

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

Certificate Number: 5645(a)-13  
Page 1 of 3

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

**For:**

Electronic Watt-hour Meter  
OmniMeter Series  
Models: EKM-OMIv.3, EKM-OMIULv.3,  
EKM-OMPv.4  
Voltage Rating: 120/208/240 VAC  
Class (CL): 200 Amps  
Test Amps (TA): 30 Amps  
Watt-hour Test Constant (Kh or Kt) = 1.25 Wh

**Submitted by:**

EKM Metering LLC  
363 Berkeley Way  
Santa Cruz, CA 95062  
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**Standard Features and Options**

**Internal Scrolling Indicator:**

LCD (Liquid Crystal Display)

**Current Transformers (CT's):**

EKM Metering LLC, Model Number: BCT-013-200, BCT-013-200UL, BCT-015-200UL, BCT-025-200UL closed loop style, accuracy class 0.1, rating 200A, CTR 200A:26.6mA (See Figure 1).

EKM Metering LLC, Model Number: SCT-013-200, split loop style, accuracy class 0.1, rating 200A, CTR 200A:26.6mA (See Figure 2)

Arrow on CT depicts load side.

**Figure 1**



**Figure 2**



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: September 30, 2013

*Steven Cook for*

Kristin J/Macey, Director

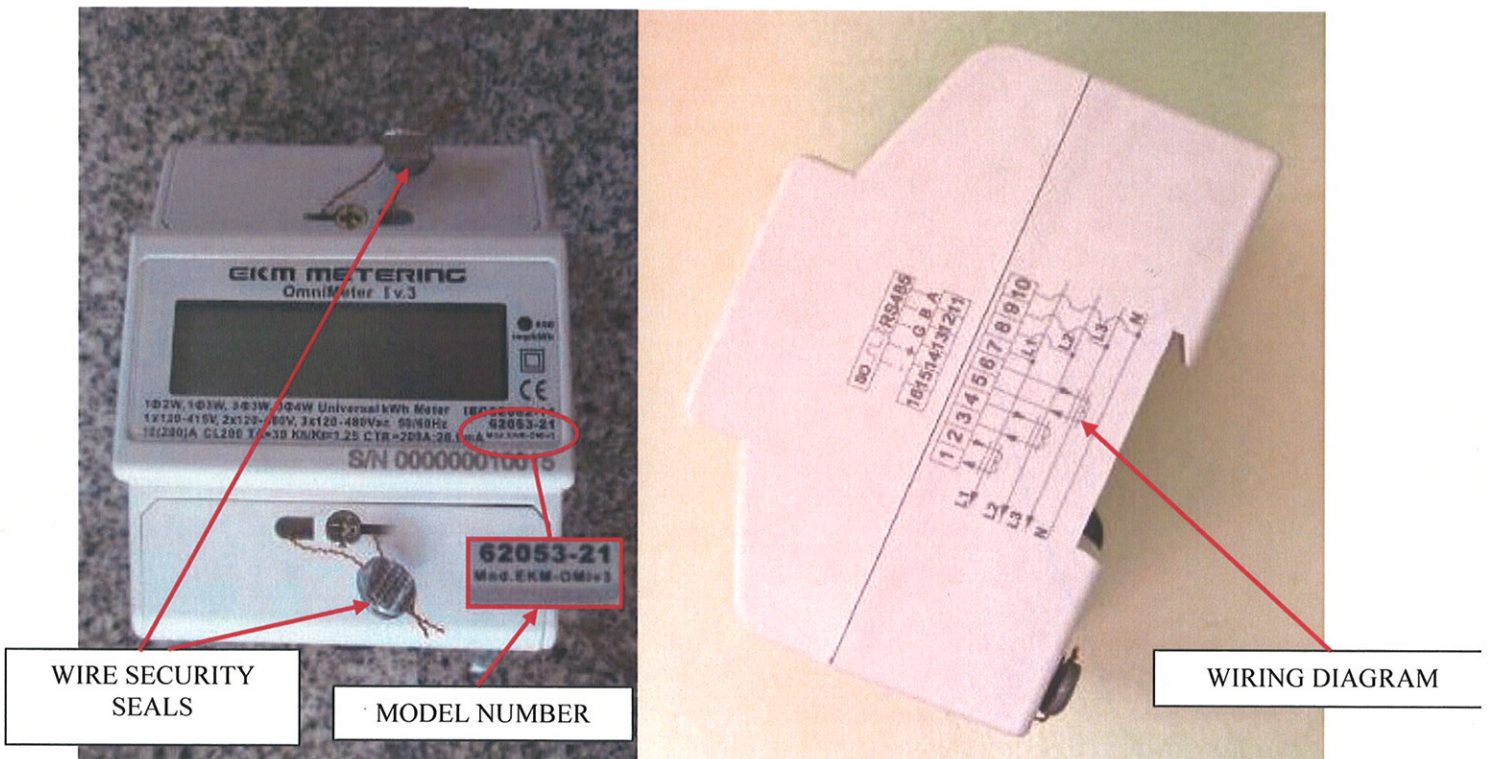
**EKM Metering, LLC**  
Electronic Watt-hour Meter / OmniMeter Series

**Application:** Universal meter for use as a watt-hour metering system in legally sub-metered electric service applications. Meter is approved for single-phase 2-wire and single-phase 3-wire service applications.

**Identification:** The model EKM-OM series watt-hour meter identification is located on the main face of the meter. The serial number is inscribed into the body of the meter. (See Figure 3 for identification label location)

**Sealing:** There are no adjustable metrological components under the cover. However, the meter is still equipped with two drilled head screws which allow wire security seals to be placed on each meter door. (See Figure 3)

Figure 3



**EKM Metering, LLC**  
Electronic Watt-hour Meter / OmniMeter Series

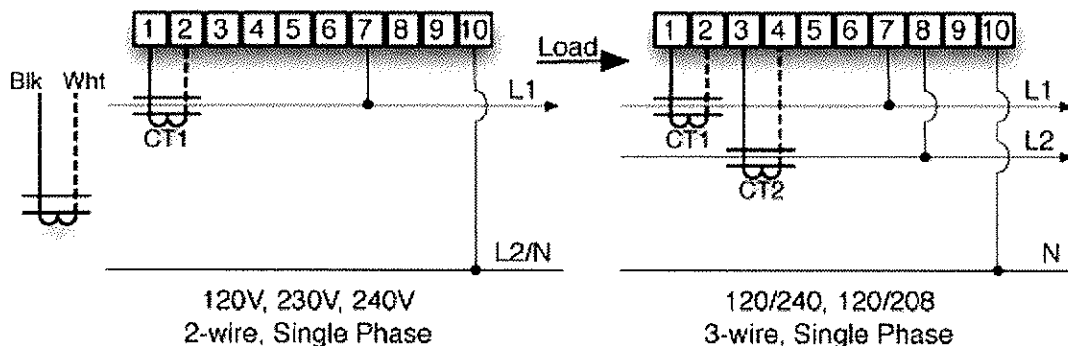
**Operation:** The “Pulse LED” provides a visual display of kWh usage, with a pulse rate (Kt) of 1.25 Wh. Terminal connections 14 and 15 provide “dry contact” pulse output at the same rate (Kt) of 1.25 Wh. On the LCD display, 02 records total reversed kWh when the CT direction is reversed.

The LCD display can show the following items: Total electricity consumption (kWh), reverse electricity consumption (kWh), L1, L2, L3 voltage (U), L1, L2, L3 current (A), L1, L2, L3 total power (P) and L1, L2, L3 COS, five seconds between every item.

**Display Registers**

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Total kWh	Reverse kWh	Volts L1	Volts L2	Volts L3	Amps L1	Amps L2	Amps L3	Watts L1	Watts L2	Watts L3	Total Watts	Cos L1	Cos L2	Cos L3

**Wiring Diagrams**



**Test Conditions:** This certificate supersedes Certificate of Approval number 5645-11 and is issued to add two new meter model numbers EKM-OMIULv.3 and EKM-OMPv.4 and two new closed loop style CT’s BCT-015-200UL, and BCT-025-200UL. Samples of each new meter model and CT’s were submitted for evaluation. After a throughput period of approximately 60 days the meters were retested. The meters and CT’s were subjected to tests from 3 amps to 50 amps at both unity and 0.5 power factors.

**Certificate of Approval Number 5645-11:** Samples of each model meter and current transformers were submitted for evaluation. The meters were tested at the California Division of Measurement Standards (DMS) lab. After a throughput period of approximately 30 days the meters were retested. The meters were subjected to a combined total of over 210 tests from 3 amps to 50 amps at both unity and 0.5 power factors.

**Conclusion:** The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

**Type Evaluation Criteria Used:** Title 4, California Code of Regulations, 2013 Edition

**Tested By:** M. Stevens (CA) 5645-11, J. Roach (CA) 5645(a)-13