

# **200A, 35 kV Class Large Interface Loadbreak Elbow**



# APPLICATION

The Chardon Loadbreak Elbow (Large interface) 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 an arc quenching tip.

# PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- / Minimum Corona Voltage Level – 26 kV
- / AC 1 Minute Withstand – 50 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	35 kV
Max. Rating Phase to Phase	36.6 kV
Max. Rating Phase to Ground	21.1 kV
AC 60 Hz 1 Minute Withstand	50 kV
DC 15 Minute Withstand	103 kV
BIL and Full Wave Crest	150 kV
Minimum Corona Voltage Level	26 kV

• Revision Date: 12.20.2024

# DETAILED COMPOSITION OF THE CHARDON 35 KV LARGE 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.

## / PROBE

Tin plated copper probe ensures reliable electrical connection.

## / COMPRESSION CONNECTOR

Compression connector is sized to ensure a cool running connection with maximum current transfer.

## / INSULATION LAYER

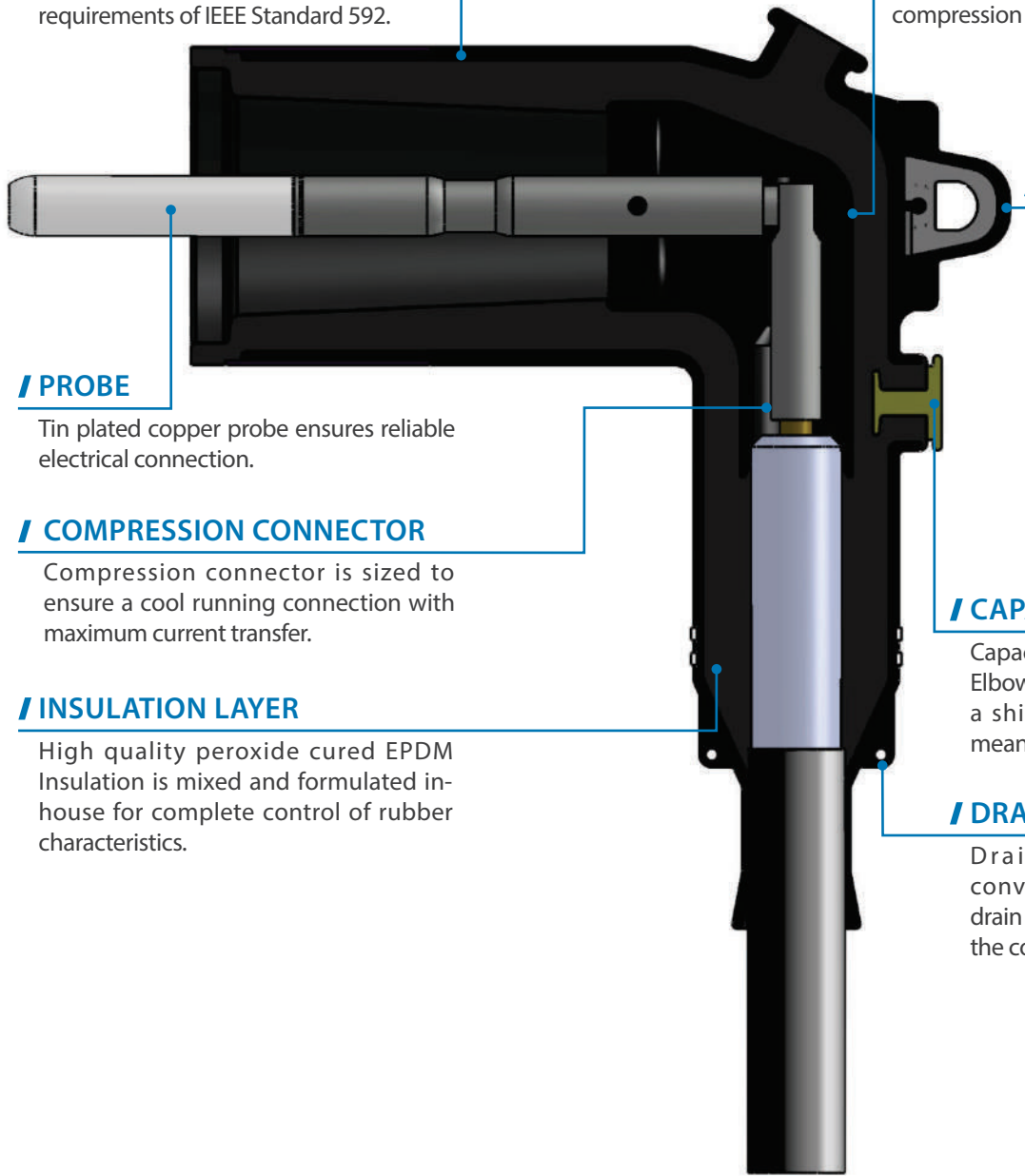
High quality peroxide cured EPDM Insulation is mixed and formulated in-house for complete control of rubber characteristics.

## / CAPACITIVE TEST POINT

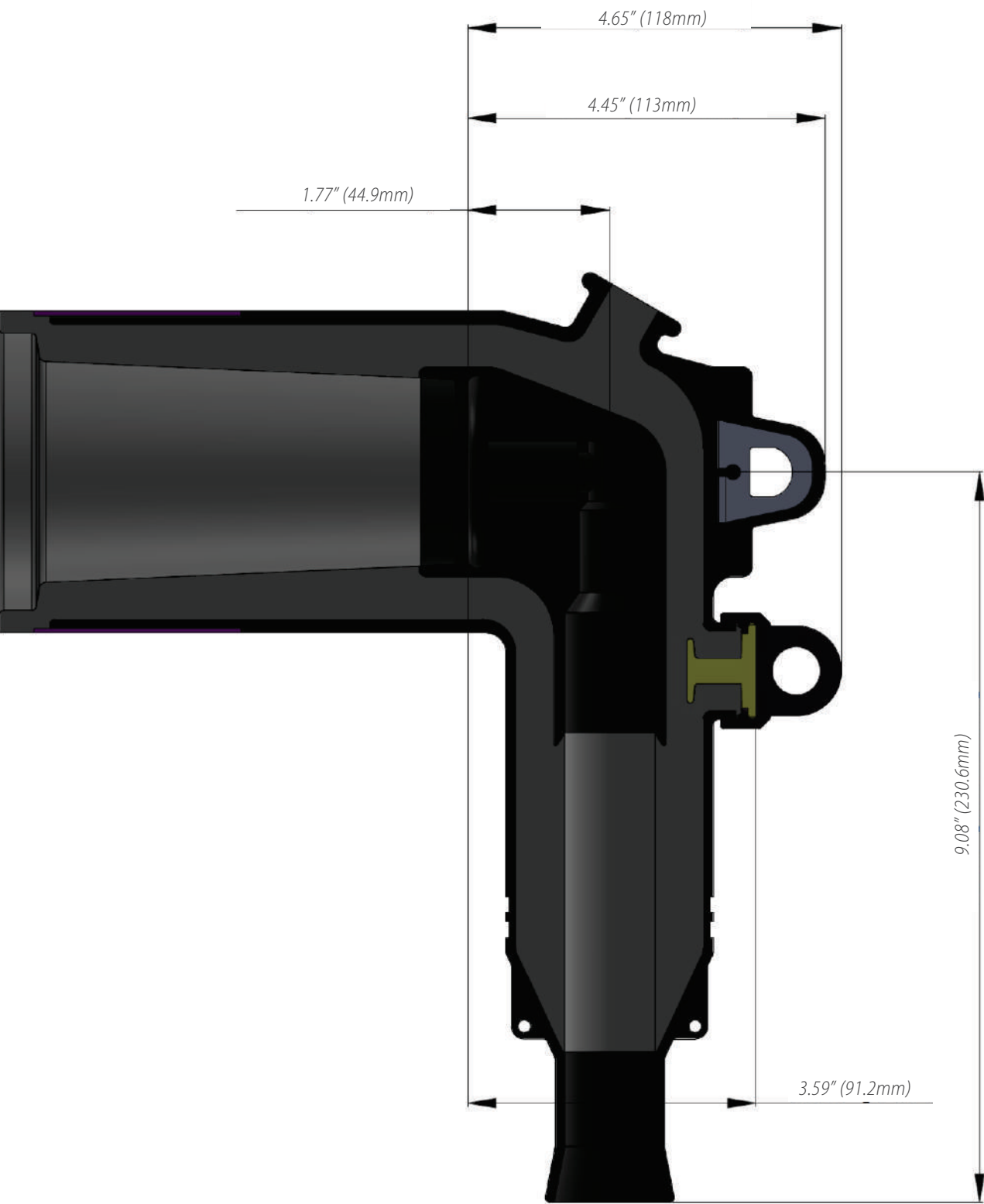
Capacitive test point on molded Elbow with snap-on cap provides a shielded, hotstick operable means to determine circuit.

## / DRAIN WIRE TAB

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



DETAILED COMPOSITION OF THE  
CHARDON 35 KV LARGE LOADBREAK ELBOW



ORDERING INFORMATION

Chardon 35 kV Loadbreak Elbow kits are packaged in a heavy duty plastic bag.

Each elbow kit includes the following:

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

To order a Chardon 35 kV Elbow Kit, follow the steps below:

35L-LE200	"W"	"X"	"Y"	"Z"
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"W" = Enter **T** if want a Capacitive Test Point

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

"Y" = Conductor Code (See table)

"Z" = Enter **C** if a Plated Copper Connector is needed

Enter **B** if a Bi-metal Connector is needed

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

Cable Range Code	Inches	Millimeters
B	0.825 - 1.000	20.96 - 25.40
D	0.995 - 1.180	25.27 - 29.97
F	1.180 - 1.380	29.97 - 35.05

Conductor Code Table

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm <sup>2</sup>	AWG or kcmil	mm <sup>2</sup>
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 35 kV Loadbreak Elbow with a cable insulation diameter of 28 mm, a 3/0 bimetal compression connector and a capacitive test point, order the following part number: 35L-LE200TD08.





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