

EU Type Examination Certificate Number: **0120/SGS0703**

Zhejiang Eastron Electronic Co., Ltd

No.52, Dongjin Road
Nanhu
Jiaxing
Zhejiang
China

Instrument Identification:
SDM630MCT Series

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

Instrument Traceable Number
0120/SGS0703

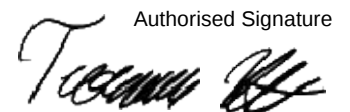
has been assessed and certified as meeting the requirements of
EU Directive 2014/32/EU
on Measuring Instruments Annex II, Module B

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 until 13th June 2034
Issue 2

Certification is based on report number(s): SHES240100078801 Dated 7th June 2024, SHES240100078802 Dated 7th June 2024
SHES240100078801 issue 2 Dated 11th July 2024, SHES240100078802 issue 2 Dated 11th July 2024
EMA325963/1

Authorised Signature

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	0120/SGS0703	
	Issue Number: 2	Dated: 26 July 2024

1. Technical Data`

Manufacturer	Zhejiang Eastron Electronic Co., Ltd.
Meter Type(s)	SDM630MCT-2T, SDM630MCT-MT, SDM630MCT, SDM630MCT-2T-MB, SDM630MCT-MB, SDM630MCT-E, SDM630MCT-DI, SDM630MCT-LR, SDM630MCT-TCP, SDM630MCT-2T-3, SDM630MCT-2T-MB-3, SDM630MCT-MT-2, SDM630MCT- TCP-2
Voltage Rating (<i>Un</i>)	3x230/400V
Current Rating (<i>I_{min}</i> – <i>I_{ref}</i> (<i>I_{max}</i>))	0.05-5(6)A
Frequency (<i>Fn</i>)	50/60Hz
Active Accuracy Class (<i>kWh</i>)	A or B or C (kWh)
Type of circuit	1p2w, 3p3w, 3p4w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No's	V01.04
CRC Checksum No's	SDM630MCT-2T: 84EDA549 SDM630MCT-MT: 1A47DD5E SDM630MCT: 84EDA549 SDM630MCT-2T-MB: 0EFC9E7E SDM630MCT-MB: 14BF1CC5 SDM630MCT-E: BDDC493C SDM630MCT-DI: 0AC5AA6F SDM630MCT-LR: 3444F9A5 SDM630MCT-TCP: EED7CC01 SDM630MCT-2T-3: 84EDA549 SDM630MCT-MT-2: 1A47DD5E SDM630MCT-2T-MB-3: 0EFC9E7E SDM630MCT-TCP-2: EED7CC01
Identification Location	Nameplate
Bill of Materials No's	SDM630MCT-2T: DH-JS-230051 V1.0 SDM630MCT-MT: DH-JS-230061 V1.0 SDM630MCT: DH-JS-230062 V1.0 SDM630MCT-2T-MB: DH-JS-230063 V1.0 SDM630MCT-MB: DH-JS-230064 V1.0 SDM630MCT-E: DH-JS-230065 V1.0 SDM630MCT-DI: DH-JS-230066 V1.0 SDM630MCT-LR: DH-JS-230067 V1.0 SDM630MCT-TCP: DH-JS-230068V1.0 SDM630MCT-2T-3: DH-JS-240051 V1.0 SDM630MCT-2T-MB-3: DH-JS-240052V1.0 SDM630MCT-MT-2: DH-JS-240053 V1.0 SDM630MCT-TCP-2: DH-JS-240054 V1.0
IP Rating	IP51 Front Display. Meter body not rated. Must be installed in a suitable IP rated enclosure



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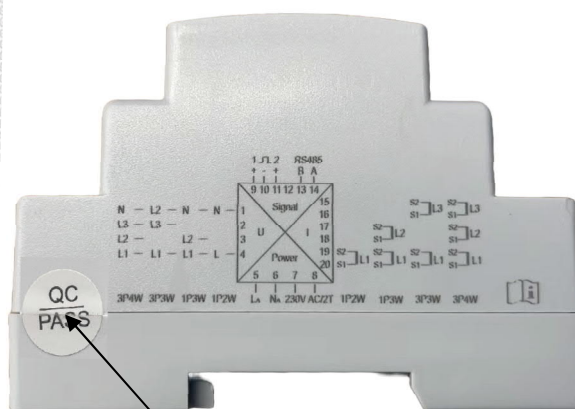
Dated: 26 July 2024

Insulation Protective Class	Class II
LED Pulse Constant	3200imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Main cover laser welded. Sealed with tamper proof security label
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD

2. Photograph of Meter and Sealing Plan



Terminal Cover Sealing Points



Main Cover Sealing Point

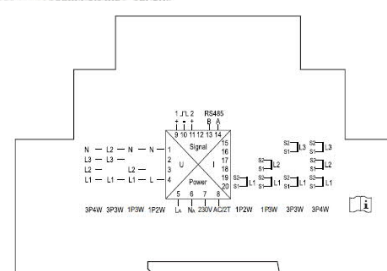
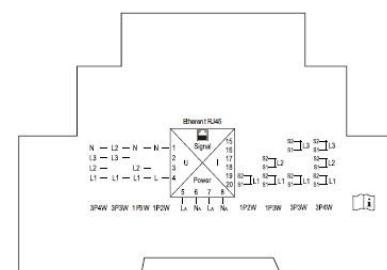
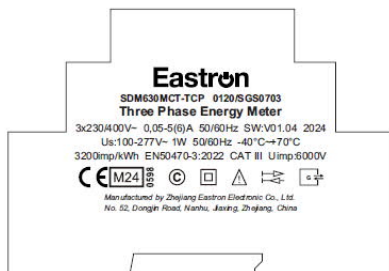
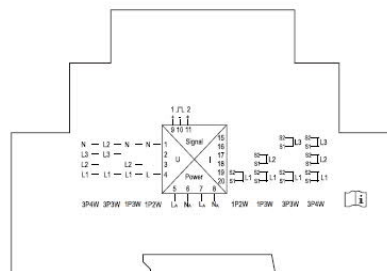
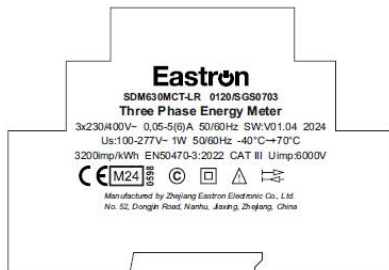
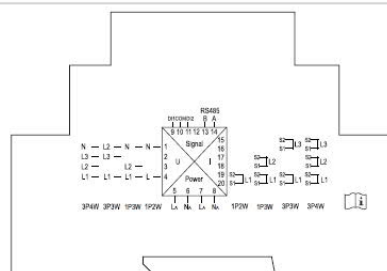
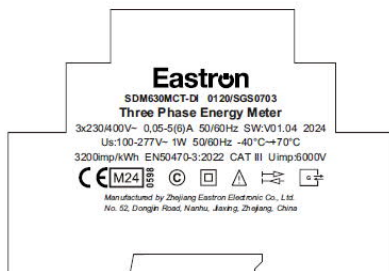
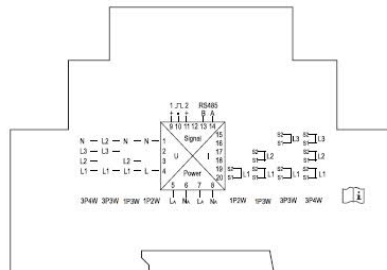
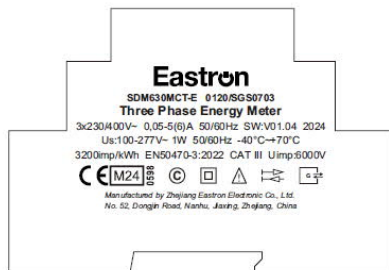
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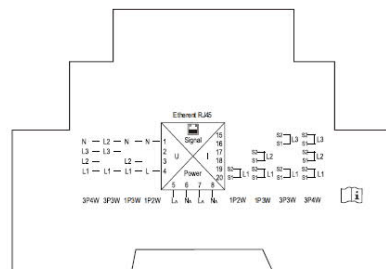
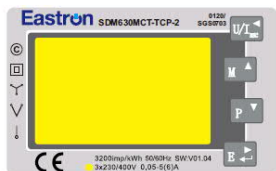
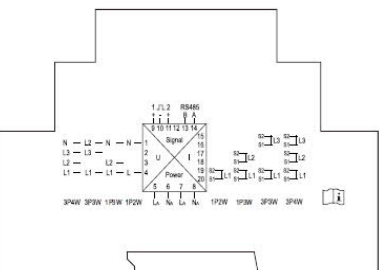
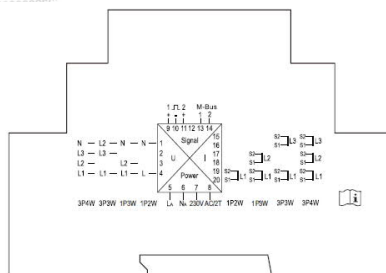
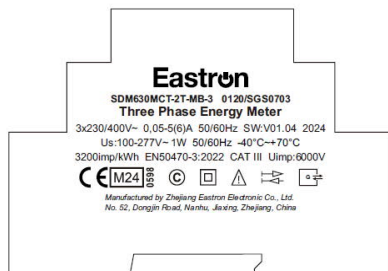
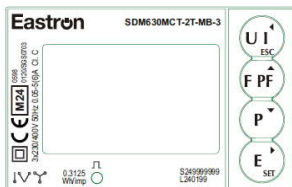
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4. Calculation of the composite error/ MPE

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



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		Influence Factors for temperature, frequency and voltage							
Current	PF Cos	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
I _{min}	1.0	0.45	0.38	0.13	0.08	0.09	0.10	0.21	0.43
I _{tr}	1.0	0.48	0.39	0.24	0.13	0.13	0.17	0.28	0.45
10I _{tr}	1.0	0.39	0.31	0.14	0.08	0.08	0.09	0.18	0.34
I _{max}	1.0	0.37	0.36	0.20	0.08	0.09	0.08	0.16	0.31
I _{tr}	0.5ind	0.30	0.19	0.09	0.12	0.10	0.12	0.28	0.55
10I _{tr}	0.5ind	0.35	0.26	0.11	0.04	0.04	0.08	0.23	0.44
I _{max}	0.5ind	0.30	0.27	0.15	0.15	0.16	0.13	0.18	0.35
I _{tr}	0.8cap	0.67	0.68	0.74	0.80	0.82	0.79	0.75	0.70
10I _{tr}	0.8cap	0.43	0.34	0.16	0.05	0.03	0.07	0.16	0.33
I _{max}	0.8cap	0.41	0.37	0.21	0.06	0.04	0.06	0.16	0.31
L1									0.00
I _{tr}	1.0	0.41	0.23	0.08	0.06	0.05	0.09	0.21	0.43
10I _{tr}	1.0	0.39	0.20	0.08	0.07	0.07	0.09	0.21	0.42
I _{max}	1.0	0.38	0.22	0.08	0.04	0.04	0.09	0.17	0.43
I _{tr}	0.5ind	0.40	0.24	0.08	0.06	0.07	0.15	0.31	0.60
10I _{tr}	0.5ind	0.32	0.16	0.13	0.16	0.14	0.13	0.21	0.44
I _{max}	0.5ind	0.28	0.15	0.12	0.15	0.14	0.12	0.17	0.41
L2									
I _{tr}	1.0	0.60	0.39	0.24	0.17	0.18	0.23	0.33	0.51
10I _{tr}	1.0	0.44	0.25	0.13	0.13	0.13	0.12	0.19	0.35
I _{max}	1.0	0.44	0.26	0.13	0.12	0.12	0.11	0.18	0.35
I _{tr}	0.5ind	0.36	0.17	0.08	0.09	0.08	0.14	0.30	0.58
10I _{tr}	0.5ind	0.40	0.32	0.33	0.36	0.35	0.32	0.32	0.43
I _{max}	0.5ind	0.41	0.35	0.37	0.41	0.40	0.36	0.35	0.43
L3									
I _{tr}	1.0	0.48	0.26	0.10	0.05	0.05	0.07	0.19	0.37
10I _{tr}	1.0	0.49	0.27	0.11	0.06	0.06	0.07	0.16	0.34
I _{max}	1.0	0.50	0.27	0.10	0.03	0.03	0.06	0.16	0.33
I _{tr}	0.5ind	0.42	0.22	0.11	0.09	0.14	0.22	0.45	0.75
10I _{tr}	0.5ind	0.45	0.24	0.11	0.06	0.07	0.13	0.30	0.51
I _{max}	0.5ind	0.46	0.25	0.11	0.05	0.04	0.13	0.27	0.49



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5. Annex of Variants

Product Variant Identification Details:

Model No.	Measurement	Output	Tariff
SDM630MCT-2T	Multi-parameters: voltage(V), frequency(Hz), current(A), power (kW/kVA/kVA _r), import, export and total Energy(kWh/kVA _r h). Maximum demand of current and power.	Pulse & RS485	2 Tariffs (Dual source)
SDM630MCT		Pulse & RS485	Single Tariff
SDM630MCT-MT		Pulse & RS485	4 Tariffs
SDM630MCT-2T-MB		Mbus	2 Tariffs (Dual source)
SDM630MCT-MB		Mbus	Single Tariff
SDM630MCT-DI		RS485	Single Tariff
SDM630MCT-LR		Pulse	Single Tariff
SDM630MCT-TCP		Ethernet TCP	Single Tariff
SDM630MCT-2T-3		Pulses & RS485	2 Tariffs (Dual Source)
SDM630MCT-2T-MB-3		Mbus	2 Tariffs (Dual Source)
SDM630MCT-MT-2		Pulses & RS485	4 Tariffs
SDM630MCT-TCP-2		Ethernet TCP	Single Tariff
SDM630MCT-E	Multi-parameters (excluding THD)	Pulse & RS485	Single Tariff

Modifications to the meter(s) described according to approval No. **0120/SGS0703** 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	14/06/2024	Initial Issue
2	26/07/2024	Additional models added to approval SDM630MCT-2T-3 SDM630MCT-2T-MB-3 SDM630MCT-MT-2 SDM630MCT- TCP-2

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