

EU TYPE EXAMINATION CERTIFICATE

Directive 2014/32/EU, Module B

0598/MID/B/25/073 Issue 1

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

Model Meter type: ION7400
 Description: Polyphase, Active Import/ Export (kWh) Transformer Operated, Electricity Meter with Auxiliary Power Supply RS485, Dual Ethernet, ANSI C12.19 Optical Port, USB, 1 digital output, 3 digital inputs
 Instrument Traceable No: 0120/SGS0340

Trademark Schneider Electric

Certificate holder / Manufacturer Schneider Electric Canada Inc.
 2195 Keating Cross Road, Saanichton, British Columbia, Canada, V8M 2A5

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 2028-02-19.
 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 2025-07-15
 SGS Fimko OY
 Notified Body 0598

Signature

 Mikko Välimäki
 Certification Manager



Test report(s)

Report Number	Date
EMA211257/1	2016-06-28
EMA247506/1/MID	2017-12-23

Technical information

Meter type(s)	ION7400
Models:	METSEION74001, METSEION74101, METSEION74001A, METSEION74001E
Voltage rating (U ⁿ)	3P3W: 3x100 V to 3x600 V (L-L) 3P4W: 3 x 57.7/100 V to 3x400/690 V
Current rating (I _{min} -I _{ref} (I _{max}))	0.025-5(10) A
Frequency (F _n)	50/60 Hz
Active Accuracy Class	C (kWh)
Type of circuit	3P4W, 3P3W
Temperature range	-25°C to +70°C
Software version no. (s)	001.004.003, 002.001.000, 002.002.001, 003.000.000, 003.000.001, 003.001.000, 004.000.000, 004.005.000, 004.006.000
CRC Checksum(s)	001.004.003: 0x5e1c559e, 002.001.000: 0x49d43152, 002.002.001: CRC: 0xb0f2a762, 003.000.000: 0x89b163bb, 003.000.001: 0x3ba6d971, 003.001.000: 0x1b86091a, 004.000.000: 0x84d12d44, 004.005.000: 0xf770ec65, 004.006.000: 0x770611cb
Identification location	LCD
Bill of Materials No.(s)	EAV66596 PCBA, PSU, PM8000 EAV66599 PCBA, CVM, PM8000 EAV66594 PCBA, Comm I/O, PM8000 EAV66601 PCBA, Backplane, INT, PM8000 NHA51480 PCBA, CPU, UFM, ION 7400 QGH24414 LVDC PCBA, PSU, PM8000 Alternative construction GEX43722 PCBA, CPU, 7400, LATTICE
IP rating	IP51 Front Display Meter body not rated, must be fitted in an IP51 Enclosure
Insulation protective class	Class II
LED Pulse Constant	5000 imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4 kV

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SGS Fimko Oy

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FI-00380 Helsinki, Finland

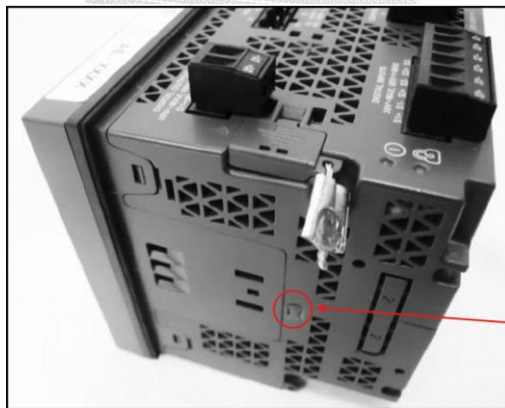
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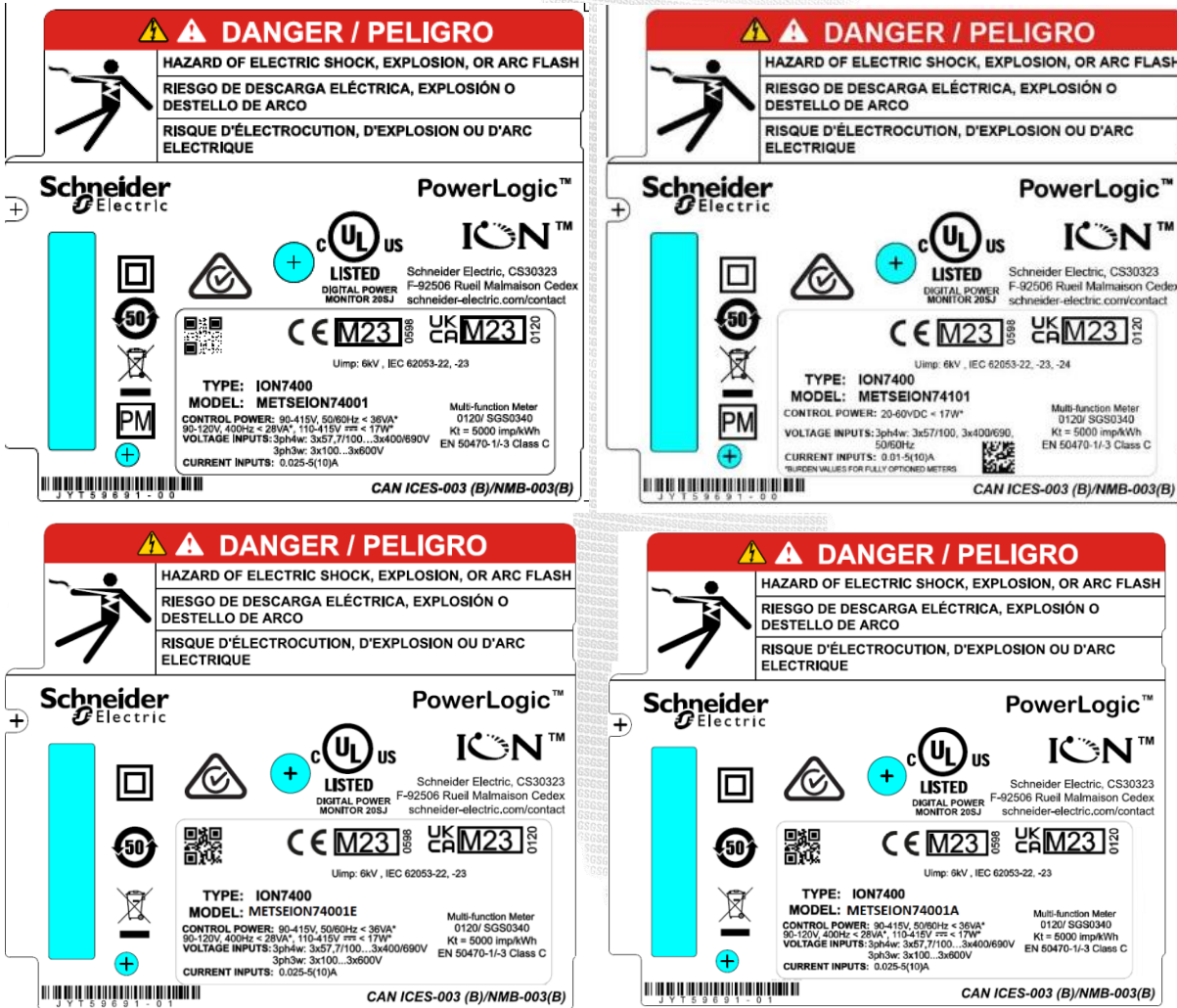
Main Cover Sealing Type	Destructible rivet
Integrity of Meter	Inaccessible without breaking seals
Intended location of Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN

Photograph of Meter and Sealing Plan



Main Cover Sealing Point

Example of Nameplates



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	70° C
Imin	1.0	0.16	0.11	0.05	0.05	0.05	0.05	0.05
Itr	1.0	0.13	0.07	0.04	0.01	0.00	0.01	0.01
10Itr	1.0	0.13	0.06	0.03	0.00	0.00	0.02	0.05
Imax	1.0	0.12	0.06	0.03	0.01	0.01	0.46	0.07
Itr	0.5ind	0.19	0.10	0.05	0.03	0.07	0.16	0.26
10Itr	0.5ind	0.16	0.08	0.04	0.02	0.03	0.06	0.01
Imax	0.5ind	0.17	0.08	0.05	0.01	0.01	0.01	0.10
Itr	0.8cap	0.15	0.05	0.04	0.03	0.05	0.08	0.13
10Itr	0.8cap	0.11	0.05	0.02	0.01	0.01	0.04	0.07
Imax	0.8cap	0.10	0.05	0.02	0.02	0.02	0.04	0.06
L1								
Itr	1.0	0.08	0.04	0.01	0.00	0.00	0.00	0.00
10Itr	1.0	0.12	0.06	0.03	0.01	0.01	0.03	0.05
Imax	1.0	0.11	0.04	0.02	0.02	0.01	0.03	0.05
Itr	0.5ind	0.11	0.08	0.04	0.02	0.07	0.12	0.15
10Itr	0.5ind	0.19	0.07	0.04	0.03	0.05	0.04	0.03
Imax	0.5ind	0.15	0.08	0.03	0.02	0.02	0.02	0.06
L2								
Itr	1.0	0.12	0.05	0.02	0.01	0.00	0.01	0.01
10Itr	1.0	0.11	0.05	0.02	0.00	0.00	0.02	0.05
Imax	1.0	0.10	0.04	0.02	0.01	0.02	0.05	0.08
Itr	0.5ind	0.19	0.10	0.06	0.04	0.07	0.17	0.30
10Itr	0.5ind	0.14	0.07	0.03	0.03	0.05	0.03	0.01
Imax	0.5ind	0.11	0.06	0.04	0.02	0.02	0.12	0.14
L3								
Itr	1.0	0.17	0.09	0.05	0.02	0.02	0.02	0.01
10Itr	1.0	0.15	0.08	0.05	0.01	0.00	0.02	0.04
Imax	1.0	0.15	0.08	0.04	0.01	0.01	0.04	0.06
Itr	0.5ind	0.22	0.13	0.09	0.02	0.18	0.18	0.32
10Itr	0.5ind	0.16	0.05	0.05	0.01	0.03	0.02	0.01
Imax	0.5ind	0.18	0.11	0.07	0.01	0.01	0.04	0.08

Product Variant Identification Details

Type Designation		Description of meter
Product	Model (SKU)	Description
ION7400	METSEION74001	Polyphase, Active Import/ Export (kWh), Transformer Operated, Auxiliary Power Supply, RS485, Dual Ethernet, ANSI C12.19 Optical Port, USB, 1 Digital Output, 3 Digital Inputs
	METSEION74101	Polyphase, Active Import/ Export (kWh), Transformer Operated, Auxiliary Power Supply (20-60 VDC), RS485, Dual Ethernet, ANSI C12.19 Optical Port, USB, 1 Digital Output, 3 Digital Inputs
	METSEION74001A	Polyphase, Active Import/ Export (kWh), Transformer Operated, Auxiliary Power Supply, RS485, Dual Ethernet, ANSI C12.19 Optical Port, USB, 1 Digital Output, 3 Digital Inputs Advanced Integrated Display, MID
	METSEION74001E	Polyphase, Active Import/ Export (kWh), Transformer Operated, Auxiliary Power Supply, RS485, Dual Ethernet, 1 Digital Output, 3 Digital Inputs Essential MID, integrated display
Aux Device	METSEPMFIBER	+ 100BASE FX SC duplex connector

Certificate Revision History

Issue	Date	Comments
0120/SGS0340 Issue 1	2018-02-20	Initial Issue
0120/SGS0340 Issue 2	2018-05-27	Auxiliary devices included in product details
0120/SGS0340 Issue 3	2018-10-19	Reference to IEC test report EMA211257/1 added to page 1
0120/SGS0340 Issue 4	2019-04-18	New firmware version 002.001.000 & CRC checksum No. 0x49d43152 added.
0120/SGS0340 Issue 5	2020-03-03	New firmware version 002.002.001 & CRC checksum No. 0xb0f2a762 added. BOM numbers changed to part numbers. Rear label updated to show correct marking 0120/SGS0340
0120/SGS0340 Issue 6	2020-04-14	BOM number corrections
0120/SGS0340 Issue 7	2020-09-17	New firmware version 003.000.000 & CRC checksum No. 0x89b163bb added.
0120/SGS0340 Issue 8	2021-06-16	New firmware version 003.000.001 & CRC checksum No. 0x3ba6d971 added. Nameplate updated with M21 and NB No 0598
0120/SGS0340 Issue 1	2021-11-22	Issue 1 for SGS Fimko NB 0598 The original approval certificate issued 20/02/2018 The modifications listed above were made prior to the transfer to SGS Fimko. New software version 003.001.000. Assessed to meet the requirements of Welmec 11.8.
0120/SGS0340 Issue 2	2023-03-31	New firmware version 004.000.000. CRC 0x84d12d44 Alternative construction CPU PCBA, GEX43722 Corporate legal name changed. Replaced dba Power Measurement with Schneider Electric Inc.
0120/SGS0340 Issue 3	2023-08-30	METSEPMFIBER added to list of Aux Devices on the TEC (as an I/O accessory)
0120/SGS0340 Issue 4	2023-12-20	New model METSEION74101 added to approval
0120/SGS0340 Issue 5	2024-03-12	New models METSEION74001A & METSEION74001E added to approval. Updated firmware version 004.005.000. CRC 0xf770ec65
1	2025-07-15	This certificate replaces earlier issued certificate number 0120/SGS0340 issue 5. The manufacturer can use the previous certificate number 0120/SGS0340 in their Declaration of Conformity and other documentation until normal lifecycle of the documentation comes to its end. New EU Type Examination Certificate number: 0598/MID/B/25/073 New software version 004.006.000 & CRC 0xf770611cb