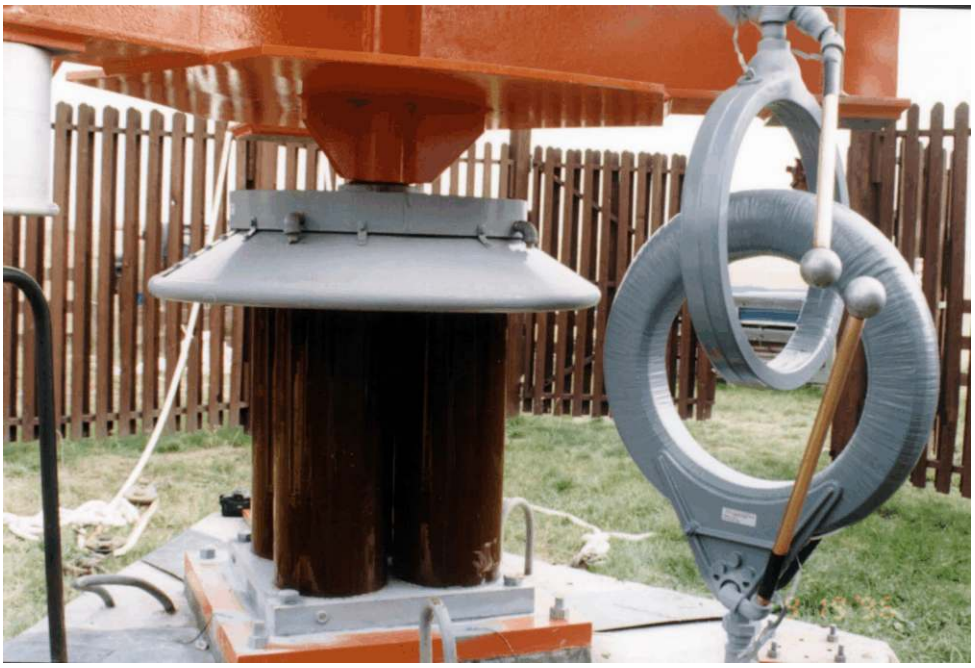
# Austin Insulators Inc.

**Manufacturers of Austin Base & Guy Insulators and Isolation Transformers for Radio Antenna Towers**

# Product Catalogue

# Austin Insulators Inc.

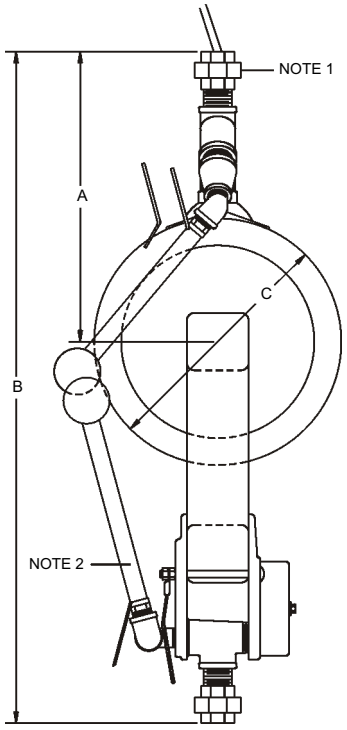
## Austin Ring Type Isolation Transformers for Radio Tower and Mast Lighting Dual Winding Series



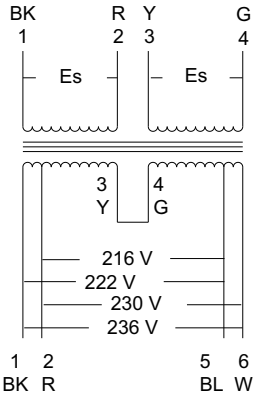
| | |
|---|---|
| **Air Insulation** | - Minimum R.F. loss |
| **Low Capacitance** | - Minimum and stable effect on tuning |
| **Regulation** | - Better than 10% under normal load conditions |
| **Efficiency** | - Better than 90% under normal load conditions |
| **Mounting** | - Standard pipe unions supplied |
| **Lightning Gap** | - Supplied |

Special Transformer Mounting Kits Available for Austin Base Insulators

# AUSTIN LIGHTING TRANSFORMERS



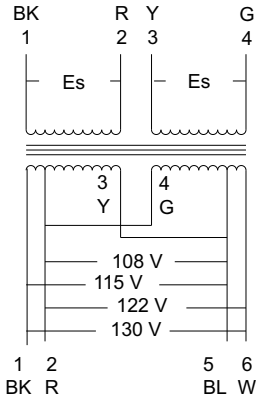

SECONDARY VOLTAGE - Es
115 V FOR D1 TYPE
230 V FOR D2 TYPE




SECONDARY CONNECTIONS

PRIMARY CONNECTIONS

CONNECTIONS FOR 230 NOMINAL LINE VOLTAGES




CONNECTIONS FOR 115 NOMINAL LINE VOLTAGES

REFER TO INSTRUCTIONS SUPPLIED WITH TRANSFORMER FOR INSTALLATION AND CONNECTION DETAILS.

## DIMENSIONS

| Rating kVA | A | B | C | Pipe Fittings | Connecting Colour Code |
|---|---|---|---|---|---|
| **0.7 & 1.7** | 15 " (381 mm) | 33 3/4" (857 mm) | 12 1/2" (318 mm) | 1" NPT | BK Black #1<br>R Red #2<br>Y Yellow #3<br>G Green #4<br>BL Blue #5<br>W White #6 |
| **2.5** | 24 1/2" (622 mm) | 61 " (1,549 mm) | 25 " (635 mm) | 1 1/2" NPT | |
| **3.5** | 18 3/4" (476 mm) | 43 " (1,092 mm) | 16 " (406 mm) | 1 1/2" NPT | |
| **5.0** | 24 1/2" (622 mm) | 61 " (1,549 mm) | 25 " (635 mm) | 1 1/2" NPT | |

| Transformer Type | Capacity kVA | Secondary Voltage | Net Weight lb. | Net Weight kg | RF Dry Flashover kV rms | RF Wet Withstand kV rms |
|---|---|---|---|---|---|---|
| **A-07D1** | 0.7 | 115/230 | 70 | (32 kg) | 46 | 15 |
| **A-07D2** | 0.7 | 230/460 | 70 | (32 kg) | 46 | 15 |
| **A-17D1** | 1.7 | 115/230 | 90 | (41 kg) | 46 | 15 |
| **A-17D2** | 1.7 | 230/460 | 90 | (41 kg) | 46 | 15 |
| **A-25D1** | 2.5 | 115/230 | 350 | (159 kg) | 71 | 37 |
| **A-25D2** | 2.5 | 230/460 | 350 | (159 kg) | 71 | 37 |
| **A-35D1** | 3.5 | 115/230 | 190 | (86 kg) | 60 | 24 |
| **A-35D2** | 3.5 | 230/460 | 190 | (86 kg) | 60 | 24 |
| **A-50D1** | 5.0 | 115/230 | 370 | (168 kg) | 71 | 37 |
| **A-50D2** | 5.0 | 230/460 | 370 | (168 kg) | 71 | 37 |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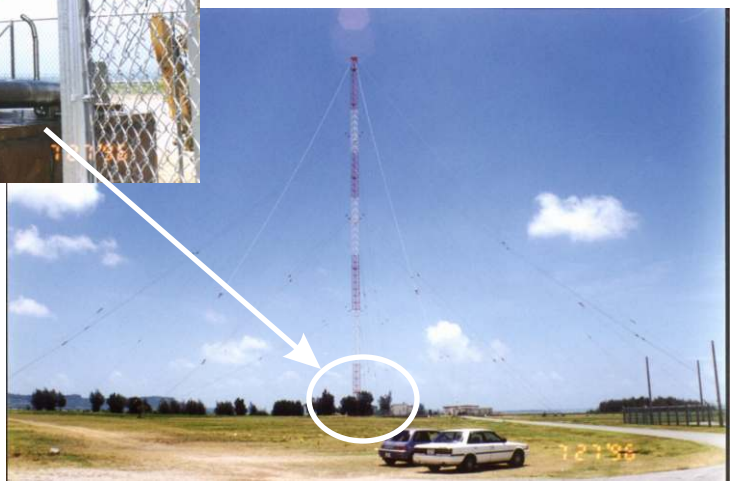
# Austin Insulators Inc.

## Austin Base Insulators
## for
## Guyed Radio Antenna Masts



oil filled to eliminate R.F. loss due to water condensation on internal surfaces
smooth insulator finish minimizes leakage and flashover due to surface contamination
insulators for higher mechanical and electrical loads are available.

Please call, write, or e-mail stating your requirements.

# Austin Base Insulators

| Insulator Type | Number of Elements | Recommended Maximum Working Download (note 1) | Allowable Shear as a Percentage of Download | 1 Minute Drip Wet Withstand at 100 kHz Voltages kV rms (notes 2 & 5) | |
|---|---|---|---|---|---|
| | | | | Standard Rainshield | High Voltage Rainshield |
| **A-4197L** | 1 | 40,000 lb<br>18,144 kg | 6.0 % | 28 | n/a |
| **A-4722B** | 1 | 80,000 lb<br>36,288 kg | 6.0 % | 39 | 53 |
| **A-0881** | 1 | 150,000 lb<br>68,040 kg | 5.3 % | 67 | 95 |
| **A-0729** | 1 | 200,000 lb<br>90,720 kg | 5.8 % | 67 | 95 |
| **A-0167** | 1 | 270,000 lb<br>122,472 kg | 6.2 % | 67 | 95 |
| **A-3663B** | 3 | 375,000 lb<br>170,100 kg | 3.2 % | 71 | 99 |
| **A-4447B** | 5 | 625,000 lb<br>283,500 kg | 3.1 % | 71 | 99 |
| **A-3820R** | 8 | 1,000,000 lb<br>453,600 kg | 3.0 % | 71 | 99 |
| **A-4544** | 12 | 1,500,000 lb<br>680,400 kg | 2.9 % | 71 | 99 |
| **A-4598** | 21 | 2,500,000 lb<br>1,134,000 kg | 2.8 % | 71 | 99 |

**Note 1:** Allows for a minimum Safety Factor of 3.

**Note 2:** The drip wet figures above are a minimum achieved with the insulator standing directly on the ground plane. Higher voltages can be expected with the insulator installed on a pier.

**Note 3:** Rocking plate on insulator A-0881 is 1 3/8" (34.9 mm) thick with a 8 1/2" (216 mm) diameter.
Rocking plate on insulator A-0729 is 1 3/8" (34.9 mm) thick with a 9 1/2" (241 mm) diameter.
Rocking plate on insulator A-0167 is 1 3/8" (34.9 mm) thick with a 10 1/2" (267 mm) diameter.
Rocking plate on insulator A-3663B is 1 3/8" (34.9 mm) thick with a 12 1/4" (311 mm) diameter.
Rocking plate on insulator A-4447B is 1 5/8" (41.3 mm) thick with a 15" (381 mm) diameter.
Rocking plate on insulator A-3820R is 2 1/2" (63.5 mm) thick with a 20" (508 mm) diameter.
Rocking plate on insulator A-4544 is 2 1/2" (63.5 mm) thick with a 20" (508 mm) diameter.
Rocking plate on insulator A-4598 is 2 1/2" (63.5 mm) thick with a 24" (610 mm) diameter.

**Note 4:** Centre pin on insulators A-0881 to A-4447B are 1 1/2" (38.1 mm) diameter, protruding 1 1/2" (38.1 mm) above the rocking plate.

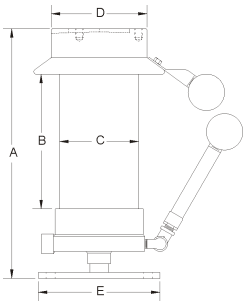
Centre pin on insulators A-3820 to A-4598 are 2" (50.8 mm) diameter, protruding 1 1/2" (38.1 mm) above the rocking plate.

**Note 5:** Recommended Operating Voltage is 60% of Drip Wet Withstand Voltage.

Insulators A-4197L and A-4722B are designed to be rigidly attached to the mast and are free to rock on their mounting plates. All other types attach to the mounting pier or pedestal provided by the customer and the mast is left free to rock on the insulator rocking plate supplied.
All insulators are fitted with an adjustable lightning gap.
Insulators A-4197L and A-4722B have cemented ends. All other types are supplied with temporary tie-rods which are removed ONLY when mast erection is complete.
All insulators with the exception of the A-4197L can be fitted with a high voltage rainshield as an optional extra to improve the voltage rating.

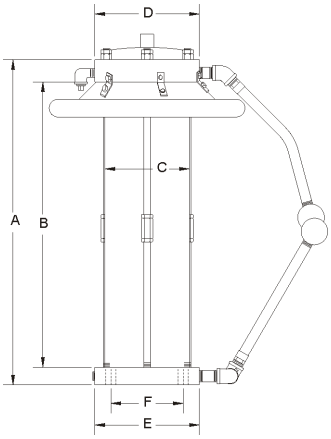
# Austin Base Insulators

## Types: A-4197L, A-4722B



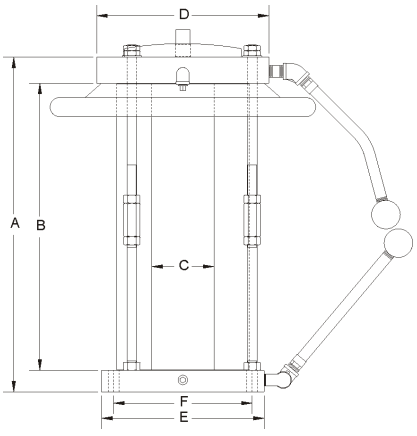

| Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Type | A (mm) | B (mm) | C Dia. (mm) | D Dia. (mm) | E Dia. (mm) | Mast Fixing (mm) | Insulator Mounting (mm) | Weight (kg) |
| **A-4197L** | 13.5" (343) | 7" (178) | 4" (102) | 7.75" (197) | 7" (178) | 3 holes drilled 5/8" on 6.5" (15.9 on 165) BCD | 3 holes drilled 11/16" on 5.5" (17.5 on 140) BCD | 35 lb (16) |
| **A-4722B** | 26.5" (673) | 17.5" (445) | 6.5" (165) | 7.88" (200) | 10" (254) | 3 holes tapped 5/8"-11 TPI on 6.5" (165) BCD | 4 holes drilled 3/4" on 8" (19.1 on 203) BCD | 110 lb (50) |

## Types: A-0881, A-0729, A-0167



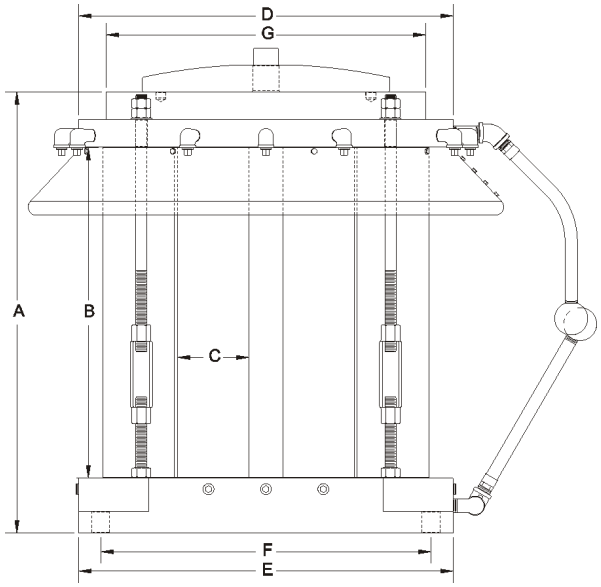

| Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Type | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | Mast Fixing (mm) | Insulator Mounting (mm) | Weight (kg) |
| **A-0881** | 36.5" (927) | 32" (813) | 9.375" (238) dia. | 12.375" (314) dia. | 12.125" (308) square | 8.125" (206) | Centre pin (note 4) Mast base clearance dia. 8 3/4" (222) | 4 holes drilled 1 1/8" (28.6) square base | 285 lb (129) |
| **A-0729** | 37" (940) | 32" (813) | 10.25" (260) dia. | 13.5" (343) dia. | 13.25" (337) square | 9" (229) | Centre pin (note 4) Mast base clearance dia. 9 3/4" (248) | 4 holes drilled 1 1/4" (31.8) square base | 365 lb (166) |
| **A-0167** | 37" (940) | 32" (813) | 11" (279) dia. | 14.25" (362) dia. | 13.75" (349) square | 10.6" (269) | Centre pin (note 4) Mast base clearance dia. 10 1/2" (267) | 4 holes drilled 1 1/4" (31.8) square base | 420 lb (191) |

## Types: A-3663B, A-4447B, A-3820R




| Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Type | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | Mast Fixing (mm) | Insulator Mounting (mm) | Weight (kg) |
| **A-3663B** | 35" (889) | 30" (762) | 6.5" (165) dia. | 18" (457) dia. | 17" (432) dia. | Refer to "Insulator Mounting" column | Centre pin (note 4) Mast base clearance dia. 13" (330) | 4 holes drilled 1 3/8" on 15 (28.6 on 381) BCD round base | 575 lb (261) |
| **A-4447B** | 35" (889) | 30" (762) | 6.5" (165) dia. | 21" (533) dia. | 21" (533) square | 18" (457) | Centre pin (note 4) Mast base clearance dia. 16" (406) | 4 holes drilled 1 3/8" (34.9) square base | 925 lb (420) |
| **A-3820R** | 35.5" (902) | 30" (762) | 6.5" (165) dia. | 27.5" (699) dia. | 27.5" (699) square | 24.5" (622) | Centre pin (note 4) Mast base clearance dia. 10 1/2" (267) | 4 holes drilled 1 1/4" (31.8) square base | 2,450 lb (1,111) |

# Austin Base Insulators




## Types: A-4544, A-4598

| Dimensions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **A (mm)** | **B (mm)** | **C (mm)** | **D (mm)** | **E (mm)** | **F (mm)** | **G (mm)** | **Mast Fixing (mm)** | **Insulator Mounting (mm)** | **Weight (kg)** |
| **A-4544** | 40" (1016) | 30" (762) | 6.5" (165) dia. | 34" (864) dia. | 34" (864) square base | 30" (762) | 29" (737) | Centre pin (note 4) Mast base clearance dia. 29.5" (749) | 4 holes drilled 1 1/2" (38.1) square base | 3,425 lb (1,554) |
| **A-4598** | 42" (1067) | 30" (762) | 6.5" (165) dia. | 42" (1067) dia. | 42" (1067) square base | 36" (914) | 36" (914) | Centre pin (note 4) Mast base clearance dia. 36" (914) | 4 holes drilled 1 5/8" (41.3) square base | 6,430 lb (2,917) |

## How To Choose Your Base Insulator

All Austin base insulators are designed for VLF, LF, and MF use.
First, select the unit that meets your requirements for maximum working down and shear value. Second, ensure that your peak RF operating voltage is safely below the drip wet withstand voltage on the table.
If you have a requirement for a base insulator which is not met by the products described in this brochure, or you wish us to recommend a suitable insulator, please call, write, or e-mail, giving as much relevant information as you have available.
Mounting kits can be supplied as an optional extra to mount Austin Transformers between the top and bottom plates.

### Other Products

Base Insulators for Self Supporting Towers
Direct Fitting Replacement Base Insulators
Guy Line Insulators
Tower Lighting Transformers
Static Drain Resistors & Chokes
Feed Through Insulators
Custom Designed Insulators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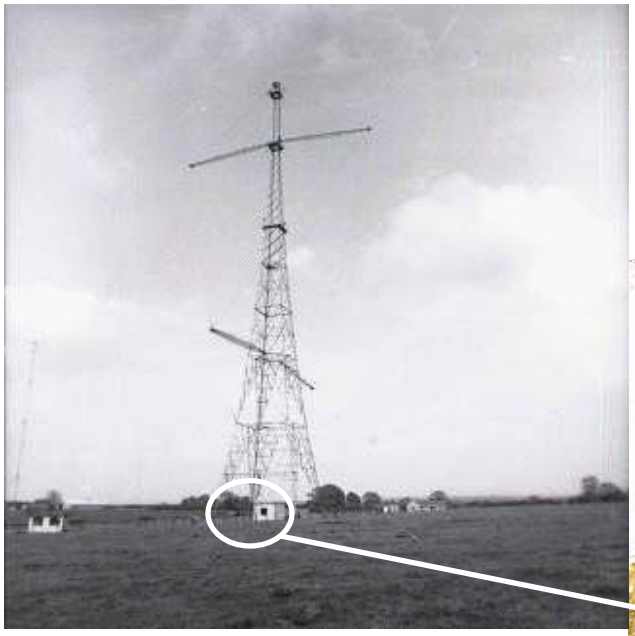
# Austin Insulators Inc.

## Austin Base Insulators for Self Supporting Radio Towers and Masts



Oil filled to eliminate RF loss due to water condensation on internal surfaces. Additional benefits are elimination of 'hot spots' and easy detection of porcelain failure.
Smooth insulator finish minimizes leakage and flash-over due to surface contamination.
Items listed are types recommended for new construction. Custom designed insulators are available to replace other manufacturer's obsolete product line.
Insulators for higher mechanical and electrical loads are available. Please call, write or e-mail stating your requirements.
All insulators are supplied with adjustable lightning gap.

# Austin Base Insulators

| Insulator Type | Number of Elements | Recommended Maximum Working Download (note 1) | Recommended Maximum Working Uplift (note 1) | Permissible Shear at Rated Uplift (note 2) | Preload | 1 Minute Drip Wet Withstand at 100 kHz Voltages kV rms (notes 2 & 5) | |
|---|---|---|---|---|---|---|---|
| | | | | | | Standard Rainshield | High Voltage Rainshield |
| ***A-4950**<br>**A-4950C** | 1 | 25,000 lb<br>11,340 kg | 17,500 lb<br>7,938 kg | 680 lb<br>308 kg | 25,000 lb<br>11,340 kg | 32 | 44 |
| ***A-4938**<br>**A-4938C** | 1 | 50,000 lb<br>22,680 kg | 35,000 lb<br>15,876 kg | 1,850 lb<br>839 kg | 50,000 lb<br>22,680 kg | 22 | 30 |
| ***A-4881**<br>**A-4881C** | 1 | 75,000 lb<br>34,020 kg | 52,500 lb<br>23,814 kg | 2,400 lb<br>1,089 kg | 75,000 lb<br>34,020 kg | 71 | 99 |
| ***A-4729**<br>**A-4728C** | 1 | 100,000 lb<br>45,360 kg | 70,000 lb<br>31,752 kg | 3,600 lb<br>1,633 kg | 100,000 lb<br>45,360 kg | 71 | 99 |
| ***A-3167**<br>**A-3167C** | 1 | 150,000 lb<br>68,040 kg | 105,000 lb<br>47,628 kg | 6,300 lb<br>2,858 kg | 150,000 lb<br>68,040 kg | 71 | 99 |
| ***A-2812**<br>***A-2812C** | 3 | 250,000 lb<br>113,400 kg | 196,000 lb<br>88,906 kg | 10,000 lb<br>4,536 kg | 280,000 lb<br>127,008 kg | 71 | 99 |
| ***A-2913**<br>**A-2913C** | 3 | 375,000 lb<br>170,100 kg | 280,000 lb<br>127,008 kg | 15,500 lb<br>7,031 kg | 400,000 lb<br>181,440 kg | 71 | 99 |
| ***A-3782**<br>**A-3782C** | 5 | 600,000 lb<br>272,160 kg | 455,000 lb<br>206,388 kg | 25,000 lb<br>11,340 kg | 650,000 lb<br>294,840 kg | 71 | 99 |
| ***A-4049**<br>**A-4049C** | 6 | 900,000 lb<br>408,240 kg | 600,000 lb<br>272,160 kg | 42,000 lb<br>19,051 kg | 900,000 lb<br>408,240 kg | 71 | 99 |

* Identical insulator except has a round base with studs.

**Note 1:** Allows for a minimum Safety Factor of 3.

**Note 2:** The permissible shear loads stated above assume that the insulators are worked at their stated recommended maximum working uplifts. If your required working uplift is lower than that given in the table above, a higher shear load is permissible. The following formula will enable the new maximum permissible shear load to be calculated.

$$\text{New permissible shearload} = \text{Stated permissible shearload at rated uplift} \times \frac{\text{Preload} - \text{Actual uplift}}{\text{Preload} - \text{Recommended maximum working uplift}}$$

Example: For Type A-4881C when required Working Uplift is only 30,000 lb.,

Then,

$$\text{New permissible shearload} = 2{,}400 \text{ lb.} \times \frac{75{,}000 \text{ lb.} - 30{,}000 \text{ lb.}}{75{,}000 \text{ lb.} - 52{,}500 \text{ lb.}} = 4{,}800 \text{ lb.}$$

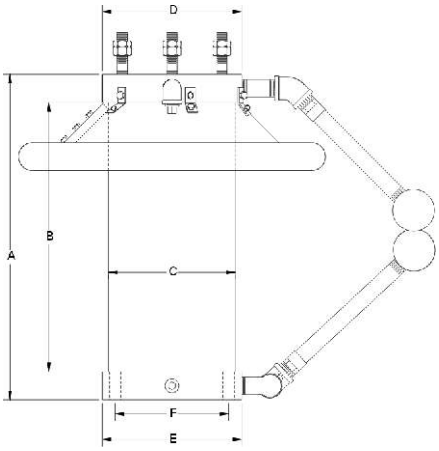
The 4,800 lb. represents the permissible shear load of this insulator when the uplift requirement is only 30,000 lb.

**Note 3:** The drip wet figures above are a minimum achieved with the insulator standing directly on the ground plane. Higher voltages can be expected with the insulator standing on a pier.

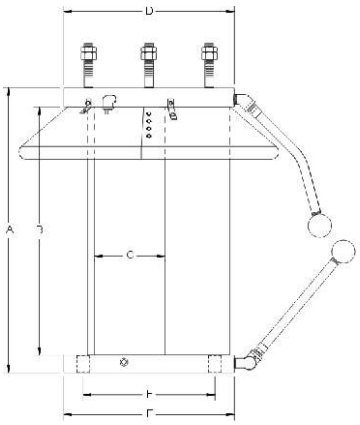
**Note 4:** All insulators can be fitted with a high voltage rainshield as an optional extra to improve the voltage rating of the base insulator.

# Austin Base Insulators

## Types: A-4950/C, A-4938/C, A-4881/C, A-4729/C, A-3167/C




| Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Type** | **A (mm)** | **B (mm)** | **C (mm)** | **D (mm)** | **E (mm)** | **F (mm)** | **Mast Fixing (mm)** | **Insulator Mounting (mm)** | **Weight (kg)** |
| **A-4950** | 23.5" (597) | 20.25" (514) | 4.625" (117) dia. | 5.5" (140) dia. | 5.5" (140) dia. | | 3 studs 3" (76) long 5/8"-11 (16) on 4" (102) BCD | 3 studs 3" (76) long 5/8"-11 (16) on 4" (102) BCD | 46 lb (21) |
| **A-4950C** | 23.5" (597) | 20.25" (514) | 4.625" (117) dia. | 5.5" (140) dia. | 6" (152) square | 4.625" (117) | 3 studs 3" (76) long 5/8"-11 (16) on 4" (102) BCD | 4 holes drilled 7/8" (22) square base | 46 lb (21) |
| **A-4938** | 23.25" (591) | 19.25" (489) | 9.125" (232) dia. | 10" (254) dia. | 10" (254) dia. | | 3 studs 3" (76) long 3/4"-16 (19) on 8.25" (210) BCD | 3 studs 3" (76) long 3/4"-16 (19) on 8.25" (210) BCD | 150 lb (68) |
| **A-4938C** | 23.25" (591) | 19.25" (489) | 9.125" (232) dia. | 10" (254) dia. | 10" (254) square | 8.13" (207) | 3 studs 3" (76) long 3/4"-16 (19) on 8.25" (210) BCD | 4 holes drilled 13/16" (21) square base | 150 lb (68) |
| **A-4881** | 36.75" (933) | 32" (813) | 9.375" (238) dia. | 11.75" (298) dia. | 11" (279) dia. | | 3 studs 3 1/2" (89) long 1"-14 (25) on 8" (203) BCD | 3 studs 3 1/2" (89) long 1"-14 (25) on 8" (203) BCD | 230 lb (104) |
| **A-4881C** | 36.75" (933) | 32" (813) | 9.375" (238) dia. | 11.75" (298) dia. | 11" (279) square | 8.25" (210) | 3 studs 3 1/2" (89) long 1"-14 (25) on 8" (203) BCD | 4 holes drilled 1 1/8" (29) square base | 230 lb (104) |
| **A-4729** | 37" (940) | 32" (813) | 10.25" (260) dia. | 12" (305) dia. | 12" (305) dia. | | 3 studs 4" (102) long 1 1/8"-12 (29) on 10" (254) BCD | 3 studs 4" (102) long 1 1/8"-12 (29) on 10" (254) BCD | 265 lb (120) |
| **A-4729C** | 37" (940) | 32" (813) | 10.25" (260) dia. | 12" (305) dia. | 12" (305) square | 9" (229) | 3 studs 4" (102) long 1 1/8"-12 (29) on 10" (254) BCD | 4 holes drilled 1 1/4" (32) square base | 265 lb (120) |
| **A-3167** | 37" (940) | 32" (813) | 11" (279) dia. | 13.75" (349) dia. | 13.75" (349) dia. | | 3 studs 6" (152) long 1 1/4"-12 (32) on 10" (254) BCD | 3 studs 6" (152) long 1 1/4"-12 (32) on 10" (254) BCD | 360 lb (163) |
| **A-3167C** | 37" (940) | 32" (813) | 11" (279) dia. | 13.75" (349) dia. | 13.75" (349) square | 10.6" (269) | 3 studs 6" (152) long 1 1/4"-12 (32) on 10" (254) BCD | 4 holes drilled 1 3/8" (35) square base | 360 lb (163) |

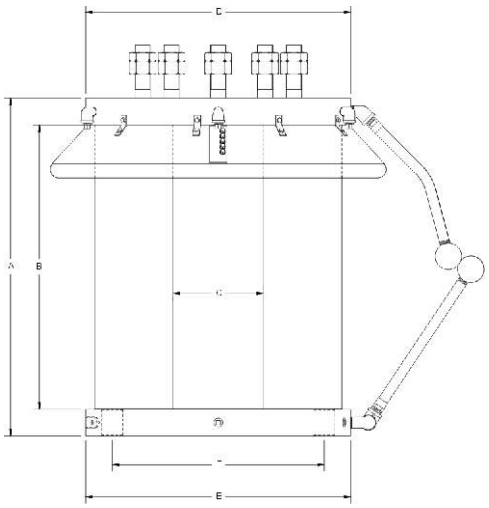



## Types: A-2812, A-2812C

| Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **T** | **A** | | **C** | | **E** | | | | |
| **A-2812** | 36.75" (933) | 32" (813) | 9.375" (238) dia. | 22" (559) dia. | 22" (559) dia. | | 6 studs 5 3/4" (146) long 1 1/8"-12 (29) on 18" (457) BCD | 6 studs 5 3/4" (146) long 1 1/8"-12 (29) on 18" (457) BCD | 850 lb (386) |
| **A-2812C** | 36.75" (933) | 32" (813) | 9.375" (238) dia. | 22" (559) dia. | 22" (559) square | 17" (432) | 6 studs 5 3/4" (146) long 1 1/8"-12 (29) on 18" (457) BCD | 4 holes drilled 1 5/8" (41) square base | 826 lb (375) |

# Austin Base Insulators

## Types: A-2913/C, A-3782/C, A-4049/C




| Type | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | Mast Fixing (mm) | Insulator Mounting (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| **A-2913** | 37" (940) | 32" (813) | 10.25" (260) dia. | 24" (610) dia. | 24" (610) dia. | | 6 studs 6" (152) long 1 1/4"-12 (32) on 19" (483) BCD | 6 studs 6" (152) long 1 1/4"-12 (32) on 19" (483) BCD | 1,040 lb (472) |
| **A-2913C** | 37" (940) | 32" (813) | 10.25" (260) dia. | 24" (610) dia. | 24" (610) square | 19" (483) | 6 studs 6" (152) long 1 1/4"-12 (32) on 19" (483) BCD | 4 holes drilled 2" (51) square base | 1,130 lb (513) |
| **A-3782** | 38" (965) | 32" (813) | 10.25" (260) dia. | 30" (762) dia. | 30" (762) dia. | | 5 studs 6" (152) long 1 3/4"-12 (44) on 18" (457) BCD | 5 studs 6" (152) long 1 3/4"-12 (44) on 18" (457) BCD | 1,900 lb (862) |
| **A-3782C** | 38" (965) | 32" (813) | 10.25" (260) dia. | 30" (762) dia. | 30" (762) square | 24" (610) | 5 studs 6" (152) long 1 3/4"-12 (44) on 18" (457) BCD | 4 holes drilled 2 3/8" (60) square base | 1,950 lb (885) |
| **A-4049** | 39" (991) | 32" (813) | 11" (279) dia. | 38" (965) dia. | 38" (965) dia. | | 6 studs 6" (152) long 2"-12 (51) on 24" (610) BCD | 6 studs 6" (152) long 2"-12 (51) on 24" (610) BCD | 2,600 lb (1,179) |
| **A-4049C** | 39" (991) | 32" (813) | 11" (279) dia. | 38" (965) dia. | 38" (965) dia. | | 6 studs 6" (152) long 2"-12 (51) on 24" (610) BCD | 6 holes drilled 2 5/8" (67) diameter on a 32 1/2 (826) PCD | 2,600 lb (1,179) |

## How To Choose Your Base Insulator

All Austin base insulators are designed for VLF, LF, and MF use and are conservatively rated.
First, select the unit that meets your requirements for maximum working down and shear value. Second, ensure that your peak RF operating voltage is safely below the drip wet withstand voltage on the table.
If you have a requirement for a base insulator which is not met by the products described in this brochure, or you wish us to recommend a suitable insulator, please contact us with as much information as you have available.
Mounting kits can be supplied as an optional extra to mount Austin Transformers between the top and bottom plates.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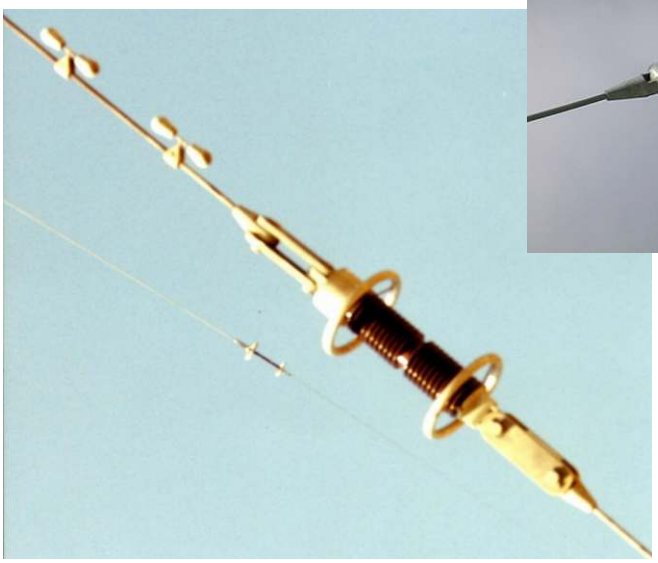
# Austin Insulators Inc.

## Guy Insulators
## Oil-Filled Safety Core Series

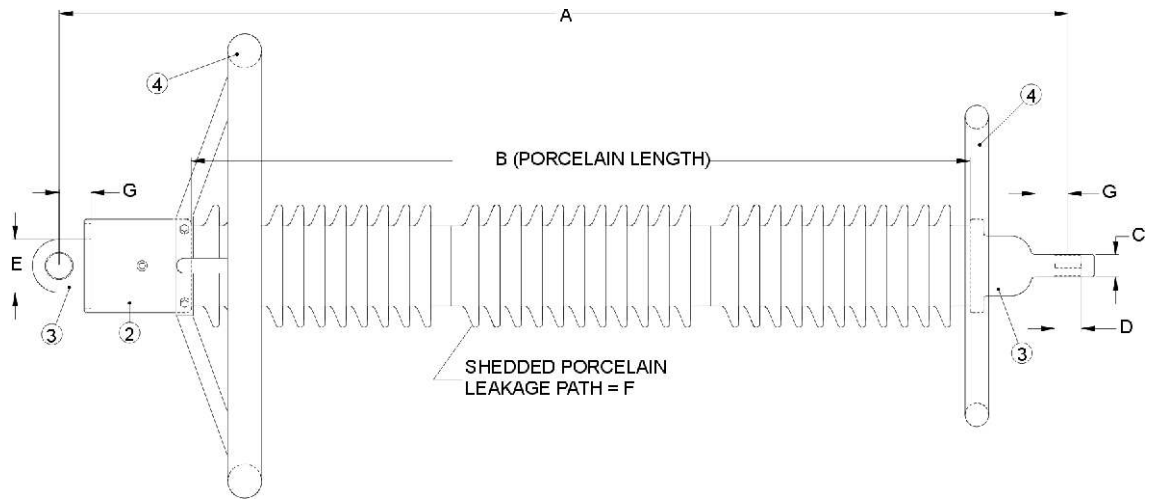


Austin's Oil-Filled Safety Core Guy Line Insulators incorporate the Austin Safety Core concept which consists of an endless wound fiberglass loop retained by internal pins within the external end fittings.

The Safety core Insulators shown in this brochure are suitable for use at RF voltages as specified, provided there are no unusual environmental conditions or stringent corona/noise requirements. Applications involving RF voltages above 100 kV rms can be accommodated by the Austin High Voltage Range which are suitable for use with voltages up to 120 kV rms. Special high voltage assemblies are also available for use with voltages in excess of 120 kV rms.

Please consult with us for additional product information, or for any special RF or 50/60 Hz application requirements.

# LONG SERIES




| Type | Safe Working Load (kg) (1) | A (mm) | B (mm) | C | | D dia. | | E (mm) | F (mm) | G (mm) | Net Weight (kg) | Wind Area (m2) | Nominal Voltage kV rms (5) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | nom. (mm) | max. (mm) | nom. (mm) | min. (mm) | | | | | | |
| **A-S2001L** | 3,400 lb (1,542 kg) | 36 " (914 mm) | 30 " (762 mm) | 11/16" (17 mm) | (3) | 5/8 " (16 mm) | N/A | 1 1/4 " (32 mm) | 57 " (1,448 mm) | 1 " (25 mm) | 18 lb (8 kg) | 1/2 (0.05) | 65 |
| **A-S3003L** | 6,000 lb (2,722 kg) | 40 1/2 " (1,029 mm) | 31 1/2 " (800 mm) | 5/8 " (16 mm) | 25/32" (20 mm) | 13/16" (21 mm) | 25/32" (20 mm) | 2 1/8 " (54 mm) | 60 " (1,524 mm) | 1 3/8 " (35 mm) | 41 lb (19 kg) | 5/8 (0.06) | 70 |
| **A-S4006L** | 10,500 lb (4,763 kg) | 41 5/8 " (1,057 mm) | 31 1/2 " (800 mm) | 15/16" (24 mm) | 1 1/16" (27 mm) | 1 3/16" (30 mm) | 1 5/32" (29 mm) | 2 1/4 " (57 mm) | 60 " (1,524 mm) | 1 3/4 " (44 mm) | 45 lb (20 kg) | 3/4 (0.07) | 70 |
| **A-S5008L** | 18,000 lb (8,165 kg) | 56 1/4 " (1,429 mm) | 43 1/2 " (1,105 mm) | 1 1/4 " (32 mm) | 1 3/8 " (35 mm) | 1 7/16" (37 mm) | 1 13/32" (36 mm) | 3 " (76 mm) | 96 " (2,438 mm) | 1 3/4 " (44 mm) | 110 lb (50 kg) | 2 1/4 (0.21) | 100 |
| **A-S6013L** | 28,000 lb (12,701 kg) | 57 3/4 " (1,467 mm) | 43 1/2 " (1,105 mm) | 1 1/2 " (38 mm) | 1 5/8 " (41 mm) | 1 11/16" (2 mm) | 1 21/32" (42 mm) | 3 1/2 " (89 mm) | 96 " (2,438 mm) | 2 3/8 " (60 mm) | 125 lb (57 kg) | 2 1/2 (0.23) | 100 |
| **A-S6018L** | 40,000 lb (18,144 kg) | 60 3/8 " (1,534 mm) | 43 1/2 " (1,105 mm) | 1 7/8 " (48 mm) | 2 " (51 mm) | 2 1/16" (52 mm) | 2 1/32" (52 mm) | 4 " (102 mm) | 96 " (2,438 mm) | 3 5/8 " (92 mm) | 140 lb (64 kg) | 2 5/8 (0.24) | 100 |
| **A-S8027L** | 60,000 lb (27,216 kg) | 61 " (1,549 mm) | 43 1/2 " (1,105 mm) | 2 1/4 " (57 mm) | 2 3/8 " (60 mm) | 2 9/16" (65 mm) | 2 17/32" (64 mm) | 4 7/8 " (124 mm) | 96 " (2,438 mm) | 3 5/8 " (92 mm) | 210 lb (95 kg) | 3 1/4 (0.30) | 100 |
| **A-S8040L** | 90,000 lb (40,823 kg) | 63 3/8 " (1,610 mm) | 43 1/2 " (1,105 mm) | 2 1/2 " (64 mm) | 2 5/8 " (67 mm) | 2 13/16" (71 mm) | 2 25/32" (71 mm) | 5 1/2 " (140 mm) | 96 " (2,438 mm) | 4 1/4 " (108 mm) | 275 lb (125 kg) | 3 3/8 (0.31) | 100 |
| **A-S8056L** | 125,000 lb (56,699 kg) | 65 1/8 " (1,654 mm) | 43 1/2 " (1,105 mm) | 3 1/4 " (83 mm) | 3 3/8 " (86 mm) | 3 9/16" (90 mm) | 3 17/32" (90 mm) | 6 1/2 " (165 mm) | 96 " (2,438 mm) | 4 3/4 " (121 mm) | 610 lb (277 kg) | 4 1/4 (0.39) | 100 |
| **A-S0078L** | 175,000 lb (79,379 kg) | 66 3/8 " (1,686 mm) | 43 1/2 " (1,105 mm) | 3 3/4 " (95 mm) | 3 29/32" (99 mm) | 3 13/16" (97 mm) | 3 25/32" (96 mm) | 7 1/2 " (191 mm) | 96 " (2,438 mm) | 5 1/4 " (133 mm) | 685 lb (311 kg) | 4 3/4 (0.44) | 100 |
| **A-S0100L** | 225,000 lb (102,058 kg) | 71 5/8 " (1,819 mm) | 43 1/2 " (1,105 mm) | 4 1/4 " (108 mm) | 4 7/16" (113 mm) | 4 5/16" (110 mm) | 4 9/32" (109 mm) | 8 1/8 " (206 mm) | 96 " (2,438 mm) | 5 3/4 " (146 mm) | 1,040 lb (472 kg) | 5 7/8 (0.55) | 100 |
| **A-S0123L** | 275,000 lb (124,738 kg) | 72 3/4 " (1,848 mm) | 43 1/2 " (1,105 mm) | 5 " (127 mm) | 5 3/16" (132 mm) | 4 13/16" (122 mm) | 4 25/32" (121 mm) | 9 " (229 mm) | 96 " (2,438 mm) | 6 1/4 " (159 mm) | 1,130 lb (513 kg) | 7 1/8 (0.66) | 100 |

**(1):** Ultimate tensile strength is a minimum of 3 times the 'safe working load'.

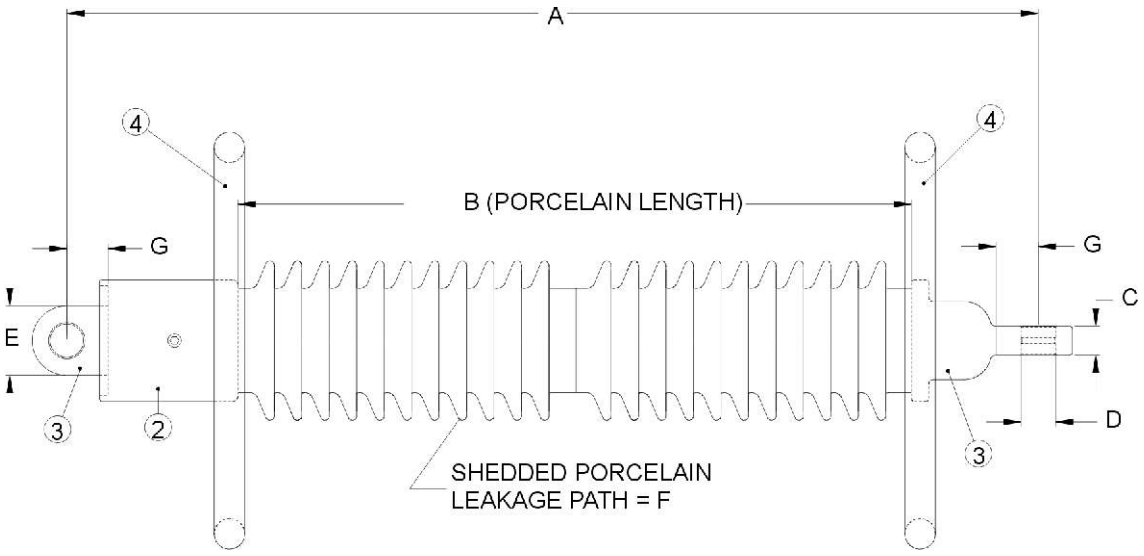
**(2):** Bell housing is cast aluminium.

**(3):** End fittings are cast steel, hot-dip galvanized and are identical at both ends. Type A-S2001 is supplied with a clevis at each end. Dimension 'C' is the gap between the ears. (Minimum gap is 9/16" [14 mm])

**(4):** Corona rings are aluminium. Stainless steel corona rings are available upon request. All ring dimensions are detailed on separate sheets.

**(5):** Voltage ratings were determined in a test room and at 100 kHz. Performance in the field can be severely degraded by local environmental conditions. Please consult with us prior to selection.

# MEDIUM SERIES




| Type | Safe Working Load (kg) (1) | A (mm) | B (mm) | C | | D dia. | | E (mm) | F (mm) | G (mm) | Net Weight (kg) | Wind Area (m2) | Nominal Voltage kV rms (5) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | nom. (mm) | max. (mm) | nom. (mm) | min. (mm) | | | | | | |
| **A-S2001M** | 3,400 lb (1,542 kg) | 26 " (660 mm) | 20 " (508 mm) | 11/16" (17 mm) | (3) | 5/8 " (16 mm) | N/A | 1 1/4 " (32 mm) | 38 " (965 mm) | 1 " (25 mm) | 13 lb (6 kg) | 3/8 (0.03) | 50 |
| **A-S3003M** | 6,000 lb (2,722 kg) | 30 " (762 mm) | 21 " (533 mm) | 5/8 " (16 mm) | 25/32" (20 mm) | 13/16" (21 mm) | 25/32" (20 mm) | 2 1/8 " (54 mm) | 40 " (1,016 mm) | 1 3/8 " (35 mm) | 30 lb (14 kg) | 1/2 (0.05) | 55 |
| **A-S4006M** | 10,500 lb (4,763 kg) | 31 1/8 " (791 mm) | 21 " (533 mm) | 15/16" (24 mm) | 1 1/16" (27 mm) | 1 3/16" (30 mm) | 1 5/32" (29 mm) | 2 1/4 " (57 mm) | 40 " (1,016 mm) | 1 3/4 " (44 mm) | 35 lb (16 kg) | 5/8 (0.06) | 55 |
| **A-S5008M** | 18,000 lb (8,165 kg) | 41 3/4 " (1,060 mm) | 29 " (737 mm) | 1 1/4 " (32 mm) | 1 3/8 " (35 mm) | 1 7/16" (37 mm) | 1 13/32" (36 mm) | 3 " (76 mm) | 64 " (1,626 mm) | 1 3/4 " (44 mm) | 80 lb (36 kg) | 1 3/4 (0.16) | 75 |
| **A-S6013M** | 28,000 lb (12,701 kg) | 43 1/4 " (1,099 mm) | 29 " (737 mm) | 1 1/2 " (38 mm) | 1 5/8 " (41 mm) | 1 11/16" (2 mm) | 1 21/32" (42 mm) | 3 1/2 " (89 mm) | 64 " (1,626 mm) | 2 3/8 " (60 mm) | 100 lb (45 kg) | 2 (0.19) | 75 |
| **A-S6018M** | 40,000 lb (18,144 kg) | 45 7/8 " (1,165 mm) | 29 " (737 mm) | 1 7/8 " (48 mm) | 2 " (51 mm) | 2 1/16" (52 mm) | 2 1/32" (52 mm) | 4 " (102 mm) | 64 " (1,626 mm) | 3 5/8 " (92 mm) | 115 lb (52 kg) | 2 1/8 (0.20) | 75 |
| **A-S8027M** | 60,000 lb (27,216 kg) | 46 1/2 " (1,181 mm) | 29 " (737 mm) | 2 1/4 " (57 mm) | 2 3/8 " (60 mm) | 2 9/16" (65 mm) | 2 17/32" (64 mm) | 4 7/8 " (124 mm) | 64 " (1,626 mm) | 3 5/8 " (92 mm) | 170 lb (77 kg) | 2 1/2 (0.23) | 75 |
| **A-S8040M** | 90,000 lb (40,823 kg) | 48 7/8 " (1,241 mm) | 29 " (737 mm) | 2 1/2 " (64 mm) | 2 5/8 " (67 mm) | 2 13/16" (71 mm) | 2 25/32" (71 mm) | 5 1/2 " (140 mm) | 64 " (1,626 mm) | 4 1/4 " (108 mm) | 230 lb (104 kg) | 2 5/8 (0.24) | 75 |
| **A-S8056M** | 125,000 lb (56,699 kg) | 50 5/8 " (1,286 mm) | 29 " (737 mm) | 3 1/4 " (83 mm) | 3 3/8 " (86 mm) | 3 9/16" (90 mm) | 3 17/32" (90 mm) | 6 1/2 " (165 mm) | 64 " (1,626 mm) | 4 3/4 " (121 mm) | 500 lb (227 kg) | 3 3/8 (0.31) | 75 |
| **A-S0078M** | 175,000 lb (79,379 kg) | 51 7/8 " (1,318 mm) | 29 " (737 mm) | 3 3/4 " (95 mm) | 3 29/32" (99 mm) | 3 13/16" (97 mm) | 3 25/32" (96 mm) | 7 1/2 " (191 mm) | 64 " (1,626 mm) | 5 1/4 " (133 mm) | 570 lb (259 kg) | 3 7/8 (0.36) | 75 |
| **A-S0100M** | 225,000 lb (102,058 kg) | 57 1/8 " (1,451 mm) | 29 " (737 mm) | 4 1/4 " (108 mm) | 4 7/16" (113 mm) | 4 5/16" (110 mm) | 4 9/32" (109 mm) | 8 1/8 " (206 mm) | 64 " (1,626 mm) | 5 3/4 " (146 mm) | 890 lb (404 kg) | 4 3/4 (0.44) | 75 |
| **A-S0123M** | 275,000 lb (124,738 kg) | 58 1/4 " (1,480 mm) | 29 " (737 mm) | 5 " (127 mm) | 5 3/16" (132 mm) | 4 13/16" (122 mm) | 4 25/32" (121 mm) | 9 " (229 mm) | 64 " (1,626 mm) | 6 1/4 " (159 mm) | 990 lb (449 kg) | 5 7/8 (0.55) | 75 |

**(1):** Ultimate tensile strength is a minimum of 3 times the 'safe working load'.

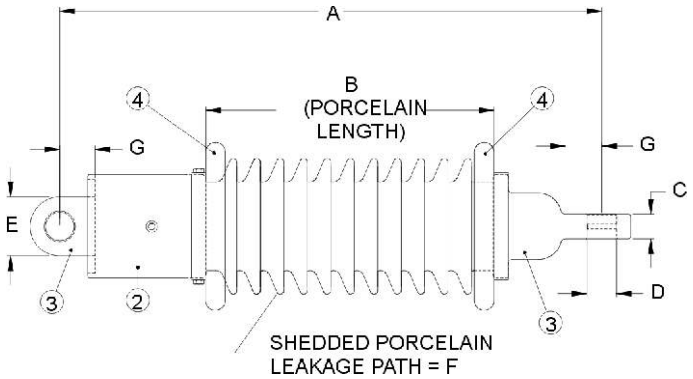
**(2):** Bell housing is cast aluminium.

**(3):** End fittings are cast steel, hot-dip galvanized and are identical at both ends. Type A-S2001 is supplied with a clevis at each end. Dimension 'C' is the gap between the ears. (Minimum gap is 9/16" [14 mm])

**(4):** Corona rings are aluminium. Stainless steel corona rings are available upon request. All ring dimensions are detailed on separate sheets.

**(5):** Voltage ratings were determined in a test room and at 100 kHz. Performance in the field can be severely degraded by local environmental conditions. Please consult with us prior to selection.

# SHORT SERIES




| Type | Safe Working Load (kg) (1) | A (mm) | B (mm) | C nom. (mm) | C max. (mm) | D dia. nom. (mm) | D dia. min. (mm) | E (mm) | F (mm) | G (mm) | Net Weight (kg) | Wind Area (m2) | Nominal Voltage kV rms (5) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A-S2001S** | 3,400 lb (1,542 kg) | 16 " (406 mm) | 10 " (254 mm) | 11/16" (17 mm) | (3) | 5/8 " (16 mm) | N/A | 1 1/4 " (32 mm) | 19 " (483 mm) | 1 " (25 mm) | 8 lb (4 kg) | 1/4 (0.02) | 35 |
| **A-S3003S** | 6,000 lb (2,722 kg) | 19 1/2 " (21 mm) | 10 1/2 " (267 mm) | 5/8 " (16 mm) | 25/32" (20 mm) | 13/16" (21 mm) | 25/32" (20 mm) | 2 1/8 " (54 mm) | 20 " (508 mm) | 1 3/8 " (35 mm) | 19 lb (9 kg) | 3/8 (0.03) | 40 |
| **A-S4006S** | 10,500 lb (4,763 kg) | 20 5/8 " (524 mm) | 10 1/2 " (267 mm) | 15/16" (24 mm) | 1 1/16" (27 mm) | 1 3/16" (30 mm) | 1 5/32" (29 mm) | 2 1/4 " (57 mm) | 20 " (508 mm) | 1 3/4 " (44 mm) | 25 lb (11 kg) | 3/8 (0.03) | 40 |
| **A-S5008S** | 18,000 lb (8,165 kg) | 27 1/4 " (692 mm) | 14 1/2 " (368 mm) | 1 1/4 " (32 mm) | 1 3/8 " (35 mm) | 1 7/16" (37 mm) | 1 13/32" (36 mm) | 3 " (76 mm) | 32 " (813 mm) | 1 3/4 " (44 mm) | 55 lb (25 kg) | 7/8 (0.08) | 50 |
| **A-S6013S** | 28,000 lb (12,701 kg) | 28 3/4 " (730 mm) | 14 1/2 " (368 mm) | 1 1/2 " (38 mm) | 1 5/8 " (41 mm) | 1 11/16" (2 mm) | 1 21/32" (42 mm) | 3 1/2 " (89 mm) | 32 " (813 mm) | 2 3/8 " (60 mm) | 72 lb (33 kg) | 1 1/8 (0.10) | 50 |
| **A-S6018S** | 40,000 lb (18,144 kg) | 31 3/8 " (797 mm) | 14 1/2 " (368 mm) | 1 7/8 " (48 mm) | 2 " (51 mm) | 2 1/16" (52 mm) | 2 1/32" (52 mm) | 4 " (102 mm) | 32 " (813 mm) | 3 5/8 " (92 mm) | 88 lb (40 kg) | 1 1/4 (0.12) | 50 |
| **A-S8027S** | 60,000 lb (27,216 kg) | 32 " (813 mm) | 14 1/2 " (368 mm) | 2 1/4 " (57 mm) | 2 3/8 " (60 mm) | 2 9/16" (65 mm) | 2 17/32" (64 mm) | 4 7/8 " (124 mm) | 32 " (813 mm) | 3 5/8 " (92 mm) | 130 lb (59 kg) | 1 1/2 (0.14) | 50 |
| **A-S8040S** | 90,000 lb (40,823 kg) | 34 3/8 " (873 mm) | 14 1/2 " (368 mm) | 2 1/2 " (64 mm) | 2 5/8 " (67 mm) | 2 13/16" (71 mm) | 2 25/32" (71 mm) | 5 1/2 " (140 mm) | 32 " (813 mm) | 4 1/4 " (108 mm) | 190 lb (86 kg) | 1 5/8 (0.15) | 50 |
| **A-S8056S** | 125,000 lb (56,699 kg) | 36 1/8 " (918 mm) | 14 1/2 " (368 mm) | 3 1/4 " (83 mm) | 3 3/8 " (86 mm) | 3 9/16" (90 mm) | 3 17/32" (90 mm) | 6 1/2 " (165 mm) | 32 " (813 mm) | 4 3/4 " (121 mm) | 385 lb (175 kg) | 2 1/4 (0.21) | 50 |
| **A-S0078S** | 175,000 lb (79,379 kg) | 37 3/8 " (949 mm) | 14 1/2 " (368 mm) | 3 3/4 " (95 mm) | 3 29/32" (99 mm) | 3 13/16" (97 mm) | 3 25/32" (96 mm) | 7 1/2 " (191 mm) | 32 " (813 mm) | 5 1/4 " (133 mm) | 460 lb (209 kg) | 2 3/4 (0.26) | 50 |
| **A-S0100S** | 225,000 lb (102,058 kg) | 42 5/8 " (1,083 mm) | 14 1/2 " (368 mm) | 4 1/4 " (108 mm) | 4 7/16" (113 mm) | 4 5/16" (110 mm) | 4 9/32" (109 mm) | 8 1/8 " (206 mm) | 32 " (813 mm) | 5 3/4 " (146 mm) | 750 lb (340 kg) | 3 1/8 (0.29) | 50 |
| **A-S0123S** | 275,000 lb (124,738 kg) | 43 3/4 " (1,111 mm) | 14 1/2 " (368 mm) | 5 " (127 mm) | 5 3/16" (132 mm) | 4 13/16" (122 mm) | 4 25/32" (121 mm) | 9 " (229 mm) | 32 " (813 mm) | 6 1/4 " (159 mm) | 850 lb (386 kg) | 3 5/8 (0.34) | 50 |

**(1):** Ultimate tensile strength is a minimum of 3 times the 'safe working load'.

**(2):** Bell housing is cast aluminium.

**(3):** End fittings are cast steel, hot-dip galvanized and are identical at both ends. Type A-S2001 is supplied with a clevis at each end. Dimension 'C' is the gap between the ears. (Minimum gap is 9/16" [14 mm])

**(4):** Corona rings are aluminium. Stainless steel corona rings are available upon request. All ring dimensions are detailed on separate sheets.

**(5):** Voltage ratings were determined in a test room and at 100 kHz. Performance in the field can be severely degraded by local environmental conditions. Please consult with us prior to selection.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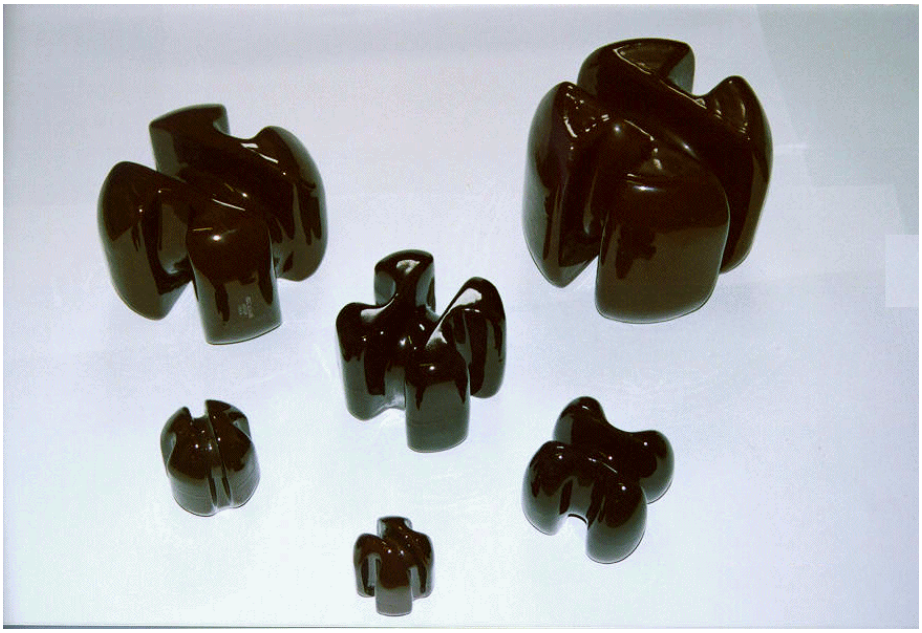
# Austin Insulators Inc.

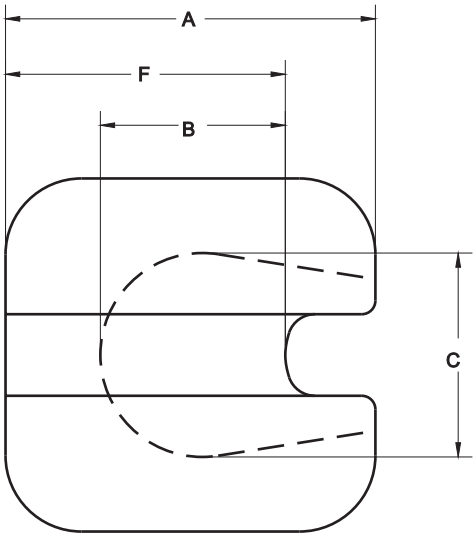
# Guy Strain Insulators

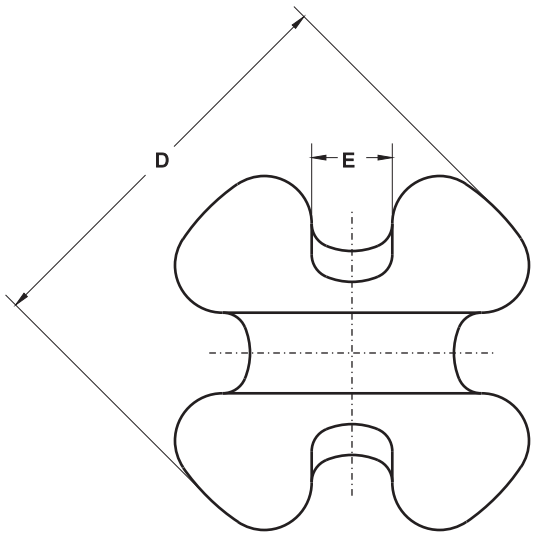
## Open End Type



- For noncritical applications such as breaking up guy wires to minimize re-radiation effects.
- Egg Insulators (Johnny Balls) are not recommended for primary guy insulation in positions next to the radiator where the full voltage is applied.
- Manufactured of high quality wet process electrical grade porcelain. Standard finish is vitreous glaze (brown).

| | AOA 20 | AOA 35 | AOA 50 | AOA 65 | AOA 85 | AOA 120 |
|---|---|---|---|---|---|---|
| Recommended Maximum Working Load | 6,500 lb. (2,948 kg) | 11,500 lb. (5,216 kg) | 16,500 lb. (7,484 kg) | 21,500 lb. (9,752 kg) | 28,000 lb. (12,701 kg) | 40,000 lb. (18,144 kg) |
| Maximum Cable Size | 3/8 (9.5 mm) | 5/8 (15.9 mm) | 3/4 (19.1 mm) | 7/8 (22.2 mm) | 1 (25.4 mm) | 1 1/8 (28.6 mm) |




## ELECTRICAL CHARACTERISTICS

| | AOA 20 | AOA 35 | AOA 50 | AOA 65 | AOA 85 | AOA 120 |
|---|---|---|---|---|---|---|
| 60 Hz Dry Flashover Voltage [kV] | 13 | 20 | 21 | 22 | 29 | 30 |
| 60 Hz Wet Flashover Voltage [kV] | 8 | 9 | 11 | 13 | 15 | 19 |
| Recommended Max. RF Working Voltage [kV rms] | 1 | 2 | 2.5 | 3 | 4 | 5.5 |

Note: The 60 Hertz flashover voltages given above are provided for comparison purposes only and cannot be used to determine permissible RF operating voltages, which are very dependent on the type of connection between the guy line and the 'Egg Insulator' or 'Johnny Ball' and local static and environmental conditions. Please consult with us when antenna systems of 50 kW and greater are involved or whenever doubts exist regarding the suitability of the insulators for the intended application.

If insulators are assembled in strings (groups) to increase the overall voltage, it should noted that the total applied voltage is seldom evenly distributed along the string.

## DIMENSIONS

| | AOA 20 | AOA 35 | AOA 50 | AOA 65 | AOA 85 | AOA 120 |
|---|---|---|---|---|---|---|
| **A** | 3 5/16" (84.1 mm) | 4 5/16" (109.5 mm) | 4 7/8 " (123.8 mm) | 5 1/2 " (139.7 mm) | 6 1/8 " (155.6 mm) | 6 7/8 " (174.6 mm) |
| **B** | 1 13/16" (46.0 mm) | 2 1/8 " (54.0 mm) | 2 7/16" (61.9 mm) | 2 11/16" (68.3 mm) | 3 " (76.2 mm) | 3 3/8 " (85.7 mm) |
| **C** | 1 3/4 " (44.5 mm) | 2 7/16" (61.9 mm) | 2 11/16" (68.3 mm) | 3 " (76.2 mm) | 4 3/16" (106.4 mm) | 4 9/16" (115.9 mm) |
| **D** | 3 9/16" (90.5 mm) | 4 11/16" (119.1 mm) | 5 3/8 " (136.5 mm) | 6 7/16" (163.5 mm) | 7 1/2 " (190.5 mm) | 8 1/2 " (215.9 mm) |
| **E** | 9/16" (14.3 mm) | 7/8 " (22.2 mm) | 1 1/16" (27.0 mm) | 1 1/4 " (31.8 mm) | 1 1/2 " (38.1 mm) | 1 5/8 " (41.3 mm) |
| **F** | 2 9/16" (65.1 mm) | 3 1/4 " (82.6 mm) | 3 11/16" (93.7 mm) | 4 1/8 " (104.8 mm) | 4 9/16" (115.9 mm) | 5 1/8 " (130.2 mm) |
| **Net wgt. per 100pcs** | 173 lb. (78 kg) | 337 lb. (153 kg) | 500 lb. (227 kg) | 805 lb. (365 kg) | 1,210 lb. (549 kg) | 1,890 lb. (857 kg) |

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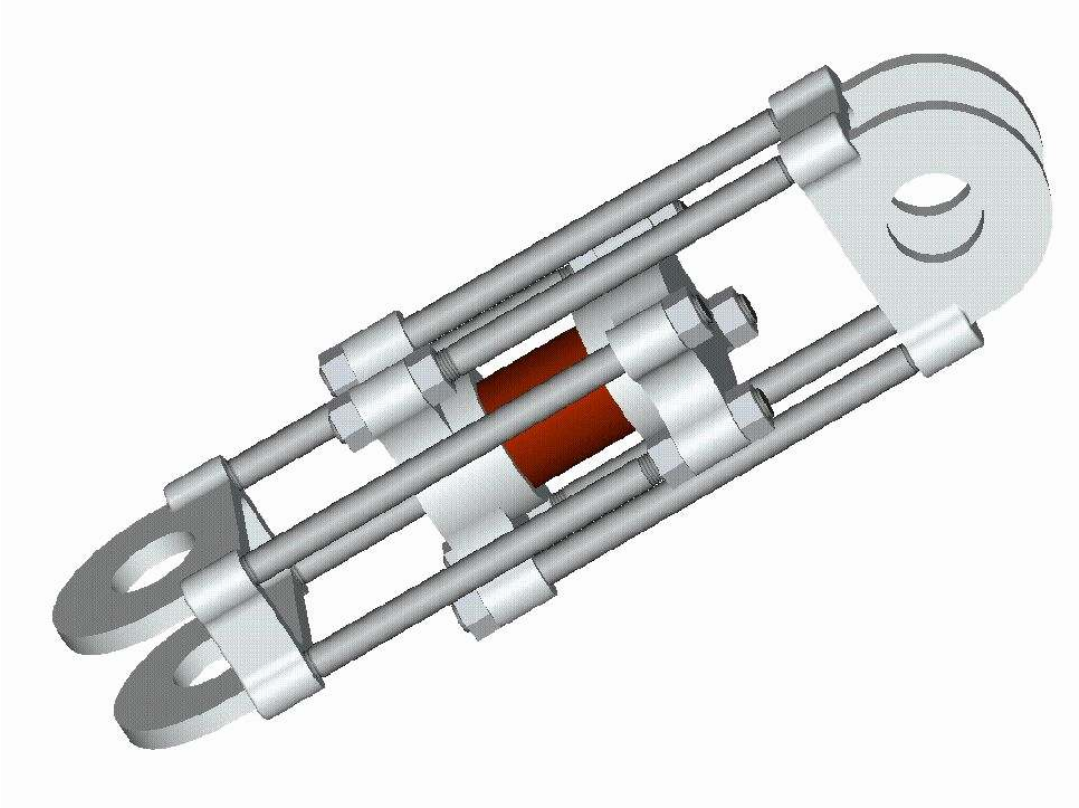
**DEALER:**

# Austin Insulators Inc.

## Guy Insulators
## Fail-Safe Breakup Series



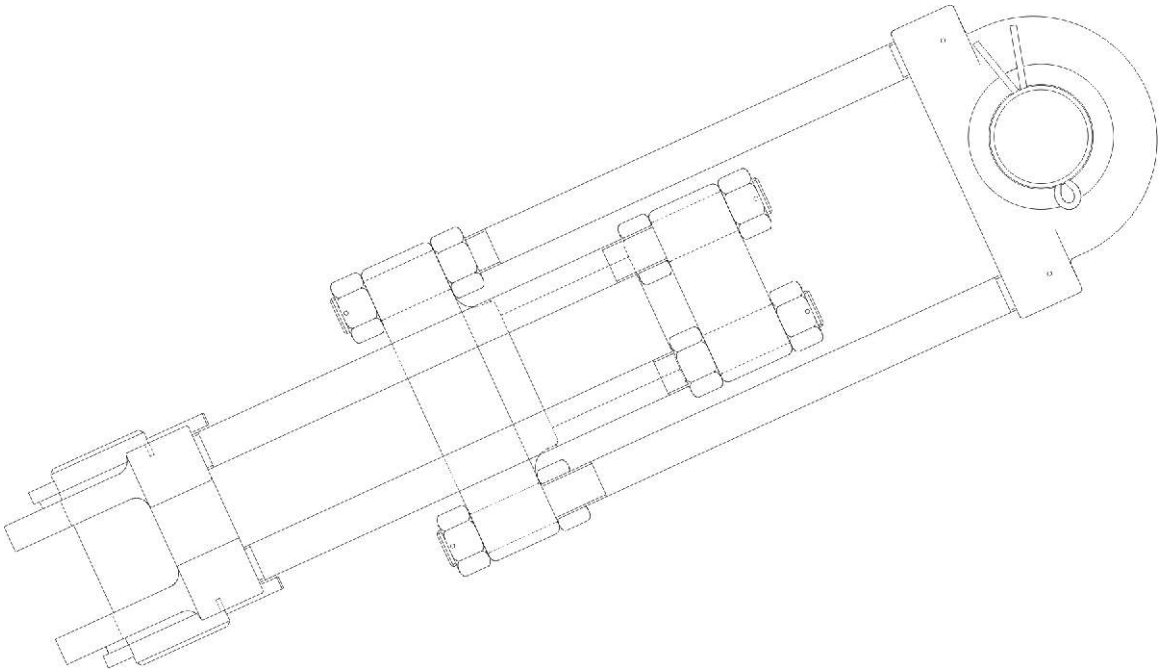
### Fail-Safe Breakup Series

Austin's "Break-Up" guy insulators are designed for applications where the mechanical working loads exceed the capability of an egg, or similar low voltage "Fail-Safe" insulator.

This series of guy insulator use electrical grade porcelain for VLF, LF, and MF.

Standard units are supplied with smooth porcelain. Shedded porcelain can be provided for special applications where maximum surface leakage path is required.

Not recommended for primary insulation at the mast or tower - use Austin's Safety Core oil-filled series of insulators.



| Type | C-018 [1] | C-027 | C-040 | C-056 | C-078 | C-100 | C-123 |
|---|---|---|---|---|---|---|---|
| Max. Working Load [2] | 40,000 lb. (18,144 kg) | 60,000 lb. (27,216 kg) | 90,000 lb. (40,823 kg) | 125,000 lb. (56,699 kg) | 175,000 lb. (79,379 kg) | 225,000 lb. (102,058 kg) | 275,000 lb. (124,738 kg) |
| Pin-to-Pin Length | 27 1/2" (699 mm) | 27 " (686 mm) | 29 " (737 mm) | 32 " (813 mm) | 36 1/2" (927 mm) | 39 1/2" (1,003 mm) | 43 " (1,092 mm) |
| Pin Diameter | 1 5/8" (41 mm) / 2 " (51 mm) | 2 1/4" (57 mm) / 2 1/2" (64 mm) | 2 3/4" (70 mm) / 3 " (76 mm) | 3 1/2" (89 mm) | 3 3/4" (95 mm) / 4 " (102 mm) | 4 1/4" (108 mm) / 4 1/2" (114 mm) | 4 3/4" (121 mm) / 5 " (127 mm) |
| Clearance Between Clevis Faces ±3/32" (2.5 mm) | 1 3/4 " (44 mm) | 2 1/2 " (64 mm) | 2 13/16" (71 mm) | 3 5/8 " (92 mm) | 4 3/16" (106 mm) | 4 5/8 " (117 mm) | 5 1/8 " (130 mm) |
| Wind Load Area | 3/4 sq.ft. (0.07 m²) | 1 sq.ft. (0.09 m²) | 1 1/4 sq.ft. (0.12 m²) | 1 3/4 sq.ft. (0.16 m²) | 2 1/2 sq.ft. (0.23 m²) | 2 3/4 sq.ft. (0.26 m²) | 3 1/8 sq.ft. (0.29 m²) |
| Weight | 65 lb. (29 kg) | 95 lb. (43 kg) | 152 lb. (69 kg) | 218 lb. (99 kg) | 370 lb. (168 kg) | 525 lb. (238 kg) | 610 lb. (277 kg) |

**(1):** C-018 has an eye at each end that mates to an open spelter socket. All other types mate to closed spelter sockets.

**(2):** Bridge strand sizes are for reference only. Do not exceed maximum working load of insulator. Consult plant for more information.

**(3):** Ultimate strength is 3 times the maximum working load.

**(4):** Consult plant for recommended spelter socket, or regarding additional size information.

**(5):** 60 Hz Wet Flashover Voltage: 25 kV rms Recommended Maximum RF Working Voltage: 12 kV rms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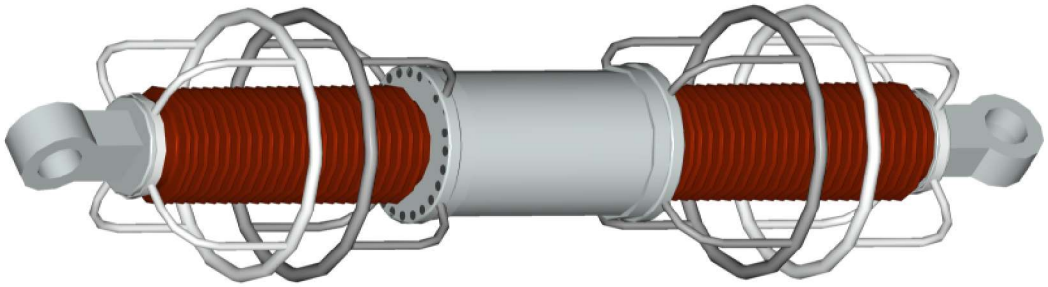
# Austin Insulators Inc.

## Guy Insulators
## High Voltage Fail-Safe Series



| Insulator Type | Maximum Recommended Working Load |
|---|---|
| **CH-006/S** | 10,500 lb (4,763 kg) |
| **CH-008/S** | 18,000 lb (8,165 kg) |
| **CH-013/S** | 28,000 lb (12,701 kg) |
| **CH-018/S** | 40,000 lb (18,144 kg) |
| **CH-027/S** | 60,000 lb (27,216 kg) |

| Insulator Type | Maximum Recommended orking Load |
|---|---|
| **CH-040/S** | 90,000 lb (40,823 kg) |
| **CH-056/S** | 125,000 lb (56,699 kg) |
| **CH-078/S** | 175,000 lb (79,379 kg) |
| **CH-100/S** | 225,000 lb (102,058 kg) |
| **CH-123/S** | 275,000 lb (124,738 kg) |

Two electrical sizes are available with recommended maximum RF wet working voltages of 75 and 40 kV rms, respectively.

Maximum recommended working loads are based on a minimum factor of safety of 3:1.

Insulator type is applicable where high voltage fail safe design is specified.

Failure of the inner ceramic load bearing element allows the engagement of the internal metal fittings and maintains the mechanical integrity of the guy line.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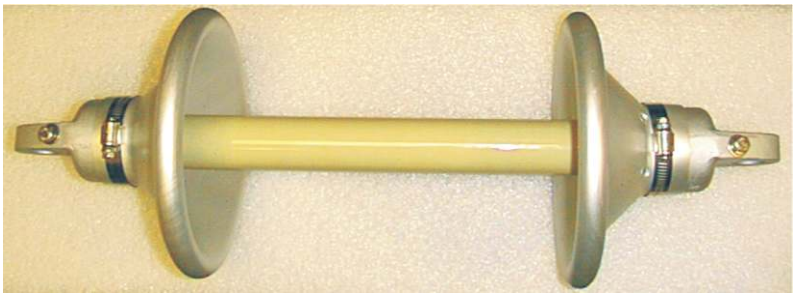
# Austin Insulators Inc.

## Ceramic Rod Insulators

**TYPE: AOA1-A**



**TYPE: AOA1-C**

Porcelain for VLF, LF, and Medium Frequency.

Alumina or Steatite for High Frequency.

Recommended maximum working load is 4,000 lbs. (1,814 kg).

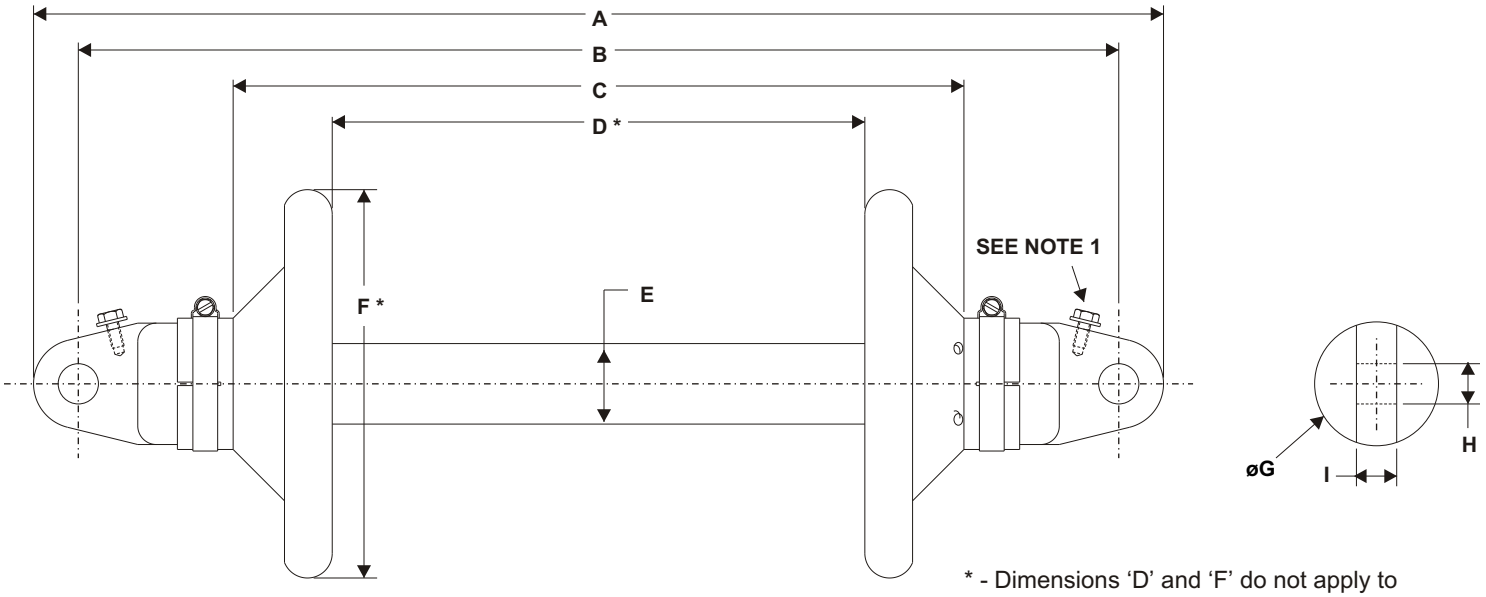
Aluminium end fittings, rainshield and voltage controls.

Not intended for use in structural load applications.

Each insulator is proof tested at 5,000 lbs. (2,267 kg).

Ultimate strength is 9,000 lbs. (4,082 kg).

## DIMENSIONS




* - Dimensions 'D' and 'F' do not apply to ceramic rod insulator type AOA1-A.

Note 1: ¼" bonding screws, washer and lock washers are supplied.

Weight: 5 ½ lbs. (2.5 kg)

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| **AOA1-C** | 22 1/2 " (571.5 mm) | 21 " (533.4 mm) | 14 9/16" (369.9 mm) | 10 3/4 " (273.1 mm) | 1 1/2 " dia. (38.1 mm) | 6 1/2 " dia. (165.1 mm) | 2 1/2 " dia. (63.5 mm) | 13/16" dia. (20.6 mm) | 13/16" max. (20.6 mm) |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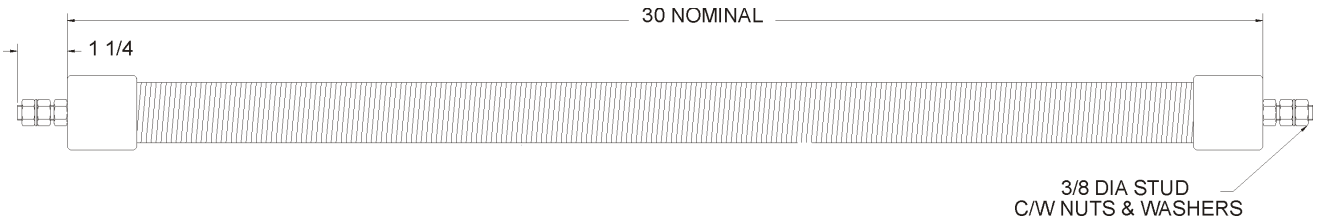
# Austin Insulators Inc.

# Static Drain Choke

## Type: SP-010 Hanger Bypass Type




**SP-010 Hanger Type Shown**

Austin Insulators static drain chokes are designed to eliminate flash-overs on low voltage egg type break up insulators due to a build up of static charge.

Large static potentials are developed across break up insulators during conditions of blowing snow, blowing dust, high dry winds and lightning discharges close to the antenna system. In the absence of static drain devices across the break-up insulators, the combination of peak RF voltage and the static charge can exceed the insulator breakdown voltage. Although highly dependent on antenna configuration and the local RF field, a power arc condition initiated by the static charge can be sustained by the transmitter. Such a condition rapidly heats the supporting guy wire loops causing failure of the guy wire and/or the insulator.

Although static drain devices offer a solution to potential power arc problems a better solution yet is the use of an oil filled safety core insulator instead of an egg insulator. This will eliminate the need for a static drain device due to the high stand-off voltage values of these insulators. Oil filled safety core insulators can be a cost effective solution in place of static drain devices for low tensile guy loads up to 10,000 lbs.

**Specifications:**

Impedence @ 1 Mhz: 19,000 ohms.

Weight: 7.5 lbs. (3.4 kg)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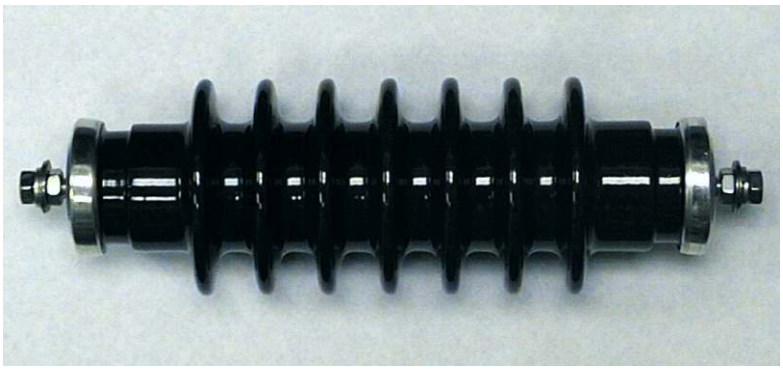
# Austin Insulators Inc.

# Static Drain Resistor

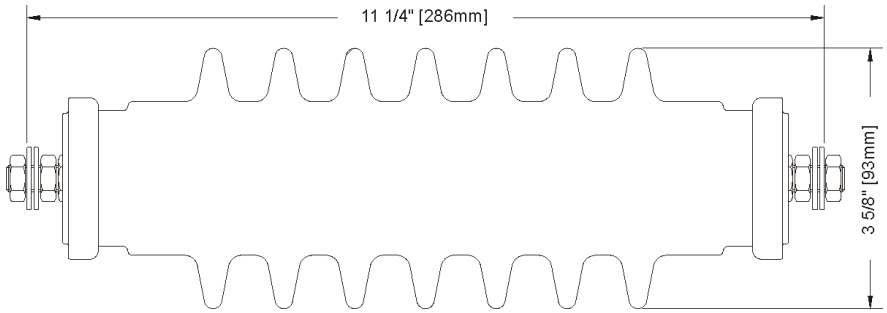
## Type: SP-003C



### SP-003C Static Drain Resistor

Austin Insulators Static Drain Resistors have been specifically designed to eliminate arc-overs on guy break-up insulators in circumstances where large static potentials are developed during blowing snow, blowing dust, and similar environmental conditions. Voltage breakdown of an insulator may result when the peak voltage, static charge plus RF, exceeds the insulator breakdown strength.

It is desirable to use a drain resistor, which imposes negligible RF loss in absence of a static charge; but which decreases resistance rapidly when a static charge significantly raises the voltage stress across the insulator. For example, if the break-up insulator is expected to have a peak RF operating voltage of 4 kV, the resistance offered to this peak voltage would then be in the order of 1.8 Mohms. The rapidly falling resistance versus voltage characteristic will ensure that no excessive static charge can build up across the insulator. It is assumed that the break-up insulator has a maximum voltage capability only a few kV above the peak RF operating voltage.

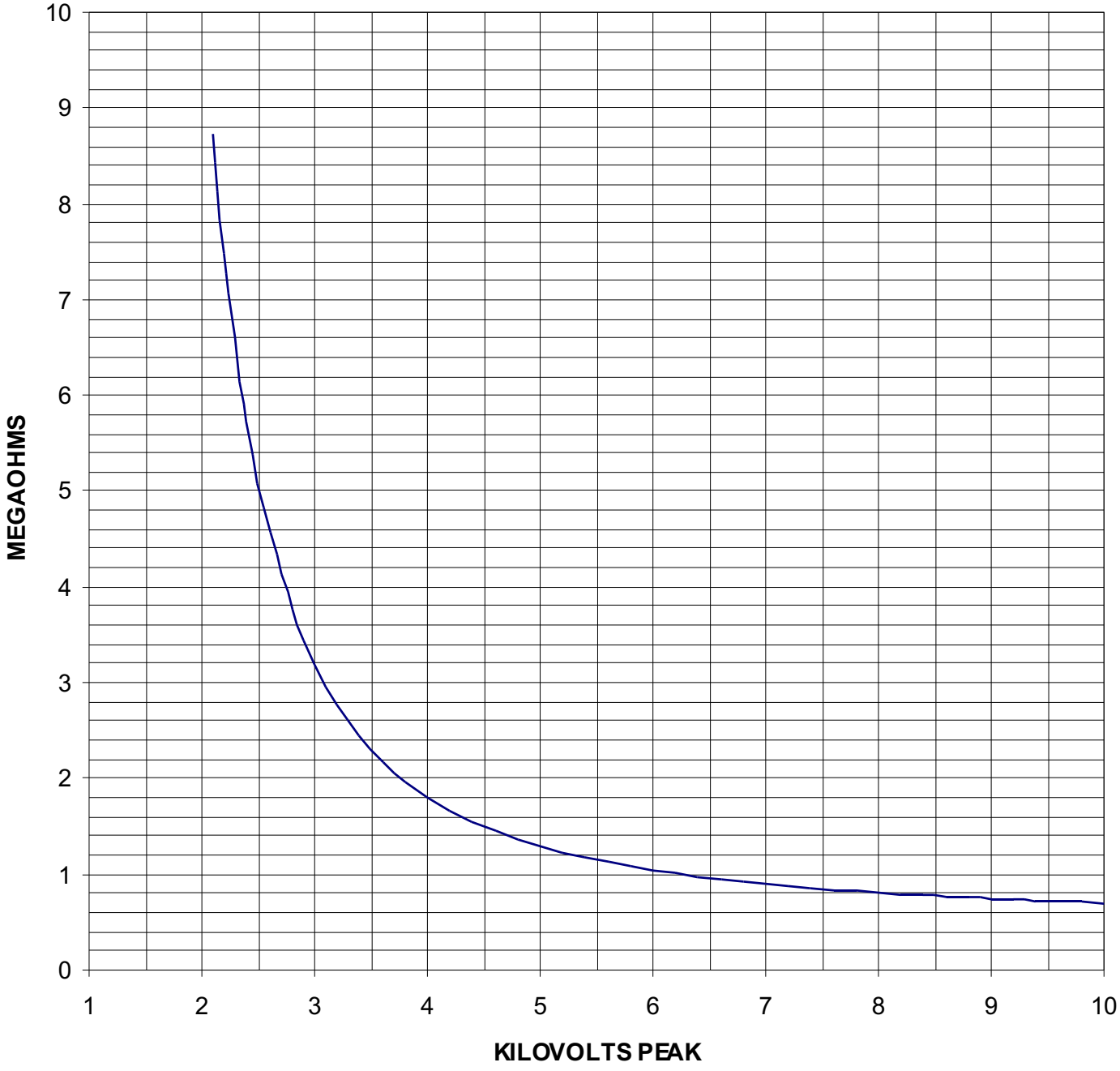



Mounting Hardware Brass, Nickel Plated 3/8" (9.5 mm) 16 tpi nuts and washers are supplied.

Finish: Brown Glaze

Weight: 4 ½ lb. (2 kg)

# AUSTIN STATIC DRAIN RESISTOR SP-003




**NOTE: POWER DISSIPATION AT VOLTAGES HIGHER THAN 8.1 KV PEAK MAY BE EXCESSIVE**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# Austin Insulators Inc.

## Oil-Filled Transformer

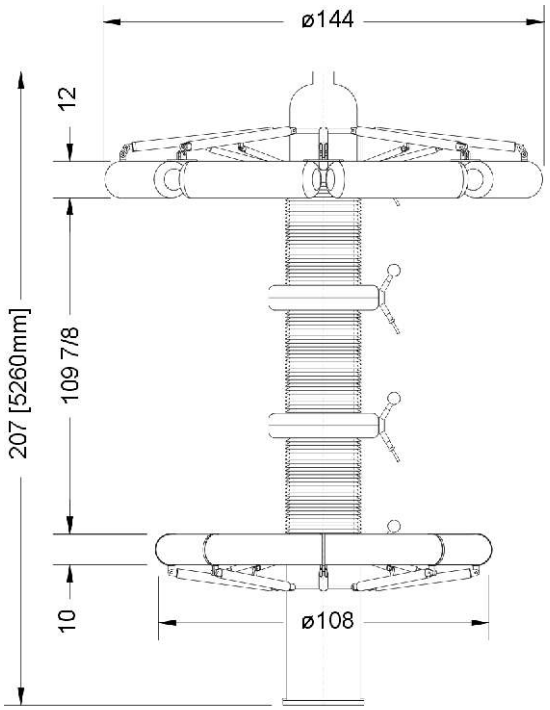
## A-9600 Series

**Oil-Filled Transformer (A-9600 Series)**

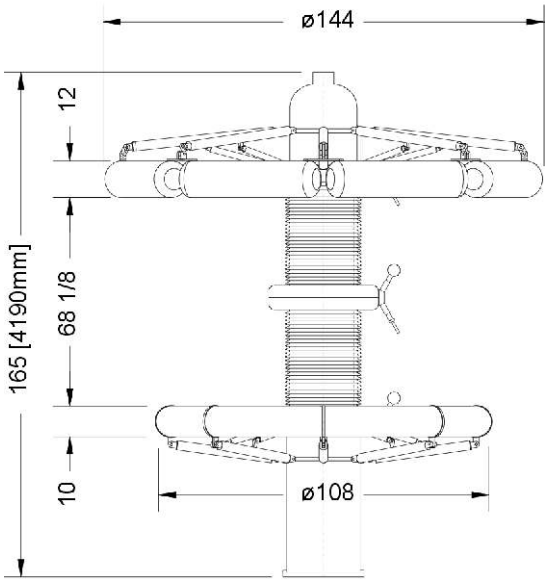
The A-9600 Oil-Filled Transformer is available in three basic configurations: Single, Double, or Triple Tier. Selection is based on the anticipated working RF voltage and the local environmental conditions.

Standard power rating for this series of transformers is 10.5 kVA. Other power ratings available upon request. Some models are equipped with electronic regulation systems. Various electrical grading configurations are also available.

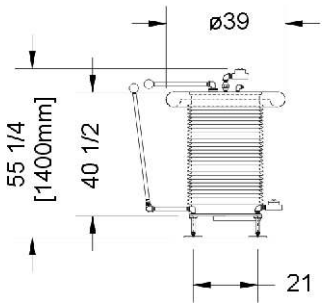
| Model | Power Rating | Max. RF Operating Voltage rms | Height | Base Mounting | Weight |
|---|---|---|---|---|---|
| **A-9600A** | 10.5 kVA | 125 | 55 1/4" (1,403 mm) | self supporting | 1,350 lb. (612 kg) |
| **A-9600B** | 10.5 kVA | 175 | 165 " (4,191 mm) | 4 holes - ø1 1/4 [32 mm] on a 22 [559 mm] x 22 [559 mm] square base plate | 4,400 lb. (1,996 kg) |
| **A-9600C** | 10.5 kVA | 250 | 207 " (5,258 mm) | 4 holes - ø1 1/4 [32 mm] on a 22 [559 mm] x 22 [559 mm] square base plate | 6,500 lb. (2,948 kg) |




**TYPICAL A-9600C CONFIGURATION**




**TYPICAL A-9600B CONFIGURATION**




**TYPICAL A-9600A CONFIGURATION**

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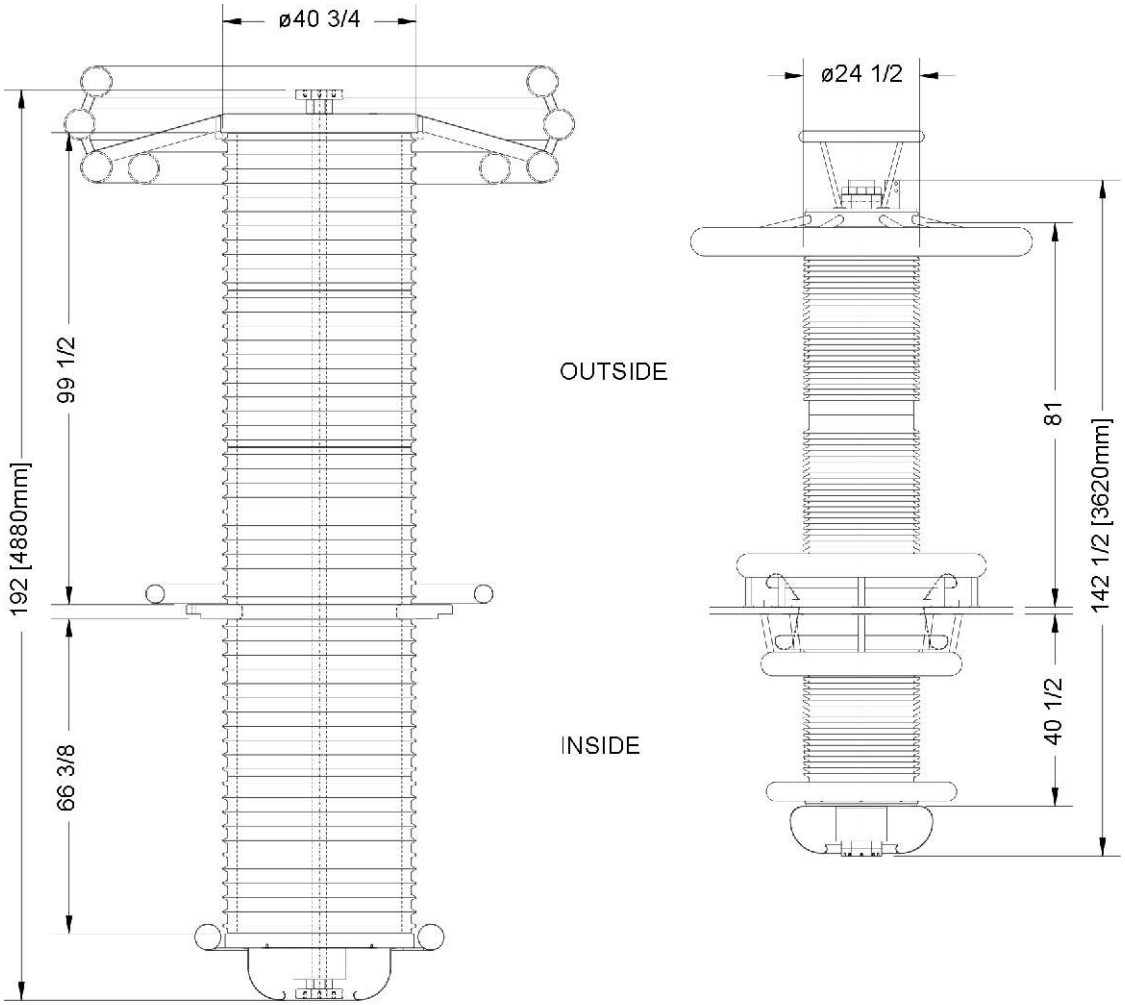
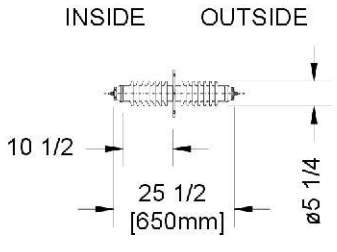
# Austin Insulators Inc.

## Feed-Through Busing Insulator

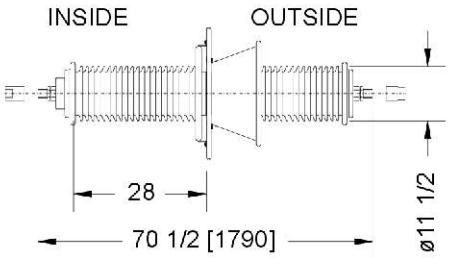
**Feed-Through Bushing Insulator**

RF Bushing Insulators are available in various sizes with operating RF voltages from 5 kV to 200 kV rms. Custom designs to replace existing bushings can be supplied. Gas, air, or oil filled options are available.




**TYPICAL 10 KV RMS FEED-THROUGH BUSHING**




**TYPICAL 50 KV RMS FEED-THROUGH BUSHING**

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