OpreX™ Measurement

Power monitoring package
SMARTDAC+ GM / UPM100
The power monitoring package is an energy saving data acquisition system for monitoring that comprises the GM Data Acquisition System and the UPM100 Power Monitor. The package enables visualization (graphical) of power usage in factories, reports, and other features that help you identify areas of wasted power.

**Features**

- Simple wizard-based system configuration
- Compact configuration by package
- Monitoring from anywhere via the web
- System configured for highly scalable I/O

Saves energy in schools, stores, buildings, and other facilities

With a Wi-Fi router, you can monitor anywhere from a tablet.

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**Factory A**

Compact configuration by package

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**UPM100**

**SMARTDAC + GM**

Active energy/ Apparent energy/
Reactive energy/ Active power/
Apparent power/ Reactive power/
Voltage between each line/ Phase current/
Power factor/ Frequency
Enables various measurements

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**RS-485**

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**Wi-Fi router**

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**Schools**

**Stores**

**Buildings**

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Power monitoring package

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*Max. measurable points with SMARTDAC + GM: 30 units*

*On Universal Viewer, you can create hourly and daily reports of integral values of watt hours.*

*Aggregate monitoring of multiple groups Monitor up to 2000 items Easily visualize with custom graphics Customize your display screens Easy-to-understand Visualization of your power usage Support peak-cutting with demand monitoring Graphically display demand power and set alarm notifications*

*Sets up easily with the wizard-based Hardware Configurator.*

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With a Wi-Fi router, you can monitor anywhere from a tablet.
solution saves energy

Data Logging Software GA10 (Integrated Monitoring Software)

- Aggregate monitoring of multiple groups
  - Monitor up to 2000 items
- Easily visualize with custom graphics
  - Customize your display screens
  - Easy-to-understand Visualization of your power usage
- Support peak-cutting with demand monitoring
  - Graphically display demand power and set alarm notifications

Data Monitoring with the web application. (Internal network)

- On Universal Viewer, you can create hourly and daily reports of integral values of watt hours.
  - *Max. measurable points with SMARTDAC + 1 GM: 30 units
- Sets up easily with the wizard-based Hardware Configurator.

Monitoring room

Office

Ethernet

Factory B

System configuration offers highly scalable I/O

- SMARTDAC + GM
- RS-485
- VJET
- RS-485
- UPM100
- Electric energy
- Steam
- Flow meter

- Monitoring package

*Flow meters not included

Power monitoring package

Schools, stores, buildings, and other facilities

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Features

□ Simple wizard-based system configuration
□ Compact configuration by package
□ Monitoring from anywhere via the web
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Enables various measurements

- Active energy/Apparent energy/Reactive energy/Active power/Apparent power/Reactive power/
- Voltage between each line/Phase current/
- Power factor/Frequency

Sets up easily with the wizard-based Hardware Configurator.

Easy-to-understand Visualization of your power usage

Support peak-cutting with demand monitoring

Graphically display demand power and set alarm notifications

Sets up easily with the wizard-based Hardware Configurator.
1. **Model code selection tool**

   **1. On the web**
   Download the model code selection tool (Excel file) from our website.

   [Image: http://www.yokogawa.com/ns/upm100pkg/

   **2. Select Mode and Suffix Code**
   Enter the phase/wire format, rated voltage, primary side current, and options for display/pulse output, and then determine the format of the model to purchase and the number of units.

   [Image: Model code selection tool (Excel)]

2. **Package contents**

   - **GM Data Acquisition**
     - GM10, 1 unit (Required option codes /MT, /MC, /WH ③)
     - GM10 power supply (Model: GM90PS), 1 unit ①
     - GM10 module base (Model: GM90MB), 1 unit
     - GM10, power supply, and module base combined.

   - **Power monitors**
     - UPM100④

   - **Clamp-on Current Transformers**
     - CTW15 / CTW35 / CTW10 / CTW20 / CTW100 / CTW130 ④

   Please specify GM model code depending on the number of UPM100 to be connected and computation function to be used such as demand calculation.

<table>
<thead>
<tr>
<th>Model</th>
<th>Connected number of UPM100 (units)</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM10-1 (Standard type)</td>
<td>1 to 20</td>
<td>Not expandable</td>
</tr>
<tr>
<td>GM10-2 (Large memory type)</td>
<td>1 to 30</td>
<td>Use demand calculation etc.</td>
</tr>
</tbody>
</table>

   Note: The power monitoring package does not conform to the safety standards (UL and CSA) and CE marking.

3. **Related products**

   - **GA10**
     - Data Logging Software
     - [Model code selection tool](http://www.yokogawa.com/ns/upm100pkg/)

     - GA10
     - Ethernet or serial

   - **VJET**
     - Ethernet/RS-485 converter

4. **Co-innovating tomorrow and Synaptic Business Automation**

   Synaptic Business Automation creates sustainable value by connecting everything in our customers’ organization. To realize this, Yokogawa integrates its business and domain knowledge with digital automation technologies, and co-innovates with customers to drive their business process transformation.

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YOKOGAWA ELECTRIC CORPORATION
Edge Solution Sales Division
E-mail: ns@cs.jp.yokogawa.com

YOKOGAWA ENGINEERING ASIA PTE. LTD.
http://www.yokogawa.com/sg/

YOKOGAWA INDIA LTD.
http://www.yokogawa.com/in/

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