

## **Apparatus Insulators**

Indoor - Outdoor Single Bolt Series 0.375"-16 Inserts Descriptive Bulletin

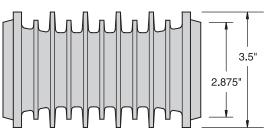
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0.375" - 16 x 1" Min. Thread Both Ends



0.4375" Dia. x 0.15625" Deep Recess to Key Fuse Clips



0.438

0.15625" Dia. x 0.34375" Deep Provision for 3-pound Flat Head Tinners

Rivet to Key the Insulator When Desired

0.09375" Dia. x 0.34375" Deep Provision for #4 x 0.25" Type U-Drive Screw to Key Fuse Hinge

## **ELRIM Cycloaliphatic Epoxy Provides:**

Nontracking, self-scouring, nonweathering performance Superior dielectric strength, dielectric loss and power factor Choice of shapes allows design innovation Mechanical and thermal toughness Shatter-free arc flashover performance Oil resistant

### Elliott Design Provides:

Cast-in-place inserts without metal end caps Contamination resistant Elliott square-edge skirts Generous dry arcing (strike) distance Increased leakage distance to resist contamination Thermal cycling withstand from +200° F to -200° F High strength - field proven performance Experience with cycloaliphatic epoxy since 1975

The insulators described in this bulletin have special features to provide superior mechanical support and to key fuse clips, fuse hinges, buswork and other high-voltage apparatus.

- 1) Eaton's Cooper Power Systems NX® fuse clips mount with a 0.375"-16 thread bolt and are automatically keyed by an existing rivet on the fuse clip which insets in the 0.4375" diameter x 0.156" deep recess.
- 2) Eaton's Cooper Power Systems NX® fuse hinges mount with a 0.375"-16 thread bolt and key on a #4 x 0.25" type U-drive screw installed in the 0.09375" diameter x 0.34375" deep recess.
- 3) To mount the insulator, when no adjustment is required, a 0.4375" diameter mounting hole accommodates the 0.375"-16 thread mounting bolt.
- To mount the insulator, when ± 0.0625" adjustment is required, a 0.4375" x 0.5625" obround slot is required.
- To mount and key the insulator, when no adjustment is required, a 0.4375" x 0.8125" obround slot will accommodate the 0.375"-16 thread mounting bolt and a 3-pound flat head tinners rivet installed in the 0.15625" diameter x 0.34375" deep recess.
- To mount and key the insulator, when ± 0.1562" adjustment is required, a 0.4375" x 1.125" obround slot will accommodate the 0.375"-16 thread mounting bolt and a 3-pound flat head tinners rivet installed in the 0.15625" diameter x 0.34375" deep recess.

### Important:

Water that accumulates in the inserts and then freezes will damage epoxy insulators. When insulators are to be installed outdoors, inserts must be partially filled with no-oxide compound (or similar material) to prevent moisture accumulation in the inserts.

#### **Ratings and Dimensions of Apparatus Insulators**

Catalog Number	Nominal Voltage kV	Withstand Test Voltage Kilovolts			Height	Minimum	Minimum
		Impulse 1.2 x 50	One Min. Dry.	10 Sec. Dew	Inches	Leakage Inches	Strike Inches
2101-103.5	5	60	26	26	3.5	6	3.5
2101-106	15	95	50	50	6	14.5	6
2101-107.5	25	125	60	60	7.5	18	7.5
2101-108.5	25	125	70	70	8.5	21	8.5
2101-110	35	150	80	80	10	26.5	10
2101-112.5	35	200	100	100	12.5	33	12.5



## **Apparatus Insulators**

0.375"-16 Inserts **Single Bolt Series** 

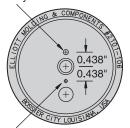
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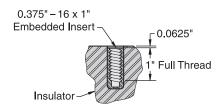
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0.15625" Dia. x 0.34375" Deep Provision for 3-pound Flat Head Tinners Rivet to Key the Insulator When Desired

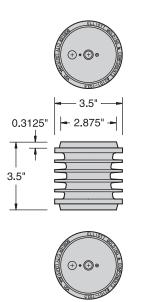


0.09375" Dia. x 0.34375" Deep Provision for #4 x 0.25" Type U-Drive Screw to Key Fuse Hinge

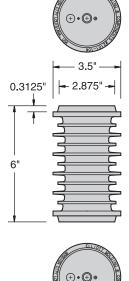


#### Important:

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#2101-103.5





#2101-106

Catalog Number	2101-103.5	2101-106	
Electrical Rating, kV			
Nominal Voltage	5	15	
BIL	60	95	
AC Withstand - 1 Min. Dry	26	50	
AC Withstand - 10 Sec. Dew	26	50	
Leakage Distance, Inches	6	14.5	
Dry Arcing Distance, Inches	3.5	6	
Mechanical-Strength Rating, Pounds			
Cantilever, Ultimate 2.5 inches above top*	1,000	550	
Tensile, Pounds	3,000	3,000	
Torsion, Inches-Pounds	1,500	1,500	
Compression, Pounds	20,000	20,000	
Insert Thread Size	0.375"–16	0.375"–16	
Net Weight, Pounds (kg)	1.7 (0.77)	2.4 (1.1)	

<sup>\*</sup> To attain their rated cantilever strengths, insulators must be mounted on a flat surface that is at least as wide as the diameter of the base of the insulator. Furthermore, the mounting surface must be free of protrusions, such as lumps from galvanizing, to prevent cracking of the insulator when mounting bolts are tightened.

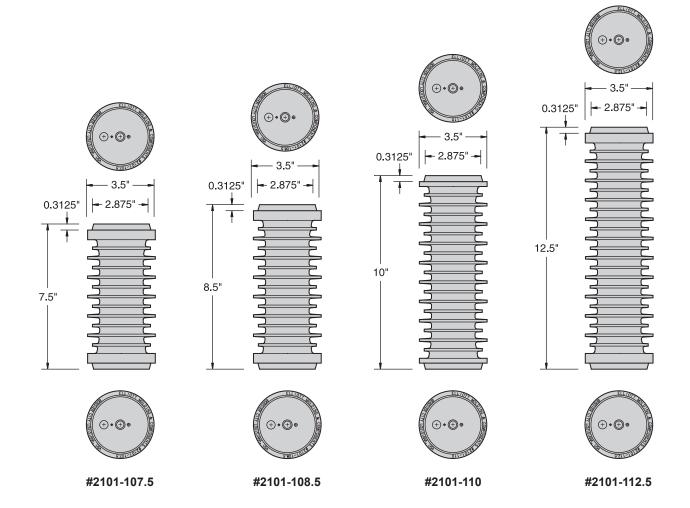


# Apparatus Insulators Indoor - Outdoor

Indoor - Outdoor Single Bolt Series 0.375"-16 Inserts Descriptive Bulletin

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Catalog Number	2101-107.5	2101-108.5	2101-110	2101-112.5
Electrical Rating, kV				
Nominal Voltage	25	25	35	35
BIL	125	125	150	200
AC Withstand - 1 Min. Dry	60	70	80	100
AC Withstand - 10 Sec. Dew	60	70	80	100
Leakage Distance, Inches	18	21	26.5	33
Dry Arcing Distance, Inches	7.5	8.5	10	12.5
Mechanical-Strength Rating, Pounds				
Cantilever, Ultimate 2.5 inches above top*	450	300	250	200
Tensile, Pounds	3,000	3,000	3,000	3,000
Torsion, Inches-Pounds	1,500	1,500	1,500	1,500
Compression, Pounds	20,000	20,000	20,000	20,000
Insert Thread Size	0.375" - 16	0.375"-16	0.375"-16	0.375" - 16
Net Weight, Pounds (kg)	3.1 (1.4)	3.4 (1.6)	3.8 (1.7)	4.4 (2.0)



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