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

**For:** Electric Vehicle Fueling Systems (EVFS)

Model: CoRe+ and SmartTWO

Voltage Rating: 208-240 VAC Maximum Current Deliverable: 30 A (Amperes) Alternating Current system in kWh Minimum Measured Quantity (MMQ): 0.1 kWh

#### Submitted By:

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#### **Standard Features and Options**

#### Standard Features:

- 0.0001 kWh registration display
- Activation via FLO mobile device application (app) or a company-issued Radio Frequency Identification (RFID) card.
- Electronic receipt provided from an account by a mobile device app or an RFID card accountbased e-mail
- Non-resettable totalizer in kWh
- Continuous display for kWh consumption and price computing
- Transaction is terminated when power loss occurs
- Single port for each device (one display for each charging connector)

#### **Options:**

- Wall mount or pedestal mount
- CoRe+ can have up to two devices on the same pedestal
- SmartTWO can have up to four devices on the same pedestal

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable 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.

Kristin Macay

Kristin Macey, Director Effective Date: August 25, 2021

EVFS / Models CoRe+ and SmartTWO

<u>Application</u>: For use as an Electric Vehicle Fueling System (EVFS) in commercial applications under the California Code of Regulations (CCR) National Institute Standards and Technology (NIST) Handbook 44 Section 3.40. EVFS are also known as Electric Vehicle Supply Equipment (EVSE).

**Identification:** The required EVSE identification (ID) badge is permanently attached on the front of the device that must be visible after installation. The model SmartTWO ID badge is located on the lower left portion of the EVFS housing (*Figure 1.*). An example of the model SmartTWO ID badge and its content is shown in *Figure 2*. The model CoRe+ ID badge is located under the charging connector (*Figure 3.*). An example of the model CoRe+ ID badge and its content is shown in *Figure 4*.



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*Figure 3.* An example of the model CoRe+ ID badge location.



Figure 3. The model CoRe+ showing the location of the ID badge.



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**Sealing:** The AddEnergie EVSE has a Category 2 sealing provision with an event counter for calibration and configuration. It requires use of a Radio Frequency Identification (RFID) contactless card to change the display and to allow access for communication with the remote propriety hardware and software to alter the metrological functions.

To see the event counter for inspection purposes, hold the RFID contactless card against the RFID reader on the front of the EVSE to observe the event counters (*Figure 5.*). The display of both the calibration and configuration events will show alternately every 5 seconds. To exit, hold the RFID card against the RFID reader again. FLO must supply the RFID card to the Registered Service Agent (RSA) for installation or repair, and the RSA must supply the RFID card to the county official for inspection purposes when placed in service.



The adjustment procedure for the Category 2 sealing provision is as follows:

- 1. Hold the RFID contactless card supplied by AddEnergie or the RSA against the RFID reader on the front of the EVSE. The display will indicate it is in the calibration mode.
- 2. Connect test equipment (load & power meter)
- 3. Transfer 100 kWh
- 4. Read the power meter energy transferred
- 5. Contact AddEnergie support to remotely update the EVSE with new calibration data and update the event counter
- 6. Swipe an RFID contactless card to exit calibration mode

**<u>Operation</u>**: One method for a customer to initiate a charging session is to hold their FLO charging station network access card near the RFID card reader.

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Another method for a customer to initiate a charging session is to download the free FLO mobile app and create an account to gain access to the charging stations.

When using the FLO mobile app, the customer may:

- 1. Locate a publicly accessible AddEnergie EVSE
  - a. Use the FLO mobile app or a partner network to obtain real-time information on any AddEngergie EVSE location and availability status.
  - b. Use the app's "Identify" button to locate a specific EVSE when visiting a large site with multiple EVSE on premises.
- 2. Pay for a charging session
  - a. Add funds to the FLO account using a payment card and then initiate a charging session directly from a mobile device.
- 3. View usage data
  - a. Monitor charging progress in real-time and access detailed reports of your charging sessions on the FLO network or at your FLO home residential EVSE.

To access the non-resettable totalizer readings on either AddEnergie model, swipe an RFID contactless card supplied by AddEnergie to weights and measures officials for enforcement purposes. The display will then indicate calibration mode (*Figure 6.*). To exit the calibration mode, swipe the card again. If not, it will resume to normal after 30 minutes.

SmartTWO	
Calibration mode Total ener99 0.8169 kWh	
<i>Figure 6.</i> Example of non-resettable totalizer display readings.	

<u>Test Conditions</u>: The emphasis of the evaluation for the AddEnergie EVSE system was on device design, performance, markings, sealing, measurement accuracy at 10% and 85% power levels, repeatability, receipt requirements, parking charges, and permanence. Measurements were performed over 0.1 kWh (per the marked MMQ) at 10% and 2 MMQ tests (0.2 kWh) at 85%. Permanence testing was performed after 200 kWh of throughput usage. No-load, starting load, and parking compliance tests were also conducted.

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### Evaluated By: J. Roach (CA)

**<u>Type Evaluation Criteria Used:</u>** California Code of Regulations, Title 4, Division 9, Chapter 1, Article 1. General Code 1.10. and Section 3.40.

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

#### Example(s) of the Device:





CoRe+ model

### AddÉnergie Technologies EVFS / Models CoRe+ and SmartTWO





SmartTWO model with two devices on the same pedestal