

Braced Post Insulator Assembly B2911093T12070AA

1) H2 91 10 082 AX SS 032	[1]
2) S1 40 80 078 MA AL 051	[1]
3) Socket/Y-Clevis (SYC-56)	[1]
4) Turnbuckle (G-227-NBC-3/4x6C)	[1]
5) Shackle (ASH-55-BC)	[1]

ASSEMBLY DIMENSIONAL VALUES

Post Section Length (PSL)	93.1 in	2,365 mm
Suspension Section Length (SSL)	89.9 in	2,283 mm
Height of Assembly (H)	70.0 in	1,778 mm
Length of Brace (B)	114.1 in	2,898 mm
Upper Pole Connection Offset (A)*	2.0 in	51 mm
Angle Between Insulators (C)		37 Degrees
Dry Arc Distance	78.1 in	1,984 mm
Leakage Distance	226.0 in	5,740 mm

*This connection bracket to be supplied by customer

ASSEMBLY ELECTRICAL VALUES*

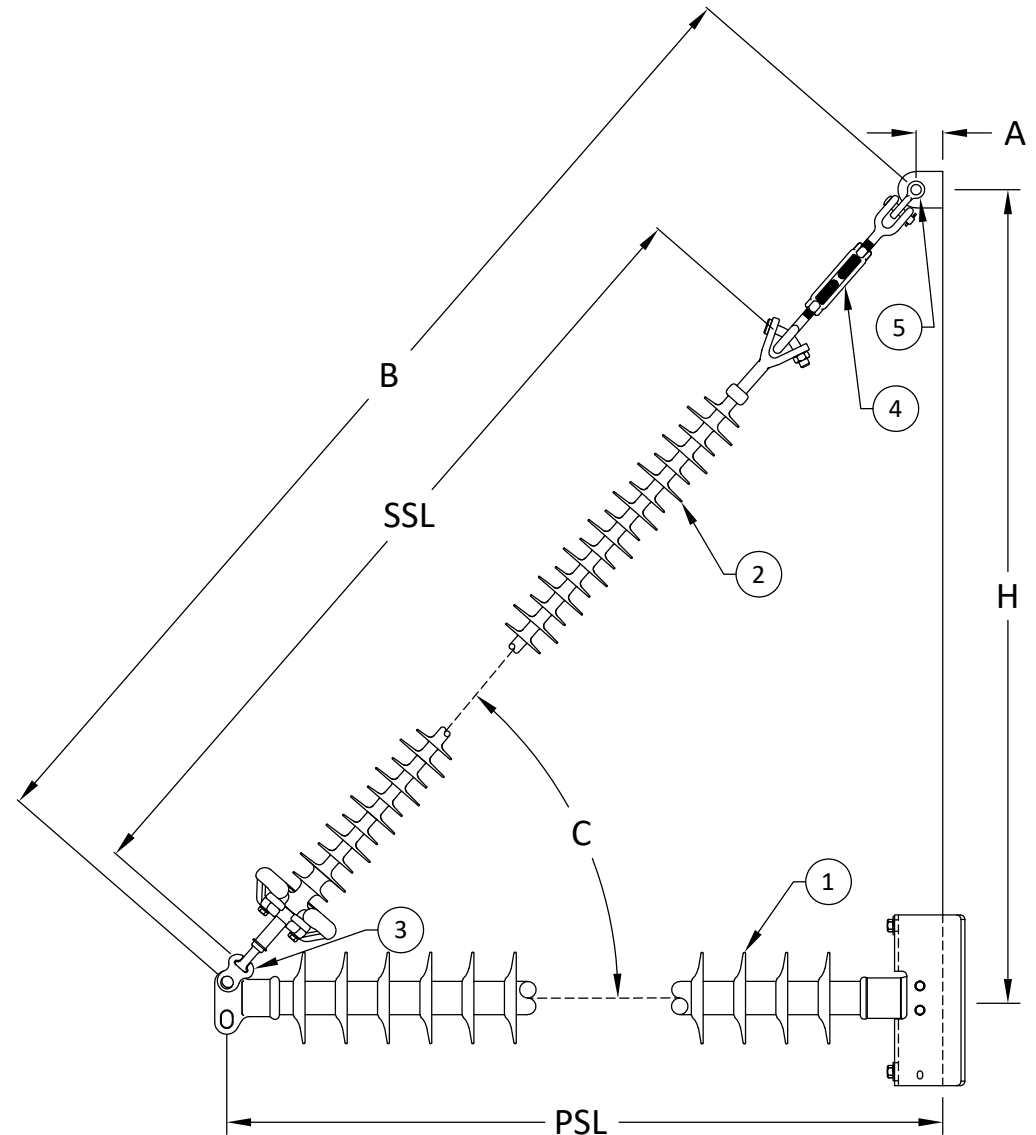
60 Hz Dry F.O. (Min. Withstand)	716 kV	(672) kV
60 Hz Wet F.O. (Min. Withstand)	651 kV	(527) kV
CIFO+ (Min. Withstand)	1,257 kV	(1,107) kV
CIFO- (Min. Withstand)	1,284 kV	(1,158) kV

*Values shown are based on minimum electricals for the assembly

ASSEMBLY MECHANICAL VALUES

Maximum Working Vertical Load	7,530 lbs	33.5 kN
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MPS Catalog Number:

H2 91 10 082 AX SS 032

Date:

05/03/2022

End Fittings

Tower End Fitting:

Gain / 0 deg / Steel

Line End Fitting:

Anchor / Ductile Iron
2 HL Drop Tongue / Galv. Ductile Iron

Material

Corona Ring (Tower):

None

Corona Ring (Line):

None

Corona Rings are recommended for applications of 230 kV and above

Mounting Angle:

0 deg

Number of Sheds:

32

Rod Diameter:

2.5 in

Weight Estimate:

96.1 lbs

44 kg

Dimensional Values

Section Length (L):

93.1 in 2,365 mm

Rubber Length (X):

82 in 2,083 mm

Shed spacing (S):

2.5 in 64 mm

Shed Projection (P):

2.4 in 61 mm

Dry Arc Distance:

84.9 in 2,156 mm

Leakage Distance:

226 in 5,740 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):

773 kV 726 kV

60 Hz Wet Flashover (Min. Withstand):

700 kV 569 kV

CIFO Positive (Min. Withstand):

1360 kV 1196 kV

CIFO Negative (Min. Withstand):

1382 kV 1250 kV

Mechanical Values

Max. Design Cant. Load (MDCL):

946 lbs 4.2 kN

Specified Cant. Load (SCL):

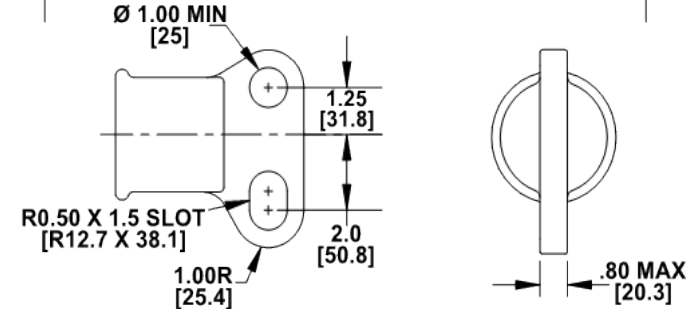
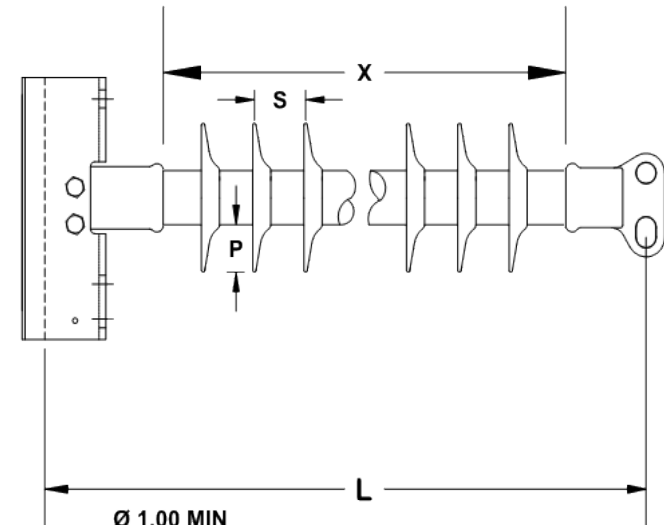
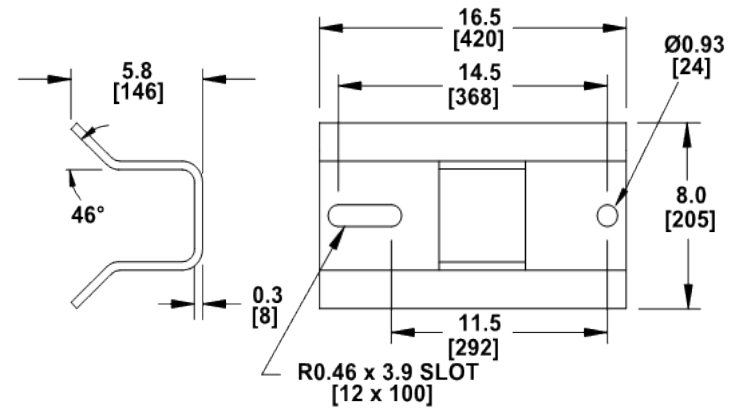
1,892 lbs 8.4 kN

Specified Tensile Load (STL):

15,000 lbs 66.7 kN

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Notes:



Dimension: inches [millimeters]

NOTE: Drawing not actual depiction of insulator appearance.

Silicone rubber sheath and sheds complies with applicable ANSI and IEC standards.

Prepared By: Stephen Lucci

MPS Catalog Number

S1 40 80 078 MA AL 051

Date: 04/11/2022

End Fittings

Tower End Fitting:

Y-Clevis / Forged Steel

Line End Fitting:

Ball / Forged Steel
/ (ANSI 52-5)

Material

Corona Ring (Line):

8" Corona Ring

Corona Rings are recommended for applications of 230 kV and above

Number of Sheds:

25 large 26 standard

Rod Diameter:

16 mm

Weight Estimate:

17.1 lbs 8 kg

Dimensional Values

Section Length (L):

89.9 in 2,283 mm

Rubber Length (X):

78 in 1,981 mm

Standard Shed Height (P1):

1.5 in 38 mm

Large Shed Height (P2):

2 in 51 mm

Projection Ration (S/P):

- 1.5

Shed Spacing (S):

3 in 76 mm

Dry Arc Distance:

78.1 in 1,984 mm

Leakage Distance:

231.6 in 5,883 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):

758 kV 686 kV

60 Hz Wet Flashover (Min. Withstand):

651 kV 567 kV

CIFO Positive (Min. Withstand):

1,264 kV 1,125 kV

CIFO Negative (Min. Withstand):

1,323 kV 1,183 kV

Mechanical Values

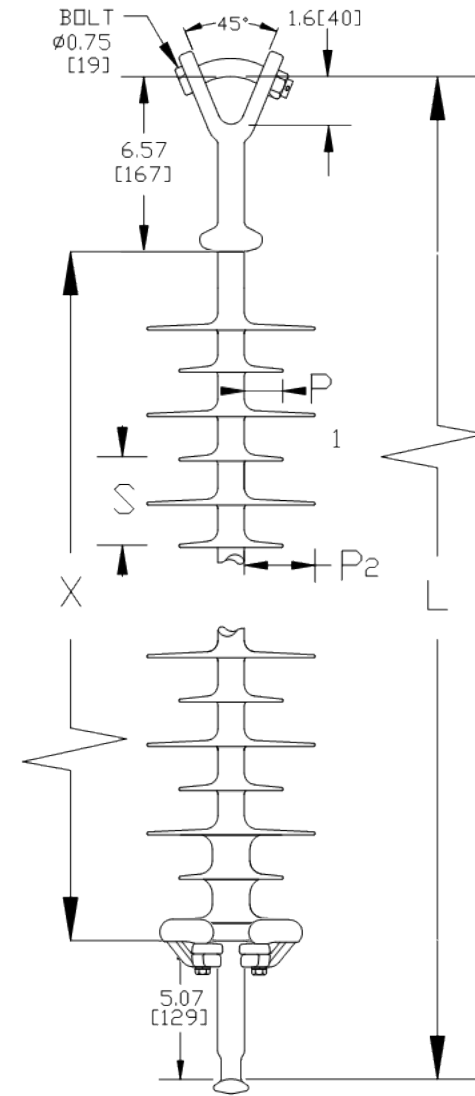
Specified Mech. Load (SML):

25,000 lbs 111.2 kN

Routine Test Load (RTL):

12,500 lbs 55.6 kN

Notes:



Dimension: inches [millimeters]

NOTE: Drawing not actual depiction of insulator appearance.

Silicone rubber sheath and sheds complies with applicable ANSI and IEC standards.

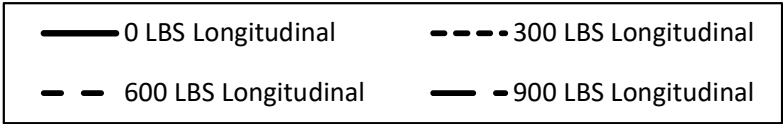
Prepared By: Stephen Lucci



MacLean Power Systems

B2911093T12070AA Ultimate Combined Load Curve

Factor of Safety = 1



Assumptions:
-Loading sequence is Longitudinal, Vertical, Transverse
-Factor of Safety applied to entire system
-Negligible downward tip deflection
-Static moduli values
-Confidence level of 95%

