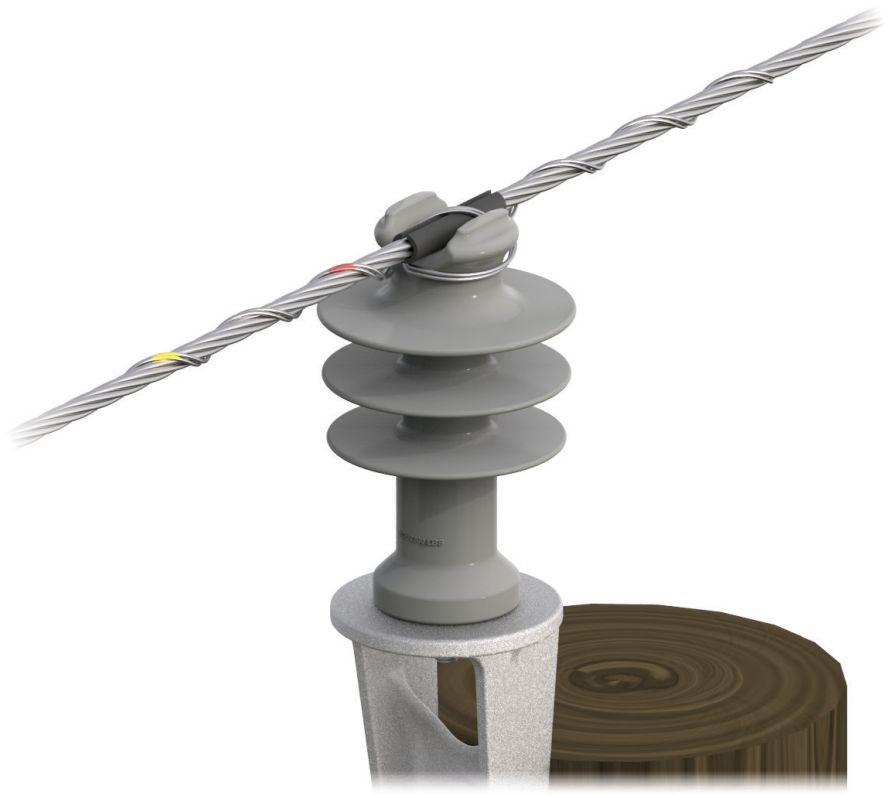


INSULIGN® POLYMER INSULATOR
LINE POST

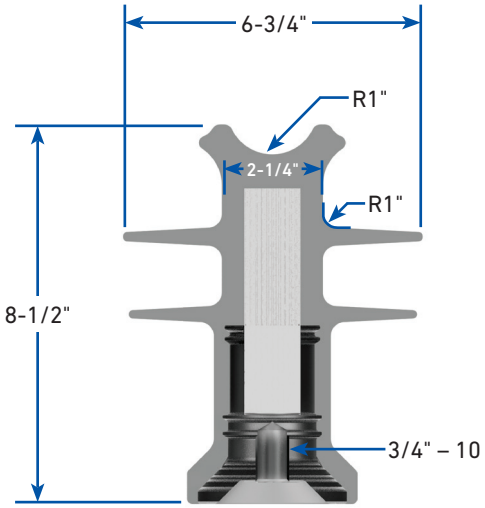
The **INSULIGN Polymer Insulator Line Post** is a direct replacement for high-voltage porcelain or composite line post insulators. They are designed to meet the dimensional, electrical, and mechanical requirements as defined in ANSI C29.18, Classes 51-1C, 51-1F, 51-2C, 51-2F, and 51-4F.

By using ANSI head and neck dimensional standards, PLP formed wire ties (for bare or covered conductors) will install easily and provide superior holding and electrical performance. Consult PLP for the suitability of other formed wire tie brands with these insulators.

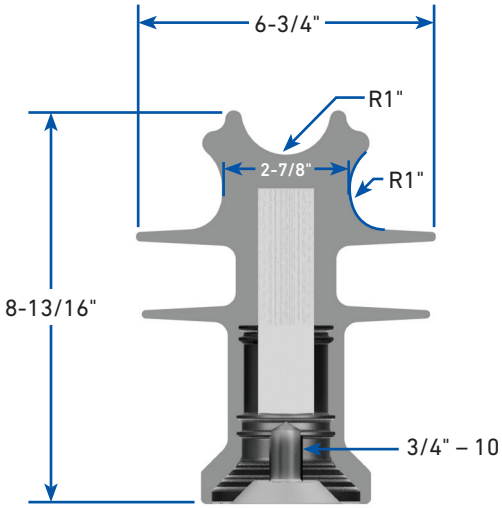
FEATURES AND BENEFITS

- ANSI C29.7 and C29.18 compliant
- Lightweight design – less than half the weight of porcelain
- Superior moisture and contamination shedding compared to porcelain
- UV-stabilized material
- Matched dielectric properties with covered conductor
- High-impact resistance
- Manufactured from a proprietary high-density polyethylene-based compound
- Tie top designs are ideal for use with all PLP ties
- All designs available with a lightweight aluminum base. A ductile Iron base option is available for the ANSI Class 51-4F design.

SPECIFICATIONS



Catalog Number:
IP-51-1C



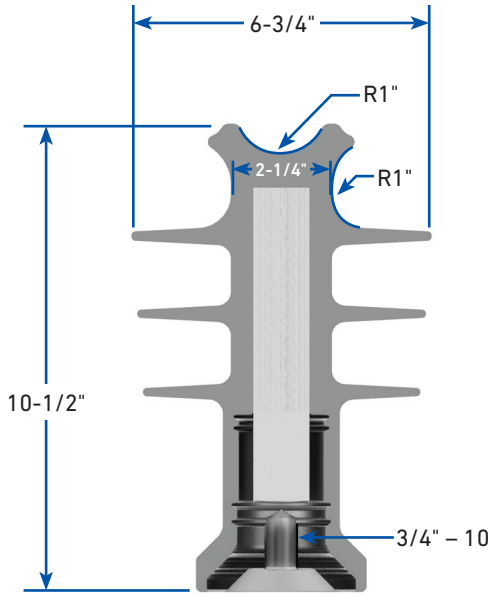
Catalog Number:
IP-51-1F

INSULIGN Polymer Insulator - Line Post

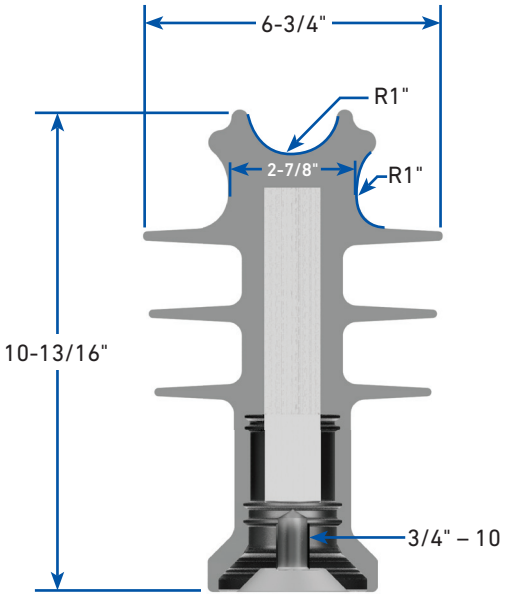
Insulator Data	RUS 12.5/7.2	ANSI C29.18 51-1C	Catalog Number IP-51-1C	ANSI C29.18 51-1F	Catalog Number IP-51-1F
Leakage Distance (in)	10	10	16	10	15
Dry Arcing Distance (in)		5.2	9	5.2	9
60Hz Dry Flashover (kV)	70	55	93	55	92
60Hz Wet Flashover (kV)	50	30	65[3]	30	67[3]
Positive Impulse Flashover (kV)		95	145	95	141
Negative Impulse Flashover (kV)		Not Defined	205	Not Defined	212
Radio Influence Voltage (RIV) (Max RIV at 1 MHz - Microvolts)		<100 µV @ 10kV	4 µV	<100 µV @ 10kV	4 µV
Specified Cantilever Load (SCL) (lb)	1,875	2,400	2,800	2,400	2,800
Maximum Design Cantilever Load (MDCL) (lb)	750[1]	1,235[2]	1,400[2]	1,235[2]	1,400[2]
Specified Tensile Load (STL) (lb)		2,000	3,000	2,000	3,000
Maximum Operating Temperature (°C)		Not Defined	120	Not Defined	120

[1]Per ANSI C29.7 Porcelain Insulators are proof tested at a minimum of 40% of the Rated Cantilever Load (RCL)
[2]Maximum Design Cantilever Load (MDCL) is defined by the manufacturer
[3]Minimum wet flashover value is defined as 90% of rated value listed in the specification

SPECIFICATIONS CONTINUED



Catalog Number:
IP-51-2C



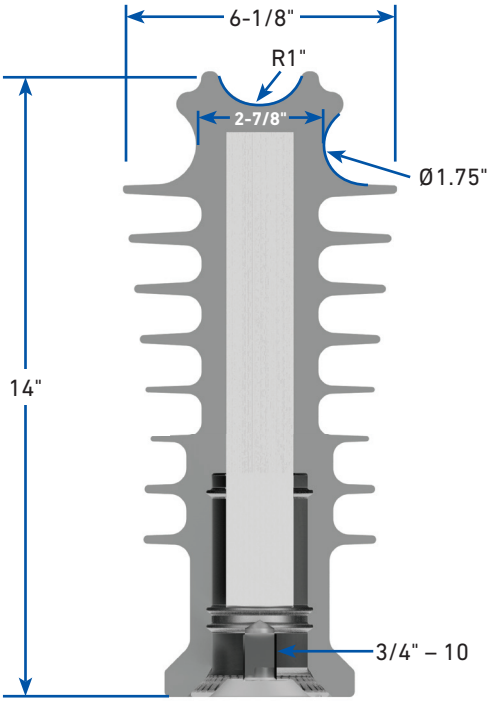
Catalog Number:
IP-51-2F

INSULIGN Polymer Insulator - Line Post

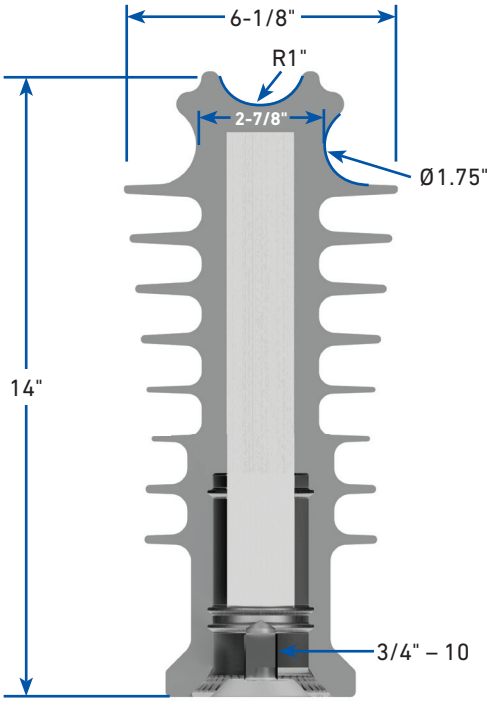
Insulator Data	RUS 24.9/14.4	ANSI C29.18 51-2C	Catalog Number IP-51-2C	ANSI C29.18 51-2F	Catalog Number IP-51-2F
Leakage Distance (in)	15	14	21	14	21
Dry Arcing Distance (in)		6.5	11	6.5	11
60Hz Dry Flashover (kV)	95	70	114	70	110
60Hz Wet Flashover (kV)	65	50	83[3]	50	78[3]
Positive Impulse Flashover (kV)		120	172	120	168
Negative Impulse Flashover (kV)		Not Defined	263	Not Defined	283
Radio Influence Voltage (RIV) (Max RIV at 1 MHz - Microvolts)		<100 µV @ 15kV	4 µV	<100 µV @ 15kV	4 µV
Specified Cantilever Load (SCL) (lb)	1,875	2,400	2,800	2,400	2,800
Maximum Design Cantilever Load (MDCL) (lb)	750[1]	1,235[2]	1,400[2]	1,235[2]	1,400[2]
Specified Tensile Load (STL) (lb)		2,000	3,000	2,000	3,000
Maximum Operating Temperature (°C)		Not Defined	120	Not Defined	120

[1]Per ANSI C29.7 Porcelain Insulators are proof tested at a minimum of 40% of the Rated Cantilever Load (RCL)
[2]Maximum Design Cantilever Load (MDCL) is defined by the manufacturer
[3]Minimum wet flashover value is defined as 90% of rated value listed in the specification

SPECIFICATIONS CONTINUED



Catalog Number:
IP-51-4F
Aluminum Base



Catalog Number:
IP-51-4FD
Ductile Iron Base

INSULIGN Polymer Insulator - Line Post

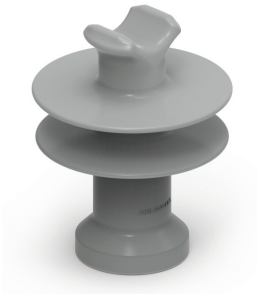
Insulator Data	ANSI C29.7 57.3	ANSI C29.18 51-4F	Catalog Number IP-51-4F	Catalog Number IP-51-4FD
Leakage Distance (in)	29		31	31
Dry Arcing Distance (in)	12.25		14	14
60Hz Dry Flashover (kV)	125		133	133
60Hz Wet Flashover (kV)	95		92[3]	92[3]
Positive Impulse Flashover (kV)	200		204	204
Negative Impulse Flashover (kV)	Not Defined		-329	-329
Radio Influence Voltage (RIV) (Max RIV at 1 MHz - Microvolts)	<200 µV @ 30kV		63 µV	63 µV
Specified Cantilever Load (SCL) (lb)	2,800	2,240	2,400	3,000
Maximum Design Cantilever Load (MDCL) (lb)	1,120[1]	1,120[2]	1,400[2]	1,400[2]
Specified Tensile Load (STL) (lb)	Not Defined	2,000	>3,000	>3,000
Maximum Operating Temperature (°C)	Not Defined	Not Defined	120	120

[1]Per ANSI C29.7 Porcelain Insulators are proof tested at a minimum of 40% of the Rated Cantilever Load (RCL)
[2]Maximum Design Cantilever Load (MDCL) is defined by the manufacturer
[3]Minimum wet flashover value is defined as 90% of rated value listed in the specification

ORDERING INFORMATION

INSULIGN Polymer Insulator – Line Post

Catalog Number	ANSI C29.18 Class	Typical 3-Phase Application kV	Neck Type	Units per Carton	Weight per Carton lb
IP-51-1C	51-1C	15	C-Neck	12	33
IP-51-1F	51-1F		F-Neck		
IP-51-2C	51-2C	25	C-Neck	12	43
IP-51-2F	51-2F		F-Neck		
IP-51-4F Aluminum Base	51-4F	25/35	F-Neck	6	34
IP-51-4FD Ductile Iron Base					50



Catalog Number: IP-51-1C

Catalog Number: IP-51-1F

Catalog Number: IP-51-2C

Catalog Number: IP-51-2F

Catalog Number: IP-51-4F/IP-51-4FD

ADDITIONAL RESOURCES

For additional information regarding the use and installation of INSULIGN Polymer Insulators - Line Post, use the QR codes listed below.

INSULIGN Polymer Insulator - Line Post Installation Instructions

INSULIGN Polymer Insulator - Line Post Website