SEPARABLE ELBOW CONNECTOR FMCE-400

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



APPLICATION •

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).
- operated when de-energized. Test by voltage detector through an inbuilt capacitive voltage divider.

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: 6 kg / 0.013 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.





OTHER PRODUCTS

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



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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 moulded semi-conducting EPDM enclosing the metallic lug and contact pin so that ionization of the air remaining trapped inside is prevented.

3 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.

4 Insulating body

Moulded 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 moulding. To adapt the connector body to the different cable sizes (cross sections).

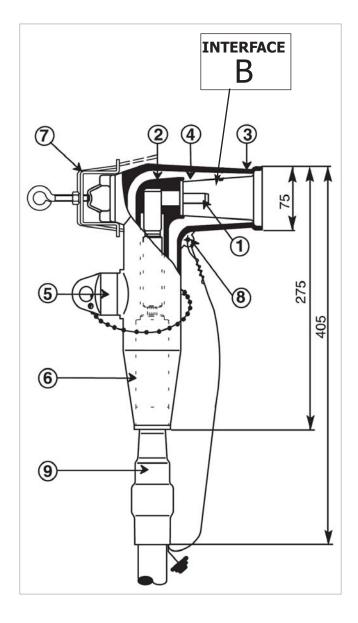
7 Locking brace

Stainless steel brace fastening the connector onto its mating bushing or other accessories.

® Earthing eye

For connection of the outer envelope to the metallic screen of the cable.

Earth cover



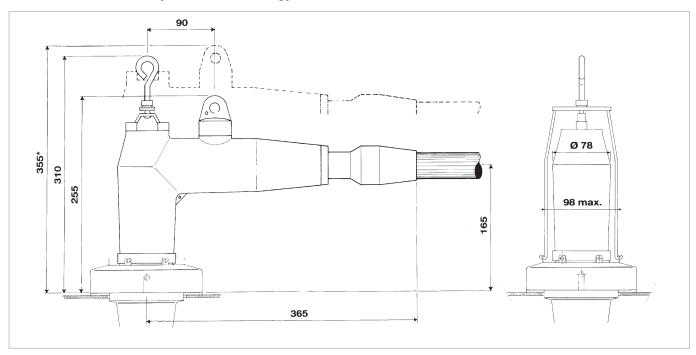


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OVERALL DIMENSIONS (installed on bushing)



Dimensions in mm

* Minimum dimension required for disconnection.

SELECTION GUIDE-

1. 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)							
Billion	Max.		Highest voltage in Um 12 kV 17,5 kV 24 kV 36 kV							
						_	_		30	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			300*		240	240	120	150
									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 non peelable 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:

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

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 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"

EXAMPLE OF ORDER

30 kV polymeric cable, 1 x 95 sqmm, diameter over insulation 29,5 mm, with copper wire screen, aluminium conductor, lug suitable for deep indenting :

FMCE-400-F-36-T3-A95.

