



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

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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 | 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 |


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2. Photograph of Meter and Sealing Arrangement

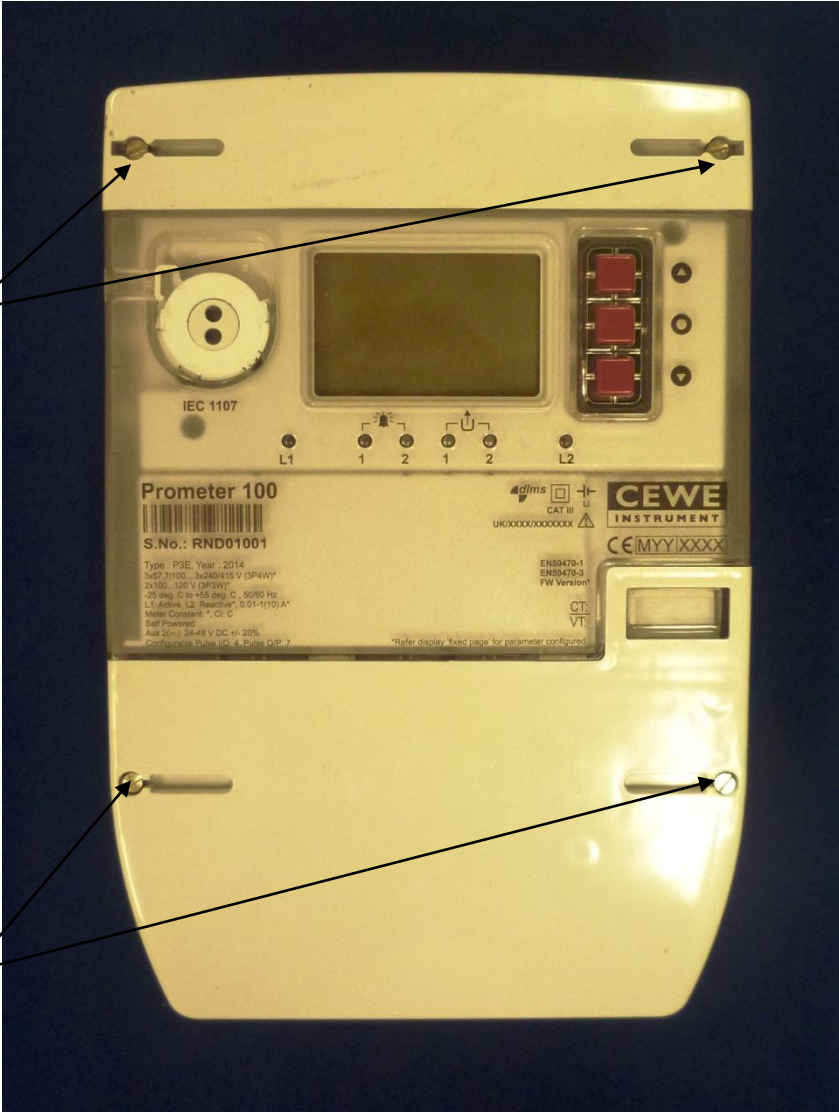


Main Cover Screws

Main Cover Screws


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|---|---|----------------------------------|
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3. Photograph of Meter and Sealing Arrangement (cont)



Battery Compartment
Cover Seals

Terminal Cover Seals

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|---|---|----------------------------------|
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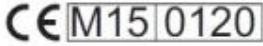
4. Name-plate

Prometer 100



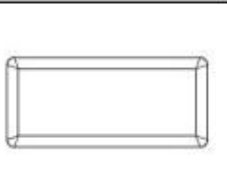
S.No.:

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:



*Refer display 'fixed page' for parameter configured.



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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

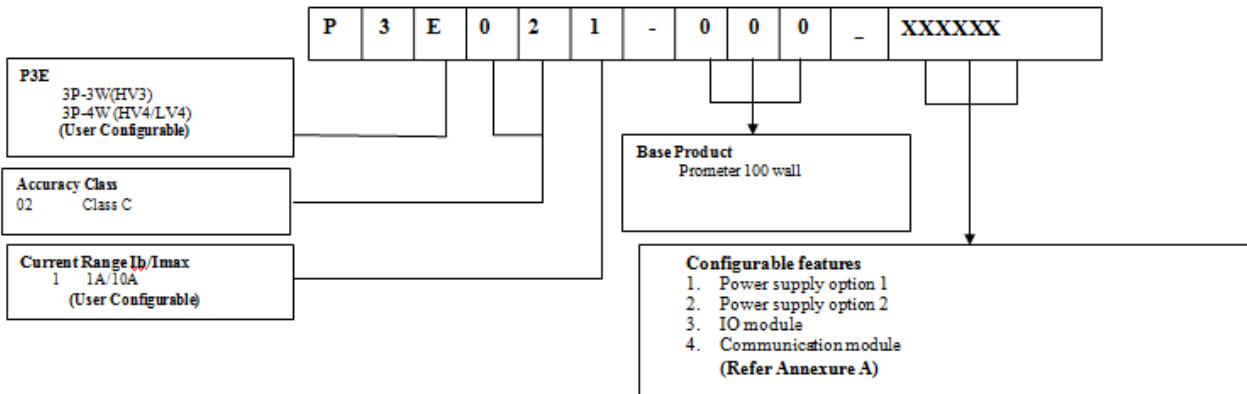
- $\delta e(T, I, \cos\phi) =$ Additional error due to variation of the temperature at the same load
- $\delta e(U, I, \cos\phi) =$ Additional error due to variation of the voltage at the same load
- $\delta e(f, I, \cos\phi) =$ Additional error due to variation of the frequency at the same load

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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 |