

EC Type Examination Certificate Number: **UK/ 0120/ SGS0241**

KHLSM

Akçaburgaz Mahallesi 58.
Sokak No:3 Esenyurt
İSTANBUL
TURKEY

Instrument Identification:
AEL.MF.07

Instrument Traceable Number
0120/SGS0241

Single Phase, Multi-rate, Active Import / Export, Outdoor, Electricity Meter

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

Measuring Instruments Annex 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 MI-003 of EC Directive 2004/22/EC

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex D or Annex F

This certificate is valid until 19th May 2020
Issue 1


Certification is based on report number(s)
EMA136111 dated 20th May 2010
EMA187627 dated 27th March 2014
EMA 225326 dated 15th June 2016

Authorised Signature

Jan Saunders




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1. Technical Data

Manufacturer	KHLSM
Meter Type	AEL.MF.07
Voltage Rating (U_n)	230V
Current Rating (I_{min} – I_{ref} (I_{max}))	0,25-5(90)A, 0,25-5(85)A 0,25-5(80)A, 0,25-5(60)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-40°C to 70°C
Software Version No's.	PR0G:0007 & PROG: 0008
Identification Location	LCD
Bill Of Materials No.'s	MF201003ML - REV: 006 or MF201304ML - REV: 007
IP Rating	IP54
Insulation Protective Class	Class II
LED Pulse Constant	1600imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Main Meter Cover – Lead Inserts Terminal Cover - Plastic Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Outdoor
Type of Register	LCD

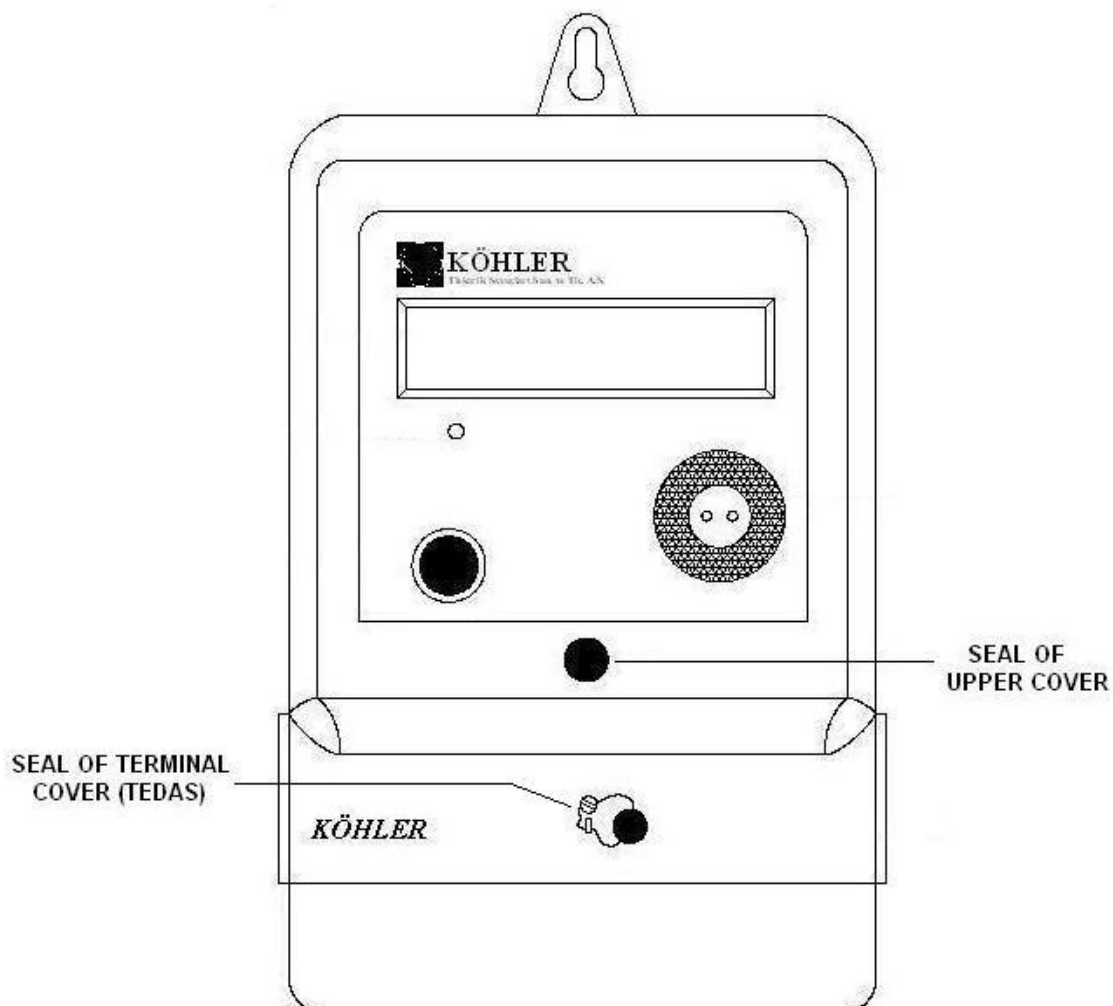
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2. Photograph of Meter



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3. SEALING POINTS FOR AEL.MF.07 MODEL



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4. Influence factors for temperature, frequency and voltage

		Influence Factors for temperature, frequency and voltage							
Current	PF Cos	-40	-25	-10	5	30	40	55	70
I _{min}	1.0	0.27	0.23	0.31	0.27	0.24	0.39	0.54	1.01
I _{tr}	1.0	0.45	0.56	0.60	0.55	0.41	0.39	0.43	0.85
10I _{tr}	1.0	0.13	0.22	0.26	0.22	0.13	0.24	0.39	0.88
I _{max}	1.0	0.30	0.32	0.31	0.21	0.14	0.27	0.47	0.35
I _{tr}	0.5ind	0.35	0.43	0.37	0.37	0.20	0.33	0.65	1.20
10I _{tr}	0.5ind	0.22	0.31	0.33	0.24	0.18	0.28	0.57	1.02
I _{max}	0.5ind	0.47	0.42	0.36	0.25	0.19	0.34	0.62	0.68
I _{tr}	0.8cap	0.13	0.24	0.33	0.23	0.16	0.28	0.47	0.98
10I _{tr}	0.8cap	0.15	0.20	0.26	0.22	0.16	0.26	0.48	0.90
I _{max}	0.8cap	0.22	0.25	0.28	0.21	0.15	0.28	0.52	0.68

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table above 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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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
AEL.MF.07	0,25-5(90)A, 0,25-5(85)A, 0,25-5(80)A, 0,25-5(60)A 230V, Single Phase, Multi-rate, Active Import/ Export (kWh), Outdoor, Electricity Meter

Modifications to the meter(s) described according to approval No.**0120/ SGS0241** 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	15 June 2016	Initial issue