



SGS

EC Type Examination Certificate Number: 0120/SGS0210

Shenzhen Clou Electronics Co., Ltd.

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

Instrument Identification:
CL730S22

Instrument Traceable Number
0120/SGS0210

Poly phase, Active Import/Export (kWh), Electricity Meter

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

Measuring Instruments Annex 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 MI-003 of EC Directive 2004/22/EC

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

This certificate is valid for 10 years from 14th April 2016 until 13th April 2026
Issue 1

Certification is based on report number(s) SZES151000342201 dated 14th April 2016

Authorised Signature

Jan Saunders

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SGSPAPER
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EC Type Examination Cert.




MID-008E Rev 7

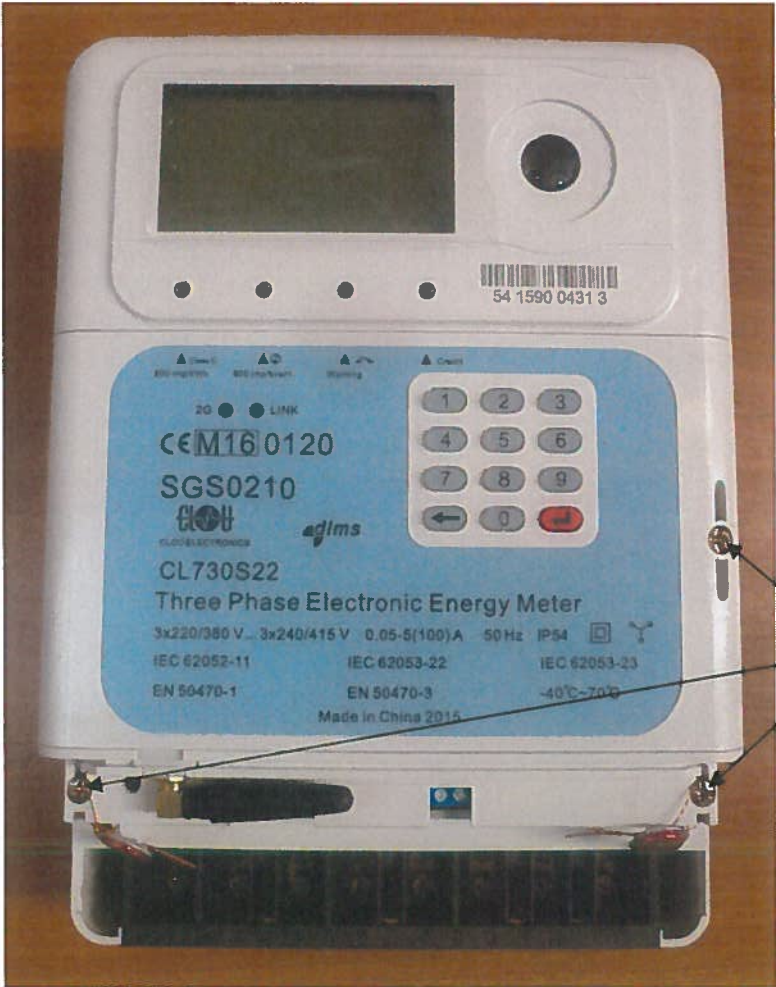
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	0120/ SGS0210	
	Issue Number:	Dated: 14 th April 2016

1. Technical Data

Manufacturer	Shenzhen Clou Electronics Co. Ltd.
Meter Type	CL730S22
Voltage Rating (U_n)	3 x 220/380V ... 3 x 240/415V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0.05-5(100)A
Frequency (F_n)	50/60Hz
Active Accuracy Class (kWh)	C (kWh)
Type of circuit	3p4w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No Identification Location	02 LCD
Bill Of Materials Number	Non-Keyboard: 26064745000001 Keyboard: 26064745000005
IP Rating	IP54
Insulation Protective Class	Class II
LED Pulse Constant	800 imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Outdoor
Type of Register	LCD
Terminal Arrangement(s)	BS

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2. Photograph of Meter and Sealing Plan



Main cover seals

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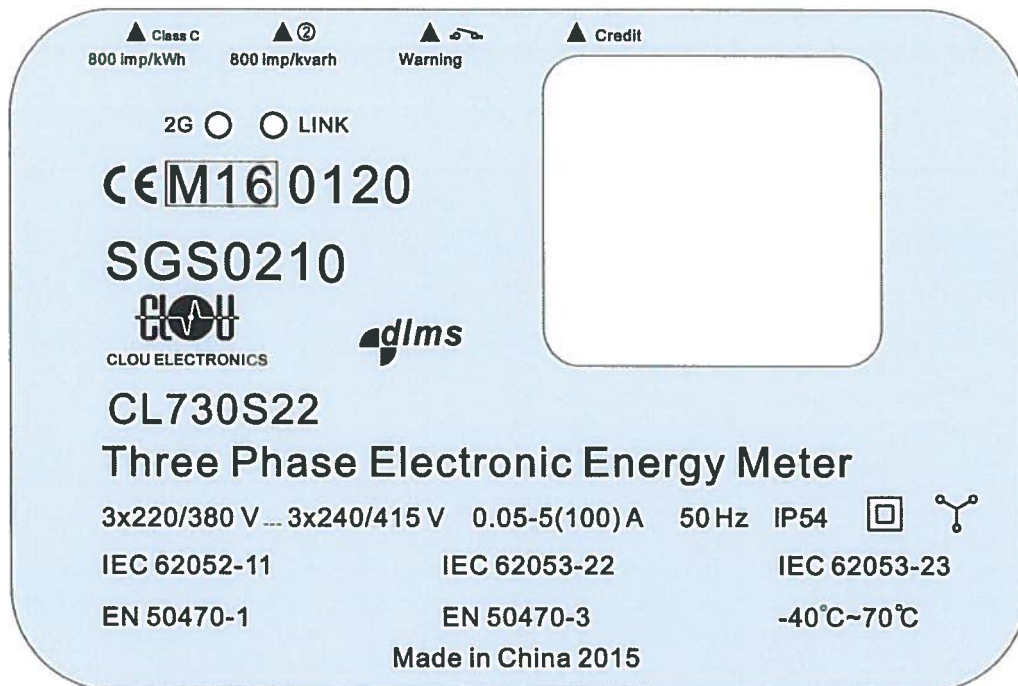
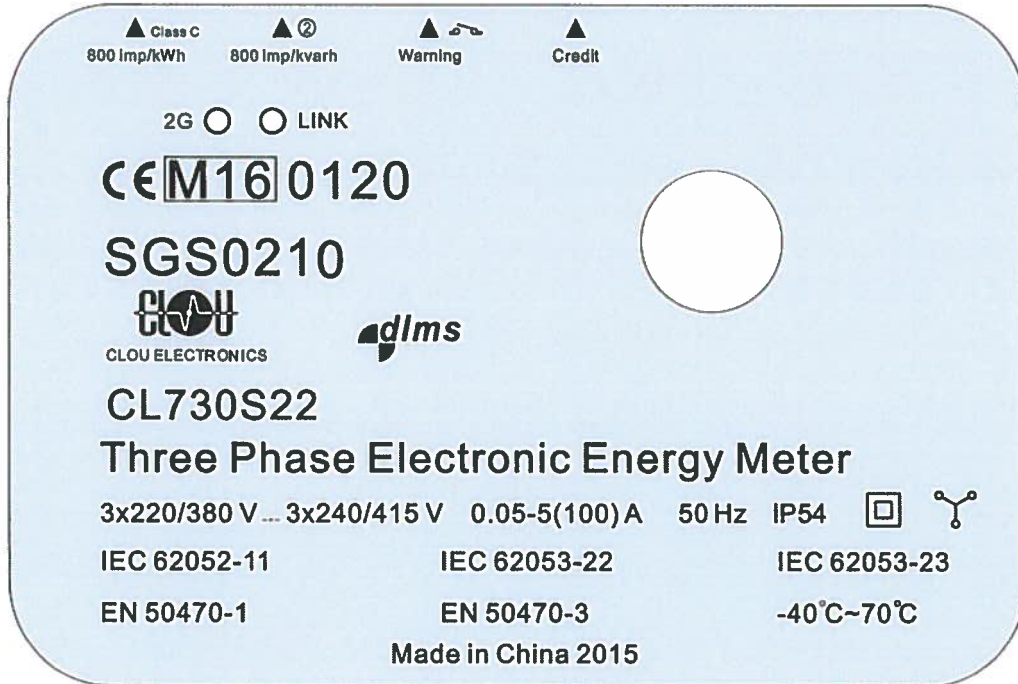


Main cover seals

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3. Nameplates

GPRS Version



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PLC Version

▲ Class C 800 imp/kWh ▲ ② 800 imp/kvarh ▲ Warning ▲ Credit

RXD ○ TXD

CE M16 0120

SGS0210

CLOU ELECTRONICS

CL730S22

Three Phase Electronic Energy Meter

3x220/380 V ... 3x240/415 V 0.05-5(100) A 50 Hz IP54

IEC 62052-11 IEC 62053-22 IEC 62053-23

EN 50470-1 EN 50470-3 -40°C~70°C

Made in China 2015

▲ Class C 800 imp/kWh ▲ ② 800 imp/kvarh ▲ Warning ▲ Credit

RXD ○ TXD

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CLOU ELECTRONICS

CL730S22

Three Phase Electronic Energy Meter

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IEC 62052-11 IEC 62053-22 IEC 62053-23

EN 50470-1 EN 50470-3 -40°C~70°C

Made in China 2015

EC-Type Examination Certificate Number:

0120/ SGS0210

Issue Number:

Dated: 14th April 2016

RF Version

▲ Class C 800 imp/kWh ▲ ② 800 imp/kvarh ▲ Warning ▲ Credit

LINK ○ ○ ACT

CE M16 0120

SGS0210

CLOU ELECTRONICS dlms

CL730S22

Three Phase Electronic Energy Meter

3x220/380 V ... 3x240/415 V 0.05-5(100) A 50 Hz IP54

IEC 62052-11 IEC 62053-22 IEC 62053-23

EN 50470-1 EN 50470-3 -40°C~70°C

Made in China 2015

▲ Class C 800 imp/kWh ▲ ② 800 imp/kvarh ▲ Warning ▲ Credit

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4. Influence factors for temperature, frequency and voltage

		Influence Factors for temperature, frequency and voltage							
Current	PF Cos	-40	-25	-10	5	30	40	55	70
I _{min}	1.0	0.22	0.25	0.20	0.20	0.20	0.21	0.27	0.26
I _{tr}	1.0	0.15	0.16	0.13	0.12	0.12	0.13	0.15	0.16
10I _{tr}	1.0	0.11	0.11	0.08	0.07	0.08	0.10	0.11	0.15
I _{max}	1.0	0.13	0.12	0.10	0.06	0.03	0.06	0.06	0.11
I _{tr}	0.5ind	0.35	0.35	0.36	0.33	0.33	0.33	0.33	0.35
10I _{tr}	0.5ind	0.14	0.14	0.13	0.11	0.09	0.10	0.11	0.16
I _{max}	0.5ind	0.22	0.20	0.20	0.18	0.17	0.18	0.18	0.22
I _{tr}	0.8cap	0.13	0.13	0.08	0.09	0.08	0.08	0.16	0.12
10I _{tr}	0.8cap	0.12	0.12	0.10	0.07	0.04	0.05	0.09	0.11
I _{max}	0.8cap	0.11	0.11	0.09	0.06	0.04	0.04	0.09	0.09
L1									
I _{tr}	1.0	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.21
10I _{tr}	1.0	0.10	0.10	0.08	0.06	0.04	0.05	0.09	0.11
I _{max}	1.0	0.11	0.10	0.08	0.06	0.02	0.03	0.07	0.08
I _{tr}	0.5ind	0.37	0.37	0.37	0.37	0.37	0.37	0.39	0.40
10I _{tr}	0.5ind	0.10	0.10	0.10	0.10	0.08	0.08	0.11	0.17
I _{max}	0.5ind	0.25	0.25	0.24	0.24	0.24	0.24	0.27	0.31
L2									
I _{tr}	1.0	0.23	0.24	0.13	0.14	0.14	0.14	0.20	0.15
10I _{tr}	1.0	0.15	0.15	0.13	0.10	0.08	0.08	0.12	0.13
I _{max}	1.0	0.16	0.16	0.14	0.10	0.05	0.06	0.10	0.13
I _{tr}	0.5ind	0.27	0.28	0.25	0.22	0.23	0.23	0.24	0.25
10I _{tr}	0.5ind	0.18	0.19	0.17	0.15	0.12	0.13	0.15	0.17
I _{max}	0.5ind	0.28	0.27	0.26	0.23	0.23	0.24	0.26	0.32
L3									
I _{tr}	1.0	0.11	0.13	0.11	0.10	0.10	0.10	0.13	0.16
10I _{tr}	1.0	0.11	0.11	0.10	0.08	0.05	0.04	0.08	0.10
I _{max}	1.0	0.12	0.12	0.11	0.08	0.03	0.03	0.07	0.10
I _{tr}	0.5ind	0.29	0.42	0.29	0.29	0.27	0.27	0.28	0.29
10I _{tr}	0.5ind	0.18	0.18	0.17	0.15	0.12	0.12	0.14	0.17
I _{max}	0.5ind	0.23	0.23	0.22	0.23	0.13	0.19	0.20	0.24


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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
CL730S22	3 x 220/380V... 3 x 240/415V 0.05-5(100)A 3p4w. Optional detachable communication module: GMS/GPRS modem, PLC modem, RF modem.

Modifications to the meter(s) described according to approval No.**0120/ SGS0210** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

6. Document Revision History

Issue	Date	Comments
1	14/04/2016	Initial Issue