

RDL

ESTABLISHED 1976

COIN AND CARD METER/TIMER MANUFACTURERS

ELECTRONIC METER MODEL TYPE: MHC-1F

USER MANUAL

FOR SPECIFICATION
AND OPERATING
SETTINGS

TEL: 01803 697 600

WWW.RDLMETERS.COM
SALES@RDLMETERS.COM



This meter complies with Class B (1%) to EN50470 1-3

MID Approval Certificate No. 0120/SGS0280

This meter is intended to be installed in a Mechanical Environment ‘M1’ with Shock and Vibrations of low significance, as per 2014/32/EU Directive.

This meter is intended to be installed in electromagnetic Environment ‘E2’, as per 2014/32/EU Directive.

This meter is intended for Indoor use only.

This meter is intended for Non Condensing humidity.

Note that this meter is sealed and there are no user serviceable parts and no user adjustments. The maintenance and repair of this meter is only permissible by RDL Meters Ltd.

GUARANTEE

This meter is guaranteed for a period of 12 months from the date of purchase, subject to the following guarantee conditions:

This meter is covered by RDL Meters Ltd for parts and manufacturing labour.

This guarantee will **not** cover any Consequential losses.

This guarantee will be void under any of the following conditions:

- ▶ Removal of any seals to the case
- ▶ The meter has not been installed by a competent, qualified electrician to standards that satisfy the requirements of the current Institute of Electrical Engineers (IEE)
- ▶ The meter has been incorrectly installed
- ▶ The meter has been subject to a load of greater than 100 Amps
- ▶ The meter has been tampered with, to obtain free electricity

If returning the meter, please contact RDL Meters Ltd to report the return and to arrange an RMA (Return Merchandise Authorisation) number. Make sure that the meter is carefully packed.

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HOW TO ORDER

For Sales Contact:

PASS Ltd - Master Distributor

Visit: www.testers.co.uk

Tel: 01642 626 140

Email: info@testers.co.uk

For Service & Repairs Contact:

RDL Meters Ltd.

Tel: 01803 697 600

Visit: www.rdlmeters.com

RDL Meters Ltd. Unit E2 Westfield Business Park, Long Road, Paignton, Devon, TQ4 7AU

RDL Meters Ltd. Company No: 13667532

1. INTRODUCTION

1.1 Overview

This manual covers the specification and operation for the MHC-1f single phase whole current active energy credit meter.

▶ **The main features of the product are:**

- ▶ All solid state with 8 character LCD
- ▶ Single tariff rate
- ▶ No battery replacement required
- ▶ Reverse Energy Detection
- ▶ Extension Terminal Cover to Protect Supply Cables

2. Technical Data

The MHC-1f is an alternating Current Static Watt Hour Credit Meter, Class B. Double Insulated. 

2.1 Meter LED & Power Registration Security

The red LED mounted on the front panel will pulse at a rate of 1000 pulses per kWh. Power registration is recorded in non-volatile memory under control of the microprocessor which is updated every 24 hours and in the event of a power failure.

2.2 General

Current Rating: 100 Amps
 Terminal Arrangement: BS 7856
 Main Terminal Dimensions: 8.0mm to 8.2mm
 Terminal Construction: Solid Brass
 Terminal Screws: 6.00mm

2.3 Power Supply

Rated Volatge: 230V
 Operating Volatge Rangel: 220V-240V
 Current Range: 1.0-20 (100A)
 Frequency: 50Hz Standard

2.4 Metrology

Meter Accuracy: Active energy, Class B (1%)

2.5 Environmental

Temperature Operating Range: -25 to 55°C
 Storage Range: -25 to 55°C
 Transportation Range: -25 to 70°C
 Ingress Protection: IP51
 Maximum period of 6 hours at the extreme of its temperature range.

2.5 Dimensions

Size: 120mm (H) x 125mm (W) x 54mm (D)
 Weight: 0.410kg

3. NORMAL FUNCTIONAL OPERATION IN METER MODE

3.1 Normal Operation Display

During normal operation the display on the MHC-1f will be shown below.

DISPLAY	REMARKS
XXXXXX.X kWh	XXXXXX.X kWh registered on current tariff

3.2 Reverse Energy Detection

DISPLAY	REMARKS
“rEd”	If reverse power is detected above a pre-determined level the display will indicate “rEd” (Reverse Energy Detection). Reverse energy warning can be removed by isolating and reinstating the power supply.

3.3 Additional Displayed Information

On first application of power, or following a power cut, the display on the meter will be one of those shown below.

4. FUNCTIONAL OPERATION ON APPLICATION OF POWER

4.1 Power Up operation Display

During power up operation the display on the MHC-1f will be one of those shown below.

DISPLAY	REMARKS
88888.8.8.8 kWh	Test all character positions on display.
	Software / Firmware Version
XXXX.XXX kWh	On first application of power, or following a power cut, three decimal places are displayed for the first 30 minutes.
XXXXXX.X kWh	Normal Operation Display.

5. APPENDIX

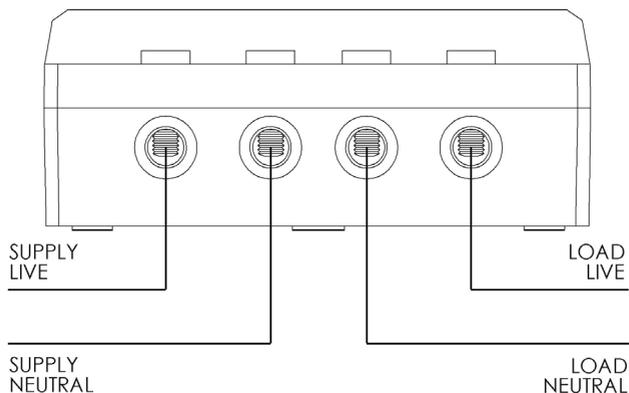
5.1 Starting Current

The meter starts to register at 80 mA.

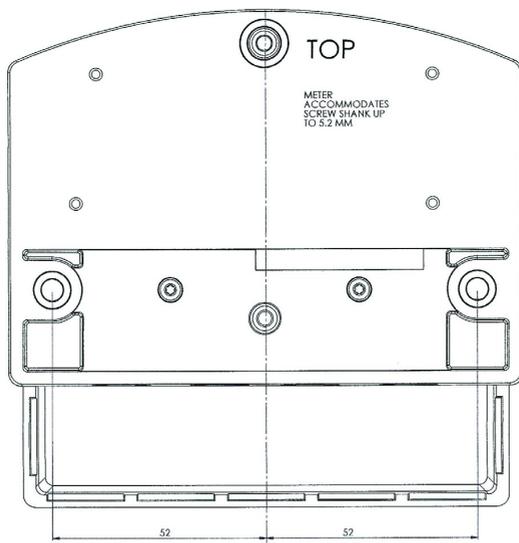
5.2 Wiring Diagram and Mounting Template

The meter must be installed by a competent, qualified electrician to the standards that satisfy the requirements of the current Institute of Electrical Engineers (IEE).

WIRING DIAGRAM



WALL MOUNTING DIMENSIONS



Meter Model:
MHC-1f Single Phase
kWh Credit Meter

This Declaration of Conformity applies
to Meter Serial Number:



EU DECLARATION OF CONFORMITY

RDL Meters Ltd.
Unit E2, Westfield Business Park
Long Road
Paignton
TQ4-7AU
United Kingdom

This declaration of Conformity is issued under the sole responsibility of RDL Meters Ltd.

The fulfilment of the essential requirements set out in Annex I and in the relevant instrument specific Annexes has been demonstrated.

RDL Meters Ltd declares that the new Measuring Instrument described hereafter as MHC-1f Single Phase kWh Credit Meter is in conformity with the provisions of EU Measurement Instrument Directive 2014/32/EU.

The object of the declaration is in conformity with the relevant Union harmonized legislation. BS EN 50470-1:2006 & BS EN 50470-3:2006.

It is identical to the Measuring Instrument which is the subject of EU type examination certificate number 0120/SGS0280 issued by SGS Fimko Ltd Notified Body No. 0598

Is subject to the procedure set out in Module D of the Directive 2014/32/EU under the supervision of SGS Fimko Ltd Notified Body No. 0598.

Verified at RDL Meters Ltd, Paignton

Date:

Peter Gibbs - Technical Director
RDL Meters Ltd

DECLARATION OF CONFORMITY

**Meter Model:
MHC-1f Single Phase
kWh Credit Meter**

**This Declaration of Conformity applies
to Meter Serial Number:**



MIR 2016 DECLARATION OF CONFORMITY

RDL Meters Ltd.

Unit E2, Westfield Business Park
Long Road
Paignton
TQ4-7AU
United Kingdom

This Declaration of Conformity is issued under the sole responsibility of RDL Meters Ltd.

RDL Meters Ltd declares that the new Measuring Instrument described hereafter as MHC-1f Single Phase kWh Credit Meter is in conformity with the provisions of UK Measuring Instruments Regulations 2016.

The object of the declaration is in conformity with the relevant statutory requirements. BS EN 50470-1:2006 & BS EN 50470-3:2006.

It is identical to the Measuring Instrument which is the subject of MIR 2016 type examination certificate number 0120/SGS0280 issued by SGS UK Ltd Approved Body No. 0120.

Is subject to the regulations as set out in Module D of the Measuring Instruments Regulations 2016 under the supervision of SGS UK Ltd Approved Body No.

Verified at RDL Meters Ltd, Paignton

Date:

Peter Gibbs - Technical Director
RDL Meters Ltd

PASS LTD

Master Distributors of RDL Products

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Who are PASS LTD?

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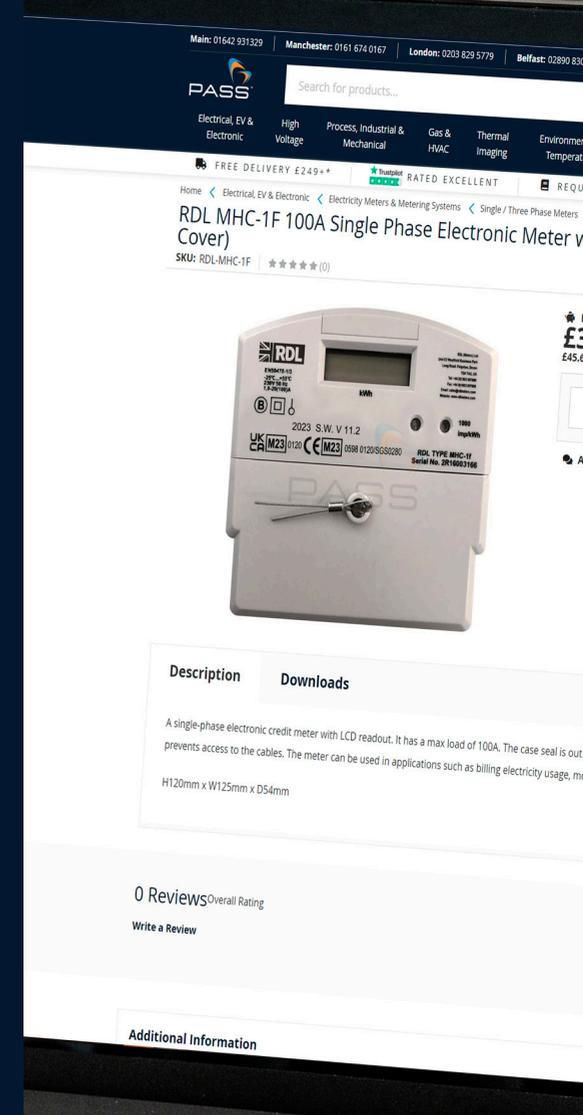
Leading suppliers and stockists of test and measurement equipment. Providing quality and cost-effective solutions to customers across many sectors.

Training

Accredited training provider offering an array of electrical and safety qualifications for both businesses and individuals across the UK and overseas.

Calibration

Calibration, repair and asset management, our UKAS accredited laboratories can cater for all scopes of equipment from the world's leading manufacturers.





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