



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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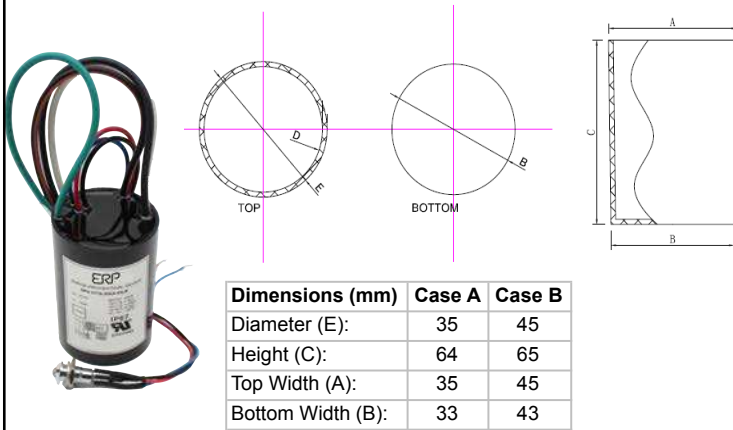
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Surge Protectors

ERP Part Number	Nominal Input Voltage (Vac)	MCOV/Uc ⁽⁴⁾ (Vac)	Max. Peak Current (8/20 μ s) (kA)		Combination Wave (1.2/50 μ s-8/20 μ s) (kV/kA)		Measured Limited Voltage (MLV) ⁽³⁾ (V)			Thermal Fuse	EOL (End of Life) Remote Indicator LED	Connection	Case
			Inom ⁽¹⁾	I _{max} ⁽²⁾	Vnom	Vmax	L-N	L-G	N-G				
SPD-277P-10KA	120 to 277	320	5	10	10	20	1230	1400	1420			Parallel	A
SPD-277P-20KA	120 to 277	320	10	20	20	20	1890	1900	1870			Parallel	B
SPD-277S-10KA ⁽⁵⁾	120 to 277	320	5	10	10	20	1140	1140	1130	★		Series	A
SPD-277S-20KA ⁽⁵⁾	120 to 277	320	10	20	20	20	1260	1280	1840	★		Series	B
SPD-277S-20KA-EILR ⁽⁵⁾	120 to 277	320	10	20	20	20	1300	1290	2000	★	★	Series with EOL Remote LED Indicator	B



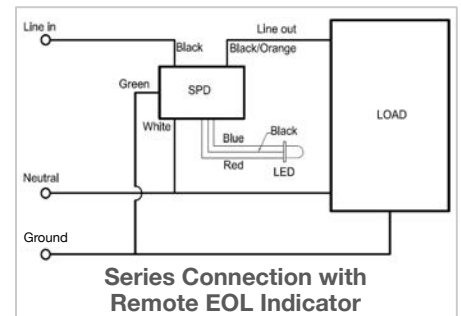
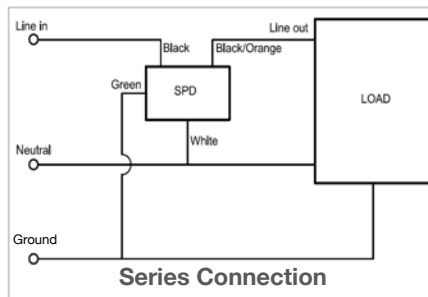
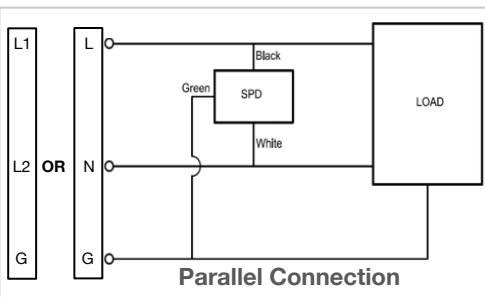
Dimensions (mm)	Case A	Case B
Diameter (E):	35	45
Height (C):	64	65
Top Width (A):	35	45
Bottom Width (B):	33	43

Notes:

- NOMINAL DISCHARGE CURRENT (In) (kA):** It is the peak value of the current through the device having a current waveshape of 8/20 μ s where the device is capable of discharging 15 times.
- MAXIMUM DISCHARGE CURRENT (I_{max}) (kA):** It is the peak value of the current through the device having a current waveshape of 8/20 μ s where the device is capable of discharging once.
- MEASURED LIMITING VOLTAGE (MLV) (V):** Maximum residual voltage after the application of 8/20 μ s impulses at nominal discharge current.
- MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV/Uc) (Vac):** It is the maximum root-mean-square (rms) voltage that may be continuously applied to the device.
- MAXIMUM CONTINUOUS OPERATING LOAD:** 8 A for "SPD-277S-xxkA"

RoHS

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OVERVIEW

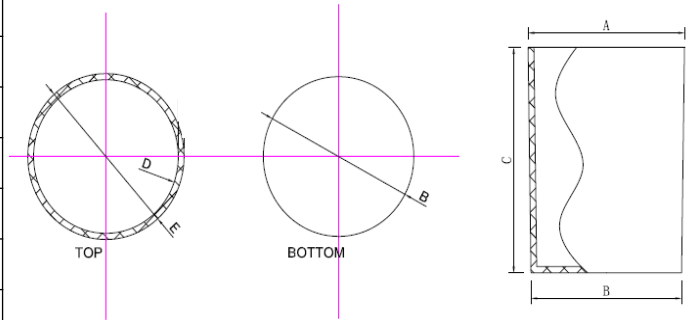
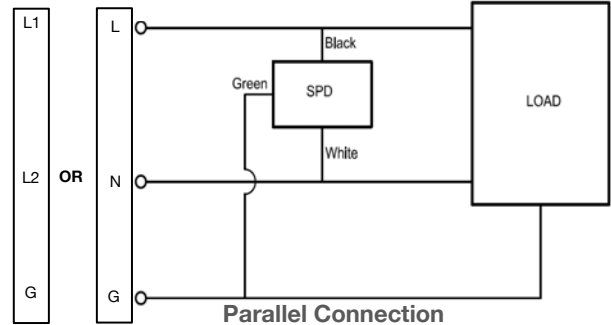
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

APPLICATIONS

- Additional level of protection from dangerous power line transient in commercial and industrial applications
- Area & Roadway lighting
- Factory, Warehouse, and Distribution Center lighting
- Sports & Stage lighting
- Airports & Dockyard lighting

10 kA/kV Surge Protector, Parallel Connection

Input Voltage (Vac)	120 to 277	
Frequency (Hz)	50/60	
Max Continuous Operating Voltage (Vac)	320	
Max Peak Current (8/20µs) (kA)	Inom	5
	I _{max}	10
Combination Wave (1.2/50µs – 8/20µs) (kV/kA)	V _{nom}	10
	V _{max}	20
Measured Limited Voltage (MLV) (V)	L-N	1230
	L-G	1400
	N-G	1420
Case Dimensions (mm)	Top Width (A)	35
	Bottom Width (B)	33
	Height (C)	64
	Diameter (E)	35
Operating Temperature (°C)	-40 to +85	
Lead Wire Gauge (AWG)	16	
Lead Wire Length (mm)	Black (half-stripped by 10mm)	200±1
	White (half-stripped by 10mm)	200±1
	Green (half-stripped by 10mm)	200±1



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10 kA Strike Rating (8/20 µs)	
1	@ 10,000 A
2	@ 6,500 A
15	@ 5,000 A
110	@ 1,500 A

OVERVIEW

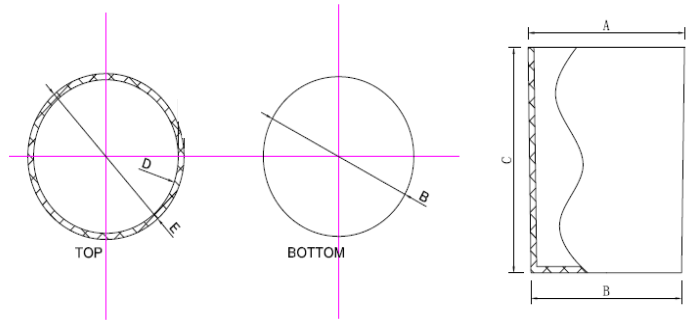
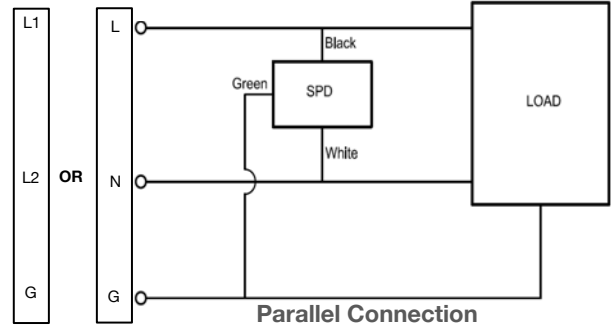
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

APPLICATIONS

- Additional level of protection from dangerous power line transient in commercial and industrial applications
- Area & Roadway lighting
- Factory, Warehouse, and Distribution Center lighting
- Sports & Stage lighting
- Airports & Dockyard lighting

20 kA/kV Surge Protector, Parallel Connection

Input Voltage (Vac)		120 to 277
Frequency (Hz)		50/60
Max Continuous Operating Voltage (Vac)		320
Max Peak Current (8/20µs) (kA)	Inom	10
	Imax	20
Combination Wave (1.2/50µs – 8/20µs) (kV/kA)	Vnom	20
	Vmax	20
Measured Limited Voltage (MLV) (V)	L-N	1890
	L-G	1900
	N-G	1870
Case Dimensions (mm)	Top Width (A)	45
	Bottom Width (B)	43
	Height (C)	65
	Diameter (E)	45
Operating Temperature (°C)		-40 to +85
Lead Wire Gauge (AWG)		16
Lead Wire Length (mm)	Black (half-stripped by 10mm)	200±1
	White (half-stripped by 10mm)	200±1
	Green (half-stripped by 10mm)	200±1



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20 kA Strike Rating (8/20 µs)	
1	@ 25,000 A
2	@ 20,000 A
5	@ 15,000 A
18	@ 10,000 A
130	@ 3,000 A

OVERVIEW

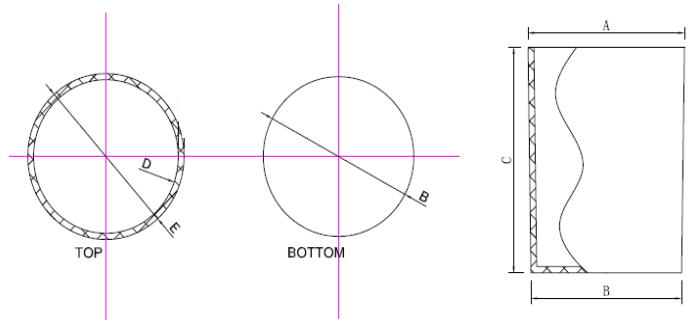
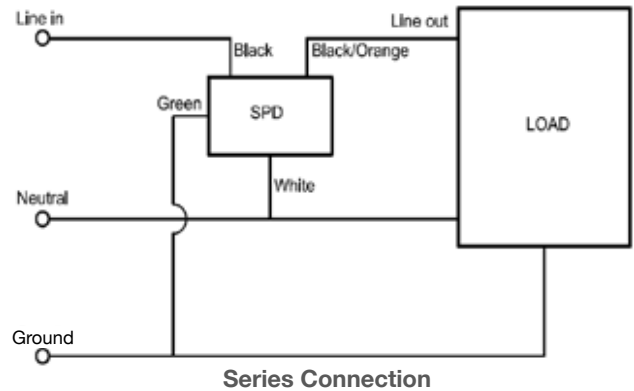
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

APPLICATIONS

- Additional level of protection from dangerous power line transient in commercial and industrial applications
- Area & Roadway lighting
- Factory, Warehouse, and Distribution Center lighting
- Sports & Stage lighting
- Airports & Dockyard lighting

10 kA/kV Surge Protector, Series Connection, with Thermal Fuse

Input Voltage (Vac)	120 to 277	
Frequency (Hz)	50/60	
Max Continuous Operating Voltage (Vac)	320	
Max Peak Current (8/20µs) (kA)	Inom	5
	Imax	10
Combination Wave (1.2/50µs – 8/20µs) (kV/kA)	Vnom	10
	Vmax	20
Measured Limited Voltage (MLV) (V)	L-N	1140
	L-G	1140
	N-G	1130
Case Dimensions (mm)	Top Width (A)	35
	Bottom Width (B)	33
	Height (C)	64
	Diameter (E)	35
Operating Temperature (°C)	-40 to +85	
Lead Wire Gauge (AWG)	16	
Lead Wire Length (mm)	Black (half-stripped by 10mm)	200±1
	White (half-stripped by 10mm)	200±1
	Green (half-stripped by 10mm)	200±1
	Black & Orange (half-stripped by 10mm)	220±1



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10 kA Strike Rating (8/20 µs)	
1	@ 10,000 A
2	@ 6,500 A
15	@ 5,000 A
110	@ 1,500 A

OVERVIEW

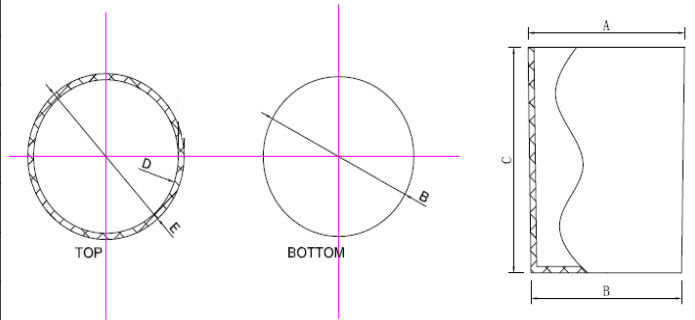
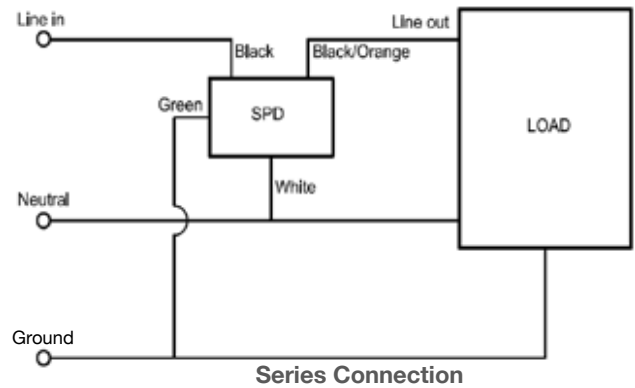
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- 8.0 A maximum continuous operating load
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

APPLICATIONS

- Additional level of protection from dangerous power line transient in commercial and industrial applications
- Area & Roadway lighting
- Factory, Warehouse, and Distribution Center lighting
- Sports & Stage lighting
- Airports & Dockyard lighting

20 kA/kV Surge Protector, Series Connection, with Thermal Fuse

Input Voltage (Vac)	120 to 277	
Frequency (Hz)	50/60	
Max Continuous Operating Voltage (Vac)	320	
Max Peak Current (8/20 μ s) (kA)	Inom	10
	Imax	20
Combination Wave (1.2/50 μ s – 8/20 μ s) (kV/kA)	Vnom	20
	Vmax	20
Measured Limited Voltage (MLV) (V)	L-N	1260
	L-G	1280
	N-G	1840
Case Dimensions (mm)	Top Width (A)	45
	Bottom Width (B)	43
	Height (C)	65
	Diameter (E)	45
Operating Temperature (°C)	-40 to +85	
Lead Wire Gauge (AWG)	16	
Lead Wire Length (mm)	Black (half-stripped by 10mm)	200 \pm 1
	White (half-stripped by 10mm)	200 \pm 1
	Green (half-stripped by 10mm)	200 \pm 1
	Black & Orange (half-stripped by 10mm)	220 \pm 1



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20 kA Strike Rating (8/20 μ s)	
1	@ 25,000 A
2	@ 20,000 A
5	@ 15,000 A
18	@ 10,000 A
130	@ 3,000 A

OVERVIEW

- IP67, optimized for use in outdoor applications
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- 12.0 A maximum continuous operating load

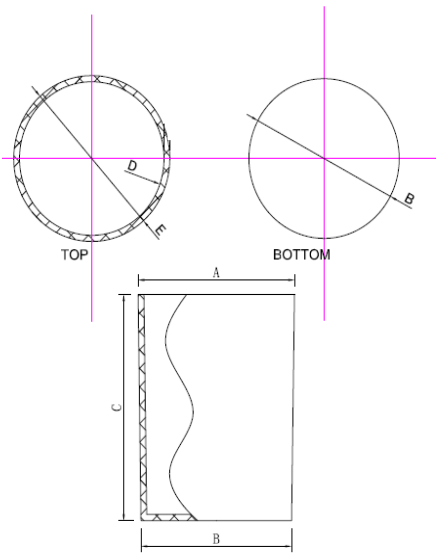
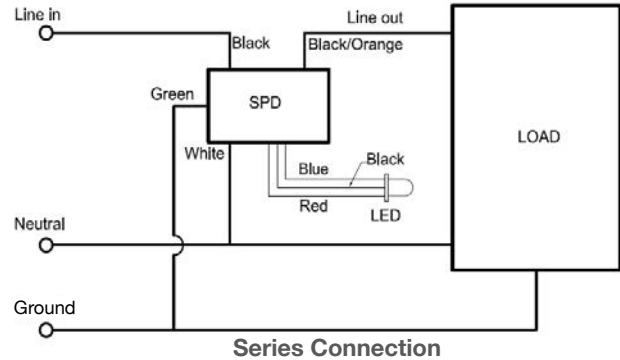
APPLICATIONS

- Additional level of protection from dangerous power line transient in commercial and industrial applications
- Area & Roadway lighting
- Factory, Warehouse, and Distribution Center lighting
- Sports & Stage lighting
- Airports & Dockyard lighting

20 kA/kV Surge Protector, Series Connection, with Thermal Fuse and Remote EOL LED Indicator

Input Voltage (Vac)	120 to 277	
Frequency (Hz)	50/60	
Max Continuous Operating Voltage (Vac)	320	
Max Peak Current (8/20µs) (kA)	Inom	10
	Imax	20
Combination Wave (1.2/50µs – 8/20µs) (kV/kA)	Vnom	20
	Vmax	20
Measured Limited Voltage (MLV) (V)	L-N	1300
	L-G	1290
	N-G	2000
Case Dimensions (mm)	Top Width (A)	45
	Bottom Width (B)	43
	Height (C)	65
	Diameter (E)	45
Operating Temp. (°C)	-40 to +85	
Wire Gauge (AWG)	16	
Lead Wire Length (mm)	Black (half-stripped by 10mm)	200±1
	White (half-stripped by 10mm)	200±1
	Green (half-stripped by 10mm)	200±1
	Black & Orange (half-stripped by 10mm)	220±1

20 kA Strike Rating (8/20 µs)	
1	@ 25,000 A
2	@ 20,000 A
5	@ 15,000 A
18	@ 10,000 A
130	@ 3,000 A



IMPORTANT INFORMATION:
 The SPD-277S-20KA-EILR is shipped with the LED indicator not soldered to the surge protector. Please solder the Red, Blue and Black wires of the LED indicator to respectively the Red, Blue and Black wires coming out of the surge protector.

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OVERVIEW

- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)
- IP67, optimized for use in outdoor applications
- 90°C high temperature flameproof enclosure
- 12 A maximum continuous operating load
- Remote EOL (End of Life) bi-color LED indicator:
 - Green LED On: the device is functional and operating.
 - Red LED On: the device has reached its end of life.

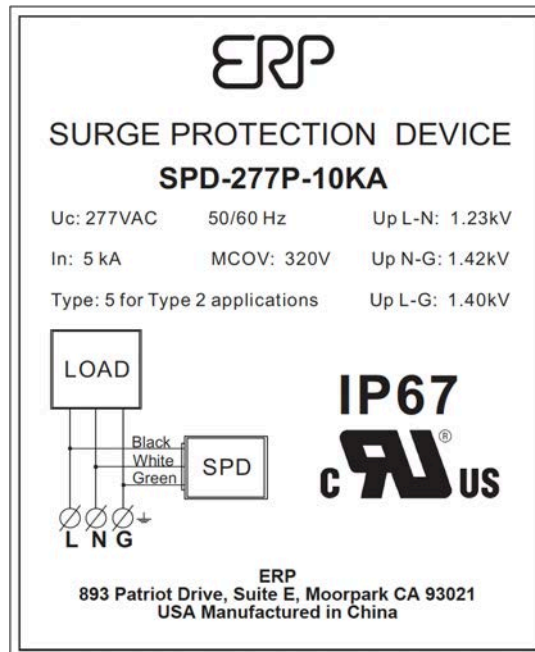
APPLICATIONS

- Additional level of protection from power line transient in commercial and industrial applications
- Area & Roadway lighting
- Factory, Warehouse, Industrial lighting
- Sports & Stage lighting
- Airports & Dockyard lighting

Surge Protectors

LABELING

An example of label is shown here below, for the SPD-277P-10KA.



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 Moorpark, CA 93021, USA

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 Tel: +86-756-6266298
 Fax: +86-756-6266299
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 Zhuhai, Guangdong, China 519060

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