

## Braced Post Insulator Assembly B2901068T12077AA

1) H2 90 10 058 AX SS 022	[1]
2) S1 40 80 054 MA AL 035	[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)	68.0 in	1,727 mm
Suspension Section Length (SSL)	66.0 in	1,676 mm
Height of Assembly (H)	77.0 in	1,956 mm
Length of Brace (B)	89.9 in	2,283 mm
Upper Pole Connection Offset (A)*	2.0 in	51 mm
Angle Between Insulators (C)		55 Degrees
Dry Arc Distance	54.1 in	1,374 mm
Leakage Distance	157.0 in	3,988 mm

\*This connection bracket to be supplied by customer

### ASSEMBLY ELECTRICAL VALUES\*

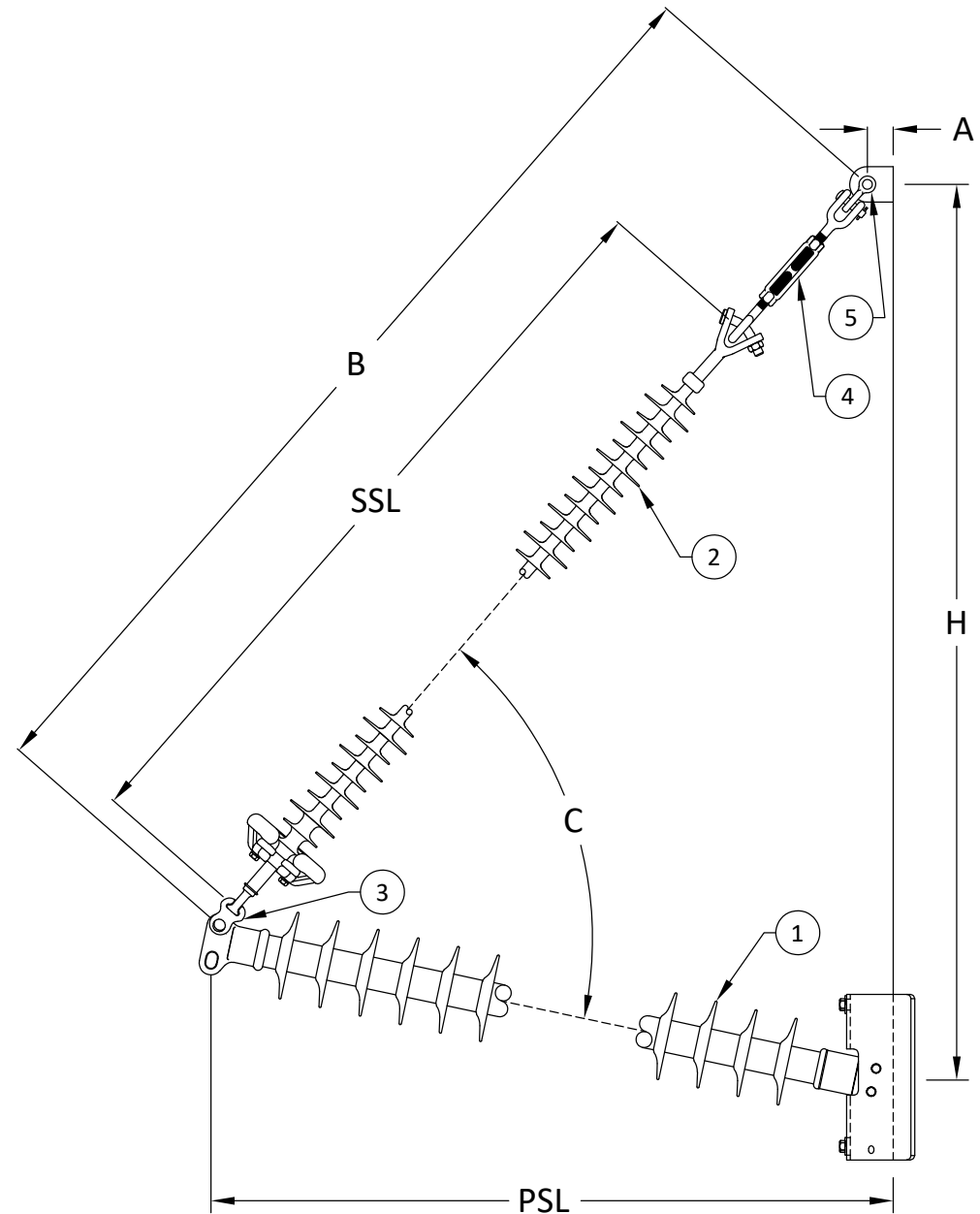
60 Hz Dry F.O. (Min. Withstand)	509 kV	(478) kV
60 Hz Wet F.O. (Min. Withstand)	470 kV	(374) kV
CIFO+ (Min. Withstand)	885 kV	(786) kV
CIFO- (Min. Withstand)	931 kV	(828) kV

\*Values shown are based on minimum electricals for the assembly

### ASSEMBLY MECHANICAL VALUES

Maximum Working Vertical Load	10,522 lbs	46.8 kN
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MPS Catalog Number:

**H2 90 10 058 AX SS 022**

Date:

04/11/2022

**End Fittings**

Tower End Fitting:

Gain / 12 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:

12 deg

Number of Sheds:

22

Rod Diameter:

2.5 in

Weight Estimate:

78.7 lbs

36 kg

**Dimensional Values**

Section Length (L):

68 in 1,727 mm

Rubber Length (X):

58 in 1,473 mm

Shed spacing (S):

2.5 in 64 mm

Shed Projection (P):

2.4 in 61 mm

Dry Arc Distance:

60.9 in 1,547 mm

Leakage Distance:

157 in 3,988 mm

**Electricals Values**

60 Hz dry Flashover (Min. Withstand):

568 kV 533 kV

60 Hz Wet Flashover (Min. Withstand):

523 kV 418 kV

CIFO Positive (Min. Withstand):

992 kV 878 kV

CIFO Negative (Min. Withstand):

1032 kV 923 kV

**Mechanical Values**

Max. Design Cant. Load (MDCL):

1,313 lbs 5.8 kN

Specified Cant. Load (SCL):

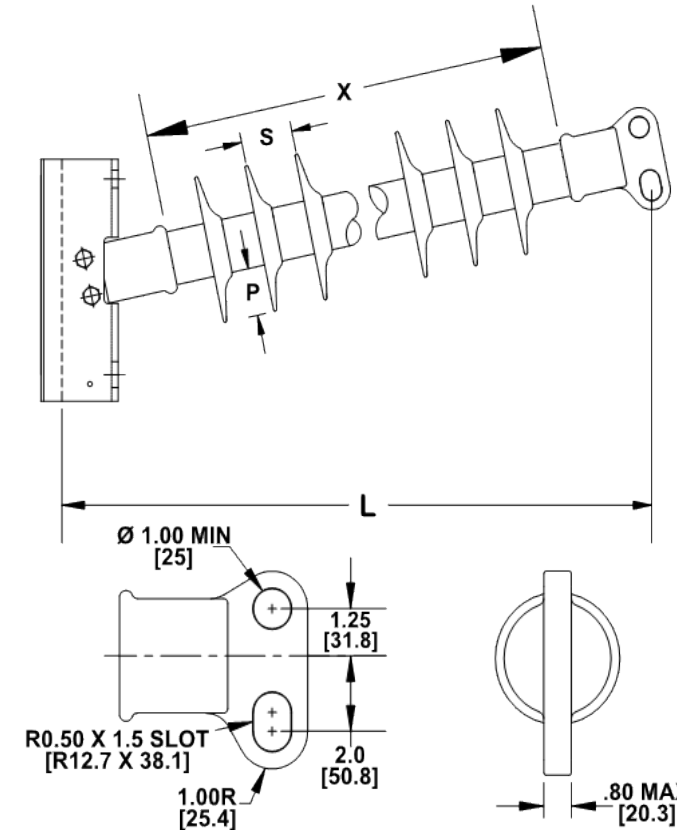
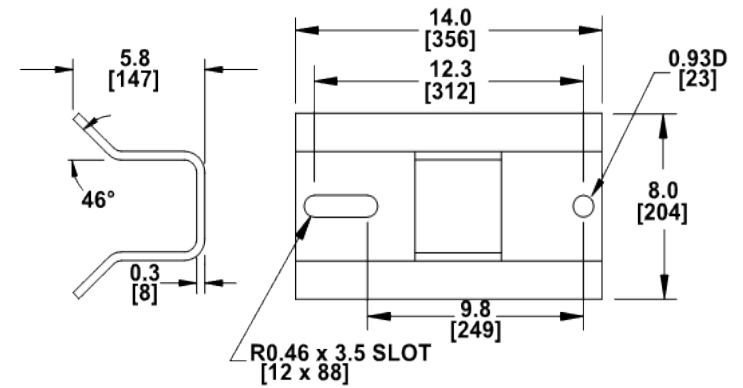
2,626 lbs 11.7 kN

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 80 054 MA AL 035**

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:

17 large      18 standard

Rod Diameter:

16 mm

Weight Estimate:

13.8 lbs      6 kg

**Dimensional Values**

Section Length (L):

66 in      1,676 mm

Rubber Length (X):

54 in      1,372 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:

54.1 in      1,374 mm

Leakage Distance:

158.4 in      4,023 mm

**Electricals Values**

60 Hz dry Flashover (Min. Withstand):

529 kV      488 kV

60 Hz Wet Flashover (Min. Withstand):

470 kV      409 kV

CIFO Positive (Min. Withstand):

902 kV      787 kV

CIFO Negative (Min. Withstand):

953 kV      838 kV

**Mechanical Values**

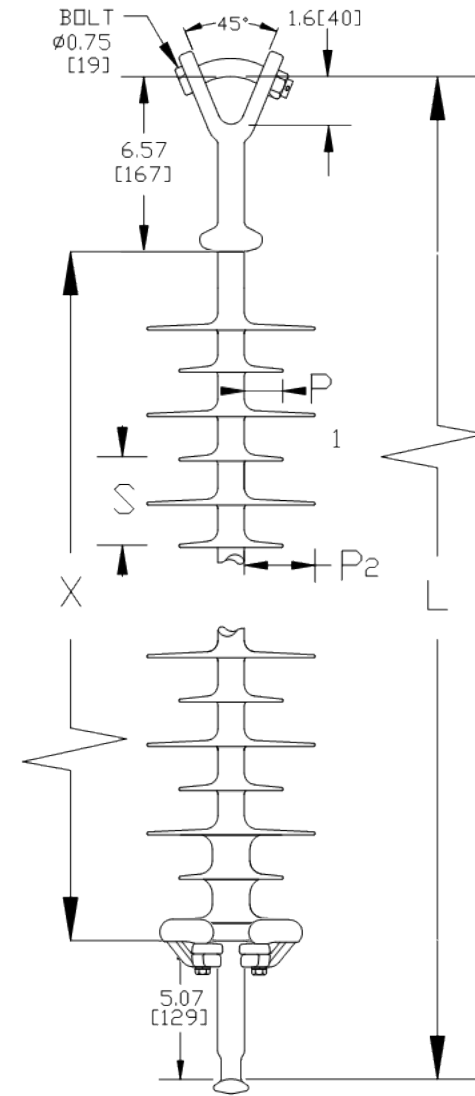
Specified Mech. Load (SML):

25,000 lbs      111.2 kN

Routine Test Load (RTL):

12,500 lbs      55.6 kN

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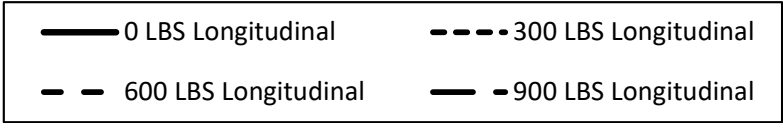
Prepared By: Stephen Lucci



**MacLean Power Systems**

## B2901068T12077AA 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%

