MEPNN Supplier Scouting Opportunity Synopsis

Section 1: General Information

Scouting Number	2026-646
Item to be Scouted	BABA: Switches, Outlets, and Cover Plates
Days to be scouted	14
Response Due By	11/25/2026
Description	Electrical switches, receptacles (outlets), and cover plates are electrical wiring devices designed to control, distribute, and provide access to electrical power within residential, commercial, institutional, industrial, and healthcare facilities. They connect electrical power to lighting fixtures, equipment, appliances, and other electrical loads. Electrical switches are designed to open, close, and control electrical circuits, allowing users to operate lighting systems, electrical equipment, and connected devices. Common switch types include single-pole, double-pole, three-way, four-way, dimmer, occupancy sensor, and specialty control switches. Switches may incorporate mechanical, electronic, or sensor-based operating mechanisms. Electrical receptacles provide connection points for electrical equipment and appliances. Product configurations include standard duplex outlets, single receptacles, GFCI (Ground Fault Circuit Interrupter) receptacles, AFCI (Arc-Fault Circuit Interrupter) receptacles, tamper-resistant receptacles, weather-resistant receptacles, USB-integrated receptacles, and industrial-grade power outlets. Receptacles are manufactured in various voltage, amperage, and configuration ratings to accommodate different electrical applications. Cover plates, also referred to as wall plates, are protective and decorative components installed over electrical switches and receptacles. They provide a finished appearance, protect electrical box openings, and help prevent accidental contact with electrical wiring and device components. Cover plates are manufactured in various sizes, configurations, materials, and finishes, including thermoplastic, nylon, stainless steel, aluminum, and other metal or polymer materials. Products are manufactured using a combination of metal stamping, injection molding, precision machining, electrical contact fabrication, component assembly, insulation processing, and quality-control testing. Finished devices are designed to meet applicable electrical safety, performance, durability, and installation requirements. Minnesota

Section 2: Technical Information

Type of supplier being sought	Manufacturer
Reason	BABA
Describe the manufacturing processes (elaborate to provide as much detail as possible)	2. Plastic Injection Molding Plastic components are manufactured using injection molding equipment. This process is commonly used to produce: - Switch housings and bodies. - Receptacle housings. - Internal insulating barriers. - Toggle switch components. - Decorative wall plates and cover plates. - Protective electrical device components. Plastic resin pellets are heated until molten and injected into precision-designed molds. The material is cooled and solidified before the molded components are ejected. Additional operations may include trimming, deburring, surface finishing, and dimensional inspection. 3. Metal Stamping and Contact Fabrication Electrical contacts and conductive components are manufactured through metal stamping and forming operations. Typical components include: - Brass and copper receptacle contacts. - Electrical terminal connections. - Switch contact blades. - Grounding contacts. - Mounting brackets. - Internal springs and retaining clips. Metal sheets or coils are fed through stamping presses equipped with precision dies. Components are cut, punched, bent, and formed into the required configurations. Some components may undergo additional machining, plating, or heat treatment to improve conductivity, corrosion resistance, and durability. 4. Electrical Component Machining and Finishing Metal components undergo secondary processing to achieve required dimensions and electrical performance. Operations may include: - CNC machining. - Precision drilling and tapping. - Thread cutting. - Deburring and polishing. - Metal plating and protective coatings. - Contact surface finishing.

Electrical contacts may receive silver, nickel, tin, or other suitable plating depending on their intended application.
5. Component Assembly
Individual molded plastic components, metal contacts, springs, terminals, and fasteners are assembled into finished electrical devices.

Switch assembly typically includes:
- Installation of internal electrical contacts.
- Installation of springs and operating mechanisms.
- Assembly of toggle or rocker actuators.
- Installation of terminals and mounting brackets.
- Enclosure of internal electrical components.
Receptacle assembly typically includes:
- Installation of hot, neutral, and grounding contacts.
- Installation of terminal screws and wiring connections.
- Assembly of internal insulating barriers.
- Installation of tamper-resistant mechanisms where required.
- Assembly of protective housings.
GFCI and AFCI receptacles require additional electronic components, circuit boards, sensing mechanisms, and protective circuitry.
6. Cover Plate Manufacturing
Cover plates are manufactured using injection molding or metal stamping, depending on the selected material.

Plastic cover plates:
- Plastic resin is injection molded into the required shape.
- Mounting openings and device configurations are formed.
- Excess material is trimmed.
- Surfaces are textured, polished, or finished.
- Mounting holes and dimensions are inspected.
Metal cover plates:
- Stainless steel or aluminum sheets are cut and stamped.
- Device openings are punched.
- Edges are formed and deburred.
- Surfaces undergo polishing, brushing, or protective finishing.
- Mounting holes are verified.
Cover plates are manufactured in multiple configurations, including single-gang, double-gang, triple-gang, toggle, duplex, and decorator styles.
7. Electrical Testing and Quality Control
Completed switches and receptacles undergo electrical and mechanical testing to verify safety, functionality, and reliability.

Testing may include:
- Dielectric voltage withstand testing.
- Insulation resistance testing.
- Electrical continuity testing.
- Contact resistance testing.
- Grounding continuity verification.
- Temperature-rise testing.
- Mechanical endurance and switching-cycle testing.
- Terminal connection and wire retention testing.
- Short-circuit and overload protection testing, where applicable.
- Flame resistance and material performance testing.
- Dimensional and visual inspections.
GFCI and AFCI devices also undergo functional testing to verify their protective circuitry and trip mechanisms operate correctly.
8. Final Finishing, Packaging, and Distribution
Following successful inspection and testing, products are prepared for shipment.

Final manufacturing operations include:
- Application of manufacturer identification and electrical ratings.
- Installation of labels and certification markings.
- Final assembly inspections.
- Packaging of individual devices and accessories.

	- Preparation of installation instructions and technical documentation. - Carton labeling and palletizing. - Distribution to electrical wholesalers, contractors, distributors, and commercial customers.
Provide dimensions / size / tolerances / performance specifications for the item	1. Physical Dimensions and Sizes Product Typical Dimensions / Sizes Single-pole light switch Approximately 1.3" W × 0.8" D × 2.6" H Three-way light switch Approximately 1.3" W × 0.8" D × 2.6" H Standard duplex receptacle Approximately 1.3" W × 0.8" D × 2.6" H GFCI receptacle Approximately 1.7" W × 1.1" D × 4.1" H Standard single-gang cover plate Approximately 2.75" W × 4.5" H Standard double-gang cover plate Approximately 4.56" W × 4.5" H Standard triple-gang cover plate Approximately 6.38" W × 4.5" H Oversized cover plates Varies by manufacturer and configuration Dimensions are representative planning ranges, not verified dimensions for specific catalog models. 2. Electrical Performance Specifications Performance Characteristic Typical Specification Standard operating voltage 120 VAC Additional voltage ratings 125 VAC, 250 VAC, and specialty configurations Standard receptacle amperage 15A and 20A Commercial switch ratings 15A and 20A Frequency 60 Hz Grounding Grounded three-wire configurations Switch operation Single-pole, double-pole, three-way, four-way Receptacle configurations Duplex, single, GFCI, AFCI, USB, and specialty Contact materials Brass, copper, and copper alloys Housing materials Nylon, polycarbonate, and flame-resistant polymers Cover plate materials Thermoplastic, nylon, stainless steel, and aluminum 3. Manufacturing Tolerances Typical manufacturing tolerances vary based on material, production method, and component design. Component Typical Manufacturing Tolerance Injection-molded plastic housings ±0.005" – ±0.015" Metal stamped electrical contacts ±0.002" – ±0.010" Metal mounting brackets ±0.005" – ±0.020" Plastic cover plates ±0.010" – ±0.030" Mounting hole locations ±0.010" – ±0.020" Terminal and contact alignment Manufacturer-specific engineering tolerances

List required materials needed to make the product, including materials of product components	Thermoplastics: Polycarbonate, nylon, and other flame-resistant plastics for device housings and cover plates. Metals: Brass, copper, copper alloys, and steel for electrical contacts and terminals. Conductive materials: Copper and brass for current-carrying components. Insulating materials: Thermoset plastics and electrical-grade polymers. Spring materials: Stainless steel and copper alloys for internal contact mechanisms. Fasteners: Steel and brass screws, terminals, and mounting hardware. Plastic injection molding machines Producing switch, receptacle, and cover plate housings Precision injection molds Forming plastic components Metal stamping presses Producing electrical contacts and brackets Progressive stamping dies High-volume metal component production CNC machining centers Precision machining of metal components Wire forming equipment Manufacturing electrical contacts and springs Metal plating equipment Applying protective and conductive finishes Automated assembly machines Assembling switches and receptacles Robotic handling equipment Moving and positioning components Ultrasonic welding equipment Joining plastic components Laser marking equipment Applying product identification and ratings Electrical testing equipment Verifying electrical performance and safety Dielectric withstand testers Testing insulation integrity Packaging equipment Final packaging and shipment
Are there applicable certification requirements?	Yes
Certification(s) required	UL
Are there applicable regulations?	No
Are there any other stndards, requirements, etc.?	Yes
Details	NFPA 70 – National Electrical Code (NEC) Governs electrical installation, wiring methods, receptacle requirements, grounding, and electrical safety. OSHA NRTL Requirements Certain electrical products used in workplaces must be approved by an OSHA-recognized Nationally Recognized Testing Laboratory (NRTL), where applicable. FCC Part 15 Applies to electronic switches, dimmers, and controls that generate or use radio-frequency energy. RoHS Restricts certain hazardous substances in electrical and electronic equipment where applicable under the relevant market requirements. REACH Regulates certain chemical substances in products supplied to applicable markets.
Additional Technical Comments	

Section 4: Business Information

Estimated potential business volume	Required electrical devices for a 92-unit multifamily complex with amenity kitchen and clubhouse space.
Estimated target price / unit cost information (if unavailable explain)	Pricing cannot be provided at this time because the products encompass multiple manufacturers, configurations, electrical ratings, materials, and specifications. Actual pricing is dependent on the specific product models, quantities, manufacturing requirements, and current material and component costs. Additional product details and supplier information are needed to establish accurate and competitive pricing. Therefore, pricing is currently unavailable and will need to be determined through manufacturer or supplier quotations once the specific product requirements have been established.
When is it needed by?	Immediate
Describe packaging requirements	Boxed in groups of 5-12
Where will this item be shipped?	Minneapolis, MN

Additional Comments

Is there other information you would like to include?	Funding: MHFA; Minnesota Housing Finance Agency POC: Nick Hoelscher; nick.h@noorcompanies.com