

HEAT-SHRINK TERMINATION (IXSU-F/OXSU-F) FOR 12 - 42 kV, SINGLE AND 3 CORE PLASTIC CABLE

KEY FEATURES

- Integrated stress control material, ZnO (Varistor)
- Specification conformity: IEC 60502-4, CENELEC HD 629.1, IEEE-48
- Compatible for all types of mechanical and compression lugs
- Indoor and outdoor application
- Easily adaptable to specific customer needs
- Unlimited shelf life

TE Connectivity's (TE) Raychem IXSU-F/OXSU-F has a recently formulated electrical stress control compound that is based on extensive experience with Raychem ceramic semiconductor technology.

The ZnO-based stress control system is integrated in heat-shrinkable insulating tubing. This stress control system fills any irregularities, bonds to the insulation and provides superb electrical performance.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

Raychem heat-shrinkable medium voltage terminations IXSU-F/OXSU-F for indoor and outdoor applications for polymeric cables up to 42 kV

Raychem heat-shrinkable medium voltage terminations IXSU-F/OXSU-F are widely acknowledged in the industry and feature an unique integrated ZnO-based stress control system, flexibility of usage for crimp or mechanical lugs, unlimited shelf life and range-taking kits.

The material makes the difference

Tyco Electronics Raychem cable accessories have been used by utilities and industrial companies around the world for more than 35 years. Our continuing experience in the field has made Tyco Electronics Energy Division a leader in materials science and technology for medium-voltage cable accessories applications. Our materials technology is at the core in the development of our range of heat shrink terminations. The materials used in Raychem cable accessories have been extensively optimized for design and function, manufacturing and the wide range of possible service environments.

Designed for both indoor and outdoor applications

The components combine to provide the important functions required for all medium voltage products: electrical performance, stress control and moisture sealing. The proprietary materials used in our cable accessories are designed for optimized manufacturing, and to provide exceptional product performance in the harshest of service environments.

Variations and differences can exist amongst base polymer grades and additives. Compounds consist of polymers, additives and fillers that highly influence the properties of the base material. The formulation, the compounding procedures, material processing, product design and assembly all contribute to the overall product performance.

Polymeric insulation

The materials used in the Raychem termination generation of products have undergone many years of development, yielding a polymeric material with outstanding electrical and weathering properties. The formulation is based on polymer compounds, and has proven to be stable and functional over several decades under severe environmental conditions. The formulation offers exceptional tracking and erosion resistance, mechanical strength, weatherability and dielectric properties.

One piece termination

The Raychem stress control material IXSU-F/OXSU-F is a recently formulated electrical stress control compound, that is based on extensive experience with Raychem ceramic semiconductor technology (ZnO). The ZnO-based stress control system is integrated in heat-shrinkable insulating tubing. This stress control system fills any irregularities, bonds to the insulation and provides superb electrical performance.

Product range

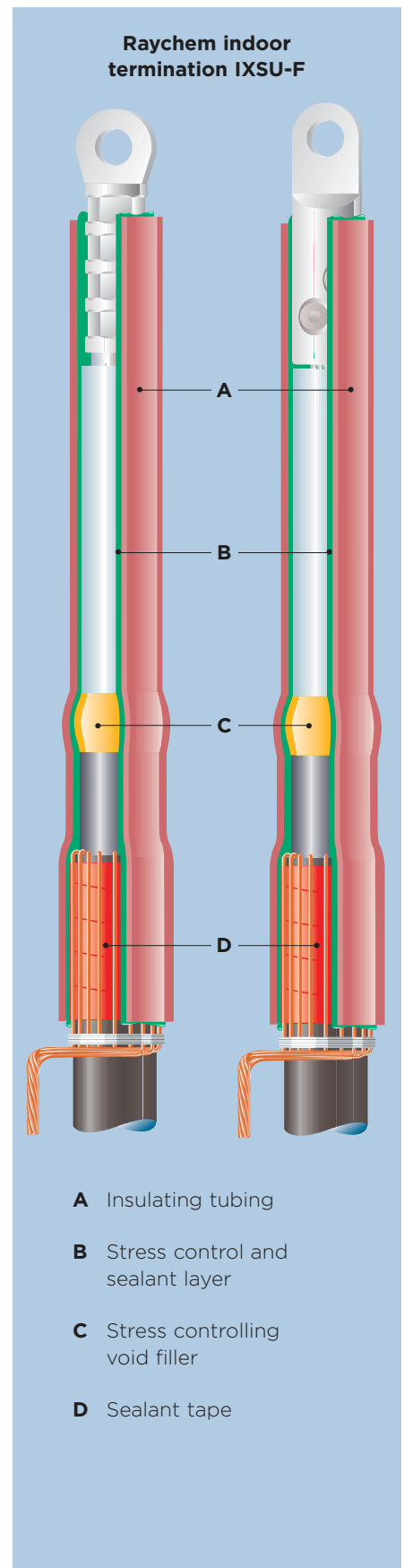
The product line is designed for polymer cables from 10 to 1200 mm² and up to 42 kV. This coverage is achieved with a minimum number of design variants.

The products are fully tested in accordance with IEEE-48, IEC 60502-4 and the CENELEC HD629.1S1 specification.

For cable box applications, the Raychem termination IXSU-F can be combined with either Raychem elastomeric bushing boot (RCAB) or Raychem insulated connection system (RICS) to fit most types of switchgear bushing currently available.

For pole top applications, we can supply Raychem termination OXSU-F along with polymeric support insulators (EPBI), Polygarde metal oxide surge arresters (HDA), and most fittings required for installation.

All raw materials of Raychem IXSU-F/OXSU-F are fully traceable.



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Kit content

Each kit consists of the insulation tubing including coextruded stress control material, sealant tapes and installation instructions.

For 3-core cables, the kit also includes a conductive breakout and tubing for custom core length. For special applications please contact your local sales representative.

Installation

Each kit contains easy-to-follow installation instructions with visuals of the installation steps.

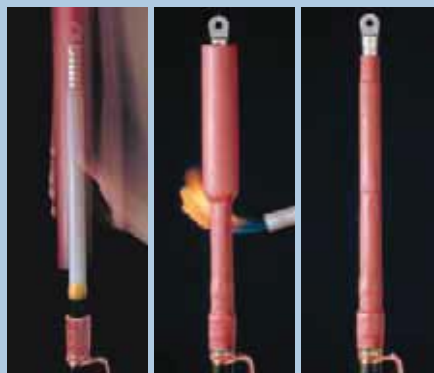
- 1 Raychem terminations IXSU-F with Raychem elastomeric bushing boot (RCAB) connecting 17.5 kV plastic cables to a switchgear substation
- 2 Raychem terminations IXSU-F with Raychem insulated connection system (RICS) connecting 24 kV plastic cables to a switchgear substation
- 3 Installation of 24 kV terminations
- 4 Overhead line connections for 24 kV using Raychem terminations OXSU-F and polymeric support insulators (EPBI)
- 5 Raychem terminations IXSU-F connecting 24 kV plastic cables to a substation transformer
- 6 Raychem terminations IXSU-F for 36 kV transformer connections
- 7 The slim compact Raychem IXSU-F system in a 12 kV transformer for propulsion motor on a ship



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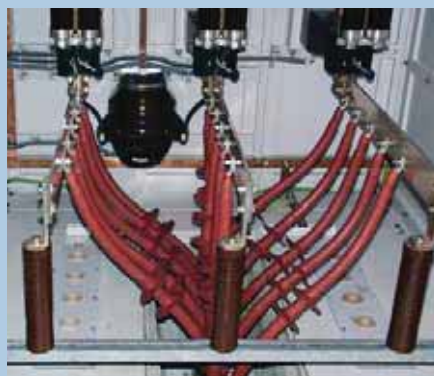
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Raychem heat-shrinkable medium voltage terminations IXSU-F/OXSU-F for indoor and outdoor applications for polymeric cables up to 42 kV

Features	Benefits
High-quality termination material	Outstanding UV properties Exceptional track and erosion resistance Extremely hydrophobic High-quality, high-voltage insulation material
Unique zinc oxide-based stress control system	Superb high-impulse withstand performance
Integrated stress control over entire termination length	Ensures stress control system is correctly positioned
Designed for crimp and mechanical lugs	Flexibility
Compact design	Space saving
Range taking kit	Fewer kits for a wide range of cable sizes
No shelf life time limitation	Inventory reduction

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Energy Division - innovative and economical solutions for the electrical power industry: cable accessories, connectors & fittings, insulators & insulation, surge arresters, switching equipment, lighting controls, power measurement and control.

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Heat-Shrink Termination IXSU-F/OXSU-F



TECHNICAL INFORMATION

Voltage class	(kV)	12	17,5	24	36	42
Cable insulation diameter	(mm)	13,7 - 50,0	15,7 - 44,5	17,9 - 56,0	24,0 - 61,2	27,0 - 45
Cross section range	(mm ²)	10 - 1200	25 - 800	25 - 1200	25 - 1200	35 - 630
Max system voltage Um	(kV)	12	17,5	24	36	42
Basic impulse level	(kV)	95	95	125	194	200
Partial discharge at 2 U ₀	(pC)	<2	>2	<2	<2	<2
AC Voltage withstand, 5 min	(kV)	29	39	57	81/94	94
DC Voltage withstand, 15 min	(kV)	38	52	76	108/120	120

Meets the CENELEC HD 6291

PRODUCT SELECTION INFORMATION: THREE CORE

Description		Tail Length (mm)	Cross Section Range (mm ²)	Voltage Class
Indoor	Outdoor			
IXSU-F3301	OXSU-F3301	450	10 - 16	6,35/11 (12) kV
IXSU-F3304	OXSU-F3304	1200	-	6,35/11 (12) kV
IXSU-F3311	OXSU-F3311	450	16 - 35	6,35/11 (12) kV
IXSU-F3314	OXSU-F3314	1200	-	6,35/11 (12) kV
IXSU-F3321	OXSU-F3321	450	25 - 70	6,35/11 (12) kV
IXSU-F3324	OXSU-F3324	1200	-	6,35/11 (12) kV
IXSU-F3331	OXSU-F3331	450	95 - 240	6,35/11 (12) kV
IXSU-F3334	OXSU-F3334	1200	-	6,35/11 (12) kV
IXSU-F3341	OXSU-F3341	450	240 - 500	6,35/11 (12) kV
IXSU-F3344	OXSU-F3344	1200	-	6,35/11 (12) kV
IXSU-F4321	OXSU-F4321	450	25 - 50	8,7/15 (17,5) kV
IXSU-F4324	OXSU-F4324	1200	-	8,7/15 (17,5) kV
IXSU-F4331	OXSU-F4331	450	70 - 185	8,7/15 (17,5) kV
IXSU-F4334	OXSU-F4334	1200	-	8,7/15 (17,5) kV
IXSU-F4341	OXSU-F4341	450	185 - 400	8,7/15 (17,5) kV
IXSU-F4344	OXSU-F4344	1200	-	8,7/15 (17,5) kV
IXSU-F5311	OXSU-F5311	450	10 - 25	12,7/22 (24) kV
IXSU-F5314	OXSU-F5314	1200	-	12,7/22 (24) kV
IXSU-F5321	OXSU-F5321	450	25 - 50	12,7/22 (24) kV
IXSU-F5324	OXSU-F5324	1200	-	12,7/22 (24) kV
IXSU-F5331	OXSU-F5331	450	70 - 185	12,7/22 (24) kV
IXSU-F5334	OXSU-F5334	1200	-	12,7/22 (24) kV
IXSU-F5341	OXSU-F5341	450	185 - 400	12,7/22 (24) kV
IXSU-F5344	OXSU-F5344	1200	-	12,7/22 (24) kV
IXSU-F6332	OXSU-F6332	650	50 - 120	19/33 (36) kV
IXSU-F6334	OXSU-F6334	1200	-	19/33 (36) kV
IXSU-F6342	OXSU-F6342	650	120 - 300	19/33 (36) kV
IXSU-F6344	OXSU-F6344	1200	-	19/33 (36) kV
IXSU-F6352	OXSU-F6352	650	400 - 500	19/33 (36) kV
IXSU-F6354	OXSU-F6354	1200	-	19/33 (36) kV
IXSU-F7334	OXSU-F7334	1200	50 - 120	20,8/36(42)kV
IXSU-F7344	OXSU-F7344	1200	120 - 300	20,8/36(42)kV

PRODUCT SELECTION INFORMATION: SINGLE CORE

Description		Cross Section Range (mm ²)	Voltage Class
Indoor	Outdoor		
IXSU-F3111	OXSU-F3111	10 - 35	6,35/11 (12) kV
IXSU-F3121	OXSU-F3121	25 - 95	6,35/11 (12) kV
IXSU-F3131	OXSU-F3131	95 - 240	6,35/11 (12) kV
IXSU-F3141	OXSU-F3141	240 - 400	6,35/11 (12) kV
IXSU-F3151	OXSU-F3151	500 - 800	6,35/11 (12) kV
IXSU-F3161	OXSU-F3161	1000 - 1200	6,35/11 (12) kV
IXSU-F4111	OXSU-F4111	16 - 25	8,7/15 (17,5) kV
IXSU-F4121	OXSU-F4121	35 - 95	8,7/15 (17,5) kV
IXSU-F4131	OXSU-F4131	95 - 240	8,7/15 (17,5) kV
IXSU-F4141	OXSU-F4141	240 - 400	8,7/15 (17,5) kV
IXSU-F4151	OXSU-F4151	400 - 800	8,7/15 (17,5) kV
IXSU-F5121	OXSU-F5121	25 - 70	12,7/22 (24) kV
IXSU-F5131	OXSU-F5131	70 - 240	12,7/22 (24) kV
IXSU-F5141	OXSU-F5141	185 - 400	12,7/22 (24) kV
IXSU-F5151	OXSU-F5151	400 - 800	12,7/22 (24) kV
IXSU-F5161	OXSU-F5161	1000 - 1200	12,7/22 (24) kV
IXSU-F6131	OXSU-F6131	50 - 120	19/33 (36) kV
IXSU-F6141	OXSU-F6141	120 - 400	19/33 (36) kV
IXSU-F6151	OXSU-F6151	400 - 800	19/33 (36) kV
IXSU-F7121	OXSU-F7121	35	20,8/36(42)kV
IXSU-F7131	OXSU-F7131	50 - 120	20,8/36(42)kV
IXSU-F7141	OXSU-F7141	120 - 300	20,8/36(42)kV
IXSU-F7151	OXSU-F7151	300 - 630	20,8/36(42)kV

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ENERGY /// HEAT-SHRINK TERMINATION IXSU-F/OXSU-F

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