

Braced Post Insulator Assembly B2901049T12066MX

1) H2 90 10 039 MX SS 020	[1]
2) S1 40 80 036 VX SS 018	[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)	49.3 in	1,252 mm
Suspension Section Length (SSL)	47.6 in	1,209 mm
Height of Assembly (H)	66.0 in	1,676 mm
Length of Brace (B)	71.9 in	1,826 mm
Upper Pole Connection Offset (A)*	2.0 in	51 mm
Angle Between Insulators (C)		61 Degrees
Dry Arc Distance	39.4 in	1,001 mm
Leakage Distance	104.6 in	2,657 mm

*This connection bracket to be supplied by customer

ASSEMBLY ELECTRICAL VALUES*

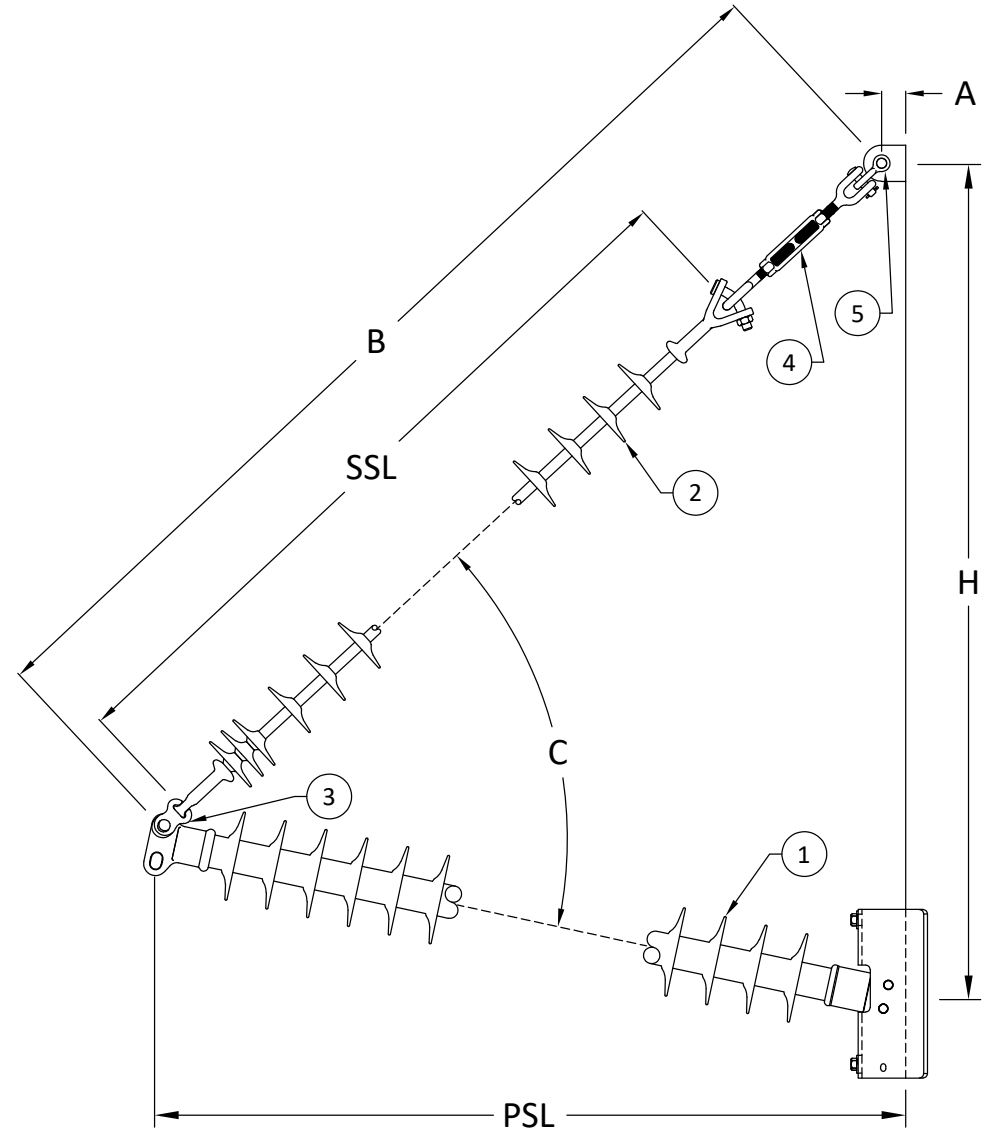
60 Hz Dry F.O. (Min. Withstand)	379 kV	(356) kV
60 Hz Wet F.O. (Min. Withstand)	351 kV	(275) kV
CIFO+ (Min. Withstand)	652 kV	(583) kV
CIFO- (Min. Withstand)	735 kV	(620) kV

*Values shown are based on minimum electricals for the assembly

ASSEMBLY MECHANICAL VALUES

Maximum Working Vertical Load	11,241 lbs	50.0 kN
-------------------------------	------------	---------

This drawing contains confidential information that is the property of MacLean Power, L.L.C. ("MacLean"). Use of MacLean's confidential information without MacLean's express written consent is strictly prohibited and may expose you to legal liability. If you believe that you received this material in error, please destroy it or return it to "MacLean Power, L.L.C., 7801 Park Place Rd., York, South Carolina 29745, USA."



MPS Catalog Number

H2 90 10 039 MX SS 020

Date: 03/23/2022

End Fittings

Tower End Fitting:

Gain / 12 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:

12 deg

Number of Sheds:

20

Rod Diameter:

2.5 in

Weight Estimate:

55.6 lbs

25 kg

Dimensional Values

Section Length (L):

49.3 in 1,252 mm

Rubber Length (X):

39 in 991 mm

Shed spacing (S):

1.95 in 50 mm

Shed Projection (P):

1.86 in 47 mm

Dry Arc Distance:

41.2 in 1,046 mm

Leakage Distance:

106.1 in 2,696 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):

395 kV 371 kV

60 Hz Wet Flashover (Min. Withstand):

366 kV 287 kV

CIFO Positive (Min. Withstand):

680 kV 608 kV

CIFO Negative (Min. Withstand):

759 kV 646 kV

Mechanical Values

Max. Design Cant. Load (MDCL):

1,912 lbs 8.5 kN

Specified Cant. Load (SCL):

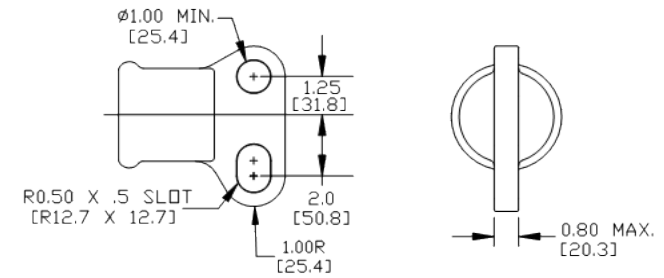
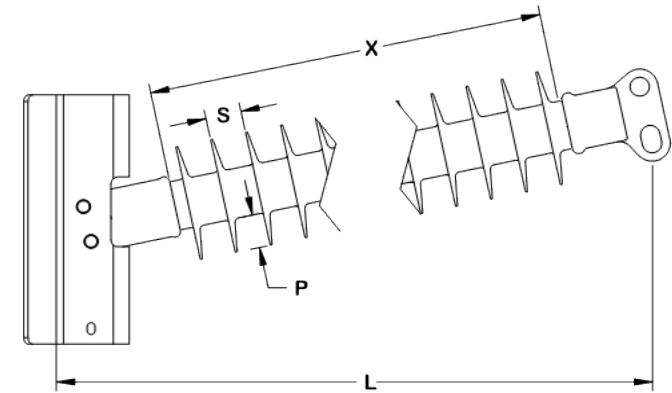
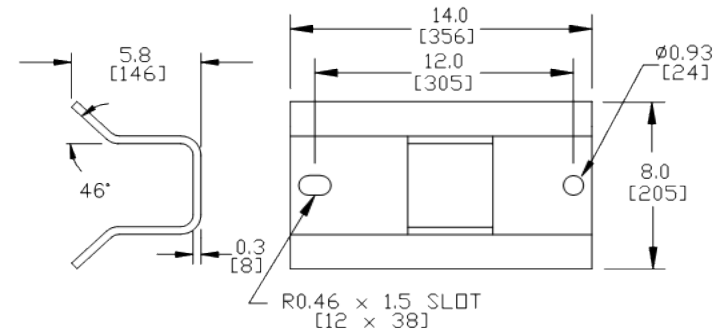
3,824 lbs 17 kN

Specified Tensile Load (STL):

15,000 lbs 66.7 kN

This drawing contains confidential information that is the property of MacLean Power, L.L.C. ("MacLean"). Use of MacLean's confidential information without MacLean's express written consent is strictly prohibited and may expose you to legal liability. If you believe that you received this material in error, please destroy it or return it to "MacLean Power, L.L.C., 7801 Park Place Rd., York, South Carolina 29745, USA."

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 80 036 VX SS 018

Date:

03/23/2022

End Fittings

Tower End Fitting:

Y-Clevis

Line End Fitting:

Ball (ANSI 52-5)

Material

Corona Ring (Tower):

None

Corona Ring (Line):

None

Corona Rings are recommended for applications of 230 kV and above

Number of Sheds:

18 Standard

Rod Diameter:

16 mm

Weight Estimate:

10.2 lbs 5 kg

Dimensional Values

Section Length (L):

47.6 in 1,209 mm

Rubber Length (X):

36 in 914 mm

Standard Shed Height (P):

2.1 in 54 mm

Shed Spacing (S):

2.08 in 53 mm

Dry Arc Distance:

39.4 in 1,001 mm

Leakage Distance:

104.6 in 2,657 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):

389 kV 362 kV

60 Hz Wet Flashover (Min. Withstand):

351 kV 305 kV

CIFO Positive (Min. Withstand):

672 kV 580 kV

CIFO Negative (Min. Withstand):

715 kV 626 kV

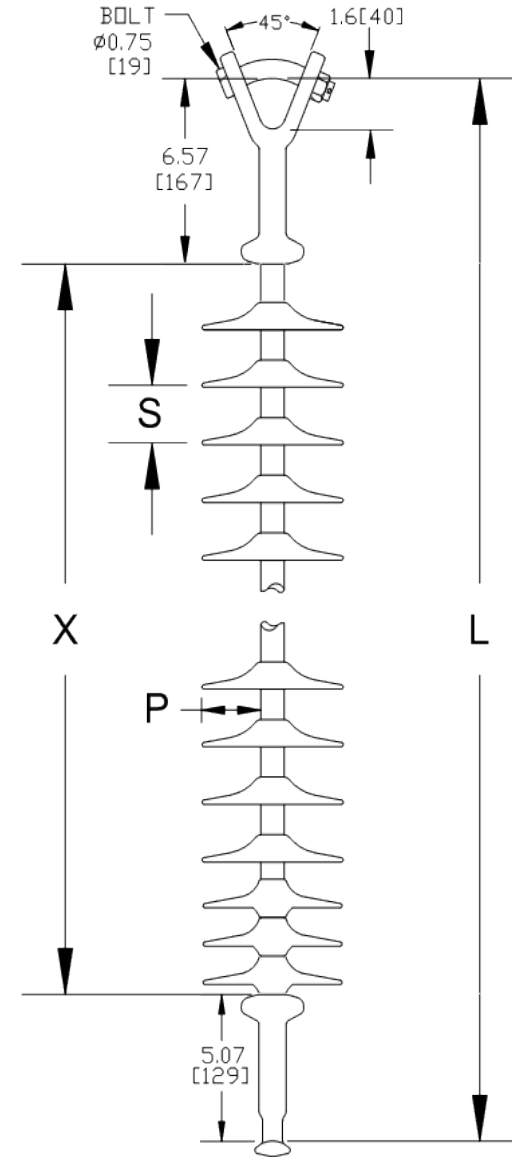
Mechanical Values

Specified Mech. Load (SML):

25,000 lbs 111.2 kN

Routine Test Load (RTL):

12,500 lbs 55.6 kN



This drawing contains confidential information that is the property of MacLean Power, L.L.C. ("MacLean"). Use of MacLean's confidential information without MacLean's express written consent is strictly prohibited and may expose you to legal liability. If you believe that you received this material in error, please destroy it or return it to "MacLean Power, L.L.C., 7801 Park Place Rd., York, South Carolina 29745, USA."

Dimension: inches [millimeters]

NOTE: Drawing not actual depiction of insulator appearance.

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

Notes:

Prepared By: Stephen Lucci



MacLean Power Systems

B2901049T12066MX 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%

