



EU Type Examination Certificate Number: **0120/SGS0383**

Nuri System Inc.

270-2985 Virtual way
Vancouver
BC V5M 4X7
Canada

Instrument Identification:
NRAM14

Single phase, Active, Import / Export (kWh), Multi-rate, Smart Electricity Meter

Instrument Traceable Number
0120/SGS0383

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 for 10 years from 16th November 2018 until 17th November 2028
Issue 1

Certification is based on report number(s) SHES180700765801 dated 15th November 2018,
EMA260636/1/TR50579 dated 7th November 2018, EMA260636

Authorised Signature


SGS United Kingdom Limited, Notified Body 0120
Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA, UK
t +44 (0)1934 522917 f +44 (0)1934 522137 www.sgs.com

Contact Address
SGS United Kingdom Limited, Units 12A & 12B, South Industrial Estate, Bowburn, Durham, DH6 5AD, UK
t +44 (0)191 377 2000 f +44 (0)191 377 2020 www.sgs.com

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1. Technical Data

Manufacturer	Nuri System Inc
Meter Type	NRAM14
Voltage Rating (U_n)	120V – 240V
Current Rating (I_{min} – I_{ref} (I_{max}))	0.25 5(60)A
Frequency (F_n)	50Hz or 60Hz (IEC only)
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No	aM100-L-A2330001aM1001(M1EG)(EG)
CRC Checksum	86BA821D
Identification Location	LCD
Bill Of Materials Number	OKWQ2.702.470
IP Rating	IP54
Insulation Protective Class	Class II
LED Pulse Constant	1600 imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
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(s)	BS & DIN
Location of Manufacturers Address	Nameplate


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2. Photograph of Meter and Sealing Plan

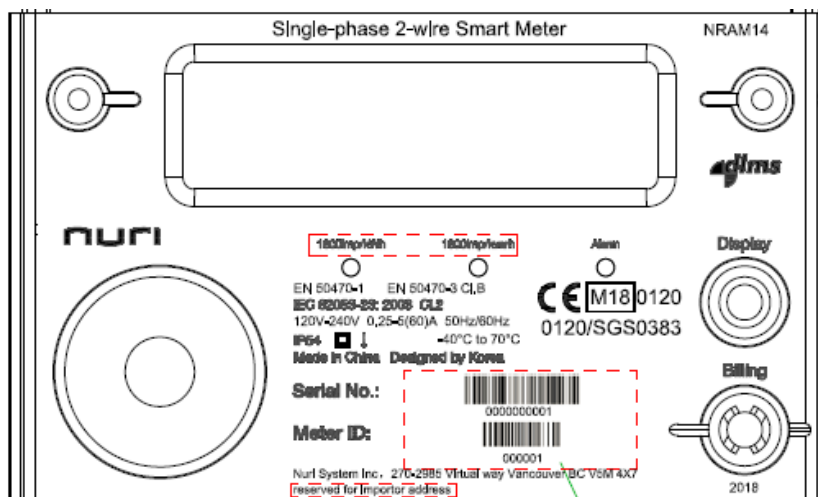



Main Cover
Sealing Point

Terminal Cover
Sealing Point

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3. Examples of Nameplate



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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

		Influence Factors for Temperature, Voltage & Frequency							
Current	PF Cos	-40 °C	-25 °C	-10 °C	5 °C	30 °C	40 °C	55 °C	70 °C
I _{min}	1.0	0.25	0.16	0.10	0.07	0.04	0.04	0.04	0.04
I _{tr}	1.0	0.23	0.13	0.08	0.04	0.02	0.01	0.01	0.02
10I _{tr}	1.0	0.23	0.13	0.08	0.05	0.04	0.02	0.02	0.04
I _{max}	1.0	0.10	0.06	0.05	0.07	0.10	0.10	0.12	0.16
I _{tr}	0.5ind	0.25	0.20	0.19	0.19	0.19	0.19	0.19	0.19
10I _{tr}	0.5ind	0.14	0.05	0.03	0.02	0.03	0.04	0.04	0.04
I _{max}	0.5ind	0.04	0.02	0.02	0.05	0.08	0.09	0.10	0.12
I _{tr}	0.8cap	0.28	0.18	0.13	0.11	0.08	0.08	0.09	0.11
10I _{tr}	0.8cap	0.26	0.17	0.11	0.08	0.06	0.05	0.06	0.08
I _{max}	0.8cap	0.17	0.14	0.13	0.14	0.16	0.18	0.20	0.24


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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
NRAM 14 LNNL	120V – 240V, 0.25 5(60)A, BS
NRAM 14 LLNN	120V – 240V, 0.25 5(60)A, BS

Modifications to the meter(s) described according to approval No.**0120/SGS0383** 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	16/11/2018	Initial Issue

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END OF CERTIFICATE