EU Type Examination Certificate Number: **0120/SGS0282**

AHLSELL AB

117 98 Stockholm
Sweden

Instrument Identification:
EM111 E09 100 01

Instrument Traceable Number
0120/SGS0282

Single Phase, Active Import (kWh), Multifunction, Indoor, Electricity Meter

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 EC 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 12th May 2025
Issue 1

Certification is based on report number(s) SHES141200635301 dated 13th May 2015
SHES150900545001 dated 21st September 2015
SHES160600519301 dated 18th July 2016
EMA203276
EMA235353

Authorised Signature

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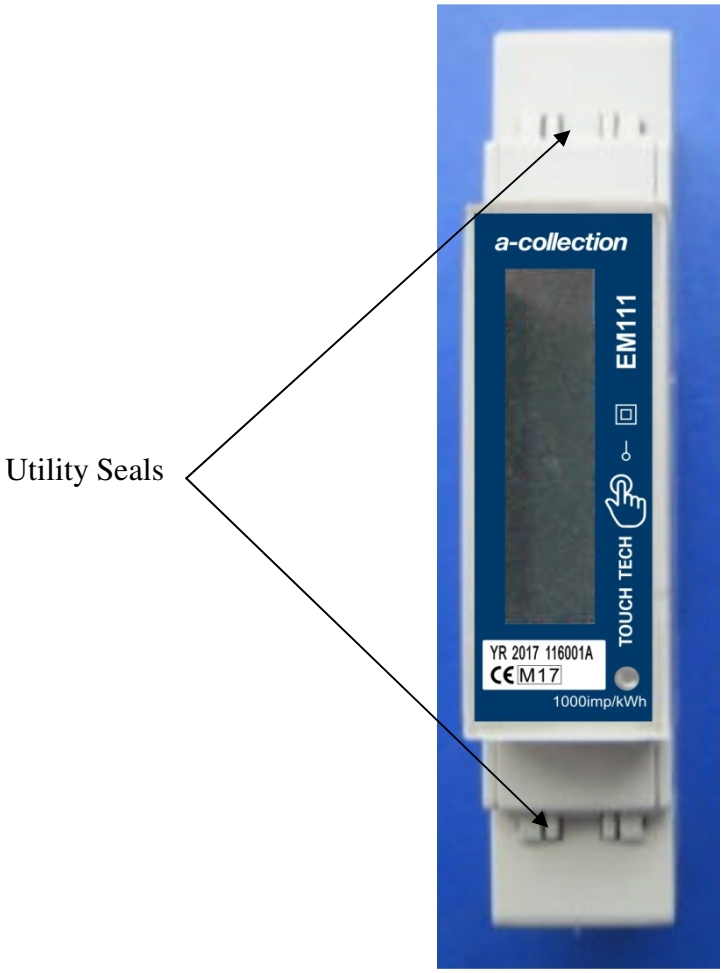
	EU-Type Examination Certificate Number:	
	0120/ SGS0282	
	Issue Number: 1	Dated: 22nd February 2017

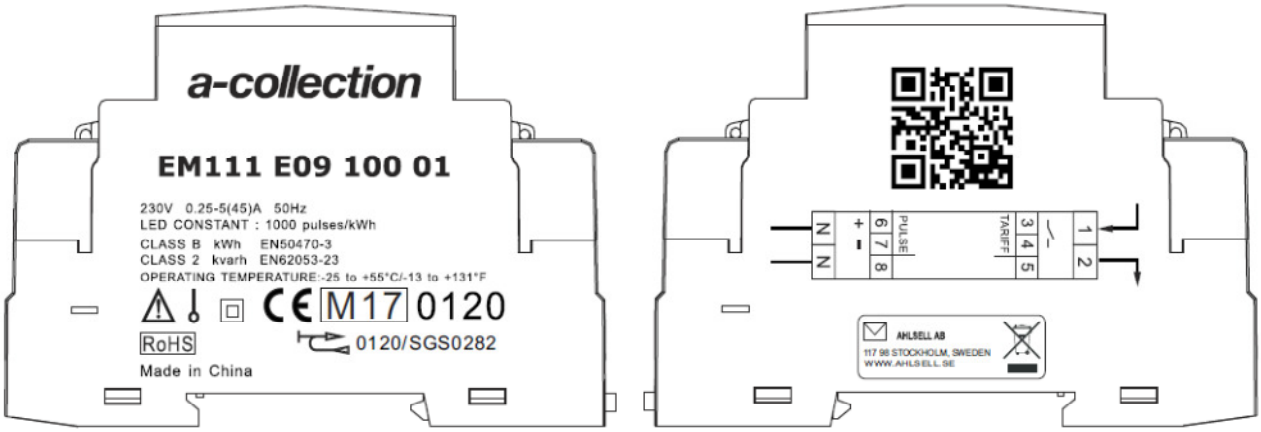
1. Technical Data

Manufacturer	AHLSELL AB
Meter Type(s)	EM111 E09 100 01
Voltage Rating *(Un)*	230V
Current Rating *(Imin – Iref (Imax))*	0.25-5(45)A
Frequency *(Fn)*	50Hz
Active Accuracy Class *(kWh)*	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software Version No's. **Identification Location**	AA.03 LCD
Bill Of Materials No.'s	NZD116010-02
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/kWh
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
Location of Manufacture address	Side of the meter

2. Photograph of Meter and Sealing Plan



3. Name-plates



4. Influence factors for temperature, frequency and voltage

Current	**PF Cos**	-25 °C	-10 °C	5 °C	30 °C	40 °C	55 °C
Imin	1.0	0.50	0.52	0.35	0.25	0.25	0.24
Itr	1.0	0.50	0.48	0.33	0.24	0.22	0.21
10Itr	1.0	0.48	0.45	0.31	0.23	0.20	0.16
Imax	1.0	0.51	0.49	0.39	0.34	0.32	0.28
Itr	0.5ind	0.46	0.46	0.29	0.21	0.19	0.21
10Itr	0.5ind	0.42	0.39	0.27	0.20	0.15	0.12
Imax	0.5ind	0.47	0.47	0.37	0.33	0.29	0.26
Itr	0.8cap	0.53	0.51	0.35	0.25	0.24	0.22
10Itr	0.8cap	0.52	0.48	0.34	0.26	0.22	0.18
Imax	0.8cap	0.55	0.52	0.42	0.37	0.34	0.31

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:-

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

where

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

5. Annex of Variants

Product Variant Identification Details:

Type Designation	**Description of meter**
EM111 E09 100 01	230V, 0.25-5(45)A, Active Import/Export (kWh), Pulse Output

Modifications to the meter(s) described according to approval No.**0120/ SGS0282** 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	22/02/2017	Initial Issue