

EC Type Examination Certificate Number: 0120/SGS0172

Jiaxing Eastron Electronic Instrument Co., Ltd.

No. 1369, Chengnan Road, Jiaxing, Zhejiang, China, 314001.

Instrument Identification: SDM220 Series

Instrument Traceable Number 0120/SGS0172

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

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

Measuring Instruments Annex 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 MI-003 of EC Directive 2004/22/EC

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex D or Annex F

This certificate is valid for 10 years from 16th April 2015 to 15th April 2025 Issue 1

Certification is based on report number(s) SHES141200649301 16th April 2015

Authorised Signature

SGS United Kingdom Limited, Notified Body 0120 Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA□UK t +44 (0)1934 522917 f +44 (0)1934 522137 www.sgs.com

Contact Address SGS United Kingdom Ltd, Units 12A & 12B, South Industrial Estate, Bowburn, Durham, DH6 5AD□UK t +44 (0)191 377 2000 f +44 (0)191 377 2020 www.sgs.com



0120/ SGS0172

Issue Number: 1 Dated: 16th April 2015

1. Technical Data

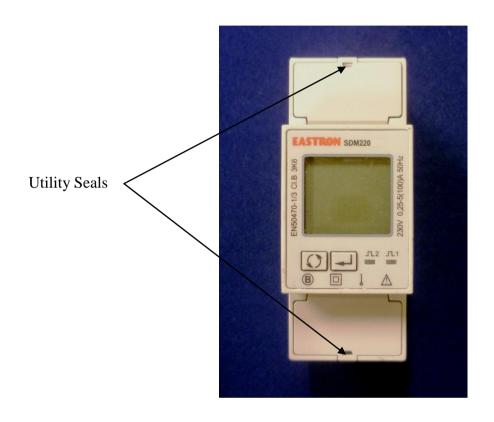
Manufacturer	Jiaxing Eastron Electronic Instruments Co., Ltd.		
Meter Type(s)	SDM220-MT SDM220-Modbus SDM220-Mbus SDM220-Pulse		
Voltage Rating (Un)	230V		
Current Rating (Imin – Iref (Imax))	0.25-5(100)A, 0.25-10(100)A		
Frequency (Fn)	50Hz		
Active Accuracy Class (kWh)	A or B (kWh)		
Type of circuit	1p2w		
Temperature Range	-25°C to +55°C		
Software Version No.	V1.2		
Identification Location	Nameplate		
Bill Of Materials No.'s	SDM220-MT V1.5 SDM220-Modbus V1.5 SDM220-Mbus V1.5 SDM220-Pulse V1.5		
IP Rating	IP51		
Insulation Protective Class	Class II		
LED Pulse Constant	1000imp/ kWh		
Impulse Voltage Rating	6kV		
AC Voltage Rating	4kV		
Main Cover Sealing Type	2 x Wire & Crimp		
Integrity of meter	Inaccessible without breaking seals		
Intended Location of the Meter	Indoor		
Type of Register	LCD		



0120/ SGS0172

Issue Number: 1 Dated: 16th April 2015

2. Photograph of Meter and Sealing Plan





0120/SGS0172

Issue Number: 1 Dated: 16th April 2015

3. Influence factors for temperature, frequency and voltage

Current	PF Cos	-25	-10	5	30	40	55
Imin	1.0	0.30	0.28	0.25	0.23	0.24	0.23
ltr	1.0	0.17	0.15	0.16	0.13	0.13	0.13
10ltr	1.0	0.07	0.08	0.08	0.05	0.07	0.10
Imax	1.0	0.13	0.11	0.05	0.04	0.04	0.04
ltr	0.5ind	0.27	0.24	0.24	0.21	0.21	0.23
10ltr	0.5ind	0.16	0.16	0.17	0.16	0.16	0.17
Imax	0.5ind	0.06	0.04	0.05	0.11	0.11	0.09
ltr	0.8cap	0.24	0.24	0.22	0.19	0.19	0.19
10ltr	0.8cap	0.06	0.07	0.07	0.05	0.07	0.08
Imax	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:-

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

where

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



0120/SGS0172

Issue Number: 1 Dated: 16th April 2015

4. Annex of Variants

Product Variant Identification Details:

Type Designation Description of meter

SDM220-MT: Multi tariff, single phase, multi function, RS485 Modbus

SDM220-Modbus: Single tariff, single phase, multi function, RS485 Modbus

SDM220-Mbus: Single tariff, single phase, multi function, Mbus

SDM220-Pulse: Single tariff, single phase, multi function, pulse

Modifications to the meter(s) described according to approval No.0120/ SGS0172 must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

5. Document Revision History

Issue	Date	Comments
1	16/04/2015	Initial Issue