

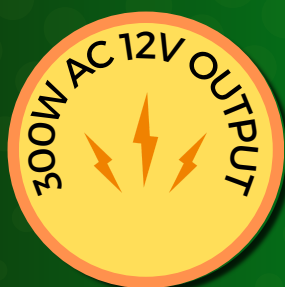
TSP-300 TRANSFORMER



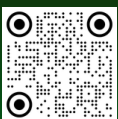
INSTALLATION GUIDE

ABBA LIGHTING USA

TSP-300 TRANSFORMER



Thank you for choosing our high-quality product. To ensure the best possible experience, please take a moment to carefully read and follow all instructions before assembly, installation, and use. Doing so will not only guarantee proper function and safety but also help you maximize the full potential of this exceptional product. We truly appreciate your business and are honored to be your trusted provider of top-notch products!



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WARNING

TO REDUCE THE RISK OF FIRE OR INJURY TO PERSONS:

- ✓ For safety reasons, we recommend that only a qualified professional install this electrical product.
- ✓ Before attempting to install this unit, ensure all power connections are off for your own safety.
- ✓ Fixture(s) must be installed in accordance with all local codes and ordinances.
- ✓ Do not instal within 10 feet of a pool, spa or fountain
- ✓ **DO NOT DISASSEMBLE**
- ✓ To ensure proper functionality and safety, it is important to refrain from connecting two or more transformers in parallel. It is advised to maintain individual electrical circuits for each transformer rather than attempting to combine their outputs. By adhering to this guideline, you can prevent potential complications and optimize the performance of each transformer.
- ✓ For optimal performance and safety, it is recommended not to utilize this device in conjunction with a dimmer switch. Avoid connecting the device to any dimming mechanism as it may lead to undesirable consequences or malfunctioning. It is advisable to operate the device without the use of a dimmer to ensure its intended functionality and prevent any potential risks.
- ✓ To ensure the highest level of safety, it is recommended to directly plug the transformer into a Ground Fault Circuit Interrupter (GFCI) outlet. By utilizing a GFCI outlet, you enhance protection against electrical shocks and minimize the risk of electrical hazards.
- ✓ To maintain optimal performance and safety, it is strongly advised against using an extension cord with this device. It is recommended to directly connect the device to a properly grounded power outlet. Using an extension cord may introduce electrical inefficiencies, increase the risk of overheating, or compromise the device's functionality. It is best to avoid extension cords and ensure a direct and secure power connection for the device.



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WARNING

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It is important to note that the maximum output capacity of this transformer is 300 Watts. To ensure safe and optimal operation, it is crucial to avoid exceeding this specified limit. Overloading the transformer by drawing power beyond its maximum capacity can lead to overheating, reduced efficiency, and potential damage to the device. It is highly advised to carefully monitor the power requirements of your equipment and ensure they fall within the specified limits of the transformer to maintain its performance and longevity.

WARRANTY

- We stand behind the quality of our product and offer a 3 Year warranty. Kindly ensure that you keep the proof of purchase as it will be required for any warranty claims.
- Warranty will be void if there is any damage due to improper usage or modification to the fixture.
- Failure to comply with the instruction in this manual may increase the risk of damage or injury and will void warranty.



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PRODUCT OVERVIEW

TSP300 – 300W Digital Transformer

Power your landscape lighting with confidence using the TSP300 300W Digital Transformer, a practical and easy-to-use solution for customers who want dependable low-voltage performance with built-in digital control. Designed for indoor and outdoor use, this transformer combines reliable 12-volt output with convenient automation features that help simplify everyday lighting management.

Constructed from commercial-grade plastic and finished in black, the TSP300 offers a clean, functional design that fits well in a wide variety of installations. Its compact housing helps keep the unit easy to place, while the durable construction supports long-term use in outdoor lighting setups, garden systems, and other low-voltage applications. The official product page lists the transformer at approximately 6.15" long, 3.58" wide, and 7.9" high.

One of the biggest advantages of the TSP300 is its built-in control flexibility. The unit includes a built-in photocell and a 1–9 hour timer, giving users more than one way to manage when the lights turn on and off. It also offers several operating modes, including On, Off, Timer, Auto, and Astronomic Timer/Sunrise, making it easier to choose the lighting schedule that best fits the property and the customer's preferences.

With 300W AC 12V output, the TSP300 is designed to serve as a dependable power source for low-voltage systems that need straightforward performance and simple programmability. The included 6-foot cord adds convenience during installation, while the ETL Listed certification provides added confidence for customers who want a recognized safety standard behind the product.



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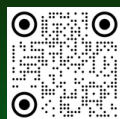
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KEY FEATURES

- Commercial-grade plastic housing
- Black finish
- 300W AC 12V output
- Built-in photocell
- 1–9 hour timer
- Modes: On, Off, Timer, Auto, and Astronomic Timer/Sunrise
- 6' cord included
- Suitable for indoor/outdoor use
- ETL Listed

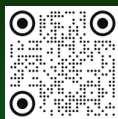
| Specification | Details |
|----------------------|----------------------------------|
| Model | TSP300 – 300W Digital Plastic |
| Body/Material | Commercial Grade Plastic |
| Finish | Black |
| Power | 300W AC 12V |
| Feature | Built-in Photo Cell and 1–9 Hour |
| Modes | On, Off, Timer, Auto, and |
| Size | 6.15" (L) x 3.58" (W) x 7.9" (H) |
| Included | 6' Cord Length |
| Application | Indoor/Outdoor Use |
| Certification | ETL Listed |
| Master Box | 4 Pcs |



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1. FIND A LOCATION FOR THE TRANSFORMER DÉTERMINER L'EMPLACEMENT DU TRANSFORMATEUR



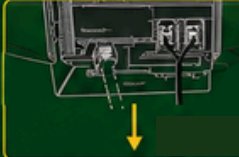
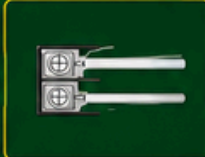
1.1 Outdoor-Rated, Weather-Resistant Design

1.2 Install the transformer at a level where the controls are visible and accessible. From 1" to 48" 30 to 75 cm

1.3 **Applies to AUTO Mode Only**
Do not install the unit behind shrubs, plants, or other obstructions. Blocking the photocell may prevent the Auto dusk-to-dawn function from operating properly.

1.4 **Applies to AUTO Mode Only**
The photocell may not operate properly if the unit is installed too close to a nighttime light source. Nearby lights can interfere with the photocell and prevent the Auto dusk-to-dawn function from working correctly.

2. CONNECT CABLE TO TRANSFORMER RACCORDER LE CÂBLE POUR JARDIN AU TRANSFORMATEUR



2.1 Remove the landscape wire insulation 1/2" from both wire ends and twist ends.
2.1a Open the front panel by pulling the right side below the screen.

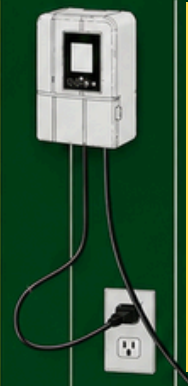
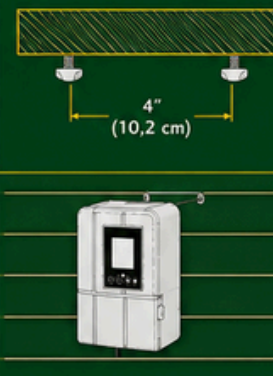
2.2 Remove the bottom plate by pulling on it for more space during installation. Insert wires under each terminal plate and tighten screws.

Gently pull on the landscape wire to verify if the connection is strong.

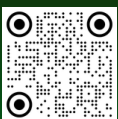
2.4 Verify that there are no loose cable strands.

3. MOUNT THE TRANSFORMER OPTION 1

3.1 Option 1: Standard wall mounting
Insert the two (2) included support screws 4" (10.2 cm) apart in a wall near an electrical outlet to mount the transformer.



3.2 Hang the transformer
Hang the transformer securely on the screws.



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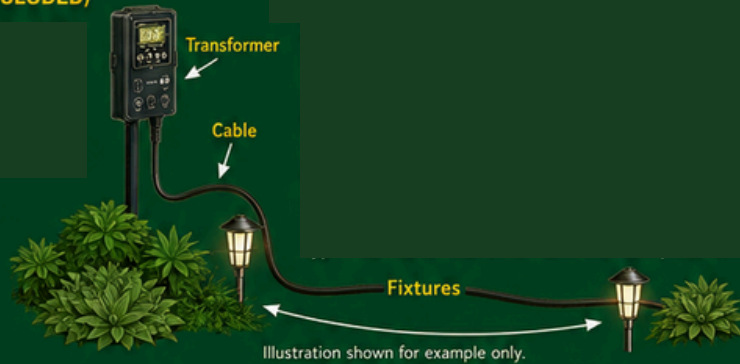
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4. RUN THE LANDSCAPE WIRE (NOT INCLUDED)

Run low voltage landscape wire from the transformer to each light fixture. Keep the wire continuous and avoid unnecessary cuts. Do not run landscape wire within 10 ft (3 m) of a pool, spa, or fountain. Trim excess wire with a suitable cable cutter. Route the wire close to fixtures, buildings, decks, or fences to protect it from damage.



RECOMMENDED CABLE GAUGE

| Total Fixture Wattage on One Cable Run | 0-75 ft. | 75-150 ft. | 150-250 ft. |
|--|----------|-----------------|-----------------|
| 0-60W | 16 | 16 | 14 |
| 60-120W | 16 | 14 | 12 |
| 120-180W | 14 | 12 | 12 |
| 180-240W | 12 | 12 | Not Recommended |
| 240-300W | 12 | Not Recommended | Not Recommended |

5. POWER UP THE TRANSFORMER

5. POWER UP THE TRANSFORMER

Plug the transformer into a GFCI-protected electrical receptacle. The default operating mode is ON and the connected fixtures should illuminate.



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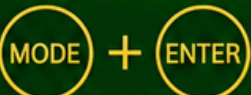

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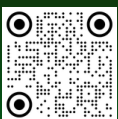
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6. TRANSFORMER INTERFACE, CONTROLS AND MODES INSTALLATION TYPES

| | |
|--|---|
|  | Press to confirm a selection. |
|  | Press to modify or change a mode. Press it to exit any settings without saving. |
|  | Press these to select and go through the interface. |
|  | Press at the same time to change time and date. *Necessary for Timer, Auto and Sunwise settings to work properly. |
|  | Press at the same time to change Sunwise time zone. *Necessary for optimal Sunwise mode. |

| | |
|---|---|
|  | The time at which the lights will turn On. This step comes after selecting a Mode. (Shows up for Timer Mode only) |
|  | The time at which the lights will turn Off. This step comes after selecting a Mode. (Auto, Timer and Sunwise only) |
|  | Select this to close the lights at dawn. When selecting an end time, scroll using up and down until the icon shows up (Auto and Sunwise only) |
|  | NORTH zone Refers to locations from north of Chicago, IL. |
|  | CENTRAL zone Refers to locations between Chicago, IL and southern Missouri. |
|  | SOUTH zone Refers to locations south of Missouri. |



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| Modes | Functionality | Recommended Control Settings | | |
|----------------|--|------------------------------|--------|--------------|
| | | Outdoor | Indoor | Dusk-to-Dawn |
| SUNWISE | Astronomical timer automatically adjusts to local sunrise/sunset times | YES | YES | YES |
| AUTO | Uses the light sensor (photocell) to Open/Close the lights | YES | NO | YES |
| TIMER | Fixed start and end time | YES | YES | NO |
| OFF | Always OFF | YES | YES | NO |
| ON | Always ON | YES | YES | NO |

LOAD
□ □ □ □

0%: Normal

LOAD
▒ □ □ □

Less than 20%: Normal

LOAD
▒ ▒ □ □

Less than 100%: Normal

LOAD
▒ ▒ ▒ ▒

Blinking:
Overloaded over 100%

LOAD
▒ ▒ ▒ ▒

Over 120%,
shuts down
reduce load

**The channels will only turn on at the exact start time selected for Timer and dusk for Sunrise.*



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

7.1 Current time & date setting

This step is needed for the lighting modes Auto, Timer and Sunwise to work properly or else they won't open/close at the right time.

- 1 - Press both MODE  and ENTER  at the same time quickly.
- 2 - Use UP  and DOWN  to select the date and ENTER  to confirm. Apply the same procedure for the current time.

7.2 Location setting (for Sunwise mode only)

Sunwise is a feature that does not need a photocell to operate. Thanks to that, it can be installed indoor and it will still open the lights from dusk to dawn, following the seasons. All it needs is your local time and location to calculate the sun's position to estimate your local dusk/dawn time. Here is how to set it up:

- 1 - Press MODE  and UP  at the same time quickly.
- 2 - According to the map at step #6, enter your location by selecting one of the three following options and pressing  to confirm (if you live in Canada, select "North"):




NORTH North zone

CENTRAL Central zone

SOUTH South zone

7.3 Setting up a lighting timer schedule

This section will help you on how to setup a mode and program the opening/closing of the lights at the time you want.

- 1 - Press MODE  to access the timer mode settings.
matches to which landscape wire.
- 2 - Refer to step #6: "Recommended Control Settings" and select one of the five lighting modes: On, Off, Auto, Timer, Sunwise.
- 3 - **START** START time settings – **ONLY FOR TIMER MODE**. Select the hours and minutes at which you want the lights to turn ON.
- 4 - **END** END time settings – **ONLY FOR AUTO, TIMER AND SUNWISE LIGHTING MODES**. Choose one of the two END time option:
 - a) Dawn END time: select this option to make the lights close at dawn automatically every day. It will use the photocell if you selected the mode Auto and your location if you selected Sunwise. Scroll the hours until you see the DAWN icon  and press ENTER  to select it.
 - b) Fixed END time: select this option if you want the transformer to close the lights every day at the same hour. This type of END time will not adjust to the seasons, be it summer or winter, the END time will stay the same. To select this option, simply select the END time wanted.



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INSTALLATION GUIDE FOR TSP300

8. Troubleshooting

| | |
|---|---|
| All of the lights fail to work | <ul style="list-style-type: none">• If the LOAD icon is flashing, make sure you are using less than 300 watts. If necessary, remove some fixtures and change the lighting mode to the desired one after.• Check that the transformer power is on.• Check if there is a loose connection at the transformer screw terminal.• Check that the current mode is not set to «OFF». |
| The lights are “ON” during the day | <ul style="list-style-type: none">• The power unit is in a dark area which triggers the photocell to turn ON the lights. |
| The lights do not switch “ON” at dusk | <ul style="list-style-type: none">• The power unit is in a area <i>where there is too much light at night.</i> |
| The lights are not turning on after selecting Timer or Sunwise mode. | <ul style="list-style-type: none">• Timer and Sunwise mode only open up at their exact start time setting (Start for timer and dusk for Sunwise). Ex: if it is 8 PM at your location and you set the start time to 7 PM, the channel won't turn on until 7 PM the next day. |
| There is a significant delay in Sunwise mode. | <ul style="list-style-type: none">• Make sure that you selected the <i>right zone.</i> If you live far to the north, or far to the south, Sunwise may not be optimal. |

9. Maintenance

- To clean, wash with a damp soft cloth.



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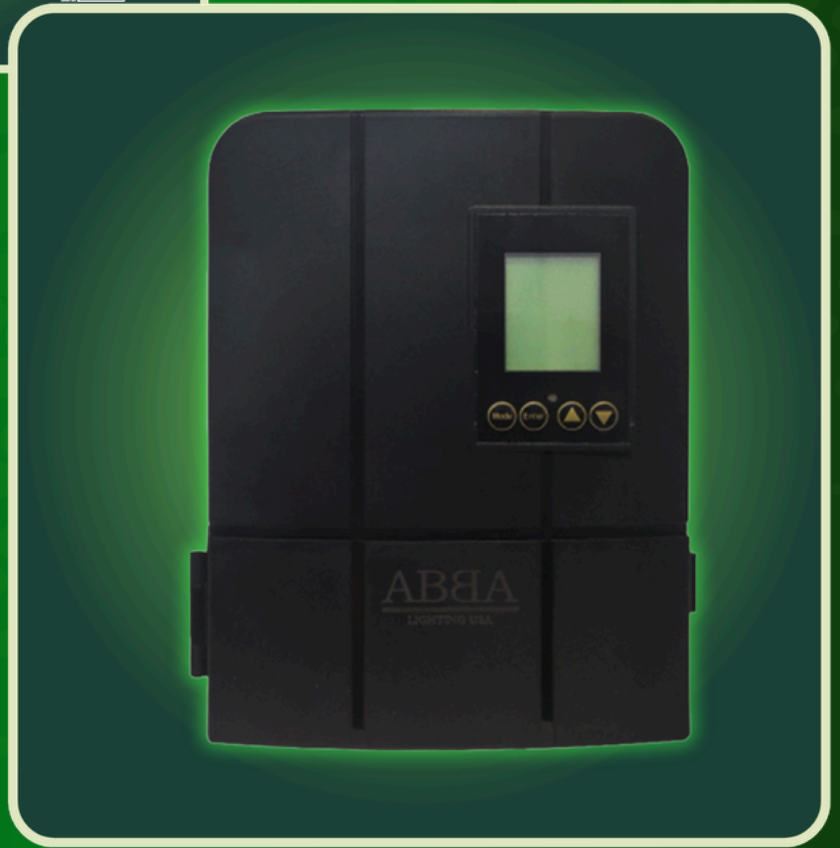
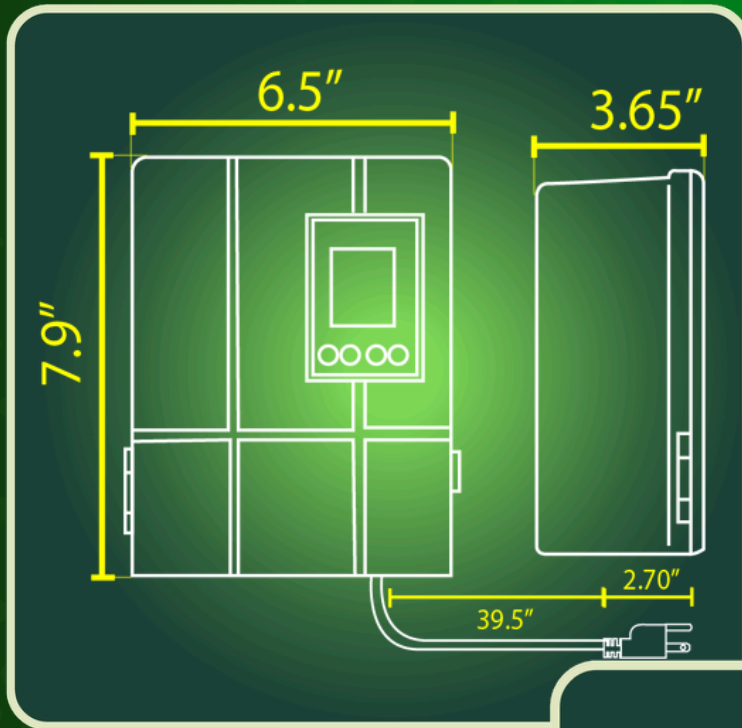


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INSTALLATION GUIDE FOR TSDLCD24100



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When selecting the cable gauge, consider the distance between the transformer and the lighting fixtures. It is crucial to choose an appropriate gauge to ensure efficient power transmission and minimize voltage drop.

Please note that this chart provides general recommendations, and it is essential to consider specific factors such as the power requirements of your lighting system and any local electrical codes or regulations that may apply. Consulting with a qualified electrician can provide further guidance and ensure the proper selection of cable gauges for your specific installation.

HOW TO CHOOSE THE RIGHT LOW VOLTAGE WIRE:

| Feet | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 40 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 14 | 14 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | 10 |
| 60 | 16 | 16 | 16 | 16 | 16 | 16 | 14 | 14 | 14 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 8 |
| 80 | 16 | 16 | 16 | 16 | 14 | 14 | 14 | 14 | 14 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 8 |
| 100 | 16 | 16 | 14 | 14 | 14 | 14 | 14 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 8 | 8 | 8 |
| 120 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | 8 |
| 140 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 160 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| 180 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | | |
| 200 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | 8 | 8 | | | | | |
| 220 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | 8 | | | | | | | | |
| 240 | 12 | 12 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | | | | | | | | | | |
| 260 | 12 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | | | | | | | | | | | | |
| 280 | 12 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | | | | | | | | | | | | |
| 300 | 12 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | | | | | | | | | | | | |
| 320 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | | | | | | | | | | | | |
| 340 | 12 | 10 | 10 | 10 | 8 | 8 | 8 | 8 | | | | | | | | | | | | |
| 360 | 12 | 10 | 10 | 8 | 8 | 8 | 8 | 8 | | | | | | | | | | | | |

1. LOWER GAUGE WIRES ARE THICKER AND CONTAIN MORE COPPER. THEY HAVE A GREATER CURRENT CARRYING CAPACITY FOR LONG RUNS
 2. ITS BEST TO NOT EXCEED MORE THAN 80% OF YOUR LANDSCAPE WIRE CURRENT CAPACITY TO ENSURE THERE IS NO VOLTAGE DROP
- EXAMPLE: IF YOUR TOTAL WATTAGE OF YOUR LANDSCAPE LIGHTS IS 40 WATTS, THEN YOU CAN RUN 200 FEET OF 12 GAUGE WIRE WITHOUT VOLTAGE DROP.



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TSP300

TRANSFORMER



LOW VOLTAGE TRANSFORMER / TRANSFORMADOR DE BAJA VOLTAJE A BAJA VOLTAJE
OUTPUT / SORTITE / SAITIDA: 12V AC 300VA
CONSTRUCTION / CONSTRUCTION / CONSTRUCCION: ABS
MODEL: TSP300
ABBA LIGHTING
12V AC 300VA
CONSTRUCTION: ABS
MODEL: TSP300
ABBA LIGHTING