

Shedlock™ Wildlife Guard

Central Moloney, Inc.
Components Operation
An ISO 9001:2000 Certified Company

Product Data Sheet

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Application

Central Moloney Components, a leader in molded components for the electrical distribution industry, is proud to announce the availability of an innovative new wildlife guard - the '**Shedlock™ Universal Guard**'. Taking advantage of injection molding technology, this funnel type guard incorporates state-of-the-art material and a unique body design that locks onto the top shed of a wide range of porcelain bushing sizes.

Funnel type guards are typically applied on new installations of overhead transformers and other overhead equipment where tank mounted arresters are not utilized. They work best where a single entrance lead feeds the primary bushing.

A major problem with common funnel type guards has been the tendency to gap open at the bottom if the primary lead enters the terminal at an angle. The new **CMI Shedlock™ Universal Guard** incorporates uniquely designed locking tabs and pleats that provide a firm attachment to the top shed of most bushings.

The neck of the guard comes standard with a .22 inch entrance hole for use with small uninsulated leads. For larger cable sizes and insulated cables, the tapered neck can be cut to achieve an interference fit with the cable. Graduated ribs on the guard serve as reference points for cutting.



Fig. 1 Shedlock™ Guard



Fig. 2 Expandable Locking Base



Fig. 3 Poor Protection



Fig. 4 Secure Protection

Material

The **CMI Shedlock™ Universal Guard** is molded from a unique blend of materials formulated for the ultimate in weathering resistance and dielectric performance. This highly engineered TPE (Thermoplastic Elastomer) has extensive application in the auto industry for exterior seals and weather-strips. Thorough Xenon Arc and Outdoor Weathering tests have been performed to verify the longevity of this material for severe outdoor applications. This material is designed for an outdoor life expectancy of 20 years minimum.

Why Black? It is a widely known fact that black colored material, as compared to other colors of the same material, has better UV resistance. The pigments used in darker colored materials have ultra-violet absorbing characteristics that help protect the base polymer.

For the most effective funnel type guard on the market, at an affordable price, specify the Central Moloney Shedlock™ Universal Guard.

Shedlock™ Wildlife Guard

Testing

The following tests have been conducted on production Shedlock™ guards to verify performance on electrical apparatus up to 35kV Class, (20kV line to ground).

Lightning Impulse Withstand

When tested in accordance with IEEE Std. 4 - 1995, each guard withstood three positive and three negative 150kV BIL impulse waves without disruptive discharge or flashover.

Dry Withstand – Exterior Surface Grounded

The entire exterior surface of the guard to within 2" of the energized conductor was grounded with copper mesh. A voltage of 24kV (20% greater than maximum rated line to ground) was applied to the exposed conductor and held for one minute. No electrical flashovers or punctures occurred.

Dry Power Frequency Flashover

The flashover value of the base test fixture (without guard installed) was determined by averaging five consecutive flashover tests. This value was determined to be 84kV. With the guards installed, the average flashover value was 84kV (100% of the base value).

Wet Withstand – Exterior Surface Grounded

Precipitation conditions were established in accordance with IEEE Std 4 -1995, 14.2 Table 3, "Conventional Procedure – USA".

The entire exterior surface of the guard within 2" of the energized conductor was grounded with copper mesh. A voltage of 24kV (20% greater than maximum rated line to ground) was applied to the exposed conductor and held for ten seconds. No electrical flashovers or punctures occurred.

Wet Power Frequency Flashover

Precipitation conditions were established in accordance with IEEE Std 4 -1995, 14.2 Table 3, "Conventional Procedure – USA".

The flashover value of the base test fixture (without guard installed) was determined by averaging five consecutive flashover tests. This value was determined to be 65kV. With the guards installed, the average flashover value was 61kV (93% of the base value).

Radio Influence Voltage

The RIV value of the base test fixture (without guard installed) was less than 50 microvolts. With

the guard installed, the RIV value was still less than 50 microvolts.

Cold Temperature

The guards were placed in an environmental chamber for 4 hours @ -25°C. Within one minute of removal, the guards were installed and removed from the test fixture five consecutive times. No cracks or damage to the parts was observed.

Ultraviolet Aging

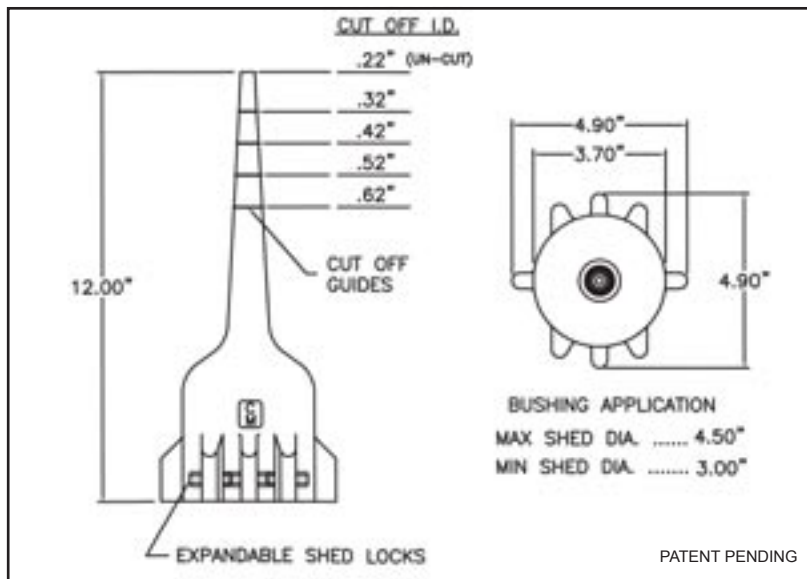
Material Samples have passed 2 years natural outdoor weathering in Florida and Arizona with no detectable change in appearance and greater than 90% properties retention.

In addition, test samples have passed Xenon Arc accelerated weathering tests equivalent to 5 years of typical outdoor exposure. There were no detectable changes in appearance and material properties were greater than 90% of the original values.

Retention Testing

While installed on the test fixture with the cable opening oriented for maximum wind exposure, the guards remained properly installed when exposed to a constant wind velocity of 85 mph.

Outline Drawing



Ordering Information

Item	Part Number	Std. Box Count	Std. Pallet Qty.
Shedlock™ Guard	70380343	150	1200 (8 boxes)


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