CHARDON GROUP

15-LE200

200A, 15 kV Class Loadbreak Elbow



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APPLICATION

The Chardon Loadbreak Elbow is a fully shielded, submersible and insulated termination for connecting underground cable to transformers, switchgear, and other apparatus equipped with loadbreak bushings, junctions, or other loadbreak connectors. The bushing insert and loadbreak elbows are the primary components in all ANSI/IEEE loadbreak connections.

The Chardon 35kV Loadbreak Elbow meets all the requirements of IEEE Standard 386, the interface design meets interface 7B (Fig 9 in IEEE Std 386-2016), and is fully interchangeable with competitor's products and mating products that also meet IEEE Standard 386. Chardon Loadbreak Elbows are molded using high quality peroxide-cured insulating and semi-conducting EPDM rubber. All insulating rubber is compounded in house, using Chardon developed proprietary formulations.

Chardon Loadbreak Elbows include a stainless steel pulling eye. An optional capacitive test point is available. Included with the elbow kit is a bi-metal or copper compression connector, and a tin plated copper probe with arc quenching tip.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- Minimum Corona Voltage Level – 11 kV
- AC 1 Minute Withstand – 34 kV
- Test Point Voltage Test

Tests conducted in accordance with Chardon manufacturing process requirements:

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

VOLTAGE RATINGS

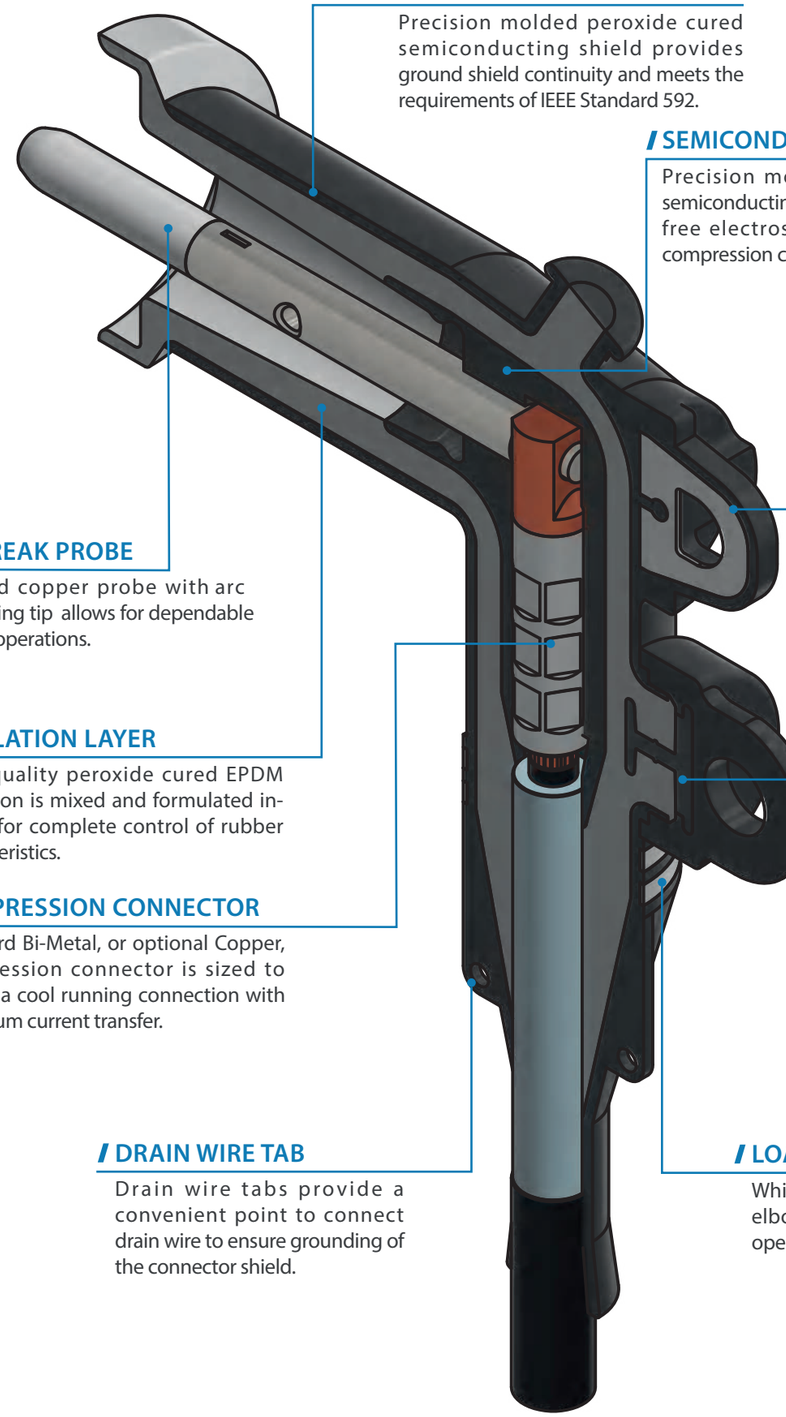
Voltage Class	15 kV
Max. Rating Phase to Phase	14.4 kV
Max. Rating Phase to Ground	8.3 kV
AC 1 Minute Withstand	34 kV
DC 15 Minute Withstand	53 kV
BIL and Full Wave Crest	95 kV
Minimum Corona Voltage Level	11 kV

• Revision Date: 07.02.2024

CURRENT RATINGS

Description	Test Parameters
Continuous	200 amps rms
Switching	10 operations at 200 amps rms at 14.4 kV
Fault Close	10,000 amps rms symmetrical at 14.4 kV for 0.17 s after 10 consecutive successful switching operations
Short Time	• 10,000 amps rms symmetrical for 0.17 s • 3,500 amps rms symmetrical for 3.0 s

DETAILED COMPOSITION OF THE CHARDON 15 KV LOADBREAK ELBOW



SEMICONDUCTING SHIELD

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

SEMICONDUCTING INSERT

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

PULLING EYE

Stainless steel pulling eye for hotstick switching operations.

LOADBREAK PROBE

Tin plated copper probe with arc extinguishing tip allows for dependable switching operations.

INSULATION LAYER

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

CAPACITIVE TEST POINT

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

COMPRESSION CONNECTOR

Standard Bi-Metal, or optional Copper, compression connector is sized to ensure a cool running connection with maximum current transfer.

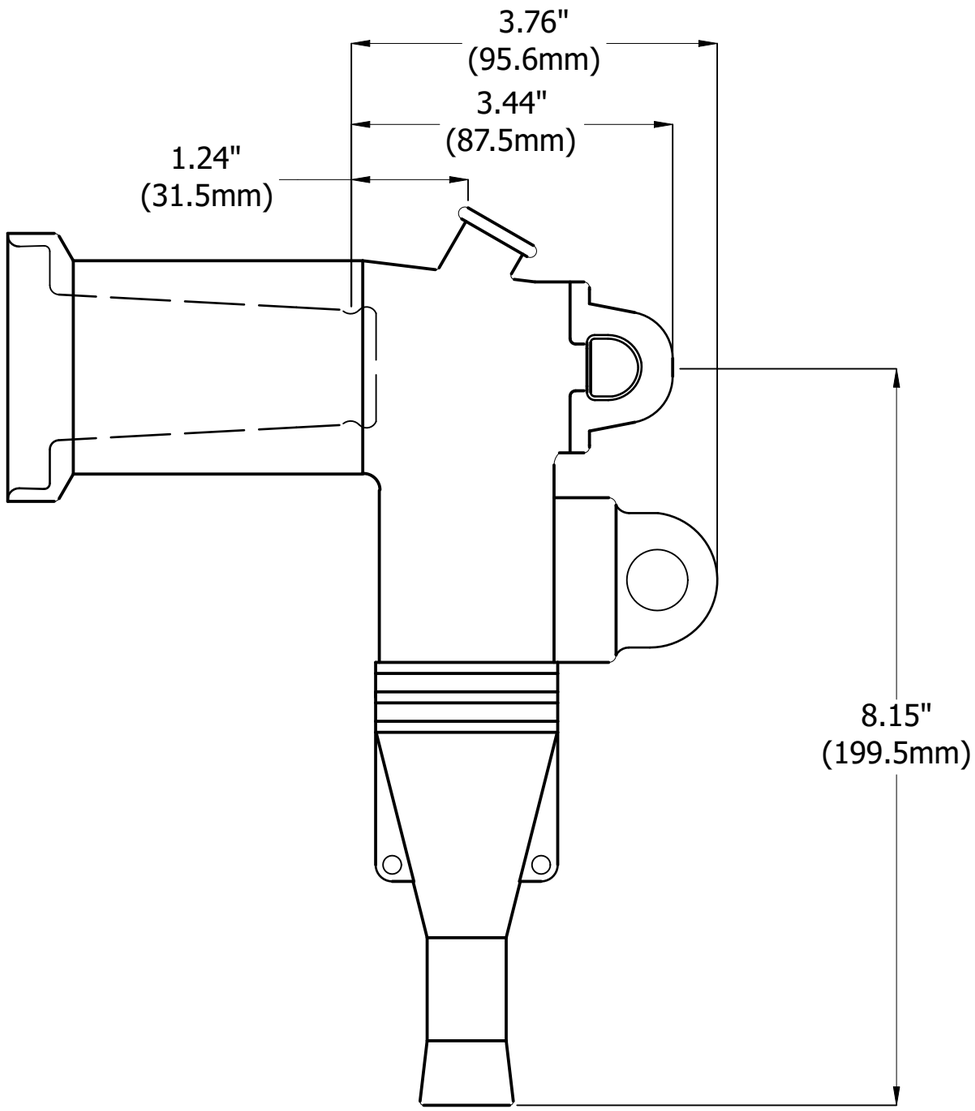
DRAIN WIRE TAB

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

LOADBREAK BAND

White, UV resistant, band indicates the elbow as rated for 3 phase loadbreak operation.

DETAILED COMPOSITION OF THE CHARDON 15 kV LOADBREAK ELBOW



ORDERING INFORMATION

Chardon loadbreak Fuse Elbow kits are packaged in a heavy duty plastic bag.

Each elbow kit includes the following:

- Silicone Grease
- Plated Copper Probe
- Probe Installation Wrench
- Elbow
- Bi-Metal or Copper Compression Connector
- Installation Instructions

To order a Chardon 15 kV Fuse Elbow Kit, follow the steps below:

15-LE200	"W"	"X"	"Y"	"Z"

"W" = Enter T if want a Capacitive Test Point

"X" = Cable Range Code (A, B, C or D)

"Y" = Conductor Code (See table)

"Z" = Enter C if a Plated Copper Connector is Desired (Bi-metal are standard)

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

15 kV, 200A Loadbreak Cable Ranges (Insulation Diameter)

Cable Range Code	Inches	Millimeters
A	0.575 - 0.740	14.61 - 18.80
B	0.640 - 0.905	16.26 - 22.99
C	0.830 - 1.060	21.08 - 26.92
D	0.930 - 1.220	23.62 - 30.99

Conductor Code Table

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm²	AWG or kcmil	mm²
01	#6	-	#4	-
02	#4	-	#3	25
03	#3	25	#2	35
04	#2	35	#1	-
05	#1	-	1/0	50
06	1/0	50	2/0	70
07	2/0	70	3/0	-
08	3/0	-	4/0	95
09	4/0	95	250	120
10	250	120	300	-

Example :
To order a standard Chardon 15 kV Loadbreak Elbow with a cable insulation diameter of 0.850", a 3/0 bi-metal compression connector, and a capacitive test point, order the following part number: 15-LE200TB08.



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