

200A, 35 kV Class Small Interface Loadbreak Elbow



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 an arc quenching tip.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- ✓ Partial Discharge – $26 \text{ kV} \leq 5 \text{ pC}$
- ✓ 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

Description	Parameters
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
Partial Discharge	$26 \text{ kV} \leq 5 \text{ pC}$

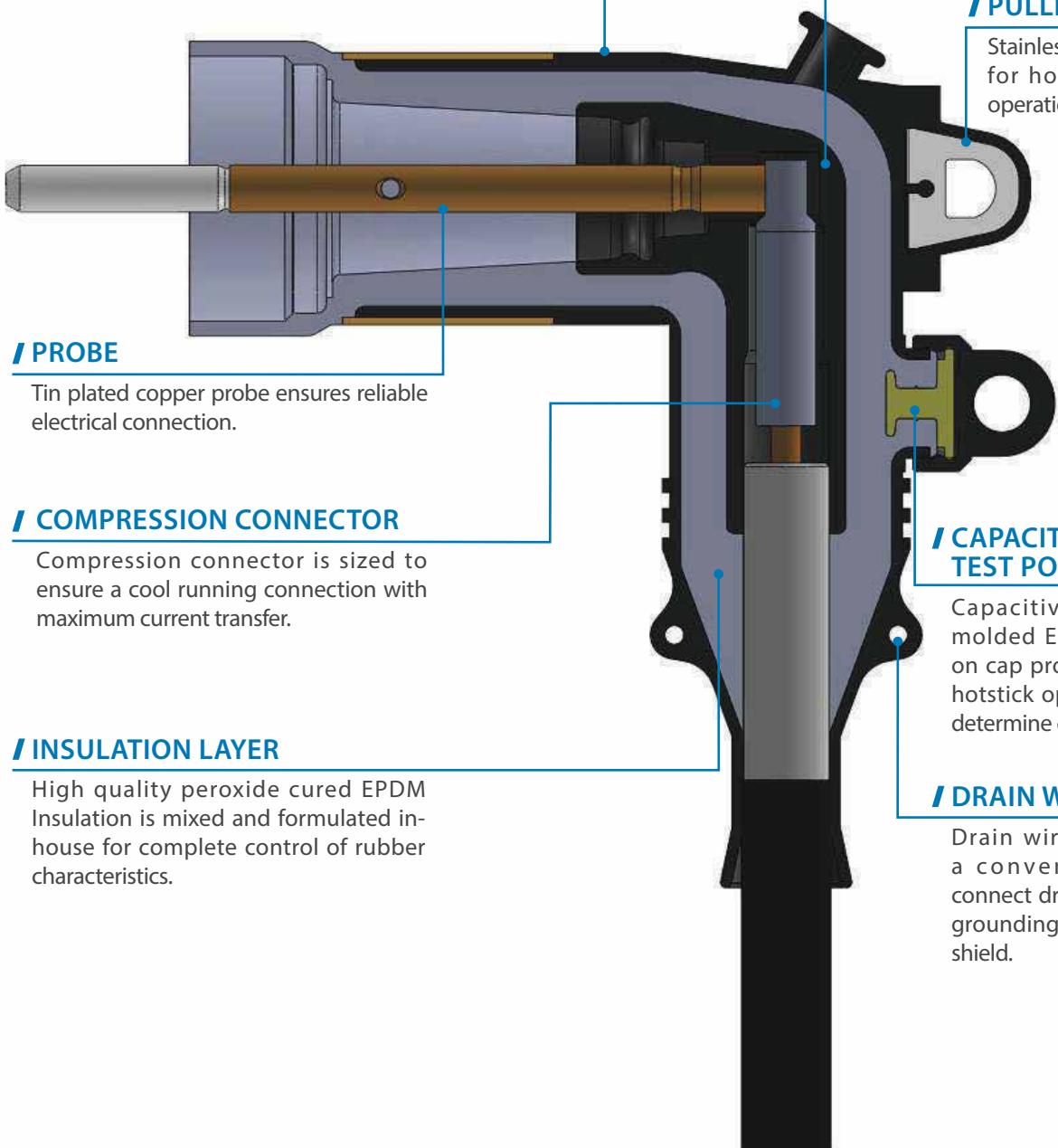
CURRENT RATINGS

Description	Parameters
Continuous	200 amps rms
Short Time	<ul style="list-style-type: none">• 10,000 amps rms symmetrical for 0.17 s• 3,500 amps rms symmetrical for 3.0 s

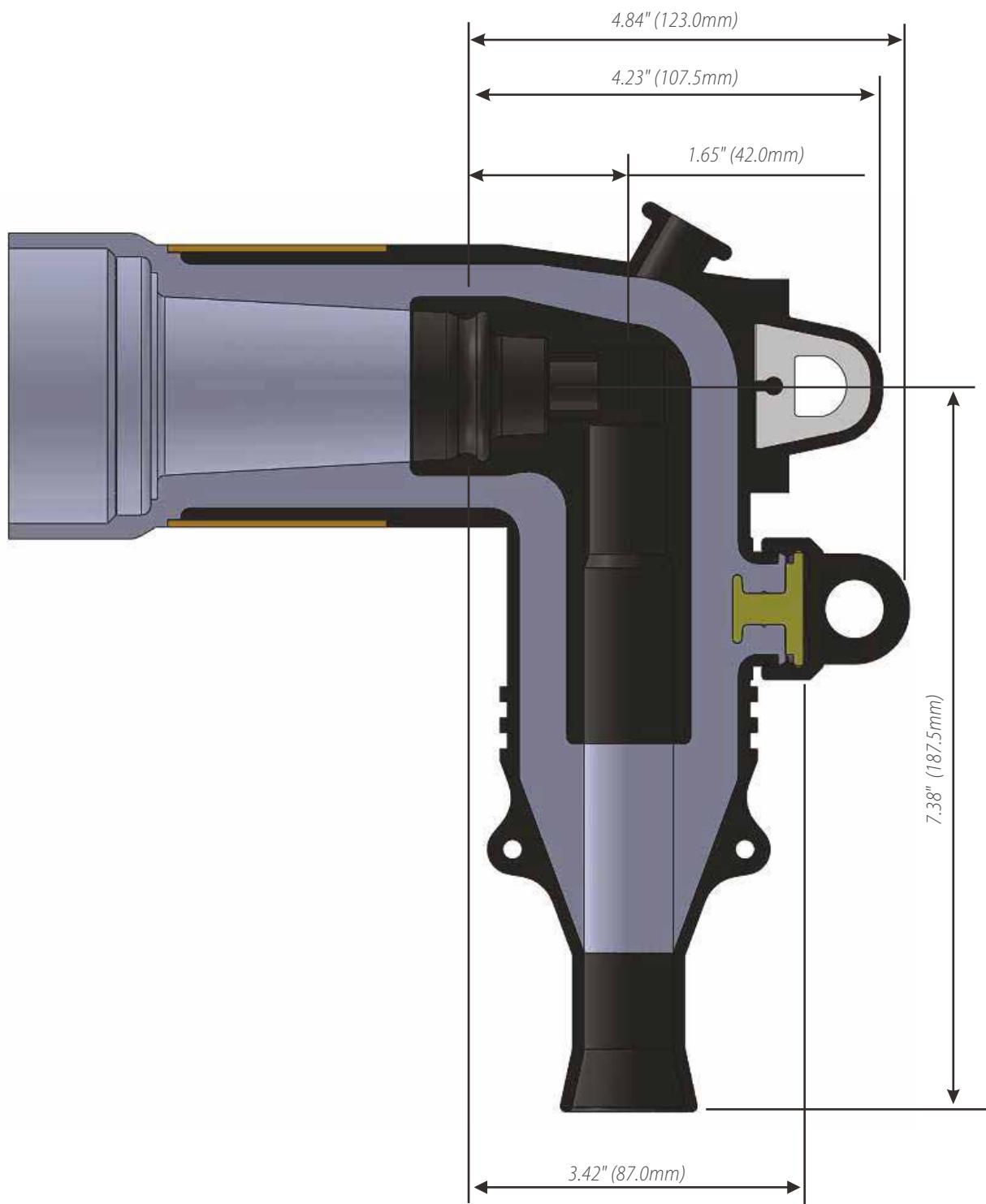
DETAILED COMPOSITION OF THE CHARDON 35 KV SMALL INTRFACE LOADBREAK ELBOW

/ SEMICONDUCTING SHIELD

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



DETAILED COMPOSITION OF THE CHARDON 35 KV SMALL INTRFACE 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
- ✓ Bi-Metal or Copper Compression Connector
- ✓ Plated Copper Probe
- ✓ Installation Instructions Sheet
- ✓ Probe Installation Wrench
- ✓ Elbow

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

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

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

"Y" = Conductor Code (See table)

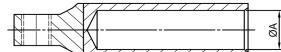
"Z" = Enter **C** if a Plated Copper Connector is needed

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

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

Cable Range Code	Inches	Millimeters
C	0.846 - 1.051	21.5 - 26.7
D	0.976 - 1.181	24.8 - 30.0
E	1.087 - 1.311	27.6 - 33.3
F	1.232 - 1.469	31.3 - 37.3

Conductor Code Table



CONDUCTOR CODE	Concentric or Compressed		Compactor or Solid		Inner Diameter ØA (mm)	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²	Copper Lug	Bi-metal Lug
01	#6	-	#4	-	5.5	5.13
02	#4	-	#3	25	6.0	6.55
03	#3	25	#2	35	7.0	7.32
04	#2	35	#1	-	8.5	8.13
05	#1	-	1/0	50	9.0	9.09
06	1/0	50	2/0	70	9.6	10.20
07	2/0	70	3/0	-	12.0	11.35
08	3/0	-	4/0	95	13.3	13.33
09	4/0	95	250	120	14.0	14.00
10	250	120	300	-	15.0	15.21

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: 35-LE200TD08.



ANHUI CHARDON ELECTRIC LTD.

No.808 Taiji Road Economic Develop Zone of Guangde

County Anhui China

Tel: 0563-2216688

Fax: 0563-2251806

CHARDON TAIWAN CORPORATION

No.37 Min-Chie Road, Tung Lo Industrial Park, Miao Li,
Taiwan 366

Tel: +886-37-984385

Fax: +886-37-984770

SHANGHAI CHARDON ELECTRICE LTD.

Room 1202, office building No.399, Yun Gu Road ,

Jiading district, Shanghai, China 201801

Tel: +86-21-39105900

Fax: +86-21-391059166

www.chardongroup.com · info@chardongroup.com