

Separable elbow connector (interface B/400A)

For polymeric cables - Deadbreak - Operation

Generally meets the requirements of C 33-051 - C 33-001 - HD629.1 S2 - IEC 60502-4

Interfaces: CENELEC EN 50180 - EN 50181

formfit[®]



Medium Voltage (MV)

Up to 19/33 (36) kV

MV Separable connectors rating 400A (Interface B)

Rating 400A (interface B)

Reference: FMCE 400

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 400 A rms.
overload 600 A rms (8 hours per 24-hour period).
- Voltage detection through an integrated 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 wires or polylam type.
- Insulation voltage up to 36 kV.
- Conductor sizes: 25 mm² to 240 mm² (or 300) mm².

Packing

- Supplied as a kit for 3 single connectors containing all the necessary components.
Shipping weight and volume (approx) of kit:
6 kg / 0,013 m³.

Other products

- Associated products such as bushing FMBOm-400 and accessories for separable connectors 400A, interface B.

Installation features

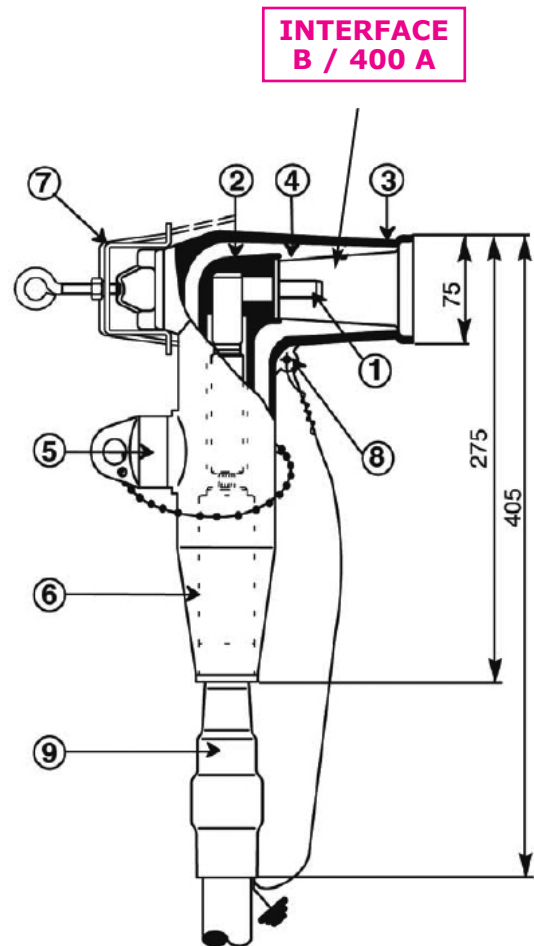
- No need for special tools, no heating, taping or filling.
- Vertical, angled or inverted position.
- No minimum distance between phases.
- Energizing may take place immediately after the connector is plugged on its mating bushing, dead-end plug...
- Individual clamping by stainless steel brace.
- An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



**INTERFACE
B/400A**

Description

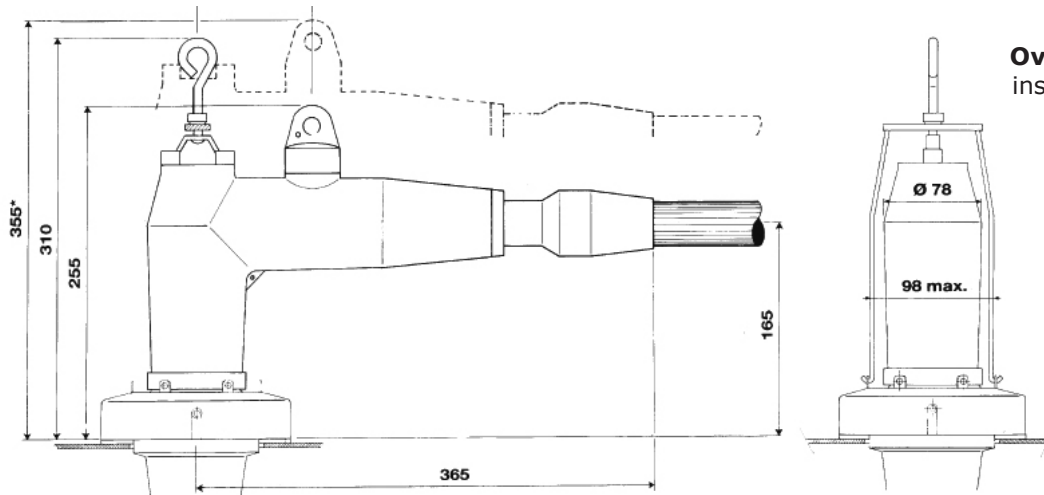
- ① **Contact pin assembly**
Tinned copper pin, screwed into the crimped or indented lug* with the hexagonal wrench supplied in the kit.
- ② **Semi-conducting inner screen**
Insert of molded semi-conducting EPDM enclosing the metallic contact piece so that the air inside is prevented.
- ③ **Semi-conducting 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.
- ④ **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, providing an excellent moisture seal.
- ⑤ **Test point**
Electrically protected by a cap made of semi-conducting EPDM. A capacitive voltage divider enables to check the absence of voltage before removing the connector.
- ⑥ **Adapter**
Composite EPDM molding. To adapt the connector body to the different cable sizes (cross sections).
- ⑦ **Locking brace**
Stainless steel brace fastening the connector onto its mating bushing or other accessories.
- ⑧ **Earthing eye**
For connection of the outer envelope to the metallic screen of the cable.
- ⑨ **Earth cover**
Molded semi-conducting EPDM. Ensures watertight protection of the earthing device.



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

*the lug depends on conductor cross section and material (copper or aluminum)

Overall dimension
installed on bushing



Dimensions in mm
(*) Minimum dimension required
for disconnection

Selection guide

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

Ø 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	FMCE-400-Z	70	95	50	70	35	50		
19,9	21,9	FMCE-400-A	95	120	70	95	50	70		25
21,4	23,5	FMCE-400-B	120	150	95	120	70	95	25	35
22,9	25,1	FMCE-400-C	150	185	120	150	95	120	35	50
24,4	26,6	FMCE-400-D	185	240	150	185	120	150	50	70
26,0	28,3	FMCE-400-E	240	300**	185	240	150	185	70	95
27,8	30,4	FMCE-400-F	300**		240	300**	185		95	120
29,8	32,7	FMCE-400-G					240	240	120	150
31,8	35,3	FMCE-400-H					300**	300**	185	240
34,1	38,3	FMCE-400-J							240	300**

(**) for 300 sqmm, please consult 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**
- 3 - Select suitable earthing device in the table below:
- 4 - Select suitable lug
- 4.1. - indicate "**C**" for copper conductor
 - indicate "**A**" for aluminium conductor***
 - 4.2. - indicate conductor size in sqmm
 - 4.3. - for aluminium conductor, add "DIN" if lug for hexagonal crimping is required.

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

** 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 mm², 30 kV cable with 29,5 mm insulation diameter and copper wire screen : **MCE-400-F-36-T3-A95**.