



EU Type Examination Certificate Number: **0120/SGS0311**

## **Zhejiang Risesun Science and Technology Co., Ltd.**

No. 4 Small Zone  
High & New Park  
Economic & Technical Development Zone  
Wenzhou City  
Zhejiang Province  
China

Instrument Identification:  
**WSZ12D-32A & WSZ12D-65A**

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

Instrument Traceable Number  
**0120/SGS0311**

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 4<sup>th</sup> September 2027  
Issue 1

Certification is based on report number(s) SHES170500381501 5<sup>th</sup> September 2017  
EMA243848/1  
EMM244840/1

Authorised Signature


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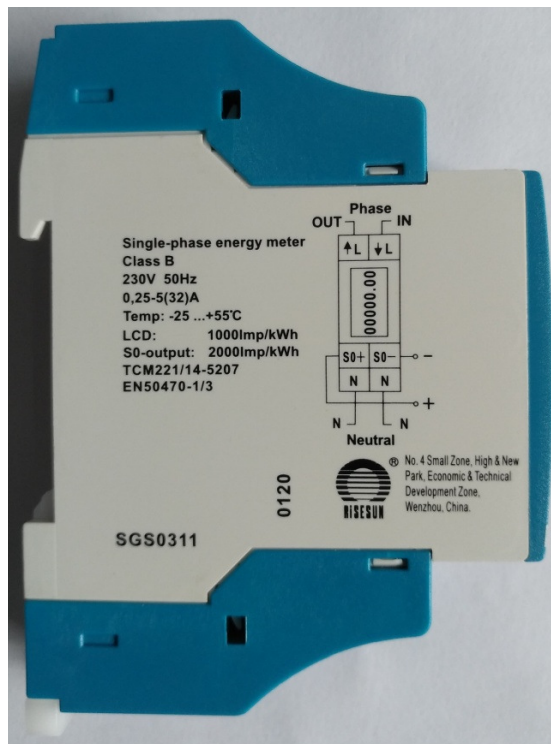
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	Issue Number: 1	Dated: 26 <sup>th</sup> September 2017

## 1. Technical Data

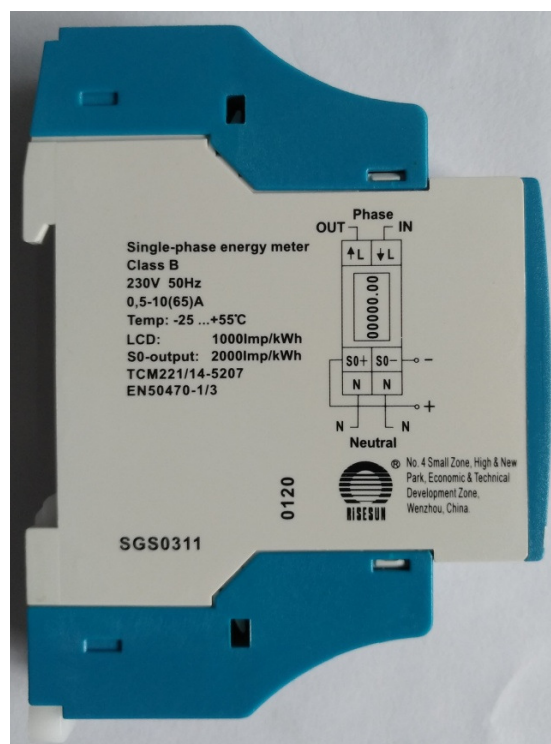
Manufacturer	Zhejiang Risesun Science and Technology Co., Ltd
Meter Type	WSZ12D-32A & WSZ12D-65A
Voltage Rating ( $U_n$ )	230V
Current Rating ( $I_{min}$ – $I_{ref}$ ( $I_{max}$ ))	0.25-5(32)A, 0.5-10(65)A
Frequency ( $F_n$ )	50Hz
Active Accuracy Class ( $kWh$ )	B( $kWh$ )
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No	RS217DR4-1MB-V10
CRC Checksum	0x1723
Identification Location	LCD
Bill Of Materials Number	5(32)A: RS2B-217DR4-1-001 10(65)A: RS2B-217DR4-1-002
IP Rating	The meter casing is only IP50 complaint. The meter MUST always be fitted into an IP51 approved enclosure.
Insulation Protective Class	Class II
LED Pulse Constant	2000imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Main cover clipped in place and sealed with tamper proof sealing tape
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	Nameplate

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## 2. Photograph of Meter and Sealing Plan



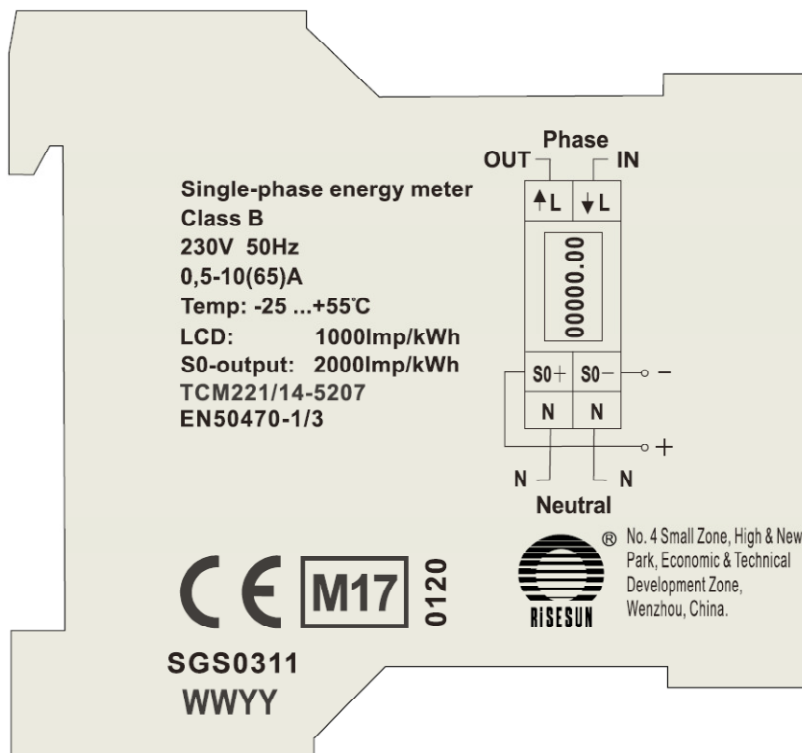
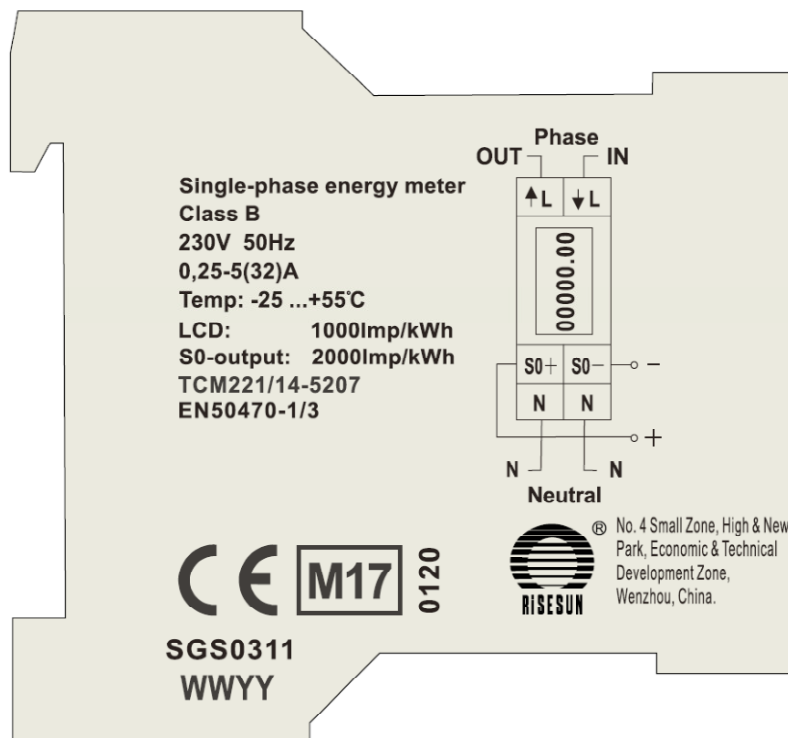
Photograph of WSZ12D-32A




Photograph of WSZ12D-65A

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### 3. Examples of Nameplates



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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	1.00	0.69	0.31	0.06	0.08	0.13
I <sub>tr</sub>	1.0	0.96	0.57	0.35	0.03	0.09	0.14
10I <sub>tr</sub>	1.0	0.78	0.49	0.18	0.06	0.09	0.14
I <sub>max</sub>	1.0	0.80	0.46	0.21	0.04	0.07	0.13
I <sub>tr</sub>	0.5ind	0.95	0.64	0.38	0.03	0.08	0.13
10I <sub>tr</sub>	0.5ind	0.86	0.52	0.25	0.05	0.09	0.12
I <sub>max</sub>	0.5ind	0.63	0.38	0.18	0.10	0.12	0.12
I <sub>tr</sub>	0.8cap	1.02	0.73	0.39	0.03	0.08	0.14
10I <sub>tr</sub>	0.8cap	0.92	0.59	0.28	0.04	0.09	0.13
I <sub>max</sub>	0.8cap	0.60	0.38	0.12	0.13	0.09	0.11


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## 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
WSZ12D-32A	230V, 0.25-5(32)A,
WSZ12D-65A	230V, 0.5-10(65)A

Modifications to the meter(s) described according to approval No.**0120/SGS0311** 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	26/09/2017	Initial Issue

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**END OF CERTIFICATE**