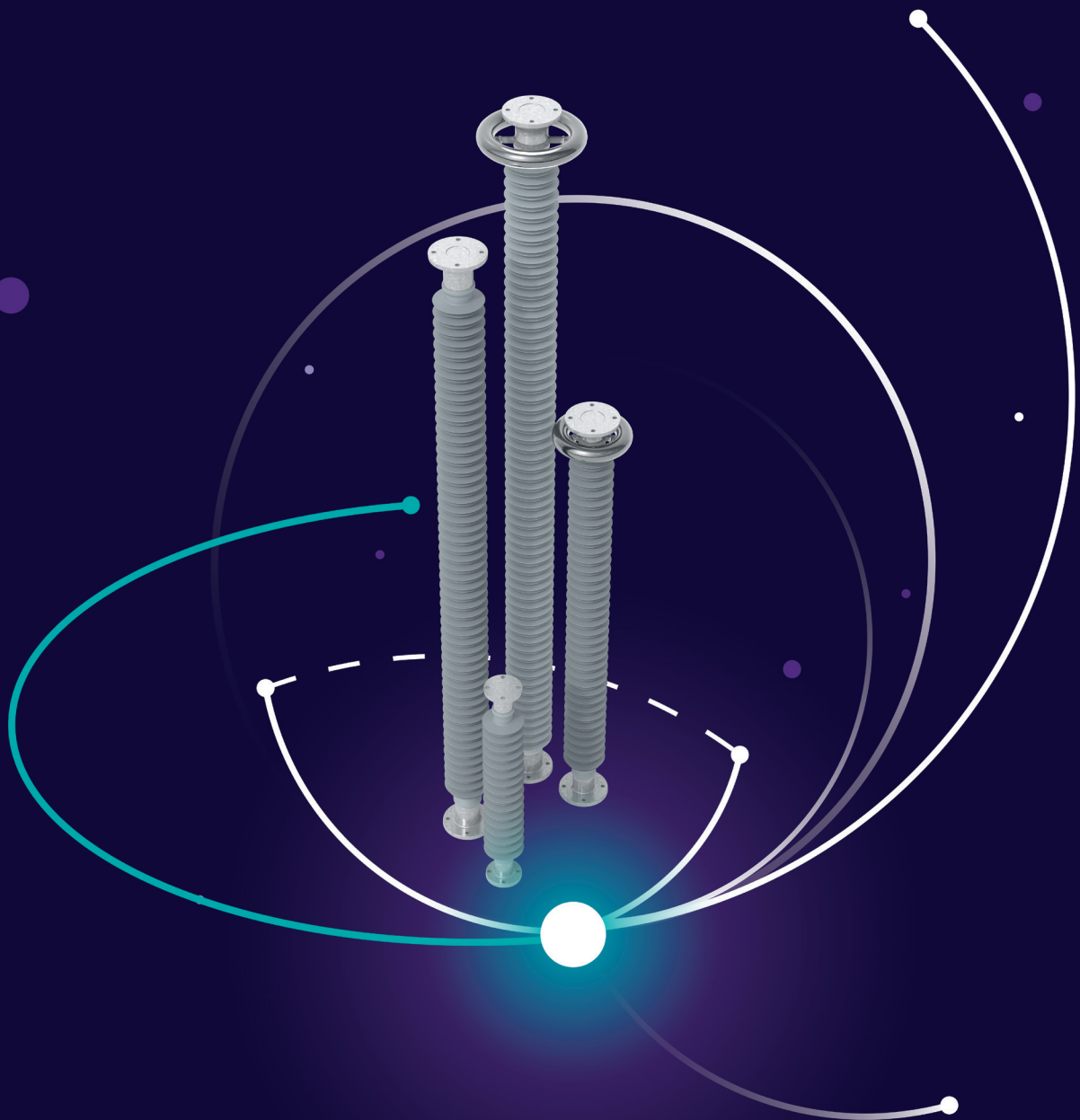


3FT composite post insulators

Engineered for extreme performance



The 3FT post insulator from Siemens Energy is designed for a wide range of applications in station environments (station post) and overhead transmission lines (line post). It delivers outstanding mechanical strength, superior electrical insulation, and long service life – even under the most demanding environmental conditions.

A key advantage:

It is suitable for both AC (Alternating Current) and DC (Direct Current) applications.

Why choose Siemens Energy?

We at Siemens Energy are a trusted global partner with decades of experience and a comprehensive portfolio spanning power generation, transmission, storage, and renewable energy solutions.

We are committed to driving the energy transition by offering innovative and sustainable technologies. Our focus on reliability, quality, and tailored solutions ensures efficient project execution and long-term value.

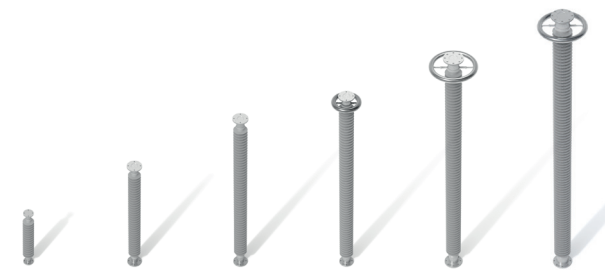
With our strong global presence and commitment to social responsibility, we are dedicated to supporting organizations in building a cleaner and more sustainable energy future.

At Siemens Energy, we offer a comprehensive portfolio of insulators, transmission line arresters, and monitoring solutions. With our new 3FT portfolio, we now complete our offering for both transmission lines and substations.



Discover more on our website!

3FT post insulators



3FT2	3FT3	3FT4	3FT5	3FT6	3FT7
63.5 mm (2.5")	76.2 mm (3.0")	88.9 mm (3.5")	100 mm (3.9")	120 mm (4.7")	150 mm (5.9")
SCL 18 kNm	SCL 32 kNm	SCL 46 kNm	SCL 50 kNm	SCL 78 kNm	SCL 150 kNm

3FT core diameters

Key features

This concise list of standout features outlines the technical details and explains how we meet your specific requirements.

- **Flexible product length**, up to 5.5 m – according to your requirements, in 12.5 mm increments.
- **SCL classes** from 18 to 150 kNm.
- **Housing:** HTV silicone (High Temperature Vulcanized) multi-shot injection molding – outstanding aging resistance, excellent hydrophobic properties, and superior uv-resistance.
- **Core material:** ECR fiberglass (Electrical and Corrosion Resistant) – maximum mechanical strength and corrosion resistance.
- **Overmolded end fittings:** Prevents moisture ingress and ensures lowest possible electrical field stress at the triple point
- **Perfect adhesion process:** Special focus on achieving optimal bonding between silicone housing, fiberglass rod, and end fittings. Using an extensively tested primer system. Continuous monitoring and strict quality control throughout production to ensure long-term performance
- **Fully tested** acc. to IEC and ANSI standards
- **Customer acceptance (FAT):** Option to conduct **Factory Acceptance Tests** in both **Asia** and **Europe**.

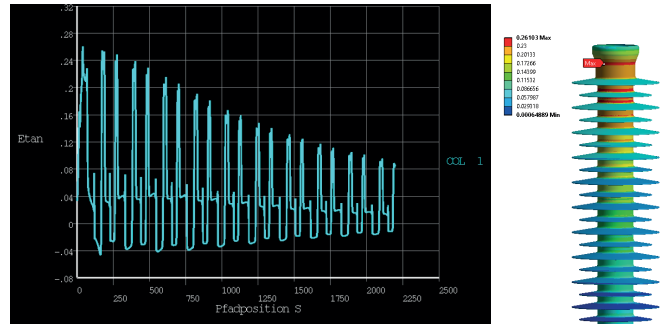
Standards & compliance

- IEC 61952 composite line post insulators
- IEC 62231 composite station post insulators for substations
- ANSI C29.17 composite Insulators – transmission line post type
- ANSI C29.19 composite insulators station post type
- Shed profile according to IEC 60815-3 (AC) and IEC 60815-4 (DC)

Advanced electrical field and load assessment

Extensive electrical field simulations have been performed to validate operational reliability up to 800 kV system voltages. At higher system voltages, larger corona rings are required – offered as part of our portfolio to ensure optimal performance and reliability.

Ability to calculate **combined load curves** for Line Post Applications using **EPRI (Electric Power Research Institute)** calculation tools, and provide these load curves already at offer stage.



Tangential field stress along housing trunk surface

Applications

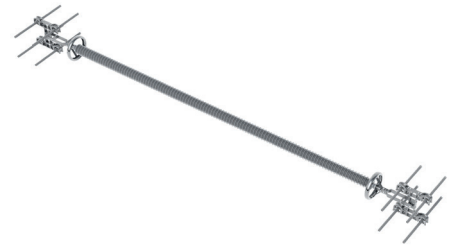
Station post insulator

- Support for busbars in high-voltage substations
- Support insulator below other high-voltage equipment



Interface & interline spacers

- Used for phase-to-phase separation in high-voltage installations to maintain electrical clearance.



Line post insulator

- Inclined post insulator
- Brace insulator
- Jumper support



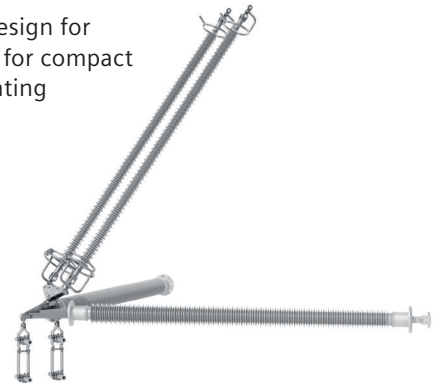
Inclined line post



Braced line post

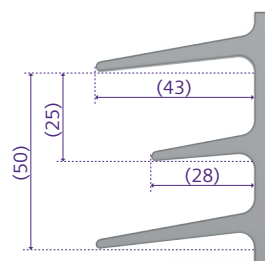
Composite Insulator Crossarm (CICA)

- Most compact design for insulator strings for compact lines or line uprating

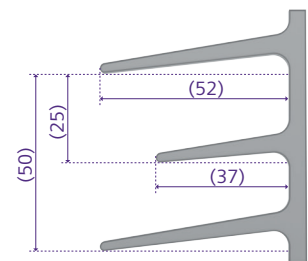


Portfolio range

- Core diameters from 63.5 mm up to 150 mm
- Lengths from 0.5 m to 5.5 m in a single unit; insulators can be stacked to achieve greater total height
- Two different shed profiles available
- Four different end fittings available



Creepage factor 3.6



Creepage factor 4.2

End fittings



Type	Tapped flange	Through holes flange	Drop hole tongue	Flat & gain bendable base
3FT2	4x M16 D127	4x D18 D127		
3FT3	4x M16 D127	4x D18 D127	Yes	Yes
3FT4	4x M16 D127	4x D18 D178		
	4x M20 D127			
3FT5	4x M16 D127	4x D18 D178		
		8x D18 D178		
3FT6	8x M16 D127	8x D24 D225		
3FT7	-	8x D18 D254		

3FT type overview

Type	SCL (Specified Mechanical Load*)	MDCL (Maximum Design Cantilever Load)	Length	Lightning withstand	Creepage factor creepage/arcng
3FT2 -4	18 kNm	9 kNm	0.5 – 3.0m	> 1600 kV	4.2
3FT3 -4	32 kNm	16 kNm	0.5 – 3.0m	> 1600 kV	4.2
3FT4 -4	46 kNm	23 kNm	0.5 – 4.0m	> 2150 kV	4.2
3FT5 -4	50 kNm	25 kNm	0.5 – 5.5m	> 3050 kV	4.2
3FT6 -3	78 kNm	39 kNm	0.5 – 5.5m	> 3050 kV	3.5
3FT6 -4	78 kNm	39 kNm	0.5 – 5.5m	> 3050 kV	4.2
3FT7 -4	150 kNm	75 kNm	1.0 – 5.5m	> 3050 kV	4.2

* equivalent to ceramic breaking load

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