

Porcelain Line Posts	<u>Page</u>
Design Features	2-6
Horizontal Mount (20 kV-115 kV)	7-14
Horizontal Mount (115-138 kV)	15-30
Horizontal Mount (161-230 kV)	31-44
Horizontal Mount (345 kV)	45-46
Vertical Mount (20 kV-115 kV)	47-50
Vertical Mount (115 kV-138 kV)	51-52
Vertical Mount 'N' Neck Tie Top (55 kV-88 kV)	53-54



Section: C-2 / Page: 1

Page Release: B





### **LAPP Insulators: An Industry Leader**

LAPP Insulators designed and produced the industry's first line post insulator in 1931, using the early fogtype design as foundation to build upon. For more than 80 years, LAPP has continued to set the industry standard, leading in the design, production, assembly, material and testing of line post insulators. Through research and development, LAPP offers new engineered solutions for Compact Line Construction through the use of LAPP horizontal line posts.





#### 1. Single Porcelain Body

The single porcelain line post insulator design eliminates tension loaded, nested porcelain shells, internal pins or inserts and avoids damage pressure between porcelains.

#### 2. Fog-type Leakage Corrugations

Multiple sheds provide extra leakage distance and uniform leakage path; shaped and spaced for natural cleaning; wind and rain flush off contamination, keeping surface resistance high.

#### 3. Short, Sturdy Sheds

The sheds offer maximum protection for insulator body under mechanical impact and flashover; also contribute to the neat, trim appearance of overhead transmission lines.

#### 4. Hardware Externally Attached

Bases (and caps on Clamp Top Line Posts) are cemented on the porcelain, loading the porcelain with low intensity compression grip over a large area. There are no internal bursting forces from pins or inserts to damage porcelain.

### 5. "Straight Line" Flashover

Line terminals are separated by the full length of the insulator; flashover goes outside the unit. Loss of one or more sheds does not reduce flashover distance.

#### 6. Glazes

Line Post insulators are available in select glaze colors. Light gray-ANSI 70 is supplied for all standard strength line posts unless otherwise specified. Dark gray glaze is supplied for all high strength line posts as a way to identify these units in service. Brown glaze is optional.





#### Three Styles

LAPP Line Post Insulators are available in three styles, with a choice of strength classes and wide range of voltage ratings.

- Horizontal Clamp Top for armless transmission construction
  Units consist of a fog-type insulator with a horizontal clamp top cap cemented on the outboard end for clamp support of the conductor and a large base cemented on the lower end of the insulator for mounting directly to the side of a pole, without cross arms or other supporting devices.
- Vertical Clamp Top for upright mounting on cross arms
  Units have a metal cap cemented to the top of the porcelain to support a trunnion-type clamp for attaching the conductor. A base cemented to the lower end of the insulator takes a stud for mounting insulator to cross arm or structure.
- Standard 'N' neck for upright mounting on cross arm or structure
  Units have an integral "N" neck head on the porcelain for tie top conductor attachment and a base cemented on the lower end for stud mounting to a flat surface.

#### Uniformity

The line post design is based on the fog-type design. This design develops a leakage distance on the principle of uniformity—uniformity of width and uniformity of condition of leakage path (dirtiness, wetness or dryness). If the leakage path is uniform, local hot spots will not develop to initiate a flashover.

Uniformity is maintained through maximum exposure to contamination, wetting and natural cleaning by wind and rain. The many short sheds of the line post design are spaced to avoid pockets where contamination and moisture can accumulate.

- Under heavy rain, the contamination quickly flushes away and the leakage current falls rapidly
- Under light rain or fog, when flashover is most probable, as the resistance falls, the leakage current rises
- The watts dissipated are evenly distributed over the entire insulator, drying it uniformly and holding down the leakage current to a safe value

#### Behavior Under Power Arc

The line post insulator gets its flashover and leakage distance from height and many short, sturdy sheds. The petticoats protect the body of the insulator from serious damage. If one or more of the sheds breaks away, the flashover and leakage distance are lowered only slightly.

#### Puncture

The hazard of puncture is eliminated with the line post insulator design. Under excess voltage, the insulator will always flash over rather than puncture. There are no thin sections of porcelain subjected to high electrical stress.





#### Operation Under Contamination

The fog-type corrugations on the line post insulator form a leakage surface that is open to the cleaning action of wind and rain. Horizontally mounted line post insulators offer the very best opportunity of combating even the most severe contamination.

#### Closed-End Porcelain Design

All line post porcelains are subjected to a vigorous flashover test. After test, the hole is sealed with a permanent plug, hardware is cemented to the porcelain and the insulator is ready for final mechanical cantilever proof test and inspection.

#### Interchangeable Trunnion Clamps

Six aluminum standard clamp sizes, interchangeable on all clamp top line posts, provide for all conductor sizes .25" to 2.70", max operating temperature is 150C. Ferrous clamps available for conductor diameters .25"-1.5", max operating temperature is 300C.

#### Radio and TV Interference-free

Line post insulators are designed to be free of radio and TV interference.

#### Two-piece Units and Pre-assembled One-piece Units

Horizontal line posts for 115/138kV applications are available as two-piece units that are bolted together or pre-assembled as a single, rigid unit for wood, concrete or steel pole mounting. Pre-assembled units have top and bottom sections permanently joined with a metal flange or collar in place of the standard end caps.

#### Overload Protection

There are two methods of overload protection for horizontal line posts mounted on rigid structures from damage caused by unbalanced longitudinal loads, broken conductor conditions or other unusual longitudinal overloads:

- 1) Load Limiter: a device which prevents cascading should a unit be accidently overstressed and fail. It is designed to release and control the conductor on the outboard end of the insulator. The Load Limiter is available on all horizontal line post insulators—115 kV, 230 kV and 345 kV and for mounting on steel, pre-stressed concrete and other rigid structures. It is supplied with shear bolts in a choice of strengths for tangent or angle construction. See pages 20, 28, 33, 36, 41, 42.
- 2) **Hinge Base:** Available hinge base designs on all Lapp Horizontal Line Posts 115 kV through 230 kV provide overload protection for insulators mounted on rigid structures. Mounted to the structure, the insulator pivots on the hinged base to reduce the load on the insulator caused by unbalanced longitudinal loads, broken conductor or other unusual overloads. See pages 21, 22, 29, 30, 37, 38, 43, 44.





#### **RG® Resistance Graded Line Post Insulators**

The RG Resistance Graded Line Post by LAPP Insulators employs a semi-conductor glaze which inhibits arcing and flashover, which is especially important in contaminated areas. These line posts have an established record of excellent performance in contamination problem areas with coastal salt fog or mist, industrial pollution and agricultural dust or chemicals.

The semi-conductive glaze is a permanent, integral part of the line post insulator. Applied as part of the normal manufacturing process, the RG line post insulator is less costly than insulators which are first glazed with a regular glaze and then covered with a hydrophobic coating.

#### • Eliminate Need to Over-Insulate in Contaminated Areas

Over-insulation may reduce the number of flashovers in contaminated areas; however, its effectiveness is never certain. In addition, larger insulators may require larger structures, which can increase costs.

The RG line post insulator eliminates the need to over-insulate. It holds voltage in environments that caused flashover in regular insulators having two to three times the leakage distance.

#### Eliminate Need for Washing and Greasing/Coating in Contaminated Areas

Washing is a big expense for utilities. The RG line post insulator eliminates the need for washing, as well as the need for costly greasing/coating maintenance.

#### Reduces Radio Noise and TV Interference

The RG line post insulator reduces both radio noise and TV interference. At operating voltage, RIV on RG line posts remains at near zero under most conditions of surface contamination.

<Continued on next page>



Section: C-2 / Page: 6

Page Release: B



#### Superior performance from three factors

#### 1. Linear Voltage Distribution

Voltage distribution across a normal insulator is extremely non-uniform. In RG insulators, each section of the insulator surface does equal work, so local high voltage gradients are prevented.

#### 2. Heating Effect

Insulator surfaces are heated by leakage current applied to the porcelain surface. Temperatures of three or four degrees centigrade above ambient are usual. This means that in light fog or mist, condensation and surface wetting is avoided, and that more rapid drying will result when the surface does become wet.

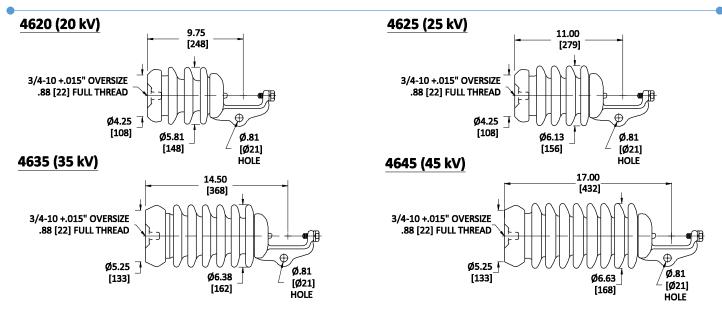
#### 3. Prevent Dry Band Arcing

As a wet insulator begins to dry, there is always one area which dries first, usually in a ring or band around the insulator. When the wet insulator is also heavily contaminated, a large voltage gradient appears across the dry area of higher resistance. When the gradient is of sufficient magnitude, an arc across the dry band results. Heating at the roots of the arc will speed the drying and lengthen the arc. An outage results when the arc grows to such a length as to short out the insulator. On RG Line Post insulators, the conductive glaze is in parallel with the dry section, so the total resistance of the combination is less than that of any area of dry contaminant alone. Instead of causing small arcs or scintillations, the higher leakage current results in drying the surface rapidly and usually almost simultaneously over the entire area so that flashover never initiates.

Contact Lapp for more detailed information regarding RG® glazed insulators.





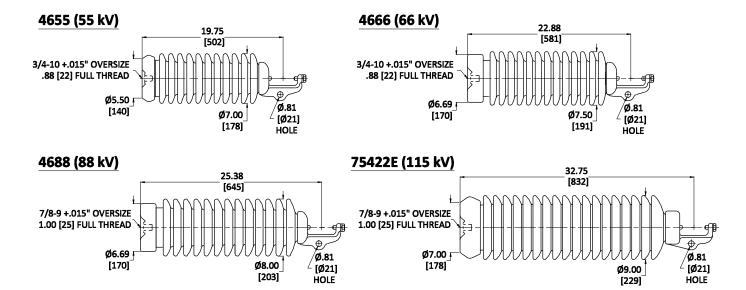


Catalog Number (Light Gray-ANSI 70)	4620-70	4625-70	4635-70	4645-70
Catalog Number (Brown)	4620	4625	4635	4645
ANSI Class		57-21	57-22	57-23
Dimensions				
Leakage Distance, in. [mm]	10 [254]	14 [356]	22 [559]	29 [737]
Dry Arcing Distance, in. [mm]	5 [127]	6.5 [165]	9.5 [241]	12.25 [311]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	20	25	35	45
Low Frequency Dry Flashover, kV	70	70	100	125
Low Frequency Wet Flashover, kV	65	50	70	95
Critical Impulse Flashover, Positive, kV	100	120	160	200
Critical Impulse Flashover, Negative, kV	125	155	205	260
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	15	15	22	30
Maximum RIV-Microvolts at 1000 kHz	50	100	100	200
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	14 [6.4]	19 [8.6]	28 [12.7]	35.3 [16.0]
Packed Weight, Each, lbs. [kg]	14.3 [6.5]	20 [9.1]	28.7 [13.0]	36.7 [16.6]
Standard Package	6	3	3	3
Pallet Weight, lbs. [kg]	1866 [846.4]	1860 [843.9]	1264 573.3]	1600 [725.7]
Pallet Quantity	126	90	42	42



Section: C-2 / Page: 7 Page Release: B





Catalog Number (Light Gray-ANSI 70)	4655-70	4666-70	4688-70	75422E-70
Catalog Number (Brown)	4655	4666	4688	75422E
ANSI Class	57-24	57-25	57-26	
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	71 [1803]
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	27 [686]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	55	66	88	115
Low Frequency Dry Flashover, kV	140	160	200	270
Low Frequency Wet Flashover, kV	110	130	180	230
Critical Impulse Flashover, Positive, kV	230	265	330	390
Critical Impulse Flashover, Negative, kV	340	380	425	570
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	88
Maximum RIV-Microvolts at 1000 kHz	200	200	200	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	38 [17.2]	58 [26.3]	67 [30.4]	94 [42.6]
Packed Weight, Each, lbs. [kg]	44 [20.0]	64 [29.0]	76 [34.5]	102 [46.3]
Standard Package	2	2	2	1
Pallet Weight, lbs. [kg]	935 [424]	1335 [605.5]	1555 [705.3]	1585 [718.9]
Pallet Quantity	20	20	20	15

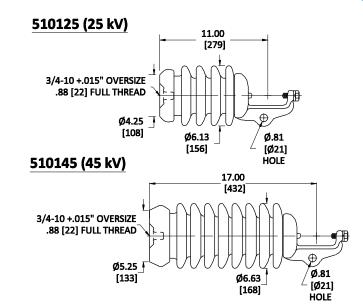


Section: C-2 / Page: 8

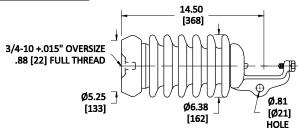
Section: C-2 / Page: 9

Page Release: B



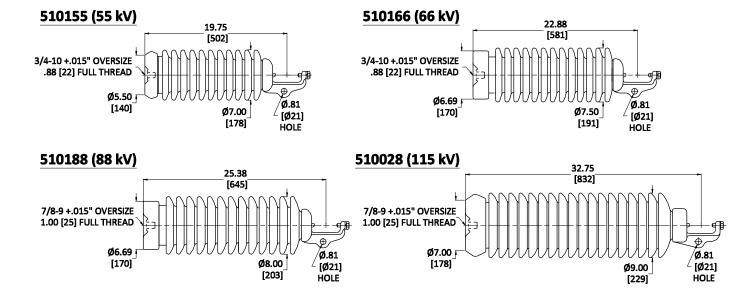


## 510135 (35 kV)



Catalog Number (RG Gray)	 510125	510135	510145
ANSI Class	 57-21	57-22	57-23
Dimensions			
Leakage Distance, in. [mm]	 14 [356]	22 [559]	29 [737]
Dry Arcing Distance, in. [mm]	 6.5 [165]	9.5 [241]	12.25 [311]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 25	35	45
Required Voltage for RG Application, kV	 15	25	35
Low Frequency Dry Flashover, kV	 70	100	125
Low Frequency Wet Flashover, kV	 50	70	95
Critical Impulse Flashover, Positive, kV	 120	160	200
Critical Impulse Flashover, Negative, kV	 155	205	260
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 15	22	30
Maximum RIV-Microvolts at 1000 kHz	 100	100	200
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 19 [8.6]	28 [12.7]	35.3 [16.0]
Packed Weight, Each, lbs. [kg]	 20 [9.1]	28.7 [13.0]	36.7 [16.6]
Standard Package	 3	3	3
Pallet Weight, lbs. [kg]	 1860 [843.9]	1264 573.3]	1600 [725.7]
Pallet Quantity	 90	42	42

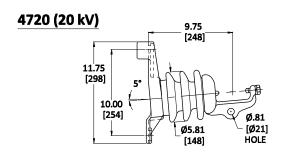


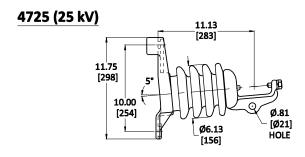


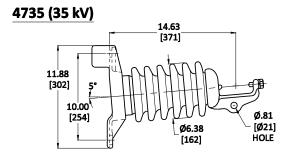
Catalog Number (RG Gray)	510155	510166	510188	510028
ANSI Class	57-24	57-25	57-26	
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	71 [1803]
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	27 [686]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	55	66	88	115
Required Voltage for RG Application, kV	45	55	69	88
Low Frequency Dry Flashover, kV	140	160	180	270
Low Frequency Wet Flashover, kV	110	130	150	230
Critical Impulse Flashover, Positive, kV	230	265	330	390
Critical Impulse Flashover, Negative, kV	340	380	425	570
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	88
Maximum RIV-Microvolts at 1000 kHz	200	200	200	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	38 [17.2]	58 [26.3]	67 [30.4]	94 [42.6]
Packed Weight, Each, lbs. [kg]	44 [20.0]	64 [29.0]	76 [34.5]	102 [46.3]
Standard Package	2	2	2	1
Pallet Weight, lbs. [kg]	935 [424]	1335 [605.5]	1555 [705.3]	1585 [718.9]
Pallet Quantity	20	20	20	15

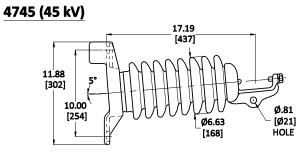






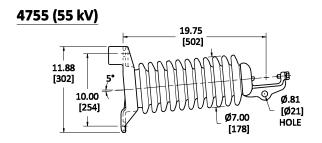


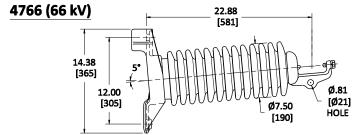


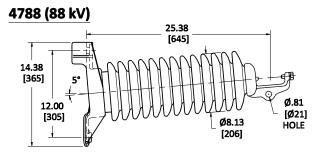


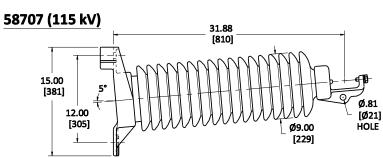
Catalog Number (Light Gray-ANSI 70)	4720-70	4725-70	4735-70	4745-70
Catalog Number (Brown)	4720	4725	4735	4745
ANSI Class		57-31	57-32	57-33
Dimensions				
Leakage Distance, in. [mm]	10 [254]	14 [356]	22 [559]	29 [737]
Dry Arcing Distance, in. [mm]	5 [127]	6.5 [165]	9.5 [241]	12.25 [311]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	20	25	35	45
Low Frequency Dry Flashover, kV	70	80	110	125
Low Frequency Wet Flashover, kV	65	70	100	115
Critical Impulse Flashover, Positive, kV	100	130	180	210
Critical Impulse Flashover, Negative, kV	125	155	205	260
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	15	15	22	30
Maximum RIV-Microvolts at 1000 kHz	50	100	100	200
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	18.5 [8.4]	20 [9.1]	29 [13.2]	35 [15.9]
Packed Weight, Each, lbs. [kg]	20 [9.1]	26 [11.8]	34 [15.4]	40 [18.1]
Standard Package	2	2	2	2
Pallet Weight, lbs. [kg]	1020 [462.7]	1460 [662.2]	1143 [518.5]	1319 [598.3]
Pallet Quantity	48	56	32	32









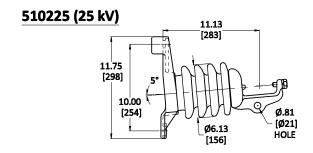


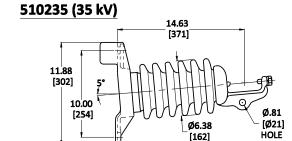
Catalog Number (Light Gray-ANSI 70)	4755-70	4766-70	4788-70	58707-70
Catalog Number (Brown)	4755	4766	4788	58707
ANSI Class	57-34	57-35	57-36	
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	68 [1727]
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	27 [686]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	55	66	88	115
Low Frequency Dry Flashover, kV	150	175	200	270
Low Frequency Wet Flashover, kV	135	160	180	230
Critical Impulse Flashover, Positive, kV	255	290	330	390
Critical Impulse Flashover, Negative, kV	340	380	425	570
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	88
Maximum RIV-Microvolts at 1000 kHz	200	200	200	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	45 [20.4]	59 [26.8]	77 [34.9]	105 [47.6]
Packed Weight, Each, lbs. [kg]	52 [23.6]	65 [29.5]	84 [38.1]	120 [54.4]
Standard Package	2	2	2	1
Pallet Weight, lbs. [kg]	1680 [762.0]	1095 [496.7]	1391 [630.9]	1135 [514.8]
Pallet Quantity	32	16	16	9

Section: C-2 / Page: 13

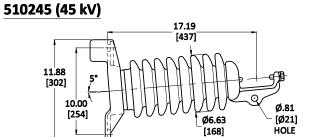
Page Release: B





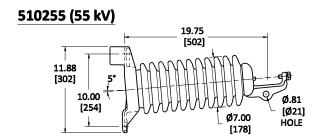


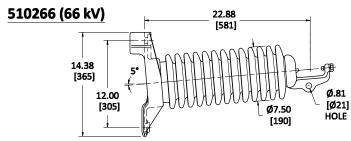
[162]

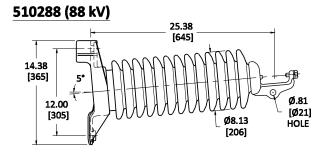


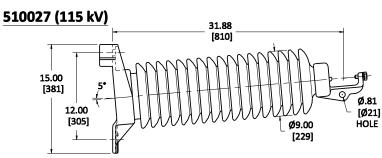
Catalog Number (RG Gray)	 510225	510235	510245
ANSI Class	 57-31	57-32	57-33
Dimensions			
Leakage Distance, in. [mm]	 14 [356]	22 [559]	29 [737]
Dry Arcing Distance, in. [mm]	 6.5 [165]	9.5 [241]	12.25 [311]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 25	35	45
Required Voltage for RG Application, kV	 15	25	35
Low Frequency Dry Flashover, kV	 80	110	125
Low Frequency Wet Flashover, kV	 70	100	115
Critical Impulse Flashover, Positive, kV	 130	180	210
Critical Impulse Flashover, Negative, kV	 155	205	260
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 15	22	30
Maximum RIV-Microvolts at 1000 kHz	 100	100	200
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 20 [9.1]	29 [13.2]	35 [15.9]
Packed Weight, Each, lbs. [kg]	 26 [11.8]	34 [15.4]	40 [18.1]
Standard Package	 2	2	2
Pallet Weight, lbs. [kg]	 1460 [662.2]	1143 [518.5]	1319 [598.3]
Pallet Quantity	 56	32	32





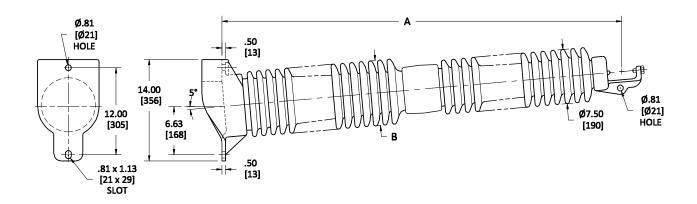






Catalog Number (RG Gray)	510255	510266	510288	510027
ANSI Class	57-24	57-25	57-26	
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	68 [1727]
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	27 [686]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	55	66	88	115
Required Voltage for RG Application, kV	45	55	69	88
Low Frequency Dry Flashover, kV	150	175	200	270
Low Frequency Wet Flashover, kV	135	160	180	230
Critical Impulse Flashover, Positive, kV	255	290	330	390
Critical Impulse Flashover, Negative, kV	340	380	425	570
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	88
Maximum RIV-Microvolts at 1000 kHz	200	200	200	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	45 [20.4]	59 [26.8]	77 [34.9]	105 [47.6]
Packed Weight, Each, lbs. [kg]	52 [23.6]	65 [29.5]	84 [38.1]	120 [54.4]
Standard Package	2	2	2	1
Pallet Weight, lbs. [kg]	1680 [762.0]	1095 [496.7]	1391 [630.9]	1135 [514.8]
Pallet Quantity	32	16	16	9



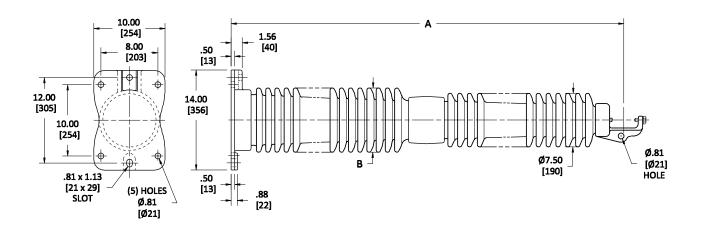


Catalog Number (Light Gray-ANSI 70)	72459PA-70	70147PA-70	70148PA-70	70149PA-70
Catalog Number (Dark Gray)	72459PA	70147PA	70148PA	70149PA
Catalog Number (Brown)	72459KPA	70147CPA	70148VPA	70149LPA
Dimensions				
"A" Dimension, Length, in. [mm]	42.25 [1073]	48.5 [1232]	54 [1372]	61 [1549]
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	154 [69.6]	160 [72.6]	170 [77.1]	185 [83.9]
Packed Weight, Each, lbs. [kg]	184 [83.5]	191 [86.6]	210 [95.3]	230 [104.3]
Standard Package	1	1	1	1



Section: C-2 / Page: 15



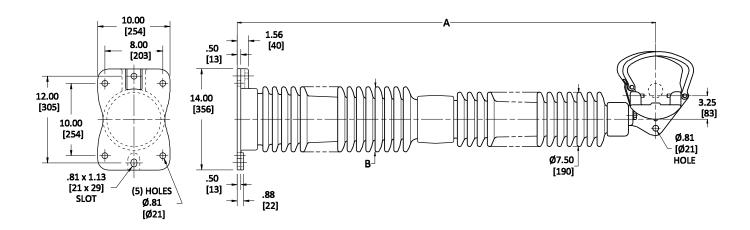


Catalog Number (Light Gray-ANSI 70)	75725PA-70	75726PA-70	74338PA-70	73359PA-70
Catalog Number (Dark Gray)	75725PA	75726PA	74338PA	73359PA
Catalog Number (Brown)	75725BPA	75726CPA	74338CPA	73359EPA
Dimensions				
"A" Dimension, Length, in. [mm]	42.25 [1073]	48.5 [1232]	54 [1372]	61 [1549]
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	154 [69.6]	160 [72.6]	170 [77.1]	185 [83.9]
Packed Weight, Each, lbs. [kg]	184 [83.5]	191 [86.6]	210 [95.3]	230 [104.3]
Standard Package	1	1	1	1



Section: C-2 / Page: 16



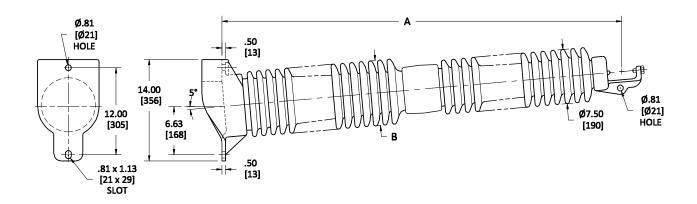


Catalog Number (Light Gray-ANSI 70)	301541PA-70	301542PA-70	301543PA-70	301544PA-70
Catalog Number (Dark Gray)	301541PA	301542PA	301543PA	301544PA
Catalog Number (Brown)	301541BPA	301542BPA	301543BPA	301544BPA
Dimensions				
"A" Dimension, Length, in. [mm]	45 [1143]	51.25 [1302]	56.75 [1441]	63.5 [1613]
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	164 [74.4]	170 [77.1]	180 [81.6]	195 [88.5]
Packed Weight, Each, lbs. [kg]	194 [88.0]	201 [91.2]	220 [99.8]	240 [108.9]
Standard Package	1	1	1	1



Section: C-2 / Page: 17



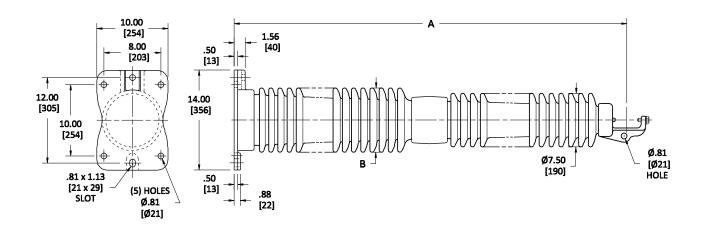


to change without notice.

Catalog Number (RG Gray)	 510507PA	510508PA	510509PA
Dimensions			
"A" Dimension, Length, in. [mm]	 48.5 [1232]	54 [1372]	61 [1549]
"B" Dimension, Diameter, in. [mm]	 8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	 100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 160 [72.6]	170 [77.1]	185 [83.9]
Packed Weight, Each, lbs. [kg]	 191 [86.6]	210 [95.3]	230 [104.3]
Standard Package	 1	1	1



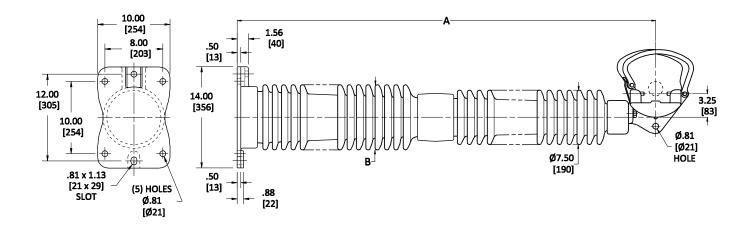




Catalog Number (RG Gray)	 510607PA	510608PA	510609PA
Dimensions			
"A" Dimension, Length, in. [mm]	 48.5 [1232]	54 [1372]	61 [1549]
"B" Dimension, Diameter, in. [mm]	 8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	 100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	 115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 160 [72.6]	170 [77.1]	185 [83.9]
Packed Weight, Each, lbs. [kg]	 191 [86.6]	210 [95.3]	230 [104.3]
Standard Package	 1	1	1





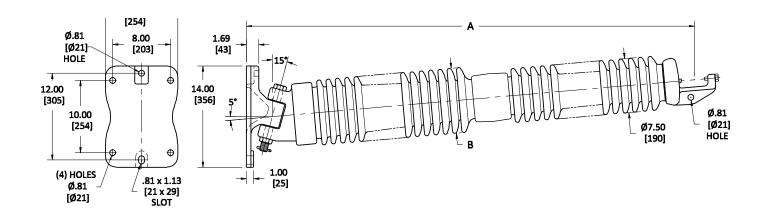


Technical information is subject to change without notice.

Catalog Number (RG Gray)	 510617PA	510618PA	510619PA
Dimensions			
"A" Dimension, Length, in. [mm]	 51.25 [1302]	56.75 [1441]	63.5 [1613]
"B" Dimension, Diameter, in. [mm]	 8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	 100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 170 [77.1]	180 [81.6]	195 [88.5]
Packed Weight, Each, lbs. [kg]	 201 [91.2]	220 [99.8]	240 [108.9]
Standard Package	 1	1	1



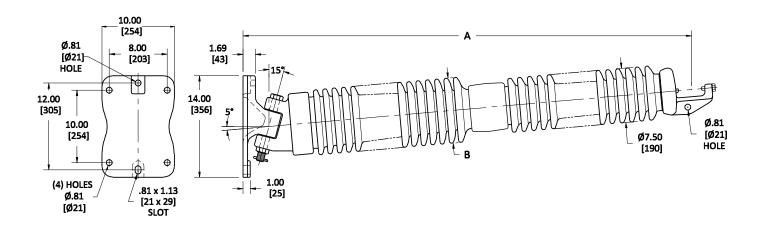




Catalog Number (Light Gray-ANSI 70)	305502PA-70	305503PA-70	305504PA-70	305505PA-70
Catalog Number (Dark Gray)	305502PA	305503PA	305504PA	305505PA
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	48.13 [1223]	F4 20 [1201]	CO 99 [1F46]	CC E [1C90]
, , ,		54.38 [1381]	60.88 [1546]	66.5 [1689]
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	169 [76.6]	175 [79.4]	185 [83.9]	200 [90.7]
Packed Weight, Each, lbs. [kg]	199 [90.3]	206 [93.4]	225 [102.1]	245 [111.1]
Standard Package	1	1	1	1



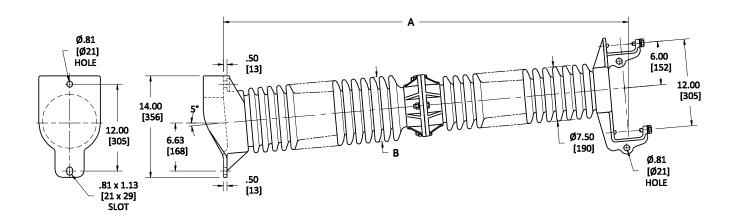




Catalog Number (RG Gray)	 510097PA	510098PA	510099PA
Dimensions			
"A" Dimension, Length, in. [mm]	 54.38 [1381]	60.88 [1546]	66.5 [1689]
"B" Dimension, Diameter, in. [mm]	 8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	 100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 115/138	115/138	115/138
Required Voltage for RG Application, kV	115/138	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 175 [79.4]	185 [83.9]	200 [90.7]
Packed Weight, Each, lbs. [kg]	 206 [93.4]	225 [102.1]	245 [111.1]
Standard Package	 1	1	1





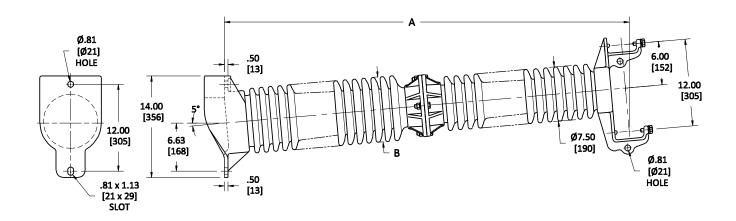


Catalog Number (Light Gray-ANSI 70)	305065-70	98932-70	90668-70	93349-70
Catalog Number (Dark Gray)	305065	98932	90668	93349
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	42.5 [1080]	47.5 [1207]	54.75 [1391]	60.75 [1543]
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	48 [1219]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	169 [76.7]	170 [77.1]	180 [81.6]	195 [88.5]
Packed Weight, Each, lbs. [kg]	194 [88.0]	201 [91.2]	220 [99.8]	240 [108.9]
Standard Package	1	1/2	1/2	1/2



Section: C-2 / Page: 23





Catalog Number (RG Gray)	 510521	510522	510523
Dimensions			
"A" Dimension, Length, in. [mm]	 47.5 [1207]	54.75 [1391]	60.75 [1543]
"B" Dimension, Diameter, in. [mm]	 8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	 100 [2540]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	48 [1219]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	 115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 170 [77.1]	180 [81.6]	195 [88.5]
Packed Weight, Each, lbs. [kg]	 201 [91.2]	220 [99.8]	240 [108.9]
Standard Package	 1/2	1/2	1/2

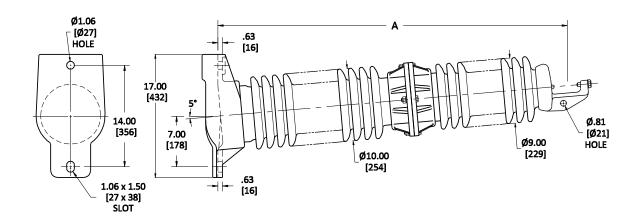


Technical information is subject to change without notice.

Section: C-2 / Page: 25

Page Release: B

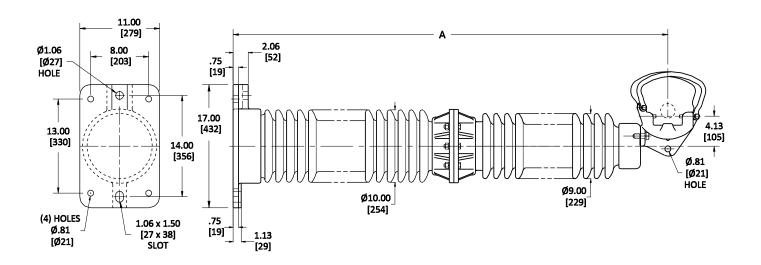




Catalog Number (Light Gray-ANSI 70)	305169-70	305170-70	79135-70	79136-70
Catalog Number (Dark Gray)	305169	305170	79135	79136
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	47 [1194]	50 [1270]	58.88 [1495]	62 [1575]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	4000 [17.8]	4000 [17.8]	4000 [17.8]	4000 [17.8]
Max Recommended Working Load, lbs. [kN]	1600 [7.1]	1600 [7.1]	1600 [7.1]	1600 [7.1]
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	10000 [44.5]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	250 [113.4]	256 [116.1]	260 [117.9]	265 [120.2]
Packed Weight, Each, lbs. [kg]	301 [136.5]	308 [139.7]	311 [141.1]	329 [149.2]
Standard Package	1/2	1/2	1/2	1/2



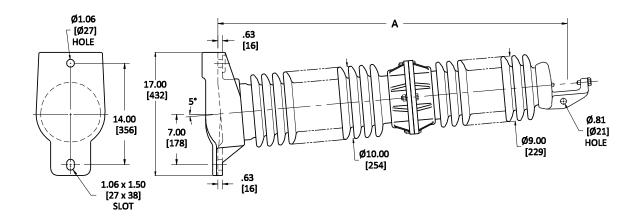




Catalog Number (Light Gray-ANSI 70)	303759-70	305195-70	305071-70	305072-70
Catalog Number (Dark Gray)	303759	305195	305071	305072
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	50.75 [1289]	53.75 [1365]	62.19 [1580]	65.31 [1859]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	47 [1194]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	4000 [17.8]	4000 [17.8]	4000 [17.8]	4000 [17.8]
Max Recommended Working Load, lbs. [kN]	1600 [7.1]	1600 [7.1]	1600 [7.1]	1600 [7.1]
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	10000 [44.5]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	266 [120.7]	272 [123.4]	276 [125.2]	281 [127.5]
Packed Weight, Each, lbs. [kg]	317 [143.8]	324 [147.0]	327 [148.3]	345 [156.5]
Standard Package	1/2	1/2	1/2	1/2



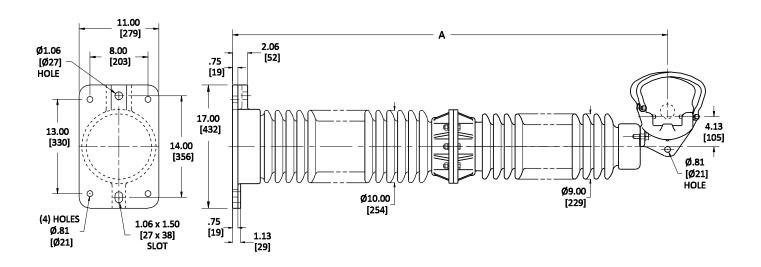




Catalog Number (RG Gray)	 510068	510069	510070
Dimensions			
"A" Dimension, Length, in. [mm]	 50 [1270]	58 [1473]	62 [1575]
Leakage Distance, in. [mm]	 100 [2540]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 4000 [17.8]	4000 [17.8]	4000 [17.8]
Max Recommended Working Load, lbs. [kN]	 1600 [7.1]	1600 [7.1]	1600 [7.1]
Tension Strength (Ultimate), lbs. [kN]	 10000 [44.5]	10000 [44.5]	10000 [44.5]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	 115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			•
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 256 [116.1]	260 [117.9]	265 [120.2]
Packed Weight, Each, lbs. [kg]	 308 [139.7]	311 [141.1]	329 [149.2]
Standard Package	 1/2	1/2	1/2



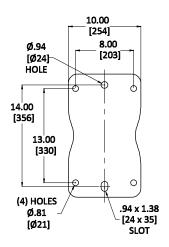


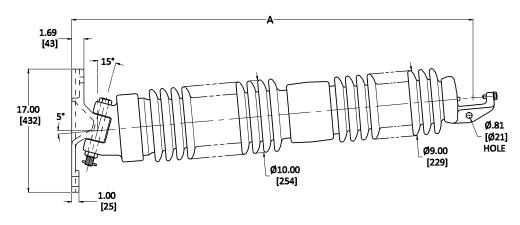


Catalog Number (RG Gray)	 510072	510073	510074
Dimensions			
"A" Dimension, Length, in. [mm]	 53.75 [1365]	62.19 [1580]	65.31 [1859]
Leakage Distance, in. [mm]	 100 [2540]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	47 [1194]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 4000 [17.8]	4000 [17.8]	4000 [17.8]
Max Recommended Working Load, lbs. [kN]	 1600 [7.1]	1600 [7.1]	1600 [7.1]
Tension Strength (Ultimate), lbs. [kN]	 10000 [44.5]	10000 [44.5]	10000 [44.5]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	 115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 272 [123.4]	276 [125.2]	281 [127.5]
Packed Weight, Each, lbs. [kg]	 324 [147.0]	327 [148.3]	345 [156.5]
Standard Package	 1/2	1/2	1/2







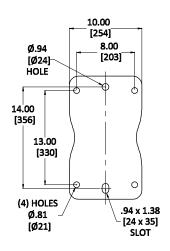


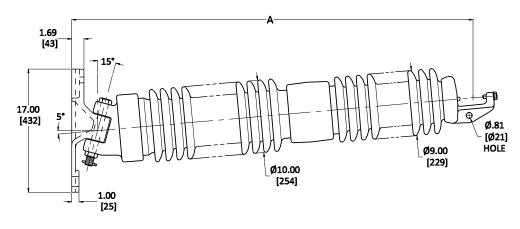
Catalog Number (Light Gray-ANSI 70)	305506PA-70	305507PA-70	305508PA-70	305509PA-70
Catalog Number (Dark Gray)	305506PA	305507PA	305508PA	305509PA
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	55.5 [1410]	58.75 [1492]	66.75 [1695]	69 [1763]
Leakage Distance, in. [mm]	82 [2083]	100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	36.25 [921]	42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	4000 [17.8]	4000 [17.8]	4000 [17.8]	3600 [16.0]
Max Recommended Working Load, lbs. [kN]	1600 [7.1]	1600 [7.1]	1600 [7.1]	1440 [6.4]
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	10000 [44.5]
Electrical Values				
Usual Line Voltage, kV	115/138	115/138	115/138	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	290	330	390	435
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	265 [120.2]	271 [122.9]	275 [124.7]	280 [127.0]
Packed Weight, Each, lbs. [kg]	316 [143.3]	323 [146.5]	344 [156.0]	345 [156.5]
Standard Package	1/2	1/2	1/2	1/2



Technical information is subject to change without notice.



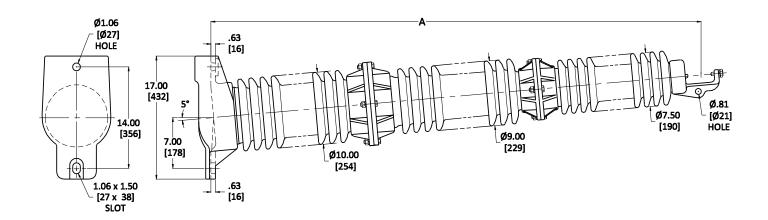




Catalog Number (RG Gray)	 510101PA	510102PA	510103PA
Dimensions			
"A" Dimension, Length, in. [mm]	 58.75 [1492]	66.75 [1695]	69 [1763]
Leakage Distance, in. [mm]	 100 [2540]	110 [2794]	130 [3302]
Dry Arcing Distance, in. [mm]	 42.25 [1073]	48.25 [1226]	54.25 [1378]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 4000 [17.8]	4000 [17.8]	3600 [16.0]
Max Recommended Working Load, lbs. [kN]	 1600 [7.1]	1600 [7.1]	1440 [6.4]
Tension Strength (Ultimate), lbs. [kN]	 10000 [44.5]	10000 [44.5]	10000 [44.5]
Electrical Values			
Usual Line Voltage, kV	 115/138	138	138
Required Voltage for RG Application, kV	 115	138	138
Low Frequency Dry Flashover, kV	 380	435	485
Low Frequency Wet Flashover, kV	 330	390	435
Critical Impulse Flashover, Positive, kV	 610	695	780
Critical Impulse Flashover, Negative, kV	 780	900	1000
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 88	88	88
Maximum RIV-Microvolts at 1000 kHz	 100	100	100
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 271 [122.9]	275 [124.7]	280 [127.0]
Packed Weight, Each, lbs. [kg]	 323 [146.5]	344 [156.0]	345 [156.5]
Standard Package	 1/2	1/2	1/2



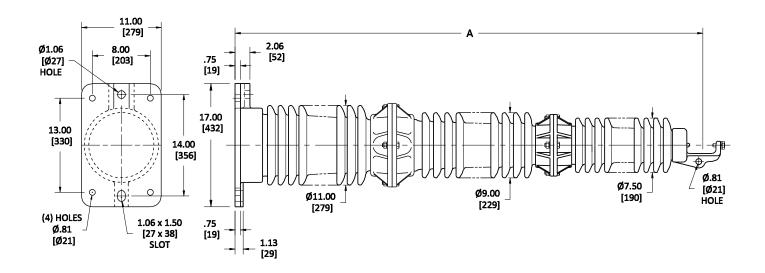




Catalog Number (Light Gray-ANSI 70)	76072-70	76073-70	76074-70	
Catalog Number (Dark Gray)	76072A	76073A	76074A	
Catalog Number (Brown)	76072H	76073D	76074G	
Dimensions				
"A" Dimension, Length, in. [mm]	73 [1854]	79.75 [2026]	84.75 [2153]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	315 [142.9]	337 [152.9]	359 [162.8]	
Packed Weight, Each, lbs. [kg]	361 [163.7]	394 [178.7]	421 [191.0]	
Standard Package	1/3	1/3	1/3	



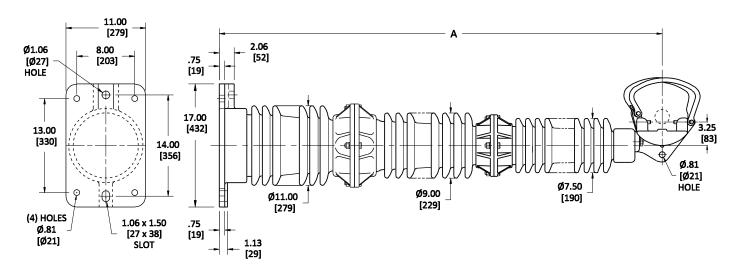




Catalog Number (Light Gray-ANSI 70)	76093-70	76094-70	321122-70	
Catalog Number (Dark Gray)	76093	76094	321122A	
Catalog Number (Brown)	76093A	76094C	321122	
Dimensions				
"A" Dimension, Length, in. [mm]	73.5 [1867]	80.63 [2048]	85.63 [2175]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	357 [161.9]	379 [171.9]	401 [181.9]	
Packed Weight, Each, lbs. [kg]	403 [182.8]	436 [197.7]	463 [210.0]	
Standard Package	1/3	1/3	1/3	



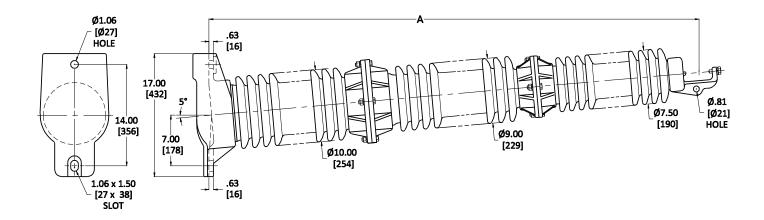




Catalog Number (Light Gray-ANSI 70)	301573-70	301574-70	301575-70	
Catalog Number (Dark Gray)	301573	301574	301575	
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	76 [1930]	83.12 [2111]	88.13 [2238]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	341 [154.7]	363 [164.7]	385 [174.6]	
Packed Weight, Each, lbs. [kg]	387 [175.5]	420 [192.5]	447 [202.8]	
Standard Package	1/3	1/3	1/3	



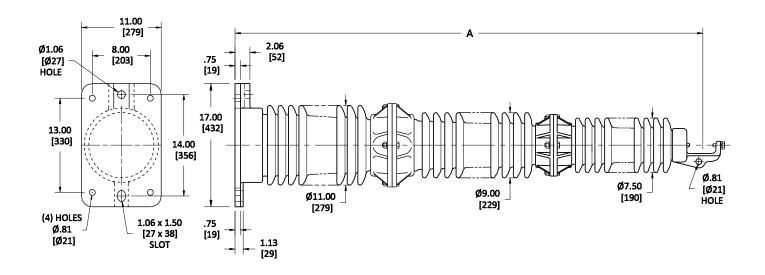




Catalog Number (RG Gray)	510702	510703	510704	
Dimensions				
"A" Dimension, Length, in. [mm]	73 [1854]	79.75 [2026]	84.75 [2153]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Required Voltage for RG Application, kV	161	161	161	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	315 [142.9]	337 [152.9]	359 [162.8]	
Packed Weight, Each, lbs. [kg]	361 [163.7]	394 [178.7]	421 [191.0]	
Standard Package	1/3	1/3	1/3	



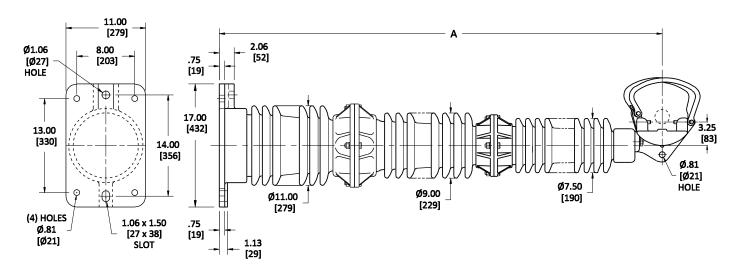




Catalog Number (RG Gray)	510802	510803	510804	
Dimensions				
"A" Dimension, Length, in. [mm]	73.5 [1867]	80.63 [2048]	85.63 [2175]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Required Voltage for RG Application, kV	161	161	161	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	357 [161.9]	379 [171.9]	401 [181.9]	
Packed Weight, Each, lbs. [kg]	403 [182.8]	436 [197.7]	463 [210.0]	
Standard Package	1/3	1/3	1/3	







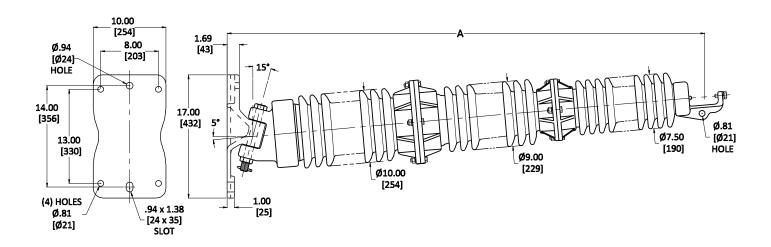
Catalog Number (RG Gray)	510805	510008	510806	
Dimensions				
"A" Dimension, Length, in. [mm]	76 [1930]	83.12 [2111]	88.13 [2238]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Required Voltage for RG application, kV	161	161	161	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	341 [154.7]	363 [164.7]	385 [174.6]	
Packed Weight, Each, lbs. [kg]	387 [175.5]	420 [192.5]	447 [202.8]	
Standard Package	1/3	1/3	1/3	



Section: C-2 / Page: 37

Page Release: B

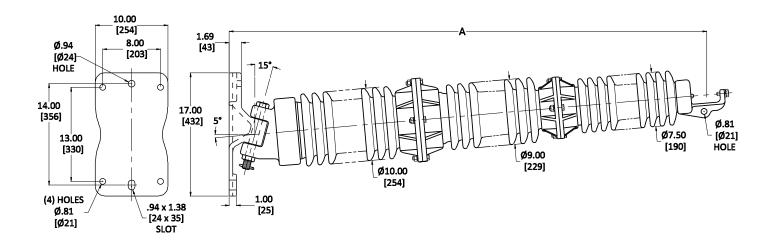




Catalog Number (Light Gray-ANSI 70)	305510-70	305511-70	305512-70	
Catalog Number (Dark Gray)	305510	305511	305512	
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	82.5 [2096]	86.25 [2191]	91.06 [2313]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	330 [149.7]	352 [159.7]	374 [169.6]	
Packed Weight, Each, lbs. [kg]	376 [170.6]	410 [186.0]	437 [198.2]	
Standard Package	1/3	1/3	1/3	



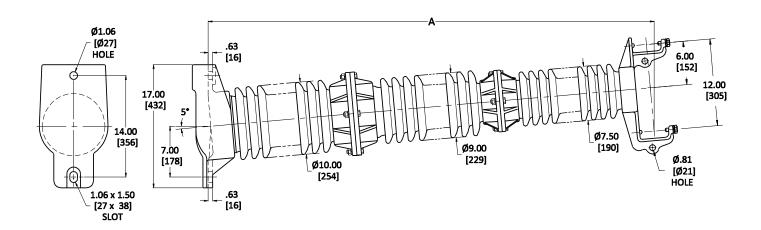




Catalog Number (RG Gray)	510104	510105	510106	
Dimensions				
"A" Dimension, Length, in. [mm]	82.5 [2096]	86.25 [2191]	91.06 [2313]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Required Voltage for RG Application, kV	161	161	161	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	330 [149.7]	352 [159.7]	374 [169.6]	
Packed Weight, Each, lbs. [kg]	376 [170.6]	410 [186.0]	437 [198.2]	
Standard Package	1/3	1/3	1/3	



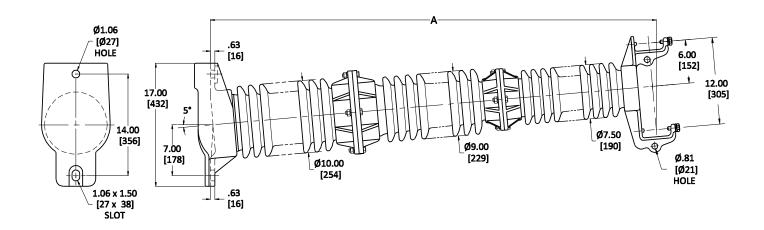




Catalog Number (Light Gray-ANSI 70)	305248-70	305249-70	303070-70	
Catalog Number (Dark Gray)	305248	305249	303070	
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	73.25 [1861]	80 [2032]	85 [2159]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	327 [148.3]	349 [158.3]	371 [168.3]	
Packed Weight, Each, lbs. [kg]	373 [169.2]	406 [184.2]	433 [196.4]	
Standard Package	1/3	1/3	1/3	



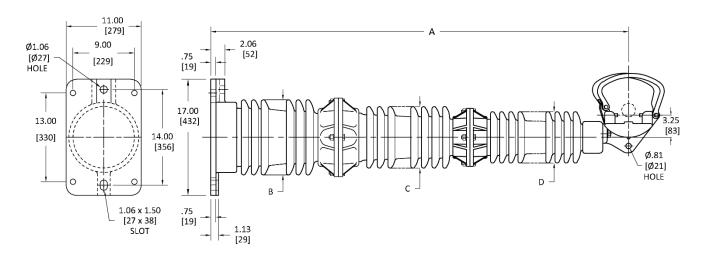




Catalog Number (RG Gray)	510528	510529	510530	
Dimensions				
"A" Dimension, Length, in. [mm]	73.25 [1861]	80 [2032]	85 [2159]	
Leakage Distance, in. [mm]	138 [3505]	154 [3912]	167 [4242]	
Dry Arcing Distance, in. [mm]	59 [1499]	65 [1651]	71 [1803]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Required Voltage for RG Application, kV	161	161	161	
Low Frequency Dry Flashover, kV	540	590	640	
Low Frequency Wet Flashover, kV	485	530	575	
Critical Impulse Flashover, Positive, kV	860	945	1025	
Critical Impulse Flashover, Negative, kV	1100	1200	1300	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	103	103	103	
Maximum RIV-Microvolts at 1000 kHz	100	100	100	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	327 [148.3]	349 [158.3]	371 [168.3]	
Packed Weight, Each, lbs. [kg]	373 [169.2]	406 [184.2]	433 [196.4]	
Standard Package	1/3	1/3	1/3	



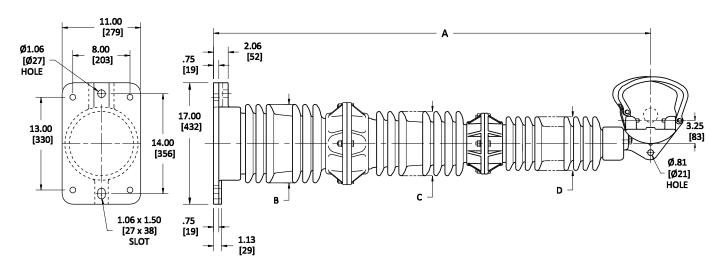




Catalog Number (Light Gray-ANSI 70)	303492-70	305206-70	301372-70	
Catalog Number (Dark Gray)	303492	305206	301372	
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	88.38 [2244]	93.63 [2378]	98 [2489]	
"B" Dimension, Diameter, in. [mm]	11 [279]	12 [305]	12 [305]	
"C" Dimension, Diameter, in. [mm]	10 [254]	10.5 [268]	10.5 [267]	
"D" Dimension, Diameter, in. [mm]	9.63 [245]	10 [254]	10 [254]	
Leakage Distance, in. [mm]	167 [4242]	212 [5385]	230 [5842]	
Dry Arcing Distance, in. [mm]	71 [1803]	73 [1854]	79 [2007]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	3500 [15.6]	3500 [15.6]	3500 [15.6]	
Max Recommended Working Load, lbs. [kN]	1400 [6.2]	1400 [6.2]	1400 [6.2]	
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	640	690	735	
Low Frequency Wet Flashover, kV	575	620	675	
Critical Impulse Flashover, Positive, kV	1025	1105	1185	
Critical Impulse Flashover, Negative, kV	1300	1370	1485	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	146	146	146	
Maximum RIV-Microvolts at 1000 kHz	50	50	50	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	505 [229.1]	548 [248.6]	585 [265.4]	
Packed Weight, Each, lbs. [kg]	555 [251.7]	603 [273.5]	643 [291.7]	
Standard Package	1/3	1/3	1/3	



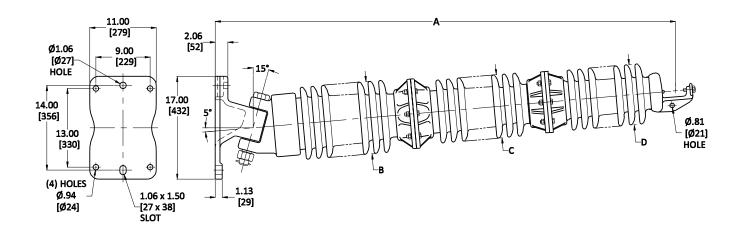




Catalog Number (RG Gray)	510075	510076	510077	
Dimensions				
"A" Dimension, Length, in. [mm]	88.38 [2244]	93.63[2378]	98 [2489]	
"B" Dimension, Diameter, in. [mm]	11 [279]	12 [305]	12 [305]	
"C" Dimension, Diameter, in. [mm]	10 [254]	10.5 [268]	10.5 [267]	
"D" Dimension, Diameter, in. [mm]	9.63 [245]	10 [254]	10 [254]	
Leakage Distance, in. [mm]	167 [4242]	212 [5385]	230 [5842]	
Dry Arcing Distance, in. [mm]	71 [1803]	73 [1854]	79 [2007]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	3500 [15.6]	3500 [15.6]	3500 [15.6]	
Max Recommended Working Load, lbs. [kN]	1400 [6.2]	1400 [6.2]	1400 [6.2]	
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	
Electrical Values				
Usual Line Voltage, kV	161/230	230	230	
Required Voltage for RG Application, kV	161	230	230	
Low Frequency Dry Flashover, kV	640	690	735	
Low Frequency Wet Flashover, kV	575	620	675	
Critical Impulse Flashover, Positive, kV	1025	1105	1185	
Critical Impulse Flashover, Negative, kV	1300	1370	1485	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	146	146	146	
Maximum RIV-Microvolts at 1000 kHz	50	50	50	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	505 [229.1]	548 [248.6]	585 [265.4]	
Packed Weight, Each, lbs. [kg]	555 [251.7]	603 [273.5]	643 [291.7]	
Standard Package	1/3	1/3	1/3	



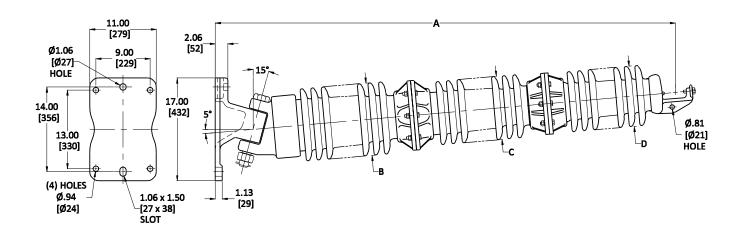




Catalog Number (Light Gray-ANSI 70)	305513-70	305514-70	305515-70	
Catalog Number <b>(Dark Gray)</b>	305513	305514	305515	
Catalog Number (Brown)				
Dimensions				
"A" Dimension, Length, in. [mm]	94.75 [2407]	100.75 [2559]	108.75 [2762]	
"B" Dimension, Diameter, in. [mm]	11 [279]	11 [279]	12 [305]	
"C" Dimension, Diameter, in. [mm]	10 [254]	10 [254]	10.5 [267]	
"D" Dimension, Diameter, in. [mm]	9.63 [244]	9 [229]	10 [254]	
Leakage Distance, in. [mm]	167 [4242]	212 [5385]	230 [5842]	
Dry Arcing Distance, in. [mm]	71 [1803]	73 [1854]	79 [2007]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	3500 [15.6]	3500 [15.6]	3500 [15.6]	
Max Recommended Working Load, lbs. [kN]	1400 [6.2]	1400 [6.2]	1400 [6.2]	
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	
Electrical Values				
Usual Line Voltage, kV	161/230	161/230	161/230	
Low Frequency Dry Flashover, kV	640	690	735	
Low Frequency Wet Flashover, kV	575	620	675	
Critical Impulse Flashover, Positive, kV	1025	1105	1185	
Critical Impulse Flashover, Negative, kV	1300	1370	1485	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	146	146	146	
Maximum RIV-Microvolts at 1000 kHz	50	50	50	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	520 [235.9]	563 [255.4]	600 [272.2]	
Packed Weight, Each, lbs. [kg]	570 [258.5]	618 [280.3]	658 [298.5]	
Standard Package	1/3	1/3	1/3	



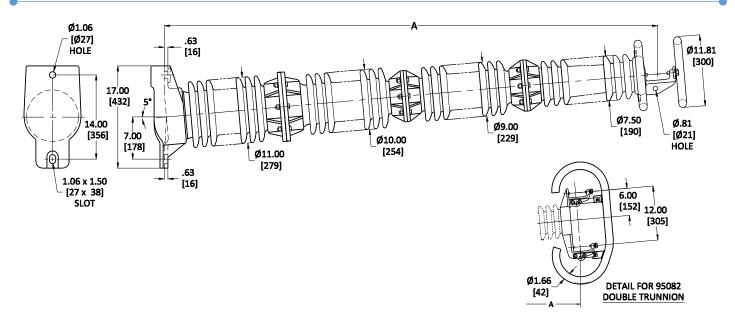




Catalog Number (RG Gray)	510107	510108	510109	
Dimensions				
"A" Dimension, Length, in. [mm]	94.75 [2407]	100.75 [2559]	108.75 [2762]	
"B" Dimension, Diameter, in. [mm]	11 [279]	11 [279]	12 [305]	
"C" Dimension, Diameter, in. [mm]	10 [254]	10 [254]	10.5 [267]	
"D" Dimension, Diameter, in. [mm]	9.63 [244]	9 [229]	10 [254]	
Leakage Distance, in. [mm]	167 [4242]	212 [5385]	230 [5842]	
Dry Arcing Distance, in. [mm]	71 [1803]	73 [1854]	79 [2007]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	3500 [15.6]	3500 [15.6]	3500 [15.6]	
Max Recommended Working Load, lbs. [kN]	1400 [6.2]	1400 [6.2]	1400 [6.2]	
Tension Strength (Ultimate), lbs. [kN]	10000 [44.5]	10000 [44.5]	10000 [44.5]	
Electrical Values				
Usual Line Voltage, kV	161/230	230	230	
Required Voltage for RG Application, kV	161	230	230	
Low Frequency Dry Flashover, kV	640	690	735	
Low Frequency Wet Flashover, kV	575	620	675	
Critical Impulse Flashover, Positive, kV	1025	1105	1185	
Critical Impulse Flashover, Negative, kV	1300	1370	1485	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	146	146	146	
Maximum RIV-Microvolts at 1000 kHz	50	50	50	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	520 [235.9]	563 [255.4]	600 [272.2]	
Packed Weight, Each, lbs. [kg]	570 [258.5]	618 [280.3]	658 [298.5]	
Standard Package	1/3	1/3	1/3	





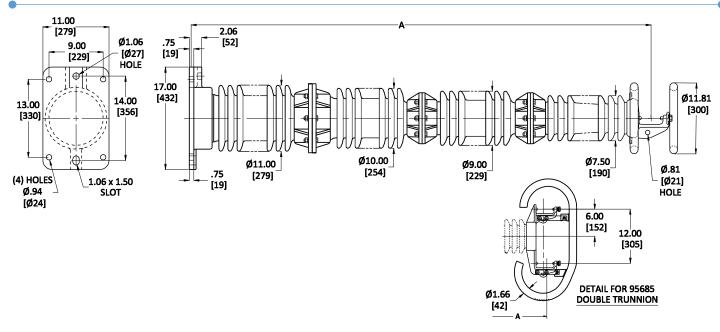


Catalog Number (Light Gray-ANSI 70)	98480-70	95082-70	 
Catalog Number (Dark Gray)	98480	95082	 
Catalog Number (Brown)			 
Dimensions			
"A" Dimension, Length, in. [mm]	129.71 [3294]	129.31 [3284]	 
Leakage Distance, in. [mm]	240 [6096]	240 [6096]	 
Dry Arcing Distance, in. [mm]	103 [2616]	103 [2616]	 
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	1500 [6.7]	1500 [6.7]	 
Max Recommended Working Load, lbs. [kN]	600 [2.7]	600 [2.7]	 
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	 
Electrical Values			
Usual Line Voltage, kV	345	345	 
Low Frequency Dry Flashover, kV	965	965	 
Low Frequency Wet Flashover, kV	740	740	 
Critical Impulse Flashover, Positive, kV	1610	1610	 
Critical Impulse Flashover, Negative, kV	1850	1850	 
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	965	965	 
Maximum RIV-Microvolts at 1000 kHz	740	740	 
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	556 [252.2]	561 [254.5]	 
Packed Weight, Each, lbs. [kg]	616 [279.4]	621 [281.7]	 
Standard Package	1/4	1/4	 



Section: C-2 / Page: 45



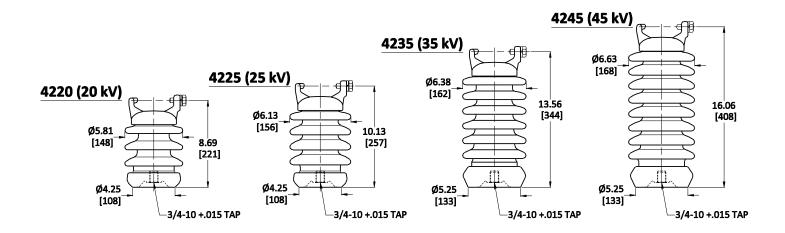


Catalog Number (Light Gray-ANSI 70)	98337-70	95685-70	 
Catalog Number (Dark Gray)	98337	95685	 
Catalog Number (Brown)			 
Dimensions			
"A" Dimension, Length, in. [mm]	131.50 [3340]	131.63 [3343]	 
Leakage Distance, in. [mm]	240 [6096]	240 [6096]	 
Dry Arcing Distance, in. [mm]	103 [2616]	103 [2616]	 
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	1500 [6.7]	1500 [6.7]	 
Max Recommended Working Load, lbs. [kN]	600 [2.7]	600 [2.7]	 
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	 
Electrical Values			
Usual Line Voltage, kV	345	345	 
Low Frequency Dry Flashover, kV	965	965	 
Low Frequency Wet Flashover, kV	740	740	 
Critical Impulse Flashover, Positive, kV	1610	1610	 
Critical Impulse Flashover, Negative, kV	1850	1850	 
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	965	965	 
Maximum RIV-Microvolts at 1000 kHz	740	740	 
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	556 [252.2]	561 [254.5]	 
Packed Weight, Each, lbs. [kg]	616 [279.4]	621 [281.7]	 
Standard Package	1/4	1/4	 



Section: C-2 / Page: 46

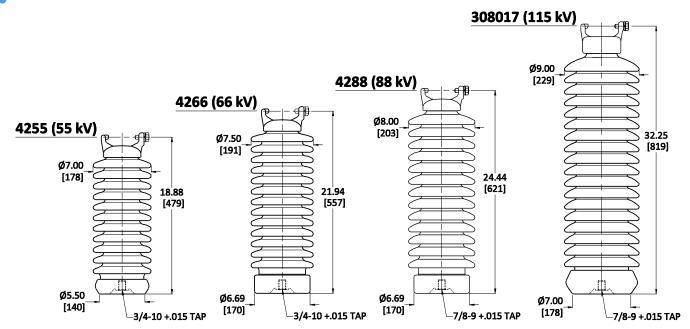




Catalog Number (Light Gray-ANSI 70)	4220-70	4225-70	4235-70	4245-70
Catalog Number (Brown)	4220	4225	4235	4245
ANSI Class		57-11	57-12	57-13
Dimensions				
Leakage Distance, in. [mm]	10 [254]	14 [356]	22 [559]	29 [737]
Dry Arcing Distance, in. [mm]	5 [127]	6.5 [165]	9.5 [241]	12.25 [311]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	20	25	35	45
Low Frequency Dry Flashover, kV	70	80	100	125
Low Frequency Wet Flashover, kV	50	60	70	100
Critical Impulse Flashover, Positive, kV	100	130	160	210
Critical Impulse Flashover, Negative, kV	125	155	205	260
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	15	15	22	30
Maximum RIV-Microvolts at 1000 kHz	50	100	100	200
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	14.3 [6.5]	17.5 [7.9]	28 [12.7]	34.3 [15.6]
Packed Weight, Each, lbs. [kg]	14.7 [6.7]	17.8 [8.1]	28.3 [12.8]	35 [15.9]
Standard Package	6	6	3	3
Pallet Weight, lbs. [kg]	1908 [865.5]	2307 [1046.4]	3630 [1646.5]	1530 [694.0]
Pallet Quantity	126	126	126	42





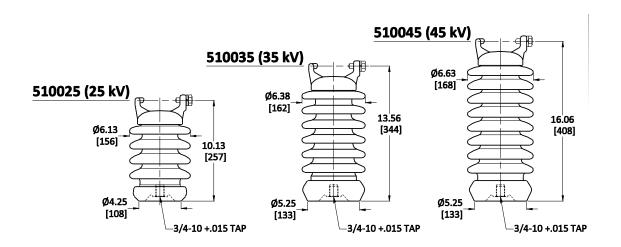


Catalog Number (Light Gray-ANSI 70)	4255-70	4266-70	4288-70	308017-70
Catalog Number <b>(Brown)</b>	4255	4266	4288	308017
ANSI Class	57-14	57-15	57-16	
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	71 [1803]
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	27 [686]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	55	66	88	115
Low Frequency Dry Flashover, kV	150	175	200	270
Low Frequency Wet Flashover, kV	125	150	170	210
Critical Impulse Flashover, Positive, kV	255	290	330	390
Critical Impulse Flashover, Negative, kV	340	380	425	570
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	88
Maximum RIV-Microvolts at 1000 kHz	200	200	200	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	42 [19]	49 [22]	63 [29]	102 [46]
Packed Weight, Each, lbs. [kg]	45	53	70	108
Standard Package	3	3	2	1
Pallet Weight, lbs. [kg]	2197	1647	1457	1671
Pallet Quantity	48	30	20	15



Section: C-2 / Page: 48



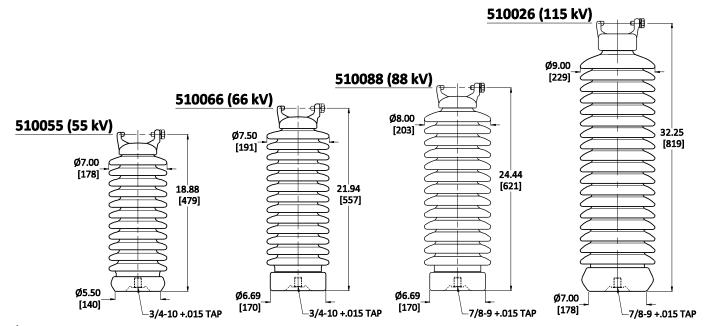


Catalog Number (RG Gray)	 510025	510035	510045
ANSI Class	 57-11	57-12	57-13
Dimensions			
Leakage Distance, in. [mm]	 14 [356]	22 [559]	29 [737]
Dry Arcing Distance, in. [mm]	 6.5 [165]	9.5 [241]	12.25 [311]
Mechanical Values			
Cantilever Strength (Ultimate), lbs. [kN]	 2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	 1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	 5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values			
Usual Line Voltage, kV	 25	35	45
Required Voltage for RG Application, kV	 15	25	35
Low Frequency Dry Flashover, kV	 80	100	125
Low Frequency Wet Flashover, kV	 60	70	100
Critical Impulse Flashover, Positive, kV	 130	160	210
Critical Impulse Flashover, Negative, kV	 155	205	260
Radio Influence Voltage [RIV] Data			
Test Voltage-RMS to Ground, kV	 15	22	30
Maximum RIV-Microvolts at 1000 kHz	 100	100	200
Packing and Shipping Data			
Net Weight, Each, lbs. [kg]	 17.5 [7.9]	28 [12.7]	34.3 [15.6]
Packed Weight, Each, lbs. [kg]	 17.8 [8.1]	28.3 [12.8]	35 [15.9]
Standard Package	 6	3	3
Pallet Weight, lbs. [kg]	 2307 [1046.4]	3630 [1646.5]	1530 [694.0]
Pallet Quantity	 126	126	42



Technical information is subject to change without notice. Page Release: B

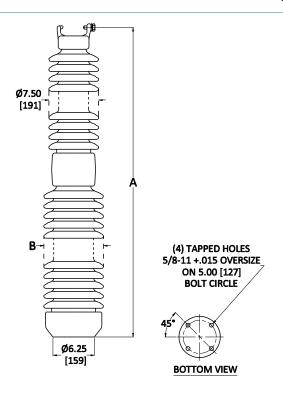




Catalog Number (RG Gray)	510055	510066	510088	510026
ANSI Class	57-14	57-15	57-16	
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	71 [1803]
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	27 [686]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	55	66	88	115
Required Voltage for RG Application, kV	45	55	69	88
Low Frequency Dry Flashover, kV	150	175	200	270
Low Frequency Wet Flashover, kV	125	150	170	210
Critical Impulse Flashover, Positive, kV	255	290	330	390
Critical Impulse Flashover, Negative, kV	340	380	425	570
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	88
Maximum RIV-Microvolts at 1000 kHz	200	200	200	100
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	42 [19]	49 [22]	63 [29]	102 [46]
Packed Weight, Each, lbs. [kg]	45	53	70	108
Standard Package	3	3	2	1
Pallet Weight, lbs. [kg]	2197	1647	1457	1671
Pallet Quantity	48	30	20	15



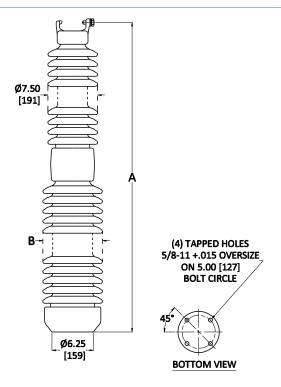




Catalog Number (Light Gray-ANSI 70)	77169PA-70	77170PA-70	77171PA-70	77172PA-70
Catalog Number (Dark Gray)	77169PA	77170PA	77171PA	77172PA
Catalog Number (Brown)	77169EPA	77170EPA	77171EPA	77172EPA
Dimensions				
"A" Dimension, Length, in. [mm]	42.5 [1080]	48.25 [1226]	54.5 [1384]	61 [1549
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	97 [2464]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	32.5 [826]	38.5 [978]	44.5 [1130]	51 [1295]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115	115	115	115/138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	215	255	295	335
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100





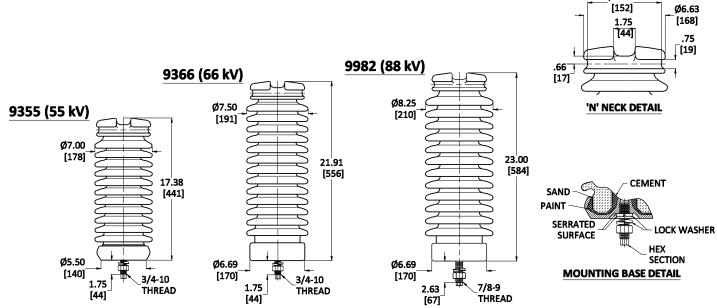


Catalog Number (RG Gray)	510019	510020	510021	510022
Dimensions				
"A" Dimension, Length, in. [mm]	42.5 [1080]	48.25 [1226]	54.5 [1384]	61 [1549
"B" Dimension, Diameter, in. [mm]	8.5 [216]	8.5 [216]	9 [229]	9.25 [235]
Leakage Distance, in. [mm]	82 [2083]	97 [2464]	115 [2921]	130 [3302]
Dry Arcing Distance, in. [mm]	32.5 [826]	38.5 [978]	44.5 [1130]	51 [1295]
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	2800 [12.5]
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	1120 [5.0]
Tension Strength (Ultimate), lbs. [kN]	5000 [22.2]	5000 [22.2]	5000 [22.2]	5000 [22.2]
Electrical Values				
Usual Line Voltage, kV	115	115	115	138
Required Voltage for RG Application, kV	115	115	115	138
Low Frequency Dry Flashover, kV	325	380	435	485
Low Frequency Wet Flashover, kV	215	255	295	335
Critical Impulse Flashover, Positive, kV	525	610	695	780
Critical Impulse Flashover, Negative, kV	660	780	900	1000
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	88	88	88	88
Maximum RIV-Microvolts at 1000 kHz	100	100	100	100



Ø6.00



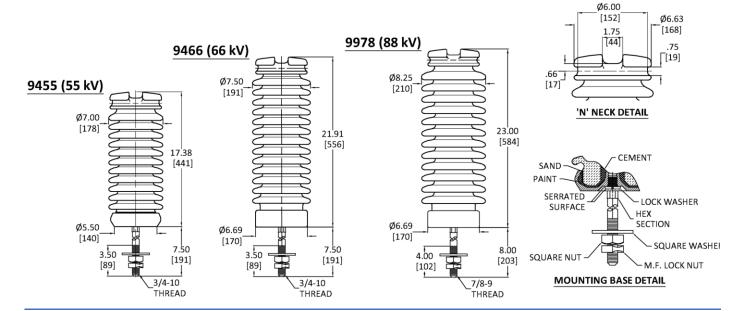


#### Characteristics

Catalog Number (Light Gray-ANSI 70)	9355-70	9366-70	9982-70	
Catalog Number (Brown)	9355	9366	9982A	
ANSI Class	57-4S	57-5S		
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Electrical Values				
Usual Line Voltage, kV	55	66	88	
Low Frequency Dry Flashover, kV	150	175	200	
Low Frequency Wet Flashover, kV	125	150	170	
Critical Impulse Flashover, Positive, kV	255	290	330	
Critical Impulse Flashover, Negative, kV	340	380	425	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	
Maximum RIV-Microvolts at 1000 kHz	200	200	200	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	38 [17.2]	47 [21.3]	58.5 [26.5]	
Packed Weight, Each, lbs. [kg]	40 [18.1]	52.5 [23.8]	65.5 [29.7]	
Standard Package	3	3	2	
Pallet Weight, lbs. [kg]	2039 [924.9]	1585 [719.0]	1365 [619.2]	
Pallet Quantity	48	30	20	







Catalog Number (Light Gray-ANSI 70)	9355-70	9366-70	9982-70	
Catalog Number (Brown)	9355	9366	9982A	
ANSI Class	57-4S	57-5\$		
Dimensions				
Leakage Distance, in. [mm]	40 [1016]	45 [1143]	53 [1346]	
Dry Arcing Distance, in. [mm]	14.5 [368]	17.25 [438]	19.25 [489]	
Mechanical Values				
Cantilever Strength (Ultimate), lbs. [kN]	2800 [12.5]	2800 [12.5]	2800 [12.5]	
Max Recommended Working Load, lbs. [kN]	1120 [5.0]	1120 [5.0]	1120 [5.0]	
Electrical Values				
Usual Line Voltage, kV	55	66	88	
Low Frequency Dry Flashover, kV	150	175	200	
Low Frequency Wet Flashover, kV	125	150	170	
Critical Impulse Flashover, Positive, kV	255	290	330	
Critical Impulse Flashover, Negative, kV	340	380	425	
Radio Influence Voltage [RIV] Data				
Test Voltage-RMS to Ground, kV	44	44	44	
Maximum RIV-Microvolts at 1000 kHz	200	200	200	
Packing and Shipping Data				
Net Weight, Each, lbs. [kg]	38 [17.2]	47 [21.3]	58.5 [26.5]	
Packed Weight, Each, lbs. [kg]	40 [18.1]	52.5 [23.8]	65.5 [29.7]	
Standard Package	3	3	2	
Pallet Weight, lbs. [kg]	2039 [924.9]	1585 [719.0]	1365 [619.2]	
Pallet Quantity	48	30	20	

