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Separable tee connector (Interface C / 630A)

formfit®

For polymeric cables - Deadbreak operation
Generally meets the requirements of C 33-001 - C 33-051 - HD 629.1 S2 - IEC 60502-4
Interfaces: CENELEC EN 50180 - EN 50181

Medium Voltage (MV)
Up to 19/33 (36) kV
MV Separable Connectors rating 630 A (Interface C)
Reference: FMCTs-630
FMCTs-400

INTERFACE C/630 A

Product Application and Design

Utilisation

- For connection of polymeric MV cables to transformers, switchgear units, motors, etc.
- Indoor and outdoor installation. The connector is entirely protected by a watertight conductive envelope connected to earth.
- Continuous 630 A rms overload 900 A rms (8 hours per 24-hour period).
- Dead break operated.
- Voltage detection through capacitive voltage divider.

Cables

- Single core polymeric insulation (XLPE).
- Copper or aluminum conductor.
- Semi-conducting screen either extruded or taped.
- Metallic screen of copper tape, copper wire or polylam type.
- Insulation voltage up to 36 kV.
- Range of conductor sizes : 25 to 240 (or 300) mm^2.

Packing

Supplied as a kit of three single connectors containing all the necessary components.
Shipping weight and volume (approx) of kit: 7 kg / 0,026 m^3

Other products

- Associated products such as bushing FMBOs-400 and accessories for separables connectors 630 A, interface C.
- Compact tee connector FMCEAs - 630/400.

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Installation features

- No need for special tools, no heating, taping or filling.
- Vertical, angled or inverted position.
- No minimum distance between phases.
- Energizing may take place immediately after the connector is plugged on its mating bushing, dead-end plug...
- An unplugged connector must never be energized

Description

INTERFACE C/630 A

① **Clamping screw M16**
Steel silver-plated component threaded at both ends for attachment of the mating items: bushing, insulating plug, accessories. A uniform contact pressure is maintained for any combination.

② **Conductor contact**
Crimped, deep indented or bolted type. Connection of clamping screw through the flat hole.

③ **Semi-conducting inner screen**
Insert of molded semi-conducting EPDM enclosing the metallic contact piece so that the air inside is prevented.

④ **Semi-conducting outer envelope (thickness 3mm)**
Jacket made of semi-conducting EPDM. Its design provides relief of electrical stress as does a cable screen. Its connection to the cable screen ensures that the assembly is maintained at earth potential.

⑤ **Insulating body**
Molded from insulating EPDM, for integral reconstitution of insulation. It maintains a uniform contact pressure on the cable insulation and on the bushing interface of mating items, providing an excellent moisture seal.

⑥ **Adapter**
Composite EPDM molding.To adapt the connector body to the different cable sizes (cross sections).

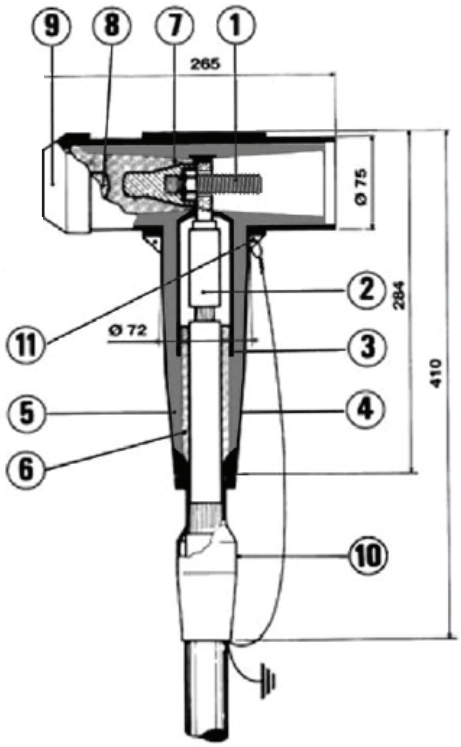
⑦ **Insulating plug**
Epoxy component with threaded metal insert for attachement to the clamping screw.

⑧ **Test point**
A capacitive voltage divider enables to check the absence of voltage before disconnecting the connector.

⑨ **Cap**
Molded semi-conducting EPDM. Protects and earthes the test point during normal use.

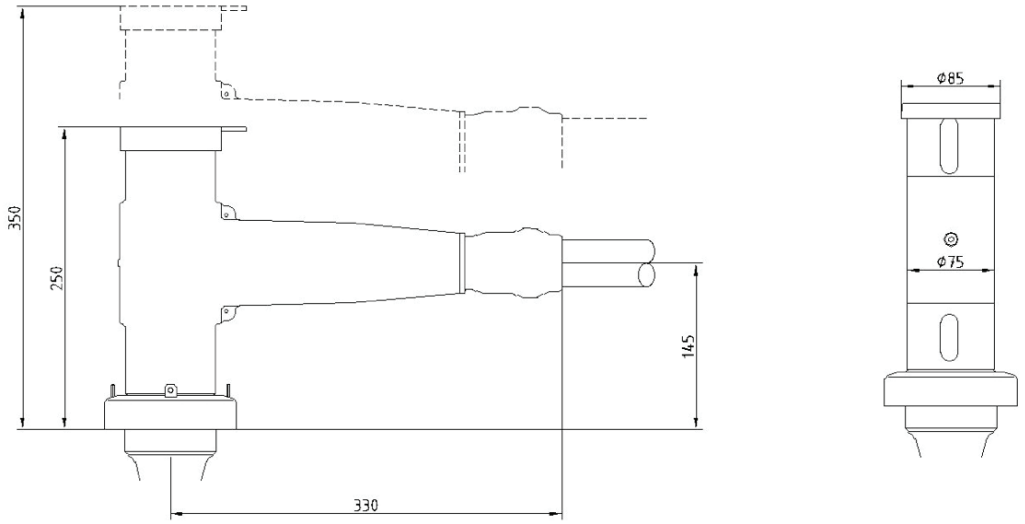
⑩ **Earth cover**
Molded semi-conducting EPDM. Ensures watertight protection of the earthing device.

⑪ **Earthing eye**
For connection of the outer envelope to the metallic screen of the cable.



100% of the separable connector bodies are individually tested in factory (Industrial Power Frequency and partial discharges)

Overall dimensions (installed on bushing)



Dimensions in mm
* Minimum dimension necessary to disconnect

Selection guide

1- Select in the table below the kit size corresponding to the diameter over cable insulation of cable

Ø over insulation in mm		Kit Reference	Conductor size in mm² (for guidance only)							
			Highest voltage in Um							
Min	Max		12 kV		17,5 kV		24 kV		36 kV	
18,5	20,5	**FMCTs-400-Z**	70	95	50	70	35	50		
19,9	21,9	**FMCTs-400-A**	95	120	70	95	50	70		25
21,4	23,5	**FMCTs-400-B**	120	150	95	120	70	95	25	35
22,9	25,1	**FMCTs-400-C**	150	185	120	150	95	120	35	50
24,4	26,6	**FMCTs-400-D**	185	240	150	185	120	150	50	70
26,0	28,3	**FMCTs-400-E**	240	300*	185	240	150	185	70	95
27,8	30,4	**FMCTs-400-F**	300*		240	300*	185		95	120
29,8	32,7	**FMCTs-400-G**			300*		240	240	120 150	150
31,8	35,3	**FMCTs-400-H**					300*	300*	185	240
34,1	38,3	**FMCTs-400-J**							240	300*

* For 300 mm², please contact us.

For cables with bonded outer semi-conducting layer: carefully check the diameter over insulation after removal of the outer semi-conducting layer.

2- Specify insulation voltage Um in kV:
12 - 17.5 - 24 - 36

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3- Select suitable earthing device in the table below:

Earthing Device Reference	Type of Metallic Screen of Cable
T1	polylam
T2	Copper tapes
T3	Copper wires

4- Select suitable lug:
- 4.1- indicate **"C"** for copper conductor
  "A" for aluminium conductor**
- 4.2- indicate conducteur size in sqmm
- 4.3- for aluminium conductor, add "DIN" if lug for hexagonal crimping is required

** available for deep indenting a hexagonal crimping.
Unless otherwise stated, standard delivery will be with deep indenting. Suitable tooling to be used.

Example of order

1x95 mm^2, 20 kV polymeric cable, diameter over insulation 24,1 mm, with copper tape screen, aluminium conductor, lug for deep indenting, bushing with bolted contact: **FMCTs-400-C-24-T2-A95.**

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