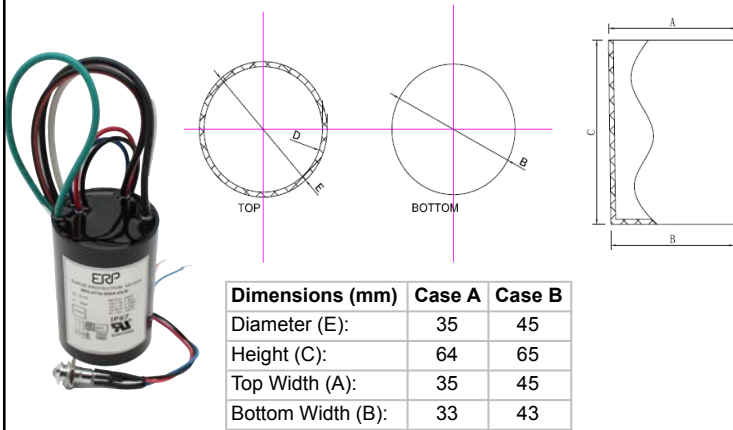


Surge Protectors

| ERP Part Number | Nominal Input Voltage (Vac) | MCOV/U _c ⁽⁴⁾ (Vac) | Max. Peak Current (8/20μs) (kA) | | Combination Wave (1.2/50μs-8/20μs) (kV/kA) | | Measured Limited Voltage (MLV) ⁽³⁾ (V) | | | Thermal Fuse | EOL (End of Life) Remote Indicator LED | Connection | Case |
|-----------------------------------|-----------------------------|--|---------------------------------|---------------------------------|--|------------------|---|------|------|--------------|--|--------------------------------------|------|
| | | | I _{nom} ⁽¹⁾ | I _{max} ⁽²⁾ | V _{nom} | V _{max} | 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 |



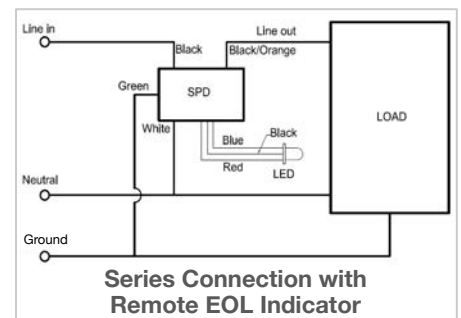
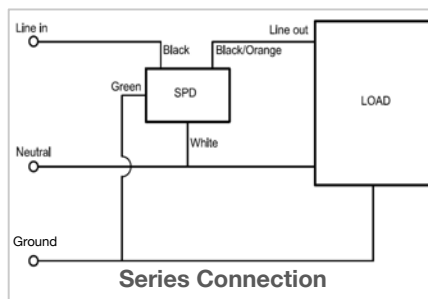
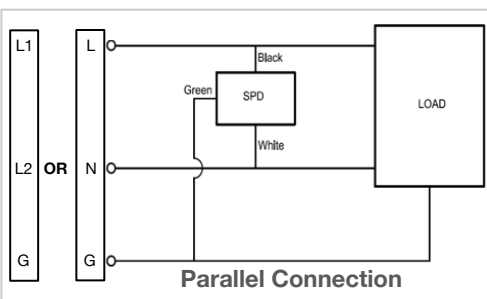
| Dimensions (mm) | Case A | Case B |
|-------------------|--------|--------|
| Diameter (E): | 35 | 45 |
| Height (C): | 64 | 65 |
| Top Width (A): | 35 | 45 |
| Bottom Width (B): | 33 | 43 |

Notes:

- NOMINAL DISCHARGE CURRENT (I_n) (kA):** It is the peak value of the current through the device having a current waveshape of 8/20μs 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 8/20μs where the device is capable of discharging once.
- MEASURED LIMITING VOLTAGE (MLV) (V):** Maximum residual voltage after the application of 8/20μs impulses at nominal discharge current.
- MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV/U_c) (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

UL US



OVERVIEW

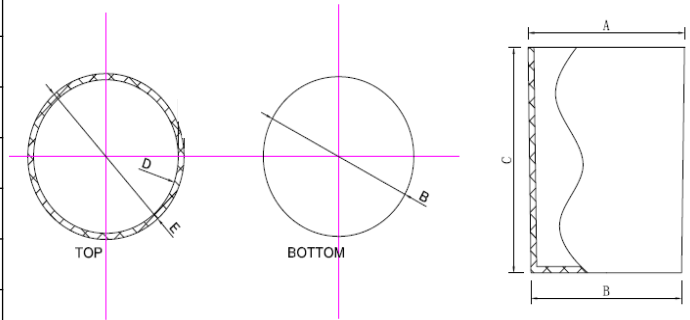
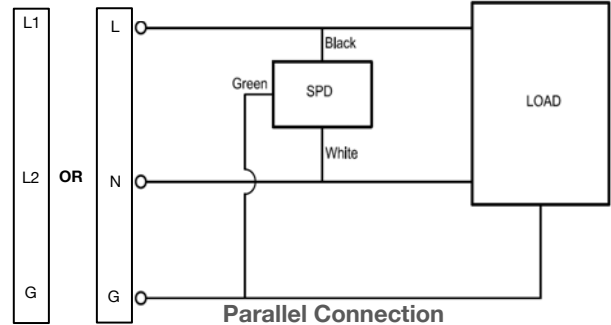
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

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 |



RoHS

C_{RU} US



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

OVERVIEW

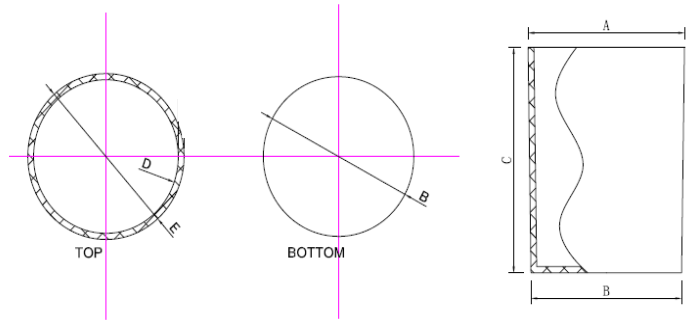
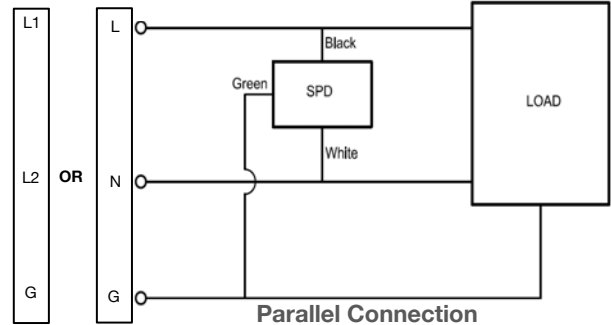
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

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 |



RoHS

C US



| 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

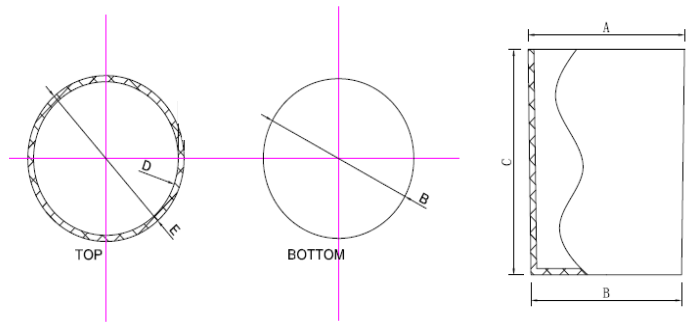
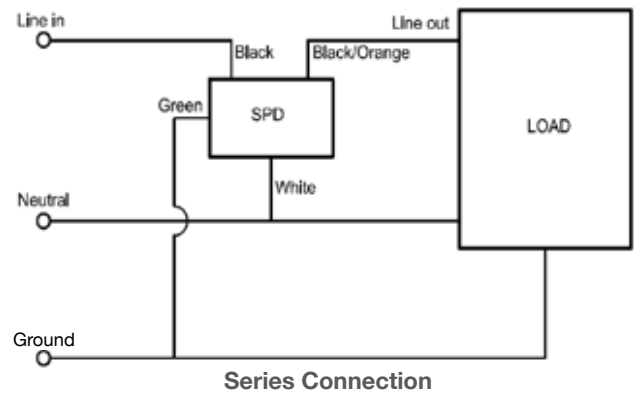
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

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 |



RoHS

UL US



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

OVERVIEW

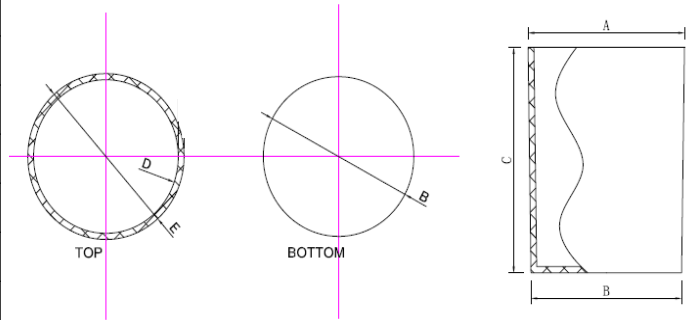
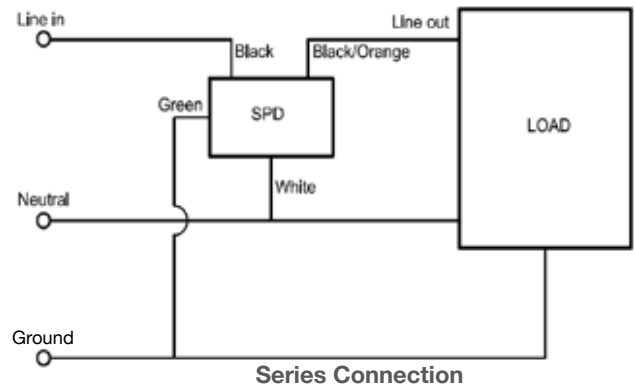
- IP67, optimized for use in outdoor applications
- Protects against surges in accordance with UL1449 and IEEE C62.41.2.C
- 90°C high temperature flameproof enclosure
- 8.0 A maximum continuous operating load
- CAUTION: Only for use with universal input voltage LED drivers (120 to 277 Vac)

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 |



RoHS

UL US



| 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

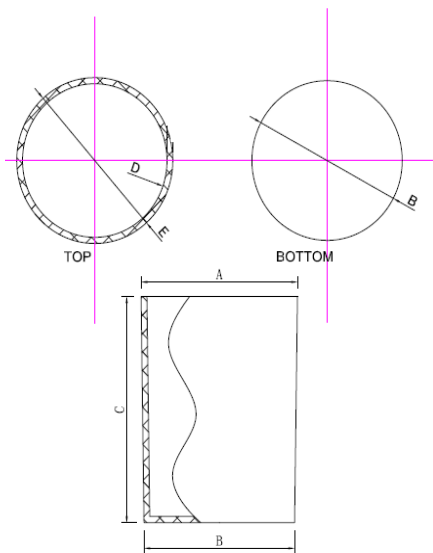
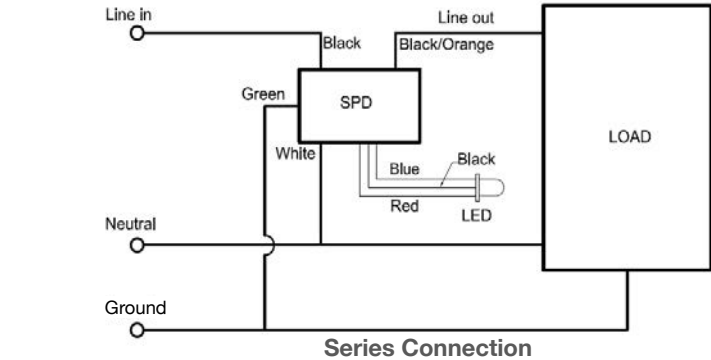
APPLICATIONS

- 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.

RoHS c US



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.

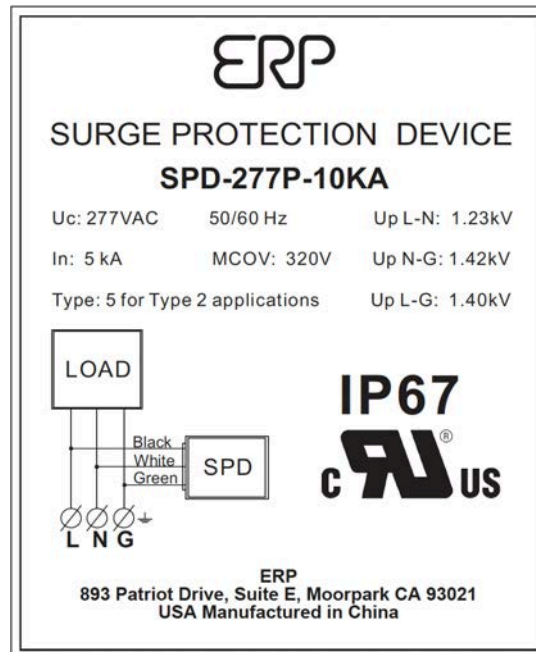
APPLICATIONS

- 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.



USA Headquarters
 Tel: +1-805-517-1300
 Fax: +1-805-517-1411
 893 Patriot Drive, Suite E,
 Moorpark, CA 93021, USA

CHINA Operations
 Tel: +86-756-6266298
 Fax: +86-756-6266299
 No. 8 Pingdong Road 2
 Zhuhai, Guangdong, China 519060

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