

PowerLogic® Web-enabled Network Components Selection Guide

Ethernet communication cards (ECC)



Ethernet gateways (EGX)

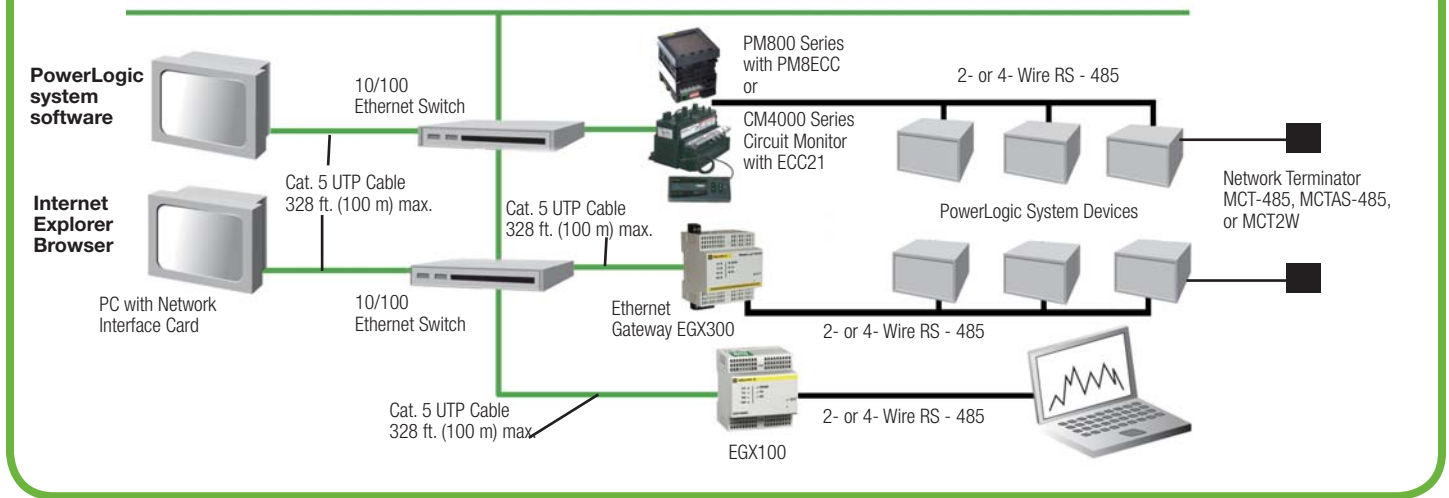
Features	PM8ECC	ECC21	EGX100	EGX300
Control Power				
Powered by CM4000 series circuit monitor		X		
Powered by PM800 series power meters	X			
24 Vdc power supply			X	X
Power over Ethernet (PoE)			X	X
Protocols: Ethernet: HTTP, FTP, Modbus® TCP/IP, SMTP, SNMP (MIB2), SNT, TCP, UDP, ICMP, ARP Serial: Modbus RTU, Modbus ASCII (EGX100 and PM8ECC only), JBUS, PowerLogic				
Ports				
Serial: RS485 and RS232/485 configurable	1	1	1	1
Ethernet UTP (10/100 Mbps)	1	1	1	1
Fiber (100 Mbps)		1		
Device Support				
Number of connected devices - per port/total	32*	32*	32*	32/64*
Serial master support			X	
Modbus TCP/IP filtering	X		X	X
Alarms				
Email on alarm	X	X		
Integral Web Server				
Web page generation tool (no HTML experience required)	X (v. 3.5 or later)	X		
SNMP full support at host meter	X			
Comprehensive meter reading	X	X		X
Interval logging/trends		host meter		64 devices
Maintenance/diagnostics	X	X	X	X
Real-time trending				X
Gateway administration setup	X	X	X	X
User defined custom pages	10	10		X
Historical Data Logging				
Interval data				X
Automatic file export on scheduled basis				email/ftp/http
Files accessible via FTP				X

NOTE: ECC21 custom pages are available with shipment and via download from www.PowerLogic.com. Pages include: EN50160 Pass/fail evaluations, trending/forecasting, ITIC/Semi Plot, Phasor, NEMA derating curve and more. *Support for additional devices accomplished with RS-485 repeaters.



by Schneider Electric

Ethernet Network



Direct Connectivity

RS485 Mixed-mode “Daisy Chain” Serial Communications

A system may consist of one or more monitoring devices connected using twisted-pair cabling and open communication protocol. Data is collected by a serial master such as a communication gateway, PLC, energy management system/DCS/third party, or software such as PowerLogic ION EEM or PowerLogic operational level software.

PowerLogic web-enabled systems communicate and display information from PowerLogic and Modbus/JBUS devices on the same daisy chain known as mixed-mode communication.

NOTE: Avoid use of serial address 01 and 16 on mixed-mode daisy chains.

Daisy Chain	Cable	Reference ¹
4 - Wire	2 shielded twisted pairs	Belden 8723 or Belden 9842
2 - Wire	1 shielded twisted pair	Belden 9841 or Belden 1120A ²
Baud Rate	Maximum Distances	
	1-16 Devices	17-32 Devices
2400	10,000 ft. (3,045 m)	5,000 ft. (1,524 m)
4800	10,000 ft. (3,045 m)	5,000 ft. (1,524 m)
9800	10,000 ft. (3,045 m)	4,000 ft. (1,219 m)
19200	5,000 ft. (1,524 m)	2,000 ft. (782 m)
38400	2,000 ft. (782 m)	1,000 ft. (452 m)

Ethernet Networking

Browser Based Monitoring from PowerLogic System Components

Larger systems may use a high-speed Ethernet backbone to collect information from many devices and to allow the data to be shared by multiple users. It may be dedicated to power monitoring or share an existing Ethernet network.

PowerLogic Ethernet gateways (EGX100/300) and Ethernet communications card (ECC21/PM8ECC) support 10BaseT and 100BaseTX as standard. In addition to 10/100Base Tx, the EGX300 and ECC21 also support 100BaseFX fiber optic connections.

NOTE: If your system requires using wireless technologies, we recommend consulting your local sales representative for additional information.

Cable Type	Description	Maximum Distance
10/100BaseTX	Data grade twisted pair, 100 ohm impedance, EIA/TIA Category 5	328 ft. (100 m)
100BaseFX	1310nm wavelength Fiber optic with duplex LC connector; optimized for 62.5/125 or 50/125 micron multimode graded index glass optical fiber	6562 ft. (2000 m)

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