

EU TYPE EXAMINATION CERTIFICATE

Directive 2014/32/EU, Module B

0598/MID/B/26/060 Issue 1

Product Active Electrical Energy Meters (Annex V MI-003)

Model Meter type(s)
LE-03MW-4Q4T-CT,
LE-03M-4Q-CT,
LE-03d-4Q4T-CT,
LE-03d-4Q-CT

Description Polyphase,
Import /Export (kWh),
Electricity Meter

Instrument Traceable No 0598/MID/B/26/060

Trademark F&F

Certificate holder / Manufacturer F&F Filipowski sp.k.
ul. Konstantinowska 79/81, 95-200 Pabianice, Poland.

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, EN IEC 62052-31:2024

Validity This certificate is valid until 2036-06-19.
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 2026-06-30

SGS Fimko OY
Notified Body 0598

Signature


Mikko Välimäki
Certification Manager



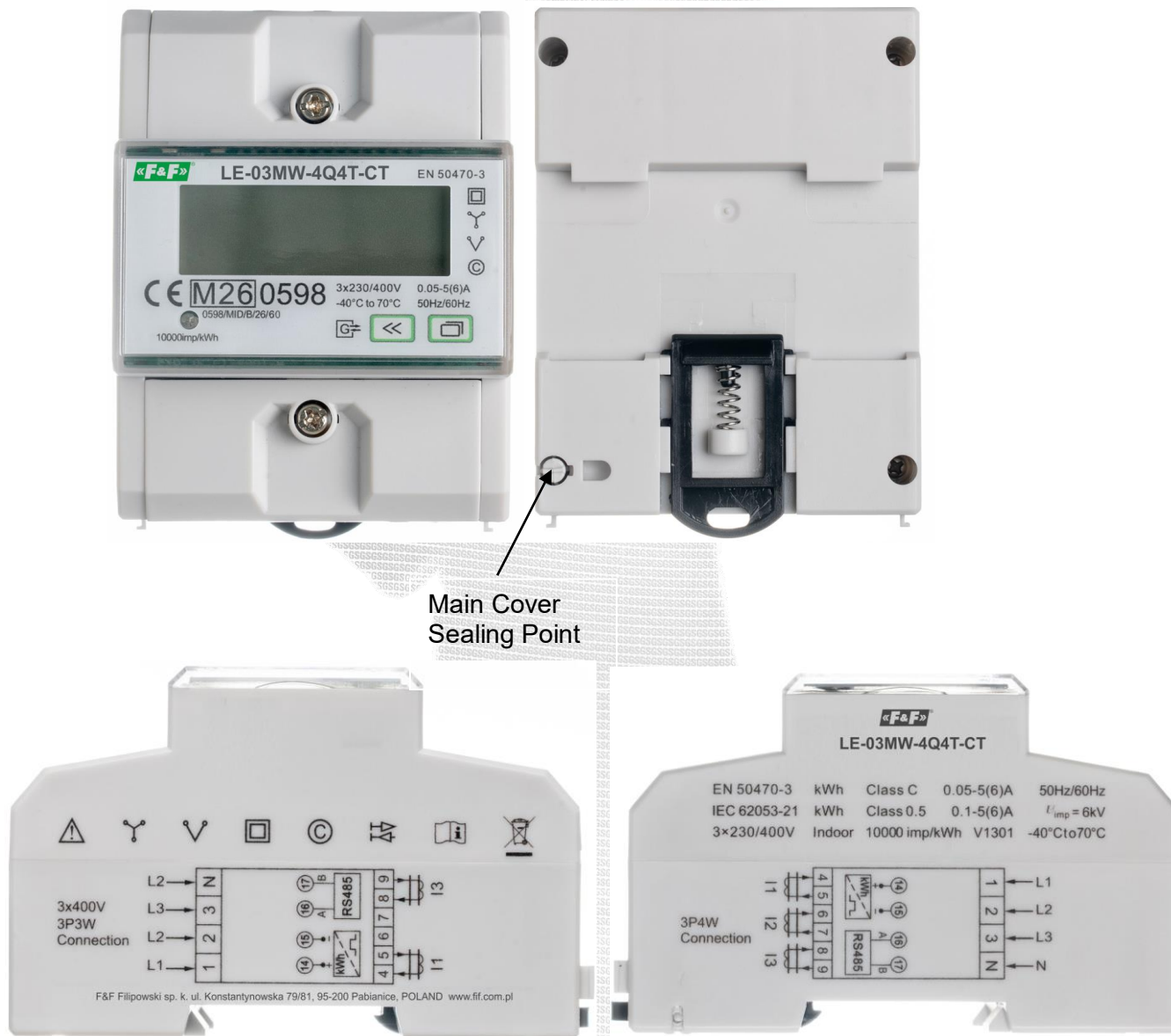
Test report(s)

Report Number	Date
SHES251202343301	2026-05-22
SHES251202343401	2026-05-14

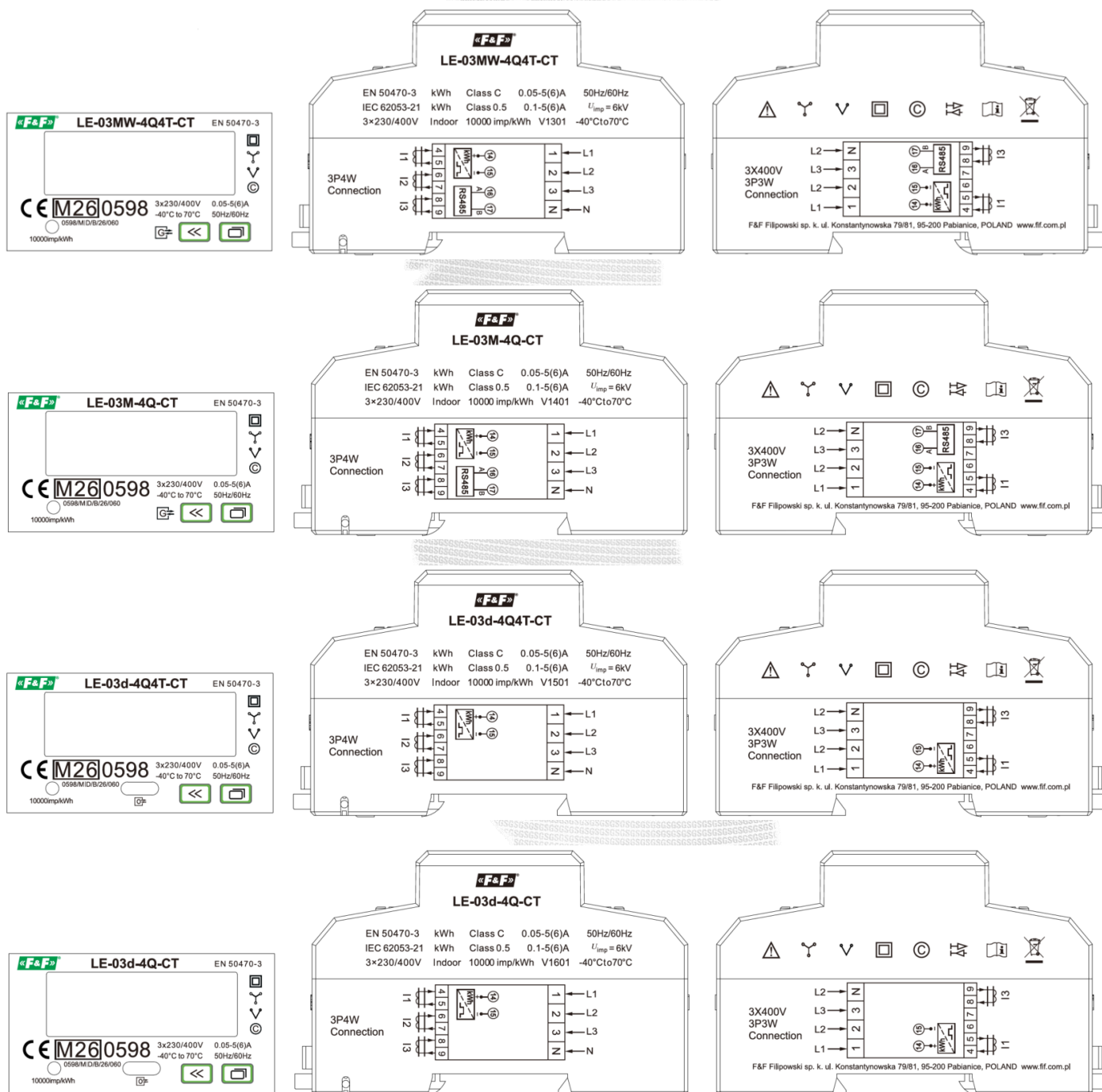
Technical information

Meter type(s)	LE-03MW-4Q4T-CT, LE-03M-4Q-CT, LE-03d-4Q4T-CT, LE-03d-4Q-CT
Voltage rating (U ⁿ)	3P4W: 3*230/400V 3P3W: 3*400V
Current rating (I _{min} – I _{ref} (I _{max}))	0.05-5(6)A
Frequency (F _n)	50/60 Hz
Active Accuracy Class (kWh)	C (kWh)
Type of circuit	3p4w, 3p3w
Temperature range	-40°C ~ +70°C
Software/Firmware version no.:	LE-03MW-4Q4T-CT: 1301 LE-03M-4Q-CT: 1401 LE-03d-4Q4T-CT: 1501 LE-03d-4Q-CT: 1601
CRC Checksum	LE-03MW-4Q4T-CT: 77C0 LE-03M-4Q-CT: 0399 LE-03d-4Q4T-CT: 337B LE-03d-4Q-CT: 429D
Identification location	LCD
Bill of Materials No.(s)	LE-03MW-4Q4T-CT: V0.0 LE-03M-4Q-CT: V0.0 LE-03d-4Q4T-CT: V0.0 LE-03d-4Q-CT: V0.0
IP rating	IP30 (Installed in IP54 rated outdoor cabinet or IP51 rated indoor cabinet)
Insulation protective class	Class II
LED Pulse Constant	10000 imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4 kV
Main Cover Sealing Type	Wire & Crimp
Integrity of Meter	Inaccessible without breaking seals
Intended location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement	DIN

Photograph of Meter and Sealing Plan



Example of Nameplates



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.

		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	0.06	0.07	0.07	0.05	0.03	0.02	0.04	0.10
Itr	1.0	0.07	0.06	0.05	0.05	0.03	0.03	0.05	0.11
20ltr	1.0	0.09	0.02	0.15	0.04	0.05	0.02	0.04	0.16
Imax	1.0	0.04	0.02	0.05	0.08	0.04	0.05	0.02	0.09
Itr	0.5ind	0.15	0.15	0.18	0.14	0.15	0.13	0.15	0.14
20ltr	0.5ind	0.17	0.29	0.26	0.15	0.28	0.14	0.26	0.16
Imax	0.5ind	0.11	0.10	0.10	0.11	0.11	0.10	0.10	0.11
Itr	0.8cap	0.07	0.02	0.06	0.04	0.02	0.02	0.04	0.11
20ltr	0.8cap	0.09	0.05	0.06	0.21	0.19	0.11	0.25	0.20
Imax	0.8cap	0.03	0.01	0.05	0.00	0.06	0.01	0.01	0.05
L1									
Itr	1.0	0.16	0.15	0.12	0.09	0.03	0.02	0.05	0.13
20ltr	1.0	0.11	0.11	0.11	0.09	0.14	0.08	0.10	0.15
Imax	1.0	0.06	0.10	0.07	0.07	0.04	0.03	0.05	0.13
Itr	0.5ind	0.28	0.31	0.34	0.34	0.33	0.34	0.36	0.41
20ltr	0.5ind	0.27	0.26	0.28	0.29	0.28	0.35	0.34	0.38
Imax	0.5ind	0.29	0.28	0.28	0.28	0.30	0.32	0.34	0.37
L2									
Itr	1.0	0.08	0.07	0.06	0.04	0.02	0.03	0.05	0.10
20ltr	1.0	0.11	0.08	0.09	0.09	0.05	0.04	0.12	0.16
Imax	1.0	0.05	0.04	0.03	0.03	0.03	0.04	0.05	0.08
Itr	0.5ind	0.07	0.06	0.04	0.04	0.02	0.04	0.03	0.07
20ltr	0.5ind	0.05	0.06	0.38	0.34	0.26	0.05	0.26	0.18
Imax	0.5ind	0.05	0.04	0.05	0.05	0.05	0.04	0.05	0.07
L3									
Itr	1.0	0.09	0.09	0.06	0.05	0.02	0.02	0.04	0.07
20ltr	1.0	0.04	0.03	0.02	0.02	0.05	0.05	0.04	0.10
Imax	1.0	0.03	0.03	0.05	0.04	0.04	0.02	0.02	0.06
Itr	0.5ind	0.07	0.08	0.07	0.07	0.03	0.03	0.04	0.10
20ltr	0.5ind	0.03	0.12	0.39	0.33	0.35	0.12	0.04	0.05
Imax	0.5ind	0.03	0.04	0.06	0.07	0.05	0.04	0.04	0.04

Product Variant Identification Details

Meter type	Tariff mode	Internal battery	Communication port	Electric pulse port
LE-03MW-4Q4T-CT	TOU Tariff	Yes	RS485	Yes
LE-03M-4Q-CT	No Tariff	No	RS485	Yes
LE-03d-4Q4T-CT	TOU Tariff	Yes	IR	Yes
LE-03d-4Q-CT	No Tariff	No	IR	Yes

Certificate Revision History

Issue	Date	Comments
1	2026-06-30	Initial issue