

# IEC Separable Connectors 42 kV, 630A

Front T-Body / Coupling (Rear) T-Body Connector



## **APPLICATION**

Chardon Front T-Body / Coupling (Rear) T-Body Connectors are fully screened and fully submersible when mated with proper bushings or plugs. The products are used to terminate polymeric cable to dead front apparatus such as transformers, switchgear, and other equipment. They can be used for 42kV applications.

The Chardon T-body Connectors are suitable for indoor or outdoor applications, and are able to be used for all polymeric cable types (XLPE, ETP, etc.) with copper or aluminum conductors. The design is especially suited for the harsh off-shore or wind farm environment, where long runs and large cable sizes are needed.

## **KEY FEATURES**

- I Provides a fully shielded and submersible connection when mated with the proper bushing or plug.
- Type "C" 630A Interface.

- / Mounting can be vertical, horizontal, or any angle in between.
- / No minimum phase clearance requirements.
- 1 100% electrically tested at factory.

## **PRODUCT RATINGS**

Maximum Voltage Class (U <sub>m</sub> )	42 kV
AC 5 Minute Withstand	117 kV
DC 15 Minute Voltage Withstand	125 kV
Minimum Corona Voltage Level	45 kV < 10 pC
BIL and Full Wave Crest (Impulse)	200 kV
Thermal Short Circuit (Conductor, 2 sec twice)	24.1 kA
Dynamic Short Circuit (Conductor, 10ms)	85.2 kA
Continuous Current	630 A

## **PRODUCTION TESTS**

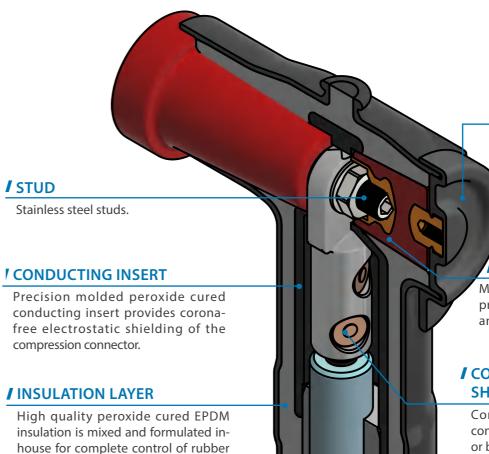
## Tests conducted in accordance with IEC 60502-4.

/ Minimum Corona Voltage Level – 45 kV ≤ 3pC

AC 5 Minute Withstand – 117 kV

# • 42FDT630-42RDT630-121322-REV02

## **DETAILED COMPOSITION OF THE CHARDON 42 KV FRONT T-BODY CONNECTOR**



## **I** RUBBER END CAP

Molded EPDM conducting rubber end cap protects and grounds the insulating plug test point.

## **INSULATED PLUG**

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

## / COMPRESSION CONNECTOR/ SHEARBOLT CONNECTOR

Compression connector/shearbolt connector made of aluminum, copper, or bimetal (aluminum/copper).

#### **I** DRAIN WIRE TAB

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

#### / INSULATION LAYER

insulation is mixed and formulated inhouse for complete control of rubber characteristics.

#### / CONDUCTING SHIELD

Precision molded peroxide cured conducting shield provides ground shield continuity.

#### / CABLE ADAPTER

Molded cable adapter, sized to fit the cable insulation, provides stress relief for the terminated cable.

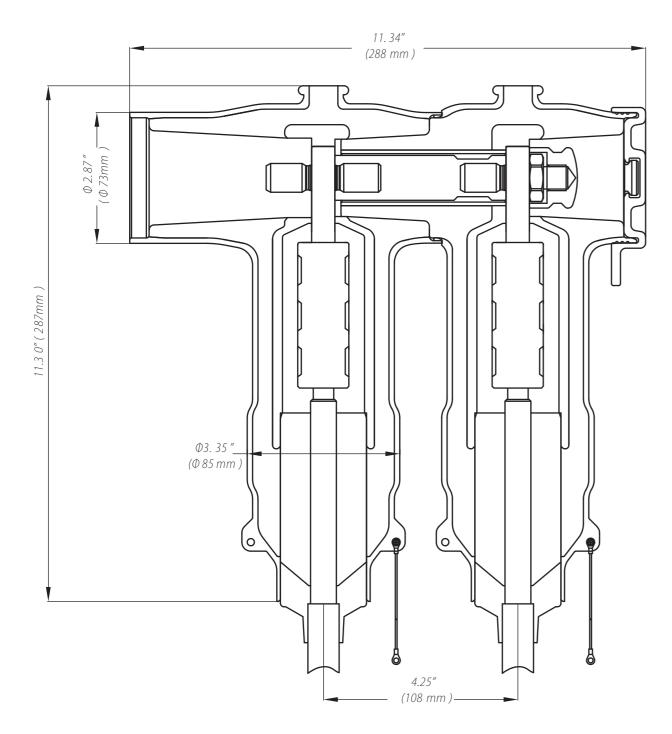
# DETAILED COMPOSITION OF THE CHARDON 42 KV FRONT T-BODY CONNECTOR

# 7.05" (179mm) Ø2.87" (Ø73mm) 11.30" (287mm) Ø3.35" (Ø85mm)

# DETAILED COMPOSITION OF THE CHARDON 42 KV COUPLING (REAR) T-BODY CONNECTOR



# DETAILED COMPOSITION OF THE CHARDON 42 KV COUPLING (REAR) T-BODY CONNECTOR



## **ORDERING INFORMATION**



# Selection of Front / Rear T-body

Code	
FDT	Front T-body
RDT	Coupling (Rear) T-body

# STEP2 \_

## **Selection of Cable Insulation Dimension**

Range Code	mm (inch)
LA	15.5 - 19.0 (0.610 - 0.748)
LB	18.0 - 21.0 (0.709 - 0.827)
LC	20.0 - 23.0 (0.787 - 0.905)
LD	22.0 - 25.0 (0.866 - 0.984)
LE	24.0 - 27.0 (0.945 - 1.063)
LF	26.0 - 29.0 (1.024 - 1.142)
LG	28.0 - 32.0 (1.102 - 1.260)
LH	31.0 - 34.0 (1.220 - 1.339)
LI	33.0 - 37.0 (1.299 - 1.457)
n	36.0 - 39.0 (1.417 - 1.535)
LK	38.0 - 42.0 (1.496 - 1.654)

# STEP3

## **Selection of Conductor Size**

Conductor Code	Conductor Size (mm²)
25	25
35	35
50	50
70	70
95	95
120	120
150	150
185	185
240	240
300	300
400	400

# Selection of Compression Connector Material

Code	
В	Bi-metal (Al & Cu)
C	Copper

## **Ordering Example:**

For a CHARDON 42 kV Front T-body with cable insulation outer dimension of 39.0 mm and a conductor size of 185 mm<sup>2</sup> with copper compression connector, the part number would be as follows.

STEP4

42-	FDT	630	LK	185	С
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If a shear bolt connector is selected in this kit, the part number would be 42-FDT630LK-SBC-B-150-240/2.

42-	FDT	630	LK	SBC-B-150-240/2
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### **Chardon Shear Bolt Connector**

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For a Shear Bolt Connector with a conductor Range between 20-50 mm<sup>2</sup>, 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







**CHARDON** TAIWAN CORPORATION

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

Tel: +886-37-984385 Fax: +886-37-984770

www.chardongroup.com • info@chardongroup.com