

EU Type Examination Certificate Number: 0120/SGS0180

# Secure Meters (Sweden) AB

Box 1006 SE-11 29 Nykoping Sweden

Instrument Identification: Prometer 100, P3E

Instrument Traceable Number 0120/SGS0180

Polyphase, Programmable, Transformer Operated, Active Import/Export, Multi Rate Credit, Electricity Meter

has been assessed and certified as meeting the requirements of

## EU Directive 2014/32/EU on Measuring Instruments Annex II, Module B

on measuring instruments Annex II, module E

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 20<sup>th</sup> May 2025 Issue 5

Certification is based on report number(s) EMA203098/1 dated 21st May 2015

Authorised Signature

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Issue Number: 5

Dated: 1st March 2019

### 1. Technical Data

Manufacturer	Secure Meters (Sweden) AB
Meter Types	Prometer 100, P3E
Voltage Rating (Un)	3 phase 4 wire: 3x57.7/100-240/415V 3 phase 3 wire: 2x100-120V
Current Rating (Imin – Iref (Imax))	0.01-1(10)A
Frequency (Fn)	50Hz
Active Accuracy Class (kWh)	C(kWh)
Type of circuit	3p4w, 3p3w
Temperature Range	-25°C to +55°C
Software Version No.	V32.00
Identification Location	LCD Display
Bill Of Materials No.'s	P3E021-000 Rev 003 P3E021-003 Rev 001
IP Rating	IP54
Insulation Protective Class	Class II
LED Pulse Constant	Configurable
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
Terminal Arrangement(s)	DIN
Location of Manufacturers Address	Associated Documents



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### 2. Photograph of Meter and Sealing Arrangement





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### 3. Photograph of Meter and Sealing Arrangement (cont)





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4. Name-plate

# Prometer 100

### S.No.:

Type : P3E, Year : 2014 3x57.7/100... 3x240/415 V (3P4W)\* 2x100...120 V (3P3W)\* -25 deg. C to +55 deg. C, 50/60 Hz L1: Active, L2: Reactive\*, 0.01-1(10) A\* Meter Constant: \*, Ct C Aux 1 (~): 60-240 V AC/DC +/- 20%, 50/60 Hz Aux 2 (~): 60-240 V AC/DC +/- 20%, 50/60 Hz Configurable Pulse I/O: 4, Pulse O/P: 7



EN50470-1 EN50470-3 FW Version\*

C.	T:	
V	Γ:	



\*Refer display 'fixed page' for parameter configured.



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### 5. Influence factors for temperature, frequency and voltage

		Influenc	e Factors	for Tempe	rature. Fre	equency &	Voltage
Current	PF Cos	-25℃	-10℃	5℃	30 <i>°</i> C	40 <i>°</i> C	55 <i>°</i> C
Imin	1.0	0.09	0.08	0.10	0.12	0.14	0.15
ltr	1.0	0.05	0.03	0.02	0.04	0.05	0.06
10ltr	1.0	0.06	0.05	0.03	0.03	0.03	0.03
Imax	1.0	0.05	0.05	0.03	0.02	0.02	0.03
ltr	0.5ind	0.32	0.31	0.26	0.15	0.12	0.17
10ltr	0.5ind	0.16	0.15	0.12	0.09	0.08	0.07
Imax	0.5ind	0.12	0.10	0.09	0.06	0.05	0.05
Itr	0.8cap	0.05	0.14	0.08	0.04	0.09	0.17
10ltr	0.8cap	0.13	0.10	0.06	0.02	0.03	0.05
Imax	0.8cap	0.13	0.11	0.08	0.06	0.06	0.08
					0.00	0.00	0.00
L1							
ltr	1.0	0.06	0.06	0.04	0.05	0.05	0.07
10ltr	1.0	0.03	0.03	0.02	0.02	0.02	0.04
Imax	1.0	0.03	0.02	0.02	0.02	0.02	0.04
					0.40		
ltr	0.5ind	0.30	0.26	0.22	0.13	0.14	0.24
10ltr	0.5ind	0.15	0.12	0.12	0.03	0.03	0.04
Imax	0.5ind	0.13	0.10	0.07	0.03	0.04	0.06
1.0							
LZ Itu	10	0.05	0.05	0.05	0.00	0.00	0.10
	1.0	0.05	0.05	0.05	0.06	0.08	0.10
	1.0	0.08	0.05	0.03	0.03	0.03	0.05
Imax	1.0	0.06	0.04	0.02	0.02	0.04	0.05
ltr	0 5ind	0.40	0.30	0.21	0.20	0.10	0.21
10ltr	0.5ind	0.40	0.00	0.01	0.20	0.13	0.21
Imay	0.5ind	0.11	0.12	0.10	0.00	0.07	0.00
IIIIax	0.5110	0.00	0.07	0.00	0.04	0.04	0.00
L3							
ltr	1.0	0.07	0.07	0.07	0.07	0.07	0.10
10ltr	1.0	0.06	0.04	0.04	0.04	0.04	0.05
Imax	1.0	0.06	0.04	0.03	0.02	0.02	0.03
ltr	0.5ind	0.39	0.35	0.31	0.19	0.16	0.27
10ltr	0.5ind	0.17	0.15	0.14	0.11	0.09	0.08
Imax	0.5ind	0.09	0.09	0.06	0.01	0.03	0.04

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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:-

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

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



Dated: 1<sup>st</sup> March 2019

#### 6. **Annex of Variants**

Product Variant Identification Details:





d Pulse

Modifications to the meter(s) described according to approval No.0120/ SGS0180 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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### 7. **Document Revision History**

Issue	Date	Comments
1	21/05/2015	Initial Issue
2	30/03/2017	New BOM rev umber due to minor hardware enhancements and alternative battery
3	09/06/2017	Firmware revision change from V31.00 to V32.00 due to Increase in Memory Storage. Reduction in Supply Burden Enhancements required as a result of reducing supply burden
4	01/12/2017	Manufacturers name change from Cewe Instruments AB to Secure Meters (Sweden) AB. Issued on updated certificate template.
5	01/03/2019	Updated meter codification table for base product Ethernet options. New two fixed pulsed output variant added. Minor component change in voltage measurement section.

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