



RR103-F 60A Mini Meter

The Mini Meter **RR103-F** is single phase, active energy meter with Power Line Communication (PLC) Interface for operation in advanced **Automatic Meter Reading (AMR)** system.

RR103-F measures electric energy consumption and transmits data over the power network using **two way Power Line Communication (PLC)** to a central unit – concentrator – from which data is transmitted to the billing center by cellular communication – GSM/GPRS.

RR103-F is capable of receiving data from the concentrator such as: **Time Of Use (TOU)** tables, power limit, real time clock.

RR103-F is capable of transmitting data to the concentrator such as: energy reading, status, **TOU** reading.

RR103-F operates simultaneously as meter and as repeater, amplifying and transmitting signals from neighboring units towards the concentrator over power network, eliminating the need for additional amplifiers.

RR103-F meters is mounted on DIN standard rail .

Optional: **RR103-F** can be supplied with an internal radio receiver using unlicensed **RF** communication, that reads near by **Water / Gas** meters and introduces **Water / Gas** data into PLC media for concentrator to receive and report.



Fig.1. General view of RR103-F



RR103-F 60A Mini Meter

Features:

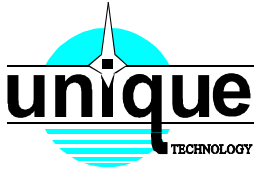
- ◆ 20(60) A, Class2, direct measurement, static watt-hour meter.
- ◆ Real two-way “A” band **Power Line Communication**
- ◆ Automatic calibration (NO physical adjustment)
- ◆ Non volatile **backup memory**.
- ◆ Calculates locally **Time of Use (TOU)** consumption at multiple tariffs.
- ◆ Repeats and amplifies signals transmitted by other distant units towards the concentrator over the power network – No distance limitation.
- ◆ 2 line 8 characters LCD display.
- ◆ Internal real time clock updated periodically by the concentrator
- ◆ Measures and reports line voltage.
- ◆ Directly energized by power lines.
- ◆ Low power consumption.
- ◆ Small size – triple width DIN – rail mounted.
- ◆ Reads **Water/GAS** meters via unlicensed **RF** communication and sends to the concentrator. (Optional).
- ◆ **16 mm²** wire terminals.
- ◆ Simple and fast installation.
- ◆ **Cost effective.**



RR103-F 60A Mini Meter

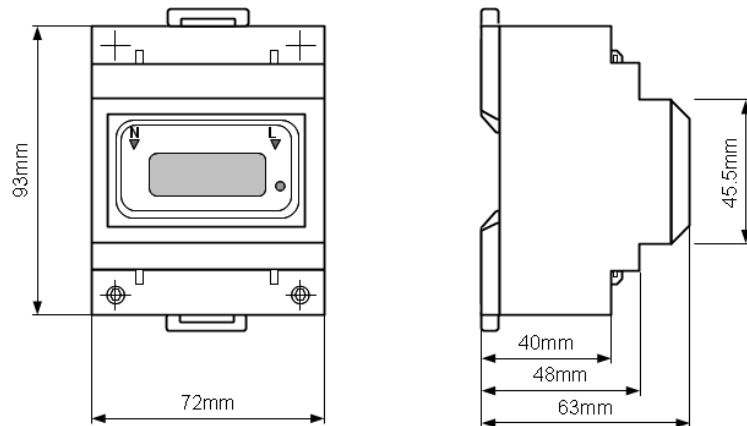
Technical specifications:

General	
Nominal Voltage (Un)	230 V
Supply Voltage range	80% - 115% Un
Nominal Frequency (fn)	50Hz
Meter Consumption at Un	1.2W-14Var
System connections	1 phase 2 wire
Measurement	
Class Index according to IEC62053-21	Class 2
Basic Current (Ib)	20A
Maximum continuous current (Imax)	60A
Environmental	
Temperature range:	
operation	-10°C to 55°C
storage	-25°C to 70°C
Insulation Strength	
Protective Class ac. w. IEC62052-11	Class II
Display	
Type	LCD
Format	8 Characters x 2 Lines
Character size	4.3mm x 2.95 mm
LED Indicator	
Flash rate	100 imp/kWh
Communication Interfaces	
PLC Frequency range	"A"-band
PLC Method	Spread FSK
RF (receive only) Frequency (Optional)	Unlicensed 433 MHz
Case Protection/Weight	
Weight	160 g
Enclosure protection ac. w IEC60529	IP51
Protection for connection terminals	IP20

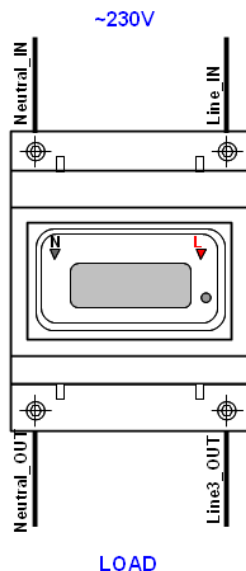


RR103-F 60A Mini Meter

External Dimensions



Connections Diagram



Unique Technology (1993) Ltd
6 Hayozmim st. Or Yehuda, 60373, Israel Tel: + 972-3-6340889/99 Fax: +972-3-5330182
Info@collectric.net www.collectric.net

The content of this brochure is presented as general information only and is not meant, nor does it, to constitute any representation or warranty by Unique Technology (1993) Ltd. It is not meant to serve or be used in substitution for the information contained in any approved specification, manual or the like issued by Unique Technology (1993) Ltd. It shall not in any way add to, amend, delete or change any term of any contract in which Unique Technology (1993) Ltd. is a party.