



# SGS

EU Type Examination Certificate Number: **0120/SGS0298**

## **POLIER INGENIERIE**

11 Square Marcel Fournier  
92130 Issy Les Moulineaux  
France

Instrument Identification:  
**MM100 Series**

**Single phase, Active Import/Export (kWh), Electricity Meter**

Instrument Traceable Number  
**0120/SGS0298**

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 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 11<sup>th</sup> October 2026  
Issue1

Certification is based on report number(s) SHES1601000434001 dated 10<sup>th</sup> October 2016  
EMA228674  
EMA238978

Authorised Signature

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EU Type Examination Cert.

SGSPAPER  
19022040



	EU-Type Examination Certificate Number:	
	<b>0120/SGS0298</b>	
	Issue Number: 1	Dated: 23 <sup>rd</sup> May 2018

## 1. Technical Data

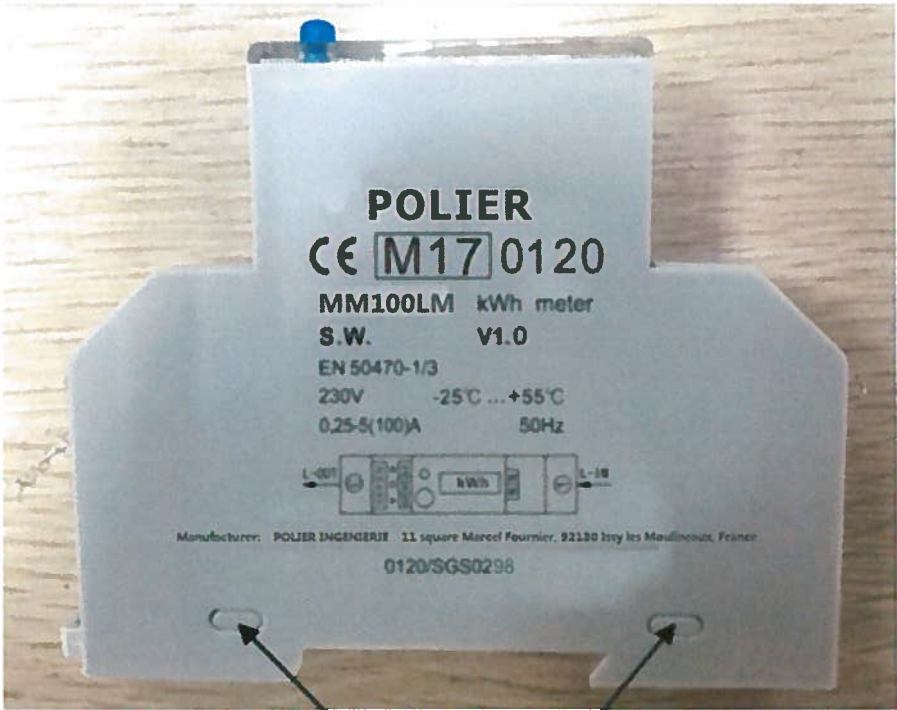
<b>Manufacturer</b>	POLIER INGENIERIE
<b>Meter Type</b>	MM100LM MM100LMOD MM100LMODMT
<b>Voltage Rating (<math>U_n</math>)</b>	230V
<b>Current Rating (<math>I_{min} - I_{ref} (I_{max})</math>)</b>	0.25-5(30)A, 0.25-5(32)A, 0.25-5(40)A, 0.25-5(45)A, 0.25-5(50)A, 0.25-5(60)A, 0.25-5(80)A, 0.25-5(100)A
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (kWh)</b>	B (kWh)
<b>Type of circuit</b>	1p2w
<b>Temperature Range</b>	-25°C to +55°C
<b>Software/ Firmware Version No</b>	MM100LM: V1.0 MM100LMOD: V1.0 MM100LMODMT: V1.1
<b>Identification Location</b>	LCD & Nameplate
<b>Bill Of Materials Number</b>	MM100LM: D118018 MM100LMOD: D118019 MM100LMODMT: D113022
<b>IP Rating</b>	IP51
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	100imp/kWh, 1000imp/kWh, 2000imp/kWh
<b>Impulse Voltage Rating</b>	6kV
<b>AC Voltage Rating</b>	4kV
<b>Main Cover Sealing Type</b>	Wire & Crimp
<b>Integrity of meter</b>	Inaccessible without breaking seal
<b>Intended Location of the Meter</b>	Indoor
<b>Type of Register</b>	LCD
<b>Terminal Arrangement(s)</b>	DIN
<b>Location of Manufacturers Address</b>	Side of the meter and associated documentation

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**2. Photograph of Meter and Sealing Plan**



Terminal cover  
sealing points

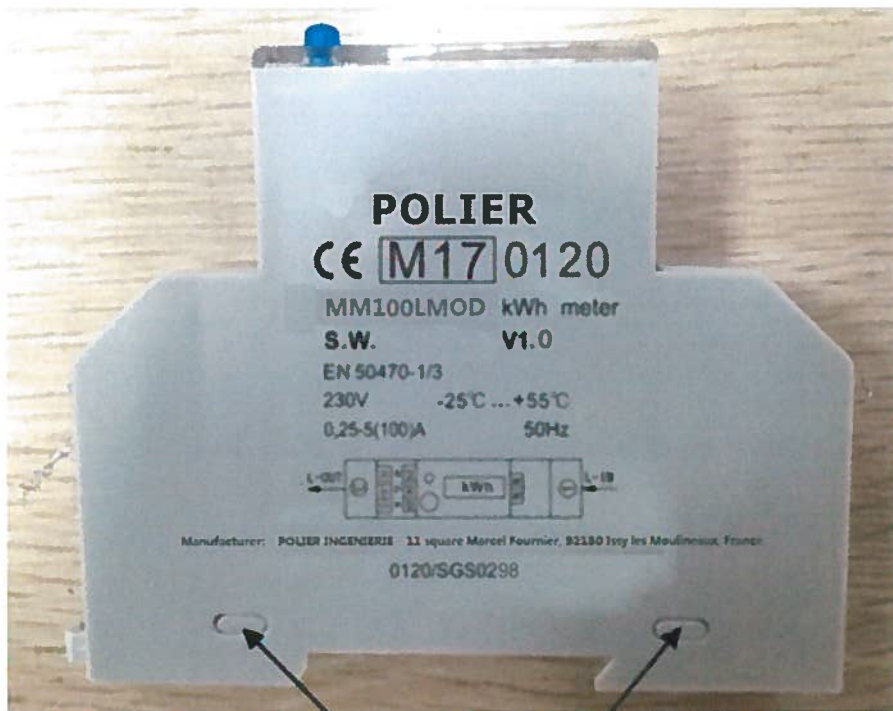


Main over cover  
sealing points





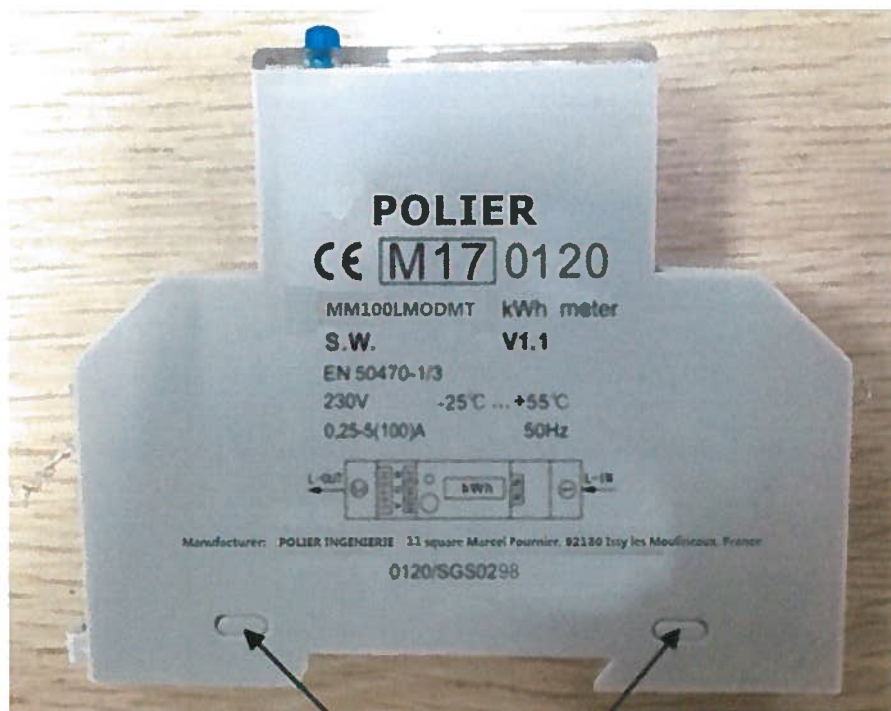
Terminal cover  
sealing points



Main over cover  
sealing points

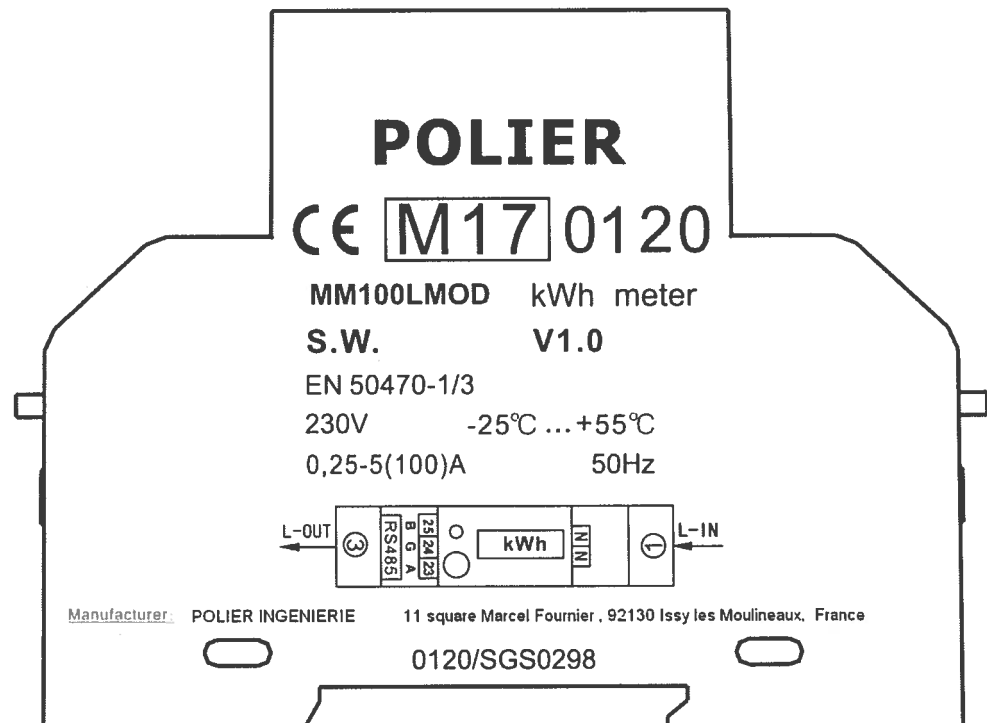
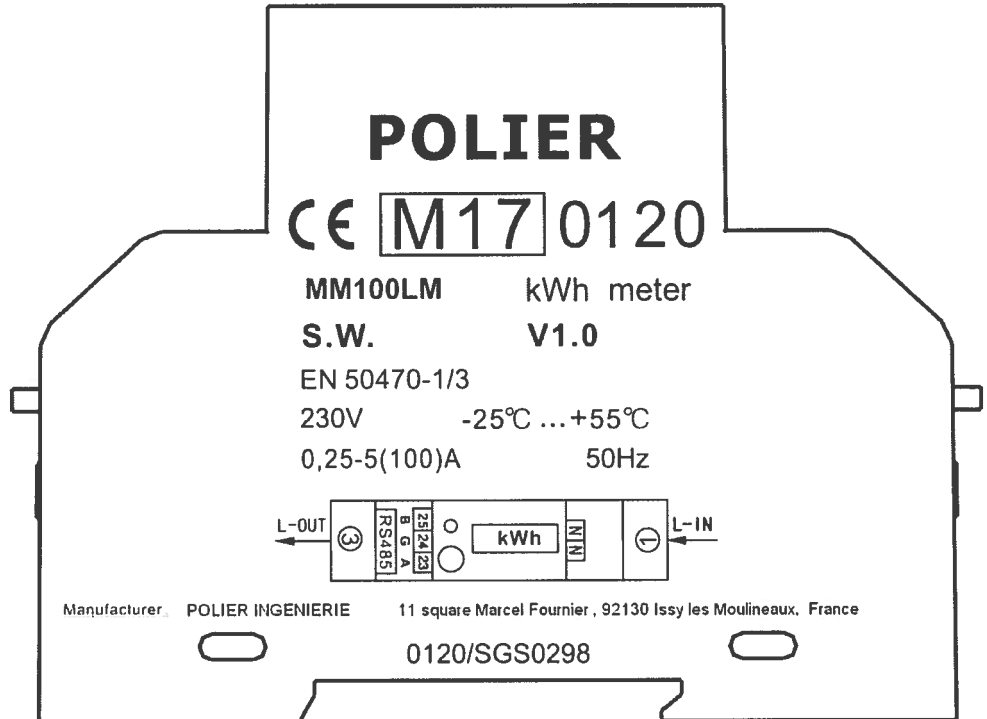


Terminal cover  
sealing points



Main over cover  
sealing points

**3. Examples of Nameplates**



# SGS

EU-Type Examination Certificate Number:

## 0120/SGS0298

Issue Number: 1

Dated: 23<sup>rd</sup> May 2018



# POLIER

## CE M17 0120

MM100LMODMT kWh meter

S.W. V1.1

EN 50470-1/3


230V -25°C ... +55°C

0,25-5(100)A 50Hz



Manufacturer: POLIER INGENIERIE 11 square Marcel Fournier, 92130 Issy les Moulineaux, France

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#### 4. Calculation of the composite error/ MPE

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table below 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

		Influence Factors for Temperature, Voltage & Frequency					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I <sub>min</sub>	1.0	<b>0.58</b>	<b>0.38</b>	<b>0.23</b>	<b>0.11</b>	<b>0.21</b>	<b>0.45</b>
I <sub>tr</sub>	1.0	<b>0.50</b>	<b>0.40</b>	<b>0.21</b>	<b>0.10</b>	<b>0.24</b>	<b>0.44</b>
10I <sub>tr</sub>	1.0	<b>0.52</b>	<b>0.37</b>	<b>0.23</b>	<b>0.09</b>	<b>0.23</b>	<b>0.43</b>
I <sub>max</sub>	1.0	<b>0.48</b>	<b>0.37</b>	<b>0.25</b>	<b>0.12</b>	<b>0.20</b>	<b>0.39</b>
I <sub>tr</sub>	0.5ind	<b>0.51</b>	<b>0.38</b>	<b>0.25</b>	<b>0.16</b>	<b>0.28</b>	<b>0.45</b>
10I <sub>tr</sub>	0.5ind	<b>0.53</b>	<b>0.39</b>	<b>0.23</b>	<b>0.13</b>	<b>0.25</b>	<b>0.44</b>
I <sub>max</sub>	0.5ind	<b>0.49</b>	<b>0.39</b>	<b>0.27</b>	<b>0.19</b>	<b>0.26</b>	<b>0.42</b>
I <sub>tr</sub>	0.8cap	<b>0.55</b>	<b>0.39</b>	<b>0.24</b>	<b>0.15</b>	<b>0.27</b>	<b>0.47</b>
10I <sub>tr</sub>	0.8cap	<b>0.52</b>	<b>0.38</b>	<b>0.24</b>	<b>0.15</b>	<b>0.24</b>	<b>0.46</b>
I <sub>max</sub>	0.8cap	<b>0.49</b>	<b>0.39</b>	<b>0.27</b>	<b>0.17</b>	<b>0.23</b>	<b>0.40</b>




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## 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
MM100LM	230V, 0.25-5(30)A - 0.25-5(100)A, 100imp/kWh, 1000imp/kWh, 2000imp/kWh, Single Tariff
MM100LMOD	230V, 0.25-5(30)A - 0.25-5(100)A, 100imp/kWh, 1000imp/kWh, 2000imp/kWh, Single Tariff + Modbus Module
MM100LMODMT	230V, 0.25-5(30)A - 0.25-5(100)A, 100imp/kWh, 1000imp/kWh, 2000imp/kWh, Multi-rate + Modbus Module

Modifications to the meter(s) described according to approval No.**0120/SGS0298** 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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## 6. Document Revision History

Issue	Date	Comments
1	23/05/2018	Initial Issue

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