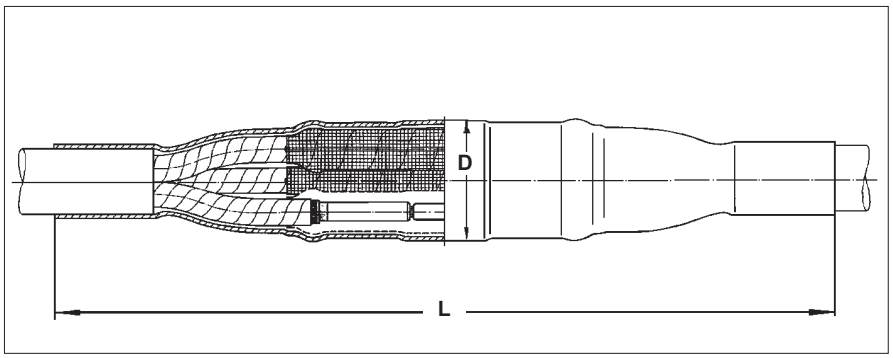
Joints and repair joints for screened, 3-core polymeric insulated cables 10 kV, 15 kV, 20 kV and 35 kV



Dimensions L, D see table

Cable

The joints are designed for 10 kV, 15 kV, 20 kV and 35 kV screened, three core polymeric insulated cables with or without armour.
For example: SzAQkrKVM, XHP 81, CEYSEAbY, ACYSEAbY, CYSEY, ACYSEY, ВВГ, АВБвШв, АВВГ, YHAKXS, XUHAKXS..., AXEKVCY, CXEKVCY, AXEKVCEY, CXEKVCY, N(A)2XSY, EpHP 81, PHP 48, PHP 84, XHP 48, N(A)YSEY.

Design of joints with mechanical connectors

For cables with wire or tape screen
At the screen end yellow void filling mastic is applied and the cable end is covered with a heat-shrinkable stress control tubing. The conductors are jointed with a mechanical connector supplied with the joint. The connection area is covered with a stress control patch. Heat-shrinkable triple-extruded elastomeric joint body provides the correct thickness of insulation and the screening over the insulation. Copper mesh wrapped around the joint area rebuilds the metallic screen. For cables with wire screen a mechanical connector is supplied with the kit. For cables with tape screen the joint includes a solderless earth connection system. For cables with armour a metal case or a metal tape provides additional mechanical protection. The outer sealing and protection is performed by adhesive coated, thick-wall heat-shrinkable tubing.

Additional sealing kit for transition joints of 3-core to 1-core cables
The transition joint is built the same way as an inline joint for 3-core cables. A heat-shrinkable breakout ensures the sealing of the outer tubing to the 1-core cables. A solderless earth connection system allows the connection of all typical combinations of shied constructions.

Design of joints without connectors

For cables with wire or tape screen
At the screen end and over the connectors yellow void filling mastic is applied. The jointing area of each cable core is covered with heat-shrinkable stress control tubing. Heat-shrinkable elastomeric tubing provides the correct thickness of insulation and the screening over the insulation. Copper mesh wrapped around the joint area rebuilds the metallic screen. For cables with tape screen the joint includes a solderless earth connection. For cables with armour a metal case or a metal tape provides additional mechanical protection. The outer sealing and protection is performed by adhesive coated, thick-wall heat-shrinkable tubing.

Design of repair joints
The design and components of the repair joint and the inline joint are similar. The longer length of the repair joint allows cut the damaged part out of the cable and replace it by a piece of cable core and two connectors. This allows repairing the cable for a length of up to 520 mm (see also drawing page 86).

Design of transition joints for 3-core to 1-core cables
The transition joint is built the same way as an inline joint for 3-core cables. Special sealing clips ensure the sealing of the outer tubing to the 1-core cables.

Joints and repair joints for screened 3-core polymeric insulated cables 10 kV, 15 kV, 20 kV and 35 kV

Joints including mechanical connectors

For cables with wire or metal tape screen

Nominal voltage U_o/U (kV)	Cross section (mm²)	Ordering description Cable without armour	Cable with steel tape armour	steel wire armour	Dimensions (mm) L	D
6/10	25 – 70	POLJ-12/3x 25- 70	POLJ-12/3x 25- 70-T	POLJ-12/3x 25- 70-W	1100	80
	70 – 150	POLJ-12/3x 70-150	POLJ-12/3x 70-150-T	POLJ-12/3x 70-150-W	1100	90
	120 – 240	POLJ-12/3x120-240	POLJ-12/3x120-240-T	POLJ-12/3x120-240-W	1100	100
8,7/15 and 12/20	25 – 70	POLJ-24/3x 25- 70	POLJ-24/3x 25- 70-T		1250	90
	70 – 150	POLJ-24/3x 70-150	POLJ-24/3x 70-150-T		1250	100
	120 – 240	POLJ-24/3x120-240	POLJ-24/3x120-240-T		1250	110
20/35	70 – 120	POLJ-42/3x 70-120	POLJ-42/3x 70-120-T	POLJ-42/3x 70-120-W	2200	150
	120 – 240	POLJ-42/3x120-240	POLJ-42/3x120-240-T	POLJ-42/3x120-240-W	2200	180

Note: The application ranges are defined for cables with round, stranded conductors; for cables with sector shaped or solid conductors contact your TE Energy products' representative.

Additional sealing kit for transition joints of 3-core to 1-core cables

Nominal voltage U_o/U (kV)	Cross section (mm²)	Ordering description
6/10, 8,7/15, 12/20	25 – 240	SMOE-62800

Note: For joints to cables with aluminium laminate (e.g. type AHXAMK-W) the solderless ground wire connection kit SMOE-62600 must be ordered separately (details see page 93).

Joints without connectors

Joints for three core cables without armour

Nominal voltage U_o/U (kV)	Cross section (mm²)	Ordering description for cables with wire shield	with metal tape shield	Dimensions (mm) L	D
6/10	10 – 25	SXSU-4302-CEE04		1450	90
	25 – 35	SXSU-4302	SXSU-4302-CEE01	1450	90
	50 – 70	SXSU-4312	SXSU-4312-CEE01	1450	90
	95 – 185	SXSU-4322	SXSU-4322-CEE01	1450	100
	240 – 300	SXSU-4332	SXSU-4332-CEE01	1500	110
8,7/15	35 – 50	SXSU-4312	SXSU-4312-CEE01	1450	90
	70 – 150	SXSU-4322	SXSU-4322-CEE01	1450	100
	185 – 300	SXSU-4332	SXSU-4332-CEE01	1500	110
12/20	10 – 70	SXSU-5312		1450	90
	35 – 95	SXSU-5322		1500	100
	95 – 240	SXSU-5332		1500	110
	300	SXSU-5342		1500	110

Repair joints for three core cables without armour

Nominal voltage U_o/U (kV)	Cross section (mm²)	Ordering description for cables with wire shield	with metal tape shield	Dimension (mm) L	D
6/10	35 – 95	REPJ-12A/3XU	REPJ-12A/3XU-CEE01	2000	90
	120 – 185	REPJ-12B/3XU	REPJ-12B/3XU-CEE01	2000	100
	240 – 400	REPJ-12C/3XU	REPJ-12C/3XU-CEE01	2100	110
12/20	25 – 50	REPJ-24A/3XU		2000	90
	70 – 120	REPJ-24B/3XU		2000	100
	150 – 240	REPJ-24C/3XU		2100	110

Joints for three core cables with armour

Nominal voltage U_o/U (kV)	Cross section (mm²)	Ordering description for cables with wire armour	with tape armour	Dimension (mm) L	D
6/10	25 – 35	SXSW-4304	SXST-4303-CEE01	1450	100
	50 – 70	SXSW-4314	SXST-4313-CEE01	1500	100
	95 – 185	SXSW-4324	SXST-4323-CEE01	1600	150
	240 – 300	SXSW-4334	SXST-4333-CEE01	1600	180

Transition joints for three core to one core polymeric insulated cable

Nominal voltage U_o/U (kV)	Cross section (mm²)	Ordering description	Dimension (mm) L	D
6/10	35 – 70	EPKJ-17A/1XU-3XU	1000	90
	95 – 185	EPKJ-17B/1XU-3XU	1100	130
	240 – 400	EPKJ-17C/1XU-3XU	1100	160
12/20	35 – 70	EPKJ-24B/1XU-3XU	1100	90
	95 – 240	EPKJ-24C/1XU-3XU	1100	130
	300 – 400	EPKJ-24D/1XU-3XU	1100	160

Joints for other cable types, cross sections or voltage classes are available on request.