

EC Type Examination Certificate Number: **0120/ SGS0036**

Cewe Instrument AB

Box 1006
SE 61129
Nyköping
Sweden

Instrument Identification:

CewePrometer-W

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

Instrument Traceable Number

0120/ SGS0036

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

on 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 2nd October 2009 until 1st October 2019

Issue 4

Certification is based on report number(s)
EMA125852 dated 29th September 2009
EMA137699 dated 6th September 2010


Authorised Signature

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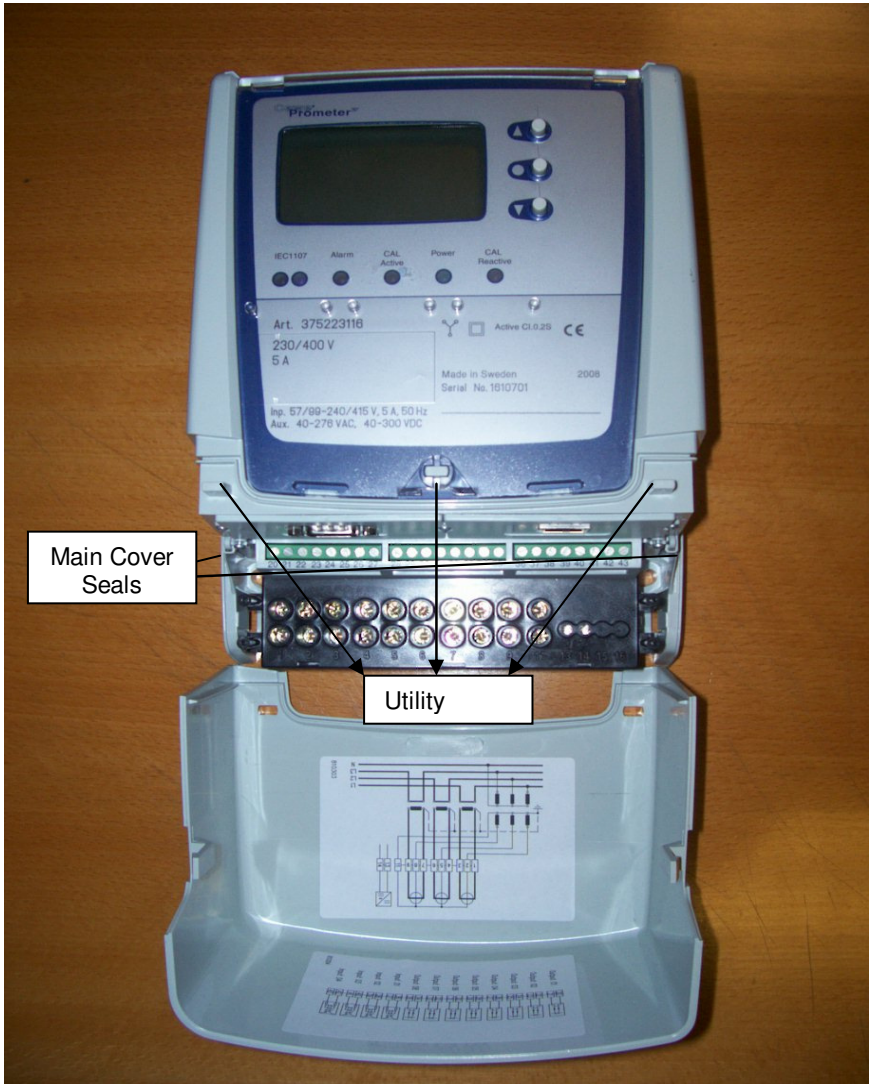
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1. Technical Data

Manufacturer	Cewe Instrument AB
Meter Type	CewePrometer-W
Voltage Rating (U_n)	57/ 99V -240/ 415V (3p4w) 100 – 240V (3p3w)
Current Rating ($I_{min} - I_n(I_{max})$)	0,01-1(2)A 0,01-1(6)A 0,01-1(2)A or 0,05-5(10)A User Programmable (Current Range Variant 4 only)
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	B or C (kWh)
Type of circuit	3p3w or 3p4w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No Identification Location	2.0, 2.1 or 3.0 Nameplate
Bill Of Materials Number	376213116
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	User Programmable
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

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2. Photograph of Meter and Sealing Plan



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3. Calculation of the composite error/ MPE

In addition to the accuracy requirements the composite error e_c of the meter is shown below

The composite error at a certain load is calculated from the following formula:

$$e_c = \sqrt{e^2(l.\cos\theta) + e^2(T.l.\cos\theta) + e^2(U.l.\cos\theta) + e^2(f.l.\cos\theta)}$$

where

$e^2(l.\cos\theta)$	=	Intrinsic error of meter at a certain load
$e^2(T.l.\cos\theta)$	=	Additional error due to variation of the temperature at the same load
$e^2(U.l.\cos\theta)$	=	Additional error due to variation of the voltage at the same load
$e^2(f.l.\cos\theta)$	=	Additional error due to variation of the frequency at the same load

Ambient Temperature Range 5 to 30 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	-0.06	-0.07	-0.01	-0.01	0.09
Itr	1.0	-0.02	-0.05	-0.01	0.00	0.05
10Itr	1.0	-0.02	-0.06	-0.01	-0.01	0.06
I _{max}	1.0	-0.01	-0.05	-0.01	0.00	0.05
Itr	0.5ind	0.02	-0.02	-0.06	-0.03	0.07
10Itr	0.5ind	0.01	-0.03	-0.05	-0.02	0.06
I _{max}	0.5ind	-0.03	-0.06	-0.05	-0.02	0.09
Itr	0.8cap	-0.07	-0.11	-0.04	-0.02	0.14
10Itr	0.8cap	-0.05	-0.08	-0.04	-0.02	0.10
I _{max}	0.8cap	0.00	-0.05	-0.02	0.01	0.05

Ambient Temperature Range -10 to 40 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	-0.06	-0.07	-0.01	-0.01	0.09
Itr	1.0	-0.02	-0.05	-0.01	0.00	0.05
10Itr	1.0	-0.02	-0.06	-0.01	-0.01	0.06
I _{max}	1.0	-0.01	-0.05	-0.01	0.00	0.05
Itr	0.5ind	0.02	-0.02	-0.06	-0.03	0.07
10Itr	0.5ind	0.01	-0.03	-0.05	-0.02	0.06
I _{max}	0.5ind	-0.03	-0.06	-0.05	-0.02	0.09
Itr	0.8cap	-0.07	-0.11	-0.04	-0.02	0.14
10Itr	0.8cap	-0.05	-0.08	-0.04	-0.02	0.10
I _{max}	0.8cap	0.00	-0.05	-0.02	0.01	0.05



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Ambient Temperature Range -25 to 55 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	-0.06	-0.07	-0.01	-0.01	0.09
Itr	1.0	-0.02	-0.05	-0.01	0.00	0.05
10ltr	1.0	-0.02	-0.06	-0.01	-0.01	0.06
Imax	1.0	-0.01	-0.05	-0.01	0.00	0.05
Itr	0.5ind	0.02	-0.02	-0.06	-0.03	0.07
10ltr	0.5ind	0.01	-0.03	-0.05	-0.02	0.06
Imax	0.5ind	-0.03	-0.06	-0.05	-0.02	0.09
Itr	0.8cap	-0.07	-0.11	-0.04	-0.02	0.14
10ltr	0.8cap	-0.05	-0.08	-0.04	-0.02	0.10
Imax	0.8cap	0.00	-0.05	-0.02	0.01	0.05

Results taken from:-

Report: EMA137699

Dated: 6th September 2010

Sample: 1775801


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4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter	
Product group CewePrometer-W		37
Accuracy class		
C 2-element (3wire) measuring		1
B 2-element (3wire) measuring		2
C 3-element (4wire) measuring		6
B 3-element (4wire) measuring		7
Measuring module		
<i>3-element meter</i>	<i>2-element meter</i>	
3x57/99 – 240/415 V	50 Hz	2
	3x100 – 240 V 50 Hz	8
Current		
1(2) A		0
1(6) A		1
1(2)A or 5(10)A User Programmable (Firmware Version 3.0 Only)		4
Auxiliary supply		
Selfpowered		2
40–276 VAC/DC	<i>Single aux. supply</i>	3
I/O module		
CewePrometer-W		
No inputs and no outputs		0
4 inputs and 8 outputs		1
Communication		
No communication		10
RS422 + RS232		11
RS422 + RS422		12
RS232 + RS232		13
RS422		14
RS232		15
RS232 + Ethernet		16
RS422 + Ethernet		17
Ethernet		18

Modifications to the meter(s) described according to approval No. **0120/ SGS0036** 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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5. Document Revision History

Issue	Date	Comments
1	02/10/2009	Initial Issue
2	06/09/2010	New Firmware Version 2.1 and a hardware minor modification
3	07/10/2010	New Firmware Version 3.0 - Added the user programmable Current Range feature.
4	08/08/2011	Reformat of certificate