

EU TYPE EXAMINATION CERTIFICATE

Directive 2014/32/EU, Module B

0598/MID/B/24/024 Issue 2

Product	Active Electrical Energy Meters (Annex V MI-003)		
Model	Meter type YDM500D	Description 2 Wire Connection Import/Export (kWh) DC Electricity Meter	Instrument Traceable No. 0598/MID/B/24/024
Certificate holder / Manufacturer	Guangdong Yada Electronics Co., Ltd. YADA Industrial Park, Gaopugang , Heyuan, Guangdong , China		
Directive information	For the instruments mentioned in this Certificate, the following essential requirements of Directive 2014/32/EU apply: - Annex I Essential requirements - Annex V Active electrical meters (MI-003)		
Standards	EN IEC 62052-11:2021+A11:2022, EN 50470-4:2023, IEC 62052-31:2015		
Validity	This certificate is valid until 2034-12-16 The manufacturer must inform SGS Fimko in case of any intended change to the design. Unauthorised changes will invalidate this certificate. The Manufacturer is permitted to affix the CE-marking onto the instrument(s) after complying with the conformity assessment procedures referred to in Article 17 of the Directive and to draw up a written declaration of conformity.		
Date of issue	2025-04-17		
Signature	SGS Fimko OY Notified Body 0598  Mikko Välimäki Certification Manager		



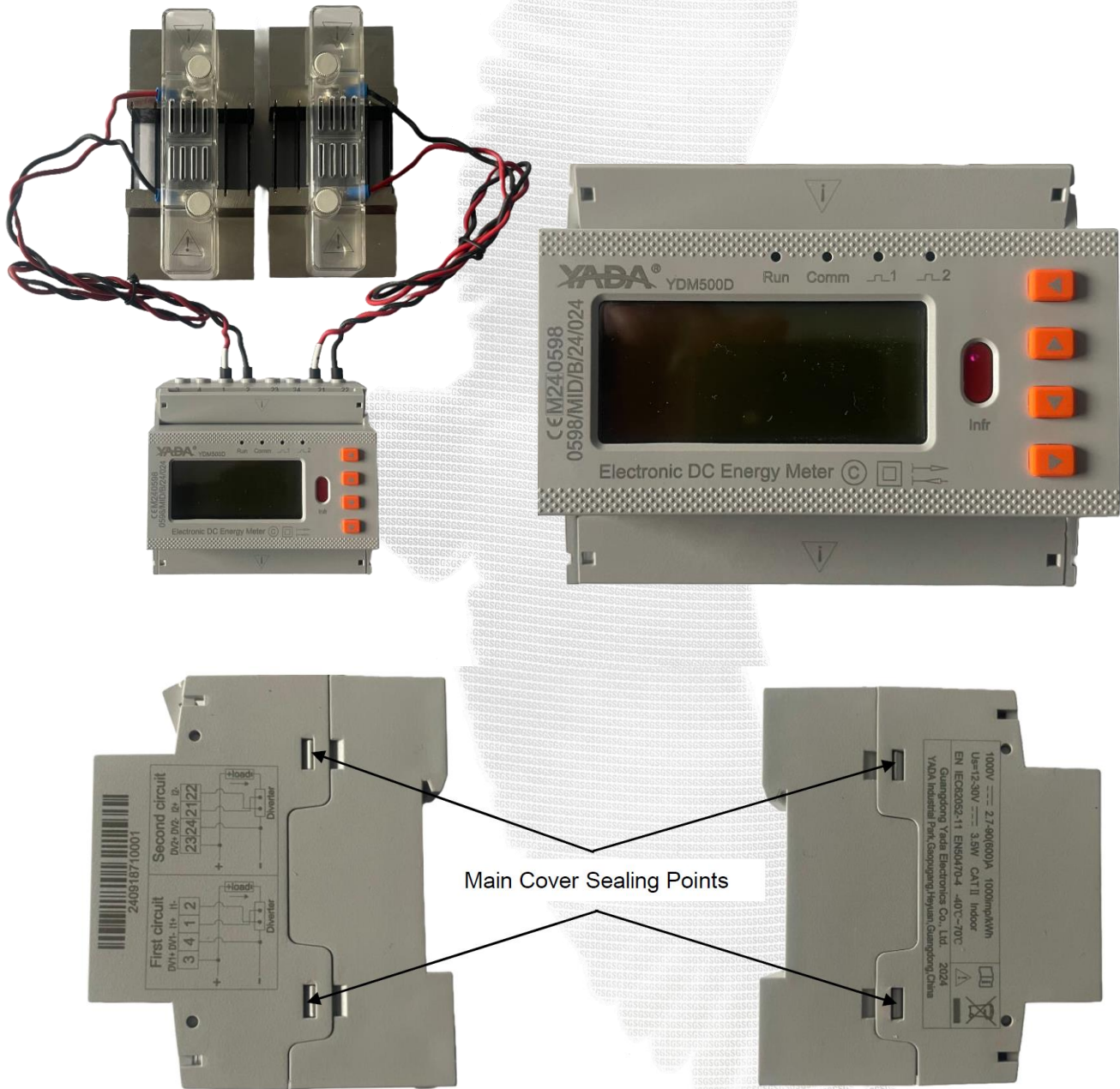
Test report(s)

Report Number	Date
SHES240400735301	2024-11-25
SHES240400735302	2024-11-25
SHES240400735301 Issue 2	2025-04-15
SHES240400735302 Issue 2	2025-04-15

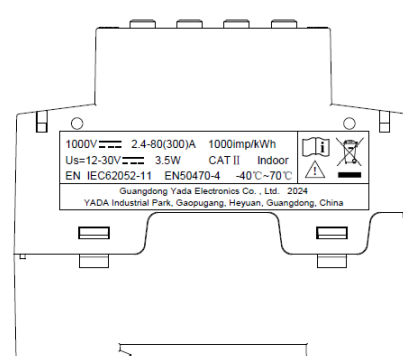
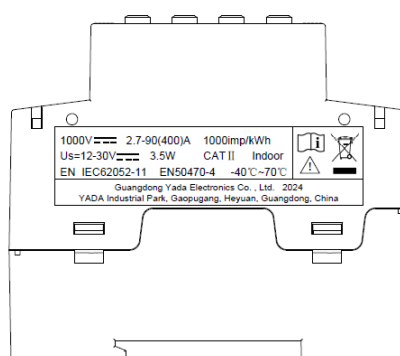
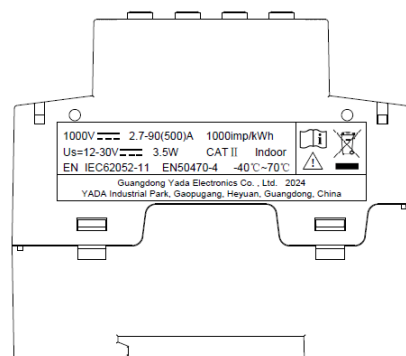
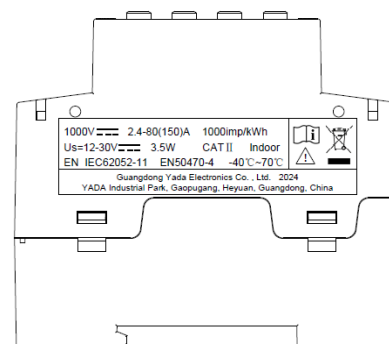
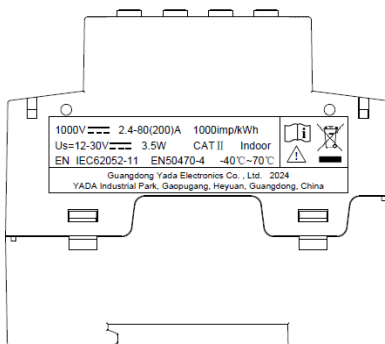
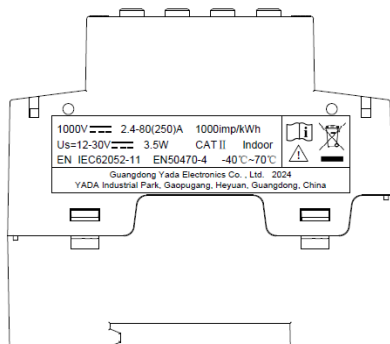
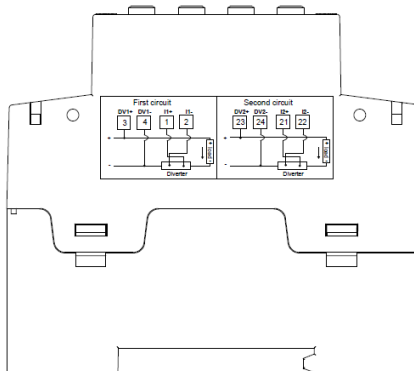
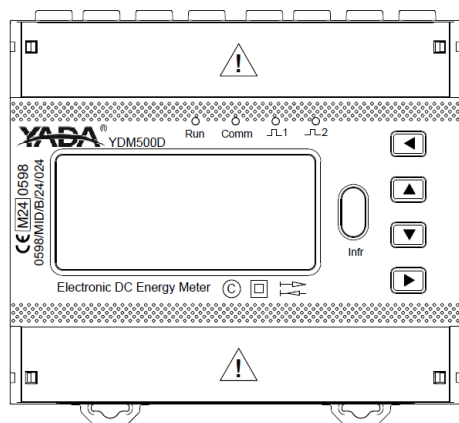
Technical information

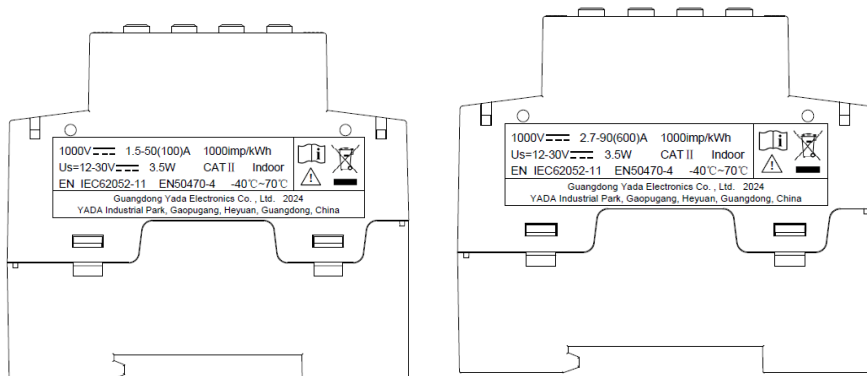
Meter type(s)	YDM500D
Voltage rating (U ⁿ)	1000V
Current rating (I _{min} – I _{ref} (I _{max}))	1.5-50(100)A, 2.4-80(150)A, 2.4-80(200)A, 2.4-80(250)A, 2.4-80(300)A, 2.7-90(400)A, 2.7-90(500)A, 2.7-90(600)A
Accuracy Class (kWh)	A or B or C (kWh)
Type of circuit	2 Wire Connection
Temperature range	-40°C to +70°C
Software version no.:	3006
CRC Checksum	8C51EE57
Identification location	LCD
Bill of Materials No.(s)	20050406.0095.00
IP rating	IP51 Front Face (Installed in an IP rated enclosure)
Insulation protective class	Class II
LED Pulse Constant	1000 imp/kWh
Impulse Voltage Rating	9.6 kV
DC Voltage Rating	6.2 kV
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

Photograph of Meter and Sealing Point



Example of Nameplates





Calculation of the composite error / MPE

During the type approval examination the influence factors for temperature, voltage are determined per load point. The table below represents the sum of the square values per load, determined via the following formula:

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

where

$e(I)$ = Intrinsic error at a certain load

$\delta e(T, I)$ = Additional error due to variation of the temperature at the same load

$\delta e(U, I)$ = Additional error due to variation of the voltage at the same load

Influence Factors for Temperature & Voltage								
Current	-40°C (%)	-25°C (%)	-10°C (%)	5°C (%)	30°C (%)	40°C (%)	55°C (%)	70°C (%)
Imin	0.60	1.13	0.69	0.40	0.71	1.20	1.56	0.26
Itr	0.26	0.88	0.57	0.26	0.28	0.47	0.22	0.63
10Itr	0.59	0.31	0.22	0.15	0.17	0.22	0.24	0.25
Imax	0.45	0.19	0.16	0.15	0.19	0.22	0.21	0.25

Product Variant Identification Details

Model no.	Current range	Shunts
YDM500D	2.7-90(600)A	FL-2-75mV-600A
	2.7-90(500)A	
	2.7-90(400)A	
	2.4-80(300)A	FL-2-75mV-300A
	2.4-80(250)A	
	2.4-80(200)A	
	2.4-80(150)A	FL-2-75mV-100A
	1.5-50(100)A	

Certificate Revision History

Issue	Date	Comments
1	2024-12-16	Initial Issue
2	2025-04-17	Operating temperature range increased to -40°C ~ +70°. New nameplates.