

EU TYPE EXAMINATION CERTIFICATE

Directive 2014/32/EU, Module B

0598/MID/B/25/081 Issue 1

Product	Active Electrical Energy Meters (Annex V MI-003)		
Model	Meter type(s): VDS21MX, VDS21MT, VDS21M2	Description: Single Phase, Active Import/Export (kWh), Indoor, Multifunction, DIN rail, Electricity Meter	Instrument Traceable No.: 0598/MID/B/25/081
Trademark	Voltaris Metering		
Certificate holder / Manufacturer	Voltaris Metering Ltd McLaren Building, 46 The Priory Queensway, Birmingham, England, B4 7LR		
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 50470-1:2006, EN 50470-3:2006		
Validity	This certificate is valid until 2033-03-26. 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 2025-07-30
SGS Fimko OY
Notified Body 0598

Signature


Tuomas Hänninen
Certification Manager


Test report(s)

Report Number	Date
SHES220601208301	2023-02-22

Technical information

Meter type(s):	VDS21MX, VDS21MT, VDS21M2
Voltage rating (U^n):	230V
Current rating ($I_{\min} - I_{\text{ref}} (I_{\max})$):	0.25-5(100)A
Frequency (F_n):	50Hz
Active Accuracy Class (kWh):	A or B or C (kWh)
Type of circuit:	1p2w
Temperature range:	-25°C ~ +55°C
Software version no.(s):	V1.1
CRC Checksum:	0x00007385
Identification location:	LCD
Bill of Materials No.(s):	VDS21MX: V1.2 VDS21MT: V1.2 VDS21M2: V1.2
IP rating:	IP51 Must be installed in a suitable IP rated enclosure
Insulation protective class:	Class II
LED Pulse Constant	1000 imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp
Integrity of Meter	Inaccessible without breaking seals
Intended Location	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacturing Address	Associated Documents

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Takomotie 8

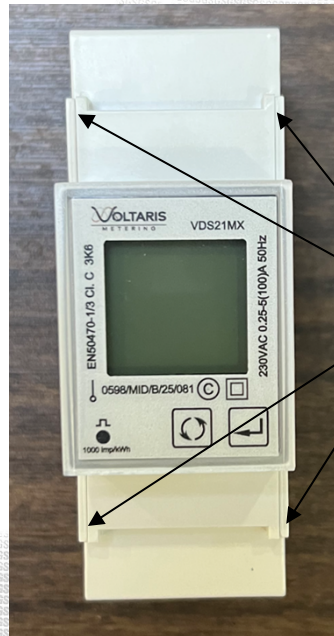
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t. +358 9 696 361 www.sgs.com

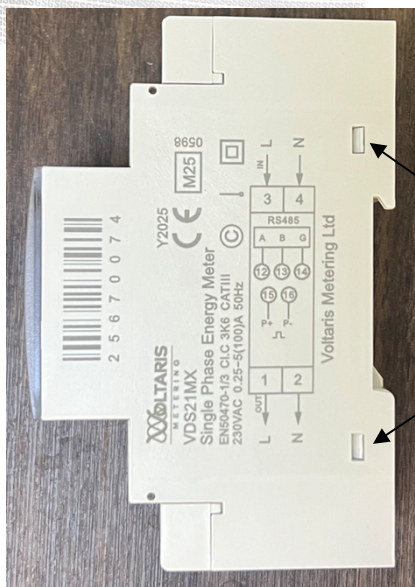
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Photograph of Meter and Sealing Plan



Terminal Cover Sealing Points



Main Cover Sealing Points

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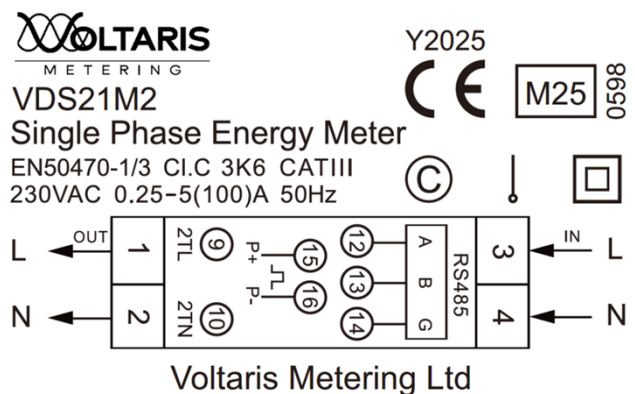
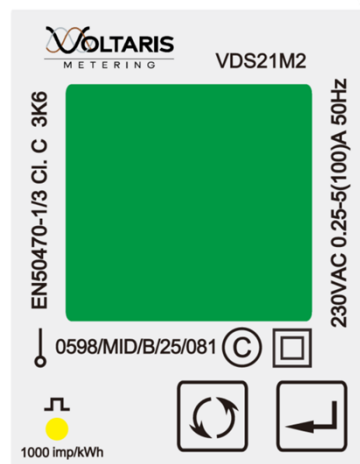
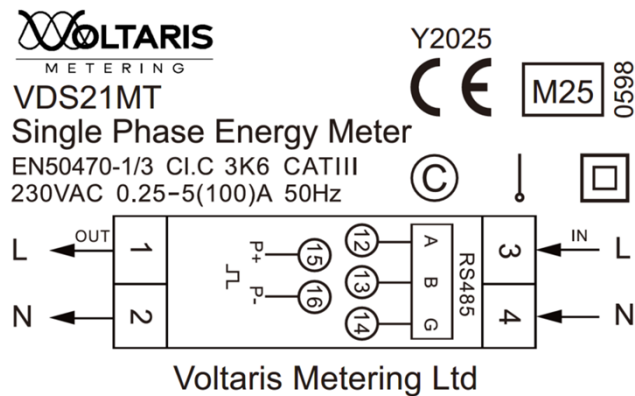
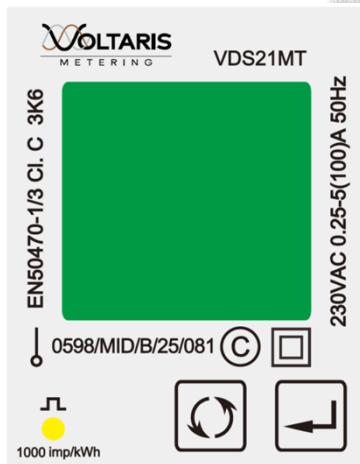
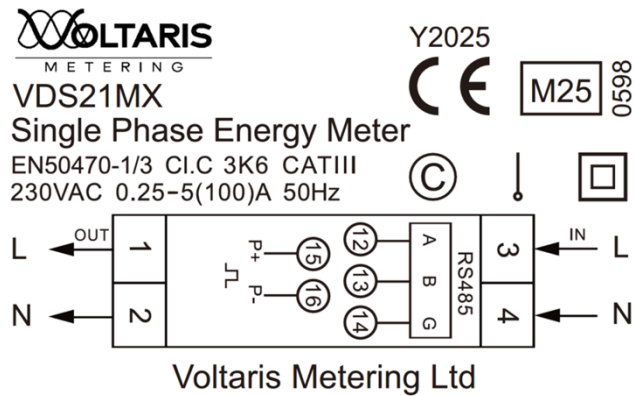
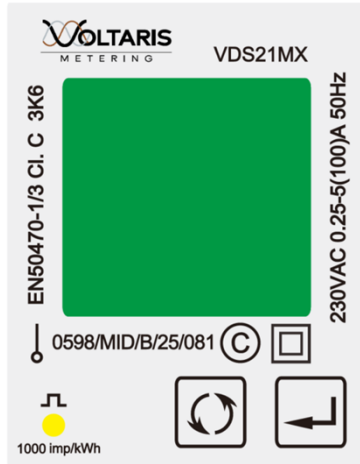
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Example of Nameplates



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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	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	0.34	0.29	0.26	0.22	0.23	0.23
I _{tr}	1.0	0.32	0.28	0.23	0.20	0.20	0.20
10I _{tr}	1.0	0.31	0.26	0.22	0.19	0.20	0.20
I _{max}	1.0	0.15	0.19	0.15	0.16	0.17	0.19
I _{tr}	0.5ind	0.29	0.26	0.24	0.22	0.22	0.24
10I _{tr}	0.5ind	0.31	0.26	0.24	0.22	0.23	0.24
I _{max}	0.5ind	0.10	0.10	0.10	0.11	0.15	0.18
I _{tr}	0.8cap	0.29	0.24	0.20	0.16	0.17	0.16
10I _{tr}	0.8cap	0.21	0.23	0.19	0.15	0.16	0.16
I _{max}	0.8cap	0.12	0.13	0.13	0.13	0.15	0.17

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Annex of Variants

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Product Variant Identification Details:

Type Designation	Description of meter
VDS21MX	Single phase, 230V, 0.25-5(100)A, 50Hz
VDS21MT	Single phase, 230V, 0.25-5(100)A, 50Hz, Internal Battery
VDS21M2	Single phase, 230V, 0.25-5(100)A, 50Hz, 2T single check

Modifications to the meter(s) described according to approval No. 0598/MID/B/25/081 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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Certificate Revision History

Issue	Date	Comments
1	2025-07-30	Initial issue

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