

CERTIFICATE OF COMPLIANCE

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Issued to: LEEDARSON LIGHTING CO., LTD.
XINGDA RD
XINGTAI INDUSTRIAL ZONE
CHANGTAI COUNTY
ZHANGZHOU
FUJIAN 363900 CHINA

**This certificate confirms that
representative samples of**

DIMMERS, GENERAL-USE SWITCH
Electronic Switch Controls, Cat. Nos. LZW30-SN, LZW30.

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety:

UL 1472 - SOLID-STATE DIMMING CONTROLS.
CSA C22.2 No. 184.1-15 - SOLID-STATE DIMMING
CONTROLS.


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Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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File E508406
Project 4789097469

August 20, 2019

REPORT

On

SOLID-STATE DIMMING CONTROLS

LEEDARSON LIGHTING CO LTD
ZHANGZHOU, FUJIAN, 36390, CHINA

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DESCRIPTION:

PRODUCT COVERED:

USL, CNL Electronic Switch Controls, Cat. Nos. LZW30-SN, LZW30.

GENERAL:

Models LZW30-SN, LZW30 are rocker operated electronic switch Controls with one air gap switch. All of Models are Type IV control.

These devices are intended for installation in series with the ungrounded side of the supply circuit in an outlet box or on an outlet-box cover in connection with a wiring system recognized by the National Electrical Code.

USL, CNL indicates investigation in accordance with the Bi-national Standard for Solid State Dimming Controls, UL1472 and C22.2 No. 184.1

RATINGS:

The basic catalog numbers may be identified as follows:

Cat. No.	Voltage/ Frequency	Type	Incandescent (Tungsten- Filament)	LED/CFL Electronic self-ballasted
LZW30-SN, LZW30	120 Vac/60Hz	Single/ 3-Way	600 W	2.5 A or 300 W

Multi-gang Installation De-rating:

Cat. No.	Device Rating	Single-Gang Rating	Double-Gang Rating	Triple-Gang Rating
LZW30-SN, LZW30	120V ac, 60Hz, 600 W Tungsten 2.5 A or 300 W LED/CFL/ Electronic self-ballasted	120V ac, 60Hz, 600 W Tungsten 2.5 A or 300 W LED/CFL/ Electronic self-ballasted	120V ac, 60Hz, 500 W, 500 W Tungsten 2.5 A or 300 W LED/CFL/ Electronic self-ballasted	120V ac, 60Hz, 400 W, 400 W, 400 W Tungsten 2.5 A or 300 W LED/CFL/ Electronic self-ballasted

CONSTRUCTION DETAILS:

Refer to the following photographs and descriptive indices for construction details.

Corrosion Protection - All ferrous metal parts are protected against corrosion by plating, painting, galvanizing or equivalent.

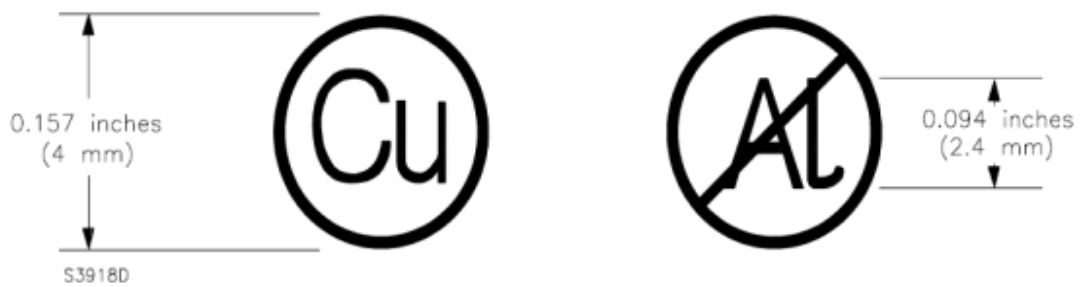
Spacings - Minimum of 3/64 in (1.2 mm) for devices rated 300 V or less, minimum of 1/8 in (3.2 mm) for devices rated 301 - 600 V, provided through air and over surface between live parts of opposite polarity. And minimum of 1/8 in (3.2 mm) through air and over surface between live parts and exposed dead-metal parts for devices rated 600 V or less.

MARKINGS:

General - Markings on the device shall be molded, die-stamped, paint-stenciled, stamped or etched metal that is permanently secured. Markings that contain the word "CAUTION" shall be provided in both English and French. The signal word "CAUTION" shall be more prominent than any other required marking on the dimmer.

- 1.) Listee's name or trademark - On the device in a location where readily visible after installation without a cover plate in place, but not on removable plaster ears or heat sink fins.
- 2.) Electrical ratings in location where readily visible after installation without a cover plate in place, but not on removable plaster ears or heat sink fins. Ratings marking shall include Voltage, Frequency, and either Wattage or Volt Amperes as appropriate.
- 3.) Catalog designation - On the device, the smallest unit container or on an information sheet in the smallest unit container.
- 4.) Date Code - The manufacturer date code shall appear on the device indicating the date or dating period of manufacture not exceeding three months. See Section General for details.
- 5.) The statement, "For Control of Permanently Installed Incandescent Lamp Fixtures Only" or the equivalent - On the device in a location that is not readily removable. This marking applies to devices rated for incandescent loads only.
- 6.) The statement, "For Control of Permanently Installed Electronic self-ballasted Lamp Fixtures Only" or the equivalent - On the device in a location that is not readily removable. This marking applies to devices rated for Electronic self-ballasted Lamp only.

- 7.) Multi-Unit Ganged Installation information (De-rating values) as tabulated under Construction details - On the device, packaging or instruction sheet provided with the dimmer.
- 8.) The statement "CAUTION - To Reduce The Risk of Overheating and Possible Damage to Other Equipment, Do Not Install to Control a Receptacle, a Motor-Operated Appliance or a Fluorescent Lighting Fixture or a Transformer Supplied Appliance" On the device, on the smallest unit container, or in the instruction sheet packaged with each device. This marking applies to devices rated for incandescent loads and Electronic self-ballasted Lamp only.
- 9.) The statement, "For supply connector, use wires rated for at least 75C" - On the device at the point of connection to field wiring.
- 10.) The statement, "Use Copper Wire Only", "Cu wire only", or a marking containing both the symbols as follows:



INSTALLATION INSTRUCTIONS:

Installation instructions shall be provided with each unit. See ILL. 21 for details.

MODEL DIFFERENCE:

Cat. No. LZW30 is similar to Cat. No. LZW30-SN except without Power Measurement PWB, see Figs. 5 and 6 for details.

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CAT. NO. LZW30-SN REPRESENTING LZW30

FIGS. 1-4

General - The general design shape and arrangement shall be as shown unless otherwise specified. (Unit of all illustration is mm)

1. Rear Enclosure - Consists of two parts, R/C (QMFZ2), PC, molded of PC-DK(f1) manufactured by XIAMEN TIANYU PLASTIC INDUSTRY CO LTD, (E309739), rated V-0, 125°C. Measured min thickness 1.0 mm. Secured to the yoke by four screws. Refer to ILL. 1 and 2 for further dimensional details.
2. Yoke - Aluminum. Measured min. thickness 1.9 mm. Refer to ILL. 3 for further dimensional details.
3. Switch Frame - R/C (QMFZ2), PC, molded of 945(GG) manufactured by Sabic Japan L L C, (E207780), rated V-0, 120°C. Measured min thickness 1.0 mm. Secured to the yoke by physical fit. Refer to ILL. 4 for further dimensional details.
4. Push Key - R/C (QMFZ2), PC, molded of 945(GG) manufactured by Sabic Japan L L C, (E207780), rated V-0, 120°C. Measured min thickness 1.0 mm. Secured to the yoke by physical fit. Refer to ILL. 5 for further dimensional details.
5. Air Gap Switch - Consists of the following:
 - a. Actuator - R/C (QMFZ2), PC, molded of 945(GG) manufactured by Sabic Japan L L C, (E207780), rated V-0, 120°C. Measured min thickness 1.0 mm. Secured to the switch frame by physical fit. Refer to ILL. 6 for further dimensional details.
 - b. Stationary Contact - Silver-plated copper alloy, provided with one silver oxide stationary contacts surfaces 3.4 mm dia by 0.2 mm thick, staked to Stationary contact arm. Refer to ILL. 7 for further dimensional details.
 - c. Moveable Contact - Silver-plated copper alloy, provided with one silver oxide stationary contacts surfaces 3.4 mm dia by 0.2 mm thick, staked to Moveable contact arm. Refer to ILL. 7 for further dimensional details.
 - d. Stationary Contact Arm - Two provided. Copper alloy, 0.6 mm thick, soldered to PWB. Refer to ILL. 8 for further dimensional details.
 - e. Moveable Contact Arm - One provided. Copper alloy, 0.6 mm thick, soldered to PWB. Refer to ILL. 9 for further dimensional details.
6. Power PWB - R/C (ZPMV2), rated min V-0, 130°C. See ILL. 10 for trace layout and component placement respectively.

7. Power Measurement PWB - R/C (ZPMV2), rated min V-0, 130°C. See ILL. 11 for trace layout and component placement respectively.
8. Antenna Holder - R/C (QMFZ2), PC, molded of 945(GG) manufactured by Sabic Japan L L C, (E207780), rated V-0, 120°C. Measured min thickness 1.0 mm. Secured to the yoke by physical fit. Refer to ILL. 12 for further dimensional details.
9. Pressure Terminals - Copper alloy, four provided, measured 0.8 mm thick, soldered to power PWB. Provided four No. 8 UNC 32 screws combination with terminal plates. Screw head with black, white, black, red color plating for Line, Natural, Load, Traveler Terminal respectively. Engages minimum two full threads in terminal plate. See ILLS. 13, 14, 15 for terminal, screw and terminal plate dimensions details respectively.
10. Grounding Terminal - Consisted of one steel No. 8 UNC 32 screw combination with one terminal plate integral with yoke. Screw head with green color plating. Engages minimum two full threads in terminal plate. See ILLS. 16 and 15 for screw and terminal plate dimensions details respectively.
11. Light Guide - R/C (QMFZ2), R/C (QMFZ2), PC, molded of PC-DV manufactured by XIAMEN TIANYU PLASTIC INDUSTRY CO LTD, (E309739), rated V-0, 125°C, measured 1.5 mm thick. Secured to the Switch frame by physical fit. See ILL. 17 for further dimensional details.
12. Matched key - R/C (QMFZ2), PC, molded of 945(GG) manufactured by Sabic Japan L L C, (E207780), rated V-0, 120°C. Measured min thickness 1.0 mm. Secured to the switch frame by physical fit. Refer to ILL. 18 for further dimensional details
13. Relay (K1, K2) - Two provided, R/C (NRNT2/8), Model JT32F-G005-HTF, NINGBO ZETTLER ELECTRONICS CO LTD (E319069), rated 250 V ac, 10 A Resistive.
14. Fuse (FR1) - R/C (JDYX2/8), Model TSP, SUNNY EAST ENTERPRISE CO LTD (E133774), Rated 300 V ac, 3.15 A.

Alternate - Listed (JDYX/7), rated 300 V ac, 3.15 A.
15. Fusing Resistor (FR2) - R/C (FEPW2/8), Model RXF-0.5W, SHENZHEN GREAT ELECTRONICS CO LTD (E301541), Rated 1/2 W, 10 ohms.
16. Varistor (RV1) - R/C (VZCA2/8), GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO LTD. XIANHUA NEW SENSITIVE COMPONENTS BRANCH (E325462), Type FNR-10K471, rated 300 V ac.
17. Electrolyte Capacitors:

CD1, CD2 - Rated 200 V, 4.7 μ F, min. 125°C.
CD3 - Rated 6.3 V, 470 μ F, min. 130°C.

18. Diodes -

D1: SMD type, type SMAF, rated 1000 V, 1 A.

D2, D4: SMD type, type SOD-123FL, rated 600 V, 1 A.

D3, D5, D6, D7: SMD type, Type SOD-123FL, rated 1000 V, 1 A.

19. Resistor -

R1: SMD type, rated 1 W, 3m ohms.

R2: SMD type, rated 0.125 W, 51K ohms.

R3: SMD type, rated 0.125 W, 20K ohms.

R4: SMD type, rated 0.125 W, 1K ohms.

20. Inductor (L1) - Cylindrical inductor Construction. Rated DR6*8, 3mH.

21. Inductor (L2) - Cylindrical inductor Construction. Rated DR6*8, 1mH.