MacLean™ POWER SYSTEMS

7801 Park Place Rd.
York, SC 29745 USA
(803) 628-2100

Braced Post Insulator Assembly

B2911085T12084AA

1) H2 91 10 070 AX SS 027	[1]
2) S1 40 80 066 MA AL 043	[1]
3) Socket/Y-Clevis (SYC-56)	[1]
4) Turnbuckle (G-227-NBC-3/4x12C)	[1]
5) Shackle (ASH-55-BC)	[1]

ASSEMBLY DIMENSIONAL VALUES

Post Section Length (PSL)	85.1 in	2,162 mm
Suspension Section Length (SSL)	84.0 in	2,134 mm
Height of Assembly (H)	84.0 in	2,134 mm
Length of Brace (B)	117.3 in	2,979 mm
Upper Pole Connection Offset (A)*	2.0 in	51 mm
Angle Between Insulators (C)		44 Degrees
Dry Arc Distance	70.8 in	1,798 mm
Leakage Distance	204.5 in	5,194 mm

*This connection bracket to be supplied by customer

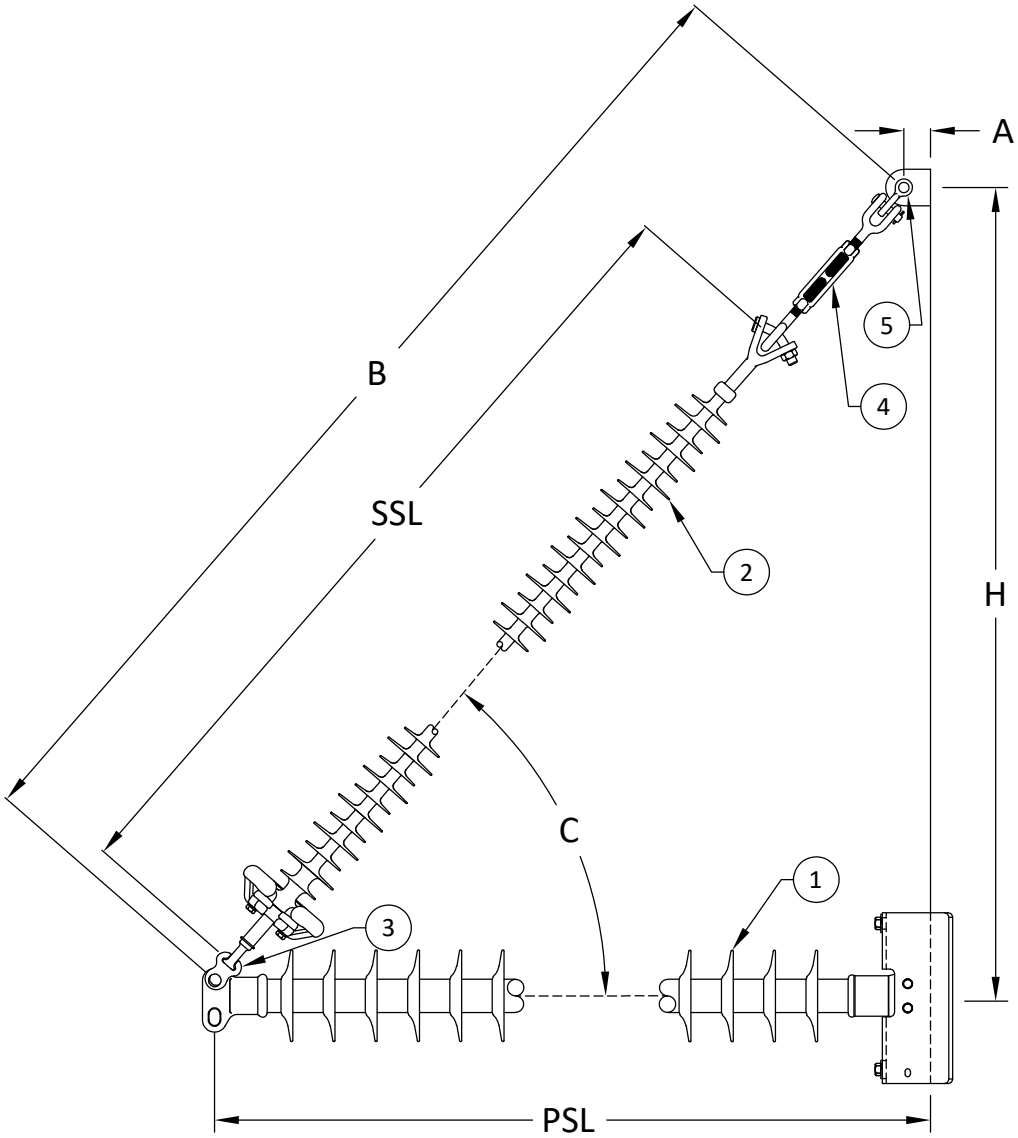
ASSEMBLY ELECTRICAL VALUES*

60 Hz Dry F.O. (Min. Withstand)	654 kV	(614) kV
60 Hz Wet F.O. (Min. Withstand)	598 kV	(482) kV
CIFO+ (Min. Withstand)	1,145 kV	(1,011) kV
CIFO- (Min. Withstand)	1,178 kV	(1,059) kV

*Values shown are based on minimum electicals for the assembly

ASSEMBLY MECHANICAL VALUES

Maximum Working Vertical Load	8,820 lbs	39.2 kN



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MPS Catalog Number: **H2 91 10 074 AX SS 029**

Date: 05/03/2022

End Fittings

Tower End Fitting:	Gain / 0 deg / Steel
	Anchor / Ductile Iron
Line End Fitting:	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:	29	
Rod Diameter:	2.5	in
Weight Estimate:	90.5 lbs	41 kg

Dimensional Values

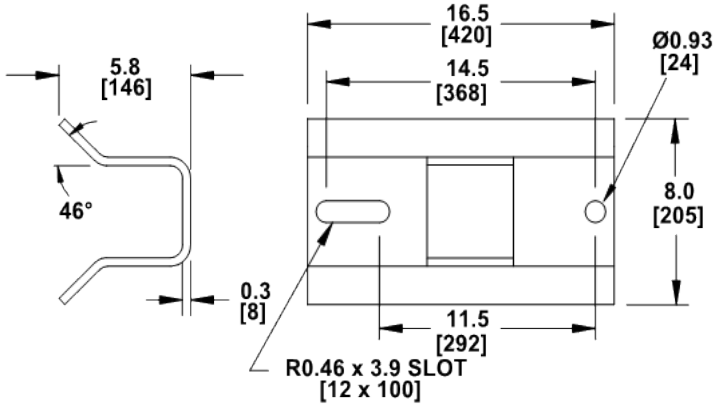
Section Length (L):	85.1 in	2,162 mm
Rubber Length (X):	74 in	1,880 mm
Shed spacing (S):	2.5 in	64 mm
Shed Projection (P):	2.4 in	61 mm
Dry Arc Distance:	76.9 in	1,953 mm
Leakage Distance:	204.5 in	5,194 mm

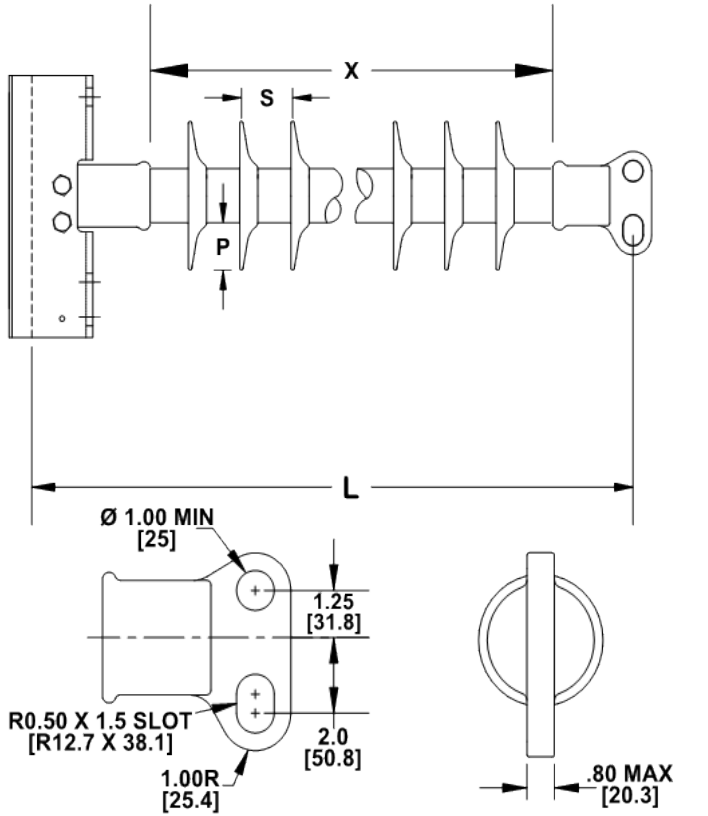
Electricals Values

60 Hz dry Flashover (Min. Withstand):	706 kV	662 kV
60 Hz Wet Flashover (Min. Withstand):	643 kV	520 kV
CIFO Positive (Min. Withstand):	1239 kV	1092 kV
CIFO Negative (Min. Withstand):	1267 kV	1142 kV

Mechanical Values

Max. Design Cant. Load (MDCL):	1,028 lbs	4.6 kN
Specified Cant. Load (SCL):	2,056 lbs	9.1 kN
Specified Tensile Load (STL):	15,000 lbs	66.7 kN





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

7801 Park Place Rd.
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MPS Catalog Number **S1 40 80 072 MA AL 047**

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:	23 large	24 standard
Rod Diameter:		16 mm
Weight Estimate:	16.3 lbs	7 kg

Dimensional Values

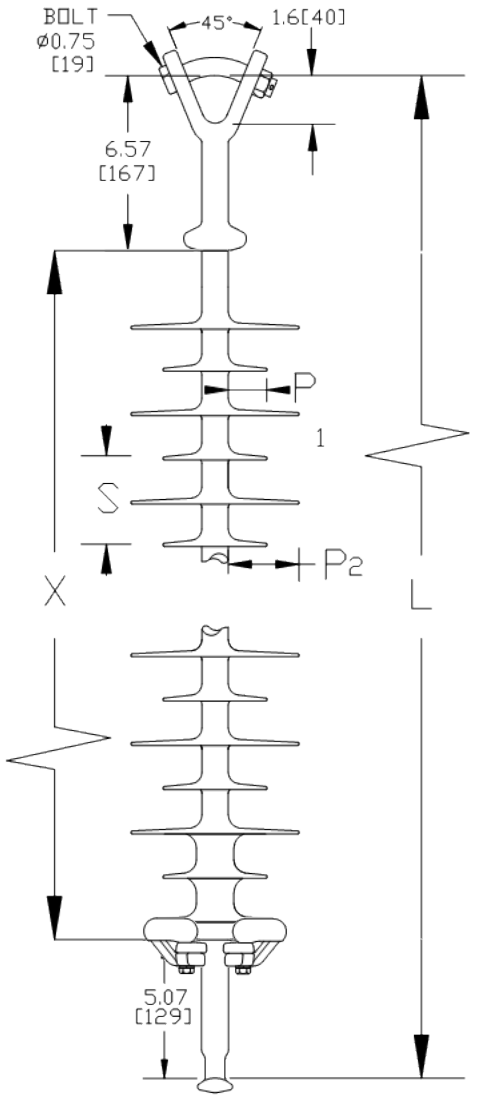
Section Length (L):	84 in	2,134 mm
Rubber Length (X):	72 in	1,829 mm
Standard Shed Height (P1):	1.5 in	38 mm
Large Shed Height (P2):	2 in	51 mm
Projection Ration (S/P):	-	1.5
Shed Spacing (S):	3 in	76 mm
Dry Arc Distance:	72.1 in	1,831 mm
Leakage Distance:	213.3 in	5,418 mm

Electricals Values

60 Hz dry Flashover (Min. Withstand):	701 kV	637 kV
60 Hz Wet Flashover (Min. Withstand):	608 kV	529 kV
CIFO Positive (Min. Withstand):	1,175 kV	1,040 kV
CIFO Negative (Min. Withstand):	1,232 kV	1,097 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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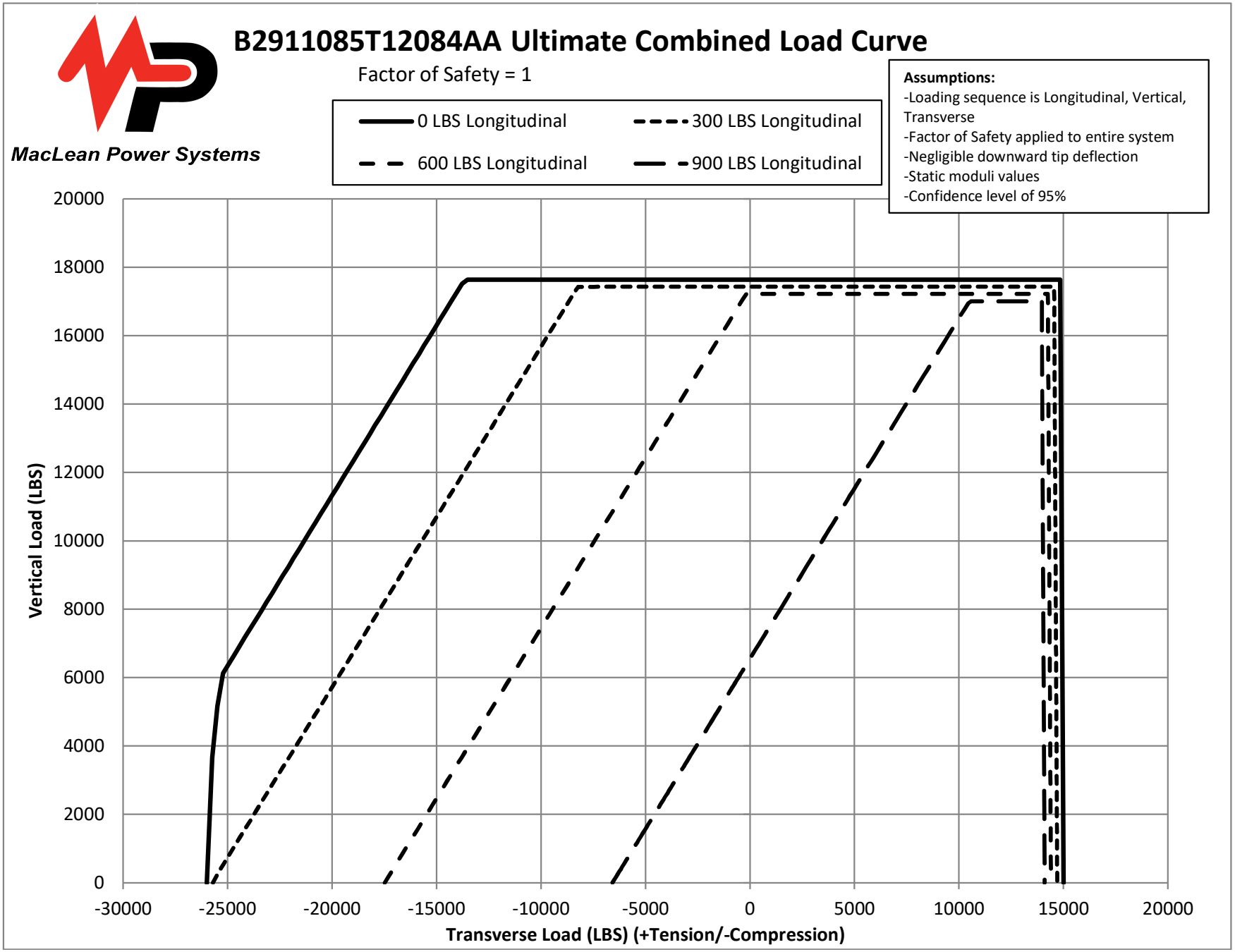
MacLean Power Systems

B2911085T12084AA Ultimate Combined Load Curve

Factor of Safety = 1



5/3/2022