

CATÁLOGO DE PRODUTOS

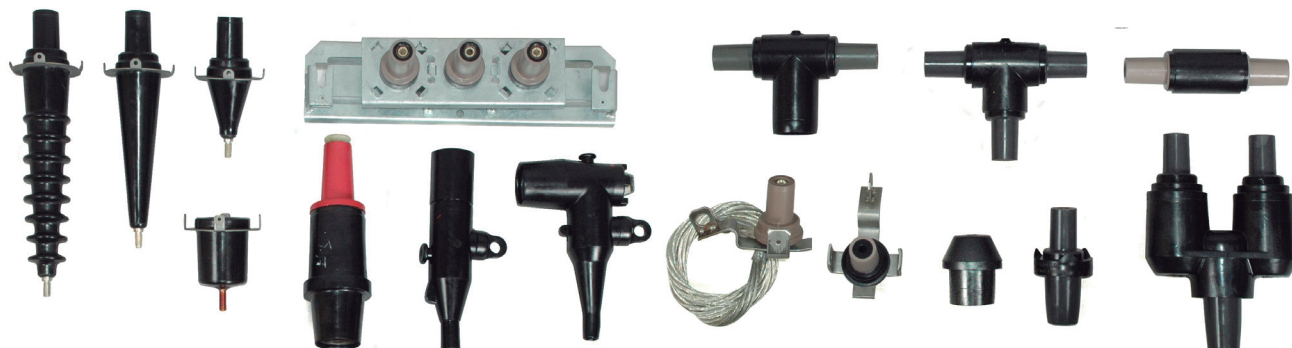
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REDES ELÉTRICAS SUBTERRÂNEAS

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ANOSLINHA COMPLETA
DE PRODUTOS
PARA REDES ELÉTRICAS
SUBTERRÂNEAS

DESCONECTÁVEIS 200A DEADBREAK



Os acessórios desconectáveis 200A DEADBREAK oferecem um meio rápido para conectar e desconectar cabos e equipamentos em sistemas de potência.

Todos os acessórios DEADBREAK devem ser desenergizados antes da operação e devem ser fixados mecanicamente por meio de ferragens fornecidas junto ao componente quando ligados. Os componentes podem ser tamponados e isolados com capuzes, plugues e buchas.

A linha 200A DEADBREAK possui também acessórios para aterrar e derivar o sistema.

Pontos adicionais de conexão podem ser obtidos com o uso de barramentos e plugues by-pass.

Todos os terminais tipo cotovelo e reto deadbreak estão equipados com ponto de teste capacitivo.

Os acessórios 200A DEADBREAK fabricados conforme norma ANSI/IEEE 386 também atendem o padrão europeu IEC/CENELEC classe 250A.

Os acessórios Elastimold são 100% testados em fábrica e atendem todos os ensaios da norma ANSI/IEEE 386 e NBR 11835/EB2134.

Componentes 200A Deadbreak

ESPECIFICAÇÕES

Especificações de corrente

200A operação contínua
10KA simétricos/10 Ciclos

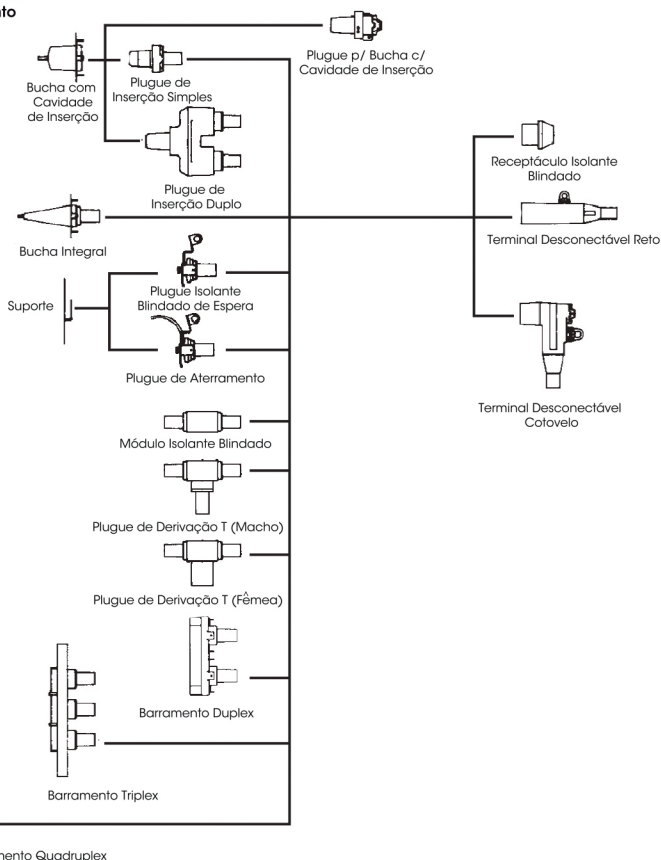
Especificações de tensão:

Classe 15kV
Fase-Terra 8.3kV
Fase-Fase 14.4kV
NBI 95KV
Suporta 34kV AC
Suporta 53kV DC
Tensão de Extinção Descargas Parciais (Corona) 11kV

Classe 25kV

Fase-Terra 15.2kV
Fase-Fase 26.3kV
NBI 125kV
Suporta 40kV AC
Suporta 78kV DC
Tensão de Extinção Descargas Parciais (Corona) 19kV

■ Conexão do cabo ao equipamento



■ Acessórios de Operação

DESCONECTÁVEIS 600A DEADBREAK



Os acessórios desconectáveis 600A DEADBREAK são usados para conectar cabos e equipamentos em sistemas de potência.

Projetados para aplicação de cabos de grandes bitolas, possuem contatos aparafusados de face plana, para o máximo de confiabilidade, desempenho e versatilidade.

Após desenergizados, podem ser rápida e facilmente conectados e desconectados com o uso de ferramentas manuais e equipamentos apropriados para o trabalho.

Acessórios opcionais permitem derivar, isolar, tamponar, aterrar, testar e reduzir interface para acessórios 200A LOADBREAK e 200A DEADBREAK.

Pontos adicionais podem ser obtidos com o uso de barramentos.

Os acessórios Elastimold são 100% testados em fábrica e atendem todos os ensaios da norma ANSI/IEEE 386 e NBR 11835/EB2134.

ESPECIFICAÇÕES

Especificações de corrente

600A operação contínua
25kA simétricos / 10 ciclos

Especificações de tensão:

Classe 15/25kV (até 28kV) (*)
Fase-Terra 16.2kV
Fase-Fase 28kV
NBI 140kV
Suporta 45kV AC
Suporta 84kV DC
Tensão de Extinção Descargas Parciais (Corona) 21.5kV

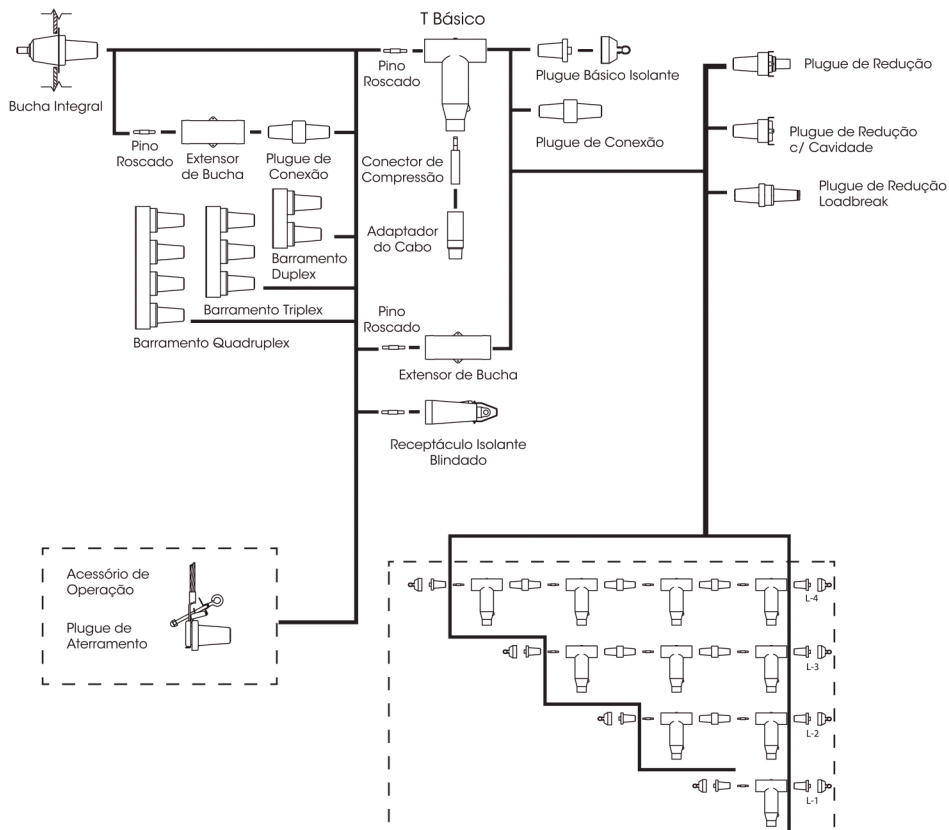
(*)Nota: A Elastimold ultrapassou os níveis de ensaios de produção e design da norma IEEE para a classe 25kV, para tornar possível aplicar os produtos dessa classe de tensão em sistemas de 27kV e 28kV.

Classe 35kV

Fase-Terra 21.1kV
Fase-Fase 36.6kV
NBI 150kV
Suporta 50kV AC
Suporta 103kV DC
Tensão de Extinção Descargas Parciais (Corona) 26kV

600A Deadbreak

■ Conexão do cabo ao equipamento



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CÓDIGO **25-DBI200**

PLUGUE DE INSERÇÃO SIMPLES PIS - 25kV-200A



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APPLICATION

The Chardon Deadbreak Bushing Insert threads into a standard 200A bushing well. It is a fully shielded, fully submersible separable connector designed for deadbreak operation. The Chardon Deadbreak Bushing Insert is suitable for 15/25 kV class systems and can be installed in transformers, switchgear or other apparatus when needed to connect with deadbreak connectors.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- / Minimum Corona Voltage Level – 19 kV
- / AC 1 Minute Withstand – 40 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	25 kV
Max. Rating Phase to Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	78 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

• 25-DBI200-REV010216

The Chardon Deadbreak Bushing Insert incorporates an all copper current path. This provides reliable and consistent performance under all conditions. The design meets all the requirements of IEEE standard 386, and is fully interchangeable with competitor's products and all mating products that also meet IEEE Standard 386.

CURRENT RATINGS

Description	Test Parameters
Continuous	200 amperes
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 DEADBREAK BUSHING INSERT

SEMICONDUCTING SHIELD

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

COPPER CONDUCTOR

Copper conductor ensure a cool running with maximum current transfer.

LOUVER CONTACT

The plated copper contact provides a consistent current transfer during operation.

THREADED CONNECTION TO BUSHING WELL

3/8"-16 UNC copper thread provides connection to bushing well.

DRAIN WIRE TAB

Drain wire tab provide 3 convenient point to connect drain wire to ensure grounding of the connector shield.

INSULATION LAYER

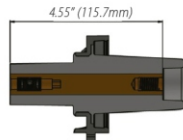
High quality peroxide cured EPDM insulation is mixed and formulated in-house for complete control of rubber characteristics.

ORDERING INFORMATION

200A, 15/25 kV Deadbreak Bushing Insert **25-DBI200**

Each portable feed thru kit includes the following:

- / Deadbreak Bushing Insert
- / Shipping Cap (not for energized operation)
- / Silicon Lubricant
- / Installation Instruction Sheet



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CÓDIGO

25-DE200

TERMINAL DESCONECTÁVEL COTOVELO - TDC-25kV-200A



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APPLICATION

The Chardon Deadbreak Elbow Connector is a fully shielded and insulated termination for connecting underground cable to transformers, switchgear and other apparatus equipped with deadbreak bushings, junctions, or other deadbreak connectors.

The Chardon Deadbreak Elbow meets all the requirements of IEEE standard 386, and is fully interchangeable with competitor's products and mating products that meet IEEE Standard 386.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- / Minimum Corona Voltage Level – 19 kV
- / AC 1 Minute Withstand – 40 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	25 kV
Max. Rating Phase-to-Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	78 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

• 21DE209-041115-REV04

Chardon Deadbreak Elbow Connectors 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 Deadbreak Elbow Connectors and copper probe are combined with the bi-metal compression lug, this ensures a reliable operating connection.

CURRENT RATINGS

Description	Test Parameters
Continuous	200 amperes
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 DEADBREAK ELBOW CONNECTOR

/ SEMICONDUCTING SHIELD

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

/ CABLE ENTRANCE

The sized cable entrance provides an interference fit to maintain a watertight seal.

/ DRAIN WIRE TAB

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

/ INSULATION LAYER

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

/ COMPRESSION CONNECTOR

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

/ CAPACITIVE TEST POINT

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

/ PULLING EYE

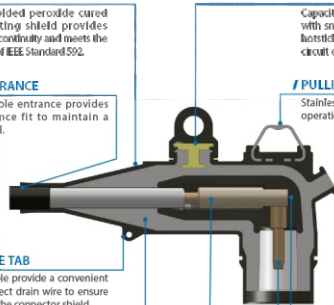
Stainless steel pulling eye for hotstick operations.

/ SEMICONDUCTING INSERT

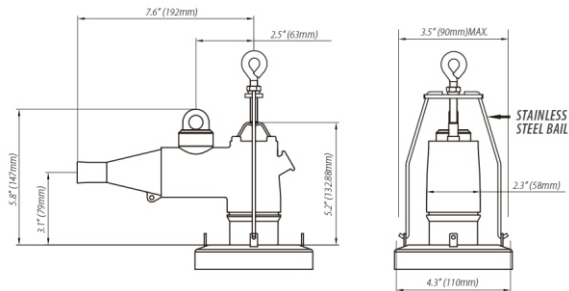
Precision molded peroxide cured semiconducting insert provides corona-free electrostatic shielding of the compression connector.

/ PROBE

Tin plated copper probe ensures reliable electrical connection.



DETAILED COMPOSITION OF THE CHARDON DEADBREAK ELBOW CONNECTOR



ORDERING INFORMATION

15/25kV Deadbreak Elbow

Each kit Contains:

- / Elbow body
- / Bi-Metal Compression Lug
- / Copper Probe
- / Probe Installation Tool
- / Bail Assembly
- / Silicone Lubricant
- / Installation Instruction Sheet

To order a Chardon 25kV Deadbreak Elbow Kit, follow the steps below:

25-DE200

"W"

"X"

"Y"

"Z"

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

"X" = Cable Range Code (See Cable Range Table)

"Y" = Conductor Code (See Conductor Table)

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

Cable Range Table (Insulation Diameter)

Cable Range Code	Inches	Millimeters
AA	0.508 - 0.685	12.9 - 17.4
A	0.642 - 0.807	16.3 - 20.5
B	0.768 - 0.945	19.5 - 24.0
C	0.906 - 1.106	23.0 - 28.1

Conductor Code Table (Compression Connectors)

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²
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
18	250	120	300	-

Example:

To order a standard Chardon 25kV Deadbreak Elbow with a cable insulation diameter of 0.669", a 3/0 Bi-metal compression connector, and a capacitive test point, order the part number 25-DE200T030.

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CÓDIGO **25-DIC200**

RECEPTÁCULO ISOLANTE BLINDADO - RIB - 25kV-200A



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APPLICATION

The Chardon 25kV 200A Insulated Protective Cap can be used for temporary or permanent applications and provides a submersible, fully shielded insulated cap for energized bushings. When installed on a IEEE bushing interface or junctions, it is properly grounded using the attached drain wire, and providing physically seal and electrically insulate bushing interfaces.

KEY FEATURES

- Provides a fully shielded and submersible connection when mated with the proper bushings.
- 100% electrical tested at factory.
- Mounting can be vertical, horizontal, or any angle in between.
- No minimum phase clearance requirements.
- IEEE/ANSI Standard 386.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- Minimum Corona Voltage Level – 19 kV
- AC 1 Minute Withstand – 40kV

Tests conducted in accordance with Chardon manufacturing process requirements:

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

VOLTAGE RATINGS

Max. Rating Phase to Ground	25 kV
AC 60Hz 1 Minute Withstand	40 kV
Minimum Corona Voltage Level	19 kV
BL and Full Wave Crest	125kV

Revision Date: 12.22.2023

The Chardon insulated cap design incorporates peroxide cured, EPDM insulation rubber, and a semi-conducting insert and outer shield. The outer conductive shield maintains ground potential on the cap's surface when a grounding wire is connected to a common ground.

DETAILED COMPOSITION OF THE CHARDON 25KV INSULATED CAP

/ DRAIN WIRE TAB

Drain wire tabs provide a convenient point to connect a drain wire to ensure grounding of the connector shield. A drain wire is included with the product.

/ SEMICONDUCTING INSERT

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

/ PROBE

Brass probe provide reliable conductive path with mating female contacts.

/ PULLING EYE

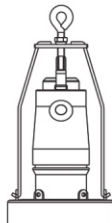
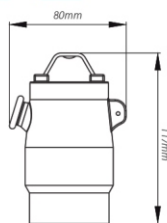
Stainless steel pulling eye for hoist/die operations.

/ SEMICONDUCTING SHIELD

Precision molded peroxide cured semiconducting shield provides ground shield continuity.

/ INSULATION LAYER

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



Each kit includes the following:

- Insulated Cap
- Silicone Grease
- Installation Instruction Sheet
- Ball Assembly

ORDERING INFORMATION

25 kV, 200A Insulated Protective Cap

25-DIC200

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CÓDIGO

25-DIC600

RECEPTÁCULO ISOLANTE BLINDADO - RIB - 25kV-600A



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APPLICATION

The Chardon 600 Amp 15/25 kV Insulated Cap meets all requirements of IEEE standard 386 – 2009. It provides insulated, fully shielded submersible protection for 15 and 25 kV class deadbreak interfaces and is fully interchangeable with competitor's products that also meet IEEE standard 386.

The Chardon Insulated Cap design incorporates peroxide cured, EPDM insulation rubber, and a semi-conducting insert and outer shield. The outer conductive shield maintains ground potential on the cap's surface when a grounding wire is connected to a common ground.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- Minimum Corona Voltage Level – 19 kV
- AC 1 Minute Withstand – 40 kV

Tests conducted in accordance with Chardon manufacturing process requirements:

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

VOLTAGE RATINGS

Voltage Class	25 kV
Max. Rating Phase to Ground	15.2 kV
AC 60Hz 1 Minute Withstand	40 kV
DC 19 Minute Withstand	78 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

Revision Date: 07.25.2024

DETAILED COMPOSITION OF THE CHARDON 25KV INSULATED CAP

SEMICONDUCTING SHIELD

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

PULLING EYE

Stainless steel pulling eye for hotstick operations.

DRAIN WIRE TAB

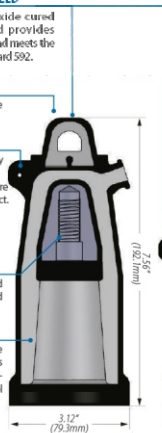
Drain wire tabs enable easy drain wire connection for shield grounding. Drain wire is included with the product.

THREADED ALUMINUM INSERT 5/8"-11 UNC 2A

Allows cap to be installed on bushing with a standard 600 A stud.

INSULATION LAYER

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



Standard Cap with threaded insert

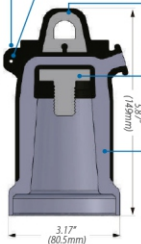
DRAIN WIRE TAB

Drain wire tabs enable easy drain wire connection for shield grounding. Drain wire is included with the product.

PULLING EYE

Stainless steel pulling eye for hotstick operations.

5/8"-11 UNC 2A ALUMINUM THREAD



Cap with fixed stud

INSULATION LAYER

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

ORDERING INFORMATION

Each kit includes the following:

- Insulated Cap
- Silicone Lubricant
- Installation Instruction Sheet
- Optional aluminum stud for 25-DIC600-SRV only

Standard Cap without stud	25-DIC600
Standard Cap with removable stud	25-DIC600-SRV
Cap with fixed stud	25-DIC600S

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CÓDIGO

25-DJ600

BARRAMENTO DERIVAÇÃO

25kV-600/900A



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APPLICATION

The Chardon 600A/900 A, 15/25 kV Class Deadbreak Junction provides two, three or four deadbreak interfaces in an EPDM insulated rubber body. Deadbreak junctions are used in pad-mounted apparatus, underground vaults, and other installations to connect equipment and cable on primary feeder and network circuits.

Chardon deadbreak connectors feature bolted connections can be easily connected and disconnected. When mated with a comparably

rated product, the junction provides a fully shielded, submersible connection for deadbreak operation. The deadbreak junction is available with stainless steel adjustable brackets for mounting at various operating angles, or with stainless steel "U" straps for direct wall mounting.

Chardon Deadbreak Junctions are rated 900A continuous when copper components are used. To order a 900A product, please see the part number list in page 2.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386™:

- / Minimum Corona Voltage Level – 19 kV
- / AC 60 Hz 1 Minute Withstand – 40 kV

Tests conducted in accordance with Chardon requirements:

- / Physical Inspection
- / Periodic Dissection
- / Periodic Fluoroscopic Analysis

VOLTAGE RATINGS AND CHARACTERISTICS

Voltage Class	25 kV
Max. Rading Phase to Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	76 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

CURRENT RATINGS AND CHARACTERISTICS

Description	Amperes
Continuous	600 Arms
4 Hour Overload	1,000 Arms
Short Time	• 25,000 Arms symmetrical for 0.17s • 10,000 Arms symmetrical for 3.0s

• 25DJ600-002323-00V09

ORDERING INFORMATION

Each kit Contains:

- / Deadbreak Junction (with mounting bracket or straps, depending on product ordered)
- / Shipping Caps (not for energized operation)
- / Silicone Grease
- / Installation Instruction Sheet

Deadbreak Junction Part Numbers

Description	Junction Only	Junction with Stainless Steel Bracket	Junction with U-Straps
15/25 kV, 600A Deadbreak Junction - 2 Way (AL)	25-DJ600F2	25-DJ600F2SS	25-DJ600F2U
15/25 kV, 900A Deadbreak Junction - 2 Way (CU)	25-DJ900F2	25-DJ900F2SS	25-DJ900F2U
15/25 kV, 600A Deadbreak Junction - 3 Way (AL)	25-DJ600F3	25-DJ600F3SS	25-DJ600F3U
15/25 kV, 900A Deadbreak Junction - 3 Way (CU)	25-DJ900F3	25-DJ900F3SS	25-DJ900F3U
15/25 kV, 600A Deadbreak Junction - 4 Way (AL)	25-DJ600F4	25-DJ600F4SS	25-DJ600F4U
15/25 kV, 900A Deadbreak Junction - 4 Way (CU)	25-DJ900F4	25-DJ900F4SS	25-DJ900F4U

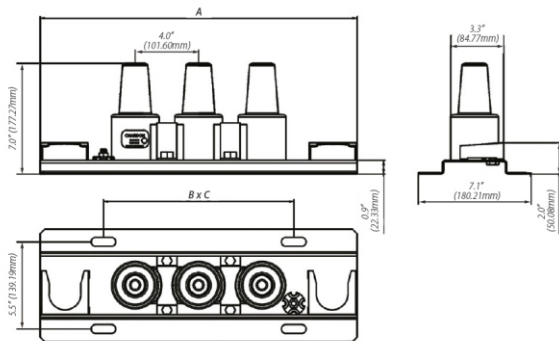
* Chardon provides adjustable bracket, to order an adjustable bracket, add "ADJ" to the end of part numbers, for example, 25-DJ600F2SS-ADJ.

Replacement Parts

Description	Catalog Number
U-Strap kit with Hardware (1 strap)	25-DJ600U
Stainless Steel Bracket Assembly (2-way)	25-DJBKT2S
Stainless Steel Bracket Assembly (3-way)	25-DJBKT3S
Stainless Steel Bracket Assembly (4-way)	25-DJBKT4S

* 1 U-Strap for a 2-way junction, and 2 and 3 U-Straps for 3 or 4-way junctions.

JUNCTION WITH BRACKET DIMENSIONAL INFORMATION



Dimensional Information

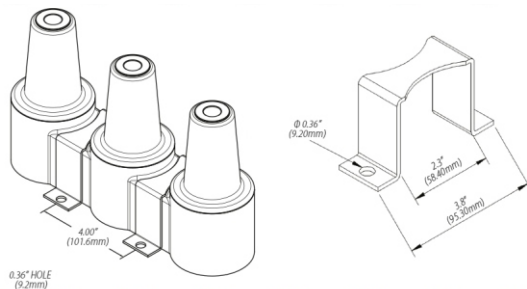
Number of Interfaces	Physical Dimensions in./mm		
	A	B	C
2-way	16.0 [406]	8.0 [204]	1
3-way	20.0 [508]	12.0 [304]	1
4-way	24.0 [610]	8.0 [203]	2

Configuration 1: Both feet turned out.

Configuration 2: One foot turned out, the other in.

Configuration 3: Both feet turned in.

JUNCTION WITH U-STRAP DIMENSIONAL INFORMATION



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CÓDIGO

25-DS200

TERMINAL DESCONECTÁVEL RETO - TDR-25kV-200A



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APPLICATION

The Chardon Deadbreak Straight Connector is a fully shielded and insulated termination for connecting underground cable to transformers, switchgear and other apparatus equipped with deadbreak bushings, junctions, or other deadbreak connectors.

The Chardon Deadbreak Straight meets all the requirements of IEEE standard 386, and is fully interchangeable with competitor's products and mating products that meet IEEE Standard 386.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- / Minimum Corona Voltage Level – 19 kV
- / AC 1 Minute Withstand – 40 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	25 kV
Max. Rating Phase-to-Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	78 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

• 25D0209-041118-R0V02

Chardon Deadbreak Straight Connectors 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 Deadbreak Straight Connectors a copper probe. Combined with the bi-metal compression lug, this ensures a reliable operating connection.

CURRENT RATINGS

Description	Test Parameters
Continuous	200 amperes
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 DEADBREAK STRAIGHT CONNECTOR

/ CAPACITIVE TEST POINT

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

/ SEMICONDUCTING SHIELD

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

/ CABLE ENTRANCE

The sized cable entrance provides an interference fit to maintain a watertight seal.

/ DRAIN WIRE TAB

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

/ SEMICONDUCTING INSERT

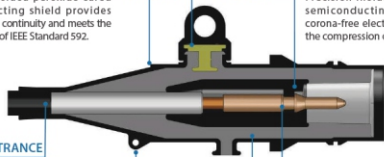
Precision molded peroxide cured semiconducting insert provides corona-free electrostatic shielding of the compression connector.

/ CONDUCTOR CONTACT

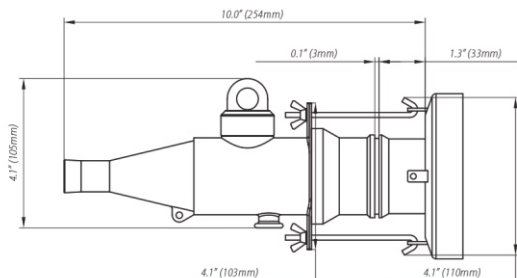
Tin plated copper connector ensures reliable electrical connection.

/ INSULATION LAYER

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



DETAILED COMPOSITION OF THE CHARDON DEADBREAK STRAIGHT CONNECTOR



ORDERING INFORMATION

15/25kV Straight Connector

Each kit Contains:

- / Straight Connector Body
- / Bi-Metal Compression Lug
- / Silicone Lubricant

- / Copper Probe
- / Bail Assembly
- / Installation Instruction Sheet

To order a Chardon 25kV Deadbreak Straight Connector Kit, follow the steps below:

25-DS200

"W"

"X"

"Y"

"Z"

"W" = Enter **I** if want a Capacitive Test Point

"X" = Cable Range Code (See Cable Range Table)

"Y" = Conductor Code (See Conductor Table)

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

Cable Range Table (Insulation Diameter)

Cable Range Code	Inches	Millimeters
AA	0.508 - 0.685	12.9 - 17.4
A	0.642 - 0.807	16.3 - 20.5
B	0.768 - 0.942	19.5 - 24.0
C	0.906 - 1.106	23.0 - 28.1

Conductor Code Table (Compression Connectors)

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²
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 25kV Deadbreak Straight Connector with a cable insulation diameter of 0.940", a 3/0 bi-metal compression connector, and a capacitive test point, order the part number 25-DS200TC08.

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CÓDIGO **25-SOB600**

PLUGUE ISOLANTE BLINDADO PIB - 25kV-600A



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APPLICATION

The Chardon 600A 15/25 kV Standoff Bushings fully meet the requirements of IEEE Standard 386-2009. The high quality, insulating epoxy molded bushing, has a single deadbreak interface and is used in pad-mount cabinets, underground vaults and other apparatus to isolate and sectionalize an energized cable.

The Insulated Standoff Bushings are designed to be installed in the parking stand bracket mounted on the transformer or other apparatus. A cable is connected to the system ground when needed. The bushing

provides a fully shielded, submersible temporary or permanent connection for 600A deadbreak operation.

All standoff bushing brackets have a stainless steel eyebolt which secures the standoff bushing to the parking stand. The eyebolt is designed to be used with a hotstick operation.

The Chardon Insulated Standoff Bushing can be used for 900A applications by specifying a copper conductor when ordering.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386™:

- / Minimum Corona Voltage Level – 19 kV
- / AC 60 Hz 1 Minute Withstand – 40 kV

Tests conducted in accordance with Chardon requirements:

- / Physical Inspection
- / Periodic Dissection
- / Periodic Fluoroscopic Analysis

VOLTAGE RATINGS

Voltage Class	25 kV
Max. Rating Phase to Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	76 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

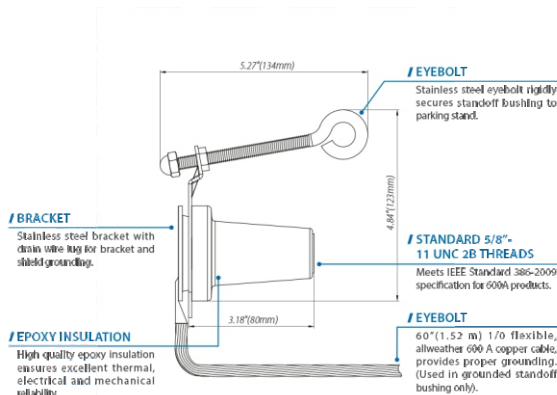
• 255C6003-1P0125-4REV01

CURRENT RATINGS

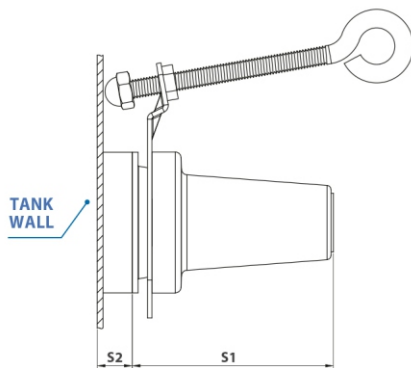
(Grounded Standoff Bushing Only)

Description	Amperes
Short Time	25,000 A rms symmetrical for 0.1s

DETAILED COMPOSITION OF THE CHARDON STANDOFF BUSHING



DETAILED COMPOSITION OF THE CHARDON STANDOFF BUSHING



15/25kV	
S1	3.44" (87mm)
S2	0.6" (15mm)

ORDERING INFORMATION

Chardon Standoff Bushing

Each kit Contains:

- / Standoff Bushing with Bracket
- / Shipping Cap
- / Silicone Grease
- / Installation Instruction Sheet

To order a Chardon 15/25kV Standoff Bushing, follow the steps below:

25-SOB-600

"X"

"Y"

"Z"

"X" = Enter G for grounded bushing, enter I for insulated bushing.

"Y" = Enter A for aluminum conductor, enter C for copper conductor.

"Z" = Leave blank if no stud required, Enter S for an Aluminum stud or C for a copper stud.

Example:

To order an aluminum insulated standoff bushing with a stud, order the following number: 25SOB000-4AS.

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35-600A
Replacement Part

CÓDIGO

COMPONENTES DO TERMINAL BÁSICO BLINDADO TBB - 35kV-600A



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APPLICATION

Chardon 600A 35kV Class Deadbreak Accessories are used to connect and assemble 600A products to provide fully shielded and submersible connections.

Chardon's products meet all the requirements of IEEE Standard 386, and are fully interchangeable with competitor's products that also meet IEEE standard 386.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386™:

- AC 60 Hz 1 Minute Withstand – 50 kV
- Minimum Corona Voltage Level – 26 kV

VOLTAGE RATINGS AND CHARACTERISTICS

Voltage Class	35 kV
Max. Rating Phase to Ground	21.1 kV
AC 1 Minute Withstand	50 kV
DC 15 Minute Withstand	108 kV
BIL and Full Wave Crest	200 kV
Minimum Corona Voltage Level	26kV

CURRENT RATINGS AND CHARACTERISTICS

Description	Amperes
Continuous	600 A rms
24 Hour Overload	1,000 A rms
Short Time	25,000 A rms symmetrical for 0.17s 10,000 A rms symmetrical for 3.0s

• Revision Code: 07.16.2024

INSULATING PLUG (EPOXY) AND CAP

A one-inch socket and torque wrench are needed to tighten the insulating plug into a de-energized deadbreak connector and mating apparatus. Refer to Chardon instruction sheet for detail.

Capacitive test point allows circuit testing without interrupting the connection. The one inch-hex head provides easy assembly to the connector and mating parts.

A semi-conducting EPDM rubber cap fits over the insulating plug for a waterproof seal and deadfront shielding.



CONNECTING PLUG (EPOXY)

A spanner wrench is used to tighten the connecting plug into a deenergized deadbreak connector or mating part.

A conductive coating around the center provides continuity of semiconducting shield with EPDM shield of mating parts. Holes in the part allow easy assembly using a spanner wrench.

Chardon connecting plugs can be used for connecting 2 or more 600A deadbreak connectors.



THREADED STUD

The threaded stud is used with a T-Body connector or splices to connect reducing well plugs, deadbreak tap plugs, deadbreak tap plugs, connecting plugs, and insulating plugs to other components or apparatus bushings.



CABLE ADAPTER (EPDM)

Molded cable adapter is available in sizes to fit cables from 0.640" to 1.985" in diameter (16.3 mm to 49.9 mm). The Chardon cable adapter is molded with high quality peroxide cured insulation and semiconductive.



COMPRESSION CONNECTOR

Compression connectors are available in all aluminum, all copper (for 900A applications), or bi-metal designs. All are available with threaded and unthreaded holes. See Conductor Code Table for proper application. All connectors are designed for use with either aluminum or copper conductors.



CHARDON SHEAR BOLT CONNECTOR

Chardon shear bolt connectors are designed for use in low and medium voltage connection. The tool require disastandard ratchet wrench with a hexagonal socket; no crimping tools needed in field operation.



ORDERING INFORMATION

Cable Adapters

These adapters are used on Chardon T-Bodies. To select the correct adapter, determine the minimum and maximum diameter over insulation for the cable as shown in Figure (insert diagram). Then reference the Cable Diameter Range Table to select proper code.

Cable Adapters 35-ADP+Cable Diameter Range Code

Example:

For cable with nominal insulation diameter of 1.430", select the 35-ADP-L.

Cable Diameter Range Table

Range Code	Inches	mm
D	0.750 - 0.985	19.1 - 25.0
E	0.930 - 1.040	23.6 - 26.4
F	0.960 - 1.115	24.9 - 28.3
G	1.040 - 1.175	26.4 - 29.8
H	1.095 - 1.240	27.8 - 31.5
J	1.160 - 1.305	29.5 - 33.1
K	1.220 - 1.375	31.0 - 34.9
L	1.285 - 1.395	32.6 - 35.4
M	1.355 - 1.520	34.4 - 39.0
N	1.485 - 1.595	37.7 - 40.5
P	1.530 - 1.640	38.9 - 41.7
Q	1.575 - 1.685	40.0 - 42.8
R	1.665 - 1.795	42.3 - 45.3
S	1.775 - 1.875	45.1 - 47.6
T	1.845 - 1.965	46.9 - 50.0
U	1.935 - 2.055	49.1 - 52.2
V	2.025 - 2.145	51.4 - 54.5

ORDERING INFORMATION

Compression Connectors

To order a compression connector, select the connector type and reference to the conductor code table below for desired connector part number.

Bi-Metal Connector	600BMC + Conductor Code
Aluminum Connector	600AC + Conductor Code
Copper Connector	900CC + Conductor Code

Example:

For a 600A bi-metal compression lug with a conductor code of 35, the part number would be: 600BMC35.

Compression Lug Conductor Code Chart

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²
0002	#2	35	-	-
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	-	-

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(mm ²)
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
SBC-B-500-630/3	500 - 630

Insulating Plugs

35 kV, 600A Insulating Plug (AL)	35-IP600
35 kV, 600A Insulating Plug (AL) + End Cap	35-IP600C
35 kV, 600A Insulating Plug (AL) + End Cap + Stud	35-IP600CS

Connecting Plugs

35 kV, 600A Deadbreak Connecting Plug (AL)	35-DCP600
35 kV, 900A Deadbreak Connecting Plug (CU)	35-DCP900

Threaded Studs

35 kV 600A Threaded Stud (AL)	35-STUD600
35 kV 900A Threaded Stud (CU)	35-STUD900

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CÓDIGO

35-DIC600

RECEPTÁCULO ISOLANTE BLINDADO - RIB - 35kV-600A



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APPLICATION

The Chardon 600 Amp 35 kV Insulated Cap meets all the requirements of IEEE standard 386-2009. It provides insulated, fully shielded submersible protection for 35 kV class deadbreak interfaces and is fully interchangeable with competitor's products that also meet IEEE standard 386.

The Chardon Insulated Cap design incorporates peroxide cured, EPDM insulation rubber, and a semi-conducting insert and outer shield. The outer conductive shield maintains ground potential on the cap's surface when a grounding wire is connected to a common ground.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- Minimum Corona Voltage Level – 50 kV
- AC 1 Minute Withstand – 26 kV

Tests conducted in accordance with Chardon manufacturing process requirements:

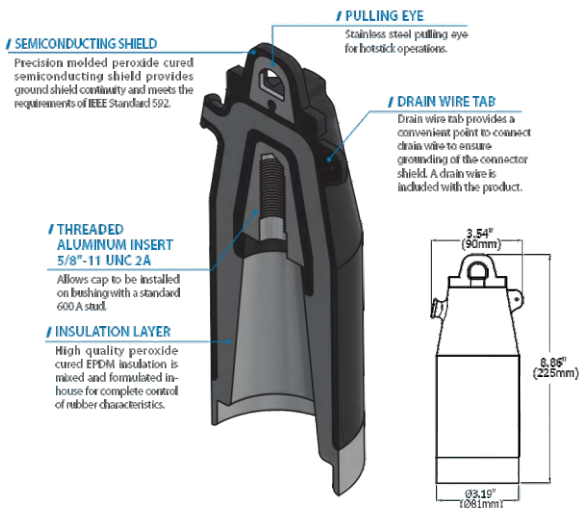
- Physical Inspection
- Periodic Dissection
- Periodic X-ray Analysis

VOLTAGE RATINGS

Voltage Class	35 kV
Max. Rating Phase to Ground	21.1 kV
AC 60Hz 1 Minute Withstand	50 kV
DC 15 Minute Withstand	109 kV
BIL and Full Wave Crest	200 kV
Minimum Corona Voltage Level	26 kV

• Revision Date: 07/24/2024

DETAILED COMPOSITION OF THE CHARDON 35KV INSULATED CAP



ORDERING INFORMATION

Each kit includes the following:

- Insulated Cap
- Silicone Lubricant
- Installation Instruction Sheet
- Optional aluminum stud for 35-DIC600-SRV only

Standard Cap without stud	35-DIC600
Standard Cap with removable stud	35-DIC600-SRV

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CÓDIGO

35-DJ600

BARRAMENTO DERIVAÇÃO

35kV-600/900A



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The Chardon 600A/900A, 35 kV Class Deadbreak Junction provides two, three or four deadbreak interfaces in an EPDM insulated rubber body. Deadbreak junctions are used in pad-mounted apparatus, underground vaults, and other installations to connect equipment and cable on primary feeder and network circuits.

Chardon deadbreak connectors feature bolted connections can be easily connected and disconnected. When mated with a comparably rated product, the junction provides a

fully shielded, submersible connection for deadbreak operation. The deadbreak junction is available with stainless steel adjustable brackets for mounting at various operating angles, or with stainless steel "U" straps for direct wall mounting.

Chardon deadbreak junctions are rated 900A continuous when copper components are used. To order a 900A product, please see the part number list in page 2.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386™:

- / AC 60 Hz 1 Minute Withstand – 50kV
- / Minimum Corona Voltage Level – 26 kV

Tests conducted in accordance with Chardon requirements:

- / Physical Inspection
- / Periodic Dissection
- / Periodic Fluoroscopic Analysis

VOLTAGE RATINGS AND CHARACTERISTICS

Voltage Class	35 kV
Max. Rading Phase to Phase	21.1 kV
AC 1 Minute Withstand	50 kV
DC 15 Minute Withstand	109 kV
BIL and Full Wave Crest	200 kV
Minimum Corona Voltage Level	26 kV

CURRENT RATINGS AND CHARACTERISTICS

Description	Amperes
Continuous	600 Arms
4 Hour Overload	1,000 Arms
Short Time	• 25,000 Arms symmetrical for 0.17s • 10,000 Arms symmetrical for 3.0s

• Revision Date: 07.10.2024

Each kit Contains:

- / Deadbreak Junction (with mounting bracket or straps, depending on product ordered)
- / Shipping Caps (not for energized operation)
- / Silicone Grease
- / Installation Instruction Sheet

Deadbreak Junction Part Numbers

Description	Junction Only	Junction with Stainless Steel Bracket	Junction with U-Straps
35 kV, 600A Deadbreak Junction - 2Way (AL)	35-DJ600F2	35-DJ600F2SS	35-DJ600F2U
35 kV, 900A Deadbreak Junction - 2Way (CU)	35-DJ900F2	35-DJ900F2SS	35-DJ900F2U
35 kV, 600A Deadbreak Junction - 3Way (AL)	35-DJ600F3	35-DJ600F3SS	35-DJ600F3U
35 kV, 900A Deadbreak Junction - 3Way (CU)	35-DJ900F3	35-DJ900F3SS	35-DJ900F3U
35 kV, 600A Deadbreak Junction - 4Way (AL)	35-DJ600F4	35-DJ600F4SS	35-DJ600F4U
35 kV, 900A Deadbreak Junction - 4Way (CU)	35-DJ900F4	35-DJ900F4SS	35-DJ900F4U

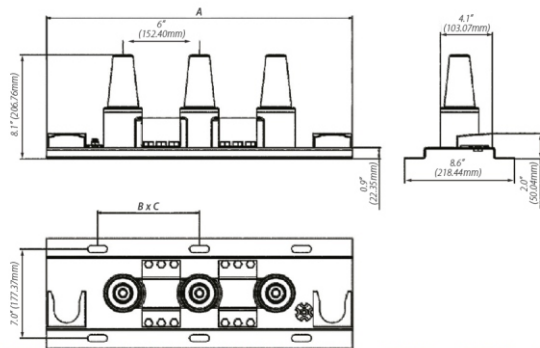
* Chardon provides adjustable bracket; to order an adjustable bracket, add "ADJ" in the end of part numbers, for example, 35-DJ600F2SS-ADJ.

Replacement Parts

Description	Catalog Number
U-Strap kit with Hardware (1 strap)	35-DJ600U
Stainless Steel Bracket Assembly (2-way)	35-DJBKT2S
Stainless Steel Bracket Assembly (3-way)	35-DJBKT3S
Stainless Steel Bracket Assembly (4-way)	35-DJBKT4S

* 1 U-Strap for a 2-way junction, and 2 and 3 U-Straps for 3 or 4-way junctions.

JUNCTION WITH BRACKET DIMENSIONAL INFORMATION



Dimensional Information

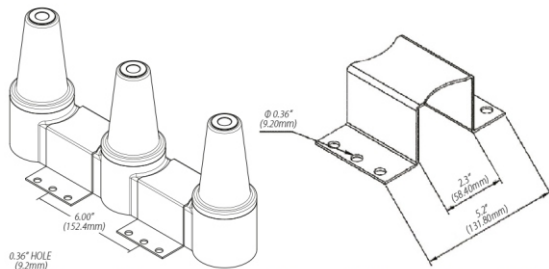
Number of Interfaces	Physical Dimensions in./mm		
	A	B	C
2-way	18.0 (457.2)	8.0 (203.2)	1
3-way	24.0 (609.6)	8.0 (203.2)	2
4-way	30.0 (762.0)	8.0 (203.2)	3

Configuration 1: Both feet turned out.

Configuration 2: One foot turned out, the other in.

Configuration 3: Both feet turned in.

JUNCTION WITH U-STRAP DIMENSIONAL INFORMATION



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CÓDIGO **35-TB600**

TERMINAL BÁSICO BLINDADO

TBB - 35kV-600/900A



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APPLICATION

The Chardon 600A/ 900A, 35kV Class T-Body Deadbreak Connector is used to terminate high-voltage underground cables to deadfront apparatus such as transformers, switches and switchgear. It is fully shielded, submersible, and meets the requirements of IEEE Std 386™ standard—Separable Insulated Connector Systems.

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 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. Aspecial grounding adapter is available for tape shield, linear corrugated, unshield, 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 specifications.

PRODUCT RATINGS

Voltage Class	35 kV
Max. Rating Phase to Ground	24.1 kV
AC 1 Minute Withstand	50 kV
DC 15 Minute Withstand	103 kV
BIL and Full Wave Crest	200 kV
Minimum Corona Level	26 kV (1pCi)
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.

• Revision Date: 07.10.2024

PRODUCTION TESTS

Tests conducted in accordance with IEEE Standard 386.

- AC 60 Hz 1 Minute Withstand – 50kV
- Minimum Corona Voltage Level – 26kV

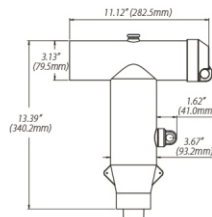
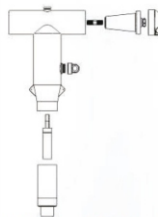
Tests conducted in accordance with Chardon Manufacturing Process requirements:

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

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



DETAILED COMPOSITION OF THE CHARDON T-BODY DEADBREAK CONNECTOR

T-BODY CONNECTOR BODY

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

SEMI-CONDUCTING INSERT

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

INSULATION LAYER

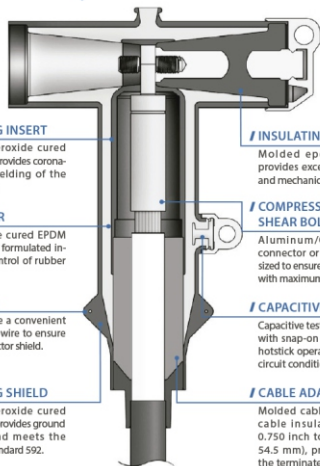
High quality peroxide cured EPDM insulation is mixed and formulated in-house for complete control of rubber characteristics.

DRAIN WIRE TABS

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

SEMI-CONDUCTING SHIELD

Precision molded peroxide cured semi-conducting 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 cooling 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 0.750 inch to 2.145 inches (19.1 to 54.5 mm), provides stress relief for the terminated cable.

ORDERING INFORMATION

35-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
D	0.750 - 0.985	19.1 - 25.0
E	0.990 - 1.040	23.6 - 26.4
F	0.980 - 1.115	24.9 - 28.3
G	1.040 - 1.175	26.4 - 29.9
H	1.095 - 1.240	27.8 - 31.5
J	1.160 - 1.305	29.5 - 33.2
K	1.220 - 1.375	31.0 - 34.9
L	1.285 - 1.395	32.6 - 35.4
M	1.355 - 1.520	34.4 - 38.6
N	1.485 - 1.595	37.7 - 40.5
P	1.530 - 1.640	38.9 - 41.7
Q	1.575 - 1.685	40.0 - 42.8
R	1.665 - 1.785	42.3 - 45.3
S	1.775 - 1.875	45.1 - 47.6
T	1.845 - 1.965	46.9 - 49.9
U	1.935 - 2.055	49.1 - 52.2
V	2.025 - 2.145	51.4 - 54.5

ORDERING INFORMATION

15/25-TB

STEP1

STEP2

STEP3

STEP3

Selection of Conductor Size (Al or Cu) When selecting a shear bolt connector, use "shear bolt connector conductor code chart" and add

Conductor Code Table

SBC in the end of part number. For example, SBC-B-25-50/1.

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²
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	-	-

Notes:

Aluminum lug and Bi-metal lug for use on copper and aluminum conductors. Copper lug for use on copper 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(mm ²)
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-500-630/3	500 - 630



ORDERING EXAMPLE

For a Chardon 35 kV-Body Connector with a test point, cable insulation outer dimension of 1.65 inches, and a compression connector size of 550, the part number would be as follows:

35 - TB

600T

Q

0550

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

35 - TB

600T

Q

SBC-B-25-50/1

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

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15/25-600A
Replacement Part

CÓDIGO

COMPONENTES DO TERMINAL BÁSICO BLINDADO TBB - 25kV-600A



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APPLICATION

Chardon 600A 15 and 25kV Class Deadbreak Accessories are used to connect and assemble 600A products to provide fully shielded and submersible connections.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386™:

- AC 60 Hz 1 Minute Withstand – 40 kV
- Minimum Corona Voltage Level – 19 kV

VOLTAGE RATINGS AND CHARACTERISTICS

Voltage Class	25 kV
Max. Rating Phase-to-Ground	26.3 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	78 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	19 kV

CURRENT RATINGS AND CHARACTERISTICS

Description	Amperes
Continuous	600 A rms
24 Hour Overload	1,000 A rms
Short Time	• 25,000 A rms symmetrical for 0.17s • 10,000 A rms symmetrical for 3.0s

• 1522-600A-REPLACEMENT PART-001110-REV03

Chardon's products meet all the requirements of IEEE Standard 386, and are fully interchangeable with competitor's products that also meet IEEE standard 386.

INSULATING PLUG (EPOXY) AND CAP

A one-inch socket and torque wrench are needed to tighten the insulating plug into a de-energized deadbreak connector and mating apparatus. Refer to Chardon instruction sheet for detail.

Capacitive test point allows circuit testing without interrupting the connection. The one inch-hex head provides easy assembly to the connector and mating parts.

A semi-conducting EPDM rubber cap fits over the insulating plug for a waterproof seal and deadfront shielding.



CONNECTING PLUG (EPOXY)

A spanner wrench is used to tighten the connecting plug into a deenergized deadbreak connector or mating part.

A conductive coating around the center provides continuity of semiconducting shield with EPDM shield of mating parts. Holes in the part allow easy assembly using a spanner wrench.

Chardon connecting plugs can be used for connecting 2 or more 600A deadbreak connectors.



THREADED STUD

The threaded stud is used with a T-Body connector or splices to connect reducing well plugs, deadbreak tap plugs, deadbreak tap plugs, connecting plugs, and insulating plugs to other components or apparatus bushings.



CABLE ADAPTER (EPDM)

Molded cable adapter is available in sizes to fit cables from 0.640" to 1.985" in diameter (16.3 mm to 49.9 mm). The Chardon cable adapter is molded with high quality peroxide cured insulation and semiconductive.



COMPRESSION CONNECTOR

Compression connectors are available in all aluminum, all copper (for 900A applications), or bi-metal designs. All are available with threaded and unthreaded holes. See Conductor Code Table for proper application. All connectors are designed for use with either aluminum or copper conductors.



CHARDON SHEAR BOLT CONNECTOR

Chardon shear bolt connectors are designed for use in low and medium voltage connection. The tool require disastandard ratchet wrench with a hexagonal socket; no crimping tools needed in field operation.



ORDERING INFORMATION

Cable Adapters

These adapters are used on Chardon T-Bodies. To select the correct adapter, determine the minimum and maximum diameter over insulation for the cable as shown in Figure (insert diagram). Then reference the Cable Diameter Range Table to select proper code.

Cable Adapters 25-ADP+Cable Diameter Range Code

Example:

For cable with nominal insulation diameter of 1.400", select the 25-ADP-L.

Cable Diameter Range Table

Range Code	Inches	mm
A	0.640 - 0.760	16.3 - 19.3
B	0.720 - 0.845	18.3 - 21.5
C	0.765 - 0.970	19.9 - 24.6
D	0.910 - 1.065	23.1 - 27.1
E	0.990 - 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	1.490 - 1.700	37.6 - 43.2
K	1.640 - 1.840	41.7 - 46.7
L	1.780 - 1.985	45.2 - 49.9

ORDERING INFORMATION

Compression Connectors

To order a compression connector, select the connector type and reference to the conductor code table below for desired connector part number.

Bi-Metal Connector	600BMC + Conductor Code
Aluminum Connector	600AC + Conductor Code
Copper Connector	900CC + Conductor Code

Example:

For a 600A bi-metal compression lug with a conductor code of 370, the part number would be: 600BMC370.

Compression Lug Conductor Code Chart

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²
0002	#2	35	-	-
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	-	-

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(mm ²)
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
SBC-B-500-630/3	500 - 630

Insulating Plugs

15/25 kV, 600A Insulating Plug (AL)	25-IP600
15/25 kV, 600A Insulating Plug (AL) + End Cap	25-IP600C
15/25 kV, 600A Insulating Plug (AL) + End Cap + Stud	25-IP600CS

Connecting Plugs

15/25 kV, 600A Deadbreak Connecting Plug (AL)	25-DCP600
15/25 kV, 900A Deadbreak Connecting Plug (CU)	25-DCP900

Threaded Studs

15/25 kV 600A Threaded Stud (AL)	25-STUD600
15/25 kV 900A Threaded Stud (CU)	25-STUD900

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CÓDIGO **15/25-AB600**

BUCHA DE LIGAÇÃO DE EQUIPAMENTO - BLE - 25kV-600A



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APPLICATION

The Chardon 15/25kV 600A Apparatus Bushing meets all requirements of IEEE Standard 386-2016 (separable insulated connector system). It is designed for the termination of primary winding leads at the face plate of SF6 oil filled (or approved equivalents) single phase and three phase transformers and switchgear rated at

8.3/14.4kV, 15.2/26.3kV. The bushing is externally mounted and clamped in place with stainless steel 4 hole mounting clamps. It fits in a 2.875inch (73.0mm) hole on the apparatus tank wall. All 600 A separable connectors manufactured according to IEEE Std 386-2016 standard will operate with this bushing.

INSTALLATION

The Chardon bushing is installed on the tank wall of the SF6 gas filled (or approved equivalents) transformer or switchgear. The rubber gasket is placed in the groove on the rear side of the bushing well (facing

the transformer or switchgear). The steel clamp is then placed over the bushing, and through the threaded studs mounted on the tank wall. The clamp is then bolted in place.

PRODUCTION TESTS

- / AC 60Hz 1 Minute Withstand – 40kV
- / Minimum Corona Voltage – 19kV (3pC)

Internal CHARDON Quality assurance requirements:

- / Physical inspection
- / Periodic Fluoroscopic (X-ray) Inspection

VOLTAGE RATINGS

Standard Voltage Class	25kV
Maximum Rating Phase-to-ground	15.2kV
AC 60Hz 1 Minute Withstand	40kV
BIL and Full Wave Cest	125kV
Minimum Corona Voltage Level	19kV

CURRENT RATINGS

Description	Test Parameters
Continuous	600 amps rms
Short Time	• 25,000 amps rms symmetrical for 0.17 s • 10,000 amps rms symmetrical for 3.0 s

ORDERING INFORMATION

15/25kV 600A Apparatus Bushing w/o Stud, Nut, Gasket and Clamp	15/25-AB600
15/25kV 600A Apparatus Bushing w/ Stud, Nut, Gasket and 4 Hole clamp	15/25-AB600 4SS

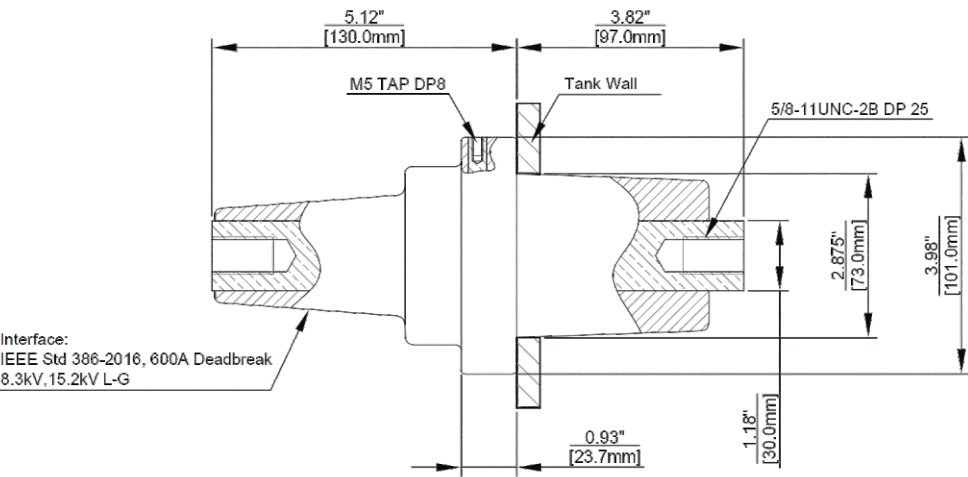


Figure 1. 15/25kV 600A Apparatus Bushing

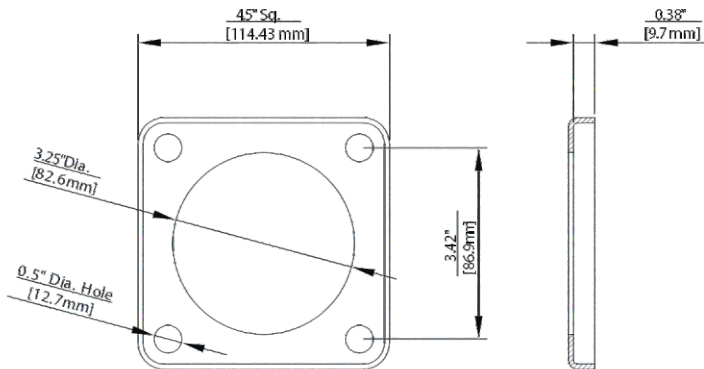


Figure 2. 4 Hole Clamp

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CÓDIGO 15/25-TB600

TERMINAL BÁSICO BLINDADO

TBB - 25kV-600/900A



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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.

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 specicate

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
BIL and 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.

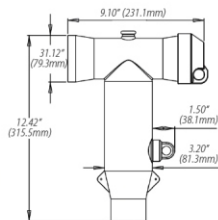
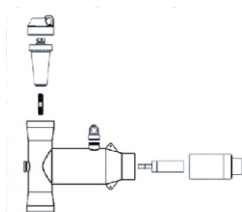
15/25TB600-000416-REV05

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, unshield, and drain wire cables for use with Deadbreak connectors.

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

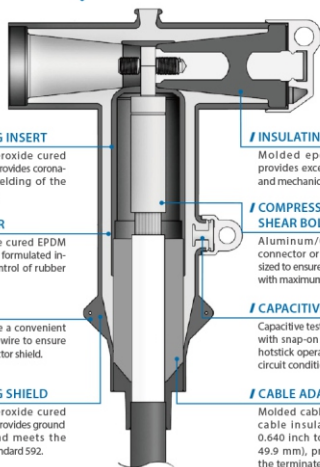
High quality peroxide cured EPDM insulation is mixed and formulated in-house for complete control of rubber characteristics.

DRAIN WIRE TABS

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

Notes:

- (1) 600A compression lugs are made from aluminum.
- (2) 600A insulating plugs and use an aluminum conductor.
- (3) 900A compression lugs are made from copper.
- (4) 900A insulating plugs and use 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	0.795 - 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

ORDERING INFORMATION

15/25-TB	STEP1	STEP2	STEP3
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STEP3	-----
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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 AI in end of

part number if a Aluminum lug is required. For example, 0002AI. 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	mm ²	AWG or kcmil	mm ²
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
0700	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. Copper lug for use on copper 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(mm ²)
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-300-400/2	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
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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
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The part number includes the insulating plug, cap, and stud.

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CÓDIGO

25-BE600/900
35-BE600/900

EXTENSOR DE BUCHA **BE - 25/35kV-600/900A**



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APPLICATION

The Chardon 25/35 kV 600/900A bushing Extender allows for coupling reducing tap plugs, connecting plugs and apparatus bushings. When assembled to mating apparatus, it provides a completely submersible, fully shielded and insulated connection for deadbreak applications that meet the requirements of IEEE Std 386™ standard.

KEY FEATURES

- Provides a fully shielded and submersible connection.
- No minimum phase clearance requirements.

PRODUCTION TESTS

Tests conducted in accordance with IEEE 386:

- Partial Discharge
- AC Withstand
- Impulse Withstand

Tests conducted in accordance with Chardon manufacturing process requirements:

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

PRODUCT RATINGS

Voltage Ratings	25 kV	35 kV
Voltage Class, Phase-to-Phase	25 kV	35 kV
Max. Op. Voltage - (phase-to-ground)	15.2 kV	21.1 kV
Corona Voltage Level	19 kV	26 kV
AC Withstand (1 minute)	40 kV	50 kV
Impulse-Withstand Voltage (BIL)	125 kV	200 kV

Current Ratings	600 A	900 A
Continuous	600 A rms	900 A rms
4 Hours Overload	900 A rms	1200 A rms
Continuous	25,000 rms symmetrical for 0.17 s 10,000 rms symmetrical for 3.00 s	40,000 rms symmetrical for 0.17 s 10,000 rms symmetrical for 3.00 s

DETAILED COMPOSITION OF THE CHARDON 25KV 600/900A BUSHING EXTENDER

SEMICONDUCTING SHIELD

Precision molded peroxide cured semiconducting shield provides ground shield continuity.

DRAIN WIRE TAB

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

SEMICONDUCTING INSERT

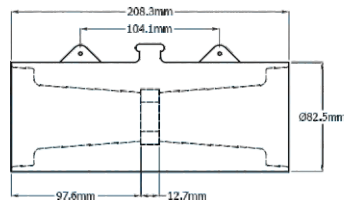
Precision molded peroxide cured semiconducting insert provides corona-free electrostatic shielding of the connector.

INSULATION LAYER

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

METAL

600A for aluminum and 900A for copper conductors



ORDERING INFORMATION

25 kV 600A Bushing Extender	25-BE600
25 kV 900A Bushing Extender	25-BE900

DETAILED COMPOSITION OF THE CHARDON 35kV 600/900A BUSHING EXTENDER

/ SEMICONDUCTING SHIELD

Precision molded peroxide cured semiconducting shield provides ground shield continuity.

/ DRAIN WIRE TAB

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

/ INSULATION LAYER

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

/ SEMICONDUCTING INSERT

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

/ METAL

600A for aluminum and
900 A for copper conductors

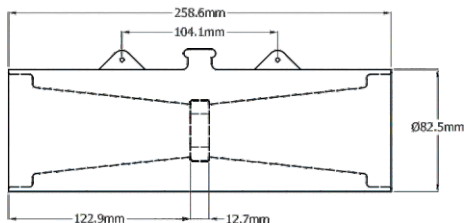
ORDERING INFORMATION

35 kV 600A Bushing Extender

35-BE600

35 kV 900A Bushing Extender

35-BE900



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CÓDIGO

28-DJ200

PLUG DE DERIVAÇÃO T - 25kV-200A



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APPLICATION

The Chardon 28 kV 200A Deadbreak Splice provides a fully shielded, submersible and separable cable connection. The Deadbreak Splice provides a convenient method for connecting, looping and tapping 200A deadbreak elbows and other accessories at locations where space, cable organization, flexibility and operability are important. Its design incorporates a lightweight, damage resistant EPDM rubber developed in-house. The Chardon Deadbreak Splice fully meets the requirements of ANSI/IEEE Standard 386, and is available at a voltage class of 28 kV.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- / Minimum Corona Voltage Level – 21.5 kV
- / AC 1 Minute Withstand – 45 kV

Tests conducted in accordance with Chardon manufacturing process requirements:

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

VOLTAGE RATINGS

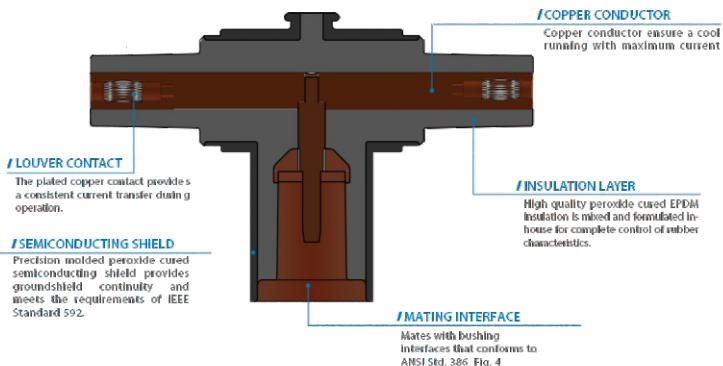
Voltage Class	28 kV
Max. Rating Phase to Ground	16.2 kV
AC 1 Minute Withstand	45 kV
BIL and Full Wave Crest	125 kV
Minimum Corona Voltage Level	21.5 kV

• 28-DJ200-20211104-REV01

CURRENT RATINGS

Description	Test Parameters
Continuous	200 amps rms
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 DEADBREAK SPLICE



ORDERING INFORMATION

Item	Ordering Code
Deadbreak Splice 2-way (Male Interface)	28-DJ200-S2
Deadbreak Splice 3-way (Two Male + One Female)	28-DJ200-T2
Deadbreak Splice 3-way (Three Male Interfaces)	28-DJ200-T3



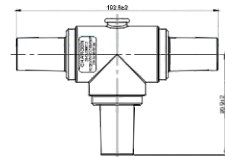
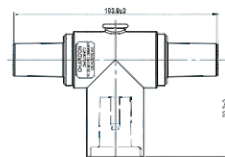
28-DJ200-T2



28-DJ200-T3



28-DJ200-S2





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