and marine supply materials. Ensuring that you have access to everything your business needs. Backed by a team of seasoned experts and a dedication to exceptional customer service, we go beyond mere transactions, building lasting relationships and helping you navigate the challenges of your industry.

DISCOVER THE DIFFERENCE OF PARTNERING WITH AKRM, WHERE EXCELLENCE MEETS SUPPLY





CABLES & WIRES



SWITCH GEARS



LIGHTING & FIXTURES



CABLE MANAGEMENT



WIRING DEVICES



CABLE ACCESSORIES



TRANSFORMERS & RMU



CONDUITS & FITTINGS



EARTHING MATERIAL









EXPLOSION PROOF

CABLES 8 WIRES

The cables described in this catalogue are all standard types, and their performances has been proved in operation. Construction and tests are in accordance with the recommendation of IEC publications where applicable.



MV CABLES

Medium Voltage Single and Multi-core XLPE Cables, up to 36kV



LV CABLES

Low Voltage Power Cables 0.6/1.0KV & 1.8/3.0KV



NYA WIRES

Made of copper, with single core and coated with single layer PVC insulating material(450/750 Volts) Up to 630 Sq. mm



THHN WIRES

Thermoplastic High Heat Nylon Wire. Performed best for high temprature . Thin flame-resistanct PVC covered by abrasionresitant nylon jacket - suitable for high temprature enviorments. (Max Volt Rating - 600V)

FLAT AND FLEXIBLE WIRES

Flat Flexible Cables (FFC) - Made of flat tin or gold plated copper conductors insulated with polyester or polymide tapes.



CONTROL CABLES

Low voltage control cables - Polyvinyl chloride (PVC) & Crosslinked polyethylene (XLPE) with Maximum service temperature 90°C

FIBER OPTIC

Transmits information as light pulses along a glass or plasic fiber - contain a varying number of glass fibers from a few up to couple hundred

INSTRUMENTATION

Instrumentation Cable UL 13/UL 2250 Type PLTC/ITC, 300V

SPECIALITY WIRES

Round or flat wire for special applications and sophisticated assemblies. Production of customized flat wires for almost all applications.

Wires for automotive, aviation, aerospace, power distribution, steel industry and consumer goods.

RUBBER CABLES

Superior abrasion resistance and weathering resistance cables, uitable in harsh environments as trailing leads for portable electrical appliances, power tools, pumps and generators.









SWITCH GEARS

Electrical switch gear regulates, protects, and isolates a power system with a variety of controls housed in a metal enclosure. It's a vital system in industries that experience electrical faults or those that need to regularly de-energize equipment for maintenance, such as industrial environments and electrical utilities.

We have got a wide variety of gears and deals with multiple brands.





FLUSH/ SURFACE MOUNTED LOAD CENTRES

Used in residential and commercial applications to distribute electricity, feeding all the branch circuits. Contains – Enclosure, Interior and Trim

FINAL DISTRIBUTION BOARD/LOAD CENTER

Designed to distribute power safely and reliably in lowvoltage electrical systems and ensure protection that is essential for electrical circuits and devices.

Fully insulated Busbar system

MCB

Miniature circuit breakers intent to prevent damage to an electrical circuit as a result of excess current

Operates as a automatic electrical switch.

MCBB

Molded Case Circuit Breaker, used for commercial and industrial rated current in the range of 10-2500 amps

Interrupting rating can be around 10k - 200k amps.

ACB

Air Circuit Breaker – protects low voltage circuit, mainly for energizing and cutting off high current.

Consists of main body and panel board frame.









ENCLOSED MOTOR STARTERS

Engineered for global industrial and hazardous applications, used for manual and magnetic across-the-line starting of motors.

Types - 1, 12, 3R, 4, 4X and 7/9 enclosures.

INVERTERS

Inverters regulate the flow of electrical power.

Types- Stand-alone inverters, Grid-connected inverters, Bimodal inverters.

RELAYS

Electromagnetic relay - made up of a solenoid, coiled around soft iron core, iron yoke provides low reluctance path for magnetic flux, a movable iron frame, and one or more sets of contacts.

Types- Electro-mechanical, solid-state, and reed.

CONTACTORS

A relay used for switching an electrical circuit on or off. Commonly used with electric motors and lighting applications.

DISCONNECT SWITCHES

Safety device used in electrical circuitry.

Used in power distribution and industrial applications.











OVER-LOAD RELAYS

Over-load relays opens the circuit in the event of an electrical, thermal or power overload.

Types – bimetallic, eutectic, and electronic

SWITCH ISOLATORS

Isolator switch separates the circuit from the main power source and dispels any trapped charges.

Types – single break, double break, bus isolator, and line isolator

CHANGE OVER SWITCHES

Change-over closes one circuit and simultaneously opens a second circuit.

Types - circuit breaker and contactor.









An Overview of Switch Gear Installation

LIGHTINGS & FIXTURES

Lighting fixtures are also called luminaires, come in a variety of sizes, shapes, wattage, etc. All light fixtures have a fixture body and one or more lamps. The lamps may be in sockets for easy replacement—or, in the case of some LED fixtures, hard-wired in place.



STEEL POLES

Steel poles provide the infrastructure for carrying telephone lines, communication cable, optical fiber cables, streetlights, traffic equipment, and broadcast equipment.

FIBER POLES (GRP)

Glass Reinforced Polymer Composite Poles are made of unsaturated polyester resins and reinforced by fiberglass rovings, mats or fabrics. Combination of glass and resin offers additional durability and sturdiness.

LED LAMPS

Light emitting diode produce light up to 90% more efficiently than incandescent light bulbs. Types – DIP, SMD and COB

LIGHTING FIXTURES

An electrical device containing an electric lamp that provides illumination.

FLOOD LIGHTS

Flood lights are specifically designed to light outdoor areas. They can produce wider beams of light, usually up to 120 degrees











LIGHTING COMPONENTS

The lens, reflector, and lamp all contribute to lighting levels and the light distribution in a space.

FUSE BOXES

Fuse boxes are metal boxes that store fuses, which is an electrical safety measure that will shut-off power when the power is beyond that fuses ability to contain the power.

LIGHTING GEAR (BALLAST)

Ballast is a type of electrical resistor or reactance, fixed in-line with the circuits that supply mains power to a light bulb.

Helps to control and regulate the supplied current during different operating phases (and voltages) for certain bulb types.









CABLE MANAGEMENT

Cable Management is a way the way cabling is routed, organized, and supported. This involves organizing your cabling and connectivity hardware in a way that makes it easy to identify components and troubleshoot problems using different products.



Thomas&Betts





CABLE TRAYS

Cable trays are mechanical support systems that provide a rigid structural system for electrical cables, raceways, and insulated conductors used for electric power distribution, control, signal instrumentation, and communication.

STEEL BOXES

Metal/ Steel boxes strength comes in handy when mounting especially heavy items like ceiling fans or heavy light fixtures. Metal boxes can also be used with Romex or NM wiring if desired, though special precautions must be taken to ensure proper grounding.

STEEL CONDUITS PIPES

Steel conduit and electrical metallic tubing (EMT) refers to the steel-based durable enclosures that route individual electrical wiring conductors in a building or structure and protect the wires from impact, moisture, and chemical vapors.

PVC CONDUICTS AND BOXES

Polyvinyl chloride (PVC) conduit is the most popular type of nonmetallic conduit, Versatile, easy to install and lightweight. Available in a variety of wall thicknesses.

FLEXIBLE CONDUITS AND FITTINGS

A flexible electrical conduit is a durable tube that protects electrical wiring in enclosed areas with hard turns, such as in water heaters or lighting fixtures. Materials used to manufacture conduit include metal, fiber or plastic.













LIQUID-TIGHT CONDUICTS

Liquid tight conduit and fittings are specifically designed to keep wires and cables free of liquid or moisture. Humid, damp or wet environments that require cabling are ideal areas to use liquid tight conduit.







WIRING DEVICES

The cables described in this catalogue are all standard types, and their performances has been proved in operation.

Construction and tests are in accordance with the recommendation of IEC publications where applicable.









PLUG AND SOCKET

A plug is the movable connector attached to an electrically operated device, and the socket is fixed on equipment or a building structure and connected to an energised electrical circuit.

WHITE PLASTIC RANGE

Versatile and easy to maintain, our great selection of White Plastic Switches & Sockets. Many feature square or round edge ranges and come with extensive warranties to ensure you get the right switch, socket, fused spur units and cooker units for the job.

DECORATIVE RANGE

Decorative lighting can be used to highlight and accent hallways, walkways, and other elements of interior and exterior design or landscaping.

WIDE ROCKER RANGE

Wide rocker switches comes with with a screwless design and a high-gloss finish for a contemporary look and feel. Clean, simple and uncomplicated.

METALLIC RANGE

This is a intermediate switch. Its fixing mode is by claw kit, by screw. Flush mounting is supported so that its box can be recessed into the surface and unexposed. As integrated solutions for energy and comfort controls, some of them have 250 functions and inserts to choose from.











Life Is On Schneider



An Overview of Switch & Sockets

CABLE ACCESSORIES

We supply a wide range of power cable accessories for use in various onshore and offshore applications – including cable joints, cable connectors and cable terminations. With uncompromising quality standards, rapid response times and outstanding performance, we are a leading supplier for cable accessories.



CABLE LUGS

Used for connecting electrical devices and cables, most of such connectors are available in rubber or plastic insulated sheets to ensures safe handling. Usually one end of the electrical lug is used for connecting a cable to an electrical device

Type - Bolt and Compression.

CABLE TOOLS

Wire, cable and connector tools are used to assemble and install wires, cables and connectors.

CABLE GLANDS

Cable Gland act as a sealing and terminating device to ensure the protection of electrical equipment and enclosures, including the provision of: Environmental protection – by sealing on the outer cable sheath, excluding dust and moisture from the electrical or instrument enclosure.

WARNING AND ELECTRIC TAPES

Warning tapes are used in areas where safety and health hazards have been identified but are not immediately known or obvious to people who may enter the area

CABLE JOINTS

Cable joints act as a mode for connecting cables with varied voltages. Their shape, size and configurations differ depending upon the structure, insulation, number of cores and voltage of the cable that has to be jointed









TERMINATION KITS

Termination kits are complete kits to terminate both the power end and the remote end of a heat tracing cable.

DRUM JACK AND CABLE ROLLERS

Drum Jack/ Cable Rollers serves as a carrier to transport 55-gallon drums and as a cradle to both store and empty drum contents.

Cable rollers are used to support and guide LV, MV & HV cables into open trenches without damaging cable sheaths.

SHRINK WRAP TUBES

Heat shrink tubes are thermoplastic tube that shrinks when exposed to heat, the tube shrinking collapses radially to fit the equipment's contours, creating a protective layer.

CABLE CONNECTORS

Cable connectors are used to safely and easily join two or more cables or sets of wires during electrical work. Types - board-to-board connectors, cable/wire-to-cable/wire connectors, and cable/wire-to-board connectors

CABLE TIE

Cable ties is common in electrical applications for bundling and securing wiring, cable, wire harness conductors, hoses, and more.













TRANSFORMERS & RMU

Transformer act as a passive component that transfers electrical energy from one electrical circuit to another circuit, or multiple circuits.

A ring main unit (RMU) is a factory assembled, metal-enclosed set of switchgear used at the ring-type distribution network's load connection points. RMU cabinets are small in size, highly reliable, safe, easy to maintain, easy to replace, and expand.







MV TRANSFORMERS

A medium-voltage distribution transformer or service transformer provides the final voltage transformation in the electric power distribution system, stepping down the voltage used in the distribution lines to the level used by the customer.

RING MAIN UNITS (RMU)

RMU (Ring Main Unit) cabinet or medium voltage cabinet is integrated electrical equipment to connect, measure, and integrate fixed type breaker with transformer protection function.

PACKAGE SUB-STATIONS

Package sub-station consists of a cast resin transformer that is directly connected to a high voltage netwok on the primary side and then directly connected to the LV main switchboard from the secondary low-voltage side.

LV DRY-TYPE AUTO TRANSFORMERS

Unlike their liquid-filled counterparts, dry-type transformers do not incorporate liquid to dissipate excess heat and meet temperature classification requirements. Instead, the coils within a dry-type transformer are constructed of a gaseous or dry insulation medium.









An Overview of

Transformer Installation

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CONDUIT FITTINGS & ACCESSORIES

Conduit fittings allow you to make connections in an electrical system. They can connect two runs of conduit or secure conduit to an electrical device. These types of fittings are commonly called conduit fittings and electrical fittings to separate them from types of fittings used for plumbing. Electrical conduit encloses and protects electrical wire and cable. Various fittings are used to join conduit lengths together, connect them to boxes and enclosures, and fasten them to walls and ceilings. The type of fitting you need depends on the type of conduit and the desired application.


CONDUIT BODIES

This type of fitting is used to gain access to the interior of a raceway for wire pulling, inspection, and maintenance. They can also be used to facilitate a change in direction or allow more bends to be made in a section of conduit. Menards® offers several types of conduit bodies including type LB, LL, LR, T, and C.

COUPLERS

Couplers are used to join two lengths of non-flexible conduit together. Metallic couplers are available in both set screw and compression styles and for nonmetallic PVC conduit a PVC coupler is used.

CONNECTORS

Connectors are used to attach conduit to an electrical box or enclosure. They are inserted into the round opening (knockout) and held in place with a locknut. Some connectors are designed to be quickly, easily snapped into the opening without a locknut, thus saving installation time.

LOCKNUT & INSULATING BUSHINGS

Locknuts are used to fasten conduit fittings to a box or enclosure. Insulating bushings are used to protect the wires from the sharp interior edge of the fitting. This is especially important when pulling wire into an electrical box or enclosure. Bushings are threaded and placed over the locknut after it is tightened.







REDUCING WASHERS

Reducing washers are used with a locknut to reduce the size of the knockout opening to accommodate a smaller diameter conduit. They are also used to reinforce concentric knockout rings where the conduit is subject to movement and could loosen or break the concentric rings.

STRAPS & HANGERS

Conduit runs must be adequately supported. Use appropriate straps to attach conduit to walls, ceiling, and framing members. This prevents the run from sagging and breaking underneath its own weight.

NIPPLES

Nipples are short lengths of rigid metallic conduit threaded at both ends. Nipples are useful for connecting metal electrical enclosures, boxes, and equipment to each other, or to certain fittings, such as an LB. Menards® stocks various lengths of nipples in 1/2" through 2" sizes.

RAINTIGHT HUBS

A raintight hub is a special type of metallic connector that has both internal and external threads. The end with external threads is used to attach it to the enclosure. A special locknut fastens the hub to the enclosure.

ELBOWS

An elbow is used to change the direction of a conduit run. Preformed elbows are available in both 45-degree and 90-degree bends for both metallic and non-metallic conduit.











(*) EARTHING MATERIAL

Earthing materials are naturally occurring materials that constitute the raw materials upon which our global society exists. Earth materials are vital resources that provide the basic components for life, agriculture and industry.

The most commonly used earthing material is GI and copper.

Earthing strips come in various sizes, width varying from 3mm to 100mm having high electrical and thermal conductivity.







EARTHING MATERIAL

Earthing wires made of GI or Copper are extensively used in various electrical, electronic and automobile equipments. Made in various sizes using the premium grade galvanized metal, these GI earthing wires offer high durability and excellent shock resistance.

LIGHTING SYSTEMS

- Prevents fatal injuries from lightning
- Limits the risk and loss of service to the public
- Protects against loss of cultural heritage
- Protects against business downtime

EARTHING RODS

Earth rod is a typically a conductive rod of steel or copper driven into the ground and connected to an EV chargepoint, helps to protect the user from potentially lethal electrocution should the electricity distribution system supplying the property develop a fault.

EARTHING PLATES

Metal plates that are buried in the ground and used as a connection point for electrical grounding systems, designed to provide a low-resistance path to the earth, allowing electrical current to be safely dissipated into the ground in the event of a fault or short circuit.











An Overview of Earthing Materials

INDUSTRIAL PLUG & SOCKET

Industrial and multiphase plugs and sockets provide a connection to the electrical mains rated at higher voltages and currents than household plugs and sockets. It provides an electric connection to the mains, which have a higher voltage than the household plugs.





PLUG

Industrial multiphase plugs provide a connection to the electrical mains rated at higher voltages and currents. Used in polyphase systems, with high currents, or when protection from environmental hazards is required.

SOCKET

Industrial multiphase socket provide a connection to the electrical mains rated at higher voltages and currents. Used in polyphase systems, with high currents, or when protection from environmental hazards is required.

WALL MOUNTING SOCKET

In outdoor building sites where wire connections are exposed to severe weather or damp ground, industrial plugs and sockets are employed. Also utilized in locations where wire connections are exposed to moisture. When there is a high risk of partial flooding and high risk of waves, this device is used

PANEL SOCKET

Industrial socket outlets for panel mounting are high quality products for reliable and safe use in various environments.

- High quality for perfect performance
- Easy & Safe range: clear terminal marking, easy installation
- Tough & Safe range: clear terminal marking, stainless steel external screws, clear brass pins.













An Overview of Industrial Plug & Socket

BOARD

We supply an extensive range of typetested distribution boards for lowvoltage (LV) electrical systems that are suitable for residential, commercial, and industrial properties.

Each unit is manufactured in accordance with IEC standards and tested in stateof-the-art laboratories to ensure consistent and effective protection against short circuits and overload.









CONTROL PANEL BOARD

Control panel board stores various electric devices for operating heaters and electric motors such as pumps and motors, protecting against abnormalities and controlling and operating machines and production lines.

MAIN DISTRIBUTION PANEL

Distribution panel is where the main source of electricity is controlled for a large area such as a live event, warehouse, or office building.

Distribution panels can either be large or small.

MANUAL TRANSFORMER SWITCH

Transfer switches are essential for emergency power electrical installations when generators are used. Whether your application is industrial or commercial in nature, power supply continuity and electrical distribution are critical.

AUTOMATIC TRANSFORMER SWITCH

Distribution panel is where the main source of electricity is controlled for a large area such as a live event, warehouse, or office building.

Distribution panels can either be large or small.









An Overview of Panel Board System



© EXPLOSION PROOF

Explosion proof refers to techniques used to minimize the potential for electrical and electronic equipment to create an ignition while operating in a hazardous location (HAZLOC). Our explosion proof equipment superior illumination and protection in any circumstance.

HAZLOC refers to atmospheres containing flammable gases or vapors and/or combustible dusts.











EXPLOSION PROOF PLUGS, SOCKET AND BOXES

Offers a versatile range of explosion-proof and the most reliable and versatile sockets on the market. Designed for quick and safe installation in different zones and these sockets meet all international standards and requirements.

LED EXPLOSION PROOF LIGHTING FIXTURE WITH EMERGENCY

Explosion proof lighting in hazardous location is important, it could prevent stray sparks setting off a buildup of flammable gasses and materials. We offer a variety of explosion-proof LED lights certified for use where ignitable concentrates of gases, liquids and vapors exist under normal operating conditions.

EXPLOSION PROOF FLOODLIGHT

Hazardous area LED luminaires designed for use in the harshest environments.

Delivering outstanding performance and reliability, easy maintenance, global certification and worldwide standards.

SIREN

Explosion-proof siren is designed for generation of a power acoustic signal. It is used in automatic fire fighting and fire alarm systems at explosive facilities, limiting current strength in electric networks, which inevitably leads to the siren power reduction.









An Overview of **Explosion Proof Lights Used**







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