



# ENERGY ACCESSORIES

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Tool and  
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# Chapter I

## Medium Voltage Heatshrink Terminations up to 36 kV and Switchgear Connection Systems

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## EPKT

Raychem Low Voltage Heat-shrink Terminations up to 1 kV

### FEATURES

- Hot-melt adhesive-coated cable breakout and sealing sleeves

### APPLICATION

- For sealing and protection of indoor or outdoor cable ends on armoured or unarmoured cables.
- For 2, 3 and 4 core cables

### CONFORMS TO

- Tested in accordance to CENELEC HD 623 S1.1996 and EN 50393

### 1 kV 3 and 4-core indoor and outdoor terminations for armoured and unarmoured cables

Product name	No of cores	Conductor size (mm <sup>2</sup> )	Part number
EPKT 0030 (S10)	3	25 – 50	804937-011
EPKT 0046 (S10)	3	70 – 150	963807-000
EPKT 0062 (S10)	3	185 – 300	208159-011
EPKT 0015 (S20)	4	4 – 16	288775-000
EPKT 0031 (S10)	4	25 – 50	005023-000
EPKT 0047 (S10)	4	70 – 150	597107-000
EPKT 0063 (S10)	4	185 – 300	063097-000

### 1 kV 1, 3 and 4-core indoor and outdoor terminations for armoured cables

Product name	No of cores	Conductor size (mm <sup>2</sup> )	Part number
EPKT 0017 (S5)	2	25 – 50	024865-000
EPKT 0003 (S10)	4	4 – 16	121775-000
EPKT 0019 (S5)	4	25 – 50	868777-000
EPKT 0035 (S5)	4	70 – 150	223409-000
EPKT 0051 (S5)	4	185 – 300	803719-000

## EPKT

Raychem Low Voltage Heat-shrink Terminations 3.6 kV

### 3.6 kV 3-core indoor and outdoor terminations

Product name	No of cores	Conductor size (mm <sup>2</sup> )	Part number
650mm core tail length			
EPKT 2042	3	25 – 50	796188-011
EPKT 2052	3	70 – 120	796194-000
EPKT 2062	3	150 – 240	796200-011
850mm core tail length			
EPKT 2043	3	25 – 50	796189-011
EPKT 2053	3	70 – 120	796195-011
EPKT 2063	3	150 – 240	796201-000
1200mm core tail length			
EPKT 2044	3	25 – 50	796190-000
EPKT 2054	3	70 – 120	796196-000
EPKT 2064	3	150 – 240	796202-000



### Length of termination tail (3-core only)

for 450 mm = H1  
for 650 mm = H2  
for 800 mm = H3  
for 1200 mm = H4

## EPKT

Raychem Medium Voltage Heat-shrink Terminations 7.2 kV

### FEATURES

- Universal termination family for 12-36 kV based on Raychem SCTM stress control technology
- Red non-tracking Raychem HVOT tubing provides excellent environmental protection

### APPLICATION

- All applications for polymeric 1-core, 3-core, armoured and unarmoured cables
- Can be used in combination with Raychem RICS / RCAB / RSRB switchgear connection systems

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### 7.2 kV 1-core indoor terminations for polymeric cables

Product name	Conductor size (mm <sup>2</sup> )	Part number
EPKT 7A1XI	16 – 50	369608-011
EPKT 7B1XI	70 – 120	034189-000
EPKT 7C1XI	150 – 240	882065-011
EPKT 7D1XI	300 – 500	769766-011
EPKT 7E1XI	630 – 1000	393728-000

### 7.2 kV 1-core outdoor terminations for polymeric cables

Product name	Conductor size (mm <sup>2</sup> )	Part number
EPKT 7B1XO	70 – 120	240394-000
EPKT 7C1XO	150 – 240	519922-011
EPKT 7D1XO	300 – 500	318838-011
EPKT 7E1XO	630 – 1000	619899-011

### 7.2 kV 3-core indoor terminations for polymeric cables

Product name	Conductor size (mm <sup>2</sup> )	Part number
EPKT 7C3XIH2	150 – 240	310407-011
EPKT 7C3XIH3	150 – 240	565544-011
EPKT 7D3XIH2	300 – 500	TBC

### 7.2 kV 3-core outdoor terminations for polymeric cables

Product name	Conductor size (mm <sup>2</sup> )	Part number
EPKT 7C3XOH2	150 – 240	964985-000
EPKT 7D3XOH1	300 – 500	955857-000
EPKT 7D3XOH3	300 – 500	895086-000



### Length of termination tail (3-core only)

for 450 mm = H1  
 for 650 mm = H2  
 for 800 mm = H3  
 for 1200 mm = H4

## EPKT

Raychem Medium Voltage Heat-shrink Terminations up to 17.5 kV

### FEATURES

- Universal termination family for 12-36 kV based on Raychem SCTM stress control technology
- Red non-tracking Raychem HVOT tubing provides excellent environmental protection

### APPLICATION

- All applications for polymeric and MIND paper on 1-core, 3-core, armoured and unarmoured cables
- Can be used in combination with Raychem RICS / RCAB / RSRB switchgear connection systems

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### Raychem Medium Voltage Heat-shrink Terminations up to 17.5 kV

Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>17.5 kV 1-core indoor terminations for polymeric cables</b>		
EPKT 17B1XI	35 – 70	500365-011
EPKT 17C1XI	95 – 240	068756-011
EPKT 17D1XI	300 – 400	328499-011
EPKT 17E1XI	500 – 800	027618-011
EPKT 17F1XI	1000	896210-011
<b>17.5 kV 1-core outdoor terminations for polymeric cables</b>		
EPKT 17B1XO	35 – 70	595847-011
EPKT 17C1XO	95 – 240	931928-011
EPKT 17D1XO	300 – 400	206772-011
EPKT 17E1XO	500 – 800	712995-011
EPKT 17F1XO	1000	051492-011
<b>17.5 kV 3-core indoor terminations for polymeric cables</b>		
EPKT 17A3XIH2	16 – 25	842908-011
EPKT 17A3XIH4	16 – 25	154667-011
EPKT 17B3XIH2	35 – 70	007825-011
EPKT 17B3XIH4	35 – 70	663811-011
EPKT 17C3XIH2	95 – 240	258166-011
EPKT 17C3XIH4	95 – 240	889147-011
EPKT 17D3XIH2	300 – 400	789902-011
EPKT 17D3XIH4	300 – 400	405002-011
<b>17.5 kV 3-core outdoor terminations for polymeric cables</b>		
EPKT 17A3XOH2	16 – 25	470454-000
EPKT 17A3XOH3	16 – 25	208196-000
EPKT 17B3XOH2	35 – 70	168183-011
EPKT 17B3XOH4	35 – 70	283692-011
EPKT 17C3XOH2	95 – 240	181259-011
EPKT 17C3XOH4	95 – 240	667923-000
EPKT 17D3XOH3	300 – 400	747026-000
EPKT 17D3XOH4	300 – 400	434873-011
<b>17.5 kV 3-core indoor terminations for paper cables</b>		
EPKT 17A3MIH2	16 – 25	818652-000
EPKT 17A3MIH4	16 – 25	251778-000
EPKT 17B3MIH2	35 – 70	085596-011
EPKT 17B3MIH4	35 – 70	006552-000
EPKT 17C3MIH2	95 – 240	025719-011
EPKT 17C3MIH4	95 – 240	835269-011
EPKT 17D3MIH2	300 – 400	321575-011
<b>17.5 kV 3-core outdoor terminations for paper cables</b>		
EPKT 17A3M0H2	16 – 25	468180-000
EPKT 17A3M0H4	16 – 25	TBC
EPKT 17B3M0H2	35 – 70	740131-011
EPKT 17B3M0H3	35 – 70	152178-000
EPKT 17C3M0H2	95 – 240	158810-011
EPKT 17C3M0H4	95 – 240	313358-011
EPKT 17D3M0H2	300 – 400	604082-011
EPKT 17D3M0H4	300 – 400	702854-011



### Length of termination tail (3-core only)

for 450 mm = H1  
 for 650 mm = H2  
 for 800 mm = H3  
 for 1200 mm = H4

## EPKT

Raychem Medium Voltage Heat-shrink Terminations up to 24 kV

### FEATURES

- Universal termination family for 12-36 kV based on Raychem SCTM stress control technology
- Red non-tracking Raychem HVOT tubing provides excellent environmental protection

### APPLICATION

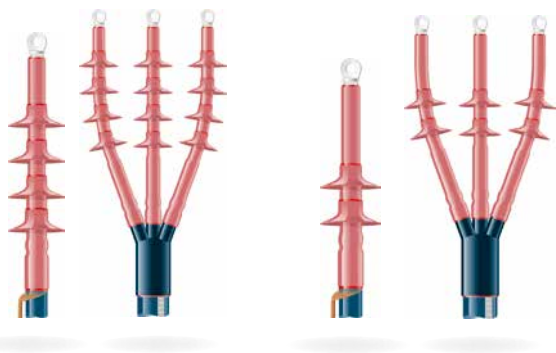
- All applications for polymeric and MIND paper on 1-core, 3-core, armoured and unarmoured cables
- Can be used in combination with Raychem RICS / RCAB / RSRB switchgear connection systems

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### Raychem Medium Voltage Heat-shrink Terminations up to 24 kV

Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>24 kV 1-core indoor terminations for polymeric cables</b>		
EPKT 24B1XI	25 – 50	562168-000
EPKT 24C1XI	70 – 185	922196-011
EPKT 24D1XI	240 – 300	451649-000
EPKT 24E1XI	400 – 630	975658-011
EPKT 24F1XI	800 – 1000	306994-000
<b>24 kV 1-core outdoor terminations for polymeric cables</b>		
EPKT 24B1XO	25 – 50	613670-011
EPKT 24C1XO	70 – 185	278218-011
EPKT 24D1XO	240 – 300	485566-000
EPKT 24E1XO	400 – 630	792760-011
EPKT 24F1XO	800 – 1000	844961-000
<b>24 kV 1-core indoor terminations for paper cables</b>		
EPKT 24B1MI	25 – 50	047852-000
EPKT 24C1MI	70 – 185	503845-000
EPKT 24D1MI	240 – 300	198763-000
<b>24 kV 3-core indoor terminations for polymeric cables</b>		
EPKT 24B3XIH2	25 – 50	658587-011
EPKT 24B3XIH3	25 – 50	TBC
EPKT 24C3XIH2	70 – 185	397856-011
EPKT 24C3XIH4	70 – 185	773849-000
EPKT 24D3XIH2	240 – 300	428150-011
<b>24 kV 3-core outdoor terminations for polymeric cables</b>		
EPKT 24B3XOH3	25 – 50	462038-011
EPKT 24C3XOH4	70 – 185	855463-011
EPKT 24D3XOH3	240 – 300	896693-011
<b>24 kV 3-core indoor terminations for paper cables</b>		
EPKT 24B3MIH2	25 – 50	957227-000
EPKT 24C3MIH2	70 – 185	136493-000
EPKT 24D3MIH2	240 – 300	724317-000
<b>24 kV 3-core outdoor terminations for paper cables</b>		
EPKT 24B3MOH3	25 – 50	483103-000
EPKT 24C3MOH3	70 – 185	499917-000
EPKT 24C3MOH4	70 – 185	915409-000
EPKT 24D3MOH3	240 – 300	516181-000
EPKT 24D3MOH4	240 – 300	013571-000



#### Length of termination tail (3-core only)

for 450 mm = H1  
 for 650 mm = H2  
 for 800 mm = H3  
 for 1200 mm = H4

## EPKT

Raychem Medium Voltage Heat-shrink Terminations up to 33 kV

#### FEATURES

- Universal termination family for 12-36 kV based on Raychem SCTM stress control technology
- Red non-tracking Raychem HVOT tubing provides excellent environmental protection

#### APPLICATION

- All applications for polymeric and MIND paper on 1-core, 3-core, armoured and unarmoured cables

#### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### Raychem Medium Voltage Heat-shrink Terminations up to 33 kV

Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>33 kV 1-core indoor terminations for polymeric cables</b>		
EPKT 36C1XI	50 – 95	454523-011
EPKT 36D1XI	120 – 185	308359-011
EPKT 36E1XI	240 – 500	651264-011
EPKT 36F1XI	630 – 1000	700320-011
TBC	1000	TBC
<b>33 kV 1-core outdoor terminations for polymeric cables</b>		
EPKT 36C1XO	50 – 95	900926-011
EPKT 36D1XO	120 – 185	553365-011
EPKT 36E1XO	240 – 500	372083-011
EPKT 36F1XO	630 – 1000	407002-011
<b>33 kV 3-core indoor terminations for polymeric cables</b>		
EPKT 36C3XIH2	50 – 95	320645-000
EPKT 36C3XIH4	50 – 95	559139-011
EPKT 36D3XIH2	120 – 185	599496-011
EPKT 36D3XIH4	120 – 185	TBC
EPKT 36E3XIH2	240 – 500	174907-011
EPKT 36E3XIH3	240 – 500	683636-011
<b>33 kV 3-core outdoor terminations for polymeric cables</b>		
EPKT 36C3XOH4	50 – 95	921312-011
EPKT 36D3XOH4	120 – 185	060437-011
EPKT 36E3XOH4	240 – 500	496517-011

#### NOTE

Indoor and outdoor versions of PILC terminations available on request.  
 Indoor and outdoor versions of paper MIND terminations available on request.



## IXSU/OXSU

Raychem Medium Voltage Heat-shrink Zinc Oxide Stress Control Terminations up to 12 kV

### FEATURES

- Universal termination family for 12 kV based on unique Raychem zinc oxide stress control technology
- Red co-extruded non-tracking Raychem zinc oxide HVOT tubing provides excellent environmental protection
- Compact design
- Conductive break-out and CNTM core extension tubes allow crossing of cores

### APPLICATION

- All applications for polymeric 1-core, 3-core, armoured and unarmoured cables
- Can be used in combination with Raychem RICS / RCAB / RSRB switchgear connection systems

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### Raychem Medium Voltage Heat-shrink Zinc Oxide Stress Control Terminations up to 12 kV

Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV 1-core indoor terminations for polymeric cables</b>		
IXSU-F 3111	10 – 35	508493-011
IXSU-F 3121	25 – 95	489269-011
IXSU-F 3131	95 – 240	097105-011
IXSU-F 3141	240 – 500	422037-011
IXSU-F 3151	500 – 800	565915-011
IXSU-F 3161	1000 – 1200	F11994-011
<b>12 kV 1-core outdoor terminations for polymeric cables</b>		
OXSU-F 3111	10 – 35	921513-011
OXSU-F 3121	25 – 95	674179-011
OXSU-F 3131	95 – 240	170347-011
OXSU-F 3141	240 – 500	572329-011
OXSU-F 3151	500 – 800	057101-011
OXSU-F 3161	1000 – 1200	A25232-011
<b>12 kV 3-core indoor terminations for polymeric cables</b>		
IXSU-F 3301	10 – 16	042899-011
IXSU-F 3311	16 – 35	609815-011
IXSU-F 3314	16 – 35	492379-000
IXSU-F 3321	25 – 70	975845-011
IXSU-F 3324	25 – 70	186727-011
IXSU-F 3331	95 – 240	931779-011
IXSU-F 3334	95 – 240	843829-011
IXSU-F 3341	240 – 500	681745-011
IXSU-F 3344	240 – 500	278157-011
<b>12 kV 3-core outdoor terminations for polymeric cables</b>		
OXSU-F 3311	16 – 35	648313-000
OXSU-F 3314	16 – 35	652785-000
OXSU-F 3321	25 – 70	924109-000
OXSU-F 3324	25 – 70	462641-011
OXSU-F 3331	95 – 240	114825-011
OXSU-F 3334	95 – 240	447699-000
OXSU-F 3341	240 – 500	619691-000

NOTE Tail length 3xx1 is 450 mm with 1.2 m CNTM.  
Tail length 3xx4 is 1200 mm with 3.2 m CNTM.



## IXSU/OXSU

Raychem Medium Voltage Heat-shrink Zinc Oxide Stress Control Terminations up to 24 kV

### FEATURES

- Universal termination family for 24 kV based on unique Raychem zinc oxide stress control technology
- Red co-extruded non-tracking Raychem zinc oxide HVOT tubing provides excellent environmental protection
- Compact design
- Conductive break-out and CNTM core extension tubes allow crossing of cores

### APPLICATION

- All applications for polymeric 1-core, 3-core, armoured and unarmoured cables
- Can be used in combination with Raychem RICS / RCAB / RSRB switchgear connection systems

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### Raychem Medium Voltage Heat-shrink Zinc Oxide Stress Control Terminations up to 24 kV

Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>24 kV 1-core indoor terminations for polymeric cables</b>		
IXSU-F 5121	25 – 70	552897-011
IXSU-F 5131	70 – 240	086833-011
IXSU-F 5141	185 – 400	675377-011
IXSU-F 5151	400 – 800	000877-011
IXSU-F 5161	1000 – 1200	F01490-011
<b>24 kV 1-core outdoor terminations for polymeric cables</b>		
OXSU-F 5121	25 – 70	294997-011
OXSU-F 5131	70 – 240	403451-011
OXSU-F 5141	185 – 400	529965-011
OXSU-F 5151	400 – 800	074061-011
OXSU-F 5161	1000 – 1200	C26806-011
<b>24 kV 3-core indoor terminations for polymeric cables</b>		
IXSU-F 5311	10 – 25	421400-011
IXSU-F 5321	25 – 50	971921-011
IXSU-F 5324	25 – 50	197315-011
IXSU-F 5331	70 – 185	454059-011
IXSU-F 5334	70 – 185	613651-011
IXSU-F 5341	185 – 400	486669-011
IXSU-F 5344	185 – 400	604505-011
<b>24 kV 3-core outdoor terminations for polymeric cables</b>		
OXSU-F 5311	10 – 25	407304-011
OXSU-F 5314	10 – 25	401520-011
OXSU-F 5321	25 – 50	911909-000
OXSU-F 5324	25 – 50	893465-000
OXSU-F 5331	70 – 185	381949-011
OXSU-F 5334	70 – 185	442835-000
OXSU-F 5341	185 – 400	047705-011
OXSU-F 5344	185 – 400	535683-000

#### NOTE

Tail length 5xx1 is 450 mm with 1.2 m CNTM.  
Tail length 5xx4 is 1200 mm with 3.2 m CNTM.



## CSTI/CSTO

Raychem Medium Voltage Cold Applied Terminations up to 24 kV

### FEATURES

- Pre-expanded termination body with integrated stress control
- The extra-long silicone stress cone is integrated with the termination and reduces positioning switchgear connection systems
- Accommodates mechanical lug and compression lug

### APPLICATION

- Suitable for indoor and outdoor use
- 25 - 630 mm<sup>2</sup> conductor size

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### Technical data

Voltage class	(kV)	6.35/11(12)	8.7/15(17.5)	12.7/22(24)
Cable insulation diameter	(mm)	13.7 – 40.0	15.7 – 50.0	17.9 – 52.0
Cross section range	(mm <sup>2</sup> )	25 – 630	25 – 630	25 – 630
Max system voltage Um	(kV)	12	17.5	24
Basic impulse level	(kV)	95	95	125
Partial discharge at 2 U <sub>0</sub>	(pC)	<10	<10	<10
AC Voltage withstand, 5 min	(kV)	28.5	39	57
DC Voltage withstand, 15min	(kV)	38	52	76

### CSTI indoor terminations up to 24 kV



Product name	Voltage class kV	Application range (mm <sup>2</sup> )	Creepage distance (mm)	Specific creepage (mm)	Part Number
CSTI-3122	6.35/11(12)	25 – 95	420	35	ON REQUEST
CSTI-3132	6.35/11(12)	95 – 240	465	39	ON REQUEST
CSTI-3142	6.35/11(12)	300 – 400	480	40	ON REQUEST
CSTI-3152	6.35/11(12)	500 – 630	495	41	ON REQUEST
CSTI-4122	8.7/15(17.5)	25 – 95	420	24	ON REQUEST
CSTI-4132	8.7/15(17.5)	95 – 240	465	27	ON REQUEST
CSTI-4142	8.7/15(17.5)	300 – 400	480	27	ON REQUEST
CSTI-4152	8.7/15(17.5)	500 – 630	495	28	ON REQUEST
CSTI-5122	12.7/22(24)	25 – 95	465	19	ON REQUEST
CSTI-5132	12.7/22(24)	95 – 240	480	20	ON REQUEST
CSTI-5142	12.7/22(24)	300 – 400	495	21	ON REQUEST
CSTI-5152	12.7/22(24)	500 – 630	495	21	ON REQUEST

### CSTO outdoor terminations up to 24 kV

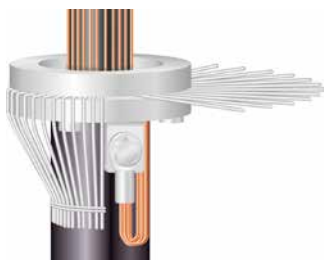


Product name	Voltage class kV	Application range (mm <sup>2</sup> )	Creepage distance (mm)	Specific creepage (mm)	Part Number
CSTO-3122	6.35/11(12)	25 – 95	490	41	ON REQUEST
CSTO-3132	6.35/11(12)	95 – 240	520	43	ON REQUEST
CSTO-3142	6.35/11(12)	300 – 400	550	46	ON REQUEST
CSTO-3152	6.35/11(12)	500 – 630	565	47	ON REQUEST
CSTO-4122	8.7/15(17.5)	25 – 95	490	28	ON REQUEST
CSTO-4132	8.7/15(17.5)	95 – 240	520	30	ON REQUEST
CSTO-4142	8.7/15(17.5)	300 – 400	550	31	ON REQUEST
CSTO-4152	8.7/15(17.5)	500 – 630	565	32	ON REQUEST
CSTO-5122	12.7/22(24)	25 – 95	520	22	ON REQUEST
CSTO-5132	12.7/22(24)	95 – 240	550	23	ON REQUEST
CSTO-5142	12.7/22(24)	300 – 400	565	24	ON REQUEST
CSTO-5152	12.7/22(24)	500 – 630	565	24	ON REQUEST

NOTE Trifurcating kits available on request.

## Terminations Accessories

### Armour earthing



Product name	Diameter range (mm)	Application range (mm <sup>2</sup> )					Mod code	Part number
		7.2 kV	12 kV	17.5 kV	24 kV	36 kV		
<b>1-core cables</b>								
EAKT 1636	21 – 32	16 – 70	16 – 70	16 – 50	16 – 50	–	G 36	054131-011
EAKT 1637	33 – 50	95 – 400	95 – 400	70 – 400	70 – 300	16 – 185	G 37	332303-011
EAKT 1638	51 – 67	500 – 800	500 – 800	500 – 800	400 – 800	240 – 630	G 38	446787-011
<b>3-core cables</b>								
EAKT 1642	40 – 67	16 – 120	16 – 120	16 – 95	16 – 35	16 – 25	G 42	225798-011
EAKT 1643	50 – 86	150 – 240	150 – 240	120 – 185	50 – 120	35 – 95	G 43	451129-011
EAKT 1644	60 – 94	300 – 400	300 – 400	240 – 300	150 – 185	120 – 185	G 44	157519-011
EAKT 1645	70 – 110	–	–	–	240 – 300	240 – 300	G 45	064904-011

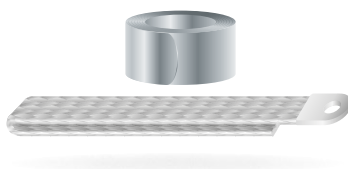
### Cable glands



Product name	Application	Mod code	Part number
EAKT 1605	Steel/Small/X-Type/cables up to 95 mm <sup>2</sup>	G 05	755565-011
EAKT 1606	Steel/Large/Y-Type/cables up to 300 mm <sup>2</sup>	G 06	575297-011
EAKT 1607	Steel/Large/Y-Type/with insulating plate	G 07	942284-011
EAKT 1608	Aluminium/Small/X-Type/1-core application	G 08	231579-011

NOTE The stud hole spacing in the small gland is 66 mm x 66 mm and in the large gland is 86 mm x 95 mm.

### Solderless earth connection



Product name	Diameter over insulation (mm)	Application range (mm <sup>2</sup> )					Mod code	Part number
		7.2 kV	12 kV	17.5 kV	24 kV	36 kV		
EAKT 1655	12 – 18	16 – 50	16 – 50	16 – 25	–	–	G 55	445646-011
EAKT 1656	19 – 24	70 – 150	70 – 150	35 – 95	25 – 70	25 – 35	G 56	658793-011
EAKT 1657	25 – 30	185 – 300	185 – 240	120 – 185	95 – 150	50 – 70	G 57	555984-011
EAKT 1658	31 – 44	400 – 630	300 – 630	240 – 500	185 – 500	95 – 300	G 58	062403-011
EAKT 1659	41 – 65	800 – 1000	800 – 1000	630 – 1000	630 – 1000	400 – 1000	G 59	042430-011

NOTE Solderless earth connections are also available for lead sheaths on paper cables. For such requirements please contact your local sales representative.

### Support insulators and brackets



Product name	Mod code	Description (pollution level IV)	(pollution level III)	(pollution level II)	(pollution level I)	Part number
EAKT 1521	B 21	Insulator Kits 12 kV	–	Insulator Kits 17.5 kV	Insulator Kits 24 kV	885488-011
EAKT 1523	B 23	Insulator Kits 17.5 kV	Insulator Kits 24 kV	–	Insulator Kits 36 kV	146113-011
EAKT 1524	B 24	Insulator Kits 24 kV Insulator Kits 36 kV	–	–	–	329415-011

NOTE The voltage is the highest phase-to-phase voltage  $U_{max}$ .

## RCAB

Raychem Elastomeric Insulating Bushing Boot RCAB for Bushings up to 17.5 kV and 24 kV

### FEATURES

- Tool free application
- High-performance insulation material
- Excellent track and erosion resistance
- Removable and reinstallable
- Connection can be energised immediately after installation

### APPLICATION

- Indoor application
- Used to improve air clearance in cable boxes to improve phase-to-phase and phase-to-ground insulation

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1

### RCAB Application range



Product name	Bushing diameter (mm)	Part number
SMOE-62804	31 – 45	605557N001
SMOE-62803	46 – 70	894919N001

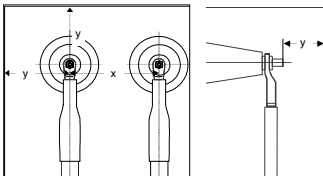
### Bushing lug for termination



Universal screw  
EXRM-1366

Product name	Description	Part number
EXRM 1366	Bushing lug	527427N001

### Min. dimension phase/earth and phase/phase for RCAB

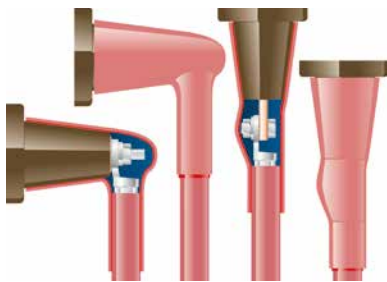


Um (kV)	7.2	12	17.5
Min. clearance between live metal x (mm)	100	100	100
Min. clearance between live metal and ground y (mm)	60	60	75
Min. clearance between boots (mm)	12	12	12

## RSRB

Raychem Heat-shrink Bushing Boots up to 11 kV

### Boots



Product name	Application range	Mod code	Part number
<b>Straight boots</b>			
RSRB 4022	10 – 35 mm <sup>2</sup>	B05	203793-011
RSRB 4024	50 – 95 mm <sup>2</sup>	B06	890945-011
RSRB 4026	120 – 300 mm <sup>2</sup>	B07	174821-011
<b>Right angle boots - long</b>			
RSRB 4042	10 – 35 mm <sup>2</sup>	B08	363551-011
RSRB 4044	50 – 95 mm <sup>2</sup>	B09	257141-011
RSRB 4046	120 – 300 mm <sup>2</sup>	B10	718495-011
<b>Right angle boots - short</b>			
RSRB 4062	10 – 35 mm <sup>2</sup>	B15	166197-011
RSRB 4064	50 – 95 mm <sup>2</sup>	B16	317789-011
RSRB 4066	120 – 300 mm <sup>2</sup>	B17	975801-011

## RICS

Raychem Insulated Adapter Termination System RICS for SF6-insulated Switchgear up to 24 kV

### FEATURES

- Angled insulated adapter made of rubber, which does not require heat during installation
- The body and the termination are not shielded. During operation, all parts are considered to be live and must not be touched

### APPLICATION

- For round and sector-shaped polymeric insulated single and 3-core cables
- Used in conjunction with termination type IXSU-F and EPKT
- Disconnection of the body is only permitted when power has been turned off
- Only for compression lugs (not included)

### CONFORMS TO

- Tested in accordance to CENELEC HD.629.1.S2:2006, IEC 60502-4 and IEEE 48

### RICS



12 kV



24 kV

Product name	Rated voltage kV	Cross-section mm <sup>2</sup>	Part number
RICS-3133	12	70 – 300	CM2361-000
RICS-5123	24	25 – 70	555340-000
RICS-5133	24	95 – 185	753072-000
RICS-5143	24	240 – 300	892434-000

NOTE

For application information please contact technical services.

## RSES 52xx

Raychem Screened Adapter System for CENELEC A Bushing 250 A up to 24 kV

### FEATURES

- Straight or angled prefabricated shielded adapter made of EPDM rubber, which does not require heat during installation
- Integrated stress control. Separate termination not required
- The kit contains materials for the screening of 3-core cables. Up to 2000 mm tail length
- Test point for capacitive voltage measurement

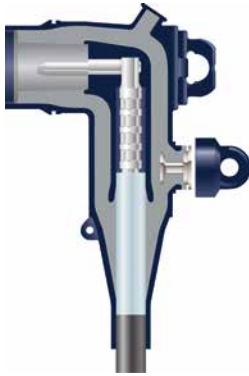
### APPLICATION

- For round polymeric insulated single and 3-core cables
- For connection to insulator bushing type A (250 A) in accordance with EN 50181
- Disconnection of the body is only permitted when power has been turned off

### CONFORMS TO

- Tested in accordance to ANSI/IEEE 386, IEC 540, VDE 0278

### RSES for angled connection of single and 3-core incl. mechanical lug and core screening kit



Product name	Rated voltage kV	Cross-section mm <sup>2</sup>	Insul. diam mm	Tail length mm	Part number
RSES-5202	12	25	13.5 – 17.4	2000	973329-011
RSES-5205	12	50	13.5 – 17.4	2000	653311-011
RSES-5219	12	95	16.5 – 20.8	2000	665773-011
RSES-5212	24	25	16.3 – 20.8	2000	472227-000
RSES-5215	24	50	16.3 – 20.8	2000	600683-000
RSES-5229	24	95	19.6 – 24.1	2000	481257-011

### RSSS for straight connection of single and 3-core, incl. compression lug



Product name	Rated voltage kV	Cross-section mm <sup>2</sup>	Insul. diam mm	Tail length mm	Part number
RSSS-5205	12	50	13.5 – 17.4	2000	242591-000
RSSS-5219	12	95	16.3 – 20.8	2000	202919-011
RSSS-5215	24	50	16.3 – 20.8	2000	209543-011
RSSS-5229	24	95	19.6 – 24.1	2000	129305-000

### Protective cap for bushing type A

Product name	Description	Part number
SMOE-63917	Shielded connection protection	CN6629-010

NOTE For temporary protection of the switchgear bushing. Sold in kits of 3, including installation instructions.

## RSES 64xx

Raychem Screened Adapter System for CENELEC B Bushing 400 A for 24 and 36 kV

### FEATURES

- Mechanical lugs suitable for copper and aluminium conductors
- Capacitive test point
- Complete kit including lugs facilitates installation and storage

### APPLICATION

- Design fits 400 A bushings (interface "B") as specified by EN 50180 and EN 50181
- Cable cross-sections from 50 to 300mm<sup>2</sup>

### CONFORMS TO

- The screened cable connector exceeds CENELEC HD 629:1 S2 requirements, which includes BS, VDE and other international specifications

### RSES 6400 for single and three core cables including mechanical lugs



Product name	Rated voltage kV	Cross-section (mm) <sup>2</sup>	Insul. diam (mm)	Part number
RSES-6451	24	70 – 95	22.4 – 35.5	CX5399-011
RSES-6452	24	95 – 240	22.4 – 35.5	CX5398-011
RSES-6454	24	185 – 300	22.4 – 35.5	CX5404-011
RSES-6451	36	50 – 95	22.4 – 35.5	CX5399-011
RSES-6452	36	95 – 150	22.4 – 35.5	CX5398-011
RSES-6453	36	120 – 240	28.9 – 42.0	CX5401-011
RSES-6455	36	185 – 300	28.9 – 42.0	CX5402-011

## RSTI

Raychem Switchgear Connection System for CENELEC C1 (630 A) and C2 (1250 A) for 12-36 kV

### FEATURES

- Angled prefabricated shielded adapter made of silicone rubber, which does not require heat during installation
- Integrated stress control. Separate termination not required
- 3-core kits include materials for core screening. Up to 2000 mm tail length
- Test point for capacitive voltage measurement
- Mechanical lugs included. Compression lugs on request
- The kits include materials for 3 phases

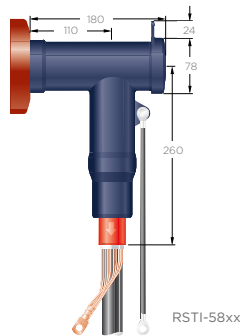
### APPLICATION

- For round polymeric insulated single and 3-core cables
- For connection to insulator bushing type C1 (630 A) and C2 (1250A) in accordance with EN 50181
- Disconnection of the body is only permitted when power has been turned off

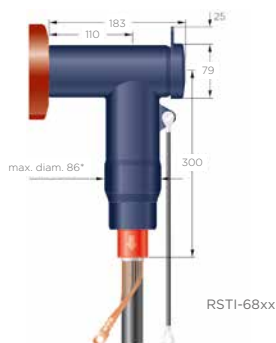
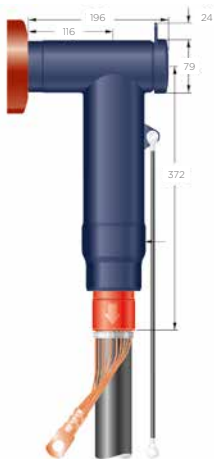
### CONFORMS TO

- Tested in accordance to CENELEC HD 629.1 S2

### RSTI Single connection single core



RSTI-58xx



RSTI-68xx

Product name	12 kV (mm) <sup>2</sup>	24 kV (mm) <sup>2</sup>	36 kV (mm) <sup>2</sup>	Insul. diam (mm)	Part number
RSTI-5851	35 – 95	35 – 70	–	12.7 – 23.4	CM0009-011
RSTI-5852	95 – 120	–	–	12.7 – 23.4	CM0010-011
RSTI-5853	95 – 240	95 – 185	–	17.0 – 30.1	CM0011-011
RSTI-5854	150 – 240	95 – 240	–	21.2 – 34.6	CM0012-011
RSTI-5855	185 – 300	185 – 300	–	21.2 – 34.6	CM0013-011
RSTI-5856	240 – 400	–	–	21.2 – 34.6	CR5244-011
RSTI-3951	400	–	–	28.9 – 36.4	CR6086-011
RSTI-3952	500	–	–	28.9 – 36.4	CR6085-011
RSTI-3953	630	–	–	34.0 – 45.4	CR6077-011
RSTI-3954	800	–	–	34.0 – 45.4	CR6081-011
RSTI-5951	–	400	–	34.0 – 45.4	CR6082-011
RSTI-5952	–	500	–	34.0 – 45.4	CR6083-011
RSTI-5953	–	630	–	39.1 – 59.0	CR6084-011
RSTI-5954	–	800	–	39.1 – 59.0	CR6080-011
RSTI-6851	–	–	35 – 95	22.4 – 35.5	CR4949-011
RSTI-6852	–	–	95 – 150	22.4 – 35.5	CR4990-011
RSTI-6853	–	–	120 – 240	28.9 – 42.0	CR5011-011
RSTI-6855	–	–	185 – 300	28.9 – 42.0	CR5012-011
RSTI-6951	–	–	400	34.0 – 45.4	CR6079-011
RSTI-6952	–	–	500 – 630	39.1 – 59.0	CR6078-011
RSTI-6953	–	–	800	39.1 – 59.0	CR6087-011

#### NOTE

Mechanical lugs included. Compression lugs are available on request.  
Core screen kits for copper tape screens available on request (add suffix 01 to part number).  
Pins are required to couple RSTI-CC-58xx and RSTI-CC-68xx to RSTI-x95x, RSTI-SA.

## RSTI-CC

Raychem Switchgear Connection System for CENELEC C1 (630 A) and C2 (1250 A) for 12-36 kV

### FEATURES

- Angled prefabricated shielded parallel adapter made of silicone rubber, which does not require heat during installation
- Integrated stress control. Separate termination not required
- 3-core kits include materials for core screening. Up to 2000 mm tail length
- Test point for capacitive voltage measurement
- Mechanical lugs included. Compression lugs on request
- The kits include materials for 3 phases

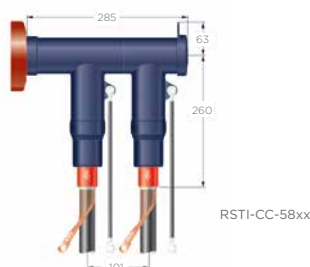
### APPLICATION

- For parallel connection to adapter type RSTI-58xx
- For round polymeric insulated single and 3-core cables
- Disconnection of the body is only permitted when power has been turned off

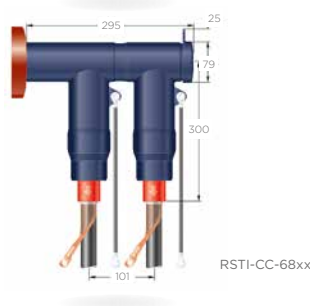
### CONFORMS TO

- Tested in accordance to CENELEC HD 629.1 S2

### RSTI Parallel connection single core



RSTI-CC-58xx



RSTI-CC-68xx

Product name	12 kV (mm) <sup>2</sup>	24 kV (mm) <sup>2</sup>	36 kV (mm) <sup>2</sup>	Insul. diam (mm)	Part number
RSTI-CC-5851	35 – 95	35 – 70	–	12.7 – 23.4	CM0094-011
RSTI-CC-5852	95 – 120	–	–	12.7 – 23.4	CM0095-011
RSTI-CC-5853	95 – 240	95 – 185	–	17.0 – 30.1	CM0096-011
RSTI-CC-5854	150 – 240	95 – 240	–	21.2 – 34.6	CM0097-011
RSTI-CC-5855	185 – 300	185 – 300	–	21.2 – 34.6	CM0099-011
RSTI-CC-5856	240 – 400	–	–	21.2 – 34.6	CR5240-011
RSTI-CC-3951	400	–	–	28.9 – 36.4	CS8877-011
RSTI-CC-3952	500	–	–	28.9 – 36.4	CS8875-011
RSTI-CC-3953	630	–	–	34.0 – 45.4	CS8874-011
RSTI-CC-3954	800	–	–	34.0 – 45.4	CS8884-011
RSTI-CC-5951	–	400	–	34.0 – 45.4	CS8880-011
RSTI-CC-5952	–	500	–	34.0 – 45.4	CS8879-011
RSTI-CC-5953	–	630	–	39.1 – 59.0	CS8872-011
RSTI-CC-5954	–	800	–	39.1 – 59.0	CS8882-011
RSTI-CC-6851	–	–	35 – 95	22.4 – 35.5	CR7869-011
RSTI-CC-6852	–	–	95 – 150	22.4 – 35.5	CR7867-011
RSTI-CC-6853	–	–	120 – 240	28.9 – 42.0	CR7866-011
RSTI-CC-6855	–	–	185 – 300	28.9 – 42.0	CR7868-011
RSTI-CC-6951	–	–	400	34.0 – 45.4	CS8881-011
RSTI-CC-6952	–	–	500 – 630	39.1 – 59.0	CS8873-011
RSTI-CC-6953	–	–	800	39.1 – 59.0	CS8876-011

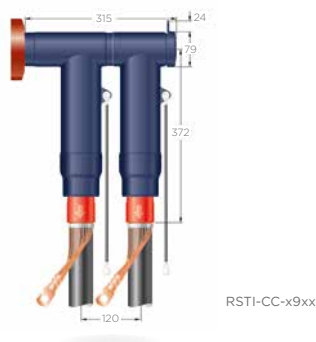
#### NOTE

Mechanical lugs included. Compression lugs are available on request.  
Core screen kits for copper tape screens available on request (add suffix 01 to part number).  
Pins are required to couple RSTI-CC-58xx and RSTI-CC-68xx to RSTI-x95x, RSTI-SA.

### Trifurcation kits for screened 3-core cables

Product name Kit length 600 mm	Part number	Part number Kit length 1200 mm	Part number	Dimensions over insulation (min. - max. mm)	Overall diameter (min. - max. mm)
RSTI-TRF-02	CF9506-011	RSTI-TRF-02-1200	CP7143-011	17.6 – 35.6	50.0 – 90.0

### RSTI accessories



RSTI-CC-x9xx

Product name	Accessory type	Part number
RSTI-68TR; Length: 310 mm	Test rod	CN9357-011
RSTI-68TRL; Length: 460 mm	Test rod	CN9356-011
RSTI-68TRA; Kit includes 2 short and 1 long testrod	Test rod	CN9358-011
RSTI-68TP	Terminating plug	CS9958-000
RSTI-68EA20; Ball diameter: 20 mm	Earthing adapter	CS8406-011
RSTI-68EA25; Ball diameter: 25 mm	Earthing adapter	CS8405-011
RSTI-SA-PIN	Coupling Pin	CU2787-011



Test rod



Terminating plug



Earthing adapter



## RSTI-SA

Raychem Screened Surge Arrester System 630 A for 12-36 kV

### FEATURES

- Angled screened surge arrester
- The conductive layer on the arrester and the insulating body protect against accidental contact
- Test point for capacitive voltage measurement
- The kits include materials for 3 phases

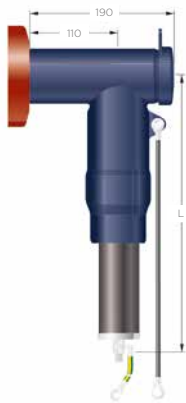
### APPLICATION

- The single adapter is used to connect to type C bushings in accordance with EN 50181 in compact switchgear
- The parallel adapter is connected to RSTI-58xx type connectors

### CONFORMS TO

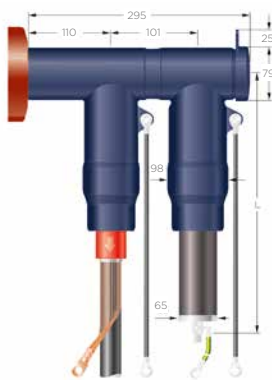
- Tested in accordance with IEC 60099-4 (May 2004)

### RSTI-SA



Product name	Rated voltage kV	Part number
<b>Single connection</b>		
RSTI-68SA1210	12	CS8930-000
RSTI-68SA2410	24	CS8925-000
RSTI-68SA3610	36	CS8920-000
<b>Parallel connection</b>		
RSTI-CC-68SA1210	12	CS3113-000
RSTI-CC-68SA2410	24	CS3114-069
RSTI-CC-68SA3610	36	CS3036-000

### Technical data for single and parallel connection



Discharge current $I_n$	10 kA
Current impulse 4/10 $\mu$ s	100 kA
Short circuit current $I_S$	20 kA
Long-duration current impulse (1ms)	212 A

Residual voltages (kV)			
Voltage class UC	12	24	36
Rated voltage $U_R$	15	30	45
<b>Current impulse 8/20 <math>\mu</math>s</b>			
5 kA	39.1	78.2	117.3
10 kA	41.5	83.0	124.5
20 kA	45.7	91.4	137.1
<b>Current impulse 1/20 <math>\mu</math>s</b>			
10 kA	43.9	87.8	131.7
<b>Current impulse 1/20 <math>\mu</math>s</b>			
125 kA	31.5	63.1	94.7
500 kA	32.4	64.9	97.4

## RPIT

Raychem Plug In Termination System up to 42 kV for Gas-insulated Switchgear up to 1250 A

### FEATURES

- Shielded inline connection for gas insulated switchgears up to 42 kV
- The plug in termination system is metal-enclosed, hermetically insulated and suitable for submersion or outdoor use
- Special designs for wind power stations and offshore applications with bronze protection covers

### APPLICATION

- Single core cables
- 50 - 630 mm<sup>2</sup> conductor size
- Inline bushings for connection type size 2 (800 A) and size 3 (1250 A) as per EN 50181

### CONFORMS TO

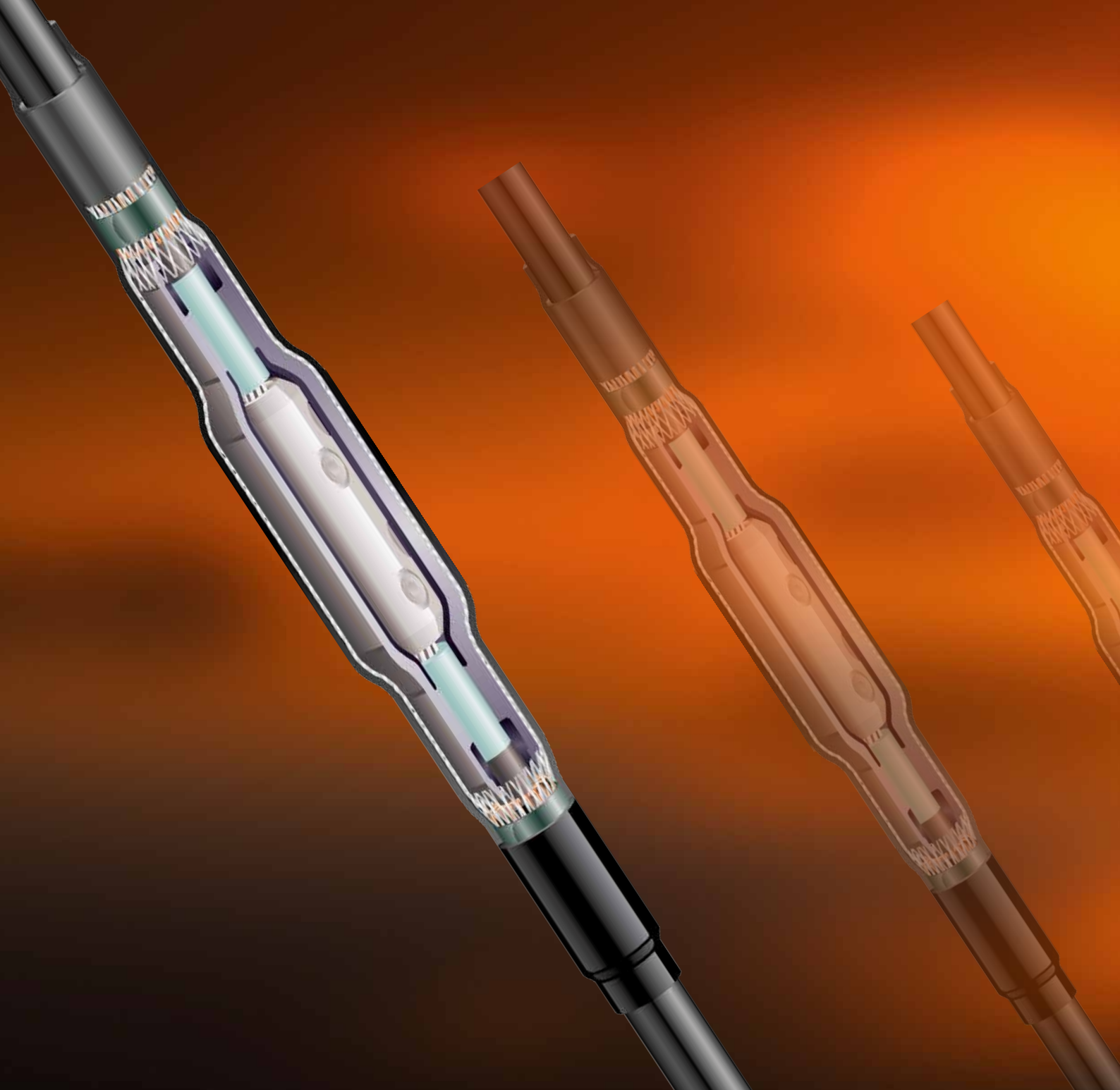
- Tested in accordance with CENELEC HD629.1 S2

### RPIT



Type	Size	Nominal current (A)	System voltage (kV)	Cross-section (mm <sup>2</sup> )	Diameter over conductor (mm)	Diameter over insulation (mm)
RPIT-321x	2	800	12	95-300	11.0-21.6	19.3-30.4
RPIT-521x	2	800	24	50-300	7.7-21.6	20.2-34.6
RPIT-621x	2	630	36/42	50-185	7.7-16.8	25.2-35.1
RPIT-331x	3	1250	12	240-630	17.8-32.5	26.4-39.6
RPIT-531x	3	1250	24	150-630	13.9-32.5	36.5-45.6
RPIT-631x	3	1250	36/42	95-630	11.0-32.5	28.5-49.2

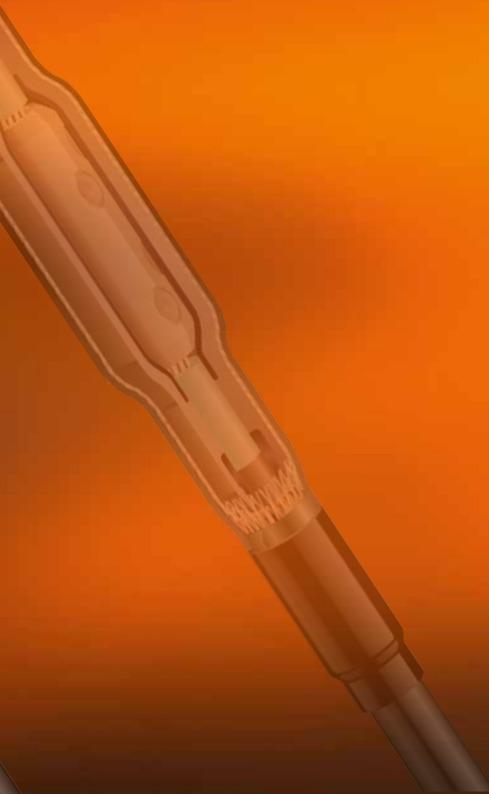




# Chapter II

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## TBS, TBJ

Raychem Low Voltage Resin Filled Joints for Armoured Cables up to 1 kV

### FEATURES

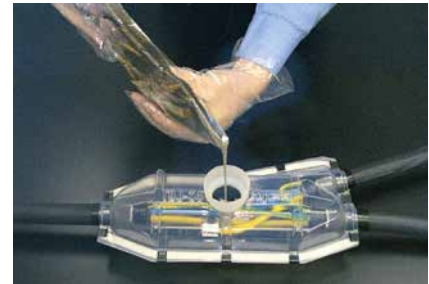
- Rigid clear high-impact shells
- Armour continuity components included
- Suitable for a broad range of connectors

### APPLICATION

- Designed for 2, 3 and 4 core cables up to 300 mm<sup>2</sup> with XLPE, PVC or EPR, with or without armour, PC or PE sheath

### CONFORMS TO

- BS 7888
- CENELEC HD623
- EN 50393



### TBS, TBJ

Product name	Conductor size (mm <sup>2</sup> )	Product name
BAH-038080672	TSJ-6	D44929-000
BAH-038080673	TSJ-16	C13884-000
BAH-038080674	TSJ-35	A80251-000
BAH-038080675	TSJ-70	A55202-000
BAH-038080676	TSJ-120	E96081-000
BAH-038080677	TSJ-185	E90897-000
BAH-038080678	TSJ-300	E92066-000
BAH-038080679	TBJ-6	A66977-000
BAH-038080680	TBJ-16	A71740-000
BAH-038080681	TBJ-35	C86482-000
BAH-038080682	TBJ-70	A52841-000
BAH-038080683	TBJ-120	E97389-000
BAH-038080684	TBJ-185	F04415-000
BAH-038080685	TBJ-300	C54263-000

## EPKJ and AR

Raychem Inline Joints for Plastic and Rubber Insulated Cables up to 1 kV, with or without Armour

### FEATURES

- Heat-shrink adhesive coated tubes.
- Wide application range
- Suitable for wide range of connectors

### APPLICATION

- Designed for 2, 3 and 4 core cables up to 300 mm<sup>2</sup> with XLPE, PVC or EPR, with or without armour, PVC or PE sheath

### CONFORMS TO

- EN 50393

### 1 kV 2 and 4 core joint for armoured cable



Product name	No of cores	Conductor size (mm <sup>2</sup> )	Part number
AR101 (SMOE-81283)	4	1.5 – 4	731401-000
AR102 (SMOE-81284)	4	6 – 16	086387-000
AR3 (EPKJ-0130-(S5))	4	25 – 50	630855-000
AR4 (EPKJ-0137-(S5))	4	70 – 150	378703-000
AR5 (EPKJ-0144-(S1))	4	185 – 300	602241-000

### 1 kV 4 core joint for unarmoured cable



Product name	No of cores	Conductor size (mm <sup>2</sup> )	Part number
EPKJ 0228-(S10)	4	1.5 – 6	676955-000
EPKJ 0235-(S10)	4	6 – 16	793331-000
EPKJ 0242(S10)	4	16 – 35	211661-000
EPKJ 0249(S5)	4	35 – 70	637809-000
EPKJ 0256(S5)	4	70 – 150	482979-000
EPKJ 0263(S5)	4	150 – 300	609695-000

NOTE 2 and 3 core applications on request. Joints exclude connectors.

## ECKJ

Raychem Inline Control Joints for Plastic Insulated Multi-core/ Multi-pair Cables up to 1 kV, with or without Armour



### FEATURES

- Heat-shrink adhesive coated tubes.

### APPLICATION

- Designed for multicore / multipair plastic insulated cables
- PVC or PE sheath

### CONFORMS TO

- EN 50393

### Multicore armoured

Product name	No of cores	Conductor size (mm <sup>2</sup> )	Part number
ECKJ-0017	4 – 7	1.0 – 2.5	786686-000
ECKJ-0018	8 – 14	1.0 – 2.5	786687-000
ECKJ-0019	15 – 21	1.0 – 2.5	786785-000
ECKJ-0020	22 – 40	1.0 – 2.5	786356-000
ECKJ-0021	41 – 75	1.0 – 2.5	786513-000

### Multipair armoured

Product name	No of pairs	Conductor size (mm <sup>2</sup> )	Part number
ECKJ-0140	1 – 4	0.6 – 1.0	802965-000
ECKJ-0141	5 – 7	0.6 – 1.0	786769-000
ECKJ-0142	8 – 19	0.6 – 1.0	803162-000
ECKJ-0143	20 – 37	0.6 – 1.0	786412-000
ECKJ-0144	38 – 61	0.6 – 1.0	786355-000

### Multipair unarmoured

Product name	No of pairs	Conductor size (mm <sup>2</sup> )	Part number
ECKJ-0393	15 – 20	0.6 – 1.0	786828-000
ECKJ-0395	25 – 30	0.6 – 1.0	946619-000





## RayGel Plus Joints

Raychem Joints for Cables up to 1 kV

### FEATURES

- Heat-shrink adhesive coated tubes
- Wide application range
- Suitable for wide range of connectors

### APPLICATION

- Designed for 2, 3 and 4 core cables up to 300 mm<sup>2</sup> with XLPE, PVC or EPR, with or without armour, PVC or PE sheath

### CONFORMS TO

- EN 50393

Joints

### Raychem RayGel Plus Joints

Product	Order number	Application range		Dimensions LxWxH (mm)	Connector size LxWxH (mm)	Kit content
		Main cable (mm <sup>2</sup> )	Branch cable (mm <sup>2</sup> )			
<b>Without Connector</b>						
RayGel Plus 0	CH6879-000	2-3 x 1.5 – 2.5 (1 x 10 – 50)	2-3 x 1.5 (1 x 10 – 16)	100 x 37 x 24	26 x 24 x 16	
RayGel Plus 1	CH6880-000	3-5 x 1.5 – 2.5 (1 x 10 – 50)	3-5 x 1.5 (1 x 10 – 16)	139 x 51 x 24	26 x 38 x 16	
<b>Including Universal Connector Block</b>						
RayGel Plus 2	CH6881-000	3-5 x 1.5 – 6	3-5 x 1.5 – 6	233 x 78 x 40	included	
RayGel Plus 3	CH6882-000	3-5 x 6 – 16	3-5 x 6 – 16	313 x 90 x 47	included	

## EPKJ

### Raychem 11-33 kV Jointing System for Straight and Transition Joints

Joint selection chart - choose one figure from the left hand column of each table

Typical part number: EPKJ 17 C 3XU 3SB -W

Voltage  
Cable size  
Insulation - Cable 1  
Insulation - Cable 2  
Armour

Voltage class	
17	11 – 17.5 kV
24	22 kV
36	33 kV

Size in mm <sup>2</sup>	11 kV	17.5 kV	22 kV	33 kV*
A	35 – 70	25 – 50	25	50 – 70
B	95 – 185	70 – 150	35 – 70	95 – 150
C	240 – 400	185 – 300	95 – 240	185 – 400
D	500 – 630	400 – 500	300 – 400	500 – 630

Cable 1 No. of cores	
1	for single-core cables
3	for 3-core cables

Insulation type	
XU	for polymeric (EPR or XLPE)
HL	for paper cables with lead sheath on each core
SB	for 3-core paper cables (screened or belted) with overall metal sheath

Cable 2 No. of cores	
1	for single-core cables
3	for 3-core cables

Insulation type	
XU	for polymeric (EPR or XLPE)
HL	for paper cables with lead sheath on each core
SB	for 3-core paper cables (screened or belted) with overall metal sheath

Armour**	
W	only to be used with 3c - 3c SWA cables

\* For 6.6 kV or 33 kV joint selection, contact your TE specialist distributor or your local TE office.

\*\* For single-core aluminium wire armoured cables, armour kit SMOE 61293 is required in addition to the joint kit.

## EPKJ

Raychem Medium Voltage Heat Shrink Cable Joints up to 17.5 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. EPKJ universal joints are suitable for a wide range of connectors and cable sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric, rubber and paper insulated MIND cables single and three core, armoured and non-armoured

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints up to 17.5 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>XLPE TO XLPE</b>		
<b>Single core to three core</b>		
EPKJ-17A/1XU-3XU	35 – 70	611905-011
EPKJ-17B/1XU-3XU	95 – 185	591811-011
EPKJ-17C/1XU-3XU	240 – 400	961580-011
<b>Three core to three core</b>		
EPKJ-17A/3XU-3XU	35 – 70	345116-011
EPKJ-17B/3XU-3XU	95 – 185	765410-011
EPKJ-17C/3XU-3XU	240 – 400	251291-011
<b>Three core to three core armoured</b>		
EPKJ-17A/3XU-3XU-W	35 – 70*	863732-011
EPKJ-17B/3XU-3XU-W	95 – 185*	467470-011
EPKJ-17C/3XU-3XU-W	240 – 400*	678746-011
<b>XLPE to paper insulated lead covered single core</b>		
EPKJ-17A/1XU-1HL	35 – 70	042316-011
EPKJ-17B/1XU-1HL	95 – 185	361308-011
EPKJ-17C/1XU-1HL	240 – 400	634912-011
EPKJ-17D/1XU-1HL	500 – 630	813649-011
<b>Paper insulated lead covered single core</b>		
EPKJ-17C/1HL-1HL	240 – 400	885779-011
EPKJ-17D/1HL-1HL	500 – 630	292748-011
<b>XLPE to paper insulated lead covered 3-core unarmoured</b>		
EPKJ-17A/3XU-3SB	35 – 70	179240-000
EPKJ-17B/3XU-3SB	95 – 185	226574-011
EPKJ-17C/3XU-3SB	240 – 400	545967-011
<b>XLPE to paper insulated lead sheathed 3-core armoured</b>		
EPKJ-17A/3XU-3SB-W	25 – 50	116472-011
EPKJ-17B/3XU-3SB-W	70 – 150	351372-011
EPKJ-17C/3XU-3SB-W	185 – 300	984248-011
<b>Paper insulated lead sheathed 3-core armoured</b>		
EPKJ-17A/3SB-3SB-W	25 – 50	144086-011
EPKJ-17B/3SB-3SB-W	70 – 150	098379-011
EPKJ-17C/3SB-3SB-W	185 – 300	114577-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-17B/1XU-3HL	95 – 185	635241-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-17A/1XU-3SB	35 – 70	652371-011
EPKJ-17B/1XU-3SB	95 – 185	650316-011
EPKJ-17C/1XU-3SB	240 – 400	747518-011
EPKJ-17D/1XU-3SB	500 – 630	098464-000

#### NOTE

SB for 3-core paper cables (screened or belted) with overall metal sheath.  
HL for paper cables with lead sheath on each core.  
Where possible use MXSU and MXSW product.

## EPKJ

Raychem Medium Voltage Heat Shrink Cable Joints up to 24 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. EPKJ universal joints are suitable for a wide range of connectors and cable sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric, rubber and paper insulated MIND cables
- single and three core, armoured and non-armoured

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints up to 24 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>XLPE TO XLPE</b>		
EPKJ-24D/1XU-3XU	300 – 400	858656-011
EPKJ-24D/3XU-3XU	300 – 400	209513-011
EPKJ-24B/3XU-3XU-W	35 – 70	961281-011
EPKJ-24C/3XU-3XU-W	95 – 240	741682-011
EPKJ-24D/3XU-3XU-W	300 – 400	425444-011
<b>XLPE to paper insulated lead covered single core</b>		
EPKJ-24B/1XU-1HL	35 – 70	533966-000
EPKJ-24C/1XU-1HL	95 – 240	110743-011
EPKJ-24D/1XU-1HL	300 – 400	818203-011
<b>Paper insulated lead covered single core</b>		
EPKJ-24B/1HL-1HL	35 – 70	712089-000
EPKJ-24C/1HL-1HL	95 – 240	122185-011
EPKJ-24D/1HL-1HL	300 – 400	861101-000
<b>XLPE to paper insulated lead sheathed 3-core unarmoured</b>		
EPKJ-24C/3XU-3SB	95 – 240	013208-011
<b>XLPE to paper insulated lead sheathed 3-core armoured</b>		
EPKJ-24C/3XU-3SB-W	95 – 240	600096-011
<b>XLPE to paper insulated lead covered 3-core unarmoured.</b>		
EPKJ-24C/3XU-3HL	95 – 240	634461-011
EPKJ-24D/3XU-3HL	300 – 400	736647-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-24A/1XU-3SB	25	655611-000
EPKJ-24B/1XU-3SB	35 – 70	866971-011
EPKJ-24C/1XU-3SB	95 – 240	972354-011
EPKJ-24D/1XU-3SB	300 – 400	025566-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-24B/1XU-3HL	35 – 70	026840-000
EPKJ-24C/1XU-3HL	95 – 240	861100-011
EPKJ-24D/1XU-3HL	300 – 400	338149-000

#### NOTE

SB for 3-core paper cables (screened or belted) with overall metal sheath.  
HL for paper cables with lead sheath on each core.  
Where possible use MXSU and MXSW product.

## EPKJ

Raychem Medium Voltage Heat Shrink Cable Joints up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. EPKJ universal joints are suitable for a wide range of connectors and cable sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric, rubber and paper insulated MIND cables single and three core, armoured and non-armoured

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>XLPE TO XLPE</b>		
EPKJ-36A/1XU-1XU	50 – 70	116908-011
EPKJ-36B/1XU-1XU	95 – 150	407944-011
EPKJ-36C/1XU-1XU	185 – 400	682466-011
EPKJ-36D/1XU-1XU	500 – 630	698309-011
EPKJ-36A/3XU-3XU-W	50 – 70	653639-011
EPKJ-36B/3XU-3XU-W	95 – 150	245043-011
EPKJ-36C/3XU-3XU-W	185 – 400	868075-011
<b>XLPE to paper insulated lead covered single core</b>		
EPKJ-36A/1XU-1HL	50 – 70	933038-011
EPKJ-36B/1XU-1HL	95 – 150	093715-011
EPKJ-36C/1XU-1HL	185 – 400	697197-011
EPKJ-36D/1XU-1HL	500 – 630	291626-011
SMOE-64222	500 poly to 1000 mm <sup>2</sup>	CS9849-011
<b>Paper insulated lead covered single core</b>		
EPKJ-36B/1HL-1HL	95 – 150	093715-011
EPKJ-36C/1HL-1HL	185 – 400	105526-011
EPKJ-36D/1HL-1HL	500 – 630	928072-011
<b>XLPE to paper insulated lead sheathed 3-core armoured</b>		
EPKJ-36C/3XU-3SB-W-GB01	185 – 240	CU8132-011
EPKJ-36B/3SB-3SB-W	95 – 150	267335-000
EPKJ-36C/3SB-3SB-W	185 – 400	012579-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-36A/1XU-3HL	50 – 70	756137-000
EPKJ-36B/1XU-3HL	95 – 150	018099-011
EPKJ-36C/1XU-3HL	185 – 400	021838-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-36A/1XU-3SB	50 – 70	348453-000
EPKJ-36B/1XU-3SB	95 – 150	016746-011
EPKJ-36C/1XU-3SB	185 – 400	815876-011

## SXSU

Raychem Medium Voltage Heat Shrink Cable Joints up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. SXSU joints are suitable for a wide range of conductor sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric single core non-armoured cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )		Part number
	12 kV	17.5 kV	
SXSU-3111	35 – 70	25 – 50	495201-011
SXSU-3121	95 – 185	50 – 120	974693-011
SXSU-3131	185 – 300	120 – 240	744973-011
SXSU-3141	300 – 500	240 – 300	801119-011
	12 kV	17.5 kV	
SXSU-4111	50 – 70	25 – 50	421541-000
SXSU-4121	95 – 185	50 – 150	164183-011
SXSU-4131	185 – 300	150 – 300	679883-011
SXSU-4141	400 – 630	400 – 500	177049-011
SXSU-4151	800 – 1200	630 – 800	E24076-011
<b>24 kV</b>			
SXSU-5121	35 – 95		435964-011
SXSU-5131	95 – 240		041653-011
SXSU-5141	240 – 500		406887-011
SXSU-5151	600 – 800		525605-011
SXSU-5161	1000 – 1200		C38614-011
<b>36 kV</b>			
SXSU-6122	35 – 150		310527-011
SXSU-6132	150 – 300		632893-011
SXSU-6141	185 – 400		816571-011
SXSU-6142	400 – 630		584493-011
SXSU-6151	500 – 800		873902-011
SXSU-6161	800 – 1200		D63970-011

NOTE Copper only.

## MXSU

Raychem Medium Voltage Heat Shrink Cable Joints up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. MXSU joints are supplied complete with mechanical phase and screen connectors suitable for a wide range of conductor sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric non-armoured cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV*</b>		
MXSU-3111	25 – 95	407853-011
MXSU-3121	70 – 150	233200-011
MXSU-3131	95 – 240	691269-011
MXSU-3132	150 – 300	CA7108-011
MXSU-3141	240 – 400	463998-011
MXSU-3151	500	CA7354-011
MXSU-3161	630	CB9319-011
MXSU-3171	800	CR6798-011
MXSU-3181	1000	CR8588-011
<b>175 kV*</b>		
MXSU-4111	50 – 95	354771-011
MXSU-4121	70 – 150	A26347-011
MXSU-4131	120 – 240	473477-011
MXSU-4132	150 – 300	CA7112-011
MXSU-4141	240 – 400	126738-000
MXSU-4151	500	CA7350-000
MXSU-5161	630	CB9318-011
MXSU-5171	800	CR6797-011
MXSU-5181	1000	CS0450-011
<b>24 kV*</b>		
MXSU-5111	25 – 95	191081-011
MXSU-5121	50 – 150	C44894-011
MXSU-5131	95 – 240	743209-011
MXSU-5132	150 – 300	CA7110-011
MXSU-5141	240 – 400	140138-011
MXSU-5151	500	CA7352-011
MXSU-5161	630	CB9318-011
MXSU-5171	800	CR6797-011
MXSU-5181	1000	CS0450-011
<b>36 kV*</b>		
MXSU-6111	35 – 95	495780-011
MXSU-6121	70 – 150	A29218-011
MXSU-6131	150 – 300	124108-011
MXSU-6141	240 – 400	390610-011
MXSU-6151	500	D16648-011
MXSU-6161	630	CB9317-011
MXSU-6171	800	CS0650-000
MXSU-6181	1000	CS0455-011
<b>XLPE single core to paper insulated lead sheathed 3-core</b>		
EPKJ-36A/1XU-3SB	50 – 70	348453-000
EPKJ-36B/1XU-3SB	95 – 150	016746-011
EPKJ-36C/1XU-3SB	185 – 400	815876-011

\* Due to different conductor constructions & dimensions in use with mechanical connectors supplied in the MXSU kit, the application range may differ. For more detailed information refer to the jointing Instructions

## MXSU

Raychem Medium Voltage Heat Shrink Size Transition Cable Joints up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. MXSU joints are supplied complete with mechanical phase and screen connectors suitable for a wide range of conductor sizes with no limitations on shelf life

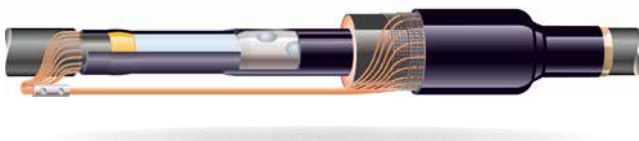
### APPLICATION

- Suitable for polymeric non-armoured cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink size transition cable joints up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV</b>		
MXSU-3131-T2	25/95 – 95/240	CN7183-011
MXSU-3141-T4	95/240 – 185/400	CP5161-011
MXSU-3151-T6	185/400 – 500	CN1151-011
MXSU-3161-T7	185/400 – 630	CP5159-011
MXSU-3181-T8	630 – 1000	CH5694-011
<b>17.5 kV</b>		
MXSU-4131-T2	50/95 – 95/240	CP5152-011
MXSU-4151-T6	185/400 – 500	CP4225-000
<b>24 kV</b>		
MXSU-5131-T2	25/95 – 95/240	CP3812-000
MXSU-5141-T4	95/240 – 240/400	CP5162-011
MXSU-5151-T6	185/400 – 500	CP4226-011
MXSU-5161-T6	185/400 – 630	CP4815-011
MXSU-5161-T7	500 – 630	CP5164-000
MXSU-5171-T8	630 – 800	CU8691-011
<b>36 kV</b>		
MXSU-6141-T4	95/240 – 240/400	CP5163-011
MXSU-6151-T6	185/400 – 500	CP5840-011
MXSU-6161-T6	185/400 – 630	CP5841-000
MXSU-6161-T7	500 – 630	CP4224-011
MXSU-6171-T8	630 – 800	CS4608-011
MXSU-6181-T8	630 – 1000	CS4570-011

#### NOTE

Due to different conductor constructions & dimensions in use with mechanical connectors, supplied in the MXSU kit, the application range may differ. For more detailed information refer to the jointing instructions.



## MXSB Joints

Raychem Medium Voltage Heat Shrink Branch Joints up to 24 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. MXSU joints are supplied complete with mechanical phase and screen connectors suitable for a wide range of conductor sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric non-armoured cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink branch joints up to 24 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
MXSB-12A/1XU-2XU	35 – 95	CY8432-011
MXSB-12B/1XU-2XU	70 – 185	CX7295-011
MXSB-12C/1XU-2XU	150 – 300	CH7294-011
MXSB-24A/1XU-2XU	35 – 95	CY8433-011
MXSB-24B/1XU-2XU	70 – 185	CH7297-011
MXSB-24C/1XU-2XU	150 – 300	CH7296-011

## MXAW / SXAW

Raychem Medium Voltage Heat Shrink Cable Joints for Aluminium Wire Armoured Cables up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. MXAW joints are supplied complete with mechanical phase and screen connectors
- SXAW are supplied without connectors
- Suitable for a wide range of conductor sizes with no limitations on shelf life

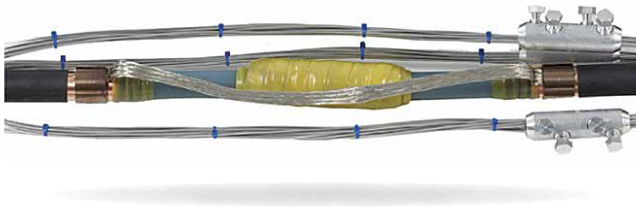
### APPLICATION

- Suitable for polymeric Aluminium Wire Armoured (AWA) cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints for aluminium wire armoured cables up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV</b>		
SXAW-3121	95 – 185	233081-011
SXAW-3131	185 – 300	174325-011
SXAW-3141	400 – 500	755643-011
SXAW-3151	630 – 800	707034-000
<b>17.5 kV</b>		
SXAW-3121	70 – 120	233081-011
SXAW-3131	150 – 240	174325-011
SXAW-3141	300 – 400	755643-011
SXAW-3151	500 – 630	707034-000
<b>24 kV</b>		
SXAW-5121	50 – 95	CA5973-011
SXAW-5131	120 – 185	304733-011
SXAW-5141	185 – 400	020745-011
SXAW-5151	500 – 630	564361-011
<b>24 kV</b>		
MXAW-5131	95 – 185	CN6571-011
MXAW-5132	150 – 300	CN6573-011
MXAW-5141	240 – 400	CB2695-011
MXAW-5151	500	CN6574-011
MXAW-5161	630	CN6572-011
<b>36 kV</b>		
SXAW-6122	50 – 95	CA5972-011
SXAW-6132	120 – 240	151361-011
SXAW-6142	300 – 630	814905-011
MXAW-6131	150 – 300	CV2754-011

## MXSW / SXS

Raychem Medium Voltage Heat Shrink Cable Joints for Wire Armoured Cables up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control. MXSW joints are supplied complete with mechanical phase and screen connectors
- SXS are supplied without connectors.
- Suitable for a wide range of conductor sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric Wire Armoured (SWA) cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink cable joints for wire armoured cables up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV (17.5 kV max)</b>		
MXSW-3311-GB01	35 – 95	CL9590-000
MXSW-3331	95 – 240	CM4856-011
MXSW-3332	150 – 300	CM4855-011
<b>17.5 kV</b>		
MXSW-4332	150 – 300	CM4858-011
<b>24 kV</b>		
MXSW-5331	95 – 240	CM4852-011
<b>12 kV (17.5 kV max)</b>		
SXS-4304	16 – 35*	768369-011
SXS-4314	50 – 70*	954607-011
SXS-4324	95 – 185*	457975-011
SXS-4334	185 – 300*	021398-011
SXAW-5131	120 – 185	304733-011
SXAW-5141	185 – 400	020745-011
SXAW-5151	500 – 630	564361-011
<b>24 kV</b>		
MXAW-5131	95 – 185	CN6571-011
MXAW-5132	150 – 300	CN6573-011
MXAW-5141	240 – 400	CB2695-011
MXAW-5151	500	CN6574-011
MXAW-5161	630	CN6572-011
<b>36 kV</b>		
SXAW-6122	50 – 95	CA5972-011
SXAW-6132	120 – 240	151361-011
SXAW-6142	300 – 630	814905-011
MXAW-6131	150 – 300	CV2754-011

## MXSE, EPKE

Raychem Medium Voltage Heat Shrink Live End Seals for Single Core Unarmoured Cable up to 36 kV

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control
- Suitable for a wide range of conductor sizes with no limitations on shelf life

### APPLICATION

- Suitable for polymeric

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage heat shrink live end seals for single core unarmoured cable up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>11 kV</b>		
MXSE- 3131	95 – 240	CH7225-011
MXSE- 3141	240 – 400	CH7320-011
MXSE- 3151	500	CH7319-011
<b>24 kV</b>		
MXSE- 5131	95 – 240	CH7226-011
MXSE- 5141	240 – 400	CH7452-011
MXSE- 5151	500	CH7453-011
<b>36 kV</b>		
EPKE-36C/1XU	120 – 400	278807-011

## SHSS - ShrinkSet

Raychem ShrinkSet Universal Jointing System for 12 kV 3-core Polymeric and Paper Cables

### FEATURES

- Pre-engineered range taking heat-shrinkable tubings incorporating precisely engineered impedance stress control
- Shrinkset joints are supplied complete with mechanical phase and screen connectors suitable for a wide range of conductor sizes with no limitations on shelf life
- Joints exclude resin and are suitable for use with standard polyurethane resin

### APPLICATION

- Suitable for polymeric and paper cables, armoured and unarmoured

### CONFORMS TO

- Electricity Association specification ER C90

### Raychem ShrinkSet universal jointing system for 12 kV 3-core polymeric and paper cables



Product name	Conductor size (mm <sup>2</sup> )	Resin volumes	Part number
<b>Straight joints</b>			
SHSS 12A IND	70 – 185	14	799501-000
SHSS 12B IND	185 – 300	28	839121-000
<b>Trifurcating 3-core to three single cores 3-core XLPE SWA to 3 x Single core Poly, CWS - unarmoured</b>			
SMOE 63180	95 – 185	26	E07331-000
SMOE 63181	185 – 300	26	288978-000
<b>3-core PILC/PICAS SWA to 3 x Single core Poly,CWS - unarmoured</b>			
SMOE 63410*	70 – 185	14	F88630-000
SMOE 63411*	185 – 300	26	D48501-000
<b>Branch joint</b>			
SMOE 61987	95 – 185	36	936473-000
SMOE 61988	185 – 300	48	581469-000
<b>Loop Joint*</b>			
SMOE 63749	95 – 185	27	CM8097-000
SMOE 63750	185 – 300	38	CM8112-000
<b>Pot End</b>			
SMOE 62668	95 – 300	14	515507-000

#### NOTE

A range of build up kits are available to cover smaller cross sections used in larger pattern joints, please contact technical services for details.

## CSJA

Raychem Medium Voltage All In One Cold Applied Cable Joints up to 36 kV

### FEATURES

- Joint body, earthing system and re-jacketing pre-expanded on one holdout system
- Single piece silicone rubber joint body with high mechanical expansion capability allows a wide application range
- Electrical stress control of the screen cut area by integrated conductive geometrical stress cones
- Electrical stress control of the connector area by an integrated screened connection area (Faraday cage)
- Short parking distance required
- Easy-to-install joint system with short installation time

### APPLICATION

- Suitable for polymeric non-armoured cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage all in one cold applied cable joints up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Product name
<b>12 kV</b>		
CSJA-12B/1XU-1XU	95 – 240	CJ7358-000
CSJA-12C/1XU-1XU	185 – 300	ON REQUEST
CSJA-12D/1XU-1XU	240 – 400	ON REQUEST
CSJA-12E/1XU-1XU	500 – 800	ON REQUEST
<b>24 kV</b>		
CSJA-24B/1XU-1XU	35 – 185	CJ7356-011
CSJA-24C/1XU-1XU	95 – 300	CL0759-011
CSJA-24D/1XU-1XU	185 – 400	ON REQUEST
CSJA-24E/1XU-1XU	400 – 630	CL0760-011
CSJA-24F/1XU-1XU	800 – 1000	CN3900-011
<b>36 kV</b>		
CSJA-36D/1XU-1XU	70 – 240	CL0758-000
CSJA-36E/1XU-1XU	240 – 630	CL0757-011
CSJA-36F/1XU-1XU	500 – 800	CN3899-011
<b>With mechanical connector</b>		
<b>12 kV</b>		
CSJA-12B/1XU-1XU-M	95 – 240	CJ7354-011
CSJA-12C/1XU-1XU-M	185 – 300	CF9870-011
CSJA-12D/1XU-1XU-M	240 – 400	CJ9876-000
CSJA-12E/1XU-1XU-M1	500	CJ9891-000
CSJA-12E/1XU-1XU-M2	630	CJ9892-011
<b>24 kV</b>		
CSJA-24B/1XU-1XU-M	35 – 150	CJ7360-011
CSJA-24C/1XU-1XU-M1	95 – 240	D41410-011
CSJA-24C/1XU-1XU-M2	120 – 300	CF9869-000
CSJA-24D/1XU-1XU-M	185 – 400	CJ9877-011
CSJA-24E/1XU-1XU-M1	500	ON REQUEST
CSJA-24E/1XU-1XU-M2	630	CJ9889-011
<b>36 kV</b>		
CSJA-36D/1XU-1XU-M	95 – 240	CL1172-011
CSJA-36E/1XU-1XU-M1	240 – 400	CL1171-011
CSJA-36E/1XU-1XU-M2	500	CJ9888-011
CSJA-36E/1XU-1XU-M3	630	CJ9887-011

### End seal kits

For CSJA 'D'	CSJ-EndSeal-Kit-C-GB02	CP8377-000
For CSJA 'E'	CSJ-Endseal-Kit-E-GB01	CS4125-000
For CSJA 'F'	CSJ-Endseal-Kit-F-GB04	CV5031-000

## CSJH

Raychem Medium Voltage Cold applied Straight Joints With Heat Shrink Protection up to 36 kV

### FEATURES

- Well proven WCSM high impact outer jacket
- Single piece silicone rubber joint body with high mechanical expansion capability allows a wide application range
- Electrical stress control of the screen cut area by integrated conductive geometrical stress cones
- Electrical stress control of the connector area by an integrated screened connection area (Faraday cage)
- Short parking distance required
- Easy-to-install joint system with short installation time

### APPLICATION

- Suitable for polymeric non-armoured cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage cold applied cable joints with heat shrink outer jacket up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV</b>		
CSJH-12B/1XU-1XU	95 – 240	ON REQUEST
CSJH-12C/1XU-1XU	185 – 300	ON REQUEST
CSJH-12D/1XU-1XU	240 – 400	ON REQUEST
CSJH-12E/1XU-1XU	500 – 800	ON REQUEST
CSJH-12B/3XU-3XU	95 – 240	ON REQUEST
CSJH-12C/3XU-3XU	185 – 300	ON REQUEST
<b>24 kV</b>		
CSJH-24B/1XU-1XU	35 – 185	ON REQUEST
CSJH-24C/1XU-1XU	95 – 300	703648-000
CSJH-24D/1XU-1XU	185 – 400	ON REQUEST
CSJH-24E/1XU-1XU	400 – 630	ON REQUEST
CSJH-24F/1XU-1XU	800 – 1000	ON REQUEST
CSJH-24B/3XU-3XU	35 – 185	ON REQUEST
CSJH-24C/3XU-3XU	95 – 300	ON REQUEST
<b>36 kV</b>		
CSJH-36D/1XU-1XU	70 – 240	ON REQUEST
CSJH-36E/1XU-1XU	240 – 630	CJ9512-011
CSJH-36F/1XU-1XU	500 – 800	ON REQUEST
<b>With Mechanical Connector</b>		
<b>12 kV</b>		
CSJH-12B/1XU-1XU-M	95 – 240	ON REQUEST
CSJH-12C/1XU-1XU-M	185 – 300	ON REQUEST
CSJH-12D/1XU-1XU-M	240 – 400	ON REQUEST
CSJH-12E/1XU-1XU-M1	500	ON REQUEST
CSJH-12E/1XU-1XU-M2	630	ON REQUEST
<b>24 kV</b>		
CSJH-24B/1XU-1XU-M	35 – 150	ON REQUEST
CSJH-24C/1XU-1XU-M1	95 – 240	ON REQUEST
CSJH-24C/1XU-1XU-M2	120 – 300	ON REQUEST
CSJH-24D/1XU-1XU-M	185 – 400	ON REQUEST
CSJH-24E/1XU-1XU-M1	500	ON REQUEST
CSJH-24E/1XU-1XU-M2	630	ON REQUEST
<b>36 kV</b>		
CSJH-36D/1XU-1XU-M	95 – 240	ON REQUEST
CSJH-36E/1XU-1XU-M1	240 – 400	ON REQUEST
CSJH-36E/1XU-1XU-M2	500	ON REQUEST
CSJH-36E/1XU-1XU-M3	630	ON REQUEST

## CSJT

Raychem Medium Voltage Cold Applied Cable Joints for 3-Core Cables with Resin Encapsulation to 24 kV

### FEATURES

- High impact plastic shell suitable for polyurethane resin
- Pre-expanded, single piece silicone rubber joint body with high mechanical expansion capability allows a wide application range
- Electrical stress control of the screen cut area by integrated conductive geometrical stress cones
- Electrical stress control of the connector area by an integrated screened connection area (Faraday cage)

### APPLICATION

- Suitable for polymeric non-armoured cables
- Fast and easily filled resin outer sealing and protection system providing effective impact resistance
- Hard-elastic polyurethane-type encapsulation with excellent insulation properties, hydrolytic stability and hydrophobic characteristics

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage cold applied cable joints for 3-core cables with resin encapsulation to 24 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>12 kV</b>		
CSJT-12B/3XU-3XU-H	95 – 240	CM2160-000
CSJT-12C/3XU-3XU-H	185 – 300	ON REQUEST
<b>24 kV</b>		
CSJT-24B/3XU-3XU-H	35 – 185	CM2162-011
CSJT-24C/3XU-3XU-H	95 – 300	ON REQUEST

#### NOTE

Joints exclude connectors and resin  
Other sizes/ voltages available on request



## CATJ

Raychem Medium Voltage Cold-Applied Transition Joints for 3 Core Paper to Polymeric Cables up to 36 kV

### FEATURES

- High impact plastic shell suitable for polyurethane resin
- Novel crutch filling and core sealing materials providing high-quality oil-blocking properties
- Single piece silicone rubber joint body with high mechanical expansion capability allows a wide application range
- Electrical stress control of the screen cut area by integrated conductive geometrical stress cones
- Electrical stress control of the connector area by an integrated screened connection area (Faraday cage)
- Short parking distance required
- Easy-to-install joint system with short installation time

### APPLICATION

- Suitable for polymeric Wire Armoured (SWA) cables

### CONFORMS TO

- CENELEC and IEC standards

### Raychem medium voltage cold applied transition joints, resin filled up to 36 kV



Product name	Conductor size (mm <sup>2</sup> )	Part number
<b>3-core MIND paper to single core polymeric</b>		
<b>12 kV</b>		
CATJ-12C/1XU-3SB	95 – 240	ON REQUEST
CATJ-12B/1XU-3SB	185 – 300	ON REQUEST
<b>24 kV</b>		
CATJ-24C/1XU-3SB	95 – 240	ON REQUEST
<b>36 kV</b>		
CATJ-36D/1XU-3SB	95 – 240	ON REQUEST
<b>3-core MIND paper to three core polymeric</b>		
<b>24 kV</b>		
CATJ-12C/3XU-3SB	95 – 240	ON REQUEST
CATJ-12B/3XU-3SB	185 – 300	ON REQUEST
<b>36 kV</b>		
CATJ-24C/3XU-3SB	95 – 240	ON REQUEST
<b>36 kV</b>		
CATJ-36D/3XU-3SB	95 – 240	ON REQUEST
MXAW-5151	500	CN6574-011
MXAW-5161	630	CN6572-011
<b>36 kV</b>		
SXAW-6122	50 – 95	CA5972-011
SXAW-6132	120 – 240	151361-011
SXAW-6142	300 – 630	814905-011
MXAW-6131	150 – 300	CV2754-011





## Chapter III Tubing and Moulded Parts

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WCSM Raychem heat-shrink tubing, thick wall, weathering and UV-resistant with adhesive.....	53
WCSF - Nuclear Tubing Raychem thick wall, flame retardant, radiation resistant heat-shrink tubing for nuclear applications with or without adhesive.....	54
CNTM Raychem electrically conductive heat-shrink tubing.....	55
FCSM Raychem thick wall flame retardant heat-shrink tubing with adhesive coating.....	55
ZCSM Raychem heat-shrinkable halogen-free, heavy-wall tubing for low fire hazard areas.....	56
CRSM Raychem heat-shrinkable halogen-free wraparound system for plastic or metal sheathed cable repair.....	57
CWRT Raychem heat-shrinkable reinforced wrap-around sheath repair kit.....	55
End caps For the protection of cable ends.....	58
Breakouts For low voltage 2, 3 and 4-core with or without shielding.....	59

## MWTM

Raychem heat-shrink tubing, medium wall, weather and UV-resistant, with or without adhesive

### FEATURES

- Made of modified polyolefin with very high electrical, mechanical, weathering and corrosion properties
- For a tight connection or stress relief, the tubing is available with an internal adhesive coating that melts and seals when shrinkage occurs with heat
- Continuous operating temperature -40°C to +120°C
- Halogen-free, UV and weather resistant

### APPLICATION

- For electrical insulation where good insulation and mechanical protection is required.
- For protection against UV radiation on tails in the case of low-voltage terminations, as well as corrosion protection.

### Length 1500 mm, adhesive-coated



Product name	Application range (mm)	Inner diameter (mm) <sup>1</sup>		Wall thickness (mm) <sup>1</sup>		Length (mm)	Pack pc	Part Number
		A	B	A	B			
MWTM-10/3-1500/S(S15)	3.5 – 9.0	10	3	0.4	1.0	1500	25	320696-000
MWTM-16/5-1500/S(S15)	5.5 – 14.0	16	5	0.5	1.5	1500	25	830732-000
MWTM-25/8-1500/S(S10)	8.5 – 22.0	25	8	0.7	2.0	1500	10	142782-000
MWTM-35/12-1500/S(10)	13.0 – 32.0	35	12	0.7	2.0	1500	10	219394-000
MWTM-50/16-1500/S(10)	17.0 – 45.0	50	16	0.7	2.0	1500	10	195494-000
MWTM-63/19-1500/S(5)	21.0 – 57.0	63	19	0.8	2.5	1500	10	514202-000
MWTM-75/22-1500/S(5)	24.0 – 68.0	75	22	0.9	3.0	1500	5	264027-000
MWTM-85/25-1500/S(5)	27.0 – 76.0	85	25	0.9	3.0	1500	5	115518-000
MWTM-95/29-1500/S(5)	31.0 – 85.0	95	29	1.0	3.3	1500	5	326745-000
MWTM-115/34-1500/S(5)	36.0 – 100.0	115	34	1.0	3.3	1500	5	746340-000
MWTM-140/42-1500/S(5)	44.0 – 125.0	140	42	1.0	3.5	1500	5	352310-000
MWTM-160/50-1500/S(5)	52.0 – 145.0	160	50	1.0	3.5	1500	5	663016-000
MWTM-180/60-1500/S(5)	62.0 – 162.0	180	60	1.1	3.5	1500	5	761200-000
MWTM-245/80-1500	88.0 – 220.0	245	80	n.a.	2.4	1500	5	ON REQUEST
MWTM-285/135	149.0 – 255.0	285	135	n.a.	1.4	1500	5	ON REQUEST

*	Uncoated only.
NOTE	Other length available on request

### Running on spool, not adhesive-coated

Product name	Application range (mm)	Inner diameter (mm) <sup>1</sup>		Wall thickness (mm) <sup>1</sup>		Pack m	Part Number
		A	B	A	B		
MWTM-10/3-A/U-4(S40)	3.5 – 9.0	10	3	0.4	1.0	40	283807-000
MWTM-16/5-A/U-4(S40)	5.5 – 14.0	16	5	0.5	1.5	40	497587-000
MWTM-25/8-A/U-4(S40)	8.5 – 22.0	25	8	0.7	2.0	40	651145-000
MWTM-35/12-A/U-4(S30)	13.0 – 32.0	35	12	0.7	2.0	30	981425-000
MWTM-50/16-A/U-4(S25)	17.0 – 45.0	50	16	0.7	2.0	25	035001-000
MWTM-63/19-A/U-4(S15)	21.0 – 57.0	63	19	0.8	2.5	15	874903-000
MWTM-75/22-A/U-4(S10)	24.0 – 68.0	75	22	0.9	3.0	10	373921-000

<sup>1</sup> A = As supplied, and B = after free recovery.  
Longitudinal change +5 to -15% up to 43/12 and +5 to -10% from 51/16

## WCSM

Raychem heat-shrink tubing, thick wall, weathering and UV-resistant with adhesive

### FEATURES

- Made of modified polyolefin with very high electrical, mechanical, weathering and corrosion properties
- For a tight connection or stress relief, the tubing is available with an internal adhesive coating that melts and seals when shrinkage occurs with heat
- Continuous operating temperature -40°C to +120°C
- Halogen-free, UV and weather resistant

### APPLICATION

- For electrical insulation where good insulation and mechanical protection is required.

### Length 1000 mm, adhesive-coated



Product name	Application range (mm)	Inner diameter (mm) <sup>1</sup>		Wall thickness (mm) <sup>1</sup>		Length (mm)	Pack pc	Part Number
		A	B	A	B			
WCSM-12/3-1500/S(S20)	3.5 – 10.0	12	3	0.8	2.0	1500	20	CU9253-000
WCSM-16/4-1500/S(S20)	4.5 – 14.0	16	4	0.9	2.4	1500	20	CU9272-000
WCSM-24/6-1500/S(S10)	6.5 – 22.0	24	6	1.0	2.7	1500	10	CU9434-000
WCSM-34/8-1500/S(S10)	9.0 – 31.0	34	8	1.3	4.0	1500	10	CU7134-000
WCSM-48/12-1500/S(S10)	13.0 – 44.0	48	12	1.5	4.5	1500	10	CU8545-000
WCSM-56/16-1500/S(S10)	17.5 – 50.0	56	16	1.5	4.4	1500	10	CU7529-000
WCSM-70/20-1500/S(S5)	22.0 – 63.0	70	20	1.4	4.4	1500	5	CU4493-000
WCSM-90/25-1500/S(S5)	27.0 – 81.0	90	25	1.3	4.3	1500	5	CU4610-000
WCSM-110/30-1500/S(S5)	33.0 – 100.0	110	30	1.2	4.3	1500	5	CU6594-000
WCSM-130/35-1500/S(S5)	38.0 – 118.0	130	35	1.2	4.3	1500	5	CU4649-000
WCSM-160/50-1500/S(S5)	55.0 – 144.0	160	50	1.0	4.3	1500	5	846444-000
WCSM-180/50-1500/S(S5)	55.0 – 162.0	180	50	1.0	4.3	1500	5	169440-000

<sup>1</sup>

A = As supplied, and B = after free recovery. Longitudinal change +5 to -15% up to 48/12 and +5 to -10% from 56/16

## WCSF - Nuclear Tubing

Raychem thick wall, flame retardant, radiation resistant heat-shrink tubing for nuclear applications with or without adhesive

### FEATURES

- Thick wall, flexible, flame retardant and radiation resistant heat-shrink tubing with very high insulation values
- For a tight connection, the tubing is available with an internal sealant that also provides protection against radiation
- Sealing compound, which melts during shrinkage to provide a tight connection

### APPLICATION

- For insulation up to 1 kV where there are high demands on operational reliability under difficult conditions, with flame retardant protection and resistance to radiation, for example, inside and outside the reactor containment in a nuclear power station.
- Included as part of Raychem's joint kits for nuclear power stations.

### CONFORMS TO

- The tubing is tested thermally in accordance with LOCA and HELB at normal temperature +90°C, overload +130°C and short circuit +250°C.

### WCSF



Tubing Size	Std length (mm)	Application range (mm)	H		W	Part Number Without Adhesive (/U)	Part Number With Adhesive (/N)
			A min	B max	B min		
WCSF-050-3/1-1000	1000	1.3 – 1.8	3.3	1.3	0.9	424396-000	F43237-000
WCSF-070-6/2-1000	1000	1.8 – 4.4 (3.6)*	6.4	1.8	1.9	367110-000	718136-000
WCSF-115-9/3-1000	1000	2.9 – 7.3 (5.8)*	8.9	2.9	2.2	596418-000	677636-000
WCSF-200-18/5-1000	1000	5.1 – 12.7 (10.2)*	17.8	5.1	2.5	778436-000	128928-000
WCSF-300-28/8-1000	1000	7.9 – 19.0 (15.2)*	27.9	7.6	3.8	126120-000	093438-000
WCSF-500-38/13-1000	1000	14.0 – 32.0	38.1	12.7	4.3	499734-000	567090-000
WCSF-650-50/17-1000	1000	18.0 – 41.0	50.8	16.5	4.3	438970-000	808390-000
WCSF-1000-76/26-1000	1000	28.0 – 64.0	76.2	25.4	4.3	D50415-000	654040-000
WCSF-1500-114/38-1000	1000	43.0 – 97.0	114.3	38.1	4.3	F80657-000	ON REQUEST
WCSF-2500-177/63-1000	1000	70.0 – 159.0	177.8	63.5	4.3	ON REQUEST	D30480-000

\* Maximum use range over bolted connections.

NOTE Other lengths on request. All lengths are within the tolerance for normal cutting. Adhesive-coated tubing is not available on spools.

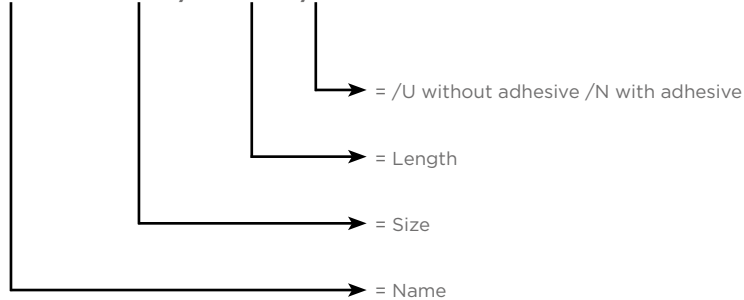
Longitudinal change +0% to -10% Dimensions in mm

a = as supplied

b = after free recovery

### Ordering example standard length

WCSF-070-6/2-1000/U



## CNTM

Raychem electrically conductive heat-shrink tubing

### FEATURES

- The tubing is made from a carbon-based electrically conductive polymer material

### APPLICATION

- The tubing used as electrical shielding in Raychem joints and terminations up to 36 kV.

### CNTM



Product name	Application range (mm)	Inner diameter (mm) <sup>1</sup>		Wall thickness (mm) <sup>1</sup>		Pack pc	Part Number
		A	B	A	B		
CNTM-20/8-A/U-4(S30)	9 – 18	20	8	0.8	1.8	30	549577-000
CNTM-26/12-A/U-4(S15)	13 – 23	26	12	0.8	2.0	15	562491-000
CNTM-42/16-A/U-4(S15)	17 – 36	42	16	0.8	2.4	15	510399-000
CNTM-65/24-A/U-4(S10)	26 – 58	65	24	0.8	2.4	10	723379-000
CNTM-120/50-A/U-4(S10)	52 – 100	120	50	0.8	2.4	10	169989-000

<sup>1</sup> A = As supplied, and B = after free recovery  
Longitudinal change 0-10%.

## FCSM

Thick wall flame retardant heat-shrink tubing with adhesive coating

### FEATURES

- Made from a flexible, flame retardant, cross linked material with excellent abrasion resistance properties
- The tubing is coated with adhesive
- Continuous operating temperature  $-40^{\circ}\text{C}$  to  $+110^{\circ}$

### APPLICATION

- For the insulation of joints in the mining, construction and transport industries and similar fields where flexibility and flame retardation are required.
- Included as a part of some Raychem joint kits.

### FCSM



Product name	Application range (mm)	Inner diameter (mm) <sup>1</sup>		Wall thickness (mm) <sup>1</sup>		Length m	Pack pc	Part Number
FCSM-9/3-1200/S(S10)	3.5 – 8.0	9	3	0.6	2.0	1200	10	324732-000
FCSM-19/6-1200/S(S10)	6.5 – 17.0	19	6	0.7	2.4	1200	10	425980-000
FCSM-28/9-1200/S(S10)	10.0 – 25.0	28	9	0.8	3.2	1200	10	278828-000
FCSM-38/12-1200/S(S5)	13.0 – 34.0	38	12	1.0	4.1	1200	5	048552-000
FCSM-51/16-1200/S(S5)	17.5 – 46.0	51	16	1.0	4.1	1200	5	472638-000
FCSM-68/22-1200/S(S5)	24.0 – 61.0	68	22	1.0	4.1	1200	5	414882-000
FCSM-90/30-1200/S(S5)	33.0 – 81.0	90	30	1.0	4.1	1200	5	672070-000
FCSM-120/40-1200/S(S5)	44.0 – 108.0	120	40	1.0	4.1	1200	5	970350-000
FCSM-177/63-1200/S(S5)	69.0 – 159.0	177	63	1.0	4.1	1200	5	838606-000

<sup>1</sup> A= as supplied, and B = after free recovery.  
Longitudinal change +5% to -15%.

## ZCSM

Raychem heat-shrinkable halogen-free, heavy-wall tubing for low fire hazard areas

### FEATURES

- Low fire hazard material with low smoke, low toxicity and low acid gas generation
- Prevents corrosion damage by halogenated materials to equipment

### APPLICATION

- For insulation and protection of personnel and equipment, especially in confined areas

### ZCSM



Tubing Size	Application range (mm)	H		W		Part Number
		A max	B min	A* min	B min	
ZCSM-8/3-1500/U	3.5 – 7.0	8	3	0.6	2.0	325585-000
ZCSM-16/5-1500/U	5.5 – 14.5	16	5	0.7	2.4	190625-000
ZCSM-24/8-1500/U	9.0 – 21.5	24	8	0.9	2.9	953711-000
ZCSM-32/12-1500/U	13.0 – 29.0	32	12	1.0	4.0	896101-000
ZCSM-45/16-1500/U	17.5 – 40.5	45	16	1.0	4.0	244025-000
ZCSM-60/22-1500/U	24.0 – 54.0	60	22	1.0	4.0	581907-000
ZCSM-70/25-1500/U	27.5 – 63.0	70	25	1.0	4.0	983291-000
ZCSM-85/36-1000/U	39.5 – 76.5	85	36	1.0	4.0	759985-000
ZCSM-120/50-1500/U	55.0 – 108.0	120	50	1.0	4.2	F19864-000
ZCSM-180/75-1500/U	82.5 – 162.0	180	75	1.0	4.2	102779-000

NOTE 1. 85/36 1000mm lengths, balance 1500mm



## CRSM

Raychem heat-shrinkable halogen-free wraparound system for plastic or metal sheathed cable repair

### FEATURES

- Fast and permanent wraparounds cable repair and sealing system
- Excellent bonding and sealing characteristics to all materials

### APPLICATION

- For sheets repair

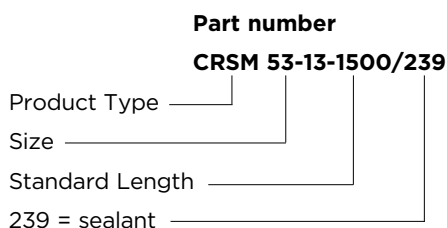
### CRSM



Product name	Application range (mm)	H		R		W		Part Number
		A min	B max	A min	B max	A min	B max	
CRSM-34/10-1500/239(S1)	11 – 21	35	9	110	35	0.3	2.4	445185-000
CRSM-53/13-1500/239(S1)	17 – 32	54	15	170	49	0.3	2.0	505955-000
CRSM-84/20-1500/239(S1)	24 – 50	86	21	270	69	0.3	2.0	219483-000
CRSM-107/29-1500/239(S1)	31 – 65	108	27	340	90	0.3	2.0	546145-000
CRSM-143/36-1500/239(S1)	33 – 86	144	28	455	119	0.3	1.8	091525-000
CRSM-198/55-1500/239(S1)	56 – 120	203	50	640	172	0.3	2.1	247537-000
CRSM-250/98-1500/239(S1)	103 – 150	257	91	810	314	0.4	1.7	790949-000

NOTES	
1.	Dimensions in millimetres a = as supplied b = after free recovery * = at minimum supplied width
2.	Max. longitudinal change after free recovery: $\pm 0 - +10\%$

### Ordering example



## CWRT

Raychem heat-shrinkable reinforced wrap-around sheath repair kit

### FEATURES

- Reinforced composite laminate
- Provides sealing and environmental protection for cables

### APPLICATION

- Suitable for polyethylene, lead, steel and aluminium jacketed cables



Products available on request

## End caps

For the protection of cable ends

### FEATURES

- Made of polyolefin
- Coated with sealing adhesive

### APPLICATION

- For sealing and protecting cable ends
- Temperature range -40°C to +120°C

### 102L End caps



Product name	Application range (mm) <sup>2</sup>	Inner diameter (mm) <sup>1</sup>		Length (mm)	Wall thickness (mm)	Pack pc	Part Number
		A	B				
102L011/S (S100)	4 – 8	10	4	38	2.0	100	004019N001
102L022/S(S100)	8 – 17	20	7.5	55	2.3	100	766063N001
102L033/S(S100)	17 – 30	35	15	90	3.0	100	845013N001
102L044/S(S50)	30 – 45	55	25	143	3.3	50	160021N001
102L048/S(S25)	45 – 65	73	32	150	3.3	25	679413N001
102L055/S(S10)	65 – 95	100	45	162	3.8	10	385369N001
102L066/S(S10)	95 – 115	120	70	145	3.8	10	922697N001

<sup>1</sup> A = as supplied, and B = after free recovery.

<sup>2</sup> Printed on the caps.



## Breakouts

For low voltage 2, 3 and 4-core with or without shielding

### FEATURES

- Made of polyolefin
- Coated with sealing adhesive

### APPLICATION

- For sealing the crutches of paper and polymeric insulated cables up to 1 kV

### 2-core

Product name	Application range (mm) <sup>2</sup>	Diameter cable inlet (mm) <sup>1</sup>		Diameter fingers (mm)		Pack pc	Part Number
		A	B	A	B		
302K333/S(S20)	4 – 25	28.0	9.0	12.0	4.1	20	D93040N001
302K224/S(S20)	35 – 150	48.0	32.0	22.0	7.0	20	D45696N001
302K466/S(S10)	185 – 300	86.0	42.0	40.0	16.0	10	127794N001

### 3-core

Product name	Application range (mm) <sup>2</sup>	Diameter cable inlet (mm) <sup>1</sup>		Diameter fingers (mm)		Pack pc	Part Number
		A	B	A	B		
402W533/S(S10)	4 – 35	38.0	13.0	16.0	4.2	10	096434N001
402W516/S(S5)	35 – 150	63.0	22.0	26.0	9.0	5	337914N001
402W526/S(S5)	185 – 300	82.0	28.0	36.0	13.0	5	000938N001
402W248/S(S5)	–	115.0	45.0	52.0	22.0	5	452278N001

### 4-core

Product name	Application range (mm) <sup>2</sup>	Diameter cable inlet (mm) <sup>1</sup>		Diameter fingers (mm)		Pack pc	Part Number
		A	B	A	B		
502K033/S(S15)	4 – 35	36.0	16.5	14.0	3.4	15	E00553N001
502K046/S(S5)	35 – 70	45.0	19.0	20.0	7.0	5	086694N001
502K016/S(S5)	70 – 150	60.0	25.0	25.0	9.0	5	C52918N001
502K026/S(S5)	185 – 300	90.0	31.0	33.0	13.5	5	C22917N001

### 6-core

Application range (mm) <sup>2</sup>	Diameter cable inlet (mm)		Diameter large fingers (mm)		Diameter small fingers (mm)		Pack pc
	A	B	A1	B1	A2	B2	
–							
ON REQUEST	114	35	44.7	14	22.8	7	1

<sup>1</sup> A = as supplied, and B = after free recovery.

<sup>2</sup> Recommended application up to 80% of expanded size.

<sup>3</sup> The screen is folded back towards the oversheath. If you wish the screen to go straight up through a finger, select a moulding for an additional core.







## Chapter IV Wildlife and asset protection

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## BBIT

Raychem Thick Wall Medium Voltage Busbar Insulation Tubing



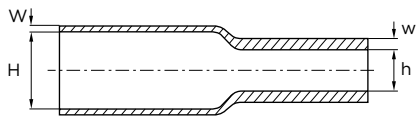
### FEATURES

- Insulation enhancement and protection against flashover and accidentally induced discharge
- Excellent flexibility enables installation on wide range of curved or bent busbars without cracking or creasing
- Exceptional insulation and long term reliability even at high continuous operating temperatures

### APPLICATION

- Voltage Class 36 kV, Application Ø 11-125 mm
- Allows reduction of air spacing between busbars where space is at a premium
- Provides flashover protection up to 36 kV

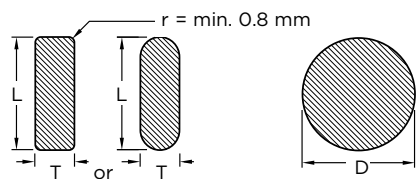
## BBIT



Product name	Inside diameter (mm)		Wall thickness (mm)		UOM: roll of length (m)	Part Number
	H min.	h max.	W nom.	w min.		
BBIT-25/10-A/U-4(S25)	25	10	1.6	3.6	25	568659-000
BBIT-40/16-A/U-4(S20)	40	16	1.6	3.6	20	560931-000
BBIT-65/25-A/U-4(S15)	65	25	1.6	3.6	15	560936-000
BBIT-100/40-A/U-4(S15)	100	40	1.6	3.6	15	560981-000
BBIT-150/60-A/U-4(S15)	150	60	1.6	3.6	15	560982-000
BBIT-175/80-A/U-4(S10)	175	80	1.6	3.6	10	426377-000

NOTE W, H = as supplied w, h = after free recovery. Maximum longitudinal change after free recovery: ±5%. Maximum eccentricity: 35% (as supplied), 15% (after free recovery). Fit the larger size of BBIT if two sizes fit the required application.

## Product selection



Product size	Rectangular bars L + T (mm)		Round bars D (mm)	
	min.	max.	min.	max.
BBIT 25/10	17	28	11	20
BBIT 40/16	28	45	18	32
BBIT 65/25	44	69	28	47
BBIT 100/40	69	102	44	72
BBIT 150/60	102	148	65	105
BBIT 175/80	133	196	85	125

NOTE BBIT should normally be used on the previous busbar sizes

## BPTM

Raychem Medium Wall Medium Voltage Busbar Insulation Tubing



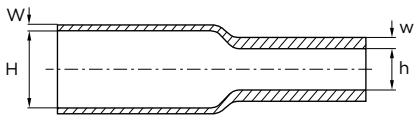
### FEATURES

- Insulation enhancement and protection against flashover and accidentally induced discharge
- Excellent flexibility enables installation on wide range of curved or bent busbars without cracking or creasing
- Exceptional insulation and long term reliability even at high continuous operating temperatures

### APPLICATION

- Voltage Class 25 kV, Application Ø 6.5-220 mm
- Allows reduction of air spacing between busbars where space is at a premium
- Provides flashover protection up to 25 kV

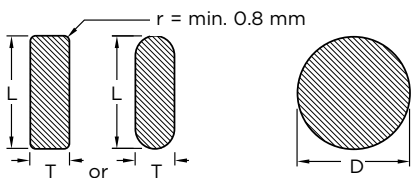
### BPTM



Product name	Inside diameter (mm)		Wall thickness (mm)		UOM: roll of length (m)	Part Number
	H min.	h max.	W nom.	w min.		
BPTM-15/6-A/U-4(S30)	15	6	1.1	1.90	30	590428-000
BPTM-30/12-A/U-4(S30)	30	12	1.1	2.20	30	723955-000
BPTM-50/20-A/U-4(S30)	50	20	1.1	2.35	30	224624-000
BPTM-75/30-A/U-4(S30)	75	30	1.1	2.35	20	398451-000
BPTM-100/40-A/U-4(S25)	100	40	1.1	2.35	25	178238-000
BPTM-120/50-A/U-4(S25)	120	50	1.3	2.80	25	412147-000
BPTM-175/70-A/U-4(S15)	175	70	1.3	2.80	15	920423-000
BPTM-205/110-A/U-4(S10)	205	110	1.3	2.80	10	499685-000
BPTM-235/130-A/U-C(40)	235	130	1.5	3.10	40	964543-000

**NOTE** W, H = as supplied w, h = after free recovery. Maximum longitudinal change after free recovery: +5% -10%. Maximum eccentricity (as supplied): 40%, (after free recovery) ≤ 75/30 10% ≥ 100/40 15%. Fit the larger size of BPTM if two sizes fit the required application.

### Product selection



Product size	Rectangular bars L + T (mm)		Round bars D (mm)	
	min.	max.	min.	max.
BPTM 15/6	12	18	6.5	12
BPTM 30/12	22	38	13.5	25
BPTM 50/20	36	65	22	43
BPTM 75/30	55	95	33	63
BPTM 100/40	70	130	44	86
BPTM 120/50	90	165	55	105
BPTM 175/70	125	235	80	150
BPTM 205/110	200	276	127	190
BPTM 235/130	235	315	150	220

**NOTE** BPTM should normally be used on the previous busbar sizes

## LVIT

Raychem Heat-shrinkable Busbar Insulation Tubing



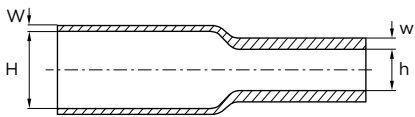
### FEATURES

- Medium thick, flame retardant tubing for reliable and easy installation
- As insulation and protection against flashover at voltages up to 1000 V
- Ideal for both enclosed and exposed busbar systems and in switchgear, transformers, motor control centres and other electrical equipment
- Can be used at a continuous operating temperature of +105°C

### APPLICATION

- Voltage Class 1 kV
- Application Ø 11-180 mm
- For the insulation and protection of both round and rectangular copper or aluminium busbars

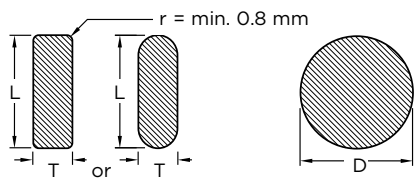
### LVIT



Product name	Inside diameter (mm)		Wall thickness (mm)		UOM: roll of length (m)	Part Number
	H min.	h max.	W nom.	w min.		
LVIT-30/10-A/U-4(S60)	30	10	0.5	1.5	60	790385-000
LVIT-75/25-A/U-4(S30)	75	25	0.5	1.5	30	165487-000
LVIT-100/35-A/U-4(S60)	100	35	0.5	1.5	60	358109-000
LVIT-150/50-A/U-4(S30)	150	50	0.5	1.5	30	021253-000
LVIT-175/70-A/U-C(100)	175	70	0.5	1.5	100	CN3266-000
LVIT-235/105-A/U-4(S25)	235	105	0.5	1.5	25	123837-000

NOTE W, H = as supplied w,h = after free recovery. Maximum longitudinal change after free recovery: +5% -15%. Maximum eccentricity: 40% (as supplied). Fit the larger size of LVIT if two sizes fit the required application.

### Product selection



Product size	Rectangular bars L + T (mm)		Round bars D (mm)	
	min.	max.	nom.	min.
LVIT-30/10-A/U-4	17	39	11	25
LVIT-75/25-A/U-4	39	86	27	55
LVIT-100/35-A/U-4	59	117	38	75
LVIT-150/50-A/U-4	86	157	55	100
LVIT-175/70-A/U-4	117	190	75	120
LVIT-235/105-A/U-4	190	280	120	180

NOTE LVIT should normally be used on the previous busbar sizes





## HVBT

Raychem Heat-shrinkable Tape for the Insulation of Busbars

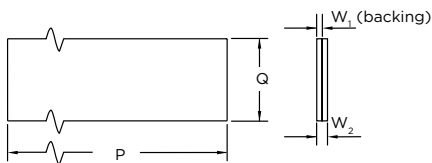
### FEATURES

- Adhesive-coated tape for insulation enhancement against accidentally induced discharge
- Flashover protection to at least 15 kV increasing to 25 kV with a second layer
- Outstanding electrical and mechanical properties

### APPLICATION

- Voltage Class 25 kV
- Retrofit insulation of busbars particularly where existing equipment cannot be dismantled

## HVBT



Product name	Dimensions				UOM: roll of length P (m)	Part Number
	Q a min.	W <sub>1</sub> a min.	W <sub>1</sub> b min.	W <sub>2</sub> b min.		
HVBT-12-A(B20)	25	0.38	0.56	0.86	20	CM6536-000
HVBT-14-A(B10)	50	0.38	0.56	0.86	10	CS5522-000
HVBT-16-A(B10)	100	0.38	0.56	0.86	10	CM6538-000

#### NOTE

Dimensions in mm unless otherwise stated. a = as supplied b = after free recovery.  
Maximum longitudinal change after free recovery: -30 %.

## Product selection

Product Name	Width (mm)	HVBT length needed per meter of busbar (m)
<b>Rectangular busbars</b>		
HVBT-12-A(B20)	25	10.0
HVBT-14-A(B10)	50	7.6
HVBT-14-A(B10)	75	11.4
HVBT-14-A(B10)	100	15.6
HVBT-14-A(B10)	150	25.0
HVBT-16-A(B10)	200	15.6
<b>Round busbars</b>		
HVBT-12-A(B20)	12	5.0
HVBT-14-A(B10)	25	5.0
HVBT-14-A(B10)	50	10.0
HVBT-14-A(B10)	75	16.7
HVBT-16-A(B10)	100	10.0

## MVFT

Raychem Medium Voltage Fusion Tape

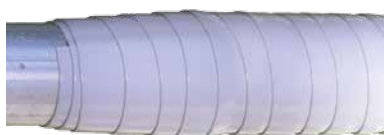
### FEATURES

- Self amalgamating tape for insulation enhancement against accidentally induced discharge
- Flashover protection to at least 15 kV increasing to 35 kV with a second layer
- Silicone polymer with the versatility of a wraparound product
- Cold Applied

### APPLICATION

- Retrofit insulation of busbars particularly where existing equipment cannot be dismantled

### MVFT



Product name	Width (mm)	Length (mm)	STD. Pack	Part Number
MVFT-G-2-12(B4)	50	11	4 rolls	CN5708-000

## MVCC

Raychem Medium Voltage Conductor Covers

### FEATURES

- Electrical insulation for substation leads and jumpers
- Non-tracking silicone material suitable for harsh MV outdoor environments
- MVCC covers are split for easy installation

### APPLICATION

- Suitable for applications up to 25 kV phase to ground
- Four sizes fit conductors with diameters up to 44 mm

### MVCC



Product name	Use range UOM: (mm)	Colour	Conductor diameter supplied length UOM: (m)	Part Number
MVCC-10/.40(B100)	up to 11	Red	1 piece @ 30.4	CP4753-000
MVCC-19/.75(B50)	11 - 19	Red	2 piece @ 7.6	CN3822-000
MVCC-G-19/.75(B50)	11 - 19	Grey	2 piece @ 7.6	CN3456-000
MVCC-25/1.0(B25)	19 - 28	Red	1 piece @ 7.6	CM2535-000
MVCC-G-25/1.0(B25)	19 - 28	Grey	1 piece @ 7.6	CM9738-000
MVCC-45/1.75x4(B24)	28 - 44	Red	6 piece @ 1.2	CH7107-000
MVCC-G-45/1.75x4(B24)	28 - 44	Grey	6 piece @ 1.2	CR7828-000

## MVLC

### Raychem Medium Voltage Line Cover



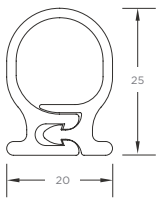
#### FEATURES

- Prevents electrical outages caused by trees or wildlife
- Installation tool allows application on energized lines
- Non mastic version is available for applications up to 15 kV
- Mastic sealed version is available for 25/36 kV applications

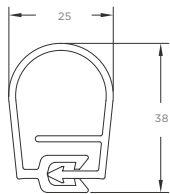
#### APPLICATION

- Wide use range
- Three sizes cover conductors from 16 to 800 mm<sup>2</sup>

### MVLC



MVLC-14

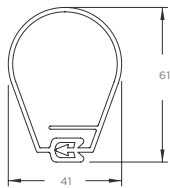


MVLC-18

Product name	Conductor Size (mm <sup>2</sup> )	Voltage class (kV)	Spool length (m)	Part Number
MVLC-14-A/U-C(100)	Up to 99	15 kV	100	C12500-000
MVLC-14-A/241-C(100)	Up to 99	25 kV	100	230840-000
MVLC-18-A/U-C(75)	Up to 185	15 kV	75	269732-000
MVLC-18-A/241-C(75)	Up to 185	25 kV	75	147654-000
MVLC-38-A/U-C(50)	Up to 800	15 kV	50	CM1880-000
MVLC-38-A/241-C(50)	Up to 800	25 kV	50	CM1883-000

NOTE For recommended installation tools, please contact product management [assetprotection@te.com](mailto:assetprotection@te.com)

### Product selection



MVLC-38

Product name	Weight (nominal)
MVLC-14	0.27 kg/m
MVLC-18	0.40 kg/m
UMVLC-38	0.52 kg/m

NOTE Non-impact hydraulic drill available. For connectors and drainage points use 2 pieces of MVLC and cable ties. MVLC-Hand-Tool-02 will install both MVLC-18 and MVLC-38 products.

### MVLC installation tools



MVLC-Hand-Tool-14



MVLC-Hand-Tool-02

Product name	Part Number
MVLC-HAND-TOOL-14	E88941-000
MVLC-HAND-TOOL-02	782218-000

NOTE MVLC-HAND-TOOL-02 is used on both MVLC-18 and MVLC-38 sizes and variants.

## LVBC

### Raychem Low Voltage Bushing Cover

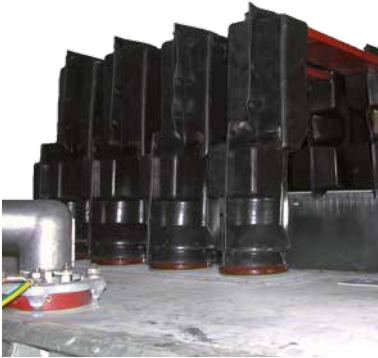
#### FEATURES

- A range of insulating covers against flashover on LV Transformer bushings
- Fits bushings according to EN50386
- Can be used at a continuous operating temperature of +105°C
- Medium thick, flame retardant material for reliable and easy installation.

#### APPLICATION

- Voltage Class 1 kV
- Fits all current ratings 250 - 2,000 A

#### LVBC



Product name	Pack pc	Part Number
LVBC-DT3-1000A(B12)	12	422779-000
LVBC-DT3-2000A(B12)	12	750333-000
LVBC-DT3-250A(B12)	12	440905-000
LVBC-DT3-630A(B12)	12	098309-000
LVBC-DT-630/1250A	1	CZ9784-000
LVBC-DT-630/1250A(B12)	12	CZ9785-000

**Products are made to customers specification, please contact product management [assetprotection@te.com](mailto:assetprotection@te.com)**

## BISG

### Raychem Bus Insulator Squirrel Guard



#### FEATURES

- Isolation guard prevents animal-caused outages in electrical substation equipment
- Rugged, non-tracking, UV-resistant polymer
- Long-term performance extreme environmental conditions

#### APPLICATION

- BISG fits insulator core diameters from 25 to 115 mm
- BISG-24 fits insulator core diameters from 62 to 125 mm
- BISG-24 can be installed live with Push-To-Fit mechanism
- "Grill" type design allows easy field modifications for even larger diameters

**Products are made to customers specification, please contact product management [assetprotection@te.com](mailto:assetprotection@te.com)**

## BCIC

### Raychem Bird Caps



#### FEATURES

- Birdcaps protect birds and other animals from live conductors on on MV and HV pole crossarms.
- Made from Raychem Red HV outdoor material
- Flexible to fit many configurations and Insulator sizes

#### APPLICATION

- Some designs can be installed live.
- A range of different fixing options available
- Suitable for applications up to 36 kV

**Products are made to customers specification, please contact product management [assetprotection@te.com](mailto:assetprotection@te.com)**

## BCIC

### Raychem Bus Connection Insulating Cover



#### FEATURES

- Insulating covers designed to prevent animal caused outages on MV distribution lines, substation connections and bushings
- Rugged, track resistant, UV resistant polymer ensures long-term performance even in the most extreme environmental conditions

#### APPLICATION

- Products fits a variety of polymeric and porcelain bushing / insulator and connection configurations
- Large range of standard part shapes and sizes available

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## BCAC

### Raychem Bushing Connection Animal Cover



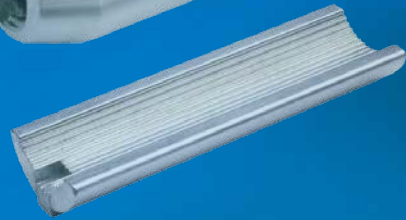
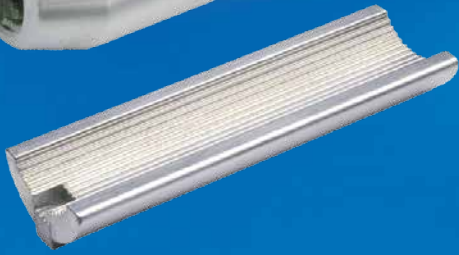
#### FEATURES

- Insulating covers designed to prevent animal caused outages on MV distribution lines, substation connections and bushings
- Rugged, track resistant, UV resistant polymer ensures long-term performance even in the most extreme environmental conditions

#### APPLICATION

- Products fits a variety of polymeric and porcelain bushing / insulator and connection configurations
- Some parts are installable live with a hotstick
- Some parts are made with a lattice design for easy equipment inspection: BCAC-IC

**Products are made to customers specification, please contact product management [assetprotection@te.com](mailto:assetprotection@te.com)**



# Chapter V

## Connectors and Fittings

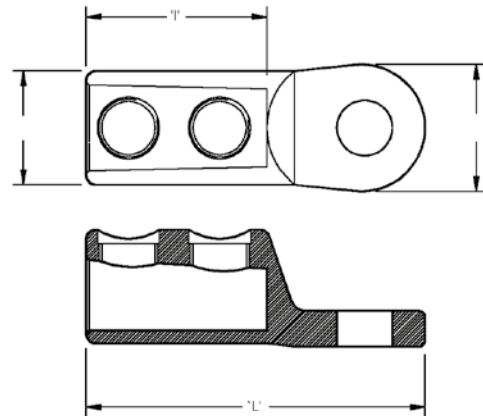
LVET Low Voltage End Terminations.....	72
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## LVET

Low Voltage End Terminations

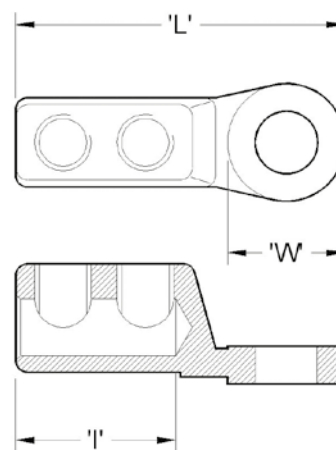
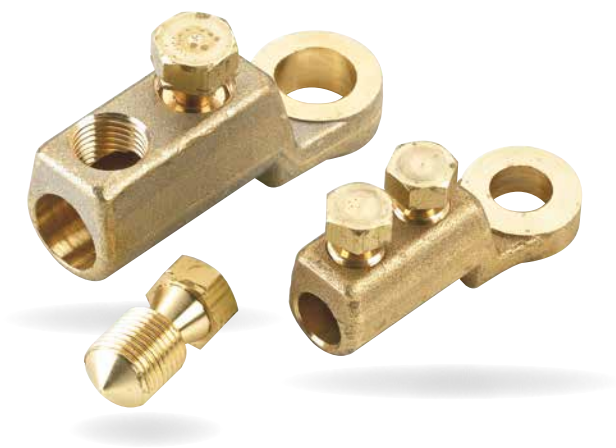


### LVET Lugs for sector shaped solid aluminium conductors

Product name	Part number	Conductor size (mm <sup>2</sup> )	Dimensions					Part Number
			L	I	ØD	W	A/F	
LVET12012(SECT)/AG2M12	BAH-024020028	120	86	40	28	32	13	016338-000
LVET12012(SECT)/AG3M12	BAH-024020029	70 – 95	86	40	28	32	13	278176-000
LVET12016(SECT)/AG2M12	BAH-024020034	120	86	40	28	32	13	335152-000
LVET12016(SECT)/AG3M12	BAH-024020035	70 – 95	86	40	28	32	13	531714-000
LVET18512(SECT)/AG1M18	BAH-024020039	150 – 185	104	56	35	39	19	136892-000
LVET18516(SECT)/AG1M18	BAH-024020044	150 – 185	104	56	35	39	19	204094-000
LVET30012/AG1M18	BAH-024020046	240 – 300	116	56	41	43	19	723430-000
LVET30016/AG1M18	BAH-024020048	240 – 300	116	56	41	43	19	390474-000

## BET

Low Voltage End Terminations



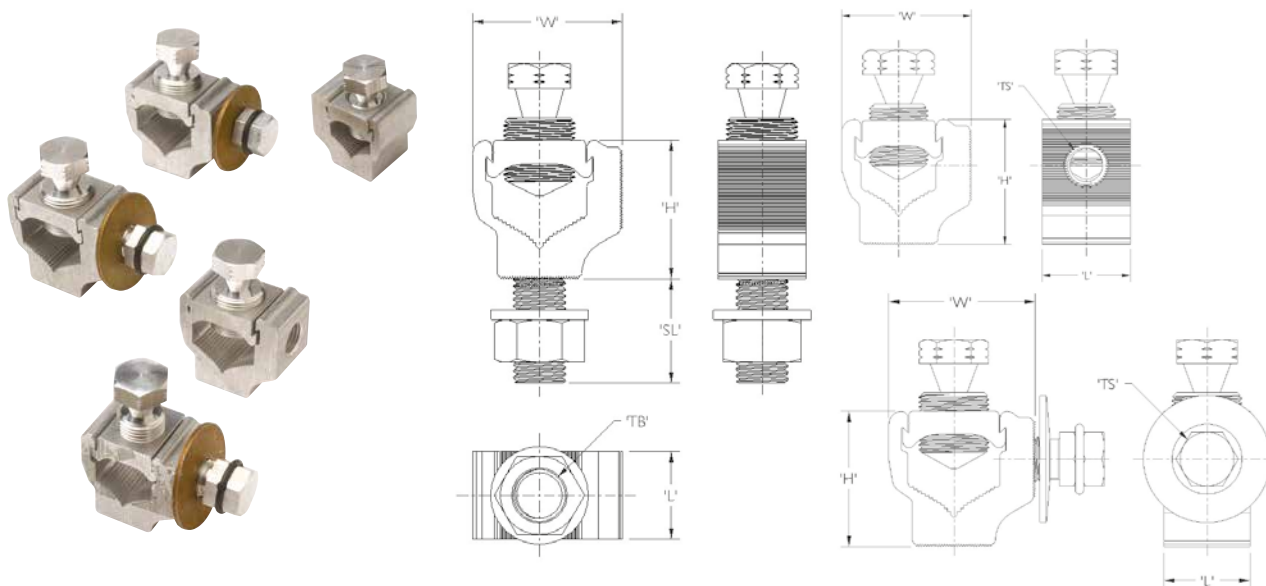
### BET Brass lugs

Product name	Part number	Dimensions			Mount bolt size (mm)	Maximum conductor size (mm <sup>2</sup> )	Installation tool	Part Number
		L	I	W				
BET035-12	BAH-024020006	55	25	20	M12	35	3mm allen	653944-000
BET060-12	BAH-024020011	70	34	25	M12	60	13mm socket	738386-000
BET060-16	BAH-024020012	70	34	25	M16	60	13mm socket	524262-000
BET120-10	BAH-024020017	86	46	28	M10	120	16mm socket	744448-000
BET120-12	BAH-024020018	86	46	28	M12	120	16mm socket	944892-000
BET120-16	BAH-024020021	86	46	28	M16	120	16mm socket	265820-000



## VET

### Low Voltage End Terminations

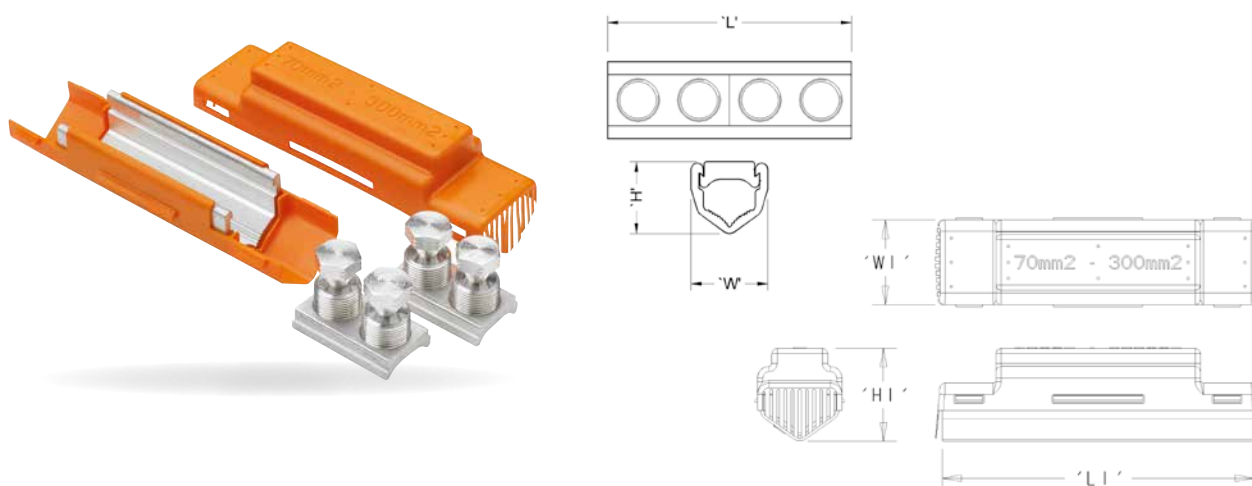


#### UET Universal terminations

Product name	Part number	Dimensions			Conductor size (mm <sup>2</sup> )	Socket/ Spanner A/F(mm)	TB	TS	SI	Part Number
		L	H	W						
UET300/BM16SL40/BG2M22	BAH-026010025	27	39	40	35-185	19	-	-	32	029020-000
UET185-27/SM12/A	BAH-026010061	20	32	32	35-95	13	-	M12	-	E06379-000
UET95-20/SM12/A	BAH-026010062	27	43	46	70-300	19	-	M12	-	C07327-000
UET300-27/SM14/DBL/A	BAH-026010063	27	43	46	70-300	19	-	M14	-	E09750-000

## UST

### Low Voltage Insulated Straight Connectors

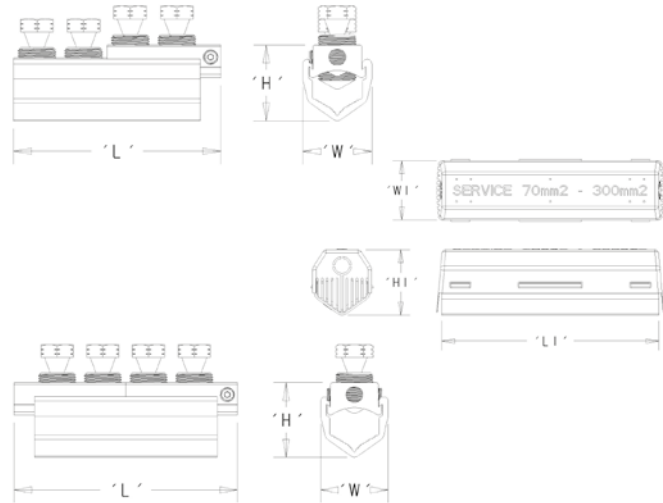


#### UST Universal straight joint connectors with moulded insulation shrouds

Product name	Part number	Dimensions						Conductor size (mm <sup>2</sup> )	Socket/ Spanner A/F (mm)	Part Number
		L	H	W	L1	H1	W1			
UST095INS	BAH-032020079	80	25	25	147	38.4	33.8	35-95	13	EB9132-000
UST185INS	BAH-032020080	108	32	34	175	47.6	41.6	35-185	19	EB9133-000
UST300INS	BAH-032020081	108	36	40	175	52.7	47.6	70-300	19	EB9134-000

## UST INS

Low Voltage Insulated Straight Connectors

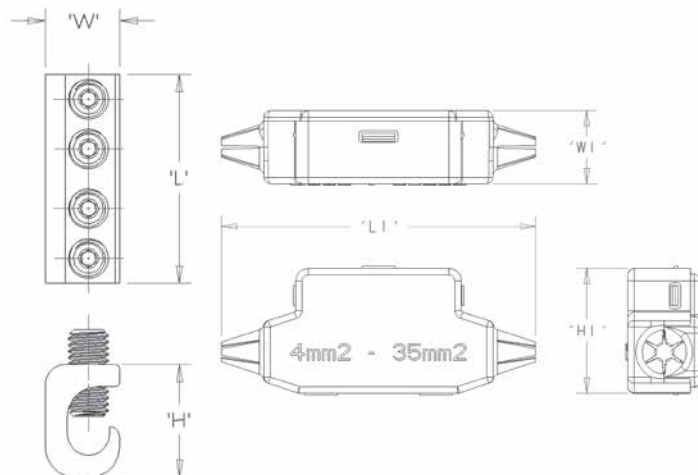
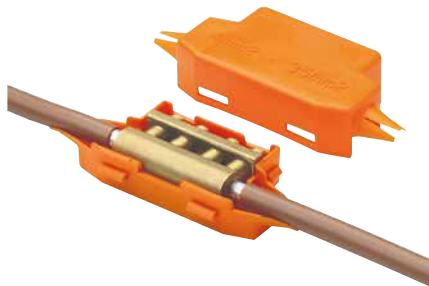


### UST INS. Universal straight connectors with service connections and moulded insulation shrouds

Product name	Part number	Dimensions						Conductor size (mm <sup>2</sup> )	Socket/ Spanner A/F (mm)	Part Number
		L	H	W	L1	H1	W1			
UST095SBS-G/INS	BAH-032020082	92	33	25	147	38.4	33.8	35-95	13	EB9135-000
UST185SBS-G/INS	BAH-032020083	120	39	34	175	47.6	41.6	35-185	19	EB9136-000
UST300SBS-G/INS	BAH-032020084	120	43	40	175	52.	47.6	70-300	19	EB9137-000
UST095SBD-G/INS	BAH-032020085	104	33	25	147	38.4	33.8	35-95	13	CR4193-000
UST185SBD-G/INS	BAH-032020086	132	39	34	175	47.6	41.6	35-185	19	CR4194-000
UST300SBD-G/INS	BAH-032020087	132	43	40	175	52.7	47.6	70-300	19	CR4196-000

## HUC

Low Voltage Insulated Straight Connectors

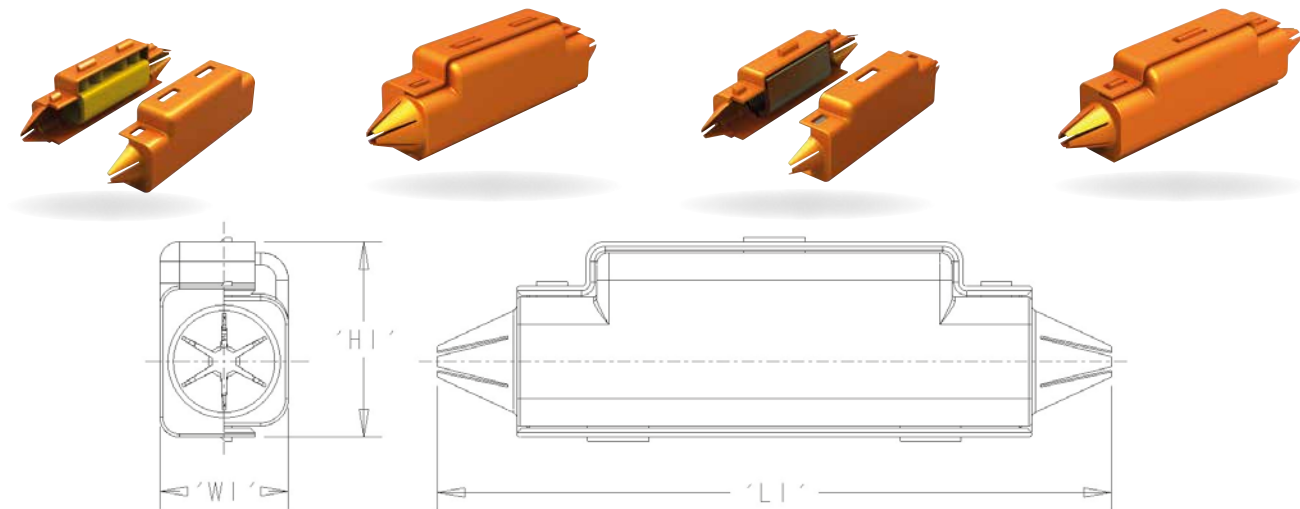


### HUC INS. Straight connectors with moulded insulation shrouds for service conductors

Product name	Part number	Dimensions (mm)						Maximum conductor size (mm <sup>2</sup> )	Part Number
		L	H	W	L1	H1	W1		
HUC35INS	BAH-031000009	42	22.75	15	96	38	22.3	35	EB9131-000

## BTC

### Low Voltage Insulated Straight Connectors

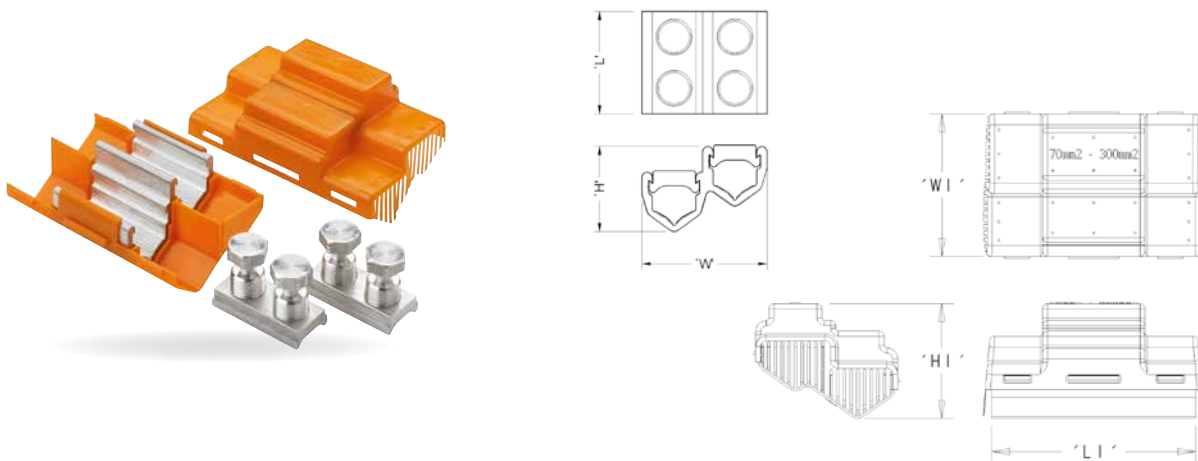


#### BTC INS. Brass tunnel connectors with moulded insulation shrouds

Product name	Part number	Conductor size (mm <sup>2</sup> )		Nominal bore Ø	Standard grub screw size	Dimensions			Part Number
		Stranded CU or aluminium	Solid aluminium			L	H	W	
BTC145WINS	BAH-032040065	4-25	10-35	8	M6	95	17.5	26	CX4094-000
BTC5130TWINS (130mm long)	BAH-032040068	4-50	10-50	9.5	M8	187	21	33.5	CX4097-000
BTC6130WINS (130mm long)	BAH-032040067	4-60	10-70	11	M10	110	21	32	CX4096-000
BTC360WINS	BAH-032040066	4-60	10-70	11	M10	187	21	33.5	CX4095-000

## UBR

### Low Voltage Insulated Branch Connectors

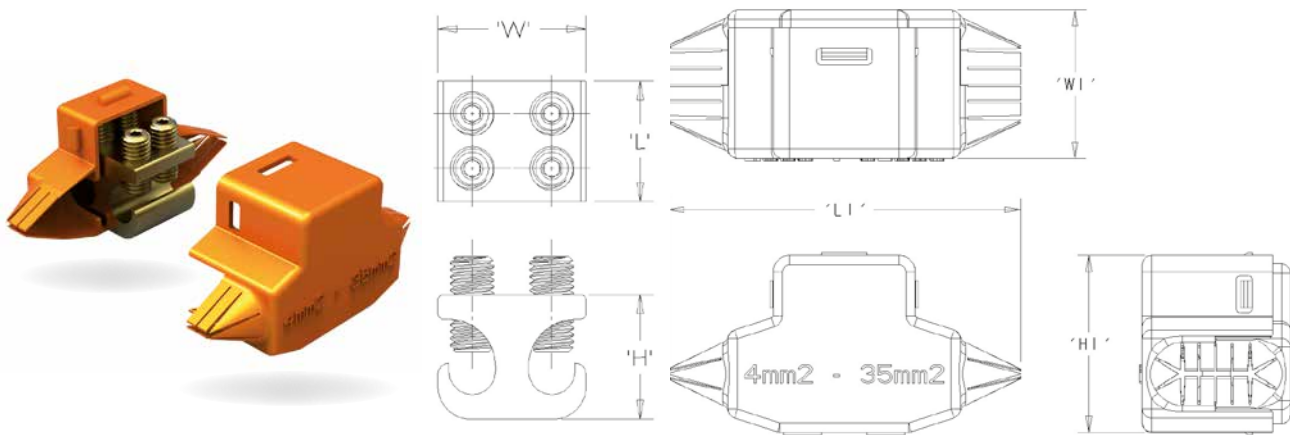


#### UBRINS Universal branch connectors with moulded insulation shrouds

Product name	Part number	Dimensions (mm)						Conductor size (mm <sup>2</sup> )	Socket/ Spanner A/F (mm)	Part Number
		L	H	W	L1	H1	W1			
UBR095INS	BAH-033000068	40	36	49	107	48.9	56.9	35-95	13	EB9138-000
UBR185INS	BAH-033000069	54	45	66	121	61.1	73.6	35-185	19	EB9139-000
UBR300INS	BAH-033000070	54	52	77	121	68.0	84.6	70-300	19	EB9140-000

## ANC

Low Voltage Insulated Branch Connectors

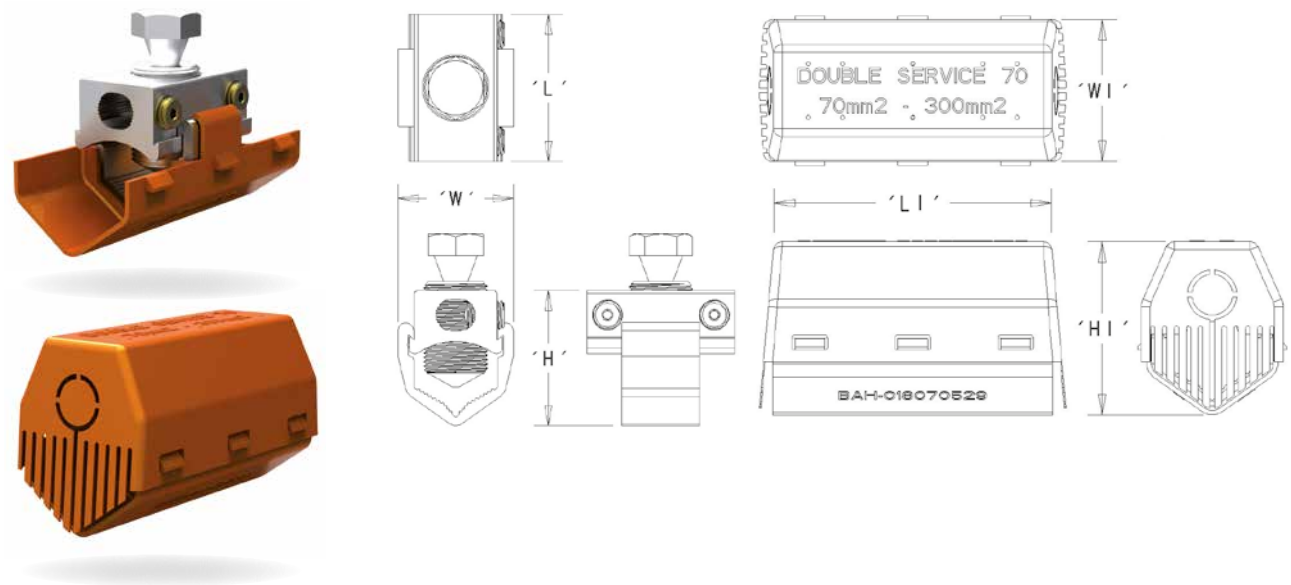


### ANCINS Branch connectors with moulded insulation shrouds for service conductors

Product name	Part number	Dimensions (mm)						Conductor size (mm <sup>2</sup> )	Part Number
		L	H	W	L1	H1	W1		
ANC35INS	BAH-031000010	22	23	27	76	38	32	4 - 35	CH5421-000

## USB

Low Voltage Insulated Branch Connectors

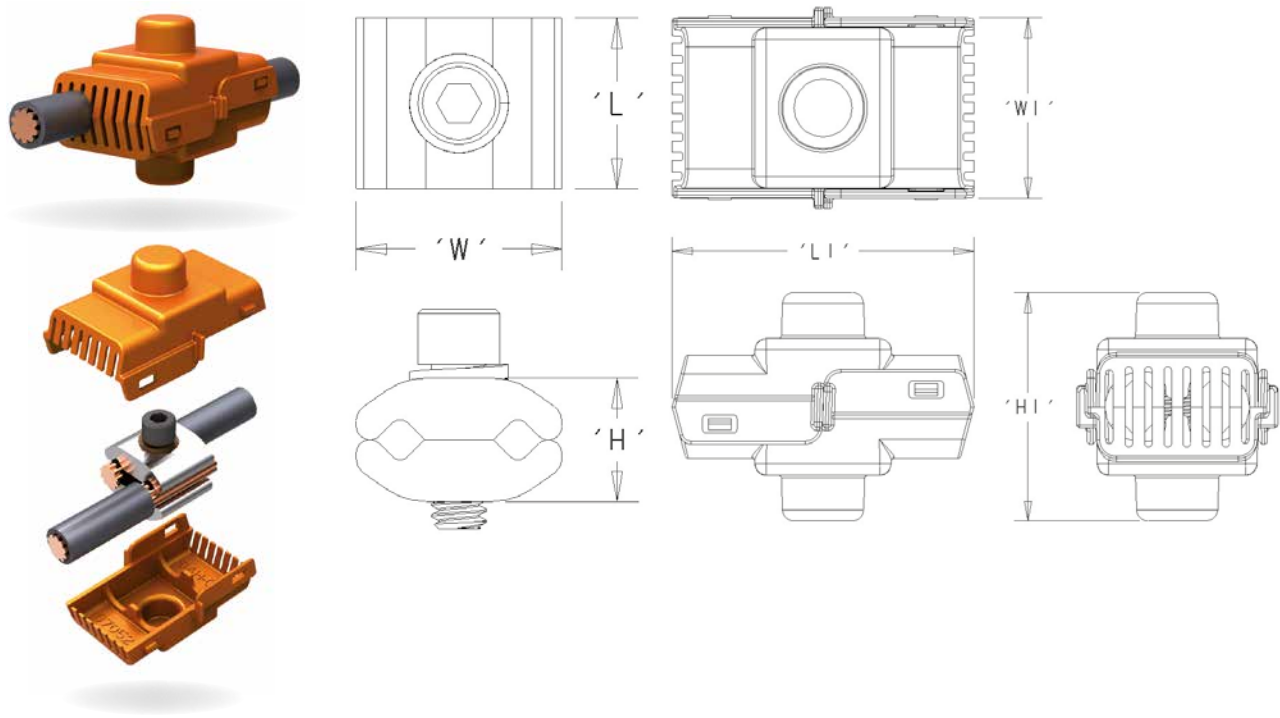


### USB300D INS Universal service branch connectors with moulded insulation shrouds

Product name	Part number	Dimensions (mm)						Conductor size (mm <sup>2</sup> )	Part Number
		L	H	W	L1	H1	W1		
USB300D/70INS	BAH-031520037	51	47	40	93	58	47.5	70 - 300	CR4817-000

## P1

### Low Voltage Insulated Branch Connectors



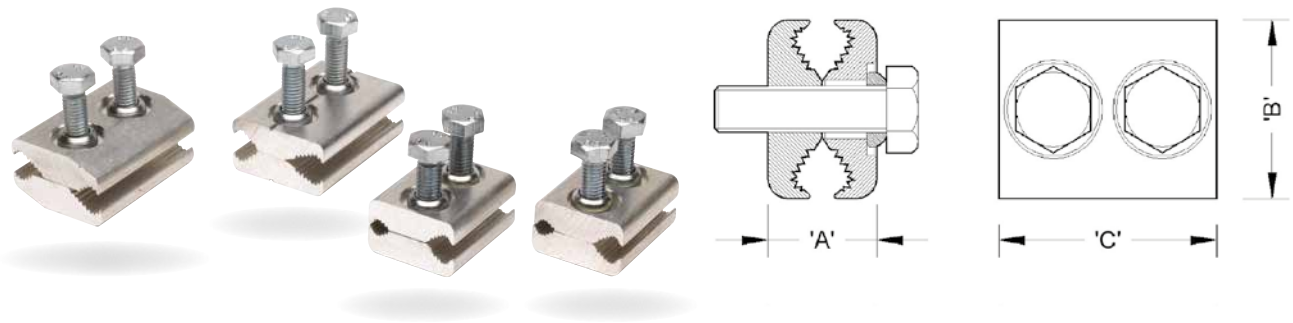
Connectors and Fittings

#### P1INS Connectors with moulded insulation shroud for service phase conductors

Product name	Part number	Dimensions (mm)						Conductor size (mm <sup>2</sup> )	Part Number
		L	H	W	L1	H1	W1		
P1INS	BAH-031010026	20	14.5	24	52.5	40	31.5	4 – 35	CX8588-000

## SB-AL

Low Voltage Connectors - Branch - Not Insulated



### DS-AL Mechanical connectors for solid aluminium conductors

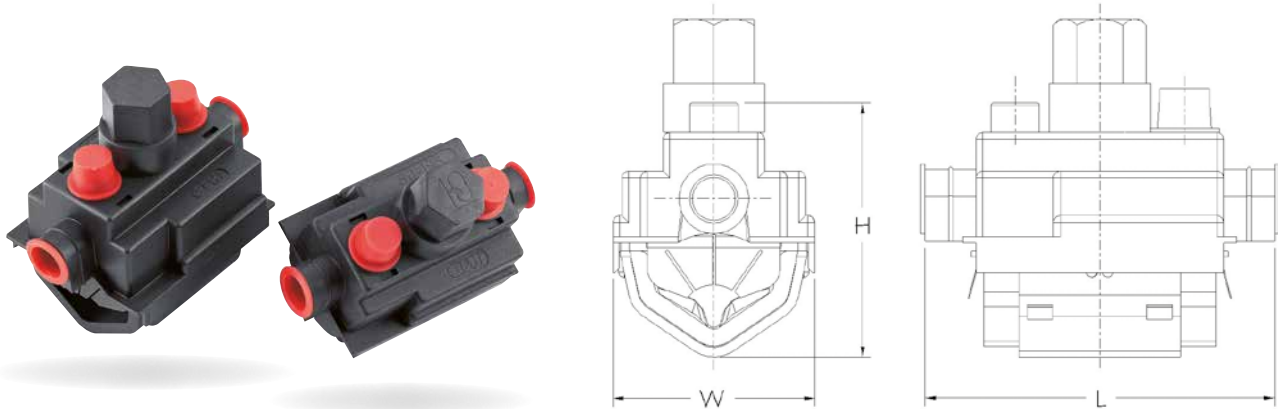
Product name	Part number	Dimensions			Part Number
		A	B	C	
SB-BB/40	BAH-023010007	23	37	50	707858-000
SB-LL/35	BAH-023010014	20	37	50	594712-000
SB-LL/40	BAH-023010017	20	37	50	259788-000
SB-SB/35	BAH-023010025	19	31	38	147366-000
SB-SL/30	BAH-023010032	19	31	38	791586-000
SB-SL/35	BAH-023010035	19	31	38	391272-000

### DS-AL - Application chart

Range	120 degree (3 core) conductors				90 degree (4 core) conductors		
	recommended connector	alternative (1)	alternative (2)	alternative (3)	recommended connector	alternative (1)	alternative (2)
300-300	SB-LL/40	-	-	-	SB-LL/40	-	-
300-240	SB-LL/40	-	-	-	SB-LL/40	-	-
300-185	SB-BB/40	SB-LL/40	-	-	SB-BB/40	-	-
300-150	SB-BB/40	-	-	-	SB-BB/40	-	-
300-120	SB-BB/40	-	-	-	SB-BB/40	-	-
300-95	SB-BB/40	-	-	-	SB-BB/40	-	-
300-70	SB-BB/40	-	-	-	SB-BB/40	-	-
240-240	SB-LL/40	-	-	-	SB-LL/40	-	-
240-185	SB-LL/40	SB-BB/40	-	-	SB-LL/40	SB-BB/40	-
240-150	SB-BB/40	-	-	-	SB-BB/40	-	-
240-120	SB-BB/40	-	-	-	SB-BB/40	-	-
240-95	SB-BB/40	-	-	-	SB-BB/40	-	-
240-70	SB-BB/40	-	-	-	SB-BB/40	-	-
185-185	SB-SL/35	SB-LL/35	-	-	SB-LL/35	-	-
185-150	SB-SB/35	SB-SL/35	SB-LL/35	-	SB-LL/35	SB-BB/40	-
185-120	SB-SB/35	-	-	-	SB-BB/40	SB-LL/35	-
185-95	SB-SB/35	-	-	-	SB-BB/40	-	-
185-70	SB-SB/35	-	-	-	-	-	-
150-150	SB-SL/35	SB-LL/35	-	-	SB-SL/35	SB-LL/30	-
150-120	SB-SL/35	SB-SB/35	SB-LL/35	-	SB-SL/35	SB-SB/35	-
150-95	SB-SB/35	-	-	-	SB-SB/35	-	-
150-70	SB-SB/35	-	-	-	SB-SB/35	-	-
120-120	SB-SL/30	SB-LL/30	-	-	SB-SL/30	SB-LL/30	-
120-95	SB-SL/30	-	SB-BB/30	SB-LL/30	SB-SL/30	SB-SB/35	-
120-70	-	SB-SL/30	SB-BB/30	-	-	-	-
95-95	SB-SL/30	SB-LL/30	-	-	SB-SL/30	SB-LL/30	-
95-70	SB-SL/30	-	SB-LL/30	SB-BB/30	SB-SL/30	-	-
70-70	-	-	-	-	SB-SL/30	-	-

## MSIP

Low Voltage Insulated Piercing Connectors

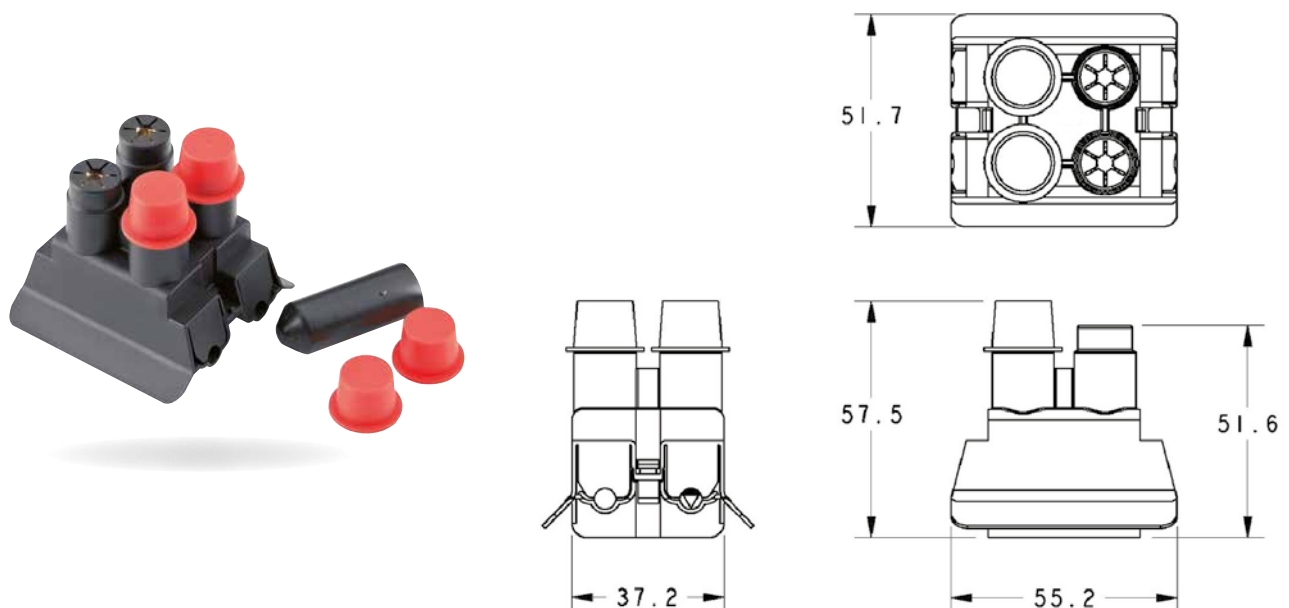


### MSIP Insulated insulation piercing connector for service-service connections

Product name	Part number	Dimensions			Conductor size (mm <sup>2</sup> )	Part Number
		L	H	W		
MSIP185	BAH-021500003	83	60	48	50-185	230062-000
MSIP300	BAH-021500011	83	68	55	185-300	580454-000

## SSIP

Low Voltage Insulated Piercing Connectors

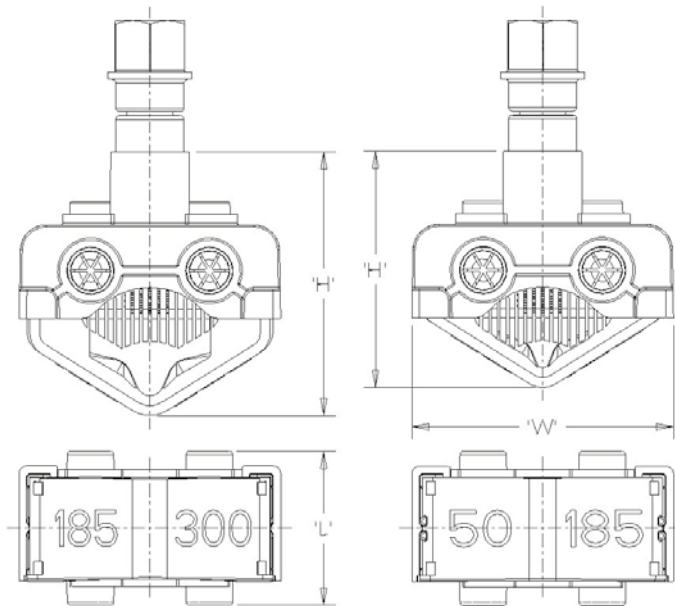


### SSIP Insulated insulation piercing connector for service-service connections

Product name	Part number	Part Number
SSIP35	BAH-021020004	D17625-000

## IIPC

Low Voltage Insulated Piercing Connectors



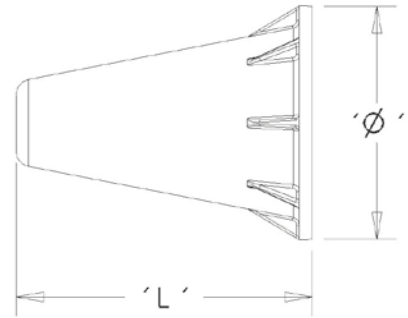
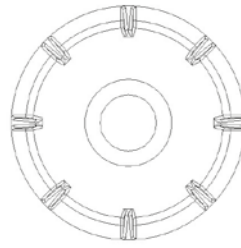
### IIPC Insulated insulation piercing connectors

Product name	Part number	Dimensions			Conductor size (mm <sup>2</sup> )	Socket/Spanner A/F (mm)	Part Number
		L	H	W			
IIPC50-185	BAH-021500032	71	64	42	50-185	19	CU8610-000
IIPC185-300	BAH-021500033	71	72	42	185-300	19	CU8611-000



## FCEC

Low Voltage Connectors Accessories



### FCEC

Product name	Description	Part number	Conductor size (mm <sup>2</sup> )	Length L (mm)	Diameter Ø (mm)	Part Number
FCEC-16-35	FLEXIBLE CONDUCTOR END CAP FOR 16mm <sup>2</sup> TO 35mm <sup>2</sup>	BAH-018070542	16 – 35	25.5	15	CX8587-000
FCEC-95-300	FLEXIBLE CONDUCTOR END CAP FOR 95mm <sup>2</sup> TO 300mm <sup>2</sup>	BAH-018070501	95 – 300	57	45	CR5182-000

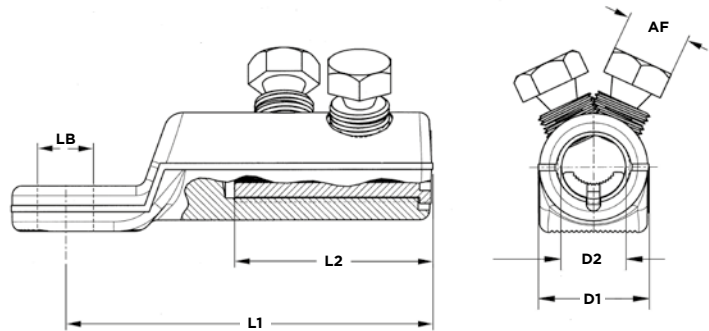
## Shells

Vacuum forming and plastic fabrication

TE Connectivity offers design and manufacturing services for vacuum formed products and specialises in joint shells for the electricity supply market. In-house expertise allows development of bespoke joint shells and accessories

## BLMT

### Medium Voltage Mechanical Lugs



#### BLMT Mechanical lugs dimensions

Product name	Cross-sectional range (mm <sup>2</sup> )	Palm hole diameter (mm)	Dimensions (mm)				Contact bolts Quantity	Head size AF (mm)	Part Number
			L1	L2	D1	D2			
BLMT-25/95-13	25-95	13	60	30	24	12.8	1	13	A23668-000
BLMT-25/95-17	25-95	17	60	30	24	12.8	1	13	D10789-000
BLMT-35/150-13	35-150	13	86	35	28	15.8	1	17	F61108-000
BLMT-35/150-17	35-150	17	86	35	28	15.8	1	17	D80047-000
BLMT-95/240-13	95-240	13	112	60	33	20	2	19	E44865-000
BLMT-95/240-17	95-240	17	112	60	33	20	2	19	E01991-000
BLMT-120/300-13	120-300	13	115	65	37	24	2	22	F62708-000
BLMT-120/300-17	120-300	17	115	65	37	24	2	22	E26422-000
BLMT-150/400-13	150-400	13	138	80	42	25.5	3	13	2832001-1
BLMT-150/400-17	150-400	17	138	80	42	25.5	3	13	2832001-2
BLMT-150/400-21	150-400	21	138	80	42	25.5	3	13	2832001-3
BLMT-500/630-13mk2	500-630	13	150	95	50	33	3	13	2107410-1
BLMT-500/630-17mk2	500-630	17	150	95	50	33	3	13	2107410-2
BLMT-500/630-21mk2	500-630	21	150	95	50	33	3	13	2107410-3
BLMT-800-50x56-D21	800	21	202	120	56	36	4	27	2062425-1
BLMT-800-80x40-2D14x40	800	2x14	237	120	56	36	4	27	2062424-1

#### BLMT Mechanical lugs selection and application table

Product name	Cross-sectional range / Conductor diameter	Application range Conductor type						
		Al circular stranded	Al circular solid	Al sector stranded	Al sector solid	Cu circular stranded	Cu circular solid	Cu sector stranded
BLMT-25/95-XX	Cross-sectional range (mm <sup>2</sup> )	25-95	25-95	25-70	–	16-95	10-50	25-70
	Cross-sectional range (mm <sup>2</sup> )	–	–	95**	–	–	–	95**
	Conductor diameter (mm)	5.7-12.5	5.5-11	–	–	4.8-12.5	3.6-8	–
BLMT-35/150-XX	Cross-sectional range (mm <sup>2</sup> )	35-150	35-150	50-95	50-120	35-150	35-50	50-95
	Cross-sectional range (mm <sup>2</sup> )	–	–	120*-150**	–	–	–	120*-150**
	Conductor diameter (mm)	6.8-15	6.5-14	–	–	6.6-15	6.5-8	–
BLMT-95/240-XX	Cross-sectional range (mm <sup>2</sup> )	70-240	95-300	95-150	95-150	95-240	–	95-150
	Cross-sectional range (mm <sup>2</sup> )	–	–	185*-240**	185(90°)	–	–	185*-240**
	Conductor diameter (mm)	9.3-19.2	10.5-19	–	–	9.3-19.2	–	–
BLMT-120/300-XX	Cross-sectional range (mm <sup>2</sup> )	120-300	150-300	120-185	120-240	120-300	–	120-185
	Cross-sectional range (mm <sup>2</sup> )	–	–	240*-300**	–	–	–	240*-300**
	Conductor diameter (mm)	12.7-23.1	12.9-19.8	–	–	12.7-22.6	–	–
BLMT-150/400-XX	Cross-sectional range (mm <sup>2</sup> )	150-400	150-400	150-240	185-240	150-400	–	150-240
	Cross-sectional range (mm <sup>2</sup> )	–	–	300*-400**	300(90°)	–	–	300*-400**
	Conductor diameter (mm)	13.7-24.6	12.9-24.6	–	–	13.7-24.6	–	–
BLMT-500/630-XX	Cross-sectional range (mm <sup>2</sup> )	500-630	500-630	–	–	500-630	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	25.3-32.5	24.0-28.4	–	–	25.3-32.5	–	–
BLMT-800-XX	Cross-sectional range (mm <sup>2</sup> )	800	800	–	–	800	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	32.5-35.3	30.9-32.1	–	–	32.5-35.3	–	–

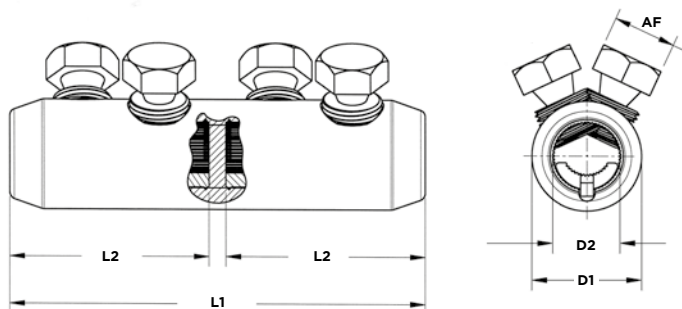
\* Slightly rounded with pliers.

\*\* Pressed round.

XX Palm hole.

## BSMx

### Medium Voltage Mechanical Connectors



#### BSMx Mechanical connectors dimensions

Product name	Cross-sectional range (mm <sup>2</sup> )	Blocked	Dimensions (mm)				Contact bolts Quantity	Head size AF (mm)	Part Number
			L1	L2	D1	D2			
BSMB-10/35	10-35	yes	45	20	19	8.5	2	10	F37826-000
BSM-25/95	25-95	yes	65	30	24	12.8	2	13	C85068-000
BSM-25/95-U	25-95	no	65	-	24	12.8	2	13	F40757N001
BSMB-35/150	35-150	yes	80	35	28	15.8	2	17	E05256N001
BSMU-35/150	35-150	no	80	-	28	15.8	2	17	A84872N001
BSM-95/240	95-240	yes	125	60	33	20	4	19	695012-N001
BSM-95/240-U	95-240	no	125	-	33	20	4	19	E96021N001
BSMB-95/300-GB	95-300	yes	125	60	33	22	8	13	A96752-000
BSMB-120/300	120-300	yes	140	65	37	24	4	22	C73113-000
BSMU-120/300	120-300	no	140	-	37	24	4	22	E22606N001
BSMB-150/400	150-400	yes	170	80	42	25.5	6	13	2107832-1
BSMU-150/400	150-400	no	170	-	42	25.5	6	13	2107832-2
BSMB-500 MK2	500	yes	160	70	46	30	6	13	2107355-1
BSMB-630 MK2	630	yes	160	70	50	33	6	13	2107246-1
BSMB-800 MK2	800	yes	180	85	56	36	8	13	2107308-1
BSMB-1000	1000	yes	180	85	60	40	8	13	2062792-1

## BSMx

### Medium Voltage Mechanical Connectors



#### BSMx Mechanical connectors selection and application table

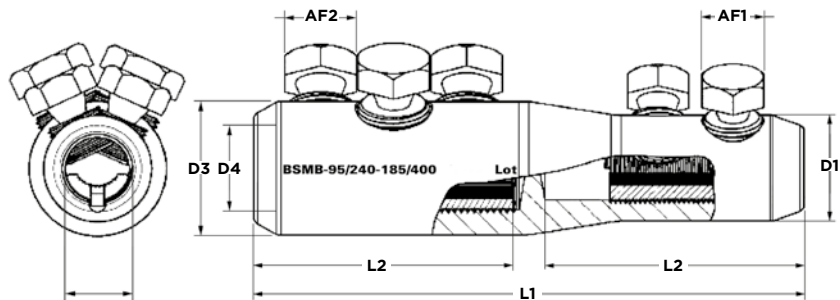
Product name	Cross-sectional range / Conductor diameter	Application range Conductor type						
		Al circular stranded	Al circular solid	Al sector stranded	Al sector solid	Cu circular stranded	Cu circular solid	Cu sector stranded
BSMB-10/35	Cross-sectional range (mm <sup>2</sup> )	10-35	10-50	10-25	10-35	10-35	10-35	10-25
	Cross-sectional range (mm <sup>2</sup> )	–	–	35**	–	–	–	35**
	Conductor diameter (mm)	3.7-7.5	3.4-7.8	–	–	3.7-7.5	3.4-6.7	–
BSM-25/95 BSM-25/95-U	Cross-sectional range (mm <sup>2</sup> )	25-95	25-95	25-70	–	16-95	10-50	25-70
	Cross-sectional range (mm <sup>2</sup> )	–	–	95**	–	–	–	95**
	Conductor diameter (mm)	5.7-12.5	5.5-11	–	–	4.8-12.5	3.6-8	–
BSMB-35/150 BSMU-35/150	Cross-sectional range (mm <sup>2</sup> )	35-150	35-150	50-95	50-120	35-150	35-50	50-95
	Cross-sectional range (mm <sup>2</sup> )	–	–	120*-150**	–	–	–	120*-150**
	Conductor diameter (mm)	6.8-15	6.5-14	–	–	6.6-15	6.5-8	–
BSM-95/240 BSM-95/240-U	Cross-sectional range (mm <sup>2</sup> )	70-240	95-300	95-150	95-150	70-240	–	95-150
	Cross-sectional range (mm <sup>2</sup> )	–	–	185*-240**	185(90°)	–	–	185*-240**
	Conductor diameter (mm)	9.3-19.2	10.5-19	–	–	9.3-19.2	–	–
BSMB-95/300 GB	Cross-sectional range (mm <sup>2</sup> )	95-300	185-300	–	–	95-300	–	95-300
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	11.6-21.6	15-19.8	–	–	11.6-21.6	–	11.6-21.6
BSMB-120/300 BSMU-120/300	Cross-sectional range (mm <sup>2</sup> )	120-300	150-300	120-185	120-240	120-300	–	120-185
	Cross-sectional range (mm <sup>2</sup> )	–	–	240*-300**	–	–	–	240*-300**
	Conductor diameter (mm)	12.7-23.1	12.9-19.8	–	–	12.7-22.6	–	–
BSMB-150/400 BSMU-150/400	Cross-sectional range (mm <sup>2</sup> )	185-400	150-400	150-240	185-240	150-400	–	185-240
	Cross-sectional range (mm <sup>2</sup> )	–	–	300*-400**	300(90°)	–	–	300*-400**
	Conductor diameter (mm)	13.7-24.6	12.9-24.6	–	–	13.7-24.6	–	–
BSMB-500 MK2	Cross-sectional range (mm <sup>2</sup> )	500	500	–	–	500	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	25.3-28.9	24-25.1	–	–	25.3-28.6	–	–
BSMB-630 MK2	Cross-sectional range (mm <sup>2</sup> )	630	630	–	–	630	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	28.7-32.5	27.3-28.4	–	–	28.7-32.5	–	–
BSMB-800 MK2	Cross-sectional range (mm <sup>2</sup> )	800	800	–	–	800	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	32.5-35.3	30.9-32.1	–	–	32.5-35.3	–	–
BSMB-1000	Cross-sectional range (mm <sup>2</sup> )	1000	1000	–	–	1000	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	37-39.5	34.8-36	–	–	37-39.5	–	–

\* Slightly rounded with pliers.

\*\* Pressed round.

## BSMB

### Medium Voltage Reduction Connectors

Connectors  
and Fittings

### BSMB Reduction connectors dimensions

Product name	Cross-sectional range (mm <sup>2</sup> )		Blocked	Dimensions (mm)						Contact bolts Quantity	Head size AF (mm)	Contact bolts Quantity	Head size AF (mm)	Part Number
	Side1	Side2		L1	L2	D1	D2	D3	D4					
BSMB-25/95-95/240	25-95	95-240	yes	125	60	24	12.8	33	20	1	13	2	19	877438N001
BSMB-95/240-185/400	95-240	185-400	yes	170	80	33	20	42	25.5	2	19	3	22	A54098N001
BSMB-185/400-500	185-400	500	yes	190	90	42	25.5	46	30	3	22	3	27	CB8267N001
BSMB-185/400-630	185-400	630	yes	200	95	42	25.5	50	33	3	22	3	27	CB8264N001
BSMB-500-630 MK2	500	630	yes	160	70	46	30	50	33	3	13	3	13	2107373-1
BSMB-630-800 MK2	630	800	yes	180	85	50	33	56	36	3	13	4	13	2107357-1
BSMB-630-1000	630	1000	yes	180	85	50	33	60	40	3	13	4	13	2107346-1
BSMB-800-1000	800	1000	yes	180	85	56	36	60	40	3	13	4	13	2107484-1

## BSMB

### Medium Voltage Reduction Connectors

#### BSMB Reduction connectors selection and application table

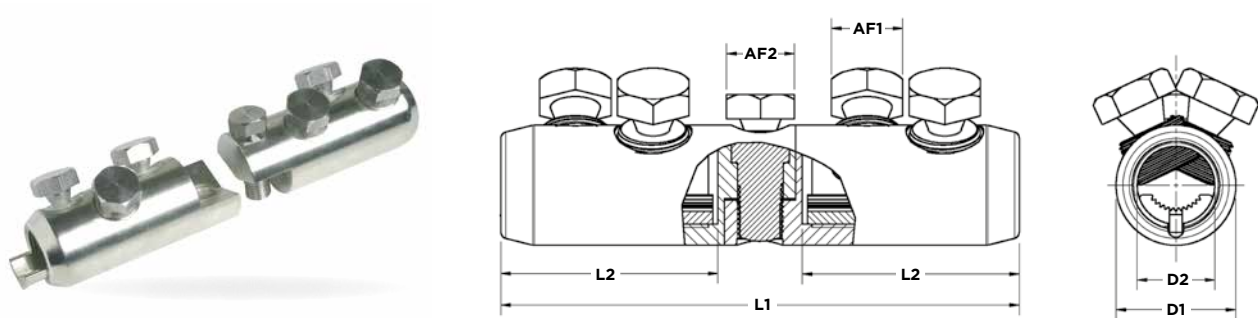
Product name	Cross-sectional range / Conductor diameter	Application range Conductor type						
		Al circular stranded	Al circular solid	Al sector stranded	Al sector solid	Cu circular stranded	Cu circular solid	Cu sector stranded
<b>BSMB-25/95-95/240</b>								
25-95mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	25-95	25-95	25-70	–	16-95	10-50	25-70
	Cross-sectional range (mm <sup>2</sup> )	–	–	95*	–	–	–	95*
	Conductor diameter (mm)	5.7-12.5	5.5-11	–	–	4.8-12.5	3.6-8	–
95-240mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	95-240	95-240	95-150	95-150	95-240	–	95-150
	Cross-sectional range (mm <sup>2</sup> )	–	–	185*-240*	185(90°)	–	–	185*-240*
	Conductor diameter (mm)	11-19.2	10.5-18	–	–	11-19.2	–	–
<b>BSMB-95/240-185/400</b>								
95-240mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	70-240	95-240	95-150	95-150	95-240	–	95-150
	Cross-sectional range (mm <sup>2</sup> )	–	–	185*-240*	185(90°)	–	–	185*-240*
	Conductor diameter (mm)	9.3-19.2	10.5-18	–	–	11-19.2	–	–
185-400mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	185-400	185-400	185-240	185-240	185-400	–	185-240
	Cross-sectional range (mm <sup>2</sup> )	–	–	300*-400*	300(90°)	–	–	300*-400*
	Conductor diameter (mm)	15.5-24.6	14.8-24.6	–	–	15.5-24.6	–	–
<b>BSMB-185/400-500</b>								
185-400mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	185-400	185-400	185-240	185-240	185-400	–	185-240
	Cross-sectional range (mm <sup>2</sup> )	–	–	300*-400*	300(90°)	–	–	300*-400*
	Conductor diameter (mm)	15.5-24.6	14.8-24.6	–	–	15.5-24.6	–	–
500mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	500	500	–	–	500	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	25.3-28.9	24-25.1	–	–	25.3-28.6	–	–
<b>BSMB-85/400-630</b>								
185-400mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	185-400	185-400	185-240	185-240	185-400	–	185-240
	Cross-sectional range (mm <sup>2</sup> )	–	–	300*-400*	300(90°)	–	–	300*-400*
	Conductor diameter (mm)	15.5-24.6	14.8-24.6	–	–	15.5-24.6	–	–
630mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	630	630	–	–	630	–	–
	Cross-sectional range (mmv)	–	–	–	–	–	–	–
	Conductor diameter (mm)	28.7-32.5	27.3-28.4	–	–	28.7-32.5	–	–
<b>BSMB-500-630</b>								
500mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	500	500	–	–	500	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	25.3-28.9	24-25.1	–	–	25.3-28.6	–	–
630mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	630	630	–	–	630	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	28.7-32.5	27.3-28.4	–	–	28.7-32.5	–	–
<b>BSMB-630-800 MK2</b>								
630mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	630	630	–	–	630	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	28.7-32.5	27.3-28.4	–	–	28.7-32.5	–	–
800mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	800	800	–	–	800	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	32.5-35.3	30.5-32.1	–	–	32.5-35.3	–	–
<b>BSMB-630-1000</b>								
630mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	630	630	–	–	630	–	–
	Cross-sectional range (mmv)	–	–	–	–	–	–	–
	Conductor diameter (mm)	28.7-32.5	27.3-28.4	–	–	28.7-32.5	–	–
1000mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	1000	1000	–	–	1000	–	–
	Cross-sectional range (mmv)	–	–	–	–	–	–	–
	Conductor diameter (mm)	37-39.5	34.8-36	–	–	37-39.5	–	–
<b>BSMB-800-1000</b>								
800mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	800	800	–	–	800	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	32.5-35.3	30.5-32.1	–	–	32.5-35.3	–	–
1000mm <sup>2</sup> Side	Cross-sectional range (mm <sup>2</sup> )	1000	1000	–	–	1000	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	37-39.5	34.8-36	–	–	37-39.5	–	–

\*

Pressed round.

## BSMV

### Medium Voltage Split Connectors

Connectors  
and Fittings

#### BSMV Split connectors dimensions

Product name	Cross-sectional range (mm <sup>2</sup> )	Blocked	Dimensions (mm)				Contact bolts		Central bolt		Part Number
			L1	L2	D1	D2	Quantity	Head size AF 1 (mm)	Quantity	Head size AF 2 (mm)	
BSMV-120/300	120-300	yes	160	65	37	24	4	22	1	21	CB8256N001
BSMV-185/400	185-400	yes	190	80	42	25.5	6	22	1	19	CB8261N001
BSMV-630-MREM	630	yes	178	70	50	33	6	13	1	10	2107714-1

#### BSMV Split connectors selection and application table

Product name	Cross-sectional range / Conductor diameter	Application range Conductor type						
		Al circular stranded	Al circular solid	Al sector stranded	Al sector solid	Cu circular stranded	Cu circular solid	Cu sector stranded
BSMV-120/300	Cross-sectional range (mm <sup>2</sup> )	120-300	150-300	120-185	120-240	120-300	–	120-185
	Cross-sectional range (mm <sup>2</sup> )	–	–	240*-300*	–	–	–	240*-300*
	Conductor diameter (mm)	12.7-23.1	12.9-19.8	–	–	12.7-22.6	–	–
BSMV-185/400	Cross-sectional range (mm <sup>2</sup> )	185-400	185-400	185-240	185-240	185-400	–	185-240
	Cross-sectional range (mm <sup>2</sup> )	–	–	300*-400*	300(90°)	–	–	300*-400*
	Conductor diameter (mm)	15.5-24.6	14.8-24.6	–	–	15.5-24.6	–	–
BSMV-630-MREM	Cross-sectional range (mm <sup>2</sup> )	630	630	–	–	630	–	–
	Cross-sectional range (mm <sup>2</sup> )	–	–	–	–	–	–	–
	Conductor diameter (mm)	28.7-32.5	27.3-28.4	–	–	28.7-32.5	–	–

\*

Pressed round.





# Chapter VI

## Tools and Accessories



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## Torch Box with Contents FH-1630-S-MC10

### DESCRIPTION

- Torch box with nozzles BN28, BN38 and PN17, torch handle HSZ, constant pressure regulator R1, automatic cut-off valve CV, 4 m long high pressure hose SW4
- Weight: 4.8 kg
- Dimensions: 470 x 210 x 74 mm



Product name	Part Number
FH-1630-S-MC10	286311-000

## Torch Handle FH-1630-S-HNZ FH-1630-S-HSZ

### DESCRIPTION

- Torch handle with holder and shut-off valve for use on all FH-1630-S nozzles. Handle HSZ has in addition a pilot/full flame lever
- Nozzle connection thread: R 3/8", right
- Hose connection thread: R 3/8", left



Product name	Part Number
FH-1630-S-HNZ	597225-000
FH-1630-S-HSZ	839029-000

## Nozzles for FH-1630-S



Nozzles for FH-1630-S	Flame diameter (mm)	Gas consumption (kg/h)	Stern length (mm)	Part Number
FH-1630-S-BN28	28	0.46	195	295849-000
FH-1630-S-BN38	38	0.90	195	918209-000
FH-1630-S-BN50	50	2.00	195	604437-000
For Plumbing FH-1630-S-PN17	17	0.24	195	114047-000

## Torch Box with Contents FH-1630-PIE-MC10

### DESCRIPTION

- Torch box with nozzles BN28, BN38, BN50 and PN18, torch handle
- FH-1630-PIE with piezo ignition, safety regulator LGS, 4 m long high pressure hose SW4
- Weight: 4.8 kg
- Dimensions: 450 x 210 x 74 mm



Product name	Part Number
FH-1630-PIE-MC10	187225N001

## Torch Handle with Piezo Ignition FH-1630-PIE

### DESCRIPTION

- Torch handle with piezo ignition, gas supply only while handle is pressed
- Nozzle connection: bayonet socking
- Hose connection thread: R 3/8", left



Product name	Part Number
FH-1630-PIE	660983-000

## Nozzles for FH-1630-PIE



Nozzles for FH-1630-PIE	Flame diameter (mm)	Gas consumption (kg/h)	Stern length (mm)	Part Number
FH-1630-PIE-BN28	28	0.46	195	983099-000
FH-1630-PIE-BN38	38	0.90	195	201385-000
FH-1630-PIE-BN50	50	2.00	195	354957-000
For Plumbing FH-1630-PIE-PN18	18	0.24	210	201393N001

## Constant Pressure Regulator FH-1630-PIE-R2

### DESCRIPTION

- Applicable on propane gas tanks with a capacity of 5 kg or 11 kg. Thread connection fits to all FH-1630 high pressure hoses
- Gas flow: max. 6 kg/h
- Constant pressure: 2 bar
- Hose connection thread: R 3/8", left
- Gas bottle connection thread: W 21.8 x 1/14", left (DIN-Kombi)



Product name	Part Number
FH-1630-PIE-R2	052161N001

## Automatic Cut-off Valve FH-1630-PIE-CV

### DESCRIPTION

- The automatic cut-off valve is fitted between the hoses SW4, SW5 or SW10 and the constant pressure regulator and cuts off the gas supply in the event of damage to the hose or torch handle
- Connection threads: R 3/8", left



Product name	Part Number
FH-1630-PIE-CV	651823-000

## Safety Regulator FH-1630-PIE-LGS

### DESCRIPTION

- The safety regulator with integrated constant pressure regulator (2 bar, 2 kg/h) and automatic cut-off valve is fitted between the hose and the gas bottle
- Hose connection thread: R 3/8", left
- Gas bottle connection thread: W 21.8 x 1/14", left (DIN-Kombi)



Product name	Part Number
FH-1630-PIE-LGS	149567-000

## High Pressure Hoses

### DESCRIPTION

- Fitted with screw connections for
- FH-1630 constant pressure regulator and torch handle
- Connection threads: R 3/8", left
- Internal diameter: 4 mm
- Colour: orange



Product name	Length (m)	Part Number
FH-1630-PIE-SW4	4	299247-000
FH-1630-PIE-SW5	5	981741-000
FH-1630-PIE-SW10	10	753079-000

## Torch Assembly FH-1630-S-TS1

### DESCRIPTION

- Torch assembly of nozzle BN38, torch handle FH-1630-S-HNZ and 5 m long pressure hose SW5



Product name	Part Number
FH-1630-S-TS1	398323-000

## Heavy Duty Hot-Air Heating Tools

### FEATURES

- Robust, double-insulated heavy duty unit
- 1600-3400 watts
- Integral stand allowing use as bench tool
- Safe, quiet operation
- Precisely variable temperature
- Variety of reflectors available



### APPLICATION

- Used for installing dual or single wall tubing up to approximately 75 mm in diameter and a variety of other applications. Closed loop versions and a range of accessories available on request

Product name	Part Number
CV-1981-230V1600WMK2	813914-000
CV-1983-220V-2260W	773898-000
CV-1983-230V-3400W-VDE	538361-000

NOTE Product data sheet available on request.

## Complete Tool Kit IT-1000-001

### DESCRIPTION

- The tool kit contains all basic tools usually required for the cable preparation and the installation of accessories. Following tool sets are assembled in a leather case



Product name	Contents	Part Number
IT-1000-001	Complete tool kit	087184N002
IT-1000-003	1 x Wedge positioner for spreading cable cores	963194N001
IT-1000-005	1 x Hammer, 300 g 1 x Screwdriver, 3.5 mm 1 x Screwdriver, 6.5 mm 1 x Hacksaw 1 x Hacksaw junior	264977N001
IT-1000-006	1 x Pipe wrench, 250 mm 1 x Side cutter, 160 mm 1 x Pincers, 180 mm 1 x Blunt nose pliers, 180 mm 1 x Scissors, 200 mm	799664N001
IT-1000-007	1 x Folding ruler, 2 m 1 x Wire brush 1 x Hook knife 1 x Cable knife 1 x Sharpening stone, 125x100 mm 1 x File set, medium size	010396N001
IT-1000-008	1 x Control mirror, 100x100 mm 1 x Spreader 3 way 2 x Core separator 6 x Cleaning tissues 1 x Refillable solvent bottle (empty), 0.4 litre	218728N001
IT-1000-010	1 x Diameter tape, 2 m	938372N001
IT-1000-011	1 x Scoring tool for easy-strip screens	473548N001
IT-1000-012	1 x Leather tool case, 400x125x280 mm	635918N001
IT-1000-015	1 x Tee-handle spinner wrench, 300 mm 1 x Hexagon insert socket for wrenches, 13 mm 1 x Hexagon insert socket for wrenches, 17 mm 1 x Hexagon insert socket for wrenches, 19 mm 1 x Hexagon insert socket for wrenches, 22 mm	906235-000

NOTE The individual tool sets can be also ordered separately.

## Cordless Impact Wrench IT-1000-033-UK/US

### DESCRIPTION

- The ergonomic cordless impact wrench allows safe, fast and convenient installation of mechanical connectors and lugs using shear-head bolts. The wrench can be used for shear-head bolts up to 100 Nm. It is equipped with belt hook with integrated LED work light and delivered in stable compartmented carrying case



### The content of the case

- 1 x Cordless impact wrench
- 1 x Battery charger
- 2 x Li-ion battery 3.0 Ah (14.4 V)
- 8 x ½" hexagonal socket: 10; 13; 16; 17; 19; 22; 24; 27 mm
- 1 x Adapter to ¼" hexagonal drive
- 4 x Allen key insert: H5x65, H6x38, H6x65 and H8x65 mm
- 1 x Installation instruction

Product name	Part Number
IT-1000-033	CU1692N001

Product name Spare parts	Description	Part Number
IT-1000-033-BAT-LI-ION	battery Li-ion 3.0 Ah (14.4 V)	CH7652-000
IT-1000-033-CHRG-220V	charger for battery	CH7653-000

## IT-1000-002 Cable preparation stand

### FEATURES

- Lightweight aluminium construction
- Floor or bench mounting
- Adaptor included for the installation of terminations
- Removable legs for ease of transport

### APPLICATION

- For use in cable preparation



Product name	Cable Diameter (mm)	Length (mm)	Height (mm)	Height Adjustment of The Upper Part	Total Height	Weight (kg)	Part Number
IT-1000-002	15 – 100	700 – 1210	800	450 – 580	1010 – 1140	11.5	989800-000

## Cable Knife EXRM-0607

### DESCRIPTION

- Cable knife with fixed blade
- Length: 175 mm



Product name	Part Number
EXRM-0607	834686N001

## Hook Knife EXRM-0947

### DESCRIPTION

- Cable knife for oversheath stripping for cables with an outer diameter > 20 mm.
- Hook form of the blade ensures an easy and safe dismantling



Product name	Part Number
EXRM-0947	250533N001

## Scoring Tool for Easy Strip Screens IT-1000-011

### DESCRIPTION

- Fixed blade scoring tool for easy strip conduct layer



Product name	Scriber depth (mm)	Part Number
IT-1000-011	0.4	473548N001
IT-1000-011-0.6	0.6	605019N001

## Ratchet Type Cutter KR 600

### DESCRIPTION

- Ratchet type cable cutter for aluminium and copper conductors, stranded or solid up to 400 mm<sup>2</sup>
- Application range: Ø max. 52 mm



Product name	Part Number
KR 600	708728-1

## Insulation Stripping Pliers EXRM-1004

### DESCRIPTION

- Insulation stripping tool for paper insulated cables
- Length: 190 mm
- Application range: Ø 15-50 mm



Product name	Part Number
EXRM-1004	702607N001

## Insulation Stripping String EXRM-0764

### DESCRIPTION

- Insulation stripping string for plastic insulated cables
- Length: 2000 mm



Product name	Part Number
EXRM-0764	332451N001

## Insulation and Oversheath Stripping Tool IT-1000-024

### DESCRIPTION

- Designed for insulation removing and oversheath stripping of plastic insulated cables, ranging from 35 mm<sup>2</sup> 10 kV to 500 mm<sup>2</sup> 35 kV
- The automatic feed (2 steps) and the 0 position, for a radial cut, allow a quick, safe and exact cutting of the cable oversheath and insulation. The special shape of the knife lifts the sheath at the cutting point and thus prevents damage to any components underneath. Tool is supplied completely with an operating manual in a box
- Application range: Ø 15 - 50 mm, thickness up to 10 mm



Product name	Part Number
IT-1000-024	D23436N001

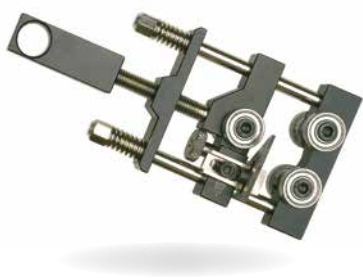
Product name Spare blade	Part Number
IT-1000-024-01	CJ8178-000



## Screen Removal Tool IT-1000-017

### DESCRIPTION

- Designed for screen removing of round plastic insulated conductors with coextruded and bonded semi-conductive screen. It is continuously adjustable to the core diameters within given range. Cutting depth easily changed with a knurled head screw. Delivered completely with operating manual, hexagonal allen key and a spare blade in a tool box



Application ranges	Product name IT-1000-017-1	Part Number
Over semi-conductive	Ø 16 – 34 mm	E87283N001
Rated Voltages U <sub>o</sub> /U (U <sub>m</sub> ) (kV)	Cable Cross Section (mm <sup>2</sup> ) according to IEC 502	
6 / 10 (12)	25 – 300	
8.7 / 15 (17.5)	25 – 240	
12 / 20 (24)	25 – 185	
18 / 30 (36)	35 – 120	
20 / 35 (42)	35 – 95	

Application ranges	Product name IT-1000-017-2	Part Number
Over semi-conductive layer	Ø 19 – 45 mm	490679N001
Rated Voltages U <sub>o</sub> /U (U <sub>m</sub> ) (kV)	Cable Cross Section (mm <sup>2</sup> ) according to IEC 502	
6 / 10 (12)	70 – 630	
8.7 / 15 (17.5)	50 – 630	
12 / 20 (24)	25 – 500	
18 / 30 (36)	35 – 400	
20 / 35 (42)	35 – 300	

Application ranges	Product name IT-1000-017-3	Part Number
Over semi-conductive layer	Ø 26 – 48 mm	E13408N001
Rated Voltages U <sub>o</sub> /U (U <sub>m</sub> ) (kV)	Cable Cross Section (mm <sup>2</sup> ) according to IEC 502	
6 / 10 (12)	120 – 800	
8.7 / 15 (17.5)	70 – 800	
12 / 20 (24)	50 – 630	
18 / 30 (36)	35 – 500	
20 / 35 (42)	35 – 400	

Product name Spare blade	Part Number
EXRM-1606	A43920N001

## Stripping Tool HVIA-STRIPPER

### DESCRIPTION

- Stripping tool for coextruded and bonded cable screens and primary insulation for HV cables. Completely delivered in a heavy-duty plastic case, with operating manual and one set of coated blades



Product name	Cable diameter (mm)		Part Number
	min.	max.	
HVIA-STRIPPER-35/90	35	90	F46396-000
HVIA-STRIPPER-75/150	75	150	D03633-000

## Hexagon Insert Socket EXRM-1228

### DESCRIPTION

- Extra long hexagon insert socket wrench is used for the installation of RICS adapters
- Insert socket size: 24 mm
- Length: 90 mm



Product name	Part Number
EXRM-1228	040695N001

## Installation Tool IT-1000-019

### DESCRIPTION

- Tool for holding mechanical connectors in position while tightening the bolts
- Length of handle: 205 mm
- Application range: Ø 15 - 60 mm



Product name	Part Number
IT-1000-019	541259N001

## Cleaning Tissues EPPA-004

### DESCRIPTION

- Tissues impregnated with water-soluble cleaning solution. For cleaning and degreasing of metal and plastic surfaces
- Size: 200 x 140 mm folded to 80 x 60 mm
- Packaging: 50 pieces in a box



Product name	Part Number
EPPA-004	A78013-000

## Channel Pulling Tool IT-1000-014

### DESCRIPTION

- Tool used for installation and securing of closing channels on heat-shrinkable wraparounds such as CRSM, MRSM and RFSM



Product name	Part Number
IT-1000-014	651467-000

## Ligarex Pliers IT-1000-004

### DESCRIPTION

- These special pliers are used for tightening the Ligarex ties. The Ligarex ties are used in earth connections of paper cables with metal sheaths



Product name	Part Number
IT-1000-004	613689-000

Product name Ligarex ties	Length (mm)	Part Number
EXRM-0302-250	250	827684N001
EXRM-0302-500	500	132336N001
EXRM-0302-800	800	393583N001

## Inflation Tool RDSS-IT-16

### DESCRIPTION

- Inflation tool for RDSS duct seals complete with ON/OFF switch and an automatic pressure monitoring system.
- The required CO<sub>2</sub> gas cylinders (E7512-0160) must be ordered separately.



Product name	Part Number
RDSS-IT-16	826061-000

## RDSS

Inflatable sealing system for cable ducts

### PROPERTIES

- The RDSS system consists of an inflatable bladder in laminated aluminium. Both sides are equipped with a pressure-activated sealing compound
- The bladder is wrapped around the cable or cables, and is then inserted in the hole. RDSS can also be used to seal holes without cables
- The pre-mounted compressed air hose is connected to a tool with a CO<sub>2</sub> gas cylinder. The tool automatically inflates the bladder to a pressure of 3 bar
- The pre-mounted compressed air hose is removed, after which a gel seal closes the inlet hole. The sealing compound now forms a permanent seal with both the cavity wall and the cables
- In ducts with 3 or more cables, an additional RDSS-CLIP sealing clip must be used, see selection table

### APPLICATION

- For sealing against water and moisture in concrete, plastic or metal cable ducts
- Ducts can be sealed with or without cables

### BENEFITS

- Easy installation, without having to remove the cables, as the seal is wrapped around the cables
- Seals both empty ducts and ducts containing multiple cables
- Prevents ingress of soil and water and can withstand highly polluted environments
- Easy to remove

### RDSS Sealing bladder



Product name	Application range	Pack QTY	Part Number
RDSS-45(S10)	See table	10	863155-000
RDSS-60(S10)	See table	10	776895-000
RDSS-75(S10)	See table	10	938709-000
RDSS-100(S10)	See table	10	828695-000
RDSS-125(S10)	See table	10	588693-000
RDSS-150(S10)	See table	10	485455-000

### Adapter

Product name	Application range	Pack QTY	Part Number
RDSS-AD-210(S4)	See table	4	679588-001

### Sealing clip



Product name	Application range	Pack QTY	Part Number
RDSS-CLIP-45(S5)	See table	5	196693-000
RDSS-CLIP-75(S5)	See table	5	291933-000
RDSS-CLIP-100(S5)	See table	5	848365-000
RDSS-CLIP-125(S5)	See table	5	296347-000
RDSS-CLIP-150(S5)	See table	5	741939-000
RDSS-AT/AP-150*	See table	1	059487-000

\* Duct blinding piece.

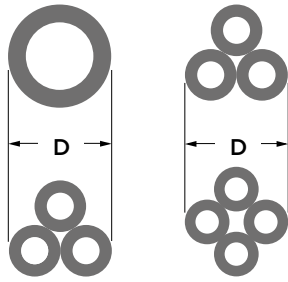
### Accessories



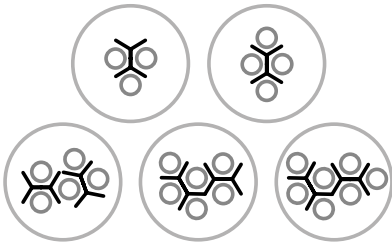
Part number		Pack QTY	Part Number
E4540-1435/1(B48)	Soap dispenser	48	CS9536-000
E7512-0160(B60)	Gas cylinders	68	985444-000
RDSS-IT-16	Inflation tool, cylinder type	1	826061-000

## RDSS

Inflatable sealing system for cable ducts



Cable or cable bundle diameters:



For each clip used, subtract 5 mm from the maximum cable diameter shown in the table to determine the maximum cable bundle diameter.



When three or more cables have to be sealed, a Raychem RDSS-Sealing-Clip is used in combination with the RDSS-Inflatable duct seal.

One RDSS-Clip seals up to 4 cables.

If more cables are to be sealed, use one extra clip per three additional cables as shown in the following examples for different multi-cable configurations:

Each RDSS-Seals empty ducts (except for size 150) and ducts containing up to 2 cables. The table above shows the minimum and maximum diameter of the cable or of the sum of 2 cables depending on the duct size. Dimensions in mm.

All Rayplate-RDSS sizes are packed in boxes of 10 pieces with 1 lubricant dispenser and an installation instruction.

RDSS-Clips are packed in boxes of 5 pieces. RDSS-Clips must be ordered as a separate item.



### Ordering information and selection table

Duct inside Ø	RDSS-45 cable Ø	RDSS-60 cable Ø	RDSS-75 cable Ø	RDSS-100 cable Ø	RDSS-125 cable Ø	RDSS-150 cable Ø
32,5	0 – 14					
35	0 – 18					
40	0 – 27					
45	0 – 32	0 – 18				
50		0 – 30				
55		0 – 38	0 – 28			
60		0 – 45	0 – 30			
65			0 – 40			
70			0 – 46			
75			0 – 56	0 – 45		
80				0 – 52		
85				0 – 60		
90				0 – 66		
95				0 – 74		
100				0 – 80	0 – 65	
105				55 – 95*	0 – 75	
110				60 – 100*	0 – 83	
115					0 – 91	
120					0 – 95	
125					0 – 103	60 – 100
130					70 – 110*	60 – 107
135					75 – 115*	60 – 112
140					80 – 120*	60 – 118
145					85 – 125*	60 – 123
150					90 – 130*	60 – 129
155						60 – 134*
160						60 – 139*
165						105 – 145*
170						110 – 150*
175						115 – 155*
180						120 – 160*
Clip selection	RDSS-CLIP-45	RDSS-CLIP-60	RDSS-CLIP-75	RDSS-CLIP-100	RDSS-CLIP-125	RDSS-CLIP-150

Suitable also for empty ducts  
Only with cables

\* RDSS-Clips must also be used for 2-cable configurations.

### Selection table for RDSS-AD-210 adaptor for large duct sizes

Duct inside Ø	1 x RDSS-AD-210 + RDSS-125 cable Ø	2 x RDSS-AD-210 + RDSS-125 cable Ø	1 x RDSS-AD-210 + RDSS-150 cable Ø	2 x RDSS-AD-210 + RDSS-150 cable Ø
130	0*			
135	0*			
140	0 – 40			
145	0 – 50			
150	0 – 65			
155	0 – 83			
160	0 – 91			
165	0 – 103			
170	70 – 110	0*	60 – 107	
175	75 – 115	0 – 40	60 – 112	
180	80 – 120	0 – 50	60 – 118	
185	90 – 130	0 – 65	60 – 129	
190		0 – 83	60 – 135	
195		0 – 95	60 – 139	
200		0 – 103	105 – 145	60 – 100
205		75 – 115	115 – 155	60 – 112
210		80 – 120	120 – 160	60 – 118

Suitable for empty ducts  
With cables only

\* Empty ducts only.

All dimensions in mm

## CES

### Raychem Heat-Shrinkable Cable Entry Seals

#### PROPERTIES

- Heat-shrinkable cable entry seals (CES) provide a watertight, fume-tight seal where cables enter connection boxes, bulkheads, or other enclosures. CESs are available in two basic types: standard and threaded.

#### APPLICATION

- Cable penetration into panels, junction boxes and sealed cabinets
- Bulkhead penetration

#### Standard CES



Product name	No. of legs	Overall Nom. recommended length	Min. expanded I.D. body	Max. recovered I.D. body	Max. I.D. of part	Drill size	Max. O.D. of nut	Pack QTY	Part Number
CES-1	1	69.85	12.70	4.32	19.05	25.40	35.81	20	409534-001
CES-2	1	69.85	19.05	6.35	19.05	25.40	35.81	20	967279-001
CES-3	1	95.25	28.45	12.70	27.94	35.05	48.31	10	912229-001
CES-4	1	114.30	40.64	19.05	39.62	50.80	69.09	10	848633-001
CES-5	1	177.80	69.85	36.32	73.66	88.90	103.38	5	744945-001

## GUROFLEX MV

*Cold-pour insulating compound Casting Material*



### APPLICATION

- Typically used as a filling compound for cable termination boxes and bus bar enclosures typically associated with switchgear, transformers and motors where clearances are an issue
- Used to replace traditional oil based hot pour compounds

### BENEFITS

- Cold pour - safe to use
- Clasified non hazardous
- Excellent electrical properties
- Cures to a soft solid - no leakage problems
- No topping up or waiting time
- Unaffected by water and oil based insulating compounds
- Can be installed in hot or cold conditions
- Can be cut out if re-entry required
- HCL resitant
- Conforms to CENELEC standard HD 629.1 S1

### GUROFLEX MV Cold-pour insulating compound

Product name	Volume	Product	Pack QTY	Part Number
JOR-59060	1 litre	GUROFLEX-MV-C100	60	EA2308-000
JOR-59003	5.3 litres	GUROFLEX-MV-C530	1	C82946-000
JOR-59005	10 litres	GUROFLEX-MV-C1000	1	E57640-000
On request	Grease to aid release / removal	EPPA-119-CABLE-GREASE	1	941945-000







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