

MOSDORFER RAILWAY COMPOSITE INSULATORS

SOLUTIONS FOR
RAILWAY CATENARY SYSTEMS

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Mosdorfer Rail Composite Insulators are available in a variety of configurations for systems ranging from 1.5kV DC, 3kV DC, 15 & 25kV AC.

Tailor made solutions to meet your system requirements & specifications ensure interchangeability with existing infrastructure.

Composite insulators offer significant advantages over porcelain and glass insulators, specifically;

- Superior hydrophobicity & the ability to transfer their intrinsic properties through the pollution layer
- Superior tracking & erosion resistance
- Excellent pollution performance
- Light weight, lower construction & transportation costs
- Vandalism resistant
- High strength to weight ratio
- Improved line aesthetics

Aristotle: “The whole is more than the sum of its part.”

This is true for composite insulators as the properties and quality of the individual subcomponent's are only a starting point. Composite insulators must withstand a wide variety of static and dynamic Mechanical forces, Thermal cycles, Electrical stresses, UV degradation and Electrical erosion. As such the choice and quality of input materials are crucial. Furthermore, aerodynamic shed geometry according to IEC 60815-3 significantly impacts on long-term electrical performance. Chemical bonding of the silicone to core rod and triple point ensures long-term stability & performance.

Materials of construction

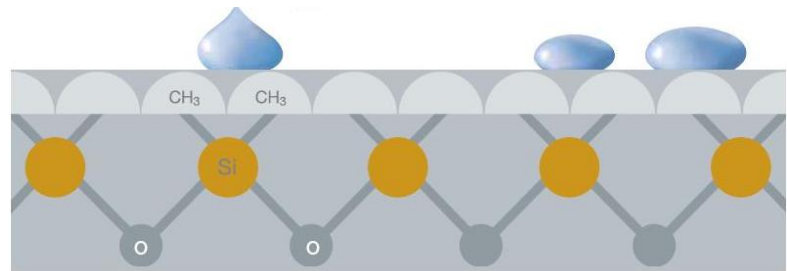
- Silicone Housing
- Core rod
- End fittings

Silicone Housing

Manufactured from High Temperature Vulcanizing (HTV) silicone rubber, also commonly referred to as High Consistency Silicone Rubber (HCR)

In contrast to other polymeric insulation materials, silicones are not made up of a carbon-carbon backbone. Rather, they consist of repeating silicon-oxygen groups with two methyl groups each bonded to the silicon. As such, they differ widely from hydrocarbon-base materials.

Silicones have a structure similar to organically modified quartz. The high bonding energy of the silicon to oxygen (Si-O) backbone provides stability against breakdown by UV irradiation. For example, the bonding energy of Si-O bonds is 444 kJ/mol versus only 348 kJ/mol for C-C bonds. Shortwave sunlight at 300 nm has an energy content of about 6.2×10^{-22} kJ (i.e. 398 kJ/mol) and can therefore cleave C-C bonds but not the Si-O bond that remains stable.



- Incline Plain Test acc. IEC 60587: Class 1A 4.5
- Flammability index acc. EN 60695-11-10: HB & V-0
- Hydrophobicity rating: HC 1 & HC 2 (after pollution deposits)
- Specific gravity acc. ISO 2781: ≥ 1.5

Leakage Current Suppression

Silicone elastomer formulations contain an amount of short-chain, low molecular weight siloxane chains. When driven by a difference in concentration between the base silicone elastomer and the pollution layer, these mobile molecules migrate through and encapsulate the pollution layer. In fact, the rough surface of the now hydrophobic pollution layer often shows an even higher wetting angle than the shiny surface of the clean silicone. This effect promotes sustained hydrophobicity. Wet performance increases due to hydrophobicity as water droplets remain mostly intact across the insulator surface resulting in a lower leakage current.

In the event of hydrophobic loss due to flashover, leakage currents are suppressed through the use of Aluminium trihydrate (ATH) fillers. **Resistance to tracking & erosion is rated class 1A4.5 acc. IEC 60587 in all applications.**

Glass Rod Cores



Glass Fibre Reinforced Plastic rods (FRP) consist of boron free Electrical & Corrosion Resistant (E-CR) glass and an epoxy resin matrix negating the risk of brittle fracture and hydrolysis. Responsible to withstand both electrical and mechanical stresses, core rods are suitably dimensioned to withstand the design loads, whether tension, compression and bending (cantilever) or a system of all three. Quality of materials are maintained through water diffusion (leakage currents < 100µA) and dye penetration tests according to IEC 62217.

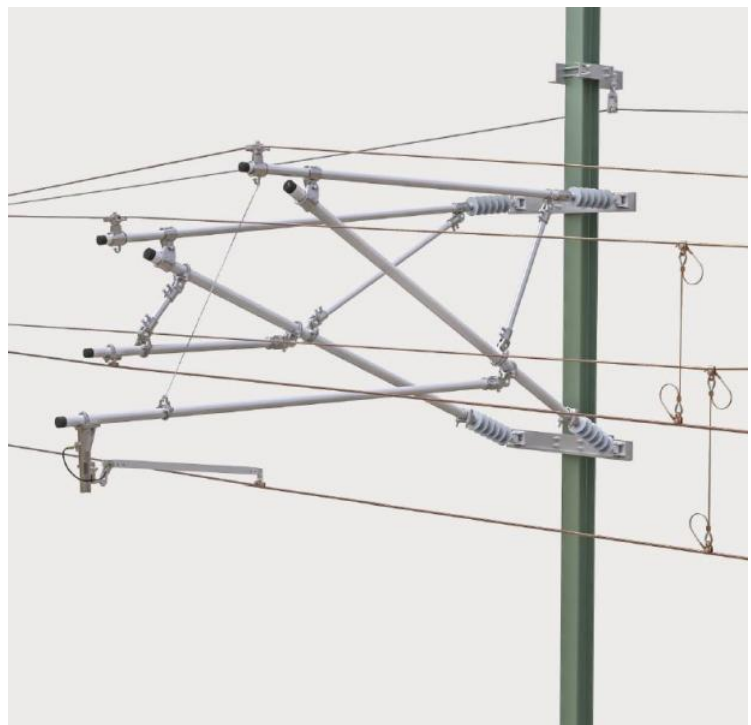
Testing acc. IEC TR/62039 ensures resistance to chemical attack.

- Electrical & Corrosion resistance glass fibre (E-CR glass)
- Boron free
- Acid resistant acc. IEC TR 62039
- Epoxy resin matrix

End Fittings

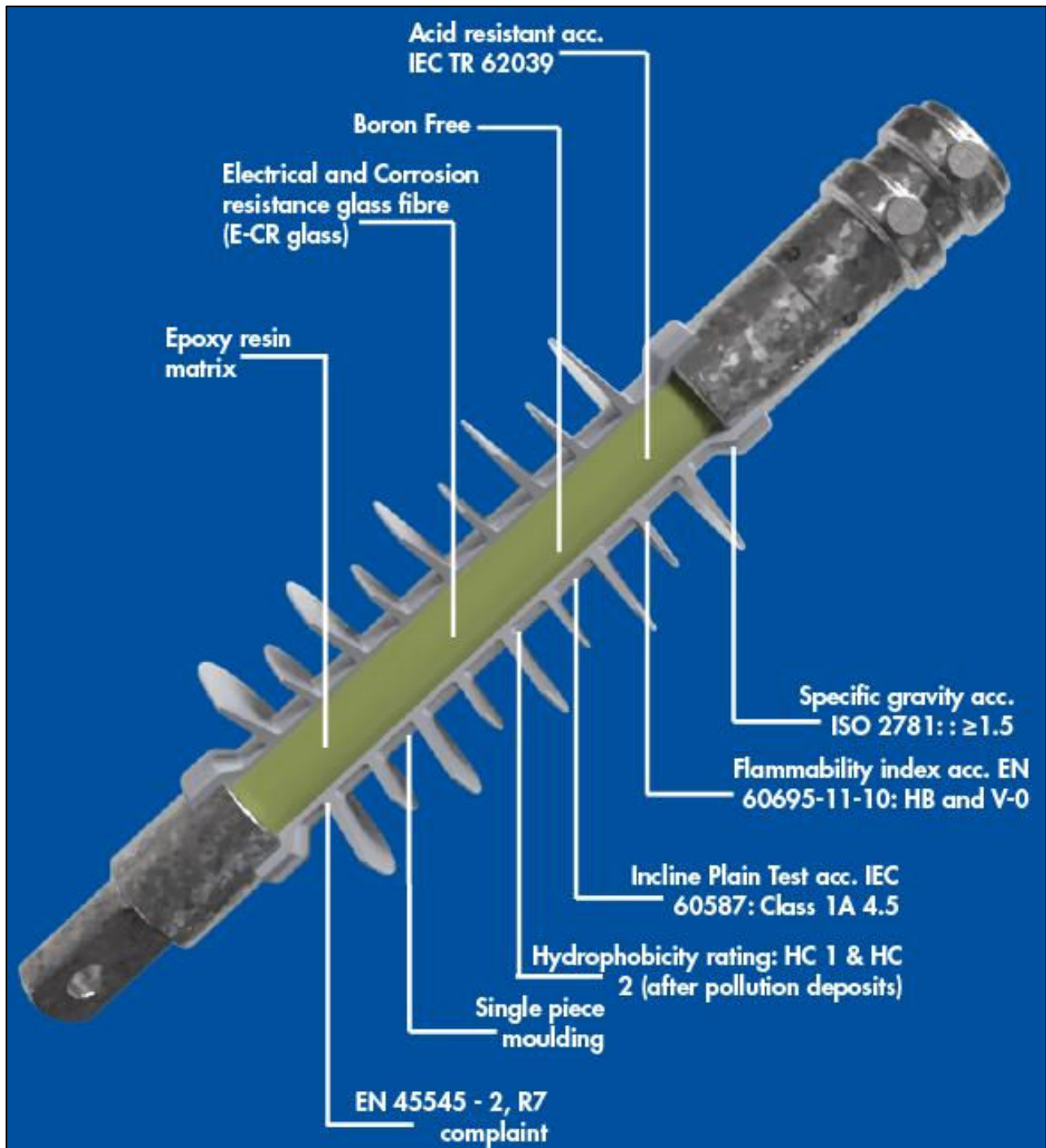
Where possible end fittings according IEC norms are supplied. Legacy infrastructure however demands interchangeability and thus many fittings are system or region specific, these are manufactured from a range of ductile cast iron, hot forged steel and in special applications, hot forged aluminium. All ferrous fittings are galvanised per ISO 1461 or customer requirements.

A wide range of end fittings are available including Tongue & Clevis, Pipe & Tube ensuring interchangeability.



Breakdown of an Insulator

Manufactured & tested according to IEC 61109 & IEC 61952



**Designed and
Tested to
International Norms**



EN 50119: Railway applications, Fixed installations
↓
EN 50124: Railway applications, Insulator coordination
↓

EN 62621: Railway applications, Fixed installations

IEC 61109: Composite suspension & tension

IEC 61952: Composite line post insulators



IEC 62217: Polymeric HV insulators

- Design testing
- Type testing



Independent testing at ISO / IEC 17025 accredited laboratories



International
Electrotechnical
Commission



Tension and Suspension Insulators



Tension & suspension insulators with alternating shed profiles for improved electrical performance.

Designed and tested in accordance with EN 50124, IEC 62621 & IEC 61109



Cantilever Insulators



Cantilever insulators with alternating shed profiles for improved electrical performance.

Designed and tested in accordance with EN 50124, IEC 62621 & IEC 61952



Feeder Insulators



Feeder insulators with alternating shed profiles for improved electrical performance.

Designed and tested in accordance with EN 50124, IEC 62621 & IEC 61952



Station Post Insulators



Designed and tested in accordance with EN 50124, IEC 62621 & IEC 61952



TENSION AND SUSPENSION INSULATOR

Application

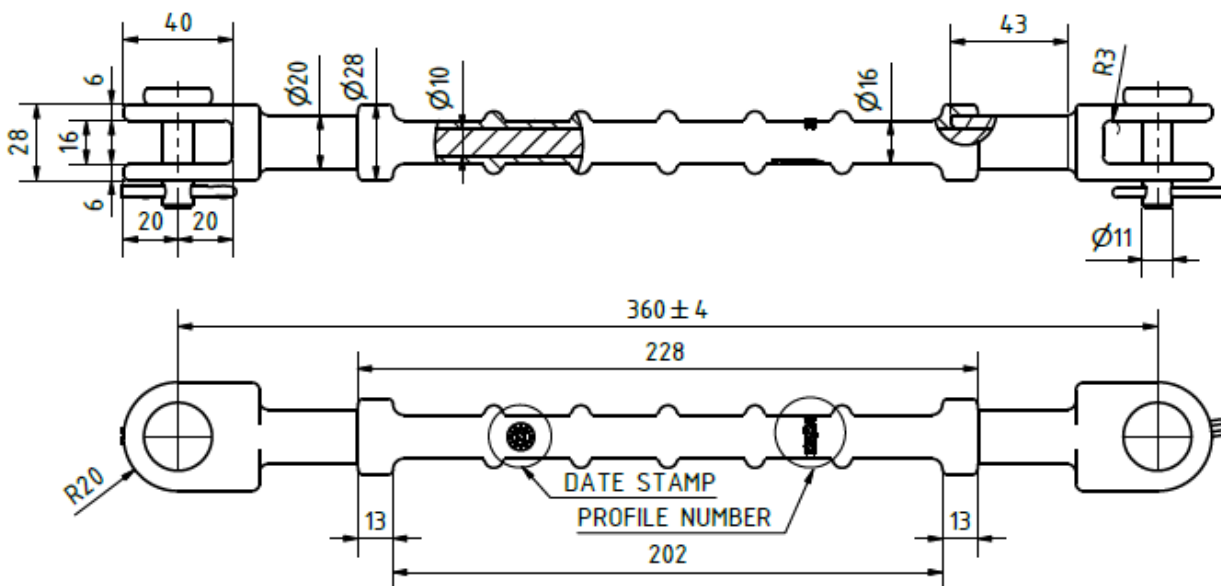
- Tension Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 10mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power Frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
801 011 001	1.5	40	125	240	228	20	10	1.4



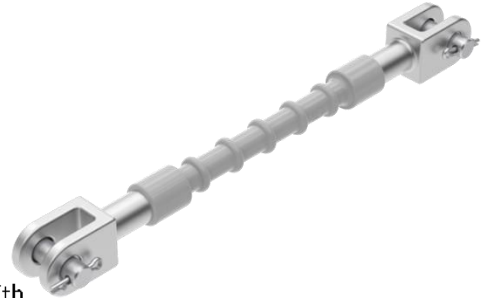
TENSION AND SUSPENSION INSULATOR

Application

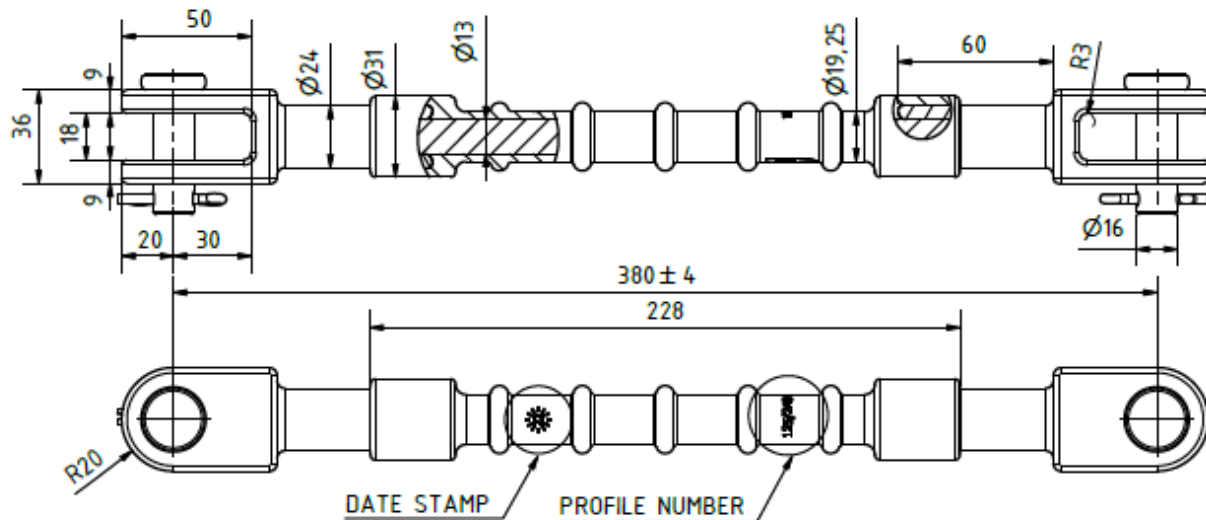
- Tension Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 13mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
801 021 001	1.5	40	125	240	228	70	35	1.9



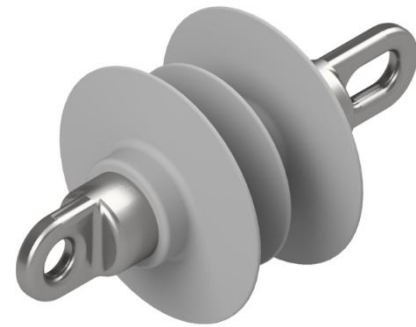
TENSION AND SUSPENSION INSULATOR

Application

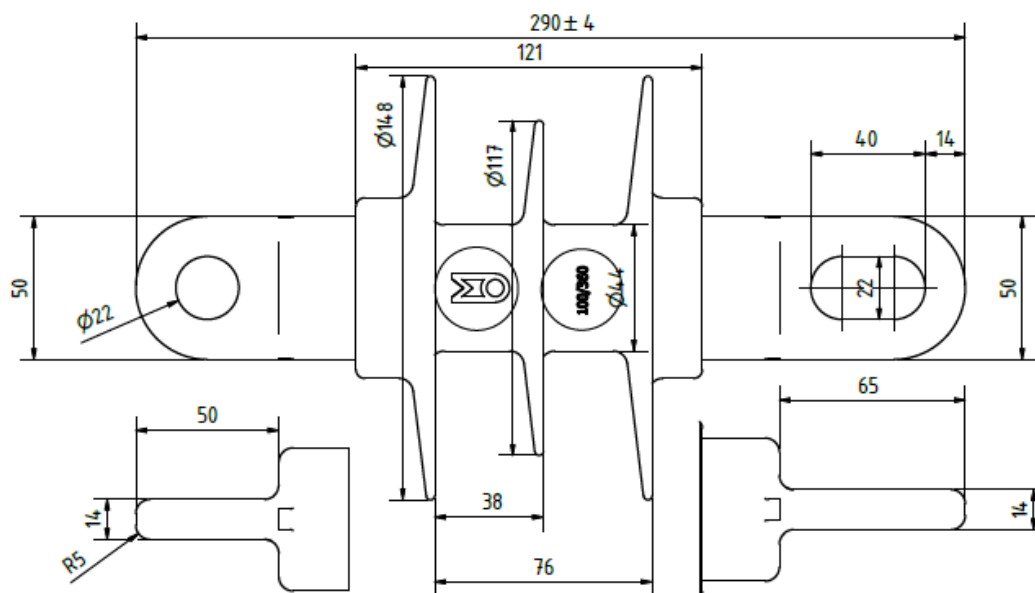
- Tension Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 36mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
803 031 001	3	45	100	360	170	60	30	1.9



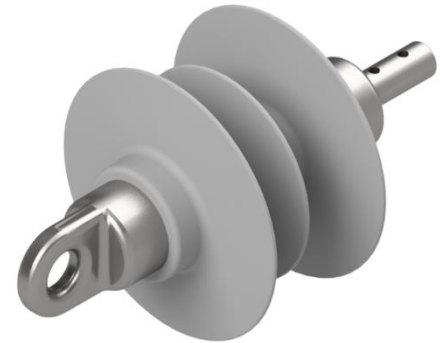
TENSION AND SUSPENSION INSULATOR

Application

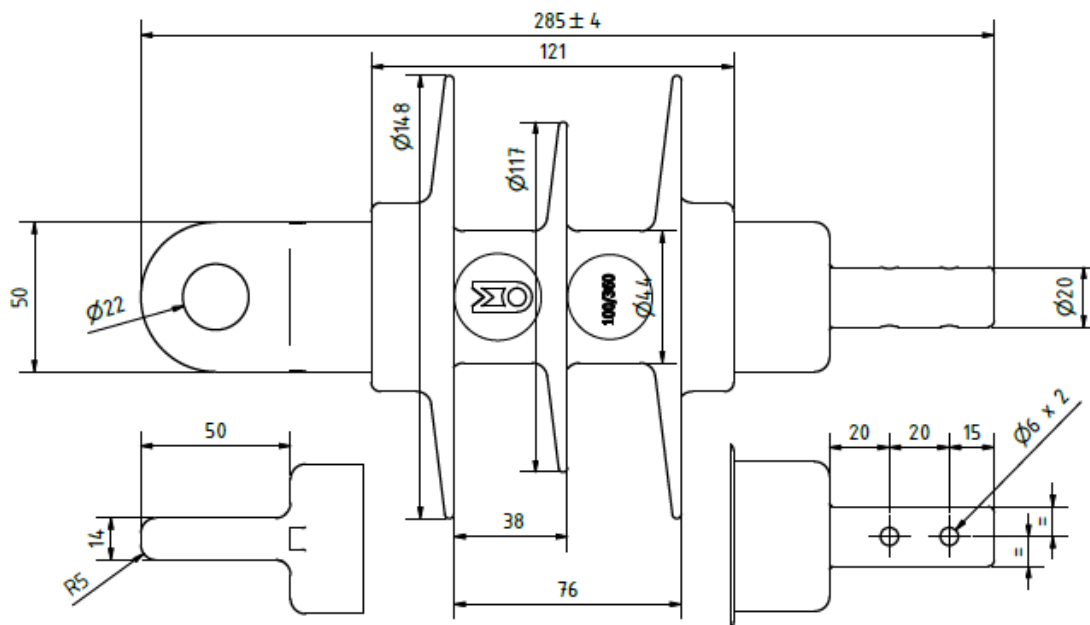
- Tension Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 36mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
803 032 001	3	45	100	360	170	25	12.5	1.8



CANTILEVER INSULATOR

Application

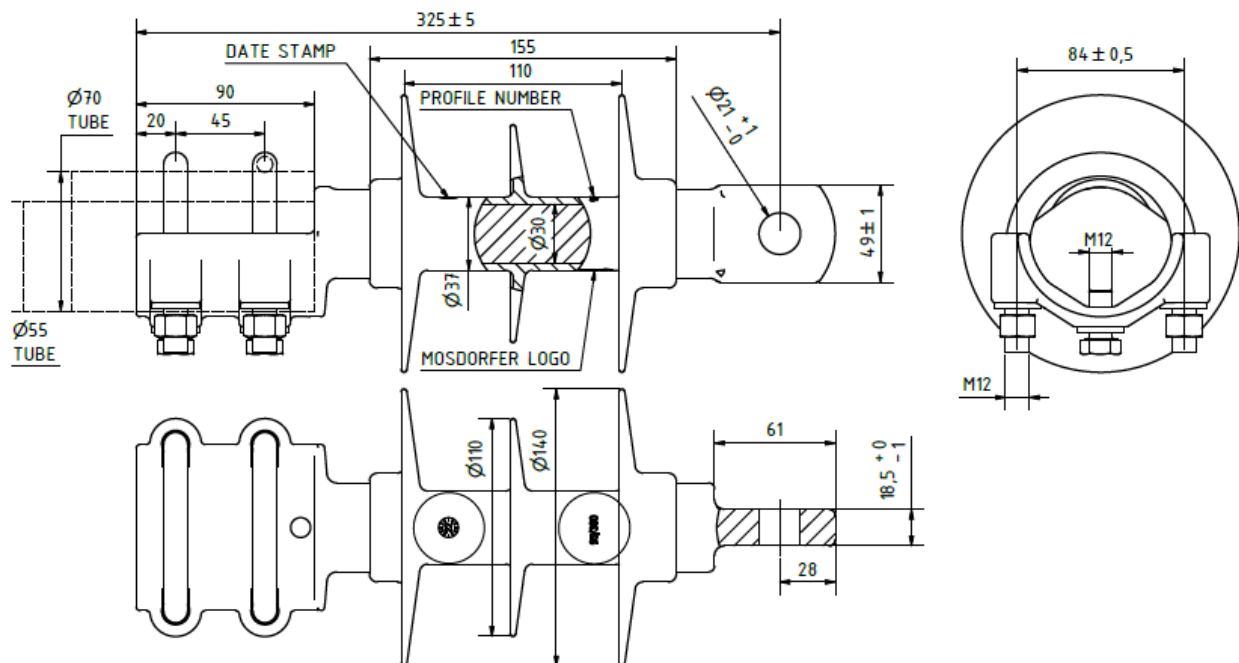
Cantilever Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core: Pultruded ECR-Glass Fibre and Epoxy Resin (Ø30mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min. ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
803 022 001	3	40	95	380	205	8	3	25	12.5	3.1



TUNNEL TOP INSULATOR

Application

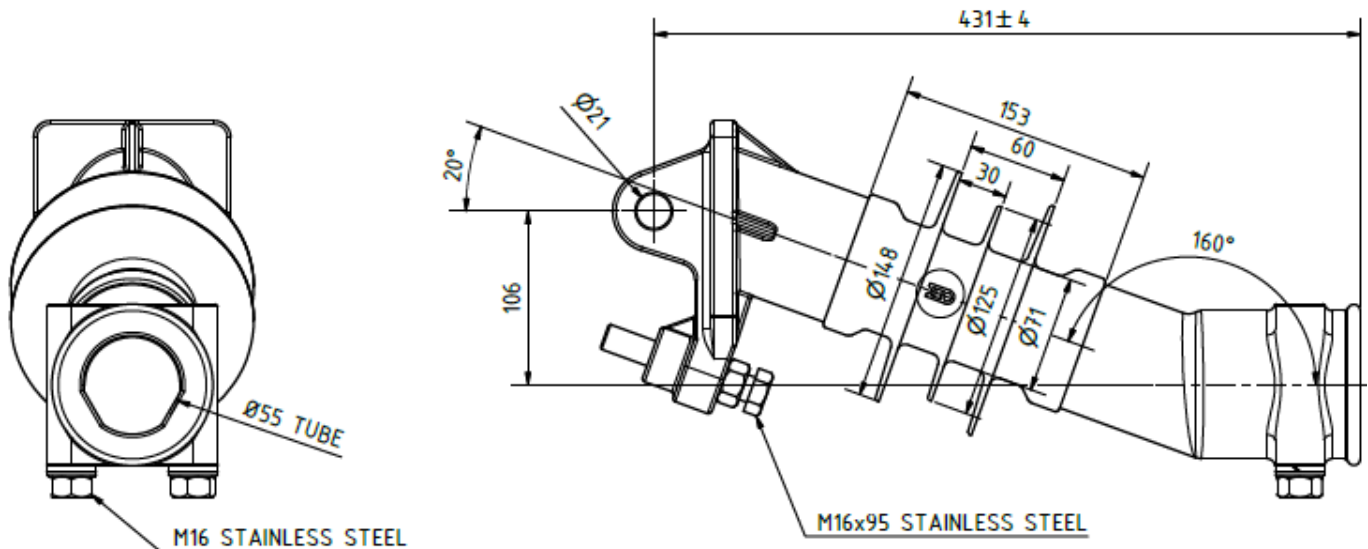
Cantilever Insulator

Material

- Polymeric Housing: Injection Moulded HTV Silicone Rubber with ATH Filler (Grey, min. 3mm thk)
- Composite Core: Pultruded ECR-Glass Fibre & Epoxy Resin (Ø63mm Rod)
- End Fitting Steel: Aluminium (ENAC42200 T6)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
803 062 001	3	45	95	155	330	8	3	30	15	9.9



TENSION AND SUSPENSION INSULATOR

Application

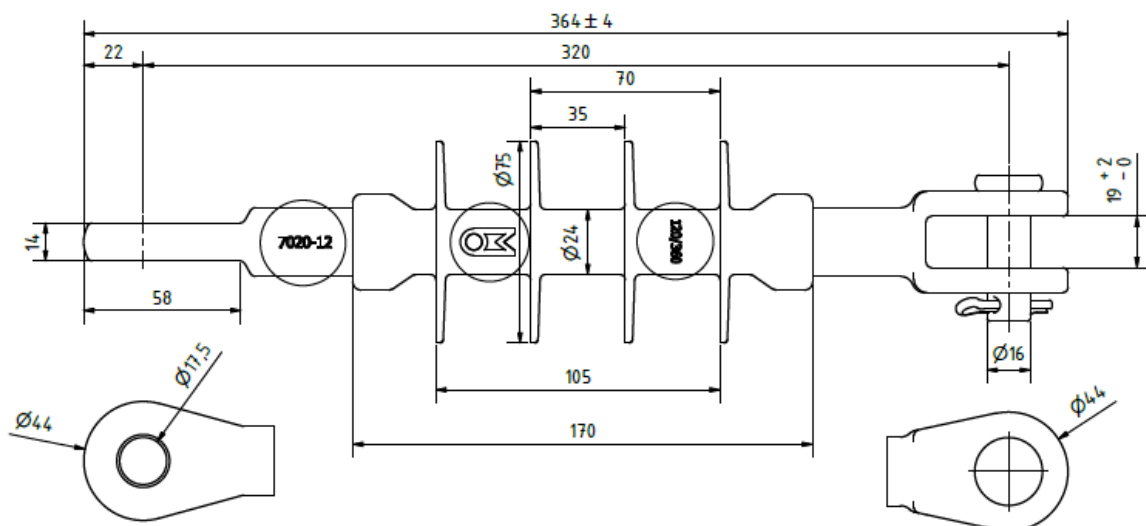
- Tension Insulator

Material

- Polymeric housing: injection moulded htv silicone rubber with ath filler (grey Ral 7040, min. 3mm thk)
- Composite core: pultruded ecr-glass fibre & epoxy resin (ø16mm rod)
- End fittings: steel - hot dip glav. In acc to en iso 1461 (min. Ave. 85µm thk)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
803 041 001	3	50	120	360	190	70	35	1.0



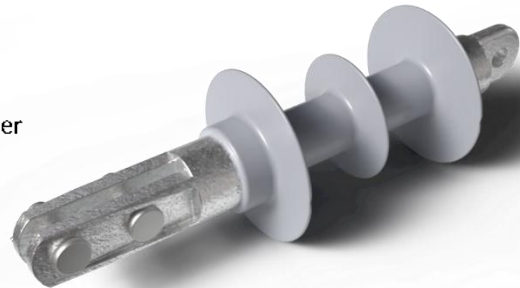
CANTILEVER INSULATOR

Application

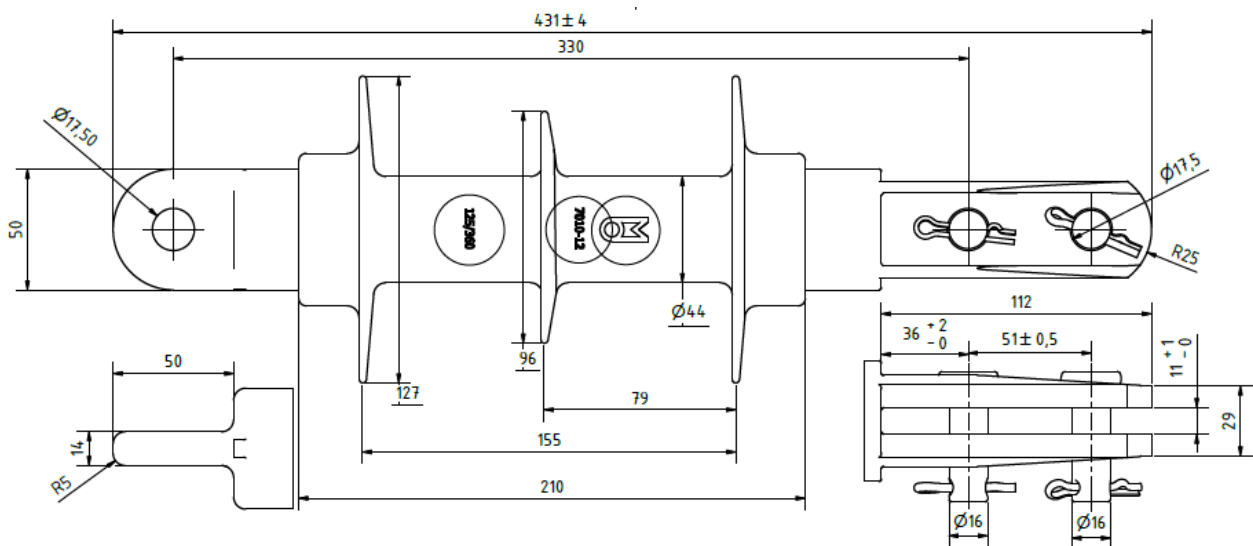
- Cantilever Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 36 mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Weight (Kg)
803 052 001	3	50	125	360	220	9	4.5	40	2.8



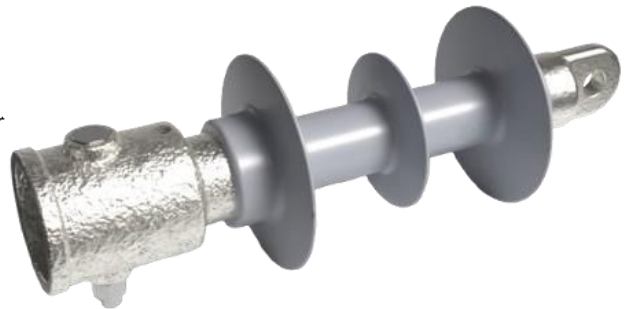
CANTILEVER INSULATOR

Application

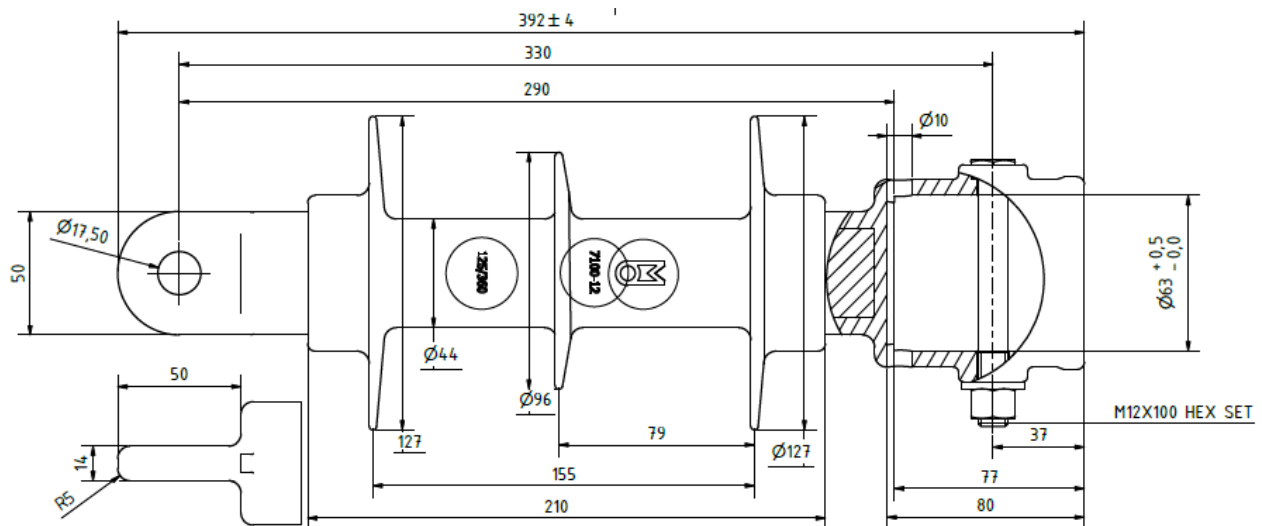
- Cantilever Insulator

Material

- Polymeric housing: injection moulded htv silicone rubber with ath filler (grey Ral 7040, min. 3mm thk)
- Composite core: pultruded ecr-glass fibre & epoxy resin (ø36mm rod)
- End fittings: cast iron - hot dip glav. In acc to en iso 1461 (min. Ave. 85µm thk)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Weight (Kg)
803 052 002	3	50	125	360	220	9	4.5	40	2.8



TENSION AND SUSPENSION INSULATOR

Application

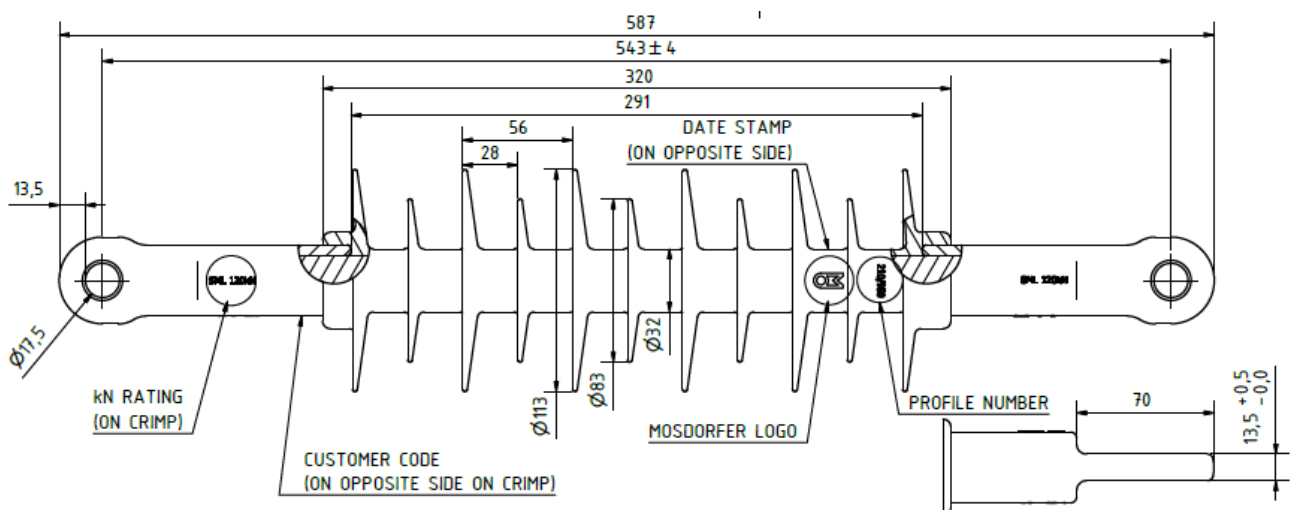
- Tension Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 25mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 120µm)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Maximum design torsional load (MDToL) (Nm)	Weight (Kg)
804 011 001	15	90	210	950	350	120	60	115	2.2

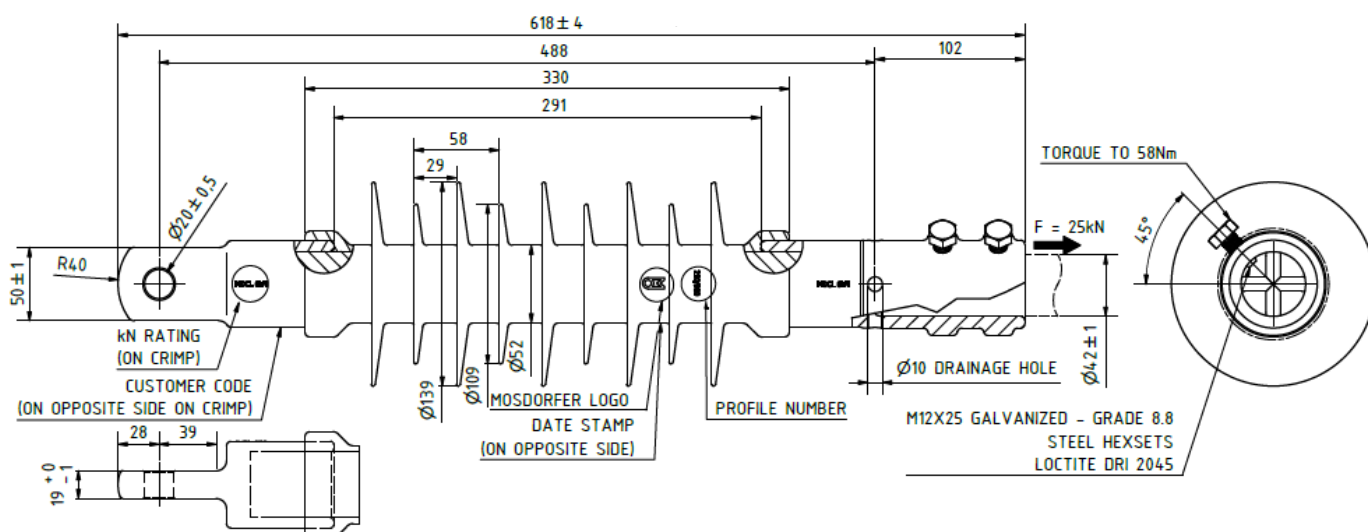


Application

- ## Material

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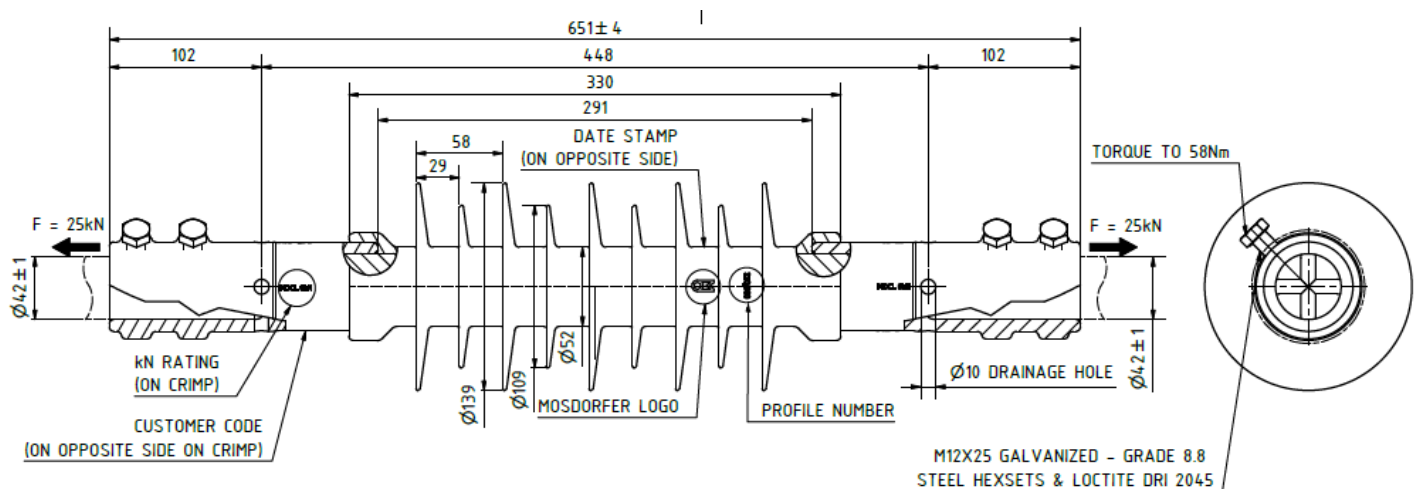
Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Maximum design torsional load test (MDTol) (Nm)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
804 022 002	15	90	210	950	350	12	6	600	90	45	5.8



- Cantilever Insulator

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 45 mm Rod)

Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design load (MDCL)(kN)	Maximum design torsional load test (MDTol) (Nm)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
804 022 003	15	90	210	950	350	12	6	600	90	45	6.6



CANTILEVER/FEEDER INSULATOR

Application

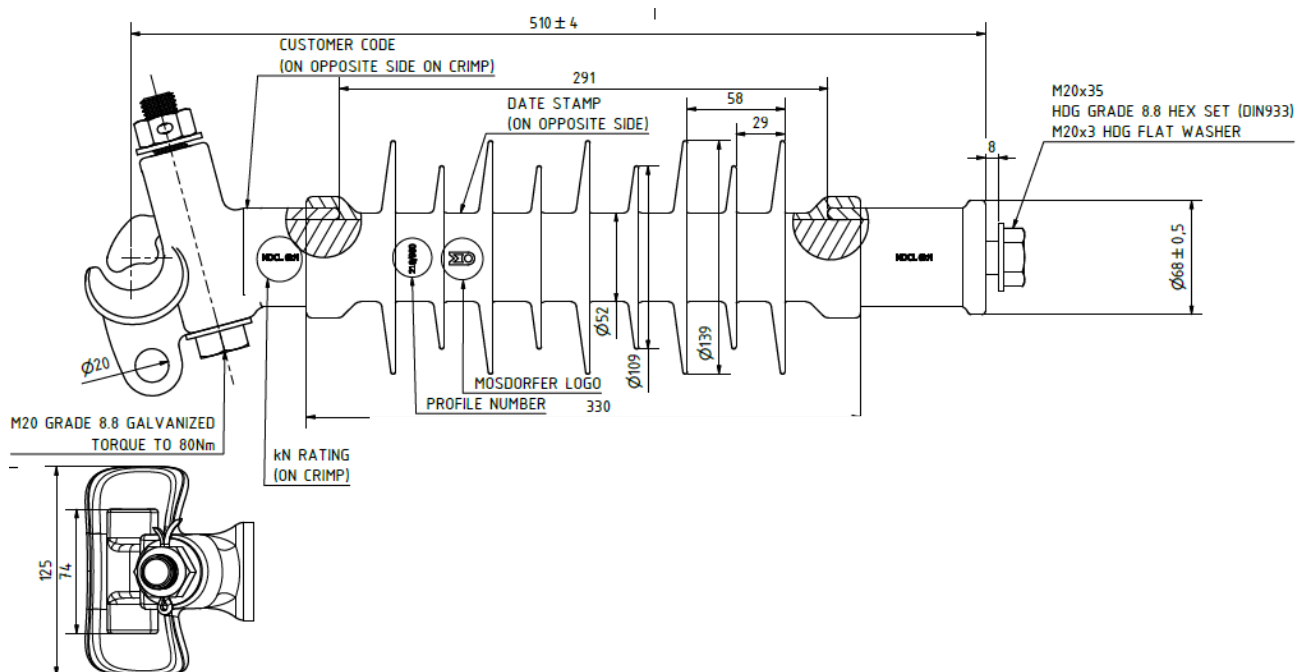
- Cantilever/Feeder Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 45mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Maximum design torsional load test (MDToI) (Nm)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
804 023 001	15	90	210	950	350	12	6	600	90	45	6.6



CANTILEVER/FEEDER INSULATOR

Application

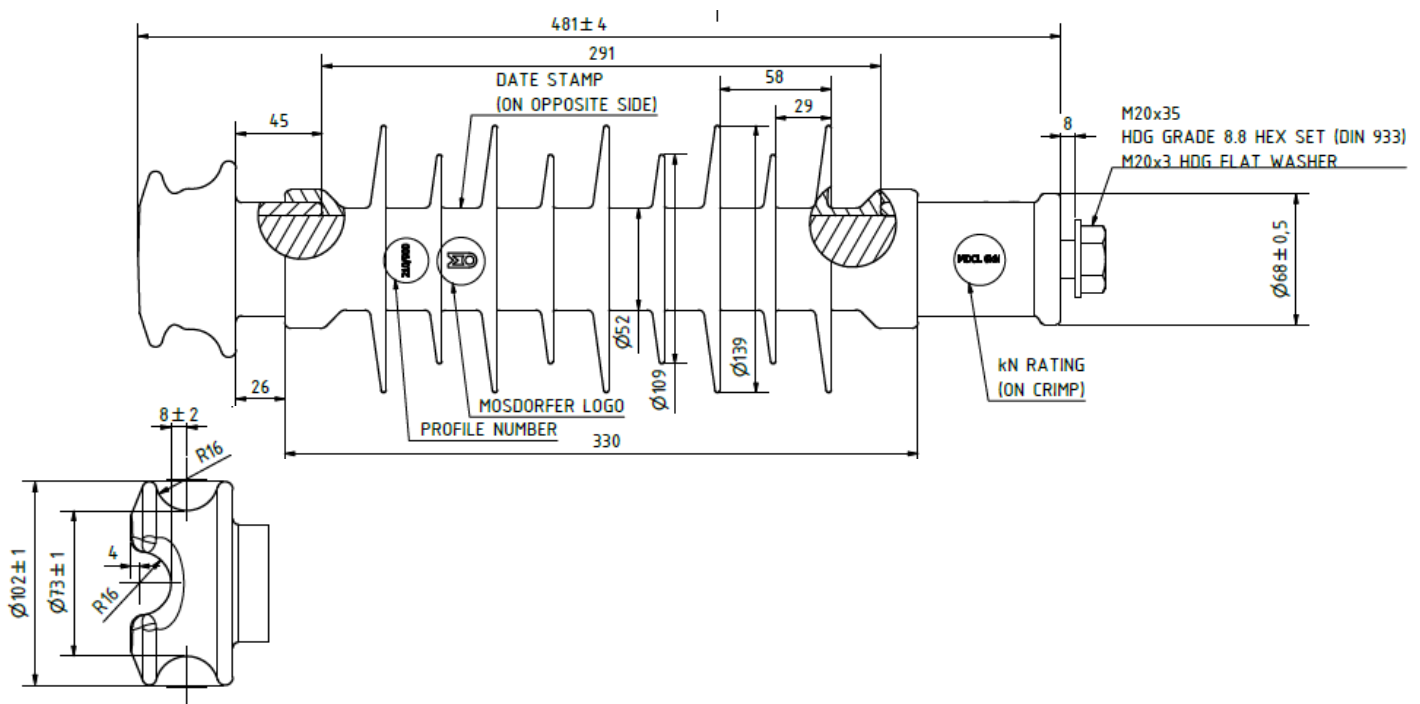
- Cantilever/ Feeder Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 45mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Maximum design torsional load test (MDTol) (Nm)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
804 023 002	15	90	210	950	350	12	6	600	90	45	5.8



STATION POST INSULATOR

Application

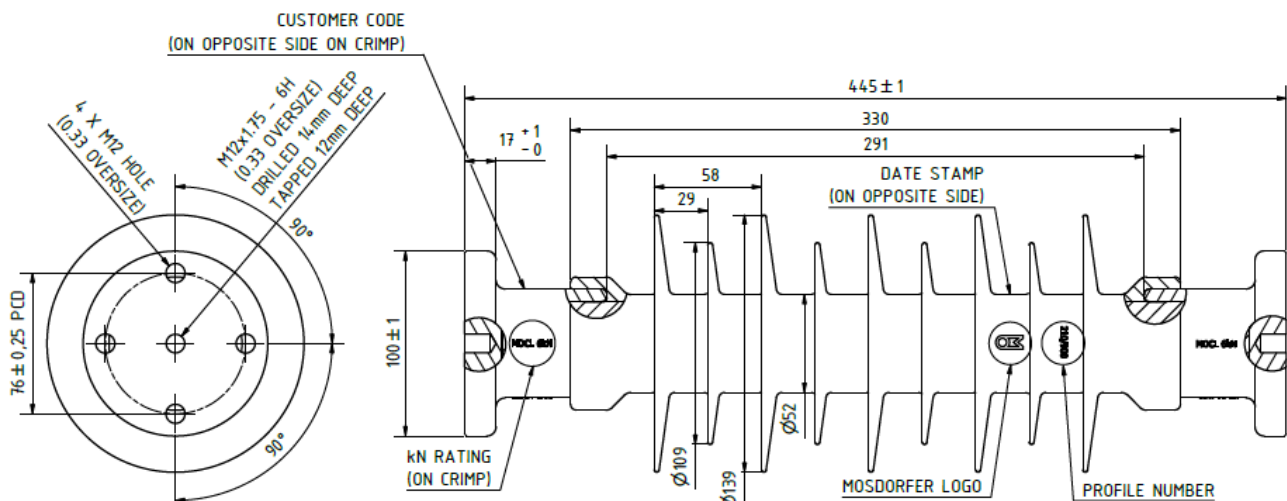
- Station Post Insulator

Material

- Polymeric Housing: Injection moulded HTV Silicone Rubber with ATH Filler (Grey RAL 7040, min 3mm thk)
- Composite core: Pultruded ECR – Glass Fibre and Epoxy Resin (Ø 45mm Rod)
- End fitting Steel: Hot dip Galv. In acc. To EN ISO 1461. (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Maximum design torsional load test (MDTol) (Nm)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
804 022 001	15	90	210	950	350	12	6	600	90	45	5.2



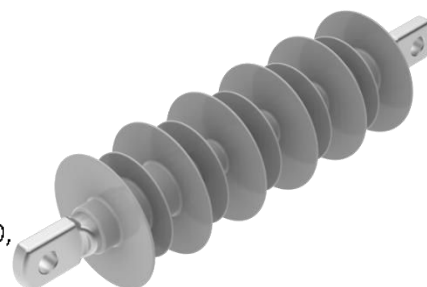
TENSION AND SUSPENSION INSULATOR

Application

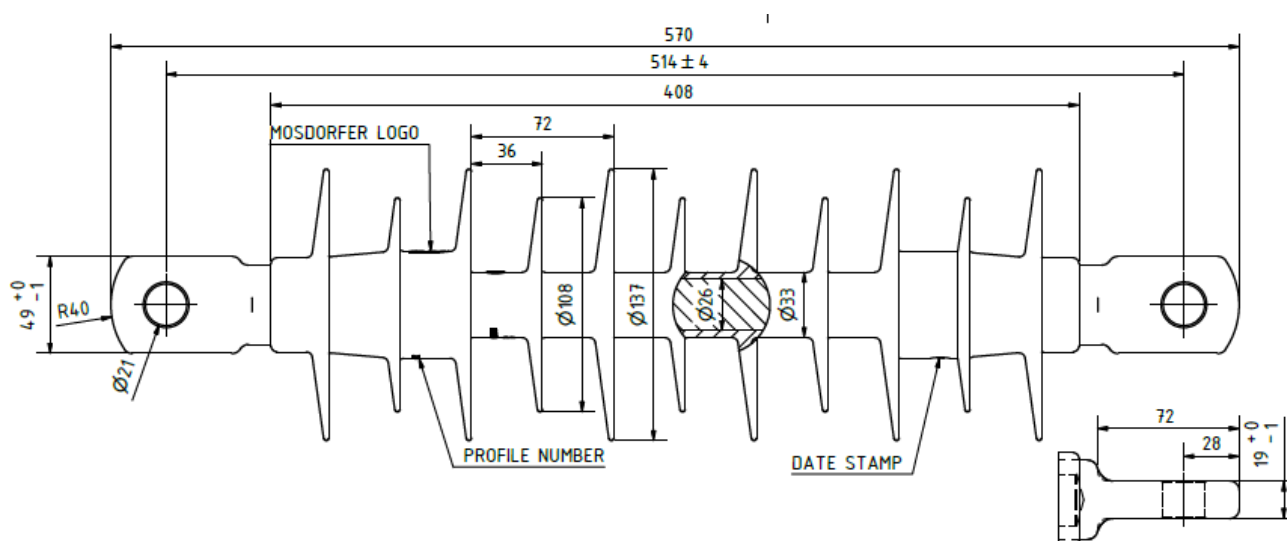
- Tension Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø26mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 120 µm)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 011 001 - 00001	25	125	250	1240	460	135	67.5	3.4



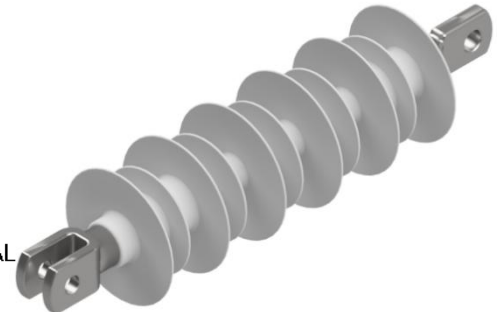
TENSION AND SUSPENSION INSULATOR

Application

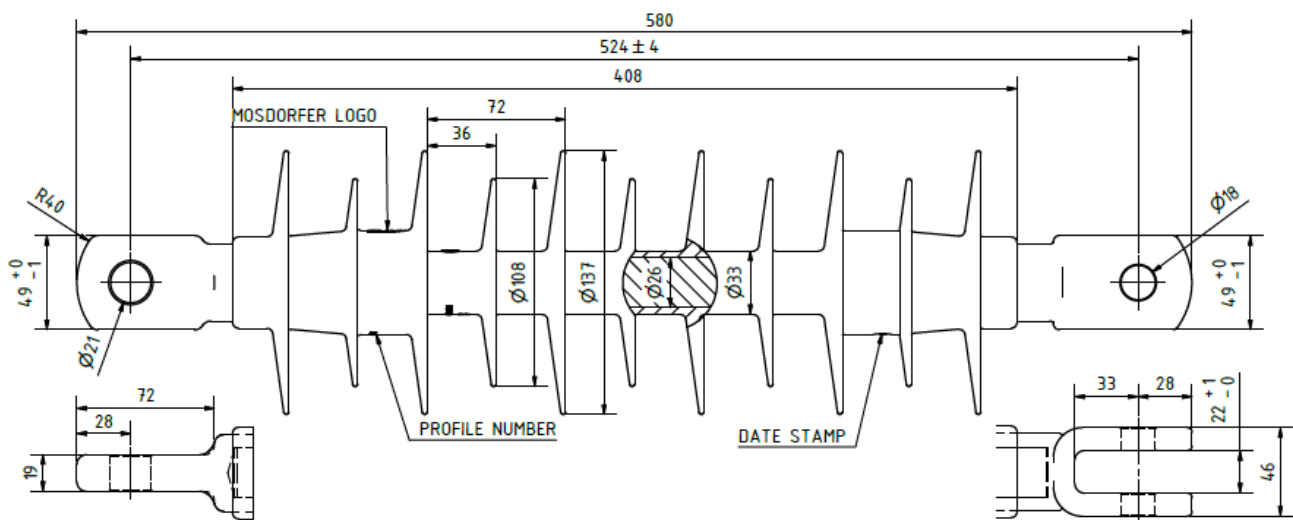
- Tension Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø26mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 011 002 - 00001	25	125	250	1240	460	135	67.5	3.7



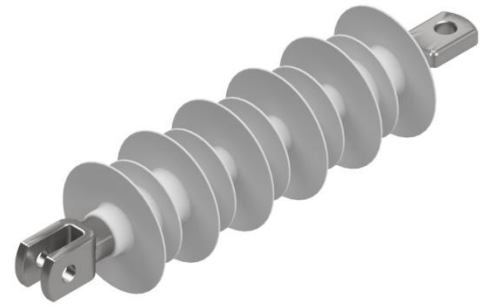
TENSION AND SUSPENSION INSULATOR

Application

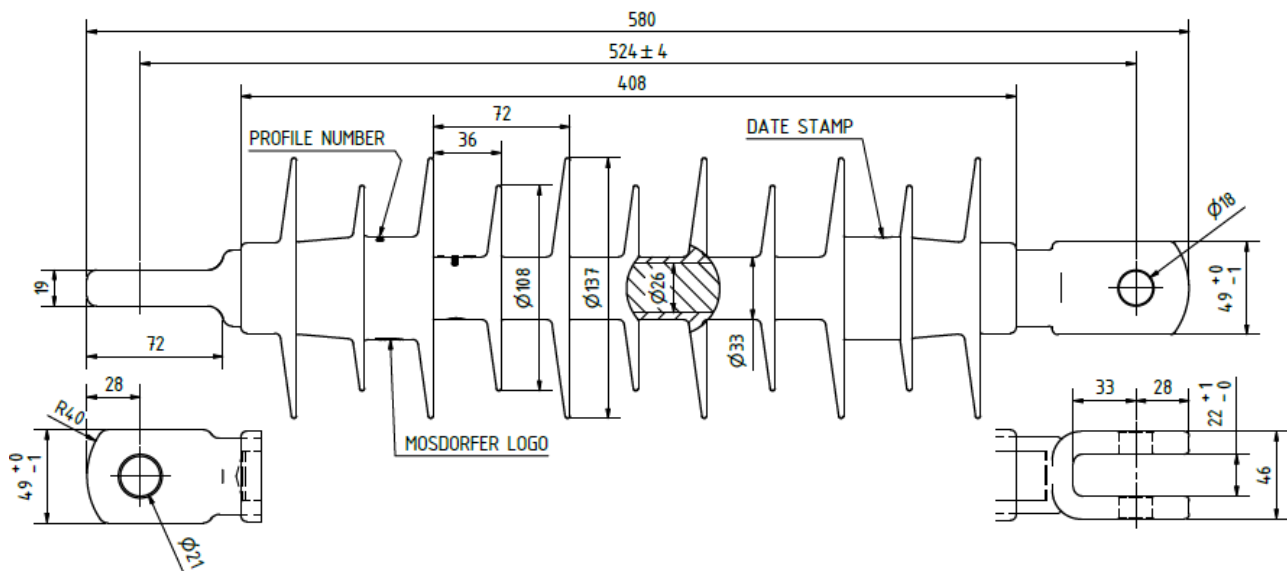
- Tension Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø26mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 011 002-00101	25	125	250	1240	460	135	67.8	3.7



TENSION AND SUSPENSION INSULATOR

Application

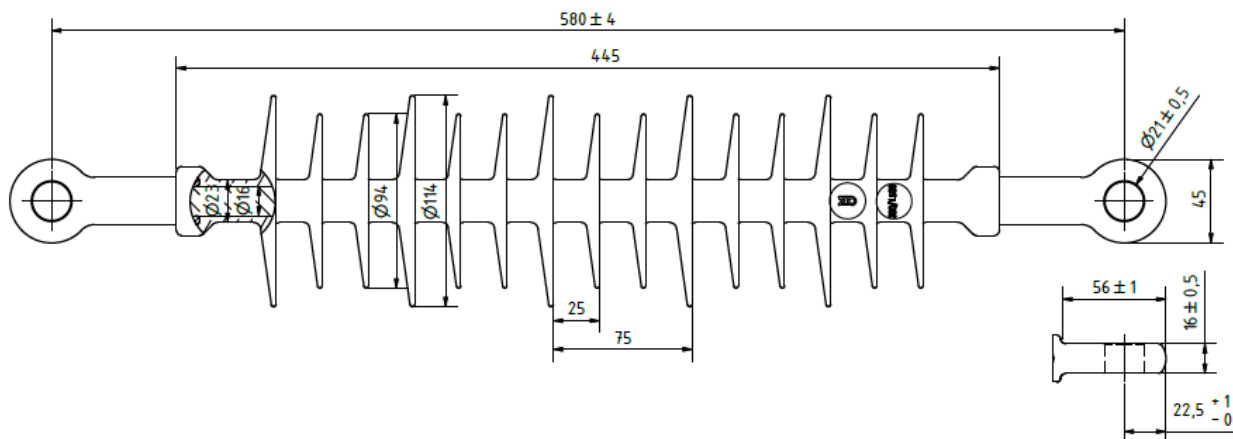
- Tension and Suspension Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø16mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 041 001 - 00000	25	160	300	1500	465	70	35	1.6



TENSION AND SUSPENSION INSULATOR

Application

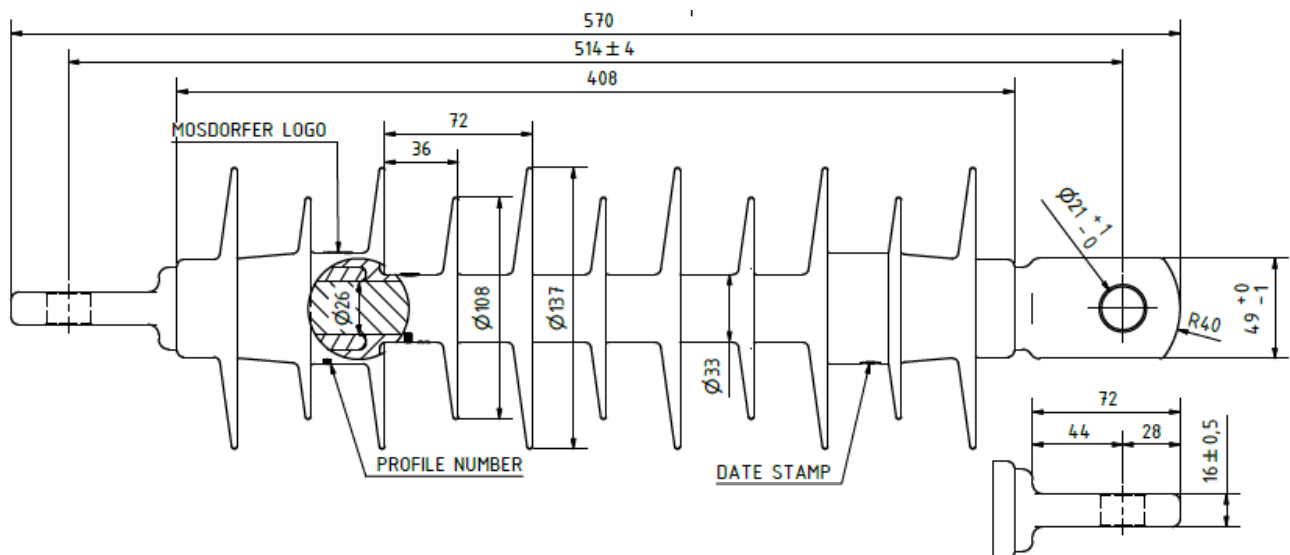
- Tension and Suspension Insulator

Material

- Polymeric housing: injection moulded htv silicone rubber with ath filler (grey)
- Ral 7040, min. 3mm thk)
- Composite core: pultruded ecr-glass fibre & epoxy resin (ø26mm rod)
- End fittings: steel - hot dip glav. In acc to iso 1461 (min. Ave. 120µm thk)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 011 001 - 10100	25	125	250	1240	460	135	35	3.5



Application

-

- Polymeric housing: injection moulded htv silicone rubber with ath filler (grey ral 7040, min. 3mm thk)
- Composite core: pultruded ecr-glass fibre & epoxy resin (ø16mm rod)
- End fittings: forged steel - hot dip glav. In acc to en iso 1461 (min. Ave. 85µm thk)

Technical drawing of a 10kV composite insulator. The drawing shows a side view of the insulator with a total length of 445mm. It features a series of sheds with a height of 25mm and a width of 75mm. The insulator has a top flange with a diameter of Ø18 and a bottom flange with a diameter of Ø44. The mounting bracket has a height of 52mm and a width of 38mm. The drawing includes various dimensions and tolerances.

TENSION AND SUSPENSION INSULATOR

Application

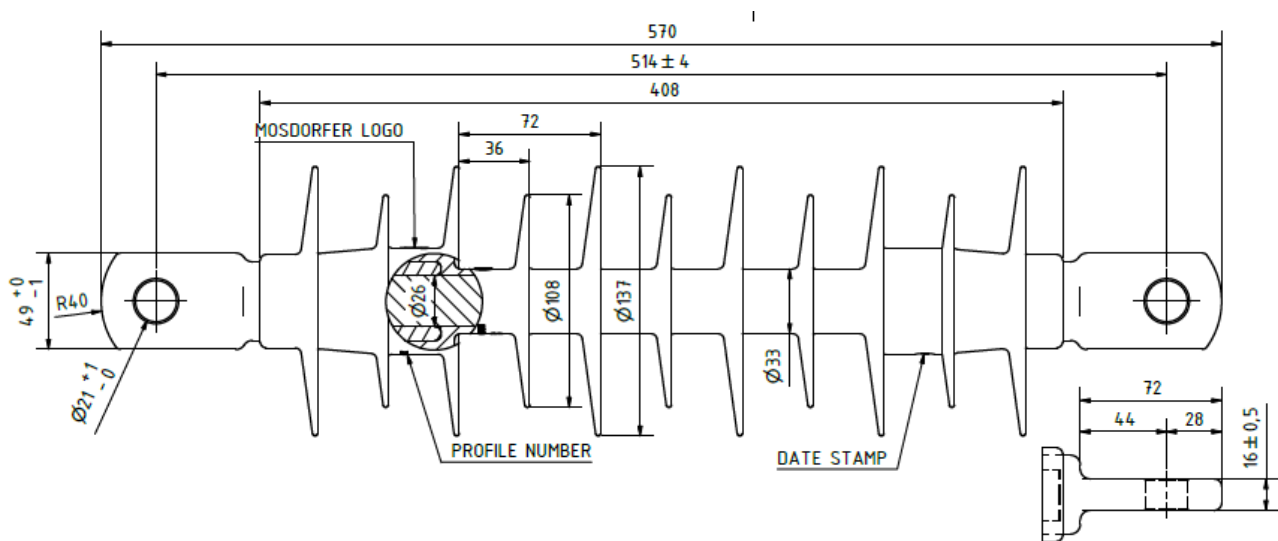
- Tension and Suspension Insulator

Material

- Polymeric housing: injection moulded htv silicone rubber with ath filler (grey Ral 7040, min. 3mm thk)
- Composite core: pultruded ecr-glass fibre & epoxy resin (ø26mm rod)
- End fittings: steel - hot dip glav. In acc to iso 1461 (min. Ave. 120µm thk)



Part Number	Nominal Voltage (kV) (AC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Mechanical Load (SML) (kN)	Routine Test Load (RTL)	Weight (Kg)
805 011 001-10000	25	125	250	1240	460	135	67.8	3.5



CANTILEVER / FEEDER INSULATOR

Application

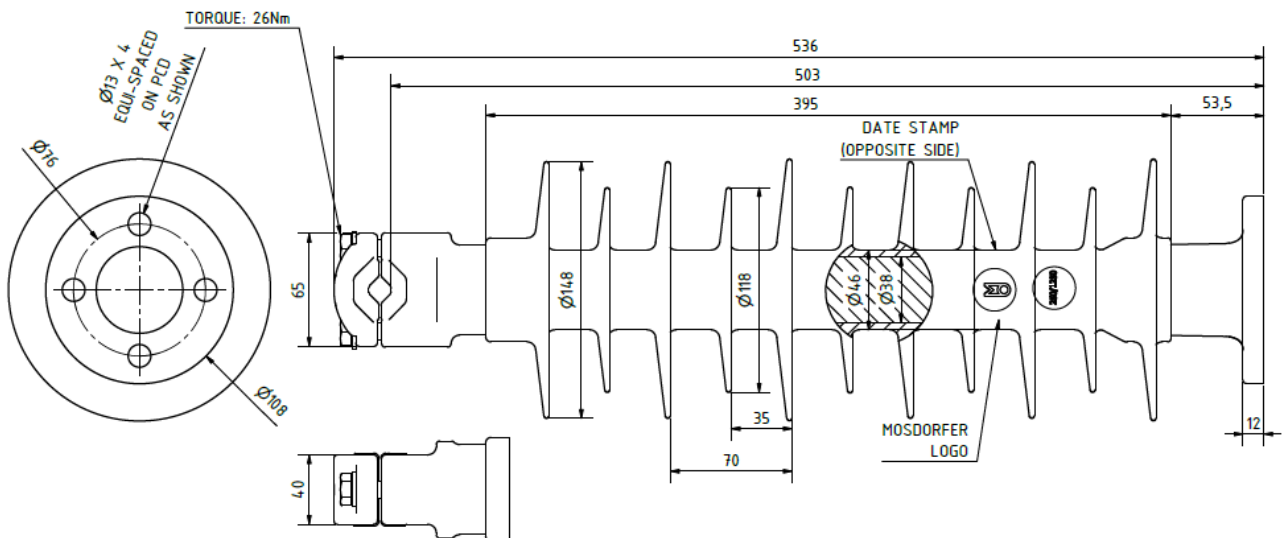
- Cantilever Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø38 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 023 001 - 00000	25	125	250	1250	455	8	2.5	60	30	4.6



CANTILEVER / FEEDER INSULATOR

Application

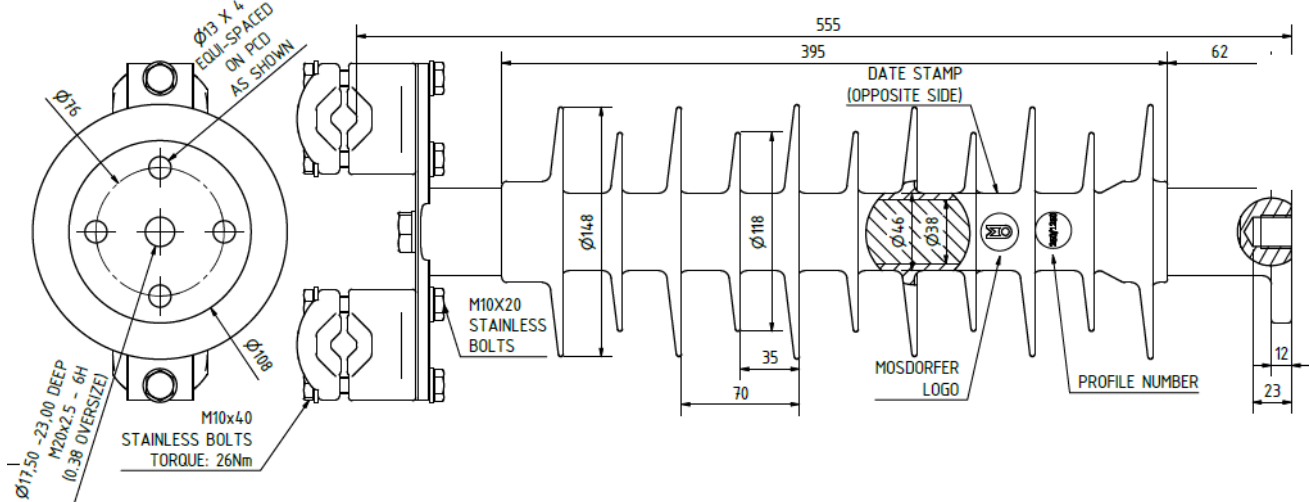
- Cantilever Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø38 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm thk)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 023 002-00000	25	125	250	1250	455	8	2.5	60	30	6.7



CANTILEVER / FEEDER INSULATOR

Application

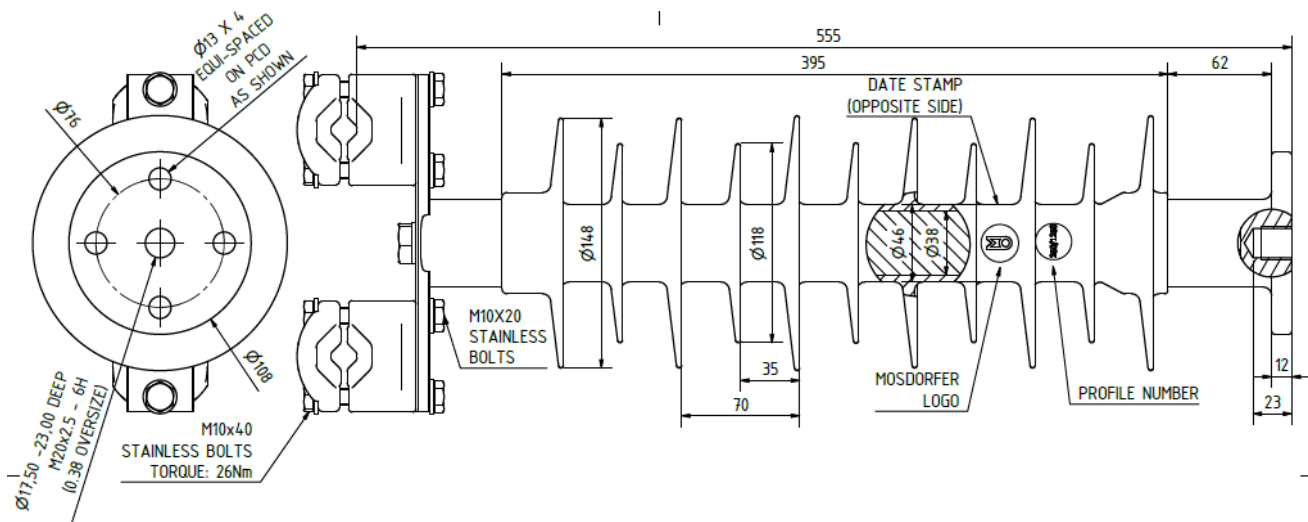
- Cantilever Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø38 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 023 002-00000	25	125	250	1250	455	8	2.5	60	30	6.7



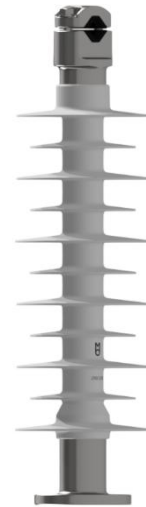
CANTILEVER / FEEDER INSULATOR

Application

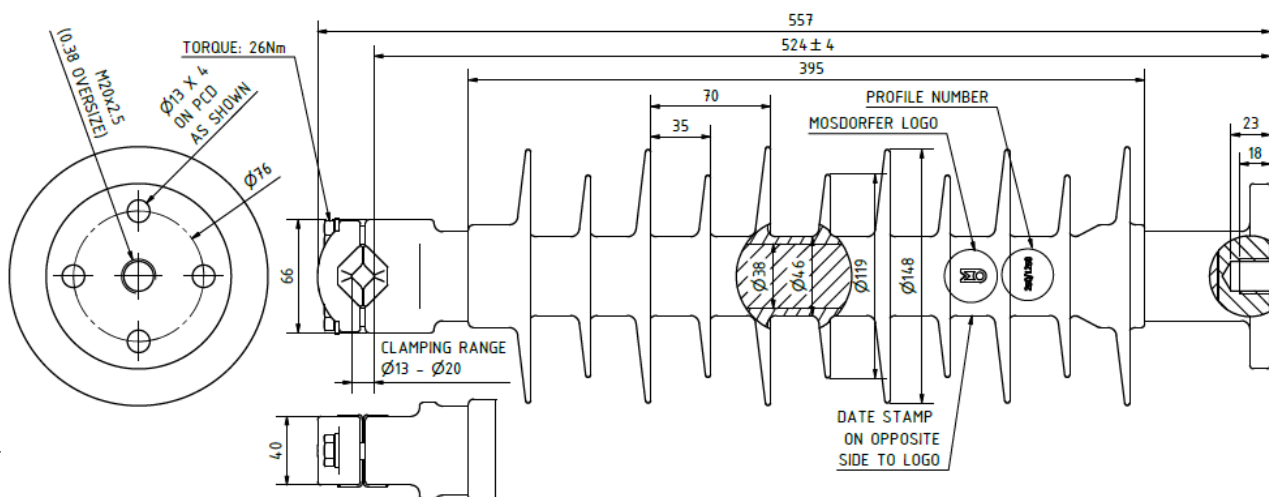
- Cantilever/Feeder Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø38 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 023 003 – 00000 (Range Ø13-18mm)	25	125	250	1250	455	8	2.5	60	30	5
805 023 003 – 00001 (Range Ø18-22mm)	25	125	250	125	445	8	2.5	60	30	5



- Cantilever Insulator

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core: Pultruded ECR-Glass Fibre and Epoxy Resin (Ø34 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)
- U Bolt: Stainless Steel

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CANTILEVER INSULATOR

Application

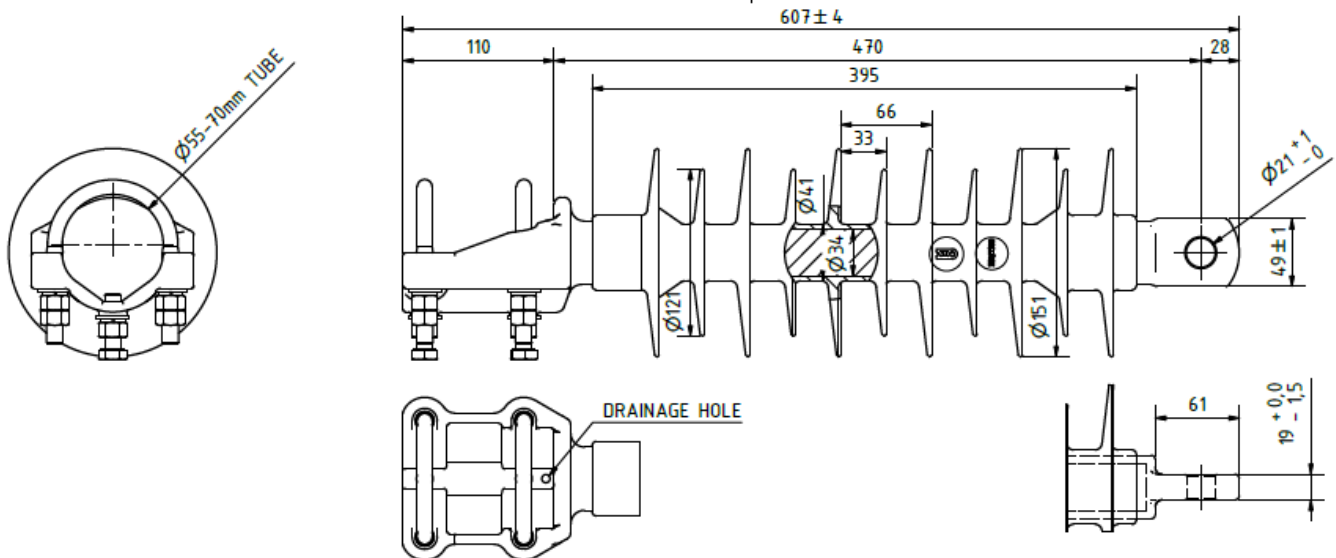
- Cantilever Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø38 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)
- U Bolt: Stainless Steel



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 032 001-00002	25	125	250	1300	455	6	1.9	60	30	3.9



CANTILEVER INSULATOR

Application

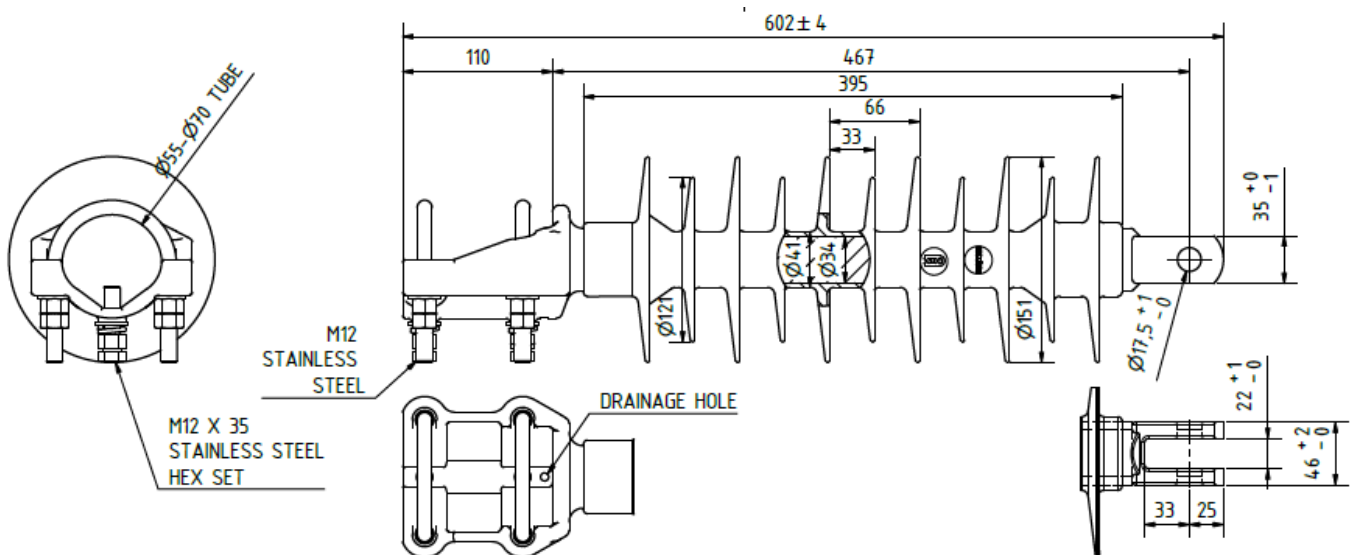
- Cantilever Insulator

Material

- Housing: Injection moulded HTV Silicone with ATH Filler (Grey RAL 7040, min. 3mm thk)
- Composite core : Pultruded ECR-Glass Fibre and Epoxy Resin (Ø34 mm Rod)
- End fittings: Steel – Hot Dip Galv. In acc. To ISO 1461 (min.ave. 85µm)



Part Number	Nominal Voltage (kV) (DC)	Power frequency withstand (wet) (kV)	Lightning impulse withstand voltage (kV)	Creepage distance (mm)	Arcing Distance (mm)	Specified Cantilever Load (SCL) (kN)	Maximum cantilever design cantilever load (MDCL)(kN)	Specified tensile load (STL) (kN)	Routine Test Load (RTL) (kV)	Weight (Kg)
805 032 002-00000	25	125	250	1300	455	6	1.9	60	30	5.5



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