

EU TYPE EXAMINATION CERTIFICATE

Directive 2014/32/EU, Module B

0598/MID/B/25/082 Issue 2

Product Active Electrical Energy Meters (Annex V MI-003)

Model Meter type(s): VDT41M, VDT41MT, VDT41M2
 Description: PloyPhase, Active Import/Export (kWh), Multifunction, DIN Rail, Electricity Meter
 Instrument Traceable No.: 0598/MID/B/25/082

Trademark Voltaris Metering

Certificate holder / Manufacturer Voltaris Metering Ltd
 McLaren Building, 46 The Priory Queensway, Birmingham, B4 7LR, United Kingdom

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 2033-02-14.
 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 2025-09-24
 SGS Fimko OY
 Notified Body 0598

Signature

 Mikko Välimäki
 Certification Manager



Test report(s)

Report Number	Date
SHES220701359501	2023-02-10

Technical information

Meter type(s):	VDT41M, VDT41MT, VDT41M2
Voltage rating (U ⁿ):	3x230/400V
Current rating (I _{min} – I _{ref} (I _{max})):	0.25-5(100)A
Frequency (Fn):	50Hz
Active Accuracy Class (kWh):	A or B or C (kWh)
Type of circuit:	1p2w, 3p3w, 3p4w
Temperature range:	-25°C ~ +55°C
Software version no.(s):	V1.0
CRC Checksum:	0x00000D03
Identification location:	LCD
Bill of Materials No.(s):	VDT41M: V1.2 VDT41MT: V1.2 VDT41M2: V1.2
IP rating:	IP51 Must be installed in a suitable IP rated enclosure
Insulation protective class:	Class II
LED Pulse Constant	400 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

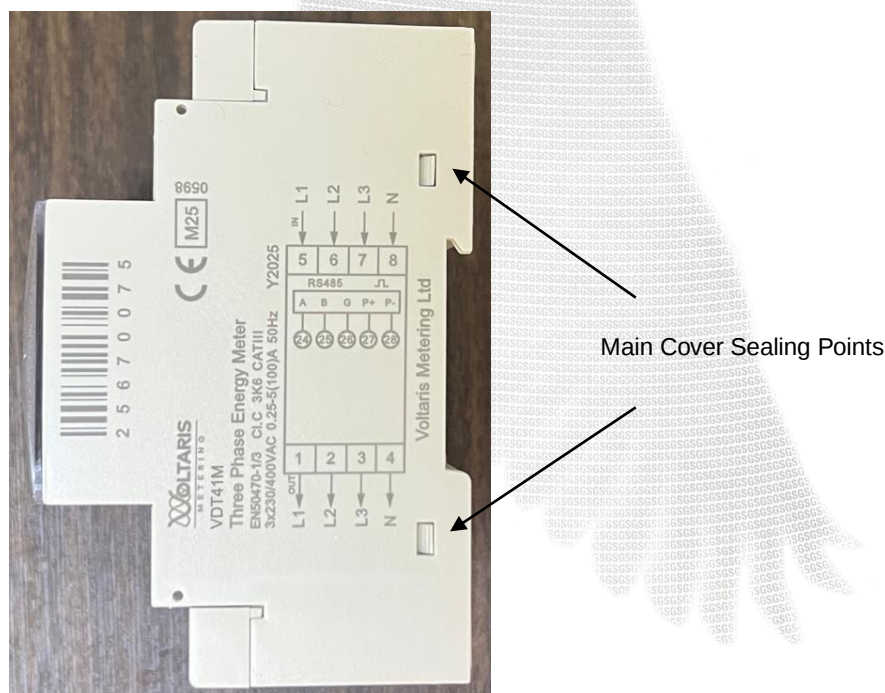
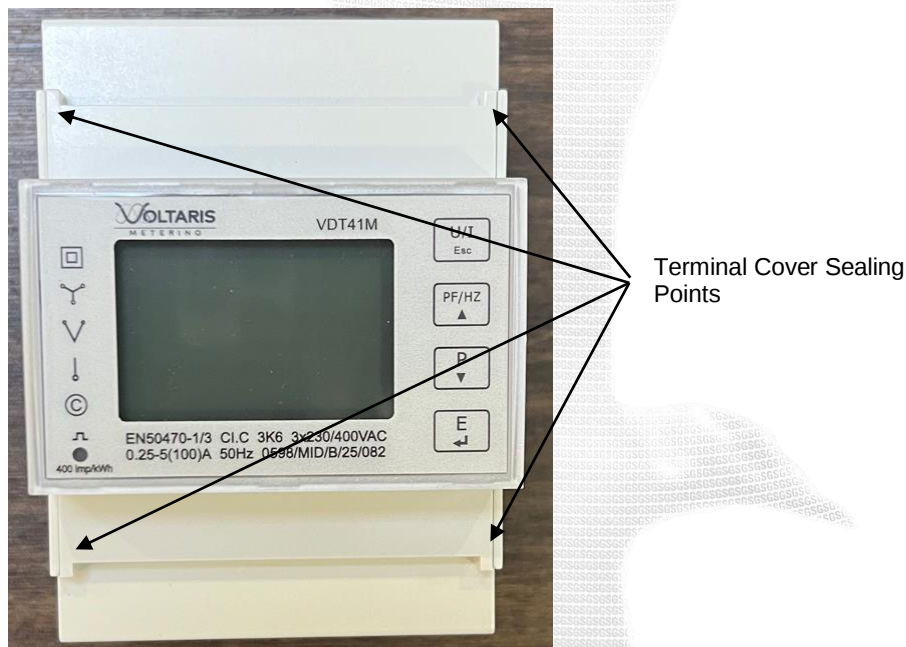
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Photograph of Meter and Sealing Plan



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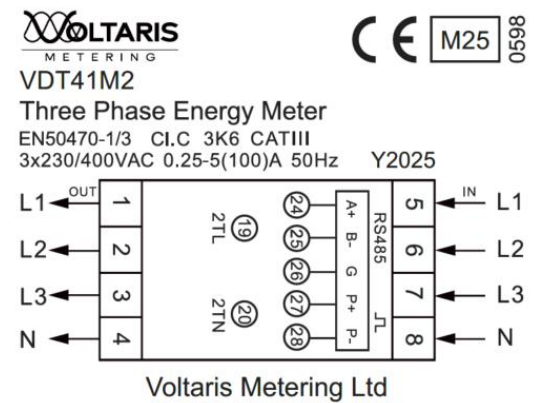
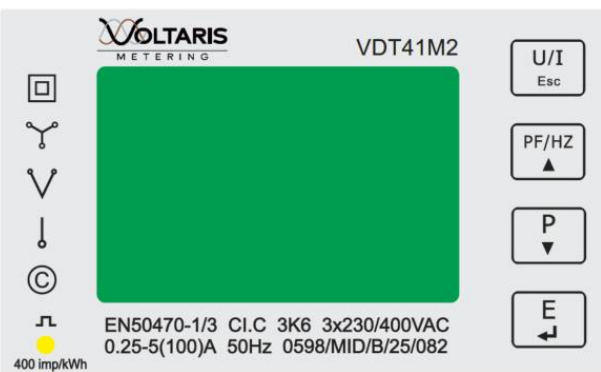
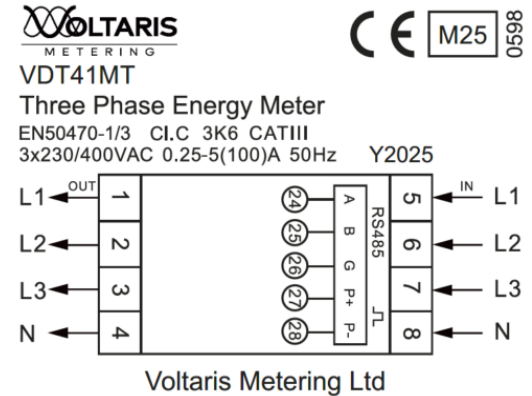
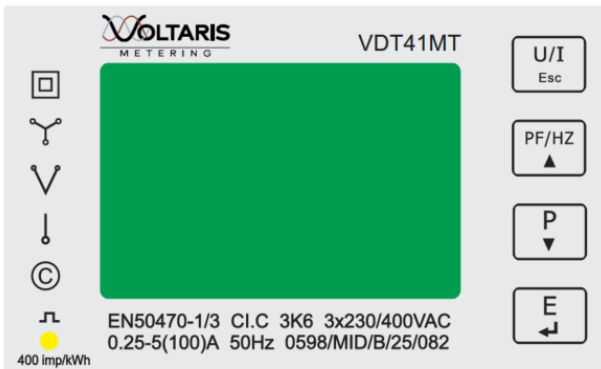
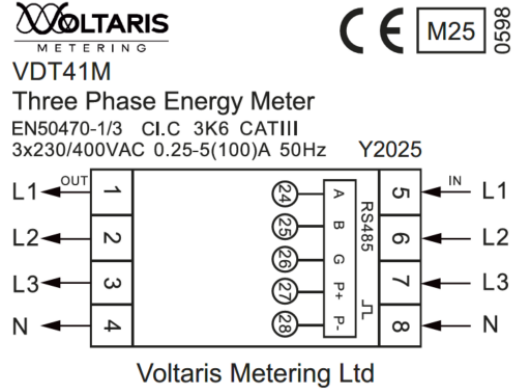
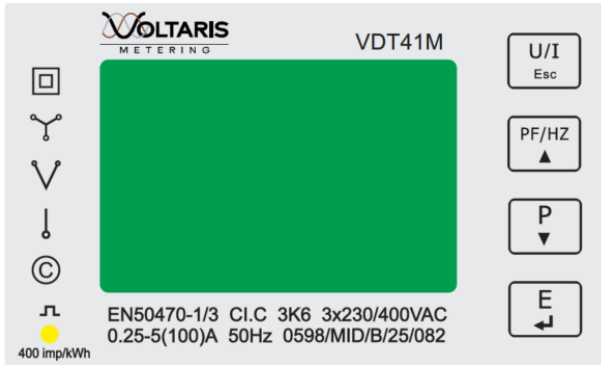
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Example of Nameplates



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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

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		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	0.28	0.25	0.27	0.50	0.44	0.45
I _{tr}	1.0	0.04	0.04	0.04	0.05	0.04	0.04
10I _{tr}	1.0	0.04	0.05	0.05	0.05	0.05	0.08
I _{max}	1.0	0.18	0.11	0.04	0.04	0.05	0.06
I _{tr}	0.5ind	0.26	0.14	0.15	0.22	0.20	0.22
10I _{tr}	0.5ind	0.05	0.06	0.06	0.06	0.06	0.07
I _{max}	0.5ind	0.12	0.05	0.05	0.12	0.14	0.14
I _{tr}	0.8cap	0.05	0.07	0.07	0.13	0.11	0.10
10I _{tr}	0.8cap	0.08	0.08	0.08	0.08	0.09	0.11
I _{max}	0.8cap	0.15	0.08	0.03	0.07	0.08	0.08
L1					0.00	0.00	0.00
I _{tr}	1.0	0.07	0.11	0.12	0.19	0.19	0.24
10I _{tr}	1.0	0.16	0.18	0.18	0.23	0.25	0.29
I _{max}	1.0	0.19	0.16	0.10	0.07	0.08	0.08
I _{tr}	0.5ind	0.15	0.19	0.27	0.30	0.32	0.36
10I _{tr}	0.5ind	0.36	0.37	0.38	0.40	0.44	0.45
I _{max}	0.5ind	0.20	0.14	0.14	0.09	0.09	0.09
L2							
I _{tr}	1.0	0.12	0.18	0.20	0.27	0.29	0.28
10I _{tr}	1.0	0.18	0.16	0.15	0.16	0.16	0.16
I _{max}	1.0	0.14	0.04	0.09	0.20	0.23	0.27
I _{tr}	0.5ind	0.36	0.43	0.42	0.48	0.50	0.52
10I _{tr}	0.5ind	0.30	0.30	0.29	0.30	0.30	0.30
I _{max}	0.5ind	0.06	0.13	0.23	0.34	0.37	0.41
L3							
I _{tr}	1.0	0.17	0.14	0.10	0.09	0.07	0.05
10I _{tr}	1.0	0.05	0.04	0.02	0.02	0.02	0.05
I _{max}	1.0	0.10	0.04	0.03	0.09	0.08	0.08
I _{tr}	0.5ind	0.45	0.43	0.41	0.34	0.36	0.30
10I _{tr}	0.5ind	0.12	0.13	0.14	0.12	0.08	0.06
I _{max}	0.5ind	0.22	0.24	0.28	0.25	0.32	0.32

Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
VDT41M	Three phase, 3x230/400V, 0.25-5(100)A, 50Hz
VDT41MT	Three phase, 3x230/400V, 0.25-5(100)A, 50Hz, Internal Battery
VDT41M2	Three phase, 3x230/400V, 0.25-5(100)A, 50Hz, 2T single check

Modifications to the meter(s) described according to approval No. 0598/MID/B/25/082 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	2025-07-25	Initial issue
2	2025-09-24	Model name change from VDT45M, VDT45MT,VDT45M2 to VDT41M,VDT41MT,VDT41M2

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