

EU Type Examination Certificate Number: **0120/SGS0737**

# METRO PREPAID LIMITED

Unit 1, Tims Boat Yard, Timsway, Staines, TW18 3JY,  
United Kingdom

Instrument Identification:  
**MET004; METROI**

Instrument Traceable Number  
**0120/SGS0737**

Single Phase, Active Import/ Export, Outdoor, Electricity Meter

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 11<sup>th</sup> April 2026  
Issue 1

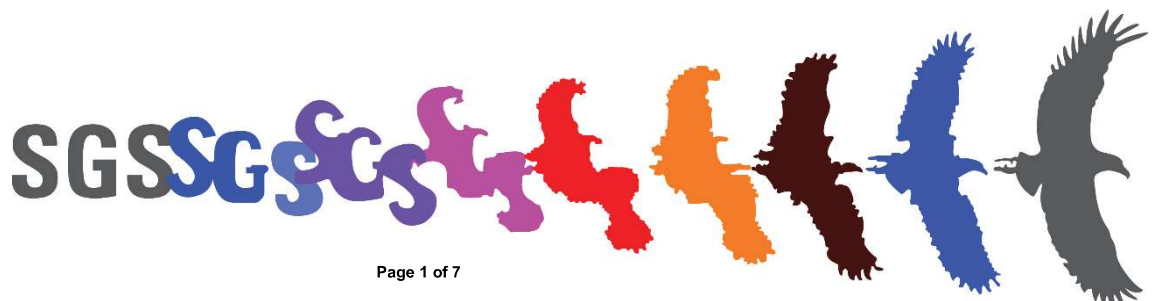
Certification is based on report number(s) SZES151000342001 dated 5<sup>th</sup> April 2016,  
SZES151000342001/iss2 dated 10<sup>th</sup> April 2017, SZES151000342001/iss3 dated 25<sup>th</sup> May 2018  
SHES191202790901 dated 6<sup>th</sup> May 2020, SHES210901965601 dated 14<sup>th</sup> February 2022  
EMA221646/1  
EMA327249/1

Authorised Signature



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Issue Number: 1

Dated: 16<sup>th</sup> August 2024**1. Technical Data**

<b>Manufacturer</b>	METRO PREPAID LIMITED
<b>Meter Type</b>	MET004 ; METROI
<b>Voltage Rating (<math>U_n</math>)</b>	220-240V
<b>Current Rating (<math>I_{min}</math> – <math>I_{ref}</math> (<math>I_{max}</math>))</b>	0.05-5(80)A
<b>Frequency (<math>F_n</math>)</b>	50/60Hz
<b>Active Accuracy Class (kWh)</b>	A or B or C (kWh)
<b>Type of circuit</b>	1p2w
<b>Temperature Range</b>	-40°C to +70°C
<b>Software/ Firmware Version No.</b>	01.04
<b>Checksum</b>	0x614BCAF5
<b>Identification Location</b>	LCD
<b>BOM No's</b>	Keyboard:26064696000001
<b>IP Rating</b>	IP54
<b>Insulation Protective Class</b>	Class II
<b>Mechanical Environment</b>	M1
<b>Electromagnetic Environment</b>	E2
<b>LED Pulse Constant</b>	1000imp/kWh
<b>Impulse Voltage Rating</b>	6kV
<b>AC Voltage Rating</b>	4kV
<b>Main Cover Sealing Type</b>	Wire & Crimp
<b>Integrity of meter</b>	Inaccessible without breaking seals
<b>Intended Location of the Meter</b>	Outdoor
<b>Type of Register</b>	LCD
<b>Terminal Arrangement(s)</b>	BS

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**2. Photograph of Meter and Sealing Plan**



Main cover seals







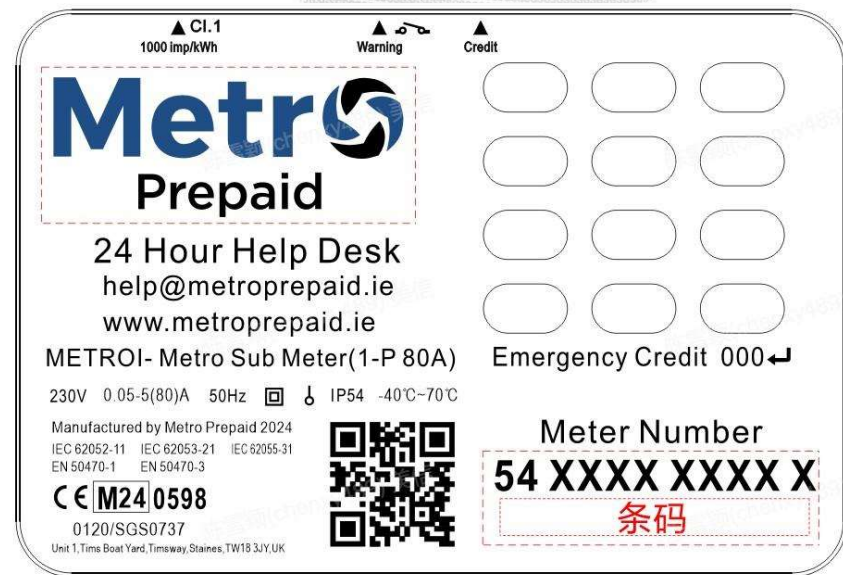
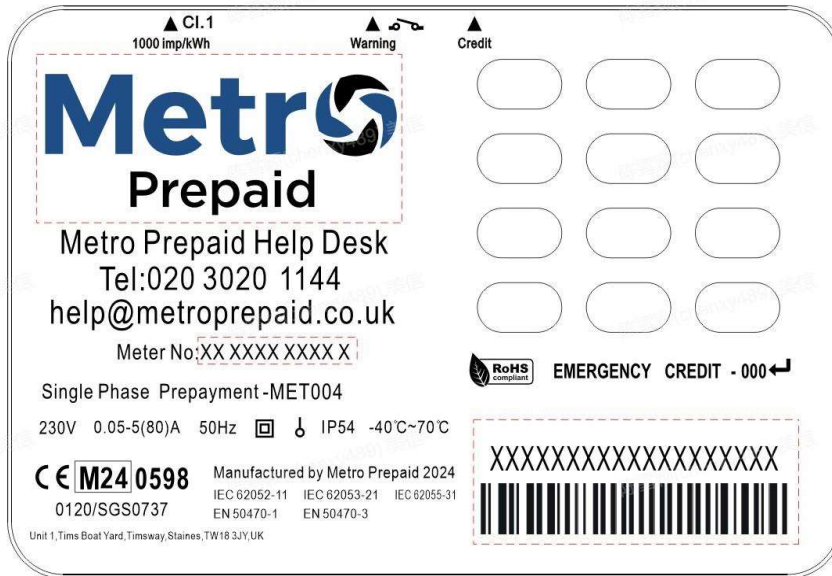
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### 3. Examples of Nameplates





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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:-

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

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

Current	PF Cos	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
I <sub>min</sub>	1.0	<b>0.66</b>	<b>0.41</b>	<b>0.23</b>	<b>0.17</b>	<b>0.09</b>	<b>0.12</b>	<b>0.16</b>	<b>0.19</b>
I <sub>tr</sub>	1.0	<b>0.64</b>	<b>0.40</b>	<b>0.26</b>	<b>0.13</b>	<b>0.07</b>	<b>0.09</b>	<b>0.17</b>	<b>0.19</b>
10I <sub>tr</sub>	1.0	<b>0.65</b>	<b>0.41</b>	<b>0.26</b>	<b>0.13</b>	<b>0.03</b>	<b>0.06</b>	<b>0.14</b>	<b>0.15</b>
I <sub>max</sub>	1.0	<b>0.47</b>	<b>0.35</b>	<b>0.28</b>	<b>0.23</b>	<b>0.19</b>	<b>0.18</b>	<b>0.17</b>	<b>0.18</b>
I <sub>tr</sub>	0.5ind	<b>0.57</b>	<b>0.36</b>	<b>0.21</b>	<b>0.13</b>	<b>0.10</b>	<b>0.11</b>	<b>0.19</b>	<b>0.19</b>
10I <sub>tr</sub>	0.5ind	<b>0.64</b>	<b>0.37</b>	<b>0.24</b>	<b>0.13</b>	<b>0.06</b>	<b>0.08</b>	<b>0.08</b>	<b>0.15</b>
I <sub>max</sub>	0.5ind	<b>0.60</b>	<b>0.51</b>	<b>0.46</b>	<b>0.43</b>	<b>0.40</b>	<b>0.39</b>	<b>0.37</b>	<b>0.38</b>
I <sub>tr</sub>	0.8cap	<b>0.56</b>	<b>0.37</b>	<b>0.22</b>	<b>0.11</b>	<b>0.07</b>	<b>0.10</b>	<b>0.16</b>	<b>0.16</b>
10I <sub>tr</sub>	0.8cap	<b>0.59</b>	<b>0.38</b>	<b>0.23</b>	<b>0.12</b>	<b>0.04</b>	<b>0.06</b>	<b>0.13</b>	<b>0.14</b>
I <sub>max</sub>	0.8cap	<b>0.49</b>	<b>0.39</b>	<b>0.32</b>	<b>0.28</b>	<b>0.25</b>	<b>0.24</b>	<b>0.22</b>	<b>0.23</b>



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## 5. Annex of Variants

Product Variant Identification Details:

### Type Designation


### Description of meter

MET004  
METROI

1P2W, 220-240V, 0.05-5(80)A MBus with wired keypad  
1P2W, 220-240V, 0.05-5(80)A MBus with wired keypad

Modifications to the meter(s) described according to approval No.**0120/SGS0737** 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	16/08/2024	Initial Issue

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**END OF CERTIFICATE**