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Project 10CA46875

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REPORT

ON

COMPONENT - SIGN ACCESSORIES

PRINCIPAL LED

SAN ANGELO, TX

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component Sign Accessories, Class 2 LED Modules, designated as PL-XX#-BBO-Z/DD-WW-A-YYV-T(HH) Series, where XX may be any combination of letters from AA to ZZ; # may be any numeric character 0 to 999; BB may be any combination of letters AA to ZZ or may be left blank; O may be any number 0 to 999 or may be left blank; Z may be letter N or P or may be left blank; /DD may be any combination of letters AA to ZZ or may be left blank; WW may be letters SS(single Sided), DS(Double Sided), TS(Three Sided), or SH(Four Sided) or may be left blank; A may be any number 0 to 999 or may be left blank; YY may be any combination of letters AA to ZZ; V may be any number 0 to 999 or may be left blank; T may be letter N or P or may be left blank; (HH) may be letters HD(High Density) or may be left blank.

ELECTRICAL RATINGS:

12V Version:

Max. Input Voltage: 12 V dc

Max. Input Current: 0.5 A

24V Version:**Max. Input Voltage: 24 VDC****Max. Input Current: 1.9 A**

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVES USE):

These products consist of LEDs mounted on a printed wiring board and the printed wiring boards are to be installed in channel letters. The LED boards have only been evaluated for use when connected to a Class 2 circuit. The LED modules have only been evaluated for use in dry, damp, and wet locations when connected to a Class 2 supply rated max. 12 Volts DC **or 24 VDC.**

USR indicates compliance with United States Standard for Electric Sign Components, UL 879.

CNR indicates compliance with Canadian Standard C22.2 No. 207-M89 for Electric Signs.

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Conditions of Acceptability -

1. **These products are only suitable for connection to a Class 2 power source rated 12 VDC or 24 VDC or less.**
2. **These products are intended for use only when connected to a power source that complies with Class 2 voltage and energy limits and is rated 12 VDC or 24 VDC.**
3. **When these units are connected to a Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the Class 2 supply.**
4. These products are suitable for use in dry, damp and wet locations with Class 2 supply sources rated at 12 Volts DC **or 24 VDC** or less.
5. These products are not required to be enclosed or protected from the weather in the end product.
6. These products may be secured in place in the end product by any means available.

CONSTRUCTION DETAILS:

General - The general design, shape, and arrangement shall be as illustrated in the following descriptive pages. All dimensions are approximate.

Model Number Nomenclature - The following describes the nomenclature of Class 2 LED Modules, designated as **PL-XX#-BBO-Z/DD-WW-A-YYV-T(HH)** Series:

1. PL (Principal LED) - represent the series designation
2. XX - represents different LED module series
3. # - represents numerical designation for LED model or **different lengths of assemblies**
4. BB - represents different LED model within the LED module series
5. O - represents the number of LED diodes on the LED model
6. Z - represents the plastic housing of each module where N stands for No Housing and P stands for Potted with Housing
7. DD - represents the stick designation for assembly models
8. WW - represents the number of sides that LED modules are mounted to on assemblies
9. A - represents different length of the PWB
10. YY - represents different color or color temperature of LEDs
11. V - represents LED series numbering designation
12. T - represents the plastic housing of each module where N stands for No Housing and P stands for Potted with Housing
13. (HH) - **represents additional assembly specifications**

Model Differences - All Class 2 LED Modules, designated as PL-XX#-BBO-Z/DD-WW-A-YYV-T(HH) series are similar in construction, except for number of LEDs, color of LEDs, shape, size and design of the modules.

Markings - Each unit or the carton containing the modules shall be legibly and permanently marked with the following:

1. Manufacturer's name, trade name, or trademark.
2. Distinctive catalog or model number.
3. The electrical ratings.
4. Factory ID identifying the product to a particular factory.

CLASS 2 LED MODULES, DESIGNATED AS PL-XX#-BBO-Z/DD-WW-A-YYV-T(HH) SERIES -
FIG. 1

General - Figure shows top view of the LED module boards. All components located in Class 2, low voltage, low energy circuit.

1. Printed Wiring Board (PWB) - R/C (ZPMV2), single or double sided, shape, size and design may vary, rated min HB, 50°C.
2. Plastic Housing - Optional. R/C (QMFZ2), rated min. HB, 50°C, shape, size and design may vary.
3. LEDs - Located in Class 2 circuit. PWB mounted. Number and color may vary, LEDs may optionally be potted by epoxy. **Mounting of the LED's to substrate in assembly models.**
4. Resistors - Optional. Surface mount technology, rating may vary per module.
5. Diodes - Optional. Surface mount technology, rating may vary per PWB board.
6. Capacitors - Optional. PWB mounted, rating may vary per module.
7. Supply Leads - R/C (AVLV2, AVLV8), secured mechanically or by solder to PWB, min 24 AWG, 60°C, may optionally be provided with connector for interconnection.
8. Mounting Means - Each module provided with double-sided adhesive tape, mounting feet or other mechanical means for securement.