



SGS

EU Type Examination Certificate Number: **0120/SGS0151**

Zhejiang Eastron Electronic Co.,Ltd.

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

Instrument Identification:
SDM630 100A Series Version 1
SDM630 100A Series Version 2

Instrument Traceable Number
0120/SGS0151

Polyphase, Active Import/ Export (kWh), Indoor, Electricity Meter

has been assessed and certified as meeting the requirements of

EU Directive 2014/32/EU

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 EC 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 6th January 2015 to 5th January 2025
Issue 3

Certification is based on report number(s) SHES130800321501 dated 26th December 2014
EMA198278/1 dated 26th December 2014
EMA198278/2 dated 21st June 2016
Authorised Signature

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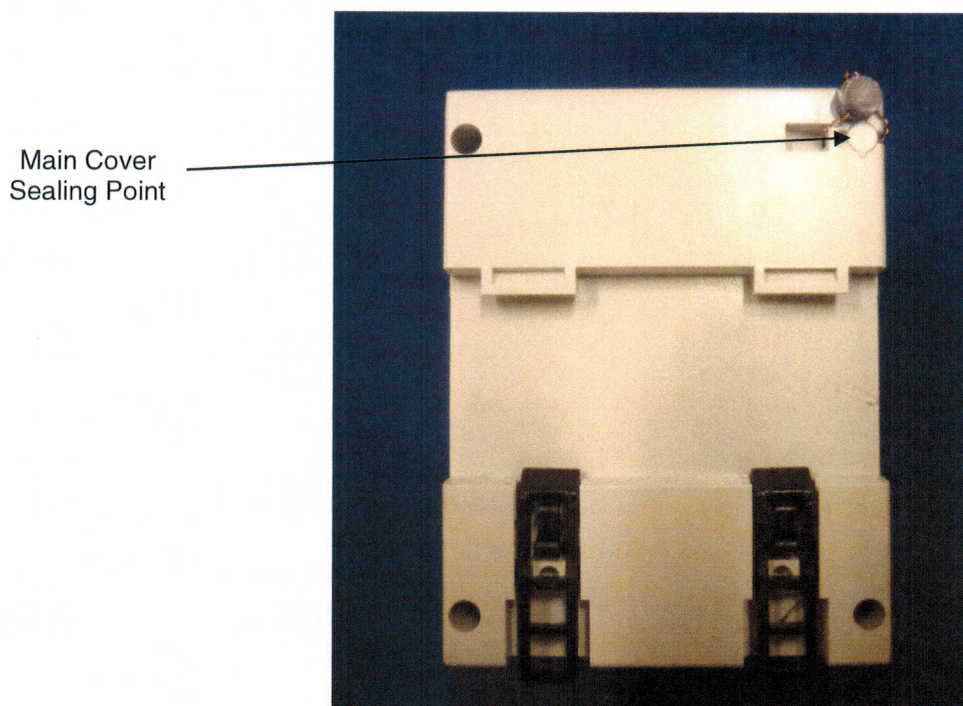
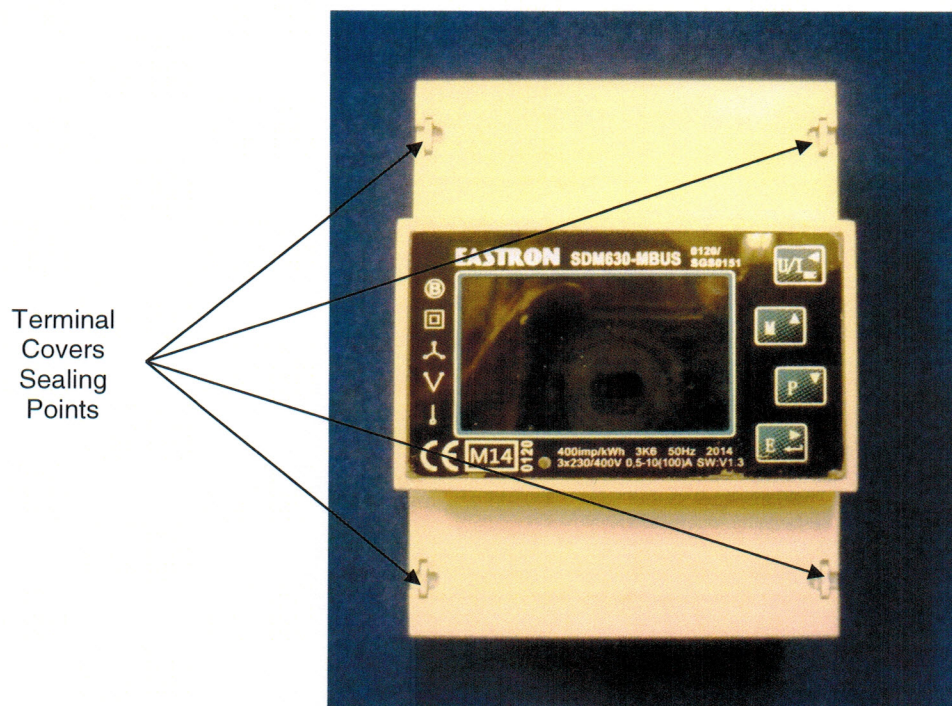
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1. Technical Data

Manufacturer	Zhejiang Eastron Electronic Co.,Ltd.
Meter Types Version 1 and Version 2	SDM630-Standard, SDM630-MT, SDM630-MODBUS SDM630-Mbus, SDM630-Pulse, SDM630-2T
Voltage Rating (<i>Un</i>)	3x230/400V
Current Rating (<i>I_{min}</i> – <i>I_{ref}</i> (<i>I_{max}</i>))	0.5-10(100)A
Frequency (<i>Fn</i>)	50Hz
Active Accuracy Class (<i>kWh</i>)	A or B (kWh)
Type of circuit	3p4w, 3p3w, 1p2w
Temperature Range	-25°C to +55°C
Software Version No's.	SDM630-Standard, SDM630-MT, SDM630-MODBUS SDM630-Mbus, SDM630-Pulse: V1.3 SDM630-2T: V1.4
Checksum No's.	SDM630MT,Modbus,Standard,Pulse V2:0x0000AFF9 SDM630Mbus V2: 0x00003C02 SDM630-2T: 0x00009DF4
Identification Location	Nameplate
Bill Of Materials Version 1 No.'s	SDM630-Standard V2.1 SDM630-MT V2.1 SDM630-MODBUS V2.1 SDM630-MBUS V2.1 SDM630-Pulse V2.1
Bill Of Materials Version 2 No.'s	SDM630-Standard V1.4 SDM630-MT V1.4 SDM630-MODBUS V1.4 SDM630-MBUS V1.4 SDM630-Pulse V1.4 SDM630-2T:DH-JS-180008-1.0
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	400imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	1 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Location of Distributors Name and Address	On accompanying documentation

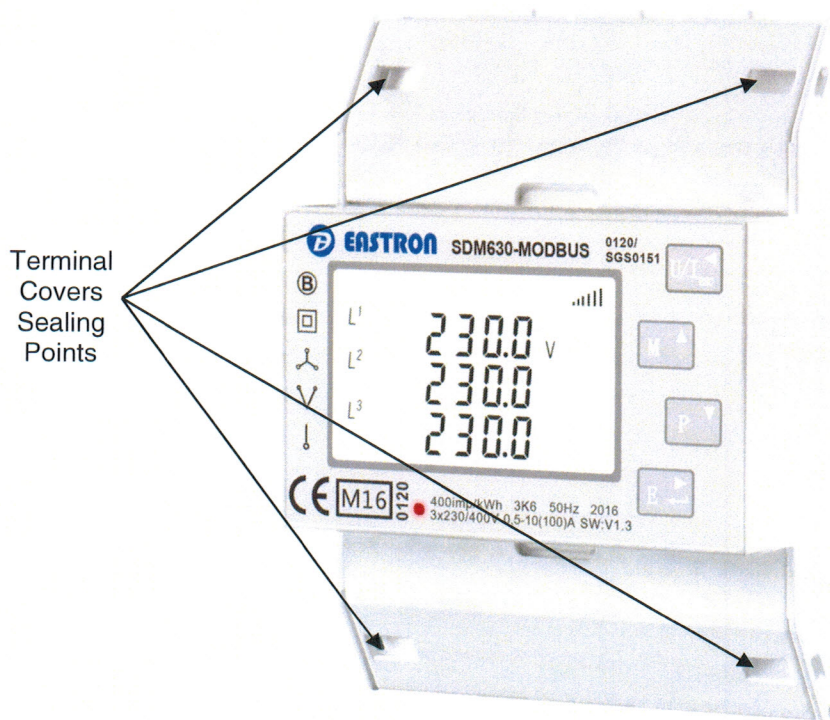
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2. Photograph of Meter and Sealing Plan



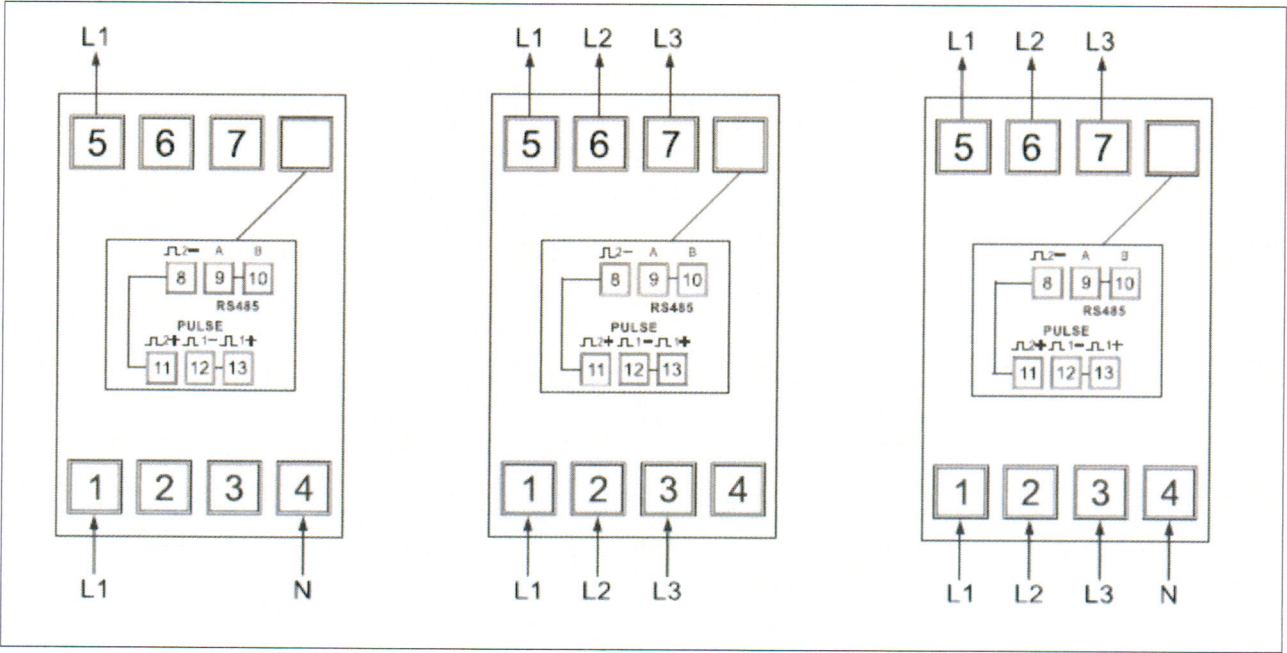
Photographs of Original Meter Casing – SDM630 V1

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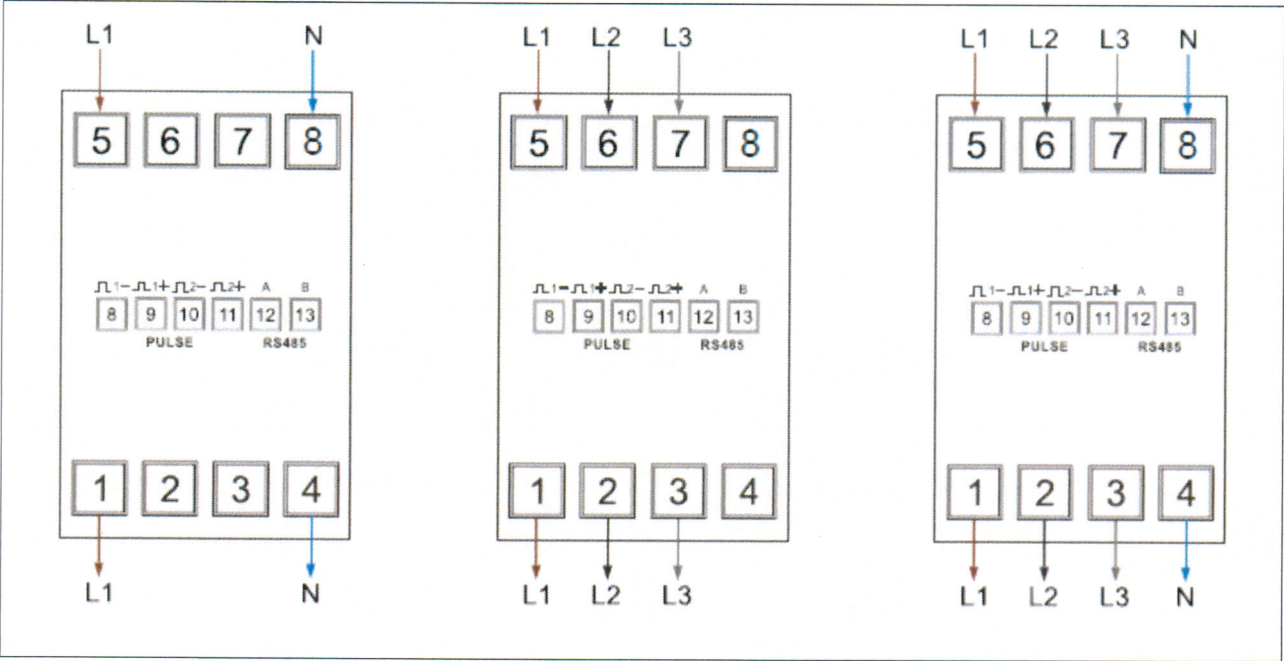


Photograph of Redesigned Meter Case – SDM 630 V2

3. Wiring Diagrams



SDM 630 V1 Wiring Diagram



SDM 630 V2 Wiring Diagram

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4. Influence factors for temperature, frequency and voltage

		Influence Factors for Temperature. Frequency & Voltage					
Current	PF Cos	-25	-10	5	30	40	55
I _{min}	1.0	0.46	0.34	0.14	0.18	0.29	0.52
I _{tr}	1.0	0.57	0.39	0.19	0.11	0.24	0.46
10I _{tr}	1.0	0.64	0.45	0.25	0.06	0.20	0.42
I _{max}	1.0	0.75	0.60	0.44	0.26	0.23	0.30
I _{tr}	0.5ind	0.56	0.40	0.20	0.14	0.24	0.49
10I _{tr}	0.5ind	0.60	0.43	0.23	0.11	0.23	0.45
I _{max}	0.5ind	0.62	0.47	0.30	0.05	0.10	0.28
I _{tr}	0.8cap	0.65	0.46	0.27	0.11	0.21	0.43
10I _{tr}	0.8cap	0.62	0.44	0.24	0.12	0.24	0.46
I _{max}	0.8cap	0.69	0.55	0.37	0.16	0.14	0.28
L1							
I _{tr}	1.0	0.84	0.60	0.32	0.08	0.20	0.48
10I _{tr}	1.0	0.97	0.71	0.46	0.10	0.13	0.36
I _{max}	1.0	0.93	0.70	0.48	0.16	0.06	0.25
I _{tr}	0.5ind	0.60	0.32	0.09	0.25	0.42	0.66
10I _{tr}	0.5ind	0.79	0.56	0.29	0.12	0.27	0.53
I _{max}	0.5ind	0.84	0.63	0.40	0.10	0.11	0.33
L2							
I _{tr}	1.0	0.40	0.26	0.09	0.08	0.16	0.37
10I _{tr}	1.0	0.42	0.31	0.19	0.08	0.17	0.36
I _{max}	1.0	0.44	0.36	0.25	0.08	0.08	0.23
I _{tr}	0.5ind	0.20	0.09	0.24	0.27	0.35	0.53
10I _{tr}	0.5ind	0.43	0.30	0.17	0.10	0.20	0.40
I _{max}	0.5ind	0.46	0.35	0.25	0.09	0.06	0.20
L3							
I _{tr}	1.0	0.55	0.37	0.15	0.14	0.30	0.51
10I _{tr}	1.0	0.51	0.33	0.11	0.20	0.33	0.56
I _{max}	1.0	0.55	0.39	0.21	0.10	0.21	0.52
I _{tr}	0.5ind	0.41	0.24	0.06	0.32	0.46	0.66
10I _{tr}	0.5ind	0.41	0.22	0.04	0.31	0.46	0.67
I _{max}	0.5ind	0.43	0.30	0.34	0.17	0.30	0.53

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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

5. Annex of Variants

Product Variant Identification Details of both Version 1 and Version 2:

Type Designation	Description of meter
SDM630-MT:	Three phase, multi-function, multi-tariff, 2 pulse outputs and 1 RS485 Modbus communication port
SDM630-Modbus:	Three phase, multi-function, 2 pulse outputs and 1 RS485 communication port
SDM630-Mbus:	Three phase, multi-function, 2 pulse outputs and 1 Mbus communication port
SDM630-Pulse:	Three phase, multi-function, 2 pulse outputs
SDM630-Standard:	Three phase, 2 pulse outputs and 1 RS485 communication port
SDM630-2T:	Three phase, multi-function, Three phase, multi-function, 2 pulse outputs and 1 RS485 communication port ,2 pulse outputs and 1 RS485 communication port

Modifications to the meter(s) described according to approval No.**0120/ SGS0151** 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	06/01/2015	Initial Issue
2	21/06/2016	Addition of redesigned meter case with new terminal layout and wiring diagrams. Updated EC Directive to 2014/32/EU
3	24/05/2018	Meter type SDM630-2T added to approval