State of California

Department of Food and Agriculture

Division of Measurement Standards

California Type Evaluation Program

Certificate of Approval for Weighing and Measuring Devices

For:
Electronic Watthour Meter
Model: 63XX-XP-XX
Generic Name: PowerHawk 63XX Series
Voltage Rating: 120/208/240 VAC
Class (CL): 200 (200 Amps Max.)
Test Amps (TA): 30 Amps
Watthour Test Constant (Kh) = 1 Wh or 0.001 kWh

Submitted by:
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Standard Features and Options

Model Number Matrix Designation:

63xx	XP	XX
6320		
Base unit 20 meter max.	X = Number of phases or elements (CTs) per meter. 1, 2, or 3	10 = 10 meters 20 = 20 meters
6312	**XP**	**XX**
Base unit 24 meter max.	X = Number of phases or elements (CTs) per meter. 1, 2, or 3	08 = 8 meters 12 = 12 meters 24 = 24 meters

Internal Scrolling Indicator:
LCD (Liquid Crystal Display), 1.000 kWh register (See Figure 1)

Current Transformers (CTs):
200A, CTR 200:0.08A or 2500:1, Filtran Model 7896 or Taiwan Trans Model TZ106L
Accuracy Class 0.1, Burden 15.0, 600V Insulation Rated, Rated Frequency 60 Hz

Triacta Model 9320 External Pulse Box:
Required to perform accuracy tests and certify the electric watthour meter. This device must be supplied to the local weights and measures test facility to perform specific California Code of Regulations test requirements.

Note: A meter identification key must be posted by the meter's indicator to identify which meter serves which tenant.

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: August 25, 2010

Edmond E. Williams, Director

Triacta Power Technologies
Electronic Watt hour Meter
Model: 63XX-XP-XX

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

Identification: The main meter identification information is on the face of the meter case (See Figure 2). The external CT's identification is on each CT (See Figure 4). The serial number is on the main label and on the printed circuit board (PCB). The serial number is also accessible from the internal scrolling LCD indicator by pressing and holding, approximately 3 seconds, the select button until the **"diagnostic"** mode is displayed. Press the select button again until the **"Local IP address"** is displayed. Then press the right arrow button until the **"serial number xxxxxxxxx"** is displayed (See Figure 1).

FIGURE 1

Serial Number displayed on the LCD Indicator

Sealing: Category 2 with a physical seal and no event counters. The printed circuit board cover (PCB) utilizes a physical seal to prevent access to the PCB. The system's main cover is also protected by a physical security seal preventing access to the system's configuration, calibration access points, and Cat. 5 connection. When calibration switch is in the **"unlocked"** position metrological related settings can be changed via a remote laptop computer through a Cat. 5 connection. The internal scrolling LCD indicator will display **"unlocked"** in this state (See Figure 3). When the dip switch is in the **"off"** or **"locked-out"** position the meter is in the normal usage mode. This prevents the meter from being sealed and used in the unlocked (calibration/configuration mode).

FIGURE 2

PowerHawk 6320

PowerHawk 6312

Main ID label

Main cover wire security seal

Triacta Power Technologies
Electronic Watt hour Meter
Model: 63XX-XP-XX

FIGURE 2 CONTINUED

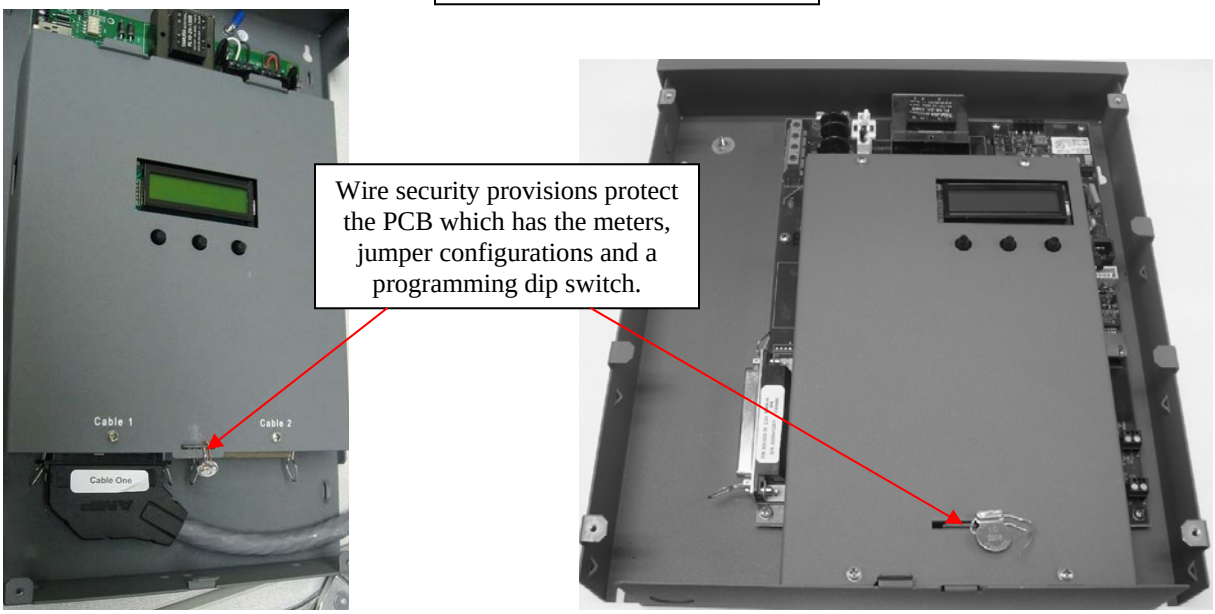
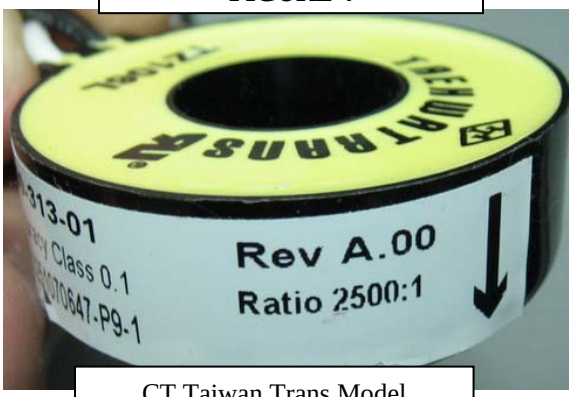


FIGURE 3

Do not seal if the display shows “unlocked”.

FIGURE 4



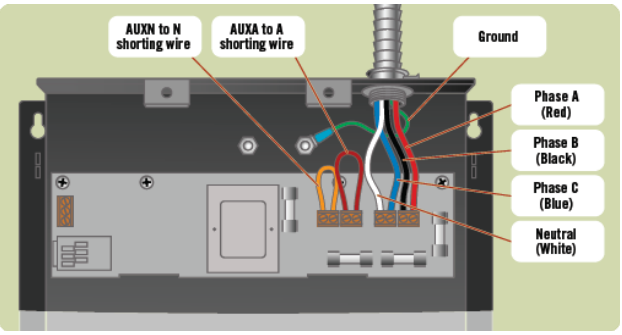
CT Taiwan Trans Model
TZ106L
(Filtran Model 7896 not shown)

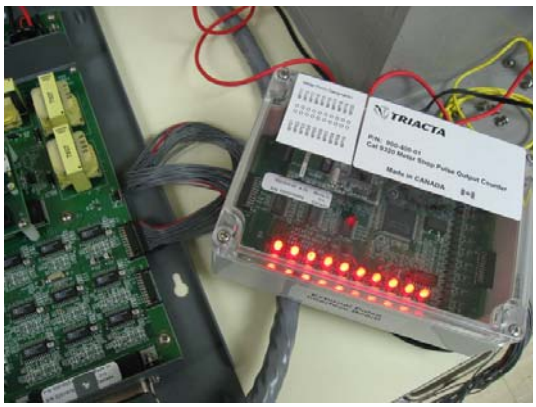
Triacta Power Technologies
Electronic Watt hour Meter
Model: 63XX-XP-XX

Operation: The device has an internal scrolling register and displays each meter indication for approximately 5 seconds. Pressing the left or right arrows will scroll the indicator to a particular meter indication (see the note on page 1). An external pulse box must be utilized for testing (disconnected when testing is completed) and must be provided to the officials responsible for verifying meter performance. The pulse box must be attached to the meter with a ribbon cable (See Figure 5) and has 20 red pulsing LEDs that flash on and off when a load is applied to a specific meter or CT. The red LEDs are normally illuminated then flash off momentarily indicating 0.001 kWh or 1 watt-hour per flash. CT's line and load are direction sensitive. The arrow on the CT points toward the load.

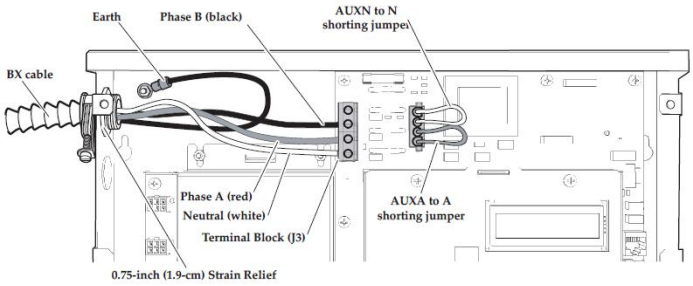
FIGURE 5

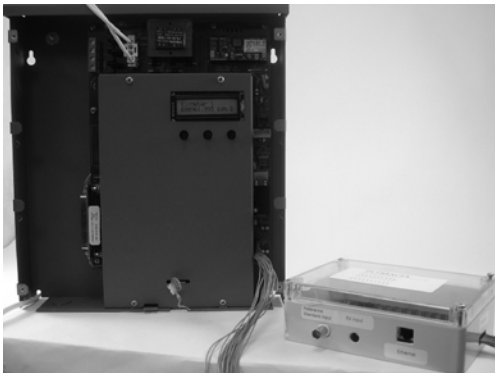
6320-XP-XX





6312-XP-XX





Test Conditions: This certificate supersedes Certificate of Approval Number 5563(a)-10 and is issued to correct an error on page 1 changing the Model 6312 Base Unit maximum from 12 to 24 and is issued without further testing.

Triacta Power Technologies
Electronic Watt hour Meter
Model: 63XX-XP-XX

Certificate of Approval Number 5563(a)-10: This certificate supersedes Certificate of Approval Number 5563-08. Meter model 6312-3P-08 with external current transformers and an external pulse box were submitted for evaluation. Three meters were randomly selected for initial testing at the Division of Measurement Standards (DMS) lab. The meters were then installed on a test bench at DMS with various loads. After a permanence period of approximately 29 days the meters were retested. The meters were subjected to accuracy tests from 3 amps to 30 amps at both unity and 0.5 power factors. Starting load and creep tests were also conducted. Results of the evaluation indicate the devices comply with applicable requirements.

Certificate of Approval Number 5563-08: Meter model 6320-3P-10 with external current transformers and an external pulse box were submitted for evaluation. Three meters were randomly selected for initial testing at the Division of Measurement Standards (DMS) lab. The meters were then installed on a test bench at DMS with various loads. After a permanence period of approximately 29 days the meters were retested. The meters were subjected to accuracy tests from 3 amps to 30 amps at both unity and 0.5 power factors. Starting load and creep tests were also conducted. Results of the evaluation indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2010 Edition

Tested By: John Roach (CA) 5563-08, Matt Stevens (CA) 5563(a)-10

PowerHawk Model 6320-1P-20

PowerHawk Model 6312-1P-24