OIML Certificate

OIML Member State
The Netherlands

Number R46/2012-A-NL1-20.09 revision 1
Project number 2504721

Issuing authority	NMi Certin B.V. Person responsible: M.Ph.D. Schmidt
Applicant and Manufacturer	Shenzhen Kaifa Technology (Chengdu) Co., Ltd. NO.1218 Hezuo Rd., Hi-Tech Development Zone (West) 611730 Chengdu P.R. China
Identification of the certified type	A **measuring instrument** Type: MA309MH4LSA or MA309MH4LSA1
Characteristics	See page 2 and further

This OIML Certificate is issued under scheme A.

This Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 46-1/-2 (2012) "Active electrical energy meters"

Accuracy class B

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above. This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
7 July 2023

Certification Board

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The conformity was established by the results of tests and examinations provided in the associated reports:

- No. NMi-2504721-02 dated 22 December 2020 that includes 59 pages;
- No. NMi-2504721-04 dated 22 December 2020 that includes 11 pages.

Characteristics of the measuring instrument
In Table 1 the general characteristics of the measuring instrument are presented.

Table 1 General characteristics

General characteristics MA309MH4LSA	
Meter type	Static
Connection mode (phase, wires, elements)	3p, 4w, 3e
Direction of energy flow / registers	Two-registers, bi-directional
Terminal arrangement	DIN
Protective class	Category 2
Impulse voltage	8 kV
Environmental application	
Ambient temperature range	-40 °C to +70 °C; tested up to +75°C as a specific customer requirement.
Humidity class	H2
IP Rating / environmental use	IP54
Meter quantities	
Nominal voltage (U_{nom})	3x133/230V…3x230/400V
Nominal frequency (f_{nom})	60 Hz
Maximum current (I_{max})	100 A
Transitional current (I_{tr})	1 A (I_b = 10 A)
Minimum current (I_{min})	0.5 A
Starting current (I_{st})	0.040 A
Meter constant	1.000 imp./kWh
Product version	
Hardware version	V4.1/V4.1
Module version	NB-IoT module CL101—V1.0, CL101Y—V1.1, CL101K—V1.0, CL101G—V1.1, CL101Y1—V1.1, CL101K1—V1.0 LTE module CL102—V2.2, PRIME PLC--CP115A—V5.0
Software identification	LR: 100A1016 Checksum: AC642855

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General characteristics MA309MH4LSA1	
Meter type	Static
Connection mode (phase, wires, elements)	3p, 4w, 3e
Direction of energy flow / registers	Two-registers, bi-directional
Terminal arrangement	DIN
Protective class	Category 2
Impulse voltage	8 kV
Environmental application	
Ambient temperature range	-40 °C to +70 °C; tested up to +75°C as a specific customer requirement.
Humidity class	H2
IP Rating / environmental use	IP54
Meter quantities	
Nominal voltage (U_{nom})	3x133/230V…3x230/400V
Nominal frequency (f_{nom})	60 Hz
Maximum current (I_{max})	160 A
Transitional current (I_{tr})	2 A (I_b = 20 A)
Minimum current (I_{min})	1 A
Starting current (I_{st})	0.080 A
Meter constant	1.000 imp./kWh
Product version	
Hardware version	V4.1/V4.1
Module version	IoT module CL101—V1.0, CL101Y—V1.1, CL101K—V1.0, CL101G—V1.1, CL101Y1—V1.1, CL101K1—V1.0 LTE module CL102—V2.2, PRIME PLC--CP115A—V5.0
Software identification	LR: 160A1110 Checksum: 3FC4389C

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Certificate history:
This revision replaces the previous version.

Revision	Date	Description of the modification
Initial	2020-12-22	-
1	2023-07-07	Impulse voltage level included