



# IEC Separable Connectors 36 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 36kV applications.

### **KEY FEATURES**

- Provides a fully shielded and submersible connection whenmated with the proper bushing or plug.
- Type "C" 630A Interfac EN 50181-2010.

### **PRODUCT RATI**

Rated Voltage Class (U <sub>m</sub> )	36 kV
AC 5 Minute Withstand	81 kV
DC 15 Minute Voltage Withstand	72 kV
Partial Discharge	30 kV < 10pC
BIL and Full Wave Crest (Impulse)	170 kV
Thermal Short Circuit (Conductor, 2 sec.)	23 kA
Dynamic Short Circuit	82 kA
Continuous Current	630 A

## **PRODUCTION TESTS**

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

- Partial Discharge  $30 \text{ kV} \leq 3\text{pC}$
- AC 5 Minute Withstand 81 kV

Mounting can be vertical, horizontal, or any angle in between.

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.

ace in accordance with	<ul><li>No minimum phase clearance requirements.</li><li>100% electrical tested at factory.</li></ul>	Precision m conducting free electro compression
INGS		/ INSULATI
		High qualit
	36 kV	insulation is

### **DETAILED COMPOSITION OF THE CHARDON 36 KV FRONT T-BODY CONNECTOR**

#### **I** STUD

Stainless steel studs.

#### **I** CONDUCTING INSERT

molded peroxide cured g insert provides coronarostatic shielding of the n connector.

### **ION LAYER**

lity peroxide cured EPDM 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.

### **I** RUBBER END CAP

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

#### **NSULATING PLUG**

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

### **I** 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.

### DETAILED COMPOSITION OF THE CHARDON 36 KV FRONT T-BODY CONNECTOR

## **DETAILED COMPOSITION OF THE CHARDON 36 KV COUPLING (REAR) T-BODY CONNECTOR**





### **I** CONTACT ROD

Copper made contact rod provides a consistent current transfer path.

### **I** 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

Compression/shear-bolt connector made of aluminum, copper, or bimetal (aluminum/copper).

### **I** CONDUCTING INSERT

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

### **I** CONDUCTING SHIELD

Precision molded peroxide cured shield provides ground shield continuity.

### **I** DRAIN WIRE TAB

Tab provides a convenient drain wire connection point to ensure grounding of the connector shield.

### **DETAILED COMPOSITION OF THE CHARDON 36 KV COUPLING (REAR) T-BODY CONNECTOR**



## **ORDERING INFORMATION**

36-	STEPI	630-	– STEP2	STEPS	STEP4	
STEPI			STEPS			
election of Fr	ont / Rear T-body		Selection of	Conductor	Size	
Code			Conduct	or Code	Conductor Size (mm <sup>2</sup> )	
FDT	Front T-boo	ły	25		25	
RDT	Coupling (Rear)	T-body	35		35	
			50	)	50	
STEP2			7(	)	70	
		_	9	5	95	
election of Ca	able Insulation Dir	mension	12	0	120	
Range Code	mm (incl	1)	15	0	150	
LA	15.5 - 19.0 (0.610	) - 0.748)	18		185	
LB	18.0 - 21.0 (0.709	9 - 0.827)	240		240	
LC	20.0 - 23.0 (0.787	7 - 0.905)	300		300	
LD	22.0 - 25.0 (0.866	5 - 0.984)	40	0	400	
	24.0 - 27.0 (0.945	5 - 1.063)				
LE						
LE	26.0 - 29.0 (1.024	- 1.142)	STEP4			
	26.0 - 29.0 (1.024 28.0 - 32.0 (1.102	,				
LF		2 - 1.260)		 Compression	n Connector Materi	

### **Ordering Example:**

IJ

LK

For a CHARDON 36 kV Front T-body with cable insulation outer dimension of 33.9 mm and a conductor size of 185 mm<sup>2</sup> with copper compression connector, the part number would be as follows.

36-	FDT	630	LH	185	С
If a shear bolt connector is selected in this kit, the part number would be 36-FDT630LH-SBC-B-150-240/2.					
36-	FDT	630	LH	SBC-B-	150-240/2

36-	FDT	630	

36.0 - 39.0 (1.417 - 1.535)

38.0 - 42.0 (1.496 - 1.654)

### **Chardon Shear Bolt Connector**

Example:

ForaShear 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(mm <sup>2</sup> )
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

Code	
В	Bi-metal (Al & Cu)
c	Copper





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