

SEPARABLE TEE CONNECTOR FMCT-400

for polymeric cables - Deadbreak - Serie 400 rating 400 A (with pin contact)

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APPLICATION

Utilisation

- for connection of polymeric MV cables to transformers, switchgear units, motors, etc.
- separable combinations that give flexibility to the network configurations.
- indoor and outdoor installation. The connector is entirely protected by a watertight conductive envelope connected to earth.
- continuous 400 A rms
overload 600 A rms (8 hours per 24-hour period).
- operated when de-energized.

Cables

- single core polymeric insulation (PE, XLPE, EPR...).
- copper or aluminium conductors.
- semi-conducting screen either extruded or taped.
- metallic screen of tape, wire or polylam type
- insulation voltage up to 36 kV (U_m).
- conductor sizes : 25 to 240 (or 300) sqmm.

STANDARDS

Generally meets the requirements of VDE 0278 - C 33-051 - C 33-001 - HD 629-1 - IEC 60502-4.

Interfaces : CENELEC EN50180 - EN50181.

QUALITY ASSURANCE

The Company has been assessed by third party and found in conformity with the requirements of the standard ISO 9001 - EN 29001.

PACKING

Supplied as a kit of 3 single connectors containing all the necessary components.

Shipping weight and volume (approx) of kit :
7 kg / 0.026 m³

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 into its bushing, dead-end plug...
- individual clamping by stainless steel brace.

**INTERFACE
B**

OTHER PRODUCTS

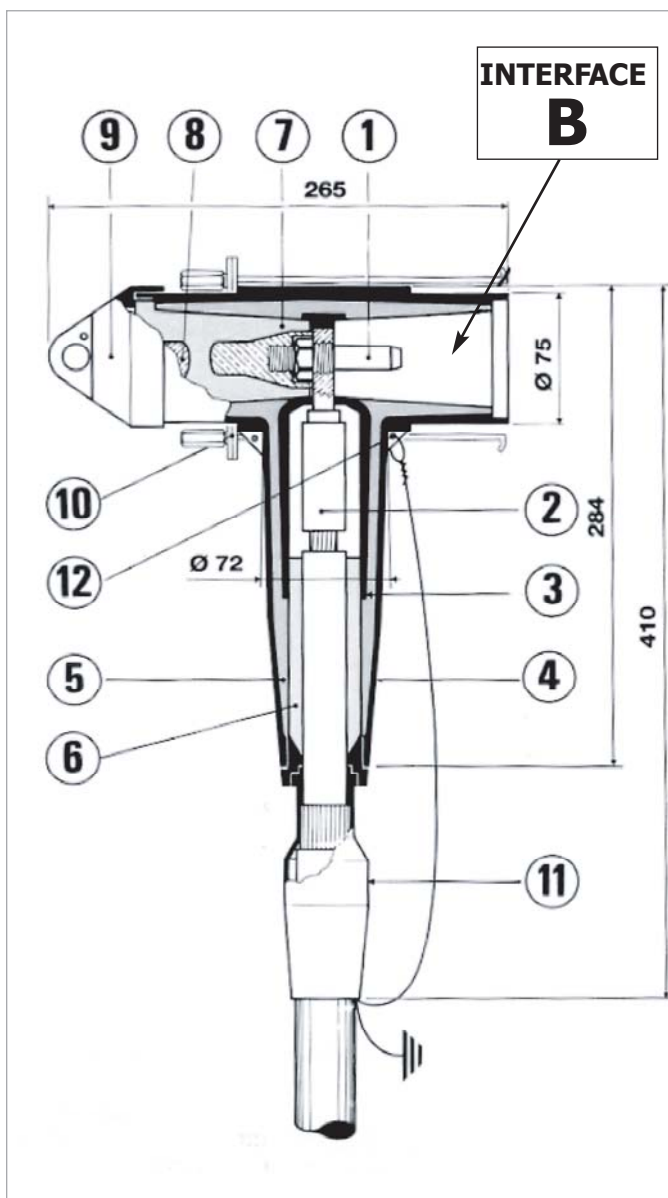
- Associated products such as bushing FMB0m-400, and accessories.
- Additional metallic cover.

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formfit[®]**DESCRIPTION**

- ① **Contact pin**
Copper pin. One end is shaped (for the sliding contact of the bushing) and the other one is threaded to allow attachment of the insulating plug or of another mating accessory. The central part is also threaded for connection on the conductor lug.
- ② **Conductor lug**
Crimped, deep indented or bolted type. Connection of contact pin through the flat hole (is threaded inside).
- ③ **Semi-conducting inner screen**
Insert of moulded semi-conducting EPDM enclosing the conductor lug so that ionization of the air remaining trapped inside is prevented.
- ④ **Semi-conducting outer envelope**
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**
Moulded from insulating EPDM, for integral reconstitution of insulation. It maintains a uniform contact pressure on the cable insulation and on the interface of mating items, providing an excellent moisture seal.
- ⑥ **Adapter**
Composite EPDM moulding. To adapt the connector body to the different cable sizes (cross sections).
- ⑦ **Insulating plug**
Epoxy component with threaded metal insert for attachment to the contact pin.
- ⑧ **Test point**
A capacitive voltage divider enables to check the absence of voltage before removing the connector.
- ⑨ **Cap**
Moulded semi-conducting EPDM. Protects and earthes the test point during normal use.
- ⑩ **Locking brace**
Stainless steel brace fastening the connector onto its mating bushing or other accessories.
- ⑪ **Earth cover**
Moulded semi-conducting EPDM. Ensures watertight protection of the earthing device.
- ⑫ **Earthing eye**
For connection of the outer envelope to the metallic screen of the cable.

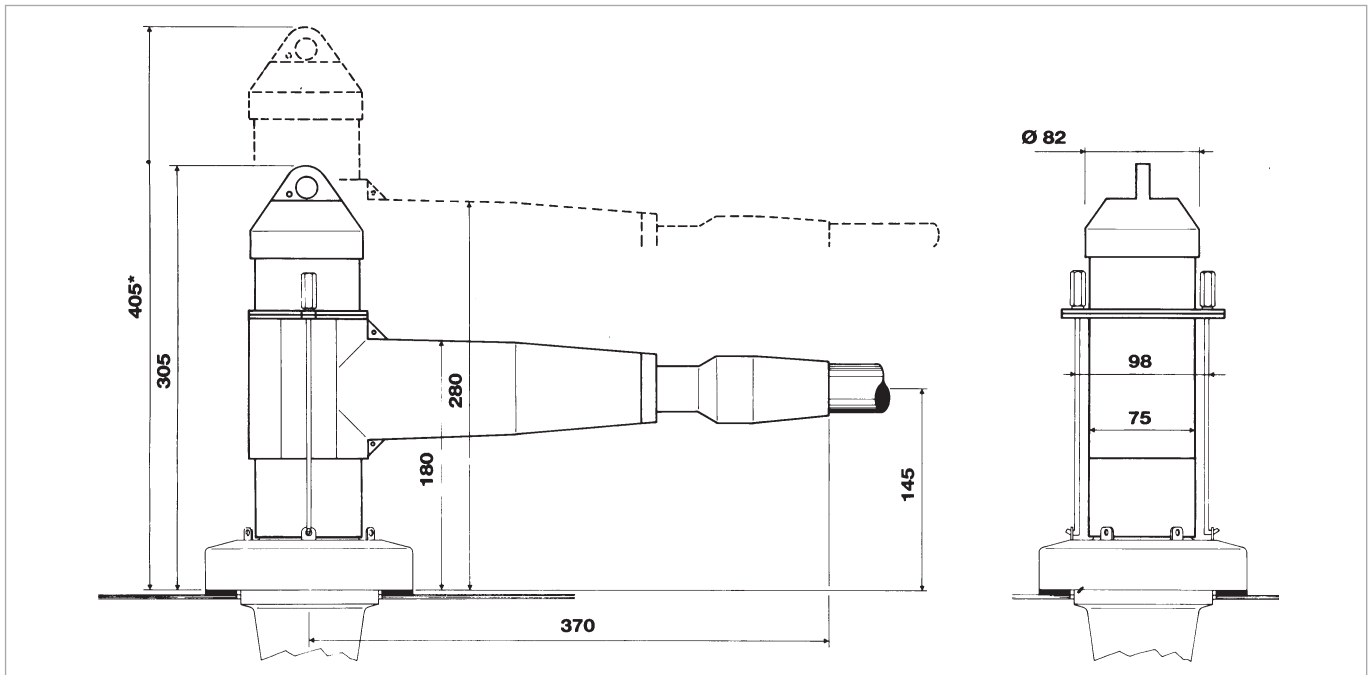


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OVERALL DIMENSIONS (Installed on bushing)



Dimensions in mm

* Minimum dimension required for disconnection.

SELECTION GUIDE

- Select in the table below the kit model corresponding to the diameter over insulation of cable
For cables with reduced insulation thickness, please contact us.

Diam. over insulation in mm		Kit Reference	Conductor size in mm ² (for guidance only)							
Min.	Max.		Highest voltage in Um							
			12 kV		17,5 kV		24 kV		36 kV	
18,5	20,5	FMCT-400-Z	70	95	50	70	35	50		
19,9	21,9	FMCT-400-A	95	120	70	95	50	70		25
21,4	23,5	FMCT-400-B	120	150	95	120	70	95	25	35
22,9	25,1	FMCT-400-C	150	185	120	150	95	120	35	50
24,4	26,6	FMCT-400-D	185	240	150	185	120	150	50	70
26,0	28,3	FMCT-400-E	240	300*	185	240	150	185	70	95
27,8	30,4	FMCT-400-F	300*		240	300*	185		95	120
29,8	32,7	FMCT-400-G			300*		240	240	120	150
									150	
31,8	35,3	FMCT-400-H					300*	300*	185	240
34,1	38,3	FMCT-400-J							240	300*

(*) for 300 sqmm, please consult us.

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

- Specify insulation voltage U_m in kV :
12 - 17.5 - 24 - 36

IMPORTANT : before using this product, you must check if it is suitable for your intended application. You assume all risks and liability associated with such use. If any doubt, please consult us.

- Select suitable earthing device in the table below :

Earthing Device Reference	Type of Metallic Screen of cable
T1	polylam
T2	copper tape
T3	copper wires

- Select suitable lug :

- 4.1. - indicate "C" for copper conductor
 - indicate "A" for aluminium conductor

- 4.2. - indicate conductor size in sqmm.

- 4.3. - add "DIN" or "SM", if suitable (see table below) :

Types of lugs	Aluminium	Copper	Add to Kit Ref.
Deep indenting according HN	available	N.A.	---
Hexag. crimping according DIN	available	available	for alu, add "DIN"
Mechanical lug (*)	available	available	add "SM"

(*) for available cross sections, please consult us.

EXAMPLE OF ORDER

20 kV polymeric cable, 1x95 sqmm, diameter over insulation 24,1 mm, with copper tape screen, aluminium conductor, lug for deep indenting, bushing with sliding contact :
FMCT-400-C-24-T2-A95.