

## RHTI/RHTO – X3 For 3 Core Polymeric Insulated Cables (XLPE/EPR) up to 36kV

REPL Heat Shrink Cable Termination Kits are extensively tested and used worldwide for reliable cable junctions in the voltage range from 7.2kV to 36kV. 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 armoring, 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:

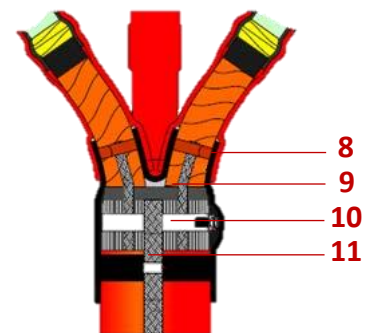
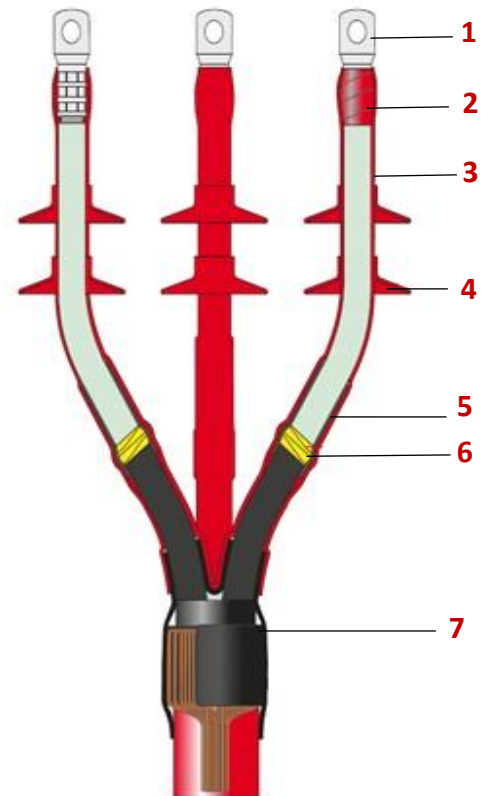
#### Standard Kits for 3 core un-armoured cables:

1. Cable phase lug (optional – supplied only if specified)
2. 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 mastic
7. Heat Shrink 3 core breakout

#### Additional components for 3 core armoured cables

##### (specify - /E at end of part number)

8. Constant Force Spring for copper tape screen
9. Tinned copper braid
10. Jubilee clamp for armour
11. Black Sealing Mastic for Armour



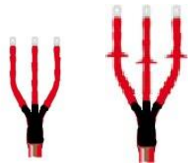
### Technical Properties:

Voltage Class >	7.2kV	12kV	17.5kV	24kV	36kV
Cross Section Range (mm <sup>2</sup> )	35-400	35-400	35-400	35-400	35-400
Cable Insulation Diameter (mm)	13.5-29.7	14.6-32.3	17.7-33.5	18.0-39.8	24.0-40.7
Voltage Rating U <sub>0</sub> /U (U <sub>m</sub> ) kV	3.8/6.6 (7.2)	6.35/11 (12)	8.7/15 (17.5)	12.7/22 (24)	19/33 (36)
Basic Impulse Level (BIL) kV	60	95	95	125	194
Partial Discharge at 2U <sup>0</sup> (pC)	<2	<2	<2	<2	<2
AC Voltage Withstand , 1 min (kV)	15	25.5	35	51	76
AC Voltage Withstand , 5 min (kV)	17	28.5	39	57	85.5
DC Voltage Withstand , 15 min (kV)	23	38	52	76	114

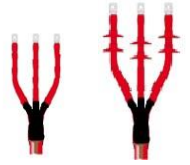
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## RHTI/RHTO – X3 Cable Termination Selection Chart



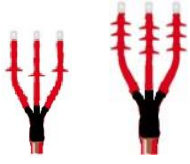
7.2 kV	Cross Section (mm <sup>2</sup> )	*Diameter over insulation (mm)	Kit Number <b>Indoor</b>	Tail Length Indoor (mm)	Kit Number <b>Outdoor</b>	Tail Length Outdoor (mm)
	35-95	13.5-17.6	RHTI 7X 35-95-3	400	RHTO 7X 35-95-3	500
95-240	17.6-24.4	RHTI 7X 95-240-3	400	RHTO 7X 95-240-3	500	
120-300	19.0-26.6	RHTI 7X 120-300-3	400	RHTO 7X 120-300-3	500	
185-400	22.1-29.7	RHTI 7X 185-400-3	400	RHTO 7X 185-400-3	500	



12 kV	Cross Section (mm <sup>2</sup> )	*Diameter over insulation (mm)	Kit Number <b>Indoor</b>	Tail Length Indoor (mm)	Kit Number <b>Outdoor</b>	Tail Length Outdoor (mm)
	35-95	14.6-20.5	RHTI 12X 35-95-3	600	RHTO 12X 35-95-3	650
95-240	20.5-27.3	RHTI 12X 95-240-3	600	RHTO 12X 95-240-3	650	
120-300	22.0-29.6	RHTI 12X 120-300-3	600	RHTO 12X 120-300-3	650	
185-400	25.1-32.3	RHTI 12X 185-300-3	600	RHTO 12X 185-300-3	650	



17.5 kV	Cross Section (mm <sup>2</sup> )	*Diameter over insulation (mm)	Kit Number <b>Indoor</b>	Tail Length Indoor (mm)	Kit Number <b>Outdoor</b>	Tail Length Outdoor (mm)
	35-95	17.7-21.4	RHTI 17X 35-95-3	600	RHTO 17X 35-95-3	700
95-240	21.4-28.2	RHTI 17X 95-240-3	600	RHTO 17X 95-240-3	700	
120-300	22.8-30.4	RHTI 17X 120-300-3	600	RHTO 17X 120-300-3	700	
185-400	25.9-33.5	RHTI 17X 185-300-3	600	RHTO 17X 185-300-3	700	



24 kV	Cross Section (mm <sup>2</sup> )	*Diameter over insulation (mm)	Kit Number <b>Indoor</b>	Tail Length Indoor (mm)	Kit Number <b>Outdoor</b>	Tail Length Outdoor (mm)
	35-95	18.0-25.1	RHTI 24X 35-95-3	650	RHTO 24X 35-95-3	850
95-240	25.1-34.2	RHTI 24X 95-240-3	650	RHTO 24X 95-240-3	850	
120-300	26.6-36.9	RHTI 24X 120-300-3	650	RHTO 24X 120-300-3	850	
185-400	31.9-39.8	RHTI 24X 185-300-3	650	RHTO 24X 185-300-3	850	



36 kV	Cross Section (mm <sup>2</sup> )	*Diameter over insulation (mm)	Kit Number <b>Indoor</b>	Tail Length Indoor (mm)	Kit Number <b>Outdoor</b>	Tail Length Outdoor (mm)
	35-95	24.0-28.6	RHTI 36X 35-95-3	800	RHTO 36X 35-95-3	1200
95-240	28.6-35.4	RHTI 36X 95-240-3	800	RHTO 36X 95-240-3	1200	
120-300	30.0-37.6	RHTI 36X 120-300-3	800	RHTO 36X 120-300-3	1200	
185-400	33.1-40.7	RHTI 36X 185-300-3	800	RHTO 36X 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 95-240-1/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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