

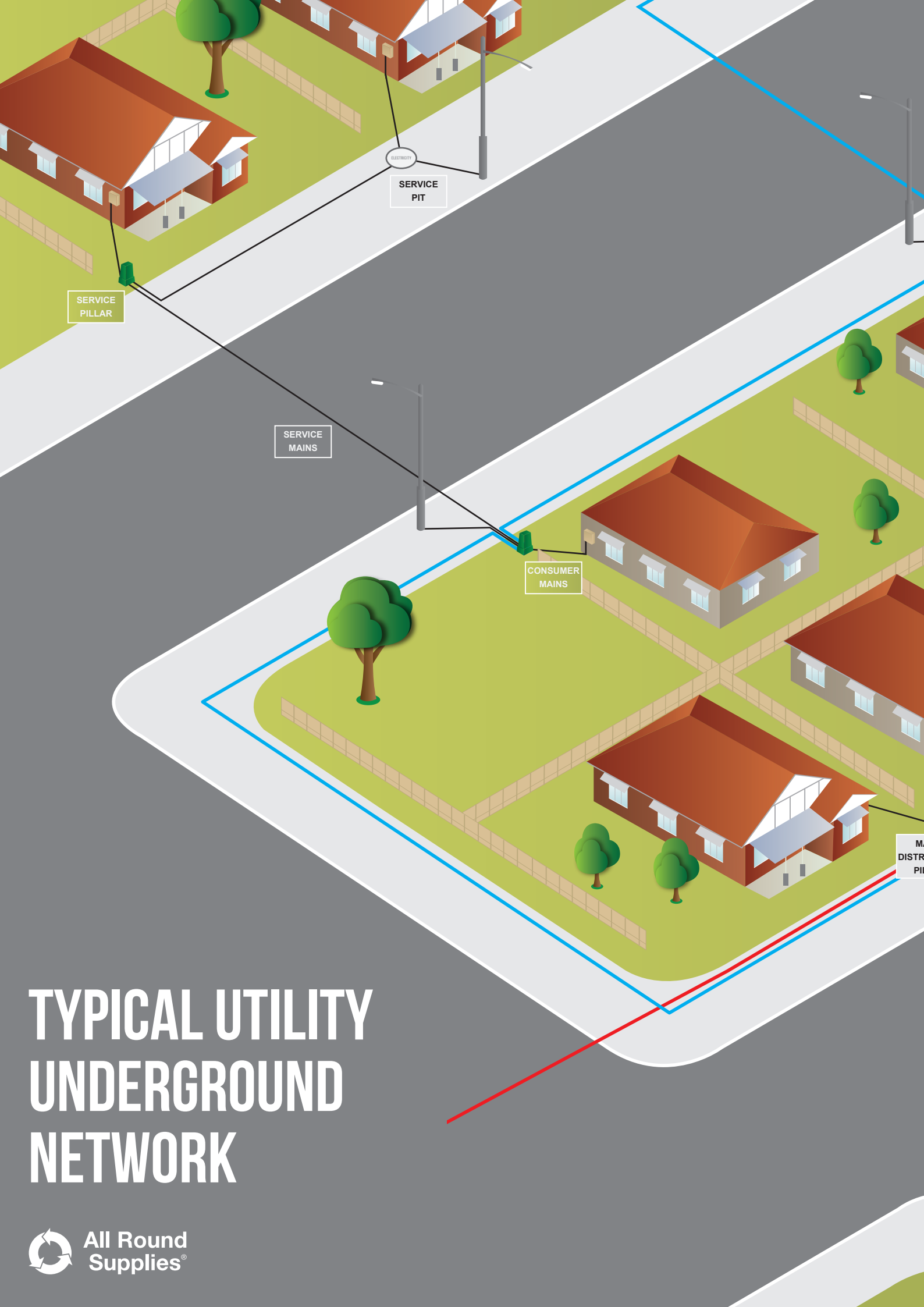


All Round
Supplies

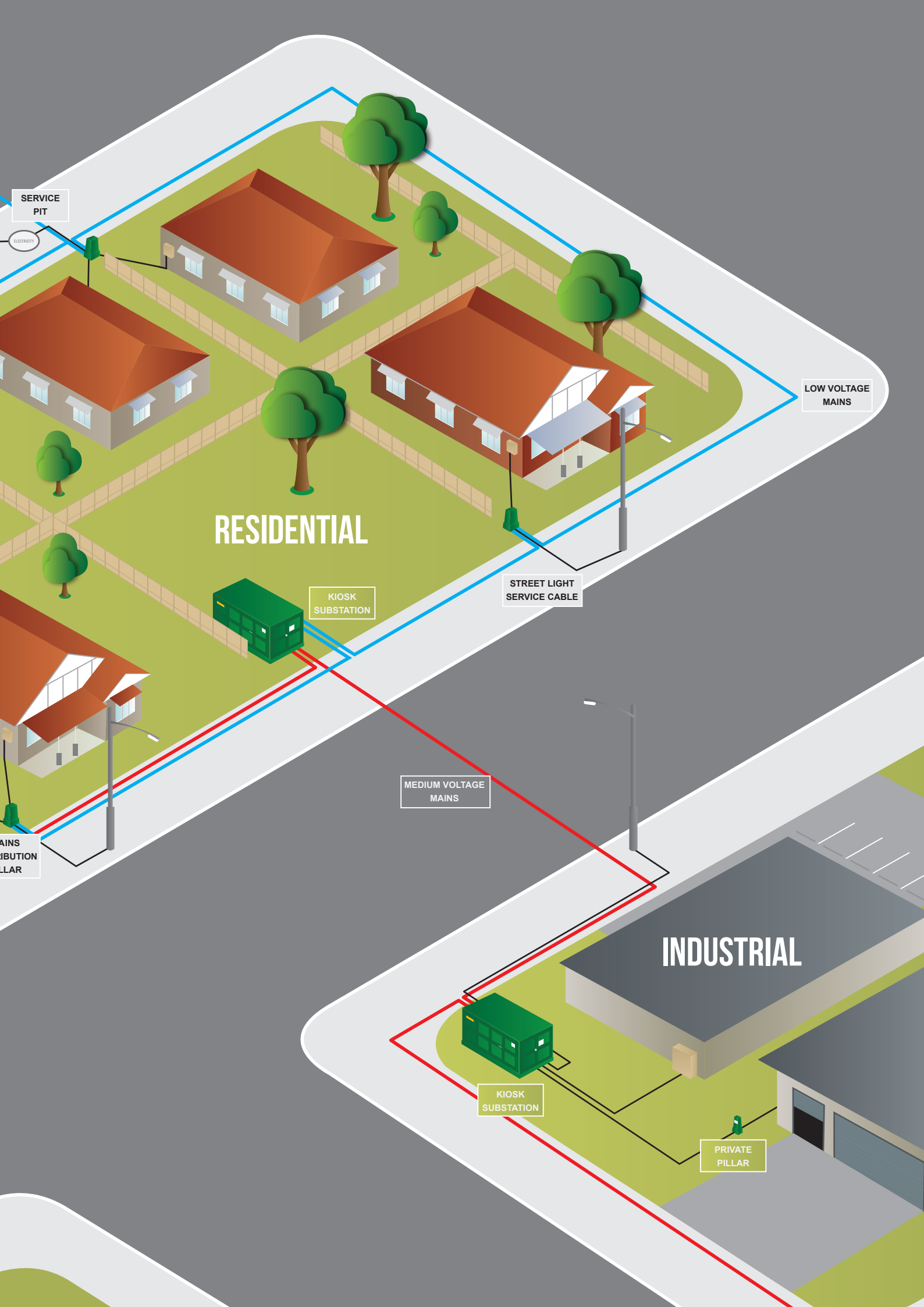


Ausgrid

Medium Voltage Underground



TYPICAL UTILITY UNDERGROUND NETWORK





AUSGRID MEDIUM VOLTAGE UNDERGROUND CATALOGUE

All Round Supplies is your one-stop specialist distributor for all the materials an electrical contractor needs. We carry an extensive range of utility-approved products for use on electrical infrastructure networks across Australia.

Our range of products make it easy for you to complete your overhead or underground project saving you time and money. We are committed to providing you with the best products, brands and service from many of the world's leading manufacturers.

All Round Supplies has a branch network covering Sydney (Prestons), Nowra and Newcastle (Beresfield), each staffed with industry specialists that understand your needs and are waiting to help.

WHAT WE OFFER:

- ▶ Huge range of stock in all branch locations.
- ▶ Project-specific packaging & labelling of deliveries.
- ▶ Coordinate deliveries to meet project deadlines.
- ▶ Kitting and ARSsemblies for ease of ordering.
- ▶ Ability to order in non-stocked items on request.
- ▶ Technical expertise and advice.
- ▶ Utility approved products.

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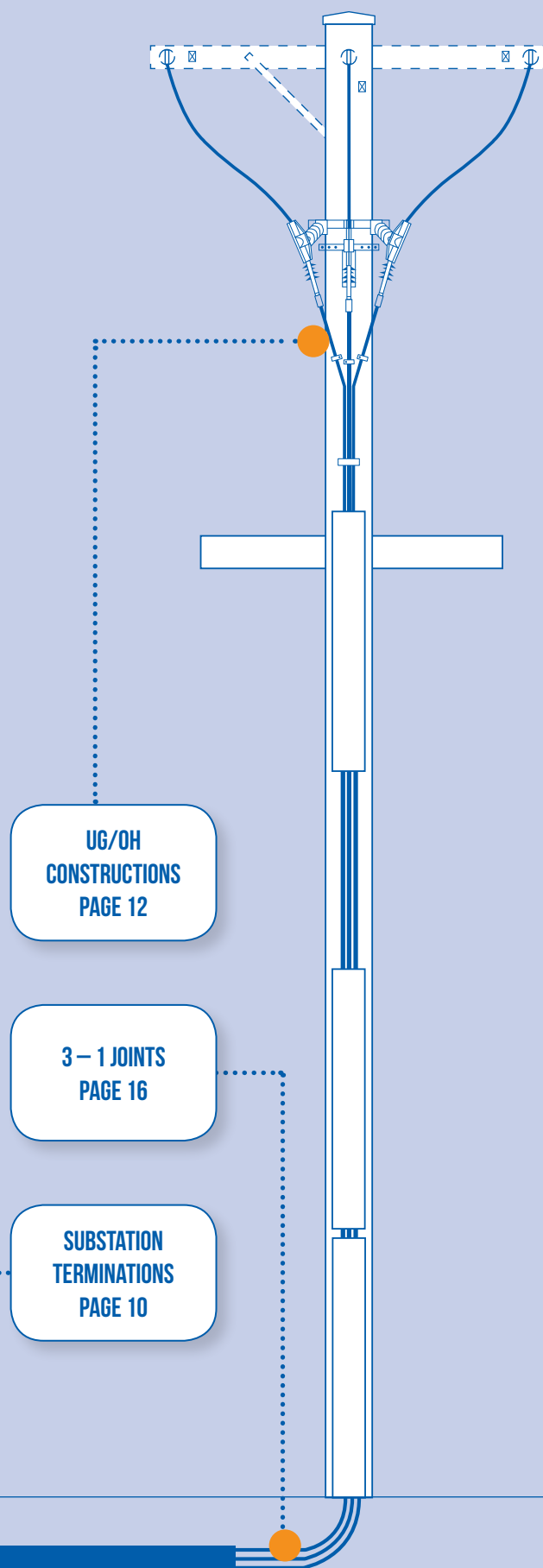
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Heatshrink
Joints



Resin
Joints



AUSGRID CABLE NOMENCLATURE

WHAT THE CODE LETTERS MEAN:

415V	240	AL3	XQ	CU (NW)	Z	/SAC
Voltage rating	Conductor size (mm ²)	Conductor type & no. of cores	Insulation	Neutral or screen wires (if applicable)	Sheath	Other information (if applicable)

BEFORE SLASH /

PHASE-TO-PHASE VOLTAGE, CROSS-SECTIONAL AREA (MM²), NUMBER OF CORES, INSULATING AND PROTECTING LAYERS.

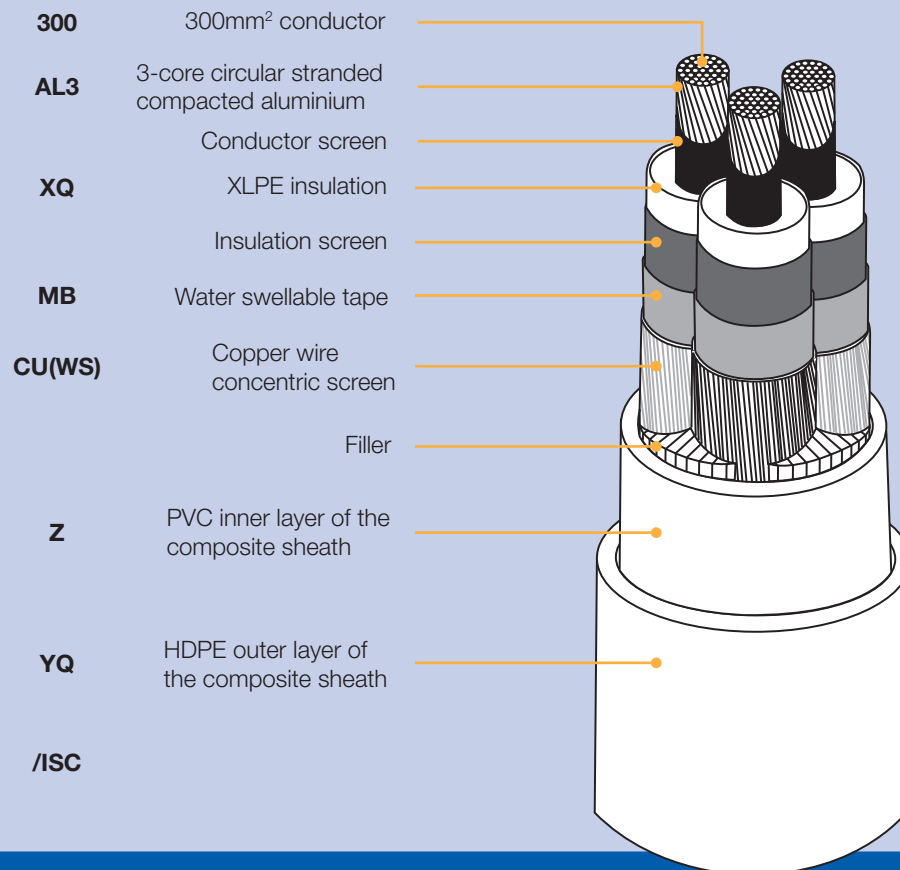
AL	Aluminium
AW	Alumoweld
BR	Butyl Rubber
CDCU	Cadmium Copper
CM	Cambric
CQ	Cellular Polythene
CU	Copper
CW	Copper Weld
DB	Double Brass Tape
DRT	Double Steel Reinforcing Tape
DT	Double Steel Tape Armour
DW	Double Steel Wire Armour
E	Thermo Plastic Elastomer
EPR	Ethylene Propylene Rubber
F	Filled Core
FE	Steel
FO	Fibre Optic Equipped
G	Semiconductive Screen
H	Hochstadter Screen
J	Jute or Hessian Sheath
L	Lead Sheath
MB	Moisture Barrier

MF	Water Swellable Yarns
MQ	Medium-Density Polyethylene
(N)	Concentric Neutral
(NW)	Wavewound Concentric Neutral
NY	Nylon (Termite Barrier)
P	Paper Insulation
PA	Polyethylene/Aluminium Tape Laminate Sheath
PR	Pair
Q	Polyethylene Insulation
R	Rubber Insulation
SF	Single Fibre-reinforced Plastic Rod Armour
SL	Single Lead Sheath
SS	Stainless Steel Sheath
ST	Single Steel Tape Armour
SW	Single Steel Wire Armour
TR	Tough Rubber Insulation
TRXQ	Tree Retardant Cross-Linked Polyethylene
(TS)	Taped Screen
(WS)	Stranded Wire Screen
XQ	Cross-linked Polyethylene
YQ	High-density Polyethylene
Z	Polyvinyl Chloride (PVC)

/ AFTER SLASH

SAC	Solid Aluminium Conductor
TX	Triplex
LDS	Light Duty Individual Screen
ZFR	Fire Retardant PVC
ISC	Individually Screen Cores
COM	Compacted Conductor
HDS	High Duty Individual Screen

Ausgrid Cable Example:

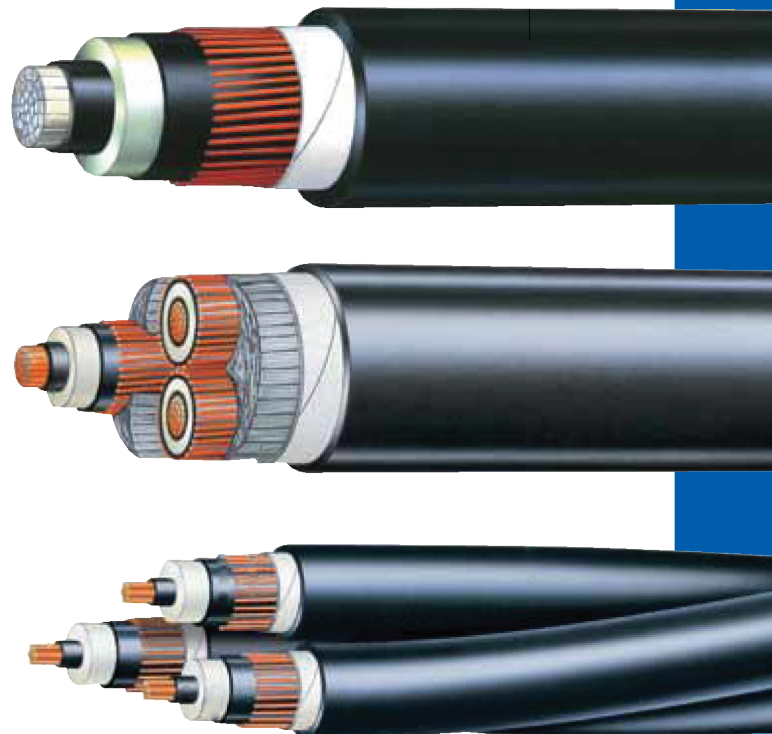


Cable Configurations:

Single Core Cable

Three Core Cable

Triplex Cable



Cable - 11kV Underground

Description	Cable Diameter	Code	Unit of Measure
11kV 70 CU1 TRXQ 16 CU(WS) YQ	26mm	05095	M
11kV 185 CU1 TRXQ 70 CU(WS) Z YQ/Triplex	36mm	06304N	M
11kV 300 CU1 TRXQ 70 CU(WS) Z YQ/Triplex	40mm	04389N	M
11kV 300 AL3 TRXQ 35 CU(WS) Z YQ	78mm	02932	M
11kV 400 AL3 TRXQ 35 CU(WS) Z YQ	85mm	02794N	M
11kV 500 AL3 TRXQ 35 CU(WS) Z YQ	93mm	03317N	M
11kV 500 CU3 TRXQ 35 CU(WS) Z YQ	93mm	06422N	M

Triple End Seal Kits

Description	Code	Unit of Measure
TRIPLE END SEAL, 185-300 1C HV CABLE EA (1 required per phase)	05040	Each
TRIPLE END SEAL, 300-500 MULTICORE EA	05039	Each
WIRE, FUSE 80AMP 1.63MM	03793	Coil 0.5kg

Heatshrink End Caps – Adhesive Lined

Description	Code	Unit of Measure
HEATSHRINK,END CAP 4-8 OD BLK LIN	04072	Each
HEATSHRINK,END CAP 8-17 OD BLK LIN	02646	Each
HEATSHRINK,END CAP 17-30 OD BLK LIN	02194	Each
HEATSHRINK,END CAP 30-45 OD BLK LIN	02422	Each
HEATSHRINK,END CAP 45- 65 OD BLK LIN	00197	Each
HEATSHRINK,END CAP 65-95 OD BLK LIN	02496	Each
HEATSHRINK,END CAP 95-115 OD BLK LIN	05034	Each

Heatshrink Tubing - Adhesive Lined

Description	Code	Unit of Measure
HEATSHRINK,TUBE LV 35/12MW BLK LND 1.2M	00318	1.2m Lgth
HEATSHRINK,TUBE LV 50/16MW BLK LND 1.2M	00129	1.2m Lgth
HEATSHRINK,TUBE LV 63/19MW BLK LND 1.2M	00547	1.2m Lgth
HEATSHRINK,TUBE LV 140/42MW BLK LND 1.5M	04892	1.5m Lgth

ELECTRICAL SHORTING AND MOISTURE SEALING CABLES

In accordance with The Ausgrid network standards all power and control cables shall be protected against moisture ingress at all times, including while being laid, regardless of site and/or weather conditions.

Cable ends which are not intended to be worked on immediately after laying must be electrically shorted and sealed against moisture ingress as soon as they are cut. This requirement applies to all cable ends, including cables in pillars and pillar-standards, cables intended to be abandoned or temporarily decommissioned, and cables still on cable drums.

The seals and electrical shorts must not be removed until the cables are

ready to be connected. Stripping of the outer sheathing of LV service cables and connection of any of the cores must not be carried out until connection of supply is required.

Where LV cables/service cables enter a customer's premises, the cable shall be at least single sealed to avoid the risk of water entering the premises via the cable.

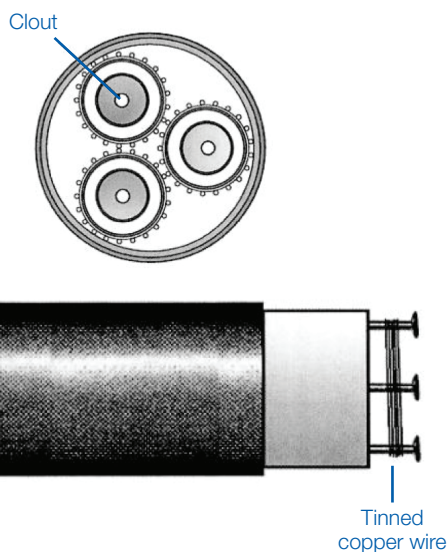
A triple end seal arrangement is required for all HV cables. A triple end seal arrangement is required for all exposed LV Distributor cables. Only a single seal cap is required for LV Distributor cables which are enclosed (e.g. cables left in a LV pillar or inside a kiosk for future connection).

ELECTRICAL SHORTING OF CABLES

Single core and Triplex cables



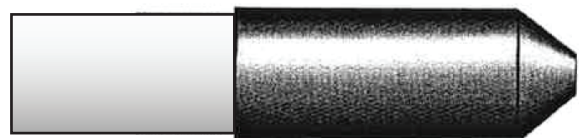
Three core cables



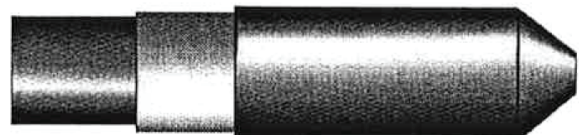
MOISTURE SEALING OF CABLES

Note that cable surfaces which will come into contact with adhesive-lined heatshrink components must be thoroughly cleaned, then degreased and abraded before applying the heatshrink components.

Single end seal



Triple end seal*



*Triple end seals shall be constructed in accordance with the installation instruction supplied in the triple end seal kit.

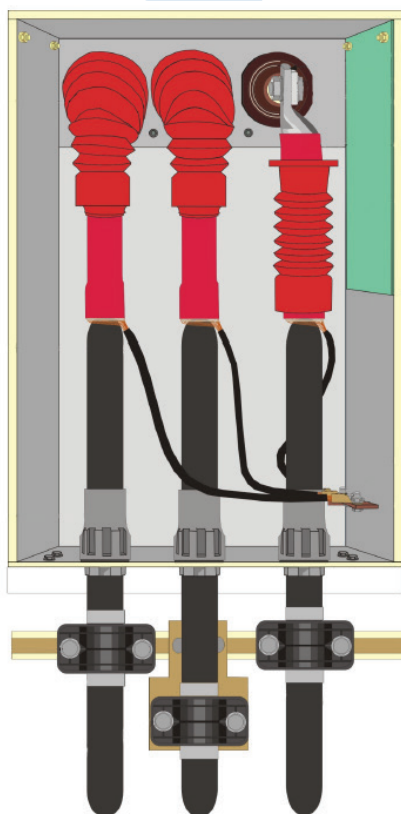
Termination Kits – Switchgear (ARSemblies)



Description	Ausgrid Ref	ARS Code	UOM
EAHVSUB, 11KV 1C 70 CU XLPE SAFELINK	HV1-54	A0936	Kit
EAHVSUB, 11KV 1C 70 CU XLPE LUCY VRN6A	HV1-53	A0631	Kit
EAHVSUB, 11KV 1C 70 CU XLPE LUCY HEAT FRMU	HV1-51	A0608	Kit
EAHVSUB, 11KV 3 X 1C 185 CU TRIPLEX SDAF3	HV1-50	A0866	Kit
EAHVSUB, 11KV 3 X 1C 185 CU TRIPLEX RM6	HV1-52	A0867	Kit
EAHVSUB, 11KV 3 X 1C 185 CU TRIPLEX SAFELINK	HV1-54	A0938	Kit
EAHVSUB, 11KV 3 X 1C 300 CU TRIPLEX SDAF3	HV1-50	A0460	Kit
EAHVSUB, 11KV 3 X 1C 300 CU TRIPLEX RM6 (with cable clamps)	HV1-52	A0468	Kit
EAHVSUB, 11KV 3 X 1C 300 CU TRIPLEX RM6 N (without cable clamps)	HV1-52	A1004	Kit
EAHVSUB, 11KV 3 X 1C 300 CU TRIPLEX SAFELINK	HV1-54	A0861	Kit
EAHVSUB, 11KV 3 X 1C 300 CU TRIPLEX LUCY VRN6A	HV1-53	A0630	Kit
EAHVSUB, 11KV 3 X 1C 300 CU TRIPLEX LUCY FRMU	HV1-51	A0602	Kit
EAHVSUB, 11KV 3C 300 AL XLPE SDAF3 HEAT	HV1-50	A0293	Kit
EAHVSUB, 11KV 3C 300 AL XLPE RM6 HEAT	HV1-52	A0467	Kit
EAHVSUB, 11KV 3X1C 185 CU TRIPLEX RM6 IAC	HV1-52	A1207	Kit
EAHVSUB, 11KV 3X1C 300 CU TRIPLEX RM6 IAC	HV1-52	A1208	Kit

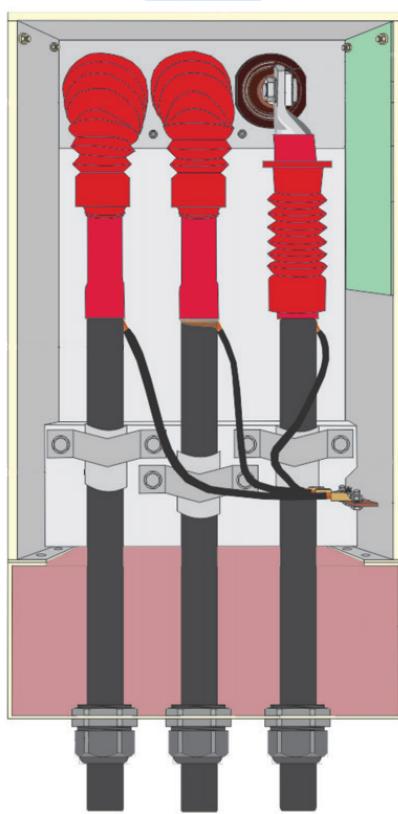
CABLE TERMINATION FOR RM6 SWITCHGEAR
WITHOUT ARC-RATED CHAMBER

HV1-52



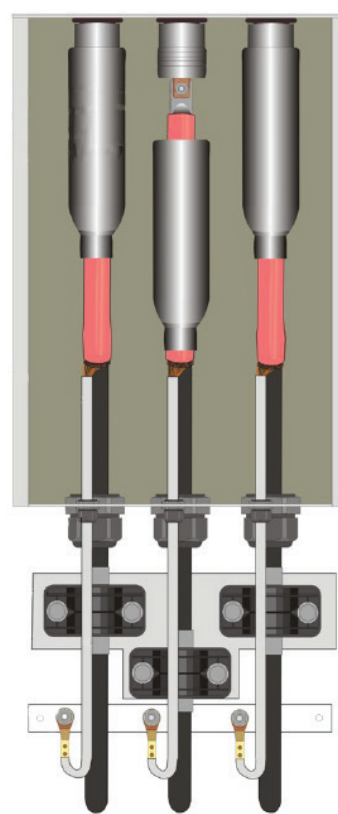
CABLE TERMINATION FOR RM6 SWITCHGEAR
WITH ARC-RATED CHAMBER

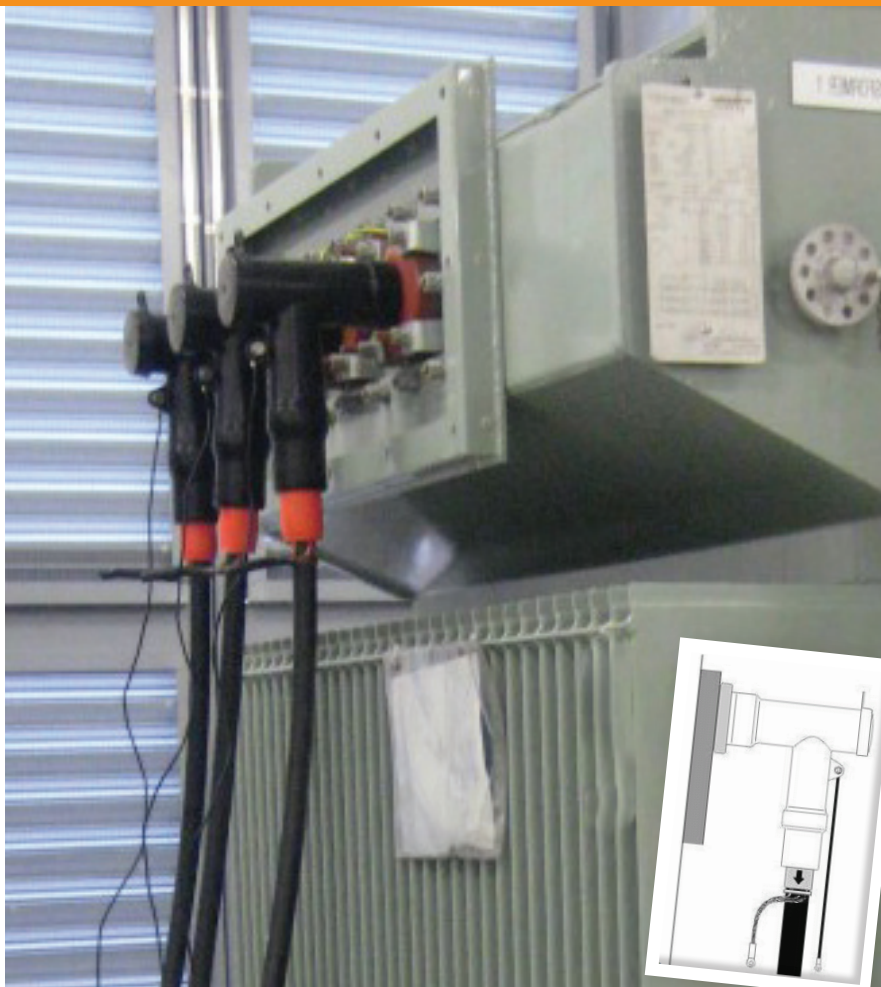
HV1-52



CABLE TERMINATION FOR ABB SAFELINK

HV1-52





Termination Kits – Transformers

Description	ARS Code	UOM
SCREENED ELBOW KIT, 11KV 1C 70 CU XLPE TO 630A BUSHING	05936	Set of 3
LUG, MECHANICAL, UP TO 35MM2 M12 1 HOLE	02908	Each
HEATSHRINK, TUBE LV 10/5TW G/Y UNL 50M		50m Roll

WHAT IS AN ARSEMBLY?

At All Round Supplies, our aim is to make things as easy as possible for our customers. Our ARSembles are complete kits put together based on utility construction drawings, with every non-variable component already collected and ready to ship as a single package.

Australia's electrical networks include many complex constructions, specific to each utility and region. At All Round Supplies, we've engineered an extensive range of underground and overhead construction kits or ARSembles® which can be ordered with one simple stock code. All ARSembly® stock codes begin with an 'A' so they can easily be distinguished from individual stock items.

ARSembles® include all of the components on the construction drawing that are not variable – that is, they would not change if a different cable or conductor size were to be used. Components that are not included in ARSembles® may include items such as conductor fittings (deadends, armor rods, ties etc) and bolts (kingbolts, eyebolts). When ordering an ARSembly,

an ARS staff member will go through all of the variable items that are not included in the kit and will help you to source the correct, approved products for your specific job.

Our ARSembles® have been hugely popular with our customers over the years, because they simplify both the estimating and ordering processes, saving contractors the valuable time and energy that would otherwise go into sourcing each individual, utility-approved component. And because they're engineered to meet utility construction design standards, ARSembles only include utility-approved materials, giving our customers peace of mind and the confidence that an item won't be forgotten in the field. Multiple kits can also be packaged to meet project-specific requirements.

03776

LOCTITE NICKEL ANTI-SEIZE COMPOUND

Loctite is a lubricant that protects metal parts from corrosion and seizure up to 760°C. It's made from a premium nickel/graphite mixture which can also be used where copper-free and lead-free composition is needed. No copper, lead, sulphides, chlorides or fluorides are used in Loctite Nickel Anti-Seize.



MV UG/OH Construction

1

BONDING MATERIALS

These are the items required to make the connection between the overhead mains conductors and the underground cable at the termination plates on the surge arresters.

At overhead termination poles, the tails of the mains conductors are used for this connection, lugs and conductor cover to suit the overhead conductor are required to complete the connection. At overhead through mains poles, dropper tails are used and will require PG clamps along with the lugs and conductor cover to complete the connection.

2

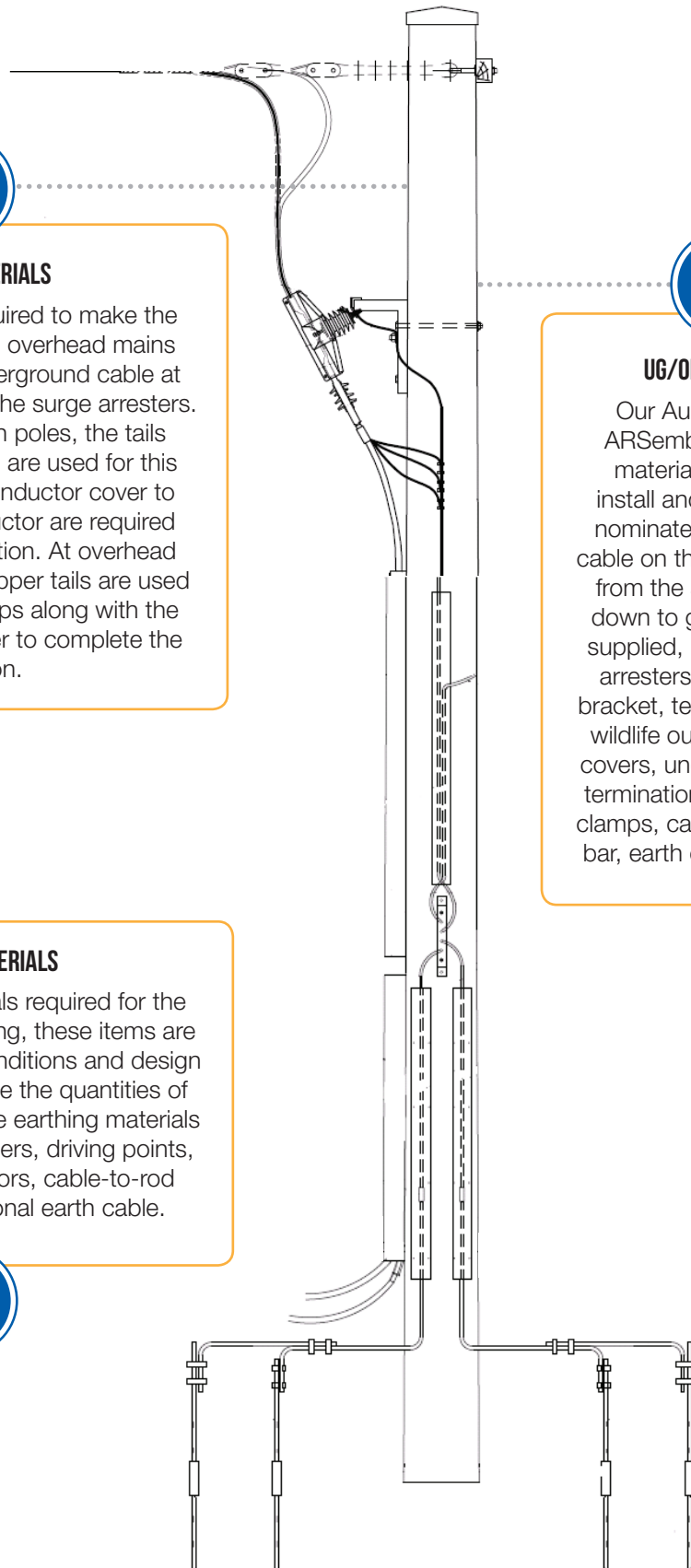
UG/OH ARSEMBLY

Our Ausgrid UG/OH ARsembly kit includes materials required to install and terminate the nominated underground cable on the pole. Materials from the surge arresters down to ground level are supplied, including; surge arresters and mounting bracket, termination plates, wildlife outage protection covers, underground cable termination kit, lugs, cable clamps, cable covers, earth bar, earth cable and more.

EARTHING MATERIALS

This refers to the materials required for the below ground level earthing, these items are sold individually as soil conditions and design requirements may change the quantities of the materials required. The earthing materials include; earth rods, couplers, driving points, cable-to-cable connectors, cable-to-rod connectors and additional earth cable.

3



1

Bonding Materials – HV UG/OH

Description	Overhead Cable Type						
	AL 7/4.50	AL 19/3.25	AL CCT 80	AL CCT 120	AL CCT 180	Cu 19/2.00	Cu 7/2.03
Overhead Conductor Tail Lug	08756	04931	04981	02592	TBA	04929	04930
Conductor Cover	08949	08950	N/A	N/A	N/A	08949	08949

PG Clamps

Description	ARS Code	UOM
CLAMP, PG 6-70 ALUMINIUM 2 BOLT	TBA	Each
CLAMP, PG 16-120 ALUMINIUM 2 BOLT	03052	Each
CLAMP, PG 35-185 ALUMINIUM 2 BOLT	03961	Each
CLAMP, PG 35-185 ALUMINIUM 3 BOLT	04739	Each
CLAMP, PG 35-300 ALUMINIUM 3 BOLT	TBA	Each
CLAMP, PG 185-630 ALUMINIUM 3 BOLT	02876	Each
CLAMP, PG 16-120 COPPER 2 BOLT	03050	Each
CLAMP, PG 25-150 ALUMINIUM 10-95 COPPER 2 BOLT	02662	Each
CLAMP, PG 35-185 ALUMINIUM 35-185 COPPER 3 BOLT	06840	Each

2

Termination Kits – UG/OH (ARSemblies®)



Description	Ausgrid Ref	ARS Code	UOM
EAHVUGOH 11KV 3 X 1C 185 CU TRIPLEX HEAT	160354	A0216	Kit
EAHVUGOH 11KV 3 X 1C 300 CU TRIPLEX HEAT	160354	A0461	Kit
EAHVUGOH 11KV 3C 300 AL XLPE HEAT	160354	A0292	Kit

3

Earthing Materials – (Below Ground)

Description	ARS Code	UOM
ROD, EARTH CU BONDED 15MM 1.83M POINTED	03048	Each
COUPLER, 15MM EARTH ROD CU POINTED	02141	Each
DRIVING POINT, HARD, 15MM CU POINTED	08877	Each
CONNECTOR "C" CABLE 50-70 WIDE JAW	03967	Each
CONNECTOR "6" ROD 13-15 TAP 70	02138	Each
CABLE COVER, POLYMERIC W300MMXT5MMXL 1.2 (1 supplied in UG/OH kit)	03015	Each
CABLE, LV 70 CU 1C PVC BLACK NON-COMP - 100M DRUM	05726	M
CABLE, LV 70 CU 1C PVC BLACK NON-COMP - CUT IN HOUSE (16m supplied in UG/OH kit)	05726C	M





Straight-Through Joints for Single Core Cables

(Polymeric to Polymeric) HV2-21

NOTE: Single phase kits – one required per phase.

NS177 – Table 21 (Joint Kits)

Single Core Cable Sizes		ARS Code
35mm2 Al	35mm2 Al	TBA*
70mm2 Cu	70mm2 Cu	TBA*
185mm2 Cu	185mm2 Cu	02912*
300mm2 Cu	300mm2 Cu	02913*
630mm2 Cu	630mm2 Cu	TBA
1000mm2 Cu	1000mm2 Cu	TBA

NS177 – Table 22 (Joint Kit Ranges)

Cable Range	ARS Code
35mm2-95mm2 Al or Cu	TBA*
95mm2-240mm2 Al or Cu	02912*
185mm2-400mm2 Al or Cu	02913*





Straight-Through Joints for Three Core Cables

(Polymeric to Polymeric) HV2-22

NS177 – Table 23 (Joint Kits)

Three Core Cable Sizes		ARS Code
95mm ² Al	95mm ² Al	05663*
150mm ² Cu	150mm ² Cu	04735*
185mm ² Al	95mm ² Al	04735*
185mm ² Al	185mm ² Al	04735*
300mm ² Al	185mm ² Al	02883*
300mm ² Al	300mm ² Al	02883*
400mm ² Al	300mm ² Al	02883*
400mm ² Al	400mm ² Al	02883*
500mm ² Al or Cu	300mm ² Al	06290*
500mm ² Al or Cu	400mm ² Al	06290*
500mm ² Al or Cu	500mm ² Al or Cu	06289*

NS177 – Table 24 (Joint Kit Ranges)

Cable Range	ARS Code
35mm ² -95mm ² Al or Cu	05663*
95mm ² -240mm ² Al or Cu	04735*
185mm ² -400mm ² Al or Cu	02883*
500mm ² to 300mm ² -400mm ² Al or Cu	06290*
500mm ² -500mm ² Al or Cu	06289*

*Joint kits include mechanical connectors for both the core conductor and screen wires.





Three-To-One Joint (Polymeric to Polymeric) HV2-23

NS177 – Table 25 (Joint Kits for Single Core Cables with 35mm² Screen Wires)

Three-to-One Joint		Kit Stockcode
From 3-core	To single core	
95mm	70mm ² Cu (16mm ² Screen)	05663*
300mm ² Al	185mm ² Cu	02883*
300mm ² Al	300mm ² Cu	02883*
400mm ² Al	185mm ² Cu	02883*

*Joint kits include mechanical connectors for both the core conductor and screen wires.

Three-to-One Joint		Accessory Pack Stock Code	Base Kit Stock Code
From 3-core	To single core		
500mm ² Al or Cu	185mm ² Cu	07952	06287*
500mm ² Al or Cu	300mm ² Cu	07952	06287*

*Joint kits include mechanical connectors for the core conductors.

NS177 – Table 26 (Joint Kit Ranges)

Cable Range	Kit Stock Code
35mm ² -95mm ² Al or Cu	05663*
95mm ² -240mm ² Al or Cu	04735*
185mm ² -400mm ² Al or Cu	02883*

*Joint kits include mechanical connectors for both the core conductors and screen wires.

NS177 – Table 27 (Joint Kits for Single Core Cables with 70mm² Screen Wires – Triplex Cables)

Three-to-One Joint		Kit Stockcode
From 3-core	To single core	
185mm ² Al	185mm ² Cu	06288*
185mm ² Al	300mm ² Cu	06288*
300mm ² Al	185mm ² Cu	06288*
300mm ² Al	300mm ² Cu	06288*
400mm ² Al	185mm ² Cu	06288*
400mm ² Al	300mm ² Cu	06288*
500mm ² Al or Cu	185mm ² Cu	06287*
500mm ² Al or Cu	300mm ² Cu	06287*

*Joint kits include mechanical connectors for both the core conductors and screen wires.

NS177 – Table 28 (Joint Kit Ranges)

Three-to-One Joint		Kit Stockcode
From 3-core	To single core	
185mm ² -400mm ² Al	185mm ² -300mm ² Cu	06288*
500mm ² Al or Cu	185mm ² -300mm ² Cu	06287*

NS177 – Table 29 (Joint Kits for Single Core Cables with 150mm² Screen Wires)

Three-to-One Joint		Kit Stockcode
From 3-core	To single core	
300mm ² Al	300mm ² Cu	TBA
400mm ² Al	300mm ² Cu	TBA
500mm ² Al or Cu	300mm ² Cu	TBA

NS177 – Table 30 (Joint Kit Ranges)

Three-to-One Joint		Kit Stockcode
From 3-core	To single core	
300mm ² -400mm ² Al	300mm ² Cu	TBA
500mm ² Al or Cu	300mm ² Cu	TBA



Quick Reference Guide

This reference guide is designed to make it easy for you to find joints and terminations for XLPE cables. All joint kits are supplied with mechanical connectors included.

TERMINATION KITS

Cable Type	Switchgear Type						Transformer Connection (630A)	UG/OH
	ABB SDAF3 (HV1-50)	Lucy FRMU + EFS (HV1-51)	Schneider RM6 (HV1-52)	Schneider RM6-IAC (HV1-52)	Lucy VRN6a (HV1-53)	ABB Safelink (HV1-54)		
11kV 70mm ² 1c Cu XLPE		A0608			A0631	A0936	05936	
11kV 185mm ² 1c Cu XLPE (Triplex)*	A0866		A0867	A1207		A0938		A0216
11kV 300mm ² 1c Cu XLPE (Triplex)*	A0460	A0602	A0468 (with clamps) A1004 (no clamps)	A1208	A0630	A0861		A0461
11kV 300mm ² 3c Al XLPE	A0293		A0467					A0292

*Cable with 70mm² CWS

INLINE JOINT KITS

Cable Type	11kV 185mm ² 1c Cu XLPE (Triplex)*	11kV 300mm ² 1c Cu XLPE (Triplex)*	11kV 300mm ² 3c Al XLPE	11kV 400mm ² 3c Al XLPE	11kV 500mm ² 3c Al XLPE
11kV 185mm ² 1c Cu XLPE (Triplex)*	02912 (1 per phase)	02913 (1 per phase)	02688	06288	06287
11kV 300mm ² 1c Cu XLPE (Triplex)*	02913 (1 per phase)	02913 (1 per phase)	06288	06288	06287
11kV 300mm ² 3c Al XLPE	06288	06288	02883	02883	06290
11kV 400mm ² 3c Al XLPE	06288	06288	02883	02883	06290
11kV 500mm ² 3c Al XLPE	06287	06287	06290	06290	06289

*Cable with 70mm² CWS.

TEE JOINT KITS (HEATSHRINK)

Cable Type	11kV 185mm ² 1c Cu XLPE (Triplex)*	11kV 300mm ² 1c Cu XLPE (Triplex)*
11kV 185mm ² 1c Cu XLPE (Triplex)*	07411 (1 per phase)	N/A
11kV 300mm ² 1c Cu XLPE (Triplex)*	N/A	05515 (1 per phase)

*Cable with 70mm² CWS

TEE JOINT KITS (RESIN)

Cable Type	11kV 185mm ² 1c Cu XLPE (Triplex)	11kV 300mm ² 1c Cu XLPE (Triplex)	11kV 300mm ² 3c Al XLPE	11kV 400mm ² 3c Al XLPE
11kV 185mm ² 1c Cu XLPE (Triplex)	1 x 09090 10 x 02922		1 x 09090 9 x 02922	1 x 09090 9 x 02922
11kV 300mm ² 1c Cu XLPE (Triplex)		1 x 09090 9 x 02922	1 x 09090 9 x 02922	1 x 09090 9 x 02922
11kV 300mm ² 3c Al XLPE	1 x 09090 9 x 02922	1 x 09090 9 x 02922	1 x 09090 9 x 02922	1 x 09090 9 x 02922
11kV 400mm ² 3c Al XLPE	1 x 09090 9 x 02922	1 x 09090 9 x 02922	1 x 09090 9 x 02922	1 x 09090 9 x 02922



Transition Straight-Through Joints for Single Core Cables (Polymeric to PILC) HV2-24

NOTE: Single phase kits – one required per phase.

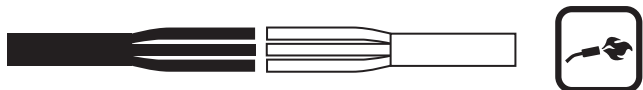
NS177 – Table 31 (Joint Kits)

Single Core Cable Sizes				Transition Joint Base Kit Stock Code	Connector Stock Code
Polymeric	Insulation Shim	PILC	Insulation Shim		
70mm ² Cu	N/A	50mm ² Cu	N/A	TBA	03315
70mm ² Cu	N/A	95mm ² Cu	N/A	TBA	05117
70mm ² Cu	08733	0.15 inch ² (97mm ²) Cu	N/A	03432	05117
185mm ² Cu	N/A	185mm ² Cu	N/A	03432	03214
185mm ² Cu	N/A	0.3 inch ² (194mm ²) Cu	N/A	03432	04012
185mm ² Cu	N/A	300mm ² Cu	N/A	04139	03509
185mm ² Cu	N/A	0.5 inch ² (323mm ²) Cu	N/A	04139	06107
300mm ² Cu	N/A	0.3 inch ² (194mm ²) Cu	N/A	04139	04729
300mm ² Cu	N/A	0.5 inch ² (323mm ²) Cu	N/A	04139	06737
300mm ² Cu	N/A	300mm ² Cu	N/A	04139	04159
630mm ² Cu	N/A	500mm ² Cu	N/A	04340	TBA
630mm ² Cu	N/A	630mm ² Cu	N/A	04340	02752
630mm ² Cu	N/A	1000mm ² Cu	N/A	TBA	TBA
1000mm ² Cu	N/A	1000mm ² Cu	N/A	TBA	TBA

NS177 – Table 32 (Joint Kit Ranges)

Single Core Cable Range		Kit Stockcode
Polymeric	PILC	
70mm ²	50mm ² -95mm ²	TBA
95mm ² -185mm ²	95mm ² -185mm ²	03432
185mm ² -300mm ²	185mm ² -300mm ²	04139
500mm ² -630mm ²	500mm ² -630mm ²	04340
630mm ² -1000mm ²	1000mm ²	TBA





Transition Straight-Through Joints for Three Core Cables (Polymeric to PILC) HV2-25

NS177 – Table 33 (Joint Kits)

Three Core Cable Sizes				Transition Joint Base Kit Stock Code	Connector Stock Code
Polymeric	Insulation Shim	PILC	Insulation Shim		
95mm ² Al	N/A	95mm ² Al	N/A	05241	02708
95mm ² Al	02906	240mm ² Al	N/A	02918	03854
95mm ² Al	02906	300mm ² Al	N/A	02918	05294
150mm ² Cu	N/A	185mm ² Cu	N/A	05241	04895
150mm ² Cu	02906	300mm ² Cu	N/A	02918	TBA
185mm ² Al	N/A	95mm ² Al	N/A	05241	TBA
185mm ² Al	N/A	240mm ² Al	N/A	02918	00053
185mm ² Al	N/A	300mm ² Al	N/A	02918	00978
300mm ² Al	N/A	0.2 inch ² (129mm ²) Cu	N/A	02918	TBA
300mm ² Al	N/A	0.3 inch ² (194mm ²) Cu	N/A	02918	05824
300mm ² Al	N/A	0.4 inch ² (258mm ²) Cu	N/A	02918	TBA
300mm ² Al	N/A	185mm ² Cu	N/A	02918	03510
300mm ² Al	N/A	240mm ² Al	N/A	02918	00539
300mm ² Al	N/A	240mm ² Cu	N/A	02918	00675
300mm ² Al	N/A	300mm ² Al	N/A	02918	02079
300mm ² Al	02915	500mm ² Al	N/A	02914	03343
400mm ² Al	02915	95mm ² Cu	04141	02914	04588
400mm ² Al	02915	0.15 inch ² (97mm ²) Cu	04141	02914	04588
400mm ² Al	02915	0.2 inch ² (129mm ²) Cu	04141	02914	04142
400mm ² Al	02915	150mm ² Al	04141	02914	TBA
400mm ² Al	02915	185mm ² Cu	2 x 02919	02914	04133
400mm ² Al	02915	0.3 inch ² (194mm ²) Cu	2 x 02919	02914	04189
400mm ² Al	02915	240mm ² Cu	02919	02914	04449
400mm ² Al	02915	0.4 inch ² (258mm ²) Cu	02919	02914	TBA
400mm ² Al	02915	300mm ² Cu	02919	02914	04792
400mm ² Al	02915	300mm ² Al	02919	02914	03549
400mm ² Al	02915	0.5 inch ² (323mm ²) Cu	02919	02914	TBA
400mm ² Al	02915	500mm ² Al	N/A	02914	03235
500mm ² Al	N/A	0.4 inch ² (258mm ²) Cu	02919	02914	TBA
500mm ² Al	N/A	300mm ² Al	02919	02914	03343
500mm ² Al	N/A	300mm ² Cu	02919	02914	03319
500mm ² Al	N/A	0.5 inch ² (323mm ²) Cu	02919	02914	08049
500mm ² Al	N/A	500mm ² Al	N/A	02914	02979

NS177 – Table 34 (Joint Kit Ranges)

Three Core Cable Range		Kit Stockcode
Polymeric	PILC	
95mm2-185mm2	95mm2-185mm2	05241
185mm2-300mm2	185mm2-300mm2	02918
500mm2	500mm2	02914



Three-To-One Transition Joint

(Three Core Polymeric to Single Core PILC) HV2-26

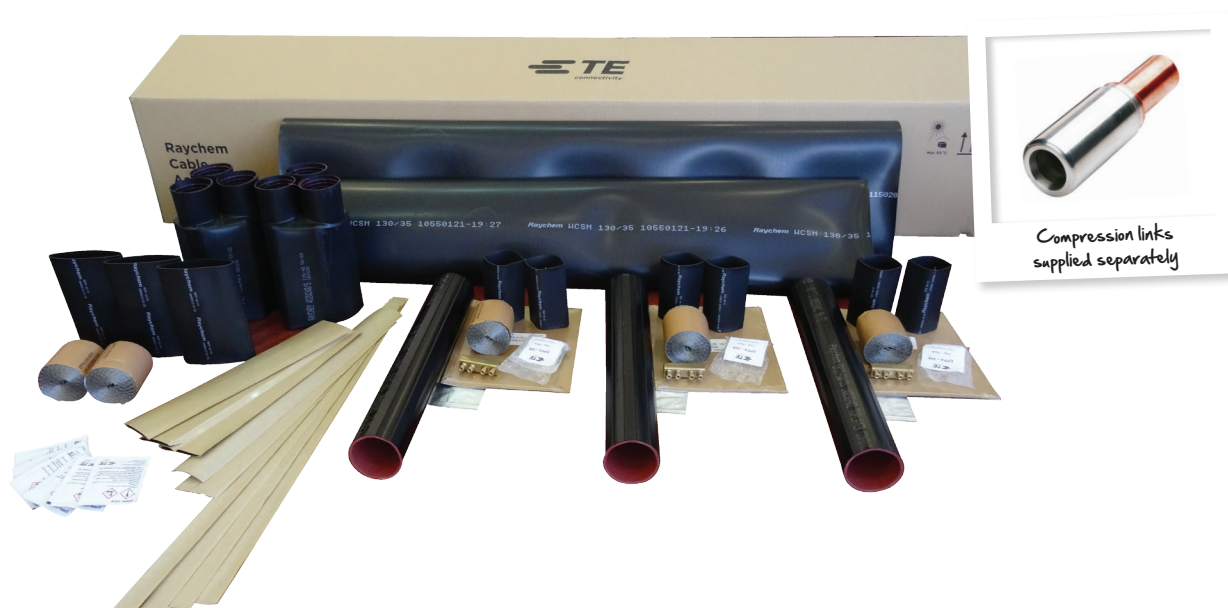
NS177 – Table 35 (Joint Kits)

Three-to-One Joint				Transition Joint Base Kit Stock Code	Connector Stock Code
Three Core Polymeric	Insulation Shim	Single Core PILC	Insulation Shim		
150mm2 Cu	N/A	185mm2 Cu	N/A	See note 1	04895
300mm2 Al	N/A	185mm2 Cu	N/A	TBA	03510
400mm2 Al	02915	185mm2 Cu	04134	04135	04133
400mm2 Al	02915	300mm2 Cu	N/A	04135	04792
500mm2 Al	N/A	185mm2 Cu	04134	04135	02930

Note 1: Trifurcate three-core cables with 04635, then make three single-core joints with 03432.

NS177 – Table 36 (Joint Kit Ranges)

Three Core Cable Range		Kit Stockcode
Polymeric	PILC	
185mm2-300mm2	185mm2-300mm2	TBA
500mm2	300mm2	04135





Three-To-One Transition Joint

(Three Core PILC to Single Core Polymeric) HV2-27

NS177 – Table 37 (Joint Kits)

Three-to-One Joint				Transition Joint Base Kit Stock Code	Connector Stock Code
Three Core PILC	Insulation Shim	Single Core Polymeric	Insulation Shim		
0.06 inch2 (39mm2) Cu	N/A	185mm2 Cu	N/A	06169	03221
50mm2 Cu	N/A	70mm2 Cu	N/A	TBA	03315
95mm2 Al	N/A	70mm2 Cu	08733	03431	03870
95mm2 Cu	N/A	70mm2 Cu	08733	03431	05117
95mm2 Cu	N/A	185mm2 Cu	N/A	03431	04204
95mm2 Cu	04435	300mm2 Cu	N/A	02916	04625
0.15 inch2 (97mm2) Cu	N/A	185mm2 Cu	N/A	03431	04204
0.15 inch2 (97mm2) Cu	04435	300mm2 Cu	N/A	02916	03509
0.2 inch2 (129mm2) Cu	N/A	185mm2 Cu	N/A	03431	TBA
0.2 inch2 (129mm2) Cu	04435	300mm2 Cu	N/A	02916	TBA
185mm2 Cu	N/A	185mm2 Cu	N/A	03431	03214
185mm2 Cu	N/A	300mm2 Cu	N/A	02916	03509
0.3 inch2 (194mm2) Al	N/A	185mm2 Cu	N/A	03431	04395
0.3 inch2 (194mm2) Cu	N/A	185mm2 Cu	N/A	03431	04012
0.3 inch2 (194mm2) Cu	N/A	300mm2 Cu	N/A	02916	04729
240mm2 Al	N/A	185mm2 Cu	N/A	02916	02757
240mm2 Cu	N/A	300mm2 Cu	N/A	02916	00620
0.4 inch2 (258mm2) Cu	N/A	185mm2 Cu	N/A	02916	TBA
0.4 inch2 (258mm2) Cu	N/A	300mm2 Cu	N/A	02916	04796
300mm2 Al	N/A	185mm2 Cu	N/A	02916	03510
300mm2 Cu	N/A	185mm2 Cu	N/A	02916	03509
300mm2 Al	N/A	300mm2 Cu	N/A	02916	03698
300mm2 Cu	N/A	300mm2 Cu	N/A	02916	04159
400mm2 Al	02919	300mm2 Cu	02915	02905	04792
0.5 inch2 (323mm2) Cu	N/A	185mm2 Cu	N/A	02916	06107
0.5 inch2 (323mm2) Cu	N/A	300mm2 Cu	N/A	02916	06737
0.75 inch2 (484mm2) Al	N/A	300mm2 Cu	02915	02905	04967
500mm2 Al	N/A	185mm2 Cu	2 x 02906	02905	02930
500mm2 Al	N/A	300mm2 Cu	02915	02905	03319

NS177 – Table 38 (Joint Kits for Pit Applications Only)

Three-to-One Joint				Transition Joint Base Kit Stock Code	Connector Stock Code
Three Core PILC	Insulation Shim	Single Core Polymeric	Insulation Shim		
185mm2 Cu	02919	185mm2 Cu	2 x 03351	07106	03214
185mm2 Cu	02919	300mm2 Cu	03351	07106	03509
0.3 inch2 (194mm2) Cu	02919	185mm2 Cu	2 x 03351	07106	04012
0.3 inch2 (194mm2) Cu	02919	300mm2 Cu	03351	07106	04729
300mm2 Cu	N/A	185mm2 Cu	2 x 03351	07106	03509
300mm2 Cu	N/A	300mm2 Cu	03351	07106	04159
0.5 inch2 (323mm2) Cu	N/A	185mm2 Cu	2 x 03351	07106	06107
0.5 inch2 (323mm2) Cu	N/A	300mm2 Cu	03351	07106	06737

NS177 – Table 39 (Joint Kit Ranges)

Three Core Cable Range PILC	Single Core Cable Range Polymeric	Kit Stockcode
0.06 inch2 (39mm2) Cu	185mm2	06169
50mm2-70mm2	50mm2-70mm2	TBA
95mm2-185mm2	95mm2-185mm2	03431
185mm2-300mm2	185mm2-300mm2	02916
500mm2	500mm2	02905

Pot End

(Live End Seal) HV1–37

NOTE: Single phase kits – one required per phase.



NS177 – Table 40 (Pot End Kits)

Cable Range	Kit Stock Code
70mm2	TBA
95mm2-240mm2	04634
300mm2-400mm2	02917
500mm2	07668

NS177 – Table 41 (Trifurcation Kits for Three Core Cables)

Cable Range	Kit Stock Code
95mm2-185mm2	04635
300mm2-500mm2	04636



Polymeric Tee Joints

(Polymeric Main to Polymeric Tee) HV3–40

NS177 – Table 42A (Cold Pour Resin Tee Joint Kits)

Main Cable Size Polymeric	Tee Cable Size Polymeric	Tee Joint Base Kit Stock Code	Polyurethane Resin Stock Code
95mm2 Al 3 core	95mm2 Al 3 core	09090*	10 x 02922
185mm2 Cu 1 core	185mm2 Cu 1 core	09090*	10 x 02922
185mm2 Cu 1 core	400mm2 Al 3 core	09090*	9 x 02922
185mm2 Al 3 core	70mm2 Cu 1 core	09090*	10 x 02922
185mm2 Al 3 core	95mm2 Al 3 core	09090*	10 x 02922
185mm2 Al 3 core	185mm2 Al 3 core	09090*	10 x 02922
300mm2 Al 3 core	70mm2 Cu 1 core	09090*	10 x 02922
300mm2 Al 3 core	95mm2 Al 3 core	09090*	10 x 02922
300mm2 Al 3 core	185mm2 Al 3 core	09090*	9 x 02922
300mm2 Al 3 core	185mm2 Cu 1 core	09090*	9 x 02922
300mm2 Al 3 core	300mm2 Al 3 core	09090*	9 x 02922
300mm2 Al 3 core	400mm2 Al 3 core	09090*	9 x 02922
300mm2 Cu 1 core	300mm2 Cu 1 core	09090*	9 x 02922
300mm2 Cu 1 core	400mm2 Al 3 core	09090*	9 x 02922
400mm2 Al 3 core	70mm2 Cu 1 core	09090*	9 x 02922
400mm2 Al 3 core	300mm2 Cu 1 core	09090*	9 x 02922
400mm2 Al 3 core	300mm2 Al 3 core	09090*	9 x 02922
400mm2 Al 3 core	400mm2 Al 3 core	09090*	9 x 02922

*Joint kits include mechanical connectors for both the core conductors and screen wires.

NS177 – Table 44 (Heatshrink Tee Joint Kits)



Note: Single phase kits – one required per phase.

Main Cable Size Polymeric	Tee Cable Size PILC	Tee Joint Base Kit Stock Code
185mm2 Cu 1 core	70mm2 Cu 1 core	TBA*
300mm2 Cu 1 core	70mm2 Cu 1 core	TBA*
185mm2 Cu 1 core	300mm2 Cu 1 core	05515*
300mm2 Cu 1 core	300mm2 Cu 1 core	05515*

*Joint kits include mechanical connectors for both the core conductors and screen wires.



Transition Tee Joints

(Polymeric Main to PILC Tee) HV3-41

NS177 – Table 46A (Cold Pour Resin Tee Joint Kits)

Main Cable Size Polymeric	Tee Cable Size PILC	Tee Joint Base Kit Stock Code	Polyurethane Resin Stock Code
95mm2 Al 3 core	95mm2 Al 3 core	09092*	10 x 02922
185mm2 Cu 1 core	95mm2 Al 3 core	09092*	10 x 02922
185mm2 Cu 1 core	185mm2 Cu 1 core	09092*	10 x 02922
185mm2 Cu 1 core	300mm2 Al 3 core	09092*	9 x 02922
185mm2 Al 3 core	95mm2 Al 3 core	09092*	10 x 02922
185mm2 Al 3 core	185mm2 Cu 1 core	09092*	10 x 02922
300mm2 Cu 1 core	95mm2 Al 3 core	09092*	10 x 02922
300mm2 Cu 1 core	97mm2 Cu 3 Core	09092*	10 x 02922
300mm2 Cu 1 core	185mm2 Cu 1 core	09092*	9 x 02922
300mm2 Cu 1 core	300mm2 Cu 1 core	09092*	9 x 02922
300mm2 Cu 1 core	300mm2 Al 3 core	09092*	9 x 02922
300mm2 Cu 1 core	323mm2 Al 3 core	09092*	9 x 02922
300mm2 Al 3 core	95mm2 Al 3 core	09092*	10 x 02922
300mm2 Al 3 core	185mm2 Cu 1 core	09092*	9 x 02922
300mm2 Al 3 core	300mm2 Cu 1 core	09092*	9 x 02922
300mm2 Al 3 core	300mm2 Al 3 core	09092*	9 x 02922
400mm2 Al 3 core	95mm2 Al 3 core	09092*	9 x 02922
400mm2 Al 3 core	185mm2 Cu 1 core	09092*	9 x 02922
400mm2 Al 3 core	300mm2 Cu 1 core	09092*	9 x 02922
400mm2 Al 3 core	300mm2 Al 3 core	09092*	9 x 02922

*Joint kits include mechanical connectors for both the core conductors and screen wires.





Transition Tee Joints

(PILC Main to Polymeric Tee) HV3–42

NS177 – Table 48A (Cold Pour Resin Tee Joint Kits)

Main Cable Size PILC	Tee Cable Size	Tee Joint Base Kit Stock Code	Polyurethane Resin Stock Code
	Polymeric		
0.06 inch2 (39mm2) Cu 3 core	185mm2 Cu 1 core	09091 & 3 x 09093	10 x 02922
0.06 inch2 (39mm2) Cu 3 core	300mm2 Cu 1 core	09091 & 3 x 09093	10 x 02922
95mm2 Al 3 core	95mm2 Al 3 core	09091*	10 x 02922
95mm2 Al 3 core	185mm2 Cu 1 core	09091*	10 x 02922
95mm2 Al 3 core	185mm2 Al 3 core	09091*	10 x 02922
95mm2 Al 3 core	300mm2 Al 3 core	09091*	10 x 02922
95mm2 Cu 3 core	300mm2 Cu 1 core	09091*	10 x 02922
0.15 inch2 (97mm2) Cu 3 core	300mm2 Al 3 core	09091*	10 x 02922
0.15 inch2 (97mm2) Cu 3 core	400mm2 Al 3 core	09091*	10 x 02922
0.2 inch2 (129mm2) Cu 3 core	300mm2 Cu 1 core	09091*	10 x 02922
185mm2 Cu 1 core	185mm2 Cu 1 core	09091*	10 x 02922
185mm2 Cu 1 core	185mm2 Al 3 core	09091*	10 x 02922
185mm2 Cu 1 core	300mm2 Cu 1 core	09091*	9 x 02922
185mm2 Cu 1 core	300mm2 Al 3 core	09091*	9 x 02922
185mm2 Cu 1 core	400mm2 Al 3 core	09091*	9 x 02922
185mm2 Cu 3 core	185mm2 Cu 1 core	09091*	10 x 02922
185mm2 Cu 3 core	300mm2 Cu 1 core	09091*	9 x 02922
185mm2 Cu 3 core	300mm2 Al 3 core	09091*	9 x 02922
185mm2 Cu 3 core	400mm2 Al 3 core	09091*	9 x 02922
0.3 inch2 (194mm2) Cu 3 core	185mm2 Cu 1 core	09091*	10 x 02922
0.3 inch2 (194mm2) Cu 3 core	300mm2 Cu 1 core	09091*	9 x 02922
0.3 inch2 (194mm2) Cu 3 core	400mm2 Al 3 core	09091*	9 x 02922
240mm2 Cu 3 core	95mm2 Al 3 core	09091*	10 x 02922
240mm2 Cu 3 core	185mm2 Al 3 core	09091*	9 x 02922
240mm2 Cu 3 core	400mm2 Al 3 core	09091*	9 x 02922
240mm2 Al 3 core	95mm2 Al 3 core	09091*	9 x 02922
240mm2 Al 3 core	185mm2 Al 3 core	09091*	9 x 02922
240mm2 Al 3 core	300mm2 Al 3 core	09091*	9 x 02922
240mm2 Al 3 core	400mm2 Al 3 core	09091*	9 x 02922
300mm2 Cu 1 core	150mm2 Cu 3 core	09091*	9 x 02922
300mm2 Cu 1 core	185mm2 Cu 1 core	09091*	9 x 02922
300mm2 Cu 1 core	300mm2 Cu 1 core	09091*	9 x 02922
300mm2 Cu 1 core	300mm2 Al 3 core	09091*	9 x 02922
300mm2 Cu 1 core	400mm2 Al 3 core	09091*	9 x 02922
300mm2 Cu 3 core	150mm2 Cu 3 core	09091*	9 x 02922
300mm2 Cu 3 core	185mm2 Cu 1 core	09091*	9 x 02922
300mm2 Cu 3 core	300mm2 Cu 1 core	09091*	9 x 02922

300mm ² Al 3 core	95mm ² Al 3 core	09091*	9 x 02922
300mm ² Al 3 core	185mm ² Cu 1 core	09091*	9 x 02922
300mm ² Al 3 core	185mm ² Al 3 core	09091*	9 x 02922
300mm ² Al 3 core	300mm ² Cu 1 core	09091*	9 x 02922
300mm ² Al 3 core	300mm ² Al 3 core	09091*	9 x 02922
300mm ² Al 3 core	400mm ² Al 3 core	09091*	9 x 02922
0.5 inch ² (323mm ²) Cu 3 core	185mm ² Cu 1 core	09091*	9 x 02922
0.5 inch ² (323mm ²) Cu 3 core	300mm ² Cu 1 core	09091*	9 x 02922
0.5 inch ² (323mm ²) Cu 3 core	400mm ² Al 3 core	09091*	9 x 02922

*Joint kits include mechanical connectors for both the core conductors and screen wires.



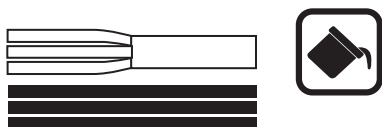
Transition Tee Joints

(Three Different Cables) HV3–44

NS177 – Table 50A (Cold Pour Resin Tee Joints)

Cable 1	Cable 2	Cable 3	Tee Joint Base Kit Stock Code	Polyurethane Resin Stock Code
95mm ² Cu 1 core PILC	185mm ² Cu 1 core Polymeric	300mm ² Al 3 core PILC	09091*	10 x 02922
95mm ² Cu 3 core PILC	185mm ² Cu 1 core Polymeric	185mm ² Cu 3 core PILC	09091*	10 x 02922
95mm ² Cu 3 core PILC	185mm ² Cu 1 core Polymeric	300mm ² Al 3 core PILC	09091*	10 x 02922
185mm ² Cu 1 core PILC	0.2 inch ² (129mm ²) Cu 3 core PILC	300mm ² Cu 1 core Polymeric	09091*	9 x 02922
185mm ² Cu 1 core Polymeric	400mm ² Al 3 core Polymeric	300mm ² Cu 1 core Polymeric	09090*	9 x 02922
300mm ² Al 3 core PILC	185mm ² Cu 1 core Polymeric	185mm ² Cu 1 core Polymeric	09092*	9 x 02922
300mm ² Al 3 core PILC	400mm ² Al 3 core Polymeric	185mm ² Cu 3 core PILC	09091*	9 x 02922
300mm ² Al 3 core PILC	400mm ² Al 3 core Polymeric	300mm ² Cu 1 core Polymeric	09092*	9 x 02922

*Joint kits include mechanical connectors for both the core conductors and screen wires.



Stub Tee Joints

HV3–43

Refer to Table 42A for Polymeric to Polymeric stub tee joint kits.

Refer to Table 48A for Polymeric to PILC stub tee joint kits.

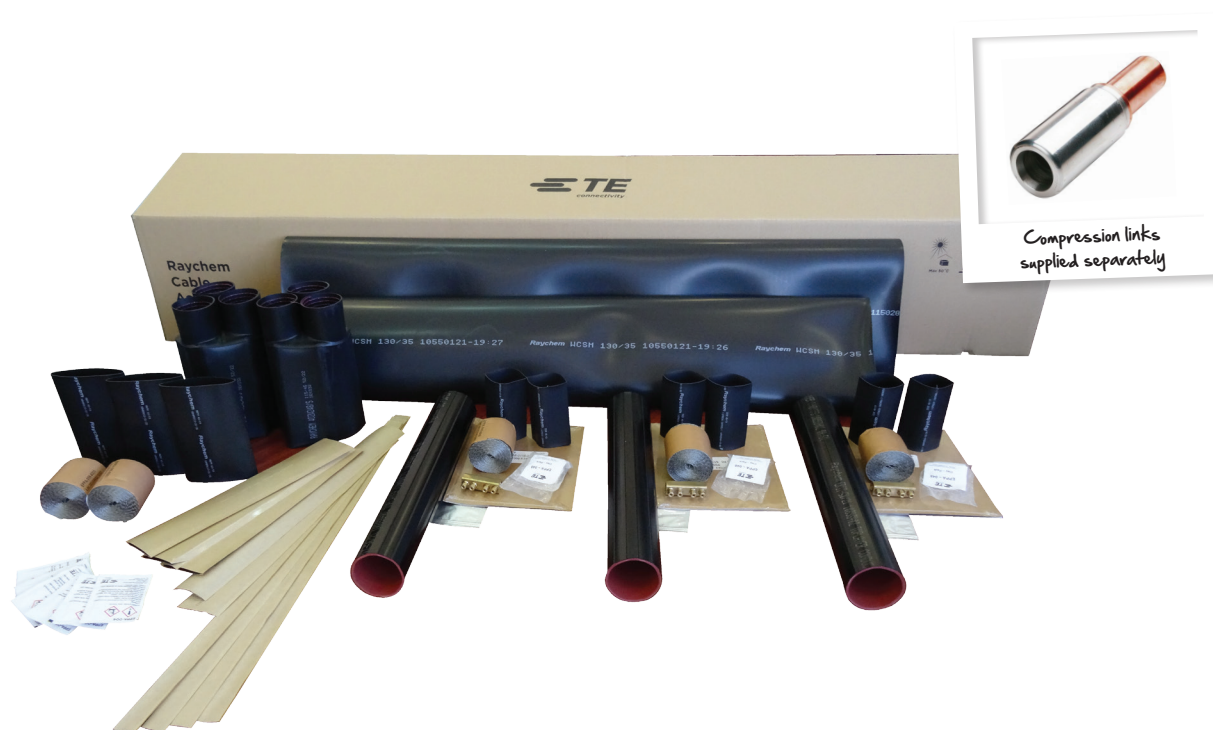


Transition Joint Involving 33kV Cables

(33kV PILC to 11kV Polymeric) HV2-28

NS177 – Table 52 (Transition Joint Kits)

Transition Joint					
From 33kV PILC	Insulation Shim Kit	To 11kV Polymeric	Insulation Shim Kit	Transition Joint Base Kit Stock Code	Connector Stock Code
0.25 Cu3 PL SWJ	N/A	300mm2 Cu 1 core	02915	02905	05157
0.25 Cu3 PL SWJ	N/A	400mm2 Al 3 core	02915	02914	04451
0.25 Cu3 P HSL SWJ	N/A	300mm2 Cu 1 core	N/A	TBA	05157



MATERIAL TABLES FROM NS177



The tables below match those found throughout Ausgrid's Network Standard NS177 11kV Joints (including transition joints) and terminations – polymeric insulated cables.

Ausgrid's stock codes have been replaced with the corresponding ARS stock code, allowing you to quickly and accurately order the item you require.

Table 2 – Termination Kits

Cable Range	Cable Type	Term Type	ARS Code
25-95mm ²	Single Core	Indoor	03724
		Outdoor	03725
95-240mm ²	Single Core	Indoor	02901
		Outdoor	03000
240-500mm ²	Single Core	Indoor	02889
		Outdoor	03001
500-800mm ²	Single Core	Indoor	TBA
		Outdoor	TBA
1000mm ²	Single Core	Indoor	TBA
		Outdoor	TBA
95-240mm ²	Three Core	Indoor	TBA
		Outdoor	TBA

Table 3 – Trifurcation Kits

Cable Range	ARS Code
95-185mm ²	03726
240-500mm ²	03012

Table 4 – Rejacketing Tubing For Trifurcation Kits (Additional)

Cable Range	Length	ARS Code
95-185mm ²	25m Roll	08171
240-500mm ²	15m Roll	08180

Table 5 – Crimp Lugs

Cable Size and Type	Indoor	Outdoor
35mm ² Aluminium M12	02980	02980
70mm ² Copper M12	02593	02593
70mm ² Copper M16	02986	N/A
95mm ² Aluminium M12	02896	02896
185mm ² Copper M12	02907	02982
185mm ² Aluminium M12	02990	02990
300mm ² Copper M12	02971	03299
300mm ² Aluminium M12	02995	02995

Table 6 – Screen Wire Lugs

Cable Size	Screen Wire Lug Range	ARS Code
185mm ² and 300mm ² cables with 70mm ² Cu wire screen	70mm ²	02593
95mm ² 3c cable	35mm ² -60mm ²	04929
185mm ² 3c cable	50mm ² -120mm ²	TBA
35mm ² -500mm ²	Up to 35mm ²	02908
630mm ²	50mm ² -120mm ²	TBA

Table 7 – Rayvolve Sleeves

Cable Range	ARS Code
70mm ²	05758
95-185mm ²	02902
240-300mm ²	02885

CROSS REFERENCE LIST

TE Connectivity termination & joint kit part numbers



TE Part Number	ARS Code
IXSU-FSY122	03724
IXSU-FSY123	02901
IXSU-FSY124	02889
OXSU-FSY127	03725
OXSU-FSY156	03000
OXSU-FSY157	03001
SMOE-SY120	03726
SMOE-SY121	03012
MXSU-SY138	02912
MXSU-SY139	02913
MXSU-SY141	05663
MXSU-SY142	04735
MXSU-SY143	02883
MXSU-SY206	06287
MXSU-SY207	06290



TE Part Number	ARS Code
MXSU-SY208	06289
MXSU-SY210	06288
EPKJ-SY145	03432
EPKJ-SY146	04139
EPKJ-SY147	04340
EPKJ-SY148	05241
EPKJ-SY149	02918
EPKJ-SY150	02914
EPKJ-SY153	04135
EPKJ-SY167	03431
EPKJ-SY169	02916
EPKJ-SY159	02905
MXSE-SY233	04634
MXSE-SY234	02917
MXSE-SY235	07668

REFERENCE TABLE

Annealed aluminium and copper stranded conductors

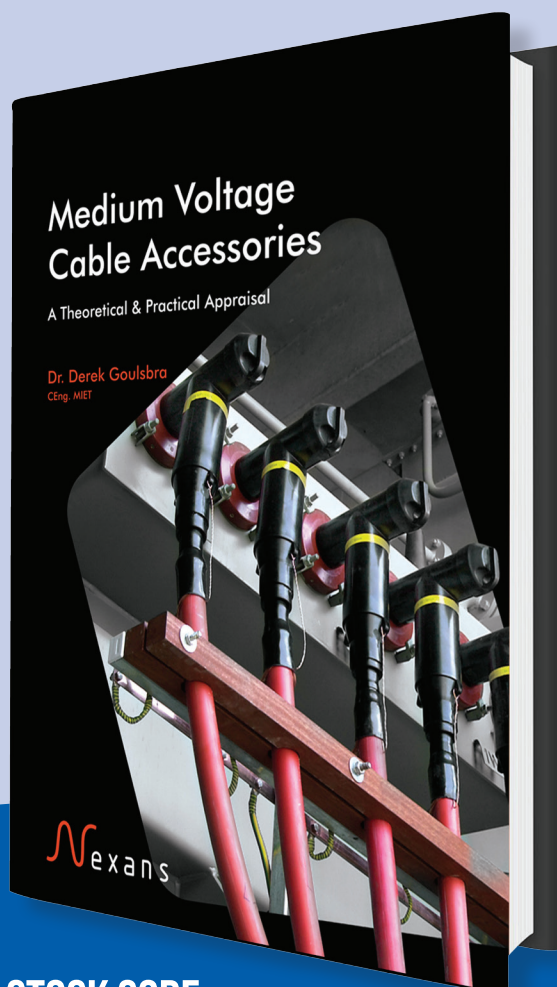
METRIC

NOMINAL CROSS SECTIONAL AREA (MM²)	NUMBER & NOMINAL DIA. OF WIRES (MM)	NOMINAL DIA. OF CONDUCTOR (MM)
	1/1.13	1.13
1.5	1/1.38	1.38
2.5	7/0.67	2.01
4	7/0.85	2.55
6	7/1.04	3.12
10	7/1.35	4.05
16	7/1.70	5.1
25	7/2.14	6.75
35	19/1.53	7.65
50	19/1.78	8.9
70	19/2.14	10.7
95	19/2.52	12.6
120	37/2.03	14.21
150	37/2.25	15.75
185	37/2.52	17.64
240	61/2.25	20.25
300	61/2.52	22.68
400	61/2.85	25.65
500	61/3.20	28.8
630	127/2.52	32.76
800	127/2.85	37.05
1000	127/3.20	41.6

IMPERIAL

NOMINAL CROSS SECTIONAL AREA (MM²)	NUMBER & NOMINAL DIA. OF WIRES (INCHES)	NUMBER & NOMINAL DIA. OF WIRES (MM)	NOMINAL CROSS SECTIONAL AREA (INCHES²)	NOMINAL DIA. OF CONDUCTOR (MM)
0.97	1/.044	1/1.12	0.0015	1.12
1.25	3/.029	3/7.37	0.0019	1.59
1.93	3/.036	3/9.14	0.003	1.97
2.93	7/.029	7/7.37	0.0045	2.2
4.52	7/.036	7/9.14	0.007	2.74
6.75	7/.044	7/1.12	0.01	3.35
9.43	7/.052	7/1.32	0.0146	3.96
14.28	7/.064	7/1.63	0.0025	4.88
18.29	19/.044	19/1.12	0.03	5.59
25.5	19/.052	19/1.32	0.04	6.6
38.7	19/.064	19/1.63	0.06	8.13
65.1	19/.083	19/2.11	0.1	10.5
75.3	37/.064	37/1.63	0.12	11.4
95.3	37/.072	37/1.83	0.15	12.8
126.7	37/.083	37/2.11	0.2	14.8
159.1	37/.093	37/2.36	0.25	16.5
195.1	37/.103	37/2.62	0.3	18.3
262.2	61/.093	61/2.36	0.4	21.3
321.6	61/.103	61/2.62	0.5	23.5
391.1	91/.093	91/2.36	0.6	26
479.7	91/.103	91/2.62	0.75	28.8
669.4	127/.103	127/2.62	1	34
800	127/.112	127/2.84	1.24	36.92
1000	127/.125	127/3.18	1.5	41.34

The above Metric to Imperial conversion table provides an approximate cross reference and may not be exact. Please check size requirements for your application. Should you require further assistance please contact your nearest All Round Supplies Branch or Representative on 1300 087 579.



STOCK CODE:
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MEDIUM VOLTAGE CABLE ACCESSORIES

DR DEREK GOULSBRA CENG MIET

This book is a detailed look at medium voltage cable accessories which will be of value to jointers and engineers alike.

In order to understand the workings and failure modes of the accessories, a section on electrical breakdown of air and solids and a combination of the two is presented.

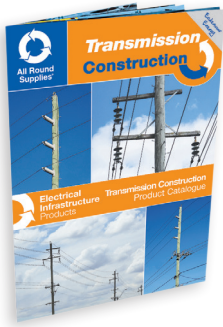
This is followed by a practical consideration of cable preparation using present day techniques and tools prior to installing the accessory.

Terminations, separable connectors, joints and associated components are examined in detail with explanations of the various technologies employed. Finally, examples of failures are presented with explanations of how these could have been avoided.

ABOUT THE AUTHOR

Derek Goulsbra has over thirty years experience working in the field of cable accessories having been heavily involved in product development, failure analysis and engineer and jointer training.





Transmission Construction
Endeavour Energy



Pole Mounted Transformer
Endeavour Energy



Pole Mounted Transformer
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Safety Link
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Kiosk Substation
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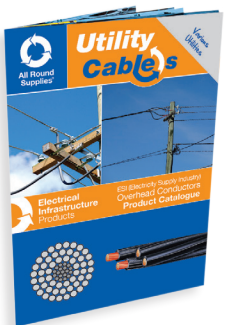
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