



IEC Separable Connectors 42 kV, 630A

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



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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.

KEY FEATURES

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

PRODUCT RATINGS

Rated Voltage Class (Um)	42 kV
AC 5 Minute Withstand	117 kV
DC 15 Minute Voltage Withstand	125 kV
Partial Discharge	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.

- Partial Discharge 45 kV \leq 3pC
- AC 5 Minute Withstand 117 kV

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

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

sizes are needed.

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

I STUD

Stainless steel studs.

I 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.

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.

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.

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

11.30"

(287mm)

DETAILED COMPOSITION OF THE CHARDON 42 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.

/ 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.

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



ORDERING INFORMATION

12		(20	_		_
42-	STEP1	630-	STEP2	STEP3	STEP4
STEP1			STEP3		_
election of Fro	ont / Rear T-body	,	Selection of	f Conductor S	Size
Code			Conduct	or Code	Conductor Size (mm ²)
FDT	Front T-bo	dy	25		25
RDT	Coupling (Rear) T-body		35		35
			5	D	50
STEP2	_		7	0	70
			9	5	95
election of Ca	ble Insulation Di	mension	12	:0	120
Range Code	mm (inc	h)	150		150
LA	15.5 - 19.0 (0.61	0 - 0.748)	185		185
LB	18.0 - 21.0 (0.70	9 - 0.827)	240		240
LC	20.0 - 23.0 (0.78	7 - 0.905)	300		300
LD	22.0 - 25.0 (0.86	6 - 0.984)	400 400		400
LE	24.0 - 27.0 (0.94	5 - 1.063)			
LF	26.0 - 29.0 (1.02	4 - 1.142)	STEP4		

42	EDT	(20	1.17	105	
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 ² with copper compression connector, the part number would be as follows.					
LK	38.0 - 42.0 (1.496	5 - 1.654)	С	Copper	
L	36.0 - 39.0 (1.417	7 - 1.535)	В	Bi-metal (Al & Cu)	
LI	33.0 - 37.0 (1.299	9 - 1.457)	Code		
LH	31.0 - 34.0 (1.220) - 1.339)	Selection o	f Compression Col	nnector Material

42-	FDT	630	LK	185	С
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

Chardon Shear Bolt Connector

Example:

LG

For a Shear Bolt Connector with a conductor Range between 20-50 mm², the part number would be : SBC-B-25-50/1.

28.0 - 32.0 (1.102 - 1.260)

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

SIEP4

Selection of Compression Connector Material







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