



ELAM Ltd
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Product Specification

Mini EL Wire 01C series

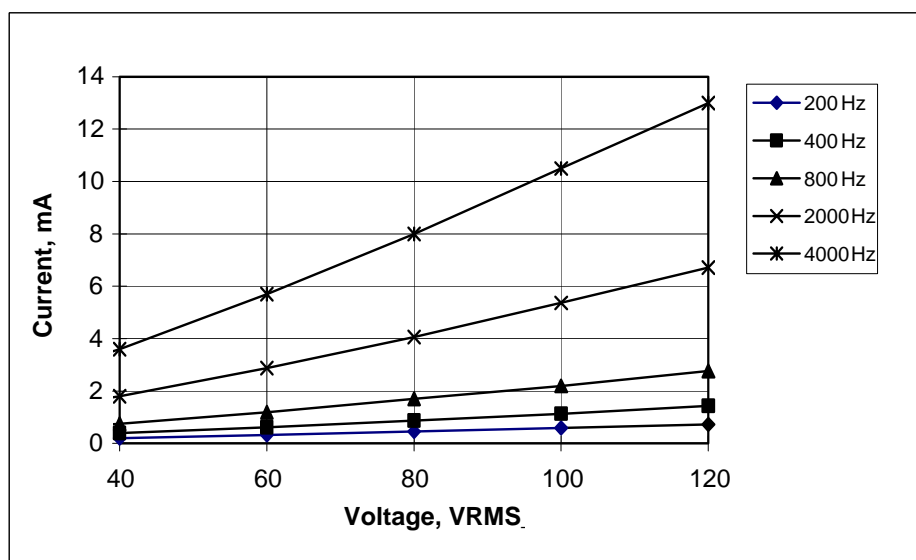
PD 0111/c, Rev. 12, 30.03.03

Common Characteristics*

Overall Diameter	1.0 – 1.5 mm (0.039" - 0.059")
Storage & Operating Conditions	
Temperature	-20 to +50 deg. C (-4 to +122 deg. F)
Humidity (R.H.)	not more than 65%
Max. Storage Time	2 years
Absolute Maximum Ratings	
Power Supply Voltage	130 Volts (RMS)
Dynamic Capacitance at 5 VAC in darkness	4.2 nF +/- 0.7 nF
Stretching Force	0.7 Kg
Bending Diameter	7 mm
Twisting Angle	30 degrees per meter
Average AC current	70 mA
Insulation Breakdown Voltage	1000 Volts

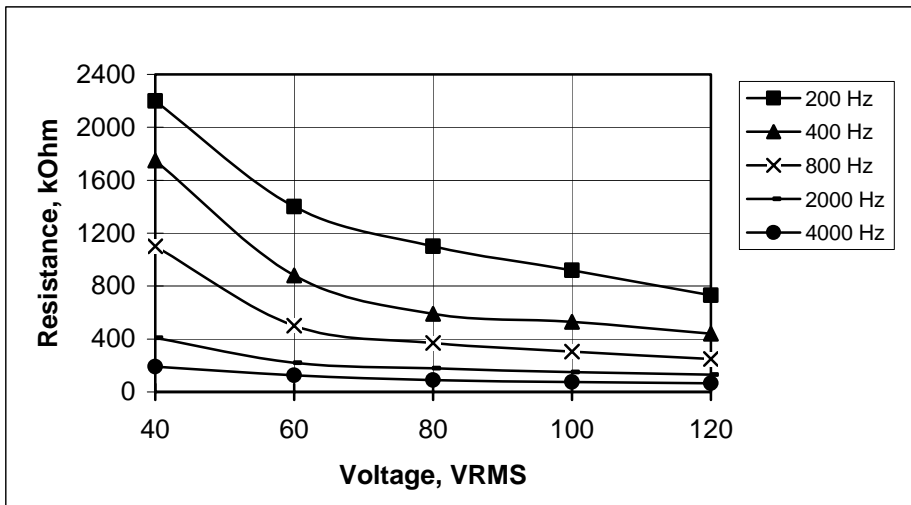
Current Consumption (mA) of 1meter length

Voltage, (VRMS)	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
40	0.20	0.39	0.75	1.80	3.60
60	0.32	0.61	1.19	2.88	5.70
80	0.45	0.87	1.70	4.06	8.00
100	0.59	1.13	2.21	5.36	10.50
120	0.73	1.43	2.79	6.72	13.10



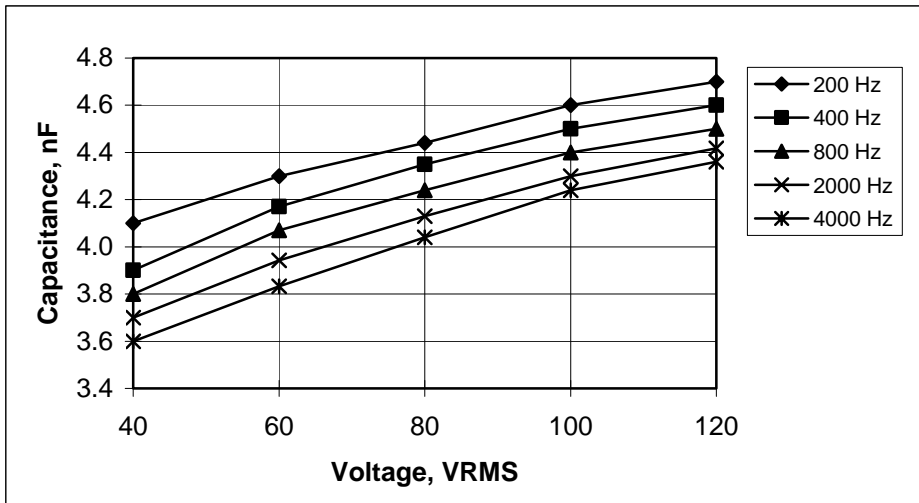
Equivalent Ohmic Resistance (kOhm) of 1meter length

Voltage, (VRMS)	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
40	2200	1750	1100	410	190
60	1400	750	500	220	125
80	1100	590	370	180	90
100	920	530	305	150	75
120	730	440	250	130	65



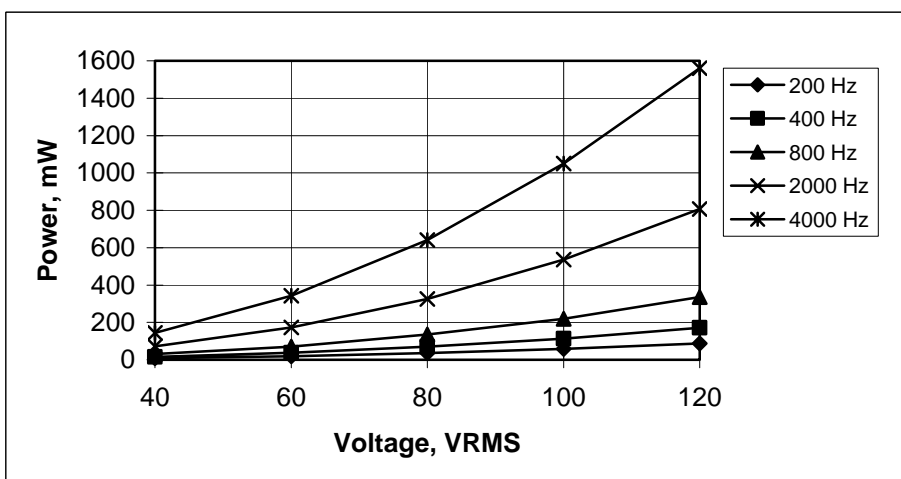
Equivalent Capacitance (nF) of 1meter length

Voltage, (VRMS)	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
40	4.1	3.9	3.8	3.7	3.6
60	4.3	4.2	4.1	4.0	3.9
80	4.4	4.3	4.2	4.1	4.1
100	4.6	4.5	4.4	4.3	4.3
120	4.7	4.6	4.5	4.4	4.4

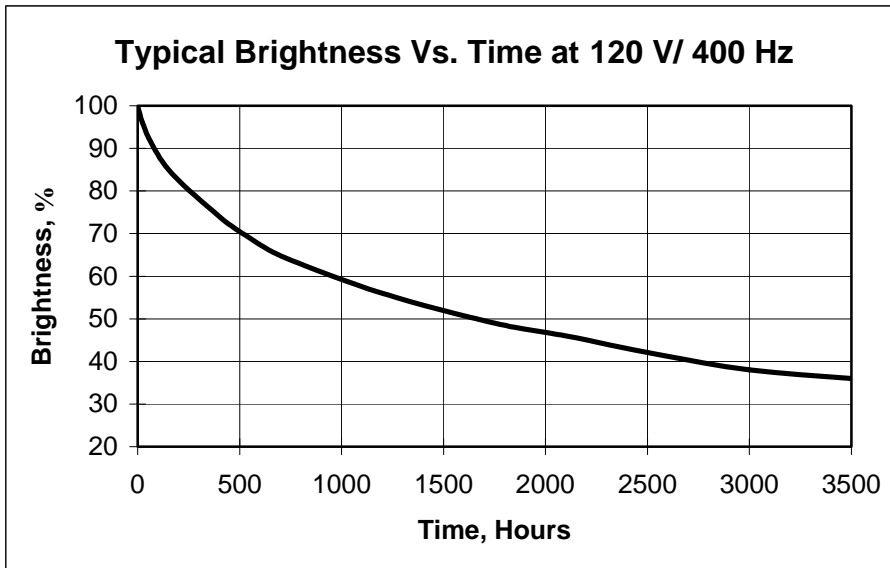


Power Consumption (mW) of 1meter length

Voltage, (VRMS)	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
40	8	16	30	72	144
60	19	37	71	173	342
80	36	70	136	325	640
100	59	113	220	536	1050
120	88	172	335	806	1560



Lifetime



* Remark: Actual parameters of each lot may vary from Common Characteristics within +/- 20%. All parameters shown for room conditions.

Contact Preparation

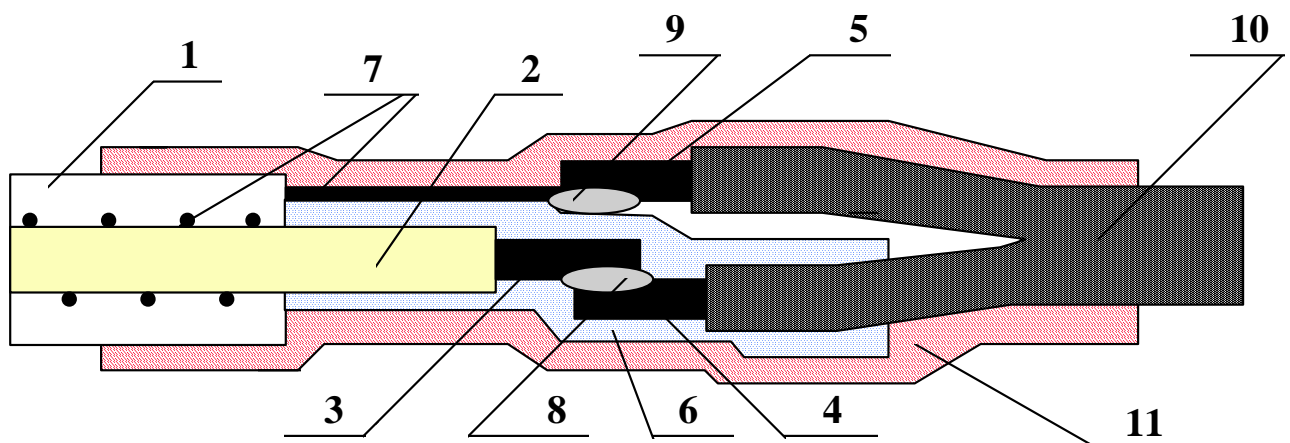


Fig. 1

Step by step instructions for connection preparation:

1. Strip the external insulator(1) off using a usual wire stripper. Be careful



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not to damage the additional electrodes (7).

2. Pull the free ends of the additional electrodes(7) back 3.Strip the dielectric layers(2) off the core copper electrode(3) using a magnet wire stripper or a sharp knife.
4. Strip the insulation off both edges (4 and 5) of a dual conductor flexible insulated wire(10) leaving the ends ~4cm long.
5. Put a 3 cm long shrinkable tube (6) on the insulated wire (4), solder the edge of wire (4) to the core electrode (3), pull the tube (6) to cover the soldering area (8) and shrike the tube (6) with the heat gun.
6. Bring the free ends of the additional electrodes (7) forward and solder them to the edge of the insulated wire (5).
7. Cover the contact areas (8 and 9) with a 6 cm long shrinkable tube (11) in such way that one side of the tube (11) is on top of the ELF (1) and the other side is on top and shrink it using a heat gun.
8. The ELF can be connected to an AC power source by soldering contacts A and B.

- **Recommended Components:**

(6) 3M Shrink Tubing 1/8 inch 80610220230 MW Black
or Raychem Shrink Tubing CGAT 3/1-0 STK Black

(11) 3M Shrink Tubing 1/4 inch 80610220255 MW Black
or Raychem Shrink Tubing CGAT 4/1-0 STK Black

ELF Free End Termination

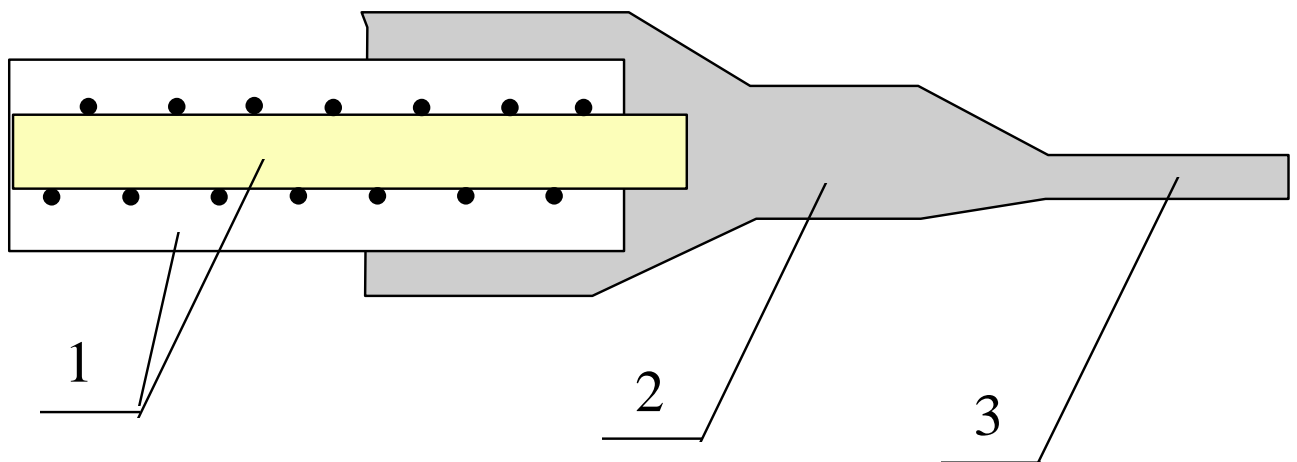


Fig. 3

1. ELF
2. Shrinkable Tube
3. Shrink Edge Sealed off

It is recommended to terminate the free end of the ELF to reduce moisture penetration into the phosphor layers.

- Recommended Components:
 - (2) 3M Shrink Tubing 1/8 inch 80610220230 MW Black
 - or Raychem Shrink Tubing CGAT 3/1-0 STK Black