EU Type Examination Certificate Number: **0120/SGS0468**

Zhejiang Reallin Electron Co., Ltd

No.8 Shuangyang Rd
Renhe Town
Yuhang District
Hangzhou
China

Instrument Identification:
D3001

Three Phase, Import / Export, Electricity Meter

Instrument Traceable Number
0120/SGS0468

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 for 10 years from 15th October 2020 until 14th October 2030
Issue 2

Certification is based on report number(s)
SHES200601189201 dated 14th October 2020, SHES200601189201/iss 2 dated 13th November 2020
EMA282502/1/TR50579 dated 1st October 2020
EMA282502/1

Authorised Signature

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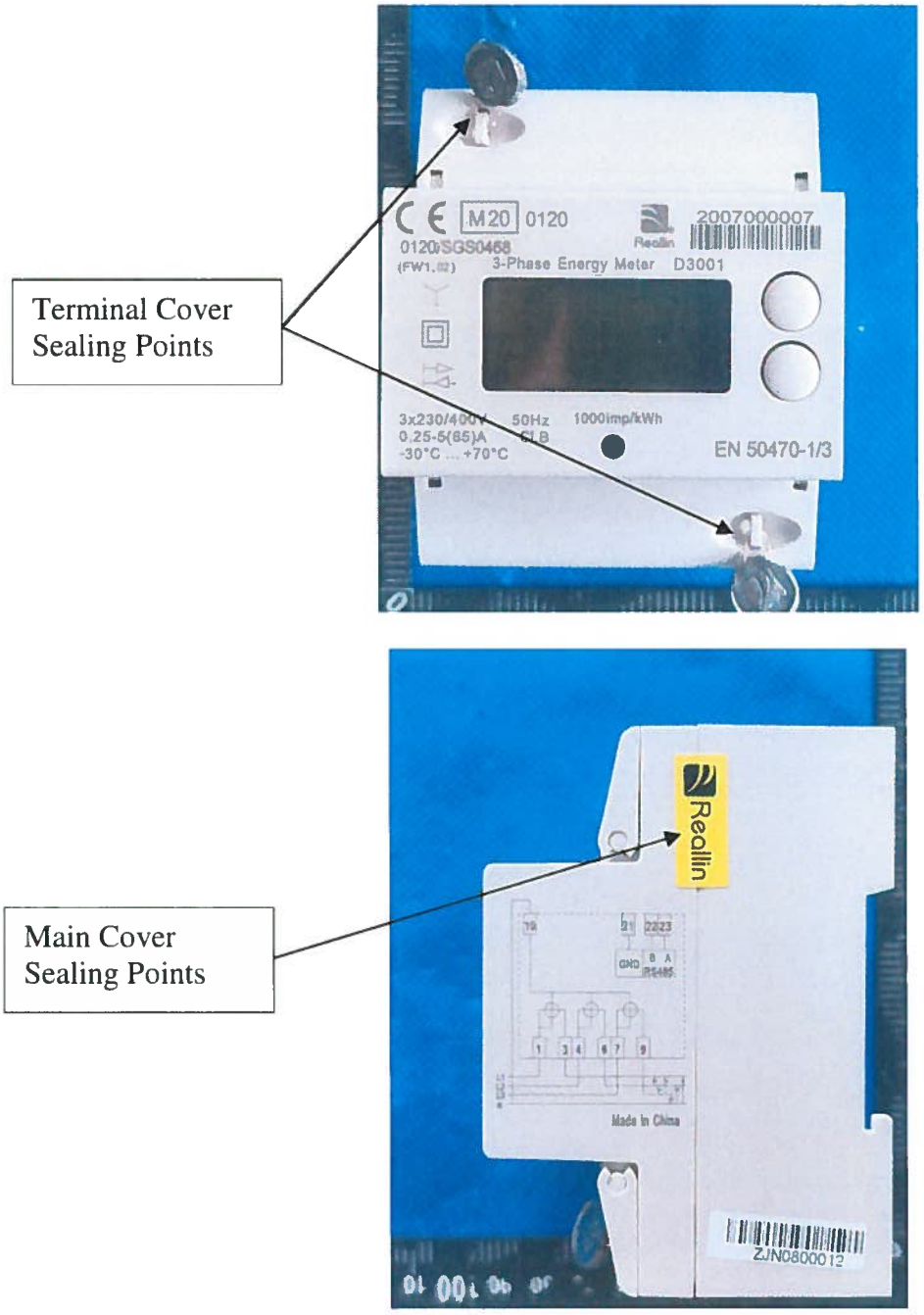
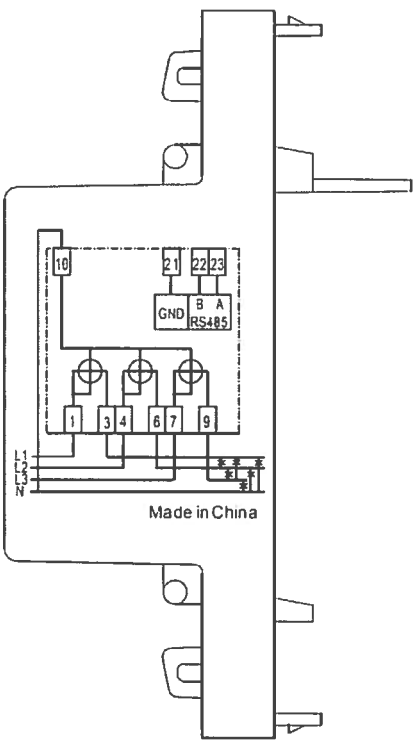
1. Technical Data

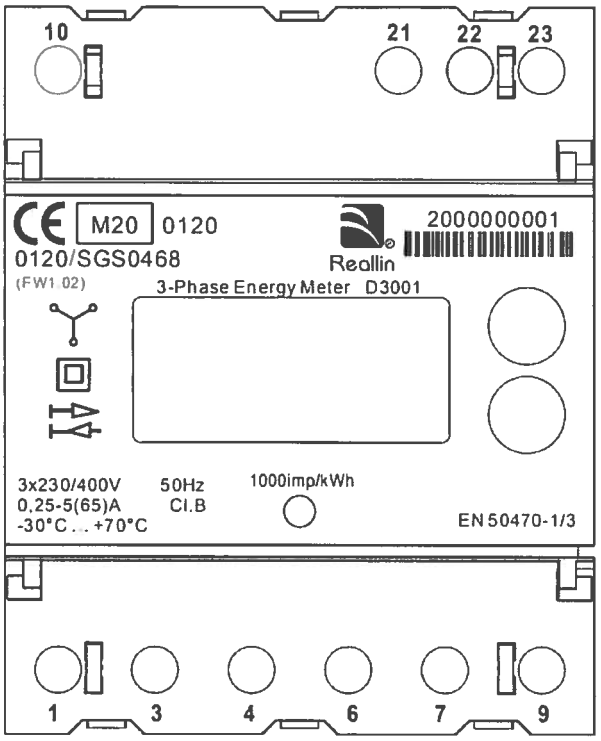
Manufacturer	Zhejiang Reallin Electron Co., Ltd
Meter Type	D3001
Voltage Rating *(Un)*	3*230/400V
Current Rating *(Imin – Iref (Imax))*	0.25-5(65)A
Frequency *(Fn)*	50Hz or 60Hz(IEC Only)
Active Accuracy Class *(kWh)*	A or B (kWh)
Type of circuit	3P4W
Temperature Range	-30°C to +70°C
Software/ Firmware Version No **CRC Checksum** **Identification Location**	1.02 C_7C12 LCD
Bill Of Materials Number	D3001 BOM List V1.1
IP Rating	Meter to be installed in a suitable IP rated cabinet
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/kWh
Impulse Voltage Rating	7kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Tamper Proof Sealing Tape
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Location of Manufacturers Address	Associated Documents

2. Photograph of Meter and Sealing Plan



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**	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
Imin	1.0	*0.76*	*0.52*	*0.31*	*0.16*	*0.10*	*0.13*	*0.20*	*0.30*
Itr	1.0	*0.74*	*0.50*	*0.29*	*0.15*	*0.06*	*0.09*	*0.18*	*0.28*
10Itr	1.0	*0.67*	*0.50*	*0.30*	*0.16*	*0.03*	*0.02*	*0.16*	*0.28*
Imax	1.0	*0.58*	*0.44*	*0.28*	*0.18*	*0.06*	*0.19*	*0.05*	*0.18*
Itr	0.5ind	*0.73*	*0.52*	*0.32*	*0.19*	*0.12*	*0.13*	*0.19*	*0.30*
10Itr	0.5ind	*0.70*	*0.46*	*0.28*	*0.14*	*0.06*	*0.09*	*0.18*	*0.31*
Imax	0.5ind	*0.59*	*0.48*	*0.33*	*0.24*	*0.14*	*0.07*	*0.03*	*0.03*
Itr	0.8cap	*0.73*	*0.53*	*0.33*	*0.17*	*0.08*	*0.11*	*0.15*	*0.29*
10Itr	0.8cap	*0.73*	*0.50*	*0.30*	*0.17*	*0.05*	*0.10*	*0.17*	*0.28*
Imax	0.8cap	*0.53*	*0.46*	*0.32*	*0.20*	*0.09*	*0.04*	*0.04*	*0.09*
L1									
Itr	1.0	*0.73*	*0.50*	*0.31*	*0.13*	*0.11*	*0.19*	*0.27*	*0.38*
10Itr	1.0	*0.72*	*0.51*	*0.30*	*0.15*	*0.13*	*0.22*	*0.28*	*0.39*
Imax	1.0	*0.57*	*0.44*	*0.29*	*0.17*	*0.07*	*0.13*	*0.22*	*0.26*
Itr	0.5ind	*0.84*	*0.58*	*0.43*	*0.30*	*0.20*	*0.24*	*0.19*	*0.15*
10Itr	0.5ind	*0.86*	*0.64*	*0.47*	*0.34*	*0.22*	*0.21*	*0.21*	*0.19*
Imax	0.5ind	*0.67*	*0.59*	*0.50*	*0.37*	*0.31*	*0.21*	*0.27*	*0.26*
L2									
Itr	1.0	*1.06*	*0.69*	*0.42*	*0.26*	*0.18*	*0.18*	*0.20*	*0.21*
10Itr	1.0	*1.05*	*0.67*	*0.39*	*0.23*	*0.16*	*0.18*	*0.18*	*0.17*
Imax	1.0	*0.71*	*0.51*	*0.31*	*0.18*	*0.17*	*0.24*	*0.27*	*0.43*
Itr	0.5ind	*0.97*	*0.68*	*0.44*	*0.34*	*0.33*	*0.35*	*0.33*	*0.32*
10Itr	0.5ind	*0.92*	*0.58*	*0.29*	*0.19*	*0.17*	*0.12*	*0.17*	*0.07*
Imax	0.5ind	*0.62*	*0.51*	*0.29*	*0.18*	*0.21*	*0.22*	*0.28*	*0.26*
L3									
Itr	1.0	*0.44*	*0.33*	*0.21*	*0.11*	*0.14*	*0.25*	*0.44*	*0.68*
10Itr	1.0	*0.55*	*0.32*	*0.21*	*0.11*	*0.10*	*0.25*	*0.41*	*0.66*
Imax	1.0	*0.22*	*0.26*	*0.18*	*0.09*	*0.09*	*0.18*	*0.34*	*0.54*
Itr	0.5ind	*0.34*	*0.30*	*0.17*	*0.13*	*0.36*	*0.55*	*0.74*	*0.92*
10Itr	0.5ind	*0.33*	*0.27*	*0.11*	*0.10*	*0.39*	*0.54*	*0.73*	*0.92*
Imax	0.5ind	*0.14*	*0.19*	*0.06*	*0.10*	*0.31*	*0.46*	*0.69*	*0.81*

5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
D3001	3*230/400V, 0.25-5(65)A, Active Import / Export kWh

Modifications to the meter(s) described according to approval No.**0120/SGS0468** 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	15/10/2020	Initial Issue
2	24/11/2020	Improved ESD protection, 60Hz frequency added for IEC range.

END OF CERTIFICATE