EU-TYPE EXAMINATION CERTIFICATE

Hexing Technologies Europe S.R.L.
Sat Giarmata,Comuna Giarmata, DJ 691 KM 8 + 775 M Dreapta, Judet Timis
307210, Timisoara
Romania

EU-Type Examination Certificate No.
103907101-25
Revision 1

Type HXE110

Object Electronic single-phase two-wire energy meter.
Direct connected

The object has been assessed and meets the requirements of

EU Directive 2014/32/EU
Module B

The energy meter(s) meet(s) the essential requirements of Annex V of EU Directive 2014/32/EU, on the harmonization of the laws of Member States relating to the making available on the market of measuring instruments (recast).

This Certification is based on the report(s) listed in the report list in this Certificate.

This Certificate is valid until: May 28, 2035.

This Certificate comprises 8 pages in total.

Issued by KEMA B.V.

Marten Dekker
Operations Director Netherlands

Arnhem, May 28, 2025

REVISION OVERVIEW

The edition with the highest revision number always replaces the earlier issued editions.

Rev. No.	Date of issue	Reason
0	April 15, 2025	First issue
1	May 28, 2025	Report 103907104-25 revised

REPORT LIST

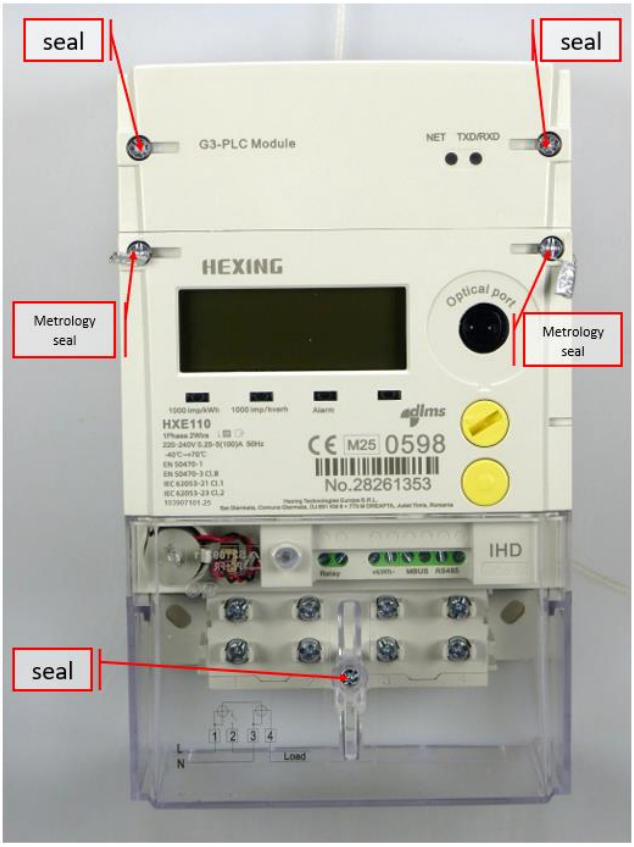
This Certificate is issued based on the following reports.

Report number	Revision	Firmware version
1632-21	R0	110_V30
103907104-25	R1	

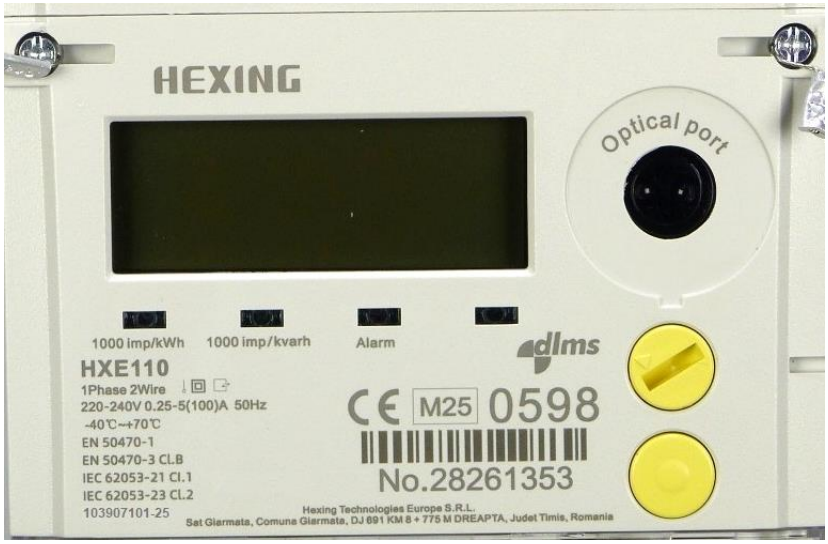
1 TECHNICAL DATA

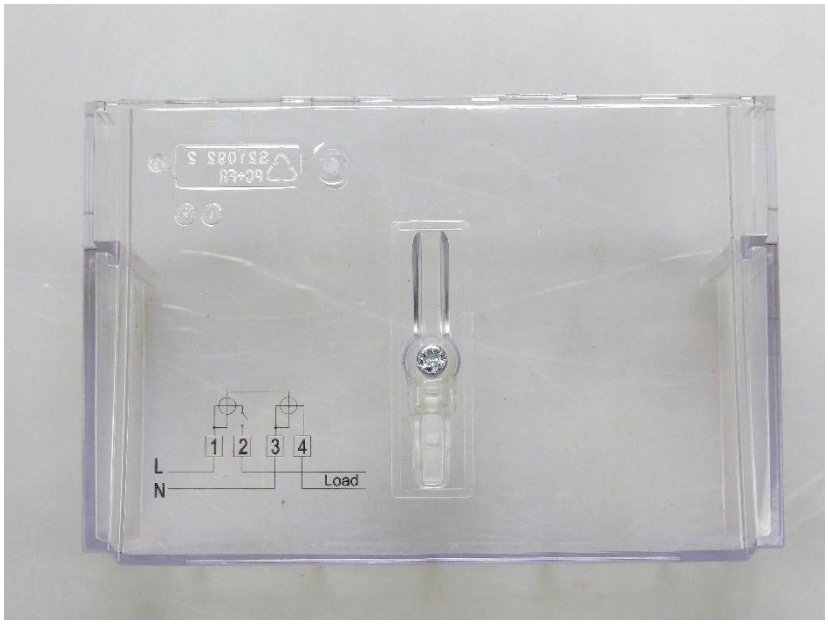
Manufacturer	Hexing Technologies Europe S.R.L. Sat Giarmata,Comuna Giarmata, DJ 691 KM 8 + 775 M Dreapta, Judet Timis 307210, Timisoara Romania
Production location	Hexing Technologies Europe S.R.L. Sat Giarmata,Comuna Giarmata, DJ 691 KM 8 + 775 M Dreapta, Judet Timis 307210, Timisoara Romania
Type	HXE110
Connection	Direct
Type of circuit	1P2W two-element
Accuracy class Wh	1/B
Accuracy class varh	2
Meter constant	Active: 1/B; 1000 and 2000 imp./kWh Reactive: 2; 1000 and 2000 imp./kvarh
V range	220 - 240 V
I range I_{min}-I_n(I_{max})	0,25..5(60), 0,25..5(80), 0,25..5(100) A
Frequency	50 and 60 Hz
Temperature range	-40 .. 70 °C
Use	Indoor
IP rating	IP54
Protection Class	II
Impulse voltage	6 kV
Internal clock	Crystal controlled
Environmental class	M1, M2, E1 and E2, CISPR32 class B
LR Firmware ID	110_V30
LR Firmware CRC	1EAB6A84
Register	LCD
Registry method(s):	Bi-directional method with separate registers: received- and delivered energy is added in separate registers.

2 PHOTOGRAPHS AND SEALING



3 EXAMPLES OF NAME PLATES





4 CALCULATION OF THE COMPOSITE ERROR / MPE

During the type approval test the intrinsic errors for temperature, voltage and frequency variation are determined per load point. The composite error is determined with the following formula:

$$\varepsilon_m = \sqrt{\varepsilon^2(I, cos\varphi) + \delta^2(T, I, cos\varphi) + +\delta^2(U, I, cos\varphi) + \delta^2(f, I, cos\varphi)}$$

Where
$\varepsilon^2(I, cos\varphi)$ = Intrinsic error of the meter at a certain load
$\delta^2(T, I, cos\varphi)$ = Additional error due to the variation of the temperature at the same load
$\delta^2(U, I, cos\varphi)$ = Additional error due to the variation of the voltage at the same load
$\delta^2(f, I, cos\varphi)$ = Additional error due to the variation of the frequency at the same load

Results are in the table below:

I in % of I_{ref}	cos φ	Composite error %								
		ºC	-40	-25	-10	5	30	40	55	70
5	1		1,02%	0,82%	0,55%	0,30%	0,11%	0,11%	0,10%	0,28%
10	1		0,81%	0,59%	0,36%	0,17%	0,09%	0,08%	0,12%	0,32%
10	0,5 ind.		1,07%	0,85%	0,59%	0,34%	0,19%	0,19%	0,19%	0,30%
10	0,8 cap.		0,90%	0,65%	0,42%	0,22%	0,06%	0,05%	0,12%	0,33%
I_{max}	1		0,35%	0,19%	0,11%	0,06%	0,06%	0,10%	0,25%	0,47%
I_{max}	0,5 ind.		0,29%	0,16%	0,09%	0,07%	0,07%	0,11%	0,25%	0,49%
I_{max}	0,8 cap.		0,28%	0,14%	0,08%	0,07%	0,07%	0,12%	0,28%	0,51%

5 OPTIONS AND VARIANTS

Overview of variants with details

Type designation	Details of the meter
HXE110	• Communication options: optical port RS485 GPRS/4G G3-PLC IHD port MBUS • Pulse output (active) • Supply control switch • external relay output • neutral Measurement

END OF DOCUMENT

The laboratories of KEMA Labs are:

- CESI S.p.A., Milan, Italy, accredited by ACCREDIA in accordance with ISO/IEC 17025:2017 under no. 0030L.
- FGH Engineering & Test GmbH, Mannheim, Germany, accredited by DAkkS in accordance with DIN EN ISO/IEC 17025:2018 under no. D-PL-12110-01-00.
- IPH Institut "Prüffeld für elektrische Hochleistungstechnik" GmbH, Berlin, Germany accredited by DAkkS in accordance with DIN EN ISO/IEC 17025:2018 under nos. D-PL-12107-01-00 and D-K-12107-01-00.
- KEMA B.V., Arnhem, The Netherlands, accredited by RvA in accordance with EN ISO/IEC 17025:2017 under nos. L020, L218 and K006 and with EN ISO/IEC 17065:2012 under no. C685.
- KEMA Labs, Zkušebnictví, a.s., Prague, the Czech Republic, testing laboratory no. 1035 accredited by CAI in accordance with ČSN EN ISO/IEC 17025:2018.
- KEMA-Powertest, LLC, Chalfont, United States, accredited by A2LA in accordance with ISO/IEC 17025:2017 under no. 0553.01.

Tests are carried out under the scope of accreditation, unless otherwise indicated in the chapter 'Tests carried out'.