

#### **Back-UPS ES**

# APC Back-UPS ES, 6 outlet 350VA, 120V, without auto shutdown software





APC's Back-UPS® ES series is now "greener" than ever. The ES 350 utilizes an ultra-efficient design that consumes less power during normal operation than any other battery backup in its class, saving you money on your electricity bill. It's also RoHS compliant, which means its manufacture and ultimate disposal is easier on the environment. Even the packaging has been carefully selected to minimize energy use in it's creation, and to maximize the use of recycled materials. Coupled with all the standard features of the Back-UPS ES series, the ES 350 is the best value for home and home office computers.

**Includes**: User Manual

Standard Lead Time: Usually in Stock

#### **BE350G Features**

Intelligent Battery

Management

Battery failure notification	Provides early-warning fault analysis on batteries enabling timely preventive maintenance
Battery-protected and surge-only outlets	Reserves power capacity and run time for connected equipment that require battery back-up while providing surge only protection for less critical equipment
Cold-start capable	Provides temporary battery power when the utility power is out.
Hot-swappable batteries	Ensures clean, uninterrupted power to protected equipment while batteries are being replaced
Disconnected battery notification	Warns when a battery is not available to provide backup power.
Dataline Surge	Provides protection of connected equipment from power surges on the data
Protection	lines.
Automatic self-test	Periodic battery self-test ensures early detection of a battery that needs to be replaced.
Audible Alarms	Provides notification of changing utility power and UPS conditions.
User-replaceable batteries	Increases availability by allowing a trained user to perform upgrades and replacements of the batteries reducing Mean Time to Repair (MTTR)
Transformer-block spaced outlets	Protect equipment with input transformer blocks without blocking access to other receptacles.

precision charging.

Maximizes battery performance, life, and reliability through intelligent,

Safety-agency Ensures the product has been tested and approved to work safely with the connected service provider equipment and within the specified environment.

UL, FCC, CE, C-Tick approvals.

Lifetime data recovery Provides peace of mind by providing professional data recovery services in

warranty the event data is lost due to the failure of the unit.

Battery replacement Allows quick, easy battery replacement.

other receptacles.

without tools

spaced outlets

LED status indicators Quickly understand unit and power status with visual indicators.

#### **Back-UPS ES Features & Benefits**

Protection	
Battery-protected and surge-only outlets	Reserves power capacity and run time for connected equipment that require battery back-up while providing surge only protection for less critical equipment
Power conditioning	Protects connected loads from surges, spikes, lightning, and other power disturbances.
Data line surge protection	Provides protection of connected equipment from power surges on the data lines.
Safety-agency approved	Ensures the product has been tested and approved to work safely with the connected service provider equipment and within the specified environment. UL, FCC, CE, C-Tick approvals.
Convenience	
Audible Alarms Automatic self-test	Provides notification of changing utility power and UPS conditions.  Periodic battery self-test ensures early detection of a battery that needs to be replaced.
Cold-start capable	Provides temporary battery power when the utility power is out.
Hot-swappable batteries	Ensures clean, uninterrupted power to protected equipment while batteries are being replaced
Resettable circuit breakers	Enables a quick recovery from overload events.
Transformer-block	Protect equipment with input transformer blocks without blocking access to

# Output

Output Power Capacity 200 Watts / 350 VA

Max Configurable Power 200 Watts / 350 VA

Nominal Output Voltage 120V

Output Frequency (sync to mains) 60 Hz

Waveform Type Stepped approximation to a sinewave

Output Connections (3) NEMA 5-15R (Battery Backup)

(3) NEMA 5-15R (Surge Protection)



# Input

Nominal Input Voltage 120V

Input Frequency 60 Hz +/- 1 Hz

NEMA 5-15P

Cord Length 1.52 meters

Input voltage range for main

operations

Input Connections

88 - 139V

#### **Batteries & Runtime**

Battery Type Maintenance-free sealed Lead-Acid battery with suspended electrolyte: leakproof

Typical recharge time 16 hour(s)

Replacement Battery <u>RBC35</u>

RBC<sup>TM</sup> Quantity 1

Typical Backup Time

at Half Load

Typical Backup Time

0.4 minutes (200 Watts)

5.6 minutes (100 Watts)

at Full Load

Runtime Chart Back-UPS ES

#### **Communications & Management**

Control panel LED status display with On Line: On Battery: Replace Battery and Building Wiring

Fault

Audible Alarm Alarm when on battery: distinctive low battery alarm: overload continuous tone

alarm

## **Surge Protection and Filtering**

Surge energy rating 365 Joules

Filtering Full time multi-pole noise filtering : 5% IEEE surge let-through : zero clamping

response time: meets UL 1449

Data Line Protection RJ-11 Modem/Fax/DSL protection (two wire single line)

### **Physical**

Maximum Height 89.00 mm

Maximum Width 159.00 mm

Maximum Depth 279.00 mm

Net Weight 3.64 KG

Shipping Weight 4.36 KG

Shipping Height 127.00 mm

Shipping Width 197.00 mm

Shipping Depth 362.00 mm

Master Carton Weight 7.95 KG

Color Charcoal

SCC Codes 1073130425890 9

2.00

Units per Pallet 120.00

### **Environmental**

**Master Carton Units** 

Operating Environment 0 - 40 °C

Operating Relative Humidity 5%

Operating Elevation 0-3000 meters

Storage Temperature -15 - 45 °C

Storage Relative Humidity 5%

Storage Elevation 0-15000 meters

Audible noise at 1 meter from

surface of unit

 $45.00\ dBA$ 

Online Thermal Dissipation 14.00 BTU/hr

#### Conformance

Regulatory Approvals cUL Listed,FCC Part 15 Class B,FCC Part 68,NOM,UL 1778,UL 497A,UL 498

Standard Warranty 3 years repair or replace

ROHS/WEEE Compliance RoHS

<sup>\*\*</sup>The time to recharge to 90% of full battery capacity following a discharge to shutdown using a load rated for 1/2 the full load rating of the UPS.

# **Troubleshooting**

Problem	Probable Cause	Solution
Back-UPS ES will not turn on.	The battery is disconnected, and either power is unavailable at the wall outlet, or utility power is having a "brownout" or an "over voltage" condition.	Connect the battery (see <i>Connect Battery</i> ) and ensure power is available at the wall outlet. If battery is connected and power is unavailable, the unit can be "cold started" (operated on battery power) by holding the power button down until two beeps are heard.
No power available at the Surge Protection outlets.	Surge Protection outlets were overloaded.	Reduce the amount of equipment plugged into the Surge Protection outlets.
	Utility power not available at the wall outlet.	Ensure the fuse or circuit breaker for the outlet is not tripped, and that the wall switch controlling the outlet (if any) is in the ON position.
Back-UPS is on, but Replace Battery indicator flashes, and unit emits a constant tone.	Battery is disconnected.	Connect the battery (see Connect Battery diagram).
Connected equipment loses power.	Equipment is connected to the "Surge Protection" outlets.	Ensure the equipment you want to stay powered during a power failure is plugged into the "Battery Backup plus Surge Protection" outlets and NOT the "Surge Protection Only" outlets.
	The Back-UPS ES is overloaded.	Make sure the equipment plugged into the outlets of the unit are not overloading its capacity. Try removing some of the equipment and see if the problem continues.
	PowerChute Personal Edition software has performed a shutdown due to a power failure.	The Back-UPS ES is operating normally.
	The Back-UPS ES has exhausted its available battery power.	The Back-UPS ES can only operate on battery power for a limited amount of time. The unit will eventually turn off when the available battery power has been used. Allow the unit to recharge for 16 hours before expecting maximum runtime.
	Connected equipment does not accept the step- approximated sine waveform from the Back-UPS ES.	The output waveform is designed for computers and computer-related equipment. It is not designed for use with motor-type equipment.
	The Back-UPS ES may require service.	Contact APC Technical Support for further troubleshooting.
The Power On indicator is lit and the Back-UPS ES beeps four times every 30 seconds.	The Back-UPS ES is On Battery.	The Back-UPS ES is operating normally, and using battery power. Once On Battery, you may want to save your current work, power down your equipment, and turn the unit OFF. Once normal power is restored, you may turn the unit back ON, and power your equipment.
The Power On indicator flashes and the Back-UPS beeps twice per second at the same time.	Battery capacity is low (about 2 minutes of use remaining).	The Back-UPS ES is about to shut off due to a low battery charge condition! When the unit beeps twice every second, the battery has about 2 minutes of power remaining. Immediately power down your computer ,and turn the unit OFF. When normal power returns, the unit will recharge the battery.
Building Wiring Fault indicator is lit.	Your building wiring presents a shock hazard. Using the Back-UPS with this condition will void the warranty.	Call a qualified electrician for service.
Inadequate runtime.	The battery is not fully charged.	Allow the unit to charge by leaving it plugged into the wall at least 16 hours.
	Battery is near the end of useful life.	As a battery ages, the amount of runtime available will decrease. You can replace the battery by ordering one at www.apc.com. Batteries also age prematurely if the Back-UPS ES is placed near excessive heat.
No phone/fax/DSL signal from the Back-UPS.	Data line from the ISP or wall outlet is connected to the wrong jack on the Back-UPS.	Make sure the data line from the wall outlet is connected to the jack labeled "Wall Outlet".
Internet connection lost during power outage.	Modem lost AC power.	Plug the modem's AC power cord into one of the "Battery Back-up Plus Surge Protection outlets".

# **Specifications**

Input	Voltage	120 Vrms nominal
	Frequency	60 Hz <u>+</u> 3
	Brownout Transfer	92 Vrms, typical
	Over-voltage Transfer	139 Vrms, typical
Output	UPS Capacity (3 outlets)	350 VA; 200 W
	Total Amperage (6 outlets)	8 Amps (including UPS output)
	Voltage - On Battery	115 Vrms <u>+</u> 8% (step-approximated sine wave)
	Frequency - On Battery	60 Hz <u>+</u> 1 Hz
	Transfer Time	6 ms typical, 10 ms maximum
Protection and Filter	AC Surge Protection	Full time, 340 joules
	Phone/fax/DSL Surge Protection	Single line (2-wire)
	EMI/RFI Filter	Full time
	AC Input	Resettable circuit breaker
Battery	Туре	Sealed, maintenance-free lead acid
	Average Life	3 - 5 years depending on the number of discharge cycles and environmental temperature
Physical	Net Weight	8.6 lb (3.9 kg)
	Size	10.6 in (H) x 6.3 in (W) x 3.5 in (D) (26.9 cm x 16 cm x 8.8 cm)
	Operating Temperature	+32°F to 104°F (0°C to 40°C)
	Storage Temperature	+5°F to 113°F (-15°C to 45°C)
	Operating Relative Humidity	0 to 95% non-condensing
	Operating Elevation	0 to 10,000 ft (0 to 3,000m)
Safety and Regulatory	Safety Approvals	TUV C-US certified; UL 1778 standard per CSA standard C22.2 No. 107.3, FCC part 68 & FCC part 15 Class B, NOM certified
	EMC Compliance	Notice: This device complies with part 68 and part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept an interference received, including interference that may cause undesired operation.
		"On the bottom of this equipment is a label that contains among other information, the FCC registration number and ringer equivalence number (REN) for this equipment requested, this information must be provided to the telephone company."

# Order Replacement Battery Replace with an APC qualified battery. Replacement batteries can be ordered from

Replace with an APC qualified battery. Replacement batteries can be ordered from www.apc.com (valid credit card required). The replacement battery part number for this Back-UPS 350 is RBC 35.

# Warranty

The standard warranty is 3 years from the date of purchase. APC's standard procedure is to replace the original unit with a factory reconditioned unit. Customers who must have the original unit back due to assigned asset tags and set depreciation schedules must declare such a need at first contact with APC Technical Support. APC will ship the replacement unit once the defective unit is received by the repair department or cross-ship upon the provision of a valid credit card number. The customer pays for shipping to APC, and APC pays ground freight transportation costs back to the customer.

#### Service

Please DO NOT RETURN Back-UPS ES to the place of purchase under any circumstances

- 1. Consult the Troubleshooting section to eliminate common problems.
- 2. Verify the battery is connected (see *Connect Battery*) and that the Circuit Breaker is not tripped (see *Troubleshooting* section).

If you still have problems or questions, please contact APC via the internet or at one of the phone numbers listed below.

- 3. Before contacting APC, please be sure to record the date purchased, UPS model, and serial number (on bottom of unit).
- 4. Be prepared to troubleshoot the problem over the telephone with a Technical Support Representative. If this is not successful, the representative will issue a Return Material Authorization Number (RMA#) and a shipping address.
- 5. Pack the unit in its original packaging. If the original packaging is not available, ask APC Technical Support about obtaining a new set. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty (insuring the package for full value is recommended).
- 6. Write the RMA# on the outside of the package.
- 7. Return the unit by insured carrier to the address given to you by APC Technical Support.