

600A/900A Deadbreak Series (35kV)

Prysmian
MV ACCESSORIES



OVERVIEW

The 600/900 amp Deadbreak Elbow and accessories offer an easy and reliable method of terminating and splicing main feeder circuits. The Deadbreak Elbow is a fully shielded, molded rubber connector.

The Deadbreak Elbow is designed to terminate power cables with copper or aluminum conductors ranging in sizes from #2 AWG to 1250 kcm. It may be installed on any 600-Amp rated (aluminum) apparatus bushing that meets IEEE Standard 386 latest revision for Separable Insulated Connectors. Cable adapters accommodate power cable insulation diameters from 0.530 to 1.935 inches.

If all-copper components are used, the Deadbreak Elbow assembly has a 900A rating. Otherwise, the assembly is rated for 600A.

INTERCHANGEABILITY

The Deadbreak Elbow has been designed and tested to meet the requirement of IEEE Standard 386. Conformance to this industry standard ensures mechanical and electrical interchangeability with other products of manufacturers that are also in conformance with the standard.

Electrical Ratings MEETS OR EXCEEDS IEEE STANDARD 386 – Latest Revision

Continuous Current Rating (Aluminum Components)	600 amps
Voltage Class	35kV
Max Phase to Ground Voltage – Operating Voltage	21.1kV
Basic Impulse Level (1.2x50µs)	200kV
Corona Extinction (3pC)	26kV
AC Withstand Voltage (1 min.)	50kV
4 Hour Overload	900 Amps
Short-Circuit Time Rating	25,000 Amps rms symmetrical for 0.17 sec. 10,000 Amps rms symmetrical for 3.00 sec.

FEATURES

1. Cable Adapter - Molded of peroxide cured EPDM rubber. Designed to accept specified cable insulation diameters. Radial pressure exerted on the cable insulation by the cable adapter precludes the presence of corona causing air voids along the cable adapter and cable insulation interface. The outside diameter of the cable adapter is constant for all cable adapter sizes.

2. Compression Connector - Aluminum (600 amp). Sized for the specific conductor size. Crimped with standard tools and dies.

3. Test Point - Designed to allow voltage indication when readout is made with suitable high impedance measuring devices. Elbows are available with and without this feature.

4. Insulating Plug Cap - Molded of conductive peroxide cured EPDM rubber providing a continuous outer shield for the elbow. Snaps tightly over the test point and onto the elbow body.

5. Epoxy Insulating Plug - Hex nut located on top of the insulating plug is used to tighten the plug when assembling the elbow.

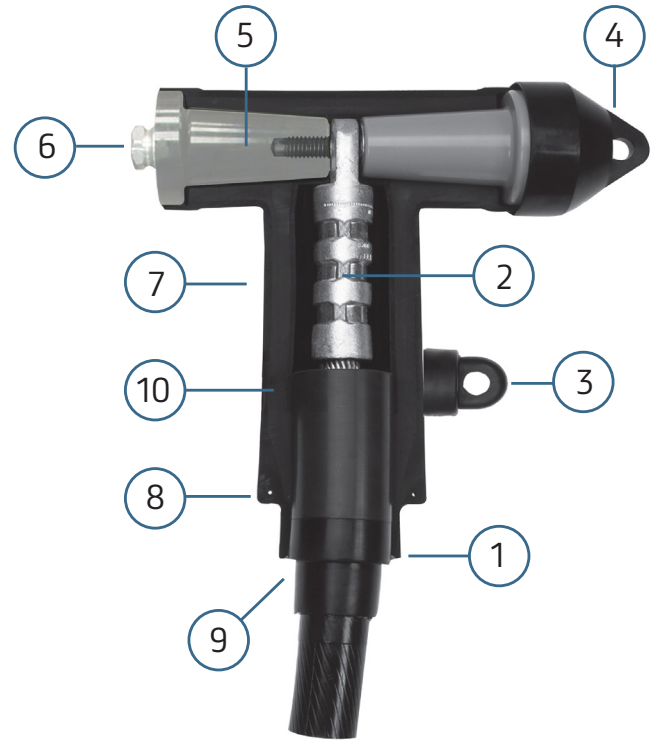
6. Hex Nut - One-inch hex head is used to tighten the connection. Can also be used as a capacitive test point. See #3 above.

7. Molded External Shield - Conductive, abrasion-resistant shield of peroxide cured EPDM rubber. Provides ground shield continuity and meets the requirements of IEEE Standard 592.

8. Drain Wire Tab - Designed to accept a single #14 AWG copper wire that can be inserted into the eye. Provides a static ground to ensure deadfront construction.

9. Stress Relief Cone - Designed into the cable adapter providing electrical stress relief at the point of terminating the power cable shield. Controls the electrical field entering the elbow.

10. EPDM Insulation - Peroxide cured EPDM rubber.



Deadbreak T-Bodies

Part Number	Insulation Diameter (In)	35kV 100%	35kV 133%
35DB_H	0.850 – 1.050	—	—
35DB_J	0.980 – 1.115	1/0 AWG	—
35DB_K	1.090 – 1.310	3/0 – 4/0 AWG	2 – 2/0 AWG
35DB_L	1.180 – 1.465	250 – 350 kcm	2/0 AWG – 250 kcm
35DB_M	1.370 – 1.630	500 – 600 kcm	350 kcm
35DB_N	1.515 – 1.780	600 – 750 kcm	500 – 600 kcm
35DB_P	1.725 – 1.935	1000 kcm	750 kcm
35DB_Q	1.900 – 2.120	1250 – 1500 kcm	1000 – 1250 kcm

NOTE: Cable sizes are conservative estimates based on compact cable design. To properly size a kit to cable, reference the **Insulation Diameter** ranges

NOTE: Replace “_” with “CN” for Concentric Neutral Cable

Example: For a 1/0 AWG Compact 15kV 100% Cable with CN use body 1525DBCNF-600DB23

NOTE: Replace “_” with “CTS” for Copper Tape Shield or LC Shield Cables

Example: For a 500 kcm 25kV Stranded 133% Cable with LC or Copper Tape Shield use body 1525LBCTSB-600DB33

Remember to add the required lug to the body part number per the Connector Table.

Example: 35DBCT5N-600DB35 for 500mcm 100% cable

Deadbreak Shear Bolt Connectors

Description	Part No.	Nominal Conductor Range*		Compression Lug Code Equiv.		# of Bolts	Hex Key Size
		Min	Max	Min	Max		
Shear Bolt Lug #3 - 300	CUS600DBSB1	#3	300	6	14	2	5 mm
Shear Bolt Lug 1/0 - 450	CUS600DBSB2	1/0	450 Strd/500 Cmpt	9	17	2	6 mm
Shear Bolt Lug 4/0 - 600	CUS600DBSB3	3/0	600	11	20	2	8 mm
Shear Bolt Lug 350 - 750	CUS600DBSB4	300 Cmpr /350 Cmpt	750 Strd/900 Cmpt	14	23	3	8 mm
Shear Bolt Lug 600 - 1250	CUS600DBSB5	600	1250	20	29	3	8 mm
Shear Bolt Lug 1500	CUS600DBSB6**	1500		30		4	8 mm

Shear bolt connectors can be used for 600A and 900A applications.

* Unless otherwise noted conductor size listed is stranded/compressed/compact.

** For use on 35kV Deadbreak Series. For other applications contact the factory.

Deadbreak Compression Connectors

Part No.	Stranded / Compressed	Compact / Solid	Part No.	Stranded / Compressed	Compact / Solid
600DB21	#3	#2	600DB32	450	500/550
600DB22	#2	#1	600DB33	500	600
600DB23	#1	1/0	600DB34	550	650
600DB24	1/0	2/0	600DB35	600	700
600DB25	2/0	3/0	600DB36	650	750
600DB26	3/0	4/0	600DB38	700/750	900
600DB27	4/0	250	600DB39	800	—
600DB28	250	300	600DB40	900	1000
600DB29	300	350	600DB41	1000	—
600DB30	350	400	600DB44	1250	—
600DB31	400	450			