

EC Type Examination Certificate Number: 0120/SGS0206

Jiaxing Eastron Electronic Instrument Co., Ltd.

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

Instrument Identification: SDM230 Modbus

Instrument Traceable Number 0120/SGS0206

Single Phase, Active Import/ Export (kWh), 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 30th September 2015 to 29th September 2025 Issue 1

Certification is based on report number(s) SHES141200649301 issued 16th April 2015, EMA207767 issued 9th October 2015

Authorised Signature

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SGSPAEG Type Examination Cert.



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Issue Number: 1

Dated: 9th October 2015

1. Technical Data

Manufacturer	Jiaxing Eastron Electronic Instruments Co., Ltd.			
Meter Type(s)	SDM230-Modbus			
Voltage Rating (Un)	230V			
Current Rating (Imin – Iref (Imax))	0.5-10(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	SDM230MODBUS-20150929			
IP Rating	IP51			
Insulation Protective Class	Class II			
LED Pulse Constant	1000imp/ kWh			
Impulse Voltage Rating	6kV			
AC Voltage Rating	4kV			
Terminal Cover Sealing Type	4 x Wire & Crimp			
Integrity of meter	Inaccessible without breaking seals			
Intended Location of the Meter	Indoor			
Type of Register	LCD			

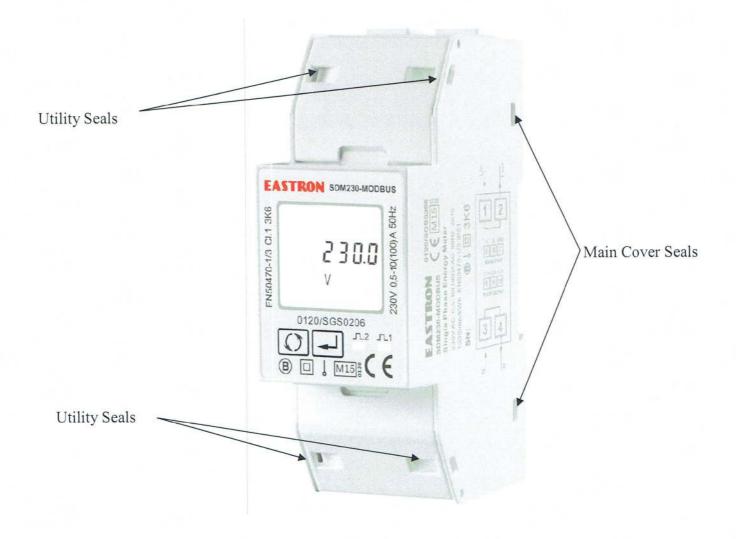


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2. Photograph of Meter and Sealing Plan





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3. Influence factors for temperature, frequency and voltage

Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
lmin	1.0	0.45	0.33	0.23	0.15	0.17	0.23
ltr	1.0	0.44	0.31	0.19	0.07	0.10	0.18
10ltr	1.0	0.42	0.29	0.18	0.03	0.08	0.16
lmax	1.0	0.27	0.19	0.12	0.03	0.06	0.12
ltr	0.5ind	0.48	0.36	0.27	0.17	0.18	0.22
10ltr	0.5ind	0.41	0.28	0.17	0.03	0.08	0.17
Imax	0.5ind	0.27	0.18	0.12	0.04	0.07	0.13
Itr	0.8cap	0.45	0.31	0.20	0.09	0.12	0.18
10ltr	0.8cap	0.40	0.27	0.16	0.04	0.10	0.19
Imax	0.8cap	0.26	0.19	0.11	0.05	0.08	0.15

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

 $\delta e(T, I, \cos \varphi) = Additional error due to variation of the temperature at the same load$

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

 $\delta e(f, I, \cos \varphi) = Additional error due to variation of the frequency at the same load$



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4. Annex of Variants

Product Variant Identification Details:

Type Designation Description of meter

SDM230-Modbus: Single tariff, single phase, multi function, RS485 Modbus

Modifications to the meter(s) described according to approval No.0120/ SGS01206 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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5. Document Revision History

Issue	Date	Comments
1	09/10/2015	Initial Issue