



Resin-filled joints for armoured power cables up to 1 kV

- A comprehensive range of resinfilled straight joints and branch joints for low voltage armoured power cables with conductor sizes up to 300 mm².
- Designed with generous dimensions to accommodate modern mechanical connectors needing no special installation tooling.
- Insulation, sealing and mechanical protection provided by proven and qualified two-part resin supplied in convenient foil packs.
- Clear rigid joint shells to aid correct installation
- Armour continuity bonding components included in every kit.
- Qualified to national and international performance standards.



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Application

TSJ and TBJ joints are designed for 2-, 3- and 4-core power cables with rated voltage up to 0.6/1.0 (1.2) kV. They are suitable for cables with:

- copper or aluminium (solid or stranded) conductors up to 300 mm²
- XLPE, PVC or EPR insulation
- wire armour (SWA) or strip armour
- PVC or PE sheath

TBJ branch joints are suitable for branch cables up to the maximum main cable conductor size for each kit.

All kits are also suitable for unarmoured cables.

See the kit selection table opposite. Select from the range of TSJ and TBJ kits according to conductor size and cable diameter.

Design

TSJ and TBJ joints are designed for simplicity and easy installation. They are part of the vast range of cable accessories carrying the Raychem brand, a name synonymous with product expertise, reliability and quality for more than 30 years.

Clear rigid high-impact polystyrene joint shells provide generous jointing dimensions and allow easy viewing to check connector positioning and resin filling. The joint shells are supplied complete with pre-applied foam sealing strips, fixing clips and sealing tape. Filling the joint is made easier with a convenient pouring funnel and sealing cap.

All joints are suitable for modern mechanical and crimp connectors. Mechanical connectors need no special installation tooling and are quick and easy to fit. Tyco Electronics B&H mechanical connectors are

recommended and are available for the full conductor size range. For conductors up to 25 mm² the KS type tunnel connector blocks are also suitable. These are convenient to handle and easy to install. B&H and KS Connectors can be selected from the tables opposite and can be supplied with the joint kits if required; please ask your specialist Tyco Electronics Energy Division distributor or wholesaler.

Components for armour bonding are included in the kit. The continuity bond is an insulated flexible conductor with short circuit rating suitable for fuse-protected circuits.

Joints are filled with a qualified and well established two-part polyurethane resin system supplied in flexible foil laminate pouches for easy mixing and pouring. Resin kits carry a full 2-year shelf-life.

Each joint kit includes clear and detailed installation instructions.

Kit components are well protected in robust box packaging with clear labelling.

The combination of resin and B&H mechanical connectors at the heart of TSJ and TBJ joints has been fully qualified to the respected UK performance standard Engineering Recommendation C81, including the requirements of BS 7888 and CENEL-EC HD623 (EN 50393).

Quality

ISO 9000 series and ISO 14001 certifications underline the Tyco Electronics commitment to quality and the environment. All Energy Division products are subject to a series of rigorous checks from the time they enter our plants as raw material until they leave as finished products. Re-qualification testing is carried out on a regular basis with installed products. Customers can thus have full confidence in the products, services and data supplied.







Selection table for straight joint and branch joint kits

Kit reference		Cable conductor size (mm²)		Cable entry diameter (mm)	
Straight joints	Branch joints	2- & 3-core	4-core	min	max
TSJ-6	TBJ-6	1.5 – 10	1.5 – 6	9	21
TSJ-16	TBJ-16	10 – 25	10 – 16	15	27
TSJ-35	TBJ-35	35 – 50	25 – 35	21	33
TSJ-70	TBJ-70	70 – 95	50 – 70	29	41
TSJ-120	TBJ-120	120 – 150	95 – 120	39	57
TSJ-185	TBJ-185	185 – 240	150 – 185	49	67
TSJ-300	TBJ-300	300	240 – 300	59	77

Selection table for B&H mechanical connectors

Conductor size (mm²)	B&H connector reference	
	Straight joints	Branch joints
1.5	BTC-4-20T	P1
2.5	BTC-4-20T	P1
4	BTC-4-20T	P1
6	BTC-4-20T	P1
10	BTC-4-20T	P1
16	BTC-4-40T	P1
25	BTC-4-40T	P1
35	BTC-5-50T	P1
50	BTC-5-50T	UBR95
70	BTC-6-60WSP	UBR95
95	UST95	UBR95
120	UST185	UBR185
150	UST185	UBR185
185	UST185	UBR185
240	UST300	UBR300
300	UST300	UBR300

Selection table for KS tunnel connector blocks

Conductor size range (mm²)	Connector reference			
1.5 - 6	KS0			
6 – 16	KS1			
16 – 25	KS2			



All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. ALR, AMP, AXICOM, B&H, BOWTHORPE EMP, CROMPTON INSTRUMENTS, DORMAN SMITH, DULMISON, GURO, HELLSTERN, LA PRAIRIE, MORLYNN, RAYCHEM, and SIMEL are trademarks.





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Energy Division - a pioneer in the development of economical solutions for the electrical power industry. Our product range includes: Cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.

For more information and your country contact person, please visit us at: http://energy.tycoelectronics.com

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