



EU Type Examination Certificate Number: **0120/SGS0186**

## **Autometers Systems, Ltd.**

4B Albany Road,  
Manchester,  
M21 0AW,  
United Kingdom.

Instrument Identification:  
**A-100 Series**  
**HT-100**

Instrument Traceable Number  
**0120/SGS0186**

Single Phase, Active Import/ Export (kWh), Multifunction, Indoor, 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 15<sup>th</sup> April 2025  
Issue 2

Certification is based on report number(s) SHES141200649301 16<sup>th</sup> April 2015  
EMA 202963/1 16<sup>th</sup> April 2015  
EMA 204868/1 3<sup>rd</sup> June 2015

Authorised Signature


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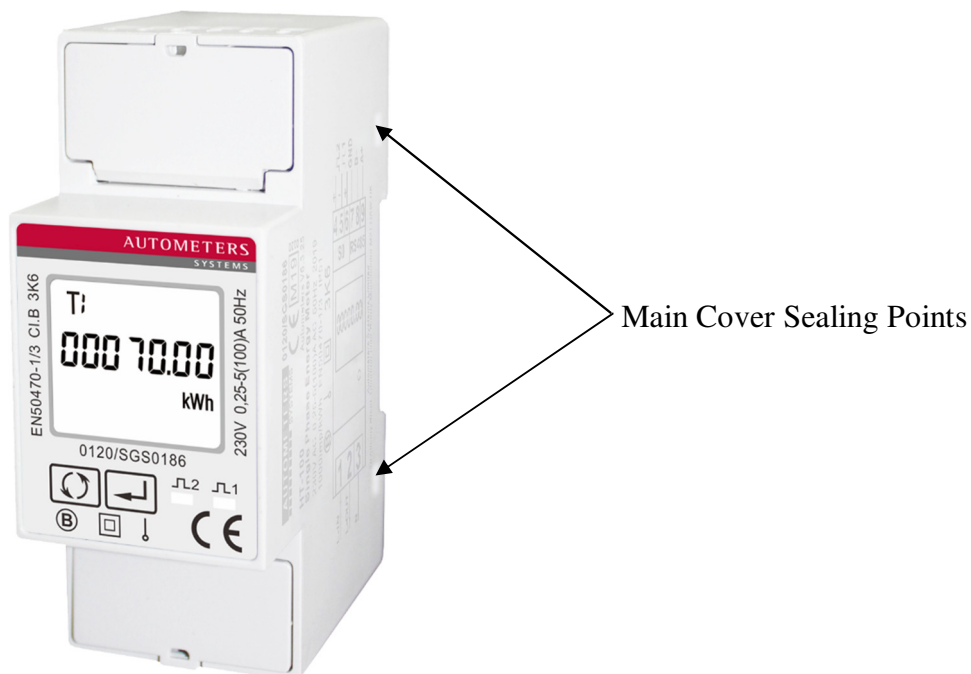
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	Issue Number: 2	Dated: 1 <sup>st</sup> October 2019


## 1. Technical Data

<b>Manufacturer</b>	Autometers Systems, Ltd.
<b>Meter Type(s)</b>	A-100MT, A-100M, A-100M-B, A-100P HT-100
<b>Voltage Rating (<math>U_n</math>)</b>	230V
<b>Current Rating (<math>I_{min}</math> – <math>I_{ref}</math> (<math>I_{max}</math>))</b>	0.25-5(100)A, 0.25-10(100)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>	-25°C to +55°C
<b>Software Version No.</b>	V1.4
<b>Identification Location</b>	LCD
<b>Bill Of Materials No.'s</b>	SDM220-MT V1.5 SDM220-Modbus V1.5 SDM220-Mbus V1.5 SDM220-Pulse V1.5
<b>IP Rating</b>	IP51
<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>	2 x 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>Location of Manufacturers Address</b>	Nameplate & Documentation

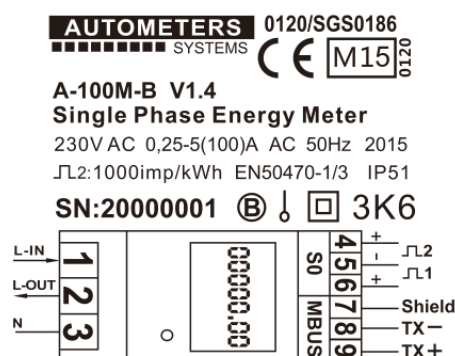
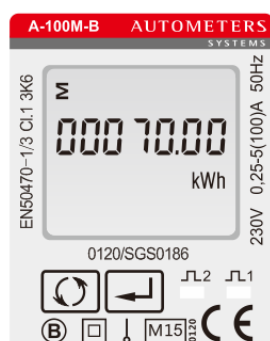
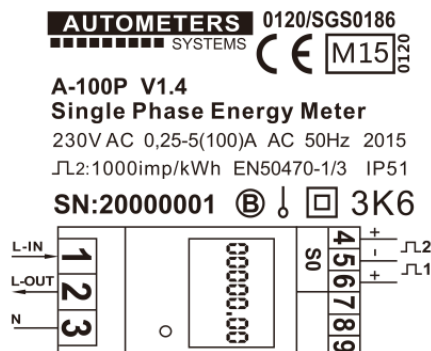
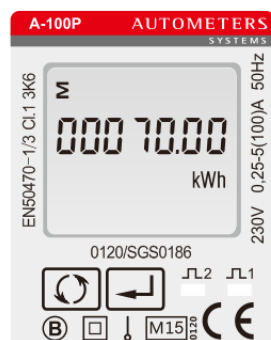
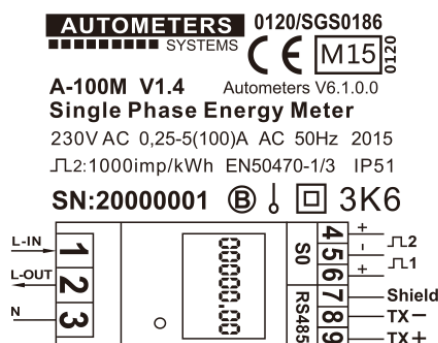
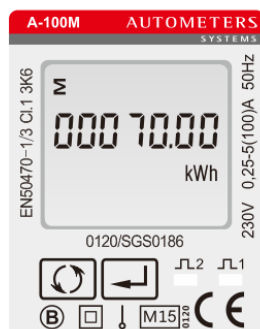
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## 2. Meter Sealing Points

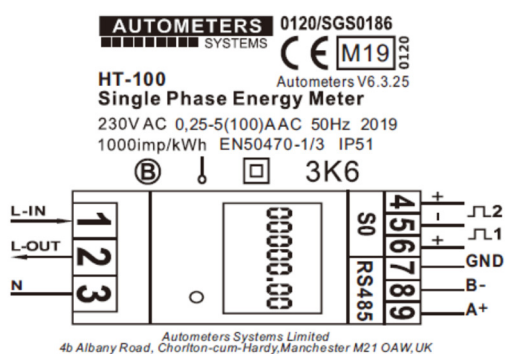
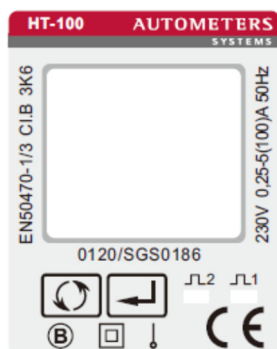
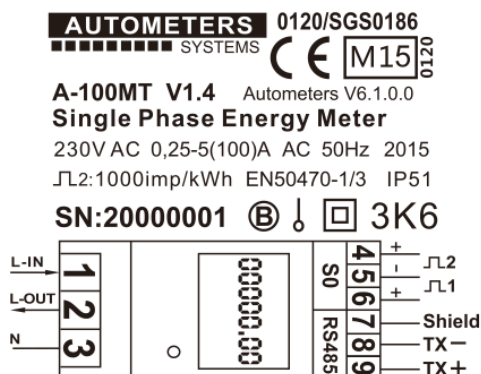
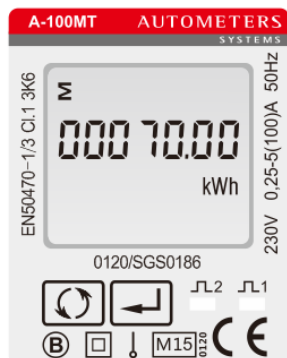


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### 3. Nameplates & Markings



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4b Albany Road, Chorlton-cum-Hardy, Manchester M21 0AW, UK

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


Current	PF Cos	-25 °C	-10 °C	5 °C	30 °C	40 °C	55 °C
I <sub>min</sub>	1.0	0.30	0.28	0.25	0.23	0.24	0.23
I <sub>tr</sub>	1.0	0.17	0.15	0.16	0.13	0.13	0.13
10I <sub>tr</sub>	1.0	0.07	0.08	0.08	0.05	0.07	0.10
I <sub>max</sub>	1.0	0.13	0.11	0.05	0.04	0.04	0.04
I <sub>tr</sub>	0.5ind	0.27	0.24	0.24	0.21	0.21	0.23
10I <sub>tr</sub>	0.5ind	0.16	0.16	0.17	0.16	0.16	0.17
I <sub>max</sub>	0.5ind	0.06	0.04	0.05	0.11	0.11	0.09
I <sub>tr</sub>	0.8cap	0.24	0.24	0.22	0.19	0.19	0.19
10I <sub>tr</sub>	0.8cap	0.06	0.07	0.07	0.05	0.07	0.08
I <sub>max</sub>	0.8cap	0.13	0.09	0.04	0.03	0.03	0.03

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:-

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

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


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## 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
A-100MT:	Multi tariff, single phase, RS485 Modbus
A-100M:	Single tariff, single phase, RS485 Modbus
A-100M-B:	Single tariff, single phase, Mbus
A-100P:	Single tariff, single phase, Pulse
HT-100:	Multi tariff, single phase, RS485 Modbus

Modifications to the meter(s) described according to approval No.**0120/ SGS0186** 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	03/06/2015	Initial Issue
2	01/10/2019	Additional model HT-100 added to approval