

EU Type Examination Certificate Number: 0120/ SGS0099/R1

# Schneider Electric

Wuxi Pro-Face Electronics Co. Ltd  
51-A block of Wuxi High-tech Industrial Development Zone  
Wuxi  
Jiangsu, 214028  
P.R.C

Instrument Identification:  
**iEM32xx**

**Poly Phase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter**

Instrument Traceable Number  
**0120/ SGS0099**

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 from 3<sup>rd</sup> April 2022 until 2<sup>nd</sup> April 2032

Issue 1

Certification is based on report number(s)

EMA153420-1 Issue 2 dated 3<sup>rd</sup> April 2012, EMA153420/1/1p4w dated 21<sup>st</sup> August 2015  
EMA154320/1/0.01-1(1.2)A 3P4W & EMA154320/1/0.01-1(1.2)A 1P4W dated 25<sup>th</sup> June 2020  
EMA297432/1/EM3255 dated 22<sup>nd</sup> March 2022

Authorised Signature

Tuomas Hänninen

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EU-Type Examination Certificate Number:

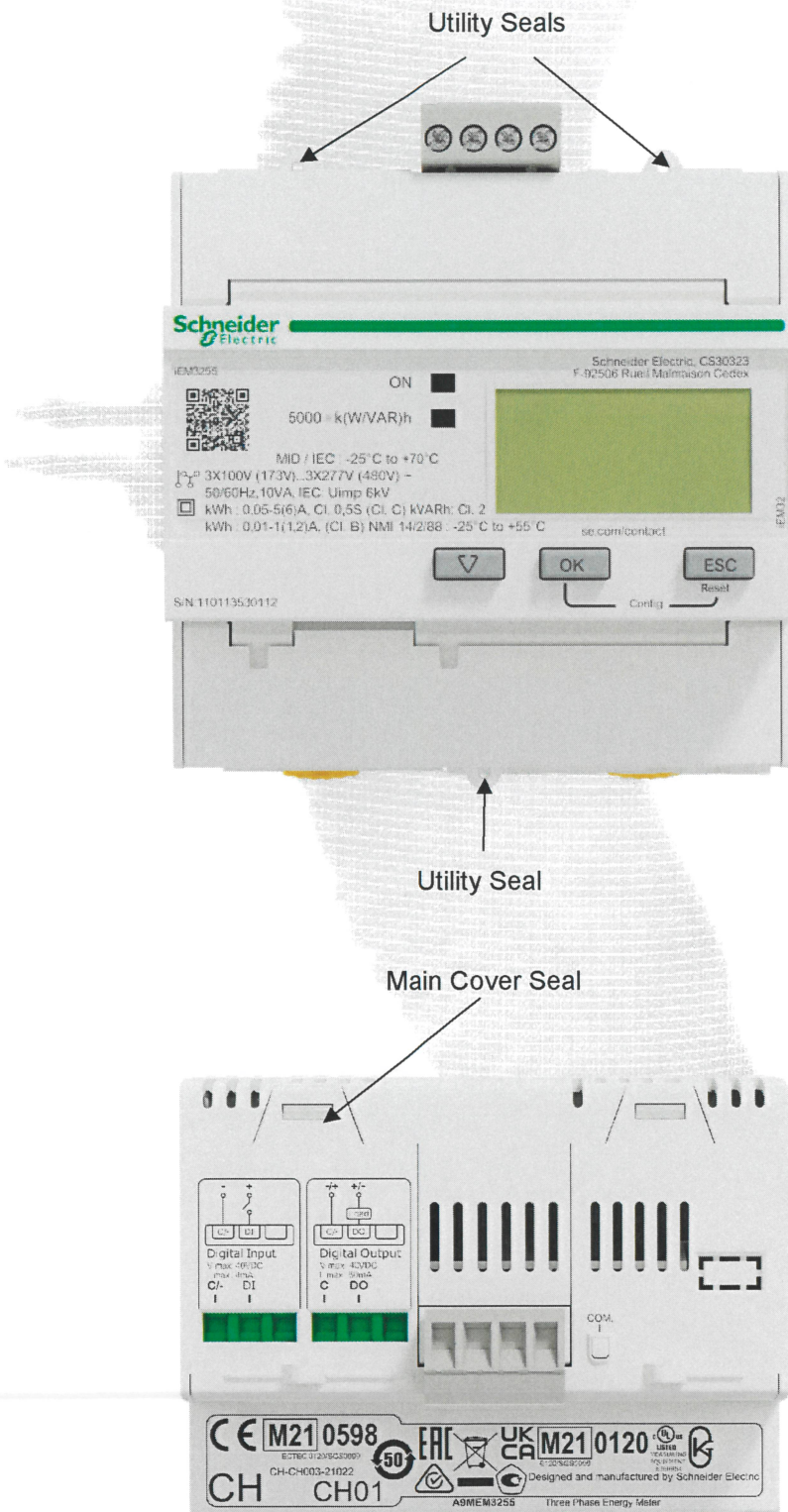
**0120/SGS0099/R1**


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Dated: 3<sup>rd</sup> April 2022**1. Technical Data**

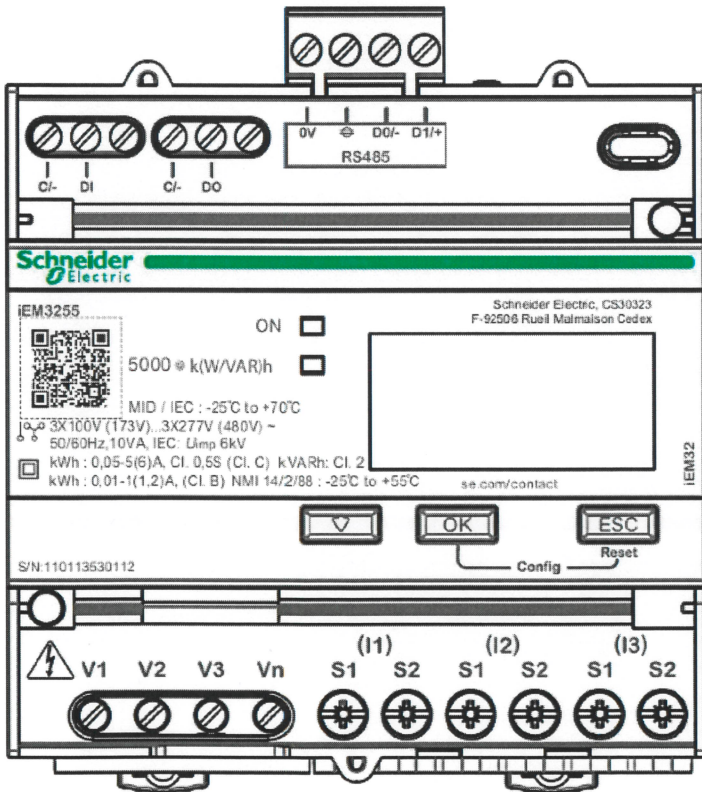
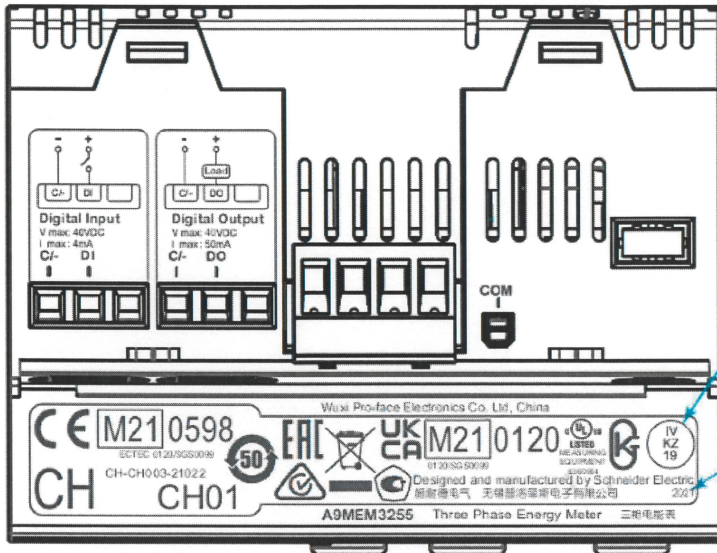
Manufacturer	Schneider Electric
Meter Type	iEM32xx
Voltage Rating ( $U_n$ )	100/ 173V – 277/ 480V
Current Rating ( $I_{min}$ – $I_{ref}$ ( $I_{max}$ ))	0.01-1(1.2)A, 0,05-5(6)A
Frequency ( $F_n$ )	50Hz
Active Accuracy Class ( $kWh$ )	0.01-1(1.2)A – Class B 0,05-5(6)A – Class C
Type of circuit	3p4w, 1p4w
Temperature Range	-25°C to +70°C
Software/ Firmware Version No's	1.0.XXX or 1.2.XXX or 1.3.XXX or 1.4.XXX or 1.5.XXXX or 1.6.XXXX
CRC Checksum No's	0X24E427A or 0X24E0B20 or 0X23C8A0E or 0X2228602 or 0X400B9E4 or 0X040E6DE9 or 0xFC07FBCA or 0xF3FF14DC or F3FEFA57h
Identification Location	LCD
Bill Of Materials No's	iEM3210-S1B73147 iEM3255-S1B73150 iEM3215- S1B73148 iEM3235- HRB34629 iEM3265- HRB63167 iEM3275- HRB34626
IP Rating * = The meter casing is only IP20 compliant. Therefore the meter MUST always be fitted into an IP51 approved enclosure.	IP20 Casing*
Insulation Protective Class	Class II
LED Pulse Constant	5000 imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	1 x Tamper-proof Adhesive Label
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	BS
Location of Manufacturers Address	Nameplate

2. Photograph of Meter and Sealing Plan



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### 3. Examples of Nameplates



#### 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

5.		Influence Factors for temperature, frequency and voltage						
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
Imin	1.0	0.12	0.16	0.10	0.15	0.15	0.10	0.12
Itr	1.0	0.02	0.08	0.07	0.02	0.02	0.06	0.23
10Itr	1.0	0.06	0.04	0.08	0.04	0.04	0.01	0.13
Imax	1.0	0.06	0.04	0.09	0.05	0.05	0.06	0.13
Itr	0.5ind	0.39	0.33	0.20	0.09	0.09	0.21	0.32
10Itr	0.5ind	0.20	0.19	0.21	0.20	0.20	0.19	0.23
Imax	0.5ind	0.08	0.02	0.07	0.05	0.05	0.25	0.13
Itr	0.8cap	0.17	0.08	0.06	0.06	0.06	0.07	0.22
10Itr	0.8cap	0.10	0.09	0.12	0.09	0.09	0.08	0.14
Imax	0.8cap	0.06	0.04	0.08	0.03	0.03	0.01	0.13
L1								
Itr	1.0	0.10	0.09	0.09	0.08	0.08	0.08	0.21
10Itr	1.0	0.10	0.04	0.08	0.06	0.06	0.03	0.11
Imax	1.0	0.09	0.04	0.08	0.05	0.05	0.03	0.10
Itr	0.5ind	0.39	0.35	0.23	0.17	0.17	0.20	0.39
10Itr	0.5ind	0.14	0.08	0.11	0.09	0.09	0.08	0.17
Imax	0.5ind	0.14	0.02	0.07	0.03	0.03	0.02	0.14
L2								
Itr	1.0	0.07	0.11	0.10	0.04	0.04	0.10	0.34
10Itr	1.0	0.07	0.11	0.12	0.09	0.09	0.07	0.14
Imax	1.0	0.02	0.08	0.10	0.03	0.03	0.01	0.14
Itr	0.5ind	0.25	0.27	0.16	0.10	0.10	0.20	0.32
10Itr	0.5ind	0.30	0.29	0.29	0.29	0.29	0.29	0.30
Imax	0.5ind	0.10	0.03	0.05	0.05	0.05	0.05	0.08
L3								
Itr	1.0	0.05	0.07	0.10	0.04	0.05	0.07	0.20
10Itr	1.0	0.09	0.04	0.08	0.05	0.05	0.03	0.14
Imax	1.0	0.08	0.05	0.08	0.06	0.05	0.03	0.13
Itr	0.5ind	0.54	0.44	0.26	0.12	0.11	0.14	0.35
10Itr	0.5ind	0.19	0.18	0.20	0.18	0.18	0.17	0.26
Imax	0.5ind	0.08	0.04	0.09	0.08	0.08	0.06	0.18



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## 6. Annex of Variants


Product Variant Identification Details:

### Type Designation

### Description of meter

Model	Description
iEM3210 -	Polyphase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter, With 1 pulse output
iEM3215 -	Polyphase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter, With Multi-tariff by 2 Digital Inputs
iEM3255 -	Polyphase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter, With 1 Digital Input & 1 Digital Output and modbus communication
iEM3235 -	Polyphase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter, With 1 Digital Input & 1 Digital Output and M-Bus communication.
iEM3265 -	Polyphase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter, With 1 Digital Input & 1 Digital Output and BACnet communication.
iEM3275 -	Polyphase, Active Import/ Export (kWh), Transformer Operated, Electricity Meter, With 1 Digital Input and LonWorks communication

Modifications to the meter(s) described according to approval No.0120/SGS0099/R1 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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## 7. Document Revision History

Issue	Date	Comments
1	03/04/2022	Re certification initial issue Extended operating temperature range -25°C to +70°C

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**END OF CERTIFICATE**