



EU Type Examination Certificate Number: **0120/SGS0407**

# Super Star Electronics Limited

UCEP Cheyne Tower  
25 Segunbagicha  
Ramna  
Dhaka  
Bangladesh

Instrument Identification:  
**SP-PRE-19**

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

Instrument Traceable Number  
**0120/SGS0407**

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 8<sup>th</sup> February 2028  
Issue 1

Certification is based on report number(s) SHES180100033301 dated 9<sup>th</sup> February 2018  
SHES180400358401 dated 19<sup>th</sup> April 2018  
SHES180500430601 dated 19<sup>th</sup> September 2018  
EMA249904/1  
EMA263344

Authorised Signature


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	Issue Number: 1	Dated: 22 <sup>nd</sup> January 2019


## 1. Technical Data

<b>Manufacturer</b>	Super Star Electronics Limited.
<b>Meter Type</b>	SP-PRE-19
<b>Voltage Rating (<math>U_n</math>)</b>	220-240 V
<b>Current Rating (<math>I_{min}</math> – <math>I_{ref}</math> (<math>I_{max}</math>))</b>	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
<b>Frequency (<math>F_n</math>)</b>	50 Hz & 60Hz (IEC only)
<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>	BD_H5023_V0001_20180123
<b>CRC Checksum</b>	0x89CC9FB9
<b>Identification Location</b>	LCD
<b>Bill Of Materials Number</b>	LY7.303.001078MX-V01.01 LY5.365.001136MX-V01.01 LY5.528.001637MX-V01.01 LY5.528.001635MX-V01.01 LY5.528.001636MX-V1
<b>IP Rating</b>	IP54
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	1000imp/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>	BS
<b>Location of Manufacturers Address</b>	Associated Documents

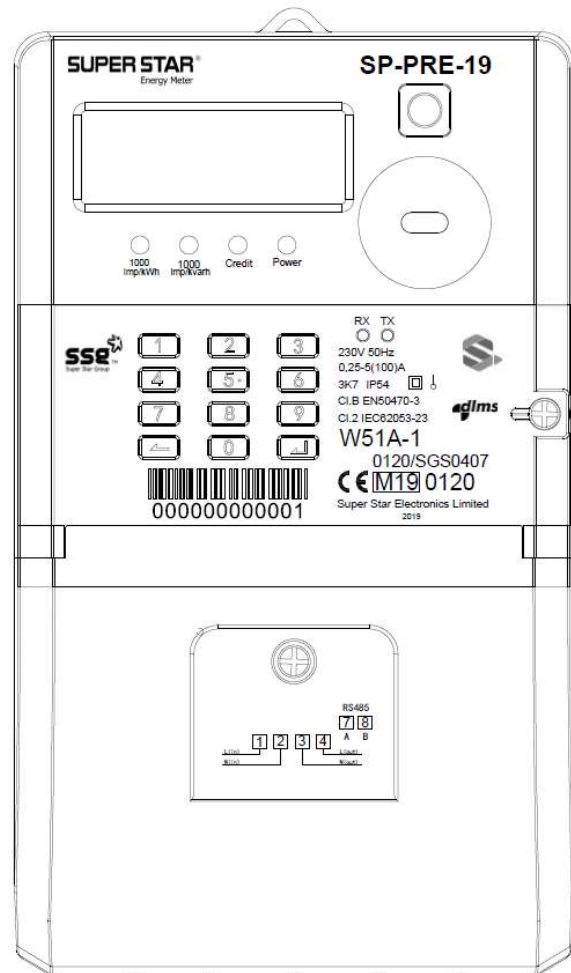
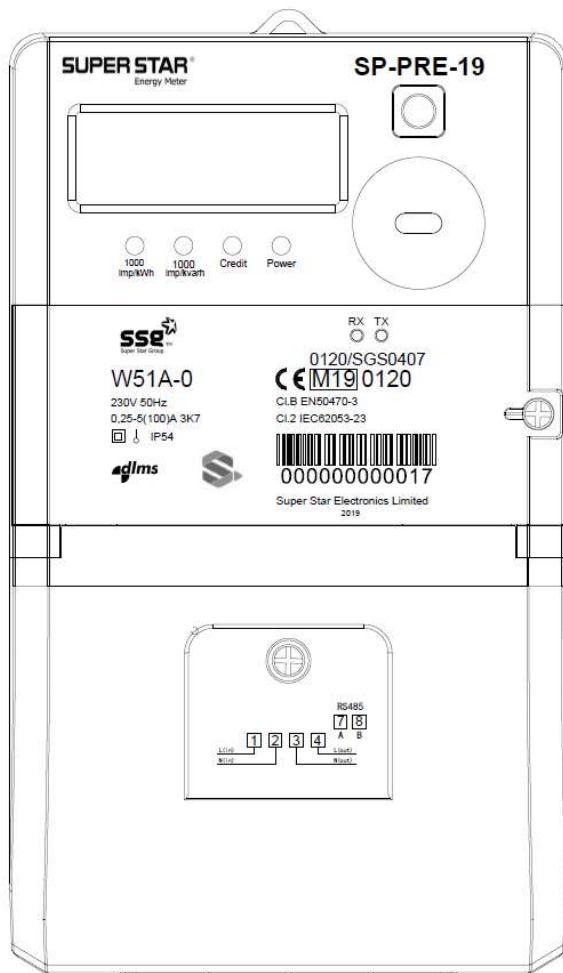
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## 2. Photograph of Meter and Sealing Plan

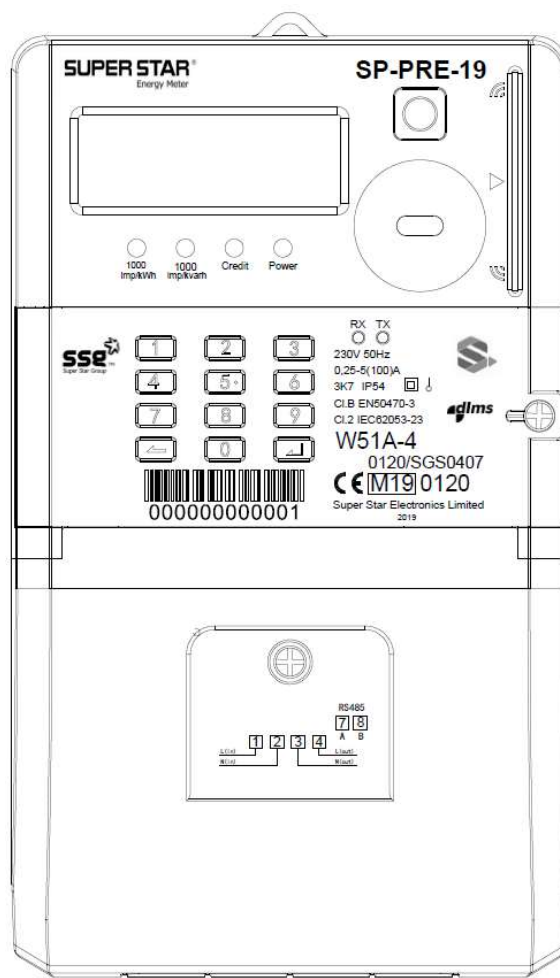
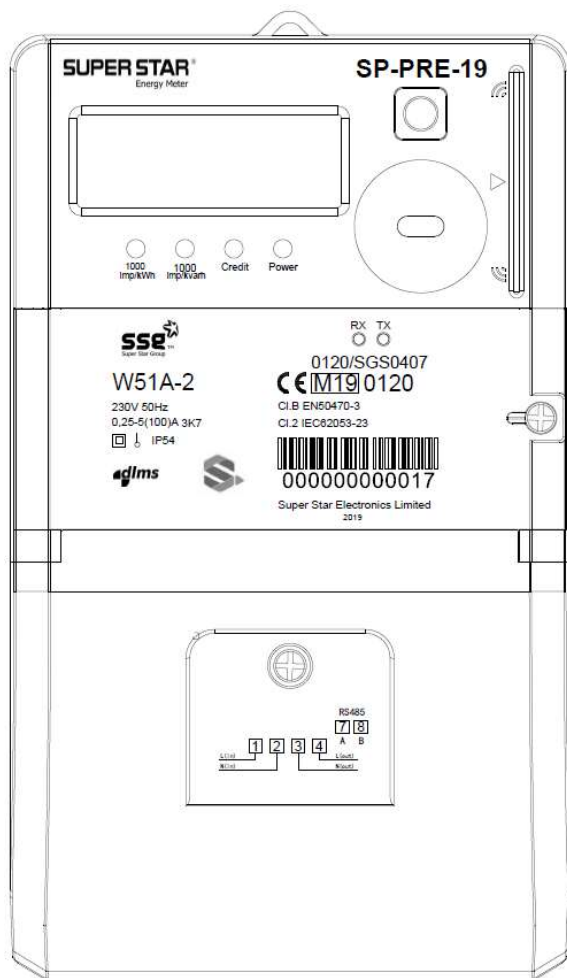



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### 3. Examples of Nameplates



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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 & 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	1.15	0.96	0.74	0.49	0.15	0.12	0.26	0.49
I <sub>tr</sub>	1.0	1.13	0.92	0.69	0.46	0.12	0.12	0.29	0.50
10I <sub>tr</sub>	1.0	1.24	0.95	0.73	0.51	0.16	0.10	0.24	0.44
I <sub>max</sub>	1.0	1.20	0.89	0.61	0.31	0.16	0.34	0.60	0.72
I <sub>tr</sub>	0.5ind	1.09	0.86	0.62	0.36	0.06	0.16	0.37	0.60
10I <sub>tr</sub>	0.5ind	1.20	0.89	0.65	0.40	0.08	0.15	0.35	0.56
I <sub>max</sub>	0.5ind	1.19	0.83	0.54	0.27	0.24	0.18	0.71	0.86
I <sub>tr</sub>	0.8cap	1.11	0.91	0.69	0.46	0.16	0.15	0.31	0.51
10I <sub>tr</sub>	0.8cap	1.20	0.92	0.72	0.49	0.16	0.12	0.27	0.47
I <sub>max</sub>	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:

SP-PRE-19	W	5	1	A	-	4
Whole Current W		4 220V	1 50Hz	A 5(100)A	0 Neither Keypad nor Card	
		5 230V	2 60Hz	B 5(80)A	1 Keypad only	
		6 240V		C 5(60)A	2 Smart Card only	
				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/SGS0407** 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	22/01/2019	Initial Issue

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**END OF CERTIFICATE**