

EU Type Examination Certificate Number: 0120/SGS0196

# **Autometers Systems Ltd**

4B Albany Road Manchester M21 0AW United Kingdom.

Instrument Identification:

A-35M Poly Phase, Active Import/Export, Indoor, Multi-Function, Transformer Operated, Electricity Meter

HT-35 Poly Phase, Active Import/Export, Indoor, Multi-Function, Multi-tariff, Transformer Operated, Electricity Meter

> Instrument Traceable Number 0120/SGS0196

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 9<sup>th</sup> March 2024 Issue 2

Certification is based on report number(s) EMA174647/1/MID dated 30<sup>th</sup> January 2014 EMA206567/1 dated 7<sup>th</sup> July 2015

Authorised Signature

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EU-Type Examination Certificate Number:

## 0120/SGS0196

Issue Number: 2

Dated: 3<sup>rd</sup> July 2019

### 1. Technical Data

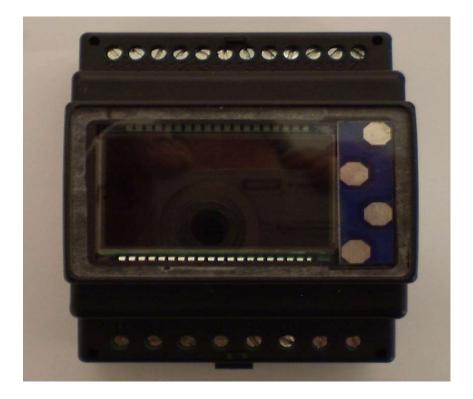
Manufacturer	Autometers	Systems Ltd		
Meter Type	A-35M	A-35M & HT-35		
Voltage Rating <i>(Un)</i>	3x230	3x230/400V		
Current Rating (Imin – Iref (Imax))	0.25-	0.25-5(6)A		
Frequency <i>(Fn)</i>	50	50Hz		
Active Accuracy Class (kWh)	A or B	A or B (kWh)		
Type of circuit	3p4w, 3p	3p4w, 3p3w, 1p2w		
Temperature Range	-25°C to	-25°C to +55°C		
	A-35M	HT-35		
Software/ Firmware Version No	V1.3	V1.6		
CRC Checksum	0x0000D5C8	0x005C9E86		
Identification Location	Nameplate	Nameplate		
Bill Of Materials Number	SDM630-1-L-V1.5 SDM630-1-BOT-V1.5 SDM630-1-TOP-V1.5 SDM630-1-KEY-V1.0 SDM630-1-R-V1.5	DH-JS-190004-1.1		
IP Rating	IP	51		
Insulation Protective Class	Cla	Class II		
LED Pulse Constant	3200im	3200imp/ kWh		
Impulse Voltage Rating	6	6kV		
AC Voltage Rating	4	4kV		
Main Cover Sealing Type	2 x Wire	2 x Wire & Crimp		
Integrity of meter	Inaccessible with	Inaccessible without breaking seals		
Intended Location of the Meter	Ind	Indoor		
Type of Register		LCD		
Terminal Arrangement(s)	D	DIN		
Location of Manufacturers Address	Side o	Side of meter		



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2. Photograph of Meter and Sealing Plan

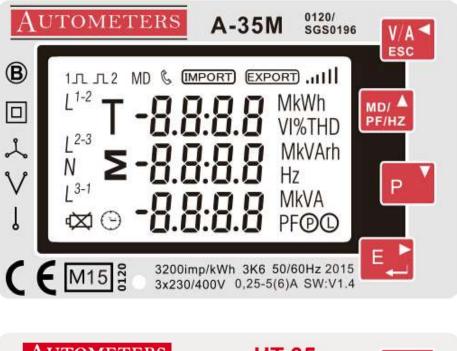


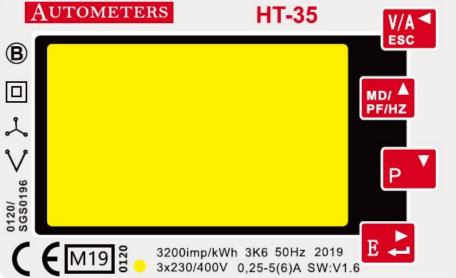


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### 3. Examples of Nameplates







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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:-

δ e (*T*, *U*, *f*) = √ (δ e<sup>2</sup> (*T*, *I*, cosφ), δ e<sup>2</sup> (*U*, *I*, cosφ), δ e<sup>2</sup> (*f*, *I*, cosφ))

where

$\delta \mathbf{e}(T, I, \cos \varphi)$	=	Additional error due to variation of the temperature at the same load
$\delta \mathbf{e}(U, I, \cos \varphi)$	=	Additional error due to variation of the voltage at the same load
$\delta \mathbf{e}(f, I, \cos \phi)$	=	Additional error due to variation of the frequency at the same load



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		Influenc	e Factors	for Tempe	rature. Fre	equency &	Voltage
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
Imin	1.0	0.39	0.30	0.71	0.16	0.25	0.39
ltr	1.0	0.33	0.27	0.28	0.18	0.25	0.47
10ltr	1.0	0.35	0.31	0.24	0.22	0.29	0.49
Imax	1.0	0.36	0.31	0.25	0.21	0.28	0.47
Itr	0.5ind	0.26	0.25	0.36	0.16	0.23	0.44
10ltr	0.5ind	0.38	0.34	0.29	0.27	0.34	0.52
Imax	0.5ind	0.42	0.38	0.32	0.30	0.36	0.52
ltr	0.8cap	0.31	0.42	0.43	0.32	0.37	0.50
10ltr	0.8cap	0.32	0.27	0.21	0.17	0.26	0.45
Imax	0.8cap	0.34	0.28	0.21	0.15	0.24	0.43
L1							
ltr	1.0	0.37	0.39	0.44	0.14	0.28	0.35
10Itr	1.0	0.34	0.30	0.24	0.20	0.27	0.47
Imax	1.0	0.33	0.30	0.23	0.21	0.28	0.47
Itr	0.5ind	0.41	0.56	0.96	0.14	0.15	0.16
10ltr	0.5ind	0.49	0.46	0.42	0.38	0.43	0.62
Imax	0.5ind	0.49	0.46	0.42	0.39	0.44	0.60
L2							
ltr	1.0	0.25	0.20	0.12	0.18	0.31	0.51
10Itr	1.0	0.38	0.32	0.23	0.19	0.28	0.45
Imax	1.0	0.38	0.32	0.23	0.21	0.28	0.47
Itr	0.5ind	0.12	0.12	0.13	0.25	0.38	0.59
10Itr	0.5ind	0.36	0.33	0.25	0.25	0.32	0.49
Imax	0.5ind	0.39	0.35	0.28	0.27	0.34	0.49
L3							
ltr	1.0	0.32	0.27	0.21	0.19	0.27	0.46
10Itr	1.0	0.32	0.28	0.22	0.21	0.30	0.50
Imax	1.0	0.33	0.30	0.23	0.22	0.30	0.50
Itr	0.5ind	0.32	0.32	0.24	0.20	0.29	0.53
10Itr	0.5ind	0.34	0.29	0.23	0.23	0.33	0.54
Imax	0.5ind	0.35	0.31	0.25	0.13	0.33	0.53



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#### 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
A-35M	0.25-5(6)A – Poly Phase, Active Import/Export kWh, Multifunction, Transformer Operated, Electricity Meter
HT-35	0.25-5(6)A – Poly Phase, Active Import/Export kWh, Multifunction, Transformer Operated, Electricity Meter, Multi tariff

Modifications to the meter(s) described according to approval No.**0120/SGS0196** 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	07/07/2015	Initial Issue
2	03/07/2019	Updated directive reference to "2014/32/EU" and HT-35 variant added to approval

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