

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

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

Instrument Traceable Number
0120/SGS0151

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 6th January 2015 to 5th January 2025
Issue 6

Certification is based on report number(s): SHES130800321501 dated 26th December 2014
EMA198278/1 dated 26th December 2014
EMA198278/2 dated 21st June 2016
EMA288737/2 dated 1st April 2021

Authorised Signature



SGS Fimko OY, Notified Body 0598
Takomatie 8, FI-00380 Helsinki, Finland
t +358 9 696 f +358 692 574 www.sgs.com





EU-Type Examination Certificate Number:

0120/SGS0151

Issue Number: 6

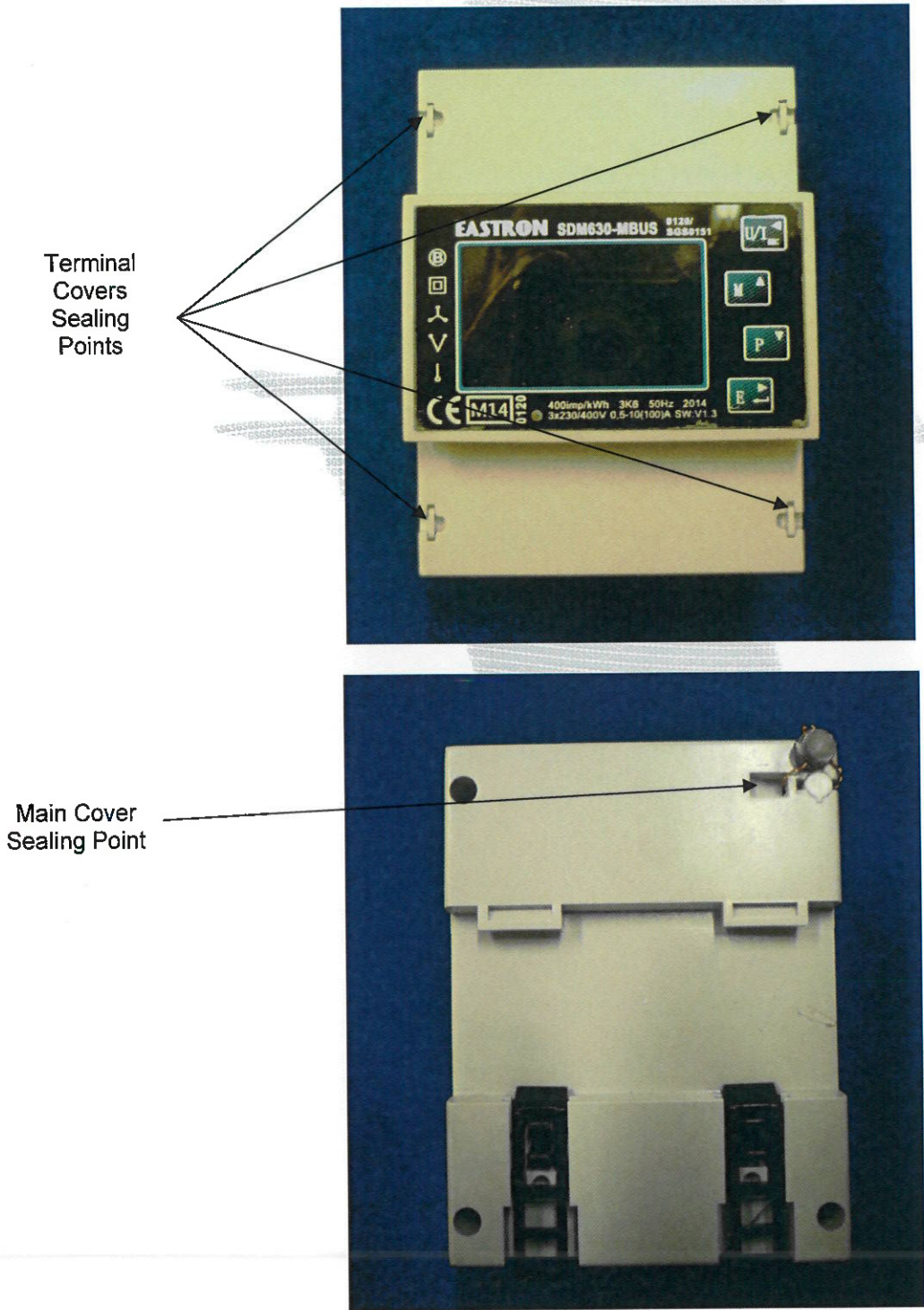
Dated: 7th May 2021**1. Technical Data**

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, SDM630-DI, SDM630Mbus-2T
Voltage Rating (U_n)	3x230/400V
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)	A or B (kWh)
Type of circuit	3p4w, 3p3w, 1p2w
Temperature Range	-40°C to +70°C
Software Version No's.	SDM630-Standard, SDM630-MT, SDM630-MODBUS SDM630-Mbus, SDM630-Pulse: V1.3 SDM630-2T: V1.4 SDM630-DI: V1.5 SDM630Mbus-2T: V1.6
Checksum No's.	SDM630MT, Modbus, Standard, Pulse V2: 0x0000AFF9 SDM630Mbus V2: 0x00003C02 SDM630-2T: 0x00009DF4 SDM630DI: 0x00000A31 SDM630Mbus-2T: 0x000075BC
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 SDM630-DI: DH-JS-190002-1.0 SDM630Mbus-2T: DH-JS-190020-1.0
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

	EU-Type Examination Certificate Number:	
	0120/SGS0151	
	Issue Number: 6	Dated: 7 th May 2021

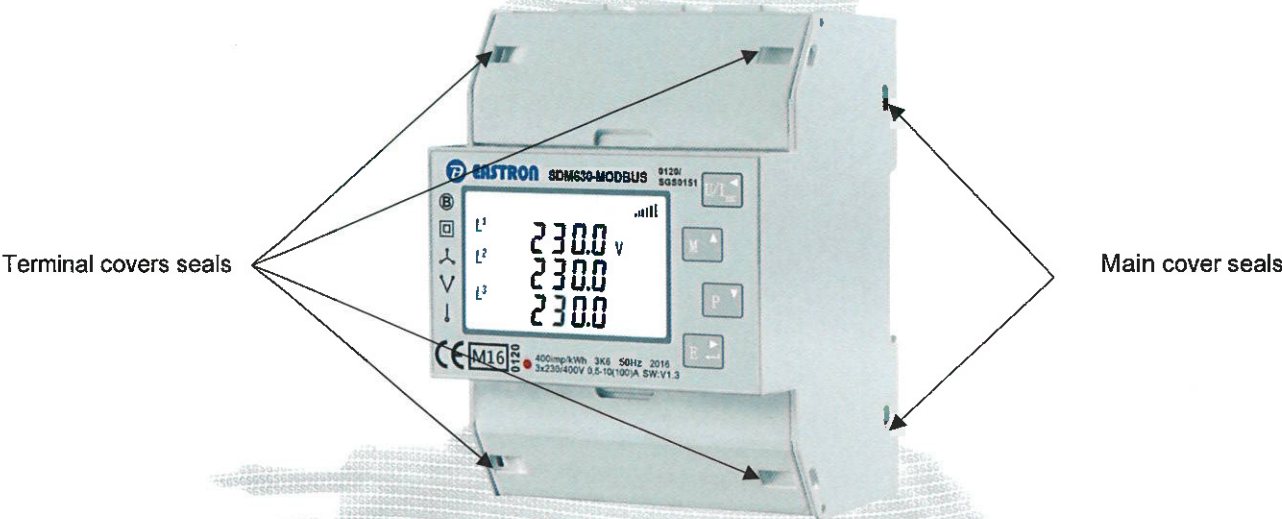
2. Photograph of Meter and Sealing Plan

Photographs of Original Meter Casing – SDM630 V1



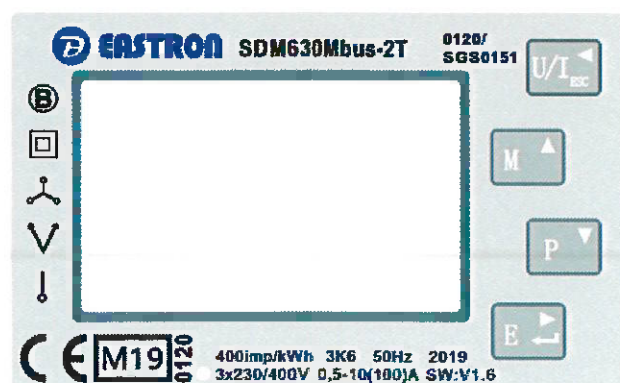
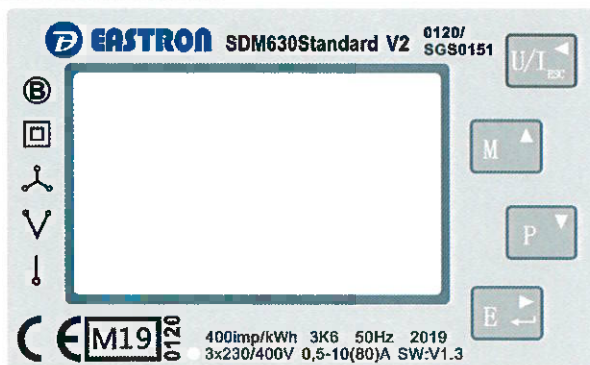
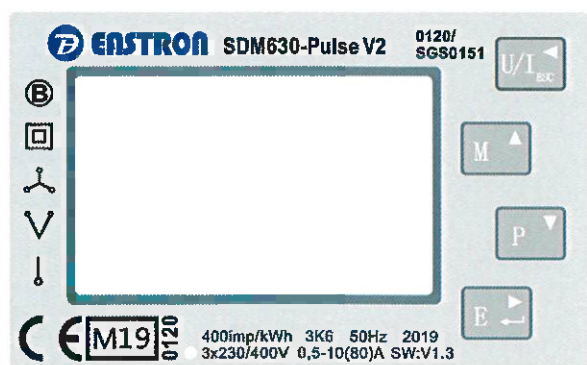
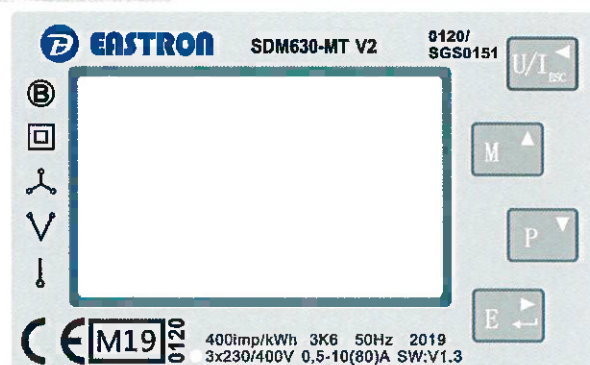
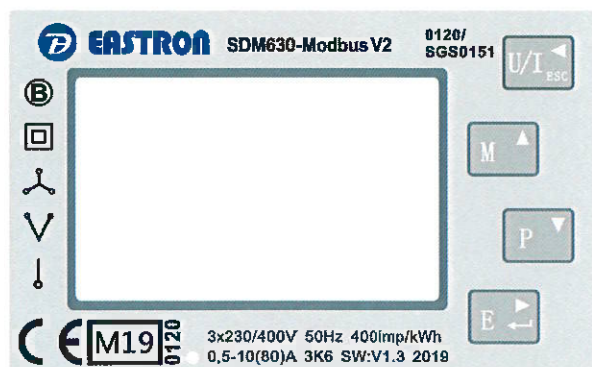
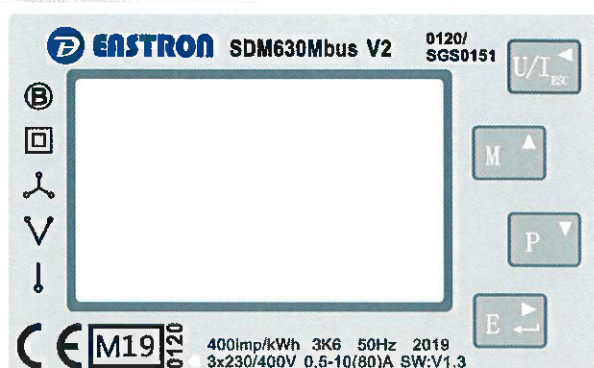
	EU-Type Examination Certificate Number:	
	0120/SGS0151	
	Issue Number: 6	Dated: 7 th May 2021

Photograph of Redesigned Meter Case – SDM 630 V2



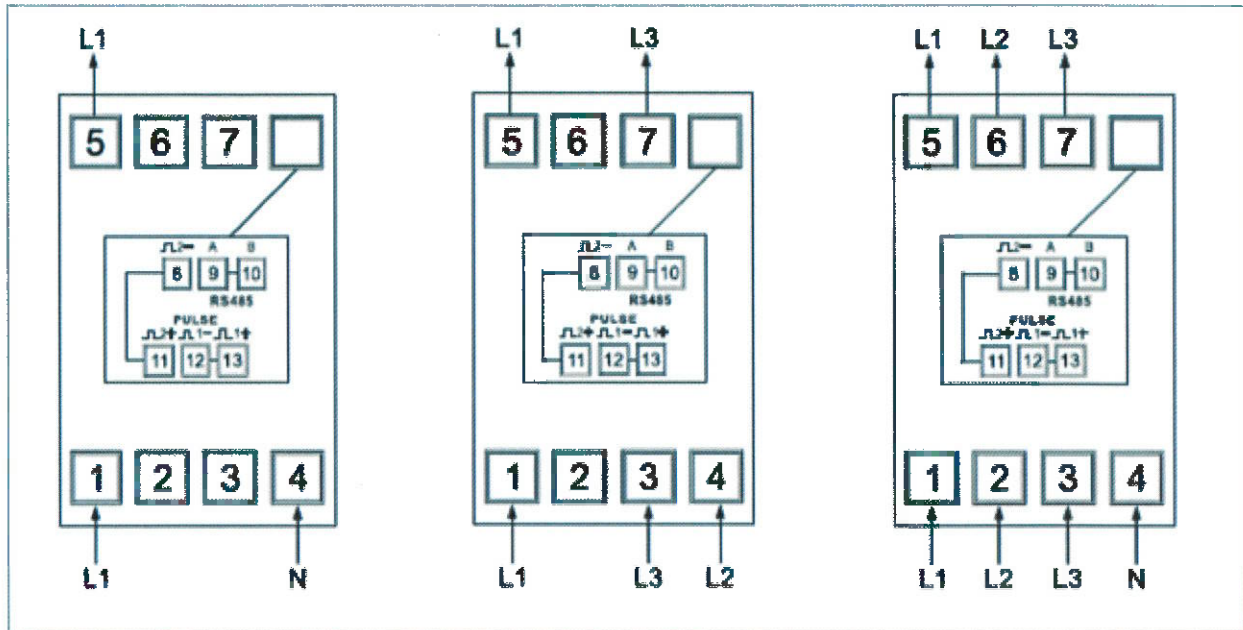
	EU-Type Examination Certificate Number:	
	0120/SGS0151	
	Issue Number: 6	Dated: 7 th May 2021

3. Examples of Nameplates

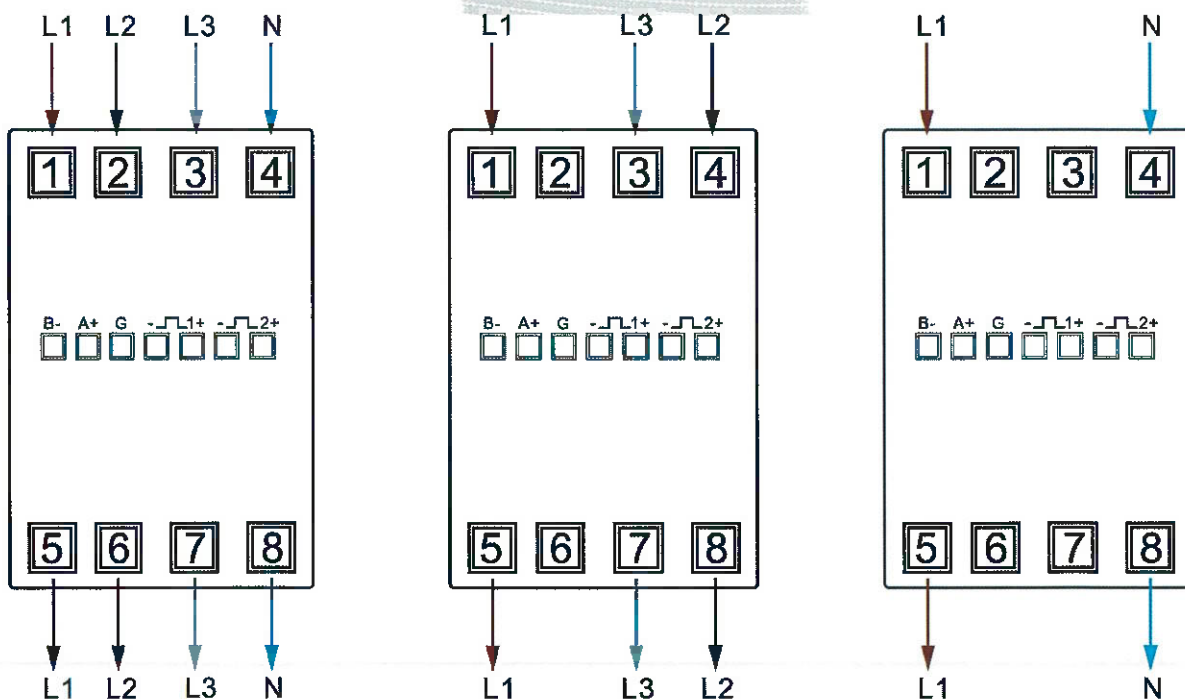


4. Wiring Diagrams

SDM 630 V1 Wiring Diagram



SDM 630 V2 Wiring Diagram





EU-Type Examination Certificate Number:

0120/SGS0151

Issue Number: 6

Dated: 7th May 2021

4. Calculation of the composite error/ MPE

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table below 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



EU-Type Examination Certificate Number:

0120/SGS0151

Issue Number: 6

Dated: 7th May 2021

		Influence Factors for Temperature, Frequency & Voltage							
Current	PF Cos	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
I _{min}	1.0	1.10	0.46	0.34	0.14	0.18	0.29	0.52	0.10
I _{tr}	1.0	1.03	0.57	0.39	0.19	0.11	0.24	0.46	0.21
10I _{tr}	1.0	0.97	0.64	0.45	0.25	0.06	0.20	0.42	0.29
I _{max}	1.0	0.96	0.75	0.60	0.44	0.26	0.23	0.30	0.25
I _{tr}	0.5ind	1.08	0.56	0.40	0.20	0.14	0.24	0.49	0.15
10I _{tr}	0.5ind	0.89	0.60	0.43	0.23	0.11	0.23	0.45	0.36
I _{max}	0.5ind	0.81	0.62	0.47	0.30	0.05	0.10	0.28	0.06
I _{tr}	0.8cap	1.06	0.65	0.46	0.27	0.11	0.21	0.43	0.12
10I _{tr}	0.8cap	0.93	0.62	0.44	0.24	0.12	0.24	0.46	0.30
I _{max}	0.8cap	0.94	0.69	0.55	0.37	0.16	0.14	0.28	0.17
L1									0.00
I _{tr}	1.0	0.23	0.84	0.60	0.32	0.08	0.20	0.48	0.18
10I _{tr}	1.0	1.19	0.97	0.71	0.46	0.10	0.13	0.36	0.12
I _{max}	1.0	1.16	0.93	0.70	0.48	0.16	0.06	0.25	0.24
I _{tr}	0.5ind	1.14	0.60	0.32	0.09	0.25	0.42	0.66	0.18
10I _{tr}	0.5ind	1.26	0.79	0.56	0.29	0.12	0.27	0.53	0.10
I _{max}	0.5ind	1.25	0.84	0.63	0.40	0.10	0.11	0.33	0.25
L2									
I _{tr}	1.0	0.93	0.40	0.26	0.09	0.08	0.16	0.37	0.67
10I _{tr}	1.0	1.13	0.42	0.31	0.19	0.08	0.17	0.36	0.48
I _{max}	1.0	1.09	0.44	0.36	0.25	0.08	0.08	0.23	0.20
I _{tr}	0.5ind	0.88	0.20	0.09	0.24	0.27	0.35	0.53	0.78
10I _{tr}	0.5ind	1.17	0.43	0.30	0.17	0.10	0.20	0.40	0.51
I _{max}	0.5ind	1.20	0.46	0.35	0.25	0.09	0.06	0.20	0.16
L3									
I _{tr}	1.0	0.73	0.55	0.37	0.15	0.14	0.30	0.51	0.10
10I _{tr}	1.0	0.77	0.51	0.33	0.11	0.20	0.33	0.56	0.04
I _{max}	1.0	0.59	0.55	0.39	0.21	0.10	0.21	0.52	0.32
I _{tr}	0.5ind	0.30	0.41	0.24	0.06	0.32	0.46	0.66	0.26
10I _{tr}	0.5ind	0.41	0.41	0.22	0.04	0.31	0.46	0.67	0.23
I _{max}	0.5ind	0.32	0.43	0.30	0.34	0.17	0.30	0.53	0.18



EU-Type Examination Certificate Number:

0120/SGS0151

Issue Number: 6

Dated: 7th May 2021

5. Annex of Variants

Product Variant Identification Details:

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, dual tariffs, 2 pulse outputs and 1 RS485 communication port
SDM630-DI:	Three phase, multi-function, 1 RS485 Modbus communication port, Digital inputs
SDM630Mbus-2T	Three phase, multi-function, dual tariffs, 2 pulse outputs and 1 Mbus 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).

	EU-Type Examination Certificate Number:	
	0120/SGS0151	
	Issue Number: 6	Dated: 7 th May 2021

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
4	08/05/2019	Additional variants 0.5-10(80)A added to approval
5	07/08/2019	Meter types SDM630-DI and SDM630Mbus-2T added to approval
6	07/05/2021	Temperature range updated to -40°C to +70°C and change of Notified Body reference

This document is issued by the Company subject to its General Conditions for Certification Services, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 28 days only.

END OF CERTIFICATE