



EC Type Examination Certificate Number: **0120/ SGS0184**

RDL Meters Ltd

Unit E2
Westfield Business Park
Long Road
Paignton
Devon
TQ4 7AU

Instrument Identification:
MCM-030

Single Phase, Multi-rate, Active Import (kWh), Electricity Meter
Instrument Traceable Number
0120/ SGS0184

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC **on 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 for 10 years from 18th May 2015 until 17th May 2025
Issue 2

Certification is based on report number(s) EMA200556/1 dated 15th May 2015

Authorised Signature

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	Issue Number: 2	Dated: 6 th April 2016

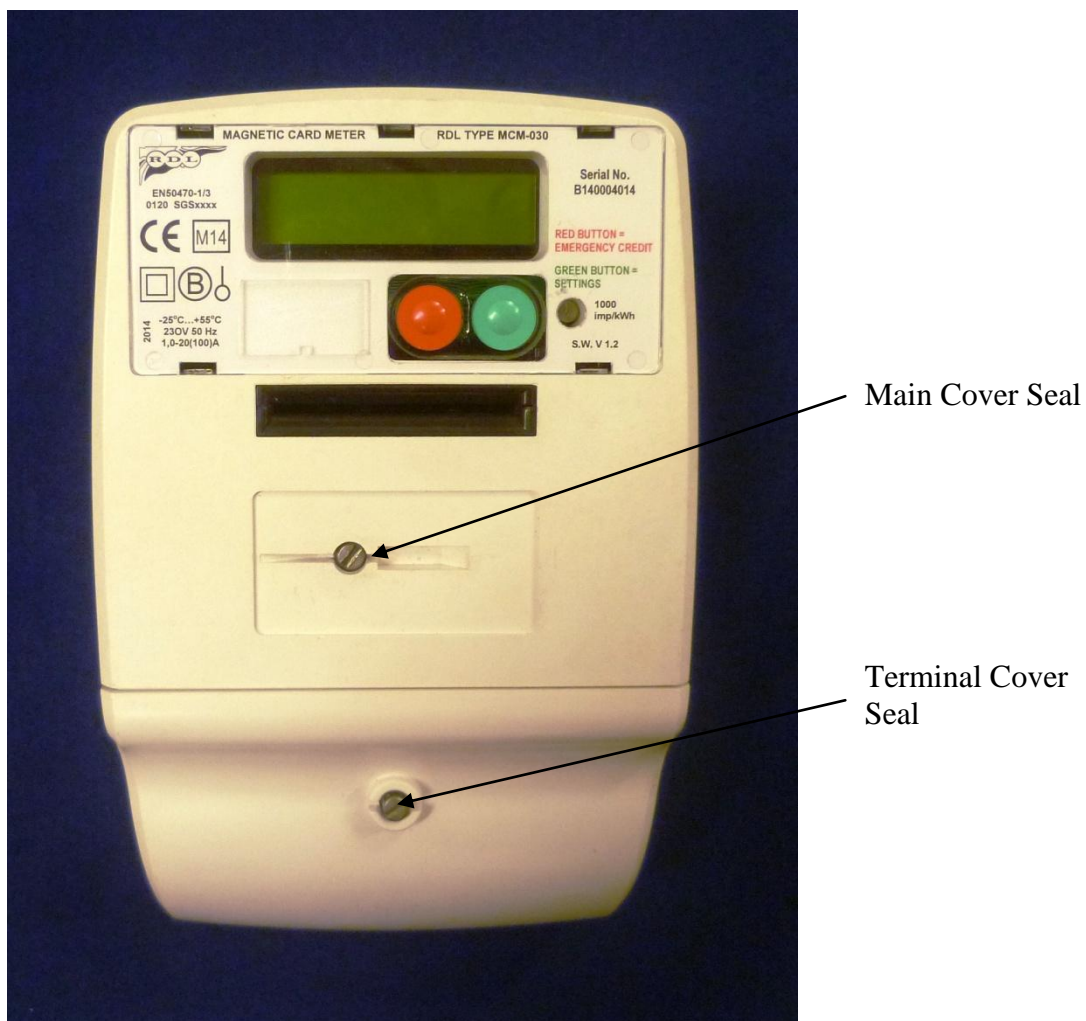
1. Technical Data


Manufacturer	RDL Meters Ltd
Meter Type	MCM-030
Voltage Rating (U_n)	230V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	1-20(100)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	B (kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No	V1.2
Identification Location	LCD & Nameplate
Bill Of Materials Number	MCM-030 Issue 2 Rev D
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	BS

“In line with the green efficiency code, RDL use certain recycled components within the accepted MID approval. SGS is satisfied that this will in no way reduce the quality of the meter.”

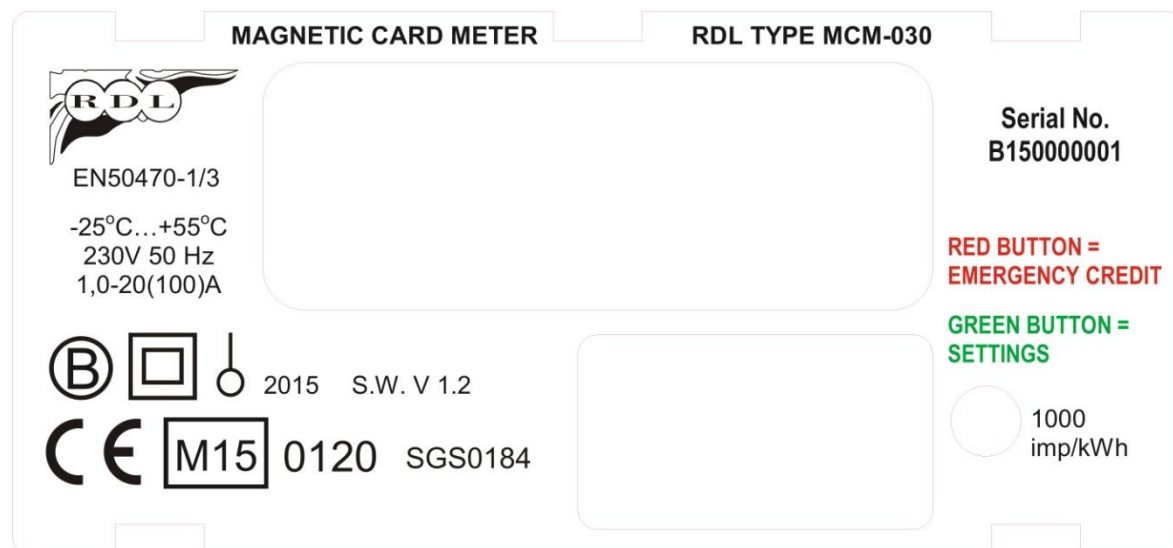
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2. Photograph of Meter and Sealing Plan



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3. Name-plate



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4. Influence factors for temperature, frequency and voltage


		Influence Factors for temperature, frequency and voltage					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	0.14	0.09	0.10	0.07	0.08	0.17
I _{tr}	1.0	0.07	0.05	0.05	0.04	0.07	0.14
10I _{tr}	1.0	0.05	0.05	0.05	0.05	0.05	0.13
I _{max}	1.0	0.11	0.11	0.06	0.13	0.19	0.24
I _{tr}	0.5ind	0.10	0.09	0.08	0.09	0.16	0.23
10I _{tr}	0.5ind	0.08	0.08	0.07	0.10	0.14	0.24
I _{max}	0.5ind	0.22	0.29	0.16	0.17	0.24	0.29
I _{tr}	0.8cap	0.09	0.06	0.05	0.07	0.06	0.11
10I _{tr}	0.8cap	0.06	0.05	0.06	0.05	0.07	0.13
I _{max}	0.8cap	0.22	0.16	0.12	0.12	0.18	0.22

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:-

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

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


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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
MCM-030	Single Phase, 230V, 20(100)A, Class B

Modifications to the meter(s) described according to approval No.**0120/ SGS0184** 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	18/05/2015	Initial Issue
2	06/04/2016	Add statement referring to recycled components