



Energy Division

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

 **Tyco Electronics**  
Our commitment. Your advantage.

## HSHI-RayBowl-DBell

## Raychem Hybrid Line Post Insulator Highly Protected Creepage

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

#### Hybrid design

#### High strength porcelain core

#### Hydrophobic silicone elastomer housing

#### Protected creepage design

#### Long life, proven interface

#### Qualification

### Benefits

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 cantilever strength for post applications

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

Improved contamination withstand - avoids deposition of windborne contaminants and wetting

No longitudinal mould line flash - eliminates erosion during dry band arcing conditions

Strong bonding of the housing to the core - meets industry standards for polymeric insulators

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.

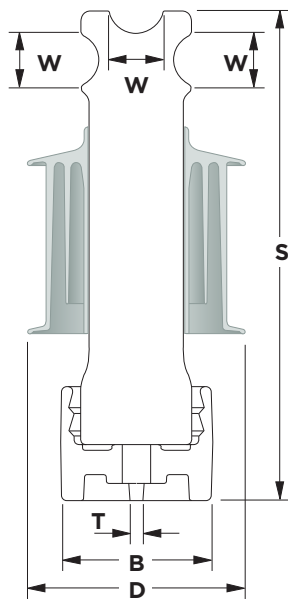
### Supporting Documentation

EDR 5428 "Qualification Test Report Raybowl Double Bell Line Post 15 kV Class Hybrid Insulator".

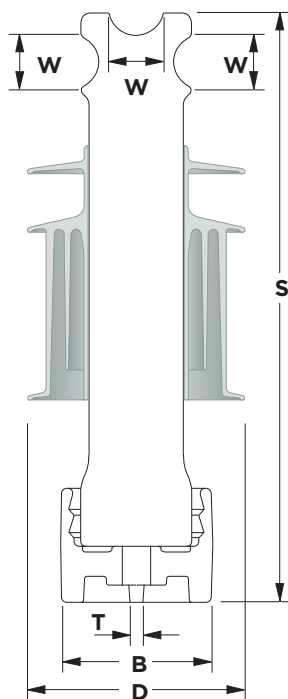
PPR 1451 Qualification testing of HSHI-RAYBOWL-DBELL-25KV

## HSHI-RayBowl-DBell

## Technical Data



15 kV class



25 kV class

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]
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### 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 $\mu$ V @ 15 kV	<10 $\mu$ V @ 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 <sup>3</sup>
HSHI-RAYBOWL-DBELL-15KV-NP	no pin	3 pcs	11.0 kg	0.03 m <sup>3</sup>
HSHI-RAYBOWL-DBELL-25KV	190 mm	3 pcs	13.7 kg	0.03 m <sup>3</sup>
HSHI-RAYBOWL-DBELL-25KV-NP	no pin	3 pcs	12.0 kg	0.03 m <sup>3</sup>

### 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 <sup>3</sup>
HSHI-RAYBOWL-DBELL-15KV-NP	no pin	3 pcs	24.30 LB	1.05 FT <sup>3</sup>
HSHI-RAYBOWL-DBELL-25KV	4.83"	3 pcs	30.20 LB	1.05 FT <sup>3</sup>
HSHI-RAYBOWL-DBELL-25KV-NP	no pin	3 pcs	26.45 LB	1.05 FT <sup>3</sup>

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. Raychem, TE Logo and Tyco Electronics are trademarks.

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