



The Remote Reading Mini-Meter **RR102** is a single phase 20 (60)A watt-hour meter with integrated PLC (Power Line Communication) module for operation in Advanced Metering Infrastructure.

The Mini Meter – **RR102** measures electric energy consumption and transmits data over the power network using one way **P**ower Line Communication (PLC) to a central point in the installation – concentrator – from which data is transmitted to the billing center by cellular communication – GSM/GPRS.

**RR102** has LCD display showing meter data.

#### **Features:**

- 20(60)A, Class 2, direct measurement static watt-hour meter.
- One-way A-band Power Line Communication
- Non volatile backup memory.
- Automatic calibration (NO physical adjustment).
- Allows Time Of Use tariff scheme.
- Periodically transmits accumulation data and status to the concentrator.
- Directly energized by power lines.
- Low power consumption.
- 16 mm<sup>2</sup> wire terminals.
- Small size 2 DIN width rail mounted
- Simple and fast installation.
- Cost effective.



Fig.1. General view of RR102



# **RR102 - Remote Reading Mini Meter**

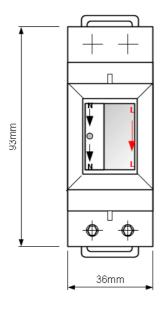
### **Technical specification**

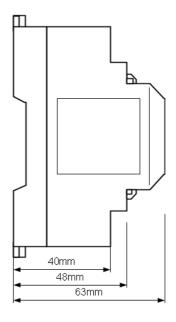
Supply Voltage range80% - 115% UnNominal Frequency (fn)50HzNeter Consumption at Un0.3 [W] – 6 [VAR] (Capacitive)System connections1 phase 2 wire1.3.2. Measurement1Class Index according to IEC62053-21Class 2Basic Current (Ib)20AMaximum continuous current (Imax)60A1.3.3. Environmental10°C to 55°CTemperature range-25°C to 70°Coperation-10°C to 55°Cstorage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%R.H. occasionally on some days85%1.3.5. DisplayClass I ITypeLCDFormat8 Characters x 2 LinesCharacter size4.3mm x 2.95 mm1.3.6. LED Indicator1000 imp/kWh1.3.7. Communication Interface"A"-bandPLC MethodSpread FSK1.3.8. Case Protection/Weight145 gEnclosure protection ac. w IEC60529IP51	1.3.1. General		
Nominal Frequency (fn)50HzMeter Consumption at Un0.3 [W] – 6 [VAR] (Capacitive)System connections1 phase 2 wire1.3.2. MeasurementClass 1Class Index according to IEC62053-21Class 2Basic Current (lb)20AMaximum continuous current (Imax)60A1.3.3. Environmental60ATemperature range-10°C to 55°Coperation-10°C to 55°Cstorage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%	Nominal Voltage (Un)	230V	
Meter Consumption at Un0.3 [W] – 6 [VAR] (Capacitive)System connections1 phase 2 wire1.3.2. MeasurementClass 1Class Index according to IEC62053-21Class 2Basic Current (Ib)20AMaximum continuous current (Imax)60A1.3.3. Environmental60ATemperature range-10°C to 55°Coperation-10°C to 55°Cstorage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%	Supply Voltage range	80% - 115% Un	
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1.3.3. EnvironmentalTemperature range-10°C to 55°Coperation-10°C to 55°Cstorage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%	Basic Current (Ib)	20A	
Temperature range-10°C to 55°Coperation-10°C to 55°Cstorage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%	Maximum continuous current (Imax)	60A	
operation-10°C to 55°Cstorage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%	1.3.3. Environmental		
storage-25°C to 70°CRelative humidity (R.H.) for annual mean< 75%	Temperature range		
Relative humidity (R.H.) for annual mean< 75%R.H. occasionally on some days85%1.3.4. Insulation StrengthProtective Class a.c. w. IEC62052-11Class I I1.3.5. DisplayTypeLCDFormat8 Characters x 2 LinesCharacter size4.3mm x 2.95 mm1.3.6. LED IndicatorFlash rate1000 imp/kWh1.3.7. Communication InterfacePLC Frequency range"A"-bandPLC MethodSpread FSK1.3.8. Case Protection/Weight145 gEnclosure protection ac. w IEC60529IP51	operation	-10°C to 55°C	
R.H. occasionally on some days85%1.3.4. Insulation StrengthProtective Class ac. w. IEC62052-11Class I I1.3.5. DisplayTypeLCDFormat8 Characters x 2 LinesCharacter size4.3mm x 2.95 mm1.3.6. LED IndicatorFlash rate1000 imp/kWh1.3.7. Communication InterfacePLC Frequency range'A"-bandPLC MethodSpread FSK1.3.8. Case Protection/Weight145 gEnclosure protection ac. w IEC60529IP51	storage	-25°C to 70°C	
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1.3.6. LED IndicatorFlash rate1000 imp/kWh1.3.7. Communication InterfacePLC Frequency range"A"-bandPLC Frequency rangeSpread FSK1.3.8. Case Protection/Weight145 gWeight145 gEnclosure protection ac. w IEC60529IP51	Format	8 Characters x 2 Lines	
Flash rate1000 imp/kWh1.3.7. Communication InterfacePLC Frequency range"A"-bandPLC MethodSpread FSK1.3.8. Case Protection/Weight145 gWeight145 gEnclosure protection ac. w IEC60529IP51	Character size	4.3mm x 2.95 mm	
1.3.7. Communication InterfacePLC Frequency range'A"-bandPLC MethodSpread FSK1.3.8. Case Protection/Weight145 gWeight145 gEnclosure protection ac. w IEC60529IP51	1.3.6. LED Indicator		
PLC Frequency range"A"-bandPLC MethodSpread FSK1.3.8. Case Protection/Weight145 gWeight145 gEnclosure protection ac. w IEC60529IP51	Flash rate	1000 imp/kWh	
PLC Method Spread FSK   1.3.8. Case Protection/Weight 145 g   Weight 145 g   Enclosure protection ac. w IEC60529 IP51	1.3.7. Communication Interface		
1.3.8. Case Protection/Weight   Weight   145 g   Enclosure protection ac. w IEC60529   IP51	PLC Frequency range	"A"-band	
Weight145 gEnclosure protection ac. w IEC60529IP51	PLC Method	Spread FSK	
Enclosure protection ac. w IEC60529 IP51	1.3.8. Case Protection/Weight		
	Weight	145 g	
	Enclosure protection ac. w IEC60529	IP51	
Protection for connection terminals IP20	Protection for connection terminals	IP20	



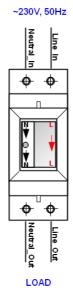
## **RR102 - Remote Reading Mini Meter**

**External Dimensions** 





### **Connections Diagram**





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