



EU Type Examination Certificate Number: **0120/SGS0356**

# **Zhejiang CHINT Instrument & Meter Co., Ltd**

Wenzhou Bridge Industrial Zone  
Yueqing  
Zhejiang  
P. R. China

Instrument Identification:  
**DDSID666**

**Single Phase, Active Import kWh, Smart, Electricity Meter**

Instrument Traceable Number  
**0120/SGS0356**

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 29<sup>th</sup> September 2018 until 28<sup>th</sup> September 2028  
Issue 1

Certification is based on report number(s) SHES170800838701 dated 20<sup>th</sup> August 2018  
EMA254463/1/TR50579 20<sup>th</sup> August 2018  
EMA254463/1

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](http://www.sgs.com)

Contact Address  
SGS United Kingdom Limited, 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](http://www.sgs.com)

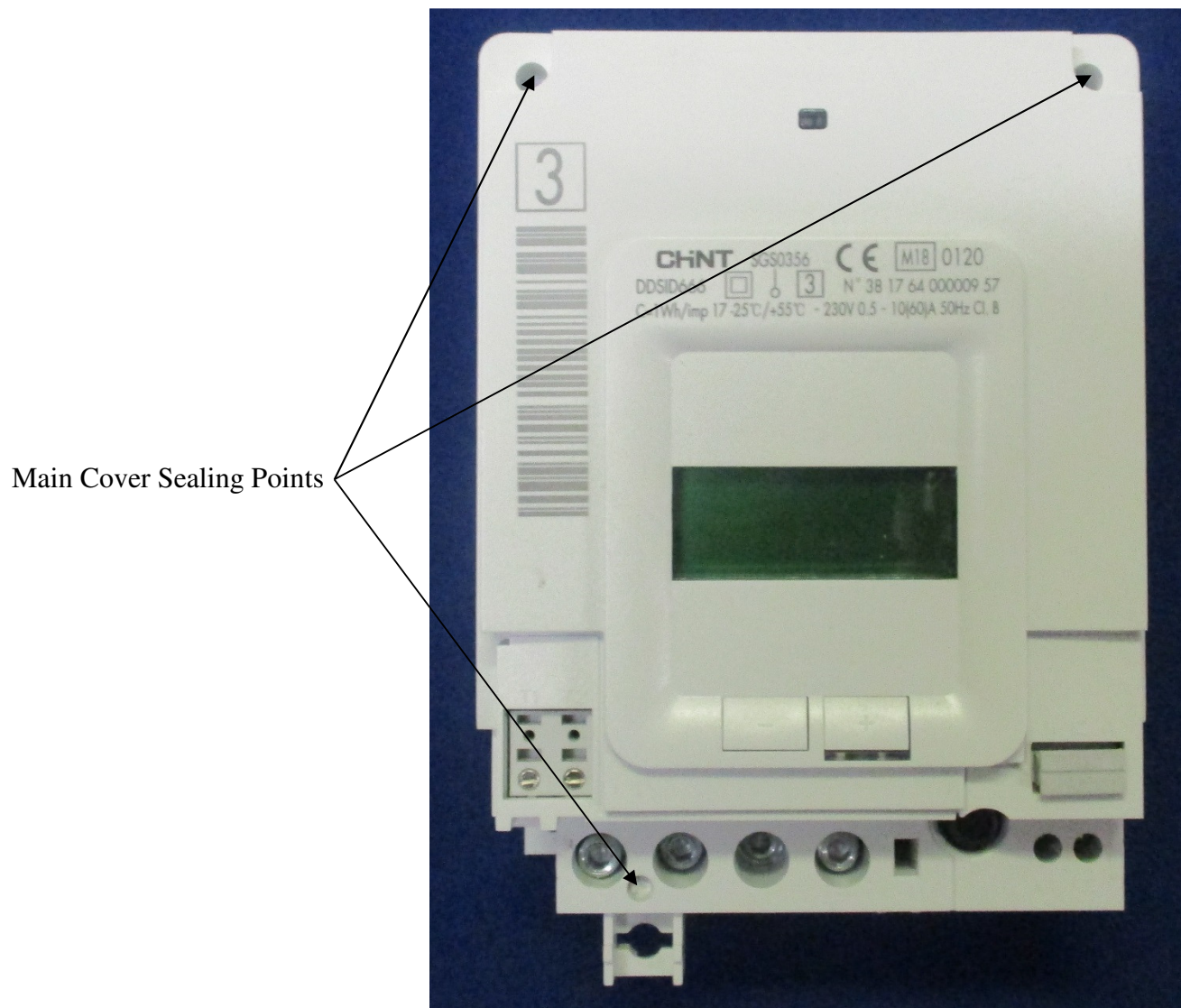
	EU-Type Examination Certificate Number:	
	<b>0120/SGS0356</b>	
	Issue Number: 1	Dated: 29 <sup>th</sup> September 2018


## 1. Technical Data

<b>Manufacturer</b>	Zhejiang CHINT Instrument & Meter Co., Ltd
<b>Meter Type's</b>	DDSID666
<b>Voltage Rating (<math>U_n</math>)</b>	230V
<b>Current Rating (<math>I_{min} - I_{ref} (I_{max})</math>)</b>	0.5-10(60)A,
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (<math>kWh</math>)</b>	B (kWh)
<b>Type of circuit</b>	1p2w
<b>Temperature Range</b>	-25 °C to +55 °C
<b>Software/ Firmware Version No.</b>	ZTYMID.0.01.01
<b>CRC Checksum No.</b>	FA1B6329
<b>Identification Location</b>	Nameplate
<b>Bill Of Materials No's</b>	1887V5.1_0001_230_10(60) ZTY0.051.835.1(20170613)
<b>IP Rating</b>	IP51
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	1000 imp/kWh
<b>Impulse Voltage Rating</b>	6kV
<b>AC Voltage Rating</b>	4kV
<b>Main Cover Sealing Type</b>	3 x Ultrasonically welded and sealed plastic stakes
<b>Integrity of meter</b>	Inaccessible without breaking seals
<b>Intended Location of the Meter</b>	Indoor
<b>Type of Register</b>	LCD
<b>Terminal Arrangement(s)</b>	BS
<b>Location of Manufacturers Address</b>	Associated Documentation

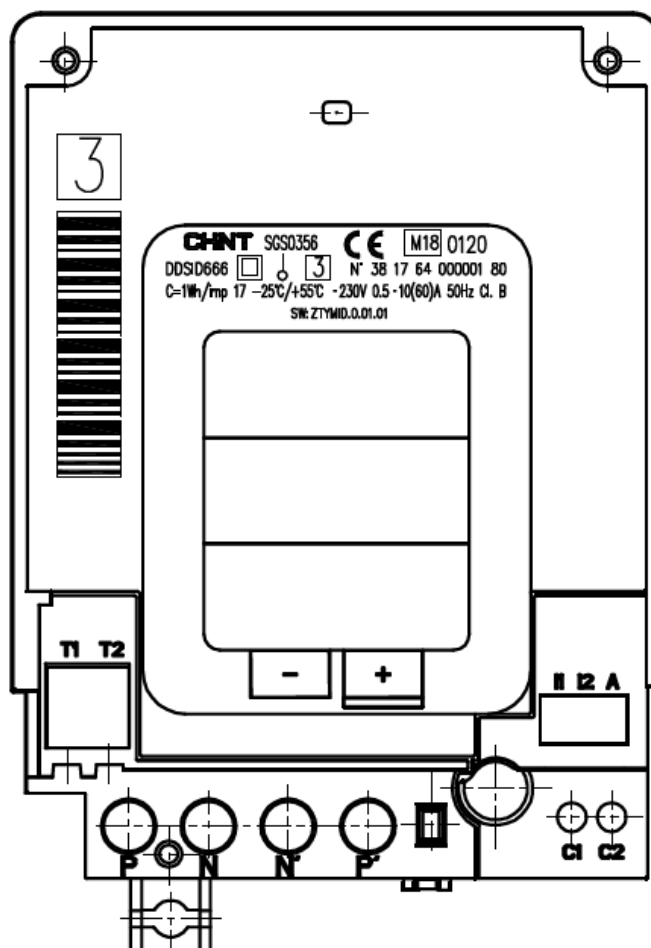
	EU-Type Examination Certificate Number:	
	<b>0120/SGS0356</b>	
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## 2. Photographs of Meter and Sealing Plan



	EU-Type Examination Certificate Number:	
	<b>0120/SGS0356</b>	
	Issue Number: 1	Dated: 29 <sup>th</sup> September 2018

### 3. Example of Nameplate



	EU-Type Examination Certificate Number:	
	<b>0120/SGS0356</b>	
	Issue Number: 1	Dated: 29 <sup>th</sup> September 2018

#### 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. Frequency & Voltage					
Current	PF Cos	-25 °C	-10 °C	5 °C	30 °C	40 °C	55 °C
I <sub>min</sub>	1.0	0.02	0.02	0.03	0.03	0.06	0.13
I <sub>tr</sub>	1.0	0.05	0.06	0.05	0.02	0.02	0.14
10I <sub>tr</sub>	1.0	0.04	0.00	0.01	0.02	0.05	0.12
I <sub>max</sub>	1.0	0.01	0.01	0.01	0.04	0.10	0.16
I <sub>tr</sub>	0.5ind	0.07	0.05	0.05	0.05	0.04	0.09
10I <sub>tr</sub>	0.5ind	0.05	0.01	0.01	0.03	0.05	0.12
I <sub>max</sub>	0.5ind	0.02	0.01	0.01	0.05	0.09	0.16
I <sub>tr</sub>	0.8cap	0.03	0.06	0.04	0.05	0.03	0.12
10I <sub>tr</sub>	0.8cap	0.03	0.00	0.02	0.02	0.05	0.14
I <sub>max</sub>	0.8cap	0.01	0.02	0.02	0.04	0.08	0.17


	EU-Type Examination Certificate Number:	
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## 5. Description of Meter

Product Identification Details:

- **Single Phase Smart Meter**
- **Complies with IEC 62056 and EN50470 standards.**
- **Voltage and current ratings:0,5-10(60)A 230V**
- **Unidirectional or Bi-directional active energy /reactive measurement, including forward active energy/reverse active energy/four-quadrant reactive energy measurement, Instantaneous value measurement.**
- **Multi-tariff function: supply contract and grid contract.**
  - a) **Supply contract : With 12 season tables, 8 week profile tables, 10 day profile table and 11 switch-time tables; With 30 special days, 3 peak days, 20 special actions.**
  - b) **Grid contract : With 4 season tables, 4 week profile tables, 4 day profile tables and 11 switch-time tables; With 30 special days.**
- **Independent RTC with accuracy 0.5s /day at full temperature range, and leap year auto switch.**
- **Three communication modes: G3-PLC supported IPV6 communications; Euridis 2 (IEC62056-31 with DLMS) communications; TIC with IHD(In home Display).**
- **G3-PLC with IPV6 protocol and Euridis 2 protocol, Support AES128-GCM, MD5, GMAC and other encryption communication methods of DLMS/COSEM, ensures an open and secure communication system, has excellent compatibility.**
- **Effectively suppress magnetic interference.**
- **Tamper Cheat detection and strong magnetic field detection function, while ensuring PLC communication at 500mT field.**
- **Remote communication control load switch on/off function; and automatically detect (user breaker status) to close and open load switch.**
- **Relay control water heater and virtual relay control function.**
- **Multiple event logs and load profile record function.**
- **Local or remote firmware upgrades, the function of the meter can be extended.**
- **Long life dot matrix LCD display which can display 3 lines of 16 characters.**
- **LCD backlight can increase readability under low light condition.**
- **20-year lifetime.**
- **Support three-point screw fixation and DIN rail fixation.**

Modifications to the meter(s) described according to approval No.**0120/SGS0356** 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	26/09/2018	Initial Issue

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**END OF CERTIFICATE**