

INSE Group

Specialized Electrical Solutions for Heavy and Light Industries



Inse Group SAS is a Colombian engineering company founded in 2004, with a core focus on strategic differentiation and added value generation. We specialize in marketing products and developing projects with specialized electrical solutions for the Mining, Energy, Oil & Gas, and Heavy and Light Industry sectors.























SOOW 600V

Portable rubber cable -40°C to +90°C UL CSA MSHA Extra heavy-duty – High-resistance mechanical service

UL 62/CSA-C 22.2 No 49

- Conductor: Flexible bare stranded copper.
- Insulation: EPR compound, 90°C class.
- **Assembly:** Insulated conductors cabled together with integral or rubber fillers.
- Outer Jacket: CPE compound.

Applications: Industrial and processing equipment, construction tools, motors and associated machinery, battery chargers, and equipment exposed to oils, solvents, flames, moisture, and other electrical environments.





AQUAFLEX 3/c+T 0,6/2k

Extra-flexible flat cable with three conductors plus a ground conductor for submersible pump power supply

UL 44, ICEA S-75-381/NEMA WC-58, ASTM

- Conductor: Bare, annealed, flexible stranded copper.
- Insulation: Ethylene-Propylene Rubber (EPR), 90°C.
- Outer Jacket: Heavy-duty thermoset Chlorinated Polyethylene (CPE) compound.

Applications: Electrical power supply for pumps, motors, or other electrical equipment submerged in water..







PUMP CABLE W/GRD 2000V

Flat power cable for pumps

ASTM B3, UL 44, ICEA S-75-381

- Conductor: Bare, flexible, stranded soft copper wires.
- Insulation: Ethylene-Propylene Rubber (EPR).
- Assembly: Three phase conductors and one ground conductor in parallel, with single-sided rubber-filled binder tape over each conductor.
- Outer Jacket: High-resistance black thermoset CPE compound.

Applications: High-strength flexible power supply for pumps and other industrial applications.







FLAMEVLOCKER 3PLUS 2XSLCHK-J, JB 0,6/1kV

Power cable with XLPE insulation and UV-resistant LSOH sheath, featuring double shielding that meets Electromagnetic Compatibility (EMC) requirements

IEC 60502-1

- Conductor: Bare copper conductor, circular, flexible, and finely stranded (Class 5).
- **Shielding:** Aluminum/polyester foil wrap and braided tinned copper wire with a minimum coverage of 85%.

Applications: Power supply for motors in frequency drive systems, used in machinery, robots, and conveyor belts. EMC-compliant, suitable for fixed installation or occasional flexing indoors and outdoors (direct burial). Not suitable for water applications.







USE-2 600V

Portable power cable, 90°C, UL-certified Industrial grade

ICEA S-95-658/NEMA WC 70, UL 44, UL 854, ASTM B 8, ASTM B 33

- Conductor: Stranded tinned copper.
- Insulation: Ethylene-Propylene Rubber (EPR).
- Outer Jacket: High-resistance black thermoset CPE compound.

Applications: Portable and/or fixed installations, motor cables, generators, batteries, and bridging cables.







W RHH-RHW-2 2KV

Portable power cable, 90°C Industrial grade: Extra flexible

ASTM B-3, UL 44, UL 1650, CSA C22.2 No.96-17

- Conductor: Annealed, flexible stranded tinned copper.
- Insulation: Ethylene-Propylene Rubber (EPR).
- Outer Jacket: High-resistance black thermoset CPE compound.
- Bend Radius: Minimum of 6x the cable diameter.

Applications: Portable power systems and other industrial applications.







G 4/c 2KV

Portable power cable, 90°C, UL C, MSHA, industrial grade.

ASTM B-33, UL 44, UL 1650, CSA C22.2 No.96-17

- Conductor: Annealed, flexible stranded tinned copper.
- Insulation: Ethylene-Propylene Rubber (EPR), 90°C.
- Outer Jacket: Thermoset Chlorinated Polyethylene (CPE).
 Optional Neoprene outer jacket.
- Construction: Four phase conductors and four ground conductors cabled together, with a rubberized binder tape applied over the assembly.

Applications: DC electric trucks, cutting machines.







DLO/RHH/RHW-2/RW90/RW90-TC 2KV

Portable power cable, 90°C

UL 44, ICEA S-95-658/NEMA WC70, UL 1685, IEEE-1202, CSA C22.2 n.° 38, CSA C22.2 n.° 230, ASTM B 8, ASTM B 33, AAR, RP-588 RP-586

- Rated Voltage: RHH/RHW-2 600V and 2000V, RW-90 CSA, 1kV, DLO 2kV.
- Conductor: Flexible stranded tinned copper.
- Insulation: Ethylene-Propylene Rubber (EPR).
- Outer Jacket: High-resistance black thermoset CPE.

Applications: Portable or fixed installations, motor cables, generators, batteries, bridging cables, deep-well submersible pump cables, and renewable energy applications.







SHD-GC 3/2KV

Portable round power cable with three conductors

ICEA S-75-381 / NEMA WC-58, ASTM B172, ASTM B 33

- Conductor: Annealed, flexible stranded tinned copper.
- Insulation: Ethylene-Propylene Rubber (EPR), 90°C...
- Outer Jacket: Heavy-duty Neoprene (Polychloroprene) compound.
- **Construction:** Three phase conductors, one ground-check conductor, and two bare ground conductors cabled together.

Applications: Power supply for various circuits, pumps, and mobile equipment requiring grounding conductors, a ground-check conductor, and overall metallic shielding.







MV-105 5kV/15kV

Medium-voltage power cable with copper conductor, 100% or 133% insulation, shielded with copper tape.

UL 1072, IEEE 1202, ASTM B-8, AEIC CS8, ICEA S-97-682, ICEA S-93-639 /NEMA WC 74

- Conductor: Annealed compressed bare copper.
- Insulation: Extruded layer of Ethylene Propylene Rubber (EPR) rated at 105°C.
- Metal Shield: 5-mil bare copper tape applied helically with a 25% overlap.
- Outer Jacket: Extruded layer of black Polyvinyl Chloride (PVC) resistant to sunlight

Applications: Chemical and petrochemical plants, power plants, water treatment facilities, textile mills, paper mills, airports, and shopping centers.







MC-HL 5kV/15KV

Continuously corrugated welded armor cable with three conductors, Class 1 Division 1

UL 1072, IEEE 1202, AEIC CS8, ICEA S-94-649, ICEA S-93-639

- **Conductor:** Class B compressed stranded bare copper.
- Shield: 5-mil bare copper tape applied helically with 20% coverage.
- Metallic Shielding: Continuously welded corrugated aluminum armor.
- Outer Jacket: PVC protective jacket resistant to sunlight and ozone.

Applications: Designed for harsh conditions – Class 1 Division 1 applications.







SH 8KV/35KV

Portable medium-voltage power cable with a single conductor

ICEA S-75-381 / NEMA WC-58, ASTM B172, ASTM B 33

- Conductor: Extra-flexible bare stranded copper.
- Insulation: Ethylene-Propylene Rubber (EPR).
- Outer Jacket: High-strength thermoset Polychloroprene (Neoprene).
- Minimum Bend Radius: Eight times the cable's total diameter.

Applications: Used in mobile substation equipment and other industrial applications.



Discharge Resistor





Installed in parallel with high-voltage equipment to release the charge from capacitors or batteries before maintenance. They can be used for rapid discharges or connected permanently for greater reliability and lower cost, balancing discharge time and energy loss during idle periods.

Benefits:

- Faster discharge of capacitors and batteries.
- Enhanced personnel safety.
- Easy equipment handling.
- Compliance with legal regulations.
- Greater control over discharge speed



Load Bank





Used to simulate the operational or "real" load of a power supply.

- Voltage: Low (up to 690 VAC), medium (up to 13.8 kV), or DC (12 VDC to 1100 VDC).
- Location: Indoor or outdoor.
- Mounting: Stationary, portable, or trailer-mounted.
- Cooling: Natural, forced vertical, or forced horizontal.
- Control Voltage: 120 VAC, 240 VAC, 24 VDC, or 125 VDC.
- **User Interface:** Switches and lamps or touch screen.
- Control: Communication, data logging, load programming, remote control, power measurement, load compensation, reverse power.
- Safety: Safety switch, audible alarm, interlocking system.

Ideal for generators, uninterruptible power systems (UPS), and electrical networks.



Braking Resistor





Dynamic braking resistors reduce speed, stop, or control DC and AC motors by absorbing counter-electromotive force (CEMF) and dissipating excess energy as heat to protect the VFD.

Benefits:

- Enables quick and safe braking without increasing voltage.
- Dissipates excess energy, preventing damage to the VFD.
- Compatible with DC and AC motors in VFD systems.



High-Power Connectors BT



DECONTACTORTM



They offer unmatched reliability and safety worldwide. These connectors allow equipment to be connected and disconnected thousands of times, even in the harshest conditions, ensuring complete user safety.

- Ease of Installation: No need for pilot contact or upstream contactor.
- No internal associated switch, even above 32 A.
- More compact design.
- Breaking capacity as an extension cord.



High-Power Connectors BT







DSNDECONTACTORTM

- 20A 63A
- IP66/IP67/IP69 IK 09
- GRP enclosure
- Built-in breaking capacity AC-22 and AC-23
- Up to 4 auxiliary/pilot contacts

DS DECONTACTOR TM

30A - 250A

- IP66/IP67/IP69 IK 09/IK10
- GRP enclosure up to 150A
- Metal enclosure from 90A to 250A
- Built-in breaking capacity AC-22 and AC-23
- Up to 6 auxiliary contacts



High-Power Connectors BT/Ex





DXNDECONTACTORTM

20A - 63A

- 2 G D Ex db eb IIC, Ex tb IIIC
- IP66/IP67
- Built-in breaking capacity
- GRP enclosure

DXDECONTACTORTM

30A - 200A

- 2 G D Ex de IIC, tD A21, IP65/IP66
- Built-in breaking capacity
- Metal enclosure
- Locking mechanism for connection or disconnection









Drive

VTL AutomationDrive FC 301 / FC 302

Built to last, it operates efficiently and reliably even in the most demanding applications and complex environments.

- Universal Compatibility.
- Automatic Motor Adaptation.
- Automatic Energy Optimization.







Drive VACON 1000

Designed for general industrial medium-voltage applications, such as pumps and fans within the low to medium power range.

- Reliable.
- Easy and Safe to Use.
- Space-Saving Design.







Drive iQ rise L1000E

Designed for use in forklifts, overhead cranes, and elevators. It incorporates innovative technology and utilizes specially designed hardware for over 70,000 hours of maintenance-free operation.

- Power Range: 4 to 150 HP.
- Control: AC induction and permanent magnet motors.
- Easy Configuration.
- Quiet Motor Operation.







Medium Voltage Drive MV1000

Designed for advanced applications and high-power demands, ensuring high performance and flexibility

- Power range: 200 to 16,000 HP.
- Voltages: 2.4kV, 3.3kV, 4.16kV, 6.6kV, 11kV.
- Rated Currents: 39 to 650 Amps.
- Energy Savings.
- Maintenance Self-Diagnosis.
- Low Voltage Cell Modulation.
- Low Harmonic Distortion.



Grace PEDS





APPLICATIONS: Panels, control cabinets, and local disconnect switches.

ChekVolt

Verifies the Presence and Confirms the Absence of Voltage Without Opening Electrical Equipment

This is a compact Permanent Electrical Safety Device (PESD) equipped with test points compatible with voltmeters and redundant LED indicators for voltage presence. It is installed through a 30 mm blind hole and includes conductor cables.

- Quick and Easy Installation
- Reduced Lockout/Tagout Time
- Enhanced Safety
- Rated for Up to 1000 VDC/VAC



Grace PEDS





APPLICATIONS: Control substations, insulation breakers, substations, and high-resistance grounding connections.

Medium Voltage Indicator R-1V

Medium voltage indicator for 2KV to 15KV and applications ranging from 2-43 kV.

A device designed to alert personnel to the presence of voltage in power distribution systems such as starters, transformers, or control substations.

- Flashing LED Indicator: Provides a visible alert for the presence of voltage.
- **High Durability:** Solid-state LED lights with a durable coating.
- Voltage Surge Immunity: Ensures stability against fluctuations.



Grace SENSE





Applications: Critical equipment such as motors, generators, and transformers.

Monitor de Puntos Calientes

Continuous, non-conductive temperature monitoring.

- **Real-time Monitoring:** Monitors the temperature of critical equipment.
- Failure Prevention: Detects issues before they impact operations.
- **SCADA Integration:** Compatible with MODBUS TCP/IP and EtherNet IP.







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