



NKT



High-Voltage
Cable Accessories

52 up to 550 kV

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Oil-filled GIS/transformer termination



Design

- The different versions of the fluid-filled SEV/TEV termination are designed for 123 up to 420 kV.
- The SEV termination is suitable for installation in the gas-filled cable connection box of metal enclosed, gas-insulated switchgear (GIS).
- The TEV termination is suitable for installation in the oil-filled cable connection box of a metal-enclosed, oil-insulated transformer.
- The complete termination consists of epoxy resin insulator with an embedded electrode, fixing ring, metal cable gland, silicone oil as the dielectric fluid, prefabricated silicone stress cone for electrical field control, and compression-type conductor connector.
- The TEV termination is additionally equipped with a corona shield.
- All metal parts are made of corrosion-proof materials.

Application

Fluid-filled GIS/transformer termination suitable for XLPE- and EPR-insulated cables with Al or Cu conductor.

Key characteristics

- SEV**
 - Fluid-filled GIS termination
- TEV**
 - Fluid-filled transformer termination

Note

- Optional kits:**
 - Oil-expansion vessel

Standards

- IEC 60840
- IEC 62067
- IEC 62271-209
- EN 50299

Technical details

Voltage	Type/ Designation	Max. cross section	Prepared cable insulation diameter	Max. overshield diameter	Insert length	Weight (approx.)
kV		mm ²	mm	mm	mm	kg
123 – 170	SEV/TEV 123/145/170	2500	34.5 – 112.0	135	757	92
245 - 300	SEV/TEV 245/300	2500	56.0 – 122.0	135	960	235
420	SEV/TEV 420	2500	56.0 – 124.0	< 165	1400	530

Dry prefabricated outdoor termination



Design

- The different versions of TD the outdoor termination are designed for operating voltages from 123 up to 145 kV.
- The complete termination consists of a pre-assembled cable termination, top bolt and conductor connector in the top fitting and also cable clamp and earth clamp.
- The pre-assembled cable termination consists of a composite insulator with an integrated base part and stress cone. The support pipe and the cable clamp are made of glass-fibre-reinforced polyester that provides an insulated screen/sheath installation.
- The conductor bolt is available as a screw (clamp) type. All metal parts are made of corrosion-proof aluminium alloy or stainless steel.
- The insulators supplied fulfil IEC 60815 at standard pollution levels. The insulators have the standard flashover distance.
- The termination comes pre-assembled from the factory, which considerably reduces installation time after cable preparation. No filling with insulating fluid required at the site.

Application

Dry outdoor termination suitable for XLPE- and EPR-insulated cables with Al or Cu conductor.

Standards

- IEC 60840

Note

Optional kits:

- Optical fibre kit

Tools:

- Installation tool RKM 145
- Installation cone

Technical details

Voltage	Type/ Designation	Max. cross section	Prepared cable insulation diameter	Max. oversheath diameter	Creepage distance	Length (approx.)	Weight (approx.)
kV		mm ²	mm	mm	mm	mm	kg
123	TD 123	2500	50.0 – 102.0	150	3940	1810	90
145	TD 145	2500	50.0 – 102.0	150	4650	1955	102

Dry plug-in outdoor termination



Design

- The different versions of the KFEV outdoor termination are designed for operating voltage for 123 up to 300 kV.
- The KFEV is a pluggable termination and consisting of: A pre-assembled epoxy resin insulator with embedded electrode and composite insulator with silicone sheds and upper metal work, metal base plate with supporting insulators, and plug-in cable connection part which is fitted to the cable, comprising metal cable gland with spring-loaded device and a pre-moulded silicone stress cone for electrical field control and screw-type or compression-type conductor connector.
- The cable gland is sealed to avoid penetration by water.
- All metal parts are made of corrosion-proof aluminium alloy or stainless steel.
- The insulators supplied fulfil IEC 60815 at standard pollution levels. The insulators have the standard flashover distance.

Application

Dry outdoor termination suitable for XLPE- and EPR-insulated cables with Al or Cu conductor.

Standards

- IEC 60840
- IEC 62067

Note

Optional kits:

- Optical fibre kit
- PD-measuring kit

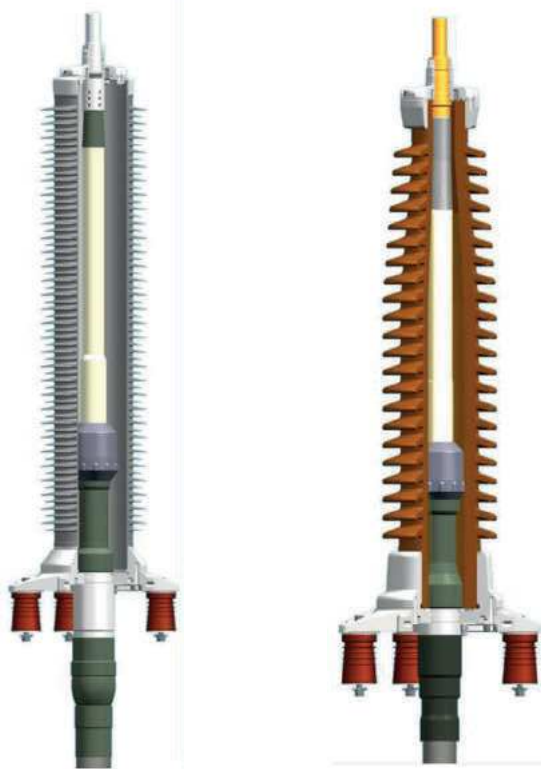
Tools:

- Push-on cone

Technical details

Voltage	Type/ Designation	Max. cross section	Prepared cable insulation diameter	Max. overshooth diameter	Creepage distance	Length (approx.)	Weight (approx.)
kV		mm ²	mm	mm	mm	mm	kg
123	KFEV 123	2500	47.0 – 100.0	138	4495	1754	150
145	KFEV 145	1200	35.5 – 76.0	96	4495	1750	130
300	KFEV 245/300	2000	47.0 – 100.0	138	8755	2861	384

Fluid-filled outdoor cable termination



Design

- The different versions of the FEV outdoor termination are designed for operating voltages from 72.5 up to 550 kV.
- The complete termination consists of composite or porcelain insulator with metal head plate, metal base plate with supporting insulators and pre-moulded silicone stress cone with integrated stress control system and the silicon oil for insulator filling and the sealing cable gland.
- The conductor bolt is available as screw type or compression type. All metal parts are made of corrosion-resistant aluminum alloy or stainless steel.
- The insulators supplied fulfil IEC 60815 at standard pollution levels. The insulators have standard flashover distances.

Application

Fluid-filled GIS/transformer termination suitable for XLPE- and EPR-insulated cables with Al or Cu conductor.

Standards

- IEC 60840
- IEC 62067
- IEC 60815

Note

- Optional kits:**
- Optical fibre kit
 - PD-measuring kit

Tools:

- Push-on cone

Key characteristics

FEV-V

- Composite insulator

FEV-P

- Porcelain insulator

FEV-VD

- Composite insulator with plates
- Explosion proof

Technical details

Voltage	Type/ Designation	Max. cross section	Prepared cable insulation diameter	Max. oversheath diameter	Creepage distance	Length (approx.)	Weight (approx.)
kV		mm ²	mm	mm	mm	mm	kg
72	FEV-V-P 72	1200	34.5 – 84.0	115	> 2250	1060	100
123	FEV-V-P 123	2500	34.5 – 108.0	115	> 3075	1510	120
145	FEV-V-P 145	2500	34.5 – 108.0	120	> 4495	1710	130
170	FEV-V-P/-VD 170	2500	34.5 – 108.0	120	> 5270	1940	160
245	FEV-V-P/-VD 245	2500	64.0 – 116.0	136	> 8355	2640	450
300	FEV-V-P 300	2500	64.0 – 116.0	136	> 10230	3120	520
420	FEV-V-P 420	2500	87.0 – 120.0	165	> 12600	4980	1600
550	FEV-V 550	2500	97.0 – 140.0	165	> 13200	4980	1850

Dry flexible outdoor termination



Design

- The different versions of the dry flexible outdoor termination THV are designed for operating voltage from 72.5 up to 245 kV.
- The complete termination consists of a push-on prefabricated silicone element with integrated electrical field control, shed modules in accordance with creepage distance requirements sealing material and screw-type conductor bolt. Press-type conductor bolts are available on request. The insulating elements fulfil IEC 60815 at standard pollution levels and have the standard flashover distance.
- The insulating elements fulfil IEC 60815 at standard pollution levels and have the standard flashover distance.

Application

Outdoor termination suitable for XLPE- and EPR-insulated cables with Al or Cu conductor.

Standards

- IEC 60840
- IEC 62067

Note

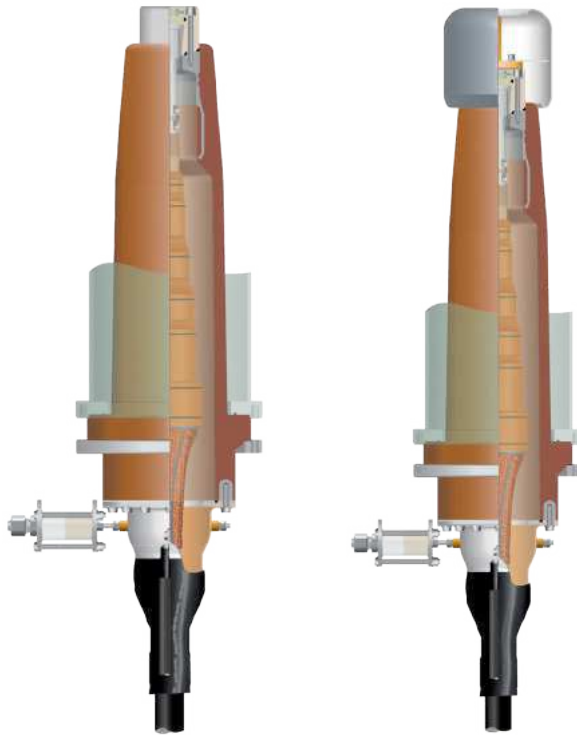
Tools:

- Push-on cone

Technical details

Voltage	Type/ Designation	Max. cross section	Prepared cable insulation diameter	Max. overshooth diameter	Creepage distance	Length (approx.)	Weight (approx.)
kV		mm ²	mm	mm	mm	mm	kg
72.5	THV 72	1600	40.0 – 78.0	No limitation	> 2248	1280	7.5
100	THV 100	1200	51.5 – 78.0	No limitation	> 2500	1830	10
123	THV 123	1200	55.0 – 78.0	No limitation	> 3675	2200	25
145	THV 145	1200	55.0 – 78.0	No limitation	> 4495	2200	25
245	THV 245	1200	55.0 – 78.0	No limitation	> 4495*	2200	30

Oil-filled GIS/transformer termination



Design

- The different versions of the EYOK/ EYOT oil-filled termination are designed from 123 up to 145 kV.
- The EYOK termination is suitable for installation in the gas-filled cable connection box of a metal-enclosed gas-insulated switchgear (GIS).
- The EYOT is suitable for installation in the oil-filled cable connection box of a metal enclosed oil-insulated transformer.
- The complete termination consists of an epoxy resin insulator with an embedded electrode, a fixing ring, a metal cable gland and a stress cone is made of oil-impregnated insulation paper, carbon paper, copper mesh and a stress relief ring.
- The EYOT termination is additionally equipped with a corona shield.
- The conductor is connected with a compression-type connection bolt.
- All metal parts are made of corrosion-proof materials

Application

Oil-filled GIS/transformer termination suitable for low-pressure oil-filled cables with Al or Cu conductor.

Standards

- IEC 60840
- IEC 62271-209
- EN 50299

Key characteristics

EYOK

- Oil-filled GIS termination

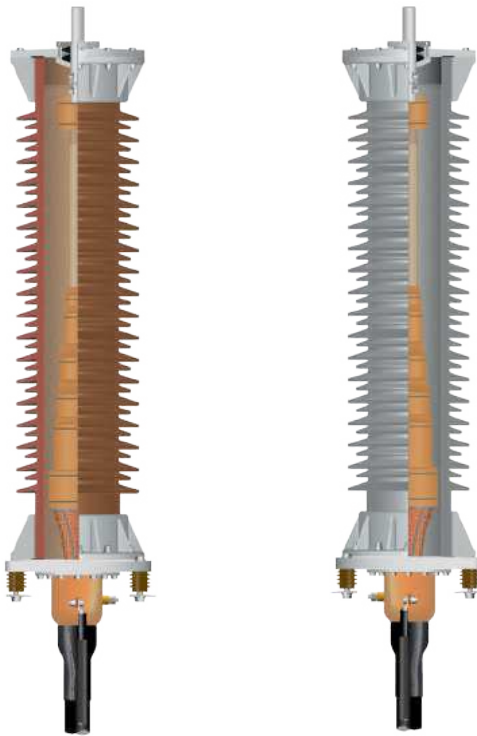
EYOT

- Oil-filled transformer termination

Technical details

Voltage	Type/ Designation	Max. cross section	Prepared cable insulation diameter	Max. oversheath diameter	Insert length	Weight (approx.)
kV		mm ²	mm	mm	mm	kg
123 – 145	EYOK/EYOT 123 – 145	800	62.0	No limitation	757	82

Oil-filled outdoor cable termination



Design

- The different versions of the outdoor termination are designed for operating voltage from 72.5 up to 145 kV.
- The complete termination consists of a composite or porcelain insulator with a metal head plate, a metal base plate with supporting insulators and a stress cone that comprise oil-impregnated insulation paper, carbon paper, copper mesh and a stress relief ring.
- The conductor bolt is of the compression-type. All metal parts are made of corrosion-proof aluminum alloy or stainless steel.
- The insulators supplied fulfil IEC 60815 at standard pollution levels. The insulators have the standard flashover distance.

Application

Outdoor termination suitable for low-pressure oil-filled cables with Al or Cu conductor.

Standards

- IEC 60840

Key characteristics

EROW

- Composite insulator

EPO

- Porcelain insulator

Technical details

Voltage	Type/ Designation	Max. cross section	Max. cable insulation diameter	Max. overshooth diameter	Creepage distance	Length (approx.)	Weight (min.)
kV		mm ²	mm	mm	mm	mm	kg
72.5	EROW/EPO 72	1200	62.0	No limitation	> 2320	960	70 – 150
123	EROW/EPO 123	1200	62.0	No limitation	> 3250	1450	82 – 205
145	EROW/EPO 145	1200	62.0	No limitation	> 4840	1650	85 – 230