

# ELECTRIC SERVICE MANUAL

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# You can access this manual on the

# Ameren Website www.ameren.com

The manual is located under Business Center - Contractors.

Note: Updates to this manual will be made on a regular basis and posted at the website mentioned above. It will be the responsibility of the holder of this manual to update the manual from information at the website.

# Disclaimer

The information in this manual provides guidelines necessary to expedite the connection of electric service. Where details are shown, they are provided to assure the safety of individuals in the immediate vicinity of the electric service entrance. It is the responsibility of the customer, his engineers, and his contractors to assure that the installation meets all applicable codes. Ameren does not assume this responsibility.

# AMEREN ELECTRIC SERVICE MANUAL

Foreword: Ameren is committed to providing a quality reference guide that facilitates the planning and installation of electrical equipment in a safe and professional manner. The Electric Service Manual incorporates Company Metering Requirements, Standards, and language in Company filed Schedule of Rates for Electric Services. This manual serves as a supplement not a replacement for the National Electrical Code, National Electrical Safety Code and any local authority guidelines. Qualified users of this manual should contact Ameren representatives for clarification of requirements and specifications. All electrical service wiring and equipment where Ameren owned conductors will be terminated, or that will contain Ameren owned metering equipment, shall be listed and used for the intended purpose as defined in the NEC, and shall be approved by Ameren.

# **Ameren Contact Centers, Illinois**

•	AmerenCIPS:	888-789-2477
•	AmerenCILCO Peoria:	309-693-4694
•	AmerenCILCO Springfield / Lincoln:	217-735-6920
•	AmerenIP:	800-892-7715

# Ameren Contact Centers, Missouri

AmerenUE: 866–992–6619

# Call Before You Dig!

Nationwide:
 811

Illinois: 800–892–0123
JULIE (Joint Utility Locating Information for Excavators)

• Missouri: 800–DIG–RITE (344–7483)

# **Customer Owned Underground Facilities**

Underground facilities on a customer's premises that are owned by the customer, are not located by JULIE or DIG-RITE. These facilities may include but are not limited to septic systems, irrigation systems, underground wiring, and drainage systems. The customer is responsible for locating these facilities. Ameren will not be responsible for damage to facilities that are not properly located.



# **AMEREN ELECTRIC SERVICE MANUAL**

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# Section 100 General Information

# 100. ACCESS TO CUSTOMER'S PREMISES

Customer shall permit, at all reasonable hours, authorized agents of the Company, free and safe access to customer premises for the purpose of installing, inspecting, reading, removing, repairing, testing Company metering equipment, or any other purpose deemed necessary by the Company. Customer must provide suitable working space which is free of obstructions and is not used for storage.

# 101. APPLICATION FOR SERVICE

Any person, developer, firm, organization, association, corporation or entity whose premises is located within the territory served by Company can request service by making application through the Company's Customer Contact Centers listed in the Foreword of this manual or through www.ameren.com via the internet.

# 102. AVAILABILITY OF SERVICE

Electric service is available to any Customer located in Company's Service Area. Customer will agree to abide by Company's Terms and Conditions, Standards and Qualifications for Electric Service and any other requirements of the Schedule of Rates for Electric Services. The standard electric service furnished by Company is 60 Hertz alternating current.

## 103. COMPANY OBLIGATIONS

Company shall furnish service within a reasonable length of time dependent upon the availability of labor and material and after all necessary permits and approvals are obtained from the customer and other governmental and regulatory authorities having jurisdiction. Fees for service may apply.

### 104. CUSTOMER OBLIGATIONS

Inform Company as to the size and characteristics of the load that is to be initially and thereafter served, the location of the Premises, the need date, and any special circumstances or conditions affecting the supply of electric service by Company. Customer is responsible for securing information from Company regarding available facilities at a particular location. Equipment is to be installed in a condition acceptable to and approved by the governmental inspection authority having jurisdiction in the territory in which the Customer's Premises is located or, where no authority exists, in accordance with Company's standards and the requirements of the latest edition of the National Electrical Code. Be responsible for any damage, alteration or interference with company metering or other electrical equipment on Premises. Refer to Standards and Qualifications for Electric Service for additional information.

## 105. DELIVERY POINT OF SERVICE

"Point of Delivery" means the point at which the entity providing distribution facilities connects its lines or equipment to the lines or facilities owned or rented by the Customer, without regard to the location or ownership of transformers, substations or meters, unless otherwise provided for by written contract or tariffs.

# 106. DISCONNECTION AND RECONNECTION OF SERVICE

The Company has the right to discontinue service to any Customer and remove its property from Customer's Premises, after due notice. If Customer wiring and equipment is found to be unsafe or unsuitable to receiving electric service and a harmful condition exists, Company reserves the right to terminate service immediately. A Customer's service that has been disconnected shall be reconnected after customer has furnished satisfactory evidence of compliance with the Company's Terms and Conditions and paid all applicable fees and charges.

For additional information, go to: https://www2.ameren.com/Rates/ratesSvcMap.aspx



# Section 100 General Information

## 107. INSPECTIONS AND PERMITS

The Customer shall secure and pay for all permits required by constituted authorities, for the installation and operation of the electrical wiring and other electrical equipment on the Premises. Company must receive notice of approval from said authorities prior to connection. In service areas void of inspection authority, Customer service entrance must conform to Company metering standards and National Electrical Code. Company will not inspect nor be held liable for the condition or safe operation of Customer wiring beyond service disconnecting means. Company retains the right to refuse or terminate service.

### 108. LIMITATION OF LIABILITY

The Company will use reasonable diligence in furnishing uninterrupted and regular Electric Service, but will in no case be liable for interruptions, deficiencies or imperfections of service, except to the extent of a pro rata reduction of the monthly charges. Refer to Customer Terms and Conditions for additional information.

# 109. METER TAMPERING

The Company shall have the right to discontinue electric service to any Customer and remove its property from Customer premises, if there is evidence found of tampering with any meter or service wiring leading thereto, and where such tampering is for the purpose of reducing the registration of the Customer's electric consumption. See Customer Terms and Conditions pertaining to your service provider for additional information.

# 110. NUMBER OF SERVICES

The Company will normally provide service to Customer at only one Point of Delivery on each premises. The point on the Company's system where the Service Extension will terminate will be as designated by the Company. The Company may agree to provide service through multiple delivery points as described in the Excess Facilities section of the Standards and Qualifications For Electric Service.

# 111. SERVICE RELOCATION

Existing customers who request Company to relocate, convert or in some manner modify these facilities will reimburse the Company if the Company agrees to make the changes. Refer to Standards and Qualifications For Electric Service.



# Section 150 Glossary

**Ampacity:** The current in amperes a conductor can carry continuously under the conditions of use without exceeding its temperature rating.

**Anti–Inversion Clip:** An insert into a meter socket the will reduce the size of the number three position to allow meters with a reduced spade to fit into the jaws of the socket. Used to prevent class 200 meters from being installed in 320 amp continuously rated meter devices.

**Applicant:** Applicant means a Person who applies for Residential or Non–Residential service and/or who requests an Extension.

Approved: Acceptable to the authority having jurisdiction. See: Local Inspection Authority

**Bonding Conductor:** The conductor that provides the required electrical conductivity between metal parts that are required to be electrically connected.

**Bypass, Horn Type:** Tabs are located on the line and load side of a ring-less type meter socket which allow utility personnel to install special jumper cables between the line and load side of the meter. This will divert the current flow from the meter to the temporarily installed jumpers. This allows for the exchange, inspection or repair of a meter without a service interruption to the customer.

**Bypass**, **Locking Lever Jaw Type**: A mechanical lever bypass is an integral component designed into the meter socket block assembly of a ring-less type meter socket. The lever action has two primary functions:

- (1) When engaged downward, the mechanism provides jaw clamping forces to help secure the meter and make continuity to the meter spades while in normal operation.
- (2) When engaged upward into "bypass" mode, the mechanism releases the clamping pressure on the meter spades and diverts the current flow from the meter to the internal bypass. This allows for the exchange, inspection or repair of a meter without service interruption to the customer. **Note:** Meter cover can not be reinstalled or sealed with lever handle in upward "bypass" position.

**Commission:** The agency responsible for regulating the regulated portions of investor owned public utilities.

- In Illinois, the Illinois Commerce Commission (ICC) or any duly constituted successor
- In Missouri, the Missouri Public Service Commission (PSC) or any duly constituted successor

**Company:** Company means the legal entity noted in the header for which this Schedule is applicable.

**Customer or Retail Customer**: Customer means a Person legally receiving service at a Premises or whose facilities are connected for utilizing service at the Premises.

**Delivery Voltage:** The voltage of Company's lines at the Point of Delivery.

**Demand or Billing Demand:** The highest average load in kilowatts (kW) during any fifteen minute interval during the time between regular meter readings. There shall be four fixed 15 minute intervals per hour with the first interval beginning at the top of the hour as registered on the meter.

**Distribution System:** Distribution System, for purposes of determining Line and/or Service Extension applicability, means those poles, wire, and other equipment used to distribute electricity either overhead or underground at 20kV or less for Illinois and at 69kV or less for Missouri.

**Ground:** A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth, or to some conducting body that serves in place of the earth.

Ilinois Commerce Commission (ICC): See Commission

**Local Inspection Authority:** As it pertains to this document, the agency responsible for the inspection of a customer's electrical installations. This authority can be an agency of an incorporated City or Town or of the County, State, or Federal Government. The Ameren Companies are not inspection authorities.



# Section 150 Glossary

**Meter Voltage:** Meter Voltage means the voltage of the Company's or Customer's electric system at the point at which the metering is connected for the purpose of measuring power and energy for utility billing purposes.

**Meter Socket, Multi-Meter:** The mounting device consisting of jaws, connectors, and enclosure for multiple socket type meters where no CT's or PT's are used.

**Meter Socket, Self Contained:** The mounting device consisting of jaws, connectors, and enclosure for socket type meters where no CT's or PT's are used.

**Meter Socket, Transformer Rated:** The mounting device consisting of jaws, connectors, and enclosure for socket type meters where CT's and/or PT's are used.

**Metering Instrument Transformer, Current (CT):** A device that precisely steps down the current from its primary current to a workable current that can be measured with conventional meters.

**Metering Instrument Transformer, Potential (PT):** A device that precisely steps down the voltage from its primary voltage to a workable voltage that can be measured with conventional meters.

Missouri Public Service Commission (PSC): See Commission

**Multi-Tenant:** A multiple occupancy building with three or more Customers who each qualify for the Residential rate or two or more Customers who each qualify for a Non-Residential rate.

**NEC:** National Electrical Code. Generally speaking, this is the code document that governs building and premise wiring.

**NESC:** National Electrical Safety Code. Generally speaking, this is the code document that governs electric and communication utilities.

**Premises:** A contiguous tract of land separated by nothing more than a highway, street, alley or railroad right-of-way, where all buildings and/or electric consuming devices located thereon are owned or occupied by a single Customer or applicant for electric service, or where all electricity delivered thereto is utilized to supply one or more buildings and/or electrical loads which the Company considers as components of a unified operation.

**Sequence, Cold Sequence:** An installation where a breaker, fused disconnect, or pull out type fused switch is located on the line side of the meter.

**Sequence**, **Hot Sequence**: An installation where a breaker, fused disconnect, or pull out type fused switch is located on the load side of the meter.

**Service:** As used in this document, service refers to the conductors connecting a customer's service point to the utilization voltage of the electric distribution system serving the customer.

This definition should not be confused with the Illinois tariffs, which define Service Extension, for the purpose of calculating Extension charges, as the portion of the extension, dedicated to the Customer, on Customer's Premises, regardless of voltage.

**Service Equipment:** The necessary equipment, usually consisting of a circuit breaker or switch and fuses, and their accessories, located near the point of entrance of supply conductors to a building or other structure, or an otherwise defined area, and intended to constitute the main control and means of cutoff of the supply.



# Section 200 Metering Requirements

## 200.01 LOCATION

# A. General

- 1. The customer shall provide a suitable place for the installation of metering equipment.
  - a) The equipment shall be installed on the outside wall of the customer's building or approved metering structure and be so located that adequate space and unobstructed access is provided to the Company's representatives for reading, testing, maintaining and exchanging of such equipment.
  - b) The customer shall consult the Company regarding the proper location of the equipment.
- 2. Metering equipment shall not be located on Company owned poles or on buildings adjacent to driveways, alleys, streets or other similar exposed places where it can be damaged by moving vehicles unless the equipment is protected by a substantial guard rail or posts.

Nor shall any portion of the metering equipment be located below, above, or within:

- a) 3 feet horizontally of a gas meter and regulator installation, and
- b) 6 feet to any electric motor, generator, belt, or other moving machinery, or
- c) Other hazards which would endanger the safety of those reading or working on metering devices.
- 3. Clear working spaces shall not be used for storage.
  - a) A minimum of 3 feet of clear working space shall be provided in front of all meter and instrument transformer enclosures.
  - b) There shall be a minimum working clearance of 6 inches above, below, and to each side of the metering equipment.
- 4. Metering equipment shall not be mounted on portable trailers, buildings, mobile homes, recreational trailers, or truck trailers.
- 5. Metering equipment must be installed in a workman like manner and firmly attached to the surface on which it is mounted.
- 6. All locations where metering equipment is installed shall have a minimum standing headroom of 6 feet, 6 inches.
- 7. On locations where more than one meter is installed on any one premise, the customer shall permanently mark all meter enclosures and associated service equipment to identify the area or street address for which each is installed, the location of the tenant and is to match the identification of the premise or panel. Such marking shall be made with paint, metal letters or other permanent methods. Self-adhesive plastic labels are not considered as a permanent method of labeling for outdoor installations.

# B. Indoor Location

# All requests for inside metering locations shall be evaluated by Ameren on a case by case basis.

- In exceptional cases where it is physically impractical to make outdoor installations, as in the case of large apartment houses or where there is no suitable outdoor location, meters may be installed indoors, with Company approval.
  - a) Meters shall be mounted on a rigid wall or panel which is free from vibration.
  - b) Meters shall be located in a clean, dry and safe place as near as practical to the point where the service entrance enters the building.
  - c) Meters shall not be located in sheds, attics, bedrooms, living rooms, bathrooms, restaurant kitchens, stairways, ventilating shafts, closets, coal bins, coal furnace rooms, or in any location where the visits of Company employees will inconvenience either the customer or the employee.
  - d) Meters shall not be located in basements or in other locations which are not accessible by permanent stairs. A ladder cannot be accepted as a substitute for stairs.
  - e) Meters and service equipment installed indoors for a multiple-occupancy building, shall be grouped in an accessible public space where the Building Management and Company representatives will gain access at all times.



# Section 200 Metering Requirements

- f) In cases where there are several floors and several customers on each floor, thus making it impractical to locate the meters in one location, the meters may, with Company approval, be grouped in an accessible public space on designated floors.
- 2. If a customer makes additions or rearrangements to his building which result in a meter being located or enclosed in a location unacceptable to the Company, the customer shall relocate meter and service entrance at his expense within 30 days of written notification.

### 200.02 INSTALLATION

# A. General

- 1. The customer shall furnish and install, at his expense, all necessary service entrance facilities.
- 2. All meter sockets or meter enclosures shall be fastened in place with non-ferrous or galvanized screws
- 3. Anchoring to supply adequate support shall be used on brick, tile or other types of masonry buildings.
- 4. Where necessary on hollow tile walls, non-ferrous or galvanized toggle bolts may be used.
- 5. Meter boards no less than 3/4" thick shall be installed by the customer on indoor locations where plastered walls and other direct mounting surfaces are of insufficient strength.
- Where a meter board is installed outdoors, it shall be constructed of at least 1.5" pressure treated lumber.
- 7. Use of sheet rock style screws will not be accepted as fasteners for service entrance equipment on any installation.
- 8. All fasteners must be of adequate size to rigidly secure the equipment to the structure.
- 9. All metered and unmetered conductors shall be separated by barriers or in separate raceways.
- 10. Line or service entrance cable, conduit or bus duct shall enter the hubs of meter and transformer enclosures on all overhead service installations, except where a customer's main line switch or a junction box is installed on the line or source side of the metering equipment.
- 11. All unused openings of service equipment and metering enclosures shall be closed with hub plugs or plates to afford protection nearly the same as the solid wall of the cabinet or enclosure.
- 12. Where service-entrance cable is allowed, aluminum waterproof connectors shall be used.
- 13. Lock nuts and bushings shall be used where conduits enter the back, bottom or side knockouts of enclosures.
- B. <u>Self Contained Meters</u> (Refer to Section 1000 for Additional Information)
- 1. Single, and three phase, 480V, less than 201 Amp, services
  - a) A breaker or fused disconnect located on the line side of the meter (cold sequence metering) is required for all 277/480V and 480V services 200 amp and below.
  - It shall be the customer's responsibility to provide the proper interrupting rating device on the line side.
  - c) Ameren should be contacted to determine available short circuit current.
  - d) Use of separate enclosures for the line side protective device and the meter enclosure is acceptable. However they must be mounted directly above, or on a horizontal plane, within 4 feet of one another.
  - e) Continuous conduit with no LB's or any other connector that could allow access to un-metered wiring is allowed between the protective device enclosure and meter enclosure.
  - f) Sealing provisions for the line side protective device must be provided to prevent access to unmetered conductors within this enclosure.
  - g) A pad lockable door for access by the customer to operate the protective device should be provided.



# Section 200 Metering Requirements

- 2. Single, and three phase, 120/208 and 240V, 201-400 Amp services
  - a) The use of K-base meters will not be allowed on new service installations.
  - b) Enclosures for Class 320 socket type meters will be used on 120/208 and 240V, 201 to 400A, single phase and three phase services. Such services will require customer–installed load side breaker(s) to assure 320A is not exceeded.
  - All enclosures utilizing Class 320 meters will utilize a clamp jaw lever bypass enclosure, anti –
    inversion clips and be UL listed.
  - d) For a continuous rated service above 320 amps (such as when a 400 amp fused disconnect switch is used for the main), a 400 amp CT rated enclosure, as described in Section 1001, is required.
- C. Instrument Transformer (CT, PT) Rated Meter Installations

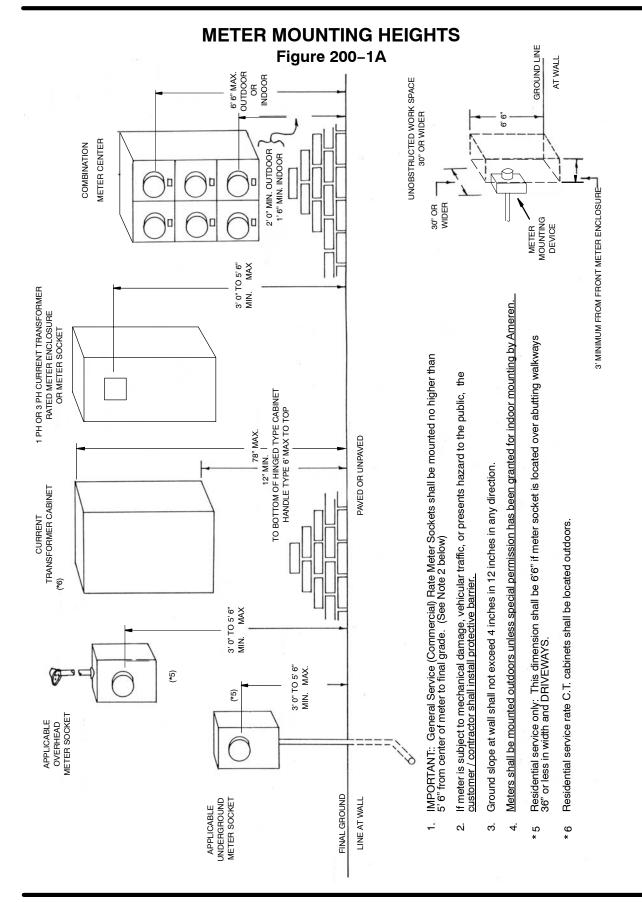
For voltage and current combinations not covered in this section, refer to Section 1001.

# 200.03 DRAWINGS

- Meter Mounting Heights Figure 200–1A
- Meter Equipment Protective Barrier Figure 200–1B
- Location for Point of Delivery on Buildings Figure 200–1C



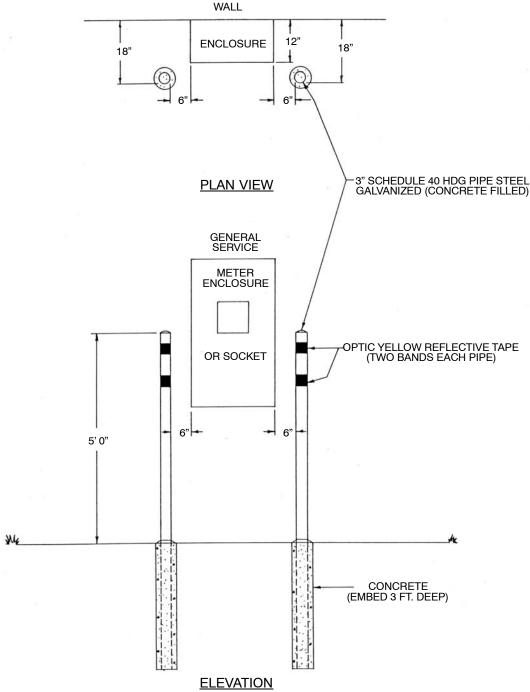
# Section 200 Metering Requirements



# Section 200 Metering Requirements

# METER EQUIPMENT PROTECTIVE BARRIER (METER ENCLOSURES SHOWN-OTHER DEVICES SHALL BE SIMILAR) CUSTOMER INSTALLED

Figure 200-1B



ALTERNATIVE BARRIERS INCLUDE:

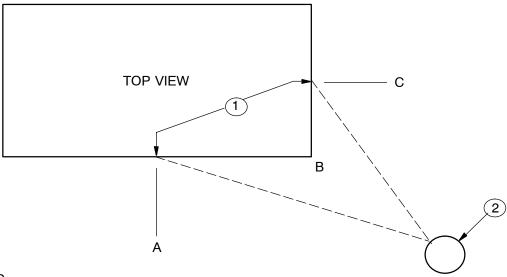
- A. WALL SUPPORTED BRACKETS FOR PUBLIC SAFETY.
- B. CONCRETE CURBS FOR VEHICULAR BARRIER.



# Section 200 Metering Requirements

# LOCATION FOR POINT OF DELIVERY ON BUILDINGS Figure 200-1C

AN APPROVED LOCATION FOR THE POINT OF DELIVERY TO A CUSTOMER'S PREMISES WILL NORMALLY BE BETWEEN THE MIDPOINTS OF THE BUILDING FROM THE CORNER NEAREST THE COMPANY'S DISTRIBUTION SYSTEM.



- 1. These guidelines apply to the Ameren Illinois Companies only. In Missouri, contact your local Ameren representative for the guidelines that apply in the area where service is being requested.
- 2. A and C are the midpoints of the building. The service may be located anywhere between A and B or B and C observing clearance requirements from windows, chimneys, driveways, trees, etc. outlined in Figure 600–6A and Section 200.01 Location.
- 3. Distribution point from Ameren System may be overhead or underground. Refer questions to an Ameren representative if recommended location is not feasible.
- 4. Applicable charges are governed by State tariffs. Contact your local Ameren representative for an explanation of charges that may apply.



# Section 300 Service Equipment

## 300.01 CUSTOMER'S SERVICE EQUIPMENT

- 1. The location of the main disconnect shall be located next to the meter installation or at the nearest point of entry. If the nearest point of entry is not readily accessible, the service equipment is to be located outdoors and shall be of NEMA type 3R, weatherproof construction.
- 2. Service equipment shall consist of either externally-operable fused switches, dead-front panels with pullout fused disconnects, or manually-operable automatic circuit breakers.
- 3. Each service disconnecting means shall be permanently marked to identify it and the load served.
- 4. Shall be UL listed and labeled "Suitable For Use As Service Equipment".
- 5. Disconnects designed for vertical mounting will indicate "ON" when in the "UP" position and "OFF" when in the "down" position.
- 6. A gang operated disconnecting means shall be located on the supply side of ALL fused service entrance equipment installations
- 7. The grounded circuit conductor shall not normally contain disconnecting devices. Exceptions are required for separately derived systems. All exceptions must be approved by Ameren.
- 8. More than one disconnect or circuit breaker for the service equipment:
  - A. The Company recommends that a suitable bussed multiple switch or breaker, service–entrance panel be installed.
  - B. The service equipment shall contain no more than six operative switch positions.
  - C. No more than two Service Entrance masts per meter point location, without prior company approval.
- 9. Fire pumps and emergency lighting will be allowed to be connected per latest edition of the NEC, and the connections will be reviewed by the Company.

# 300.02 UNAUTHORIZED USE OF COMPANY ENCLOSURES

Meter sockets and metering equipment enclosures are not to be used as junction boxes or raceways for customer distribution circuit wiring. Only service entrance wires are permitted in those enclosures. Unauthorized wiring shall be removed by the customer at no cost to AMEREN.



# Section 400 Service Voltages

Company standard service is 60 Hertz alternating current.

# 400.01 THREE PHASE AVAILABILITY

Customers should contact the Company regarding the need for three phase service prior to the purchase of equipment or construction of facilities. In outlying and residential areas where three-phase energy is not readily available, 7.5 horsepower and larger single-phase motors may be permitted, but only with the prior approval of Company.

Three-phase service is not normally available for residential customers.

# 400.02 STANDARD SERVICE VOLTAGES

- 1. Single Phase
  - 120/240 volt, 3 wire, grounded neutral, limited to 800 amperes maximum
  - 240/480 volt, 3 wire, grounded neutral, limited to 400 amperes maximum and to specialized applications such as area lightning and irrigation systems
  - 120/208Y volt, 3 wire, grounded neutral, limited to 200 amperes maximum. This voltage is derived from a 3Ø 208Y/120 volt, 4 wire system, typically used to serve large multi-tenant residential locations.

# 2. Three Phase

- 208Y/120 volt, 4 wire, grounded wye, limited to 3000 amperes maximum
- 480Y/277 volt, 4 wire, grounded wye, limited to 3000 amperes maximum

# 400.03 NON-STANDARD SERVICE VOLTAGES

Company is presently supplying service at other voltages and configurations throughout service territory in Illinois and Missouri. Existence of service in a voltage type listed is not a guarantee of future availability for new connections or expansion of existing services. Customers are strongly encouraged to discuss changes in their equipment with the Company prior to the purchase of said equipment, or changes in premise wiring. Non–Standard services by their nature do not provide the well balanced voltages required by modern electrical devices. Therefore, the Company discourages their use.

In areas of limited three phase primary circuitry, or for other engineering reasons, the following delta voltages may be available from overhead transformers at the Company's discretion.

- 240 volt, 3 wire, grounded corner delta, limited to 600 amperes maximum
- 480 volt, 3 wire, grounded corner delta, limited to 600 amperes maximum
- 240 volt, 3 wire, un-grounded corner delta, limited to 600 amperes maximum
- 480 volt, 3 wire, un–grounded corner delta, limited to 600 amperes maximum
- 240/120 volt, 4 wire delta, grounded center tap, limited to 600 amperes maximum. See discussion regarding this on the following page.



# Section 400 Service Voltages

# 240/120 Volt, 4-Wire Delta, Grounded Center Tap, Non-Standard

It is the Company's intent to limit the availability of this service voltage for the following reasons:

- Unequal loading of transformer coils which naturally occurs with this connection and requires the de-rating of the transformers.
- The Company's cost associated with owning and stocking 3Ø padmount transformers at this voltage.
- Power quality issues that may occur depending on the combination of the customer's equipment, customer loads, and distribution system loading.
- Imbalance that can occur on the Company's distribution system as a result of this connection

For the reasons stated above, the following limitations are being placed on this non-standard service voltage which will be offered at the Company's discretion.

- Limited to 600 amperes
- In areas where 3Ø aerial primary is available, full delta and open delta service from overhead transformers may be provided.
- In areas where 2Ø primary is available, open delta service from overhead transformers may be provided.
- Open –delta service may be provided from 1Ø pad mounted transformers. When this may be the case
  and 3Ø primary becomes available in the future, the customer will be required to upgrade to a wye
  secondary voltage if they require additional capacity. For this reason, the customer and their electrician
  should choose and configure their equipment so that future impact to the customer is minimized
- No additional 3Ø pad mount transformers at this voltage will be installed. If a transformer at an existing
  installation fails, service at this voltage will be maintained by the Company. The customer may be
  required to upgrade to a wye secondary voltage if they require additional capacity. For this reason, the
  customer and their electrician should choose and configure their equipment so that future impact to the
  customer is minimized.
- The Company reserves the right to provide 3Ø services from an open delta installation to serve small 3Ø loads. One example would be a small lift station in a residential area.
- Where full 3Ø primary is available, the customer may be required to take a wye service.

Again, all non-standard voltages were not, and are not available in all areas served by the Ameren Companies. Check with local contacts to verify the service voltage and configurations available.

# 400.04 NON-STANDARD SERVICE

Request for amperages and/or configurations not specified above will be evaluated on a case by case basis. Company at its sole discretion may elect to provide non-standard service provided customer pays any and all excess cost relating to providing the non-standard service.

Refer to Section 500 regarding un-grounded services.



# Section 500 Grounding

## **500.01 GENERAL**

All service systems that operate below 1000 volts contain a grounded neutral or a grounded phase conductor used as a circuit conductor in the system.

The grounded neutral or grounded phase conductor is grounded at the supply transformer and will be run from the transformer bank to the meter socket and to each service disconnection means in accordance with the latest edition of the NEC.

Additional grounding may be required by Ameren depending on the installations.

Customers requiring an ungrounded service for operation of a ground detection system, or for other operations as permitted by the National Electrical Safety Code, shall submit an exception request detailing the special circumstances necessitating the request. In addition, the customer shall state in the exception request that he is aware of and accepts the increased risks to personal safety associated with an ungrounded service. When supplying an ungrounded service results in an additional cost to the Company, the additional cost may be passed on to the customer.



# 600.01 SERVICE AVAILABILITY

It is the customer's responsibility to contact the Company to obtain service availability information, approved point of delivery and meter location, and to sign construction agreements when required. Some service characteristics, such as certain voltages or number of phases may not be available at or near the customer's location. Customers or their representatives should contact the Company to confirm service availability prior to purchasing and installing equipment. Requests for assistance should be made early in the customer's planning process. Sufficient time must be allowed for the Company to plan and make changes that may be necessary to its distribution system.

## 600.02 SERVICE DROP ATTACHMENT

The Company has the right to designate the "spot" or "point of attachment "of its service drop to the customer's structure. The point of attachment is designated as the location where the Company's facilities attach to the customers facilities. This point of attachment of the overhead service to the customer's building should be designated such as to reasonably minimize the length of the service drop.

The company may be contacted for approval of the feasibility of service route and attachment location. If, after so designating the attachment point, the length of the service would be excessively long and would create undue stress on the customer's attachment device and/or structure, a service support pole, including necessary guying, additional service cable, and other items will be installed and may be billable.

In general, the company communicates to customers guidance for acceptable placement of points of attachment and service route, thus eliminating any need for the Company to "spot" the point of attachment. If the customer is not certain about the proper location of an attachment point, the Company should be contacted to obtain specific direction. If a customer ignores the guidance given, making a service drop pole or other additional facilities necessary, the installed cost of all additional items shall be borne by the customer. If the customer opts for a particular attachment point that requires additional facilities for the Company to reach (instead of one that would be preferable to the Company) as the economic choice for his customer's special needs, the customer shall pay the installed cost of such facilities.

The customer shall provide safe, substantial support for the Company's service wires. The Company will not be responsible for the condition of, or damage to, a customer's building or structure to which the service drop is attached. Cinder block, stucco, veneer, and other similar type walls generally require galvanized bolts with metal backing plates to provide adequate support. Parapet walls, fire walls, and rooftop or fireplace chimneys are not acceptable supports for the point of attachment. Ranch style homes or buildings with flat roofs may require service masts to provide proper clearances. Where through the roof service masts are installed, the customer assumes all responsibility for roof leaks. Service masts must be of adequate strength or be supported by braces or guy wires to safely withstand the strain imposed by the service drop. The Attachment point must have sufficient height to meet clearance requirements.

## 600.03 METER POLES

Meter service poles shall be supplied and installed by the customer at no cost to the Company for temporary services, portable buildings, mobile homes, trailers, recreational vehicles, and where several buildings are served from a single point. Poles will be required to be of adequate strength and be sufficiently supported. A weatherproof disconnecting means with over current protection shall be provided by the customer where a service drop terminates on a privately owned meter pole structure. GFCI protection shall be provided as required by applicable codes.

# 600.04 TEMPORARY ELECTRIC SERVICE

When a temporary electric service is supplied for construction jobs, traveling shows, and mobile homes not deemed to be permanent, the Company will provide temporary service provided it has service in the area and has sufficient capacity available. The customer shall pay the cost of installing and removing the temporary line extensions or service connections and any other facilities of a temporary nature.



The customer shall provide a service entrance which meets the requirements of a permanent installation with respect to service drop clearances, metering, safety and adequate structure, guying or bracing as required by the Company.

The customer furnishes and installs conductors from the meter socket on his structure to be connected to source and leaves sufficient length for Company to connect into the Company's transformer or pedestal in underground installations. Company connects customer's wires to the source and installs meter. The Company shall provide a suitable meter.

Customer using temporary service is expected to give prompt notice to the Company when such service is to be disconnected. Notice shall include account number, location and meter number to insure proper identification.

# Underground (pad mount or pedestal)

- 1. Customer furnishes and installs his meter structure in close proximity to the Company's transformer or pedestal.
- 2. Some local municipalities require customer to obtain a variance for overhead temporary service in an underground subdivision. A municipal inspection may also be required for any underground or overhead temporary installation.

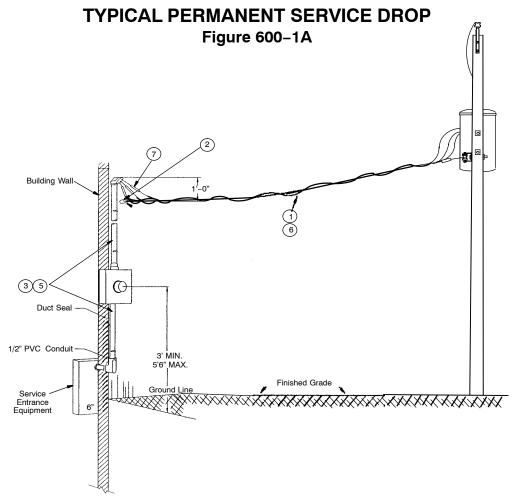
## Overhead

1. The customer furnishes and installs the meter pole near the Company's power pole, but at least 10 feet away. It is recommended that the customer install the meter pole within 75 feet of power source.

### 600.05 DRAWINGS

- TYPICAL PERMANENT SERVICE DROP Figure 600–1A
- 2. MAXIMUM ATTACHMENT HEIGHT FOR STEEL CONDUIT MAST DEADEND FOR STANDARD SERVICE DROP Figure 600–2A
- 3. OVERHEAD SERVICE TO MULTIPLE WEATHERHEADS Figure 600–3A
- OVERHEAD TEMPORARY SERVICE POLE CLEARANCE AND METER Figure 600–4A
- CUSTOMER-OWNED SECONDARY METERING UNDERGROUND DISTRIBUTION INSTALLATION 100 OR 200 AMPERE, SINGLE-PHASE Figure 600-5A Figure 600-5B
- 6. OVERHEAD SERVICE SPECIFICATIONS ATTACHMENT TO BUILDINGS Figure 600-6A
- 7. SERVICE SPECIFICATIONS OVERHEAD SERVICES ATTACHED TO BUILDINGS Figure 600–7A

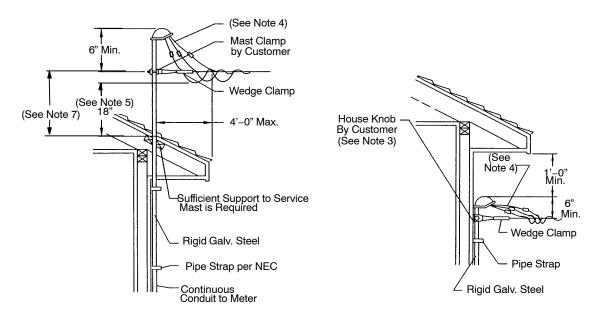




- 1. Overhead service drops and the connections at each end of the service drop will be owned, installed, and maintained by Ameren.
- 2. Customer shall install a service drop attachment of adequate strength for the installation of Ameren service. See Figure 600–2A.
- 3. The weatherhead, service raceway or conduit, service entrance conductors, grounding electrode system, meter socket, and service entrance equipment will be installed, owned and maintained by the customer. This installation shall meet the requirements of the Authority having Jurisdiction.
- 4. Grounding shall meet the requirements of the latest edition of the National Electrical Code (NEC) or the requirements of the Authority having Jurisdiction.
- 5. Refer to Section 200 and Figures 200–1A, 200–1C, and 600–6A within this manual for details regarding the location, installation, and placement of customer owned facilities.
- 6. For maximum residential service drop length, see Figure 600–2A, Note 2. For the maximum lengths of commercial overhead services, contact your local Ameren representative. Large service sizes, uneven grades, or a combination of these may require reduced service lengths or additional poles to maintain the required ground clearances. Additional charges may apply. Clearance requirements are outlined in Section 800 of this manual.
- 7. Service entrance conductors will extend approximately 3 feet from the weatherhead.
- 8. If the installation is a Current Transformer installation, refer to Section 1001 for additional information.



# MAXIMUM ATTACHMENT HEIGHT FOR STEEL CONDUIT MAST DEADEND FOR STANDARD SERVICE DROP FIGURE 600-2A

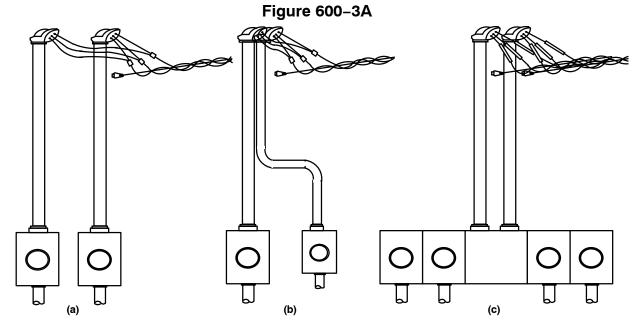


- 1. Before installing electrical facilities, check for compliance with local codes as well as NEC.
- 2. The screw of the knob shall be imbedded at least 2" into a vertical stud or masonry of the house. Another acceptable attachment such as clevis, bolt and backing plate may be substituted.
- 3. Approximately 3' of conductor will extend from weatherhead.
- 4. #2 triplex cable shall not be used where the span length exceeds 140' and 1/0 and 4/0 triplex and quadruplex shall not exceed 100 ft.
- 5. 18" minimum permitted within 6 feet of service mast, providing voltage between conductors does not exceed 600V, the service mast is no more than 4' from the edge of the roof, and the service is terminated at the service mast.
- 6. Refer to Section 800 for required clearances.
- 7. Heights greater than shown in Table 1 are possible provided that adequate guying and support are provided and approved by Ameren.
- 8. The conduit size specified are the minimum required for either conduit fill or strength required to support the overhead service, whichever is greater.

Table 1 Maximum Attachment Height Above Roof (Note 8)					
Amperes	Phase	Service Drop Conductor	2" Rigid Steel Conduit	2 1/2" Rigid Steel Conduit	3" Rigid Steel Conduit
100 A	1	#2 Al, Triplex	2'2"	4'1"	_
200 A	1	#2 Al, Triplex	2'2"	4'1"	_
200 A	3	1/0 Al, Quadruplex	_	4'0"	_
320 A	1	4/0 Al. Triplex	_	3'2"	4'0"
320 A	3	4/0 Al, Quadruplex	_	_	4'0"



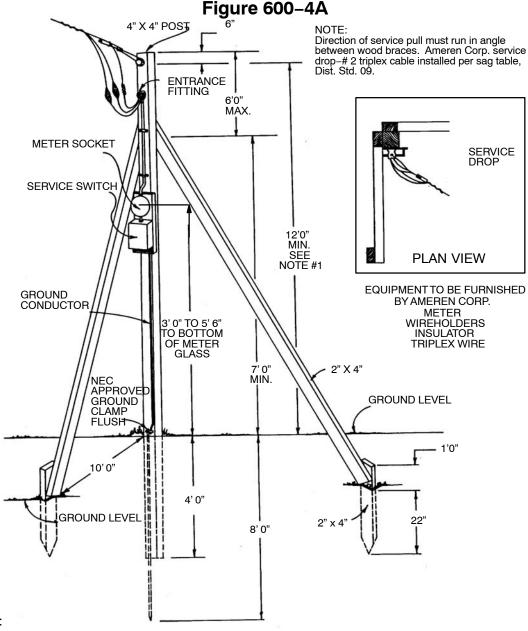
# OVERHEAD SERVICE TO MULTIPLE WEATHERHEADS



- 1. Ameren will connect up to two (2) sets of service entrance conductors at a service point. If more than two (2) sets will be required, contact your local Ameren Representative.
- 2. Service entrance conductors shall extend a minimum of 3 feet from the weatherhead or to the service landing point, whichever is greater. In addition, all service entrance conductors must be adequate length to allow the parallel connection of conductors at a single point.
- 3. Overhead service drops and the connections at each end of the service drop will be owned, installed, and maintained by Ameren.
- 4. Customer shall install a service drop attachment of adequate strength for the installation of Ameren service. See Figure 600–2A.
- 5. Contact your local Ameren Representative to discuss whether a parallel service will be required. If so, additional service drop attachments will be required.
- 6. The weatherhead, service raceway or conduit, service entrance conductors, grounding electrode system, meter socket, and service entrance equipment will be installed, owned, and maintained by the customer. This installation shall meet the requirements of the latest edition of the National Electrical Code (NEC) or the requirements of the Authority having Jurisdiction.
- 7. Refer to Section 200 and Figures 200–1A, 200–1C, and 600–6A within this Manual for details regarding the location, installation, and placement of customer owned facilities.
- 8. For maximum residential service drop length, see Figure 600–2A. For the maximum lengths of commercial overhead services, contact your local Ameren Representative. Large service sizes, uneven grades, or a combination of these may require reduced service lengths or additional poles to maintain the required ground clearances. Additional charges may apply. Clearance requirements are outlined in Section 800 of this Manual.
- 9. If the installation is a Current Transformer installation, refer to Section 1001 for additional information.



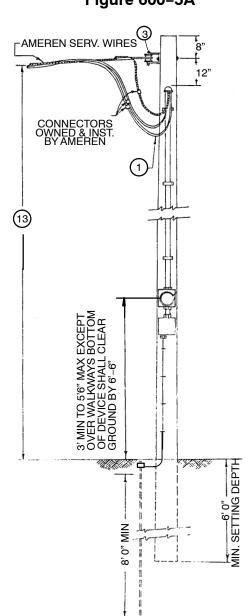
# SERVICES OVERHEAD TEMPORARY SERVICE POLE CLEARANCE AND METER POLE PROVIDED BY CUSTOMER FOR ANCHORAGE OF COMPANY'S SERVICE DROP AND INSTALLATION OF COMPANY'S METER



- 1. See Section 800 for minimum height of wire above ground at point of greatest sag.
- 2. Where practical, the service to the temporary connection should be installed in a manner suitable for transfer to the permanent location.
- Temporary pole shall be located between 10 ft. and 75 ft. away from an Ameren pole.
- 4. GFCI protection required on all temporary wiring per NEC.
- Meter socket shall be of ringless construction.
- 6. Refer to Section 800 for required clearances.



# METER POLE INSTALLATIONS CUSTOMER-OWNED SECONDARY METERING UNDERGROUND DISTRIBUTION INSTALLATION 100 OR 200 AMPERE, SINGLE-PHASE Figure 600-5A



See notes next page



- Service drop (conductors, service grips and service connectors) owned, installed and connected by Ameren.
- 2. See Figure 600–2A for maximum length of residential service drop. For all other services contact Ameren for maximum service lengths. Reduced distance or higher attachment point may be required for large service or to maintain minimum clearances.
- 3. Customer installs service drop attachment of adequate strength for attachment of Ameren's service drop conductors. See Section 800 for clearance information.
- 4. Service entrance conductors to be connected to meter socket terminals by Customer. Service entrance conductors to extend a minimum of 36", or longer if required by local inspector, outside the service head for connection to service drop.
- Service raceway and service entrance conductors to be owned, maintained, and installed by Customer.
- 6. Customer's installation to meet the requirements of all applicable local codes as well as the NEC.
- 7. Grounding shall meet the requirements of the latest edition of the National Electrical Code (NEC) or the requirements of the Authority having Jurisdiction.
- 8. Insulated conduit bushings are required for raceways terminating in the meter socket.
- The use of flexible metallic conduit, liquid tight flexible metallic conduit, and liquid tight flexible non-metallic conduit for service entrance raceway is prohibited, unless approved by the local inspecting authority.
- 10. Clearance required between low point of service cable and finished ground grade; refer to Section 800.
- 11. The use of electrical grade schedule 40 or 80 PVC for service mast not supporting service drop is allowed unless prohibited by the local inspecting authority.
- 12. Customer to provide and install support for service attachment and meter socket.
- 13. Refer to Section 800 for required clearances.



# METER POLE INSTALLATIONS CUSTOMER-OWNED SECONDARY METERING OVERHEAD DISTRIBUTION INSTALLATION 100 OR 200 AMPERE, SINGLE-PHASE

Figure 600-5B

	Description	Req'd
-	MATERIAL INSTALLED AND OWNED BY	Y AMEREN
В	Meter	1
	MATERIAL INSTALLED AND OWNED BY	CUSTOMER
Α	Clevis - Secondary	1
F	Rod – Ground 1/2" x 8"	1
G	Clamp - Ground 1/2"	1
Н	Meter Socket	1
J	Pole, 25' Class 5 (Minimum)	1
K	Staple	As Req'd
L	Disconnect Device Weatherproof	1
М	Nipple	1
N	Ground Wire	As Req'd
Р	Entrance Cap	1
Q	Conduit or Cable	As Req'd
R	Strap - Cond. or Cable	As Req'd
(5)	Guy and Anchor	1



# OVERHEAD SERVICE SPECIFICATIONS ATTACHMENT TO BUILDINGS 0 TO 600 VOLTS Figure 600-6A

NEW ELECTRIC SERVICE ENTRANCE SHALL BE IN SHADED SPACES
NOT LESS THAN 12' NO MORE THAN 18' ABOVE GROUND AND MEET
MINIMUM GROUND CLEARANCE.

CLEARANCE
REFLECT REQUIREMENTS
OF NEC AND NESC

OF NE

- 1. The first point of attachment for service wires shall be in the shaded spaces or higher. The minimum height of attachment shall be adjusted so that the lowest point of the service conductor meets the clearances. A service mast may be used if necessary to obtain the minimum clearances. The point of attachment should be approved by Ameren and should not be located as to limit ladder access, i.e. above a deck, hot tub, spa, stairwell, or swimming pool.
- 2. The customer's service weatherhead shall not be located above 18", but it may be necessary to attach services higher than 18" to meet the minimum ground clearances.
- Triplex cable or separate open wire service busses on buildings shall be placed in the shaded spaces shown.
- 4. Service conductors passing by doors, porches, fire escapes or similar locations, shall have a clearance of not less than 36 inches. Service conductors passing by windows shall have a clearance of not less than 36 inches.
- 5. Service conductors shall not be installed beneath openings through which materials may be moved, such as openings in farm and commercial buildings. Overhead wires shall not be run such that they obstruct entrance to these building openings.



# SERVICE SPECIFICATIONS OVERHEAD SERVICES ATTACHED TO BUILDINGS 0 TO 600 VOLTS

Figure 600-7A

## **ACCEPTABLE POINTS OF ATTACHMENT**

- A. BUILDING STUDS
- B. MORTAR JOINTS

### UNACCEPTABLE POINTS OF ATTACHMENT

- \* 1. OUTSIDE TRIM BOARD
- \* 2. INSIDE TRIM BOARD (BRICK BUILDINGS)
- \* 3. SOFFIT BOARD
  - 4. FASCIA BOARD
  - 5. FIRE WALLS, PARAPET WALLS OR CHIMNEYS

# \* MAY BE ATTACHED TO IF ADEQUATELY REINFORCED.

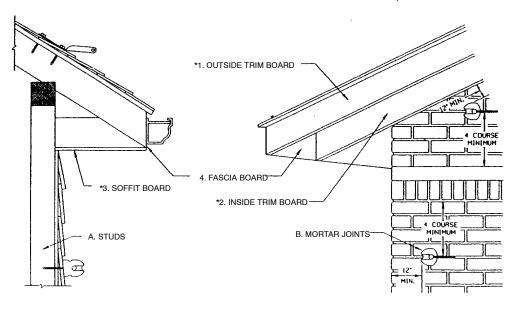


FIGURE 1

FRAME-COMPOSITION SHINGLE
OR BRICK VENEER CONSTRUCTION

FIGURE 2
BRICK OR SOLID MASONRY CONSTRUCTION



# **700.01 GENERAL**

- 1. Customers contemplating underground services should contact the Company as soon as possible so that the necessary arrangements, cost determinations, engineering, estimating, customer requirements and installation of facilities can be completed by the desired date.
- 2. Customer conduit options and requirements vary, based upon class of customer, (residential vs. non-residential) location of the installation (MO. vs. III.) and finished surface area above cables. (dirt vs. pavement) Contact Company for specifics.
- 3. Where the Company installs or has an underground system, only underground services will be available.
- 4. In an area with an overhead distribution system, customers may request an underground service. Each request for such service will be evaluated on an individual basis. The Company reserves the right to refuse underground service where it does not conform to good engineering practices.
- 5. Any removal of obstructions or restoration of sod or other landscaping features which become necessary as a result of the installation, maintenance or replacement of service connection cable shall be the customers' responsibility.
- 6. Developer shall furnish:
  - All easements required for installation, operation and maintenance of Company facilities and clearly staked property corners.
  - (2) Cable routes shall be clear of all obstructions and within 6" of final grade.

# 7. DRAWINGS

- 7.1 SERVICE CABLE AND METER CONNECTIONS SINGLE FAMILY DWELLING RESIDENTIAL
  Figure 700–1A
  Figure 700–1B
- 7.2 EQUIPMENT CONNECTIONS SERVICE CABLE AND METER CONNECTIONS MULTIPLE FAMILY DWELLING FOR 2 TO 6 METERS Figure 700–2A
- 7.3 TYPICAL VERTICAL GANGED METER STACK UNDERGROUND SERVICE BY AMEREN Figure 700–3A
- 7.4 AMEREN OWNED AND INSTALLED SERVICE CABLE CONNECTION TO PEDESTAL, TRANSFORMER, OR POLE UNDERGROUND DIRECT BURIAL

Figure 700-4A

# 700.02 COMPANY OWNED RESIDENTIAL SERVICE INSTALLATIONS

# A. Direct Buried

- 1. The customer will provide and install the meter socket(s) or enclosures and the line-side riser conduit of Schedule 40 or greater, electrical grade PVC. This line conduit shall extend from the metering enclosure to a minimum of 18" below the ground line. Expansion couplings shall be installed as indicated on the drawings that are part of this section.
- 2. The customer provided conduit described in the previous item shall include a PVC male adapter, lock nut, and insulated bushing at the metering enclosure. If the required expansion coupling includes a male terminal adapter end, only the lock nut and insulated bushing are required. At the below grade end of the conduit, a PVC male adapter and insulated bushing, or PVC coupling, or PVC end bell shall be installed to protect the direct buried cable.
- 3. Protection from mechanical damage and future access shall be provided and installed by customer for cable under paved surfaces such as public or private driveways, roadways, streets, alleys, sidewalks, patios, etc. by installation of conduit at a depth of 24".
- 4. Direct buried underground service cables are not permitted under a pool, spa, or hot tub or under the area extending 5 feet horizontally from the inside wall of a pool.
- 5. The cable route must be cleared of all obstructions, both above and below grade, and within 6" of final grade for Company installations.



- 6. Customer must mark all property lines that Company requires for service installations.
- 7. Cable shall have a minimal burial depth of 24".
- 8. The maximum service length shall be determined by the Company. It is the customers' responsibility to secure information from the Company pertaining to allowable lengths for service installations.
- 9. Company will install, own and maintain the residential service cable.

# B. Continuous Conduit

- The customer will provide and install the meter socket(s) or enclosures and line-side riser conduit of Schedule 40 or greater, electrical grade PVC. This conduit shall include a PVC male adapter, lock nut, and insulated bushing at the metering enclosure. If the required expansion coupling includes a male terminal adapter end, only the lock nut and insulated bushing are required.
- 2. The service riser to the meter enclosure shall include an expansion coupling that allows for a 8" fall.
- 3. Customer installed conduit shall be installed along the shortest route, and the number of bends shall be kept to a minimum. There shall be a maximum of 3–90 degree, 24" radius bends for 2–1/2" conduit or 36" radius for 3" conduit installation. Minimum bending radius is 24".
- 4. All sections shall be securely fastened together using standard grade cement.
- 5. Minimum burial depth in trenchable earth is 24". In rock or untrenchable soil the depth may be reduced to 12". Depths of less than 12" are not permitted.
- 6. If it is not possible to achieve uniformity in the trench bottom it must be over–excavated 4" to 6" and the bottom refilled with good quality properly compacted bedding material. Approved materials: Sand, limestone screenings, concrete slurry or concrete.
- 7. Conduit seals on customer service conduit are the customers' responsibility.
- 8. Service conduits extension to an energized pedestal or padmounted transformer shall be terminated 18" from the face of the equipment. Coordination with the Company is required to arrange for Company to complete the trenching and installation of customer provided conduit and bend.
- 9. For customer conduit extensions to overhead poles, Company will designate the quadrant of the pole for the customer to stub up the conduit bend. Customer will provide a 10 foot section of Schedule 80 electrical grade PVC conduit, and the length of Schedule 40 electrical grade PVC conduit required to reach the secondary level on the pole. Actual installation of the conduit varies by Ameren area. Contact your local Ameren representative for direction.
- Customer shall install and secure at each end, a pulling tape of adequate strength for pulling in the service conductor.
- 11. The Company will install, own and maintain the residential service cable.

# 12. DRAWINGS

- 12.1 CONTINOUS SERVICE CONDUIT INSTALLATION CONNECTION TO PEDESTAL, TRANSFORMER, OR POLE AMEREN SERVICE CABLE Figure 700–5A
- 12.2 CUSTOMER OWNED AND INSTALLED SERVICE CONDUIT CONNECTION TO PEDESTAL OR TRANSFORMER Figure 700–6A

# 700.03 NON-RESIDENTIAL SERVICE INSTALLATIONS

# A. General

- 1. Ameren will no longer install non-residential underground services.
- Customer conduit shall be a minimum of Schedule 40, electrical grade PVC.
- 3. Secondary voltages, 24" minimum burial depth, 24" minimum radius bends.
- 4. Primary voltages, 36" minimum burial depth, 36" minimum radius bends.

# B. Service from a pole

 Customer shall furnish, own and maintain all of the materials for the service to the Company's conductors.



- For a direct buried cable installation, the customer shall install their facilities to the quadrant of the pole designated by the Company.
- 3. For a continuous conduit, the customer shall extend the facilities to the pole and include a 90 degree conduit bend for the base of the pole at a Company designated location.
- 4. Customer shall furnish all conduits, couplings, and adaptors for attachment to the pole and sufficient cable length to reach the Company's conductors.
- 5. Multiple conduits on a pole will require standoff brackets, supplied by Ameren.
- 6. An approved service head or raceway seal is recommended for customers continuous conduit.
- 7. Installation of facilities on the Company pole must be coordinated with local Company personnel. Company will make final connections.

# C. Service from a Padmounted Transformer

- 1. Customer shall furnish, own and maintain all of the materials for the service to the Company's padmounted transformer.
- 2. The customer must provide adequate conductor for connection to the transformer terminals, typically 6' above the transformer pad.
- 3. Coordination with Company on conduit and cable installation shall be done prior to any installations.
- 4. Company personnel shall complete the service connection.

# D. Service from a pedestal

- Customer shall furnish, own and maintain all of the materials for the service to the Company's pedestal.
- Customer's direct buried installations shall stop 18" from the pedestal and an additional 6' of cable shall be left for connection to the pedestal terminations. The Company will complete trenching for direct buried installations.
- 3. For continuous conduit installations, the conduit shall, with the cooperation of the Company, be extended with a 90 degree conduit bend and protective bushing into the base of the pedestal with adequate additional cable left for connection to the terminals.
- 4. Company will complete the service connection in all cases.

## E. DRAWING

CUSTOMER OWNED AND INSTALLED SERVICE CONDUIT CONNECTION TO PEDESTAL OR TRANSFORMER Figure 700–7A

# 700.04 TEMPORARY SERVICES

- 1. When a temporary service is supplied for construction jobs or other approved uses, customer shall pay the cost for installing and removing the temporary lines extension or service connection and any other facilities of a temporary nature.
- Temporary underground service for construction in underground distributions system areas will be
  provided to the customer only when the permanent underground distribution system has been installed.
  Customer requests for temporary service prior to the completion of the permanent underground
  distribution system shall be negotiated and furnished at the customer's expense.
- 3. The customer shall provide and install the meter socket or enclosure and service conductors from the supply side of the meter socket to the transformer or power pedestal. Company shall make the connection between the customer's cables and the Company's distribution equipment.
- 4. The structure supporting the meter installation shall be located within 15' of, but no closer than 5' to the Company's designated point of service.
- 5. <u>DRAWING</u>
  UNDERGROUND LINE INSTALLATION UNDERGROUND TEMPORARY SERVICE
  Figure 700–8A



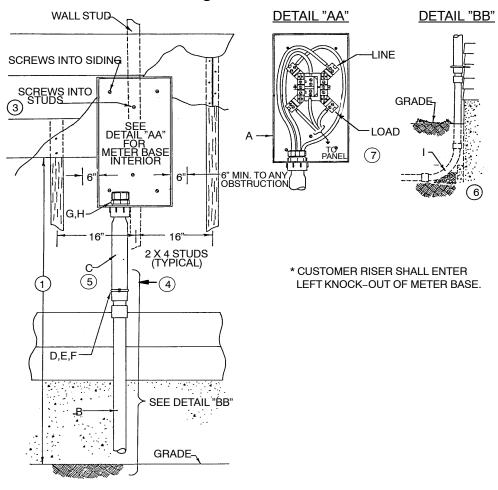
# 700.05 METER PEDESTAL INSTALLATION

1. <u>DRAWING</u>
METER PEDESTAL INSTALLATION, SINGLE OR DUAL METER (FOR MISSOURI ONLY)
Figure 700–9A



# SERVICE CABLE AND METER CONNECTIONS SINGLE FAMILY DWELLING RESIDENTIAL

Figure 700-1A



See notes next page



# NOTES:

- See Section 200 of the Service Manual for mounting height, approved locations and requirements for mechanical protection.
- 2. All materials except the supply cables shall be furnished, installed and connected by customer.
- 3. The meter socket shall be secured to solid wood, use #14 x 3" wood screws. In brick, use expansion shields and lag screws.
- 4. The conduit hanger shall be securely fastened, preferably by a lag screw into the floor joist. If attached to the foundation, a lead expansion shield shall be used. An alternative to the expansion shield is a stud shot into the foundation.
- 5. When back filled, expansion coupling "C" shall be installed in the middle of travel range.
- 6. The area underneath the bend shall consist of good quality fill material and dirt free of debris. The area shall be compacted around the foundation wall. Acceptable fill materials: Sand, limestone screenings, concrete slurry, concrete.
- 7. Approved NEC ground required.
- 8. For services 200 amps or less, 2–1/2" electrical grade Schedule 40 PVC conduit, expansion coupling, bends, and connectors shall be used. For services 201 amps to 400 amps., 3 inch Schedule 40 PVC conduit, expansion coupling, bends, and connectors shall be used.

# SERVICE CABLE AND METER CONNECTIONS SINGLE FAMILY DWELLING RESIDENTIAL

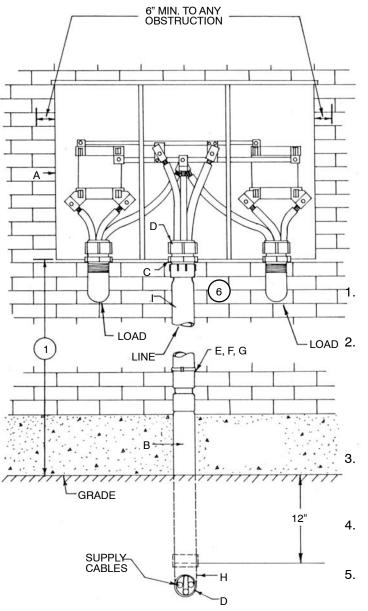
Figure 700-1B

	MATERIAL FURNISHED AND INSTALLED BY CUSTOMER FOR SERVICE INSTALLED IN CONDUIT
Α	Socket, Meter, 200 or 400 Amps (Class 320 Amps Meter)
В	Conduit, electrical grade Sch 40 PVC or greater, 2-1/2" or 3"
С	Coupling, Expansion, Sch 40, PVC, 8" Fall, 2-1/2" or 3"
D	Hanger, Conduit
Е	Screw, Lag
F	Shield, Expansion
G	Nut, Lock, 2-1/2" or 3"
Н	Insulated Bushing, Conduit 2–1/2" or 3"
I	Bend, Conduit, 90 Deg., 24" Radius, electrical grade Sch 40, PVC or greater, 2–1/2" or 36" Radius for 3", when required.



# EQUIPMENT - CONNECTIONS SERVICE CABLE AND METER CONNECTIONS MULTIPLE FAMILY DWELLING FOR 2 TO 6 METERS SINGLE PHASE ONLY

Figure 700-2A



	RIAL FURNISHED, INSTALLED, ND OWNED BY CUSTOMER
Α	Socket, Meter
В	Conduit, Sch. 40 or greater, Electrical Grade PVC
С	Nut, Lock, Cad. Plated, Grd. type
D	Bushing, Conduit, Insulating
E	Conduit, Hangar, Galv.
F	Screw, Lag
G	Shield, Expansion
Н	Bend, Conduit
I	Coupling, Expansion, Sch. 40, PVC, 8" Fall

#### NOTES:

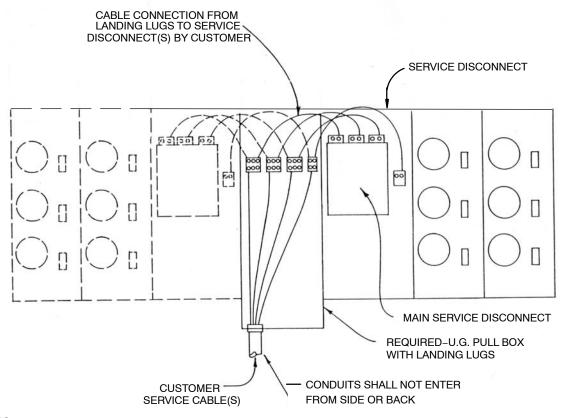
Section 200 of service manual for mounting height, approved locations and requirement to mechanical protection.

All materials except supply cables shall be furnished by the customer in Missouri where there are two to six meters, and in Illinois where there are one or two meters. In Illinois where there are three to six meters, the customer shall furnish all materials including service cable meeting the requirements of the latest version of the NEC or the authority having jurisdiction.

- When concrete sidewalks, driveways, patios, etc. are located within 3' of meter location, extend conduit to edge of pavement. In this situation, and with total conduit systems, use expansion coupling.
- Where authorized by local inspection authorities, rigid may be used, with necessary junction box adapter and bell end substituted for bushings and lock nut.
- To be installed where the footing provides an obstruction to or possible mechanical damage to service cable entrance in the meter riser. No triple 90°.
- 6. NEC approved grounding required.
- 7. For services 200 amps or less, 2–1/2" electrical grade Schedule 40 PVC conduit, expansion coupling, bends, and connectors shall be used. For services 201 amps to 400 amps., 3 inch Schedule 40 PVC conduit, expansion coupling, bends, and connectors shall be used. The expansion coupling shall be installed so that the inner sleeve is on the bottom of the outer sleeve of the expansion coupling.



# TYPICAL VERTICAL GANGED METER STACK UNDERGROUND SERVICE 4, 5 OR 7 TERMINAL METER SOCKET ONE OR TWO MAIN SERVICE DISCONNECT Figure 700-3A



### **NOTES:**

- 1. Section 200 of Service Manual for mounting height, approved location and requirement for mechanical protection.
- 2. All materials include supply cable shall be furnished by customer.
- 3. When concrete sidewalks, driveways, patios, etc. are located within 3' of meter location, extend conduit to edge of pavement. In this situation, and with total conduit systems, use expansion coupling.
- 4. Where authorized by local inspection authorities, rigid may be used, with necessary junction box adapter and bell end substituted for bushings and lock nut.
- 5. Sweep elbows may be installed where the footing provides an obstruction to or possible mechanical damage to service cable entrance in the meter riser. No triple 90°.
- 6. NEC approved ground required.



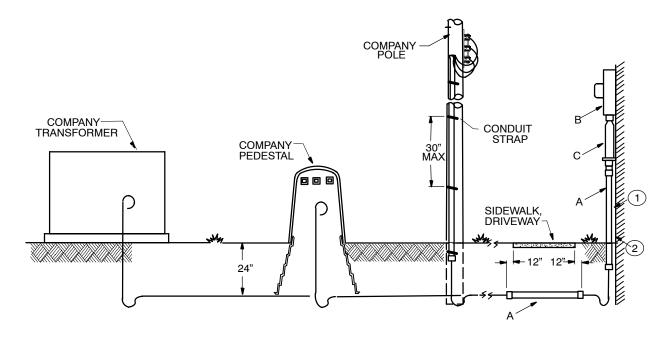
## AMEREN OWNED AND INSTALLED SERVICE CABLE CONNECTION TO PEDESTAL, TRANSFORMER, OR POLE UNDERGROUND DIRECT BURIAL

### Figure 700-4A

	Description
Α	Conduit – Electrical Grade Sch. 40 PVC, 2–1/2" or 3"
В	Meter Socket – 1 to 200 amps or 201 to 400 amps (Class 320 Amps Meter)
С	Expansion Coupling – Sch. 40 PVC, 2–1/2" or 3"
	8" fall, inner sleeve on bottom of outer sleeve.

### **NOTES:**

- 1. For service panel sizes from 0 to 200 amps, 2 1/2" equipment shall be used. For service panel sizes 201 to 400 amps, 3" equipment shall be used. Minimum bending radius is 24" for 2–1/2" or 36" for 3" service conduit.
- 2. Approved ground is required.
- 3. See Figure 700–1A for riser installation.

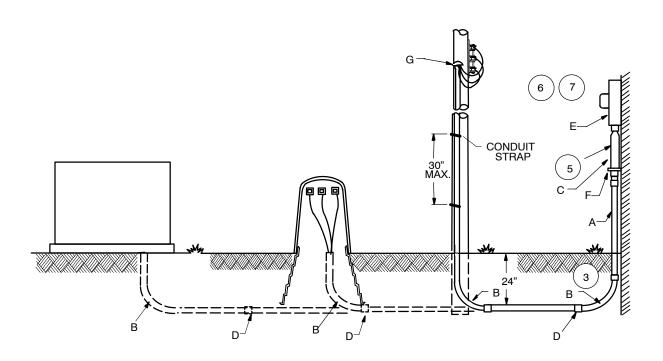


- 4. Customer installed cable shall be installed along the shortest route.
- 5. Minimum bend radius is 24", for 2-1/2" conduit or 36" for 3" conduit.
- 6. Conduit seals on service conduit are the customers responsibility and should be accomplished at the building wall.
- 7. See section 200 for meter socket mounting height.
- 8. NEC Approved ground required.
- 9. If equipment is not in place, the location where it will be installed shall be obtained from company representative before conduit installation. The customer shall seal and mark the conduit end.



### CONTINOUS SERVICE CONDUIT INSTALLATION CONNECTION TO PEDESTAL , TRANSFORMER, OR POLE AMEREN SERVICE CABLE Figure 700-5A

	Description
Α	Conduit – Electrical Grade Sch. 40 PVC, 2–1/2" or 3"
В	Bend-Conduit 2-1/2" for 24" or 3" for 36" 90° Radius, Electrical Grade Sch. 40, PVC
С	Coupling-Conduit, 2-1/2" or 3" Expansion (Allow 8" Fall) Electrical Grade Sch. 40, PVC
	Install inner sleeve on bottom side of outer sleeve.
D	Coupling-Conduit, 2-1/2" or 3", Electrical Grade Sch. 40, PVC
Е	Socket-Meter, 0-200 Amp or 201 to 400 Amp
F	Hanger-Conduit
G	Conduit Seal / Weatherhead



See notes on next page



### CONTINOUS SERVICE CONDUIT INSTALLATION CONNECTION TO PEDESTAL, TRANSFORMER, OR POLE AMEREN SERVICE CABLE

### NOTES for Figure 700-5A:

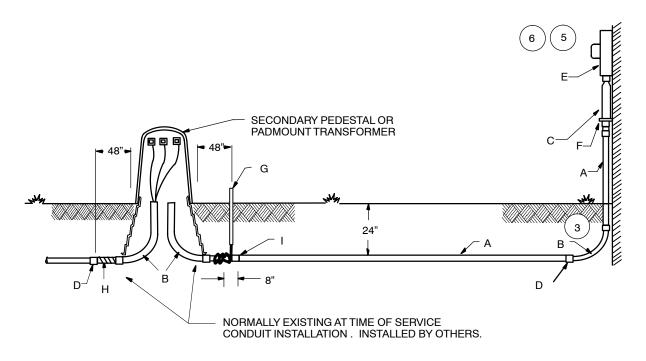
- 1. Customer installed conduit shall be installed along the shortest route, and the number of bends shall be kept to a minimum. There shall be a maximum of 3–90 degree, 24" radius bends for 2–1/2" conduit or 36" radius bends for 3" conduit installations. All sections shall be securely fastened together using standard grade cement. Minimum burial depth in trenchable earth is 24". In rock or untrenchable soil, depth may be reduced to 12". Depths less than 12" are not permitted.
- The trench bottom shall be undisturbed, firm and uniform for its entire length. If it is impossible to achieve
  uniformity in the trench bottom it must be over–excavated 4" to 6" and the bottom refilled with good quality
  properly compacted bedding material. Approved materials: Sand, limestone screening, concrete slurry or
  concrete.
- 3. Minimum bend radius is 24" for 2-1/2" conduit or 36" for 3" conduit.
- 4. Conduit seals on customer service conduit are the customers responsibility and should be accomplished at the building wall.
- 5. See Figure 700–1A for required meter socket and riser attachment.
- 6. See Section 200 for meter socket mounting height.
- 7. Approved ground as required by local inspection authority or latest version of NEC.
- 8. If equipment is not in place, the location where it will be installed shall be obtained from company representative before conduit installation. The customer shall seal and mark the conduit end.



# CUSTOMER OWNED AND INSTALLED SERVICE CONDUIT CONNECTION TO PEDESTAL OR TRANSFORMER (MISSOURI RESIDENTIAL SUBDIVISIONS) (OPTIONAL IN ILLINOIS)

Figure 700-6A

	Description
Α	Conduit – Electrical Grade Sch. 40 PVC, 2-1/2" or 3"
В	Bend-Conduit 2-1/2", 90° 24" or 3" 90° 36" Radius, Electrical Grade Sch. 40, PVC
С	Coupling-Conduit, 2-1/2" Expansion (Allow 8" Fall) Electrical Grade Sch. 40, PVC
	Install inner sleeve on bottom side of outer sleeve.
D	Coupling-Conduit, 2-1/2", Electrical Grade Sch. 40, PVC
Е	Socket-Meter, 0-200 Amp or 201 to 400 Amp
F	Hanger-Conduit
G	Marker-Buried Conduit, Red, 1"W x 7'4" L
Н	Conduit-3" Plastic Flexible or 2 1/2" and Corrugated
I	Plug – Conduit, 2–1/2" or 3



### See notes on next page



# CUSTOMER OWNED AND INSTALLED SERVICE CONDUIT CONNECTION TO PEDISTAL OR TRANSFORMER (MISSOURI RESIDENTIAL SUBDIVISIONS) (OPTIONAL IN ILLINOIS)

### NOTES for Figure 700-6A:

- Customer installed conduit shall be installed along the shortest route and the number of bends shall be kept to a minimum. There shall be a maximum of 3–90 degree, 24 inch radius bends for any installation. All sections shall be securely fastened together using standard grade cement. Minimum burial depth is 24". In rock or untrenchable soil, depth may be reduced to 18". Between 18" and 12" the conduit shall be covered with 2" of concrete. Depths less than 12" are not permitted.
- 2. The trench bottom shall be undisturbed, firm and uniform for its entire length. If it is impossible to achieve uniformity in the trench bottom it must be over–excavated 4 to 6 inches and the bottom refilled with good quality properly compacted bedding material. Approved materials: sand, limestone screenings, concrete slurry, concrete.
- 3. Minimum bend radius is 24" for 2-1/2" conduit or 36" for 3" conduit.
- 4. Conduit seals on customer service conduit are the customers responsibility and should be accomplished at the building wall.
- 5. See Figure 700-1A for required meter socket and riser attachment.
- 6. See Section 200 for meter socket mounting height.
- 7. NEC approved ground required.
- 8. If equipment is not in place, the location where it will be installed shall be obtained from company representative before conduit installation. The customer shall seal and mark the conduit end.
- 9. Contractor installed flexible conduit shall point in the direction of the service. The conduit will extend 48" beyond the edge of the pedestal or transformer pad. \*End is marked with red tape or similar manner.
- 10. To attach the conduit to the previously installed flexible conduit, first locate the end of the conduit by digging down by the red marker until the protective PVC cover is located. After removing the cover, plug and conduit marker, join the flexible conduit to the rigid conduit using standard grade cement. In cases where the service conduit and conduit stubbed out of a pedestal or transformer differ in size, the customer will be responsible for making the conduit connection.



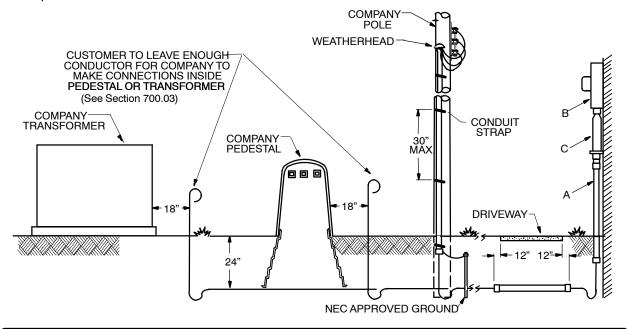
## CUSTOMER OWNED AND INSTALLED SERVICE CABLE CONNECTION TO PEDESTAL, TRANSFORMER, OR POLE UNDERGROUND DIRECT BURIAL

### Figure 700-7A

	Description
Α	Conduit – Electrical Grade Sch. 40 PVC, 2–1/2" or 3"
В	Socket - Meter, 0 to 200 Amp or 201 to 400 Amp (Class 320 Amp Meter)
С	Coupling-Conduit, 2-1/2" Expansion (Allow 8" Fall) Electrical Grade Sch. 40, PVC
	Install inner sleeve on bottom side of outer sleeve.

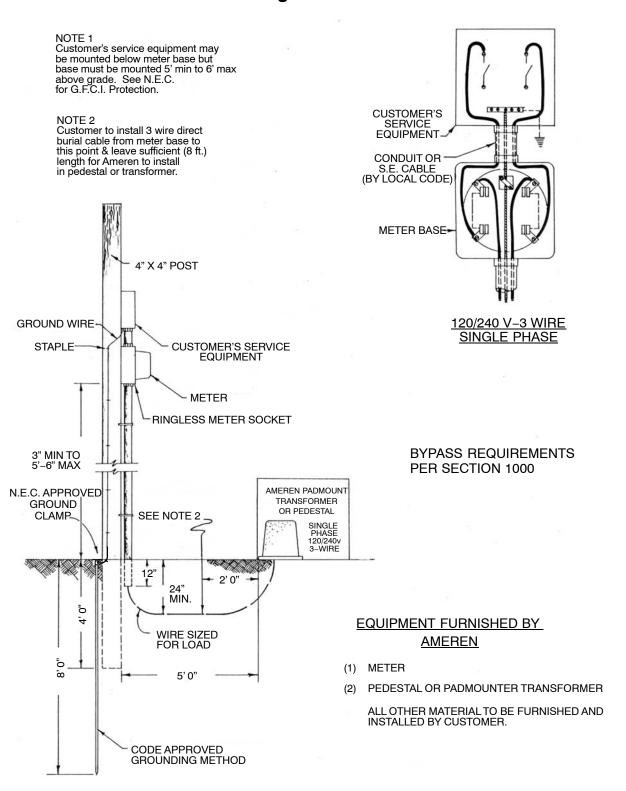
#### NOTES:

- 1. Customer installed conduit shall be installed along the shortest route, and the number of bends shall be kept to a minimum. There shall be a maximum of 3–90 degree, 24" radius bends for 2–1/2" conduit or 36" radius bends for 3" conduit for any installation. All sections shall be securely fastened together using standard grade cement. Minimum burial depth is 24". In rock or untrenchable soil, depth may be reduced to 18". Between 18" and 12" the conduit shall be covered with 2" of concrete. Depths less than 12" are not permitted.
- The trench bottom shall be undisturbed, firm and uniform for its entire length. If it is impossible to achieve
  uniformity in the trench bottom it must be over–excavated 4" to 6" and the bottom refilled with good quality
  properly compacted bedding material. Approved materials: Sand, limestone screening, concrete slurry or
  concrete.
- 3. Minimum bend radius is 24" for 2-1/2" conduit or 36" for 3" conduit.
- 4. Conduit seals on customer service conduit are the Customer's responsibility and should be accomplished at the building wall.
- 5. See Figure 700–1A for meter socket and riser attachment.
- See Section 200 for meter socket mounting height.
- 7. Approved ground required by local inspection authorities or latest version of NEC.
- 8. If equipment is not in place, the location where it will be installed shall be obtained from company representative before conduit installation.





### UNDERGROUND LINE INSTALLATION TEMPORARY UNDERGROUND SERVICE Figure 700–8A

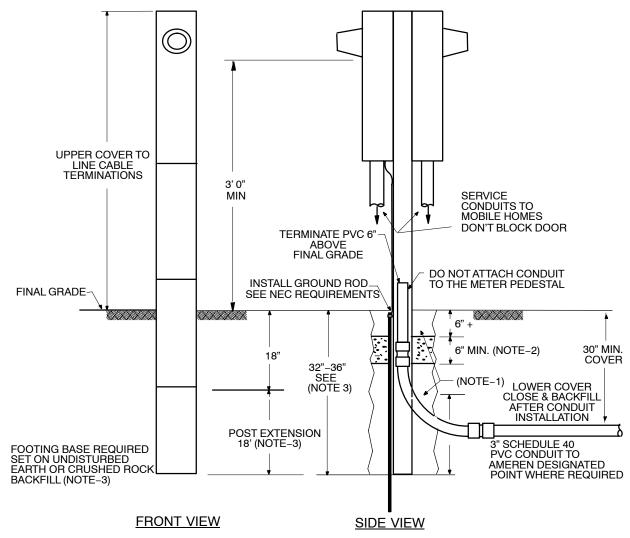




### METER PEDESTAL INSTALLATION SINGLE OR DUAL METER (FOR MISSOURI ONLY) Figure 700-9A

#### **EQUIPMENT NOTES:**

- (a) All materials shall be furnished and installed by customer.
- (b) Pedestals shall be labeled for service equipment by U.L. and approved by Ameren.
- (b) Install ground rod for each service per NEC requirements.
- (b) Install weather proof disconnect on each service.



#### **INSTALLATION NOTES:**

- 1. Backfill with tamped crushed rock screening including entire conduit elbow.
- 2. Place concrete collar 6" thick, min., 6" below grade to firm earth as shown.
- 3. 32" to 36" pedestal embedment required. Order post extention and footing base with meter post as shown.
- 4. Owner shall be responsible to see that pedestal is firmly embedded in ground, and plumb to within 1" in 12" vertical.
- 5. Conduit shown shall be installed with a minimum fo 30" of cover to install 24" radius bend into channel. Direct buried cable can be installed with 24" of cover.
- 6. Service conduit should not block supply cable axcess door.



### CLEARANCES – POINTS OF ATTACHMENTS & METERS ABOVE GROUND SERVICES OVER GROUND AND ROOFS

(REFERENCE DISTRIBUTION CONSTRUCTION STANDARDS 09 00 03 01)

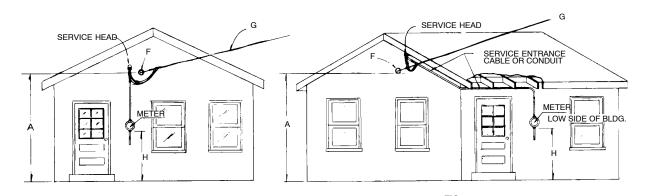
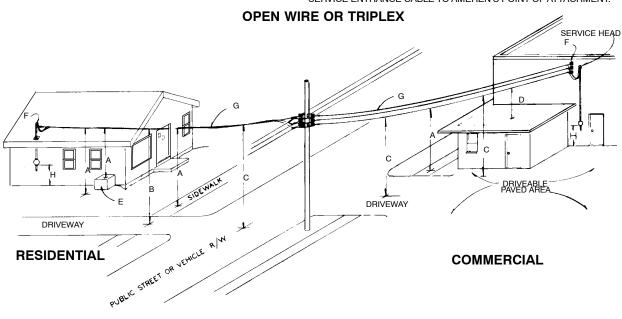


FIG. 1
USUAL INSTALLATION

WALL CARRYING CUSTOMER'S SERVICE ENTRANCE IS OF INADEQUATE HEIGHT TO GIVE AMEREN NECESSARY GROUND CLEARANCES. CUSTOMER EXTENDS SERVICE ENTRANCE CABLE TO AMEREN'S POINT OF ATTACHMENT.



See notes on next page



### MINIMUM REQUIRED CLEARANCES AND NOTES:

### Over Ground (per 2007 NESC 232)

A. 12 ft. (triplex) or 12.5 ft. (open wire) over spaces and ways subject to pedestrian or restricted traffic only (no vehicles over 8 ft. high).

EXCEPTION: Where height of a residential building does not allow these clearances, clearance may be reduced to 10 ft. at the drip loop or service drop for triplex cable limited to 150 volts to ground or 10.5 ft. for open wire limited to 300 volts to ground.

B. 16 ft. (triplex) or 16.5 ft. (open wire) over driveways, parking lots and alleys.

EXCEPTION: Where height of a residential building does not allow these clearances, clearance may be reduced to 12 ft. for triplex service limited to 150 volts to ground or 12.5 ft. for open wire limited to 300 volts to ground.

C. 16 ft. (triplex) or 16.5 ft. (open wire) over roads, streets, alleys, non-residential driveways, parking lots and other areas subject to truck traffic.

<u>EXCEPTION</u>: Services over state and federal commercial highways shall be no less than 18 ft. Services over Illinois limited access highways shall be no less than 20 ft.

Over Roofs (includes Parking Garages) (per 2007 NESC 234C)

- D. Clearances from highest point in roof shall be not less than:
  - 1. 3.5 ft. (triplex) or 10.5 ft. (open wire) over roofs not accessible to pedestrians (see note J).
  - 2. 11 ft. (triplex) or 11.5 ft. (open wire) over roofs accessible to pedestrians.
  - 3. 11 ft. (triplex) or 11.5 ft. (open wire) over roofs accessible to vehicles but not truck traffic.
  - 4. 16 ft. (triplex) or 16.5 ft. (open wire) over roofs accessible to truck traffic.

### **EXCEPTIONS**:

- For services attached to a building (including drip loops) and where voltage between conductors does not exceed 300 volts on a non-accessible roof, a reduction in clearance over the roof is permitted as follows:
  - a. 3 feet
  - b. 18 inches within 6 feet of and terminated at a through the roof raceway or approved support located not more than 4 feet from the edge of roof.

#### NOTES:

- E. Any equipment housing including air conditioning, platform or projection which a person might stand on.
- F. Service mast or bracket attachment or upright of adequate size and height to support services required.
- G. Normally triplex conductors, but may also be separate conductors as shown for commercial services.
- H. Meter height is 3'-0" to 5'-6" except 6'-6" over walkways less than 3' wide.
- J. A roof is considered accessible to pedestrians if there is a means of access through a doorway, ramp, stairway, or permanently mounted ladder.



### Section 800 Clearances

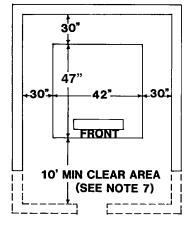
### **Clearances of Services over Swimming Areas**

Although it is possible to have services over swimming areas, this practice is discouraged. It is necessary that the maximum conductor sag under various operating and environmental conditions be determined. Contact your local Ameren representative for assistance.

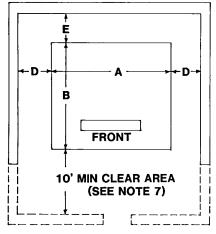


### CUSTOMER INSTALLED PAD INSTALLATIONS REQUIRED CLEARANCES FOR PADMOUNTED TRANSFORMERS AND SWITCHGEAR FOR 15 KV

(REFERENCE DISTRIBUTION CONSTRUCTION STANDARDS 59 81 51 11)



1 Ø INSTALLATIONS 25-167 KVA TRANSFORMERS



3 Ø INSTALLATIONS

Dimensions for  $1\varnothing$  pads pertain to all Ameren Companies.

For 3Ø installations, dimensions A and B pertain to dimensions of AmerenUE equipment pads. Pad specifications for Ameren Illinois companies vary.

The critical dimensions for all padmounted equipment are the distances from the left, right, rear, and front of pads, not the equipment installed on the pad. These dimensions shall be maintained in all installations.

Verify pad dimensions with your local contacts.

3∅ INSTALLATIONS	Α	В	D	Е
75 Thru 300 kVA Radial Feed Transformers	72"	65"	30"	35"
500 & 750 kVA Radial Feed Transformers	72"	65"	45"	43"
75 Thru 1000 kVA Loop Feed Transformers	84"	72"	45"	44"
1000 Thru 2500 kVA Radial Feed Transformers	84"	72"	45"	56"
Switchgear	69"	63"	48"	120"

#### NOTES:

- 1. If pad mount is enclosed on all 4 sides, 10' minimum clearance from the front of transformer to inside of wall must be maintained for hot stick operations.
- 2. If a 4 sided enclosure is used, an opening or doorway shall be provided. If a lock is required provisions shall be made to provide Ameren personnel access.
- 3. Customer to provide drainage away from enclosed areas to prevent oil and/or water from standing.
- 4. If a 4 sided enclosure is used, a minimum of 10 square feet of venting space in the form of 50% effective louvers or 5 square feet of opening shall be provided located along the bottom of each wall. If a 3 sided wall is used, wall venting space is desirable, but not required.
- 5. Location must be accessible for installing or replacing transformer with crane.
- 6. Developer to provide plastic conduit of size specified by Ameren to a point designated by Ameren outside the wall 36" to 42" below final grade.
- 7. The 10' distance between the front of the pad and the wall may be reduced to 48" if an opening or gate is provided. The opening or gate should be centered on the front of the pad and should provide for a minimum opening of 3–1/2' for 1∅ and 9–1/2' for the 3∅ installation. A 10' clear area in front of the pad must still be available with the opening or when the gate is open for hot stick operations.
- 8. To provide for transformer replacement, enclosed area is to be free of overhangs or overhead obstructions. Wall height not to exceed 8' unless the above mentioned gate or opening is provided or an easily removable wall is used.
- 9. Should upgrading be required, the dimensions as shown provide adequate ventilation and space for 1 size larger transformer.



### Section 800 Clearances

- Walls shown in drawing, but clearances are required for any obstruction, i.e. switchgear, dumpsters, etc.
- 11. The final grade area around the pad mount transformer (and pad mount switchgear) shall be level, except for a gradual slope, at 1/8 inch rise per one foot of run. The front and side clearance areas shall be swayled so that water runds away from the equipment pad; water shall not be allowed to pool in the clearance areas around the equipment pad.



### Section 900 Service Utilization

#### 900.01 **GENERAL**

Electric service must be used in a way that does not interfere with Ameren's service to other customers or damage the Company's service lines or equipment. Should such interference occur, the Company will consult with the customer to determine what corrective measures should be taken to eliminate the problem. It may become necessary for the customer to make wiring changes or install approved controlling devices at their expense.

Where practical, the Company upon request, will furnish in accordance with the provisions for furnishing "Excess Facilities", a separate transformer or other facilities to reduce or eliminate such interference. The Company, however, does not by installing such facilities waive its right, where detrimental conditions from such equipment still exist, to require the customer to install corrective equipment. Unless corrected, the Company will discontinue all service to the Customer.

#### 900.02 CUSTOMER APPARATUS

Neither by review nor the rendering of emergency repairs or advisory service does the Company give any warranty, expressed or implied, as to the adequacy, safety or other characteristics of any equipment, wires, appliances or device owned or maintained by Customer.

### 900.03 FLUCTUATING LOADS

It is the customer's responsibility to notify the Company before installing any equipment that may cause voltage or frequency fluctuations on the company's Distribution System. Welders, x-ray equipment, motors connected to variable load machinery, and other equipment having fluctuating load characteristics may require special facilities for satisfactory service. The customer shall, prior to completing plans to use such equipment, furnish the Company complete information as to the manufacturer, type, size, voltage, amperage, power factor, harmonic content and other data regarding the equipment's performance under conditions of maximum output, and shall also supply such other information pertaining to the equipment as the Company will require to enable it to determine if adequate service for the equipment is available at the desired location.

In cases of high motor starting current, customer loads resulting in harmonic distortions or significant loads with wide and/or frequent fluctuations, etc., customer shall install on customer side of Company meter, all corrective equipment necessary to enable Company to maintain the integrity of its electric distribution system. For Customers not voluntarily complying with this requirement, Company, where practical, may install corrective equipment on its side of the meter and charge Customer a lump sum amount for the current cost of such equipment and the cost of any subsequent additions to or replacement of such equipment, whenever said future installations occur.

Failure of Customer to install such corrective equipment or to pay for that installed by Company currently, or in the future, shall be grounds for the disconnection of electric service.

### 900.04 LOAD BALANCE

Customers should balance the load between the ungrounded conductors on single phase services as closely as possible. An unbalanced load may cause overheating of one conductor or flickering lights on the more heavily loaded circuit when appliance motors start.

Customers receiving three phase service are required to maintain a balanced load between the ungrounded service conductors. Load imbalance may cause the customer's equipment to operate in an unsatisfactory manner, blow fuses or cause other protective devices to interrupt electric supply on the unbalanced circuit Three phase load imbalance may also cause a disturbance to the Company's supply of electric service to nearby customers.

When an imbalance occurs, the Company may assist customers to determine the cause of the problem and may recommend corrective measures.



### Section 900 Service Utilization

#### 900.05 POWER FACTOR

Power factor is defined by the appropriate Company rates. The Company's Customer Service Representative will furnish customers with appropriate information upon request.

Customer may install corrective equipment necessary to meet this requirement on customer's side of Company meter. Such equipment shall be controlled and maintained by Customer in order to avoid a leading power factor at any time, and to avoid high voltage conditions during periods of light load. To monitor this power factor requirement, the Company will install appropriate metering equipment for the monthly billing of a kilovar reactive charge as applicable.

For all customers receiving service under other rate schedules, not voluntarily complying with this power factor requirement, the Company may, where practical, install corrective equipment on its side of the meter and charge customer a lump sum amount for the current cost of such equipment and the cost of any subsequent additions to or replacement of such equipment whenever said future installations occur. Failure of Customer to install such corrective equipment or to pay for that installed by the Company currently, or in the future, may be grounds for the disconnection of electric service.

#### 900.06 CAPACITORS

Use of capacitors may become necessary for a customer to achieve acceptable power factor correction. In every case where the customer elects to install capacitors, the Company must be consulted prior to purchase or installation. Improper size, type, installation, or operation of capacitors can have a serious adverse affect on the Company's service to other customers. It may also pose a danger to personnel working on the Company's distribution lines. When a customer installs capacitors on their electrical facilities to improve the power factor of their installation, the customer may provide, at the request of the Company, in order to avoid abnormal voltages or damage to the Company's facilities, a means of automatically disconnecting any or all of the capacitors when the equipment causing the low power factor is not operating.

### 900.07 PROTECTIVE EQUIPMENT

Customers are advised to install protective equipment in accordance with the latest edition of the National Electrical Code or other pertinent sources of information for all types of equipment such as, but not limited to, motors, computers, or any other type of voltage sensitive electronic equipment. Adequate protection should be provided for the following conditions:

- A. Overload;
- B. Loss of voltage;
- C. High or low voltage;
- D. Loss of phase (single phase on polyphase motors);
- E. Re-establishment of normal service after any of the above;
- F. Phase reversal;
- G. Motors that cannot be subject to full voltage on starting;
- H. Harmonics or wave form irregularities.

The lack of adequate protection may result in needless damage to equipment and the expense of delay and repair. The Company will not be responsible for loss or damage to customer–owned equipment where such loss or damage is caused by the absence or failure of recommended protective devices.

### 900.08 MOTORS AND APPARATUS

#### General

Customer is invited to consult Company before purchase, installation, or wiring of motors or other apparatus to determine the kind of service that will be supplied and the manner in which such equipment should be connected and operated.

All motors, apparatus and appliances shall have such characteristics which enable the Company to maintain a satisfactory standard of service to Customer being served and all other customers in the immediate area.



### Section 900 Service Utilization

The Company reserves the right to define the type of standard service to be supplied and should be consulted before equipment is purchased or ordered. The electrical characteristics of motors 7 1/2 H.P. and larger or where the aggregate load of smaller motors is more than 20 H.P. require consideration and evaluation.

### 900.09 PROTECTION AGAINST ABNORMAL CONDITIONS

All motors and special apparatus should be equipped with suitable undervoltage time delay tripping devices to protect against sustained undervoltage or service interruption and to prevent automatic disconnection of equipment upon momentary voltage disturbance.

Three phase motors should be equipped with suitable protective devices to prevent single phase operation, improper direction of rotation and excessive heating due to overcurrents or voltage unbalance.

Company will not be responsible in any way for damage to Customer equipment due to failure of Customer to provide adequate protection.

Customer should install an uninterruptible power source (UPS) or voltage suppressor where momentary or extended outages or voltage fluctuations will cause inconvenience, loss of electronic memory or trip alarms, etc.



### 1000.01 INTRODUCTION

Customer shall furnish, install and maintain meter mounting equipment which meets Ameren requirements stated herein. This applies to self-contained electric watt-hour meter mounting equipment for both individual and multi-meter installations. The watt-hour meters will be furnished, installed and maintained by Ameren.

Ameren will maintain a list of approved manufacturer's meter devices catalog numbers. Ameren will assist the manufacturer in meeting these requirements by reviewing and commenting on designs and/or manufactured samples of meter devices. Only meter devices included in this list will be acceptable without prior approval from Ameren. The current list is included in Section 1100.

Failure by Customer/Contractor to comply with the requirements stated herein may lead to a delay of service until requirements are met. Other sections of the Electric Service Manual pertain to mounting location, mounting heights, and other service requirements and give specific installation instructions.

### 1000.02 GENERAL REQUIREMENTS

- The meter socket and any integrated electrical equipment shall meet the requirement of Underwriters Laboratories and shall be labeled UL approved for the type of service equipment being provided. Meter sockets shall meet standards contained in the latest revision of UL414 and ANSI C-12 Code for Electricity Metering.
- 2. Devices shall be labeled as to ampacity class, maximum voltage, manufacturer's name, and manufacturer's catalog number. All meter sockets and applicable bypasses shall be rated to carry 100% of class ampacity continuously.
- 3. The meter socket shall be of a power coated finish over galvanized steel or aluminum construction, rated NEMA type 3R or better. Fabrication with fiberglass or non-metallic material is prohibited.
- 4. All meter sockets shall be ringless.
- 5. All covers shall be equipped with no more than one securely fastened hasp for padlocking by Ameren. Covers that secure more than one meter, (trough), shall be individually sealable.
- 6. Meter sockets must have lugs to accommodate the No. 6 grounding electrode conductor and bonding jumper size per NEC. This may be two individual lugs, or one NEC/approved lug rated for two conductors. Lugs shall be rated for both aluminum and copper conductors.
- The lugs for meter sockets Class 320 and below will be sized to accommodate conductors as outlined below. Stud type connectors shall be tinned and suitable for either aluminum or copper conductors.
- 8. Meter sockets for up to and including Class 200 service shall be equipped with lay-in lugs. The lugs shall be suitable for a range of conductors from No.6 to 350 kcmil. Not more than one conductor shall be installed per lay-in lug.
- 9. Meter sockets for Class 320 shall be equipped with the mechanical pressure stud connectors. Customer will supply the appropriate size of lugs for the job specific conductors. A reduced jaw (anti-inversion clip) should be installed on the upper right jaw of the meter socket.
- 10. All meter sockets shall be wired with line side connections on the top terminals of the socket. Side wire way designs for direct upward connection of UG cables are not permitted. Trough type meter sockets with direct upward connection of UG cables can be submitted to Ameren for approval provided they allow for the cables to be trained in a manner that would prevent ground settling and frost heaving from placing undo stresses on meter socket connections. The left hand bottom knockout shall be reserved for the incoming service cables. A minimum knockout on the bottom of meter sockets shall be 2 1/2" on UG Class 200 and 3" on Class 320.
- 11. The 5th jaw on horn bypass sockets for residential network shall be located in the 9 o'clock position and 5th jaw on clamp jaw lever bypass sockets for commercial shall be located in the 6 o'clock position.
- 12. The meter enclosure must be grounded.



- 13. Locking jaw lever type bypass meter sockets shall be provided with a clear polycarbonate safety shield over the socket interior.
- 14. All Meter mounting equipment shall be surface mounted.
- 15. Ameren, by testing or approving equipment, gives no warranty, expressed or implied, as to the adequacy, safety or other characteristics of any equipment, wiring or device and assumes no responsibility with respect thereto.
- 16. All unused openings in the enclosure shall be closed with plugs and secured tightly from the inside.

#### 1000.03 METER BYPASS REQUIREMENTS

- Horn bypass type meter sockets or clamp jaw level bypass meter socket are required in the following individual meter situations:
  - A. Residential: Less than or equal to 200 amp: Horn bypass or Clamp jaw bypass
    - 201-320 amp continuous rating: Clamp jaw bypass
  - B. Temporary services for new subdivision construction, single phase (120/240 volt) and two phases (120/208 volt) up to 200 amps.
- 2. Clamp jaw lever bypass meter sockets are required in the following individual meter situations:
  - A. All customers on a non-residential rate
  - B. All three-phase meter services.
  - C. All 480 V services\*. (Note: \* All 480 V services should be cold sequence.)
  - D. Class 320 services.
  - E. All temporary services except as noted in 1000.03.1.B above.

The clamp jaw bypass meter socket shall be rated Class 200 (except 1000.03.2.D above) and shall be heavy duty, lever operated, clamp jaw with jaw tension release design with plastic protective shield similar to the Landis & Gyr HQ-4, HQ-5 or HQ-7 bypass mechanisms. The bypass action of all lever type bypass mechanisms shall be visible. This includes the ability to visibly see the opening and closing of the bypass mechanism contacts, as well as the clamping action of the meter socket jaws. Bypass mechanisms not meeting this requirement shall be rejected. Clamp jaw lever bypass mechanisms not previously used on the Ameren system shall be presented to the Standards Engineering Department for review.

- 3. Multi-meter socket equipment bypass capability is as follows:
  - A. With or without main disconnect:
    - Residential: Less than or equal to 200 amp: Horn bypass or Clamp jaw bypass
       201–320 amp continuous rating: Clamp jaw bypass
    - 2. Non-Residential: Clamp jaw bypass
    - 3. A slide bypass is not permitted.

#### 1000.04 MULTI-METER REQUIREMENTS

- 1. Multi-meter socket situation shall conform to the same bypass criteria in 1000.03 above.
- Customer designed, combination multi-meter equipment with fused or circuit breaker type disconnects may be acceptable subject to Company approval of meter sockets, location, electrical one line, cable landing space, security provisions, etc., before fabrication is started. All unapproved equipment must be approved before ordering of said equipment to avoid costly delays.
- 3. Multi-meter equipment requires the line side terminal compartment to have a sealable and lockable cover separate from meter covers.



4. Up to and including six meters may be supplied at a single point of delivery without a main means of disconnect ahead of metering.

### 1000.05 LOAD CENTERS

Where customer disconnects and/or fuses are combined with meter equipment, the cover for the meter and the cover for customer access to the switch/fuse and load side wiring shall be separated such that Company's meter and line side service compartments may be secured and sealed separately from customer side. On such combination units, internal barriers shall be permanently installed to prevent access to meters, equipment, and unmetered wiring via the customer compartments. Labels should be adhered to the outside of lids (covers) on meter/main combos stating "main service disconnect".

### 1000.06 METER SOCKET MAINTENANCE

It is the responsibility of Customer/Building Owner to maintain, repair and replace the meter mounting (socket) equipment in order to keep such equipment in a safe, secure and useable condition. When such equipment is subject to vandalism or damage, it is the responsibility of Customer/Building Owner to remedy the situation by protective measures or by changing location.

Ameren will perform emergency repair in an attempt to maintain or restore service and to protect the public safety. In the event that the hazard posed by the equipment is critical to safe operation, immediate disconnection of service may be necessary until corrections are made by the Customer/Building Owner. Ameren will notify Customer/Building Owner and the inspection Authority when an unsafe meter socket and/or service equipment problem is found.

Ameren will allow a reasonable time, normally not to exceed 30 days, for the repair or replacement of meter socket equipment, subject to the hazard involved.

Ameren emphasizes the need for the responsible Building Owner to minimize safety hazards to all concerned by maintaining meter socket equipment and service compartments in a safe and good working order.

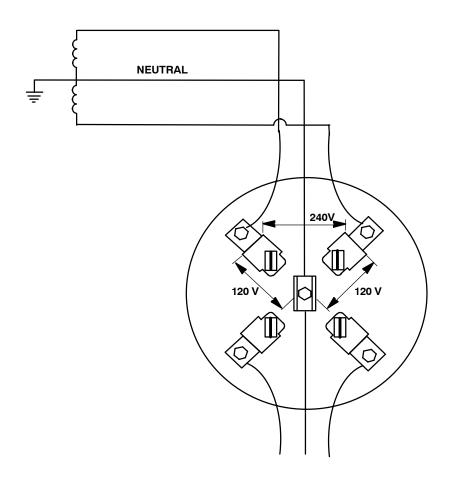
### 1000.07 **DRAWINGS**

- Meter Socket Connections 3W, 120V/240V, 1–phase Figure 1000–1A
- 2. Meter Socket Connections 3W, 240/480V, 1–phase Figure 1000–1B
- Meter Socket Connections 3W, 120/208V, 1–phase Figure 1000–1C
- Meter Socket Connections 4W, 120/208V, 3–phase Figure 1000–1D
- Meter Socket Connections 4W, 277/480V, 3–phase Figure 1000–1E



### METER SOCKET CONNECTIONS AND VOLTAGES

Figure 1000-1A



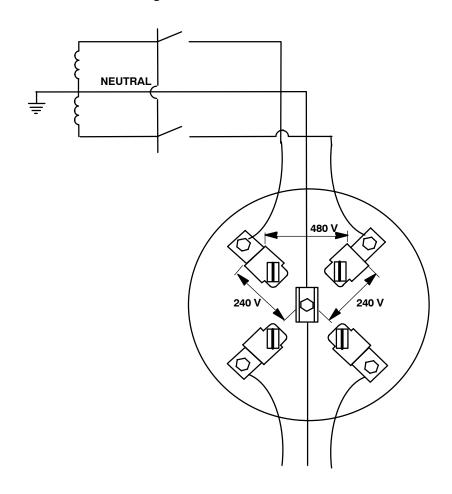
### **APPLICATION:**

3-WIRE, 120/240 VOLT, 1-PHASE SELF-CONTAINED (LIMITED TO 320 AMPS)



### METER SOCKET CONNECTIONS AND VOLTAGES

Figure 1000-1B



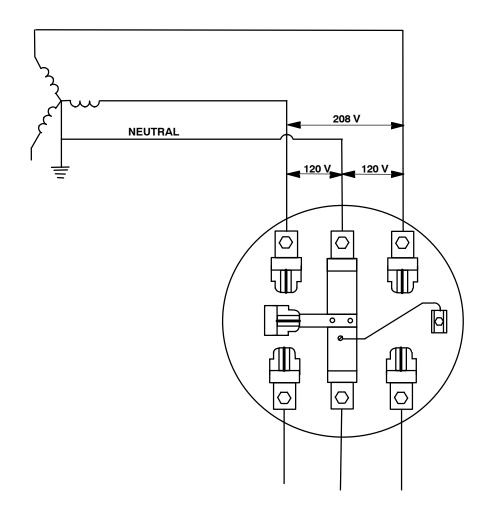
### **APPLICATION:**

3-WIRE, 240/480 VOLT, 1-PHASE SELF-CONTAINED (LIMITED TO 200 AMPS)



### METER SOCKET CONNECTIONS AND VOLTAGES

Figure 1000-1C



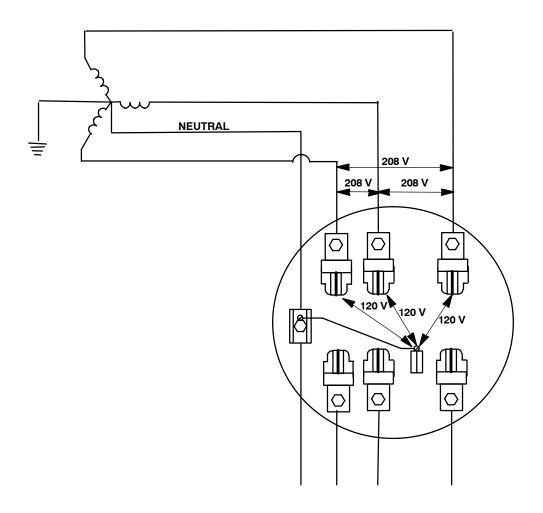
### **APPLICATION:**

3-WIRE, 120/208 VOLT, 1-PHASE SELF-CONTAINED (LIMITED TO 200 AMPS)



### METER SOCKET CONNECTIONS AND VOLTAGES

Figure 1000-1D



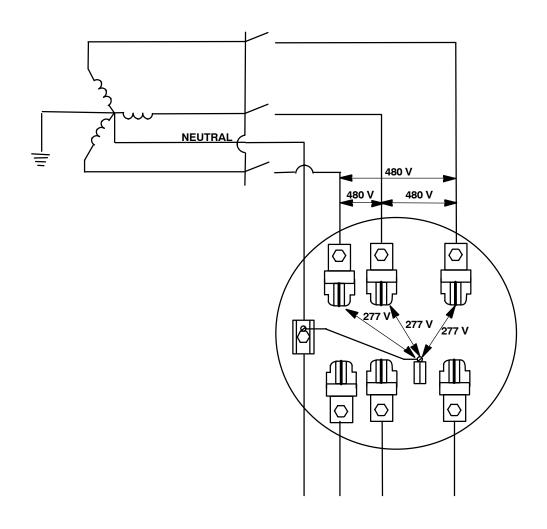
### **APPLICATION:**

208Y/120 VOLT, 4 WIRE, GROUNDED WYE, 3-PHASE SELF-CONTAINED (LIMITED TO 320 AMPS)



### METER SOCKET CONNECTIONS AND VOLTAGES

Figure 1000-1E



### APPLICATION:

480Y/277 VOLT, 4 WIRE, GROUNDED WYE, 3-PHASE SELF-CONTAINED (LIMITED TO 200 AMPS)



### 1001.01 **SERVICES**

### 1. General Requirements

- a) All service equipment must be installed and grounded per latest edition of the NEC or local inspection authority.
- b) For 277/480V and 480V services above 200 amps, metering current transformers (CTs) and potential transformers (PTs) will be required.
- c) Customer shall provide the proper CT/PT enclosure as specified below.
- d) Ameren will provide the CTs and PTs.
- e) Single phase greater than 400 amp (Class 320 amp meter) will require CTs.

### 1001.02 REQUIREMENTS FOR CT/PT ENCLOSURES (UP TO 3000 AMPS)

#### 1. General Requirements

- a) Ameren will provide an approved list of enclosures.
- b) Metering transformers will not be allowed in pad mounted transformer enclosures on any new or upgraded service.
- c) CT/PT enclosures must be mounted outside. Only Ameren approved bussed enclosures will be allowed.
- d) Provisions for terminating line and load conductors must be provided.
- e) Customer is responsible for installing Ameren provided CTs and PTs.
- All enclosures must be UL listed and meet UL listed requirements for steel and aluminum enclosures.
- g) Enclosure must be hinged, sealable, pad lockable.
- h) CT/PT enclosures shall normally be installed to the side or sides of meter enclosures.
  - Enclosures shall be installed so that any work to be performed by Ameren personnel can be done from final grade level without the aid of a ladder.
  - Where this is impractical, contact the Electric Meter Department for direction.
- i) CT's and PT's are required on all 277/480 and 480V service larger than 200 amps.
- j) All 120 and 240V services larger than 400 amps will require CTs.
- k) Bar type CT's will be used for 277/480V and 480V services from 201 to 1200 amp and for 120/240V, 120/208V and 240V from 401 to 1200. Large window CT's will be used for 1201 to 3000 amp services.
- l) 480V installations shall contain an Ameren approved side mounted potential transformer enclosure, with 1.5" close nipple.
- m) Potential transformer enclosure must be at least 8"W x 27.5"H x 8"D, with 3/4" treated plywood back panel, or metal (moveable) mounting brackets for installing PT's.
- n) Potential tap holes (#10-32 or 1/4" 20) shall be located on the bus closest to the front on the line side of the CT's. Each hole shall be drilled and tapped through the entire bus, with lugs sized to accommodate a #10 wire, for each phase and neutral bus. Potential tap holes are not required for the individual phase for services from 201 thru 1200 amp: Potential tap holes are required for the neutral in all cases.
- o) Conduit between the CT/PT enclosure and meter enclosure shall be 1–1/2" metallic rigid with bonding bushing, or schedule 40 (or greater) PVC. If PVC pipe is used, a bonding jumper no smaller than #10 should be provided between the enclosures. For Missouri installations the bonding jumper is provided in the 11 conductor cable.
- p) CT enclosure must be grounded with a properly sized bonding conductor connected to the customer's grounding electrode. The service neutral must be isolated from enclosure ground.
- q) All service equipment, including CT enclosure must be grounded and bonded per latest edition of the NEC or local inspection authority.



r) CT enclosure to be mounted such that the bottom of CT enclosure is no lower than 12" above finished grade and the top of the CT enclosure is no more than 78" above finished grade.

### 1001.03 SWITCHGEAR (SECONDARY, BELOW 600V)

- 1. General requirements for CT/PT compartments in switchgear (Up to 3000A)
  - a) Metering transformers will not be allowed in pad mounted transformer enclosures on any new or upgraded service.
  - b) Customer owned switchgear will contain dedicated compartment(s) for the purpose of housing Ameren provided current and voltage transformers. PT compartments are only required for 277/480v and 480v services. (See below for minimum dimensions)
  - c) These compartments must be dedicated to Company equipment. Front hinged doors shall be provided with padlocking and sealing provisions for securing by Company.
  - d) CT's and PT's must be readily accessible from the front of the switchgear for ease of installation and removal.
  - e) Bussing for all phases, neutral and ground should be included in this section
  - f) CT and PT compartments must be hinged and pad lockable. Separate doors must be provided for the CT and PT compartments.
  - g) No obstructions or bus that might restrict free and easy access to the CTs and PT's is allowed in front (hinged door side) of the CT or PT's.
  - Customer equipment shall not be located within or accessible through this dedicated compartment.
  - CT and PT compartment must be separated and barriered from other customer compartments to restrict access.
  - j) Metered and un-metered conductors shall be separated by insulated barriers.
  - k) Ameren meter main switch sequence requirements must be followed.
  - Potential tap holes (#10-32 or 1/4" 20) shall be located on the line side of the bus closest to the front, drilled and tapped through the entire bus, with lugs sized to accommodate a #10 wire, for each phase and neutral bus.
  - m) Outdoor located CT/PT switchgear sections shall be weather and rain resistant (Nema Type 3R).
  - All switchgear must be UL listed, and meet minimum UL requirements for steel and aluminum structures.
  - o) Bottom of CT/PT section shall be no lower than 24" for U/G fed switchgear or 18" for O/H fed switchgear. May be reduced to 12" for overhead fed switchgear with a PT section.
  - p) Top of CT/PT section shall be no higher than 78".
  - q) Customer's neutral to ground bond should be made on the load side of the metering section in an unsealed section to provide access for the customer.
  - r) All service equipment must be grounded and bonded per latest edition of the NEC or local inspection authority.
- 1.a CT compartment dimensions and requirements (401 thru 3000A 120V, 240V and 201–3000A, 277V, 480V)
  - a) Minimum dimensions 35" W x 22" H x 12" D
  - b) Provision for mounting bar type current transformers for 277/480V or 480V services from 201–400 amp and for 120/240V, 120/208V and 240V from 401 to 1200 amp must be provided.
  - c) Provisions for mounting large window current instrument transformers (5 3/4" window diameter) using non conductive supports for services from 1201 to 3000 amp must be provided. An insulated shelf or insulated angle bracket must be provided for mounting window type CT's.
  - d) Removable bus section must be provided in order to route the bus through the window type CT. No cable is allowed through the CT, bus only is allowed.



### 1.b PT compartment for 277/480 and 480V services

- a) Minimum dimensions 35" W x 8" H x 8" D.
- b) An 8" bracket, or shelf extending the full width of the PT compartment for mounting the PT's, shall be provided.
- c) Bracket or shelf should be strong enough to safely support up to 3 PT's.
- d) The PT compartment must be located directly above or below the CT compartment. An insulated barrier between the CT and PT sections must be provided. Provisions for routing wire between the 2 compartments must be provided.

### 1001.04 METER ENCLOSURE/SOCKETS

- 1. Only Ameren approved pre-wired meter enclosures, including color coded test switches, will be utilized on new installations.
- 2. Enclosures will be provided by Ameren for installations in Missouri territories
- 3. Enclosures will be purchased by customer/contractor for installations in Illinois territories.
- Customer will be responsible for the installation of CT/PT enclosure, CT/PT's, meter socket, and conduit.
- 5. Customer is responsible for installing the conduit between the meter enclosure and the CT/PT enclosure. See Section 1001.05 regarding metering cable.
- 6. All indoor meter enclosure locations must be pre-approved by Ameren.
- 7. Meter enclosures shall normally be mounted on on a wall or an appropriate structure to the side of the CT/PT enclosures as close as practical to the CTs subject to Electric Meter Department policy.
  - Enclosures shall be installed so that any work to be performed by Ameren can be done from final grade level without the aid of a ladder.
  - Where this is impractical, contact the Electric Meter Department for direction.
- 8. Conduit between the CT/PT enclosure and meter enclosure shall be 1–1/2" metallic rigid with bonding bushing, or schedule 40 (or greater) PVC. If PVC pipe is used, a bonding jumper no smaller than #10 should be provided between the enclosures. For Missouri installations this bonding jumper is provided in the 11/C cable.
- 9. Ameren will terminate the metering conductor on each end.

### 1001.05 CURRENT TRANSFORMERS - BELOW 600V

1. CT/PT Secondary Wiring

#### Ameren Missouri

- a) Ameren provided customer installed 11/C #12 Cu wire up to 55'.
- b) Customer/contractor provided and Ameren installed 11/C, #10 Cu wire 55' to 90'.

**Note**: For distances greater than 55' Ameren will provide location where approved cable can be purchased by the customer/contractor. Only Ameren approved cable with proper sheath, wire and wire color will be allowed. Other wire sizes, requests for greater CT and meter separations, and primary metering CT sizing should be reviewed by the Meter Engineering Group.

### Ameren Illinois

- a) Ameren provided and installed 8/C #12, Cu wire up to 55'.
- b) Customer/contractor provided and Ameren installed 8/C, #10 Cu wire 55' to 90'.

**Note**: For distances greater than 55' Ameren will provide location where approved cable can be purchased by the customer/contractor. Only Ameren approved cable with proper sheath, wire and wire color will be allowed. Other wire sizes, requests for greater CT and meter separations, and primary metering CT sizing should be reviewed by the Meter Engineering Group.



### 1001.06 PICKUP OF COMPANY FURNISHED METER ITEMS (AMEREN MISSOURI)

Company furnished meter enclosures, CT's, PT's, and wire packs are to be picked up by the customer or contractor based on job location as follows:

In St. Louis City, St. Louis County and St. Charles:

a) Dorsett System Meter Shop Phone: 314–344–9571

Fax: 314–344–9856 Address: AmerenUE Dorsett Facility

12121 Dorsett Road

Maryland Heights, MO 63043

- b) In regional MO areas contact the local district office.
- c) Communication of the requirements for this metering equipment should be done well in advance of need of installation date.
- d) Customer or contractor must provide an AmerenUE job number in order to pick up the equipment. Material will not be issued without a valid job number.

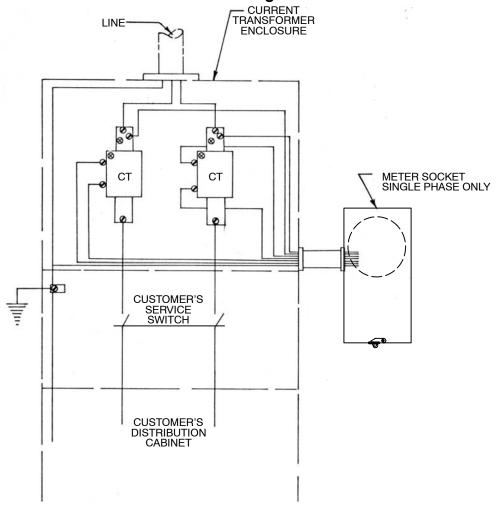
### 1001.07 SWITCHGEAR DRAWINGS

Contact the local Ameren office to determine if drawings are required, or if approval is needed.



### SINGLE PHASE INSTALLATION 401–800 AMPERES, 120/240 VOLTS, 3 WIRE, A.C. METERED WITH CURRENT TRANSFORMERS

Figure 1001-1A



### RESPONSIBILITIES FOR PURCHASE AND INSTALLATION OF METERING EQUIPMENT

- 1. In Missouri, meter socket, meter, CT's and wire pack will be provided by the company. Customer / contractor responsible for mounting meter socket, mounting CT's, installing conduit and pulling in CT secondary wire pack. Company will make terminations of the wire pack.
- 2. In Illinois, Customer is responsible for purchasing meter enclosure, mounting meter enclosure, installing conduit between meter enclosure and CT enclosure and installing CT/PT's. Company will provide, pull and terminate CT/PT secondary wiring (if less than 55').
- 3. See Section 1001.4 thru 1001.06 for more details.
- 4. CT's for this ampere range are bar type.

### CT ENCLOSURE REQUIREMENTS

- 1. For CT enclosure size and detailed requirments refer to Section 1001. No other wiring, equipment or connections are allowed in the CT compartment except for the metering and main service wiring and equipment. The CT section may be part of a panel assembly or separately mounted. All CT enclosures will be hinged, no handle type CT enclosures will be allowed.
- 2. Enclosure to be grounded and bonded per the NEC and local inspection authority requirments.
- 3. Provide drainage holes in bottom of CT enclosure or underground service conduit if CT enclosure is below any part of service conduit.



			PPLICATION			AMEREN ME	TER SOCKET	APPROVAL LIS	Т	NUMBER OF	MAX HUB SIZE		
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	BY-PASS	MANUFACTURER	CATALOG NUMBER	TERMINALS			
Tempora							2111100						
Тепірога	l Power			RESIDENTIAL		1							
3	1	100	120/240	SERVICE OR TEMP	0-125A	SELF-CONTAINED OH ONLY	Horn	MILBANK	U5101-XL-100MB-KK-11GR	4	2 1/2"		
3	1	100	120/240	RESIDENTIAL SERVICE OR TEMP	0-125A	SELF-CONTAINED UG ONLY	Horn	MILBANK	U4908-O-100MB-KK-11GR	4	2 1/2"		
3	1	200	120/240	RESIDENTIAL SERVICE OR TEMP	0-200A	SELF-CONTAINED UG ONLY	Horn	MILBANK	U5098-XL-200S-KK-10GR	4	2 1/2"		
Resident	ial Service	1									_		
3	_	125	120/240	RESIDENTIAL	0-125A	SELE CONTAINED OU ONLY	11	MILBANK	U7487-YL-QG-KK	4	2 1/2"		
3	1	125	120/240	SERVICE	U-125A	SELF-CONTAINED OH ONLY	Horn	MILBANK	U7487-RL-QG-KK	4	2 1/2		
									U5101-XL-100MB-KK				
							ĺ		U4423-XLPE-RL-100-KK				
3	1	125 120/240 RESIDENTIAL SERVICE 0-125A SELF-CONTAINED OH ONLY- METER MAIN COMBO Horn MILBANK U51	U5168-XTL-100-KK	4	2 1/2"								
							U7375-RL-100-KK	i					
									U3499-XL-100-KK				
3	1	125	120/240	RESIDENTIAL SERVICE	0-125A	SELF-CONTAINED OH ONLY- METER MAIN COMBO W/ DISCONNECT FOR AUXILARY GENERATOR APPLICATIONS	Horn	MILBANK	U5168-XTL-100-KK W/ K5815 KIT	4	2 1/2"		
				RESIDENTIAL SERVICE		SELF-CONTAINED OH/UG WITH 2-DISC. FOR AUX. GEN. APPLIC.	Horn		U5168-XL-200S-KK-AMS W/ K5815 FOR 100A GEN. MAIN	4			
3	1	200	120/240		0-200A	SELF-CONTAINED OH/UG WITH 2-DISC. FOR AUX. GEN. APPLIC.		MILBANK	U5168-XL-200S-KK-AMS W/ K5820 FOR 200A GEN. MAIN		2 1/2"		
						SELF-CONTAINED OH WITH 2-DISC. FOR AUX. GEN. APPLIC.			U4412-RL-200-200-KK				
						SELF-CONTAINED OH WITH 2-DISC. FOR AUX. GEN. APPLIC.			U4412-RL-200-100-KK				
						SELF-CONTAINED OH/UG			U7040-XL-QG-KK				
									U7041-XL-QG-KK	_			
						SELF-CONTAINED UG			U7040-O-QG-KK				
3	1	200	120/240	RESIDENTIAL SERVICE	0-200A		Horn	MILBANK	U7041-O-QG-KK	4	2 1/2"		
					SERVICE		SELF-CONTAINED UG			U3850-O-QG-KK			
						SELF-CONTAINED OH/UG			U3850-XL-QG-KK				
						SELF-CONTAINED UG			U3868-XL-QG-KK				
			+		SELF-CONTAINED OH/UG	+		U3914-XL-QG-KK					
3	1	200	200 120/240	RESIDENTIAL	0-200A	)A SELF-CONTAINED OH ONLY	Horn	MILBANK	U7021-RL-QG-KK U7021-DL-QG-KK	- 4	2 1/2"		
	1	200		200 120/240	200 120/240	200 120/240	SERVICE	0-200A	322. 33			U3884-DL-QG-KK	4
						1			U3884-DL-QG-KK				



	APPLICATION					AMEREN MI	AMEREN METER SOCKET APPROVAL LIST				MAX HUB SIZE	
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	BY-PASS	MANUFACTURER	CATALOG NUMBER	TERMINALS		
						SELF-CONTAINED OH/UG WITH DISC.			U5168-XL-200S-KK-AMS			
						SELF-CONTAINED OH/UG WITH DISC.	7		U4424-XL-200-KK			
	_	200	420/240	RESIDENTIAL	0.2004	SELF-CONTAINED OH/UG WITH DISC.	İ	MILDANIZ	U4423-XLPE-RL-200-KK	1	2.4/20	
3	1	200	120/240	SERVICE	0-200A	SELF-CONTAINED OH WITH DISC.	Horn	MILBANK	U4412-RL-200-KK	4	2 1/2"	
						SELF-CONTAINED OH WITH DISC.	]			U4422-XL-200-KK		
						SELF-CONTAINED OH WITH DISC.			U3491-XL-200-KK			
3	1	125A/Position	120/240	APARTMENT 2 GANG HORIZONTAL	0-125A	SELF-CONTAINED OH/UG	Horn	MILBANK	U8032-XL-KK	4	2 1/2"	
3	1	125A/Position	120/240	APARTMENT 3 GANG HORIZONTAL	0-125A	SELF-CONTAINED OH/UG	Horn	MILBANK	U8033-XL-KK	4	2 1/2"	
3	1	125A/Position	120/240	APARTMENT 4 GANG HORIZONTAL	0-125A	SELF-CONTAINED OH/UG	Horn	MILBANK	U8034-XL-KK	4	2 1/2"	
3	1	125A/Position	120/240	APARTMENT 5 GANG HORIZONTAL	0-125A	SELF-CONTAINED OH/UG	Horn	MILBANK	U8035-XL-KK	4	2 1/2"	
3	1	125A/Position	120/240	APARTMENT 6 GANG HORIZONTAL	0-125A	SELF-CONTAINED OH/UG	Horn	MILBANK	U8036-XL-KK	4	2 1/2"	
3	1	200A/Position	120/240	APARTMENT 2 GANG HORIZONTAL	0-200A	SELF-CONTAINED OH/UG	Horn	MILBANK	U1252-X-QG-KK-K1	4	4"	
3	1	200A/Position	120/240	APARTMENT 3 GANG HORIZONTAL	0-200A	SELF-CONTAINED OH/UG	Horn	MILBANK	U1253-X-QG-KK-K1	4	4"	
3	1	200A/Position	120/240	APARTMENT 4 GANG HORIZONTAL	0-200A	SELF-CONTAINED OH/UG	Horn	MILBANK	U1254-X-QG-KK-K1	4	4"	
3	1	200A/Position	120/240	APARTMENT 5 GANG HORIZONTAL	0-200A	SELF-CONTAINED OH/UG	Horn	MILBANK	U1255-X-QG-KK-K4	4	4"	
3	1	200A/Position	120/240	APARTMENT 6 GANG HORIZONTAL	0-200A	SELF-CONTAINED OH/UG	Horn	MILBANK	U1256-X-QG-KK-K4	4	4"	
3	1	200A/Position	120/240	APARTMENT 2 GANG VERTICAL	0-200A	SELF-CONTAINED OH/UG W/ DISC	Horn	MILBANK	U2852-X-KK (100A/ POS) U2862-X-KK (200A/ POS)	4	4"	
3	1	200A/Position	120/240	APARTMENT 3 GANG VERTICAL	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Horn	MILBANK	U2853-X-KK (100A/ POS) U2863-X-KK (200A/ POS)	4	4"	
3	1	200A/Position	120/240	APARTMENT 4 GANG VERTICAL	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Horn	MILBANK	U2854-X-KK (100A/ POS) U2864-X-KK (200A/ POS)	4	4"	
3	1	200A/Position	120/240	APARTMENT 5 GANG VERTICAL	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Horn	MILBANK	U2855-X-KK (100A/ POS) U2865-X-KK (200A/ POS)	4	4"	
3	1	200A/Position	120/240	APARTMENT 6 GANG VERTICAL	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Horn	MILBANK	U2856-X-KK (100A/ POS) U2866-X-KK (200A/ POS)	4	4"	
Mobile Ho	ome Pedes	stals										
3	1	100A/200A	120/240	MOBILE HOME SINGLE POSITION	0-200A	SELF-CONTAINED UNDERGROUND ONLY	Horn	MILBANK	U5136-0-100S & K5415 U5136-0-200S & K5415	4	N/A	
3	1	100A/200A	120/240	MOBILE HOME (DOUBLE) 2 GANG VERTICAL POSITION	0-200A	SELF-CONTAINED UNDERGROUND ONLY	Horn	MILBANK	U5137-0-100S & K5415 U5137-0-200S & K5415	4	N/A	



APPLICATION						AMEREN ME	TER SOCKET	APPROVAL LIS	Т	NUMBER OF	MAX HUB SIZE			
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	BY-PASS	MANUFACTURER	CATALOG NUMBER	TERMINALS				
Commerc	ial Servic	e				•	L.			<b></b>				
		<del>Ĭ</del> I				SELF-CONTAINED OH/UG		1	U9801-RXL-QG	4				
						SELF-CONTAINED OH/UG			U9551-RXL-QG	5				
3	1	200	120/240	COMMERCIAL	0-200A	SELF-CONTAINED OH	Lever	MILBANK	U9550-DL-QG	5	4"			
·		.20.2.10	SERVICE	0 20071	SELF-CONTAINED OH/UG	2010.	257	U9581-RXL-QG	5	•				
						SELF-CONTAINED OH/UG SELF-CONTAINED OH/UG	<b>∔</b>	4	4	+	<del> </del>	UAP9551-XL-QG-HSP UAP9581-XL-QG	5	
		1				SELF-CONTAINED OH/UG W/ DISC.			U5712-XL-200-5T6	5	2 1/2"			
				COMMERCIAL		SELF-CONTAINED OH/UG W/ DISC.			U3995-XL-200-5T6		2 1/2"			
3	1	200	120/240	SERVICE	0-200A	SELF-CONTAINED OH W/DISC.	Lever	MILBANK	U4834-XL-200-5T6	5	2 1/2"			
						SELF-CONTAINED OH/UG W/ DISC.			U3791N-RXL-200-5T6		4"			
						SELF-CONTAINED OH/UG W/ 2 DISC.FOR AUX. GEN.			U5712-XL-200-5T6 W/ K5060 KIT FOR		2 1/2"			
3	1	200	120/240	COMMERCIAL	0-200A	APPLICATIONS	Lever	MILBANK	UP TO 125A SMALL FRAME	5	2 1/2			
·	•		.20.2.10	SERVICE	0 20071	SELF-CONTAINED OH ONLY W/ 2 DISC.FOR AUX.	2010.	257	U4834-XL-200-5T6 COMES W/ 2-200A		2 1/2"			
				COMMERCIAL		GEN. APPLICATIONS		+	BREAKERS FACTORY INSTALLED					
3	1	200A/ Position	120/240	SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2872-XT	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2873-XT	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2874-XT	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 5 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2875-XT	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 6 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2876-XT	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Lever	MILBANK	U4372-XT-5T9	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Lever	MILBANK	U4373-XT-5T9	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Lever	MILBANK	U4374-XT-5T9	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 5 GANG	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Lever	MILBANK	U4375-XT-5T9	5	2 1/2"			
3	1	200A/ Position	120/240	COMMERCIAL SERVICE 6 GANG	0-200A	SELF-CONTAINED OH/UG W/ DISC.	Lever	MILBANK	U4376-XT-5T9	5	2 1/2"			
3	1	200	120/240	COMMERCIAL SERVICE	0-200A	SELF-CONTAINED UNDERGROUND ONLY (Pedestal)	Lever	MILBANK	U4322-O-100MB-5T9 W/ 1-K5081/K3188	5	N/A			
									U9551-RXL-QG	5				
									U9550-DL-QG	5	1			
3	NETWORK	200	120/208	COMMERCIAL	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U9581-RXL-QG	5	2 1/2"			
				SERVICE										
									UAP9551-XL-QG	5				
									UAP9581-XL-QG	5				
									U9551-RXL-QG	5				
									U9550-DL-QG					
	2 ======	200	242	COMMERCIAL	0.0004	SELE CONTAINED CUITO	1	MILDANIZ		5	0.4/0"			
3	3 DELTA	200	240	SERVICE	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U9581-RXL-QG	5	2 1/2"			
									UAP9551-XL-QG	5				
									UAP9581-XL-QG	5				
				OOMMEDON:		SELF-CONTAINED OH/UG			U9701-RXL-QG					
4	3	200	120/240	COMMERCIAL SERVICE	0-200A		Lever	MILBANK		7	4"			
						SELF-CONTAINED OH		+	U9700-RRL-QG					
4	3	200	120/240	COMMERCIAL SERVICE	0-200A	SELF-CONTAINED OH/UG W/ 3 POLE MAIN DISC.	Lever	MILBANK	U5750-RXL-200-BL	7	4"			



INSTALLATION TYPE

AMEREN METER SOCKET APPROVAL LIST

MANUFACTURER

BY-PASS

APPLICATION

VOLTS

SERVICE TYPE

MAX AMPS

AMPS

WIRES

PHASE

4	4 3Y 200	120/208	COMMERCIAL SERVICE	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U9701-RXL-QG	7	4"																
				SERVICE		SELF-CONTAINED OH			U9700-RRL-QG																	
_	T			COMMERCIAL					1																	
4	3	200A/ Position	240V MAX.	SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2732-XT	7	2 1/2"															
4	3	200A/ Position	240V MAX.	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2733-XT	7	2 1/2"															
4	3	200A/ Position	240V MAX.	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2734-XT	7	2 1/2"															
4	3	200A/ Position	240V MAX.	COMMERCIAL SERVICE 5 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2735-XT	7	2 1/2"															
4	3	200A/ Position	240V MAX.	COMMERCIAL SERVICE 6 GANG	0-200A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2736-XT	7	2 1/2"															
RESIDEN	TIAL OR C	OMMERCI	AL SERVICE																							
						SELF-CONTAINED OH/UG	<u> </u>		U5786-X-K3-K2-BL W/ 1-K4802																	
3	1	400	120/240	RESIDENTIAL OR COMMERCIAL	201-400A	SELF-CONTAINED OH/UG	Lever	MILBANK	U1079-X-QG-K3-K2 W/ 1-K4802	4	4"															
				SERVICE		SELF-CONTAINED OH/UG			U4363-X-QG-K3-K2-INV W/ 1-K4802																	
						SELF-CONTAINED UG			U3000-O-5T6-2/K2L W/ 1-K4802																	
		400		RESIDENTIAL OR	004 4004	SELF-CONTAINED OH/UG W/ 2-200A DISC			U5059-X-2/200-K3L W/ 1-K4802	4	4"															
3	1	400	120/240	COMMERCIAL SERVICE				201-400A	SELF-CONTAINED UG W/ 2-200A DISC.	Lever	MILBANK	U4031-O-2/200 W/ 1-K4802		NONE												
<u> </u>							1																			
3	3 DELTA	400	240	COMMERCIAL SERVICE	201-400	SELF-CONTAINED OH/UG	Lever	MILBANK	U1079-X-QG-K3-K2 W/ K4802 &K3865	5																
				COMMERCIAL					U1079-X-QG-K3-K2 W/K4802 & K3865	5																
3	NETWORK	400	120/208	120/208	COMMERCIAL SERVICE	201-400A	SELF-CONTAINED OH/UG	Lever	MILBANK			2 1/2"														
									U4363-X-QG-K3-K2 W/ K4802 & K3865	5																
4	3	400	120/240	COMMERCIAL	201-400A	SELF-CONTAINED OH/UG	Lever	MILBANK	U2594-X-QG W/ K4802 KIT	7	4"															
				SERVICE		SELF-CONTAINED OH/UG			U4911-X-2/K6 W/ K4802 KIT																	
4	3Y	400	120/208	COMMERCIAL	201-400A	SELF-CONTAINED OH/UG	Lover	MILBANK	U2594-X-QG & K4802	7	4"															
4	31	400	120/200	SERVICE	201-400A	SELF-CONTAINED OH/UG	Lever	WILDAM	U4911-X-2/K6 & K4802	,	4															
COMMER	CIAL SER	VICE - COL	D SEQUEN	CE - 480V																						
3	1	200	480	COMMERCIAL SERVICE COLD	0-200A	SELF-CONTAINED OH/UG 35KAIC	Lover	MILDANK	U5764-X-200-5T-CB	5	4"															
	'	200	400	SEQUENCE	U-20UA	SELF-CONTAINED OH/UG 200KAIC	Lever MILBANK	Lever	Level	Level MILD	MILBANK	Lever MILBANK	er MILBANK	WILDANK	U5764-X-200-5T-TF	, and	4									
3	3 DELTA	200	480	COMMERCIAL SERVICE - COLD	0-200A	SELF-CONTAINED OH/UG 35KAIC	Lever	MILBANK	U5765-X-200-CB	5	4"															
	JUELIA	200	400	SEQUENCE	0-200A	SELF-CONTAINED OH/UG 200KAIC	Level			20.0.			Level MILBANK	20701	2010.			Level	EGTGI MILDANK		MILDAM	2010.		U5765-X-200-TF	,	
4	3Y	200	277/480	COMMERCIAL SERVICE COLD	0-200A	SELF-CONTAINED OH/UG 35KAIC	Lever	MILBANK	U5767-X-200-CB	7	4"															
				SEQUENCE		SELF-CONTAINED OH/UG 200KAIC			U5767-X-200-TF	<u> </u>																



MAX HUB SIZE

NUMBER OF **TERMINALS** 

CATALOG NUMBER

			PPLICATION			AMEREN ME	TER SOCKET	APPROVAL LIS	Т	NUMBER OF	MAX HUB SIZE
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	BY-PASS	MANUFACTURER	CATALOG NUMBER	TERMINALS	
BUSSED	CT CABIN	IETS								PT CABINET #	
3	1	800A MAXIMUM	120/240	RESIDENTIAL OR COMMERCIAL SERVICE	401-800A	BUSSED CT CABINET-BAR TYPE CT'S	N/A	MILBANK	CT244811HC & K4797 INSERT	NOT REQUIRED	
									CT304811HC & K4729 INSERT		
3	3 DELTA	800A MAXIMUM	240	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINET-BAR TYPE CT'S	N/A	MILBANK	CT244811HC W/ K4797 INSERT	NOT REQUIRED	
									CT304811HC W/ K4729 INSERT		
3	3 DELTA	800A MAXIMUM	480	COMMERCIAL SERVICE - COLD SEQUENCE	201-800A	BUSSED CT CABINET-BAR TYPE CT'S	N/A	MILBANK	CT244811HC W/ K4797 INSERT	PT48 (L or R)	
				SEQUENCE					CT304811HC W/ K4729 INSERT		
4	3	800A MAXIMUM	120/240	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINET-BAR TYPE CT'S	N/A	MILBANK	CT244811HC W/ K4798 INSERT	NOT REQUIRED	
				02.00.02					CT304811HC W/ K4722 INSERT		
4	3Y	800A MAXIMUM	120/208	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINET-BAR TYPE CT'S	N/A	MILBANK	CT244811HC W/ K4798 INSERT	NOT REQUIRED	
									CT304811HC W/ K4722 INSERT		
4	3Y	800A MAXIMUM	277/480	COMMERCIAL SERVICE	201-800A	BUSSED CT CABINET-BAR TYPE CT'S	N/A	MILBANK	CT244811HC W/ K4798 INSERT	PT48 (L or R)	
				02.00.02					CT304811HC W/ K4722 INSERT		
ILLINOIS	CT Rated	Pre-Wired I	Meter Socke	ts (Customer	Supplied)						
3	1		120/240	COMMERCIAL SERVICE	401A-and LARGER	CT Metering 8 Terminal Application (Customer Supplied)	Lever	MILBANK	U4496-ZL-WC-41	8	1 1/2
3	1		480	COMMERCIAL SERVICE	201A AND LARGER	CT Metering 8 Terminal Application (Customer Supplied)	Lever	MILBANK	U4496-ZL-WC-41	8	1 1/2
3	3 DELTA		240	COMMERCIAL SERVICE	401A-and LARGER	CT Metering 8 Terminal Application (Customer Supplied)	Lever	MILBANK	U4496-ZL-WC-41	8	1 1/2
3	3 DELTA		480	COMMERCIAL SERVICE	201A AND LARGER	CT Metering 8 Terminal Application (Customer Supplied)	Lever	MILBANK	U4496-ZL-WC-41	8	1 1/2
4	3		120/240	COMMERCIAL SERVICE	401A-and LARGER	CT Metering 13 Terminal Application (Customer Supplied)	Lever	MILBANK	U4497-ZL-WC-61	13	1 1/2
4	3Y		120/208	COMMERCIAL SERVICE	401A-and LARGER	CT Metering 13 Terminal Application (Customer Supplied)	Lever	MILBANK	U4497-ZL-WC-61	13	1 1/2
4	3Y		277/480	COMMERCIAL SERVICE	201A AND LARGER	CT Metering 13 Terminal Application (Customer Supplied)	Lever	MILBANK	U4497-ZL-WC-61	13	1 1/2



### Section 1100 AMEREN APPROVED METER SOCKETS - DURHAM, MIDWEST, CUTLER HAMMER, AND SQUARE D

			LD METER GOOD	LIO-DOMIA	METER SOCKET	t, AND OGOARL D	MAX # CONDUCTORS	N	
PHASE	MAX VOLTS	SERVICE TYPE	CONTINUOUS AMPS	INSTALLATION TYPE	MANUFACTURER (2)	CATALOG NUMBER (2)	TYPICAL MIN/MAX CONDUCTOR SIZES,	Number of Terminals	
1 (4-terminal)	120/240	2-GANG HORIZONTAL		SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-2R1121( * ) (1)(4)	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	3-GANG HORIZONTAL	100	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-3R1121(*) (1)(4)	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	4-GANG HORIZONTAL	100	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-4R1121(*) (1)(4)	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	5-GANG HORIZONTAL	100	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-5R1121(*) <sup>(1)(4)</sup>	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	6-GANG HORIZONTAL	100	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-6R1131(*) <sup>(1)(4)</sup>	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	RESIDENTIAL	125	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-RS101(*) <sup>(1)(4)</sup>	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	2-GANG HORIZONTAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-2R2332( * ) (1)(4)	Horn Bypass	4	4"
1 (4-terminal)	120/240	3-GANG HORIZONTAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-3R2332( * ) (1)(4)	Horn Bypass	4	4"
1 (4-terminal)	120/240	4-GANG HORIZONTAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-4R2352( * ) (1)(4)	Horn Bypass	4	4"
1 (4-terminal)	120/240	5-GANG HORIZONTAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-5R2392( * )( * ) (1)(4)	Horn Bypass	4	4"
1 (4-terminal)	120/240	6-GANG HORIZONTAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-6R2392( * )( * ) (1)(4)	Horn Bypass	4	4"
1 (4-terminal)	120/240	RESIDENTIAL	200	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-RS202(*) <sup>(1)(4)</sup>	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	RESIDENTIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UHTT-RS213(*) <sup>(1)(4)</sup>	Horn Bypass	4	2-1/2"
1 (4-terminal)	120/240	COMMERCIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UTT-H4213( * ) (1)(5)	Lever Bypass	4	4"
1 (4-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	320	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	1009767 (5)(6)(8)	Lever Bypass	4	4"
1 (4-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	320	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	1009722 (5)(6)(8)	Lever Bypass	4	4"
3 (5-terminal)	120/240	COMMERCIAL	200	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	UTT-H5203( * ) <sup>(1)</sup>	Lever Bypass	5	4"
3 (5-terminal)	120/240	COMMERCIAL	200	ОН	Durham for Cutler Hammer Only	UTT-E5203( * ) <sup>(1)</sup>	Lever Bypass	5	4"
3 (5-terminal)	120/240	COMMERCIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UTT-H5213( * ) <sup>(1)</sup>	Lever Bypass	5	4"
3 (5-terminal)	120/240	COMMERCIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer Only	UTT-E5213( * ) <sup>(1)</sup>	Lever Bypass	5	4"
Network (120/208) and 3-phase (5- terminal)	120/240	COMMERCIAL	320	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	1009769 <sup>(6)(8)</sup>	Lever Bypass	5	4"
Network (120/208) and 3-phase (5- terminal)	120/240	COMMERCIAL	320	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	1009899 (6)(8)	Lever Bypass	5	4"
	1 (4-terminal)	PHASE MAX VOLTS  1 (4-terminal) 120/240  3 (5-terminal) 120/240  3 (5-terminal) 120/240  3 (5-terminal) 120/240  Network (120/208) 120/240	APPLICATION   PHASE	APPLICATION	PHASE	PHASE   MAX VOLTS   SERVICE TYPE   CONTINUOUS AMPS   INSTALLATION   TYPE   1.0	PHASE	PRASE   MAY VOLTS   SERVICE TYPE   CONTINUOUS AMES   INSTALLATION   MANUACTURER ***   CATALOO NUMBER ***   TYPECAL MIMMAX CONCOURTER \$9.02.	PHASE   MAY POLITIS   SERVICE TYPE   CONTINUOUS AMPS   INSTALLATION   MANIFERE SOCKET   CATALOG MARGERS   TOPICAL MIRRAY   COMPOSITION SIZES



### AMEREN APPROVED METER SOCKETS - DURHAM, MIDWEST, CUTLER HAMMER, AND SQUARE D

		APPLICATIO	N			METER SOCKET		MAX # CONDUCTORS,	Number of	f Max Hub
WIRES	PHASE	MAX VOLTS	SERVICE TYPE	CONTINUOUS AMPS	INSTALLATION TYPE	MANUFACTURER <sup>(2)</sup>	CATALOG NUMBER (2)	TYPICAL MIN/MAX CONDUCTOR SIZES,	Terminals	
4	3 (7-terminal)	120/240	COMMERCIAL	200	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	UTT-H7203( * ) <sup>(1)</sup>	Lever Bypass	7	4"
4	3 (7-terminal)	120/240	COMMERCIAL	200	ОН	Durham for Cutler Hammer Only	UTT-E7203( * ) <sup>(1)</sup>	Lever Bypass	7	4"
4	3 (7-terminal)	120/240	COMMERCIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	UTT-H7213( * ) <sup>(1)</sup>	Lever Bypass	7	4"
4	3 (7-terminal)	120/240	COMMERCIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer Only	UTT-E7213( * ) <sup>(1)</sup>	Lever Bypass	7	4"
4	3 (7-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	320	ОН	Durham for Cutler Hammer, Midwest Electric Products and Square D	1009771 <sup>(6)(8)</sup>	Lever Bypass	7	4"
3	1 (4-terminal)	120/240	RESIDENTIAL	200	SELF CONTAINED OH OR UG	Durham for Cutler Hammer Only	1008966A	Horn Bypass	4	2-1/2"
3 OR 4	1&3 (8-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	20	CT RATED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	ULTS8-1C188 (Missouri Only)	Lever Bypass	8	2-1/2"
4	3 (13-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	20	CT RATED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	ULTS13-1C189 (Missouri Only)	Lever Bypass	13	2-1/2"
3 OR 4	1&3 (8-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	20	CT RATED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	ULTS8-1C227 (Illinois Only)	Lever Bypass	8	2-1/2"
4 NOTES:	3 (13-terminal)	120/240	RESIDENTIAL OR COMMERCIAL	20	CT RATED OH OR UG	Durham for Cutler Hammer, Midwest Electric Products and Square D	ULTS13-1C228 (Illinois Only)	Lever Bypass	13	2-1/2"

#### NOTES

(\*) Select desired bolt-on hub or top configuration from HUB SELECTION CHART below and add the appropriate suffix to the catalog number. Some units available with only small hub or top configurations.

	HUB SELE	CTION CHART	
HUB OR TOP CONFIGURATION	CATALOG SUFFIX	HUB OR TOP CONFIGURATION	CATALOG SUFFIX
SOLID	Α	SOLID	Α
FOR HUB (Small)	В	FOR HUB (Large)	T
HCP (small)	С	HCP (Large)	U
1-1/4" (small)	L	2-1/2" (Large)	V
1-1/2" (small)	M	3" (Large)	Q
2" (small)	N	3-1/2" (Large)	R
2-1/2" (small)	Р	4" (Large)	S
		Large hub opening to small hub opening adapter plate	Z

<sup>&</sup>lt;sup>(1)</sup> "TT" prefix is quad ground. For triplex ground (when allowed), replace "TT" prefix with "T" prefix.



<sup>(2)</sup> Cutler Hammer, Midwest Electric Products, and Square D market Durham's products using Durham's catalog number except with a -CH, -MEP or -SQD identifying suffix.

<sup>(3)</sup> Reserved for future notes.

<sup>(4)</sup> Field installable 5th terminal kit for network services...Catalog Number ARP00035 (one per position).

<sup>(5)</sup> Field installable 5th terminal kit for network services...Catalog Number ARP00862.

<sup>(6)</sup> Anti-inversion clip factory installed in upper right-hand jaw of meter socket.

<sup>(7)</sup> Reserved for future notes.

<sup>(8)</sup> Dual #6-350MCM connectors factory installed.

## Section 1100 AMEREN APPROVED METER SOCKETS - Landis & Gyr

Wires	Phase	Terminals	Volts	Service Type	Max. Cont. Amps	Installation Type	Bypass Type	Manufacturer	Catalog #	Closure Plate Max. Hub Size	Max. # Cdr's Min/Max Cdr. Size
Temp	orary	Power				<u> </u>		<u> </u>		•	
3	1	4 or 5*	120/240	Residential Service or Temporary	100	OH	Horn	Landis & Gyr	LGP77RTS	C.P. / 2.5"	Line: One #6-350 MCM
3	1	4 or 5*	120/240	Residential Service or Temporary	100	UG	Horn	Landis & Gyr	LGP77RBS	N/A	Line: One #6-350 MCM
3	1	4 or 5*	120/240	Residential Service or Temporary	100	ОН	Horn	Landis & Gyr	LGPB77RTS w/ main	C.P. / 2.5"	Line: One #6-350 MCM
3	1	4 or 5*	120/240	Residential Service or Temporary	100	UG	Horn	Landis & Gyr	LGPB77RBS w/ main	N/A	Line: One #6-350 MCM
Resid	lential	Service									
3	1	4 or 5*	120/240	Residential Service	135	OH/UG	Horn	Landis & Gyr	UAT111-OPQG	H.O. / 2.5"	Line: One #14-2/0 Load: One #14-2/0
3	1	4 or 5*  * 5th jaw kit	120/240 120/208	Residential Service	135	ОН	Horn	Landis & Gyr Landis & Gyr	UAT111-BPQG H659-0121	1 1/4" HUB Installed	Line: One #14-2/0 Load: One #14-2/0
3	1	4 or 5*	120/240	Residential Service	200	ОН	Horn	Landis & Gyr	UAT317-OPQG	H.O. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 8x15x4.5"
3	1	4 or 5*	120/240	Residential Service	200	OH/UG	Horn	Landis & Gyr	UAT417-OPQG	H.O. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 11x15x4.5"
3	1	4 or 5*	120/240	Residential Service	200	OH/UG	Horn	Landis & Gyr	UAT417-XPQG	C.P. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 11x15x4.5"
3	1	4 or 5*	120/240	Residential Service	200	UG	Horn	Landis & Gyr	UAT417-PPQG	N/A	Line: One #6-350 MCM Load: One #6-350 MCM 11x15x4.5"
		* 5th jaw kit	120/208	_				Landis & Gyr	H659-0121		
З	1	4 or 5*	120/240	Residential Service	200	OH/UG	Horn	Landis & Gyr	UAT777-XPG	C.P. / 2.5" 3" Btm. KO	Line: One #6-350 MCM Load: One #6-350 MCM 13x15x5"
		* 5th jaw kit	120/208					Landis & Gyr	H659-0121		



**AMEREN APPROVED METER SOCKETS - Landis & Gyr** 

Wires	Phase	Terminals	Volts	Service Type	Max. Cont. Amps	Installation Type	Bypass Type	Manufacturer	Catalog #	Closure Plate Max. Hub Size	Max. # Cdr's Min/Max Cdr. Size
3	1	4	120/240	Residential/Commercial	320	OH/UG	Lever	Landis & Gyr	48104-82WI	L.C.P. / 4"	Line: 3/8-24 stud Load: 3/8-24 stud 6 Lugs Req'd. (not included) One #4-600 MCM or two #1/0-250 MCM
Resid	lential	Multi Gan	g -100 A	mp							
3	1	4 or 5*	120/240	2 Gang - Horizontal	100/100	OH/UG	Horn	Landis & Gyr	UA2311-OPQG	H.O. / 2.5"	Line: One #6-350 MCM Load: One #14-2/0 24x12x4.5"
3	1	4 or 5*	120/240	3 Gang - Horizontal	100/135	OH/UG	Horn	Landis & Gyr	UA3311-OPQG	H.O. / 2.5"	Line: One #6-350 MCM Load: One #14-2/0 32x12x4.5"
3	1	4 or 5*	120/240	4 Gang - Horizontal	100/180	OH/UG	Horn	Landis & Gyr	UA4311-OPQG	H.O. / 2.5"	Line: One #6-350 MCM Load: One #14-2/0 40x12x4.5"
		* 5th jaw kit	120/208					Landis & Gyr	H659-0121		
Resid	lential	Multi Gan	g - 200 A	Amp							
3	1	4 or 5*	120/240	2 Gang - Horizontal	200	OH/UG	Horn	Landis & Gyr	UA2717-YPQG	HD.O. / 4"	Line: One #6-350 MCM Load: One #6-350 MCM 24x14.5x5"
3	1	4 or 5*	120/240	3 Gang - Horizontal	200	OH/UG	Horn	Landis & Gyr	UA3717-YPQG	HD.O. / 4"	Line: One 1/0-600 MCM Load: One #6-350 MCM 32x14.5x5"
3	1	4 or 5*	120/240	4 Gang - Horizontal	200	OH/UG	Horn	Landis & Gyr	UA4719-YPQG	HD.O. / 4"	Line: One 1/0-600 MCM Load: One #6-350 MCM 43x14.5x5"
3	1	4 or 5*	120/240	5 Gang - Horizontal	200	OH/UG	Horn	Landis & Gyr	UA5719-KPQG	2 HD.O. / 4"	Line: One 1/0-600 MCM Load: One #6-350 MCM 51x14.4x5"
3	1	4 or 5*	120/240	6 gang - Horizontal	200	OH/UG	Horn	Landis & Gyr	UA6719-KPQG	2 HD.OP. / 4"	Line: One 1/0-600 MCM Load: One #6-350 MCM 59x14.5x5"
		* 5th jaw kit	120/208					Landis & Gyr	H659-0121		



**AMEREN APPROVED METER SOCKETS - Landis & Gyr** 

Wires	Phase	Terminals	Volts	Service Type		Installation Type	Bypass Type	Manufacturer	Catalog #	Closure Plate Max. Hub Size	Max. # Cdr's Min/Max Cdr. Size
Comb	oinatio	n Meter / I	Mains							•	
3	1	4 or 5	120/240	Residential with Main Brkr. Disconnect	125	OH/UG	Horn	Landis & Gyr	LGMM0202B1125RJBX (Side by side / Series)	C.P. / 2.5"	Line: #6-250 MCM Load: #2-1/0 CU, 2/0 AL 18.42x17x5.14"
3	1	4 or 5	120/240	Residential with Main Brkr. Disconnect	150	OH/UG	Horn	Landis & Gyr	LGMM0202B1150RJBX (Side by side / Series)	C.P. / 2.5"	Line: #6-250 MCM Load: #1-300 MCM 18.42x17x5.14"
3	1	4 or 5	120/240	Residential with Main Brkr. Disconnect	200	OH/UG	Horn	Landis & Gyr	LGMM0202B1200RJBX (Side by side / Series)	C.P. / 2.5"	Line: #6-250 MCM Load: #1-300 MCM 18.42x17x5.14"
3	1	4 or 5*	120/240	Residential with Space for Main Brkr.	200	UG	Horn	Landis & Gyr	UAB877-PG	N.A.	
3	1	4 or 5**	120/240	Residential with Main Brkr. Disconnect	320	OH/UG	Lever	Landis & Gyr	LGMM0404L1400RLM (Side by side)	L.C.P. / 4"	Line: One #4-600 MCM or two #1/0-250 MCM 27x29x6"
		** 5th jaw kit	120/208					Landis & Gyr	H35815-2		
Comr	nercia	Service									
3	1	4 or 5*	120/240	Commercial	200	ОН	Lever	Landis & Gyr	40804-01QG	H.0. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 10x17x5.2"
3	1	4 or 5*	120/240	Commercial	200	OH/UG	Lever	Landis & Gyr	40404-02QG	C.P. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 13x19x5.2"
		* 5th jaw kit	120/208					Landis & Gyr	H35815-2		
Comr	nercia	Service			1					<u> </u>	
3	1	5	120/240	Commercial	200	OH	Lever	Lamdis & Gyr	41005-01F (Aluminum)	H.O. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 10x17x5.2"
3	1	5	120/240	Commercial	200	ОН	Lever	Landis & Gyre	40005-01QG	H.O. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 10x17x5.2"



# Section 1100 AMEREN APPROVED METER SOCKETS - Landis & Gyr

									- Lanais & Cy	-	
Wires	Phase	Terminals	Volts	Service Type	Max. Cont. Amps	Installation Type	Bypass Type	Manufacturer	Catalog #	Closure Plate Max. Hub Size	Max. # Cdr's Min/Max Cdr. Size
3	1 3	4 5	120/240 480	Commercial	200	OH/UG	Lever	Landis & Gyr	40405-02QG	C.P. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 13X19X5.2"
3	1	5 5	120/240 480	Commercial	200	OH/UG	Lever	Landis & Gyr	9804-8592	C.P. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 13X19X5.2"
4	3	7	120/208	Commercial	200	ОН	Lever	Landis & Gyr	40007-01QG	N.P. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 10x17x5.2"
4	3	7 7	120/208 277/480	Commercial	200	OH/UG	Lever	Landis & Gyr	40407-02QG	C.P. / 2.5"	Line: One #6-350 MCM Load: One #6-350 MCM 13x19x5.2"
3	3	7 7	120/208 120/240	Commercial	320/400	OH/UG	Lever	Landis & Gyr	9804-9109	L.C.P. / 4"	1/2-20 stud 6 lugs, #H56732, provided. Accept two #4-350 MCM 20.25x34x6"
4	3	7	120/208	Commercial	320/400	OH/UG	Lever	Landis & Gyr	49007-01FL	L.C.P. / 4"	1/2-20 stud (Lugs not included) Recommend # H60162 One #4-600 MCM or two 1/0-250 MCM 20.25x34x6"



### AMEREN APPROVED METER COMBO SOCKETS -

### **Midwest Electric Products**

Wires	Phase	Terminals	Volts	Service Type	Max. Cont. Amps	Installation Type	Bypass Type	Manufacturer	Catalog #	Closure Plate Max. Hub Size	Max. # Cdr's Min/Max Cdr. Size
Temp	orary I	Power				•					
3	1	4 or 5*	120/240	Residential Service or Temporary	100	UG	Horn	Midwest	R011C010U	N.A.	Line: One #6-1/0 Load Prewired
3	1	4 or 5*	120/240	Residential Service or Temporary	100	ОН	Horn	Midwest	R011C010	C.P. / 2.5"	Line: One #6-1/0 Load Prewired
3	1	4 or 5*	120/240	Residential Service or Temporary	100	OH/UG	Horn	Midwest	R101CB2010 w/ main	C.P. / 2.5"	Line: One #6-1/0 Load Prewired
Comb	inatio	1 Sockets									
3	1	4 or 5*	120/240	Residential w/ Disconnect	200	OH/UG	Horn	Midwest	R281CB1 w/ 4 spaces (Series)	C.P. / 2.5"	Line: #6-4/0 Load: #1-4/0
3	1	4 or 5*	120/240	Residential w/ Disconnect	200	OH/UG	Horn	Midwest	R282CB1 w/ 4 spaces (Parellel)	C.P. / 2.5"	Line: #6-4/0 Load: #1-4/0
3	1	4 or 5**	120/240	Residential w/ Disconnect	200	OH/UG	Horn	Midwest	RS250C (Side by side)	C.P. / 2.5"	Line: 1/0-250 MCM Load: 1/0-250 MCM
		*5th jaw kit **5th jaw kit	120/208					Midwest Midwest	MS5 MS%MIL		
3	1	4	120/240	Commercial / Residential	320	UG	Lever	Midwest	RS45500C	N/A	Load: #1-300 MCM
Meter	ed Pec	lestal Unit	:s**								
3	1	4 or 5*	120/240	Single w/ Disconnect Residential	100	UG	Horn	Midwest	R101CP6 w/ 3 spaces (series)	N.A.	Line: #2-250 MCM Load: Prewired
3	1	4 or 5*	120/240	Single w/ Disconnect Mobile Home	200	UG	Horn	Midwest	R281C1P6H w/ 4 spaces (Series)	N/A	Line: #6-350 MCM Load: Prewired
3	1	4 or 5*	120/240	Single w/ Disconnect Mobile Home	200	UG	Horn	Midwest	R282C1P6H w/ 4 spaces (Parellel)	N/A	Line: #6-350 MCM Load: Prewired
3	1	4 or 5*	120/240	Double, B/B Mobile Home	200	UG	Horn	Midwest	R281C1B6H w/ 4 spaces (Series)	N/A	Line: #6-350 MCM Load: Prewired
3	1	4 or 5*	120/240	Double, B/B Mobile Home	200	UG	Horn	Midwest	R281C1B6H w/ 4 spaces (Parellel)	N/A	Line: #6-350 MCM Load: Prewired
		* 5th jaw kit	120/208						MS5		
				All pedestal installations requi an in ground depth of 36 inche and a footed base.				Midwest Midwest	EK129 FBEM9		9" wide x 18" long



## Section 1100 AMEREN APPROVED METERING DEVICES - Siemens

Wires	Phase	Terminals	Volts	Service Type	Max. Cont.	Installation	Dynago	Manufacturer	Catalog #	Closure Plate	Max. # Cdr's
wires	Pnase	Terminais	Voits	Service Type	Amps	Type	Bypass Type	Manutacturer	Catalog #	Max. Hub Size	Min/Max Cdr. Size
/leter	Mains		1		ı.						
3	1	5	120/240	Residential	200	OH/UG	Horn	Siemens	MM0406L1200RHJB	3.0"	Line: One #6 - 350kcmil
3	1	4 or 5*	120/240	Residential	320	OH/UG	Lever	Siemens	MM0404L1400RLM	4.0"	Line: One #4 - 600kcmil
3	1	5	120/240	Residential	200	OH/UG	Horn	Siemens	MM0202B1200RJB	3.0"	Line: One #6 - 350kcmil
3	1	5	120/240	Residential	200	OH/UG	Horn	Siemens	MM0202B1200RJBX	3.0"	Line: One #6 - 350kcmil
leter	Combin	ation Device	es					•			
3	1	4 or 5*	120/240	Residential	320	OH/UG	Lever	Siemens	MC0408B1400RLTM	4.0"	Line: One #4 - 600kcmil
3	1	4 or 5*	120/240	Residential	320	OH/UG	Lever	Siemens	MM0816B1400RLTM	4.0"	Line: One #4 - 600kcmil
odul	ar Mete	rstacks - Re	sidential								
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	WMM2UR	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	WMM3UR	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	WMM2200UR	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	WMM3200UR	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	WMM34UR	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	WMM34200UR	Bussed	Line: Bussed
odul	ar Mete	rstacks - Co									
3	1	4	120/240	Commercial	200	OH/UG	Lever	Siemens	W1MM1225U	Bussed	Line: Bussed
3	1	4	120/240	Commercial	200	OH/UG	Lever	Siemens	W1MM2225U	Bussed	Line: Bussed
3	1	4	120/240	Commercial	200	OH/UG	Lever	Siemens	W1MM3225U	Bussed	Line: Bussed
3	1	4	120/240	Commercial	320	OH/UG	Lever	Siemens	W1MM1400	Bussed	Line: Bussed
3	1	4	120/240	Commercial	320	OH/UG	Lever	Siemens	W1MM2400	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W2MM1225U	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W2MM2AB225U	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W2MM2BC225U	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W2MM2CA225U	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W2MM3225U	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	320	OH/UG	Lever	Siemens	W2MM1400AB	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	320	OH/UG	Lever	Siemens	W2MM2400AB	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	100	OH/UG	Lever	Siemens	W3MM1	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	100	OH/UG	Lever	Siemens	W3MM2	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	100	OH/UG	Lever	Siemens	W3MM3	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W3MM1200U	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W3MM2200U	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	200	OH/UG	Lever	Siemens	W3MM3200U	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	320	OH/UG	Lever	Siemens	W3MM1400	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	320	OH/UG	Lever	Siemens	W3MM2400U	Bussed	Line: Bussed
		- Residentia					1				
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP2211RJB	3.0"	Line: #6 - 300 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP3311RJB	3.5"	Line: #6 - 300kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP4411RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP4511RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP4611RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP6511RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Siemens	SP6611RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	SP4212RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	SP4312RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	SP4412RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	SP6512RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Siemens	SP6612RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil



## Section 1100 AMEREN APPROVED METERING DEVICES - Murray

Wires	Phase	Terminals	Volts	Service Type	Max. Cont. Amps	Installation Type	Bypass Type	Manufacturer	Catalog #	Closure Plate Max. Hub Size	Max. # Cdr's Min/Max Cdr. Size
Meter	Mains									0.20	
3	1	5	120/240	Residential	200	OH/UG	Horn	Murray	JC0406L1200RHJB	3.0"	Line: One #6 - 350kcmil
3	1	4 or 5*	120/240	Residential	320	OH/UG	Lever	Murray	JC0404L1400RLM	4.0"	Line: One #4 - 600kcmil
3	1	5	120/240	Residential	200	OH/UG	Horn	Murray	JC0202B1200RJB	3.0"	Line: One #6 - 350kcmil
leter (	Combir	nation Devic	es								
3	1	4 or 5*	120/240	Residential	320	OH/UG	Lever	Murray	JA0816B1400RLTM	4.0"	Line: One #4 - 600kcmil
lodul	ar Mete	rstacks - Re			-			,			
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	DC331	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	DC232W	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	DC332W	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	DC341W	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	DC342W	Bussed	Line: Bussed
AK M	etering										
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP2211RJB	3.0"	Line: #6 - 300 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP3311RJB	3.5"	Line: #6 - 300kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP4411RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP4511RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP4611RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP6511RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
3	1	4 or 5*	120/240	Residential	100	OH/UG	Horn	Murray	MP6611RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	MP4212RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	MP4312RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	MP4412RJB	(2) - 4.0"	Line: 1/0 - 750 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	MP6512RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
3	1	4 or 5*	120/240	Residential	200	OH/UG	Horn	Murray	MP6612RJB	(2) - 4.0"	Line: (2) #2 - 600 kcmil
lodul	ar Mete	rstacks - Co	mmercial								
3	1	4 or 5*	120/240	Commercial	100	OH/UG	Horn	Murray	DC331W	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Commercial	200	OH/UG	Horn	Murray	DC232W	Bussed	Line: Bussed
3	1	4 or 5*	120/240	Commercial	200	OH/UG	Horn	Murray	DC332W	Bussed	Line: Bussed
3	1	4 or 5*	208Y/120	Commercial	100	OH/UG	Horn	Murray	DC341W	Bussed	Line: Bussed
3	1	4 or 5*	208Y/120	Commercial	200	OH/UG	Horn	Murray	DC342W	Bussed	Line: Bussed
3	1	4	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL135W4	Bussed	Line: Bussed
3	1	4	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL235W4	Bussed	Line: Bussed
3	1	4	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL335W4	Bussed	Line: Bussed
3	1	4	208Y/120	Commercial	320	OH/UG	Lever	Murray	DL133W4	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL145W5	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL245W5	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL345W5	Bussed	Line: Bussed
3	1	5	208Y/120	Commercial	320	OH/UG	Lever	Murray	DL133W5	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	100	OH/UG	Lever	Murray	DL141W7	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	100	OH/UG	Lever	Murray	DL241W7	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	100	OH/UG	Lever	Murray	DL341W7	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL142W7	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL242W7	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	200	OH/UG	Lever	Murray	DL342W7	Bussed	Line: Bussed
3	4	7	208Y/120	Commercial	320	OH/UG	Lever	Murray	DL143W7	Bussed	Line: Bussed



# Section 1100 AMEREN APPROVED METER COMBO SOCKETS CUTLER-HAMMER

		A	APPLICATI	ON		AMEREN	METER SOCKET APP	ROVAL LIST	NUMBER OF TERMINALS	MAX HUB SIZE	DRAWING NUMBER
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	MANUFACTURER	CATALOG NUMBER	1		
3	1	200	120/240	2 Gang Vertical	125	UnderGround Resi	Cutler-Hammer	1MP2122RRLB	4	4"	96-2282
3	1	200	120/240	2 Gang Vertical	125	UnderGround Resi	Cutler-Hammer	IMP2122RRLBC	4	4"	96-2282
3	1	400	120/240	3 Gang Vertical	125	UnderGround Resi	Cutler-Hammer	1MP3124RRLB	4	4"	96-5367
3	1	400	120/240	4 Gang Vertical	125	UnderGround Resi	Cutler-Hammer	1MP4124RRLB	4	4"	96-5368
3	1	600	120/240	5 Gang Vertical	125	UnderGround Resi	Cutler-Hammer	1MP5126RRLB	4	4"	96-5369
3	1	600	120/240	6 Gang Vertical	125	UnderGround Resi	Cutler-Hammer	1MP6126RRLB	4	4"	96-5370
3	1	400	120/240	2 Gang Vertical	200	UnderGround Resi	Cutler-Hammer	1MP2204RRLB	4	4"	96-5371
3	1	600	120/240	3 Gang Vertical	200	UnderGround Resi	Cutler-Hammer	1MP3206RRLB	4	4"	96-5372
3	1	600	120/240	4Gang Vertical	200	UnderGround Resi	Cutler-Hammer	1MP4206RRLB	4	4"	96-5373
3	1	600	120/240	5 Gang Vertical	200	UnderGround Resi	Cutler-Hammer	1MP5206RRLB	4	4"	96-5374
3	1	600	120/240	6 Gang Vertical	200	UnderGround Resi	Cutler-Hammer	1MP6206RRLB	4	4"	96-5375
3	1	400	120/240	3 Gang Vertical	125	Underground Resi - Copper	Cutler-Hammer		4	4"	
3	1	400	120/240	4Gang Vertical	125	Underground Resi - Copper	Cutler-Hammer	1MP4124RRLBC	4	4"	96-5368
3	1	600	120/240	5 Gang Vertical	125	Underground Resi - Copper	Cutler-Hammer	1MP5126RRLBC	4	4"	96-5369
3	1	600	120/240	6 Gang Vertical	125	Underground Resi - Copper	Cutler-Hammer	1MP6126RRLBC	4	4"	96-5370
3	1	400	120/240	2 Gang Vertical	200	Underground Resi - Copper	Cutler-Hammer	1MP2204RRLBC	4	4"	96-5371
3	1	600	120/240	3 Gang Vertical	200	Underground Resi - Copper	Cutler-Hammer	1MP3206RRLBC	4	4"	96-5372
3	1	600	120/240	4Gang Vertical	200	Underground Resi - Copper	Cutler-Hammer	1MP4206RRLBC	4	4"	96-5373
3	1	600	120/240	5 Gang Vertical	200	Underground Resi - Copper	Cutler-Hammer	1MP5206RRLBC	4	4"	96-5374
3	1	600	120/240	6 Gang Vertical	200	Underground Resi - Copper	Cutler-Hammer	1MP6206RRLBC	4	4"	96-5375
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3	1	800	120/240	3 Gang	125	Residential	Cutler-Hammer	1MM312RRLB	4	1.5"	96-4356
3	1	800	120/240	4 Gang	125	Residential	Cutler-Hammer	1MM412RRLB	4	1.5"	96-4356
3	1	800	120/240	5 Gang	125	Residential	Cutler-Hammer	1MM512RRLB	4	1.5"	96-4356



# Section 1100 AMEREN APPROVED METER COMBO SOCKETS CUTLER-HAMMER

		,	APPLICATI	ON		AMEREN	METER SOCKET APP	ROVAL LIST	NUMBER OF TERMINALS	MAX HUB SIZE	DRAWING NUMBER
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	MANUFACTURER	CATALOG NUMBER			
3	1	600	120/240	6 Gang	125	Residential	Cutler-Hammer	1MM612RRLB	4	1.5"	96-4356
3	1	800	120/240	3 Gang	125	Residential	Cutler-Hammer	1MM312RRLB	4	2"	96-4356
3	1	800	120/240	4 Gang	200	Residential	Cutler-Hammer	1MM420RRLB	4	1.5"	96-4357
4	3	800	120/208	2 Gang	125	Residential	Cutler-Hammer	3MM212RRLB	5	1.5"	96-4356
4	3	800	120/208	3 Gang	125	Residential	Cutler-Hammer	3MM312RRLB	5	1.5"	96-4356
4	3	800	120/208	4 Gang	125	Residential	Cutler-Hammer	3MM412RRLB	5	1.5"	96-4356
4	3	600	120/208	5 Gang	125	Residential	Cutler-Hammer	3MM512RRLB	5	1.5"	96-4356
4	3	800	120/208	6 Gang	125	Residential	Cutler-Hammer	3MM612RRLB	5	1.5"	96-4356
4	3	800	120/208	2 Gang	200	Residential	Cutler-Hammer	3MM220RRLB	5	2"	96-4357
4	3	800	120/208	3 Gang	200	Residential	Cutler-Hammer	3MM320RRLB	5	2"	96-4357
4	3	800	120/208	4 Gang	200	Residential	Cutler-Hammer	3MM420RRLB	5	2"	96-4357
3	1	800	120/240	3 Gang	125	Residential	Cutler-Hammer	1MM312RRLBC	4	1.5"	96-4356
3	1	800	120/240	4 Gang	125	Residential	Cutler-Hammer	1MM412RRLBC	4	1.5"	96-4356
3	1	800	120/240	5 Gang	125	Residential	Cutler-Hammer	1MM512RRLBC	4	1.5"	96-4220
3	1	600	120/240	6 Gang	125	Residential	Cutler-Hammer	1MM612RRLBC	4	1.5"	96-4356
3	1	800	120/240	3 Gang	200	Residential	Cutler-Hammer	1MM320RRLBC	4	2"	96-4357
3	1	800	120/240	4 Gang	200	Residential	Cutler-Hammer	1MM420RRLBC	4	1.5"	96-4357
4	3	800	120/208	2 Gang	125	Residential	Cutler-Hammer	3MM212RRLBC	5	1.5"	96-4356
4	3	800	120/208	3 Gang	125	Residential	Cutler-Hammer	3MM312RRLBC	5	1.5"	96-4356
4	3	800	120/208	4 Gang	125	Residential	Cutler-Hammer	3MM412RRLBC	5	1.5"	96-4356
4	3	600	120/208	5 Gang	125	Residential	Cutler-Hammer	3MM512RRLBC	5	1.5"	96-4356
4	3	800	120/208	6 Gang	125	Residential	Cutler-Hammer	3MM612RRLBC	5	1.5"	96-4356
4	3	800	120/208	2 Gang	200	Residential	Cutler-Hammer	3MM220RRLBC	5	2"	96-4357
4	3	800	120/208	3 Gang	200	Residential	Cutler-Hammer	3MM320RRLBC	5	2"	96-4357
4	3	800	120/208	4 Gang	200	Residential	Cutler-Hammer	3MM420RRLBC	5	2"	96-4357



# Section 1100 AMEREN APPROVED METER COMBO SOCKETS CUTLER-HAMMER

		Δ	PPLICATI	ION		AMEREN	METER SOCKET APP	ROVAL LIST	NUMBER OF TERMINALS	MAX HUB SIZE	DRAWING NUMBER
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	MANUFACTURER	CATALOG NUMBER			
4	3	1200	120/208	2 Gang	125	Residential	Cutler-Hammer	3MM212R12RLB	5	1.5"	N/A
4	3	1200	120/208	3 Gang	125	Residential	Cutler-Hammer	3MM312R12RLB	5	1.5"	N/A
4	3	1200	120/208	4 Gang	125	Residential	Cutler-Hammer	3MM412R12RLB	5	1.5"	N/A
4	3	1200	120/208	5 Gang	125	Residential	Cutler-Hammer	3MM512R12RLB	5	1.5"	N/A
4	3	1200	120/208	6 Gang	125	Residential	Cutler-Hammer	3MM612R12RLB	5	1.5"	N/A
4	3	1200	120/208	2 Gang	200	Residential	Cutler-Hammer	3MM220R12RLB	5	2"	N/A
4	3	1200	120/208	3 Gang	200	Residential	Cutler-Hammer	3MM320R12RLB	5	2"	N/A
4	3	1200	120/208	4 Gang	200	Residential	Cutler-Hammer	3MM420R12RLB	5	2"	N/A
3	1	1200	120/240	1 Gang	225	Commercial	Cutler-Hammer	35MM120R12	4	3"	96-1988
3	1	1200	120/240	2 Gang	225	Commercial	Cutler-Hammer	35MM220R12	4	3"	96-1988
3	1	1200	120/240	3 Gang	225	Commercial	Cutler-Hammer	35MM320R12	4	3"	96-1988
3	1	1200	120/240	4 Gang	225	Commercial	Cutler-Hammer	35MM420R12	4	3"	96-1988
3	1	1200	120/240	4 Gang	400	Commercial	Cutler-Hammer	35MM140R1240	4	3"	96-4754
			100/000	1.0					<u> </u>		T
4	3	1200	120/208	1 Gang	225	Commercial	Cutler-Hammer	37MM120R12	5	3"	96-1988
4	3	1200	120/208	2 Gang	225	Commercial	Cutler-Hammer	37MM220R12	5	3"	96-1988
4	3	1200	120/208	3 Gang	225	Commercial	Cutler-Hammer	37MM320R12	5	3"	96-1988
4	3	1200	120/208	4 Gang	225	Commercial	Cutler-Hammer	37MM420R12	5	3"	96-1988
4	3	1200	120/208	1 Gang W/ Provisions for 2 200A Main Breakers	400	Commercial	Cutler-Hammer	37MM140R12	5	3"	96-1988
4	3	1200	120/208	1 Gang	400	Commercial	Cutler-Hammer	37MM140R1240	5	3"	96-4754
3	1	600	120/240	Temporary Power Pole 100	100		Cutler-Hammer	CHR7N6NSU100M			N/A



### AMEREN APPROVED METER SOCKETS AND CT ENCLOSURES - COOPER B-LINE

			APPLICATION			AMEREN ME	TER SOCKE	TS APPROVA	L LIST		
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	BY-PASS	MANUFACT URER	CATALOG NUMBER	NUMBER OF TERMINALS	MAX HUB SIZE
3	1	200A	120/240	APARTMENT 2 GANG	0-200A	SELF-CONTAINED OH/UG	HORN	B-LINE	HEH20432CGRSTG4311	4	4"
	'	200A	120/240	AFAITIMENT 2 GAING	0-200A	SELF-CONTAINED OH ONLY	HOM	D-LINE	11112043200103104311	-	7
3	1	100A	120/240	RESIDENTIAL SERVICE	0-100A	METER MAIN COMBO W/BREAKER	HORN	B-LINE	EHCB10L24A3GRST	4	2 1/2"
3	1	200A	120/240	RESIDENTIAL SERVICE	0-200A	SELF-CONTAINED OH/UG	HORN	B-LINE	EH20L43GRSTG4	4	2 1/2"
3	1	200A	120/240	RESIDENTIAL SERVICE	0-200A	SELF-CONTAINED UG	HORN	B-LINE	EH20L42GRSTG4	4	NONE
3	1	125A/POSITION	120/240	APARTMENT 2 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP12432LGRST	4	4"
3	1	200A/POSITION	120/240	APARTMENT 2 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP20432LGRST		4"
3	1	125A/POSITION	120/240	APARTMENT 3 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP12433LGRST	4	4"
3	1	200A/POSITION	120/240	APARTMENT 3 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP20433LGRST	4	4"
3	1	125A/POSITION	120/240	APARTMENT 4 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP12434CGRST	4	4"
3	1	200A/POSITION	120/240	APARTMENT 4 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP20434CGRST	4	4"
3	1	125A/POSITION	120/240	APARTMENT 5 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP12435CGRST	4	4"
3	1	200A/POSITION	120/240	APARTMENT 5 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP20435CGRST	4	4"
3	1	125A/POSITION	120/240	APARTMENT 6 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VENMP12436CGRST	4	4"
3	1	200A/POSITION	120/240	APARTMENT 6 GANG	0-200A	SELF-CONTAINED OH/UG W/CB PROVISION	HORN	B-LINE	VEHMP20436CGRST	4	4"
RESIDENTIA	L OR COMME	RCIAL SERVICE		•	•			•		-	
4	3	320A	120/240	COMMERCIAL SERVICE	320A	SELF-CONTAINED OH/UG	LEVER	B-LINE	EL32T76GRSTG4 & 32AIC	7	4"
3	1	320A	120/240	COMMERCIAL SERVICE	320A	SELF-CONTAINED UG W/2-200A CB	LEVER	B-LINE	ELCB32C24A4GRST & 32AIC	4	NONE
COMMERCIA	L SERVICE										
4	3	200A/POSITION	120/240	COMMERCIAL SERVICE	0-200A	SELF-CONTAINED OH/UG	LEVER	B-LINE	EL20L73GRSTG4	7	4"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE	0-200A	SELF-CONTAINED OH/UG	LEVER	B-LINE	EL20L43GRSTG4	4	4"
4	3	200A/POSITION	240V MAX.	COMMERCIAL SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG	LEVER	B-LINE	HEL20732CGR1N	7	2 1/2"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG	LEVER	B-LINE	HEL20432CGR1N	5	2 1/2"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG	LEVER	B-LINE	HEL20433CGR1N	5	2 1/2"



### AMEREN APPROVED METER SOCKETS AND CT ENCLOSURES - COOPER B-LINE

				VALD MILITIA SI	SOKET	S AND CT ENCLO					
			APPLICATION			AMEREN MI	ETER SOCKE	TS APPROVA	L LIST		
WIRES	PHASE	SERVICE AMPS	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	BY-PASS	MANUFACT URER	CATALOG NUMBER	NUMBER OF TERMINALS	MAX HUE SIZE
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG	LEVER	B-LINE	HEL20434CGR1N	5	2 1/2"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG w/ CB PROVISION	LEVER	B-LINE	VELMP20432LGRST5K9	5	2 1/2"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG w/ CB PROVISION	LEVER	B-LINE	VELMP20433LGRST5K9	5	2 1/2"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG w/ CB PROVISION	LEVER	B-LINE	VELMP20434CGRST5K9	5	2 1/2"
3	1	200A/POSITION	120/240	COMMERCIAL SERVICE 5 GANG	0-200A	SELF-CONTAINED OH/UG w/ CB PROVISION	LEVER	B-LINE	VELMP20435CGRST5K9	5	2 1/2"
SUSSED CT	CABINETS									PT CABINET#	
3	1	800A	120/240	RESIDENTIAL OR COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	244811HRTCT & 6019HE	NOT REQUIRED	
3	1	800A	120/240	RESIDENTIAL OR COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	304811HRTCT & 6019HEL	NOT REQUIRED	
4	3 DELTA	800A	240	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	244811HRTCT & 6019HE	NOT REQUIRED	
4	3 DELTA	800A	240	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	304811HRTCT & 6019HEL	NOT REQUIRED	
4	3	800A	120/208	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	244811HRTCT + 6067HEE	NOT REQUIRED	
4	3	800A	120/208	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	304811HRTCT + 6067HEEL	NOT REQUIRED	
4	3Y	800A	120/208	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	244811HRTCT + 6067HEE	NOT REQUIRED	
4	3Y	800A	120/208	COMMERCIAL SERVICE	401-800A	BUSSED CT CABINETS-BAR TYPE CT'S	N/A	B-LINE	304811HRTCT + 6067HEEL	NOT REQUIRED	



## Section 1100 AMEREN APPROVED METER SOCKETS

Wires	Phase	Volts	Service	Max Amps	Installation Type		Catalog #	Hub (separate)	Lug Wire Range	Bypass Type
3	1	120/240	Residential	125A	OH	Square D	UGHTRS101L	A125	L(1)8-2/0 G(1)14-2	Horn
3	1	120/240	Residential	125A	OH	Square D	URS101BDQ	Series A	L(1)8-2/0 G(1)14-2	Horn
3	1	120/240	Residential	125A	OH/UG	Square D	UGHTRS111C	Series A	L(1)8-2/0 G(1)14-2	Horn
3	1	120/240	Residential	200A	OH/UG	Square D	UBHMRS212B	Series A	L(1)8-250 G None	Horn
3	1	120/240	Residential	200A	OH	Square D	UHTRSS202B	Series A	L(1)8-250 G14-2	Horn
3	1	120/240	Residential	200A	OH/UG	Square D	UHTRS212B	Series A	L(1)8-250 G14-2	Horn
3	1	120/240	Residential	200A	OH/UG	Square D	UHTRS213B	Series A	L(1)1/0-350 G14-2	Horn
3	1	120/240	Residential	200A	UG	Square D	UHTRS223A	SOLID TOP	L(1)1/0-350 G14-2	Horn
3	1	120/240	Residential	200A	UG	Square D	URS212ADQ	SOLID TOP	L(1)8-250 G None	Horn
3	1	120/240	Commercial	200A	OH	Square D	UTH4203T	Series A-L	L(1)6-350 G14-2	Lever
3	1	120/240	Commercial	200A	OH/UG	Square D	UTH4213T	Series A-L	L(1)6-350 G14-2	Lever
3	1	120/240	Commercial	200A	OH	Square D	UTH5203T	Series A-L	L(1)6-350 G14-2	Lever
3	1	120/240	Commercial	200A	OH/UG	Square D	UTH5213T	Series A-L	L(1)6-350 G14-2	Lever
3	1	120/240	Commercial	320A	OH/UG	Square D	UTH4330T	Series A-L	Studs Only	Lever
4	3	120/240	Commercial	200A	OH/UG	Square D	UTH7213T	Series A-L	L(1)6-350 G14-2	Lever
4	3	120/240	Commercial	320A	OH	Square D	UTH7300T	Series A-L	Studs Only	Lever
	J ]	120/240	Commercial	320A	OH	Square D	0111/3001	Gelles A-L	Stads Only	Level
EZ Meter	r-Pak Meter	r Centers						Main Device		
3	1	120/240	Residential	400A	OH/UG	Square D	EZM1400CB	Circuit Breaker	L(1)600 or (2)1-250	
3	1	120/240	Residential	600A	OH/UG	Square D	EZM1600CB	Circuit Breaker	L(3)3/0-500	
3	1	120/240	Residential	800A	OH/UG	Square D	EZM1800CB	Circuit Breaker	L(3)3/0-500	
3	1	120/240	Residential	1000A	OH/UG	Square D	EZM11000CB	Circuit Breaker	L(3)3/0-500	
3	1	120/240	Residential	1200A	OH/UG	Square D	EZM11200CB	Circuit Breaker	L(4)1/0-750	
3	1	120/240	Residential	1600A	OH/UG	Square D	EZM11600CB	Circuit Breaker	L(6)1/0-750	-
3	1	120/240	Residential	2000A	OH/UG	Square D	EZM12000CB	Circuit Breaker	L(6)1/0-750 or (12)1/0-250	1
3	1	120/240	Residential	400A	OH/UG	Square D	EZM1400FS	Fusible	L(1)1-600 or (2)1-250	-
3	1	120/240	Residential	600A	OH/UG	Square D	EZM1600FS	Fusible	L(3)3/0-500	1
3	1	120/240	Residential	800A	OH/UG	Square D	EZM1800FS	Fusible	L(3)3/0-500	
3	1	120/240	Residential	1200A	OH/UG	Square D	EZM11200FS	Fusible	L(4)1/0-750	-
3	1	120/240	Residential	225A	OH/UG	Square D	EZM1225TB	Main Lugs	L(1)4-300	-
3	1	120/240	Residential	400A	OH/UG	Square D	EZM1400TB	Main Lugs	L(2)3/0-500	+
3	1	120/240	Residential	600A	OH/UG	Square D	EZM1600TB	Main Lugs	L(2)1/0-750 or (4)1/0-300	-
3	1	120/240	Residential	800A	OH/UG	Square D	EZM1800TB	Main Lugs	L(4)3/0-500	+
3	1	120/240	Residential	800A	OH/UG	Square D	EZM1800TBCU	Main Lugs	L(4)3/0-500	+
3	1	120/240	Residential	1600A	OH/UG	Square D	EZM11600TB	Main Lugs	L(6)3/0-600	+
3	1	120/240	Residential	400A	UG	Square D	EZM1400CBU	Circuit Breaker	Factory Installed Lug Landings	+
3	1	120/240	Residential	600A	UG	Square D	EZM1600CBU	Circuit Breaker	Factory Installed Lug Landings	-
3	1	120/240		800A	UG		EZM1800CBU			-
3	1	120/240	Residential Residential	1000A	UG	Square D Square D	EZM1000CBU	Circuit Breaker Circuit Breaker	Factory Installed Lug Landings Factory Installed Lug Landings	+
3	1	120/240	Residential	1200A	UG	Square D Square D	EZM11000CBU EZM11200CBU	Circuit Breaker Circuit Breaker		+
3	1	120/240	Residential	1200A 1600A	UG	Square D Square D	EZM11200CBU		Factory Installed Lug Landings	+
				2000A				Circuit Breaker	Factory Installed Lug Landings	+
3	1	120/240	Residential	400A	UG UG	Square D	EZM12000CBU	Circuit Breaker	Factory Installed Lug Landings	+
3		120/240	Residential			Square D	EZM1400FSU	Fusible	Factory Installed Lug Landings	+
3	1	120/240	Residential	600A	UG	Square D	EZM1600FSU	Fusible	Factory Installed Lug Landings	
3	1	120/240	Residential	800A	UG	Square D	EZM1800FSU	Fusible	Factory Installed Lug Landings	
3	1	120/240	Residential	1200A	UG	Square D	EZM11200FSU	Fusible	Factory Installed Lug Landings	
3	1	120/240	Residential	400A	UG	Square D	EZM1400TBU	Main Lugs	Factory Installed Lug Landings	
3	1	120/240	Residential	800A	UG	Square D	EZM1800TBU	Main Lugs	Factory Installed Lug Landings	
3	1	120/240	Residential	1200A	UG	Square D	EZM11200TBU	Main Lugs	Factory Installed Lug Landings	
	r-Pak Meter							Branch Device	Maximum Circuit Breaker	<del></del>
3	1	120/240	Residential	800A	Branch Units	Square D	EZMH113125	3 Sockets	125A	Horn
3	1	120/240	Residential	1200A	Branch Units	Square D	EZMH113125CUX	3 Sockets	125A	Horn
3	1	120/240	Residential	800A	Branch Units	Square D	EZMH112225	2 Sockets	225A	Horn
3	1	120/240	Residential	1200A	Branch Units	Square D	EZMH112225CUX	2 Sockets	225A	Horn
3	1	120/240	Residential	800A	Branch Units	Square D	EZMH113225	3 Sockets	225A	Horn



## Section 1100 AMEREN APPROVED METER SOCKETS

					,		ILILK SOCKLIS			
Wires	Phase	Volts	Service	Max Amps	Installation Type		Catalog #	Hub (separate)	Lug Wire Range	Bypass Type
3	1	120/240	Residential	125A	OH	Square D	UGHTRS101L	A125	L(1)8-2/0 G(1)14-2	Horn
3	1	120/240	Residential	1200A	Branch Units	Square D	EZMH113225CUX	3 Sockets	225A	Horn
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML111225	1 Socket	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML111225CU	1 Socket	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML111225D	1 Socket	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML112225	2 Sockets	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML112225CU	2 Sockets	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML112225D	2 Sockets	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML113225	3 Sockets	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML113225CU	3 Sockets	225A	Lever
3	1	120/240	Commercial	1200A	Branch Units	Square D	EZML113225D	3 Sockets	225A	Lever
		120/240	Commercial	1200/1	Branon Onico	Oquaic D	EZIVIET TOZZOB	O COCKCIO	ZZOT	LOVOI
EZ Meter	r-Pak Mete	er Centers						Main Device		
4	3	208Y/120 or 240/120	Commercial	400A	OH/UG	Square D	EZM3400CB	Circuit Breaker	L(1)1-600 or (2)1-250	
4	3	208Y/120 or 240/120	Commercial	600A	OH/UG	Square D	EZM3600CB	Circuit Breaker	L(3)3/0-500	
4	3	208Y/120 or 240/120	Commercial	800A	OH/UG	Square D	EZM3800CB	Circuit Breaker	L(3)3/0-500	-
4	3	208Y/120 or 240/120	Commercial	1000A	OH/UG	Square D	EZM31000CB	Circuit Breaker	L(3)3/0-500	-
4	3	208Y/120 or 240/120	Commercial	1200A	OH/UG	Square D	EZM31200CB	Circuit Breaker	L(4)1/0-750	_
4	3	208Y/120 or 240/120	Commercial	1600A	OH/UG	Square D	EZM31600CB	Circuit Breaker	L(6)1/0-750	_
4	3	208Y/120 or 240/120	Commercial	2000A	OH/UG	Square D	EZM32000CB	Circuit Breaker	L(6)1/0-750 or (12)1/0-250	-
4	3	208Y/120 or 240/120	Commercial	400A	OH/UG	Square D	EZM3400FS	Fusible	L(1)1-600 or (2)1-250	-
4	3	208Y/120 or 240/120	Commercial	600A	OH/UG	Square D	EZM3600FS	Fusible	L(3)3/0-500	_
4	3	208Y/120 or 240/120	Commercial	800A	OH/UG	Square D	EZM3800FS	Fusible	L(3)3/0-500	-
4	3	208Y/120 or 240/120	Commercial	225A	OH/UG	Square D	EZM3225TB	Main Lugs	L(1)4-300	-
4	3	208Y/120 or 240/120	Commercial	400A	OH/UG	Square D	EZM3400TB	Main Lugs	L(2)3/0-500	_
4	3	208Y/120 or 240/120	Commercial	600A	OH/UG	Square D	EZM3600TB	Main Lugs	L(2)1/0-750 or (4)1/0-300	_
4	3	208Y/120 or 240/120	Commercial	800A	OH/UG	Square D	EZM3800TB	Main Lugs	L(4)3/0-500	_
4	3	208Y/120 or 240/120	Commercial	800A	OH/UG	Square D	EZM3800TBCU	Main Lugs	L(4)3/0-500 L(4)3/0-500	-
4	3	208Y/120 or 240/120	Commercial	1600A	OH/UG	Square D	EZM31600TB	Main Lugs	L(6)3/0-600	-
		er Centers	Commercial	1000A	On/OG	Square D	EZIVIS TOUUT B	Branch Device	Maximum Circuit Breaker	
4	3	208Y/120	Commercial	1200A	Branch Units	Square D	EZML312225	2 Sockets	225A	Lever
4	3	208Y/120	Commercial	1200A 1200A	Branch Units	Square D	EZML312225CU	2 Sockets	225A 225A	Lever
4		208Y/120	Commercial	1200A 1200A	Branch Units	Square D	EZML312225D	2 Sockets	225A 225A	Lever
	3	208Y/120 208Y/120	Commercial	1200A 1200A	Branch Units		EZML313225	3 Sockets	225A 225A	Lever
4						Square D				
4	3	208Y/120 208Y/120	Commercial	1200A 1200A	Branch Units	Square D	EZML313225CU EZML313225D	3 Sockets	225A 225A	Lever
•	3		Commercial		Branch Units	Square D		3 Sockets		Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML331225	1 Socket	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML331225CU	1 Socket	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZM331225D	1 Socket	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML332225	2 Sockets	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML332225CU	2 Sockets	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML332225D	2 Sockets	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML333225	3 Sockets	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML333225CU	3 Sockets	225A	Lever
4	3	208Y/120 or 240/120	Commercial	1200A	Branch Units	Square D	EZML333225D	3 Sockets	225A	Lever



# Section 1100 AMEREN APPROVED CT & PT ENCLOSURES AND COLD-SEQUENCE METER SOCKETS ERICKSON

		APPL	ICATION		AMEREN METER	SOCKET APPROVA	AL LIST	NUMBER OF	MAX HUB
WIRES	PHASE	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	MANUFACTURER	CATALOG NUMBER	TERMINALS	SIZE
BUSSED (	CT CABINE	TS							
3	1	120/240	RESIDENTIAL OR COMMERCIAL	321-800A	600A/800A CT METERING BAR TYPE BUSSED CT CABINET	ERICKSON	CT-81-AMR	N/A	N/A
3	3 DELTA	240	COMMERCIAL SERVICE	321-800A	600A/800A CT METERING - BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-83-AMR	N/A	N/A
3	3 DELTA	480	COMMERCIAL SERVICE	201-400A	400A CT METERING -BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-43-PTL-AMR	N/A	N/A
3	3 DELTA	480	COMMERCIAL SERVICE	401-800A	600A/800A CT METERING -BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-83-PTL-AMR	N/A	N/A
4	3	120/240	COMMERCIAL SERVICE	321-800A	600A/800A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-84-AMR	N/A	N/A
4	3Y	120/208	COMMERCIAL SERVICE	321-800A	600A/800A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-84-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE	201-400A	400A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-44-PTL-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE	401-800A	600A/800A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-84-PTL-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE (UG FEED)	201-400A	400A CT METERING -BAR TYPE CT'S - 400A CT CABINET W/ PT PROVI. AND 400A MAIN SWITCH	ERICKSON	AMRCTAT465N6CM(7/8/9)	SWITCH	N/A
4	31	277/480	(OH AVALIABLE)	201-400A	COMBINATION	ERICKSON	AMRCTAKD465N6CM(7/8/9)	BREAKER	N/A
4	3Y	277/480	COMMERCIAL SERVICE (UG FEED)	401-600A	600A CT METERING -BAR TYPE CT'S - 600A CT CABINET W/ PT PROVI. AND 600A MAIN SWITCH	ERICKSON	AMRCTAT466N6CM(7/8/9)	SWITCH	N/A
4	31	2111400	(OH AVALIABLE)	40 1-000A	COMBINATION	ERICKSON	AMRCTALD466N6CM(7/8/9)	BREAKER	N/A
			COMMERCIAL		800A CT METERING -BAR TYPE CT'S - 800A CT		AMRCTAT467N6CM(7/8/9)	SWITCH	
4	3Y	277/480	SERVICE (UG FEED) (OH AVALIABLE)	601-800A	CABINET W/ PT PROVI. AND 800A MAIN SWITCH COMBINATION	ERICKSON	AMRCTAMD467N6CM(7/8/9)	BREAKER	N/A
3	3	<250	COMMERCIAL SERVICE	801-1200A	1200A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-123-AMR	N/A	N/A
4	3	120/240	COMMERCIAL SERVICE	801-1200A	1200A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-124-AMR	N/A	N/A
4	3Y	120/208	COMMERCIAL SERVICE	801-1200A	1200A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-124-AMR	N/A	N/A
3	3 DELTA	480	COMMERCIAL SERVICE	801-1200A	1200A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-123-PTL-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE	801-1200A	1200A CT METERING BAR TYPE CT'S BUSSED CABINET	ERICKSON	CT-124-PTL-AMR	N/A	N/A
3	3	<250	COMMERCIAL SERVICE	1201-2000A	1600/2000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-203-AMR	N/A	N/A
4	3	120/240	COMMERCIAL SERVICE	1201-2000A	1600/2000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-204-AMR	N/A	N/A
4	3Y	120/208	COMMERCIAL SERVICE	1201-2000A	1600/2000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-204-AMR	N/A	N/A



# Section 1100 AMEREN APPROVED CT & PT ENCLOSURES AND COLD-SEQUENCE METER SOCKETS ERICKSON

		APPL	ICATION		AMEREN METER	<b>SOCKET APPROVA</b>	L LIST	NUMBER OF	MAX HUB
WIRES	PHASE	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	MANUFACTURER	CATALOG NUMBER	TERMINALS	SIZE
3	3 DELTA	480	COMMERCIAL SERVICE	1201-2000A	1600/2000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-203-PTL-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE	1201-2000A	1600/2000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-204-PTL-AMR	N/A	N/A
3	3	<250	COMMERCIAL SERVICE	2001-2500	2500A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-253-AMR	N/A	N/A
4	3	120/240	COMMERCIAL SERVICE	2001-2500	2500A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-254-AMR	N/A	N/A
4	3Y	120/208	COMMERCIAL SERVICE	2001-2500	2500A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-254-AMR	N/A	N/A
3	3 DELTA	480	COMMERCIAL SERVICE	2001-2500	2500A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-253-PTL-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE	2001-2500	2500A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-254-PTL-AMR	N/A	N/A
3	3	<250	COMMERCIAL SERVICE	2501-3000A	3000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-303-AMR	N/A	N/A
4	3	120/240	COMMERCIAL SERVICE	2501-3000A	3000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-304-AMR	N/A	N/A
4	3Y	120/208	COMMERCIAL SERVICE	2501-3000A	3000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-304-AMR	N/A	N/A
3	3 DELTA	480	COMMERCIAL SERVICE	2501-3000A	3000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-303-PTL-AMR	N/A	N/A
4	3Y	277/480	COMMERCIAL SERVICE	2501-3000A	3000A CT METERING WINDOW TYPE CT'S BUSSED CABINET	ERICKSON	CT-304-PTL-AMR	N/A	N/A



# Section 1100 AMEREN APPROVED CT & PT ENCLOSURES AND COLD-SEQUENCE METER SOCKETS ERICKSON

		APPL	ICATION		AMEREN METER	SOCKET APPROVAL	LIST	NUMBER OF	MAX HUB
WIRES	PHASE	VOLTS	SERVICE TYPE	MAX AMPS	INSTALLATION TYPE	MANUFACTURER	CATALOG NUMBER	TERMINALS	SIZE
COLD SE	QUENCY - 4	80 VOLT							
3	1	120/240	RESIDENTIAL OR COMMERCIAL	321-800A	600A/800A CT METERING BAR TYPE BUSSED CT CABINET	ERICKSON	CT-81-AMR	N/A	N/A
3	1	480/277	COMMERCIAL SERVICE 1 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM85-1	5	N/A
3	1	480/277	COMMERCIAL SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM85-2	5	N/A
3	1	480/277	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM85-3	5	N/A
3	1	480/277	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM85-2 6CSCM85-2	5	N/A
3	1	480/277	COMMERCIAL SERVICE 5 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM85-2 6CSCM85-3	5	N/A
4	1	480/277	COMMERCIAL SERVICE 6 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM85-3 6CSCM85-3	5	N/A
4	3	480/277	COMMERCIAL SERVICE 1 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM87-1	7	N/A
4	3	480/277	COMMERCIAL SERVICE 2 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM87-2	7	N/A
4	3	480/277	COMMERCIAL SERVICE 3 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM87-3	7	N/A
4	3	480/277	COMMERCIAL SERVICE 4 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM87-2 6CSCM87-2	7	N/A
4	3	480/277	COMMERCIAL SERVICE 5 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM87-2 6CSCM87-3	7	N/A
4	3	480/277	COMMERCIAL SERVICE 6 GANG	0-200A	SELF-CONTAINED OH/UG COLD SEQUENCE MODULAR METERING W/ BRKR OR CLASS "T" FUSE	ERICKSON	6CSCM87-3 6CSCM87-3	7	N/A

### 400A AUXILARY MANUAL FUSED TRANSFER SWITCH AND CT CABINET COMBINATION

3	3	<250	COMMERCIAL	400A	Manual Transfer Switch/ 320A 5T SOCKET	ERICKSON	EGT325-5	N/A	N/A
4	3	<250	SERVICE	400A	Manual Transfer Switch/ 320A 7T SOCKET	ERICKSON	EGT425-5N	N/A	N/A
3	3	480	COMMERCIAL	400A	Manual Transfer Switch/ 400A CT/PT CABINET	ERICKSON	AMRCTPT/EGT365-5	N/A	N/A
4	3	277/480	SERVICE	400A	Manual Transfer Switch/ 400A CT/PT CABINET	ERICKSON	AMRCTPT/EGT465-5N	N/A	N/A

#### 600A AUXILARY MANUAL FUSED TRANSFER SWITCH AND CT CABINET COMBINATION

3	3	<250	COMMERCIAL	600A	Manual Transfer Switch/ 600A CT CABINET	ERICKSON	AMRCT/EGT366-6	N/A	N/A
4	3	<250	SERVICE	600A	Manual Transfer Switch/ 600A CT CABINET	ERICKSON	AMRCT/EGT466-6N	N/A	N/A
3	3	480	COMMERCIAL	600A	Manual Transfer Switch/ 600A CT/PT CABINET	ERICKSON	AMRCTPT/EGT366-6	N/A	N/A
4	3	277/480	SERVICE	600A	Manual Transfer Switch/ 600A CT/PT CABINET	ERICKSON	AMRCTPTEGT466-6N	N/A	N/A



## Section 1200 Customer Generator Installations

#### 1200.01

Ameren is committed to both the safety of the public and its employees and to the reliable operation of its distribution system. Installations involving customer–owned and operated generating equipment create the potential for serious personal injury as well as damage to the Customer's or Company's equipment.

#### 1200.02

Installation plans for ALL permanently installed customer–owned generating equipment (including the generator transfer switch), whether for backup or continuous duty, shall be submitted to Ameren for review and approval.

#### 1200.03

Ameren's installation requirements and application form(s) can only be obtained from a local Ameren engineering representative or by calling the Ameren Customer Contact Center (800–552–7583 in MO or 888–327–2477 in IL).

#### 1200.04

The following information is only a summary of Ameren's requirements for BACKUP GENERATION that operates with either an open transition or a closed transition of less than 100 milliseconds in duration. The complete requirements and application must be secured as noted above.

#### 1200.05 GENERAL REQUIREMENTS

- 4. Main service disconnect that is padlockable in the open position if the Ameren service being backed up is less than 600V
- 5. Single "visible open" disconnect device per generating unit if the Ameren service being backed up is greater than 600V refer to Ameren's full requirements for details on satisfying this requirement
- 6. Transfer equipment (manual or automatic) to prevent inadvertent continuous interconnection of sources
- 7. Signage permanently installed at the revenue meter indicating (1) the presence of generation and (2) the availability of either a padlockable main service disconnect or a "visible open" disconnect for isolation
- 8. Signage permanently installed at the padlockable main disconnect or "visible open" disconnect for purposes of identification

### 1200.06 REQUIREMENTS FOR OPEN TRANSITION

- 1. Any of the following methods can be used:
  - 1.1 Integral transfer switch with mechanical interlocking provisions.
  - 1.2 Kirk key interlocked solid blade switches or circuit breakers.
  - 1.3 Electrically interlocked circuit breakers with backup protection via hard-wired breaker auxiliary contacts.
- 2. Automatic transfer schemes shall include the following:
  - 2.1 Voltage–sensing capability to detect the loss and recovery of the Ameren source
  - 2.2 Open transition manual "bypass" (i.e. auto disable) is highly recommended, though not required

### 1200.07 REQUIREMENTS FOR CLOSED TRANSITION

- 1. Any of the following methods can be used:
  - 1.1. Integral automatic transfer switch set
  - 1.2 Two or more solid blade disconnects or circuit breakers



## Section 1200 Customer Generator Installations

- 2. Transfer times of less than 100 milliseconds in duration
- 3. Synchronizing capability to safely tie the sources together
- Transfer failure scheme for opening one of the sources when closed transition exceeds a maximum two (2.0) second time delay
- Undervoltage protection to prevent a closed transition transfer when the Ameren source is not present
- 6. Open transition manual "bypass" (i.e. auto disable) is highly recommended, though not required

### 1200.08 REQUIREMENTS FOR PROGRAMMABLE LOGIC CONTROLLERS (PLC)

- 1. Independent hard-wired backup control scheme to prevent extended paralleling
- 2. Enabled when transfer scheme is in "automatic" and disabled when transfer scheme is in "manual"
- Automatic transfer disabled if any of the switches or circuit breakers being controlled is tripped manually
- 4. Shall not lose power as a direct result of automatic transfer switching operations

