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Rackmount and Cabinet Power Strips with Surge Protection

Power and protection for your rackmount and cabinet equipment.

## **FEATURES**

- » Include surge and spike protection.
- » Have a 9-foot (2.8-m) or 15-foot (4.5-m) cord.
- » All models (except SP470A-R3) have lighted 2-function (power/reset and circuit breaker) or 3-function (power, reset, and circuit breaker) switches.
- » Rackmount or cabinet models fit your equipment.
- Feature a 33-V clamping voltage (except SP470A-R3),
- » Available with 15- or 20-amp circuit breaker.

#### OVERVIEW

Provide power and surge protection to your rackmount or cabinet equipment. Choose 15- or 20-amp models.

## Rackmount Power Strips (SP194A-R2, SP196A-R2)

The rackmount power strips/surge protectors guard your rackmount equipment against dangerous surges. Use them with data cabinets or relay racks.

Connect your equipment to the SP196A-R2 power strip's nine NEMA 5-20R outlets or the SP194A-R2's 5-15R (one square and eight round duplex) outlets. It's also a surge protector and has a Surge Protection LED and separate Power and Reset switches.

Generous 8.75" (22.2-cm) depth gives easy access to eight 15- or 20-amp rear outlets. The units also include one front outlet. The units occupy only 1U of space in your rack.

# Cabinet Power Strips (SP197A-R2–SP199A-R2, SP214A-R3, SP216A-R2–SP218A-R2)

The Cabinet Power Strips bring safe, convenient, state-of-the-art surge protection to your network. Choose 15- or 20-amp models with a 15-foot (4.5-m) molded-on plug (included). They're available in 24", 48", 70", or 77" lengths with 8, 10, 11, or 12 receptacles, so they're an easy fit for most cabinets.

The power supply strips feature electrical and mechanical grounding, UL<sup>®</sup> 1449 330-volt clamping voltage, a lighted power/reset switch, and an LED that lights green when surge protection is on and turns off when surge protection is not functioning.

The SP197A-R2 has (10), the SP198A-R2 has (11), and the SP199A-R2 has (12) NEMA 5-15R outlets.

The SP214A-R3 has (8), the SP216A-R2 has (10), the SP217A-R2 has (11), and the SP218A-R2 has (12) NEMA 5-20R outlets. These four models all provide 20-amp rated current.

#### Rackmount Power Supplies (SP470A-R3, SP472A-R3)

The Rackmount Power Supply is a 19"-wide power strip with 8 outlets that provides surge suppression for your application.

The SP470A-R3 is switchless, which protects the unit from being turned off unexpectedly.

The SP472A-R3 also features electrical and mechanical grounding, UL 1449 330-volt clamping voltage, a lighted power/reset switch, and an LED that lights green when surge protection is on and turns off when surge protection is not functioning.

# Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p.m. and you need help, but your vendor's tech support line is closed.

According to a survey by *Data Communications* magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application. Don't waste time and money—call Black Box today.



# TECH SPECS

SP194A-R2, SP196A-R2: Clamping Voltage — 330 V Compliance — UL<sup>®</sup> recognized Controls — SP194A-R2: (1) lighted power switch, (1) circuit breaker reset switch: SP196A-R2: (1) lighted Power/Reset switch (lights when on) Joule Rating — 420 J Noise Filtration — EMI/RFI Outlets — SP194A-R2: Front: (1) NEMA 5-20R square, Rear: (8) NEMA 5-15R round duplex; SP196A-R2: Front: (1) NEMA 5-15R square. Rear: (8) NEMA 5-15R round duplex Peak Current — 30,000 A Rated Current — SP194A-R2: 20 A; SP196A-R2: 15 A Power — SP194A-R2: 115 VAC, 60 Hz, 20 A; SP196A-R2: 115 VAC, 60 Hz, 15 A Power Cord/Input Plug — SP194A-R2: SJT12/3C, 5-20P regular plug; SP196A-R2: SJT14/3C, 5-15P regular plug Input Power Cord Length — 9 ft. (2.8 m) Indicators — (1) Surge protection LED Size — 1.75"H (1U) x 19"W x 3.8"D (4.5 x 48.3 x 9.7 cm) Weight — SP194A-R2: 8.8 lb. (4 kg); SP196A-R2: 6.3 lb. (2.9 kg)

SP197A-R2-SP199A-R2, SP214A-R3, SP216A-R2-SP218A-R2: Approvals — UL® Clamping Voltage — 330 V Compliance — UL<sup>®</sup> listed, CSA certified **Controls** — Lighted Power/Reset switch/circuit breaker (lights when on) Total Transient Energy (Joule Rating) — 450 J Noise Filtration — EMI/RFI Outlets — SP197A-R2: (10) NEMA 5-15R: SP198A-R2: (11) NEMA 5-15R: SP199A-R2: (12) NEMA 5-15R: SP214A-R3: (8) NEMA 5-20R; SP216A-R2: (10) NEMA 5-20R; SP217A-R2: (11) NEMA 5-20R; SP218A-R2: (12) NEMA 5-20R Peak Current - 22,500 A Rated Current — SP197A-R2-SP199A-R2: 15 amps; SP214A-R3, SP216A-R2-SP218A-R2: 20 amps Power — SP197A-R2-SP199A-R2: 120 VAC nominal, 15 amps, 57-63 Hz; SP214A-R3, SP216A-R2-SP218A-R2: 120 VAC nominal, 20 amps, 57-63 Hz Power Cord/Input Plug — SJT14/3C, 5-15P regular plug Power Cord Length — 15 ft. (4.5 m) Indicator — LED surge indicator (green, lights when surge protection is functioning, turns off when surge protection is not functioning) Size — SP197A-R2, SP216A-R2: 1.5"H x 48"W x 1.2"D (3.8 x 121.9 x 3 cm); SP198A-R2, SP217A-R2: 1.5"H x 70"W x 1.2"D (3.8 x 177.8 x 3 cm): SP199A-R2, SP218A-R2: 1.5"H x 77"W x 1.2"D (3.8 x 195.6 x 3 cm); SP214A-R3: 1.5"H x 24"W x 1.2"D (3.8 x 61 x 3 cm) Weight - SP197A-R2: 3.5 lb. (1.6 kg); SP198A-R2: 4.3 lb. (2 kg); SP199A-R2: 4.6 lb. (2.1 kg)

SP470A-R3, SP472A-R3: Clamping Voltage — SP470A-R3: No; SP472A-R3: 330 V Compliance — UL<sup>®</sup> recognized **Controls** — (1) Lighted Power switch (lights when on) and (1) circuit breaker button EMI/RFI Noise — SP470A-R3, SP472A-R3; 40 dB Frequency — 60 Hz Joule Rating — SP470A-R3: No; SP472A-R3: 420 J Noise Filtration — SP470A-R3: No: SP472A-R3: EMI/RFI Outlets — (8) rear-mounted NEMA 5-20R round Peak Current — SP470A-R3: No; SP472A-R3: 30,000 Amps Rated Current — 20 A Power — Input and Output: 100–127 VAC Power Cord/Input Plug — SJT12/3C, L5-20P regular plug, with lock Power Cord Length — 15 ft. (4.5 m) Indicator — SP470A-R3: No; SP472A-R3: LED surge indicator (green, lights when surge protection is functioning, turns off when surge protection is not functioning) Size — 1.75"H x 19"W x 2.75"D (4.4 x 48.3 x 7 cm) Weight — SP470A-R3: 6.2 lb. (2.8 kg); SP472A-R2: 6.4 lb. (2.9 kg)

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# Buyer's Guide | Power Strips

	Power Switch Reset Switch/ Circuit Breaker	Outlets	Clamping Voltage/ Rated Current	Power Cord Length	Code	
Rackmount Power	(1) power/reset, (1) circuit breaker	(1) front NEMA 5-50R square, (8) rear NEMA 5-20R round duplex	330 V, 20 A	9-ft. (2.8-m)	SP194A-R2	
	(1) power/reset circuit breaker	<ul><li>(1) front NEMA 5-15R square,</li><li>(8) rear NEMA 5-15R round duplex</li></ul>	330 V, 15 A	9-ft. (2.8-m)	SP196A-R2	
Cabinet Power Strips	(1) power/reset/ circuit breaker	(10) NEMA 5-15R	330 V, 15 A	15-ft. (4.5-m)	SP197A-R2	
	(1) power/reset/ circuit breaker	(11) NEMA 5-15R	330 V, 15 A	15-ft. (4.5-m)	SP198A-R2	
	(1) power/reset/ circuit breaker	(12) NEMA 5-15R	330 V, 15 A	15-ft. (4.5-m)	SP199A-R2	
	(1) power/reset, (1) circuit breaker	(8) NEMA 5-20R	330 V, 20 A	15-ft. (4.5-m)	SP214A-R3	
	(1) power/reset, (1) circuit breaker	(10) NEMA 5-20R	330 V, 20 A	15-ft. (4.5-m)	SP216A-R2	
	(1) power/reset, (1) circuit breaker	(11) NEMA 5-20R	330 V, 20 A	15-ft. (4.5-m)	SP217A-R2	
	(1) power/reset, (1) circuit breaker	(12) NEMA 5-20R	330 V, 20 A	15-ft. (4.5-m)	SP218A-R2	
20-Amp Rackmount Power Switch	None	(8) rear NEMA 5-20R round	No clamping voltage, 20 A	15-ft. (4.5-m)	SP470A-R3	
	(1) power/reset, (1) circuit breaker	(8) rear NEMA 5-20R round	330 V, 20 A	15-ft. (4.5-m)	SP472A-R3	





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# **Technically Speaking**

## Power problems.

#### Sags

The Threat — A sag is a decline in the voltage level. Also known as "brownouts," sags are the most common power problem.

The Cause — Sags can be caused locally by the start-up demands of electrical devices such as motors, compressors, and elevators. Sags may also happen during periods of high electrical use, such as during a heat wave.

The Effect — Sags are often the cause of "unexplained" computer glitches such as system crashes, frozen keyboards, and data loss. Sags can also reduce the efficiency and lifespan of electrical motors.

### Blackouts

The Threat — A blackout is a total loss of power.

The Cause — Blackouts are caused by excessive demand on the power grid, an act of nature such as lightning or an earthquake, or a human accident such as a car hitting a power pole or a backhoe digging in the wrong place.

The Effect — Of course a blackout brings everything to a complete stop. You also lose any unsaved data stored in RAM and may even lose the total contents of your hard drive.

### Spikes

The Threat — A spike, also called an impulse, is an instantaneous, dramatic increase in voltage.

The Cause — A spike is usually caused by a nearby lightning strike but may also occur when power is restored after a blackout.

The Effect — A spike can damage or completely destroy electrical components and also cause data loss.

### Surges

The Threat — A surge is an increase in voltage lasting at least  $\mathscr{V}_{\text{120}}$  of a second.

The Cause — When high-powered equipment such as an air conditioner is powered off, the excess voltage is dissipated though the power line causing a surge.

The Effect — Surges stress delicate electronic components causing them to wear out before their time.

### Noise

The Threat — Electrical noise, more technically called electromagnetic interference (EMI) and radio frequency interference (RFI), interrupts the smooth sine wave expected from electrical power.

The Cause — Noise has many causes including nearby lightning, load switching, industrial equipment, and radio transmitters. It may be intermittent or chronic.

The Effect — Noise introduces errors into programs and data files.

SP472A-R3	What's included SP194A-R2, SP196A-R2, SP470A-R3, SP472A-R3: <ul> <li>Rackmount Power Strip</li> <li>(4) 10-32 cuphead screws</li> <li>(4) 12-24 cuphead screws</li> <li>Specification sheet</li> </ul> <li>SP197A-R2–SP199A-R2, SP216A-R2–SP217A-R2: <ul> <li>Cabinet Power Supply Strip</li> <li>(3) clips, (3) screws, (3) nuts</li> <li>Specification sheet</li> </ul> </li>	<ul> <li>SP214A-R3:</li> <li>◆ Cabinet Power Supply Strip</li> <li>◆ (2) clips, (2) screws, (2) nuts</li> <li>◆ Specification sheet</li> </ul>	Item Rackmount Power Strips 20-Amp 15-Amp Cabinet Power Strips 15-Amp 48", 10-Outlet 70", 11-Outlet 77", 12-Outlet 20-Amp 24", 8-Outlet 48", 10-Outlet 70", 11-Outlet 70", 11-Outlet 77", 12-Outlet Rackmount Power Supplies with Surge Suppression 20-Amp, switchless 20-Amp, with on/off switch	Code SP194A-R2 SP196A-R2 SP197A-R2 SP198A-R2 SP199A-R2 SP199A-R2 SP214A-R3 SP216A-R2 SP216A-R2 SP217A-R2 SP218A-R2 SP470A-R3 SP470A-R3
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