

# Consumer Power Solutions

Power protection for  
home and office desktop  
computer systems



# Power protection for home and business desktop computer systems

## "Must have" features in a UPS:

- **Multipath protection**

APC Back-UPS units have enough outlets to protect your entire computer system with dedicated outlets for computer, monitor and all peripherals, such as laser printers, Zip drives, scanners, and fax machines, so that everything is protected against the threat of bad power.

- **Audible alarms**

Let you know whenever there is a problem. Since a UPS won't run indefinitely on battery power, you are notified when you need to save files and shut down.

- **Easy overload recovery**

Like your circuit breaker box at home, all APC products have a quick, easy push-button recovery circuit breaker instead of a standard fuse, so you don't have to return the unit to the factory for service. If an overload or a short circuit occurs, you're quickly back in business!

- **User-renewable UPS system**

At the end of the battery's life, you can replace it by recycling the battery for a low cost, which saves you money while protecting the environment.

- **Two-Year comprehensive product warranty**

Covers all parts and labor, including the battery. (See warranty for details.)

- **Industry approvals**

Industry approvals mean a tested, safe and reliable solution to power problems.

You depend on your computer. Whether your system is located in your home or office it requires clean, consistent power in order to operate reliably. Unfortunately, with power problems threatening your system twice daily on average, sooner or later you're going to lose data or hardware.

APC has a full line of Power Protection Solutions designed to protect your system against these problems. We offer the world's most reliable power protection for all types of sensitive electronics and power paths.

APC Power Protection products are designed to protect your computer, data, and on a larger scale, your company. You can trust APC for affordable, reliable, high-performance power solutions. With more than 9 million satisfied customers, APC protects more computers worldwide than any other brand.

Check out our comprehensive line of desktop solutions and see which one best suits your needs. For more information, check out [www.apc.com](http://www.apc.com) on the Web!



*APC was chosen by PC Magazine as one of the "Top 100 Technology Companies That Are Changing The World" (10/99).*



*APC Back-UPS Pro 650,  
APC Back-UPS CS 500 and  
APC SurgeArrest*



For more information, visit APC's Web site at [www.apc.com](http://www.apc.com)

## The problem with power

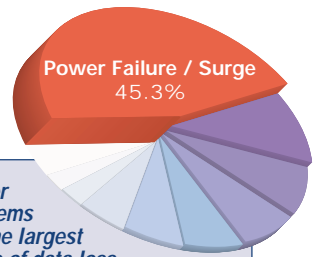
Computer users fall into two groups: those who have lost data due to power problems and those who will. According to an IBM study, your system is subject to an average of 128 power disturbances per month, ranging from surges and spikes, which can damage hardware, to sags, brownouts and complete blackouts, which can cause data loss. Basically, the more you use your computer, the more you stand to lose. Power problems wreak havoc on today's multi-tasking networked and stand-alone computers.

Power problems are the single largest cause of data loss. Power problems are responsible for 45.3% of all data loss, including keyboard lockups, complete data loss, hardware degradation, and damaged motherboards.

## Protect your valuable data with an APC Back-UPS

When a power event occurs, your APC UPS unit instantly switches your computer to battery backup power, allowing you to work through brief power outages without data loss or downtime. In the event of an extended power failure, APC UPS units provide time to save files and shut down your computer safely. High-performance surge suppression protects your computer from electrical noise, damaging power surges and lightning strikes.

These precious minutes of availability ensure that your data and mission-critical business applications remain intact.



**Power problems are the largest cause of data loss**

<b>Power Failure/Surge</b>	<b>45.3%</b>
Storm Damage	9.4%
Fire or Explosion	8.2%
Hardware/Software error	8.2%
Flood & Water Damage	6.7%
Earthquake	5.5%
Network Outage	4.5%
Human Error/Sabotage	3.2%
HVAC Failure	2.3%
Other	6.7%

Source: Contingency Planning Research

*"With the APC Back-UPS in place, the clock will continue to work throughout a power failure."*

**Peter Smith**  
Clock Winder  
St. Michael's Church





## For Home or Business

You depend on your computer. Whether your system is located in your home or office it requires clean, consistent power in order to operate reliably. Unfortunately, with power problems threatening your system twice daily on average, sooner or later you're going to lose data or hardware.

APC Power Protection products are designed to protect your computer, data, and on a larger scale, your company. You can trust APC for affordable, reliable, high-performance power solutions. With more than 9 million satisfied customers, APC protects more computers worldwide than any other brand.

Check out our comprehensive line of desktop solutions and see which one best suits your needs. For more information, check out [www.apc.com](http://www.apc.com) on the Web!

### Internet connections dramatically increase your risk.

While datalines to and from your system are vital, plugging a phone line into your computer doubles its vulnerability to power problems. Add any peripheral (such as a printer), and the threat triples. And if your modem drops during a power sag, you'll lose all data that was in transit.

Let's take lightning as an example. Lightning strikes a nearby transformer. If the surge is powerful enough, it travels instantaneously through wiring, network, serial and phone lines, in a fashion analogous to a tidal wave. Then it travels into your computer through the outlet, cable or telephone. The modem and motherboard are destroyed, then the chips and data are lost.

The utility responds to overvoltages by disconnecting the grid, which creates brownouts and blackouts. If the voltage drops low enough or blacks out, the hard disk may crash, destroying data stored on the disk. In all cases, work-in-progress stored in cache is instantly lost. In the worst case scenario, password protection on your hard drive can be jumbled, or the file allocation table may be damaged, rendering the hard disk useless.



Mac OS 9  
(9.0.4 or higher)



For more information, visit APC's Web site at [www.apc.com](http://www.apc.com)

## Back-UPS® CS 350/500 and Back-UPS® 650

Reliable power protection for office and home office computers.

The Back-UPS CS 350 and Back-UPS CS 500 provide plenty of runtime to ride through momentary outages, or to shut down your system in the event of an extended outage. There are outlets for your computer and monitor, and a compact design to conserve valuable workspace.

The Back-UPS CS 350 and 500 are the first UPSs to offer both serial and USB connectivity, plus fax/modem line protection to absorb surges on datalines. Both the Back-UPS CS 350 and 500 come with Power Management extensions, APC Shutdown Manager, and PowerChute® *plus*, APC's award-winning data-saving, automatic system-shutdown software. The Back-UPS 650 offers more runtime and is only available in a serial version with PowerChute *plus* Software (software sold separately).

MODEL
BK350EI
BK500EI
BK650MI

BK350EI
BK500EI
BK650MI



- 3 battery + surge outlets
- 1 surge-only outlet
- Phone/fax/modem/DSL protection
- File-saving, auto-shutdown software
- USB and serial connectivity
- Compact design conserves valuable workspace
- 16 minutes of runtime (typical)

BK350EI
BK500EI
BK650MI



- 3 battery + surge outlets
- 1 surge only outlet
- Phone/fax/modem/DSL protection
- File-saving, auto-shutdown software
- USB and serial connectivity
- Compact design conserves valuable workspace

### Product Family Features

- **User-adjustable settings** allow you to customize your operating voltage range and alarm settings
- **File saving, auto-shutdown software** - for Windows 95/98, Windows NT, Windows 2000, Windows Me, and Mac OS9 (9.0.4 or higher) (see model for details).
- **Long-lasting, auto-recharging, user-replaceable battery system**
- **Audible alarms** alert you of changing power and UPS conditions
- **Two-year comprehensive warranty**



BK350EI
BK500EI
BK650MI



- 3 battery + surge outlets
- 1 surge-only outlet
- Diagnostic Test/Alarm button
- Serial connectivity
- File-saving, auto-shutdown software (sold separately)
- 44 minutes of runtime (typical)

For more information, visit APC's Web site at [www.apc.com](http://www.apc.com)

## For Business

Whether you are a CEO, finance manager or network administrator, you're undoubtedly responsible for many mission-critical business processes. Therefore you rely on high-performance network management of your corporate desktops to handle everything from POS systems to large reports.

In today's information age, company data must remain available--downtime is unacceptable. With more and more critical business applications depending on networks, high availability is crucial to the success of your company.

It's for these reasons that you should rely on APC's full line of high-performance Back-UPS Pro products to protect your corporate desktops and manage your network efficiently. APC products are designed to suit your particular business needs, from the corporate desktop to enterprise-wide network management.

### Get system-wide protection with a single UPS.

You need to protect your hardware from damage, prevent data loss and increase your uptime. Comprehensive solutions exist for all types of workstations, from network computers to large CAD systems.

### Protect your entire system

An APC Back-UPS Pro provides dedicated outlets for a computer, monitor and peripherals such as laser printers, zip drives, scanners, fax machines, as well as fax/modem/network/dataline protection, keeping everything safe from the effects of bad power. You eliminate the threat of power problems simply by plugging your entire system into an APC Back-UPS Pro.



For more information, visit APC's Web site at [www.apc.com](http://www.apc.com)

## Back-UPS Pro® 280/420/650/1000/1400

High-performance battery backup provides smart power management and extended runtime for PCs and workstations.

The APC Back-UPS Pro line offers premium power protection for your CPU and monitor, as well as network/dataline protection to guard all paths to your system.

If you use Windows® 95/98/ME, Windows® NT, or Windows® 2000 Professional on a high-performance workstation, you need a Back-UPS Pro. The Back-UPS Pro provides the runtime and ability to automatically shutdown your computer if you're away from your desk. In addition, with advanced PowerChute® *plus* shutdown software, power to your workstations can be monitored and managed from anywhere within the network.

MODEL
BP280SI
BP420SI
BP650SI
BP1000I
BP1400I




BP280SI
BP420SI
BP650SI



- 3 battery + surge outlets
- 1 surge-only outlet
- Automatic Voltage Regulation (AVR)
- Network-manageable file-saving, auto-shutdown software

• 14 minutes of runtime (typical)

BP280SI
BP420SI
BP650SI



- 3 battery + surge outlets
- 1 surge-only outlet
- Automatic Voltage Regulation (AVR)
- Network-manageable file-saving, auto-shutdown software

• 20 minutes of runtime (typical)



BP280SI
BP420SI
BP650SI



- 3 battery + surge outlets
- 1 surge-only outlet
- Automatic Voltage Regulation (AVR)
- Network-manageable file-saving, auto-shutdown software

• 45 minutes of runtime (typical)

### Product Family Features:

- **Network-manageable shutdown software** - PowerChute *plus* provides UPS manageability, safe system shutdown and data saving for Windows 95/98, Windows Me, Windows 2000 and Windows NT workstations
- **Automatic Voltage-Regulation technology (AVR)** corrects under-voltages and over-voltages, without draining the battery, to handle even the worst brownouts.
- **Internet ready** - 1-line phone/fax/modem/DSL or network dataline surge suppression
- **Long-lasting, heavy-duty, user-replaceable battery system**
- **Visual alarms** - On-Line, On-Battery, Overload, Replace Battery
- **Audible alarms** alert you of changing power and UPS conditions
- **Intelligent battery management** maximizes battery performance, life and reliability
- **Self-diagnostics** automatically test all components every 14 days
- **Two-year comprehensive warranty**



*Hot-swappable batteries make it easy for users to replace batteries. (available on most APC UPSs)*

BP1000I
BP1400I



- 4 battery + surge outlets
- Automatic Voltage Regulation (AVR)
- Optional auto-shutdown software

• 79 and 145 minutes of runtime (typical)

*The Back-UPS Pro 1000 and 1400 have enough power to keep a couple desktop computers running through a power outage.*

# Product Specifications

For Home / For Business

	BACK-UPS CS 350	BACK-UPS CS 500	BACK-UPS 650
Part Number	BK350EI	BK500EI	BK650MI
<b>INPUT</b>			
Capacity	350VA (2100W)	500VA (3000W)	650VA (4000W)
Nominal Input	230 Vac single phase, 50 or 60 Hz ± 5% (auto sensing)		
<b>OUTPUT</b>			
Voltage (on battery)	Stepped approximation to sine wave output at 230 Vac ± 8% (auto sensing)		
<b>SURGE PROTECTION</b>			
Data/line protection	Phone/fax/modem/DSL protection		
<b>PHYSICAL</b>			
Total number of receptacles	3 battery + surge, 1 surge only	3 battery + surge, 1 surge only	3 battery + surge, 1 surge only
Maximum Dimensions (H x W x L)	9.1x16.5x28.3 cm (3.7x6.5 x11.3")	9.1x16.5x28.3 cm (3.7x6.5 x11.3")	16.8 x 11.9 x 36.1 cm (6.5" x 4.7" x 14.2")
Net weight	7.0 kg (15.4 lbs)	7.0 kg (15.4 lbs)	10.4 kg (23.0 lb)
<b>USER REPLACEABLE BATTERIES</b>			
Type	User-replaceable, Hot swappable, sealed, maintenance-free lead acid		
Typical recharge time	4-6 hours		
<b>DIAGNOSTICS AND MANAGEMENT</b>			
Visible indicators	UPS On-line, on battery, UPS overload, replace battery		
Audible alarms	On battery, low battery, UPS overload, replace battery		
Management	14 Day Automatic self-test, manual self-test		
<b>COMMUNICATIONS INTERFACE</b>			
RJ45 to USB	X	X	—
RJ45 to Serial optional (mail in)	X	X	—
DB9-DB9 RS-232	—	—	X
<b>SOFTWARE</b>			
Supported Operating Systems	Power Management Extensions for Windows 98, ME, 2000. APC Shutdown Manager for MAC, optional PowerChute plus software with network manageability, data saving, unattended shutdown and UPS diagnostics for Windows 95, 98, 2000 and NT		
<b>CONFORMANCE</b>			
Agency approvals	C-Tick, A-Tick, CE, VDE, PCBC, Gost-R		
Warranty	2 year comprehensive, including battery		
<b>TYPICAL RUNTIME IN MINUTES</b> (Runtimes may vary depending on your equipment. For the most recent sizing information go to <a href="http://sizing.apc.com">sizing.apc.com</a> )			
Runtime	16	22	44
Availability	Indonesia, Singapore, Malaysia Philippines, Vietnam, Thailand	Indonesia, Singapore, Malaysia Philippines, Vietnam, Thailand	Indonesia, Singapore, Malaysia Philippines, Vietnam, Thailand





## For Home and Business



	BACK-UPS PRO 280	BACK-UPS PRO 420	BACK-UPS PRO 650	BACK-UPS PRO 1000	BACK-UPS PRO 1400
Part Number	BP280SI	BP420SI	BP650SI	BP1000I	BP1400I
INPUT					
Capacity	280VA (180W)	420VA (260W)	650VA (410W)	1000VA (670W)	1400VA (950W)
Nominal Input		230 Vac single phase, 50 or 60 Hz ± 5% (auto sensing)			
OUTPUT					
Voltage (on battery)					
Automatic Voltage Regulation (AVR)		Stepped approximation to sine wave output at 230 Vac ± 5% (auto sensing)			
SURGE PROTECTION		Factory Default: (on line) Increases output 15% to 30% above input voltage if between -30% to -38% of nominal. Factory Default: (on line) Decreases output 13% below input voltage if up to 28% of nominal.			
Dataline protection					
PHYSICAL		Phone/fax/modem/DSL or 10/100 Base-T			
Total number of receptacles	3 battery + surge, 1 surge only	3 battery + surge, 1 surge only	3 battery + surge, 1 surge only	4 battery + surge	4 battery + surge
Maximum Dimensions (H x W x L)	168x119x368cm (6.6" x 4.7" x 14.5")	168x119x368cm (6.6" x 4.7" x 14.5")	168x119x368cm (6.6" x 4.7" x 14.5")	21.6 x 17.0 x 43.9 cm (8.5" x 6.7" x 17.3")	21.6 x 17.0 x 43.9 cm (8.5" x 6.7" x 17.3")
Net weight	7.6kg (16.7lb)	8.3kg (18.3lb)	11.4kg (25.1lb)	19.3 kg (42.6 lbs)	24.6 kg (54.1 lb)
USER REPLACEABLE BATTERIES					
Type		Hot swappable, sealed, maintenance-free lead acid			
Typical recharge time		2-4 hours, depending upon model		3-6 hours, depending upon model	
DIAGNOSTICS AND MANAGEMENT					
Visible indicators		UPS On-line, on battery, UPS overload, replace battery, site wiring fault			
Audible alarms		On battery, low battery, UPS overload, replace battery			
Management		14 Day Automatic self-test, manual self-test			
COMMUNICATIONS INTERFACE					
DB9-DB9 RS232	X	X	X	X	X
SOFTWARE					
Supported Operating Systems		PowerChute plus Software, with network manageability, data saving, unattended shutdown and UPS diagnostics for Windows 95, 98, ME, 2000 and NT		Optional network auto-shutdown software	
CONFORMANCE					
Agency approvals		VDE, CE, C-tick, Gost-R, and PCBC (B mark) certified, EN 60950, EN 55022, VDE 805, CN 50082, EN 50091			
Warranty		2 year comprehensive, including battery			
TYPICAL RUNTIME IN MINUTES (Runtimes may vary depending on your equipment. For the most recent sizing information go to <a href="http://sizing.apc.com">sizing.apc.com</a> )					
Runtime	14	20	45	79	145
Availability	Indonesia, Malaysia, Singapore, Vietnam, Thailand	Indonesia, Malaysia, Singapore, Vietnam, Thailand	Indonesia, Malaysia, Singapore, Vietnam, Thailand, Philippines	Indonesia, Malaysia, Singapore, Vietnam, Thailand, Philippines	Indonesia, Malaysia, Singapore, Vietnam, Thailand, Philippines

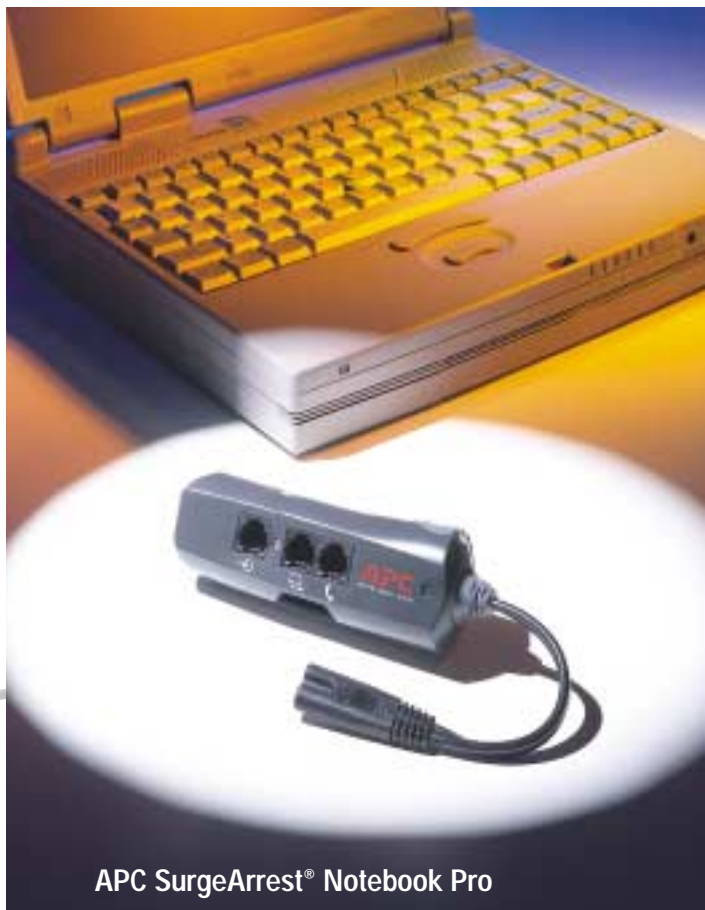
# Award-winning surge protection for desktop computers

One out of four computers gets hit by a major power event every year. It's not a question of if you will experience a power problem — it's a matter of when. Even if you avoid a major catastrophe, every computer gets hit daily with sags, surges, and electrical noise that can cause system lock-ups and data corruption. Short term increases in voltage, or surges, can occur for a number of reasons. Sometimes they happen when high-powered electrical motors in common household appliances are switched off, causing extra voltage to be dissipated through the power line.

A good surge suppressor should protect your equipment and extend your system's life by allowing only clean, safe power through to your equipment.

In order to provide that clean, safe power, your surge suppressor must be able to reduce harmful excess voltage, filter electrical noise, and, in the event of a catastrophic surge event, "give its life" to stop future spikes and surges.

APC Basic Surge Protector Pro-4K



APC SurgeArrest® Notebook Pro

# Advanced power protection for servers and data centers

## APC Smart-UPS®

### Performance power protection for servers and networks

APC's award-winning Smart-UPS range in size from 420VA to 5000VA, are available in tower and rack-mount configurations and are perfect protection for everything from small business to enterprise servers.

Smart-UPS provide reliable battery back-up, network-grade line conditioning, safe shutdown capabilities with PowerChute® *plus* and remote management via a Web/SNMP Management Card.



APC's manufacturing system is certified to ISO 9001 & ISO 14001 standards



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