

# CITY OF AUSTIN ELECTRIC UTILITY DEPARTMENT

## EQUIPMENT SPECIFICATION FOR METER PAK EQUIPMENT & MODULAR METERING EQUIPMENT

DATE	PREPARED BY	ISSUANCE/REVISION	APPROVAL
			PROCESS MANAGER/STANDARDS SUPV.
6/01/99	Herman Millican	Issuance	
01/06/00	Carlos F. Tello	Revision	
11/05/08	Donnie F. Carter	Revision	
04/08/16	Abdur Rahman, P.E.	Revision	
02/12/2021	Abdur Rahman,P.E.	Revision	<u>Scott Larson</u>

<i><b>Reason for Revision</b></i>	<i><b>Affected Paragraphs</b></i>
Update module ampere rating requirements	3.3
Add modular metering assembly requirement	4.6
Add main breaker part number requirement	4.7
Update installation requirements per AE Design Criteria	5.14

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EQUIPMENT SPECIFICATION  
FOR  
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**1.0 SCOPE AND CLASSIFICATION**

**1.1 Scope**

The City of Austin Electric Utility Department is hereinafter referred to as Austin Energy (AE), requires qualified manufacturers to abide by the specifications listed in this document.

**1.2 Classification**

1.2.1 No deviation from these specifications shall be allowed. Any item supplied under these specifications, which is not in complete compliance with these specifications, will not be accepted.

1.2.2 All Manufacturers furnishing modular metering equipment under these specifications shall supply at least five percent (5%) of the modular metering equipment market and have at least five (5) years' experience in the manufacture and sale of modular metering equipment.

**2.0 APPLICABLE SPECIFICATIONS (Latest editions)**

- 2.1 ANSI C12.7: Watthour Meter Sockets
- 2.3 ANSI/NEMA PB 1: Panelboards
- 2.4 ANSI/NFPA 70: National Electrical Code
- 2.5 NEMA AB 1: Molded Case Circuit Breakers and Molded Case Switches
- 2.6 NEC 2020: Modular metering equipment and Service Disconnect
- 2.7 City of Austin Electric Utility: Austin Energy Design Criteria

**3.0 FUNCTIONAL REQUIREMENTS**

- 3.1 Metering equipment shall be of modular design including an integral bus system and tenant main breaker mounting immediately adjacent to each meter socket.
- 3.2 All components and short circuit ratings shall be UL listed.
- 3.3 Module ampere rating to be either 125 amps, 200 amps, or 225 amp. No meter socket shall have a rating of 350 amps.
- 3.4 Each module can be configured to have from two to five-meter sockets. If more than five sockets are required, additional modules must be mechanically and electrically bolted together.
- 3.5 All meter sockets shall comply with ANSI C12.7 requirements.

**4.0 PERFORMANCE REQUIREMENTS**

- 4.1 Each module shall be configured for single-phase or three-phase self-contained service at either 120/240 VAC or 120/208 VAC or Cold Sequence 277/480 VAC.
- 4.2 200-ampere meter sockets shall be equipped with a by-pass lever that controls the clamping of the meter blades (Jaw release). By-pass current capacity shall be rated at 200 amps continuous.

- 4.3 For five terminal sockets the fifth terminal shall be factory installed. (Kit for fifth terminal is unacceptable.)
- 4.4 All modular metering equipment SHALL have a main disconnect to de-energize the equipment, regardless of how many meter sockets the stack has. It applies to both applications, either the modular metering equipment is located inside a meter room or modular metering equipment located on the building's exterior wall.
- 4.5 For both indoor and outdoor applications the main breaker shall be a part of the modular metering mechanical assembly.
- 4.6 The part number of the main breaker shall match the maximum manufacturer amperage handle rating of the breaker and not the dial down rating of the breaker.

## 5.0 MATERIAL REQUIREMENTS

- 5.1 Enclosure shall be G90 galvanized steel with baked enamel finish suitable for both NEMA Type I and Type 3R.
- 5.2 Each meter position shall have individual ringless cover with separate cover for tenant breaker section that can be secured with a padlock and is removable with watt-hour meter sealed in place.
- 5.3 All un-metered current carrying parts shall be barriered and sealable.
- 5.4 Each module shall include cross busses that are self-aligning and self-contained with captive hardware.
- 5.5 Knockouts shall be located on top and bottom of all modules and on lower back of meter modules. Removable plates shall be located on the top.
- 5.6 All meter socket covers shall be ringless and comply with ANSI C12.7 requirements.
- 5.7 All main modules shall have front sealing provisions, factory installed lugs, and be suitable for center or end mounting.
- 5.8 Main breaker modules shall have a factory-installed service disconnect Overcurrent Device (as defined per National Electrical Code, Article 240). Bus bar end caps shall be sealable, have connections internal to enclosure and be shipped with main modules.
- 5.9 All components shall be factory assembled.
- 5.10 All current carrying parts shall be plated bus bars.
- 5.11 All bussing must be complete from main lugs to meter sockets and to circuit breakers using Belleville washers at all bolted joints.
- 5.12 Module shall have factory-installed equipment ground per socket and factory-installed swing away feet.
- 5.13 Module shall be dual rated for indoor and outdoor applications.
- 5.14 For installations where the modular metering assembly is the service point, solderless type connectors (terminal blocks) shall be mountable type and mounted in the module. The solderless type connectors shall be sized to accommodate the Austin Energy's conductors, as determined by the Underground Service Section. The customer shall be responsible for pulling and terminating conductors inside the approved Austin Energy modular metering equipment from the point of service. (Refer to the Austin Energy Design Criteria.)

## 6.0 SAMPLES, INSPECTION AND TEST REQUIREMENTS

- 6.1 Austin Energy or its designated representative reserves the right to inspect and test modular metering equipment furnished by AE's customer or customer's representative.
- 6.2 The Vendor/Manufacturer in order to remain on the QPL shall provide AE's Advanced Metering Systems & Engineering, at the beginning of each year in the month of January, drawings for all applicable meter sockets regardless of whether revisions have been made to the drawings. Failure to provide these drawings will result in the rejection of the Vendor from the QPL.
- 6.3 The Vendor/Manufacturer in order to remain on the QPL shall provide revised drawings to AE's Advanced Metering Systems & Engineering as soon as the drawings are revised.