

## PORCELAIN LONGROD INSULATORS



Wet Process Porcelain

Extruded Technology

Wet Turning Process

C130 High Strength Alumina Porcelain

High Creepage Options

**VOLTAGE CLASS:** 1 - 1100 kV (>170 kV in serial unit arrangements)

**PRODUCT STANDARDS:** IEC 60433, IEC 60383, IEC 60672

**EXPERIENCE:** > 70 years



### MAIN ADVANTAGES:

- Most Reliable Insulator Product (CIGRE Study/Survey WG 22.03)
- Extreme Weather and Environmental Resistant
- Type A (non puncturable) according to IEC 60383
- High Mechanical Strength up to 350 kN per Unit
- Life-Expectancy >40 years
- Standardised String Designs
- Silicone Coatings available for Applications under Extreme Pollution
- Proven for more than 70 years

### REFERENCES:

- 15 kV German Railway
- 25 kV Dutch Railway
- 15 kV Indian Railway
- 15 kV NORGES, Norwegian Railway
- 25 kV RSD, Russian Railway
- 25 kV SBB, Swiss Railway
- 15 kV ÖBB, Austrian Railway
- 123-420 kV All German Utilities (RWE, EON, ENBW, Vattenfall, DB Energie)
- 123-420 kV All Swiss Utilities (EOS, BKW, ATEL, Rätia Energie, EKL)
- 123-420 kV All Austrian Utilities
- 123-420 kV SEC, Saudi Aramco, Saudi Arabia
- 145-245 kV MEW, Oman
- 145-245 kV Libya
- 123 kV PSE Poland
- 525 kV CPG, China (HVAC and HVDC)
- 123-765 kV Hungaria
- 145-420 kV ESKOM, South Africa
- 300 kV MEW, Kuwait

### DESIGNS:

Shank Ø		EMF** Class (max.)	Pollution Class*	h <sub>1</sub> , Max ***
[mm]	[inch]	[kN]	[mm/kV]	[mm]
45	1.78	60	12 - 45	600
60	2.36	100	12 - 45	1500
75	2.95	160	12 - 45	1700
85	3.35	210	12 - 45	2000
95	3.74	250	12 - 45	2000
105	4.13	300	12 - 45	2000
115	4.53	350	12 - 45	2000

\* in accordance with IEC 60815, higher SCD possible in individual cases

\*\* EMF: Electro Mechanical Failing load, routine test load of 80% EMF

\*\*\* max connection length

### END FITTINGS:

- All IEC 60120 and IEC 60471 types
- All DIN 48006 fittings, Flanges
- Special customer and tailor-made fittings, e.g. for railway applications