CHARDON GROUP

15/25-TB600

600A/900A 15/25 kV Class T-Body Deadbreak Connector

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APPLICATION

Chardon 15/25-TB-600 and 15/25-TB-600T elbows are designed to terminate underground cables to high-voltage apparatus such as transformers and switchgear. They are fully shielded fully submersible and meet the requirements of IEEE Standard 386. They are interchangeable with other manufacturers products that conform with this industry standard.

The capacitive test point on the insulating plug provides a means of testing the circuit without disturbing the bolted connection. In addition to the capacitive test point feature on the insulating plug, Chardon offers an optional capacitive test point on the T-Body connector. This allows the use of the fault indicators, and provides a hotstick operable means of determining circuit condition when used with high impedance voltage sensing devices designed for test points.

T-Body Connectors are designed for use on solid dielectric cable (XLPE or EPR) with extruded semi-conductive shields and concentric neutral, with or without a jacket. Installation on jacketed concentric neutral cable may require additional sealing material. A special grounding adapter is available for tape shield, linear corrugated, unishield, and drain wire cables for use with Deadbreak connectors.

KEY FEATURES

- 100% factory production testing for partial discharge and AC withstand per IEEE 386.
- Peroxide cured EPDM rubber provides low tension set and high dielectric strength.
- Optional selection of test point installed to provide voltage indication.
- Molded semiconducting shield provides ground shield continuity per the requirements of IEEE 592.
- Grounding Tab and Stress Relief Cone design provide operational safety.
- Fully meets IEEE 386–2006 specficate

PRODUCT RATINGS

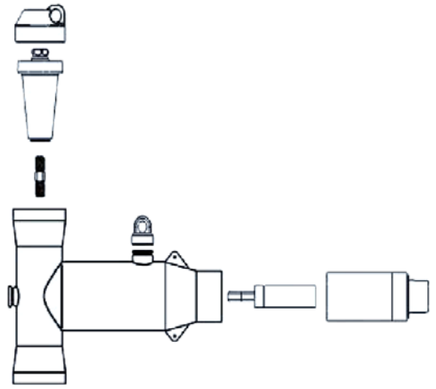
Voltage Class	25 kV
Max. Rating Phase to Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	78 kV
BILand Full Wave Crest	125 kV
Minimum Corona Level	21.5kV (3pC)
Continuous	600Arms
24 Hour Overload	1,000Arms
Momentary	25,000A symmetrical 10 cycles / 10,000A symmetrical 3.00 sec

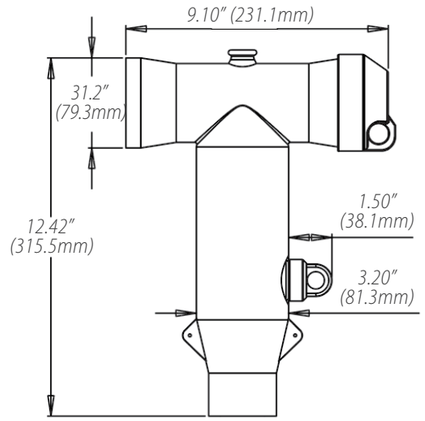
Voltage/Current ratings and characteristics are in accordance with IEEE Std 386 standard.

T-BODY KIT CONTENT

Tests conducted in accordance with IEEE Standard 386.

- T-Body
- Insulating Plug (Al for 600A, Cu for 900A)
- Cable Adapter
- Stud
- Compression Lug (Al for 600A, Cu for 900A)
- Silicone Grease
- Installation Instructions Sheet





PRODUCTION TESTS

Tests conducted in accordance with IEEE Standard 386.

- Minimum Corona Voltage Level - 19kV (3pC)
- AC 1 Minute Withstand - 40kV

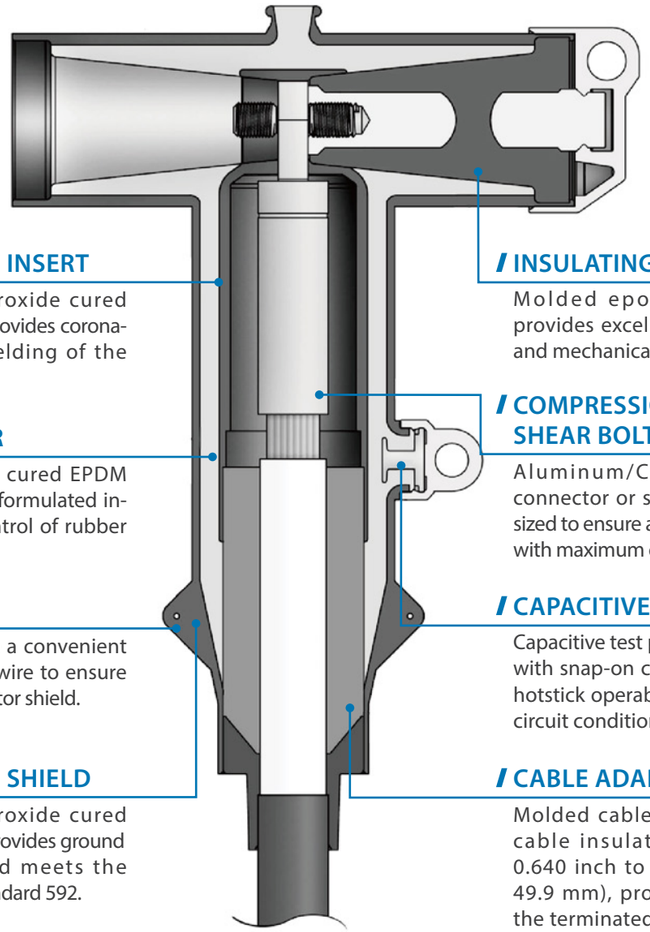
Tests conducted in accordance with Chardon Manufacturing Process requirements:

- Physical Inspection
- Periodic Dissection
- Periodic X-ray Analysis

DETAILED COMPOSITION OF THE CHARDON 15/25KV 600A T-BODY DEADBREAK CONNECTOR

T-BODY CONNECTOR BODY

Molded T-body adapts to all cable sizes and provides a dead front shielded connection.



SEMICONDUCTING INSERT

Precision molded peroxide cured semiconducting insert provides corona-free electrostatic shielding of the compression connector.

INSULATION LAYER

High quality peroxide cured EPDM Insulation is mixed and formulated in-house for complete control of rubber characteristics.

DRAIN WIRETABS

Drain wire tabs provide a convenient point to connect drain wire to ensure grounding of the connector shield.

SEMICONDUCTING SHIELD

Precision molded peroxide cured semiconducting shield provides ground shield continuity and meets the requirements of IEEE Standard 592.

INSULATING PLUG

Molded epoxy insulating plug provides excellent electrical, thermal and mechanical reliability.

COMPRESSION CONNECTOR/ SHEAR BOLT CONNECTOR

Aluminum/Copper compression connector or shear bolt connector is sized to ensure a cool running connector with maximum current transfer.

CAPACITIVE TEST POINT

Capacitive test point on molded T-Body with snap-on cap provides a shielded, hotstick operable means to determine circuit condition.

CABLE ADAPTER

Molded cable adapter, sized to fit cable insulation diameters from 0.640 inch to 1.965 inches (16.3 to 49.9 mm), provides stress relief for the terminated cable.

ORDERING INFORMATION

15/25-TB	_ _ _ _	_	_ _ _ _
	STEP1	STEP2	STEP3

STEP1 _ _ _ _

Selection of Current Rating and test Point

Code	
600	600AMP WITHOUT Test Point
600T	600AMP WITH Test Point
900	900AMP WITHOUT Test Point
900T	900AMP WITH Test Point

Note :
(1) 600A compression lugs are made from aluminum.
(2) 600A insulating plugs include an aluminum conductor.
(3) 900A compression lugs are made from copper.
(4) 900A insulating plugs include a copper conductor.

STEP2 _

Selection of Cable Insulation Dimension

Range Code	Inches	mm
A	0.640 - 0.760	16.3 - 19.3
B	0.720 - 0.845	18.3 - 21.5
C	0.785 - 0.970	19.9 - 24.6
D	0.910 - 1.065	23.1 - 27.1
E	0.980 - 1.140	24.9 - 29.0
F	1.080 - 1.280	27.4 - 32.5
G	1.220 - 1.420	31.0 - 36.1
H	1.360 - 1.560	34.5 - 39.6
J	1.480 - 1.700	37.6 - 43.2
K	1.640 - 1.840	41.7 - 46.7
L	1.780 - 1.965	45.2 - 49.9

15/25-TB	_ _ _ _	_	_ _ _ _
	STEP1	STEP2	STEP3

STEP3 _ _ _ _

Selection of Conductor Size (Al, Cu or Bi-Metal), add BMC in end of part number if a bi-metal lug is required. For example. 0002BMC; add CC in end of part number if a Copper lug is required. For example. 0002CC; add Al in end of part number if a Aluminum lug is required. For example. 0002Al. When selecting a shear bolt connector, use"shear bolt connector conductor code chart"and add SBC in the end of part number. For example, SBC-B-25-50/1.

Conductor Code Table

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm²	AWG or kcmil	mm²
0002	#2	35	#1	-
0001	#1	-	1/0	50
0010	1/0	50	2/0	70
0020	2/0	70	3/0	-
0030	3/0	-	4/0	95
0040	4/0	95	250	120
0250	250	120	300	150
0300	300	150	350	-
0350	350	-	400	185
0400	400	185	450/500	-
0450	450	-	500/550	240
0500	500	240	600	300
0550	550	-	650	-
0600	600	300	700	-
0650	650	-	750	400
0750	750	400	800	-
0800	800	-	900	-
0900	900	-	1000	500
1000	1000	500	-	-

Note :
Aluminum lug and Bi-metal lug for use on copper and aluminum conductors. Cooper lug for use on cooper conductors only.

ORDERING INFORMATION

Chardon Shear Bolt Connector

Example:
For a Shear Bolt Connector with a conductor range between 20-50 mm², the part number would be : SBC-B-25-50/1.

CATALOG NO.	Conductor Range(mm²)
SBC-B-25-50/1	25 - 50
SBC-B-70-95/1	70 - 95
SBC-B-70-120/2	70 - 120
SBC-B-150-240/2	150 - 240
SBC-B-300-400/3	300 - 400
SBC-B-500/3	500

ORDERING EXAMPLE

An 15/25 kV Elbow, with a test point, and with copper lug required cable insulation dimension of 1.45 inch, and the compressed cable conductor size type is 550, the part number would be as follows:

15/25-TB	900T	H	0550CC

If a shear bolt connector is selected in this kit, the part number would be as follows:

15/25-TB	900T	H	SBC-B-25-50/1

The part number includes the insulating plug, cap, and stud.

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