

RHTI/RHTO – X3 For 3 Core Polymeric Insulated Cables (XLPE/EPR) up to 42kV

REPL Heat Shrink Cable Termination Kits are extensively tested and used worldwide for reliable cable junctions in the voltage range from 7.2kV to 42kV. The kits are designed for either indoor or outdoor applications for cables with polymeric (XLPE or EPR) insulation and can be used with both compression or mechanical type lugs (which can be supplied in the kit if specified).

The termination kits combine the anti-tracking external tubing for excellent weathering and electrical properties together with an internal stress control tube for field control at the insulation screen cut.

Where applicable, sheds are included for extending the creepage distance – kits can be tailored with extra sheds for areas with high pollution or for coastal installations.

For cables with armouring, a solderless earth kit is included to create a consistent connection from the cable screen and armour.

All kits come with adequate mastic tapes for sealing and easy to follow installation instructions.

The termination kits can be used in conjunction with other REPL accessories such as insulating boot kits, gland plates and pole top mounting brackets and insulators.

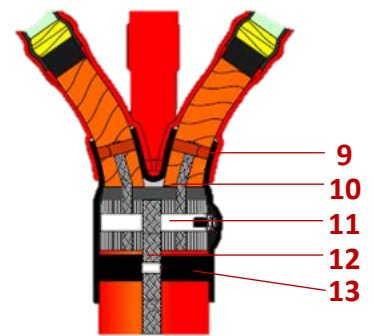
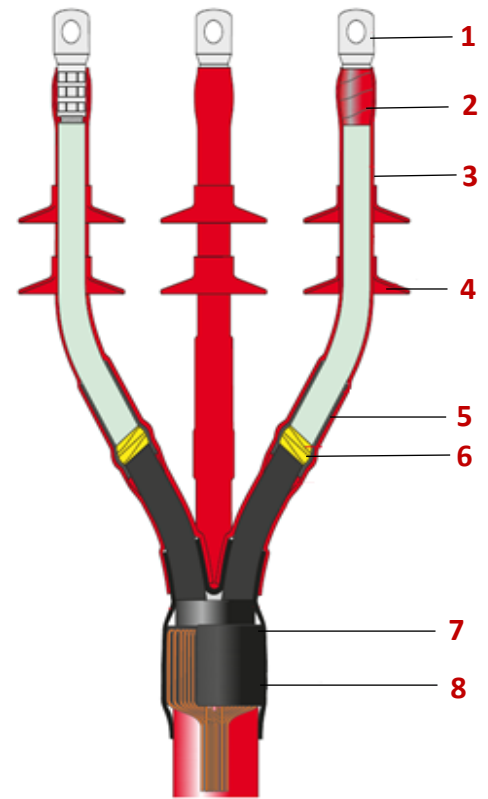
Kit Contents:

Standard Kits for 3 core un-armoured cables:

1. Cable phase lug (optional – supplied only if specified)
2. Red Sealing mastic for top seal
3. Anti-tracking heat shrink tube
4. Creepage Extension Sheds – based on voltage/type
5. Stress Control heat shrink tube
6. Stress control / void filling yellow mastic
7. Heat shrink conductive cable breakout
8. Sealant Mastic for metallic screen

Additional components for 3 core armoured cables (specify - /e at end of part number)

9. Constant Force Spring for copper tape screen
10. Tinned copper braid for copper tape screen
11. Worm drive clip for armour bond
12. Tinned copper braid with soldered moisture block
13. Sealant Mastic for Armour

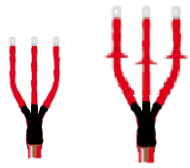


Technical Properties:

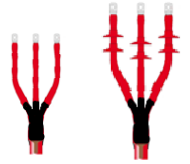
Voltage Class >	7.2kV	12kV	17.5kV	24kV	36kV	42kV
Cross Section Range (mm ²)	25-300	35-400	35-400	35-300	50-300	50-300
Cable Insulation Diameter (mm)	13.5-26	14.6-30	17.7-32	18-32	24-55	24-34
Voltage Rating U ₀ /U (U _m) kV	3.8/6.6 (7.2)	6.35/11 (12)	8.7/15 (17.5)	12.7/22 (24)	19/33 (36)	20.8/36 (42)
Basic Impulse Level (BIL) kV	60	95	95	125	194	200
Partial Discharge at 2U ⁰ (pC)	<2	<2	<2	<2	<2	<2
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 , 15 min (kV)	23	38	52	76	114	125

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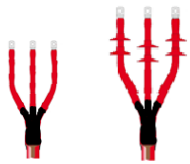
RHTI/RHTO – X3 Cable Termination Selection Chart



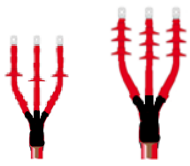
7.2 kV	Cross Section (mm ²)	*Diameter over insulation (mm)	Kit Number Indoor	Tail Length Indoor (mm)	Kit Number Outdoor	Tail Length Outdoor (mm)
	35-95	13.5-16.8	RHTI 7X 35-95-3	600	RHTO 7X 35-95-3	650
95-185	16.8-21.3	RHTI 7X 95-185-3	600	RHTO 7X 95-185-3	650	
185-300	21.3-25.8	RHTI 7X 185-300-3	600	RHTO 7X 185-300-3	650	



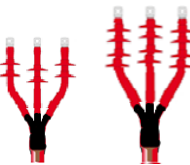
12 kV	Cross Section (mm ²)	*Diameter over insulation (mm)	Kit Number Indoor	Tail Length Indoor (mm)	Kit Number Outdoor	Tail Length Outdoor (mm)
	35-95	14.6-18.6	RHTI 12X 35-95-3	600	RHTO 12X 35-95-3	650
95-185	18.6-23.1	RHTI 12X 95-185-3	600	RHTO 12X 95-185-3	650	
185-400	23.1-27.6	RHTI 12X 185-300-3	600	RHTO 12X 185-300-3	650	



17.5 kV	Cross Section (mm ²)	*Diameter over insulation (mm)	Kit Number Indoor	Tail Length Indoor (mm)	Kit Number Outdoor	Tail Length Outdoor (mm)
	35-95	17.7-22.1	RHTI 17X 35-95-3	600	RHTO 17X 35-95-3	650
95-185	22.1-26.5	RHTI 17X 95-185-3	600	RHTO 17X 95-185-3	650	
185-400	26.5-31.1	RHTI 17X 185-300-3	600	RHTO 17X 185-300-3	650	



24 kV	Cross Section (mm ²)	*Diameter over insulation (mm)	Kit Number Indoor	Tail Length Indoor (mm)	Kit Number Outdoor	Tail Length Outdoor (mm)
	35-95	18-22.8	RHTI 24X 35-95-3	650	RHTO 24X 35-95-3	800
95-185	22.8-27.3	RHTI 24X 95-185-3	650	RHTO 24X 95-185-3	800	
185-400	27.3-31.8	RHTI 24X 185-300-3	650	RHTO 24X 185-300-3	800	



36 kV	Cross Section (mm ²)	*Diameter over insulation (mm)	Kit Number Indoor	Tail Length Indoor (mm)	Kit Number Outdoor	Tail Length Outdoor (mm)
	35-95	24-27.8	RHTI 36X 35-95-3	650	RHTO 36X 35-95-3	850
95-185	27.8-32.3	RHTI 36X 95-185-3	650	RHTO 36X 95-185-3	850	
185-400	32.3-36.8	RHTI 36X 185-300-3	650	RHTO 36X 185-300-3	850	



42 kV	Cross Section (mm ²)	*Diameter over insulation (mm)	Kit Number Indoor	Tail Length Indoor (mm)	Kit Number Outdoor	Tail Length Outdoor (mm)
	95-185	27.8-32.3	RHTI 42X 95-185-3	750	RHTO 42X 95-185-3	1200
185-400	32.3-36.8	RHTI 42X 185-300-3	750	RHTO 42X 185-300-3	1200	

Notes

*the diameter of insulation values are based on typical designs – due to manufacturing tolerances and conductor construction, the range of cables sizes suitable for each kit may change dependent upon actual cable to be terminated.

For cables with copper tape screens/armouring, additional earthing kit can be supplied with the kit – specify suffix - /e after the kit number, i.e. RHTI 12X 95-185-1/e

A full range of cable insulating boots, cable glands, earthing kits for special cable constructions and pole mounting brackets are available – please see relevant data sheets

For special applications not covered by standard kits, please consult your local REPL sales office.

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