



IBM @server xSeries tower UPS offers more power, better features, and IBM service and support at a better price

Overview

Now you can protect and substantially extend the backup power run times of your mission-critical applications with cost-effective, high-availability, uninterruptible power supply (UPS) options.

UPS750T, 1000T, 1500T LV, HV, and JVUPS options

- Suite of easy-to-use management software
- Stand-alone tower installation
- USB and serial management on all units
- Reliable power protection with advanced management features and software
- Better value, lower price, and more power at each volt ampere (VA) rating
- "Back-door" protection for attached devices with higher VA units
- Substantial battery run times even under full load
- Three-year on-site warranty

These UPS options are more cost effective than their predecessors and provide higher wattage levels at each VA point. This means you can power more or higher-power equipment with longer battery run times than previously available. In addition, they offer these high-availability features and functions:

- Ability to supply six or eight outlets
- Surge protection for phone/fax/modem on the 1000 and 1500 VA units
- APC PowerChute Business Edition for IBM management software

- Support for unattended shutdown
 - Open smart slot for adding more function to the UPS
 - High efficiency with higher wattage at each VA point
- ¹ IBM sends a technician after attempting to diagnose and resolve the problem remotely. For information on the IBM Statement of Limited Warranty, visit:
http://www.ibm.com/servers/support/machine_warranties/

Key prerequisites

For details on appropriate wall outlets and wiring, refer to the **Planning information** section.

Planned availability dates

- September 19, 2003, UPS750T, 1000T, 1500T LV, HV, and JV, and Power Module Upgrade Kit
- September 29, 2003, all power cord options: part numbers 90P4849 to 23K4809

At a glance

New high-availability uninterruptible power supply (UPS) options deliver cost-effective power protection, extended run-time power backup, and smart power management to xSeries® servers.

- Three unique volt ampere (VA) points; up to 1500 VA and 1050-watt load capacity
- Support for all xSeries stand-alone towers
- USB and serial communications standard
- UPS management software that integrates with IBM Director for seamless systems management
- Hot-swap internal battery
- Six or eight outlets, depending on model
- Three-year on-site limited warranty¹

For technical support:

- Call the HelpCenter® (800-772-2227)
- or
- Request technical information at: <http://www.pc.ibm.com>

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.

Product positioning

In the xSeries line of UPS offerings, the UPS750T, 1000T, and 1500T UPS options are the replacement parts for the APC tower UPS units. These new UPS options are positioned as the best power protection choice for tower servers. The following list shows the transition from new part to old along with the benefits of the IBM units.

- APC700 to IBM UPS750T: New units add USB, greater wattage, more outlets, and longer run time
- APC1000 to IBM UPS1000T: New units deliver LAN and phone protection along with greater wattage and longer run times.
- APC1400 to IBM UPS1500T: New unit deliver LAN and phone protection along with greater wattage and longer run times.
 - 21301TX replaces 94G3134
 - 21303TX replaces 94G3135
 - 21305TX replaces 94G3136
 - 21302TX replaces 94G4073
 - 21304TX replaces 94G4074
 - 21306TX replaces 94G4075

21307TX, 21308TX, and 21309TX are available only in Japan; there are no current products.

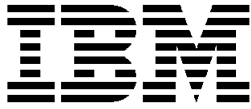
For tower solutions where more power is required, the IBM UPS3000X is a rack-to-tower convertible product offering 3000 VA and 2850 watts of power protection.

Trademarks

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IBM US Announcement Supplemental Information

September 9, 2003

xSeries® tower UPS

UPS750TLV, UPS1000TLV, UPS1500TLV

UPS750THV, UPS1000THV, UPS1500THV

UPS750TJV, UPS1000TJV, UPS1500TJV

Product-specific information

The UPS750T, 1000T, 1500T LV, HV, and JV UPS options are available in nine models:

UPS750TLV, UPS1000TLV, UPS1500TLV

UPS750TLV

- 110 to 127 V ac input voltage
- Supports for output ranges of 750 VA, 500 watts
- Six NEMA 5-15 outlets
- One smart card slot
- USB and serial ports

UPS1000TLV

- 110 to 127 V ac input voltage
- Support for output of 1000 VA, 700 watts
- Eight NEMA 5-15 outlets
- Surge protection for phone or LAN
- One smart card slot
- USB and serial ports

UPS1500TLV

- 110 to 127 V ac input voltage
- Support for output up to 1500 VA, 1050 watts (input voltage dependent: 1220 VA at 110 V; 1440 VA at 120 V; 1500 VA at 127 V)
- Eight NEMA 5-15 outlets
- Surge protection for phone or LAN
- One smart card slot
- USB and serial ports

The LV family

- Output voltage not adjustable; equals the input voltage within the set range
- Input frequency is 50 to 60 Hz
- Fixed 6-ft line cord with NEMA 5-15P
- Input voltage range default: 106 to 127 V ac
- Input voltage adjustable range widest on line: 97 to 136 V ac

Efficiency rating

- On battery: 98%
- Online: 95%

Surge protection and filtering

- Surge: 320 joules
- Overload:
 - Online: Alarm at 107%, limited by breakers
 - On battery: Shutdown at 107%
- Thermal protection:
 - Internal temperature monitored continuously
 - UPS1500T has a fan; UPS750T and 1000T use convection cooling

UPS750THV, UPS1000THV, UPS1500THV

UPS70THV

- 220 to 240 V ac input voltage
- Support for output of 750 VA, 500 watts
- Six IEC C13 outlets
- One smart card slot
- Support for USB and serial

UPS1000THV

- 220 to 240 V ac input voltage
- Support for output 1000 VA, 700 watts
- Eight IEC309 C13 outlets
- One smart card slot
- Support for USB and serial
- Surge protection for phone or LAN

UPS1500THV

- 220 to 240 V ac input voltage
- Support for output 1500 VA, 1,050 watts
- Eight IEC309 C13 outlets
- One smart card slot
- Support for USB and serial
- Surge protection for phone or LAN

The HV family

- Output voltage: 220, 230, or 240 V; default 230 V
- Input frequency: 50 to 60 Hz
- IEC 309 C14 input connector
- Input voltage range default: 209 to 253 V ac
- Input voltage adjustable range widest on line: 196 to 265 V ac

Efficiency rating

- On battery: 98%
- Online: 95%

Surge protection and filtering

- Surge:
 - 750 unit: 320 joules
 - 1000 and 1500 units: 480 joules
- Overload:
 - Online: Alarm at 107%, limited by breakers
 - On battery: Shutdown at 107%

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.

- Thermal protection:
 - Internal temperature monitored continuously
 - UPS1500T has a fan; UPS750T and 1000T use convection cooling

UPS750TJV, UPS1000TJV, UPS1500TJV

UPS750TJV

- 100 V ac input voltage
- Support for output of 750 VA, 500 watts
- Six NEMA 5-15 outlets
- One smart card slot
- USB and serial ports

UPS1000TJV

- 100 V ac input voltage
- Support for output of 1000 VA, 700 watts
- Eight NEMA 5-15 outlets
- Surge protection for phone or LAN
- One smart card slot
- USB and serial ports

UPS1500TJV

- 100 V ac input voltage
- Support for output up to 1200 VA, 1050 watts (limited by input volts)
- Eight NEMA 5-15 outlets
- Surge protection for phone or LAN
- One smart card slot
- USB and serial ports

The JV family

- Output voltage not adjustable; equals the input voltage within the set range
- Input frequency: 50 to 60 Hz
- Fixed 6-ft line cord with NEMA 5-15P
- Input voltage range default: 92 to 108 V ac
- Input voltage adjustable range widest on line: 86 to 114 V ac

Efficiency rating

- On battery: 98%
- Online: 95%

Surge protection and filtering

- Surge: 459 joules
- Overload:
 - Online: Alarm at 107%, limited by breakers
 - On battery: Shutdown at 107%
- Thermal protection:
 - Internal temperature monitored continuously
 - UPS1500T has a fan; UPS750T and 1000T use convection cooling

Internal battery pack

- Typical backup time at half load:
 - UPS750T: 12 minutes
 - UPS1000T: 18 minutes
 - UPS1500T: 16 minutes
- Battery type: Maintenance-free, sealed lead-acid battery with suspended electrolyte, leakproof
- Typical recharge time: Less than three hours for 90% of internal batteries
- Battery charger: Temperature compensated; current limited; float charger

Communications and management

- Interface ports: DB-9 RS-232, USB, and open smart slot for accessory attachment
- Management software included: PowerChute Business Edition
- Control panel: LED status display with load and battery bar-graphs and online, on battery, replace battery, and overload indicators
- Audible alarm: Alarm when on battery; distinctive low battery alarm; configurable delays

Power module upgrade kit: An eServer BladeCenter 1200W to 1400W power module upgrade kit (part number 90P0197) is available. You can upgrade and certify that the 1200W power supply is performing at 1400W by attaching legality labels to the power supply.

Product positioning

In the xSeries line of UPS offerings, the UPS750T, 1000T, and 1500T are the replacement parts for the APC tower UPS units. These new UPS options are positioned as the best power protection choice for tower servers. The following list shows the transition from old part to new part along with benefits of the IBM units.

- APC700 to IBM UPS750T: New units adds USB, greater wattage, more outlets, and longer run time
- APC1000 to IBM UPS1000T: New units delivers LAN and phone protection along with greater wattage and longer run times
- APC1400 to IBM UPS1500T: New unit delivers LAN and phone protection along with greater wattage and longer run times

Part number transition:

- 21301TX replaces 94G3134
- 21303TX replaces 94G3135
- 21305TX replaces 94G3136
- 21302TX replaces 94G4073
- 21304TX replaces 94G4074
- 21306TX replaces 94G4075

21307TX, 21308TX, and 21309TX are available only in Japan; there are no current products.

For tower solutions where more power is required, the IBM UPS3000X is a rack-to-tower convertible product offering 3000 VA and 2850 watts of power protection.

These offerings include:

- USB and serial communications management features
- Standard USB port, serial, and network attachment
- Capability to hot-swap electronic module
- Installation support for all xSeries tower servers
- Protection against power, network, and telephone surge for complete solution (IBM1000T and 1500T models only)

These UPS offerings are a cost-effective, full-function power backup solution for any xSeries tower server or IntelliStation® workstation.

Technical information

ENERGY STAR-compliant: No

Performance specifications: UPS750TLV, UPS1000TLV, UPS1500TLV

Output

- Rated output power ranges:
 - 110 to 127 V range: 750 VA, 500 watts
 - 110 to 127 V range: 1000 VA, 700 watts
 - 110 to 127 V range: 1500 VA, 1050 watts
- Nominal output voltage: 120 V
- Outlets:
 - Six NEMA 5-15 on 750T
 - Eight NEMA 5-15 on 1000T and 1500T

Input

- Nominal input voltage range: 100 to 127 V ac
- Current: 12 A
- Input frequency: 47/63 Hz (auto adjusting)
- ac inlet: Fixed power cord length; 6 feet; NEMA 5-15P plug
- Input voltage range default: 92 to 108 V ac
- Input voltage adjustable range widest on line: 86 to 114 V ac

Efficiency rating

- On battery: 98%
- Online: 95%

UPS750THV, UPS1000THV, UPS1500THV

Output

- Rated output power range:
 - 220 to 240 V, 750 VA, 500 watts
 - 220 to 240 V, 1000 VA, 700 watts
 - 220 to 240 V, 1500 VA, 1050 watts
- Nominal output voltage: 230 V ac
- Outlets:
 - Six IEC320, C-13, 750T
 - Eight IEC320, C-13, 1000T, and 1500T

Input

- Nominal input voltage range: 220 to 240 V ac
- Current: 7A
- Input frequency: 47/63 Hz (auto adjusting)
- ac inlet: IEC320 C14 (10 A)
- Input voltage range default:
 - 209 to 253 V ac
- Input voltage adjustable range widest on line: 196 to 265 V ac

Efficiency rating

- On battery: 98%
- Online: 95%

UPS750TJV, UPS1000TJV, UPS1500TJV

Output

- Rated output power
 - 100 V: 750 VA, 500 watts
 - 100 V: 1000 VA, 700 watts
 - 100 V: 1200 VA, 1050 watts
- Nominal output voltage: 100 V ac
- Outlets:
 - Six NEMA 5-15 on 750T
 - Eight NEMA 5-15 on 1000T and 1500T

Input

- Nominal input voltage: 100 V ac
- Current: 12 A
- Input frequency: 47/63 Hz (auto adjusting)
- ac inlet: Fixed power cord length; 6 feet; NEMA 5-15P plug
- Input voltage range default: 106 to 127 V ac

- Input voltage adjustable range widest on line: 97 to 136 V ac

Efficiency rating

- On battery: 98%
- Online: 95%

UPS750T, 1000T, 1500T LV, HV, and JV

Internal battery pack

- Typical backup time at half load: 12 to 18 minutes (unit dependent)
- Battery type: Maintenance-free, sealed lead-acid battery with suspended electrolyte, leakproof
- Typical recharge time: Less than three hours for 90% of internal batteries
- Battery charger: Temperature compensated; current limited; float charger

Communications and management

- Interface port: DB-9 RS-232, USB
- Management software included:
 - PowerChute Business Edition
- Control panel: LED status display with load and battery bar-graphs and online, on battery, replace battery, and overload indicators
- Audible alarm: Alarm when on battery, distinctive low battery alarm; configurable delays

Surge protection and filtering

- Surge: EN50091-2
- Overload:
 - Online: Alarm at 107%, limited by breakers
 - On battery: Shutdown at 107%
- Thermal protection:
 - Two heat sinks monitored for > 90°C
 - Fan monitored for operation

Physical specifications

UPS750T, 1000T, 1500T LV, HV, and JV

Dimensions

UPS750T, UPS1000T, and UPS1500T models

- Height: 215.9 mm (8.5 in)
- Width: 170.2 mm (6.7 in)
- Depth: 439.4 mm (17.3 in)
- Weight:
 - 19.5 kg (43 lb) (750/1000 models)
 - 25.0 kg (55 lb) (1500 model)

Shipping dimensions

- Height: 381.0 mm (15.0 in)
- Width: 330.2 mm (13.0 in)
- Depth: 584.2 mm (23.0 in)
- Weight:
 - 21.8 kg (48 lb) (750/1000 models)
 - 27.2 kg (60 lb) (1500 model)

Operating environment

- Temperature: 0° to 40°C (32° to 104°F) at 0 to 3000 m (0 to 10,000 ft)
- Relative humidity: 0% to 95%
- Maximum altitude: 3,000 m (10,000 ft)

Electrical specifications

UPS750TLV, UPS1000TLV, UPS1500TLV

- 82 to 147 V ac
- 12 A
- 50 to 60 Hz

UPS750THV, UPS1000THV, UPS1500THV

- 220 to 240 V ac single phase
- 7A
- 50 to 60 Hz
- Audible noise at 1 meter: < 50 dBA (80% load)
- Audible noise at 1 meter: < 55 dBA (100% load)
- Online thermal dissipation: 300 Btu/hr

Agency approvals

UPS750T, 1000T, 1500T LV, HV, and JV

- FCC — Verified to comply with Part 15 of the FCC Rules for a Class A digital device
- UL 1778
- CSA C22.2 Number 950
- NOM
- CE Mark (EN55022 Class A)
- C-Tick Mark (AS/NZS 3548 Class A)
- VDE EN50091-1-1 and 60950
- GOST — Russia
- Type Approval — South Korea
- Taiwan (BCIQEMC Type Certification)

Software requirements: The UPS750T, UPS1000T, and UPS1500T provide backup power to your server regardless of what operating system is used. However, to enjoy the benefits and manageability features provided with PowerChute Business Edition, one of the following operating systems must be used:

- Microsoft™ Windows® 2003
- Microsoft Windows NT® 4.0 with Service Pack 6
- Microsoft Windows 2000 (Professional, Server, and Advanced Server) with SP3
- Microsoft Windows XP
- Red Hat Linux V7.3 and 8.0
- SuSE V7.2 and 7.3
- TurboLinux V7.0
- TurboLinux V7.0
- Novell NetWare 5.1 with Support Pack 3, or later
- Novell NetWare 6.0 with Support Pack 1

Compatibility: The PowerChute Business Edition software is compatible with IBM Director.

The UPS750T, UPS1000T, and UPS1500T options are compatible with all xSeries servers and IntelliStation workstations and other supporting devices that require ac power.

Planning information

Prerequisites: The UPS750T, UPS1000T, and UPS1500T are ideal for environments where high-availability servers and components require backup power to sustain business activity. The following customer-supplied wall outlets are required:

- UPS750TLV, 1000TLV, 1500TLV: 110 V to 127 V, 15 A circuit, accepting a NEMA 5-15P
- UPS750THV, 1000THV, 1500THV: 220 V to 240 V, 10 A circuit, accepting appropriate country line cord
- UPS750TJV, 1000TJV, 1500TJV: 100 V, 15 A circuit, accepting a NEMA 5-15P cord

Cable orders required: The LV and JV versions of these products are shipped with an attached line cord. The HV units do not include a country-specific line cord. To obtain the right line cord, you can either order one of the country-specific line cords or use an extra one from one of the attached devices. Each server is shipped with a country-specific line cord. The IBM UPS units include several power jumper cords to plug the server into the UPS. When using one of these jumper cords, you are left with an unused country-specific jumper cord. This cord is approved for attaching the UPS to the appropriate country wall outlet.

Installation time: Approximately 15 minutes

Packaging: One box

UPS750TLV, UPS1000TLV, and UPS1500TLV shipment group

- Base UPS with USB, serial, and smart slot
- Fixed 6-foot power cord
- 2.0 m serial cable (RS232)
- One 2.0 m NEMA 5-15P jumper cord
- 2.0 m USB cable
- 1000T and 1500T units also include:
 - One RJ-45 CAT5 network cable (1.8 m)
 - One RJ-11 phone line cable (1.8 m)
- PowerChute Business Edition CD
- User manual and warranty information

UPS750THV, UPS1000THV, UPS1500THV shipment group

- Base UPS with USB, serial, and smart slot
- 2.0 m serial cable (RS232)
- 2.0 m USB cable
- 1000T and 1500T units also include:
 - One RJ-45 CAT5 network cable (1.8 m)
 - One RJ-11 phone line cable (1.8 m)
- Rack jumper power cables (IEC 320 C13/C14), 3-in UPS750T, 4-in UPS1000T and UPS1500T
- PowerChute Business Edition CD
- User manual and warranty information

UPS750TJV, UPS1000TJV, and UPS1500TJV shipment group

- Base UPS with USB, serial, and smart slot
- Fixed 6-foot power cord
- 2.0 m serial cable (RS232)
- One 2.0 m NEMA 5-15P jumper cord
- 2.0 m USB cable
- 1000T and 1500T units also include:
 - One RJ-45 CAT5 network cable (1.8 m)
 - One RJ-11 phone line cable (1.8 m)
- PowerChute Business Edition CD
- User manual and warranty information

Publications

- Operation and Maintenance Manual
- Software Installation Manual

Terms and conditions

This product is available for purchase under the terms and conditions of the IBM Customer Agreement (ICA). IBM hardware products are manufactured from new parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, IBM warranty terms apply.

Volume purchase discount	No
IBM Credit Corporation Financing	Yes
Term lease — commercial/ state-federal government	Yes
Installation — commercial/ state-federal government	Yes
Field-installable features	Yes
Customer setup	Yes
Model conversions	No
Product availability status	New
Warranty period ²	3 years
System hardware	3 years
Warranty service	Yes
IOR 9 x 5 M/F (next-business day)	
Maintenance agreement	Yes
Optional upgrade	Yes
Central facility maintenance service option	No

Note: Non-IBM hardware is not warranted by IBM. Warranty, if any, is as provided by the original manufacturer.

Warranty service upgrades (ESA and alternative service)	
IOR ³ 24 hours, 7 days a week, 4-hour response	X
IOR 24 hours, 7 days a week, 2-hour response	X
IOR 9 x 5, Monday through Friday, 4-hour response	X
International warranty service	Yes
Maintenance service (ESA and ICA)	
IOR 9 x 5, Monday through Friday, (next business day)	X
IOR 9 x 5, Monday through Friday, 4-hour response	X
IOR 24 hours, 7 days a week, 4-hour response	X
IOR 24 hours, 7 days a week, 2-hour response	X
Hourly service rate	1
Extended maintenance option	No
Mid-range system option	Yes
discount: 3/5 years	17/22%
Corporate service option	Yes
Discount network: 3/5 years	25/30%
Discount system: 3/5 years	17/22%

When a type of service involves the exchange of a machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. The replacement may not be new, but will be in good working order.

Licensed Internal Code	No
National Education Price (NEP)	No
Licensed Programs	Yes

² Copies of the IBM Statement of Limited Warranty can be obtained by contacting your reseller or accessing the online services listed in the **Service and support information** section.

³ IBM on-site repair

Features and options only

Field installable	Yes
Customer setup	Yes
Warranty period	3 years ⁴
Service type (IOR/IOE/CCE/CCR)	CCE ⁵
Maintenance agreement	No
Optional upgrade	No
Licensed programs	Yes

Note: IBM programs are licensed under the terms and conditions of the IBM License Agreements that ship with the product. Non-IBM programs are available from IBM as distributed by the program supplier.

All other terms and conditions are the same as those applicable to the IBM machine type in which the feature is installed.

⁴ Optional features initially installed with an xSeries server carry the same warranty classification as the system. If installed after the initial system installation, they carry the balance of the system or the optional feature warranty, whichever is greater.

⁵ This optional feature is designed as customer carry-in exchange/repair (CCE/CCR).

International warranty service (IWS): IWS is available during the warranty period to customers who travel or relocate to countries where their computer is sold and serviced by IBM or IBM resellers authorized to perform warranty service. Eligible IBM computers are identified by their four-digit machine type.

You can obtain IWS through the method of service, such as depot, carry-in or on-site, provided in the servicing country. Service methods and procedures vary by country, and some service or parts may not be available in all countries. Service centers in certain countries may not be able to service all models of a particular machine type. In addition, some countries may have fees and restrictions that apply at the time of service.

To determine the eligibility of your computer and to view a list of countries where service is available, visit:

<http://www.pc.ibm.com/support>

Click on the Warranty Lookup tab.

For more information on IWS, refer to Services Announcement 601-034, dated September 25, 2001.

Service and support information

During the warranty period, for problem determination and placement of service calls, contact 800-IBM-SERV (436-7378), or your reseller.

Accessing IBM online services: The xSeries Web site provides a range of product technical and compatibility information and information on xSeries solutions. Visit:

<http://www.ibm.com/pc/support>

Warranty information is available by visiting:

http://www.ibm.com/servers/support/machine_warranties/

Prices

Description	Part number	IBM list price ⁶
UPS750TLV	21301TX	\$299
UPS1000TLV	21303TX	459
UPS1500TLV	21305TX	599
IBM Power Jumper Cord Option IEC C19 to C20 2.5 Meter	90P4849	19
IBM Power Jumper Cord Option IEC C13 to C20 2.8 Meter	23K4809	19
IBM eServer BladeCenter 1200W to 1400W Power Module Upgrade Kit	90P0197	59

⁶ IBM price; does not include tax or shipping and is subject to change without notice. Reseller prices may vary.

Maintenance service charges (ICA)

Alternative service (warranty service upgrades)

**IOR
24 x 7**

\$69

Annual maintenance service

IOR 9 x 5 NBD⁷	IOR 24 x 7 4-hour
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\$58

\$83

⁷ Next business day

Global Financing

IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, both from IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit:

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

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