REQUEST FOR PRICE QUOTATION

Bid Number: T051412  Date of Request: 01/21/09  Date of Opening: 01/29/09

Any questions regarding this RFQ should be directed to: Eric Dickey, edickey@fa.ua.edu, 205-348-6403

Please furnish your quotation for the items specified on the attached sheet for shipment to THE UNIVERSITY OF ALABAMA, FOB TUSCALOOSA, AL 35487, VIA THE BEST WAY. To receive consideration, this inquiry with the completed quotation sheet(s) must be signed and returned no later than 2:00 p.m., CST, on the date indicated above. The University reserves the right to award this contract in whole, in part, or to reject any and all quotations. THE UNIVERSITY OF ALABAMA IS AN INSTRUMENTALITY OF THE STATE AND IS FEDERAL, STATE, AND LOCAL TAX EXEMPT.

SPECIAL NOTICE:
Manufacturer’s published product data must be included with your bid response for any alternate offerings. Any exception taken to any portion of this Request for Price Quotation must be so stated on the bid response sheets or The University of Alabama will assume compliance with all requirements as stated. The successful bidder will be responsible and accountable for providing those items as specified in its bid response.

The University of Alabama prohibits the installation of asbestos on its campus. Suppliers and contractors will not supply any equipment, material, or supplies, which contain asbestos.

All bids are kept on file within the Purchasing Department for your review.

***IMPORTANT***
ALL BIDS MUST BE SIGNED AND RETURNED IN A SEALED ENVELOPE WITH THE BID NUMBER AND OPENING DATE NOTED ON THE FRONT. FORWARD ALL BIDS TO THE ADDRESS INDICATED BELOW.

ALL BIDS MUST BE PHYSICALLY RECEIVED IN THE PURCHASING DEPARTMENT, ROOM 355 ROSE ADMINISTRATION BUILDING, TUSCALOOSA, ALABAMA PRIOR TO 2:00 PM, CST, ON THE DAY OF THE BID OPENING. NO VERBAL BIDS OR FAXED BIDS WILL BE ACCEPTED.

Note: Responses should be mailed to: Purchasing Manager The University of Alabama Purchasing Dept. 355 Rose Administration Bldg. Box 870130 Tuscaloosa, AL 35487

If we receive the University’s purchase order, we agree to furnish the items and/or services listed hereon at the prices and under the conditions indicated.

VENDOR NAME DATE
MAILING ADDRESS
CITY, STATE, ZIP
AUTHORIZED SIGNATURE
TYPED/PRINTED NAME OF SIGNOR TITLE
TELEPHONE FAX
THE UNIVERSITY OF ALABAMA
GENERAL SPECIFICATIONS

FURNISH AND DELIVER S&C PAD MOUNTED SWITCH GEAR

The University of Alabama is requesting sealed bids to furnish and deliver S&C pad mounted switch gear as per attached general and technical specifications or equal.

SPECIAL NOTES

1. All bid responses, price lists and any other attachments furnished to The University of Alabama in response to this request for quotation must be submitted in DUPLICATE (THE ORIGINAL BID WITH ORIGINAL SIGNATURE AND ONE EXACT COPY) in order to be considered in the bid evaluation and award.

2. The issuance of a University Purchase Order (P#) is required to constitute a contract between the vendor and the University which shall bind the vendor to furnish and deliver the commodities ordered at the prices, terms and conditions quoted and in accordance with the specifications of this Request For Price Quotation as well as the terms and conditions of the University’s Purchase Order. No shipments are to be made to The University of Alabama without the issuance of a Purchase Order (P#). Vendors are not to accept or ship items against a requisition number (“R” #).

3. All bids must be submitted in a sealed envelope with the bid number clearly visible on the outside of the envelope.

4. Due to imaging requirements, bid responses and additional data must not be permanently bound. Bids must be stapled, in folders, three-ring binders or clipped.

5. No call-in, email, or faxed bids will be accepted. Bids by overnight delivery should be sent to The University of Alabama, Purchasing Department, 801 University Blvd., 355 Rose Administration Building, Tuscaloosa, Alabama 35487

6. Bid form must have the vendor’s original signature to be valid. Failure to sign the bid may eliminate the bid from consideration.

7. Any questions concerning this bid should be directed to Eric Dickey, Senior Buyer, The University of Alabama Purchasing Department, Room 355 Rose Administration Building, Tuscaloosa, Alabama 35487-0130, (205) 348-5230, Fax (205) 348-8706, e-mail edickey@fa.ua.edu

8. No department, school or office at the University has the authority to solicit or receive official proposals other than the Purchasing Department. All solicitation is performed under the direct supervision of the Purchasing Managers and in complete accordance with the State of Alabama Bid Law and University policies and procedures.

PRODUCT SPECIFICATIONS

9. All products for purchase must be new, never previously used, and the current model and/or packaging. No remanufactured, demonstrator, used, or irregular product will be considered for purchase under the terms and conditions of this contract.

10. Brand and product/model number of the items you are quoting MUST be provided on the bid quotation sheets. The manufacturer’s published technical specifications must be included with your bid response in order to receive consideration for any alternate equipment/products. Failure to comply with this requirement may eliminate your bid response from consideration.

11. Specify all terms and conditions of the warranties associated with your products with your bid response.
12. The products/equipment shall have the minimum manufacturer’s warranty from final acceptance by the University. Replacements of any defective items are to be provided by the successful bidder at no charge to the University during the period of guarantee.

REFERENCES

13. If required, references must include at least three (3) other institutions where supplies has been provided by the bidder in the past three (3) years, which is similar to the supplies to be delivered at The University of Alabama in terms of manufacturer, size and features. Failure to comply with this requirement may result in elimination of your bid response from consideration in the bid award.

RETURN MERCHANDISE POLICY

14. Include with your bid response complete details of your company’s Return Merchandise policy, including, but not limited to, amount of any restocking fee required, procedures, limitations, contact person and phone number. While the University does not enter into any purchase with the intent to return items ordered, we do require this information be included with your bid response. Failure to include this information may be grounds for elimination of your bid from consideration.

PRICE QUOTATION

15. It is required that the price quotation sheet(s) furnished with this Request for Price Quotation be Completed and submitted with your proposal. Do not send generated price lists as your bid response. Failure to comply with this requirement may eliminate your bid from consideration in the bid award.

16. Quote prices delivered F.O.B. The University of Alabama, Tuscaloosa, AL 35487; Prices quoted must include any and all shipping and handling charges. Any freight claims will be the responsibility of the bidder. Any damaged shipments will be rejected by the University and immediate notification given to the vendor. A replacement shipment must be made as soon as possible. Failure to comply with this request may result in the elimination of your bid from consideration.

DELIVERY REQUIREMENTS

17. Delivery is needed within four (4) months. Delivery may be a criterion of bid award. Specify your earliest possible delivery. Failure to comply with quoted delivery commitments may be grounds for revocation of bid award and may possibly jeopardize the bidder’s position on the University’s list of responsible bidders.

18. No alternate products will be accepted once an order has been placed. Purchase orders will be issued for specific products with the manufacturer brand, product number and item description indicated on each Purchase Order. At no time is an alternate product to be shipped to The University of Alabama.

19. Delivery does not constitute acceptance. All products delivered to the University as a result of an award of this contract are subject to inspection and testing. Items that do not meet specifications will be rejected and returned to the vendor at vendor’s expense. Failure to reject upon receipt, however, does not relieve the vendor of this liability. If tests subsequent to delivery reveal a failure to meet specifications, the vendor shall be deemed to have breached his contract.

20. Deliveries are to be made to The University of Alabama. All packages delivered must be addressed in the following manner:

PO#_______________
The University of Alabama
Department Name
Department Address
Department Contact Name
Tuscaloosa, AL 35487
21. All deliveries must be signed for by a University representative. The University will not be responsible for any shipments delivered without obtaining the appropriate signature.

**LEGAL REQUIREMENTS**

22. The successful vendor, at its sole cost and expense, shall assume all liability for and agrees to indemnify and hold harmless The University of Alabama, its officers, employees, and agents, from and against any and all claims by or on behalf of any person, firm, corporation, or governmental authority arising out of, attributable to, or in connection with any services, activities, operations, or obligations provided for, undertaken, delivered, performed, or otherwise conducted pursuant to or in accordance with this RFP, vendor's response thereto, and/or any subsequent agreement including, without limitation, any and all claims for injury or death to persons or damage to property. Vendor also covenants and agrees, at its sole cost, to save harmless the University and the University's trustees, officers, employees, and agents from and against all costs, counsel fees, expense and liabilities incurred in connection with any such claim and any action brought thereon, and in case any action or proceeding is brought against the University or any of its trustees, officers, employees, or agents, by reason of such claim, vendor upon notice from the University will resist and defend such action or proceeding by qualified counsel.

23. It is mutually understood and agreed that the successful vendor shall not assign, transfer, convey, sublet or otherwise dispose of his contract or his right, title or interest therein, or his power to execute such contract, to any other person, firm or corporation, without the previous written consent of The University of Alabama Purchasing Department. Failure to comply with this requirement will result in the cancellation of this contract.

24. Vendor (bidder) acknowledges and agrees that The University of Alabama owns the rights to its name and its other names, symbols, designs, and colors, including without limitation, the trademarks, service marks, designs, team names, nicknames, abbreviations, city/state names in the appropriate context, slogans, logographics, mascots, seals and other symbols associated with or referring to the University that are adopted and used or approved for use by the University (collectively the “Indicia”), and that each of the Indicia is valid. Vendor (bidder) shall not have any right to use any of the Indicia or any similar mark as, or as part of, a trademark, service mark, trade name, fictitious name, domain name, company or corporate name, a commercial or business activity, or advertising or endorsements anywhere in the world without the prior express written consent of the University. Any domain name, trademark or service mark registration obtained or applied for that contains the Indicia or any similar mark upon request shall be assigned or transferred to the University without compensation.

25. The successful vendor guarantees that if any health-related information is obtained by any method or manner of delivery and in any form or medium, this information will not be shared with other persons causing a violation of the individual's privacy. The successful vendor further agrees that the University is authorized to terminate this contract without penalty or liability to the successful vendor if the University, in its sole discretion, reasonably suspects that the successful vendor has violated this requirement. If the successful vendor is required to access, use, or disclose individually identifiable health information from any HIPAA-covered department within the University in order to perform the agreed upon services under the contract with the University, then the successful vendor agrees to sign a Business Associate Agreement that complies fully with the HIPAA Privacy Regulations. (A copy of the standard Business Associate Agreement is available upon request).

26. If, pursuant to the contract which may be awarded by this RFQ will allow the successful vendor to have access to customer information, as that term is defined in 16 C.F.R. §314.2(b), which is required to be protected under the Gramm-Leach-Bliley Act (15 U.S.C. §6801-6809) as well as credit card information received in the course of business by the University, then the successful vendor agrees to comply with and adhere to the terms and provisions described in Addendum “A” to this RFP which shall form a material part of the awarded contract.

27. This Agreement and any disputes hereunder shall be governed by the laws of The State of Alabama and enforced in the courts of the State of Alabama.
DISCLOSURE STATEMENT

28. If you or any owner, officer, partner, board or director member, employee, or holder of more than 5% of the fair market value of your firm or any member of their households is an employee of The University of Alabama, this information must be included in your Request for Price Quotation response. Failure to disclose this information in your response may result in the elimination of your proposal from evaluation.

29. If you or any owner, officer, partner, board or director member, employee, or holder of more than 5% of the fair market value of your firm or any member of their households is an employee of The University of Alabama; and you or your firm is awarded a contract as a result of this Request for Price Quotation, then within ten (10) days after the contract is entered into, you agree to file a copy of that contract with the State of Alabama Ethics Commission in accordance with Code of Alabama, Section 36-25-11 and upon request by the University furnish evidence of such filing.

30. By accepting payments agreed to in any purchase order resulting from this bid, Vendor certifies that to its knowledge no University employee or official, and no family members of a University employee or official, will receive a benefit from these payments, except as has been previously disclosed, in writing, to the University on the Disclosure Statement of Relationship Between Contractors/Grantees and Employees/Officials of The University of Alabama.

INVOICING/PAYMENTS

31. The University of Alabama is exempt from State sales and use taxes and Federal excise taxes, and no provisions for such taxes should be included in your bid response.

32. Itemized invoice(s) showing net pricing for each item for each order issued must be submitted to the University in order for payment to be made. Delivery tickets and statements will not substitute as an invoice.

33. Payment for all items ordered will be made after those items have been delivered and are proven to be successfully operational by the University. No down payment will be made with order.

34. Quote payment terms that the University should follow, even if you are not offering a cash discount. Failure to quote payment terms on the enclosed quote sheet will result in the University assuming payment terms of Net 30 Days.

35. Please indicate any cash discounts payment terms being offered. The University cannot consider any cash discount of less than twenty (20) days in determining the lowest responsible bidder in the bid award. Please quote any payment term discount on the quotation sheet included with this bid package.

BID AWARD

36. Quantities specified are approximate quantities only. The University does not guarantee any quantity will be ordered. The University of Alabama will NOT accept any overage or underage of the quantities specified on the purchase order.

37. The University of Alabama reserves the right to make an award item by item, or all to a single bidder for all specified items that offers the overall best price that is in compliance with the general and technical specifications and within the limits of compatibility as solely determined by the University. However, bidders must quote separate prices on all items specified.

38. The University of Alabama reserves the right to accept or reject any and all quotations and to waive any informality in the bid award.

39. The University of Alabama shall be sole judge of whether your items bid are consistent with the technical specifications and/or general requirements of this bid invitation.
40. Any award made based on responses to the Request for Price Quotation is contingent upon available funding.

41. Bid Results: Due to the volume of bid requests issued by The University of Alabama Purchasing Department, vendors are to use the following procedures when requesting bid results.

Bid results will not be available to vendors during the bid evaluation process; bid results are only available after an award is made. All requests for bid results must be faxed to the Purchasing Department at (205) 348-8706. Bid results will be provided in summary form only by e-mail or fax (Please include your email address or fax number in your request.) Vendors requiring detailed bid results should contact the Purchasing Department to make an appointment to review bid responses. Please allow a minimum of two weeks to receive a response to a request for bid results (Bid results will not be mailed to vendors).

**CONTRACT TERMINATION**

42. The purchase order(s) that are issued as a result of the bid may be cancelled for cause, including, but not limited to, the following: (1) failure to deliver within the terms of contract; (2) failure of the product or service to meet specifications, conform to sample quality, or to be delivered in good condition; (3) misrepresentation by the vendor; (4) fraud, collusion, conspiracy, or other unlawful means of obtaining any contract with the university; (5) conflict of contract provisions with constitutional or statutory provisions of State of Alabama or federal law; and (6) any other breach of contract. The University reserves the right without cause or penalty, to terminate this agreement at anytime upon thirty (30) days written notice.

43. Where the University has determined the successful bidder to be in default, the University reserves the right to purchase any or all products or services covered by the contract on the open market and to charge the bidder with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting bidder will be considered.
ADDENDUM “A”
SAFEGUARDING OBLIGATIONS

To comply with the requirements of the Safeguarding Rules of the Gramm-Leach-Bliley Act (“GLB”) dealing with the confidentiality of customer information, Vendor agrees that the terms of this Addendum “A” are incorporated into and are a material part of the Agreement between Vendor and the University.

1. Definitions:
   a. Customer Information, as defined in 16 CFR §314.2(b), required to be protected under the Gramm Leach Bliley Act (GLB), includes Student Financial Information (defined below) as well as any credit card information received in the course of business by the University, whether or not such credit card information is covered by GLB. Customer Information includes both paper and electronic records.
   b. Student Financial Information is that information that the University has obtained from a customer in the process of offering a financial product or service, or such information provided to the University by another financial institution. Offering a financial product or service includes offering student loans to students, receiving income tax information from a student’s parent when offering a financial aid package, and other miscellaneous financial services as defined in 12 C.F.R. § 225.28. Examples of student financial information include addresses, telephone numbers, bank and credit card account numbers, income and credit histories, and Social Security numbers, in both paper and electronic format.

2. Acknowledgment of Access to Customer Information: Vendor acknowledges that the Agreement allows the Vendor access to Customer Information. Specifically, access to the following categories of Customer Information is anticipated under the Agreement: names, e-mail and mailing addresses, bank and credit card account numbers, payment information, and sales information.

3. Prohibition on Unauthorized Use or Disclosure of Customer Information: Vendor agrees to hold the Customer Information in strict confidence. Vendor shall not use or disclose Customer Information received from or on behalf of the University except as permitted or required by the Agreement or this Addendum, as required by law, or as otherwise authorized in writing by the University.

4. Safeguard Standard: Vendor agrees that it will protect the Customer Information it receives from or on behalf of the University according to commercially acceptable standards and no less rigorously than it protects its own confidential information.

5. Return or Destruction of Customer Information: Upon termination, cancellation, expiration or other conclusion of the Agreement, Vendor shall:
   a. Return to the University or, if return is not feasible, destroy all Customer Information in whatever form or medium that Vendor received from or created on behalf of the University. This provision shall also apply to all Customer Information that is in the possession of subcontractors or agents of Vendor. In such case, Vendor shall retain no copies of such information, including any compilations derived from and allowing identification of Customer Information. Vendor shall complete such return or destruction as promptly as possible, but not less than thirty (30) days after the effective date of the conclusion of this Agreement. Within such thirty (30) day period, Vendor shall certify in writing to the University that such return or destruction has been completed.
   b. If Vendor believes that the return or destruction of Customer Information is not feasible, Vendor shall provide written notification of the conditions that make return or destruction infeasible. Upon mutual agreement of the Parties that return or destruction is not feasible, Vendor shall extend the protections of this Addendum to Customer Information received from or created on behalf of the University, and limit further uses and disclosures of such Customer Information, for so long as Vendor maintains the Customer Information.
6. **Term and Termination:**

   a. This Addendum “A” shall take effect upon execution of the Agreement by the University.

   b. In addition to the rights of the parties established by the underlying Agreement, if the University reasonably determines in good faith that Vendor has materially breached any of its obligations under this Addendum “A,” the University, in its sole discretion, shall have the right to:

      (i) exercise any of its rights to reports, access and inspection under this Addendum “A;” and/or

      (ii) require Vendor to submit to a plan of monitoring and reporting, as the University may determine necessary to maintain compliance with this Addendum “A;” and/or

      (iii) provide Vendor with a fifteen (15) day period to cure the breach; and/or

      (iv) terminate the Agreement immediately if Vendor has breached a material term of this Addendum “A” and cure is not possible.

   c. Before exercising any of these options, the University shall provide written notice to Vendor describing the violation and the action it intends to take.

7. **Subcontractors and Agents:** If Vendor provides any Customer Information which was received from, or created for, the University to a subcontractor or agent, then Vendor shall require such subcontractor or agent to agree to the same restrictions and conditions as are imposed on Vendor by this Addendum “A.”

8. **Maintenance of the Security of Electronic Information:** Vendor shall develop, implement, maintain and use appropriate administrative, technical and physical security measures to preserve the confidentiality, integrity and availability of all electronically maintained or transmitted Customer Information received from, or on behalf of, the University.

9. **Reporting of Unauthorized Disclosures or Misuse of Customer Information:** Vendor shall report to University any use or disclosure of Customer Information not authorized by this Addendum “A” or in writing by the University. Vendor shall make the report to the University not less than one (1) business day after Vendor learns of such use or disclosure. Vendor’s report shall identify: (i) the nature of the unauthorized use or disclosure, (ii) the Customer Information used or disclosed, (iii) who made the unauthorized use or received the unauthorized disclosure, (iv) what Vendor has done or shall do to mitigate any deleterious effect of the unauthorized use or disclosure, and (v) what corrective action Vendor has taken or shall take to prevent future similar unauthorized use or disclosure. Vendor shall provide such other information, including a written report, as reasonably requested by the University.

10. **Indemnity:** Vendor shall defend and hold the University harmless from all claims, liabilities, damages, or judgments involving a third party, including the University’s costs and attorney fees, which arise as a result of Vendor’s failure to meet any of its obligations under this Addendum.

11. **Survival:** The respective rights and obligations of Vendor under Section 5 above shall survive the termination of the Agreement.
I. GENERAL

1.01 The pad-mounted gear shall be per the one-line drawing and shall conform to the following specification.

1.02 The pad-mounted gear shall consist of a single self-supporting enclosure, containing interrupter switches and power fuses with the necessary accessory components, all completely factory-assembled and operationally checked.

1.03 Ratings

The ratings for the integrated pad-mounted gear shall be as designated below.

- \( K_v, \text{Nominal} \) ......................................................... 14.4
- \( K_v, \text{Maximum} \) .......................................................... 17.0
- \( K_v, \text{BIL} \) ................................................................. 95

Main Bus Continuous, Amperes ......................... 600

Three-Pole Interrupter Switches
- Continuous, Amperes ............................................. 600
- Load Dropping, Amperes ........................................... 600

Two-Time Duty-Cycle Fault-Closing,
- Amperes Rms Asymmetrical ............................. 22,400

Fuses with Integral Load Interrupter
- Maximum, Amperes .................................................. 200
- Load Dropping, Amperes ............................... 200

Two-Time Duty-Cycle Fault-Closing
- Capability, Amperes Rms Asymmetrical .......... 13,000

Short-Circuit Ratings
- Amperes Rms Symmetrical ........................................ 14,000
- Mva Three-Phase Symmetrical at Rated Nominal Voltage ................................... 350

The momentary and two-time duty-cycle fault-closing ratings of switches, momentary rating of bus, interrupting ratings of fuses, and one-time duty-cycle fault-closing capabilities of fuses with integral load interrupters shall equal or exceed the short-circuit ratings of the pad-mounted gear.

1.04 Certification of Ratings

(a) The manufacturer of the pad-mounted gear shall be completely and solely responsible for the performance of the basic switch and fuse components as well as the complete integrated assembly as rated.
The manufacturer shall furnish, upon request, certification of ratings of the basic switch and fuse components and/or the integrated pad-mounted gear assembly consisting of the switch and fuse components in combination with the enclosure.

1.05 Compliance with Standards and Codes

The pad-mounted gear shall conform to or exceed the applicable requirements of the following standards and codes:

(a) All portions of ANSI C57.12.28, covering enclosure integrity for pad-mounted equipment.

(b) Article 710-21(e) in the National Electrical Code, which specifies that the interrupter switches in combination with power fuses shall safely withstand the effects of closing, carrying, and interrupting all possible currents up to the assigned maximum short-circuit rating.

(c) All portions of ANSI, IEEE, and NEMA standards applicable to the basic switch and fuse components.

(d) UL or CSA Listing.

1.06 Enclosure Design

(a) To ensure a completely coordinated design, the pad-mounted gear shall be constructed in accordance with the minimum construction specifications of the fuse and/or switch manufacturer to provide adequate electrical clearances and adequate space for fuse handling.

(b) In establishing the requirements for the enclosure design, consideration shall be given to all relevant factors such as controlled access, tamper resistance, and corrosion resistance.

II. CONSTRUCTION—ASSEMBLY

2.01 Insulators

The interrupter-switch and fuse-mounting insulators shall be of a cycloaliphatic epoxy resin system with characteristics and restrictions as follows:

(a) Operating experience of at least 15 years under similar conditions.

(b) Adequate leakage distance established by test per IEC Publication 507, First Edition, 1975.

(c) Adequate strength for short-circuit stress established by test.

(d) Conformance with applicable ANSI standards.

(e) Homogeneity of the cycloaliphatic epoxy resin throughout each insulator to provide maximum resistance to power arcs. Ablation due to high temperatures from power arcs shall continuously expose more material of the same composition and properties so that no change in mechanical or electrical characteristics takes place because of arc-induced ablation. Furthermore, any surface damage to insulators during installation or maintenance of the pad-mounted gear shall expose material of the same composition and properties so that insulators with minor surface damage need not be replaced.
2.02 High-Voltage Bus

(a) Bus and interconnections shall consist of aluminum bar of 56% IACS conductivity.

(b) Bus and interconnections shall withstand the stresses associated with short-circuit currents up through the maximum rating of the pad-mounted gear.

(c) Bolted aluminum-to-aluminum connections shall be made with a suitable number of 1/2"—13 galvanized steel bolts and with two Belleville spring washers per bolt, one under the bolt head and one under the nut. Bolts shall be tightened to 50 foot-pounds torque.

(d) Before installation of the bus, all electrical contact surfaces shall first be prepared by machine abrading to remove any aluminum-oxide film. Immediately after this operation, the electrical contact surfaces shall be coated with a uniform coating of an oxide inhibitor and sealant.

2.03 Ground-Connection Pads

(a) A ground-connection pad shall be provided in each compartment of the pad-mounted gear.

(b) The ground-connection pad shall be constructed of 3/8" thick steel, which shall be nickel plated and welded to the enclosure, and shall have a short-circuit rating equal to that of the pad-mounted gear.

(c) Ground-connection pads shall be coated with a uniform coating of an oxide inhibitor and sealant prior to shipment.

III. CONSTRUCTION—ENCLOSURE INCLUDING OUTDOOR FINISH

3.01 Enclosure

(a) The pad-mounted gear enclosure shall be of unitized monocoque (not structural-frame-and-bolted-sheet) construction to maximize strength, minimize weight, and inhibit corrosion.

(b) The basic material shall be 11-gauge hot-rolled, pickled and oiled steel sheet.

(c) All structural joints and butt joints shall be welded, and the external seams shall be ground flush and smooth. The gas-metal-arc welding process shall be employed to eliminate alkaline residues and to minimize distortion and spatter.

(d) To guard against unauthorized or inadvertent entry, enclosure construction shall not utilize any externally accessible hardware.

(e) The base shall consist of continuous 90-degree flanges, turned inward and welded at the corners, for bolting to the concrete pad.

(f) The door openings shall have 90-degree flanges, facing outward, that shall provide strength and rigidity as well as deep overlapping between doors and door openings to guard against water entry.

(g) Enclosure top side edges shall overlap with roof side edges to create a mechanical maze which shall allow ventilation to help keep the enclosure interior dry while discouraging tampering or insertion of foreign objects.

(h) A heavy coat of insulating "no-drip" compound shall be applied to the inside surface of the roof to minimize condensation of moisture thereon.
(i) Insulating interphase and end barriers of NEMA GPO3-grade fiberglass-reinforced polyester shall be provided for each interrupter switch and each set of fuses where required to achieve BIL ratings. Additional insulating barriers of the same material shall separate the front compartments from the rear compartments and isolate the tie bus (where furnished).

(j) Full-length steel barriers shall separate side-by-side compartments.

(k) Interrupter switches shall be provided with dual-purpose front barriers. These barriers, in their normal hanging positions, shall guard against inadvertent contact with live parts. It shall also be possible to lift the barriers out and insert them into the open gap when the switch is open. These barriers shall meet the requirements of Section 381G of the National Electrical Safety Code (ANSI Standard C2).

(l) Interrupter switches shall be provided with window panels to allow viewing of the switch position without removing the dual-purpose front barriers. Window panels shall be removable to facilitate phasing and shall be secured to the enclosure with stainless-steel or zinc-nickel-plated hardware.

(m) Each fuse shall be provided with a dual-purpose front barrier. These barriers, in their normal hanging positions, shall guard against inadvertent contact with live parts. It shall also be possible to lift these barriers out and insert them into the open gaps when the fuses are in the disconnect position. These barriers shall meet the requirements of Section 381G of the National Electrical Safety Code (ANSI Standard C2).

(n) The enclosure shall be provided with an instruction manual holder.

(o) Lifting tabs shall be removable. Sockets for the lifting-tab bolts shall be blind-tapped. A resilient material shall be placed between the lifting tabs and the enclosure to help prevent corrosion by protecting the finish against scratching by the tabs. To further preclude corrosion, this material shall be closed-cell to prevent moisture from being absorbed and held between the tabs and the enclosure in the event that lifting tabs are not removed.

(p) A steel noncompartmented base spacer shall be provided to increase the elevation of live parts in the pad-mounted gear above the mounting pad by 18 inches. The base spacer must be stainless if section 3.03 can't be met.

3.02 Doors

(a) Doors shall be constructed of 11-gauge hot-rolled, pickled and oiled steel sheet.

(b) Door-edge flanges shall overlap with door-opening flanges and shall be formed to create a mechanical maze that shall guard against water entry and discourage tampering or insertion of foreign objects, but shall allow ventilation to help keep the enclosure interior dry.

(c) Doors shall have a minimum of two extruded-aluminum hinges with stainless-steel hinge pins, and interlocking extruded-aluminum hinge supports for the full length of the door to provide strength, security, and corrosion resistance. Mounting hardware shall be stainless steel or zinc-nickel-plated steel, and shall not be externally accessible to guard against tampering.

(d) In consideration of controlled access and tamper resistance, each door (or set of double doors) shall be equipped with an automatic three-point latching mechanism.

(1) The latching mechanism shall be spring loaded, and shall latch automatically when the door is closed. All latch points shall latch at the same time to preclude partial latching.
(2) A pentahead socket wrench or tool shall be required to actuate the mechanism to unlatch the door and, in the same motion, recharge the spring for the next closing operation. Provide one wrench with each padmounted gear.

(3) The latching mechanism shall have provisions for padlocking that incorporate a means to protect the padlock shackle from tampering and that shall be coordinated with the latches such that:

(i) It shall not be possible to unlatch the mechanism until the padlock is removed, and

(ii) It shall not be possible to insert the padlock until the mechanism is completely latched closed.

(e) Doors providing access to solid-material power fuses shall have provisions to store spare fuse units or refill units.

(f) Each door shall be provided with a zinc-nickel-plated steel door holder located above the door opening. The holder shall be hidden from view when the door is closed, and it shall not be possible for the holder to swing inside the enclosure.

3.03 Finish

(a) Full coverage at joints and blind areas shall be achieved by processing enclosures independently of components such as doors and roofs before assembly into the unitized structures.

(b) All exterior seams shall be filled and sanded smooth for neat appearance.

(c) To remove oils and dirt, to form a chemically and anodically neutral conversion coating to improve the finish-to-metal bond, and to retard underfilm propagation of corrosion, all surfaces shall undergo a thorough pretreatment process comprised of a fully automated system of cleaning, rinsing, phosphatizing, sealing, drying, and cooling before any protective coatings are applied. By utilizing an automated pretreatment process, the enclosure shall receive a highly consistent thorough treatment, eliminating fluctuations in reaction time, reaction temperature, and chemical concentrations.

(d) After pretreatment, protective coatings shall be applied that shall help resist corrosion and protect the steel enclosure. To establish the capability to resist corrosion and protect the enclosure, representative test specimens coated by the enclosure manufacturer’s finishing system shall satisfactorily pass the following tests:

(1) 4000 hours of exposure to salt-spray testing per ASTM B 117 with:

(i) Underfilm corrosion not to extend more than 1/32" from the scribe as evaluated per ASTM D 1645, Procedure A, Method 2 (scraping); and

(ii) Loss of adhesion from bare metal not to extend more than 1/8" from the scribe.

(2) 1000 hours of humidity testing per ASTM D 4585 using the Cleveland Condensing Type Humidity Cabinet with no blistering as evaluated per ASTM D 714.

(3) 500 hours of accelerated weathering testing per ASTM G 53 using lamp UVB-313 with no chalking as evaluated per ASTM D 659, and no more than 10% reduction of gloss as evaluated per ASTM D 523.

(4) Crosshatch adhesion testing per ASTM D 3359 Method B with no loss of finish.
(5) 160-inch-pound impact adhesion testing per ASTM D 2794 with no chipping or cracking.

(6) Oil resistance testing consisting of a 72-hour immersion bath in mineral oil with no shift in color, no streaking, no blistering, and no loss of hardness.

(7) 3000 cycles of abrasion testing per ASTM 4060 with no penetration to the substrate.

Certified test abstracts substantiating the above capabilities shall be furnished with the bid. If this cannot be supplied, a stainless steel enclosure must be quoted.

(e) After the finishing system has been properly applied and cured, welds along the enclosure bottom flange shall be coated with a wax-based anticorrosion moisture barrier to give these areas added corrosion resistance.

(f) A resilient closed-cell material, such as PVC gasket, shall be applied to the entire underside of the enclosure bottom flange to protect the finish on this surface from scratching during handling and installation. This material shall isolate the bottom flange from the alkalinity of a concrete foundation to help protect against corrosive attack.

(g) After the enclosure is completely assembled and the components (switches, fuses, bus, etc.) are installed, the finish shall be inspected for scuffs and scratches. Blemishes shall be touched up by hand to restore the protective integrity of the finish.

(h) The finish shall be olive green, Munsell 7GY3.29/1.5.

3.04 To guard against corrosion, all hardware (including door fittings, fasteners, etc.), all operating-mechanism parts, and other parts subject to abrasive action from mechanical motion shall be of either nonferrous materials, or galvanized or zinc-nickel-plated ferrous materials. Cadmium-plated ferrous parts shall not be used.

IV. BASIC COMPONENTS

4.01 Interrupter Switches

(a) Interrupter switches shall have a two-time duty-cycle fault-closing rating equal to or exceeding the short-circuit rating of the pad-mounted gear. These ratings define the ability to close the interrupter switch twice against a three-phase fault with asymmetrical current in at least one phase equal to the rated value, with the switch remaining operable and able to carry and interrupt rated current. Tests substantiating these ratings shall be performed at maximum voltage with current applied for at least 10 cycles. Certified test abstracts establishing such ratings shall be furnished upon request.

(b) Interrupter switches shall be operated by means of an externally accessible 3/4” hex switch-operating hub. The switch-operating hub shall be located within a recessed stainless-steel pocket mounted on the side of the pad-mounted gear enclosure and shall accommodate a 3/4” deep-socket wrench or a 3/4” shallow-socket wrench with extension. The switch-operating-hub pocket shall include a padlockable stainless-steel access cover that shall incorporate a hood to protect the padlock shackle from tampering. Stops shall be provided on the switch-operating hub to prevent overtravel and thereby guard against damage to the interrupter switch quick-make quick-break mechanism. Labels to indicate switch position shall be provided in the switch-operating-hub pocket.

(c) Each interrupter switch shall be provided with a folding switch-operating handle. The switch-operating handle shall be secured to the inside of the switch-operating-hub pocket by a brass chain. The folded handle shall be stored behind the closed switch-operating-hub access cover.
Interrupter switches shall utilize a quick-make quick-break mechanism installed by the switch manufacturer. The quick-make quick-break mechanism shall be integrally mounted on the switch frame, and shall swiftly and positively open and close the interrupter switch independent of the switch-operating-hub speed.

Each interrupter switch shall be completely assembled and adjusted by the switch manufacturer on a single rigid mounting frame. The frame shall be of welded steel construction such that the frame intercepts the leakage path which parallels the open gap of the interrupter switch to positively isolate the load circuit when the interrupter switch is in the open position.

Interrupter switch contacts shall be backed up by stainless-steel springs to provide constant high contact pressure.

Interrupter switches shall be provided with a single blade per phase for circuit closing including fault closing, continuous current carrying, and circuit interrupting. Spring-loaded auxiliary blades shall not be permitted. Interrupter switch blade supports shall be permanently molded in place in a unified insulated shaft constructed of the same cycloaliphatic epoxy resin as the insulators.

Circuit interruption shall be accomplished by use of an interrupter which is positively and inherently sequenced with the blade position. It shall not be possible for the blade and interrupter to get out of sequence. Circuit interruption shall take place completely within the interrupter, with no external arc or flame. Any exhaust shall be vented in a controlled manner through a deionizing vent.

Interrupter switches shall have a readily visible open gap when in the open position to allow positive verification of switch position.

Ground studs shall be provided at all switch terminals. Ground studs shall also be provided on the ground pad in each interrupter switch compartment and on the terminals and ground pad in any bus compartment. The momentary rating of the ground studs shall equal or exceed the short-circuit ratings of the pad-mounted gear.

Key interlocks to prevent opening fuse compartment doors unless all switches are locked open shall be provided.

Base-mounted distribution class surge arresters, metal oxide type 9kV shall be provided at all source switch terminals.

Viewing window shall be supplied for each switch compartment door. A lockable tamper resistant cover shall protect each viewing window.

Cable guides shall be provided to help orient cables at switch terminals and bus-compartment terminals.

4.02 Fuses

(a) Solid-Material Power Fuses

(1) Fuses shall be disconnect style, solid-material power fuses, and shall utilize refill-unit-and-holder or fuse-unit-and-end-fitting construction. The refill unit or fuse unit shall be readily replaceable and low in cost.

(2) Fusible elements shall be nonaging and nondamageable so that it is unnecessary to replace unblown companion fuses on suspicion of damage following a fuse operation.

(3) Fusible elements for refill units or fuse units rated 10 amperes or larger shall be helically coiled to avoid mechanical damage due to stresses from current surges.
Fusible elements, that carry continuous current, shall be supported in air to help prevent damage from current surges.

Each refill unit or fuse unit shall have a single fusible element to eliminate the possibility of unequal current sharing in parallel current paths.

Solid-material power fuses shall have melting time-current characteristics that are permanently accurate to within a maximum total tolerance of 10% in terms of current. Time-current characteristics shall be available which permit coordination with protective relays, automatic circuit reclosers, and other fuses.

Solid-material power fuses shall be capable of detecting and interrupting all faults whether large, medium, or small (down to minimum melting current), under all realistic conditions of circuitry, with line-to-line or line-to-ground voltage across the fuse, and shall be capable of handling the full range of transient recovery voltage severity associated with these faults.

All arcing accompanying operation of solid-material power fuses shall be contained within the fuse, and all arc products and gases evolved shall be effectively contained within the exhaust control device during fuse operation.

Solid-material power fuses shall be equipped with a blown-fuse indicator that shall provide visible evidence of fuse operation while installed in the fuse mounting.

Fuse-mounting jaw contacts shall incorporate an integral load interrupter that shall permit live switching of fuses with a hookstick.

The integral load interrupter housing shall be of the same cycloaliphatic epoxy resin as the insulators.

The integral load interrupter shall be in the current path continuously. Auxiliary blades or linkages shall not be used.

Live switching shall be accomplished by a firm, steady opening pull on the fuse pull ring with a hookstick. No separate load-interrupting tool shall be required.

The integral load interrupter shall require a hard pull to unlatch the fuse to reduce the possibility of an incomplete opening operation.

Internal moving contacts of the integral load interrupter shall be self-resetting after each opening operation to permit any subsequent closing operation to be performed immediately.

Circuit interruption shall take place completely within the integral load interrupter with no external arc or flame.

The integral load interrupter and the fuse shall be provided with separate fault-closing contacts and current-carrying contacts. The fuse hinge shall be self-guiding and, together with the fault-closing contacts, shall guide the fuse into the current-carrying contacts during closing operations. Circuit-closing inrush currents and fault currents shall be picked up by the fault-closing contacts, not by the current-carrying contacts or interrupting contacts.
(8) Integral load interrupters for fuses shall have a one-time duty-cycle fault-closing capability equal to the interrupting rating of the fuse, and a two-time duty-cycle fault-closing capability of 13,000 amperes rms asymmetrical at 14.4 kv or 25 kv. The duty-cycle fault-closing capability defines the level of available fault current into which the fuse can be closed the specified number of times (once or twice), without a quick-make mechanism and when operated vigorously through its full travel without hesitation at any point, with the integral load interrupter remaining operable and able to carry and interrupt currents up to the emergency peak-load capabilities of the fuse.

(d) Fuse terminal pads shall be provided with a two-position adapter, making it possible to accommodate a variety of cable-terminating devices.

(e) Ground studs shall be provided at all fuse terminals. One ground stud shall also be provided on the ground pad in each fuse compartment. The momentary rating of the ground studs shall equal or exceed the short-circuit ratings of the pad-mounted gear.

V. LABELING

5.01 Hazard-Alerting Signs

(a) All external doors shall be provided with "Warning—Keep Out—Hazardous Voltage Inside—Can Shock, Burn, or Cause Death" signs.

(b) The inside of each door shall be provided with a "Danger—Hazardous Voltage—Failure to Follow These Instructions Will Likely Cause Shock, Burns, or Death" sign. The text shall further indicate that operating personnel must know and obey the employer's work rules, know the hazards involved, and use proper protective equipment and tools to work on this equipment.

(c) Interrupter switch compartments shall be provided with "Danger" signs indicating that "Switches May Be Energized by Backfeed."

(d) Fuse compartments shall be provided with "Danger" signs indicating that "Fuses May Be Energized by Backfeed."

(e) Barriers used to prevent access to energized live parts shall be provided with "Danger—Keep Away—Hazardous Voltage—Will Shock, Burn, or Cause Death" signs.

5.02 Nameplates, Ratings Labels, and Connection Diagrams

(a) The outside of each door (or set of double doors) shall be provided with a nameplate indicating the manufacturer's name, catalog number, model number, date of manufacture, and serial number.

(b) The inside of each door (or set of double doors) shall be provided with a ratings label indicating the following: voltage ratings; main bus continuous rating; short-circuit ratings (amperes rms symmetrical and Mva three-phase symmetrical at rated nominal voltage); the type of fuse and its ratings including duty-cycle fault-closing capability; and interrupter switch ratings including duty-cycle fault-closing and short-time (momentary, amperes rms asymmetrical and one-second, amperes rms symmetrical).

(c) A three-line connection diagram showing interrupter switches, fuses with integral load interrupter, and bus along with the manufacturer's model number shall be provided on the inside of each door (or set of double doors), and on the inside of each switch-operating-hub access cover.

VI. ACCESSORIES

6.01 Fuse-Unit End Fittings and SMU-20 Fuse Units for original installation shall be provided. For each active fuse unit, a spare fuse unit of like rating shall be provided.
6.02.1 A new steel noncompartmented base spacer shall be provided to increase the elevation of live parts in the padmounted gear above the mounting pad by 18 inches. The base spacer must be stainless if section 3.03 can’t be met.

VII MODEL DESIGN

This inquiry will be for S&C PMH models, PMH-9 and PMH-11. The PMH-9 model will include 2 - three phase switch compartments and 2 - three phase fuses compartments. The PMH-11 will include 3 - three phase switch compartments and 1- three phase fuse compartment.
THE UNIVERSITY OF ALABAMA
QUOTATION SHEET

FURNISH AND DELIVER S&C PAD MOUNTED SWITCH GEAR

SCOPE: The University of Alabama is requesting sealed bids to furnish and deliver S&C pad mounted switch gear as per attached general and technical specifications or equal.

NOTE: The manufacturer and product number for each item that you are quoting must be completed for your bid to receive consideration.

NOTE: The Unit Cost of each item must include any shipping and handling charges. Do NOT list shipping and handling as a separate charge. QUOTE PRICES DELIVERED TO THE UNIVERSITY OF ALABAMA, TUSCALOOSA, AL 35487.

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GRAND TOTAL OF ALL 4 SWITCH GEARS $____________
PROMPT PAYMENT DISCOUNT ______ % ______ DAYS/ NET ______ DAYS

CAN YOU MEET THE FOUR (4) MONTH DELIVERY TIME? ______ YES ______ NO

IF NO, HOW SOON COULD YOU DELIVER THE PRODUCT? ______________/MONTHS

E-MAIL ADDRESS FOR PERSON SIGNING THE BID: ________________________________

COMPANY’S WEBSITE: ________________________________
DISCLOSURE STATEMENT

1. Contract/Purchase Order No. ________________________________

2. Name of Contract/Grantee: ________________________________
   Address: _____________________________________________
   Telephone: ___________________________________________
   Fax: _________________________________________________

3. Nature of Contract/Grant: ________________________________
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

4. Does the contractor/grantee have any relationships with any employee or
   official of the University, or a family member of such employee or official,
   that will enable such employee or official, or his/her family member, to
   benefit from this contract? If so, please state the names, relationships, and
   nature of the benefit.
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

(For employees of the University, family members include spouse and
dependents. For members of the Board of Trustees (officials), family members
include spouse, dependents, adult children and their spouses, parents, in-laws,
siblings and their spouses.)

This Disclosure Form will be available for public inspection upon request.

The above information is true and accurate, to the best of my knowledge.

__________________________________________________________
Signature of Authorized Agent of Contractor/Grantee

______________________________
Date: __________________________

RETURN FORM TO: The University of Alabama
Purchasing Dept.
Box 870130
Tuscaloosa, AL 35487-0130
Ph: (205) 348-5230
Fax: (205) 348-8706
www.purchasing.ua.edu