



EU Type Examination Certificate Number: **0120/SGS0585**

RS Components Ltd

Birchington Road
Corby, Northamptonshire
NN17 9RS, United Kingdom

Instrument Identification:
236-9298

Single Phase, Active Import (kWh) Indoor, Electricity Meter

Instrument Traceable Number
0120/SGS0585

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 17th February 2024
Issue 1

Certification is based on report number(s): SHES130800321401 dated 18th February 2014
EMA241425
EMA288737/1 dated 1st April 2021
EMA305851/1

Authorised Signature

Mikko Välimäki

SGS Fimko OY, Notified Body 0598
Takomotie 8, FI-00380 Helsinki, Finland
t +358 9 696 f +358 692 574 www.sgs.com





EU-Type Examination Certificate Number:

0120/SGS0585

Issue Number: 1

Dated: 01st December 2022**1. Technical Data**

Manufacturer	RS Components Ltd
Meter Types	236-9298
Voltage Rating (U_n)	230V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	Direct Connected 0.25-5(45)A CT Connected 0.25-5(6)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No's	V2.4
CRC Checksum No's	0x0000272C
Identification Location	Meter Case
Bill Of Materials No's	DH-JS-170009-1.2
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/ kWh & 100imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	4 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD: SDM120D, SDM120DB, SDM120M, SDM120MB, SDM120P, SDM120CTM, SDM120CTMB, SDM120CTP Mechanical: SDM120A

2. Photograph of Meter and Sealing Plan



Main Cover Sealing Points

SGS

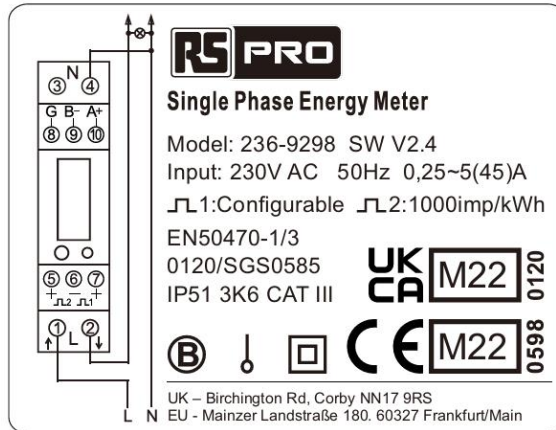
EU-Type Examination Certificate Number:

0120/SGS0585

Issue Number: 1

Dated: 01st December 2022

3. Examples of Nameplates



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 _{min}	1.0	0.75	0.12	0.12	0.12	0.13	0.12	0.12	0.21
I _{tr}	1.0	0.30	0.16	0.16	0.16	0.16	0.16	0.16	0.28
10I _{tr}	1.0	0.30	0.17	0.16	0.16	0.16	0.16	0.16	0.27
I _{max}	1.0	0.42	0.13	0.13	0.13	0.13	0.13	0.13	0.29
I _{tr}	0.5ind	0.53	0.29	0.29	0.29	0.29	0.29	0.29	0.31
10I _{tr}	0.5ind	0.55	0.40	0.40	0.40	0.40	0.40	0.40	0.43
I _{max}	0.5ind	0.62	0.16	0.16	0.16	0.16	0.16	0.16	0.20
I _{tr}	0.8cap	0.32	0.24	0.24	0.24	0.24	0.24	0.24	0.39
10I _{tr}	0.8cap	0.38	0.31	0.31	0.31	0.31	0.31	0.31	0.40
I _{max}	0.8cap	0.45	0.09	0.09	0.09	0.09	0.09	0.09	0.25



EU-Type Examination Certificate Number:

0120/SGS0585

Issue Number: 1

Dated: 01st December 2022

5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
236-9298	Single Phase 230V, 0.25-5(45)A, RS485 Modbus

Modifications to the meter(s) described according to approval No.**0120/SGS0585** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).



EU-Type Examination Certificate Number:

0120/SGS0585

Issue Number: 1

Dated: 01st December 2022

6. Document Revision History

Issue	Date	Comments
1	01/12/2022	Initial Issue

This document is issued by the Company subject to its General Conditions for Certification Services, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested *and such sample(s) are retained for 28 days only.*

END OF CERTIFICATE