

EU Type Examination Certificate Number: **0120/SGS0256**

Janitza Electronics UK Ltd
Third Floor
207 Regent Street
London
W1B 3HH

Instrument Identification:
MPA-1-667

Instrument Traceable Number
0120/SGS0256

Single Phase, Active Import/ Export (kWh), Indoor, Electricity Meter

has been assessed and certified as meeting the requirements of

EU Directive 2014/32/EU

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 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 29th September 2025
Issue2


Certification is based on report number(s) SHES141200649301 issued 16th April 2015,
EMA207767
EMA228186

Authorised Signature




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1. Technical Data

Manufacturer	Janitza.
Meter Type(s)	MPA-1-667
Voltage Rating (U_n)	230V
Current Rating (I_{min} – I_{ref} (I_{max}))	0.5-10(100)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software Version No.	V1.2
Identification Location	Nameplate
Bill Of Materials No.'s	SDM230MODBUS-20150929
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Terminal Cover Sealing Type	4 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Location of manufacturers address	Operation Manual

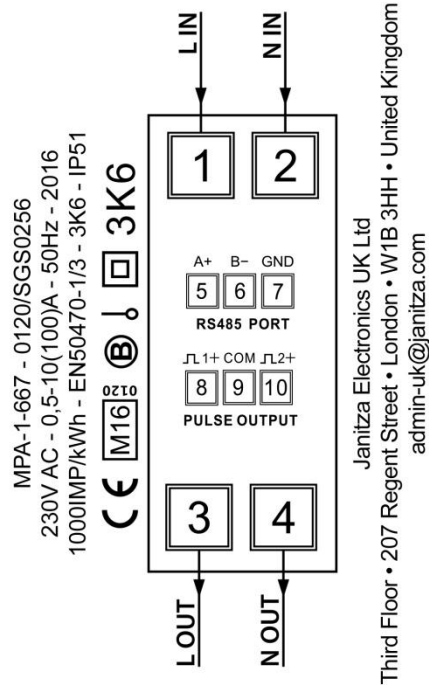
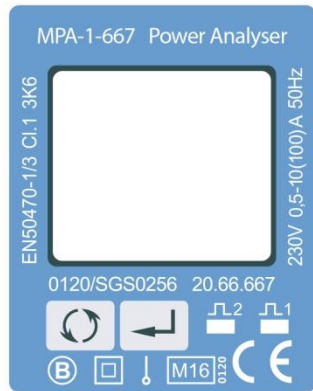
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2. Photograph of Meter and Sealing Plan



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3. Name plates and Markings



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4. Influence factors for temperature, frequency and voltage


Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	0.45	0.33	0.23	0.15	0.17	0.23
I _{tr}	1.0	0.44	0.31	0.19	0.07	0.10	0.18
10I _{tr}	1.0	0.42	0.29	0.18	0.03	0.08	0.16
I _{max}	1.0	0.27	0.19	0.12	0.03	0.06	0.12
I _{tr}	0.5ind	0.48	0.36	0.27	0.17	0.18	0.22
10I _{tr}	0.5ind	0.41	0.28	0.17	0.03	0.08	0.17
I _{max}	0.5ind	0.27	0.18	0.12	0.04	0.07	0.13
I _{tr}	0.8cap	0.45	0.31	0.20	0.09	0.12	0.18
10I _{tr}	0.8cap	0.40	0.27	0.16	0.04	0.10	0.19
I _{max}	0.8cap	0.26	0.19	0.11	0.05	0.08	0.15

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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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
MPA-1-667	: Single tariff, total active energy, resettable active energy, import active energy, export active energy, total reactive energy, import reactive energy, export reactive energy, active power, reactive power, voltage, current, frequency, power factor, power demand, RS485 Modbus.

Modifications to the meter(s) described according to approval No. **0120/SGS0256** 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	17/08/16	Initial Issue
2	28/10/2016	Change of meter type number from ECS1-667MID to MPA-1-667