

## SEPARABLE STRAIGHT CONNECTOR FMCS-250

for polymeric cables - Deadbreak operation - Rating 250 A



### 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 250 A rms  
overload 300 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 24 kV ( $U_m$ ).
- conductor sizes : 16 to 95 (or 120) 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 :  
3 kg / 0.006 m<sup>3</sup>

### OTHER PRODUCTS

- Associated products such as bushing FMBOm-250, FMBOh-250, FMBOcm-250, FMBA-250 and accessories.
- Additional metallic cover.



INTERFACE  
A

### 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. The three phases may also be locked together and to the equipment by use of metallic rings (supplied on request, separately or already fitted into the moulded groove).

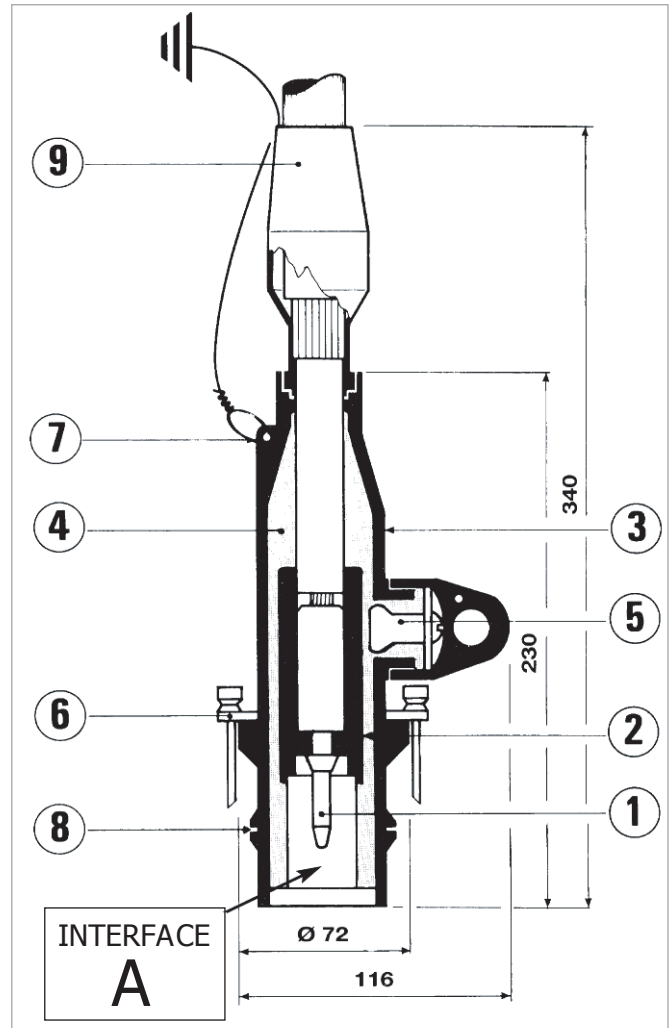
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**formfit**

### DESCRIPTION

- ① **Contact piece**  
Crimped or indented lug with copper contact pin; designed with locking ring.
- ② **Semi-conducting inner screen**  
Insert of moulded semi-conducting EPDM enclosing the metallic contact piece 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 **Locking brace**  
Stainless steel brace fastening the connector onto its mating bushing or other accessories.
- ⑦ **Earthing eye**  
For connection of the outer envelope to the metallic screen of the cable.
- ⑧ **Groove for locking ring**  
For the fitting of a metallic ring (supplied on request) when 3-phase locking is required.
- ⑨ **Earth cover**  
Moulded semi-conducting EPDM. Ensures watertight protection of the earthing device.



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**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 <sup>2</sup> (for guidance only)				
Min.	Max.		Highest voltage in Um				
			12 kV	17,5 kV	24 kV		
10,0	12,6	FMCS-250-A*	16				
11,8	14,5	FMCS-250-B*	25	25			
13,7	16,3	FMCS-250-C *	35	35	25		
15,3	17,9	FMCS-250-D *	50	50	35	25	
					50		
17,0	19,5	FMCS-250-E*	70	95	50	70	
18,6	21,3	FMCS-250-F	95	120**	70	95	
					35	50	
20,2	23,0	FMCS-250-G		95	120**	50	70
22,5	25,3	FMCS-250-H				70	95
23,4	26,0	FMCS-250-J				95	120**

(\*) models with adapters      (\*\*) for 120 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.

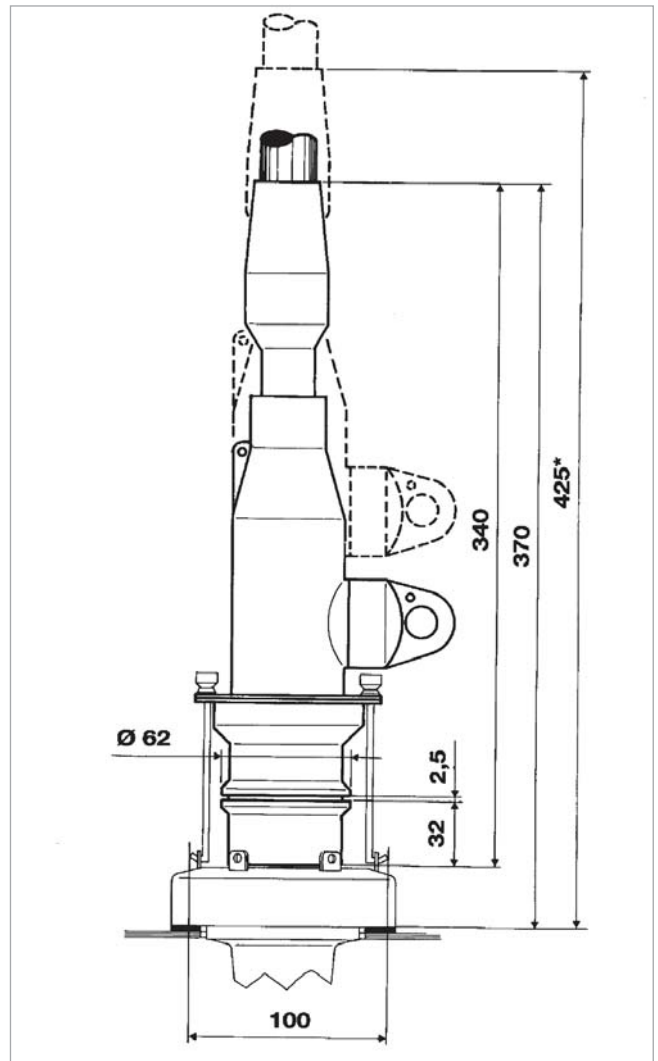
- Specify insulation voltage  $U_m$  in kV :  
**12 - 17.5 - 24**
- Select suitable earthing device in the table below :

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

- Select suitable lug :
  - indicate "C" for copper conductor  
 - indicate "A" for aluminium conductor
  - indicate conductor size in sqmm.
  - 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"

**OVERALL DIMENSIONS (installed on bushing)**



Dimensions in mm  
 \* Minimum dimension required for disconnection

**EXAMPLE OF ORDER**

20 kV polymeric cable, 1 x 50 sqmm, diameter over insulation 21.2 mm, with copper wire screen, aluminium conductor, lug suitable for hexagonal crimping :

**FMCS-250-G-24-T3-A50 DIN**

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.