

EU Type Examination Certificate Number: 0120/SGS0727

Lumel S.A

ul. Słubicka 4, 65-127 Zielona Góra, Poland

Instrument Identification:
NMID30-1 V1

Polyphase, Active Import/Export (kWh) Indoor, Electricity Meter

Instrument Traceable Number
0120/SGS0727

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 until 13 June 2034
Issue 1

Certification is based on report number(s): SHES240100078801 Dated 7th June 2024, SHES240100078802 Dated 7th June 2024
EMA325963/1
EMA326124/1

Authorised Signature



Tuomas Hänninen

SGS Fimko OY, Notified Body 0598
Takomatie 8, FI-00380 Helsinki, Finland
t +358 9 6963 61 www.sgs.fi



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	0120/SGS0727	
	Issue Number: 1	Dated: 29 th July 2024

1. Technical Data`

Manufacturer	Lumel S.A.
Meter Type(s)	NMID30-1 V1
Voltage Rating (<i>Un</i>)	3x230/400V
Current Rating (<i>Imin</i> – <i>Iref</i> (<i>Imax</i>))	0.05-5(6)A
Frequency (<i>Fn</i>)	50/60Hz
Active Accuracy Class (<i>kWh</i>)	A or B or C (kWh)
Type of circuit	1p2w, 3p3w, 3p4w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No's	V01.04
CRC Checksum No's	84EDA549
Identification Location	Nameplate
Bill of Materials No's	DH-JS-230062 V1.0
IP Rating	IP51 Front Display Meter body not rated. Must be installed in a suitable IP rated enclosure
Insulation Protective Class	Class II
LED Pulse Constant	3200imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Main cover laser welded. Sealed with tamper proof security label
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD

2. Photograph of Meter and Sealing Plan



Terminal Cover Sealing Points

SGS

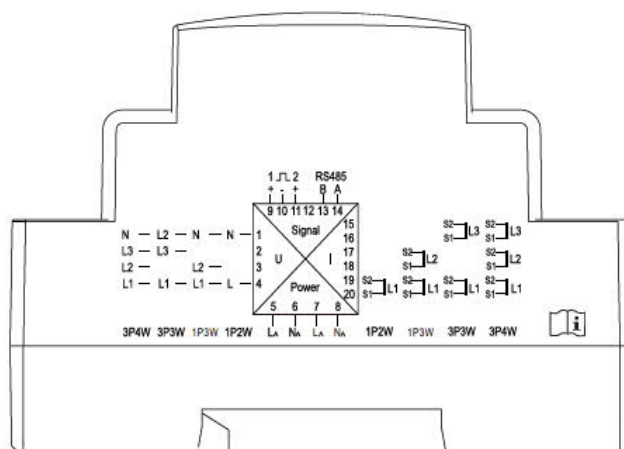
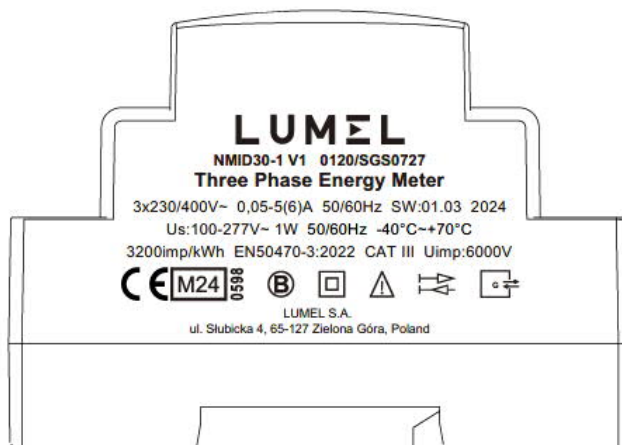
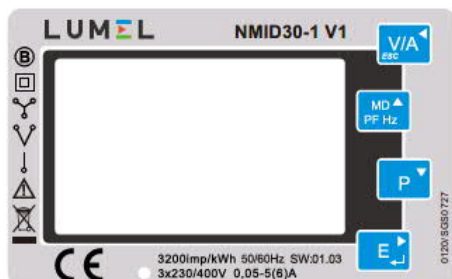
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3. Examples of Nameplates





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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:-

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

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



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		Influence Factors for temperature, frequency and voltage							
Current	PF Cos	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
I _{min}	1.0	0.45	0.38	0.13	0.08	0.09	0.10	0.21	0.43
I _{tr}	1.0	0.48	0.39	0.24	0.13	0.13	0.17	0.28	0.45
10I _{tr}	1.0	0.39	0.31	0.14	0.08	0.08	0.09	0.18	0.34
I _{max}	1.0	0.37	0.36	0.20	0.08	0.09	0.08	0.16	0.31
I _{tr}	0.5ind	0.30	0.19	0.09	0.12	0.10	0.12	0.28	0.55
10I _{tr}	0.5ind	0.35	0.26	0.11	0.04	0.04	0.08	0.23	0.44
I _{max}	0.5ind	0.30	0.27	0.15	0.15	0.16	0.13	0.18	0.35
I _{tr}	0.8cap	0.67	0.68	0.74	0.80	0.82	0.79	0.75	0.70
10I _{tr}	0.8cap	0.43	0.34	0.16	0.05	0.03	0.07	0.16	0.33
I _{max}	0.8cap	0.41	0.37	0.21	0.06	0.04	0.06	0.16	0.31
L1									0.00
I _{tr}	1.0	0.41	0.23	0.08	0.06	0.05	0.09	0.21	0.43
10I _{tr}	1.0	0.39	0.20	0.08	0.07	0.07	0.09	0.21	0.42
I _{max}	1.0	0.38	0.22	0.08	0.04	0.04	0.09	0.17	0.43
I _{tr}	0.5ind	0.40	0.24	0.08	0.06	0.07	0.15	0.31	0.60
10I _{tr}	0.5ind	0.32	0.16	0.13	0.16	0.14	0.13	0.21	0.44
I _{max}	0.5ind	0.28	0.15	0.12	0.15	0.14	0.12	0.17	0.41
L2									
I _{tr}	1.0	0.60	0.39	0.24	0.17	0.18	0.23	0.33	0.51
10I _{tr}	1.0	0.44	0.25	0.13	0.13	0.13	0.12	0.19	0.35
I _{max}	1.0	0.44	0.26	0.13	0.12	0.12	0.11	0.18	0.35
I _{tr}	0.5ind	0.36	0.17	0.08	0.09	0.08	0.14	0.30	0.58
10I _{tr}	0.5ind	0.40	0.32	0.33	0.36	0.35	0.32	0.32	0.43
I _{max}	0.5ind	0.41	0.35	0.37	0.41	0.40	0.36	0.35	0.43
L3									
I _{tr}	1.0	0.48	0.26	0.10	0.05	0.05	0.07	0.19	0.37
10I _{tr}	1.0	0.49	0.27	0.11	0.06	0.06	0.07	0.16	0.34
I _{max}	1.0	0.50	0.27	0.10	0.03	0.03	0.06	0.16	0.33
I _{tr}	0.5ind	0.42	0.22	0.11	0.09	0.14	0.22	0.45	0.75
10I _{tr}	0.5ind	0.45	0.24	0.11	0.06	0.07	0.13	0.30	0.51
I _{max}	0.5ind	0.46	0.25	0.11	0.05	0.04	0.13	0.27	0.49



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5. Annex of Variants

Product Variant Identification Details:

Model No	NMID30-1 V1
Voltage range	3x230/400V, 230V, 3x400V
Current range	0.05-5(6)A
Frequency range	50/60Hz
1 Optical pulse output	3200imp/kWh
2 Electrical pulse output	●
2 DI input	
1 RS485 communication	●
1 M-Bus communication	
Auxiliary supply	100-277V
2 Tariffs	
Power output	●

Modifications to the meter(s) described according to approval No.**0120/SGS0727** 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	29/07/2024	Initial Issue

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END OF CERTIFICATE