



EU Type Examination Certificate Number: **0120/ SGS0351**

Jiangsu Linyang Energy Co., Ltd

No.666 Linyang Road
Qidong
China

Instrument Identification:

SM150 Series

Single Phase, Active Import/Export (kWh), Electricity Meter

Instrument Traceable Number

0120/ SGS0351

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 for 10 years from 9th February 2018 until 8th February 2028
Issue 3

Certification is based on report number(s) SHES180100033301 dated 9th February 2018, SHES180400358401 dated 19th April 2018
SHES180500430601 dated 19th September 2018, EMA249904/1

Authorised Signature


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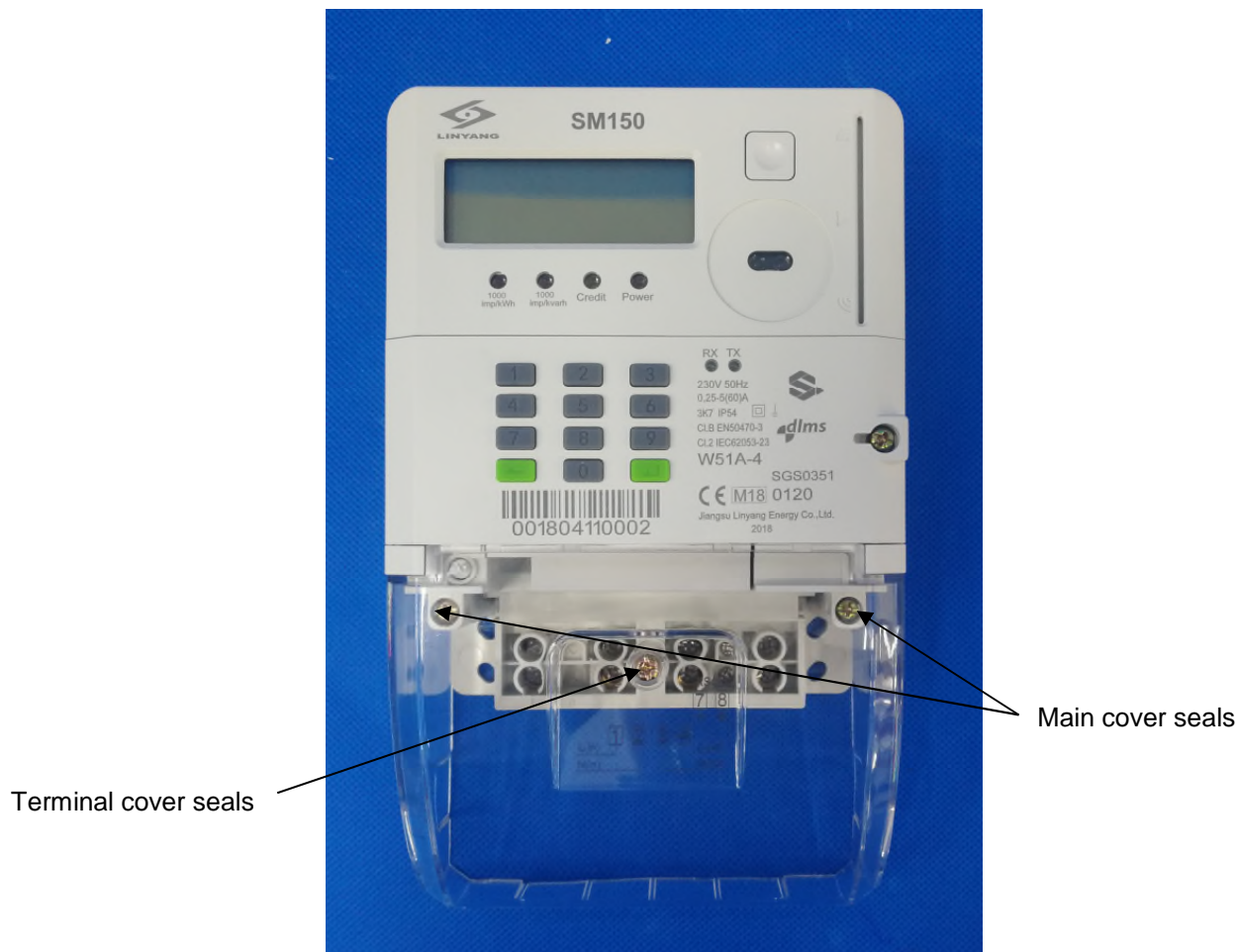
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1. Technical Data

Manufacturer	Jiangsu Linyang Energy Co. Ltd.
Meter Type	SM150
Voltage Rating (U_n)	220-240 V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0.25-5(30)A, 0.25-5(40)A, 0.25-5(60)A, 0.25-5(80)A, 0.25-5(100)A, 0.5-10(40)A, 0.5-10(60)A, 0.5-10(80)A, 0.5-10(100)A
Frequency (F_n)	50 Hz & 60Hz (IEC only)
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No.	BD_H5023_V0001_20180123
CRC Checksum	0x89CC9FB9
Identification Location	LCD
Bill Of Materials No.'s	LY7.303.001078MX-V01.01 LY5.365.001136MX-V01.01 LY5.528.001637MX-V01.01 LY5.528.001635MX-V01.01 LY5.528.001636MX-V1
IP Rating	IP54
Insulation Protective Class	Class II
LED Pulse Constant	1000 imp/ kWh
Impulse Voltage Rating	6 kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	BS
Location of Manufacturers Address	Associated Documents

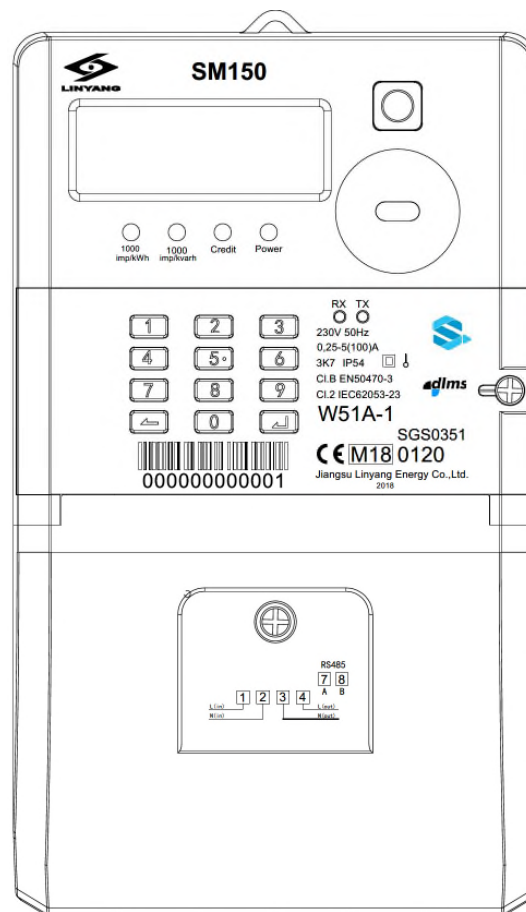
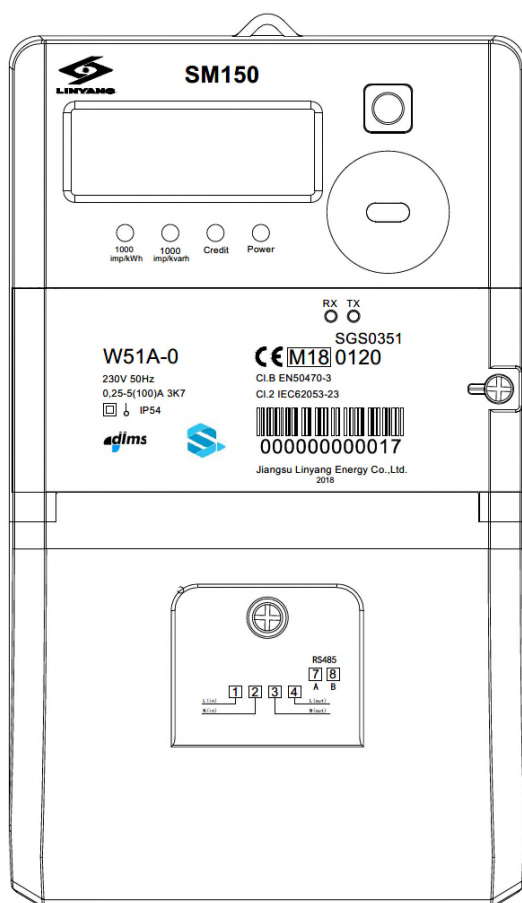
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2. Photograph of Meter and Sealing Plan

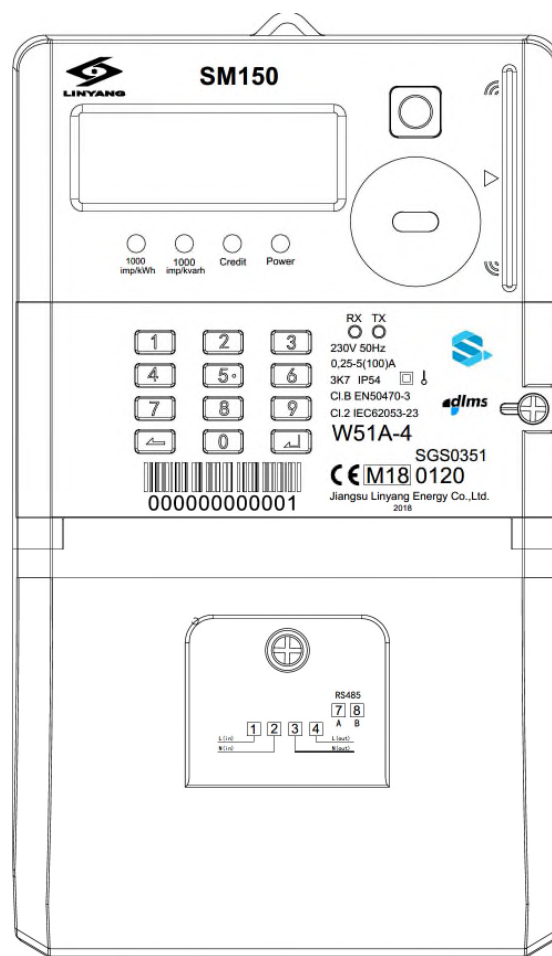
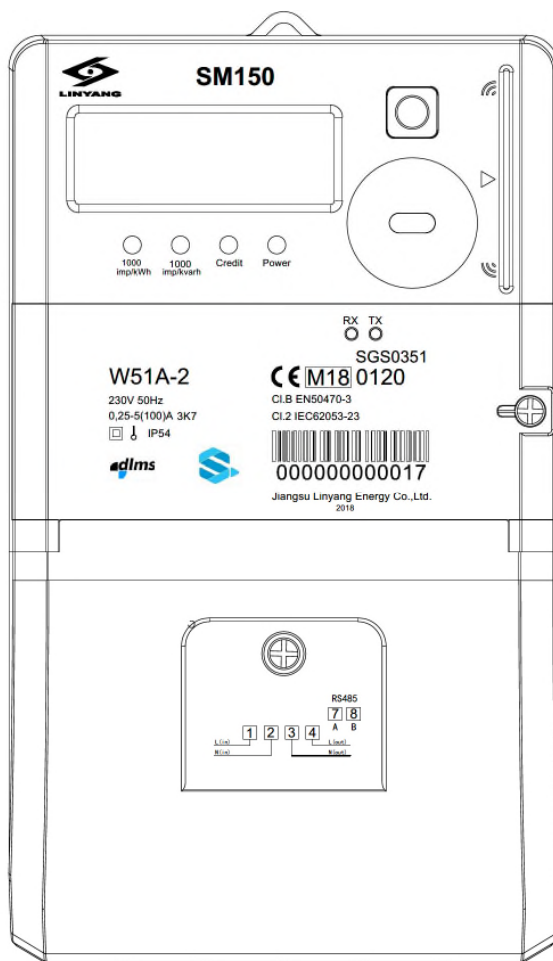



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3. Nameplates



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4. Calculation of the composite error/ MPE


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

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

where

$\delta e(T, I, \cos\phi) =$ Additional error due to variation of the temperature at the same load
 $\delta e(U, I, \cos\phi) =$ Additional error due to variation of the voltage at the same load
 $\delta e(f, I, \cos\phi) =$ Additional error due to variation of the frequency at the same load

		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 _{min}	1.0	1.15	0.96	0.74	0.49	0.15	0.12	0.26	0.49
I _{tr}	1.0	1.13	0.92	0.69	0.46	0.12	0.12	0.29	0.50
10I _{tr}	1.0	1.24	0.95	0.73	0.51	0.16	0.10	0.24	0.44
I _{max}	1.0	1.20	0.89	0.61	0.31	0.16	0.34	0.60	0.72
I _{tr}	0.5ind	1.09	0.86	0.62	0.36	0.06	0.16	0.37	0.60
10I _{tr}	0.5ind	1.20	0.89	0.65	0.40	0.08	0.15	0.35	0.56
I _{max}	0.5ind	1.19	0.83	0.54	0.27	0.24	0.18	0.71	0.86
I _{tr}	0.8cap	1.11	0.91	0.69	0.46	0.16	0.15	0.31	0.51
10I _{tr}	0.8cap	1.20	0.92	0.72	0.49	0.16	0.12	0.27	0.47
I _{max}	0.8cap	1.38	1.04	0.75	0.49	0.17	0.21	0.42	0.66


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5. Annex of Variants

Product Variant Identification Details:

SM150	W	5	1	A	-	4
	Whole Current	4	1	A		0 Neither Keypad nor Card
	W	220V	50Hz	5(100)A		
		5	2	B 5(80)A		1 Keypad only
		230V	60Hz			
		6		C 5(60)A		2 Smar Card only
		240V		D 5(40)A		
				E 5(30)A		4 Keypad and Smart Card
				F 10(40)A		
				G		
				10(60)A		
				H		
				10(80)A		
				I		
				10(100)A		

Modifications to the meter(s) described according to approval No.**0120/ SGS0351** 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	09/02/2018	Initial Issue
2	19/04/2018	Additional current ranges added to series. SM150 W51A-2 & SM150 W51A-4 IP rating upgraded to IP54
3	0211/2018	Additional current ranges added to series

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END OF CERTIFICATE