

I 、PVC FLEXIBLE CORD

1. SCOPE :

This specification is applied to Flexible Cord in accordance with
UL Standards 62 & 817 and CSA Standards C22.2 No.49-06 & C22.2 No.21-95

2. CONSTRUCTION AND DIMENSION :

2.1 Plug: Catalogue No. LT-202 (UL/CSA TYPE) ; UL File No. E 121791

Connector: NA

2.2 : Dimension of Flexible Cord

Conductor	Conductor size	18AWG X 3C
	Construction	41/0.16 or 40/0.162 No./mm
Insulation	Min. Thickness	0.33 mm
	Nominal Thickness	0.38 mm
	Color	Black, White, Green
Jacket	Min. Thickness	0.61 mm
	Nominal. Thickness	0.76 mm
	Color	BLACK
Overall Diameter		6.4±0.2 mm

3 SOURCE FOR FLEXIBLE CORD

- RHYTHM
- I-SHENG
- WU LI
- STANDARD

4. FLEXIBLE CORD CHARACTERISTICS :

4-1. Physical Properties :

- (1) Tensile strength of insulation as received :
Unaged : Min. Acceptable value 1500 Psi
After aging : Min. 70% of original
- (2) Elongation of insulation as received :
Unaged : Min. Acceptable value 100%
After aging : Min. 65% of original
- (3) Aging test temperature requires :
 - (a) $100\pm 1^{\circ}\text{C}$ x 168h for 60 °C PVC Compound
 - (b) $136\pm 1^{\circ}\text{C}$ x 168h for 105 °C PVC Compound

4-2. Heat Shock Test :

There shall be no crack on the surface of specimen after the specimen was wound to mandrell and subjected to the temperature at $121\pm 1^{\circ}\text{C}$ x 1h mandrell diameter 3.0mm.

4-3. Deformation Test :

Thickness of the specimen shall not decrease more than 50% of original value when the specimen submits to the temperature of $121\pm 1^{\circ}\text{C}$ x 1h under 400g weight load.

4-4. Low Temperature Test :

The specimen shall not show any cracks on the surface of the specimen at $-20\pm 2^{\circ}\text{C}$ x 4h.

4-5. Flame Test :

A vertical specimen shall not be flamed longer than 60s follow any of five 15 s applications of the test flame. The period between applications being (1) 15 s if the specimen ceases within 15 s or (2) the duration of the specimen flaming if the specimen flame persists longer than 15 s. The specimen shall not ignite combustible materials in its vicinity or damage more than 25% of the indicator flag during, between or after the five applications of the test flame.

4-6. Mechanical Strength Test :

The mechanical strength of the specimen shall result in no circuit or grounding conductor breaking when a force 150 lbf is applied along the longitudinal axis of the finished cord for 1 min °

II 、 CHARACTERISTICS OF POWER SUPPLY CORD

1. Conductor Secureness

The connection between blade terminal and conductor shall not break under a pull force of 201b (9.1kgf) for 1min.

2. Security of Blades

A 201b weight (9.1kgf) is applied for 2minutes at each blade in succession. The residual displacement shall not exceed 2.4mm after removal of weight.

3. Strain Relief

The assembly of a cord to a fitting shall be capable of withstanding a straight pull of 30 lbf (13.64kgf) applied between the fitting and cord for 1minute.

4. Security of Insulation

The insulation on each conductor of the cord is to be slitted parallel to the conductors for approx.25mm from its entry into the fitting and all strands of the conductor are to be severed at the slit portion. While the fitting is securely held, a pull of 15 lbf is to be applied for a period of 2 minutes at the free end of the cord. No detachment of the insulation from the holding means, or baring of the conductor at the entry of the fitting shall occur.

5. Electrical Continuity

No open or short circuit shall occur.

6. Dielectric Voltage-Withstand

Each cord shall be capable of withstanding without breakdown for a period of 1 minute, the application of a 60-Hz potential of 1250V between conductors.

7. Insulation Resistance

It shall not be less than 100megaohms with DC500V at 20°C.

8. Impact Resistance

When subjected to the impact test specified in UL 817,each molded-on fitting shall not crack or break to the extent that it becomes unfit for use, of live parts become exposed to unintentional contact.

9. Flame Retardant Properties

It shall comply to UL standards (VW-1) .

10. Blade Pull Test at Elevated Temperature

The plug shall be capable of withstanding a 10 lbf pull without displacing either blade from its original position in the molded body by more than 1.6mm.

11. Flexing Test

The assembly shall be capable of withstanding a minimum of 2500 cycles when subjected to the Flexing Test specified in UL 817.

12. Abrupt Pull Test

A. Cords with a Grounding Conductor-

After 25 impacts in accordance with UL 817, the grounding conductor shall not break before any of the live conductors or discontinued when carrying a current of 40A, at 6V to 12V, for 2 minutes.

B. Cords with Two conductors-

After 5 impacts in accordance with UL 817, opening of any conductors is not allowed.

13. Jacket Retention Test

There shall not be any fillers, separators, insulation, or bare conductors visible at the point where the cord enters the fitting when the above test is conducted in accordance to UL 817.

14. Contact resistance for Connector

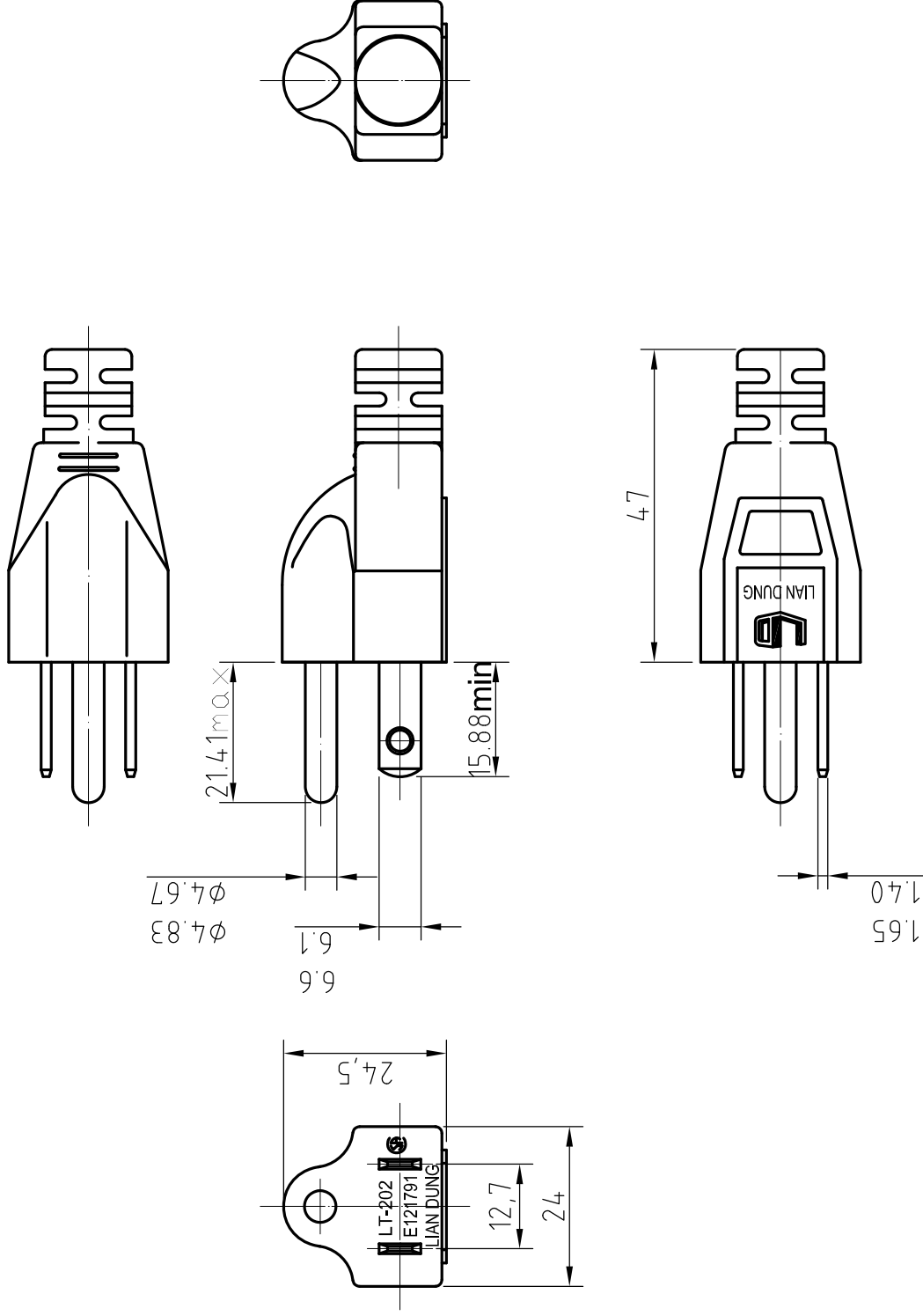
Insert connector into standard receptacle and measure contact resistance by the voltage drop method. The result shall not be more than 20m Ohm.

15. Fitting of Connector

- I. Insertion and withdrawal force with standard gauge shall be between 10-50N.
- II. Holding force on standard gauge or receptacle shall not be less than 10N.

16. Moisture Resistance

Specimens are stored at a temperature of $40\pm 2^{\circ}\text{C}$ and humidity range of 90 to 95% for 48 hrs. Then condensed water on specimens shall be removed and specimens shall be stored at standard atmospheric conditions for 30 mins before making measurement. These specimens shall satisfy Insulation Resistance Test and Dielectric strength test.



PART	DESCRIPTION	DATE	DRAWER	葉惠菁	DATE	TITLE	LT-202-UL 單頭
1.			APPROVE		REV.	Dr.No.	C202011
2.					比例	TOL.	$\pm 1.2 \text{mm}$
3.					1:1	ALL DIMENSIONS IN mm	