



EC Type Examination Certificate Number: **0120/SGS0180**

Cewe Instrument AB

Box 1006
SE-11 29 Nykoping
Sweden

Instrument Identification:
Prometer 100, P3E

Instrument Traceable Number
0120/SGS0180

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

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

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 MI-003 of EC Directive 2004/22/EC

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex D or Annex F.

This certificate is valid for 10 years from 21st May 2015 to 20th May 2025
Issue 1

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

Authorised Signature

Jan Saunders

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Dated: 21st May 2015**1. Technical Data**

Manufacturer	Cewe Instrument AB
Meter Types	Prometer 100, P3E
Voltage Rating (U_n)	3 phase 4 wire: 3x57.7/100-240/415V 3 phase 3 wire: 2x100-120V
Current Rating (I_{min} – I_{ref} (I_{max}))	0.01-1(10)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	C(kWh)
Type of circuit	3p4w, 3p3w
Temperature Range	-25°C to +55°C
Software Version No.	V31.00
Identification Location	LCD Display
Bill Of Materials No.'s	P3E021-000
IP Rating	IP53
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


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2. Photograph of Meter and Sealing Arrangement

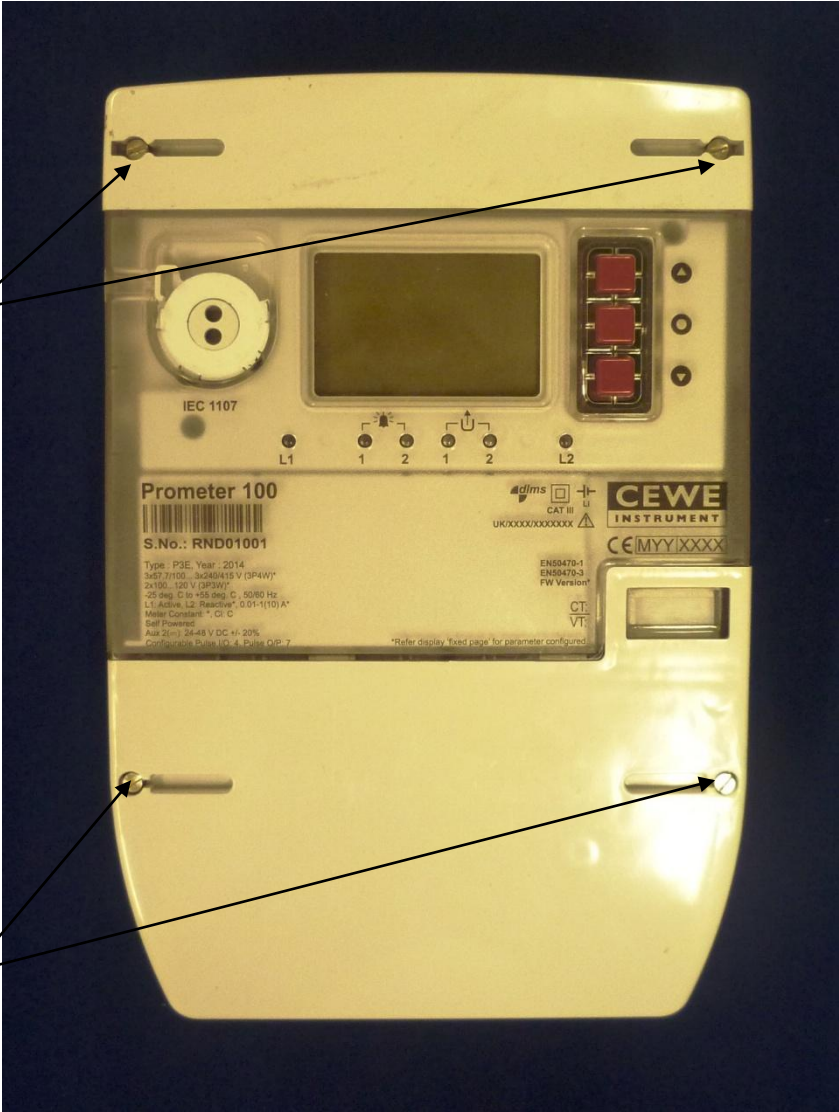


Main Cover Screws

Main Cover Screws


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3. Photograph of Meter and Sealing Arrangement (cont)



Battery Compartment
Cover Seals

Terminal Cover Seals

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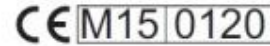
4. Name-plate

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: *, Cl: 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*

CT:
VT:



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4. Influence factors for temperature, frequency and voltage

		Influence Factors for Temperature. Frequency & Voltage					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	0.09	0.08	0.10	0.12	0.14	0.15
I _{tr}	1.0	0.05	0.03	0.02	0.04	0.05	0.06
10I _{tr}	1.0	0.06	0.05	0.03	0.03	0.03	0.03
I _{max}	1.0	0.05	0.05	0.03	0.02	0.02	0.03
I _{tr}	0.5ind	0.32	0.31	0.26	0.15	0.12	0.17
10I _{tr}	0.5ind	0.16	0.15	0.12	0.09	0.08	0.07
I _{max}	0.5ind	0.12	0.10	0.09	0.06	0.05	0.05
I _{tr}	0.8cap	0.05	0.14	0.08	0.04	0.09	0.17
10I _{tr}	0.8cap	0.13	0.10	0.06	0.02	0.03	0.05
I _{max}	0.8cap	0.13	0.11	0.08	0.06	0.06	0.08
L1					0.00	0.00	0.00
I _{tr}	1.0	0.06	0.06	0.04	0.05	0.05	0.07
10I _{tr}	1.0	0.03	0.03	0.02	0.02	0.02	0.04
I _{max}	1.0	0.03	0.02	0.02	0.02	0.02	0.04
I _{tr}	0.5ind	0.30	0.26	0.22	0.13	0.14	0.24
10I _{tr}	0.5ind	0.15	0.12	0.12	0.03	0.03	0.04
I _{max}	0.5ind	0.13	0.10	0.07	0.03	0.04	0.06
L2							
I _{tr}	1.0	0.05	0.05	0.05	0.06	0.08	0.10
10I _{tr}	1.0	0.08	0.05	0.03	0.03	0.03	0.05
I _{max}	1.0	0.06	0.04	0.02	0.02	0.04	0.05
I _{tr}	0.5ind	0.40	0.39	0.31	0.20	0.19	0.21
10I _{tr}	0.5ind	0.11	0.12	0.10	0.08	0.07	0.08
I _{max}	0.5ind	0.08	0.07	0.08	0.04	0.04	0.03
L3							
I _{tr}	1.0	0.07	0.07	0.07	0.07	0.07	0.10
10I _{tr}	1.0	0.06	0.04	0.04	0.04	0.04	0.05
I _{max}	1.0	0.06	0.04	0.03	0.02	0.02	0.03
I _{tr}	0.5ind	0.39	0.35	0.31	0.19	0.16	0.27
10I _{tr}	0.5ind	0.17	0.15	0.14	0.11	0.09	0.08
I _{max}	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:-

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

where

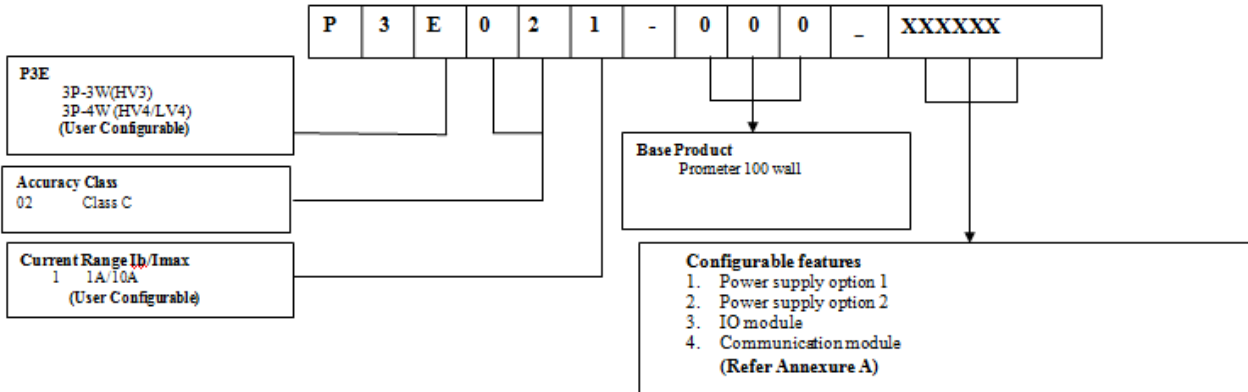
- $\delta e(T, I, \cos\phi) =$ Additional error due to variation of the temperature at the same load
- $\delta e(U, I, \cos\phi) =$ Additional error due to variation of the voltage at the same load
- $\delta e(f, I, \cos\phi) =$ Additional error due to variation of the frequency at the same load

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5. Annex of Variants


Product Variant Identification Details:

CATCODE SPECIFICATION FOR Prometer 100



Annexure A

Features	Variants	
Power supply option	Power supply 1	Self powered or Auxiliary power supply-1 60-240VAC/DC ±20%
	Power supply 2	Auxiliary power supply-2 60-240VAC/DC ±20% or Auxiliary power supply-2 24-48VDC ±20%
Communication module option	RS 232 (Maximum Baud rate 57.6kbps)	
	RS 485 (Maximum Baud rate 57.6kbps)	
Pulse Input/output option	No IO	
	4 Field Configurable Pulse I/O AC/DC rated 24 to 240 V	
	4 Field Configurable Pulse I/O AC/DC rated 24 to 240 V	+ 7 fixed Pulse output AC/DC rated 24 to 240 V

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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).

6. Document Revision History

Issue	Date	Comments
1	21/05/2015	Initial Issue