

EU Type Examination Certificate Number: **0120/ SGS0182**

# Ningbo Sanxing Smart Electric Co., Ltd

No 16, Fengwan Road  
Cicheng Town  
Jiangbei District  
Ningbo  
China

Instrument Identification:  
**SX1A1-SELS-05**

Single Phase, Active Import/Export, Multi-Tariff, Indoor, Electricity Meter

Instrument Traceable Number  
**0120/ SGS0182**

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 31<sup>st</sup> May 2025  
Issue 4


Certification is based on report number(s) SHES141200650501 dated 1<sup>st</sup> June 2015  
SHES150900528201 dated 9<sup>th</sup> October 2015  
SHES150900528201/iss2 dated 10<sup>th</sup> November 2015  
SHES141200650501/iss2 dated 10<sup>th</sup> November 2015  
SHES150900528201/iss3 dated 19<sup>th</sup> December 2016

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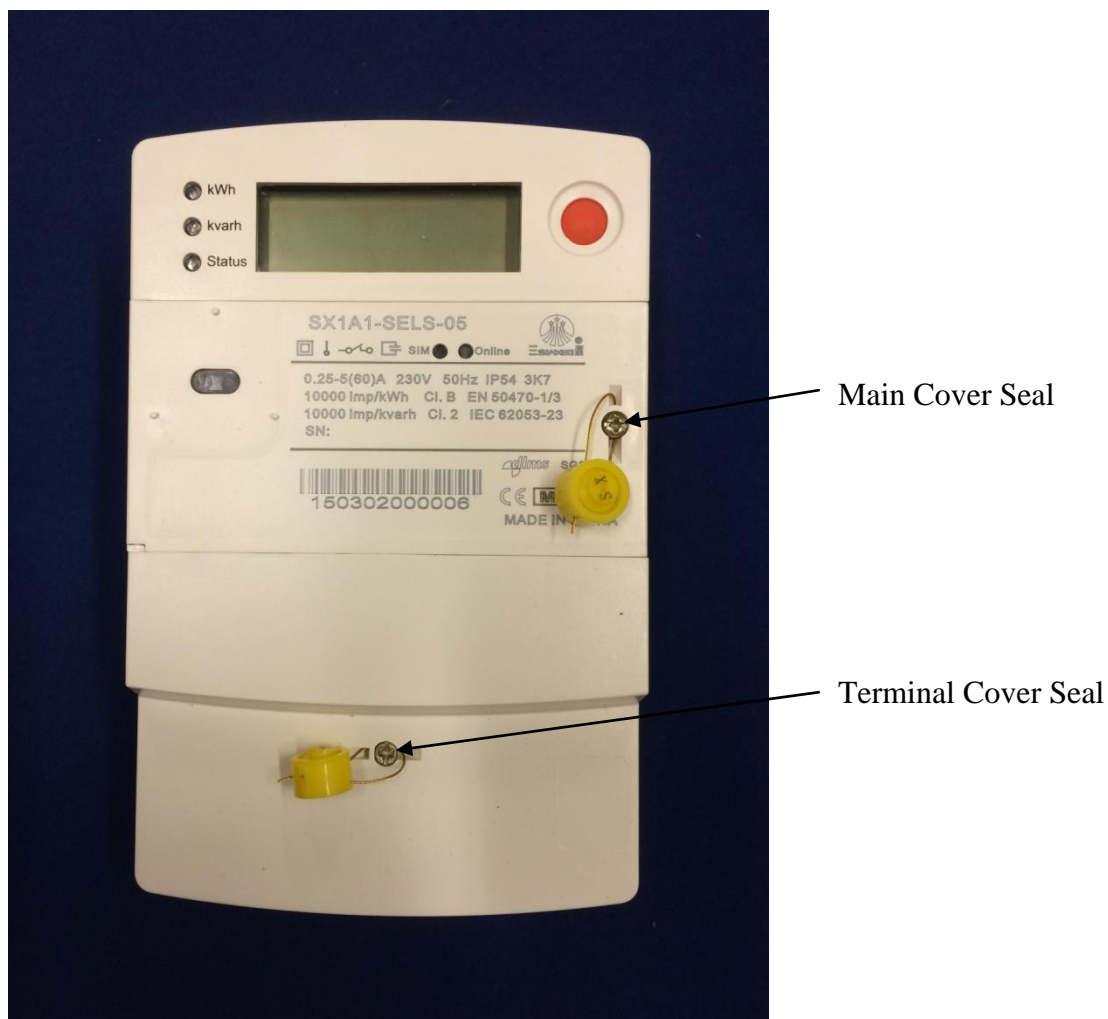
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	Issue Number: 4	Dated: 19 <sup>th</sup> December 2016


## 1. Technical Data

<b>Manufacturer</b>	Ningbo Sanxing Smart Electric Co., Ltd.
<b>Meter Type</b>	SX1A1-SELS-05
<b>Voltage Rating (<math>U_n</math>)</b>	220V- 240V
<b>Current Rating (<math>I_{min} - I_{ref} (I_{max})</math>)</b>	0,25-5(40)A 0,25-5(50)A 0,25-5(60)A 0,5-10(50)A 0,5-10(60)A
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (<math>kWh</math>)</b>	A or B ( $kWh$ )
<b>Type of circuit</b>	1p2w
<b>Temperature Range</b>	-40°C to +70°C
<b>Software/ Firmware Version No.</b>	SX1A1-SELS-05.V1.0 SX1A1-SELS-05.V1.1
<b>Identification Location</b>	LCD
<b>Bill Of Materials Numbers</b>	201611295872 201503270004 SX3.417.000214
<b>IP Rating</b>	IP54
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	500 imp/kWh 1000 imp/kWh 2000 imp/kWh 10000 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>	Indoor
<b>Type of Register</b>	LCD
<b>Terminal Arrangement(s)</b>	DIN or BS


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## 2. Photograph of Meter and Sealing Plan



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### 3. Influence factors for temperature, frequency and voltage

Current	PF Cos	Influence Factors for temperature, frequency and voltage							
		-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
I <sub>min</sub>	1.0	1.04	0.72	0.46	0.16	0.12	0.21	0.23	0.17
I <sub>tr</sub>	1.0	1.01	0.70	0.38	0.13	0.15	0.25	0.33	0.19
10I <sub>tr</sub>	1.0	1.08	0.75	0.48	0.17	0.13	0.23	0.26	0.14
I <sub>max</sub>	1.0	0.84	0.57	0.31	0.08	0.13	0.24	0.25	0.14
I <sub>tr</sub>	0.5ind	0.99	0.71	0.36	0.06	0.20	0.29	0.34	0.16
10I <sub>tr</sub>	0.5ind	0.98	0.67	0.37	0.11	0.21	0.33	0.32	0.23
I <sub>max</sub>	0.5ind	0.87	0.61	0.36	0.11	0.12	0.19	0.18	0.07
I <sub>tr</sub>	0.8cap	0.95	0.66	0.36	0.11	0.19	0.26	0.29	0.22
10I <sub>tr</sub>	0.8cap	1.02	0.74	0.41	0.17	0.12	0.20	0.26	0.16
I <sub>max</sub>	0.8cap	0.85	0.61	0.37	0.17	0.10	0.14	0.16	0.09

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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#### 4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
SX1A1-SELS-05	220V, 230V, 240V 0,25-5(40)A, 0,25-5(50)A, 0,25-5(60)A, 0,5-10(50)A, 0,5-10(60)A 500imp/kWh, 1000imp/kWh, 2000imp/kWh, 10000imp/kWh Barrier or spring auxiliary terminal block

Modifications to the meter(s) described according to approval No.**0120/ SGS0182** 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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## 5. Document Revision History

Issue	Date	Comments
1	01/06/2015	Initial Issue
2	09/10/2015	Minor pcb change and component relocation, minor software revision, additional pulse constant 1000imp/kWh
3	10/11/2015	Company name change from Ningbo Sanxing Electric Co., Ltd to Ningbo Sanxing Smart Electric Co., Ltd
4	19/12/2016	Change of directive reference from EC 2004/22/EC to EU 2014/32/EU. New BOM number due to component change

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