



EU Type Examination Certificate Number: **0120/ SGS0213**

Zhejiang Eastron Electronic Co.,Ltd

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

Instrument Identification:
SDM72D, SDM72DR, SDM72D-M, SDM72Bi

Instrument Traceable Number
0120/ SGS0213

Polyphase, Active Import/Export (kWh), 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 for 10 years from 21st April 2016 until 20th April 2026
Issue 5

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

Authorised Signature


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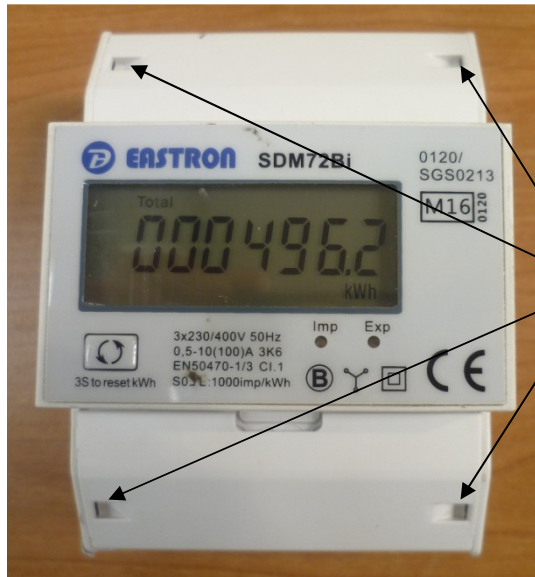
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1. Technical Data

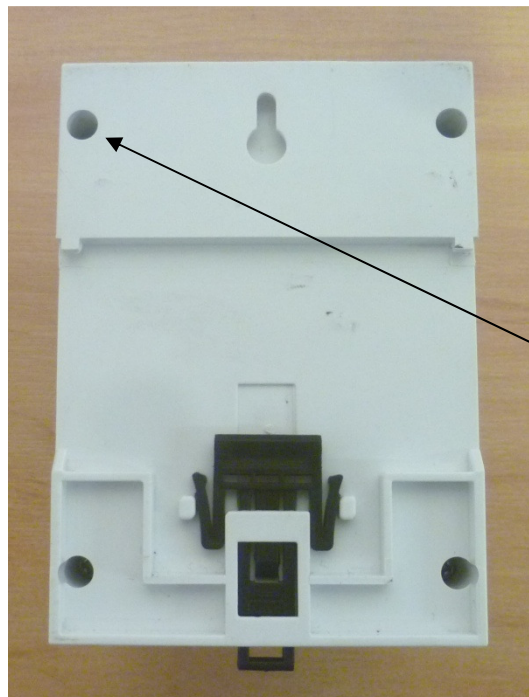
Manufacturer	Zhejiang Eastron Electronic Co Ltd
Meter Types	SDM72D, SDM72DR, SDM72D-M, SDM72Bi
Voltage Rating (U_n)	3 x 230/400V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0,5-10(100)A & 0.5-10(80)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	B (kWh)
Type of circuit	3p4w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No's	SDM72D: V1.1 SDM72DR: V1.1 SDM72Bi: V1.1 SDM72D-M: V1.2
Identification Location	LCD
Bill Of Materials No's	SDM72D: V1.2 SDM72DR: V1.2, SDM72Bi: V1.2 SDM72D-M: DH-JS-170016-1.0
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000 imp/kWh or 100imp/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
Location of Manufacturers Address	Associated documents

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2. Photograph of Meter and Sealing Plan



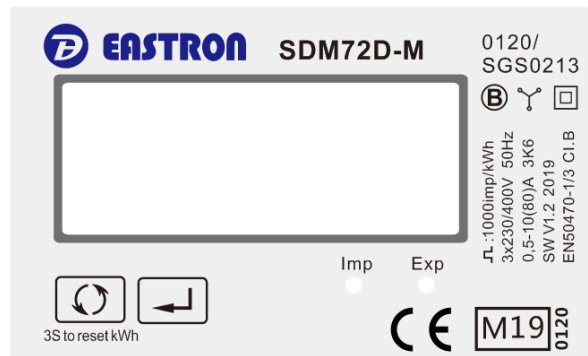
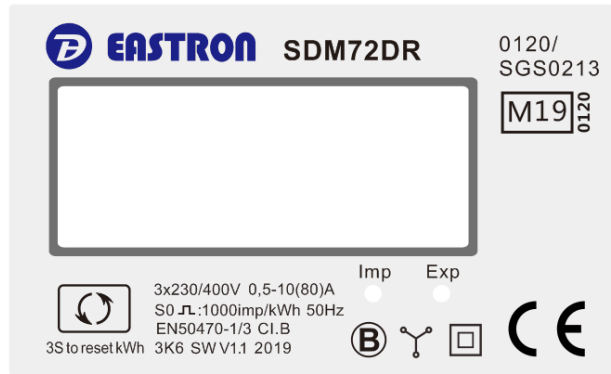
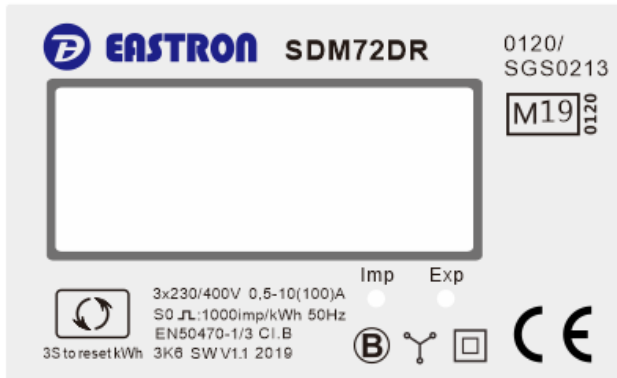
Terminal cover sealing points



Meter case sealing point

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3. Nameplates



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EASTRON SDM72Bi 0120/SGS0213

M19 0120

Imp Exp

3x230/400V 0,5-10(100)A
S0 JL:100imp/kWh 50Hz
EN50470-1/3 Cl.B
3S to reset kWh 3K6 SW V1.1 2019

CE

EASTRON SDM72D 0120/SGS0213

M19 0120

Imp Exp

3x230/400V 0,5-10(100)A 50Hz
S0 JL:100imp/kWh SW V1.1
EN50470-1/3 Cl.B 3K6 2019

CE

EASTRON SDM72D-M 0120/SGS0213

M19 0120

Imp Exp

JL:100imp/kWh
3x230/400V 50Hz
0,5-10(100)A 3K6
SW V1.2 2019
EN50470-1/3 Cl.B

3S to reset kWh

CE

EASTRON SDM72DR 0120/SGS0213

M19 0120

Imp Exp

3x230/400V 0,5-10(100)A
S0 JL:100imp/kWh 50Hz
EN50470-1/3 Cl.B
3S to reset kWh 3K6 SW V1.1 2019

CE

EASTRON SDM72Bi 0120/SGS0213

M19 0120

Imp Exp

3x230/400V 0,5-10(80)A
S0 JL:100imp/kWh 50Hz
EN50470-1/3 Cl.B
3S to reset kWh 3K6 SW V1.1 2019

CE

EASTRON SDM72D 0120/SGS0213

M19 0120

Imp Exp

3x230/400V 0,5-10(80)A 50Hz
S0 JL:100imp/kWh SW V1.1
EN50470-1/3 Cl.B 3K6 2019

CE

EASTRON SDM72DR 0120/SGS0213

M19 0120

Imp Exp

3x230/400V 0,5-10(80)A
S0 JL:100imp/kWh 50Hz
EN50470-1/3 Cl.B
3S to reset kWh 3K6 SW V1.1 2019

CE

EASTRON SDM72D-M 0120/SGS0213

M19 0120

Imp Exp

JL:100imp/kWh
3x230/400V 50Hz
0,5-10(80)A 3K6
SW V1.2 2019
EN50470-1/3 Cl.B

3S to reset kWh

CE



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4. Calculation of the composite error/ MPE

		Influence Factors for temperature, frequency and voltage						
Current	PF Cos	-25 °C	-10 °C	5 °C	30 °C	40 °C	55 °C	
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:-

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

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
SDM72D	3x230/400V, 0.5-10(100)A or 0.5-10(80)A 1000imp/kWh or 100imp/kWh Shows only total active energy, without resettable kWh
SDM72DR	3x230/400V, 0.5-10(100)A or 0.5-10(80)A 1000imp/kWh or 100imp/kWh Shows total active energy, resettable kWh, total active power
SDM72D-M	3x230/400V, 0.5-10(100)A or 0.5-10(80)A 1000imp/kWh or 100imp/kWh Shows total active energy, total active power, import and export energy, resettable import and export energy. RS485 communication.
SDM72Bi	3x230/400V, 0.5-10(100)A or 0.5-10(80)A 1000imp/kWh or 100imp/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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6. Document Revision History

Issue	Date	Comments
1	21/04/2016	Initial Issue
2	18/07/2016	Revised BOM numbers
3	26/03/2018	Model SDM72D-M added to approval
4	07/05/2019	Additional variants 0.5-10(80)A added to approval
5	07/08/2019	Meter constant 100imp/kWh variant added to approval

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END OF CERTIFICATE