EU Type Examination Certificate Number: **0120/SGS0340**

Schneider Electric

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

Instrument Identification
ION7400

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 Number
0120/SGS0340

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 until 19th February 2028
Issue 5

Certification is based on report number(s) EMA247506/1/MID dated 23rd December 2017, EMA211257/1 dated 28th June 2016

Authorised Signature

Tuomas Hänninen

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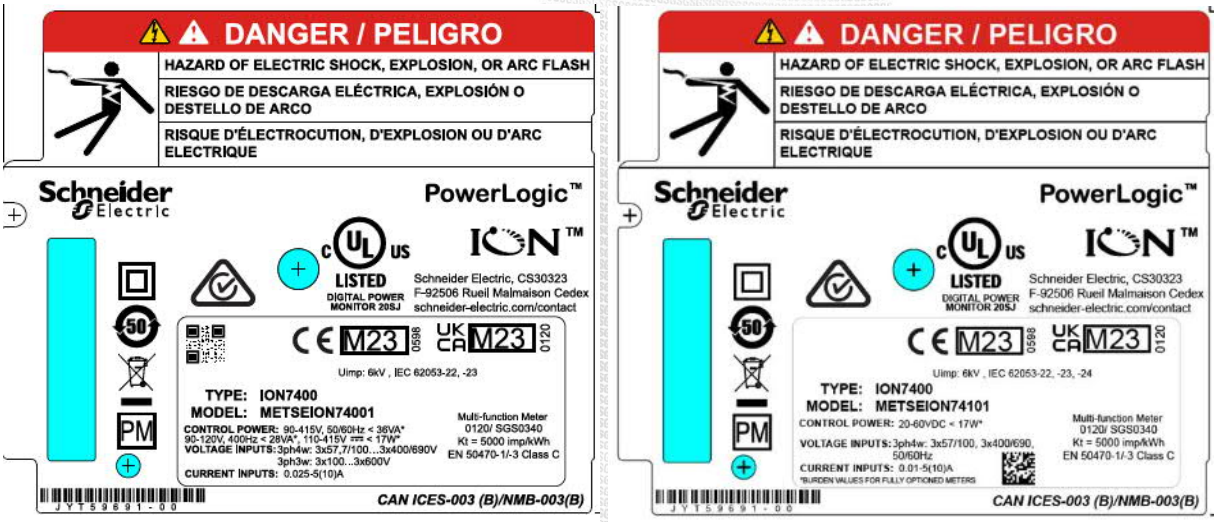
1. Technical Data

Manufacturer	Schneider Electric
Meter Type(s)	ION7400
Voltage Rating *(Un)*	3P3W: 3x100 V to 3x600 V (L-L) 3P4W: 3 x 57.7/100 V to 3x400/690 V
Current Rating *(Imin – Iref (Imax))*	0.025-5(10) A
Frequency *(Fn)*	50 Hz or 60Hz (IEC only)
Active Accuracy Class *(kWh)*	C (kWh)
Type of circuit	3P4W, 3P3W
Temperature Range	-25ºC to +70ºC
Software/ Firmware Version No 's **Identification Location**	Version: 001.004.003. CRC: 0x5e1c559e Version: 002.001.000. CRC: 0x49d43152 Version: 002.002.001. CRC: 0xb0f2a762 Version: 003.000.000. CRC: 0x89b163bb Version: 003.000.001. CRC: 0x3ba6d971 Version: 003.001.000. CRC: 0x1b86091a Version: 004.000.000. CRC: 0x84d12d44 Version: 004.005.000. CRC: 0xf770ec65 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
Mechanical Environment	M1
Electromagnetic Environment	E2
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	4kV
Main Cover Sealing Type	Destructible rivet
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Location of Manufacturers Address	Associated Documents

2. Photograph of Meter

3. Examples of Nameplate



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:-

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

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*

5. Annex of Variants

Product Variant Identification Details:

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

Modifications to the meter(s) described according to approval No.**0120/SGS0340** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

6. Document Revision History

Issue	Date	Comments
1	20/02/2018	Initial Issue
2	27/05/2018	Auxiliary devices included in product details
3	19/10/2018	Reference to IEC test report EMA211257/1 added to page 1
4	18/04/2019	New firmware version 002.001.000 & CRC checksum No. 0x49d43152 added.
5	03/03/2020	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
6	14/04/2020	BOM number corrections
7	17/09/2020	New firmware version 003.000.000 & CRC checksum No. 0x89b163bb added.
8	16/06/2021	New firmware version 003.000.001 & CRC checksum No. 0x3ba6d971 added. Nameplate updated with M21 and NB No 0598
1	22/11/2021	Issue 1 for SGS Fimko NB 0598 The original approval certificate issued 07/09/2015 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.
2	31/03/2023	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.
3	30/08/2023	METSEPMFIBER added to list of Aux Devices on the TEC (as an I/O accessory)
4	19/12/2023	New model METSEION74101 added to approval
5	12/03/2024	New models METSEION74001A & METSEION74001E added to approval. Updated firmware version 004.005.000. CRC 0xf770ec65

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END OF CERTIFICATE