

EU Type Examination Certificate Number: **0120/SGS0683**

Owen Brothers Metering UK Limited

Glen Trading Estate, Wellyhole Street, OLDHAM, OL4 3BF, UK

Instrument Identification
OB4370, OB4372

Three Phase, Import/Export (kWh), Multi-function, Electricity Meter

Instrument Traceable Number
0120/SGS0683

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 1 May 2034

Issue 1

Certification is based on report number(s):

SHES230801477601 dated 27th December 2023, SHES230801477602 dated 27th December 2023
EMA324371/1
EMA323091/1

Authorised Signature



Mikko Välimäki

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EU-Type Examination Certificate Number:

0120/SGS0683

Issue Number: 1

Dated: 14th May 2024**1. Technical Data**

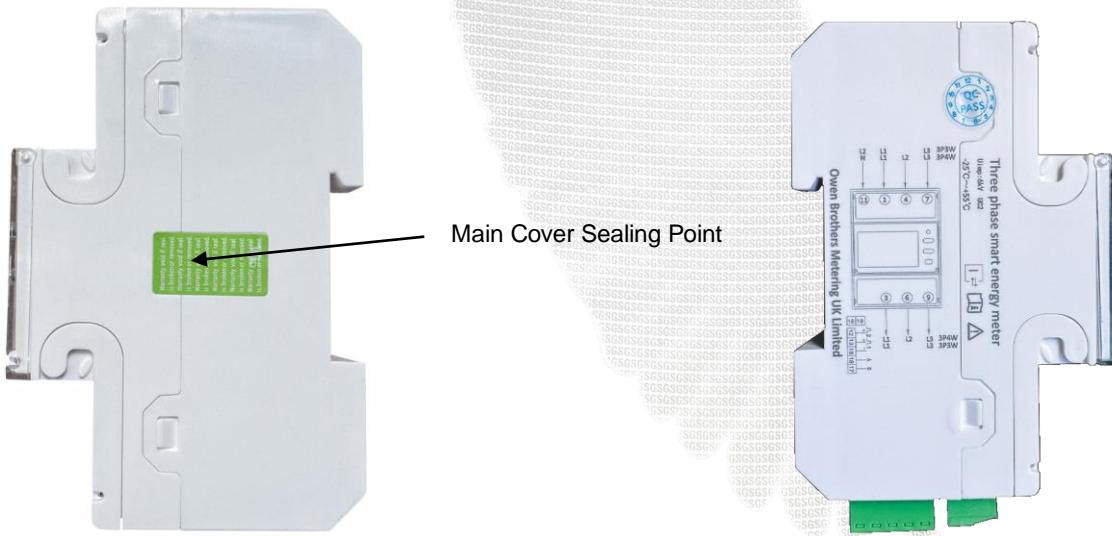
Manufacturer	Owen Brothers Metering UK Limited
Meter Type(s)	OB4370, OB4372
Voltage Rating (U_n)	3*120/208V, 3*230/400V, 3*240/415V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0.25~5(65)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	3p3w, 3p4w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No.	1.03
CRC Checksum No.	E8640Ad0
Identification Location	LCD
Bill of Materials No.	QD231009-LT3.22.430-DY V1.06
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Main cover clipped in place and sealed with tamper proof sealing tape
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacturers Address	Associated Documents

2. Photograph of Meter and Sealing Plan

Terminal Cover Sealing Points



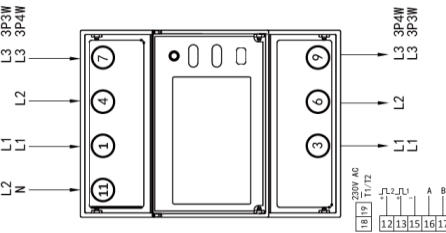
Terminal Cover Sealing Points



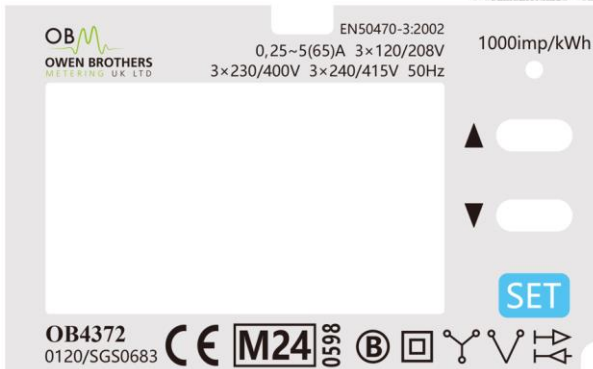
3. Examples of Nameplates



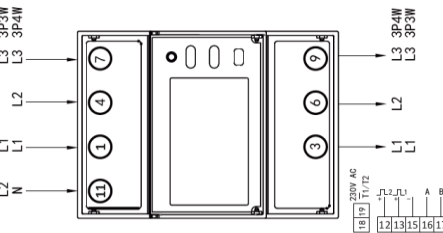
Three phase smart energy meter
Uimp: 6kV UC2
-25°C~+55°C



Owen Brothers Metering UK Limited



Three phase smart energy meter
Uimp: 6kV UC2
-25°C~+55°C



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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. Frequency & Voltage					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
Imin	1.0	0.04	0.05	0.04	0.02	0.03	0.03
Itr	1.0	0.05	0.05	0.05	0.02	0.04	0.04
10ltr	1.0	0.05	0.05	0.05	0.05	0.07	0.07
Imax	1.0	0.19	0.19	0.18	0.13	0.11	0.11
Itr	0.5ind	0.04	0.05	0.05	0.05	0.08	0.08
10ltr	0.5ind	0.07	0.06	0.06	0.08	0.12	0.12
Imax	0.5ind	0.59	0.60	0.59	0.54	0.49	0.49
Itr	0.8cap	0.05	0.05	0.05	0.02	0.03	0.03
10ltr	0.8cap	0.05	0.07	0.05	0.03	0.06	0.06
Imax	0.8cap	0.12	0.13	0.12	0.10	0.11	0.11
L1							
Itr	1.0	0.06	0.06	0.05	0.02	0.05	0.05
10ltr	1.0	0.06	0.07	0.06	0.04	0.06	0.06
Imax	1.0	0.20	0.20	0.17	0.11	0.09	0.09
Itr	0.5ind	0.06	0.06	0.06	0.08	0.12	0.12
10ltr	0.5ind	0.07	0.07	0.07	0.10	0.13	0.13
Imax	0.5ind	0.12	0.12	0.11	0.12	0.16	0.16
L2							
Itr	1.0	0.08	0.08	0.08	0.09	0.11	0.11
10ltr	1.0	0.09	0.09	0.09	0.10	0.12	0.12
Imax	1.0	0.15	0.16	0.14	0.08	0.06	0.06
Itr	0.5ind	0.14	0.12	0.12	0.14	0.18	0.18
10ltr	0.5ind	0.15	0.12	0.12	0.15	0.20	0.20
Imax	0.5ind	0.20	0.20	0.20	0.23	0.25	0.25
L3							
Itr	1.0	0.12	0.14	0.12	0.09	0.08	0.08
10ltr	1.0	0.04	0.08	0.07	0.04	0.05	0.05
Imax	1.0	0.29	0.29	0.27	0.24	0.22	0.22
Itr	0.5ind	0.18	0.19	0.18	0.14	0.12	0.12
10ltr	0.5ind	0.10	0.12	0.12	0.08	0.07	0.07
Imax	0.5ind	1.86	1.87	1.85	1.44	1.76	1.76



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5. Annex of Variants

Product Variant Identification Details:

Meter type	OB4370	OB4372
Voltage range	3P4W: 3x120/208V, 3x230/400V, 3x240/415V 3P3W: 3x208V, 3x400V, 3x415V	
Current range	0.25-5(65)A	
Frequency range	50Hz	
1 RS485	•	•
2 SO	•	•
1 DO	•	•
2 Tariff		•

Modifications to the meter(s) described according to approval No. **0120/SGS0683** 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	14/05/2024	Initial Issue

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END OF CERTIFICATE