

T-BODY ELBOW CONNECTORS

35 kV, 600/900A

KEY FEATURES

- Peroxide cured EPDM rubber ensures low tension set and high dielectric strength
- 100% factory production tested for partial discharge and AC Hipot per IEEE 386
- Fits 35 kV cables up to 1250 kcmil
- Optional capacitive test point provided on elbow
- A rating up to 900A can be achieved with TE's Copper Shear bolt Terminals
- Available in 150 kV or 200 kV BIL-rated designs

TE Connectivity's (TE) Raychem T-Body Elbow Connectors are designed to terminate underground cables to high voltage apparatus such as transformers and switchgear. They are fully shielded and submersible and meet the requirements of IEEE 386. They are interchangeable with other manufacturers' products that conform with this industry standard. Molded semiconducting shield provides ground shield continuity. They are designed for use on extruded XLPE or EPR solid dielectric cable. The conductor range is from 1/0 AWG to 1250 kcmil for aluminum or copper conductors with insulation diameters from 0.930" to 2.145".

They are available with a capacitive test point molded into the elbow body which provides a mean of sensing voltage and provides an attachment point for test point fault indicators. Additionally, TE offers a 200 kV BIL-rated 600A deadbreak connector for renewable energy projects where this rating is specified, exceeding the IEEE 386 standard of 150 kV BIL.

The 900A rating can be achieved by ordering the kit with TE's Copper Shear bolt Terminals. These are range taking mechanical connectors that will accommodate a conductor range from #2 compact to 1250 kcmil stranded, Class B. The shear bolt terminal design incorporates shear bolt heads, which ensures that the correct torque is applied to each bolt and consequently the optimal contact force is generated to minimize connection resistance.

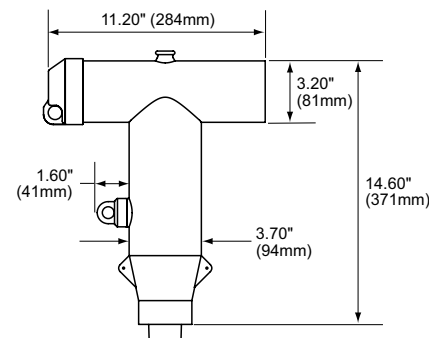
Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

T-Body Elbow Connectors

TE's Raychem Elbow Connectors meet the requirements of IEEE 386 and IEEE 592



Ratings
Voltage Class 35 kV
Max Rating Phase-to-Ground 21.1 kV
AC 1 Minute Withstand 50 kV
DC 15 Minute Withstand 103 kV
BIL and Full Wave Crest 150 kV
Minimum Corona Level 26 kV (3pC)
Continuous 600A rms
24 Hour Overload 1,000A rms
Momentary:
40,000A symmetrical 10 cycles
10,000A symmetrical 3.00 sec
100% Production Test
Minimum Corona Level 26 kV (3pC)
AC 1 Minute Withstand 50 kV



Ordering Formula Example:

The part number for a 200 kV BIL-rated 35 kV Elbow, 600A with test point, an insulation OD of 1.75", and 750 kcmil stranded cable is ELB-35-610R750-200. (Or with AL shear bolt ELB-35-610R-A3-200)

Ordering Notes:

- To include a sealing kit, add "-ESA" suffix for heat shrinkable and "-CES" suffix for cold applied closure. "-GES" suffix for cold applied GelWrap ES closure after the connector section.
- If using copper tape shield cable, sealing/grounding ELB-35-600-GRDx (heat shrink) or ELB-600-CES-GRDX (cold applied), (x = 1, 2, or 3) is required and ordered separately.

ELB Kit Contents:

Elbow, Insulating Plug*, Cable Adapter, Stud*, Connector*, Silicone Lubricant, Installation Instruction, Jacket Seal (optional)

* When 900 series is specified, kit will include copper insulating plug, copper stud, and either a copper-top connector or copper shear bolt.

ELB-35-	1	2	3	4
35 kV Elbow	Rating/ Test point	Cable OD	Connector	BIL Rating
= ELB-35-	610	R	750	200

1	Current Rating Test Point Code
600	= 600 AMP WITHOUT test point
610	= 600 AMP WITH test point
900	= 900 AMP WITHOUT test point
910	= 900 AMP WITH test point

2	Cable Insulator O.D. Range	
Code	Inches	mm
E	.930 - 1.040	23.6 - 26.4
F	.980 - 1.115	24.9 - 28.3
G	1.040 - 1.175	26.4 - 29.8
H	1.095 - 1.240	27.8 - 31.5
J	1.160 - 1.305	29.5 - 33.1
K	1.220 - 1.375	31.0 - 34.9
L	1.285 - 1.395	32.6 - 35.4
M	1.355 - 1.520	34.4 - 39.0
N	1.485 - 1.595	37.7 - 40.5
P	1.530 - 1.640	38.9 - 41.7
Q	1.575 - 1.685	40.0 - 42.8
R	1.665 - 1.785	42.3 - 45.3
S	1.775 - 1.875	45.1 - 47.6
T	1.845 - 1.965	46.9 - 50.0
U	1.935 - 2.055	49.1 - 52.2
V	2.025 - 2.145	51.4 - 54.5

3	Compression Lugs Conductor Size (Aluminum or Copper)			
Code	Str/ Comp	Compact	Solid	
1	—	1/0	1/0	
10	1/0	2/0	2/0	
20	2/0	3/0	3/0	
30	3/0	4/0	4/0	
40	4/0	250	—	
250	250	300	—	
300	300	350	—	
350	350	400	—	
400	400	450/500	—	
450	450	500/550	—	
500	500	600	—	
550	550	650	—	
600	600	700	—	
650	650	750/800	—	
750	700/750	900	—	
800	800	900	—	
900	900	1000	—	
1000	1000	—	—	
1100	1100	—	—	
1250	1250	—	—	

Copper Shear Bolt & Conductor Size	
Code	Compression, Compact, Strand
-C1	2 - 4/0
-C2	2/0 - 500
-C3	300 - 750
-C4	500 - 1000
-C5	1000 - 1250

Aluminum Shear Bolt & Conductor Size	
Code	Compression, Compact, Strand
-A1	2 - 350
-A2	350 - 750
-A3	600 - 1000
-A4	1000 - 1250

4	BIL Rating
Blank	= 150 kV BIL
200	= 200 kV BIL

Related Test Reports:

EDR-5476, EDR-5477, EDR-5502, EDR-5503, EDR-5543, EDR-5642

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