EU Type Examination Certificate Number: **0120/SGS0299**

POLIER INGENIERIE

11 Square Marcel Fournier
92130 Issy Les Moulineaux
France

Instrument Identification:
MTR80 Series

Polyphase, Active Import/Export (kWh), Electricity Meter

Instrument Traceable Number
0120/SGS0299

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 14th March 2027
Issue 1

Certification is based on report number(s) SHES151200818401 Dated 17th March 2017
EMA234429/1
EMA238979

Authorised Signature

SGS United Kingdom Limited, Notified Body 0120
Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA, UK
t +44 (0)1934 522917 f +44 (0)1934 522137 www.sgs.com

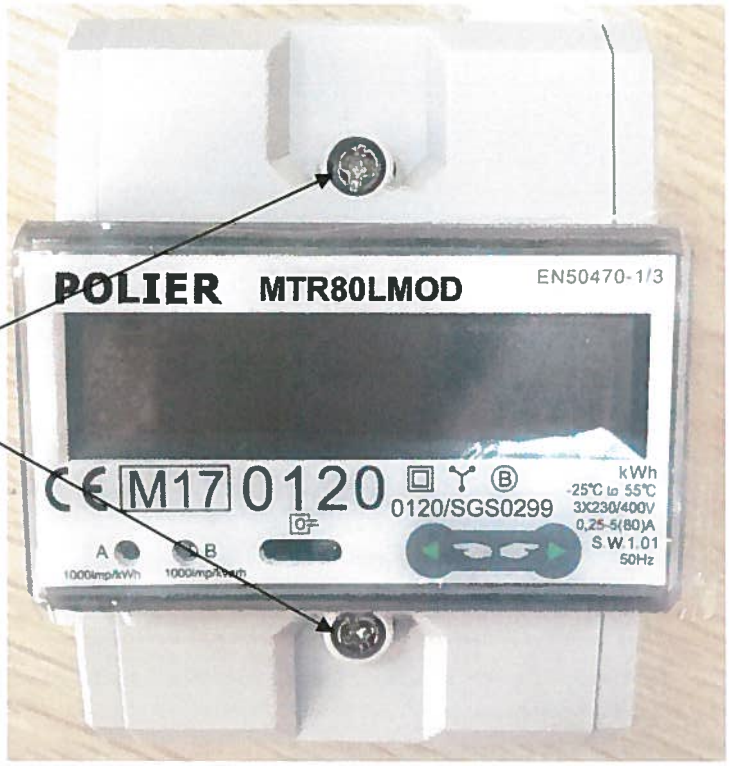
Contact Address
SGS United Kingdom Ltd, Units 12A & 12B, South Industrial Estate, Bowburn, Durham, DH6 5AD, UK
t +44 (0)191 377 2000 f +44 (0)191 377 2020 www.sgs.com

SGS	EU-Type Examination Certificate Number:	
	0120/SGS0299	
	Issue Number: 1	Dated: 23rd May 2018

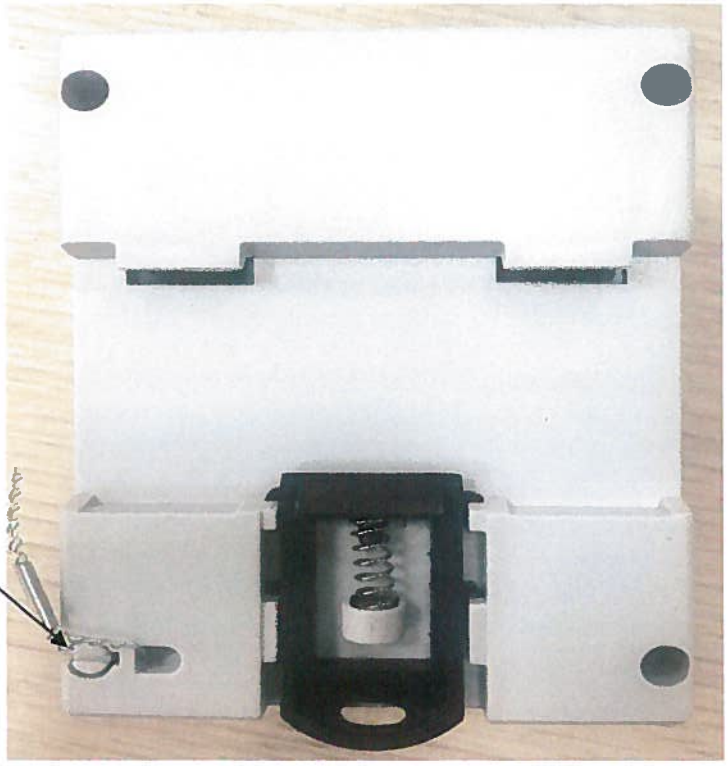
1. Technical Data

Manufacturer	POLIER INGENIERIE
Meter Types	MTR80LM MTR80LMOD MTR80LMODMT
Voltage Rating *(Un)*	3x230/400V
Current Rating *(Imin – Iref (Imax))*	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(80)A,
Frequency *(Fn)*	50Hz
Active Accuracy Class *(kWh)*	A or B (kWh)
Type of circuit	3P4W
Temperature Range	-25°C to +55°C
Software/ Firmware Version No's **Checksum** **Identification Location**	MTR80LM: V1.01 MTR80LMOD: V1.01 MTR80LMODMT: V1.01 91E4 LCD & Nameplate
Bill Of Materials Numbers	MTR80LM: D519032 MTR80LMOD: D519033 MTR80LMODMT: D519024
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	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of manufacturers address	User Manual

2. Photograph of Meter and Sealing Plan

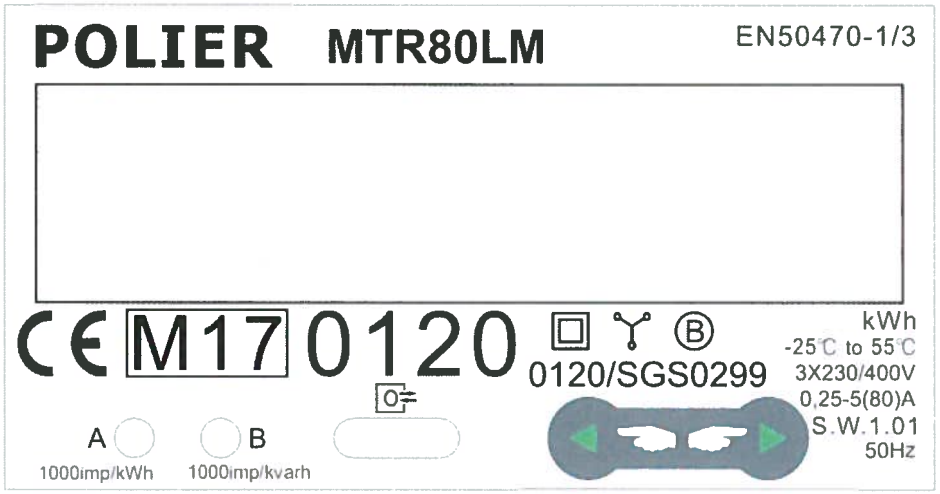


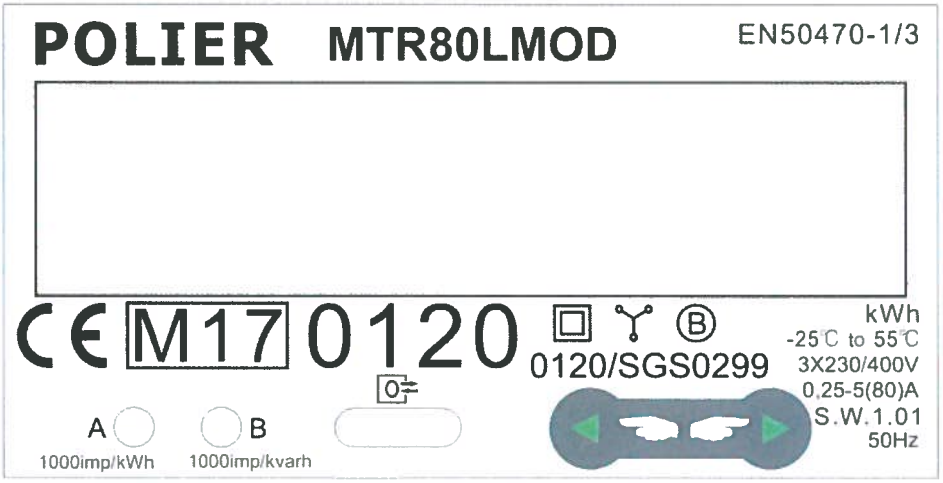
Terminal Cover Seals

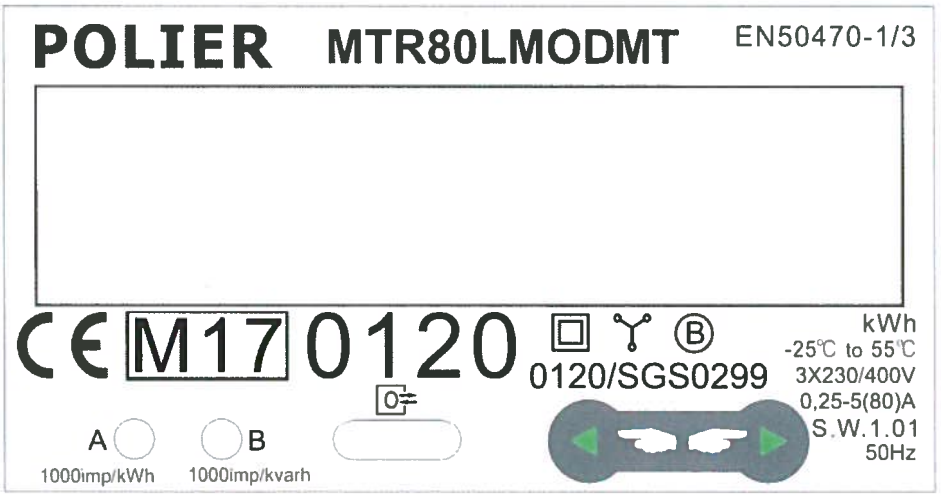


Main Cover Seal

3. Examples of Nameplates







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:-

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

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

		Influence Factors for Temperature. Frequency & Voltage					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
Imin	1.0	**0.38**	**0.25**	**0.13**	**0.08**	**0.17**	**0.29**
Itr	1.0	**0.38**	**0.27**	**0.14**	**0.07**	**0.16**	**0.31**
10Itr	1.0	**0.37**	**0.25**	**0.13**	**0.08**	**0.18**	**0.33**
Imax	1.0	**0.32**	**0.22**	**0.16**	**0.06**	**0.15**	**0.28**
Itr	0.5ind	**0.38**	**0.27**	**0.13**	**0.06**	**0.14**	**0.31**
10Itr	0.5ind	**0.36**	**0.24**	**0.11**	**0.09**	**0.19**	**0.35**
Imax	0.5ind	**0.30**	**0.21**	**0.14**	**0.05**	**0.15**	**0.31**
Itr	0.8cap	**0.37**	**0.26**	**0.14**	**0.07**	**0.17**	**0.33**
10Itr	0.8cap	**0.35**	**0.23**	**0.11**	**0.11**	**0.20**	**0.36**
Imax	0.8cap	**0.30**	**0.21**	**0.13**	**0.07**	**0.16**	**0.31**
L1							
Itr	1.0	**0.39**	**0.26**	**0.12**	**0.07**	**0.17**	**0.26**
10Itr	1.0	**0.39**	**0.25**	**0.11**	**0.09**	**0.18**	**0.29**
Imax	1.0	**0.30**	**0.21**	**0.13**	**0.06**	**0.15**	**0.26**
Itr	0.5ind	**0.39**	**0.26**	**0.12**	**0.09**	**0.15**	**0.30**
10Itr	0.5ind	**0.38**	**0.25**	**0.11**	**0.10**	**0.19**	**0.33**
Imax	0.5ind	**0.30**	**0.21**	**0.13**	**0.06**	**0.15**	**0.28**
L2							
Itr	1.0	**0.52**	**0.37**	**0.20**	**0.10**	**0.24**	**0.46**
10Itr	1.0	**0.51**	**0.35**	**0.17**	**0.12**	**0.26**	**0.49**
Imax	1.0	**0.45**	**0.33**	**0.21**	**0.08**	**0.21**	**0.42**
Itr	0.5ind	**0.54**	**0.36**	**0.20**	**0.08**	**0.22**	**0.44**
10Itr	0.5ind	**0.51**	**0.35**	**0.17**	**0.11**	**0.25**	**0.47**
Imax	0.5ind	**0.47**	**0.34**	**0.22**	**0.08**	**0.20**	**0.41**
L3							
Itr	1.0	**0.17**	**0.12**	**0.08**	**0.07**	**0.12**	**0.28**
10Itr	1.0	**0.15**	**0.12**	**0.06**	**0.05**	**0.13**	**0.27**
Imax	1.0	**0.09**	**0.09**	**0.07**	**0.04**	**0.10**	**0.23**
Itr	0.5ind	**0.16**	**0.12**	**0.06**	**0.05**	**0.09**	**0.26**
10Itr	0.5ind	**0.12**	**0.11**	**0.06**	**0.08**	**0.13**	**0.28**
Imax	0.5ind	**0.06**	**0.08**	**0.02**	**0.05**	**0.11**	**0.24**

5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
MTR80LM	3x230/400V, 0.25-5(x), energy measurement (kWh & kVarh), IR
MTR80LMOD	3x230/400V, 0.25-5(x), energy measurement (kWh & kVarh), IR, RS485 (Modbus Protocol)
MTR80LMODMT	3x230/400V, 0.25-5(x), energy measurement (kWh & kVarh), IR, RS485 (Modbus Protocol), Multi Tariff

Modifications to the meter(s) described according to approval No.**0120/SGS0299** 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	23/05/2018	Initial Issue

END OF CERTIFICATE