



SGS

EC Type Examination Certificate Number: 0120/SGS0213

Jiaxing Easton Electronic Instruments Co Ltd

No. 1369, Chengnan Road,
Nanhui Jiexing
Zhejiang
China
314001

Instrument Identification:
SDM72D, SDM72DR, SDM72Bi

Instrument Traceable Number
0120/SGS0213

Poly phase, Active Import/Export (kWh), Electricity Meter

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

on 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 21st April 2016 until 20th April 2026
Issue 1

Certification is based on report number(s) SHES151000648101 dated 19th April 2016

Authorised Signature

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EC Type Examination Cert.



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1. Technical Data

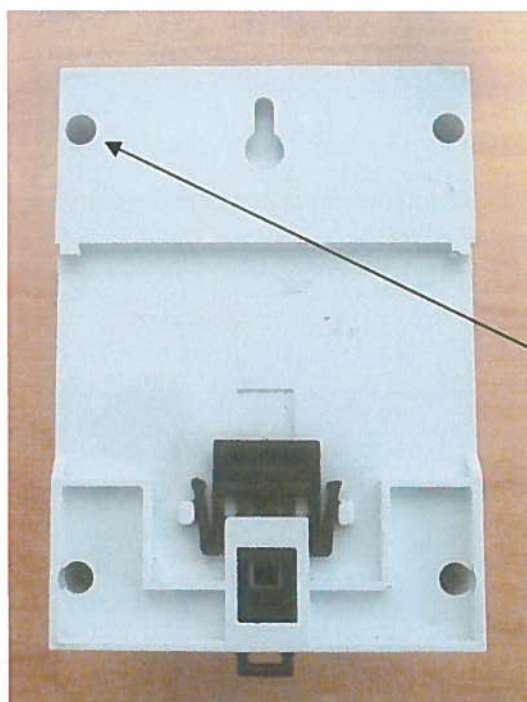
Manufacturer	Jiaxing Eastron Electronic Instruments Co Ltd
Meter Type	SDM72D, SDM72DR, SDM72Bi
Voltage Rating (U_n)	3 x 230/400V
Current Rating (I_{min} – I_{ref} (I_{max}))	0,5-10(100)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	B (kWh)
Type of circuit	3p4w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No Identification Location	1.1 LCD
Bill Of Materials Number	SDM72D V1.1, SDM72DR V1.1, SDM72Bi V1.1
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000 imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp on terminal cover Meter case sealed with screws
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN

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Photograph of Meter and Sealing Plan



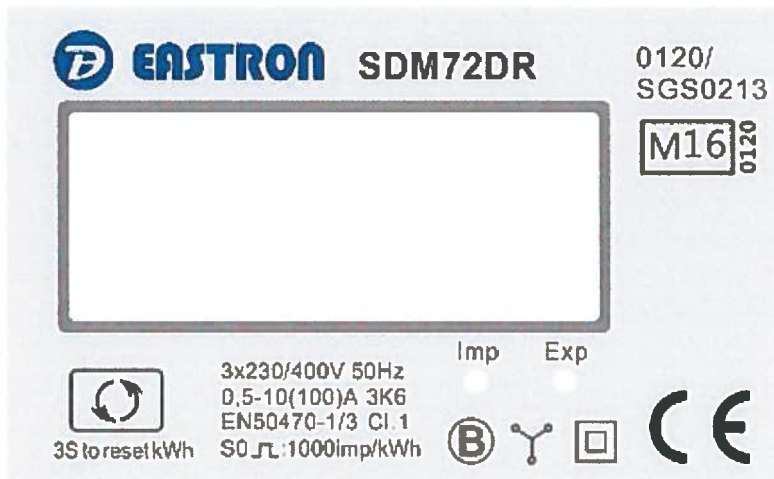
Terminal cover sealing points



Meter case sealing point

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2. Nameplates



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3. Calculation of the composite error/ MPE

		Influence Factors for temperature, frequency and voltage							
Current	PF Cos		-25	-10	5	30	40	55	
I _{min}	1.0		0.32	0.24	0.15	0.12	0.15	0.26	
I _{tr}	1.0		0.34	0.24	0.15	0.10	0.15	0.30	
10I _{tr}	1.0		0.37	0.28	0.17	0.10	0.15	0.28	
I _{max}	1.0		0.30	0.24	0.19	0.15	0.17	0.24	
I _{tr}	0.5ind		0.51	0.45	0.37	0.30	0.30	0.36	
10I _{tr}	0.5ind		0.40	0.32	0.25	0.18	0.22	0.32	
I _{max}	0.5ind		0.66	0.62	0.58	0.52	0.51	0.50	
I _{tr}	0.8cap		0.44	0.34	0.26	0.16	0.17	0.24	
10I _{tr}	0.8cap		0.37	0.25	0.15	0.09	0.15	0.27	
I _{max}	0.8cap		0.48	0.42	0.38	0.33	0.31	0.32	
L1									
I _{tr}	1.0		0.37	0.33	0.29	0.26	0.28	0.38	
10I _{tr}	1.0		0.30	0.21	0.15	0.10	0.17	0.29	
I _{max}	1.0		0.23	0.18	0.17	0.11	0.14	0.23	
I _{tr}	0.5ind		0.44	0.38	0.35	0.34	0.38	0.44	
10I _{tr}	0.5ind		0.31	0.24	0.22	0.19	0.26	0.38	
I _{max}	0.5ind		0.29	0.26	0.25	0.22	0.24	0.34	
L2									
I _{tr}	1.0		0.61	0.61	0.61	0.61	0.61	0.61	
10I _{tr}	1.0		0.19	0.19	0.19	0.19	0.19	0.20	
I _{max}	1.0		0.16	0.14	0.12	0.12	0.12	0.12	
I _{tr}	0.5ind		0.76	0.77	0.77	0.76	0.77	0.77	
10I _{tr}	0.5ind		0.31	0.30	0.30	0.30	0.31	0.32	
I _{max}	0.5ind		0.30	0.28	0.27	0.27	0.27	0.27	
L3									
I _{tr}	1.0		0.80	0.52	0.38	0.27	0.37	0.54	
10I _{tr}	1.0		0.86	0.64	0.50	0.42	0.48	0.63	
I _{max}	1.0		1.09	0.97	0.90	0.87	0.89	0.95	
I _{tr}	0.5ind		1.04	0.92	0.82	0.79	0.82	0.92	
10I _{tr}	0.5ind		1.03	0.88	0.78	0.74	0.78	0.88	
I _{max}	0.5ind		1.02	0.92	0.92	0.83	0.87	0.94	

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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
 $\delta e(U, I, \cos\varphi) =$ 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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Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
SDM72D	3x230/400V, 0.5-10(100)A 1000imp/kWh Shows only total active energy, without resettable kWh
SDM72DR	3x230/400V, 0.5-10(100)A 1000imp/kWh Shows total active energy, resettable kWh, total active power
SDM72Bi	3x230/400V, 0.5-10(100)A 1000imp/kWh Shows total active energy, total active power, import and export energy, resettable import and export energy.

Modifications to the meter(s) described according to approval No.**0120/ SGS0213** 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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4. Document Revision History

Issue	Date	Comments
1	21/04/2016	Initial Issue