

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

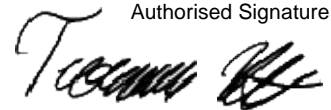
It is certified that the manufacturer's technical design and specimen for the above instrument has been examined and, based on the evidence submitted, it is considered that the instrument conforms to the requirements of Annex V of EU Directive 2014/32/EU

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 13<sup>th</sup> June 2034  
Issue 2

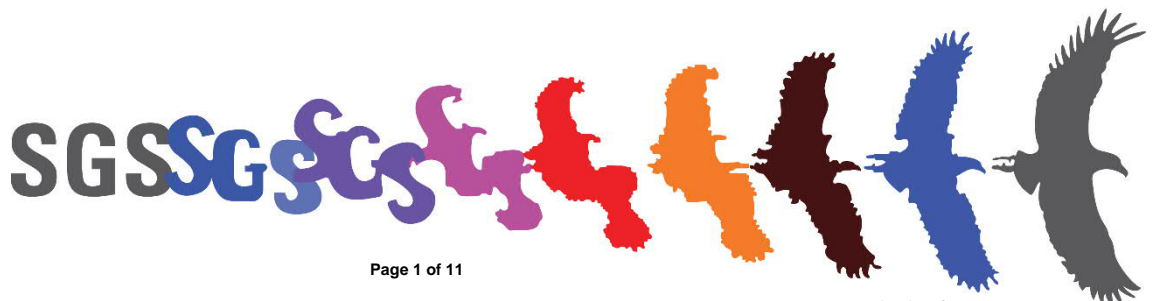
Certification is based on report number(s): SHES240100078801 Dated 7<sup>th</sup> June 2024, SHES240100078802 Dated 7<sup>th</sup> June 2024  
SHES240100078801 issue 2 Dated 11<sup>th</sup> July 2024, SHES240100078802 issue 2 Dated 11<sup>th</sup> July 2024  
EMA325963/1

Authorised Signature



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## 1. Technical Data

<b>Manufacturer</b>	Zhejiang Eastron Electronic Co., Ltd.
<b>Meter Type(s)</b>	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
<b>Voltage Rating (<math>U_n</math>)</b>	3x230/400V
<b>Current Rating (<math>I_{min}</math> – <math>I_{ref}</math> (<math>I_{max}</math>))</b>	0.05-5(6)A
<b>Frequency (<math>F_n</math>)</b>	50/60Hz
<b>Active Accuracy Class (<math>kWh</math>)</b>	A or B or C (kWh)
<b>Type of circuit</b>	1p2w, 3p3w, 3p4w
<b>Temperature Range</b>	-40°C to +70°C
<b>Software/ Firmware Version No's</b>	V01.04
<b>CRC Checksum No's</b>	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
<b>Identification Location</b>	Nameplate
<b>Bill of Materials No's</b>	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
<b>IP Rating</b>	IP51 Front Display. Meter body not rated. Must be installed in a suitable IP rated enclosure



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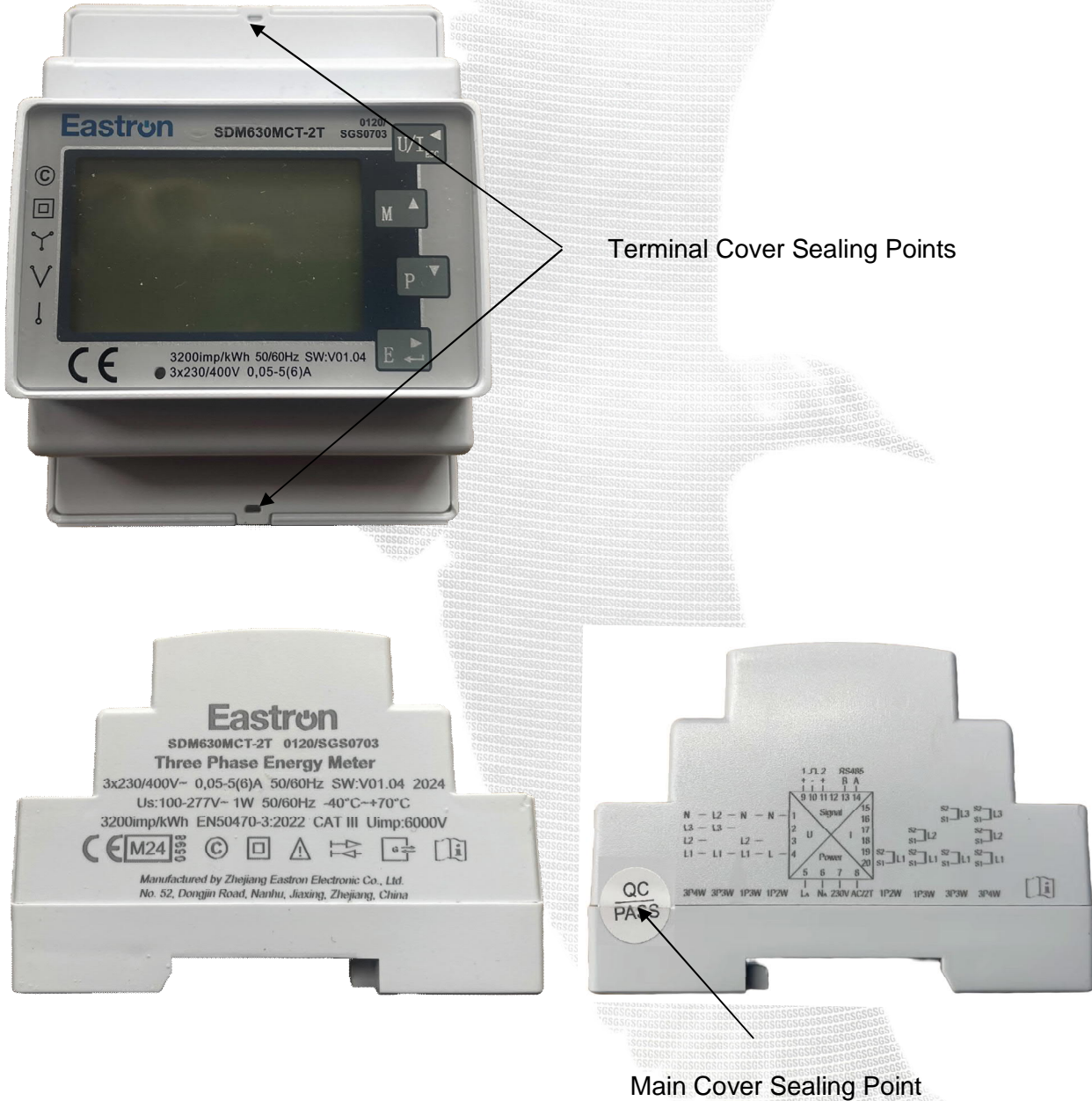
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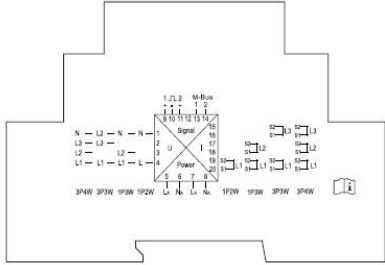
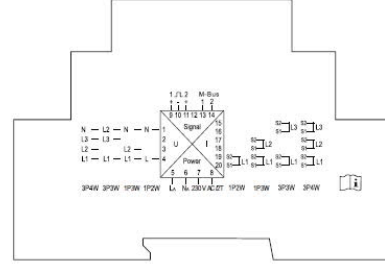
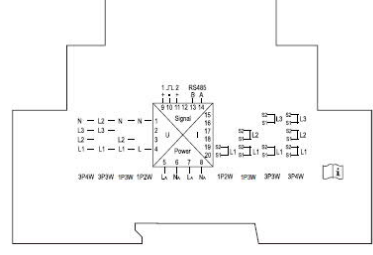
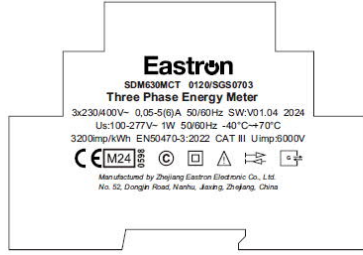
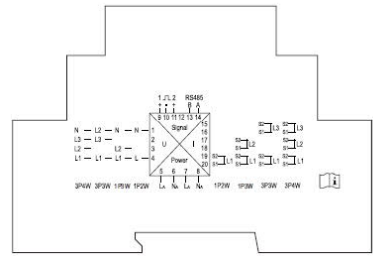
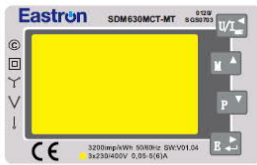
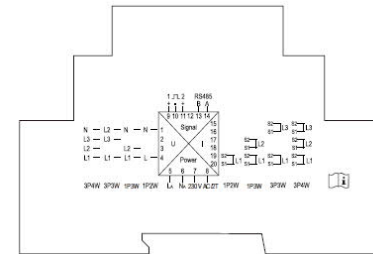
Dated: 26 July 2024

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

**2. Photograph of Meter and Sealing Plan**



### 3. Examples of Nameplates



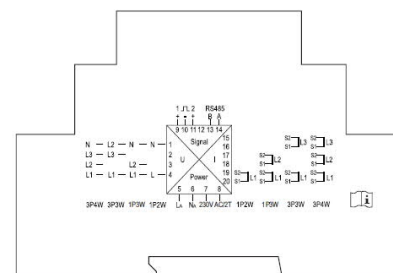
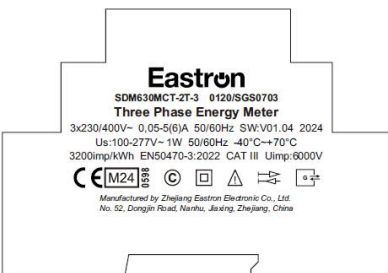
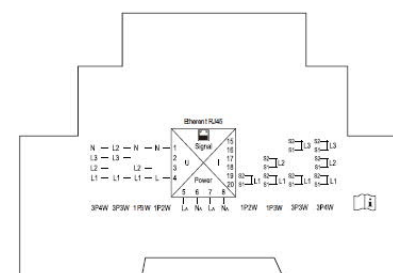
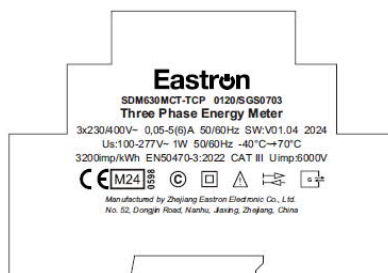
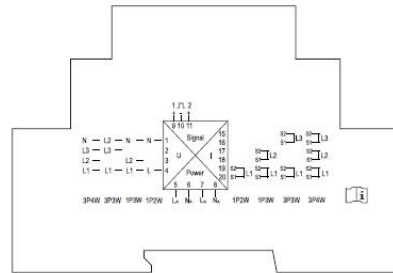
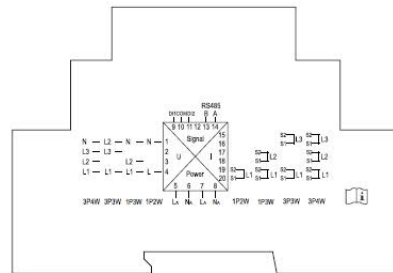
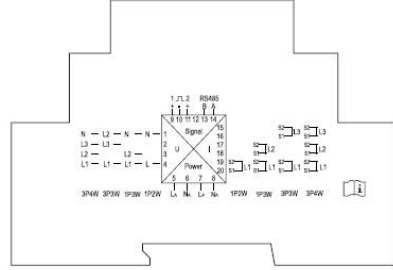
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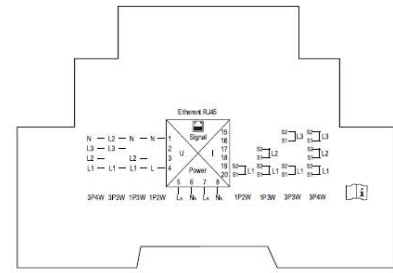
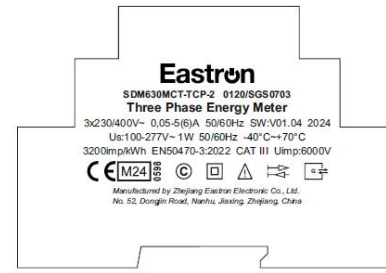
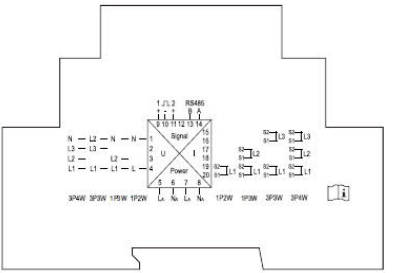
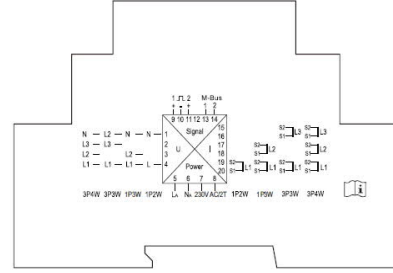
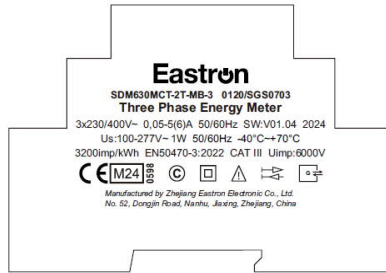
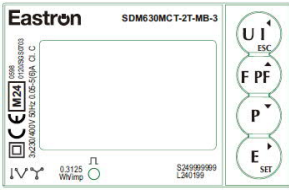
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**4. Calculation of the composite error/ MPE**

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:-

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

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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		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 <sub>min</sub>	1.0	0.45	0.38	0.13	0.08	0.09	0.10	0.21	0.43
I <sub>tr</sub>	1.0	0.48	0.39	0.24	0.13	0.13	0.17	0.28	0.45
10I <sub>tr</sub>	1.0	0.39	0.31	0.14	0.08	0.08	0.09	0.18	0.34
I <sub>max</sub>	1.0	0.37	0.36	0.20	0.08	0.09	0.08	0.16	0.31
I <sub>tr</sub>	0.5ind	0.30	0.19	0.09	0.12	0.10	0.12	0.28	0.55
10I <sub>tr</sub>	0.5ind	0.35	0.26	0.11	0.04	0.04	0.08	0.23	0.44
I <sub>max</sub>	0.5ind	0.30	0.27	0.15	0.15	0.16	0.13	0.18	0.35
I <sub>tr</sub>	0.8cap	0.67	0.68	0.74	0.80	0.82	0.79	0.75	0.70
10I <sub>tr</sub>	0.8cap	0.43	0.34	0.16	0.05	0.03	0.07	0.16	0.33
I <sub>max</sub>	0.8cap	0.41	0.37	0.21	0.06	0.04	0.06	0.16	0.31
L1									0.00
I <sub>tr</sub>	1.0	0.41	0.23	0.08	0.06	0.05	0.09	0.21	0.43
10I <sub>tr</sub>	1.0	0.39	0.20	0.08	0.07	0.07	0.09	0.21	0.42
I <sub>max</sub>	1.0	0.38	0.22	0.08	0.04	0.04	0.09	0.17	0.43
I <sub>tr</sub>	0.5ind	0.40	0.24	0.08	0.06	0.07	0.15	0.31	0.60
10I <sub>tr</sub>	0.5ind	0.32	0.16	0.13	0.16	0.14	0.13	0.21	0.44
I <sub>max</sub>	0.5ind	0.28	0.15	0.12	0.15	0.14	0.12	0.17	0.41
L2									
I <sub>tr</sub>	1.0	0.60	0.39	0.24	0.17	0.18	0.23	0.33	0.51
10I <sub>tr</sub>	1.0	0.44	0.25	0.13	0.13	0.13	0.12	0.19	0.35
I <sub>max</sub>	1.0	0.44	0.26	0.13	0.12	0.12	0.11	0.18	0.35
I <sub>tr</sub>	0.5ind	0.36	0.17	0.08	0.09	0.08	0.14	0.30	0.58
10I <sub>tr</sub>	0.5ind	0.40	0.32	0.33	0.36	0.35	0.32	0.32	0.43
I <sub>max</sub>	0.5ind	0.41	0.35	0.37	0.41	0.40	0.36	0.35	0.43
L3									
I <sub>tr</sub>	1.0	0.48	0.26	0.10	0.05	0.05	0.07	0.19	0.37
10I <sub>tr</sub>	1.0	0.49	0.27	0.11	0.06	0.06	0.07	0.16	0.34
I <sub>max</sub>	1.0	0.50	0.27	0.10	0.03	0.03	0.06	0.16	0.33
I <sub>tr</sub>	0.5ind	0.42	0.22	0.11	0.09	0.14	0.22	0.45	0.75
10I <sub>tr</sub>	0.5ind	0.45	0.24	0.11	0.06	0.07	0.13	0.30	0.51
I <sub>max</sub>	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 <sub>r</sub> ), import, export and total Energy(kWh/kVA <sub>r</sub> 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

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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**END OF CERTIFICATE**