



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



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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.**



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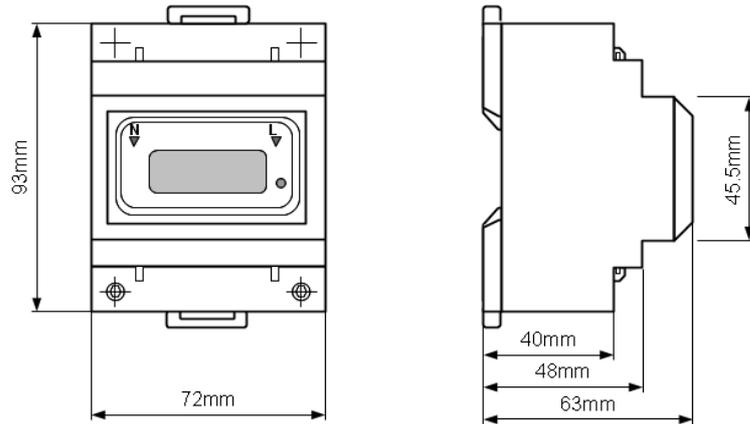
Technical specifications:

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

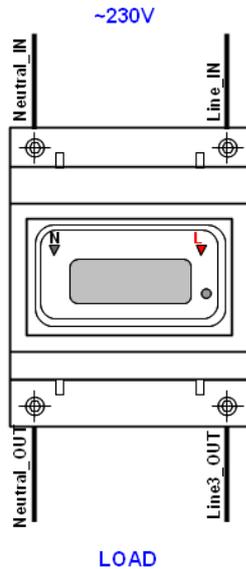


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External Dimensions



Connections Diagram



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