

Power cable accessories catalogue







# Capability | Your connection point





### **Foreword**

# As in previous years we again see changes throughout the generation, transmission, and distribution of electricity in the UK that affect us all.

Within the renewables sector the rapid growth of solar power has declined due to the change in tariff support. However, from this downturn new technology and opportunities have arisen with the demand for battery storage to help balance the power being fed into the National Grid.

In the rail sector the demand for extra passenger and freight capacity requires a corresponding increase in power distribution in both AC and DC applications as evidenced with large projects such as West Coast Mainline, South East PSU and of course Crossrail.

Electricity distribution is also undergoing a radical change with the growth of IDNO's and ICP's challenging the traditional DNO market. M&E contractors are also benefiting from the increase in residential, commercial and industrial developments and huge projects such as Hinkley Point C.

All the above offer major opportunities for companies willing to invest in products, staff and technical expertise to service a demanding customer base and Jointing Tech are proud to be at the forefront in meeting all these challenges.

We understand our clients deserve the best service we can offer, whether by supplying the correct product from Industry leading manufacturers, providing comprehensive technical support with a fully equipped training centre or with a nationwide next day delivery service.

Jointing Tech, as the UK's leading specialist power cable and accessories distributor, as well as the associate companies within our Group, are here to help you achieve your goals and we look forward to being part of your future success.

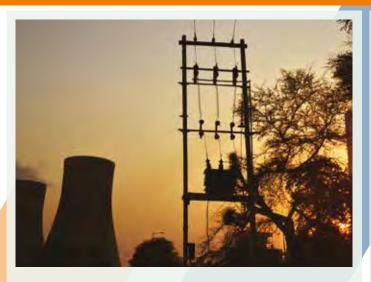
Adam Lloyd Managing Director

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# Jointing Tech | Partner Companies



### **Langley Engineering**

Langley Engineering are suppliers of medium voltage distribution equipment and accessories to the electrical distribution industry both in the UK and overseas.

Langley supply pad-mounted transformers, poletop transformers, voltage regulators, CPS separable connectors, test leads and accessories throughout the utilities industries.

As sole UK agency partner for Eaton Cooper Power Systems they offer a fully integrated, turnkey solution in the power generation, transmission and distribution environments.

The dedicated, knowledgeable team at Langley have more than 200 years' experience between them in the transformer, switchgear and separable connector markets and are on hand to help.

For further details visit the Langley Engineering website at: www.langleyengineering.co.uk



### **Jointing Tech - Trace Heating Tech**

Trace Heating Tech are the UK's largest distributor for Raychem trace heating products.

With more than 25 years' experience within the industry we offer design, supply and installation packages irrespective of project size.

Jointing Tech – Trace Heating Tech are proud to support some of the UK's largest M&E and insulation contractors along with consultants and various other engineers on the most prestigious and innovative projects throughout the UK and Europe.

As a trusted market leader in commercial and industrial Trace Heating with leak detection and electric underfloor heating adding to the packages available.

If you would like to know more about Trace Heating Tech and their vast product range and services please visit: www.traceheatingtech.co.uk

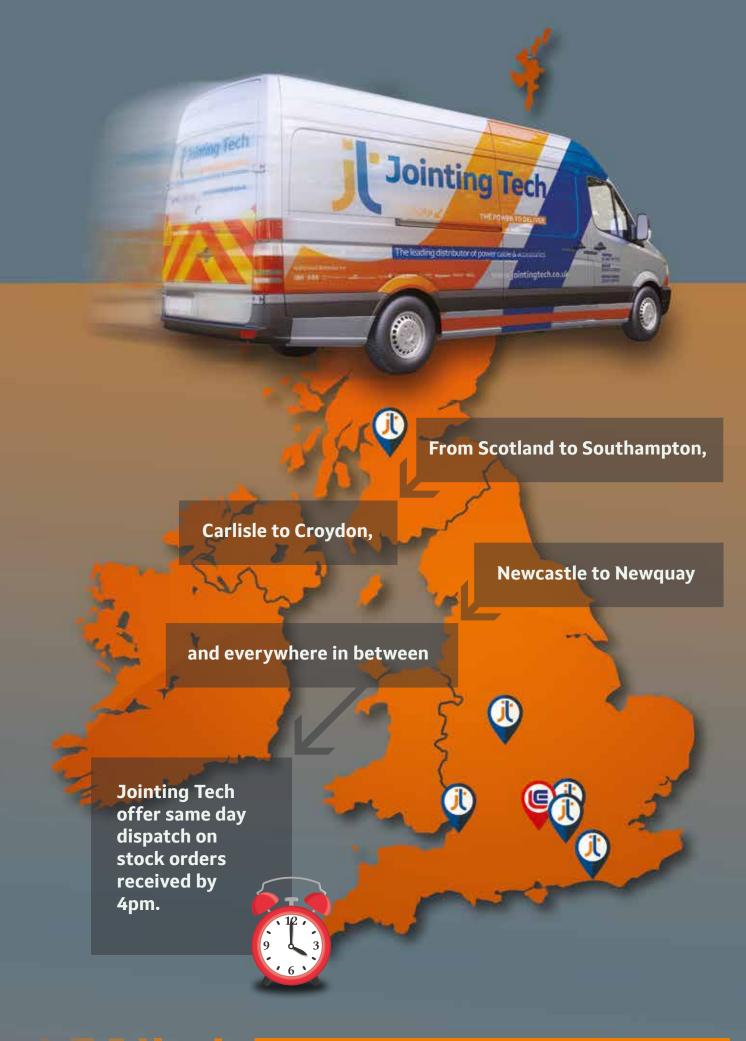




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THE POWER TO DELIVER



# **Cable Glands**

# Contents





### Single Core Armoured Cable Recommendations XLPE/AWA/PVC – 600/1000 Volt Copper Conductors



Product	Copper Conductor Size mm²												
	50	70	95	120	150	185	240	300	400	500	630	800	1000
Brass Stuffing Gland Size A1/A2	32	32	40	40	40	40	50S	50	50	63S	63S	75S	75
Aluminium Gland Size GACW	25	25	25	25	32	32	40	40	50S	50	50	63	63

### Single Core Unarmoured Cable Recommendations XLPE/PVC – 600/1000 Volt Copper Conductors



Product	Copper Conductor Size mm²												
	50	70	95	120	150	185	240	300	400	500	630	800	1000
Brass Stuffing Gland Size A1/A2	25	25	25	32	32	32	40	40	50S	50	50	63S	63

### **Nylon Stuffing Glands**



### **FEATURES**

- Designed to provide sealing and retention with unarmoured cables
- Suitable for indoor and outdoor use
- Manufactured from Polyamide PA6.6
- Sealing ring manufactured from Neoprene 50 sh A
- Available in black as standard and light grey and dark grey on request
- Temperature range -20°C to + 90°C
- Flammability rating UL 94 V2
- IP68 rated

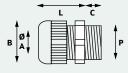


Indoor/outdoor for unarmoured cables

Part number	Size	Diameter Range
A2 Nylon 16	16	5-10mm
A2 Nylon 20	20	7-13mm
A2 Nylon 25	25	10-17mm
A2 Nylon 32	32	13-21mm

Part number	Size	Diameter Range
A2 Nylon 40	40	19-28mm
A2 Nylon 50	50	27-35mm
A2 Nylon 63	63	34-45mm

#### **Gland Details**



Size	Р	Fixing Hole Diameter mm	Diameter A Min-Max mm	B Spanner mm	C mm	L Min-Max mm
16	M16 x 1.5	16.5	5-10	19	8	22-27
20	M20 x 1.5	20.5	7-13	25	9	24-30
25	M25 x 1.5	25.4	10-17	30	10	28-39
32	M32 x 1.5	32.5	13-21	36	10	33-44
40	M40 x 1.5	40.5	19-28	46	10	36-45
50	M50 x 1.5	50.5	27-35	55	12	43-52
63	M63 x 1.5	64.0	34-45	66	12	45-55







### A2 - Brass Glands





### Indoor/outdoor for unarmoured cables

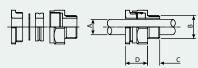
### **FEATURES**

- Brass indoor and outdoor cable gland and accessories
- For circular, unarmoured plastic or rubber sheathed cables
- Suitable for most climatic conditions, weatherproof and waterproof
- Kit comprises: A1/A2 gland, brass locknut and shroud
- Available in LSF version
- EN 50262
- BS 6121:Pt 1:1989
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland
- Service temperature -20°C to +90°C
- CuZn39Pb3 extruded brass alloy used for guaranteed strength and performance

Part number		Size
Standard		
A1/A2 20SS	A1/A2 20SS LSF	20SS
A1/A2 20S	A1/A2 20S LSF	20S
A1/A2 20	A1/A2 20 LSF	20
A1/A2 25	A1/A2 25 LSF	25
A1/A2 32	A1/A2 32 LSF	32
A1/A2 40	A1/A2 40 LSF	40

Part number		Size
A1/A2 50S	A1/A2 50S LSF	50S
A1/A2 50	A1/A2 50 LSF	50
A1/A2 63S	A1/A2 63S LSF	63S
A1/A2 63	A1/A2 63 LSF	63
A1/A2 75S	A1/A2 75S LSF	<b>75</b> S
A1/A2 75	A1/A2 75 LSF	75

### **Gland Details**





Size	Cable Dimensions mm		Gland Dimensions mm								
	Overall Di	Overall Diameter A		Thread	Approx.	Hexago	on Size				
	Min	Max	Size B	Length C	Length from Shoulder D	Across Flats E	Across Cor- ners F				
20SS	3.5	8.5	M20×1.5	10	20	22.0	24.9				
20S	8.0	11.5	M20×1.5	10	22	22.0	24.9				
20	11.0	13.5	M20×1.5	10	22	24.0	26.8				
25	13.0	19.5	M25×1.5	10	25	30.5	34.0				
32	19.0	25.5	M32×1.5	10	25	42.4	48.0				
40	25.0	32.0	M40×1.5	15	33	47.2	53.6				
50S	31.5	37.0	M50×1.5	15	30	55.0	60.0				
50	36.5	43.0	M50×1.5	15	30	56.4	61.5				
63S	42.5	50.0	M63×1.5	15	34	70.1	77.2				
63	49.5	55.0	M63×1.5	15	32	75.0	83.0				
75S	54.5	61.0	M75×1.5	15	32	80.0	87.4				
75	60.5	67.0	M75×1.5	15	40	85.0	95.0				







### **BW Gland Kit - Indoor Use**

### Language Company

### FEATURES

- Brass indoor gland and accessories
- For galvanized-steel single-wire armour plastic or rubber sheathed cables
- For use in dry, dust free, situations
- Provides mechanical retention and electrical continuity via armour locking mechanism
- Kit comprises: BW gland, brass earth tag, zinc plated steel locknut and shroud
- Available in LSF version
- EN 50262
- BS 6121:Pt 1:1989
- CuZn39Pb3 extruded brass alloy used for guaranteed strength and performance
- Service temperature range -20°C to +90°C

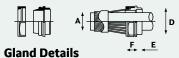


### Indoor type for SWA cable

Part number	Part number					
Standard						
BW20S	BW20S LSF	20S				
BW20	BW20 LSF	20				
BW25	BW25 LSF	25				
BW32	BW32 LSF	32				
BW40	BW40 LSF	40				

Part number	Size	
Standard		
BW50	BW50 LSF	50
BW63	BW63 LSF	63
BW75S	BW75S LSF	75S
BW75	BW75 LSF	75

### **Gland Details**





Size	Cable Dimen- sions mm	Gland Dimensions mm								
	Under Armour	Entry 1	Γhread	Approx.	Hexag	Hexagon Size				
	Diameter A Max	Size D	Length E	Length from Shoulder F	Across Flats G	Across Corners H				
20S	11.6	M20×1.5	10	24	22.0	24.9				
20	13.9	M20×1.5	10	25	27.0	30.5				
25	19.9	M25×1.5	10	26	32.9	36.8				
32	26.2	M32×1.5	10	28	42.4	47.8				
40	32.1	M40×1.5	15	25	50.0	57.0				
50	44.0	M50×1.5	15	36	70.1	77.2				
63	55.9	M63×1.5	15	30	80.0	87.4				
75S	61.9	M75×1.5	15	40	85.0	95.0				
75	67.9	M75×1.5	15	40	98.8	109.2				





### **CW Gland Kit - Outdoor Use**



Indoor/outdoor type for **SWA** cable

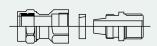
#### **FEATURES**

- Brass indoor and outdoor cable gland and accessories
- For circular, galvanized-steel single-wire-armour plastic or rubber sheathed cables
- Outer seal grips sheath of cable
- For use in most climatic conditions, weatherproof and waterproof
- Three part amour lock with separate armour locking ring, ideal for checking electrical continuity
- Kit comprises: CW gland, brass earth tag, zinc plated steel locknut and shroud
- Available in LSF version
- EN 50262
- BS 6121:Pt 1:1989
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland interface
- Service temperature range -20°C to +90°C
- CuZn39Pb3 extruded brass alloy used for guaranteed strength and performance

Part number	Part number					
Standard						
CW20SS	CW20SS LSF	20SS				
CW20S	CW20S LSF	20S				
CW20	CW20 LSF	20				
CW25	CW25 LSF	25				
CW32	CW32 LSF	32				
CW40	CW40 LSF	40				

Part number	Part number					
CW50S	CW50S LSF	50S				
CW50	CW50 LSF	50				
CW63	CW63 LSF	63				
CW75	CW75 LSF	75				
CW85	CW85 LSF	85				

#### **Gland Details**







Size		Cable Dime	nsions mm		Gland Dimensions mm				
	Under Armour	Ove Diam		Armour Wire	Entry Thread		Approx.	Hexagon Size	
	Diameter Max Min Max		Diameter	Size D	Length E	Length from Shoulder F	Across Flats G	Across Corners H	
20SS	8.6	8.0	13.2	0.9	M20×1.5	10	44	23.4	26.7
20S	11.6	8.0	15.8	0.9	M20×1.5	10	46	25.7	29.2
20	13.9	11.7	20.8	0.9/1.25	M20×1.5	10	46	30.5	34.0
25	19.9	17.0	27.2	1.25/1.6	M25×1.5	10	51	37.6	42.2
32	26.2	23.5	33.5	1.6/2.0	M32×1.5	10	56	47.3	53.6
40	32.1	29.0	39.9	1.6/2.0	M40×1.5	15	59	56.4	61.5
50S	38.1	38.0	46.2	2.0/2.5	M50×1.5	15	64	65.5	72.1
50	44.0	39.5	52.6	2.0/2.5	M50×1.5	15	64	70.1	77.2
63	55.9	51.3	65.3	2.5	M63×1.5	15	67	80.0	87.4
75	67.9	62.5	78.0	2.5	M75×1.5	15	76	98.8	109.2
85	74.0	68.0	88.0	3.15	M85×2	20	110	115.0	126.0





### CW Aluminium Gland Kit

### 医多类性多形的

### **FEATURES**

- Aluminium indoor and outdoor cable gland and accessories
- For circular, aluminium single-wire-armour plastic or rubber sheathed cables
- Outer seal grips sheath of cable
- For use in most climatic conditions, weatherproof and waterproof
- Three part amour lock with separate armour locking ring, ideal for checking electrical continuity
- Kit comprises: CW aluminium gland, aluminium earth tag, aluminium locknut and shroud
- Available in LSF version
- EN 50262
- BS 6121:Pt 1:1989
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland interface
- Service temperature range -20°C to +90°C
- 6082 extruded aluminium alloy used for guaranteed strength and performance

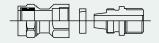


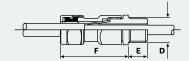
Indoor/outdoor type for aluminium wire armoured cable

Part number	Size	
Standard	LSF	
GACW20S	GACW20SLSF	20S
GACW20	GACW20LSF	20
GACW25	GACW25LSF	25
GACW32	GACW32LSF	32
GACW40	GACW40LSF	40

Part number	Size		
Standard	LSF		
GACW50S	GACW50SLSF	50S	
GACW50	GACW50LSF	50	
GACW63	GACW63LSF	63	
GACW75	GACW75LSF	75	

#### **Gland Details**







Size		Cable Dime	nsions mm		Gland Dimensions mm				
	Under Armour	Ove Diam		Armour Wire	Entry Thread		Approx.	Hexagon Size	
	Diameter Max	Min	Max	Diameter	Size D	Length E	Length from Shoulder F	Across Flats G	Across Corners H
20	13.9	11.7	20.8	0.9/1.25	M20×1.5	10	46	30.5	34.0
25	19.9	17.0	27.2	1.25/1.6	M25×1.5	10	51	37.6	42.2
32	26.2	23.5	33.5	1.6/2.0	M32×1.5	10	56	47.3	53.6
40	32.1	29.0	39.9	1.6/2.0	M40×1.5	15	59	56.4	61.5
50S	38.1	38.0	46.2	2.0/2.5	M50×1.5	15	64	65.5	72.1
50	44.0	39.5	52.6	2.0/2.5	M50×1.5	15	64	70.1	77.2
63	55.9	51.3	65.3	2.5	M63×1.5	15	67	80.0	87.4
75	67.9	62.5	78.0	2.5	M75×1.5	15	76	98.8	109.2







### E1W Brass Gland Kit



Indoor/outdoor weatherproof for SWA cables

### **FEATURES**

- Brass indoor and outdoor cable gland and accessories
- For circular plastic or rubber sheathed cables with extruded bedding
- Outer seal grips sheath of cable
- Inner seal grips bedding layer of cable
- For use in most climatic conditions, weatherproof and waterproof
- Three part armour lock with separate armour locking ring, ideal for checking electrical continuity
- Kit comprises: E1W gland, brass earth tag, zinc plated steel locknut and shroud
- Available in LSF version
- EN 50262
- BS 6121:Pt 1:1989
- Inner and outer seal rated to IP66
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland interface
- Service temperature range -20°C to +90°C
- CuZn39Pb3 extruded brass alloy used for guaranteed strength and performance

Part number	Part number				
Standard	LSF				
E1W20SS	E1WLSF20SS	20SS			
E1W20S	E1WLSF20S	20S			
E1W20	E1WLSF20	20			
E1W25	E1WLSF25	25			
E1W32	E1WLSF32	32			
E1W40	E1WLSF40	40			

Part number		Size
	LSF	
E1W50S	E1WLSF50S	50S
E1W50	E1WLSF50	50
E1W63S	E1WLSF63S	63S
E1W63	E1WLSF63	63
E1W75S	E1WLSF75S	75S
E1W75	E1WLSF75	75

### **Gland Details**







Size	Cable Dimensions mm					Gland Dimensions mm				
	Dian	Armour neter ax	Ove Dian	erall neter	Armour Entry Thread Wire Diameter		Entry Thread		Hexagon Size	
	Min	Max	Min	Max		Size Length D E	from Shoulder F	Across Flats G	Across Corners H	
20SS	6.3	8.6	8.0	13.2	0.9	M20×1.5	15	44	23.4	26.7
20S	8.7	11.6	8.0	15.8	0.9/1.25	M20×1.5	15	46	25.7	29.2
20	11.7	13.9	11.7	20.8	0.9/1.25	M20×1.5	15	46	30.5	34.0
25	13.0	19.9	17.0	27.2	1.25/1.6	M25×1.5	15	51	37.6	42.2
32	20.0	26.2	23.5	33.5	1.6/2.0	M32×1.5	15	56	47.3	53.6
40	26.3	32.1	29.0	39.9	1.6/2.0	M40×1.5	15	59	56.4	61.5
50S	32.2	38.1	38.0	46.2	2.0/2.5	M50×1.5	15	64	60.0	66.0
50	38.2	44.0	39.5	52.6	2.0/2.5	M50×1.5	15	64	70.1	77.2
63S	44.1	50.0	50.0	58.9	2.5	M63×1.5	15	67	75.0	83.0
63	50.1	55.9	51.3	65.3	2.5	M63×1.5	15	67	80.0	87.4
75S	56.0	61.9	62.0	71.6	2.5	M75×1.5	15	76	90.2	99.1
75	62.0	67.9	62.5	78.0	2.5	M75×1.5	15	76	98.8	109.2





### Cable Glands Integral Earth Glands



### **CW Brass Gland with Integral Earth**

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### FEATURES

- Brass indoor and outdoor cable gland with earth bonding connection
- Suitable for circular galvanised steel single wire armoured, plastic or rubber sheathed cables
- Outer seal grips sheath of cable
- For use in most climatic conditions, weatherproof and waterproof
- Three part armour lock with separate armour locking ring
- Kit comprises CW brass gland with integral earth & locknut
- For use in high fault current applications
- EN 50262
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland interface
- Service temperature range -20°C to +90°C
- Integral earth connection complies with GDCD 190 Category A (43.3kA for 1 second)



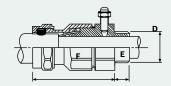
For steel wire armour cable

Part number	Size
CWCIEL20S	20S
CWCIEL20	20
CWCIEL25	25
CWCIEL32	32
CWCIEL40	40

Size
50
63
75
85

### **Gland Details**





Size		Cable Dimensions accommodated mm					Gland Dimensions mm				
	Dian	Under Armour Diameter Max		Diameter Diameter W		Armour Wire Diameter	Entry Thread		Approx. Length	Hexagon Size	
	Min	Max	Min	Max		Size D	Length E	from Shoulder F	Across Flats G	Across Corners H	
20S	-	11.6	8.0	15.8	0.9/1.25	M20×1.5	10	56	30.5	34.0	
20	-	13.9	11.7	20.8	0.9/1.25	M20×1.5	10	56	30.5	34.0	
25	-	19.9	17.0	27.2	1.25/1.6	M25×1.5	10	63	42.4	48.0	
32	-	26.2	23.5	33.5	1.6/2.0	M32×1.5	10	73	56.4	61.5	
40	-	32.1	29.0	39.9	1.6/2.0	M40×1.5	15	77	56.4	61.5	
50	-	44.0	39.5	52.6	2.0/2.5	M50×1.5	15	84	70.1	77.2	
63	-	55.9	51.3	65.3	2.5	M63×1.5	15	84	90.1	100.0	
75	-	67.9	62.5	78.0	2.5	M75×1.5	15	94	106.2	117.0	
85	-	74.0	68.0	88.0	3.15	M85×2	20	125	115.0	126.0	

### Integral Earth Glands Cable Glands



### **CW Aluminium Gland with Integral Earth**



## For aluminium wire armour cable

### **FEATURES**

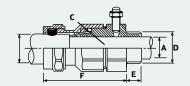
- Aluminium indoor and outdoor cable gland with earth bonding connection
- Suitable for circular aluminium single wire armoured, plastic or rubber sheathed cables
- Outer seal grips sheath of cable
- For use in most climatic conditions, weatherproof and waterproof
- Three part armour lock with separate armour locking ring
- Kit comprises CW aluminium gland with integral earth and locknut
- For use in high fault current applications
- EN 50262
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland interface
- Service temperature range -20°C to +90°C
- Integral earth connection complies with GDCD 190 Category A (43.3kA for 1 second)

Part number	Size
GACWCIEL32	32
GACWCIEL40	40
GACWCIEL50	50

Part number	Size
GACWCIEL63	63
GACWCIEL75	75

### **Gland Details**





Size	C	Cable Dimen	sions accom	modated mi	m	Gland		nd Dimensions mm		
	Under Armour Diameter A Max		Overall Diameter B		Armour Wire Diameter	Entry Thread		Approx. Length	Hexag	on Size
	Min	Max	Min	Max	С	Size D	Length E	from Shoulder F	Across Flats G	Across Corners H
32	-	26.2	23.5	33.5	1.6/2.0	M32×1.5	10	73	56.4	61.5
40	-	32.1	29.0	39.9	1.6/2.0	M40×1.5	15	77	56.4	63.2
50	-	44.0	39.5	52.6	2.0/2.5	M50×1.5	15	84	70.1	77.2
63	-	55.9	51.3	65.3	2.5	M63×1.5	15	84	90.2	99.1
75	-	67.9	62.5	78.0	2.5	M75×1.5	15	94	106.2	117.0





### **Insulated Adaptor**

### **FEATURES**

- Used where the enclosure is not relied upon for bonding the cable to the earth, for example:
- To prevent the heating effects of circulating currents
- To segregate low voltage and high voltage earth fault paths
- Impact resistance: 7 Joules
- Ambient Temperature: -50°C to +85°C
- Material: Brass (481AA Series) or Aluminium (481AL Series)
- Insulator: 30% glass filled nylon 12
- Certified: EExd IIC for hazardous area applications



Part number	Size
481AA53	20
481AA55	25
481AA56	32
481AA57	40

Part number	Size
481AA59	50
481AA61	63
481AA63	75

### **Insulated Adaptor Details**

Reference Number	Equipment Thread Size	Hex A/F	Hex A/C	Total Length	Male Length	Female Depth	Bore
481AA 53	M20	30.5	35.5	54.0	16.0	17.0	13.5
481AA 55	M25	37.6	43.2	54.0	16.0	17.0	19.0
481AA 56	M32	47.2	54.3	54.0	16.0	17.0	25.0
481AA 57	M40	55.9	64.1	54.0	16.0	17.0	30.0
481AA 59	M50	70.1	80.8	54.0	16.0	17.0	40.5
481AA 61	M63	80.0	92.0	54.0	16.0	17.0	53.0
481AA 63	M75	95.3	109.5	54.0	16.0	17.0	65.0

### Reducers

### FEATURES

- Problems caused by dissimilar threads can occur in both hazardous and industrial environments
- Reducers provide a means of connection between dissimilar thread sizes
- Effectively reduces the threaded entry diameter of an enclosure to accept a gland or fitting with a smaller thread. Reducers may also be supplied to accept smaller glands of alternative threads forms
- EExd and EExe certified as ATEX, CSA, IECE and GOST Standards



**EExd & EExe Reducers** 

Part number	Male Thread	Female Thread
MR2016	M20	M16
MR2520	M25	M20
MR3220	M32	M20
MR3225	M32	M25
MR4025	M40	M25

Part number	Male Thread	Female Thread	
MR4032	M40	M32	
MR5032	M50	M32	
MR5040	M50	M40	
MR6350	M63	M50	
Also available in other sizes and stainless steel, aluminium or nylon			







### **Brass & Aluminium Earth Tags**





### **FEATURES**

- Ensures earth continuity is maintained between the gland and the equipment
- Aluminium earth tags should be used with aluminium glands

Part number		Size
Brass	Aluminium	
428ET51	458ET51	16
428ET53	458ET53	20
428ET55	458ET55	25
428ET56	458ET56	32
428ET57	458ET57	40

Part number			
Aluminium			
458ET59	50		
458ET61	63		
458ET63	75		
458ET65	85/90		
	458ET59 458ET61 458ET63		



### **Brass, Steel & Aluminium Locknuts**



### **FEATURES**

- Used to secure cable gland to the equipment where entry hole is not tapped
- Brass backnuts recommended for most corrosive environments
- Aluminium backnuts should be used with aluminium glands
- Steel locknuts are primarily for dry, low humidity environments

Part number			Size
		Aluminium	
429AA51	439AA51	459AA51	16
429AA53	439AA53	459AA53	20
429AA55	439AA55	459AA55	25
429AA56	439AA56	459AA56	32
429AA57	439AA57	459AA57	40

Part number			Size
		Aluminium	
429AA59	439AA59	459AA59	50
429AA61	439AA61	459AA61	63
429AA63	439AA63	459AA63	75
429AA69	439AA69	459AA69	85



### **Sealing Washers**



### **FEATURES**

- High performance sealing washers
- Improves the IP rating between the gland and the equipment.
- Fibre to BS6091 Pt1
- Nylon 6.6

Part number		Size
Fibre	Nylon	
41702-53	25111-003	20
41702-55	25111-005	25
41702-56	25111-006	32
41702-57	25111-007	40
41702-59	25111-009	50

Part number		Size
	Nylon	
41702-61	25111-011	63
41702-63	25111-013	75
41702-64	25111-014	85
41702-65	25111-015	90







# Renewables | A brighter future



# **Cable Lugs and Connectors**

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### Cable Lugs & Connectors Pre-Insulated Terminals



### **Ring Terminals**

### FEATURES

■ Pre-insulated halogen free ring type terminal with funnel entry

Part number	Colour	Hole Size	Conductor Size
RF-M	Red	3, 3.5, 4, 5, 6, 8, 10, 12mm	0.25-1.5mm²
BF-M	Blue	3, 3.5, 4, 5, 6, 8, 10, 12mm	1.5-2.5mm²
GF-M	Yellow	3.5, 4, 5, 6, 8, 10, 12mm	4-6mm²



### **Butt Connectors**

### FEATURES

■ Pre-insulated straight connectors with funnel entry

Part number	Colour	Conductor Size
PL03-M	Red	0.25-1.5mm²
PL06-M	Blue	1.5-2.5mm²
PL1-M	Yellow	4-6mm²



### **Pin Terminals**

### FEATURES

■ Pre insulated halogen free pin type terminal with funnel entry

Part number	Colour	Pin Length	Conductor Size
RF-P	Red	8, 10, 12mm	0.25-1.5mm²
BF-P	Blue	8, 10, 12mm	1.5-2.5mm²
GF-P	Yellow	10, 12, 14mm	4-6mm²



### **Blade Terminals**

### FEATURES

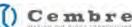
■ Pre insulated halogen free blade type terminal with funnel entry

Colour	Blade Length	Conductor Size
Red	13, 17mm	0.25-1.5mm²
Blue	13, 17mm	1.5-2.5mm²
Yellow	13, 17mm	4-6mm²
	Red Blue	Red 13, 17mm Blue 13, 17mm



Also available in this range are Fork terminals, male and female disconnect and end sleeves.





### LV Lugs Cable Lugs & Connectors



### **LV Copper Lugs**



### **FEATURES**

- Designed to be crimped on to a conductor to facilitate the termination of the cable via the lug hole
- Copper lugs are electrolytically tin plated to avoid oxidation
- Each terminal has a sight hole for visual inspection of the conductor inserted
- 1000V Rated

## LV copper tube crimping lugs

Part number	Hole Size	Conductor Size	
A03-M	3.5, 4, 5, 6mm	1.5mm²	
A06-M	3.5, 4, 5, 6, 8mm	2.5mm²	
A1-M	3.5, 4, 5, 6, 8mm	4-6mm²	
A2-M	3, 4, 5, 6, 8,10mm	10mm²	
А3-М	4, 5, 6, 8,10,12mm	16mm²	
A5-M	4, 5, 6, 8,10,12mm	25mm²	
A7-M	5, 6, 8,10,12mm	35mm²	
A10-M	6, 8,10,12, 14,16mm	50mm²	
A14-M	6, 8,10,12, 14,16mm	70mm²	
A19-M	8,10,12, 14,16, 20mm	95mm²	

Part number	Hole Size	Conductor Size
A24-M	8,10,12, 14,16, 20mm	120mm²
А30-М	8,10,12, 14,16, 20mm	150mm²
А37-М	8,10,12, 14,16, 20mm	185mm²
A48-M	10,12, 14,16, 20mm	240mm²
A60-M	10,12, 14,16, 20mm	300mm²
A80-M	12,16,20mm	400mm²
A100-M	16, 20mm	500mm²
A120-M	16, 20mm	630mm²
A160-M	16, 20mm	800mm²
A200-M	16, 20mm	1000mm²



### **LV Narrow Palm Copper Lugs**



### **FEATURES**

- Designed to be crimped onto a conductor to facilitate the termination of the cable via the lug hole in tight spaces and reduced space terminal blocks
- Copper lugs are electrolytically tin plated to avoid oxidation
- Each terminal has a sight hole for visual inspection of the conductor inserted
- Please refer to our tooling and equipment section on page 212 for dies and tooling
- 1000V Rated
- Tested to BS EN 61238

## LV narrow palm copper tube crimping lugs

Part number	Palm Width	Hole Size	Conductor Size
BTN10-M	9mm	5mm	10mm²
BTN16-M	9mm	5mm	16mm²
BTN25-M	9mm	5mm	25mm²
ВТN35-М	11.5mm	6mm	35mm²
ВТN50-М	11.5mm	6mm	50mm²
ВТN70-М	11.5mm	6mm	70mm²

Part number	Palm Width	Hole Size	Conductor Size
вти95-м	15.5mm	8mm	95mm²
BTN120-M	19mm	8, 10mm	120mm²
BTN150-M	19mm	8, 10mm	150mm²
BTN185-M	24.5mm	10mm	185mm²
BTN240-M	31mm	10, 12, 16mm	240mm²
ВТN300-М	31mm	10, 12mm	300mm²





### Cable Lugs & Connectors LV Lugs



### **LV 2 Bolt Copper Lugs**

### FEATURES

- Designed to facilitate the termination of the cable via two lug holes
- 1000V Rated
- Tested to BS EN 61238



LV 2 bolt copper tube crimping lugs

Part number	Hole Size	Conductor Size
A24-2M8	2 x 8mm	120mm²
A30-2M12	2 x 12mm	150mm²
A37-2M12	2 x 12mm	185mm²
A48-2M12	2 x 12mm	240mm²
A60-2M12	2 x 12mm	300mm²

Part number	Hole Size	Conductor Size
A80-2M12	2 x 12mm	400mm²
A100-2M12	2 x 12mm	500mm²
A120-2M12	2 x 12mm	630mm²
A160-2M12	2 x 12mm	800mm²

### LV Copper Pin Terminal

### FEATURES

- Designed to be crimped to reduce conductor size for termination into contact blocks
- 1000V Rated
- Tested to BS EN 12449



### LV copper reducing pin terminal

Part number	Pin Diameter	Conductor Size
L10PIN	3.8mm	10mm²
L16PIN	3.7mm	16mm²
L25PIN	5mm	25mm²
L35PIN	5mm	35mm²
L50PIN	7.5mm	50mm²
L70PIN	8mm	70mm²
L95PIN	8mm	95mm²

Part number	Pin Diameter	Conductor Size
L120PIN	10mm	120mm²
L150PIN	10mm	150mm²
L185PIN	14mm	185mm²
L240PIN	14mm	240mm²
L300PIN	16mm	300mm²
L400PIN	16mm	400mm²

### **LV 4 Bolt Copper Lugs**

### **FEATURES**

- Designed to facilitate the termination of a cable on to a transformer
- 1000V Rated
- Tested to BS EN 61238



### LV 4 bolt fixing transformer lugs

Part number	Hole Size	Conductor Size
A37-4ESI	4 x 8mm	185mm²
A48-4ESI	4 x 8mm	240mm²
A60-4ESI	4 x 8mm	300mm²
A80-4ESI	4 x 8mm	400mm²

Part number	Hole Size	Conductor Size
A100-4ESI	4 x 8mm	500mm²
A120-4ESI	4 x 8mm	630mm²
A160-4ESI	4 x 8mm	800mm²
A200-4ESI	4 x 8mm	1000mm²





### LV Lugs & Splices Cable Lugs & Connectors



### LV Copper Lugs - Angled 90°



### LV copper tube crimping lugs angled at 90°

### **FEATURES**

- Designed to be crimped on to a conductor to facilitate the termination of a cable where a 90° angle is required.
- Copper lugs are electrolytically tin plated to avoid oxidation
- Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors that will have to withstand the severe deformation arising when compressed and any bending of the palm during installation
- 1000V Rated
- Tested to BS EN 61238

Part number	Hole Size	Conductor Size
LR50-M	6, 8, 10, 12mm	50mm²
LR70-M	8, 10, 12mm	70mm²
LR95-M	8, 10, 12mm	95mm²
LR120-M	10, 12mm	120mm²

Part number	Hole Size	Conductor Size
LR150-M	10, 12mm	150mm²
LR185-M	10, 12mm	185mm²
LR240-M	12mm	240mm²
LR300-M	12mm	300mm²

### **LV Copper Splices**



### **FEATURES**

- Designed to be crimped onto same size conductors to connect and create a straight connection
- Features an internal taper at both ends to ease the introduction of the conductor and a central stop to ensure correct positioning
- Electrolytically tin plated with minimum thickness of 3µm to avoid oxidation
- 1000V Rated
- Tested to BS EN 61238

### LV copper crimp splices

Part number	Conductor Size
L03-M	1.5mm²
L06-M	2.5mm²
L1-M	4-6mm²
L2-M	10mm²
L3-M	16mm²
L5-M	25mm²
L7-M	35mm²
L10-M	50mm²
L14-M	70mm²
L19-M	95mm²

Part number	Conductor Size
L24-M	120mm²
L30-M	150mm²
L37-M	185mm²
L48-M	240mm²
L60-M	300mm²
L80-M	400mm²
L100-M	500mm²
L120-M	630mm²
L160-M	800mm²
L200-M	1000mm²





### Cable Lugs & Connectors LV Lugs & Splices



### **LV Aluminium Lugs**

### FEATURES

- Designed to be crimped on to a conductor to facilitate the termination of the cable via the lug hole
- Aluminium lugs are made from 99.5% pure aluminium
- Barrels are capped and filled with grease so as to avoid oxidation of the aluminium
- Non-circular conductors may require pre-rounding prior to the introduction to the terminal
- Increased barrel length and internal taper to ease the introduction of the conductor
- 1000V Rated
- Tested to BS EN 61238



## LV aluminium tube crimping lugs

Part number	Size	Conductor Size
AA16-M	8mm	16mm²
AA25-M	8mm	25mm²
AA35-M	8, 10mm	35mm²
AA50-M	12, 14mm	50mm²
AA70-M	12, 14mm	70mm²
AA95-M	12, 14mm	95mm²

Part number	Size	Conductor Size
AA120-M	12, 14mm	120mm²
AA150-M	12, 14mm	150mm²
AA185-M	12, 14mm	185mm²
AA240-M	12, 14mm	240mm²
AA300-34-M	12, 14, 16mm	300mm²

### **LV Aluminium Splices**

### FEATURES

- Designed to be crimped on to same size conductors to connect and create a straight connection
- Aluminium splices are made from 99.5% pure aluminium
- Features a solid stop which creates a barrier between the two conductors
- Barrels are capped and filled with grease so as to avoid oxidation of the aluminium
- Non-circular conductors may require pre-rounding prior to the introduction to the splice
- 1000V Rated
- Tested to BS EN 61238
- CE Approved

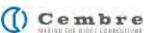




LV aluminium tube crimp splices

Part number	Conductor Size
MTMA10-GC	10mm²
MTMA16-GC	16mm²
MTMA25-GC	25mm²
MTMA35-GC	35mm²
MTMA50-GC	50mm²
MTMA70-GC	70mm²
MTMA95-GC	95mm²

Part number	Conductor Size
MTMA120-GC	120mm²
MTMA150-GC	150mm²
MTMA185-GC	185mm²
MTMA240-GC	240mm²
MTMAD300-GC	300mm²



### LV Lugs & Splices Cable Lugs & Connectors



### **LV Aluminium Mechanical Lugs**



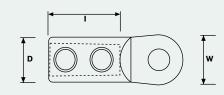
### LV aluminium mechanical lugs for use on solid sectoral aluminium conductors

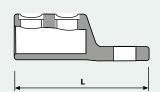
### **FEATURES**

- Designed to be connected on to a conductor to facilitate the termination of the cable without the need for crimping
- Low torque shear head bolts
- Solid moisture block between palm and barrel
- Range taking
- Designed to meet BS 4579 Part 3 and Engineering Recommendation C79

Part number	Stud Size	Conductor Size
LVET120	12, 16mm	95-120mm²
LVET185	12, 16mm	150-185mm²
LVET300	12, 16mm	240-300mm²

### **Mechanical Lugs Data**





Part number	Dimensions mm			Spanner or Socket	
number	L	1	D	w	A/F
LVET120	86	40	28	32	13
LVET185	104	56	35	39	19
LVET300	116	56	41	43	19

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### **LV Brass Mechanical Lugs**



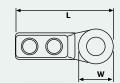
### LV brass mechanical lugs for use on copper/ aluminium conductors

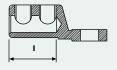
### **FEATURES**

- Designed to be connected on to a conductor to facilitate the termination of the cable without the need for crimping.
- Low torque shear head bolts.
- Blocked barrel to prevent water ingress
- Range taking
- Designed to meet BS 4579 and Engineering Recommendation C79

Part number	Stud Size	Conductor Size
BET35C	12mm	up to 35mm²
ВЕТ60С	12, 16mm	up to 60mm²
BET120C	10, 12, 16mm	up to 120mm²

### **Mechanical Lugs Data**





Part number		Dimensions mm		Maximum Conduc-	Installation Tool
	L	ı	w	tor Size mm²	
BET35C	55	25	20	35	3mm allen
BET60C	70	34	25	60	13mm socket
BET120C	86	46	28	120	16mm socket





### Cable Lugs & Connectors LV Mechanical Lugs



### LV Mechanical Connectors - Straight/Branch



### FEATURES

- Designed to facilitate a simple inline connection between conductors without the need for crimping
- Shear bolt technology to ensure a good electrical connection
- Can be used as a transition connector between cables with different conductor constructions
- JP1 available with brass transitional gauze as option for copper conductors

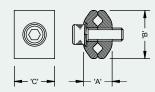


# LV mechanical connector for inline joints

Part number	Manufacturer	Conductor Size
JP1	TE Connectivity	up to 35mm²
MCB25	TE Connectivity	4-25mm²
MCB50	TE Connectivity	4-50mm²
MCB70	TE Connectivity	10-70mm²
UST95	TE Connectivity	35-95mm²

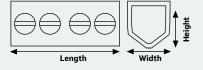
Part number	Manufacturer	Conductor Size
UST185	TE Connectivity	35-185mm²
UST300	TE Connectivity	70-300mm²
UBR95	TE Connectivity	16-95mm²
UBR185	TE Connectivity	16-185mm²
UBR300	TE Connectivity	95-300mm²

#### JP1 Data



Reference	Dimensions mm		
	A B C		
JP1	14.5	24	20

### **MCB Data**



Reference	Dimensions mm		
	Length	Height	Width
MCB25	38	14	12
MCB50	45	16	14
MCB70	53	18	16

#### **UST Data**

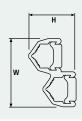




Reference	Dimensions mm		
	L	Н	W
UST95	80	25	25
UST185	108	32	34
UST300	108	36	40

#### **UBR Data**





Reference	Dimensions mm		
	Length	Height	Width
UBR95	40	36	49
UBR185	54	45	66
UBR300	54	52	77





### **MV Lugs Cable Lugs & Connectors**



### **MV Copper Lugs**



MV copper tube crimping lugs

### **FEATURES**

- Designed to be crimped on to a conductor to facilitate the termination of the cable via the lug hole
- Absence of inspection hold prevents ingress of moisture into crimp
- MV copper lugs are electrolytically tin plated to avoid oxidation
- MV copper lugs have a double length barrel for enhanced electrical & mechanical performance
- Please refer to our tooling and equipment section on page 212 for dies and tooling
- 33kV rated
- Tested to BS EN 61238
- UL Listed (up to 300mm²)
- DEF Standard 59-71 Approved

Part number	Size	Conductor Size
2A3-M	8, 10mm	16mm²
2A5-M	8, 10, 12mm	25mm²
2A7-M	8, 10, 12mm	35mm²
2A10-M	10, 12, 14, 16mm	50mm²
2A14-M	10, 12, 14, 16mm	70mm²
2A19-M	10, 12, 14, 16, 20mm	95mm²
2A24-M	10, 12, 14, 16, 20mm	120mm²
2A30-M	10, 12, 14, 16, 20mm	150mm²

Part number	Size	Conductor Size
2A37-M	12, 14, 16, 20mm	185mm²
2A48-M	12, 14, 16, 20mm	240mm²
2A60-M	12, 14, 16, 20mm	300mm²
2A80-M	12, 14, 16, 20mm	400mm²
2A100-M	16, 20mm	500mm²
2A120-M	16, 20mm	630mm²
2A160-M	20mm	800mm²
2A200-M	20mm	1000mm²



### **MV 2 Bolt Copper Lugs**



MV 2 bolt copper tube crimping lugs

### **FEATURES**

- Designed to be crimped on to a conductor to facilitate the termination of the cable via the two lug holes
- Absence of inspection hold prevents ingress of moisture into crimp
- MV copper lugs are electrolytically tin plated to avoid oxidation
- MV copper lugs have a double length barrel for enhanced electrical and mechanical performance
- Please refer to our tooling and equipment section on page 212 for dies and tooling
- 33kV rated
- Tested to BS EN 61238
- UL Listed (up to 300mm²)
- DEF Standard 59-71 Approved

Part number	Hole Size	Conductor Size
CA25-2M	8, 12mm	25mm²
CA35-2M	12mm	35mm²
CA50-2M	12mm	50mm²
CA70-2M	12mm	70mm²
CA95-2M	12mm	95mm²
CA120-2M	12mm	120mm²
CA150-2M	12mm	150mm²

Part number	Hole Size	Conductor Size
CA185-2M	12mm	185mm²
CA240-2M	12mm	240mm²
CA300-2M	12mm	300mm²
2A80-2M	12, 14, 16mm	400mm²
2A100-2M	14, 16mm	500mm²
2A120-2M	14, 16mm	630mm²



### Cable Lugs & Connectors MV Mechanical Lugs



### MV Mechnical Lugs - 11-42kV

### FEATURES

- Designed to be connected on to a conductor to facilitate the termination of the cable without the need for crimping
- High tensile tin plated aluminium alloy
- Shear bolt technology to ensure a good electrical connection
- Solid moisture block between palm and barrel
- Smooth profile prevents damage to insulation or sealing sleeves
- No elongation during installation
- Wide application range
- Compact design
- Larger sizes available on request.
- For solid copper and aluminium conductors please contact your nearest sales
- 42kV Rated

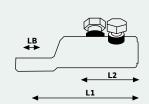


### MV mechanical lug for copper & aluminium conductors

Part number	Stud Size Conductor Type		Conductor Size
BLMT-25/95	12, 16mm	Cu / Ali	25-95mm²
BLMT-35/150	12, 16mm	Cu / Ali	35-150mm²
BLMT-95/240	12, 16mm	Cu / Ali	95-240mm²
BLMT-120/300	12, 16mm	Cu / Ali	120-300mm²

Part number	Stud Size	Conductor Type	Conductor Size
BLMT-185/400	12, 16, 20mm	Cu / Ali	185-400mm²
BLMT-500/630	12, 16, 20mm	Cu / Ali	500-630mm²
BLMT-800	20mm	Cu / Ali	800mm²

### **Mechanical Lugs Data**





Part number	Conductor	Hole Size		Dimens	ions mm		Contac	t bolts
	Range mm²	mm LB	L1	L2	D1	D2	Quantity	Head size AF mm
BLMT-25/95-13	25-95	13	60	30	24	12.8	1	13
BLMT-25/95-17	25-95	17	60	30	24	12.8	1	13
BLMT-35/150-13	35-150	13	86	35	28	15.8	1	17
BLMT-35/150-17	35-150	17	86	35	28	15.8	1	17
BLMT-95/240-13	95-240	13	112	60	33	20	2	19
BLMT-95/240-17	95-240	17	112	60	33	20	2	19
BLMT-120/300-13	120-300	13	115	65	37	24	2	22
BLMT-120/300-17	120-300	17	115	65	37	24	2	22
BLMT-185/400-13	185-400	13	138	80	42	25.5	3	22
BLMT-185/400-17	185-400	17	138	80	42	25.5	3	22
BLMT-185/400-21	185-400	21	138	80	42	25.5	3	22
BLMT-500/630-13	500-630	13	150	95	50	33	3	22
BLMT-500/630-17	500-630	17	150	95	50	33	3	22
BLMT-500/630-21	500-630	21	150	95	50	33	3	22
BLMT-800	800	20	202	120	56	36	4	27

### Cable Lugs & Connectors

MV Mechanical Lugs & Crimp Splices



### MV Mechanical Lugs - up to 33kV



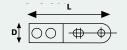
# MV 2 bolt mechanical lug for copper & aluminium conductors

FEATURES	
■ Shear bolt technology to ensure a good electrical connection	
■ Solid moisture block between palm and barrel	
■ Smooth profile prevents damage to insulation or sealing sleeves	
■ Supplied with range taking bolts to cover multiple cable sizes	
■ Primarily used on copper conductors	
■ Designed to meet BS4579 Part 1	
■ 44mm hole centres	
■ All bolts use 19mm socket or spanner	

Part number	Hole Spacing	Conductor Type	Conductor Size
VETB21-OHUTB	44mm	Cu / Ali	50-185mm²
VETB28-OHUTB	44mm	Cu / Ali	185-400mm²

Part number	Hole Spacing	Conductor Type	Conductor Size
VETB33-OHUTB	44mm	Cu / Ali	400-630mm²
VETB37-OHUTB	44mm	Cu / Ali	800mm²

### **Mechanical Connectors Data**





Part number	End Termination Dimensions mm					
	L	В	нс	Dia	Bore Depth	Palm Hole Dia
VETB21-OHUTB	148.5	62	25	21.0	59.5	13.0
VETB28-OHUTB	164	73	24.9	28.0	65.5	13.0
VETB33-OHUTB	157.5	70	25	33.5	65.5	13.0
VETB37-OHUTB	200	94	35	37.5	84.0	13.0

■ Indoor/outdoor applications

### Carried State of the

### **MV Copper Splices**



# MV copper tube crimping splices

### FEATURES

- Designed to be crimped on to same size conductors to connect and create a straight connection
- MV copper splices are electrolytically tin plated to avoid oxidation
- MV copper splices have extended tube length for simplified crimping
- Please refer to our tooling and equipment section for dies and tooling
- 33kV rated
- Tested to BS EN 61238
- UL Listed (up to 300mm²)
- DEF Standard 59-71 Approved

Part number	Conductor Size
MT16-TD	16mm²
MT25-TD	25mm²
MT35-TD	35mm²
MT50-TD	50mm²
MT70-TD	70mm²
MT95-TD	95mm²
MT120-TD	120mm²

Part number	Conductor Size
MT150-TD	150mm²
MT185-TD	185mm²
MT240-TD	240mm²
MT300-TD	300mm²
MT400-TD	400mm²
MT500-TD	500mm²
MT630-TD	630mm²







### Cable Lugs & Connectors

### MV Mechanical Lugs & Crimp Splices



### **MV Copper Splices**

### FEATURES

- Designed to be crimped on to same size conductor to connect and create a straight connection
- MV copper splices are electrolytically tin plated to avoid oxidation
- MV copper splices have extended tube length for simplified crimping
- MT-GC range has a waterblock in the connectors which forms a barrier between the two conductors



MV copper tube waterblocked crimp splices

Part number	Conductor Size
MT25-GC	25mm²
MT35-GC	35mm²
MT50-GC	50mm²
MT70-GC	70mm²
MT95-GC	95mm²
MT120-GC	120mm²

Part number	Conductor Size
MT150-GC	150mm²
MT185-GC	185mm²
MT240-GC	240mm²
MT300-GC	300mm²
MT400-GC	400mm²

### MV Mechanical Connectors - Split Blocked - up to 33kV



### FEATURES

- Designed to connect two HV conductors inline without bending the cable to make the connection
- Shear bolt technology to ensure a good electrical connection. 'V' interface ensures alignment and reduces connector resistance
- Machined from high conductivity brass or copper and supplied with range taking bolts
- Designed to meet BS 4579 Part 1
- 33kV Rated
- Solid moisture block
- Tapered ends ensure smooth profile for installation

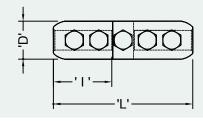


### MV mechanical connectors for copper & aluminium conductors

Part number	Conductor Type	Conductor Size
VTPB21-UTB	Cu / Ali	50-240mm²
VTPB27-UTB	Cu / Ali	95-300mm²

Part number	Conductor Type	Conductor Size
VTPC28-UTB	Cu	120-400mm²
VTPC36-UTB	Cu	400-645mm²

### **Mechanical Lugs** Data



Part number	Dimensions mm				
	L	ØD	1		
VTPB21-UTB	148	41	62		
VTPB27-UTB	174	47	74		
VTPC28-UTB	173	47	74		
VTPC36-UTB	178	55	76		







### MV Mechanical Connectors Cable Lugs & Connectors



### **MV Mechanical Connectors - 11-42kV**



# MV mechanical connectors for copper & aluminium conductors

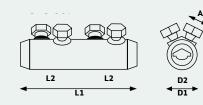
### **FEATURES**

- Designed to connect two MV conductors inline without the need for crimping
- High tensile tin plated aluminium alloy
- Solid moisture block between conductors
- Conductor size based on circular stranded copper and aluminium
- Torque-controlled shear-head bolts guarantee a good electrical contact
- Easy installation with standard socket spanner
- Pre-engineered design for perfect fit in medium voltage cable accessories up to 42kV
- Tested to IEC61238-1

Part number	Conductor Type	Conductor Size
BSMB-10/35	Cu / Ali	10-35mm²
BSM-25/95	Cu / Ali	25-95mm²
BSMB-35/150	Cu / Ali	35-150mm²
BSM-95/240	Cu / Ali	95-240mm²
BSMB-120/300	Cu / Ali	120-300mm²

Part number	Conductor Type	Conductor Size
BSM-185/400	Cu / Ali	185-400mm²
BSMB-500-MK2	Cu / Ali	500mm²
BSMB-630-MK2	Cu / Ali	630mm²
BSMB-800-MK2	Cu / Ali	800mm²
BSMB-1000	Cu / Ali	1000mm²

### **Mechanical Connectors Data**



Part number	Cross-sectional	Blocked	Dimensions mm				
	range mm²		L1	L2	D1	D2	
BSMB-10/35	10-35	Yes	45	20	19	8.5	
BSMB-25/95	25-95	Yes	65	30	24	12.8	
BSMB-35/150	35-150	Yes	80	35	28	15.8	
BSM-95/240	95-240	Yes	125	60	33	20	
BSMB-120/300	120-300	Yes	140	65	37	24	
BSM-185/400	185-400	Yes	170	80	42	25.5	
BSMB-500	500	Yes	160	70	46	30	
BSMB-630	630	Yes	160	70	50	33	
BSMB-800	800	Yes	180	85	56	36	
BSMB-1000	1000	Yes	180	85	60	40	





### Cable Lugs & Connectors MV Mechanical Connectors



### MV Reducing Mechanical Connectors - 11-42kV

### artis et de la Company

### FEATURES

- Designed to connect dissimilar sized MV conductors inline without the need for crimping
- High tensile tin plated aluminium alloy with solid moisture block between conductors
- Conductor size based on circular stranded copper and aluminium
- Torque-controlled shear-head bolts guarantee a good electrical contact
- Easy installation with standard socket or spanner
- Pre-engineered design for perfect fit in MV cable accessories up to 42kV
- 42kV Rated
- Tested to IEC61238-1



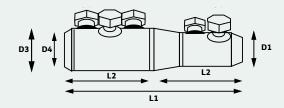
# MV reducing mechanical connectors for copper & aluminium conductors

Part number	Conductor Type	Conductor Size
BSMB-25/95-95/240	Cu / Ali	25-95mm² / 95-240mm²
BSMB-95/240-185/400	Cu / Ali	95-240mm² / 185-400mm²
BSMB-185/400-500	Cu / Ali	185-400mm² / 500mm²
BSMB-185/400-630	Cu / Ali	185-400mm² / 630mm²
BSMB-500/630-MK2	Cu / Ali	500mm² / 630mm²

Part number	Conductor Type	Conductor Size
BSMB-500-800	Cu / Ali	500mm² / 800mm²
BSMB-630-800	Cu / Ali	630mm² / 630mm²
BSMB-630-1000	Cu / Ali	630mm² / 1000mm²
BSMB-800-1000	Cu / Ali	800mm² / 1000mm²

### **Mechanical Connectors Data**





Product reference	Conduct	or Range m²	Blocked	Dimensions mm					
	Side 1	Side 2		L1	L2	D1	D2	D3	D4
BSMB25/95-95/240	25-95	95-240	Yes	125	60	24	12.8	33	20
BSMB95/240-185/400	95-240	185-400	Yes	170	80	33	20	42	25.5
BSMB185/400-500	185-400	500	Yes	190	90	42	25.5	46	30
BSMB185/400-630	185-400	630	Yes	200	95	42	25.5	50	33
BSMB500-630	500	630	Yes	200	95	46	30	50	33
BSMB500-800	500	800	Yes	180	85	46	30	56	36
BSMB630-800	630	800	Yes	180	85	50	33	56	36
BSMB630-1000	630	1000	Yes	180	85	50	33	60	40
BSMB800-1000	800	1000	Yes	180	85	56	36	60	40





### MV/HV Mechanical Lugs Cable Lugs & Connectors



### MV/HV Mechanical Lugs- Up to 72kV



# SICON HV mechanical lug for copper and aluminium conductors

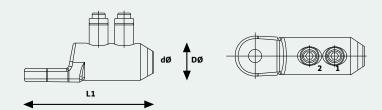
### **FEATURES**

- Large clamping range
- Conductor channels with transverse grooves and protection against conductor oxidisation
- Blind hole designed as pressure-resistant oil barrier for oil cable
- Compact design, rounded edges and flat transitions, suitable for slide on and shrink sleeves
- Centring sleeves
- Smooth breaking of the shear bolt simplifies tightening process
- No need for specialist tooling
- Conductor size based on circular stranded copper and aluminium
- 72kV Rated
- Contact technology type tested electrically and mechanically to IEC 61238-1
- Up to 30% increased contact force compared to conventional type terminals

Part number	Hole Size	Conductor Size
332 604 010	13mm	10-95mm²
332 599 010	13mm	25-150mm²
332 595 010	13mm	50-185mm²
332 595 011	16mm	50-185mm²
332 605 010	13mm	95-300mm²

Part number	Hole Size	Conductor Size
332 605 011	16mm	95-300mm²
332 625 010	12mm	185-400mm²
332 625 011	16mm	185-400mm²
332 606 010	16mm	300-630mm²

### **SICON Connectors Data**



Part number	0	-	$\bigcirc$	•	<b>*</b>	L1	DØ	dØ
332 604 010	10-95mm²	10-95mm²	50-95mm²	35-70mm²	10-95mm²	70	24	13
332 599 010	25-150mm²	25-150mm <sup>2</sup>	35-120mm <sup>2</sup>	35-120mm <sup>2</sup>	25-150mm <sup>2</sup>	91	28	16.3
332 595 010	50-240mm²	50-185mm²	50-185mm²	50-150mm²	50-240mm²	115	33	20
332 595 011	50-240mm²	50-185mm²	50-185mm²	50-150mm²	50-240mm <sup>2</sup>	115	33	20
332 605 010	95-400mm²	95-300mm²	95-240mm²	95-240mm²	95-300mm²	120	38	24
332 605 011	95-400mm²	95-300mm <sup>2</sup>	95-240mm²	95-240mm²	95-300mm <sup>2</sup>	120	38	24
332 625 010	185-500mm²	185-400mm²	185-240mm²	185-240mm²	185-400mm²	138	42	26
332 625 011	185-500mm²	185-400mm <sup>2</sup>	185-240mm <sup>2</sup>	185-240mm <sup>2</sup>	185-400mm²	138	42	26
332 606 010	300-800mm <sup>2</sup>	300-630mm <sup>2</sup>	=	300-400mm <sup>2</sup>	300-630mm <sup>2</sup>	180	52	33.3



### Cable Lugs & Connectors HV Mechanical Lugs



### HV Mechanical Lugs - Up to 72kV

### FEATURES

- Designed to be connected onto a conductor to facilitate the termination of the cable without the need for crimping
- High tensile tinned aluminium alloy
- Shear bolt technology to ensure a good electrical connection
- Solid moisture block between palm and barrel
- Fast and safe installation
- Variety of different palms available
- 72kV Rated
- Tested to IEC61238-1

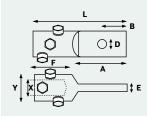


### **HV** mechanical connectors for copper & aluminium conductors

Part number	Description
EPPA-052-xx/XX	Cable Lug Single Hole M18
EPPA-051-xx/XX	Cable Lug 2 Hole Palm M18
EPPA-054-xx/XX	Cable Lug 4 Hole Palm M14.5

Part number	Description
EPPA-050-X/Y	Cable Lug with Rod
EPPA-053-X/Y	Cable Lug with Rod
EPPA-061-X/Y	Cable Lug with Rod

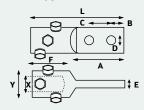
### **Mechanical Lugs Data EPPA-052**



Part number		Dimensions mm					
	L	A	В	D	E	F	
EPPA-052-X/Y	190	100	50	18	25	64	

X, Y according to cable dimensions

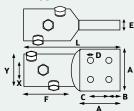
### **EPPA-051**



Part number		Dimensions mm						
	L	A	В	С	D	E	F	
EPPA-051-X/Y	190	100	27.5	45	18	25	64	

X, Y according to cable dimensions

#### **EPPA-054**



Part number	Dimensions mm						
EPPA-054-X/Y	L	A	В	С	D	E	F
Contact plate 100 x 100	232	100	27.5	45	14.5	25	112
Contact plate 80 x 80	212	80	17.5	45	14.5	25	112

X, Y according to cable dimensions



### **Cable Lugs & Connectors**

**HV Mechanical Lugs & Connectors** 



### HV Mechanical Connectors - Straight - Up to 72kV



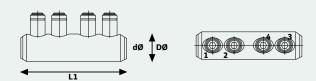
SICON HV straight mechanical connectors for copper & aluminium conductors

### FEATURES

- Suitable for use on copper or aluminium conductors
- For other conductor types please refer to table below
- 72kV Rated
- Up to 30% increased contact force compared to conventional type terminals

Part number	Conductor Range
332 601 010	10-95mm²
332 607 010 (2 bolt)	25-150mm²
332 593 010 (4 bolt)	25-150mm²
332 592 010	50-240mm²
332 614 010	50-240mm²
332 602 010	95-400mm²
332 617 010	185-500mm²
332 603 010	300-800mm²

### **Blocked Straight Connectors Data**



Part number	0	•	$\bigcirc$	•		L1	DØ	dØ
332 601 010	10-95mm²	10-95mm²	50-95mm²	35-70mm <sup>2</sup>	10-95mm²	65	24	13
332 607 010	25-150mm <sup>2</sup>	25-150mm <sup>2</sup>	35-120mm <sup>2</sup>	35-120mm <sup>2</sup>	25-150mm <sup>2</sup>	68	28	16.3
332 593 010	25-150mm²	25-150mm²	35-120mm <sup>2</sup>	35-120mm <sup>2</sup>	25-150mm <sup>2</sup>	102	28	16.3
332 592 010	50-240mm <sup>2</sup>	50-185mm²	50-185mm²	50-150mm <sup>2</sup>	50-240mm <sup>2</sup>	126	33	20
332 614 010	50-240mm <sup>2</sup>	50-240mm²	50-240mm <sup>2</sup>	50-240mm <sup>2</sup>	50-240mm <sup>2</sup>	126	35	21
332 602 010	95-400mm²	95-300mm²	95-240mm²	95-240mm²	95-300mm <sup>2</sup>	140	38	24
332 617 010	185-500mm²	185-400mm <sup>2</sup>	185-240mm²	185-240mm²	185-400mm²	170	42	26
332 603 010	300-800mm <sup>2</sup>	300-630mm <sup>2</sup>	-	300-400mm <sup>2</sup>	300-630mm <sup>2</sup>	230	50	33.3

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### HV Mechanical Connectors - Branch - Up to 72kV



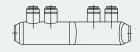
# SICON HV branch mechanical connectors for copper & aluminium conductors

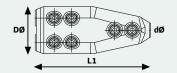
### FEATURES

- Suitable for use on aluminium or copper conductors
- Conductor size based on circular stranded copper and aluminium
- For other conductor types please refer to table below

Part number	Conductor Range
332 447 010	See below

### **Branch Connectors Data**





Part number	0	•	$\bigcirc$	•	-	L1	DØ	dØ
332 447 010	50-240mm <sup>2</sup>	50-185mm²	50-185mm²	50-150mm <sup>2</sup>	50-240mm <sup>2</sup>	162	68/33	20
332 631 010	70-300mm <sup>2</sup>	50-240mm <sup>2</sup>	70-240mm <sup>2</sup>	70-185mm²	70-300mm <sup>2</sup>	158	71.5/35	22



# **Solar** | Making your future brighter



# Cable Cleats

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48	Multiple Cable Cleats
52	Multiple Cable Cleats and Accessories
53	Aluminium Trefoil Cleats
54	Accessories



### **Cable Gland & Cleat Selector**



### For XLPE/SWA/PVC and LSF 600/1000 Volt Power Cables

CABLE SPEC			CLE	ATS			GLANDS	
Conductor Area mm²	Number of cores	Telcleats 385AA	Aluminium Claw Cleats 370BA	Plastic LSF Cleats E	Aluminium Cleats SW1/2B	BW Indoor	CW Indoor/ Outdoor	E1W E1WF
	2	1	1	0	-	20S	20SS	20SS
	3	1	1	0	-	20S	20SS	20SS
	4	1	1	0	-	20S	20S	20S
	7	2	2	1	2	20S	20S	20S
.5	12	3	3	2	3	20	20	20
	19	4	4	3	4	25	25	25
	27	5	5	4	5	25	25	25
	37	6	6	5	6	32	32	32
	48	6	6	5	6	32	32	32
	2	1	2	0	2	20S	20S	20S
	3	1	2	1	2	20S	20S	20S
	4	2	2	1	2	20S	20S	20S
.5	7	2	3	2	3	20	20	20
.5	12	4	4	3	4	25	25	25
	19	5	5	4	5	25	25	25
	27	6	6	5	6	32	32	32
	37	6	6	6	6	40	40	40
	2	2	2	1	2	20S	20S	20S
	3	2	2	1	2	20	20	20
	4	3	3	2	3	20	20	20
	2	3	3	2	3	20	20	20
	3	3	3	2	3	20	20	20
	4	4	4	3	4	20	20	20
	2	4	4	3	4	25	25	25
0	3	4	4	3	4	25	25	25
	4	4	5	4	5	25	25	25
	2	4	4	3	4	25	25	25
6	3	4	5	4	5	25	25	25
	4	5	6	4	6	25	25	25
	2	4	4	4	4	25	25	25
5	3	5	6	5	6	32	32	32
	4	6	6	5	6	32	32	32
	2	5	5	5	5	32	32	32
5	3	5	6	5	6	32	32	32
	4	6	6	5	6	32	32	32
	2	5	6	5	6	32	32	32
0	3	6	6	5	6	32	32	32
	4	6	6	6	6	40	40	40
	2	6	6	5	6	32	32	32
0	3	6	7	6	7	40	40	40
	4	7	7	7	7	40	40	40
	2	6	7	6	7	40	40	40
5	3	7	7	7	7	40	40	40
	4	8	8	7	8	50	50	50S
20	2	7	7	6	7	40	40	40
20	3	7	8	7	8	50	50	50S
	4	8	9	8	9	50	50	50
	2	7	8	7	8	50	50	50S
50	3	8	9	8	9	50	50	50S
	4	-	10	9	10	50	50	50
25	2	8	9	8	9	50	50	50S
35	3	8	9	9	9	50	50	50
	4	-	10	10	10	63	63	63S
<b>70</b>	2	8	9	8	9	50	50	50
40	3	-	10	10	10	63	63	63S
	4	-	11	11	11	63	63	63
	2	-	10	9	10	63	63	63S
00	3	-	11	11	11	63	63	63
	4	-	12	12	12	75	75	75S
	2	-	11	10	11	63	63	63
00	3	-	12	12	12	75 	75 	75S
	4	-	13	14	13	75	75	75





### **Telcleats**



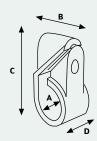
### Indoor for 10 - 51mm diameter cables

FEATURES
Light duty wrap around cleat
Overlapping self adjusting ranges
■ One piece, single fixing design
■ Can be double stacked one fixing
■ Black UV Resistant
■ Eight sizes in range
■ Operating temperature -70°C to +70°C
■ LSF type tested to LUL specification
■ Black low-density polyethylene - unaffected by corrosive environments, oils and many chemicals

Part Number		Diameter Range
Standard		
385AA01	385LSF01	10-15mm
385AA02	385LSF02	12-17mm
385AA03	385LSF03	15-20mm
385AA04	385LSF04	18-24mm

Part Number	Diameter Range	
385AA05	385LSF05	22-29mm
385AA06	385LSF06	26-34mm
385AA07	385LSF07	32-42mm
385AA08	385LSF08	39-51mm

### **Cable Cleat Details**



Cable & Cle	at Section	Cleat Details							
Part	Cable					SWL	Approx. Weight g	Roundhead Woodscrew for Masonry, Concrete	Screw Cable Tray
Number Diameter			С	D					
	Range A	Min	Max			kgf		or Wood ins x No	mm
385AA01	10-15mm	15	18	32	12	17	2.3	11⁄4 x 8	M4 x 30
385AA02	12-17mm	17	22	36	14	22	3.4	11⁄2 x 8	M4 x 35
385AA03	15-20mm	21	26	43	16	32	5.5	13⁄4 x 8	M4 x 40
385AA04	18-24mm	25	31	51	18	40	8.6	2 x 8	M4 x 45
385AA05	22-29mm	30	37	57	20	47	12.4	21⁄4 x 12	M6 x 50
385AA06	26-34mm	35	43	65	22	59	16.4	21/2 x 12	M6 x 60
385AA07	32-42mm	42	52	78	25	79	24	23⁄4 x 12	M6 x 70
385AA08	39-51mm	50	62	91	26	82	35	31⁄4 x 12	M7 x 80

■ Flammability rating UL 94 - V2





### Single and Two Bolt Cleat - LSF

■ Two bolt cleats available in red for MV cables

# FEATURES Low Smoke Fume (LSF) Product Compact mechanical properties offering high impact strength Self Extinguishing and flame retardant Can be double stacked 16 sizes in range Operating temperature range -10°C to +120°C



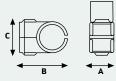
Indoor and outdoor for 8.5mm to 81mm diameter cables

SINGLE BOLT CLEAT Part Number	Diameter Range
CE00	8.5-11mm
CE0	11-13.5mm
CE1	13.5-16mm
CE2	16-19mm
CE3	19-22mm

TWO BOLT CLEATS Part Number		Diameter Range
Black		
CE9	CEH9	50-54.5mm
CE10	CEH10	54.5-59mm
CE11	CEH11	59-64mm

SINGLE BOLT CLEAT Part Number	Diameter Range
CE4	22-26.5mm
CE5	26.5-32mm
CE6	32-38mm
CE7	38-44mm
CE8	44-50mm

TWO BOLT CLEATS Part Number		Diameter Range
Black		
CE12	CEH12	64-68mm
CE13	CEH13	68-74mm
CE14	CEH14	74-81mm





<b>←</b>	

Part	Cable Dia	meter mm	Cleat Dimensions mm			Approx.
Number	Min	Max	A	В	С	Weight g
E00	8.5	11	43	47	33	34
E0	11	13.5	43	51	35	37
E1	13.5	16	43	54	38	42
E2	16	19	43	58	41	45
E3	19	22	43	60	44	50
E4	22	26.5	43	64	48	56
E5	26.5	32	43	70	54	62
E6	32	38	43	80	60	79
E7	38	44	43	85	66	83
E8	44	50	43	88	71	87
E9	50	54.5	60	97	67	121
E10	54.5	59	60	97	72	131
E11	59	64	60	97	76	145
E12	64	68	60	116	80	166
E13	68	74	60	116	90	168
E14	74	81	60	116	90	188









### **Single Bolt Hook Cleat - Heavy Duty**





### FEATURES

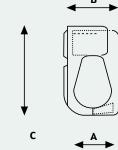
- Manufactured from glass filled nylon and LSOH materials
- Can take a large range of cables
- Can be installed in a temporary open position
- Two piece single fixing design
- Can be double stacked on one fixing
- Black UV resistant
- Available in six sizes
- Operating temperature –20°C to +90°C

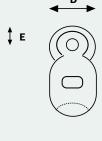
### **Indoor/Outdoor for 25mm** to 80mm diameter cables

Part Number		Diameter Range
Standard	LSF	
384AA01	384LSF01	25-35mm
384AA02	385LSF02	34-44mm
384AA03	384LSF03	43-53mm

Part Number		Diameter Range
	LSF	
384AA04	384LSF04	52-62mm
384AA05	384LSF05	61-71mm
384AA06	384LSF06	70-80mm







Cable Dia	meter A	Cleat Dimensions mm						
m	m	В		С	D	E		
Min	Max	Min	Max					
25	35	36	46	76	40	18		
34	44	44	54	85	40	18		
43	53	56.5	66.5	96	40	18		
52	62	65.5	75.5	106	40	18		
61	71	78	88	119	44	20		
70	80	87	97	129	44	20		
	Min 25 34 43 52 61	25 35 34 44 43 53 52 62 61 71	Min         Max         Min           25         35         36           34         44         44           43         53         56.5           52         62         65.5           61         71         78	Min         Max         Min         Max           25         35         36         46           34         44         44         54           43         53         56.5         66.5           52         62         65.5         75.5           61         71         78         88	Min         Max         Min         Max           25         35         36         46         76           34         44         44         54         85           43         53         56.5         66.5         96           52         62         65.5         75.5         106           61         71         78         88         119	Min         Max         Min         Max           25         35         36         46         76         40           34         44         44         54         85         40           43         53         56.5         66.5         96         40           52         62         65.5         75.5         106         40           61         71         78         88         119         44		



# Cable Cleats Aluminium Cable Cleats



### Single Bolt Claw Cleat

# **医多数性多效性**

### FEATURES

- High Grade LM6 Aluminium
- Can be used on all types of cable routes
- Available in cast iron to withstand a two hour excursion to 1000°C
- Plain finish-for normal industrial areas or outdoor unpolluted areas
- Epoxy coated version available for harsher environments
- Packing pieces to be used where required
- Two piece, single fixing design
- Single bolt can be stacked to a maximum of three on one fixing
- Available in nine sizes
- Operating temperature -60°C to +105°C





Indoor/Outdoor for 10mm to 51mm diameter cables

Part Number	Diameter Range
C370BA01	10-13mm
C370BA02	13-16mm
C370BA03	16-19mm
C370BA04	19-22mm
C370BA05	22-25mm

Part Number	Diameter Range
C370BA06	25-32mm
C370BA07	32-38mm
C370BA08	38-44mm
C370BA09	44-51mm

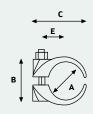




Table & Cleat	Selection			Cleat Details				
Part	Cable Diam	Cable Diameter A mm		Dimensions mm				Stud
Number	Min	Max	В	С	D	E	Weight	Size
370BA01	10	13	21	38	46	16	60	M10
370BA02	13	16	21	38	46	16	50	M10
370BA03	16	19	24	41	46	18	60	M10
370BA04	19	22	27	44	46	19	70	M10
370BA05	22	25	30	48	46	21	80	M10
370BA06	25	32	37	54	46	24	90	M10
370BA07	32	38	43	60	46	27	110	M10
370BA08	38	44	49	67	46	30	120	M10
370BA09	44	51	56	73	46	34	150	M10





### **Single Bolt Cleat**



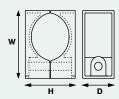
### FEATURES

- High grade aluminium LM6
- Can be used on all types of cable routes
- Two piece, single fixing design
- Product can be double stacked
- Available on request in epoxy coated version for more hostile environments
- Operating Temperature -60C to +85C
- Tested to BS EN 50383
- LM6 Grade Aluminium to BS 1432

# Indoor/Outdoor for 13mm to 70mm diameter cables

Part Number	Diameter Range
SW1B2	13-16mm
SW1B3	16-19mm
SW1B4	19-22mm
SW1B5	22-25mm
SW1B6	25-32mm
SW1B7	32-38mm

Part Number	Diameter Range
SW1B8	38-44mm
SW1B9	44-51mm
SW1B10	51-57mm
SW1B11	57-64mm
SW1B12	64-70mm



Cable	Range	Dimensions			Fixing	Item
Min Dia mm	Max Dia mm	W mm	H mm	D mm	Hole mm	Weight g
13	16	44	34	43	M10	80
16	19	48	36	43	M10	91
19	22	50	38	43	M10	98
22	25	53	40	43	M10	100
25	32	59	44	43	M10	120
32	38	65	50	43	M10	132
38	44	71	56	43	M10	152
44	51	78	63	43	M10	168
51	57	84	73	43	M10	202
57	64	91	80	43	M10	189
64	70	97	89	43	M10	253
	Min Dia mm 13 16 19 22 25 32 38 44 51 57	mm         mm           13         16           16         19           19         22           22         25           25         32           32         38           38         44           44         51           51         57           57         64	Min Dia mm         Max Dia mm         W mm           13         16         44           16         19         48           19         22         50           22         25         53           25         32         59           32         38         65           38         44         71           44         51         78           51         57         84           57         64         91	Min Dia mm         Max Dia mm         W mm         H mm           13         16         44         34           16         19         48         36           19         22         50         38           22         25         53         40           25         32         59         44           32         38         65         50           38         44         71         56           44         51         78         63           51         57         84         73           57         64         91         80	Min Dia mm         Max Dia mm         W mm         H mm         D mm           13         16         44         34         43           16         19         48         36         43           19         22         50         38         43           22         25         53         40         43           25         32         59         44         43           32         38         65         50         43           38         44         71         56         43           44         51         78         63         43           51         57         84         73         43           57         64         91         80         43	Min Dia mm         Max Dia mm         W mm         H mm         D mm         Hole mm           13         16         44         34         43         M10           16         19         48         36         43         M10           19         22         50         38         43         M10           22         25         53         40         43         M10           25         32         59         44         43         M10           32         38         65         50         43         M10           38         44         71         56         43         M10           44         51         78         63         43         M10           51         57         84         73         43         M10           57         64         91         80         43         M10

# Cable Cleats Aluminium Cable Cleats



# **Two Bolt Cleat**

### FEATURES

- High Grade Aluminium LM6
- Two piece, two fixing design
- Can be double stacked on common fixings
- Available in epoxy coated version for more hostile environments
- Tested to BS EN 50368
- Operating temperature -60°C to + 100°C
- Larger sizes have optional rubber liners





### **Indoor/Outdoor for 51mm** to 159mm diameter cables

Part Number	Diameter Range
370BA10	51-57mm
370BA11	57-64mm
370BA12	64-70mm
370BA13	70-76mm
370BA14	76-83mm
370BA15	83-89mm
370BA16	89-95mm
370BA17	95-101mm
370BA18	101-108mm

Diameter Range
108-114mm
115-121mm
121-127mm
127-133mm
133-140mm
140-146mm
146-152mm
152-159mm







Table & Cleat	Selection		Cleat Details					
Design	Cable Diam	Cable Diameter A mm		Dimensions mm				Stud
Number	Min	Max	B Max	С	D	E	Weight	Size
370BA10	51	57	70	98	49	76	230	M10
370BA11	57	64	76	98	49	76	240	M10
370BA12	64	70	82	135	64	114	384	M10
370BA13	70	76	88	135	64	114	385	M10
370BA14	76	83	96	140	64	114	420	M12
370BA15	83	89	101	140	64	114	490	M12
370BA16	89	95	108	152	76	126	642	M12
370BA17	95	101	114	152	76	126	642	M12
370BA18	101	108	120	165	76	140	650	M12
370BA19	108	114	126	165	76	140	650	M12
370BA30	115	121	133	175	100	150	734	M12
370BA31	121	127	139	175	120	150	720	M12
370BA32	127	133	145	200	120	175	970	M12
370BA33	133	140	152	200	120	175	956	M12
370BA34	140	146	158	200	120	175	935	M12
370BA35	146	152	164	210	120	185	893	M12
370BA36	152	159	172	215	150	190	1325	M12







**Orbit Cleat** 





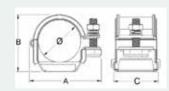
### FEATURES

- Suitable for use with cable diameters 33 to 150mm
- Single way, single bolt fixing
- Operating temperature -40°C to +120°C
- Simple installation with single tool tightening from the top side
- Manufactured from non-magnetic, corrosion resistant 316L stainless steel
- Cleat complete with LSOH rubber liner
- Suitable for use with single and multicore cables with high fault current requirements
- Can be used in harsh environments
- Complies with IEC 61914:2009

### **Indoor/Outdoor for 33mm** to 150mm diameter cables

Part Number	Diameter Range
379SC01	33-40mm
379SC02	38-46mm
379SC03	45-53mm
379SC04	52-60mm
379SC05	59-67mm

Part Number	Diameter Range
379SC06	66-74mm
379SC07	72-82mm
379SC08	82-92mm
379SC09	92-103mm



Part Number	Cable Diameter	Dimensions (mm)			Weight (g)
		A	В	С	
379CS01	33-40mm	86	65	60	435
379CS02	38-46mm	92	71	60	467
379CS03	45-53mm	99	78	60	499
379CS04	52-60mm	106	85	60	530
379CS05	59-67mm	113	92	60	526
379CS06	66-74mm	120	99	60	558
379CS07	72-82mm	132	111	60	639
379CS08	82-92mm	141	120	60	683
379CS09	92-103mm	151	130	60	737
379CS10	103-113mm	160	139	60	784
379CS11	113-123mm	169	148	60	764
379CS12	122-132mm	178	157	60	865
379CS13	131-141mm	187	165	60	908
379CS14	140-150mm	196	175	60	950



# Cable Cleats Single Way Shoe Cleats / Short Circuit Straps



### **Shoe Cleat**

### FEATURES

- To allow greater distances between each cable cleat
- Designed to allow potentially damaging load to be spread over a longer length
- Based on the 370 series aluminium two bolt cleat with the shoe made from 316L stainless steel
- Complete with a rubber liner
- Designed and formed with the correct bend radius to match the cables expansion



### **Cable Cleat Details**

Part Number	Cable Diameter	Stud Size	Bolt Centres	Length	Expansion Radius
370BA16SL	78-85mm	M12	126mm	400mm	3000
370BA30SL	105-111mm	M12	150mm	450mm	3000
370BA31SL	111-117mm	M12	150mm	500mm	3000
370BA32SL	117-123mm	M12	175mm	600mm	3000
370BA33SL	123-130mm	M12	175mm	700mm	3000
370BA34SL	130-136mm	M12	175mm	700mm	3000
370BA35SL	136-142mm	M12	185mm	800mm	3000
370BA36SL	142-149mm	M12	190mm	800mm	3000

### **Linear Short Circuit Straps**



- The linear short circuit strap is to be used in conjunction with shoe cleats on high voltage installations to maintain single core spacings
- Linear straps can be used in vertical or horizontal installations
- Options are available for them to be supplied with or without rubber liners
- Cable separation can be done at 300,400,500,600 or 700mm
- Available in two and three way



**Short circuit straps for** 79mm to 156mm diameter cables

Part Number				Cable Diameter
Alumin	ium Alloy	Expoxy Coated A	Aluminium Alloy	(min-max) mm
3 Way	2 Way	3 Way	2 Way	
370SA16-XXX	370SA66-XXX	370SB16-XXX	370SB66-XXX	79-85
370SA17-XXX	370SA67-XXX	370SB17-XXX	370SB67-XXX	85-91
370SA18-XXX	370SA68-XXX	370SB18-XXX	370SB68-XXX	91-98
370SA19-XXX	370SA69-XXX	370SB19-XXX	370SB69-XXX	98-104
370SA30-XXX	370SA80-XXX	370SB30-XXX	370SB80-XXX	105-111
370SA31-XXX	370SA81-XXX	370SB31-XXX	370SB81-XXX	111-117
370SA32-XXX	370SA82-XXX	370SB32-XXX	370SB82-XXX	117-123
370SA33-XXX	370SA83-XXX	370SB33-XXX	370SB83-XXX	123-130
370SA34-XXX	370SA84-XXX	370SB34-XXX	370SB84-XXX	130-136
370SA35-XXX	370SA85-XXX	370SB35-XXX	370SB85-XXX	136-142
370SA36-XXX	370SA86-XXX	370SB36-XXX	370SB86-XXX	142-149
370SA37-XXX	370SA87-XXX	370SB37-XXX	370SB87-XXX	149-156

■ Designed to allow easy installation with single tool tightening from the top side ■ Manufactured from non-magnetic, corrosion resistant 316L stainless steel

■ Suitable for single core cables laid in trefoil formation with high fault current









### Indoor/Outdoor for 23mm to 128mm diameter cables

**Cable Diameter** 

23-28mm

27-32mm

30-35mm

33-38mm

36-42mm

40-46mm

44-50mm

48-55mm

1	26
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Part Number	Cable Diameter
379TC09	51-58mm
379TC10	55-62mm
379TC11	59-66mm
379TC12	63-70mm
379TC13	67-74mm
379TC14	71-78mm

■ Can be used in harsh environments

Complies with IEC 61914:2009

■ Suitable for cable diameters 23mm to 128mm Available in single and double bolt fixing ■ Operating temperatures -40°C to +120°C

■ Cleats are complete with liner made from LSOH material

**FEATURES** 

requirements

Part Number	Cable Diameter
379TC09	51-58mm
379TC10	55-62mm
379TC11	59-66mm
379TC12	63-70mm
379TC13	67-74mm
379TC14	71-78mm
379TC15	74-82mm

<b>SIL</b>	lus	L	eaτ	

Part Number	Cable Diameter
379TC16	77-85mm
379TC17	82-88mm
379TC18	88-96mm
379TC19	96-103mm
379TC20	103-111mm
379TC21	111-119mm

119-128mm

379TC22

### **Cable Cleat Details**

Part Number

379TC01

379TC02

379TC03

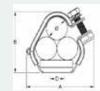
379TC04

379TC05

379TC06

379TC07

379TC08





Cleat Selection			Cable Cleat Din	nensions (mm)		
Part Number	Cable Diameter	A	В	С	D	Weight (g)
379TC01	23-28mm	86	71	60	Centre Hole	500
379TC02	27-32mm	92	78	60	25	531
379TC03	30-35mm	98	84	60	25	558
379TC04	33-38mm	102	90	60	25	585
379TC05	36-42mm	108	97	60	25	624
379TC06	40-46mm	115	105	60	25	657
379TC07	44-50mm	120	112	60	25	693
379TC08	48-55mm	129	121	60	50	734
379TC09	51-58mm	133	127	60	50	764
379TC10	55-62mm	140	134	60	50	795
379TC11	59-66mm	145	142	60	50	831
379TC12	63-70mm	150	150	60	50	869
379TC13	67-74mm	157	157	60	75	905
379TC14	71-78mm	164	164	60	75	939
379TC15	74-82mm	172	172	60	75	975
379TC16	77-85mm	178	178	60	75	1010
379TC17	82-88mm	184	184	60	100	1046
379TC18	88-96mm	200	198	60	100	1081
379TC19	96-103mm	214	210	60	100	1117
379TC20	103-111mm	230	225	60	125	1152
379TC21	111-119mm	245	240	60	125	1188
379TC22	119-128mm	264	257	60	150	1223



# Cable Cleats Multiple Cable Cleats



### **Aluminium Trefoil Cleats with Single & Two Bolt Fixing**

# artist of the Control of

- High Grade Aluminium alloy
- Available in either a single bolt or two bolt fixing design
- Can be used for all types of cable routes
- Available in epoxy coated version for more hostile environments
- Fixed with either one or two M10 fixings
- Available in 33 sizes
- Operating temperature -60°C to +100°C
- Tested to BS EN 50368
- Short Circuit Withstand 30KA Rms (76KA Peak)



Indoor/Outdoor for 24mm to 76mm diameter cables in trefoil formation

Part Number		Diameter Range
Single Fixing	Two Fixing	
376AC01	376AB01	24-25mm
376AC02	376AB02	25-27mm
376AC03	376AB03	27-28mm
376AC04	376AB04	28-30mm
376AC05	376AB05	30-32mm
376AC06	376AB06	32-34mm
376AC07	376AB07	34-35mm
376AC08	376AB08	35-36mm
376AC09	376AB09	36-38mm
376AC10	376AB10	38-40mm
376AC11	376AB11	40-41mm
376AC12	376AB12	41-43mm
376AC13	376AB13	43-44mm
376AC14	376AB14	44-46mm
376AC15	376AB15	46-48mm
376AC16	376AB16	48-49mm
376AC17	376AB17	49-51mm

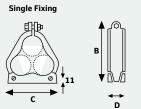
Part Number		Diameter Range
Single Fixing	Two Fixing	
376AC18	376AB18	51-53mm
376AC19	376AB19	53-54mm
376AC20	376AB20	54-55.5mm
376AC21	376AB21	55.5-57mm
376AC22	376AB22	57-59mm
376AC23	376AB23	59-60mm
376AC24	376AB24	60-62mm
376AC25	376AB25	62-63.5mm
376AC26	376AB26	63.5-65mm
376AC27	376AB27	65-66.5mm
376AC28	376AB28	66.5-68mm
376AC29	376AB29	68-70mm
376AC30	376AB30	70-71.5mm
376AC31	376AB31	71.5-73mm
376AC32	376AB32	73-74.5mm
376AC33	376AB33	74.5-76mm





### **Aluminium Trefoil Cleats with Single & Two Bolt Fixing continued**

### Cable cleat details



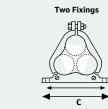


Table & Clea	t Selection		Cleat Details						
Design Number		Diameter nm	Dimensions mm			Approx. Weight g			
376AC**					Single Fixing	Two	Fixing		
376AB**	Min	Max	В	D	С	С	E	Single Fixing	Two Fixing
01	24	25	94	38	75	128	102	234	276
02	25	27	97	38	75	128	102	241	284
03	27	28	100	38	75	128	102	248	291
04	28	30	103	38	76	130	104	255	298
05	30	32	105	38	79	133	107	269	305
06	32	34	106	38	83	135	109	284	312
07	34	35	109	38	86	137	110	291	319
08	35	36	113	38	89	138	113	298	326
09	36	38	116	38	92	140	114	305	333
10	38	40	119	38	95	145	118	315	340
11	40	41	122	38	99	147	121	319	347
12	41	43	124	38	105	149	123	326	354
13	43	44	127	38	108	150	124	340	369
14	44	46	130	38	112	154	128	354	383
15	46	48	133	38	114	156	129	361	390
16	48	49	137	38	118	159	133	369	397
17	49	51	140	38	121	165	135	376	404
18	51	53	143	38	124	165	137	383	411
19	53	54	146	38	127	172	141	390	418
20	54	55.5	155	44	133	183	152	503	560
21	55.5	57	158	44	137	187	155	517	574
22	57	59	160	44	141	189	157	532	588
23	59	60	163	44	145	191	160	546	602
24	60	62	165	44	148	194	162	552	617
25	62	63.5	168	44	152	196	165	567	631
26	63.5	65	172	44	156	199	168	581	645
27	65	66.5	176	44	160	202	170	602	666
28	66.5	68	178	44	164	205	173	624	687
29	68	70	181	44	168	208	176	652	716
30	70	71.5	187	44	171	215	183	680	745
31	71.5	73	190	44	175	217	186	695	758
32	73	74.5	193	44	179	220	188	709	773
33	74.5	76	197	44	183	222	191	722	787

### **Recommended Max Spacings**

- Straight Runs 900mm
- Vertical Bends 300mm
- Horizontal bends Cleat on each support with, if necessary, intermediate unanchored cleats to limit restraint spacing to 300mm



# Cable Cleats Multiple Cable Cleats



### **Multicleat System**

### **FEATURES**

- Multicleat is a stainless steel multistrap with a base
- Multicleat bases are manufactured out of aluminium as standard but are available in epoxy coated aluminium, stainless steel, hot dip galvanised and coated cast iron
- Can be used for all types of cable routes
- Exceptional overlapping ranges
- Non-magnetic materials used throughout
- Recommended spacing dictated by short circuit withstand (see Technical data)
- Available in 26 products for each base type
- Operating Temperature Aluminium bases -60°C to + 105°C
  - Cast Iron & Stainless Steel bases + 1000°C for two hours
- Tested BS EN 50368
- Short Circuit Withstand Standard 1.8m spacing= 43KA RMS (Peak 114KA)
  - Heavy 1.5m spacing = 50KA RMS (Peak 130KA)
  - Heavy 1.2m spacing = 71KA RMA (Peak 184KA)
- Two bolt fixing except single bolt PF Type



Indoor/outdoor for 36mm to 120mm cable diameter for single cable and 24mm to 145mm in trefoil formation

### **MULTICLEAT ALUMINIUM BASE - STANDARD & HEAVY DUTY**

Part Number		Cable	Cable
Standard	Heavy Duty	Diameter for Singles	Diameter for Trefoil
378AB01	378AB51	36-65mm	24-34mm
378AB02	378AB52	60-85mm	30-41mm
378AB03	378AB53	80-90mm	37-47mm
378AB04	378AB54	85-110mm	43-54mm
378AB05	378AB55	-	50-60mm
378AB06	378AB56	-	56-67mm
378AB07	378AB57	-	63-73mm
378AB08	378AB58	-	69-80mm
378AB09	378AB59	105-120mm	-

Part Number		Cable	Cable
Standard	Heavy Duty	Diameter for Singles	Diameter for Trefoil
-	378AB29	85-110mm	-
-	378AB36	-	72-85mm
-	378AB37	-	82-95mm
-	378AB38	-	92-105mm
-	378AB39	-	102-115mm
_	378AB40	-	112-125mm
-	378AB41	_	122-135mm
_	378AB42	_	132-145mm

### **MULTICLEAT STAINLESS STEEL BASE - STANDARD & HEAVY DUTY**

Part Number		Cable	Cable
Standard	Heavy Duty	Diameter for Singles	Diameter for Trefoil
378JB01	378JB51	36-65mm	24-34mm
378JB02	378JB52	60-85mm	30-41mm
378JB03	378JB53	80-90mm	37-47mm
378JB04	378JB54	85-110mm	43-54mm
378JB05	378JB55	_	50-60mm
378JB06	378JB56	-	56-67mm
378JB07	378JB57	-	63-73mm
378JB08	378JB58	_	69-80mm
378JB09	378JB59	105-120mm	-

Part Number		Cable	Cable
Standard	Heavy Duty	Diameter for Singles	Diameter for Trefoil
_	378JB29	85-110mm	-
_	378JB36	-	80-110mm
_	378JB37	-	82-95mm
_	378JB38	-	92-105mm
_	378JB39	-	102-115mm
_	378JB40	-	112-125mm
_	378JB41	_	122-135mm
-	378JB42	_	132-145mm

Please contact your nearest sales office for pricing on Multicleats with coated Aluminium, hot dipped galvanised, stainless steel and cast iron bases.





### **Multistrap System**





Indoor/Outdoor for Single & Trefoil cables -24 - 145mm

### **FEATURES**

- A multistrap is a strap complete with a tensioning clip, securing pin and winding key all made from high corrosion resistant non-magnetic stainless steel
- They are used as an intermediate restraint between Multicleats
- They may be used to bind cables together
- Multistraps are supplied in two strengths:-Standard duty, designed to have two loops of 0.38 mm thick strap around the cables and heavy duty with three straps
- Tested BS EN 50368
- Short Circuit Withstand Standard 1.8m spacing= 43KA RMS (Peak 114KA)
  - Heavy 1.5m spacing = 50KA RMS (Peak 130KA)
  - Heavy 1.2m spacing = 71KA RMA (Peak 184KA)
- Operating Temperature -60°C to 100°C

### **MULTISTRAP STANDARD & HEAVY DUTY**

Part Number		Cable Diameter
Standard	Heavy Duty	for Trefoil
377AB01	377AB51	24-34mm
377AB02	377AB52	30-41mm
377AB03	377AB53	37-47mm
377AB04	377AB54	43-54mm
377AB05	377AB55	50-60mm
377AB06	377AB56	56-67mm
377AB07	377AB57	63-73mm
377AB08	377AB58	69-80mm

Part Number		Cable Diameter
Standard	Heavy Duty	for Trefoil
_	377AB29	-
_	377AB36	72-85mm
-	377AB37	82-95mm
_	377AB38	92-105mm
_	377AB39	102-115mm
_	377AB40	112-125mm
_	377AB41	122-135mm
_	377AB42	132-145mm

### **LSF Liner**



### FEATURES

LSF liners are installed with multistraps to protect the cable sheaths

Part Number	Applicable Cleat Sizes		
377LSF01	01-04 & 51-54		
377LSF02	05-09 & 29,39,55-58		



# Cable Cleats Multiple Cable Cleats & Accessories



### 376TR MV/HV Trefoil Cleats

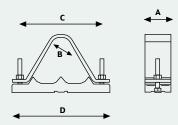
# ■ Manufactured from solid aluminium ■ Design for use with MV and HV cable designs ■ Deep section bases aid cable installation ■ Clamping bolt can be used for pilot cables ■ Available with single or two bolt fixing ■ Available with rubber lining ■ Six sizes in range ■ Operating Temperature -60°C to + 85°C ■ Tested in accordance with BS EN 50368:2003 ■ Impact Resistance (6.2, 6..2.5, 9.3) - V Heavy > 6.7kg at 300mm.



Outdoor for 62mm to 186mm MV/HV diameter cable in trefoil formation

Part Number	Cable Diameter
376TR06	62-75mm
376TR07	75-90mm
376TR08	90-107mm

Part Number	Cable Diameter
376TR09	107-129mm
376TR10	129-155mm
376TR11	155-186mm



Design Number	Cable Dimensions B mm	Length A mm	Width O/A D mm	Bolt CRS C mm	Bolt Diameter mm
376TR06	62-75	80	260	216	12
376TR07	75-90	80	295	251	12
376TR08	90-107	100	340	296	12
376TR09	107-129	100	390	346	12
376TR10	129-155	125	450	406	12
376TR11	155-186	150	525	481	12









### **Orion Shaped Cleat**

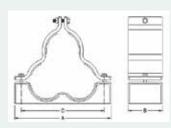


### **FEATURES**

- Heavy duty trefoil cleat covering cable O/D from 85mm to 155mm
- Available in epoxy coated for marine applications
- Suitable for LV,MV and HV cable designs
- Operating temperature -40°C to +105°C
- Orion cleat features a deep cast base to aid easy cable installation.
- Resistance to short circuit, 63LA RMS, 164KA peak

Part Number	Cable Diameter		
STANDARD RANGE (SR)			
376SR05	85-95mm		
376SR06	95-105mm		
376SR07	105-115mm		
376SR08	115-125mm		
376SR09	125-135mm		
376SR10	135-145mm		
376SR11	145-155mm		

Part Number	Cable Diameter	
EPOXY COATED RANGE (SE)		
376SE05	85-95mm	
376SE06	95-105mm	
376SE07	105-115mm	
376SE08	115-125mm	
376SE09	125-135mm	
376SE10	135-145mm	
376SE11	145-155mm	



Part Number		Cable	Dimensions (mm)			Fixing	Weight
Standard	Epoxy Coated	Diameter	A	С	В	Size	(kg)
376SR05	376SE05	85-95mm	320	260	100	M12	3.4
376SR06	376SE06	95-105mm	340	280	110	M12	4.2
376SR07	376SE07	105-115mm	360	300	120	M12	4.9
376SR08	376SE08	115-125mm	380	324	130	M12	5.5
376SR09	376SE09	125-135mm	400	344	140	M12	6.0
376SR10	376SE10	135-145mm	420	370	150	M12	6.7
376SR11	376SE11	145-155mm	450	390	150	M12	7.6



# Cable Cleats Accessories



### **Bolts**

### FEATURES

- General purpose fixing bolts
- Stainless steel bolts also available



Part Number		Size
Zinc Plated		
FHB06X20	FBB06X20	M6 x 20mm
FHB06X30	FBB06X30	M6 x 30mm
FHB08X25	FBB08X25	M8 x 25mm
FHB08X30	FBB08X30	M8 x 30mm
FHB08X40	FBB08X40	M8 x 40mm
FHB10X25	FBB10X25	M10 x 25mm
FHB10X30	FBB10X30	M10 x 30mm

Part Number		Size
Zinc Plated		
FHB10X40	FBB10X40	M10 x 40mm
FHB10X50	FBB10X50	M10 x 50mm
FHB12X35	FBB12X35	M12 x 35mm
FHB12X40	FBB12X40	M12 x 40mm
FHB12X50	FBB12X50	M12 x 50mm
FHB12X70	FBB12X70	M12 x 70mm

### **Nuts**

### FEATURES

- General purpose fixing nuts
- Stainless steel nuts also available



Part Number		Size
Bright Zinc Plated Nut	Brass Nut	
FHN06	FBN06	M6
FHN08	FBN08	M8

Part Number	Size	
Bright Zinc Plated Nut	Brass Nut	
FHN10	FBN10	M10
FHN12	FBN12	M12

### **Channel Nuts (all types)**

### FEATURES

■ Designed to fit into channel so cleats can be fitted



Part Number			Hole Size
No Spring	Short Spring	Long Spring	
FCNN06	FCNS06	FCNL06	6mm
FCNN08	FCNS08	FCNL08	8mm

Part Number			Hole Size
No Spring	Short Spring	Long Spring	
FCNN10	FCNS10	FCNL10	10mm
FCNN12	FCNS12	FCNL12	12mm

Other sizes available, please contact your local sales office for more details







### **Spring & Flat Washers**



### **FEATURES**

- General purpose fixing washers
- Other sizes available
- Stainless steel washers also available

Part Numbe	r			Size
Phosphor Bronze Spring	Bright Zinc Plated Flat	Bright Zinc Plated Spring	Brass Flat	
FBSW06	FFW06	FSW06	FBW06	М6
FBSW08	FFW08	FSW08	FBW08	M8

Part Number				Size
Phosphor Bronze Spring	Bright Zinc Plated Flat	Bright Zinc Plated Spring	Brass Flat	
FBSW10	FFW10	FSW10	FBW10	M10
FBSW12	FFW12	FSW12	FBW12	M12

# tara kalendari

### **Threaded Rod**



### **FEATURES**

- Threaded rod for use with cable cleats
- Other sizes available

Part Number	Material	Size	Length
M10X85	BZP	M10	85mm
M10X100	BZP	M10	100mm
M10X125	BZP	M10	125mm

A1	2.00	. 1. 1	and the	
AISO	avalla	abie i	n otne	er sizes

Part Number	Material	Size	Length
M10X150	BZP	M10	150mm
M10X200	BZP	M10	200mm
M10X225	BZP	M10	225mm

Also available in Stainless Steel



### **Packing Pieces**

**Adaptor Plates** 



### **FEATURES**

- Required when stacking claw cleats
- Other sizes available

Part Number	Description
389AC03	Aluminium alloy, plain

Part Number	Description
389AC04	Aluminium alloy, epoxy coated

Also available in Stainless Steel



### **FEATURES**

- Required when mounting smaller cleats directly on to 41mm wide channel
- Other sizes available

Part Number	Description
380AG02	M10 Galvanised

Also available in Stainless Steel





# Rail | Helping you make the right connection



# Contents



Nylon Cable Ties



### **Standard Cable Ties**

- All ties are one-piece moulded mechanisms with bend finger grip tip
- Low threading force with no sharp edges to ensure safe handling and easy installation
- Made with virgin nylon 6/6 resin.
- Self-extinguishing
- Operating temperature for LD and MD range -40°C to +85°C
- Operating temperature for HD range -40°C to + 105°C
- Highly resistant against oil, grease, hydrocarbons and alkalis up to 40%



Part Number	Length	Width	Max O/D	Tensile Strength	иом
Light Duty Cable Tie					
LD06BK	143mm	3.6mm	33mm	18.2kg	100
LD06WH	143mm	3.6mm	33mm	18.2kg	100
LD08BK	202mm	3.6mm	50mm	18.2kg	100
LD08WH	202mm	3.6mm	50mm	18.2kg	100
LD12BK	303mm	3.6mm	76mm	18.2kg	100
LD12WH	303mm	3.6mm	76mm	18.2kg	100
Medium Duty Cable Tie					
MD06BK	160mm	4.8mm	38mm	22kg	100
MD06WH	160mm	4.8mm	38mm	22kg	100
MD08BK	202mm	4.8mm	50mm	22kg	100
MD08WH	202mm	4.8mm	50mm	22kg	100
MD12BK	280mm	4.8mm	70mm	22kg	100
MD12WH	280mm	4.8mm	70mm	22kg	100
MD15BK	370mm	4.8mm	102mm	22kg	100
MD15WH	370mm	4.8mm	102mm	22kg	100
Heavy Duty Cable Tie	'				
HD12BK	302mm	7.6mm	76mm	54kg	100
HD12WH	302mm	7.6mm	76mm	54kg	100
HD15BK	370mm	7.6mm	102mm	54kg	100
HD15WH	370mm	7.6mm	102mm	54kg	100
HD21BK	535mm	7.6mm	140mm	54kg	100
HD21WH	535mm	7.6mm	140mm	54kg	100
HD30BK	768mm	7.6mm	222mm	54kg	100
HD30WH	768mm	7.6mm	222mm	54kg	100



Stainless Steel Cable Ties

### **Ball-Lok Ties - Uncoated**



### **FEATURES**

- Self locking stainless steel cable ties for use in hazardous area environments
- Operating Temperature 80°C to + 538°C
- UL, Lloyd Register, DNV and US Coast Guard approved

### **Ball-Lok stainless steel** cable ties for cable bundles from 50 - 305mm

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
KE1128	304 Grade S/S	201 x 4.6	50	890	100
KE1138	304 Grade S/S	259 x 4.6	69	890	100
KE1148	304 Grade S/S	360 x 4.6	102	890	100
KE1158	304 Grade S/S	520 x 4.6	152	890	100
KE1168	304 Grade S/S	679 x 4.6	203	890	100
KE1178	304 Grade S/S	838 x 4.6	254	890	100
KE1188	304 Grade S/S	1067 x 4.6	305	890	100
KE1328	304 Grade S/S	201 x 7.9	50	1335	100
KE1338	304 Grade S/S	259 x 7.9	69	1335	100
KE1348	304 Grade S/S	360 x 7.9	102	1335	100
KE1358	304 Grade S/S	520 x 7.9	152	1335	100
KE1368	304 Grade S/S	679 x 7.9	203	1335	100
KE1378	304 Grade S/S	838 x 7.9	254	1335	100
KE1388	304 Grade S/S	1067 x 7.9	305	1335	100

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
KE0128	316 Grade S/S	201 x 4.6	50	890	100
KE0138	316 Grade S/S	259 x 4.6	69	890	100
KE0148	316 Grade S/S	360 x 4.6	102	890	100
KE0158	316 Grade S/S	520 x 4.6	152	890	100
KE0168	316 Grade S/S	679 x 4.6	203	890	100
KE0178	316 Grade S/S	838 x 4.6	254	890	100
KE0188	316 Grade S/S	1067 x 4.6	305	890	100
KE0328	316 Grade S/S	201 x 7.9	50	1335	100
KE0338	316 Grade S/S	259 x 7.9	69	1335	100
KE0348	316 Grade S/S	360 x 7.9	102	1335	100
KE0358	316 Grade S/S	520 x 7.9	152	1335	100
KE0368	316 Grade S/S	679 x 7.9	203	1335	100
KE0378	316 Grade S/S	838 x 7.9	254	1335	100
KE0388	316 Grade S/S	1067 x 7.9	305	1335	100



### **Ball-Lok Ties - Coated**



### FEATURES

- Self locking stainless steel cable ties for use in hazardous area environments
- Epoxy coated to avoid damage to cable sheaths
- Operating Temperature 80°C to + 538°C
- UL, Lloyd Register, DNV and US Coast Guard approved

### **Coated Ball-Lok stainless** steel cable ties for cable bundles for 50 - 254mm

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
KE0228	Coated 316 Grade S/S	201 x 4.6	50	668	100
KE0238	Coated 316 Grade S/S	259 x 4.6	69	668	100
KE0248	Coated 316 Grade S/S	360 x 4.6	102	668	100
KE0258	Coated 316 Grade S/S	520 x 4.6	152	668	100
KE0268	Coated 316 Grade S/S	679 x 4.6	203	668	100
KE0278	Coated 316 Grade S/S	838 x 4.6	254	668	100

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
KE0428	Coated 316 Grade S/S	201 x 7.9	50	1112	100
KE0438	Coated 316 Grade S/S	259 x 7.9	69	1112	100
KE0448	Coated 316 Grade S/S	360 x 7.9	102	1112	100
KE0458	Coated 316 Grade S/S	520 x 7.9	152	1112	100
KE0468	Coated 316 Grade S/S	679 x 7.9	203	1112	100
KE0478	Coated 316 Grade S/S	838 x 7.9	254	1112	100





Stainless Steel Cable Ties



### Tie-Lok Ties - Uncoated

### FEATURES

- Low Profile stainless steel cable ties for use in hazardous area environments
- Operating Temperature 80°C to + 538°C
- DNV approved
- All available in 316 grade Stainless Steel



### Tie-Lok stainless steel cable ties for cable bundles from 25-254mm

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
AS221	304 Grade S/S	154 x 4.5	25	445	100
AS222	304 Grade S/S	254 x 4.5	51	445	100
AS223	304 Grade S/S	406 x 4.5	102	445	100
AS224	304 Grade S/S	572 x 4.5	152	445	100
AS225	304 Grade S/S	737 x 4.5	203	445	100

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
AS211	304 Grade S/S	254 x 6.35	51	890	100
AS212	304 Grade S/S	419 x 6.35	101	890	100
AS213	304 Grade S/S	572 x 6.35	152	890	100
AS214	304 Grade S/S	737 x 6.35	203	890	100
AS215	304 Grade S/S	889 x 6.35	254	890	100

### Multi-Lok Ties - Uncoated

### **FEATURES**

- Multi locking stainless steel cable ties for use in hazardous area environments
- Operating Temperature 80°C to + 538°C
- UL, Lloyd Register, DNV and US Coast Guard approved



### **Multi-Lok stainless** steel cable ties for cable bundles from 48-193mm

Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
316 Grade S/S	150 x 7	48	890	100
316 Grade S/S	225 x 7	71	890	100
316 Grade S/S	300 x 7	96	890	100
316 Grade S/S	450 x 7	144	890	100
316 Grade S/S	610 x 7	193	890	100
	316 Grade S/S 316 Grade S/S 316 Grade S/S 316 Grade S/S	316 Grade S/S 150 x 7 316 Grade S/S 225 x 7 316 Grade S/S 300 x 7 316 Grade S/S 450 x 7	mm         Diameter mm           316 Grade S/S         150 x 7         48           316 Grade S/S         225 x 7         71           316 Grade S/S         300 x 7         96           316 Grade S/S         450 x 7         144	mm         Diameter mm         in N mm           316 Grade S/S         150 x 7         48         890           316 Grade S/S         225 x 7         71         890           316 Grade S/S         300 x 7         96         890           316 Grade S/S         450 x 7         144         890

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
AE701	316 Grade S/S	150 x 12	48	1112	100
AE702	316 Grade S/S	225 x 12	71	1112	100
AE703	316 Grade S/S	300 x 12	96	1112	100
AE704	316 Grade S/S	450 x 12	144	1112	100
AE705	316 Grade S/S	610 x 12	193	1112	100

### Multi-Lok Ties - Coated

### FEATURES

- Multi locking stainless steel cable ties for use in hazardous area environments
- Nylon 11 black coated to avoid damage to the cable sheaths
- Operating Temperature 80°C to + 538°C
- UL, Lloyd Register, DNV and US Coast Guard approved



### **Coated Multi-Lok stainless** steel cable ties for cable bundles from 48-180mm

	Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
1	AE611	Coated 316 Grade S/S	150 x 7	33	890	100
1	AE612	Coated 316 Grade S/S	225 x 7	57	890	100
1	AE613	Coated 316 Grade S/S	300 x 7	81	890	100
1	AE614	Coated 316 Grade S/S	450 x 7	129	890	100
1	AE615	Coated 316 Grade S/S	610 x 7	180	890	100

Part number	Material	Size mm	Bundle Diameter mm	Tensile in N	Pack Quantity
AE711	Coated 316 Grade S/S	150 x 12	33	1112	100
AE712	Coated 316 Grade S/S	225 x 12	57	1112	100
AE713	Coated 316 Grade S/S	300 x 12	81	1112	100
AE714	Coated 316 Grade S/S	450 x 12	129	1112	100
AE715	Coated 316 Grade S/S	610 x 12	180	1112	100







Stainless Steel Cable Ties



**Band-It Ties - Coated** 



### **Coated Band-It stainless** steel cable ties for cable bundles from 38-185mm

### **FEATURES**

- Releasable stainless steel cable ties for use in hazardous area environments
- PPA 571 black coated to avoid damage to the cable sheaths
- Available in two widths (6.4mm & 9.6mm)
- Operating temperature –80°C to +538°C
- UL, Lloyd Register, DNV and US Coast Guard approved.
- CE Marked

Part number	Material	Size mm	Bundle Diameter mm	Pack Quantity
AE111	Coated 316 Grade S/S	152 x 6.4	38	100
AE112	Coated 316 Grade S/S	229 x 6.4	63	100
AE113	Coated 316 Grade S/S	305 x 6.4	86	100
AE114	Coated 316 Grade S/S	457 x 6.4	137	100
AE115	Coated 316 Grade S/S	610 x 6.4	185	100
AE311	Coated 316 Grade S/S	152 x 9.6	38	100
AE312	Coated 316 Grade S/S	229 x 9.6	63	100
AE313	Coated 316 Grade S/S	305 x 9.6	86	100
AE314	Coated 316 Grade S/S	457 x 9.6	137	100
AE315	Coated 316 Grade S/S	610 x 9.6	185	100



### **Band-Fast System**



**Band-Fast cable restraint** clamps for single, trefoil & quadfoil cable formations

- Designed for heavy duty cable bundling and clamping applications as an alternative to conventional cable cleats
- Low cost alternative to cable cleats up to 50% labour saving
- No accessories required (fixing, liners, packers and studding etc)
- Zero halogen, low smoke and fume product
- PPA 571 black coated to avoid damage to the cable sheaths
- Independently tested for shock and short circuit characteristics
- Suitable for single, trefoil or quadfoil cable formations
- Available for single or double wrap applications
- DNV and GL Type Approved Material
- Temperature Rating –50°C to +538°C

Part number	Туре	Material	Size mm	Max Cable Diameter Single/Trefoil/ Quadfoil	Pack Quantity
BANDF11	Single	Coated 316 Grade S/S	300x16	40mm/13mm/12mm	100
BANDF12	Single	Coated 316 Grade S/S	400x16	75mm/28mm/25mm	100
BANDF13	Single	Coated 316 Grade S/S	500x16	100mm/43mm/37mm	100
BANDF14	Single	Coated 316 Grade S/S	600x16	130mm/57mm/50mm	100
BANDF15	Single	Coated 316 Grade S/S	700x16	160mm/70mm/60mm	100
BANDF21	Double	Coated 316 Grade S/S	300x16	25mm/10mm/9mm	100
BANDF22	Double	Coated 316 Grade S/S	400x16	50mm/13mm/12mm	100
BANDF23	Double	Coated 316 Grade S/S	500x16	55mm/21mm/18mm	100
BANDF24	Double	Coated 316 Grade S/S	600x16	70mm/28mm/25mm	100
BANDF25	Double	Coated 316 Grade S/S	700x16	85mm/35mm/31mm	100
BANDF26	Double	Coated 316 Grade S/S	800x16	100mm/42mm/37mm	100
BANDF27	Double	Coated 316 Grade S/S	1000x16	130mm/57mm/50mm	100





Stainless Steel Banding System



### Band & Buckle System - Banding

### FEATURES

- Stainless steel banding for use with buckles to enable securing and bundling around large cables and pipes
- Applications include insulation fixing, cable bundling and sign erection
- Band & buckle can be quickly formed around virtually any diameter
- Superior corrosion resistance
- Available in 201, 316 grade stainless steel & nylon 11 coated version



# Stainless Steel Banding for larger diameter cables and pipes

Part number	Material	Size
C202	201 Grade S/S	30.5m x 6.35mm
C203	201 Grade S/S	30.5m x 9.53mm
C204	201 Grade S/S	30.5m x 12.70mm
C205	201 Grade S/S	30.5m x 15.88mm
C206	201 Grade S/S	30.5m x 19.05mm
C403	316 Grade S/S	30.5m x 9.53mm
C404	316 Grade S/S	30.5m x 12.70mm

Part number	Material	Size
C405	316 Grade S/S	30.5m x 15.88mm
C406	316 Grade S/S	30.5m x 19.05mm
AE432	PPA Coated 316 Grade S/S	25m x 6.35mm
AE433	PPA Coated 316 Grade S/S	25m x 9.53mm
AE434	PPA Coated 316 Grade S/S	25m x 12.70mm
AE435	PPA Coated 316 Grade S/S	25m x 15.88mm
AE436	PPA Coated 316 Grade S/S	25m x 19.05mm

### **Band & Buckle System - Buckles**

### FEATURES

- Stainless steel buckles for use with banding to enable securing and bundling around large cables and pipes
- Superior corrosion resistance
- Available in 201 and 316 grade stainless steel



### Stainless steel buckles for the fixing of banding to larger cables and pipes

Part number	Material	Size mm	Pack Quantity
C252	201 Grade S/S	6.35	100
C253	201 Grade S/S	9.53	100
C254	201 Grade S/S	12.70	100
C255	201 Grade S/S	15.88	100
C256	201 Grade S/S	19.05	100
C453	316 Grade S/S	9.53	100
C454	316 Grade S/S	12.70	100

Part number	Material	Size mm	Pack Quantity
C455	316 Grade S/S	15.88	100
C456	316 Grade S/S	19.05	100
AE452	316 Grade S/S	6.35	100
AE453	316 Grade S/S	9.53	100
AE454	316 Grade S/S	12.70	100
AE455	316 Grade S/S	15.88	100
AE456	316 Grade S/S	19.05	100







All Round Band & Accessories



### **All Round Band**



### **FEATURES**

- All Round Band is an all purpose fixing system suitable for hostile environments
- Easy to form around any section
- Available in galvanised steel, stainless steel uncoated and in PPA coated versions
- Available in 3 widths (12mm, 17mm & 26mm)

### Multi purpose all round band

Part number	Material	Colour	Size
AE505	Galvanised Steel Uncoated	Metallic	10m x 12mm
AE506	Galvanised Steel Uncoated	Metallic	10m x 17mm
AE507	Galvanised Steel Uncoated	Metallic	10m x 26mm
AE565	PPA Coated Galvanised Steel	Black	10m x 12mm
AE566	PPA Coated Galvanised Steel	Black	10m x 17mm
AE567	PPA Coated Galvanised Steel	Black	10m x 26mm
AE405	Stainless Steel Uncoated	Metallic	10m x 12mm
AE406	Stainless Steel Uncoated	Metallic	10m x 17mm
AE407	Stainless Steel Uncoated	Metallic	10m x 26mm
AE465	Stainless Steel Coated	Black	10m x 12mm
AE466	Stainless Steel Coated	Black	10m x 17mm

Part number	Material	Colour	Size
AE467	Stainless Steel Coated	Black	10m x 26mm
AE575	PPA Coated Galvanised Steel	Black	25m x 12mm
AE576	PPA Coated Galvanised Steel	Black	25m x 17mm
AE577	PPA Coated Galvanised Steel	Black	25m x 26mm
AE425	Stainless Steel Uncoated	Metallic	25m x 12mm
AE426	Stainless Steel Uncoated	Metallic	25m x 17mm
AE427	Stainless Steel Uncoated	Metallic	25m x 26mm
AE475	Stainless Steel Coated	Black	25m x 12mm
AE476	Stainless Steel Coated	Black	25m x 17mm
AE477	Stainless Steel Coated	Black	25m x 26mm



### **Cable Sheath Protector**



### **ZHCP Cable sheath** protector for use with metal cable ties

- Cable sheath protector is designed to fit underneath the metal cable ties to protect the sheath of the cable
- Suitable for low and high temperature environments
- Fire Tested (Def standard 07-247)
- Low smoke and fume product
- Available in five sizes

Part number	Material	Colour	Size
ZHCP-NR-1-0	Nylon 6.6	Black	16mm
ZHCP-NR-2-0	Nylon 6.6	Black	10mm
ZHCP-NR-3-0	Nylon 6.6	Black	6mm

Part number	Material	Colour	Size
ZHCP-NR-4-0	Nylon 6.6	Black	5mm
ZHCP-NR-6-0	Nylon 6.6	Black	13mm





# Cable Ties & Marking Systems Easy Read System



### **Easy Read System**

### FEATURES

- Designed to provide a marking system in hazardous area environments
- Used with stainless steel cable tie range
- A complete range of letters, numbers and symbols
- Fits on to easy strips and carriers or directly on to cable ties
- Fasten strips and carriers to pipe and cable with cable ties
- Easy to read in dim light
- Made from 316 Stainless Steel



Easy read stainless steel marking system

### Characters

Part number	Description	Pack Quantity
AE010*	LETTERS A-Z (Add suffix * when ordering)	100
AE018*	NUMBERS 1-10 (Add suffix * when ordering)	100
AE035	EASY MINUS/HYPHEN -	100
AE036	EASY BLANK	100
AE046	EASY PLUS +	100
AE047	EASY EARTH +	100
AE048	EASY SINE ~	100
AE049	EASY SLASH/	100
AE053	ARROW	100



Easy read marking system characters

### **Carrier Strips**

Part number	Description	Size mm	Pack Quantity
AE043	EASY CARRIER 6	9.53 x 92.5	100
AE044	EASY CARRIER10	9.53 x 130.6	100
AE045	EASY CARRIER16	9.53 x 187.7	100
AE050	EASY STRIP Short	9.53 x 108	100
AE051	EASY STRIP Medium	9.53 x 146	100
AE052	EASY STRIP Long	9.53 x 203.2	100



Easy read marking system carrier strips

### **Easy Read Kit**

Part numb	ber	Description	Size mm	Pack Quantity
AE06	60	EASY READ Kit - Contains 50 of each character/ carrier/strip	1	100



Easy read kit





### Nylon Cable Markers Cable Ties & Marking Systems





### **Straight Cut Wire Markers**



### Z Type wire markers for cable diameters from 1.7 -16mm

### **FEATURES**

- Straight Cut Wire Markers for cable identification and marking on small diameter cables
- Chevron design to interlock when fitted
- Available in various colours
- Standard figures available = A-Z, 0-9, +,-,/, earth & blank
- Add character suffix to part no when ordering item
- Operating Temperature –30°C to +70°C
- Flammability Rating UL94-V2

Part number	Conductor CSA	Conductor Diameter	Pack Quantity	Size mm
PZ02	0.5-0.75mm²	1.7 - 2.8mm	1000	3
PZ1	0.75-4.0mm²	2.5 - 5mm	1000	3
PZ2	2.5-16mm²	4.0 - 10mm	250/500	4
PZ3	16-70mm²	8.0-16mm	100	5



### **Oval Cut Wire Markers**



### K Type wire markers for use with carrier strips

### **FEATURES**

**FEATURES** 

Available in black PVC

■ Flammability Rating UL94-V2

Oval Wire Markers for cable identification and marking of larger diameter cables and pipes when used on carrier strips

■ Standard and multipurpose carrier strips designed to be attached parallel to larger diameter cables or installed directly onto the cable secured with a cable tie

- Oval design to interlock when fitted.
- Available in yellow PVC with black figures
- Standard figures available = A-Z, 0-9, +,-,/, earth & blank
- Add character suffix to part no when ordering item
- Operating Temperature –30°C to +70°C
- Flammability Rating UL94-V2

Part number	Conductor CSA	Conductor Diameter	Pack Quantity	Size mm
POK10	40-100mm²	up to 7.0mm	500	6

Designed for use with K range of markers

■ Operating Temperature –30°C to +70°C



### **Carrier Strips**



# Standard & Multipurpose

otaliaala a l'iaiti	<b>74.</b> F	,000
carrier strips for	larg	er
cables		

Part number	Description	PackQuantity
РОН7	7 digit carrier strip	100
POH12	12 digit carrier strip	100
POH18	18 digit carrier strip	100

Part number	Description	PackQuantity
РОН30	30 digit carrier strip	100
PKH70	10 digit carrier strip	100
PKH110	20 digit carrier strip	100





# Extensive Range of Stock Available Across the UK



# Cable Pulling Equipment

# Contents



# Cable Pulling Equipment Cable Pulling Equipment



### **Cable Rollers**

### FEATURES

- For cable pulling
- Corner rollers also available
- Lightweight roller for easy transportation
- Zinc plated heavy duty assembly
- Steel frame with steel roller on sealed ball bearings



### To aid cable installation

Part number	Weight	Range
TRN76	2.75 kg	Max 76mm cable diameter

Part number	Weight	Range
TR5	4 kg	Max 125mm cable diameter

### **Cable Screw Jacks**

### FEATURES

- Easy to handle and simple operation
- Base plate designed to give stability even on soft ground
- Locking collars can be ordered on request
- Versatile and easily adjustable
- Robustly engineered for regular use



# For supporting cable drums

Part number	Size	Max Drum Diameter	SpindleDiameter	Detail
3 TON JACK	Base area - 1830 x 285mm	1600mm	-	-
6 TON JACK	Base area - 1830 x 760mm	1900mm	-	-
8 TON JACK	Base area - 2000 x 800mm	2200mm	-	-
4FT 6 TON	1219mm long	-	50mm	Suitable for use with the three ton jacks
6FT 6 TON	1800mm long	-	50mm	Suitable for use with the six ton jacks
7FT 8 TON	2100mm long	-	50mm	Suitable for use with the eight ton jacks

### **Cable Drum Rotator**



- Cable drums rotators are used for unreeling cable from a cable drum
- Both made from pressed/rolled steel construction
- Zinc plated or painted finish



Part		Drum Sizes		
number				Weight
DR2	700mm	1200mm	300mm	750kg

Part		Drum Sizes		
number			Min	Weight
DR3	Infinite	2200	300	1500kg





# Cable Pulling Equipment Cable Pulling Equipment



### **Cable Stockings - Double Eye**



### FEATURES

- Material high tensile galvanised steel wire
- Special cable stockings also available
- The stocking is connected at the end of the cable and can be used for cable pulling or supporting
- Also available in stainless steel wire or Kevlar
- Ideal method for supporting cables prior to cleating

Part number	Actual Break Tonne Size	Cable Diameter
CS21	0.75	6-13mm
CS22	1.00	13-19mm
CS23	2.50	19-25mm
CS24	3.50	25-38mm
CS25	5.00	38-50mm

Part number	Actual Break Tonne Size	Cable Diameter
CS26	5.00	50-63mm
CS27	6.00	63-89mm
CS28	7.00	89-115mm
CS29	7.00	115-130mm



### **Split Cable Stockings - Double Eye**



### **FEATURES**

- Material high tensile galvanised steel wire
- Special cable stockings also available
- The unique split / tie feature allows the stocking to be connected at any point along the cable for cable pulling or supporting
- Also available in stainless steel wire or Kevlar
- Ideal method for supporting cables prior to cleating

Part number	Actual Break Tonne Size	Cable Diameter
CS31	0.75	6-13mm
CS32	1.00	13-19mm
CS33	2.50	19-25mm
CS34	3.50	25-38mm
CS35	5.00	38-50mm

Part number	Actual Break Tonne Size	Cable Diameter
CS36	5.00	50-63mm
CS37	6.00	63-89mm
CS38	7.00	89-115mm
CS39	7.00	115-130mm



### **Triplex Cable Stocking - Double Eye**



### **FEATURES**

- Material high tensile galvanized steel wire.
- Also available in stainless steel or kevlar.
- Ideal method for supporting cables prior to cleating

### For cable pulling

Part number	Actual Break Tonne Size	Cable Diameter
CST14	3.5	25-38mm
CST15	5.0	38-50mm

Part number	Actual Break Tonne Size	Cable Diameter	
CST16	6.0	50-63mm	



# Cable Pulling Equipment Cable Pulling Equipment



### Fibre Glass Rodding System

### **FEATURES**

- Cobra Rods gives a compact and labour saving solution whether installing cables in ducts, threading rope or surveying drains with a CCTV cameras.
- Reliable and manufactured from the highest quality fibreglass radially reinforced construction available in a choice of diameters
- All rods are mounted on rugged and robust zinc plated steel frames
- Available in different lengths and rod diameters

Part number	Rod Diameter	Available in Length (m)
CR04.5-***	4.5mm	40/60/80/100
CR06-***	6.0mm	60/80/100/150
CR09-***	9.0mm	60/80/100/120/150



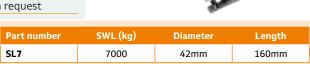
Part number	Rod Diameter	Available in Length (m)	
CR011-***	11.0mm	100/120/150/200/250/300	
Part number to be completed with length needed EG. CR04.5-060 (60m Length)			

### **Swivel Links**

### FEATURES

- Swivel links facilitates a flexible rotational connection between the winch bond and the cable protecting the cable whilst allowing the bond to naturally rotate
- All swivels have a safety factor of 3:1
- Special swivel links are available up to 80 tonnes breaking strain on request

Part number	SWL (kg)	Diameter	Length
SL3	3000	32mm	140mm
SL5	5000	38mm	152mm



### **Duct Brushes**

### **FEATURES**

- Designed to clear debris/corrosion from ducting before cable is installed to prevent blockage or potential damage to cable.
- Other materials available such as foam pigs, duct proving mandrels. Please contact your nearest sales office for more information



Part number	Duct Diameter (mm)	Brush Material	Duct Materials
CBD-***	57/80/86/95/108/ 150/200	Fibre Wires/ Nylon Core	Plastic
WPB-***	80/100/125/150/ 200/250	Steel Core and Wires	Steel/ Ceramic

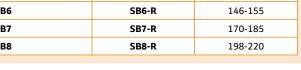
Part	Duct Diameter (mm)	Brush	Duct
number		Material	Materials
Part number to be completed with duct diameter (e.g. WDB-057 brush for plastic pipe with 57mm I/D)		WDB-057	

### **Bellmouth**

- Steel hinged bellmouths are inserted into ducts and secured in position with an expansion bolt.
- Bellmouths minimises damage to the cable and the edge of the duct during cable installation
- Standard sizes are below, all sizes are available with a guide roller fitted, simply add an "R" after the code

Part number		Duct Size Range
Without roller	With roller	
SB1	SB1-R	55-63
SB2	SB2-R	76-82
SB3	SB3-R	86-95
SB4	SB4-R	97-104

Part number		Duct Size Range
Without roller	With roller	
SB5	SB5-R	115-124
SB6	SB6-R	146-155
SB7	SB7-R	170-185
SB8	SB8-R	198-220







# Cable Pulling Lubricants Cable Pulling Equipment



### **LUB-P Heavy Duty Pulling Lubricant**



Heavy duty pulling lubricant

### **FEATURES**

- White translucent polymer gel which reduces friction making cable pulls easier and safer.
- Reduces the chance of cable sheath damage from high pulling forces
- Designed for heavy cables and difficult cable installations
- The low solids content means less conduit/duct blocking if additional pulls are required
- Compatible with common types of cable jacket materials
- Suitable for installations between temperatures -7 to +44°C

Part number	Size
LUB-P	18.9 litre bucket



### **LUB-I Medium Duty Pulling Lubricant**



Medium duty cable pulling lubricant

### **FEATURES**

FEATURES

TLM/20L

- White translucent polymer gel which reduces friction making cable pulls easier and safer.
- Reduces the chance of cable sheath damage from high pulling forces

■ Specially designed lubricant with microspheres for telecoms industry

■ Provides superior friction reduction between cable and all forms of conduit

■ Compatible with all forms of cable jackets

■ Biodegradable, non toxic, water based lubricant

- Designed for medium/lighter weight cable installations
- The low solids content means less conduit/duct blocking if additional pulls are required
- Compatible with common types of cable jacket materials
- Suitable for installations between temperatures -5 to +45°C

Part number	Size
LUB-I	18.9 litre bucket



### **Techlube Microsphere 20 Litre**

20 litre bucket



Lubricants with microspheres for telecoms market

Part number	Size





# Cable Pulling Equipment

### Hand & Cable Cleaning Wipes



### **Solvent Cleaner**

### FEATURES FOR 1PF

- 1PF high performance residue free solvent cleaner and degreaser for cable cleaning prior to jointing and maintenance
- Residue free cleaning ensures no earth tracking or local hot spots
- High voltage approved up to and including 440kV
- Trigger sprays available to accompany 1 litre bottles
- Designed to IEEE recommendations

### FEATURES FOR PFQD

- HYSO-QD fast evaporating, odourless solvent that provides zero residue cleaning for maintenance application
- Recommended for switchgear cleaning and maintenance
- Compatible with resin, plastics and elastomeric rubbers
- High strength low lint wipe
- Trigger sprays available to accompany 1 litre bottles



Solvent cleaner

Part number	Size	Part number	Size
1PF	1 litre	PFQD	1 litre

### **Cable Cleaning Wipes**

### FEATURES

- It is a full strength solvent degreaser for cable cleaning prior to the jointing, terminating and kitting of cables
- Non-conductive, non-corrosive and non-staining
- Suitable for use on low, medium and high voltage applications
- Good general solvency power
- Contains no CFCs, HCFCs or hazardous solvents
- Residue free cleaning ensures no earth or local hot spots



PF solvent degreaser for cable cleaning

Part number	Size
JT250	250 wipes

### **Bitumen Remover Wipes**

- Solvent impregnated extra large wipes specifically designed for powerful and efficient bitumen removal during electrical operations
- Use for cable cleaning prior to jointing and maintenance of cables, switchgear and network equipment
- Suitable for use on static and live cable; low, medium and high voltage applications
- Remove oils, soils, tar and bitumen residues

Part number	Size
P20301-L021-1-1	150 wipes



PF-BR Bitumen remover wipes







## Cable Pulling Equipment

Cable Warning & Detection Tape



## **Underground Warning Tape**



## Low cost cable warning system

### FEATURES

- Economical way of warning excavators of buried cables
- Supplied in standard black on yellow for maximum visibility
- Also available in other colours
- Can be manufactured with specific text
- Each roll covers 365m
- Soil tolerance pH2.5 to pH11.0 inclusive
- Material: low density Polyethylene

Part number	Size	Detail	Description
TAPECAUTION	150mm x 0.05mm x 365m	"Caution Electrical Cable Below"	Black on Yellow
CAUTIONPREMIUM	150mm x 0.1mm x 365m	"Electrical Cable Below"	Black on Yellow



## **Underground Warning & Location Tape**



## Detectamesh - Cable protection and location system

### **FEATURES**

- Suitable for use with cable and pipe locators and cable avoidance tools (CAT & GENNY)
- Manufactured from high strength rot resistant homopolymer polypropylene plastic with a traceable stainless steel wire
- Other colours and texts available to order
- Printed with "Caution buried cable below" text black on yellow
- Each roll covers over 100m
- Manufactured to BS EN 12613:2001
- Can be manufactured with specific text

Part number	Size	Detail	Description
DETECTAMESH	200mm x 1mm x 100m	"Caution Buried Cable Below"	Black on yellow



## **Underground Warning Tape: Fibre Optic**



## Wavelay - Cable protection and location system

- Printed with "Caution Fibre Optic Cables" text black on green
- Each roll covers over 365m
- Tensile strength 680 N/mm²
- Can be manufactured with specific text
- Economical way of warning excavators of buried cables

Part number	Size	Detail
WAVELAY	150mm x 365m	"Caution Fibre Optic Cable Below"





## Cable Pulling Equipment

## Cable Protection & Location Products



## **Cable Protection - Tape Tile**

## 医多类性多形形式

### FEATURES

- Provides clear warning to third parties
- Damages to cables less likely, therefore reducing cable repair costs and supply disruption
- Rot proof and resistant to wide range of soil conditions
- Approved by utilities worldwide
- Complies with enats 12-23



## Flexible high impact polyethylene tile

Part number	Size	Detail	Description
CENTRITILE 150	2.5mm x 150mm x 40m	"Caution Electric Cable Below"	Red brown background with yellow tape and black lettering
CENTRITILE 200	2.5mm x 200mm x 40m	"Caution Electric Cable Below"	Red brown background with yellow tape and black lettering

## **Cable Protection Covers**



#### FEATURES

- Provides clear warning to third parties
- Lightweight and easy to install
- Damages to cables less likely, therefore reducing cable repair costs and supply disruption
- Rot proof and resistant to wide range of soil conditions
- Can be manufactured to suit application size and text
- Approved by utilities worldwide
- Meets impact requirement of BS 2484
- Utility specific tiles available on request



## High level cable protection

Part number	Size	Detail	Description
TILE 152-6	6mm x 152mm x 1m	"Caution Electric Cable Below"	Red background with yellow tape and black lettering
TILE 152-12	12mm x 152mm x 1m	"Caution Electric Cable Below"	Red background with yellow tape and black lettering
TILE 244-12	12mm x 244mm x 1m	"Caution Electric Cable Below"	Red background with yellow tape and black lettering
TILE 300-12	12mm x 300mm x 1m	"Caution Electric Cable Below"	Red background with yellow tape and black lettering





## Jointing Tech | Breakdown Service



Problems don't always occur during normal working hours – Jointing Tech offer a 24 hour emergency breakdown service.



We're here when you need us the most.

Breakdown service is chargeable – contact Jointing Tech for more information



# Renewables | Working with nature to supply your power



## **Insulation Products**

## Contents

LV Heat Shrink Products 78

LV Cold Shrink Products 81

MV Heat Shrink Products 83





## Insulation Products LV Heat Shrink Products



## Thin Wall Heat Shrink Tubing

## FEATURES

- Single wall heat shrink tubing is designed for phase marking, bundling, strain relief and electrical insulation
- Flame retardant and abrasion resistance
- Flexible rapid shrinkage with 2:1 shrink ratio
- UV stabilised
- Other colours available on request (MOQ may apply)
- 1000V rated
- Shrinking temperature > 110°C



## Heat Shrinkable thin wall insulating tubing

Part number	Spool Length	Application Range
HT6.4-3.2	100m	6-3mm
HT9.5-4.8	100m	10-5mm
HT12.7-6.4	100m	12.7-6.4mm
HT19-9.5	50m	19-10mm
HT25.4-12.7	50m	25-12.5mm

Part number	Spool Length	Application Range
HT38-19	50m	38-20mm
HT51-25.4	25m	50-25mm
HT76.2-38	25m	76-40mm
HT101-51	25m	100-50mm

## **Medium Wall Heat Shrink Tubing**



- Cross linked polyolefin dual wall medium heat shrink tubing is designed for the cable jacketing, sealing and electrical insulation of LV power cables
- Halogen free and resistant to UV light
- Resistant to temperature changes and immune to oils and solvents
- Flexible rapid shrinkage with 3:1 shrink ratio
- Available in 1500mm length as standard
- Available in black only
- Available without internal tubing sealant on request
- 1000V rated
- Shrinking temperature > 110°C
- Tensile strength 14 MPa min
- Dielectric strength > 200kV/cm



Heat Shrinkable medium wall insulating tubing

Part number	Application Range	Length
MWTM10/3	9-3.5mm	1500mm
MWTM16/5	14-5.5mm	1500mm
MWTM25/8	22-9mm	1500mm
MWTM35/12	32-13mm	1500mm
MWTM50/16	45-17mm	1500mm
MWTM63/19	57-21mm	1500mm
MWTM75/22	68-24mm	1500mm

Part number	Application Range	Length
MWTM85/25	76-27mm	1500mm
MWTM95/29	85-31mm	1500mm
MWTM115/34	100-36mm	1500mm
MWTM140/42	125-44mm	1500mm
MWTM160/50	145-52mm	1500mm
MWTM180/60	162-62mm	1500mm



## LV Heat Shrink Products Insulation Products



## **Thick Wall Heat Shrink Tubing**



## Heat Shrinkable thick wall insulating tubing

### **FEATURES**

- Cross linked polyolefin dual wall thick heat shrink tubing is designed for the cable jacketing, sealing and electrical insulation of LV power cables in underground applications
- The tubings inner co-extruded hot melt adhesive wall gives a dependable moisture seal over most irregular shapes
- Halogen free and resistant to UV light
- Resistant to temperature changes and immune to oils and solvents
- Its mechanical strength enables immediate backfillling of cable trenches after jointing
- Flexible rapid shrinkage with 3:1 shrink ratio
- Available in 1500mm length as standard
- Available in black only
- 1000V rated
- Shrinking temperature > 110C
- Tensile strength 12 MPa min
- Dielectric strength > 170kV/cm

Part number	Application Range	Length
WCSM12/3	10-3.5mm	1500mm
WCSM16/4	14-4.5mm	1500mm
WCSM24/6	22-6.5mm	1500mm
WCSM34/8	31-9.0mm	1500mm
WCSM48/12	44-13mm	1500mm
WCSM56/16	50-17.5mm	1500mm

Part number	Application Range	Length
WCSM70/20	63-22mm	1500mm
WCSM90/25	81-27mm	1500mm
WCSM110/30	100-33mm	1500mm
WCSM130/35	118-38mm	1500mm
WCSM160/50	144-55mm	1500mm
WCSM180/50	162-55mm	1500mm



## **Heat Shrink Wraparound**



Heat Shrinkable wraparound for cable repairs

- Designed to be a fast and permanent cable repair and sealing system for insulation up to 1000V and jacketing applications up to 35kV
- Ideal for repairing long buried cable where it would be impossible to use a tube
- A moisture proof, insulating and tight-fitting repair is then obtained in one step by heating, which makes the sleeve diameter shrink and the adhesive coating melt and flow into the interstices
- Resistant to temperature changes and immune to oils and solvents
- Available in 1500mm lengths as standard and 250mm, 500mm, 750mm and 1000mm on request
- 1000V rated
- Shrinking temperature > 110°C
- Tensile strength 17 MPa min
- Dielectric strength > 180kV/cm

Part number	Application Range	Length
CRSM34/10	21.0-11.0mm	1500mm
CRSM53/13	32.0-17.0mm	1500mm
CRSM84/20	50.0-24.0mm	1500mm
CRSM107/29	65.0-31.0mm	1500mm

Part number	Application Range	Length
CRSM143/36	86.0-33.0mm	1500mm
CRSM198/55	120.0-56.0mm	1500mm
CRSM250/98 150.0-103.0mm 1500mm		1500mm





## Insulation Products LV Heat Shrink Products



## **Heat Shrink Breakouts**

## FEATURES

- These breakouts are designed for sealing of cable cores
- Coated with hot melt adhesive which seals on to the cable sheath and core insulation
- Resistant to temperature changes and immune to oils and solvents
- Halogen free and resistant to UV light
- Available in two and three core version on request
- 1000V rated
- Shrinking temperature 110°C
- Dielectric strength 100kV/cm



4 Core Heat Shrink cable breakouts for power cables

Part number	Application Range
4CB6-50	35.0-6.0mm <sup>2</sup>
4CB35-70	70.0-35.0mm <sup>2</sup>

Part number	Application Range	
4CB50-150	150.0-70.0mm²	
4CB185-300	300.0-185.0mm <sup>2</sup>	

## **Heat Shrink Cable End Caps**

### FEATURES

- Cross linked medium wall heat shrink end caps are designed for sealing of cable ends
- Coated with a hot melt adhesive which seals on to the cable sheath
- Resistant to temperature changes and immune to oils and solvents
- Halogen free and resistant to UV light
- 1000V rated
- Shrinking temperature 110°C
- Dielectric strength 100kV/cm



## Heat Shrink end caps for power cables

Part number	Application Range
EC4-9	9.0-4.0mm
EC8-18	18.0-8.0mm
EC18-36	36.0-18.0mm
EC28-50	50.0-28.0mm

Part number	Application Range
EC38-70	70.0-38.0mm
EC55-95	95.0-55.0mm
EC70-110	110.0-70.0mm

## **Heat Shrink Earthing End Caps**

- Used to earth a newly installed cable in case a cable is inadvertently made live
- Includes a green sleeve to indicate earthing cap
- Caps are adhesive lined to prevent water ingress
- Can be used on LV and 11kV cables
- Kit consists of Heat Shrink end cap, earth braid, green heat shrink sleeve and nails



Part number	Cable Type	Application Range
CSD01	LV	15-30mm
CSD02	LV	25-50mm
CSD03	LV	45-95mm

Part number	Cable Type	Application Range
CSD04	95mm² Triplex 11kV (set of 3)	-
CSD05	185-300mm² Triplex 11kV (set of 3)	-







## LV Cold Shrink Products Insulation Products



## **Cold Shrink Tubes - Network Rail Approved**



## Cold Shrink tubes -Network Rail Approved

### FEATURES

- Approved by Network Rail for terminal insulation and inline joints for track feeder applications
- Improved tough rubber which is suitable for direct burial applications
- Simple installation no external heat source required
- Good thermal stability
- Excellent sealing properties; retaining its resiliency and pressure after prolonged ageing
- Waterproof and resists mould
- Resistant to ozone and UV light
- Resistant to acids and alkali
- Meets worldwide standards ANSI, IEEE, VDE, JCAA, REA & CSA.
- Rated up to 1000V for cable insulation
- Network Rail approved

Part number	Min Cable Size	Max Cable Size	Length
LO41	240mm²	1000mm²	228mm
L042	150mm²	240mm²	191mm

Part number	Min Cable Size	Max Cable Size	Length
LA11	380mm²	1000mm²	457mm



### **Cold Shrink Tubes - EPDM Rubber**



## Cold Shrink tubes in EPDM rubber for LV power cables

- Designed for the sealing and electrical insulation of LV power cables
- Improved tough rubber which is suitable for direct burial applications
- Simple installation no external heat source required
- Good thermal stability
- Excellent sealing properties; retaining its resiliency and pressure after prolonged ageing
- Waterproof and resists mould
- Resistant to ozone and UV light
- Resistant to acids and alkalis
- Meets worldwide standards ANSI, IEEE, VDE, JCAA, REA & CSA.
- Rated up to 1000V for cable insulation

Part number	Diameter Range	Length
8423-6	14.3-7.8mm	152mm
8425-8	20.8-10.2mm	203mm
8426-9	25.4-13.0mm	229mm
8426-11	25.4-13.0mm	279mm
8427-6	33.0-17.5mm	152mm
8427-12	33.0-17.5mm	305mm
8427-16	33.0-17.5mm	406mm
8428-6	49.3-24.0mm	152mm

Part number	Diameter Range	Length
8428-12	49.3-24.0mm	305mm
8428-18	49.3-24.0mm	609mm
8429-6	67.8-32.2mm	152mm
8429-9	67.8-32.2mm	229mm
8429-12	67.8-32.2mm	305mm
8429-18	67.8-32.2mm	457mm
8430-9	93.7-42.6mm	229mm
8430-18	93.7-42.6mm	457mm





## Insulation Products LV Cold Shrink Products



## **Cold Shrink End Caps**

### FEATURES

- Designed for the sealing and electrical insulation of cable ends
- Suitable for direct burial applications
- Simple installation no external heat source required
- Good thermal stability
- Excellent sealing properties; retaining its resiliency and pressure after prolonged
- Waterproof and resists mould
- Resistant to ozone and UV light
- Resistant to acids and alkalis
- Accommodates size ranges from 11.6-84.3mm
- Once installed can be removed easily by simply lifting the edge of the end cap and slice with a utility knife leaving no adhesive residue or grease
- Meets worldwide standards ANSI, IEEE, VDE, JCAA, REA & CSA
- Rated up to 1000V for cable insulation
- PADS approved



**Cold Shrink end caps for** LV power cables

Part number	Diameter Range
EC-1	20.9-11.6mm
EC-2	30.1-15.9mm

Part number	Diameter Range	
EC-3	49.2-26.0mm	
EC-4	84.3-45.5mm	

### Cold Shrink Abandonment Kits

- A complete kit to abandon LV cable either temporarily or permanently
- Improved tough rubber which is suitable for direct burial applications
- Simple installation no external heat source required
- For use with single and multicore LV power cables up to and including 3.3kV
- Will accommodate lead sheath/corrugated aluminium sheath
- No special tools required
- Environmental sealing and mechanical protection is provided using cold shrink technology
- No need to heat making the installation quick, simple and reliable
- Suitable for ship wiring and offshore cables
- Kit includes: cold shrink end cap and tube, armour continuity and tapes
- Tested up to 3.3kV



**Cold Shrink abandonment** kits for LV power cables

Part number	Diameter Range
CSCAK/1	18.0-12.0mm
CSCAK/2	25.0-18.0mm
CSCAK/3	42.0-25.0mm

Part number	Diameter Range	
CSCAK/4	55.0-42.0mm	
CSCAK/5	81.0-56.0mm	
·		







## MV Heat Shrink Products Insulation Products



## **Medium Voltage Busbar Tape**



## Medium voltage busbar insulation tape

### **FEATURES**

- HVBT tape is an adhesive-coated, high-voltage, heat shrinkable general purpose tape for insulating straight and bent bars in retrofit applications where tubing cannot be used
- Compatible with all other products in the Raychem MV insulation enhancement system
- Flashover protection to 15kV increasing to 25kV with second layer
- Easy to apply using readily available equipment
- Suitable for both indoor and outdoor use
- Tested to ASTM D149, IEC 243, ISO 188, ASTM D2671, ASTM D257, IEC 93 and VDE 0370

Part number	Width	Length per Roll
HVBT-12-A	25mm	10m
HVBT-14-A	50mm	10m

Part number	Width	Length per Roll
HVBT-15-A	75mm	10m
HVBT-16-A	100mm	10m



## **Medium Voltage Busbar Insulation Sheet**



Adhesive coated heat shrinkable sheet

### **FEATURES**

- HVIS sheet is a biaxially expanded medium voltage material designed to provide high performance insulation for complex geometries
- Easy to install on site using gas torch or hot air device
- Excellent UV and weather resistant properties
- Suitable for both indoor and outdoor use
- Tested to ANSI C37.20c1976 for 15kV class equipment and IEC 298 for 36kV class equipment

Part number	Description	Sheet Size
HVIS-05	-	0.5m x 660mm (3 per kit)
HVIS-10	-	10.0m x 660mm

Part number	Description	Sheet Size
HVIS-TOOLS-01	Installation Clamp Kit	-
S1061-8-300	Filler Mastic	-
	'	

### **Insulation Sheet Details**

Busbar	Rated Voltage (kV)	Phase to Phase (mm)	Phase to Ground (mm)	IEC 71-2 air clearance (mm)
Round	12	55	65	120
	17.5	70	85	160
	24	95	125	220
	36	150	205	320
Rectangle	12	65	75	120
	17.5	85	104	160
	24	115	150	220
	36	200	285	320





## Insulation Products MV Heat Shrink Products



## Medium Voltage Heat Shrink Busbar Tubing for installations up to 24kV

### FEATURES

- BPTM tubing for use on straight or bent bars where some clearance reduction or 24 kV insulation is required
- Compatible with all other products in Raychem MV insulation enhancement system
- Flame retardant and halogen free
- Excellent flexibility can be installed on a wide range of curved or bent busbars without cracking
- Exceptional insulation and long term reliability even at continuous operating temperatures
- Tested to IEC 216, ASTMD2671, IEC112, VDE 0303/1 & IEC 243



**Heat Shrinkable busbar** insulation tubing

Part number	Shrink Range	Spool Length
BPTM15/6-A/U	15-6mm	30m
BPTM30/12-A/U	30-12mm	30m
BPTM50/20-A/U	50-20mm	30m
BPTM75/30-A/U	75-30mm	20m

Part number	Shrink Range	Spool Length
BPTM100/40-A/U	100-40mm	25m
BPTM120/50-A/U	120-50mm	25m
BPTM175/70-A/U	175-70mm	15m

### Medium Voltage Heat Shrink Busbar Tubing for installations up to 33kV



- BBIT tubing for use on straight or bent bars where some clearance reduction or 33kV insulation is required
- Excellent flexibility, can be installed on a wide range of curved or bent busbars without cracking or creasing
- Compatible with all other products in Raychem MV insulation enhancement system
- Flame retardant and halogen free
- Exceptional insulation and long term reliability even at continuous operating
- Tested to IEC 216, ASTMD2671, IEC112, VDE 0303/1 & IEC 243





**Heat Shrinkable busbar** insulation tubing

Part number	Application Range	Spool Length
BBIT25/10-A/U	25.0-10.0mm	25m
BBIT40/16-A/U	40.0-16.0mm	20m
BBIT65/25-A/U	65.0-25.0mm	15m

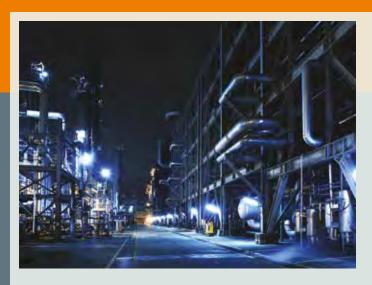
Part number	Application Range	Spool Length
BBIT100/40-A/U	100.0-40.0mm	15m
BBIT150/60-A/U	150.0-60.0mm	15m
BBIT175/80-A/U	175.0-80.0mm	10m





## **Industrial Trace Heating**

Raychem Trace Heating Providing Quality & Reliability





Jointing Tech – Trace Heating Tech are market leaders in the Industrial Trace Heating environment. With more than 25 years' experience working on all types of projects large and small we have a unique understanding into the logistical and product considerations needed to deliver your Industrial Trace Heating project on time and on budget.

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- Tank heating tank heating systems are used specifically for freeze protection and for temperature
  maintenance with fluids in large storage tanks. The system's responsibility is to maintain the temperature
  of the fluid to ensure that it does not freeze, crystalise or condense (depending on the type of fluid that is
  being managed). Tank heating can also be used to heat fluids to certain temperatures.
- Process maintenance we can work together on creating a system that will ensure fluids are kept at a
  certain temperature dependent on individual material needs or even over a broad range of temperatures
  (again dependent on fluid requirements).
- Design Supply Supply and install On site training Test/commissioning
- Pre-made kits with ongoing support through out the project programme.

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## LV Joints

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## **LV Inline Resin Joints - Armoured Cables**

## 医多种性多形形式

## **FEATURES**

- Designed to connect LV power cables inline by encapsulating in a resin filled shell
- Excellent mechanical protection
- Clear rigid joint shells to aid correct installation
- Large shell design allows the use of mechnical connectors
- Available with NEW REACH compliant HDI resin on request
- Kit comprises mould shell, 2 part polyurethane MDI resin, earth continuity kit, PVC tapes, gloves and crimp ferrules (on request)
- Mechanical connectors suitable for this range are available on page 26
- 1000V Rated
- Tested to BS EN 50393
- Tested to Engineering Standard C81

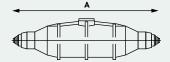


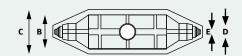
## Inline resin joints for LV armoured power cables

Part number	rt number Maximu	
MDI Resin	HDI Resin	
TSJ-6	TSJ-6-HDI	6mm² x 4 Core
TSJ-16	TSJ-16-HDI	16mm² x 4 Core
TSJ-35	TSJ-35-HDI	35mm² x 4 Core
TSJ-70	TSJ-70-HDI	70mm² x 4 Core

Part number		Maximum Cable Size
MDI Resin	HDI Resin	
TSJ-120	TSJ-120-HDI	120mm² x 4 Core
TSJ-185	TSJ-185-HDI	185mm² x 4 Core
TSJ-300	TSJ-300-HDI	300mm² x 4 Core

## **Straight Joints Data**





Part	Dimensions mm						
Number	A	В	С	ØD	ØE		
TSJ-6	275	50	85	21	9		
TSJ-16	295	60	95	27	15		
TSJ-35	330	80	115	33	21		
TSJ-70	395	110	140	41	29		
TSJ-120	575	120	150	57	39		
TSJ-185	670	135	170	67	49		
TSJ-300	870	160	195	77	59		

### **Straight Joints Selection Table**

Part	Ca	able conductor size m	Cable entry diameter mm		
Number	2-core	3-core	4-core	min	max
TSJ-6	1.5 - 10	1.5 - 10	1.5 - 6	9	21
TSJ-16	10 - 25	10 - 25	10 - 16	15	27
TSJ-35	35 - 50	35 - 50	25 - 35	21	33
TSJ-70	70 - 95	70 - 95	50 - 70	29	41
TSJ-120	120 - 150	120 - 150	95 - 120	39	57
TSJ-185	185 - 240	185 - 240	150 - 185	49	67
TSJ-300	300	300	240 - 300	59	77
Please contact your lo	ocal sales office to join	other cable variations	3		







## LV Inline Resin Joints Plastic/Paper - Armoured Cables



## Inline resin joints for LV armoured power cables

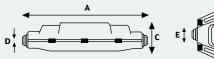
### FEATURES

- Designed to connect LV power cables inline by encapsulating in a resin filled shell
- Excellent mechanical protection
- Large transparent, high impact resistant shells
- Large, extra wide shell design allows the use of mechanical connectors
- Clear resin bags to aid with mixing process
- All resin joints kit supplied with NEW REACH compliant JEM resin
- Kit comprises mould shell, JEM resin, earth continuity kit, PVC tapes, gloves and crimp ferrules (on request)
- Mechanical connectors suitable for this range are available on page 26
- 1000V Rated
- Tested to BS EN 50393
- Tested to Engineering Standard C81

Part number	Maximum Cable Size
JST6	6mm² x 4 Core
JST16	16mm² x 4 Core
JST35	35mm² x 4 Core
JST95	95mm² x 4 Core

Part number	Maximum Cable Size
JST185	185mm² x 4 Core
JST300	300mm² x 4 Core
JST400	400mm² x 4 Core

### **Straight Joints Data**





Part	Dimensions mm				
Number	A	В	С	D	Е
JST6	240	115	75	12	22
JST16	310	125	85	20	35
JST35	390	130	100	24	40
JST95	620	160	130	27	51
JST185	795	230	205	40	65
JST300	950	240	210	55	80
JST400	1100	275	260	56	92

## **Straight Joints Selection Table**

Part	Cable conductor size mm²			Cable entry diameter mm	
Number	2-core	3-core	4-core	Min	Max
JST6	1.5 - 10	1.5 - 6	1.5 - 6	12	22
JST16	16 - 25	10 - 25	10 - 16	20	35
JST35	35	35	25 - 35	24	40
JST95	50 - 95	50 - 95	50 - 95	27	51
JST185	120 - 185	120 - 185	120 - 185	40	65
JST300	240 - 300	240 - 300	240 - 300	55	80
JST400	400	400	400	56	92
Please contact your local sales of	ffice to join other cal	hle variations			



## **LV Branch Resin Joints - Armoured Cables**

## 医多数多数形式

## **FEATURES**

- Designed to connect LV power cables in branch formation by encapsulating in a resin filled shell
- Excellent mechanical protection
- Clear rigid joint shells to aid correct installation
- Large shell design allows the use of mechnical connectors
- Available with NEW REACH compliant HDI resin on request
- Kit comprises mould shell, 2 part polyurethane MDI resin, earth continuity kit, PVC tapes and gloves
- Mechanical connectors suitable for this range are available on page 26
- 1000V Rated
- Tested to BS EN 50393
- Tested to Engineering Standard C81

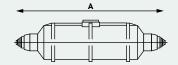


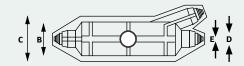
Branch Resin joints for LV armoured power cables

Part number		Maximum Cable Size
MDI Resin	HDI Resin	
ТВЈ-6	TBJ-6-HDI	6mm² x 4 Core
TBJ-16	TBJ-16-HDI	16mm² x 4 Core
TBJ-35	TBJ-35-HDI	35mm² x 4 Core
ТВЈ-70	TBJ-70-HDI	70mm² x 4 Core

Part number		Maximum Cable Size
MDI Resin	HDI Resin	
TBJ-120	TBJ-120-HDI	120mm² x 4 Core
TBJ-185	TBJ-185-HDI	185mm² x 4 Core
TBJ-300	TBJ-300-HDI	300mm² x 4 Core

## **Branch Joints Data**





Part Number	Dimensions				
	A	В	С	ØD	ØE
ТВЈ-6	245	60	120	21	9
TBJ-16	315	75	140	27	15
TBJ-35	380	100	170	33	21
TBJ-70	470	120	185	41	29
TBJ-120	595	150	220	57	39
TBJ-185	690	180	240	67	49
TBJ-300	870	195	275	77	59

#### **Branch Joints Selection Table**

Part	Cable conductor size mm²			Cable entry diameter mm	
Number	2-core	3-core	4-core	min	max
ТВЈ-6	1.5 - 10	1.5 - 10	1.5 - 6	9	21
TBJ-16	10 - 25	10 - 25	10 - 16	15	27
TBJ-35	35 - 50	35 - 50	25 - 35	21	33
TBJ-70	70 - 95	70 - 95	50 - 70	29	41
TBJ-120	120 - 150	120 - 150	95 - 120	39	57
TBJ-185	185 - 240	185 - 240	150 - 185	49	67
TBJ-300	300	300	240 - 300	59	77
Please contact your local sales of	fice to join other cal	ble variations			





## LV Branch Resin Joints Plastic/Paper - Armoured Cables



## **Branch Resin joints for LV** armoured power cables

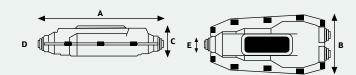
## **FEATURES**

- Designed to connect LV power cables in branch formation by encapsulating in a resin filled shell
- Excellent mechanical protection
- Large transparent, high impact resistant shells
- Clear resin bags to aid with mixing process
- All resin joints kit supplied with NEW REACH compliant JEM resin
- Kit comprises mould shell, JEM resin, earth continuity kit, PVC tapes and gloves
- Mechanical connectors suitable for this range are available on page 26
- 1000V Rated
- Tested to BS EN 50393
- Tested to Engineering Standard C81

Part number	Maximum Cable Size
JBR-6	6mm² x 4 Core
JBR-16	16mm² x 4 Core
JBR-35	35mm² x 4 Core

Part number	Maximum Cable Size
JBR-95	95mm² x 4 Core
JBR-185	185mm² x 4 Core
JBR-300	300mm² x 4 Core

### **Branch Joints Data**



Part	Dimensions mm				
Number	A	В	С	D	E
JBR-6	240	125	75	12	22
JBR-16	345	160	95	20	35
JBR-35	435	175	100	24	40
JBR-95	650	210	190	27	51
JBR-185	870	250	230	40	65
JBR-300	1020	300	310	55	80

### **Branch Joints Selection Table**

Part	Cable conductor size mm²		Cable entry diameter mm		
Number	2-core	3-core	4-core	min	max
JBR-6	1.5 - 10	1.5 - 6	1.5 - 6	12	22
JBR-16	16 - 25	10 - 25	10 - 16	20	35
JBR-35	35	35	25 - 35	24	40
JBR-95	50 - 95	50 - 95	50 - 95	27	51
JBR-185	120 - 185	120 - 185	120 - 185	40	65
JBR-300	240 - 300	240 - 300	240 - 300	55	80
Please contact your local sales office to join other cable variations					



## LV Joints Unarmoured, Pilot & Telecom Resin Joints



## LV Inline Resin Joints - Unarmoured Cables

#### FF ATURE 9

- Designed to connect inline unarmoured LV power cables by encapsulating in a resin filled shell
- One part mould body with snap fit closing system for a simpler installation
- Supplied with European legislation (REACH) compliant two part polyetherurethane resin
- Kit comprises mould shell, Scotchcast 470W resin, snap in five core spacer, abrasive sponge, gloves and crimp ferrules (on request)
- Tested to BS EN 50393



## Inline resin joints for LV unarmoured power cables

Part number	Maximum cable size mm²
91-NBA-0	4mm² x 4 Core
91-NBA-1	10mm² x 4 Core
91-NBA-3	35mm² x 4 Core
91-NBA-4	50mm² x 4 Core

Part number	Maximum cable size mm²
91-NBA-5	95mm² x 4 Core
91-NBA-6	150mm² x 4 Core
91-NBA-7	240mm² x 4 Core

## LV Inline Resin Joints - Pilot & Telecom Cables

#### FEATURES

- Designed to connect inline pilot and telecom cables by encapsulating in a resin filled shell
- One part mould body with snap fit closing system for a simpler installation
- Supplied with European legislation (REACH) compliant two part polyetherurethane resin
- Kit comprises mould shell, Scotchcast 470W resin, copper stocking, constant force springs, Scotch 23 tape, web spacer tape and crimp ferrules (on request)
- Tested to BS EN 50393



## Inline resin joints for pilot and telecom cables

Part	Maximum cable size mm²	
number	Telecom	Pilot
LVI-1/2-PT	2 Pair 0.9mm²	-
LVI-1/3-PT	5-15 Pair 0.9mm <sup>2</sup> 2-4 Core 1.5-2.5mm <sup>2</sup>	
LVI-1/4-PT	20-30 Pair 0.9mm²	7-19 Core 1.5-2.5mm²

Part	Maximum cable size mm²	
number	Telecom	Pilot
LVI-1/5-PT	40-50 Pair 0.9mm <sup>2</sup> 27-37 Core 1.5-2.5m	
LVI-1/6-PT	<b>/6-PT</b> 60-100 Pair 0.9mm <sup>2</sup> -	

## LV Inline Petrochemical Resin Joints - Armoured Cables

## FEATURES

- Designed to connect inline multi-core, armoured polymeric, low voltage energy cables in hazardous areas
- Two part mould body with snap fit closing system for quick and easy handling
- Transparent flame retardant mould body for easy control of connector distances
- Flame retardant according to UL94 V0
- Chemical resistant, especially against hydro carbons
- Supplied with new European standard (REACH) compliant 1402 FR hazardous area resin



## Inline petrochemical resin joints for LV armoured power cables

Part number	Maximum cable size mm²
LVI-3/2-C	6mm² x 4 core
LVI-3/3-C	16mm² x 4 core
LVI-3/4	35mm² x 4 core
LVI-3/5	70mm² x 4 core

Part number	Maximum cable size mm²
LVI-3/6	120mm² x 4 core
LVI-3/7	185mm² x 4 core
LVI-3/8	400mm² x 4 core
LVI-3/8	400mm² x 4 core









## **Heat Shrink Joint - Multicore Cables**



armoured multicore cables

**Heat Shrink joint for** 

## FEATURES

- Designed to connect LV armoured multicore cables within a heat shrink joint
- Suitable for indoor or outdoor environments
- Excellent electrical insulation and mechanical strength from protective liner
- Simple and fast installation no curing time
- Immediate backfill
- 1000V Rated
- Tested to BS EN 50393
- Temperature Rating –50°C to +50°C

Part number	Maximum cable size mm²
ECKJ-0017	1-2.5mm² x 7 Core
ECKJ-0018	1-2.5mm² x 14 Core
ECKJ-0019	1-2.5mm² x 21 Core

Part number	Maximum cable size mm²
ECKJ-0020	1-2.5mm² x 40 Core
ECKJ-0021	1-2.5mm² x 75 Core

#### **Multicore with Armour Data**

Part Number	Number of Cores	Size of Conductor mm²	Diameter over Inner Sheath mm	Overall Diameter mm
ECKJ-0017	4-7	1-2.5	9-15	14-23
ECKJ-0018	8-14	1-2.5	10-18	15-26
ECKJ-0019	15-21	1-2.5	18-26	24-35
ECKJ-0020	22-40	1-2.5	23-26	30-45
ECKJ-0021	41-75	1-2.5	32-44	39-55



## **Heat Shrink Joint - Multi-Pair Cables**



## FEATURES

- Designed to connect LV armoured multipair cables within a heat shrink joint.
- Suitable for indoor or outdoor environments
- Excellent electrical insulation and mechanical strength from protective liner
- Simple and fast installation no curing time
- Immediate backfill
- 1000V Rated
- Tested to BS EN 50393
- Temperature Rating –50°C to +50°C

Heat Shrir	ik joint for
armoured	multipair cables

Part number	Maximum cable size mm²
ECKJ-0140	0.6-1mm² - 1- 4 Pair
ECKJ-0141	0.6-1mm² - 5-7 Pair
ECKJ-0142	0.6-1mm² - 8-19 Pair

Part number	Maximum cable size mm²
ECKJ-0143	0.6-1mm² - 20-37 Pair
ECKJ-0144	0.6-1mm² - 38-61 Pair

## **Multipair with Armour Data**

Part Number	Number of Pairs	Size of Conductor mm²	Diameter over Inner Sheath mm	Overall Diameter mm
ECKJ-0140	1-4	0.6 - 2 x 1.0	9-15	15-23
ECKJ-0141	5-7	0.6 - 2 x 1.0	10-18	15-26
ECKJ-0142	8-19	0.6 - 2 x 1.0	18-26	24-35
ECKJ-0143	20-37	0.6 - 2 x 1.0	23-26	30-45
ECKJ-0144	38-61	0.6 - 2 x 1.0	32-44	39-55







## **Straight Heat Shrink Joint - Armoured Cables**

#### FEATURES

- Designed to connect inline LV armoured cables within a heat shrink joint
- Ideal for vertical installations in indoor and outdoor environment
- Excellent electrical insulation and mechanical strength from protective liner
- Simple and fast installation no curing time
- Immediate backfill
- 1000V Rated
- Tested to BS EN 50393
- Temperature Rating -50°C to +50°C



## Straight heat shrink joints for LV armoured cables

Part number	Maximum cable size
AR101	1.5-4mm² 4 core
AR102	6-16mm² 4 Core
AR3	25-50mm² 4 Core

Part number	Maximum cable size
AR4	70-150mm² 4 Core
AR5	185-300mm² 4 Core

## **LUL Approved Straight Heat Shrink Joint - Armoured Cables**

## FEATURES

- Designed to connect inline LV armoured cables within a heat shrink joint
- Ideal for vertical installations in indoor and outdoor environment
- Excellent electrical insulation and mechanical strength from protective liner
- Simple and fast installation no curing time
- Immediate backfill
- Low Smoke Zero Halogen
- 1000V Rated
- Tested to BS EN 50393
- London Underground approved
- Temperature Rating –50°C to +50°C

la Santida Como

## Straight heat shrink joints for LV armoured cables

Part number	Maximum cable size
SM0E82051	185-300mm²
SMOE82244	13 PAIR 1.5mm²

Part number	Maximum cable size
SMOE82231	37 PAIR 1.5mm²

## **Straight Cold Shrink Joint Kit**

## **FEATURES**

- Designed to connect inline LV armoured and unarmoured cables within a cold applied joint
- Low temperature installation no heat required
- Faster installation time with pullout
- Improved rubber formulation withstands rough backfilling
- Waterproof seal
- 1000V Rated
- Tested to BS EN 50393

-		

## Straight cold shrink joints for LV armoured and unarmoured cables

Part number	Max Cable Diameter	Diameter over Armour
LC1	16.2 - 33.1mm	9 - 15mm
LC2	16.2 - 33.1mm	14 - 22mm
LC3	16.2 - 33.1mm	18.5 - 29mm

Part number	Max Cable Diameter	Diameter over Armour
LC4	24.9 - 56.4mm	23.5 - 37mm
LC5	37.8 - 84.3mm	31 - 50mm
LC6	37.8 - 84.3mm	44 - 70mm









## **Tidal Power Generation**

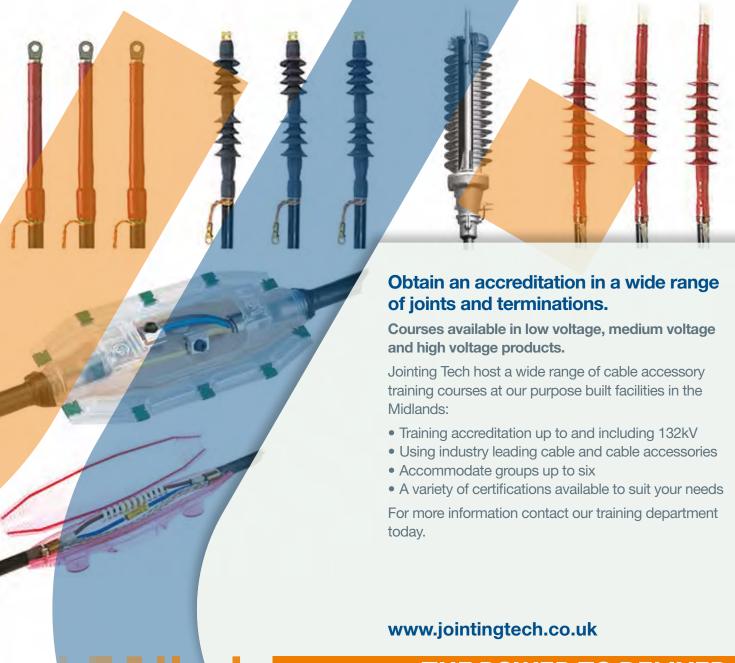


Always proactive, here at Jointing Tech we are constantly reviewing our stock profile to meet your needs for the latest and most innovative power generation sources.

We carry a huge range of the latest products from Industry leading manufacturers across our U.K wide network of branches meaning you can be sure that the team at Joining Tech are the single source supplier for all your LV/MV and HV power cable and accessory needs.



## **Excellence in Training**



## MV Terminations

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## Single Core Termination with Integral Stress Control for XLPE Cable - Indoor

#### FEATURES

- Designed to terminate single core, polymeric insulated 11kV cables in indoor applications to switchgear and cable end boxes
- Suitable for both copper wire and copper tape screen cables
- Highly reliable UK industry standard termination
- Range taking with few components needed
- New ceramic stress control
- Compact design
- No shelf life limitation
- Suitable for use on 11kV triplex cables
- Kit contents: Insulation tubing including co-extruded stress control, sealant tapes and installation instructions
- Tested in accordance with CENELEC specification HD 629.1 and IEC, which encompasses IEC, BS and VDE etc.
- All IXSU/OXSU components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Single core heat shrink termination for XLPE cables in indoor applications

Part number	Conductor Size
IXSU-F-3111	10-35mm²
IXSU-F-3121	25-95mm²
IXSU-F-3131	95-240mm²

Part number	Conductor Size
IXSU-F-3141	240-500mm²
IXSU-F-3151	500-800mm²
IXSU-F-3161	1000-1200mm²

## Single Core Termination for XLPE Copper Wire Screened Cables - Indoor

- Designed to terminate single core, copper wire screened polymeric insulated 11kV cables in indoor applications to switchgear and cable end boxes
- No tools, easy install and ultra lightweight assembly
- Range taking with few components needed
- Inorganic cold shrink silicone insulation
- Kit contents: Termination body and mastic seal
- Tested in accordance CENELEC specification HD629.1 and IEC60502.04 which encompasses the BS, VDE etc.
- Versatile design of the prefabricated one-piece cold shrink termination body allows installation on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from -20°C to +50°C



QTIII series single core cold shrink termination for XLPE cables indoor

Part number	Conductor Size
92-EP621-1	50-95mm²
92-EP631-1	120-400mm²

Part number	Conductor Size	
92-EP641-1	500-630mm²	
92-EP656-1	800-1000mm²	







## 11kV Indoor Termination MV Terminations



## Single Core Termination for XLPE Copper Tape Screened Cables - Indoor



- Designed to terminate single core, copper tape screened armoured polymeric insulated 11kV cables in indoor applications to switchgear and cable end boxes
- No tools, easy install and ultra lightweight assembly
- Range taking with few components needed
- Inorganic cold shrink silicone insulation
- Kit contents: Termination body, earthing kit and mastic seal
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDE etc.

QTIII series single core cold shrink termination for XLPE cables indoor

Part number	Conductor Size
92-EP623-1	50-95mm²
92-EP633-1	120-150mm²

Part number	Conductor Size	
92-EP643-1	185-400mm²	
92-EP653-1	500-630mm²	





## MV Terminations 11kV Outdoor Terminations



## Single Core Termination with Integral Stress Control for XLPE Cable - Outdoor

## FEATURES

- Designed to terminate single core, polymeric insulated 11kV cables in outdoor applications such as pole top assemblies
- Highly reliable UK industry standard termination
- Range taking with few components needed
- New ceramic stress control
- Compact design
- No shelf life limitation
- Suitable for use on 11kV triplex cables
- Kit contents: Insulation tubing including co-extruded stress control, sealant tapes and installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC 60502.04, BS and VDE etc.
- All IXSU/OXSU components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Single core heat shrink termination for XLPE cables in outdoor applications

Part number	Conductor Size
OXSU-F-3111	10-35mm²
OXSU-F-3121	25-95mm²
OXSU-F-3131	95-240mm²

Part number	Conductor Size
OXSU-F-3141	240-400mm²
OXSU-F-3151	500-800mm²
OXSU-F-3161	1000-1200mm²

## Single Core Termination for XLPE Copper Wire Screened Cables - Outdoor

- Designed to terminate single core, copper wire screened polymeric insulated 11kV cables in outdoor applications such as pole top assemblies
- No tools, easy install and ultra lightweight assembly
- Range taking with few components needed
- Inorganic cold shrink silicone insulation
- Kit contents: Termination body and mastic seal
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDF etc.
- Versatile design of the prefabricated one-piece cold shrink termination body allows installation on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from -20°C to +50°C
- Skirts are integrated for easier and faster installation
- Cold shrink technology ensures quick, easy and safe installation.



QTIII series single core cold shrink termination for XLPE outdoor cables

Part number	Conductor Size
92-EP621-2	50-95mm²
92-EP631-2	120-400mm²

Part number	Conductor Size	
92-EP641-2	500-630mm²	







## 11kV Single Core Outdoor Terminations MV Terminations



## Single Core Termination for XLPE Copper Tape Screened Cables - Outdoor



QTIII series single core cold shrink termination for XLPE outdoor cables

- Designed to terminate single core, polymeric insulated 11kV cables with copper tape screen, armour and or lead sheath
- No tools, easy install and ultra lightweight assembly
- Range taking with few components needed
- Inorganic cold shrink silicone insulation
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDE etc.
- Versatile design of the prefabricated one-piece cold shrink termination body allows installation on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from -20°C to +50°C
- Solderless earth connection using constant force springs
- Skirts are integrated for easier and faster installation
- Cold shrink technology ensures quick, easy and safe installation

Part number	Conductor Size
92-EP623-2	50-95mm²
92-EP633-2	120-150mm²

Part number	Conductor Size	
92-EP643-2	185-400mm²	
92-EP653-2	500-630mm²	





## MV Terminations 11kV Three Core Indoor Terminations



## **Three Core Terminations for XLPE Cables - Indoor**

### FEATURES

- Designed to terminate three core, polymeric insulated 11kV cables in indoor applications to switchgear and cable end boxes
- Kit contents: stress control tubing, sealant coated breakouts and core insulation sleeves, sealant tapes, and installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc



Three core heat shrink termination for XLPE cables in indoor applications

Part number	Conductor Size	Tail Length
EPKT17A3XIH2	16-25mm²	650mm
EPKT17A3XIH4	16-25mm²	1200mm
EPKT17B3XIH2	35-70mm²	650mm
EPKT17B3XIH4	35-70mm²	1200mm

Part number	Conductor Size	Tail Length
EPKT17C3XIH2	95-240mm²	650mm
EPKT17C3XIH4	95-240mm²	1200mm
EPKT17D3XIH2	300-400mm²	650mm
EPKT17D3XIH4	300-400mm²	1200mm

## Three Core Termination with Integral Stress Control for XLPE Cable - Indoor

- Designed to terminate three core, polymeric insulated 11kV cables in indoor applications to switchgear and cable end boxes
- Highly reliable UK industry standard termination
- Range taking with few components needed
- New ceramic stress control
- Compact design
- No shelf life limitation
- Conductive tubing allows the crossing of the cores below the screen cut.
- Additional tubing is available should the tail lengths need to be increased above 1200mm.
- Kit contents: Insulation tubing including co-extruded stress control, sealant tapes, conductive breakouts and installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc.
- All IXSU/OXSU components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Three core heat shrink termination for XLPE cables in indoor applications

Part number	Conductor Size	Tail Length
IXSU-F-3301	10-16mm²	450mm
IXSU-F-3304	10-16mm²	1200mm
IXSU-F-3311	16-35mm²	450mm
IXSU-F-3314	16-35mm²	1200mm
IXSU-F-3321	25-70mm²	450mm

Part number	Conductor Size	Tail Length
IXSU-F-3324	25-70mm²	1200mm
IXSU-F-3331	95-240mm²	450mm
IXSU-F-3334	95-240mm²	1200mm
IXSU-F-3341	240-500mm²	450mm
IXSU-F-3344	240-500mm²	1200mm





## 11kV Three Core Indoor Terminations MV Terminations



### Three Core Terminations for XLPE Copper Tape Screened Cables - Indoor



## QTIII series three core cold shrink termination for XLPE cables indoor

## **FEATURES**

- Designed to terminate three core, copper tape screened armoured polymeric insulated 11kV cables in indoor applications to switchgear and cable end boxes
- No tools, easy install and ultra lightweight assembly
- The versatile design of the prefabricated one-piece cold shrink termination body allows installation on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from −20°C to + 50°C
- Range taking with few components needed
- Inorganic cold shrink silicone insulation
- Kit contents: Termination body, breakouts, rejacketing sleeve, earthing kit and mastics
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDE etc.

Part number	Conductor Size	
92-EP626-3	50-120mm²	
92-EP636-3	150-185mm²	

Part number	Conductor Size	
92-EP646-3	240-300mm²	
92-EP656-3	150-400mm²	



## **Three Core Terminations for PILC/PICAS Cables - Indoor**



Three core heat shrink termination for PILC/ PICAS cables in indoor applications

- Designed to terminate three core, paper insulated 11kV cables in indoor applications to switchgear and cable end boxes
- Available in 650mm and 1200mm tail lengths
- Compatible with crimp and mechanical lugs
- Range taking terminations with four sizes covering 16 to 400mm²
- Kit contents: stress control tubing, sealant coated breakouts and core insulation sleeves, sealant tapes, oil barrier tubes and installation instructions
- Tested in accordance with CENELEC specification HD629.1 which encompasses IEC, BS and VDE etc

Part number	Conductor Size	Tail Length
EPKT17A3MIH2	16-25mm²	650mm
EPKT17A3MIH4	16-25mm²	1200mm
EPKT17B3MIH2	35-70mm²	650mm
EPKT17B3MIH4	35-70mm²	1200mm

Part number	Conductor Size	Tail Length
EPKT17C3MIH2	95-240mm²	650mm
EPKT17C3MIH4	95-240mm²	1200mm
EPKT17D3MIH2	300-400mm²	650mm
EPKT17D3MIH4	300-400mm²	1200mm







## **MV Terminations**

## 11kV Heat Shrink/Cold Shrink Outdoor Terminations



## **Three Core Terminations for XLPE Cables - Outdoor**

### **FEATURES**

- Designed to terminate three core, polymeric insulated 11kV cables in outdoor applications such as pole top assemblies
- Kit contents: stress control tubing, sealant coated breakouts and core insulation sleeves, sealant tapes, and installation instructions
- Tested in accordance with CENELEC specification HD629.1 which encompasses IEC, BS and VDE etc



Three core heat shrink termination for XLPE cables in outdoor applications

Part number	Conductor Size	Tail Length
EPKT17A3XOH2	16-25mm²	650mm
EPKT17A3XOH4	16-25mm²	1200mm
EPKT17B3XOH2	35-70mm²	650mm
EPKT17B3XOH4	35-70mm²	1200mm

Part number	Conductor Size	Tail Length
EPKT17C3XOH2	95-240mm²	650mm
EPKT17C3XOH4	95-240mm²	1200mm
EPKT17D3XOH2	300-400mm²	650mm
EPKT17D3XOH4	300-400mm²	1200mm

## Three Core Termination with Integral Stress Control for XLPE Cable - Outdoor

- Designed to terminate three core, polymeric insulated 11kV cables in outdoor applications such as pole top assemblies
- Highly reliable UK industry standard termination
- Range taking with few components needed
- New ceramic stress control
- Compact design
- No shelf life limitation
- Conductive tubing allows the crossing of the cores below the screen cut
- Additional tubing is available should the tail lengths need to be increased above 1200mm
- Kit contents: Insulation tubing including co-extruded stress control, sealant tapes, conductive breakouts and installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc.
- All IXSU/OXSU components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Three core heat shrink termination for XLPE cables in outdoor applications

Part number	Conductor Size	Tail Length
OXSU-F-3301	10-16mm²	450mm
OXSU-F-3304	10-16mm²	1200mm
OXSU-F-3311	16-35mm²	450mm
OXSU-F-3314	16-35mm²	1200mm
OXSU-F-3321	25-70mm²	450mm

Part number	Conductor Size	Tail Length
OXSU-F-3324	25-70mm²	1200mm
OXSU-F-3331	95-300mm²	450mm
OXSU-F-3334	95-300mm²	1200mm
OXSU-F-3341	240-500mm²	450mm
OXSU-F-3344	240-500mm²	1200mm





## 11kV Heat Shrink/Cold Shrink Outdoor Terminations



## Three Core Terminations for XLPE Copper Tape Screened Cables - Outdoor



## FEATURES

- Designed to terminate three core, copper tape screened polymeric insulated 11kV cables in outdoor applications such as pole top assemblies
- No tools, easy install and ultra lightweight assembly
- Range taking with few components needed
- Inorganic cold shrink silicone insulation
- Kit contents: Termination body, breakout, rejacketing sleeve, earthing kit, mastics, Scotchcast™ resin and Scotch™ 70 tape
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDE etc

QTIII series three core cold shrink termination for XLPE cables in outdoor applications

Part number	Conductor Size
7691-S4-3W	16-50mm²
7692-S4-3W	70-120mm²

Part number	Conductor Size
7693-S4-3W	150-300mm²



## **Three Core Terminations for PILC/PICAS Cables - Outdoor**



- Designed to terminate three core, paper insulated 11kV cables in outdoor applications such as pole top assemblies
- Range taking terminations with four sizes covering 16 to 400mm²
- Available in 650mm and 1200mm tail lengths
- Compatible with crimp and mechanical lugs
- Kit contents: stress control tubing, sealant coated breakouts and core insulation sleeves, sealant tapes, oil barrier tubes and installation instructions
- Tested in accordance with CENELEC specification HD629.1 which encompasses IEC, BS and VDE etc

Three core heat shrink termination for PILC/ PICAS cables in outdoor applications

Part number	Conductor Size	Tail Length
EPKT17A3MOH2	16-25mm²	650mm
EPKT17A3MOH4	16-25mm²	1200mm
ЕРКТ17В3МОН2	35-70mm²	650mm
EPKT17B3MOH4	35-70mm²	1200mm

Part number	Conductor Size	Tail Length
ЕРКТ17С3МОН2	95-240mm²	650mm
ЕРКТ17С3МОН4	95-240mm²	1200mm
EPKT17D3MOH2	300-400mm²	650mm
EPKT17D3MOH4	300-400mm²	1200mm









## **Single Core Terminations for XLPE Cables - Indoor**

## FEATURES

- Designed to terminate single, polymeric insulated 33kV cables in indoor applications to switchgear and cable end boxes
- UK industry standard termination
- Outstanding reliability
- Range taking
- Few components needed
- Will accommodate copper wire and copper tape screen
- Simplified cable preparation
- Simplified installation
- Compact design
- No shelf life limitation
- Kit contents: stress control tubings, non tracking sleeve with sealant layer and void filling mastic with installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc
- Components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Single core heat shrink termination for XLPE cables in indoor applications

Part number	Conductor Size
EPKT36C1XI	50-95mm²
EPKT36D1XI	120-185mm²

Part number	Conductor Size	
EPKT36E1XI	240-500mm²	
EPKT36F1XI	630-1000mm²	

## Single Core Terminations for XLPE Copper Wire Screen for Mechanical Lugs - Indoor/Outdoor

- Designed to terminate single core, copper wire screened polymeric insulated 33kV cables in indoor/outdoor applications to switchgear, cable end boxes and pole top assemblies
- No tools, easy install and ultra lightweight assembly
- One-piece cold shrink termination body allows fast and easy installation
- Installation can be made from -20°C to +50°C
- Cold shrink technology mean the collapsible tubes are all shrink down to the correct limits
- Kit contents: Termination body and mastic seal
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDE etc.



QTIII series single core cold shrink termination for XLPE copper wire screen indoor/outdoor

Part number	Conductor Size
94-EP610-2	25-120mm²
94-EP620-2	50-150mm²

Part number	Conductor Size
94-EP630-2	120-300mm²
94-EP640-2	240-630mm²





## 33kV Indoor/Outdoor Terminations MV Terminations



## Single Core Termination for XLPE Copper Tape Screen Cables - Indoor/Outdoor



QTIII series single core cold shrink termination for XLPE copper tape screened cables armoured or lead indoor/outdoor

#### **FEATURES**

- Designed to terminate single core, copper tape screened polymeric insulated 33kV cables in indoor/outdoor applications to switchgear, cable end boxes and pole top assemblies
- No tools, easy install and ultra lightweight assembly
- One-piece cold shrink termination body allows fast and easy installation
- Installation can be made from -20°C to +50°C
- Cold shrink technology mean the collapsible tubes are all shrink down to the correct limits
- Kit contents: Termination body, earthing kit and mastic seal
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDF etc

Part number	Conductor Size
94-EP612-2	50-120mm²
94-EP622-2	70-240mm²

Part number	Conductor Size
94-EP632-2	185-400mm²
94-EP642-2	400-630mm²



## **Single Core Terminations for Xlpe Cables - Outdoor**



Single core heat shrink termination for XLPE cables in outdoor applications

- Designed to terminate single core, polymeric insulated 33kV cables in outdoor applications such as pole top assemblies
- UK industry standard termination
- Outstanding reliability
- Range taking
- Few components needed
- Will accommodate copper wire and copper tape screen
- Simplified cable preparation
- Simplified installation
- Compact design
- No shelf life limitation
- Kit contents: stress control tubings, non tracking sleeve with sealant layer and void filling mastic with installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc
- Components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001

Part number	Conductor Size
EPKT36C1XO	50-95mm²
EPKT36D1XO	120-185mm²

Part number	Conductor Size
EPKT36E1XO	240-500mm²
EPKT36F1XO	630-1000mm²







## MV Terminations 33kV Indoor/Outdoor Terminations



## Three Core Terminations for XLPE Cables - Indoor

### FEATURES

- Designed to terminate three core, polymeric insulated 33kV cables in indoor applications to switchgear and cable end boxes
- UK industry standard termination
- Outstanding reliability
- Range taking
- Few components needed
- Simplified cable preparation
- Simplified installation
- Compact design
- No shelf life limitation
- Kit contents: stress control tubings, non tracking sleeve with sealant layer, conductive breakout and void filling mastic with installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc
- Components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Three core heat shrink termination for **XLPE** cables in indoor applications

Part number	Conductor Size
EPKT36C3XIH2	50-95mm²
EPKT36C3XIH4	50-95mm²
EPKT36D3XIH2	120-185mm²

Part number	Conductor Size
EPKT36D3XIH4	120-185mm²
EPKT36E3XIH2	240-500mm²
EPKT36E3XIH4	240-500mm²

## Three Core Terminations for XLPE Cables - Outdoor



- Designed to terminate three core, polymeric insulated 33kV cables in outdoor applications such as pole top assemblies
- UK industry standard termination
- Outstanding reliability
- Range taking
- Few components needed
- Simplified cable preparation
- Simplified installation
- Compact design
- No shelf life limitation
- Kit contents: stress control tubings, non tracking sleeve with sealant layer, conductive breakout and void filling mastic with installation instructions
- Tested in accordance with CENELEC specification HD 629.1 which encompasses IEC, BS and VDE etc
- Components have full traceability of raw materials and manufacture according to ISO 9001 and ISO 14001



Three core heat shrink termination for XLPE cables in outdoor applications

Part number	Conductor Size
ЕРКТ36С3ХОН4	50-95mm²
EPKT36D3XOH4	120-185mm²

Part number	Conductor Size
EPKT36E3XOH4	240-500mm²



### 11/33kV Indoor Accessories MV Terminations



#### **Single Core Armoured Gland**



Aluminium gland kits for single core armoured cable

#### **FEATURES**

- Aluminium gland kit is designed to electrically earth the aluminium wire armours of the single core cables
- Suitable for use at 11 and 33kV
- Kit contents: three aluminium glands complete with heat shrink sleeve, jubilee clips and bolt pack
- Available with an insulating plate where separate earth facility is required (See insulating kit on page 110)

Part number	Conductor Size	
EAKT1608	50-630mm²	

## Carrier (Carrier Carrier Carri

#### **Three Core Armoured Gland**



## Steel gland kits for three core armoured cable

#### **FEATURES**

- Steel gland kit is designed to electrically earth the steel wire armours of the multicore cables
- Suitable for use at 11 and 33kV
- Kit contains one steel gland complete with either heat shrink or cold shrink sleeve, jubilee clips and bolt pack
- Available with an insulating plate where separate earth facility is required (See page 110)

Part number	Conductor Size
EAKT1605	up to 70mm²
EAKT1606	95-300mm²
THG1	36-65mm (cable OD)
THG2	53-94mm (cable OD)

Part number	Application Range
THGS1 (Cold shrink seal)	To fit THG1
THGS2 (Cold shrink seal)	To fit THG2



#### **Heat Shrink Cable Entry Seal**



## Heat shrink glands for unarmoured cables

- Designed to provide a heat shrinkable watertight cable entry seal where unarmoured cables enter enclosures
- Manufactured from flame retardant polyolefin
- Temperature rated from -55°C to 90°C
- All cable entry seals are adhesive lined to provide a suitable seal
- Kit contents: a rigid nylon nut, O ring, and a heat shrinkable mould area

Part number	Drill Size	Minimum Size Expanded	Maximum Size Recovered
CES-1	25.4	12.7	4.32
CES-2	25.4	19.05	6.35
CES-3	35.05	28.45	12.7
CES-4	50.8	40.64	19.05
CES-5	88.9	69.85	36.32









#### **Brass Wiping Cones**

#### FEATURES

- Designed to mechanically earth the lead sheaths of PILC cables
- Kit includes: Brass cone, bolt pack, heat shrink sleeve and jubilee clips
- Gland can be cut to suit the relevant cable size
- Can be used with insulating plates EPPA-045-1 for Size X and EPPA-045-2 for Size Y



Earth gland where plumbing of a lead sheath is required

Part number	Application	Part number	Application
GWCX	Wiping Cone Size X	GWCY	Wiping Cone Size Y

#### **Insulating Kits**

#### **FEATURES**

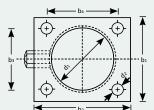
- Allows the armour gland to be insulated from the enclosure.
- Kit contains: one Epoxy resin plate, plastic nuts and bolts
- Please note three kits should be ordered for single core applications (EAKT1608)
- Plate approx 10mm thick
- Suitable for use at 11 and 33kV

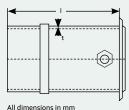


## Insulating plate to suit armoured glands

Part number	Application	Part number	Application
EPPA-045-1	To fit EAKT1605 & EAKT1608	EPPA-045-2	To fit EAKT1606

#### **TE/Raychem Cable Gland Dimensions**





Size	b1	b2	b3	b4	d1	d2	l I	t
Χ	90	90	66	66	68	11	140	1
Υ	115	125	86	95	97	15	150	1.5

## 11/33kV Indoor/Outdoor Accessories MV Terminations



Solderless Earth Spring Kits for Single & Three Core Copper Tape Screened Cables



#### FEATURES

- Designed to mechanically earth the copper tape screens of XLPE cables
- Kit contents: tinned copper earth braids and a roll spring for each phase

# Solderless earth connection system for XLPE cables

Part number	Diameter over Conductor range		or range
	screen	11kV	33kV
EAKT1655	12-18mm	16-50mm²	-
EAKT1656	19-24mm	70-150mm²	25-35mm²
EAKT1657	25-30mm	185-240mm²	50-70mm²

Part number	Diameter over	nber Diameter over Conductor range		
	screen	11kV	33kV	
EAKT1658	31-44mm	300-630mm²	95-300mm²	
EAKT1659	41-65mm	800-1000mm²	400-1000mm²	



#### **Solderless Earth Spring Kits for Three Core PILC Cables**



#### FEATURES

- Designed to mechanically earth the lead sheaths of PILC cables
- Kit contents: tinned copper earth braid roll spring and a heat shrink sleeve

# Solderless earth connection system for PILC cables

Part number	Diameter over	Conduct	or range
	lead sheath	11kV	33kV
EAKT1669	28-39mm	16-95mm²	-
EAKT1670	40-50mm	120-185mm²	-

Part number			
	lead sheath	11kV	33kV
EAKT1671	51-60mm	240-300mm²	50mm²
EAKT1672	61-80mm	400mm²	70-300mm²



#### **Solderless Earth Spring Kits for PICAS Cables**



Solderless earth connection system

- Designed to mechanically earth the aluminium armour of PICAS cables
- Simple to install, high reliability
- Kit contents: tinned copper braid, beryllium strip, mastic, jubilee clip and heat shrink tube

Part number	Conductor Size	
SMOE61203 (MEC5) 11kV	95-300mm²	





## MV Terminations 11/33kV Outdoor Accessories



## Armour Earthing Kit for Single Core Armoured Plastic and Rubber Insulated Cables

## la Santial Control

#### FEATURES

- Designed to terminate wire armoured plastic cables by means of mechanical clamping rings
- Heat shrinkable tubing for corrosion protection
- Confirm cable diameters prior to ordering

Part number	Overall diameter	Conduct	or range
	range	11kV	33kV
EAKT1636	21-32mm	16-70mm²	-
EAKT1637	33-50mm	95-400mm²	16-185mm²
EAKT1638	51-67mm	500-800mm²	240-630mm²



Armour earthing kit for single core armoured XLPE cables

## Armour Earthing Kit for Three Core Armoured Plastic and Rubber Insulated Cables

#### FEATURES

- Designed to terminate wire armoured plastic cables by means of mechanical clamping rings
- Heat shrinkable tubing for corrosion protection

Part number	Overall diameter	Conduct	or range
	range	11kV	33kV
EAKT1642	40-67mm	16-120mm²	16-25mm²
EAKT1643	50-86mm	150-240mm²	35-95mm²
EAKT1644	60-94mm	300-400mm²	120-185mm²
EAKT1645	70-110mm	- 240-300mr	



Armour earthing kit for three core armoured XLPE cables

#### **Armour Earthing Kit for Three Core Armoured PILC Cables**

- Designed to terminate wire armoured paper cables by means of mechanical clamping rings
- Heat shrinkable tubing for corrosion protection

Part number	Overall diameter	Conduct	or range
	range	11kV	33kV
EAKT1641	28-50mm	16-120mm²	-
EAKT1642	40-67mm	150-300mm²	50-120mm²
EAKT1643	50-86mm	400mm²	150-300mm²



Armour earthing kit for three core armoured PILC cables



#### 11kV Indoor Accessories MV Terminations

## Carried State of the

#### **Universal Cold Applied Boot Kit**



Insulating boots for straight or right angle applications

#### **FEATURES**

- Used in switchgear and transformers where the clearances are insufficient for operation in air or to protect against flash over due to rodents or extreme humidity
- Can be used as a straight or right angled boot
- Bushing kit available for smaller bushing diameters (below 46mm)
- Easy to remove (no mastic components)

Part number Application		Conductor Size
SMOE62803 -		10-400mm²
RCAB-C-421	31-45mm Bushing Kit For SMOE62803	-



#### Straight/Right Angle Heat Shrink Boots

#### **FEATURES**

- Used in switchgear and transformers where the clearances are insufficient for operation in air or to protect against flash over due to rodents or extreme humidity
- Both boots are moulded which are shrunk over the connection between cable and bushing
- Kit includes three boots and mastic kit

Part number		Conductor Size
RSRB4022	Straight	10-35mm²
RSRB4024	Straight	50-95mm²
RSRB4026	Straight	120-300mm²
RSRB4042	Right Angle	10-35mm²
RSRB4044	Right Angle	50-95mm²
RSRB4046	Right Angle	120-300mm²



Insulating boots for straight and right angle connections

#### **Cold Shrink Barrier Tube**



Pre-stretched tubing on a collapsible core for simple installation

- Used in switchgear and transformers where the clearances are insufficient for operation in air or to protect against flash over due to extreme humidity
- Track resistant EPDM rubber
- 11kV rated product
- Complete cold shrink system no heat required

Part number	Application Range	Application
MB63	Up to 630mm²	Cold Shrink in line boot









#### **Cold Applied Barrier Boot System**

#### FEATURES

- Used in switchgear and transformers where the clearances are insufficient for operation in air or to protect against flash over due to rodents or extreme humidity
- Can be used as a straight or right angled boot
- Track resistant EPDM rubber
- 11kV rated product
- Complete cold applied system no heat required

Part number	Description			
92-EE717-1	Universal Push on boot 50-300mm²			
92-EE717-1-BSK	Build up kit for bushings smaller than 40mm²			



One Piece Cold Applied Boot

#### Right Angle Heat Shrink Boot Kit for 33kV

#### **FEATURES**

- Designed to be used in switchgear and transformers where the clearances are insufficient for operation in air or to protect against flash over due to rodents or extreme humidity
- Exceptional insulation and long term reliability even at high continuous operating temperatures
- High reliability heat shrink components
- Simplified installation
- Kit includes three right angle boots and mastic kit

Part number	Conductor Size
SM0E50383	95-300mm²



Insulating boot kit for right angle applications

#### Clearances: Phase-Phase and Phase-Earth

Check the cable box clearances with Table 1. If X and Y are less than the values given in Table 1, Raychem insulating boots must be used.

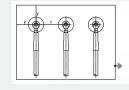




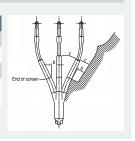
Table 1 - Minimum air clearances for terminations in cable boxes in accordance with BS 162 Class A				
Highest voltage for cable, phase-phase (kV)	6.6	11	22	33
Minimum air clearance between live metal x (mm)	90	127	242	356
Minimum air clearance between live metal and ground Y (mm)	65	75	140	222

Table 2 – impulse voltage withstand for Raychem indoor terminations with insulating	g boots bas	ea on busn	ings in acco	raance
with BS 2562				
Impulse voltage withstand (kV)	75	95	125	170
Minimum clearance between live metal X (mm)	45	75	100	125
Minimum clearance between live metal and ground Y (mm)	32	60	75	100

Table 3 – Minimum clearance between the cores and the cores and ground				
Highest voltage for cable, phase-phase (kV)	6.6	11	22	33
Minimum clearance b (mm)	10	15	25	35
c (mm)	15	20	40	50

b is measured at the end of the core screen.

c is measured at the end of the stress control tubing.











## 11/33kV Outdoor Accessories MV Terminations



#### **Pole Top Bracket and Cleat**



#### For outdoor applications

#### **FEATURES**

- Galvanised bracket and cleat for supporting cables.
- Can be used with surge arrestors or insulators

Part number

EXRM-0969-39



#### **Support Insulators and Brackets**



#### **FEATURES**

- The sheds of red, non tracking, flexible polymeric material are mounted on a porcelain core
- Set of three complete with galvanised steel bracket

## Cable mounting bracket outdoor application

Part number	Voltage	Part number	Voltage
EAKT1524	33kV	EAKT1521	11kV





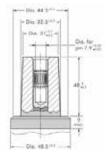
## MV Terminations Interface Bushings A to E



#### **Bushing dimensions according to CENELEC EN50181**

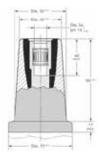
#### Interface A or 200 series bushing

Voltage range between 12-24kV Current rating 250amp (copper pin) Bushing has 7.9mm plug in pin



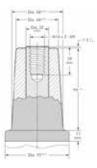
#### Interface B or 400 series bushing

Voltage range between 12-36kV Current rating 400amp (copper pin) Bushing has 14mm plug in pin



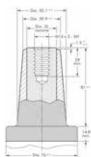
#### Interface C or 400 series bushing

Voltage class between 12-36kV Current rating 630 & 1250 amps (copper stud) M16 bolted



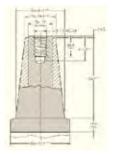
#### Interface D or 600 series bushing

Voltage range between 12-24kV Current rating 800amps (ali stud) or 1250amps (copper stud) %" bolted



#### Interface E or 700 series bushing

Voltage range 12-36kV Current rating 800amps (ali Stud) or 1250amps (copper stud) %" bolted





#### Separable Connectors for A Type Bushings



#### **Separable Connector System for** Pin Type A (200 Series) Bushing



Separable connector system for interface A bushing 12-24kV 250A

#### **FEATURES**

- Designed to facilitate the easy connection and disconnection of single core copper wire screened XLPE cables to medium voltage switchgear and transformer
- Manufactured from crosslinked EPDM and protected with a minimum 3mm layer of moulded conductive outer layer
- These deadbreak adaptors are suitable for indoor and outdoor applications
- Their wide application range covers several different cable cross sections without the need for additional cable adaptors
- Available in straight and elbow configuration
- Supplied with high strength bimetallic compression connectors to connect copper and aluminium conductors
- The screened cable connector exceeds CENELEC HD 629.1 S1 requirements which includes BS, VDE and other international specifications
- Maximum System Voltage 24kV
- Continuous Current 250A

Part number	Adaptor Type	Conductor Size	Dia Core Insulation
RSSS-5201	Straight	16mm²	13.5mm - 17.4mm
RSSS-5202	Straight	25mm²	13.5mm - 17.4mm
RSSS-5203	Straight	35mm²	13.5mm - 17.4mm
RSSS-5205	Straight	50mm²	13.5mm - 17.4mm
RSSS-5217	Straight	70mm²	16.3mm - 20.8mm
RSSS-5219	Straight	95mm²	16.3mm - 20.8mm
RSES-5201	Elbow	16mm²	13.5mm - 17.4mm

Part number	Adaptor Type	Conductor Size	Dia Core Insulation
RSES-5202	Elbow	25mm²	13.5mm - 17.4mm
RSES-5203	Elbow	35mm²	13.5mm - 17.4mm
RSES-5205	Elbow	50mm²	13.5mm - 17.4mm
RSES-5217	Elbow	70mm²	16.3mm - 20.8mm
RSES-5219	Elbow	95mm²	16.3mm - 20.8mm
RSES-5224	Elbow	120mm²	19.6mm - 24.1mm



#### Separable Connector System for Pin Type A (200 Series) Bushing



Separable connector system for interface A bushing 12-24kV 250A

- Designed to facilitate the easy connection and disconnection of single core copper wire screened XLPE cables to medium voltage transformer and switchgear equipment
- The connectors are manufactured in three layers, a conductive inner layer, an insulation layer and a conductive outer layer
- The materials are vulcanised together to give the best possible interface between
- The cable connector includes a capacitive test point with protection and integrated earthing wire
- UV, ozone and tracking resistant
- Available in straight and elbow configuration
- Screen separation kit can be ordered separately for three core cables
- Supplied with bimetallic mechanical lugs to connect copper and aluminium conductor
- The screened cable connector exceeds CENELEC HD 629.52 S1 requirements which includes BS, VDE and other international specifications
- Maximum System Voltage 24kV
- Continuous Current 250A

Part number	Conductor Size	Туре	Voltage	Core Insulation Diameter
CSS-A 12250-01	10-16mm²	STRAIGHT	12kV	10-12mm
CSS-A 12250-02	25-95mm²	STRAIGHT	12kV	13-22mm
CSS-A 24250-01	10-16mm²	STRAIGHT	24kV	13-22mm
CSS-A 24250-02	25-95mm²	STRAIGHT	24kV	17-25.5mm

Part number	Conductor Size	Туре	Voltage	Core Insulation Diameter
CSE-A 12250-01	10-16mm²	ELBOW	12kV	10-12mm
CSE-A 12250-02	25-95mm²	ELBOW	12kV	13-22mm
CSE-A 24250-01	10-16mm²	ELBOW	24kV	13-22mm
CSE-A 24250-02	25-95mm²	ELBOW	24kV	17-25.5mm





#### **MV Terminations**

#### Separable Connectors for B Type Bushing



#### Separable Connector System for Pin Type B (400 Series) Bushing

## 化物物质学

#### **FEATURES**

- Designed to facilitate the easy connection and disconnection of single core copper wire screened XLPE cables to medium voltage transformer and switchgear equipment
- The insulation of the connector is made of a highly modified silicone rubber characterised by high tracking resistance, elongation at break and non flammability
- The screened connector need not be removed for over sheath testing
- The compact design supports the use of double T connections inside standard terminal boxes
- Easily accessible rear plug with capacitive test point
- A thin walled screen is permanently bonded onto the insulation and protects the connection system against accidental contact.
- The screened cable connector exceeds CENELEC HD 629.1S2 requirements, which includes BS, VDE and other international standards.
- The use of mechanical lugs are designed to accept Cu or Ali conductors



Separable connector system for interface B bushing 24-36kV 400A

Part number	Cross Section	Voltage	Core Insulation Diameter
RSES-6451	70-95mm²	24kV	22.4-35.5mm
RSES-6452	95-240mm²	24kV	22.4-35.5mm

Part number	Cross Section	Voltage	Core Insulation Diameter
RSES-6455	185-300mm²	24kV	22.4-35.5mm

#### **Separable Connector System for Pin Type B (400 Series) Bushing**



- Designed to facilitate the easy connection and disconnection of single core copper wire screened XLPE cables to medium voltage transformer and switchgear equipment
- The connectors are manufactured in three layers, a conductive inner layer, an insulation layer and a conductive outer layer
- The materials are vulcanised together to give the best possible interface between layers
- The cable connector includes a capacitive test point with protection and integrated earthing wire
- UV, ozone and tracking resistant
- Supplied with bimetallic mechanical lugs to connect copper and aluminium conductor



Separable connector system for interface B bushing 12-36kV 400A

Part number	Conductor Size	Voltage	Core Insulation Diameter
CSE-A 12400-01	25-70mm²	12kV	13-20mm
CSE-A 12400-02	95-300mm²	12kV	18.5-30.5mm
CSE-A 24400-01	25-70mm²	24kV	17-24mm

Part number	Conductor Size	Voltage	Core Insulation Diameter
CSE-A 24400-02	95-300mm²	24kV	22.5-35mm
CSE-A 36400-01	25-70mm²	36kV	24.5-34mm
CSE-A 36400-02	95-300mm²	36kV	27.5-42mm









#### Separable Connectors for C Type Bushing



#### Separable Connector System for Bolted Type C (400 Series) Bushing



Separable connector system for interface C bushing 12-36kV 800A

#### FEATURES

- Designed to facilitate the easy connection and disconnection of single core copper wire screened XLPE cables to MV transformer and switchgear equipment
- The insulation of the connector is made of a highly modified silicone rubber characterised by high tracking resistance, elongation at break and non flammability
- The screened connector need not be removed for over sheath testing
- The compact design supports the use of double T connections inside standard terminal boxes
- Easily accessible rear plug with capacitive test point
- Available with CU or AL compression lugs or mechanical connectors

Part Number		Conductor size		
	11kV	24kV	36kV	diameter
RSTI-5851	35-95mm²	35-70mm²	-	12.7-23.4mm
RSTI-5852	95-120mm²	-	-	12.7-23.4mm
RSTI-5853	95-240mm²	95-185mm²	-	17.0-30.1mm
RSTI-5854	150-240mm²	95-240mm²	-	21.2-34.6mm
RSTI-5855	185-300mm²	185-300mm²	-	21.2-34.6mm
RSTI-5856	240-400mm²	-	-	21.2-34.6mm
RSTI-6851	-	-	35-95mm²	22.4-35.5mm
RSTI-6852	-	-	95-150mm²	22.4-35.5mm
RSTI-6853	-	-	120-240mm²	28.9-42.0mm
RSTI-6855	-	-	185-300mm²	28.9-42.0mm



## Separable Connector Coupling System for Bolted Type C (400 Series) Bushing



Coupling connector system for interface C bushing 12-36kV 800A

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

Part Number	Conductor size			Core insulation
	11kV	24kV	36kV	diameter
RSTI-CC-5851	35-95mm²	35-70mm²	-	12.7-23.4mm
RSTI-CC-5852	95-120mm²	-	-	12.7-23.4mm
RSTI-CC-5853	95-240mm²	95-185mm²	-	17.0-30.1mm
RSTI-CC-5854	150-240mm²	95-240mm²	-	21.2-34.6mm
RSTI-CC-5855	185-300mm²	185-300mm²	-	21.2-34.6mm
RSTI-CC-5856	240-400mm²	-	-	21.2-34.6mm
RSTI-CC-6851	-	-	35-95mm²	22.4-35.5mm
RSTI-CC-6852	-	-	95-150mm²	22.4-35.5mm
RSTI-CC-6853	-	-	120-240mm²	28.9-42.0mm
RSTI-CC-6855	-	-	120-300mm²	28.9-42.0mm





#### **MV** Terminations

#### Separable Connectors for C Type Bushing



## Separable Connector System For Bolted Type C (400 Series) Bushing

#### FEATURES

- Designed to facilitate the easy connection and disconnection of single core copper wire screened XLPE cables to medium voltage transformer and switchgear equipment
- The connectors are manufactured in three layers, a conductive inner layer, an insulation layer and a conductive outer layer
- The materials are vulcanised together to give the best possible interface between layers
- The cable connector includes a capacitive test point with protection and integrated earthing wire
- UV, ozone and tracking resistant
- Available in straight and elbow configuration
- Screen separation kit can be ordered separately for three core cables
- Supplied with bimetallic mechanical lugs to connect copper and aluminium conductor
- The screened cable connector exceeds CENELEC HD 629.52 S1 requirements which includes BS, VDE and other international specifications
- Maximum System Voltage 36kV
- Continuous Current 630A



Separable connector system for interface C bushing 12-36kV 630A

Part number	Conductor Size	Voltage	Core Insulation Diameter
CSE-A 12630-01	25-70mm²	12kV	13-20mm
CSE-A 12630-02	95-300mm²	12kV	18.5-30.5mm
CSE-A 12630-03	400-630mm²	12kV	30.5-45mm
CSE-A 24630-01	25-70mm²	24kV	17.0-24mm
CSE-A 24630-02	95-300mm²	24kV	22.5-35mm

Part number	Conductor Size	Voltage	Core Insulation Diameter
CSE-A 24630-03	400-630mm²	24kV	30.5-45mm
CSE-A 36630-01	25-70mm²	36kV	24.5-34mm
CSE-A 36630-02	95-300mm²	36kV	27.5-42mm
CSE-A 36630-03	400-630mm²	36kV	38.0-55mm

## Separable connector coupling system for bolted type C (400series) Bushing

- CSEP-A is a screened separable parallel cable connector designed to be connected to a screened separable cable connector type CSE-A-630.
- Can be used with XLPE or EPR insulation
- Supplied with mechanical connectors that can be used with CU or ALI cable conductors
- Screen separation kit can be ordered separately for three core cables
- UV, Ozone and tracking resistant
- The screened cable connector exceeds CENELEC HD 629.1 S1 requirements which includes BS, VDE and other international specifications



Coupling connector system for interface C bushing 12-36kV 800A

Part number	Conductor Size	Voltage	Core Insulation Diameter
CSEP-A-12630-01	25-70mm²	12kV	13-20mm
CSEP-A-12630-02	95-300mm²	12kV	18.5-30.5mm
CSEP-A-12630-03	400-630mm²	12kV	30.5-45mm
CSEP-A-24630-01	25-70mm²	24kV	17.0-24mm
CSEP-A-24630-02	95-300mm²	24kV	22.5-35mm

Part number	Conductor Size	Voltage	Core Insulation Diameter
CSEP-A-24630-03	400-630mm²	24kV	30.5-45mm
CSEP-A-36630-01	25-70mm²	36kV	24.5-34mm
CSEP-A-36630-02	95-300mm²	36kV	27.5-42mm
CSEP-A-36630-03	400-630mm²	36kV	38.0-55mm







#### Separable Connectors for D/E Type Bushing



## Separable connector system for bolted Type D (600 series) Bushing



#### **FEATURES**

- Designed to connect single core XLPE CWS cables to transformers and switchgear with D type bushing
- 25-630mm<sup>2</sup> conductor size range using mechanical connector
- Fully shielded, submersible and meets the requirements of IEEE std 386
- Moulded T body adapts to all cable and provides a deadfront shielded connection
- Moulded cable adapter, sized to fit cable insulation diameters from 16.3mm to 49.9mm providing stress relief for the terminated cable
- Insulating plug cap fits over insulating plug test point for waterproof seal and deadfront shielding
- Moulded epoxy insulating plug provides excellent electrical, thermal and mechanical reliability
- Available for use with Ali/Cu bushing, please specify at time of order
- Tested in accordance with IEEE Std 386 standard. AC 60Hz 1 minute withstand -40kV, minimum partial discharge extinction voltage -19kV

Part Number	Conductor Size	Voltage	Bushing Cu/Ali
15BT-W-25/150SH-IPWS	25-150mm²	12-24kV	Aluminium
15BT-W-95/300SH-IPWS	95-300mm²	12-24kV	Aluminium
15BT-W-400/400SH-IPWS	400mm²	12-24kV	Aluminium
15BT-W-500/630SH-IPWS	500-630mm²	12-24kV	Aluminium
15BT-W-25/150SH-IPWS(C)	25-150mm²	12-24kV	Copper

Conductor Size	Voltage	Bushing Cu/Ali
95-300mm²	12-24kV	Copper
400mm²	12-24kV	Copper
500-630mm²	12-24kV	Copper
W will be replaced once core insulation diameter is provided		
	95-300mm <sup>2</sup> 400mm <sup>2</sup> 500-630mm <sup>2</sup>	Size       95-300mm²     12-24kV       400mm²     12-24kV       500-630mm²     12-24kV



## Separable connector system for bolted Type E (700 series) Bushing



- Designed to connect single core XLPE CWS cables to transformers and switchgear with E type bushing
- 25-630mm² conductor size range using mechanical connector
- Fully shielded, submersible and meets the requirements of IEEE std 386
- Designed to be used on either XLPE or EPR cable insulation
- Moulded cable adapter, sized to fit cable insulation diameters from 22.2mm to 47.6mm providing stress relief for the terminated cable
- Insulating plug cap fits over insulating plug test point for waterproof seal and deadfront shielding
- Moulded epoxy insulating plug provides excellent electrical, thermal and mechanical reliability
- Available for use with Ali/Cu bushing, please specify at time of order
- Tested in accordance with IEEE Std 386 standard. AC 60Hz 1 minute withstand -50kV, minimum partial discharge extinction voltage -26kV

Part Number	Conductor Size	Voltage	Bushing Cu/ Ali
35BT-W-25/150SH-IPWS	25-150mm²	12-36kV	Aluminium
35BT-W-95/300SH-IPWS	95-300mm²	12-36kV	Aluminium
35BT-W-400/400SH-IPWS	400mm²	12-36kV	Aluminium
35BT-W-500/630SH-IPWS	500-630mm²	12-36kV	Aluminium
35BT-W-25/150SH-IPWS( C)	25-150mm²	12-36kV	Copper

Part Number	Conductor Size	Voltage	Bushing Cu/ Ali
35BT-W-25/150SH-IPWS(C)	95-300mm²	12-36kV	Copper
35BT-W-25/150SH-IPWS(C)	400mm²	12-36kV	Copper
35BT-W-25/150SH-IPWS(C)	500-630mm²	12-36kV	Copper
W will be replaced once core insulation diameter is provided			





#### MV Terminations HDC Cable Cabinets



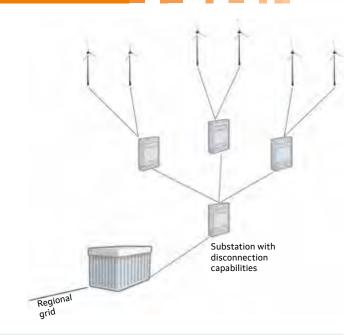
#### **Kabeldon Cable Cabinets**

#### APPLICATION

■ HDC-A cabinets are excellent for use within wind or solar farm connections. Each cable cabinet can be used as branching points so that separate cables don't need to be run between turbines/solar panels and a substation.

#### WIND FARMS: TYPICAL INSTALLATION

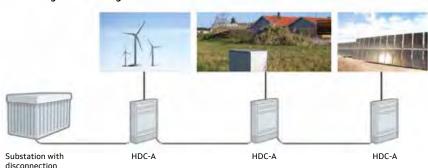
■ From each wind turbine three x 1c cables run to a cable cabinet, two wind turbines are connected in each cable cabinet, the cables are terminated using separable connectors. From each of these cable cabinets a third set of cables run to another cabinet where everything is tied together. (See image right)



#### BENEFITS

- Because cables are connected in a cabinet they can be sectionalized for maintenance. Disconnected cables can be earthed with special earthing devices and tools.
- Cable cabinets can be surface mounted eliminating the need for excavation of joint bays as the cables are connected using separable connectors.
- Less cable and ground excavation is required due to the fewer links between wind turbines (see image below)

#### General diagram for cable grid with HDC-A



#### STANDARDS

- Enclosures: Impact testing according to international standards IEC 60439-5
- Separable Connectors: European standard CENELEC HD 629.1 S2







HDC-A 24630 HDC-A 36630





HDC-A

24250



## Carried States of the

#### **HDC Cable Cabinet 250A**



HDC cable cabinets to join and branch 1-core and three-core XLPE cables 12-24kV

#### **FEATURES**

- The enclosure is made of hot dip galvanised sheet steel with foundation base plate
- Additional corrosion protection for buried parts
- The screened separable cable connections are connected by coupling pieces which are mounted in the enclosure
- Any chosen cable can be disconnected for live sectioning or to be earthed
- The cabinet is supplied with padlocks and shackles
- For three core cables, screen separation kits must be used
- The cable cabinet is supplied with 3 x 3 phase kits, separable connectors, capacitive test point included
- Enclosures meet the requirements of mechanical impact tests IEC 60439-5
- Meets the requirements of electrical tests SS424 14 45
- Cenelec: HD 629.1 S1

Part number	Voltage	Conductor Size
HDC-A 12250	12kV	25-95mm²

Part number	Voltage Conductor Siz	
HDC-A 24250	24kV	25-95mm²



#### **HDC Cable Cabinet 630A**



HDC cable cabinets to join and branch 1-core and three-core XLPE cables 12-36kV

- The enclosure is made of hot dip galvanised sheet steel with foundation base plate
- Additional corrosion protection for buried parts
- The screened separable cable connections are connected by coupling pieces which are mounted in the enclosure
- When branching parallel connector PC630 is required
- Any chosen cable can be disconnected for live sectioning or to be earthed
- The cabinet is supplied with padlocks and shackles
- For three core cables, screen separation kits must be used
- The cable cabinet is supplied with 2 x 3 phase kits, separable connectors, capacitive test point included
- Enclosures meet the requirements of mechanical impact tests IEC 60439-5
- Meets the requirements of electrical tests SS424 14 45
- Cenelec: HD 629.1 S1

Part number	Voltage	Conductor Size
HDC-A 12630-01	12kV	25-70mm²
HDC-A 12630-02	12kV	95-300mm²
HDC-A 12630-03	12kV	400-630mm²
HDC-A 24630-01	24kV	25-70mm²
HDC-A 24630-02	24kV	95-300mm²

Part number	Voltage	Conductor Size
HDC-A 24630-03	24kV	400-630mm²
HDC-A 36630-01	36kV	50-70mm²
HDC-A 36630-02	36kV	95-300mm²
HDC-A 36630-03	36kV	400-630mm²

Part number	Description
PSSK 1	Screen Separation kit (25-70mm² 11kV, 25-35mm² 24kV)
PSSK 2	Screen Separation kit (95-300mm² 11kV, 50-300mm² 24kV)
PC 630/250	Parallel Connector

Part number	Description
IP 250	Screened Insulation Plug
MA 250	Measurement Adaptor
KA 250	Transversal Anchor Bar
UKRA 90	Clamp for Fixing Cables





#### **MV Terminations** Inner Cone Terminations



#### **Pfisterer Connex Cable Termination System**

- The "Plug In" connector employs an insulated silicone bushing to control the electrical field present when the cable screen is removed
- Heat shrinkable sleeve provides a moisture barrier between the cable sheath and the alloy housing of the connector
- The termination is completed by plugging into the equipment and taking the cable screen to earth
- Sold in sets of three phases
- Installation tooling available to buy or hire
- Training courses available
- Designed to meet the requirements of EN 50180, 50181, DIN 47637 and are suitable for all cables to IEC 502 with graphite coated, bonded or "Easy Peel" semiconducting screens
- System can be buried and utilised off shore (Special variant required)
- Suitable for Class 5 cores, 3 core cables, armoured cables



Connex Plug in System for size 0, 1, 2, 3, 3S, 4, 5S, 6 & 6S

Cone Size	Part number	Max Voltage	Max Current	Cross Section	Dia Core Insulation	Voltage Tap
SIZE 0	870-01X-XXX	12kV	250A	25 - 70mm²	12.7mm - 23.5mm	NO
SIZE 0	870-02X-XXX	24kV	250A	25 - 70mm²	12.7mm - 23.5mm	NO
SIZE 1	870-11X-XXX	12kV	630A	25 - 240mm²	13.5mm - 36.0mm	NO
SIZE 1	870-12X-XXX	24kV	630A	25 - 240mm²	13.5mm - 36.0mm	NO
SIZE 1	870-13X-XXX	36kV	630A	25 - 240mm²	13.5mm - 36.0mm	NO
SIZE 1	850-11X-XXX	12kV	630A	25 - 240mm²	13.5mm - 31.5mm	YES
SIZE 1	850-12X-XXX	24kV	630A	25 - 240mm²	13.5mm - 31.5mm	YES
SIZE 1	850-13X-XXX	36kV	630A	25 - 240mm²	13.5mm - 31.5mm	YES
SIZE 2	870-21X-XXX	12kV	800A	25 - 400mm²	13.5mm - 44.0mm	NO
SIZE 2	870-22X-XXX	24kV	800A	25 - 400mm²	13.5mm - 44.0mm	NO
SIZE 2	870-23X-XXX	42kV	800A	25 - 400mm²	13.5mm - 44.0mm	NO
SIZE 2	850-21X-XXX	12kV	800A	25 - 400mm²	13.5mm - 36.0mm	YES
SIZE 2	850-22X-XXX	24kV	800A	25 - 400mm²	13.5mm - 36.0mm	YES
SIZE 2	850-23X-XXX	42kV	800A	25 - 400mm²	13.5mm - 36.0mm	YES
SIZE 3	870-31X-XXX	12kV	1250A	35 - 800mm²	15.5mm - 46.0mm	NO
SIZE 3	870-32X-XXX	24kV	1250A	35 - 800mm²	15.5mm - 46.0mm	NO
SIZE 3	870-33X-XXX	42kV	1250A	35 - 800mm²	15.5mm - 46.0mm	NO
SIZE 3	850-31X-XXX	12kV	1250A	35 - 800mm²	15.5mm - 46.0mm	YES
SIZE 3	850-32X-XXX	24kV	1250A	35 - 800mm²	15.5mm - 46.0mm	YES
SIZE 3	870-33X-XXX	42kV	1250A	35 - 800mm²	15.5mm - 46.0mm	YES
SIZE 3S	850-350-XXX	52kV	1250A	35 - 800mm²	15.5mm - 55.0mm	NO
SIZE 3XL	870-335-XXX	42kV	1250A	240 - 800mm²	46.0mm - 55.0mm	NO

Part number	Description	Info	For use with cone size
827-150-005	Dummy Cable Connector	For Sealing And Voltage Proof Closing Of Connex Connectors	Size 0
827-150-002	Dummy Cable Connector	For Sealing And Voltage Proof Closing Of Connex Connectors	Size 1
827-150-003	Dummy Cable Connector	For Sealing And Voltage Proof Closing Of Connex Connectors	Size 2
827-150-004	Dummy Cable Connector	For Sealing And Voltage Proof Closing Of Connex Connectors	Size 3
827-134-004	Protecting Cap	For Protecting Withdrawn Connex Connectors Against Dirt	Size 0
827-134-001	Protecting Cap	For Protecting Withdrawn Connex Connectors Against Dirt	Size 1
827-134-002	Protecting Cap	For Protecting Withdrawn Connex Connectors Against Dirt	Size 2
827-134-003	Protecting Cap	For Protecting Withdrawn Connex Connectors Against Dirt	Size 3





## 33 & 52kV Self Supporting Terminations



#### **APED 36 P Composite and APED 52 Porcelain Termination**

#### **FEATURES**

- Designed to terminate 52kV single core XLPE cables where the termination is to be used as fixed connection point and for installations where there is a risk of very high continuous creepage currents
- Can be assembled horizontally on the ground before installation
- Will cater for cable sizes from 95-1200mm²
- The composite termination is lightweight and shatter resistant
- The termination consists of porcelain or composite insulator installed on a box body made of aluminium casting

Part number	Insulator	Cable Size	Core Insulation Diameter	Voltage
APED36P	Composite	95-1200mm²	25-66mm	36kV
APED52B	Porcelain	95-1200mm²	25-66mm	52kV

#### 1. Top Bolt

Bolt connection technology. Made from aluminium or tin plated copper.

#### 2. Top Cover

Made from aluminium alloy, fastened with bolt and ring halves, and sealed with O-rings.

#### 3. Insulator

Grey composite or brown porcelain insulator. The composite insulator with silicone rubber has a low weight and the silicone rubber has a naturally hydrophobic surface which decreases the risk of leakage currents.

#### 4. Filling Compound

Polybuthene oil, volume is 2 litres.

#### 5. Stress relief cone

The stress relief cone is made from EPDM and designed for geometric field control.

#### 6. Box Body

Robust aluminium construction with individual clamps or bolts to secure the insulator. Sealed with an O-ring.

#### 7. Earth Clamp

The earth clamp is made from nickle-plated brass and clamped with stainless steel bolts. The earth clamp has a rated cross section of 300mm².

#### 8. Cable Clamp

Made from aluminium alloy. The clamp secures the cable in a fixed position.



#### **Main Technical Data**

Electrical data, IEC standard 60840	Volta	age kV
Highest voltage for equipment, U2	36	52
Rate voltage, U	30-33	45-47
Value of U2 for determination of test V	21	26
Heating cycle voltage test, 2U2	36	52
Partial discharges test <5pC, 1.5U2	27	39
Switching impulse voltage test	NA	NA
Lighting impulse voltage test, BIL	±170	±250
AC voltage test, 2.5U2	57	65
Measurement of loss factor, U2	21	26





#### **MV** Terminations

#### 52kV Heat Shrink/Cold Shrink Terminations



#### **OHVT Heat Shrink Terminations for XLPE CWS cables**

# FEATURES ■ TE Connectivity outdoor termination for trackside applications. ■ Supplied without a lug ■ Compact and modular design ■ Water and corrosion resistant ■ Different creepage distances available ■ Full PADS approval ■ Suitable for crimp or mechanical lugs ■ Unlimited shelf life under normal storage conditions ■ Tested in accordance to IEEE 48 and IEC 60840 ■ Manufactured according to ISO 9001 and ISO14001



Part number	Cable Size	Diameter Over Insulation	Termination Length	Creepage Distance	Number of Sheds
OHVT-5212	95-300mm²	30-45mm	850mm	1430mm	4
OHVT-5213	240-630mm²	38-55mm	850mm	1430mm	4

#### 95-EB and 95-EP Cold Shrink Terminations for XLPE CWS cables



#### FEATURES

- The versatile design of the prefabricated one-piece cold shrink termination body allows installation on a wide range of cable sizes and types.
- No heat or flame is needed during installation
- No special tools needed during installation
- Suitable for crimp and mechanical lugs
- Full PADS approval
- Shelf life of QT111 series terminations is specified as three years
- Terminations meet and exceed European standard IEC60840



## **Cold Shrink Terminations for XLPE CWS cables**

Part	Cable Size	Diameter Over	Maximum Diameter
number		Insulation	Over Lug
95-EB62-2	70-400mm²	33.0-53.0mm	53mm

Part	Cable Size	Diameter Over	Maximum Diameter
number		Insulation	Over Lug
95-EP631-2	240-400mm²	38.6-51.0mm	51mm





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## **MV Joints**

## Contents





11kV Resin Joints 130

11kV Heat Shrink Joints 133

11kV Heat Shrink/Cold Shrink Joints 134

33kV Heat Shrink Joints 136

33kV Heat Shrink/Cold Shrink Joints 138

33kV Cold Shrink Joints 139

52kV Heat Shrink/Cold Shrink Joints 141



#### Inline Universal Jointing System for XLPE/PILC/PICAS Three Core Cables

#### FEATURES

- Designed to provide a universal system for three core 11kV inline and transition jointing of polymeric or paper cables in one kit.
- Highly reliable UK industry standard joint
- Proven in service with UK REC's since 1991
- 1402 FR resin can be added to this kit for petrochemical environments
- Kit includes: stress control tubes, mechanical connectors, insulating sleeves, armour continuity, plastic shell and two part LDPU resin
- Tested in accordance with CENELEC specification HD 629 or IEC 60502-4 for joints



**Shrinkset - Inline** universal jointing system for any combination of three core XLPE/PILC/ **PICAS** cables

Part number	Conductor Size	To Suit	Resin Volume
SHSS-12A-IND	<b>2A-IND</b> 35-185mm² Poly - 70-185mm² Paper		14 litres
SHSS-12B-IND	185-300mm² Poly - 185-300mm² Paper	-	28 litres
<b>BU1 - SMOE 61745</b> 16-25mm² Poly - 16-50mm² Paper		Use with SHSS-12-A	-
BU2 - SMOE 61760	95-150mm² Poly - 95-150mm² Paper	Use with SHSS-12-B	-
BU3 - SMOE 61798	16-70mm² Poly - 16-70mm² Paper	Use with SHSS-12-B	-

#### Inline Joints for Three Core Armoured XLPE/PILC/PICAS Cables



#### **FEATURES**

- The versatile design of the prefabricated one-piece cold shrink splice body allows installation on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from -20 to +50°C
- No heat or flame needed during splice body installation
- Mechanical connectors provide quick and easy installation
- No special tools are needed during splice installation
- Thick walled EPDM rubber cold shrink outer re-jacketing tubes provide mechanical protection and moisture sealing of the completed inline joints
- Outer protection using Scotchcast resin provides options to install in zones 1 and 2 hazardous areas, as well as protection for PILC/PICAS cables
- Different sized cables can be joined using build up kits







#### **Cold Shrink joint to join** any combination of three core cables

Part number	Joint Type	Outer Protection	Conductor Size
92-AV610-3/C	XLPE Straight	See below	50-120mm²
92-AV620-3/C	XLPE Straight	See below	150-240mm²
92-AV630-3/C	XLPE Straight	See below	240-400mm²
92-AV610-3/C+1 x PILC1	XLPE to PILC/PICAS	See below	50-120mm²
92-AV620-3/C+1 x PILC2	XLPE to PILC/PICAS	See below	150-240mm²
92-AV630-3/C+1 x PILC3	XLPE to PILC/PICAS	See below	240-400mm²
92-AV610-3/C+2 x PILC1	PILC/PICAS Straight Joint	See below	50-120mm²
92-AV620-3/C+2 x PILC2	PILC/PICAS Straight Joint	See below	150-240mm²
92-AV630-3/C+2 x PILC3	PILC/PICAS Straight Joint	See below	240-400mm²

#### **Outer Protection Sleeve/Shell**

Part number	Protection Type	To Suit	Resin Volume
CS610-3	Cold Shrink Tube	92-AV610-3/C	-
CS620-3	Cold Shrink Tube	92-AV620-3/C	-
CS630-3	Cold Shrink Tube	92-AV630-3/C	-
1451	Moulded Shell	92-AV610-3/C & 92-AV620-3/C	14 litres
1452	Moulded Shell	92-AV630-3/C	21 litres











## Branch/Pot End Universal Jointing System for XLPE/PILC/PICAS Three Core Cables





Shrinkset - Branch universal jointing system for any combination of three core XLPE/PILC/ PICAS cables

#### **FEATURES**

- Designed to provide a universal system for three core 11kV branch jointing of polymeric or paper cables in one kit
- 1402 FR resin can be added to this kit for petrochemical environments
- Kit includes: stress control tubes, mechanical connectors, insulating sleeves, armour continuity and plastic shell
- Two part LDPU resin available for purchase
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints
- Proven and in service with UK electricity boards since 1991
- Build up kits can be used for smaller conductor sizes and large size transitions
- Approved to electricity association specification ER C90

Part number	Conductor Size	To Suit	Resin Volume
<b>SMOE61987 (branch joint)</b> 35-185mm² Poly - 95-185mm² Paper		-	42 litres
SMOE61988 (branch joint)	185-300mm² Poly - 185-300mm² Paper	-	49 litres
SMOE62668 (pot end)	95-300mm²		14 litres
BU1 - SMOE 61745	16-25mm² Poly - 16-50mm² Paper	SMOE61987/SMOE62668	-
BU2 - SMOE 61760	95-150mm² Poly - 95-150mm² Paper	SMOE61988	-
BU3 - SMOE 61798	16-70mm² Poly - 16-70mm² Paper	SMOE61988/SMOE62668	-



#### **Trifurcating Joint**



## Trifurcating joint for three core XLPE to 3 x single

core XLPE

#### **FEATURES**

- Designed to join three core XLPE/CTS/SWA to 3 x single core XLPE CWS unarmoured cables
- A resin filled joint for extra mechanical protection
- Will cover cables from 70-300mm²
- Kits consists of all tubing, earth kits, connector and shell

Part number	Cable Size
SM0F63180	70-185mm²

Part number	Cable Size	
SMOE63181	185-300mm²	



#### **Trifurcating Transition Joint**



# Trif/Trans joint for three core PILC/PICAS to 3 x single core XLPE CWS unarmoured cables

- Designed to join 3core PILC/PICAS/SWA to 3 x 1c XLPE CWS unarmoured cables
- A resin filled joint for extra mechanical protection
- Will cover cables from 70-300mm²
- Kits consists of all tubing, earth kits, connector and shell

Part number	Cable Size
SM0E63410	70-185mm²

Part number	Cable Size
SM0E63411	185-300mm²







#### **Lovisil Silicon Filled Resin Joints**

## 医多类性多形形式

#### FEATURES

- Lovisil cable joints are suitable for use on paper-insulated (PILC or PICAS) and polymeric (XLPE or EPR) cables
- The electrical insulation is inside a polyester inner joint provided by the combination of polymeric tube set (primary insulation) and high grade silicon based compound
- Mechanical protection is provided by a ABS outer joint shell filled with a two-part polyurethane resin
- When the silicon comes into contact with water it reacts to form a soft and perfectly insulating rubber, this creates a seal that prevents any further ingress of moisture
- Suitable for all types of connectors, both mechanical and crimp can be used up to 24kV
- Joints also available in single cores, branch and loop formations
- Kit consists of base module, cable modules, resin and connectors





Part number	Description
MJ-LOV-A-TX	95mm² Triplex Straight Joint (all in 1 shell)
MJ-LOV-A-TX	185mm² Triplex Straight Joint (all in 1 shell)
MJ-LOV-B-TX	300mm² Triplex Straight Joint (all in 1 shell)
MJ-LOV-A-TX-XU	95mm² Triplex to 95mm² 3c XLPE collective CWS
MJ-LOV-A-TX-XU	185mm² Triplex to 185mm² 3c XLPE collective CWS
MJ-LOV-B-TX-XU	300mm² Triplex to 300mm² 3c XLPE collective CWS
MJ-LOV-A-TX-XU	95mm² Triplex to 185mm² 3c XLPE collective CWS
MJ-LOV-A/B-TX-XU	95mm² Triplex to 300mm² 3c XLPE collective CWS
MJ-LOV-A/B-TX-XU	185mm² Triplex to 300mm² 3c XLPE collective CWS

Part number	Description	
MJ-LOV-A-TX-XA	95mm² Triplex to 95mm² 3c XLPE/CTS/SWA	
MJ-LOV-A-TX-XA	185mm² Triplex to 185mm² 3c XLPE/CTS/SWA	
MJ-LOV-B-TX-XA	300mm² Triplex to 300mm² 3c XLPE/CTS/SWA	
MJ-LOV-A-TX-XA	95mm² Triplex to 185mm² 3c XLPE/CTS/SWA	
MJ-LOV-A/B-TX-XA	95mm² Triplex to 300mm² 3c XLPE/CTS/SWA	
MJ-LOV-A/B-TX-XA	185mm² Triplex to 300mm² 3c XLPE/CTS/SWA	
MJ-LOV-A-TX-PI	95mm² Triplex to 95mm² 3c PILC/SWA or PICAS	
MJ-LOV-A-TX-PI	MJ-LOV-A-TX-PI 185mm² Triplex to 185mm² 3c PILC/SWA or PICAS	
MJ-LOV-B-TX-PI	300mm² Triplex to 300mm² 3c PILC/SWA or PICAS	
All above complete with resin and connectors		

#### **Resin Joint Details**



Part	Dimer	nsions
Number	A (mm)	B (mm)
MJ-LOV-A	1055	226.5
MJ-LOV-A	1343	267
MJ-LOV-A	1343	267







#### **Inline Joints for Single Core Unarmoured XLPE Cables c/w Mechanical Connectors**



#### Inline heat shrink joints for single core unarmoured XLPE cables

#### **FEATURES**

- Designed to join inline single core 11kV unarmoured XLPE cables
- Highly reliable UK industry standard joint
- Unlimited shelf life
- Kit contents: Stress control and insulation tubing, wire shield, outer Heat Shrink sleeving, mechanical connectors, void, stress and moisture tapes
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints
- Network Rail Approved

Part number	Conductor Size
MXSU-3111	25-95mm²
MXSU-3121	70-150mm²
MXSU-3131	95-240mm²
MXSU-3141	240-400mm²

Part number	Conductor Size
MXSU-3151	500mm²
MXSU-3161	630mm²
MXSU-3171	800mm²
MXSU-3181	1000mm²



#### Size Transition Joints for Single Core Unarmoured XLPE Cables Heat Shrink Mechanical Connectors **Size Transition Joints for Single Core**



#### Inline heat shrink size transition joints for single core unarmoured XLPE cables

#### **FEATURES**

- Designed to join 11kV single core cables with large size transitions
- Unlimited shelf life
- Tested in accordance with CENELEC specification
- Kit contents: Stress control and insulation tubing, wire shield, outer Heat Shrink sleeving, mechanical connectors, void, stress and moisture tapes
- Unlimited shelf life
- Tested in accrodance with CENELEC specification HD 629.1 or IEC 60502-4 for joints

Part number	Conductor Size
MXSU-3131-T2	25-95mm² - 95-240mm²
MXSU-3141-T2	95-240mm² - 185-400mm²
MXSU-3151-T6	185-400mm² - 500mm²

Part number	Conductor Size	
MXSU-3161-T7	185-400mm² - 630mm²	
MXSU-3181-T8	630mm - 1000mm²	



#### **Inline Joints for Single Core Unarmoured XLPE Cables**



#### Inline heat shrink joints for single core unarmoured XLPE cables

- Designed to join inline single core 11kV unarmoured XLPE cables
- Highly reliable UK industry standard joint
- Can be used with crimp and mechanical connectors
- Kit contents: Stress control and insulation tubing, wire shield, outer heat shrink sleeving, void, stress and moisture tapes
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints
- Network Rail Approved

Part number	Conductor Size
SXSU-3111	35-70mm²
SXSU-3121	95-185mm²

Part number	Conductor Size
SXSU-3131	185-300mm²
SXSU-3141	300-500mm²





#### MV Joints 11kV Heat Shrink/Cold Shrink Joints



## Inline Joints for 11kV Single Core Unarmoured XLPE Cables c/w Mechanical Connectors

#### **FEATURES**

- Designed to join inline single core 11kV unarmoured XLPE cable in "All in One" kit including mechanical connector
- 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 which enables smaller range of product to be stocked
- Short parking distance required
- Electrical stress control of the screen cut area by integrated conductive geometrical stress cones
- Electrical stress control of the connector is by an integrated screened connection area (Faraday Cage)
- Kit contents: Stress control and insulation tubing, wire shield, outer cold shrink sleeving, void, stress and moisture tapes
- For use on solid conductors please contact your nearest sales office
- Joint exceeds CENELEC HD 629.1 which includes IEC, BS, VDE and other international specifications
- Network Rail approved



Inline cold shrink joints for 11kV single core unarmoured XLPE cables

Part number	Application Range	Diameter over core insulation	Diameter over outer sheath
CSJA-12B/1XU-1XU-M	95-240mm²	18.6-28.4mm	26.0-39.0mm
CSJA-12C/1XU-1XU-M	185-300mm²	23.2-32.6mm	30.0-44.0mm
CSJA-12D/1XU-1XU-M	240-400mm²	25.7-33.6mm	33.0-45.0mm
CSJA-12E/1XU-1XU-M1	500mm²	34.4-36.2mm	43.0-48.0mm
CSJA-12E/1XU-1XU-M2	630mm²	38.0-40.0mm	47.0-52.0mm

## Cold Shrink Single Core Inline Joint for XLPE CWS c/w Mechanical Connectors



#### **FEATURES**

- Prefabrication one-piece cold shrink joint allows installation on a wide range of cable sizes
- No heat or flame is needed during splice body installation
- Joint comes complete with a mechanical connector
- EPDM think wall outer jacket provides good mechanical protection



Inline cold shrink joints for 11kV single core unarmoured XLPE cables

Part number	Conductor Size
92-AK610-I/C	50-150mm²
92-AK620-I/C	95-300mm²

Part number	Conductor Size	
92-AK630-I/C	300-630mm²	
92-AK632-I/C	800-1000mm²	

## Inline Joints for Single Core Aluminium Wire Armoured XLPE Cables

#### FEATURES

- Designed to join inline single core 11kV aluminium wire armoured XLPE cables.
- Highly reliable UK industry standard joint.
- Kit contents: Stress control and insulation tubing, wire shield, outer heat shrink sleeving, void, stress and moisture tapes
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints



Inline heat shrink joints for single core alumunium wire armoured XLPE cables

Part number	Conductor Size
SXAW-3121	95-185mm²
SXAW-3131	185-300mm²

Part number	Conductor Size	
SXAW-3141	400-500mm²	
SXAW-3151	630-800mm²	







#### 11kV Cold Shrink/Heat Shrink Joints MV Joints



## Cold Shrink Single Core Inline Joint for XLPE/CTS/AWA c/w Mechanical Connectors



# Single core cold shrink straight joint for armoured cables

#### FEATURES

- Prefabrication one-piece cold shrink joint allows installation on a wide range of cable sizes
- No heat or flame is needed during splice body installation
- Joint comes complete with a mechanical connector
- EPDM thick wall outer jacket provides good mechanical protection

Part number	Conductor Size
92-AK612-1/C	70-150mm²
92-AK622-1/C	150-240mm²

Part number	Conductor Size	
92-AK623-1/C	300-400mm²	
92-AK633-1/C	500-630mm²	



#### MXSB Branch Joint Range c/w Mechanical Connectors



#### **FEATURES**

- Heat Shrink branch joint for XLPE CWS cables c/w mechanical connector
- The design of the connector enables the user to connect different size conductors
- Immediate service after installation
- The complete kit has been tested to meet Raychem performance standards according to CENELEC HD629.1S2

#### Single core heat shrink branch joint for unarmoured cables

Part number	Conductor Size
MXSB-12A-1XU-2XU	35-95mm²
MXSB-12B-1XU-2XU	70-185mm²

Part number	Conductor Size
MXSB-12C-1XU-2XU	150-300mm²



#### MXSW 3 Core XLPE SWA Range of Joints c/w Mechanical Connectors



# Three core heat shrink joint XLPE armoured cables

- Designed to joint three core XLPE/CTS/SWA cables
- The design of the connector enables the user to connect different size conductors
- Immediate service after installation
- The complete kit has been tested to meet Raychem's performance standards according to CENELEC HD629.1S2

Part number	Conductor Size
MXSW-3311-GB01	35-95mm²
MXSW-3331	95-240mm²

Part number	Conductor Size	
MXSW-3332	150-300mm²	









#### **Heat Shrink Single Core Inline Joint for PILC Cables**

#### FEATURES

- Designed to join inline single core 33kV PILC cables
- Highly reliable UK industry standard joint
- Unlimited shelf life
- Kit contents: Void filling tapes, stress control and insulation tubing, wire armour continuity, outer sealing sleeves
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints



Heat shrink straight joint for 33kV paper insulated lead covered cables

Part number	Conductor Size
EPKJ 36A-1HL-1HL	50-70mm²
EPKJ 36B-1HL-1HL	95-150mm²

Part number	Conductor Size
EPKJ 36C-1HL-1HL	185-400mm²
EPKJ 36D-1HL-1HL	500-630mm²

#### **Transition Joints for Single Core XLPE to PILC Cable**



#### FEATURES

- Designed to join inline single core 33kV XLPE to PILC cables
- Highly reliable UK industry standard joint
- Unlimited shelf life
- Kit contents: Void filling tapes, stress control and insulating tubing, outer sealing sleeve
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints
- Network Rail Approved



Heat shrink transition joints for single core XLPE to PILC cables

Part number	Conductor Size
EPKJ 36A-1XU-1HL	50-70mm²
EPKJ 36B-1XU-1HL	95-150mm²

Part number	Conductor Size
EPKT 36C-1XU-1HL	185-400mm²
EPKJ 36D-1XU-1HL	500-630mm²

#### Inline Joints for Three Core Screened XLPE Cables

#### FEATURES

- Designed to join inline three core screened 33kV XLPE cables
- Highly reliable UK industry standard joint
- Unlimited shelf life
- Kit contents: Void filling tapes, stress control and insulating tubings, wire armour continuity, outer sealing sleeves
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints



Heat shrink inline joints for three core steel wire armoured cables

Part number	Conductor Size
EPKJ 36A-3XU-3XU-W	50-70mm²
EPKJ 36B-3XU-3XU-W	95-150mm²

Part number	Conductor Size
EPKJ 36C-3XU-3XU-W	185-400mm²







#### Inline Joints for Single Core Unarmoured XLPE Cables c/w **Mechanical Connectors**



Inline heat shrink ioints for single core unarmoured XLPE cables, connectors inc

#### **FEATURES**

- Designed to join inline single core 33kV unarmoured XLPE cables
- Kit contents: Stress control and insulation tubing, wire shield, outer Heat Shrink sleeving, mechanical connectors, void, stress and moisture tapes
- Tested in accordance with CENELEC specification HD 629 or IEC 60502-4 for joints
- Network Rail Approved

Part number	Conductor Size
MXSU-6111	35-95mm²
MXSU-6121	70-150mm²
MXSU-6131	150-300mm²
MXSU-6141	240-400mm²

m²
m²
m²



#### Size Transition Joints for Single Core Unarmoured XLPE Cables c/w Mechanical Connectors



#### Inline heat shrink joints for single core unarmoured XLPE cables

#### **FEATURES**

- Designed to join inline single core 33kV unarmoured XLPE cables
- Unlimited shelf life
- Kit contents: Stress control and insulation tubing, wire shield, outer Heat Shrink sleeving, mechanical connectors, void, stress and moisture tapes
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints

Part number	Conductor Size
MXSU-6141-T4	95-240mm² - 240-400mm²
MXSU-6151-T6	185-400mm² - 500mm²
MXSU-6161-T6	185-400mm² - 630mm²

Part number	Conductor Size
MXSU-6161-T7	500mm - 630mm²
MXSU-6171-T8	630mm² - 800mm²
MXSU-6181-T8	630mm - 1000mm²



#### Inline Joints for Single Core Unarmoured XLPE Cables



Inline heat shrink joints for single core unarmoured XLPE cables

- Designed to join inline single core 33kV unarmoured XLPE cables
- Highly reliable UK industry standard joint
- Mechanical or crimp connectors available on request
- Unlimited shelf life
- Kit contents: Stress control and insulation tubing, wire shield, outer Heat Shrink sleeving, void, stress and moisture tapes
- Tested in accordance with CENELEC specification HD 629.1 or IEC 60502-4 for joints
- Network Rail Approved

Part number	Conductor Size
SXSU-6122	35-150mm²
SXSU-6132	150-300mm²
SXSU-6141	185-400mm²

Part number	Conductor Size
SXSU-6142	400-630mm²
SXSU-6151	500-800mm²
SXSU-6161	800-1200mm²





## MV Joints 33kV Heat Shrink/Cold Shrink Joints



## Inline Joints for Single Core Aluminium Wire Armoured XLPE Cables

## 医多种性 医多种

#### **FEATURES**

- Designed to join inline single core 33kV aluminium wire armoured XLPE cables
- Highly reliable UK industry standard joint
- Will accommodate a mechanical or crimp connector
- Can be used for a size transition joint with the aid of mechanical connectors
- Quick installation time
- No special tools required for installation
- Unlimited shelf life
- Kit contents: Void filling tapes, stress control and insulation tubing, wire armour continuity, inner and outer sealing sleeve
- Tested in accordance with CENELEC specification HD 629 or IEC 60502-4 for joints



Inline heat shrink joints for single core alumunium wire armoured XLPE cables

Partnumber	Conductor Size
SXAW-6122	50-95mm²
SXAW-6132	120-240mm²

Partnumber	Conductor Size	
SXAW-6142	300-630mm²	

## Inline Joints for Single Core Armoured XLPE Cables c/w Mechanical Connectors

#### **FEATURES**

- The versatile design of the prefabricated one-piece cold shrink splice body allows installation on a wide range of cable sizes and types.
- No special tools are needed during joint installation
- Thick walled EPDM rubber outer jacket provides mechanical protection and moisture sealing of the complete inline joint
- Designed to join inline 33kV single core copper tape screened armoured XLPE cables
- Viable cost based alternative to heat shrink joints
- Low temperature tool free installation
- Faster installation time saving labour costs
- Use build up kit 94-PG-620-1 when primary insulation is smaller than 28.4mm
- Kit contents: splice body, EPDM outer sleeve, mastic, earthing kit and mechanical connectors
- Tested in accordance CENELEC specification HD629.1 which encompasses the BS, VDE etc.





QS2000 series inline cold shrink joints for single core armoured XLPE cables

Part number	rt number Diameter over Primary Insulation	
94-AP635-1/C	28.4-42.0mm	120-240mm²
94-AP636-1/C	28.4-42.0mm	185-300mm²

Part number	Diameter over Primary Insulation	Conductor Size
94-PG-620-1	Smaller than 28.4mm over primary insulation	Build up kit











Trifurcating Transition Joint for Single Core XLPE to Three Core PILC Cables c/w Mechanical Connectors



Cold shrink trifurcating transition joints for single core XLPE to three core PILC cables

#### **FEATURES**

- Designed to join inline 33kV single core XLPE to three core PILC cables
- Low temperature installation
- Faster installation time saving labour costs
- The versatile design of the prefabricated one-piece cold shrink splice body allows installation on a wide range of cable sizes and types.
- No heat or flame is needed during splice body installation
- Mechanical connector provides quick and easy connection with no special tooling
- Scotchcast resin packs can be used providing options to install in zones 1 and 2 hazardous areas
- Tool free installation
- Kit contents: Mould shell, splice body, EPDM tubes, earthing kit, mastics, Scotch™ 23 and mechanical connectors
- Tested in accordance CENELEC specification HD 629.1 which encompasses the BS, VDE etc.

Part number	Conductor Size	Resin Volume
94-FP-435-3/C	120-240mm²	20 litres

Part number	Conductor Size	Resin Volume
94-FP-436-3/C	185-400mm²	20 litres



## Transition Joint for Single Core XLPE to PILC Cables c/w Mechanical Connectors



Cold shrink transition joints for single core XLPE to PILC cables

- Designed to join inline 33kV single core copper wire XLPE to single core PILC cables
- Low temperature installation
- Faster installation time saving labour costs
- The versatile design of the prefabricated one-piece cold shrink splice body allows installation on a wide range of cable sizes and types.
- Mechanical connectors included in the joint allows quick and easy connection with no special tooling
- Solderless earth connection by means of copper stocking and constant force spring
- Tool free installation
- Kit contents: splice body, EPDM tubes, mastics, earthing kit, Scotch™ 13 tape and mechanical connector
- Tested in accordance CENELEC specification HD 629.1 which encompasses the BS, VDE etc.

Part number	Conductor Size		
94-FC630-1/C	120-240mm²		
94-FC631-1/C	185-300mm²		

Part number	Conductor Size
94-FC640-1/C	400-630mm²





#### MV Joints 33kV Cold Shrink Joints



#### Inline Joints for 33kV Single Core Unarmoured XLPE Cables c/w Mechanical Connectors

#### **FEATURES**

- Designed to join inline single core 33kV unarmoured XLPE cable in "All in One" kit including mechanical connectors
- Faster installation time than heat shrink joints
- 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 which enables smaller range of product to be
- Short parking distance required
- Electrical stress control of the screen cut area by intergrated conductive geometrical stress cones
- Electrical stress control of the connector is by an integrated screened connection area (Faraday Cage)
- Kit contents: Stress control and insulation tubing, wire shield, outer cold shrink sleeving and moisture tapes
- For use on solid conductors please contact your nearest sales office
- Joint exceeds CENELEC HD 629.1 which includes IEC, BS, VDE and other international specifications
- Network Rail approved
- Mechanical Shear bolt connector to IEC 61238-1



Inline cold shrink joints for 33kV single core unarmoured XLPE cables

Part number	Application Range	Diameter over core insulation	Diameter over outer sheath
CSJA-36D/1XU-1XU-M	95-240mm²	27.8-37.6mm	35.0-48.0mm
CSJA-36E/1XU-1XU-M1	240-400mm²	34.9-42.8mm	42.0-54.0mm
CSJA-36E/1XU-1XU-M2	500mm²	42.6-45.6mm	51.0-57.0mm
CSJA-36E/1XU-1XU-M3	630mm²	45.8-49.2mm	56.0-61.0mm

#### Cold Shrink Joint for 33kV Single Core Unarmoured XLPE Cables c/w Mechanical Connectors



#### FEATURES

- QS2000 cold shrink series kit is designed for in line splicing up to 36kV Umax voltage class, single core polymeric power cable systems with copper wire screen
- The versatile design of the pre-fabricated one piece cold shrink splice body allows installations on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from -20° to +50°C
- No heat or flame needed during splice body installation
- Solderless earth connection by means of copper stocking and constant force
- Thick walled EPDM rubber cold shrink outer jacket tubes provide mechanical protection and moisture sealing of the complete inline joint
- Joints complete with mechanical connector for ease of installation
- No special tools are needed during splice installation
- Joint designed and tested to IEC60502-4



Inline cold shrink joints for 33kV single core XLPE cables

Part number	Conductor Size
94-AP630-1/C	120-240mm²

Part number	Conductor Size	
94-AP631-1/C	185-400mm²	











#### **Heat Shrink Inline Joints**



## **52kV Heat Shrink Inline Joint**

#### **FEATURES**

- Designed to join inline single core 52kV unarmoured cables
- Range taking design
- Unlimited shelf life
- Designed for use with mechanical connectors
- Kit includes: Stress control tubes, Insulating sleeves, mastics and outer protection sleeve
- Network Rail approved
- Available for size and insulation transition.
- Cable joints for cross bonding/shield break applications also available
- Tested to IEEE 404 1993, EDF HN-68-S-20, SEN 24 1434, ESI 09-16 & IEC840

Part number	Description	Cable size	Diameter over insulation
EHVS-52H-1-W-1D	25/44kV Poly/Poly Straight Joint, excluding connector	95-300mm²	30-45mm
EHVS-52H-1-W-2D	25/44kV Poly/Poly Straight Joint, excluding connector	300-630mm²	42-55mm
Cable specification must be supplied with cable dimensions at time of order			



#### **Cold Shrink QS III Splicing Kit**



## **Cold Shrink QS III Splicing Kit**

- Designed to join inline single core 52kV unarmoured cables
- No heat or flame is needed during installation
- Designed for use with mechanical connectors (included)
- One piece splice body
- Network Rail approved
- Tested to IEC60502-04

Partnumber	Description	Cable size	Diameter over insulation
95-AC645-1-240/C	25/44kV Poly/Poly Straight Joint, excluding connector	120-240mm²	31.5-53.8mm
95-AC645-1-400/C	25/44kV Poly/Poly Straight Joint, excluding connector	300-400mm²	31.5-53.8mm
Cable specification must be supplied with cable dimensions at time of order			









## **Renewables** | A brighter future



## **HV Joints**

## Contents



#### **HV Joints** 72kV Heat Shrink and Cold Shrink Joints



#### **TE High Voltage Joints**

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#### FEATURES

- Designed to join inline single core 72kV XLPE cables
- Range taking design
- Unlimited shelf life
- Designed for use with mechanical connectors (included)
- Cable joints for cross bonding /shield break applications also available
- Tested to IEEE 404 1993, EDF HN-68-S-20, SEN 24 1434, ESI 09-16 & IEC840





**TE High Voltage Joint** 

#### **3M High Voltage Joints**



- Designed to join inline single core 66kV XLPE cables
- Range taking design
- One piece cold shrink splice body
- No heat, flame or special tools are needed during splice body installation
- Accommodates crimp or mechanical connectors (included)



**3M High Voltage Joint** 

 $\label{lem:cable specification must be supplied with cable dimensions at time of order} \label{lem:cable specification}$ 







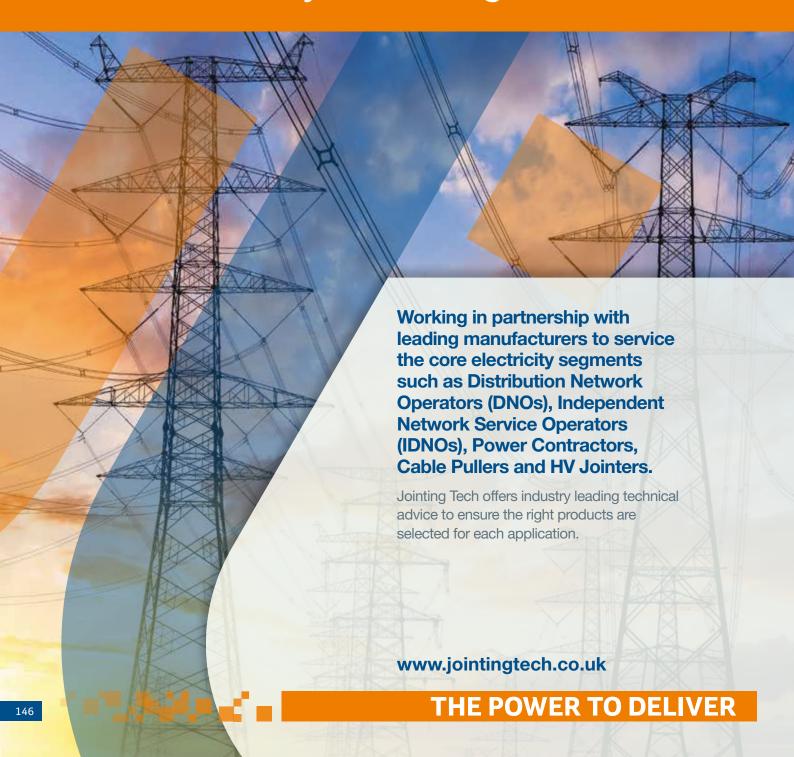
We know that out of hours problems are the worst type for companies to encounter and that getting help can be difficult and frustrating.

Jointing Tech offer a 24/7 breakdown service which may make it possible for you to complete your installation. With an extensive stock profile and a knowledgeable team Jointing Tech could offer the products and solution you need.

Please note that this service may attract call out and delivery charges.



# Our service is your strength



# **HV Terminations**

## Contents



## **HV Terminations** 72kV Terminations



#### **Single core Heat Shrink terminations for XLPE Cables**

#### **FEATURES**

- Designed to terminate 72kV single core XLPE, CWS or lead sheathed cables for indoor/outdoor applications
- Designed for use with crimp or mechanical connectors
- Water and corrosion resistant
- Different creepage distance available
- Tested to IEEE 404 1993, EDF HN-68-2-20, SEN 24 1434, ESI 09-16 & IEC840
- PADS approved
- Kit content Stress control tubes, insulating sleeves, mastics and rain sheds
- Please contact your nearest sales office with details of the full cable specification prior to order



Part number	Number of Sheds	Creepage Length	Voltage
IHVT-72	4	1600mm	72kV
OHVT-72	7	2200mm	72kV

Part	Number of	Creepage	Voltage
number	Sheds	Length	
OHVT-72-L	10	3000mm	72kV

#### **Single core Cold Shrink terminations for XLPE Cables**



- Designed to terminate 72kV single core lead sheathed or CWS, XLPE cables in outdoor applications to switchgear, cable boxes and pole top assemblies
- Silicone body provides excellent electrical performance and superior low temperature handling
- Quicker installation time saving money on labour costs
- Low temperature tool free installation
- Range taking, few components needed
- Suitable for use with mechanical lugs
- Kit contents Termination body and mastic seal
- Please contact your nearest sales office with details of the full cable specification prior to order



Part		Cable dimensions	for XLPE cables		Lug dimension s-max
number	Overall cable diameter	Diameter over primary insulation	Cable size	Earth screen size	dimensions
96-EP720-2(CWS)	90	33.0-60.0mm	120-1000mm²	50mm²	70mm
96-EP722-2 (Lead sheath)	90	33.0-60.0mm	120-1000mm²	50mm²	70mm
96-EP730-2 (CWS)	115	50.0-87.0mm	500-2000mm²	50mm²	115mm
96-EP732-2 (Lead sheath)	115	50.0-87.0mm	500-2500mm²	50mm²	115mm













## Single core Self Supporting Terminations



Single Core self supporting cable terminations for 52-72kV XLPE cables in outdoor applications

#### **FEATURES**

- Designed to terminate 52 & 72kV single core XLPE cables where the termination is to be used as fixed connection point and for installations where there is risk of very high continuous creepage currents
- The cable termination consist of porcelain or composite insulator installed on a box body made of alumunium castings
- Can be assembled horizontally on the ground before installation
- The composite termination is a lightweight shatter resistant version
- The porcelain insulator is available in brown and the composite insulator is available in grey
- A supporting plate with stand-off insulators are used for an insulated mounting
- Suitable for cable sizes up to 1200mm²
- Meets the requirements of SS, IEC & IEEE
- Please contact your nearest sales office with details of the full cable specification prior to order

Part number	Insulator	Creepage Distance	Voltage
APED 521B	Porcelain	1340mm	52kV
APED 722B	Porcelain	2200mm	72kV

Part number	Insulator	Creepage Distance	Voltage
APED 722P	Composite	2330mm	72kV

#### Accessories

Part number	Description	Use
GAP-APED	Rod Gap	Protects against over voltage
PIU-APED	Post Insulator Kit	When insulating mounting
RE-APED-M	48-66 Insulation	Used for re-assembly of a termination (Stress cone included, clamp bolt to be ordered separately as required)
RE-APED-T	25-48.1 Insulation	Used for re-assembly of a termination (Stress cone included, clamp bolt to be ordered separately as required)

Part number	Description	Use
JSA	Earthing Kit	For cable with metallic screen (Not required for copper wire screen cables)
SCK	Screen Connec- tion	For radial waterproof cable with Al-foil and copper wire screen







# A comprehensive supply network



# **Link Boxes**

# Contents

LV 2 & 4 Way **152** 





#### LV 2 & 4 Way Link Boxes

## la Santa Barbara

- Can be jointed directly onto polymeric or paper insulated LV cables eliminating the need for intermediate lengths of polymeric cables and straight/transition joints
- Pre-fitted factory tailed units are available to speed up direct replacement installations
- Both 3 and 4 core variants are available
- All below are tested to BS EN50393 & 60947-1 and ER C81/4
- Pit frame and colour meet B125 EN124 standards



Description	Conductor Range	Weight
2 way 3-Core MK3 Link Box	70-300mm²	39kg
4 way 3-Core MK3 Link Box	70-300mm²	100kg
2 way multicable MK3 Link Box	70-300mm²	42kg
2 way 3-Core MK3 Link Box double bolt version	70-300mm²	39kg
4 way 3-Core MK3 Link Box double bolt version	70-300mm²	100kg
2 way 3&4-Core Untailed MK3 Link Box	70-300mm²	40kg
4 way 3&4-Core Untailed MK3 Link Box	70-300mm²	102kg

	_	
Accessories		Accessories
Wedge type links (83mm centres)		Pavement frame and cover (300mm x 300mm)
Insulated link remover (single)		Pavement frame and cover (600mm x 450mm)
Insulated link remover (multiple)		Pavement cover lifting keys
	-	





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THE POWER TO DELIVER



## Power Consumables



## Contents

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Denso Products 158

Insulating Compounds 159





#### **JSSC Two Part Resin**

#### FEATURES

- Designed for cable joint encapsulation
- The resin consists of two parts: resin and hardener
- Type approved to CENELEC specification EN 50393

Part number	Size
JSSC	7 litres



#### **Jem Resin**

#### FEATURES

- Designed for cable joint encapsulation
- Supplied in clear pouches providing visibility during mixing
- Non-hazardous (non-irritant, non-sensitising, non-flammable)
- Independent testing has shown that no hazard labelling is required
- The resin consists of two parts: acrylic based resin and hardener
- Type approved to CENELEC specification EN 50393
- Power Utility specification ENA TS C81/3
- European legislation (REACH) compliant resin

Part number	Description	Size
JEM 600 9XJ	Isofree Resin	6 litres

45			
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- 1	400		
- 0	===	27	

Part number	Description	Size
JEM 200P (S POWER)	Isofree Resin	6 litres

#### **Hazardous Area Resin**

- Designed for cable joint encapsulation
- Supplied in clear pouches providing visibility during mixing
- Flame Retardant
- Chemical Resistant
- The resin consists of two parts: resin and hardener
- Type approved to CENELEC specification EN 50393
- European legislation (REACH) compliant resin

Part number	Size
1402-FR B	200ml
1402-FR C	370ml

Part number	Size
1402-FR Mix Pack	7.18 litres









#### **Bicalflux**



Part number	Size
F71003-02	150cc



#### R391



Part number	Size
JR391	0.5kg



#### **Tallow**



Part number	Size
JTALLOW	0.3kg



#### **UNIAL**



Part number	Size
UNIAL	250g



#### **Solders**



Part number	Description
JAP	Alca P Solder
JTS	Tinmans M Solder
JPS	Plumbers D Solder



## **Coraline Flux**



Part number	Size
J70131-02	0.45kg







## Resins, Compounds & Accessories Denso Products



#### Densofil

#### **FEATURES**

- Anti-corrosion putty designed for sealing, filling and caulking
- Insulates fittings preventing condensation which protects against corrosion
- Lightweight material perfect for fitting around awkward items

Part number	Size
DENSOFIL	2kg



**Anti-corrosion putty** 

#### **Denso Paste**

#### FEATURES

- A primer for denso tape and rust preventative for exposed metal
- It does not dry, harden or crack

Part number	Size
DENSO PASTE	2.5kg



**Anti-corrosion primer** 

#### **Denso Mastic**

#### FEATURES

- Anti corrosion mastic for sealing, filling and caulking where protective waterproof insulation is required
- Suitable for application in a wide range of climatic conditions

Part number	Size
DENSO MASTIC	3kg



**Anti-corrosion mastic** 

## **Denso Tape**

- Anti-corrosion and sealing tape
- Suitable for application in a wide range of climatic conditions

Part number	Size
DENSO TAPE 50	50mm x 10m
DENSO TAPE 75	75mm x 10m
DENSO TAPE 100	100mm x 10m



**Anti-corrosion tape** 







**Insulating Compounds** 



#### **Cold Pour Insulating Compound**



#### **FEATURES**

- Guroflex is a two-component cold pour insulating compound used to insulate between phase to phase and phase to earth.
- Tested to international performance standards for applications up to 36kV
- Cures to a soft solid
- Unaffected by water and traditional oil-based insulating compounds

#### **Guroflex**

Part number	Size	Part number	Size
GUROFLEX-MV-C530	5.3 litres	GUROFLEX-MV-C1000	10 litres

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#### **Hot Pour Insulating Compound**



**G101-123** Compound

#### **FEATURES**

- Designed as a hot pour insulating compound for applications up to and including 11kV
- Available from stock in 10kg metal tins
- U.K Power Networks approved

Part number	Size
G101-123	10kg



#### **Hot Pour Insulating Compound**



G38A Oil Insulation Compound

- Designed to insulate PILC cables terminated into a box up to 33kV
- Reduces the space needed between phases and earth
- G38A compound will tend to contract by approximately 6% on cooling, as a result there will be a need for topping up
- The high voltage electrical equipment may be energised when the compound temperature falls below 60°C
- Supplied in 25 litre metal tins

Part number	Size
G38A	25 litres







# Earthing Design Service



# **Earthing & Lightning Protection**

## Contents



## Earthing & Lightning Protection Conductors



#### **Bare Copper Tape**

#### FEATURES

- Designed for use as conductor in earthing and lightning protection systems
- Conductor size determined by application and expected fault current
- Other sizes available on request
- High conductivity copper tape to BS EN 13601 (formerly BS 1432)
- UL 96 (TC030-UL, TC040-UL, TC080)
- Other coil sizes available
- Stamped tape available on request, e.g. 'National Grid'



Part number Size		Weight per metre	Coil Size	
TC030	25x3mm	0.67kg	25m	
TC040	25x6mm	1.33kg	40m	
TC065	38x6mm	2.02kg	25m	

Part number Size		Weight per metre	Coil Size
TC066	40x4mm	1.42kg	30m
TC075	50x4mm	1.78kg	30m
TC080	50x6mm	2.68kg	20m

#### **PVC Covered Copper Tape**

#### **FEATURES**

- Designed for use as conductor in earthing and lightning protection systems
- Conductor size determined by application and expected fault current
- Available in six colours
- High conductivity copper tape to BS EN 13601 (formerly BS 1432)
- PVC colours to BS 5252. \* Green to BS 6746C



Part number	Colour	Size	Weight per metre	Coil Size
TC105-FU	Black	25x3mm	0.77kg	25m
TC110	Green	25x3mm	0.77kg	25m
TC115-FU	Grey	25x3mm	0.77kg	25m
TC120-FU	Stone	25x3mm	0.77kg	25m

Part number	Colour	Size	Weight per metre	Coil Size
TC125-FU	White	25x3mm	0.77kg	25m
TC130	Brown	25x3mm	0.77kg	25m
TC140-FU	Green	25x6mm	1.53kg	40m
TC145	Green	50x6mm	2.95kg	20m

#### **Green & Yellow PVC Insulated Copper Tape**

- Designed for use as conductor in earthing and lightning protection systems
- Conductor size determined by application and expected fault current
- High conductivity copper tape to BS EN 13601 (formerly BS 1432)
- PVC colours to BS 5252.



Part number	Colour	Size	Weight per metre	Coil Size
TC111-FU	Green & Yellow	25x3mm	0.79kg	25m







## **Conductors** Earthing & Lightning Protection

#### **LSOH Covered Copper Tape**



#### FEATURES

- Designed for use as conductor in earthing and lightning protection systems
- Conductor size determined by application and expected fault current.
- PVC sheath manufactured from LSOH material
- High conductivity copper tape to BS EN 13601 (formerly BS 1432)
- PVC colours to BS 6746C

Part number	Colour	Size	Weight per metre	Coil Size
TC910	Green	25x3mm	0.77kg	25m
TC940	Green	25x6mm	1.53kg	40m

Part number	Colour	Size	Weight per metre	Coil Size
TC980	Green	50x6mm	2.95kg	20m
TC980	Green	50x6mm	2.95kg	20m



#### **Bare Aluminium Tape**



#### **FEATURES**

- Designed for use as conductor above ground in lightning protection systems.
- High conductivity bare aluminium tape
- Aluminium tape to BS 2898-1350

Part number Size		Weight per metre	Coil Size	
TA030	25x3mm	0.21kg	50m	
TA040	25x6mm	0.42kg	50m	

Part number	Size	Weight per metre	Coil Size
TA068	40x6mm	0.67kg	50m
TA080	50x6mm	0.85kg	50m



#### **PVC Covered Aluminium Tape**



- Designed for use as conductor above ground in lightning protection systems.
- High conductivity aluminium tape
- Available in six colours
- Aluminium tape to BS 2898-1350
- PVC colours to BS 5252. \* Green to BS 6746C

Part number	Colour	Size	Weight per metre
TA105	Black	25x3mm	0.30kg
TA110	Green	25x3mm	0.30kg
TA115	Grey	25x3mm	0.30kg

Part number	Colour	Size	Weight per metre
TA120	Stone	25x3mm	0.30kg
TA125	White	25x3mm	0.30kg
TA130	Brown	25x3mm	0.30kg





## Earthing & Lightning Protection Conductors



#### Hard Drawn Copper Bar

#### FEATURES

- Designed for use in high voltage distribution and control applications including switchgear, transformers, control panels and panel boards.
- Available bare or with tinned coating
- Other sizes available on request
- Hard drawn high conductivity copper bar to BS EN 12163



Part number	Copper	Size	Weight per metre	Length
BA205	Bare	25x3mm	0.67kg	3m
BA210	Bare	25x6mm	1.33kg	4m
BA225	Bare	38x6mm	2.03kg	4m
BA226	Bare	40x3mm	1.07kg	4m

Part number	Copper	Size	Weight per metre	Length
BA227	Bare	40x4mm	1.43kg	4m
BA230	Bare	50x6mm	2.67kg	3m
BA231	Tinned	50x6mm	2.67kg	3m

#### Hard Drawn Aluminium Bar



#### **FEATURES**

- Designed for use above ground in high voltage distribution and controol applications including switchgear, control panels and panel boards.
- High conductivity hard drawn bar.
- Other sizes available on request
- Aluminium bar



Part number	Copper	Size	Weight per metre	Length
AL406	Bare	40x6mm	ТВС	4m

Part number	Copper	Size	Weight per metre	Length
AL506	Bare	50x6mm	TBC	1m

#### Flat Tinned Copper Braid



- Electro Tin plated for extra corrosion resistance
- Other sizes available on request
- High conductivity copper wire to BS 4109-C101



Part number	Size	Weight per metre	Copper
E16mm <sup>2</sup> BRAID	16mm²	0.16kg	Tinned
E25mm <sup>2</sup> BRAID	25mm²	0.25kg	Tinned
E35mm <sup>2</sup> BRAID	35mm	0.34kg	Tinned

Part number	Size	Weight per metre	Copper
E50mm <sup>2</sup> BRAID	50mm²	0.49kg	Tinned
E70mm <sup>2</sup> BRAID	70mm²	0.63kg	Tinned
E120mm <sup>2</sup> BRAID	120mm²	1.15kg	Tinned







## **Conductors** Earthing & Lightning Protection



#### **PVC Covered Stranded Copper Cable**



#### **FEATURES**

- Designed for use as conductor in electrical, earthing and lightning protection systems
- Green and Yellow sheath to identify as earth cable
- High conductivity PVC covered soft drawn stranded copper cable to BS 6004
- PVC colours to BS 6746C

Part number	Colour	Cross-sectional size	Weight per metre
CC016	Green & Yellow	16mm²	0.19kg
CC025	Green & Yellow	25mm²	0.29kg
CC035	Green & Yellow	35mm²	0.41kg
CC050	Green & Yellow	50mm²	0.53kg
CC070	Green & Yellow	70mm²	0.73kg

Part number	Colour	Cross-sectional size	Weight per metre
CC095	Green & Yellow	95mm²	1.00kg
CC120-FU	Green & Yellow	120mm²	1.16kg
CC240	Green & Yellow	240mm²	2.49kg
CC400-FU	Green & Yellow	400mm²	3.90kg



#### **Bare Stranded Copper Cable**



#### **FEATURES**

- Designed for use as conductor in electrical, earthing and lightning protection systems
- High conductivity stranded copper cable
- Other sizes available on request
- Soft drawn stranded copper cable to BS EN 60228

Part number	Cross-sectional size	Weight per metre
CB016	16mm²	0.15kg
CB025	25mm²	0.23kg
CB035	35mm²	0.32kg
CB050-FU	50mm²	0.43kg
СВ070	70mm²	0.62kg

Part number	Cross-sectional size Weight per metr	
CB095	95mm²	0.86kg
CB120	120mm²	1.09kg
CB240	240mm²	2.20kg
CB400-FU	400mm²	3.53kg



#### **Hard Drawn Copper Cable**



- Designed for use as conductor in electrical, earthing and lightning protection
- High conductivity stranded hard drawn cable
- Other sizes available on request

Part number	Cross-sectional size	Weight per metre
ECHD50	50mm²	0.53kg
ECHD70	70mm²	0.73kg
ECHD95	95mm²	1.00kg

ECHD125 125mm <sup>2</sup> 1.25kg	Part number	Cross-sectional size	Weight per metre
	ECHD125	125mm²	1.25kg
<b>ECHD185</b> 185mm² 2.01kg	ECHD185	185mm²	2.01kg





## Earthing & Lightning Protection Conductor Fixings



#### **Metallic DC Tape Clips**

#### FEATURES

- Designed to fix down conductors to a building or structure
- DC tape clips manufactured from high quality copper alloy
- Excellent corrosion resistance and high pull off loads
- Tested to BS EN 50164
- UL 96 (CP210-H, CP220-H)



Part number	Material	Size	Weight each
СР210-Н	Copper	25x3mm	0.07kg
СР220-Н	Copper	25x6mm	0.08kg

Part number	Material	Size	Weight each
СР110-Н	Aluminium	25x3mm	0.03kg
СР120-Н	Aluminium	25x6mm	0.04kg

#### **Adjustable Metallic DC Tape Clips**

#### FEATURES

- Designed to be range taking and fix conductors to a building or structure
- DC tape clips manufactured from high quality copper alloy
- Excellent corrosion resistance and high pull off loads
- Tested to BS EN 50164
- UL 96 (CP260-H)



Part number	Material	Size	Weight each
СР240-Н	Copper	38x3mm - 40x6mm	0.12kg

Part number	Material	Size	Weight each
СР260-Н	Copper	50x3mm - 50x6mm	0.16kg

## Non-Metallic DC Tape Clips

- Designed to fix conductors to a building or structure.
- Manufactured from high grade polypropylene
- UV stabilised and non brittle with high pull off loads.
- Available in 7 colours to match bare & pvc covered copper and aluminium tapes
- Tested to BS EN 50164



Part number	Use With	Colour	Size	Weight each
CP015	Bare Tape	Brown	25x3mm	0.01kg
CP020	Bare Tape	Grey	25x3mm	0.01kg
CP065	Bare Tape	Brown	50x6mm	0.02kg
CP025	PVC Covered Tape	Brown	25x3mm	0.01kg
CP030	PVC Covered Tape	Black	25x3mm	0.01kg

Part number	Use With	Colour	Size	Weight each
CP035	PVC Covered Tape	Green	25x3mm	0.01kg
CP040	PVC Covered Tape	Grey	25x3mm	0.01kg
CP045	PVC Covered Tape	Stone	25x3mm	0.01kg
CP050	PVC Covered Tape	White	25x3mm	0.01kg







## **Conductor Fixings** Earthing & Lightning Protection



#### **Crossover Clamps**



#### **FEATURES**

- Designed for forming cross joints in tapes fixed to a building or structure
- Screws are retained in 1 part of clamp with O rings when fitting conductor to prevent screws being lost and ensure a simple installation
- Manufactured from high quality copper alloy
- Low resistance connection between overlapping tapes
- Available in copper or aluminium
- BS EN 50164-1 Class H

Part	t number	Material	Size	Weight each
CX1	.05-H	Copper	25x3mm	0.09kg

Part number	Material	Size	Weight each
СХ005-Н	Aluminium	25x3mm	0.03kg



#### **Square Tape Clamps**



#### **FEATURES**

- Designed for forming cross, tee, through and right angle joints with tapes that are fixed to a building or structure
- Screws are retained in one part of clamp with O rings when fitting conductor to prevent screws being lost and ensure a simple installation
- Manufactured from high quality copper alloy
- Low resistance connection between overlapping tapes
- Available in copper or aluminium
- BS EN 50164-1 Class H
- UL 96 (CT105H, CT110-H, CT115-H)

Part number	Material	Size	Weight each
СТ105-Н	Copper	25x3mm	0.12kg
СТ110-Н	Copper	25x6mm	0.30kg

Part number	Material	Size	Weight each
СТ115-Н	Copper	50x6mm	0.60kg
СТ005-Н	Aluminium	25x3mm	0.06kg



#### **Oblong Test Clamps**



- Designed to connect lightning protection to earthing system & facilitate periodic testing
- Manufactured from high quality copper alloy
- Low resistance connection between overlapping tapes
- Available in copper or aluminium
- BS EN 50164-1 Class H
- UL 96 (CN105-H)

Part number	Material	Size	Weight each
CN105-H	Copper	25x3mm	0.29kg

Part number	Material	Size	Weight each
CN005	Aluminium	25x3mm	0.12kg





## Earthing & Lightning Protection Bonding



#### **'B' Bonds**

#### FEATURES

- Designed to facilitate bonding to steel structures onto a lightning protection system
- Manufactured from high quality copper alloy
- Available in copper or aluminium
- BS EN 50164-1 Class H, BS 7430



Part number	Material	Max Tape Width	Weight each	Part number	Material	Max Tape Width	Weight each
BN105	Copper	26mm	0.12kg	BN005	Aluminium	26mm	0.06kg

#### **RWP Bonds**

#### FEATURES

- Designed to facilitate bonding of rainwater pipes and handrails onto lightning protection system
- Manufactured from high quality copper alloy
- Available in copper or aluminium
- BS 7430



Part number	Material	Max Tape Width	Weight each	Part number	Material	Max Tape Width	Weight each
BN115	Copper	26mm	0.12kg	BN010	Aluminium	26mm	0.07kg

#### **Pipe Bonds**

#### FEATURES

- Designed to facilitate bonding of ducts and large diameter pipes onto lightning protection system
- Manufactured from high quality copper alloy
- Available in copper or aluminium
- BS EN 50164-1 Class H, BS 7430



Part number	Material	Weight each	Part number	Material	Weight each
BN175	Copper	0.46kg	BN176	Aluminium	0.25kg

#### **Braid Bonds**

- Designed to facilitate the bonding of gates, doors & fences to lightning protection system
- Manufactured from high quality copper braids
- Other sizes available on request
- BS 7430

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Part number	Hole Centres	Weight each
BN505	200mm	0.09kg

Part number	Hole Centres	Weight each
BN510	400mm	0.15kg







## **Earthing Earthing & Lightning Protection**



#### **Copperbond Earth Rods**



#### **FEATURES**

- Designed to be driven into the ground to provide a low resistance to earth for the interconnected lightning protection system
- Manufactured by molecularly bonding 99.9% copper on to a low carbon steel core
- Copper thickness minimum 250 microns
- BS EN 50164-2, BS 7430

Part number	Material	Size	Weight each
RB205-FU	Copperbond	%" x 1200mm	1.53kg
RB210	Copperbond	%" x 1500mm	1.88kg
RB215	Copperbond	%" x 1800mm	2.29kg
RB220-FU	Copperbond	%" x 2100mm	2.51kg
RB225	Copperbond	%" x 2400mm	3.00kg
RB235	Copperbond	%" x 3000mm	3.79kg

Part number	Material	Size	Weight each
RB305	Copperbond	¾" x 1200mm	2.19kg
RB310	Copperbond	¾" x 1500mm	3.27kg
RB320-FU	Copperbond	¾" x 2100mm	3.83kg
RB325	Copperbond	¾" x 2400mm	4.35kg
RB335	Copperbond	¾" x 3000mm	5.44kg



#### Coupling



#### **FEATURES**

- Designed to interconnect earth rods to enable earth rod assembly to be driven deeper to lower resistance
- Manufactured from high copper content alloy
- Excellent resistance to corrosion
- BS EN 50164-1

Part number	Material	Size	Weight each
CG270	Copper	5/8"	0.08kg

Part number	Material	Size	Weight each
CG370	Copper	3/4"	0.13kg



#### **Driving Stud**



- Designed to be used in conjunction with a coupling to drive the earth rod into the ground and avoid damaging the threads of the rod
- Manufactured from carbon steel
- BS EN 50164-1

Part number	Material	Size	Weight each
DST200	Steel	5/8"	0.08kg

Part number	Material	Size	Weight each
DST300	Steel	3/4"	0.12kg





## Earthing & Lightning Protection Earthing



#### **Solid Copper Earth Rods**

#### FEATURES

- Designed to be driven into the ground to provide a low resistance to earth for the interconnected lightning protection system
- Solid copper rods offer a greater resistance to corrosion
- Ideal for soil with a high salt content



#### **Coupling Dowel**

#### FEATURES

- Designed to interconnect earth rods to enable earth rod assembly to be driven deeper to lower resistance
- Ideal for soil with high salt content.

Part number	Material	Size	Weight each
CG013	Copper	15/20mm	0.02kg



#### **Driving Stud**

#### **FEATURES**

- Designed to be used in conjunction with a coupling to drive the earth rod into the ground and avoid damaging the threads of the rods
- Manufactured from hardened steel



		Size	Weight each	Part number	Material	Size	Weight each
ST010 Hard	dened steel	15mm	0.02kg	ST015	Hardened steel	20mm	0.05kg

#### **Over Spike**

- Designed to aid the rod to be driven into the ground using a sharp spike
- Manufactured from hardened steel



Part number	Material	Size	Weight each	Part number	Material	Size	Weight each
SP010	Hardened steel	15mm	0.02kg	SP015	Hardened steel	20mm	0.05kg







## **Earthing Earthing & Lightning Protection**



#### **Earth Plates - Lattice & Solid Copper**



#### **FEATURES**

- Designed to be buried in the ground to provide a low resistance to earth for the interconnected lightning protection system
- Manufactured from high conductivity copper
- Available in either solid or lattice copper
- Lattice to BS EN 13601
- Solid copper to BS EN 12163

Part number	Description	Size	Weight each
PE110	Lattice	600 x 600 x 3mm	3.98kg
PE120	Lattice	900 x 900 x 3mm	7.20kg

Part number	Description	Size	Weight each
PE010	Solid Copper	600 x 600 x 3mm	9.74kg
PE020	Solid copper	900 x 900 x 3mm	21.74kg



#### **Marconite**



#### **FEATURES**

- Designed to be added in place of sand and aggregate to cement to provide a conductive aggregate which lowers the resistance to earth.
- When used as a backfill for earth electrodes marconite impregnated concrete greatly increases the electrode's surface area.
- Ideal for poor ground conditions where low resistances are problematical
- A permanent solution that doesn't dry out like moisture retaining clay in inclement weather conditions
- Available in powder and granules
- Please contact Jointing Tech to calculate quantity of materials required using Backfill software

Part number	Туре	Weight
MARCONITE	Powder	25kg

Part number	Туре	Weight
MARCONITE-PM	Granules	25kg



#### **Bentonite**



- Designed to be mixed with water to produce a moisture retaining clay which lowers the resistance to earth
- The clay is a sodium activated montmorillonite which when mixed with water swells to many times its dry volume
- Bentonite has the ability to hold moisture content for a considerable period of time and absorb moisture from the surrounding area
- Ideal for poor ground conditions where low resistances are problematical
- Available in powder and granules
- Contact your nearest sales office and using the Furse Backfill software we will advise on the quantity required for each installation

Part number	Туре	Weight each
CM015	Powder	25kg

Part number	Туре	Weight each
CM015-PM	Granules	25kg





## Earthing & Lightning Protection Earth Rod Clamps



#### Rod to Tape Clamp (Type A)

#### FEATURES

- Designed to connect earth rod to copper tape to complete earth rod assembly
- Manufactured from high quality copper alloy
- Phosphor bronze fitting
- BS EN 50164-1 (Class H)
- BS 7430
- UL 467 (CR105)



Part number	Rod Diameter	Conductor Size	Weight each
CR105	5/8"	26 x 12mm	0.15kg
CR105	3/4"	26 x 10mm	0.15kg

Part number	Rod Diameter	Conductor Size	Weight each
CR115	5/8"	51 x 8mm	0.30kg
CR125	3/4"	51 x 12mm	0.30kg

## Rod to Cable Clamp (Type G)

#### **FEATURES**

- Designed to connect earth rod to copper cable to complete earth rod assembly
- Manufactured from high quality copper alloy
- Phosphor bronze fitting
- BS EN 50164-1 (Class H)
- BS 7430



Part number	Rod Diameter	Conductor Size	Weight each
CR515	5/8"	16-70mm²	0.06kg

Part number	<b>Rod Diameter</b>	Conductor Size	Weight each
CR520	3/4"	35-95mm²	0.06kg

## Rod to Cable Lug Clamp (Type B)

- Designed to connect earth rod to copper cable via lug to complete earth rod assembly.
- Manufactured from high quality copper & aluminium alloys
- Phosphor bronze fitting
- BS 7430



Part number	Rod Diameter	Stud	Weight each
CR205	3/8"	M8	0.09kg
CR215	5/8"	M10	0.30kg

Part number	Rod Diameter	Stud	Weight each
CR225 3/4"		M10	0.30kg







## Earth Rod Clamps Earthing & Lightning Protection



#### 'U' Bolt Rod Clamp (Type E)



#### **FEATURES**

- Designed to facilitate the connection of rod or rebar to copper cable with a lug
- Manufactured from high quality copper alloy
- Phosphor bronze fittings
- BS 7430
- UL 467 (CR305)

Part number	Rod Diameter	Hole Centres	Weight each
CR305	5/8"	37mm	0.20kg

Part number	Rod Diameter	Hole Centres	Weight each
CR310	3/4"	37mm	0.20kg



#### 'U' Bolt Rod Clamp (Type E) - CR320



#### **FEATURES**

- Designed to facilitate the connection of rod or rebar to copper tape
- Includes additional back plate to allow the tape to be clamped without drilling
- Manufactured from high quality copper alloy
- Phosphor bronze fittings
- BS 7430

Part number	Rod Diameter	Conductor Width	Hole Centres	Weight each
CR320	<sup>5</sup> /8"	25mm	37mm	0.26kg



## Rod to Cable Clamp (Type GUV)



- Designed to facilitate the connection of rod or rebar to larger sizes of copper cable
- Manufactured from high quality copper alloy.
- Phosphor bronze fittings
- BS EN 50164-1 Class H, BS 7430
- UL 467

Part number	Rod Diameter	Conductor Range	Hole Centres	Weight each
CR700	5/8"	16-95mm²	37mm	0.39kg
CR705	5/8"	70-185mm²	37mm	0.39kg
CR730	5/8"	150-300mm²	37mm	0.62kg

Part number	Rod Diameter	Conductor Range	Hole Centres	Weight each
CR700	3/4"	16-70mm²	37mm	0.39kg
CR705	3/4"	70-150mm²	37mm	0.39kg
CR730	3/4"	150-300mm²	37mm	0.62kg





## **Earthing & Lightning Protection**

Earth Inspection Pits & Accessories



#### **Concrete Inspection Pit**

#### FEATURES

- Designed to provide access to the earth rod assembly for periodic testing
- The concrete inspection pit is load rated to 3,500kg
- Not suitable in areas where high load small wheel vehicles are used
- Available with integral earth bars (see below)

Part number	Description	Material	Weight each
PT005	Concrete Inspection Pit	Concrete	30kg



#### **Lightweight Inspection Pit**

#### FEATURES

- Designed to provide access to the earth rod assembly for periodic testing
- Suitable for most types of earthing & lightning protection installations
- Manufactured from high performance polymer, UV stable & chemically resistant
- The lightweight inspection pit is load rated to 5,000kg
- The lightweight earth pit has a lockable lid
- Available with integral earth bar (see below)

Part number	Description	Material	Weight each
PT205	Lightweight Inspection Pit	Polymer	1.80kg



#### **Inspection Pit Earth Bars**

#### FEATURES

- Designed to fit inside inspection pits to facilitate multiple terminations
- Pre-drilled high conductivity copper bar

Part number	Inspection Pit	Description	Material	Weight each
PT004	Lightweight	5 Hole Earth Bar	Copper	0.40kg
PT006	Concrete	5 Hole Earth Bar	Copper	0.40kg
PT007	Concrete	7 Hole Earth Bar	Copper	0.58kg



#### **Silfos**

- Self fluxing brazing compound used to make a permanent connection when joining copper conductors
- Used in substation earthing where space is restricted
- An alternative to tape to tape connections and exothermic welding

Part number	Size	Weight	Coil Size
FS005	50 x 12mm	0.50kg	8m









## **Earth bars** Earthing & Lightning Protection



**Earth Bars** 



#### **FEATURES**

- Earth Bars are an efficient and convenient way of providing a common earth point with integral disconnecting links which facilitate easy isolation for testing purposes
- Manufactured out of high conductivity 50x6mm HD copper bar
- The PVC channel base is entirely corrosion proof made with high impact uPVC unlike the traditional galvanised steel channel
- Lighter and easier to handle the use of a modern polymer channel has reduced the weight of the product making it easier to handle
- M10 phosphor bronze stud assemblies
- Pre-drilled holes for ease of installation
- A range of four designs to meet most installation requirements
- Custom made earth bar service available



#### **Standard Earth Bar**



#### **FEATURES**

A standard earth bar to facilitate multiple connections to earth

Part number	No. of Ways	Stud	Size	Weight each
LK245-4	4	M10	300 x 90 x 90mm	1.4kg
LK245-6	6	M10	400 x 90 x 90mm	1.80kg
LK245-8	8	M10	500 x 90 x 90mm	2.20kg
LK245-10	10	M10	650 x 90 x 90mm	2.80kg
LK245-12	12	M10	750 x 90 x 90mm	3.20kg

Part number	No. of Ways	Stud	Size	Weight each
LK245-16	16	M10	950 x 90 x 90mm	4.00kg
LK245-20	20	M10	1200 x 90 x 90mm	5.00kg
LK245-24	24	M10	1400 x 90 x 90mm	5.80kg
LK245-28	28	M10	1650 x 90 x 90mm	6.90kg



#### **Earth Bar with Single Disconnecting Link**



#### **FEATURES**

 An earth bar with single disconnecting link to facilitate multiple connections to earth with the option of isolating for testing purposes

Part number	No. of Ways	Stud	Size	Weight each
LK243-4	4	M10	375 x 90 x 96mm	1.9kg
LK243-6	6	M10	475 x 90 x 96mm	2.30kg
LK243-8	8	M10	575 x 90 x 96mm	2.70kg
LK243-10	10	M10	725 x 90 x 96mm	3.30kg
LK243-12	12	M10	825 x 90 x 96mm	3.70kg

Part number	No. of Ways	Stud	Size	Weight each
LK243-16	16	M10	1025 x 90 x 96mm	4.50kg
LK243-20	20	M10	1275 x 90 x 96mm	5.50kg
LK243-24	24	M10	1475 x 90 x 90mm	6.30kg
LK243-28	28	M10	1725 x 90 x 90mm	7.40kg





## **Earthing & Lightning Protection**

Earth Bars & Accessories



#### Earth Bar with Twin Disconnecting Link

#### **FEATURES**

 An earth bar with twin disconnecting links to facilitate multiple connections to earth with the option of isolating from either side of the earth bar for testing purposes



Part number	No. of Ways	Stud	Size mm	Weight each
LK207-6	6	M10	550 x 90 x 96mm	2.80kg
LK207-8	8	M10	650 x 90 x 96mm	3.20kg
LK207-10	10	M10	800 x 90 x 96mm	3.80kg
LK207-12	12	M10	900 x 90 x 96mm	4.20kg

Part number	No. of Ways	Stud	Size mm	Weight each
LK207-16	16	M10	1100 x 90 x 96mm	5.00kg
LK207-20	20	M10	1350 x 90 x 96mm	5.50kg
LK207-24	24	M10	1550 x 90 x 90mm	6.80kg
LK207-28	28	M10	1800 x 90 x 90mm	7.90kg

#### **Disconnecting Link**

#### FEATURES

■ A disconnecting link to enable easy isolation for testing purposes

Part number	Description	Size mm	Weight each
LK205	Disconnecting Link	125 x 90 x 90	5.90kg



#### Swan Neck Accessory

#### FEATURES

- Designed to facilitate an easy connection from the main earth bar to the earth ring without the need to bend the copper
- Manufactured from hard drawn copper bar

<b>LK004</b> Swan Neck 400 x 50 x 36 0.42kg	Part number	Description	Size mm	Weight each
	LK004	Swan Neck	400 x 50 x 36	0.42kg



#### **Insulator**

- High quality zero halogen stand off insulator
- Manufactured from DMC with brass inserts

Part number	Description	Thread size mm	Weight each
IN005	Insulator with Stud Assembly	M10	0.22kg



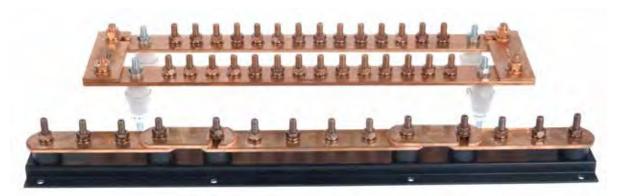




## **Earth Bars** Earthing & Lightning Protection

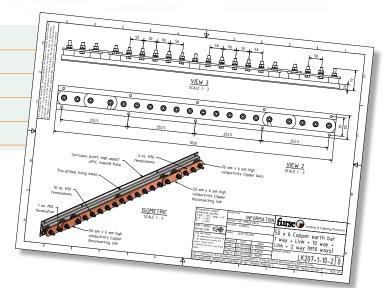


**Custom Made Earth Bars** 





- **Competitive Pricing**
- Quick Delivery Service on ALL orders.
- High quality product
- Technical Backup (Design & Installation)
- Product datasheets available on request



# a) No of Earth Connections Required b) Hole Centres mm (e.g. 50mm) c) Size of Hard Drawn Bar (e.g. 50x6mm) d) Type of Fittings (e.g. phosphor bronze) e) Size of Fittings (e.g. M10) f) Type of Base (e.g. PVC)





PLEASE CONTACT YOUR NEAREST SALES OFFICE FOR MORE INFORMATION

## **Earthing & Lightning Protection**

**Exothermic Welding** 



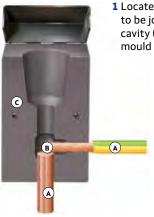
#### **The FurseWELD Process**

#### FEATURES

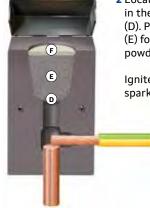
- Furseweld exothermic welding is a cost efficient method of making a large or small number of high quality electrical connections
- A simple self contained system that uses the high temperature reaction of powdered copper oxide and aluminium within a mould to form permanent electrical connections
- Typical applications include Earthing for power plants & substations, transmission and power distribution lines, cathodic protection and rail connections
- Requires no external power or heat source
- Is completely portable
- Can be used safely with minimum training



#### Making a FurseWELD joint is a simple procedure as illustrated below:

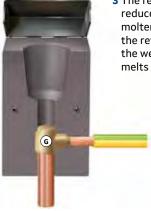


1 Locate the conductors (A) to be joined in the weld cavity (B) and close the mould (C).



2 Locate the steel retaining disc in the base of the crucible(D). Pour in the weld powder(E) followed by the starting powder (F).

Ignite starting powder with a spark gun.



3 The resulting exothermic reaction reduces the weld powder to molten copper alloy which melts the retaining disc and flows into the weld cavity where it partially melts the conductors (G).

4 The molten copper alloy cools to leave a fusion weld of great mechanical and electrical integrity.









# **Earthing & Lightning Protection**

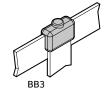
**Exothermic Welding** 

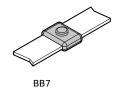


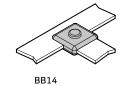
#### **Connection Selector**

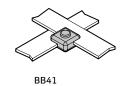
## Bar to bar





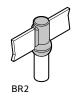


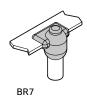




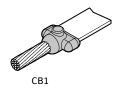
## Bar to earth rod

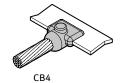


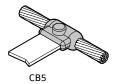




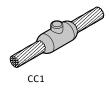
#### Cable to bar

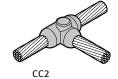


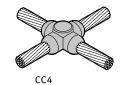


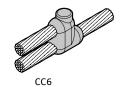


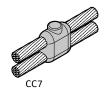
## Cable to cable







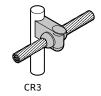




## Cable to earth rod













## Earthing & Lightning Protection Security Products



#### **Anti-Vandal Guard**

#### **FEATURES**

- Anti-Vandal tape guards provide protection from accidental damage, vandalism and theft from flat tapes up to 50mm wide
- Easy to secure using security pins into concrete structures
- Low Profile with galvanised finish offers a long lasting resistance to corrosion



Part number	Width	Length
AVS025-1100	25mm	1.1m
AVS040-1100	40mm	1.1m

Part number	Width	Length
AVS050-1100	50mm	1.1m

#### **Anti-Vandal Guards - Section**

#### **FEATURES**

- Anti-Vandal tape guards provide protection from accidental damage, vandalism and theft from flat tapes up to 50mm wide
- Easy to secure
- Low Profile with galvanised finish offers a long lasting resistance to corrosion



Part number	Width	Length
AVS025-300	25mm	300m
AVS040-300	40mm	300m

Part number	Width	Length
AVS050-300	50mm	300m

#### **Anti Vandal Guards - Section**

#### **FEATURES**

- Anti Vandal tape guards provide protection from accidental damage, vandalism and theft from flat tapes upto 50mm wide
- Easy to secure using security pins into concrete structures
- Low Profile with galvanised finish offers a long lasting resistance to corrosion



Part number	Width
AVL025	25mm
AVL040	40mm

Part number	Width
AVL050	50mm
AVLUSU	SUIIIII

#### Anti-Vandal Guards - 3 Way Cover

- Anti-Vandal tape guards provide protection from accidental damage, vandalism and theft from flat tapes upto 50mm wide
- Easy to secure using security pins into concrete structures
- Low Profile with galvanised finish offers a long lasting resistance to corrosion



Part number	Width
AVT025	25mm
AVT040	40mm

Part number	Width
AVT050	50mm
	·







## **Security Products** Earthing & Lightning Protection



#### **Anti-Vandal Guards - 4 Way Cover**



#### **FEATURES**

- Anti-Vandal tape guards provide protection from accidental damage, vandalism and theft from flat tapes upto 50mm wide
- Easy to secure using security pins into concrete structures
- Low Profile with galvanised finish offers a long lasting resistance to corrosion

Part number	Width
AVX025	25mm
AVX040	40mm

Part number	Width
AVTX050	50mm



#### **Anti-Climb Paint**



#### **FEATURES**

- Anti-Climb paint is used to prevent climbing on objects such as lamp posts, walls and fences using a non-drying oil that keeps the surface greasy and slippery
- It leaves its mark on the person touching it and hence makes it possible for intruders to be identified
- Can be used in hot and cold weather conditions

Part number	Volume
ATPAINT	0.51



#### **Camouflage Paint**



#### FEATURES

Camouflage paint is used to disguise copper as aluminium to deter theft

Part number	Volume
CAMPAINT	51







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## Tapes, Aerosols and Accessories PVC Insulation Tapes



#### Scapa 2702 PVC Tape

#### FEATURES

- Good resistance to abrasion, Corrosion and moisture
- High dielectric strength and good mechanical protection
- Conforms to BS3924

Part Number	Material	Colour	Size	Coil size
2702 BLACK	PVC	Black	19mm x 0.13mm	33m
2702 BLUE	PVC	Blue	19mm x 0.13mm	33m
2702 BROWN	PVC	Brown	19mm x 0.13mm	33m
2702 GREY	PVC	Grey	19mm x 0.13mm	33m
2702 GREEN/YELLOW	PVC	Green/Yellow	19mm x 0.13mm	33m
2702 RED	PVC	Red	19mm x 0.13mm	33m
2702 YELLOW	PVC	Yellow	19mm x 0.13mm	33m
2702 WHITE	PVC	White	19mm x 0.13mm	33m



**Self-extinguishing** plasticised PVC tape

#### Scotch 35 Tape

#### FEATURES

- Designed for use in phase identification and general purpose cable insulation
- Abrasion and weather resistant
- Joint, Termination and Connectors insulation up to 600V
- Resistant to moisture, alkalis, acids, U.V and corrosion
- Available in a range of fade resistant colours, see below
- Conforms to BS 3924 and UL 510
- Temperature rating 80°C



High quality colour coding **PVC** tape

Part Number	Material	Colour	Size	Coil size
SCOTCH35BR	PVC	Brown	19mm x 0.178mm	20m
SCOTCH35GR	PVC	Grey	19mm x 0.178mm	20m
SCOTCH35OR	PVC	Orange	19mm x 0.178mm	20m
SCOTCH35RE	PVC	Red	19mm x 0.178mm	20m

SCOTCH35VI         PVC         Blue         19mm x 0.178mm         20m           SCOTCH35WH         PVC         White         19mm x 0.178mm         20m           SCOTCH35YE         PVC         Yellow         19mm x 0.178mm         20m	Part Number	Material	Colour	Size	Coil size
	SCOTCH35VI	PVC	Blue	19mm x 0.178mm	20m
<b>SCOTCH35YE</b> PVC Yellow 19mm x 0.178mm 20m	SCOTCH35WH	PVC	White	19mm x 0.178mm	20m
	SCOTCH35YE	PVC	Yellow	19mm x 0.178mm	20m

#### Scotch 33 Tape

#### FEATURES

- Indoor/Outdoor insulations and for general purpose wiring applications and cable joints up to 600V
- Provides protective jacketeting for High Voltage cable joints and repairs
- Flame retardant with excellent resistance to abrasion, moisture, alkalis, acid and copper corrosion
- Other sizes available on request
- Conforms to BS 3924 and UL 510
- Temperature rating 80°C



### **General purpose PVC** insulating tape

Part Number	Material	Colour	Size	Coil size
SCOTCH33-19	PVC	Black	19mm x 0.178mm	33m
SCOTCH33-25	PVC	Black	25mm x 0.178mm	33m

Part Number	Material	Colour	Size	Coil size
SCOTCH33-38	PVC	Black	38mm x 0.178mm	33m







## PVC Insulation Tapes Tapes, Aerosols and Accessories



#### **Scotch Super 33+ Tape**



Premium grade all weather PVC insulating tape

#### **FEATURES**

- Designed for primary electrical insulation for cable splices and busbar applications
- All weather tape suitable for cold weather applications
- Flame retardant and highly conformable
- Excellent resistance to abrasion, moisture, alkalis, acid, copper corrosion.
- Provides protective jacketing for HV cable splices and repairs (up to 600V)
- Conforms to BS 3924 and UL 510
- Temperature rating 18°C to105°C

Part Number	Material	Colour	Size	Coil size
SCOTCH33+	PVC	Black	19mm x 0.178mm	20m



#### **Scotch Super 88 Tape**



Premium grade heavy duty all weather PVC tape

#### **FEATURES**

- Designed for primary electrical insulation for cable splices and busbar applications
- Excellent abrasion and puncture resistance
- All weather tape suitable for cold weather applications
- Flame retardant and highly conformable
- Excellent resistance to moisture, alkalis, acid, copper corrosion
- Provides protective jacketing for HV cable splices and repairs (up to 600V)
- Conforms to BS 3924 and UL 510
- Temperature rating –18°C to +105°C

Part Number	Material	Colour	Size	Coil size
SCOTCH88-19	PVC	Black	19mm x 0.216mm	20m
SCOTCH88-25	PVC	Black	25mm x 0.216mm	33m
SCOTCH88-38	PVC	Black	38mm x 0.216mm	33m



#### Scotch 22 Tape



Extra heavy duty PVC tape

- Designed for heavy duty applications, harnessing, cable sheath repair and sealing connectors
- High elastic memory, excellent abrasion and puncture resistance
- All weather tape suitable for cold weather applications
- Flame retardant and highly conformable
- Excellent resistance to moisture, alkalis, acid, copper corrosion
- Conforms to BS 3924 and UL 510
- Temperature rating –10°C to +80°C

Part Number	Material	Colour	Size	Coil size
SCOTCH22-12	PVC	Black	12mm x 0.254mm	33m
SCOTCH22-19	PVC	Black	19mm x 0.254mm	33m
SCOTCH22-25	PVC	Black	25mm x 0.254mm	33m
SCOTCH22-38	PVC	Black	38mm x 0.254mm	33m
SCOTCH22-50	PVC	Black	50mm x 0.254mm	33m





Self Amalgamating & Splicing Tapes



#### Scotch 23 Tape

#### FEATURES

- Primary electrical insulation for cable jointing and terminating up to 69kV
- Suitable for jacketing on HV splices and terminations and end sealing on HV cables
- Can be stretched up to 100% to give void free, moisture resistant insulation
- Physical and electrical properties unaffected by the degree of stretch
- Temperature rating 90°C

Part Number	Material	Colour	Size	Coil size
SCOTCH23-19	Rubber	Black	19mm x 0.76mm	9.15m
SCOTCH23-25	Rubber	Black	25mm x 0.76mm	9.15m
SCOTCH23-38	Rubber	Black	38mm x 0.76mm	9.15m
SCOTCH23-50	Rubber	Black	50mm x 0.76mm	9.15m



Rubber self amalgamating all voltage splicing tape

### Scotch 130C Tape

#### FEATURES

- Primary electrical insulation for cable jointing and terminating up to 69kV and building stress cones up to 35kV
- Suitable for jacketing on HV splices and terminations and end sealing on HV cables
- Flame retardant, UV and weather and corona resistant
- Can be stretched up to 75% to give void free, moisture resistant insulation
- Physical and electrical properties unaffected by the degree of stretch
- Temperature rating 90°C

Part Number Material		Colour	Size	Coil size	
SCOTCH130C-19	Rubber	Black	19mm x 0.762mm	9m	
SCOTCH130C-25	Rubber	Black	25mm x 0.762mm	9m	
SCOTCH130C-38	Rubber	Black	38mm x 0.762mm	9m	
SCOTCH130C-50	Rubber	Black	50mm x 0.762mm	9m	



Linerless EPR self amalgamating all voltage splicing tape

#### **Scotch 70 Tape**

- Designed as an over-wrap for protection of terminating high-voltage cables against arcing and tracking
- Excellent arc and track resistance
- Excellent performance in low and high temperature environments
- Instantaneous fusion and excellent conformability.
- High dielectric strength
- Temperature rating 180°C (Class H)

Part Number	Material	Colour	Size	Coil size
SCOTCH70	Rubber	Black	25mm x 0.3mm	9m



Self fusing arc and track resistant tape







Self Amalgamating & Mastic Sealing Tapes



Scotch 13 Tape



Semi-conducting rubber high voltage tape

#### **FEATURES**

- Electrically rounds-off high voltage connectors and lugs and provides screen continuation for high voltage joints and terminations
- Replaces semi-conducting layer beneath metallic shield of damaged cables
- Forms conductive portion of stress cones
- Non vulcanising and highly conformable to irregular shapes
- Resists cracking, solvents, UV and moisture
- Tape and liner boldly printed to distinguish from insulating tape
- Meets requirements of ASTM-D4388, Type IV
- Temperature rating 90°C. Emergency cable 130°C

Part Number	Material	Colour	Size	Coil size
SCOTCH13	Mastic	Black	19mm x 0.762mm	4.5m

## Contract of the

#### Scotch 2220 Tape



Stress control all voltage tape

#### **FEATURES**

- Designed to provide stress relief for all cable terminations and HV joints
- Reduces stress concentration to values found in continuous cables
- Changes voltage distribution in electrical field surrounding a HV termination or joint
- Temperature rating 90°C

Part Number	Material	Colour	Size	Coil size
SCOTCH2220	Mastic	Black	19mm x 0.762mm	4.5m



#### **Scotchfil Putty**



**Electrical insulation putty** tape

- Recognised as a joint insulation for electrical conductors when over wrapped with either Super 33+ or Super 88 electrical tape
- To insulate low-voltage (600 volts and less) connections
- To build up cable joints and fill out major irregularities and voids in low-voltage joints (2300 volts and less) in order to obtain a uniform base for further taping
- Non corrosive synthetic rubber
- Excellent electrical and ageing properties
- UL recognised
- Temperature rating 80°C

Part Number	Material	Colour	Size	Coil size
SCOTCHFIL	Rubber	Black	38mm x 3.175mm	1.5m





Self Amalgamating & Mastic Sealing Tapes

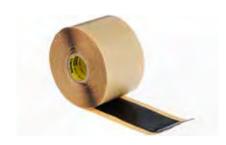


#### Scotch 2210 Tape

#### FEATURES

- Designed to insulate and moisture seal all connections up to 600V
- Excellent resistance to abrasion, moisture, alkalis, acid and copper corrosion
- Highly resistant to ultra violet light
- Flexible over wide range of temperatures
- Available in either tape or pads
- Temperature rating –18°C to +38°C

Part Number	Material	Colour	Size	Coil size
SCOTCH 2210-19	PVC	Black	19mm	6m
SCOTCH 2210-38	PVC	Black	38mm	6m
SCOTCH 2200 PADS	PVC	Black	114mm x 165mm	-



Self fusing vinyl mastic tape and pads

#### Scotch 2228 Tape

#### FEATURES

- Designed to insulate and moisture seal all connections up to 1000V
- Highly conformable for applications over irregular surfaces
- Excellent weather and moisture resistance
- Flexible over wide range of temperatures
- Temperature rating –18°C to +90°C

Part Number	Material	Colour	Size	Coil size
SCOTCH2228	EPR	Black	50mm x 1.65mm	3.03m



Self amalgamating rubber mastic tape

#### Scotch 2229 Tape

- Designed for insulating, padding and sealing of objects that need to be protected from adverse environmental conditions.
- Excellent corrosion protection properties.
- Highly conformable for applications over irregular surfaces
- Wide temperature stability while maintaining its sealing properties.
- Excellent chemical and UV resistance
- Temperature rating –34°C to +71°C

Part Number	Material	Colour	Size	Coil size
SCOTCH2229	Mastic	Black	25mm x 3.2mm	3.08m



Mastic tape







Mastic Sealing & Marking Tapes



#### **Scotch 2221 Oil Barrier Mastic Tape**



Self fusing oil resistant elastomeric PU mastic tape

#### **FEATURES**

- Designed for oil barrier applications in oil paper insulated MV cable joints and terminations
- Good stress control
- Temp range 90°-130°C
- Frame retardant

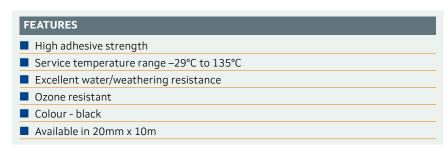
Part Number	Material	Colour Size		Coil size
SCOTCH2221	Elastomeric PU mastic tape	Grey	19mm x 1.5mm	1.5m



### **Scotch 5313 Water Blocking Tape**



Tacky solid extrusion based on a synthetic rubber



Part Number	Material	Colour	Size	Coil size
SCOTCH5313	Synthetic rubber	Black	20mm	10m



#### **Scotch Temflex 1700P Tape**



Pre-printed phase pvc marking tape

- PVC tape, pre-printed with phase marking characters to assist with cable identification
- Suitable for a wide temperature range
- Flame retardant
- Temperature rating –10°C to +80°C

Part Number Material		Colour	Size	Coil size	
T1700PL	PVC	White	15mm x 0.77mm	10m	
T1700PL1	PVC	White	15mm x 0.77mm	10m	
T1700PL2	PVC	White	15mm x 0.77mm	10m	
T1700PL3	PVC	White	15mm x 0.77mm	10m	
T1700PN	PVC	White	15mm x 0.77mm	10m	





Corrosion and Protection Tapes and Paints



#### Scotchrap 50 and 51 Tape

#### FEATURES

- Designed to resist corrosion of metal piping systems above and below ground.
- High electrical strength and insulating properties.
- Excellent resistance to impact abrasion, punctures and tears.
- Resistance to common chemicals, salt water, acids, alkalis and salts
- Operating temperature –48°C to +80°C
- Applicator temperature range -12°C 65.6°C and use the degree sign

Part Number	Material	Colour	Size	Coil size
SCOTCH50-25	PVC	Black	25mm x 0.254mm	30.5m
SCOTCH50-50	PVC	Black	50mm x 0.254mm	30.5m
SCOTCH50-101	PVC	Black	101mm x 0.254mm	30.5m
SCOTCH51-25	PVC	Black	25mm x 0.508mm	30.5m
SCOTCH51-50	PVC	Black	50mm x 0.508mm	30.5m
SCOTCH51-101	PVC	Black	101mm x 0.508mm	30.5m





All weather corrosion protection tape

#### **Scotchrap Primer**

- A rubber base primer that permeates metal surface pits and irregularities, preparing the surface for tape application
- Quick drying base primer
- Temperature rating to 80°C

Part Number	Material	Colour	Size
SCOTCHRAP	Primer	Black	1 gallon





**Corrosion protection pipe primer** 





Glass Cloth and Cambric Tapes



#### **Scotchrap 27 Tape**



#### **Glass cloth tape**

#### **FEATURES**

- Applications include a heat stable insulation for furnace and oven controls, motor leads and switches
- High mechanical strength.
- Resistance to high temperatures
- Treated and prepared to provide corrosion free protection
- The adhesive is a rubber pressure-sensitive thermosetting system
- Temperature rating 130°C

Part Number	Material	Colour	Size	Coil size
SCOTCH27	Glass Cloth	White	12mm x 0.178mm	20m



#### **Scotchrap 69 Tape**



## Glass cloth tape with silcone adhesive

#### FEATURES

- Applications include induction type furnace power supply leads for high temperature
- To be used in conjunction with 77 Tape for arc and fire proofing applications
- High mechanical strength
- Resistance to high temperatures
- The adhesive is a silicone high temperature thermosetting system
- Temperature rating 200°C

Part Number	Material	Colour	Size	Coil size
SCOTCH69-6	Glass Cloth	White	6mm x 0.177mm	33m
SCOTCH69-9	Glass Cloth	White	9mm x 0.177mm	33m
SCOTCH69-12	Glass Cloth	White	12mm x 0.177mm	33m
SCOTCH69-15	Glass Cloth	White	15mm x 0.177mm	33m
SCOTCH69-19	Glass Cloth	White	19mm x 0.177mm	33m
SCOTCH69-25	Glass Cloth	White	25mm x 0.177mm	33m
SCOTCH69-38	Glass Cloth	White	38mm x 0.177mm	33m
SCOTCH69-50	Glass Cloth	White	50mm x 0.177mm	33m



#### Scotchrap 2510 Tape





### **Cambric tape**

- Designed for insulating joints, connections, heavy split bolts and bus bars
- The fabric is oil primed and coated with a high grade yellow electrical insulating varnish
- Flexible and moisture resistant with a smooth finish
- Excellent resistance to abrasion, puncture and cut-through
- Temperature rating 105°C

Part Number Material		Colour	Size	Coil size	
SCOTCH2510	Woven Cambric Cotton	Yellow	19mm x 7 mils	20m	





### Tapes, Aerosols and Accessories Aerosol Sprays



#### Scotch 1601 and 1602 Insulation Spray

- Designed to provide a protective coating in electrical connections
- Hardens into a flexible and resistant film
- Excellent adhesion to most common surfaces such as metal, glass, plastic, wood
- Moisture and weatherproof and resistant to UV-rays, acids, oil and alkalis
- Available in Clear or Red

Part Number	Colour	Size
SCOTCH1601	Clear	400ml

Part Number	Colour	Size
SCOTCH1602	Red	400ml



**Electrical insulation spray** 

#### Scotch 1609 Silicone Spray

#### **FEATURES**

- Designed as a general use product for protective, maintenance, protection and lubrication
- It lubricates moving parts without becoming resinous and can be used over a wide temperature range (-32°C to + 177°C)
- Neutral to paints, plastics, rubber, foamed materials, wood and fabrics

Part Number	Colour	Size	
SCOTCH1609	Clear	400ml	



Silicone spray

#### Scotch 1617 Zinc Spray

#### FEATURES

- Permanent protection against rust and corrosion
- Excellent adhesion to iron and steel
- Resistant to weathering, UV radiation, moisture, alkaline solutions and mineral oils
- Ideal primer for metal constructions

Part Number	Colour	Size	
SCOTCH1617	Grey	400ml	



**Zinc spray** 

#### Scotch 1625 Electrical Contact Cleaner Spray

- Designed for general purpose cleaning applications
- Loosens dirt, light oxide layers and impurities of every kind in an effective gentle manner
- Electrically neutral

Part Number	Colour	Size
SCOTCH1625	Clear	400ml



**Electrical contact cleaner** spray







## Aerosol Sprays Tapes, Aerosols and Accessories



### **Scotch 1626 Degreasing Cleaner Spray**



#### ■ Designed for general purpose degreasing applications

- Ideal dissolving cleaner for greases, oils, lubricants, resins and tar
- Non-corroding (except plastics)

FEATURES

**FEATURES** 

Part Number	Colour	Size	
SCOTCH1626	Clear	400ml	





#### **Scotch 1633 Rust Remover Spray**



				101
				Fο
990				⊢∩

- It loosens rust, protects against moisture and renewed oxidation
- Forms a moisture barrier to prevent trouble before it starts
- Excellent lubrication properties

Part Number	Colour	Size
SCOTCH1633	Clear	400ml





# **Expertise** | Across the board



# **Cable Transits**

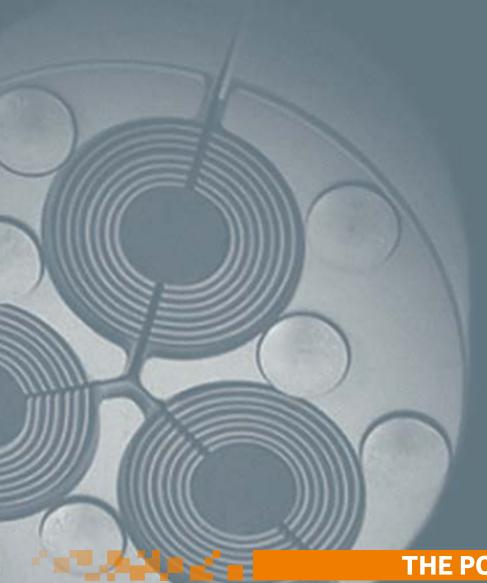
## Contents

Roxtec Sealing System 196

Duct Seals and Sealants 198

Duct Sealing 199

Raychem Duct Seal 200



## Cable Transits The Roxtec Sealing System



#### **GHM Frame**

#### FEATURES

- GHM Frame for bolted installation with 60 x 120mm to 120 x 120mm packing space
- GHM frame is designed for installation through bolting where welding is not suitable
- Use with RM installation modules
- Mild steel with primed finish
- Additional sizes available on request

Part Number	Frame Openings	Packing Space mm	Dimensions mm
GHM2X1	1	60 x 120	233 x 253
GHM2X2	2	60 x 120	233 x 383
GHM4X1	1	120 x 120	292 x 253
GHM4X2	2	120 x 120	292 x 383



**GHM Frame for bolted** installation

#### **B** Frame

#### **FEATURES**

- B Frame for installation around existing services for 60 x 120mm to 120 x 120mm packing space
- The Roxtec B frame is a flanged, bolted together metal frame. Frame parts are assembled to make different sizes and combinations of openings
- Use with RM installation modules
- Galvanised mild steel



#### **B** Frame for installation

Part Number	Packing Space mm	Dimensions mm
LSZ2	60 x 120	181 x 40
LSZ4	120 x 120	240 x 40
LSZ6	180 x 120	298 x 40
LSZ8	240 x 120	358 x 40
PSZ2	60 x 120	181 x 8

Part Number	Packing Space mm	Dimensions mm
PSZ4	120 x 120	240 x 8
PSZ6	180 x 120	298 x 8
PSZ8	240 x 120	358 x 8
SSZ	120 x 120	-

#### **R Frame**

#### FEATURES

- R Frame for installation around existing services for 60 x 120mm to 120 x 120mm packing space
- The Roxtec R frame is a round expansion frame with a square packing space for multiple cables, pipes and modules
- Compression is integrated into the frame to enable installation around existing cables/pipes
- Available in galvanised mild steel and AISI 316 stainless steel



#### **R Frame for installation**

Part Number	Packing Space mm	Hole Diameter mm
R100	60 x 60	100-102
R125	80 x 80	125-127
R127	80 x 80	127-129

Part Number	Packing Space mm	Hole Diameter mm
R150	90 x 90	150-152
R200	120 x 120	200-202





### The Roxtec Sealing System Cable Transits



#### **RS Frame with Integrated Seal**



#### **FEATURES**

- The Roxtec RS is a round entry seal with integrated compression system for use with one cable or pipe
- RS entry seal has two halves and an adaptable centre with removable layers to allow installation around existing cable or pipe
- Manufactured out of AISI 316 stainless steel
- Casting mould and sleeve accessory available

#### RS entry seal for installation

Part Number	Cable/Pipe Diameter mm	Hole Diameter mm
RS25	3.6-12.0	25.0-26.0
RS31	4.0-17.0	31.0-32.0
RS43	4.0-23.0	43.0-45.0
RS50	8.0-30.0	50.0-52.0

Part Number	Cable/Pipe Diameter mm	Hole Diameter mm
RS68	26.0-48.0	68.0-70.0
RS75	24.0-54.0	75.0-77.0
RS100	48.0-70.0	100.0-102.0
RS125	66.0-98.0	125.0-127.0



#### **RM Modules - With Core**



**Adaptable RM sealing** 

modules

#### **FEATURES**

- Adaptable RM sealing modules for use with frames.
- Multidiameter<sup>™</sup> technology based on removable layers for perfect adaptation to a cable or pipe
- Made from Roxylon™ rubber
- When used with a solid core, the module functions as a spare module for future capacity

Part Number	Cable/Pipe Dia mm	External Diameter mm
RM15	3.0-11.0	15 x 15
RM20	4.0-14.5	20 x 20
RM30	10.0-25.0	30 x 30

Cable/Pipe Dia mm	External Diameter mm
21.5-34.5	40 x 40
28.0-54.00	60 x 60
	21.5-34.5



#### **Wedge Kits**



**Compression units** 

- The Roxtec Wedge is a highly efficient compression unit, which saves valuable installation time when it comes to installation and re-installation of the Roxtec sealing system
- The unit is compressed and decompressed by turning the screws in the front
- The Wedge kit includes one Roxtec Wedge 60 or 120, five stayplates, one Wedge Clip, one lubricant and installation instructions
- Available in galvanised or AISI 316 stainless steel

Part Number	External Diameter (W x H) mm
WK60	60 x 48

Part Number	External Diameter (W x H) mm
WK120	120 x 48





### Cable Transits Duct Seals and Sealants



#### Filoform Sealing System - MDIII

#### FEATURES

- Designed to be used where conduit or ducts are tightly positioned against each other
- Seals against water and gas
- Seal is created using circular foam and expanding polyurethane resin
- Quick and easy to install
- Holds many utility approvals, speak to your local branch for details



Part Number	Maximum Duct Diameter (mm)	Maximum Cable Diameter in the Duct (mm)
MDIII-25	MAX Ø 25	MAX Ø 8
MDIII-50	MAX Ø 50	MAX Ø 20
MDIII-75	MAX Ø 75	MAX Ø 40
MDIII-110	MAX Ø 110	MAX Ø 80

Part Number	Maximum Duct Diameter (mm)	Maximum Cable Diameter in the Duct (mm)
MDIII-160	MAX Ø 160	MAX Ø 130
MDIII-200	MAX Ø 200	MAX Ø 160
MDIII-250	MAX Ø 250	MAX Ø 220







#### Filoform Sealing System - Filoseal+



- Re-enterable system allowing new services to be added after installation
- Resistant against water, alkaline and chemical agents
- Resistant to hydrogen sulphide/methane and many other gases
- Non-corrosive
- Complies to ATEX regulations
- Unique design with a tri-flexible foam making positioning cables very simple



Part Number	Maximum Duct Diameter (mm)	Maximum Cable Diameter in the Duct (mm)
FILOSEAL+125MM	MAX Ø 125	MAX Ø 95

Part Number	Maximum Duct Diameter (mm)	Maximum Cable Diameter in the Duct (mm)
FILOSEAL+200MM	MAX Ø 200	MAX Ø 160















#### Filoseal+HD Re-enterable Duct Sealing System



#### FEATURES

- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test
- Strong hexagonal support system for heavy cables
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrogen Sulphide / Methane and many other Gases







Part Number	Description	Maximum duct diameter (mm)
280010	FiloSeal+HD - 75mm > 110mm	Ø 110 max.
280020	FiloSeal+HD - 125mm > 160mm	Ø 160 max.
280030	FiloSeal+HD - 180mm	Ø 180 max.

Part Number	Description	Maximum duct diameter (mm)
280040	FiloSeal+HD - 200mm	Ø 200 max.
280050	FiloSeal+HD - 225mm	Ø 225 max.
280060	FiloSeal+HD - 250mm	Ø 250 max.



### Filoseal+HD FIRE Re-enterable Duct Sealing System



- Up to 4 hours fire resistance in transit frames (single side)
- Up to 4 hours fire resistance in ducts
- Tested to BS EN1366-3 2009
- Upto 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45º, with 1 bar pressure bending test

Part Number	Description Maximum duct diameter (mm)		
280070	FiloSeal+HD FIRE 75 > 110mm	110mm	
280080	FiloSeal+HD FIRE 125 > 160mm	160mm	
280070	FiloSeal+HD FIRE 180mm	180mm	

Part Number	Description	Maximum duct diameter (mm)
280080	FiloSeal+HD FIRE 200mm	200mm
280070	FiloSeal+HD FIRE 225mm	225mm
280080	FiloSeal+HD FIRE 250mm	250mm











### Cable Transits Raychem Duct Seal



#### **RDSS Inflatable Duct Seal**

#### **FEATURES**

- RDSS Rayflate inflatable duct seal for 32.5 to 180.0mm ducts
- The Rayflate seal consists of an inflatable bladder with a sealing strip which is fitted around the power cable in a duct and inflated to create a watertight seal
- Ideal for both new and existing installations
- Extremely versatile and will adapt to most configurations independent of duct ovality
- Used in conjunction with an inflation tool and gas cylinder
- Please contact sales to confirm which products are suitable for empty ducts



**RDSS Rayflate inflatable** duct seal

Part Number Duct Inside Diameter mm		Cable Diameter mm
RDSS-45	32.5-45.0	0-32.0
RDSS-60	45.0-60.0	0-45.0
RDSS-75	55.0-75.0	0-56.0

Part Number	<b>Duct Inside Diameter mm</b>	Cable Diameter mm
RDSS-100	75.0-120.0	0-100.0
RDSS-125	<b>DSS-125</b> 100.0-150.0 0-130.0	
RDSS-150	125.0-180.0	60-160.0

#### **Adaptor Seal**

#### FEATURES

 To seal ducts up to 210mm this adaptor is used in conjunction with the Rayflate duct sealing system

Part Number	Duct Size mm	
RDSS-AD-210	150-210	



Adaptor seal for larger sizes of duct

#### **RDSS Sealing Clip**

#### FEATURES

- The sealing clip is used when three or more cables have to be sealed in the same duct
- Designed to be used in conjunction with inflatable duct seal

Part Number	Use with
RDSS-CLIP-45	RDSS-45
RDSS-CLIP-75	RDSS-60 & RDSS-75
RDSS-CLIP-100	RDSS-100
RDSS-CLIP-125	RDSS-125

Part Number	Use with
RDSS-CLIP-150	RDSS-150

Please note RDSS Clips must be installed with 2 cable configurations when larger cables are installed



RDSS sealing clip for use with multiple cables

#### **Inflation Tool & Gas Cylinders**

#### FEATURES

Designed to inflate the RDSS Rayflate seals



Part Number	Description
E7512-0160	Gas Cylinders (Box of 10)



Inflation tool and gas cylinders







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THE POWER TO DELIVER



# Rail | Cable troughing



# **Cable Troughing**

# Contents

Lightweight Cable Trough 204

## Cable Troughing Lightweight Cable Trough



#### TroTrof

#### **FEATURES**

- Lightweight cable trough weighing just 18kgs
- Has full Network Rail PADS approval, Certificate Number PA05/02512
- Both lid and base interact with concrete making it ideal for upgrade projects
- Over four times faster to install than the concrete alternative
- Complies with HSE manual handling guidelines
- Environmentally friendly made from recycled polymers.
- Dimensions C1/9
- Anti-Vandal/Anti-Theft features



Part Number	Length	Width	Height	Weight
TROTROF	1000mm	281mm	206mm	18kg

#### **Transportation Comparison**

	TroTrof	Concrete Trough
Units/Pallets	20	42 lids/pallet 24 bases/pallet
Transport for 960 units	1 truck	4.4 trucks
Transport for 10,000 units	11 trucks	44 trucks

#### **Health & Safety Comparison**

	TroTrof	Concrete Trough
Lifting	One man lift	Two men lift
Cutting	Standard tools	Petrol disc cutter
Dust/Noise	No	Yes
Finish	Smooth	Abrasive
Carbon Footprint	Medium	High
Recyclable	Yes	No

#### TroTred



- Made up of 5 components, 44kg in total (max component weight 12kg)
- Has full network rail PADS approval, Certificate Number PA05/04103
- Doubles up as a walkway eliminating need for additional paths.
- Self-extinguishing and complies with Network Rail specifications
- Over four times faster to install than the concrete alternative
- Complies with HSE manual handling guidelines
- Environmentally friendly made from recycled polymers
- Anti-Vandal/Anti-Theft features





Part Number	Length	Width	Height	Weight
TROTRED	1000mm	736mm	385mm	44kg

#### **Transportation Comparison**

	TroTrof	Concrete Trough
Units/Pallets	4 complete units	9 bases 15 lids
Transport for 1,000 units	5 trucks	10 trucks
Transport for 10,000 units	50 trucks	100 trucks

#### **Health & Safety Comparison**

	TroTrof	Concrete Trough
Lifting	Two man lift	4 men/base 3 men/lid
Cutting	Standard tools	Petrol disc cutter
Dust/Noise	No	Yes
Finish	Smooth	Abrasive
Carbon Footprint	Medium	High
Recyclable	Yes	No





# **Tools and Equipment**

## Contents

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### Tools & Equipment Hand Hydraulic Crimp Tools



#### Hydraulic Hand Crimper 10-400mm<sup>2</sup>

#### **FEATURES**

- Self contained, robust and sturdy while remaining lightweight
- Features a double speed action with rapid approach and slower more powerful speed for crimping
- 180° rotation for ease of operation and comfort for operator
- Built in safety valve will bypass the oil supply when maximum pressure is reached
- Accepts ME-C hex dies and MA-C and PA-C nest and indent
- Complete with carry case for tool and dies

Part Number	Die Range	Conductor Size
HT131	ME-C	10-400mm²



**Hydraulic crimping tools** 

#### Hydraulic Hand Crimper 10-150mm<sup>2</sup>

#### **FEATURES**

- Self contained, robust and sturdy while remaining lightweight
- Features a double speed action with rapid approach and slower more powerful speed for crimping
- 180° rotation for ease of operation and comfort for operator
- Built in safety valve will bypass the oil supply when maximum pressure is reached
- Accepts ME hex dies and MA and PA nest and indent
- Complete with carry case for tool and dies

Part Number	Die Range	Conductor Size
HT45-E	ME	10-150mm²



**Hydraulic crimping tools** 

### Hand Hydraulic Hand Crimper 10-240mm<sup>2</sup>

- Self contained, robust and sturdy while remaining lightweight
- Features a double speed action with rapid approach and slower more powerful speed for crimping
- 180° rotation for ease of operation and comfort for operator
- Built in safety valve will bypass the oil supply when maximum pressure is reached
- Accepts ME-50 hex dies and MA-50 and PA-50 nest and indent
- Complete with carry case for tool and dies

Part Number	Die Range	Conductor Size
HT51	ME-50	10-240mm²





**Hydraulic crimping tools** 





### Battery Operated Hand Crimpers Tools & Equipment



#### Hydraulic Battery Crimper 10-240mm<sup>2</sup>



#### **FEATURES**

- B500 is the first of a new generation of hand-held cordless tools heralding a significantly advantageous evolution from current models
- Equipped with Li-lon 18V 4 Ah battery offering greater capacity than the previous 14.4V Ah version
- Suitable for crimping conductors up to and including 240mm²
- Complete with LED light for darker working areas
- Faster compression and greater crimping force result from new two-speed hydraulic system
- Fitted with a maximum pressure sensor for enhanced precision and repeatability
- New OLED display provides essential real time data including force generated, battery life and number of work cycles left before maintenance
- Consists of 2 x batteries, battery charger, shoulder strap and carry case

Part Number	Die Range	Conductor Size
B500	ME-50	10-240mm²



#### Hydraulic Battery Crimper 10-400mm<sup>2</sup>



- Born of the renowned B135-C crimping tool, first into the market is the 132kN B1350-CE, suitable for a wide range of connectors upton 400mm<sup>2</sup> using the die sets common to the Cembre 130kN tooling range
- Equipped with Li-lon 18V 4 Ah battery offering greater capacity than the previous 14.4V Ah version
- Faster compression and greater crimping force result from new two-speed hydraulic system
- Fitted with a maximum pressure sensor for enhanced precision and repeatability
- New OLED display provides essential real time data including force generated, battery life and number of work cycles left before maintenance
- Complete with LED light for darker working areas
- 180° head rotation
- Consists of 2 x batteries, battery charger, shoulder strap and carry case

Part Number	Die Range	Conductor Size
B1350-CE	ME-C	10-400mm²





### Tools & Equipment Hydraulic Press Heads



#### Hydraulic Press Head 10-400mm<sup>2</sup>

#### FEATURES

- Hydraulic press head complete with quick release coupling to connect head to pump with max operating pressure of 700 bar
- Lightweight at only 3.8kg
- Compatible with a range of dies that accept Cu/Ali lugs/splices and C tap connectors at LV and HV voltages
- Head compatible with both PO7000/B70-P24 and EP10 electric pump

Part Number	Die Range	Conductor Size
RHC131	ME-C	10-400mm²



RHC 131 type hydraulic press head for 10-400mm<sup>2</sup> cables

#### Hydraulic Press Head 400-630mm<sup>2</sup>

#### **FEATURES**

- Hydraulic press head complete with quick release coupling to connect head to pump with max operating pressure of 700 bar
- Lightweight at only 5.5kg
- Adaptor type AU230-130D is available as an optional extra enabling the head to utilise smaller ME-C, MA-C and PA-C dies
- Head compatible with both PO7000/B70-P24 and EP10 electric pump

Part Number	Die Range	Conductor Size
ECW-H3D	ME-3D	400-630mm²



ECW-H3D type hydraulic press head for 400-630mm<sup>2</sup> cables

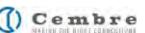
#### Hydraulic Press Head 400-1000mm<sup>2</sup>

- Hydraulic press head complete with quick release coupling to connect head to pump with max operating pressure of 700 bar
- Weight is 18kg
- Complete with two handles on either side of the head for ease of use
- Adaptor type AU520-130C is available as an optional extra enabling the head to utilise smaller ME-C, MA-C and PA-C dies
- Head compatible with both PO7000/B70-P24 and EP10 electric pump

Part Number	Die Range	Conductor Size
RHU-520	ME-520	400-1000mm²



RHU-520 type hydraulic press head for 400-1000mm<sup>2</sup> cables







#### **Electric Pump**



Foot and electric hydraulic pumps

#### **FEATURES**

- Electrically driven hydraulic pump, powered by 110V/50-60hz single phase electric
- Piston type high pressure pump supercharged by a low pressure pump
- Extremely durable yet lightweight and operates under low-line voltage conditions
- Comes complete with a remote hand controller with 10 foot cord
- Operates up to 10000PSI

Part Number	Description
EP10 ELECTRIC PUMP	110 Volt



#### Foot Pump



PO-7000 hydraulic pump

#### **FEATURES**

- Foot operated hydraulic pump developing a maximum of 700 bar of pressure
- Mounted on a solid shaped stand giving the pump stability during operation
- Complete with a 3m high pressure hose with female quick release coupler
- Lightweight at only 9.8kg
- Complete in plastic hard wearing carry case

Part Number	Description	
PO 7000	Foot Pump	



#### **Electro-Hydraulic Pump (battery)**



**B70M-P24** lightweight pump

- Operating at 24v dc by battery for independent use and developing 700 bar pressure
- Complete with 3m hose and quick couplers, remote control, shoulder strap, external battery charger and canvas holdall for carrying accessories
- Also available in an insulated version contact our sales team for more info

Part Number	Description	
B70M-P24	Hydraulic Electric Pump	
TRS-B70	Canvas Rucksack For B70m-P24	
SPARE BATTERY	For The B70m-P24	



### Tools & Equipment Battery Operated Hand Cutters



#### **Hydraulic Battery Cutter 50mm Max**

#### **FEATURES**

- B-TC500E is the next generation of Cembre cordless hydraulic tools and features significant advantages over current models
- Has a NEW Li-Ion 18V 4 Ah battery offering higher capacity than 14.4 V 3 Ah
- High strength steel blades are heat treated to ensure long lifespan
- Suitable for copper and aluminium cable having a max diameter of 50mm
- The head can rotate 180 degree to enable the operator to work in the most comfortable position
- B-TC500E comes with a fitted LED light for a safer working area
- Maximum pressure sensor and pressure relief valve assures precision and
- The new generation of tooling boasts a OLED display which provides real time information including crimping force, battery life, life cycle with service intervals.
- Comes complete with shoulder strap, spare battery, charger and carry case

Part Number	Maximum Cutting Diameter	Weight
B-TC500E	50mm	5.8kg



#### **Hydraulic Battery Cutter 65mm Max**

- B-TC650-SCE is the next generation of Cembre cordless hydraulic tools with significant advantages over current models
- Features NEW Li-Ion 18V 4 Ah battery offering higher capacity than 14.4 V 3 Ah
- High strength steel blades are heat treated to ensure long lifespan
- Suitable for copper and aluminium cable having a max diameter of 65mm
- The head can rotate 180 degree to enable the operator to work in the most comfortable position
- B-TC650-SCE comes with a fitted LED light for a safer working area
- A maximum pressure sensor and pressure relief valve assures precision and repeatability
- The new generation of tooling boasts an OLED display which provides real time information including crimping force, battery life, life cycle with service intervals
- Comes complete with shoulder strap, spare battery, charger and carry case

Part Number	Maximum Cutting Diameter	Weight
B-TC650E	65mm	6.4kg







## Hydraulic Cutting Tools Tools & Equipment



#### **Hand Held Cutting Tools**



#### **FEATURES**

- Hydraulic hand tools designed to cut both copper and aluminium cables
- Fast advance speed for rapid approach of the blades to the cable and a slower

powerful speed for cutting

- Blades are manufactured from high strength special steel, heat treated for longer service life
- Heads can be easily opened to allow cutting of running cables
- HT-TC051 can rotate the head 90° with the HT-TC0851 being able to complete 180°

of rotation

- Both tools have a bypass oil safety valve for when tools are at maximum pressure
- HT-TC051 comes complete in a carry bag with the HT-TH0851 coming in a carry

Part Number	Maximum Cutting Diameter	Weight
HT-TC026	25mm	3.2kg
HT-TC051	50mm	4.4kg

Part Number	Maximum Cutting Diameter	Weight
HT-TC0851	85mm	6.6kg



#### **Hand Held Cutting Tools**



- Hydraulic cutting heads designed to cut both copper and aluminium cables
- Fast advance speed for rapid approach of the blades to the cable and a slower powerful speed for cutting
- Blades are manufactured from high strength special steel, heat treated for longer service life
- Heads can be easily opened to allow cutting of running cables
- Working pressure of all cutting heads are 700Bar Max
- All complete with a quick release male coupling for connection to hydraulic pump
- All complete with a handle which allows the most comfortable positioning of the head onto the cable

Part Number	Maximum Cutting Diameter	Weight
TC096	95mm	7.9kg
TC085	85mm	4.9kg

Part Number	Maximum Cutting Diameter	Weight
TC120	120mm	9.5kg





## Tools & Equipment Crimp Dies



#### **Cembre Dies**



#### ORDERING

■ To ensure the correct dies are selected please contact our sales team

Tool Type	Part Number	Conductor size range mm²	Conductor	Number of dies in range	Die Type
LV Dies For "G Type 131 Heads"	MA-C	10-300	Copper	12	Nest
LV Dies For "G Type 131 Heads"	PA-C	10-300	Copper	4	Indentor
LV Dies For "G Type 131 Heads"	ME-C	10-400	Copper	13	Hexagonal
LV Dies For "Ecw-3D Head"	MA-3D	400-630	Copper	3	Nest
	PA-3D	400-630	Copper	2	Indentor
	ME-3D	400-630	Copper	3	Hexagonal
	AU230-130D		Copper	1	Adaptor Die For "G Type 131 Head"
LV Dies For "Rhu-520 Head"	MA-520	400-1000	Copper	5	Nest
	PA-520	400-1000	Copper	2	Indentor
	MK-520	400-1000	Copper	5	Hexagonal
	AU520-130C		Copper	1	Adaptor Die For "G Type 131 Head"
HV Dies For "G Type 131 Heads"	ME-C	10-400	Copper	13	Hexagonal
HV Dies For "Ecw-3D Head"	ME-3D	400-630	Copper	3	Hexagonal
HV Dies For "Rhu-520 Head"	MK-520	400-1000	Copper	5	

### **Cembre LV & HV Copper Terminals**



Conduc- tor Size (mm²)		Terminals					Tool	
Stranded	Cembre LV Lugs	Cembre LV Splices	Cembre HV Lugs	HT45E / B35-45	HT50 / B51 / RH50	HT131/ B135	ECW-H3D	RHU-520
0.25-2.5	A03-M-A06-M	L03-M-L06-M						
4-6	A1-M	L1-M		ME1	ME1-50			
10	A2-M	L2-M		ME2	ME2-50	Me2-c	AU230-130D + ME2-C	Au520-130C + Me2-C
16	АЗ-М	L3-M	2A3-M	ME3	ME3-50	Me3-c	AU230-130D + ME3-C	Au520-130C + Me3-C
25	A5-M	L5-M	2A5-M	ME5	ME5-50	Me5-c	AU230-130D + ME5-C	Au520-130C + Me5-C
35	A7-M	L7-M	2A7-M	ME7	ME7-50	Me7-c	AU230-130D + ME7-C	Au520-130C + Me7-C
50	A10-M	L10-M	2A10-M	ME10	ME10-50	Me10-c	AU230-130D + ME10-C	Au520-130C + Me10-C
70	A14-M	L14-M	2A14-M	ME14	ME14-50	Me14-c	AU230-130D + ME14-C	Au520-130C + Me14-C
95	A19-M	L19-M	2A19-M	ME19	ME19-50	Me19-c	AU230-130D + ME19-C	Au520-130C + Me19-C
120	A24-M	L24-M	2A24-M	ME24	ME24-50	Me24-c	AU230-130D + ME24-C	Au520-130C + Me24-C
150	A30-M	L30-M	2A30-M	ME30	ME30-50	Me30-c	AU230-130D + ME30-C	Au520-130C + Me30-C
185	A37-M	L37-M	2A37-M		ME37-50	Me37-c	AU230-130D + ME37-C	Au520-130C + Me37-C
240	A48-M	L48-M	2A48-M		ME48-50	Me48-c	AU230-130D + ME48-C	Au520-130C + Me48-C
300	A60-M	L60-M	2A60-M			Me60-c	AU230-130D + ME60-C	Au520-130C + Me60-C
400	A80-M	L80-M	2A80-M			Me80-c	ME80-3D	Me80-520
500	A100-M	L100-M	2A100-M				ME100-3D	Me100-520
630	A120-M	L120-M	2A120-M				ME120-3D	Me120-520
800	A160-M	L160-M	2A160-M					Me160-520
1000	A200-M	L200-M	2A200-M					Me200-520

#### ORDERING

- Aluminium dies also available
- Circumferential and Hex DIN dies also available







## Hydraulic Hole Punching Tools Tools & Equipment



#### Cordless Hydraulic Puller-Type Hole Punching Tool B-FL750E



#### FEATURES

- Cordless hydraulic tool, for hole punching stainless steel, sort metal, fibreglass and plastic sheet up to 3.5mm thick
- The balanced punching head pivots 180° through a full 360° rotation
- OLED display provides essential real time information including crimp force, battery life and service schedule
- Tool comes complete with shoulder strap, spare battery, charger, TD-11 & TD-19 puller, spiral bit and carrying case

Part Number	Hole Punch Size	Weight
B-FL750E	15.5mm-120mm²	5.1kg

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#### HT-FL75



#### **FEATURES**

- Hand operated hydraulic tool designed for hole punching stainless steel, soft metal, fibreglass and plastic sheet upto 3.5mm thick
- Compact, lightweight and easy to handle
- Tool comes complete with plastic carry case, TD11 and TD19 pullers and an 11.5mm spiral bit

Part Number	Hole Punch Size	Weight
HT-FL75	15.5mm-120mm²	3.7kg

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#### RH-FL75



#### FEATURES

- Hydraulic head designed for hole punching stainless steel, soft metal, fibreglass and plastic sheet up to 3.5mm thick
- Compact, lightweight and easy to handle
- Quick release coupler for connection to hydraulic pump
- Tools comes complete with TD11 and TD19 pullers and an 11.4mm spiral bit

Part Number	Hole Punch Size	Weight
RH-FL75	15.5mm-120mm²	1.9kg

For more details on hole punch dies please contact your nearest branch.



### Tools & Equipment Cable Preparation Tools



### **Cable Stripping Tools**

#### FEATURES

■ Tools for cable stripping low and medium voltage cables

Part Number	Description
CERAMIC KNIFE	Utility knife with non-conductive ceramic blade
EXRM-0607	Wooden Handled Cable Stripping Knife
EXRM-0947	Hook Knife For Outersheath Stripping
120-CS	Insulated Hack Knife
EXRM-1004	Paper Cable Insulation Stripping Pliers
CABLE KNIFE	Utility knife complete with Stanley blade and cover



A selection of cable stripping tools

#### **Universal Plastic Sheath Stripper**

#### **FEATURES**

- Single hand operation
- Complete with two depth fittings

Part Number
KMS
KMS BLADE



**Outer sheath removal tool** 

#### **Diameter Tape**

#### FEATURES

■ Used to confirm the diameter for cables and cable insulations

Part Number	Description
IT-1000-010	Jointer's diamater measuring tape



Diameter tape



### Cutting/Preparation Tools Tools & Equipment



#### **Hand Cutting Tools**



Hand tools for cable core cutting upto 500mm<sup>2</sup>

#### **FEATURES**

- Long handles for easy cutting
- Used for unarmoured cables and cutting of conductors and screen wires
- Please refer to hydraulic section for cutting of armoured cables

Part Number	Conductor Size
5116660250	6-250mm²
5116660500	6-500mm²



#### **Roller Chain Tongs**



Armour wire removal tool

#### **FEATURES**

- For the removal of the steel wire or aluminium wire armour of power cables
- Adjustable to suit armour diameters up to 76mm

Part Number	Over Armour Diameter
RCT155	20 - 76mm
RCT SPARE CHAIN	-



#### **RC52 Ratchet Cutting Tool**



Ratchet cutting tools for cables

#### **FEATURES**

- Designed for use on copper and aluminium conductors
- High quality steel ratchet mechanism for optimised mechanical advantage
- Moveable blades can be easily released
- Not for use on armoured cables
- See hydraulic section for cutting of armoured cables

Part Number	Cutting Range
RC-52	Up to 52mm
KT-4	Up to 52mm



#### **HP3 Ratchet Crimp Tool**



**HP3 Ratchet Crimp Tool** 

- Compact, easy to use manual tool
- Treated steel crimp jaws with high mechanical properties
- Factory set ratchet for crimping control (automatic handle opening upon completion of crimping operation)
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure
- Ergonomically designed non-slip moulded plastic grips

Part Number	Size
НРЗ	0.5 - 6mm



### Tools & Equipment Cable Preparation Tools



#### **Outer Sheath Strippers**

#### FEATURES

- Can also be used for removal of primary insulation and lead alloy sheaths
- For circular and longitudinal cuts
- Fully insulated stripper available (PG3-EC)

Part Number	Sheath Diameter
PG2-HTA	21-35mm
PG3-HTA	26-51mm
PG3-EC	26-51mm

Part Number	Sheath Diameter
PG4-HTA	47-75mm
PG5-HTB	65-95mm
PG6-HTB	80-125mm



**Outer sheath removal tool** 

#### **Peelable Semi-Conductive Screen Stripper**

#### FEATURES

- The LHM tools allow simple and easy removal of peelable semi- conductor
- The tool works by creating a precise spiral incision with an offset circular blade on the semi-conductor which allows it to be neatly unwrapped
- The remaining length of exposed semi-con can be set depending on the tool used

Part Number	Diameter over Screen	
LHM1R30/45	14-40mm	
LHM2R30/60	38-60mm	



For use on easy peel cable screens

#### **Pre-set Scoring Tool**

#### **FEATURES**

- Two different tools for use at either 11 or 33kV
- Pre-set blade depth allows easy scoring and screen removal

Part Number	Diameter	Use with
TT2352/1	0.4mm	For 11kV
TT2352/2	0.6mm	For 33kV



For use on easy peel cable conductive screens

#### **Bonded Screen Removal Tool**

- This tool enables the user to remove and chamfer the bonded semiconductor in a clean and swift manner without the use of silicon
- The blade is adjustable from 0.4mm to 1.4mm with "clicking knob" (0.1mm for each click)
- The angle of the chamfer is 8°
- Tool will accommodate insulation

Part Number	Diameter over Screen	
CWB18-60	18-60mm	



For removal and chamfer of bonded screen



### Cable Preparation Tools Tools & Equipment



#### **Bonded Screen Removal Tool**



Designed to remove the cable's bonded screen

#### **FEATURES**

- Removes bonded semi conductive screens from XLPE cables
- Depth adjustment from 0-1.5mm
- Application range over semi conductive screen is between 0-52mm O/D
- Stripping can be done starting at any position on the cable
- Advised to be used on Vulcanized, extruded and bonded semi conductive screens

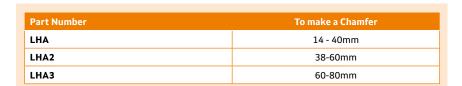
Part Number	Insulation Diameter	Depth of Cut
BSR700	10-52mm	0-1.5mm
BSR700 SPARE BLADE	-	-



#### **Adjustable Insulation Tapering Tool**

#### **FEATURES**

 LHA tool tapers the end of XLPE insulation and allows a better penetration of premoulded joints





Provides a chamfered finish at the screen removal points

#### Screen and Insulation Removal Tool HVIA Stripper 35/90



- Stripping tool for extruded and bonded cable screens and primary insulation for cable diameter from 35-90mm or 75-150mm
- For use on medium and high voltage cables
- Adjustable to cable diameter via the red twist handle
- Tool is supplied with blades packed separately in the case
- Advised to apply a thin layer of silicone lubricant to screen for easy movement

Part Number	Cable Diameter	
HVIA-STRIPPER 35-90	35-90mm	
HVIA-STRIPPER 75-150	75-150mm	



#### **Toolout Hire**



#### **FEATURES**

- Jointing Technologies have the largest hire fleet of crimping and cutting tools in the country
- All available on a next working day delivery (on orders placed before 4pm)
- All tools are calibrated and checked prior to dispatch to ensure they are in full working order

#### **Hydraulic Crimping**



#### FEATURES

- Also available in hand tool version
- Dies available 10-1000mm² copper/aluminium LV/HV
- Please state cable type and size

#### **Hydraulic Cutting**



#### **FEATURES**

- Also available in hand tool version
- TC120 cutting head max cutting diameter of 120mm
- HT-TC085 cutting hand tool max cutting diameter of 85mm

#### **Battery Crimping**



#### **FEATURES**

- Dies available 10-1000mm² copper/aluminium LV/HV
- Please state cable type and size

#### **Battery Cutting**



#### **FEATURES**

■ TC120 cutting head - max cutting diameter of 120mm

#### **Hydraulic Crimp & Cut**



#### FEATURES

- Dies available 10-1000mm² copper/aluminium LV/HV
- TC120 cutting head max cutting diameter of 120mm
- Please state cable type and size

#### **Battery Crimp & Cut**



- Dies available 10-1000mm² copper/aluminium LV/HV
- TC120 cutting head max cutting diameter of 120mm
- Please state cable type and size







**Toolout Hire** 

#### **FEATURES**

- Long term hire deals available Please contact our sales department for further information
- All hire prices include die sets to ensure the correct sizes are supplied please advise at time of order
- Dies are available for copper and aluminium cables, C-taps and elbow contacts

#### **Cable Spiking Tool**

#### **FEATURES**

 Used for spiking power cables prior to jointing, terminating or repair



#### **Pfisterer Tool**

#### FEATURES

- Standard size 1, 2, 3 tool
- Larger sizes 4-5S and 6 also available on request



#### **Cable Jack & Spindle**



### **TDUX Duct Seal Inflation Tool**



#### FEATURES

- Both 3 or 6 ton versions available
- Due to size and weight additional carriage may apply on this item. Contact your local sales office for more information

#### FEATURES

- Complete with pressure gauge to ensure correct installation
- Please order gas separately see page 200

#### **Tool Repair & Calibration**

- Cembre and Prysmian approved repairer
- Calibration certificates supplied
- Estimates provided prior to works
- Reconditioned tools available
- All tools must be calibrated after each hire to comply with BS7671 (UK Wiring Regulations)





#### **Pfisterer Tool**

#### **FEATURES**

- Tools comprises of the following
  - Carry case
  - Compression head size 1,2,3 including pull off head
  - Impact device 1,2,3 for preassemble of connector contacts
  - Hydraulic 60816 Compression tool
  - Chain for suspension of assembly lever and hole bar
  - T-handle screw driver SW6
  - Assembly lever for pressing and releasing the bell housing
- For installation of Connex connectors size 1, 2 and 3. For sizes 4, 5 and 6 please contact our sales team

Part Number	Description
PFISTERER TOOL	For size 1, 2, 3



Connex installation tool

#### **Spiking Tool**

#### FEATURES

- The Bowthorpe Cable Spiker is intended to prove that a selected cable, previously disconnected, is in fact dead before site work commences
- Silent in operation and of a robust and rigid construction
- The kit comprises a hand operated hydraulic pump connected by a fully insulated hose to a hydraulic ram which carries the diamond shaped chisel cable spike
- All component parts are supplied in a stout wooden carrying case
- Ram is mounted on a shaped tubular steel body which is located and held around the cable up to 102mm diameter
- An independent earth cable 6m x 50mm2 with suitable connecting lugs are also supplied
- **WARNING:**

This spiker must not be used without an earth cable connected and properly earthed as failure to do so could have serious consequences for the operator in the event of a live cable being pierced



Cable spiker kit

Part Number	Description
SG1	Up to 102mm cable diameter

### Safety Equipment Tools & Equipment



#### **Rubber Switchgear Matting**



#### **FEATURES**

- Maximum coil size is 10 metres
- Can be cut to specific length price always rounded up to next complete metre

Part Number	Thickness	Tested to	Working Voltage
LVRM6	6mm	15,000 volts	450 volts
LVRM9	9mm	15,000 volts	650 volts
HVRM	4mm	50,000 volts	11,000 volts



#### **Insulating Gloves**



#### **FEATURES**

- Fully insulating gloves each test stamped for working voltages ranging from 500V-36000V
- Manufactured to EN60903
- Available in four sizes
- Gloves are tested by inflation and visual inspection carried out by a pneumatic glove tester

Part Number	Voltage Class	Size
0583	00	8, 9, 10, 11
0584	0	8, 9, 10, 11
0585	1	8, 9, 10, 11
0586	2	8, 9, 10, 11
0587	3	8, 9, 10, 11
0588	4	8, 9, 10, 11



#### **Leather Outer Gloves**



- Fully insulated gloves each test stamped for working voltages ranging from 500V to 36000V
- Worn over the insulating gloves to protect against mechanical hazards and electrical arcing
- Available in sizes 8-12

Part Number	Size
058L	8 - 12

### Tools & Equipment Safety Equipment



#### **Dielectric Boots**

#### **FEATURES**

- Dielectric boots in various sizes from 6 to 13
- Certified protection against electric shock
- Oil and chemical resistant sole
- Conforms to EN345-1.SB and EN50321 Class 0
- Overall boot tested to 20kV

Part Number	Size
871906/40	6
871907/41	7
817908/42	8
871909/43	9

Part Number	Size
871909/44	10
871911/45	11
871911/46	12
871911/47	13



**Dielectric Boots** 

#### Safety Hook

#### FEATURES

- Safety rescue hook used for retrieval of victims of electric shock
- Rated for systems up to 60kV
- Safeguards the life of the first aider
- Should be placed in a prominent and easily accessible position near to the live site

Part Number	Voltage Class	Size (Length)
509049	Up to 60kV	1950mm
509048	Up to 1kV	1000mm

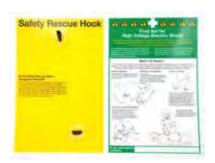


**Safety Hooks** 

#### **Safety Rescue Hook Station**

- The hook station offer a safe storage place for the rescue hook
- Detailed on the hook station are basic life support checks and techniques for the first aider to administer prior to paramedics arriving
- Hook station and hook should be in a prominent and easily accessible position near to the live site
- Hook not included

Part Number	Voltage Class	Size (Length)
509050	1kV	580 x 450
509051	60kV	580 x 805



**Safety Rescue Hook Station** 





### Gas Torch Kits & Accessories Tools & Equipment



#### **Gas Torch Kit complete with Burner, Hose and Handle**



Gas torch kit

#### **FEATURES**

- Kit designed specifically for jointers
- Two different burners for the complete range of heat shrinking applications
- Please note all items, including cut-to-length hose, can be bought separately

Part Number	Kit Contents
TOL/GTK	Complete safety handle, soft flame burner, 4m hose with all end fittings attached, carry case and regulator



#### **Handle for Gas Torches**



Gas torch handle

#### **FEATURES**

- Piezo igniton with instant trigger on/off function
- Bayonet fitting for burners
- Valve for precise flame setting
- Hose connection BSP 3/8" LH

Part Number	Working Pressure Bar
Н3366	1.5-4



#### **Hot Air and Soft Flame Burners**



#### Hot air burners

#### **FEATURES**

- Hot-air burners with powerful windproof hot-air streams for heat shrinking
- 3349 ideal for shrinking in confined spaces and fibre optic closures
- 3359 is an extra small hot-air burner incorporating a heat reflector, ideal for signal systems, traffic lights, alarm systems, marine applications, automobiles and other vehicle repairs
- Work pressure 2 bar
- Soft flame design ideal for cable work and other heat shrinking applications
- Soft flame burners with sweeping, powerful yellow and blue soot-free windproof flames

Part Number	Туре	Burner Diameter
HAB32-15 (3349)	Hot Air Burner	32x15mm
HAB 25 (3359)	Hot Air Burner	25mm
SFB28 (334791)	Soft Flame Burner	28mm

Part Number	Туре	Burner Diameter
SFB38 (334191)	Soft Flame Burner	38mm
SFB50 (334891)	Soft Flame Burner	50mm



#### **Regulator for Gas Torches**



Gas torch regulator

- Suitable for use with the H3366 handle
- Hose connection bsp 3⁄8" lh

Part Number	Working Pressure Bar
3091-21	2





### Tools & Equipment Band-It Tooling



#### **Light and Heavy Duty Applications**

#### FEATURES

- C001 tool is for light and heavy duty band and buckle products
- Tensions up to 2400lbs for use on band up to 3/4"
- C007 tool is for light duty coated or uncoated band and bandfast clamps
- Hand ratchet mechanism

#### Part Number

C001 TOOL

**CO75 TOOL - BANTAM** 



#### Cable Tie Tensioning Tool

#### FEATURES

- AE200 tensions all re-useable Band-it ties
- AE201 hook tool tensions all re-usable and multilock ties

#### **Part Number**

AE200 TOOL

AE201 TOOL



Hand tension tool

#### **Cable Tie Tensioner with Auto Cut Mechanism**

#### **FEATURES**

- M503 tool adjustable/variable tension prevents over tensioning of Multi-lok ties
- Can be used on both coated and uncoated Multi-lok ties
- K502 tool adjustable/variable tension prevents over tensioning of Ball-lok ties
- Can be used on both coated and uncoated Ball-lok ties
- KE922 manual tool for use with multi-lok and Ball-lok ties
- Automatic cut off
- Weight 0.43kg

#### Part Number

M503 TOOL

K502 TOOL



For use with Band-it coated and uncoated Multi-lock ties

#### Cable Tie Tensioner and Cutter

#### **FEATURES**

- Variable/adjustable tension prevents over tensioning of ties
- Can be used on both coated and uncoated Ball-Lok ties
- Can be used on both coated and uncoated ties

#### Part Number

KE9229



For use with Band-it
Multi-lok and Ball-lok ties





# **Cable Data**

# Contents

226	Selector Table
227	LV Single Core XLPE Cables
228	LV Two & Three Core XLPE Cables
229	LV Four Core XLPE Cables/ 3.3kV Three Core XLPE Cables
230	LV & 3.3kV Three & Four Core PILC Cables
231	Multi-core & Multi-paired Cables
232	Fireproof Cables
233	11kV XLPE Cables
234	22kV XLPE Cables
235	33kV XLPE Cables
236	11kV PILC & PICAS Cables



#### **Cable Gland & Cleat Selector**



#### For XLPE/SWA/PVC and LSF 600/1000 Volt Power Cables

CABLE SPEC			CLE	ATS			GLANDS	
Conductor Area mm²	Number of cores	Telcleats 385AA	Aluminium Claw Cleats 370BA	Plastic LSF Cleats E	Aluminium Cleats SW1/2B	BW Indoor	CW Indoor/ Outdoor	E1W E1WF
	2	1	1	0	-	20S	20SS	20SS
	3	1	1	0	-	205	20SS	20SS
	4	1	1	0	-	205	20S	205
1.5	7 12	2 3	2 3	1 2	2 3	20S 20	20S 20	20S 20
1.5	19	4	4	3	4	25	25	25
	27	5	5	4	5	25	25	25
	37	6	6	5	6	32	32	32
	48	6	6	5	6	32	32	32
	2	1	2	0	2	205	20S	20S
	3	1	2	1	2	205	20S	205
	7	2 2	2 3	1 2	2 3	20S 20	20S 20	20S 20
2.5	12	4	4	3	4	25	25	25
	19	5	5	4	5	25	25	25
	27	6	6	5	6	32	32	32
	37	6	6	6	6	40	40	40
	2	2	2	1	2	20S	20S	20S
4	3	2	2	1	2	20	20	20
	4	3	3	2	3	20	20	20
	2	3	3	2	3	20	20	20
6	3	3	3	2	3	20	20	20
	2	4 4	4 4	3 3	4	20 25	20 25	20 25
10	3	4	4	3	4	25	25 25	25 25
10	4	4	5	4	5	25	25	25
	2	4	4	3	4	25	25	25
16	3	4	5	4	5	25	25	25
	4	5	6	4	6	25	25	25
	2	4	4	4	4	25	25	25
25	3	5	6	5	6	32	32	32
	4	6	6	5	6	32	32	32
35	2	5	5	5	5	32	32	32
35	3 4	5 6	6 6	5 5	6	32	32	32
	2	5	6	5 5	6 6	32 32	32 32	32 32
50	3	6	6	5	6	32	32	32
	4	6	6	6	6	40	40	40
	2	6	6	5	6	32	32	32
70	3	6	7	6	7	40	40	40
	4	7	7	7	7	40	40	40
	2	6	7	6	7	40	40	40
95	3	7	7	7	7	40	40	40
	4	8	8	7	8	50	50	50S
120	3	7 7	7 o	6 7	7	40 50	40 50	40 50S
120	4	8	8 9	8	8 9	50	50	505
	2	7	8	7	8	50	50	50S
150	3	8	9	8	9	50	50	50S
	4	-	10	9	10	50	50	50
	2	8	9	8	9	50	50	50S
185	3	8	9	9	9	50	50	50
	4	-	10	10	10	63	63	63S
2/0	2	8	9	8	9	50	50	50
240	3	-	10	10	10	63	63	63S
	2	-	11	11 9	11	63	63	63 635
300	3	-	10 11	9 11	10 11	63 63	63 63	63S 63
300	4	-	12	12	12	75	75	75S
	2	-	11	10	11	63	63	63
400	3	-	12	12	12	75	75	75S
	4	-	13	14	13	75	75	75
Gland size recom	mendations or	nly apply to P		- as stocked by	Jointina Tech			

Gland size recommendations only apply to Prysmian Glands - as stocked by Jointing Tech





LV Single Core XLPE Cables

#### Single Core 6491X, Stranded Copper Conductor PVC or LSF 450/750V

Conductor size mm²	Approx overall diameter mm	Voltage drop DC mV/A/m	Voltage drop DC single phase mV/A/m	Voltage drop three phase AC mV/A/m	Approx cable weight kg/km
1.5	3.0	29	29	25	23
2.5	3.6	18	18	15	35
4	4.2	11	11	9.5	51
6	4.7	7.3	7.3	6.4	71
10	6.1	4.4	4.4	3.8	120
16	7.2	2.8	2.8	2.4	180
25	8.4	1.75	1.8	1.55	280
35	9.5	1.25	1.3	1.1	380
50	11.3	0.93	1.0	0.85	490
70	12.6	0.63	0.72	0.61	710
95	14.7	0.46	0.56	0.48	980
120	16.2	0.36	0.47	0.41	1210
150	18.1	0.29	0.41	0.36	1510
185	20.2	0.23	0.37	0.32	1900
240	22.9	0.18	0.33	0.29	2490
300	27.0	0.145	0.31	0.27	3050
400	32.0	0.105	0.29	0.25	3900

#### Single Core Unarmoured, Stranded Copper Conductor LSF - 600/1000V BS5467

Conductor size mm²	Approx overall diameter mm	Approx cable weight kg/km
150	25.8	1950
185	28.0	2350
240	30.5	3000
300	33.5	3675
400	37.8	4700
500	41.1	5925
630	45.3	7450
800	54.8	9400
1000	58.4	11400

#### Single Core - Aluminium Wire Armoured, Stranded Copper Conductor, LSF -600/1000V BS6724

Conductor size mm²	Approx overall diameter mm	Average Thickness Of Insulation (mm)	Approx diameter under armour mm	Nominal Diameter Of Armour Wire (mm)	Approx cable weight kg/km
70	20	1.1	14.7	1.25	950
95	21.6	1.1	16.3	1.25	1225
120	23.2	1.2	17.9	1.25	1500
150	25.8	1.4	19.5	1.6	1950
185	28	1.6	21.6	1.6	2350
240	30.5	1.7	23.9	1.6	3000
300	33.5	1.8	28.5	1.6	3675
400	37.8	2	30.4	2	4700
500	41.1	2.2	33.9	2	5925
630	45.3	2.4	38.2	2	7450
800	54.8	2.6	43.7	2.5	9400
1000	58.4	2.8	48.5	2.5	11400

#### **DISCLAIMER**







#### LV Two & Three Core XLPE Cables



#### Two Core XLPE - Stranded Copper Conductor, Steel Wire Armoured, LSF -600/1000V BS5467

Conductor size mm²	Approx overall diameter mm	Approx diameter under armour mm	Nominal diameter of armour wires mm	Approx cable weight kg/km
1.5	11.5	7.1	0.9	320
2.5	12.9	8.3	0.9	365
4	14.4	9.8	0.9	440
6	15.6	11	0.9	470
10	16.8	12	0.9	810
16	19.6	14.1	1.25	1025
25	20.9	15.6	1.25	1000
35	23	17	1.6	1400
50	25.3	19.3	1.6	1750
70	28.5	22.3	1.6	2300
95	32.3	25.1	2	3100
120	34.8	27.4	2	3700
150	37.9	30.3	2	4400
185	42.5	33.5	2.5	5700
240	46.5	37.3	2.5	7100
300	50.3	40.9	2.5	8500
400	54.7	45.1	2.5	10700

#### Three Core XLPE - Stranded Copper Conductor, Steel Wire Armoured, LSF -600/1000V BS5467

Conductor size mm <sup>2</sup>	Approx overall diameter mm	Approx diameter under armour mm	Nominal diameter of armour wires mm	Approx cable weight kg/km
1.5	12	8	0.9	300
2.5	13	9	0.9	350
4	14	10	0.9	450
6	15.2	11	0.9	550
10	18	13	1.25	800
16	21	15	1.25	1100
25	26	19	1.6	1700
35	28	22	1.6	2100
50	30	24.3	1.6	2400
70	34	27.4	1.6	3100
95	38	30.7	2	4100
120	41.3	33.8	2	5000
150	45	36	2.5	6300
185	49	40	2.5	7600
240	54	45.5	2.5	9600
300	59	49.9	2.5	11600
400	65	55	2.5	14400

#### DISCLAIMER









#### Four Core XLPE - Stranded Copper Conductor, Steel Wire Armoured, LSF - 600/1000V **BS5467**

Conductor size mm²	Approx overall diameter mm	Approx diameter under armour mm	Nominal diameter of armour wires mm	Approx cable weight kg/km
1.5	12.9	8.3	0.9	310
2.5	14.9	9.8	0.9	400
4	15.7	11.1	0.9	510
6	17.9	12.4	1.25	730
10	19.7	14.2	1.25	930
16	22.4	16.7	1.25	1260
25	27.3	20.7	1.6	2000
35	30.2	23.4	1.6	2500
50	32.2	26.0	1.6	3000
70	38.0	30.6	2.0	4120
95	40.7	34.1	2.0	5280
120	45.4	37.6	2.5	6790
150	50.6	41.6	2.5	8060
185	55.3	46.0	2.5	9770
240	61.2	51.7	2.5	12270
300	66.8	56.9	2.5	14900
400	75.4	64.0	3.15	19270

#### Three Core XIpe - Stranded Copper Conductor, Steel Wire Armoured, LSF -1900/3300V BS5467

Conductor size mm²	Approx overall diameter mm	Average thickness of insulation mm	Approx diameter under armour mm	Nominal diameter of armour wires mm	Approx cable weight kg/km
25	31.3	2	25.3	1.6	1125
35	33.9	2	27.7	1.6	1650
50	35.1	2	27.9	2	2250
70	38.4	2	31	2	2750
95	41.5	2	33.9	2	3600
120	45.7	2	36.9	2.5	4500
150	48.3	2	39.3	2.5	5800
185	51.6	2	42.5	2.5	6500
240	56.1	2	46.8	2.5	7500
300	60.4	2	50.9	2.5	9375
400	65.3	2	55.4	2.5	10700

#### DISCLAIMER







#### LV & 3.3kV Three & Four Core PILC Cables



## Three Core PILC - Stranded Copper Conductor, Steel Wire Armoured - 600/1000V BS6480

Conductor size mm²	Approx overall diameter mm	Approx diameter over lead mm	Nominal diameter of armour wire mm	Approx cable weight kg/km
25	27.6	17.8	1.6	2650
35	29.9	20.1	1.6	3200
50	32.4	22.4	1.6	3850
70	36.4	25.4	2	5000
95	40	28.8	2	6210
120	43.2	31.8	2	7350
150	48.4	35.6	2.5	9280
185	52	39	2.5	10910
240	57.4	44.2	2.5	13500
300	62.1	48.5	2.5	16030
400	67.9	53.9	2.5	19570

## Four Core PILC - Stranded Copper Conductor, Steel Wire Armoured - 600/1000V BS6480

Conductor size mm²	Approx overall diameter mm	Approx diameter over lead mm	Nominal diameter of armour wire mm	Approx cable weight kg/km
25	30.2	20.4	1.6	3170
35	32.9	22.9	1.6	3770
50	36.6	25.6	2	4840
70	40.6	29.4	2	6140
95	44.9	33.5	2	7650
120	49.5	36.9	2.5	9530
150	54.3	41.3	2.5	11490
185	58.5	45.3	2.5	13560
240	65.2	51.6	2.5	17050
300	70.5	56.7	2.5	20280
400	78.8	63.1	3.5	25660

## Three Core PILC - Stranded Copper Conductor, Steel Wire Armoured - 1900/3300V BS6480

Conductor size mm <sup>2</sup>	Approx overall diameter mm	Average thickness of insulation mm	Approx diameter under armour mm	Nominal diameter of armour wire mm	Approx cable weight kg/km
25	30.1	1.4	20.3	1.6	2570
35	32.4	1.4	22.4	1.6	2900
50	35.7	1.4	24.7	2	3580
70	39.2	1.4	28	2	4260
95	42.8	1.4	31.4	2	5020
120	46.9	1.4	34.3	2.5	6120
150	49.9	1.8	37.1	2.5	6890
185	53.5	1.8	40.5	2.5	7860
240	58.5	2	45.1	2.5	9290
300	63.2	2	49.6	2.5	10850
400	70.3	2	55	2.5	13690

#### DISCLAIMER





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**Multi-core & Multi-paired Cables** 

## Multi Core XLPE, Steel Wire Armoured, Stranded Copper Conductor, LSF - 600/1000V BS6724

FIVE CORE				
Nominal cross sectional area mm²	Approx overall diameter mm	Approx diameter under armour	Nominal diameter of armour wires mm	Approx cable weight kg/km
1.5	14.9	9.8	0.9	400
2.5	16.5	11.4	0.9	490
4	18.9	12.9	1.25	715
6	20.4	14.4	1.25	900
10	23.2	17	1.25	1200
16	27.3	20.2	1.6	1650
25	30	24	1.6	2200
35	32.9	26.7	1.6	2700
SEVEN COR	Ε			
1.5	15.8	10.7	0.9	500
2.5	17.6	12.5	0.9	730
4	20.1	14.1	1.25	840
TWELVE CO	RE			
1.5	20	14	1.25	820
2.5	22.8	16.6	1.25	1020
4	26.1	19.2	1.6	1390

NINETEEN C	ORE			
Nominal cross sectional area mm²	Approx overall diameter mm	Approx diameter under armour	Nominal diameter of armour wires mm	Approx cable weight kg/km
1.5	22.6	16.4	1.25	1080
2.5	27	19.9	1.6	1530
4	29.7	22.6	1.6	1850
TWENTY-SE	VEN CORE			
1.5	27.3	20.0	1.6	1300
2.5	31.3	24	1.6	1960
4	34.8	27.3	1.6	2420
THIRTY-SEV	EN CORE			
1.5	29.9	22.5	1.6	1850
2.5	34.3	27	1.6	2440
4	39.6	31.1	2	3320
FORTY-EIGH	T CORE			
1.5	33.5	26	1.6	2900
2.5	40.1	31.4	2	3550

44.7

## Multi Paired PVC, Steel Wire Armoured, Stranded Copper Conductor - Part 2 Type 2 BS5308

INDIVIDUA	LLY SCR	EENED												
	1 P.	AIR	2 PAIR (QUAD)		5 PAIR		10 PAIR		20 PAIR		30 PAIR		50 PAIR	
Cable CSA	Out- side Diam- eter	Under Ar- mour												
0.5mm²	-	-	15.8	11.0	19.9	14.2	26.9	20.1	33.3	26.3	39.5	31.3	50.5	40.7
0.75mm <sup>2</sup>	-	-	16.6	11.8	21.0	15.3	28.5	21.7	36.8	28.8	42.9	34.5	54.0	44.0
1.5mm²	-	-	19.4	13.7	24.4	17.8	32.5	25.5	41.6	33.4	49.8	40.0	61.6	51.2

COLLECTIV	ELY SCR	REENED													
	1 PAIR 2 PAIR (QUAD)				5 PAIR		10 F	10 PAIR		20 PAIR		30 PAIR		50 PAIR	
Cable CSA	Out- side Diam- eter	Under Ar- mour													
0.5mm <sup>2</sup>	11.4	7.0	12.3	7.9	17.9	13.1	22.9	17.2	29.1	22.3	33.9	26.9	42.1	33.9	
0.75mm <sup>2</sup>	11.7	7.3	12.9	8.3	19.8	14.3	25.3	18.7	31.3	24.5	37.5	29.5	47.0	37.4	
1.5mm²	12.9	8.3	14.3	9.7	22.1	16.4	28.4	21.6	35.7	28.5	42.5	34.3	53.4	43.6	

INDIVIDUA	LLY & CO	OLLECTI	VELY SC	REENED										
	1 P.	AIR	2 PAIR (QUAD)		5 PAIR		10 PAIR		20 PAIR		30 PAIR		50 PAIR	
Cable CSA	Out- side Diam- eter	Under Ar- mour												
0.5mm²	-	-	16.8	12.0	20.9	15.2	27.9	21.1	34.3	27.3	40.5	32.3	51.5	41.7
0.75mm <sup>2</sup>	-	-	17.6	12.8	22.0	16.3	29.5	22.7	37.8	29.8	43.9	35.5	55.0	45.0
1.5mm²	-	-	20.4	14.7	25.4	18.8	33.5	26.5	42.6	34.4	50.8	41.0	62.6	52.5



### **Fireproof Cables**



#### Fire Proof Cable - FP400 Three & Four Core

THREE CO	RE					
Nominal cross sectional area mm²	Ap- prox over- all dia mm	Ap- prox diam- eter under ar- mour mm	Approx cable weight kg/km	Current rating Three phase AC Clipped direct Amps	Cur- rent rating Three phase AC Free Air Amps	Volt drop Three phase AC mV/ A/m
1.5	13.4	8.8	340	23	25	27
2.5	14.8	10.2	430	31	33	16
4	16.1	11.5	510	42	44	10
6	17.4	12.8	620	53	56	6.8
10	20.3	14.8	930	73	78	4.0
16	22.8	17.1	1210	94	99	2.5
25	27.4	20.8	1800	124	131	1.65
35	29.2	22.4	2100	154	162	1.15
50	33.0	26.2	2600	187	197	0.87
70	37.0	30.0	3400	238	251	0.60
95	40.6	32.4	4500	289	304	0.45
120	43.8	35.4	5500	335	353	0.37
150	48.0	38.4	6900	386	406	0.30
185	52.0	42.2	8200	441	463	0.26
240	57.1	46.9	10200	520	546	0.21
300	63.0	52.6	12200	599	628	0.185
400	69.5	58.7	15000	673	728	0.165

FOUR COF	RE					
Nominal cross sectional area mm²	Ap- prox over- all dia mm	Ap- prox diam- eter under ar- mour mm	Approx cable weight kg/km	Current rating Three phase AC Clipped direct Amps	Cur- rent rating Three phase AC Free Air Amps	Volt drop Three phase AC mV/ A/m
1.5	14.3	9.7	390	23	25	27
2.5	16.0	11.4	490	31	33	16
4	17.3	12.7	590	42	44	10
6	19.6	14.1	830	53	56	6.8
10	21.8	16.3	1040	73	78	4.0
16	24.6	18.9	1370	94	99	2.5
25	29.1	22.5	2100	124	131	1.65
35	32.2	25.4	2500	154	162	1.15
50	35.0	28.0	3200	187	197	0.87
70	40.2	32.0	4500	238	251	0.60
95	44.0	35.6	5600	289	304	0.45
120	48.4	38.8	7200	335	353	0.37
150	52.5	42.7	8500	386	406	0.30
185	57.1	46.9	10300	441	463	0.26
240	62.7	52.3	12800	520	546	0.21
300	69.6	58.8	15600	599	628	0.185
400	78.0	65.3	20400	673	728	0.165

#### Fire Proof Cable - FP600S Three & Four Core

Nominal cross	Ap- prox	Ap- prox	Nom- inal	Approx cable		mended sories
sectional area mm²	overall dia mm	diam- eter under ar- mour mm	diam- eter of armour wires mm	weight kg/km	Claw Cleat Ref No	Brass Gland Ref No
4	21	15	1.25	800	370CG04	LSF25CW
6	21	15	1.25	820	370CG04	LSF25CW
10	23	17	1.25	1050	370CG05	LSF25CW
16	24	19	1.25	1400	370CG06	LSF25CW
25	29	22	1.6	2000	370CG06	LSF32CW
35	31	24	1.6	2300	370CG07	LSF32CW
50	32	25	1.6	2800	370CG07	LSF40CW
70	36	29	1.6	3600	370CG08	LS- F40SCW
95	40	32	2.0	4500	370CG08	LS- F50SCW
120	43	35	2.0	5400	370CG08	LS- F50SCW
150	48	39	2.5	6900	370CG09	LSF50CW
185	52	43	2.5	8200	370CG09	LSF63CW
240	57	47	2.5	10100	370CG09	LSF63CW
300	62	52	2.5	12200	370CG11	LSF63CW
400	69	58	2.5	15000	370CG12	LSF75CW

FOUR CORE								
Nominal cross	Ap- prox	Ap- prox	Nom- inal	Approx cable		Recommended accessories		
sectional area mm²	over- all dia mm	diam- eter under ar- mour mm	diam- eter of armour wires mm	weight kg/km	Claw Cleat Ref No	Brass Gland Ref No		
4	21	15	1.25	800	370CG04	LSF25CW		
6	23	17	1.25	950	370CG05	LSF25CW		
10	24	19	1.25	1200	370CG05	LSF25CW		
16	27	20	1.25	1600	370CG06	LSF32CW		
25	32	24	1.6	2400	370CG07	LSF32CW		
35	35	27	1.6	2800	370CG07	LSF40CW		
50	36	29	1.6	3200	370CG08	LSF40CW		
70	41	32	2.0	4500	370CG08	LS- F50SCW		
95	44	36	2.0	5700	370CG09	LS- F50SCW		
120	49	40	2.5	7300	370CG09	LSF50CW		
150	55	44	2.5	8600	370CG10	LSF63CW		
185	59	48	2.5	10500	370CG11	LSF63CW		
240	64	54	2.5	12900	370CG12	LSF63CW		
300	70	59	2.5	15500	370CG13	LSF75CW		
400	79	66	3.15	20100	370CG14	LSF85CW		





11kV XLPE Cables

#### 11kV Single Core, Stranded Copper Conductor, Copper Wire Screen, Non-Armoured - BS6622/BS7835

Conductor size mm²	Overall cable diameter mm	Average thickness of insulation mm <sup>2</sup>	Copper wire screen mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	25.7	3.4	16	18.8	450	1.3
95	27.4	3.4	16	20.5	500	1.5
120	29.2	3.4	16	22.0	500	1.8
150	30.5	3.4	16	23.3	550	2.1
185	32.5	3.4	16	25.1	600	2.5
240	34.9	3.4	16	27.3	600	3.1
300	37.2	3.4	16	29.6	650	3.7
400	40.1	3.4	35	32.3	700	4.7
500	43.2	3.4	35	35.2	750	5.7
630	46.9	3.4	35	38.6	800	7.0

#### 11kV Single Core, Stranded Copper Conductor, Copper Tape Screen, Aluminium Wire **Armoured - BS6622/BS7835**

Conductor size mm²	Overall cable diameter mm	Average thickness of insulation mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	29.0	3.4	18.8	450	1.6
95	31.0	3.4	20.5	500	1.9
120	32.5	3.4	22.0	500	2.2
150	35.0	3.4	23.3	550	2.6
185	36.5	3.4	25.1	600	3.0
240	39.0	3.4	27.3	600	3.6
300	41.0	3.4	29.6	650	4.3
400	45.0	3.4	32.3	700	5.2
500	49.5	3.4	35.2	750	6.5
630	54.0	3.4	38.6	800	7.9

#### 11kV Three Core Armoured Copper Tape Screen - BS66221/ BS7835

Conductor size mm²	Overall cable diameter mm	Average thickness of insulation mm	Minimum bending radius mm	Cable weight kg/m
70	54.5	3.4	700	5.6
95	58.5	3.4	750	6.7
120	62.0	3.4	800	7.7
150	66.5	3.4	850	8.7
185	69.5	3.4	900	10.1
240	76.0	3.4	950	13.1
300	81.5	3.4	1050	15.4
400	89.0	3.4	1100	18.6

#### **DISCLAIMER**







#### 22kV XLPE Cables



#### 22kV Single Core, Stranded Copper Conductor, Copper Wire Screen, Non-Armoured - BS6622/BS7835

Conductor size mm <sup>2</sup>	Overall cable diameter mm	Average thickness Diameter over of insulation mm		Minimum bending radius mm	Cable weight kg/m
70	30.6	5.5	23.4	600	1.5
95	32.5	5.5	25.1	600	1.8
120	34.0	5.5	26.6	650	2.0
150	35.5	5.5	27.9	650	2.4
185	37.3	5.5	29.7	700	2.7
240	39.7	5.5	31.9	750	3.4
300	42.2	5.5	34.2	800	4.1
400	45.2	5.5	36.9	850	5.0
500	48.3	5.5	39.8	900	6.1
630	51.9	5.5	43.2	950	7.4

#### 22kV Single Core, Stranded Copper Conductor, Copper Tape Screen, Aluminium Wire **Armoured - BS6622/BS7835**

Conductor size mm²	Overall cable diameter mm	Average thickness of insulation mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	34.5	5.5	23.4	550	1.9
95	36.0	5.5	25.1	600	2.3
120	37.5	5.5	26.6	600	2.6
150	39.5	5.5	27.9	650	2.9
185	41.0	5.5	29.7	650	3.4
240	43.5	5.5	31.9	700	4.0
300	47.0	5.5	34.2	750	4.9
400	50.5	5.5	36.9	800	5.8
500	54.5	5.5	39.8	850	7.0
630	58.3	5.5	43.2	900	8.4

#### 22kV Three Core, Stranded Copper Conductor, Copper Tape Screen, Steel Wire **Armoured - BS6622/BS7835**

Conductor size mm <sup>2</sup>	Overall cable diameter mm	Average thickness of insulation mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	64.3	5.5	23.4	1050	7.8
95	68.5	5.5	25.1	1100	9.1
120	75.0	5.5	26.6	1200	11.0
150	78.5	5.5	27.9	1250	12.1
185	82.5	5.5	29.7	1300	13.8
240	87.5	5.5	31.9	1350	16.1
300	93.0	5.5	34.2	1450	18.4
400	100.5	5.5	36.9	1550	21.7

#### DISCLAIMER









**33kV XLPE Cables** 

#### 33kV Single Core, Stranded Copper Conductor, Copper Wire Screen, Non-Armoured - BS6622/BS7835

Conductor size mm <sup>2</sup>	Overall cable diameter mm	Average thickness of insulation mm	Copper wire screen mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	36.5	8.0	16	28.9	800	1.5
95	38.4	8.0	16	30.6	850	1.8
120	39.9	8.0	16	32.1	850	2.0
150	41.2	8.0	16	33.4	900	2.4
185	43.2	8.0	16	35.2	950	2.7
240	45.7	8.0	25	37.4	1000	3.4
300	48.2	8.0	25	39.7	1050	4.1
400	51.1	8.0	35	42.4	1100	5.0
500	54.0	8.0	35	45.3	1150	6.1
630	57.8	8.0	35	48.7	1250	7.4

#### 33kV Single Core, Stranded Copper Conductor, Copper Tape Screen, **Aluminium Wire Armoured - BS6622/BS7835**

Conductor size mm²	Overall cable diameter mm	Average thickness ofinsulation mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	41.4	8.0	28.9	900	2.4
95	43.3	8.0	30.6	950	2.7
120	44.8	8.0	32.1	950	3.1
150	47.5	8.0	33.4	1000	3.6
185	49.5	8.0	35.2	1050	4.0
240	51.7	8.0	37.4	1100	4.7
300	54.4	8.0	39.7	1150	5.5
400	57.3	8.0	42.4	1250	6.4
500	60.6	8.0	45.3	1300	7.6
630	64.2	8.0	48.7	1350	9.1

#### 33kV Three Core, Stranded Copper Conductor, Copper Tape Screen, Steel Wire Armoured - BS6622/BS7835

Conductor size mm²	Overall cable diameter mm	Average thickness of insulation mm	Diameter over insulation mm	Minimum bending radius mm	Cable weight kg/m
70	82.6	8	28.9	1500	10.7
95	86.7	8	30.6	1600	12.0
120	90.3	8	32.1	1650	13.3
150	93.3	8	33.4	1700	14.4
185	97.6	8	35.2	1800	16.1
240	102.9	8	37.4	1900	18.4
300	108.5	8	39.7	2000	21.0
400	114.9	8	42.4	2100	24.2

#### **DISCLAIMER**







#### 11kV PILC & PICAS Cables



#### 11kV Single Core PILC, Stranded Copper Conductor, PVC - BS6480

Conductor size mm <sup>2</sup>	Nominal outside diameter mm	Lead alloy sheath thickness mm	Over lead diameter mm	Minimum bending radius mm	Cable weight kg/km
50	21.1	1.2	18.0	350	1500
70	23.1	1.3	20.0	350	1900
95	25.0	1.3	21.9	400	2200
120	26.8	1.4	23.7	450	2600
150	28.3	1.4	25.2	450	3000
185	30.4	1.5	27.3	500	3600
240	33.0	1.5	30.0	500	4300
300	357	1.6	32.6	550	5100
400	39.0	1.7	35.8	600	6300
500	43.3	1.7	39.8	650	7500
630	47.7	1.8	44.0	750	9300
800	52.4	1.9	48.4	800	11500
1000	57.6	2.1	53.4	900	14200

## 11kV Three Core Pilc (Belted), Stranded Copper Conductor, Steel Wire Armoured - BS6480

Conductor size mm²	Nominal outside diameter mm	Armour wire diameter mm	Armour wire cross sectional area	Over lead diameter mm	Minimum bending radius mm	Cable weight kg/km
25	43.4	2.0	160	32.4	550	5100
35	42.3	2.0	157	31.3	550	5300
50	45.6	2.5	212	33.6	550	6500
70	48.9	2.5	226	36.9	600	7600
95	52.3	2.5	246	40.3	650	9000
120	55.0	2.5	261	43.0	700	10100
150	57.8	2.5	275	45.8	700	11500
185	61.2	2.5	295	49.2	750	13200
240	66.0	2.5	320	54.0	800	16000
300	71.6	3.15	278	58.3	900	19400
400	77.0	3.15	303	63.7	950	23100

#### 11kV Three Core Picas (Screened) - BS6480

Conductor size mm²	Approx diameter overall mm²	Approx overall thickness of aluminium sheath mm²	Approx cable weight kg/km
95	49	2	3400
185	60.7	2	5200
300	72.5	2.5	7500

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