

State of California
Department of Food and Agriculture
Division of Measurement Standards

Certificate Number: 5491-06

Page 1 of 3

California Type Evaluation Program
Certificate of Approval
for Weighing and Measuring Devices

For:

Electronic Watthour Meter
Models: XE/XM
Voltage Rating: 120/208/240 VAC
Class: 100 (100 Amps Max.) or 200 (200 Amps Max.)
TA: 15 or 30 Amps

Submitted by:

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Standard Features and Options

Model Designation:

XE	X	M
1E = 1 Element (Current Transformer)	1 = 1 meter (left side only)	Kwh Meter
2E = 2 Elements (Current Transformers)	2 = 2 meters (left and right side)	

Options:

Class 100 meter with TA 15 that uses a 100A:0.04A current transformer
Class 200 meter with TA 30 that uses a 200A:0.08A current transformer

External Indicators:

Electromechanical (12 VDC analog indicator) with the least significant digit differentiated (see Fig. 3)

Current Transformers (CT's):

Model MG1001 Rating 100A:0.04A, Accuracy Class 0.1 (see Fig. 6)
Model MG2001 Rating 200A:0.08A, Accuracy Class 0.1

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable technical requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: July 18, 2006



Mike Cleary, Director

**Integrated Dealer Systems (IDS)
Electronic Watthour Meter
Models: XE/XM**

Application: For use as a watthour metering system in legally sub-metered electric service applications.

Identification: The watthour meter identification is on the face of the meter case. The CL200 meter case has a permanent label covering the CL100 markings when configured for a CL200/TA30 meter application.

Sealing: A physical seal secures a cover plate located on the upper right hand side of the device. The cover plate slides into position to prevent access to the “test only” shorting link inside (see Fig. 1). When the shorting link is in the “test only” mode the front panel **Power LED** (see Fig. 4) will flash off and on continuously. Additionally, to prevent access to the wiring connections, a physical security seal may be placed on both sides of the device when installed in the field.

Operation: A **Load LED** (side 1 or 2 for two sided meters) blinks when the device is under load (see Fig. 5).

Testing Mode: The **Power LED** continuously blinks when the meter’s “test only” shorting link is installed on both pins (see Fig. 2). This mode provides a registration of 0.01 Kwh or 10 watthours per increment to the tenant display. The CT’s are non-directional (line and load directions are not affected if wire connections are reversed).

Special Note: Once testing is completed, remove the shorting link from the two pins and place the shorting link on one pin (storage for future testing) and seal the “test only” area with the security cover in place. The device is now in the normal registration mode and is ready for installation (see Fig. 1B).

Test Conditions: Meter Models 2E/1M and 2E/2M, current transformers, and 12 VDC analog indicators were submitted for evaluation. The meters were initially tested at the Division of Measurement Standards (DMS) lab. The meters were then sealed and installed on a test bench at DMS with various loads. After a permanence period of approximately 20 days the meters were retested. The meters were subjected to a combined total of 218 tests from 1.5 amps to 90 amps at both unity and 0.5 power factors.

Results of the evaluation indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2006 Edition

Tested By: John Roach (CA)



Fig. 1
“Test only”
shorting link and
cover plate

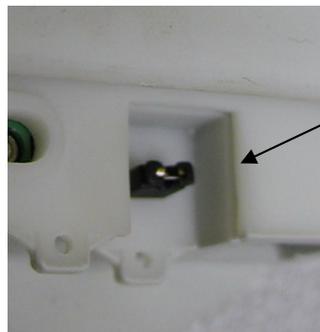


Fig. 2
“Test only” shorting
link on both pins



Fig. 1B
Test completed –
Shorting link on
1 pin

**Integrated Dealer Systems (IDS)
Electronic Watthour Meter
Models: XE/XM**

**Model 2E/2M
Complete two sided meter**

**Fig. 3
12 VDC analog indicator**

**Fig. 5
Load 1 and 2 LED**

**Fig. 4
Power LED**

**Fig. 6
Current Transformer**

