

Wireless Smart Energy Monitoring

GPRS/GSM Enabled



Softbit Technologies Pvt. Ltd., New Delhi is proud to launch its most demanded RTU viz. – Wireless Smart Energy Meter for remote energy monitoring & management for small, medium & large industrial & commercial establishments. .

Model: SE-Energy

Applications: This GPRS enabled wireless energy meter or energy analyzer can monitor voltage, load current, frequency, power factor, kW, KWH, KVA, KVAH. So it can be installed anywhere for remote energy management. Simple applications are energy monitoring of local substations on distribution side, dg set load management, any electrical machine or system where routine energy management and analysis is to be done continuously. Its standard size – 90mm x 90mm x 120mm make it possible to fit it in place of existing old meters also. This Single meter can read and display around 8 electrical parameters. Its best use is where constant energy monitoring of different machines/DG sets (which are installed at different remote locations) is required on a central control room PC. Optional features like Di, Ai & Relay output can be provided on request and additional charges.

GPRS SIM Card: It uses a GPRS enabled SIM card for data transmission. Live data can be monitored on your control room PC/Laptop through a web browser or even on your cellphone.

Web Based Monitoring: All the energy parameters can be monitored through a web browser. You can also set alerts for Hi/Low values of voltage, current, PF.. .

Data Storage & Report Generation: The data is stored on a central server for analysis & reports generation (Optional feature). Data is stored for one year. A 4GB pen drive can also be used for local level data storage on the meter itself.

SMS Alerts: You can store 5 mobile numbers to receive SMS alerts if the energy parameters deviates from the preset values.

Optional Features: We can also provide one digital input for status monitoring, one analogue input for temperature/pressure/fuel level/flow sensor or any other sensor (0 – 5 Volt or 4 – 20 mA) and a 5A auxiliary relay contact for tripping/make/break.

Multiple Meter Connectivity: If you are having more than one meter say, 10, 15, 20 or

more at one site then our this meter has built any MODBUS data communication feature. Just connect all the meters as explained in the given manual and data of all the meters is transmitted through one meter (master) and the remaining being the slaves. SIM card is to be used in the master unit only. But in this case SMS alerts and tripping facility would be disabled.

General Specifications:

Supply Voltage:	Built-in SMPS
Sensing:	3 Phase & Neutral
Current Sensing:	Through Micro CT (Provided along with the meter)
Parameter:	Volt, Amp, Hz, PF, KW, KWH, KVA, KVAH
Accuracy:	1%
Display:	16 x 2 Character LCD, Monochrome
Data Storage:	4 GB Pen Drive
Dimensions:	90mm (W) x 90mm (H) x 120mm (D)
Modem:	Quad Band
Storage:	-25 °C to + 75 °C

Accessories:

The SE-Energy comes with the following accessories-

- 1 – GSM/GPRS Antenna – 1 no.
- 2 – Micro CTs (built-in) – 3 nos.
- 3 – Side Clamps – 2 nos.

GPRS Enabled SIM:

You need a GPRS enabled SIM card for data transmission. Within India, you can use any SIM card like – Airtel, Vodafone, Idea, Reliance, BSNL, MTNL. The unit comes pre-programmed to accept any of the above SIMs. For countries other than India, we add the service providers of that specific country before dispatching the unit.

Note: The unit must be switched off before you insert or take out a SIM else the SIM may get damaged.



SIM Card Placement In The Slot:

Direction of SIM card while inserting in the SIM slot is shown in the left hand side picture. The printed name/logo of the service provider will remain upside and cut corner of the SIM would be on left hand side. Just press swiftly inside the slot to place it in the position. To take out the SIM, press the top of the SIM with your nail or a ball pen tip with a mild jerk and pull it out. **Care must be taken to switch off power supply to RTU while**

inserting or removing the SIM card else it may get damaged.

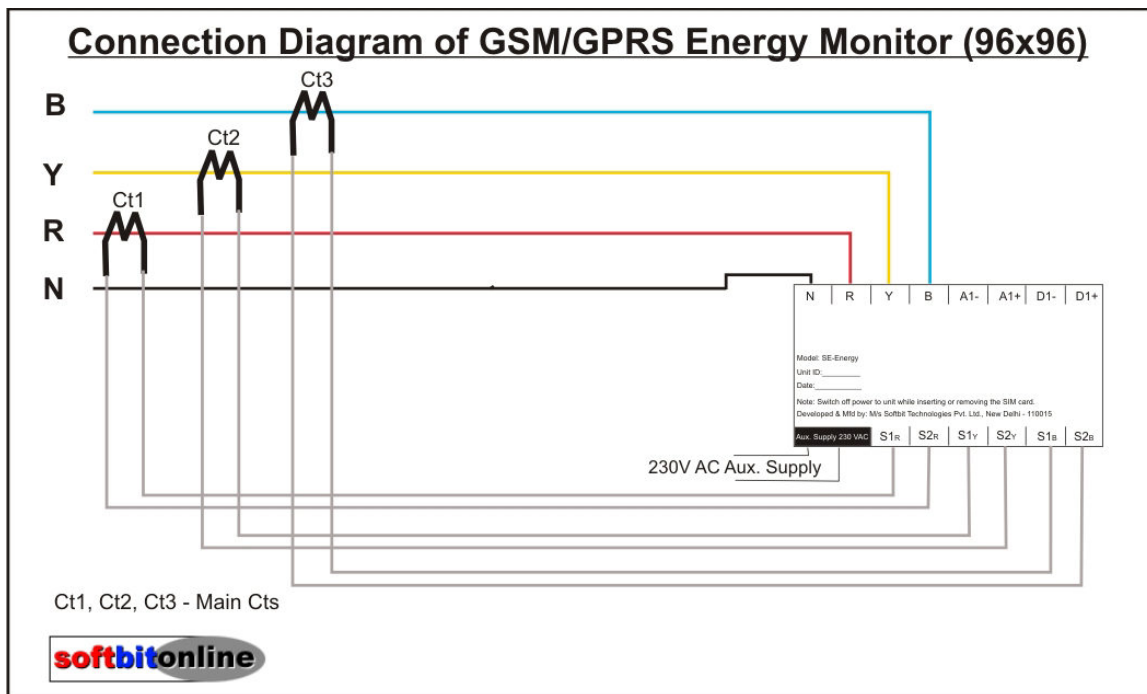
Installation & Commissioning:

In case you are going to replace any make old meter (96x96) with the new Wireless Energy Meter, just remove the connections from the old meter, take it out from the cut-out and insert the new Wireless Energy Monitor. Fix the side clamps to hold the meter in place. Now make the connections as shown in the following connection diagram.

For a new installation, insert the Wireless Energy Meter in the cut-out and fix the side clamps. Do the connections as shown below.

Connect the antenna and insert the SIM card in the SIM-card slot. Now switch on the supply to Wireless Energy Meter. The “Power” LED glows continuously if the supply is going to the unit properly. The “Internet” LED blinks (2 -3 times in a second). This fast blinking means the unit is not connected to the central server. The unit first searches for the SIM card network, if the corresponding network is found, it displays the network name on the screen. Once the network is found, the unit connects to the central server which is installed in New Delhi, INDIA. Once the connection with the server is established, it is displayed on the screen as – “Connected”. Now your Wireless Energy Monitor is ready to communicate the data with the back-end central server and send it to front-end SCADA software for live monitoring, in real time. The data refresh rate is one minute i.e., you receive fresh data after every one minute.

Connection Diagram:



Configuration:

Once you get the live data on the screen, you can configure your wireless energy meter to display the values as actual values. Please download the operational manual for configuring your unit. The configuration is done from the SCADA software which is installed on your control room PC. You need not to go to or near to Wireless Energy Monitor to configure it. Configuration can be done remotely from anywhere by logging into your SCADA account. Set the alerts to get SMS on your cell phone to know the status of your machine/plant/DG set.

