



EU Type Examination Certificate Number: **0120/ SGS0236**

# **Zhejiang Yongtailong Electronic Co., Ltd.**

No. 320 Tongsheng Road,  
Tongxiang,  
Jiaxing,  
Zhejiang P.R.,  
China

Instrument Identification:  
**DDS353H Series**

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

Instrument Traceable Number  
**0120/ SGS0236**

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 12<sup>th</sup> October 2016 until 11<sup>th</sup> October 2026  
Issue 1

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

Authorised Signature


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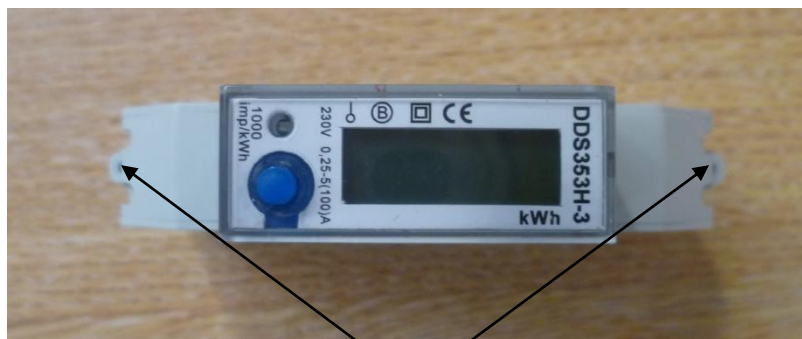
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	Issue Number: 1	Dated: 12 <sup>th</sup> October 2016

## 1. Technical Data

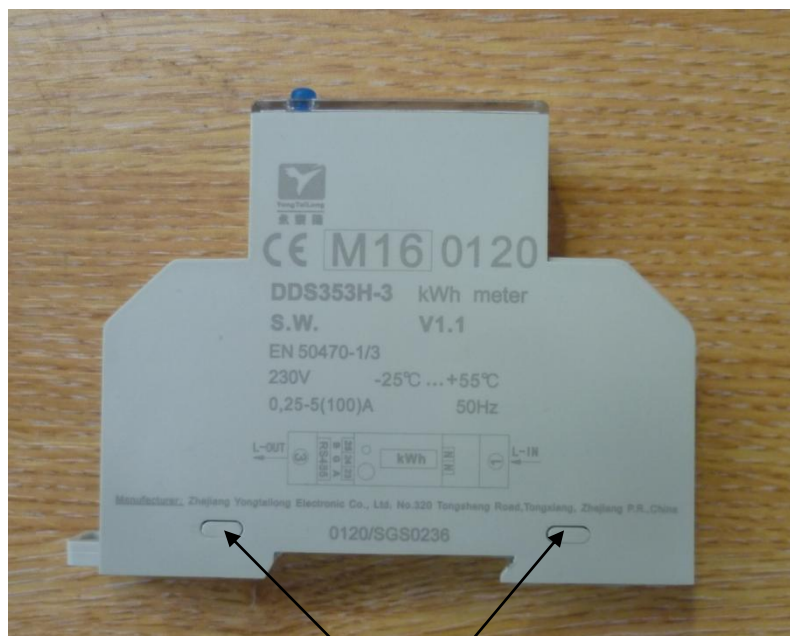
<b>Manufacturer</b>	Zhejiang Yongtailong Electronic Co., Ltd.
<b>Meter Types</b>	DDS353H-1 DDS353H-2 DDS353H-3
<b>Voltage Rating (<math>U_n</math>)</b>	230V
<b>Current Rating (<math>I_{min} - I_{ref} (I_{max})</math>)</b>	0.25-5(30)A, 0.25-5(32)A, 0.25-5(40)A, 0.25-5(45)A, 0.25-5(50)A, 0.25-5(60)A, 0.25-5(80)A, 0.25-5(100)A
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (<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's</b>	DDS353H-1: V1.0 DDS353H-2: V1.0 DDS353H-3: V1.1
<b>Identification Location</b>	LCD & Nameplate
<b>Bill Of Materials Numbers</b>	DDS353H-1: D118018 DDS353H-2: D118019 DDS353H-3: 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 Name &amp; Address</b>	Side of the meter and associated documentation

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## 2. Photograph of Meter and Sealing Plan



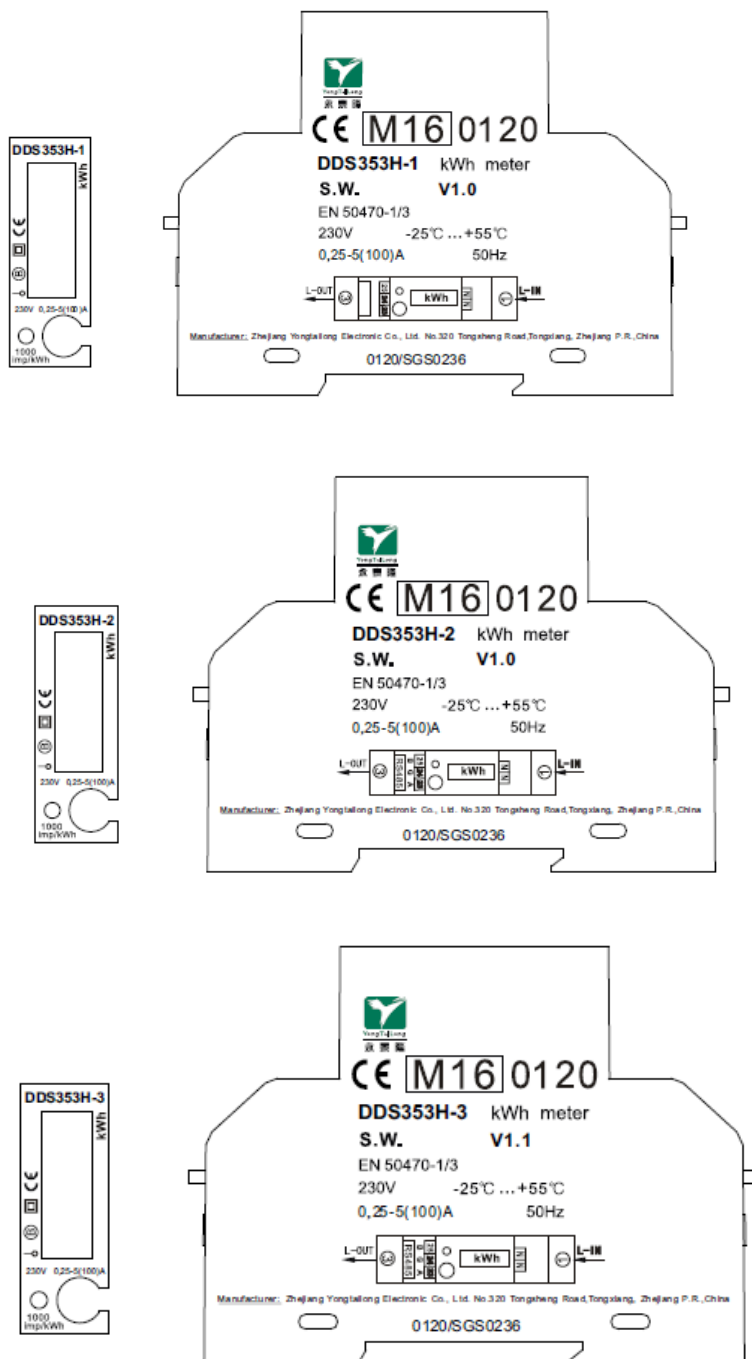
Terminal cover  
sealing points




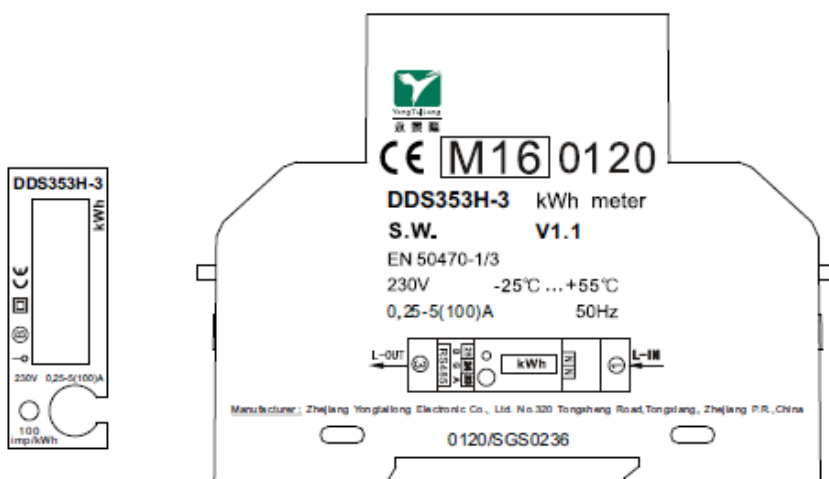
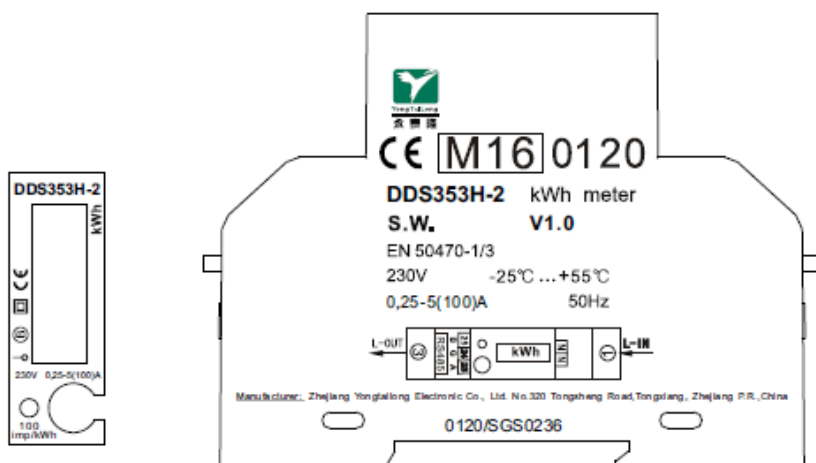
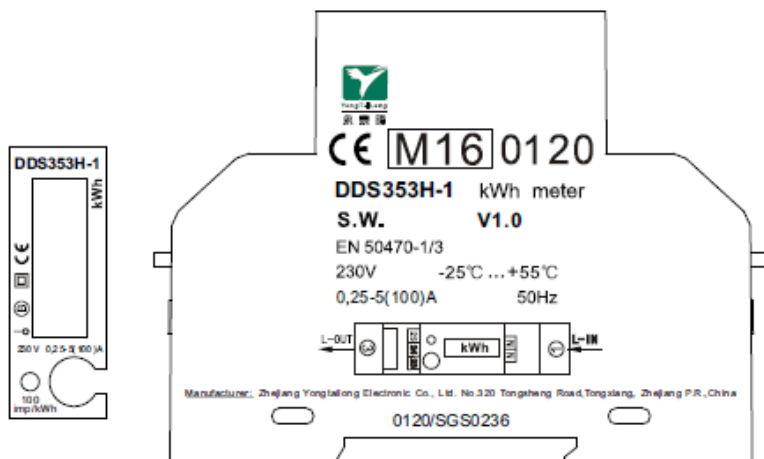
Main over cover  
sealing points


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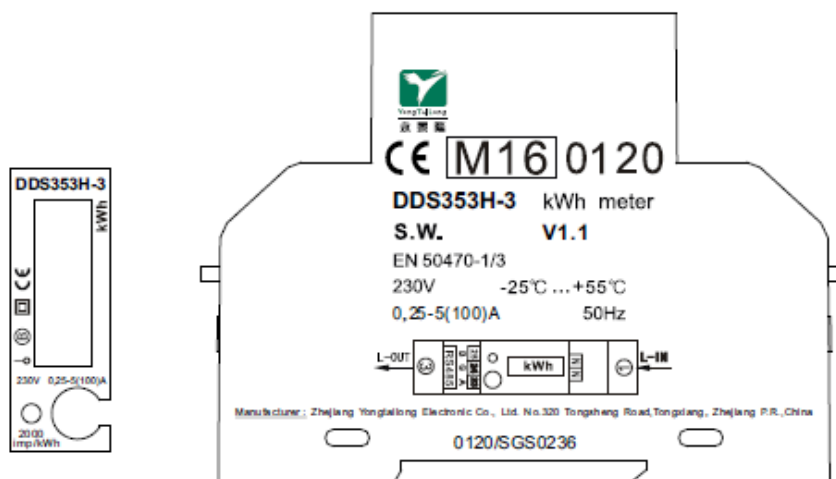
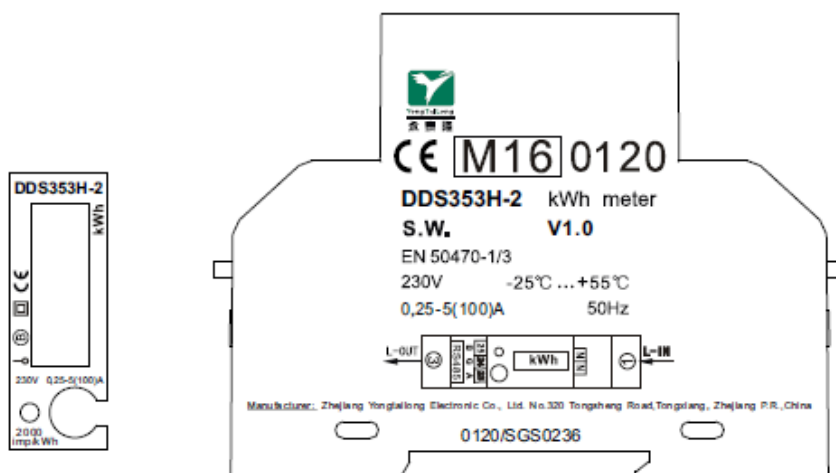
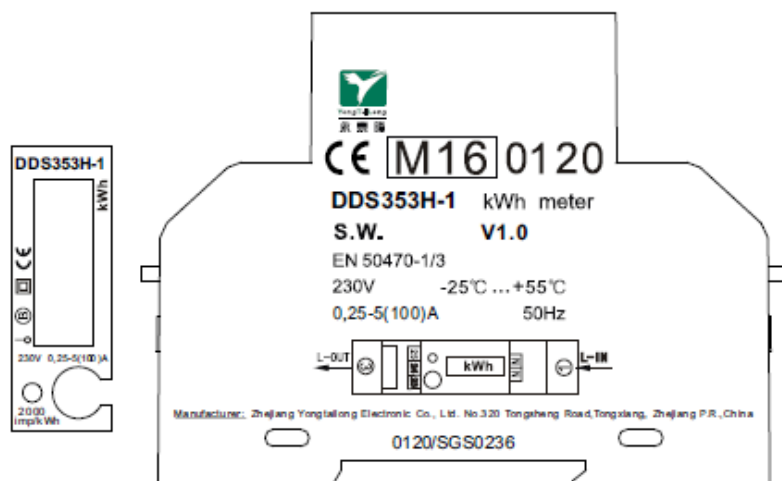
### 3. Nameplates




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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	0.58	0.38	0.23	0.11	0.21	0.45
I <sub>tr</sub>	1.0	0.50	0.40	0.21	0.10	0.24	0.44
10I <sub>tr</sub>	1.0	0.52	0.37	0.23	0.09	0.23	0.43
I <sub>max</sub>	1.0	0.48	0.37	0.25	0.12	0.20	0.39
I <sub>tr</sub>	0.5ind	0.51	0.38	0.25	0.16	0.28	0.45
10I <sub>tr</sub>	0.5ind	0.53	0.39	0.23	0.13	0.25	0.44
I <sub>max</sub>	0.5ind	0.49	0.39	0.27	0.19	0.26	0.42
I <sub>tr</sub>	0.8cap	0.55	0.39	0.24	0.15	0.27	0.47
10I <sub>tr</sub>	0.8cap	0.52	0.38	0.24	0.15	0.24	0.46
I <sub>max</sub>	0.8cap	0.49	0.39	0.27	0.17	0.23	0.40

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## 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
DDS353H-1	230V, 0.25-5(30)A - 0.25-5(100)A, 100imp/kWh,1000imp/kWh,2000imp/kWh, Single Tariff
DDS353H-2	230V, 0.25-5(30)A - 0.25-5(100)A, 100imp/kWh,1000imp/kWh,2000imp/kWh, Single Tariff + Modbus Module
DDS353H-3	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/ SGS0236** 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	12/10/2016	Initial Issue

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