Energy Division

HSHI-RayBowl-DBell
Raychem Hybrid Line
Post Insulator
Highly Protected Creepage

Tyco Electronics

Our commitment. Your advantage.

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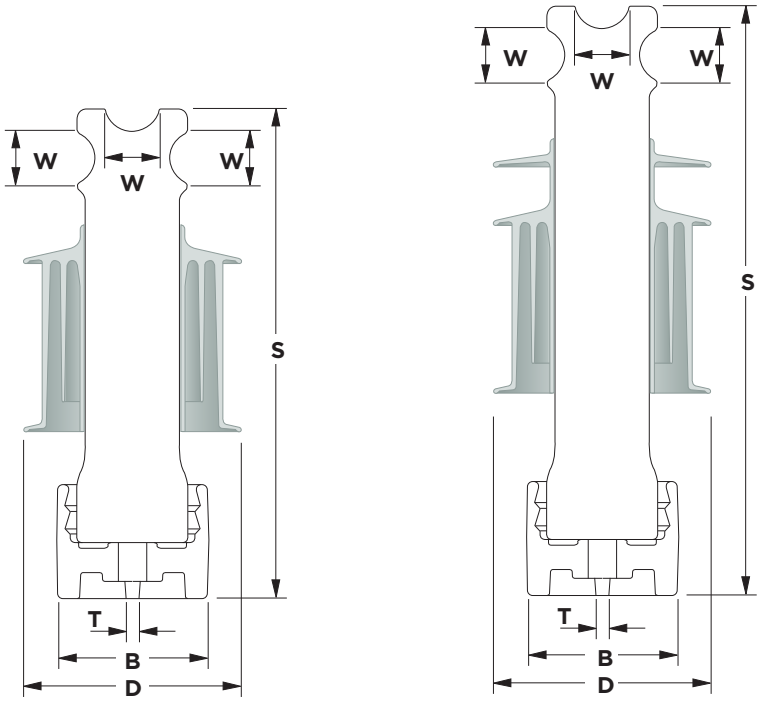
The RayBowl line post insulator in a highly protected double bell geometry combines a ceramic core and a silicone elastomer housing to exploit the material property advantages of each component.

A proven high strength ceramic core acts as the structural member to provide cantilever strength, while the silicone elastomer housing, in a highly protected geometry, provides the weathering resistance. In this design, the housing material and shape combine to improve the contamination withstand during wetting and enhance the flashover resistance.

The hydrophobic material property of the silicone elastomer reduces leakage current flow. Significant reduced power loss in combination with reduced maintenance costs provides direct economic benefit to the users.

Features	Benefits
Hybrid design	Combines ceramic core and silicone elastomer housing properties
	Reduced weight compared to higher voltage class ceramic insulators
	Vandal and break resistant - silicone housing protects the core against mechanical damage during handling, installation and vandalism
High strength porcelain core	High cantilever strength for post applications
Hydrophobic silicone elastomer housing	Economic savings - reduced maintenance costs and significantly lower power loss due to low leakage currents
	High flashover resistance especially in high polluted areas
	Superior tracking and erosion resistance
Protected creepage design	Improved contamination withstand - avoids deposition of windborne contaminates and wetting
	No longitudinal mould line flash - eliminates erosion during dry band arcing conditions
Long life, proven interface	Strong bonding of the housing to the core - meets industry standards for polymeric insulators
Qualification	According to ANSI C29.7 and IEC60383
Supplemental Testing	Interface, Power Arc and Weathershed Material Aging per CEA-LWIWG (02), Accelerated Aging Test per IEC 61109.
Applications	Up to 15 kV (line-line voltage) and 25 kV (line-line voltage) respectively. Preferred mounting is vertical, not to exceed 30° inclination off vertical. Contact Tyco Electronics Energy Division representative for other mounting positions. Suitable for use in extremely high polluted areas.
Supporting Documentation	EDR 5428 "Qualification Test Report Raybowl Double Bell Line Post 15 kV Class Hybrid Insulator". PPR 1451 Qualification testing of HSHI-RAYBOWL-DBELL-25KV

HSHI-RayBowl-DBell Technical Data



Dimensions	15 kV class		25 kV class	
Section length S (mm) [in]	290	[11.42"]	330	[12.99"]
Creepage distance (mm) [in]	540	[21.26"]	646	[25.43"]
Dry arc distance (mm) [in]	210	[8.28"]	241	[9.50"]
Shed diameter D (mm) [in]	136	[5.35"]	136	[5.35"]
Mounting pin thread T	3/4 UNC		3/4 UNC	
Net weight (kg) [lbs]	3.5	[7.7]	4.5	[9.9]
Wire groove diameter W (mm) [in]	31	[1.22"]	31	[1.22"]
Base diameter B (mm) [in]	86	[3.39"]	86	[3.39"]
Mechanical Ratings				
Cantilever strength (kN) [lb]	12.5	[2800]	12.5	[2800]
Electrical ratings				
Power frequency dry flashover (kV)	92		100	
Power frequency wet flashover (kV)	72		75	
Critical impulse flashover (kV)	145		160	
RIV @ 1000 kHz	<10 µV @ 15 kV		<10 µV @ 22 kV	

Ordering Information

Metric

Ordering Description	Pin Length	Std Pkg	Pkg Weight	Pkg Volume
HSHI-RAYBOWL-DBELL-15KV	190 mm	3 pcs	12.7 kg	0.03 m^3
HSHI-RAYBOWL-DBELL-15KV-NP	no pin	3 pcs	11.0 kg	0.03 m^3
HSHI-RAYBOWL-DBELL-25KV	190 mm	3 pcs	13.7 kg	0.03 m^3
HSHI-RAYBOWL-DBELL-25KV-NP	no pin	3 pcs	12.0 kg	0.03 m^3

Imperial

Ordering Description	Pin Length	Std Pkg	Pkg Weight	Pkg Volume
HSHI-RAYBOWL-DBELL-15KV	4.83"	3 pcs	28.00 LB	1.05 FT^3
HSHI-RAYBOWL-DBELL-15KV-NP	no pin	3 pcs	24.30 LB	1.05 FT^3
HSHI-RAYBOWL-DBELL-25KV	4.83"	3 pcs	30.20 LB	1.05 FT^3
HSHI-RAYBOWL-DBELL-25KV-NP	no pin	3 pcs	26.45 LB	1.05 FT^3

Energy Division – economical solutions for the electrical power industry: cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.

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