

Issued by NMI Certin B.V.,  
designated and notified by the Netherlands to perform tasks with respect to  
conformity modules mentioned in article 17 of Directive 2014/32/EU, after  
having established that the Measuring instrument meets the applicable  
requirements of Directive 2014/32/EU, to:

Manufacturer ZTE Corporation  
NO.55 Hi-Tech Road South  
NanShan District  
Shenzhen City, Guangdong Province, P.R.China

Measuring instrument A static **Active Electrical Energy Meter**  
Type : ZX AE210  
Manufacturer's mark or name : ZTE Corporation  
Reference voltage : 220V, 230V and 240V  
Reference current : 5 A  
Destined for the measurement of : electrical energy, in a  
- single-phase two-wire network  
Accuracy class : A or B  
Environment classes : M1 / E2  
Temperature range : -40 °C / +70 °C

Further properties are described in the annexes  
- Description T11336 revision 0  
- Documentation folder T11336-1

Valid until 19 July 2029

Issuing Authority **NMI Certin B.V., Notified Body number 0122**  
19 July 2019

  
C. Oosterman  
Head Certification Board

## 1 General information about the instrument

All properties of the static active electrical energy meter, whether mentioned or not, shall not be in conflict with the legislation.

### 1.1 Essential parts

| Description  | Document               | Remarks   |
|--|------------------------|---|
| Measuring sensor   | 11336/0-04             | HD-001T   |
| Printed circuit board<br>- Main board<br>ES-6023+7017C-V2.0-180629 | 11336/0-10, 11336/0-11 | All parts of the printed circuit boards are essential, except the components which are related to parts as described in paragraph 1.4 or 1.6. |
| - Power board<br>ES-6023+7017C-DV2.0-180629                        | 11336/0-12, 11336/0-13 |   |

### 1.2 Essential characteristics

- 1.2.1 See EU-type examination certificate T11336 revision 0 and the characteristics mentioned below.
- 1.2.2 Approved meter types : ZX AE210
- 1.2.3 Frequency : 50 Hz or 60 Hz
- 1.2.4 Meter constant : 1.000 imp./kWh
- 1.2.5 Number of registers : Max. 6
- 1.2.6 Error messages : The meter is equipped with an Alarm LED for alarm status indication. The error codes are presented in document no. 11336/0-08.
- 1.2.7 Export energy : The meter is capable of measuring energy in 2 directions.
- 1.2.8 Software specification (refer to WELMEC 7.2):
- Software type P;
  - Risk Class C;
  - Extension L, S and D while extension T is not applicable.

| Software version | Identification number (checksum) | Remarks  |
|------------------|----------------------------------|--|
| V10.16           | BC970F8E                         | The software version is displayed at start-up and in the display sequence. |

Firmware validation and activation events can be read with the OBIS code: 0.0.44.0.1.255, class: 18, event code: firmware validation success: 17, firmware activation success: 18.

## 1.3 Essential shapes

- 1.3.1 The nameplate is bearing at least, good legible, the information as mentioned in the regulations on energy meters. An example of the markings is shown in document no. 11336/0-02
- 1.3.2 Sealing: see chapter 2.
- 1.3.3 The registration observation is executed by means of an LED.

## 1.4 Conditional parts

- 1.4.1 Terminal block  
 The connections for the current cables on the terminal block have a diameter of at least 7 mm. The cables are connected with the terminal block via 2 screws. See documents no. 11336/0-06 and 11336/0-07.
- 1.4.2 Housing  
 The meter has got a dustproof housing, which has sufficient tensile strength. The cover is made of synthetic material. An example of the housing is presented in document no. 11336/0-03.
- 1.4.3 Terminal cover  
 The terminal cover is made of synthetic material.
- 1.4.4 Register  
 The quantity of measured energy is presented by means of a display with at least 6 elements. The way of presentation is described in document no. 11336/0-05.  
 For test purposes an indication with a least significant element of at least 0,01 kWh, can be arranged via the user interface.
- 1.4.5 Tariff control  
 When the meter is provided with more than one register, a tariff control is available remotely or locally, whereby the EMC-requirements are fulfilled as described in Annex V of Directive 2014/32/EU.
- 1.4.6 Optical communication  
 The meter is provided with optical communication. Via the communication no legally relevant data can be altered.
- 1.4.7 Communication  
 The meter can be provided with RS485, Wired M-BUS or an optional G3-PLC or GPRS module. The EMC-requirements are fulfilled as described in Annex V (MI-003) of Directive 2014/32/EU. Via the communication no legally relevant data can be altered.

| Description                 | Document               | Remarks                         |
|-----------------------------|------------------------|---------------------------------|
| GPRS communication module   | 11336/0-14, 11336/0-15 | MC18-ZTEDLMST0-M72D-2.02-180611 |
| G3-PLC communication module | 11336/0-16, 11336/0-17 | PL18-G3MST-CPX2-2.02-180611     |

- 1.4.8 Breaker  
 The meter is equipped with a circuit breaker. See documentation 11336/0-04.

## 1.5 Conditional characteristics

- 1.5.1 Maximum current:  
 smaller than or equal to 80 A, and at least 5 times higher than the reference current.
- 1.5.2 Minimum current: 0,25 A

## 1.6 Non-essential parts

- 1.6.1 Pulse output and relay output.

## 2 Seals

The meter cover is sealed with one main cover seal.  
 An example of the sealing is presented in document no. 11336/0-03.

## 3 Conditions for conformity assessment according to module D or F

The influence factors for temperature, frequency and voltage, which are necessary to perform the conformity assessment according to module D or F, are presented in Annex 1, belonging to this EU-type examination certificate.  
 Based on the WELMEC 11.1, section 2.5.6, the sum of the square values is presented.

## Influence factors for temperature, frequency and voltage

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The values depicted in the table below present the root sum square values per load point, determined via the following formula:

$$\delta e(T, U, f) = \sqrt{\delta e^2(T, I, \cos \varphi) + \delta e^2(U, I, \cos \varphi) + \delta e^2(f, I, \cos \varphi)}$$

with:

- $\delta e(T, I, \cos \varphi)$  = the additional percentage error due to the variation of the temperature at a certain load;
- $\delta e(U, I, \cos \varphi)$  = the additional percentage error due to the variation of the voltage at the same load;
- $\delta e(f, I, \cos \varphi)$  = the additional percentage error due to the variation of the frequency at the same load.

| Current            | Power factor         | -40°C [%]  | -25°C [%]  | -10°C [%]  | +5°C [%]   | +23°C [%]  | +40°C [%]  | +55°C [%]  | +70°C [%]  |
|--------------------|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| I <sub>min</sub>   | 1                    | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        |
| I <sub>tr</sub>    | 1                    | 0,1        | 0,1        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        |
|                    | 0,5 ind.<br>0,8 cap. | 0,1<br>0,1 | 0,1<br>0,1 | 0,1<br>0,0 | 0,1<br>0,0 | 0,1<br>0,0 | 0,1<br>0,0 | 0,1<br>0,0 | 0,1<br>0,0 |
| 10 I <sub>tr</sub> | 1                    | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        |
|                    | 0,5 ind.             | 0,1        | 0,1        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        |
|                    | 0,8 cap.             | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        | 0,0        |
| I <sub>max</sub>   | 1                    | 0,2        | 0,2        | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        |
|                    | 0,5 ind.             | 0,3        | 0,2        | 0,2        | 0,1        | 0,1        | 0,1        | 0,1        | 0,1        |
|                    | 0,8 cap.             | 0,4        | 0,3        | 0,2        | 0,1        | 0,0        | 0,0        | 0,1        | 0,1        |