



EC Type Examination Certificate Number: **0120/SGS0225**

Janitza Electronics UK Ltd

Third Floor
207 Regent Street
London
W1B 3HH
United Kingdom

Instrument Identification:
MPA-3-669

Instrument Traceable Number
0120/SGS0225

Poly Phase, Active Import/ Export , Indoor, Multi-Function, Transformer Operated, Electricity Meter

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

Measuring Instruments Annex 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 MI-003 of EC Directive 2004/22/EC

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex D or Annex F

This certificate is valid until 9th March 2024
Issue 2


Certification is based on report number(s) EMA174647/1/MID dated 30th January 2014
EMA221862/1 dated 24th March 2016

Authorised Signature

Jan Saunders


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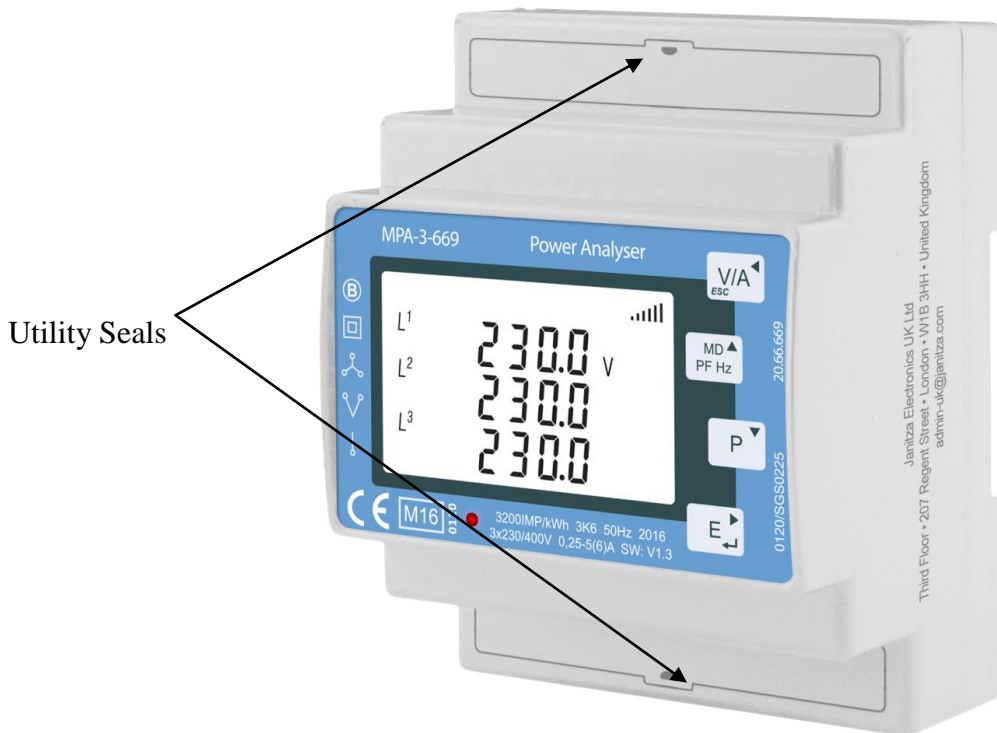
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	Issue Number: 2	Dated: 28 th October 2016


1. Technical Data

Manufacturer	Janitza Electronics UK Ltd
Meter Type	MPA-3-669
Voltage Rating (U_n)	3x230/400V
Current Rating (I_{min} – I_{ref} (I_{max}))	0.25-5(6)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	3p4w, 3p3w, 1p2w
Temperature Range	-25°C to +55°C
Software Version No.	V1.3
Identification Location	Nameplate
Bill Of Materials No.'s	SDM630-1-L-V1.5 SDM630-1-BOT-V1.5 SDM630-1-TOP-V1.5 SDM630-1-KEY-V1.0 SDM630-1-R-V1.5
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	3200imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	2 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD

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2. Photograph of Meter and Sealing Plan




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4. Nameplates




Janitza Electronics UK Ltd
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3. Influence factors for temperature, frequency and voltage

Influence Factors for Temperature, Frequency & Voltage							
Current	PF Cos	-25	-10	5	30	40	55
I _{min}	1.0	0.39	0.30	0.71	0.16	0.25	0.39
I _{tr}	1.0	0.33	0.27	0.28	0.18	0.25	0.47
10I _{tr}	1.0	0.35	0.31	0.24	0.22	0.29	0.49
I _{max}	1.0	0.36	0.31	0.25	0.21	0.28	0.47
I _{tr}	0.5ind	0.26	0.25	0.36	0.16	0.23	0.44
10I _{tr}	0.5ind	0.38	0.34	0.29	0.27	0.34	0.52
I _{max}	0.5ind	0.42	0.38	0.32	0.30	0.36	0.52
I _{tr}	0.8cap	0.31	0.42	0.43	0.32	0.37	0.50
10I _{tr}	0.8cap	0.32	0.27	0.21	0.17	0.26	0.45
I _{max}	0.8cap	0.34	0.28	0.21	0.15	0.24	0.43
L1							
I _{tr}	1.0	0.37	0.39	0.44	0.14	0.28	0.35
10I _{tr}	1.0	0.34	0.30	0.24	0.20	0.27	0.47
I _{max}	1.0	0.33	0.30	0.23	0.21	0.28	0.47
I _{tr}	0.5ind	0.41	0.56	0.96	0.14	0.15	0.16
10I _{tr}	0.5ind	0.49	0.46	0.42	0.38	0.43	0.62
I _{max}	0.5ind	0.49	0.46	0.42	0.39	0.44	0.60
L2							
I _{tr}	1.0	0.25	0.20	0.12	0.18	0.31	0.51
10I _{tr}	1.0	0.38	0.32	0.23	0.19	0.28	0.45
I _{max}	1.0	0.38	0.32	0.23	0.21	0.28	0.47
I _{tr}	0.5ind	0.12	0.12	0.13	0.25	0.38	0.59
10I _{tr}	0.5ind	0.36	0.33	0.25	0.25	0.32	0.49
I _{max}	0.5ind	0.39	0.35	0.28	0.27	0.34	0.49
L3							
I _{tr}	1.0	0.32	0.27	0.21	0.19	0.27	0.46
10I _{tr}	1.0	0.32	0.28	0.22	0.21	0.30	0.50
I _{max}	1.0	0.33	0.30	0.23	0.22	0.30	0.50
I _{tr}	0.5ind	0.32	0.32	0.24	0.20	0.29	0.53
10I _{tr}	0.5ind	0.34	0.29	0.23	0.23	0.33	0.54
I _{max}	0.5ind	0.35	0.31	0.25	0.13	0.33	0.53


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During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table above 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


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4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
MPA-3-669	0.25-5(6)A – Poly Phase, Active Import/Export kWh, Multifunction, Transformer Operated, Electricity Meter

Modifications to the meter(s) described according to approval No.**0120/ SGS0225** 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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5. Document Revision History

Issue	Date	Comments
1	07/04/2016	Initial Issue
2	28/10/2016	Change of meter type number from ECS3-669MID to MPA-3-669