



EU Type Examination Certificate Number: **0120/ SGS0212**

## **Shenzhen Clou Electronics Co., Ltd.**

16/F, Clou Building  
Baoshen Road South  
Hi-tech Industrial Park North  
Nanshan District  
Shenzhen, China

Instrument Identification:  
**CL710K22**

Instrument Traceable Number  
**0120/ SGS0212**

Single Phase, Active Import/ Export, Outdoor, Electricity Meter

has been assessed and certified as meeting the requirements of

## **EU Directive 2014/32/EU** **on Measuring Instruments Annex II, Module B**

It is certified that the manufacturer's technical design and specimen for the above instrument has been examined and, based on the evidence submitted, it is considered that the instrument conforms to the requirements of Annex V of EU Directive 2014/32/EU

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex II, Module D or Annex II, Module F


This certificate is valid until 11<sup>th</sup> April 2026  
Issue 5

Certification is based on report number(s) SZES151000342001 dated 5<sup>th</sup> April 2016,  
SZES151000342001/iss2 dated 10<sup>th</sup> April 2017, SZES151000342001/iss3 dated 25<sup>th</sup> May 2018  
SHES191202790901 dated 6<sup>th</sup> May 2020  
EMA221646/1

Authorised Signature


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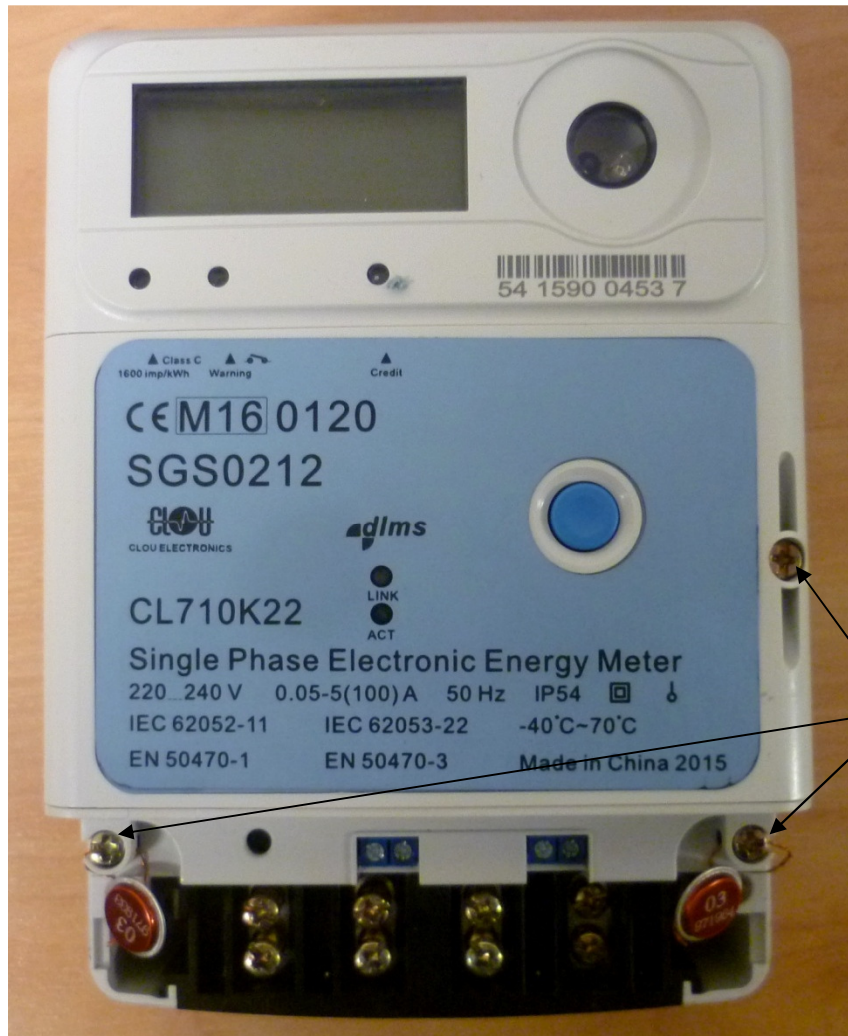
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|---|---|----------------------------------|
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|   | <b>0120/ SGS0212</b>                    |                                  |
|   | Issue Number: 5                         | Dated: 14 <sup>th</sup> May 2020 |

## 1. Technical Data`


|  |  |
|--|--|
| <b>Manufacturer</b>  | Shenzhen Clou Electronics Co., Ltd.                    |
| <b>Meter Type</b>  | CL710K22   |
| <b>Voltage Rating (<i>Un</i>)</b>  | 220-240V   |
| <b>Current Rating (<i>I<sub>min</sub></i> – <i>I<sub>ref</sub></i> (<i>I<sub>max</sub></i>))</b> | 0.05-5(100)A, 0.05-5(80)A, 0.15-5(100)A                |
| <b>Frequency (<i>Fn</i>)</b>   | 50/60Hz  |
| <b>Active Accuracy Class (<i>kWh</i>)</b>  | C (kWh)  |
| <b>Type of circuit</b>   | 1p2w   |
| <b>Temperature Range</b>   | -40°C to +70°C   |
| <b>Software/ Firmware Version No</b><br><b>Identification Location</b>                           | 08<br>LCD  |
| <b>Bill Of Materials Number</b>  | Keyboard:26064696000001<br>Non-Keybaord:26064696000003 |
| <b>IP Rating</b>   | IP54   |
| <b>Insulation Protective Class</b>   | Class II   |
| <b>Mechanical Environment</b>  | M1   |
| <b>Electromagnetic Environment</b>   | E2   |
| <b>LED Pulse Constant</b>  | 1000imp/kWh, 1600 imp/ kWh                             |
| <b>Impulse Voltage Rating</b>  | 6kV  |
| <b>AC Voltage Rating</b>   | 4kV  |
| <b>Main Cover Sealing Type</b>   | Wire & Crimp   |
| <b>Integrity of meter</b>  | Inaccessible without breaking seals                    |
| <b>Intended Location of the Meter</b>  | Outdoor  |
| <b>Type of Register</b>  | LCD  |
| <b>Terminal Arrangement(s)</b>   | BS   |

|   |   |                                  |
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## 2. Photographs of Meter and Sealing Plan




Main cover seals

|   |   |                                  |
|---|---|----------------------------------|
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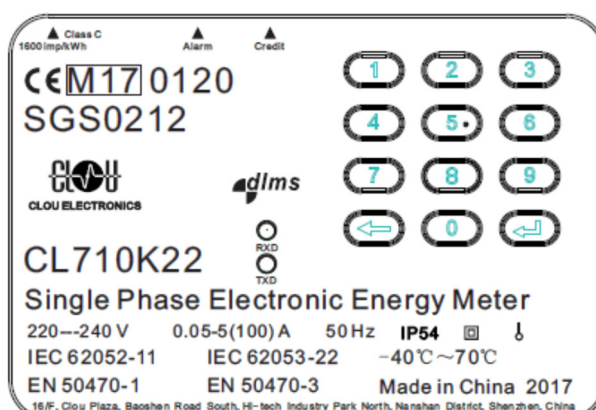
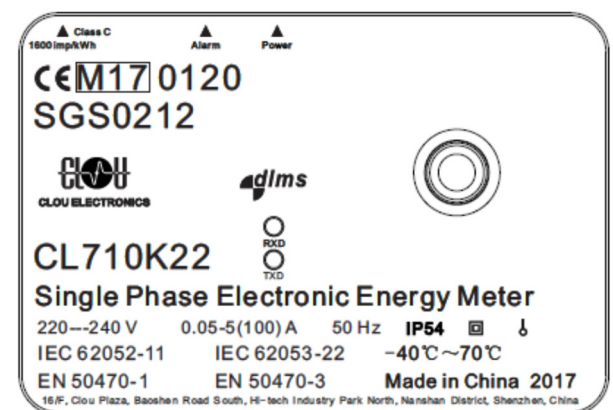


Main cover seals

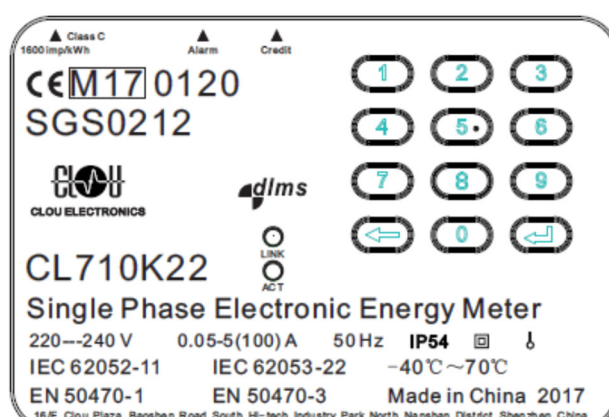
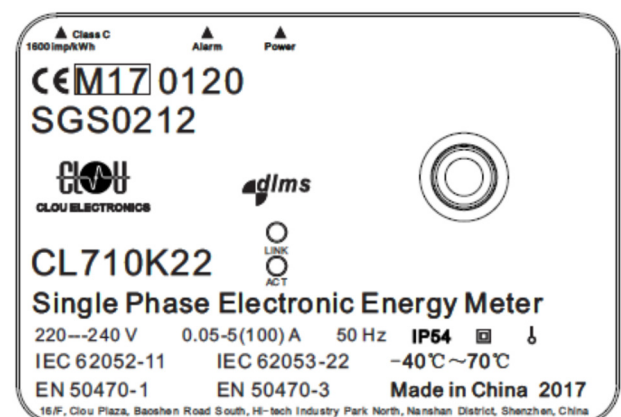
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|---|---|----------------------------------|
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### 3. Nameplates


#### PLC Version



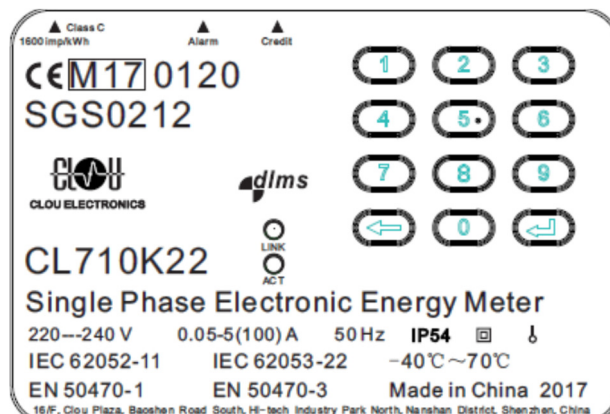
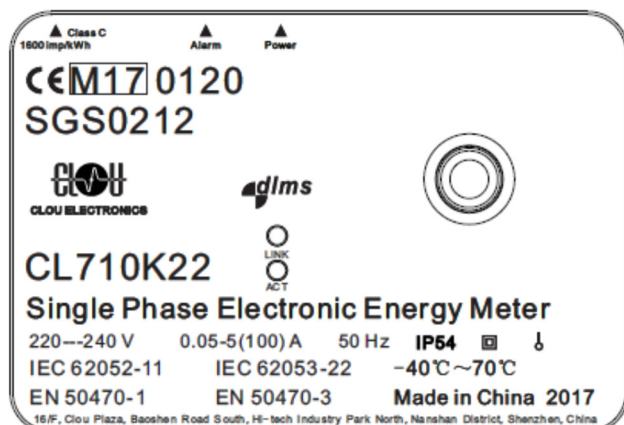
#### RF Version






|   |   |                                  |
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### GPRS Version



|   |   |                                  |
|---|---|----------------------------------|
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#### 4. Influence factors for temperature, frequency and voltage

| Current           | PF Cos | -40 °C      | -25 °C      | -10 °C      | 5 °C        | 30 °C       | 40 °C       | 55 °C       | 70 °C       |
|-------------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| I <sub>min</sub>  | 1.0    | <b>0.66</b> | <b>0.41</b> | <b>0.23</b> | <b>0.17</b> | <b>0.09</b> | <b>0.12</b> | <b>0.16</b> | <b>0.19</b> |
| I <sub>tr</sub>   | 1.0    | <b>0.64</b> | <b>0.40</b> | <b>0.26</b> | <b>0.13</b> | <b>0.07</b> | <b>0.09</b> | <b>0.17</b> | <b>0.19</b> |
| 10I <sub>tr</sub> | 1.0    | <b>0.65</b> | <b>0.41</b> | <b>0.26</b> | <b>0.13</b> | <b>0.03</b> | <b>0.06</b> | <b>0.14</b> | <b>0.15</b> |
| I <sub>max</sub>  | 1.0    | <b>0.47</b> | <b>0.35</b> | <b>0.28</b> | <b>0.23</b> | <b>0.19</b> | <b>0.18</b> | <b>0.17</b> | <b>0.18</b> |
| I <sub>tr</sub>   | 0.5ind | <b>0.57</b> | <b>0.36</b> | <b>0.21</b> | <b>0.13</b> | <b>0.10</b> | <b>0.11</b> | <b>0.19</b> | <b>0.19</b> |
| 10I <sub>tr</sub> | 0.5ind | <b>0.64</b> | <b>0.37</b> | <b>0.24</b> | <b>0.13</b> | <b>0.06</b> | <b>0.08</b> | <b>0.08</b> | <b>0.15</b> |
| I <sub>max</sub>  | 0.5ind | <b>0.60</b> | <b>0.51</b> | <b>0.46</b> | <b>0.43</b> | <b>0.40</b> | <b>0.39</b> | <b>0.37</b> | <b>0.38</b> |
| I <sub>tr</sub>   | 0.8cap | <b>0.56</b> | <b>0.37</b> | <b>0.22</b> | <b>0.11</b> | <b>0.07</b> | <b>0.10</b> | <b>0.16</b> | <b>0.16</b> |
| 10I <sub>tr</sub> | 0.8cap | <b>0.59</b> | <b>0.38</b> | <b>0.23</b> | <b>0.12</b> | <b>0.04</b> | <b>0.06</b> | <b>0.13</b> | <b>0.14</b> |
| I <sub>max</sub>  | 0.8cap | <b>0.49</b> | <b>0.39</b> | <b>0.32</b> | <b>0.28</b> | <b>0.25</b> | <b>0.24</b> | <b>0.22</b> | <b>0.23</b> |

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table above represents the sum of the square values per load, determined via the following formula:-


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

where

$\delta e(T, I, \cos\varphi)$  = Additional error due to variation of the temperature at the same load

$\delta e(U, I, \cos\varphi)$  = Additional error due to variation of the voltage at the same load

$\delta e(f, I, \cos\varphi)$  = Additional error due to variation of the frequency at the same load

|   |   |                                  |
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## 5. Annex of Variants

Product Variant Identification Details:

| Type Designation | Description of meter   |
|------------------|--|
| CL710K22         | 1P2W, 220-240V, 0.05-5(80)A 0.05-5(100)A,<br>0.15-5(100)A<br>Optional detachable communication<br>modules:<br>PLC module, RF module, GPRS module |

Modifications to the meter(s) described according to approval No.**0120/ SGS0212** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).



|   |   |                                  |
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## 6. Document Revision History

| Issue | Date       | Comments  |
|-------|------------|---|
| 1     | 12/04/2016 | Initial Issue   |
| 2     | 19/01/2017 | Updated to the requirements of EU Directive 2014/32/EU<br>Mechanical and Electromagnetic environments added to technical data   |
| 3     | 24/05/2018 | Optional GPRS communication module  |
| 4     | 03/04/2019 | Reference to test reports SZES151000342001/iss2 dated 10 <sup>th</sup> April 2017 & SZES151000342001/iss3 dated 25 <sup>th</sup> May 2018 added to certificate due to being omitted from issue 3 certificate. |
| 5     | 14/05/2020 | New variant 0.15- 5(100)A, 1000imp/kWh added to approval  |

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**END OF CERTIFICATE**