

Braced Post Insulator Assembly B2911034T12052MX

| | |
|----------------------------------|-----|
| 1) H2 91 10 023 MX SS 012 | [1] |
| 2) S1 40 80 025 MX AL 015 | [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) | 34.0 in | 864 mm |
| Suspension Section Length (SSL) | 36.2 in | 919 mm |
| Height of Assembly (H) | 52.0 in | 1,321 mm |
| Length of Brace (B) | 60.0 in | 1,524 mm |
| Upper Pole Connection Offset (A)* | 2.0 in | 51 mm |
| Angle Between Insulators (C) | 57 Degrees | |
| Dry Arc Distance | 24.3 in | 617 mm |
| Leakage Distance | 63.8 in | 1,621 mm |

*This connection bracket to be supplied by customer

ASSEMBLY ELECTRICAL VALUES*

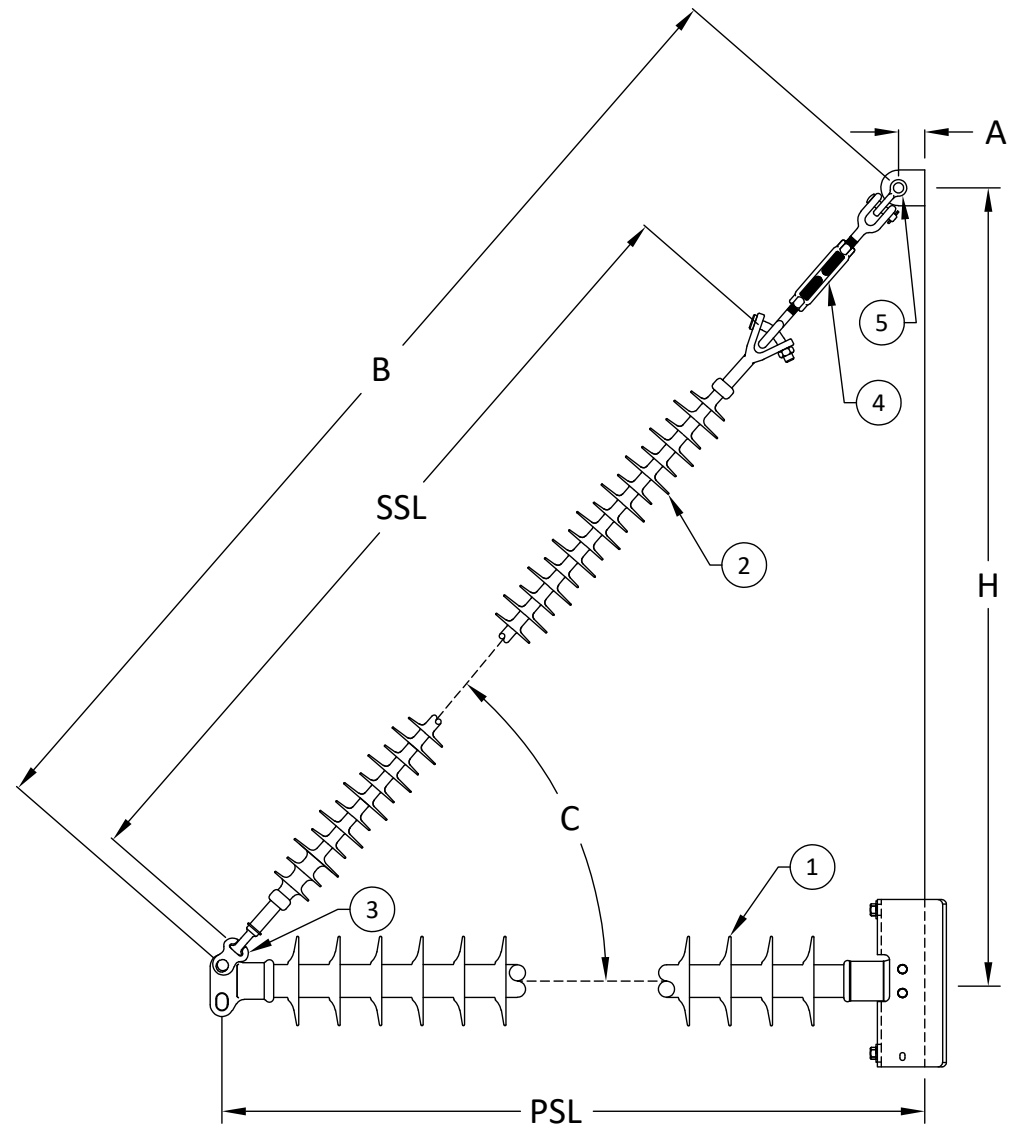
| | | |
|---------------------------------|--------|----------|
| 60 Hz Dry F.O. (Min. Withstand) | 243 kV | (228) kV |
| 60 Hz Wet F.O. (Min. Withstand) | 221 kV | (170) kV |
| CIFO+ (Min. Withstand) | 413 kV | (369) kV |
| CIFO- (Min. Withstand) | 506 kV | (403) kV |

*Values shown are based on minimum electricals for the assembly

ASSEMBLY MECHANICAL VALUES

| | | |
|-------------------------------|------------|---------|
| Maximum Working Vertical Load | 10,574 lbs | 47.0 kN |
|-------------------------------|------------|---------|

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MPS Catalog Number

H2 91 10 023 MX SS 012

Date: 04/13/2022

End Fittings

Tower End Fitting:

Gain / 0 deg / Steel

Line End Fitting:

2 HL Drop Tongue / Galv. Ductile Iron

Material

Corona Ring (Line):

None

Corona Rings are recommended for applications of 230 kV and above

Mounting Angle:

0 deg

Number of Sheds:

12

Rod Diameter:

2.5 in

Weight Estimate:

46.7 lbs

21 kg

Dimensional Values

Section Length (L):

34 in 864 mm

Rubber Length (X):

23 in 584 mm

Shed spacing (S):

1.95 in 50 mm

Shed Projection (P):

1.86 in 47 mm

Dry Arc Distance:

25.6 in 649 mm

Leakage Distance:

63.8 in 1,620 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):

254 kV 239 kV

60 Hz Wet Flashover (Min. Withstand):

232 kV 179 kV

CIFO Positive (Min. Withstand):

432 kV 387 kV

CIFO Negative (Min. Withstand):

527 kV 421 kV

Mechanical Values

Max. Design Cant. Load (MDCL):

2,981 lbs 13.3 kN

Specified Cant. Load (SCL):

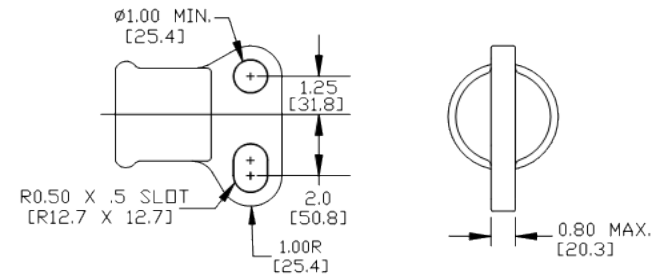
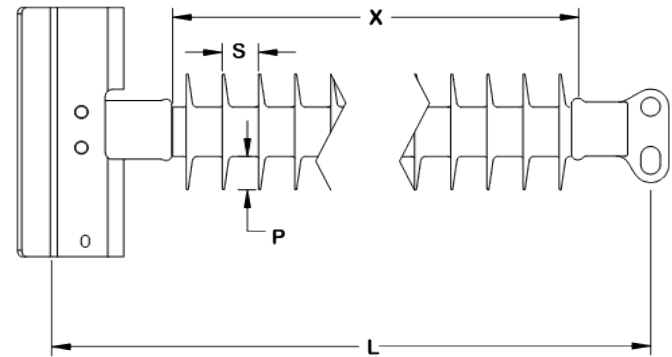
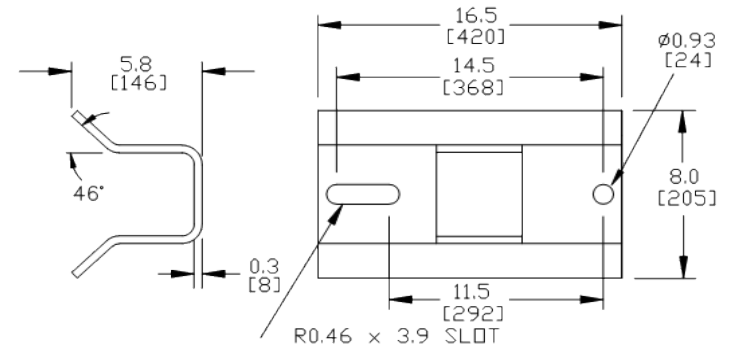
5,962 lbs 26.5 kN

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 80 025 MX AL 015

Date: 03/22/2022

End Fittings

Tower End Fitting:

Y-Clevis / Forged Steel

Line End Fitting:

Ball / Forged Steel
/ (ANSI 52-5)

Material

Corona Ring (Line):

None

Corona Rings are recommended for applications of 230 kV and above

Number of Sheds:

7 large 8 standard

Rod Diameter:

16 mm

Weight Estimate:

7.3 lbs 3 kg

Dimensional Values

Section Length (L):

36.2 in 919 mm

Rubber Length (X):

25 in 635 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:

26.8 in 681 mm

Leakage Distance:

66.9 in 1,699 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):

269 kV 251 kV

60 Hz Wet Flashover (Min. Withstand):

243 kV 212 kV

CIFO Positive (Min. Withstand):

468 kV 403 kV

CIFO Negative (Min. Withstand):

503 kV 444 kV

Mechanical Values

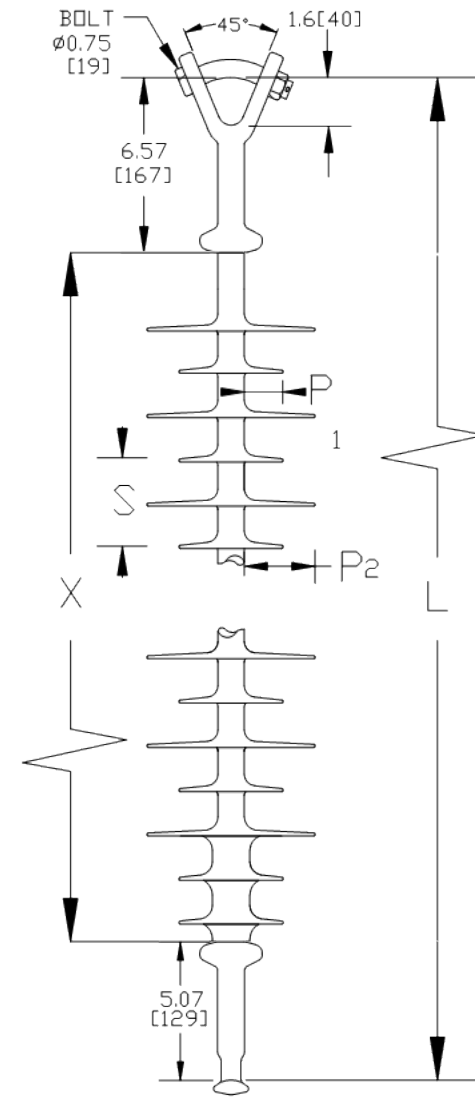
Specified Mech. Load (SML):

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

B2911034T12052MX 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%

