



SGS

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

Schneider Electric

dba Powēr Measurement Ltd.
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 for 10 years from 20th February 2018 until 19th February 2028
Issue 7

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

Authorised Signature

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DU_CST-ME-002 Rev 1

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EU Type Examination Cert.

SGSPAPER
20295109






EU-Type Examination Certificate Number:

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Dated: 17th September 2020**1. Technical Data**

Manufacturer	Schneider Electric
Meter Type(s)	ION7400
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 Hz or 60Hz (IEC only)
Active Accuracy Class (kWh)	C (kWh)
Type of circuit	3P4W, 3P3W
Temperature Range	-25°C to +70°C
Software/ Firmware Version No 's	Version: V001.004.003. CRC: 0x5e1c559e Version: 002.001.000. CRC: 0x49d43152 Version: 002.002.001. CRC: 0xb0f2a762 Version: 003.000.000. CRC: 0x89b163bb
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
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

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2. Photographs of Meter



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3. Nameplate

⚠ DANGER / PELIGRO

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH
RIESGO DE DESCARGA ELÉCTRICA, EXPLOSIÓN O DESTELLO DE ARCO
RISQUE D'ÉLECTROCUTION, D'EXPLOSION OU D'ARC ÉLECTRIQUE

Schneider Electric **PowerLogic™**

UL US LISTED DIGITAL POWER MONITOR 705J

CE M20 0120 ION™


Schneider Electric, CS30323
F-92508 Rueil Malmaison Cedex
schneider-electric.com/contact

PowerLogic™ METSEION74001

CONTROL POWER: 120VAC, 60Hz
VOLTAGE RATING: Δ120Vll - 600Vll, FREQ: 60Hz 0120/ SGS0340
OPERATING TEMP: 25°C - 53°C
MIN. CURRENT: 50mA

NHA 86419-05

CAN ICES-3 (B)/NMB-3(B)

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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:-

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

where

- $\delta e(T, I, \cos\phi) =$ Additional error due to variation of the temperature at the same load
- $\delta e(U, I, \cos\phi) =$ Additional error due to variation of the voltage at the same load
- $\delta e(f, I, \cos\phi) =$ 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	70° C
I _{min}	1.0	0.16	0.11	0.05	0.05	0.05	0.05	0.05
I _{tr}	1.0	0.13	0.07	0.04	0.01	0.00	0.01	0.01
10I _{tr}	1.0	0.13	0.06	0.03	0.00	0.00	0.02	0.05
I _{max}	1.0	0.12	0.06	0.03	0.01	0.01	0.46	0.07
I _{tr}	0.5ind	0.19	0.10	0.05	0.03	0.07	0.16	0.26
10I _{tr}	0.5ind	0.16	0.08	0.04	0.02	0.03	0.06	0.01
I _{max}	0.5ind	0.17	0.08	0.05	0.01	0.01	0.01	0.10
I _{tr}	0.8cap	0.15	0.05	0.04	0.03	0.05	0.08	0.13
10I _{tr}	0.8cap	0.11	0.05	0.02	0.01	0.01	0.04	0.07
I _{max}	0.8cap	0.10	0.05	0.02	0.02	0.02	0.04	0.06
L1								
I _{tr}	1.0	0.08	0.04	0.01	0.00	0.00	0.00	0.00
10I _{tr}	1.0	0.12	0.06	0.03	0.01	0.01	0.03	0.05
I _{max}	1.0	0.11	0.04	0.02	0.02	0.01	0.03	0.05
I _{tr}	0.5ind	0.11	0.08	0.04	0.02	0.07	0.12	0.15
10I _{tr}	0.5ind	0.19	0.07	0.04	0.03	0.05	0.04	0.03
I _{max}	0.5ind	0.15	0.08	0.03	0.02	0.02	0.02	0.06
L2								
I _{tr}	1.0	0.12	0.05	0.02	0.01	0.00	0.01	0.01
10I _{tr}	1.0	0.11	0.05	0.02	0.00	0.00	0.02	0.05
I _{max}	1.0	0.10	0.04	0.02	0.01	0.02	0.05	0.08
I _{tr}	0.5ind	0.19	0.10	0.06	0.04	0.07	0.17	0.30
10I _{tr}	0.5ind	0.14	0.07	0.03	0.03	0.05	0.03	0.01
I _{max}	0.5ind	0.11	0.06	0.04	0.02	0.02	0.12	0.14
L3								
I _{tr}	1.0	0.17	0.09	0.05	0.02	0.02	0.02	0.01
10I _{tr}	1.0	0.15	0.08	0.05	0.01	0.00	0.02	0.04
I _{max}	1.0	0.15	0.08	0.04	0.01	0.01	0.04	0.06
I _{tr}	0.5ind	0.22	0.13	0.09	0.02	0.18	0.18	0.32
10I _{tr}	0.5ind	0.16	0.05	0.05	0.01	0.03	0.02	0.01
I _{max}	0.5ind	0.18	0.11	0.07	0.01	0.01	0.04	0.08



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5. Annex of Variants

Product Variant Identification Details:

Product	Model (SKU)	Description
ION7400	METSEION74001	Poly phase, Active Import/ Export (kWh), Transformer Operated, Auxiliary Power Supply, RS485, Dual Ethernet, ANSI C12.19 Optical Port, USB, 1 Digital Output, 3 Digital Inputs
Aux Devices	METSEPM89M2600 METSEPM89M0024	Digital I/O module (6 digital inputs & 2 relay outputs) Analogue I/O module (4 analogue inputs & 2 analogue outputs)

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).

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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.

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