

# Transition cable joint for paper-insulated cable

## SMTXB 12 kV

### Use

For jointing a paper-insulated 3-core cable with an XLPE-insulated 1- or 3-core cable with Al or Cu conductor 12 kV.



### Standards

Meets the requirements of:

- SEN 24 14 34
- VDE 0278

4

### Rated pressure

0,3 MPa (overpressure)

### Design

The joint tube is a plastic-coated steel tube. The joint insulation consists of transparent polyester film and insulating oil. The oil prevents discharges in the paper-insulated cable. A crutch seal provides a seal between the steel joint tube and the XLPE-insulated cable, which is also covered with either a premolded termination (SOT) or silicone tape.

Spring-loaded gaskets provide a seal between the cable and the joint tube, as well as electrical contact between cable

screen and joint tube. Type FPA or FP for belted cables and FPMP for separately lead-sheathed cables. A sealing ring for three 1-core cable is included in the kit.

### Note:

Insulating bitumen compound and insulating oil need not be heated at temperatures exceeding +10°C.

Insulation diameter	Conductor cross section XLPE-insulated cable		Conductor cross section paper-insulated gasket cable maximum	Designation	Suitable spring-loaded gasket	Tube	Weight
	PXSA	PXS				∅	
mm	mm <sup>2</sup>		mm <sup>2</sup>			mm	kg/item
≤ 32	–	10–240	240	SMTXB 1502	FPA	100	28
≤ 32	–	10–240	240	SMTXB 1502 L*	FPA	100	30
≤ 32	–	10–300	300	SMTXB 1503	FP, FPMP	150	57
15–26	50–185	–	240	SMTXB 1522	FPA	100	28
15–26	50–185	–	240	SMTXB 1522 L*	FPA	100	30
15–26	50–185	–	240	SMTXB 1522 W**	FPA	100	28
25–32	240	–	240	SMTXB 1532	FPA	100	28
25–32	240	–	240	SMTXB 1532 L*	FPA	100	30
25–32	240	–	240	SMTXB 1532 W**	FPA	100	28
25–32	240–300	–	300	SMTXB 1533	FP, FPMP	150	57

\* L = Extended type, allows crossing of the conductors, in order to obtain the right phase sequence.

\*\* For 3 x 1-core XLPE-insulated cables with Al foil screen.

### Accessories, to be ordered separately



### Options



#### FPA, FP, FPMP

Designation	Description	Required Qty.	See page
FPA, FP, FPMP	Spring-loaded gasket	1	4/11
SH-SKRM	Connector with a partition	3	3/51

#### SH-SKRM

#### GC

Designation	Steel tube internal ∅ mm	Description	Qty.	See page
GC	100	Clamps for 3 x 1-core XLPE-insulated cables ∅ 40-45 mm	1 kit	4/12

# Transition cable joint

## SMTXD 24–36 kV

### Use

For joining a paper-insulated 3-core cable and XLPE-insulated 1-core or 3-core cable with Al or Cu conductor 24–36 kV.

### Standards

Meets the requirements of:

- SEN 24 14 34
- VDE 0278

### Rated pressure

0,3 MPa (overpressure)

### Design

The joint tube is a plastic-coated steel tube. The insulation consists of impregnated crepe paper tape and insulating oil. The oil prevents discharges in the paper-insulated cable. The outer conductive layer of the cable is restored by conductive, impregnated crepe paper and copper net.

A crutch seal provides a seal between the steel tube and the XLPE-insulated cable, which is also covered with an oil barrier of silicone tape.



Spring-loaded gaskets provide a seal between the cable and the joint tube, as well as electrical contact between cable screens of PILC cable and joint tube. Type FP for belted cables and FPMP for separately lead-sheathed cables. A sealing ring for three 1-core cable is included in the kit.

### Note:

- Insulating bitumen compound and insulating oil need not be heated at temperatures exceeding +10°C.

XLPE-insulated cable conductor cross section		PILC cable lead sheath		Designation	Suitable spring-loaded gasket	Joint tube	Weight
12/20 (24) kV	18/30 (36) kV	Diameter	Cross section			Ø	
mm <sup>2</sup>		mm	mm <sup>2</sup>			mm	
10–150	10–50	20–85	10–300	SMTXD 3613	FP, FPMP	150	76
185–240	70–150	20–85	10–300	SMTXD 3623	FP, FPMP	150	76
300	240	20–85	10–300	SMTXD 3633	FP, FPMP	150	76

### Accessories, to be ordered separately



FPA, FP, FPMP



SH-SKRM

Designation	Description	Required Qty.	See page
FP and FPMP	Spring-loaded gasket	1	4/11
SH-SKRM	Connector with a partition	3	3/51

# Cable joint for paper-insulated cable (PILC)

## SMTA and SMTPA 24-52 kV

### Use

For jointing paper-insulated 3-core cables with Al or Cu conductor 24-52 kV.

### Standards

Meets the requirements of:

- SEN 24 14 34
- SEN 24 14 23

4

### Rated pressure

0,3 MPa (overpressure)

### Design

The joint tube is a plastic-coated steel tube. The insulation consists of impregnated crepe paper tape and insulating oil. The oil prevents discharges in the paper-insulated cable. The outer conductive layer of the cable is restored by conductive, impregnated crepe paper and copper net.



Spring-loaded gaskets provide a seal between the cable and the joint tube, as well as electrical contact between cable screen and joint tube. Type FPA or FP for belted cables and FPMP for separately lead-sheathed cables.

### Note:

- Insulating bitumen compound and insulating oil need not be heated at temperatures exceeding +10°C.

Diameter of cable lead sheath		Maximum conductor cross section			Designation	Suitable spring-loaded gasket	Joint tube	Weight
min	max	24 kV	36 kV	52 kV			Ø	
mm		mm <sup>2</sup>					mm	kg/item
<b>For belted cable</b>								
12	63	3x120	3x70	–	SMTA 24362	FPA	100	25
<b>For belted and separate lead-sheathed cable</b>								
20	85	3x300	3x240	3x150	SMTPA 24523	FP/FPMP	150	62

### Accessories, to be ordered separately



FPA, FP, FPMP

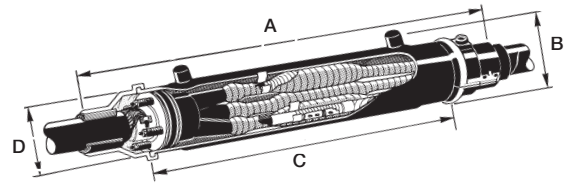
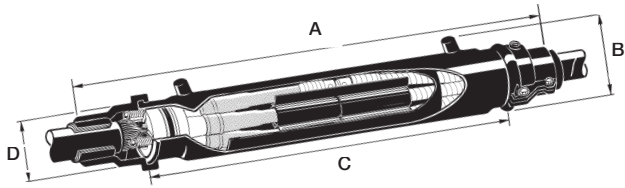


SH-SKRM

Designation	Description	Required Qty.	See page
FPA, FP, FPMP	Spring-loaded gasket	2	4/11
SH-SKRM	Bolt connector	3	3/51

# Dimensional drawings

## SMTD, SMTXB, SMTXD, SMTA, SMTPA



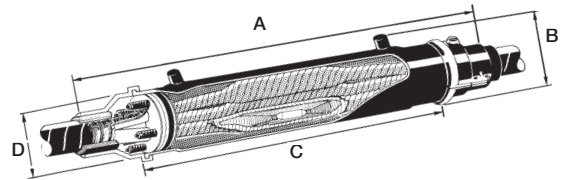
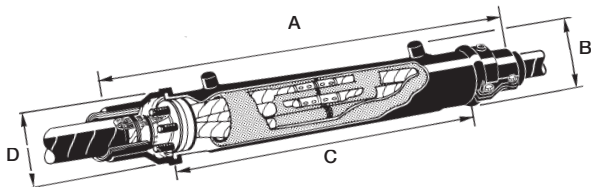
Designation	Dimensions in mm			
	A	B	C	D
SMTXB 1502	1135	175	900	100
SMTXB 1502 L*	1335	175	1100	100
SMTXB 1503	1500	228	1200	150
SMTXB 1522	1135	175	900	100
SMTXB 1522 L*	1335	175	1100	100
SMTXB 1522 W**	1135	175	900	100
SMTXB 1532	1135	175	900	100
SMTXB 1532 L*	1335	175	1100	100
SMTXB 1532 W**	1135	175	900	100
SMTXB 1533	1500	228	1200	150

\* L = Extended type, allows crossing of the conductors, in order to obtain the right phase sequence.

\*\* For 3 x 1-core XLPE-insulated cables with Al foil screen.

Designation	Dimensions in mm			
	A	B	C	D
SMTXD 3613	1500	228	1200	150
SMTXD 3623	1500	228	1200	150
SMTXD 3633	1500	228	1200	150

4



Designation	Dimensions in mm			
	A	B	C	D
SMTD 152 K	1135	175	900	100
SMTD 152 LK	1335	175	1100	100
SMTD 153 K	1500	228	1200	150
SMTD 152 RK	1935	175	1700	100

Designation	Dimensions in mm			
	A	B	C	D
<b>For belted cable</b>				
SMTA 24362	1335	175	1100	100
<b>For belted or separate lead-sheathed cable</b>				
SMTPA 24523	1500	228	1200	150

# Spring-loaded gaskets for paper-insulated cables (PILC) FPA, FP, FPMP



**FPA**  
Ø 100 mm for belted cables.



**FP**  
Ø 150 mm for belted cables.



**FPMP**  
Ø 150 mm, 3-hole gasket, non-magnetic design for separate lead-sheathed cables.

Diameter over lead sheath	Designation	Weight
mm		kg/item
18-21	FPA 1021	1.2
21-24	FPA 1024	1.2
24-27	FPA 1027	1.1
27-30	FPA 1030	1.1
30-33	FPA 1033	1.1
33-36	FPA 1036	1.1
36-39	FPA 1039	1.0
39-42	FPA 1042	1.0
42-45	FPA 1045	1.0
45-48	FPA 1048	1.0
48-51	FPA 1051	1.0
51-54	FPA 1054	0.9
54-57	FPA 1057	0.9
57-60	FPA 1060	0.9
60-63	FPA 1063	0.9
63-66	FPA 1065	0.9

Diameter over lead sheath	Designation	Weight
mm		kg/item
25-30	FP 1530	4.2
30-35	FP 1535	4.2
35-40	FP 1540	4.3
40-45	FP 1545	4.1
45-50	FP 1550	4.2
50-55	FP 1555	3.9
55-60	FP 1560	4.1
60-65	FP 1565	4.0
65-70	FP 1570	3.9
70-75	FP 1575	3.8
75-80	FP 1580	3.9
80-85	FP 1585	4.0

Diameter over lead sheath	Designation	Weight
mm		kg/item
20-23	FPMP 1523	4.5
23-26	FPMP 1526	4.4
26-29	FPMP 1529	4.4
29-32	FPMP 1532	4.4
32-35	FPMP 1535	4.2
35-38	FPMP 1538	4.1
38-40	FPMP 1540	4.2

# Accessories

## Cable joints for PILC and transition joints



### GC

The kit contains one sealing ring, bolts and two roomy clamp halves for Ø 100 mm joint tubes. The clamps are made from fiberglass reinforced polymer. The bolt and washer are molded into the material. Used on the XLPE side of the transition joint; SMTXB 1502/1522/1532 when installing 1-core cables with an outer diameter greater than 40 mm.



### IA 2502 - 2519

Bituminized paper for filling, for example in cable clamps.



### RKM 402

Funnel for oil filling.



### IA 1003

Stress grading tape.



### IA 2112 - 2113

Impregnated crepe paper tape.



### IKP

Impregnated carbon crepe paper (conductive).

Designation	Use	Length	Width	Thickness	Weight
		m	mm	mm	kg/item
GC	SMTXB with Ø 100 joint tube	Cable Ø 40-45	–	–	0.72
IA 2502	For filling cable clamps	3	83	0.5	0.20
IA 2508	For filling cable clamps	14	200	0.5	1.40
IA 2518	For filling cable clamps	10	83	0.5	0.50
IA 2519	For filling cable clamps	14	100	0.5	0.75
RKM 402	For oil filling	–	–	–	0.10
IA 1003	Paper-insulated cable joint	–	–	–	0.13
IA 2112	Paper-insulated cable joint	9	10	–	0.40
IA 2113	Paper-insulated cable joint	9	24	–	0.60
IKP	–	–	–	–	0.30

# Accessories

## Cable joints for PILC and transition joints

4



**IG 1201**  
Cold insulating bitumen compound for cable clamps.



**IG 1601, IG 1604**  
Insulating oil, for joints and terminations for paper-insulated cables 12-52 kV. Need not be heated at temperatures exceeding +10°C.



**IG 1717, 1718**  
Insulating film made of transparent polyester for transition joints and for paper-insulated cables 12-24 kV, type SMTXB and SMTD.



**IK 1002**  
Linen yarn.



**IK 1003**  
Polyester tape.

Designation	Length	Width	Volume	Weight
	m	mm	l	kg/item
IG 1201	-	-	-	1.3
IG 1601	-	-	1.0	1.0
IG 1604	-	-	4.0	4.1
IG 1717	1.7	457	-	0.3
IG 1718	1.5	711	-	0.2
IK 1002	5	-	-	0.2
IK 1003	4x1.5	2.5	-	0.1

