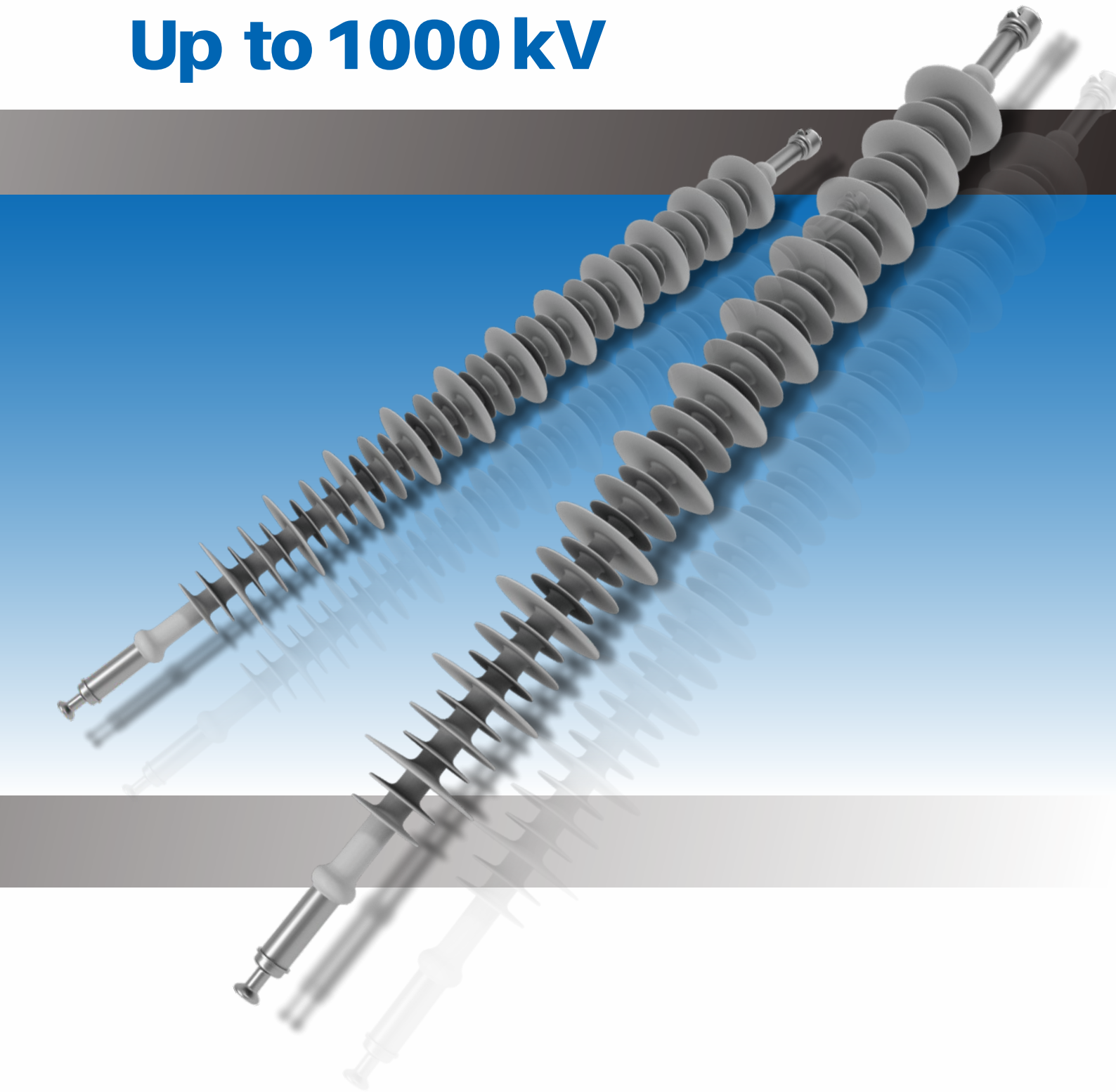
SHEMAR

Suspension Insulators Catalogue

# Up to 1000 kV



Leading Innovation in Composite Insulation Technology

www.shemar.us

# SHEMAR

## Suspension Insulators Catalogue

# Up to 1000 kV

# CONTENT

# SHEMAR Composite Insulators

## Delivering Superior Ageing Resistance and Longevity in Reliability Performance

SHEMAR composite suspension insulators embody the latest innovations in composite insulation technology combining world leading material science development, cutting edge design technology, state-of-the-art manufacturing and rigorously monitored quality control.

We understand the crucial impact that insulators can have on the long-term performance of transmission lines, which is why at SHEMAR we have prioritized creating composite insulator products and solutions that offer unparalleled, reliability, ageing resistance and exceptional performance.

# Design Features and Manufacturing

## One Piece Insulator without Joints

SHEMAR's composite suspension insulators are designed with advanced one-piece housing technology that eliminates internal interfaces, providing superior bonding performance and protection against erosion damage. The housing is directly vulcanized to the core, resulting in a single, seamless HTV silicone rubber housing (sheath and sheds) that is impenetrable to moisture ingress and provides ultimate defense against environmental factors.

During manufacturing a single-shot injection molding process is used, which applies high pressure and temperature to ensure a robust, one-piece housing that is chemically bonded to the core rod. This one-piece housing design features only one internal interface, i.e. the boundary interface between the housing and the FRP core rod, which significantly reduces sensitivity to tangential electrical field stress that can cause erosion damage.

**500T Injection machine**

**1500T Injection machine**

## Excellent Bonding between Core and Housing

SHEMAR's injection molding manufacturingprocess also creates an unmatched quality of chemically bonded interface between the rod and housing, as well as the end fitting and housing, which eliminates the risk of internal tracking along the longitudinal interface of the composite insulator. The bond between the silicone rubber housing and fiberglass rod is also mechanically stronger than the intrinsic tear strength of the silicone rubber, ensuring an incredibly durable and reliable insulator.

**Excellent bonding performance**

**Bonding pull-off test**

## Impenetrable Triple Point

SHEMAR's composite suspension insulators feature an innovative and unique impenetrable sealing system to prevent water and contamination from entering the insulator at its triple point. This is achieved by directly molding HTV silicone onto the triple point and overlapping part of the metal end fittings to ensure total enclose and protection of the sensitive triple junction zone (where metal end fitting/core rod/silicone housing meet).
The highest bonding and adherence of HTVsilicone housing on to the end fittings safely protects the fiberglass rod against water orcontamination attack and eliminates the needs for inherently weak traditional sealing devices.


**Crimping machine and acoustic emission detection device**

## Maximized Mechanical Integrity

To ensure uniform stress distribution and maximum mechanical integrity of the finished Insulator a circumferential, multi-step crimping system is used for the attachment of metal end fittings to the FRP core. Each crimping process is monitored for acoustic emission, crimp pressure and travel distance of compression dies as control parameters.

Largevariability in the ultimate tensile strength of Insulators can occur due to various failure modes at the interface between the core rod and end fitting. To deliver the most consistent reproducibility in tensile strength, SHEMAR's insulator designs are based on uniform failure mode and a safety buffer of approximately 20% is maintained between the ultimate tensile failure load and the specified mechanical load (SML).

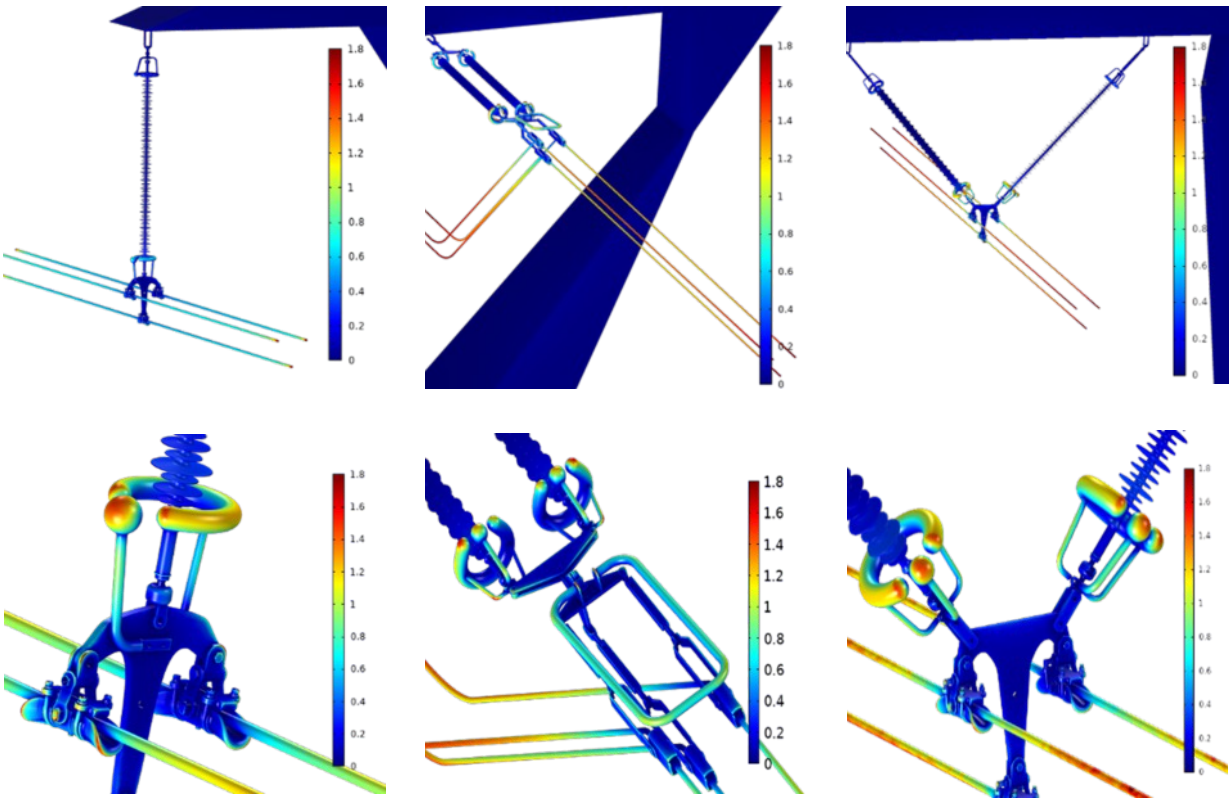
In addition, SHEMAR insulators come with built-in redundancies that contribute to their higher torsional strength rating, which can make the installation and in-service operation of the insulators safer.

## Optimal Electric Field Grading - No Water Droplet Corona

At SHEMAR, our composite insulators are carefully engineered to eliminate RIV and corona (under both dry and wet conditions). Rather than taking a one-size-fits-all approach, we design our corona rings in accordance with the actual requirements and use of the individual user. To achieve this, our application engineers utilize state-of-the-art 3D modeling and FEA simulations to determine the optimal size and placement of corona rings based on the specific structure design and overall assembly configuration.

It is ensured that the maximum electric field criteria of ≤ 4.2 kVrms/cm on silicone rubber housing recommended by EPRI/STRI* is maintained on all of our designs and thus the phenomenon of water droplet induced corona (WDIC) and corresponding risk of material erosion is avoided. Lowering of electric field stress is also aided by the shape of the silicone rubber housing at the overmolded connection zone which works to decrease the electric field strength at the inner triple point and on the silicone surface itself.

Furthermore, all of our corona rings are designed with an open (c-section) style, making them easy to install and replace.



**Electric field simulation**

## Designed to Endure Severe Environments

SHEMAR's composite suspension insulators are created to endure even the most severe service conditions, such as coastal salt fog, dust and industrial contamination without impairment in performance.

Superior hydrophobicity retention and short hydrophobicity transfer and recovery times prevents the formation of conductive layer and the excellent tracking and erosion performance of the housing provides an additional defense mechanism.

The insulator housing features alternating weathershed profiles with both standard and high leakage distance designs, along with optimized shed spacing (S), overhang (P) and creepage factor (CF) parameters, to ensure maximum effectiveness, self-cleaning performance and resistance to contamination, ice and leakage currents in various environmental applications. All of our housing shed profile designs adhere to the recommendations given in IEC 60815-3 and have a minimum 3mm sheath thickness.

**Application Example in Severe Environment:**
**± 400kV DC Qinghai-Tibet project**

## Application Environment:

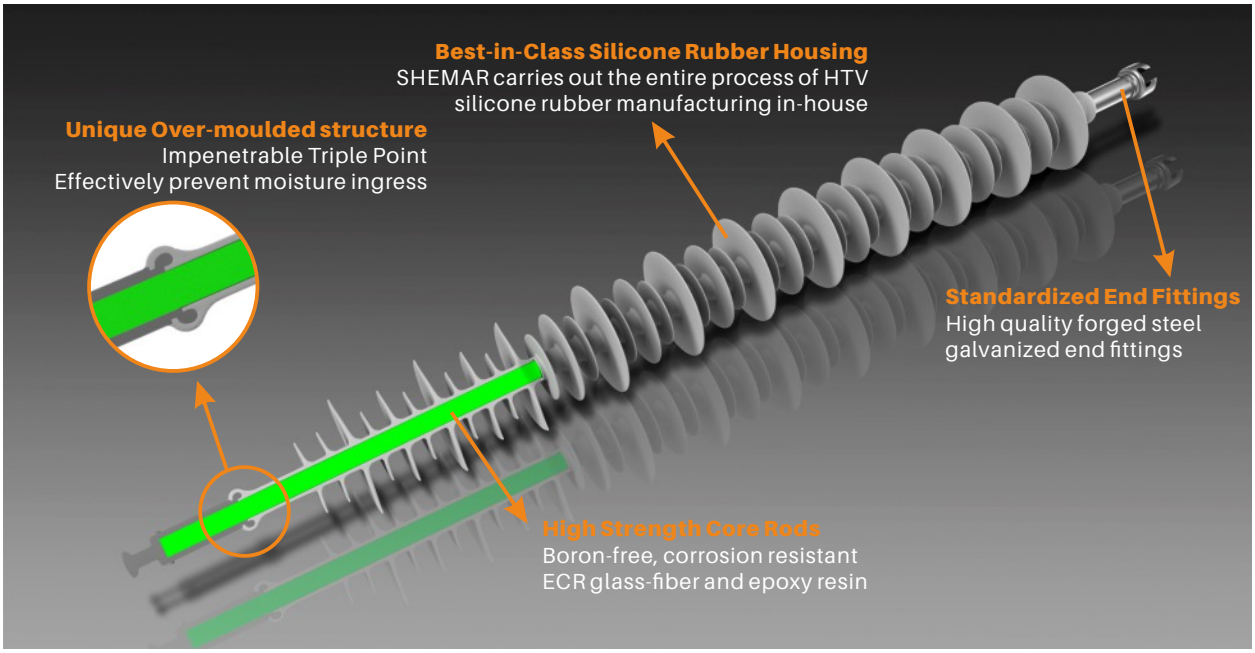
Altitude 4612 m (15,100 ft.) with high ultraviolet radiation intensity (6680MJ / $m^2$). The severity is 4 ~ 5 times of the normal working condition.

## Performance:

After six years of operation under this severe environment, the silicone rubber material of SHEMAR composite suspension insulator still had excellent aging resistance performance, and its elongation at break was still as high as 301%, which had no obvious attenuation compared with the initial value. The electrical, mechanical and material properties of composite suspension insulator fully meet the standard requirements.

**±400kV DC Qinghai-Tibet Project**

# Materials and Components




## Best-in-Class Silicone Rubber Housing

The special HTV silicone rubber formulation used in SHEMAR's composite insulator housings has been scientifically engineered as a result of extensive R&D in order to overcome the various environmental, electrical and physical degradation mechanisms and deliver the best-in-class ageing resistance and long-term reliable performance.

SHEMAR carries out the entire process of HTV silicone rubber manufacturing in-house from raw material sourcing to mixing with special additives and fillers which achieves the best UV, tracking and erosion, weatherability and contamination resistance performance. SHEMAR HTV silicone rubber formulation has a long-term track record of successfully performing in some of the most extreme and demanding service conditions without degradation.

## Fracture-Proof Core Rods

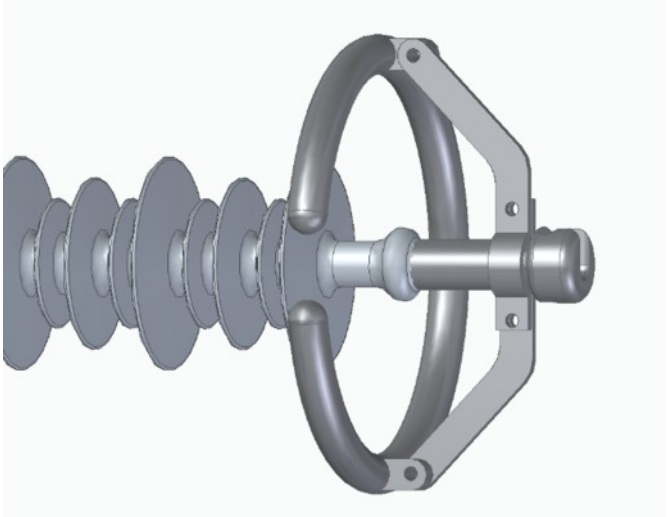
The fiberglass core rods for SHEMAR's composite suspension insulators are manufactured with boron-free, corrosion resistant ECR glass-fiber and epoxy resin. By using this E-CR boron-free formulation of fiberglass, the core rods have exceptional electrical integrity, and they are extremely resistant to hydrolysis and stress corrosion attack, which eliminates the risk of brittle fracture. Additionally, the core rods can withstand a 96-hour nitric acid resistance test as specified in IEC 62039. SHEMAR manufactures all of its fiberglass core rods In-house using a high-quality pultrusion process.

## Standardized End Fittings

SHEMAR uses industry standard forged steel or ductile iron galvanized end fittings. All end fittings are subjected to rigorous incoming quality control inspections.

## Corona Rings

Standard corona rings are made from high grade aluminum alloy. Rings made of galvanized steel are also available in case of arc current withstand requirements.



# Testing and Quality

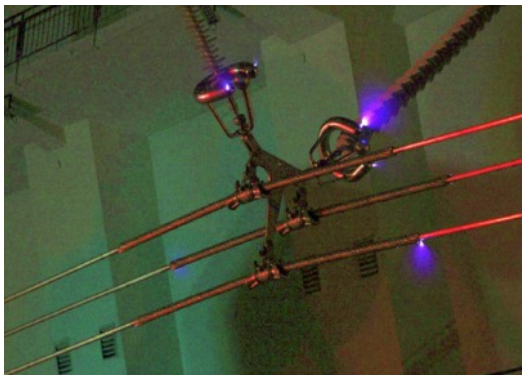
## Compliant with National and International Standards

SHEMAR takes pride in being a truly global composite insulator enterprise. We have customized quality control plans for each type of composite suspension insulator and work instructions for each production line. Every composite suspension insulator goes through rigorous process verification, internal testing and third party testing. All of our composite suspension insulators meet ANSI C29.11, CSA C411.4 and IEC 61109, and we carry out routine and sample tests on each batch of insulators to ensure a reliable manufacturing process.

## Additionally, SHEMAR's composite insulators also comply with the following tests:

- 5000 Hour Multi Stress Test as specified in IEC 62730
- Accelerated Weathering Test (1000 h UV test) as specified in IEC 61109
- Tracking and Erosion Test (Class 1A 4,5) as specified in IEC 60587
- Resistance to Weathering and UV (5000 h UV test) as per ISO 4892-3
- Resistance to Hydrolysis and Acid Attack on FRP Core as specified in IEC 62039
- Tracking Wheel Test as specified in CSA C411.4
- Resistance to Corona Cutting as per SHEMAR propriety test method
- Resistance to Acid Rain as per SHEMAR propriety test method
- Corona Ring Power Arc Withstand Test (20kA-0.25s, 5 shots) as per IEC 61467

## Our in-lab test results are backed-up by SHEMAR insulators proven 25+ years of successful field experience in diverse and severe service conditions.

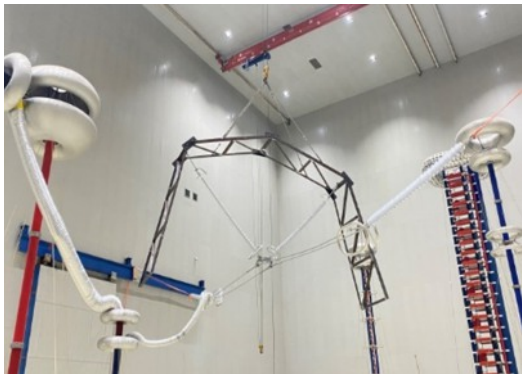


RIV and Visual Corona Test of 400kV suspension string

Critical Impulse Flashover Test of 400kV suspension string

Short Circuit Test of 400kV suspension insulator string

Mechanical Failure Test of 400kV double tension string



RIV and Visual Corona Test of 345kV suspension string in SHEMAR's Electrical Test Hall

Power Arc Test of 345kV suspension insulator string

**Tracking and Erosion Test (1000h salt fog method) of suspension insulator**

**Tracking and Erosion Test (wheel method) of suspension insulator**

## Continuous R&D and Improvement

SHEMAR is dedicated to advancing key technologies, enhancing technical support, and ensuring the success of key projects. We are also focused on improving our independent innovation capabilities and core competitiveness in the rapidly evolving energy industry. This commitment has resulted in significant advancements in technical innovation, exceptional performance, and influential demonstration initiatives. These achievements have also earned recognition from the National Energy Administration. As evidence of our success, the National Energy Administration granted SHEMAR approval to establish the "National Energy Power Insulation Composite Material Key Laboratory" on August 24, 2014.


(A) High low temperature humid-heat test box.

(B) Optical Contact Angle Measuring Device.

(C) Tensile Tester.

(D) Thermal Gravimetric Analyzer.

(E) Ultraviolet aging test chamber.

Currently, SHEMAR possesses robust and extensive in-house self-testing facilities that continually undergo refinement and enhancement. The company has established a comprehensive collection of material testing laboratories, structural mechanics testing laboratories, and electrical performance testing laboratories. These facilities are fully equipped to conduct physical and chemical property experiments on raw materials and samples, as well as structural mechanics and highvoltage electrical experiments on semi finished and finished products. These resources enable SHEMAR to meet the research and development demands of high-quality external insulation products.

SHEMAR


(A) Static contact angle
(B) Tearing strength test
(C)Tensile strength test
(D) Tracking and erosion resistance test

**Static contact angle Test**

Our R&D team currently comprises 155 members, including 7 senior experts with doctorate degrees, 12 foreign technical experts, and 49 individuals with master's degrees. The team's research and development center is fortified by an interd isciplinary and cross-functional approach. With our team's continual expansion, more researchers from both domestic and international backgrounds are choosing to join SHEMAR's R&D efforts, contributing to the advancement of the green energy industry.

# As of December 31, 2022, SHEMAR holds a total of 481 patents internationally.

# Advantages and Reasons for Choosing SHEMAR Composite Suspension Insulators

- Innovative and reliable design methods and advanced manufacturing technology
- Best-in-class composite materials and high quality components
- Rigorous production quality control plan and strict testing of products
- Fast delivery cycle and rapid after-sales service
- Eliminates or reduces maintenance, more economical life cycle cost

# How to Select the Right Transmission Composite Suspension Insulator

## Customized solutions

At SHEMAR, we can offer customized solutions tailored to our customers' specific requirements. We take into consideration the actual working conditions, such as the type of the insulator strings, the required mechanical load, the connection method, coupling size of the end fittings, the pollution level and other unique applications, as well as any unique applications that need to be addressed. By doing so, we guarantee that our products will meet 100% of our customers' needs.

## Standard catalogue products

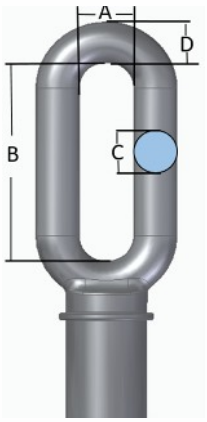
To simplify the promotion of transmission grid projects and to facilitate quick selection by our customers, we have developed a range of standardized catalog products to choose from. These products offer shorter delivery cycles and increased flexibility for future replacements. For ease of reference, our detailed standardized selection library is provided below.

**SHEMAR Catalog Number Definition**

| 30 | 1 | SS | 025 | Y | J | 3 | 4 |
|---|---|---|---|---|---|---|---|
| SML<br>25=25Klbs. [111kN]<br>30=30Klbs. [133kN]<br>50=50Klbs. [222kN] | Core Dia.<br>1:0.709"[18mm]<br>2:0.945"[24mm] | SC: Compact Leakage<br>SS: Standard Leakage<br>SL: Long Leakage<br>SE: Extra Long Leakage<br>SM: Extremely Long Leakage | Number of sheds | Tower EF<br>E: Eye<br>Y:Y-Clevis<br>C: Clevis<br>T: Tongue<br>S: Socket<br>J:Ball [ANSI J]<br>K:Ball [ANSI K] | Line EF<br>E: Eye<br>Y:Y-Clevis<br>C: Clevis<br>T: Tongue<br>S: Socket<br>J:Ball [ANSI J]<br>K:Ball [ANSI K] | Tower<br>Corona ring<br>0: None<br>1:9.84"[250mm]<br>2:12.01"[305mm]<br>3:13.78" [350mm] | Line<br>Corona ring<br>0: None<br>1:9.84"[250mm]<br>2:12.01"[305mm]<br>3:13.78" [350mm]<br>4:14.57" [370mm] |

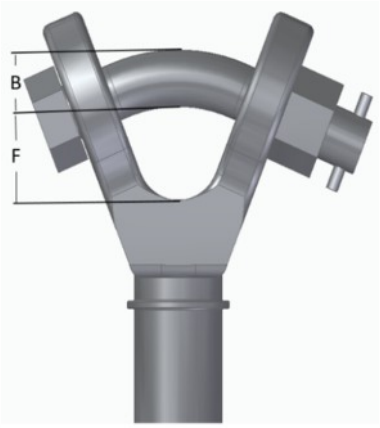
## End fitting selection

| SML KIPS [kN] | EYE | | | |
|---|---|---|---|---|
| | A | B | C | D |
| 25[111] | 1.02 [26] | 2.01 [51] | 0.71 [18] | 0.71 [18] |
| 30[133] | 1.02 [26] | 2.01 [51] | 0.71 [18] | 0.71 [18] |
| 50[222] | 1.02 [26] | 2.01 [51] | 0.87 [22] | 0.87 [22] |



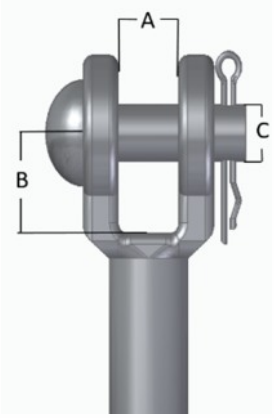

## End fitting selection

| SML KIPS [kN] | Y-Clevis | |
|---|---|---|
| | F[min] | B |
| 25[111] | 1.51 [38.3] | 0.71 [M18] |
| 30[133] | 1.59 [40.3] | 0.86 [M22] |
| 50[222] | 1.59 [40.3] | 0.86 [M22] |



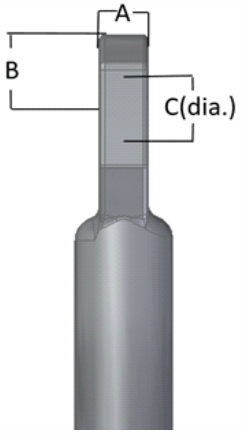

## End fitting selection

| SML KIPS [kN] | Clevis | | |
|---|---|---|---|
| | A | B | C |
| 25[111] | 0.75 [19] | 1.22 [31] | 0.63 [16] |
| 30[133] | 0.75 [19] | 1.22 [31] | 0.63 [16] |
| 50[222] | / | | |




Dimensions are in inch [mm]

## End fitting selection

| SML KIPS [kN] | Y-Clevis | | | |
|---|---|---|---|---|
| | A | B | C | |
| 25[111] | 0.51 [13] | 0.87 [22] | 0.63 [18] |   |
| 30[133] | 0.51 [13] | 0.87 [22] | 0.70 [18] | |
| 50[222] | / | | | |

## End fitting selection

| SML KIPS [kN] | Socket/Ball | | | |
|---|---|---|---|---|
| | Type | ANSI Class | Socket | Ball |
| 25[111] | J | 52-5 |  |  |
| 30[133] | J | 52-5 | | |
| 50[222] | K | 52-11 | | |

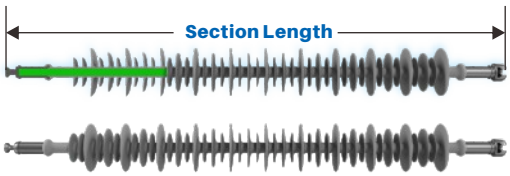
## Corona ring selection

| Voltage Class /kV | Corona ring size [Ring outside diameter] | | | | | |
|---|---|---|---|---|---|---|
| | 69 | 138 | 161 | 230 | 345 | 500 |
| Tower side | None | None | None | None | 12″ [305mm] | 13.8″ [305mm] |
| Line side | None | None | 9.8″ [250mm] | 12″ [305mm] | 12″ [305mm] | 14.6″ [370mm] |

Dimensions are in inch [mm]

# ANSI 25Kips

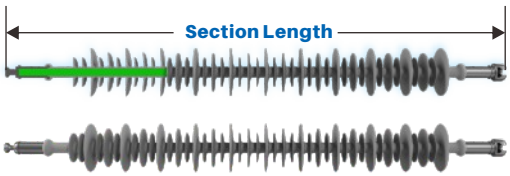
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 69 | 251SS018YJ00 | 18 | 36.0[915] | 79.9[2030] | 26.3[670] | 258 | 217 | 436 | 449 | 7.1[3.2] |
| | 251SL017YJ00 | 17 | 36.0[915] | 92.9[2360] | 26.3[670] | 258 | 217 | 436 | 449 | 8.0[3.6] |
| | 251SE022YJ00 | 22 | 36.0[915] | 110.2[2800] | 26.7[680] | 262 | 220 | 442 | 455 | 9.3[4.2] |
| | 251SM021YJ00 | 21 | 36.0[915] | 111.8[2840] | 26.3[670] | 258 | 217 | 436 | 449 | 9.5[4.3] |
| 69 | 251SS022YJ00 | 22 | 40.7[1035] | 96.4[2450] | 31.1[790] | 301 | 253 | 502 | 521 | 7.9[3.6] |
| | 251SL021YJ00 | 21 | 40.7[1035] | 112.9[2870] | 31.4[800] | 304 | 256 | 508 | 527 | 8.8[4.0] |
| | 251SE026YJ00 | 26 | 40.7[1035] | 129.5[3290] | 31.1[790] | 301 | 253 | 502 | 521 | 10.3[4.7] |
| | 251SM026YJ00 | 26 | 40.7[1035] | 138.1[3510] | 31.1[790] | 301 | 253 | 502 | 521 | 11.9[5.4] |
| 69 | 251SS023YJ00 | 23 | 42.2[1072] | 100.3[2550] | 32.6[830] | 315 | 265 | 524 | 545 | 7.9[3.6] |
| | 251SL023YJ00 | 23 | 42.2[1072] | 122.0[3100] | 32.6[830] | 315 | 265 | 524 | 545 | 9.6[4.3] |
| | 251SE027YJ00 | 27 | 42.2[1072] | 135.4[3440] | 33.0[840] | 319 | 268 | 530 | 551 | 10.4[4.7] |
| | 251SM027YJ00 | 27 | 42.2[1072] | 143.7[3650] | 33.0[840] | 319 | 268 | 530 | 551 | 12.0[5.4] |
| 69/115 | 251SS025YJ00 | 25 | 44.2[1125] | 107.4[2730] | 34.6[880] | 333 | 279 | 552 | 575 | 8.0[3.6] |
| | 251SL023YJ00 | 23 | 44.2[1125] | 123.6[3140] | 34.2[870] | 329 | 277 | 546 | 569 | 9.6[4.3] |
| | 251SE029YJ00 | 29 | 44.2[1125] | 143.3[3640] | 35.0[890] | 336 | 282 | 557 | 581 | 10.5[4.7] |
| | 251SM029YJ00 | 29 | 44.2[1125] | 152.3[3870] | 34.6[880] | 333 | 279 | 552 | 575 | 12.1[5.4] |
| 69/115 | 251SS028YJ00 | 28 | 47.8[1215] | 120.4[3060] | 38.1[970] | 365 | 306 | 601 | 629 | 8.8[4.0] |
| | 251SL026YJ00 | 26 | 47.8[1215] | 138.5[3520] | 38.1[970] | 365 | 306 | 601 | 629 | 10.4[4.7] |
| | 251SE032YJ00 | 32 | 47.8[1215] | 158.6[4030] | 38.1[970] | 365 | 306 | 601 | 629 | 11.5[5.2] |
| | 251SM032YJ00 | 32 | 47.8[1215] | 169.2[4300] | 38.1[970] | 365 | 306 | 601 | 629 | 13.3[6.0] |
| 115 | 251SC038YJ00 | 38 | 50.3[1280] | 125.3[3180] | 40.9[1040] | 389 | 327 | 640 | 671 | 8.7[3.9] |
| | 251SC046YJ00 | 46 | 57.8[1470] | 150.2[3810] | 48.4[1230] | 457 | 384 | 744 | 785 | 9.8[4.4] |
| | 251SC038YJ00 | 38 | 49.6[1260] | 124.5[3160] | 40.1[1020] | 382 | 321 | 629 | 659 | 8.6[3.9] |
| | 251SC046YJ00 | 46 | 57.0[1450] | 149.4[3790] | 47.6[1210] | 450 | 378 | 733 | 773 | 9.8[4.4] |
| 115/138 | 251SS032YJ00 | 32 | 52.5[1335] | 136.6[3470] | 42.9[1090] | 407 | 342 | 667 | 701 | 9.6[4.3] |
| | 251SL030YJ00 | 30 | 52.5[1335] | 158.2[4020] | 42.9[1090] | 407 | 342 | 667 | 701 | 11.3[5.1] |
| | 251SE037YJ00 | 37 | 52.5[1335] | 181.4[4610] | 43.3[1100] | 411 | 345 | 673 | 707 | 12.5[5.7] |
| | 251SM037YJ00 | 37 | 52.5[1335] | 193.3[4910] | 42.9[1090] | 407 | 342 | 667 | 701 | 14.6[6.6] |
| 115/138 | 251SS033YJ00 | 33 | 54.0[1372] | 140.1[3560] | 44.4[1130] | 421 | 354 | 689 | 725 | 9.6[4.3] |
| | 251SL032YJ00 | 32 | 54.0[1372] | 168.5[4280] | 44.8[1140] | 425 | 357 | 695 | 731 | 12.0[5.4] |
| | 251SE038YJ00 | 38 | 54.0[1372] | 187.7[4770] | 44.0[1120] | 418 | 351 | 684 | 719 | 13.5[6.1] |
| | 251SM038YJ00 | 38 | 54.0[1372] | 200.0[5080] | 44.0[1120] | 418 | 351 | 684 | 719 | 15.8[7.1] |
| 138 | 251SS036YJ00 | 36 | 57.2[1455] | 153.1[3890] | 47.6[1210] | 450 | 378 | 733 | 773 | 10.4[4.7] |
| | 251SL035YJ00 | 35 | 57.2[1455] | 182.6[4640] | 48.0[1220] | 453 | 381 | 739 | 779 | 12.8[5.8] |
| | 251SE041YJ00 | 41 | 57.2[1455] | 200.7[5100] | 47.6[1210] | 450 | 378 | 733 | 773 | 13.6[6.1] |
| | 251SM042YJ00 | 42 | 57.2[1455] | 219.6[5580] | 47.6[1210] | 450 | 378 | 733 | 773 | 17.0[7.7] |
| 138 | 251SS038YJ00 | 38 | 59.6[1515] | 161.4[4100] | 50.0[1270] | 471 | 396 | 766 | 809 | 11.1[5.0] |
| | 251SL036YJ00 | 36 | 59.6[1515] | 188.9[4810] | 50.3[1280] | 475 | 399 | 771 | 815 | 12.9[5.8] |
| | 251SE044YJ00 | 44 | 59.6[1515] | 215.7[5480] | 50.3[1280] | 475 | 399 | 771 | 815 | 14.6[6.6] |
| | 251SM044YJ00 | 44 | 59.6[1515] | 229.9[5840] | 50.0[1270] | 471 | 396 | 766 | 809 | 17.1[7.7] |
| 138 | 251SS042YJ00 | 42 | 64.3[1635] | 177.9[4520] | 54.7[1390] | 514 | 431 | 832 | 881 | 11.9[5.4] |
| | 251SL039YJ00 | 39 | 64.3[1635] | 204.3[5190] | 54.3[1380] | 510 | 428 | 826 | 875 | 13.7[6.2] |
| | 251SE048YJ00 | 48 | 64.3[1635] | 235.0[5970] | 54.3[1380] | 510 | 428 | 826 | 875 | 15.6[7.1] |
| | 251SM049YJ00 | 49 | 64.3[1635] | 253.9[6450] | 54.7[1390] | 514 | 431 | 832 | 881 | 18.4[8.3] |

# ANSI 25Kips

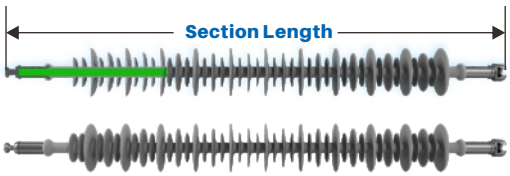
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 161 | 251SS042YJ01 | 42 | 64.3[1635] | 177.9[4520] | 53.5[1360] | 503 | 422 | 815 | 863 | 13.2[6.0] |
| | 251SL039YJ01 | 39 | 64.3[1635] | 204.3[5190] | 53.5[1360] | 503 | 422 | 815 | 863 | 13.7[6.2] |
| | 251SE048YJ01 | 48 | 64.3[1635] | 235.0[5970] | 53.5[1360] | 503 | 422 | 815 | 863 | 17.0[7.7] |
| | 251SM049YJ01 | 49 | 64.3[1635] | 253.9[6450] | 53.9[1370] | 506 | 425 | 821 | 869 | 19.7[8.9] |
| 161 | 251SS044YJ01 | 44 | 65.9[1676] | 185.4[4710] | 55.5[1410] | 521 | 437 | 843 | 893 | 13.3[6.0] |
| | 251SL041YJ01 | 41 | 65.9[1676] | 214.1[5440] | 55.5[1410] | 521 | 437 | 843 | 893 | 14.5[6.5] |
| | 251SE050YJ01 | 50 | 65.9[1676] | 244.8[6220] | 55.5[1410] | 521 | 437 | 843 | 893 | 17.9[8.1] |
| | 251SM051YJ01 | 51 | 65.9[1676] | 264.9[6730] | 55.9[1420] | 524 | 440 | 848 | 899 | 20.9[9.5] |
| 161 | 251SS047YJ01 | 47 | 70.2[1785] | 197.6[5020] | 59.4[1510] | 556 | 467 | 898 | 953 | 14.1[6.4] |
| | 251SL044YJ01 | 44 | 70.2[1785] | 229.9[5840] | 59.8[1520] | 560 | 470 | 903 | 959 | 15.3[6.9] |
| | 251SE054YJ01 | 54 | 70.2[1785] | 264.1[6710] | 59.8[1520] | 560 | 470 | 903 | 959 | 19.0[8.6] |
| | 251SM055YJ01 | 55 | 70.2[1785] | 285.4[7250] | 59.8[1520] | 560 | 470 | 903 | 959 | 22.2[10.0] |
| 161 | 251SS050YJ01 | 50 | 73.5[1867] | 210.2[5340] | 62.9[1600] | 588 | 494 | 947 | 1007 | 14.8[6.7] |
| | 251SL047YJ01 | 47 | 73.5[1867] | 244.4[6210] | 62.9[1600] | 588 | 494 | 947 | 1007 | 16.1[7.3] |
| | 251SE057YJ01 | 57 | 73.5[1867] | 277.1[7040] | 62.5[1590] | 584 | 491 | 942 | 1001 | 19.1[8.6] |
| | 251SM058YJ01 | 58 | 73.5[1867] | 301.1[7650] | 62.9[1600] | 588 | 494 | 947 | 1007 | 23.4[10.6] |
| 161 | 251SS052YJ01 | 52 | 76.1[1935] | 218.1[5540] | 65.3[1660] | 609 | 512 | 980 | 1043 | 14.9[6.7] |
| | 251SL050YJ01 | 50 | 76.1[1935] | 258.6[6570] | 65.7[1670] | 613 | 515 | 986 | 1049 | 16.9[7.6] |
| | 251SE060YJ01 | 60 | 76.1[1935] | 292.1[7420] | 65.7[1670] | 613 | 515 | 986 | 1049 | 20.1[9.1] |
| | 251SM061YJ01 | 61 | 76.1[1935] | 314.5[7990] | 65.7[1670] | 613 | 515 | 986 | 1049 | 23.5[10.6] |
| 161 | 251SS056YJ01 | 56 | 80.9[2055] | 234.6[5960] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 15.7[7.1] |
| | 251SL053YJ01 | 53 | 80.9[2055] | 274.8[6980] | 70.4[1790] | 655 | 551 | 1052 | 1121 | 19.0[8.6] |
| | 251SE065YJ01 | 65 | 80.9[2055] | 314.5[7990] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 21.1[9.6] |
| | 251SM064YJ01 | 64 | 80.9[2055] | 332.2[8440] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 24.8[11.2] |
| 230 | 251SS056YJ02 | 56 | 80.9[2055] | 234.6[5960] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 15.9[7.2] |
| | 251SL053YJ02 | 53 | 80.9[2055] | 274.8[6980] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 19.2[8.7] |
| | 251SE065YJ02 | 65 | 80.9[2055] | 314.5[7990] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 21.3[9.7] |
| | 251SM064YJ02 | 64 | 80.9[2055] | 332.2[8440] | 70.0[1780] | 652 | 548 | 1046 | 1115 | 25.0[11.3] |
| 230 | 251SS059YJ02 | 59 | 84.0[2134] | 246.4[6260] | 73.6[1870] | 684 | 574 | 1096 | 1169 | 16.7[7.6] |
| | 251SL056YJ02 | 56 | 84.0[2134] | 288.9[7340] | 73.2[1860] | 680 | 571 | 1090 | 1163 | 18.5[8.4] |
| | 251SE068YJ02 | 68 | 84.0[2134] | 329.5[8370] | 72.8[1850] | 677 | 568 | 1085 | 1157 | 22.3[10.1] |
| | 251SM068YJ02 | 68 | 84.0[2134] | 351.9[8940] | 73.2[1860] | 680 | 571 | 1090 | 1163 | 26.2[11.9] |
| 230 | 251SS061YJ02 | 61 | 86.8[2205] | 253.9[6450] | 75.9[1930] | 705 | 592 | 1129 | 1205 | 16.8[7.6] |
| | 251SL057YJ02 | 57 | 86.8[2205] | 295.2[7500] | 75.9[1930] | 705 | 592 | 1129 | 1205 | 18.6[8.4] |
| | 251SE071YJ02 | 71 | 86.8[2205] | 344.8[8760] | 75.9[1930] | 705 | 592 | 1129 | 1205 | 23.4[10.6] |
| | 251SM070YJ02 | 70 | 86.8[2205] | 362.9[9220] | 75.9[1930] | 705 | 592 | 1129 | 1205 | 27.5[12.4] |
| 230 | 251SC084YJ00 | 84 | 92.9[2360] | 266.5[6770] | 82.2[2090] | 762 | 640 | 1217 | 1301 | 14.8[6.7] |
| | 251SC089YJ00 | 89 | 97.6[2480] | 282.9[7180] | 87.0[2210] | 804 | 676 | 1283 | 1373 | 15.4[7.0] |
| 230 | 251SS066YJ02 | 66 | 92.7[2355] | 275.5[7000] | 81.8[2080] | 758 | 637 | 1211 | 1295 | 18.3[8.3] |
| | 251SL062YJ02 | 62 | 92.7[2355] | 320.8[8150] | 81.8[2080] | 758 | 637 | 1211 | 1295 | 20.2[9.1] |
| | 251SE077YJ02 | 77 | 92.7[2355] | 371.6[9440] | 81.8[2080] | 758 | 637 | 1211 | 1295 | 24.5[11.1] |
| | 251SM076YJ02 | 76 | 92.7[2355] | 393.3[9990] | 81.8[2080] | 758 | 637 | 1211 | 1295 | 28.8[13.1] |

# ANSI 25Kips

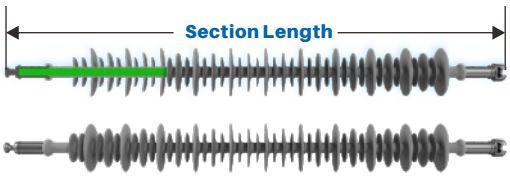
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 230 | 251SS071YJ02 | 71 | 98.6[2505] | 295.2[7500] | 87.7[2230] | 811 | 682 | 1294 | 1385 | 19.1[8.7] |
| | 251SL066YJ02 | 66 | 98.6[2505] | 344.8[8760] | 87.7[2230] | 811 | 682 | 1294 | 1385 | 21.0[9.5] |
| | 251SE083YJ02 | 83 | 98.6[2505] | 401.9[10210] | 88.1[2240] | 815 | 685 | 1299 | 1391 | 26.5[12.0] |
| | 251SM082YJ02 | 82 | 98.6[2505] | 423.6[10760] | 87.7[2230] | 811 | 682 | 1294 | 1385 | 31.3[14.2] |
| 230 | 251SS075YJ02 | 75 | 103.3[2625] | 311.8[7920] | 92.5[2350] | 854 | 717 | 1360 | 1457 | 19.9[9.0] |
| | 251SL070YJ02 | 70 | 103.3[2625] | 365.7[9290] | 92.9[2360] | 857 | 720 | 1365 | 1463 | 22.6[10.2] |
| | 251SE087YJ02 | 87 | 103.3[2625] | 421.2[10700] | 92.5[2350] | 854 | 717 | 1360 | 1457 | 27.5[12.5] |
| | 251SM087YJ02 | 87 | 103.3[2625] | 448.4[11390] | 92.5[2350] | 854 | 717 | 1360 | 1457 | 32.6[14.8] |
| 345 | 251SS078YJ22 | 78 | 106.8[2715] | 324.4[8240] | 94.8[2410] | 875 | 735 | 1393 | 1493 | 20.7[9.4] |
| | 251SL074YJ22 | 74 | 106.8[2715] | 380.3[9660] | 94.8[2410] | 875 | 735 | 1393 | 1493 | 23.4[10.6] |
| | 251SE091YJ22 | 91 | 106.8[2715] | 440.1[11180] | 95.2[2420] | 879 | 738 | 1398 | 1499 | 28.6[12.9] |
| | 251SM091YJ22 | 91 | 106.8[2715] | 468.1[11890] | 94.8[2410] | 875 | 735 | 1393 | 1493 | 33.8[15.3] |
| 345 | 251SS083YJ22 | 83 | 112.7[2865] | 344.4[8750] | 100.7[2560] | 928 | 780 | 1475 | 1583 | 21.5[9.8] |
| | 251SL078YJ22 | 78 | 112.7[2865] | 401.5[10200] | 101.1[2570] | 932 | 783 | 1481 | 1589 | 24.3[11.0] |
| | 251SE096YJ22 | 96 | 112.7[2865] | 464.1[11790] | 101.1[2570] | 932 | 783 | 1481 | 1589 | 29.7[13.4] |
| | 251SM097YJ22 | 97 | 112.7[2865] | 497.6[12640] | 101.1[2570] | 932 | 783 | 1481 | 1589 | 35.1[15.9] |
| 345 | 251SS088YJ22 | 88 | 118.7[3015] | 364.9[9270] | 106.6[2710] | 982 | 825 | 1558 | 1673 | 23.9[10.8] |
| | 251SL082YJ22 | 83 | 118.7[3015] | 426.7[10840] | 107.0[2720] | 985 | 828 | 1563 | 1679 | 25.8[11.7] |
| | 251SE101YJ22 | 101 | 118.7[3015] | 487.4[12380] | 106.6[2710] | 982 | 825 | 1558 | 1673 | 32.3[14.6] |
| | 251SM102YJ22 | 102 | 118.7[3015] | 525.1[13340] | 106.6[2710] | 982 | 825 | 1558 | 1673 | 39.1[17.7] |
| 345 | 251SS097YJ22 | 97 | 129.3[3285] | 400.7[10180] | 117.3[2980] | 1077 | 905 | 1706 | 1835 | 25.6[11.6] |
| | 251SL091YJ22 | 91 | 129.3[3285] | 471.6[11980] | 117.3[2980] | 1077 | 905 | 1706 | 1835 | 28.2[12.8] |
| | 251SE112YJ22 | 112 | 129.3[3285] | 540.5[13730] | 117.7[2990] | 1081 | 908 | 1712 | 1841 | 35.4[16.0] |
| | 251SM113YJ22 | 113 | 129.3[3285] | 579.1[14710] | 117.3[2980] | 1077 | 905 | 1706 | 1835 | 41.8[18.9] |
| 345 | 251SS106YJ22 | 106 | 139.9[3555] | 438.5[11140] | 127.9[3250] | 1173 | 985 | 1854 | 1997 | 27.9[12.6] |
| | 251SL099YJ22 | 99 | 139.9[3555] | 508.2[12910] | 127.5[3240] | 1170 | 982 | 1849 | 1991 | 29.9[13.6] |
| | 251SE122YJ22 | 122 | 139.9[3555] | 588.9[14960] | 127.9[3250] | 1173 | 985 | 1854 | 1997 | 38.4[17.4] |
| | 251SM123YJ22 | 123 | 139.9[3555] | 631.4[16040] | 127.9[3250] | 1173 | 985 | 1854 | 1997 | 45.5[20.6] |

# ANSI 30Kips

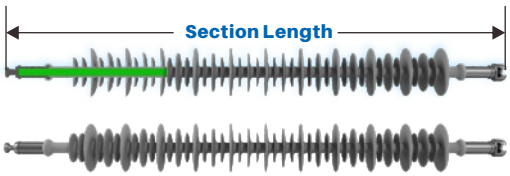
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 69 | 302SC017YJ00 | 17 | 36.1[919] | 66.5[1690] | 23.6[600] | 233 | 196 | 398 | 407 | 12.0[5.4] |
| | 302SS018YJ00 | 18 | 36.1[919] | 80.3[2040] | 22.8[580] | 226 | 190 | 387 | 395 | 13.9[6.3] |
| | 302SL016YJ00 | 16 | 36.1[919] | 84.6[2150] | 23.6[600] | 233 | 196 | 398 | 407 | 12.1[5.5] |
| | 302SE018YJ00 | 18 | 36.1[919] | 85.4[2170] | 23.6[600] | 233 | 196 | 398 | 407 | 13.1[5.9] |
| | 302SM021YJ00 | 21 | 36.1[919] | 104.7[2660] | 25.1[640] | 248 | 208 | 420 | 431 | 13.4[6.1] |
| 69 | 302SC018YJ00 | 18 | 37.7[960] | 83.8[2130] | 24.8[630] | 244 | 205 | 414 | 425 | 12.9[5.8] |
| | 302SS020YJ00 | 20 | 37.7[960] | 88.5[2250] | 25.1[640] | 248 | 208 | 420 | 431 | 14.6[6.6] |
| | 302SL017YJ00 | 17 | 37.7[960] | 91.3[2320] | 24.8[630] | 244 | 205 | 414 | 425 | 12.9[5.9] |
| | 302SE019YJ00 | 19 | 37.7[960] | 88.9[2260] | 24.8[630] | 244 | 205 | 414 | 425 | 13.1[5.9] |
| | 302SM021YJ00 | 21 | 37.7[960] | 104.7[2660] | 25.1[640] | 248 | 208 | 420 | 431 | 13.4[6.1] |
| 69 | 302SC022YJ00 | 22 | 42.5[1080] | 101.1[2570] | 29.5[750] | 287 | 241 | 480 | 497 | 14.1[6.4] |
| | 302SS024YJ00 | 24 | 42.5[1080] | 105.5[2680] | 29.5[750] | 287 | 241 | 480 | 497 | 16.1[7.3] |
| | 302SL021YJ00 | 21 | 42.5[1080] | 112.2[2850] | 29.9[760] | 290 | 244 | 486 | 503 | 14.0[6.3] |
| | 302SE024YJ00 | 24 | 42.5[1080] | 111.0[2820] | 29.9[760] | 290 | 244 | 486 | 503 | 14.4[6.5] |
| | 302SM025YJ00 | 25 | 42.5[1080] | 124.4[3160] | 29.9[760] | 290 | 244 | 486 | 503 | 14.7[6.6] |
| 69/115 | 302SC025YJ00 | 25 | 46.0[1170] | 112.2[2850] | 33.0[840] | 319 | 268 | 530 | 551 | 14.3[6.5] |
| | 302SS029YJ00 | 29 | 46.0[1170] | 124.0[3150] | 33.0[840] | 319 | 268 | 530 | 551 | 17.6[8.0] |
| | 302SL023YJ00 | 23 | 46.0[1170] | 122.4[3110] | 33.0[840] | 319 | 268 | 530 | 551 | 15.0[6.8] |
| | 302SE027YJ00 | 27 | 46.0[1170] | 123.6[3140] | 33.0[840] | 319 | 268 | 530 | 551 | 15.5[7.0] |
| | 302SM028YJ00 | 28 | 46.0[1170] | 140.5[3570] | 33.0[840] | 319 | 268 | 530 | 551 | 15.9[7.2] |
| 69/115 | 302SC026YJ00 | 26 | 47.2[1199] | 129.5[3290] | 34.2[870] | 329 | 277 | 546 | 569 | 15.3[6.9] |
| | 302SS029YJ00 | 29 | 47.2[1199] | 125.1[3180] | 34.2[870] | 329 | 277 | 546 | 569 | 17.6[8.0] |
| | 302SL024YJ00 | 24 | 47.2[1199] | 128.3[3260] | 34.2[870] | 329 | 277 | 546 | 569 | 15.0[6.8] |
| | 302SE029YJ00 | 29 | 47.2[1199] | 130.3[3310] | 34.6[880] | 333 | 279 | 552 | 575 | 15.6[7.1] |
| | 302SM028YJ00 | 28 | 47.2[1199] | 140.5[3570] | 33.0[840] | 319 | 268 | 530 | 551 | 15.9[7.2] |
| 69/115 | 302SC028YJ00 | 28 | 49.6[1260] | 126.7[3220] | 36.6[930] | 350 | 294 | 579 | 605 | 15.5[7.0] |
| | 302SS032YJ00 | 32 | 49.6[1260] | 137.0[3480] | 36.6[930] | 350 | 294 | 579 | 605 | 19.0[8.6] |
| | 302SL026YJ00 | 26 | 49.6[1260] | 137.4[3490] | 37.0[940] | 354 | 297 | 585 | 611 | 15.9[7.2] |
| | 302SE031YJ00 | 31 | 49.6[1260] | 140.1[3560] | 36.6[930] | 350 | 294 | 579 | 605 | 16.7[7.6] |
| | 302SM032YJ00 | 32 | 49.6[1260] | 159.4[4050] | 37.0[940] | 354 | 297 | 585 | 611 | 17.1[7.7] |
| 69/115 | 302SC031YJ00 | 31 | 53.1[1351] | 144.0[3660] | 40.1[1020] | 382 | 321 | 629 | 659 | 16.6[7.5] |
| | 302SS036YJ00 | 36 | 53.1[1351] | 153.5[3900] | 40.9[1040] | 389 | 327 | 640 | 671 | 20.5[9.3] |
| | 302SL029YJ00 | 29 | 53.1[1351] | 152.7[3880] | 40.5[1030] | 386 | 324 | 634 | 665 | 16.9[7.7] |
| | 302SE035YJ00 | 35 | 53.1[1351] | 157.4[4000] | 40.5[1030] | 386 | 324 | 634 | 665 | 17.9[8.1] |
| | 302SM032YJ00 | 32 | 53.1[1351] | 159.4[4050] | 37.0[940] | 354 | 297 | 585 | 611 | 17.1[7.7] |
| 115/138 | 302SC032YJ00 | 32 | 54.3[1380] | 144.0[3660] | 41.3[1050] | 393 | 330 | 645 | 677 | 16.6[7.5] |
| | 302SS036YJ00 | 36 | 54.3[1380] | 154.3[3920] | 41.7[1060] | 397 | 333 | 651 | 683 | 20.6[9.3] |
| | 302SL030YJ00 | 30 | 54.3[1380] | 158.6[4030] | 42.1[1070] | 400 | 336 | 656 | 689 | 17.0[7.7] |
| | 302SE036YJ00 | 36 | 54.3[1380] | 162.2[4120] | 41.7[1060] | 397 | 333 | 651 | 683 | 18.0[8.1] |
| | 302SM037YJ00 | 37 | 54.3[1380] | 181.1[4600] | 41.3[1050] | 393 | 330 | 645 | 677 | 18.4[8.3] |

# ANSI 30Kips

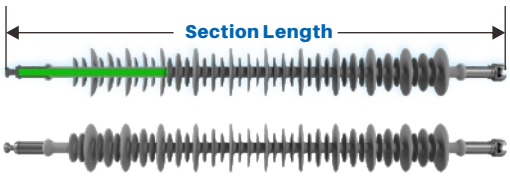
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 138 | 302SC036YJ00 | 36 | 59.0[1500] | 161.0[4090] | 46.0[1170] | 436 | 366 | 711 | 749 | 17.8[8.1] |
| | 302SS040YJ00 | 40 | 59.0[1500] | 171.2[4350] | 46.0[1170] | 436 | 366 | 711 | 749 | 22.1[10.0] |
| | 302SL034YJ00 | 34 | 59.0[1500] | 175.9[4470] | 46.0[1170] | 436 | 366 | 711 | 749 | 18.0[8.1] |
| | 302SE040YJ00 | 40 | 59.0[1500] | 179.9[4570] | 46.4[1180] | 439 | 369 | 717 | 755 | 19.2[8.7] |
| | 302SM041YJ00 | 41 | 59.0[1500] | 200.7[5100] | 46.4[1180] | 439 | 369 | 717 | 755 | 19.7[8.9] |
| 138 | 302SC041YJ00 | 41 | 65.1[1656] | 178.3[4530] | 51.9[1320] | 489 | 411 | 793 | 839 | 19.1[8.6] |
| | 302SS046YJ00 | 46 | 65.1[1656] | 196.0[4980] | 52.7[1340] | 496 | 416 | 804 | 851 | 24.4[11.0] |
| | 302SL039YJ00 | 39 | 65.1[1656] | 203.5[5170] | 52.3[1330] | 492 | 414 | 799 | 845 | 19.9[9.0] |
| | 302SE046YJ00 | 46 | 65.1[1656] | 206.2[5240] | 52.3[1330] | 492 | 414 | 799 | 845 | 21.5[9.7] |
| | 302SM041YJ00 | 41 | 65.1[1656] | 200.7[5100] | 46.4[1180] | 439 | 369 | 717 | 755 | 19.7[8.9] |
| 138 | 302SC042YJ00 | 42 | 66.1[1680] | 187.4[4760] | 53.1[1350] | 499 | 419 | 810 | 857 | 20.1[9.1] |
| | 302SS047YJ00 | 47 | 66.1[1680] | 199.2[5060] | 53.1[1350] | 499 | 419 | 810 | 857 | 24.4[11.0] |
| | 302SL039YJ00 | 39 | 66.1[1680] | 204.3[5190] | 53.1[1350] | 499 | 419 | 810 | 857 | 19.9[9.0] |
| | 302SE047YJ00 | 47 | 66.1[1680] | 209.8[5330] | 53.5[1360] | 503 | 422 | 815 | 863 | 21.5[9.8] |
| | 302SM048YJ00 | 48 | 66.1[1680] | 235.8[5990] | 53.5[1360] | 503 | 422 | 815 | 863 | 22.1[10.0] |
| 161 | 302SC042YJ01 | 42 | 66.1[1680] | 187.4[4760] | 52.3[1330] | 492 | 414 | 799 | 845 | 21.4[9.7] |
| | 302SS047YJ01 | 47 | 66.1[1680] | 199.2[5060] | 51.9[1320] | 489 | 411 | 793 | 839 | 24.4[11.0] |
| | 302SL039YJ01 | 39 | 66.1[1680] | 204.3[5190] | 52.3[1330] | 492 | 414 | 799 | 845 | 19.9[9.0] |
| | 302SE047YJ01 | 47 | 66.1[1680] | 209.8[5330] | 52.3[1330] | 492 | 414 | 799 | 845 | 21.5[9.8] |
| | 302SM048YJ01 | 48 | 66.1[1680] | 235.8[5990] | 52.3[1330] | 492 | 414 | 799 | 845 | 22.3[10.1] |
| 161 | 302SC047YJ01 | 47 | 72.0[1830] | 208.2[5290] | 58.2[1480] | 545 | 458 | 881 | 935 | 22.6[10.3] |
| | 302SS051YJ01 | 51 | 72.0[1830] | 217.7[5530] | 58.2[1480] | 545 | 458 | 881 | 935 | 26.0[11.8] |
| | 302SL044YJ01 | 44 | 72.0[1830] | 228.7[5810] | 58.6[1490] | 549 | 461 | 887 | 941 | 21.8[9.9] |
| | 302SE053YJ01 | 53 | 72.0[1830] | 233.8[5940] | 57.8[1470] | 542 | 455 | 876 | 929 | 22.8[10.3] |
| | 302SM054YJ01 | 54 | 72.0[1830] | 264.5[6720] | 58.6[1490] | 549 | 461 | 887 | 941 | 24.5[11.1] |
| 161 | 302SC052YJ01 | 52 | 77.9[1980] | 230.3[5850] | 64.1[1630] | 599 | 503 | 964 | 1025 | 23.9[10.8] |
| | 302SS057YJ01 | 57 | 77.9[1980] | 241.7[6140] | 64.1[1630] | 599 | 503 | 964 | 1025 | 28.2[12.8] |
| | 302SL049YJ01 | 49 | 77.9[1980] | 251.9[6400] | 64.1[1630] | 599 | 503 | 964 | 1025 | 22.9[10.4] |
| | 302SE059YJ01 | 59 | 77.9[1980] | 261.0[6630] | 64.1[1630] | 599 | 503 | 964 | 1025 | 25.1[11.4] |
| | 302SM060YJ01 | 60 | 77.9[1980] | 292.5[7430] | 64.1[1630] | 599 | 503 | 964 | 1025 | 25.7[11.7] |
| 161 | 302SC056YJ01 | 56 | 82.6[2100] | 247.2[6280] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 25.1[11.4] |
| | 302SS061YJ01 | 61 | 82.6[2100] | 258.6[6570] | 68.5[1740] | 638 | 536 | 1024 | 1091 | 29.7[13.5] |
| | 302SL053YJ01 | 53 | 82.6[2100] | 273.6[6950] | 69.2[1760] | 645 | 542 | 1035 | 1103 | 24.7[11.2] |
| | 302SE063YJ01 | 63 | 82.6[2100] | 278.7[7080] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 26.3[11.9] |
| | 302SM064YJ01 | 64 | 82.6[2100] | 312.2[7930] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 26.9[12.2] |
| 230 | 302SC056YJ02 | 56 | 82.6[2100] | 247.2[6280] | 68.5[1740] | 638 | 536 | 1024 | 1091 | 25.3[11.5] |
| | 302SS061YJ02 | 61 | 82.6[2100] | 258.6[6570] | 68.1[1730] | 634 | 533 | 1019 | 1085 | 29.7[13.5] |
| | 302SL053YJ02 | 53 | 82.6[2100] | 273.6[6950] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 24.7[11.2] |
| | 302SE063YJ02 | 63 | 82.6[2100] | 278.7[7080] | 68.5[1740] | 638 | 536 | 1024 | 1091 | 26.3[11.9] |
| | 302SM064YJ02 | 64 | 82.6[2100] | 312.2[7930] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 27.2[12.3] |

# ANSI 30Kips

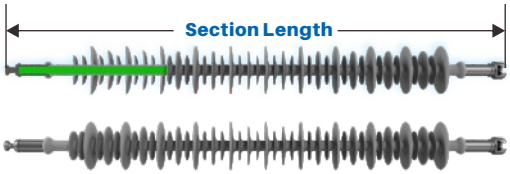
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 230 | 302SC061YJ02 | 61 | 88.5[2250] | 267.3[6790] | 74.4[1890] | 691 | 580 | 1107 | 1181 | 26.6[12.0] |
| | 302SS067YJ02 | 67 | 88.5[2250] | 283.4[7200] | 74.8[1900] | 694 | 583 | 1112 | 1187 | 32.0[14.5] |
| | 302SL057YJ02 | 57 | 88.5[2250] | 295.2[7500] | 74.8[1900] | 694 | 583 | 1112 | 1187 | 25.8[11.7] |
| | 302SE069YJ02 | 69 | 88.5[2250] | 303.5[7710] | 74.8[1900] | 694 | 583 | 1112 | 1187 | 27.6[12.5] |
| | 302SM070YJ02 | 70 | 88.5[2250] | 340.9[8660] | 74.8[1900] | 694 | 583 | 1112 | 1187 | 29.4[13.3] |
| 230 | 302SC066YJ02 | 66 | 94.4[2400] | 290.9[7390] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 28.7[13.0] |
| | 302SS072YJ02 | 72 | 94.4[2400] | 304.7[7740] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 34.1[15.5] |
| | 302SL062YJ02 | 62 | 94.4[2400] | 319.2[8110] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 27.7[12.5] |
| | 302SE075YJ02 | 75 | 94.4[2400] | 329.9[8380] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 29.9[13.5] |
| | 302SM076YJ02 | 76 | 94.4[2400] | 368.8[9370] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 30.6[13.9] |
| 230 | 302SC070YJ02 | 70 | 99.2[2520] | 308.2[7830] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 29.9[13.6] |
| | 302SS077YJ02 | 77 | 99.2[2520] | 324.4[8240] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 35.7[16.2] |
| | 302SL066YJ02 | 66 | 99.2[2520] | 340.1[8640] | 85.4[2170] | 790 | 664 | 1261 | 1349 | 28.7[13.0] |
| | 302SE079YJ02 | 79 | 99.2[2520] | 347.6[8830] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 31.1[14.1] |
| | 302SM081YJ02 | 81 | 99.2[2520] | 390.9[9930] | 85.4[2170] | 790 | 664 | 1261 | 1349 | 31.8[14.4] |
| 230 | 302SC078YJ02 | 78 | 108.6[2760] | 342.5[8700] | 94.4[2400] | 872 | 732 | 1387 | 1487 | 32.3[14.6] |
| | 302SS085YJ02 | 85 | 108.6[2760] | 358.6[9110] | 94.4[2400] | 872 | 732 | 1387 | 1487 | 38.7[17.6] |
| | 302SL074YJ02 | 74 | 108.6[2760] | 385.8[9800] | 95.2[2420] | 879 | 738 | 1398 | 1499 | 31.6[14.3] |
| | 302SE089YJ02 | 89 | 108.6[2760] | 388.9[9880] | 94.8[2410] | 875 | 735 | 1393 | 1493 | 33.6[15.2] |
| | 302SM090YJ02 | 90 | 108.6[2760] | 435.8[11070] | 94.4[2400] | 872 | 732 | 1387 | 1487 | 35.1[15.9] |
| 345 | 302SC088YJ22 | 88 | 120.4[3060] | 385.4[9790] | 105.1[2670] | 967 | 813 | 1536 | 1649 | 36.4[16.5] |
| | 302SS095YJ22 | 95 | 120.4[3060] | 401.5[10200] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 42.5[19.3] |
| | 302SL082YJ22 | 82 | 120.4[3060] | 419.6[10660] | 105.1[2670] | 967 | 813 | 1536 | 1649 | 33.8[15.3] |
| | 302SE100YJ22 | 100 | 120.4[3060] | 438.5[11140] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 37.2[16.8] |
| | 302SM101YJ22 | 101 | 120.4[3060] | 487.4[12380] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 39.1[17.7] |
| 345 | 302SC097YJ22 | 97 | 131.1[3330] | 422.4[10730] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 38.8[17.6] |
| | 302SS106YJ22 | 106 | 131.1[3330] | 445.6[11320] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 46.9[21.3] |
| | 302SL091YJ22 | 91 | 131.1[3330] | 464.5[11800] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 36.7[16.6] |
| | 302SE111YJ22 | 111 | 131.1[3330] | 485.0[12320] | 116.1[2950] | 1067 | 896 | 1690 | 1817 | 40.7[18.4] |
| | 302SM112YJ22 | 112 | 131.1[3330] | 540.5[13730] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 42.5[19.3] |
| 345 | 302SC106YJ22 | 106 | 141.7[3600] | 463.3[11770] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 42.2[19.1] |
| | 302SS116YJ22 | 116 | 141.7[3600] | 487.4[12380] | 126.7[3220] | 1162 | 976 | 1838 | 1979 | 50.7[23.0] |
| | 302SL099YJ22 | 99 | 141.7[3600] | 508.2[12910] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 39.6[18.0] |
| | 302SE121YJ22 | 121 | 141.7[3600] | 527.1[13390] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 43.2[19.6] |
| | 302SM122YJ22 | 122 | 141.7[3600] | 588.5[14950] | 125.9[3200] | 1155 | 970 | 1827 | 1967 | 45.7[20.7] |
| 500 | 302SC114YJ34 | 114 | 151.1[3840] | 497.6[12640] | 135.0[3430] | 1237 | 1039 | 1953 | 2105 | 53.1[24.1] |
| | 302SS123YJ34 | 123 | 151.1[3840] | 518.5[13170] | 135.4[3440] | 1240 | 1042 | 1959 | 2111 | 42.4[19.2] |
| | 302SL107YJ34 | 107 | 151.1[3840] | 547.2[13900] | 135.0[3430] | 1237 | 1039 | 1953 | 2105 | 46.6[21.1] |
| | 302SE130YJ34 | 130 | 151.1[3840] | 568.5[14440] | 135.4[3440] | 1240 | 1042 | 1959 | 2111 | 49.4[22.4] |
| | 302SM131YJ34 | 131 | 151.1[3840] | 631.4[16040] | 135.4[3440] | 1240 | 1042 | 1959 | 2111 | 49.4[22.4] |

# ANSI 30Kips

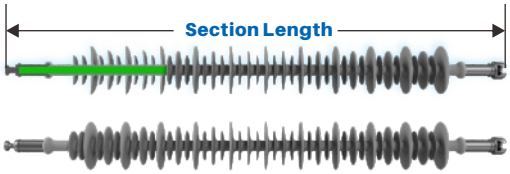
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 500 | 302SC128YJ34 | 128 | 167.7[4260] | 557.8[14170] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 49.4[22.4] |
| | 302SS139YJ34 | 139 | 167.7[4260] | 583.0[14810] | 151.1[3840] | 1382 | 1161 | 2179 | 2351 | 59.0[26.8] |
| | 302SL120YJ34 | 120 | 167.7[4260] | 613.7[15590] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 46.4[21.1] |
| | 302SE146YJ34 | 146 | 167.7[4260] | 637.4[16190] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 51.4[23.3] |
| | 302SM147YJ34 | 147 | 167.7[4260] | 707.8[17980] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 54.0[24.5] |
| 500 | 302SC138YJ34 | 138 | 179.7[4565] | 601.1[15270] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 52.8[23.9] |
| | 302SS149YJ34 | 149 | 179.7[4565] | 625.9[15900] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 62.8[28.5] |
| | 302SL129YJ34 | 129 | 179.7[4565] | 660.2[16770] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 49.4[22.4] |
| | 302SE158YJ34 | 158 | 179.7[4565] | 688.9[17500] | 163.7[4160] | 1496 | 1256 | 2355 | 2543 | 55.0[24.9] |
| | 302SM159YJ34 | 159 | 179.7[4565] | 764.9[19430] | 164.1[4170] | 1499 | 1259 | 2360 | 2549 | 57.4[26.0] |

# ANSI 50Kips

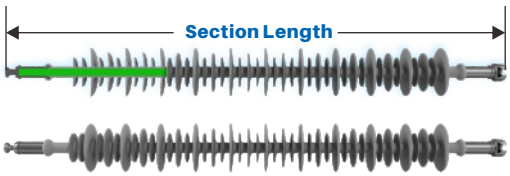
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 69 | 502SC011YK00 | 11 | 33.5[851] | 54.7[1390] | 18.5[470] | 187 | 157 | 326 | 329 | 14.4[6.5] |
| | 502SS015YK00 | 15 | 33.5[851] | 66.5[1690] | 18.5[470] | 187 | 157 | 326 | 329 | 16.1[7.3] |
| | 502SL012YK00 | 12 | 33.5[851] | 66.9[1700] | 18.5[470] | 187 | 157 | 326 | 329 | 14.4[6.5] |
| | 502SE013YK00 | 13 | 33.5[851] | 62.2[1580] | 18.5[470] | 187 | 157 | 326 | 329 | 14.6[6.6] |
| | 502SM020YK00 | 20 | 33.5[851] | 102.3[2600] | 24.8[630] | 244 | 205 | 414 | 425 | 14.9[6.7] |
| 69 | 502SC015YK00 | 15 | 36.4[927] | 70.0[1780] | 21.2[540] | 212 | 178 | 365 | 371 | 14.4[6.5] |
| | 502SS017YK00 | 17 | 36.4[927] | 75.9[1930] | 22.0[560] | 219 | 184 | 376 | 383 | 16.1[7.3] |
| | 502SL014YK00 | 14 | 36.4[927] | 76.3[1940] | 20.8[530] | 209 | 175 | 359 | 365 | 14.4[6.5] |
| | 502SE016YK00 | 16 | 36.4[927] | 74.8[1900] | 21.2[540] | 212 | 178 | 365 | 371 | 14.6[6.6] |
| | 502SM020YK00 | 20 | 36.4[927] | 102.3[2600] | 24.8[630] | 244 | 205 | 414 | 425 | 14.9[6.7] |
| 69 | 502SC018YK00 | 18 | 39.9[1015] | 83.8[2130] | 24.8[630] | 244 | 205 | 414 | 425 | 14.4[6.5] |
| | 502SS021YK00 | 21 | 39.9[1015] | 91.3[2320] | 25.1[640] | 248 | 208 | 420 | 431 | 16.1[7.3] |
| | 502SL017YK00 | 17 | 39.9[1015] | 91.7[2330] | 24.8[630] | 244 | 205 | 414 | 425 | 14.4[6.5] |
| | 502SE019YK00 | 19 | 39.9[1015] | 88.5[2250] | 24.8[630] | 244 | 205 | 414 | 425 | 14.6[6.6] |
| | 502SM020YK00 | 20 | 39.9[1015] | 102.3[2600] | 24.8[630] | 244 | 205 | 414 | 425 | 14.9[6.7] |
| 69 | 502SC020YK00 | 20 | 42.5[1080] | 92.1[2340] | 27.1[690] | 265 | 223 | 447 | 461 | 14.4[6.5] |
| | 502SS023YK00 | 23 | 42.5[1080] | 100.0[2540] | 27.1[690] | 265 | 223 | 447 | 461 | 16.1[7.3] |
| | 502SL019YK00 | 19 | 42.5[1080] | 101.1[2570] | 27.1[690] | 265 | 223 | 447 | 461 | 14.4[6.5] |
| | 502SE019YK00 | 19 | 42.5[1080] | 88.5[2250] | 24.8[630] | 244 | 205 | 414 | 425 | 14.6[6.6] |
| | 502SM020YK00 | 20 | 42.5[1080] | 102.3[2600] | 24.8[630] | 244 | 205 | 414 | 425 | 14.9[6.7] |
| 69 | 502SC022YK00 | 22 | 44.6[1135] | 101.1[2570] | 29.5[750] | 287 | 241 | 480 | 497 | 15.6[7.1] |
| | 502SS025YK00 | 25 | 44.6[1135] | 108.2[2750] | 29.5[750] | 287 | 241 | 480 | 497 | 17.6[8.0] |
| | 502SL020YK00 | 20 | 44.6[1135] | 107.4[2730] | 29.5[750] | 287 | 241 | 480 | 497 | 15.4[7.0] |
| | 502SE024YK00 | 24 | 44.6[1135] | 109.4[2780] | 29.5[750] | 287 | 241 | 480 | 497 | 15.8[7.2] |
| | 502SM025YK00 | 25 | 44.6[1135] | 124.4[3160] | 29.9[760] | 290 | 244 | 486 | 503 | 16.2[7.3] |
| 69/115 | 502SC025YK00 | 25 | 48.2[1225] | 112.2[2850] | 33.0[840] | 319 | 268 | 530 | 551 | 15.8[7.1] |
| | 502SS028YK00 | 28 | 48.2[1225] | 121.2[3080] | 32.6[830] | 315 | 265 | 524 | 545 | 19.0[8.6] |
| | 502SL023YK00 | 23 | 48.2[1225] | 122.8[3120] | 33.0[840] | 319 | 268 | 530 | 551 | 16.4[7.4] |
| | 502SE027YK00 | 27 | 48.2[1225] | 123.2[3130] | 33.0[840] | 319 | 268 | 530 | 551 | 17.0[7.7] |
| | 502SM028YK00 | 28 | 48.2[1225] | 140.5[3570] | 33.0[840] | 319 | 268 | 530 | 551 | 17.3[7.8] |
| 69/115 | 502SC028YK00 | 28 | 51.7[1315] | 126.7[3220] | 36.6[930] | 350 | 294 | 579 | 605 | 16.9[7.7] |
| | 502SS031YK00 | 31 | 51.7[1315] | 133.4[3390] | 36.2[920] | 347 | 291 | 574 | 599 | 19.9[9.0] |
| | 502SL026YK00 | 26 | 51.7[1315] | 137.7[3500] | 37.0[940] | 354 | 297 | 585 | 611 | 17.4[7.9] |
| | 502SE031YK00 | 31 | 51.7[1315] | 139.7[3550] | 36.2[920] | 347 | 291 | 574 | 599 | 18.2[8.2] |
| | 502SM032YK00 | 32 | 51.7[1315] | 158.6[4030] | 36.2[920] | 347 | 291 | 574 | 599 | 18.5[8.4] |
| 115/138 | 502SC032YK00 | 32 | 56.4[1435] | 144.0[3660] | 41.3[1050] | 393 | 330 | 645 | 677 | 18.1[8.2] |
| | 502SS036YK00 | 36 | 56.4[1435] | 154.7[3930] | 41.7[1060] | 397 | 333 | 651 | 683 | 22.1[10.0] |
| | 502SL030YK00 | 30 | 56.4[1435] | 158.2[4020] | 41.3[1050] | 393 | 330 | 645 | 677 | 18.4[8.3] |
| | 502SE036YK00 | 36 | 56.4[1435] | 160.6[4080] | 41.3[1050] | 393 | 330 | 645 | 677 | 19.4[8.8] |
| | 502SM037YK00 | 37 | 56.4[1435] | 181.1[4600] | 41.3[1050] | 393 | 330 | 645 | 677 | 19.8[9.0] |

# ANSI 50Kips

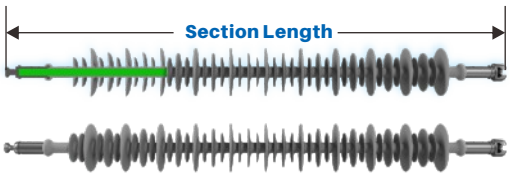
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 138 | 502SC036YK00 | 36 | 61.2[1555] | 161.0[4090] | 46.0[1170] | 436 | 366 | 711 | 749 | 19.3[8.7] |
| | 502SM041YK00 | 41 | 61.2[1555] | 200.7[5100] | 46.4[1180] | 439 | 369 | 717 | 755 | 21.1[9.6] |
| | 502SS040YK00 | 40 | 61.2[1555] | 171.6[4360] | 46.0[1170] | 436 | 366 | 711 | 749 | 23.6[10.7] |
| | 502SL033YK00 | 33 | 61.2[1555] | 174.0[4420] | 45.6[1160] | 432 | 363 | 706 | 743 | 19.4[8.8] |
| | 502SE040YK00 | 40 | 61.2[1555] | 178.7[4540] | 46.4[1180] | 439 | 369 | 717 | 755 | 20.7[9.4] |
| 138 | 502SC042YK00 | 42 | 68.3[1735] | 187.4[4760] | 53.1[1350] | 499 | 419 | 810 | 857 | 21.5[9.8] |
| | 502SS046YK00 | 46 | 68.3[1735] | 196.8[5000] | 52.7[1340] | 496 | 416 | 804 | 851 | 25.8[11.7] |
| | 502SL039YK00 | 39 | 68.3[1735] | 204.3[5190] | 53.1[1350] | 499 | 419 | 810 | 857 | 21.4[9.7] |
| | 502SE047YK00 | 47 | 68.3[1735] | 208.6[5300] | 52.7[1340] | 496 | 416 | 804 | 851 | 23.0[10.4] |
| | 502SM048YK00 | 48 | 68.3[1735] | 235.0[5970] | 52.7[1340] | 496 | 416 | 804 | 851 | 23.5[10.6] |
| 161 | 502SC042YK01 | 42 | 68.3[1735] | 187.4[4760] | 52.3[1330] | 492 | 414 | 799 | 845 | 22.9[10.4] |
| | 502SS046YK01 | 46 | 68.3[1735] | 196.8[5000] | 51.9[1320] | 489 | 411 | 793 | 839 | 27.1[12.3] |
| | 502SL039YK01 | 39 | 68.3[1735] | 204.3[5190] | 52.3[1330] | 492 | 414 | 799 | 845 | 22.7[10.3] |
| | 502SE047YK01 | 47 | 68.3[1735] | 208.6[5300] | 51.9[1320] | 489 | 411 | 793 | 839 | 24.3[11.0] |
| | 502SM048YK01 | 48 | 68.3[1735] | 235.0[5970] | 51.5[1310] | 485 | 408 | 788 | 833 | 24.8[11.2] |
| 161 | 502SC047YK01 | 47 | 74.2[1885] | 208.2[5290] | 58.2[1480] | 545 | 458 | 881 | 935 | 24.1[10.9] |
| | 502SS052YK01 | 52 | 74.2[1885] | 221.6[5630] | 58.2[1480] | 545 | 458 | 881 | 935 | 29.4[13.3] |
| | 502SL044YK01 | 44 | 74.2[1885] | 228.3[5800] | 57.8[1470] | 542 | 455 | 876 | 929 | 24.6[11.1] |
| | 502SE053YK01 | 53 | 74.2[1885] | 233.8[5940] | 57.8[1470] | 542 | 455 | 876 | 929 | 25.6[11.6] |
| | 502SM054YK01 | 54 | 74.2[1885] | 263.7[6700] | 57.8[1470] | 542 | 455 | 876 | 929 | 27.2[12.3] |
| 161 | 502SC048YK01 | 48 | 75.5[1918] | 212.9[5410] | 59.4[1510] | 556 | 467 | 898 | 953 | 25.4[11.5] |
| | 502SS053YK01 | 53 | 75.5[1918] | 225.1[5720] | 59.4[1510] | 556 | 467 | 898 | 953 | 31.0[14.0] |
| | 502SL045YK01 | 45 | 75.5[1918] | 235.0[5970] | 59.8[1520] | 560 | 470 | 903 | 959 | 25.7[11.6] |
| | 502SE054YK01 | 54 | 75.5[1918] | 239.7[6090] | 59.8[1520] | 560 | 470 | 903 | 959 | 27.9[12.6] |
| | 502SM060YK01 | 60 | 75.5[1918] | 292.5[7430] | 64.1[1630] | 599 | 503 | 964 | 1025 | 28.6[12.9] |
| 161 | 502SC052YK01 | 52 | 80.1[2035] | 230.3[5850] | 64.1[1630] | 599 | 503 | 964 | 1025 | 25.4[11.5] |
| | 502SS057YK01 | 57 | 80.1[2035] | 241.7[6140] | 63.7[1620] | 595 | 500 | 958 | 1019 | 31.0[14.0] |
| | 502SL048YK01 | 48 | 80.1[2035] | 250.0[6350] | 63.7[1620] | 595 | 500 | 958 | 1019 | 25.7[11.6] |
| | 502SE059YK01 | 59 | 80.1[2035] | 260.6[6620] | 64.1[1630] | 599 | 503 | 964 | 1025 | 27.9[12.6] |
| | 502SM060YK01 | 60 | 80.1[2035] | 292.5[7430] | 64.1[1630] | 599 | 503 | 964 | 1025 | 28.6[12.9] |
| 161 | 502SC056YK01 | 56 | 84.8[2155] | 247.2[6280] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 26.6[12.0] |
| | 502SS061YK01 | 61 | 84.8[2155] | 258.6[6570] | 68.5[1740] | 638 | 536 | 1024 | 1091 | 32.5[14.7] |
| | 502SL053YK01 | 53 | 84.8[2155] | 274.0[6960] | 69.2[1760] | 645 | 542 | 1035 | 1103 | 27.5[12.5] |
| | 502SE063YK01 | 63 | 84.8[2155] | 278.3[7070] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 29.1[13.2] |
| | 502SM064YK01 | 64 | 84.8[2155] | 312.2[7930] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 29.9[13.5] |
| 230 | 502SC056YK02 | 56 | 84.8[2155] | 247.2[6280] | 68.5[1740] | 638 | 536 | 1024 | 1091 | 26.8[12.1] |
| | 502SS061YK02 | 61 | 84.8[2155] | 258.6[6570] | 68.1[1730] | 634 | 533 | 1019 | 1085 | 32.7[14.8] |
| | 502SL053YK02 | 53 | 84.8[2155] | 274.0[6960] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 27.7[12.6] |
| | 502SE063YK02 | 63 | 84.8[2155] | 278.3[7070] | 68.5[1740] | 638 | 536 | 1024 | 1091 | 29.3[13.3] |
| | 502SM064YK02 | 64 | 84.8[2155] | 312.2[7930] | 68.8[1750] | 641 | 539 | 1030 | 1097 | 30.1[13.6] |

# ANSI 50Kips

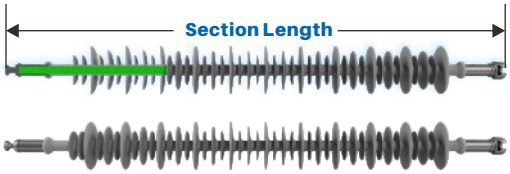
## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 230 | 502SC061YK02 | 61 | 90.7[2305] | 267.3[6790] | 74.4[1890] | 691 | 580 | 1107 | 1181 | 28.0[12.7] |
| | 502SS067YK02 | 67 | 90.7[2305] | 283.4[7200] | 74.8[1900] | 694 | 583 | 1112 | 1187 | 35.0[15.8] |
| | 502SL057YK02 | 57 | 90.7[2305] | 294.8[7490] | 74.0[1880] | 687 | 577 | 1101 | 1175 | 28.8[13.0] |
| | 502SE069YK02 | 69 | 90.7[2305] | 302.7[7690] | 74.4[1890] | 691 | 580 | 1107 | 1181 | 30.6[13.9] |
| | 502SM070YK02 | 70 | 90.7[2305] | 340.1[8640] | 74.0[1880] | 687 | 577 | 1101 | 1175 | 32.4[14.7] |
| 230 | 502SC066YK02 | 66 | 96.6[2455] | 290.9[7390] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 30.2[13.7] |
| | 502SS071YK02 | 71 | 96.6[2455] | 301.1[7650] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 36.5[16.6] |
| | 502SL062YK02 | 62 | 96.6[2455] | 319.6[8120] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 30.7[13.9] |
| | 502SE075YK02 | 75 | 96.6[2455] | 329.5[8370] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 32.9[14.9] |
| | 502SM076YK02 | 76 | 96.6[2455] | 368.8[9370] | 80.3[2040] | 744 | 625 | 1189 | 1271 | 33.8[15.3] |
| 230 | 502SC070YK02 | 70 | 101.3[2575] | 308.2[7830] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 31.4[14.2] |
| | 502SS076YK02 | 76 | 101.3[2575] | 322.0[8180] | 84.6[2150] | 783 | 658 | 1250 | 1337 | 38.7[17.5] |
| | 502SL065YK02 | 65 | 101.3[2575] | 335.4[8520] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 31.7[14.4] |
| | 502SE079YK02 | 79 | 101.3[2575] | 347.2[8820] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 34.1[15.5] |
| | 502SM080YK02 | 80 | 101.3[2575] | 388.5[9870] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 35.0[15.9] |
| 230 | 502SC071YK02 | 71 | 103.4[2627] | 312.5[7940] | 87.4[2220] | 808 | 679 | 1288 | 1379 | 31.4[14.2] |
| | 502SS078YK02 | 78 | 103.4[2627] | 330.3[8390] | 87.0[2210] | 804 | 676 | 1283 | 1373 | 38.7[17.5] |
| | 502SL067YK02 | 67 | 103.4[2627] | 344.8[8760] | 87.4[2220] | 808 | 679 | 1288 | 1379 | 31.7[14.4] |
| | 502SE081YK02 | 81 | 103.4[2627] | 355.1[9020] | 87.0[2210] | 804 | 676 | 1283 | 1373 | 34.1[15.5] |
| | 502SM080YK02 | 80 | 103.4[2627] | 388.5[9870] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 35.0[15.9] |
| 230 | 502SC075YK02 | 75 | 107.5[2731] | 328.7[8350] | 90.9[2310] | 840 | 705 | 1338 | 1433 | 31.4[14.2] |
| | 502SS082YK02 | 82 | 107.5[2731] | 346.8[8810] | 91.3[2320] | 843 | 708 | 1343 | 1439 | 38.7[17.5] |
| | 502SL070YK02 | 70 | 107.5[2731] | 360.2[9150] | 91.3[2320] | 843 | 708 | 1343 | 1439 | 31.7[14.4] |
| | 502SE085YK02 | 85 | 107.5[2731] | 372.4[9460] | 91.3[2320] | 843 | 708 | 1343 | 1439 | 34.1[15.5] |
| | 502SM080YK02 | 80 | 107.5[2731] | 388.5[9870] | 85.0[2160] | 787 | 661 | 1255 | 1343 | 35.0[15.9] |
| 345 | 502SC088YK22 | 88 | 122.6[3115] | 385.4[9790] | 105.1[2670] | 967 | 813 | 1536 | 1649 | 37.8[17.1] |
| | 502SS095YK22 | 95 | 122.6[3115] | 401.5[10200] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 47.1[21.4] |
| | 502SL083YK22 | 83 | 122.6[3115] | 425.9[10820] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 39.1[17.7] |
| | 502SE100YK22 | 100 | 122.6[3115] | 437.4[11110] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 41.7[18.9] |
| | 502SM101YK22 | 101 | 122.6[3115] | 487.4[12380] | 105.5[2680] | 971 | 816 | 1541 | 1655 | 42.9[19.4] |
| 345 | 502SC097YK22 | 97 | 133.2[3385] | 422.4[10730] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 40.3[18.3] |
| | 502SS104YK22 | 104 | 133.2[3385] | 439.7[11170] | 115.3[2930] | 1060 | 890 | 1679 | 1805 | 50.8[23.0] |
| | 502SL091YK22 | 91 | 133.2[3385] | 465.7[11830] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 41.2[18.7] |
| | 502SE110YK22 | 110 | 133.2[3385] | 481.4[12230] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 45.2[20.5] |
| | 502SM111YK22 | 111 | 133.2[3385] | 535.8[13610] | 115.7[2940] | 1063 | 893 | 1684 | 1811 | 46.5[21.1] |
| 345 | 502SC106YK22 | 106 | 143.8[3655] | 463.3[11770] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 43.6[19.8] |
| | 502SS110YK22 | 114 | 143.8[3655] | 481.4[12230] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 54.6[24.7] |
| | 502SL099YK22 | 99 | 143.8[3655] | 508.2[12910] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 44.2[20.0] |
| | 502SE121YK22 | 121 | 143.8[3655] | 527.1[13390] | 126.3[3210] | 1159 | 973 | 1832 | 1973 | 47.7[21.6] |
| | 502SM122YK22 | 122 | 143.8[3655] | 588.5[14950] | 125.9[3200] | 1155 | 970 | 1827 | 1967 | 50.1[22.7] |

# ANSI 50Kips

## Composite Suspension Insulators
## Technical Data




| Voltage Class [kV] | Catalogue No. | No. of Sheds | Section Length inch[mm] | Leakage Distance inch[mm] | Arcing Distance inch[mm] | Low Frequency Flashover [50Hz] | | Critical Impulse Flashover | | Approx. Weight lbs.[kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dry kV | Wet kV | Positive kV | Negative kV | |
| 500 | 502SC114YK34 | 114 | 153.3[3895] | 497.6[12640] | 135.0[3430] | 1237 | 1039 | 1953 | 2105 | 47.1[21.4] |
| | 502SS123YK34 | 123 | 153.3[3895] | 517.3[13140] | 134.6[3420] | 1233 | 1036 | 1948 | 2099 | 58.7[26.6] |
| | 502SL107YK34 | 107 | 153.3[3895] | 547.6[13910] | 135.0[3430] | 1237 | 1039 | 1953 | 2105 | 48.1[21.8] |
| | 502SE130YK34 | 130 | 153.3[3895] | 566.9[14400] | 134.6[3420] | 1233 | 1036 | 1948 | 2099 | 52.2[23.7] |
| | 502SM131YK34 | 131 | 153.3[3895] | 631.4[16040] | 135.4[3440] | 1240 | 1042 | 1959 | 2111 | 53.8[24.4] |
| 500 | 502SC128YK34 | 128 | 169.8[4315] | 557.8[14170] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 50.8[23.0] |
| | 502SS138YK34 | 138 | 169.8[4315] | 580.7[14750] | 151.1[3840] | 1382 | 1161 | 2179 | 2351 | 64.6[29.3] |
| | 502SL120YK34 | 120 | 169.8[4315] | 614.1[15600] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 52.1[23.6] |
| | 502SE146YK34 | 146 | 169.8[4315] | 636.6[16170] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 57.1[25.9] |
| | 502SM147YK34 | 147 | 169.8[4315] | 707.8[17980] | 151.5[3850] | 1386 | 1164 | 2184 | 2357 | 58.8[26.7] |
| 500 | 502SC138YK34 | 138 | 181.6[4615] | 601.1[15270] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 54.3[24.6] |
| | 502SS149YK34 | 149 | 181.6[4615] | 625.9[15900] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 68.5[31.1] |
| | 502SL129YK34 | 129 | 181.6[4615] | 660.2[16770] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 55.1[25.0] |
| | 502SE158YK34 | 158 | 181.6[4615] | 687.7[17470] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 60.6[27.5] |
| | 502SM159YK34 | 159 | 181.6[4615] | 764.1[19410] | 163.3[4150] | 1492 | 1253 | 2349 | 2537 | 62.5[28.3] |

## Notes

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Rev. 09/2023