EU TYPE EXAMINATION CERTIFICATE
Directive 2014/32/EU, Module B
0598/MID/B/25/091 Issue 1

Product	Active Electrical Energy Meters (Annex V MI-003)
Model	Meter type: 100652, 100694 Description: Polyphase Import/Export (kWh) Electricity Meter Instrument Traceable No.: 0598/MID/B/25/091
Trademark	Loxone
Certificate holder / Manufacturer	Loxone Electronics GmbH Smart Home 1, 4154 Kollerschlag, Austria
Directive information	For the instruments mentioned in this Certificate, the following essential requirements of Directive 2014/32/EU apply: - Annex I Essential requirements - Annex V Active electrical meters (MI-003)
Standards	EN IEC 62052-11:2021+A11:2022, EN 50470-3:2022, IEC 62052-31:2024
Validity	This certificate is valid until 2035-10-03. The manufacturer must inform SGS Fimko in case of any intended change to the design. Unauthorised changes will invalidate this certificate. The Manufacturer is permitted to affix the CE-marking onto the instrument(s) after complying with the conformity assessment procedures referred to in Article 17 of the Directive and to draw up a written declaration of conformity.
Date of issue	2025-10-08
Signature	SGS Fimko OY Notified Body 0598 Mikko Välimäki Certification Manager

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Takomotie 8
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t. +358 9 696 361 www.sgs.com
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Test report(s)

Report Number	Date
SHES250601000801	2025-09-29
SHES250601000802	2025-09-29

Technical information

Meter type(s)	100652, 100694
Voltage rating (U^n):	3*230/400V
Current rating (I_{min} – I_{ref} (I_{max})):	100652: 0.01-1(6)A/0.01-5(6)A
	100694: 0.4-40(48)mA
Frequency (F_n):	50/60Hz
Active Accuracy Class (kWh):	A or B or C (kWh)
Type of circuit:	3p4w, 3p3w,1p3w, 1p2w
Temperature range:	-40ºC to +70ºC
Software Version no(s).:	01.01
CRC Checksum(s):	100652:14BF1CC5
	100694:1CBF1CB5
Identification location:	Nameplate
Bill of Materials No.(s):	100652: DH-JS-250007 V1.0
	100694: DH-JS-250008 V1.0
IP rating:	IP 20 (installed in IP51 rated enclosure)
Insulation protective class	Class II
LED Pulse Constant	100652: 3200 imp/kWh
	100694: 400K imp/kWh
Impulse Voltage Rating:	6kV
AC Voltage Rating:	4kV
Main Cover Sealing Type:	4 x Clips
Integrity of Meter:	Inaccessible without breaking seals
Intended Location:	Indoor
Type of Register:	LCD
Terminal Arrangement(s):	DIN

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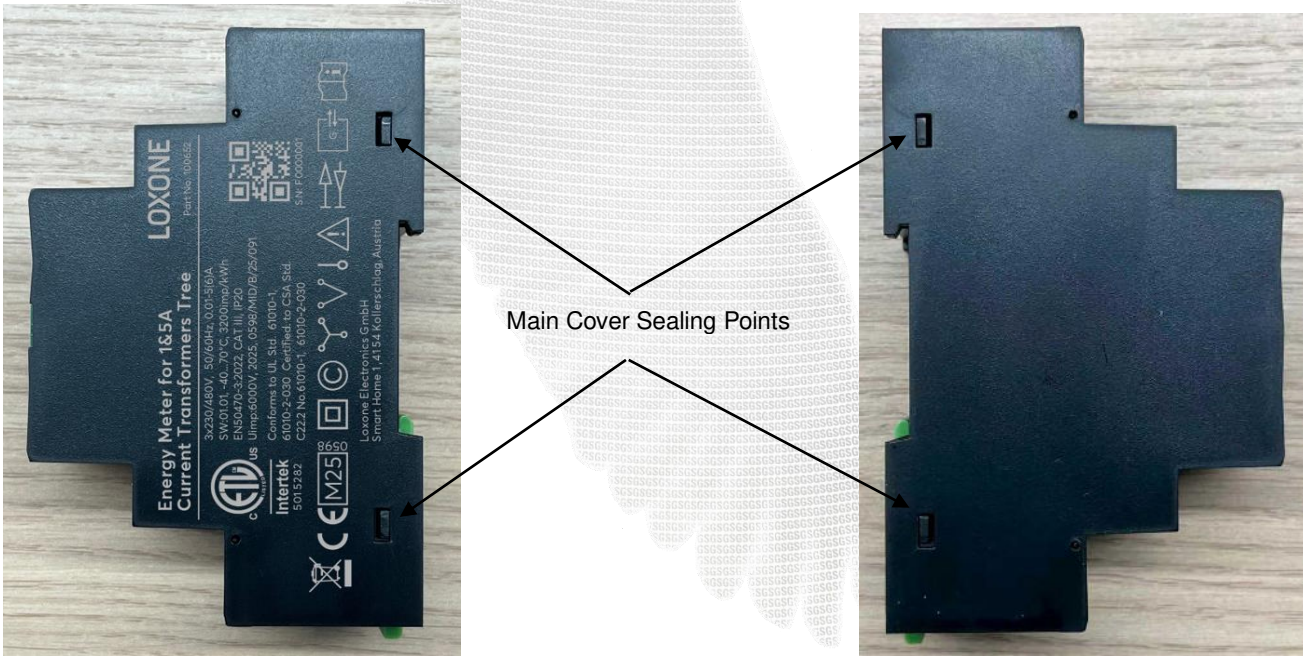
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Photograph of Meter and Sealing Plan





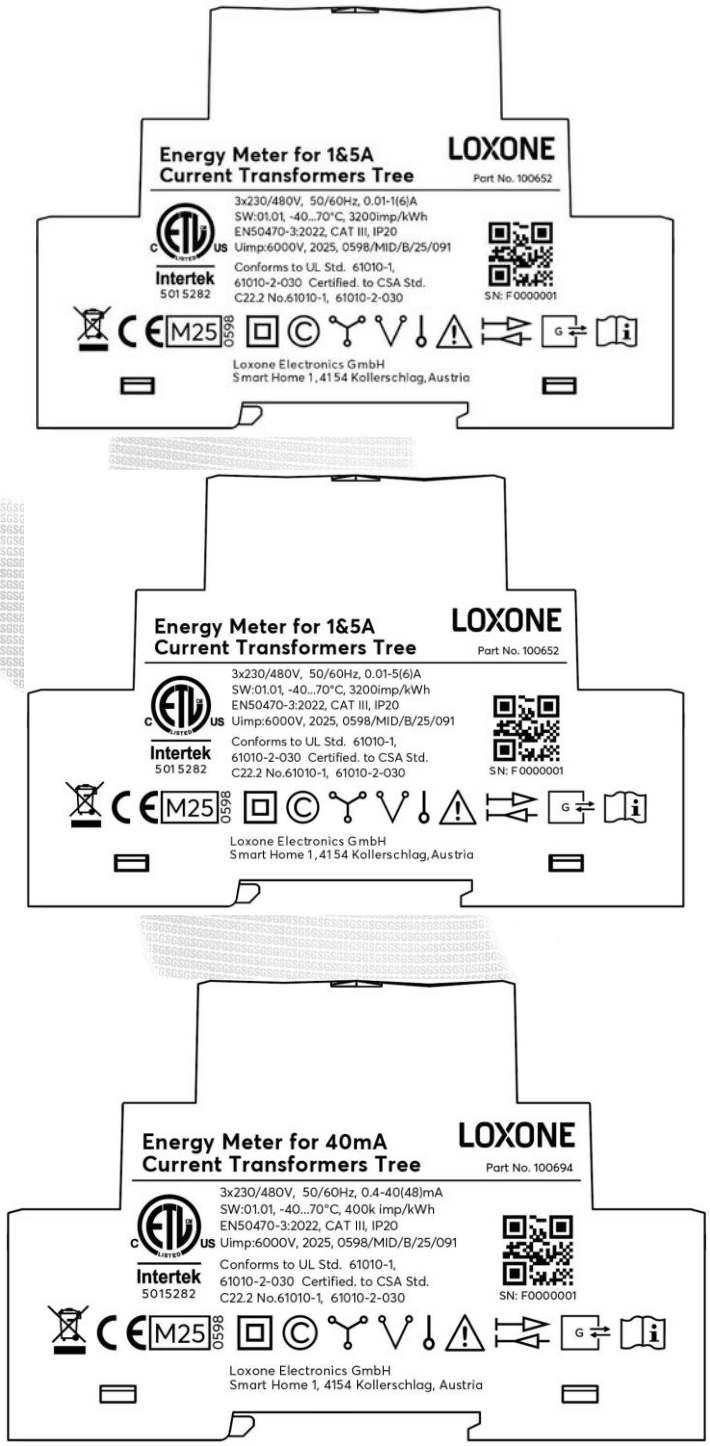
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Example of Nameplates



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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

$e^2\,(I, \cos\varphi)$ = Intrinsic error of the meter at a certain load

$\delta e(T, I, \cos\varphi)$ = 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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6A Version

		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 (%)
Imin	1.0	1.22	0.89	0.61	0.41	0.23	0.21	0.21	0.21
Itr	1.0	1.10	0.74	0.44	0.24	0.07	0.09	0.11	0.11
10Itr	1.0	1.14	0.78	0.51	0.27	0.08	0.07	0.07	0.07
Imax	1.0	1.14	0.77	0.47	0.26	0.06	0.06	0.06	0.06
Itr	0.5ind	1.14	0.74	0.43	0.21	0.10	0.11	0.09	0.09
10Itr	0.5ind	1.10	0.74	0.43	0.22	0.05	0.07	0.06	0.06
Imax	0.5ind	1.16	0.78	0.47	0.26	0.07	0.07	0.07	0.07
Itr	0.8cap	1.08	0.73	0.41	0.21	0.07	0.10	0.10	0.10
10Itr	0.8cap	1.17	0.81	0.49	0.29	0.12	0.11	0.11	0.11
Imax	0.8cap	1.15	0.77	0.48	0.26	0.07	0.07	0.07	0.07
L1									
Itr	1.0	1.14	0.78	0.45	0.22	0.03	0.04	0.04	0.05
10Itr	1.0	1.18	0.81	0.49	0.29	0.12	0.12	0.12	0.15
Imax	1.0	1.15	0.79	0.48	0.26	0.10	0.09	0.09	0.12
Itr	0.5ind	1.12	0.72	0.39	0.17	0.14	0.13	0.11	0.21
10Itr	0.5ind	1.12	0.74	0.42	0.19	0.08	0.08	0.08	0.08
Imax	0.5ind	1.18	0.78	0.46	0.23	0.05	0.06	0.05	0.10
L2									
Itr	1.0	1.13	0.71	0.40	0.19	0.16	0.18	0.19	0.18
10Itr	1.0	1.13	0.73	0.41	0.18	0.09	0.10	0.09	0.06
Imax	1.0	1.21	0.79	0.47	0.24	0.06	0.06	0.06	0.08
Itr	0.5ind	1.23	0.80	0.46	0.21	0.09	0.11	0.10	0.12
10Itr	0.5ind	1.22	0.80	0.48	0.25	0.07	0.07	0.07	0.10
Imax	0.5ind	1.28	0.87	0.55	0.32	0.17	0.16	0.16	0.19
L3									
Itr	1.0	1.13	0.73	0.40	0.19	0.07	0.08	0.09	0.04
10Itr	1.0	1.17	0.75	0.43	0.22	0.05	0.06	0.05	0.08
Imax	1.0	1.17	0.75	0.44	0.22	0.05	0.06	0.05	0.07
Itr	0.5ind	1.16	0.74	0.40	0.16	0.09	0.10	0.07	0.09
10Itr	0.5ind	1.07	0.66	0.35	0.13	0.10	0.12	0.09	0.06
Imax	0.5ind	1.13	0.71	0.39	0.17	0.04	0.06	0.03	0.08

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48mA Version

		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 (%)
Imin	1.0	0.25	0.09	0.06	0.08	0.05	0.10	0.15	0.53
Itr	1.0	0.24	0.07	0.06	0.07	0.05	0.12	0.17	0.55
10Itr	1.0	0.31	0.05	0.05	0.03	0.08	0.10	0.20	0.55
Imax	1.0	0.19	0.05	0.08	0.08	0.02	0.09	0.18	0.55
Itr	0.5ind	0.38	0.19	0.01	0.02	0.04	0.11	0.17	0.59
10Itr	0.5ind	0.09	0.08	0.27	0.12	0.20	0.08	0.07	0.53
Imax	0.5ind	0.18	0.07	0.16	0.14	0.08	0.08	0.11	0.51
Itr	0.8cap	0.14	0.17	0.11	0.11	0.06	0.13	0.20	0.51
10Itr	0.8cap	0.08	0.08	0.10	0.11	0.04	0.08	0.03	0.38
Imax	0.8cap	0.20	0.06	0.07	0.08	0.04	0.12	0.20	0.54
L1									
Itr	1.0	0.11	0.06	0.12	0.13	0.05	0.13	0.23	0.59
10Itr	1.0	0.13	0.02	0.07	0.08	0.07	0.17	0.26	0.62
Imax	1.0	0.12	0.05	0.13	0.12	0.05	0.14	0.26	0.61
Itr	0.5ind	0.31	0.15	0.09	0.05	0.09	0.17	0.31	0.73
10Itr	0.5ind	0.17	0.06	0.23	0.08	0.07	0.16	0.32	0.70
Imax	0.5ind	0.10	0.08	0.17	0.14	0.06	0.14	0.27	0.64
L2									
Itr	1.0	0.24	0.08	0.04	0.07	0.04	0.12	0.24	0.50
10Itr	1.0	0.28	0.10	0.03	0.06	0.03	0.11	0.25	0.47
Imax	1.0	0.26	0.10	0.01	0.04	0.05	0.14	0.28	0.49
Itr	0.5ind	0.40	0.21	0.08	0.06	0.06	0.11	0.31	0.53
10Itr	0.5ind	0.26	0.05	0.05	0.12	0.05	0.15	0.28	0.38
Imax	0.5ind	0.25	0.09	0.02	0.04	0.05	0.16	0.34	0.46
L3									
Itr	1.0	0.16	0.06	0.11	0.12	0.07	0.14	0.37	0.41
10Itr	1.0	0.19	0.04	0.06	0.06	0.04	0.18	0.40	0.49
Imax	1.0	0.19	0.04	0.06	0.07	0.06	0.15	0.41	0.44
Itr	0.5ind	0.32	0.15	0.06	0.08	0.06	0.10	0.43	0.39
10Itr	0.5ind	0.12	0.01	0.12	0.04	0.02	0.12	0.49	0.41
Imax	0.5ind	0.17	0.02	0.08	0.08	0.04	0.14	0.49	0.43

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Annex of Variants

Product variation identification details

Model No.	Current range	Current Circuit	Front Nameplate	Display parameter	Pulse constant	Auxiliary function
100652	0.01-5(6)A 0.01-1(6)A	With internal current transformer	Laser etched on the front cover	+A, -A, Total A	3200 imp/kWh	Canbus communication
100694	0.4-40(48)mA	Without internal current transformer	Laser etched on the front cover	+A, -A, Total A	400k imp/kWh	Canbus communication

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Certificate Revision History

Issue	Date	Comments
1	2025-10-08	Initial Issue

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