

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

- Provides a fully shielded and submersible connection whenmated 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 _m)	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

• 42FDT630-42RDT630-111017-REV01

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

/ STUD

Stainless steel studs.

/ CONDUCTING INSERT

Precision molded peroxide cured conducting insert provides coronafree electrostatic shielding of the compression connector.

/ INSULATION LAYER

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

I 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.

/ INSULATING PLUG

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

I RUBBER END CAP

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

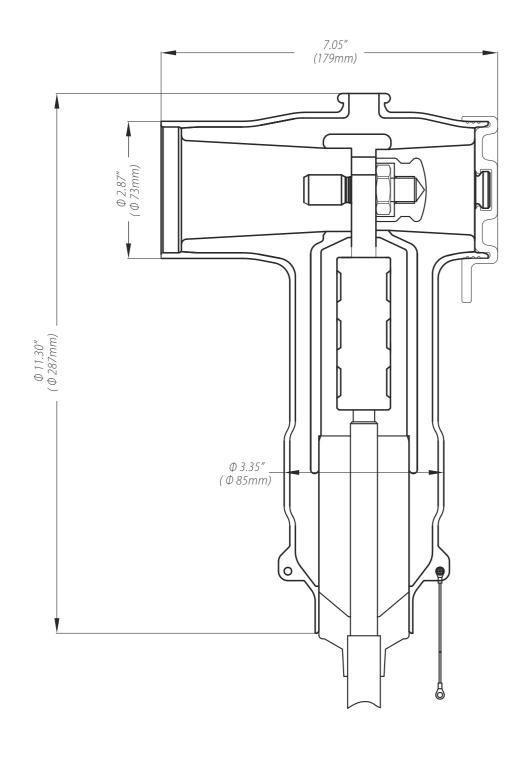
/ COMPRESSION CONNECTOR/ SHEARBOLT CONNECTOR

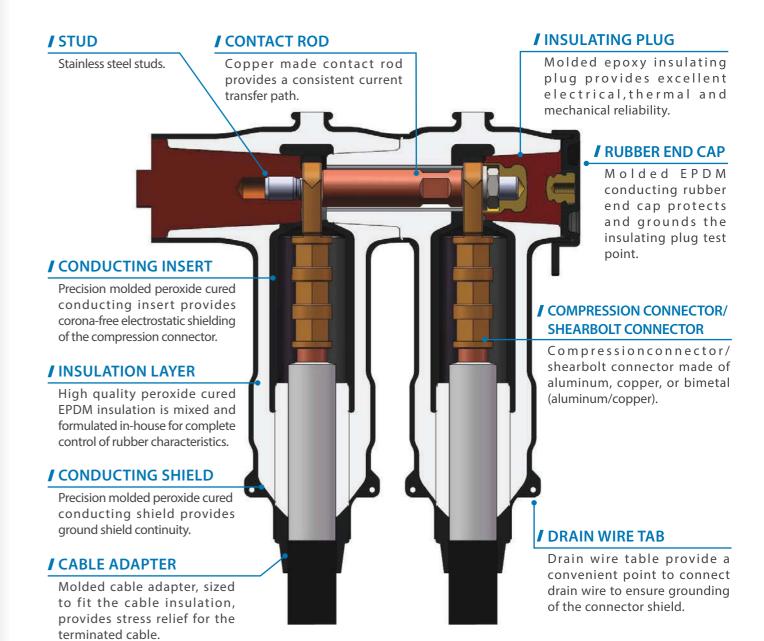
Compressionconnector/shearbolt connector made of aluminum, copper, or bimetal (aluminum/copper).

/ DRAIN WIRE TAB

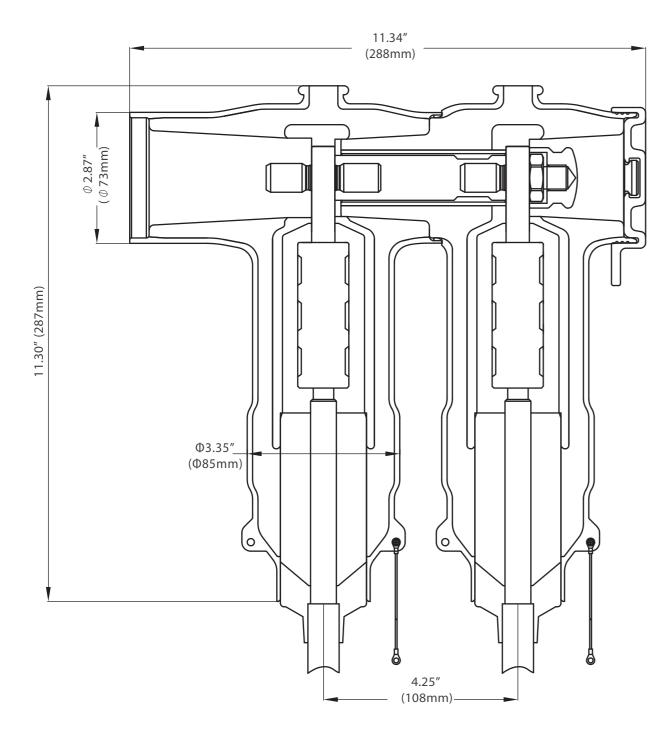
Drain wire table provide a convenient point to connect drain wire to ensure grounding of the connector shield.

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



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)
IJ	36.0 - 39.0 (1.417 - 1.535)
LK	38.0 - 42.0 (1.496 - 1.654)

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
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STEP4		
Selection of C	ompression Connec	ctor Material

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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 mm² with copper compression connector, the part number would be as follows.

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 SB	C-B-150-240/2
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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(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





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