



# IBM 9910 Uninterruptible Power Systems safeguard your equipment and data from power problems

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## At a glance

The IBM® 9910 Uninterruptible Power Systems™ offer you:

- Models that are tested and approved by IBM
- An extended Eaton-Powerware warranty supported by IBM
- A premium service package (including battery)
- Enhanced conditioning of utility power and battery backup

## Overview

All IBM 9910 Uninterruptible Power Systems have passed IBM's testing procedures and are intended to provide a convenient, single source for protection of IBM servers. These new 9910 products are compatible with the power requirements of:

- IBM Power Systems, POWER6™ and POWER7™
- IBM System i5® and p5 servers
- IBM eServer™ iSeries®, pSeries®, and OpenPower® servers
- IBM AS/400® and RS/6000® servers
- IBM TotalStorage® solutions

All 9910 Uninterruptible Power Systems include a premium Eaton-Powerware Five-Year Gold Plan warranty package that is designed to enhance the potential for a return on investment as compared to other power supplies available on the market today. In addition, the warranty:

- Extends coverage of the device (refer to the specific product warranty period)
- Provides remote problem determination and next-day exchange (if available) by the device manufacturer (when necessary)
- Offers a single point of contact through the IBM Call Center

For a complete description of each device, refer to the [Description](#) section of this announcement.

## Key prerequisites

The key prerequisites consist of the operating system and the selected applications that are required for your business.

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## Planned availability date

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July 26, 2010: 9910 Model E34

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## Description

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With today's announcement, IBM offers the following Eaton Powerware devices:

IBM 9910 Model E34 (Powerware 5130) is a 3000 VA, 208 to 240 V ac, single-phase Uninterruptible Power System that helps protect equipment up to 2700 watts. This line interactive device features load segments for scheduled shutdowns, extended run times, and a 2U design to be rack-mounted. Under normal power conditions, the E34 can operate in high-efficiency mode at up to 97 percent efficiency thus decreasing utility and cooling bills. The ability to add up to four extended battery modules (feature number 6649) extends battery run times. An AS/400/(i-OS) relay communication Card (optional) provides the standard communication to the server. The OP Ethernet Card expands control and monitoring of the power system and network devices.

Powerware offers the OP Ethernet Card (feature number 2941) to provide enhanced monitoring capabilities with IBM Active Energy Manager for i5, iSeries, or AS/400 and p5, pSeries, or RS/6000 rack clients with Microsoft® Windows®, i5/OS®, AIX®, Linux®, or other operating system servers. The Relay Communications Card (feature number 2943) provides the relay contact interface commonly used with servers with i-OS (AS/400).

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## Product number

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Description	Machine	Model	Feature
Powerware PW5130i3000 - XL2U Rack	9910	E34	
Powerware 5130 3 kVA Ext. Battery Module	9910	E34	6649
Powerware X-Slot Relay Card	9910	E34	2943
Rack Cont. Specify: 9910/E34-2EIA	7014	T00,T42	
		B42	0198
Rack Cont. Specify: 9910/6649-2EIA	7014	T00,T42	
		B42	0199

The following 9910 UPS machine type, model, and feature numbers were previously announced for pSeries and iSeries models:

Description	Machine	Model	Feature
Factory Install for rack UPS for pSeries	9910	E65,E82 E83,E34	9010
Field Install for rack UPS for pSeries	9910	E65,E82 E83,E34	9011
Factory Install for rack UPS for iSeries	9910	E65,E82 E83,E34	9012
Field Install for rack UPS for iSeries	9910	E65,E82 E83,E34	9013
OP Ethernet card for web interface	9910	E50,E34	2941
Power cord 8 ft single phase (IEC 320 C19 to NEMA L6-30P)	9910	E34	2975
Power cord 4 m single phase (IEC 320 C19 to IEC 309 (P+N+G) 32A)	9910	E34	2976
Power Cord/Redundant Power Source IBM Plug Type 11 14 ft.	9910	E34	9860
Power Cord/Redundant Power Source IBM Plug Type 54 14 ft.	9910	E34	9874
Power Cord/Redundant Power Source IBM Plug Type 64 14 ft.	9910	E34	9875

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## Business Partner information

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If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=110-077>

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## Publications

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Product-specific publications are shipped with the products. Additional copies are available from the associated UPS supplier.

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## Services

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### Global Technology Services

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IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

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## Technical information

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### Specified operating environment

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#### *Physical specifications*

Physical specifications are subject to change. More detailed specifications can be obtained from your IBM representative or at the following Web site

<http://www.eaton.com/ibm>

#### **Model E34 (3000 VA, 2700 W)**

- Width: 440 mm (17.3 in)
- Depth: 634 mm (25 in)
- Height: 86 mm (3.4 in), 2 EIA units
- Weight: 35.3 kg (77.9 lb)

## Feature 6649 (Extended Battery Module for E34)

- Width: 440 mm (17.3 in)
- Depth: 634 mm (25 in)
- Height: 86 mm (3.4 in), 2 EIA units
- Weight: 42 kg (92.7 lb)

To assure installability and serviceability in non-IBM industry-standard racks, review the installation planning information for any product-specific installation requirements.

### **Operating environment**

#### **Model E34**

- Temperature: 0 to 40 degrees C ( 32 to 104 degrees F)
- Relative humidity: 20 to 95 percent noncondensing
- Audible noise at 1 meter: <50 dBA
- Operation elevation: 0 - +3000 m (0 - 10,000 ft)
- Input voltage: Autosensing to nominal voltage of 208, 220, 230, or 240 V single phase
- Input voltage range: 160 to 288 V single phase (without using batteries)
- Output voltage: -10% to +6% of nominal voltage on utility, +/- 5% on battery

### **Software requirements**

If you want the Uninterruptible Power Supply to communicate with your computer, refer to the following table to determine which communication option and/or software is correct for your application.

	Powerware Software Suite CD and Serial Cable	Feat 2941 OP Ethernet card	Feat 2943 Relay - Serial card
IBM i5 / iSeries server (1)		x(1)	x(1)
IBM i5 / iSeries server and Serial (TTY) server (1) (Windows, Linux, AIX, and so on)	x		
IBM p5 / pSeries, OpenPower or xSeries server with single Serial (TTY) connection	x		
IBM p5 / pSeries, OpenPower with LPARs and/or Network (web server) connection	x	x	

<sup>1</sup> Uninterruptible Power Supply monitoring is a standard feature of the i5/iSeries (AS/400) operating system. For logical partitions of the p5/pSeries operating system, a NetWatch client will be loaded onto each LPAR. Corequisite: Feature number 2941, ConnectUPS Web/SNMP/xHub network card. The 9910 solutions come with a complimentary Powerware Software Suite CD which incorporates power technology with the control software you need for effective network monitoring, analysis, power management, SNMP, and power supply system remote shutdown. Software suite contents include LanSafe and NetWatch software and a 30-day trial version of PowerVision. Powerware Extensions for IBM Director and MultiView are

downloadable from the Web. With comprehensive Network Power Management and 9910 solutions from Eaton, you can realize key benefits of:

- Real-time information on network-wide power quality and events that affect system availability
- Control of power connected to individual or network devices
- Continuous clean power to each device
- Automatic and graceful shutdown of individual or network devices during extended power outages
- Monitoring to analyze and diagnose network problems

### Software to application matrix

Application	Powerware Software		
	LanSafe V5	Netwatch	Powerware Extension for IBM Director
Single pSeries (serial/TTY) non-LPAR	X		
Single pSeries (network) non-LPAR	X(1)	X(1)	
Single pSeries (LPAR)		X(1)	
Multiple pSeries (non-LPAR)	X	X(1)	
Multiple pSeries (LPAR)		X(1)	
IBM Director network device			X(1)

**Note:** Uninterruptible Power System for iSeries applications utilizes OS/400® power system monitoring functions.

<sup>1</sup> Corequisite: Feature number 2941, OP Ethernet card.

### Application Comparison Matrix

Software	Monitoring	Shutdown	GUI	E-mail
LanSafe	Y	Y	Y	Y
Netwatch	-	Y	-	N/N
MultiView(1)	Y	Y	Y	
OP Ethernet card.	Y(1)	Y(2)	Y	Y/Y
UPS Application	SSL/SSH Security			
LanSafe	N/N			
Netwatch	N/N			
OP Ethernet card	Y/Y			

<sup>1</sup> Via Web browser, LanSafe, or Network Management System.

<sup>2</sup> In conjunction with NetWatch software.

Delivering a strong power management and power system monitoring tool to your desktop, the MultiView monitoring program uses your existing Internet Explorer and helps increase its functionality through several valuable features:

- Allows the user to view multiple Web sites simultaneously within a single browser window
- Searches for and automatically adds browser pages of connected feature number 2941 OP Ethernet card as well as Status@aGlance monitoring feature from the Powerware LanSafe V5 software.

The following are some of the operating systems supported by LanSafe V5:

- AIX V4.1 and 4.3.2 for RISC; V4.3.3, 5.1, 5.2, and 5.3 for Power PC®
- Red Hat Linux V7.1, 7.2, 7.3, 8.0, and 9.0

- SUSE Linux V7.2, 8.0, and 8.2
- SUSE Enterprise Linux Server 8
- Windows 2000, Windows 98, Windows Me, Windows NT® 4.0, Windows XP (Home and Professional), Windows Server 2003 (Standard, Web, and Enterprise), and Windows Vista

The following are some of the operating systems supported by NetWatch:

- IBM AIX V4.x and 5.x (Power PC)
- Linux kernel V2.0 and higher (x86 and AXP)
- Windows 9x, NT, 2000, and XP

The following are operating systems supported by MultiView:

- Windows 98, Me, 2000, and XP

For a listing of current supported operating systems and information about Powerware power system, network, and enterprisewide monitoring and control software, refer to the following Web site

<http://www.powerware.com/software/products.asp>

## **Planning information**

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### ***Customer responsibilities***

The 9910 Model E34 is designated as customer setup.

If the above model is not ordered with the iSeries and pSeries rack, the client will be responsible for the installation of external cables, the power system module, and the battery module. Clients who request IBM service personnel to perform these activities are subject to a charge. Client responsibilities include:

- Adequate site and system planning, and preparation
- Receipt, unpacking, and placement of the system unit
- Ordering, installing, and maintaining cables with associated parts for attaching to the pSeries model
- Using and following the problem determination procedures in the operators guide
- Installing power system management software and setting power system run-time parameters
- Installing feature number 2941 and 2943 interface cards

### ***Cable orders***

#### **9910 Model E34**

#### **Power (electrical) cables**

The input (mains) power connection to the 9910-E34 is an IEC C20 16 amp connector. The input (mains) power cord from the power system to the utility (mains) is determined based upon the country or locality. Refer to the following 9910-E34 input power cord table:

Feature number	Plug type	Plug description	Length
2975	12	NEMA L6-30	6 ft/1.8m
2976	46	IEC309 (P+N+G) 32A	14 ft/4.4m
9860	11	NEMA L6-20	14 ft/4.4 m
9866	18	CEE7 VII	14 ft/4.4 m
9867	22	SABS 164	14 ft/4.4 m
9868	25	CEI 23-16	14 ft/4.4 m
9871	46	IEC309 (P+N+G) 16A	14 ft/4.4 m
9872	32	SII 32-1971	14 ft/4.4 m
9874	54	SAA-AS 3112	14 ft/4.4 m

The E34 has one C20 outlet that can be used to support one Rack PDU via a cord included (same as feature numbers 9910-2974). There are also eight IEC-C13 outlets that will support power cords from units in a rack directly to the E34.

### **Feature 6649 (external battery module)**

The input power to the 6649 is DC and is provided by the E34. Connection of the 6649 DC cable (Anderson type DC connector) is the responsibility of the customer and is performed at installation. Feature number 6649 is installed in the rack with the E34.

### **Communication cables**

One RS-232 Serial Cable, one USB Cable, and one Serial Cable (DB-9 to DB-9, 6 ft/1.8 m) are included with the E34 unit for all (iSeries and pSeries) orders. The backplane of the E34 includes one USB connection and one RS-232 connection port. Optional communications features for the communication slot include feature numbers 2941 (OP Ethernet Card) and 2943 (relay card). A maximum of one feature number 2941 or one feature number 2943 is supported.

Power electrical cable installation diagrams are at the following Web site

<http://www.eaton.com/ibm>

### **Security, auditability, and control**

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The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

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## **Terms and conditions**

### ***IBM Global Financing***

No

### ***Warranty period***

This product is available for purchase under the terms of the

IBM Customer Agreement

IBM hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may have been previously installed. Regardless, IBM warranty terms apply.

Model E34 has a five-year Advanced Element Exchange Warranty (including battery) provided by Eaton with IBM as point of contact.

When a type of service involves the exchange of a machine part, the replacement may not be new, but will be considered equivalent to new.

### ***Warranty service***

IBM 9910 Model E34 provides a premium Element Exchange Warranty. In case of problems with the UPS, contact IBM Service Support. IBM will coordinate remote diagnostics and manage the Element Exchange Warranty, if necessary.

If a replacement element is required, the UPS manufacturer will process and ship the request the same day if the request is received before noon (12:00 p.m.) local time. After noon, the replacement element will be shipped the following business day. The replacement element will be next-day air service (same type of carrier used in the U.S., for example, Federal Express®, Airborne Express). The shipping costs to and from the client location are the responsibility of the UPS manufacturer.

Advanced Element Exchange Warranties DO NOT include on-site service unless specifically noted in writing at the time of equipment sale.

### **Client responsibility**

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For 9910 Model E34, the clients' responsibilities for element exchange are:

- Receipt, unpacking, installation, and exchange of the defective element.
- Packaging of the defective element in the container received with the replacement element.
- Following the instructions provided for return of the defective element. Returning the defective element so that it is received at Powerware UPS depot center within the established time from the arrival of the replacement.

Technical information can also be accessed at the following Web site

<http://www.eaton.com/ibm>

Warranty service is available from IBM Field Support Services Center at 800-IBM-SERV (426-4968)

### **Warranty service upgrades**

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During the warranty period, warranty service upgrades provide an enhanced level of On-site Service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of On-site Service acquired by the customer. Service levels are response-time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability.

### **Maintenance service options**

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#### ***On-site Service***

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose. The following on-site response-time objectives are available as warranty service upgrades for your machine. Available offerings are:

- 9 hours per day, Monday through Friday, excluding holidays, 4 hour average, same business day response
- 24 hours per day, 7 days a week, 4 hour average response
- 24 hours per day, 7 days a week, 2 hour average response

Customer Replaceable Units (CRUs) may be provided as part of the machine's standard warranty CRU Service except that you may install a CRU yourself or request IBM installation, at no additional charge, under one of the On-site Service levels specified above. For additional information on the CRU Service, see the warranty information.

#### **Maintenance services**

If required, IBM provides repair or exchange service depending on the types of maintenance service specified for the machine. IBM will attempt to resolve your problem over the telephone or electronically, via an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability.

Service levels are response-time objectives and are not guaranteed. The specified level of maintenance service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information. The following service selections are available as maintenance options for your machine type.

**On-site Service:** IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM Machine. The area must be clean, well lit, and suitable for the purpose.

- 9 hours per day, Monday through Friday, excluding holidays, next-business-day response
- 9 hours per day, Monday through Friday, excluding holidays, 4-hour average response
- 24 hours per day, 7 days a week, 4-hour average response
- 24 hours per day, 7 days a week, 2-hour average response

**Customer Replaceable Unit Service:** If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), and depending upon the maintenance service offerings in your geography, IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM upon your request.

Based upon availability, CRUs will be shipped for next-business-day delivery. IBM specifies, in the materials shipped with a replacement CRU, whether a defective CRU must be returned to IBM. When return is required, 1) return instructions and a container are shipped with the replacement CRU and 2) you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

CRUs may be provided as part of the machine's standard maintenance service except that you may install a CRU yourself or request IBM installation, at no additional charge, under any of the On-site Service levels specified above.

**Courier or Depot Service:** You must disconnect the failing machine for collection arranged by IBM. IBM will provide you with a shipping container for you to return your machine to a designated service center. A courier will pick up your machine and deliver it to the designated service center. Following its repair or exchange, IBM will arrange the return delivery of the machine to your location. You are responsible for its installation and verification.

**Customer Carry-In or Mail-In Service:** You will deliver or mail, as IBM specifies (prepaid, unless IBM specifies otherwise) the failing machine suitably packaged to a location IBM designates. After IBM has repaired or exchanged the machine, IBM will make it available for your collection or, for mail-in service, IBM will return it to you at IBM's expense, unless IBM specifies otherwise. You are responsible for the subsequent installation and verification of the machine.

**Machine Exchange Service:** IBM will initiate shipment of a replacement machine to your location. You are responsible for its installation and verification of operation. You must pack the failed machine into the shipping container that contained the replacement machine and return the failed machine to IBM. Transportation charges, both ways, are paid by IBM. You may be charged for the replacement machine if IBM does not receive the failed machine within 15 days of your receipt of the replacement.

### **Non-IBM parts support**

Under certain conditions, IBM repairs selected non-IBM parts at no additional charge for machines that are covered under warranty service upgrades or maintenance services.

IBM Service provides hardware problem determination on non-IBM parts (for example, adapter cards, PCMCIA cards, disk drives, memory) installed within IBM machines covered under warranty service upgrades or maintenance services and provides the labor to replace the failing parts at no additional charge.

If IBM has a Technical Service Agreement with the manufacturer of the failing part, or if the failing part is an accommodations part (a part with an IBM FRU label), IBM may also source and replace the failing part at no additional charge. For all other non-IBM parts, customers are responsible for sourcing the parts. Installation labor is provided at no additional charge, if the machine is covered under a warranty service upgrade or a maintenance service.

**Usage plan machine**

No

**IBM hourly service rate classification**

Two

When a type of service involves the exchange of a machine part, the replacement may not be new, but will be in good working order.

**Maintenance service offerings**

These machines are not covered under the IBM Maintenance Agreement. Contact your local IBM Services branch office for post-warranty options.

**Field-installable features**

Yes

**Model conversions**

No

**Machine installation**

Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

**Graduated program license charges apply**

No

**Licensed internal code and licensed machine code**

These products do not contain Licensed Internal Code or Licensed Machine Code.

**Educational allowance**

Not applicable

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**Pricing**

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For all charges, contact your IBM representative.

UPS

Description	Machine		Feature	
	Type	Model	Number	CSU
Powerware PW5130i3000 - XL2U Rack	9910	E34		Yes

Powerware 5130 3 kVA Ext. Battery Module	9910	E34	6649	Yes
X-slot Relay card	9910	E34	2943	Yes
Rack Cont. Specify: 9910/E34-2EIA	7014	T00, T42		
		B42	0198	Yes
Rack Cont. Specify: 9910/6649-2EIA	7014	T00, T42		
		B42	0199	Yes

CSU = Customer Setup

Field	Plant	MES	MES	MES
Install Only	Install Only	Removal	Removal Charge	Add Charge
N	N	N	NC	NC

### **Trademarks**

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<http://www.ibm.com/legal/us/en/>

For the most current information regarding IBM products, consult your IBM representative or reseller, or visit the IBM worldwide contacts page

<http://www.ibm.com/planetwide/us/>