

Power and energy meters

PowerLogic® Web servers



Web servers

EGX400 Ethernet server

Functions and characteristics

Transparent
Ready



Function

The EGX400 server is used as an Ethernet gateway for PowerLogic® System devices and for any other communicating devices utilizing Modbus protocol. The EGX400 offers the following features and benefits:

- HTML pages (set up using WebPageGenerator “WPG”) that can be accessed using a standard web browser and are used to display the information provided by the devices connected to the server
- Historical data logs from serial devices on 5, 10, 15, 30, or 60 minute intervals
- E-mail historical data logs on a user-defined schedule
- Supports SNMP (Simple Network Management Protocol) using MIB2 (Management Information Base)
- Supports SNTP (Simple Network Time Protocol) for time synchronization

System Manager™ Software (SMS) and internet browser

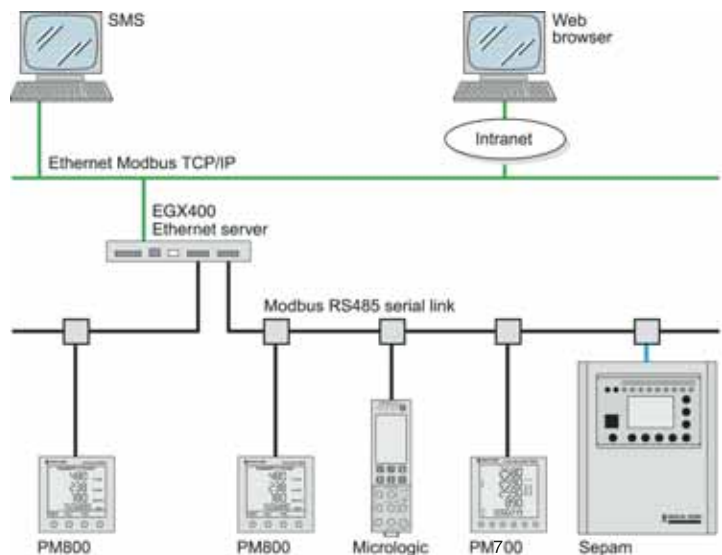
The EGX400 server makes it possible to implement two types of user interface:

- SMS power-monitoring software providing access to all status and measurement information. SMS includes a powerful reporting tool that provides pre-defined and user-defined summary reports for PQ, energy, and other area of interest.
- A standard web browser providing access to the main information organised in predefined HTML pages.

These two approaches, SMS and web browser, are complementary:

- SMS offers complete access to all information, but must be installed on each PC
- The HTML pages offer partial access to the main information via any PC connected to the network

Architecture



Setup

Initial setup

The initial setup is carried out using a PC connected to the EGX400 via an RS232 link. This setup:

- Specifies the IP address of the EGX400 server
- Selects the type of Ethernet port (wire or optic fiber)
- Lists the connected products with their Modbus communication parameters

Setup via the Ethernet network

Once connected to the Ethernet network, the EGX400 server can be accessed by a standard web browser via its IP address to:

- Configure serial port parameters
- Create or update the list of the connected products with their Modbus communication parameters
- Access Ethernet and serial line diagnostics
- Update the firmware

Part numbers

EGX400 Ethernet server

EGX400MG

Web servers

EGX100 Ethernet gateway

Functions and characteristics

Transparent
Ready



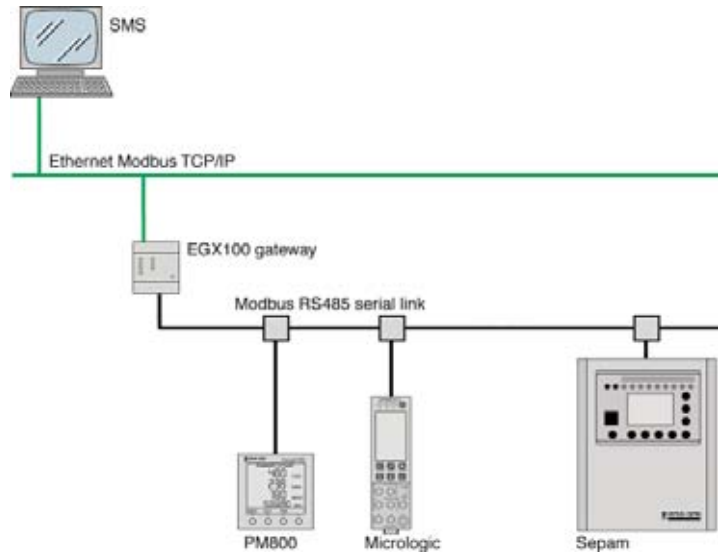
Function

The EGX100 serves as an Ethernet gateway for PowerLogic® System devices and for any other communicating devices utilizing the Modbus protocol. The EGX100 gateway offers complete access to status and measurement information provided by the connected devices, for example, via the System Manager™ Software (SMS) installed on a PC.

System Manager™ Software (SMS)

SMS power-monitoring software is recommended as a user interface because it provides access to all status and measurement information. It also prepares summary reports.

Architecture



Setup

Setup via an Ethernet network

Once connected to an Ethernet network, the EGX100 gateway can be accessed by a standard internet browser via its IP address to:

- Specify the IP address, subnet mask, and gateway address of the EGX gateway
- Configure the serial port parameters (baud rate, parity, protocol, mode, physical interface, and timeout value)
- Create user accounts
- Create or update the list of the connected products with their Modbus or PowerLogic® communication parameters
- Configure IP filtering to control access to serial devices
- Access Ethernet and serial port diagnostic data
- Update the firmware

Setup via a serial connection

Serial setup is carried out using a PC connected to the EGX100 via an RS232 link. This setup:

- Specifies the IP address, subnet mask, and gateway address of the EGX gateway
- Specifies the language used for the setup session

Part numbers

EGX100 Ethernet gateway

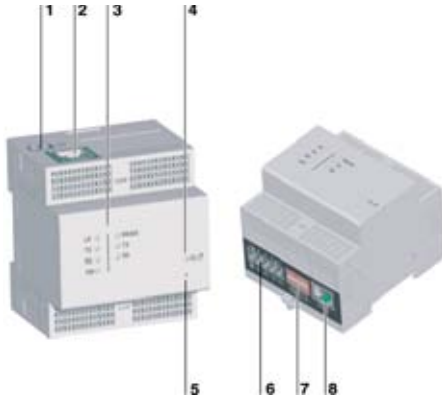
EGX100MG

Web servers

EGX100 Ethernet gateway

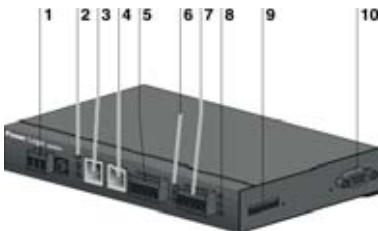
EGX Ethernet server

EGX100



- 1 24 Vdc power connection.
- 2 10/100 Base TX (802.3af) port for connection to Ethernet via an RJ45 connector.
- 3 Ethernet and serial indication LEDs.
- 4 Power/Status LED.
- 5 Reset button.
- 6 RS485 connection.
- 7 Dip switches for biasing, termination, and 2-wire/4-wire jumpers.
- 8 RS232 connection.

EGX400



- 1 Power connector.
- 2 Ethernet indication LEDs.
- 3 10/100 Base TX port for connection to Ethernet via an RJ45 connector.
- 4 100 Base FX port for connection to Ethernet via fiber optic cable (LC connector).
- 5 COM1: terminal block for RS485 serial link.
- 6 COM1 indication LEDs.
- 7 COM2: terminal block for RS485 serial link.
- 8 COM2 indication LEDs.
- 9 Dip-switches for setup of COM1 and COM2 ports bias and termination.
- 10 COM2: Sub D-9 connector for the RS232 serial link.

Characteristics

	EGX100	EGX400
Weight	170 g	700 g
Dimensions (H x W x D)	91 x 72 x 68 mm	25 x 190 x 115 mm
Mounting	Din rail	Symmetrical or asymmetrical DIN rail Front or side position
Power-over-Ethernet (PoE)	Class 3	None
Power supply	24 V DC if not using PoE	24 V DC 100-240 V AC/24 V DC adapter supplied
Operating temperature	-25 °C to +70°C	-30 °C to +80°C
Humidity rating	5 % to 95 % relative humidity (without condensation) at +55 °C	5 % to 95 % relative humidity (without condensation) at +40 °C

Regulatory/standards compliance for electromagnetic interference

Emissions (radiated and conducted)	EN 55022/EN 55011/ FCC class A	EN 55022/FCC class A
Immunity for industrial environments:	EN 61000-6-2	EN 61000-6-2
- electrostatic discharge	EN 61000-4-2	EN 61000-4-2
- radiated RF	EN 61000-4-3	EN 61000-4-3
- electrical fast transients	EN 61000-4-4	EN 61000-4-4
- surge	EN 61000-4-5	EN 61000-4-5
- conducted RF	EN 61000-4-6	EN 61000-4-8
- power frequency magnetic field	EN 61000-4-8	EN 61000-4-11

Regulatory/standards compliance for safety

International (CB scheme)	IEC 60950	
USA	UL508/UL60950	UL508
Canada	cUL (complies with CSA C22.2, no. 60950)	cUL (complies with CSA C22.2, no. 14-M91)
Europe	EN 60950	
Australia/New Zealand	AS/NZS25 60950	

Serial ports

Number of ports	1	2
Types of ports	RS232 or RS485 (2-wire or 4-wire), depending on settings	COM1: RS485 (2-wire or 4-wire) COM2: RS232 or RS485 (2-wire or 4-wire), depending on settings
Protocol	Modbus RTU/ASCII PowerLogic® (SY/MAX)	Modbus RTU/ASCII PowerLogic® (SY/MAX)
Maximum baud rate	38400 or 57600 baud depending on settings	38400 baud
Maximum number of directly connected devices	32	32 per port, 64 in all

Ethernet port

Number of ports	1	2
Types of ports	One 10/100 base TX (802.3af) port	One 10/100 base TX port One 100 base FX port (multimode optic fiber)
Protocol	HTTP, SNMP, FTP, Modbus TCP/IP	HTTP, SNMP, SMTP, SNTP, FTP, Modbus TCP/IP
Baud rate	10/100 MB	10/100 MB

Web server

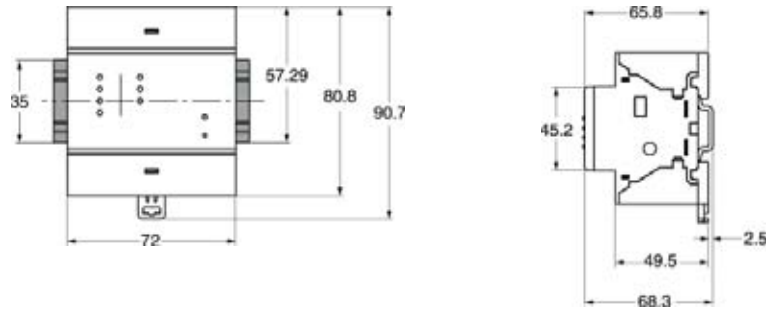
Memory for custom HTML pages	None	16 MB
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Web servers

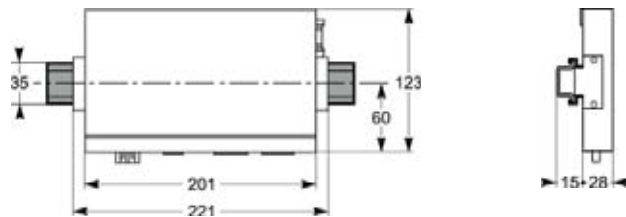
EGX100 Ethernet gateway

EGX Ethernet server

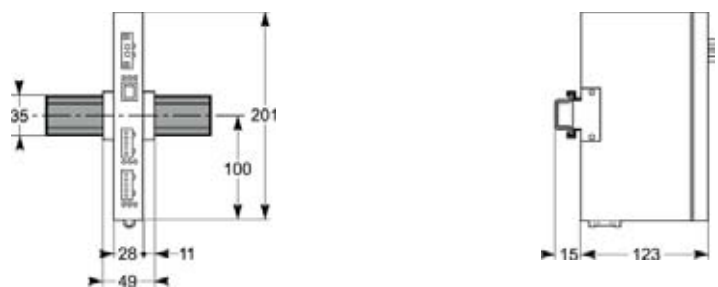
DIN rail mounting (EGX100)



Side mounting on DIN rail (EGX400)

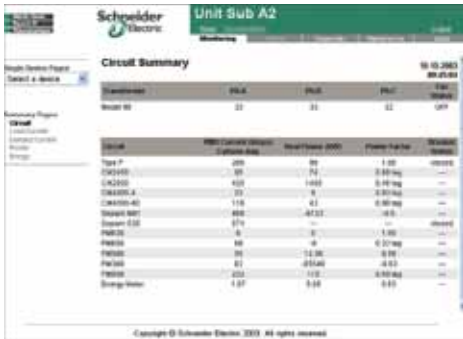


Front mounting on DIN rail (EGX400)



Web servers

WebPageGenerator (WPG) software tool HTML-page generator (EGX400)



HTML page with summary information on all the equipment in a switchboard.

Function

Very easy to use, the WebPageGenerator (WPG) software tool generates HTML pages for the EGX400 server. It is used to:

- Select the devices connected to the server
- Transfer the HTML pages corresponding to the selected devices to the server

The WPG tool can set up HTML pages for the following devices:

- Sepam Series 20, Sepam Series 40, Sepam Series 80 and Sepam 2000
- Masterpact equipped with Micrologic A, P and H control units
- Power Meter PM9, PM700 and PM800
- Circuit Monitor Series 4250

The tool interface is in English, French, and Spanish. However, the tool can be easily adapted to create web pages that support local languages. For more information or to obtain WPG, contact your Schneider Electric representative.

HTML pages

Following transfer, the EGX400 contains HTML pages that can be used to remotely monitor equipment under secure conditions.

- 1st service level based on the summary pages.
- 2nd service level based on specific pages for each type of device

Summary pages

Five summary pages are available for overall monitoring of the switchboard.

They present the main measurements recorded by the devices connected to the server.

- Page 1
 - 3-phase average rms current
 - active power
 - power factor
- Page 2
 - rms current per phase
- Page 3
 - demand current per phase
- Page 4
 - demand power
 - peak power
 - time-stamping data
- Page 5
 - active power
 - reactive power
 - date and time of last reset of energy meters.



Single device operating information HTML page.

Specific pages for each device

A number of specific pages present detailed information on each device for in-depth analysis, e.g.:

- Operating information:
 - instantaneous current per phase
 - demand current per phase
 - active and reactive power
 - average voltage (phase-to-neutral and phase-to-phase)
 - maximum unbalance
 - power factor
 - frequency
- Event information:
 - minimum and maximum current values
 - maximum demand current
 - date and time of last reset
- Historical data:
 - recording over 38 days (at 15-minute interval) of six user-selectable parameters (energy by default), every 5, 15, 30 or 60 minutes, with graphic display and data export to a CSV (Comma Separated Variable) file.



Single device HTML page showing historical data.

Notes

Notes

Notes

Nationwide support on one number -
call the Customer Information Centre on

0870 608 8 608

Fax 0870 608 8 606

Schneider Electric's local support

Schneider Electric is committed to supporting its customers at every stage of a project. Our 180 sales engineers, the largest dedicated sales force in the UK electrical industry, operate from 4 customer support centres.

Our sales engineers are skilled at assessing individual requirements and combined with the expert support of our product specialists, will develop the most effective and economical answer taking relevant regulations and standards fully into account.

To access the expertise of the Schneider Electric group, please call 0870 608 8 608. Each customer support centre includes facilities for demonstrations and training, and presentation rooms fully equipped with audio visual and video, providing excellent meeting facilities.

Merlin Gerin

Merlin Gerin is a world leader in the manufacture and supply of high, medium and low voltage products for the distribution, protection, control and management of electrical systems and is focused on the needs of both the commercial and industrial sectors. The newly launched VDI Network Solutions offer provides flexible, configurable ethernet systems for all communication needs.

Square D

Square D is a total quality organisation and its business is to put electricity to work productively and effectively, protecting people, buildings and equipment. Its low voltage electrical distribution equipment, systems and services are used extensively in residential and commercial applications.

Telemecanique

Telemecanique is a UK market leader and world expert in automation and control. It provides complete solutions, with its range of components, Modicon range of high technology programmable controllers (PLCs), multiple fieldbus and ethernet communication networks, HMI, motion control systems, variable speed drives and communications software. In addition, it offers power distribution through prefabricated busbar trunking.

Local customer support centres

Scotland

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Gower Street
Glasgow G51 1PR

South West

Schneider Electric Ltd
PO Box 41
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North West

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First Floor
Market House
Church Street
Wilmslow
Cheshire SK9 1AY

Product showrooms

Industrial systems and solutions showroom

Schneider Electric Ltd, University of Warwick Science Park, Sir William Lyons Road, Coventry CV4 7EZ

Building systems and solutions showroom

Schneider Electric Ltd, Stafford Park 5, Telford, Shropshire TF3 3BL

Energy and Infrastructure systems and solutions showroom

Schneider Electric Ltd, 123 Jack Lane, Hunslet, Leeds LS10 1BS



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