PT BINA CITRA *Energi*

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HEAT SHRINK JOINTING

FOR 1-CORE AND 3-CORE CABLES



Heat Shrinkable Polymeric MV Cable Joint Kits

Features:



- Unlimited shelf life of kits
- Fully Tested to **HD629, IEC 60502-4** specifications
- Extensive reference of reliable usage in climates all over the world
- Kits designed to cover a wide range of cable sizes and types
- Mechanical durability equal to the cable sheath
- Resistant to chemicals, UV light and water ingress
- For use indoor, outdoor and buried environments
- Mechanical shear bolted connectors available as an option in kits
- Easy to install with installation instructions included in all kits

Key Components

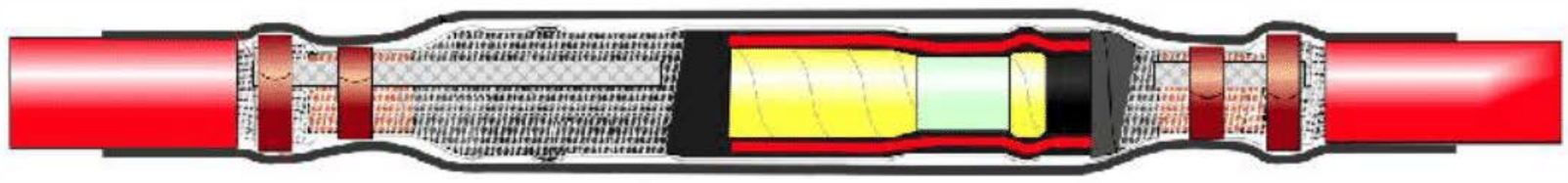
Each kit is tailored to suit the specific cable types and environment. The key components in the joint are:

1. **Connector System:** to provide a low resistance connection between the phase conductors. REPL RHJ joints can accommodate both compression and mechanical bolted connector systems to the preference of the installer

2. **Insulation System**: to reinstate the respective layers of the cable insulation. Using a combination of Heat Shrinkable tubes with differing electrical properties to ensure the joint can withstand the operating and overload voltage conditions.
   Depending on the maximum rated voltage level of the joint, a number of tubes are shrunk over the connector in a pre-determined order. This is complemented with mastics to ensure a void free, reliable insulation reinstatement.

3. **Earth Screen/Armour Continuity:** depending on the cable construction, metallic components are included to connect the cables screens and armouring across the joint to ensure the short circuit fault rating of the cable is maintained and provide mechanical protection equivalent to the cable armouring

4. **Outer Protection:** to provide mechanical impact, corrosion and moisture protection to the joint. The standard system is using heavy wall Heat Shrinkable tubing.



Technical Details for RHJ Heat Shrinkable Jointing System

Voltage Class:	7.2kV	12kV	17.5kV	24kV	36kV	42kV
Cross Section Range (mm^2)	25 - 630	25 - 1000	35 - 1000	35 - 1000	50 - 1000	50 - 1000
Cable Insulation Diameter (mm)	13 - 36	15 - 46	17 - 48	18 - 50	24 - 55	25 - 56
Voltage Rating U_0/U (U_m) kV	3.8/6.6 (7.2)	6.35/11 (12)	8.7/15 (17.5)	12.7/22 (24)	19/33 (36)	20.8/35 (42)
Basic Impulse Level (BIL) kV	60	95	95	125	194	200
Partial Discharge at 1.73U° (pC)	<10	<10	<10	<10	<10	<10
AC Voltage Withstand , 1 min (kV)	>15	>25.5	>35	>51	>76	>83
AC Voltage Withstand , 5 min (kV)	>17	>28.5	>39	>57	>85.5	>93.5
DC Voltage Withstand , 15min (kV)	>23	>38	>52	>76	>114	>125

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Heat Shrinkable Polymeric MV Cable Joint Kits

For Single & Three Core Polymeric Insulated cables (XLPE / EPR)

RLJ-(7-42)X



Medium Voltage Straight Joints for Polymeric Insulated Cables up to 42kV

The RHJ-X range of kits are designed for jointing either single or three core cable designs with polymeric (XLPE or EPR) insulation and can be used with both compression and mechanical type connectors.

Typical Kit Contents

(actual components will depend on specific joint type)

- Heat Shrinkable insulation tubing[1]
- Heat Shrinkable stress control tubing
- Stress control void filling mastic
- Earth / armour screen continuity materials
- Heavy Wall Heat Shrinkable corrosion protection tubing
- Mastic sealing tapes
- Phase conductor connector[2]

[1] – Number and type of tubes depends on insulation level

[2] – Optional, type specified at order

Fully tested to the following specifications

- **HD629.1.S2**
- **IEC 60502-4**

7.2 kV

Straight Cable Joint for Polymeric Insulated cables rated at Um= 7.2kV

Conductor Cross Section (mm^2)	Cable Construction	Kit Number Single Core Joint	Kit Number Three Core Joint	*Diameter over Insulation (mm)
16 - 50	No armour	RLJ-7-16/50-XI		13.5 - 16.8
	Armoured		RLJ-7-16/50-X3	
70 - 120	No armour	RLJ-7-70/120-XI		16.8 - 21.3
	Armoured		RLJ-7-70/120-X3	
150 - 300	No armour	RLJ-7-150/300-XI		21.3 - 25.8
	Armoured		RLJ-7-150/300-X3	
400 - 500	No armour	RLJ-7-400/500-XI		25.8 - 35.8
	Armoured		RLJ-7-400/500-X3	

12 kV

Straight Cable Joint for Polymeric Insulated cables rated at Um= 12kV

16 - 50	No armour	RLJ-12-16/50-XI		14.6 - 18.6
	Armoured		RLJ-12-16/50-X3	
70 - 120	No armour	RLJ-12-70/120-XI		18.6 - 23.1
	Armoured		RLJ-12-70/120-X3	
150 - 300	No armour	RLJ-12-150/300-XI		23.1 - 27.6
	Armoured		RLJ-12-150/300-X3	
400 - 500	No armour	RLJ-12-400/500-XI		27.6 - 37.6
	Armoured		RLJ-12-400/500-X3	
630 - 1000	No armour	RLJ-12-630/1000-XI		37.6 - 45.6
	Armoured			

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17.5 kV

Straight Cable Joint for Polymeric Insulated cables rated at Um= 17.5kV

Conductor Cross Section (mm^2)	Cable Construction	Kit Number Single Core Joint	Kit Number Three Core Joint	*Diameter over Insulation (mm)
16 - 25	No armour	RLJ-17-16/25-X1		17.7 - 22.1
	Armoured		RLJ-17-16/25-X3	
35 - 70	No armour	RLJ-17-35/70-X1		22.1 - 26.5
	Armoured		RLJ-17-35/70-X3	
95 - 240	No armour	RLJ-17-95/240-X1		26.5 - 31.1
	Armoured		RLJ-17-95/240-X3	
300 - 400	No armour	RLJ-17-300/400-X1		31.1 - 41.0
	Armoured		RLJ-17-300/400-X3	
500 - 630	No armour	RLJ-17-500/630-X1		41 - 47.1
	No armour			

24 kV

Straight Cable Joint for Polymeric Insulated cables rated at Um= 24kV

16 - 50	No armour	RLJ-24-16/50-X1		18 - 22.8
	Armoured		RLJ-24-16/50-X3	
70 - 95	No armour	RLJ-24-70/95-X1		22.8 - 27.3
	Armoured		RLJ-24-70/95-X3	
120 - 185	No armour	RLJ-24-120/185-X1		27.3 - 31.8
	Armoured		RLJ-24-120/185-X3	
240 - 300	No armour	RLJ-24-240/300-X1		31.8 - 41.8
	Armoured		RLJ-24-240/300-X3	
400	No armour	RLJ-24-400-X1		41.8 - 49.8
	Armoured		RLJ-24-400-X3	

36 kV

Straight Cable Joint for Polymeric Insulated cables rated at Um= 36kV

50 - 70	No armour	RHSJ-36-50/70-X1		24 - 27.8
	Armoured		RHSJ-36-50/70-X3	
95 - 150	No armour	RHSJ-36-95/150-X1		27.8 - 32.3
	Armoured		RHSJ-36-95/150-X3	
185 - 400	No armour	RHSJ-36-185/400-X1		32.3 - 36.8
	Armoured		RHSJ-36-185/400-X3	
500 - 630	No armour	RHSJ-36-500/630-X1		36.8 - 46.8
	Armoured			

42 kV

Straight Cable Joint for Polymeric Insulated cables rated at Um= 42kV

16 - 50	No armour	RLJ-42-16/50-XI		18 - 22.8
	Armoured		RLJ-42-16/50-X3	
70 - 120	No armour	RLJ-42-70/120-XI		22.8 - 27.3
	Armoured		RLJ-42-70/120-X3	
150 - 300	No armour	RLJ-42-150/300-XI		27.3 - 31.8
	Armoured		RLJ-42-150/300-X3	
400 - 500	No armour	RLJ-42-400/500-XI		31.8 - 41.8
	Armoured		RLJ-42-400/500-X3	
630 - 1000	No armour	RLJ-42-630/1000-XI		41.8 - 49.8
	Armoured			

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