



EU Type Examination Certificate Number: **0120/SGS0267**

## **Secure Meters (UK) Ltd**

Moorside Road  
Winnall  
Winchester  
SO23 7RX

Instrument Identification:  
**Liberty 3E E1D0\*4-\*00**

**Single Phase, Three Element, Active/Import (kWh), Pre-payment, Electricity Meter**

Instrument Traceable Number  
**0120/ SGS0267**

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 for 10 years from 27<sup>th</sup> February 2017 until 26<sup>th</sup> February 2027  
Issue 2

Certification is based on report number(s) EMA230686/1/MID dated 15<sup>th</sup> February 2017

Authorised Signature


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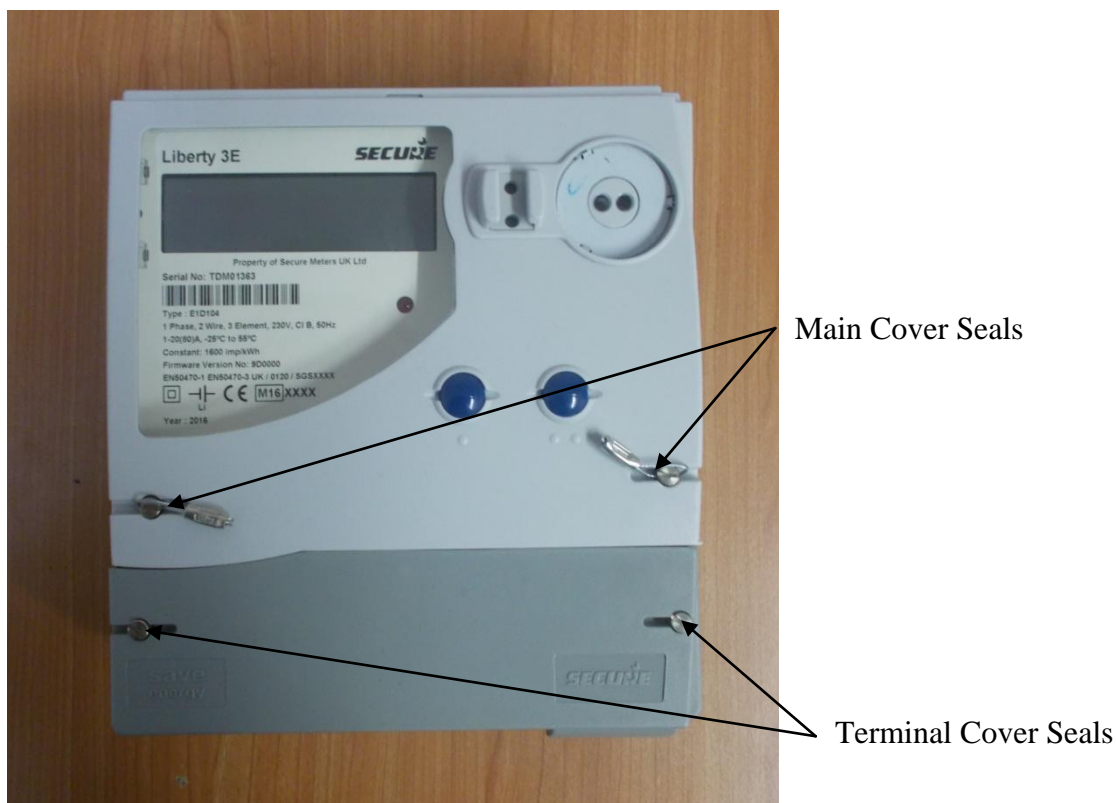
	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0267</b>	
	Issue Number: 2	Dated: 5 <sup>th</sup> April 2017


## 1. Technical Data

Manufacturer	Secure Meters (UK) Ltd
Meter Type	Liberty 3E E1D0*4-*00
Voltage Rating ( $U_n$ )	230V
Current Rating ( $I_{min}$ – $I_{ref}$ ( $I_{max}$ ))	1-20(80)A
Frequency ( $F_n$ )	50Hz
Active Accuracy Class ( $kWh$ )	A or B( $kWh$ )
Type of circuit	1P2W, 3 Element
Temperature Range	-25°C to +55°C
Software/ Firmware Version No	9D0000
Checksum	00385D09
Identification Location	Nameplate
Mechanical Environment	M1
Electromagnetic environment	E2
Bill Of Materials Numbers	Base Meter: E1D0B4-R00 Base Meter With Freedom Unit: E1D0B4-J00
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1600imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	BS
Location of Manufacturers Address	Associated Documents

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## 2. Photograph of Meter and Sealing Plan



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### 3. Nameplate

**Liberty 3E**

**SECURE**

Property of Secure Meters UK Ltd

**Serial No: TDMXXX..**



Type No. : E1D0B4

1 Phase, 2 Wire, 3 Element, 230V, Cl B, 50Hz

1-20(80)A, -25°C to 55°C


Constant: 1600 imp/kWh


Firmware Version No: 9D0000

EN50470-1 EN50470-3 UK / 0120 / SGS0267

MFG BY : Secure Meters UK Ltd, SO23 7RX

**CE MXX 0120**

 Year : XXXX

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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

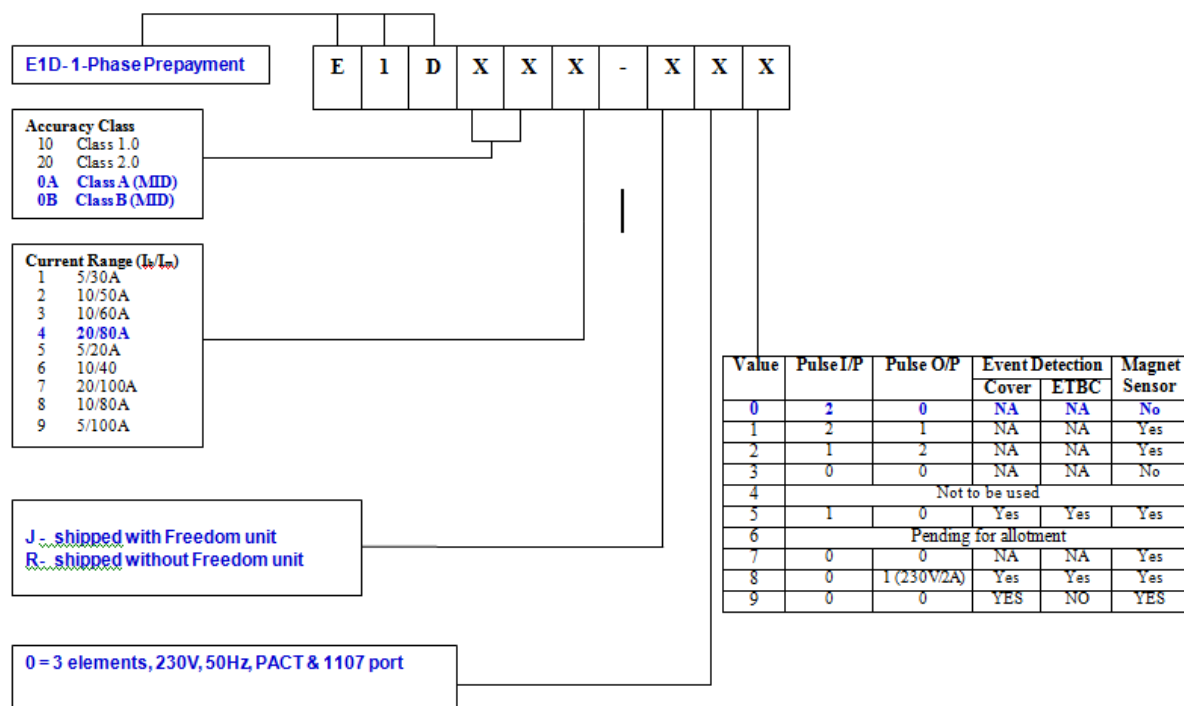
$\delta e(T, I, \cos\phi) =$  Additional error due to variation of the temperature at the same load  
 $\delta e(U, I, \cos\phi) =$  Additional error due to variation of the voltage at the same load  
 $\delta e(f, I, \cos\phi) =$  Additional error due to variation of the frequency at the same load

		Influence Factors for Temperature, Frequency & Voltage					
Current	PF Cos	-25	-10	5	30	40	55
I <sub>min</sub>	1.0	0.64	0.20	0.30	0.32	0.38	0.58
I <sub>tr</sub>	1.0	0.71	0.36	0.35	0.21	0.23	0.51
10I <sub>tr</sub>	1.0	0.78	0.50	0.31	0.13	0.24	0.47
I <sub>max</sub>	1.0	0.79	0.51	0.32	0.09	0.21	0.47
I <sub>tr</sub>	0.5ind	1.35	1.13	0.64	0.38	0.65	1.19
10I <sub>tr</sub>	0.5ind	1.58	1.20	0.81	0.13	0.54	1.06
I <sub>max</sub>	0.5ind	1.46	1.03	0.71	0.57	1.09	0.97
I <sub>tr</sub>	0.8cap	0.32	0.24	0.24	0.18	0.17	0.23
10I <sub>tr</sub>	0.8cap	0.39	0.26	0.17	0.09	0.15	0.25
I <sub>max</sub>	0.8cap	0.36	0.19	0.13	0.06	0.08	0.21


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## 5. Product Variant Identification Details

### CODIFICATION FOR SINGLE PHASE PRE-PAYMENT



Modifications to the meter(s) described according to approval No. **0120/ SGS0267** 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	27/02/2017	Initial Issue
2	05/04/2017	Sealed for life and welded sealing options removed

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**\*\* End of Document \*\***

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